FOR SURVEY CONTROL DATA,
SEE SURVEY DATA SHEETS

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FINAL FIELD
MEETING
JUNE 2020

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED
STATE HIGHWAY

FEDERAL AID PROJECT NO. J2-4428(013)
GRADE, DRAIN, BRIDGE, & SURFACE
US 81 REALIGNMENT

GRADY COUNTY

CONTROL SECTION NO. 81-26-54P
STATE JOB NO. 24428(13)
BRIDGE "A" LOCATION NO. 2654 0024WX, NEW NBI NO. 32632
BRIDGE "B" LOCATION NO. 2654 0024EX, NEW NBI NO. 32633
BRIDGE "C" LOCATION NO. 2654 0072WX, NEW NBI NO. 32663
BRIDGE "D" LOCATION NO. 2654 0072EX, NEW NBI NO. 32664

SEE SHEET 2 FOR INDEX OF SHEETS, STANDARDS AND BRIDGES

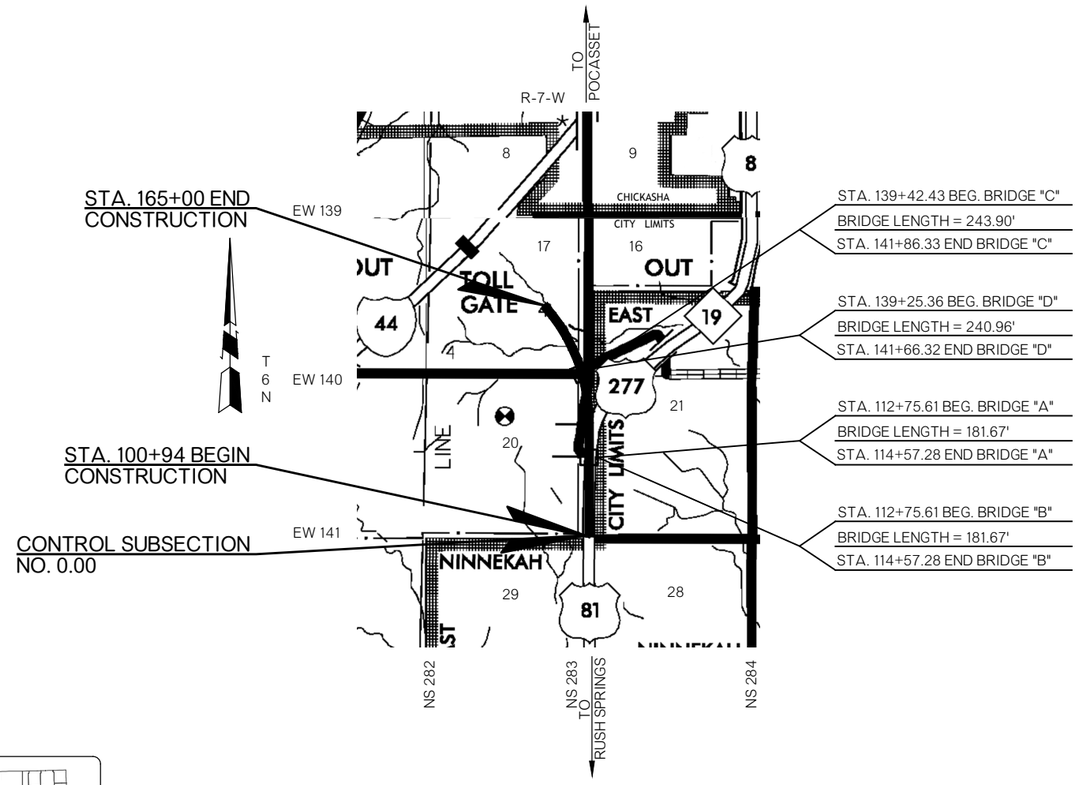
DESIGN DATA	
ADT 20 20	= 6,220
ADT 20 40	= 8,400
DHV (1-WAY)	= 437
K (DHV/ADT)	= 10%
D	= 52%
T (% DHV)	= 17%
T (% ADT)	= 19%
T3 (% ADT)	= 11%
V	= 70 MPH
20YR FLEX. ESALS	= 6.2 M

1"

PLAN 1" = 50'
PROFILE HOR. 1" = 50'
VER. 1" = 5'
LAYOUT MAP 1" = 2,640'

CONVENTIONAL SYMBOLS

- PROPOSED ROAD
- RAILROADS
- RANGE & TOWNSHIP
- SECTION LINES
- QUARTER SECTION LINES
- FENCES
- GROUND LINE
- EXISTING ROADS
- BASE LINE
- GRADE LINES (+2% ▲ -2%)
- TELEPHONE & TELEGRAPH
- POWER LINES
- BUILDINGS
- OIL WELLS
- DRAINAGE STRUCTURES - IN PLACE
- DRAINAGE STRUCTURES - NEW
- PRES R/W — RIGHT-OF-WAY LINES - EXISTING
- R/W — RIGHT-OF-WAY LINES - NEW
- CONTROLLED ACCESS
- R/W — RIGHT-OF-WAY FENCE



LOCATION MAP

2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION GOVERN, APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, JANUARY 4, 2010.

NOTE: PROJECT LENGTH BASED ON CL SURVEY US 81 STATIONING.

ROADWAY LENGTH	5,557.80 FT.	1.053 MI.
BRIDGE LENGTH	848.20 FT.	0.160 MI.
PROJECT LENGTH	6,406.00 FT.	1.213 MI.

EQUATIONS: NONE
EXCEPTION: NONE

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

TRIAD DESIGN GROUP
Architecture • Engineering
3020 N.W. 149TH STREET
OKLAHOMA CITY, OK 73134
PH. (405) 752-1122
FAX (405) 752-8855
CA# 1759, RENEWAL 06-30-2019

JOSHUA M. JOHNSTON
LICENSED PROFESSIONAL ENGINEER NO. 26204
DATE

OKLAHOMA DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
DATE APPROVED	DATE APPROVED
BY	BY
CHIEF ENGINEER	DIVISION ADMINISTRATOR

SWO 4380(1) F.A. PROJECT NO. J2-4428(013)
COUNTY GRADY COUNTY HIGHWAY US-81 REALIGNMENT SHEET NO. 0001

P.E. NO. XXXXX

FINAL FIELD MEETING
JUNE 2020

THE FOLLOWING STANDARD DRAWINGS SHALL BE REQUIRED FOR THIS PROJECT:

ROADWAY	BRIDGE	CONTROL	TRAFFIC SIGNING		LIGHTING	SAFETY
SSS-1-1	FSHP-42-2-00E	TCS1-1-01	PM1-1-03	MSD3-1-00	CCD1-1-00	THRI-1-02
TSC1-3-2	EJ-SK-04E	TCS2-1-00	PM2-1-01	MSD4-1-00	CCD2-1-00	SKT-1-00
TSD-2-0	EJ-SQ-04E	TCS3-1-01	PM3-1-02	MSD5-1-00	PBD1-1-00	GA31-1-00
TRFD-1-2	EJ-DTL-02E	TCS4-1-01	PM4-1-02	SIS4-1-00	GMF1-2-01	GHW1-1-00
ASCD-5-2	HP1-2-01E	TCS5-1-00	PM5-1-00	SIS5-1-00	HLBP1-1-01	GHW2-1-00
PSE-1-0	LECS-4-2	TCS6-1-02	PM6-1-00	SBS1-1-00	HLGN1-1-01	CPP-1-00
PSMD-1-0	PUD-3-3	TCS7-1-02	DU1-1-00	SBS2-1-00	HLPD1-1-00	MPP1-1-00
CET4S-3-2	RCB-C2-4&5(2-20)-01E	TCS8-1-00	DU2-1-00	SBS3-1-00	HLPD2-1-01	RS1-2-00
CET6S-3-2	RCB-E2-H4-0-1-01E	TCS9-1-01	MOD1-1-00	SBS4-1-00	PMD1-1-00	RS2-2-00
SMD-3-2	RCB-E2-H4-0-2-01E	TCS10-1-00	MOD2-1-00	SBS5-1-00	PPD1-2-00	RS3-1-00
SSCD-3-1	RCB-CW2-D4-0-01E	TCS11-1-01	MOD3-1-00	GMS1-1-00	HLD1-2-01	
SPI-4-1	SBI-4-2	TCS13-1-00	RSD1-1-00	GMS2-1-00	HLD2-2-01	
FPI-3-3		TCS14-1-00	RSD2-1-00	SSP1-1-02	HLMA2-1-01	
SPB-1-4		TCS15-1-00	WSD1-1-00	SSA1-1-00	HLMA3-1-01	
FHTMPP-1-0		TCS16-1-00	WSD2-1-00	SSA2-1-00	UPD1-1-00	
FHTCP-3-1		TCS18-1-01	WSD3-1-00	FGS1-1-00	UPD2-1-00	
SBI-4-2		TCS19-1-01	MSD1-1-00	SPA1-1-00	SPD1-1-00	
PUD-3-3		TCS20-1-00			TEWD1-2-00	
MI-3-0		TCS21-1-02				
RDI-3-2		TCS22-1-00				
DC-3-2		TCS24-1-02				
PDT-1-3		TCS25-1-00				
RWF1-2-3						
SUEL1-3-2						
SUEL3-3-2						
RCB-C1-10(2-14)-01E						
RCB-E1-H10-0-1-01E						
RCB-E1-H10-0-2-01E						
RCB-CW1-D4-0-01E						

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US-81 REALIGNMENT

GRADY COUNTY

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State Job No. 24428(13) Sheet No. 0002

FINAL FIELD MEETING
JUNE 2020

olsson

11600 BROADWAY EXT. / STE. 300
OKLAHOMA CITY, OK 73114
PH. (405) 242-6600
CA# 2483, RENEWAL 06-30-2021

DERICK MILLICAN, P.E., PTOE, RSP1 — DATE
LICENSED PROFESSIONAL ENGINEER-OKLAHOMA 25027
THIS SEAL COVERS SHEETS:
AT01-AT09, T001-T047

olsson

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PH. (405) 242-6600
CA# 2483, RENEWAL 06-30-2021

KEARA A. PHILLIPS-BERLIN, PE, SE — DATE
LICENSED STRUCTURAL ENGINEER-OKLAHOMA 25864
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AB05, B136

W2M CONSULTING, LLC
2946 N.W. 156TH STREET
EDMOND, OK 73013
PHONE (405) 513-7005
OKLAHOMA C.A. NO. 3919, RENEWAL 06/30/21

W. MIKE MORRISON, P.E. — DATE
OKLAHOMA P.E. NO. 16025

THIS SEAL COVERS SHEETS:
AB03-AB04, B062-B135

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3020 N.W. 149TH STREET
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PH. (405) 752-1122
FAX (405) 752-8855
CA# 1759, RENEWAL 06-30-2021

SHAY V. SMITH — DATE
LICENSED PROFESSIONAL ENGINEER NO. 27713
THIS SEAL COVERS SHEETS:
AB01-AB02, B001-B061, R111-R123

TRIAD DESIGN GROUP
Architecture • Engineering

3020 N.W. 149TH STREET
OKLAHOMA CITY, OK 73134
PH. (405) 752-1122
FAX (405) 752-8855
CA# 1759, RENEWAL 06-30-2021

JOSHUA M. JOHNSTON — DATE
LICENSED PROFESSIONAL ENGINEER NO. 26204
THIS SEAL COVERS SHEETS:
0001-0013, AR01-AR10, R001-R110, X001-X204

PRELIMINARY
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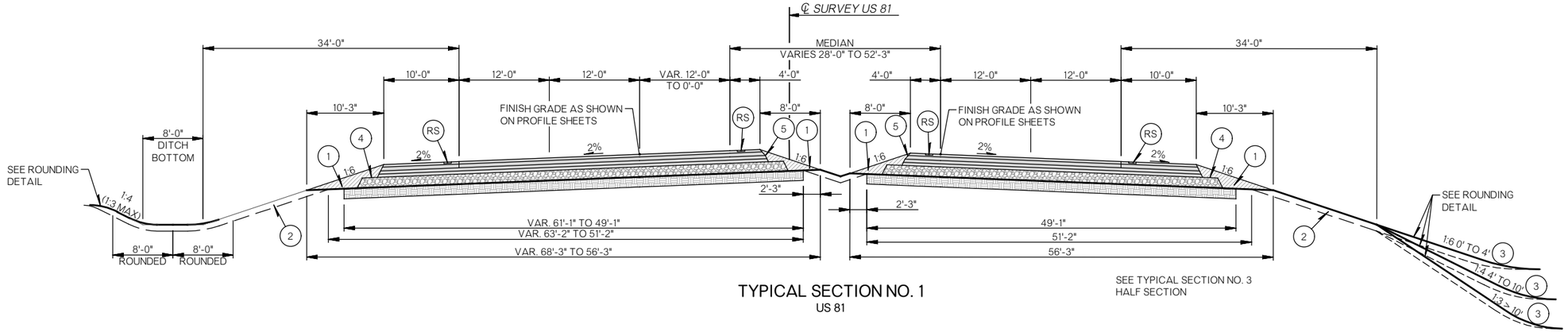
State Job No. 24428(13) Sheet No. 0003

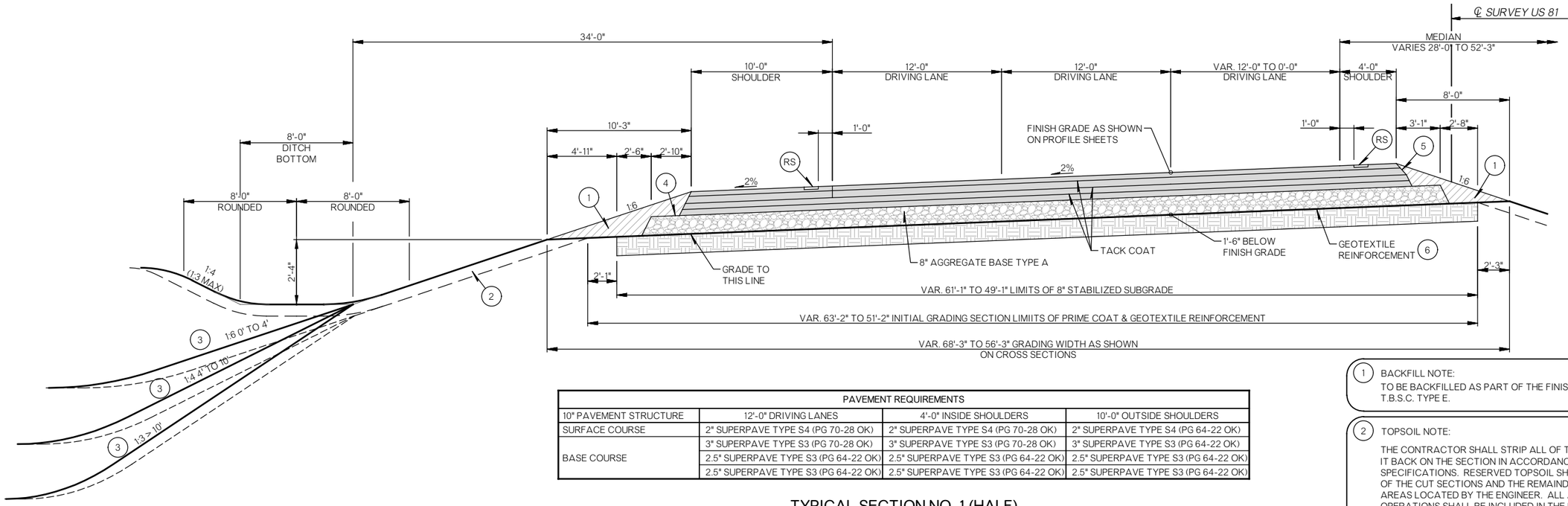
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



TYPICAL SECTION NO. 1
US 81

SEE TYPICAL SECTION NO. 3
HALF SECTION



PAVEMENT REQUIREMENTS			
10" PAVEMENT STRUCTURE	12'-0" DRIVING LANES	4'-0" INSIDE SHOULDERS	10'-0" OUTSIDE SHOULDERS
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)
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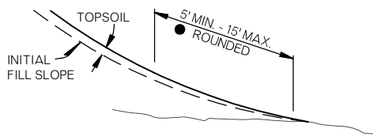
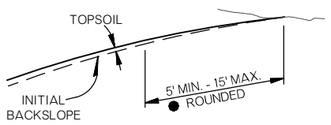
TYPICAL SECTION NO. 1 (HALF)
US 81
STA. 100+94 TO STA. 101+50

ROUNDING DETAIL

- INTERSECTION OF CUT AND/OR FILL SLOPES WITH GROUND LINE TO BE ROUNDED AS PART OF FINISHING OPERATIONS. ROUNDING SHALL BE 5' MINIMUM FOR SMALLER CUTS AND FILLS TO 15' MAXIMUM FOR LARGER CUTS AND FILLS OR AS DESIGNATED BY THE ENGINEER. COST OF ROUNDING TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK.



TOE OF FILL ROUNDING



TOP OF CUT ROUNDING

1. BACKFILL NOTE:
   TO BE BACKFILLED AS PART OF THE FINISHING OPERATIONS. QUANTITY IS MEASURED IN T.B.S.C. TYPE E.

2. TOPSOIL NOTE:
   THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATIONS SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.

   THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASSLINE BALANCE.

3. DISTANCE MEASURED VERTICALLY FROM EDGE OF FINISHED GRADE SHOULDER.

4. PRIME COAT ON TOP OF AGGREGATE BASE.

5. PAVEMENT SAFETY EDGE.

6. USE RS380i

RS RUMBLE STRIP

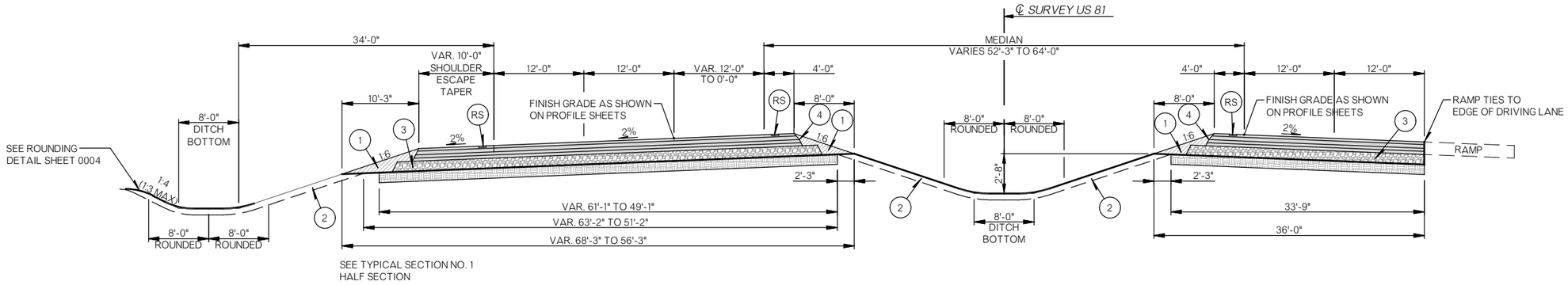
SEE PAVING & BARRIER LAYOUT SHEETS FOR TRANSITION AND TAPER DETAILS.

TYPICAL SECTIONS

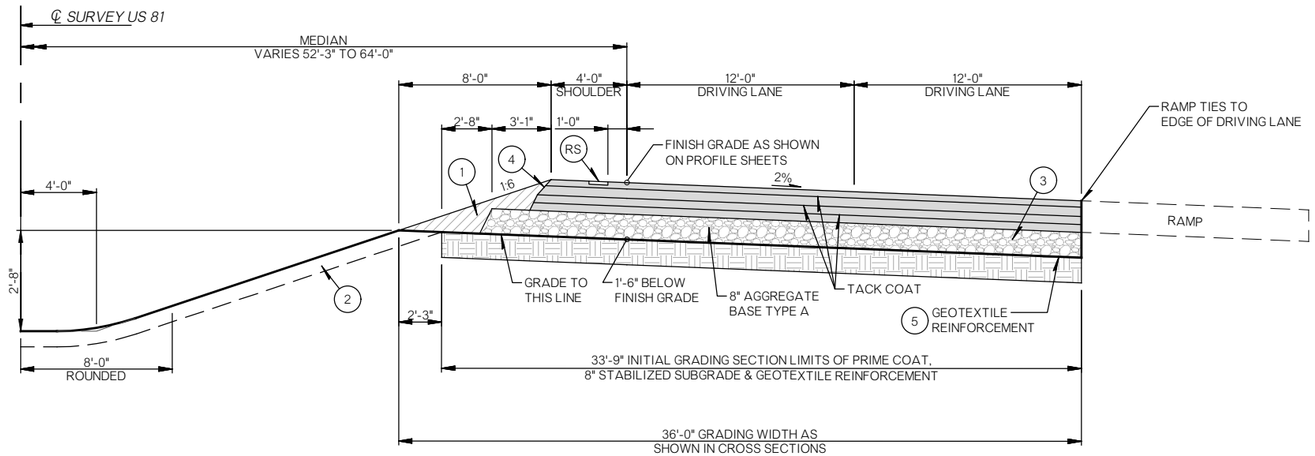
State Job No. 24428(13) Sheet No. 0004

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



TYPICAL SECTION NO. 2
US 81



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TYPICAL SECTION NO. 2 (HALF)
US 81
STA. 101+50 TO STA. 118+49.39
* STA. 127+50 TO STA. 145+68.70 (O. H.)
* STA. 148+68.09 TO STA. 155+05.86
*STA. 163+93.89 TO STA. 165+00.00

* PROPOSED GRADING COMPLETED IN J/P 24428(04)

(1) BACKFILL NOTE:
TO BE BACKFILLED AS PART OF THE FINISHING OPERATIONS. QUANTITY IS MEASURED IN T.B.S.C. TYPE E.

(2) TOPSOIL NOTE:

THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATIONS SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.

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(3) PRIME COAT ON TOP OF AGGREGATE BASE.

(4) PAVEMENT SAFETY EDGE.

(5) USE RS380i

(RS) RUMBLE STRIP

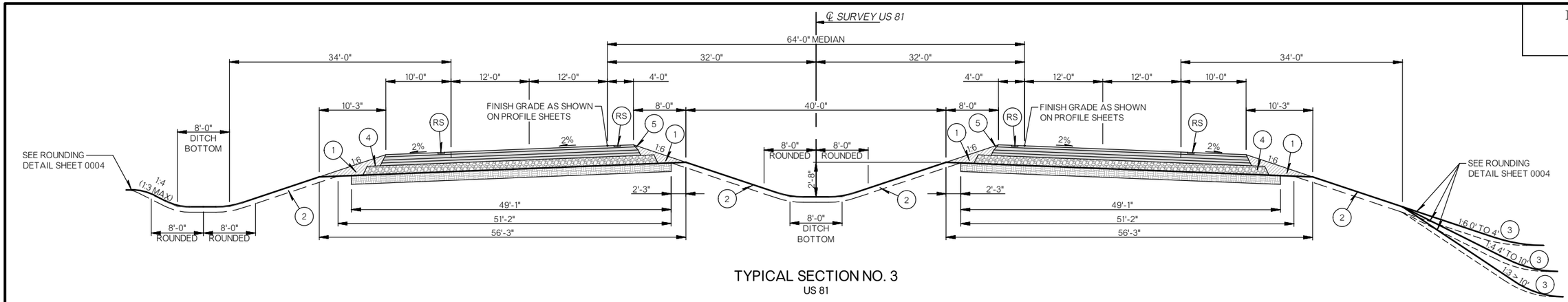
SEE PAVING & BARRIER LAYOUT SHEETS FOR TRANSITION AND TAPER DETAILS.

TYPICAL SECTIONS

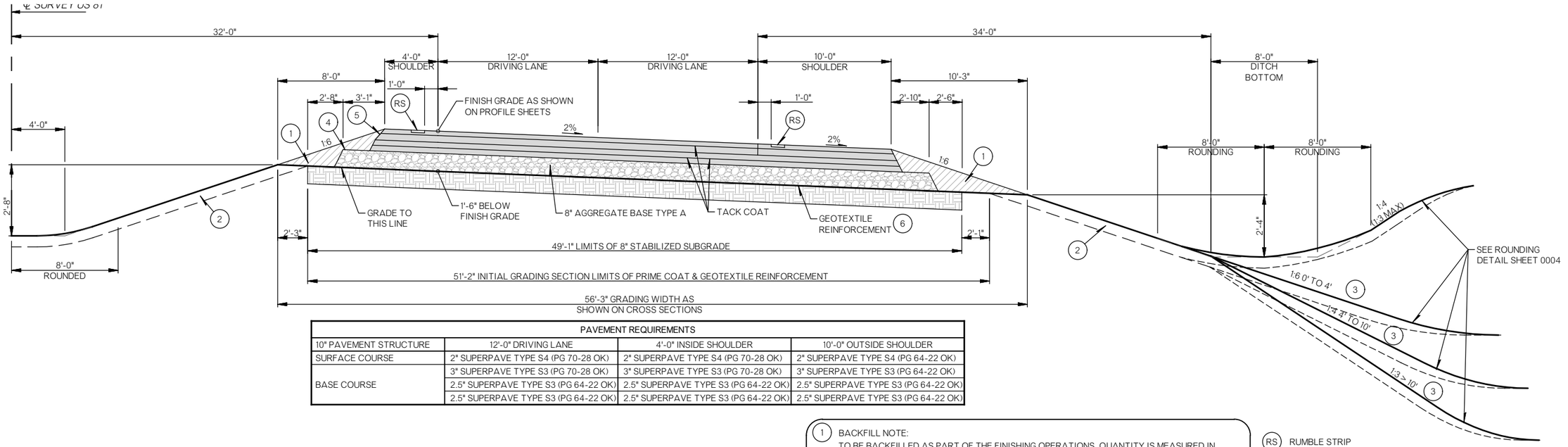
State Job No. 24428(13) Sheet No. 0005

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



TYPICAL SECTION NO. 3
US 81



PAVEMENT REQUIREMENTS			
10" PAVEMENT STRUCTURE	12'-0" DRIVING LANE	4'-0" INSIDE SHOULDER	10'-0" OUTSIDE SHOULDER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)

TYPICAL SECTION NO. 3 (HALF)
US 81
STA. 118+49.39 TO STA. 127+50
* STA. 145+68.70 TO STA. 148+68.09
STA. 164+37.68 TO STA. 165+00
* PROPOSED GRADING COMPLETED IN J/P 24428(04)

(1) BACKFILL NOTE:
TO BE BACKFILLED AS PART OF THE FINISHING OPERATIONS. QUANTITY IS MEASURED IN T.B.S.C. TYPE E.

(2) TOPSOIL NOTE:
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATIONS SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.

THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASSLINE BALANCE.

(3) DISTANCE MEASURED VERTICALLY FROM EDGE OF FINISHED GRADE SHOULDER.

(4) PRIME COAT ON TOP OF AGGREGATE BASE.

(5) PAVEMENT SAFETY EDGE.

(6) USE RS380i

(RS) RUMBLE STRIP

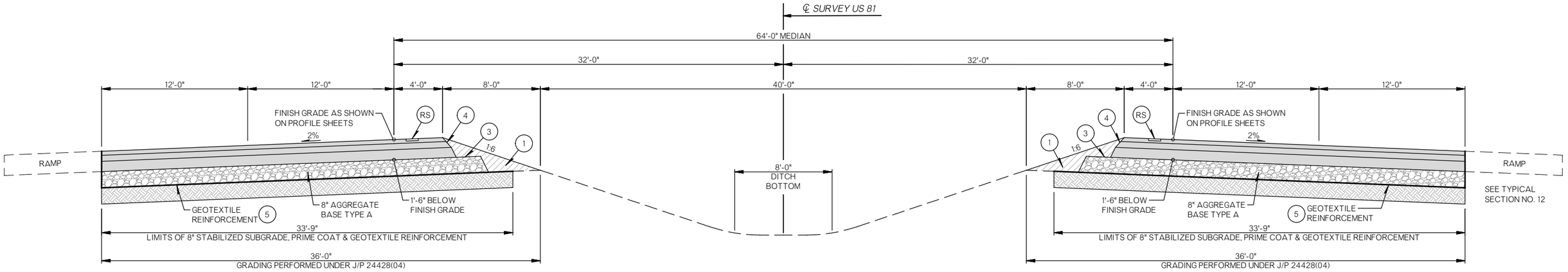
SEE PAVING & BARRIER LAYOUT SHEETS FOR TRANSITION AND TAPER DETAILS.

TYPICAL SECTIONS

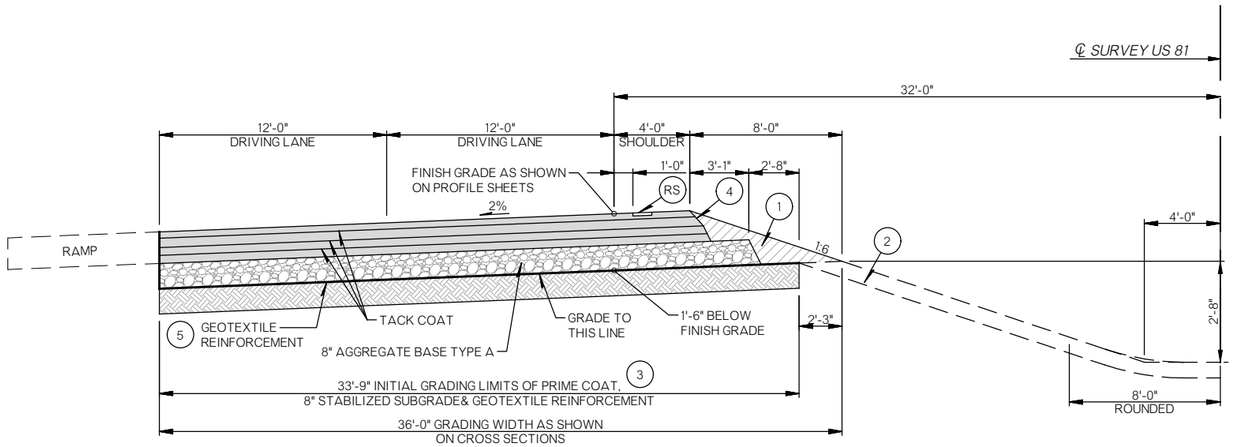
State Job No. 24428(13) Sheet No. 0006

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



TYPICAL SECTION NO. 4
US 81



	PAVEMENT REQUIREMENTS	
10" PAVEMENT STRUCTURE	12'-0" DRIVING LANES	4'-0" INSIDE SHOULDER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 70-28 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 70-28 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)

TYPICAL SECTION NO. 4 (HALF)
US 81
STA. 155+05.86 TO STA. 163+93.89

(1) BACKFILL NOTE:
TO BE BACKFILLED AS PART OF THE FINISHING OPERATIONS. QUANTITY IS MEASURED IN T.B.S.C. TYPE E.

(2) TOPSOIL NOTE:

THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATIONS SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.

THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASSLINE BALANCE.

(3) PRIME COAT ON TOP OF AGGREGATE BASE.

(4) PAVEMENT SAFETY EDGE.

(5) USE RS380i

(RS) RUMBLE STRIP

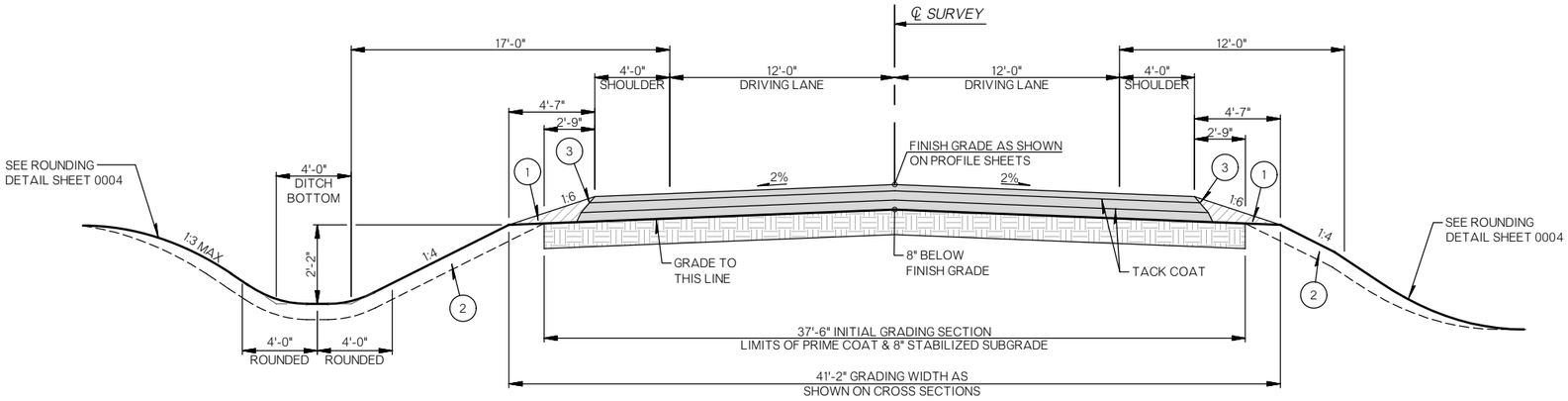
SEE PAVING & BARRIER LAYOUT SHEETS FOR TRANSITION AND TAPER DETAILS.

US-81 REALIGNMENT
GRADY COUNTY

TYPICAL SECTIONS

State Job No. 24428(13) Sheet No. 0007

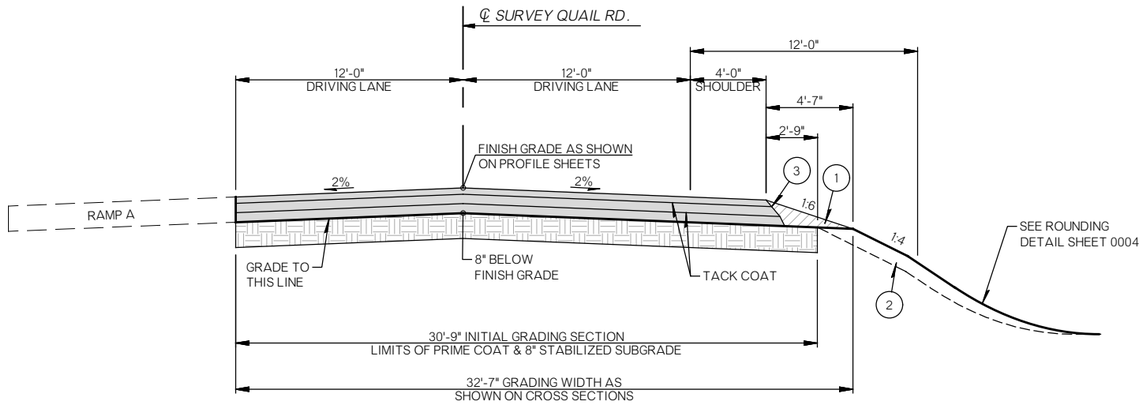
FINAL FIELD MEETING
JUNE 2020



8" PAVEMENT STRUCTURE	12'-0" DRIVING LANES	4'-0" OUTSIDE SHOULDERS
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 64-22 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 64-22 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)
	3" SUPERPAVE TYPE S3 (PG 64-22 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)

TYPICAL SECTION NO. 5

16TH ST. (SOUTH)
STA. 5113+79.22 TO STA. 5142+22.49
EW 140.5
STA. 30+15 TO STA.35+14.86
QUAIL RD.
STA. 26+75.00 TO STA. 35+63.62
STA. 45+47.93 TO STA. 50+00
16TH ST. (NORTH)
STA. 19+90 TO STA 36+40



8" PAVEMENT STRUCTURE	12'-0" DRIVING LANES	4'-0" OUTSIDE SHOULDER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 64-22 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 64-22 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)
	3" SUPERPAVE TYPE S3 (PG 64-22 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)

TYPICAL SECTION NO. 6

QUAIL RD.
STA. 35+63.62 TO STA. 45+47.93

(1) BACKFILL NOTE:
TO BE BACKFILLED AS PART OF THE FINISHING OPERATIONS. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

(2) TOPSOIL NOTE:

THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATIONS SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.

THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASSLINE BALANCE.

(3) PAVEMENT SAFETY EDGE.

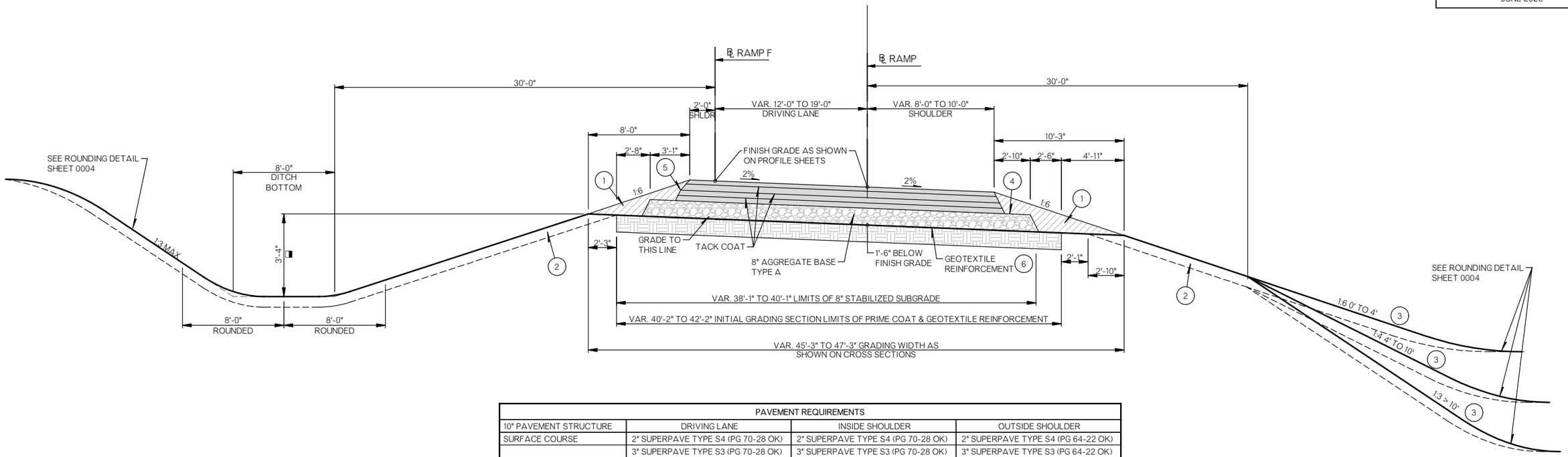
SEE PAVING & BARRIER LAYOUT SHEETS FOR TRANSITION AND TAPER DETAILS.

TYPICAL SECTIONS

State Job No. 24428(13) Sheet No. 0008

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



PAVEMENT REQUIREMENTS			
10" PAVEMENT STRUCTURE	DRIVING LANE	INSIDE SHOULDER	OUTSIDE SHOULDER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)

TYPICAL SECTION NO. 7

RAMP A
* STA. 145+46.83 TO STA. 149+90.00 (O.H.)
* STA. 152+48.18 TO STA. 153+00.00 (O.H.)
STA. 153+00.00 TO STA. 154+27.61 (O.H.)
RAMP B
* STA. 246+40.72 TO STA. 254+97.35 (O.H.)
RAMP C
STA. 113+86.73 TO STA. 144+48.36
RAMP D
STA. 228+54.28 TO STA. 244+00
* STA. 244+00 TO STA. 248+61.81
RAMP E
STA. 254+30.84 TO STA. 262+62.73 (O.H.) (4' SHOULDER RT.)
RAMP F
STA. 131+43.82 TO STA. 133+54

* PROPOSED GRADING COMPLETED IN J/P 24428(04)

(1) BACKFILL NOTE:
TO BE BACKFILLED AS PART OF THE FINISHING OPERATIONS. QUANTITY IS MEASURED IN T.B.S.C. TYPE E.

(2) TOPSOIL NOTE:
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATIONS SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.

THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASSLINE BALANCE.

(3) DISTANCE MEASURED VERTICALLY FROM EDGE OF FINISHED GRADE SHOULDER.

(4) PRIME COAT ON TOP OF AGGREGATE BASE.

(5) PAVEMENT SAFETY EDGE.

(6) USE RS380i

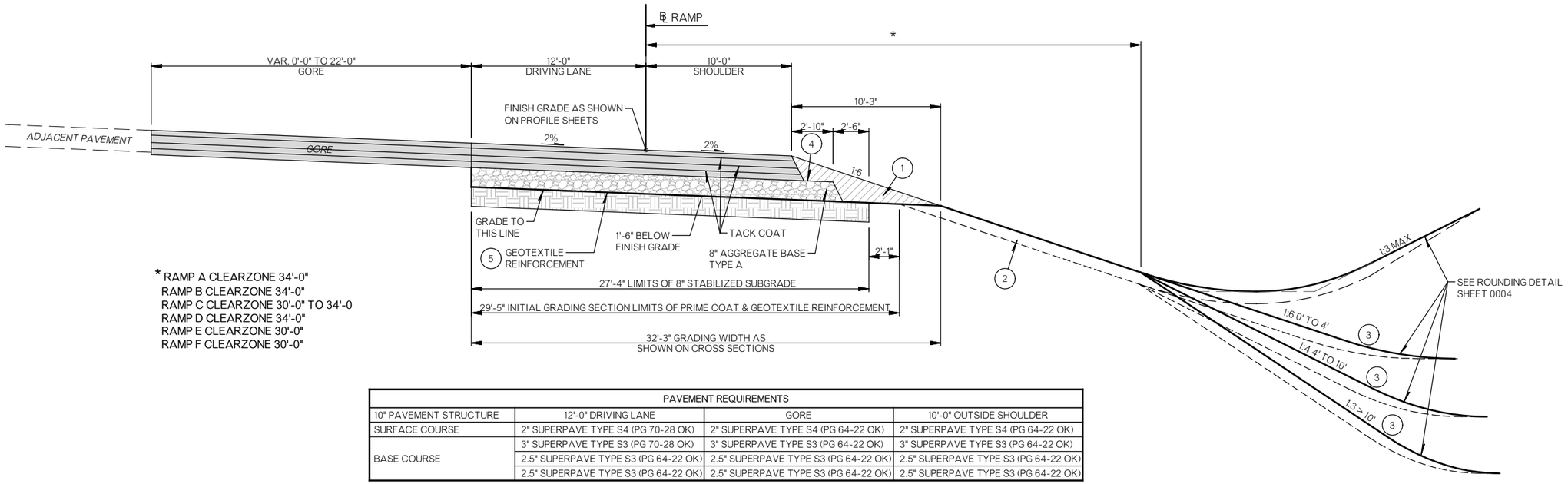
SEE PAVING & BARRIER LAYOUT SHEETS FOR TRANSITION AND TAPER DETAILS.

TYPICAL SECTIONS

State Job No. 24428(13) Sheet No. 0009

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



* RAMP A CLEARZONE 34'-0"
RAMP B CLEARZONE 34'-0"
RAMP C CLEARZONE 30'-0" TO 34'-0
RAMP D CLEARZONE 34'-0"
RAMP E CLEARZONE 30'-0"
RAMP F CLEARZONE 30'-0"

PAVEMENT REQUIREMENTS			
10" PAVEMENT STRUCTURE	12'-0" DRIVING LANE	GORE	10'-0" OUTSIDE SHOULDER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)

TYPICAL SECTION NO. 8

RAMP A
STA. 127+53.04 TO STA. 141+22 (O.H.)
* STA. 141+22 TO STA. 145+46.83 (O.H.)
*STA. 151+32.84 TO STA. 152+48.18 (O.H.)
STA. 154+27.61 TO STA. 164+00.22 (O.H.)
RAMP B
*STA. 244+74.52 TO STA. 246+40.12 (O.H.)
* STA. 254+97.35 TO STA. 263+72.32 (O.H.)
RAMP C
STA. 96+88.43 TO STA. 113+86.73
RAMP D
STA. 218+95.41 TO STA. 228+54.28
* STA. 248+61.81 TO STA. 264+50
RAMP F
STA. 128+45.71 TO STA. 131+43.82
STA. 133+87.44 TO STA. 136+48.68

* PROPOSED GRADING COMPLETED IN J/P 24428(04)

(1) BACKFILL NOTE:
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(3) DISTANCE MEASURED VERTICALLY FROM EDGE OF FINISH GRADE SHOULDER

(4) PRIME COAT ON TOP OF AGGREGATE BASE

(5) USE RS380i

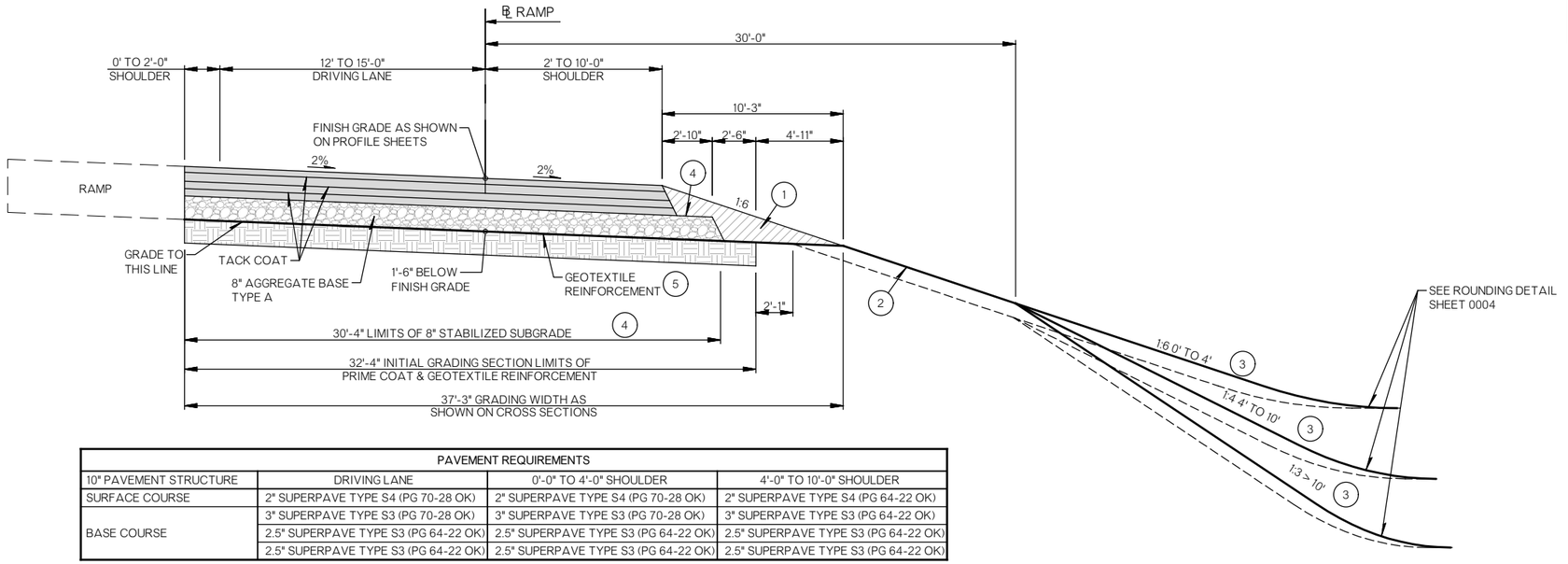
SEE PAVING & BARRIER LAYOUT SHEETS FOR TRANSITION AND TAPER DETAILS.

US-81 REALIGNMENT
GRADY COUNTY

TYPICAL SECTIONS

State Job No. 24428(13) Sheet No. 0010

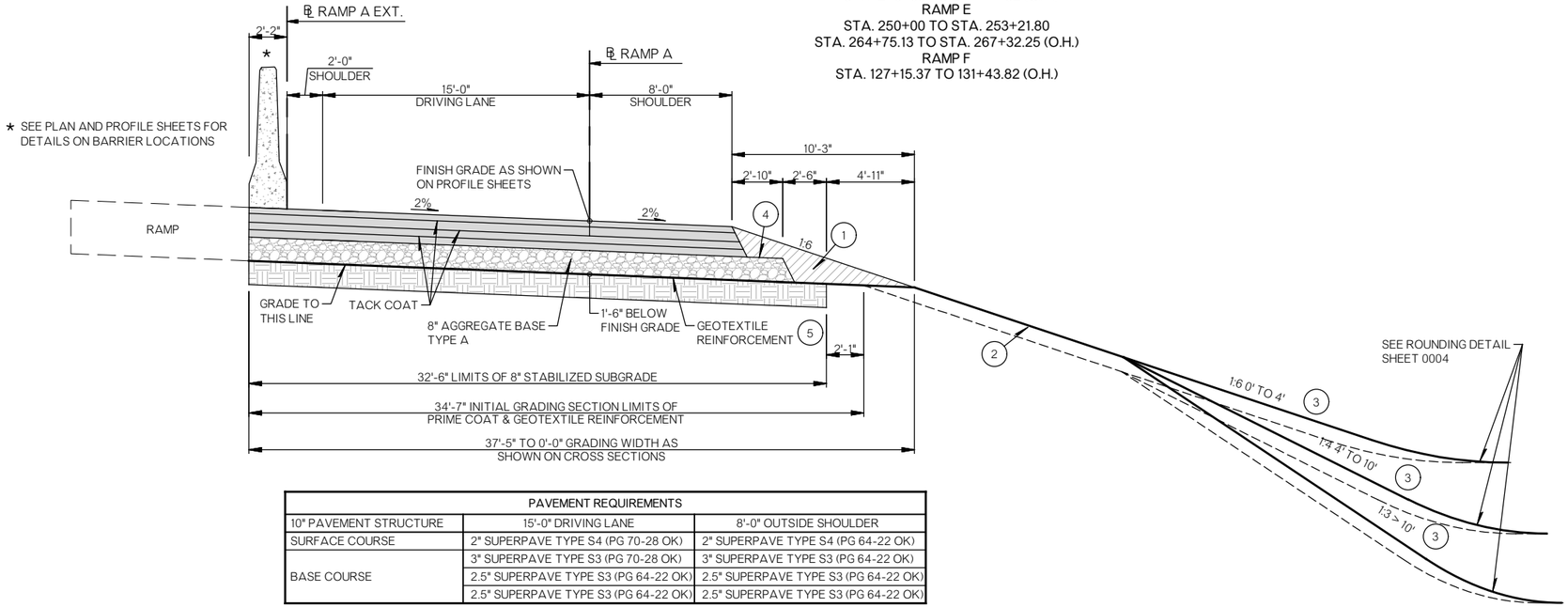
FINAL FIELD MEETING
JUNE 2020



PAVEMENT REQUIREMENTS			
10" PAVEMENT STRUCTURE	DRIVING LANE	0'-0" TO 4'-0" SHOULDER	4'-0" TO 10'-0" SHOULDER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)

TYPICAL SECTION NO. 9

RAMP B
STA. 242+12.00 TO STA. 243+00.00 (O.H.)
* STA. 243+00 TO 244+74.52 (O.H.)
RAMP E
STA. 250+00 TO STA. 253+21.80
STA. 264+75.13 TO STA. 267+32.25 (O.H.)
RAMP F
STA. 127+15.37 TO 131+43.82 (O.H.)



PAVEMENT REQUIREMENTS		
10" PAVEMENT STRUCTURE	15'-0" DRIVING LANE	8'-0" OUTSIDE SHOULDER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)

TYPICAL SECTION NO. 10

RAMP A
*STA. 149+90.00 TO STA. 151+32.84 (O.H.)
RAMP A EXTENSION
STA. 242+37 TO STA. 243+00
* STA. 243+00 TO STA. 244+74

* PROPOSED GRADING COMPLETED IN J/P 24428(04)

(1) BACKFILL NOTE:
TO BE BACKFILLED AS PART OF THE FINISHING OPERATIONS. QUANTITY IS MEASURED IN T.B.S.C. TYPE E.

(2) TOPSOIL NOTE:
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THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASSLINE BALANCE.

(3) DISTANCE MEASURED VERTICALLY FROM EDGE OF FINISH GRADE SHOULDER

(4) PRIME COAT ON TOP OF AGGREGATE BASE

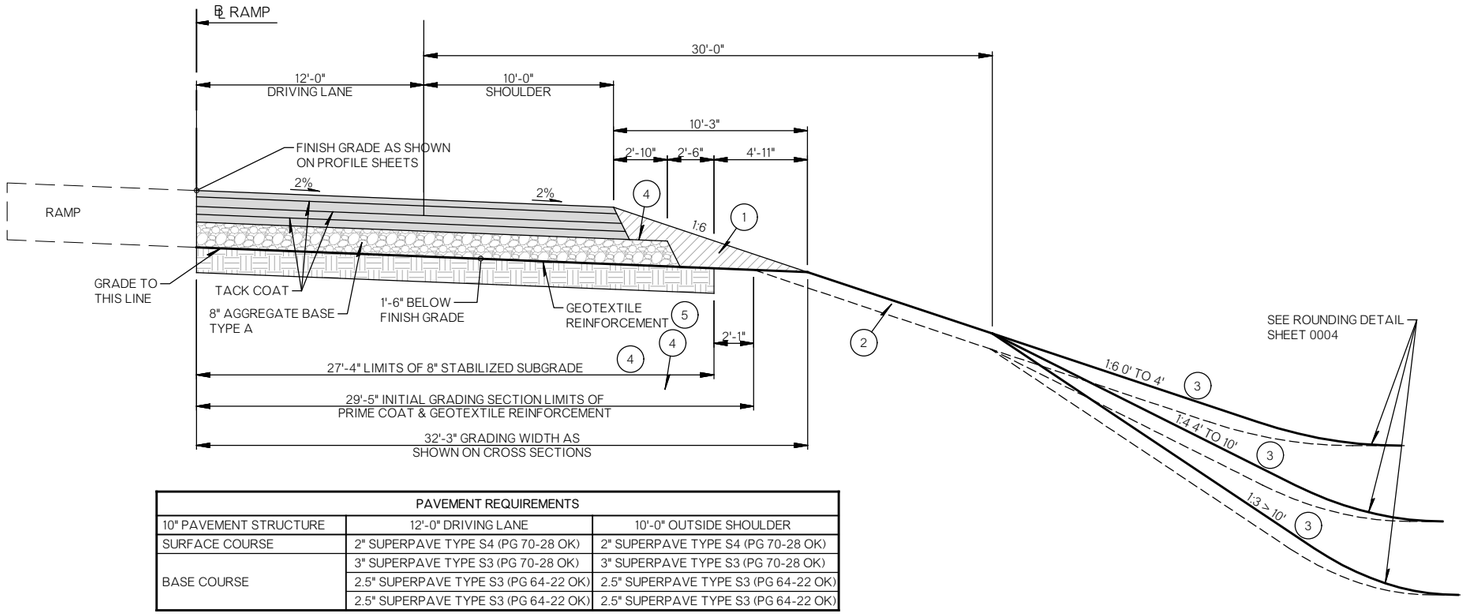
(5) USE RS380i

SEE PAVING & BARRIER LAYOUT SHEETS FOR TRANSITION AND TAPER DETAILS.

TYPICAL SECTIONS

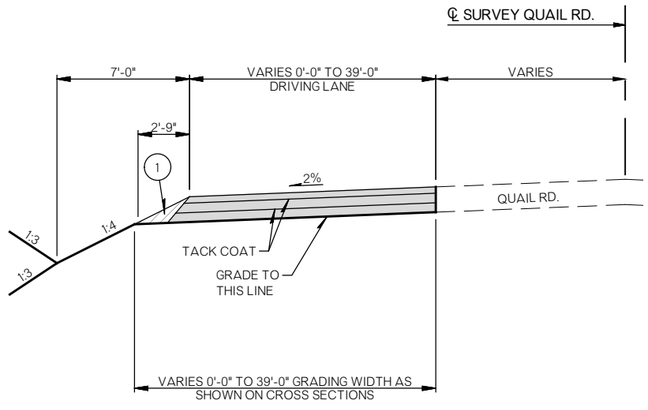
State Job No. 24428(13) Sheet No. 0011

US-81 REALIGNMENT
GRADY COUNTY



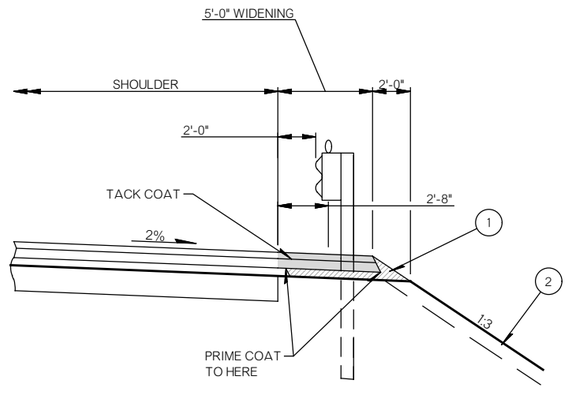
PAVEMENT REQUIREMENTS		
10" PAVEMENT STRUCTURE	12'-0" DRIVING LANE	10'-0" OUTSIDE SHOULDER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 70-28 OK)	2" SUPERPAVE TYPE S4 (PG 70-28 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 70-28 OK)	3" SUPERPAVE TYPE S3 (PG 70-28 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)

TYPICAL SECTION NO. 11
RAMP F
STA. 136+48.68 TO 143+17.95



PAVEMENT REQUIREMENTS	
8" PAVEMENT STRUCTURE	DRIVING LANES
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 64-22 OK)
	3" SUPERPAVE TYPE S3 (PG 64-22 OK)

TYPICAL SECTION NO. 12
TEMPORARY QUAIL RD. WIDENING
STA. 25+34.33 TO STA. 49+00.00



PAVEMENT REQUIREMENTS	
PAVEMENT STRUCTURE	5'-0" GUARDRAIL WIDENING
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 64-22 OK)

GUARDRAIL WIDENING
SEE GUARDRAIL SUMMARY FOR
STATIONING AND LOCATION

(1) BACKFILL NOTE:
TO BE BACKFILLED AS PART OF THE FINISHING OPERATIONS. QUANTITY IS MEASURED IN T.B.S.C. TYPE E.

(2) TOPSOIL NOTE:

THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATIONS. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATIONS SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.

THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE MASSLINE BALANCE.

(3) DISTANCE MEASURED VERTICALLY FROM EDGE OF FINISH GRADE SHOULDER

(4) PRIME COAT ON TOP OF AGGREGATE BASE

(5) USE RS380i

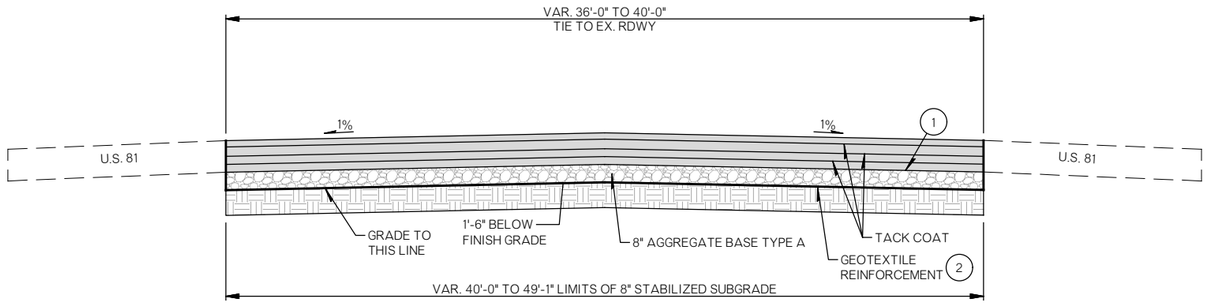
SEE PAVING & BARRIER LAYOUT SHEETS FOR TRANSITION AND TAPER DETAILS.

TYPICAL SECTIONS

State Job No. 24428(13) Sheet No. 0012

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



TYPICAL SECTION NO. 13

SEE CROSSOVER PLAN SHEET R073

PAVEMENT REQUIREMENTS	
10" PAVEMENT STRUCTURE	DRIVING LANES
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 70-28 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 70-28 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)
	2.5" SUPERPAVE TYPE S3 (PG 64-22 OK)

(1) PRIME COAT ON TOP OF AGGREGATE BASE

(2) USE RS380i

US-81 REALIGNMENT

GRADY COUNTY

TYPICAL SECTIONS

State Job No. 24428(13) Sheet No. 0013

FINAL FIELD MEETING
JUNE 2020

24428(13)

PAY QUANTITIES

0200 BRIDGE "A" - NBI 32632 - (3-60') PRESTRESSED CONCRETE BEAMS SPANS, 38'-0" CLR. RDWY. W/ CONC. PARAPETS (FSHP-42) SKEWED 0°

ITEM NO.		DESCRIPTION		UNIT	QUANTITY
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON		CY	155.00
501(G)	6309	CLSM BACKFILL	(BR-1)	CY	203.00
503(A)	1312	PRESTRESSED CONCRETE BEAMS (TYPE III)	(BR-1)	LF	895.05
504(A)	1304	APPROACH SLAB	(BR-1)	SY	273.40
504(B)	1305	SAW-CUT GROOVING	(BR-1)	SY	1,008.40
504(C)	6250	SEALED EXPANSION JOINT	(BR-1)	LF	39.00
504(E)	6190	42" F-SHAPED PARAPET	(BR-1)	LF	483.40
506(A)	1322	STRUCTURAL STEEL	(BR-1)	LB	1,370.00
507(A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY	(BR-1)(BR-2)	EA	10.00
507(B)	6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY	(BR-1)(BR-2)	EA	20.00
509(A)	1326	CLASS AA CONCRETE	(BR-1)	CY	208.70
509(B)	1328	CLASS A CONCRETE	(BR-1)	CY	207.50
509(D)	1331	CLASS C CONCRETE		CY	14.40
510(C)	6138	SLOPE WALL (5")	(BR-1)	SY	745.00
511(A)	1332	REINFORCING STEEL	(BR-1)	LB	13,170.00
511(B)	6010	EPOXY COATED REINFORCING STEEL	(BR-1)	LB	80,810.00
514(A)	6010	PILES, FURNISHED (HP10x42)	(BR-3)	LF	158.00
514(A)	6011	PILES, FURNISHED (HP12x53)	(BR-3)	LF	514.00
514(B)	6292	PILES, DRIVEN (HP10x42)		LF	158.00
514(B)	6294	PILES, DRIVEN (HP12x53)		LF	514.00
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	SY	1,167.70
516(A)	6098	DRILLED SHAFTS 72" DIAMETER	(BR-4)	LF	80.00
516(C)	6200	CROSSHOLE SONIC LOGGING	(BR-4)	EA	1.00
523(A)	6550	SEALER CRACK PREPARATION	(BR-1)	LF	39.00
523(B)	6560	SEALER RESIN	(BR-1)	GAL	1.00
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND	(BR-1)	LF	168.00
613(I)	6207	6" NON-PERF. PIPE UNDERDRAIN RND.		LF	186.00
613(Q)	5946	OUTLET LATERAL HEADWALL	(BR-1)	EA	2.00

24428(13)

PAY QUANTITIES

0201 BRIDGE "B" - NBI 32633 - (3-60') PRESTRESSED CONCRETE BEAMS SPANS, 50'-0" CLR. RDWY. W/ CONC. PARAPETS (FSHP-42) SKEWED 0°

ITEM NO.		DESCRIPTION		UNIT	QUANTITY
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON		CY	176.00
501(G)	6309	CLSM BACKFILL	(BR-1)	CY	257.00
503(A)	1312	PRESTRESSED CONCRETE BEAMS (TYPE III)	(BR-1)	LF	1,074.06
504(A)	1304	APPROACH SLAB	(BR-1)	SY	353.40
504(B)	1305	SAW-CUT GROOVING	(BR-1)	SY	1,325.40
504(C)	6250	SEALED EXPANSION JOINT	(BR-1)	LF	51.00
504(E)	6190	42" F-SHAPED PARAPET	(BR-1)	LF	483.40
506(A)	1322	STRUCTURAL STEEL	(BR-1)	LB	1,820.00
507(A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY	(BR-1)(BR-2)	EA	12.00
507(B)	6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY	(BR-1)(BR-2)	EA	24.00
509(A)	1326	CLASS AA CONCRETE	(BR-1)	CY	270.10
509(B)	1328	CLASS A CONCRETE	(BR-1)	CY	269.30
509(D)	1331	CLASS C CONCRETE		CY	14.50
510(C)	6138	SLOPE WALL (5")	(BR-1)	SY	951.00
511(A)	1332	REINFORCING STEEL	(BR-1)	LB	16,050.00
511(B)	6010	EPOXY COATED REINFORCING STEEL	(BR-1)	LB	101,610.00
514(A)	6010	PILES, FURNISHED (HP10x42)	(BR-3)	LF	158.00
514(A)	6011	PILES, FURNISHED (HP12x53)	(BR-3)	LF	669.00
514(B)	6292	PILES, DRIVEN (HP10x42)		LF	158.00
514(B)	6294	PILES, DRIVEN (HP12x53)		LF	669.00
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	SY	1,292.80
516(A)	6098	DRILLED SHAFTS 72" DIAMETER	(BR-4)	LF	141.00
516(C)	6200	CROSSHOLE SONIC LOGGING	(BR-4)	EA	1.00
523(A)	6550	SEALER CRACK PREPARATION	(BR-1)	LF	51.00
523(B)	6560	SEALER RESIN	(BR-1)	GAL	1.00
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND	(BR-1)	LF	216.00
613(I)	6207	6" NON-PERF. PIPE UNDERDRAIN RND.		LF	244.00
613(Q)	5946	OUTLET LATERAL HEADWALL	(BR-1)	EA	2.00

PAY QUANTITY NOTES

(BR-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITIES. SEE THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION SECTION 109.01.B "PLAN QUANTITIES".

(BR-2) PROVIDE AND INSTALL BEARING ASSEMBLIES OF THE SIZE, SHAPE AND LOCATION DETAILED IN THE PLANS AT THE ABUTMENTS AND PIERS. THERE IS AN ESTIMATED 2,100.00 LBS. (BRIDGE "A") AND 2,520.00 LBS. (BRIDGE "B") OF STAINLESS STEEL FOR THE FIXED BEARING ASSEMBLIES AND 4,200.00 LBS. (BRIDGE "A") AND 5,040.00 LBS. (BRIDGE "B") OF STAINLESS STEEL FOR THE EXPANSION BEARING ASSEMBLIES. INCLUDE ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE ANCHOR PLATES, ANCHOR BOLTS, CONTACT PLATES, NUTS, WASHERS, AND ELASTOMERIC BEARING PADS, INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS, IN THE PRICE BID FOR "STAINLESS STEEL FIXED BEARING ASSEMBLY" OR "STAINLESS STEEL EXPANSION BEARING ASSEMBLY" AS APPLICABLE.

(BR-3) ALL ABUTMENT PILING SHALL BE AASHTO M270 GRADE 50 STEEL.

(BR-4) SEE SPECIAL PROVISIONS.

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

BRIDGES "A" AND "B"
US-81 OVER EW 140.5

PAY QUANTITIES

State Job No. 24428(13) Sheet No. AB01

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

GENERAL NOTES (BRIDGES "A" AND "B")

SPECIFICATIONS:
COMPLY WITH THE REQUIREMENTS OF THE ODOT 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

ABUTMENT PILING CAPACITY:
THE FACTORED REACTION FOR EACH HP12x53 PILE AT EACH ABUTMENT IS 88.0 TONS (BRIDGE "A") AND 97.0 TONS (BRIDGE "B").

THE FOLLOWING FORMULA (GATES EQUATION) SHALL BE USED TO DETERMINE THE AXIAL LOAD RESISTANCE OF THE DRIVEN FOUNDATION PILES:

$$\text{AXIAL LOAD RESISTANCE} = \Phi\,[(0.875\sqrt{E}\,\text{LOG}_{10}(10N)) - 50] \qquad \text{(TONS)}$$

WHERE:
- Φ= RESISTANCE FACTOR OF 0.4
- E = ENERGY PRODUCED BY THE HAMMER PER BLOW IN FOOT-POUNDS. FOR GRAVITY AND SINGLE ACTING DIESEL HAMMERS, THE VALUE IS BASED ON THE ACTUAL RAM STROKE OBSERVED IN THE FIELD AND MEASURED IN FEET MULTIPLIED BY THE RAM WEIGHT IN POUNDS.
- N = AVERAGE NUMBER OF HAMMER BLOWS PER INCH OF PILE PENETRATION FOR THE LAST 10 TO 20 BLOWS DELIVERED TO THE PILE HEAD.

THE ABOVE FORMULA IS ONLY APPLICABLE WHEN:
- THE PILE DRIVING HAMMER HAS A FREE FALL (GRAVITY & SINGLE ACTING HAMMERS ONLY).
- THE HEAD OF THE PILE IS NOT BROOMED, CRUSHED OR OTHERWISE DAMAGED.
- THE PENETRATION IS QUICK AND UNIFORM.
- THERE IS NO APPRECIABLE REBOUND OF THE HAMMER, AND
- A FOLLOWER IS NOT USED.

THE NUMBER OF BLOWS PER INCH OF PILE PENETRATION MAY BE MEASURED EITHER DURING INITIAL DRIVING OR BY RE-DRIVING WITH A WARM HAMMER OPERATED AT FULL ENERGY AFTER A PILE SET PERIOD, AS DETERMINED BY THE ENGINEER.

IF WATER JETS ARE USED IN CONNECTION WITH THE DRIVING, DETERMINE THE AXIAL LOAD RESISTANCE BY THE FORMULA SHOWN ONLY AFTER THE JETS HAVE BEEN WITHDRAWN.

PILE DRIVING EQUIPMENT:
USE A PILE DRIVING HAMMER OF THE SIZE AND TYPE CAPABLE OF CONSISTENTLY DELIVERING THE EFFECTIVE DYNAMIC ENERGY SUFFICIENT TO DRIVE THE PILES TO THE REQUIRED TIP ELEVATION AND TO ACHIEVE THE FACTORED PILE REACTION WITHOUT EXCEEDING THE LIMITATIONS SET ON THE ALLOWABLE DRIVING STRESSES IN ACCORDANCE WITH SECTION 514.03.A(2).

SLAB HAUNCHES:
PLAN QUANTITIES FOR "CLASS AA CONCRETE" INCLUDE 7.50 C.Y. (BRIDGE "A") AND 9.00 C.Y. (BRIDGE "B") FOR HAUNCHES OVER P.C. BEAMS.

DECK SLAB CONSTRUCTION:
FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, SEE SHEET NOS. B022 - B025 AND B053 - B056.

PENETRATING WATER REPELLENT SURFACE TREATMENT:
A PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES OF THE BRIDGE:

(A) THE TOP AND OUTSIDE EDGE OF SLAB CANTILEVER OUTSIDE OF PARAPETS, AND UNDERSIDE CANTILEVER PORTION OF THE BRIDGE SLAB.
(B) THE OUTER FACE AND BOTTOM OF THE EXTERIOR P.C. BEAMS.
(C) THE ROADWAY FACE, TOP, AND OUTSIDE FACE OF THE F-SHAPED PARAPETS ON THE BRIDGE SLAB.
(D) THE ROADWAY FACE AND TOP OF THE F-SHAPED PARAPETS ON THE APPROACH SLABS.
(E) THE FRONT FACE OF BACKWALL, TOP OF BRIDGE SEAT, AND ALL SURFACES OF THE PEDESTALS AT THE ABUTMENTS. THE FRONT FACE AND ENDS OF THE BRIDGE SEAT AND THE OUTSIDE SURFACES OF THE WINGS FROM A LINE EVEN WITH THE BACK FACE OF THE BACKWALL TOWARD THE BRIDGE AND ABOVE THE FINISHED GROUND LINE OR TOP OF SLOPE WALL.
(F) THE TOP OF THE PIER CAPS INCLUDING ALL SURFACES OF THE PEDESTALS, AND ALL VERTICAL SURFACES OF THE PIER CAPS.
(G) ALL SURFACES OF THE PIER COLUMNS ABOVE THE FINISHED GROUND SURFACE.

ALL COST OF THE PENETRATING WATER REPELLENT SURFACE TREATMENT INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD OF "WATER REPELLENT (VISUALLY INSPECTED)".

APPROACH SLABS:
CLASS "AA" CONCRETE SHALL BE USED IN THE APPROACH SLABS. THE QUANTITY GIVEN IS BASED ON THE ACTUAL SQUARE YARDS OF THE APPROACH SLABS. THE PRICE BID FOR "APPROACH SLAB" SHALL BE FULL COMPENSATION FOR ALL CONCRETE, EPOXY COATED REINFORCING STEEL (INCLUDING FS2 AND FS6 BARS IN PARAPETS), BACKER RODS, RAPID CURE JOINT SEALANT, POLYSTYRENE, PAVEMENT SAWING, EXCAVATION, BASE PREPARATION, LABOR, EQUIPMENT AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED IN THE PLANS.

PERFORATED AND NON-PERFORATED PIPE UNDERDRAINS:
EXTENT, LOCATION AND DEPTH OF 6" NON-PERFORATED PIPE UNDERDRAIN MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION. ALL COSTS OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE AND COARSE, FOR ABUTMENTS AND SLOPE WALLS) (EST. AT 305.00 CY), TRENCH EXCAVATION (EST. AT 87.00 CY), STANDARD BEDDING MATERIAL (EST. AT 73.00 CY), INCLUDING FILTER FABRIC, EQUIPMENT AND LABOR FOR THEIR INSTALLATION SHALL BE INCLUDED IN UNIT PRICE BID FOR " 6" PERFORATED PIPE UNDERDRAIN ROUND" AND " 6" NON-PERF. PIPE UNDERDRAIN RND.". INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND STD. PUD-3.

STAY-IN-PLACE SLAB FORMS:
STAY-IN-PLACE STEEL SLAB FORMS MAY BE USED IF THE MINIMUM SLAB THICKNESS OF 8" IS MAINTAINED BY MEASURING FROM THE TOP OF THE SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. LIMIT THE COMBINED WEIGHT OF THE FORMS AND ANY ADDITIONAL CONCRETE NECESSITATED BY THE USE OF STAY-IN-PLACE FORMS TO A MAXIMUM OF 5 PSF IN EXCESS OF THE ORIGINAL PLAN WEIGHT OF THE BRIDGE FLOOR. PREFORMED CORRUGATION FILLER, COMPOSED OF POLYSTYRENE, OR ANY OTHER FILLER MATERIAL, IF USED, SHALL BE BONDED TO THE STAY-IN-PLACE FORMS.

ALL COSTS ASSOCIATED WITH THE USE OF STAY-IN-PLACE STEEL SLAB FORMS INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID FOR CLASS "AA" CONCRETE. PAYMENTS FOR MATERIAL ON HAND WILL NOT BE PROCESSED FOR STAY-IN-PLACE FORMS. FOR ADDITIONAL INFORMATION CONCERNING THE USE OF STAY-IN-PLACE FORMS, SEE SECTION 502 OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR MAY SUBSTITUTE STAY-IN-PLACE PRESTRESSED CONCRETE DECK FORMS, AT NO ADDITIONAL COST TO THE DEPARTMENT, IF THE FOLLOWING CONDITIONS ARE MET:
1. THE BRIDGE ENGINEER APPROVES SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE FORMS SUBMITTED BY THE CONTRACTOR.
2. THE BRIDGE ENGINEER APPROVES NEW STRUCTURAL DESIGN, STRUCTURAL CALCULATIONS, AND A NEW REINFORCING SCHEDULE FOR THE DECK SLAB SUBMITTED BY THE CONTRACTOR.
3. SHOP DRAWINGS, NEW DECK SLAB REINFORCING SCHEDULE, STRUCTURAL DESIGNS, AND CALCULATIONS ARE PREPARED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA.

STRUCTURAL STEEL:
ALL STRUCTURAL STEEL SHALL BE AASHTO M270 (GRADE 50W), UNLESS OTHERWISE NOTED.

STAINLESS STEEL ANCHOR PLATES, CONTACT PLATES, ANCHOR BOLTS, NUTS, WASHERS AND WELD MATERIAL SHALL BE PROVIDED IN ACCORDANCE WITH SECTIONS 507, 724.03 AND 724.05 OF THE STANDARD SPECIFICATIONS, AND PER THE ANSI/AWS D1.6 STRUCTURAL WELDING CODE FOR STAINLESS STEEL.

ANCHOR PLATES FOR FIXED AND EXPANSION BEARINGS SHALL BE MATCH MARKED, SHIPPED LOOSE, AND FIELD WELDED IN ORDER THAT ANY NECESSARY MINOR HORIZONTAL ADJUSTMENT OF THE ANCHOR PLATE CAN BE MADE.

ALL SHOP AND FIELD WELDING SHALL BE ARC WELDING AND SHALL BE DONE IN ACCORDANCE WITH THE CURRENT ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE AND THE ANSI/AWS D1.6 STRUCTURAL WELDING CODE FOR STAINLESS STEEL. FIELD WELDERS SHALL BE PRE-QUALIFIED BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION.

METAL USED IN FIELD WELDS WILL NOT BE MEASURED FOR PAYMENT.

DRAINS AT END OF BRIDGE:
ASPHALT SHOULDER WIDENING, CURBS, SLOPE DRAINS AND SPLASH BASINS SHALL BE CONSTRUCTED AS SHOWN ON SHEET NOS. B030 AND B061.

ASPHALT SHOULDER WIDENING FOR THE BRIDGE GUARDRAIL SHALL BE IN ACCORDANCE WITH STANDARDS THRI-1 AND GHW1-1 EXCEPT AS SHOWN IN THE PLANS. ALL COSTS OF ASPHALT SHOULDER WIDENING SHALL BE INCLUDED IN THE ROADWAY PAY ITEMS.

THERE IS AN ESTIMATED 14.40 C.Y. (BRIDGE "A") AND 14.50 C.Y. (BRIDGE "B") OF CLASS "C" CONCRETE REQUIRED TO CONSTRUCT THE SLOPE DRAINS, SPLASH BASINS AND 6" CONCRETE CURBS AT THE ENDS OF THE BRIDGE. ALL COSTS FOR THE SLOPE DRAINS, SPLASH BASINS, 6" CONCRETE CURBS, CONCRETE, REINFORCING STEEL, EXCAVATIONS, AND BACKFILL INCLUDING ALL MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS SHALL BE INCLUDED IN THE PRICE BID PER CUBIC YARD OF "CLASS C CONCRETE".

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

BRIDGES "A" AND "B"
US-81 OVER EW 140.5

GENERAL NOTES

State Job No. 24428(13) Sheet No. AB02

US-81 REALIGNMENT
GRADY COUNTY

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REVISIONS	
DESCRIPTION	DATE

24428(13)

PAY QUANTITIES

0202 BRIDGE "C" - NBI 32663 - 70'-101'-70' PRESTRESSED CONCRETE BEAM SPANS; 50'-0" CLR. RDWY. W/ CONC. PARAPETS (FSHP-42) SKEWED 16°04'53.72" LF

ITEM NO.		DESCRIPTION		UNITS	QUANTITY
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON		CY	240.00
501(G)	6309	CLSM BACKFILL	(BR-1)	CY	289.60
503(A)	1313	PRESTRESSED CONCRETE BEAMS (TYPE IV)	(BR-1)	LF	1430.75
504(A)	1304	APPROACH SLAB	(BR-1)	SY	417.30
504(B)	1305	SAW-CUT GROOVING	(BR-1)	SY	1741.10
504(C)	6250	SEALED EXPANSION JOINT	(BR-1)	LF	52.89
504(E)	6190	42" F-SHAPED PARAPET	(BR-1)	LF	626.40
506(A)	1322	STRUCTURAL STEEL	(BR-1)	LB	1970.00
507(A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY	(BR-1)(BR-2)	EA	12.00
507(B)	6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY	(BR-1)(BR-2)	EA	24.00
509(A)	1326	CLASS AA CONCRETE	(BR-1)	CY	364.10
509(B)	1328	CLASS A CONCRETE	(BR-1)	CY	301.60
509(D)	1331	CLASS C CONCRETE		CY	12.00
510(C)	6138	SLOPE WALL (5")	(BR-1)	SY	1234.00
511(A)	1332	REINFORCING STEEL	(BR-1)	LB	2330.00
511(B)	6010	EPOXY COATED REINFORCING STEEL	(BR-1)	LB	135050.00
514(A)	6010	PILES, FURNISHED (HP10x42)	(BR-3)	LF	124.00
514(A)	6011	PILES, FURNISHED (HP12x53)	(BR-3)	LF	587.00
514(B)	6292	PILES, DRIVEN (HP10x42)		LF	124.00
514(B)	6294	PILES, DRIVEN (HP12x53)		LF	587.00
514(L)	6220	PILE SPLICE, H-PILE (NON-BIDDABLE)		EA	1.00
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	SY	1543.00
516(A)	6098	DRILLED SHAFTS 72" DIAMETER	(BR-4)	LF	135.00
516(C)	6200	CROSSHOLE SONIC LOGGING	(BR-4)	EA	2.00
523(A)	6550	SEALER CRACK PREPARATION	(BR-1)	LF	53.00
523(B)	6560	SEALER RESIN	(BR-1)	GAL	0.50
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND	(BR-1)	LF	228.00
613(I)	6207	6" NON-PERF. PIPE UNDERDRAIN RND.		LF	203.00

24428(13)

PAY QUANTITIES

0203 BRIDGE "D" - NBI 32664 - 70'-101'-70' PRESTRESSED CONCRETE BEAM SPANS; 38'-0" CLR. RDWY. W/ CONC. PARAPETS (FSHP-42) SKEWED 16°04'53.72" LF

ITEM NO.		DESCRIPTION		UNITS	QUANTITY
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON		CY	210.00
501(G)	6309	CLSM BACKFILL	(BR-1)	CY	219.70
503(A)	1313	PRESTRESSED CONCRETE BEAMS (TYPE IV)	(BR-1)	LF	1190.58
504(A)	1304	APPROACH SLAB	(BR-1)	SY	309.60
504(B)	1305	SAW-CUT GROOVING	(BR-1)	SY	1309.50
504(C)	6250	SEALED EXPANSION JOINT	(BR-1)	LF	40.36
504(E)	6190	42" F-SHAPED PARAPET	(BR-1)	LF	619.90
506(A)	1322	STRUCTURAL STEEL	(BR-1)	LB	1460.00
507(A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY	(BR-1)(BR-2)	EA	10.00
507(B)	6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY	(BR-1)(BR-2)	EA	20.00
509(A)	1326	CLASS AA CONCRETE	(BR-1)	CY	281.10
509(B)	1328	CLASS A CONCRETE	(BR-1)	CY	244.70
509(D)	1331	CLASS C CONCRETE		CY	7.70
510(C)	6138	SLOPE WALL (5")	(BR-1)	SY	977.00
511(A)	1332	REINFORCING STEEL	(BR-1)	LB	1310.00
511(B)	6010	EPOXY COATED REINFORCING STEEL	(BR-1)	LB	110140.00
514(A)	6010	PILES, FURNISHED (HP10x42)	(BR-3)	LF	194.00
514(A)	6011	PILES, FURNISHED (HP12x53)	(BR-3)	LF	798.00
514(B)	6292	PILES, DRIVEN (HP10x42)		LF	194.00
514(B)	6294	PILES, DRIVEN (HP12x53)		LF	798.00
514(K)	6260	(PL) PILOT HOLES	(BR-1)(BR-5)	LF	263.00
514(L)	6220	PILE SPLICE, H-PILE (NON-BIDDABLE)		EA	1.00
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	SY	1453.00
516(A)	6098	DRILLED SHAFTS 72" DIAMETER	(BR-4)	LF	106.00
516(C)	6200	CROSSHOLE SONIC LOGGING	(BR-4)	EA	1.00
523(A)	6550	SEALER CRACK PREPARATION	(BR-1)	LF	40.00
523(B)	6560	SEALER RESIN	(BR-1)	GAL	0.40
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND	(BR-1)	LF	178.00
613(I)	6207	6" NON-PERF. PIPE UNDERDRAIN RND.		LF	330.00

PAY QUANTITY NOTES

(BR-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITIES. SEE THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION SECTION 109.01.B "PLAN QUANTITIES".

(BR-2) PROVIDE AND INSTALL BEARING ASSEMBLIES OF THE SIZE, SHAPE AND LOCATION DETAILED IN THE PLANS AT THE ABUTMENTS AND PIERS. THERE IS AN ESTIMATED 2720 LBS. (BRIDGE "C") AND 2270 LBS. (BRIDGE "D") OF STAINLESS STEEL FOR THE FIXED BEARING ASSEMBLIES, AND 5490 LBS. (BRIDGE "C") AND 4570 LBS. (BRIDGE "D") OF STAINLESS STEEL FOR THE EXPANSION BEARING ASSEMBLIES. INCLUDE ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE ANCHOR PLATES, ANCHOR BOLTS, CONTACT PLATES, NUTS, WASHERS AND ELASTOMERIC BEARING PADS, INCLUDING ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS, IN THE PRICE BID PER EACH OF "STAINLESS STEEL FIXED BEARING ASSEMBLY" OR "STAINLESS STEEL EXPANSION BEARING ASSEMBLY" AS APPLICABLE.

(BR-3) ALL ABUTMENT PILING SHALL BE AASHTO M270 GRADE 50 STEEL.

(BR-4) SEE SPECIAL PROVISIONS.

(BR-5) PILOT HOLES SHALL BE DRILLED TO FACILITATE THE PLACEMENT OF THE H-PILES AT ABUTMENT 2 (BRIDGE "D"). THE CONTRACTOR SHALL DRILL THE UPPER ENCASEMENT HOLES 4' BELOW THE LEVEL OF THE ABUTMENT SEAT OR WINGS, PER STD. HP1-2, AND CONTINUE WITH THE PILOT HOLES TO THE ELEVATION INDICATED ON THE PLANS. THE PILING SHALL THEN BE PLACED AND SEATED AT THE BOTTOM OF THE PILOT HOLES AND DRIVEN FROM THAT POINT TO ACHIEVE THE REQUIRED TIP ELEVATION AND FACTORED PILE CAPACITY. AFTER DRIVING THE PILES, THE PILOT HOLES SHALL BE BACKFILLED WITH CLASS C CONCRETE. ALL COSTS FOR DRILLING THE PILOT HOLES INCLUDING MATERIALS, LABOR, EQUIPMENT, CLASS C CONCRETE, DISPOSAL OF EXCAVATED MATERIAL AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID FOR "(PL) PILOT HOLES", PER LIN. FT. (QUANTITY SHOWN INCLUDES 14" Ø AND 16" Ø PILOT HOLES.)

NOTE: FOR GENERAL NOTES FOR BRIDGES "C" AND "D", SEE SHEET NO. AB04.

Design	.	
Drawn	PKW	05/19
Checked	.	
Approved	.	
Squad		

BRIDGES "C" AND "D" GRADY COUNTY
US-81 OVER QUAIL RD.

PAY QUANTITIES

Job Piece No. 24428(13) Sheet No. AB03

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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REVISIONS	
DESCRIPTION	DATE

GENERAL NOTES (BRIDGES "C" AND "D")

SPECIFICATIONS:

COMPLY WITH THE REQUIREMENTS OF THE ODOT 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

ABUTMENT PILING CAPACITY:

THE FACTORED REACTION FOR EACH HP12x53 PILE AT EACH ABUTMENT IS 96.1 TONS (BRIDGE "C") AND 98.4 TONS (BRIDGE "D").

THE FOLLOWING FORMULA (GATES EQUATION) SHALL BE USED TO DETERMINE THE AXIAL LOAD RESISTANCE OF THE DRIVEN FOUNDATION PILES:

AXIAL LOAD RESISTANCE = ϕ [(0.875$\sqrt{E}$ LOG_{10}(10N))-50] (TONS)

WHERE:

ϕ = RESISTANCE FACTOR OF 0.4
E = ENERGY PRODUCED BY THE HAMMER PER BLOW IN FOOT-POUNDS. FOR GRAVITY AND SINGLE ACTING DIESEL HAMMERS, THE VALUE IS BASED ON THE ACTUAL RAM STROKE OBSERVED IN THE FIELD AND MEASURED IN FEET MULTIPLIED BY THE RAM WEIGHT IN POUNDS.
N = AVERAGE NUMBER OF HAMMER BLOWS PER INCH OF PILE PENETRATION FOR THE LAST 10 TO 20 BLOWS DELIVERED TO THE PILE HEAD.

THE ABOVE FORMULA IS ONLY APPLICABLE WHEN:

- THE PILE DRIVING HAMMER HAS A FREE FALL (GRAVITY & SINGLE ACTING HAMMERS ONLY).
- THE HEAD OF THE PILE IS NOT BROOMED, CRUSHED OR OTHERWISE DAMAGED.
- THE PENETRATION IS QUICK AND UNIFORM.
- THERE IS NO APPRECIABLE REBOUND OF THE HAMMER, AND
- A FOLLOWER IS NOT USED.

THE NUMBER OF BLOWS PER INCH OF PILE PENETRATION MAY BE MEASURED EITHER DURING INITIAL DRIVING OR BY RE-DRIVING WITH A WARM HAMMER OPERATED AT FULL ENERGY AFTER A PILE SET PERIOD, AS DETERMINED BY THE ENGINEER.

IF WATER JETS ARE USED IN CONNECTION WITH THE DRIVING, DETERMINE THE AXIAL LOAD RESISTANCE BY THE FORMULA SHOWN ONLY AFTER THE JETS HAVE BEEN WITHDRAWN.

PILE DRIVING EQUIPMENT:

USE A PILE DRIVING HAMMER OF THE SIZE AND TYPE CAPABLE OF CONSISTENTLY DELIVERING THE EFFECTIVE DYNAMIC ENERGY SUFFICIENT TO DRIVE THE PILES TO THE REQUIRED TIP ELEVATION AND TO ACHIEVE THE FACTORED PILE REACTION WITHOUT EXCEEDING THE LIMITATIONS SET ON THE ALLOWABLE DRIVING STRESSES IN ACCORDANCE WITH SECTION 514.03.A.2.

SLAB HAUNCHES:

PLAN QUANTITIES FOR CLASS "AA" CONCRETE INCLUDE 19.6 C.Y. (BRIDGE "C") AND 16.2 C.Y. (BRIDGE "D") FOR HAUNCHES OVER P.C. BEAMS.

BRIDGE SLAB AND CONSTRUCTION JOINTS:

FOR NOTES REGARDING THE BRIDGE SLAB AND CONSTRUCTION JOINTS, SEE SHEET NOS. B089 AND B126.

PENETRATING WATER REPELLENT SURFACE TREATMENT:

A PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE FOLLOWING CONCRETE SURFACES OF EACH BRIDGE:

(A) THE TOP AND OUTSIDE EDGE OF SLAB CANTILEVER, OUTSIDE OF PARAPETS, AND THE UNDERSIDE CANTILEVER PORTION OF THE BRIDGE SLAB.

(B) THE OUTER FACE AND BOTTOM OF THE EXTERIOR P.C. BEAMS.

(C) THE ROADWAY FACE, TOP AND OUTSIDE FACE OF THE F-SHAPED PARAPETS ON THE BRIDGE SLAB.

(D) THE ROADWAY FACE AND TOP OF THE F-SHAPED PARAPETS ON THE APPROACH SLABS.

(E) THE FRONT FACE OF THE BACKWALL, TOP OF BRIDGE SEAT AND ALL SURFACES OF THE PEDESTALS AT THE ABUTMENTS. THE FRONT FACE AND ENDS OF THE BRIDGE SEAT AND THE OUTSIDE SURFACES OF THE WINGS FROM A LINE EVEN WITH THE BACK FACE OF THE BACKWALL TOWARD THE BRIDGE AND ABOVE THE FINISHED GROUND SURFACE OR TOP OF SLOPE WALL.

(F) THE TOP OF THE PIER CAPS INCLUDING ALL SURFACES OF THE PEDESTALS, AND ALL VERTICAL SURFACES OF THE PIER CAPS.

(G) ALL SURFACES OF THE PIER COLUMNS ABOVE THE TOP OF SLOPE WALL.

APPROACH SLABS:

CLASS AA CONCRETE SHALL BE USED IN THE APPROACH SLABS. THE QUANTITY GIVEN IS BASED ON THE ACTUAL SQUARE YARDS OF THE APPROACH SLABS. THE CONTRACT UNIT PRICE FOR APPROACH SLAB SHALL BE FULL COMPENSATION FOR ALL CONCRETE, REINFORCING STEEL (INCLUDING FS2 AND FS6 BARS IN PARAPETS), BACKER RODS, RAPID CURE JOINT SEALANT, POLYSTYRENE, LABOR, EQUIPMENT AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED IN THE PLANS.

PERFORATED AND NON-PERFORATED PIPE UNDERDRAINS:

EXTENT, LOCATION AND DEPTH OF 6" NON-PERFORATED PIPE UNDERDRAIN MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION. ALL COSTS OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE AND COARSE, FOR ABUTMENTS AND SLOPE WALLS) (EST. AT 336 CY), TRENCH EXCAVATION (EST. AT 152 CY) AND STANDARD BEDDING MATERIAL (EST. AT 141 CY) FOR BOTH BRIDGES COMBINED, INCLUDING FILTER FABRIC, EQUIPMENT AND LABOR FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR 6" PERFORATED PIPE UNDERDRAIN ROUND AND 6" NON-PERF. PIPE UNDERDRAIN RND. INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND STD. PUD-3.

STAY-IN-PLACE SLAB FORMS:

STAY-IN-PLACE STEEL SLAB FORMS MAY BE USED IF THE MINIMUM SLAB THICKNESS OF 8" IS MAINTAINED BY MEASURING FROM THE TOP OF THE SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. LIMIT THE COMBINED WEIGHT OF THE FORMS AND ANY ADDITIONAL CONCRETE NECESSITATED BY THE USE OF STAY-IN-PLACE FORMS TO A MAXIMUM OF 5 PSF IN EXCESS OF THE ORIGINAL PLAN WEIGHT OF THE BRIDGE FLOOR. PREFORMED CORRUGATION FILLER, COMPOSED OF POLYSTYRENE, OR ANY OTHER FILLER MATERIAL, IF USED, SHALL BE BONDED TO THE STAY-IN-PLACE FORMS.

ALL COSTS ASSOCIATED WITH THE USE OF STAY-IN-PLACE STEEL SLAB FORMS INCLUDING ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID FOR CLASS AA CONCRETE. PAYMENTS FOR MATERIAL ON HAND WILL NOT BE PROCESSED FOR STAY-IN-PLACE FORMS. FOR ADDITIONAL INFORMATION CONCERNING THE USE OF STAY-IN-PLACE FORMS, SEE SECTION 502 OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR MAY SUBSTITUTE STAY-IN-PLACE PRESTRESSED CONCRETE DECK FORMS, AT NO ADDITIONAL COST TO THE DEPARTMENT, IF THE FOLLOWING CONDITIONS ARE MET:

1. THE BRIDGE ENGINEER APPROVES SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE FORMS SUBMITTED BY THE CONTRACTOR.
2. THE BRIDGE ENGINEER APPROVES NEW STRUCTURAL DESIGN, STRUCTURAL CALCULATIONS, AND A NEW REINFORCING SCHEDULE FOR THE DECK SLABS SUBMITTED BY THE CONTRACTOR.
3. SHOP DRAWINGS, NEW DECK SLAB REINFORCING SCHEDULES, STRUCTURAL DESIGNS, AND CALCULATIONS ARE PREPARED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA.

STRUCTURAL STEEL:

ALL STRUCTURAL STEEL SHALL BE AASHTO M270 (GRADE 50W), UNLESS OTHERWISE NOTED.

STAINLESS STEEL ANCHOR PLATES, CONTACT PLATES, ANCHOR BOLTS, NUTS, WASHERS AND WELD MATERIAL SHALL BE PROVIDED IN ACCORDANCE WITH SECTIONS 507, 724.03 AND 724.05 OF THE STANDARD SPECIFICATIONS, AND PER THE ANSI/AASHTO/AWS D1.6 STRUCTURAL WELDING CODE FOR STAINLESS STEEL.

ANCHOR PLATES FOR FIXED AND EXPANSION BEARINGS SHALL BE MATCH MARKED, SHIPPED LOOSE, AND FIELD WELDED IN ORDER THAT ANY NECESSARY MINOR HORIZONTAL ADJUSTMENT OF THE ANCHOR PLATE CAN BE MADE.

ALL SHOP AND FIELD WELDING SHALL BE ARC WELDING AND SHALL BE DONE IN ACCORDANCE WITH THE CURRENT ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE AND THE ANSI/AASHTO/AWS D1.6 STRUCTURAL WELDING CODE FOR STAINLESS STEEL. FIELD WELDERS SHALL BE PRE-QUALIFIED BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION.

METAL USED IN FIELD WELDS WILL NOT BE MEASURED FOR PAYMENT.

PILOT HOLES:

PILOT HOLES SHALL BE DRILLED TO FACILITATE THE PLACEMENT OF THE H-PILES AT ABUTMENT 2 (BRIDGE "D"). FOR DETAILS, SEE SHEET NO. B100.

DRAINS AT END OF BRIDGE:

ASPHALT SHOULDER WIDENING, CURBS, SLOPE DRAINS AND SPLASH BASINS SHALL BE CONSTRUCTED AS SHOWN ON SHEET NOS. B098 AND B135.

ASPHALT SHOULDER WIDENING ALONG THE BRIDGE GUARDRAIL SHALL BE IN ACCORDANCE WITH STDS. THRI-1 AND GHW1-1, EXCEPT AS SHOWN IN THE PLANS. ALL COSTS OF ASPHALT SHOULDER WIDENING SHALL BE INCLUDED IN THE ROADWAY PAY ITEMS.

THERE IS AN ESTIMATED 12.0 CUBIC YARDS (BRIDGE "C") AND 7.7 CUBIC YARDS (BRIDGE "D") OF CLASS "C" CONCRETE REQUIRED TO CONSTRUCT THE SLOPE DRAINS, SPLASH BASINS AND 6" CONCRETE CURBS AT THE ENDS OF EACH BRIDGE. ALL COSTS FOR THE SLOPE DRAINS, SPLASH BASINS, 6" CONCRETE CURBS, CONCRETE, REINFORCING STEEL, EXCAVATIONS AND BACKFILL INCLUDING MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS SHALL BE INCLUDED IN THE PRICE BID FOR "CLASS C CONCRETE", PER C.Y.

Design	.	
Drawn	PKW	05/19
Checked	.	
Approved	.	
Squad		

BRIDGES "C" AND "D" — GRADY COUNTY
US-81 OVER QUAIL RD.

GENERAL NOTES

Job Piece No. 24428(13) — Sheet No. AB04

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

6/26/2020

GENERAL NOTES:

CONTRACTOR SHALL COORDINATE RETAINING WALL CONSTRUCTION WITH UTILITIES INSTALLATION. RETAINING WALLS SHALL NOT BE DISTURBED DURING UTILITIES INSTALLATION. A SEQUENCE OF CONSTRUCTION OPERATIONS SHALL BE PRESENTED TO THE ENGINEER PRIOR TO CONSTRUCTION.

PAY QUANTITY NOTES:

(1) ALL COST FOR THE CONSTRUCTION OF THE MSE RETAINING WALL SYSTEM, INCLUDES EXCAVATION, BACKFILL MATERIAL, DRAINAGE SYSTEM, GEOTEXTILES, PERFORATED PIPE, CONCRETE, REINFORCING STEEL, LEVELING PADS, ENGINEERING AND LABOR SHALL BE PAID FOR AT THE UNIT PRICE BID PER SQUARE YARD FOR "MSE RETAINING WALL".

J.P. NO. 24428(17)

RETAINING WALL QUANTITIES

0100 SB US-81 OVER GRAND AVENUE

ITEM NO.	CODE NO.	ITEM	UNIT	TOTAL
510(D)	6341	MSE RETAINING WALL (1)	SY	260.00

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SB US-81 OVER GRAND AVENUE
RAMP DD

GENERAL NOTES AND PAY QUANTITIES
(RETAINING WALL)

State Job No.24428(17) Sheet No. AB05

US 81 REALIGNMENT
GRADY COUNTY

F:\2016\1001-1500\016-1182-A\40-Design\Microstation\ODOT\DGN\PK5_S-T-U-V_Bridge Package\S\Sheets\Retaining walls\25619-AM GENERAL NOTES.01.dgn

REVISIONS		
REV. NO.	DESCRIPTION	DATE

ENVIRONMENTAL MITIGATION NOTES

EARTHWORK NOTE:
THE CONTRACTOR MUST ENSURE THAT ANY MATERIAL INCORPORATED INTO THE PROJECT IS FREE OF ANY HAZARDOUS, INDUSTRIAL OR CONTAMINATED WASTE, REFER TO SUB-SECTIONS 106.01 AND 202.02 OF THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

IMPORTED MATERIAL (EG. BORROW) - IF MATERIAL IS IMPORTED TO THE PROJECT AND AT ANY POINT THE MATERIAL IS DETERMINED BY THE ENGINEER TO INCLUDE ANY TYPE OF UNACCEPTABLE CONTAMINATION, THE MATERIAL MAY REQUIRE REMOVAL, IN WHOLE, OR IN PART. IF REMOVAL IS REQUIRED, THEN THE INITIAL PLACEMENT, REMOVAL AND PROPER DISPOSAL OF THIS MATERIAL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE DISPOSAL OF THE UNACCEPTABLE MATERIAL SHALL BE APPROVED BY THE ENGINEER, REFER TO SUB-SECTION 107.15 OF THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

TO ASSIST THE CONTRACTOR, THE "OFF PROJECT FACILITY/ BORROW SITE HAZARDOUS MATERIALS QUESTIONNAIRE" IS
PROVIDED ON THE DEPARTMENT'S WEB SITE:

HTTPS://OK.GOV/ODOT/PROGRAMS AND PROJECTS/ENVIRONMENTAL/INDEX.HTML

THIS QUESTIONNAIRE IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR SO THAT A CLEARER UNDERSTANDING OF THE CHARACTERISTICS OF THE PROPOSED SITE/ MATERIAL IS ACHIEVED. COMPLETION AND SUBMITTAL OF THIS FORM TO THE ENGINEER DOES NOT EXCUSE THE CONTRACTOR FROM PROVIDING MATERIALS THAT ARE FREE OF HAZARDOUS AND INDUSTRIAL COMPOSITION IN ACCORDANCE WITH SUB-SECTIONS 106.01 AND 202.02 OF THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

NON-COMPLIANCE NOTE:
FAILURE TO IMPLEMENT THE COMMITMENTS SPECIFIED IN THE PLAN NOTES CAN RESULT IN NON-COMPLIANCE ISSUES ON THE PROJECT. WORK ACTIVITIES MAY BE SUSPENDED ON THE PROJECT, FOR AN UNDETERMINED DURATION, WHILE WORKING WITH REGULATORS TO BRING THE PROJECT BACK INTO COMPLIANCE. THE CONTRACTOR WILL NOT BE COMPENSATED FOR TIME LOST.

WATER QUALITY CONVSERVATION NOTE:
APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE IMPACTS FROM STORM WATER DISCHARGES AND SEDIMENTATION IN STREAMS, AS ESTABLISHED BY THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY, SHALL BE CONSCIENTIOUSLY IMPLEMENTED THROUGHOUT THE PROPOSED CONSTRUCTION PERIODS, IN ORDER TO MINIMIZE ANY POTENTIAL IMPACTS TO ANY LISTED SPECIES. THE EFFECTIVENESS OF EROSION CONTROLS SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION ACTIVITIES. HAZARDOUS MATERIALS, CHEMICALS, FUELS, LUBRICATING OILS, AND OTHER SUCH SUBSTANCES SHALL BE STORED AT LEAST 100 FEET FROM THE ORDINARY HIGH WATER MARK (OHWM). REFUELING OF CONSTRUCTION EQUIPMENT SHALL ALSO BE CONDUCTED AT LEAST 100 FEET FROM THE OHWMS. SEDIMENT AND EROSION CONTROLS SHALL BE INSTALLED AROUND STAGING AREAS TO PROHIBIT DISCHARGE OF MATERIALS FROM THESE SITES. CONSTRUCTION WASTE MATERIALS AND DEBRIS SHALL BE STOCKPILED AT LEAST 25 FEET OUTSIDE OF THE OHWMS, AND THESE MATERIALS SHALL BE REMOVED AND DISPOSED OF PROPERLY FOLLOWING COMPLETION OF THE PROJECT. PREVENTATIVE MEASURES MUST BE TAKEN TO PROHIBIT THE DISCHARGE OF CONTAMINANTS INTO ANY SURFACE WATERS.

MIGRATORY BIRD NOTE:
MIGRATORY BIRDS ARE PROTECTED BY THE FEDERAL MIGRATORY BIRD TREATY ACT. MANY BIRDS COMMONLY USE BRIDGES AND CULVERTS FOR NESTING. THE NESTING SEASON FOR MOST MIGRATORY BIRD SPECIES EXTENDS FROM MARCH 1 TO AUGUST 31. MIGRATORY BIRD NESTING USE OF THE US-81 RCBS (STA.108+67.8, AT 34.983665,-97.951738) AND EW-140 RCB (34.9859, -97.952847) WAS OBSERVED. PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION OF THE EXISTING CULVERTS SHALL BE CONDUCTED BETWEEN SEPTEMBER 1, AND FEBRUARY 28, WHEN MIGRATORY BIRD NESTS ARE NOT OCCUPIED. IF PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION CANNOT BE COMPLETED BETWEEN SEPTEMBER 1 AND FEBRUARY 28, THE CULVERTS SHALL BE PROTECTED FROM NEW NEST ESTABLISHMENT PRIOR TO MARCH 1, BY MEANS THAT DO NOT RESULT IN BIRD DEATH OR INJURY. OPTIONS INCLUDE THE EXCLUSION OF ADULT BIRDS FROM SUITABLE NEST SITES ON OR WITHIN A STRUCTURE BY THE PLACEMENT OF WEATHER-RESISTANT POLYPROPYLENE NETTING WITH 0.25-INCH OR SMALLER OPENINGS, PRIOR TO MARCH 1. METHODS OTHER THAN NETTING MUST BE PRE-APPROVED BY THE ODOT BIOLOGIST.
ALTHOUGH NO NESTS WERE OBSERVED ON ALL OTHER STRUCTURES, THE BIRDS MAY OCCUPY THE STRUCTURES IN THE FUTURE. THE RESIDENT ENGINEER SHALL CONTACT THE ODOT BIOLOGIST IF ANY BIRD USE OF THESE STRUCTURES IS OBSERVED. IF BIRDS ARE OBSERVED THEN PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION OF THE EXISTING CULVERTS SHALL BE CONDUCTED BETWEEN SEPTEMBER 1, AND FEBRUARY 28 (WN MIGRATORY BIRD NESTS ARE NOT OCCUPIED).

WHOOPING CRANE PLAN NOTE:
IF WHOOPING CRANES ARE SEEN AT OR WITHIN ONE MILE OF THE PROPOSED WORK SITE, THE RESIDENT ENGINEER SHALL IMMEDIAHETELY CONTACT THE ODOT BIOLOGIST IF THERE IS A CONFIRMED SITING AND/OR WHOOPING CRANES ARE OBSERVED WITHIN ONE MILE OF THE PROPOSED WORK SITE, ALL CONSTRUCTION ACTIVITIES SHALL CEASE UNTIL IT IS DETERMINED THAT WHOOPING CRANES HAVE LEFT THE PROJECT VICINITY WITHOUT BEING HARASSED.

TREE REMOVAL MINIMIZATION COMMITMENT:
IN ORDER TO AVOID AND MINIMIZE ADVERSE IMPACTS TO BIRDS OF CONSERVATION CONCERN, THE REMOVAL OF TREES AND SHRUBS SHALL BE RESTRICTED TO AREAS WITHIN THE ACTUAL LIMITS OF CONSTRUCTION, AND ALL ASPECTS OF THE PROJECT (E.G TEMPORARY WORK AREAS, ALIGNMENTS) WILL BE MODIFIED TO AVOID TREE REMOVAL, IF POSSIBLE, DURING THE DESIGN OF THE PROJECT. TREE REMOVAL WILL BE LIMITED TO THAT SPECIFIED IN THE PROJECT PLANS PROVIDED TO CONTRACTORS.

ENVIRONMENTAL NOTES

DETAIL
REVIEW
APPROVED
ENVIRONMENTAL DIVISION

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 24428(13) | SHEET NO. AE01

REVISED
PROPOSED R/W
SEPTEMBER 23, 2020

SUMMARY OF PAY QUANTITIES (CONSTRUCTION)

CONSTRUCTION 640

ITEM		DESCRIPTION	UNIT	QUANTITY
220	2800	SWPPP DOCUMENTATION AND MANAGEMENT	LSUM	1
640(A)	1426	FIELD OFFICE (19)	EA.	1
641	1552	MOBILIZATION	LSUM	1

SUMMARY OF PAY QUANTITIES (STAKING)

STAKING 600

ITEM		DESCRIPTION	UNIT	QUANTITY
642(B)	0096	CONSTRUCTION STAKING LEVEL II (18)	LSUM	1

SUMMARY OF PAY QUANTITIES - ROADWAY

ROADWAY 100

ITEM		DESCRIPTION	UNIT	QUANTITY
201(A)	0102	CLEARING AND GRUBBING	LSUM	1.0
202(A)	0183	UNCLASSIFIED EXCAVATION	CY	215,162.0
202(B)	0105	MUCK EXCAVATION (1)	CY	1,456.0
202(D)	0184	UNCLASSIFIED BORROW (R-3)	CY	623,213.0
202(E)	0186	SELECT BORROW	CY	220.0
205(A)	4229	TYPE A-SALVAGED TOPSOIL (R-4,6)	LSUM	1.0
221(C)	2801	TEMPORARY SILT FENCE (R-8)	LF	4,850.0
221(D)	2803	TEMPORARY SEDIMENT FILTER (R-8)	EA	5.0
221(F)	0100	TEMPORARY SILT DIKE (R-8)	LF	3,493.0
221(G)	0150	TEMPORARY ROCK FILTER DAM TYPE 1 (2)(R-8)	CY	147.0
230(A)	2806	SOLID SLAB SODDING (R-6,7)(3)	SY	264,626.0
233(A)	2817	VEGETATIVE MULCHING (R-11)	AC	80.0
241	2832	MOWING (R-15)	AC	110.0
242	0400	(PL) STABILIZED CONSTRUCTION EXIT (4)	EA	4.0
303(A)	2200	(SP) AGGREGATE BASE TYPE A, PLANT MIXED	CY	25,400.0
307(K)	4300	STABILIZED SUBGRADE (5)	SY	155,150.0
326(A)	0100	GEOTEXTILE REINFORCEMENT (6)	SY	124,810.0
402(E)	0225	TRAFFIC BOUND SURFACE COURSE TYPE E (R-18), (7)	TON	16,863.0
407(B)	0250	TACK COAT (8)	GAL	23,300.0
408	5774	PRIME COAT (R-21)	GAL	82,947.0
411(B)	5940	SUPERPAVE, TYPE S3 (PG 70-28 OK) (R-25)	TON	12,734.0
411(B)	5945	SUPERPAVE, TYPE S3 (PG 64-22 OK) (R-25)(9)	TON	46,604.0
411(C)	5955	SUPERPAVE, TYPE S4 (PG 70-28 OK) (R-25)	TON	8,410.0
411(C)	5960	SUPERPAVE, TYPE S4 (PG 64-22 OK) (R-25)(10)	TON	7,380.0
413(A)	4861	RUMBLE STRIP-METHOD HMA-CON	LF	18,001.0
501(A)	0313	STRUCTURAL EXCAVATION UNCLASSIFIED	CY	584.0
504(E)	6190	42" F-SHAPED PARAPET	LF	858.0
506(A)	1322	STRUCTURAL STEEL	LB	6,950.0
509(A)	0319	CLASS AA CONCRETE	CY	1,504.0
509(D)	0325	CLASS C CONCRETE (R-31)	CY	455.0
511(A)	0332	REINFORCING STEEL	LB	226,177.0
514(A)	6010	PILES, FURNISHED (HP 10X42)	LF	208.0
514(H)	6355	SHEET PILING, FURNISHED	SY	109.0
601(B)	0536	TYPE I-A PLAIN RIPRAP	TON	567.0
601(C)	0538	TYPE I-A FILTER BLANKET	TON	220.0
611(G)	6002	INLET (SMD-TYPE 2) (R-33), (11)	EA	5.0
613(A)	0491	18" R.C.PIPE CLASS III (12)	LF	246.0
613(A)	0582	18" R.C.PIPE CLASS IV (12)	LF	356.0
613(A)	0585	36" R.C.PIPE CLASS IV (12)	LF	334.0
613(A)	4495	22" X 13" R.C.PIPE ARCH CLASS A-III (R-35)(12)	LF	1,024.0
613(A)	4496	28" X 18" R.C.PIPE ARCH CLASS A-III (R-35)(12)	LF	916.0
613(A)	4498	43" X 26" R.C.PIPE ARCH CLASS A-III (12)	LF	76.0
613(B)	0689	18" CORR. GALV. STEEL PIPE (R-35)(12)	LF	108.0
613(B)	0692	36" CORR. GALV. STEEL PIPE (12)	LF	8.0
613(B)	0694	48" CORR. GALV. STEEL PIPE (R-35)(12)	LF	70.0
613(H)	0450	6" PERFORATED PIPE UNDERDRAIN ROUND (13)	LF	2,413.0
613(I)	1096	6" NON-PERF.PIPE UNDERDRAIN RND. (13)	LF	779.0
613(L)	5734	36" PREFAB. CULVERT END SECTION, ROUND	EA	1.0
613(M)	7186	TYPE A4 CULVERT END TREATMENT	EA	8.0
613(M)	7187	TYPE B4 CULVERT END TREATMENT	EA	8.0
613(M)	7188	TYPE C4 CULVERT END TREATMENT	EA	2.0
613(M)	7189	TYPE D4 CULVERT END TREATMENT	EA	2.0
613(M)	7196	TYPE A6 CULVERT END TREATMENT	EA	6.0
613(M)	7197	TYPE B6 CULVERT END TREATMENT	EA	2.0
613(Q)	5946	OUTLET LATERAL HEADWALL (14)	EA	7.0
619(A)	0920	REMOVAL OF STRUCTURES & OBSTRUCTIONS (R-37,38)(15,20)	LSUM	1.0
619(B)	4727	REMOVAL OF CONCRETE PAVEMENT (R-38,39)	SY	29,850.0
619(B)	4728	REMOVAL OF ASPHALT PAVEMENT (R-38,39) (16)	SY	39,193.0
619(B)	4767	REMOVAL OF ASPHALT DRIVEWAY (R-38,39)	SY	436.0
619(C)	0924	SAWING PAVEMENT	LF	955.0
623	0100	(PL)GUARDRAIL CURBING	EA	12.0
623(A)	0932	BEAM GUARDRAIL W-BEAM SINGLE (R-40)	LF	2,688.0
623(F)	8300	GUARDRAIL TRAIL END TURNDOWN (31")	EA	4.0
623(G)	8590	GUARDRAIL END TREATMENT (31")	EA	12.0
623(I)	8700	GUARDRAIL BRIDGE CONN-THRIE BEAM (31")	EA	12.0
624(A)	4281	FENCE-STYLE WWF (R-41),(17)	LF	6,438.0
627(A)	4317	CONCRETE LONGITUDINAL BARRIER, DESIGN 1 (R-42)	LF	189.0
627(B)	4410	CONCRETE LONGITUDINAL BARRIER END SECTION	EA	2.0
629(A)	4958	MAILBOX INSTALLATION-SINGLE	EA	1.0
629(B)	4959	MAILBOX INSTALLATION-MULTIPLE	EA	2.0
629(C)	4960	MAILBOX	EA	6.0
853	9066	GUARDRAIL DELINEATORS(TYPE 1, CODE 1)	EA	84.0
853	9069	GUARDRAIL DELINEATORS(TYPE 2, CODE 1)	EA	8.0

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PRELIMINARY

US-81 REALIGNMENT
GRADY COUNTY

PAY QUANTITIES

State Job No. 24428(13) Sheet No. AR01

REVISED
PROPOSED R/W
SEPTEMBER 23, 2020

PAY QUANTITY NOTES

(R-3) INCLUDES 2,000 CU. YDS. FOR DRIVEWAYS, RETURNS, DIKES, AND MISCELLANEOUS EARTHWORK.

(R-4) AN ESTIMATED QUANTITY OF 46,730 C.Y. TOPSOIL TO BE RESERVED FOR REPLACEMENT OF APPROXIMATELY 5" ON COMPLETED FORESLOPES, DITCHES, AND BACKSLOPES. THIS QUANTITY IS INCLUDED IN THE EARTHWORK BALANCE. ANY ADDITIONAL EXCAVATION REQUIRED IN CUT SECTIONS TO ALLOW FOR PLACEMENT OF TOPSOIL TO FINAL GRADE, SHALL BE INCLUDED IN THE PRICE BID.

(R-6) FOR TYPE-A SALVAGED TOPSOIL PRICE BID TO INCLUDE COST OF 18-46-0 FERTILIZER, ESTIMATED AT 150 POUNDS PER ACRE.
FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF 10-20-10 FERTILIZER, ESTIMATED AT 200 POUNDS PER 1,000 SY.

(R-7) FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF WATERING, ESTIMATED AT 40 GALLONS PER SY.

(R-8) PRICE BID TO INCLUDE COST OF ALL NECESSARY MAINTENANCE, MAINTAINING DEVICE IN PROPER UPRIGHT POSITION, REMOVAL OF DEVICE, AND REMOVAL OF SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE DEVICE.

(R-11) THE QUANTITIES ESTIMATED FOR TEMPORARY EROSION AND SEDIMENT CONTROL IS 80 ACRES.

(R-15) QUANTITY BASED ON TWO APPLICATIONS.

(R-18) ESTIMATED AT 160 LBS. PER CU. FT.

(R-21) PRIME COAT SHALL BE APPLIED AT AN ESTIMATED RATE OF 0.35 GAL. PER SQ. YD. WHEN APPLIED TO SUBGRADE, AND 0.25 GAL. PER SQ. YD. WHEN APPLIED TO AGGREGATE BASE. THE ACTUAL CUTBACK PRIME COAT REQUIRED FOR PLACEMENT OPERATIONS WILL BE DETERMINED BY THE CONTRACTOR, AND SHALL CONSIDER THE RESIDUE FROM DISTILLATION PERCENTAGE SHOWN IN SECTION 708.03 OF THE STANDARD SPECIFICATIONS.

(R-25) ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK.

(R-31) QUANTITY INCLUDES AN ESTIMATED 40 C.Y. TO BE USED AS DIRECTED BY THE ENGINEER.

(R-33) THE PRECAST CONCRETE OPTION MAY BE USED INSTEAD, PER DIRECTION OF THE ENGINEER.

(R-35) ANY DRAINAGE STRUCTURE DESCRIBED AS TEMPORARY, SHALL AFTER COMPLETION OF THE PROJECT, BE REMOVED BY AND BECOME THE PROPERTY OF THE CONTRACTOR.

(R-36) PRICE BID TO INCLUDE COST OF 121 CU. YD. FOR PIPE UNDERDRAIN.

(R-37) INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS (UNLESS OTHERWISE SPECIFIED), INLETS, FENCES, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.

(R-38) TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.

(R-39) MATERIALS REMOVED SHALL NOT BE MEASURED FOR PAYMENT UNDER SECTION 202.06 UNCLASSIFIED EXCAVATION.

(R-40) INCLUDES 150 L.F. OF 238' RADIUS BEND.

(R-41) INCLUDES 2% FOR GROUND MEASUREMENT.

(R-42) ALL GATES AND GATE END POSTS FOR STRANDED WIRE FENCE (SWF) SHALL BE CONSTRUCTED AT THE SAME WIDTH AS THE EXISTING, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

(1) PRICE BID INCLUDES AN ESTIMATED 1,456 C.Y. FOR AREAS THAT MAY/OR MAY NOT BE SUITABLE FOR USE.

(2) PRICE BID TO INCLUDE THE COST OF SEDIMENT TRAPS.

(3) SOLID SLAB SODDING TO BE USED IN LIEU OF DITCH LINER PROTECTION IN AREAS OF PAVED DITCHES.

(4) INCLUDES 4 STABIIZED CONSTRUCTION EXITS TO BE UTILIZED AS DIRECTED BY THE ENGINEER.

(5) "STABILIZED SUBGRADE" SHALL INCLUDE THE COST OF THE CHEMICAL ADDITIVE TO ACHIEVE THE RATE SPECIFIED FOR THE APPROPRIATE SOIL CLASSIFICATION AS SPECIFIED IN THE MOST CURRENT ODOT MATERIALS DIVISION OHD L-50. SOIL CLASSIFICATION SHALL BE DETERMINED BY THE CONTRACTOR.

(6) USE RS380i.

(7) PRICE BID INCLUDES 1,500 TONS TO BE USED AS DIRECTED BY THE ENGINEER.

(8) QUANTITY IS BASED ON 0.06 GAL. OF ORIGINAL EMULSION PER SQ. YD. FOR NEW ASPHALT.

(9) INCLUDES 500 TONS TO BE USED AT THE DISCRETION OF THE ENGINEER.

(10) INCLUDES 150 TONS TO BE USED AT THE DISCRETION OF THE ENGINEER.

(11) PRICE BID SHALL INCLUDE COST OF ADDITIONAL DEPTH REQUIRED TO CONSTRUCT DRAINAGE STRUCTURES AS SHOWN ON THE PLANS.

(12) PRICE BID SHALL INCLUDE THE COSTS OF TRENCH EXCAVATION AND STANDARD BEDDING MATERIAL.

(13) PRICE BID TO INCLUDE THE COST OF PIPE UNDERDRAIN COVER MATERIAL AND TRENCH EXCAVATION.

(14) ESTIMATED QUANTITY, TO BE USED AT THE DISCRETION OF THE ENGINEER.

(15) PRICE BID SHALL ALSO INCLUDE, BUT IS NOT LIMITED TO, THE REMOVAL OF CONCRETE DITCH LINER, SAWING PAVEMENT, PAVEMENT MARKINGS, CONCRETE FLUMES, FOOTINGS, STRUCTURES, STORM SEWERS, PIPELINES, FENCES, GATES, CONCRETE CURB & GUTTER, POLES AND SHEET METAL SIGNS TO BE PERMANENTLY REMOVED AND ANY OTHER NON-ORGANIC ITEM NOT SPECIFICALLY LISTED AS A REMOVAL PAY ITEM. ITEMS TO BE REMOVED SHOULD BE FIELD VERIFIED AS TO THE EXISTING CONDITIONS AND POSSIBLE NON-STANDARD REMOVAL OPERATIONS THAT MAY BE REQUIRED.

PAY QUANTITY NOTES CONTINUED

(16) INCLUDES REMOVAL OF 13,516 S.Y. OF TEMPORARY PAVEMENT WIDENING.

(17) CORNER, STRETCHER, AND END POSTS SHALL BE CONSTRUCTED OF SCH. 40 STEEL USING DIMENSIONS SPECIFIED IN STANDARD RWF-1-2. PIPE WILL BE WELDED AND TENSION WIRES OMITTED. THE CORNER AND STRETCHER POST WILL BE PAINTED WITH ZINC RICH PAINT AFTER WELDING. GALVANIZED POSTS ARE NOT REQUIRED.

(18) IN ADDITION TO SECTION 642.04(B), THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING: SURVEY CONTROL POINTS, REFERENCE POINTS AND BENCHMARKS NOTED ON THE PLANS. THE CONTRACTORS SHALL BE RESPONSIBLE FOR LOCATING AND REFRESHING THE CENTERLINE OF PERMANENT CONSTRUCTION, AND SETTING ALL OTHER CONTROL POINTS AND REFERENCE POINTS REQUIRED FOR CONSTRUCTION AND INSPECTION TO INCLUDE BRIDGE CURVES, CONSTRUCTION REFERENCE LINES (CRL), AND RIGHT-OF-WAY. THE SURVEYOR WILL PROVIDE THE RESIDENT ENGINEER WITH A COMPUTERIZED DISK OF SURVEY DATA. THE SURVEY WILL IDENTIFY AND VERIFY BENCHMARKS SET AND MAINTAIN ADDITIONAL BENCHMARKSWITHIN THE PROJECT UNITS AT A MINIMUM OF 500' AS REQUIRED TO INSURE CONSTRUCTION OF A SMOOTH PROFILE OF MAINLINE TO INSURE SMOOTH TRANSITIONS AT THE BOP, EOP AND BRIDGES AS REQUIRED IN SECTIONS 642.04(C). THE SURVEYOR WILL PROVIDE A COPY OF CHECKED BENCHMARKS TO THE RESIDENT ENGINEER FOR REVIEW AND ACCEPTANCE PRIOR TO BEGINING ANY EARTHWORK PAY ITEMS. THE CONTRACTOR SHALL PROVIDE FOR THE RESIDENT ENGINEERS USE A ROVING CABLE FREE INTEGRATED GPS & RTK SYSTEM WITH FIELD CONTROLLER. THE SYSTEM SHALL BE COMPATIBLE WITH THE SURVEY BASE STATION USED BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN THE BASE STATION DURING WORK HOURS FROM THE BEGINNING OF EARTHWORK ACTIVITIES UNTIL SUBSTANTIAL COMPLETION IS ACHIEVED. THE CONTRACTOR SHALL PROVIDE A ONE WEEK TRAINING COURSE FOR THIS EQUIPMENT FOR UP TO FOUR ODOT INSPECTORS. THIS TRAINING WILL BE CONDUCTED PRIOR TO COMMENCING EARTHWORK ACTIVITIES. AT A MINIMUM TRAINING SHALL CONSIST OF UNIT OPERATION, SETUP, TAKEDOWN, STATION, OFFSET, ELEVATION, PROJECT LINE WORK, TOC/TOS, CALCULATE AREA, AND DISTANCE. CONTRACTOR SHALL ALSO SET UP TWO (2) POLES AT EACH BASE LOCATION TO ALLOW INSPECTION AND CONTRACTOR TO OPERATE UNITS SIMULTANEOUSLY.

(19) FIELD OFFICE TO BE EQUIPPED WITH ONE TELECOMMUNICATION PHONE LINE FOR AN OPERATIONAL TELEPHONE. IN ADDITION, THE FIELD OFFICE IS TO BE EQUIPPED WITH A HARDWIRED INTERNET LINE FOR USE IN THE FIELD OFFICE, 1 MIFI FOR USE OUTSIDE THE FIELD OFFICE (NEEDS TO WORK AT PROJECT LOCATION), AND SHALL PROVIDE POTABLE DRINKING WATER FOR INSPECTORS. ALL COSTS ASSOCIATED WITH THESE ITEMS, INCLUDING MONTHLY EXPENSES, SHALL BE INCLUDED IN THE PRICE BID FOR FIELD OFFICE.

(20) ITEMS TO BE REMOVED MAY OR MAY NOT BE PRESENT IN ANY SPECIFIED CONDITION
SAID ITEMS TO INCLUDE, BUT NOT LIMITED TO:
CLS US-81 STA. 100+45 104' LT. - SIGN: B/B 4'X10'X12' HAGL METAL PANELS ON METAL CABINET FRAME, 4" DIA. STEEL MONO-POLE "CAN-OK 405-222-2474" (BASE ONLY)
CLS US-81 STA. 113+00 113' LT. - WATER SPIGOT
CLS US-81 STA. 123+39 182' LT. - PART OF ENTRANCE: BRICK PILLAR: 2.5'X2.5'X7'
CLS US-81 STA. 123+61.92 191' LT. - PART OF ENTRANCE: BRICK PILLAR: 2.5'X2.5'X7', LIGHT FIXTURE ON TOP, ELECTRIC
CLS US-81 STA. 123+63 178' LT. - CALL BUTTON/KEY PAD & METAL STAND, IN CONCRETE, ELECTRIC
CLS US-81 STA. 123+82 194' LT. - OVERHEAD ENTRANCE: (2) 8' SWINGING ELECTRIC MOTORIZED GATES, METAL OVERHEAD ENTRY SIGN "SOUTH FORK ESTATED", 12' WIDE ASPHALT DRIVE
CLS US-81 STA. 123+85 191' LT. - PART OF ENTRANCE: BRICK PILLAR: 2.5'X2.5'X7', LIGHT FIXTURE ON TOP, ELECTRIC
CLS US-81 STA. 123+94 185' LT. - PART OF ENTRANCE: BRICK PILLAR: 2.5'X2.5'X7', LIGHT FIXTURE ON TOP, ELECTRIC
CLS US-81 STA. 124+00 185' LT. - SIGN: ONE SIDED, 4'5'X.5' HAGL, WOOD FRAME, "SOUTH FORKS ESTATE"
CLS US-81 STA. 134+75 TO 136+79 252'-350' LT. - MISC. DEBRIS, LUMBER PANELS, METAL PANELS, APPROX. 50+ TIRES, APPROX. 30+ PLASTIC MILK CRATES, SEVERAL METAL PIPES, ETC.
CLS EW-140 (QUAIL RD.) STA. 27+70 20' RT. - SIGN: SINGLESIDED 4'X3'X6' HAGL METAL FRAME ON 2" DIA. X STEEL POST IN CONCRETE (BASE ONLY)

GENERAL CONSTRUCTION NOTES

(G-1) IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT, THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. "CALL OKIE" 1-800-522-6543 OR 811.

(G-2) THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING ROAD TO LOCAL AND THROUGH TRAFFIC, EXCEPT WHERE NOTED IN THE SEQUENCE OF CONSTRUCTION. SEE STANDARD SPECIFICATIONS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

(G-3) MAINTENANCE OF THROUGH TRAFFIC INCLUDES THE MAINTENANCE OF THE EXISTING ROAD IN CLOSE PROXIMITY TO THE NEW CONSTRUCTION AS SHOWN ON THE PLANS.

(G-4) THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING SECTION LINE ROADS TO LOCAL AND THROUGH TRAFFIC, EXCEPT WHERE NOTED IN THE SEQUENCE OF CONSTRUCTION. SEE STANDARD SPECIFICATIONS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

(G-5) FOR PROJECTS THAT INCLUDE WIDENING AND/OR RESURFACING, THE CONTRACTOR SHALL SCHEDULE OPERATIONS TO MINIMIZE POTENTIAL DROP-OFF HAZARDS AND SHALL SUBMIT A SEQUENCE OF CONSTRUCTION OPERATIONS TO THE RESIDENT ENGINEER FOR APPROVAL BEFORE OPERATIONS BEGIN. ANY PORTION OF THE CONSTRUCTION OPERATIONS, SUCH AS SUPERPAVE LAYING OPERATIONS, EXCAVATION FOR PAVEMENT WIDENING, OR EXTENSION OF ROADWAY STRUCTURES, SHALL BE LIMITED TO ONE SIDE AT A TIME, AND THE PROCEDURES OUTLINED IN THE PAVEMENT DROP-OFF TREATMENT STANDARD PDT-1 (LATEST REVISION) SHALL BE IMPLEMENTED. ONLY THAT AMOUNT OF OPEN TRENCH WILL BE ALLOWED THAT CAN BE SURFACED IN 1 (ONE) DAY'S TIME WITHOUT APPROVAL BY THE ENGINEER. LIGHTS, SIGNS AND BARRICADES SHALL BE MOVED AS WORK PROGRESSES.

(G-6) ALL TREES, BRUSH, AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER SHALL BE CLEANED OUT TO THE RIGHT-OF-WAY LINE, AT EACH STRUCTURE AND BRIDGE, IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

(G-8) ALL FLOWLINES THAT ARE TO BE FILLED SHALL BE THOROUGHLY TAMPED BEFORE CONSTRUCTION OR EXTENSION OF DRAINAGE STRUCTURES. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

(G-9) IN ORDER TO ALLEVIATE DUST CONDITIONS DURING GRADING OPERATIONS AND BEFORE PAVEMENT WORK IS COMPLETED, THE CONTRACTOR SHALL SPRINKLE GRADING AT INTERVALS APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

(G-10) THIS PROJECT IS LOCATED NEAR KNOWN SOURCES OF GYPSUM (SULFATE) DEPOSITS. SPECIAL ATTENTION SHOULD BE USED TO AVOID BORROW MATERIAL THAT COULD ADVERSELY INTERACT WITH THE CALCIUM BASED ADDITIVES (FLY ASH, PORTLAND CEMENT, CEMENT KILN DUST, AND LIME) USED IN THE STABILIZED SUBGRADE. THE CONTRACTOR MAY BE REQUIRED TO PROVIDE SULFATE TESTING OF BORROW PIT SITES AS DIRECTED BY THE ENGINEER.

(G-11) THE CONTRACTOR SHALL NOT WASTE ANY EXCESS EXCAVATION UNTIL ALL PLANNED EMBANKMENTS AND BACKFILLS ARE COMPLETED. EXCESS UNCLASSIFIED EXCAVATION MATERIAL DETERMINED BY THE ENGINEER TO BE SUITABLE FOR BACKFILL SHALL BE USED TO REDUCE ANY UNCLASSIFIED BORROW NEEDED. COST OF SECOND HANDLING SHALL BE INCLUDED IN OTHER ITEMS OF WORK. ANY REMAINING EXCESS EXCAVATION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

(G-12) PRIME COAT SHALL BE APPLIED TO THE SUBGRADE IMMEDIATELY AFTER FINAL COMPACTION AND SHAPING TO RETAIN MOISTURE FOR PROPER CHEMICAL REACTION OF THE SOIL ADDITIVE.

(G-13) THE CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

(G-18) VEGETATIVE MULCHING: THE VEGETATIVE MULCH SHALL BE ANCHORED IN ACCORDANCE WITH THE "MULCHING TILLER METHOD", AS SPECIFIED IN 233.04B(2) OF THE STANDARD SPECIFICATIONS.

(G-23) TYPE B, SALVAGED TOPSOIL WILL BE CONSIDERED COMPLETE WHEN THE TOPSOIL HAS BEEN REMOVED AND STOCKPILED FROM THE AREAS OF ROADWAY EXCAVATION AND EMBANKMENT. INCORPORATION OF SPRIGS INTO THE SOIL AND REPLACEMENT OF THIS MIXTURE ONTO DESIGNATED AREAS WILL BE HANDLED UNDER THE PAY ITEM FOR BROADCAST SPRIGGING, METHOD B.

(G-25) PIPE UNDERDRAIN QUANTITIES ESTIMATED ONLY. LOCATION, IF AND WHERE REQUIRED, TO BE DETERMINED BY THE ENGINEER.

(G-26) THE CONTRACTOR SHALL REMOVE AND RESET MAILBOXES AS NECESSARY. MAILBOXES ARE TO BE MAINTAINED IN AN UPRIGHT POSITION AND ACCESSIBLE TO MAIL CARRIER'S CAR DURING CONSTRUCTION. ANY DAMAGE TO BOXES OR SUPPORTS SHALL BE REPAIRED BY THE CONTRACTOR. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

(G-28) BITUMINOUS SURFACING ON AGGREGATE BASE WHICH IS TO BE RELAID SHALL BE SCARIFIED AND INCORPORATED INTO THE AGGREGATE BASE MATERIAL. IN ALL OTHER RESPECTS, THE MATERIAL TO BE RELAID SHALL MEET THE SPECIFICATIONS FOR "AGGREGATE BASE".

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PAY NOTES

State Job No. 24428(13) Sheet No. AR02

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SUGGESTED SEQUENCE OF CONSTRUCTION

GENERAL NOTES

THE CONTRACTOR SHALL SEQUENCE CONSTRUCTION TO ENSURE ACCESS TO EXISTING DRIVES IS MAINTAINED DURING ALL CONSTRUCTION OPERATIONS. IF AT ANY TIME ACCESS IS TO BE INTERRUPTED, THEN THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER, THE CITY OF CHICKASHA, AND ALL EMERGENCY AGENCIES A MINIMUM OF FIVE WORKING DAYS BEFORE OPERATIONS BEGIN. DRIVES AND RETURNS SHALL BE CONSTRUCTED DURING OFF PEAK HOURS OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL PROVIDE TEMPORARY DRAINAGE STRUCTURES AS DEPICTED ON THE SUMMARY OF DRAINAGE OR AS REQUIRED THROUGHOUT CONSTRUCTION TO MAINTAIN PROPER DRAINAGE.

CONSTRUCTION PHASES MAY BE RUN CONCURRENTLY TO EXPEDITE CONSTRUCTION.

SOLID SLAB SOD SHALL BE PLACED ON PERMANENT SLOPES TO REDUCE THE AMOUNT OF DISTURBED AREAS ON THE PROJECT IN EACH PHASE OF CONSTRUCTION. VEGETATIVE MULCH SHOULD BE UTILIZED ON TEMPORARY SLOPES THAT WILL REMAIN FOR MORE THAN 14 DAYS.

PHASE 1: CONSTRUCT QUAIL RD. DETOUR AND US 81 CROSS OVERS

TRAFFIC ON EXISTING US-81 AND QUAIL RD.

A SHIFT TRAFFIC AWAY FROM THE MEDIAN ALONG EXISTING US 81.

B CONSTRUCT CROSS OVER ALONG US 81 FROM STA 90+50 TO STA 97+31 INCLUDING STR T1.

C CONSTRUCT CROSS OVER ALONG EXISTING US 81 APPROXIMATELY 723 LF NORTHEAST OF RAMP D STA. 217+00 AND CONTINUING FOR 554 LF, INCLUDING STR T2.

D SHIFT TRAFFIC TO THE SOUTH EDGE OF PAVEMENT ON QUAIL RD.

E CONSTRUCT STRS T3 AND STR 62 FROM 12' LT. OF CENTERLINE OF QUAIL RD. TO NORTH END SECTION WITH TEMPORARY CONNECTION TO EXISTING RCB.

F CONSTRUCT QUAIL RD. DETOUR.

G CLOSE ACCESS TO 16TH AVE. SOUTH OF QUAIL ROAD. SHIFT TRAFFIC TO QUAIL RD. DETOUR. SOUTHBOUND 16TH AVE. WILL ACCESS EW 140.5 VIA SOUTHBOUND US 81.

PHASE 2: CONSTRUCT FRONTAGE RD., SOUTH HALF OF QUAIL RD., AND PORTIONS OF 16TH AVE.

TRAFFIC ON QUAIL RD. DETOUR AND EXISTING US 81

A RECONSTRUCT EXISTING QUAIL RD. ACCESS TO ALIGN WITH THE EXISTING US 81 MEDIAN OPENING 359 LF NORTHEAST OF RAMP D.

B CONSTRUCT THE NORTH HALF OF 16TH AVE. FROM STA 23+00 TO STA 24+00, AND THE FULL WIDTH OF 16TH AVE. FROM STA 24+00 TO STA 32+00.

C CONSTRUCT INCIDENTAL QUAIL RD. FROM STA 23+34 TO STA 26+75. CONSTRUCT REMAINDER OF STR 62 AND QUAIL RD. FROM 6' LT. OF CENTERLINE TO SOUTH TOE FROM STA 26+75 TO STA 46+75. CONSTRUCT FROM 16' LT. OF CENTERLINE OF QUAIL RD. TO SOUTH TOE FROM STA 46+75 TO STA 50+00.

D CONSTRUCT TEMPORARY CONNECTION BETWEEN EXISTING QUAIL RD. AND THE PROPOSED SOUTH HALF OF QUAIL AT STA 48+00. CONSTRUCT TEMPORARY CONNECTION AND STR T4 ONE HALF AT A TIME.

E CONSTRUCT THE FRONTAGE RD. AND THE WEST HALF OF EW 140.5 FROM STA 29+00 TO STA 32+00. CONSTRUCT STRS 53 AND 54 ONE HALF AT A TIME. UTILIZE EXISTING 16TH AVE. PAVEMENT FOR ACCESS DURING CONSTRUCTION OF FRONTAGE RD.

F SHIFT TRAFFIC TO THE SOUTH SIDE OF QUAIL RD.

PHASE 3: CONSTRUCT REMAINDER OF QUAIL RD. AND PORTIONS OF 16TH AVE.

TRAFFIC ON SOUTH HALF OF QUAIL RD.

A TEMPORARILY CLOSE ACCESS TO 16TH AVE. AT STA 37+70. 16TH AVE. WILL ACCESS US 81 BY UTILIZING PIKES PEAK RD. NORTH OF STA 37+70. EXISTING QUAIL RD. EAST OF STA 19+85 WILL ACCESS US 81 BY THE NEWLY CONSTRUCTED TIE TO US 81 AT THE EXISTING MEDIAN OPENING. QUAIL RD. TRAFFIC WEST OF THE INTERCHANGE SHOULD ACCESS US 81 FROM EW 140.5.

B CONSTRUCT THE NORTH HALF OF QUAIL RD. (INCLUDING PORTIONS OF RAMP A, RAMP A EXT., AND RAMP B) FROM STA 25+61 TO STA 46+75. GRADE REMAINDER OF NORTH RAMPS TO TIE TO J/P 24428(04). UTILIZE TEMPORARY CONNECTION BETWEEN PROPOSED QUAIL RD. AND EXISTING QUAIL RD. FOR ACCESS TO US 81.

C BEGIN GRADING NORTHBOUND AND SOUTHBOUND US 81 FROM STA 132+00 TO QUAIL RD. AND RAMP D FROM STA 244+00 TO STA 237+15. ALSO COMPLETE ANY FINE GRADING REQUIRED NORTH OF QUAIL RD. NECESSARY TO CONSTRUCT BRIDGE "C" AND BRIDGE "D".

D CONSTRUCT BRIDGE "C" AND BRIDGE "D".

E SHIFT US 81 TRAFFIC TO THE EXISTING SOUTHBOUND LANES VIA CROSS OVERS CONSTRUCTED DURING PHASE 1. CONTINUE TO UTILIZE THE TEMPORARY CONNECTION BETWEEN EXISTING QUAIL RD. AND PROPOSED QUAIL RD. RAMP E AND RAMP F WILL BE CONSTRUCTED AT A LATER TIME.

SUGGESTED SEQUENCE OF CONSTRUCTION CONTINUED

PHASE 4: CONSTRUCT NORTHBOUND US 81 FROM STA 100+94 TO STA 120+00, BRIDGE "B", RAMP C, AND EAST HALF OF EW 140.5

TRAFFIC ON PROPOSED QUAIL RD., 16TH AVE., FRONTAGE RD., AND EXISTING SOUTHBOUND US 81 LANES

A CONSTRUCT EW 140.5 FROM STA 33+00 TO STA 36+05.06, INCLUDING PROPOSED DRIVE EAST OF RAMP C AND STR 55 ONE HALF AT A TIME. ACCESS TO ADJACENT PROPERTY OWNERS MUST BE MAINTAINED AT ALL TIMES.

B UTILIZE FLAGMEN AS NEEDED TO CONSTRUCT STR 2 FROM 70' LT. OF CENTERLINE OF US 81 TO EAST END SECTION WITH GRADING TO EXISTING LT. DITCH. CONSTRUCT US 81 FROM STA 100+94 TO STA 120+00 ALONG US 81.

C CONSTRUCT RAMP C AND RAMP E FROM STA 260+00 TO RAMP C.

D CONSTRUCT BRIDGE "B".

E SHIFT US 81 TRAFFIC TO NORTHBOUND US 81 AND PROPOSED RAMP C.

PHASE 5: CONSTRUCT REMAINDER OF PROPOSED US 81, BRIDGE "A", RAMP A, RAMP B, RAMP E, RAMP F, EW 140.5 AND PORTIONS OF RAMP D

TRAFFIC ON PROPOSED NORTHBOUND US 81, RAMP C, QUAIL RD., 16TH AVE., AND FRONTAGE RD.

A CONSTRUCT REMAINDER OF EW 140.5 ONE HALF AT A TIME. MAINTAIN ACCESS TO FRONTAGE RD. AT ALL TIMES.

B CONSTRUCT REMAINDER OF STR 2 AND PROPOSED SOUTHBOUND US 81 FROM STA 100+94 TO STA 120+00.

C CONSTRUCT BRIDGE "A".

D CONSTRUCT PROPOSED US 81 FROM STA 120+00 TO STA 132+00.

E SURFACE PROPOSED US 81 NORTH OF QUAIL RD. TO STA 165+00 (GRADING AND MAJOR DRAINAGE CROSSINGS CONSTRUCTED IN J/P 24428(04)). SIGNING & STRIPING NORTH OF QUAIL RD. WILL OCCUR IN J/P 24428(14).

F SURFACE RAMP B AND THE REMAINDER OF RAMP A. RAMP B TO REMAIN CLOSED TO TRAFFIC UNTIL PROPOSED US 81 SURFACING CONSTRUCTED IN J/P 24428(14).

G CONSTRUCT REMAINDER OF RAMP E & RAMP F.

H SHIFT SOUTHBOUND US 81 TRAFFIC ONTO RAMP F, QUAIL RD., RAMP A, AND MAINLINE SOUTHBOUND US 81. SHIFT EASTBOUND QUAIL RD. TRAFFIC ONTO RAMP E.

I OPEN FRONTAGE RD. AND EW 140.5 TO PROPOSED CONFIGURATION.

PHASE 6: CONSTRUCT REMAINDER OF RAMP D AND 16TH AVE.

TRAFFIC ON PROPOSED US 81, RAMP A, RAMP C, RAMP E, RAMP F, QUAIL RD., 16TH AVE., AND FRONTAGE RD.

A CONSTRUCT REMAINDER OF RAMP D, INCLUDING RETAINING WALL 1, AND RAMP E SLOPEWALL.

B CONSTRUCT REMAINDER OF 16TH AVE.

C REMOVE US 81 CROSSOVERS CONSTRUCTED IN PHASE 1.

D COMPLETE FINISHING OPERATIONS.

E OPEN RAMP E, RAMP F, QUAIL RD., AND 16TH AVE. TO PROPOSED CONFIGURATION. NORTHBOUND US 81 NORTH OF STA 118+00, RAMP B, AND RAMP D TO REMAIN CLOSED TO TRAFFIC UNTIL PROPOSED US 81 SURFACING CONSTRUCTED IN J/P 24428(14).

US-81 REALIGNMENT
GRADY COUNTY

SEQUENCE OF CONSTRUCTION

State Job No. 24428(13) Sheet No. AR03

FINAL FIELD MEETING
JUNE 2020

PRELIMINARY

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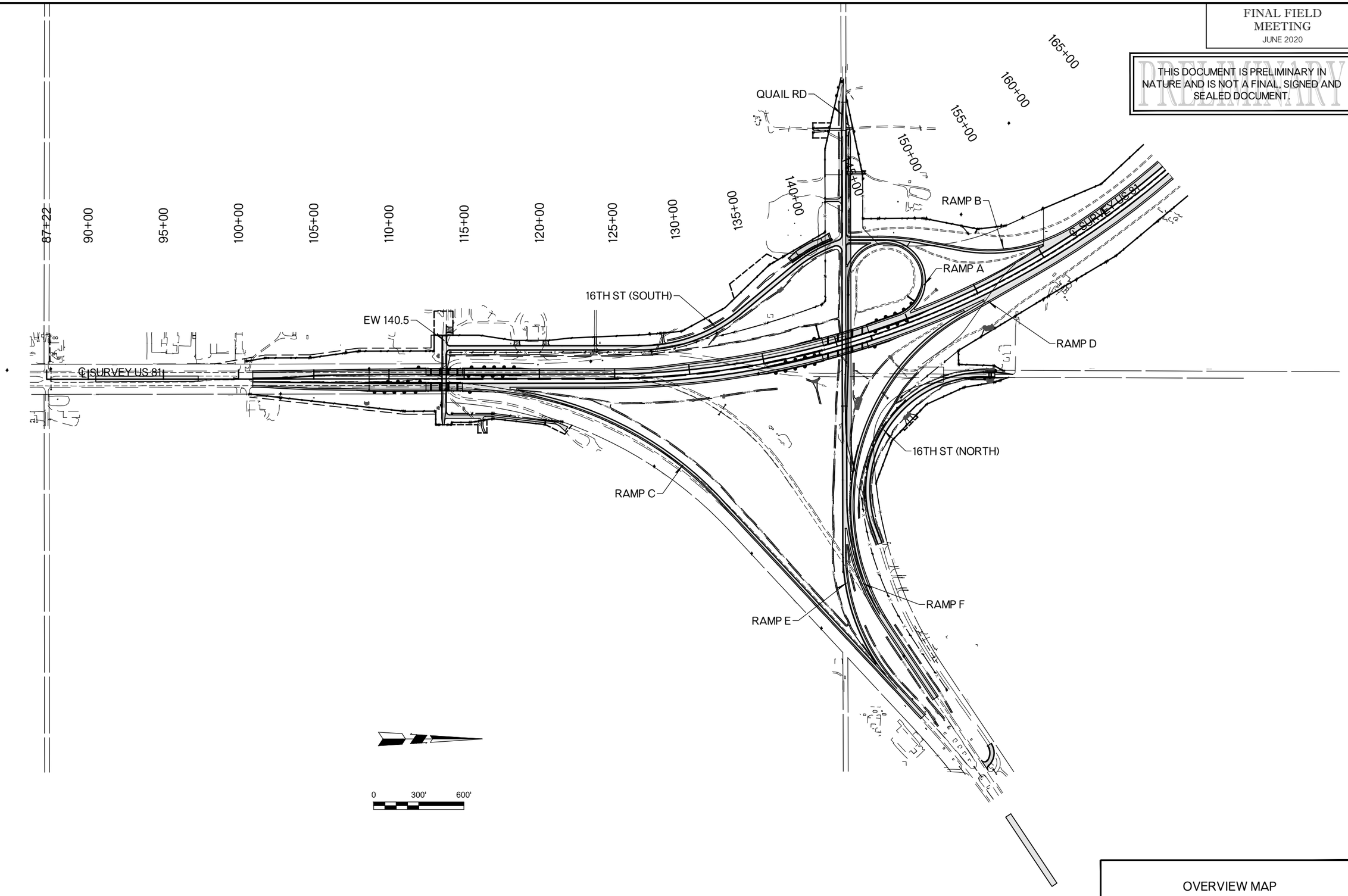

OVERVIEW MAP

State Job No. J2-4428(013) Sheet No. AR04

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SUMMARY OF SURFACING

STATION EXTENTS	AGGREGATE BASE TYPE A 303(A)	STABILIZED SUBGRADE 307(K)	GEOTEXTILE REINFORCEMENT 326(A)	TBSC TYPE "E" 402(E)	TACK COAT 407(B)	PRIME COAT 408	SUPERPAVE, TYPE S3 (PG 70-28 OK) 411(B)	SUPERPAVE, TYPE S3 (PG 64-22 OK) 411(B)	SUPERPAVE, TYPE S4 (PG 70-28 OK) 411(C)	SUPERPAVE, TYPE S4 (PG 64-22 OK) 411(C)	RUMBLE STRIP-METHOD HMA-CON 413(A)
	CY	SY	SY	TON	GAL	GAL	TON	TON	TON	TON	LF
US 81											
STA. 89+00.00 TO STA. 104+00.00	686.40	3,330.97	3,330.97	306.92	501.42	1,929.02	396.07	857.35	261.38	45.44	974.00
STA. 104+00.00 TO STA. 119+00.00	2,394.97	11,731.54	11,731.54	1,187.37	1,765.27	7,058.64	1,421.13	3,020.61	938.32	200.30	3,828.00
STA. 119+00.00 TO STA. 134+00.00	3,097.31	15,260.45	15,260.45	1,746.20	2,209.17	8,779.98	1,595.02	3,932.85	1,050.83	296.70	5,356.00
STA. 134+00.00 TO STA. 149+00.00	2,342.01	11,501.62	11,501.62	1,231.17	1,718.52	6,912.19	1,332.55	2,989.12	878.90	228.93	3,875.00
STA. 149+00.00 TO STA. 164+00.00	2,599.07	12,611.15	12,611.15	1,018.50	1,903.16	7,304.76	1,649.14	3,070.10	1,086.33	77.04	3,606.00
STA. 164+00.00 TO STA. 165+00.00	255.99	1,241.13	1,241.13	118.34	187.35	718.90	142.65	325.03	94.23	20.27	362.00
EW 140.5											
STA. 30+15.00 TO STA. 35+00.00		2,286.68			243.75	800.34		689.30		222.80	
QUAIL RD.											
STA. 23+34.00 TO STA. 28+00.00		820.71			82.46	287.25		233.21		73.98	
STA. 28+00.00 TO STA. 43+00.00		5,544.43			604.78	1,940.55		1,706.72		555.27	
STA. 43+00.00 TO STA. 50+00.00		2,725.91			293.36	954.07		828.89		268.63	
QUAIL RD. WIDENING											
STA. 25+34.33 TO STA. 28+00.00					72.21			204.38		66.20	
STA. 28+00.00 TO STA. 43+00.00					680.20			1,916.90		628.29	
STA. 43+00.00 TO STA. 49+41.77					259.72			732.70		239.60	
16th SOUTH											
STA. 5113+79.22 TO STA. 5120+00.00		2,624.08			278.19	918.43		787.10		254.00	
STA. 5120+00.00 TO STA. 5135+00.00		6,236.12			660.44	2,182.64		1,868.72		602.93	
STA. 5135+00.00 TO STA. 5142+22.49		3,125.46			332.05	1,093.91		939.29		303.30	
16th NORTH											
STA. 19+90.00 TO STA. 29+00.00		3,783.25			400.67	1,324.14		1,133.69		365.78	
STA. 29+00.00 TO STA. 36+40.00		3,193.42			347.29	1,204.98		988.53		331.68	
RAMP A											
STA. 127+53.04 TO STA. 140+00.00	680.57	3,328.80	3,328.80	476.63	492.64	1,957.04	231.73	1,003.25	154.52	155.00	
STA. 140+00.00 TO STA. 155+00.00	956.24	4,762.42	4,762.42	691.34	681.56	2,820.96	401.40	1,313.09	264.67	170.00	
STA. 155+00.00 TO STA. 164+00.22	392.79	1,976.38	1,976.38	373.45	265.99	1,125.10	168.37	503.45	112.27	50.98	
RAMP A EXT.											
STA. 242+37.00 TO STA. 244+74.00	165.68	772.39	772.39	62.29	126.11	455.37	91.53	223.08	61.03	16.86	
RAMP B											
STA. 242+12.00 TO STA. 253+00.00	856.10	4,276.64	4,276.64	624.15	595.42	2,443.57	382.62	1,108.65	252.19	109.85	
STA. 253+00.00 TO STA. 263+72.32	782.63	3,820.79	3,820.79	494.32	563.38	2,205.80	318.71	1,093.67	211.63	135.97	
RAMP C											
STA. 96+88.43 TO STA. 109+00.00	632.14	3,099.15	3,099.15	455.10	463.95	1,875.89	208.06	959.67	138.73	164.05	
STA. 109+00.00 TO STA. 124+00.00	1,101.41	5,537.61	5,537.61	829.42	764.50	3,192.06	461.14	1,456.28	302.96	168.23	
STA. 124+00.00 TO STA. 139+00.00	1,172.73	6,013.83	6,013.83	1,006.73	782.06	3,396.28	490.67	1,472.20	320.50	150.86	
STA. 139+00.00 TO STA. 149+17.61	733.33	3,677.94	3,677.94	562.78	506.58	2,097.64	296.88	972.23	195.53	112.24	
RAMP D											
STA. 218+95.41 TO STA. 228+00.00	610.61	2,956.92	2,956.92	374.61	294.93	1,713.31	239.26	871.29	159.54	113.41	
STA. 228+00.00 TO STA. 243+00.00	1,111.68	5,502.09	5,502.09	993.47	784.09	142.72	482.31	1,480.03	318.96	159.28	
STA. 243+00.00 TO STA. 258+00.00	1,098.64	5,438.50	5,438.50	767.18	194.46	3,120.07	434.44	1,504.34	287.16	185.38	
STA. 258+00.00 TO STA. 264+50.00	404.36	1,970.84	1,970.84	270.35	291.28	1,138.52	145.46	582.75	96.99	81.67	
RAMP E											
STA. 250+00.00 TO STA. 259+00.00	605.41	3,053.20	3,053.20	491.01	414.28	1,736.96	311.83	726.49	204.70	46.62	
STA. 259+00.00 TO STA. 267+32.25	598.18	2,976.81	2,976.81	434.48	418.34	1,703.73	253.79	792.22	167.62	87.16	
RAMP F											
STA. 127+15.37 TO STA. 136+00.00	514.68	2,571.54	2,571.54	298.69	408.02	1,468.63	240.94	779.97	158.97	90.51	
STA. 136+00.00 TO STA. 143+17.95	447.10	2,179.00	2,179.00	456.98	322.13	1,258.81	160.92	644.34	107.30	90.27	
US 81 CROSSOVER SOUTH											
STA. 90+50.00 TO STA. 97+31.00	612.34	2,755.40	2,755.40		495.97		462.93	771.42	308.68		
US 81 CROSSOVER NORTHEAST											
	547.19	2,462.22	2,462.22		443.20	1,477.33	413.67	689.34	275.84		
TOTALS	25,399.56	155,149.39	124,809.33	15,271.47	21,848.90	78,739.59	12,733.22	45,172.25	8,409.78	6,869.48	18,001.00

NOTE: QUANTITIES INCLUDE ASPHALT AND PRIME COAT QUANTITIES FOR GUARDRAIL WIDENING

THESE ITEMS LISTED FOR CONTRACTOR USE. COST FOR THESE ITEMS ARE INCLUDED IN OTHER ITEMS OF WORK

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US-81 REALIGNMENT

GRADY COUNTY

SUMMARY SHEET

State Job No. 24428(13) Sheet No. AR05

FINAL FIELD MEETING
JUNE 2020

SUMMARY OF EROSION CONTROL

STATION EXTENTS	LOCATION AND DESCRIPTION	SOLID SLAB SODDING 230(A)	TYPE 1-A PLAIN RIPRAP 601(B)	TYPE 1-A FILTER BLANKET 601(C)
		SY	TON	TON
US 81				
STA. 100+94.00 TO STA. 104+00.00	MEDIAN & EDGE OF ROADWAY TO TOES LT.	3,206.11		
STA. 104+00.00 TO STA. 119+00.00	MEDIAN & EDGE OF ROADWAY TO TOES LT. & RT.	22,164.77		
STA. 105+00	STR. 1 AROUND OUTLET		2.26	0.72
STA. 108+50	STR. 2 AROUND OUTLET		47.63	15.13
STA. 115+00	STR. 3 AROUND OUTLET		20.03	6.36
STA. 119+00.00 TO STA. 134+00.00	MEDIAN & EDGE OF ROADWAY TO TOES LT. & RT.	33,562.53		
STA. 130+00	STR. 4 AROUND OUTLET		16.42	5.22
STA. 132+00	STR. 5 AROUND OUTLET		25.71	8.17
STA. 134+00.00 TO STA. 149+00.00	MEDIAN & EDGE OF ROADWAY TO TOES LT. & RT.	13,078.66		
STA. 135+50	END OF CONCRETE DITCH RT.		3.09	0.98
STA. 138+00	STR. 6 AROUND OUTLET		56.78	18.04
EW 140.5				
STA. 29+00.00 TO STA. 36+05.00	EDGE OF ROADWAY TO TOES LT. & RT.	1,281.83		
STA. 31+50	STR. 54 AROUND OUTLET		27.34	8.69
STA. 34+95	STR. 55 AROUND OUTLET		22.85	7.26
QUAIL RD.				
BOP TO STA. 28+00.00	EDGE OF ROADWAY TO TOES LT. & RT.	2,674.12		
STA. 26+65	STR. 60 OUTLET		1.85	0.59
STA. 28+00.00 TO STA. 43+00.00	EDGE OF ROADWAY LT. AND RT. & STR. 61 OUTLET	9,217.76	2.98	0.95
STA. 45+07.66	STR. 62 OUTLET		193.86	61.58
STA. 43+00.00 TO EOP	EDGE OF ROADWAY TO TOES LT. & RT.	7,458.41		
16TH ST (SOUTH)				
BOP TO STA. 5120+00.00	EDGE OF ROADWAY TO TOES LT. & RT.	4,607.31		
STA. 5118+50	STR. 56 OUTLET		1.85	0.59
STA. 5120+00.00 TO STA. 5135+00.00		13,486.73		
STA. 5123+73	STR. 57 AROUND OUTLET		3.97	1.26
STA. 5128+30	STR. 58 AROUND OUTLET		3.98	1.26
STA. 5135+00.00 TO STA. 5142+35.25				
STA. 5136+90	STR. 59 AROUND OUTLET		67.85	21.55
STA. 5138+65	END OF CONCRETE DITCH LT.		3.98	1.26
STA. 5135+00.00 TO EOP	EDGE OF ROADWAY TO TOES LT. & RT.	6,939.74		
16TH ST (NORTH)				
BOP TO STA. 29+00.00	EDGE OF ROADWAY TO TOES LT. & RT.	4,715.56		
STA. 29+00.00 TO EOP	EDGE OF ROADWAY TO TOES LT. & RT.	5,963.18		
STA. 29+50	STR. 63 AROUND OUTLET		57.10	57.10
STA. 36+08	STR. 171 AROUND INLET & OUTLET		0.98	0.98
RAMP A				
BOP TO STA. 140+00.00	EDGE OF ROADWAY TO TOES LT.	16,778.53		
STA. 140+00.00 TO STA. 155+00.00	EDGE OF ROADWAY TO TOES LT.	4,017.11		
STA. 155+00.00 TO EOP	EDGE OF ROADWAY TO TOES LT.	5,867.43		
RAMP C				
BOP TO STA. 109+00.00	EDGE OF ROADWAY TO TOES RT.	10,004.26		
STA. 109+00.00 TO STA. 124+00.00	EDGE OF ROADWAY TO TOES LT. & RT.	19,008.15		
STA. 124+00.00 TO STA. 139+00.00	EDGE OF ROADWAY TO TOES LT. & RT.	17,017.07		
STA. 139+00.00 TO EOP	EDGE OF ROADWAY TO TOES LT. & RT.	6,978.44		
RAMP D				
BOP TO STA. 228+00.00	EDGE OF ROADWAY TO TOES LT. & RT.	3,597.20		
STA. 216+61.33	STR. 170 OUTLET		6.30	2.00
STA. 228+00.00 TO STA. 243+00.00	EDGE OF ROADWAY TO TOES LT. & RT.	30,301.24		
STA. 243+00.00 TO STA. 244+00.00	EDGE OF ROADWAY TO TOES LT.	623.47		
RAMP E				
BOP TO STA. 259+00.00	EDGE OF ROADWAY TO TOES LT. & RT.	10,768.68		
STA. 259+00.00 TO EOP	EDGE OF ROADWAY TO TOES LT. & RT.	5,079.06		
RAMP F				
BOP TO STA. 136+00.00	EDGE OF ROADWAY TO TOES LT. & RT.	2,871.66		
STA. 136+00.00 TO EOP	EDGE OF ROADWAY TO TOES RT.	3,356.25		
	TOTALS	264,625.25	566.80	219.69

SUMMARY OF DITCH TREATMENT

STATION EXTENTS AND LOCATION	DESIGN NO.	BOTTOM WIDTH	CURTAIN WALL	CLASS A CONCRETE 509(B)	CLASS C CONCRETE 509(D)
		FT	EA	CY	CY
US-81					
STA. 120+00 TO STA. 130+00 - RT.	2A	8	11		179.31
STA. 134+00 TO STA. 135+50 - RT.	2A	8	3		27.20
RAMP D	2A	8	3		27.20
STA. 239+46 TO STA. 243+05 - LT.	2A	8	5		64.61
EW 140.5					
STA. 30+56 TO STA. 31+50 - RT.	2A	4	2		12.33
STA. 33+75 TO STA. 34+85 - LT.	2A	4	2		12.33
STA. 33+75 TO STA. 34+85 - RT.	2A	4	3		14.55
FRONTAGE ROAD					
STA. 33+75 TO STA. 34+85 - LT.	☼	4	3	14.55	
QUAIL ROAD					
STA. 45+30 TO STA. 47+00 - LT.	2A	4	3		22.20
16th ST. (NORTH)					
STA. 25+00 TO STA. 29+18 - RT.	2A	4	6		54.33
TOTALS		41		14.55	414.06

☼ SEE SLOPE WALL DETAIL SHEETS.

SUMMARY OF BARRIER

STATION EXTENTS AND LOCATION	42" F-SHAPED PARAPET 504(E)	CONCRETE LONG BARRIER, DESIGN 1 627(A)	CONCRETE LONG BARRIER END SECTIONS 627(B)
	LF	LF	EA
RAMP A EXT.			
STA. 242+38.08 TO STA. 246+26.55 - LT.		188.47	2.00
RAMP D			
STA. 228+54.28 TO STA. 237+11.55 - LT.	857.27		
TOTALS	857.27	188.47	2.00

SUMMARY OF MAILBOX

STATION AND LOCATION	TYPE	MAILBOX INSTALLATION - SINGLE 629(A)	MAILBOX INSTALLATION - MULTIPLE 629(B)	MAILBOX 629(C)
		EA	EA	EA
STA. 34+75.00 - RT. - EW 104.5	1		1	3
STA. 27+10.00 - LT. - QUAIL RD.	1		1	2
STA. 29+30.00 - LT. - QUAIL RD.	1	1		1
TOTALS		1	2	6

NOTE: SURFACING QUANTITIES FOR MAIL STOP TURNOUTS INCLUDED IN MAINLINE SUMMARIES.

SUMMARY OF SLOPE WALL

STATION EXTENTS AND LOCATION	SLOPE WALL (5") TYPE 1 510(C) ϕ
	S.Y.
FRONTAGE RD.	
STA. 5138+65.00 TO STA. 5141+60.00 - LT.	1,734.00
TOTALS	1,734.00

ϕ SEE SLOPE WALL DETAIL SHEETS.

SUMMARY OF EARTHWORK QUANTITIES

STATION EXTENTS	UNCLASSIFIED EXCAVATION 202(A)	FILL +15%	EXCESS EXCAVATION	UNCLASSIFIED BORROW 202(D)
	CY	CY	CY	CY
US 81				
STA. 90+50.00 TO STA. 139+89.08	15,613	534,404		518,791
EW 140.5				
STA. 29+00.00 TO STA. 36+05.00	2,961	40	2,921	
QUAIL RD.				
STA. 26+75.00 TO STA. 50+00.00	35,248	3,179	32,069	
QUAIL RD. TEMP WIDENING				
STA. 23+00.00 TO STA. 49+00.00	9,569	886	8,684	
16TH ST.(SOUTH)				
STA. 5113+79.22 TO STA. 5142+35.26	41,095	4,316	36,779	
16TH ST.(NORTH)				
STA. 19+90.00 TO STA. 37+58.84	7,175	11,372		4,197
RAMP A				
STA. 127+53.04 TO STA. 164+00.22	24,256	56,604		32,348
RAMP A EXT.				
STA. 242+37.00 TO STA. 244+50.00	869		869	
RAMP B				
STA. 242+16.00 TO STA. 263+72.32	1,653		1,653	
RAMP C				
STA. 96+88.43 TO STA. 149+17.61	6,767	144,698		137,931
RAMP D				
STA. 218+95.41 TO STA. 264+50.00	5,332	75,657		70,325
RAMP E				
STA. 250+00.00 TO STA. 267+32.25	19,516	9,113	10,403	
RAMP F				
STA. 127+15.45 TO STA. 143+17.95	2,890	3,471		581
PRIVATE DRIVE 1				
STA. 10+07.92 TO STA. 18+27.11	323	214	109	
US 81 CROSSOVER (SOUTH)				
STA. 90+50.00 TO STA. 97+31.00	174	116	58	
US 81 CROSSOVER (NORTHEAST)				
	174	116	58	
TOTALS	173,615	844,185	93,603	764,173

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SUMMARY SHEET

State Job No. 24428(13) Sheet No. AR06

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SUMMARY OF GUARDRAIL

STATION EXTENTS AND LOCATION	(PL) GUARDRAIL CURBING 623	BEAM GUARDRAIL W-BEAM SINGLE 623(A)	GUARDRAIL TRAIL END TURNDOWN (31") 623 (F)	GUARDRAIL END TREATMENT (31") 623(G)	GUARDRAIL BRIDGE CONN. THRIE BEAM (31") 623(I)	GUARDRAIL DELINEATORS (TYPE 1, CODE 1) 853	GUARDRAIL DELINEATORS (TYPE 2, CODE 1) 853
	EA	LF	EA	EA	EA	EA	EA
US 81							
STA. 109+05.59 TO STA. 112+45.61 - RT.	1	275.0		1	1	8	
STA. 111+14.96 TO STA. 112+45.61 - LT.	1	87.5	1		1	4	
STA. 114+87.28 TO STA. 118+27.30 - LT.	1	275.0		1	1	8	
STA. 114+87.28 TO STA. 118+52.30 - LT.	1	300.0		1	1	9	
STA. 135+27.84 TO STA. 138+88.57 - RT.	1	300.0		1	1	9	
STA. 135+62.56 TO STA. 138+88.57 - RT.	1	262.5		1	1	8	
STA. 141+96.15 TO STA. 143+25.30 - RT.	1	87.5	1		1	4	
STA. 142+29.57 TO STA. 145+58.59 - LT.	1	262.5		1	1	8	
RAMP A							
STA. 137+72.14 TO STA. 139+03.03 - LT.	1	87.5	1		1	4	
STA. 142+15.57 TO STA. 146+02.92 - LT.	1	312.5		1	1	9	
RAMP C							
STA. 104+19.68 TO STA. 107+84.53 - RT.	1	300.0		1	1	9	
STA. 110+26.20 TO STA. 111+57.46 - RT.	1	87.5	1		1	4	
16TH ST. (NORTH)							
STA. 35+30.00 TO STA. 36+48.75 - RT.		25.0		2			4
STA. 35+66.25 TO STA. 36+85.00 - LT.		25.0		2			4
TOTALS	12	2,687.5	4	12	12	84	8

NOTE: ASPHALT AND PRIME COAT QUANTITIES FOR GUARDRAIL WIDENING ARE INCLUDED IN THE MAINLINE SURFACING QUANTITIES

SUMMARY OF DRIVES

STATION AND LOCATION	WIDTH x LENGTH	TYPE	RADII (R1)	RADII (R2)	3" TBSC TYPE E 402(E)	TACK COAT 407(B)	PRIME COAT 408	(2-2.5") 5" SUPERPAVE. TYPE S3 (PG 64-22 OK) 411(B)	2" SUPERPAVE. TYPE S4 (PG 64-22 OK) 411(C)
					TON	GAL	GAL	TON	TON
EW 140.5									
STA. 29+73 - LT.	35' x 44.96'	RURAL	15'	15'	33.54				
STA. 35+46 - LT.	VARIES x 818.79'	RURAL	25'	15'		210.22	635.94	496.54	191.88
16TH ST. (SOUTH)									
STA. 5118+50 - LT.	35' x 34.00'	RURAL	15'	15'	25.73				
STA. 5120+42 - LT.	35' x 34.00'	RURAL	15'	15'	25.73				
STA. 5123+73 - LT.	12' x 56.48'	RURAL	15'	15'		10.89	33.09	25.63	9.78
STA. 5128+30 - LT.	12' x 70.55'	RURAL	15'	15'		13.20	40.46	31.33	11.87
QUAIL RD.									
STA. 23+50 - RT.	12' x 20.44'	RURAL	10'	10'	5.81				
STA. 26+78 - LT.	12' x 46.41'	RURAL	10'	10'		8.58	26.27	20.35	7.77
STA. 26+68 - RT.	12' x 186.24'	RURAL	10'	10'		31.79	97.46	75.43	28.76
STA. 29+55 - LT.	10' x 124.53'	RURAL	10'	10'		18.13	56.08	43.15	16.30
STA. 31+40 - RT.	16' x 109.00'	RURAL	30'	30'		29.34	88.69	69.29	26.79
RAMP D									
STA. 213+35 - LT.	32' x 157.91'	RURAL	25'	25'		398.73	214.36	169.24	66.47
				TOTALS	90.81	720.88	1,192.35	930.96	359.62

◐ TBSC QUANTITIES ARE FOR TEMPORARY DRIVES - 2 APPLICATIONS
△ QUANTITY INCLUDED IN MAINLINE SURFACING QUANTITIES

SUMMARY OF REMOVAL QUANTITIES

STATION EXTENTS	REMOVAL OF FENCE ♦	REMOVAL OF CONCRETE PAVEMENT 619(B)	REMOVAL OF ASPHALT PAVEMENT 619(B)	REMOVAL OF ASPHALT DRIVEWAY 619(B)	SAWING PAVEMENT 619(C)
	LF	SY	SY	SY	LF
US 81					
STA. 100+94 TO STA. 106+00	905.00	3,024.02	1,508.90		87.00
STA. 106+00 TO STA. 121+00	2,220.00	6,742.99	4,937.70		
STA. 121+00 TO STA. 136+00	556.00	3,765.13	5,559.54		
STA. 136+00 TO STA. 151+00	2,964.10				
QUAIL RD.					
STA. 23+34 TO STA. 43+00	2,681.00		3,788.31	170.90	468.00
STA. 43+00 TO STA. 50+00			1,534.82		61.00
16TH(SOUTH)					
STA. 5113+79.22 TO STA. 5135+00	1,592.00			264.42	12.00
STA. 5135+00 TO STA. 5142+35.25	1,111.00				
16TH(NORTH)					
STA. 19+00 TO STA. 38+00	876.00		1,484.27		260.00
RAMP C					
STA. 96+88.43 TO STA. 124+00	2,120.00	3,889.48	1,821.43		
STA. 124+00 TO STA. 139+00		6,730.50	2,796.85		
STA. 139+00 TO STA. 149+17.61		2,745.47	1,101.75		34.00
RAMP F					
STA. 126+15.39 TO STA. 143+17.95		2,951.99	1,142.90		33.00
TOTALS	15,025.10	29,849.58	25,676.47	435.32	955.00

♦ FOR INFORMATION PURPOSES ONLY. COST TO BE INLCUDED IN PRICE BID FOR REMOVAL OF STRUCTURES AND OBSTRUCTIONS.
NOTE: ITEMS TO BE REMOVED MAY OR MAY NOT BE PRESENT IN ANY SPECIFIED LOCATION.

SUMMARY OF FENCE

STATION EXTENTS AND LOCATION	FENCE, STYLE WWF 624(A)
	LF
US-81	
STA. 114+04.27 TO STA. 132+19.22 - LT.	1,815.00
STA. 114+15.00 TO STA. 120+38.00 - RT.	625.00
STA. 132+50.00 TO STA. 140+86.00 - LT.	840.00
STA. 146+85.00 TO STA. 149+39.00 - RT.	656.00
QUAIL RD.	
STA. 35+40.00 TO STA. 38+07.93 - RT.	268.00
NS-283/16TH AVE.	
STA. 19+96.82 TO STA. 24+07.06 - RT.	385.14
STA. 34+13.81 TO STA. 36+96.12 - LT.	307.00
RAMP D	
STA. 218+95.41 TO STA. 233+60.95 - RT.	1,415.00
TOTALS	6,311.14

PRELIMINARY
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SUMMARY SHEET

State Job No. 24428(13) Sheet No. AR07

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SUMMARY OF TEMPORARY SEDIMENT CONTROL

STATION EXTENTS	LOCATION AND DESCRIPTION	TYPE	TEMPORARY SILT FENCE 221(C)	TEMPORARY SEDIMENT FILTER 221(D)	TEMPORARY SILT DIKE 221(F)	TEMPORARY ROCK FILTER DAM TYPE 1 221(G)
			L.F.	EA.	L.F.	◧ C.Y.
US 81						
STA. 89+85	ACROSS MEDIAN DITCH				21	
STA. 101+50	ACROSS DITCH LT. & MEDIAN				28	
STA. 103+00	ACROSS DITCH LT. & MEDIAN				28	
STA. 104+50	ACROSS DITCH LT. & MEDIAN				42	
STA. 105+00	AROUND MEDIAN INLET			1		
STA. 106+00	ACROSS DITCH LT. & MEDIAN				42	
STA. 107+50	ACROSS MEDIAN DITCH				21	
STA. 108+25	ALONG DITCH LT.					6
STA. 108+75	ALONG DITCH LT.					6
STA. 109+00	ACROSS MEDIAN DITCH				21	
STA. 110+50	ACROSS MEDIAN DITCH				21	
STA. 112+00	ACROSS DITCH LT. & MEDIAN				42	
STA. 113+85 TO STA. 116+28	TOE OF DRIVE RT.		343			
STA. 114+07 TO STA. 119+00	TOE OF DRIVE RT.		496			
STA. 114+15	ALONG DITCH LT.					6
STA. 115+00	AROUND MEDIAN INLET			1		
STA. 116+25 TO STA. 119+00	TOE OF DRIVE RT.		376			
STA. 116+50	ACROSS DITCH LT. & MEDIAN				42	
STA. 118+00	ACROSS DITCH LT. & MEDIAN				42	
STA. 119+00 TO STA. 120+38	TOE OF DRIVE RT.		139			
STA. 119+00 TO STA. 122+02	TOE OF DRIVE RT.		336			
STA. 119+50	ACROSS MEDIAN DITCH				21	
STA. 120+00	ACROSS DITCH RT.				21	
STA. 121+00	ACROSS DITCH LT., RT., & MEDIAN				63	
STA. 122+50	ACROSS DITCH LT., RT., & MEDIAN				63	
STA. 124+00	ACROSS MEDIAN DITCH				21	
STA. 125+50	ACROSS DITCH RT. & MEDIAN				42	
STA. 128+00	ALONG DITCH RT.					7
STA. 127+00	ACROSS DITCH LT.				21	
STA. 128+50	ACROSS DITCH RT.				21	
STA. 129+75	ALONG MEDIAN DITCH					5
STA. 130+00	AROUND MEDIAN INLET			1		
STA. 130+99	ALONG DITCH LT.					7
STA. 131+50	ACROSS DITCH RT. & MEDIAN				42	
STA. 133+00	ACROSS DITCH RT. & MEDIAN				42	
STA. 135+25	ALONG DITCH RT.					7
STA. 134+50	ACROSS MEDIAN DITCH				21	
STA. 135+50 TO STA. 137+50	ALONG TOE RT.		211			
STA. 136+00	ACROSS MEDIAN DITCH				21	
STA. 137+50	ACROSS MEDIAN DITCH				21	
STA. 138+00	ACROSS DITCH RT.				21	
STA. 138+35 TO STA. 139+33	ALONG TOE RT.		118			
STA. 138+50	AROUND MEDIAN INLET			1		
EW 140.5						
STA. 30+45	ACROSS DITCH RT.				14	
STA. 31+35	ACROSS DITCH RT.				14	
STA. 31+65	ACROSS DITCH LT. & RT.				28	
STA. 34+80	ACROSS DITCH LT. & RT.				28	

◧ TEMPORARY ROCK FILTER DAM TYPE 1 TO INCLUDE COST OF SEDIMENT TRAP AS SHOWN ON EROSION CONTROL SHEETS.

SUMMARY OF TEMPORARY SEDIMENT CONTROL

STATION EXTENTS	LOCATION AND DESCRIPTION	TYPE	TEMPORARY SILT FENCE 221(C)	TEMPORARY SEDIMENT FILTER 221(D)	TEMPORARY SILT DIKE 221(F)	TEMPORARY ROCK FILTER DAM TYPE 1 221(G)
			L.F.	EA.	L.F.	◧ C.Y.
QUAIL RD.						
STA. 25+75	ACROSS DITCH LT. & RT.				28	
STA. 27+00	ACROSS DITCH LT. & RT.				28	
STA. 28+50	ACROSS DITCH LT. & RT.				28	
STA. 31+00	ACROSS DITCH LT. & RT.				42	
STA. 32+50	ACROSS DITCH LT. & RT.				42	
STA. 35+00	ACROSS DITCH RT.				21	
STA. 36+50	ACROSS DITCH RT.				21	
STA. 38+00	ACROSS DITCH RT.				21	
STA. 39+50	ACROSS DITCH RT.				21	
STA. 42+50	ACROSS DITCH RT.				21	
STA. 44+00	ACROSS DITCH RT.				21	
STA. 45+75	ALONG DITCH RT.					7
STA. 47+00	ACROSS DITCH LT.				21	
STA. 48+50	ACROSS DITCH LT. & RT.				42	
STA. 50+00	ACROSS DITCH RT.				21	
16TH ST. (SOUTH)						
STA. 5114+15	ACROSS DITCH LT.				21	
STA. 5115+50	ACROSS DITCH LT.				21	
STA. 5117+00	ACROSS DITCH LT.				21	
STA. 5121+50	ACROSS DITCH LT.				14	
STA. 5123+00	ACROSS DITCH LT.				21	
STA. 5124+50	ACROSS DITCH LT.				21	
STA. 5126+00	ACROSS DITCH LT.				21	
STA. 5127+50	ACROSS DITCH LT.				21	
STA. 5129+00	ACROSS DITCH LT.				21	
STA. 5130+50	ACROSS DITCH LT.				21	
STA. 5132+00	ACROSS DITCH LT. & RT.				42	
STA. 5133+50	ACROSS DITCH LT. & RT.				42	
STA. 5135+00	ACROSS DITCH RT.				21	
STA. 5136+50	ALONG DITCH LT.					6
STA. 5136+50	ACROSS DITCH RT.				21	
STA. 5138+00	ACROSS DITCH LT. & RT.				42	
STA. 5139+50	ACROSS DITCH LT. & RT.				42	
STA. 5141+00	ACROSS DITCH LT. & RT.				42	
16TH ST. (NORTH)						
STA. 20+00	ACROSS DITCH LT. & RT.				28	
STA. 21+50	ACROSS DITCH LT. & RT.				28	
STA. 23+00	ACROSS DITCH LT. & RT.				28	
STA. 24+50	ACROSS DITCH RT.				14	
STA. 26+00	ACROSS DITCH RT.				14	
STA. 27+50	ACROSS DITCH RT.				14	
STA. 29+00	ACROSS DITCH RT.				14	
STA. 29+50	AROUND INLET LT.			1		
STA. 30+50	ACROSS DITCH LT. & RT.				28	
STA. 32+00	ACROSS DITCH LT. & RT.				28	
STA. 33+50	ACROSS DITCH LT. & RT.				28	
STA. 35+00	ACROSS DITCH LT. & RT.				28	
STA. 36+36 TO STA. 37+59	ALONG TOE LT.		123			

◧ TEMPORARY ROCK FILTER DAM TYPE 1 TO INCLUDE COST OF SEDIMENT TRAP AS SHOWN ON EROSION CONTROL SHEETS.

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SUMMARY SHEET

State Job No. 24428(13) Sheet No. AR08

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SUMMARY OF TEMPORARY SEDIMENT CONTROL

STATION EXTENTS	LOCATION AND DESCRIPTION	TYPE	TEMPORARY SILT FENCE 221(C)	TEMPORARY SEDIMENT FILTER 221(D)	TEMPORARY SILT DIKE 221(F)	TEMPORARY ROCK FILTER DAM TYPE 1 221(G)
			L.F.	EA.	L.F.	◧ C.Y.
RAMP A						
STA. 128+00	ACROSS DITCH LT.				21	
STA. 129+50	ACROSS DITCH LT.				21	
STA. 131+25	ALONG DITCH LT.					7
STA. 132+50	ACROSS DITCH LT.				21	
STA. 134+00	ACROSS DITCH LT.				21	
STA. 135+50	ACROSS DITCH LT.				21	
STA. 137+50	ALONG DITCH LT.					7
STA. 138+50	ACROSS DITCH LT.				21	
STA. 140+00	ACROSS DITCH LT.				21	
STA. 154+50	ACROSS DITCH LT.				21	
STA. 156+00	ACROSS DITCH LT.				21	
STA. 157+15	ACROSS DITCH LT.				21	
STA. 161+00	ACROSS DITCH LT.				21	
STA. 162+90	ALONG DITCH LT.					6
RAMP C						
STA. 98+00	ACROSS DITCH RT.				21	
STA. 98+50 TO STA. 100+37	ALONG TOE RT.		190			
STA. 100+42 TO STA. 103+00	ALONG TOE RT.		259			
STA. 104+20	ALONG DITCH RT.					6
STA. 107+50	ACROSS DITCH RT.				21	
STA. 109+50	ACROSS DITCH RT.				21	
STA. 110+60	ALONG DITCH RT.					6
STA. 113+50	ACROSS DITCH RT.				21	
STA. 115+00	ACROSS DITCH RT.				21	
STA. 115+50	ACROSS DITCH LT.				21	
STA. 116+50	ACROSS DITCH LT. & RT.				42	
STA. 117+00 TO STA. 124+00	ALONG TOE RT.		689			
STA. 118+00	ACROSS DITCH LT.				21	
STA. 121+00	ACROSS DITCH LT.				21	
STA. 122+50	ACROSS DITCH LT.				21	
STA. 124+00 TO STA. 126+00	ALONG TOE RT.		196			
STA. 124+00	ACROSS DITCH LT.				21	
STA. 125+50	ACROSS DITCH LT.				21	
STA. 127+00	ACROSS DITCH LT. & RT.				42	
STA. 128+50	ACROSS DITCH LT. & RT.				42	
STA. 130+00	ACROSS DITCH LT. & RT.				42	
STA. 131+50	ACROSS DITCH LT. & RT.				42	
STA. 133+00	ACROSS DITCH LT. & RT.				42	
STA. 134+50	ACROSS DITCH LT. & RT.				42	
STA. 137+00	ALONG DITCH RT.					5
STA. 136+00	ACROSS DITCH LT.				21	
STA. 137+50	ACROSS DITCH LT. & RT.				42	
STA. 141+00	ALONG DITCH LT.					8
STA. 139+00	ACROSS DITCH RT.				21	
STA. 140+50	ACROSS DITCH RT.				21	
STA. 142+00	ACROSS DITCH RT.				21	
STA. 143+50	ACROSS DITCH RT.				21	
STA. 145+00	ACROSS DITCH RT.				21	
STA. 146+50	ACROSS DITCH RT.				21	
STA. 149+00	ALONG DITCH RT.					5

◧ TEMPORARY ROCK FILTER DAM TYPE 1 TO INCLUDE COST OF SEDIMENT TRAP AS SHOWN ON EROSION CONTROL SHEETS.

SUMMARY OF TEMPORARY SEDIMENT CONTROL

STATION EXTENTS	LOCATION AND DESCRIPTION	TYPE	TEMPORARY SILT FENCE 221(C)	TEMPORARY SEDIMENT FILTER 221(D)	TEMPORARY SILT DIKE 221(F)	TEMPORARY ROCK FILTER DAM TYPE 1 221(G)
			L.F.	EA.	L.F.	◧ C.Y.
RAMP D						
STA. 218+00	ACROSS DITCH RT.				21	
STA. 218+95	ALONG DITCH RT.					6
STA. 221+00	ACROSS DITCH RT.				21	
STA. 222+50	ACROSS DITCH RT.				21	
STA. 224+00	ACROSS DITCH RT.				21	
STA. 224+50 TO STA. 228+00	ALONG TOE RT.		344			
STA. 228+00 TO STA. 232+25	ALONG TOE RT.		416			
STA. 233+00	ACROSS DITCH RT.				21	
STA. 234+50	ACROSS DITCH RT.				21	
STA. 236+00	ACROSS DITCH LT. & RT.				42	
STA. 237+50	ACROSS DITCH LT. & RT.				42	
STA. 238+50	ACROSS DITCH LT.				21	
STA. 240+50	ALONG DITCH RT.					6
STA. 240+90	ALONG DITCH LT.					7
STA. 241+00	ACROSS DITCH RT.				21	
STA. 242+00	ACROSS DITCH LT.				21	
STA. 243+50	ACROSS DITCH RT.				21	
RAMP E						
STA. 251+50	ACROSS DITCH RT.				21	
STA. 252+00	ALONG DITCH RT.					7
STA. 254+50	ACROSS DITCH RT.				21	
STA. 256+00	ACROSS DITCH LT. & RT.				42	
STA. 257+50	ACROSS DITCH LT. & RT.				42	
STA. 257+50 TO STA. 259+00	ALONG TOE LT.		145			
STA. 259+00	ACROSS DITCH RT.				21	
STA. 259+00 TO STA. 260+00	ALONG TOE LT.		97			
STA. 260+50	ACROSS DITCH LT. & RT.				42	
STA. 262+00	ACROSS DITCH LT.				21	
STA. 263+50	ACROSS DITCH LT.				21	
STA. 265+00	ACROSS DITCH LT.				21	
STA. 267+32	ALONG DITCH LT.					7
RAMP F						
STA. 134+41 TO STA. 136+00	ALONG TOE RT.		167			
STA. 136+00 TO STA. 138+00	ALONG TOE RT.		205			
STA. 139+00	ACROSS DITCH RT.				21	
STA. 140+50	ACROSS DITCH RT.				21	
STA. 143+18	ALONG DITCH RT.					7
	TOTALS		4,850	5	3493	147

◧ TEMPORARY ROCK FILTER DAM TYPE 1 TO INCLUDE COST OF SEDIMENT TRAP AS SHOWN ON EROSION CONTROL SHEETS.

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SUMMARY SHEET

State Job No. 24428(13) Sheet No. AR09

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SUMMARY OF DRAINAGE STRUCTURES

STRUCTURE NO.	STATION	DESCRIPTION	DESIGN	UNCLASS. EXC. 202(A)	SELECT BORROW 202(E)	STR. EXC. UNCLASS. 501(A)	STRUCTURAL STEEL 506(A)	PILES, FURNISHED (HP 10x42) 514(A)	SHEET PILING, FURNISHED 514(H)	6" PERFORATED PIPE UNDERDRAIN ROUND 613(H)	TRENCH EXC. 613(V)	STD. BEDDING MATERIAL		ELEVATIONS			CLASS 'AA' CONCRETE 509(A)	REINFORCING STEEL 511(A)	INLET 611(G)	ADD'L. DEPTH IN INLET 611(H)	R.C. PIPE CLASS III 613(A)	R.C. PIPE CLASS IV 613(A)		R.C. PIPE ARCH 613(A)			CORR. GALV. STEEL PIPE 613(B)			C.E.T. 613(M)						P.C.E.S. 613(L)
												CLASS B 613 (S)	CLASS C 613 (T)	TOP OF RIM OR TOP OF GRATE	INLET FLOWLINE	DOWN STREAM FLOWLINE			SMD TYPE 2	SMD ☼	18"	18"	36"	22"x13"	28"x18"	43"x26"	18"	36"	48"	A4	B4	C4	D4	A6	B6	36"
				C.Y.	C.Y.	C.Y.	LBS.	L.F.	S.Y.	L.F.	C.Y.	C.Y.	C.Y.	ELEV.	ELEV.	ELEV.	C.Y.	LBS.	EA.	V.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	EA.	EA.	EA.	EA.	EA.	EA.	EA.
1	US 81 105+00.00	CONST. SMD TYPE 2, ON CL STUB 120 LF 18" RCP INTO DITCH RT.	SMD-3 TYPE-2, SPI-4, SPB-1, CET4S-3-A4, FHTCP-3								135.85	104.86		1200.42	1193.39	1189.79			1	4.47	120									1						
2	US 81 108+50.00	CONST. 4'x4'x258' LG. RCB 122' LG. LT. & 136' LG. RT. W/ STD 0° END SECTIONS & 4' CURTAIN WALLS	SBI-4, RCB-C1-3&4&5(2-20), RCB-E1-H4-0-1, RCB-E1-H4-0-2, RCB-CW1-D4-0	8,874		43									1190.50	1188.80	165.19	19,864																	
3	US 81 115+00.00	CONST. SMD TYPE 2, ON CL STUB 188 LF 18" RCP INTO DITCH RT.	SMD-3 TYPE-2, SPI-4, SPB-1, CET4S-3-A4, FHTCP-3								590.29	451.22		1223.64	1208.70	1193.96			1	12.38		188								1						
4	US 81 130+00.00	CONST. SMD TYPE 2, ON CL STUB 168 LF 18" RCP INTO DITCH RT.	SMD-3 TYPE-2, SPI-4, SPB-1, CET4S-3-A4, FHTCP-3								514.52	393.36		1210.60	1195.60	1185.07			1	12.44		168								1						
5	US 81 132+00.00	CONST. 36"x334' LG. RCP 168' LG. LT. & 166' LG. RT.	SPI-4, SPB-1, CET4S-3-D4, FHTCP-3								2069.27	1711.88			1183.17	1182.02							334									2			
6	US 81 138+00.00	CONST. 2-5'x4'x326' LG. RCB 165' LG. LT. & 161' LG. RT. W/ STD 0° END SECTIONS & 4' CURTAIN WALLS	SBI-4, RCB-E2-H4-0-1, RCB-E2-H4-0-2, RCB-CW2-D4-0, RCB-C2-4&5(2-20), SEE DETAIL SHEETS	24,138		220									1170.00	1169.03	545.80	81,200																	
7	US 81 138+50.00	CONST. SMD TYPE 2, ON CL STUB 44 LF 18" RCP INTO STR 6	SMD-3 TYPE-2, SPI-4, SPB-1, FHTCP-3								124.56	95.27		1197.53	1177.53	1171.78			1	17.44	44															
53	EW 140.5 30+60.00	CONST. 43"x26"x76' LG. RCPA 37' LG. LT. & 39' LG. RT.	SPI-4, SPB-1, CET4S-3-C4, FHTCP-3								44.66	17.13			1203.60	1202.83										76					2				
54	EW 140.5 31+50.00	CONST. 28"x18"x70' LG. RCPA 34' LG. LT. & 36' LG. RT.	SPI-4, SPB-1, CET4S-3-B4, FHTCP-3								26.46	14.69			1200.93	1200.40									70					2				
55	EW 140.5 34+95.00	CONST. 28"x18"x64' LG. RCPA 31' LG. LT. & 33' LG. RT.	SPI-4, SPB-1, CET4S-3-B4, FHTCP-3								13.81	3.05			1191.47	1190.86									64					2				
56	16TH ST. (SOUTH) 5118+50.00	CONST. 22"x13"x80' LG. RCPA SD 28.80' LT. W/ CET	SPI-4, SPB-1, CET6S-3-A6, FHTCP-3								13.79				1212.42	1210.99								80									2		
57	16TH ST. (SOUTH) 5123+73.00	CONST. 28"x18"x50' LG. RCPA SD 33' LT. W/ CET	SPI-4, SPB-1, CET4S-3-B4, FHTCP-3								10.79				1205.07	1203.87									50					2				
58	16TH ST. (SOUTH) 5128+30.00	CONST. 28"x18"x52' LG. RCPA SD 33' LT. W/ CET	SPI-4, SPB-1, CET4S-3-B4, FHTCP-3								11.22				1195.25	1194.79									52					2				
59	16TH ST. (SOUTH) 5136+90.00	CONST. 8'x4'x58' LG. RCB 28' LG. LT. & 30' LG. RT. W/ STD 0° END SECTIONS & 4' CURTAIN WALLS	SBI-4, RCB-C1-8(2-14), RCB-E1-H4-0-1, RCB-E1-H4-0-2, RCB-CW1-D4-0	550		21									1182.66	1182.03	93.74	12,830																	
60	QUAIL ROAD 26+68.00	CONST. 22"x13"x40' LG. RCPA SD 33' RT. W/ CET	SPI-4, SPB-1, CET4S-3-A4, FHTCP-3								6.90				1197.05	1196.53								40					2					
61	QUAIL ROAD 31+40.00	CONST. 22"x13"x58' LG. RCPA SD 34.5' RT. W/ CET	SPI-4, SPB-1, CET4S-3-A4, FHTCP-3								10.00				1197.39	1196.49								58					2					
62	QUAIL ROAD 45+07.66	CONST. 10'x4'x84' LG. RCB 51.50' LG. LT. & 32.50' LG. RT. W/ STD 0° END SECTIONS & 4' CURTAIN WALLS	SBI-4, RCB-C1-10(2-14), RCB-E1-H4-0-1, RCB-E1-H4-0-2, RCB-CW1-D4-0	911		39									1163.06	1162.81	138.61	24,070																	
63	16TH ST. (NORTH) 29+50.00	CONST. SP. DROP INLET, 58' LT. STUB 87 LF 2-5'x4' RCB INTO CHANNEL RT. W/ STD 0° END SECTION & 4' CURTAIN WALL	SEE DETAIL, RCB-E2-H4-0-1, RCB-E2-H4-0-2, RCB-CW2-D4-0, RCB-C2-4&5(2-20), SEE DETAIL SHEET	3,904		37							1166.54	1161.04	1160.00	136.37	23,413																		
64	RAMP D 240+96.10	CONST. 2-5'x4'x197' LG. RCB 103' LG. LT. & 94' LG. RT. STUB INTO STR 63 W/ STD 0° END SECTION & 4' CURTAIN WALL	SBI-4, RCB-E2-H4-0-1, RCB-E2-H4-0-2, RCB-CW2-D4-0, RCB-C2-4&5(2-20), SEE DETAIL SHEET	2,550		84									1162.79	1161.04	297.80	45,850																	
81	RAMP A 153+29.19	CONST. SMD TYPE 2, 42.74' RT. STUB 82 LF 18" RCP INTO DITCH LT.	SMD-3 TYPE-2, SPI-4, SPB-1, CET4S-3-A4, FHTCP-3								46.98	38.23		1185.44	1182.52	1182.27			1	0.36	82								1						
170	RAMP D 216+61.33	CONST. 28"x18"x90' LG. RCPA SD 42.44' RT. W/ CET	SPI-4, SPB-1, CET6S-3-B6, FHTCP-3								19.42	4.28			1155.62	1152.45									90							2		
171	16TH ST. (NORTH) 36+08.37	CONST. 16'x6'x44' LG. RCB 22' LG. LT. & 22' LG. RT. W/ SP. INLINE WINGS	SBI-4, SEE DETAIL SHEETS	620	220	140	6,950	208	109	76		300.00			1152.81	1152.52	126.20	18,950																	
190	QUAIL ROAD 24+87.85	EXT. EXIST. 36"x45' LG. CGSP 4' LG. RT.	FPI-3, SPB-1, PCES-4, FHTMPP-1								8.72		5.59		1190.53	1190.14												8						1
191	QUAIL ROAD 26+61.00	CONST. 22"x13"x48' LG. RCPA SD 31' LT. W/ CET	SPI-4, SPB-1, CET6S-3-A6, FHTCP-3								18.17				1197.70	1197.54								48							2		
233	16TH ST. (SOUTH) 5120+42.00	CONST. 22"x13"x86' LG. RCPA SD 28.37' LT. W/ CET	SPI-4, SPB-1, CET6S-3-A6, FHTCP-3								14.83				1212.88	1211.71								86							2		
T1	US 81 90+35.00	CONST. 22"x13"x712' LG. RCPA ALONG MEDIAN DITCH	SPI-4, SPB-1, FHTCP-3								181.82				1195.70	1189.37								712									
T2	CROSSOVER 2	CONST. 28"x18"x590' LG. RCPA ALONG MEDIAN DITCH	SPI-4, SPB-1, FHTCP-3								266.08				1147.61	1130.31									590								
T3	QUAIL ROAD 41+99.00	EXT. EXIST. 6'x4'x50' LG. RCB W/ 48" CGSP 70' LG. LT.	FPI-4, SPB-1, FHTMPP-1								97.53				1165.37	1165.22																70		
T4	QUAIL ROAD DETOUR 49+11.00	CONST. 18"x108' LG. CGSP SKEW 62° RT. FWD. 66' LG. LT. & 42' LG. RT.	FPI-4, SPB-1, FHTMPP-1								48.56				1181.60	1179.06											108						
			TOTALS	41,547	220	584	6,950	208	109	76	4,274.23	3,133.97	5.59				1,503.71	226,177	5	47.09	246	356	334	1,024	916	76	108	8	70	8	8	2	2	6	2	1

☼ THESE ITEMS LISTED FOR CONTRACTOR USE. COST FOR THESE ITEMS ARE INCLUDED IN OTHER ITEMS OF WORK.

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUMMARY OF DRAINAGE STRUCTURES

State Job No. 24428(13) Sheet No. AR10

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD REVIEW MEETING
JUNE 2020

GENERAL NOTES - TRAFFIC CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER BARRICADES, LIGHTS, AND SIGNING WITHIN THE LIMITS OF CONSTRUCTION. ALL CONSTRUCTION SIGNING WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS. CONSTRUCTION TRAFFIC CONTROL WILL BE INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS.

REMOVED MATERIAL TO BECOME PROPERTY OF CONTRACTOR AND IT SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE RESIDENT ENGINEER.

ANY EXISTING SIGNS THAT INTERFERE WITH CONSTRUCTION ACTIVITIES SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER FOR APPROVAL AND INSPECTION OF THE EXISTING CONDITION. UPON APPROVAL OF REMOVAL, THE SIGNS WILL BE REMOVED AND STORED BY THE CONTRACTOR. THE SIGNS WILL BE REPLACED BY THE CONTRACTOR ONCE THEY NO LONGER INTERFERE WITH THE REMAINING ACTIVITIES OR WITHIN 24 HOURS OF A REQUEST BY THE RESIDENT ENGINEER TO REPLACE ANY DAMAGED SIGNS WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL PROVIDE A PERSON TO BE ON 24 HOUR CALL AS NEEDED AS DETERMINED BY THE ENGINEER. THE PERSON SHALL HOLD A CURRENT CERTIFICATION FROM THE AMERICAN TRAFFIC SAFETY SERVICE ASSOCIATION (ATSSA) OR THE OKLAHOMA TRAFFIC ENGINEERING ASSOCIATION (OTEA) AS A TRAFFIC CONTROL TECHNICIAN OR TRAFFIC CONTROL SUPERVISOR.

ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL MEET ODOT'S "QUALITY STANDARDS FOR TEMPORARY TRAFFIC CONTROL DEVICES." CHANNELIZING DEVICES SHALL HAVE A MINIMUM HEIGHT OF 36 INCHES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE TEMPORARY TRAFFIC CONTROL DEVICES, AND SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY DEVICE DURING CONSTRUCTION.

THE CONTRACTOR MAY SUBMIT AN ALTERNATIVE TRAFFIC CONTROL DESIGN FOR APPROVAL BY THE RESIDENT ENGINEER AND TRAFFIC ENGINEERING DIVISION.

PAY QUANTITY NOTES - TRAFFIC CONTROL

(TC-1) THE CONTRACTOR SHALL FURNISH AND INSTALL SUCH LIGHTS, SIGNS, BARRICADES, AND PROVIDE FLAGGERS NECESSARY FOR THE CONTROL, SAFETY, AND MAINTENANCE OF TRAFFIC WHEN INSTALLING, RELOCATING OR DELIVERING PORTABLE LONGITUDINAL BARRIER.

(TC-2) QUANTITY INCLUDES SUFFICIENT LENGTH OF PORTABLE LONGITUDINAL BARRIER TO PROVIDE FOR THE LONGEST SECTION SHOWN ON THE PLANS. THIS SAME BARRIER WILL BE USED ON OTHER DETOUR PHASES.

(TC-17) INCLUDES AN ESTIMATED 2,000 L.F. (PAINT)(4" WIDE) WHITE AND 2,000 L.F. (PAINT)(4" WIDE) YELLOW STRIPE.

(TC-20) ALL STRIPING TO BE PLACED ON TEMPORARY SURFACES OR ON SURFACES SCHEDULED TO BE REMOVED SHALL BE DONE WITH PAINT UNLESS OTHERWISE NOTED ON THE PLANS OR STANDARD DRAWINGS. TEMPORARY PAVEMENT MARKINGS PLACED ON FINISHED PAVEMENT OR EXISTING PAVEMENT TO REMAIN IN PLACE SHALL USE ONE OF THE FOLLOWING METHODS:
* REMOVABLE PAVEMENT MARKING TAPE
* CLASS A PAVEMENT MARKERS

(TC-21) INCLUDED IN THE COST OF THIS ITEM SHALL BE INSTALLATION, MAINTENANCE, AND REMOVAL. THIS ITEM SHALL BE BID ACCORDINGLY.

(TC-22) AMOUNT SHOWN IS AN APPROXIMATION AND THE ACTUAL AMOUNT OF REMOVAL, IF NECESSARY, SHALL BE DETERMINED BY THE ENGINEER. PRICE BID FOR PAVEMENT MARKING REMOVAL SHALL INCLUDE THE COST OF REMOVING STRIP, ARROWS, WORDS AND SYMBOLS, AS SHOWN IN THE PLANS. THESE ITEMS MAY CONSIST OF PLASTIC, PAINT OR NON-REMOVABLE MARKING TAPE.

(TC-23) QUANTITY SHOWN FOR THIS ITEM INCLUDES THOSE SIGNS WHICH COMPRISE THE ROUTE MARKER ASSEMBLIES USED TO INDICATE THE DETOUR ROUTE.

(TC-26) ALL CONSTRUCTION TRAFFIC CONTROL WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS, AND INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS. PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES REQUIRED FOR COMPLETION OF THE PROJECT.

ALL SIGNS AND BARRICADES WHICH ARE SHOWN WITH TYPE 'A' LIGHTS IN THE STANDARD DRAWINGS SHALL HAVE THE CORRESPONDING LIGHT ATTACHED DURING NON-DAYLIGHT HOURS.

(TC-28) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 0.00 S.F. AND 6.25 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-29) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 6.26 S.F. AND 15.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-30) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 16.00 S.F. AND 32.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-33) ALL CONSTRUCTION WORK ZONE SIGNS SHALL HAVE FLUORESCENT SHEETING. THE FLUORESCENT SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956 (LATEST REVISION).

THE MANUFACTURER SHALL FURNISH A TYPE 'D' CERTIFICATION IN ACCORDANCE WITH O.D.O.T. STANDARD SPECIFICATIONS (CURRENT EDITION) SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON MATERIAL SUBMITTED FOR APPROVAL.

PAY QUANTITY NOTES - TRAFFIC CONTROL (CONTD.)

(TC-52) ANY USED TRUCK MOUNTED ATTENUATOR, CHANGEABLE MESSAGE SIGN, CONSTRUCTION ZONE IMPACT ATTENUATOR, OR SAND FILLED IMPACT ATTENUATOR TO BE PLACED ON THIS PROJECT SHALL BE SUBJECT TO INSPECTION AND APPROVAL, BY THE ENGINEER, TO ASSURE THAT THEY ARE IN GOOD WORKING CONDITION, PRIOR TO PLACEMENT ON THE PROJECT.

(TC-61) ANY DAMAGE TO A FINISHED OR EXISTING SURFACE RESULTING FROM THE CONTRACTOR'S NEGLIGENCE IN THE REMOVAL OF CONSTRUCTION ZONE PAVEMENT MARKERS OR CHANNELIZING DEVICES AND THE BITUMINOUS ADHESIVE USED IN THEIR INSTALLATION, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE ENGINEER.

(TC-70) THIS ITEM IS AN ESTIMATED QUANTITY TO BE USED AS DEEMED NECESSARY BY THE ENGINEER.

(TC-75) TEMPORARY PAVEMENT MARKINGS SHALL BE IN PLACE THE SAME DAY THAT EXISTING PAVEMENT MARKINGS ARE REMOVED FROM ANY ROADWAY OPEN TO TRAFFIC. ALSO, ALL TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO THE INSTALLATION OF FINAL STRIPING.

(TC-84) 780 CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAY PAY ITEMS. THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY, BASED ON THE CURRENT O.D.O.T. STANDARDS AND SUGGESTED CONSTRUCTION SEQUENCE FOR THIS PROJECT. THESE ESTIMATED SIGN DAY QUANTITIES MAY CHANGE AS THE PROJECT'S CONSTRUCTION TRAFFIC CONTROL IS MODIFIED DURING CONSTRUCTION.

(TC-85) THESE SIGNS MUST BE ON THE OKLAHOMA DEPARTMENT OF TRANSPORTATION LIST OF APPROVED CHANGEABLE MESSAGE SIGNS. FOR A LIST OF THE APPROVED SIGNS GO TO THE OKLAHOMA DEPARTMENT OF TRANSPORTATION WEBSITE AT:
http://www.okladot.state.ok.us/traffic/qpl/index.php

(TS-23) QUANTITY SHOWN INCLUDES 150 L.F. TRAFFIC STRIPE (PLASTIC)(WHITE) AND WILL BE MEASURED BY THE LINEAR FOOT OF TWENTY-FOUR INCH (24") WIDE TRAFFIC STRIPE.

(101) ATTENUATOR SHALL BE QUADGUARD ELITE, SCI-100 GM (SMART CUSHION), OR APPROVED EQUAL, WITHIN THE SAME CATEGORY OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION'S IMPACT ATTENUATOR GUIDELINE MATRIX. THE IMPACT ATTENUATOR GUIDELINE MATRIX CAN BE FOUND AT:
http://www.okladot.state.ok.us/traffic/pdfs/AttenuatorGuideline.pdf

IMPACT ATTENUATOR MUST MEET NCHRP 350, TL-3.

THE CONTRACTOR SHALL HAVE A MINIMUM OF ONE (1) ADDITIONAL IMPACT ATTENUATOR ON SITE FOR EMERGENCY REPLACEMENT.

(102) PORTABLE CHANGEABLE MESSAGE SIGN(S) TO BE PLACED WHERE DEEMED NECESSARY BY THE ENGINEER.

PORTABLE CHANGEABLE MESSAGE SIGN(S) TO BE PLACED 14 DAYS PRIOR TO CONSTRUCTION.

PAY QUANTITIES

0300 TRAFFIC CONTROL

ITEM NO.	CODE NO.	ITEM DESCRIPTION	NOTES	UNIT	QUANTITY
855(A)	8825	TRAFFIC STRIPE (PLASTIC) (24" WIDE)	(TS-23)	LF	150.00
857(A)	8839	CONSTRUCTION TRAFFIC STRIPE (PAINT) (4" WIDE)	(TC-17,20,21,61,70,75)	LF	113,060.00
857(E)	8884	(PL)C/L CONSTRUCTION ZONE PAVEMENT MARKERS (YELLOW)	(TC-17,20,21,61,70,75)	EA	204.00
857(F)	8006	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	(TC-22,70,75)	LF	86,300.00
871(B)	8705	(SP)CONST.ZONE IMPACT ATTEN.	(TC-52,84)(101)	SD	660.00
877(B)	8484	DELIVER PORTABLE LONGITUDINAL BARRIER	(TC-1, 2)	LF	4,925.00
877(C)	8486	RELOCATION OF PORTABLE LONGITUDINAL BARRIER	(TC-1)	LF	7,775.00
880(B)	8818	CONSTRUCTION SIGNS 0 TO 6.25 S.F.	(TC-23,26,28,33,84)	SD	29,700.00
880(B)	8821	CONSTRUCTION SIGNS 6.26 S.F. TO 15.99 S.F.	(TC-26,29,33,84)	SD	34,050.00
880(B)	8824	CONSTRUCTION SIGNS 16.0 S.F. TO 32.99 S.F.	(TC-26,30,33,84)	SD	31,230.00
880(C)	8842	CONSTRUCTION BARRICADES (TYPE III)	(TC-26, 84)	SD	35,040.00
880(C)	8848	WING BARRICADES	(TC-26, 84)	SD	3,000.00
880(E)	8860	WARNING LIGHTS (TYPE A)	(TC-26, 84)	SD	84,780.00
880(F)	8878	DRUMS	(TC-26, 84)	SD	35,250.00
880(G)	8890	CHANNELIZER CONES	(TC-26, 84)	SD	97,380.00
880(G)	8900	TUBE CHANNELIZERS	(TC-26, 84)	SD	17,880.00
882(A)	8306	PORT. CHANGEABLE MESSAGE SIGN	(TC-52,84,85)(102)	SD	3,970.00

PRELIMINARY

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PAY QUANTITIES & NOTES - TRAFFIC CONTROL

State Job No. 24428(13) Sheet No. AT01

US-81 REALIGNMENT
GRADY COUNTY

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GENERAL NOTES - TRAFFIC SIGNING

REMOVED MATERIAL TO BECOME PROPERTY OF CONTRACTOR AND IT SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

ANY DAMAGE CAUSED BY THE CONTRACTOR TO ANY STRUCTURES, ROADWAY SURFACES, STRIPING, RAISED PAVEMENT MARKERS, GUARDRAIL, SLOPES, AND SIGNS SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.

ALL REGULATORY SIGNS SHALL HAVE HIGH INTENSITY SHEETING. THE HIGH INTENSITY SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956-(LATEST REVISION) FOR TYPE III SHEETING.

ALL WARNING SIGNS SHALL HAVE FLUORESCENT YELLOW SHEETING. THE FLUORESCENT YELLOW SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956-(LATEST REVISION) REQUIREMENTS FOR TYPE VIII SHEETING.

ALL GREEN AND BLUE SIGNS ON CONVENTIONAL HIGHWAYS SHALL HAVE HIGH INTENSITY SHEETING. THE HIGH INTENSITY SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956-(LATEST REVISION) FOR TYPE III SHEETING.

ALL PANEL AND OVERHEAD SIGNS SHALL HAVE TYPE III HIGH INTENSITY BACKGROUND WITH TYPE VIII LEGENDS AND BORDERS. THE TYPE III BACKGROUND AND THE TYPE VIII LEGENDS AND BORDERS SHALL MEET THE REQUIREMENTS OF ASTM D4956-(LATEST REVISION).

THE MANUFACTURER SHALL FURNISH A TYPE 'A' CERTIFICATION IN ACCORDANCE WITH ODOT STANDARD SPECIFICATIONS, LATEST EDITION, AND SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON THE MATERIAL SUBMITTED FOR APPROVAL.

ALL BROKEN CONCRETE INCLUDING OLD SIGN FOOTINGS WITH STUBS, WASTE MATERIAL AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THE DISPOSAL OF THIS MATERIAL. ANY PIPE POST OR WIDE FLANGE POST ABOVE THE OLD SIGN FOOTINGS SHALL BE CUT AND HANDLED AS PROPERTY OF THE STATE AND SHALL BE NEATLY STACKED ON THE JOB SITE, AS DESIGNATED BY THE ENGINEER UNTIL SUCH TIME AS DIVISION PERSONNEL CAN REMOVE THE MATERIAL FROM THE JOB SITE.

NO SPLICES SHALL BE PERMITTED IN ANY PIPE OR WIDE FLANGE SIGN POSTS.

ALL ANCHOR BOLTS SHALL BE GRADE A-36 STEEL.

THE STATIONS AND LOCATIONS OF THE SIGN PLACEMENT, AS SHOWN ON THE PLAN SHEETS, ARE APPROXIMATE. EXACT STATIONS AND LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR SO THAT THE SIGN IS INSTALLED IN ACCORDANCE WITH OTA STANDARDS AND THE MUTCD IN ORDER TO PROVIDE OPTIMUM VISIBILITY TO THE ONCOMING/ APPROACHING MOTORIST. IF A PROPOSED LOCATION CONFLICTS WITH OTHER SIGNS, UTILITIES OR OTHER ROADWAY FEATURES, THE ENGINEER SHALL BE NOTIFIED.

POST LENGTHS SHOWN ON SIGN SUMMARY ARE APPROXIMATE. EXACT LENGTH SHALL BE DETERMINED BY FIELD SURVEY BY THE CONTRACTOR.

AFTER REMOVAL OF ANY SIGN FOOTINGS, THE HOLES SHALL BE FILLED WITH SOIL AND TAMPED AND SHAPED IN A MANNER APPROVED BY THE ENGINEER.

FOR NEW OR EXISTING GROUND MOUNTED SIGNS, MAXIMUM STUB POST PROJECTION ABOVE FOOTING/GROUND LINE SHALL BE 1-3/4" +/- 1/4". MAXIMUM FOOTING PROJECTION ABOVE GROUND LINE SHALL BE NO MORE THAN 2". SHOULD ADDITIONAL SOIL BE REQUIRED, THE ENGINEER WILL DESIGNATE AN AREA TO OBTAIN ADDITIONAL SOIL. ALL ASSOCIATED COSTS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

GENERAL NOTES - TRAFFIC SIGNING & LIGHTING

THE STRUCTURAL DESIGN OF ALL POLES, MAST ARMS, HIGH-MAST POLES, AND OTHER SUPPORTS FOR SIGNS, LUMINAIRES, AND SIGNALS AS WELL AS THEIR CONNECTIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS. THE MANUFACTURER SHALL ENSURE THE FOLLOWING ARE APPLIED TO THE DESIGN:

THE MINIMUM DESIGN WIND SPEED AND DESIGN LIFE AS REQUIRED IN THE AASHTO SPECIFICATIONS;

THE CALCULATED STRESSES AND FORCES FROM THE DESIGN LOCADINGS DO NOT EXCEED THOSE REQUIRED IN THE AASHTO SPECIFICATIONS;

A CATEGORY I FATIGUE IMPORTANCE FACTOR (I_F) FOR ALL STRUCTURES; NO VIBRATORY MITIGATION SHALL BE ALLOWED. TRUCK-INDUCED GUSTS SHALL BE APPLIED TO ALL OVERHEAD TRAFFIC SIGNAL SUPPORTS.

ALL MEMBERS ARE AT LEAST THE MINIMUM THICKNESS AS REQUIRED IN THE AASHTO SPECIFICATIONS;

LUMINAIRE MAST ARMS SHALL BE DESIGNED TO SUPPORT AT LEAST A 50 LB. (22.7 KG) LUMINAIRE WITH AN EFFECTIVE PROJECTED AREA OF 2.5 $FT.^2$ (0.23 M^2);

THE ANCHOR BOLT DESIGN AND AMOUNT OF ANCHOR BOLTS TO BE USED SHALL BE AS REQUIRED IN THE AASHTO SPECIFICATIONS.

SIGNAL MAST ARMS AND POLES SHALL BE DESIGNED FOR SPECIFIC SIGNAL HEAD AND SIGN PLACEMENT.

UNLESS SITE SPECIFIC GEOTECHNICAL DATA IS AVAILABLE, FOUNDATIONS SHALL BE DESIGNED UTILIZING THESE PARAMETERS: SHEAR STRENGTH OF COHESIVE SOIL (C) OF 500 PSF, ANGLE OF INTERNAL FRICTION (Φ) OF 22 DEGREES, AND EFFECTIVE UNIT WEIGHT OF SOIL (Γ) OF 120 PCF.

MINIMUM HAND HOLE SIZE OF 3 INCH WIDTH BY 5 INCH HEIGHT.

PAY QUANTITY NOTES - TRAFFIC SIGNING

(TS-24) QUANTITY SHOWN INCLUDES 11,240 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (WHITE) AND 11,200 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR INCH (4") WIDE TRAFFIC STRIPE.

(TS-25) QUANTITY SHOWN INCLUDES 37,224 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (WHITE) AND 30,950 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF SIX INCH (6") WIDE TRAFFIC STRIPE.

(TS-26) QUANTITY SHOWN INCLUDES 585 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (WHITE) AND 100 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF EIGHT INCH (8") WIDE TRAFFIC STRIPE.

(TS-28) QUANTITY SHOWN INCLUDES 65 L.F. TRAFFIC STRIPE (MULTI-POLYMER) (WHITE) AND WILL BE MEASURED BY THE LINEAR FOOT OF TWENTY-FOUR INCH (24") WIDE TRAFFIC STRIPE.

(TS-33) INCLUDED IN THIS PAY ITEM IS ALL HARDWARE ASSOCIATED WITH PROPERLY ANCHORING AND MOUNTING THE HIGHWAY SIGN IN ACCORDANCE WITH O.D.O.T. PLANS AND STANDARD DRAWINGS SSA1-1 AND SSP1-1-(LATEST REVISION).

(TS-34) INCLUDED IN THIS PAY ITEM IS THE REMOVAL OF ANY EXISTING SIGNS TO BE REPLACED BY NEW ASSEMBLIES AND THE REMOVAL OF ANY EXISTING SIGNS THAT WILL BE IN CONFLICT WITH THE NEW ROADWAY OR NEW SIGNAGE.

(TS-41) "REMOVAL OF EXISTING SIGNS" SHALL INCLUDE THE REMOVAL OF A COMPLETE SIGN ASSEMBLY WHICH MAY INCLUDE MULTIPLE SIGNS, POSTS, FOOTINGS, AND ANY FOOTINGS ADJACENT TO THE SIGN ASSEMBLY. WHEN APPROVED BY THE ENGINEER, FOOTINGS MAY BE OBLITERATED TO A POINT BELOW GROUND LEVEL IN LIEU OF BEING COMPLETELY REMOVED. SEE GENERAL CONSTRUCTION NOTES FOR DISPOSAL OF OLD CONCRETE FOOTING MATERIAL.

(121) INCLUDED IN THIS PAY ITEM IS 3.04 C.Y. FOR GALV. STEEL WIDE FLANGE BEAM POST FOOTINGS AND 20.54 C.Y. FOR GALV. STEEL PIPE POST FOOTINGS.

(122) INCLUDED IN THIS PAY ITEM IS 424 POUNDS FOR GALV. STEEL WIDE FLANGE BEAM POST FOOTINGS AND 3,002 POUNDS FOR GALV. STEEL PIPE POST FOOTINGS.

(123) INCLUDED IN THIS ITEM IS THE REMOVAL OR COVERING OF ANY EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL AS SHOWN IN THESE PLANS. ALSO INCLUDED IS THE COST OF UNCOVERING THESE SIGNS UPON COMPLETION OF THE PROJECT OR AS DIRECTED BY THE ENGINEER. NO ADHESIVE SHALL BE PLACED ON THE FACE OF ANY SIGN.

(124) POST LENGTHS SHOWN ON SUMMARY ARE APPROXIMATE; EXACT LENGTHS SHALL BE DETERMINED BY FIELD SURVEY BY THE CONTRACTOR.

PAY QUANTITIES

0310 TRAFFIC SIGNING AND STRIPING

ITEM NO.	CODE NO.	ITEM DESCRIPTION	NOTES	UNIT	QUANTITY
804(A)	2915	STRUCTURAL CONCRETE	(121)	CY	24.00
804(B)	2916	REINFORCING STEEL	(122)	LB	3,426.00
805(A)	8722	(PL) REMOVAL OF EXISTING SIGNS	(TS-41)(123)	LSUM	1.00
850(A)	8110	SHEET ALUMINUM SIGNS	(TS-34)	SF	2,049.00
850(B)	8112	EXTRUDED ALUMINUM PANEL SIGNS	(TS-34)	SF	131.00
851(A)	3207	6" @ 15 GALV. STEEL WIDE FLANGE BEAM POST	(TS-33)(124)	LF	88.00
851(B)	3219	3 1/2" @ 9.11 GALV. STEEL PIPE POST	(TS-33)(124)	LF	1,208.00
851(C)	8324	2" SQUARE TUBE POST	(TS-33)(124)	LF	83.00
851(C)	8327	2 1/4" SQUARE TUBE POST	(TS-33)(124)	LF	866.00
851(C)	8330	2 1/2" SQUARE TUBE POST	(TS-33)(124)	LF	399.00
853	9024	DELINEATORS (TYPE 1, CODE 1)		EA	110.00
853	9027	DELINEATORS (TYPE 1, CODE 2)		EA	19.00
853	9036	DELINEATORS (TYPE 2, CODE 2)		EA	16.00
853	9039	DELINEATORS (TYPE 2, CODE 3)		EA	36.00
853	9060	BARRIER DELINEATORS (TYPE 1, CODE 1)		EA	10.00
853	9063	BARRIER DELINEATORS (TYPE 2, CODE 1)		EA	10.00
856(A)	8530	TRAFFIC STRIPE (MULTI-POLY.) (4" WIDE)	(TS-24)	LF	22,440.00
856(A)	8535	TRAFFIC STRIPE (MULTI-POLY.) (6" WIDE)	(TS-25)	LF	68,174.00
856(A)	8540	TRAFFIC STRIPE (MULTI-POLY.) (8" WIDE)	(TC-26)	LF	685.00
856(A)	8555	TRAFFIC STRIPE (MULTI-POLY.) (24" WIDE)	(TS-28)	LF	65.00
856(A)	8860	TRAFFIC STRIPE (MULTI-POLY.) (ARROWS)		EA	13.00
856(A)	8870	TRAFFIC STRIPE (MULTI-POLY.) (SYMBOLS)		EA	12.00
880(C)	8845	BARRICADES (TYPE III)		EA	41.00

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

PAY QUANTITIES & NOTES - TRAFFIC SIGNING & STRIPING

State Job No. 24428(13) Sheet No. AT02

US-81 REALIGNMENT
GRADY COUNTY

6/29/2020
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6/25/2020

FINAL FIELD REVIEW MEETING
JUNE 2020

GENERAL NOTES - TRAFFIC LIGHTING

SYMBOLS AND LEGENDS ARE DIAGRAMMATIC ONLY AND LOCATIONS SHALL BE ADJUSTED FOR EXISTING FIELD CONDITIONS, BUT NO MAJOR ALTERATIONS OR RELOCATIONS WILL BE MADE WITHOUT FIRST CONSULTING WITH THE TRAFFIC ENGINEER DIVISION AT (405) 521-2861.

ALL BROKEN CONCRETE, WASTE MATERIAL, AND DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC.... PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES:
THE "OKIE" NOTIFICATION CENTER 811 OR 1-800-522-6543 OR WWW.CALLOKIE.COM
OR THE LOCAL COUNTY CLERK'S OFFICE.

DEPTH OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO MAKE THE ELECTRICAL CONNECTIONS TO THE EXISTING OVERHEAD SIGN STRUCTURES AND LIGHTS WILL BE PAID FOR AT THE UNIT PRICE BID FOR THE REQUIRED MATERIALS USED TO MAKE THE COMPLETED CONNECTIONS.

THE CONTRACTOR SHALL CONTACT THE BRIDGE DIVISION OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION FOR QUESTIONS CONCERNING COMPLIANCE AND INTERPRETATIONS TO THE A.A.S.H.T.O. "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS".

THE CONTRACTOR SHALL COOPERATE WITH THE ENGINEER, THE CITY AND THE LOCAL UTILITY CO. TO KEEP THE EXISTING LIGHTING SYSTEM IN SERVICE AS MUCH AS POSSIBLE WHILE DOING THE WORK SPECIFIED BY THIS CONTRACT. IF TEMPORARY CONNECTIONS ARE FEASIBLE AND JUSTIFIABLE, THE ENGINEER MAY REQUIRE THAT THE CONTRACTOR PROVIDE THESE TEMPORARY POWER CONNECTIONS. TEMPORARY CONNECTIONS WILL BE PAID FOR AT THE UNIT BID FOR THE MATERIALS USED.

THE ITEMS THAT ARE TO BE REMOVED AND/OR RESET SHALL BE HANDLED WITH CARE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OCCURRING DURING THESE OPERATIONS.

THE ANCHOR BOLTS SIZE AND CONFIGURATION SHALL BE VERIFIED BY THE CONTRACTOR SO THAT THE NEW LIGHT POLES BASE PLATES WILL BE BUILT TO FIT ANY EXISTING POLE FOOTING. IN THE EVENT ANY EXISTING POLE FOOTING REQUIRES MODIFICATION TO ACCOMMODATE THE NEW LIGHT POLE OR IF ANY LIGHT POLE BASE PLATE REQUIRES MODIFICATION, THE CONTRACTOR SHALL SUBMIT DRAWINGS OF THE MODIFICATIONS TO THE BRIDGE DIVISION FOR APPROVAL BEFORE PERFORMING THE MODIFICATIONS. ALL COST FOR THE MODIFICATIONS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A BOLT CIRCLE TEMPLATE(S). THE TEMPLATE(S) SHALL BE 1/4" THICK STEEL PLATE(S), AND BE PERMANENTLY LABELED WITH THE CONTRACTOR'S COMPANY NAME, BOLT CIRCLE DIAMETER AND THE ANCHOR BOLT DIAMETER. THE COST OF THE TEMPLATE(S) SHALL BE PAID FOR IN OTHER ITEMS OF WORK.

PRIOR TO CONSTRUCTION OF FOOTINGS THE CONTRACTOR SHALL VISUALLY INSPECT THE PLAN LOCATION OF ALL HIGH MAST TOWERS AND CONVENTIONAL LIGHT POLES FOR PROPER OVERHEAD WIRE CLEARANCE. THESE CLEARANCES SHALL BE IN ACCORDANCE TO THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) SECTION 1910. THERE SHALL BE A MINIMUM RADII OF 10 FOOT CLEARANCE OF ANY OVERHEAD LINES FROM THE CLOSEST POINT ON THE LIGHT POLE. ANY NEW FOOTINGS PUT IN CLOSER THAN THIS 10 FOOT MINIMUM SHALL BE RELOCATED AT THE EXPENSE OF THE CONTRACTOR, INCLUDING REMOVAL OF THE FOOTING AND ALL MATERIALS TO CONSTRUCT THE NEW FOOTING.

CONTRACTOR SHALL SUBMIT DIMENSIONED PHOTOMETRIC LAYOUTS OF ALL AREAS TO BE LIT AS INDICATED HEREIN. LAYOUTS SHALL UTILIZE .IES PHOTOMETRIC FILES SUPPLIED BY THE MANUFACTURER FOR THE PROPOSED LIGHT FIXTURES. PHOTOMETRIC MODELING SHALL BE PERFORMED BY AN INDUSTRY ACCEPTED LIGHTING MODELING SOFTWARE PACKAGE: VISUAL, AG132, OR EQUAL. MODELING SHALL TAKE INTO ACCOUNT ALL EXISTING AND PROPOSED STRUCTURES, ALL GRADE CHANGES, ETC. TO CORRECTLY MODEL THE LIGHTING ENVIRONMENT. ALL LIGHTING DESIGN CRITERIA LISTED HEREIN SHALL BE MET OR EXCEEDED IN PERFORMANCE BY THE PROPOSED EQUIPMENT AND LAYOUT NON-DEPENDENT WHETHER THE EQUIPMENT IS LISTED IN THE DRAWING OR IF IT IS AN APPROVED EQUAL. EQUIPMENT AND LAYOUTS WHICH DO NOT MEET OR EXCEED DESIGN REQUIREMENTS WILL BE REJECTED BY THE ENGINEER DURING SUBMITTAL STAGE. INSTALLATIONS WHICH PASS THE SUBMITTAL STAGE AND DO NOT MEET OR EXCEED MEASURED PHOTOMETRIC VALUES IN THE FIELD WILL BE REJECTED BY THE ENGINEER, AND THE SYSTEM WILL BE REPLACED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER AND ENGINEER.

GENERAL NOTES - TRAFFIC LIGHTING (CONTD.)

FOLLOWING THE SYSTEM INSTALLATION, PRIOR TO PROJECT CLOSEOUT, THE CONTRACTOR SHALL TAKE IN-FIELD MEASUREMENTS OF ALL THE LIT SURFACES AND SUBMIT TO THE ENGINEER FOR REVIEW. MEASUREMENTS FOR HIGHWAY LIGHTING SHALL BE TAKEN ON A GRID WITH ONE POINT IN THE CENTER OF EACH LANE, AT INTERVALS OF 75'. CONTRACTOR SHALL PLOT ON A FULL-SIZE DRAWING SET EACH MEASUREMENT TAKEN. GRIDS SHALL BE ORIENTED SUCH THAT THEY ARE SYMMETRICAL ABOUT THE ALIGNMENT CENTERLINE.

ALL LAYOUT MODELING AND FIELD MEASUREMENTS SHALL BE TAKEN HORIZONTALLY ON THE PAVED SURFACES AT 0'-0" AFG.

ANY CONTRACTOR PROPOSED ALTERNATE TO FIXTURES SPECIFIED IN THESE PLANS SHALL BE REVIEWED BY THE ENGINEER AND SHALL MEET ALL REQUIREMENTS LISTED IN THESE PLANS, ODOT STANDARD DRAWINGS, AND THE STANDARD SPECIFICATIONS.

ALL FIXTURES SHALL BE MOUNTED AND ORIENTED AS SPECIFIED ON THE APPROPRIATE LIGHTING PLAN SHEETS. UNLESS SPECIFIED OTHERWISE, ALL FIXTURES SHALL BE ORIENTED SO THAT THE FIXTURE "FRONT" AS DEFINED BY THE .IES PHOTOMETRIC FILE EXTENDS FROM THE CENTERLINE AT AN ANGLE OF 90°. HOWEVER, CONTRACTOR SHALL AJDUST FIXTURE AIMING AND ORIENTATION AS REQUIRED BY THE ENGINEER IN THE FIELD TO MEET THE LIGHTING DESIGN CRITERIA.

ALL LIGHT FIXTURES SHALL BE MODELED WITH LLF AS SPECIFIED HEREIN OR AS RECOMMENDED BY THE MANUFACTURER FOR THE INTENDED APPLICATION AND ENVIRONMENTAL CONDITIONS.

CONTRACTOR SHALL NOTE THAT ALL ELECTRICAL DISTRIBUTION SYSTEM COMPONENTS (CONDUIT, WIRE, PANELS, PULL BOXES, ETC.) ARE DESIGNED AND SIZED AROUND THE EQUIPMENT SPECIFIED. IF ALTERNATES ARE PROPOSED, IT IS THE CONTRACTOR'S RESPONSIBILITY DURING SUBMITTAL STAGE TO SUBMIT PROOF THAT THE NEW ALTERNATE WILL WORK WITH THE ELECTRICAL INFRASTRUCTURE SPECIFIED HEREIN THESE CONTRACT DOCUMENTS. IF IT WILL NOT SUPPORT THE PROPOSED ALTERNATE, THE CONTRACTOR SHALL SUBMIT WHAT MODIFICATIONS ARE REQUIRED AND THESE WILL BE MADE BY THE CONTRACTOR AT HIS/HER EXPENSE FOLLOWING APPROVAL BY THE ENGINEER.

PROVIDE ALL LIGHT POLES WITH FRONT FACING HAND HOLE PULL POINTS AT THE BASE OF THE POLE WITH REMOVABLE COVER WITH CHAIN AND TAMPERPROOF CAPTIVE SCREWS.

THE CONTRACTOR SHALL SUBMIT ALL LIGHT FIXTURES, LIGHT POLES, AND FIXTURES ARMS TO ENGINEER FOR APPROVAL PRIOR TO PROCUREMENT.

ALL ELECTRICAL WORK AND MATERIAL SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2014) NATIONAL ELECTRIC CODE, NFPA 101 (2015) LIFE SAFETY CODE, NFPA 780 (2014) STANDARD FOR THE INSTALLATION OF LIGHTNING PROTECTION SYSTEMS, STATE ELECTRICAL CODE, LOCAL ELECTRIC CODE, AND ALL ODOT STANDARDS.

CONNECT ELECTRICAL EQUIPMENT ENCLOSURES, CONCRETE REBAR, GROUND RODS, STEEL CONDUIT, AND LIGHT POLES TO GROUNDING SYSTEM USING #6 AWG SDBC BONDING JUMPER AND EXOTHERMEIC WELDS.

GROUNDING SYSTEM SHALL FULLY COMPLY WITH NEC SECTION 250.

ALL LIGHT POLES AND FIXTURES GROUND MOUNTED (GM) OR MEDIAN BARRIER MOUNTED (MBM) SHALL HAVE THEIR OWN DEDICATED GROUND ROD. BOND GROUND ROD TO LIGHT POLE AND GROUNDING SYSTEM.

INSTALL CONDUIT EXPANSION FITTINGS AT ALL BRIDGE JOINTS.

ALL CONDUIT ROUTING, TRENCHES, EXCAVATION, AND BACKFILL SHALL COMPLY WITH ODOT STANDARD SPECIFICATIONS AND DRAWINGS.

PAY QUANTITY NOTES - TRAFFIC LIGHTING

(TP-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE THE 2009 SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

(TL-9) QUANTITIES INCLUDE STRUCTURAL CONCRETE TO BE USED FOR THE FOLLOWING:

GROUND MOUNTED FOOTINGS.....	=	172.20	C.Y.
BARRIER MOUNTED FOOTINGS.....	=	0.00	C.Y.
BLOCKOUTS FOR FOOTINGS.....	=	0.00	C.Y.
TOTAL OF STRUCTURAL CONCRETE...	=	172.20	C.Y.

(TL-10) QUANTITIES INCLUDE REINFORCING STEEL TO BE USED FOR THE FOLLOWING:

GROUND MOUNTED FOOTINGS.....	=	29,820.00	LBS.
BARRIER MOUNTED FOOTINGS.....	=	0.00	LBS.
BLOCKOUTS FOR FOOTINGS.....	=	0.00	LBS.
TOTAL OF REINFORCING STEEL.....	=	29,820.00	LBS.

PAY QUANTITIES

0320 TRAFFIC LIGHTING

ITEM NO.	CODE NO.	ITEM DESCRIPTION	NOTES	UNIT	QUANTITY
610(A)	0602	4" CONCRETE SIDEWALK		SY	293.00
802(A)	8306	1 1/4" GALV.STEEL ELECTRICAL CONDUIT EXPOSED	(141)	LF	1,120.00
802(B)	8340	2" PVC SCH.40 PLASTIC CONDUIT BORED		LF	820.00
802(B)	8342	2" PVC SCH.40 PLASTIC CONDUIT TRENCHED	(142)	LF	19,610.00
802(E)	8370	JUNCTION BOX (6"x6"x4")	(143)	EA	8.00
803(A)	8065	PULL BOX (SIZE I)	(144)	EA	18.00
804(A)	2915	STRUCTURAL CONCRETE	(TP-1)(TL-9)	CY	172.20
804(B)	2916	REINFORCING STEEL	(TP-1)(TL-10)	LB	29,820.00
806(D)	8989	40' MTG. HT. HL.PTP. (G.STL.)	(TL-15)(TL-16)(151)	EA	105.00
807	8092	BREAKAWAY BASE (DES. B)	(145)	EA	98.00
809(A)	8090	ROADWAY LUMINAIRE	(146)(151)	EA	105.00
809(B)	8098	UNDERPASS LUMINAIRE	(147)	EA	8.00
810(A)	3118	SERVICE POLE	(TL-34)(TL-35)	EA	2.00
811	8036	1/C NO. 2 ELECTRICAL CONDUCTOR	(148)(149)	LF	65,294.00
811	8044	1/C NO. 10 ELECTRICAL CONDUCTOR	(149)(150)	LF	1,200.00
811	8046	1/C NO. 12 ELECTRICAL CONDUCTOR	(149)	LF	11,550.00

PAY QUANTITY NOTES - TRAFFIC LIGHTING (CONTD.)

(TL-15) 7 - 40' MTG. HT. POLES (G.STL.) ARE NOT MOUNTED ON BREAKAWAY BASES. A HANDHOLE WILL BE REQUIRED ON THESE POLES. SEE STD.'S HLMA1-1, HLMA2-1, AND HLMA3-1-(LATEST REVISIONS) AND LIGHT POLE SCHEDULES.

(TL-16) 98 - 40' MTG. HT. POLES WITH 12' HLMA (G.STL.) ARE TO BE MOUNTED ON BREAKAWAY BASES. SEE STD.'S HLP1-1, HLP2-1, AND HLP3-1 -(LATEST REVISIONS) AND LIGHT POLE SCHEDULES.

(TL-34) INCLUDES 1 - 30 FT. TOTAL LENGTH WOOD SERVICE POLE(S), CLASS 6.

(TL-35) SEE SERVICE POLE SCHEDULE; FOR ADDITIONAL INFORMATION CONCERNING THE SERVICE POLE, CONTACT THE FOLLOWING PRIOR TO INSTALLATION:
WITH THE COMPANY OF....
COMPANY'S TELEPHONE NO...

(141) PAY ITEM INCLUDES CONDUIT RUNS ALONG BRIDGES FOR UNDERPASS LIGHTS AND ALSO FOR THE CONDUIT RUNS THAT ARE SHOWN TO BE INSTALLED ALONG BRIDGES.

(142) THE 2" TRENCHED PVC CONDUIT SHALL BE EITHER SCHEDULE 40 OR 80 AS REQUIRED BY NEC.

(143) PAY ITEM IS TO BE USED FOR UNDERPASS LIGHTING AND AS REQUIRED ALONG EXPOSED CONDUIT RUNS.

(144) POLYMER CONCRETE PULL BOXES SHALL BE USED.

INCLUDES THE COST OF PROVIDING COPPER LOCKERS. FURNISH PULL BOXES WITH COPPER LOCKER DE-1000B COVERS. THE COVERS SHALL INCORPORATE A ROUND SHACKLELESS LOCK AND BE KEYED ALIKE WITH A PROPRIETARY KEY PER ODOT STANDARDS.

(145) INCLUDES THE COST OF PROVIDING COPPER LOCKERS. FURNISH BREAKAWAY BASES WITH COPPER LOCKER DE-500 COVERS. THE COVERS SHALL INCORPORATE A ROUND SHACKLELESS LOCK AND BE KEYED ALIKE WITH A PROPRIETARY KEY PER ODOT STANDARDS.

(146) INCLUDES THE COST OF 7-PIN CONNECTORS AND INSTALLATION AT EACH LUMINAIRE.

PROPOSED MONGOOSE LED LUMINAIRES SHALL BE 155 WATT LED ROADWAY LUMINAIRES SIMILAR TO HOLOPHANE MODEL MGLEDM-P3-40K-480-MR-VH-GRSD-PR7-SH OR APPROVED EQUAL.

(147) PROPOSED LUMINAIRES SHALL BE 72 WATT LED UNDERPASS LUMINAIRES SIMILAR TO HOLOPHANE MODEL W4G-LED-20C-1000-40K-T3M-480-SPD-TP-LVG OR APPROVED EQUAL.

PRICE BID TO INCLUDE THE COST OF TAMPER RESISTANT SCREWS AND A PROTECTIVE GUARD INSTALLED AT EACH LUMINAIRE.

(148) ELECTRICAL CONDUCTORS SHALL BE XHHW ALUMINUM.

NO. 2 ELECT. CONDUCTOR-FUSED "Y" CONNECTORS SHALL BE APPROVED BY THE ENGINEER & INSTALLED AT EACH POLE BASE OR BRANCH CIRCUIT AS REQUIRED. THE COST OF THESE CONNECTORS SHALL BE INCLUDED IN THE PRICE BID FOR THE INSULATED CABLES. THE "HOT" CONDUCTOR SHALL BE BLACK AND "NEUTRAL" CONDUCTOR SHALL BE WHITE.

(149) PROVIDE WHITE COLORED INSULATION FOR NEUTRAL CONDUCTOR.

(150) PAY ITEM INCLUDES WIRING ALONG BRIDGES FOR UNDERPASS LIGHTING.

(151) LIGHTING DESIGN WAS PREPARED TO MEET THE FOLLOWING CRITERIA AS OUTLINED IN THE IESNA HANDBOOK, 10TH EDITION AND IES RP-8:

HIGHWAY: CLASS A FREEWAY (IESNA) PAVEMENT SURFACE: R1 (CONCRETE); R3 (ASPHALT)

MIN. AVERAGE MAINTAINED ILLUMINANCE: 0.6 fc (R1, CONCRETE); 0.4 fc (R3, ASPHALT)
MAX. ALLOWABLE UNIFORMITY RATIO (MAX/MIN ILLUMINANCE: 6.0 : 1
MAX. AVERAGE UNIFORMITY RATIO (AVE/MIN ILLUMINANCE: 3.0 : 1

PRELIMINARY
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PAY QUANTITIES & NOTES - TRAFFIC LIGHTING

State Job No. 24428(13) Sheet No. AT03

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SUMMARY OF TRAFFIC CONTROL QUANTITIES

PHASE OF CONSTRUCTION	ESTIMATED CALENDAR DAYS PER PHASE	TRAFFIC STRIPE (PLASTIC) (24" WIDE)	CONSTRUCTION TRAFFIC STRIPE (PAINT) (4" WIDE)	(PL) C/L CONSTRUCTION ZONE PAVEMENT MARKERS (YELLOW)	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	CONSTRUCTION ZONE IMPACT ATTENUATOR	DELIVER PORTABLE LONGITUDINAL BARRIER	RELOCATION OF PORTABLE LONGITUDINAL BARRIER	CONSTRUCTION SIGNS 0 TO 6.25 SF	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF	CONSTRUCTION BARRICADES (TYPE III)	WING BARRICADES	WARNING LIGHTS (TYPE A)	DRUMS	CHANNELIZER CONES	TUBE CHANNELIZERS
		855(A)	857(A)	857(E)	857(F)	871(B)	877(B)	877(C)	880(B)	880(B)	880(B)	880(C)	880(C)	880(E)	880(F)	880(G)	880(G)
		L.F.	L.F.	EA	L.F.	S.D.	L.F.	L.F.	S.D.	S.D.	S.D.	S.D.	S.D.	S.D.	S.D.	S.D.	S.D.
1	30	60.00	10,700.00	-	10,700.00	120.00	4,925.00	-	1,290.00	600.00	1,320.00	540.00	240.00	2,190.00	6,360.00	2,880.00	-
2	60	45.00	7,100.00	-	-	-	-	2,050.00	900.00	1,440.00	780.00	2,340.00	-	4,860.00	3,900.00	1,980.00	-
3	90	45.00	2,550.00	-	-	90.00	-	1,900.00	5,580.00	2,700.00	1,350.00	1,890.00	-	3,150.00	5,400.00	1,980.00	-
4	270	0.00	38,700.00	105.00	38,700.00	-	-	-	7,830.00	11,880.00	12,690.00	11,880.00	1,080.00	21,330.00	2,430.00	37,260.00	9,720.00
5	240	0.00	36,900.00	99.00	36,900.00	-	-	-	6,720.00	13,200.00	11,040.00	15,600.00	960.00	44,160.00	5,280.00	43,200.00	8,160.00
6	90	0.00	17,110.00	-	-	450.00	-	3,825.00	7,380.00	4,230.00	4,050.00	2,790.00	720.00	9,090.00	11,880.00	10,080.00	-
TOTALS	780.00	150.00	113,060.00	204.00	86,300.00	660.00	4,925.00	7,775.00	29,700.00	34,050.00	31,230.00	35,040.00	3,000.00	84,780.00	35,250.00	97,380.00	17,880.00

SUMMARY OF STRIPING/DELINEATORS

SHEET NO.	STATION TO STATION	STRIPING									DELINEATORS			
		TRAFFIC STRIPE (MULTI-POLYMER) (4" WIDE)		TRAFFIC STRIPE (MULTI-POLYMER) (6" WIDE)		TRAFFIC STRIPE (MULTI-POLYMER) (8" WIDE)		TRAFFIC STRIPE (MULTI-POLYMER) (24" WIDE)	TRAFFIC STRIPE (MULTI-POLYMER) (ARROWS)	TRAFFIC STRIPE (MULTI-POLYMER) (SYMBOLS)	DELINEATORS (TYPE 1, CODE 1)	DELINEATORS (TYPE 1, CODE 2)	DELINEATORS (TYPE 2, CODE 2)	DELINEATORS (TYPE 2, CODE 3)
		856(A)		856(A)		856(A)		856(A)	856(B)	856(B)	853	853	853	853
		LF		LF		LF		LF	EA	EA	EA	EA	EA	EA
		WHITE	YELLOW	WHITE	YELLOW	WHITE	YELLOW	WHITE	WHITE	WHITE				
SIGNING (1)	72+00 TO 100+00			6,700	5,650				6		12	5	10	0
SIGNING (2)	100+00 TO 115+00			3,650	3,000				3		6	1	2	2
SIGNING (3)	115+00 TO 130+00	3,000	3,000	3,972	3,500						16	3	0	8
SIGNING (4)	120+00 TO 140+00			2,000	2,000						11	0	0	0
SIGNING (5)	140+00 TO 150+00			3,970	3,400	260	100				31	0	0	0
SIGNING (6)	150+00 TO 177+50			6,800	5,800						12	2	4	4
SIGNING (7)	130+00 TO 145+00	2,000	2,000	3,600	3,000						15	0	0	6
SIGNING (8)	145+00 TO 145+69			420	300	85					0	0	0	0
SIGNING (9)	27+00 TO 38+00	1,800	1,800	2,020	1,300	200		30		12	0	0	0	7
SIGNING (10)	38+00 TO 53+00			4,092	3,000	40			4		7	8	0	2
SIGNING (11)	19+90 TO 36+00	3,240	3,240								0	0	0	3
SIGNING (12)	30+15 TO 35+00	1,200	1,160					35			0	0	0	4
TOTALS		11,240.00	11,200.00	37,224.00	30,950.00	585.00	100.00	65.00	13.00	12.00	110.00	19.00	16.00	36.00
		22,440.00		68,174.00		685.00								

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUMMARY OF SHEETS - TRAFFIC (01)

State Job No. 24428(13) Sheet No. AT04

FINAL FIELD REVIEW MEETING
JUNE 2020

SUMMARY OF SIGNS

SIGN NO.	SHEET NO.	STATION	OFFSET	ROADWAY ALIGNMENT	SIGN PANEL TYPE(S)	SIGN PANELS		6" @ 15 GALV.STEEL WIDE FLANGE BEAM POST "A"	6" @ 15 GALV.STEEL WIDE FLANGE BEAM POST "B"	3 1/2" @ 9.11 GALV. STEEL PIPE "A"	3 1/2" @ 9.11 GALV. STEEL PIPE "B"	2" SQUARE TUBE POST "A"	2" SQUARE TUBE POST "B"	2 1/4" SQUARE TUBE POST "A"	2 1/4" SQUARE TUBE POST "B"	2 1/2" SQUARE TUBE POST "A"	2 1/2" SQUARE TUBE POST "B"	POST SPACING	FOOTINGS			REMARKS
						SHEET ALUMINUM SIGNS	EXTRUDED ALUMINUM PANEL SIGNS												TYPE	STRUCTURAL CONCRETE	REINFORCING STEEL	
						850(A)	850(B)	851(A)	851(A)	851(B)	851(B)	851(C)	851(C)	851(C)	851(C)	851(C)	851(C)			804(A)	804(B)	
						SF	SF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	FT.		CY	LB	
001	001	65+50	RT.	US-81 NB	W20-5 (L) (AHEAD)	16.00										14.0	14.5	2.3				
002	001	73+00	RT.	US-81 NB	W4-2E(R)	16.00										14.0	14.5	2.3				
003A	001	73+82	MEDIAN	US-81 NB	R5-1E	9.00								13.0								
003B	001	73+82	RT.	US-81 NB	R5-1E	9.00								13.0								
004	001	74+20	MEDIAN	US-81 SB	R4-7F	20.00				15.0	15.5							2.3	A-5	0.52	76	
005	001	74+25	RT.	US-81 NB	R6-1(L)	3.00								10.0								
006	001	74+75	LT.	US-81 SB	R6-1(L)	3.00								10.0								
007	001	74+90	MEDIAN	US-81 SB	R4-7F	20.00				15.0	15.5							2.3	A-5	0.52	76	
008A	001	75+30	LT.	US-81 SB	R5-1E	9.00								13.0								
008B	001	75+30	MEDIAN	US-81 SB	R5-1E	9.00								13.0								
009A	001	86+56	MEDIAN	US-81 NB	R5-1E	9.00								13.0								
009B	001	86+56	RT.	US-81 NB	R5-1E	9.00								13.0								
010	001	86+85	LT.	US-81 SB	R6-1(L)	3.00								10.0								
011	001	86+90	MEDIAN	US-81 SB	R4-7F, R6-1(R), R6-1(L)	26.00				16.0	16.5							2.3	A-5	0.52	76	
012	001	86+92	RT.	US-81 NB	R6-1(L)	3.00								10.0								
013	001	87+50	RT.	US-81 NB	R1-1E, R6-1(R), R6-1(L), (2) SNS (OLD FRED'S ROAD)	18.71				14.0									A-5	0.26	38	
014	001	87+55	MEDIAN	US-81 NB	R4-7F, R6-1(R), R6-1(L)	26.00				16.0	16.5							2.3	A-5	0.52	76	
015	001	87+55	LT.	US-81 SB	R6-1(L)	3.00								10.0								
016A	001	88+00	LT.	US-81 SB	R5-1E	9.00								13.0								
016B	001	88+00	MEDIAN	US-81 SB	R5-1E	9.00								13.0								
017A	001	93+00	MEDIAN	US-81 NB	(1) TYPE III BARRICADE, (1) W1-6(R)	8.00																
017B	001	95+00	MEDIAN	US-81 NB	(1) TYPE III BARRICADE, (1) W1-6(R)	8.00																
017C	001	97+00	MEDIAN	US-81 NB	(1) TYPE III BARRICADE, (1) W1-6(R)	8.00																
018	001	97+00	LT.	US-81 SB	SPECIAL SIGN NO. 01		55.00	21.0	23.0									6.6	KC-1	1.52	212	
019A	001	99+10	RT.	US-81 NB	(1) TYPE III BARRICADE, (1) R11-2 (LANE)	10.00																
019B	001	99+60	RT.	US-81 NB	(1) TYPE III BARRICADE, (1) R11-2 (LANE)	10.00																
020A	001	99+45	MEDIAN	US-81 NB	R5-1E	9.00								13.0								
020B	001	99+45	RT.	US-81 NB	R5-1E	9.00								13.0								
021	001	99+72	RT.	US-81 NB	R6-1(L)	3.00								10.0								
022	001	99+82	MEDIAN	US-81 SB	R4-7F	20.00				15.0	15.5							2.3	A-5	0.52	76	
023	002	100+90	LT.	US-81 SB	R6-1(L)	3.00								10.0								
024	002	100+98	MEDIAN	US-81 NB	R4-7F	20.00				15.0	15.5							2.3	A-5	0.52	76	
025A	002	101+40	LT.	US-81 SB	R5-1E	9.00								13.0								
025B	002	101+40	MEDIAN	US-81 SB	R5-1E	9.00								13.0								
026A	002	102+00	MEDIAN	US-81 NB	(1) TYPE III BARRICADE, (1) R11-2 (LANE)	10.00																
026B	002	103+00	MEDIAN	US-81 NB	(1) TYPE III BARRICADE, (1) R11-2 (LANE)	10.00																
027	002	105+00	RT.	US-81 NB	W8-13F	16.00										14.0	14.5	2.3				
028A	002	106+00	MEDIAN	US-81 NB	(1) TYPE III BARRICADE, (1) W1-6(R)	8.00																
028B	002	108+50	MEDIAN	US-81 NB	(1) TYPE III BARRICADE, (1) W1-6(R)	8.00																
028C	002	110+00	MEDIAN	US-81 NB	(1) TYPE III BARRICADE, (1) W1-6(R)	8.00																
029A	002	107+00	LT.	US-81 SB	R2-1F (70)	20.00				15.0	15.5							2.3	A-5	0.52	76	
029B	002	107+00	MEDIAN	US-81 SB	R2-1F (70)	20.00				15.0	15.5							2.3	A-5	0.52	76	
030A	002	107+50	RT.	US-81 NB	ROUTE ASSY. NO. 1 (NORTH 81/277)	29.13				18.0	18.5							2.0	A-5	0.52	76	
030B	002	107+50	RT.	US-81 NB	ROUTE ASSY. NO. 1 (EAST 19)	17.88				16.0									A-5	0.26	38	
031A	002	112+40	MEDIAN	US-81 NB	(2) TYPE III BARRICADES, (1) R11-2 (LANE)	10.00																
031B	002	114+80	MEDIAN	US-81 NB	(2) TYPE III BARRICADES, (1) R11-2 (LANE)	10.00																
032	003	115+25	RT.	US-81 NB	W13-3F (60)	20.00				15.0	15.5							2.3	A-5	0.52	76	
033	003	116+35	MEDIAN	US-81 NB	(2) TYPE III BARRICADES, (1) R11-2	10.00																
034A	003	116+25	RT.	US-81 NB	ROUTE ASSY. NO. 2 (NORTH 81/277)	29.13				18.0	18.5							2.0	A-5	0.52	76	
034B	003	116+25	RT.	US-81 NB	ROUTE ASSY. NO. 2 (EAST 19)	17.88				16.0									A-5	0.26	38	
035A	003	117+00	LT.	US-81 SB	ROUTE ASSY. NO. 3 (SOUTH 81/277)	24.75				16.0	16.5							2.0	A-5	0.52	76	
035B	003	117+00	LT.	US-81 SB	ROUTE ASSY. NO. 3 (WEST 19)	13.50				14.0									A-5	0.26	38	
036	003	118+25	MEDIAN	US-81 NB	(6) TYPE III BARRICADES, (3) R11-2, (2) R5-1E	48.00																
037	003	118+60	LT.	US-81 NB	R4-7F	20.00				15.0	15.5							2.3	A-5	0.52	76	
038	003	122+10	RT.	US-81 NB	D10-2a (78.5)	4.00								11.0								
039	003	122+10	LT.	US-81 SB	D10-2a (78.5)	4.00								11.0								
040	003	124+00	LT.	US-81 SB	W18-3F	16.00										14.0	14.5	2.3				
041	003	5116+00	RT.	16TH ST.	R2-1 (45)	5.00								12.5								
042	003	118+00	RT.	RAMP C	W3-5E (65)	16.00										14.0	14.5	2.3				
043	004	125+00	RT.	RAMP C	R2-1F (65)	20.00				15.0	15.5							2.3	A-5	0.52	76	
044	004	132+00	RT.	RAMP C	R2-1F (55)	20.00				15.0	15.5							2.3	A-5	0.52	76	
045	004	139+00	RT.	RAMP C	R2-1F (45)	20.00				15.0	15.5							2.3	A-5	0.52	76	
046	005	54+40	MEDIAN	RAMP E	R4-7F	20.00				15.0	15.5							2.3	A-5	0.52	76	
047	005	61+00	RT.	RAMP E	W4-3E(L)	16.00										14.0	14.5	2.3				
048	005	143+00	LT.	RAMP C	W4-3E(L)	16.00										14.0	14.5	2.3				
049A	005	148+00	MEDIAN	RAMP C /US-81	W2-1E, W13-1PE	20.00										14.0	14.5	2.3				
049B	005	148+00	RT.	RAMP C /US-81	W2-1E, W13-1PE	20.00										14.0	14.5	2.3				
051A	005	219+40	LT.	RAMP D	(1) TYPE III BARRICADE, (1) R11-2 (LANE)	10.00																
051B	005	221+10	LT.	RAMP D	(1) TYPE III BARRICADE, (1) R11-2 (LANE)	10.00																
052	005	222+50	RT.	RAMP D	W13-3F (45)	20.00				15.0	15.5							2.3	A-5	0.52	76	
053A	005	222+90	RT.	RAMP D	(1) TYPE III BARRICADE, (1) W1-6(L)	8.00																
053B	005	224+90	RT.	RAMP D	(1) TYPE III BARRICADE, (1) W1-6(L)	8.00																
054A	005	224+00	RT.	RAMP D	ROUTE ASSY. NO. 5 (SOUTH 81/277)	24.75				16.0	16.5							2.0	A-5	0.52	76	
054B	005	224+00	RT.	RAMP D	ROUTE ASSY. NO. 5 (WEST 19)	13.50				14.0									A-5	0.26	38	

CONTINUED ON SUMMARY OF SHEETS - TRAFFIC (03)

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUMMARY OF SHEETS - TRAFFIC (02)

State Job No. 24428(13) Sheet No. AT05

FINAL FIELD REVIEW MEETING
JUNE 2020

SUMMARY OF SIGNS (CONTINUED FROM SUMMARY OF SHEETS - TRAFFIC (02))

SIGN NO.	SHEET NO.	STATION	OFFSET	ROADWAY ALIGNMENT	SIGN PANEL TYPE(S)	SIGN PANELS		6" @ 15 GALV.STEEL WIDE FLANGE BEAM POST "A"	6" @ 15 GALV.STEEL WIDE FLANGE BEAM POST "B"	3 1/2" @ 9.11 GALV. STEEL PIPE "A"	3 1/2" @ 9.11 GALV. STEEL PIPE "B"	2" SQUARE TUBE POST "A"	2" SQUARE TUBE POST "B"	2 1/4" SQUARE TUBE POST "A"	2 1/4" SQUARE TUBE POST "B"	2 1/2" SQUARE TUBE POST "A"	2 1/2" SQUARE TUBE POST "B"	POST SPACING	FOOTINGS			REMARKS
						SHEET ALUMINUM SIGNS	EXTRUDED ALUMINUM PANEL SIGNS												TYPE	STRUCTURAL CONCRETE	REINFORCING STEEL	
						850(A)	850(B)	851(A)	851(A)	851(B)	851(B)	851(C)	851(C)	851(C)	851(C)	851(C)	851(C)			804(A)	804(B)	
						SF	SF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	FT.		CY	LB	
055	005	135+60	LT.	RAMP F	(2) TYPE III BARRICADES, (1) R11-2	10.00																
056	005	133+95	LT.	RAMP F	R4-8F	20.00				15.0	15.5							2.3	A-5	0.52	76	
057	005	133+80	LT.	RAMP F	(3) TYPE III BARRICADES, (2) R11-2, (1) R5-1E	29.00																
058	005	131+00	LT.	RAMP F	W6-3	9.00								13.5								
059A	006	152+00	RT.	RAMP C /US-81	ROUTE ASSY. NO. 4 (NORTH 81/277)	24.75				16.0	16.5							2.0	A-5	0.52	76	
059B	006	152+00	RT.	RAMP C /US-81	ROUTE ASSY. NO. 4 (EAST 19)	13.50				14.0									A-5	0.26	38	
060	006	153+80	MEDIAN	RAMP C /US-81	(1) TYPE III BARRICADE, (1) R11-2 (LANE)	10.00																
061A	006	153+00	MEDIAN	RAMP C /US-81	R5-1E	9.00								13.0								
061B	006	153+00	RT.	RAMP C /US-81	R5-1E	9.00								13.0								
062	006	153+72	MEDIAN	RAMP C /US-81	R6-1(R), R6-1(L)	6.00								10.0								
063	006	153+80	MEDIAN	RAMP C /US-81	R4-7F, R6-1(R), R6-1(L)	26.00				16.0	16.5							2.3	A-5	0.52	76	
064	006	153+90	LT.	RAMP C /US-81	R1-1F, R6-1(R), R6-1(L), (2) SNS (277/81), (2) SNS (QUAIL RD.)	29.00				17.0	17.5							2.3	A-5	0.52	76	STOP SIGN TO FACE SB QUAIL RD TRAFFIC.
065	006	154+18	LT.	RAMP C /US-81	W1-6(R)	8.00						11.5	12.0					2.3				SIGN TO FACE EB QUAIL RD TRAFFIC.
066	006	154+28	LT.	RAMP C /US-81	W1-6(L)	8.00						11.5	12.0					2.3				SIGN TO FACE NB QUAIL RD TRAFFIC.
067	006	154+03	RT.	RAMP C /US-81	R1-1F, R6-1(R), R6-1(L), (2) SNS (277/81), (2) SNS (QUAIL RD.)	29.00				17.0	17.5							2.3	A-5	0.52	76	
068	006	154+40	RT.	RAMP C /US-81	R6-1(L)	3.00								10.0								
069	006	154+68	LT.	RAMP C/US-81	R6-1(L)	3.00								10.0								
070	006	154+73	MEDIAN	RAMP C/US-81	R6-1(R), R6-1(L)	6.00								10.0								
071	006	154+77	MEDIAN	RAMP C/US-81	R4-7F, R6-1(R), R6-1(L)	26.00				16.0	16.5							2.3	A-5	0.52	76	
072A	006	155+21	LT.	RAMP C/US-81	R5-1E	9.00								13.0								
072B	006	155+21	MEDIAN	RAMP C/US-81	R5-1E	9.00								13.0								
073A	006	156+50	MEDIAN	RAMP C/US-81	(1) TYPE III BARRICADE, (1) R11-2 (LANE)	10.00																
073B	006	158+50	MEDIAN	RAMP C/US-81	(1) TYPE III BARRICADE, (1) R11-2 (LANE)	10.00																
074A	006	160+50	MEDIAN	RAMP C/US-81	(1) TYPE III BARRICADE, (1) W1-6(R)	8.00																
074B	006	162+50	MEDIAN	RAMP C/US-81	(1) TYPE III BARRCADE, (1) W1-6(R)	8.00																
074C	006	164+50	MEDIAN	RAMP C/US-81	(1) TYPE III BARRCADE, (1) W1-6(R)	8.00																
075A	006	165+50	RT.	RAMP C/US-81	W3-3E	16.00										14.0	14.5	2.3				
075B	006	165+50	MEDIAN	RAMP C/US-81	W3-3E	16.00										14.0	14.5	2.3				
076A	006	169+00	LT.	RAMP C/US-81	R2-1F(45)	20.00				15.0	15.5							2.3	A-5	0.52	76	
076B	006	169+00	MEDIAN	RAMP C/US-81	R2-1F(45)	20.00				15.0	15.5							2.3	A-5	0.52	76	
077	006	174+00	LT.	RAMP C/US-81	SPECIAL SIGN NO. 02		55.00	21.0	23.0									6.6	KC-1	1.52	212	
078	006	181+50	LT.	RAMP C/US-81	W4-2E(L)	16.00										14.0	14.5	2.3				
079	006	190+00	LT.	RAMP C/US-81	W20-5 (L) (AHEAD)	16.00										14.0	14.5	2.3				
080	007	40+16	RT.	QUAIL RD.	W12-2P	14.00																BRIDGE-MOUNTED.
081	007	41+64	LT.	QUAIL RD.	W12-2P	14.00																BRIDGE-MOUNTED.
082	007	5135+00	RT.	FRONTAGE RD (16TH ST.)	W3-1	6.25								13.0								
083	008	146+00	LT.	RAMP A	W4-6E(R)	16.00										14.0	14.5	2.3				
084	008	146+46	LT.	RAMP A	W1-8E	7.50								11.5								
085	008	147+20	LT.	RAMP A	W1-8E	7.50								11.5								
086	008	148+00	LT.	RAMP A	W1-8E	7.50								11.5								
087	008	148+80	LT.	RAMP A	W1-8E	7.50								11.5								
088	009	149+60	LT.	RAMP A	W1-8E	7.50								11.5								
089	009	150+20	LT.	RAMP A	W1-8E	7.50								11.5								
090	009	151+00	LT.	RAMP A	W1-8E	7.50								11.5								
091	009	151+80	LT.	RAMP A	W1-8E	7.50								11.5								
092	009	152+36	RT.	RAMP A	R1-2E	7.50								11.5								
093	009	152+80	LT.	RAMP A	W1-8E	7.50								11.5								
094	009	153+45	LT.	RAMP A	W1-8E	7.50								11.5								
095	009	154+10	LT.	RAMP A	W1-8E	7.50								11.5								
096	009	155+00	LT.	RAMP A	W13-7F(25)	28.00				17.0	17.5							2.3	A-5	0.52	76	
097	009	29+00	LT	QUAIL RD.	W5-1	9.00								13.0								
098	009	30+00	RT.	QUAIL RD.	ROUTE ASSY. NO.6	21.38				14.0	12.5							2.3	A-5	0.52	76	
099	009	31+00	LT	QUAIL RD.	R2-1E (40)	12.00								13.5	14.0			2.0				
100A	009	33+75	RT.	QUAIL RD.	ROUTE ASSY. NO. 7 (SOUTH US-81/277; WEST 19)	21.38				14.0	12.5							2.3	A-5	0.52	76	
100B	009	33+75	RT.	QUAIL RD.	ROUTE ASSY. NO. 7 (NORTH US-81/277; EAST 19)	25.38				15.5	14.0							2.3	A-5	0.52	76	
101	009	154+00	LT.	RAMP A	(4) TYPE III BARRICADES, (2) R11-2, (1) R5-1E	29.00																
102A	009	154+25	LT.	RAMP A	ROUTE ASSY. NO. 8 (SOUTH US-81/277; WEST 19)	21.38				13.0	11.5							2.3	A-5	0.52	76	
102B	009	154+25	LT.	RAMP A	ROUTE ASSY. NO. 8 (NORTH US-81/277; EAST 19)	25.38				14.5	13.0							2.3	A-5	0.52	76	
103	009	5140+00	LT.	FRONTAGE RD (16TH ST.)	R2-1 (45)	5.00								13.0								
104	009	5141+30	LT.	FRONTAGE RD (16TH ST.)	W14-1	6.25								12.5								
105	009	5141+90	RT.	FRONTAGE RD (16TH ST.)	R1-1E, (2) SNS (QUAIL RD.), (1) SNS (16TH ST, LT.), (1) SNS (16TH ST. RT.)	15.71				13.5									A-5	0.26	38	
106	010	38+50	LT.	QUAIL RD.	R3-7E(R)	9.00								13.0								

CONTINUED ON SUMMARY OF SHEETS - TRAFFIC (04)

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUMMARY OF SHEETS - TRAFFIC (03)

State Job No. 24428(13) Sheet No. AT06

FINAL FIELD REVIEW MEETING
JUNE 2020

SUMMARY OF SIGNS (CONTINUED FROM SUMMARY OF SHEETS - TRAFFIC (03))

SIGN NO.	SHEET NO.	STATION	OFFSET	ROADWAY ALIGNMENT	SIGN PANEL TYPE(S)	SIGN PANELS		6" @ 15 GALV.STEEL WIDE FLANGE BEAM POST "A"	6" @ 15 GALV.STEEL WIDE FLANGE BEAM POST "B"	3 1/2" @ 9.11 GALV. STEEL PIPE "A"	3 1/2" @ 9.11 GALV. STEEL PIPE "B"	2" SQUARE TUBE POST "A"	2" SQUARE TUBE POST "B"	2 1/4" SQUARE TUBE POST "A"	2 1/4" SQUARE TUBE POST "B"	2 1/2" SQUARE TUBE POST "A"	2 1/2" SQUARE TUBE POST "B"	POST SPACING	FOOTINGS			REMARKS
						SHEET ALUMINUM SIGNS	EXTRUDED ALUMINUM PANEL SIGNS												TYPE	STRUCTURAL CONCRETE	REINFORCING STEEL	
						850(A)	850(B)	851(A)	851(A)	851(B)	851(B)	851(C)	851(C)	851(C)	851(C)	851(C)	851(C)			804(A)	804(B)	
						SF	SF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	FT.		CY	LB	
107	010	39+50	LT.	QUAIL RD.	ROUTE ASSY. NO.9	21.38				13.0	11.5							2.3	A-5	0.52	76	
108	010	40+00	RT.	QUAIL RD.	R2-1E (40)	12.00								13.5	14.0			2.0				
109	010	44+00	LT.	QUAIL RD.	SPECIAL SIGN NO. 3		21.00			15.0	16.0							3.6	A-5	0.52	76	
110	010	46+00	LT.	QUAIL RD.	ROUTE ASSY. NO. 10	21.38				13.0	11.5							2.3	A-5	0.52	76	
111	011	6+50	LT.	QUAIL RD.	W1-1E(R), W13-1PE (5)	13.00								14.5	15.0			2.8				
112	011	10+00	LT.	QUAIL RD.	W3-1	6.25																
113	011	15+00	RT.	QUAIL RD.	W1-1E(R), W13-1PE (30)	13.00								14.5	15.0			2.8				
114	011	19+79	LT.	QUAIL RD.	(2) W1-8	6.00								10.0								
115	011	20+99	LT.	QUAIL RD.	(2) W1-8	6.00								10.0								
116	011	22+19	LT.	QUAIL RD.	(2) W1-8	6.00								10.0								
117	011	23+39	LT.	QUAIL RD.	(2) W1-8	6.00								10.0								
118	011	24+59	LT.	QUAIL RD.	(2) W1-8	6.00								10.0								
119	011	25+79	LT.	QUAIL RD.	(2) W1-8	6.00								10.0								
120	011	26+99	LT.	QUAIL RD.	(2) W1-8	6.00								10.0								
121	011	28+19	LT.	QUAIL RD.	(2) W1-8	6.00								10.0								
122	011	29+39	LT.	QUAIL RD.	(2) W1-8	6.00								10.0								
123	011	30+59	LT.	QUAIL RD.	(2) W1-8	6.00								10.0								
124	011	31+79	LT.	QUAIL RD.	(2) W1-8	6.00								10.0								
125	011	32+99	LT.	QUAIL RD.	(2) W1-8	6.00								10.0								
126	011	34+19	LT.	QUAIL RD.	(2) W1-8	6.00								10.0								
127	011	35+00	LT	QUAIL RD.	OM3(L)	3.00						9.0										
128	011	35+00	RT.	QUAIL RD.	OM3(R)	3.00						9.0										
129	011	35+39	LT.	QUAIL RD.	(2) W1-8	6.00																
130	011	37+00	RT.	QUAIL RD.	OM3(L)	3.00						9.0										
131	011	37+00	LT.	QUAIL RD.	OM3(R)	3.00						9.0										
132	011	42+00	LT.	QUAIL RD.	W1-1E(L), W13-1PE (30)	13.00								14.5	15.0			2.8				
133	012	5113+90	LT.	FRONTAGE RD (16TH ST.)	R1-1, (2) SNS (16TH ST.)	8.93								12.5								
134	012	35+32	LT.	EW 140.5	R1-1	5.18								11.5								
135	002	113+60	LT.	US-81	W12-2P	14.00																BRIDGE-MOUNTED.
136	002	113+75	RT.	US-81	W12-2P	14.00																BRIDGE-MOUNTED.
					TOTALS	2,048.71	131.00	42.00	46.00	652.50	555.50	59.00	24.00	793.00	73.00	196.00	203.00			23.58	3,426.00	
								88.00		1,208.00		83.00		866.00		399.00						

SERVICE POLE SCHEDULE

LOCATION							RATING			CIRCUIT LOADING			WOOD POLE			METER EQUIP.	MISCELLANEOUS			
SHEET NO.	SERVICE POLE NO.	ALIGNMENT	STATION	OFFSET	TYPE	SECONDARY VOLTAGE & NO. PHASE	SERVICE POLE 810(A) EA.	NO. OF CONTACTS	AMPERE RATING OF CONTACTS	CIRCUIT ID	EST. AMPS PER CIRCUIT	MIN. FUSE SIZE (AMP/CIR.)	N = NEW E = EXIST.	TOTAL LENGTH FT.	CLASS	IM=INSTALL METER BASE NM=NOT METERED	DISCONNECT SWITCH (100 AMP) EA.	LIGHTING CIRCUIT DISTANCE FT.	VOLTAGE DROP PER CIRCUIT	REMARKS
T040	1	RAMP C	144+20	62.5' RT.	UG/1	480-1	1	3	60	1-A	8.6	30	N	35	6	IM	1	4,205	2.28%	
										1-B	8.8	30						5,075	3.05%	
										1-C	8.8	30						5,300	3.15%	
T043	2	RAMP B	251+50	70.0' LT.	UG/1	480-1	1	2	60	2-A	6.5	30	N	35	6	IM	1	1,885	0.84%	
										2-B	2.6	30						1,530	0.30%	
							2.00										2.00			

LIGHTING CONDUIT & WIRING

SHEET NO.	STATION TO STATION	ALIGNMENT	1 1/4" GALV. STEEL ELECTRICAL CONDUIT EXPOSED	2" PVC SCH. 40 40 PLASTIC CONDUIT BORED	2" PVC SCH. 40 40 PLASTIC CONDUIT TRENCHED	PULL BOX (SIZE I)	JUNCTION BOX (6"x6"x4")	1/C NO. 2 ELECTRICAL CONDUCTOR
			802(A)	802(B)	802(B)	803(A)	802(E)	811
			LF	LF	LF	EA	EA	LF
T038	25+00.00 TO 38+00.00	QUAIL RD		400	2,420	7		8,714
T039	38+00.00 TO 53+00.00	RAMP A	800		3,770	4	6	13,349
T040	135+00.00 TO 150+00.00	RAMP C		400	4,150	4		14,060
T041	101+00.00 TO 131+00.00	US-81	280		2,600	2	2	8,498
T042	120+00.00 TO 135+00.00	RAMP C			1,650			5,099
T043	147+00.00 TO 161+00.00	US-81	40		2,810	1		8,683
T044	161+00.00 TO 168+00.00	US-81			1,230			3,801
T045	131+00.00 TO 139+00.00	US-81		20	980			3,090
	TOTALS		1,120.00	820.00	19,610.00	18.00	8.00	65,294.00

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUMMARY OF SHEETS - TRAFFIC (04)

State Job No. 24428(13) Sheet No. AT07

6/25/2020

FINAL FIELD REVIEW MEETING
JUNE 2020

LIGHT POLE SCHEDULE

LOCATION									FOOTING			POLE ASSEMBLY												
SHEET NO.	POLE NO.	ALIGNMENT	STATION	OFFSET	DISTANCE FROM EDGE OF TRAVEL LANE	GROUND MOUNTED	BRIDGE MOUNTED	POLE SHAPE	TYPE	STRUCTURAL CONCRETE	REINFORCING STEEL	BREAKAWAY BASE (DES. B)	MOUNTING HT.	ARM LENGTH (ARM NO. 1)	ARM LENGTH (ARM NO. 2)	NO. OF LUMS./ WATTS PER LUMINAIRE	IES DIST. TYPE	40' MTG. HT. HL.PTP. (G.STL.)	ROADWAY LUMINAIRE	UNDERPASS LUMINAIRE	LIGHTNING ARRESTOR	1/C NO. 12 ELECTRICAL CONDUCTOR	1/C NO. 10 ELECTRICAL CONDUCTOR
										804(A)	804(B)	807						806(D)	809(A)	809(B)		811	811
					FT.	EA.	EA.			CY	LB	EA	FT.	FT.	FT.	EA. X WATT		EA	EA	EA	EA.	LF	LF
LIGHTING(01)	04	QUAIL RD.	30+30.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(01)	05	QUAIL RD.	32+00.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(01)	06	QUAIL RD.	33+70.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(01)	07	QUAIL RD.	35+50.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(01)	08	QUAIL RD.	37+80.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(01)	09	RAMP B	243+00.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(01)	10	RAMP B	244+50.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(01)	11	RAMP B	246+60.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(01)	12	RAMP B	248+40.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(01)	13	RAMP A	154+70.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(01)	14	RAMP A	153+10.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(01)	15	RAMP A	151+70.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(01)	16	RAMP A	150+30.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(01)	17	RAMP A	148+60.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(01)	18	RAMP A	146+90.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)	19	RAMP A	145+30.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	-	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)	20	RAMP A	143+70.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	-	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)	21	RAMP A	142+10.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	-	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)	23	QUAIL RD.	39+50.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(02)	24	QUAIL RD.	41+00.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(02)	25	QUAIL RD.	42+70.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(02)	26	QUAIL RD.	44+40.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)	27	QUAIL RD.	46+10.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(02)	28	QUAIL RD.	47+80.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)	29	QUAIL RD.	49+50.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)	30	QUAIL RD.	51+20.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)	31	QUAIL RD.	52+90.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X109	1.64	284	1	40	1	-	1X155	MS4	1	1	-		110	
LIGHTING(02)	32	RAMP D	233+20.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(02)	33	RAMP D	235+00.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)	34	RAMP D	236+80.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)	35	RAMP D	238+60.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)	36	RAMP D	240+40.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)	37	RAMP D	242+20.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(02)	38	RAMP D	244+00.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)	39	RAMP D	245+80.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)								UNDERPASS								8X72	MS3			8			1,200
LIGHTING(03)	40	RAMP D	231+40.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(03)	41	RAMP D	229+60.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(03)	42	RAMP D	227+80.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(03)	43	RAMP D	226+00.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(03)	44	RAMP D	224+20.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(03)	45	RAMP D	222+40.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(03)	46	RAMP D	220+60.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(03)	47	QUAIL RD.	54+60.00	24.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(03)	48	RAMP E	256+10.00	12.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(03)	49	RAMP E	257+90.00	12.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(03)	50	RAMP E	259+70.00	12.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(03)	51	RAMP E	261+20.00	12.0' RT	12.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(03)	52	RAMP C	136+30.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(03)	53	RAMP C	138+10.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(03)	54	RAMP C	139+90.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(03)	55	RAMP C	141+70.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(03)	56	RAMP C	143+50.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(03)	57	RAMP C	145+30.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(03)	58	RAMP C	147+10.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(03)	59	RAMP C	148+90.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(04)	60	RAMP C	96+90.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(04)	61	RAMP C	98+70.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(04)	62	RAMP C	100+50.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(04)	63	RAMP C	102+30.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(04)	64	RAMP C	104+10.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	

CONTINUED ON SHEET AT09

PRELIMINARY
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SUMMARY OF SHEETS - TRAFFIC (05)

State Job No. 24428(13) Sheet No. AT08

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US-81 REALIGNMENT
GRADY COUNTY

LIGHT POLE SCHEDULE CONTINUED FROM SHEET AT08

LOCATION									FOOTING			POLE ASSEMBLY												
SHEET NO.	POLE NO.	ALIGNMENT	STATION	OFFSET	DISTANCE FROM EDGE OF TRAVEL LANE	GROUND MOUNTED	BRIDGE MOUNTED	POLE SHAPE	TYPE	STRUCTURAL CONCRETE	REINFORCING STEEL	BREAKAWAY BASE (DES. B)	MOUNTING HT.	ARM LENGTH (ARM NO. 1)	ARM LENGTH (ARM NO. 2)	NO. OF LUMS./ WATTS PER LUMINAIRE	IES DIST. TYPE	40' MTG. HT. HL.PTP. (G.STL.)	ROADWAY LUMINAIRE	UNDERPASS LUMINAIRE	LIGHTNING ARRESTOR	1/C NO. 12 ELECTRICAL CONDUCTOR	1/C NO. 10 ELECTRICAL CONDUCTOR
										804(A)	804(B)	807						806(D)	809(A)	809(B)		811	811
					FT.	EA.	EA.			CY	LB	EA	FT.	FT.	FT.	EA. X WATT		EA	EA	EA	EA.	LF	LF
LIGHTING(04)	65	RAMP C	105+90.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	-	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(04)	66	RAMP C	107+70.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	-	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(04)	67	RAMP C	110+30.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	-	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(04)	68	RAMP C	112+00.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(04)	69	RAMP C	113+60.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(04)	70	RAMP C	115+20.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(04)	71	RAMP C	116+80.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(04)	72	RAMP C	118+40.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(05)	73	RAMP C	120+10.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(05)	74	RAMP C	121+90.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(05)	75	RAMP C	123+70.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(05)	76	RAMP C	125+50.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(05)	77	RAMP C	127+30.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(05)	78	RAMP C	129+10.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(05)	79	RAMP C	130+90.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(05)	80	RAMP C	132+70.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(05)	81	RAMP C	134+50.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(06)	82	RAMP D	247+60.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(06)	83	RAMP D	249+40.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(06)	84	RAMP D	251+20.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(06)	85	RAMP D	253+00.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(06)	86	RAMP D	254+80.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(06)	87	RAMP D	256+60.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(06)	88	RAMP D	258+40.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(06)	89	RAMP D	260+20.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(06)	90	RAMP B	250+20.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(06)	91	RAMP B	252+00.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(06)	92	RAMP B	253+80.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(06)	93	RAMP B	255+60.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(06)	94	RAMP B	257+40.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(06)	95	RAMP B	259+20.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(07)	96	RAMP B	261+00.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(07)	97	RAMP B	262+80.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(07)	98	RAMP B	264+60.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(07)	99	RAMP D	262+00.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(07)	100	RAMP D	263+80.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(07)	101	US 81 NB CD RD. 1	265+60.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(07)	102	US 81 NB CD RD. 2	267+40.00	24.0' RT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(02)	103	RAMP A	139+20.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	-	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(08)	104	RAMP A	137+40.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(08)	105	RAMP A	135+60.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(08)	106	RAMP A	133+80.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(08)	107	RAMP A	132+07.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
LIGHTING(04)	108	RAMP A	130+20.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-		110	
LIGHTING(04)	109	RAMP A	128+40.00	24.0' LT	24.0	1	-	CIRCULAR	GMF30X108	1.64	284	1	40	1	-	1X155	MS3	1	1	-	1	110	
TOTALS						**105.00**	**0.00**			**172.20**	**29,820.00**	**98.00**				**105 X 155 8 X 72**		**105.00**	**105.00**	**8.00**	**36.00**	**11,550.00**	**1,200.00**

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUMMARY OF SHEETS - TRAFFIC (06)

State Job No. 24428(13) Sheet No. AT09

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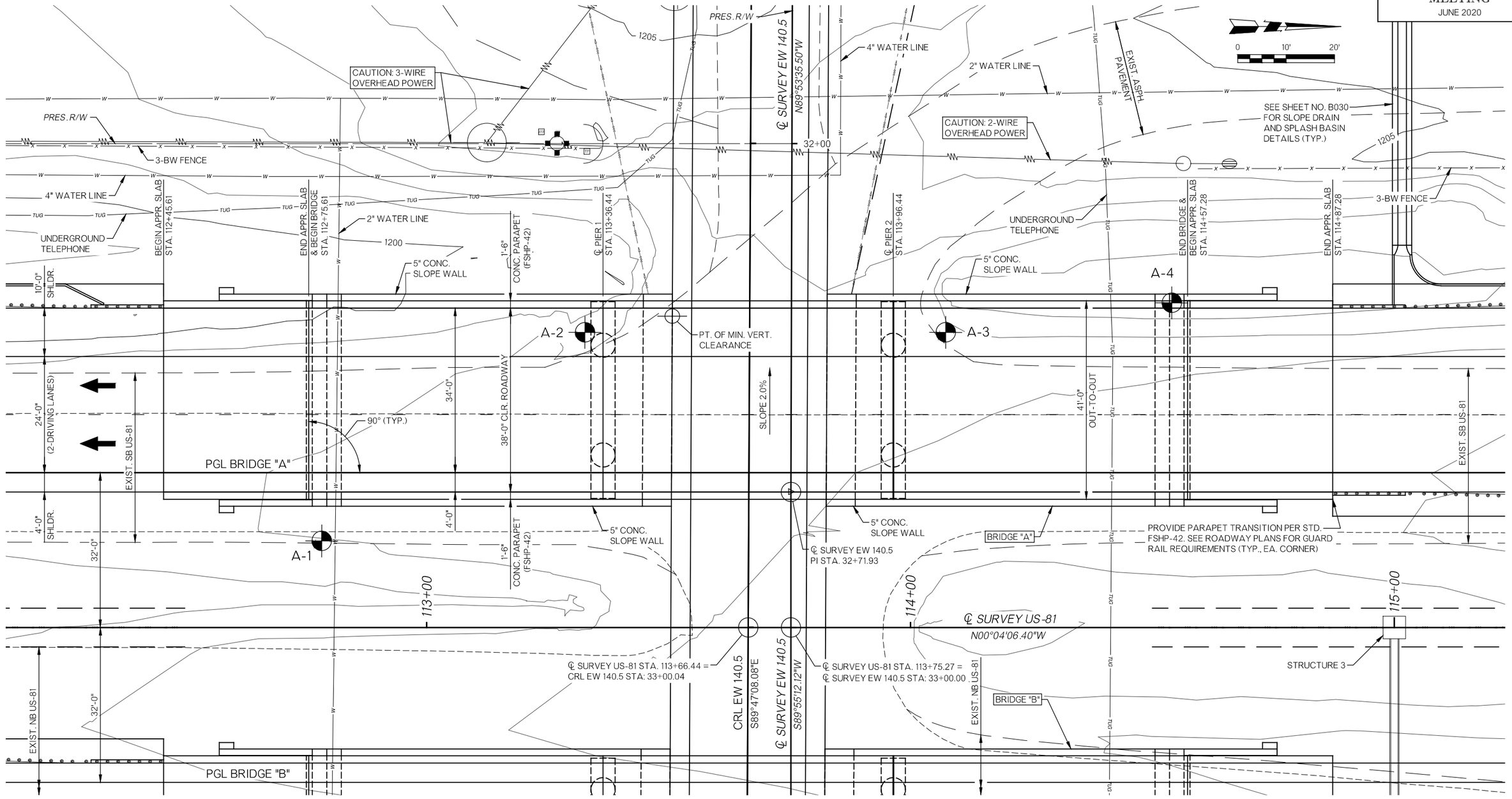
FINAL FIELD MEETING
JUNE 2020



PLAN
SCALE 1" = 10'

BM#210 - "X" ON CENTER W. HDWL. RCB CROSS DRAIN
STA. 108+67.70, 66.14' LT.
ELEV. = 1196.144'

BM#211 - "[]" ON N.E. WINGWALL W. SIDE DRAIN
STA. 114+06.93, 68.77' LT.
ELEV. = 1200.651'

NOTES
ALL STATIONING FOLLOWS ℄ SURVEY US-81, UNLESS NOTED OTHERWISE.

FOR ELEVATION VIEW, SEE SHEET NO. B002.

SEE SHEET NO. B003 FOR DESIGN DATA, FINISH GRADE DATA, AND INDEX OF SHEETS.

FOR GEOMETRIC DATA, SEE GEOMETRIC LAYOUT SHEETS.

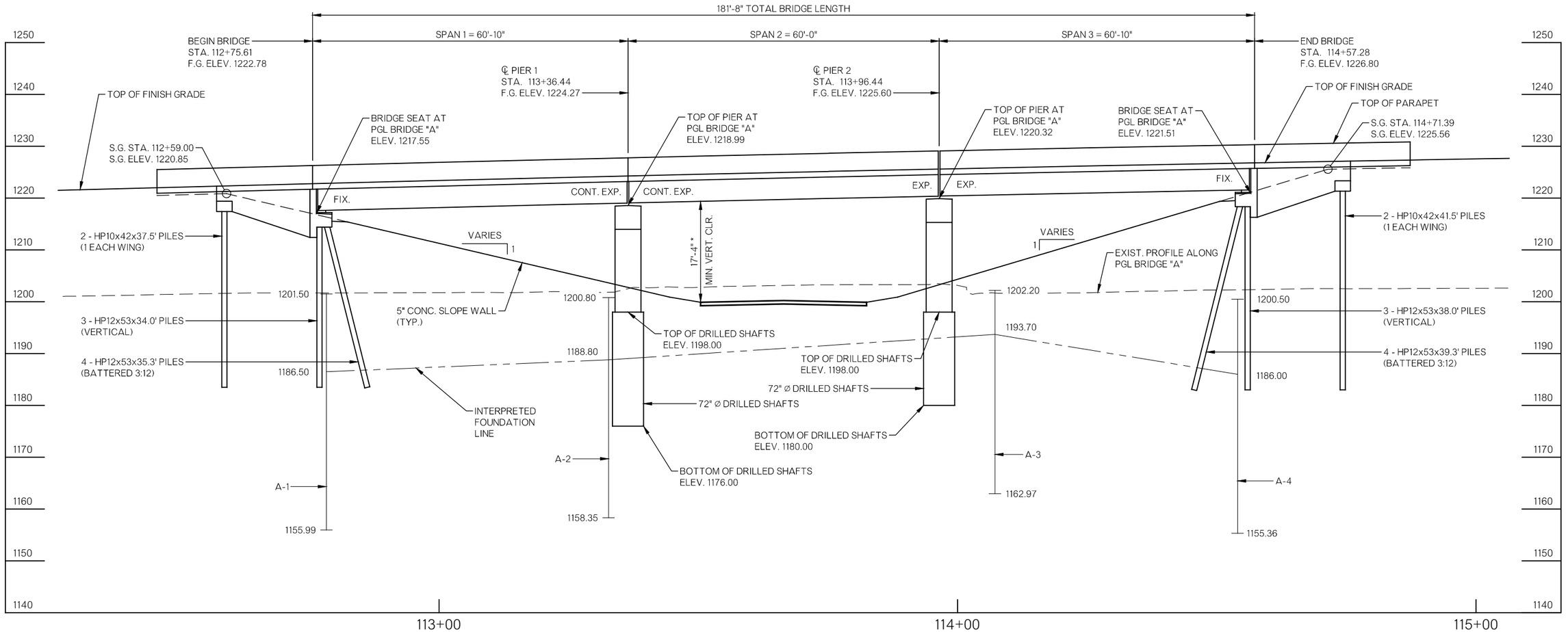
PROPOSED R/W IS OUTSIDE THE VIEWING AREA. SEE ROADWAY PLANS FOR LIMITS.

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

BRIDGE "A"
SB US-81 OVER EW 140.5
GENERAL PLAN AND ELEVATION (SHEET 1 OF 3)
CONST. 3-60' TYPE III P.C. BEAM WITH W/ 36'-0" CLR. RDWY. AND CONC. PARAPETS (FSHP-42)" SKEWED 0°
℄ STA. 113+66.44
State Job No. 24428(13) Sheet No. B001

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



ELEVATION
SCALE 1" = 10'

BM#210 - "X" ON CENTER W. HDWL. RCB CROSS DRAIN
STA. 108+67.70, 66.14' LT.
ELEV. = 1196.144'

BM#211 - "[]" ON N.E. WINGWALL W. SIDE DRAIN
STA. 114+06.93, 68.77' LT.
ELEV. = 1200.651'

NOTES
ALL STATIONING FOLLOWS ℄ SURVEY US-81, UNLESS NOTED OTHERWISE.

FOR PLAN VIEW, SEE SHEET NO. B001.

SEE SHEET NO. B003 FOR DESIGN DATA, FINISH GRADE DATA, AND INDEX OF SHEETS.

* MINIMUM THEORETICAL VERTICAL CLEARANCE. SEE PLAN VIEW FOR LOCATIONS. (BRIDGE "A" CONTROLS VERTICAL CLEARANCES). SEE SHEET NO. B003 FOR VERTICAL CLEARANCE SIGN DETAILS AND NOTES.

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

BRIDGE "A"
SB US-81 OVER EW 140.5
GENERAL PLAN AND ELEVATION (SHEET 2 OF 3)
CONST. 3-60' TYPE III P.C. BEAM WITH W/ 36'-0" CLR. RDWY.
AND CONC. PARAPETS (FSHP-42)" SKEWED 0°
℄ STA. 113+66.44
State Job No. 24428(13) Sheet No. B002

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

DESIGN DATA
(LOAD AND RESISTANCE FACTOR DESIGN)

CLASS "AA" CONCRETE	F'C = 4,000 PSI
CLASS "A" CONCRETE	F'C = 3,000 PSI
REINFORCING STEEL (GRADE 60)	FY = 60,000 PSI
STRUCTURAL STEEL M270 (GRADE 50W)	FY = 50,000 PSI
STAINLESS STEEL A240 (TYPE 316)	FY = 30,000 PSI

LOADING: HL-93 OR ODOT OVERLOAD TRUCK
20 PSF FUTURE WEARING SURFACE
5 PSF STAY-IN-PLACE FORMS

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.
ANSI/AWS D1.6 STRUCTURAL WELDING CODE - STAINLESS STEEL.

LFD OPERATING RATING: HS 59.3

THE FOLLOWING STANDARDS SHALL BE REQUIRED:

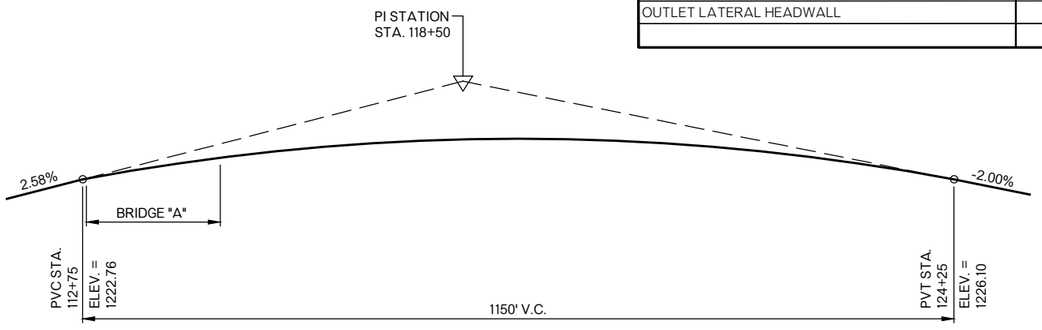
FSHP-42-2-00E
EJ-SQ-04E
EJ-DTL-02E
HP1-2-01E
LECS-4-2
PUD-3-3
PED-3-2

SUMMARY OF QUANTITIES - BRIDGE "A"

DESCRIPTION	UNIT	ABUTS.	PIERS	SUPSTR.	APPR. SLABS	SLOPE WALLS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	155.00					155.00
CLSM BACKFILL	CY	203.00					203.00
PRESTRESSED CONCRETE BEAMS (TYPE III)	LF			895.05			895.05
APPROACH SLAB	SY				273.40		273.40
SAW-CUT GROOVING	SY			755.00	253.40		1,008.40
SEALED EXPANSION JOINT	LF			39.00			39.00
42" F-SHAPED PARAPET	LF			363.40	120.00		483.40
STRUCTURAL STEEL	LB			1,370.00			1,370.00
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA			10.00			10.00
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA			20.00			20.00
CLASS AA CONCRETE	CY			208.70			208.70
CLASS A CONCRETE	CY	88.10	119.40				207.50
CLASS C CONCRETE	CY						14.40
SLOPE WALL (5")	SY					745.00	745.00
REINFORCING STEEL	LB	11,570.00	1,600.00				13,170.00
EPOXY COATED REINFORCING STEEL	LB		15,260.00	65,550.00			80,810.00
PILES, FURNISHED (HP10x42)	LF	158.00					158.00
PILES, FURNISHED (HP12x53)	LF	514.00					514.00
PILES, DRIVEN (HP10x42)	LF	158.00					158.00
PILES, DRIVEN (HP12x53)	LF	514.00					514.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	140.00	261.70	706.00	60.00		1,167.70
DRILLED SHAFTS 72" DIAMETER	LF		80.00				80.00
CROSSHOLE SONIC LOGGING	EA		1.00				1.00
SEALER CRACK PREPARATION	LF			39.00			39.00
SEALER RESIN	GAL			1.00			1.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	86.00				82.00	168.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	166.00				20.00	186.00
OUTLET LATERAL HEADWALL	EA	2.00					2.00

INDEX OF SHEETS (BRIDGE "A")

NO.	DESCRIPTION
AB01	PAY QUANTITIES (BRIDGES "A" AND "B")
AB02	GENERAL NOTES (BRIDGES "A" AND "B")
B001	GENERAL PLAN AND ELEVATION (SHEET 1 OF 3)
B002	GENERAL PLAN AND ELEVATION (SHEET 2 OF 3)
B003	GENERAL PLAN AND ELEVATION (SHEET 3 OF 3)
B004	SUBSURFACE PROFILE (SHEET 1 OF 2)
B005	SUBSURFACE PROFILE (SHEET 2 OF 2)
B006	SUBSTRUCTURE STAKING DIAGRAM
B007	ABUTMENT 1 DETAILS (SHEET 1 OF 2)
B008	ABUTMENT 1 DETAILS (SHEET 2 OF 2)
B009	ABUTMENT 1 WINGWALL DETAILS
B010	ABUTMENT 2 DETAILS (SHEET 1 OF 2)
B011	ABUTMENT 2 DETAILS (SHEET 2 OF 2)
B012	ABUTMENT 2 WINGWALL DETAILS
B013	SUBSTRUCTURE EXCAVATION AND PIPE UNDERDRAIN ASSEMBLY DETAILS
B014	PIER DETAILS (SHEET 1 OF 3)
B015	PIER DETAILS (SHEET 2 OF 3)
B016	PIER DETAILS (SHEET 3 OF 3)
B017	BEARING DETAILS
B018	TYPICAL CROSS SECTION
B019	TYPICAL LONGITUDINAL SECTION
B020	SUPERSTRUCTURE DETAILS
B021	P.C. BEAM AND DIAPHRAGM LAYOUT PLAN
B022	BOTTOM SLAB REINFORCING PLAN (SHEET 1 OF 2)
B023	BOTTOM SLAB REINFORCING PLAN (SHEET 2 OF 2)
B024	TOP SLAB REINFORCING PLAN (SHEET 1 OF 2)
B025	TOP SLAB REINFORCING PLAN (SHEET 2 OF 2)
B026	TYPE III P.C. BEAM DETAILS
B027	APPROACH SLAB DETAILS
B028	SLOPE WALL DETAILS (SHEET 1 OF 2)
B029	SLOPE WALL DETAILS (SHEET 2 OF 2)
B030	DRAINS AT END OF BRIDGE DETAILS



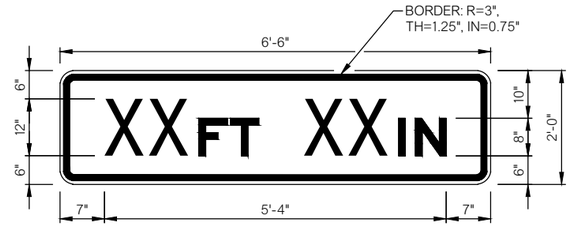
FINISH GRADE DATA
℄ SURVEY US-81
(STATIONS SHOWN ON THE DETAIL ARE ALONG ℄)

ABUTMENTS (HP12x53 PILING)		ABUT. 1	ABUT. 2
(1) FACTORED PILE REACTION (TONS/PILE)	=	88.0	88.0

(1) ABUTMENT PILING SHALL BE DRIVEN THROUGH THE COMPACTED FILL. PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE FACTORED PILE CAPACITY IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE FACTORED PILE CAPACITY IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

NOTE
SEE SHEET NO. B006 FOR PILE LENGTHS.

PIERS (72" DIAMETER DRILLED SHAFTS)		PIER 1	PIER 2
FACTORED REACTION (TONS/SHAFT)	=	504.0	498.0
NOMINAL UNIT BEARING RESISTANCE (TSF)	=	60.0	44.0
BEARING RESISTANCE FACTOR	=	0.7	0.7
FACTORED BEARING RESISTANCE (TONS/SHAFT)	=	1187.5	870.8
NOMINAL UNIT FRICTION RESISTANCE (TSF)	=	9.0	7.6
FRICTION RESISTANCE FACTOR	=	0.45	0.45
FACTORED FRICTION RESISTANCE (TONS/SHAFT)	=	458.0	386.8
DEPTH OF ROCK NEGLECTED FOR FRICTION (FT.)	=	6.0	6.0
MINIMUM DEPTH INTO ROCK (FT.)	=	12.0	12.0
TOTAL FACTORED RESISTANCE (TONS/SHAFT)	=	1645.6	1257.6



SIGN NUMBER	W12-2p
WIDTH x HEIGHT	6'-6" x 2'-0"
BORDER WIDTH	1.25"
CORNER RADIUS	3"
MOUNTING	BRIDGE
BACKGROUND	TYPE: REFLECTIVE
	COLOR: YELLOW
LEGEND & BORDER	TYPE: REFLECTIVE
	COLOR: BLACK

VERTICAL CLEARANCE SIGN DETAILS

NOTES
INSTALL ONE (1) SIGN ABOVE THE E.B. LANES OF EW140.5 ON THE WEST SIDE OF SPAN 2.

SIGNS SHOULD INDICATE A VERTICAL CLEARANCE OF 3" MIN. LESS THAN THE FINAL MEASURED CLEARANCE. THE CONTRACTOR SHALL CONTACT ODOT DIV. 7 FOR FINAL MEASUREMENT OF VERTICAL CLEARANCES.

HARDWARE AND CONNECTION DETAILS TO THE P.C. BEAM SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

ALL COSTS FOR FABRICATION, LABOR, MATERIALS, HARDWARE, AND INSTALLATION OF THE VERTICAL CLEARANCE SIGNS, COMPLETE-IN-PLACE, SHALL BE INCLUDED IN THE PRICE BID FOR "SHEET ALUMINUM SIGNS", PER SQ. FT. (TRAFFIC ITEM).

THE INSTALLATION OF THE PERMANENT VERTICAL CLEARANCE SIGNS DOES NOT RELIEVE THE CONTRACTOR OF MAINTAINING APPROPRIATE VERTICAL CLEARANCE SIGNS DURING CONSTRUCTION. COSTS TO BE INCLUDED IN OTHER ITEMS OF WORK.

PRELIMINARY
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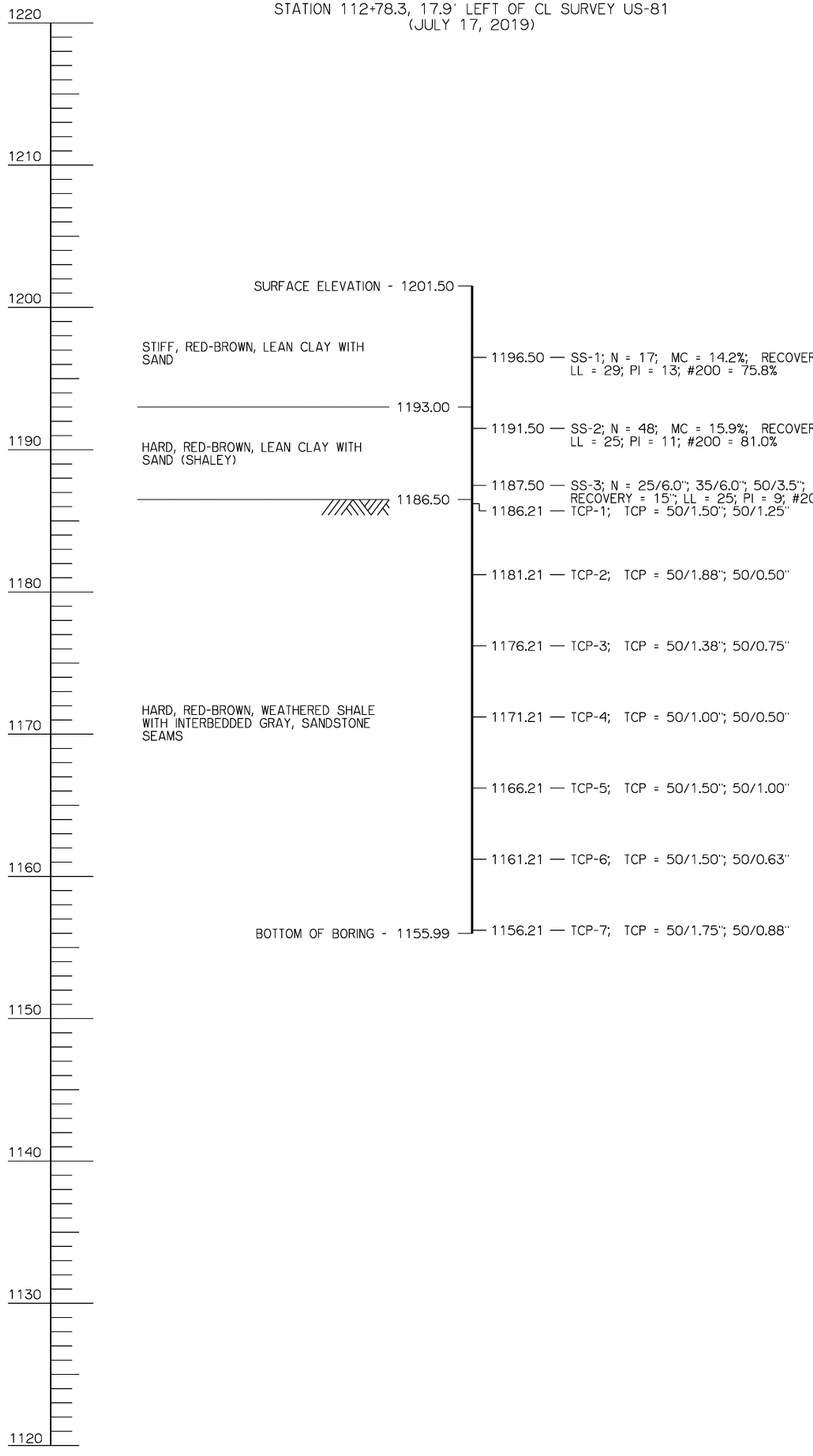
BRIDGE "A"
SB US-81 OVER EW 140.5
GENERAL PLAN AND ELEVATION (SHEET 3 OF 3)
CONST. 3-60' TYPE III P.C. BEAM WITH W/ 36'-0" CLR. RDWY.
AND CONC. PARAPETS (FSHP-42)" SKEWED 0°
℄ STA. 113+66.44
State Job No. 24428(13) Sheet No. B003

US-81 REALIGNMENT
GRADY COUNTY

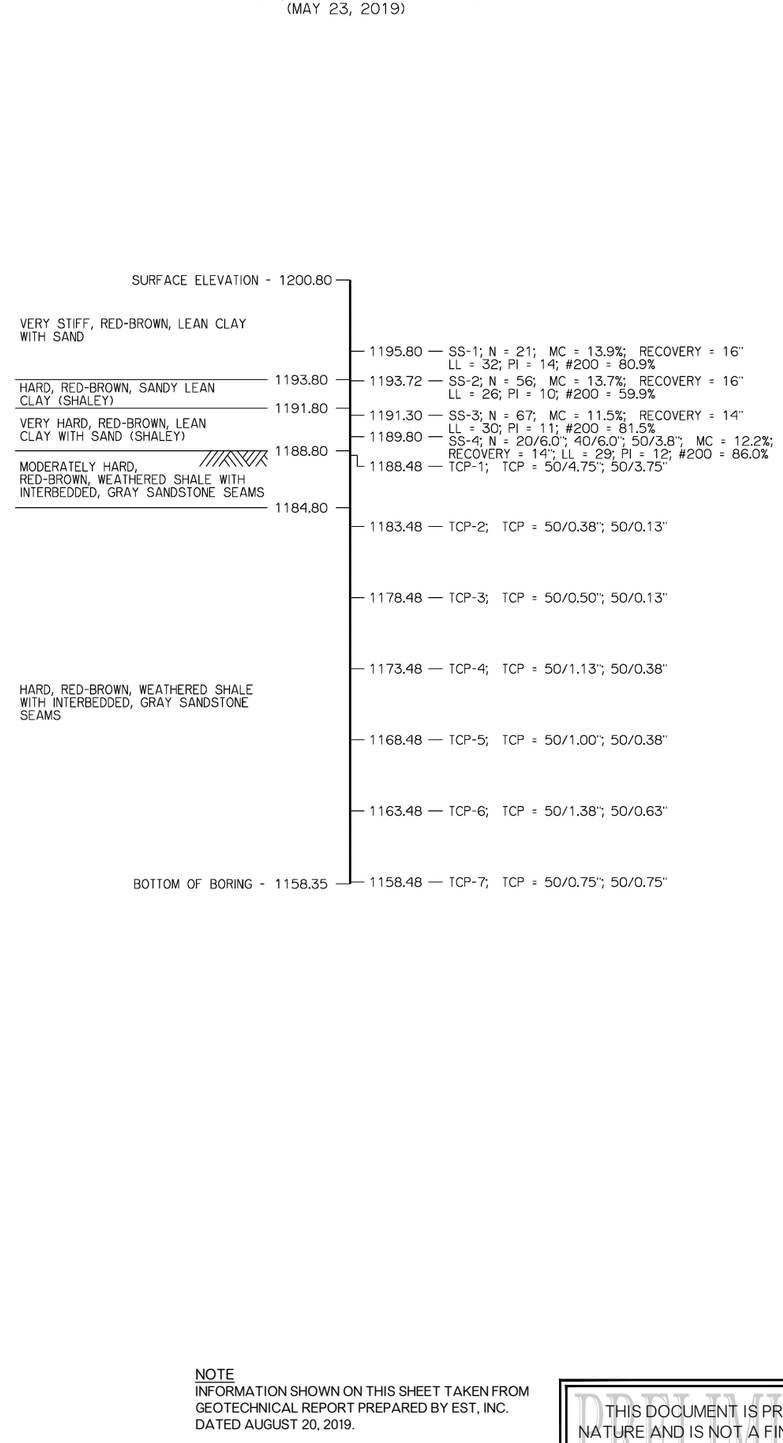
BORING NO. A-1

STATION 112+78.3, 17.9' LEFT OF CL SURVEY US-81
(JULY 17, 2019)



BORING NO. A-2

STATION 113+32.7, 61.0' LEFT OF CL SURVEY US-81
(MAY 23, 2019)



NOTE
INFORMATION SHOWN ON THIS SHEET TAKEN FROM GEOTECHNICAL REPORT PREPARED BY EST, INC. DATED AUGUST 20, 2019.

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD MEETING
JUNE 2020

LEGEND

DCD = DIAMOND CORE DRILLING, ASTM D2113-83
SS = SPLIT SPOON SAMPLER
N = NUMBER OF BLOWS PER 12 INCHES
MC = MOISTURE CONTENT
LL = LIQUID LIMIT (NV=NO VALUE)
PI = PLASTICITY INDEX (NP=NO PLASTICITY)
#200= PERCENT PASSING #200 SIEVE
UCS = UNCONFINED COMPRESSIVE STRENGTH
TCP = TEXAS CONE PENETROMETER
RQD = ROCK QUALITY DESIGNATION
NP = NON-PLASTIC
PCF = POUNDS PER CUBIC FOOT
PSI = POUNDS PER SQUARE INCH

▽ = WATER LEVEL WHILE DRILLING OR SAMPLING
▼ = WATER LEVEL AFTER DRILLING
▼ = WATER LEVEL 24 HOURS AFTER DRILLING

▨ = TOP OF ROCK

NOTE: TOP OF ROCK LINE SHOWN FOR ESTIMATING PURPOSES ONLY.

NOTE: WATER LEVEL ELEVATION SHOWN WERE OBTAINED AT THE TIME THE BORINGS WERE DRILLED AND MAY FLUCTUATE THROUGHOUT THE YEAR.

NOTE: ROCK CLASSIFICATION IS BASED ON DRILLING CHARACTERISTICS AND VISUAL OBSERVATION OF ROCK CORE SAMPLES. PETROGRAPHIC ANALYSIS OF THIN SECTIONS OF THE ROCK CORE SAMPLES MAY REVEAL OTHER TYPES.

SITE GEOLOGY

THE SUBJECT BRIDGE IS SITUATED IN A GEOLOGIC AREA BEST DESCRIBED AS BEING PART OF THE DOG CREEK-BLAINE SUBUNIT (PDB) UNDIFFERENTIATED. ACCORDING TO PUBLISHED MATERIALS (ENGINEERING CLASSIFICATION OF GEOLOGIC MATERIALS, DIVISION SEVEN, 1969, OKLAHOMA HIGHWAY DEPARTMENT), THE DOG CREEK-BLAINE SUBUNIT CONSISTS OF DARK RED SHALES INTERBEDDED WITH MINOR AMOUNTS OF FINE-GRAINED GYPSIFEROUS SANDSTONES THAT LOCALLY GRADE INTO PURE GYPSUM. MUDSTONE CONGLOMERATES A FEW FEET IN THICKNESS OCCUR SPARINGLY WITHIN THE STRATA.

GEOTECHNICAL REPORT

ALL GEOTECHNICAL INFORMATION CONTAINED ON THIS SHEET IS COVERED BY THE ENGINEERING SEAL AFFIXED TO AN ORIGINAL GEOTECHNICAL ENGINEERING REPORT THAT HAS BEEN STAMPED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN OKLAHOMA. TO OBTAIN A COPY OF THE COMPLETE REPORT, CONTACT THE ODOT OFFICE ENGINEER. THE CONTRACTOR SHOULD BE FULLY AWARE OF THE SITE CONDITIONS PRIOR TO BEGINNING WORK. ANY ADDITIONAL GEOTECNICAL INFORMATION WHICH MAY BE DESIRED IS THE RESPONSIBILITY OF THE CONTRACTOR.

EST

BRIDGE "A"
SB US-81 OVER EW 140.5

SUBSURFACE PROFILE
(SHEET 1 OF 2)

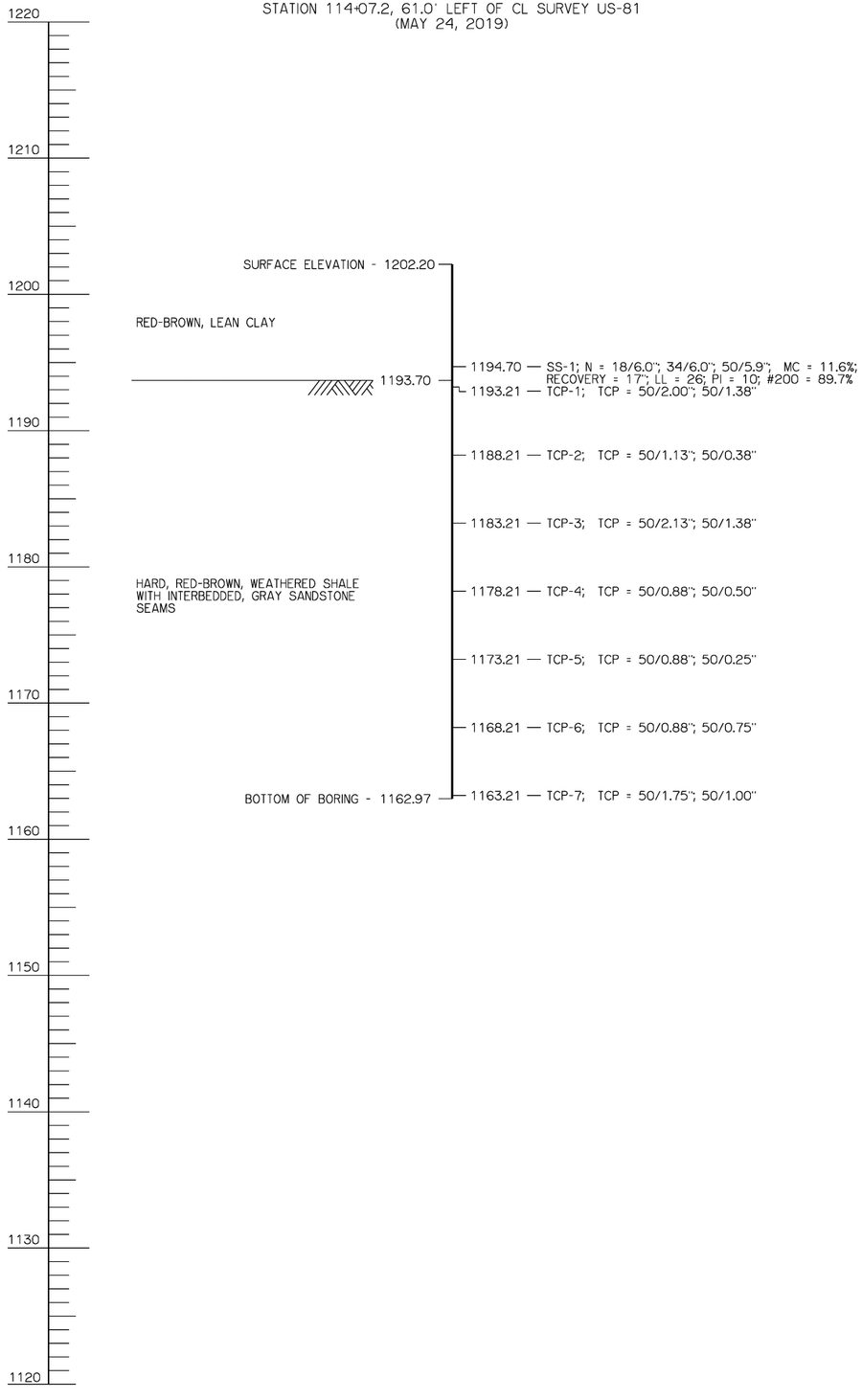
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B004

US-81 REALIGNMENT
GRADY COUNTY

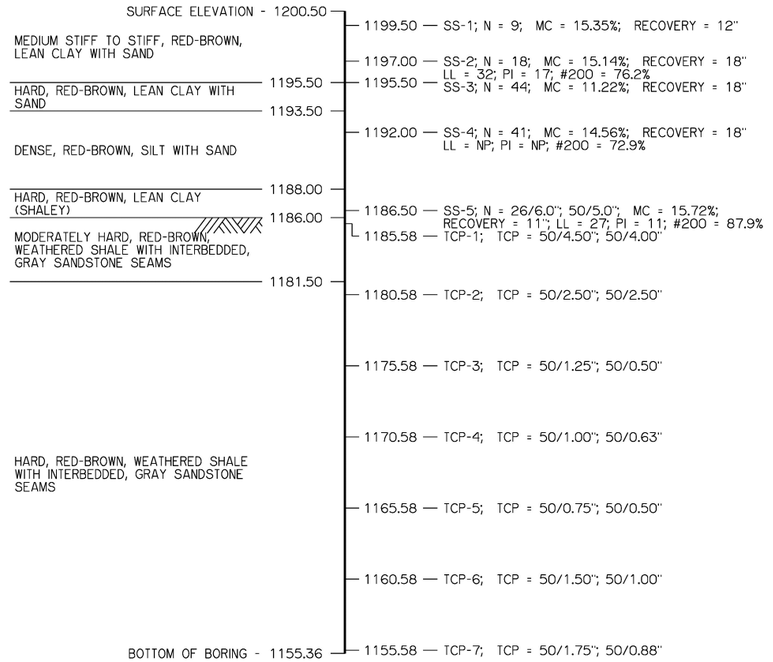
BORING NO. A-3

STATION 114+07.2, 61.0' LEFT OF CL SURVEY US-81
(MAY 24, 2019)



BORING NO. A-4

STATION 114+54.0, 67.1' LEFT OF CL SURVEY US-81
(JULY 17, 2019)



NOTE
INFORMATION SHOWN ON THIS SHEET TAKEN FROM GEOTECHNICAL REPORT PREPARED BY EST, INC. DATED AUGUST 20, 2019.

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

LEGEND

DCD = DIAMOND CORE DRILLING, ASTM D2113-83
SS = SPLIT SPOON SAMPLER
N = NUMBER OF BLOWS PER 12 INCHES
MC = MOISTURE CONTENT
LL = LIQUID LIMIT (NV=NO VALUE)
PI = PLASTICITY INDEX (NP=NO PLASTICITY)
#200= PERCENT PASSING #200 SIEVE
UCS = UNCONFINED COMPRESSIVE STRENGTH
TCP = TEXAS CONE PENETROMETER
RQD = ROCK QUALITY DESIGNATION
NP = NON-PLASTIC
PCF = POUNDS PER CUBIC FOOT
PSI = POUNDS PER SQUARE INCH

▽ = WATER LEVEL WHILE DRILLING OR SAMPLING
▼ = WATER LEVEL AFTER DRILLING
▼ = WATER LEVEL 24 HOURS AFTER DRILLING

= TOP OF ROCK

NOTE: TOP OF ROCK LINE SHOWN FOR ESTIMATING PURPOSES ONLY.

NOTE: WATER LEVEL ELEVATION SHOWN WERE OBTAINED AT THE TIME THE BORINGS WERE DRILLED AND MAY FLUCTUATE THROUGHOUT THE YEAR.

NOTE: ROCK CLASSIFICATION IS BASED ON DRILLING CHARACTERISTICS AND VISUAL OBSERVATION OF ROCK CORE SAMPLES. PETROGRAPHIC ANALYSIS OF THIN SECTIONS OF THE ROCK CORE SAMPLES MAY REVEAL OTHER TYPES.

SITE GEOLOGY

THE SUBJECT BRIDGE IS SITUATED IN A GEOLOGIC AREA BEST DESCRIBED AS BEING PART OF THE DOG CREEK-BLAINE SUBUNIT (PDB) UNDIFFERENTIATED. ACCORDING TO PUBLISHED MATERIALS (ENGINEERING CLASSIFICATION OF GEOLOGIC MATERIALS, DIVISION SEVEN, 1969, OKLAHOMA HIGHWAY DEPARTMENT), THE DOG CREEK-BLAINE SUBUNIT CONSISTS OF DARK RED SHALES INTERBEDDED WITH MINOR AMOUNTS OF FINE-GRAINED GYPSIFEROUS SANDSTONES THAT LOCALLY GRADE INTO PURE GYPSUM. MUDSTONE CONGLOMERATES A FEW FEET IN THICKNESS OCCUR SPARINGLY WITHIN THE STRATA.

GEOTECHNICAL REPORT

ALL GEOTECHNICAL INFORMATION CONTAINED ON THIS SHEET IS COVERED BY THE ENGINEERING SEAL AFFIXED TO AN ORIGINAL GEOTECHNICAL ENGINEERING REPORT THAT HAS BEEN STAMPED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN OKLAHOMA. TO OBTAIN A COPY OF THE COMPLETE REPORT, CONTACT THE ODOT OFFICE ENGINEER. THE CONTRACTOR SHOULD BE FULLY AWARE OF THE SITE CONDITIONS PRIOR TO BEGINNING WORK. ANY ADDITIONAL GEOTECNICAL INFORMATION WHICH MAY BE DESIRED IS THE RESPONSIBILITY OF THE CONTRACTOR.

EST

BRIDGE "A"
SB US-81 OVER EW 140.5

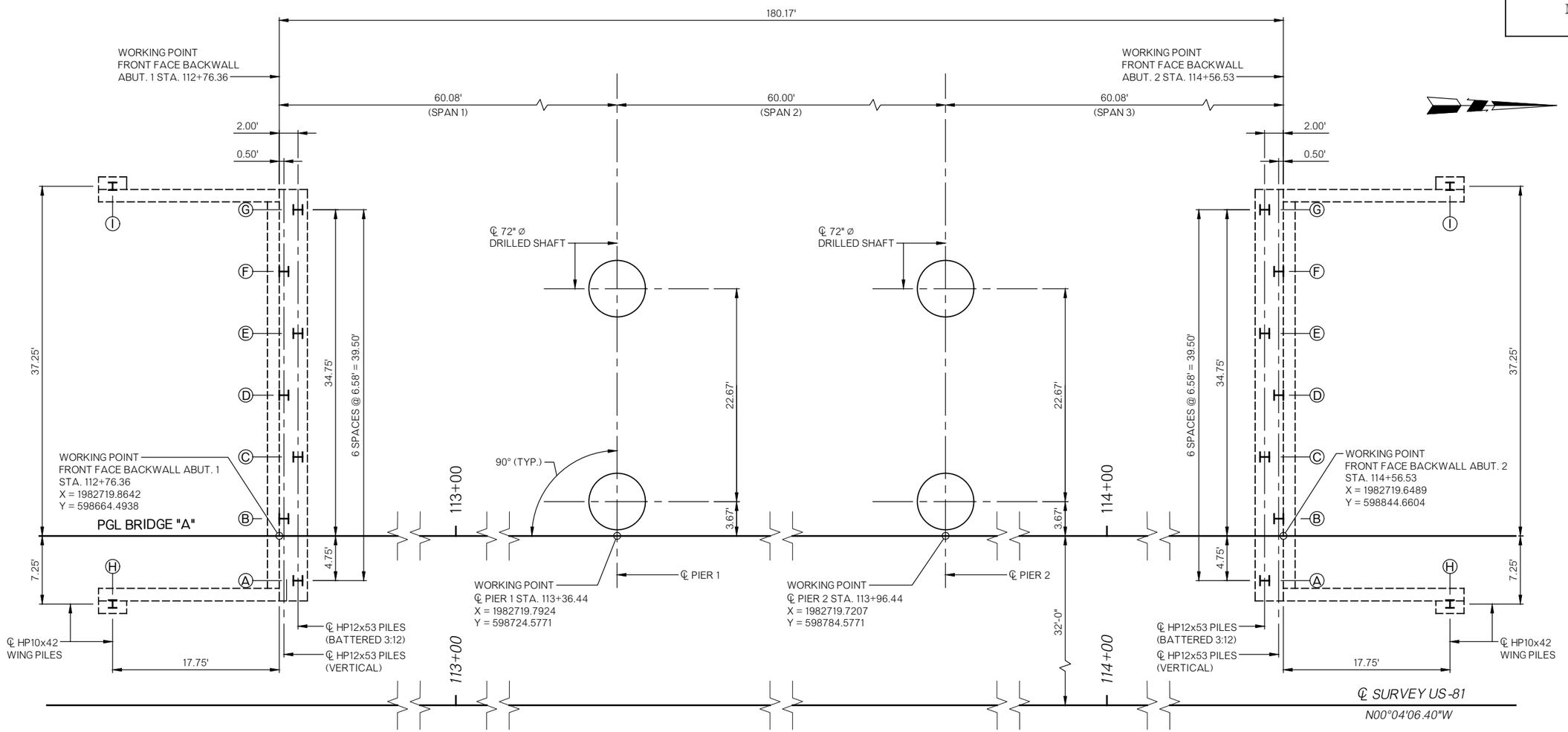
SUBSURFACE PROFILE (SHEET 2 OF 2)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B005

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



SUBSTRUCTURE STAKING DIAGRAM
(NOT TO SCALE)

TOP OF PILE ELEVATION AND PILE LENGTH SCHEDULE - ABUTMENT 1

PILE	TOP OF PILE	PILE LENGTH
A	1216.00	36.00
B	1215.87	34.00
C	1215.74	35.00
D	1215.61	34.00
E	1215.48	35.00
F	1215.34	34.00
G	1215.21	35.00
H	1219.05	38.00
I	1218.17	37.00

NOTES
FACE OF PILE WEB SHALL BE PERPENDICULAR TO FACE OF BRIDGE SEAT.

ALL DIMENSION ARE HORIZONTAL DIMENSIONS.

FOR SUMMARY OF QUANTITIES, SEE SHEET NO. B003.

TOP OF PILE ELEVATION AND PILE LENGTH SCHEDULE - ABUTMENT 2

PILE	TOP OF PILE	PILE LENGTH
A	1219.96	40.00
B	1219.83	38.00
C	1219.70	39.00
D	1219.57	38.00
E	1219.44	39.00
F	1219.30	38.00
G	1219.17	39.00
H	1223.01	42.00
I	1222.13	41.00

PRELIMINARY
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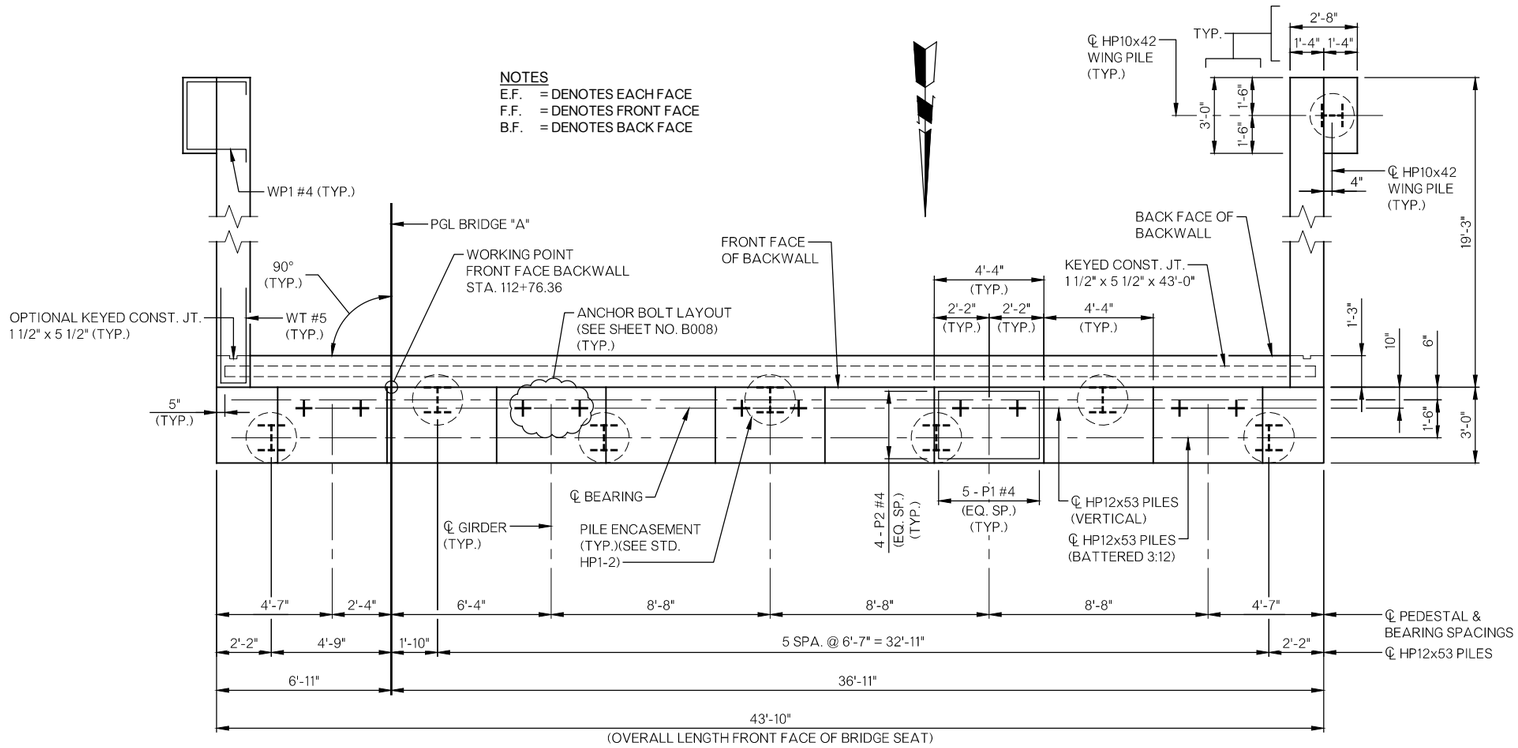
BRIDGE "A"
SB US-81 OVER EW 140.5

SUBSTRUCTURE STAKING DIAGRAM
℄ SURVEY US-81 STA. 113+66.44

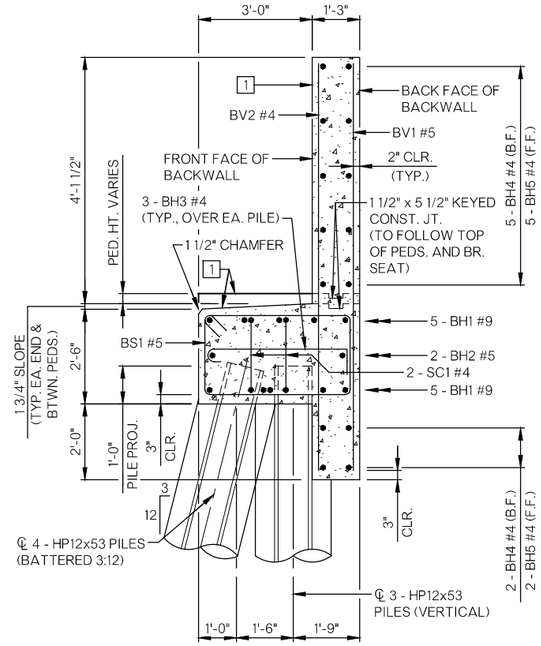
State Job No. 24428(13) Sheet No. B006

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



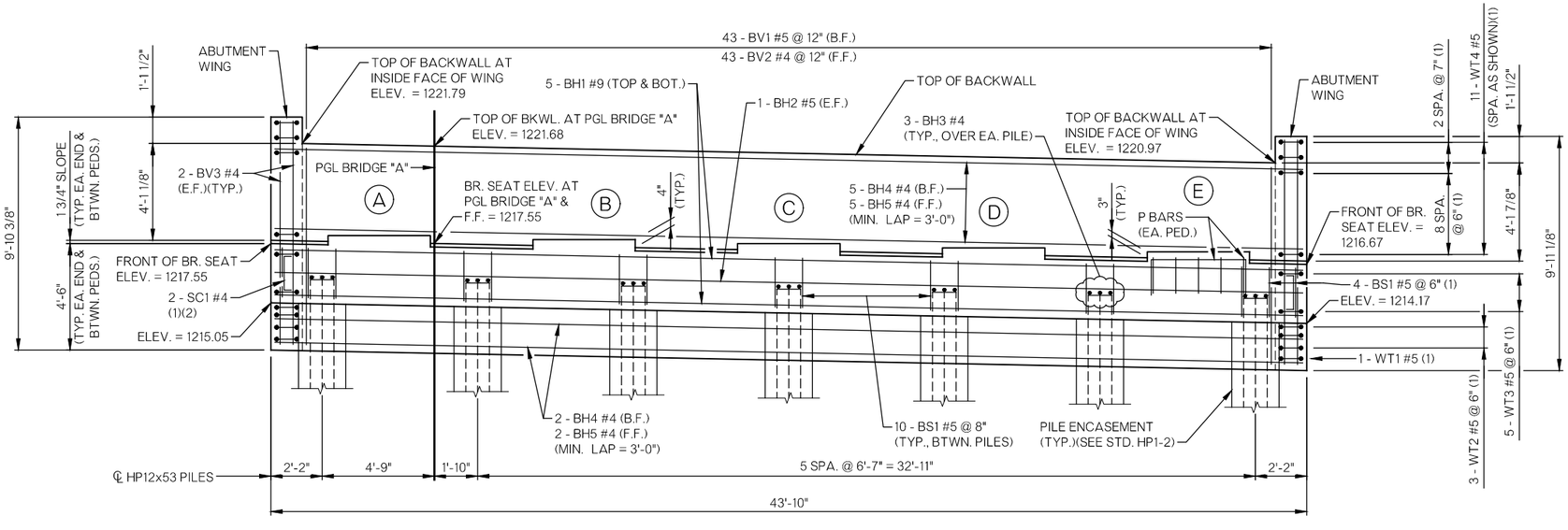
PLAN



SECTION THRU BRIDGE SEAT

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

NOTE
[1] TREAT FRONT FACE OF BACKWALL, TOP OF ABUTMENT SEAT, AND ALL SURFACES OF PEDESTALS WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT. TREAT FRONT FACE OF ABUTMENT SEAT ABOVE THE FINISHED GROUND LINE WITH PENETRATING WATER REPELLENT SURFACE TREATMENT.



ELEVATION

NOTES
ALL REINFORCING STEEL BETWEEN BRIDGE SEAT AND/OR BACKWALL AND WINGS SHALL BE TIED IN PLACE PRIOR TO POURING BRIDGE SEAT AND BACKWALL (WT BARS).

FOR ADDITIONAL ABUTMENT 1 DETAILS, SEE SHEET NO. B008.

FOR WING DETAILS, SEE SHEET NO. B009.

ALL EDGES OF THE ABUTMENT AND WINGS SHALL HAVE A 3/4" CHAMFER, UNLESS OTHERWISE SHOWN.

FOR SUBSTRUCTURE STAKING DIAGRAM, SEE SHEET NO. B006.

(1) TYPICAL EACH END.

(2) PLACE AS SHOWN ON "SECTION THRU BRIDGE SEAT".

SCHEDULE OF PEDESTAL ELEVATIONS	
PEDESTAL	ELEVATION
A	1217.89
B	1217.72
C	1217.55
D	1217.37
E	1217.20

BRIDGE "A"
SB US-81 OVER EW 140.5

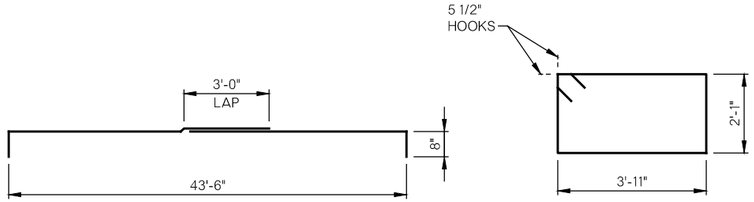
ABUTMENT 1 DETAILS (SHEET 1 OF 2)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B007

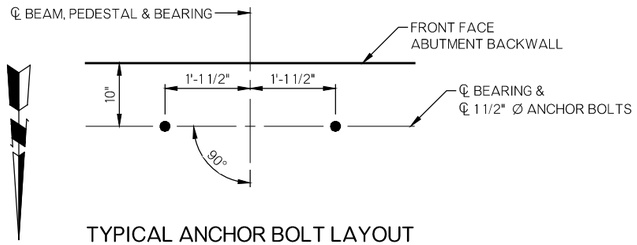
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

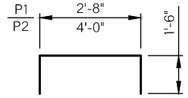


BH4 #4 x 47'-10"

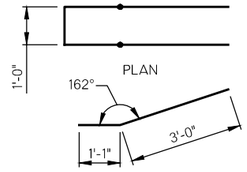
BS1 #5 x 12'-11"



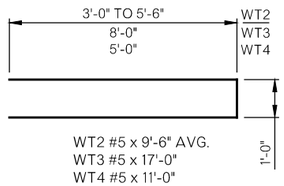
TYPICAL ANCHOR BOLT LAYOUT



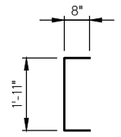
P1 #4 x 5'-8"
P2 #4 x 7'-0"



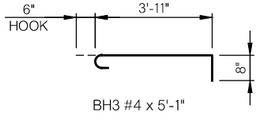
WT1 #5 x 9'-2"



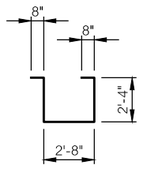
WT2 #5 x 9'-6" AVG.
WT3 #5 x 17'-0"
WT4 #5 x 11'-0"



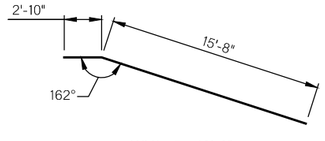
SC1 #4 x 3'-3"



BH3 #4 x 5'-1"



WP1 #4 x 8'-8"



WH1 #5 x 18'-6"

BAR BEND DETAILS

ABUTMENT 1 QUANTITIES		
ITEM	UNITS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	70.00
CLSM BACKFILL	CY	98.00
CLASS A CONCRETE	CY	43.60
EPOXY COATED REINFORCING STEEL	LB	5,770.00
PILES, FURNISHED (HP10x42)	LF	75.00
PILES, FURNISHED (HP12x53)	LF	243.00
PILES, DRIVEN (HP10x42)	LF	75.00
PILES, DRIVEN (HP12x53)	LF	243.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	71.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	43.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	83.00
OUTLET LATERAL HEADWALL	EA	1.00

ABUTMENT 1 BAR LIST					
MARK	NO.	SIZE	FORM	LENGTH	REMARKS
PLAIN REINFORCING BARS					
BH1	10	#9	STR.	43'-6"	
BH2	2	#5	STR.	43'-6"	
BH3	21	#4	BNT.	5'-1'	
(1) BH4	7	#4	BNT.	47'-10"	
(1) BH5	7	#4	STR.	46'-6"	
BS1	68	#5	BNT.	12'-11"	
BV1	43	#5	STR.	8'-4"	
BV2	43	#4	STR.	8'-4"	
BV3	8	#4	STR.	9'-5"	
P1	25	#4	BNT.	5'-8"	
P2	20	#4	BNT.	7'-0"	
SC1	4	#4	BNT.	3'-3"	
WH1	4	#5	BNT.	18'-6"	
(2) WH2	28	#5	STR.	10'-2" AVG.	VARIES 5'-6" TO 14'-10"
WH3	36	#5	STR.	17'-8"	
WP1	6	#4	BNT.	8'-8"	
WP2	8	#4	STR	1'-7"	
WT1	2	#5	BNT.	9'-2"	
(3) WT2	6	#5	BNT.	9'-6" AVG.	VARIES 7'-0" TO 12'-0"
WT3	10	#5	BNT.	17'-0"	
WT4	22	#5	BNT.	11'-0"	
WV1	8	#4	STR.	4'-0"	
(4) WV2	30	#4	STR.	6'-10" AVG.	VARIES 4'-5" TO 9'-3"
WV3	8	#4	STR.	3'-11"	
(4) WV4	30	#4	STR.	6'-9" AVG.	VARIES 4'-4" TO 9'-2"

(1) LENGTH INCLUDES ONE (1) 3'-0" LAP SPLICE.
(2) FOUR (4) SETS OF SEVEN (7) BARS EACH.
(3) TWO (2) SETS OF THREE (3) BARS EACH.
(4) TWO (2) SETS OF FIFTEEN (15) BARS EACH.

PRELIMINARY
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BRIDGE "A"
SB US-81 OVER EW 140.5

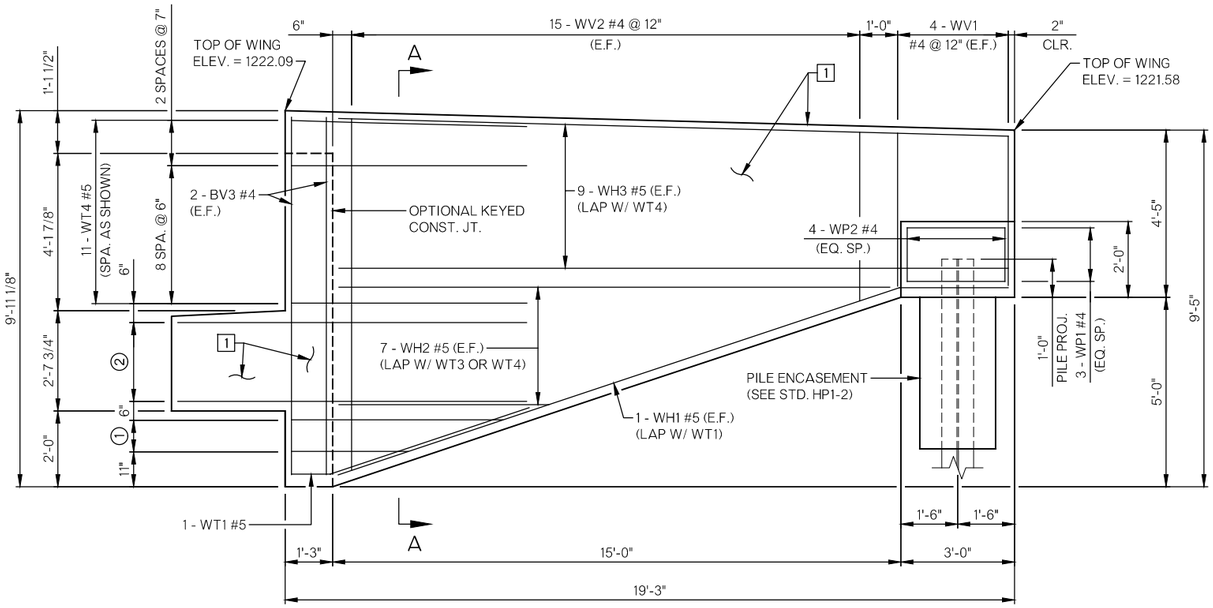
ABUTMENT 1 DETAILS (SHEET 2 OF 2)

℄ SURVEY US-81 STA. 113+66.44

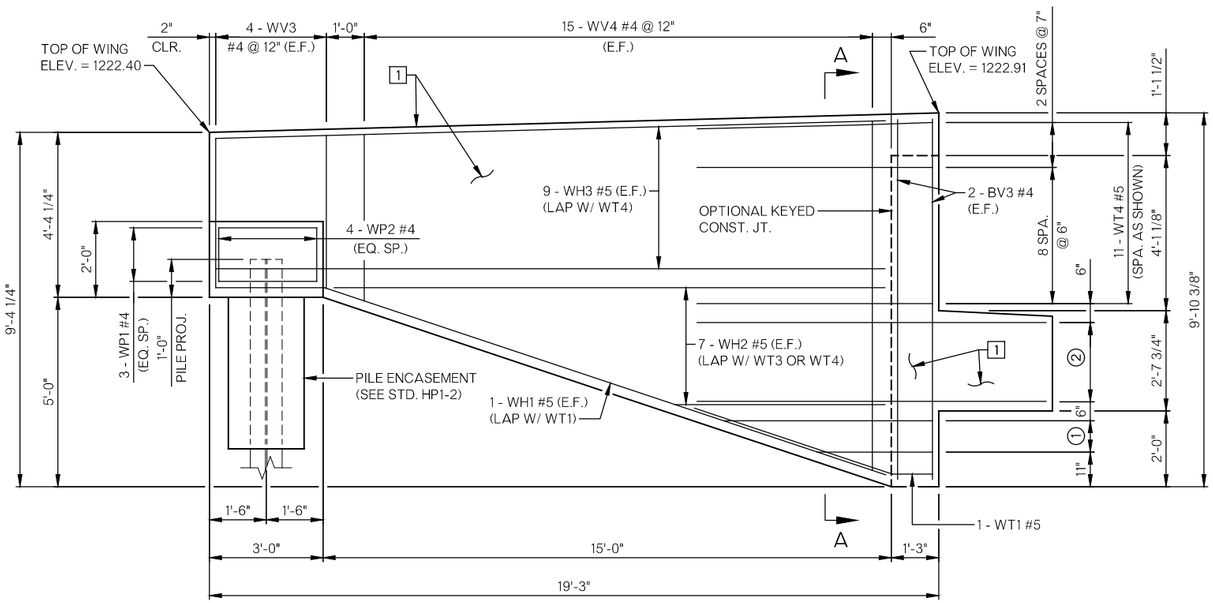
State Job No. 24428(13) Sheet No. B008

US-81 REALIGNMENT
GRADY COUNTY

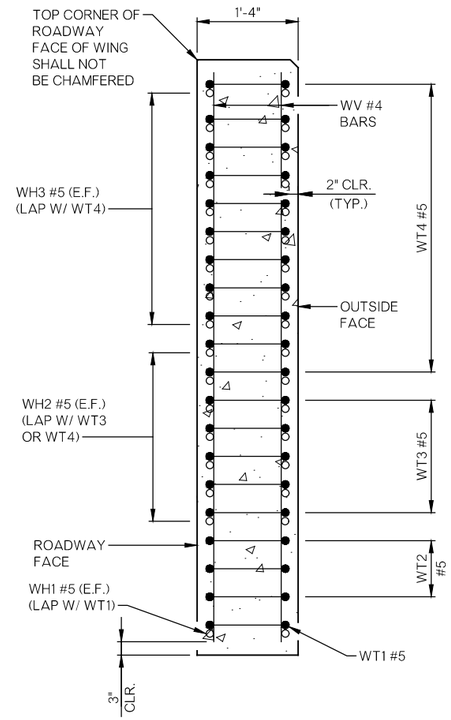
FINAL FIELD MEETING
JUNE 2020



WEST WING ELEVATION



EAST WING ELEVATION



SECTION A-A

NOTE
1 TREAT ENDS OF THE BRIDGE SEAT AND ALL EXPOSED SURFACES OF WINGS WITH WATER REPELLENT SURFACE TREATMENT, ABOVE THE FINISHED GROUND LINE.

NOTES
E.F. = DENOTES EACH FACE

① 3 - WT2 #5 @ 6"

② 5 - WT3 #5 @ 6"

PRELIMINARY
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BRIDGE "A"
SB US-81 OVER EW 140.5

ABUTMENT 1 WINGWALL DETAILS

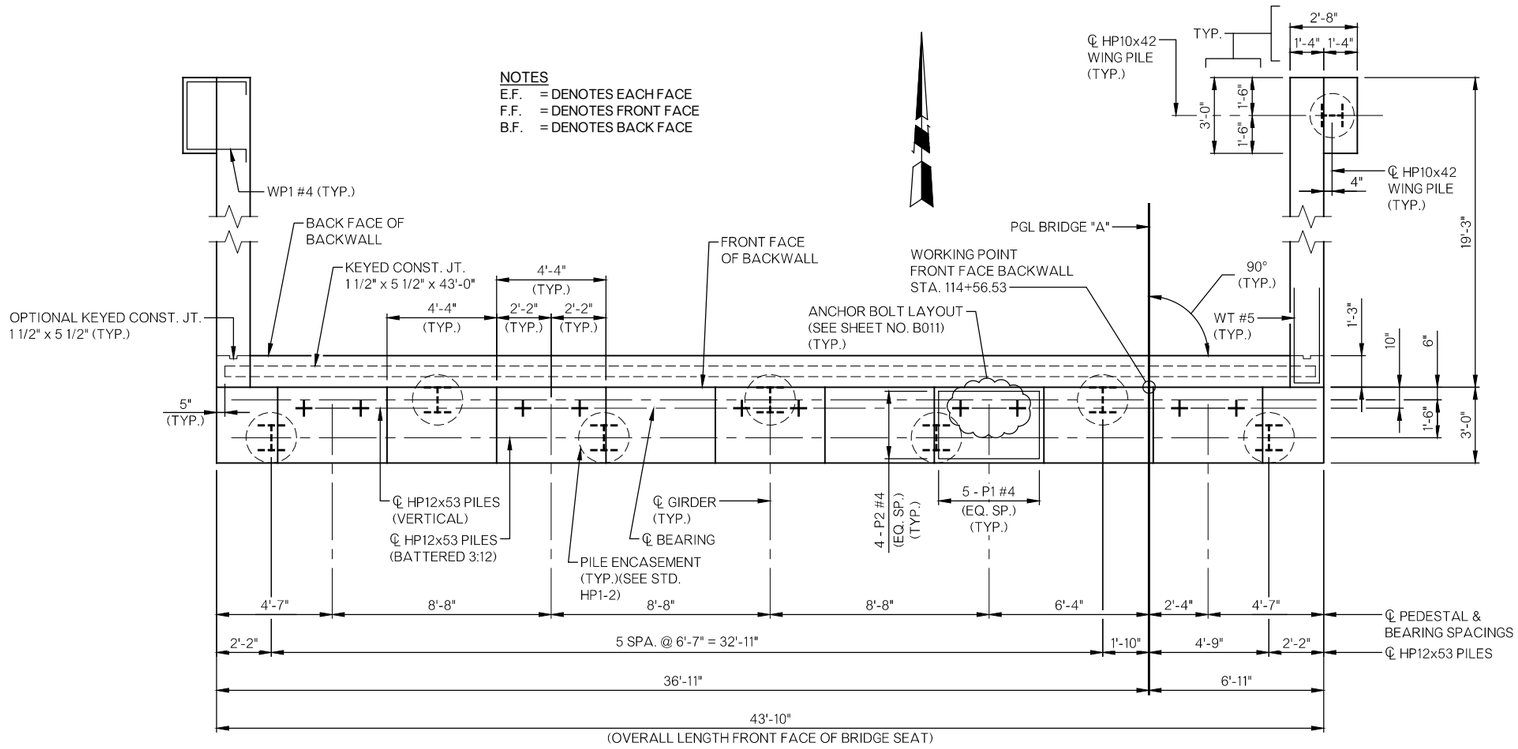
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B009

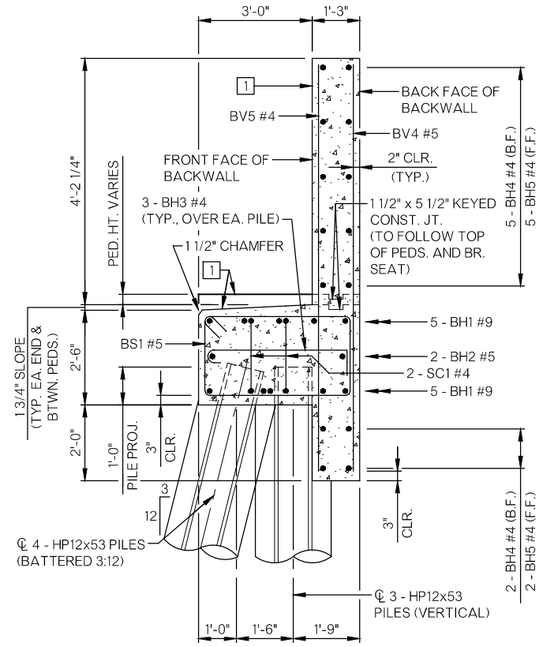
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

NOTES
E.F. = DENOTES EACH FACE
F.F. = DENOTES FRONT FACE
B.F. = DENOTES BACK FACE



PLAN



SECTION THRU BRIDGE SEAT

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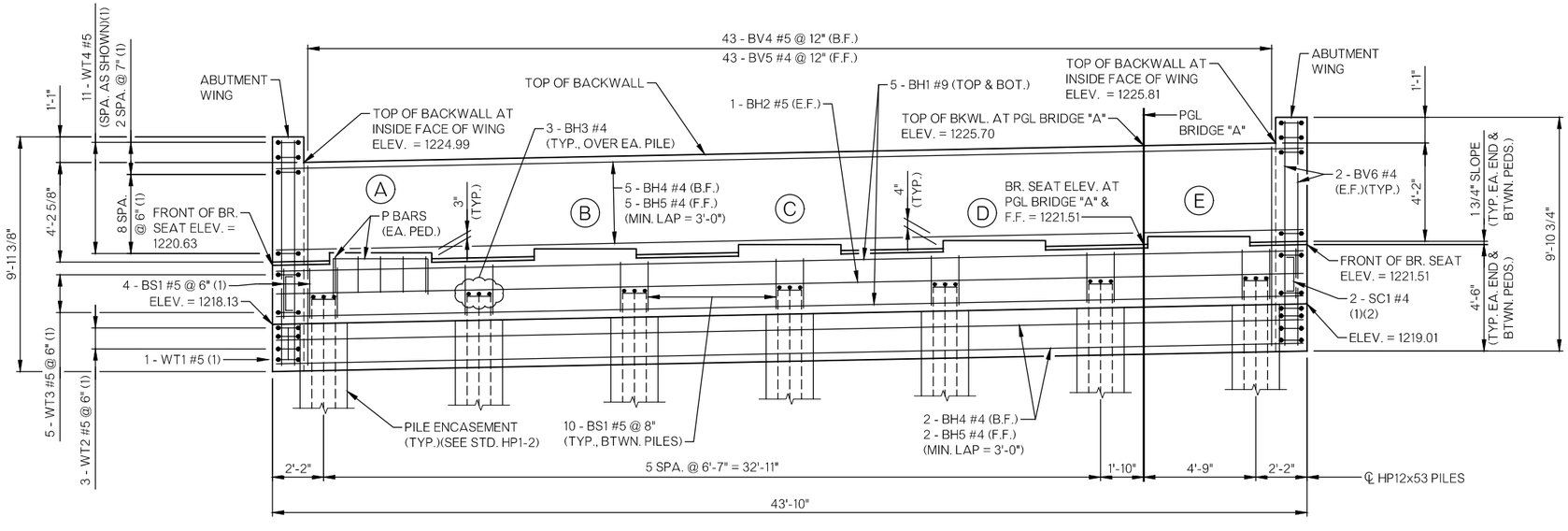
PRELIMINARY

NOTE
[1] TREAT FRONT FACE OF BACKWALL, TOP OF ABUTMENT SEAT, AND ALL SURFACES OF PEDESTALS WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT. TREAT FRONT FACE OF ABUTMENT SEAT ABOVE THE FINISHED GROUND LINE WITH PENETRATING WATER REPELLENT SURFACE TREATMENT.



ELEVATION

NOTES
ALL REINFORCING STEEL BETWEEN BRIDGE SEAT AND/OR BACKWALL AND WINGS SHALL BE TIED IN PLACE PRIOR TO POURING BRIDGE SEAT AND BACKWALL (WT BARS).

FOR ADDITIONAL ABUTMENT 1 DETAILS, SEE SHEET NO. B011.

FOR WING DETAILS, SEE SHEET NO. B012.

ALL EDGES OF THE ABUTMENT AND WINGS SHALL HAVE A 3/4" CHAMFER, UNLESS OTHERWISE SHOWN.

FOR SUBSTRUCTURE STAKING DIAGRAM, SEE SHEET NO. B006.

(1) TYPICAL EACH END.

(2) PLACE AS SHOWN ON "SECTION THRU BRIDGE SEAT".

SCHEDULE OF PEDESTAL ELEVATIONS	
PEDESTAL	ELEVATION
A	1221.16
B	1221.33
C	1221.50
D	1221.68
E	1221.85

BRIDGE "A"
SB US-81 OVER EW 140.5

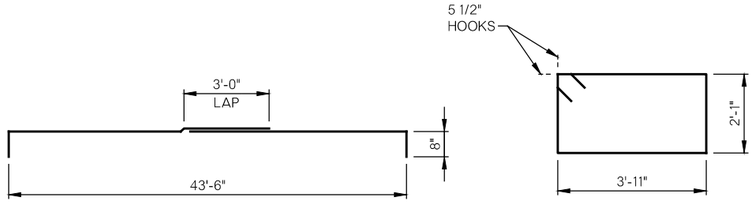
ABUTMENT 2 DETAILS (SHEET 1 OF 2)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B010

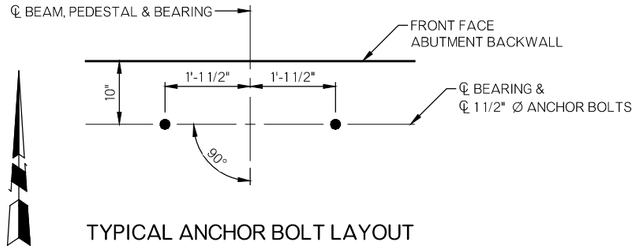
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

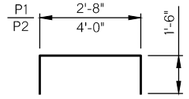


BH4 #4 x 47'-10"

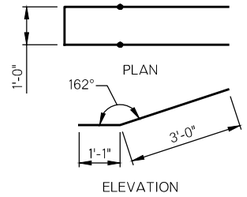
BS1 #5 x 12'-11"



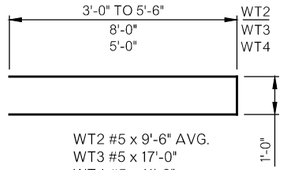
TYPICAL ANCHOR BOLT LAYOUT



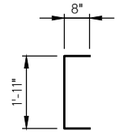
P1 #4 x 5'-8"
P2 #4 x 7'-0"



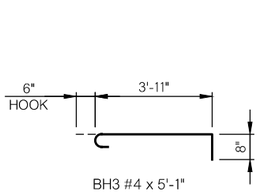
WT1 #5 x 9'-2"



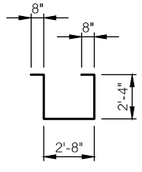
WT2 #5 x 9'-6" AVG.
WT3 #5 x 17'-0"
WT4 #5 x 11'-0"



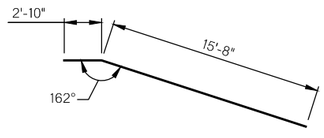
SC1 #4 x 3'-3"



BH3 #4 x 5'-1"



WP1 #4 x 8'-8"



WH1 #5 x 18'-6"

BAR BEND DETAILS

ABUTMENT 2 QUANTITIES

ITEM	UNITS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	85.00
CLSM BACKFILL	CY	105.00
CLASS A CONCRETE	CY	44.50
EPOXY COATED REINFORCING STEEL	LB	5,800.00
PILES, FURNISHED (HP10x42)	LF	83.00
PILES, FURNISHED (HP12x53)	LF	271.00
PILES, DRIVEN (HP10x42)	LF	83.00
PILES, DRIVEN (HP12x53)	LF	271.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	69.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	43.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	83.00
OUTLET LATERAL HEADWALL	EA	1.00

ABUTMENT 2 BAR LIST

	MARK	NO.	SIZE	FORM	LENGTH	REMARKS
	PLAIN REINFORCING BARS					
	BH1	10	#9	STR.	43'-6"	
	BH2	2	#5	STR.	43'-6"	
	BH3	21	#4	BNT.	5'-1'	
(1)	BH4	7	#4	BNT.	47'-10"	
(1)	BH5	7	#4	STR.	46'-6"	
	BS1	68	#5	BNT.	12'-11"	
	BV4	43	#5	STR.	8'-5"	
	BV5	43	#4	STR.	8'-5"	
	BV6	8	#4	STR.	9'-5"	
	P1	25	#4	BNT.	5'-8"	
	P2	20	#4	BNT.	7'-0"	
	SC1	4	#4	BNT.	3'-3"	
	WH1	4	#5	BNT.	18'-6"	
(2)	WH2	28	#5	STR.	10'-2" AVG.	VARIES 5'-6" TO 14'-10"
	WH3	36	#5	STR.	17'-8"	
	WP1	6	#4	BNT.	8'-8"	
	WP2	8	#4	STR.	1'-7"	
	WT1	2	#5	BNT.	9'-2"	
(3)	WT2	6	#5	BNT.	9'-6" AVG.	VARIES 7'-0" TO 12'-0"
	WT3	10	#5	BNT.	17'-0"	
	WT4	22	#5	BNT.	11'-0"	
	WV5	8	#4	STR.	4'-10"	
(4)	WV6	30	#4	STR.	7'-3" AVG.	VARIES 5'-2" TO 9'-4"
	WV7	8	#4	STR.	4'-9"	
(4)	WV8	30	#4	STR.	7'-2" AVG.	VARIES 5'-1" TO 9'-3"

(1) LENGTH INCLUDES ONE (1) 3'-0" LAP SPLICE.
(2) FOUR (4) SETS OF SEVEN (7) BARS EACH.
(3) TWO (2) SETS OF THREE (3) BARS EACH.
(4) TWO (2) SETS OF FIFTEEN (15) BARS EACH.

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

BRIDGE "A"
SB US-81 OVER EW 140.5

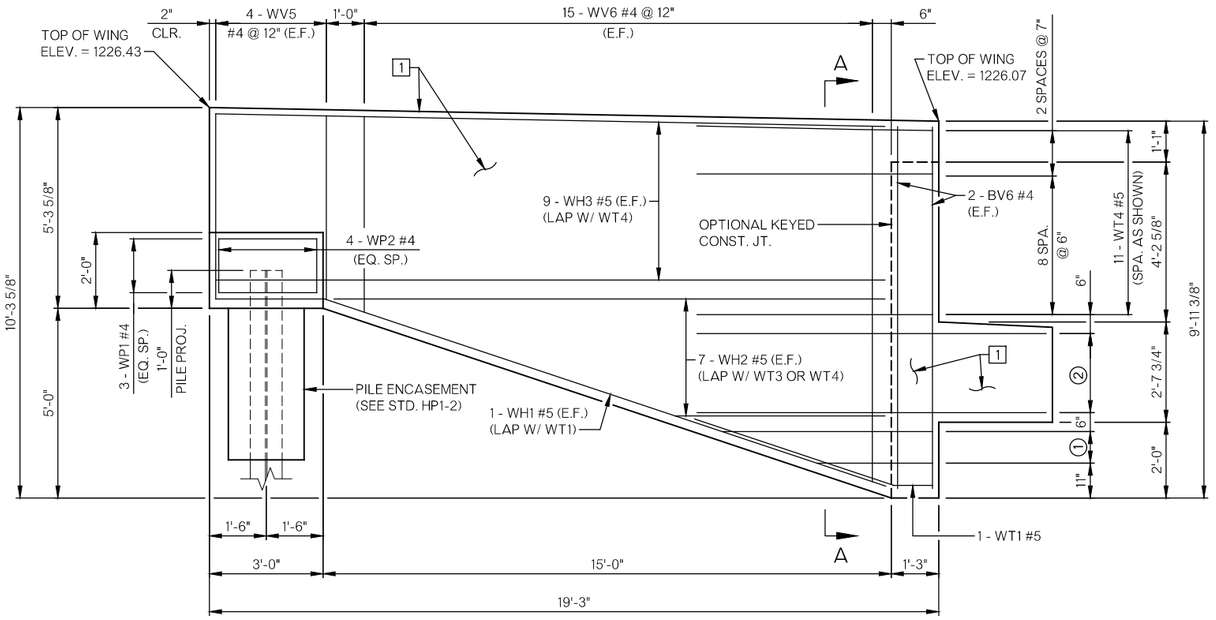
ABUTMENT 2 DETAILS (SHEET 2 OF 2)

℄ SURVEY US-81 STA. 113+66.44

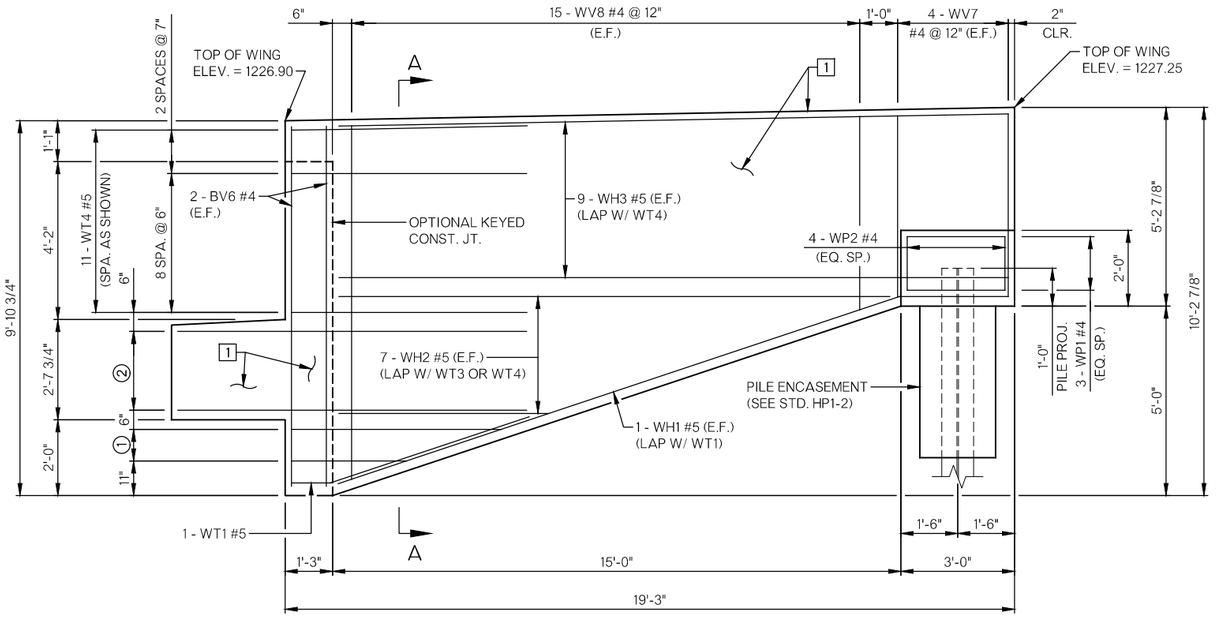
State Job No. 24428(13) Sheet No. B011

US-81 REALIGNMENT
GRADY COUNTY

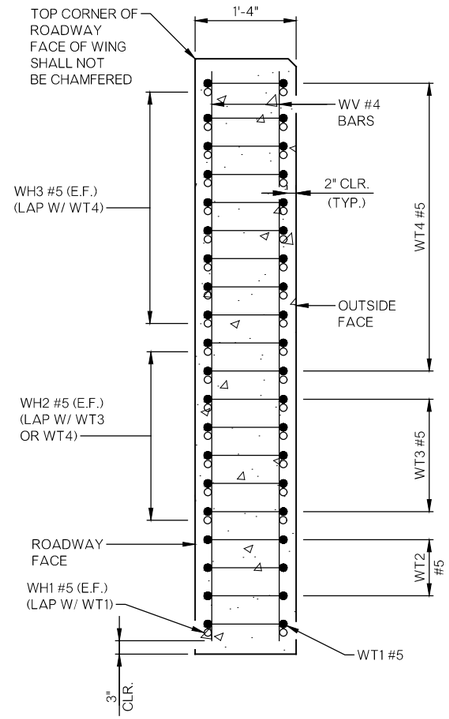
FINAL FIELD MEETING
JUNE 2020



WEST WING ELEVATION



EAST WING ELEVATION



SECTION A-A

NOTE
[1] TREAT ENDS OF THE BRIDGE SEAT AND ALL EXPOSED SURFACES OF WINGS WITH WATER REPELLENT SURFACE TREATMENT, ABOVE THE FINISHED GROUND LINE.

NOTES
E.F. = DENOTES EACH FACE

(1) 3 - WT2 #5 @ 6"

(2) 5 - WT3 #5 @ 6"

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BRIDGE "A"
SB US-81 OVER EW 140.5

ABUTMENT 2 WINGWALL DETAILS

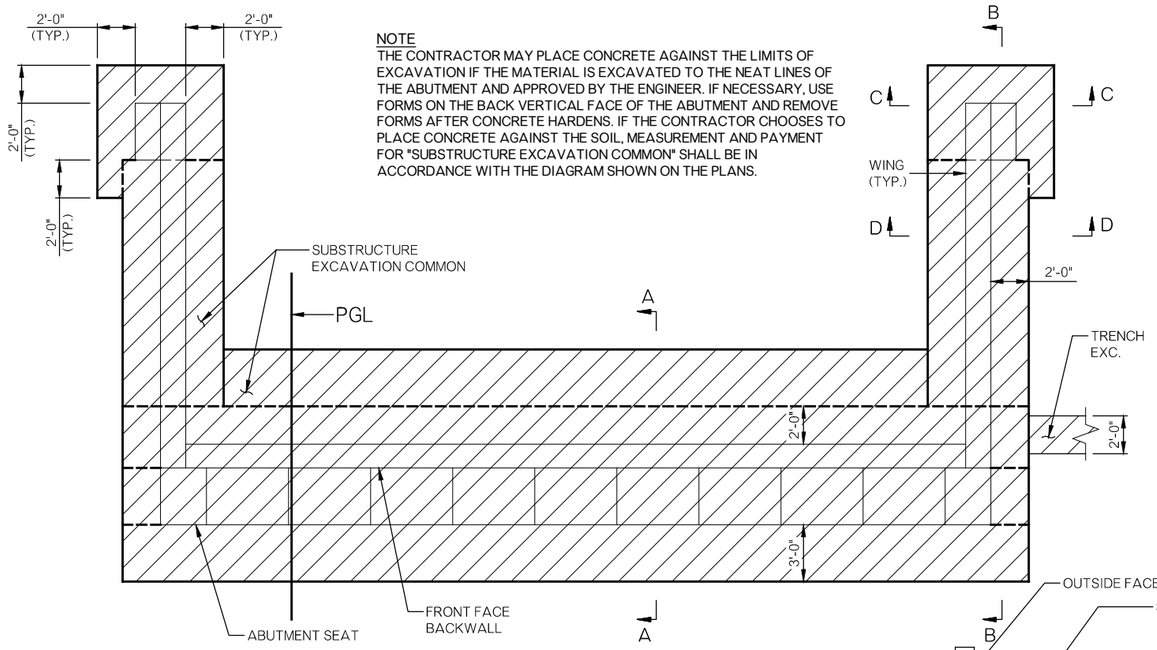
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B012

US-81 REALIGNMENT
GRADY COUNTY

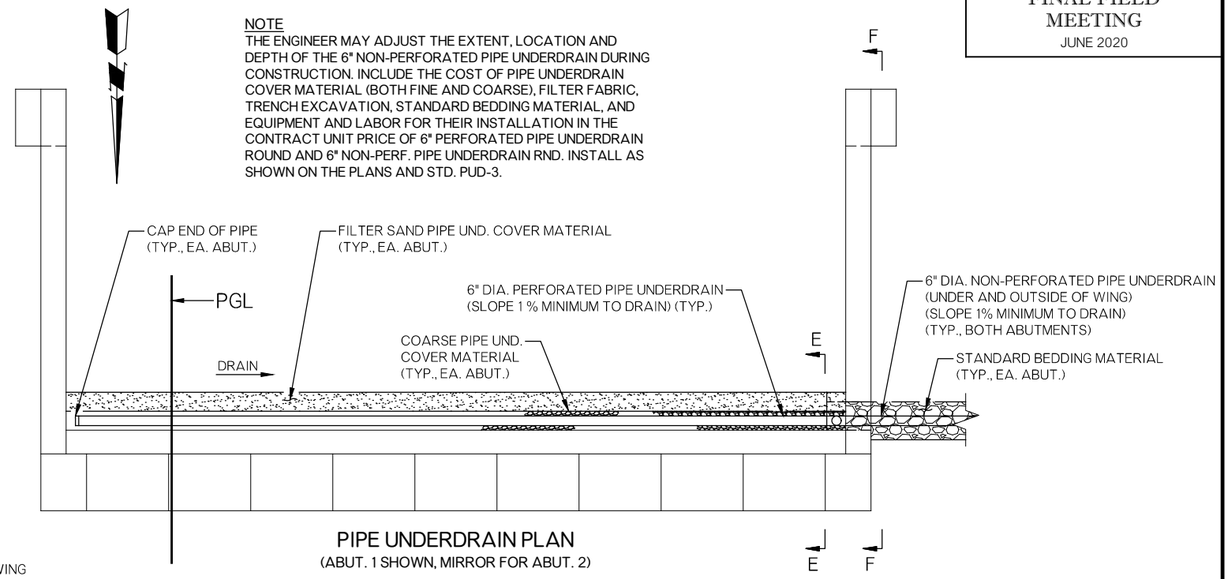
FINAL FIELD MEETING
JUNE 2020

NOTE
THE CONTRACTOR MAY PLACE CONCRETE AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE ABUTMENT AND APPROVED BY THE ENGINEER. IF NECESSARY, USE FORMS ON THE BACK VERTICAL FACE OF THE ABUTMENT AND REMOVE FORMS AFTER CONCRETE HARDENS. IF THE CONTRACTOR CHOOSES TO PLACE CONCRETE AGAINST THE SOIL, MEASUREMENT AND PAYMENT FOR "SUBSTRUCTURE EXCAVATION COMMON" SHALL BE IN ACCORDANCE WITH THE DIAGRAM SHOWN ON THE PLANS.

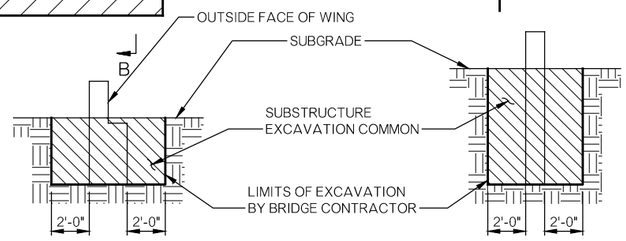


ABUTMENT EXCAVATION PLAN
(ABUT. 1 SHOWN, MIRROR FOR ABUT. 2)

NOTE
THE ENGINEER MAY ADJUST THE EXTENT, LOCATION AND DEPTH OF THE 6" NON-PERFORATED PIPE UNDERDRAIN DURING CONSTRUCTION. INCLUDE THE COST OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION IN THE CONTRACT UNIT PRICE OF 6" PERFORATED PIPE UNDERDRAIN ROUND AND 6" NON-PERF. PIPE UNDERDRAIN RND. INSTALL AS SHOWN ON THE PLANS AND STD. PUD-3.



PIPE UNDERDRAIN PLAN
(ABUT. 1 SHOWN, MIRROR FOR ABUT. 2)



SECTION C-C

SECTION D-D

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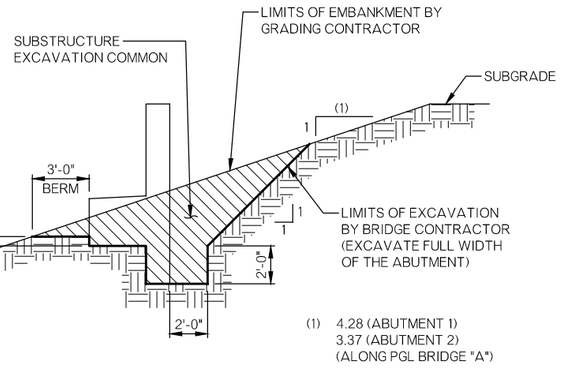
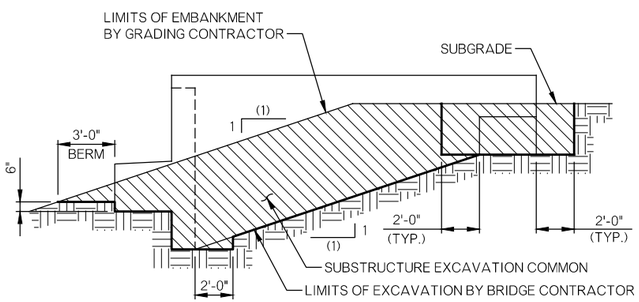
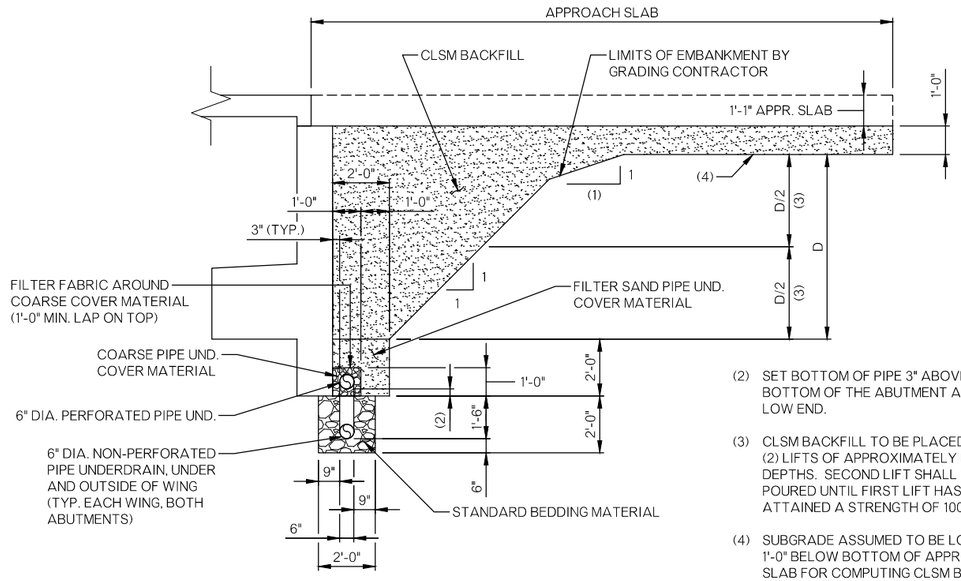


(1) 4.28 (ABUTMENT 1)
3.37 (ABUTMENT 2)
(ALONG PGL BRIDGE "A")

SECTION A-A



SECTION B-B



NOTE
FOR DETAILS OF PIPE UNDERDRAIN NOT SHOWN, SEE STD. PUD-3.

SECTION E-E

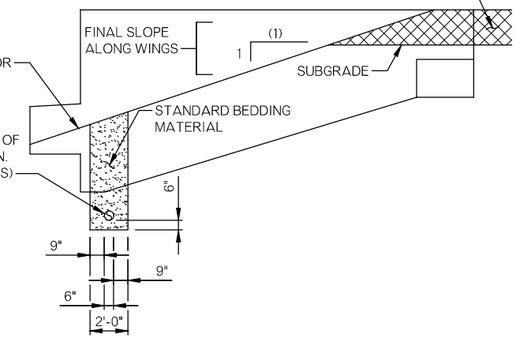
(2) SET BOTTOM OF PIPE 3" ABOVE THE BOTTOM OF THE ABUTMENT AT EACH LOW END.

(3) CLSM BACKFILL TO BE PLACED IN TWO (2) LIFTS OF APPROXIMATELY EQUAL DEPTHS. SECOND LIFT SHALL NOT BE POURED UNTIL FIRST LIFT HAS ATTAINED A STRENGTH OF 100 P.S.I.

(4) SUBGRADE ASSUMED TO BE LOCATED 1'-0" BELOW BOTTOM OF APPROACH SLAB FOR COMPUTING CLSM BACKFILL QUANTITY. THE DEPARTMENT WILL PAY FOR CLSM BACKFILL IN ACCORDANCE WITH THE PLAN AND NO ADJUSTMENT WILL BE MADE FOR ACTUAL LOCATION OF SUBGRADE.

FILL OUTSIDE OF WING AND ALONG APPR. SLAB BY BRIDGE CONTRACTOR (COST TO BE INCL. IN OTHER ITEMS)

FINISH GRADE OUTSIDE OF WING BY BRIDGE CONTRACTOR (COST TO BE INCLUDED IN OTHER ITEMS)



SECTION F-F

NOTES
DO NOT PLACE CLSM BACKFILL UNTIL SUPERSTRUCTURE IS IN PLACE AND THE ABUTMENT WING CONCRETE HAS ATTAINED A STRENGTH OF 3000 PSI.

THE OUTSIDE FACES OF THE WINGS SHALL BE BACKFILLED TO THE ORIGINAL EMBANKMENT LIMITS (MIN.), PRIOR TO PLACING CLSM BACKFILL.

BRIDGE "A"
SB US-81 OVER EW 140.5

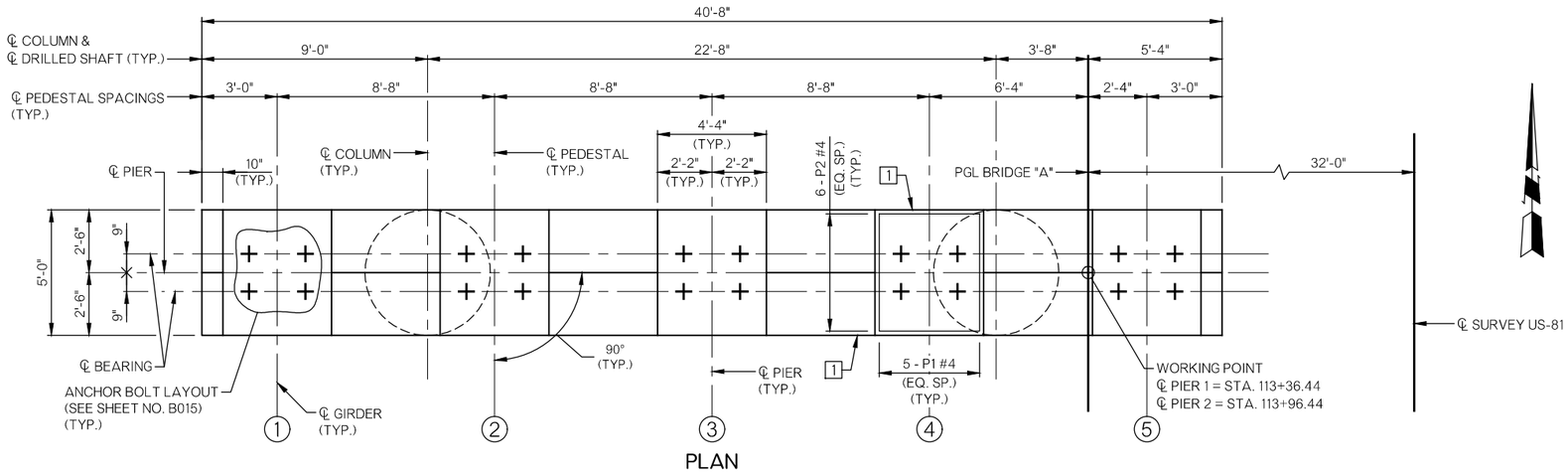
SUBSTRUCTURE EXCAVATION AND PIPE UNDERDRAIN ASSEMBLY DETAILS

℄ SURVEY US-81 STA. 113+66.44

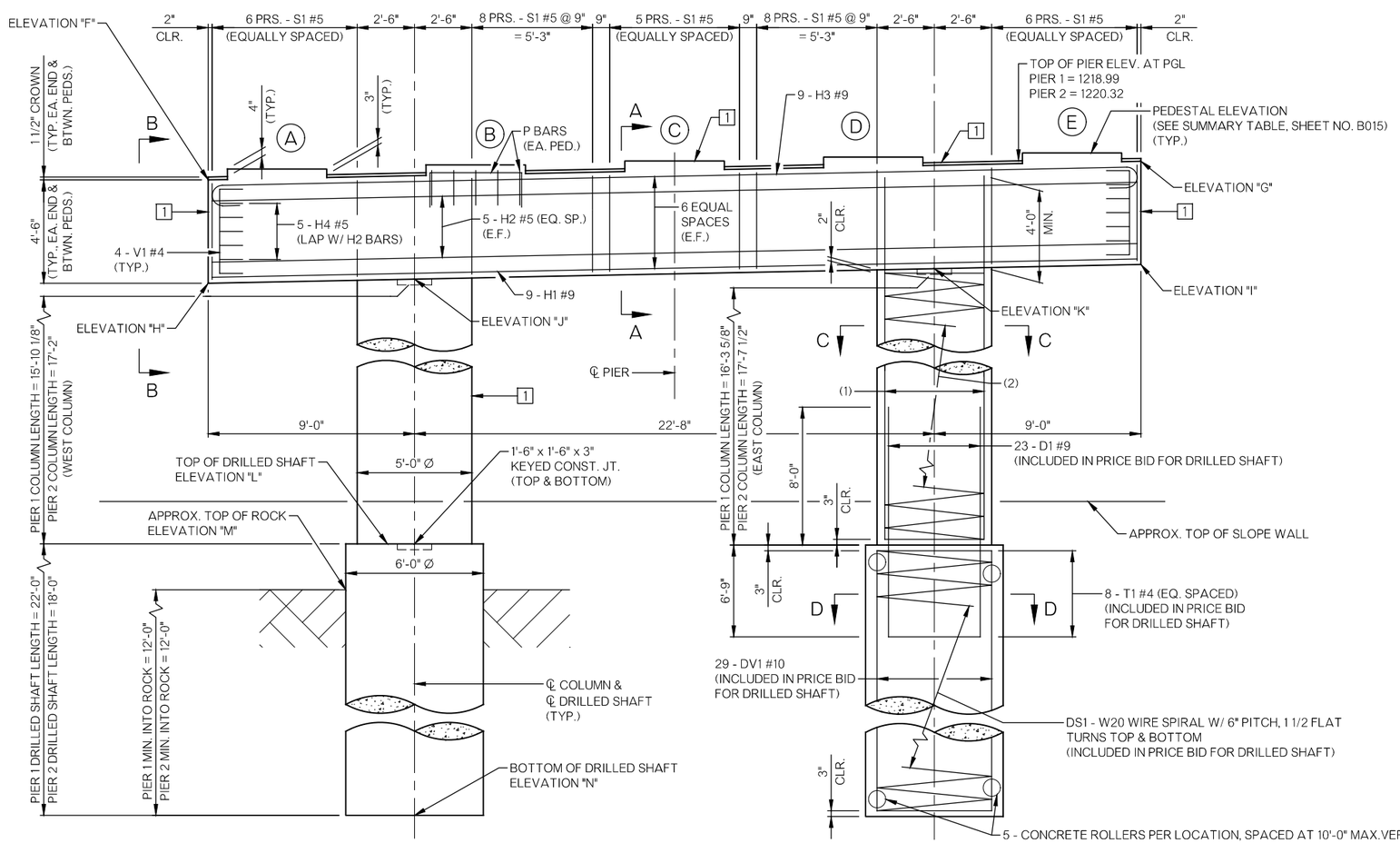
State Job No. 24428(13) Sheet No. B013

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



PLAN



(TYPICAL COLUMN/DRILLED SHAFT SIZES, DIMENSIONS AND DETAILS, UNLESS OTHERWISE SHOWN)

(TYPICAL COLUMN/DRILLED SHAFT REINFORCING DETAILS)

ELEVATION

NOTE
1 TREAT TOP OF PIER CAP, INCLUDING ALL SURFACES OF PEDESTALS, ALL VERTICAL FACES OF THE PIER CAP AND ALL SURFACES OF THE COLUMNS ABOVE THE TOP OF SLOPE WALL, WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

NOTES
E.F. = DENOTES EACH FACE

FOR SECTION VIEWS, BAR BEND DETAILS, BAR LISTS, QUANTITIES, AND SPIRAL DETAILS, SEE SHEET NOS. B015 AND B016.

ALL EDGES OF THE PIER CAP SHALL HAVE A 1 1/2" CHAMFER, EXCEPT FOR EDGES OF PEDESTALS, WHICH HAVE A 3/4" CHAMFERS.

NOTES
(1) 23 - CV1 #9 (PIER 1, WEST COLUMN)
(1) 23 - CV2 #9 (PIER 1, EAST COLUMN)
(1) 23 - CV3 #9 (PIER 2, WEST COLUMN)
(1) 23 - CV4 #9 (PIER 2, EAST COLUMN)

(2) CS1 - W20 WIRE SPIRAL W/ 5" PITCH, 1 1/2 FLAT TURNS TOP & BOTTOM (PIER 1, WEST COLUMN)
(2) CS2 - W20 WIRE SPIRAL W/ 5" PITCH, 1 1/2 FLAT TURNS TOP & BOTTOM (PIER 1, EAST COLUMN)
(2) CS3 - W20 WIRE SPIRAL W/ 5" PITCH, 1 1/2 FLAT TURNS TOP & BOTTOM (PIER 2, WEST COLUMN)
(2) CS4 - W20 WIRE SPIRAL W/ 5" PITCH, 1 1/2 FLAT TURNS TOP & BOTTOM (PIER 2, EAST COLUMN)

PRELIMINARY
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BRIDGE "A"
SB US-81 OVER EW 140.5

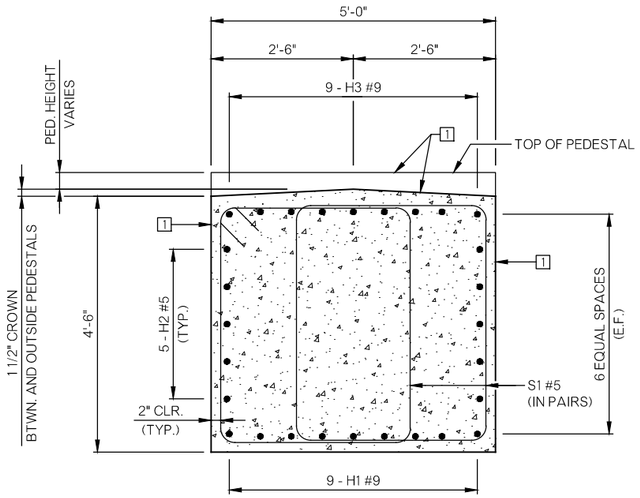
PIER DETAILS (SHEET 1 OF 3)

℄ SURVEY US-81 STA. 113+66.44

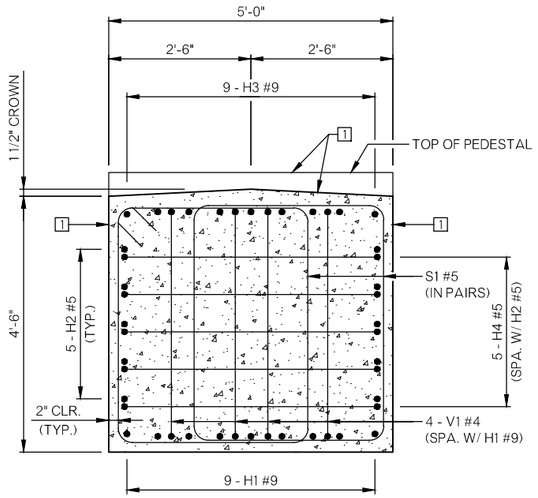
State Job No. 24428(13) Sheet No. B014

US-81 REALIGNMENT
GRADY COUNTY

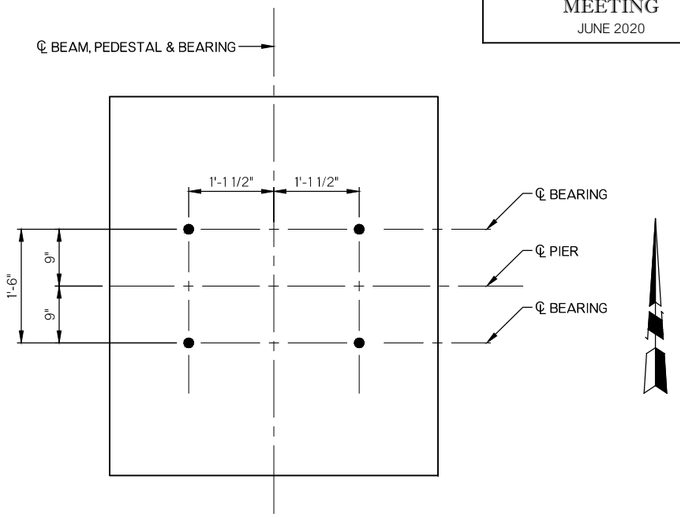
FINAL FIELD MEETING
JUNE 2020



SECTION A-A



VIEW B-B
(TYP. EACH END OF CAP)
(FOR DETAILS NOT SHOWN, SEE SECTION A-A.)

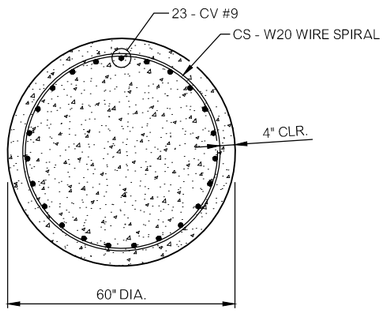


TYPICAL ANCHOR BOLT LAYOUT

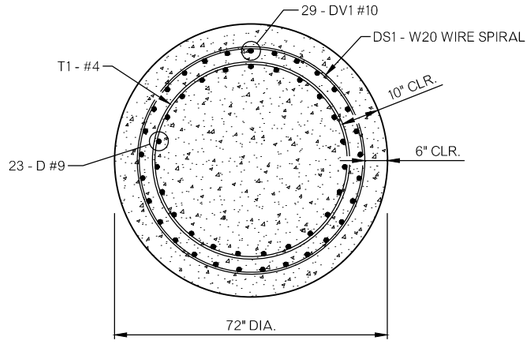
NOTE
ALL EDGES OF PIER CAP SHALL HAVE A 1 1/2" CHAMFER EXCEPT FOR PEDESTAL EDGES WHICH SHALL HAVE A 3/4" CHAMFER.

SUMMARY OF STATIONS, DIMENSIONS AND ELEVATIONS FOR PIERS

LOCATION	WORKING POINT STATION AT ℄ PIER	TOP OF PEDESTAL				
		A	B	C	D	E
PIER 1	113+36.44	1218.64	1218.81	1218.98	1219.16	1219.33
PIER 2	113+96.44	1219.97	1220.14	1220.32	1220.49	1220.66



SECTION C-C



SECTION D-D

SUMMARY OF STATIONS, DIMENSIONS AND ELEVATIONS FOR PIERS - CONT'D.

LOCATION	TOP OF PIER CAP		BOTTOM OF PIER CAP		TOP OF COLUMN	
	F	G	H	I	J	K
PIER 1	1218.16	1218.98	1213.66	1214.48	1213.84	1214.30
PIER 2	1219.49	1220.31	1214.99	1215.81	1215.17	1215.63

SUMMARY OF STATIONS, DIMENSIONS AND ELEVATIONS FOR PIERS - CONT'D.

LOCATION	TOP OF DRILLED SHAFT	EST. TOP OF ROCK	BOTTOM OF DRILLED SHAFT
	L	M	N
PIER 1	1198.00	1188.80	1176.00
PIER 2	1198.00	1192.79	1180.00

NOTE
E.F. = DENOTES EACH FACE

NOTE
[1] TREAT TOP OF PIER CAP, INCLUDING ALL SURFACES OF PEDESTALS, ALL VERTICAL FACES OF THE PIER CAP AND ALL SURFACES OF THE COLUMNS ABOVE THE FINAL GROUND SURFACE, WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

NOTE
FOR BAR BEND DETAILS, BAR LISTS, QUANTITIES, AND SPIRAL REINFORCING AND CONCRETE ROLLER DETAILS, SEE SHEET NO. B016.

PRELIMINARY
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BRIDGE "A"
SB US-81 OVER EW 140.5

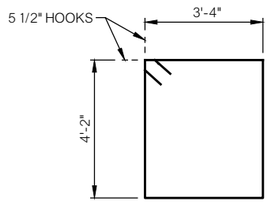
PIER DETAILS (SHEET 2 OF 3)

℄ SURVEY US-81 STA. 113+66.44

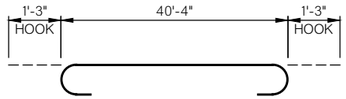
State Job No. 24428(13) Sheet No. B015

US-81 REALIGNMENT
GRADY COUNTY

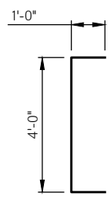
FINAL FIELD MEETING
JUNE 2020



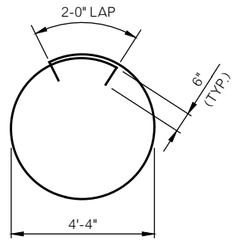
S1 #5 x 15'-11"



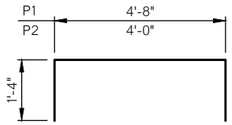
H3 #9 x 42'-10"



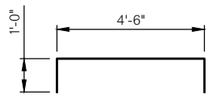
V1 #4 x 6'-0"



T1 #4 x 16'-8"

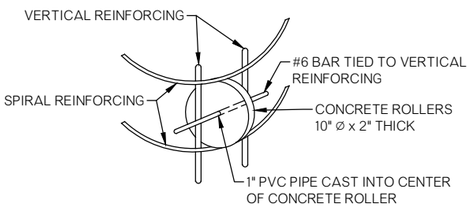


P1 #4 x 7'-4"
P2 #4 x 6'-8"

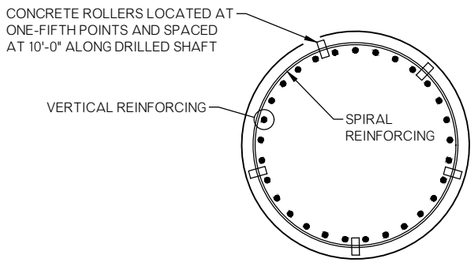


H4 #5 x 6'-6"

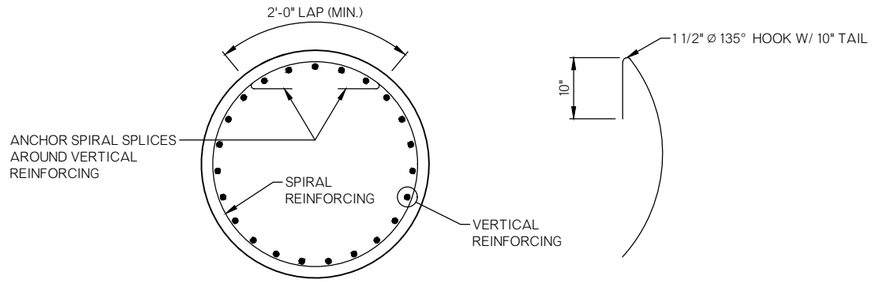
BAR BEND DETAILS



ROLLER INSTALLATION DETAIL



ROLLER PLACEMENT DETAIL



SPIRAL REINFORCING SPLICE DETAIL

NOTES
SPIRAL BARS SHALL CONFORM TO AASHTO M32. SPIRAL BAR LENGTH DOES NOT INCLUDE LAPS. IF LAPS ARE REQUIRED, THE LENGTH OF THE LAP SHALL BE 2'-0" WITH 10" HOOKS.

CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.

PLASTIC ROLLERS MAY BE SUBSTITUTED FOR THE CONCRETE ROLLERS IN ACCORDANCE WITH THE SPECIAL PROVISIONS FOR DRILLED SHAFT FOUNDATIONS.

ALL MATERIALS, LABOR, AND INCIDENTALS REQUIRED FOR THE INSTALLATION OF THE CONCRETE ROLLERS SHALL BE INCLUDED IN PRICE BID PER LINEAR FOOT OF "DRILLED SHAFTS 72" DIAMETER".

PIER 1 BAR LIST				
MARK	NO.	SIZE	FORM	LENGTH
(EPOXY COATED)				
CV1	23	#9	STR.	19'-8"
CV2	23	#9	STR.	20'-1"
H1	9	#9	STR.	40'-4"
H2	10	#5	STR.	40'-4"
H3	9	#9	BNT.	42'-10"
H4	10	#5	BNT.	6'-6"
P1	25	#4	BNT.	7'-4"
P2	30	#4	BNT.	6'-8"
S1	66	#5	BNT.	15'-11"
V1	8	#4	BNT.	6'-0"
(NON-EPOXY COATED)				
CS1	1	W20	SPIRAL	555'-0"
CS2	1	W20	SPIRAL	570'-0"
PIER 1 DRILLED SHAFTS				
(EPOXY COATED)				
(1) D1	46	#9	STR.	14'-9"
(1) DV1	58	#10	STR.	21'-6"
(1) T1	16	#4	BNT.	16'-8"
(NON-EPOXY COATED)				
(1) DS1	2	W20	SPIRAL	735'-0"

PIER 2 BAR LIST				
MARK	NO.	SIZE	FORM	LENGTH
(EPOXY COATED)				
CV3	23	#9	STR.	20'-11"
CV4	23	#9	STR.	21'-4"
H1	9	#9	STR.	40'-4"
H2	10	#5	STR.	40'-4"
H3	9	#9	BNT.	42'-10"
H4	10	#5	BNT.	6'-6"
P1	25	#4	BNT.	7'-4"
P2	30	#4	BNT.	6'-8"
S1	66	#5	BNT.	15'-11"
V1	8	#4	BNT.	6'-0"
(NON-EPOXY COATED)				
CS3	1	W20	SPIRAL	598'-0"
CS4	1	W20	SPIRAL	613'-0"
PIER 2 DRILLED SHAFTS				
(EPOXY COATED)				
(1) D1	46	#9	STR.	14'-9"
(1) DV1	58	#10	STR.	17'-6"
(1) T1	16	#4	BNT.	16'-8"
(NON-EPOXY COATED)				
(1) DS1	2	W20	SPIRAL	610'-0"

PIER QUANTITIES				
ITEM	UNITS	PIER 1	PIER 2	TOTAL
CLASS A CONCRETE	CY	58.70	60.70	119.40
REINFORCING STEEL	LB	770.00	830.00	1,600.00
EPOXY COATED REINFORCING STEEL	LB	7,530.00	7,730.00	15,260.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	128.50	133.20	261.70
DRILLED SHAFTS 72" DIAMETER	LF	44.00	36.00	80.00
CROSSHOLE SONIC LOGGING	EA	1.00	0.00	1.00

NOTE
(1) INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.

PRELIMINARY
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BRIDGE "A"
SB US-81 OVER EW 140.5

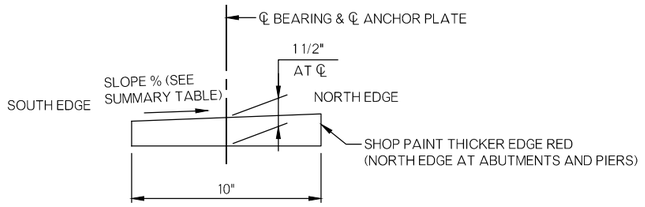
PIER DETAILS
(SHEET 3 OF 3)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B016

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

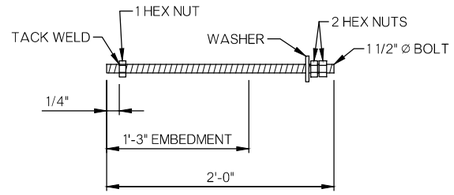


BEVELED ANCHOR PLATE DETAIL

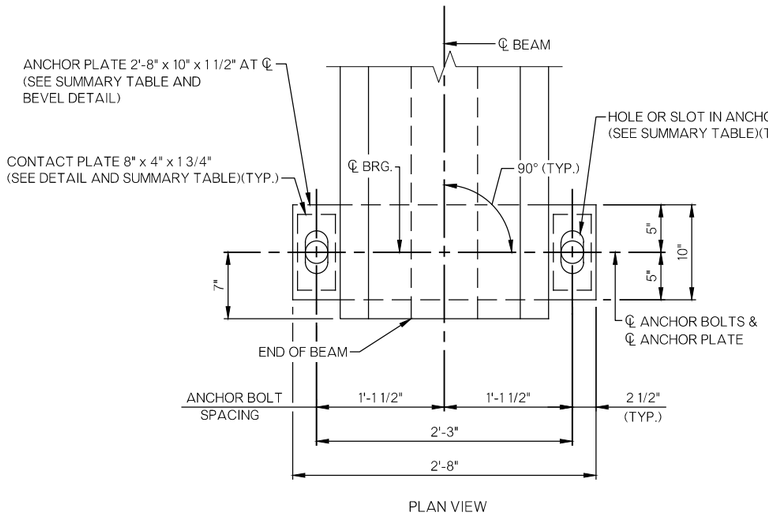
NOTES
BEFORE ANCHOR PLATES ARE SHIPPED TO THE FIELD, THE THICKER EDGE SHALL BE PAINTED RED.

THE CONTRACTOR SHALL EXERCISE CARE IN THE PLACEMENT OF THE ANCHOR PLATES. THE THICKER EDGE OF ALL PLATES AT ABUTMENTS AND PIERS SHALL FACE NORTH.

SUMMARY OF ANCHOR PLATE SLOPES		
LOCATION		ANCHOR PLATE SLOPE (%)
ABUT. 1	SPAN 1	+2.57%
PIER 1	SPAN 1	+2.34%
	SPAN 2	+2.34%
PIER 2	SPAN 2	+2.10%
	SPAN 3	+2.10%
ABUT. 2	SPAN 3	+1.86%

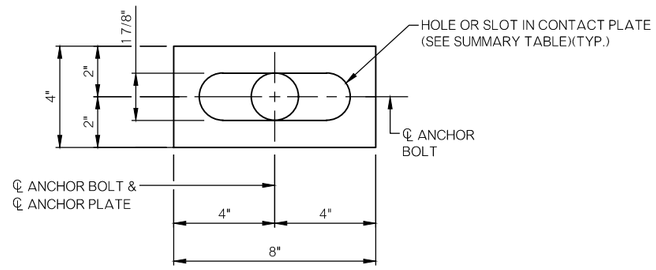


ANCHOR BOLT DETAIL



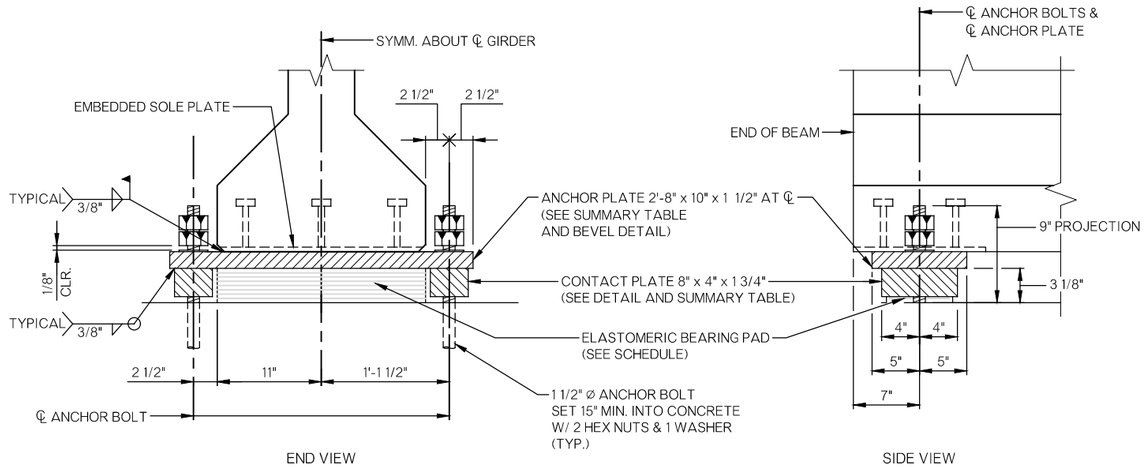
PLAN VIEW

BEARING PAD SCHEDULE ALL SPANS (DURO 60) (30 REQ'D.)
SIZE - 7" x 1'-10" x 3 1/8" WITH
6 - 1/8" STEEL LAMINATES
2 - 1/4" EXTERIOR ELASTOMER LAYERS
5 - 3/8" INTERIOR ELASTOMER LAYERS



DETAIL OF CONTACT PLATE
(1 3/4" THICK CONTACT PLATE)

SUMMARY OF DIMENSIONS FOR HOLES & SLOTS		
LOCATION	IN ANCHOR PLATE	IN CONTACT PLATE
FIXED BEARING	2 3/8" ø HOLE	1 7/8" ø HOLE
EXPANSION OR CONTINUOUS BEARING	2 3/8" x 5" SLOT	1 7/8" x 4 1/2" SLOT



BEARING ASSEMBLY DETAILS

NOTES
BEARING ASSEMBLIES SHALL BE IN ACCORDANCE WITH SECTION 507 OF THE STANDARD SPECIFICATIONS, AND PER THE ANSI/AWS D1.6 STRUCTURAL WELDING CODE FOR STAINLESS STEEL, AS APPLICABLE, UNLESS NOTED OTHERWISE.

PROVIDE STRUCTURAL STEEL FOR ANCHOR PLATES AND CONTACT PLATES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL, TYPE 316 OR 316L, CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316 OR 316L, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M, AND ASTM A320, TYPE 316 OR 316L, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL.

ANCHOR PLATES FOR BEARING ASSEMBLIES SHALL BE MATCH-MARKED, SHIPPED LOOSE, AND FIELD WELDED TO THE EMBEDDED SOLE PLATE IN ORDER THAT MINOR HORIZONTAL ADJUSTMENT OF THE BEARING LOCATION MAY BE MADE IF NECESSARY.

METAL USED IN FIELD WELDS WILL NOT BE MEASURED FOR PAYMENT.

ALL BEARING PADS SHALL BE CENTERED BETWEEN ANCHOR BOLTS.

AT THE TIME OF SETTING THE BEARING ASSEMBLIES AT THE PIERS, THE SLOT IN THE ANCHOR PLATES SHALL BE CENTERED ON THE ANCHOR BOLTS.

THE DIMENSION FROM THE END OF THE BEAM TO THE CENTERLINE OF THE ANCHOR BOLTS MAY VARY FROM THAT SHOWN, DEPENDING ON THE SETTING TEMPERATURE.

BONDING BETWEEN THE ANCHOR PLATE AND BEARING PAD WILL NOT BE REQUIRED.

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BRIDGE "A"
SB US-81 OVER EW 140.5

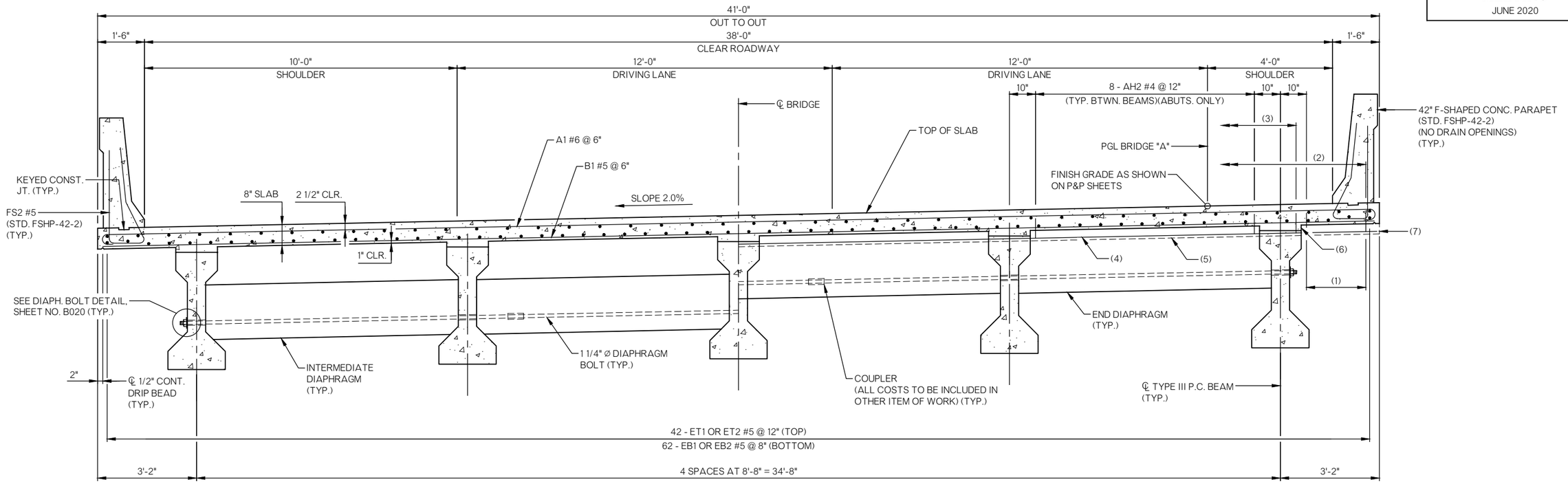
BEARING DETAILS

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B017

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

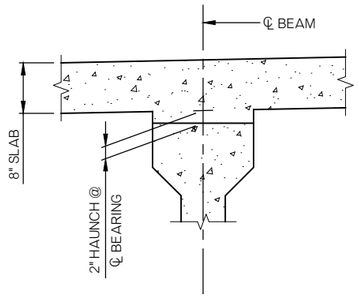


HALF SECTION AT INTERMEDIATE DIAPHRAGM

TYPICAL CROSS SECTION

HALF SECTION AT ABUTMENTS AND PIERS DIAPHRAGM

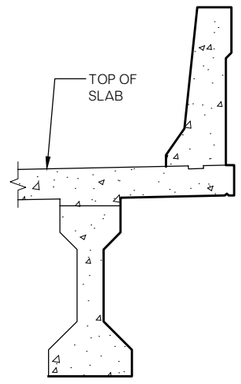
NOTE
ROTATE A1 BARS TO ENSURE MINIMUM CLEARANCE IS MET FOR TOP & BOTTOM OF HOOKS.



TYPICAL HAUNCH DETAIL

NOTE
PLAN QUANTITIES FOR "CLASS AA CONCRETE" INCLUDE 7.50 CY FOR BEAM HAUNCHES. HAUNCH HEIGHT SHOWN IS THE THEORETICAL HAUNCH HEIGHT AT THE CENTERLINE BEARING ONLY, MEASURED FROM THE BOTTOM OF THE SLAB TO THE TOP OF THE BEAM, AND VARIES ACROSS THE SPAN. DETERMINE THE ACTUAL HAUNCH HEIGHTS (ACCOUNTING FOR BEAM CAMBER, DEAD LOAD DEFLECTION AND ROADWAY GRADE) AFTER ERECTION OF THE BEAMS AND SUBMIT TO THE ENGINEER FOR APPROVAL. THE ENGINEER WILL NOT MEASURE DIFFERENCES BETWEEN THE THEORETICAL AND THE ACTUAL HAUNCH HEIGHTS FOR PAYMENT.

NOTE
DO NOT PLACE THE CONCRETE FOR THE BRIDGE SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE DIAPHRAGMS HAVE BEEN IN PLACE A MINIMUM OF 10 DAYS, OR AT THE DISCRETION OF THE ENGINEER. THE ENGINEER MAY APPROVE SHORTENING TIME IF THE BEAM AND DIAPHRAGM CONCRETE HAS ATTAINED 80% OF THE SPECIFIC COMPRESSIVE STRENGTH.



WATER REPELLENT SURFACE TREATMENT

NOTE
SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT. (TYP. EACH SIDE).

NOTES
(1) 4 - AH1 #4 @ 12" (TYP. ABUT. CANTILEVERS).

(2) 42 - EPH1 #4 @ 12" PIER 2 ONLY) (EA. SIDE OF EXP. JT.).

(3) 37 - FPH1 #4 @ 12" (PIER 1 ONLY).

(4) 1 - FPT1 #4 (CONT.)(PIER 1 ONLY)(EA. SIDE OF CONST. JT.)
1 - EPT1 #4 (CONT.)(PIER 2 ONLY)(EA. SIDE OF EXP. JT.)
2 - AT1 #4 (CONT.)(ABUT. ONLY)(TYP.)
1 - AT2 #4 (BTWN. P.C. BEAMS)(ABUT. ONLY)(TYP.)

(5) BOTTOM OF SLAB THICKENING IS 3" BELOW THE TOP OF THE BEAMS AT THE ABUTMENTS (SHOWN) AND LEVEL WITH THE TOP OF THE BEAMS AT THE PIERS.

(6) OUTSIDE EDGE OF SLAB THICKENING AT PIER 1.

(7) OUTSIDE EDGE OF SLAB THICKENING AT PIER 2.

NOTES
FS2 BARS IN PARAPETS SHALL BE TIED IN PLACE PRIOR TO POURING SLABS.

FOR LONGITUDINAL SECTION, SEE SHEET NO. B019.

FOR BRIDGE SLAB REINFORCING PLANS, SEE SHEET NOS. B022 - B025.

FOR BAR BEND DETAILS AND BAR LISTS, SEE SHEET NO. B020.

FOR ADDITIONAL BRIDGE SLAB REINFORCING DETAILS, SEE SHEET NO. B020.

FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, SEE SHEET NOS. B022 - B025.

FOR P.C. BEAM DETAILS AND DEAD LOAD DEFLECTION DIAGRAM, SEE SHEET NO. B026.

SUPERSTRUCTURE QUANTITIES

ITEM	UNITS	TOTAL
PRESTRESSED CONCRETE BEAMS (TYPE III)	LF	895.05
SAW-CUT GROOVING	SY	755.00
SEALED EXPANSION JOINT	LF	39.00
42" F-SHAPED PARAPET	LF	363.40
STRUCTURAL STEEL	LB	1,370.00
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA	10.00
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA	20.00
CLASS AA CONCRETE	CY	208.70
EPOXY COATED REINFORCING STEEL	LB	65,550.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	706.00
SEALER CRACK PREPARATION	LF	39.00
SEALER RESIN	GAL	1.00

PRELIMINARY
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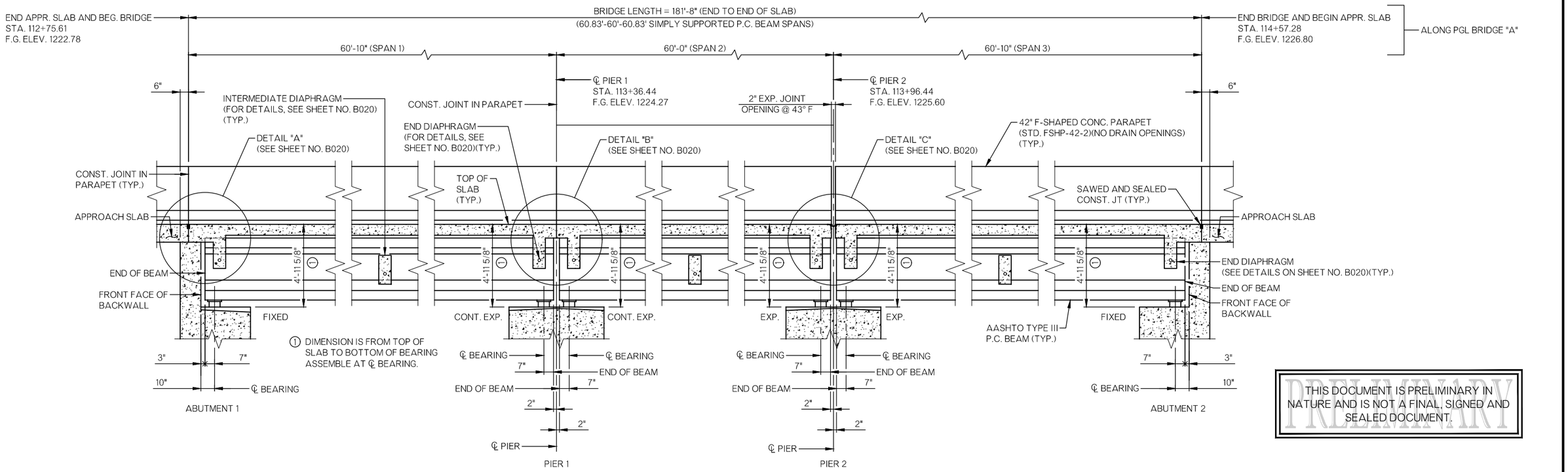
BRIDGE "A"
SB US-81 OVER EW 140.5

TYPICAL CROSS SECTION
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B018

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



TYPICAL LONGITUDINAL SECTION

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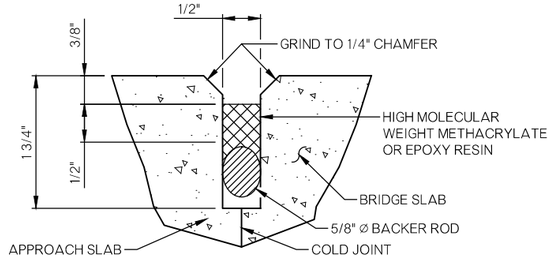
EXPANSION JOINT SETTING TABLE	
TEMPERATURE	OPENING
4°F	2 1/2"
14°F	2 3/8"
24°F	2 1/4"
33°F	2 1/8"
43°F	2"
53°F	1 7/8"
62°F	1 3/4"
72°F	1 5/8"
82°F	1 1/2"
91°F	1 3/8"
101°F	1 1/4"
111°F	1 1/8"
120°F	1"

NOTE
EXPANSION JOINT SHALL BE INSTALLED AT PIER 2.



1/2" SAWED AND SEALED CONSTRUCTION JOINT

NOTES
FOLLOW EXPANSION DEVICE SETTING TABLE SHOWN ON THIS SHEET. LINEAR INTERPOLATION MAY BE USED BETWEEN TEMPERATURE VALUES SHOWN.

ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

FOR DETAILS "A", "B" AND "C", SEE SHEET NO. B020.

FOR INTERMEDIATE AND END DIAPHRAGM LAYOUT & REINFORCING DETAILS, SEE SHEET NOS. B020 AND B021.

FOR SUPERSTRUCTURE BAR BEND DETAILS AND BAR LIST, SEE SHEET NO. B020.

FOR BRIDGE SLAB REINFORCING PLANS AND NOTES, SEE SHEET NOS. B022 - B025.

FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, SEE SHEET NOS. B022 - B025.

FOR P.C. BEAM DETAILS AND DEAD LOAD DEFLECTION DIAGRAM, SEE SHEET NO. B026.

FOR DETAIL AND REQUIREMENTS OF JOINTS AND SEALERS, SEE STD. LECS-4.

FOR F-SHAPED PARAPET DETAILS AND CONTROL CRACK JOINT LAYOUT, SEE STANDARD FSHP-42-2.

FOR ADDITIONAL DETAILS AND EXPANSION JOINT NOTES, SEE STDS. EJ-SQ AND EJ-DTL.

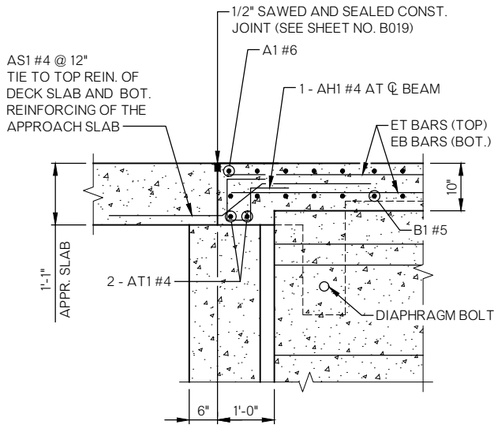
BRIDGE "A"
SB US-81 OVER EW 140.5

TYPICAL LONGITUDINAL SECTION
℄ SURVEY US-81 STA. 113+66.44

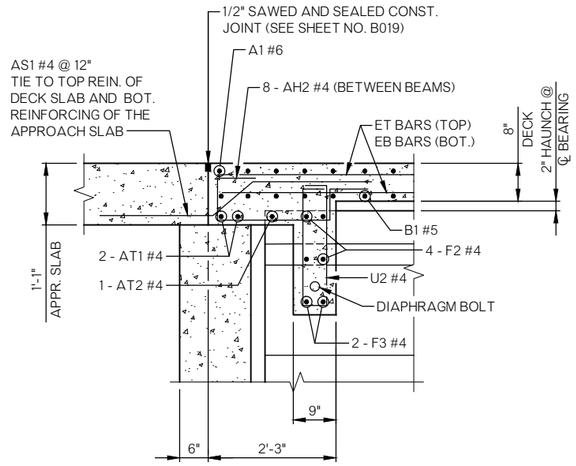
State Job No. 24428(13) Sheet No. B019

US-81 REALIGNMENT
GRADY COUNTY

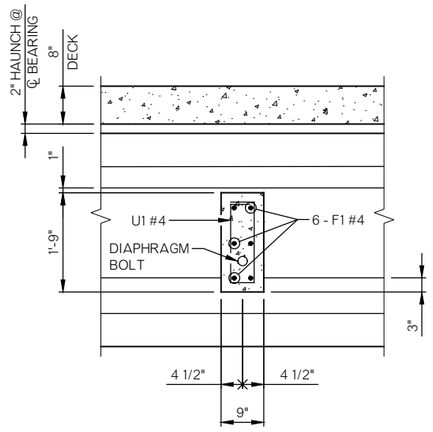
FINAL FIELD MEETING
JUNE 2020



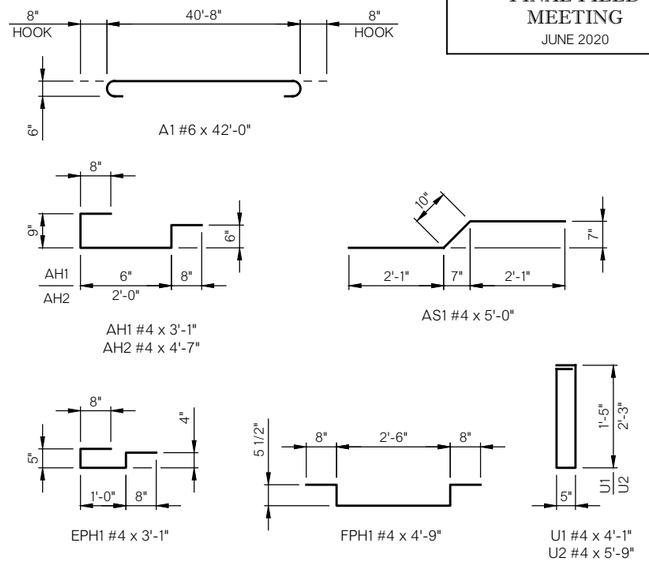
DETAIL "A" (AT ℄ BEAM)



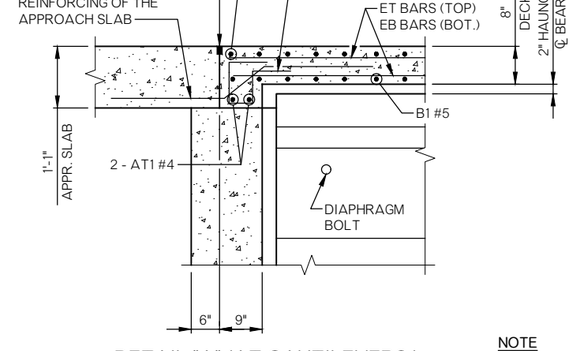
DETAIL "A" (BTWN. BEAMS)



INTERMEDIATE DIAPHRAGM

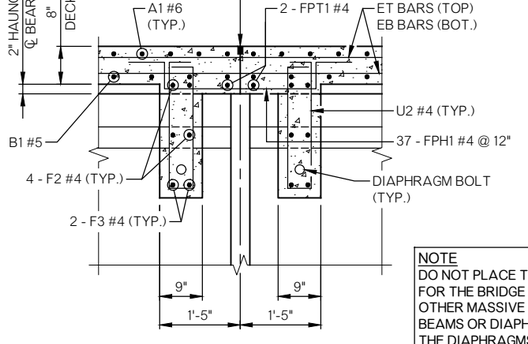


BAR BEND DETAILS

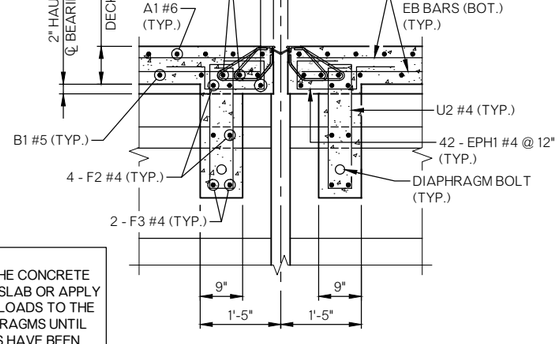


DETAIL "A" (AT CANTILEVERS)

NOTE
E.F. = DENOTES EACH FACE

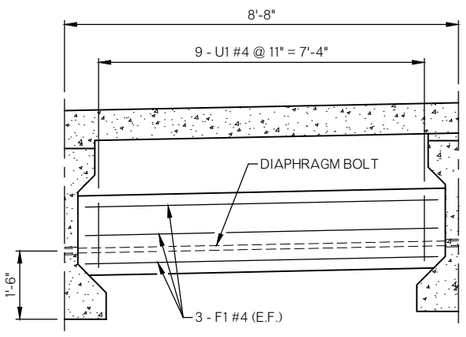


DETAIL "B"

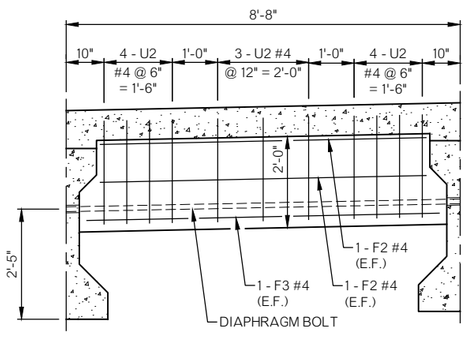


DETAIL "C"

NOTE
DO NOT PLACE THE CONCRETE FOR THE BRIDGE SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE DIAPHRAGMS HAVE BEEN PLACED AND ALL BOLTS TIGHTENED.



INTERMEDIATE DIAPHRAGM DETAIL



END DIAPHRAGM DETAIL

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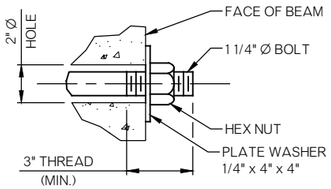


DIAPHRAGM BOLT DETAIL

DIAPHRAGM BOLT NOTE
STRUCTURAL STEEL FOR DIAPHRAGM BOLTS AND PLATE WASHERS SHALL CONFORM TO AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). A #10 REINFORCING BAR CONFORMING TO AASHTO M31, GRADE 60, AND THREADED AT THE ENDS AS SHOWN MAY BE SUBSTITUTED FOR THE DIAPHRAGM BOLT. HEX NUTS SHALL CONFORM TO AASHTO M291 (ASTM A563). PAINT EXPOSED DIAPHRAGM BOLT, HEX NUTS AND PLATE WASHERS WITH TWO (2) COATS OF ZINC RICH PAINT (6 MIL. THICKNESS) AFTER ASSEMBLY. ALL COSTS OF DIAPHRAGM BOLTS, PLATE WASHERS AND HEX NUTS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL STEEL".

SUPERSTRUCTURE BAR LIST

	MARK	NO.	SIZE	FORM	LENGTH	REMARKS
	(EPOXY COATED)					
	A1	365	#6	BNT.	42'-0"	
	AH1	26	#4	BNT.	3'-1"	
	AH2	64	#4	BNT.	4'-7"	
	AS1	84	#4	BNT.	5'-0"	
	AT1	4	#4	STR.	40'-8"	
	AT2	8	#4	STR.	7'-0"	
	B1	369	#5	STR.	40'-8"	
(1)(2)	EB1	62	#5	STR.	126'-5"	
(3)	EB2	62	#5	STR.	63'-5"	
	EPH1	84	#4	BNT.	3'-1"	
	EPT1	2	#4	STR.	40'-8"	
(1)(2)	ET1	42	#5	STR.	126'-5"	
(3)	ET2	42	#5	STR.	63'-5"	
	F1	72	#4	STR.	7'-9"	
	F2	96	#4	STR.	7'-0"	
	F3	48	#4	STR.	7'-9"	
	FPH1	37	#4	BNT.	4'-9"	
	FPT1	2	#4	STR.	35'-8"	
(4)	FS2	370	#5	BNT.	7'-4"	
	U1	108	#4	BNT.	4'-1"	
	U2	264	#4	BNT.	5'-9"	

(1) LENGTH INCLUDES TWO (2) 3'-0" LAP SPLICES. LAP SPLICES SHALL BE STAGGERED.
(2) DO NOT LAP WITHIN 10'-0" OF CENTERLINE OF PIER.
(3) LENGTH INCLUDES ONE (1) 3'-0" LAP SPLICE. LAP SPLICES SHALL BE STAGGERED.
(4) FOR BAR BEND DETAILS, SEE ODOT STD. FSHP-42-2.

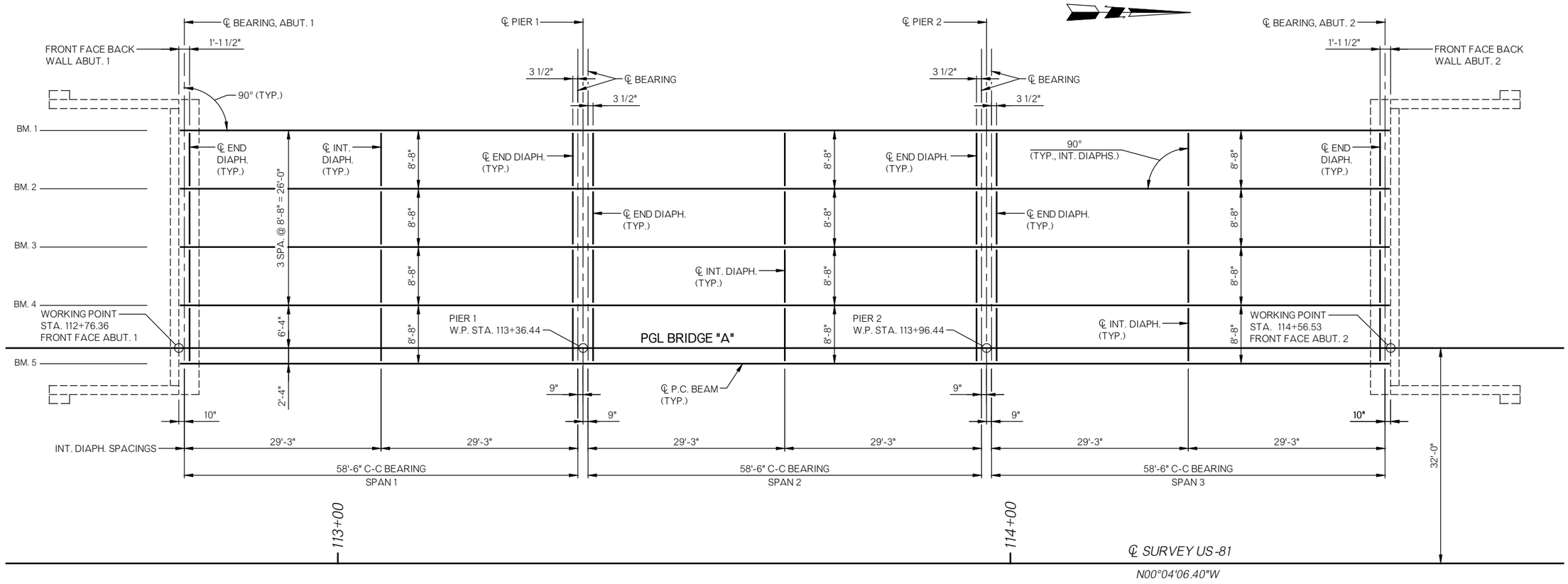
BRIDGE "A"
SB US-81 OVER EW 140.5

SUPERSTRUCTURE DETAILS
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B020

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



P.C. BEAM AND DIAPHRAGM LAYOUT PLAN
(NOT TO SCALE)

NOTES
ALL DIMENSIONS SHOWN ON PLAN ARE HORIZONTAL DIMENSIONS.

FOR INTERMEDIATE DIAPHRAGM DETAILS, SEE SHEET NO. B020.

FOR END DIAPHRAGM DETAILS, SEE SHEET NO. B020.

FOR TYPE III P.C. BEAM DETAILS, SEE SHEET NO. B020.

NOTES
ALL STATIONING FOLLOWS ℄ SURVEY US-81.

FRONT FACE ABUTMENT, ℄ BEARING, ℄ PIER AND ℄ DIAPHRAGM LINES ARE PARALLEL.

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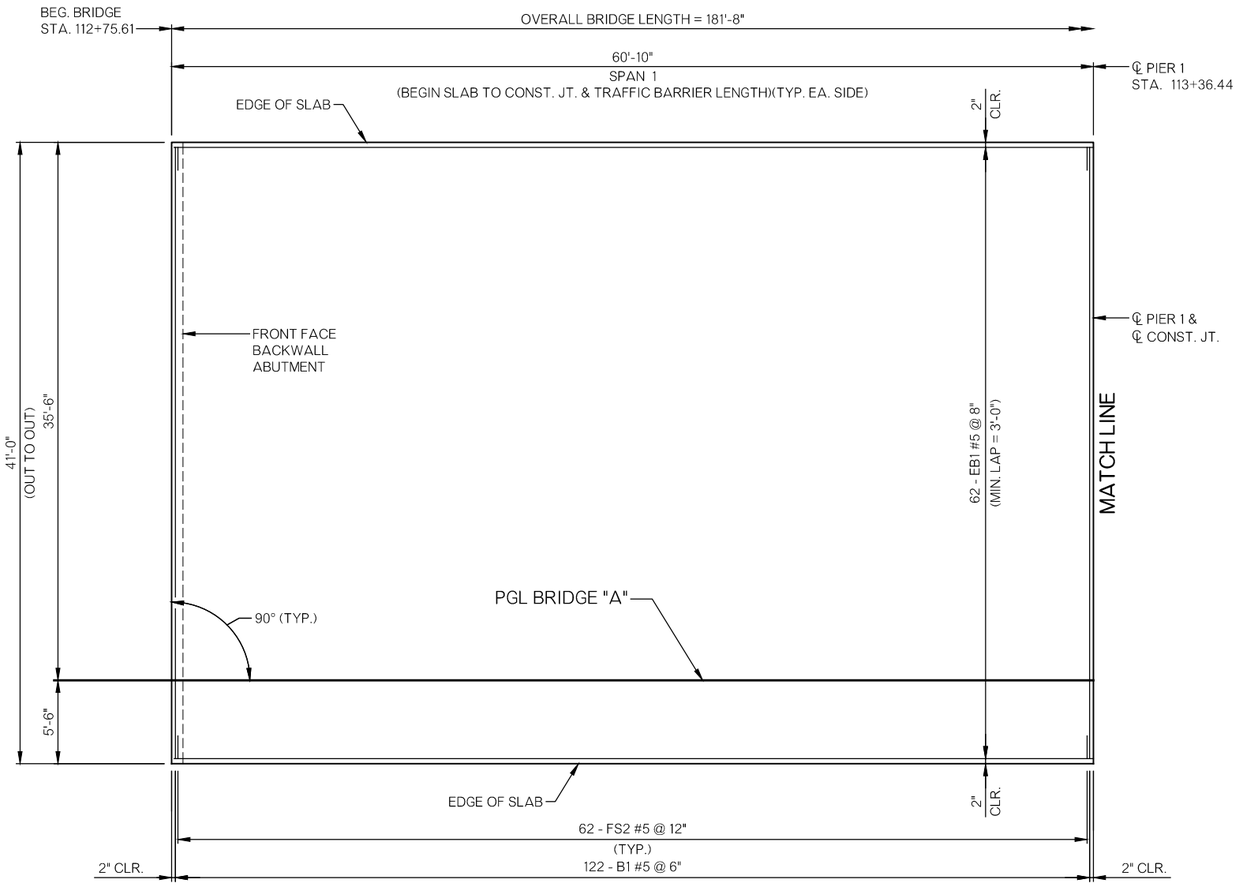
BRIDGE "A"
SB US-81 OVER EW 140.5

P.C. BEAM AND DIAPHRAGM LAYOUT PLAN
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B021

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



BOTTOM SLAB REINFORCING PLAN
(NOT TO SCALE)

NOTES
ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ALL LAPS SHALL BE STAGGERED. EB1 BARS SHALL BE CONTINUOUS ACROSS THE CONSTRUCTION JOINT OVER PIER 1. EB1 BAR LAPS SHALL NOT BE MADE WITHIN 10' OF THE ℄ PIER 1.

FOR BAR BEND DETAILS AND BAR LISTS, SEE SHEET NO. B020.

DIAPHRAGMS ARE NOT SHOWN FOR CLARITY. SEE DETAILS "A", "B" & "C" ON SHEET NO. B020 FOR PLACEMENT DETAILS. DIAPHRAGM REINFORCING STEEL SHALL BE TIED IN PLACE WITH AND BELOW THE BOTTOM MAT OF SLAB REINFORCING STEEL.

FS2 BARS IN PARAPETS SHALL BE TIED IN PLACE PRIOR TO SLAB POUR(S). FOR DETAILS AND BAR SPACINGS, SEE ODOT STD. FSHP-42-2 AND SHEET NOS. B024 AND B025.

FOR CONTROL CRACK JOINT LOCATIONS IN PARAPETS, SEE SHEET NO. B019 AND ODOT STD. FSHP-42-2.

FOR EXPANSION JOINT DETAILS, SEE SHEET NO. B020 AND STDS. EJ-SQ AND EJ-DTL. W1 AND W2 EXPANSION JOINT ANCHOR BARS SHALL BE ANCHORED WITH B1 #5 TRANSVERSE SLAB BARS .

FOR TOP SLAB REINFORCING PLAN AND PARAPET LAYOUT, SEE SHEET NOS. B024 AND B025.

FOR ADDITIONAL BRIDGE SLAB REINFORCING AND CONSTRUCTION JOINT NOTES, SEE SHEET NOS. B018 AND B019.

FOR EXPANSION DEVICE SETTING TABLE, SEE SHEET NO. B019.

BRIDGE SLAB NOTES
EPOXY-COAT OR GALVANIZE STEEL ITEMS USED TO FACILITATE CONSTRUCTION, SUCH AS FORM HANGER ASSEMBLIES, TY-BAR CLIPS, INSERT WELD ANCHORS, OR OTHER APPURTENANCES, THAT WILL REMAIN IN PLACE IN THE BRIDGE SLAB. EPOXY-COAT IN ACCORDANCE WITH AASHTO M284 OR GALVANIZE IN ACCORDANCE WITH AASHTO M111.

THE BRIDGE SLAB SHALL BE POURED ONE SPAN AT A TIME, IN THE UPHILL DIRECTION. NO ADJACENT SPAN AT PIER 1 SHALL BE POURED UNTIL AT LEAST 48 HOURS AFTER THE OPPOSITE SPAN POUR HAS BEEN COMPLETED. THE CONSTRUCTION JOINT OVER PIER 1 SHALL NOT BE KEYED.

IN THE EVENT OF AN EMERGENCY, HALT THE PLACEMENT OF CONCRETE BY FORMING A CONSTRUCTION JOINT PERPENDICULAR TO THE DIRECTION OF TRAFFIC OR AS DIRECTED BY THE ENGINEER. LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THRU ALL TRANSVERSE CONSTRUCTION JOINTS. DO NOT PLACE ANY HEAVY EQUIPMENT ON THE FINISHED BRIDGE SLAB WITHIN 5'-0" OF ANY CONSTRUCTION JOINT UNTIL CONCRETE IS IN PLACE ON BOTH SIDES OF THE RESPECTIVE JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT.

SEAL ALL BRIDGE SLAB CONSTRUCTION JOINTS WITH HIGH MOLECULAR WEIGHT METHACRYLATE OR EPOXY RESIN IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS. INCLUDE ALL COSTS OF EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER OR EPOXY RESIN IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION". INCLUDE ALL COSTS OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER OR EPOXY RESIN IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". THE DEPARTMENT WILL NOT MEASURE THE PREPARATION AND SEALER OF EMERGENCY CONSTRUCTION JOINTS FOR PAYMENT.

DO NOT SAW CUT GROOVE WITHIN 6" OF ANY CONSTRUCTION JOINT.

PRELIMINARY
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US-81 REALIGNMENT
GRADY COUNTY

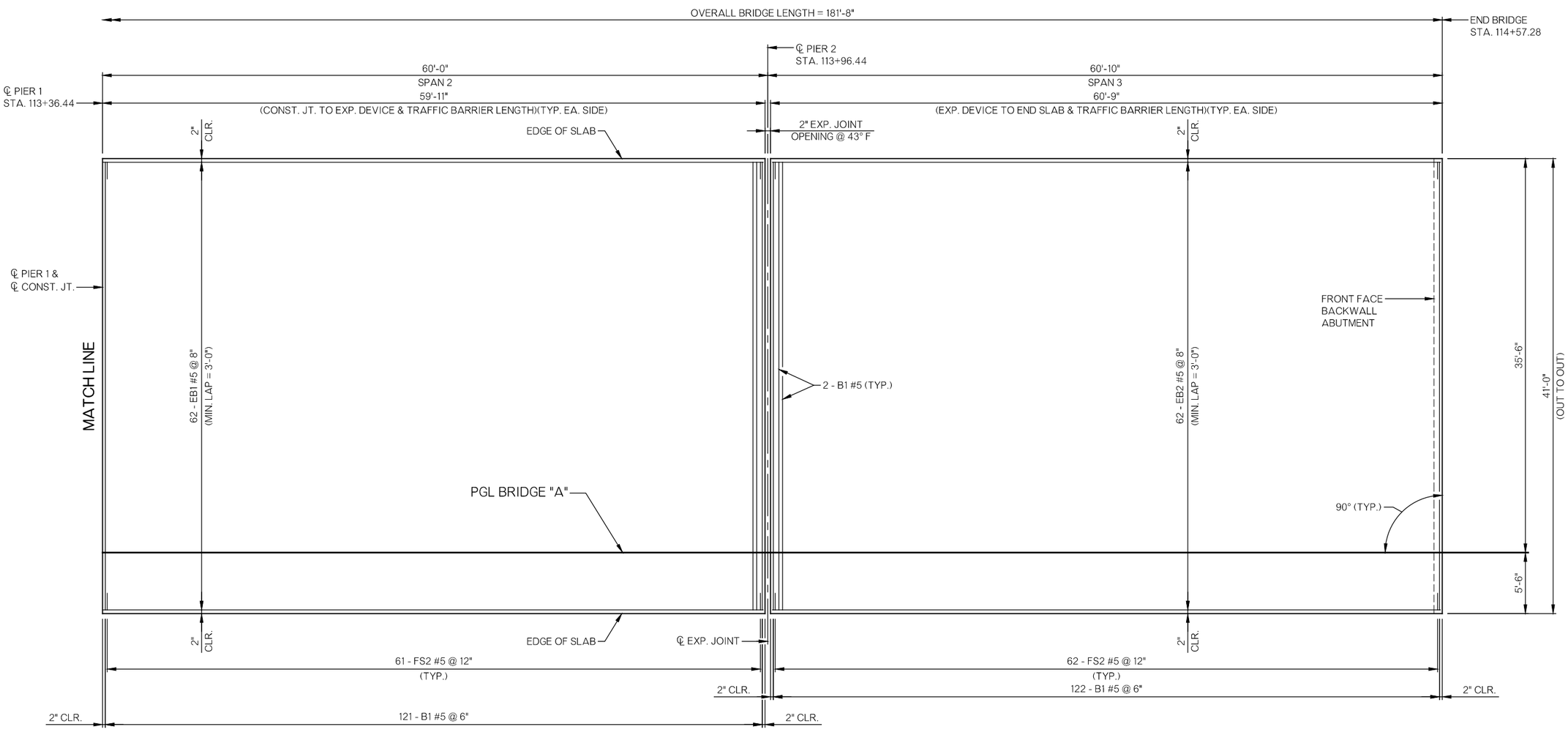
BRIDGE "A"
SB US-81 OVER EW 140.5

BOTTOM SLAB REINFORCING PLAN
(SHEET 1 OF 2)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B022

FINAL FIELD MEETING
JUNE 2020



BOTTOM SLAB REINFORCING PLAN
(NOT TO SCALE)

NOTES
ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

FOR BRIDGE SLAB REINFORCING AND CONSTRUCTION NOTES, SEE SHEET NO. B022.

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BRIDGE "A"
SB US-81 OVER EW 140.5

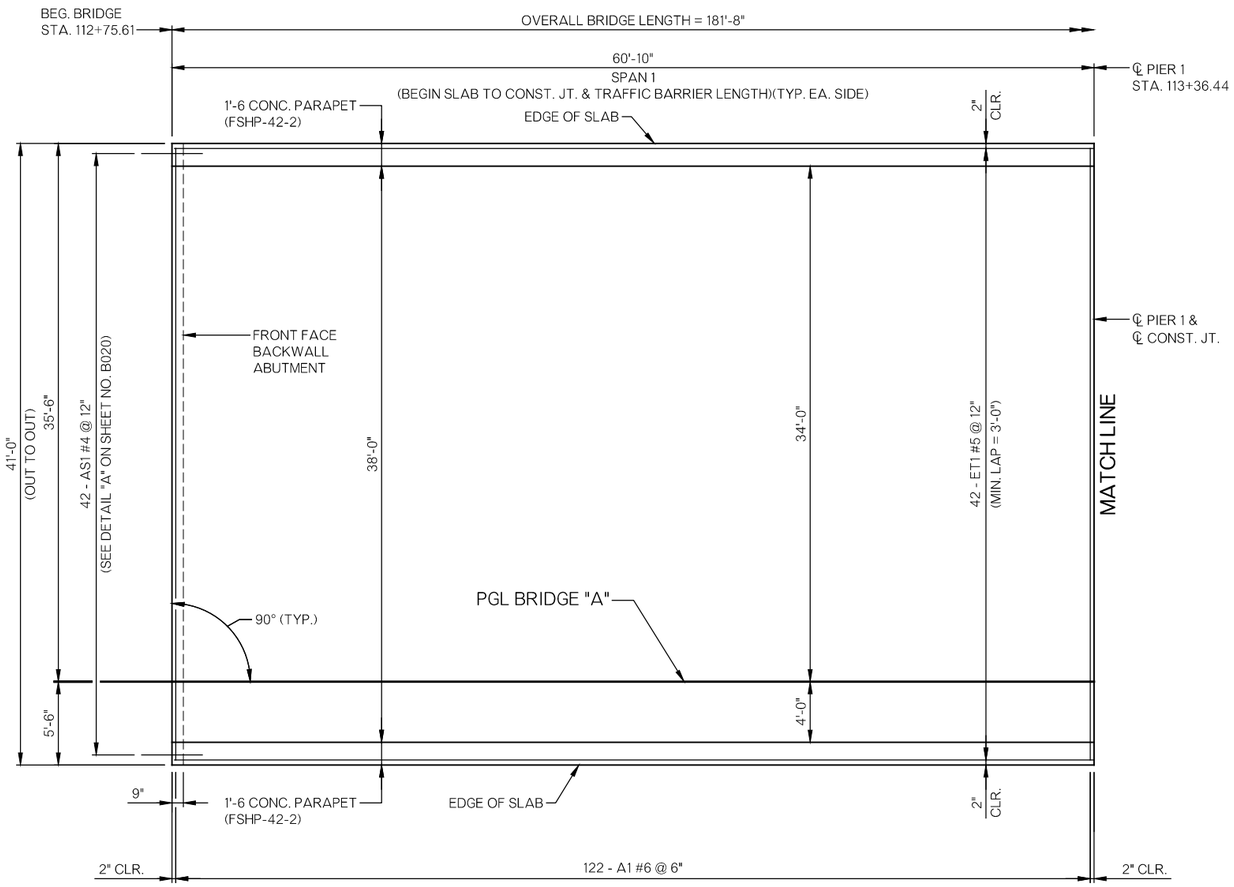
BOTTOM SLAB REINFORCING PLAN
(SHEET 2 OF 2)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B023

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



TOP SLAB REINFORCING PLAN AND PARAPET LAYOUT
(NOT TO SCALE)

NOTES
ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ALL LAPS SHALL BE STAGGERED. ET1 BARS SHALL BE CONTINUOUS ACROSS THE CONSTRUCTION JOINT OVER PIER 1. ET1 BAR LAPS SHALL NOT BE MADE WITHIN 10' OF THE ℄ PIER 1.

FOR BAR BEND DETAILS AND BAR LISTS, SEE SHEET NO. B020.

FOR BOTTOM SLAB REINFORCING PLAN, SEE SHEET NOS. B022 AND B023.

FOR ADDITIONAL BRIDGE SLAB REINFORCING NOTES, SEE SHEET NO. B019.

FOR ADDITIONAL BRIDGE SLAB CONSTRUCTION NOTES, SEE SHEET NO. B022.

PRELIMINARY
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BRIDGE "A"
SB US-81 OVER EW 140.5

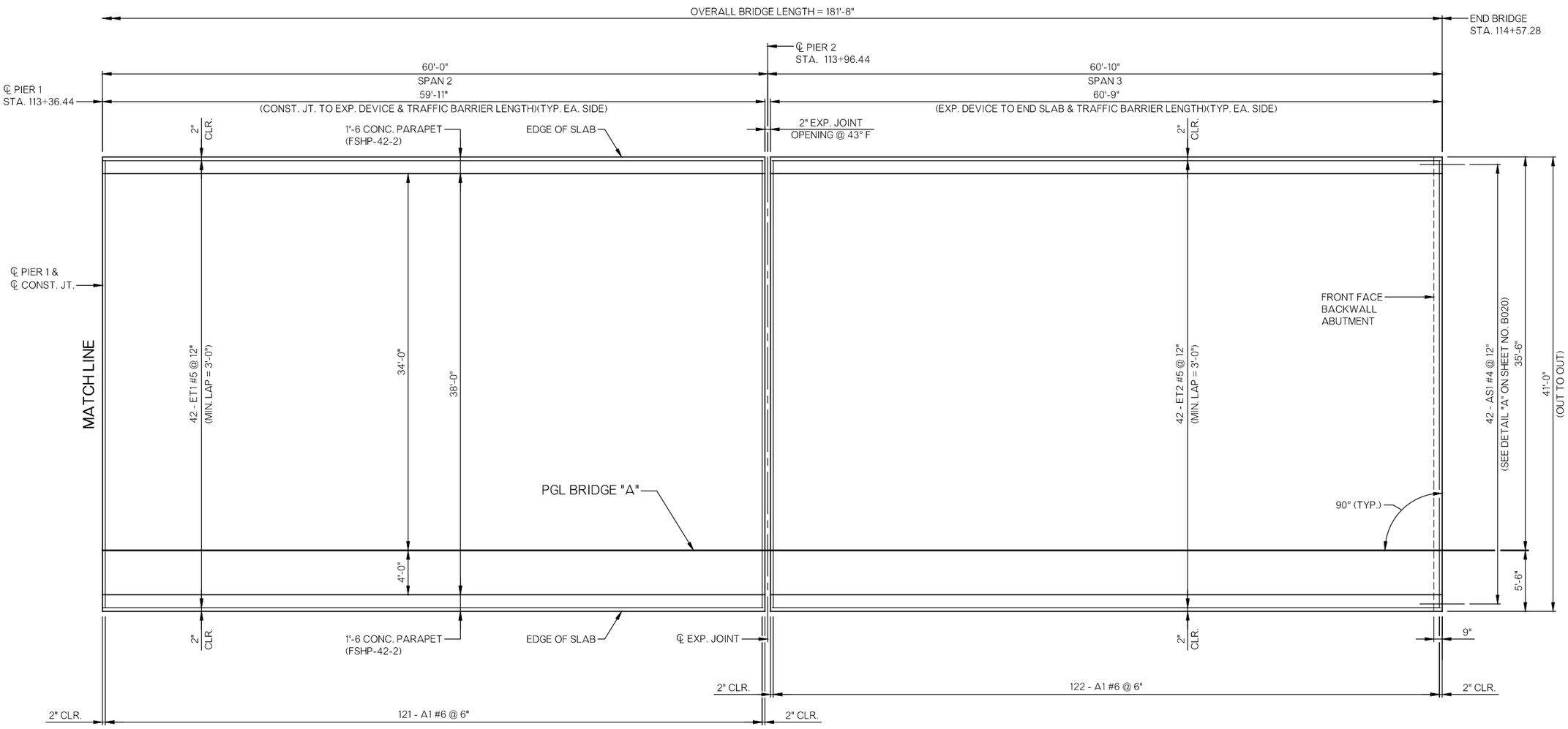
TOP SLAB REINFORCING PLAN (SHEET 1 OF 2)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B024

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



TOP SLAB REINFORCING PLAN AND PARAPET LAYOUT
(NOT TO SCALE)

NOTES
ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

FOR BRIDGE SLAB REINFORCING AND CONSTRUCTION NOTES, SEE SHEET NO. B022.

PRELIMINARY
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BRIDGE "A"
SB US-81 OVER EW 140.5

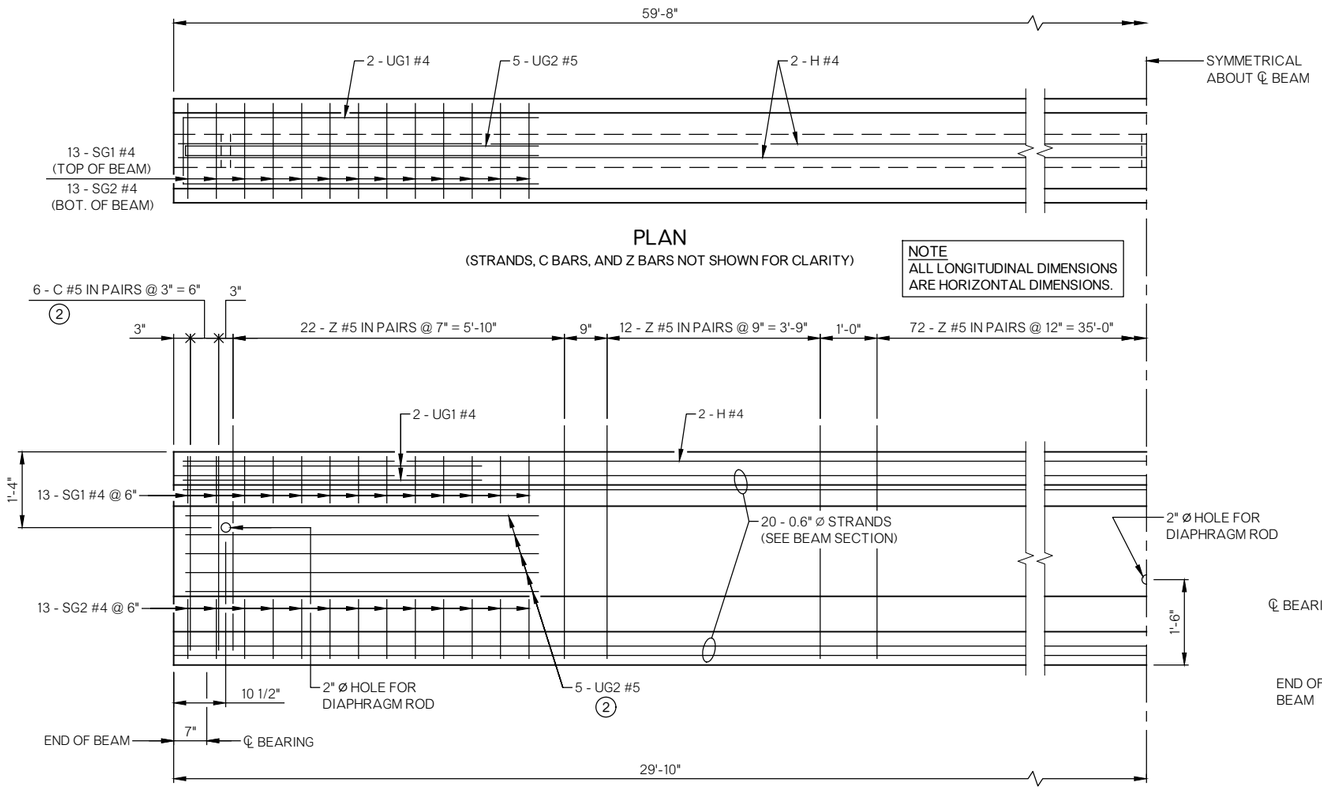
TOP SLAB REINFORCING PLAN
(SHEET 2 OF 2)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B025

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



PLAN
(STRANDS, C BARS, AND Z BARS NOT SHOWN FOR CLARITY)

NOTE
ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ELEVATION

PRELIMINARY
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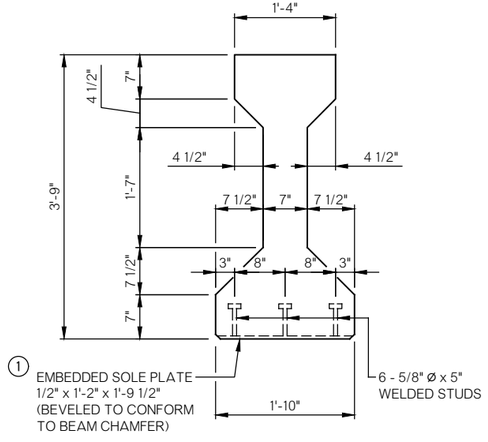
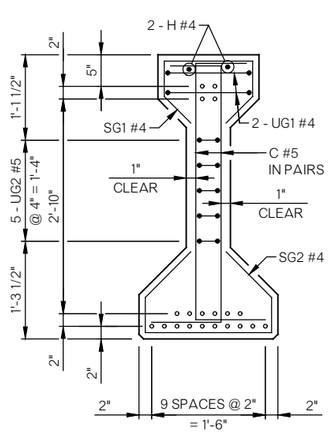
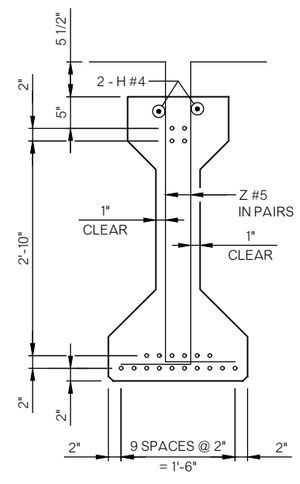


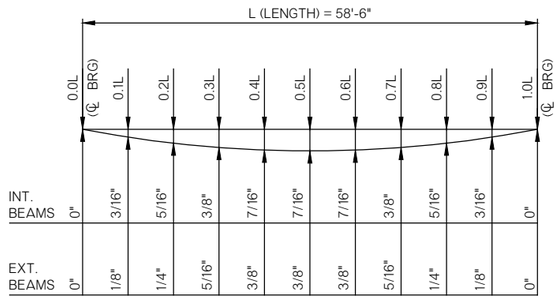
TYPICAL SECTION
(STRANDS AND REINFORCING BARS NOT SHOWN FOR CLARITY)



END SECTION
(WELDED STUDS & EMBEDDED SOLE PLATE NOT SHOWN FOR CLARITY)



℄ SECTION
20 - 0.6" ø STRANDS



DEAD LOAD DEFLECTION DIAGRAM

NOTES
THE DEAD LOAD DEFLECTIONS SHOWN ABOVE ARE DUE TO THE DECK SLAB, DIAPHRAGMS, HAUNCH, STAY-IN-PLACE FORM ALLOWANCE AND PARAPETS AND ARE THEORETICAL ONLY. (DEFLECTIONS DO NOT INCLUDE BEAM WEIGHT OR FUTURE WEARING SURFACE.) DEAD LOAD DEFLECTION SHALL BE TAKEN INTO CONSIDERATION IN FORMING AND POURING THE SLAB AND HAUNCHES.

PC BEAM NOTES

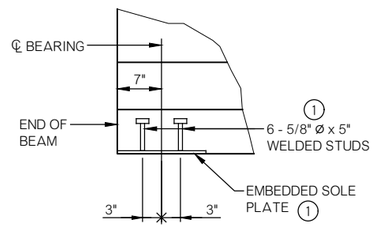
COMPRESSIVE STRENGTH
PROVIDE CONCRETE WITH A COMPRESSIVE STRENGTH OF 5,250 PSI AT TRANSFER OF PRESTRESS AND 7,000 PSI AT 28 DAYS.

STRAND TYPE
PROVIDE LOW-RELAXATION STRANDS HAVING A NOMINAL DIAMETER OF 0.6" WITH AN ULTIMATE TENSILE STRENGTH OF 270 KSI.

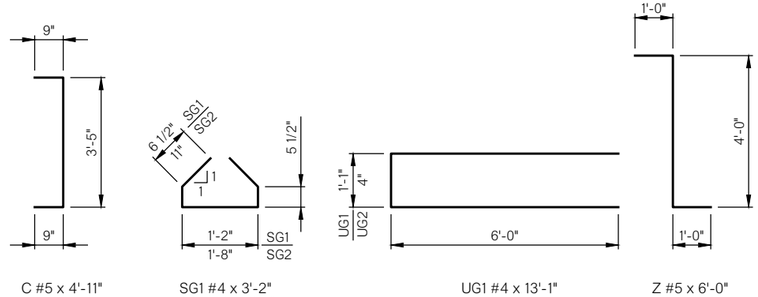
LFD OPERATING RATING = HS 59.3
FOR ADDITIONAL DESIGN DATA, SEE SHEET NO. B003.

(1) INSTALL AT EACH END OF BEAM.

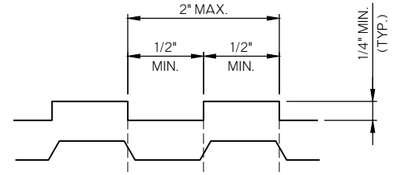
(2) SHIFT PLAIN REINFORCING STEEL AS NECESSARY TO PROVIDE 1" MIN. CLEAR TO DIAPHRAGM ROD HOLE.



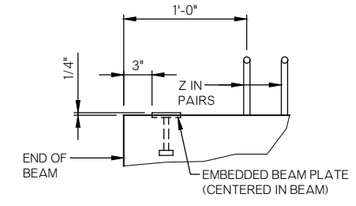
EMBEDDED SOLE PLATE
DETAIL AT END OF BEAM



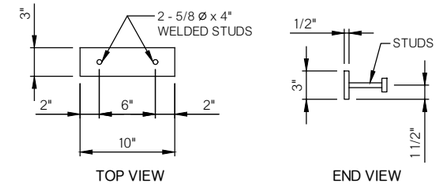
BAR BEND DETAILS



INTENTIONALLY ROUGHENED
SURFACE EXAMPLES



ELEVATION



TOP VIEW END VIEW

EMBEDDED BEAM PLATE DETAILS
(PROVIDE AN EMBEDDED BEAM PLATE AT EXPANSION ENDS ONLY)

NOTES
INTENTIONALLY ROUGHEN THE ENTIRE TOP SURFACE OF THE P.C. BEAM TO A MINIMUM HEIGHT OF 1/4" OVER A MAXIMUM PITCH OF 2" MEASURED LONGITUDINALLY ALONG THE LENGTH OF THE BEAM. PROVIDE A CREST AND TROUGH ASSOCIATED WITH THE HEIGHT OF NOT LESS THAN 1/2". PRODUCE THE ROUGHENED SURFACE SHOWN IN THE DETAILS, BY CLEANING THE CONCRETE SURFACE WITH A STIFF WIRE BRUSH (OR BLASTING) TO EXPOSE THE AGGREGATE TO A HEIGHT OF 1/4", OR BY USING ANOTHER APPROVED METHOD. SUBMIT THE METHOD TO BE USED FOR APPROVAL BY THE ENGINEER. REPAIR ANY DAMAGE TO REINFORCEMENT'S EPOXY COATING BEFORE PLACEMENT OF DECK CONCRETE.

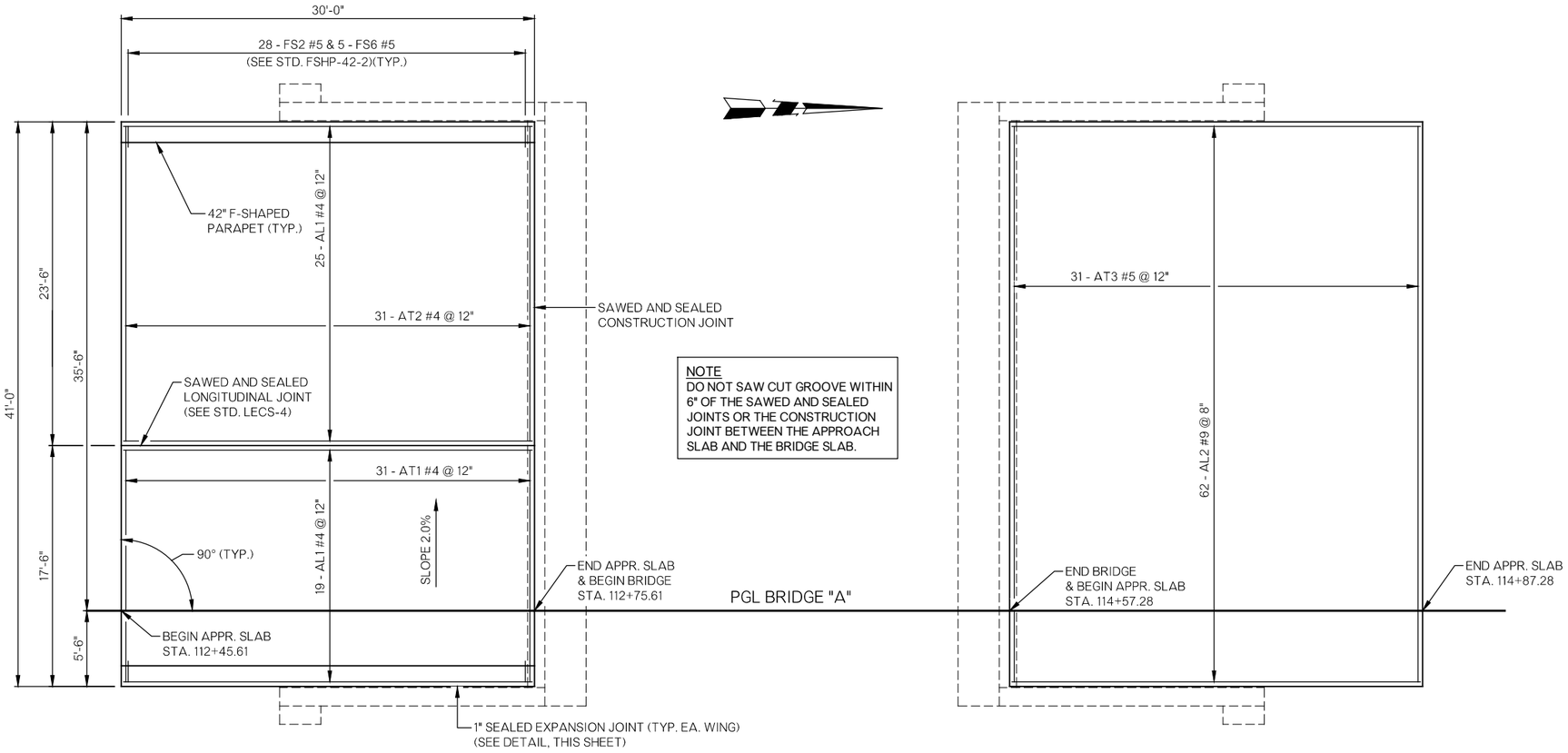
BRIDGE "A"
SB US-81 OVER EW 140.5

TYPE III P.C. BEAM DETAILS
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B026

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



NOTE
DO NOT SAW CUT GROOVE WITHIN 6" OF THE SAWED AND SEALED JOINTS OR THE CONSTRUCTION JOINT BETWEEN THE APPROACH SLAB AND THE BRIDGE SLAB.

PLAN SHOWING DIMENSIONS AND TOP OF APPROACH SLAB REINFORCING STEEL
(SHOWING APPROACH SLAB 1, APPROACH SLAB 2 SIMILAR)
(NOT TO SCALE)

PLAN SHOWING BOTTOM OF APPROACH SLAB REINFORCING STEEL
(SHOWING APPROACH SLAB 2, APPROACH SLAB 1 SIMILAR)
(NOT TO SCALE)

NOTES
ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

THE REINFORCING STEEL IN THE TOP OF THE APPROACH SLABS SHALL END 2" EITHER SIDE OF THE LONGITUDINAL JOINTS.

PROVIDE PARAPET END TRANSITION WITH CONNECTION HOLES. FOR PARAPET DETAILS NOT SHOWN, SEE STD. FSHP-42-2.

THE UNIT PRICE BID FOR APPROACH SLAB SHALL INCLUDE ALL CONCRETE AND REINFORCING STEEL IN THE APPROACH SLABS, INCLUDING FS2 AND FS6 BARS, RAPID CURE JOINT SEALANT, BACKER RODS, POLYSTYRENE, LABOR, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN. THERE IS AN ESTIMATED 98.80 C.Y. OF CLASS "AA" CONCRETE, AND AN ESTIMATED 19,580.00 LBS. OF EPOXY COATED REINFORCING STEEL IN THE APPROACH SLABS.

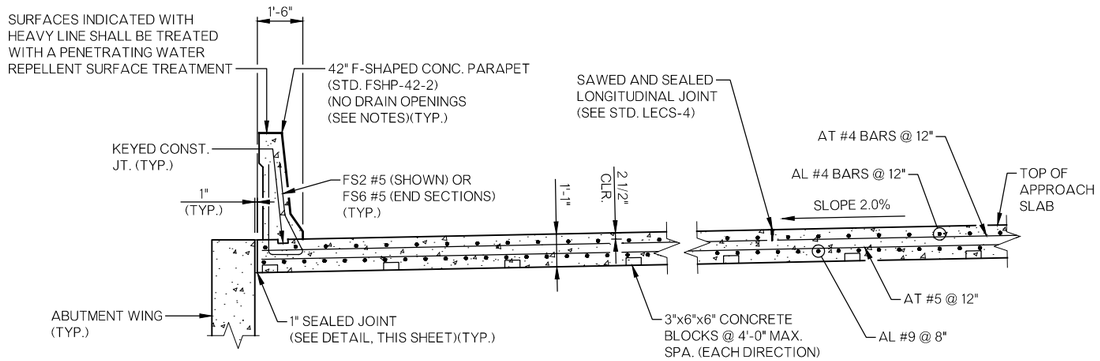
SAW-CUT GROOVING TO BE USED ON THE 38'-0" RDWY. WIDTH OF THE APPROACH SLABS ONLY.

APPROACH SLAB BAR LIST
(ONE APPROACH SLAB SHOWN, TWO REQUIRED)

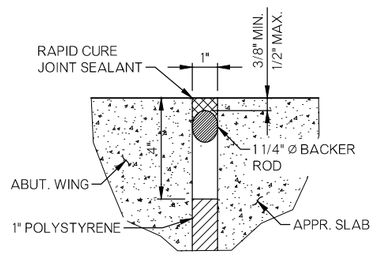
MARK	NO.	SIZE	FORM	LENGTH	REMARKS
(EPOXY COATED)					
AL1	44	#4	STR.	29'-8"	
AL2	62	#9	STR.	29'-8"	
AT1	31	#4	STR.	17'-2"	
AT2	31	#4	STR.	23'-2"	
AT3	31	#5	STR.	40'-8"	
FS2	56	#5	BNT.	7'-4"	
FS6	10	#5	BNT.	7'-6 1/2"	

APPROACH SLAB QUANTITIES

ITEM	UNITS	TOTAL
APPROACH SLAB	SY	273.40
SAW-CUT GROOVING	SY	253.40
42" F-SHAPED PARAPET	LF	120.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	60.00



TYPICAL SECTION THRU APPROACH SLAB



1" SEALED EXPANSION JOINT AT WINGWALL

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BRIDGE "A"
SB US-81 OVER EW 140.5

APPROACH SLAB DETAILS
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B027

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

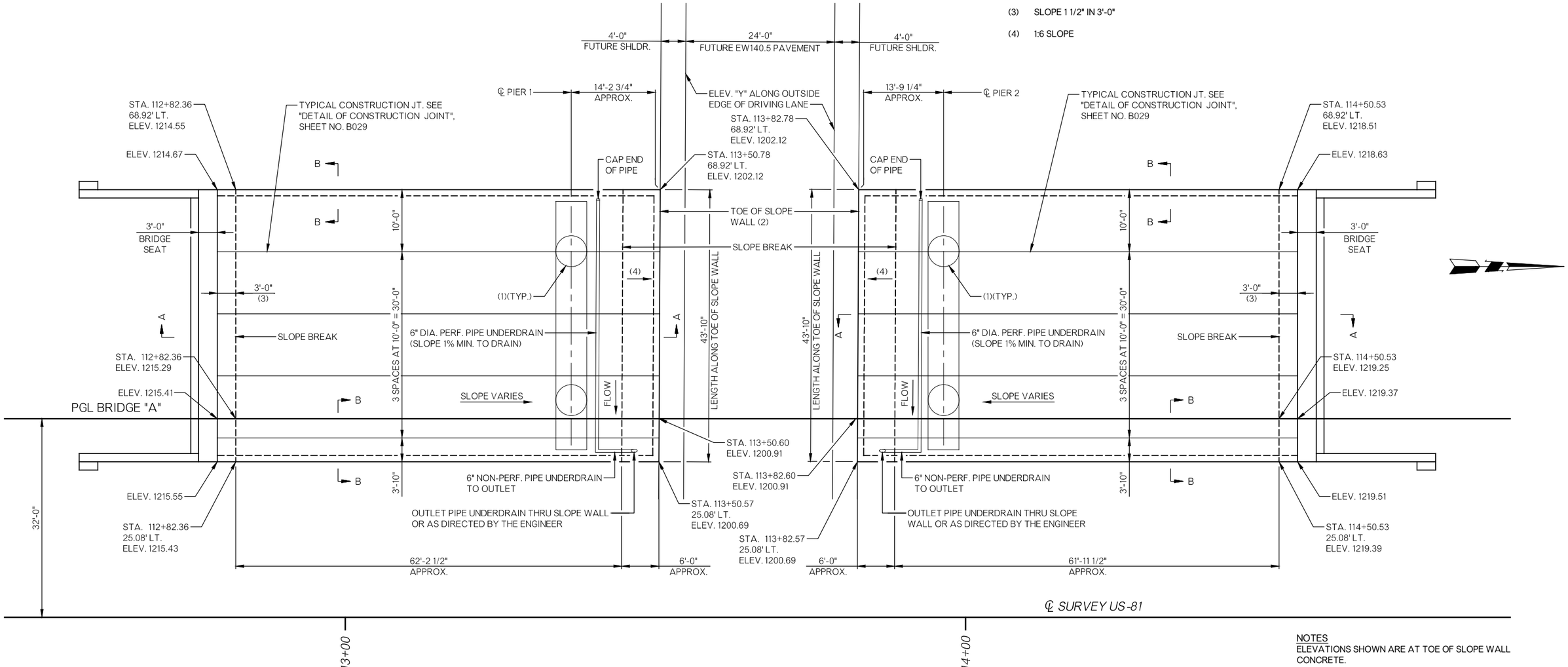
NOTES
(1) PROVIDE 1/2" PREFORMED EXP. JOINT FILLER MAT'L AROUND COLUMNS (SEC. 701.08.B). SEAL WITH LOW MODULUS SILICONE JOINT SEALANT (SEC. 701.08.E).

(2) TOP OF SLOPE WALL ELEVATION ALONG TOE AT ANY PARTICULAR POINT IS GIVEN BY THE FOLLOWING EQUATION:

TOE ELEV. = ELEV. "Y" -4'(0.02)

(3) SLOPE 1 1/2" IN 3'-0"

(4) 1:6 SLOPE



NOTES
ELEVATIONS SHOWN ARE AT TOE OF SLOPE WALL CONCRETE.

ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

BRIDGE SUPERSTRUCTURE IS NOT SHOWN FOR CLARITY.

FOR SLOPE WALL SECTIONS, NOTES, AND QUANTITIES, SEE SHEET NO. B029.

PLAN OF SLOPE WALLS

NOTE
ALL STATIONING FOLLOWS ℄ SURVEY US-81, UNLESS NOTED OTHERWISE .

PRELIMINARY
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BRIDGE "A"
SB US-81 OVER EW 140.5

SLOPE WALL DETAILS (SHEET 1 OF 2)

℄ SURVEY US-81 STA. 113+66.44

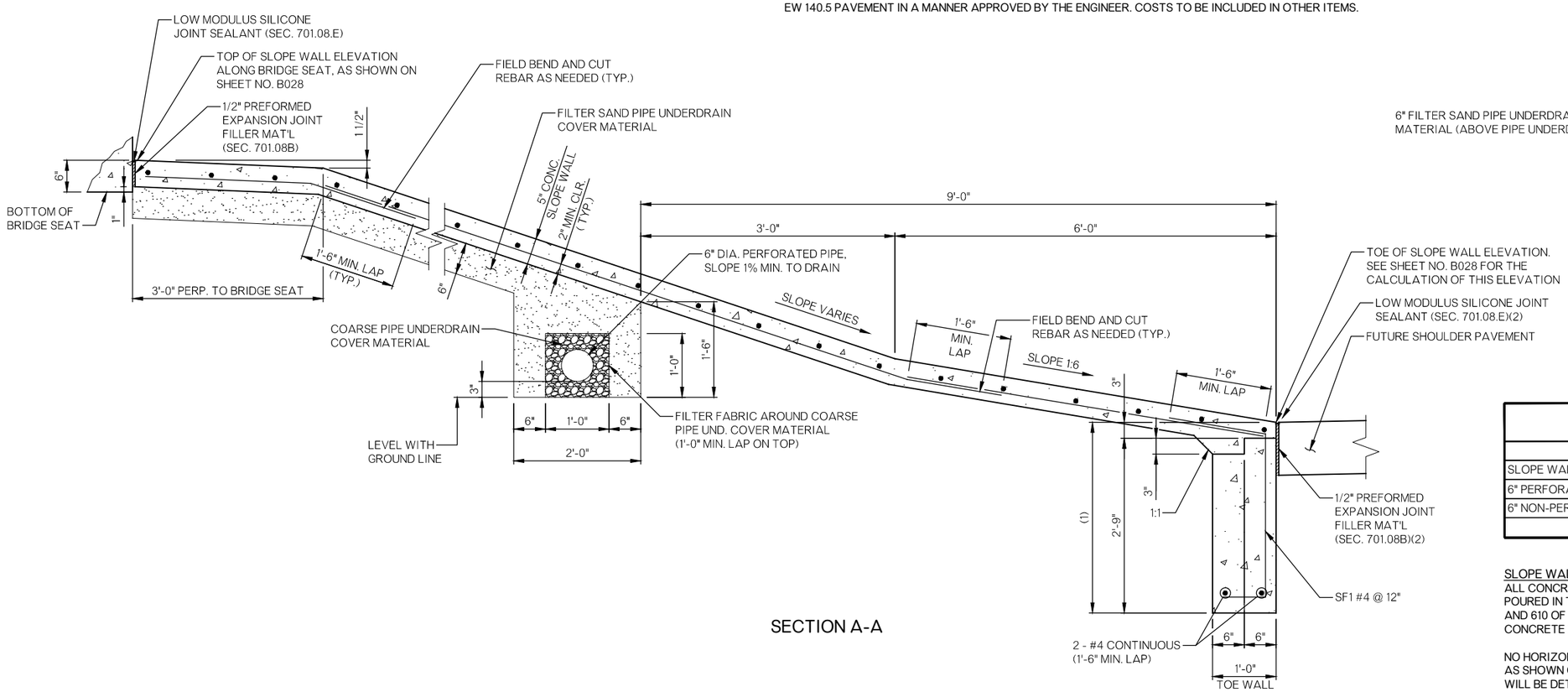
State Job No. 24428(13) Sheet No. B028

US-81 REALIGNMENT
GRADY COUNTY

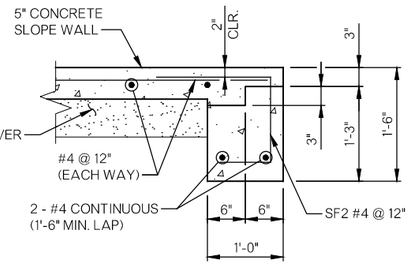
FINAL FIELD MEETING
JUNE 2020

NOTES
(1) SURFACE AREA OF TOE WALL INCLUDED IN ESTIMATED QUANTITY FOR "SLOPE WALL (5") ", PER S.Y.

(2) PROVIDE ONLY IF CONSTRUCTING SLOPE WALL AGAINST FUTURE SHLDR. PAVEMENT. IF FUTURE SHLDR. PAVEMENT IS NOT IN PLACE AT THE TIME OF CONSTRUCTION, GRADE AREAS BETWEEN SLOPE WALLS AND EW 140.5 PAVEMENT IN A MANNER APPROVED BY THE ENGINEER. COSTS TO BE INCLUDED IN OTHER ITEMS.



SECTION A-A



SECTION B-B

SLOPE WALL QUANTITIES		
ITEM	UNITS	TOTAL
SLOPE WALL (5")	SY	745.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	82.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	20.00

SLOPE WALL NOTES
ALL CONCRETE IN THE SLOPE WALLS SHALL BE CLASS "A" CONCRETE AND SHALL BE POURED IN THE DRY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTIONS 509 AND 610 OF THE STANDARD SPECIFICATIONS. COARSE AGGREGATE FOR THIN SECTION CONCRETE (SEC. 701.06) MAY BE USED.

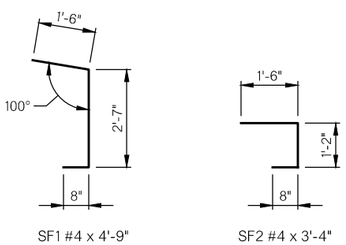
NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN THE SLOPE WALLS EXCEPT AS SHOWN ON THE PLANS. FINAL NUMBER AND LOCATION OF ALL CONSTRUCTION JOINTS WILL BE DETERMINED BY THE ENGINEER. JOINTS SHALL HAVE A MAXIMUM SPACING OF 10'-0".

5" CONCRETE SLOPE WALL WILL BE MEASURED FROM EDGE TO EDGE AND FROM TOP TO BOTTOM ALONG THE TOP SURFACE OF THE SLOPE WALL AND ALONG THE FRONT FACE OF THE TOE WALL. PAYMENT WILL BE MADE AT THE CONTRACT PRICE BID FOR "SLOPE WALL (5") ", PER S.Y. PRICE BID SHALL INCLUDE ALL COSTS OF JOINT SEALERS, FILLER MATERIALS, REINFORCING STEEL, CONCRETE, EXCAVATIONS, LABOR, FORMS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN.

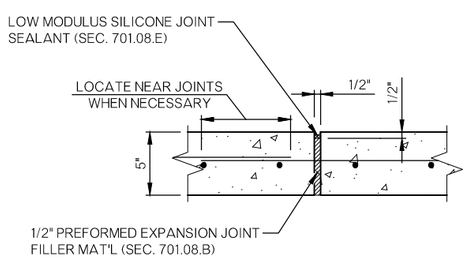
EXTENT, LOCATION AND DEPTH OF 6" PERFORATED AND NON-PERF. PIPE UNDERDRAINS MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION.

ALL COSTS OF PIPE UNDERDRAIN COVER MATERIALS (BOTH FILTER SAND AND COARSE MATERIAL), FILTER FABRICS, EXCAVATIONS, EQUIPMENT, LABOR AND INCIDENTALS FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR " 6" PERFORATED PIPE UNDERDRAIN ROUND". INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND ODOT STD. PUD-3.

ALL COSTS OF TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, PLUS OTHER MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS FOR THEIR INSTALLATION FOR 6" NON-PERFORATED PIPE UNDERDRAIN SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF " 6" NON-PERF. PIPE UNDERDRAIN RND." INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND ODOT STD. PUD-3.



BAR BEND DETAILS



DETAIL OF CONSTRUCTION JOINT

PRELIMINARY
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BRIDGE "A"
SB US-81 OVER EW 140.5

SLOPE WALL DETAILS
(SHEET 2 OF 2)

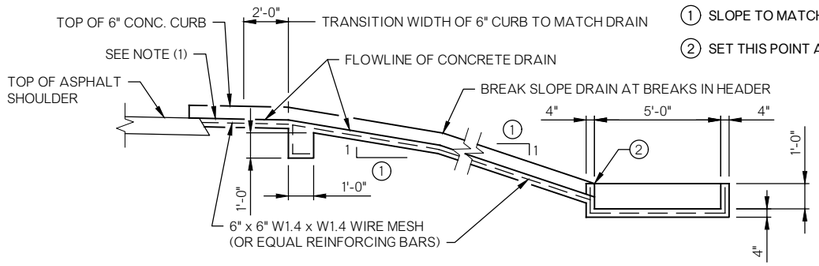
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B029

US-81 REALIGNMENT
GRADY COUNTY

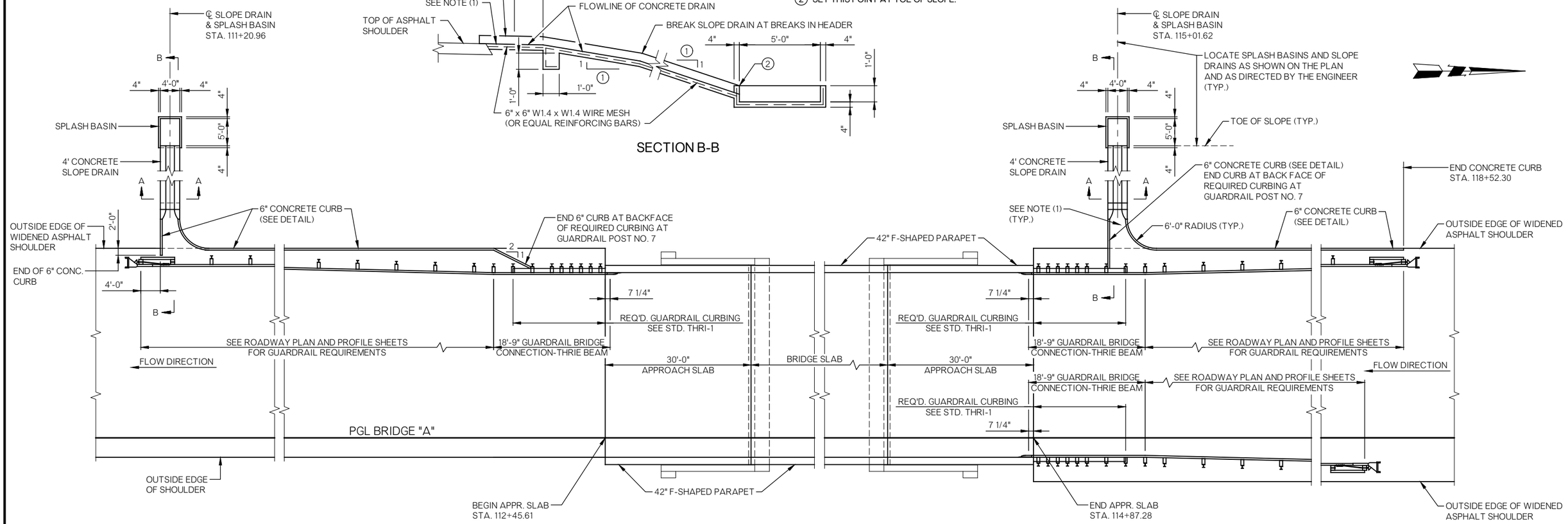
FINAL FIELD MEETING
JUNE 2020

NOTE
(1) BETWEEN EDGE OF ASPHALT SHOULDER AND TOP OF CONCRETE SLOPE DRAIN, CONSTRUCT 4" CONCRETE BASE OVER AREA OUTLINED BY CURBING. COST TO BE INCLUDED IN PRICE BID FOR "CLASS C CONCRETE".

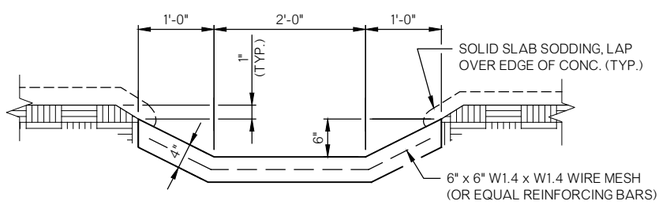


① SLOPE TO MATCH SLOPE OF HEADER.
② SET THIS POINT AT TOE OF SLOPE.

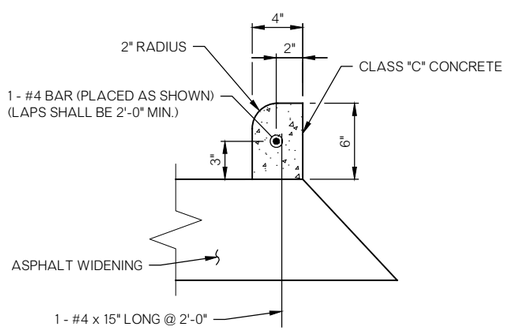
SECTION B-B



PLAN OF GUARDRAIL WIDENING, CURBING, SLOPE DRAINS AND SPLASH BASINS



SECTION A-A



DETAIL OF 6" CONCRETE CURB
(SHOWN AT OUTSIDE EDGE OF WIDENED ASPHALT SHOULDER)

NOTES
ASPHALT SHOULDER WIDENING SHALL BE IN ACCORDANCE WITH STANDARDS THRI-1 AND GHW1-1 EXCEPT AS SHOWN ON THIS SHEET. ALL COSTS OF ASPHALT SHOULDER WIDENING SHALL BE INCLUDED IN THE ROADWAY PAY ITEMS.

SLOPE DRAINS, SPLASH BASINS AND CURBING TO BE LOCATED AS SHOWN ON THE PLAN AND AS DIRECTED BY THE ENGINEER.

THE SLOPE DRAINS AND SPLASH BASINS SHALL BE CONSTRUCTED USING CLASS "C" CONCRETE AS SHOWN ON THIS SHEET. ALL COSTS OF THE SLOPE DRAINS AND SPLASH BASINS INCLUDING WIRE MESH, EXCAVATIONS AND BACKFILLING SHALL BE INCLUDED IN THE PRICE BID FOR "CLASS C CONCRETE".

THE 6" CONCRETE CURBS SHALL BE CONSTRUCTED AS SHOWN ON THIS SHEET IN ADDITION TO THE REQUIRED GUARDRAIL CURBING. ALL COSTS TO CONSTRUCT THE 6" CONCRETE CURBS INCLUDING CONCRETE AND REINFORCING STEEL SHALL BE INCLUDED IN THE PRICE BID FOR "CLASS C CONCRETE".

THE 15'-0" LONG CONCRETE CURBING SHOWN ON STD. THRI-1 SHALL BE INCLUDED IN THE PRICE BID FOR "GUARDRAIL BRIDGE CONN-THRIE BEAM (31")", AT ALL FOUR CORNERS OF THE BRIDGE.

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PRELIMINARY

BRIDGE "A"
SB US-81 OVER EW 140.5

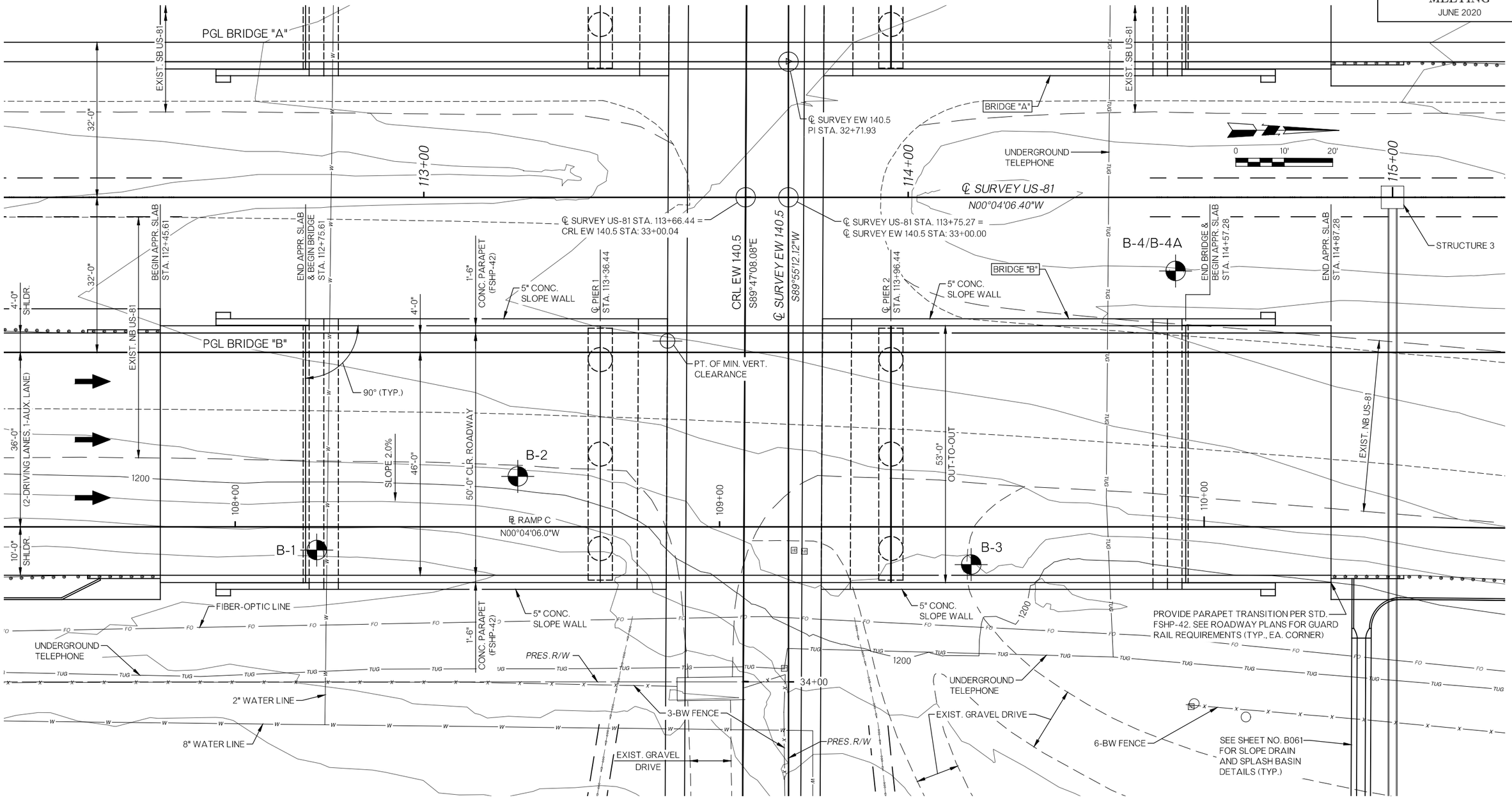
DRAINS AT END OF BRIDGE DETAILS

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B030

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



PLAN
SCALE 1" = 10'

BM#210 - "X" ON CENTER W. HDWL. RCB CROSS DRAIN
STA. 108+67.70, 66.14' LT.
ELEV. = 1196.144'

BM#211 - "[ ]" ON N.E. WINGWALL W. SIDE DRAIN
STA. 114+06.93, 68.77' LT.
ELEV. = 1200.651'

NOTES
ALL STATIONING FOLLOWS ℄ SURVEY US-81, UNLESS NOTED OTHERWISE.

FOR ELEVATION VIEW, SEE SHEET NO. B032.

SEE SHEET NO. B033 FOR DESIGN DATA, FINISH GRADE DATA, AND INDEX OF SHEETS.

FOR GEOMETRIC DATA, SEE GEOMETRIC LAYOUT SHEETS.

PROPOSED R/W IS OUTSIDE THE VIEWING AREA. SEE ROADWAY PLANS FOR LIMITS.

PRELIMINARY
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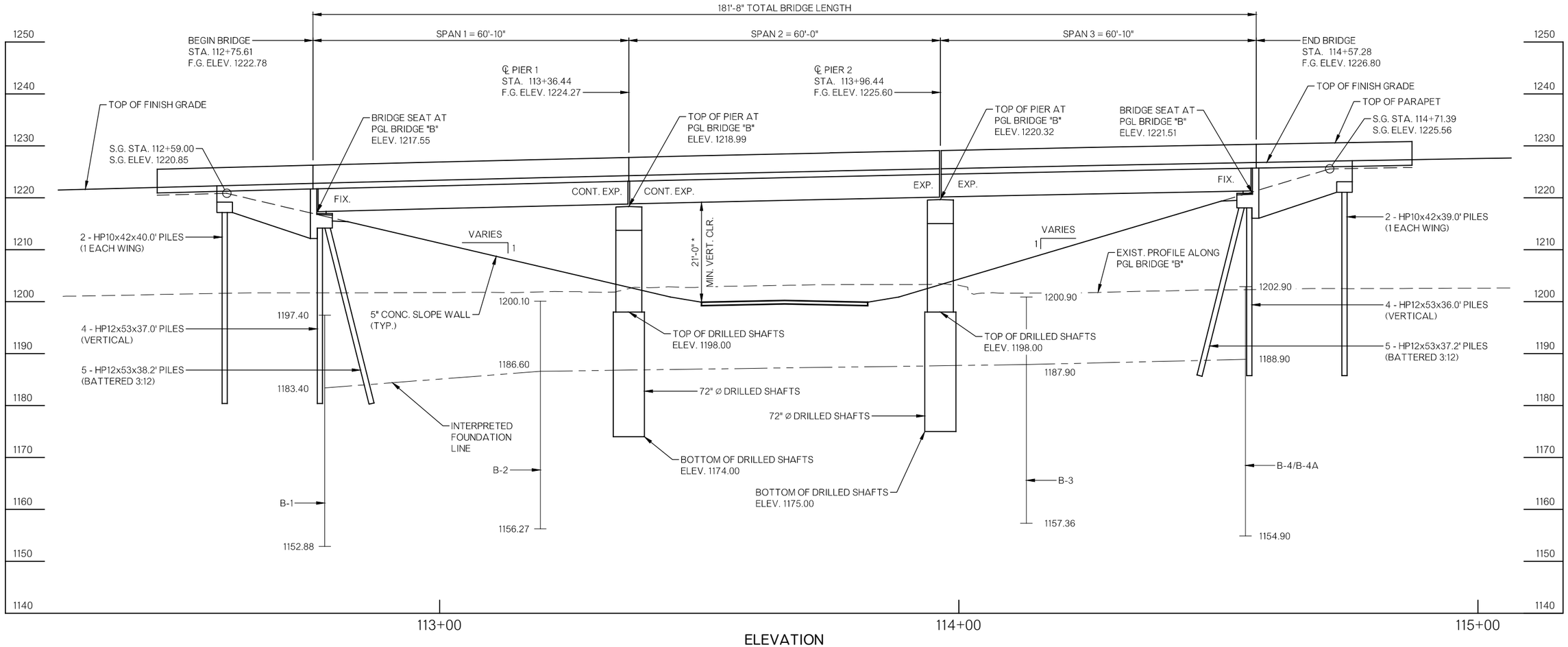
BRIDGE "B"
NB US-81 OVER EW 140.5
GENERAL PLAN AND ELEVATION (SHEET 1 OF 3)
CONST. 3-60' TYPE III P.C. BEAM WITH W/ 50'-0" CLR. RDWY. AND CONC. PARAPETS (FSHP-42)" SKEWED 0°
℄ STA. 113+66.44
State Job No. 24428(13) Sheet No. B031

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



ELEVATION
SCALE 1" = 10'

BM#210 - "X" ON CENTER W. HDWL. RCB CROSS DRAIN
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NOTES
ALL STATIONING FOLLOWS ℄ SURVEY US-81, UNLESS NOTED OTHERWISE.

FOR PLAN VIEW, SEE SHEET NO. B031.

SEE SHEET NO. B033 FOR DESIGN DATA, FINISH GRADE DATA, AND INDEX OF SHEETS.

* MINIMUM THEORETICAL VERTICAL CLEARANCE. SEE PLAN VIEW FOR LOCATIONS. (BRIDGE "A" CONTROLS VERTICAL CLEARANCES). SEE SHEET NO. B033 FOR VERTICAL CLEARANCE SIGN DETAILS AND NOTES.

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BRIDGE "B"
NB US-81 OVER EW 140.5
GENERAL PLAN AND ELEVATION (SHEET 2 OF 3)
CONST. 3-60' TYPE III P.C. BEAM WITH W/ 50'-0" CLR. RDWY.
AND CONC. PARAPETS (FSHP-42)" SKEWED 0°
℄ STA. 113+66.44
State Job No. 24428(13) Sheet No. B032

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

DESIGN DATA
(LOAD AND RESISTANCE FACTOR DESIGN)

CLASS "AA" CONCRETE	F'C = 4,000 PSI
CLASS "A" CONCRETE	F'C = 3,000 PSI
REINFORCING STEEL (GRADE 60)	FY = 60,000 PSI
STRUCTURAL STEEL M270 (GRADE 50W)	FY = 50,000 PSI
STAINLESS STEEL A240 (TYPE 316)	FY = 30,000 PSI

LOADING: HL-93 OR ODOT OVERLOAD TRUCK
20 PSF FUTURE WEARING SURFACE
5 PSF STAY-IN-PLACE FORMS

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.
ANSI/AWS D1.6 STRUCTURAL WELDING CODE - STAINLESS STEEL.

LFD OPERATING RATING: HS 57.2

THE FOLLOWING STANDARDS SHALL BE REQUIRED:

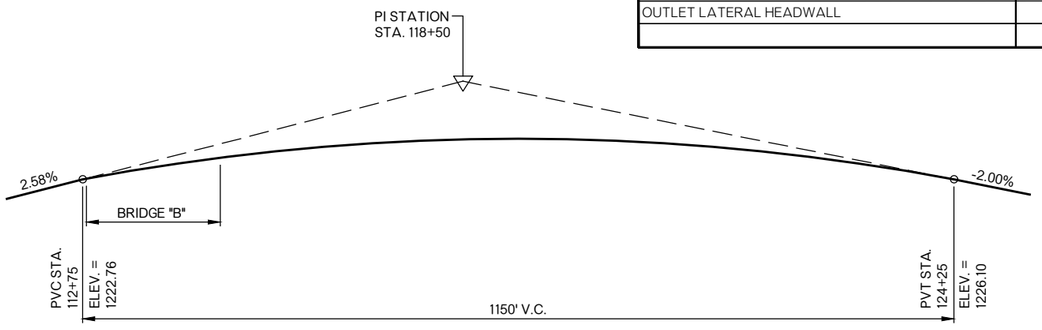
FSHP-42-2-00E
EJ-SQ-04E
EJ-DTL-02E
HP1-2-01E
LECS-4-2
PUD-3-3
PED-3-2

SUMMARY OF QUANTITIES - BRIDGE "B"

DESCRIPTION	UNIT	ABUTS.	PIERS	SUPSTR.	APPR. SLABS	SLOPE WALLS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	176.00					176.00
CLSM BACKFILL	CY	257.00					257.00
PRESTRESSED CONCRETE BEAMS (TYPE III)	LF			1,074.06			1,074.06
APPROACH SLAB	SY				353.40		353.40
SAW-CUT GROOVING	SY			992.00	333.40		1,325.40
SEALED EXPANSION JOINT	LF			51.00			51.00
42" F-SHAPED PARAPET	LF			363.40	120.00		483.40
STRUCTURAL STEEL	LB			1,820.00			1,820.00
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA			12.00			12.00
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA			24.00			24.00
CLASS AA CONCRETE	CY			270.10			270.10
CLASS A CONCRETE	CY	105.40	163.90				269.30
CLASS C CONCRETE	CY						14.50
SLOPE WALL (5")	SY					951.00	951.00
REINFORCING STEEL	LB	13,650.00	2,400.00				16,050.00
EPOXY COATED REINFORCING STEEL	LB		17,760.00	83,850.00			101,610.00
PILES, FURNISHED (HP10x42)	LF	158.00					158.00
PILES, FURNISHED (HP12x53)	LF	669.00					669.00
PILES, DRIVEN (HP10x42)	LF	158.00					158.00
PILES, DRIVEN (HP12x53)	LF	669.00					669.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	169.00	357.80	706.00	60.00		1,292.80
DRILLED SHAFTS 72" DIAMETER	LF		141.00				141.00
CROSSHOLE SONIC LOGGING	EA		1.00				1.00
SEALER CRACK PREPARATION	LF			51.00			51.00
SEALER RESIN	GAL			1.00			1.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	110.00				106.00	216.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	224.00				20.00	244.00
OUTLET LATERAL HEADWALL	EA	2.00					2.00

INDEX OF SHEETS (BRIDGE "B")

NO.	DESCRIPTION
AB01	PAY QUANTITIES (BRIDGES "A" AND "B")
AB02	GENERAL NOTES (BRIDGES "A" AND "B")
B031	GENERAL PLAN AND ELEVATION (SHEET 1 OF 3)
B032	GENERAL PLAN AND ELEVATION (SHEET 2 OF 3)
B033	GENERAL PLAN AND ELEVATION (SHEET 3 OF 3)
B034	SUBSURFACE PROFILE (SHEET 1 OF 2)
B035	SUBSURFACE PROFILE (SHEET 2 OF 3)
B036	SUBSURFACE PROFILE (SHEET 3 OF 3)
B037	SUBSTRUCTURE STAKING DIAGRAM
B038	ABUTMENT 1 DETAILS (SHEET 1 OF 2)
B039	ABUTMENT 1 DETAILS (SHEET 2 OF 2)
B040	ABUTMENT 1 WINGWALL DETAILS
B041	ABUTMENT 2 DETAILS (SHEET 1 OF 2)
B042	ABUTMENT 2 DETAILS (SHEET 2 OF 2)
B043	ABUTMENT 2 WINGWALL DETAILS
B044	SUBSTRUCTURE EXCAVATION AND PIPE UNDERDRAIN ASSEMBLY DETAILS
B045	PIER DETAILS (SHEET 1 OF 3)
B046	PIER DETAILS (SHEET 2 OF 3)
B047	PIER DETAILS (SHEET 3 OF 3)
B048	BEARING DETAILS
B049	TYPICAL CROSS SECTION
B050	TYPICAL LONGITUDINAL SECTION
B051	SUPERSTRUCTURE DETAILS
B052	P.C. BEAM AND DIAPHRAGM LAYOUT PLAN
B053	BOTTOM SLAB REINFORCING PLAN (SHEET 1 OF 2)
B054	BOTTOM SLAB REINFORCING PLAN (SHEET 2 OF 2)
B055	TOP SLAB REINFORCING PLAN (SHEET 1 OF 2)
B056	TOP SLAB REINFORCING PLAN (SHEET 2 OF 2)
B057	TYPE III P.C. BEAM DETAILS
B058	APPROACH SLAB DETAILS
B059	SLOPE WALL DETAILS (SHEET 1 OF 2)
B060	SLOPE WALL DETAILS (SHEET 2 OF 2)
B061	DRAINS AT END OF BRIDGE DETAILS



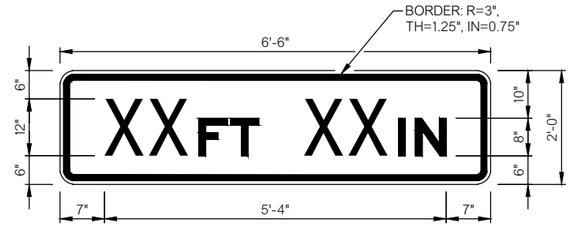
FINISH GRADE DATA
℄ SURVEY US-81
(STATIONS SHOWN ON THE DETAIL ARE ALONG ℄)

ABUTMENTS (HP12x53 PILING)		ABUT. 1	ABUT. 2
(1) FACTORED PILE REACTION (TONS/PILE)	=	97.0	97.0

(1) ABUTMENT PILING SHALL BE DRIVEN THROUGH THE COMPACTED FILL. PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE FACTORED PILE CAPACITY IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE FACTORED PILE CAPACITY IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

NOTE
SEE SHEET NO. B037 FOR PILE LENGTHS.

PIERS (72" DIAMETER DRILLED SHAFTS)		PIER 1	PIER 2
FACTORED REACTION (TONS/SHAFT)	=	476.0	473.0
NOMINAL UNIT BEARING RESISTANCE (TSF)	=	44.0	42.0
BEARING RESISTANCE FACTOR	=	0.7	0.7
FACTORED BEARING RESISTANCE (TONS/SHAFT)	=	870.8	831.3
NOMINAL UNIT FRICTION RESISTANCE (TSF)	=	9.0	7.8
FRICTION RESISTANCE FACTOR	=	0.45	0.45
FACTORED FRICTION RESISTANCE (TONS/SHAFT)	=	458.0	397.0
DEPTH OF ROCK NEGLECTED FOR FRICTION (FT.)	=	6.0	6.0
MINIMUM DEPTH INTO ROCK (FT.)	=	12.0	12.0
TOTAL FACTORED RESISTANCE (TONS/SHAFT)	=	1328.9	1228.2



SIGN NUMBER	W12-2p
WIDTH x HEIGHT	6'-6" x 2'-0"
BORDER WIDTH	1.25"
CORNER RADIUS	3"
MOUNTING	BRIDGE
BACKGROUND	TYPE: REFLECTIVE
	COLOR: YELLOW
LEGEND & BORDER	TYPE: REFLECTIVE
	COLOR: BLACK

VERTICAL CLEARANCE SIGN DETAILS

NOTES
INSTALL ONE (1) SIGN ABOVE THE W.B. LANES OF EW140.5 ON THE EAST SIDE OF SPAN 2.

SIGNS SHOULD INDICATE A VERTICAL CLEARANCE OF 3" MIN. LESS THAN THE FINAL MEASURED CLEARANCE. THE CONTRACTOR SHALL CONTACT ODOT DIV. 7 FOR FINAL MEASUREMENT OF VERTICAL CLEARANCES.

HARDWARE AND CONNECTION DETAILS TO THE P.C. BEAM SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

ALL COSTS FOR FABRICATION, LABOR, MATERIALS, HARDWARE, AND INSTALLATION OF THE VERTICAL CLEARANCE SIGNS, COMPLETE-IN-PLACE, SHALL BE INCLUDED IN THE PRICE BID FOR "SHEET ALUMINUM SIGNS", PER SQ. FT. (TRAFFIC ITEM).

THE INSTALLATION OF THE PERMANENT VERTICAL CLEARANCE SIGNS DOES NOT RELIEVE THE CONTRACTOR OF MAINTAINING APPROPRIATE VERTICAL CLEARANCE SIGNS DURING CONSTRUCTION. COSTS TO BE INCLUDED IN OTHER ITEMS OF WORK.

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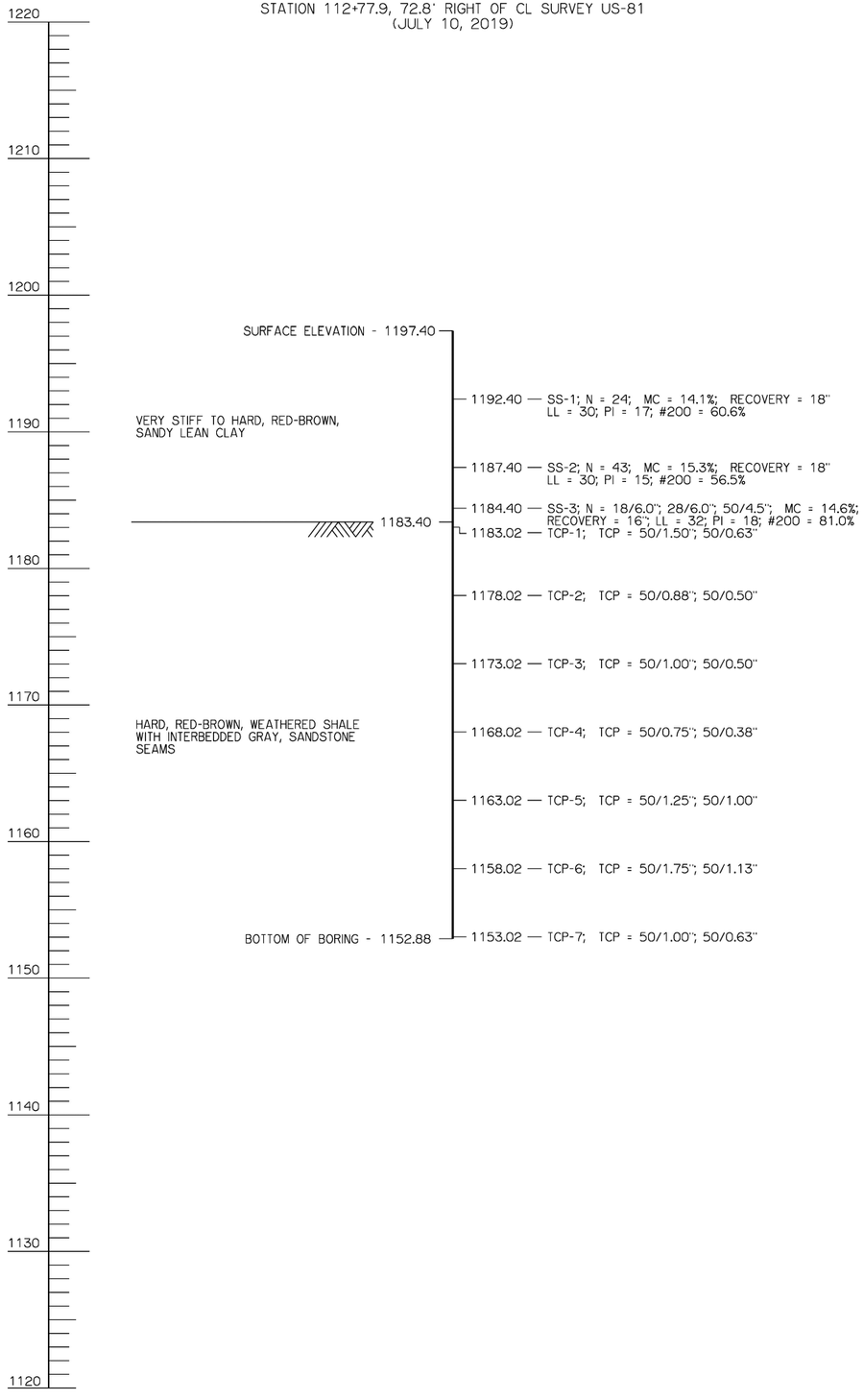
BRIDGE "B"
NB US-81 OVER EW 140.5
GENERAL PLAN AND ELEVATION (SHEET 3 OF 3)
CONST. 3-60' TYPE III P.C. BEAM WITH W/ 50'-0" CLR. RDWY.
AND CONC. PARAPETS (FSHP-42)" SKEWED 0°
℄ STA. 113+66.44
State Job No. 24428(13) Sheet No. B033

US-81 REALIGNMENT
GRADY COUNTY

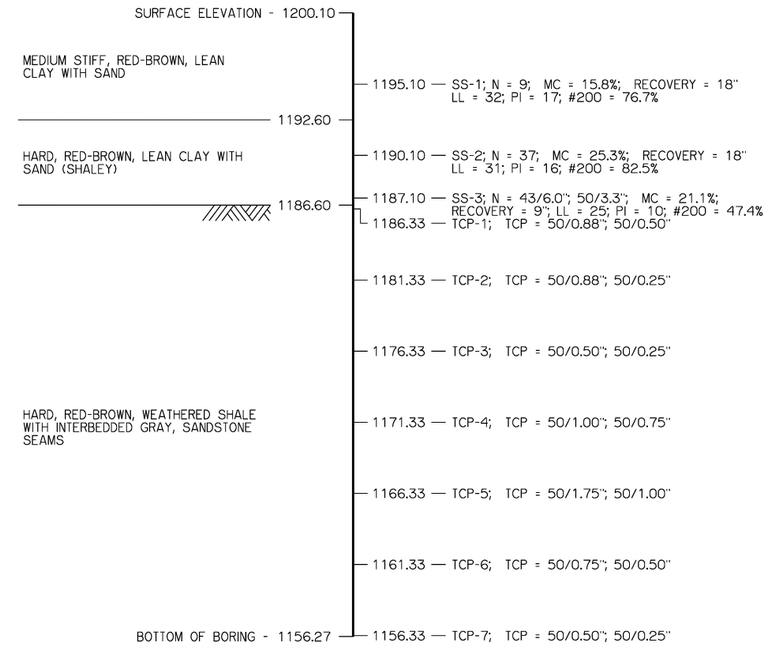
BORING NO. B-1

STATION 112+77.9, 72.8' RIGHT OF CL SURVEY US-81
(JULY 10, 2019)



BORING NO. B-2

STATION 113+19.4, 57.6' RIGHT OF CL SURVEY US-81
(MAY 21, 2019 AND MAY 22, 2019)



NOTE
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PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

LEGEND

DCD = DIAMOND CORE DRILLING, ASTM D2113-83
SS = SPLIT SPOON SAMPLER
N = NUMBER OF BLOWS PER 12 INCHES
MC = MOISTURE CONTENT
LL = LIQUID LIMIT (NV=NO VALUE)
PI = PLASTICITY INDEX (NP=NO PLASTICITY)
#200= PERCENT PASSING #200 SIEVE
UCS = UNCONFINED COMPRESSIVE STRENGTH
TCP = TEXAS CONE PENETROMETER
RQD = ROCK QUALITY DESIGNATION
NP = NON-PLASTIC
PCF = POUNDS PER CUBIC FOOT
PSI = POUNDS PER SQUARE INCH

▽ = WATER LEVEL WHILE DRILLING OR SAMPLING
▼ = WATER LEVEL AFTER DRILLING
▽ = WATER LEVEL 24 HOURS AFTER DRILLING
▨ = TOP OF ROCK

NOTE: TOP OF ROCK LINE SHOWN FOR ESTIMATING PURPOSES ONLY.

NOTE: WATER LEVEL ELEVATION SHOWN WERE OBTAINED AT THE TIME THE BORINGS WERE DRILLED AND MAY FLUCTUATE THROUGHOUT THE YEAR.

NOTE: ROCK CLASSIFICATION IS BASED ON DRILLING CHARACTERISTICS AND VISUAL OBSERVATION OF ROCK CORE SAMPLES. PETROGRAPHIC ANALYSIS OF THIN SECTIONS OF THE ROCK CORE SAMPLES MAY REVEAL OTHER TYPES.

SITE GEOLOGY

THE SUBJECT BRIDGE IS SITUATED IN A GEOLOGIC AREA BEST DESCRIBED AS BEING PART OF THE DOG CREEK-BLAINE SUBUNIT (PDB) UNDIFFERENTIATED. ACCORDING TO PUBLISHED MATERIALS (ENGINEERING CLASSIFICATION OF GEOLOGIC MATERIALS, DIVISION SEVEN, 1969, OKLAHOMA HIGHWAY DEPARTMENT), THE DOG CREEK-BLAINE SUBUNIT CONSISTS OF DARK RED SHALES INTERBEDDED WITH MINOR AMOUNTS OF FINE-GRAINED GYPSIFEROUS SANDSTONES THAT LOCALLY GRADE INTO PURE GYPSUM. MUDSTONE CONGLOMERATES A FEW FEET IN THICKNESS OCCUR SPARINGLY WITHIN THE STRATA.

GEOTECHNICAL REPORT

ALL GEOTECHNICAL INFORMATION CONTAINED ON THIS SHEET IS COVERED BY THE ENGINEERING SEAL AFFIXED TO AN ORIGINAL GEOTECHNICAL ENGINEERING REPORT THAT HAS BEEN STAMPED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN OKLAHOMA. TO OBTAIN A COPY OF THE COMPLETE REPORT, CONTACT THE ODOT OFFICE ENGINEER. THE CONTRACTOR SHOULD BE FULLY AWARE OF THE SITE CONDITIONS PRIOR TO BEGINNING WORK. ANY ADDITIONAL GEOTECNICAL INFORMATION WHICH MAY BE DESIRED IS THE RESPONSIBILITY OF THE CONTRACTOR.

EST

BRIDGE "B"
NB US-81 OVER EW 140.5

SUBSURFACE PROFILE
(SHEET 1 OF 3)

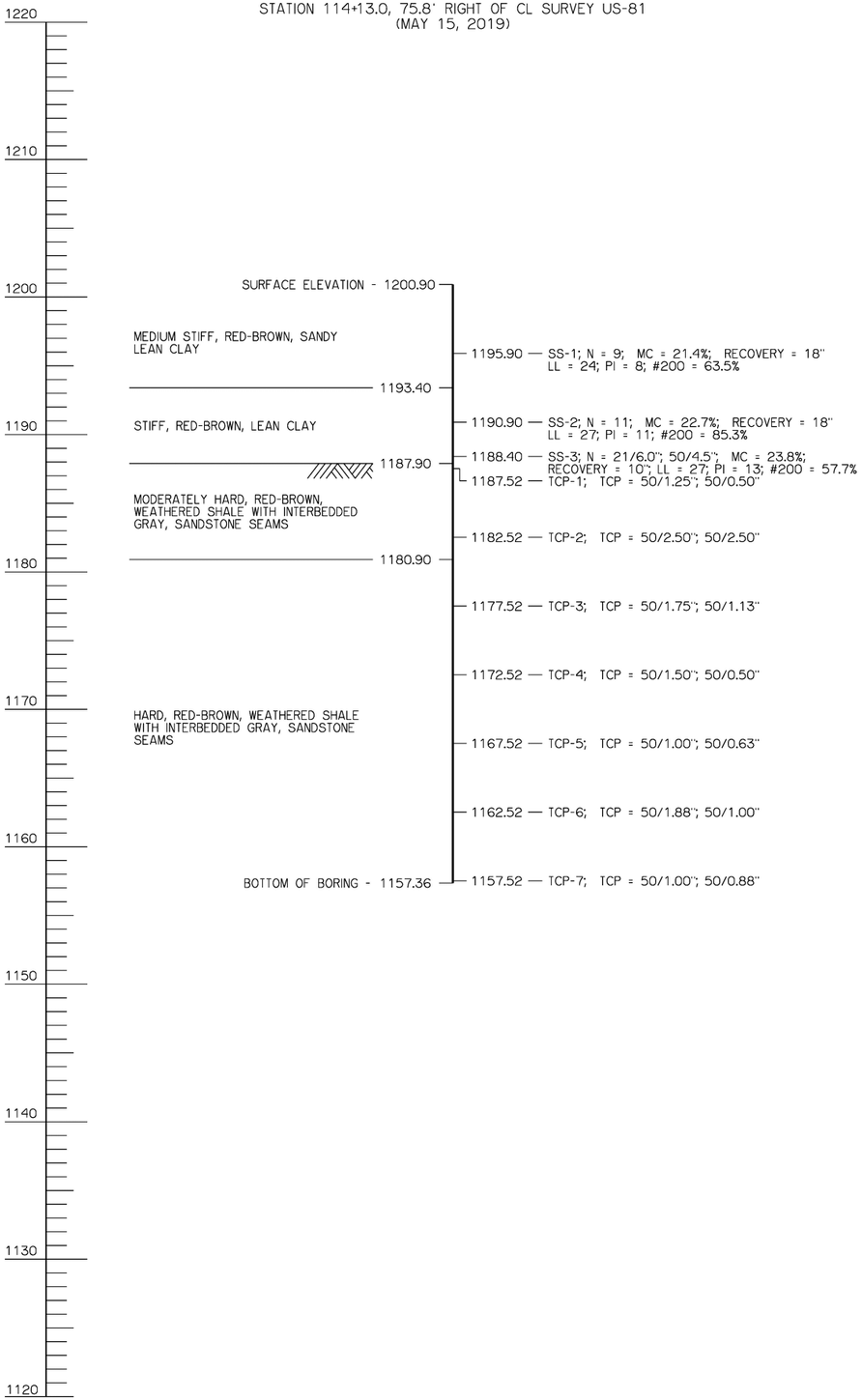
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B034

US-81 REALIGNMENT
GRADY COUNTY

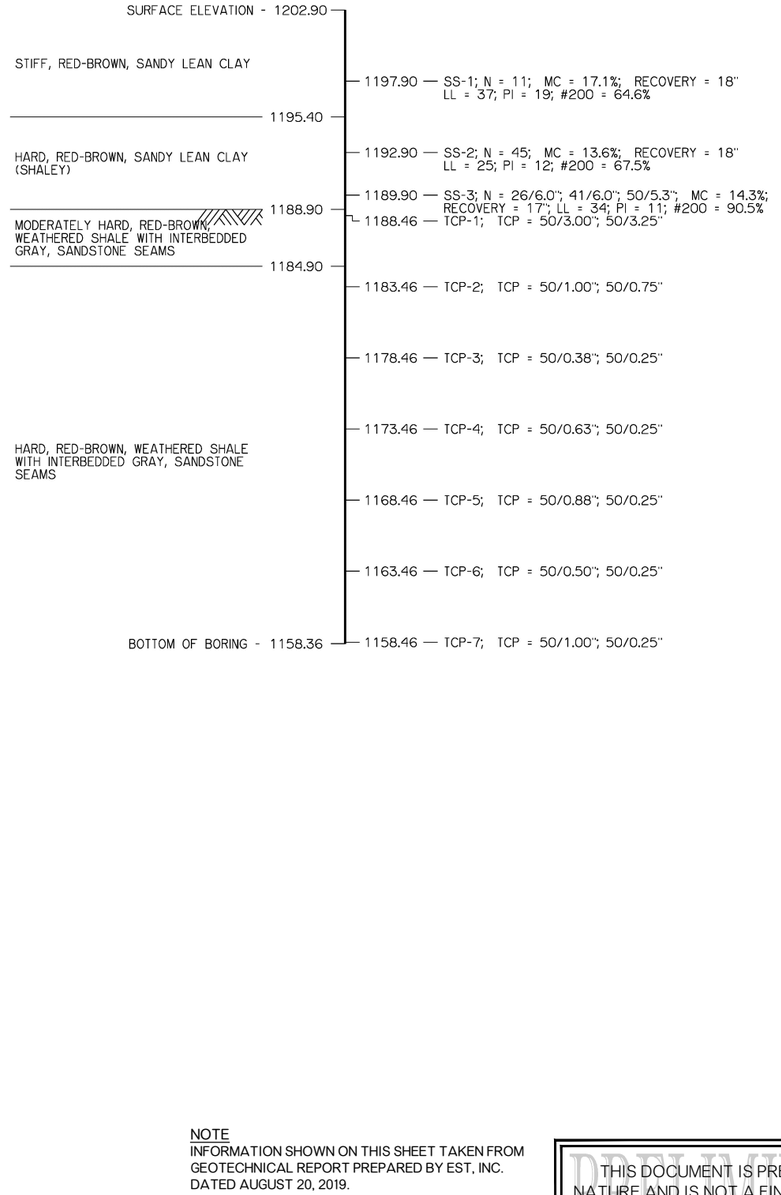
BORING NO. B-3

STATION 114+13.0, 75.8' RIGHT OF CL SURVEY US-81
(MAY 15, 2019)



BORING NO. B-4

STATION 114+55.2, 15.2' RIGHT OF CL SURVEY US-81
(JULY 16, 2019)



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FINAL FIELD MEETING
JUNE 2020

LEGEND

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SS = SPLIT SPOON SAMPLER
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#200= PERCENT PASSING #200 SIEVE
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▽ = WATER LEVEL WHILE DRILLING OR SAMPLING
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THE SUBJECT BRIDGE IS SITUATED IN A GEOLOGIC AREA BEST DESCRIBED AS BEING PART OF THE DOG CREEK-BLAINE SUBUNIT (PDB) UNDIFFERENTIATED. ACCORDING TO PUBLISHED MATERIALS (ENGINEERING CLASSIFICATION OF GEOLOGIC MATERIALS, DIVISION SEVEN, 1969, OKLAHOMA HIGHWAY DEPARTMENT), THE DOG CREEK-BLAINE SUBUNIT CONSISTS OF DARK RED SHALES INTERBEDDED WITH MINOR AMOUNTS OF FINE-GRAINED GYPSIFEROUS SANDSTONES THAT LOCALLY GRADE INTO PURE GYPSUM. MUDSTONE CONGLOMERATES A FEW FEET IN THICKNESS OCCUR SPARINGLY WITHIN THE STRATA.

GEOTECHNICAL REPORT

ALL GEOTECHNICAL INFORMATION CONTAINED ON THIS SHEET IS COVERED BY THE ENGINEERING SEAL AFFIXED TO AN ORIGINAL GEOTECHNICAL ENGINEERING REPORT THAT HAS BEEN STAMPED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN OKLAHOMA. TO OBTAIN A COPY OF THE COMPLETE REPORT, CONTACT THE ODOT OFFICE ENGINEER. THE CONTRACTOR SHOULD BE FULLY AWARE OF THE SITE CONDITIONS PRIOR TO BEGINNING WORK. ANY ADDITIONAL GEOTECNICAL INFORMATION WHICH MAY BE DESIRED IS THE RESPONSIBILITY OF THE CONTRACTOR.

EST

BRIDGE "B"
NB US-81 OVER EW 140.5

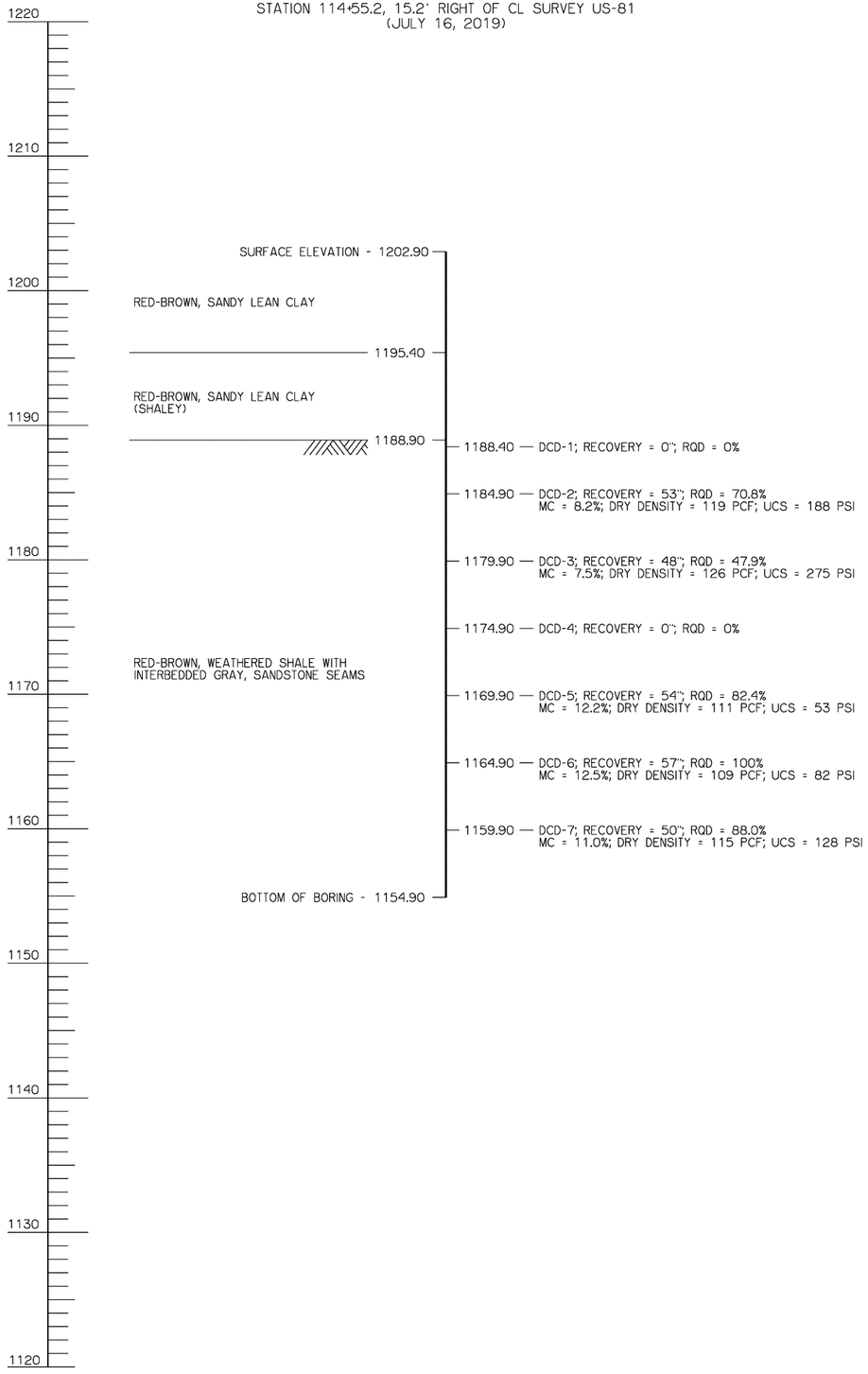
SUBSURFACE PROFILE
(SHEET 2 OF 3)
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B035

US-81 REALIGNMENT
GRADY COUNTY

BORING NO. B-4A

STATION 114+55.2, 15.2' RIGHT OF CL SURVEY US-81
(JULY 16, 2019)



1220
1210
1200
1190
1180
1170
1160
1150
1140
1130

FINAL FIELD MEETING
JUNE 2020

LEGEND

DCD = DIAMOND CORE DRILLING, ASTM D2113-83
SS = SPLIT SPOON SAMPLER
N = NUMBER OF BLOWS PER 12 INCHES
MC = MOISTURE CONTENT
LL = LIQUID LIMIT (NV=NO VALUE)
PI = PLASTICITY INDEX (NP=NO PLASTICITY)
#200= PERCENT PASSING #200 SIEVE
UCS = UNCONFINED COMPRESSIVE STRENGTH
TCP = TEXAS CONE PENETROMETER
RQD = ROCK QUALITY DESIGNATION
NP = NON-PLASTIC
PCF = POUNDS PER CUBIC FOOT
PSI = POUNDS PER SQUARE INCH

▽ = WATER LEVEL WHILE DRILLING OR SAMPLING
▼ = WATER LEVEL AFTER DRILLING
▼ = WATER LEVEL 24 HOURS AFTER DRILLING
▨ = TOP OF ROCK

NOTE: TOP OF ROCK LINE SHOWN FOR ESTIMATING PURPOSES ONLY.

NOTE: WATER LEVEL ELEVATION SHOWN WERE OBTAINED AT THE TIME THE BORINGS WERE DRILLED AND MAY FLUCTUATE THROUGHOUT THE YEAR.

NOTE: ROCK CLASSIFICATION IS BASED ON DRILLING CHARACTERISTICS AND VISUAL OBSERVATION OF ROCK CORE SAMPLES. PETROGRAPHIC ANALYSIS OF THIN SECTIONS OF THE ROCK CORE SAMPLES MAY REVEAL OTHER TYPES.

SITE GEOLOGY

THE SUBJECT BRIDGE IS SITUATED IN A GEOLOGIC AREA BEST DESCRIBED AS BEING PART OF THE DOG CREEK-BLAINE SUBUNIT (PDB) UNDIFFERENTIATED. ACCORDING TO PUBLISHED MATERIALS (ENGINEERING CLASSIFICATION OF GEOLOGIC MATERIALS, DIVISION SEVEN, 1969, OKLAHOMA HIGHWAY DEPARTMENT), THE DOG CREEK-BLAINE SUBUNIT CONSISTS OF DARK RED SHALES INTERBEDDED WITH MINOR AMOUNTS OF FINE-GRAINED GYPSIFEROUS SANDSTONES THAT LOCALLY GRADE INTO PURE GYPSUM. MUDSTONE CONGLOMERATES A FEW FEET IN THICKNESS OCCUR SPARINGLY WITHIN THE STRATA.

GEOTECHNICAL REPORT

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NOTE
INFORMATION SHOWN ON THIS SHEET TAKEN FROM GEOTECHNICAL REPORT PREPARED BY EST, INC. DATED AUGUST 20, 2019.

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

EST

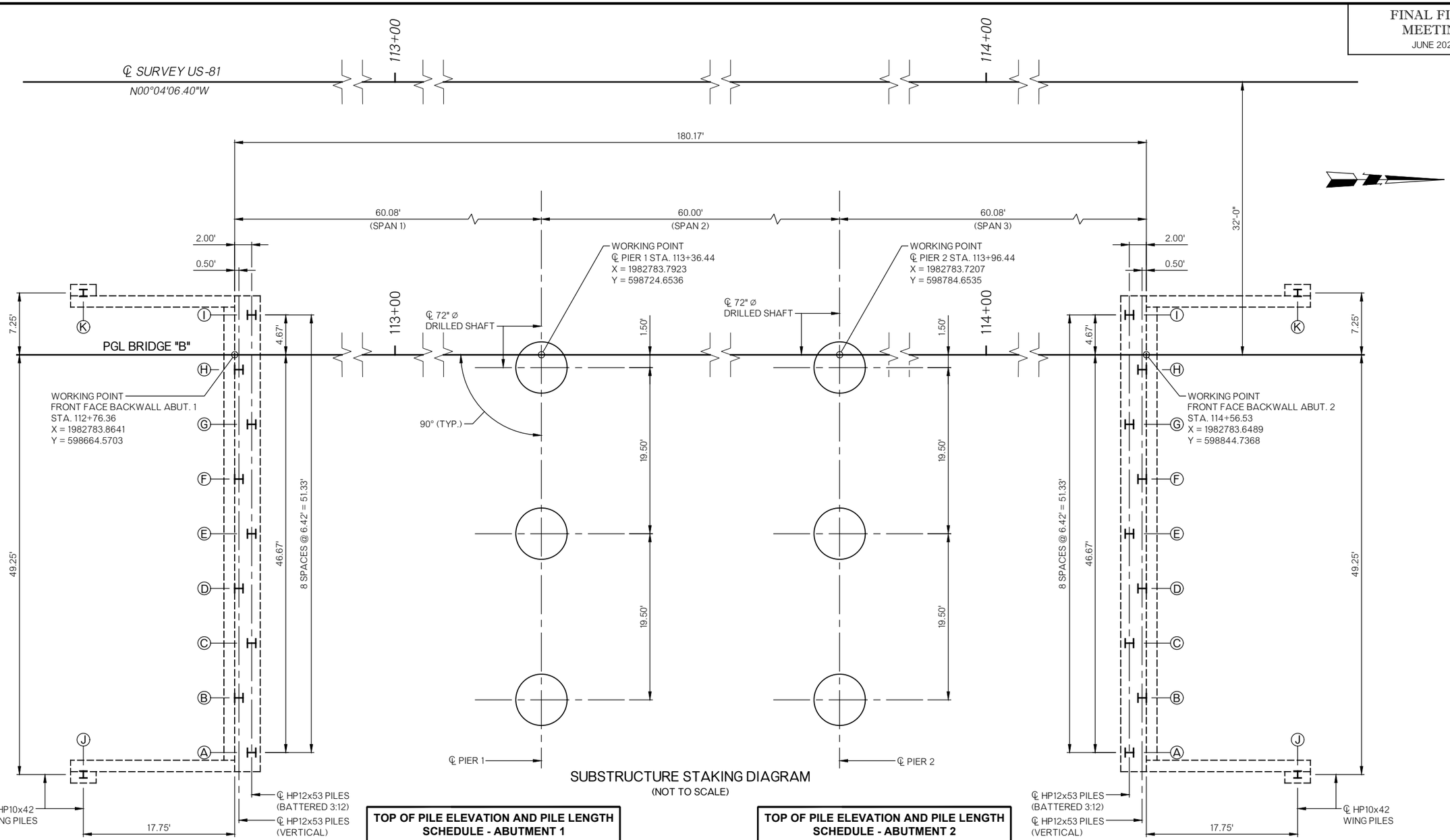
BRIDGE "B"
NB US-81 OVER EW 140.5

SUBSURFACE PROFILE
(SHEET 3 OF 3)
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B036

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



SUBSTRUCTURE STAKING DIAGRAM
(NOT TO SCALE)

TOP OF PILE ELEVATION AND PILE LENGTH SCHEDULE - ABUTMENT 1

PILE	TOP OF PILE	PILE LENGTH
A	1214.97	38.00
B	1215.10	37.00
C	1215.23	38.00
D	1215.36	37.00
E	1215.48	38.00
F	1215.61	37.00
G	1215.74	38.00
H	1215.87	37.00
I	1216.00	39.00
J	1217.92	39.00
K	1219.05	41.00

TOP OF PILE ELEVATION AND PILE LENGTH SCHEDULE - ABUTMENT 2

PILE	TOP OF PILE	PILE LENGTH
A	1218.93	37.00
B	1219.06	36.00
C	1219.19	37.00
D	1219.32	36.00
E	1219.44	37.00
F	1219.57	36.00
G	1219.70	37.00
H	1219.83	36.00
I	1219.96	38.00
J	1221.90	38.00
K	1223.01	40.00

NOTES
FACE OF PILE WEB SHALL BE PERPENDICULAR TO FACE OF BRIDGE SEAT.

ALL DIMENSION ARE HORIZONTAL DIMENSIONS.

FOR SUMMARY OF QUANTITIES, SEE SHEET NO. B033.

PRELIMINARY

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US-81 REALIGNMENT
GRADY COUNTY

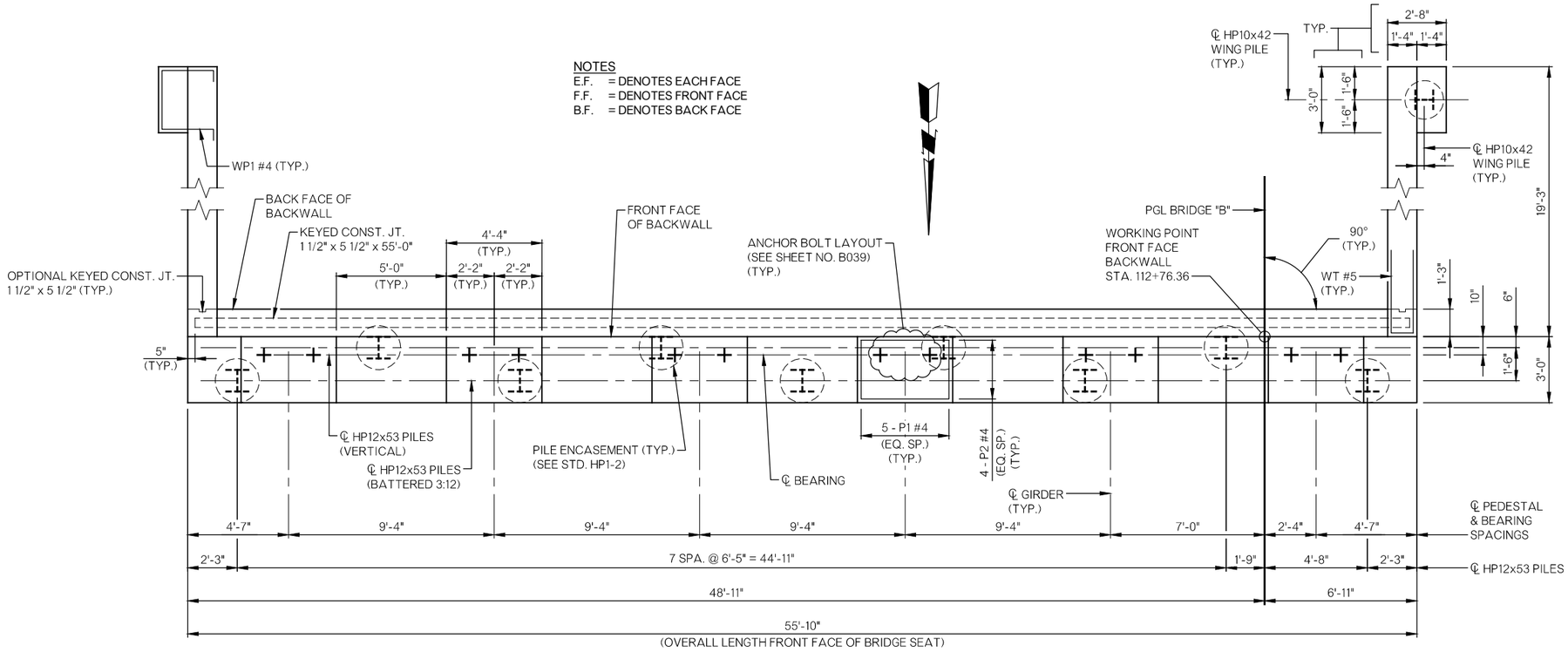
BRIDGE "B"
NB US-81 OVER EW 140.5

SUBSTRUCTURE STAKING DIAGRAM
℄ SURVEY US-81 STA. 113+66.44

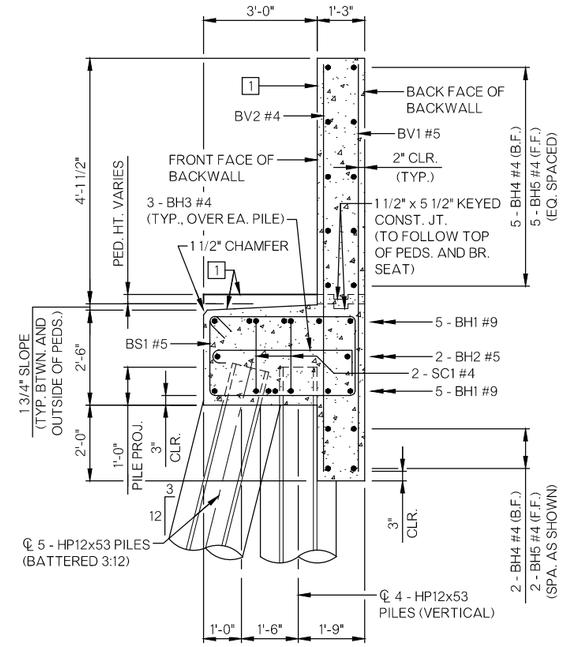
State Job No. 24428(13) Sheet No. B037

FINAL FIELD MEETING
JUNE 2020

NOTES
E.F. = DENOTES EACH FACE
F.F. = DENOTES FRONT FACE
B.F. = DENOTES BACK FACE



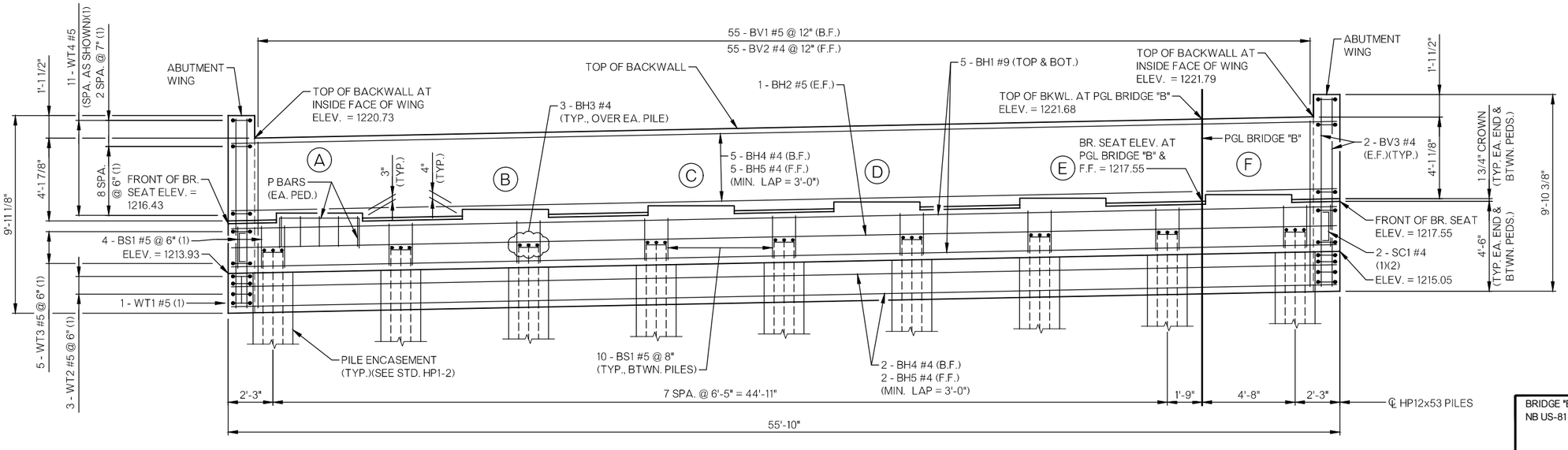
PLAN



SECTION THRU BRIDGE SEAT

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

NOTE
[1] TREAT FRONT FACE OF BACKWALL, TOP OF ABUTMENT SEAT, AND ALL SURFACES OF PEDESTALS WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT. TREAT FRONT FACE OF ABUTMENT SEAT ABOVE THE FINISHED GROUND LINE WITH PENETRATING WATER REPELLENT SURFACE TREATMENT.



ELEVATION

NOTES
ALL REINFORCING STEEL BETWEEN BRIDGE SEAT AND/OR BACKWALL AND WINGS SHALL BE TIED IN PLACE PRIOR TO POURING BRIDGE SEAT AND BACKWALL (WT BARS).

FOR ADDITIONAL ABUTMENT 1 DETAILS, SEE SHEET NO. B039.

FOR WING DETAILS, SEE SHEET NO. B040.

ALL EDGES OF THE ABUTMENT AND WINGS SHALL HAVE A 3/4" CHAMFER, UNLESS OTHERWISE SHOWN.

FOR SUBSTRUCTURE STAKING DIAGRAM, SEE SHEET NO. B037.

(1) TYPICAL EACH END.

(2) PLACE AS SHOWN ON "SECTION THRU BRIDGE SEAT".

SCHEDULE OF PEDESTAL ELEVATIONS	
PEDESTAL	ELEVATION
A	1216.96
B	1217.15
C	1217.33
D	1217.52
E	1217.71
F	1217.89

BRIDGE "B"
NB US-81 OVER EW 140.5

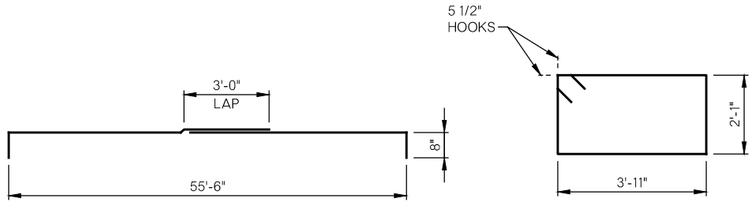
ABUTMENT 1 DETAILS (SHEET 1 OF 2)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B038

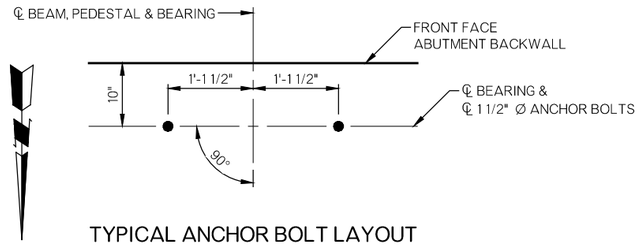
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

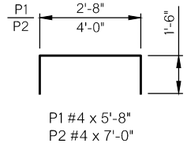


BH4 #4 x 59'-10"

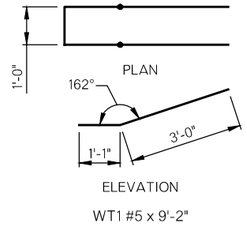
BS1 #5 x 12'-11"



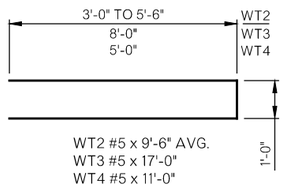
TYPICAL ANCHOR BOLT LAYOUT



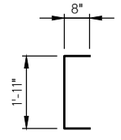
P1 #4 x 5'-8"
P2 #4 x 7'-0"



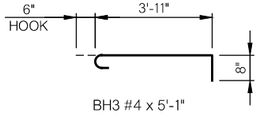
WT1 #5 x 9'-2"



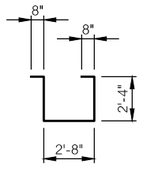
WT2 #5 x 9'-6" AVG.
WT3 #5 x 17'-0"
WT4 #5 x 11'-0"



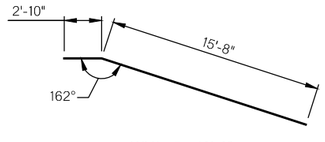
SC1 #4 x 3'-3"



BH3 #4 x 5'-1"



WP1 #4 x 8'-8"



WH1 #5 x 18'-6"

BAR BEND DETAILS

ABUTMENT 1 QUANTITIES

ITEM	UNITS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	80.00
CLSM BACKFILL	CY	125.00
CLASS A CONCRETE	CY	52.20
EPOXY COATED REINFORCING STEEL	LB	6,810.00
PILES, FURNISHED (HP10x42)	LF	80.00
PILES, FURNISHED (HP12x53)	LF	339.00
PILES, DRIVEN (HP10x42)	LF	80.00
PILES, DRIVEN (HP12x53)	LF	339.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	84.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	55.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	112.00
OUTLET LATERAL HEADWALL	EA	1.00

ABUTMENT 1 BAR LIST

	MARK	NO.	SIZE	FORM	LENGTH	REMARKS
	PLAIN REINFORCING BARS					
	BH1	10	#9	STR.	55'-6"	
	BH2	2	#5	STR.	55'-6"	
	BH3	27	#4	BNT.	5'-1'	
(1)	BH4	7	#4	BNT.	59'-10"	
(1)	BH5	7	#4	STR.	58'-6"	
	BS1	88	#5	BNT.	12'-11"	
	BV1	55	#5	STR.	8'-4"	
	BV2	55	#4	STR.	8'-4"	
	BV3	8	#4	STR.	9'-5"	
	P1	30	#4	BNT.	5'-8"	
	P2	24	#4	BNT.	7'-0"	
	SC1	4	#4	BNT.	3'-3"	
	WH1	4	#5	BNT.	18'-6"	
(2)	WH2	28	#5	STR.	10'-2" AVG.	VARIES 5'-6" TO 14'-10"
	WH3	36	#5	STR.	17'-8"	
	WP1	6	#4	BNT.	8'-8"	
	WP2	8	#4	STR.	1'-7"	
	WT1	2	#5	BNT.	9'-2"	
(3)	WT2	6	#5	BNT.	9'-6" AVG.	VARIES 7'-0" TO 12'-0"
	WT3	10	#5	BNT.	17'-0"	
	WT4	22	#5	BNT.	11'-0"	
	WV1	8	#4	STR.	4'-0"	
(4)	WV2	30	#4	STR.	6'-10" AVG.	VARIES 4'-5" TO 9'-3"
	WV3	8	#4	STR.	3'-11"	
(4)	WV4	30	#4	STR.	6'-9" AVG.	VARIES 4'-4" TO 9'-2"

(1) LENGTH INCLUDES ONE (1) 3'-0" LAP SPLICE.
(2) FOUR (4) SETS OF SEVEN (7) BARS EACH.
(3) TWO (2) SETS OF THREE (3) BARS EACH.
(4) TWO (2) SETS OF FIFTEEN (15) BARS EACH.

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PRELIMINARY

BRIDGE "B"
NB US-81 OVER EW 140.5

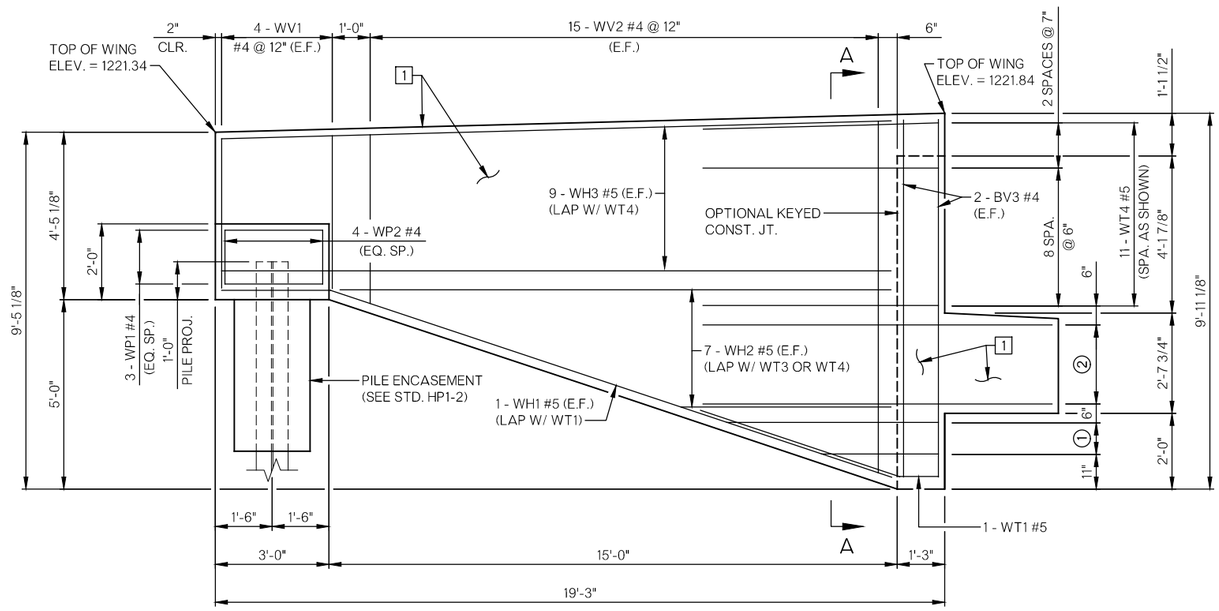
ABUTMENT 1 DETAILS (SHEET 2 OF 2)

℄ SURVEY US-81 STA. 113+66.44

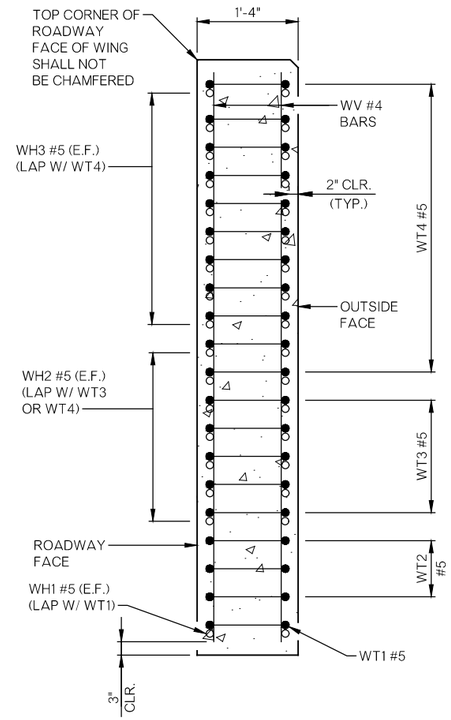
State Job No. 24428(13) Sheet No. B039

US-81 REALIGNMENT
GRADY COUNTY

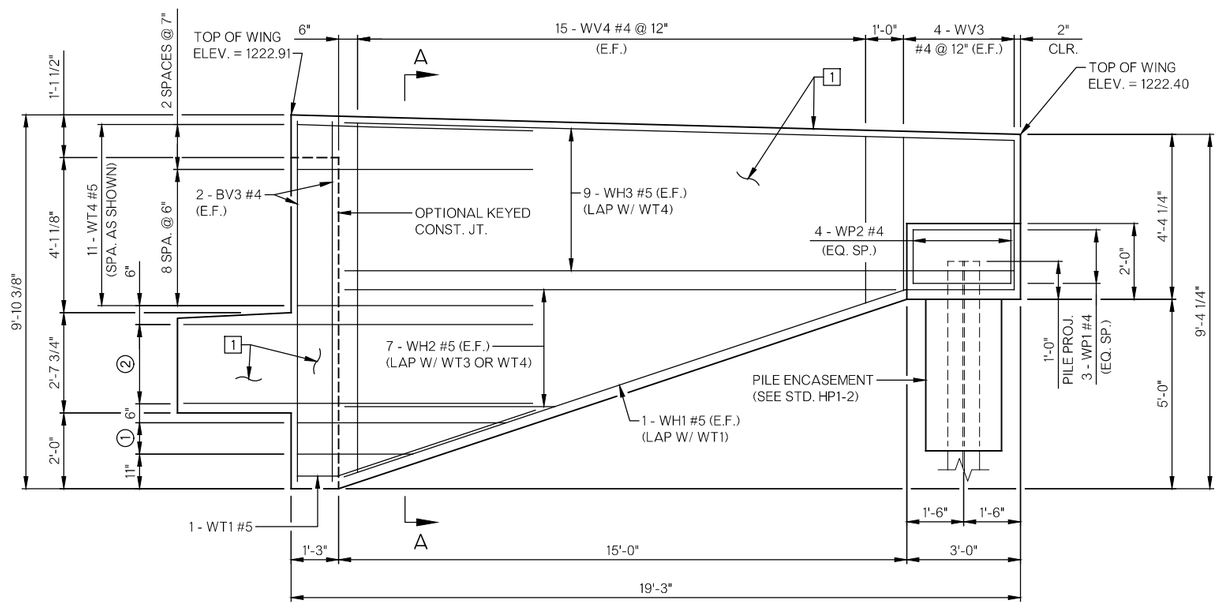
FINAL FIELD MEETING
JUNE 2020



EAST WING ELEVATION



SECTION A-A



WEST WING ELEVATION

NOTE
[1] TREAT ENDS OF THE BRIDGE SEAT AND ALL EXPOSED SURFACES OF WINGS WITH WATER REPELLENT SURFACE TREATMENT, ABOVE THE FINISHED GROUND LINE.

NOTES
E.F. = DENOTES EACH FACE

① 3 - WT2 #5 @ 6"

② 5 - WT3 #5 @ 6"

PRELIMINARY
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BRIDGE "B"
NB US-81 OVER EW 140.5

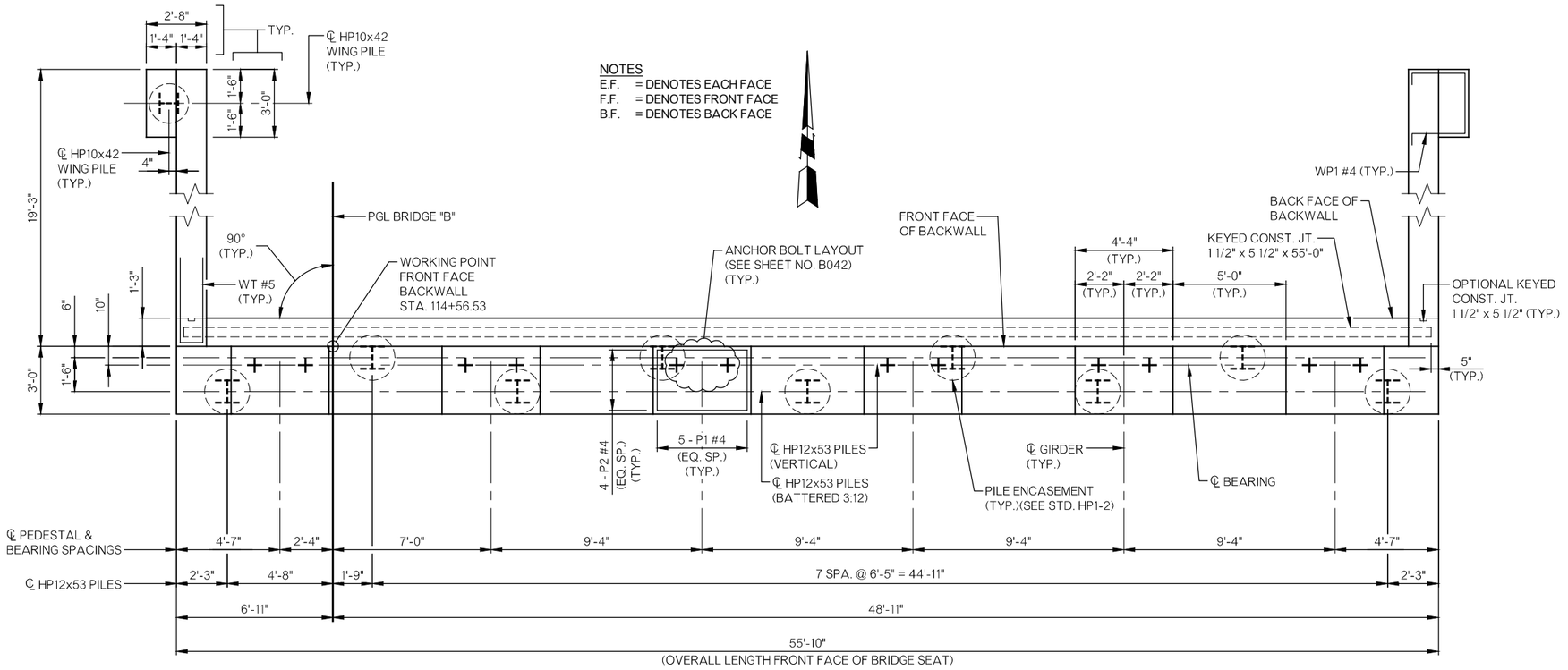
ABUTMENT 1 WINGWALL DETAILS

℄ SURVEY US-81 STA. 113+66.44

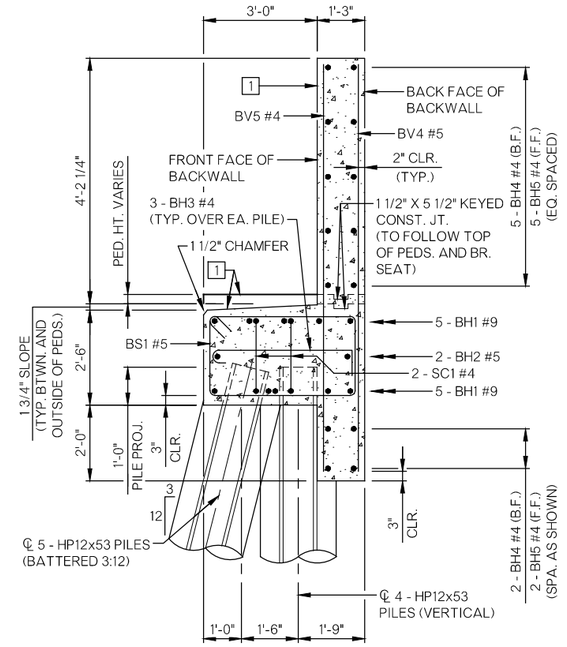
State Job No. 24428(13) Sheet No. B040

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



PLAN



SECTION THRU BRIDGE SEAT

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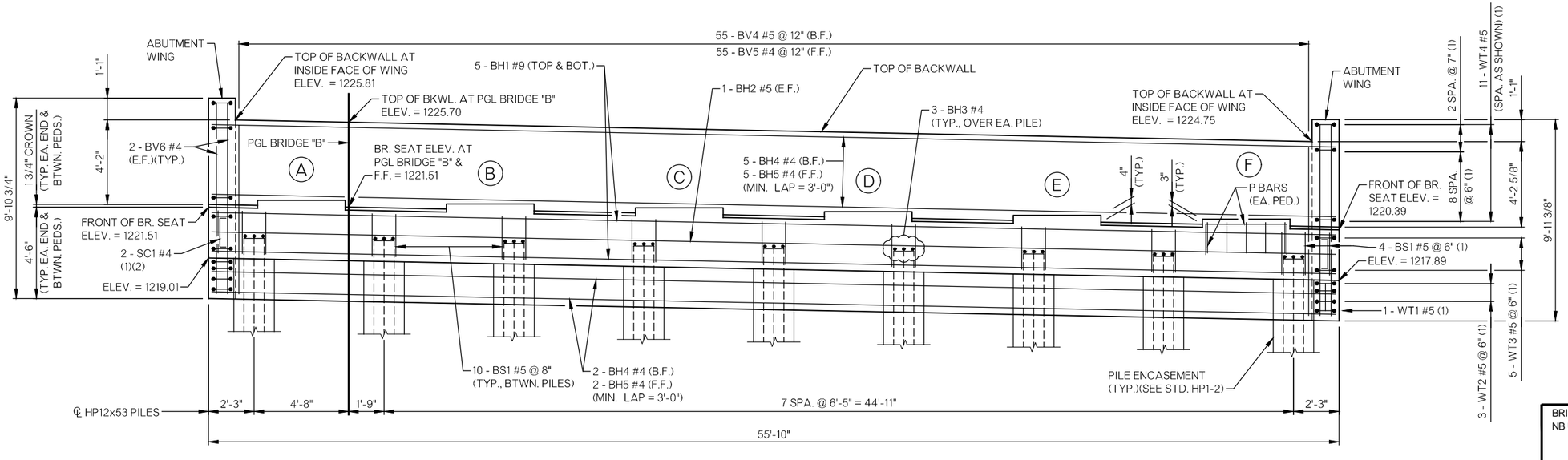
NOTE
[1] TREAT FRONT FACE OF BACKWALL, TOP OF ABUTMENT SEAT, AND ALL SURFACES OF PEDESTALS WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT. TREAT FRONT FACE OF ABUTMENT SEAT ABOVE THE FINISHED GROUND LINE WITH PENETRATING WATER REPELLENT SURFACE TREATMENT.



ELEVATION

NOTES
ALL REINFORCING STEEL BETWEEN BRIDGE SEAT AND/OR BACKWALL AND WINGS SHALL BE TIED IN PLACE PRIOR TO POURING BRIDGE SEAT AND BACKWALL (WT BARS).

FOR ADDITIONAL ABUTMENT 1 DETAILS, SEE SHEET NO. B042.

FOR WING DETAILS, SEE SHEET NO. B043.

ALL EDGES OF THE ABUTMENT AND WINGS SHALL HAVE A 3/4" CHAMFER, UNLESS OTHERWISE SHOWN.

FOR SUBSTRUCTURE STAKING DIAGRAM, SEE SHEET NO. B037.

(1) TYPICAL EACH END.

(2) PLACE AS SHOWN ON "SECTION THRU BRIDGE SEAT".

SCHEDULE OF PEDESTAL ELEVATIONS	
PEDESTAL	ELEVATION
A	1221.85
B	1221.66
C	1221.48
D	1221.29
E	1221.10
F	1220.92

BRIDGE "B"
NB US-81 OVER EW 140.5

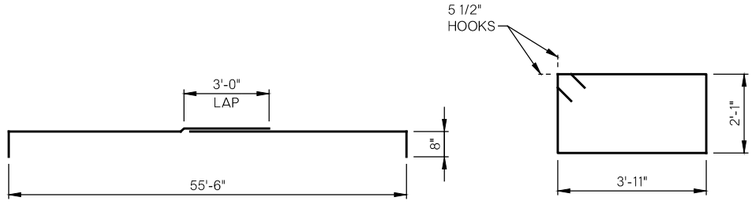
ABUTMENT 2 DETAILS (SHEET 1 OF 2)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B041

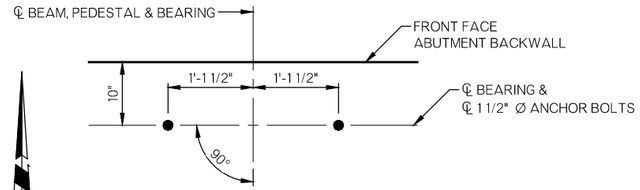
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

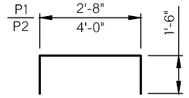


BH4 #4 x 59'-10"

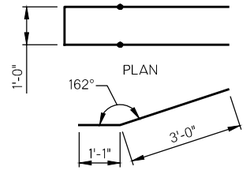
BS1 #5 x 12'-11"



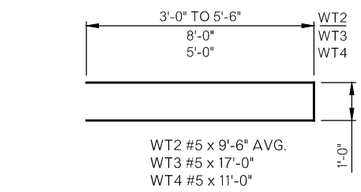
TYPICAL ANCHOR BOLT LAYOUT



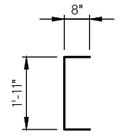
P1 #4 x 5'-8"
P2 #4 x 7'-0"



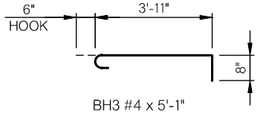
WT1 #5 x 9'-2"



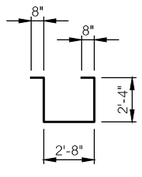
WT2 #5 x 9'-6" AVG.
WT3 #5 x 17'-0"
WT4 #5 x 11'-0"



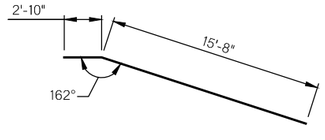
SC1 #4 x 3'-3"



BH3 #4 x 5'-1"



WP1 #4 x 8'-8"



WH1 #5 x 18'-6"

BAR BEND DETAILS

ABUTMENT 2 QUANTITIES

ITEM	UNITS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	96.00
CLSM BACKFILL	CY	132.00
CLASS A CONCRETE	CY	53.20
EPOXY COATED REINFORCING STEEL	LB	6,840.00
PILES, FURNISHED (HP10x42)	LF	78.00
PILES, FURNISHED (HP12x53)	LF	330.00
PILES, DRIVEN (HP10x42)	LF	78.00
PILES, DRIVEN (HP12x53)	LF	330.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	85.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	55.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	112.00
OUTLET LATERAL HEADWALL	EA	1.00

ABUTMENT 2 BAR LIST

	MARK	NO.	SIZE	FORM	LENGTH	REMARKS
	PLAIN REINFORCING BARS					
	BH1	10	#9	STR.	55'-6"	
	BH2	2	#5	STR.	55'-6"	
	BH3	27	#4	BNT.	5'-1"	
(1)	BH4	7	#4	BNT.	59'-10"	
(1)	BH5	7	#4	STR.	58'-6"	
	BS1	88	#5	BNT.	12'-11"	
	BV4	55	#5	STR.	8'-5"	
	BV5	55	#4	STR.	8'-5"	
	BV6	8	#4	STR.	9'-5"	
	P1	30	#4	BNT.	5'-8"	
	P2	24	#4	BNT.	7'-0"	
	SC1	4	#4	BNT.	3'-3"	
	WH1	4	#5	BNT.	18'-6"	
(2)	WH2	28	#5	STR.	10'-2" AVG.	VARIES 5'-6" TO 14'-10"
	WH3	36	#5	STR.	17'-8"	
	WP1	6	#4	BNT.	8'-8"	
	WP2	8	#4	STR.	1'-7"	
	WT1	2	#5	BNT.	9'-2"	
(3)	WT2	6	#5	BNT.	9'-6" AVG.	VARIES 7'-0" TO 12'-0"
	WT3	10	#5	BNT.	17'-0"	
	WT4	22	#5	BNT.	11'-0"	
	WV5	8	#4	STR.	4'-10"	
(4)	WV6	30	#4	STR.	7'-3" AVG.	VARIES 5'-2" TO 9'-4"
	WV7	8	#4	STR.	4'-9"	
(4)	WV8	30	#4	STR.	7'-2" AVG.	VARIES 5'-1" TO 9'-3"

(1) LENGTH INCLUDES ONE (1) 3'-0" LAP SPLICE.
(2) FOUR (4) SETS OF SEVEN (7) BARS EACH.
(3) TWO (2) SETS OF THREE (3) BARS EACH.
(4) TWO (2) SETS OF FIFTEEN (15) BARS EACH.

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

BRIDGE "B"
NB US-81 OVER EW 140.5

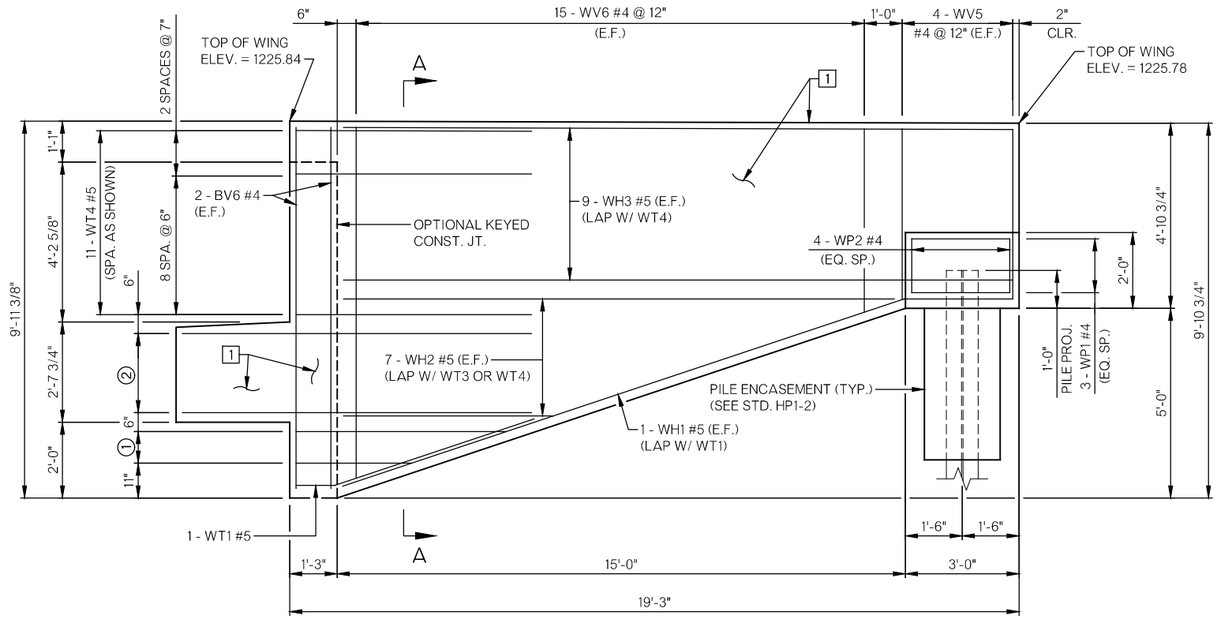
ABUTMENT 2 DETAILS (SHEET 2 OF 2)

℄ SURVEY US-81 STA. 113+66.44

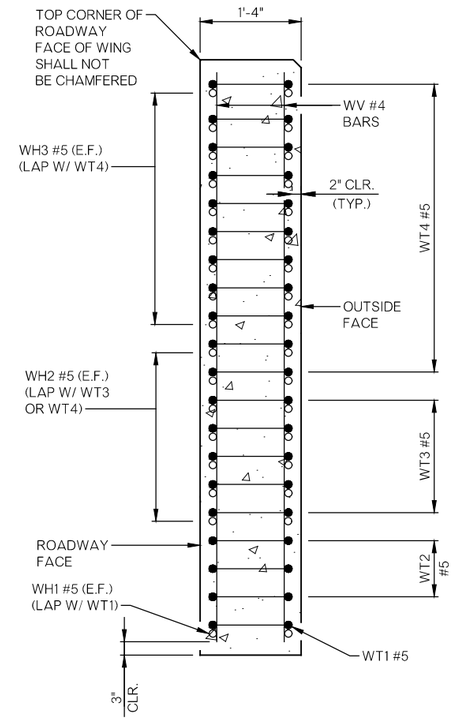
State Job No. 24428(13) Sheet No. B042

US-81 REALIGNMENT
GRADY COUNTY

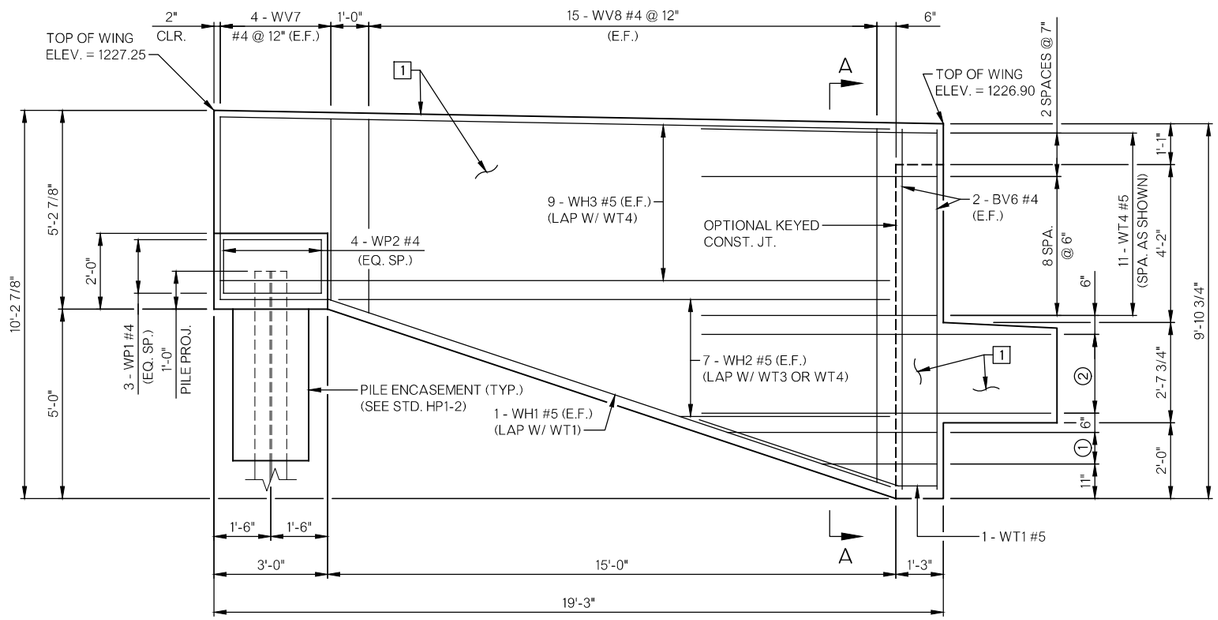
FINAL FIELD MEETING
JUNE 2020



EAST WING ELEVATION



SECTION A-A



WEST WING ELEVATION

NOTE
[1] TREAT ENDS OF THE BRIDGE SEAT AND ALL EXPOSED SURFACES OF WINGS WITH WATER REPELLENT SURFACE TREATMENT, ABOVE THE FINISHED GROUND LINE.

NOTES
E.F. = DENOTES EACH FACE

① 3 - WT2 #5 @ 6"

② 5 - WT3 #5 @ 6"

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

BRIDGE "B"
NB US-81 OVER EW 140.5

ABUTMENT 2 WINGWALL DETAILS

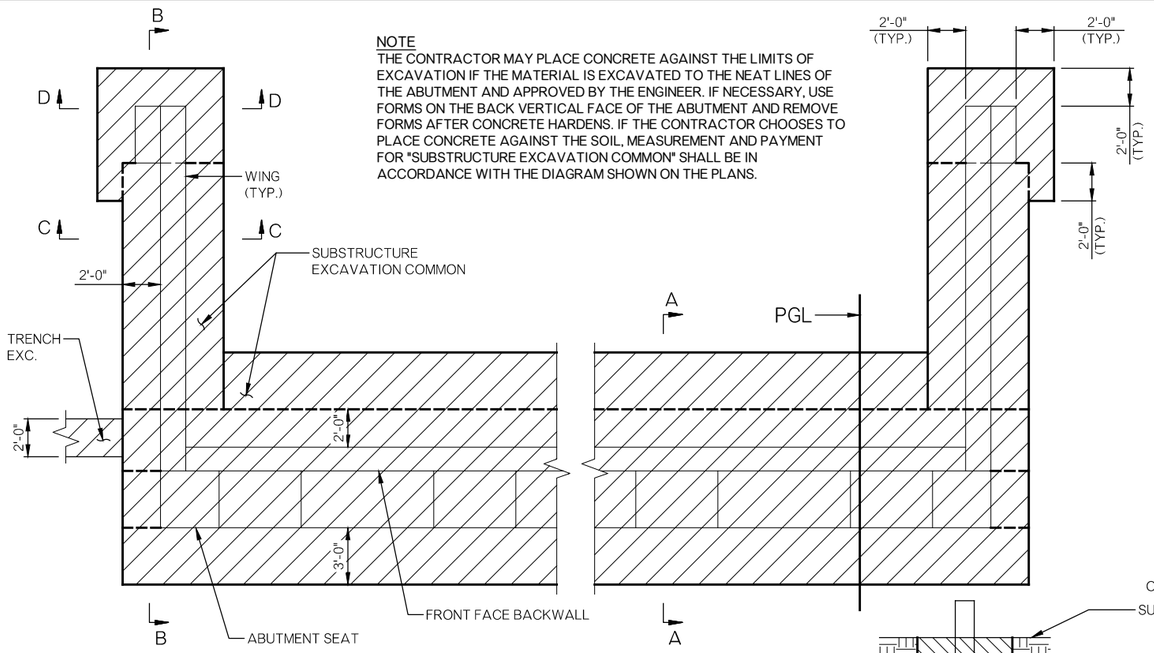
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B043

US-81 REALIGNMENT
GRADY COUNTY

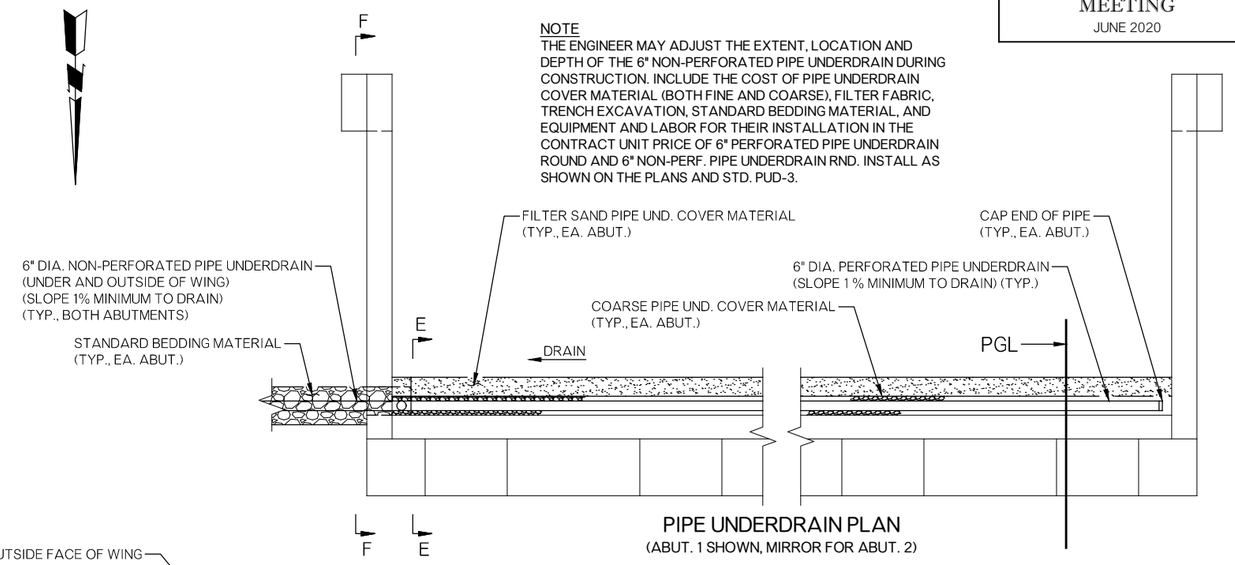
FINAL FIELD MEETING
JUNE 2020

NOTE
THE CONTRACTOR MAY PLACE CONCRETE AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE ABUTMENT AND APPROVED BY THE ENGINEER. IF NECESSARY, USE FORMS ON THE BACK VERTICAL FACE OF THE ABUTMENT AND REMOVE FORMS AFTER CONCRETE HARDENS. IF THE CONTRACTOR CHOOSES TO PLACE CONCRETE AGAINST THE SOIL, MEASUREMENT AND PAYMENT FOR "SUBSTRUCTURE EXCAVATION COMMON" SHALL BE IN ACCORDANCE WITH THE DIAGRAM SHOWN ON THE PLANS.



ABUTMENT EXCAVATION PLAN
(ABUT. 1 SHOWN, MIRROR FOR ABUT. 2)

NOTE
THE ENGINEER MAY ADJUST THE EXTENT, LOCATION AND DEPTH OF THE 6" NON-PERFORATED PIPE UNDERDRAIN DURING CONSTRUCTION. INCLUDE THE COST OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION IN THE CONTRACT UNIT PRICE OF 6" PERFORATED PIPE UNDERDRAIN ROUND AND 6" NON-PERF. PIPE UNDERDRAIN RND. INSTALL AS SHOWN ON THE PLANS AND STD. PUD-3.



PIPE UNDERDRAIN PLAN
(ABUT. 1 SHOWN, MIRROR FOR ABUT. 2)

PRELIMINARY
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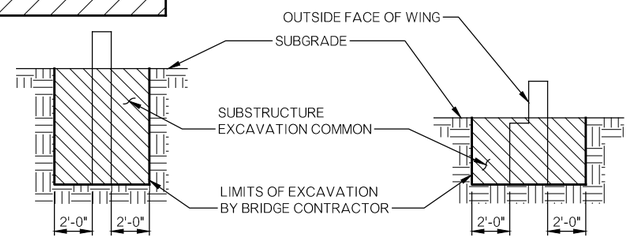
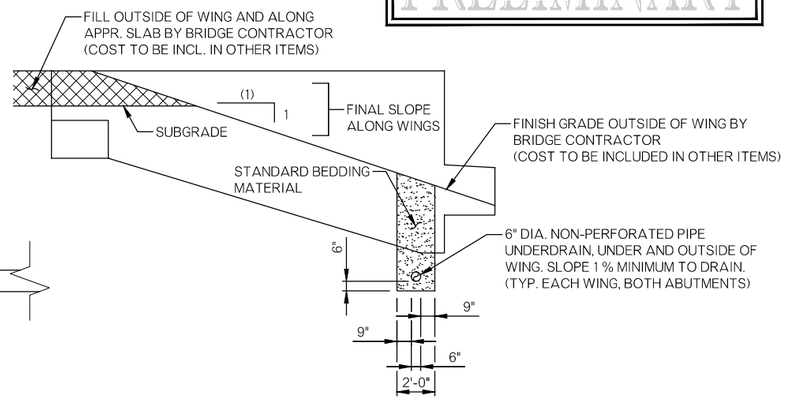
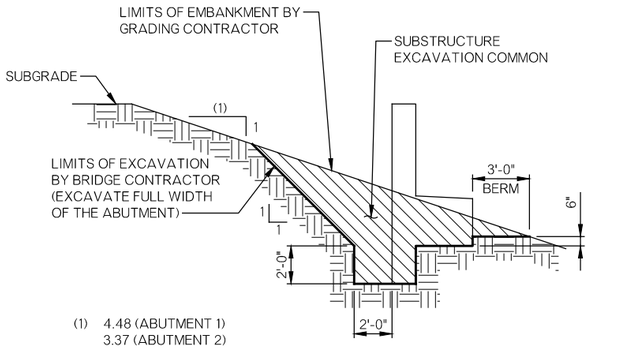


SECTION C-C

SECTION D-D

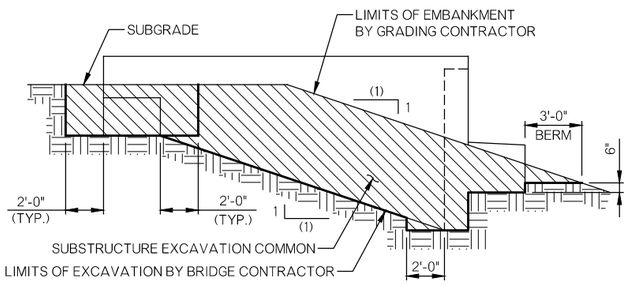


SECTION F-F

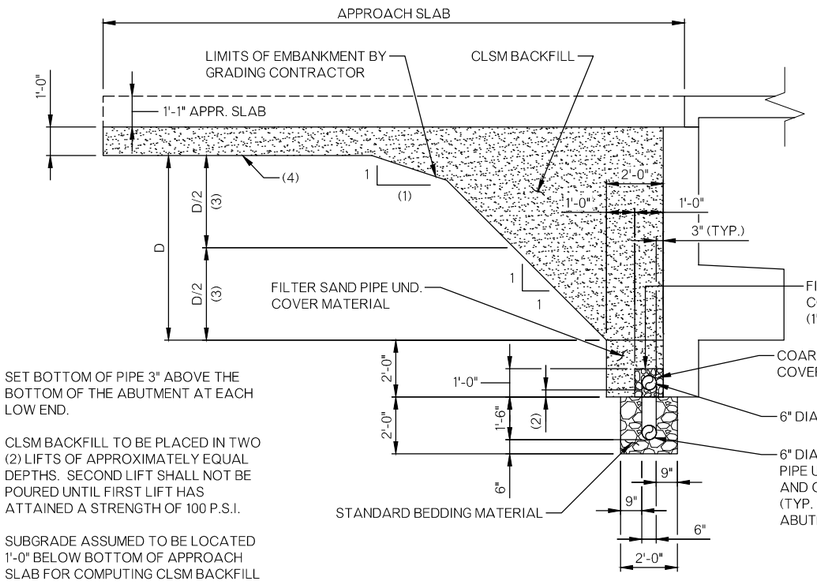


(1) 4.48 (ABUTMENT 1)
3.37 (ABUTMENT 2)
(ALONG PGL BRIDGE "B")

SECTION A-A



SECTION B-B



(2) SET BOTTOM OF PIPE 3" ABOVE THE BOTTOM OF THE ABUTMENT AT EACH LOW END.

(3) CLSM BACKFILL TO BE PLACED IN TWO (2) LIFTS OF APPROXIMATELY EQUAL DEPTHS. SECOND LIFT SHALL NOT BE POURED UNTIL FIRST LIFT HAS ATTAINED A STRENGTH OF 100 P.S.I.

(4) SUBGRADE ASSUMED TO BE LOCATED 1'-0" BELOW BOTTOM OF APPROACH SLAB FOR COMPUTING CLSM BACKFILL QUANTITY. THE DEPARTMENT WILL PAY FOR CLSM BACKFILL IN ACCORDANCE WITH THE PLAN AND NO ADJUSTMENT WILL BE MADE FOR ACTUAL LOCATION OF SUBGRADE.

SECTION E-E

NOTES
DO NOT PLACE CLSM BACKFILL UNTIL SUPERSTRUCTURE IS IN PLACE AND THE ABUTMENT WING CONCRETE HAS ATTAINED A STRENGTH OF 3000 PSI.

THE OUTSIDE FACES OF THE WINGS SHALL BE BACKFILLED TO THE ORIGINAL EMBANKMENT LIMITS (MIN.), PRIOR TO PLACING CLSM BACKFILL.

NOTE
FOR DETAILS OF PIPE UNDERDRAIN NOT SHOWN, SEE STD. PUD-3.

BRIDGE "B"
NB US-81 OVER EW 140.5

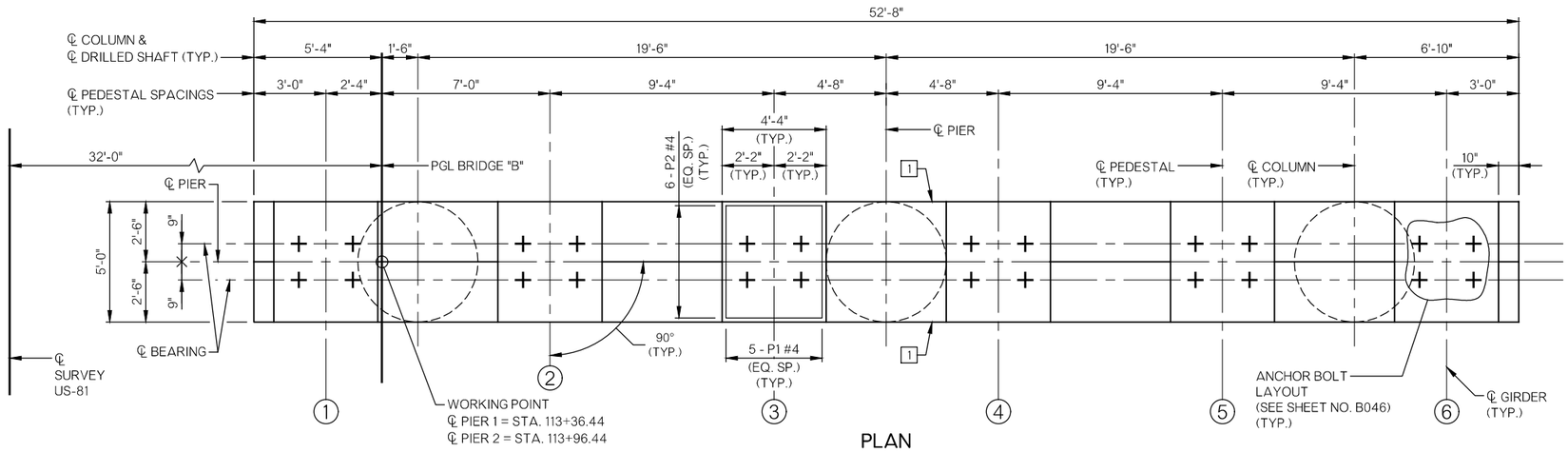
SUBSTRUCTURE EXCAVATION AND PIPE UNDERDRAIN ASSEMBLY DETAILS

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B044

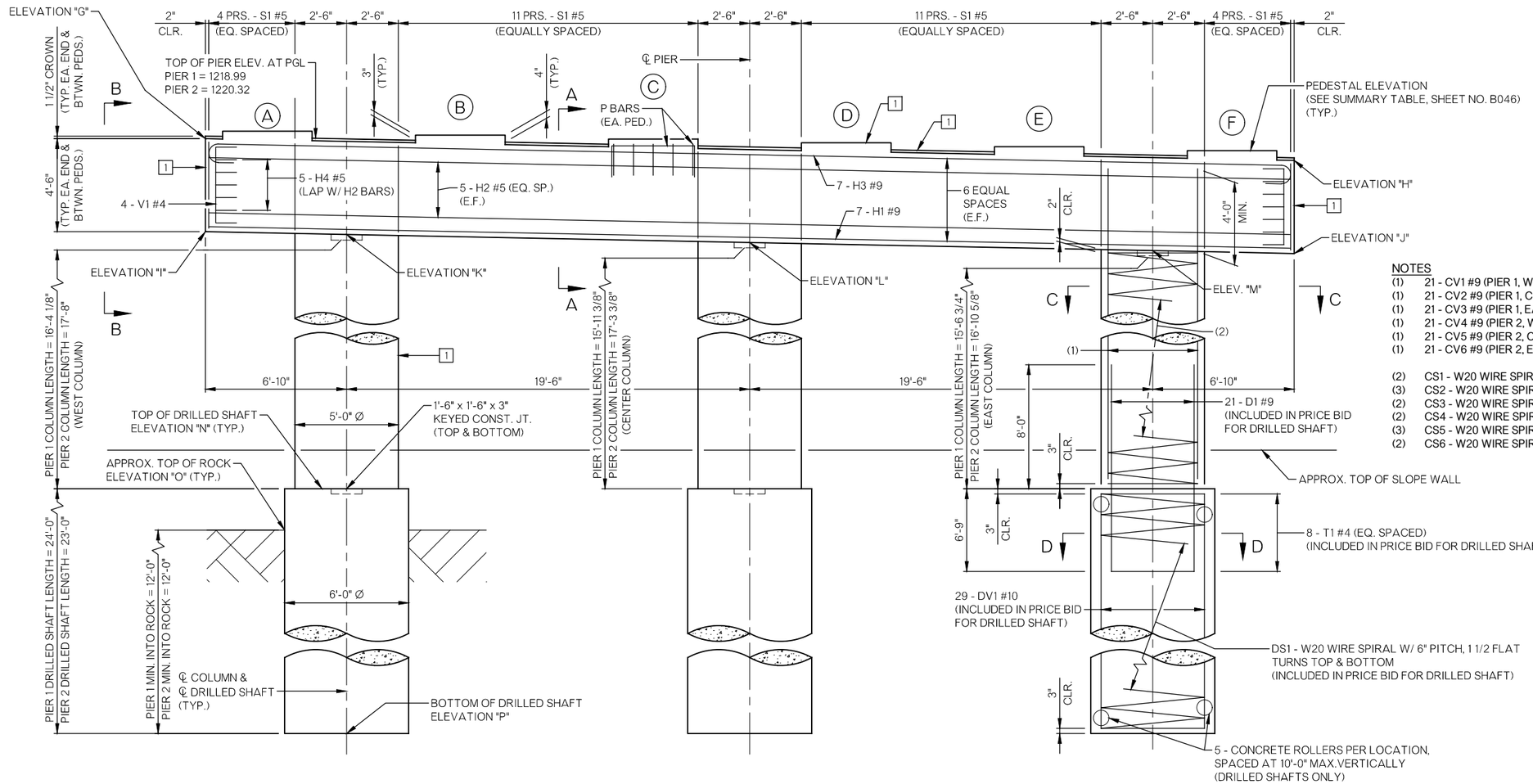
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



PLAN

NOTE
1 TREAT TOP OF PIER CAP, INCLUDING ALL SURFACES OF PEDESTALS, ALL VERTICAL FACES OF THE PIER CAP AND ALL SURFACES OF THE COLUMNS ABOVE THE TOP OF SLOPE WALL, WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.



NOTES
E.F. = DENOTES EACH FACE

FOR SECTION VIEWS, BAR BEND DETAILS, BAR LISTS, QUANTITIES, AND SPIRAL DETAILS, SEE SHEET NOS. B046 AND B047.

ALL EDGES OF THE PIER CAP SHALL HAVE A 1 1/2" CHAMFER, EXCEPT FOR EDGES OF PEDESTALS, WHICH HAVE A 3/4" CHAMFERS.

NOTES
(1) 21 - CV1 #9 (PIER 1, WEST COLUMN)
(1) 21 - CV2 #9 (PIER 1, CENTER COLUMN)
(1) 21 - CV3 #9 (PIER 1, EAST COLUMN)
(1) 21 - CV4 #9 (PIER 2, WEST COLUMN)
(1) 21 - CV5 #9 (PIER 2, CENTER COLUMN)
(1) 21 - CV6 #9 (PIER 2, EAST COLUMN)

(2) CS1 - W20 WIRE SPIRAL W/ 5" PITCH, 1 1/2 FLAT TURNS TOP & BOTTOM (PIER 1, WEST COLUMN)
(3) CS2 - W20 WIRE SPIRAL W/ 5" PITCH, 1 1/2 FLAT TURNS TOP & BOTTOM (PIER 1, CENTER COLUMN)
(2) CS3 - W20 WIRE SPIRAL W/ 5" PITCH, 1 1/2 FLAT TURNS TOP & BOTTOM (PIER 1, EAST COLUMN)
(2) CS4 - W20 WIRE SPIRAL W/ 5" PITCH, 1 1/2 FLAT TURNS TOP & BOTTOM (PIER 2, WEST COLUMN)
(3) CS5 - W20 WIRE SPIRAL W/ 5" PITCH, 1 1/2 FLAT TURNS TOP & BOTTOM (PIER 2, CENTER COLUMN)
(2) CS6 - W20 WIRE SPIRAL W/ 5" PITCH, 1 1/2 FLAT TURNS TOP & BOTTOM (PIER 2, EAST COLUMN)

(TYPICAL COLUMN/DRILLED SHAFT SIZES, DIMENSIONS AND DETAILS, UNLESS OTHERWISE SHOWN)

(TYPICAL COLUMN/DRILLED SHAFT REINFORCING DETAILS)

ELEVATION

PRELIMINARY
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BRIDGE "B"
NB US-81 OVER EW 140.5

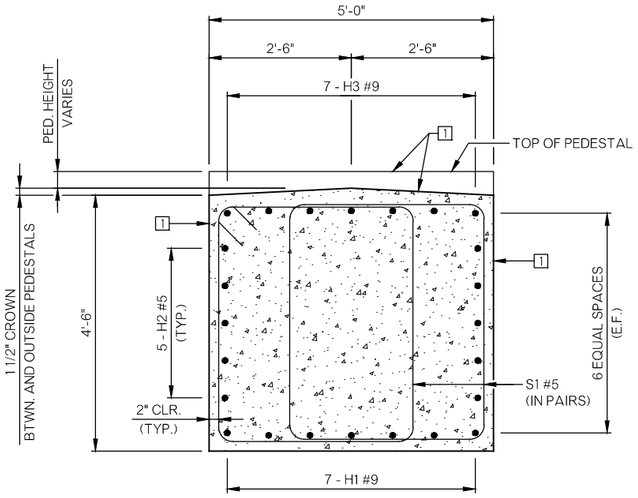
PIER DETAILS (SHEET 1 OF 3)

℄ SURVEY US-81 STA. 113+66.44

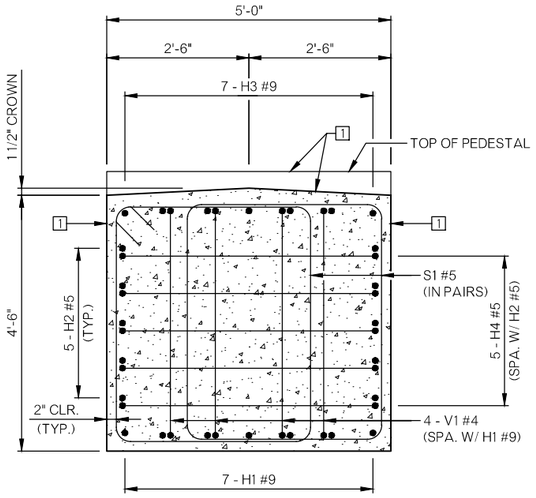
State Job No. 24428(13) Sheet No. B045

US-81 REALIGNMENT
GRADY COUNTY

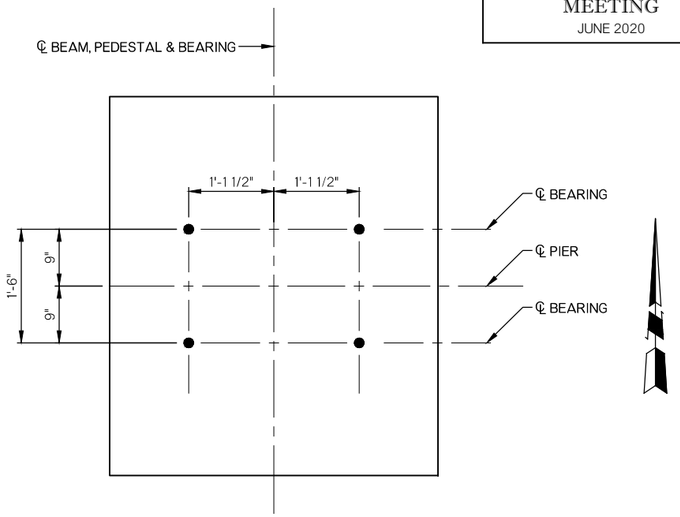
FINAL FIELD MEETING
JUNE 2020



SECTION A-A

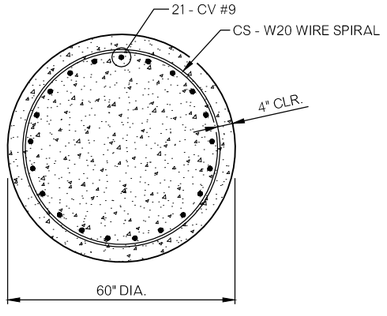


VIEW B-B
(TYP. EACH END OF CAP)
(FOR DETAILS NOT SHOWN, SEE SECTION A-A.)

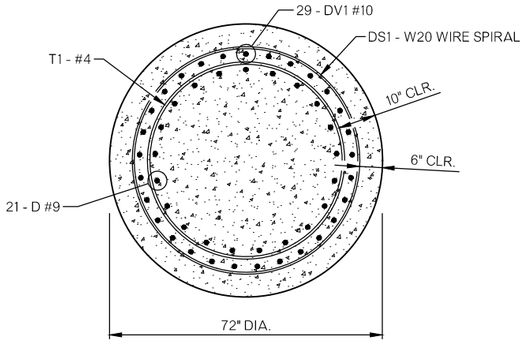


TYPICAL ANCHOR BOLT LAYOUT

NOTE
ALL EDGES OF PIER CAP SHALL HAVE A 1 1/2" CHAMFER EXCEPT FOR PEDESTAL EDGES WHICH SHALL HAVE A 3/4" CHAMFER.



SECTION C-C



SECTION D-D

NOTE
E.F. = DENOTES EACH FACE

NOTE
[1] TREAT TOP OF PIER CAP, INCLUDING ALL SURFACES OF PEDESTALS, ALL VERTICAL FACES OF THE PIER CAP AND ALL SURFACES OF THE COLUMNS ABOVE THE FINAL GROUND SURFACE, WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

NOTE
FOR BAR BEND DETAILS, BAR LISTS, QUANTITIES, AND SPIRAL REINFORCING AND CONCRETE ROLLER DETAILS, SEE SHEET NO. B047.

SUMMARY OF STATIONS, DIMENSIONS AND ELEVATIONS FOR PIERS

LOCATION	WORKING POINT STATION AT ℄ PIER	TOP OF PEDESTAL					
		A	B	C	D	E	F
PIER 1	113+36.44	1219.33	1219.14	1218.96	1218.77	1218.58	1218.40
PIER 2	113+96.44	1220.66	1220.48	1220.29	1220.10	1219.92	1219.73

SUMMARY OF STATIONS, DIMENSIONS AND ELEVATIONS FOR PIERS - CONT'D.

LOCATION	TOP OF PIER CAP		BOTTOM OF PIER CAP		TOP OF COLUMN		
	G	H	I	J	K	L	M
PIER 1	1218.98	1217.92	1214.48	1213.42	1214.34	1213.95	1213.56
PIER 2	1220.31	1219.25	1215.81	1214.75	1215.67	1215.28	1214.89

SUMMARY OF STATIONS, DIMENSIONS AND ELEVATIONS FOR PIERS - CONT'D.

LOCATION	TOP OF DRILLED SHAFT	EST. TOP OF ROCK	BOTTOM OF DRILLED SHAFT
	N	O	P
PIER 1	1198.00	1186.60	1174.00
PIER 2	1198.00	1187.62	1175.00

PRELIMINARY
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BRIDGE "B"
NB US-81 OVER EW 140.5

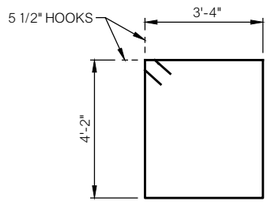
PIER DETAILS (SHEET 2 OF 3)

℄ SURVEY US-81 STA. 113+66.44

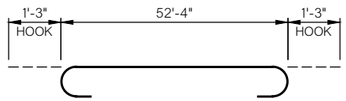
State Job No. 24428(13) Sheet No. B046

US-81 REALIGNMENT
GRADY COUNTY

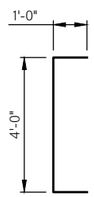
FINAL FIELD MEETING
JUNE 2020



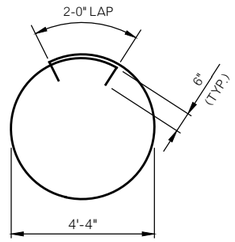
S1 #5 x 15'-11"



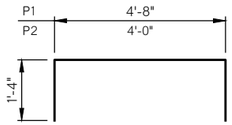
H3 #9 x 54'-10"



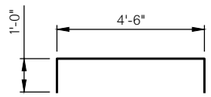
V1 #4 x 6'-0"



T1 #4 x 16'-8"

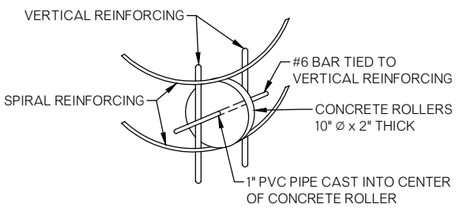


P1 #4 x 7'-4"
P2 #4 x 6'-8"

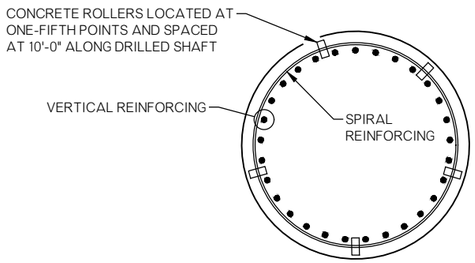


H4 #5 x 6'-6"

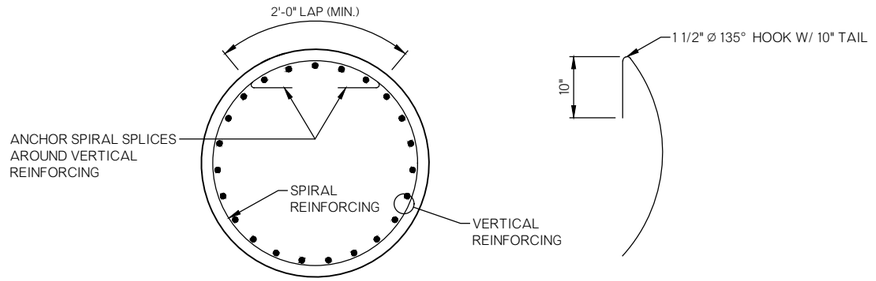
BAR BEND DETAILS



ROLLER INSTALLATION DETAIL



ROLLER PLACEMENT DETAIL



SPIRAL REINFORCING SPLICE DETAIL

NOTES
SPIRAL BARS SHALL CONFORM TO AASHTO M32. SPIRAL BAR LENGTH DOES NOT INCLUDE LAPS. IF LAPS ARE REQUIRED, THE LENGTH OF THE LAP SHALL BE 2'-0" WITH 10" HOOKS.

CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.

PLASTIC ROLLERS MAY BE SUBSTITUTED FOR THE CONCRETE ROLLERS IN ACCORDANCE WITH THE SPECIAL PROVISIONS FOR DRILLED SHAFT FOUNDATIONS.

ALL MATERIALS, LABOR, AND INCIDENTALS REQUIRED FOR THE INSTALLATION OF THE CONCRETE ROLLERS SHALL BE INCLUDED IN PRICE BID PER LINEAR FOOT OF "DRILLED SHAFTS 72" DIAMETER".

PIER 1 BAR LIST				
MARK	NO.	SIZE	FORM	LENGTH
(EPOXY COATED)				
CV1	21	#9	STR.	20'-2"
CV2	21	#9	STR.	19'-9"
CV3	21	#9	STR.	19'-4"
H1	7	#9	STR.	52'-4"
H2	10	#5	STR.	52'-4"
H3	7	#9	BNT.	54'-10"
H4	10	#5	BNT.	6'-6"
P1	30	#4	BNT.	7'-4"
P2	36	#4	BNT.	6'-8"
S1	60	#5	BNT.	15'-11"
V1	8	#4	BNT.	6'-0"
(NON-EPOXY COATED)				
CS1	1	W20	SPIRAL	572'-0"
CS2	1	W20	SPIRAL	559'-0"
CS3	1	W20	SPIRAL	546'-0"
PIER 1 DRILLED SHAFTS				
(EPOXY COATED)				
(1) D1	63	#9	STR.	14'-9'
(1) DV1	87	#10	STR.	23'-6"
(1) T1	24	#4	BNT.	16'-8"
(NON-EPOXY COATED)				
(1) DS1	3	W20	SPIRAL	797'-0"

PIER 2 BAR LIST				
MARK	NO.	SIZE	FORM	LENGTH
(EPOXY COATED)				
CV4	21	#9	STR.	21'-6"
CV5	21	#9	STR.	21'-1"
CV6	21	#9	STR.	20'-8"
H1	7	#9	STR.	52'-4"
H2	10	#5	STR.	52'-4"
H3	7	#9	BNT.	54'-10"
H4	10	#5	BNT.	6'-6"
P1	30	#4	BNT.	7'-4"
P2	36	#4	BNT.	6'-8"
S1	60	#5	BNT.	15'-11"
V1	8	#4	BNT.	6'-0"
(NON-EPOXY COATED)				
CS4	1	W20	SPIRAL	615'-0"
CS5	1	W20	SPIRAL	602'-0"
CS6	1	W20	SPIRAL	589'-0"
PIER 2 DRILLED SHAFTS				
(EPOXY COATED)				
(1) D1	63	#9	STR.	14'-9'
(1) DV1	87	#10	STR.	22'-6"
(1) T1	24	#4	BNT.	16'-8"
(NON-EPOXY COATED)				
(1) DS1	3	W20	SPIRAL	766'-0"

PIER QUANTITIES				
ITEM	UNITS	PIER 1	PIER 2	TOTAL
CLASS A CONCRETE	CY	80.50	83.40	163.90
REINFORCING STEEL	LB	1,160.00	1,240.00	2,400.00
EPOXY COATED REINFORCING STEEL	LB	8,740.00	9,020.00	17,760.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	175.40	182.40	357.80
DRILLED SHAFTS 72" DIAMETER	LF	72.00	69.00	141.00
CROSSHOLE SONIC LOGGING	EA	1.00	0.00	1.00

NOTE
(1) INCLUDED IN PRICE BID PER L.F. OF DRILLED SHAFT.

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

BRIDGE "B"
NB US-81 OVER EW 140.5

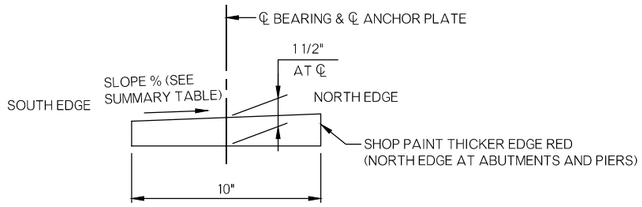
PIER DETAILS
(SHEET 3 OF 3)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B047

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

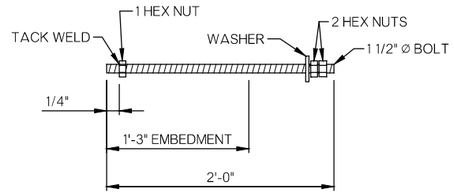


BEVELED ANCHOR PLATE DETAIL

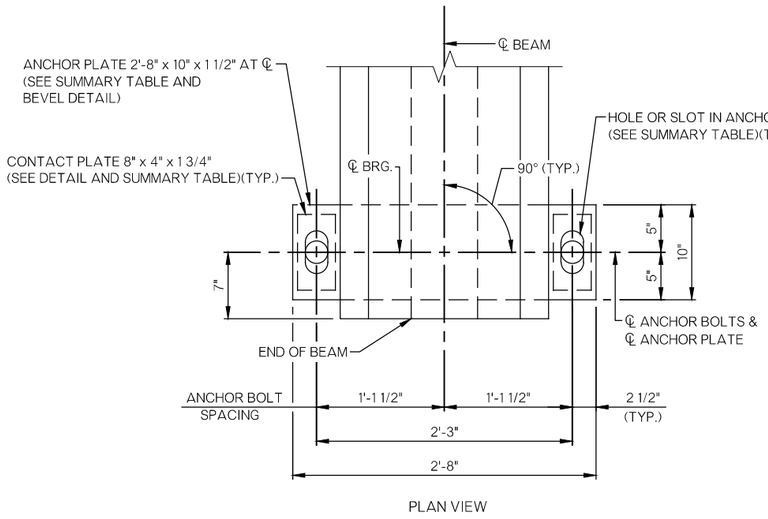
NOTES
BEFORE ANCHOR PLATES ARE SHIPPED TO THE FIELD, THE THICKER EDGE SHALL BE PAINTED RED.

THE CONTRACTOR SHALL EXERCISE CARE IN THE PLACEMENT OF THE ANCHOR PLATES. THE THICKER EDGE OF ALL PLATES AT ABUTMENTS AND PIERS SHALL FACE NORTH.

SUMMARY OF ANCHOR PLATE SLOPES		
LOCATION		ANCHOR PLATE SLOPE (%)
ABUT. 1	SPAN 1	+2.57%
PIER 1	SPAN 1	+2.34%
	SPAN 2	+2.34%
PIER 2	SPAN 2	+2.10%
	SPAN 3	+2.10%
ABUT. 2	SPAN 3	+1.86%

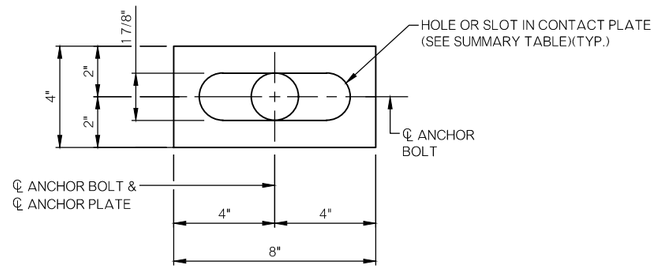


ANCHOR BOLT DETAIL



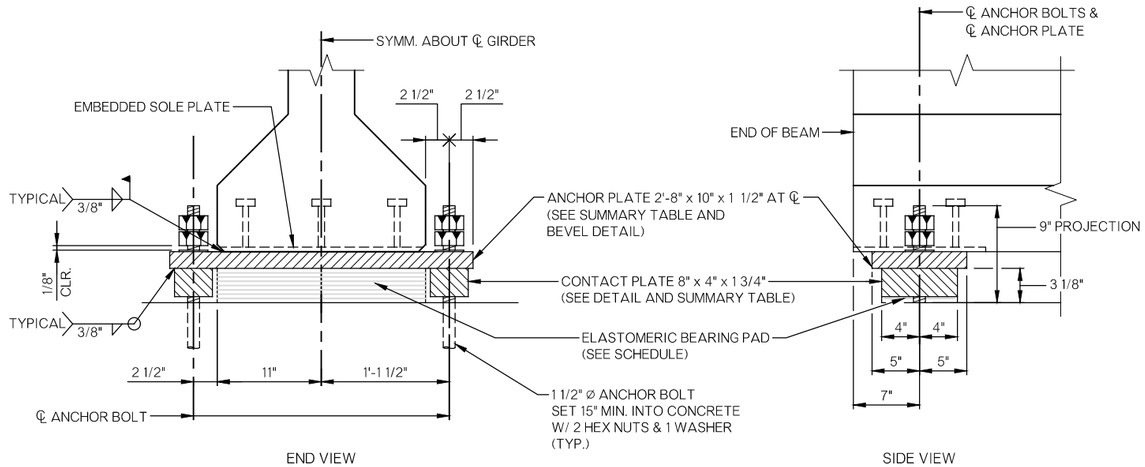
PLAN VIEW

BEARING PAD SCHEDULE ALL SPANS (DURO 60) (36 REQ'D.)
SIZE - 7" x 1'-10" x 3 1/8" WITH
6 - 1/8" STEEL LAMINATES
2 - 1/4" EXTERIOR ELASTOMER LAYERS
5 - 3/8" INTERIOR ELASTOMER LAYERS



DETAIL OF CONTACT PLATE
(1 3/4" THICK CONTACT PLATE)

SUMMARY OF DIMENSIONS FOR HOLES & SLOTS		
LOCATION	IN ANCHOR PLATE	IN CONTACT PLATE
FIXED BEARING	2 3/8" ø HOLE	1 7/8" ø HOLE
EXPANSION OR CONTINUOUS BEARING	2 3/8" x 5" SLOT	1 7/8" x 4 1/2" SLOT



BEARING ASSEMBLY DETAILS

NOTES
BEARING ASSEMBLIES SHALL BE IN ACCORDANCE WITH SECTION 507 OF THE STANDARD SPECIFICATIONS, AND PER THE ANSI/AWS D1.6 STRUCTURAL WELDING CODE FOR STAINLESS STEEL, AS APPLICABLE, UNLESS NOTED OTHERWISE.

PROVIDE STRUCTURAL STEEL FOR ANCHOR PLATES AND CONTACT PLATES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL, TYPE 316 OR 316L, CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316 OR 316L, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M, AND ASTM A320, TYPE 316 OR 316L, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL.

ANCHOR PLATES FOR BEARING ASSEMBLIES SHALL BE MATCH-MARKED, SHIPPED LOOSE, AND FIELD WELDED TO THE EMBEDDED SOLE PLATE IN ORDER THAT MINOR HORIZONTAL ADJUSTMENT OF THE BEARING LOCATION MAY BE MADE IF NECESSARY.

METAL USED IN FIELD WELDS WILL NOT BE MEASURED FOR PAYMENT.

ALL BEARING PADS SHALL BE CENTERED BETWEEN ANCHOR BOLTS.

AT THE TIME OF SETTING THE BEARING ASSEMBLIES AT THE PIERS, THE SLOT IN THE ANCHOR PLATES SHALL BE CENTERED ON THE ANCHOR BOLTS.

THE DIMENSION FROM THE END OF THE BEAM TO THE CENTERLINE OF THE ANCHOR BOLTS MAY VARY FROM THAT SHOWN, DEPENDING ON THE SETTING TEMPERATURE.

BONDING BETWEEN THE ANCHOR PLATE AND BEARING PAD WILL NOT BE REQUIRED.

PRELIMINARY

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BRIDGE "B"
NB US-81 OVER EW 140.5

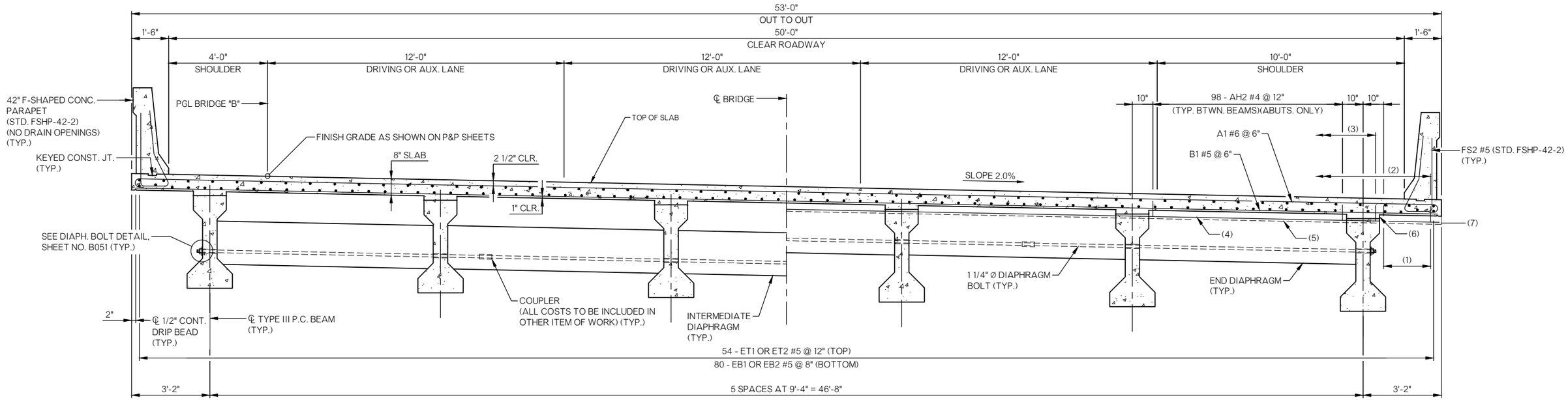
BEARING DETAILS

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B048

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



HALF SECTION AT INTERMEDIATE DIAPHRAGM

TYPICAL CROSS SECTION

HALF SECTION AT ABUTMENTS AND PIERS DIAPHRAGM

NOTE
ROTATE A1 BARS TO ENSURE MINIMUM CLEARANCE IS MET FOR TOP & BOTTOM OF HOOKS.

NOTE
DO NOT PLACE THE CONCRETE FOR THE BRIDGE SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE DIAPHRAGMS HAVE BEEN IN PLACE A MINIMUM OF 10 DAYS, OR AT THE DISCRETION OF THE ENGINEER. THE ENGINEER MAY APPROVE SHORTENING TIME IF THE BEAM AND DIAPHRAGM CONCRETE HAS ATTAINED 80% OF THE SPECIFIC COMPRESSIVE STRENGTH.

NOTES
(1) 4 - AH1 #4 @ 12" (TYP. ABUT. CANTILEVERS).

(2) 54 - EPH1 #4 @ 12" PIER 2 ONLY) (EA. SIDE OF EXP. JT.).

(3) 49 - FPH1 #4 @ 12" (PIER 1 ONLY).

(4) 1 - FPT1 #4 (CONT.)(PIER 1 ONLY)(EA. SIDE OF CONST. JT.)
1 - EPT1 #4 (CONT.)(PIER 2 ONLY)(EA. SIDE OF EXP. JT.)
2 - AT1 #4 (CONT.)(ABUT. ONLY)(TYP.)
1 - AT2 #4 (BTWN. P.C. BEAMS)(ABUT. ONLY)(TYP.)

(5) BOTTOM OF SLAB THICKENING IS 3" BELOW THE TOP OF THE BEAMS AT THE ABUTMENTS (SHOWN) AND LEVEL WITH THE TOP OF THE BEAMS AT THE PIERS.

(6) OUTSIDE EDGE OF SLAB THICKENING AT PIER 1.

(7) OUTSIDE EDGE OF SLAB THICKENING AT PIER 2.

NOTES
FS2 BARS IN PARAPETS SHALL BE TIED IN PLACE PRIOR TO POURING SLABS.

FOR LONGITUDINAL SECTION, SEE SHEET NO. B050.

FOR BRIDGE SLAB REINFORCING PLANS, SEE SHEET NOS. B053 - B056.

FOR BAR BEND DETAILS AND BAR LISTS, SEE SHEET NO. B051.

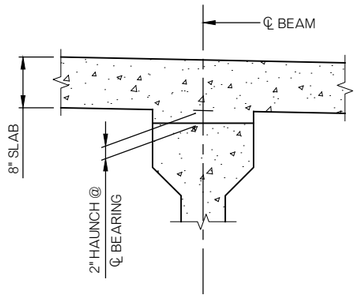
FOR ADDITIONAL BRIDGE SLAB REINFORCING DETAILS, SEE SHEET NO. B051.

FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, SEE SHEET NOS. B053 - B056.

FOR P.C. BEAM DETAILS AND DEAD LOAD DEFLECTION DIAGRAM, SEE SHEET NO. B057.

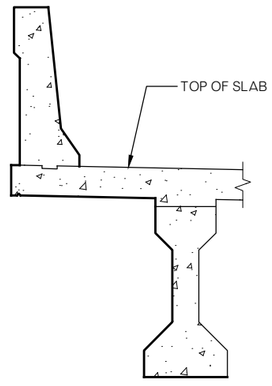
SUPERSTRUCTURE QUANTITIES

ITEM	UNITS	TOTAL
PRESTRESSED CONCRETE BEAMS (TYPE III)	LF	1,074.06
SAW-CUT GROOVING	SY	992.00
SEALED EXPANSION JOINT	LF	51.00
42" F-SHAPED PARAPET	LF	363.40
STRUCTURAL STEEL	LB	1,820.00
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA	12.00
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA	24.00
CLASS AA CONCRETE	CY	270.10
EPOXY COATED REINFORCING STEEL	LB	83,850.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	706.00
SEALER CRACK PREPARATION	LF	51.00
SEALER RESIN	GAL	1.00



TYPICAL HAUNCH DETAIL

NOTE
PLAN QUANTITIES FOR "CLASS AA CONCRETE" INCLUDE 9.00 CY FOR BEAM HAUNCHES. HAUNCH HEIGHT SHOWN IS THE THEORETICAL HAUNCH HEIGHT AT THE CENTERLINE BEARING ONLY, MEASURED FROM THE BOTTOM OF THE SLAB TO THE TOP OF THE BEAM, AND VARIES ACROSS THE SPAN. DETERMINE THE ACTUAL HAUNCH HEIGHTS (ACCOUNTING FOR BEAM CAMBER, DEAD LOAD DEFLECTION AND ROADWAY GRADE) AFTER ERECTION OF THE BEAMS AND SUBMIT TO THE ENGINEER FOR APPROVAL. THE ENGINEER WILL NOT MEASURE DIFFERENCES BETWEEN THE THEORETICAL AND THE ACTUAL HAUNCH HEIGHTS FOR PAYMENT.



WATER REPELLENT SURFACE TREATMENT

NOTE
SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT. (TYP. EACH SIDE).

PRELIMINARY
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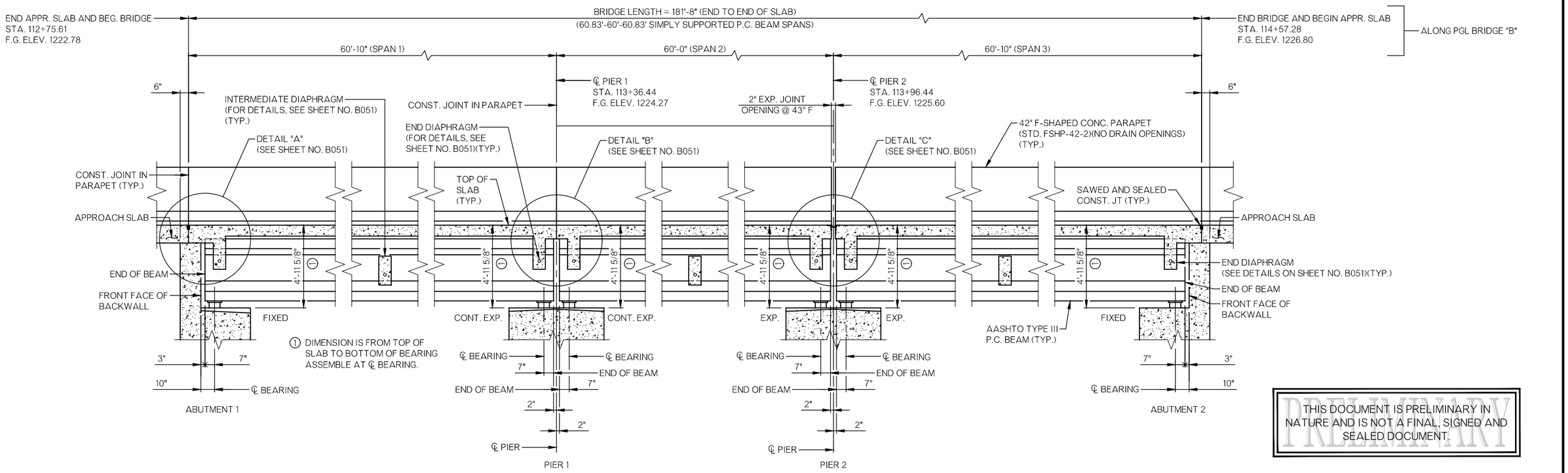
BRIDGE "B"
NB US-81 OVER EW 140.5

TYPICAL CROSS SECTION
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B049

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



TYPICAL LONGITUDINAL SECTION

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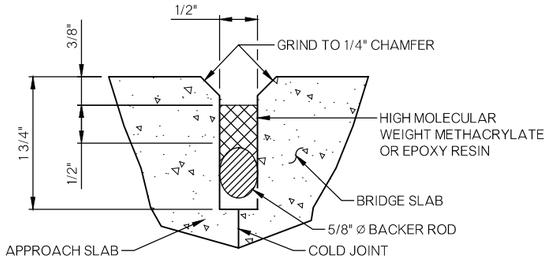
EXPANSION JOINT SETTING TABLE	
TEMPERATURE	OPENING
4°F	2 1/2"
14°F	2 3/8"
24°F	2 1/4"
33°F	2 1/8"
43°F	2"
53°F	1 7/8"
62°F	1 3/4"
72°F	1 5/8"
82°F	1 1/2"
91°F	1 3/8"
101°F	1 1/4"
111°F	1 1/8"
120°F	1"

NOTE
EXPANSION JOINT SHALL BE INSTALLED AT PIER 2.



1/2" SAWED AND SEALED CONSTRUCTION JOINT

NOTES
FOLLOW EXPANSION DEVICE SETTING TABLE SHOWN ON THIS SHEET. LINEAR INTERPOLATION MAY BE USED BETWEEN TEMPERATURE VALUES SHOWN.

ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

FOR DETAILS "A", "B" AND "C", SEE SHEET NO. B051.

FOR INTERMEDIATE AND END DIAPHRAGM LAYOUT & REINFORCING DETAILS, SEE SHEET NOS. B051 AND B052.

FOR SUPERSTRUCTURE BAR BEND DETAILS AND BAR LIST, SEE SHEET NO. B051.

FOR BRIDGE SLAB REINFORCING PLANS AND NOTES, SEE SHEET NOS. B053 - B056.

FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, SEE SHEET NOS. B053 - B056.

FOR P.C. BEAM DETAILS AND DEAD LOAD DEFLECTION DIAGRAM, SEE SHEET NO. B057.

FOR DETAIL AND REQUIREMENTS OF JOINTS AND SEALERS, SEE STD. LECS-4.

FOR F-SHAPED PARAPET DETAILS AND CONTROL CRACK JOINT LAYOUT, SEE STANDARD FSHP-42-2.

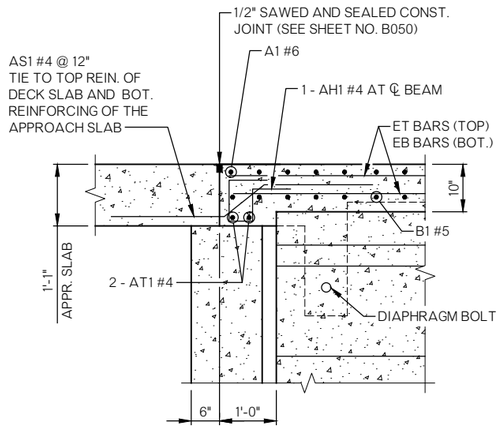
FOR ADDITIONAL DETAILS AND EXPANSION JOINT NOTES, SEE STDS. EJ-SQ AND EJ-DTL.

BRIDGE "B"
NB US-81 OVER EW 140.5

TYPICAL LONGITUDINAL SECTION
℄ SURVEY US-81 STA. 113+66.44

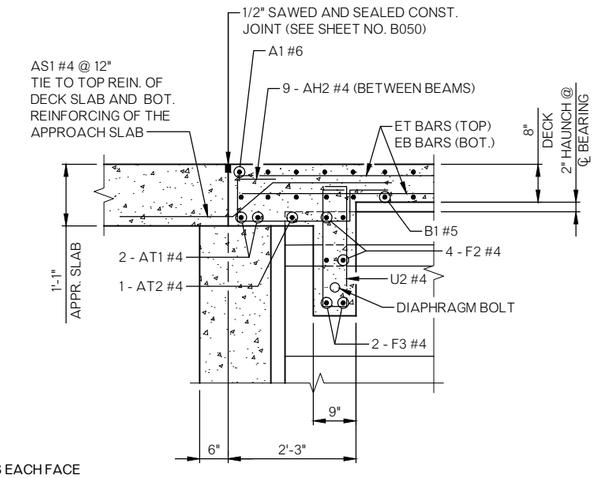
State Job No. 24428(13) Sheet No. B050

US-81 REALIGNMENT
GRADY COUNTY

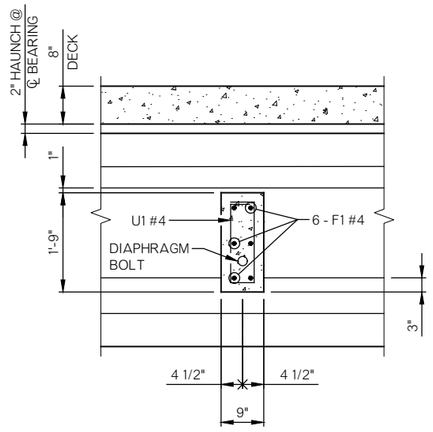


DETAIL "A" (AT ℄ BEAM)

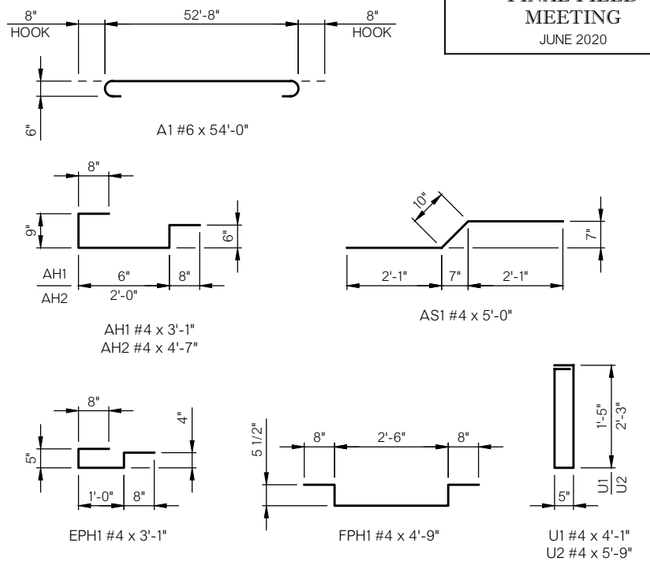
NOTE
E.F. = DENOTES EACH FACE



DETAIL "A" (BTWN. BEAMS)

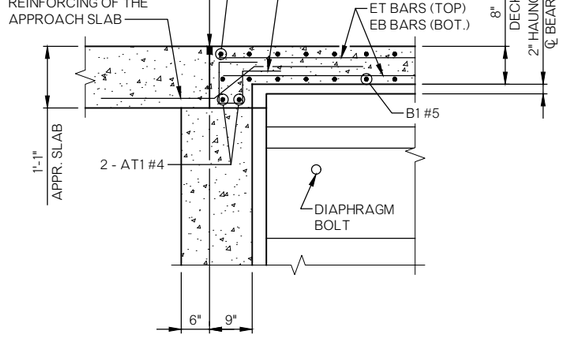


INTERMEDIATE DIAPHRAGM

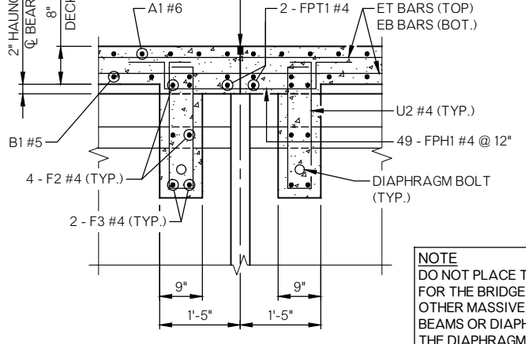


BAR BEND DETAILS

FINAL FIELD MEETING
JUNE 2020

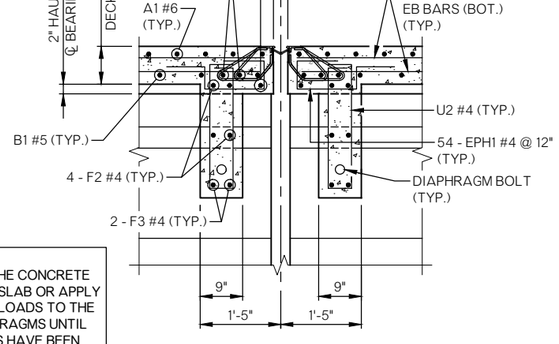


DETAIL "A" (AT CANTILEVERS)

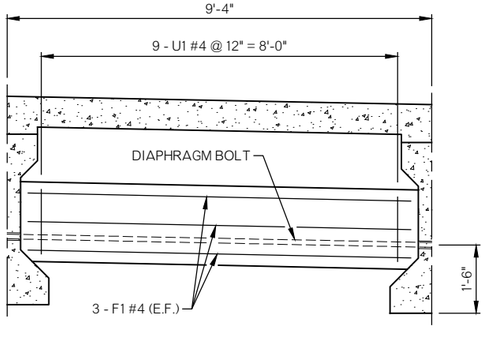


DETAIL "B"

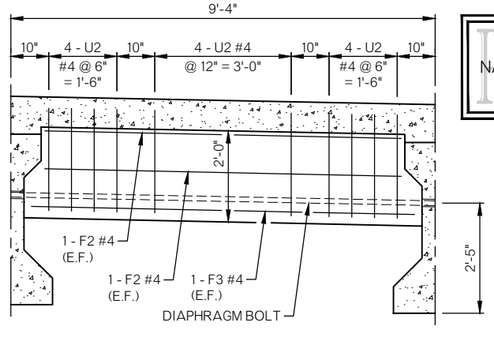
NOTE
DO NOT PLACE THE CONCRETE FOR THE BRIDGE SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE DIAPHRAGMS HAVE BEEN PLACED AND ALL BOLTS TIGHTENED.



DETAIL "C"



INTERMEDIATE DIAPHRAGM DETAIL



END DIAPHRAGM DETAIL

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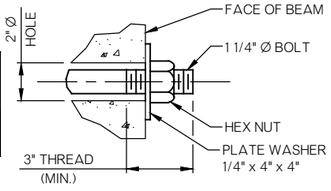


DIAPHRAGM BOLT DETAIL

SUPERSTRUCTURE BAR LIST

	MARK	NO.	SIZE	FORM	LENGTH	REMARKS
	(EPOXY COATED)					
	A1	365	#6	BNT.	54'-0"	
	AH1	28	#4	BNT.	3'-1"	
	AH2	90	#4	BNT.	4'-7"	
	AS1	108	#4	BNT.	5'-0"	
	AT1	4	#4	STR.	52'-8"	
	AT2	10	#4	STR.	7'-8"	
	B1	369	#5	STR.	52'-8"	
(1)(2)	EB1	80	#5	STR.	126'-5"	
(3)	EB2	80	#5	STR.	63'-5"	
	EPH1	108	#4	BNT.	3'-1"	
	EPT1	2	#4	STR.	52'-8"	
(1)(2)	ET1	54	#5	STR.	126'-5"	
(3)	ET2	54	#5	STR.	63'-5"	
	F1	90	#4	STR.	8'-5"	
	F2	120	#4	STR.	7'-8"	
	F3	60	#4	STR.	8'-5"	
	FPH1	49	#4	BNT.	4'-9"	
	FPT1	2	#4	STR.	47'-8"	
(4)	FS2	370	#5	BNT.	7'-4"	
	U1	135	#4	BNT.	4'-1"	
	U2	360	#4	BNT.	5'-9"	

(1) LENGTH INCLUDES TWO (2) 3'-0" LAP SPLICES. LAP SPLICES SHALL BE STAGGERED.
(2) DO NOT LAP WITHIN 10'-0" OF CENTERLINE OF PIER.
(3) LENGTH INCLUDES ONE (1) 3'-0" LAP SPLICE. LAP SPLICES SHALL BE STAGGERED.
(4) FOR BAR BEND DETAILS, SEE ODOT STD. FSHP-42-2.

DIAPHRAGM BOLT NOTE
STRUCTURAL STEEL FOR DIAPHRAGM BOLTS AND PLATE WASHERS SHALL CONFORM TO AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). A #10 REINFORCING BAR CONFORMING TO AASHTO M31, GRADE 60, AND THREADED AT THE ENDS AS SHOWN MAY BE SUBSTITUTED FOR THE DIAPHRAGM BOLT. HEX NUTS SHALL CONFORM TO AASHTO M291 (ASTM A563). PAINT EXPOSED DIAPHRAGM BOLT, HEX NUTS AND PLATE WASHERS WITH TWO (2) COATS OF ZINC RICH PAINT (6 MIL. THICKNESS) AFTER ASSEMBLY. ALL COSTS OF DIAPHRAGM BOLTS, PLATE WASHERS AND HEX NUTS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL STEEL".

BRIDGE "B"
NB US-81 OVER EW 140.5

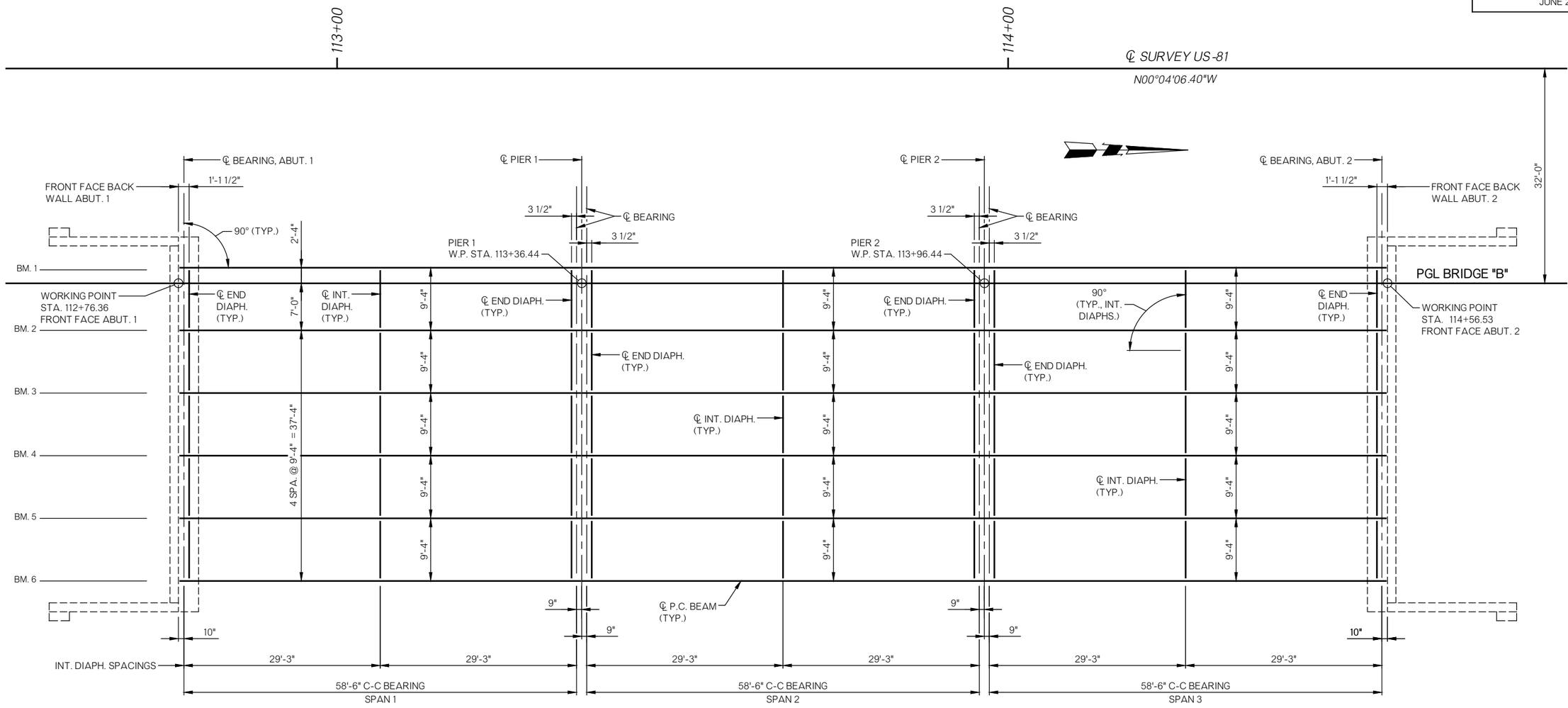
SUPERSTRUCTURE DETAILS

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B051

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



P.C. BEAM AND DIAPHRAGM LAYOUT PLAN
(NOT TO SCALE)

NOTES
ALL DIMENSIONS SHOWN ON PLAN ARE HORIZONTAL DIMENSIONS.

FOR INTERMEDIATE DIAPHRAGM DETAILS, SEE SHEET NO. B051.

FOR END DIAPHRAGM DETAILS, SEE SHEET NO. B051.

FOR TYPE III P.C. BEAM DETAILS, SEE SHEET NO. B057.

NOTES
ALL STATIONING FOLLOWS ℄ SURVEY US-81.

FRONT FACE ABUTMENT, ℄ BEARING, ℄ PIER AND ℄ DIAPHRAGM LINES ARE PARALLEL.

PRELIMINARY

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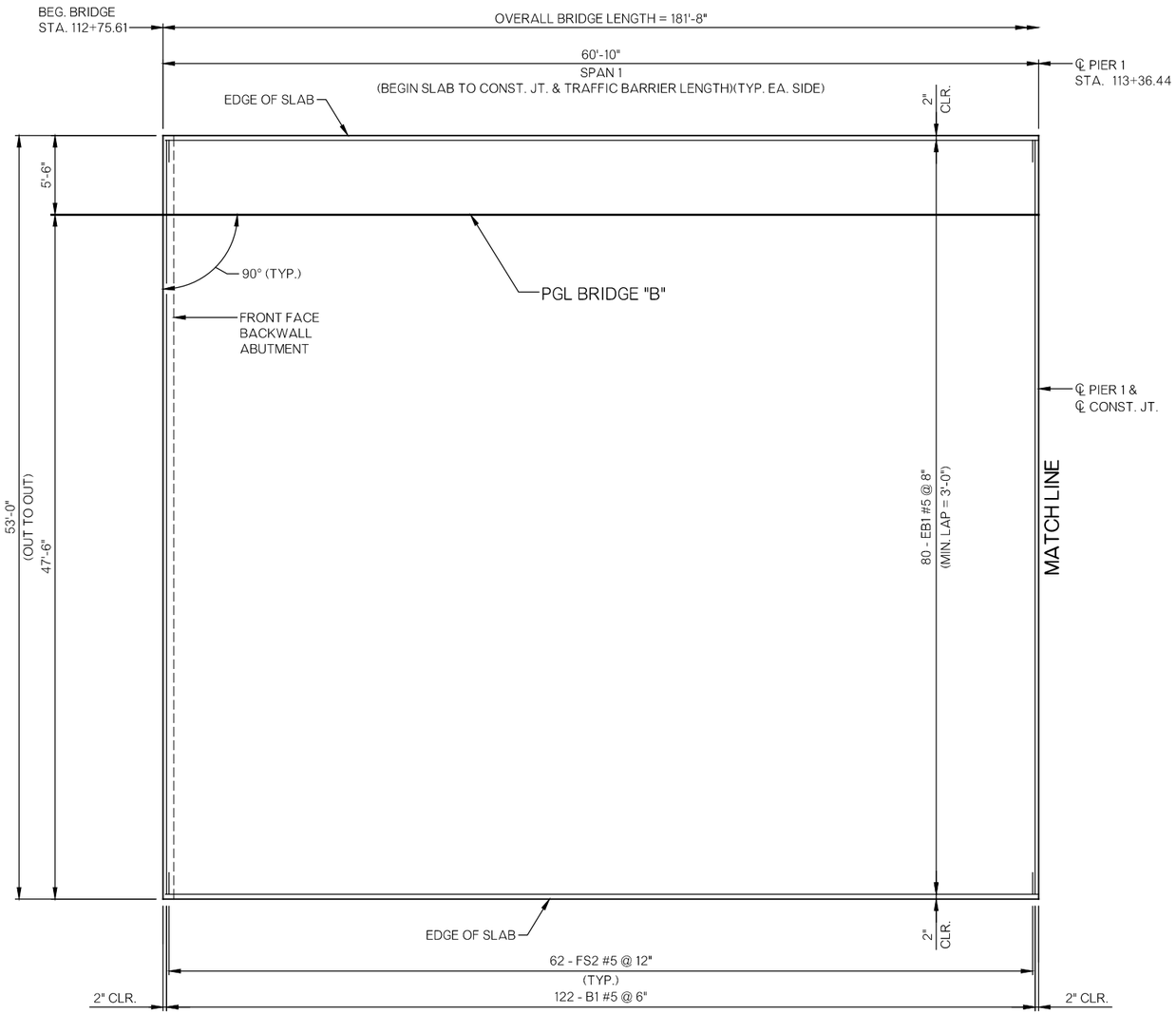
BRIDGE "B"
NB US-81 OVER EW 140.5

P.C. BEAM AND DIAPHRAGM LAYOUT PLAN
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B052

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



BOTTOM SLAB REINFORCING PLAN
(NOT TO SCALE)

BRIDGE SLAB NOTES

EPOXY-COAT OR GALVANIZE STEEL ITEMS USED TO FACILITATE CONSTRUCTION, SUCH AS FORM HANGER ASSEMBLIES, TY-BAR CLIPS, INSERT WELD ANCHORS, OR OTHER APPURTENANCES, THAT WILL REMAIN IN PLACE IN THE BRIDGE SLAB. EPOXY-COAT IN ACCORDANCE WITH AASHTO M284 OR GALVANIZE IN ACCORDANCE WITH AASHTO M111.

THE BRIDGE SLAB SHALL BE POURED ONE SPAN AT A TIME, IN THE UPHILL DIRECTION. NO ADJACENT SPAN AT PIER 1 SHALL BE POURED UNTIL AT LEAST 48 HOURS AFTER THE OPPOSITE SPAN POUR HAS BEEN COMPLETED. THE CONSTRUCTION JOINT OVER PIER 1 SHALL NOT BE KEYED.

IN THE EVENT OF AN EMERGENCY, HALT THE PLACEMENT OF CONCRETE BY FORMING A CONSTRUCTION JOINT PERPENDICULAR TO THE DIRECTION OF TRAFFIC OR AS DIRECTED BY THE ENGINEER. LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THRU ALL TRANSVERSE CONSTRUCTION JOINTS. DO NOT PLACE ANY HEAVY EQUIPMENT ON THE FINISHED BRIDGE SLAB WITHIN 5'-0" OF ANY CONSTRUCTION JOINT UNTIL CONCRETE IS IN PLACE ON BOTH SIDES OF THE RESPECTIVE JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT.

SEAL ALL BRIDGE SLAB CONSTRUCTION JOINTS WITH HIGH MOLECULAR WEIGHT METHACRYLATE OR EPOXY RESIN IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS. INCLUDE ALL COSTS OF EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER OR EPOXY RESIN IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION". INCLUDE ALL COSTS OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER OR EPOXY RESIN IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". THE DEPARTMENT WILL NOT MEASURE THE PREPARATION AND SEALER OF EMERGENCY CONSTRUCTION JOINTS FOR PAYMENT.

DO NOT SAW CUT GROOVE WITHIN 6" OF ANY CONSTRUCTION JOINT.

NOTES

ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ALL LAPS SHALL BE STAGGERED. EB1 BARS SHALL BE CONTINUOUS ACROSS THE CONSTRUCTION JOINT OVER PIER 1. EB1 BAR LAPS SHALL NOT BE MADE WITHIN 10' OF THE ℄ PIER 1.

FOR BAR BEND DETAILS AND BAR LISTS, SEE SHEET NO. B051.

DIAPHRAGMS ARE NOT SHOWN FOR CLARITY. SEE DETAILS "A", "B" & "C" ON SHEET NO. B051 FOR PLACEMENT DETAILS. DIAPHRAGM REINFORCING STEEL SHALL BE TIED IN PLACE WITH AND BELOW THE BOTTOM MAT OF SLAB REINFORCING STEEL.

FS2 BARS IN PARAPETS SHALL BE TIED IN PLACE PRIOR TO SLAB POUR(S). FOR DETAILS AND BAR SPACINGS, SEE ODOT STD. FSHP-42-2 AND SHEET NOS. B055 AND B056.

FOR CONTROL CRACK JOINT LOCATIONS IN PARAPETS, SEE SHEET NO. B050 AND ODOT STD. FSHP-42-2.

FOR EXPANSION JOINT DETAILS, SEE SHEET NO. B051 AND STDS. EJ-SQ AND EJ-DTL. W1 AND W2 EXPANSION JOINT ANCHOR BARS SHALL BE ANCHORED WITH B1 #5 TRANSVERSE SLAB BARS .

FOR TOP SLAB REINFORCING PLAN AND PARAPET LAYOUT, SEE SHEET NOS. B055 AND B056.

FOR ADDITIONAL BRIDGE SLAB REINFORCING AND CONSTRUCTION JOINT NOTES, SEE SHEET NOS. B049 AND B050.

FOR EXPANSION DEVICE SETTING TABLE, SEE SHEET NO. B050.

PRELIMINARY
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US-81 REALIGNMENT
GRADY COUNTY

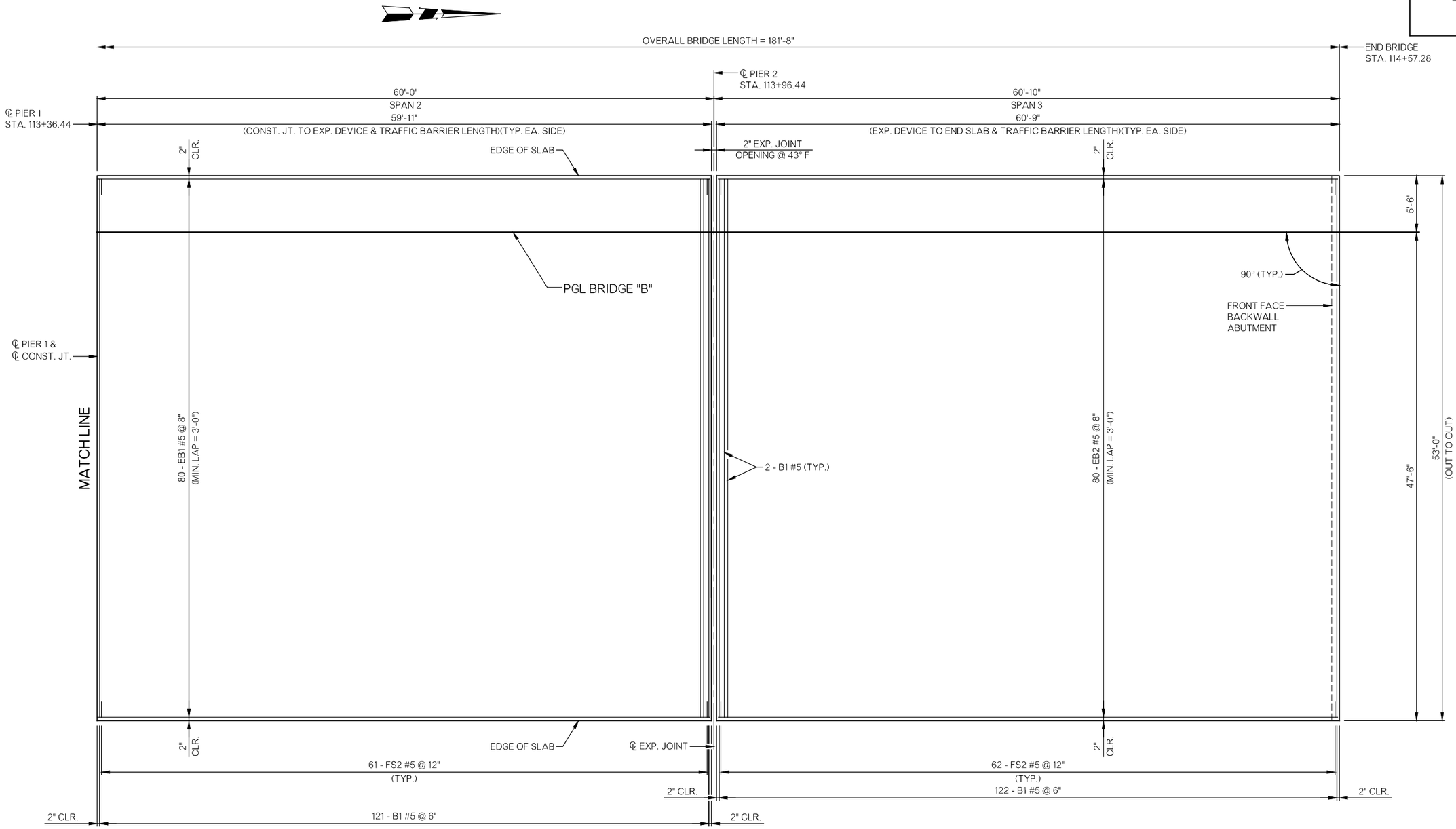
BRIDGE "B"
NB US-81 OVER EW 140.5

BOTTOM SLAB REINFORCING PLAN
(SHEET 1 OF 2)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B053

FINAL FIELD MEETING
JUNE 2020



BOTTOM SLAB REINFORCING PLAN
(NOT TO SCALE)

NOTES
ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

FOR BRIDGE SLAB REINFORCING AND CONSTRUCTION NOTES, SEE SHEET NO. B053.

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BRIDGE "B"
NB US-81 OVER EW 140.5

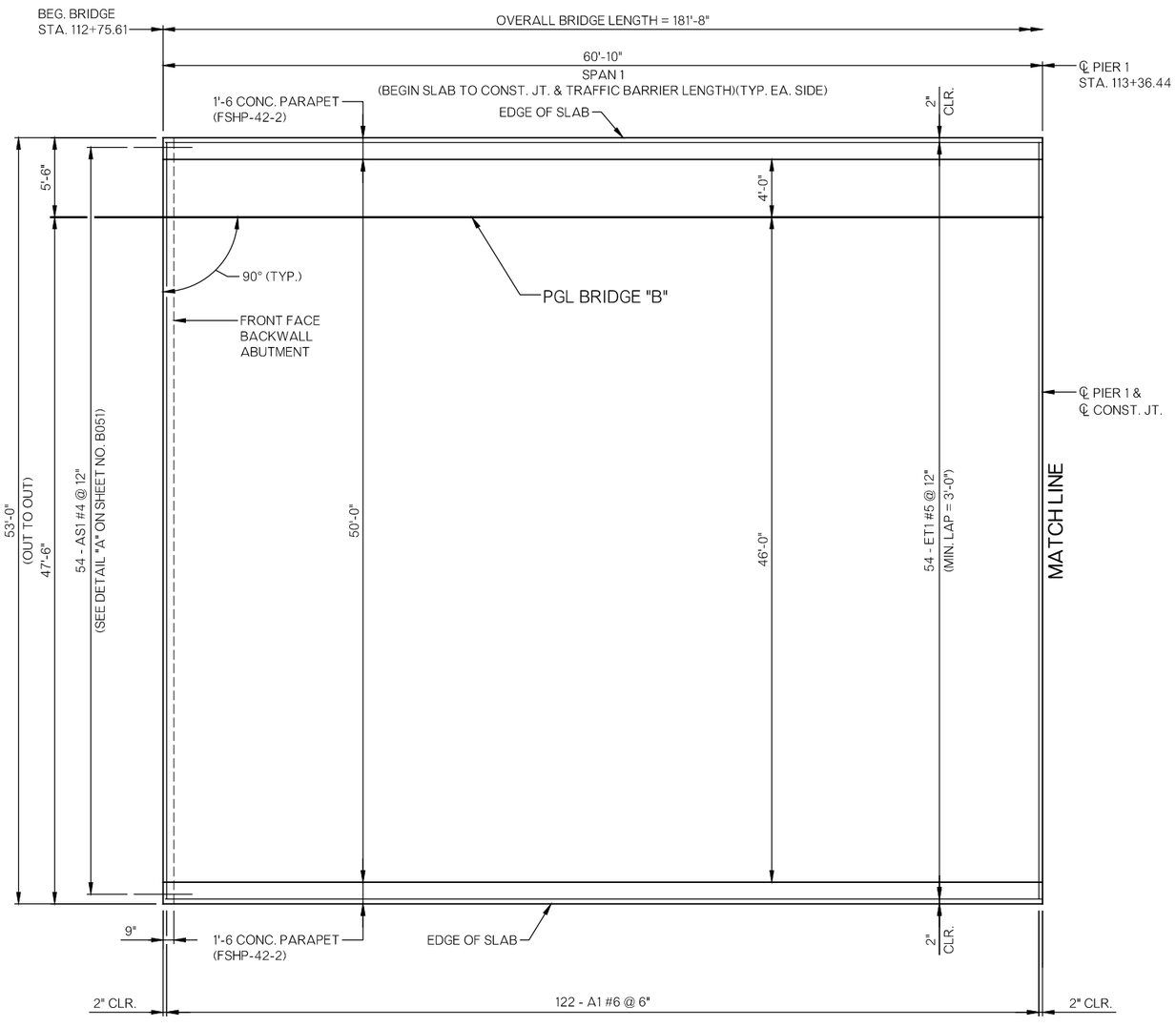
BOTTOM SLAB REINFORCING PLAN (SHEET 2 OF 2)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B054

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



TOP SLAB REINFORCING PLAN AND PARAPET LAYOUT
(NOT TO SCALE)

NOTES
ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ALL LAPS SHALL BE STAGGERED. ET1 BARS SHALL BE CONTINUOUS ACROSS THE CONSTRUCTION JOINT OVER PIER 1. ET1 BAR LAPS SHALL NOT BE MADE WITHIN 10' OF THE ℄ PIER 1.

FOR BAR BEND DETAILS AND BAR LISTS, SEE SHEET NO. B051.

FOR BOTTOM SLAB REINFORCING PLAN, SEE SHEET NOS. B053 AND B054.

FOR ADDITIONAL BRIDGE SLAB REINFORCING NOTES, SEE SHEET NO. B049.

FOR ADDITIONAL BRIDGE SLAB CONSTRUCTION NOTES, SEE SHEET NO. B053.

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US-81 REALIGNMENT
GRADY COUNTY

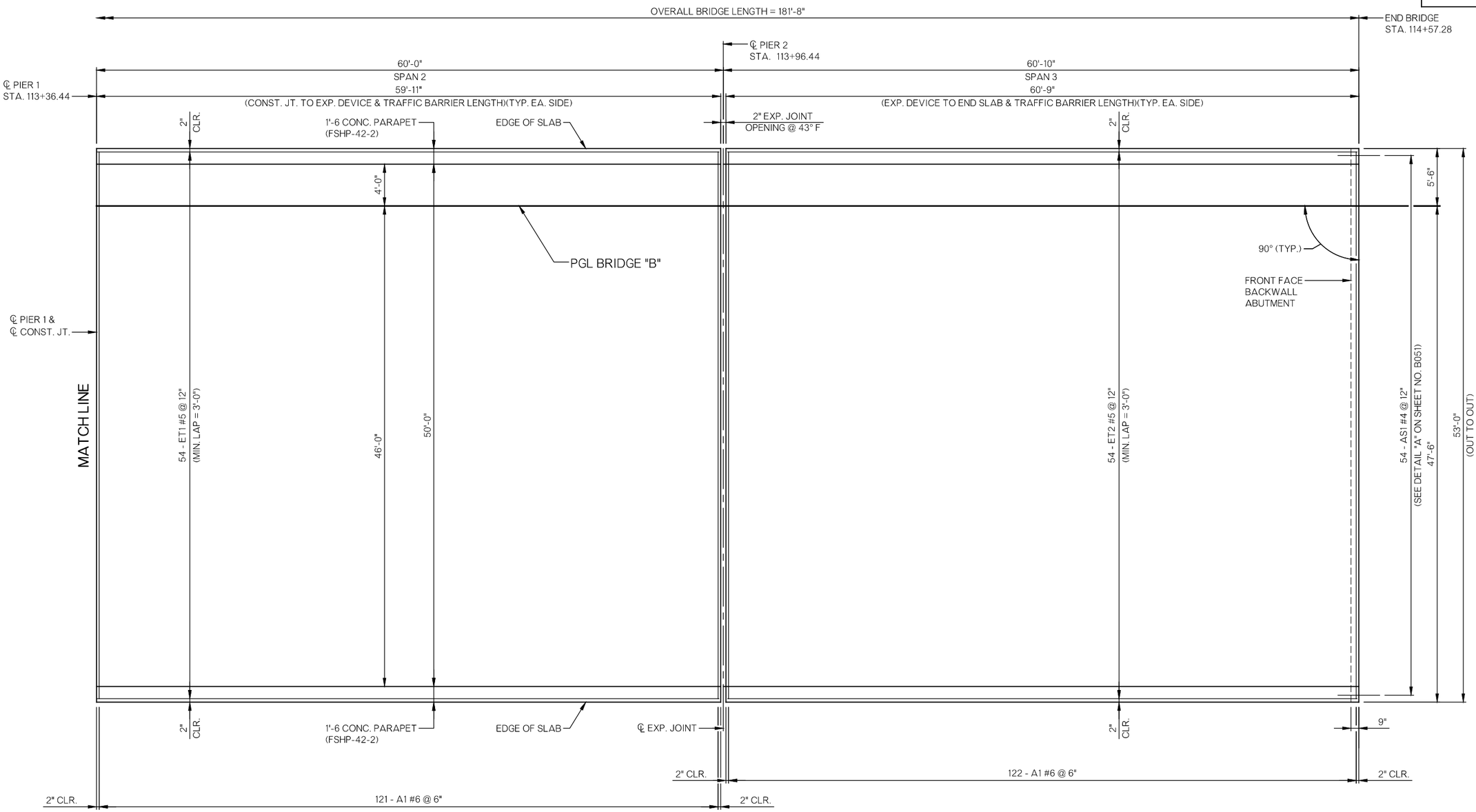
BRIDGE "B"
NB US-81 OVER EW 140.5

TOP SLAB REINFORCING PLAN
(SHEET 1 OF 2)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B055

FINAL FIELD MEETING
JUNE 2020



TOP SLAB REINFORCING PLAN AND PARAPET LAYOUT
(NOT TO SCALE)

NOTES
ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

FOR BRIDGE SLAB REINFORCING AND CONSTRUCTION NOTES, SEE SHEET NO. B053.

PRELIMINARY
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BRIDGE "B"
NB US-81 OVER EW 140.5

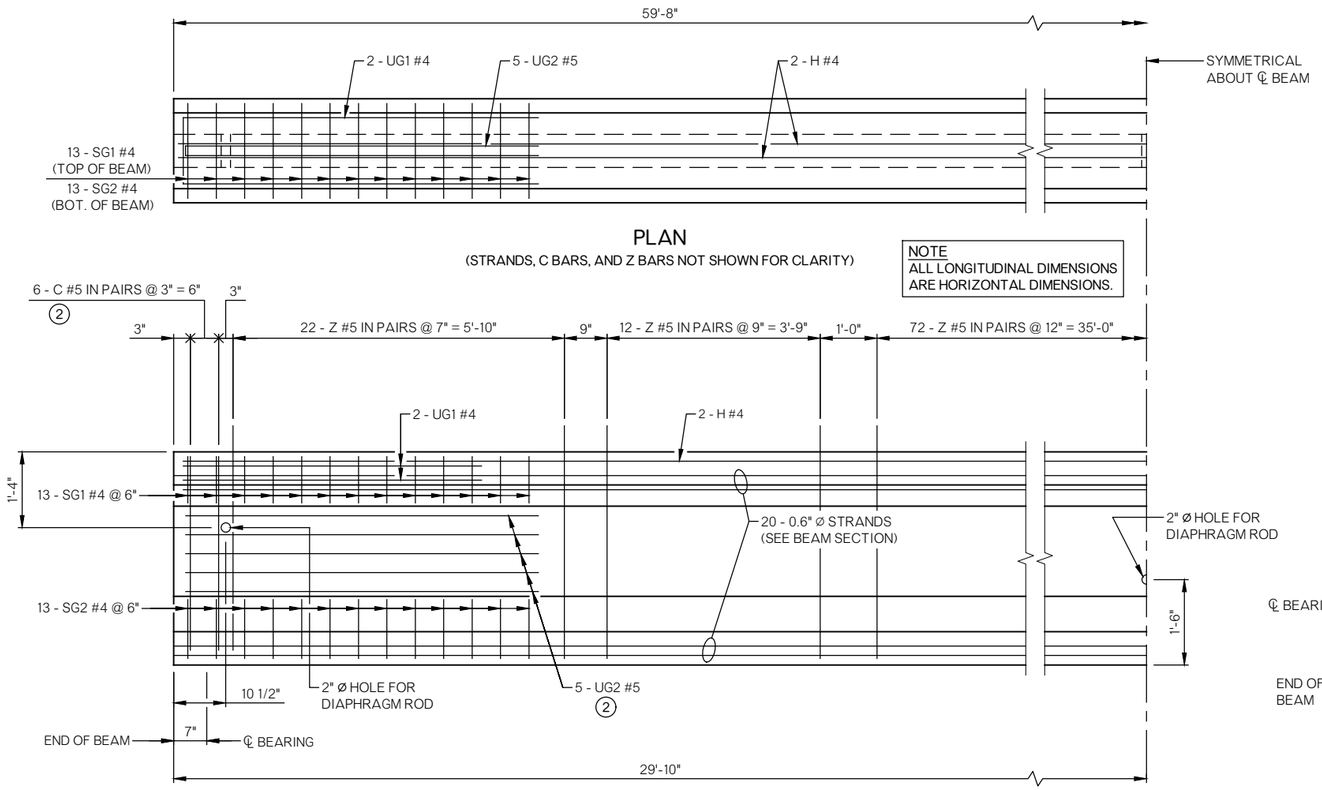
TOP SLAB REINFORCING PLAN (SHEET 2 OF 2)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B056

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



PLAN
(STRANDS, C BARS, AND Z BARS NOT SHOWN FOR CLARITY)

NOTE
ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ELEVATION

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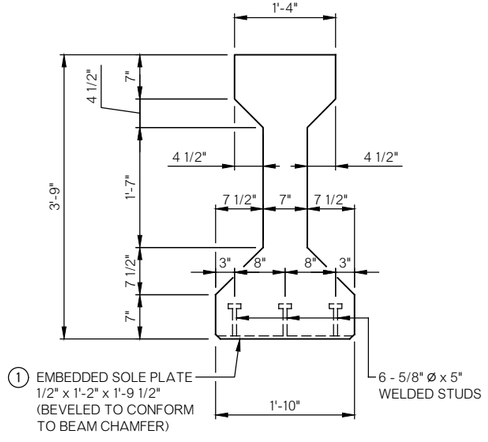
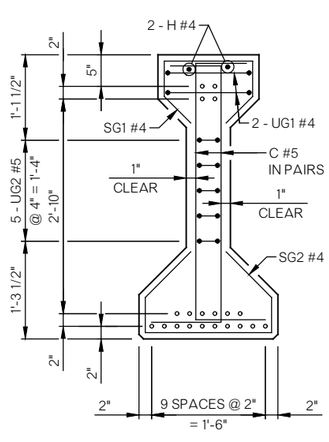
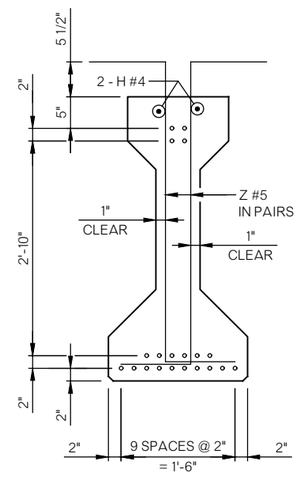


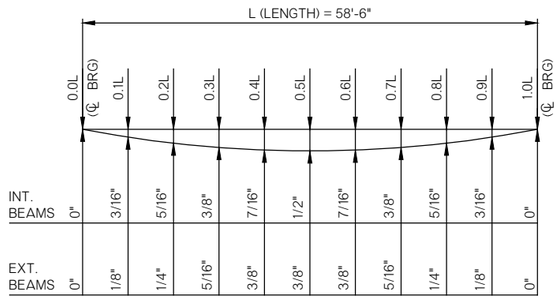
TYPICAL SECTION
(STRANDS AND REINFORCING NOT SHOWN FOR CLARITY)



END SECTION
(WELDED STUDS & EMBEDDED SOLE PLATE NOT SHOWN FOR CLARITY)



℄ SECTION
20 - 0.6" ø STRANDS



DEAD LOAD DEFLECTION DIAGRAM

NOTES
THE DEAD LOAD DEFLECTIONS SHOWN ABOVE ARE DUE TO THE DECK SLAB, DIAPHRAGMS, HAUNCH, STAY-IN-PLACE FORM ALLOWANCE AND PARAPETS AND ARE THEORETICAL ONLY. (DEFLECTIONS DO NOT INCLUDE BEAM WEIGHT OR FUTURE WEARING SURFACE.) DEAD LOAD DEFLECTION SHALL BE TAKEN INTO CONSIDERATION IN FORMING AND POURING THE SLAB AND HAUNCHES.

PC BEAM NOTES

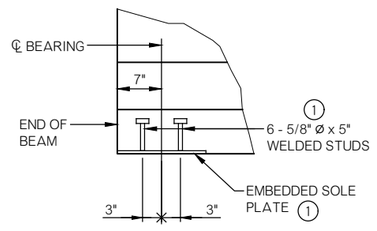
COMPRESSIVE STRENGTH
PROVIDE CONCRETE WITH A COMPRESSIVE STRENGTH OF 5,250 PSI AT TRANSFER OF PRESTRESS AND 7,000 PSI AT 28 DAYS.

STRAND TYPE
PROVIDE LOW-RELAXATION STRANDS HAVING A NOMINAL DIAMETER OF 0.6" WITH AN ULTIMATE TENSILE STRENGTH OF 270 KSI.

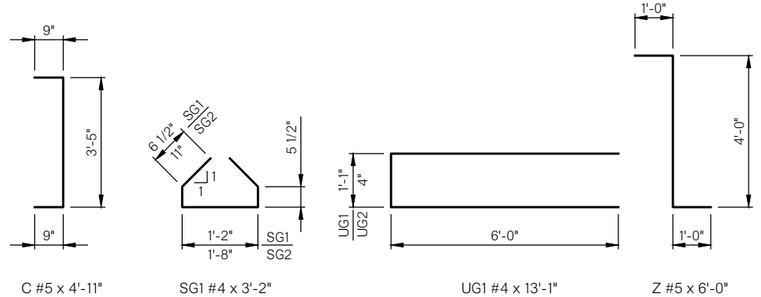
LFD OPERATING RATING = HS 57.2
FOR ADDITIONAL DESIGN DATA, SEE SHEET NO. B033.

1 INSTALL AT EACH END OF BEAM.

2 SHIFT PLAIN REINFORCING STEEL AS NECESSARY TO PROVIDE 1" MIN. CLEAR TO DIAPHRAGM ROD HOLE.

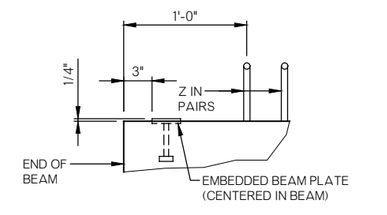


EMBEDDED SOLE PLATE
DETAIL AT END OF BEAM



BAR BEND DETAILS

INTENTIONALLY ROUGHENED
SURFACE EXAMPLES



EMBEDDED BEAM PLATE DETAILS
(PROVIDE AN EMBEDDED BEAM PLATE AT EXPANSION ENDS ONLY)

NOTES
INTENTIONALLY ROUGHEN THE ENTIRE TOP SURFACE OF THE P.C. BEAM TO A MINIMUM HEIGHT OF 1/4" OVER A MAXIMUM PITCH OF 2" MEASURED LONGITUDINALLY ALONG THE LENGTH OF THE BEAM. PROVIDE A CREST AND TROUGH ASSOCIATED WITH THE HEIGHT OF NOT LESS THAN 1/2". PRODUCE THE ROUGHENED SURFACE SHOWN IN THE DETAILS, BY CLEANING THE CONCRETE SURFACE WITH A STIFF WIRE BRUSH (OR BLASTING) TO EXPOSE THE AGGREGATE TO A HEIGHT OF 1/4", OR BY USING ANOTHER APPROVED METHOD. SUBMIT THE METHOD TO BE USED FOR APPROVAL BY THE ENGINEER. REPAIR ANY DAMAGE TO REINFORCEMENT'S EPOXY COATING BEFORE PLACEMENT OF DECK CONCRETE.

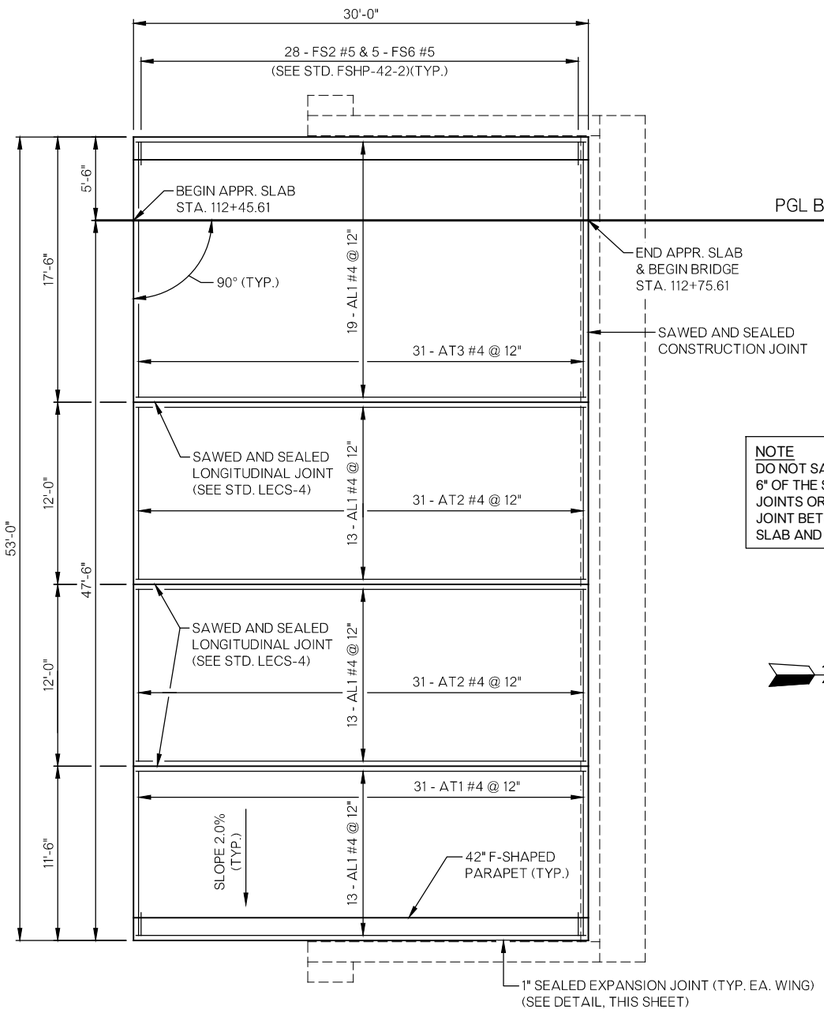
BRIDGE "B"
NB US-81 OVER EW 140.5

TYPE III P.C. BEAM DETAILS
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B057

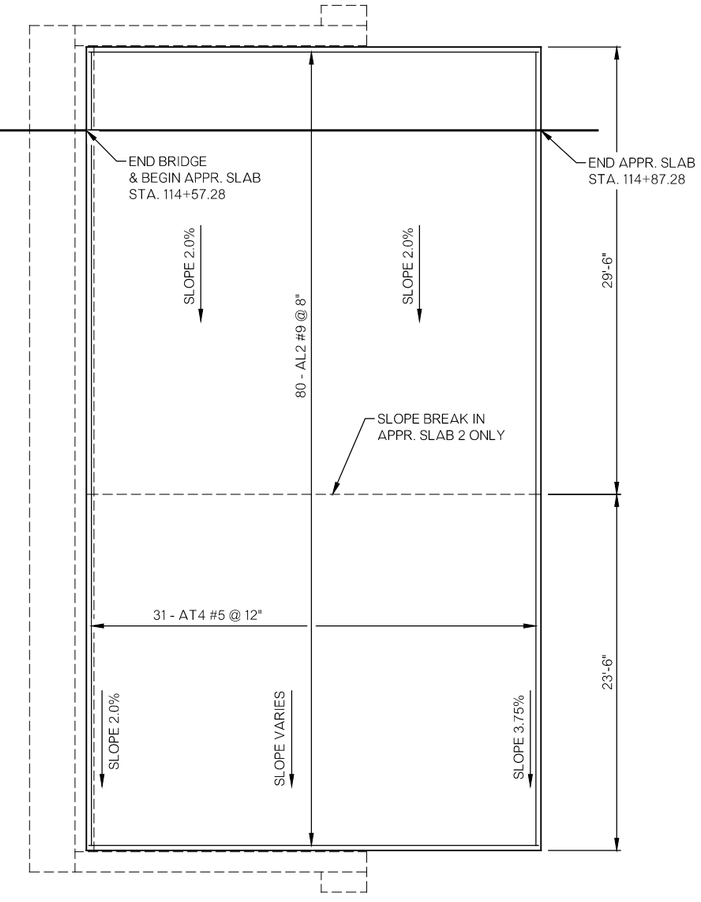
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

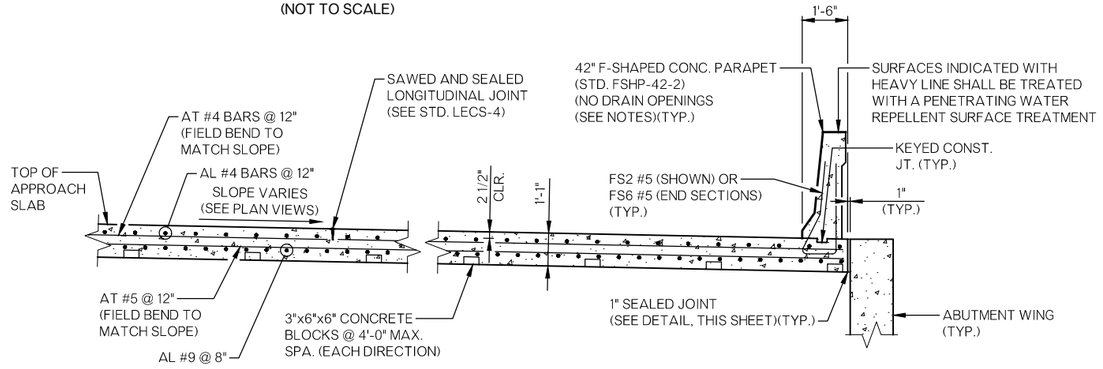


PLAN SHOWING DIMENSIONS AND TOP OF APPROACH SLAB REINFORCING STEEL
(SHOWING APPROACH SLAB 1, APPROACH SLAB 2 SIMILAR)
(NOT TO SCALE)

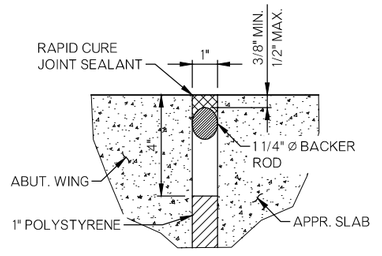
NOTE
DO NOT SAW CUT GROOVE WITHIN 6" OF THE SAWED AND SEALED JOINTS OR THE CONSTRUCTION JOINT BETWEEN THE APPROACH SLAB AND THE BRIDGE SLAB.



PLAN SHOWING BOTTOM OF APPROACH SLAB REINFORCING STEEL
(SHOWING APPROACH SLAB 2, APPROACH SLAB 1 SIMILAR)
(NOT TO SCALE)



TYPICAL SECTION THRU APPROACH SLAB



1" SEALED EXPANSION JOINT AT WINGWALL

NOTES
ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

THE REINFORCING STEEL IN THE TOP OF THE APPROACH SLABS SHALL END 2" EITHER SIDE OF THE LONGITUDINAL JOINTS.

PROVIDE PARAPET END TRANSITION WITH CONNECTION HOLES. FOR PARAPET DETAILS NOT SHOWN, SEE STD. FSHP-42-2.

THE UNIT PRICE BID FOR APPROACH SLAB SHALL INCLUDE ALL CONCRETE AND REINFORCING STEEL IN THE APPROACH SLABS, INCLUDING FS2 AND FS6 BARS, FIELD BENDING OF REINFORCING BARS, RAPID CURE JOINT SEALANT, BACKER RODS, POLYSTYRENE, LABOR, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN. THERE IS AN ESTIMATED 127.60 C.Y. OF CLASS "AA" CONCRETE, AND AN ESTIMATED 25,000.00 LBS. OF EPOXY COATED REINFORCING STEEL IN THE APPROACH SLABS.

SAW-CUT GROOVING TO BE USED ON THE 50'-0" RDWY. WIDTH OF THE APPROACH SLABS ONLY.

APPROACH SLAB BAR LIST
(ONE APPROACH SLAB SHOWN, TWO REQUIRED)

MARK	NO.	SIZE	FORM	LENGTH	REMARKS
(EPOXY COATED)					
AL1	58	#4	STR.	29'-8"	
AL2	80	#9	STR.	29'-8"	
AT1	31	#4	STR.	11'-2"	
AT2	62	#4	STR.	11'-8"	
AT3	31	#4	STR.	17'-2"	
AT4	31	#5	STR.	52'-8"	
FS2	56	#5	BNT.	7'-4"	
FS6	10	#5	BNT.	7'-6 1/2"	

APPROACH SLAB QUANTITIES

ITEM	UNITS	TOTAL
APPROACH SLAB	SY	353.40
SAW-CUT GROOVING	SY	333.40
42" F-SHAPED PARAPET	LF	120.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	60.00

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BRIDGE "B"
NB US-81 OVER EW 140.5

APPROACH SLAB DETAILS
℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B058

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

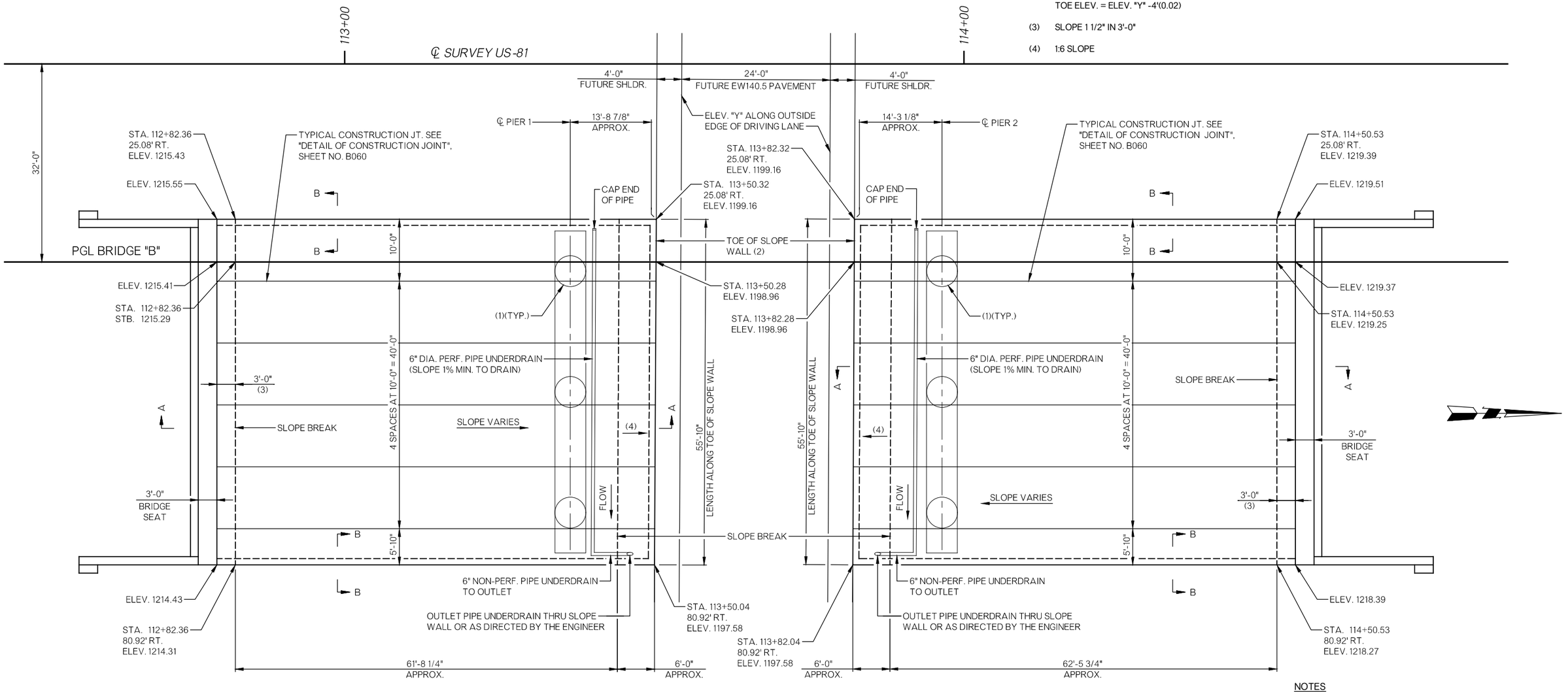
NOTES
(1) PROVIDE 1/2" PREFORMED EXP. JOINT FILLER MAT'L AROUND COLUMNS (SEC. 701.08.B). SEAL WITH LOW MODULUS SILICONE JOINT SEALANT (SEC. 701.08.E).

(2) TOP OF SLOPE WALL ELEVATION ALONG TOE AT ANY PARTICULAR POINT IS GIVEN BY THE FOLLOWING EQUATION:

TOE ELEV. = ELEV. "Y" -4'(0.02)

(3) SLOPE 1 1/2" IN 3'-0"

(4) 1:6 SLOPE



ABUT. 1

ABUT. 2

PLAN OF SLOPE WALLS

NOTE
ALL STATIONING FOLLOWS ℄ SURVEY US-81, UNLESS NOTED OTHERWISE .

NOTES
ELEVATIONS SHOWN ARE AT TOE OF SLOPE WALL CONCRETE.

ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

BRIDGE SUPERSTRUCTURE IS NOT SHOWN FOR CLARITY.

FOR SLOPE WALL SECTIONS, NOTES, AND QUANTITIES, SEE SHEET NO. B060.

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BRIDGE "B"
NB US-81 OVER EW 140.5

SLOPE WALL DETAILS (SHEET 1 OF 2)

℄ SURVEY US-81 STA. 113+66.44

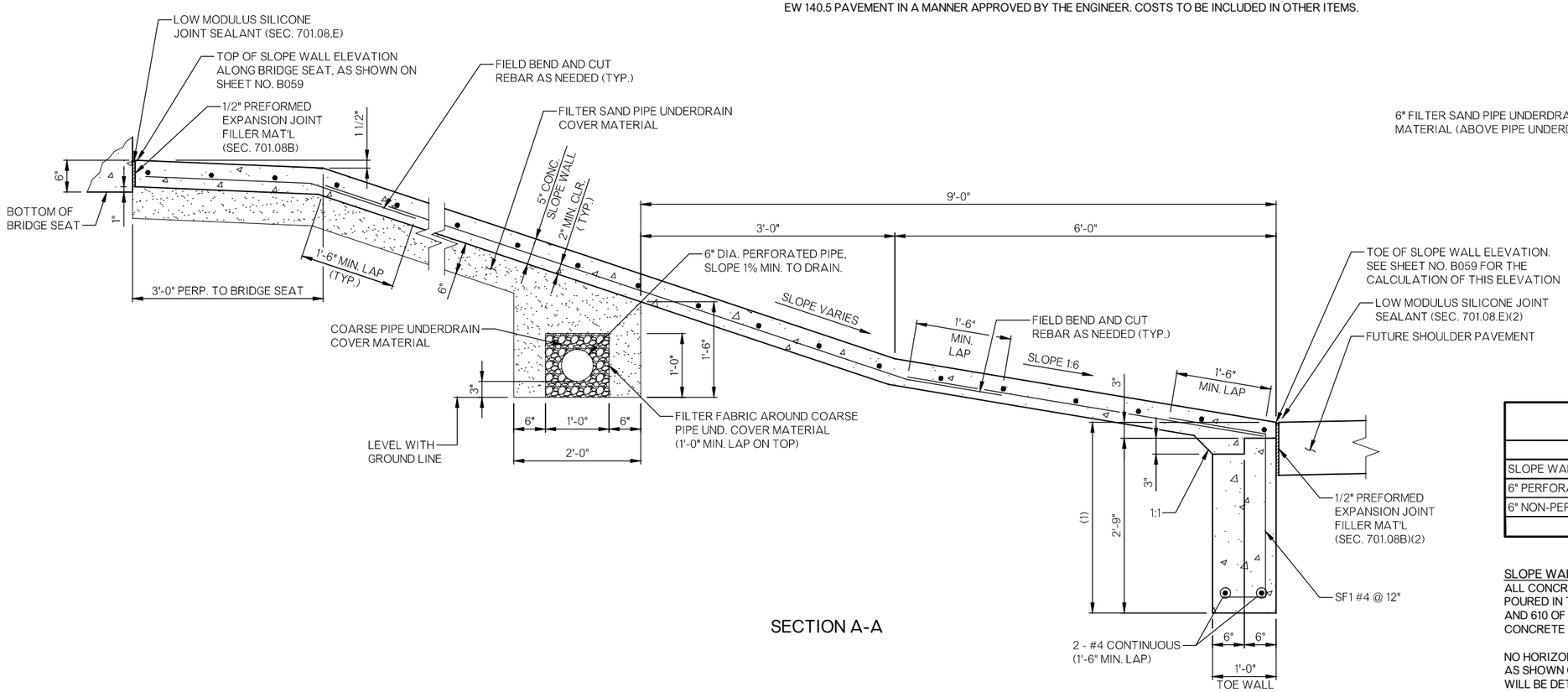
State Job No. 24428(13) Sheet No. B059

US-81 REALIGNMENT
GRADY COUNTY

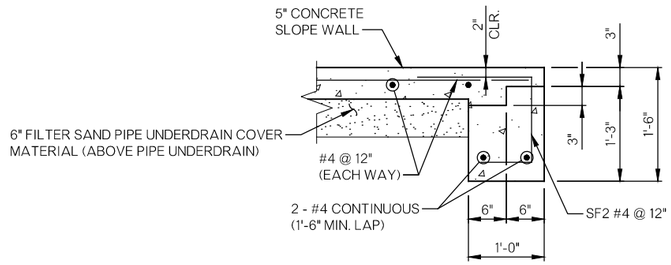
FINAL FIELD MEETING
JUNE 2020

NOTES
(1) SURFACE AREA OF TOE WALL INCLUDED IN ESTIMATED QUANTITY FOR "SLOPE WALL (5") ", PER S.Y.

(2) PROVIDE ONLY IF CONSTRUCTING SLOPE WALL AGAINST FUTURE SHLDR. PAVEMENT. IF FUTURE SHLDR. PAVEMENT IS NOT IN PLACE AT THE TIME OF CONSTRUCTION, GRADE AREAS BETWEEN SLOPE WALLS AND EW 140.5 PAVEMENT IN A MANNER APPROVED BY THE ENGINEER. COSTS TO BE INCLUDED IN OTHER ITEMS.



SECTION A-A



SECTION B-B

SLOPE WALL QUANTITIES		
ITEM	UNITS	TOTAL
SLOPE WALL (5")	SY	951.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	106.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	20.00

SLOPE WALL NOTES
ALL CONCRETE IN THE SLOPE WALLS SHALL BE CLASS "A" CONCRETE AND SHALL BE POURED IN THE DRY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTIONS 509 AND 610 OF THE STANDARD SPECIFICATIONS. COARSE AGGREGATE FOR THIN SECTION CONCRETE (SEC. 701.06) MAY BE USED.

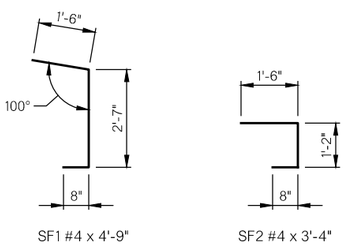
NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN THE SLOPE WALLS EXCEPT AS SHOWN ON THE PLANS. FINAL NUMBER AND LOCATION OF ALL CONSTRUCTION JOINTS WILL BE DETERMINED BY THE ENGINEER. JOINTS SHALL HAVE A MAXIMUM SPACING OF 10'-0".

5" CONCRETE SLOPE WALL WILL BE MEASURED FROM EDGE TO EDGE AND FROM TOP TO BOTTOM ALONG THE TOP SURFACE OF THE SLOPE WALL AND ALONG THE FRONT FACE OF THE TOE WALL. PAYMENT WILL BE MADE AT THE CONTRACT PRICE BID FOR "SLOPE WALL (5") ", PER S.Y. PRICE BID SHALL INCLUDE ALL COSTS OF JOINT SEALERS, FILLER MATERIALS, REINFORCING STEEL, CONCRETE, EXCAVATIONS, LABOR, FORMS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN.

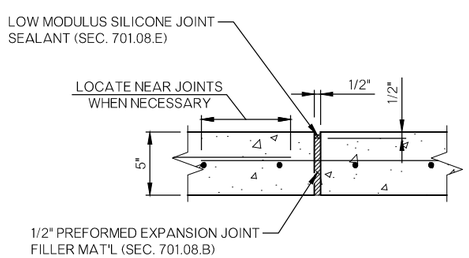
EXTENT, LOCATION AND DEPTH OF 6" PERFORATED AND NON-PERF. PIPE UNDERDRAINS MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION.

ALL COSTS OF PIPE UNDERDRAIN COVER MATERIALS (BOTH FILTER SAND AND COARSE MATERIAL), FILTER FABRICS, EXCAVATIONS, EQUIPMENT, LABOR AND INCIDENTALS FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR " 6" PERFORATED PIPE UNDERDRAIN ROUND". INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND ODOT STD. PUD-3.

ALL COSTS OF TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, PLUS OTHER MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS FOR THEIR INSTALLATION FOR 6" NON-PERFORATED PIPE UNDERDRAIN SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF " 6" NON-PERF. PIPE UNDERDRAIN RND." INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND ODOT STD. PUD-3.



BAR BEND DETAILS



DETAIL OF CONSTRUCTION JOINT

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

BRIDGE "B"
NB US-81 OVER EW 140.5

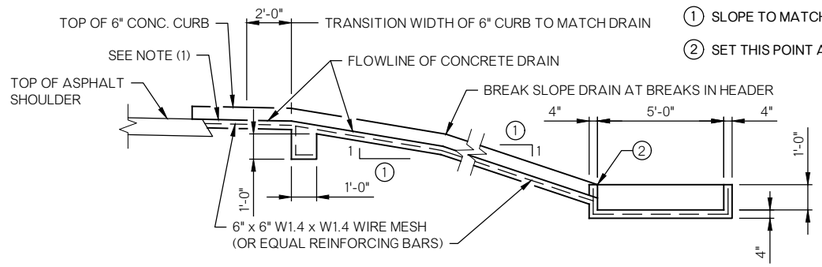
SLOPE WALL DETAILS
(SHEET 2 OF 2)

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B060

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

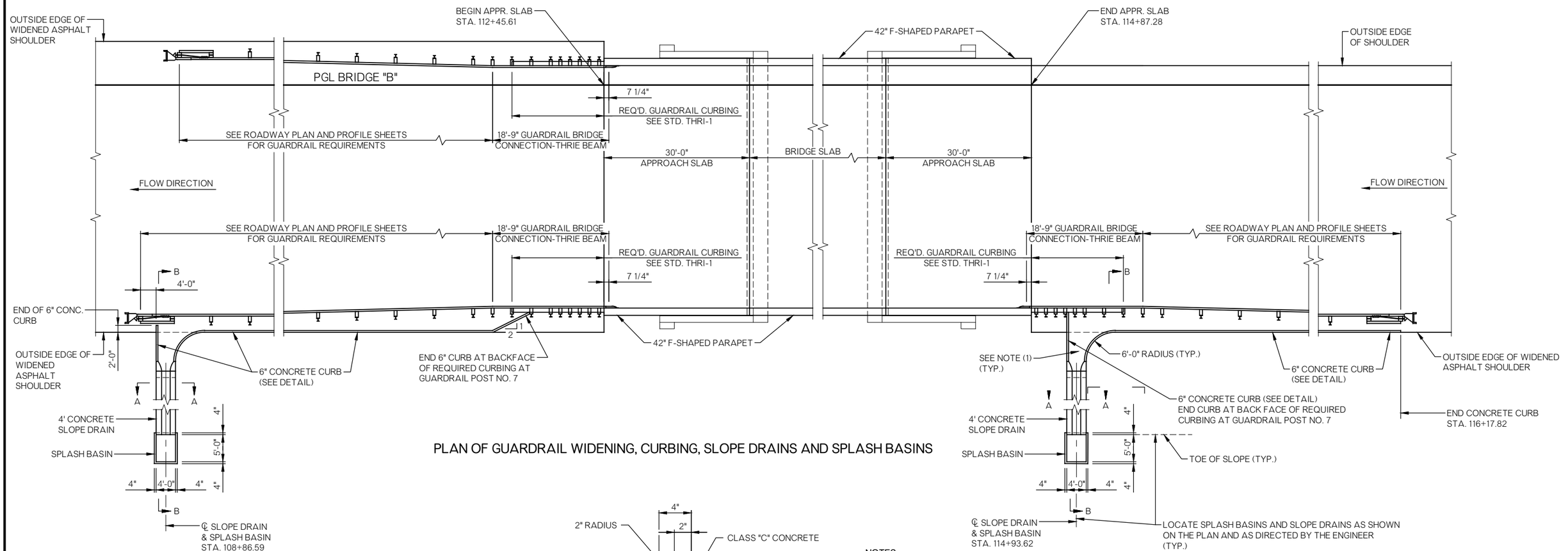


(1) SLOPE TO MATCH SLOPE OF HEADER.

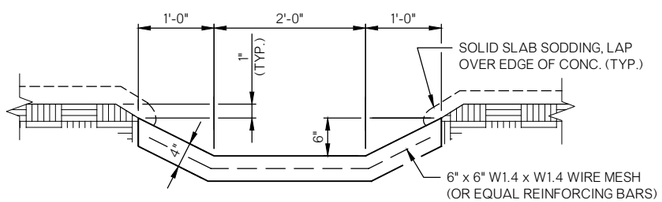
(2) SET THIS POINT AT TOE OF SLOPE.

SECTION B-B

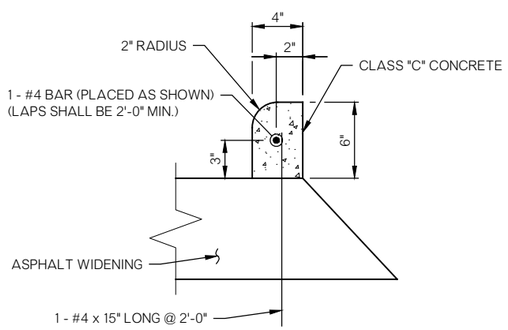
NOTE
(1) BETWEEN EDGE OF ASPHALT SHOULDER AND TOP OF CONCRETE SLOPE DRAIN, CONSTRUCT 4" CONCRETE BASE OVER AREA OUTLINED BY CURBING. COST TO BE INCLUDED IN PRICE BID FOR "CLASS C CONCRETE".



PLAN OF GUARDRAIL WIDENING, CURBING, SLOPE DRAINS AND SPLASH BASINS



SECTION A-A



DETAIL OF 6" CONCRETE CURB
(SHOWN AT OUTSIDE EDGE OF WIDENED ASPHALT SHOULDER)

NOTES
ASPHALT SHOULDER WIDENING SHALL BE IN ACCORDANCE WITH STANDARDS THRI-1 AND GHW1-1 EXCEPT AS SHOWN ON THIS SHEET. ALL COSTS OF ASPHALT SHOULDER WIDENING SHALL BE INCLUDED IN THE ROADWAY PAY ITEMS.

SLOPE DRAINS, SPLASH BASINS AND CURBING TO BE LOCATED AS SHOWN ON THE PLAN AND AS DIRECTED BY THE ENGINEER.

THE SLOPE DRAINS AND SPLASH BASINS SHALL BE CONSTRUCTED USING CLASS "C" CONCRETE AS SHOWN ON THIS SHEET. ALL COSTS OF THE SLOPE DRAINS AND SPLASH BASINS INCLUDING WIRE MESH, EXCAVATIONS AND BACKFILLING SHALL BE INCLUDED IN THE PRICE BID FOR "CLASS C CONCRETE".

THE 6" CONCRETE CURBS SHALL BE CONSTRUCTED AS SHOWN ON THIS SHEET IN ADDITION TO THE REQUIRED GUARDRAIL CURBING. ALL COSTS TO CONSTRUCT THE 6" CONCRETE CURBS INCLUDING CONCRETE AND REINFORCING STEEL SHALL BE INCLUDED IN THE PRICE BID FOR "CLASS C CONCRETE".

THE 15'-0" LONG CONCRETE CURBING SHOWN ON STD. THRI-1 SHALL BE INCLUDED IN THE PRICE BID FOR "GUARDRAIL BRIDGE CONN-THRIE BEAM (31")", AT ALL FOUR CORNERS OF THE BRIDGE.

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

US-81 REALIGNMENT
GRADY COUNTY

BRIDGE "B"
NB US-81 OVER EW 140.5

DRAINS AT END OF BRIDGE DETAILS

℄ SURVEY US-81 STA. 113+66.44

State Job No. 24428(13) Sheet No. B061

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REVISIONS	
DESCRIPTION	DATE

SEE SHEET NO. B098 FOR SLOPE DRAIN AND SPLASH BASIN DETAILS. (TYP.)

SEC. 20
T6N R7W

BEGIN APPR. SLAB
STA. 139+13.27

END APPR. SLAB & BEGIN BRIDGE
STA. 139+42.43

6" NON-PERFORATED PIPE UNDERDRAIN

℄ PIER 1
STA. 140+13.09

EXIST. QUAIL RD.

℄ PIER 2
STA. 141+15.04

+19.35'~TP 135.6' LT.

5-BW FENCE

END BRIDGE & BEGIN APPR. SLAB
STA. 141+86.33

END APPR. SLAB
STA. 142+29.57

SEC. 17
T6N R7W

℄ SURVEY US 81
CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

139+00 | 140+00 | 141+00 | 142+00 | 143+00

(1)

1'-6" CONC. PARAPET (FSHP-42)

5" CONC. SLOPE WALL

PT. OF MIN. VERT. CLR. (17'-3")

℄ SURVEY QUAIL RD. & ℄ EW 140
N89°50'44.43"E

℄ RAMP A
N89°50'44.43"E

158+00 | 159+00 | 160+00

C-1 | C-2 | C-3 | C-4

℄ RAMP A

℄ SURVEY QUAIL RD.

6" PERFORATED PIPE UNDERDRAIN

15°01'17.53"

46'-0" CLR. RDWY.

50'-0" CLR. RDWY.

FGL

15°43'41.28"

℄ RAMP A
P.O.C. STA. 140+56.21 =
℄ SURVEY QUAIL RD.
P.O.T. STA. 40+26.55

16°44'51.41"

53'-0" OUT-TO-OUT (1)

SLOPE 3.4%

17°27'37.62"

10'-0" SHLDR.

36'-0" (2-DRIVING LANES; 1-AUX. LANE)

BRIDGE "C"

4'-0" SHLDR.

6" PERFORATED PIPE UNDERDRAIN

5" CONC. SLOPE WALL

℄ SURVEY US 81

32'-0" (1)

16°04'53.72"

℄ SURVEY US 81
P.O.C. STA. 140+73.43 =
℄ RAMP A
P.O.T. STA. 159+42.45

℄ SURVEY US 81
P.O.C. STA. 140+48.44 =
℄ SURVEY QUAIL RD.
P.O.T. STA. 40+97.36

41+00

+82.75'~TP 34.4' RT.

4'-0" SHLDR. | 12'-0" | 24'-0" | 4'-0" SHLDR.

5-BW FENCE

BRIDGE "D"

SEC. 20
T6N R7W

SEC. 17
T6N R7W

PLAN
SCALE 1"=30'

BENCHMARK NO. 11
100D NAIL SET IN S.W. FACE 8" ELM
OFFSET: 58.92' RIGHT
℄ SURVEY US 81 STATION: 134+50.38
ELEVATION: 1183.36

BENCHMARK NO. 12
100D NAIL SET IN W. FACE 18" ELM
OFFSET: 306.34' LEFT
℄ SURVEY US 81 STATION: 141+72.09
ELEVATION: 1191.81

(1) RADIAL LINE OR RADIAL DIMENSION.

(2) PROVIDE PARAPET TRANSITION AND GUARDRAIL CONNECTION HOLES PER STD. FSHP-42. SEE ROADWAY PLANS FOR GUARDRAIL REQUIREMENTS. (TYP. EA. CORNER)

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81, UNLESS NOTED OTHERWISE.

FOR GENERAL BRIDGE ELEVATION, SEE SHEET NO. B063.

SEE SHEET NO. B064 FOR DESIGN DATA, FINISH GRADE DATA, FOUNDATION DATA, SUMMARY OF QUANTITIES, VERTICAL CLEARANCE SIGN DETAILS AND INDEX OF SHEETS.

FOR FOUNDATION REPORTS, SEE SHEET NOS. B065 AND B066.

SEE ROADWAY PLANS FOR PRES. AND NEW R/W, AND GEOMETRIC DATA NOT SHOWN.

Design	.	
Drawn	PKW	05/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

GENERAL PLAN AND ELEVATION (1 OF 3)

CONST. 70'-101'-70' TYPE IV P.C. BEAM W/ 50'-0" CLR. RDWY. AND CONC. PARAPETS (FSHP-42) SKEWED 16°04'53.72" LF
℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B062

"PRELIMINARY PLANS - NOT FOR CONSTRUCTION"

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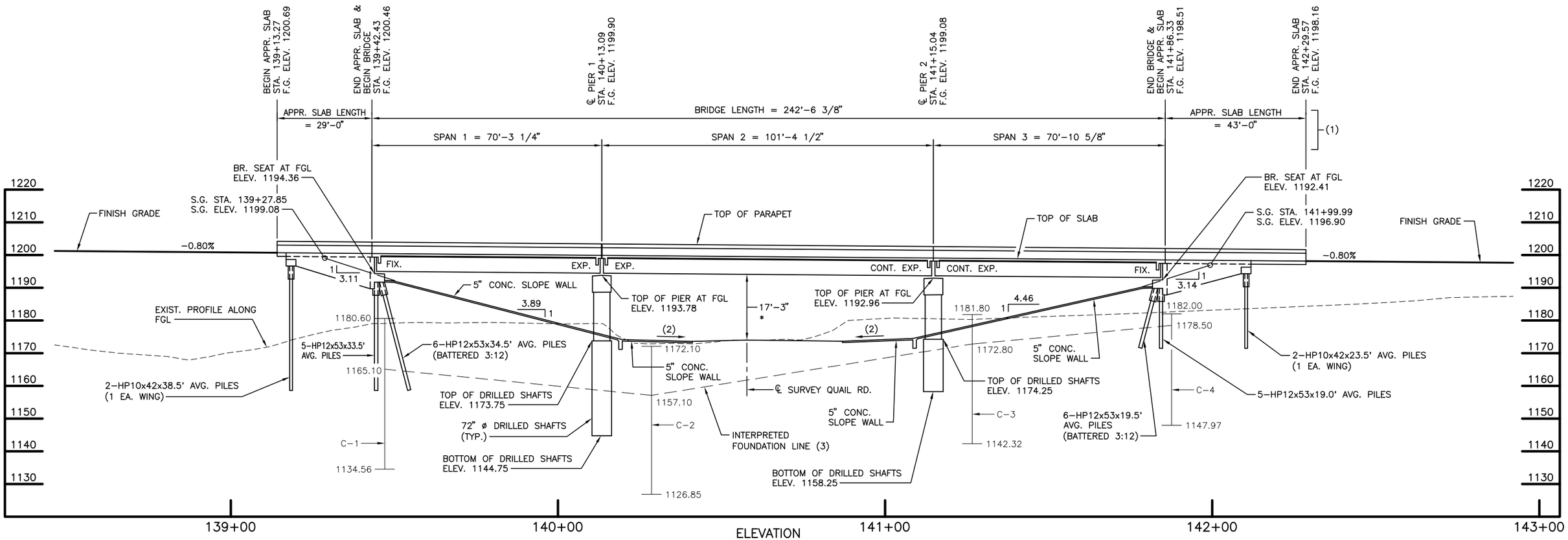
REVISIONS	
DESCRIPTION	DATE



ELEVATION
SCALE 1"=30'

BENCHMARK NO. 11
100D NAIL SET IN S.W. FACE 8" ELM
OFFSET: 58.92' RIGHT
℄ SURVEY US 81 STATION: 134+50.38
ELEVATION: 1183.36

BENCHMARK NO. 12
100D NAIL SET IN W. FACE 18" ELM
OFFSET: 306.34' LEFT
℄ SURVEY US 81 STATION: 141+72.09
ELEVATION: 1191.81

* MINIMUM THEORETICAL VERTICAL CLEARANCE. (SEE SHEET NO. B062 FOR LOCATION AND SHEET NO. B064 FOR SIGNAGE DETAILS AND NOTES.)

(1) HORIZONTAL ARC DIMENSIONS ALONG FGL, 32' LT. OF ℄ SURVEY US 81.

(2) 3.2% SLOPE (PERPENDICULAR TO QUAIL RD.)

(3) FOR ESTIMATION PURPOSES ONLY.

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81, UNLESS NOTED OTHERWISE.

ELEVATION OF BRIDGE IS SHOWN ALONG THE FINISH GRADE LINE.

FOR PLAN VIEW, SEE SHEET NO. B062.

SEE SHEET NO. B064 FOR DESIGN DATA, FINISH GRADE DATA, FOUNDATION DATA, SUMMARY OF QUANTITIES, VERTICAL CLEARANCE SIGN DETAILS AND INDEX OF SHEETS.

FOR FOUNDATION REPORTS, SEE SHEET NOS. B065 AND B066.

Design	.	
Drawn	PKW	05/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

GENERAL PLAN AND ELEVATION (2 OF 3)

CONST. 70'-101'-70' TYPE IV P.C. BEAM W/ 50'-0" CLR. RDWY. AND CONC. PARAPETS (FSHP-42) SKEWED 16°04'53.72" LF
℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B063

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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DESIGN DATA
(LOAD AND RESISTANCE FACTOR DESIGN)

CLASS "AA" CONCRETE	f'c = 4,000 PSI
CLASS "A" CONCRETE	f'c = 3,000 PSI
REINFORCING STEEL (GRADE 60)	fy = 60,000 PSI
STRUCTURAL STEEL M270 (Gr. 50W)	fy = 50,000 PSI
STAINLESS STEEL A240 (TYPE 316)	fy = 30,000 PSI

LOADING: HL-93 OR OKLAHOMA OVERLOAD TRUCK
20 PSF FUTURE WEARING SURFACE
5 PSF STAY-IN-PLACE FORMS

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.
STAINLESS STEEL WELDING CODE.

LRFR INVENTORY RATING FACTOR: 1.22
LFD OPERATING RATING: HS 44

FOUNDATION DATA

	ABUTMENTS (HP12x53 PILING):		ABUT. 1	ABUT. 2
(1)	FACTORED PILE REACTION (TONS/PILE)	=	96.1	96.1
	PILE LENGTH (AVG.) (BR. SEAT, VERTICAL) (FT.)	=	33.5	19.0
	PILE LENGTH (AVG.) (BR. SEAT, BATTERED) (FT.)	=	34.5	19.5
(2)	PILE LENGTH (AVG.) (WINGS) (FT.)	=	38.5	23.5

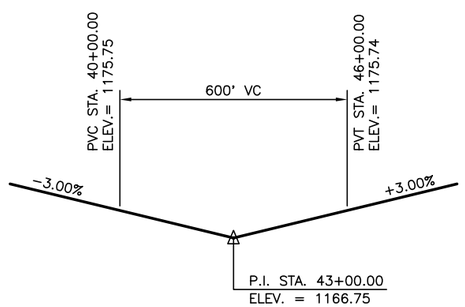
PIERS (72" DIAMETER DRILLED SHAFTS)		PIER 1	PIER 2
MINIMUM DEPTH INTO ROCK (FT.)	=	12.0	12.0
DEPTH OF ROCK NEGLECTED FOR FRICTION (FT.)	=	6.0	6.0
UNIT BEARING RESISTANCE (TSF)	=	49.4	49.4
BEARING RESISTANCE FACTOR	=	0.7	0.7
FACTORED BEARING RESISTANCE (TONS/SHAFT)	=	977.7	977.7
UNIT FRICTION RESISTANCE (TSF)	=	8.5	8.5
FRICTION RESISTANCE FACTOR	=	0.45	0.45
FACTORED FRICTION RESISTANCE (TONS/SHAFT)	=	432.6	432.6
TOTAL FACTORED RESISTANCE (TONS/SHAFT)	=	1410.3	1410.3
TOTAL FACTORED REACTION (TONS/SHAFT)	=	599.7	562.8

(1) ABUTMENT PILING SHALL BE DRIVEN THROUGH THE COMPACTED FILL. PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE FACTORED PILE REACTION IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE FACTORED PILE REACTION IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

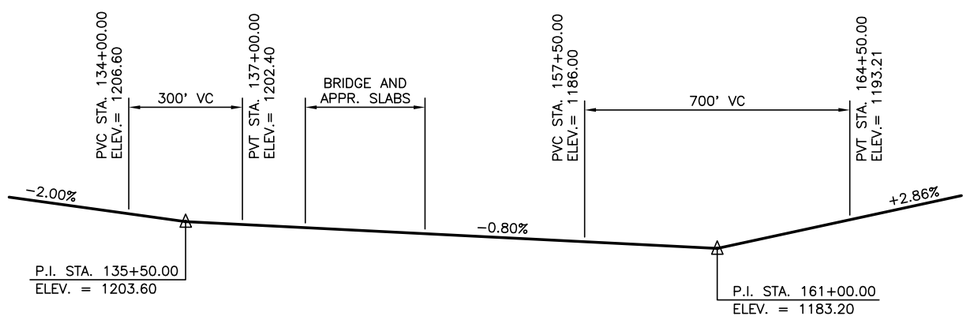
(2) HP10x42 PILES, WINGS

SUMMARY OF QUANTITIES (BRIDGE "C")

DESCRIPTION	UNITS	ABUTS.	PIERS	SUPSTR.	APPR. SLABS	SLOPE WALLS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	240.00					240.00
CLSM BACKFILL	CY	289.60					289.60
PRESTRESSED CONCRETE BEAMS (TYPE IV)	LF			1430.75			1430.75
APPROACH SLAB	SY				417.30		417.30
SAW-CUT GROOVING	SY			1347.90	393.20		1741.10
SEALED EXPANSION JOINT	LF			52.89			52.89
42" F-SHAPED PARAPET	LF			484.80	141.60		626.40
STRUCTURAL STEEL	LB			1970.00			1970.00
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA			12.00			12.00
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA			24.00			24.00
CLASS AA CONCRETE	CY			364.10			364.10
CLASS A CONCRETE	CY	124.70	176.90				301.60
CLASS C CONCRETE	CY						12.00
SLOPE WALL (5")	SY					1234.00	1234.00
REINFORCING STEEL	LB		2330.00				2330.00
EPOXY COATED REINFORCING STEEL	LB	16660.00	22520.00	95870.00			135050.00
PILES, FURNISHED (HP10x42)	LF	124.00					124.00
PILES, FURNISHED (HP12x53)	LF	587.00					587.00
PILES, DRIVEN (HP10x42)	LF	124.00					124.00
PILES, DRIVEN (HP12x53)	LF	587.00					587.00
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	1.00					1.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	141.00	331.00	1004.00	67.00		1543.00
DRILLED SHAFTS 72" DIAMETER	LF		135.00				135.00
CROSSHOLE SONIC LOGGING	EA		2.00				2.00
SEALER CRACK PREPARATION	LF			53.00			53.00
SEALER RESIN	GAL			0.50			0.50
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	111.00				117.00	228.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	150.00				53.00	203.00



FINISH GRADE DATA
QUAIL RD. (UNDER)



FINISH GRADE DATA
US 81

NOTE: STATIONING FOLLOWS ℄ SURVEY US 81. FINISH GRADE IS ALONG FINISH GRADE LINE (FGL).

TEMPORARY VERTICAL CLEARANCE SIGNS:

BRIDGE "C" CONTROLS THE VERTICAL CLEARANCE OVER QUAIL RD. (BRIDGE "D" HAS A HIGHER CLEARANCE). A VERTICAL CLEARANCE SIGN WILL BE INSTALLED ON THE EAST SIDE OF BRIDGE "D" (OVER THE MIDPOINT OF QUAIL RD.) TO REFLECT THE CONTROLLING CLEARANCE, BUT BRIDGE "D" MAY BE BUILT AFTER BRIDGE "C". IF BRIDGE "C" IS BUILT FIRST, A TEMPORARY VERTICAL CLEARANCE SIGN SHALL BE INSTALLED ON THE EAST SIDE OF BRIDGE "C" (OVER THE MIDPOINT OF QUAIL RD.). COSTS TO BE INCLUDED IN OTHER ITEMS OF WORK.

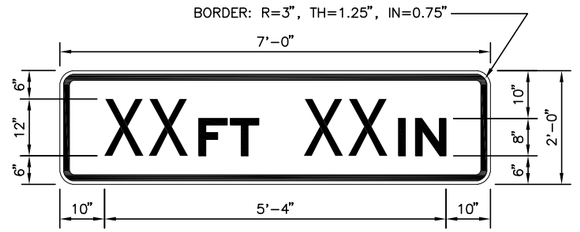
REVISIONS	
DESCRIPTION	DATE

INDEX OF SHEETS (BRIDGE "C")

SHEET NO.	TITLE
AB03	PAY QUANTITIES (BRIDGES "C" AND "D")
AB04	GENERAL NOTES (BRIDGES "C" AND "D")
B062-B064	GENERAL PLAN AND ELEVATION
B065-B066	FOUNDATION REPORT
B067	SUBSTRUCTURE LAYOUT DATA
B068	SUBSTRUCTURE STAKING DIAGRAM
B069-B070	ABUTMENT 1 DETAILS
B071	ABUTMENT 1 WINGWALL DETAILS
B072-B073	ABUTMENT 2 DETAILS
B074	ABUTMENT 2 WINGWALL DETAILS
B075	SUBSTRUCTURE EXCAVATION AND PIPE UNDERDRAIN ASSEMBLY DETAILS
B076	PIER 1 DETAILS
B077	PIER 2 DETAILS
B078-B079	MISCELLANEOUS PIER DETAILS
B080	TYPICAL SECTION
B081-B082	LONGITUDINAL SECTION
B083	BEARING DETAILS
B084	P.C. BEAM AND DIAPHRAGM LAYOUT PLAN
B085	DIAPHRAGM DETAILS
B086	SLAB PLAN SHOWING CANTILEVER LAYOUT
B087	BOTTOM SLAB REINFORCING PLAN
B088	TOP SLAB REINFORCING PLAN AND PARAPET LAYOUT
B089	MISCELLANEOUS SUPERSTRUCTURE DETAILS
B090	EXPANSION JOINT DETAILS
B091	70' TYPE IV P.C. BEAM DETAILS
B092	101' TYPE IV P.C. BEAM DETAILS
B093-B095	APPROACH SLAB DETAILS
B096-B097	SLOPE WALL DETAILS
B098	DRAIN AT END BRIDGE DETAILS

THE FOLLOWING STANDARDS SHALL BE REQUIRED:

FSHP-42-2-00E
EJ-SK-04E
EJ-DTL-02E
HP1-2-01E
LECS-4-2
PUD-3-3



SIGN NUMBER	W12-2p
WIDTH x HEIGHT	7'-0" x 2'-0"
BORDER WIDTH	1.25"
CORNER RADIUS	3"
MOUNTING	BRIDGE PARAPET
BACKGROUND	TYPE: REFLECTIVE
	COLOR: YELLOW
LEGEND & BORDER	TYPE: REFLECTIVE
	COLOR: BLACK

VERTICAL CLEARANCE SIGN DETAILS

NOTES: INSTALL ONE (1) PERMANENT SIGN ON THE WEST PARAPET IN SPAN 2, OVER THE MIDPOINT OF QUAIL RD.

SIGN SHOULD INDICATE A VERTICAL CLEARANCE OF 3" MIN. LESS THAN THE FINAL MEASURED CLEARANCE. THE CONTRACTOR SHALL CONTACT ODOT DIV. 7 FOR FINAL MEASUREMENT OF VERTICAL CLEARANCE.

HARDWARE AND CONNECTION DETAILS TO THE PARAPET SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

ALL COSTS FOR FABRICATION, LABOR, MATERIALS, HARDWARE AND INSTALLATION OF THE VERTICAL CLEARANCE SIGN, COMPLETE-IN-PLACE, SHALL BE INCLUDED IN THE PRICE BID FOR "SHEET ALUMINUM SIGNS", PER SQ. FT. (TRAFFIC ITEM).

THE INSTALLATION OF THE PERMANENT VERTICAL CLEARANCE SIGN DOES NOT RELIEVE THE CONTRACTOR OF MAINTAINING APPROPRIATE VERTICAL CLEARANCE SIGNS DURING CONSTRUCTION. SEE BOXED NOTE, THIS SHEET. COSTS TO BE INCLUDED IN OTHER ITEMS OF WORK.

Design	.	
Drawn	PKW	05/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

GENERAL PLAN AND ELEVATION (3 OF 3)

CONST. 70'-101'-70' TYPE IV P.C. BEAM W/ 50'-0" CLR. RDWY. AND CONC. PARAPETS (FSHP-42) SKEWED 16°04'53.72" LF
℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B064

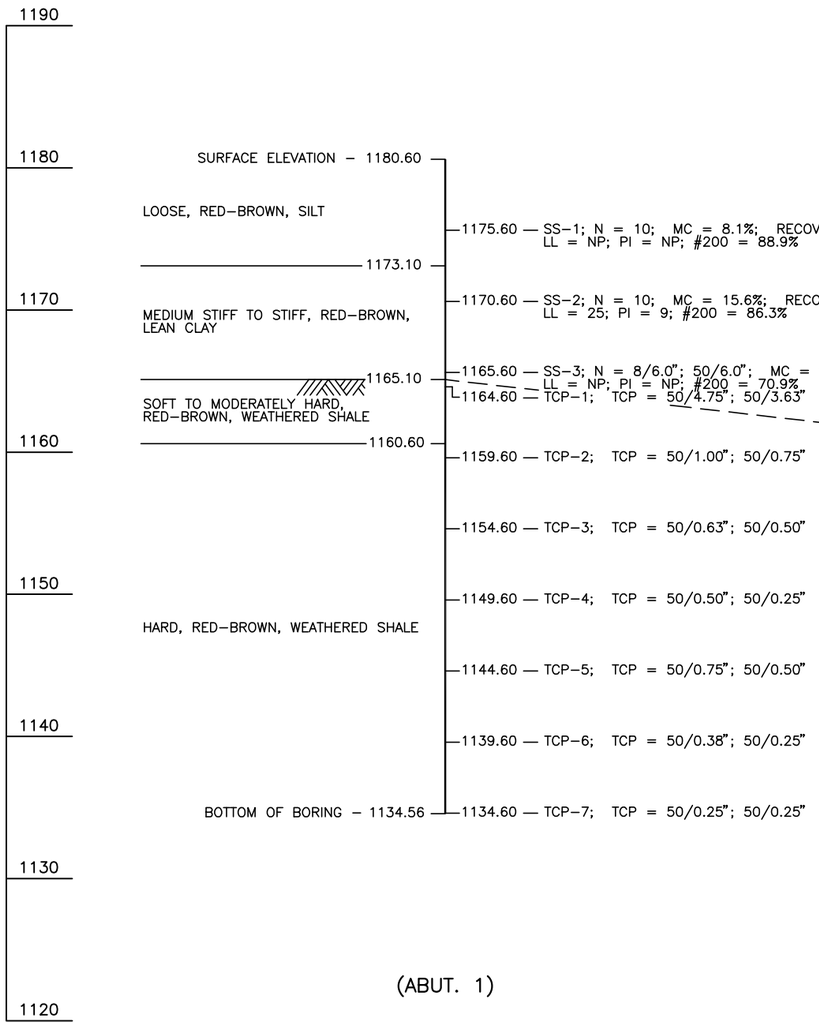
"PRELIMINARY PLANS - NOT FOR CONSTRUCTION"

M:\W2M Projects\Project Files\M179\Final Design C & D\B065-2442813-FOUNDATION REPORT 1.dwg 5/18/2020 2:18:10 PM

REVISIONS	
DESCRIPTION	DATE

BORING NO. C–1
STA. 139+46.40
78.6' LT.

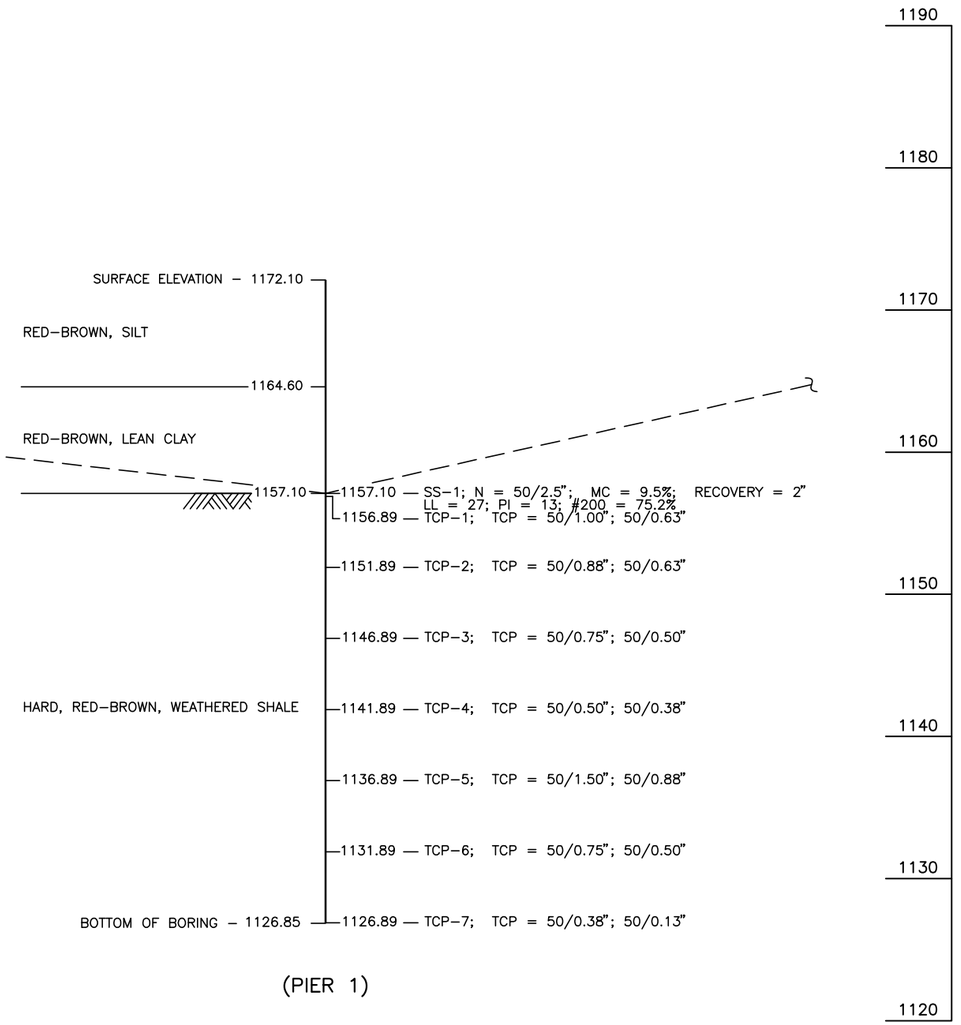
(DECEMBER 10, 2019)



(ABUT. 1)

BORING NO. C–2
STA. 140+28.40
37.9' LT.

(NOVEMBER 27, 2019)



(PIER 1)

INTERPRETED FOUNDATION LINE (1)

NOTES: ALL GEOTECHNICAL INFORMATION CONTAINED ON THIS SHEET IS COVERED BY THE ENGINEERING SEAL AFFIXED TO AN ORIGINAL GEOTECHNICAL ENGINEERING REPORT THAT HAS BEEN STAMPED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN OKLAHOMA. TO OBTAIN A COPY OF THE COMPLETE REPORT, CONTACT THE ODOT OFFICE ENGINEER AT (405)521–2625. THE CONTRACTOR SHOULD BE FULLY AWARE OF THE SITE CONDITIONS PRIOR TO BEGINNING WORK. ANY ADDITIONAL GEOTECHNICAL INFORMATION WHICH MAY BE DESIRED IS THE RESPONSIBILITY OF THE CONTRACTOR.

BORING LOCATIONS (STATIONS) ARE NOT TO SCALE HORIZONTALLY.

ALL STATIONS AND OFFSETS ARE REFERENCED TO THE ℄ SURVEY US 81.

GEOLOGY:

THE SUBJECT BRIDGE IS SITUATED IN A GEOLOGIC AREA BEST DESCRIBED AS BEING PART OF THE DOG CREEK–BLAINE SUBUNIT (PDB) UNDIFFERENTIATED. ACCORDING TO PUBLISHED MATERIALS ("ENGINEERING CLASSIFICATION OF GEOLOGIC MATERIALS: DIVISION SEVEN", 1969, OKLAHOMA HIGHWAY DEPARTMENT), THE DOG CREEK–BLAINE SUBUNIT CONSISTS OF DARK RED SHALES INTERBEDDED WITH MINOR AMOUNTS OF FINE–GRAINED GYPSIFEROUS SANDSTONES THAT LOCALLY GRADE INTO PURE GYPSUM. MUDSTONE CONGLOMERATES A FEW FEET IN THICKNESS OCCUR SPARINGLY WITHIN THE STRATA.

NOTE: GROUNDWATER WAS NOT ENCOUNTERED IN ANY OF THE BORINGS DURING OR AFTER DRILLING OPERATIONS. GROUNDWATER LEVELS MAY FLUCTUATE THROUGHOUT THE YEAR.

TOP OF ROCK

(1) FOR ESTIMATION PURPOSES ONLY.

Design	.	
Drawn	PKW	01/20
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US–81 OVER QUAIL RD.

FOUNDATION REPORT (1 OF 2)

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B065

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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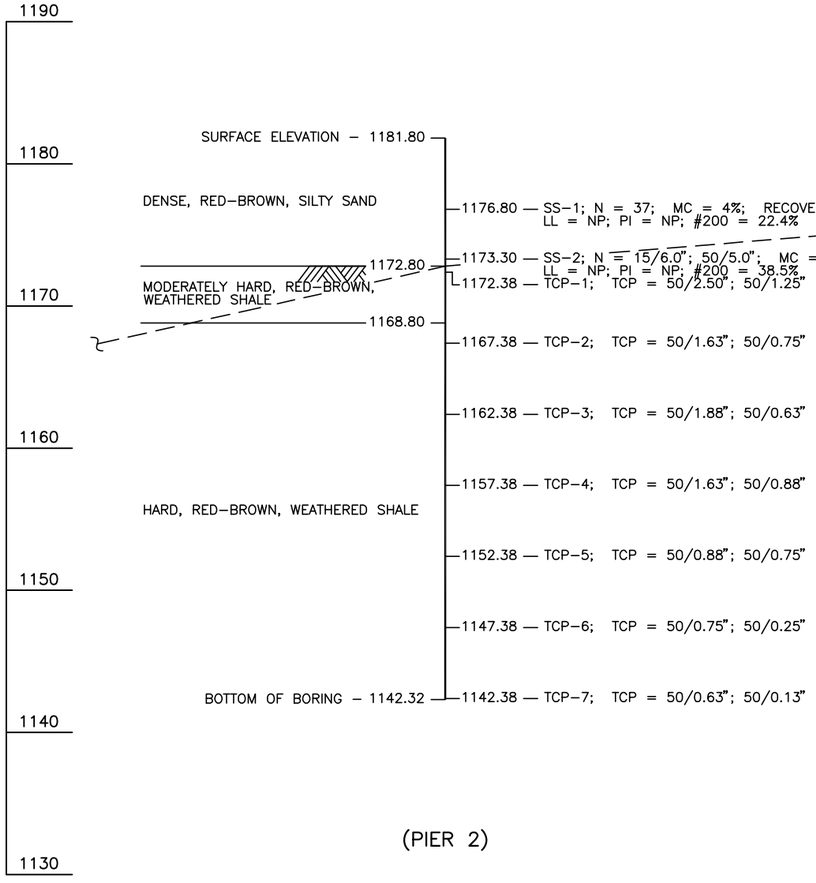
REVISIONS	
DESCRIPTION	DATE

BORING NO. C–3
STA. 141+27.00
73.5' LT.

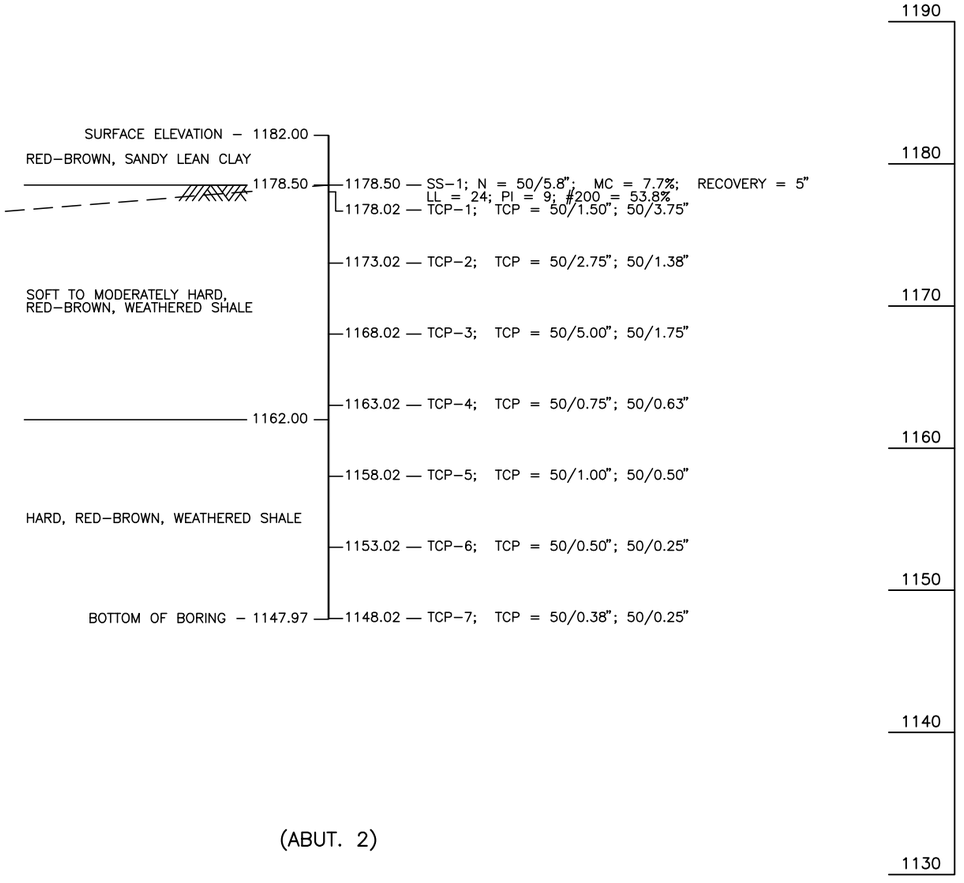
(DECEMBER 2, 2019)



(PIER 2)

BORING NO. C–4
STA. 141+88.30
24.4' LT.

(DECEMBER 12, 2019)



(ABUT. 2)

INTERPRETED FOUNDATION LINE (1)

NOTES: ALL GEOTECHNICAL INFORMATION CONTAINED ON THIS SHEET IS COVERED BY THE ENGINEERING SEAL AFFIXED TO AN ORIGINAL GEOTECHNICAL ENGINEERING REPORT THAT HAS BEEN STAMPED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN OKLAHOMA. TO OBTAIN A COPY OF THE COMPLETE REPORT, CONTACT THE ODOT OFFICE ENGINEER AT (405)521–2625. THE CONTRACTOR SHOULD BE FULLY AWARE OF THE SITE CONDITIONS PRIOR TO BEGINNING WORK. ANY ADDITIONAL GEOTECHNICAL INFORMATION WHICH MAY BE DESIRED IS THE RESPONSIBILITY OF THE CONTRACTOR.

BORING LOCATIONS (STATIONS) ARE NOT TO SCALE HORIZONTALLY.

ALL STATIONS AND OFFSETS ARE REFERENCED TO THE ℄ SURVEY US 81.

GEOLOGY:

THE SUBJECT BRIDGE IS SITUATED IN A GEOLOGIC AREA BEST DESCRIBED AS BEING PART OF THE DOG CREEK–BLAINE SUBUNIT (PDB) UNDIFFERENTIATED. ACCORDING TO PUBLISHED MATERIALS ("ENGINEERING CLASSIFICATION OF GEOLOGIC MATERIALS: DIVISION SEVEN", 1969, OKLAHOMA HIGHWAY DEPARTMENT), THE DOG CREEK–BLAINE SUBUNIT CONSISTS OF DARK RED SHALES INTERBEDDED WITH MINOR AMOUNTS OF FINE–GRAINED GYPSIFEROUS SANDSTONES THAT LOCALLY GRADE INTO PURE GYPSUM. MUDSTONE CONGLOMERATES A FEW FEET IN THICKNESS OCCUR SPARINGLY WITHIN THE STRATA.

NOTE: GROUNDWATER WAS NOT ENCOUNTERED IN ANY OF THE BORINGS DURING OR AFTER DRILLING OPERATIONS. GROUNDWATER LEVELS MAY FLUCTUATE THROUGHOUT THE YEAR.

TOP OF ROCK

(1) FOR ESTIMATION PURPOSES ONLY.

Design	.	
Drawn	PKW	01/20
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US–81 OVER QUAIL RD.

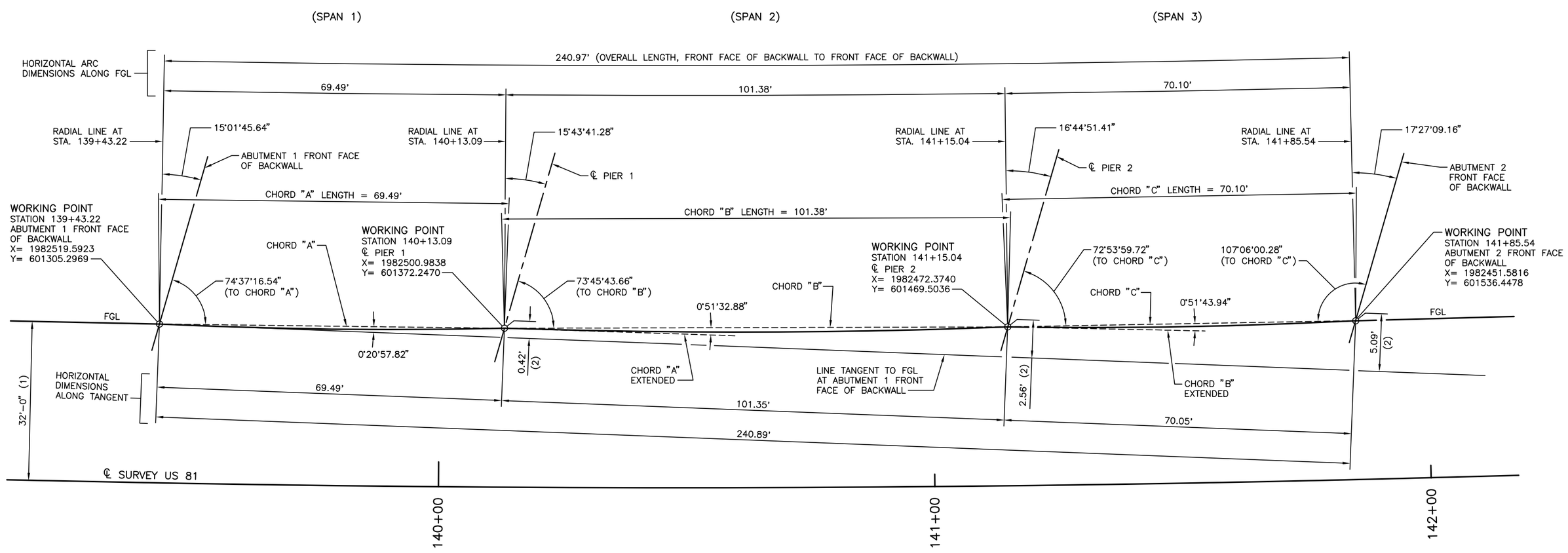
FOUNDATION REPORT (2 OF 2)
℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B066

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

M:\W2M Projects\Project Files\M179\Final Design C & D\B067-2442813-SUBSTRUCTURE LAYOUT DATA.dwg 5/18/2020 2:20:02 PM

REVISIONS	
DESCRIPTION	DATE



SUBSTRUCTURE LAYOUT DATA
(NOT TO SCALE)

NOTES: THE FGL CURVE WITHIN EACH SPAN IS EXAGGERATED TO CLARIFY THE DIMENSIONS AND CHORD LINES. IN REALITY, THE CURVE FOLLOWS A CONSTANT RADIUS.

ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ALL SUBSTRUCTURE WORKING LINES (FRONT FACE OF BACKWALL AND ℄ PIER LINES) ARE PARALLEL TO A LINE SKEWED 15°01'45.64" LEFT FORWARD TO A RADIAL LINE AT STA. 139+43.22.

FOR SUBSTRUCTURE STAKING DIAGRAM, SEE SHEET NO. B068.

℄ SURVEY US 81 CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

NOTE: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

(1) RADIAL DIMENSION.

(2) PERPENDICULAR DIMENSION FROM TANGENT LINE TO WORKING POINT.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

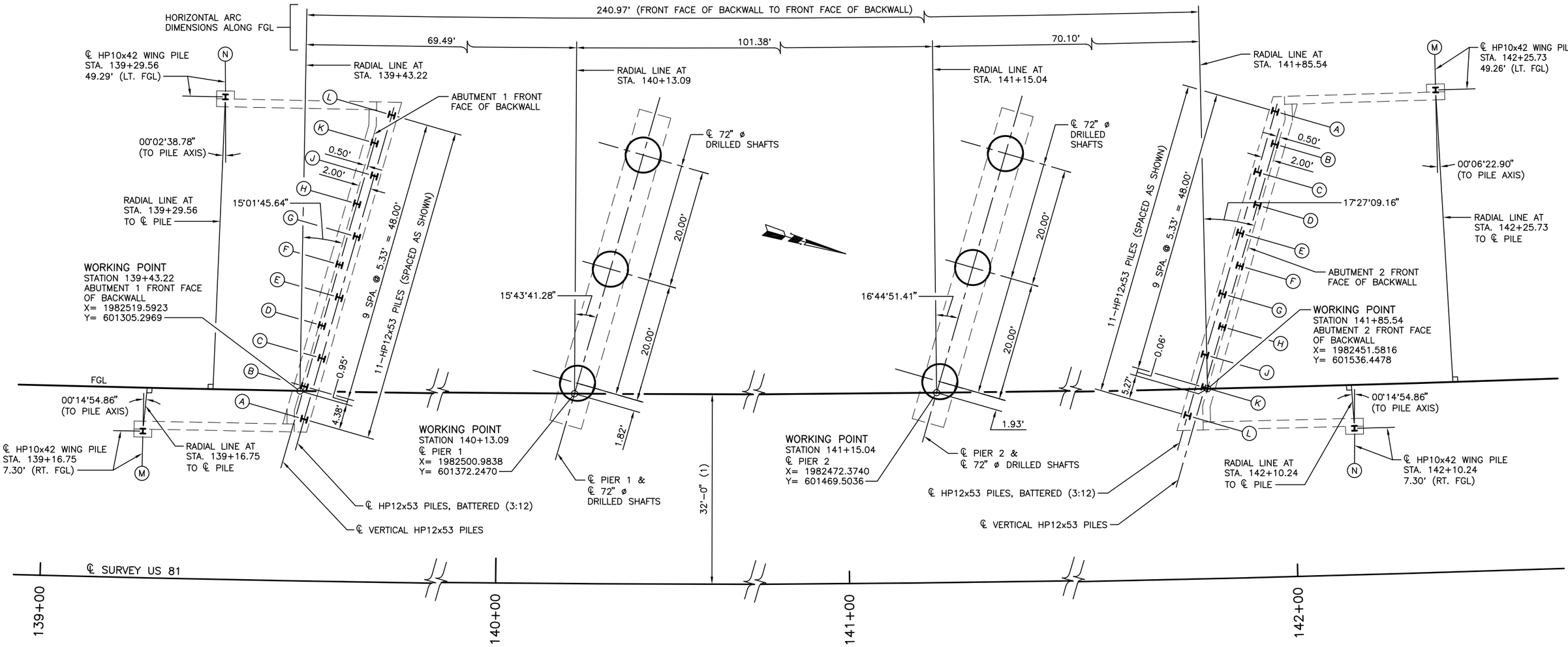
SUBSTRUCTURE LAYOUT DATA
℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B067

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

M:\W2M Projects\Project Files\M179\Final Design C & D\B068-2442813-SUBSTRUCTURE STAKING DIAGRAM.dwg 5/18/2020 2:20:39 PM

REVISIONS	
DESCRIPTION	DATE

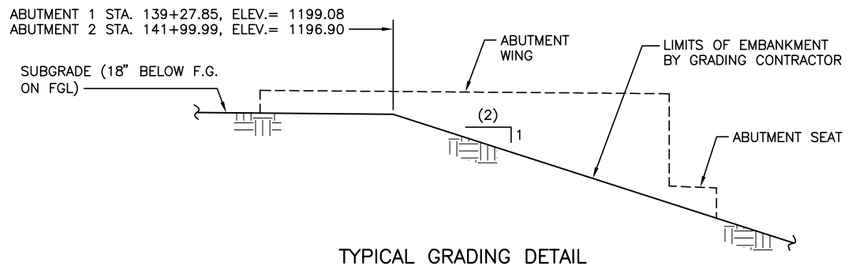


(1) RADIAL DIMENSION.

(2) 3.11 (ABUTMENT 1)
3.14 (ABUTMENT 2)

SUBSTRUCTURE STAKING DIAGRAM
(NOT TO SCALE)
(PILE ENCASEMENTS NOT SHOWN FOR CLARITY.)

PILE CUT-OFF ELEVATIONS		
PILE	ABUTMENT 1	ABUTMENT 2
A	1192.86	1189.10
B	1192.68	1189.28
C	1192.49	1189.47
D	1192.31	1189.65
E	1192.12	1189.84
F	1191.93	1190.02
G	1191.75	1190.21
H	1191.56	1190.40
J	1191.38	1190.58
K	1191.19	1190.77
L	1191.00	1190.95
M	1197.87	1193.57
N	1195.96	1195.49



TYPICAL GRADING DETAIL
(ALONG FGL)

℄ SURVEY US 81 CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

ALL SUBSTRUCTURE WORKING LINES (FRONT FACE OF BACKWALL AND ℄ PIER LINES) ARE PARALLEL.

NOTES: BRIDGE SEAT PILES SHALL BE ORIENTED SUCH THAT THE FACE OF THE PILE WEB IS PERPENDICULAR TO THE FACE OF THE BRIDGE SEAT.

ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

FOR SUMMARY OF QUANTITIES, SEE SHEET NO. B064.

FOR SUBSTRUCTURE LAYOUT DATA, SEE SHEET NO. B067.

SEE STD. HP1-2 FOR STEEL PILE ENCASEMENT DETAILS.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

SUBSTRUCTURE STAKING DIAGRAM
℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B068

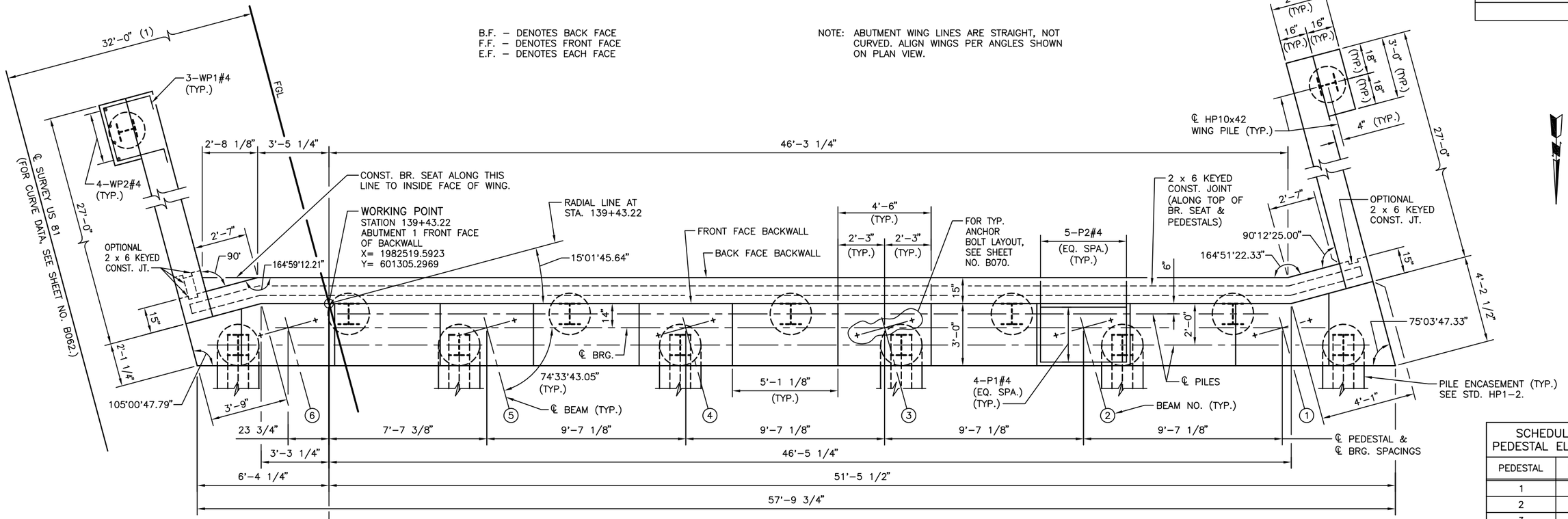
"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

M:\W2M Projects\Project Files\M179\Final Design C & D\B069-2442813-ABUTMENT 1 DETAILS 1.dwg 5/18/2020 2:21:56 PM

REVISIONS	
DESCRIPTION	DATE

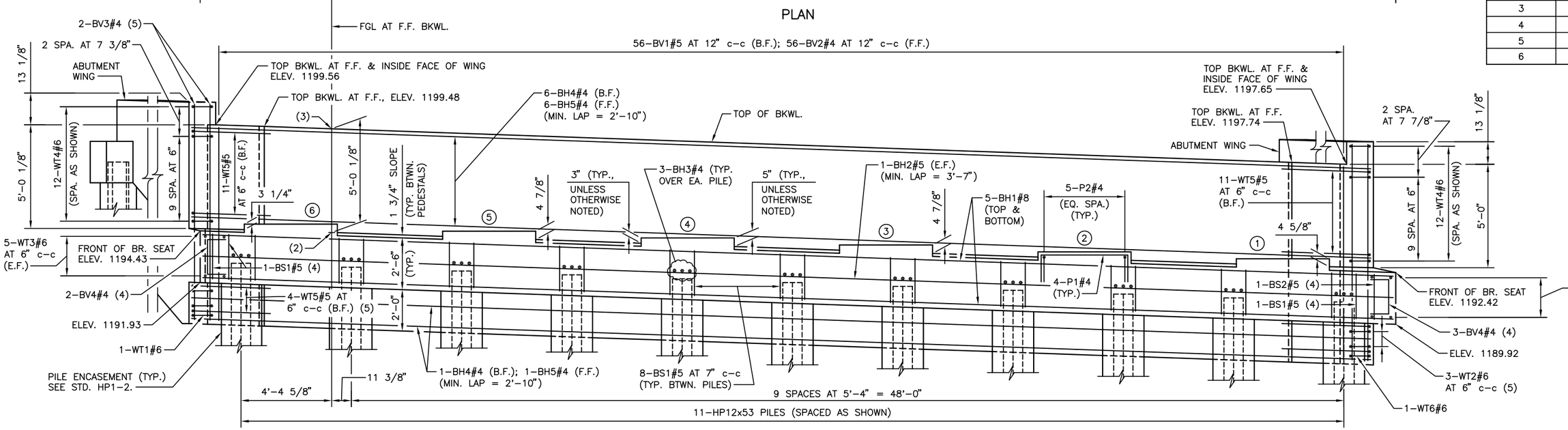
B.F. – DENOTES BACK FACE
F.F. – DENOTES FRONT FACE
E.F. – DENOTES EACH FACE

NOTE: ABUTMENT WING LINES ARE STRAIGHT, NOT CURVED. ALIGN WINGS PER ANGLES SHOWN ON PLAN VIEW.



PLAN

SCHEDULE OF PEDESTAL ELEVATIONS	
PEDESTAL	ELEVATION
1	1193.08
2	1193.42
3	1193.75
4	1194.09
5	1194.42
6	1194.76



ELEVATION
(LOOKING BACK-STATION)

NOTES: ALL REINFORCING STEEL CONNECTING THE BRIDGE SEAT AND/OR BACKWALL TO THE WINGS SHALL BE TIED IN PLACE PRIOR TO POURING BRIDGE SEAT AND BACKWALL (WT AND WV2 BARS).

FOR ADDITIONAL ABUTMENT 1 DETAILS, BAR BENDS, BAR LIST AND QUANTITIES, SEE SHEET NO. B070.

FOR WING DETAILS, SEE SHEET NO. B071.

FOR SUBSTRUCTURE STAKING DIAGRAM AND TOP OF PILE ELEVATIONS, SEE SHEET NO. B068.

(1) RADIAL DIMENSION.
(2) BR. SEAT ELEV. AT FGL & F.F. 1194.36
(3) TOP BKWL. AT F.F. & FGL ELEV. 1199.37
(4) PLACED AS SHOWN ON SHEET NO. B070.
(5) TYP. EA. END.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

ABUTMENT 1 DETAILS (1 OF 2)

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B069

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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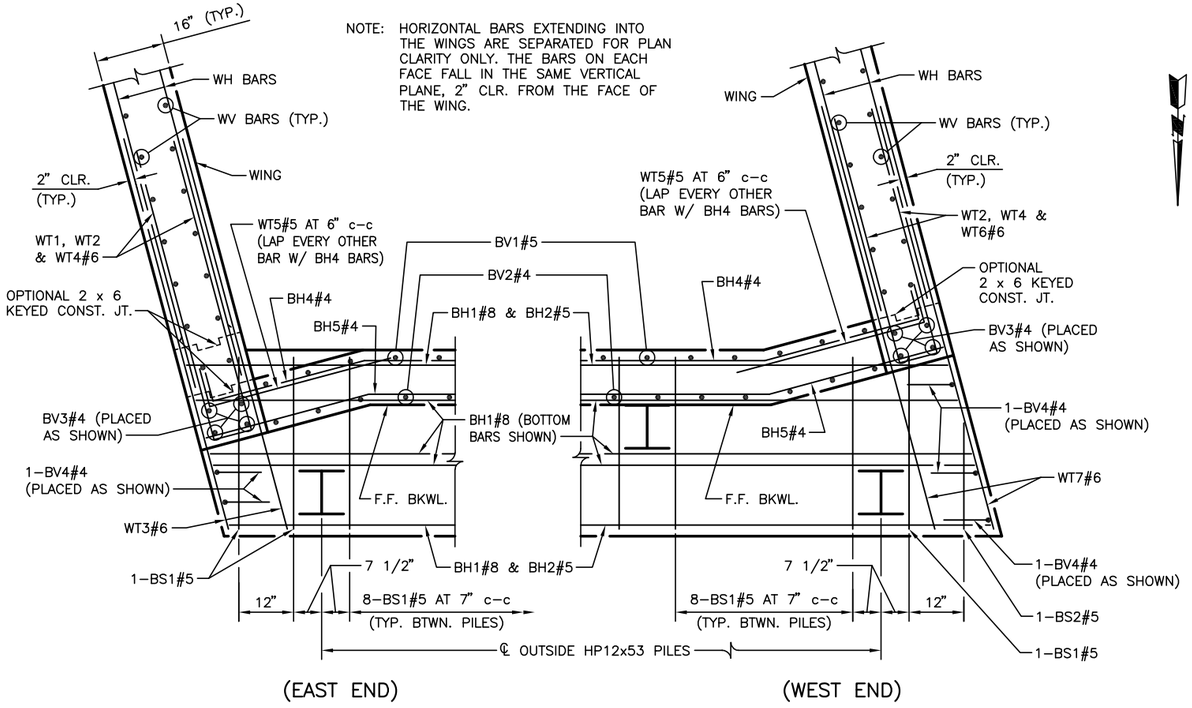
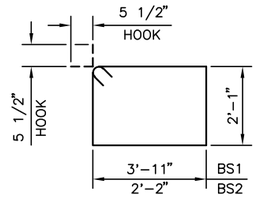


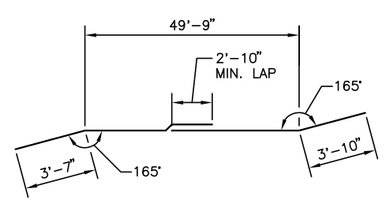
NOTE: HORIZONTAL BARS EXTENDING INTO THE WINGS ARE SEPARATED FOR PLAN CLARITY ONLY. THE BARS ON EACH FACE FALL IN THE SAME VERTICAL PLANE, 2" CLR. FROM THE FACE OF THE WING.

PART PLAN OF BRIDGE SEAT AND BACKWALL SHOWING REINFORCING STEEL

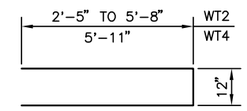
(BH3#4 BARS, OVER PILES, NOT SHOWN FOR CLARITY.)
(DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.)



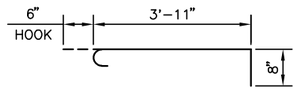
BS1#5 x 12'-11"
BS2#5 x 9'-5"



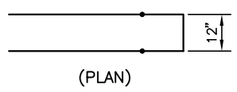
BH5#4 x 60'-0"

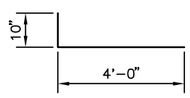


WT2#6 x 9'-1" AVG.
(VARIES 5'-10" TO 12'-4")
WT4#6 x 12'-10"

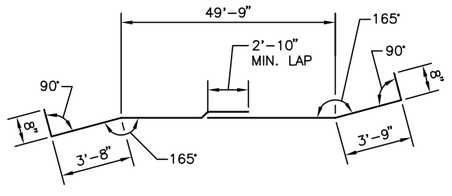


BH3#4 x 5'-1"

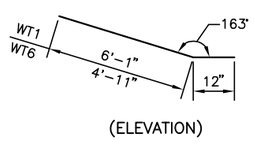




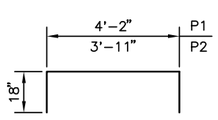
WT5#5 x 4'-10"



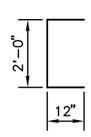
BH4#4 x 61'-4"



WT1#6 x 15'-2"
WT6#6 x 12'-10"



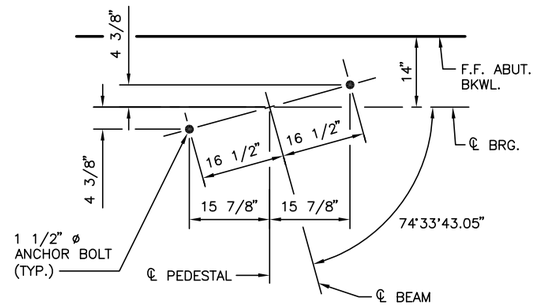
P1#4 x 7'-2"
P2#4 x 6'-11"



BV4#4 x 4'-0"

BAR BEND DETAILS

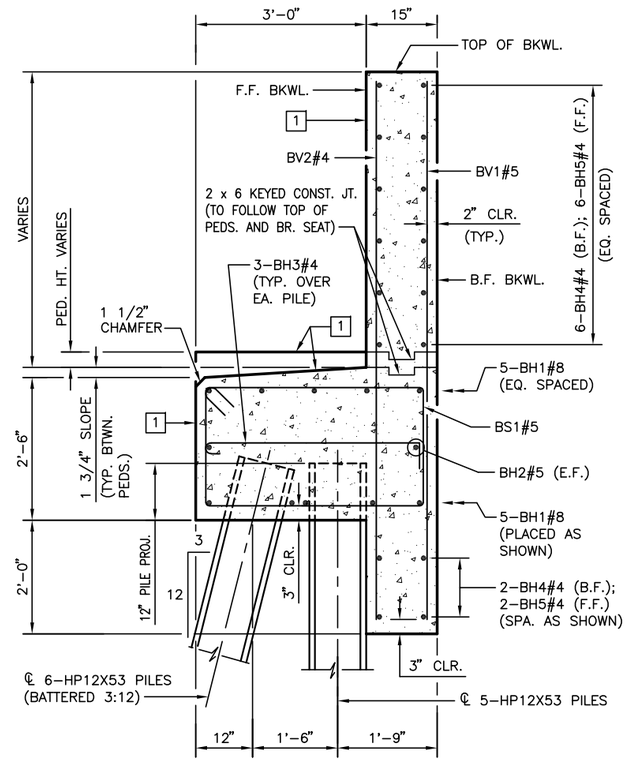
NOTE: FOR BAR BEND DETAILS NOT SHOWN, SEE SHEET NO. B071.



TYPICAL ANCHOR BOLT LAYOUT

ABUTMENT 1 BAR LIST					
MARK	NO.	SIZE	SHAPE	LENGTH	
(EPOXY COATED)					
BH1	10	8	STR.	57'-5"	
BH2	2	5	STR.	61'-1"	(1)
BH3	33	4	BNT.	5'-1"	
BH4	8	4	BNT.	61'-4"	(2)
BH5	8	4	BNT.	60'-0"	(2)
BS1	83	5	BNT.	12'-11"	
BS2	1	5	BNT.	9'-5"	
BV1	56	5	STR.	9'-2"	
BV2	56	4	STR.	9'-2"	
BV3	8	4	STR.	10'-3"	
BV4	5	4	BNT.	4'-0"	
P1	24	4	BNT.	7'-2"	
P2	30	4	BNT.	6'-11"	
WH1	2	6	BNT.	25'-3"	
WH2	10	6	STR.	8'-4 1/2" AVG.	(3)
WH3	10	6	STR.	17'-7 1/2" AVG.	(4)
WH4	26	6	STR.	25'-5"	
WH5	2	6	BNT.	26'-5"	
WH6	22	6	STR.	14'-1 1/2" AVG.	(5)
WP1	6	4	BNT.	8'-8"	
WP2	8	4	STR.	1'-7"	
WT1	1	6	BNT.	15'-2"	
WT2	6	6	BNT.	9'-1" AVG.	(6)
WT3	10	6	STR.	9'-5"	
WT4	24	6	BNT.	12'-10"	
WT5	30	5	BNT.	4'-10"	
WT6	1	6	BNT.	12'-10"	
WT7	10	6	STR.	10'-1"	
WV1	16	4	STR.	3'-6"	
WV2	88	4	STR.	6'-11 1/2" AVG.	(7)

(1) LENGTH INCLUDES ONE (1) 3'-7" LAP SPLICE.
(2) LENGTH INCLUDES ONE (1) 2'-10" LAP SPLICE.
(3) 5 BARS VARYING FROM 5'-1" TO 11'-8"; TWO OF EACH LENGTH.
(4) 5 BARS VARYING FROM 14'-4" TO 20'-11"; TWO OF EACH LENGTH.
(5) 11 BARS VARYING FROM 6'-0" TO 22'-3"; TWO OF EACH LENGTH.
(6) 3 BARS VARYING FROM 5'-10" TO 12'-4"; TWO OF EACH LENGTH.
(7) 22 BARS VARYING FROM 3'-10" TO 10'-1"; FOUR OF EACH LENGTH.



SECTION THRU BRIDGE SEAT

(SHOWN BETWEEN BENDS IN BACKWALL.)
(PILE ENCASEMENTS ARE NOT SHOWN FOR CLARITY.)

[1] TREAT WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT, INCLUDING SIDES OF PEDESTALS. THE FRONT FACE OF THE BRIDGE SEAT NEED ONLY BE TREATED ABOVE THE TOP OF SLOPE WALL.

B.F. – DENOTES BACK FACE
F.F. – DENOTES FRONT FACE
E.F. – DENOTES EACH FACE

ABUTMENT 1 QUANTITIES		
ITEM	UNITS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	120.00
CLSM BACKFILL	CY	142.60
CLASS A CONCRETE	CY	62.10
EPOXY COATED REINFORCING STEEL	LB	8280.00
PILES, FURNISHED (HP10x42)	LF	77.00
PILES, FURNISHED (HP12x53)	LF	375.00
PILES, DRIVEN (HP10x42)	LF	77.00
PILES, DRIVEN (HP12x53)	LF	375.00
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	1.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	70.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	55.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	75.00

NOTES: FOR WING DETAILS, SEE SHEET NO. B071.

STEEL PILE CONCRETE ENCASEMENTS NOT SHOWN FOR CLARITY. SEE STD. HP1-2 FOR DETAILS.

ALL EDGES OF THE ABUTMENT AND WINGS SHALL HAVE A 3/4" CHAMFER, UNLESS OTHERWISE SHOWN.

REVISIONS

DESCRIPTION	DATE

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

ABUTMENT 1 DETAILS (2 OF 2)

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B070

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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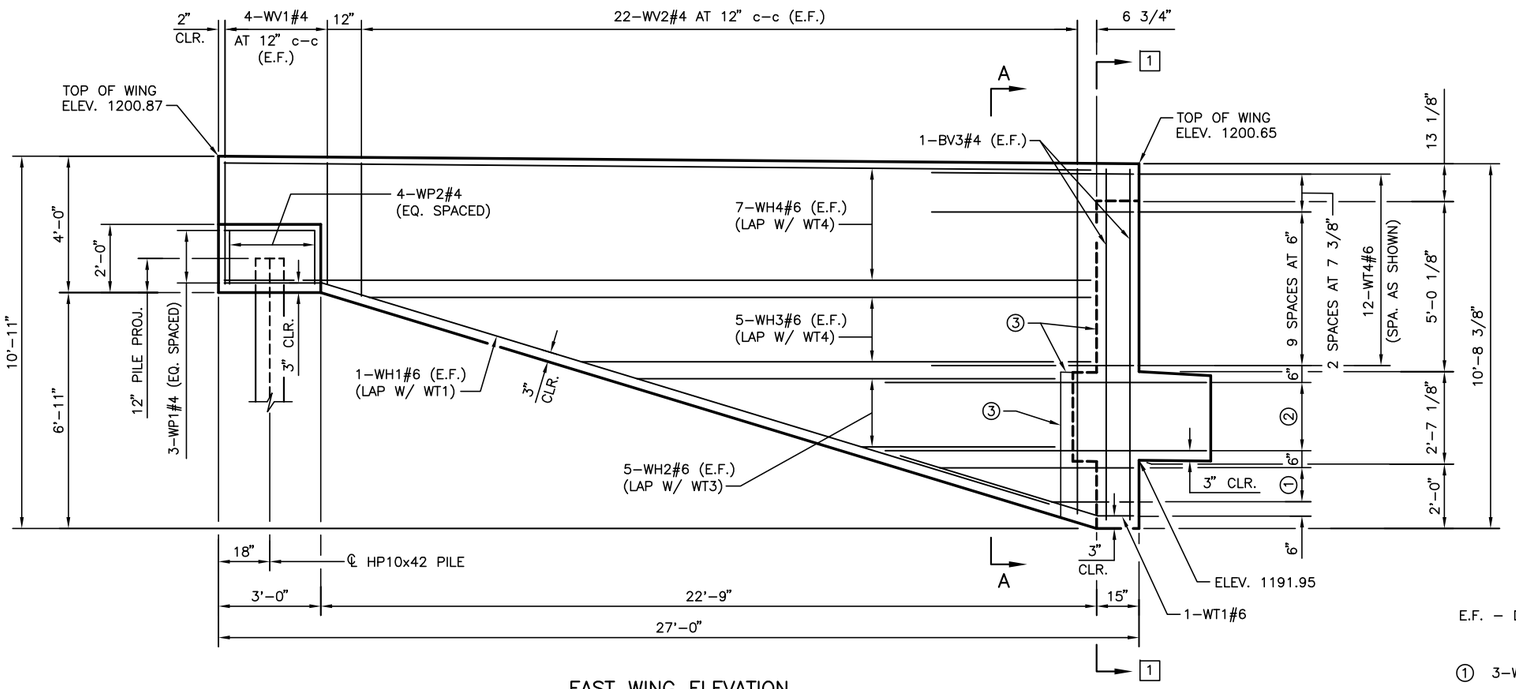
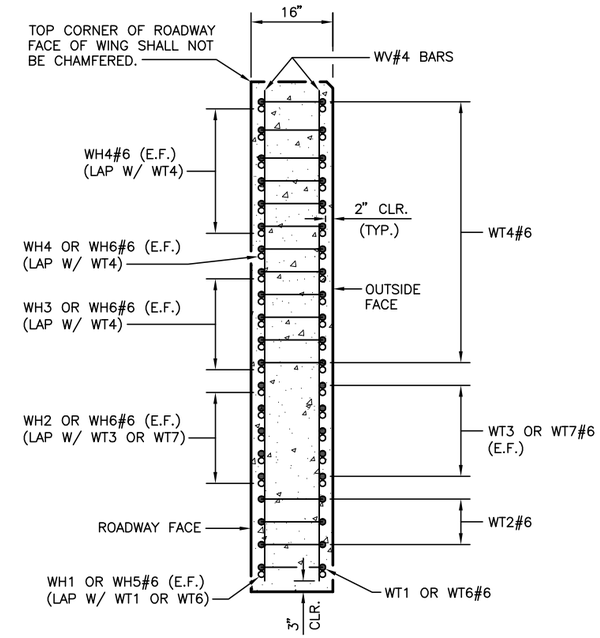
REVISIONS	
DESCRIPTION	DATE



EAST WING ELEVATION



SECTION A–A

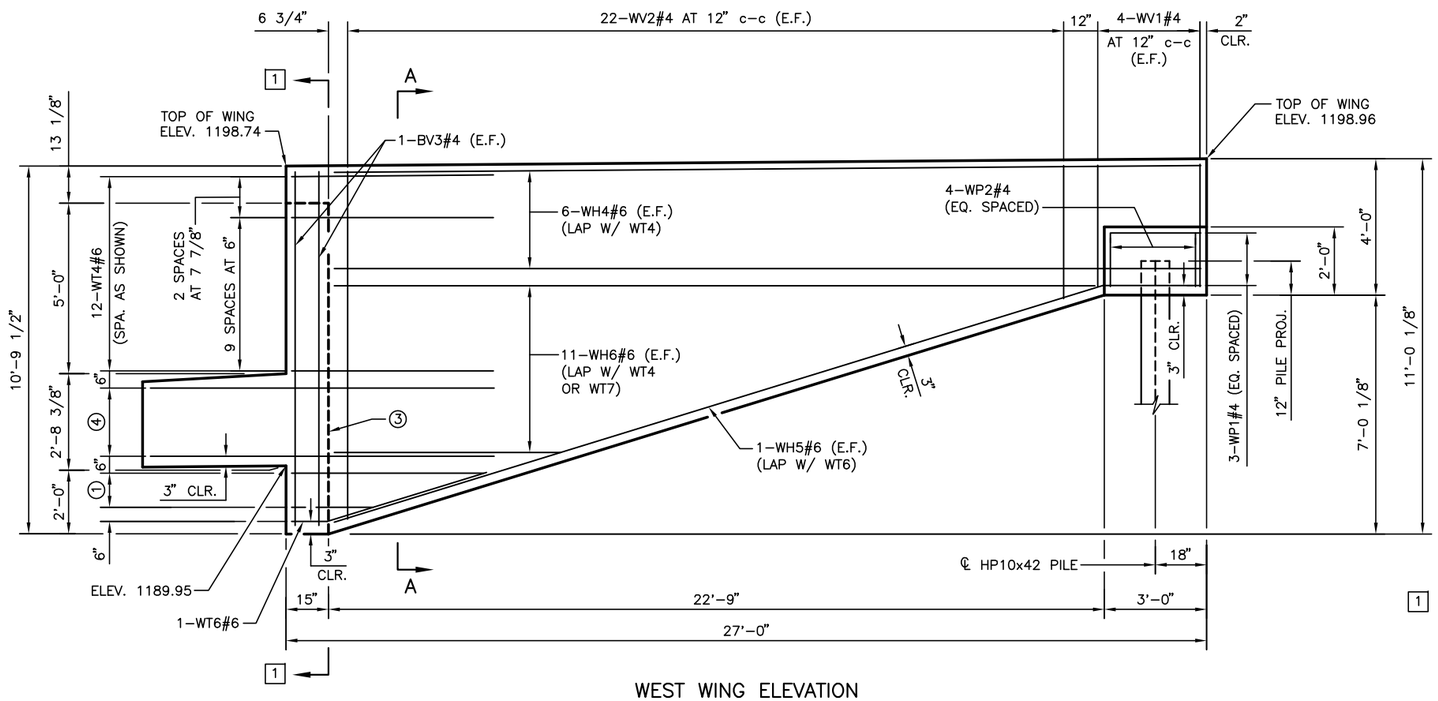
E.F. – DENOTES EACH FACE

① 3–WT2#6 AT 6" c–c

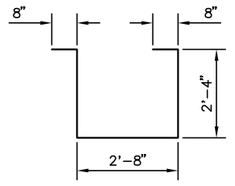
② 5–WT3#6 AT 6" c–c (E.F.)

③ OPTIONAL KEYED CONST. JOINT

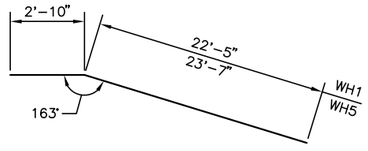
④ 5–WT7#6 AT 6" c–c (E.F.)



WEST WING ELEVATION



WP1#4 x 8'–8"



WH1#6 x 25'–3"
WH5#6 x 26'–5"

BAR BEND DETAILS

NOTE: FOR ABUTMENT BAR LIST AND WT BAR BEND DETAILS, SEE SHEET NO. B070.

1 TREAT ENDS OF BRIDGE SEAT AND ALL EXPOSED SURFACES OF WINGS WITH A WATER REPELLENT SURFACE TREATMENT, ABOVE THE FINISHED GROUND SURFACE AND IN FRONT (AHEAD) OF THE BACK FACE OF BACKWALL LINE.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US–81 OVER QUAIL RD.

ABUTMENT 1 WINGWALL DETAILS

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B071

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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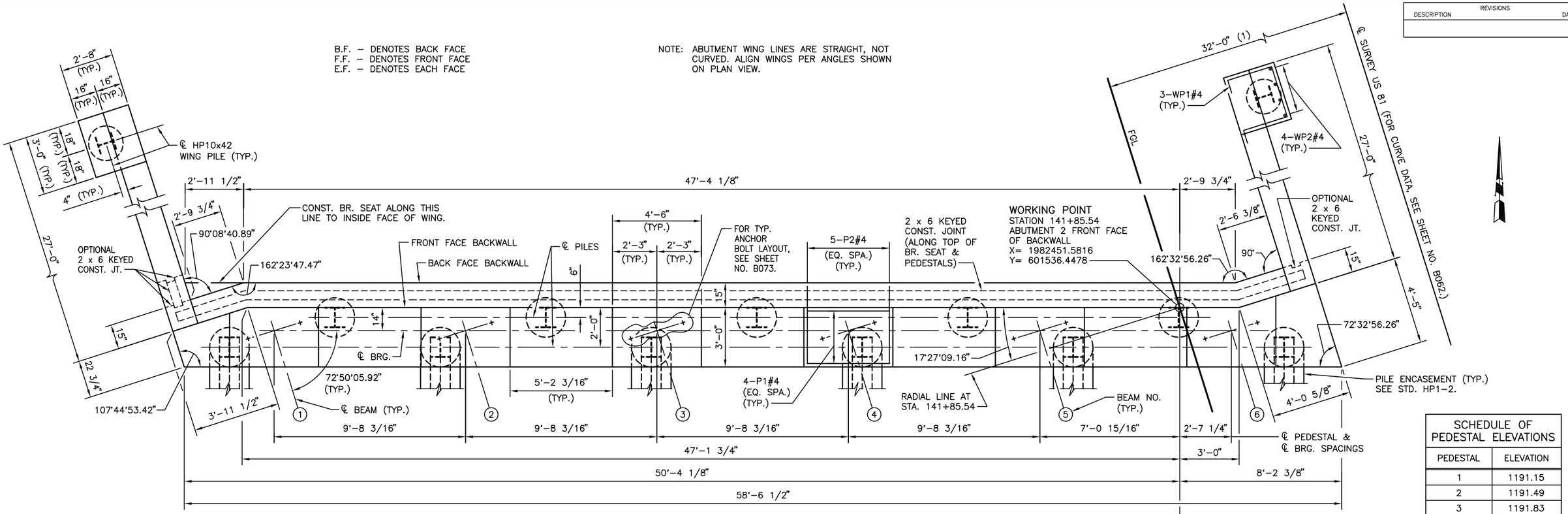
B.F. – DENOTES BACK FACE
F.F. – DENOTES FRONT FACE
E.F. – DENOTES EACH FACE

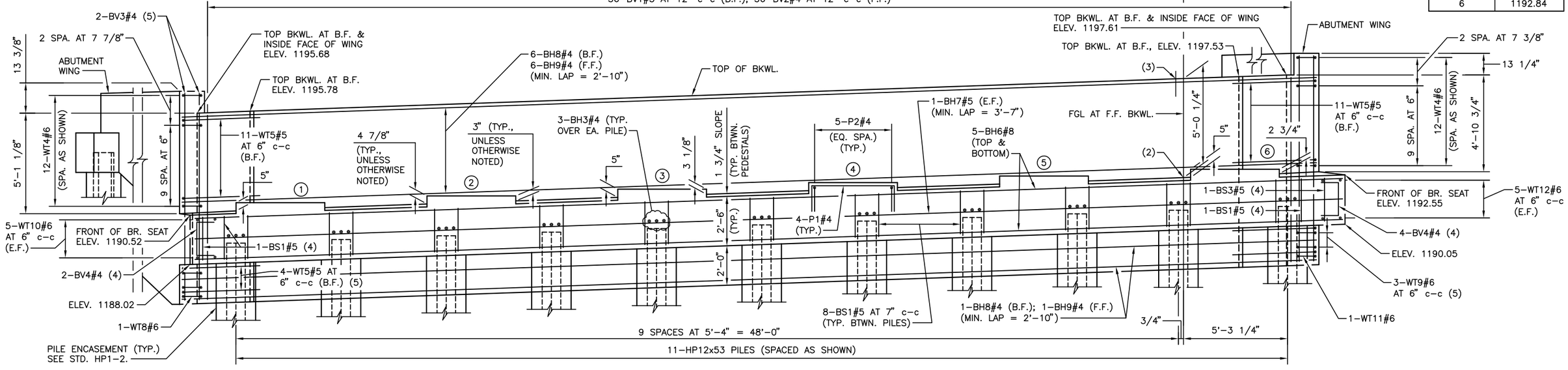
NOTE: ABUTMENT WING LINES ARE STRAIGHT, NOT CURVED. ALIGN WINGS PER ANGLES SHOWN ON PLAN VIEW.

REVISIONS	
DESCRIPTION	DATE



PLAN

SCHEDULE OF PEDESTAL ELEVATIONS	
PEDESTAL	ELEVATION
1	1191.15
2	1191.49
3	1191.83
4	1192.16
5	1192.50
6	1192.84



ELEVATION

NOTES:
ALL REINFORCING STEEL CONNECTING THE BRIDGE SEAT AND/OR BACKWALL TO THE WINGS SHALL BE TIED IN PLACE PRIOR TO POURING BRIDGE SEAT AND BACKWALL (WT AND WV3 BARS).

FOR ADDITIONAL ABUTMENT 2 DETAILS, BAR BENDS, BAR LIST AND QUANTITIES, SEE SHEET NO. B073.

FOR WING DETAILS, SEE SHEET NO. B074.

FOR SUBSTRUCTURE STAKING DIAGRAM AND TOP OF PILE ELEVATIONS, SEE SHEET NO. B068.

(1) RADIAL DIMENSION.
(2) BR. SEAT ELEV. AT FGL & F.F. 1192.41
(3) TOP BKWL. AT B.F. & FGL ELEV. 1197.42
(4) PLACED AS SHOWN ON SHEET NO. B073.
(5) TYP. EA. END.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

ABUTMENT 2 DETAILS (1 OF 2)

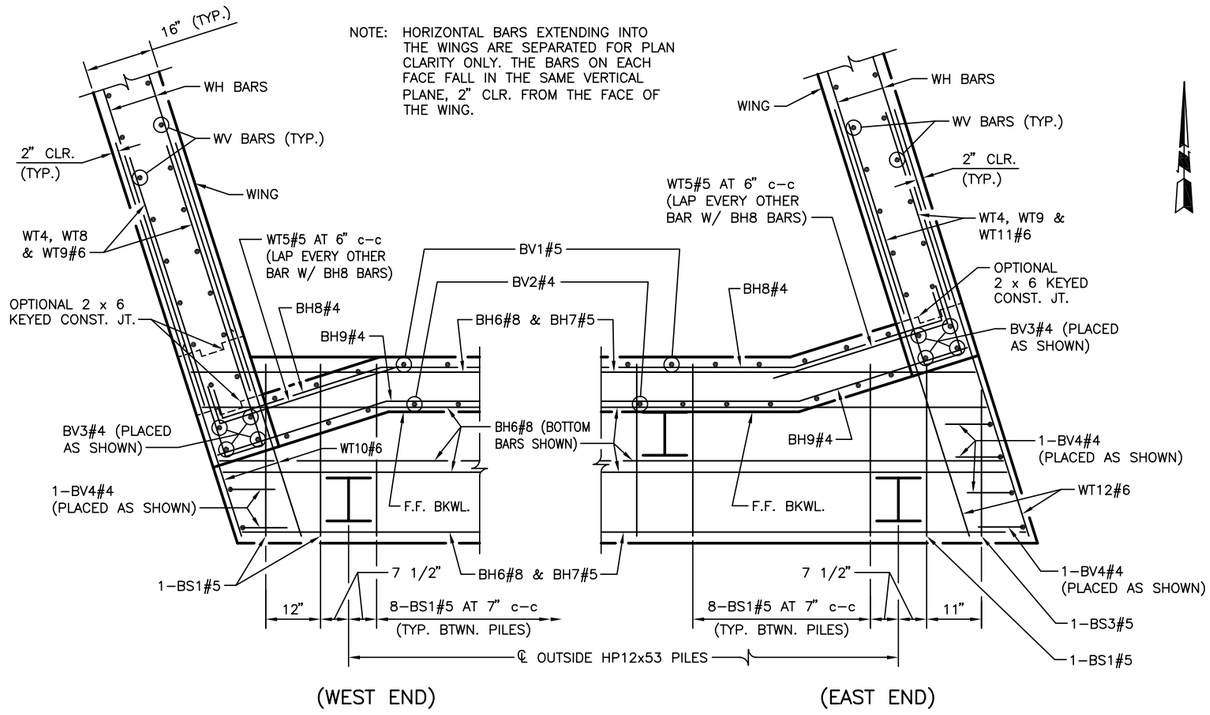
℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B072

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

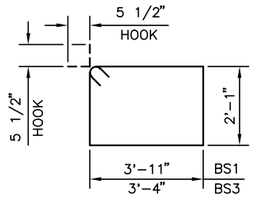
M:\W2M Projects\Project Files\M179\Final Design C & D\B073-2442813-ABUTMENT 2 DETAILS 2.dwg 5/18/2020 2:24:14 PM

NOTE: HORIZONTAL BARS EXTENDING INTO THE WINGS ARE SEPARATED FOR PLAN CLARITY ONLY. THE BARS ON EACH FACE FALL IN THE SAME VERTICAL PLANE, 2" CLR. FROM THE FACE OF THE WING.

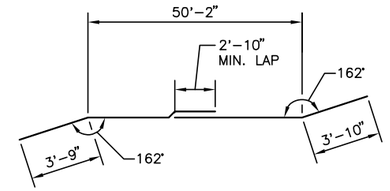


PART PLAN OF BRIDGE SEAT AND BACKWALL SHOWING REINFORCING STEEL

(BH3#4 BARS, OVER PILES, NOT SHOWN FOR CLARITY.)
(DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.)

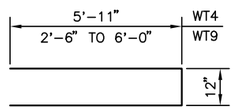


BS1#5 x 12'–11"
BS3#5 x 11'–9"

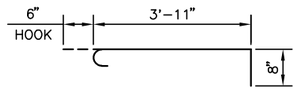


(WEST END) (EAST END)

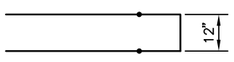
BH9#4 x 60'–7"



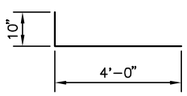
WT4#6 x 12'–10"
WT9#6 x 9'–6" AVG.
(VARIES 6'–0" TO 13'–0")



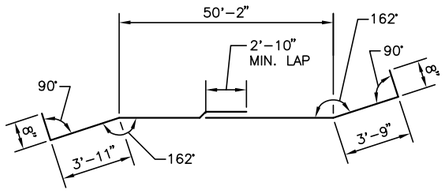
BH3#4 x 5'–1"



(PLAN)

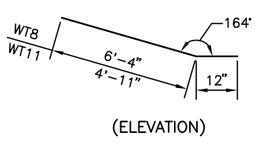


WT5#5 x 4'–10"



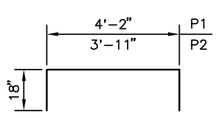
(WEST END) (EAST END)

BH8#4 x 62'–0"

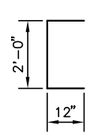


(ELEVATION)

WT8#6 x 15'–8"
WT11#6 x 12'–10"



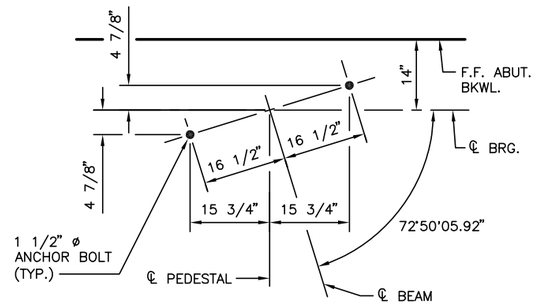
P1#4 x 7'–2"
P2#4 x 6'–11"



BV4#4 x 4'–0"

BAR BEND DETAILS

NOTE: FOR BAR BEND DETAILS NOT SHOWN, SEE SHEET NO. B074.



TYPICAL ANCHOR BOLT LAYOUT

ABUTMENT 2 BAR LIST				
MARK	NO.	SIZE	SHAPE	LENGTH
(EPOXY COATED)				
BH3	33	4	BNT.	5'–1"
BH6	10	8	STR.	58'–2"
BH7	2	5	STR.	61'–10" (1)
BH8	8	4	BNT.	62'–0" (2)
BH9	8	4	BNT.	60'–7" (2)
BS1	83	5	BNT.	12'–11"
BS3	1	5	BNT.	11'–9"
BV1	56	5	STR.	9'–2"
BV2	56	4	STR.	9'–2"
BV3	8	4	STR.	10'–3"
BV4	6	4	BNT.	4'–0"
P1	24	4	BNT.	7'–2"
P2	30	4	BNT.	6'–11"
WH4	28	6	STR.	25'–5"
WH7	2	6	BNT.	24'–11"
WH8	10	6	STR.	8'–7 1/2" AVG. (3)
WH9	10	6	STR.	18'–6 1/2" AVG. (4)
WH10	2	6	BNT.	26'–3"
WH11	20	6	STR.	14'–5 1/2" AVG. (5)
WP1	6	4	BNT.	8'–8"
WP2	8	4	STR.	1'–7"
WT4	24	6	BNT.	12'–10"
WT5	30	5	BNT.	4'–10"
WT8	1	6	BNT.	15'–8"
WT9	6	6	BNT.	9'–6" AVG. (6)
WT10	10	6	STR.	9'–6"
WT11	1	6	BNT.	12'–10"
WT12	10	6	STR.	10'–4"
WV1	16	4	STR.	3'–6"
WV3	88	4	STR.	7'–0" AVG. (7)

(1) LENGTH INCLUDES ONE (1) 3'–7" LAP SPLICE.
(2) LENGTH INCLUDES ONE (1) 2'–10" LAP SPLICE.
(3) 5 BARS VARYING FROM 5'–2" TO 12'–1"; TWO OF EACH LENGTH.
(4) 5 BARS VARYING FROM 15'–1" TO 22'–0"; TWO OF EACH LENGTH.
(5) 10 BARS VARYING FROM 6'–7" TO 22'–4"; TWO OF EACH LENGTH.
(6) 3 BARS VARYING FROM 6'–0" TO 13'–0"; TWO OF EACH LENGTH.
(7) 22 BARS VARYING FROM 3'–11" TO 10'–1"; FOUR OF EACH LENGTH.

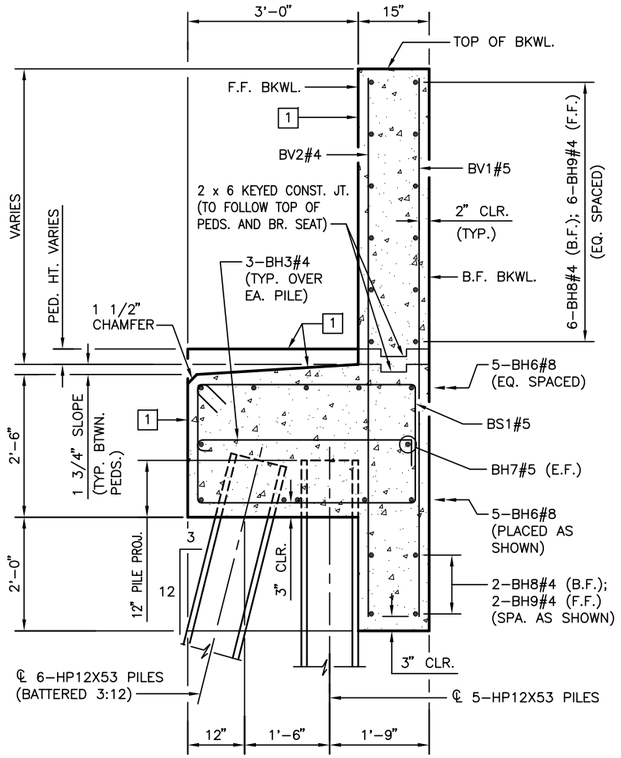
NOTES: FOR WING DETAILS, SEE SHEET NO. B074.

STEEL PILE CONCRETE ENCASEMENTS NOT SHOWN FOR CLARITY. SEE STD. HP1–2 FOR DETAILS.

ALL EDGES OF THE ABUTMENT AND WINGS SHALL HAVE A 3/4" CHAMFER, UNLESS OTHERWISE SHOWN.

REVISIONS

DESCRIPTION	DATE



SECTION THRU BRIDGE SEAT

(SHOWN BETWEEN BENDS IN BACKWALL.)
(PILE ENCASEMENTS ARE NOT SHOWN FOR CLARITY.)

[1] TREAT WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT, INCLUDING SIDES OF PEDESTALS. THE FRONT FACE OF THE BRIDGE SEAT NEED ONLY BE TREATED ABOVE THE TOP OF SLOPE WALL.

B.F. – DENOTES BACK FACE
F.F. – DENOTES FRONT FACE
E.F. – DENOTES EACH FACE

ABUTMENT 2 QUANTITIES		
ITEM	UNITS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	120.00
CLSM BACKFILL	CY	147.00
CLASS A CONCRETE	CY	62.60
EPOXY COATED REINFORCING STEEL	LB	8380.00
PILES, FURNISHED (HP10x42)	LF	47.00
PILES, FURNISHED (HP12x53)	LF	212.00
PILES, DRIVEN (HP10x42)	LF	47.00
PILES, DRIVEN (HP12x53)	LF	212.00
PILE SPLICE, H–PILE (NON–BIDDABLE)	EA	0.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	71.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	56.00
6" NON–PERF. PIPE UNDERDRAIN RND.	LF	75.00

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US–81 OVER QUAIL RD.

ABUTMENT 2 DETAILS (2 OF 2)

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B073

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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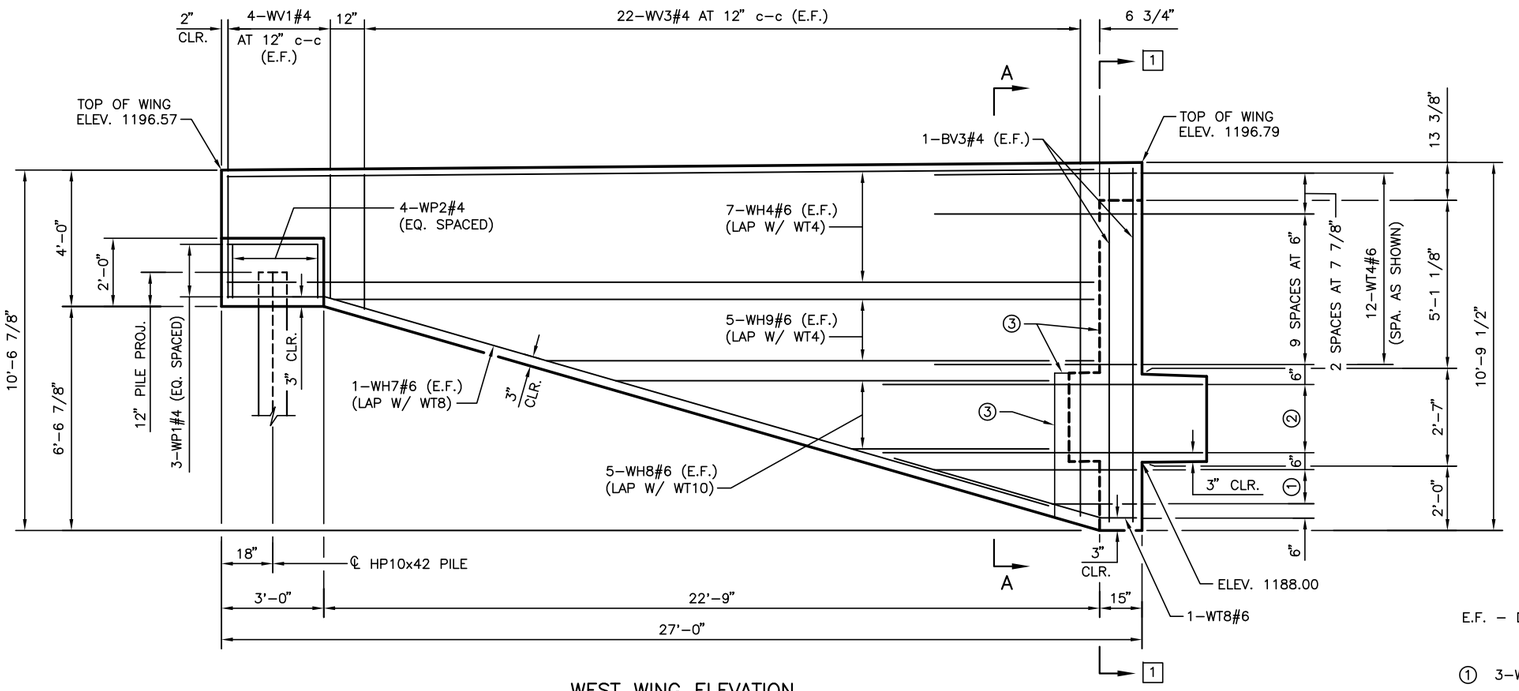
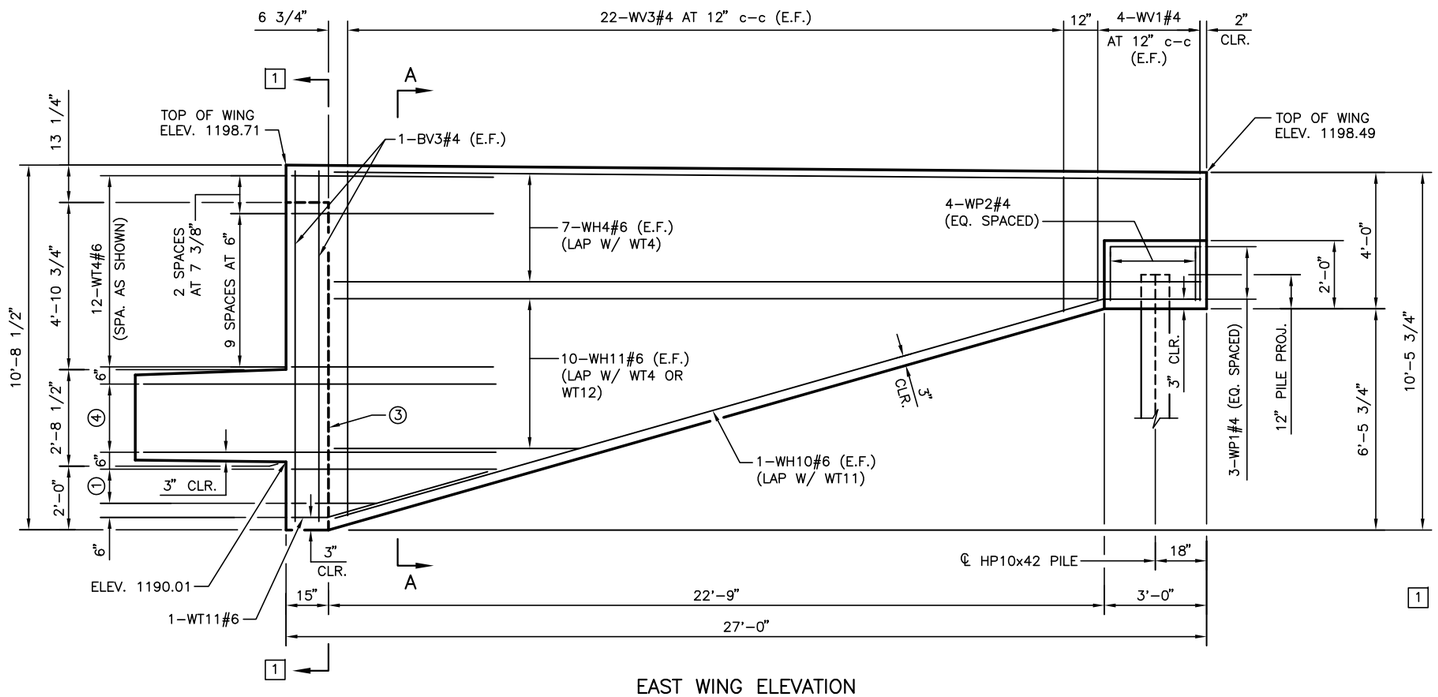
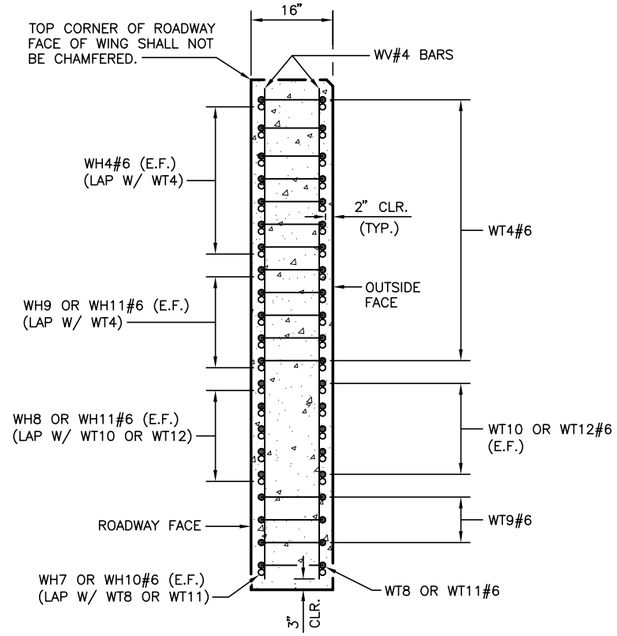


WEST WING ELEVATION



EAST WING ELEVATION



SECTION A–A

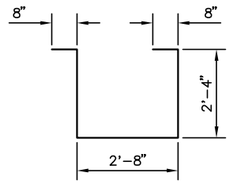
E.F. – DENOTES EACH FACE

① 3–WT9#6 AT 6" c–c

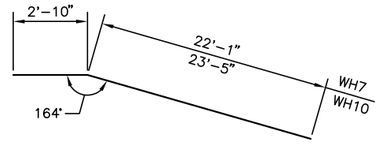
② 5–WT10#6 AT 6" c–c (E.F.)

③ OPTIONAL KEYED CONST. JOINT

④ 5–WT12#6 AT 6" c–c (E.F.)



WP1#4 x 8'–8"



WH7#6 x 24'–11"
WH10#6 x 26'–3"

BAR BEND DETAILS

NOTE: FOR ABUTMENT BAR LIST AND WT BAR BEND DETAILS, SEE SHEET NO. B073.

[1] TREAT ENDS OF BRIDGE SEAT AND ALL EXPOSED SURFACES OF WINGS WITH A WATER REPELLENT SURFACE TREATMENT, ABOVE THE FINISHED GROUND SURFACE AND IN FRONT (AHEAD) OF THE BACK FACE OF BACKWALL LINE.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US–81 OVER QUAIL RD.

ABUTMENT 2 WINGWALL DETAILS

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B074

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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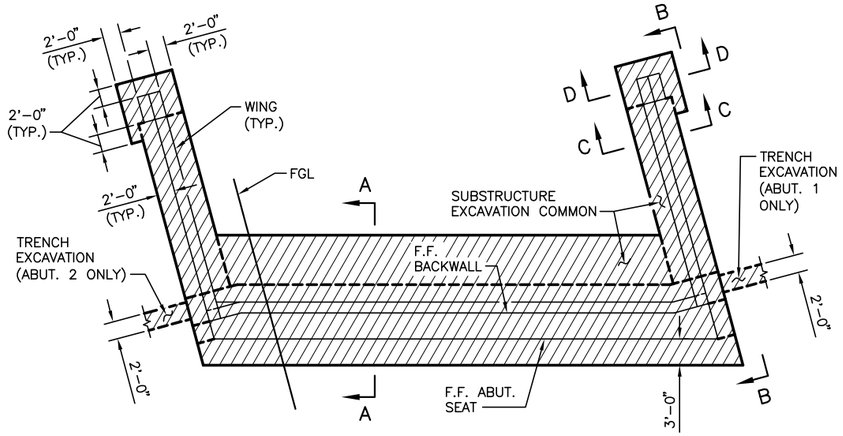
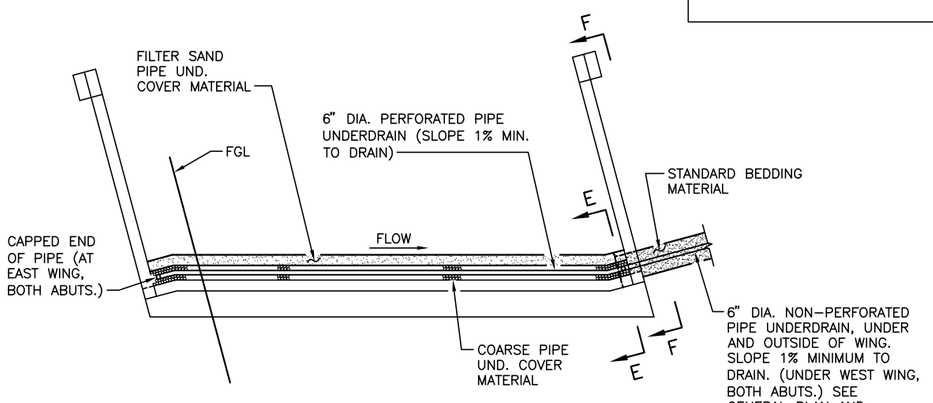
NOTES: CONCRETE MAY BE PLACED AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE ABUTMENT AND APPROVED BY THE ENGINEER. IF NECESSARY, FORMS SHALL BE USED ON THE BACK VERTICAL FACE OF THE ABUTMENT AND REMOVED AFTER CONCRETE IS SET.

MEASUREMENT AND PAYMENT FOR "SUBSTRUCTURE EXCAVATION COMMON" SHALL BE IN ACCORDANCE WITH THE DIAGRAM SHOWN ON THE PLANS.

F.F. – DENOTES FRONT FACE

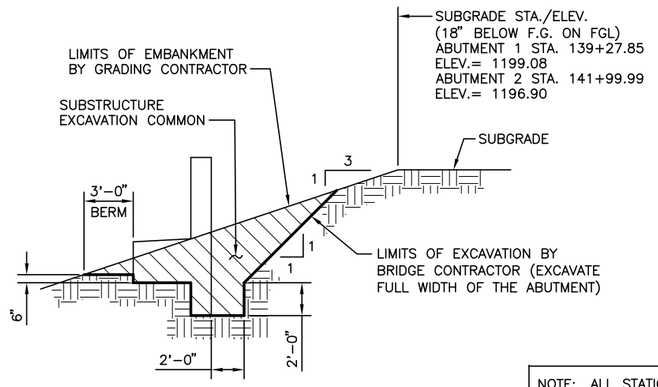


ABUTMENT EXCAVATION PLAN
(ABUTMENT 1 SHOWN. ABUTMENT 2 SIMILAR.)

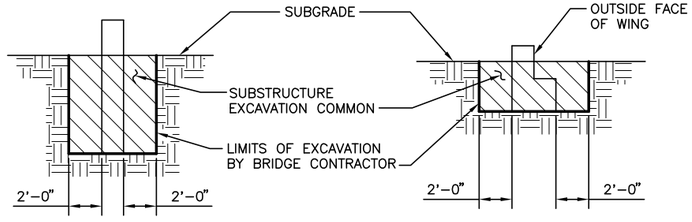


PLAN OF PIPE UNDERDRAIN
(ABUTMENT 1 SHOWN.)

NOTE: THE ENGINEER MAY ADJUST THE EXTENT, LOCATION AND DEPTH OF THE 6" NON–PERFORATED PIPE UNDERDRAIN DURING CONSTRUCTION. INCLUDE THE COST OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION IN THE CONTRACT UNIT PRICE OF 6" PERFORATED PIPE UNDERDRAIN ROUND AND 6" NON–PERF. PIPE UNDERDRAIN RND. INSTALL AS SHOWN ON THE PLANS AND STD. PUD–3.

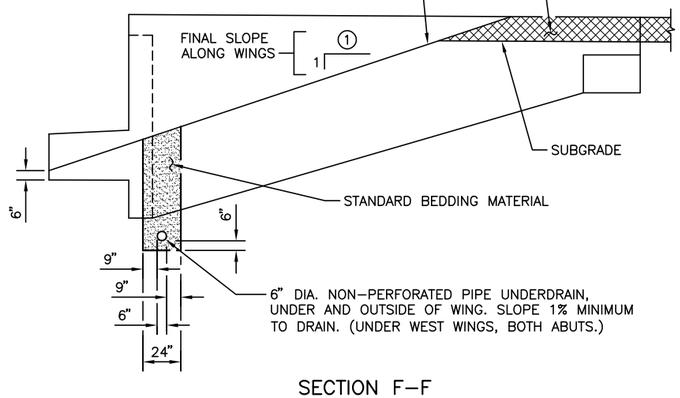


SECTION A–A



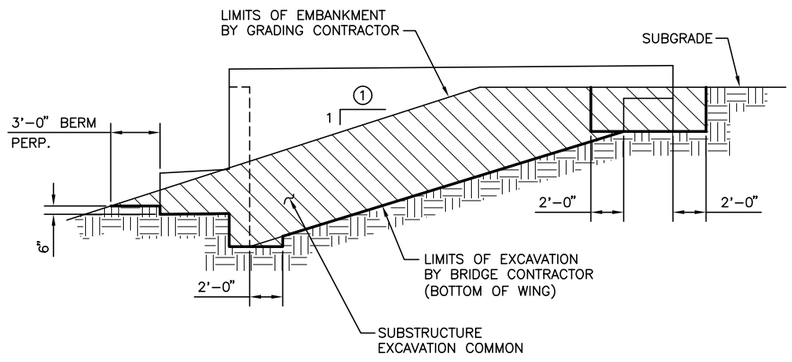
SECTION C–C

SECTION D–D

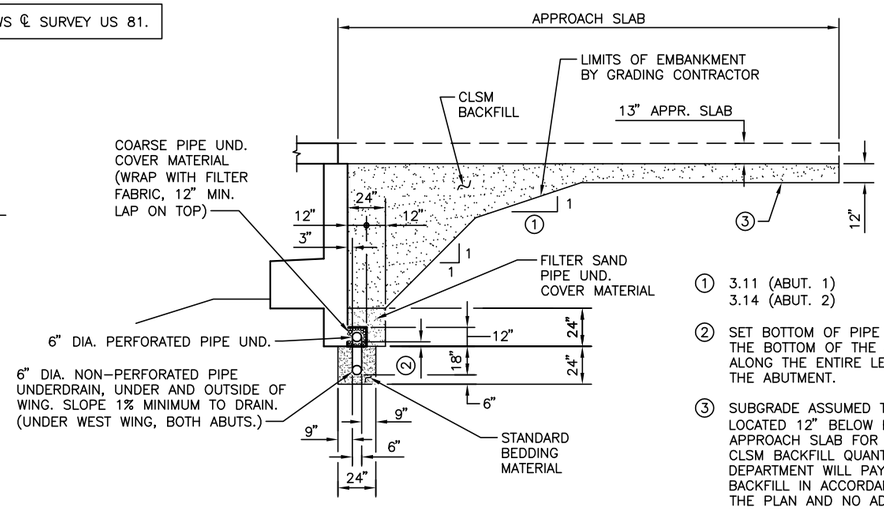


SECTION F–F

NOTE: ALL STATIONING FOLLOWS ℄ SURVEY US 81.



SECTION B–B



SECTION E–E

① 3.11 (ABUT. 1)
3.14 (ABUT. 2)

② SET BOTTOM OF PIPE 3" ABOVE THE BOTTOM OF THE ABUTMENT, ALONG THE ENTIRE LENGTH OF THE ABUTMENT.

③ SUBGRADE ASSUMED TO BE LOCATED 12" BELOW BOTTOM OF APPROACH SLAB FOR COMPUTING CLSM BACKFILL QUANTITY. THE DEPARTMENT WILL PAY FOR CLSM BACKFILL IN ACCORDANCE WITH THE PLAN AND NO ADJUSTMENT WILL BE MADE FOR ACTUAL LOCATION OF SUBGRADE.

NOTE: DO NOT PLACE CLSM BACKFILL UNTIL SUPERSTRUCTURE IS IN PLACE AND THE ABUTMENT WING CONCRETE HAS ATTAINED A STRENGTH OF 3000 PSI.

NOTE: FOR DETAILS OF PIPE UNDERDRAIN NOT SHOWN, SEE STD. PUD–3.

REVISIONS

DESCRIPTION	DATE

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US–81 OVER QUAIL RD.

SUBSTRUCTURE EXCAVATION AND PIPE UNDERDRAIN ASSEMBLY DETAILS

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B075

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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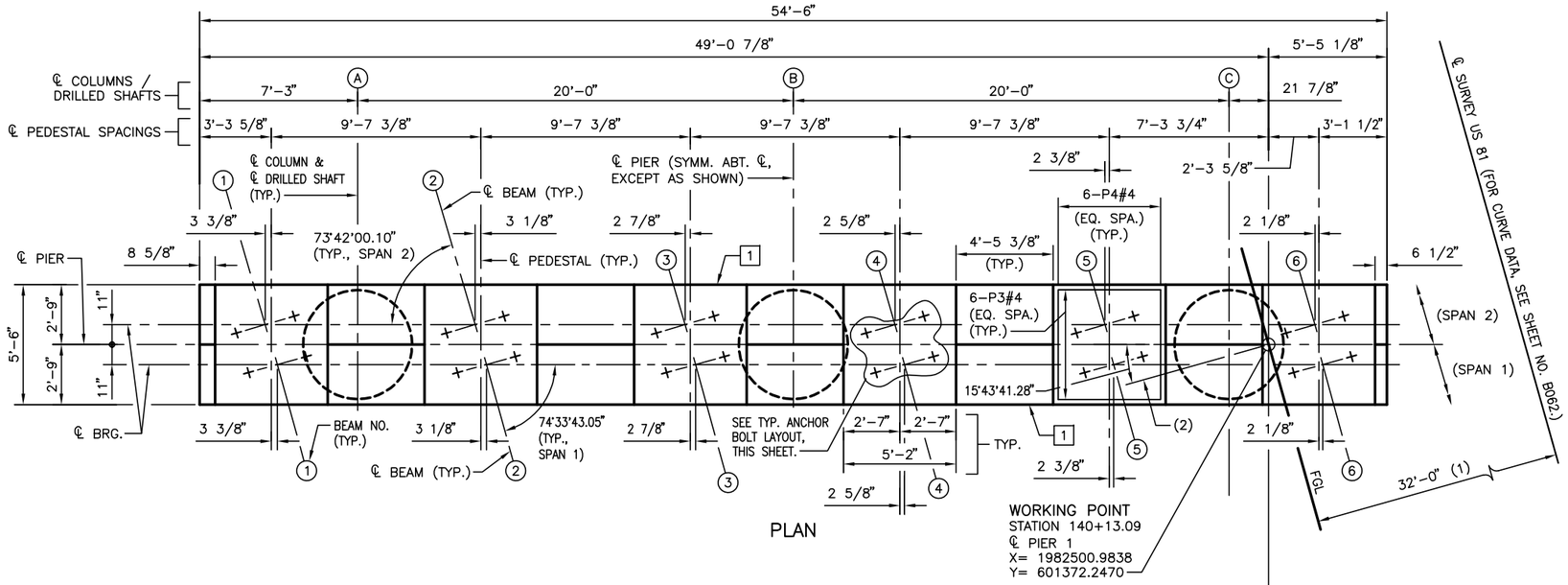
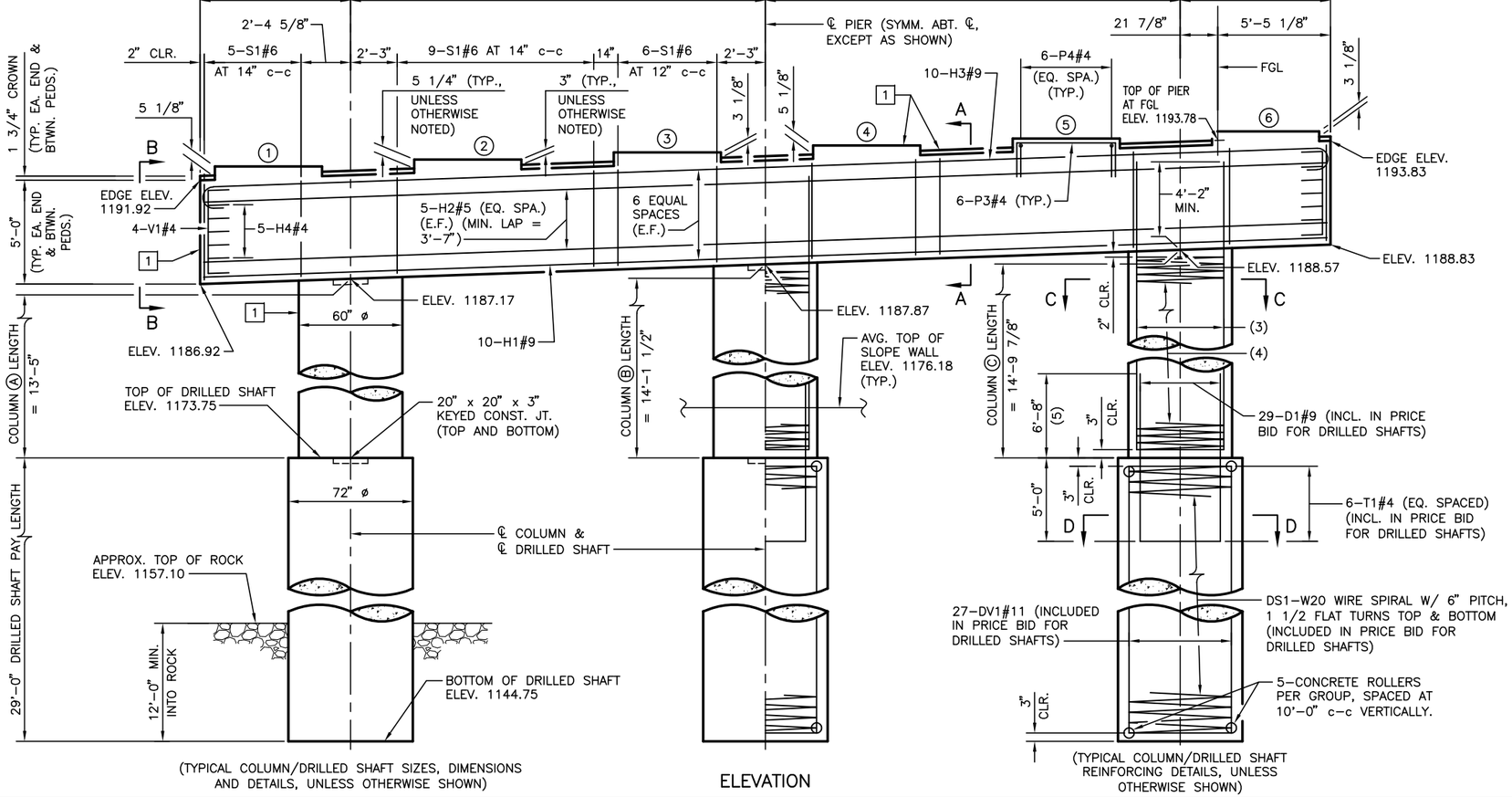


PLAN

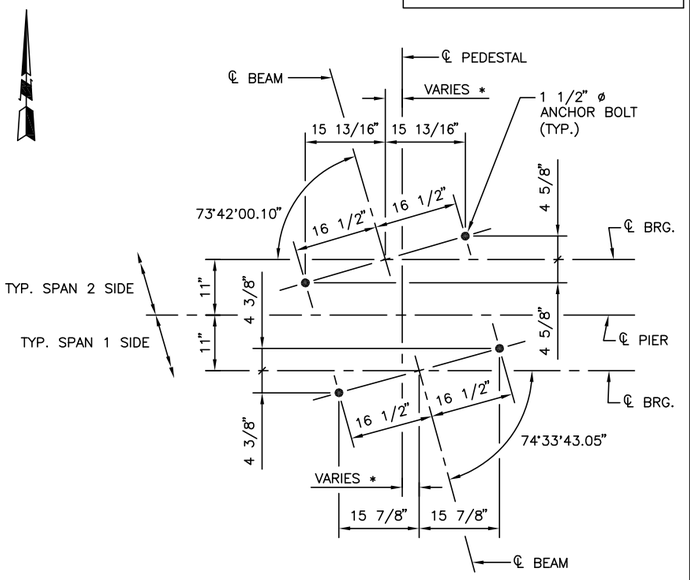


(TYPICAL COLUMN/DRILLED SHAFT SIZES, DIMENSIONS AND DETAILS, UNLESS OTHERWISE SHOWN)

ELEVATION

(TYPICAL COLUMN/DRILLED SHAFT REINFORCING DETAILS, UNLESS OTHERWISE SHOWN)

REVISIONS	
DESCRIPTION	DATE



TYPICAL ANCHOR BOLT LAYOUT

* SEE PLAN VIEW, AT LEFT.

SCHEDULE OF PEDESTAL ELEVATIONS	
PEDESTAL	ELEVATION
1	1192.52
2	1192.86
3	1193.20
4	1193.53
5	1193.87
6	1194.21

(1) RADIAL DIMENSION.

(2) RADIAL LINE AT STA. 140+13.09.

(3) 29-CV1#9 (COL. Ⓐ);
29-CV2#9 (COL. Ⓑ);
29-CV3#9 (COL. Ⓒ)

(4) CS1-W20 (COL. Ⓐ);
CS2-W20 (COL. Ⓑ);
CS3-W20 (COL. Ⓒ)
WIRE SPIRAL W/ 4" PITCH, 1 1/2 FLAT TURNS TOP & BOTTOM

(5) NOT TO BE CONSIDERED AS ADD'L DRILLED SHAFT PAY LENGTH.

[1] TREAT TOP OF PIER CAP, INCLUDING ALL SURFACES OF PEDESTALS, ALL VERTICAL FACES OF THE PIER CAP AND ALL SURFACES OF THE COLUMNS ABOVE THE TOP OF SLOPE WALL, WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

E.F. – DENOTES EACH FACE

NOTES: ALL EDGES OF THE PIER CAP SHALL HAVE A 1 1/2" CHAMFER, EXCEPT FOR EDGES OF PEDESTALS, WHICH SHALL HAVE 3/4" CHAMFERS.

FOR SECTION VIEWS, BAR BEND DETAILS, BAR LISTS, QUANTITIES, AND SPIRAL REINFORCING AND CONCRETE ROLLER DETAILS, SEE SHEET NOS. B078 AND B079.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

PIER 1 DETAILS

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B076

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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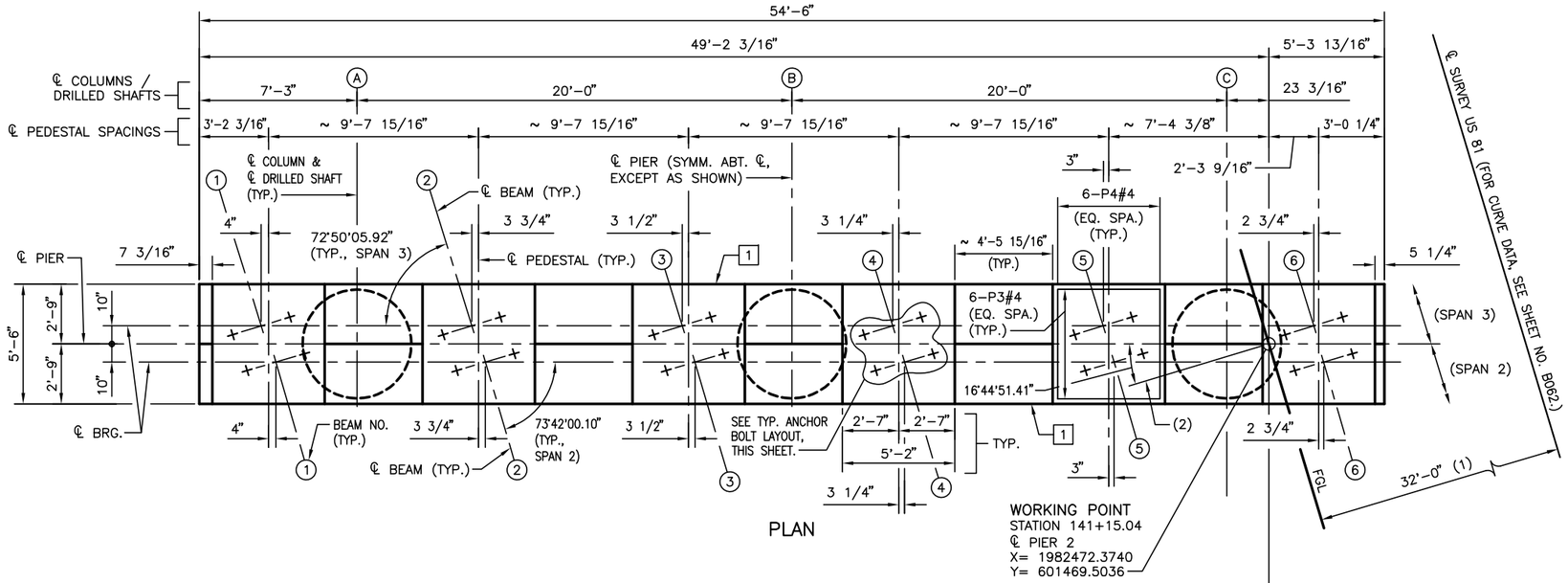
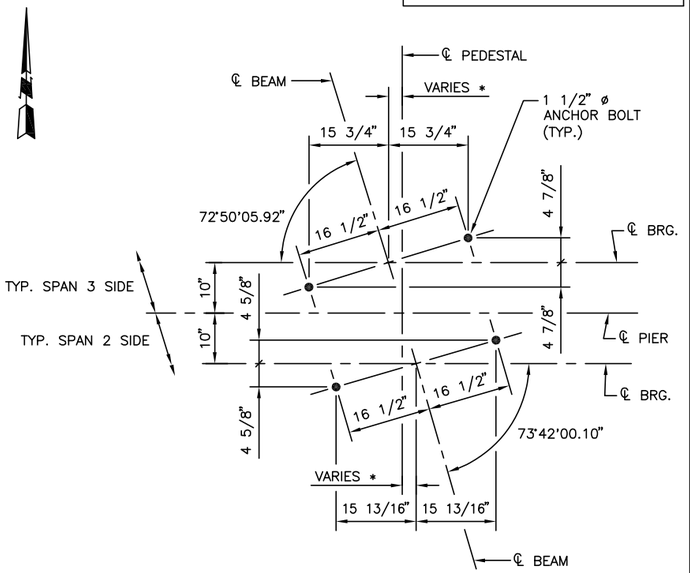
REVISIONS	
DESCRIPTION	DATE

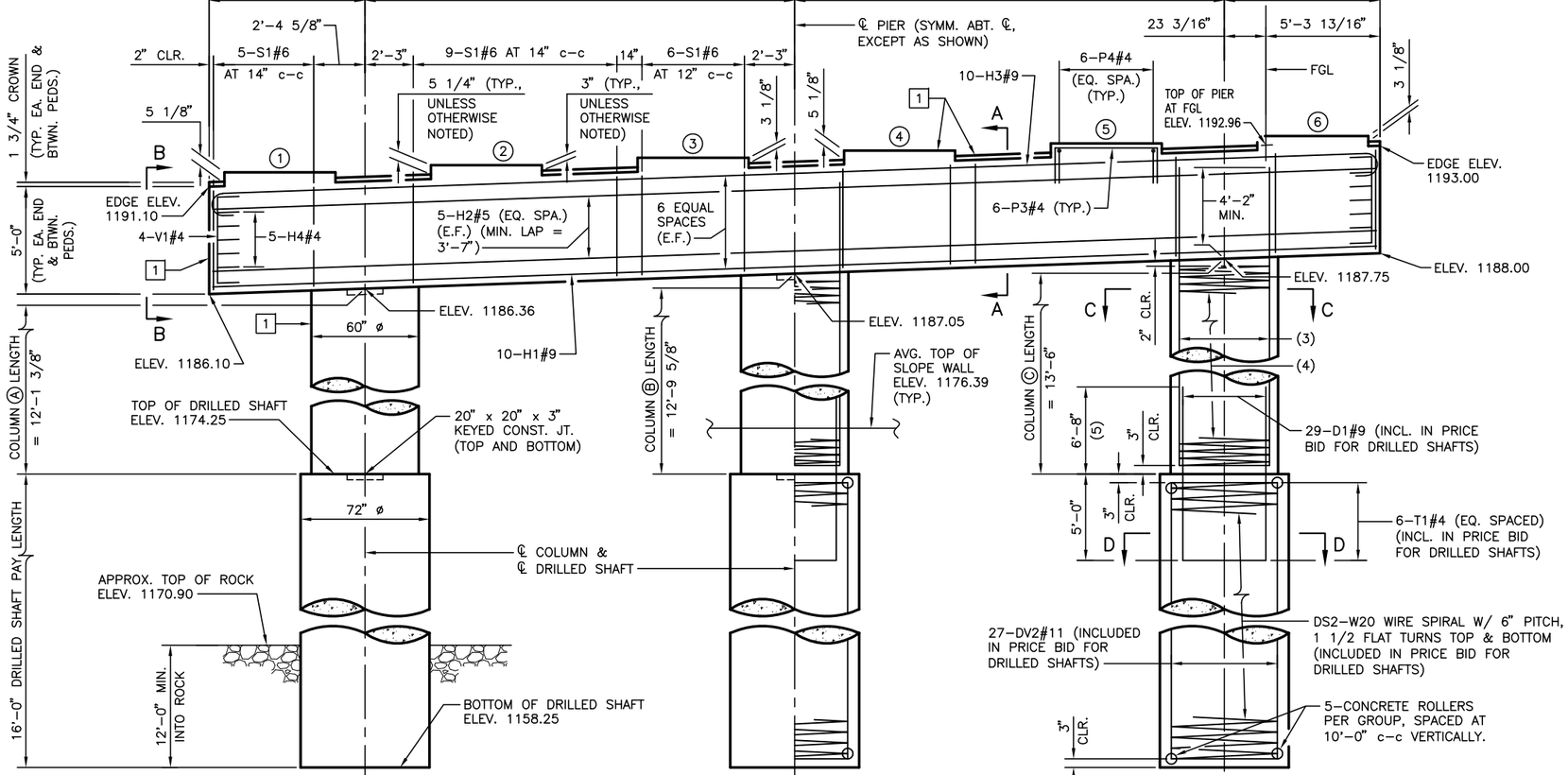


PLAN



TYPICAL ANCHOR BOLT LAYOUT

* SEE PLAN VIEW, AT LEFT.



(TYPICAL COLUMN/DRILLED SHAFT SIZES, DIMENSIONS AND DETAILS, UNLESS OTHERWISE SHOWN)

ELEVATION

(TYPICAL COLUMN/DRILLED SHAFT REINFORCING DETAILS, UNLESS OTHERWISE SHOWN)

SCHEDULE OF PEDESTAL ELEVATIONS	
PEDESTAL	ELEVATION
1	1191.70
2	1192.04
3	1192.38
4	1192.71
5	1193.05
6	1193.39

(1) RADIAL DIMENSION.

(2) RADIAL LINE AT STA. 141+15.04.

(3) 29-CV4#9 (COL. Ⓐ);
29-CV5#9 (COL. Ⓑ);
29-CV6#9 (COL. Ⓒ)

(4) CS4-W20 (COL. Ⓐ);
CS5-W20 (COL. Ⓑ);
CS6-W20 (COL. Ⓒ)
WIRE SPIRAL W/ 4" PITCH, 1 1/2 FLAT TURNS TOP & BOTTOM

(5) NOT TO BE CONSIDERED AS ADD'L DRILLED SHAFT PAY LENGTH.

[1] TREAT TOP OF PIER CAP, INCLUDING ALL SURFACES OF PEDESTALS, ALL VERTICAL FACES OF THE PIER CAP AND ALL SURFACES OF THE COLUMNS ABOVE THE TOP OF SLOPE WALL, WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

E.F. – DENOTES EACH FACE

NOTES: ALL EDGES OF THE PIER CAP SHALL HAVE A 1 1/2" CHAMFER, EXCEPT FOR EDGES OF PEDESTALS, WHICH SHALL HAVE 3/4" CHAMFERS.

FOR SECTION VIEWS, BAR BEND DETAILS, BAR LISTS, QUANTITIES, AND SPIRAL REINFORCING AND CONCRETE ROLLER DETAILS, SEE SHEET NOS. B078 AND B079.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

PIER 2 DETAILS

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B077

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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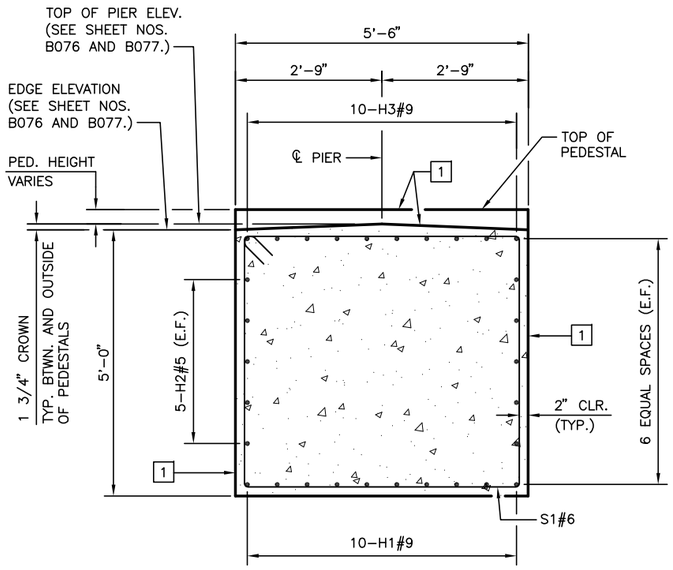
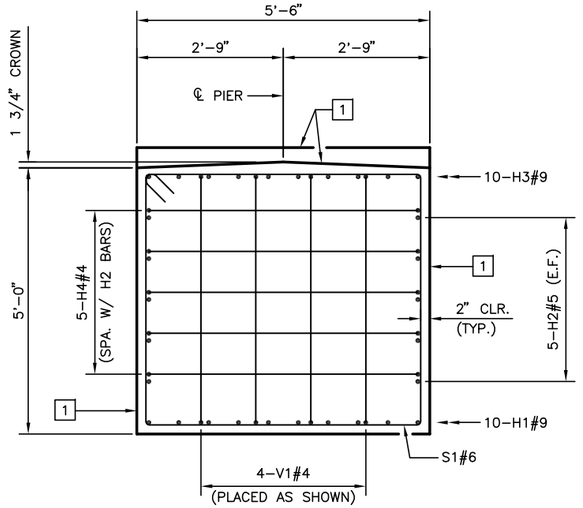
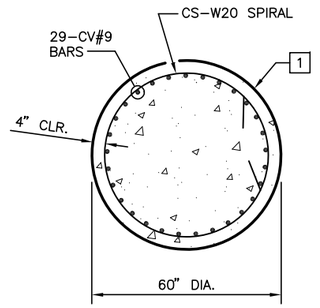
REVISIONS	
DESCRIPTION	DATE



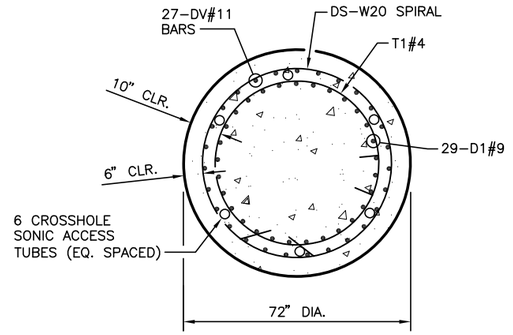
SECTION A–A



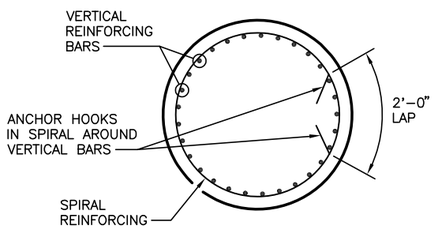
VIEW B–B
(TYP. EACH END OF CAP.)
(FOR DETAILS NOT SHOWN, SEE SECTION A–A.)



SECTION C–C

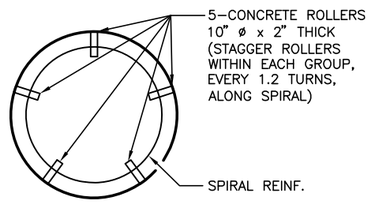


SECTION D–D



SPIRAL REINFORCING SPLICE DETAIL

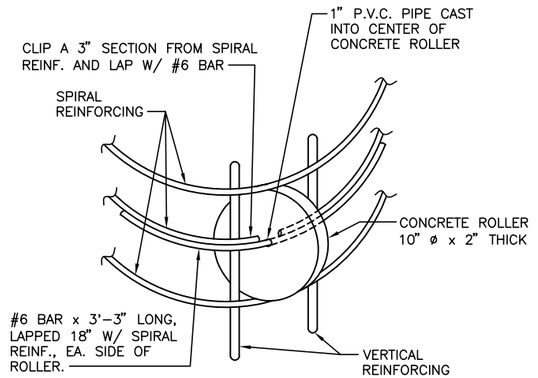
NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAPS. IF LAPS ARE REQUIRED, THE LENGTH OF THE LAP SHALL BE 2'–0", WITH 10" HOOKS.



ROLLER PLACEMENT DETAIL

NOTES: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.

PLASTIC ROLLERS MAY BE SUBSTITUTED FOR THE CONCRETE ROLLERS IN ACCORDANCE WITH THE SPECIAL PROVISIONS FOR DRILLED SHAFT FOUNDATIONS.



DETAIL OF ROLLER INSTALLATION

ALL MATERIALS, LABOR AND INCIDENTALS REQUIRED FOR THE INSTALLATION OF THE ROLLERS TO BE INCLUDED IN THE PRICE BID PER LF OF DRILLED SHAFTS.

[1] TREAT TOP OF PIER CAP, INCLUDING ALL SURFACES OF THE PEDESTALS, ALL VERTICAL FACES OF THE PIER CAP AND ALL SURFACES OF THE COLUMNS ABOVE THE TOP OF SLOPE WALL, WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

E.F. – DENOTES EACH FACE

NOTES: PEDESTAL REINFORCING NOT SHOWN FOR CLARITY.

FOR BAR BEND DETAILS, BAR LISTS AND QUANTITIES, SEE SHEET NO. B079.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US–81 OVER QUAIL RD.

MISCELLANEOUS PIER DETAILS (1 OF 2)

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B078

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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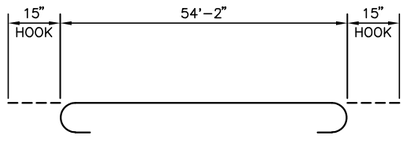
REVISIONS	
DESCRIPTION	DATE

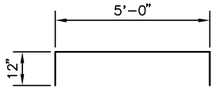
PIER 1 BAR LIST					
MARK	NO.	SIZE	SHAPE	LENGTH	
(EPOXY COATED)					
CV1	29	9	STR.	17'–5"	
CV2	29	9	STR.	18'–1"	
CV3	29	9	STR.	18'–9"	
H1	10	9	STR.	54'–2"	
H2	10	5	STR.	57'–9"	(1)
H3	10	9	BNT.	56'–8"	
H4	10	4	BNT.	7'–0"	
P3	36	4	BNT.	7'–10"	
P4	36	4	BNT.	8'–2"	
S1	40	6	BNT.	21'–0"	
V1	8	4	BNT.	6'–6"	
(NON–EPOXY COATED)					
CS1	1	W20	SPIRAL	568'–6"	
CS2	1	W20	SPIRAL	596'–10"	
CS3	1	W20	SPIRAL	625'–2"	
PIER 1 DRILLED SHAFTS					
(NON–EPOXY COATED)					
D1	87	9	STR.	11'–8"	(2)
DS1	3	W20	SPIRAL	937'–5"	(2)
DV1	81	11	STR.	28'–6"	(2)
T1	18	4	BNT.	15'–6"	(2)

PIER 2 BAR LIST					
MARK	NO.	SIZE	SHAPE	LENGTH	
(EPOXY COATED)					
CV4	29	9	STR.	16'–1"	
CV5	29	9	STR.	16'–9"	
CV6	29	9	STR.	17'–6"	
H1	10	9	STR.	54'–2"	
H2	10	5	STR.	57'–9"	(1)
H3	10	9	BNT.	56'–8"	
H4	10	4	BNT.	7'–0"	
P3	36	4	BNT.	7'–10"	
P4	36	4	BNT.	8'–2"	
S1	40	6	BNT.	21'–0"	
V1	8	4	BNT.	6'–6"	
(NON–EPOXY COATED)					
CS4	1	W20	SPIRAL	515'–5"	
CS5	1	W20	SPIRAL	543'–4"	
CS6	1	W20	SPIRAL	571'–8"	
PIER 2 DRILLED SHAFTS					
(NON–EPOXY COATED)					
D1	87	9	STR.	11'–8"	(2)
DS2	3	W20	SPIRAL	531'–11"	(2)
DV2	81	11	STR.	15'–6"	(2)
T1	18	4	BNT.	15'–6"	(2)

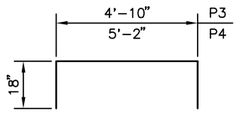
(1) LENGTH INCLUDES ONE (1) 3'–7" LAP SPLICE.
(2) INCLUDED IN THE PRICE BID PER LIN. FT. OF DRILLED SHAFT.



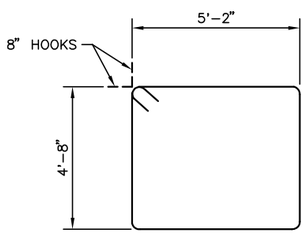
H3#9 x 56'–8"



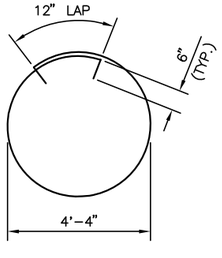
H4#4 x 7'–0"



P3#4 x 7'–10"
P4#4 x 8'–2"



S1#6 x 21'–0"



T1#4 x 15'–6"

V1#4 x 6'–6"

BAR BEND DETAILS

PIER QUANTITIES				
ITEM	UNITS	PIER 1	PIER 2	
CLASS A CONCRETE	CY	89.90	87.00	
REINFORCING STEEL	LB	1220.00	1110.00	
EPOXY COATED REINFORCING STEEL	LB	11450.00	11070.00	
WATER REPELLENT (VISUALLY INSPECTED)	SY	168.00	163.00	
DRILLED SHAFTS 72" DIAMETER	LF	87.00	48.00	
CROSSHOLE SONIC LOGGING	EA	1.00	1.00	①

① ESTIMATED QUANTITY ONLY, TO BE USED AS DIRECTED BY THE ENGINEER.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US–81 OVER QUAIL RD.

MISCELLANEOUS PIER DETAILS (2 OF 2)

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B079

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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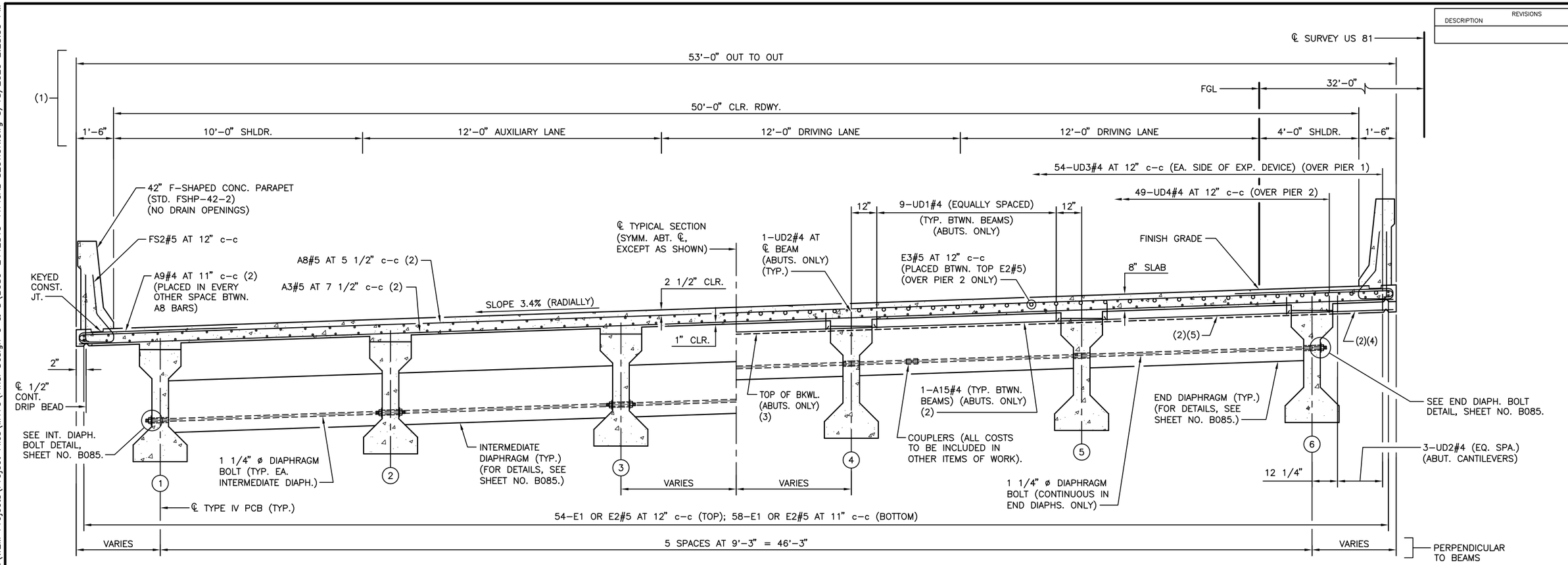
REVISIONS	
DESCRIPTION	DATE



HALF SECTION WITHIN SPANS

HALF SECTION NEAR ABUTMENTS AND PIERS

TYPICAL CROSS SECTION

NOTE: DO NOT PLACE CONCRETE FOR THE BRIDGE SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE CONCRETE IN THE DIAPHRAGMS HAS BEEN IN PLACE A MINIMUM OF 10 DAYS, OR AT THE DISCRETION OF THE ENGINEER. THE ENGINEER MAY APPROVE SHORTENED TIME IF THE BEAM AND DIAPHRAGM CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH.

NOTE: ROTATE A8 AND A11 BARS TO ENSURE MINIMUM CLEARANCE IS MET TOP & BOTTOM OF HOOK(S).

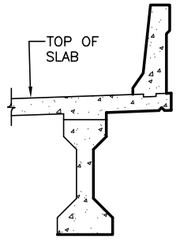
(1) RADIAL DIMENSIONS.

(2) ALL TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE SKEW ANGLE.

(3) FOR SLAB FORMING REQUIREMENTS BEHIND END DIAPHRAGMS AND IN CANTILEVERS, SEE SHEET NOS. B081 AND B082.

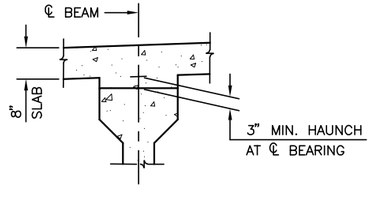
(4) 2-A14#4 (CONT. - ABUT. 1); 1-A16#4 (CONT. - EA. SIDE OF EXP. DEVICE, OVER PIER 1); 1-A17#4 (CANTILEVERS ONLY, EA. SIDE OF EXP. DEVICE, OVER PIER 1); 2-A19#4 (CONT. - ABUT. 2)

(5) 2-A18#4 (CONT. - OVER PIER 2)



WATER REPELLENT SURFACE TREATMENT

NOTE: SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT. (TYP. EA. SIDE)



HAUNCH DETAIL AT BEARINGS

NOTE: PLAN QUANTITIES FOR CLASS "AA" CONCRETE INCLUDE 19.6 CY FOR BEAM HAUNCHES. HAUNCH HEIGHT SHOWN IS THE THEORETICAL HAUNCH HEIGHT AT THE CENTERLINE BEARING ONLY, MEASURED FROM THE BOTTOM OF THE SLAB TO THE TOP OF THE BEAM, AND VARIES ACROSS EACH SPAN. DETERMINE THE ACTUAL HAUNCH HEIGHT (ACCOUNTING FOR BEAM CAMBER, DEAD LOAD DEFLECTION AND ROADWAY GRADE) AFTER ERECTION OF THE BEAMS AND SUBMIT TO THE ENGINEER FOR APPROVAL. THE ENGINEER WILL NOT MEASURE DIFFERENCES BETWEEN THE THEORETICAL AND THE ACTUAL HAUNCH HEIGHTS FOR PAYMENT.

SUPERSTRUCTURE QUANTITIES		
ITEM	UNITS	TOTAL
PRESTRESSED CONCRETE BEAMS (TYPE IV)	LF	1430.75
SAW-CUT GROOVING	SY	1347.90
SEALED EXPANSION JOINT	LF	52.89
42" F-SHAPED PARAPET	LF	484.80
STRUCTURAL STEEL	LB	1970.00
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA	12.00
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA	24.00
CLASS AA CONCRETE	CY	364.10
EPOXY COATED REINFORCING STEEL	LB	95870.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	1004.00
SEALER CRACK PREPARATION	LF	53.00
SEALER RESIN	GAL	0.50

NOTES: FS2 BARS IN PARAPETS SHALL BE TIED IN PLACE PRIOR TO SLAB POUR.

FOR LONGITUDINAL SECTION, SEE SHEET NOS. B081 AND B082.

FOR P.C. BEAM AND DIAPHRAGM LAYOUT PLAN, SEE SHEET NO. B084.

FOR INTERMEDIATE AND END DIAPHRAGM DETAILS, SEE SHEET NO. B085.

FOR SLAB PLAN SHOWING CANTILEVER LAYOUT DIMENSIONS, SEE SHEET NO. B086.

FOR SLAB REINFORCING PLANS, SEE SHEET NOS. B087 AND B088.

FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, BAR BEND DETAILS AND SUPERSTRUCTURE BAR LIST, SEE SHEET NO. B089.

FOR P.C. BEAM DETAILS AND DEAD LOAD DEFLECTION DIAGRAMS, SEE SHEET NOS. B091 AND B092.

Design	.	
Drawn	PKW	05/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

TYPICAL SECTION

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B080

"PRELIMINARY PLANS - NOT FOR CONSTRUCTION"

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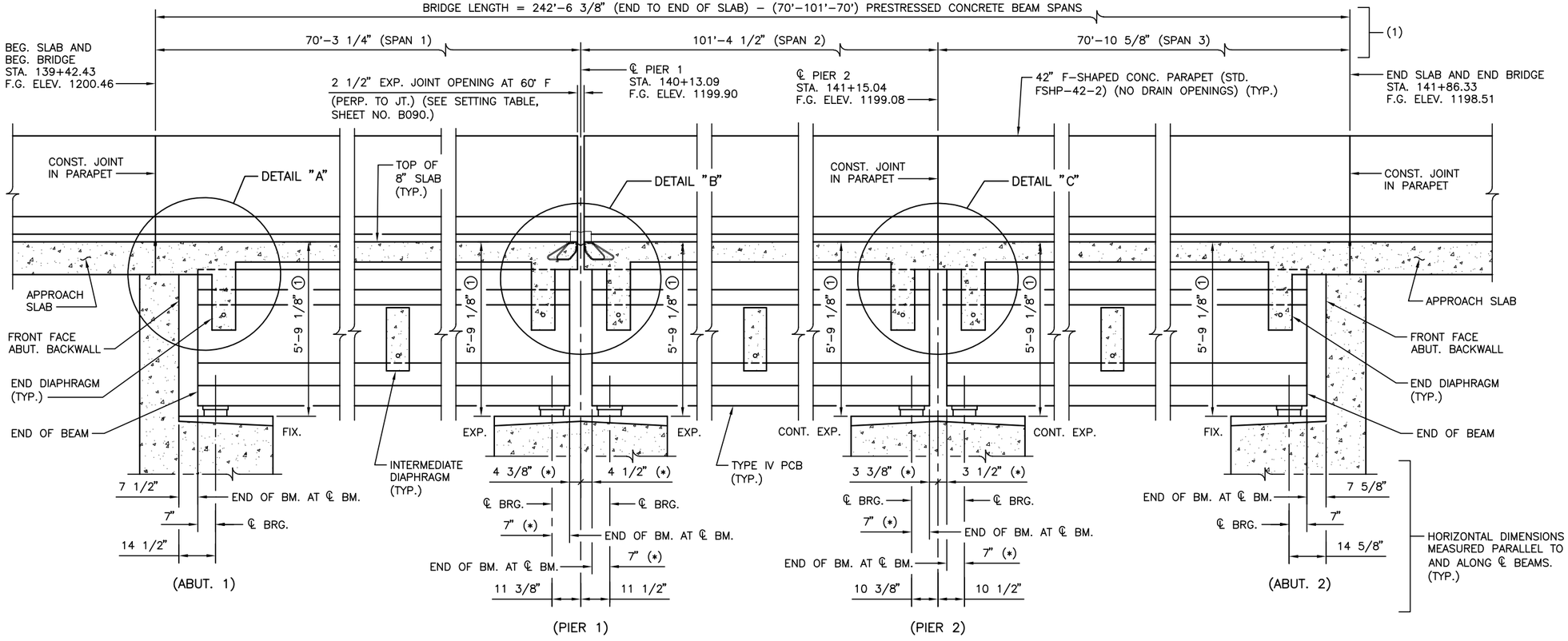
REVISIONS	
DESCRIPTION	DATE



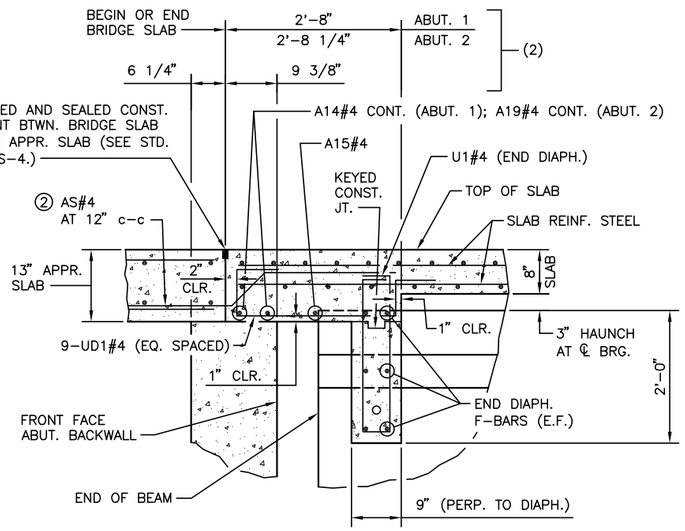
(1) HORIZONTAL ARC DIMENSIONS ALONG FGL.

(2) HORIZONTAL DIMENSIONS PARALLEL TO P.C. BEAMS.

LONGITUDINAL SECTION

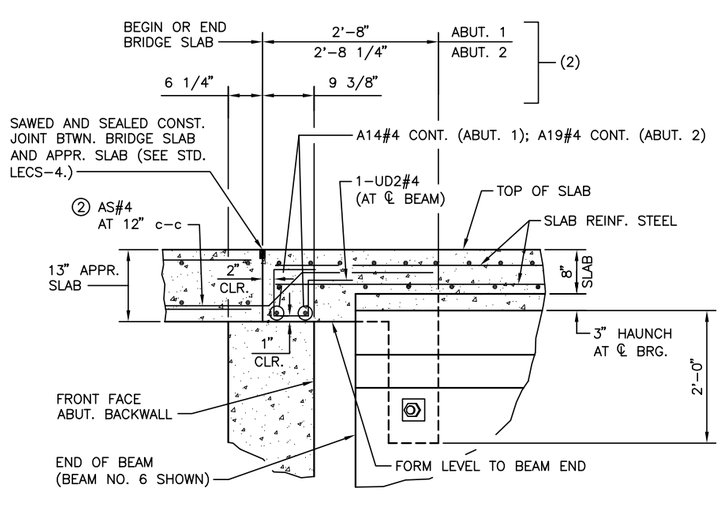
(*) AT 60° F ONLY.

NOTE: DO NOT SAW-CUT GROOVE WITHIN 6" OF CONSTRUCTION JOINTS OR EXPANSION DEVICE.



DETAIL "A" (BTWN. BEAMS)
(TYP. AT ABUTS.)

E.F. - DENOTES EACH FACE



DETAIL "A" (AT BEAMS)
(TYP. AT ABUTS.)

① DIMENSION IS FROM TOP OF SLAB TO BOTTOM OF BEARING ASSEMBLY AT ℄ BEARING.

② AS#4 BARS SHALL BE TIED TO THE TOP MAT OF REINFORCING IN THE BRIDGE SLAB AND THE BOTTOM MAT OF REINFORCING IN THE APPROACH SLAB. THE BOTTOM LEG OF THE AS#4 BAR SHALL CROSS JOINT.

NOTES:

THE WORKING LINE FOR BRIDGE "C" IS THE FGL (32' LT. OF ℄ SURVEY US 81). STATIONING FOLLOWS THE ℄ SURVEY US 81.

ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ALL UD BARS SHALL BE PLACED PARALLEL TO THE P.C. BEAMS.

DETAILS "A" ARE SHOWN AND DIMENSIONED PARALLEL TO THE P.C. BEAMS, UNLESS OTHERWISE NOTED.

FOR DETAILS "B" AND "C", SEE SHEET NO. B082.

FOR CONTROL CRACK JOINT LOCATIONS IN PARAPETS, SEE STD. FSHP-42-2.

FOR P.C. BEAM AND DIAPHRAGM LAYOUT PLAN, SEE SHEET NO. B084.

FOR INTERMEDIATE AND END DIAPHRAGM DETAILS, SEE SHEET NO. B085.

FOR SLAB REINFORCING PLANS, SEE SHEET NOS. B087 AND B088.

FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, BAR BEND DETAILS AND SUPERSTRUCTURE BAR LIST, SEE SHEET NO. B089.

FOR EXPANSION JOINT DETAILS, SEE SHEET NO. B090.

Design	.	
Drawn	PKW	05/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

LONGITUDINAL SECTION (1 OF 2)

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B081

"PRELIMINARY PLANS - NOT FOR CONSTRUCTION"

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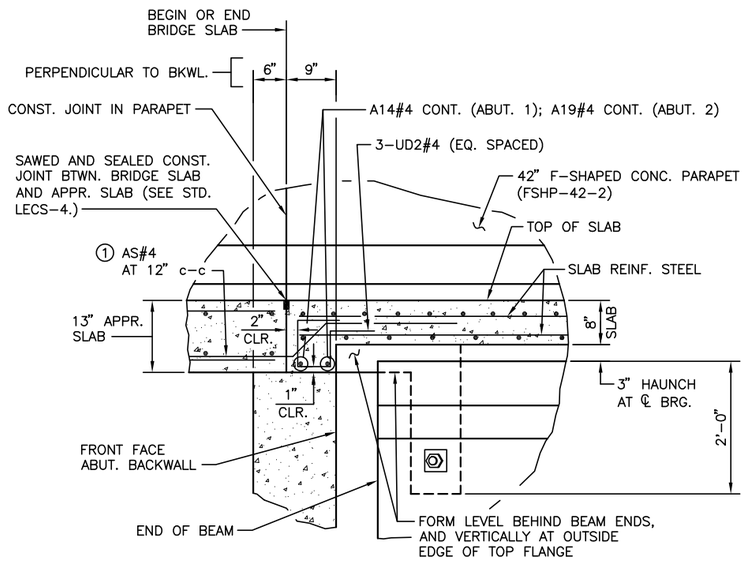
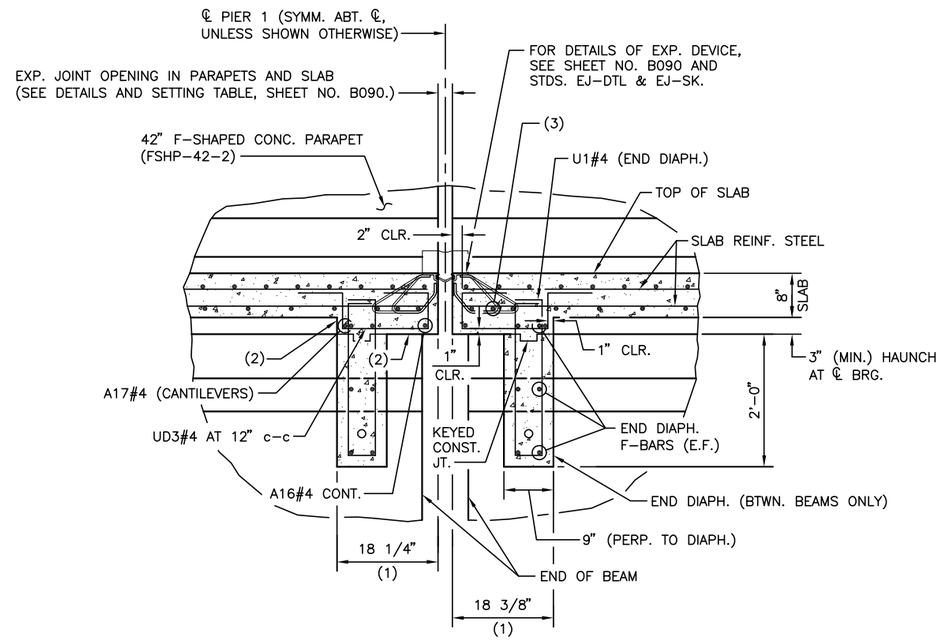
DESCRIPTION	DATE



DETAIL "A" (AT CANTILEVERS)

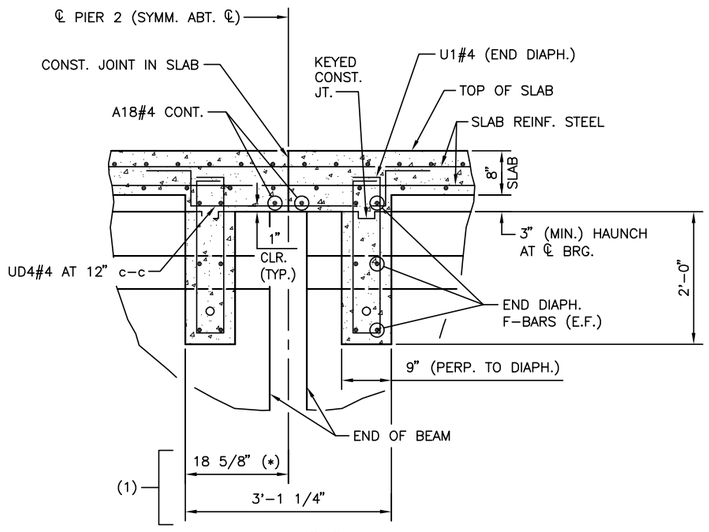
(TYP. AT ABUTS.)



DETAIL "B"

(FULL WIDTH OF BRIDGE SLAB, UNLESS NOTED.)
(AT PIER 1)

① AS#4 BARS SHALL BE TIED TO THE TOP MAT OF REINFORCING IN THE BRIDGE SLAB AND THE BOTTOM MAT OF REINFORCING IN THE APPROACH SLAB. THE BOTTOM LEG OF THE AS#4 BAR SHALL CROSS JOINT.



DETAIL "C"

(DETAIL "C" EXTENDS OUT-OUT OF EXTERIOR BEAM TOP FLANGES.)
(SLAB THICKENING NOT REQUIRED IN CANTILEVERS.)
(AT PIER 2)

(*) AT 60° F ONLY.

(1) HORIZONTAL DIMENSION PARALLEL TO P.C. BEAMS.

(2) FORM SLAB IN CANTILEVERS TO THESE LINES TO PROVIDE ADEQUATE CLEARANCE TO W1 & W2 EXPANSION DEVICE ANCHOR BARS.

(3) EJ1#5 W-BAR ANCHOR. USE BOTTOM TRANSVERSE A3 AND A4 BARS TO ANCHOR W-BARS EITHER SIDE.

E.F. – DENOTES EACH FACE

NOTES: ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ALL UD BARS SHALL BE PLACED PARALLEL TO THE P.C. BEAMS.

DETAILS "A", "B" AND "C" ARE SHOWN AND DIMENSIONED PARALLEL TO THE P.C. BEAMS, UNLESS OTHERWISE NOTED.

FOR P.C. BEAM AND DIAPHRAGM LAYOUT PLAN, SEE SHEET NO. B084.

FOR DIAPHRAGM DETAILS, SEE SHEET NO. B085.

FOR SLAB REINFORCING PLANS, SEE SHEET NOS. B087 AND B088.

FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, BAR BEND DETAILS AND SUPERSTRUCTURE BAR LIST, SEE SHEET NO. B089.

FOR EXPANSION JOINT DETAILS, SEE SHEET NO. B090.

Design	.	
Drawn	PKW	06/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

LONGITUDINAL SECTION (2 OF 2)

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B082

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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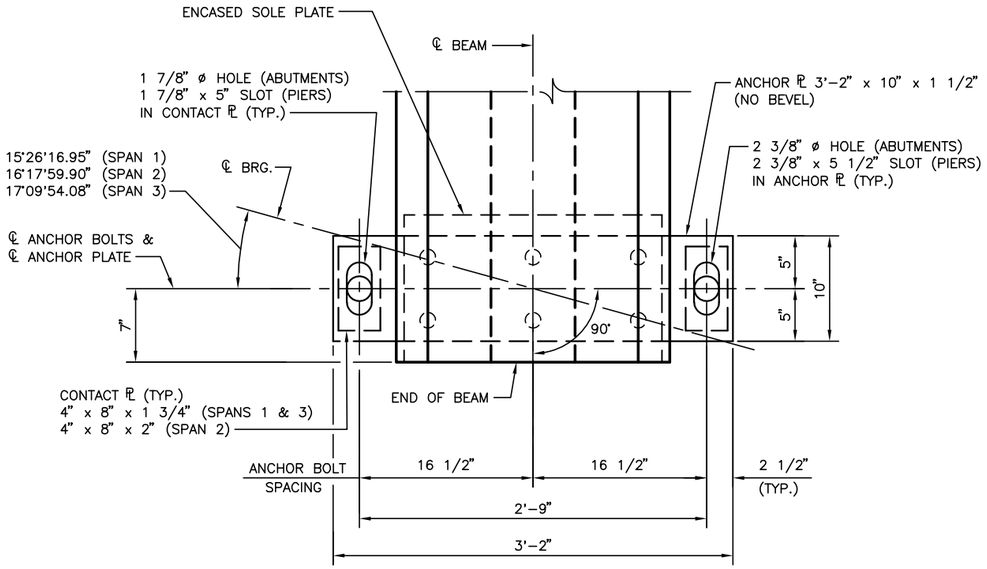
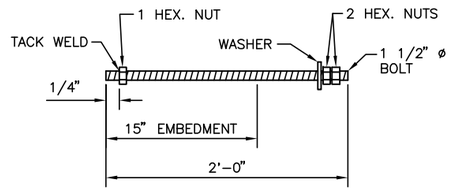
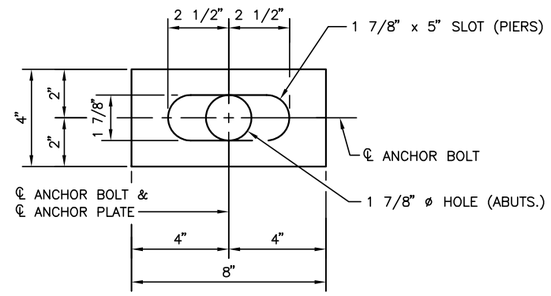
REVISIONS	
DESCRIPTION	DATE



PLAN VIEW



ANCHOR BOLT DETAIL



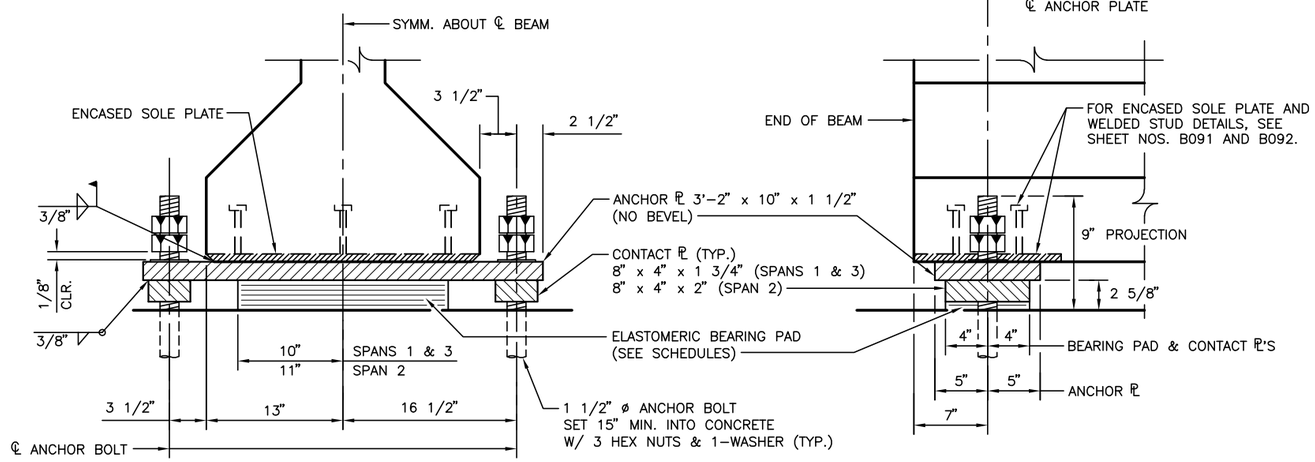
DETAIL OF CONTACT PLATES
1 3/4" THICK – SPANS 1 & 3
2" THICK – SPAN 2

BEARING PAD SCHEDULE FOR SPANS 1 & 3 (DURO 60) (24 REQ'D)
SIZE – 8" x 20" x 2 5/8" WITH 5 – 1/8" STEEL LAMINATES 2 – 1/4" EXTERIOR ELASTOMER LAYERS 4 – 3/8" INTERIOR ELASTOMER LAYERS

BEARING PAD SCHEDULE FOR SPAN 2 (DURO 60) (12 REQ'D)
SIZE – 8" x 22" x 2 5/8" WITH 5 – 1/8" STEEL LAMINATES 2 – 1/4" EXTERIOR ELASTOMER LAYERS 4 – 3/8" INTERIOR ELASTOMER LAYERS

END VIEW

SIDE VIEW



BEARING ASSEMBLY DETAILS

NOTES: BEARING ASSEMBLIES SHALL BE IN ACCORDANCE WITH SECTION 507 OF THE STANDARD SPECIFICATIONS, AND PER THE ANSI/AASHTO/AWS D1.6 STRUCTURAL WELDING CODE FOR STAINLESS STEEL.

PROVIDE STRUCTURAL STEEL FOR ANCHOR PLATES AND CONTACT PLATES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M AND ASTM A320, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL.

ANCHOR PLATES FOR BEARING ASSEMBLIES SHALL BE MATCH-MARKED, SHIPPED LOOSE, AND FIELD WELDED TO THE ENCASED SOLE PLATES IN ORDER THAT MINOR HORIZONTAL ADJUSTMENT OF THE BEARING LOCATION MAY BE MADE IF NECESSARY.

METAL USED IN FIELD WELDS WILL NOT BE MEASURED FOR PAYMENT.

ALL BEARING PADS SHALL BE CENTERED BETWEEN ANCHOR BOLTS.

BONDING BETWEEN THE ANCHOR PLATES AND BEARING PADS WILL NOT BE REQUIRED.

AT THE TIME OF SETTING SLOTTED BEARING ASSEMBLIES (PIERS), THE SLOTS IN THE ANCHOR PLATES SHALL BE CENTERED ON THE ANCHOR BOLTS. THE DIMENSION FROM THE END OF THE BEAM TO THE CENTERLINE OF THE ANCHOR BOLTS MAY VARY FROM THAT SHOWN, DEPENDING ON THE SETTING TEMPERATURE.

Design	.	
Drawn	PKW	06/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

BEARING DETAILS

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B083

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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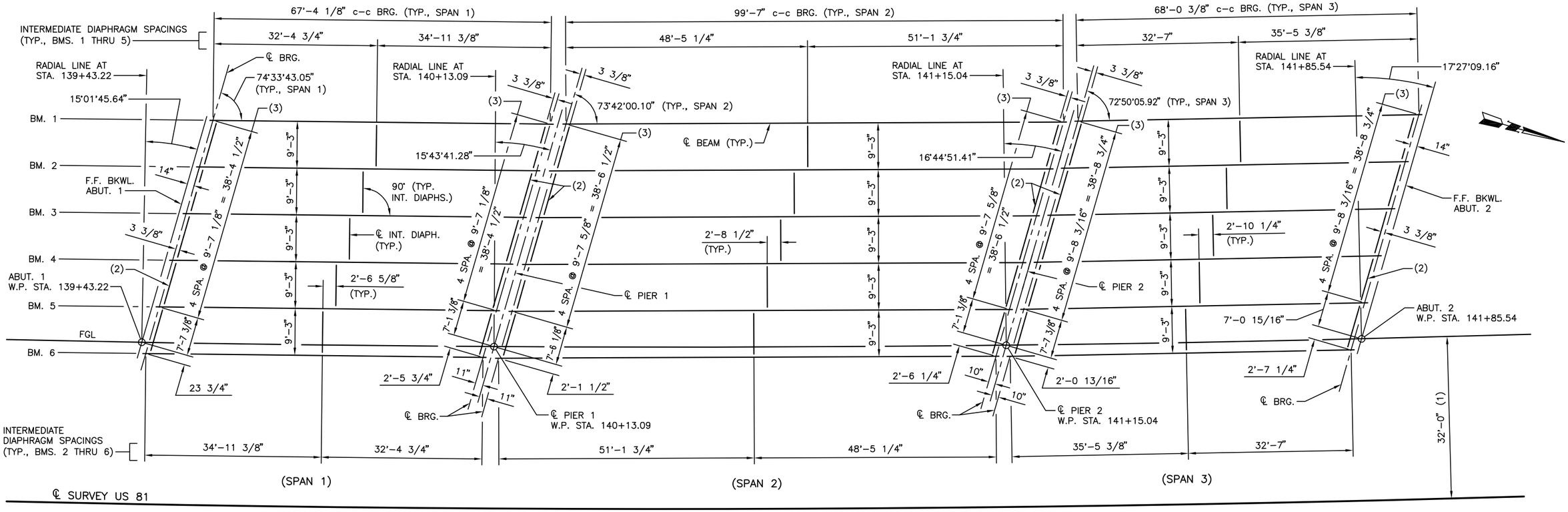
DESCRIPTION	DATE



P.C. BEAM AND DIAPHRAGM LAYOUT PLAN

(ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.)

(1) RADIAL DIMENSION.

(2) ℄ END DIAPHRAGM (ALONG SKEW)

(3) MEASURED ALONG ℄ BRG.

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

THE FRONT FACE BKWL., ℄ BEARING, ℄ END DIAPHRAGM AND ℄ PIER LINES ARE PARALLEL.

FOR ℄ US 81 CURVE DATA, SEE SHEET NO. B062.

NOTE: FOR INTERMEDIATE AND END DIAPHRAGM DETAILS, SEE SHEET NO. B085.

Design	.	
Drawn	PKW	06/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

P.C. BEAM AND DIAPHRAGM LAYOUT PLAN

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B084

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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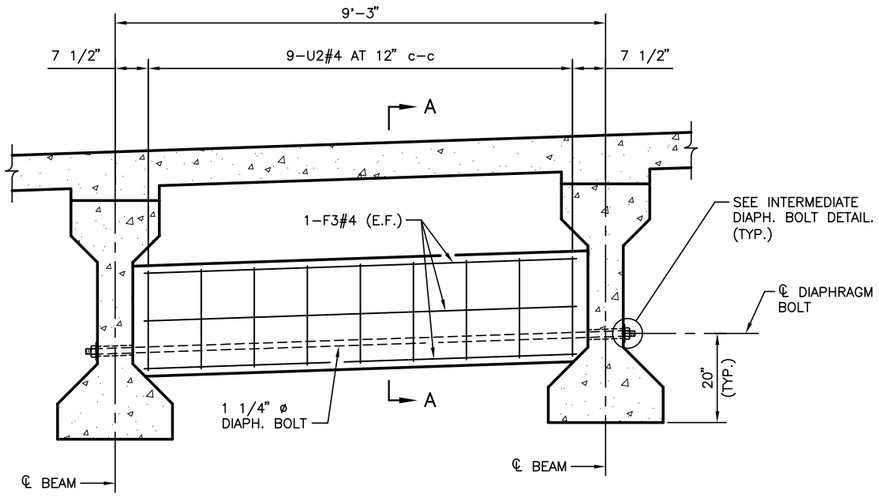
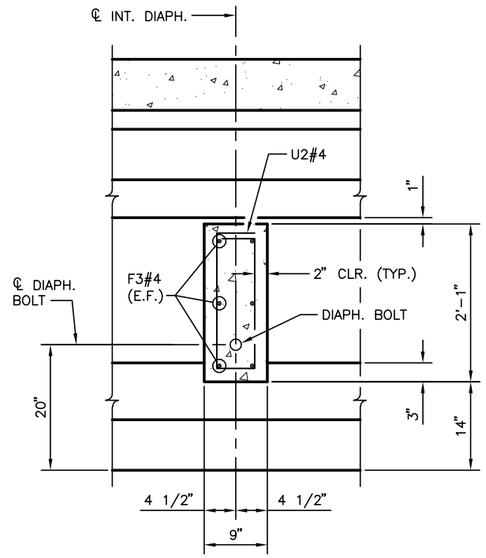
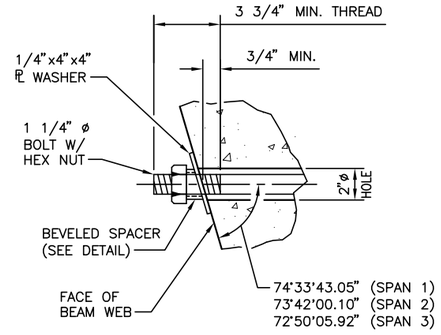
DESCRIPTION	DATE



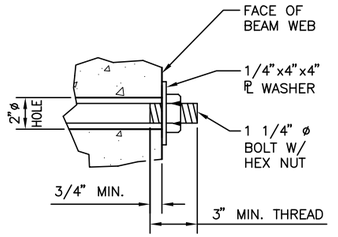
TYPICAL INTERMEDIATE DIAPHRAGM



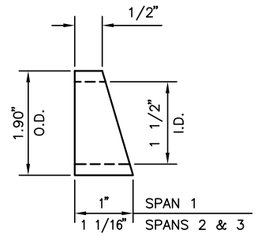
SECTION A-A



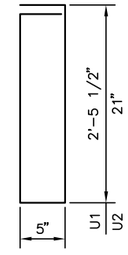
END DIAPHRAGM BOLT DETAIL
(EXTERIOR BEAMS ONLY)



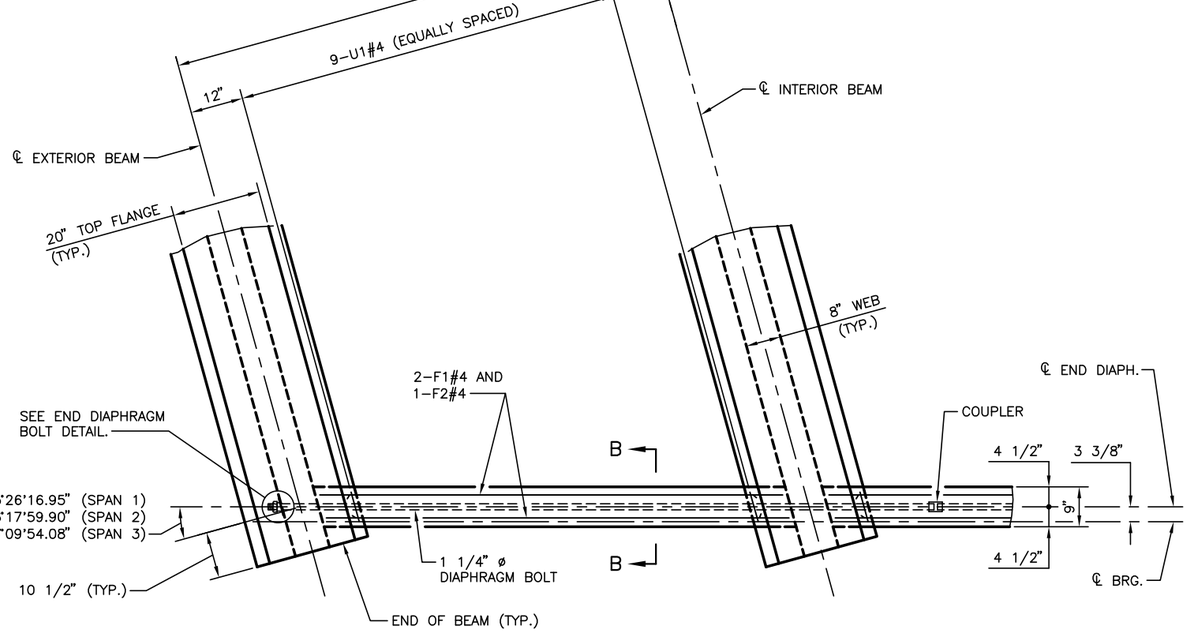
INTERMEDIATE DIAPHRAGM BOLT DETAIL



BEVELED SPACER
1 1/2" ø EXTRA STRONG PIPE SLEEVE
(END DIAPHRAGMS ONLY)

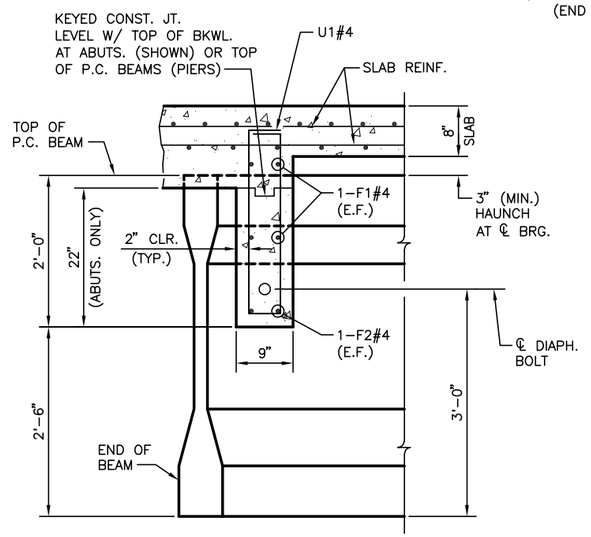


U1#4 x 6'-2"
U2#4 x 4'-9"
(USE STIRRUP BEND DIAMETERS)



PART PLAN OF END DIAPHRAGM
(TYPICAL BTWN. BEAMS, AT ABUTMENTS AND PIERS.)

E.F. – DENOTES EACH FACE



SECTION B-B

NOTES: STRUCTURAL STEEL FOR DIAPHRAGM BOLTS, SPACERS AND PLATE WASHERS SHALL CONFORM TO AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). A #10 REINFORCING BAR CONFORMING TO AASHTO M31, GRADE 60, AND THREADED AT THE ENDS AS SHOWN MAY BE SUBSTITUTED FOR THE DIAPHRAGM BOLT AT NO ADDITIONAL COST TO THE DEPARTMENT. HEX NUTS SHALL CONFORM TO AASHTO M291 (ASTM A563).

PAINT EXPOSED DIAPHRAGM BOLTS, HEX NUTS, SPACERS AND PLATE WASHERS WITH TWO (2) COATS OF ZINC RICH PAINT (6 MIL. MIN. THICKNESS) AFTER ASSEMBLY. ALL COSTS FOR DIAPHRAGM BOLTS, PLATE WASHERS, SPACERS AND HEX NUTS TO BE INCLUDED IN PRICE BID FOR STRUCTURAL STEEL.

ALL COSTS FOR DIAPHRAGM BOLT COUPLERS TO BE INCLUDED IN OTHER ITEMS.

FOR P.C. BEAM AND DIAPHRAGM LAYOUT PLAN, SEE SHEET NO. B084.

U1 AND U2 BARS SHALL BE PLACED PARALLEL TO THE P.C. BEAMS.

FOR ADDITIONAL REINFORCING DETAILS OVER END DIAPHRAGMS, SEE SHEET NOS. B080 THRU B082.

FOR SUPERSTRUCTURE BAR LIST, SEE SHEET NO. B089.

CONCRETE FOR ALL INTERMEDIATE AND END DIAPHRAGMS SHALL BE CLASS AA CONCRETE.

Design	.	
Drawn	PKW	06/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

DIAPHRAGM DETAILS

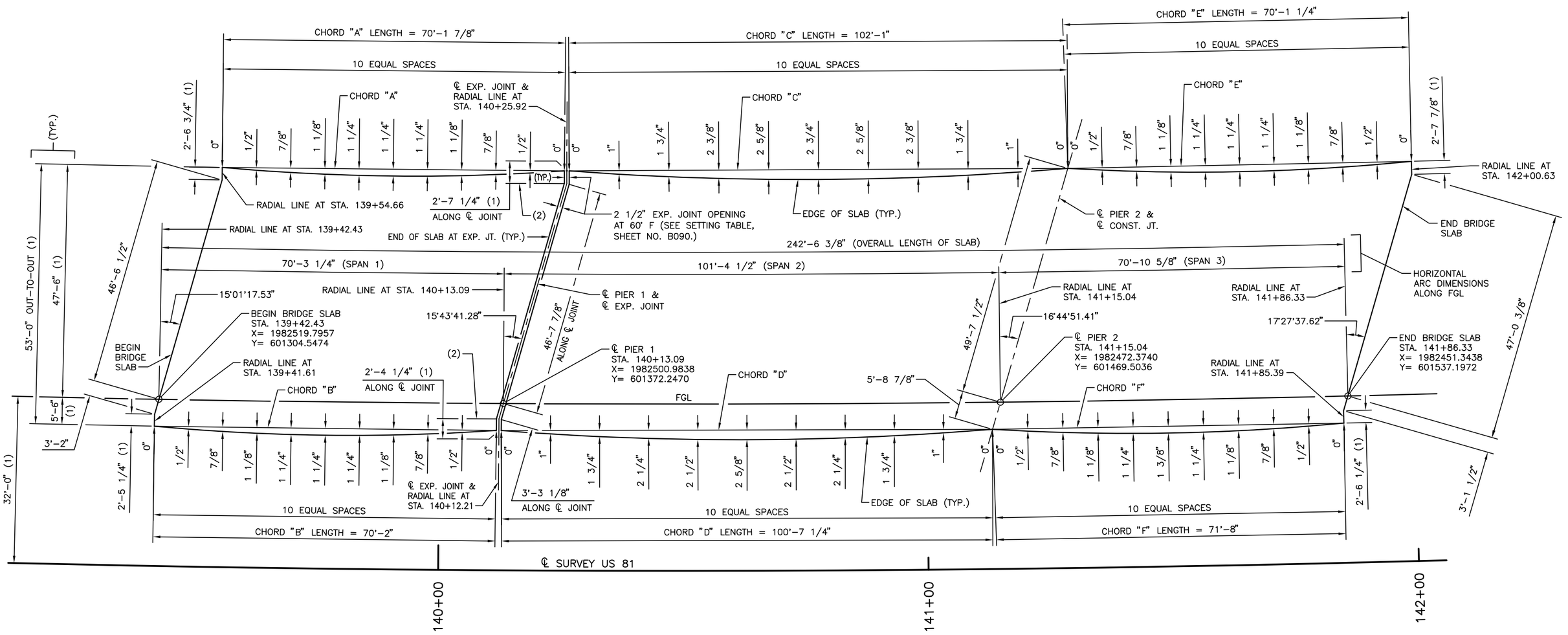
℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B085

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

M:\W2M Projects\Project Files\M179\Final Design C & D\B086-2442813-SLAB PLAN SHOWING CANTILEVER LAYOUT.dwg 5/18/2020 2:32:32 PM

REVISIONS	
DESCRIPTION	DATE



SLAB PLAN SHOWING CANTILEVER LAYOUT
(NOT TO SCALE)

℄ SURVEY US 81
CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

THE BEGIN/END BRIDGE SLAB AND ℄ PIER LINES ARE PARALLEL.

(1) RADIAL DIMENSION.

(2) BEND POINT AT ℄ EXP. JOINT.

NOTES: THE CURVED EDGES OF THE BRIDGE SLAB WITHIN EACH SPAN ARE EXAGGERATED TO CLARIFY THE DIMENSIONS AND CHORD LINES. IN REALITY, THE EDGES OF THE SLAB FOLLOW A CONSTANT RADIUS AND ARE PARALLEL TO THE FGL AND THE ℄ SURVEY US 81.

PARAPETS ARE NOT SHOWN FOR CLARITY.

ALL PLAN DIMENSIONS ARE HORIZONTAL DIMENSIONS.

Design	.	
Drawn	PKW	05/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

SLAB PLAN SHOWING CANTILEVER LAYOUT

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B086

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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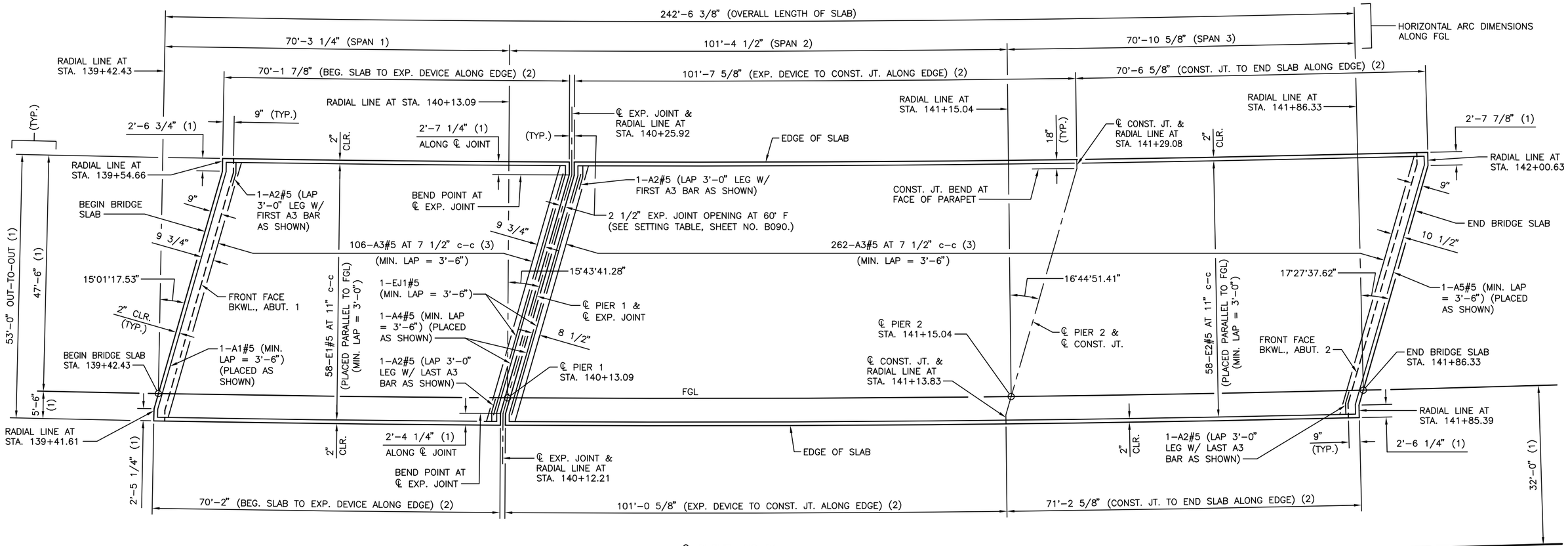
REVISIONS	
DESCRIPTION	DATE



BOTTOM SLAB REINFORCING PLAN
(NOT TO SCALE)

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

THE BEGIN/END BRIDGE SLAB, FRONT FACE BKWL. AND ℄ PIER LINES ARE PARALLEL.

(1) RADIAL DIMENSION.

(2) MEASURED ALONG CURVED EDGE OF SLAB.

(3) TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE SKEW AND SPACED PERPENDICULAR TO THE SKEW.

℄ SURVEY US 81 CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

NOTES: ALL PLAN DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ALL LAPS SHALL BE STAGGERED.

THE A1, A2, A4 AND A5 BARS SHALL BE PLACED AT THE SAME LEVEL AS THE A3#5 BARS.

E2 BARS SHALL BE CONTINUOUS ACROSS THE CONSTRUCTION JOINT OVER PIER 2. E2 BAR LAPS SHALL NOT BE MADE WITHIN 10' OF THE ℄ PIER 2.

UD1 THRU UD4 AND A14 THRU A19 BARS IN ABUTMENT AND PIER CONCRETE END DIAPHRAGMS ARE NOT SHOWN FOR CLARITY. SEE DETAILS "A", "B" AND "C" ON SHEET NOS. B081 AND B082 FOR PLACEMENT DETAILS. THIS STEEL SHALL BE TIED IN PLACE WITH AND BELOW THE BOTTOM MAT OF SLAB REINFORCING STEEL.

FS2 BARS IN PARAPETS SHALL BE TIED IN PLACE PRIOR TO SLAB POUR. FOR DETAILS AND BAR SPACINGS, SEE STD. FSHP-42-2 AND SHEET NO. B088.

FOR EXPANSION JOINT DETAILS, SEE SHEET NO. B090, AND STDS. EJ-SK AND EJ-DTL. W1 AND W2 EXPANSION JOINT ANCHOR BARS SHALL BE ANCHORED WITH THE A3, A4 AND EJ1 BARS AS SHOWN ON SHEET NO. B082.

FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, BAR BEND DETAILS AND SUPERSTRUCTURE BAR LIST, SEE SHEET NO. B089.

FOR TYPICAL SECTION AND LONGITUDINAL SECTION, SEE SHEET NOS. B080-B082.

FOR SLAB PLAN SHOWING CANTILEVER LAYOUT AND OTHER DIMENSIONS NOT SHOWN ON THIS SHEET, SEE SHEET NO. B086.

FOR TOP SLAB REINFORCING PLAN AND PARAPET LAYOUT, SEE SHEET NO. B088.

Design	.	
Drawn	PKW	05/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

BOTTOM SLAB REINFORCING PLAN
℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B087

"PRELIMINARY PLANS - NOT FOR CONSTRUCTION"

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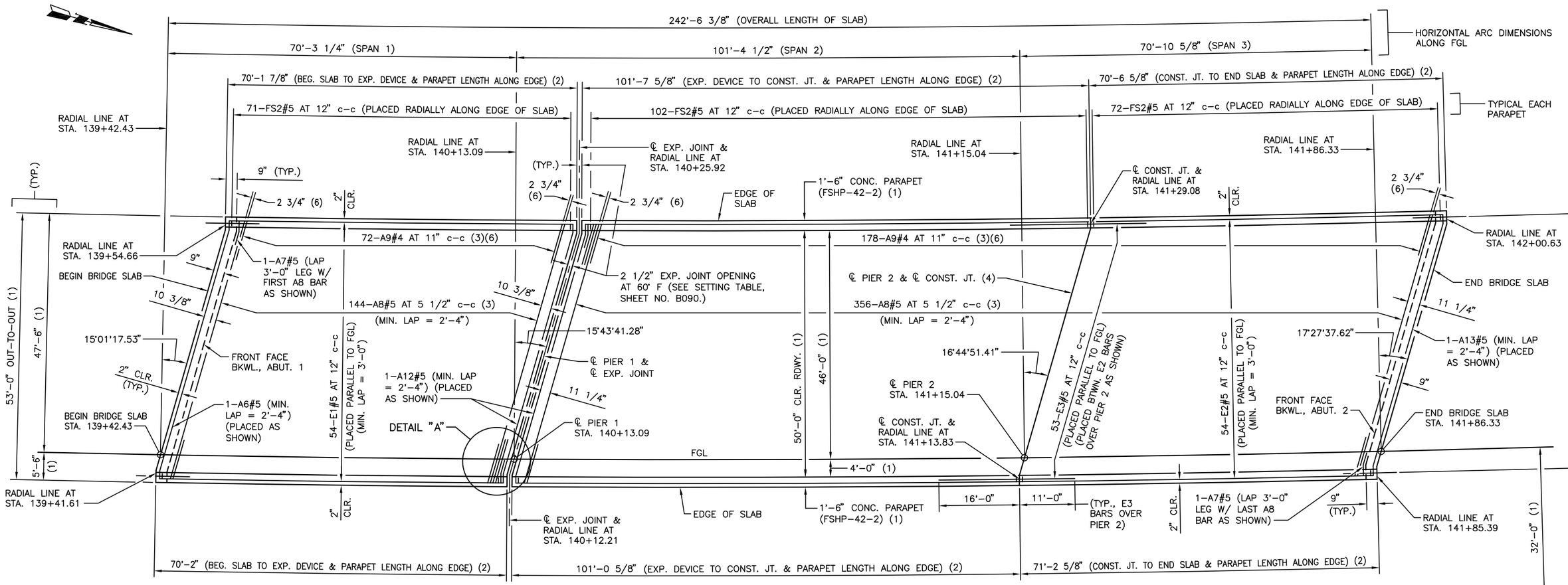
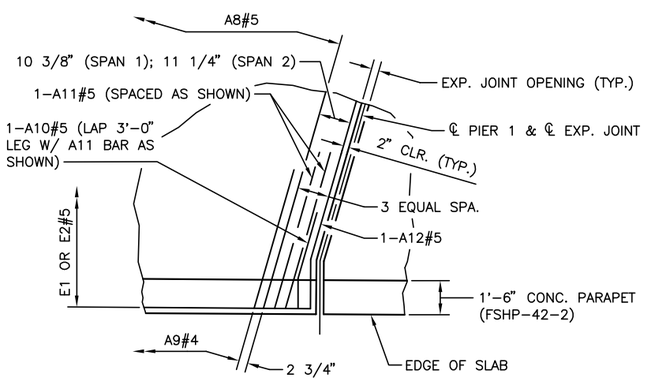
REVISIONS	
DESCRIPTION	DATE





DETAIL "A"
(TYP., OBTUSE CORNERS OF SLAB AT PIER 1.)
(FS2 BARS NOT SHOWN FOR CLARITY.)

TOP SLAB REINFORCING PLAN AND PARAPET LAYOUT
(NOT TO SCALE)

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

THE BEGIN/END BRIDGE SLAB, FRONT FACE BKWL. AND ℄ PIER LINES ARE PARALLEL.

NOTES:

ALL PLAN DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ALL LAPS SHALL BE STAGGERED.

THE A6, A7 AND A10 THRU A13 BARS SHALL BE PLACED AT THE SAME LEVEL AS THE A8 AND A9 BARS.

E2 BARS SHALL BE CONTINUOUS ACROSS THE CONSTRUCTION JOINT OVER PIER 2. E2 BAR LAPS SHALL NOT BE MADE WITHIN 10' OF THE ℄ PIER 2.

FS2 BARS IN PARAPETS SHALL BE TIED IN PLACE PRIOR TO SLAB POUR. FOR ADDITIONAL DETAILS, SEE STD. FSHP-42-2.

FOR CONTROL CRACK JOINT LOCATIONS IN PARAPETS, SEE STD. FSHP-42-2.

FOR EXPANSION JOINT DETAILS, SEE SHEET NO. B090, AND STDS. EJ-SK AND EJ-DTL.

FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, BAR BEND DETAILS AND SUPERSTRUCTURE BAR LIST, SEE SHEET NO. B089.

FOR TYPICAL SECTION AND LONGITUDINAL SECTION, SEE SHEET NOS. B080-B082.

FOR SLAB PLAN SHOWING CANTILEVER LAYOUT AND OTHER DIMENSIONS NOT SHOWN ON THIS SHEET, SEE SHEET NOS. B086 AND B087.

℄ SURVEY US 81
CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

(1) RADIAL DIMENSION.

(2) MEASURED ALONG CURVED EDGE OF SLAB.

(3) TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE SKEW AND SPACED PERPENDICULAR TO THE SKEW.

(4) SEAL CONSTRUCTION JOINT WITH HIGH MOLECULAR WEIGHT METHACRYLATE OR EPOXY RESIN.

(5) SEE DETAILS "A", SHEET NOS. B081 AND B082.

(6) TYPICAL EACH CANTILEVER.

Design	.	
Drawn	PKW	05/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

TOP SLAB REINFORCING PLAN AND PARAPET LAYOUT

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B088

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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REVISIONS	
DESCRIPTION	DATE

FINISHED TOP OF DECK ELEVATIONS

SPAN	BEAM NO.	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
1	1	1198.85	1198.79	1198.74	1198.68	1198.63	1198.57	1198.52	1198.47	1198.41	1198.36	1198.31
	2	1199.18	1199.13	1199.07	1199.02	1198.96	1198.91	1198.85	1198.80	1198.75	1198.69	1198.64
	3	1199.52	1199.46	1199.41	1199.35	1199.30	1199.24	1199.19	1199.14	1199.08	1199.03	1198.98
	4	1199.85	1199.80	1199.74	1199.69	1199.63	1199.58	1199.52	1199.47	1199.42	1199.36	1199.31
	5	1200.19	1200.13	1200.08	1200.02	1199.97	1199.91	1199.86	1199.81	1199.75	1199.70	1199.65
	6	1200.52	1200.47	1200.41	1200.36	1200.30	1200.25	1200.19	1200.14	1200.09	1200.03	1199.98
2	1	1198.29	1198.21	1198.12	1198.04	1197.96	1197.88	1197.80	1197.72	1197.64	1197.56	1197.49
	2	1198.62	1198.54	1198.46	1198.38	1198.30	1198.22	1198.14	1198.06	1197.98	1197.90	1197.82
	3	1198.96	1198.88	1198.80	1198.71	1198.63	1198.55	1198.47	1198.39	1198.31	1198.24	1198.16
	4	1199.30	1199.21	1199.13	1199.05	1198.97	1198.89	1198.81	1198.73	1198.65	1198.57	1198.49
	5	1199.63	1199.55	1199.47	1199.39	1199.31	1199.22	1199.14	1199.06	1198.99	1198.91	1198.83
	6	1199.97	1199.89	1199.81	1199.72	1199.64	1199.56	1199.48	1199.40	1199.32	1199.24	1199.17
3	1	1197.47	1197.41	1197.35	1197.30	1197.24	1197.19	1197.13	1197.08	1197.02	1196.97	1196.92
	2	1197.80	1197.75	1197.69	1197.64	1197.58	1197.52	1197.47	1197.42	1197.36	1197.31	1197.25
	3	1198.14	1198.08	1198.03	1197.97	1197.92	1197.86	1197.81	1197.75	1197.70	1197.64	1197.59
	4	1198.48	1198.42	1198.37	1198.31	1198.26	1198.20	1198.15	1198.09	1198.04	1197.98	1197.93
	5	1198.82	1198.76	1198.70	1198.65	1198.59	1198.54	1198.48	1198.43	1198.37	1198.32	1198.27
	6	1199.15	1199.10	1199.04	1198.99	1198.93	1198.88	1198.82	1198.77	1198.71	1198.66	1198.60

BRIDGE SLAB AND CONSTRUCTION JOINT NOTES:

EPOXY-COAT OR GALVANIZE STEEL ITEMS USED TO FACILITATE CONSTRUCTION, SUCH AS FORM HANGER ASSEMBLIES, TY-BAR CLIPS, INSERT WELD ANCHORS, OR OTHER APPURTENANCES THAT WILL REMAIN IN PLACE IN THE BRIDGE SLAB. EPOXY-COAT IN ACCORDANCE WITH AASHTO M284 OR GALVANIZE IN ACCORDANCE WITH AASHTO M111.

THE BRIDGE SLAB SHALL BE POURED ONE SPAN AT A TIME, IN THE UPHILL DIRECTION. NO ADJACENT SPAN AT PIER 2 SHALL BE POURED UNTIL AT LEAST 48 HOURS AFTER THE OPPOSITE SPAN POUR HAS BEEN COMPLETED.

THE FINISHING MACHINE SHALL BE POSITIONED TO OPERATE PARALLEL TO THE SKEW OF THE BRIDGE.

THE CONSTRUCTION JOINT OVER PIER 2 SHALL NOT BE KEYED. IN THE EVENT OF AN EMERGENCY, HALT THE PLACEMENT OF CONCRETE BY FORMING A CONSTRUCTION JOINT PARALLEL TO THE SKEW OR AS DIRECTED BY THE ENGINEER. LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THRU ALL TRANSVERSE CONSTRUCTION JOINTS. DO NOT PLACE ANY HEAVY EQUIPMENT ON THE FINISHED BRIDGE SLAB WITHIN 5'-0" OF ANY CONSTRUCTION JOINT UNTIL CONCRETE IS IN PLACE ON BOTH SIDES OF THE RESPECTIVE JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT.

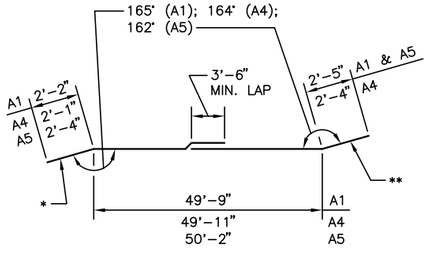
SEAL ALL BRIDGE SLAB CONSTRUCTION JOINTS WITH HIGH MOLECULAR WEIGHT METHACRYLATE OR EPOXY RESIN IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS. INCLUDE ALL COSTS OF EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER OR EPOXY RESIN IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION". INCLUDE ALL COSTS OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER OR EPOXY RESIN IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". THE DEPARTMENT WILL NOT MEASURE THE PREPARATION AND SEALER RESIN ON EMERGENCY CONSTRUCTION JOINTS FOR PAYMENT.

DO NOT SAW CUT GROOVE WITHIN 6" OF ANY CONSTRUCTION JOINT.

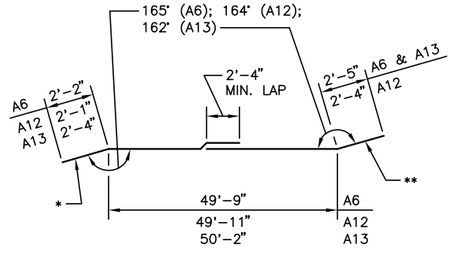
SUPERSTRUCTURE BAR LIST

MARK	NO.	SIZE	SHAPE	LENGTH	
		(EPOXY COATED)			
A1	1	5	BNT.	57'-10"	(1)
A2	4	5	BNT.	5'-6"	
A3	368	5	STR.	58'-9"	(1)(2)
A4	2	5	BNT.	57'-10"	(1)
A5	1	5	BNT.	58'-5"	(1)
A6	1	5	BNT.	56'-8"	(3)
A7	2	5	BNT.	5'-7"	
A8	500	5	BNT.	58'-9"	(2)(3)
A9	500	4	BNT.	6'-10"	
A10	2	5	BNT.	4'-7"	
A11	4	5	BNT.	7'-7"	
A12	2	5	BNT.	56'-8"	(3)
A13	1	5	BNT.	57'-3"	(3)
A14	2	4	BNT.	56'-4"	(4)
A15	10	4	STR.	8'-1"	
A16	2	4	BNT.	56'-4"	(4)
A17	4	4	STR.	2'-5"	
A18	2	4	STR.	51'-10"	(4)
A19	2	4	BNT.	56'-10"	(4)
AS	108	4	BNT.	4'-11"	
E1	112	5	STR.	72'-11"	(5)
E2	112	5	STR.	184'-0"	(6)
E3	53	5	STR.	27'-0"	
EJ1	2	5	STR.	55'-6"	(1)
F1	120	4	STR.	7'-7"	
F2	60	4	STR.	8'-7"	
F3	90	4	STR.	8'-1"	
FS2	490	5	BNT.	7'-4"	(7)
U1	270	4	BNT.	6'-2"	
U2	135	4	BNT.	4'-9"	
UD1	90	4	BNT.	4'-11 1/2"	
UD2	24	4	BNT.	3'-1"	
UD3	108	4	BNT.	3'-8"	
UD4	49	4	BNT.	5'-4"	

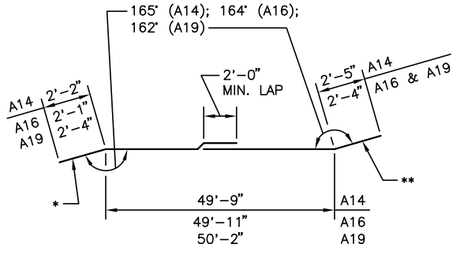
(1) LENGTH INCLUDES ONE (1) 3'-6" LAP SPLICE.
(2) LAP IS REQUIRED TO ACHIEVE PROPER FIT AND CLEARANCES.
(3) LENGTH INCLUDES ONE (1) 2'-4" LAP SPLICE.
(4) LENGTH INCLUDES ONE (1) 2'-0" LAP SPLICE.
(5) LENGTH INCLUDES ONE (1) 3'-0" LAP SPLICE.
(6) LENGTH INCLUDES FOUR (4) 3'-0" LAP SPLICES.
(7) FOR BAR BEND DETAILS, SEE STD. FSHP-42-2.



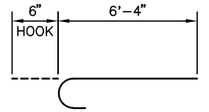
A1#5 x 57'-10"
A4#5 x 57'-10"
A5#5 x 58'-5"



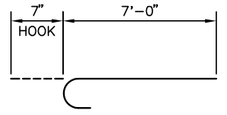
A6#5 x 56'-8"
A12#5 x 56'-8"
A13#5 x 57'-3"



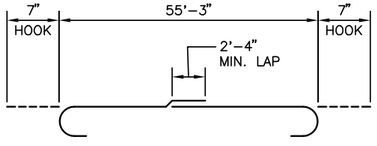
A14#4 x 56'-4"
A16#4 x 56'-4"
A19#4 x 56'-10"



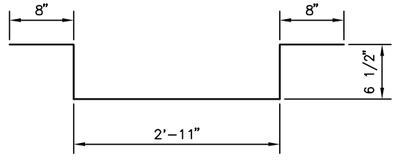
A9#4 x 6'-10"



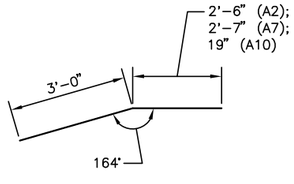
A11#5 x 7'-7"



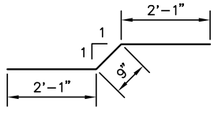
A8#5 x 58'-9"



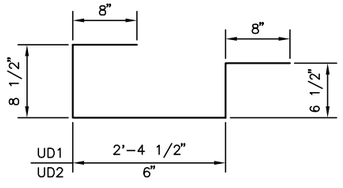
UD4#4 x 5'-4"



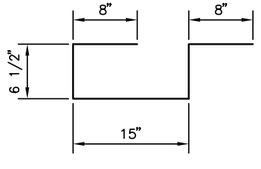
A2#5 x 5'-6"
A7#5 x 5'-7"
A10#5 x 4'-7"



AS#4 x 4'-11"



UD1#4 x 4'-11 1/2"
UD2#4 x 3'-1"



UD3#4 x 3'-8"

BAR BEND DETAILS

(USE STIRRUP BEND DIAMETERS FOR ALL UD BARS.)

* EAST EDGE OF SLAB.

** WEST EDGE OF SLAB.

NOTE: FOR U1 AND U2 BAR BEND DETAILS, SEE SHEET NO. B085.

Design	.	
Drawn	PKW	06/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

MISCELLANEOUS SUPERSTRUCTURE DETAILS

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B089

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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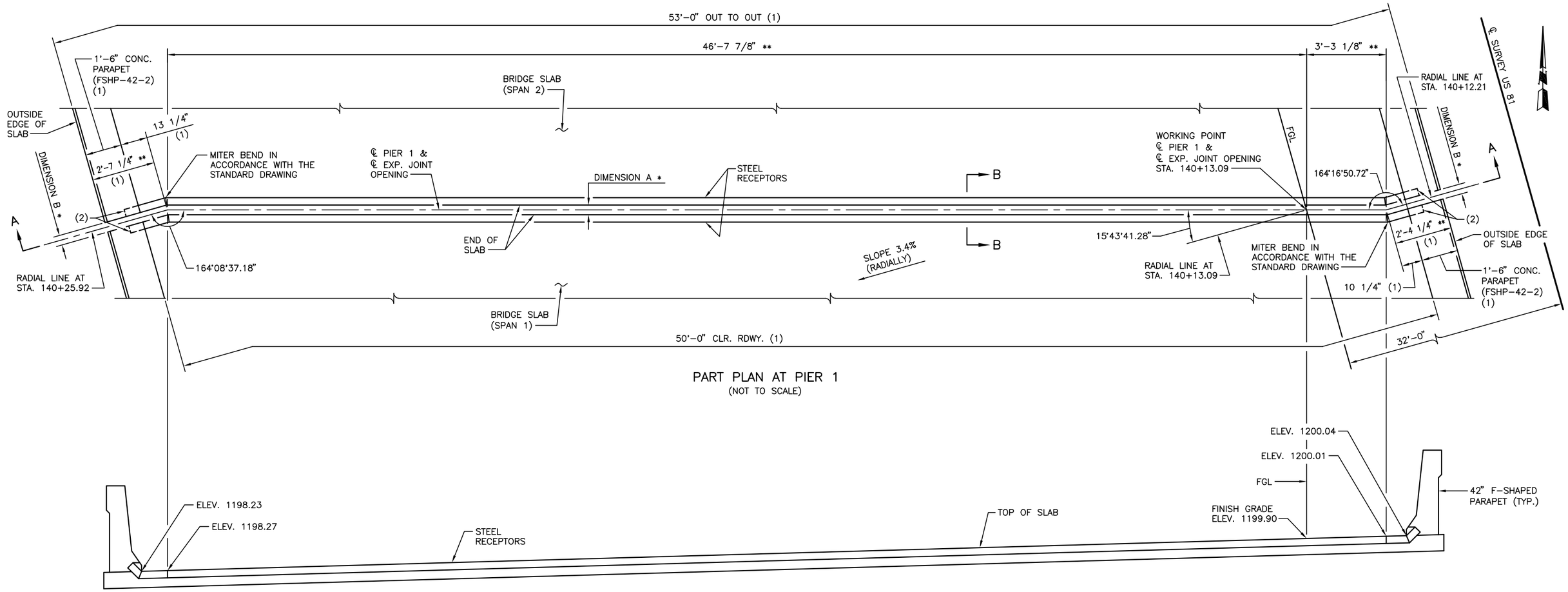
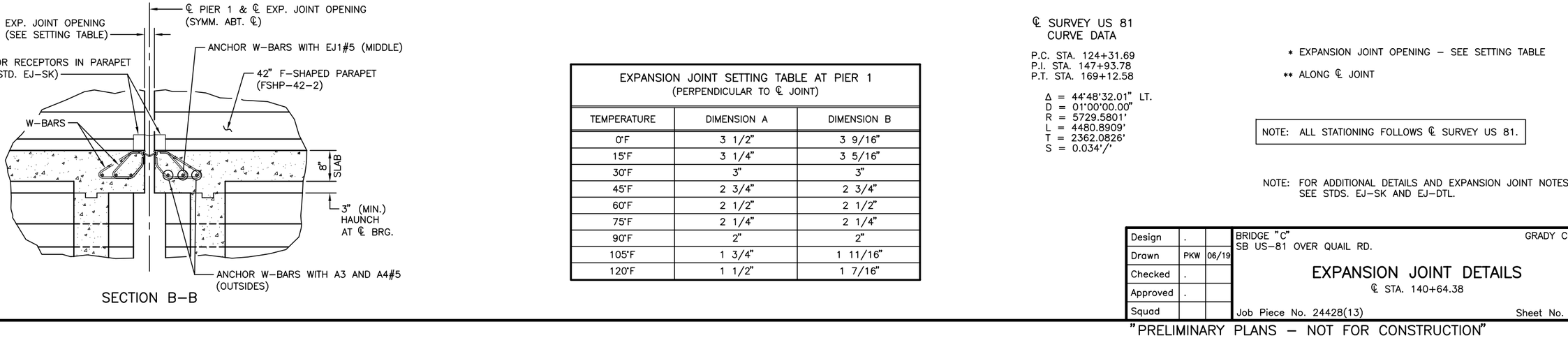
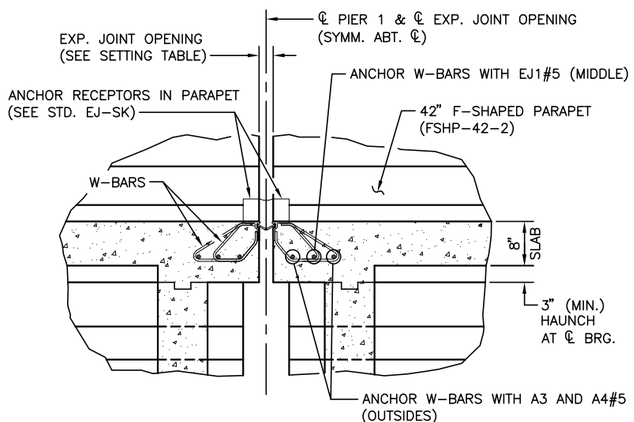
REVISIONS	
DESCRIPTION	DATE



PART PLAN AT PIER 1
(NOT TO SCALE)



SECTION A-A



SECTION B-B

EXPANSION JOINT SETTING TABLE AT PIER 1 (PERPENDICULAR TO ℄ JOINT)		
TEMPERATURE	DIMENSION A	DIMENSION B
0°F	3 1/2"	3 9/16"
15°F	3 1/4"	3 5/16"
30°F	3"	3"
45°F	2 3/4"	2 3/4"
60°F	2 1/2"	2 1/2"
75°F	2 1/4"	2 1/4"
90°F	2"	2"
105°F	1 3/4"	1 11/16"
120°F	1 1/2"	1 7/16"

℄ SURVEY US 81
CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

(1) RADIAL DIMENSION.

(2) ANCHOR RECEPTORS IN PARAPET (SEE STD. EJ-SK)

* EXPANSION JOINT OPENING - SEE SETTING TABLE

** ALONG ℄ JOINT

NOTE: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

NOTE: FOR ADDITIONAL DETAILS AND EXPANSION JOINT NOTES, SEE STDS. EJ-SK AND EJ-DTL.

Design	.	
Drawn	PKW	06/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

EXPANSION JOINT DETAILS

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B090

"PRELIMINARY PLANS - NOT FOR CONSTRUCTION"

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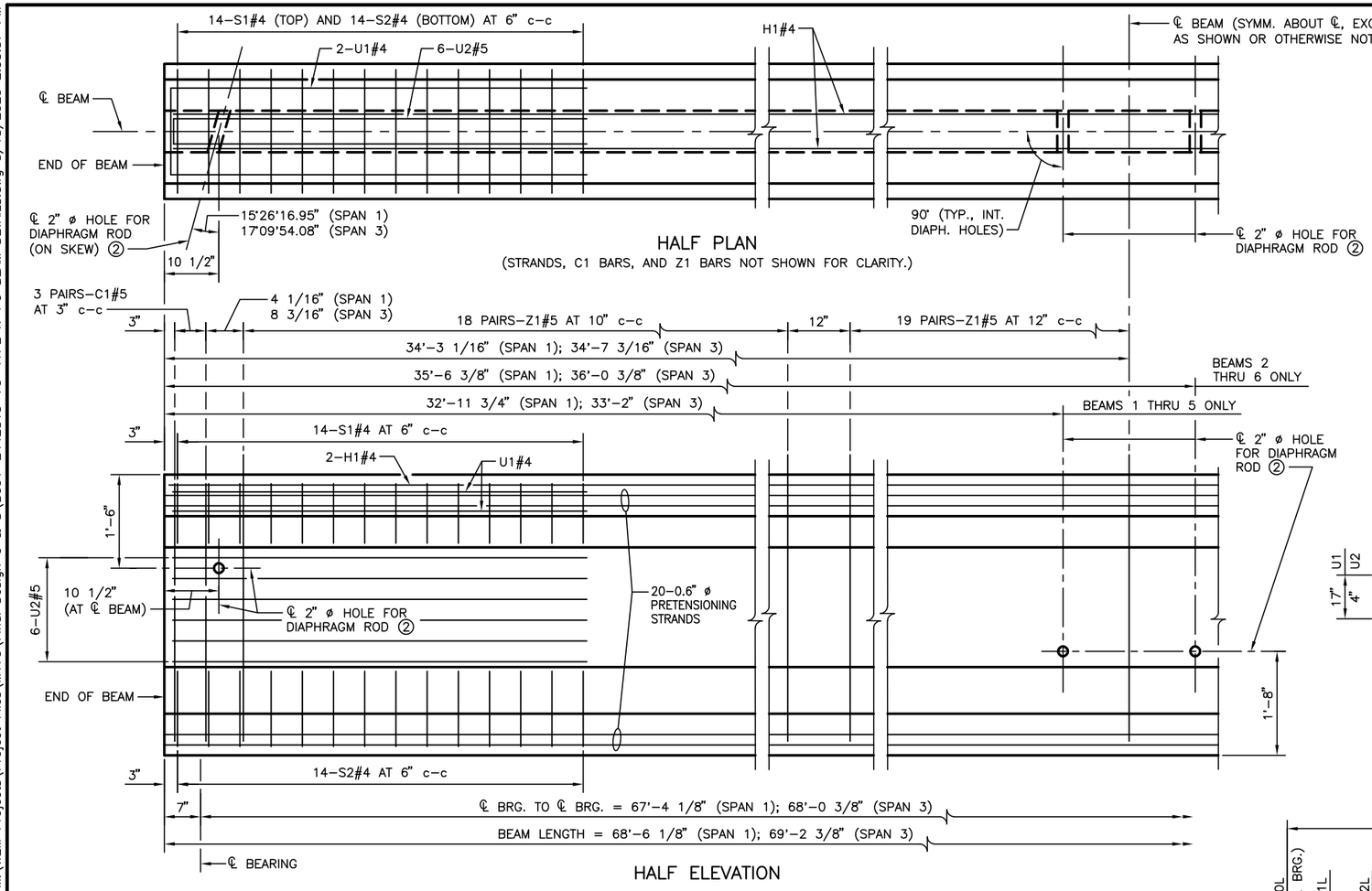
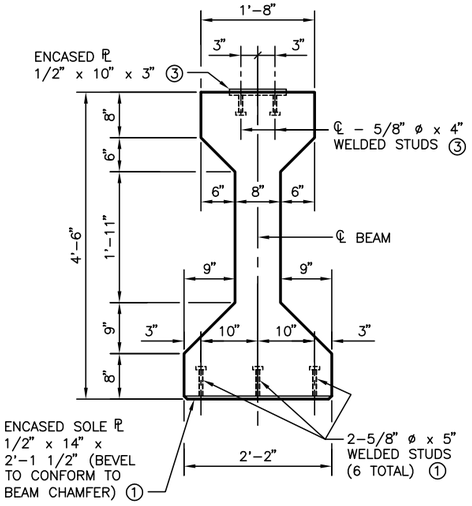


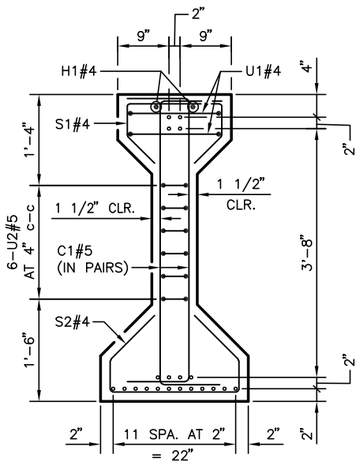
HALF PLAN

(STRANDS, C1 BARS, AND Z1 BARS NOT SHOWN FOR CLARITY.)

HALF ELEVATION



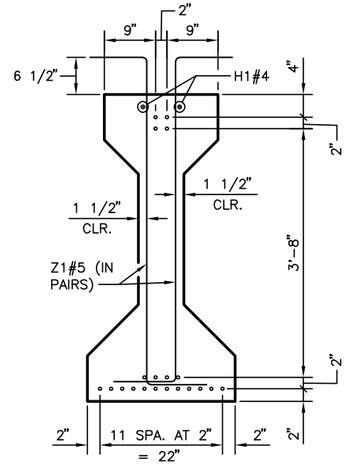
TYPICAL SECTION



END SECTION

NOTE: WELDED STUDS & ENCASED PLATES OMITTED FOR CLARITY.

∘ - DENOTES PRESTRESSING STRAND



℄ SECTION

20 - 0.6" DIA. STRANDS

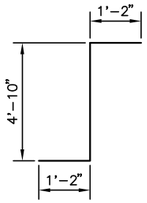
PC BEAM NOTES:

COMPRESSIVE STRENGTH: PROVIDE CONCRETE WITH A COMPRESSIVE STRENGTH OF 6,000 PSI AT TRANSFER OF PRESTRESS AND 8,000 PSI AT 28 DAYS.

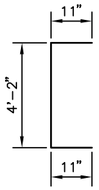
STRAND TYPE: PROVIDE LOW-RELAXATION STRANDS HAVING A NOMINAL DIAMETER OF 0.6" WITH AN ULTIMATE TENSILE STRENGTH OF 270 KSI.

LRFR INVENTORY RATING FACTOR = 1.22
LFD OPERATING RATING = HS 44

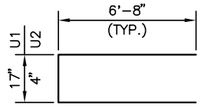
FOR ADDITIONAL DESIGN DATA, SEE SHEET NO. B064.



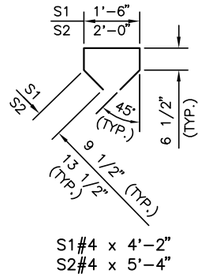
Z1#5 x 7'-2"
(EPOXY COATED)



C1#5 x 6'-0"



U1#4 x 14'-9"
U2#5 x 13'-8"



S1#4 x 4'-2"
S2#4 x 5'-4"

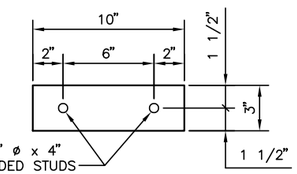
BAR BEND DETAILS

① INSTALL AT BOTH ENDS OF EACH BEAM.

② SHIFT PLAIN REINFORCING STEEL AS NECESSARY TO PROVIDE 1" MIN. CLR. TO DIAPHRAGM ROD HOLE.

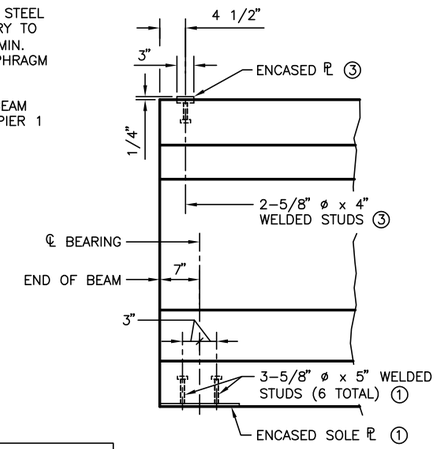
③ INSTALL AT BEAM ENDS OVER PIER 1 ONLY.

NOTE: ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

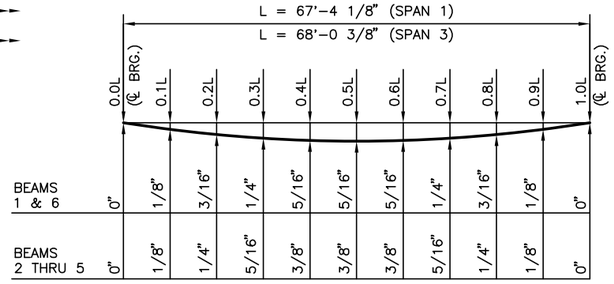


TOP VIEW OF ENCASED PLATE ③

(1/2" THICK ℙ)



ENCASED PLATE DETAILS AT END OF BEAM



DEAD LOAD DEFLECTION DIAGRAM

NOTE: THE DEAD LOAD DEFLECTIONS SHOWN ABOVE ARE DUE TO THE SLAB, HAUNCH, DIAPHRAGMS, PARAPETS AND STAY-IN-PLACE FORMS, AND ARE THEORETICAL ONLY. (DEFLECTIONS DO NOT INCLUDE BEAM WEIGHT OR FUTURE WEARING SURFACE.) DEAD LOAD DEFLECTIONS SHALL BE TAKEN INTO CONSIDERATION IN FORMING AND POURING THE SLAB AND HAUNCHES.

NOTES: ALL DIMENSIONS AND DETAILS ARE TYPICAL FOR SPANS 1 AND 3, UNLESS OTHERWISE SHOWN.

FOR 101' TYPE IV P.C. BEAM DETAILS, SEE SHEET NO. B092.

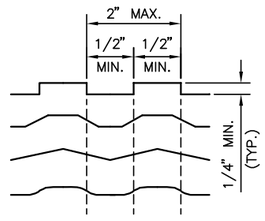
FOR TYPICAL SECTION, SEE SHEET NO. B080.

FOR LONGITUDINAL SECTION, SEE SHEET NO. B081.

FOR BEARING DETAILS, SEE SHEET NO. B083.

FOR P.C. BEAM LAYOUT AND DIAPHRAGM DETAILS, SEE SHEET NOS. B084 AND B085.

FOR 1/10TH POINT FINISH GRADE ELEVATIONS, SEE SHEET NO. B089.



INTENTIONALLY ROUGHENED SURFACE EXAMPLES

INTENTIONALLY ROUGHEN THE ENTIRE TOP SURFACE OF THE P.C. BEAMS TO A MINIMUM HEIGHT OF 1/4" OVER A MAXIMUM PITCH OF 2" MEASURED LONGITUDINALLY ALONG THE LENGTH OF THE BEAM. PROVIDE A CREST AND TROUGH ASSOCIATED WITH THE HEIGHT OF NOT LESS THAN 1/2", THE FULL WIDTH OF THE TOP FLANGE. PRODUCE THE ROUGHENED SURFACE BY USING A SPECIAL TROWEL TO FORM ONE OF THE SURFACES SHOWN IN THE DETAILS, BY CLEANING THE CONCRETE SURFACE WITH A STIFF WIRE BRUSH (OR BLASTING) TO EXPOSE THE AGGREGATE TO A HEIGHT OF 1/4", OR BY USING ANOTHER APPROVED METHOD. SUBMIT THE METHOD TO BE USED FOR APPROVAL BY THE ENGINEER. REPAIR ANY DAMAGE TO REINFORCEMENT'S EPOXY COATING BEFORE PLACEMENT OF SLAB CONCRETE.

REVISIONS	
DESCRIPTION	DATE

Design	.	
Drawn	PKW	06/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

70' TYPE IV P.C. BEAM DETAILS

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B091

"PRELIMINARY PLANS - NOT FOR CONSTRUCTION"

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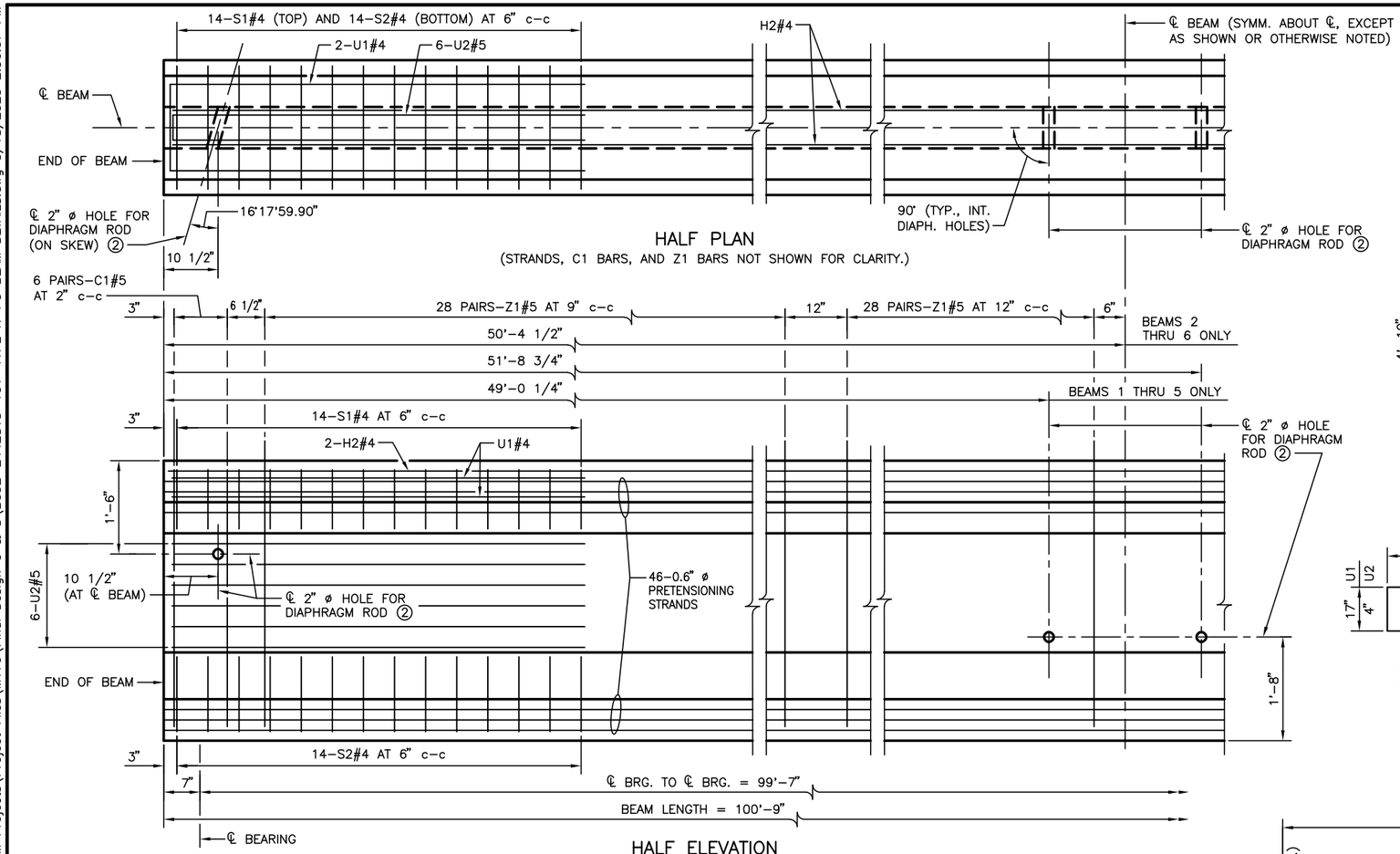
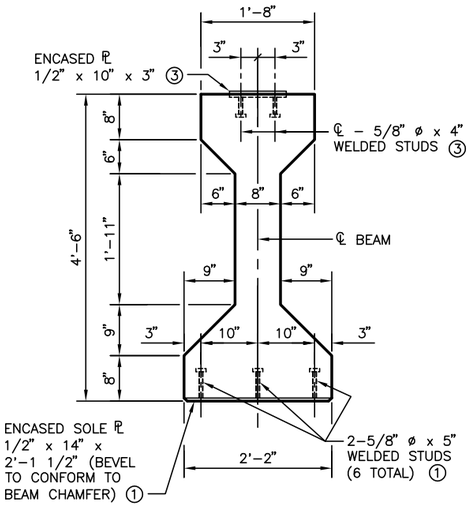


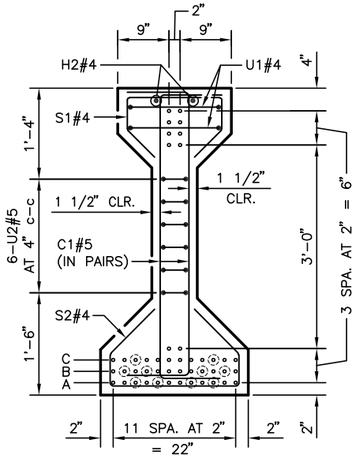
HALF PLAN

(STRANDS, C1 BARS, AND Z1 BARS NOT SHOWN FOR CLARITY.)

HALF ELEVATION



TYPICAL SECTION

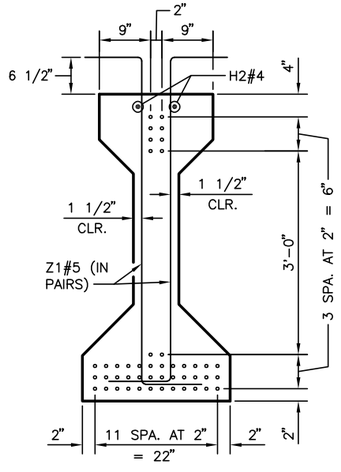


END SECTION

NOTE: WELDED STUDS & ENCASED PLATES OMITTED FOR CLARITY.

○ – DENOTES PRESTRESSING STRAND

◎ – DENOTES DEBONDED STRAND *



℄ SECTION

46 – 0.6" DIA. STRANDS

* DEBOND LENGTH FROM END OF BEAM = 13'–0" (ROW "A")
16'–0" (ROW "B")
19'–0" (ROW "C")

PC BEAM NOTES:

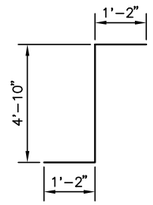
COMPRESSIVE STRENGTH: PROVIDE CONCRETE WITH A COMPRESSIVE STRENGTH OF 7,500 PSI AT TRANSFER OF PRESTRESS AND 10,000 PSI AT 28 DAYS.

STRAND TYPE: PROVIDE LOW–RELAXATION STRANDS HAVING A NOMINAL DIAMETER OF 0.6" WITH AN ULTIMATE TENSILE STRENGTH OF 270 KSI.

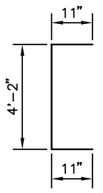
LRFR INVENTORY RATING FACTOR = 1.57
LFD OPERATING RATING = HS 61

FOR ADDITIONAL DESIGN DATA, SEE SHEET NO. B064.

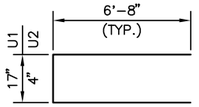
REVISIONS	
DESCRIPTION	DATE



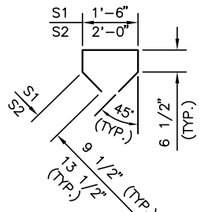
Z1#5 x 7'–2"
(EPOXY COATED)



C1#5 x 6'–0"



U1#4 x 14'–9"
U2#5 x 13'–8"



S1#4 x 4'–2"
S2#4 x 5'–4"

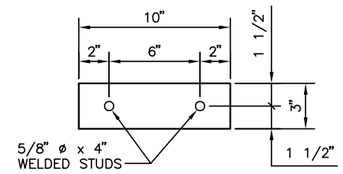
BAR BEND DETAILS

① INSTALL AT BOTH ENDS OF EACH BEAM.

② SHIFT PLAIN REINFORCING STEEL AS NECESSARY TO PROVIDE 1" MIN. CLR. TO DIAPHRAGM ROD HOLE.

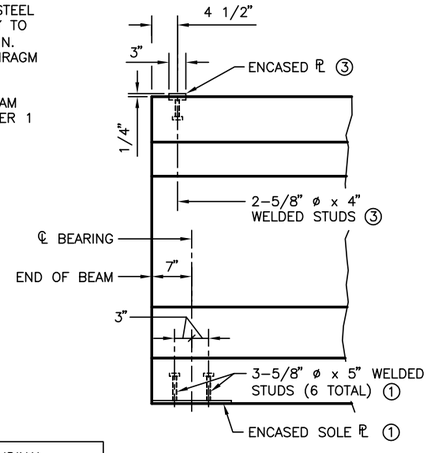
③ INSTALL AT BEAM ENDS OVER PIER 1 ONLY.

NOTE: ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

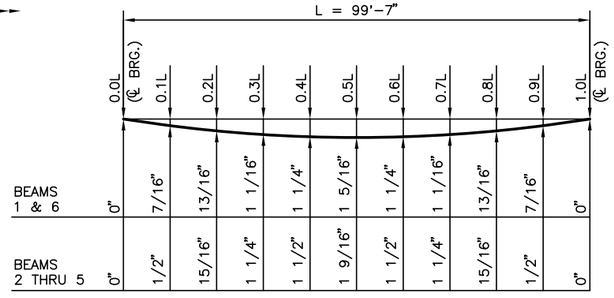


TOP VIEW OF ENCASED PLATE ③

(1/2" THICK ℄)



ENCASED PLATE DETAILS AT END OF BEAM



DEAD LOAD DEFLECTION DIAGRAM

NOTE: THE DEAD LOAD DEFLECTIONS SHOWN ABOVE ARE DUE TO THE SLAB, HAUNCH, DIAPHRAGMS, PARAPETS AND STAY–IN–PLACE FORMS, AND ARE THEORETICAL ONLY. (DEFLECTIONS DO NOT INCLUDE BEAM WEIGHT OR FUTURE WEARING SURFACE.) DEAD LOAD DEFLECTIONS SHALL BE TAKEN INTO CONSIDERATION IN FORMING AND POURING THE SLAB AND HAUNCHES.

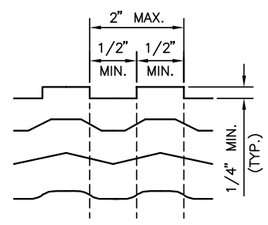
NOTES: FOR TYPICAL SECTION, SEE SHEET NO. B080.

FOR LONGITUDINAL SECTION, SEE SHEET NO. B081.

FOR BEARING DETAILS, SEE SHEET NO. B083.

FOR P.C. BEAM LAYOUT AND DIAPHRAGM DETAILS, SEE SHEET NOS. B084 AND B085.

FOR 1/10TH POINT FINISH GRADE ELEVATIONS, SEE SHEET NO. B089.



INTENTIONALLY ROUGHENED SURFACE EXAMPLES

INTENTIONALLY ROUGHEN THE ENTIRE TOP SURFACE OF THE P.C. BEAMS TO A MINIMUM HEIGHT OF 1/4" OVER A MAXIMUM PITCH OF 2" MEASURED LONGITUDINALLY ALONG THE LENGTH OF THE BEAM. PROVIDE A CREST AND TROUGH ASSOCIATED WITH THE HEIGHT OF NOT LESS THAN 1/2", THE FULL WIDTH OF THE TOP FLANGE. PRODUCE THE ROUGHENED SURFACE BY USING A SPECIAL TROWEL TO FORM ONE OF THE SURFACES SHOWN IN THE DETAILS, BY CLEANING THE CONCRETE SURFACE WITH A STIFF WIRE BRUSH (OR BLASTING) TO EXPOSE THE AGGREGATE TO A HEIGHT OF 1/4", OR BY USING ANOTHER APPROVED METHOD. SUBMIT THE METHOD TO BE USED FOR APPROVAL BY THE ENGINEER. REPAIR ANY DAMAGE TO REINFORCEMENT'S EPOXY COATING BEFORE PLACEMENT OF SLAB CONCRETE.

Design	.	
Drawn	PKW	06/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US–81 OVER QUAIL RD.

101' TYPE IV P.C. BEAM DETAILS

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B092

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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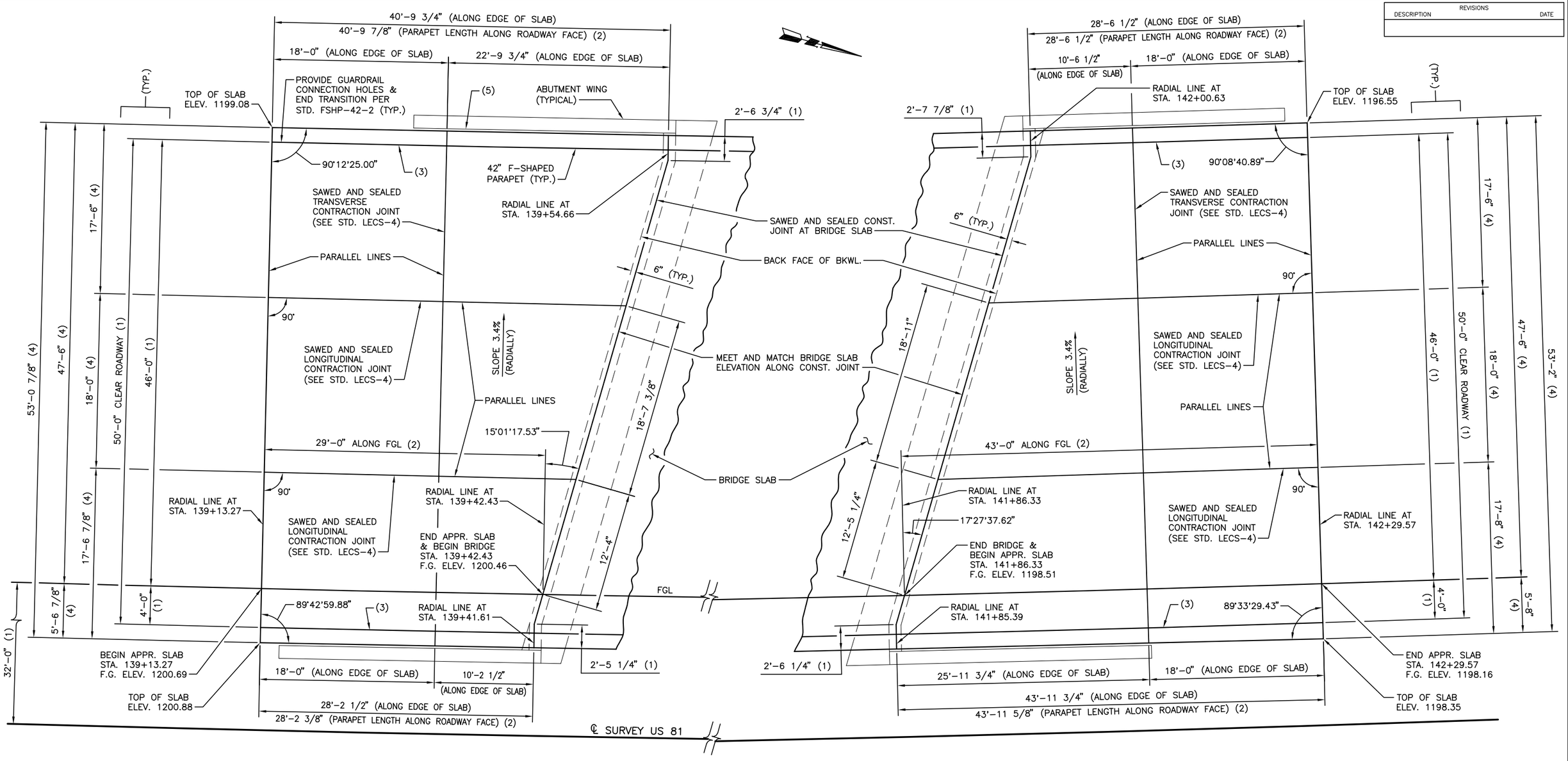
REVISIONS	
DESCRIPTION	DATE



ABUTMENT 1 — ABUTMENT 2

APPROACH SLAB LAYOUT PLAN
(NOT TO SCALE)

℄ SURVEY US 81
CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

NOTE: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

NOTE: DO NOT SAW-CUT GROOVE WITHIN 6" OF THE SAWED AND SEALED JOINTS.

(1) RADIAL DIMENSION.

(2) HORIZONTAL ARC DIMENSION.

(3) ROADWAY FACE OF PARAPET, CURVED AND PARALLEL TO FGL.

(4) DIMENSION ALONG END OF APPROACH SLAB ONLY.

(5) 1" SEALED EXPANSION JOINT. (TYP. EA. WING) (SEE DETAIL "A", SHEET NO. B095)

NOTES: ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

FOR APPROACH SLAB REINFORCING PLAN, SEE SHEET NO. B094.

FOR ADDITIONAL APPROACH SLAB DETAILS, BAR LIST, BAR BEND DETAILS AND QUANTITIES, SEE SHEET NO. B095.

Design	.	
Drawn	PKW	06/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" — GRADY COUNTY
SB US-81 OVER QUAIL RD.

APPROACH SLAB DETAILS (1 OF 3)

℄ STA. 140+64.38

Job Piece No. 24428(13) — Sheet No. B093

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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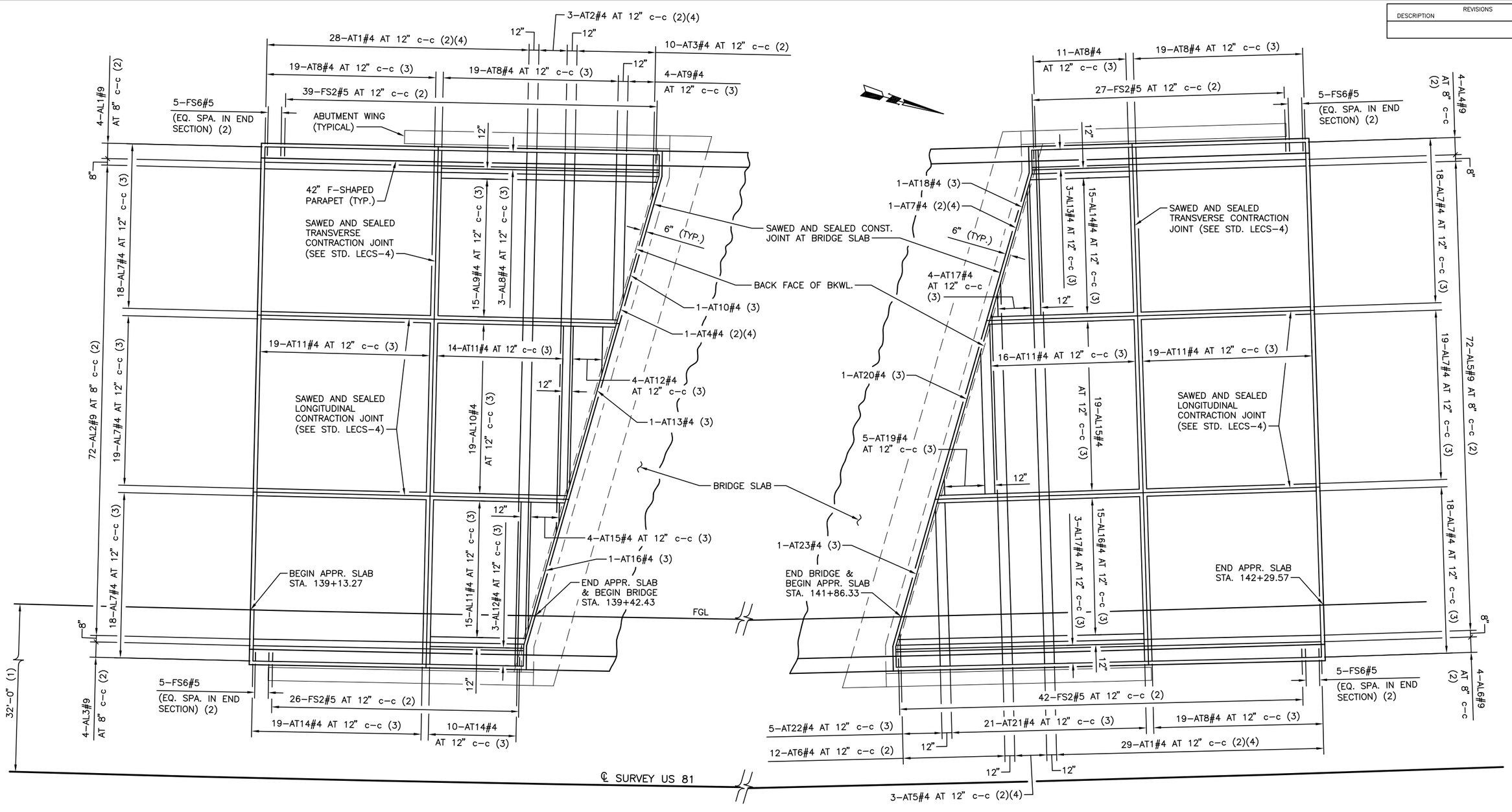
REVISIONS	
DESCRIPTION	DATE



ABUTMENT 1 ABUTMENT 2

PLAN SHOWING APPROACH SLAB REINFORCING STEEL
(NOT TO SCALE)

℄ SURVEY US 81
CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

NOTE: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

(1) RADIAL DIMENSION.
(2) BOTTOM SLAB REINFORCING STEEL.
(3) TOP SLAB REINFORCING STEEL.
(4) MIN. LAP = 2'–0".

NOTES: ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

FOR APPROACH SLAB LAYOUT PLAN, SEE SHEET NO. B093.

FOR ADDITIONAL APPROACH SLAB DETAILS, BAR LIST, BAR BEND DETAILS AND QUANTITIES, SEE SHEET NO. B095.

FS2 AND FS6 BARS IN PARAPETS SHALL BE TIED IN PLACE PRIOR TO POURING THE APPROACH SLABS. FOR ADDITIONAL DETAILS, SEE STD. FSHP–42–2.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US–81 OVER QUAIL RD.

APPROACH SLAB DETAILS (2 OF 3)

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B094

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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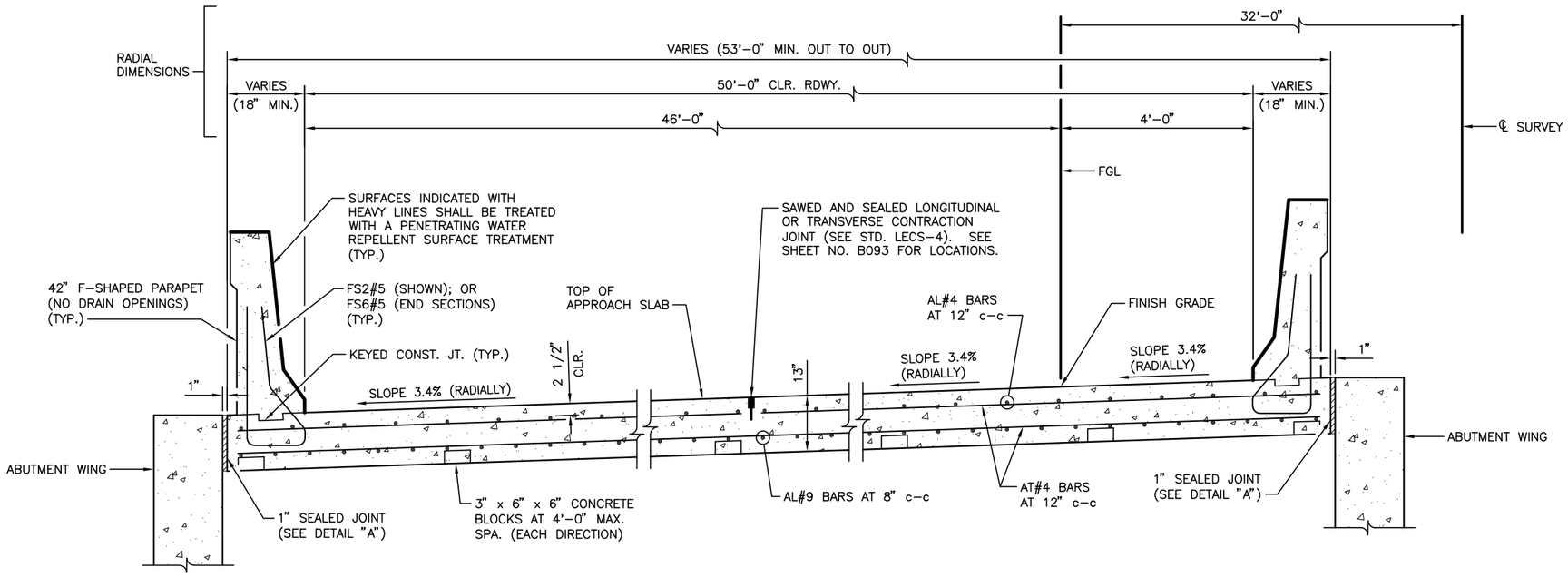
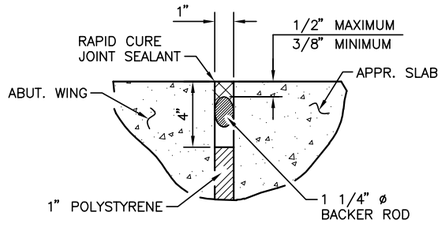
REVISIONS	
DESCRIPTION	DATE



TYPICAL SECTION THRU APPROACH SLAB

NOTES: THE REINFORCING STEEL IN THE TOP OF THE APPROACH SLABS SHALL END 2" EITHER SIDE OF THE LONGITUDINAL AND TRANSVERSE CONTRACTION JOINTS.

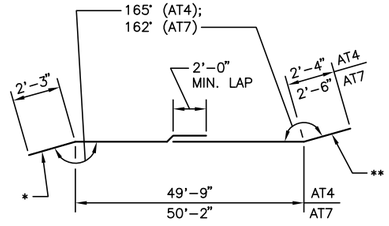
FOR PARAPET DETAILS NOT SHOWN, SEE STD. FSHP-42-2.



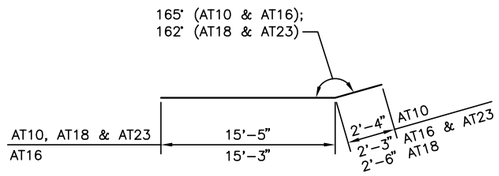
DETAIL "A"

APPROACH SLAB QUANTITIES			
ITEM	UNITS	TOTAL	
APPROACH SLAB	SY	417.30	(1)
SAW-CUT GROOVING	SY	393.20	
42" F-SHAPED PARAPET	LF	141.60	
WATER REPELLENT (VISUALLY INSPECTED)	SY	67.00	

(1) THE UNIT PRICE BID FOR APPROACH SLAB SHALL INCLUDE ALL CONCRETE AND REINFORCING STEEL IN THE APPROACH SLABS, INCLUDING FS2 AND FS6 BARS, RAPID CURE JOINT SEALANT, BACKER RODS, POLYSTYRENE, LABOR, EQUIPMENT AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN. THERE IS AN ESTIMATED 150.7 C.Y. OF CLASS AA CONCRETE, AND AN ESTIMATED 28040 LBS. OF EPOXY COATED REINFORCING STEEL IN THE APPROACH SLABS.



AT4#4 x 56'-4"
AT7#4 x 56'-11"



AT10#4 x 17'-9"
AT16#4 x 17'-6"
AT18#4 x 17'-11"
AT23#4 x 17'-8"

BAR BEND DETAILS

* EAST EDGE OF SLAB.

** WEST EDGE OF SLAB.

APPROACH SLABS BAR LIST				
MARK	NO.	SIZE	SHAPE	LENGTH
	(EPOXY COATED)			
AL1	4	9	STR.	40'-5"
AL2	72	9	STR.	34'-1 1/2" AVG. (1)
AL3	4	9	STR.	27'-10"
AL4	4	9	STR.	28'-2"
AL5	72	9	STR.	35'-10 1/2" AVG. (2)
AL6	4	9	STR.	43'-7"
AL7	110	4	STR.	17'-8"
AL8	3	4	STR.	22'-5"
AL9	15	4	STR.	20'-5" AVG. (3)
AL10	19	4	STR.	16'-1 1/2" AVG. (4)
AL11	15	4	STR.	11'-10" AVG. (5)
AL12	3	4	STR.	9'-10"
AL13	3	4	STR.	10'-2"
AL14	15	4	STR.	12'-7 1/2" AVG. (6)
AL15	19	4	STR.	17'-11" AVG. (7)
AL16	15	4	STR.	23'-1" AVG. (8)
AL17	3	4	STR.	25'-7"
AT1	57	4	STR.	54'-10" (9)
AT2	3	4	STR.	47'-8 1/2" AVG. (9)(10)
AT3	10	4	STR.	21'-0" AVG. (11)
AT4	1	4	BNT.	56'-4" (9)
AT5	3	4	STR.	46'-4" AVG. (9)(12)
AT6	12	4	STR.	21'-0 1/2" AVG. (13)
AT7	1	4	BNT.	56'-11" (9)
AT8	87	4	STR.	17'-2"
AT9	4	4	STR.	9'-7 1/2" AVG. (14)
AT10	1	4	BNT.	17'-9"
AT11	68	4	STR.	17'-8"
AT12	4	4	STR.	10'-11 1/2" AVG. (15)
AT13	1	4	STR.	18'-3"
AT14	29	4	STR.	17'-1"
AT15	4	4	STR.	8'-2 1/2" AVG. (16)
AT16	1	4	BNT.	17'-6"
AT17	4	4	STR.	7'-4" AVG. (17)
AT18	1	4	BNT.	17'-11"
AT19	5	4	STR.	8'-3 1/2" AVG. (18)
AT20	1	4	STR.	18'-6"
AT21	21	4	STR.	17'-0"
AT22	5	4	STR.	10'-2 1/2" AVG. (19)
AT23	1	4	BNT.	17'-8"
FS2	134	5	BNT.	7'-4" (20)
FS6	20	5	BNT.	7'-6 1/2" (20)

(1) 72 BARS VARYING FROM 27'-11" TO 40'-4".
(2) 72 BARS VARYING FROM 28'-3" TO 43'-6".
(3) 15 BARS VARYING FROM 18'-6" TO 22'-4".
(4) 19 BARS VARYING FROM 13'-10" TO 18'-5".
(5) 15 BARS VARYING FROM 10'-0" TO 13'-8".
(6) 15 BARS VARYING FROM 10'-4" TO 14'-11".
(7) 19 BARS VARYING FROM 15'-1" TO 20'-9".
(8) 15 BARS VARYING FROM 20'-10" TO 25'-4".
(9) LENGTH INCLUDES ONE (1) 2'-0" LAP SPLICE.
(10) 3 BARS VARYING FROM 43'-11" TO 51'-6".
(11) 10 BARS VARYING FROM 3'-11" TO 38'-1".
(12) 3 BARS VARYING FROM 43'-3" TO 49'-5".
(13) 12 BARS VARYING FROM 4'-0" TO 38'-1".
(14) 4 BARS VARYING FROM 3'-11" TO 15'-4".
(15) 4 BARS VARYING FROM 5'-3" TO 16'-8".
(16) 4 BARS VARYING FROM 2'-6" TO 13'-11".
(17) 4 BARS VARYING FROM 2'-8" TO 12'-0".
(18) 5 BARS VARYING FROM 2'-1" TO 14'-6".
(19) 5 BARS VARYING FROM 4'-0" TO 16'-5".
(20) FOR BAR BEND DETAILS, SEE STD. FSHP-42-2.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

APPROACH SLAB DETAILS (3 OF 3)

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B095

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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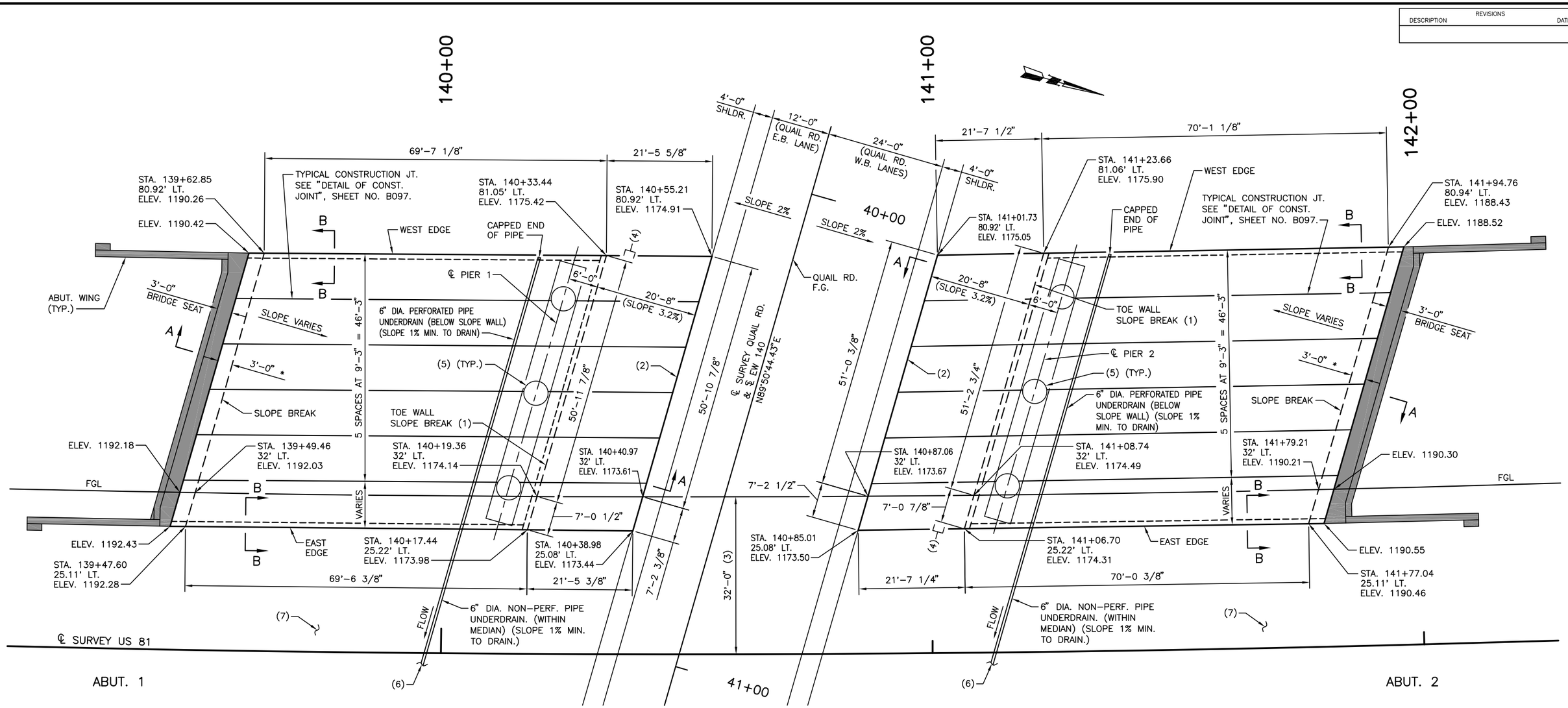
REVISIONS	
DESCRIPTION	DATE



PLAN OF SLOPE WALLS
SCALE 1"=20'

* SLOPE 1 1/2" IN 3'-0"

(1) TOE WALL SLOPE BREAK ELEVATION AT ANY PARTICULAR POINT IS GIVEN BY THE FOLLOWING EQUATIONS (BASED ON FUTURE QUAIL RD. TYPICAL SECTION):

ELEV. (ABUT. 1) = QUAIL RD. F.G. + 0.35'
ELEV. (ABUT. 2) = QUAIL RD. F.G. + 0.11'

(2) TOP OF SLOPE WALL ELEVATION AT ANY PARTICULAR POINT ALONG THE EDGE OF SHOULDER IS GIVEN BY THE FOLLOWING EQUATIONS:

ELEV. (ABUT. 1) = QUAIL RD. F.G. – 0.32'
ELEV. (ABUT. 2) = QUAIL RD. F.G. – 0.56'

(3) RADIAL DIMENSION.

(4) TOE WALL LENGTH.

(5) PROVIDE 1/2" PREFORMED EXPANSION JOINT FILLER MATERIAL AROUND COLUMNS (SEC. 701.08.B). SEAL WITH LOW MODULUS SILICONE JOINT SEALANT (SEC. 701.08.E).

(6) CONNECT NON-PERF. PIPE UNDERDRAIN, NEAR THE ℄ SURVEY US 81, TO THE NON-PERF. PIPE UNDERDRAIN FROM BRIDGE "D" IN A MANNER APPROVED BY THE ENGINEER. IF BRIDGE "C" IS BUILT FIRST, PROVIDE A TEMPORARY OUTLET NEAR THE ℄ US 81 UNTIL THE CONNECTION TO BRIDGE "D" CAN BE MADE. (COSTS TO BE INCLUDED IN OTHER ITEMS.)

(7) AFTER CONSTRUCTING THE SLOPE WALLS, THE BRIDGE CONTRACTOR SHALL GRADE THE MEDIAN AREAS, BETWEEN SLOPE WALLS, IN A MANNER APPROVED BY THE ENGINEER. COSTS TO BE INCLUDED IN OTHER ITEMS. SODDING IS INCLUDED IN THE ROADWAY ITEMS.

℄ SURVEY US 81 CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

NOTES: ELEVATIONS SHOWN ARE AT TOP OF SLOPE WALL CONCRETE.

ALL STATIONS AND OFFSETS FOLLOW ℄ SURVEY US 81, UNLESS NOTED OR SHOWN OTHERWISE.

ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

THE BRIDGE SUPERSTRUCTURE IS NOT SHOWN FOR CLARITY.

FOR SLOPE WALL SECTIONS, NOTES AND QUANTITIES, SEE SHEET NO. B097.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

SLOPE WALL DETAILS (1 OF 2)
℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B096

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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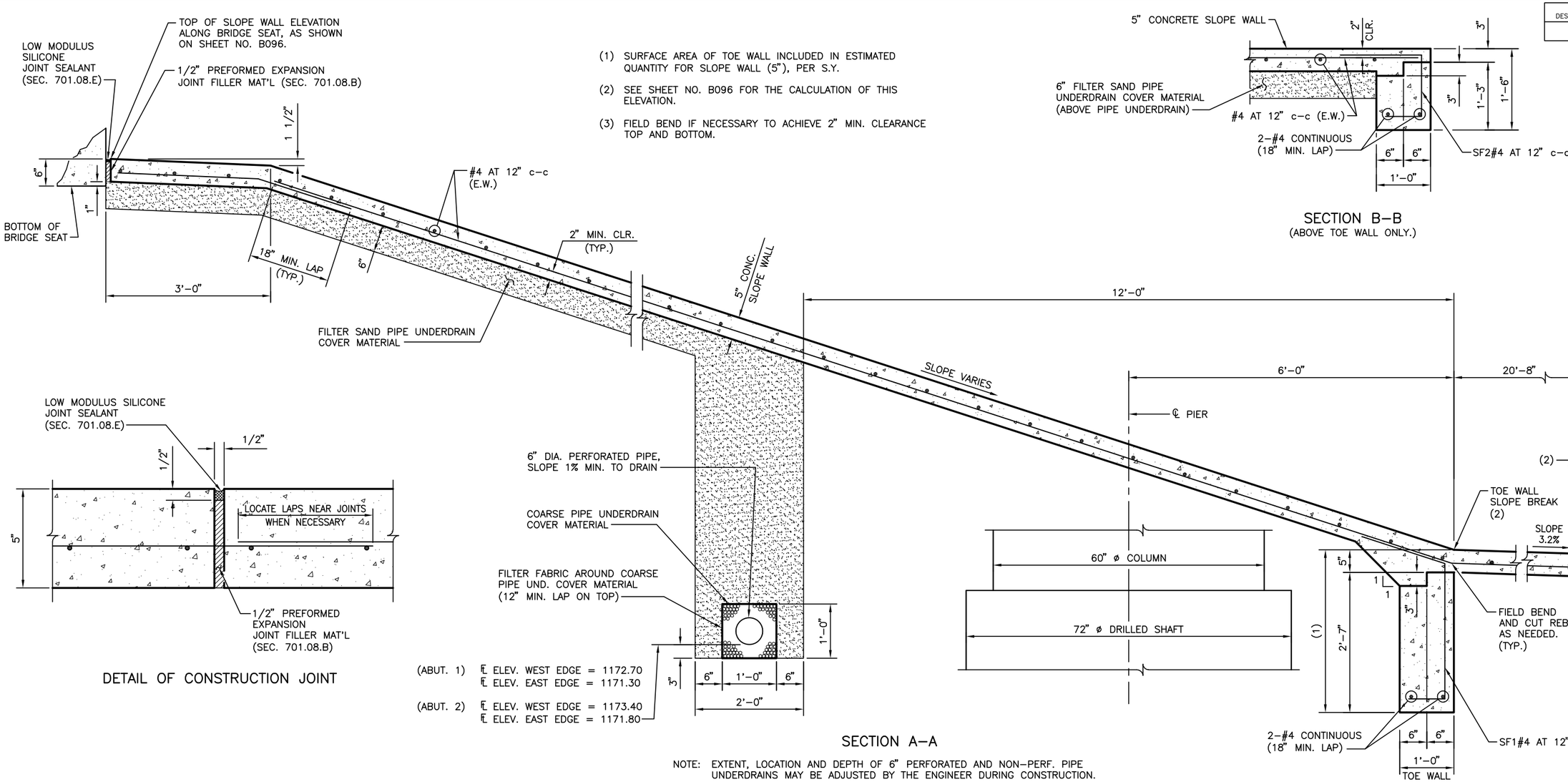
DESCRIPTION	DATE



SECTION A–A

NOTE: EXTENT, LOCATION AND DEPTH OF 6" PERFORATED AND NON–PERF. PIPE UNDERDRAINS MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION.

DETAIL OF CONSTRUCTION JOINT

SECTION B–B
(ABOVE TOE WALL ONLY.)

SLOPE WALL NOTES:

ALL CONCRETE IN THE SLOPE WALLS SHALL BE CLASS A CONCRETE AND SHALL BE POURED IN THE DRY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTIONS 509 AND 610 OF THE STANDARD SPECIFICATIONS. COARSE AGGREGATE FOR THIN SECTION CONCRETE (SEC. 701.06) MAY BE USED.

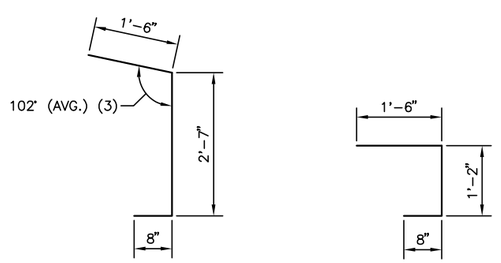
NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN THE SLOPE WALLS EXCEPT AS SHOWN ON THE PLANS. FINAL NUMBER AND LOCATION OF ALL CONSTRUCTION JOINTS WILL BE DETERMINED BY THE ENGINEER. JOINTS SHALL HAVE A MAXIMUM SPACING OF 10'–0".

5" CONCRETE SLOPE WALL WILL BE MEASURED FROM EDGE TO EDGE AND FROM TOP TO BOTTOM ALONG THE TOP SURFACE OF THE SLOPE WALL AND ALONG THE FRONT FACE OF THE TOE WALL. PAYMENT WILL BE MADE AT THE CONTRACT PRICE BID FOR SLOPE WALL (5"), PER S.Y. PRICE BID SHALL INCLUDE ALL COSTS OF JOINT SEALERS, FILLER MATERIALS, REINFORCING STEEL, CONCRETE, EXCAVATIONS, LABOR, FORMS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN.

ALL COSTS OF PIPE UNDERDRAIN COVER MATERIALS (BOTH FILTER SAND AND COARSE MATERIAL), FILTER FABRICS, EXCAVATIONS, EQUIPMENT, LABOR AND INCIDENTALS FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR 6" PERFORATED PIPE UNDERDRAIN ROUND. INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND STD. PUD–3.

ALL COSTS OF TRENCH EXCAVATION AND STANDARD BEDDING MATERIAL FOR PIPE UNDERDRAIN CONSTRUCTION OUTSIDE THE LIMITS OF THE SLOPE WALLS, PLUS OTHER MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF 6" NON–PERF. PIPE UNDERDRAIN RND. INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND STD. PUD–3.

ALL COSTS FOR TEMPORARY PIPE UNDERDRAIN OUTLETS NEAR THE ℄ SURVEY US 81 AND/OR CONNECTIONS TO THE PIPE UNDERDRAIN FROM BRIDGE "D", AS REQUIRED, INCLUDING EXCAVATIONS, FILL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS FOR THEIR INSTALLATION SHALL BE INCLUDED IN OTHER ITEMS.



SF1#4 x 4'–9" SF2#4 x 3'–4"

BAR BEND DETAILS

SLOPE WALL QUANTITIES		
ITEM	UNITS	TOTAL
SLOPE WALL (5")	SY	1234.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	117.00
6" NON–PERF. PIPE UNDERDRAIN RND.	LF	53.00

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US–81 OVER QUAIL RD.

SLOPE WALL DETAILS (2 OF 2)

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B097

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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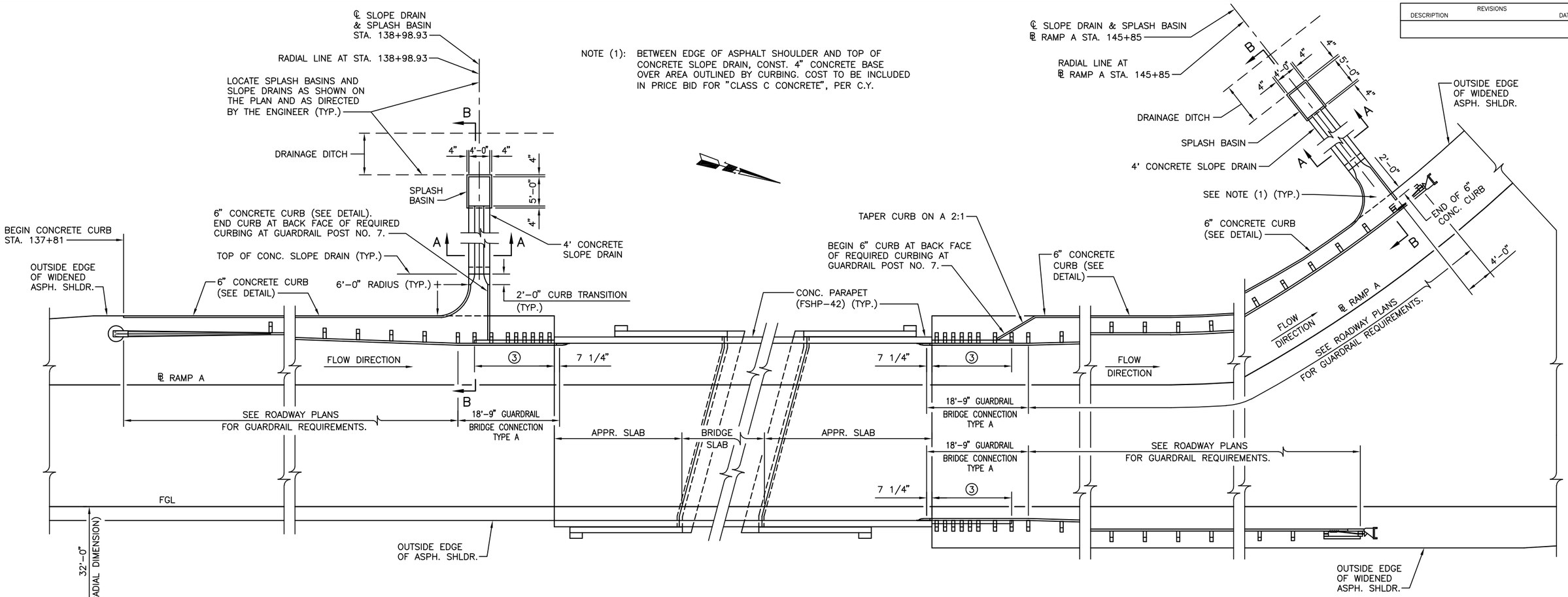
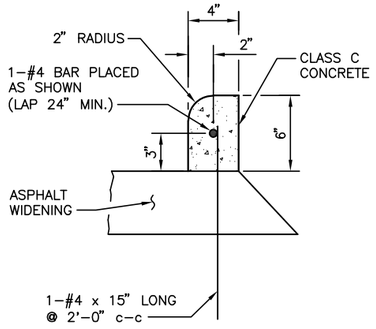
DESCRIPTION	DATE



NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81, UNLESS OTHERWISE NOTED.

CURBING, SLOPE DRAINS AND SPLASH BASINS ARE NOT REQUIRED ON THE EAST SIDE OF BRIDGE "C".

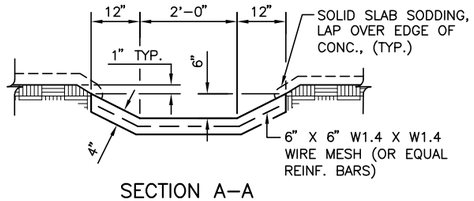


DETAIL OF 6" CONCRETE CURB
(SHOWN AT OUTSIDE EDGE OF WIDENED ASPH. SHLDR.)

① SLOPE TO MATCH SLOPE OF HEADER.

② SET TOP OF SPLASH BASIN AT FLOWLINE ELEVATION OF DRAINAGE DITCH.

③ 15'-0" CONCRETE CURBING (REQUIRED), SEE STD. THRI-1.

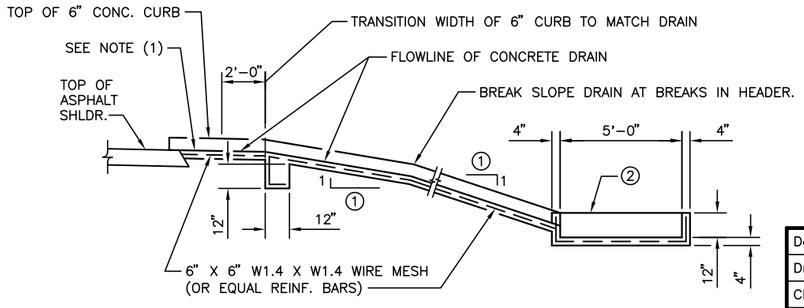


SECTION A-A

PLAN OF GUARD RAIL WIDENING, CURBING, SLOPE DRAINS AND SPLASH BASINS

NOTES: SLOPE DRAINS, SPLASH BASINS AND CURBING TO BE LOCATED AS SHOWN ON THE PLAN AND AS DIRECTED BY THE ENGINEER.

THE CURVATURE OF US 81 AND THE BRIDGE IS NOT DEPICTED FOR CLARITY.



SECTION B-B

NOTES: ASPHALT SHOULDER WIDENING SHALL BE IN ACCORDANCE WITH THE ROADWAY PLANS AND DETAILS SHOWN ON THIS SHEET. ALL COSTS OF ASPHALT SHOULDER WIDENING SHALL BE INCLUDED IN THE ROADWAY PAY ITEMS.

THE SLOPE DRAINS AND SPLASH BASINS SHALL BE CONSTRUCTED USING CLASS "C" CONCRETE AS SHOWN ON THIS SHEET. ALL COSTS OF THE SLOPE DRAINS AND SPLASH BASINS INCLUDING WIRE MESH, EXCAVATIONS AND BACKFILLING SHALL BE INCLUDED IN THE BRIDGE PAY ITEM FOR "CLASS C CONCRETE".

THE 6" CONCRETE CURBS SHALL BE CONSTRUCTED AS SHOWN ON THIS SHEET. ALL COSTS TO CONSTRUCT THE 6" CONCRETE CURBS INCLUDING CONCRETE AND REINFORCING STEEL SHALL BE INCLUDED IN THE BRIDGE PAY ITEM FOR "CLASS C CONCRETE".

PAYMENT FOR THE 15'-0" CONCRETE CURBING IS INCLUDED IN THE ROADWAY PAY ITEMS FOR GUARDRAIL.

Design	.	
Drawn	PKW	09/19
Checked	.	
Approved	.	
Squad		

BRIDGE "C" GRADY COUNTY
SB US-81 OVER QUAIL RD.

DRAIN AT END BRIDGE DETAILS

℄ STA. 140+64.38

Job Piece No. 24428(13) Sheet No. B098

"PRELIMINARY PLANS - NOT FOR CONSTRUCTION"

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REVISIONS	
DESCRIPTION	DATE

℄ RAMP A

SEC. 20
T6N R7W

SEC. 17
T6N R7W

138+00 | 139+00 | 140+00 | 141+00 | 142+00

℄ RAMP A
P.O.C. STA. 140+56.21 =
℄ SURVEY QUAIL RD.
P.O.T. STA. 40+26.55

EXIST. QUAIL RD.

℄ SURVEY US 81
P.O.C. STA. 140+73.43 =
℄ RAMP A
P.O.T. STA. 159+42.45

159+00

℄ SURVEY US 81
CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

BRIDGE "C"

BEGIN APPR. SLAB
STA. 138+88.57

END APPR. SLAB
& BEGIN BRIDGE
STA. 139+25.36

℄ PIER 1
STA. 139+95.18

℄ PIER 2
STA. 140+95.90

END BRIDGE &
BEGIN APPR. SLAB
STA. 141+66.32

END APPR. SLAB
STA. 141+96.15

℄ SURVEY US 81

16°04'53.72"

℄ SURVEY US 81
P.O.C. STA. 140+48.44 =
℄ SURVEY QUAIL RD.
P.O.T. STA. 40+97.36

41+00

PT. OF MIN.
VERT. CLR.
(21'-5")

160+00

32'-0" (1)
4'-0" SHLDR.
24'-0" (2-DRIVING LANES)
10'-0" SHLDR.
FGL
TUG

6" NON-PERFORATED
PIPE UNDERDRAIN

5" CONC.
SLOPE WALL

4'-0"
1'-6" CONC. PARAPET (FSHP-42)
38'-0" CLR. RDWY.
34'-0"

D-2 &
D-2A

6" PERFORATED
PIPE
UNDERDRAIN

14°51'02.93"

15°32'56.32"

16°33'22.29"

D-3

41'-0" OUT-TO-OUT (1)
SLOPE 3.4%

D-4

17°15'37.34"

SEE SHEET NO. B135
FOR SLOPE DRAIN
AND SPLASH BASIN
DETAILS. (TYP.)

BRIDGE "D"

PROVIDE PARAPET TRANSITION AND
GUARDRAIL CONNECTION HOLES
PER STD. FSHP-42. SEE ROADWAY
PLANS FOR GUARDRAIL
REQUIREMENTS. (TYP. EA. CORNER)

5-BW FENCE

D-1

42+00

℄ SURVEY QUAIL RD.
℄ EW 140
N89°50'44.43"E

℄ RAMP A
N89°50'44.43"E

+84.53~SIGN 149.2' RT.
+88.77~SIGN 147.6' RT.

4'-0" SHLDR.
12'-0"
24'-0"
4'-0" SHLDR.

+82.75~TP 34.4' RT.

161+00

℄ RAMP A
P.I. STA. 161+00.00

TOE OF SLOPE

EXIST. ROAD
℄ NS 283
N00°03'10.78"W

TOE OF SLOPE

PLAN
SCALE 1"=30'

BENCHMARK NO. 11
100D NAIL SET IN S.W. FACE 8" ELM
OFFSET: 58.92' RIGHT
℄ SURVEY US 81 STATION: 134+50.38
ELEVATION: 1183.36

BENCHMARK NO. 12
100D NAIL SET IN W. FACE 18" ELM
OFFSET: 306.34' LEFT
℄ SURVEY US 81 STATION: 141+72.09
ELEVATION: 1191.81

(1) RADIAL LINE OR RADIAL DIMENSION.

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81, UNLESS NOTED OTHERWISE.

FOR GENERAL BRIDGE ELEVATION, SEE SHEET NO. B100.

SEE SHEET NO. B101 FOR DESIGN DATA, FINISH GRADE DATA, FOUNDATION DATA, SUMMARY OF QUANTITIES, VERTICAL CLEARANCE SIGN DETAILS AND INDEX OF SHEETS.

FOR FOUNDATION REPORTS, SEE SHEET NOS. B102 AND B103.

SEE ROADWAY PLANS FOR PRES. AND NEW R/W, AND GEOMETRIC DATA NOT SHOWN.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

GENERAL PLAN AND ELEVATION (1 OF 3)

CONST. 70'-101'-70' TYPE IV P.C. BEAM W/ 38'-0" CLR. RDWY.
AND CONC. PARAPETS (FSHP-42) SKEWED 16°04'53.72" LF
℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B099

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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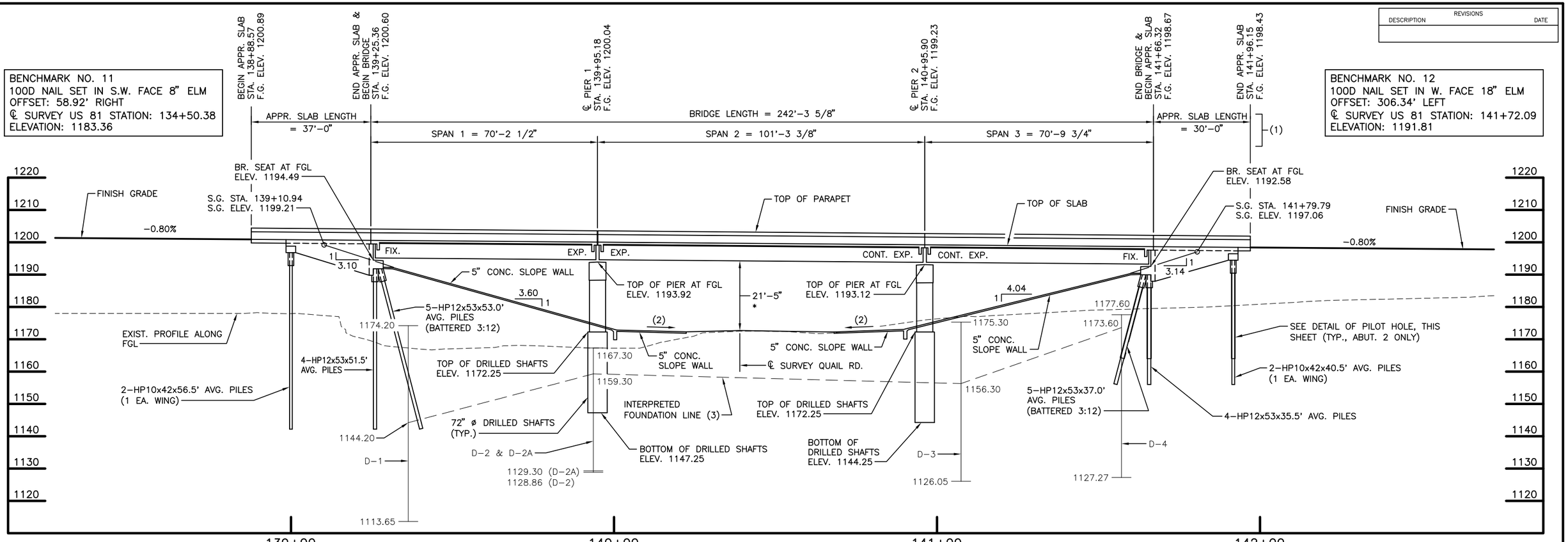
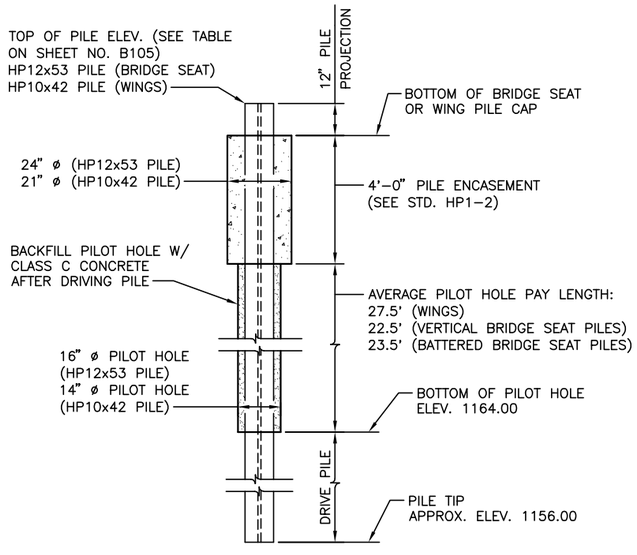
REVISIONS	
DESCRIPTION	DATE

BENCHMARK NO. 11
100D NAIL SET IN S.W. FACE 8" ELM
OFFSET: 58.92' RIGHT
℄ SURVEY US 81 STATION: 134+50.38
ELEVATION: 1183.36

BENCHMARK NO. 12
100D NAIL SET IN W. FACE 18" ELM
OFFSET: 306.34' LEFT
℄ SURVEY US 81 STATION: 141+72.09
ELEVATION: 1191.81



ELEVATION
SCALE 1"=30'



DETAIL OF PILOT HOLE
(VERTICAL PILE SHOWN, BATTERED PILE SIMILAR)
(ABUTMENT 2 ONLY)

(1) HORIZONTAL ARC DIMENSIONS ALONG FGL, 32' RT. OF ℄ SURVEY US 81.

(2) 3.2% SLOPE (PERPENDICULAR TO QUAIL RD.)

(3) FOR ESTIMATION PURPOSES ONLY.

* MINIMUM THEORETICAL VERTICAL CLEARANCE (BRIDGE "D"). (SEE SHEET NO. B099 FOR LOCATION AND SHEET NO. B101 FOR SIGNAGE DETAILS AND NOTES.)

BRIDGE "C" CONTROLS THE VERTICAL CLEARANCE. THE PERMANENT VERTICAL CLEARANCE SIGN FOR BRIDGE "D" SHALL REFLECT THE CONTROLLING CLEARANCE FROM BRIDGE "C".

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81, UNLESS NOTED OTHERWISE.

ELEVATION OF BRIDGE IS SHOWN ALONG THE FINISH GRADE LINE.

FOR PLAN VIEW, SEE SHEET NO. B099.

SEE SHEET NO. B101 FOR DESIGN DATA, FINISH GRADE DATA, FOUNDATION DATA, SUMMARY OF QUANTITIES, VERTICAL CLEARANCE SIGN DETAILS AND INDEX OF SHEETS.

FOR FOUNDATION REPORTS, SEE SHEET NOS. B102 AND B103.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

GENERAL PLAN AND ELEVATION (2 OF 3)

CONST. 70'-101'-70' TYPE IV P.C. BEAM W/ 38'-0" CLR. RDWY. AND CONC. PARAPETS (FSHP-42) SKEWED 16°04'53.72" LF
℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B100

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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DESIGN DATA
(LOAD AND RESISTANCE FACTOR DESIGN)

CLASS "AA" CONCRETE	f'c = 4,000 PSI
CLASS "A" CONCRETE	f'c = 3,000 PSI
REINFORCING STEEL (GRADE 60)	fy = 60,000 PSI
STRUCTURAL STEEL M270 (Gr. 50W)	fy = 50,000 PSI
STAINLESS STEEL A240 (TYPE 316)	fy = 30,000 PSI

LOADING: HL-93 OR OKLAHOMA OVERLOAD TRUCK
20 PSF FUTURE WEARING SURFACE
5 PSF STAY-IN-PLACE FORMS

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.
STAINLESS STEEL WELDING CODE.

LRFR INVENTORY RATING FACTOR: 1.32
LFD OPERATING RATING: HS 48

FOUNDATION DATA

	ABUTMENTS (HP12x53 PILING):		ABUT. 1	ABUT. 2
(1)	FACTORED PILE REACTION (TONS/PILE)	=	98.4	98.4
	PILE LENGTH (AVG.) (BR. SEAT, VERTICAL) (FT.)	=	51.5	35.5
	PILE LENGTH (AVG.) (BR. SEAT, BATTERED) (FT.)	=	53.0	37.0
(2)	PILE LENGTH (AVG.) (WINGS) (FT.)	=	56.5	40.5

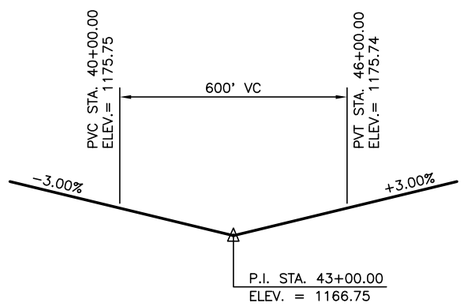
PIERS (72" DIAMETER DRILLED SHAFTS)		PIER 1	PIER 2
MINIMUM DEPTH INTO ROCK (FT.)	=	12.0	12.0
DEPTH OF ROCK NEGLECTED FOR FRICTION (FT.)	=	6.0	6.0
UNIT BEARING RESISTANCE (TSF)	=	49.4	49.4
BEARING RESISTANCE FACTOR	=	0.7	0.7
FACTORED BEARING RESISTANCE (TONS/SHAFT)	=	977.7	977.7
UNIT FRICTION RESISTANCE (TSF)	=	8.5	8.5
FRICTION RESISTANCE FACTOR	=	0.45	0.45
FACTORED FRICTION RESISTANCE (TONS/SHAFT)	=	432.6	432.6
TOTAL FACTORED RESISTANCE (TONS/SHAFT)	=	1410.3	1410.3
TOTAL FACTORED REACTION (TONS/SHAFT)	=	667.7	674.2

(1) AT ABUTMENT 1, ALL PILING SHALL BE DRIVEN THROUGH THE COMPACTED FILL. AT ABUTMENT 2, PILOT HOLES SHALL BE DRILLED FOR EACH PILE ACCORDING TO THE DETAILS SHOWN ON SHEET NO. B100, AND THE PILES SHALL BE DRIVEN FROM THAT LEVEL. ALL PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE FACTORED PILE REACTION IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE FACTORED PILE REACTION IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

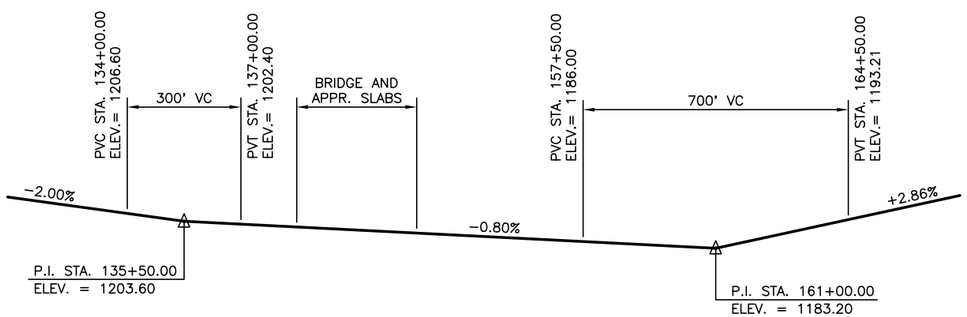
(2) HP10x42 PILES, WINGS

SUMMARY OF QUANTITIES (BRIDGE "D")

DESCRIPTION	UNITS	ABUTS.	PIERS	SUPSTR.	APPR. SLABS	SLOPE WALLS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	210.00					210.00
CLSM BACKFILL	CY	219.70					219.70
PRESTRESSED CONCRETE BEAMS (TYPE IV)	LF			1190.58			1190.58
APPROACH SLAB	SY				309.60		309.60
SAW-CUT GROOVING	SY			1022.90	286.60		1309.50
SEALED EXPANSION JOINT	LF			40.36			40.36
42" F-SHAPED PARAPET	LF			484.10	135.80		619.90
STRUCTURAL STEEL	LB			1460.00			1460.00
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA			10.00			10.00
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA			20.00			20.00
CLASS AA CONCRETE	CY			281.10			281.10
CLASS A CONCRETE	CY	105.90	138.80				244.70
CLASS C CONCRETE	CY						7.70
SLOPE WALL (5")	SY					977.00	977.00
REINFORCING STEEL	LB		1310.00				1310.00
EPOXY COATED REINFORCING STEEL	LB	14480.00	19650.00	76010.00			110140.00
PILES, FURNISHED (HP10x42)	LF	194.00					194.00
PILES, FURNISHED (HP12x53)	LF	798.00					798.00
PILES, DRIVEN (HP10x42)	LF	194.00					194.00
PILES, DRIVEN (HP12x53)	LF	798.00					798.00
(PL) PILOT HOLES	LF	263.00					263.00
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	1.00					1.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	112.00	268.00	1009.00	64.00		1453.00
DRILLED SHAFTS 72" DIAMETER	LF		106.00				106.00
CROSSHOLE SONIC LOGGING	EA		1.00				1.00
SEALER CRACK PREPARATION	LF			40.00			40.00
SEALER RESIN	GAL			0.40			0.40
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	86.00				92.00	178.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	170.00				160.00	330.00



FINISH GRADE DATA
QUAIL RD. (UNDER)



FINISH GRADE DATA
US 81

NOTE: STATIONING FOLLOWS ℄ SURVEY US 81. FINISH GRADE IS ALONG FINISH GRADE LINE (FGL).

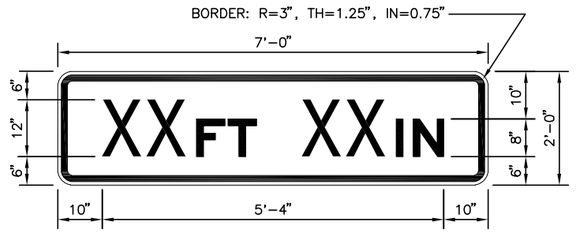
REVISIONS	
DESCRIPTION	DATE

INDEX OF SHEETS (BRIDGE "D")

SHEET NO.	TITLE
AB03	PAY QUANTITIES (BRIDGES "C" AND "D")
AB04	GENERAL NOTES (BRIDGES "C" AND "D")
B099-B101	GENERAL PLAN AND ELEVATION
B102-B103	FOUNDATION REPORT
B104	SUBSTRUCTURE LAYOUT DATA
B105	SUBSTRUCTURE STAKING DIAGRAM
B106-B107	ABUTMENT 1 DETAILS
B108	ABUTMENT 1 WINGWALL DETAILS
B109-B110	ABUTMENT 2 DETAILS
B111	ABUTMENT 2 WINGWALL DETAILS
B112	SUBSTRUCTURE EXCAVATION AND PIPE UNDERDRAIN ASSEMBLY DETAILS
B113	PIER 1 DETAILS
B114	PIER 2 DETAILS
B115-B116	MISCELLANEOUS PIER DETAILS
B117	TYPICAL SECTION
B118-B119	LONGITUDINAL SECTION
B120	BEARING DETAILS
B121	P.C. BEAM AND DIAPHRAGM LAYOUT PLAN
B122	DIAPHRAGM DETAILS
B123	SLAB PLAN SHOWING CANTILEVER LAYOUT
B124	BOTTOM SLAB REINFORCING PLAN
B125	TOP SLAB REINFORCING PLAN AND PARAPET LAYOUT
B126	MISCELLANEOUS SUPERSTRUCTURE DETAILS
B127	EXPANSION JOINT DETAILS
B128	70' TYPE IV P.C. BEAM DETAILS
B129	101' TYPE IV P.C. BEAM DETAILS
B130-B132	APPROACH SLAB DETAILS
B133-B134	SLOPE WALL DETAILS
B135	DRAIN AT END BRIDGE DETAILS

THE FOLLOWING STANDARDS SHALL BE REQUIRED:

FSHP-42-2-00E
EJ-SK-04E
EJ-DTL-02E
HP1-2-01E
LECS-4-2
PUD-3-3



SIGN NUMBER	W12-2p
WIDTH x HEIGHT	7'-0" x 2'-0"
BORDER WIDTH	1.25"
CORNER RADIUS	3"
MOUNTING	BRIDGE PARAPET
BACKGROUND	TYPE: REFLECTIVE
	COLOR: YELLOW
LEGEND & BORDER	TYPE: REFLECTIVE
	COLOR: BLACK

VERTICAL CLEARANCE SIGN DETAILS

NOTES: INSTALL ONE (1) PERMANENT SIGN ON THE EAST PARAPET IN SPAN 2, OVER THE MIDPOINT OF QUAIL RD.

SIGN SHOULD INDICATE A VERTICAL CLEARANCE OF 3" MIN. LESS THAN THE FINAL MEASURED CLEARANCE. THE CONTRACTOR SHALL CONTACT ODOT DIV. 7 FOR FINAL MEASUREMENT OF VERTICAL CLEARANCE. (BRIDGE "C" CONTROLS THE VERTICAL CLEARANCE OVER QUAIL RD. THE PERMANENT VERTICAL CLEARANCE SIGN FOR BRIDGE "D" SHALL REFLECT THE CONTROLLING CLEARANCE FROM BRIDGE "C".)

HARDWARE AND CONNECTION DETAILS TO THE PARAPET SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

ALL COSTS FOR FABRICATION, LABOR, MATERIALS, HARDWARE AND INSTALLATION OF THE VERTICAL CLEARANCE SIGN, COMPLETE-IN-PLACE, SHALL BE INCLUDED IN THE PRICE BID FOR "SHEET ALUMINUM SIGNS", PER SQ. FT. (TRAFFIC ITEM).

THE INSTALLATION OF THE PERMANENT VERTICAL CLEARANCE SIGN DOES NOT RELIEVE THE CONTRACTOR OF MAINTAINING APPROPRIATE VERTICAL CLEARANCE SIGNS DURING CONSTRUCTION. COSTS TO BE INCLUDED IN OTHER ITEMS OF WORK.

Design	.	
Drawn	PKW	07/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

GENERAL PLAN AND ELEVATION (3 OF 3)

CONST. 70'-101'-70' TYPE IV P.C. BEAM W/ 38'-0" CLR. RDWY. AND CONC. PARAPETS (FSHP-42) SKEWED 16°04'53.72" LF
℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B101

"PRELIMINARY PLANS - NOT FOR CONSTRUCTION"

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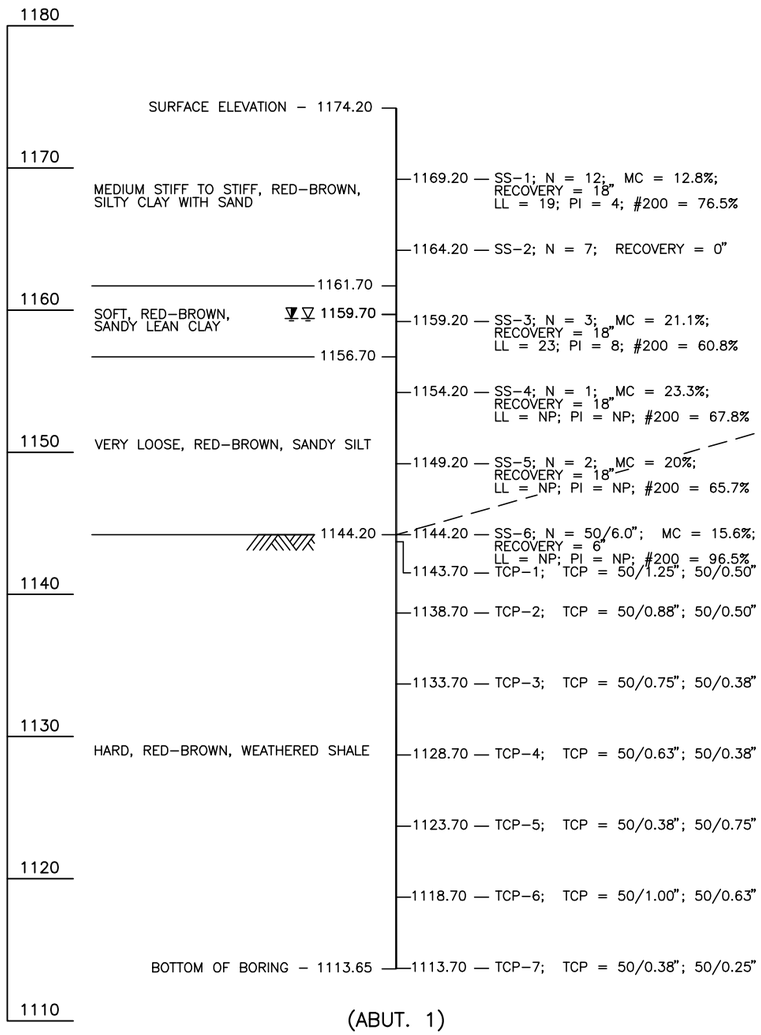
REVISIONS	
DESCRIPTION	DATE

BORING NO. D–1
STA. 139+36.90
88.4' RT.

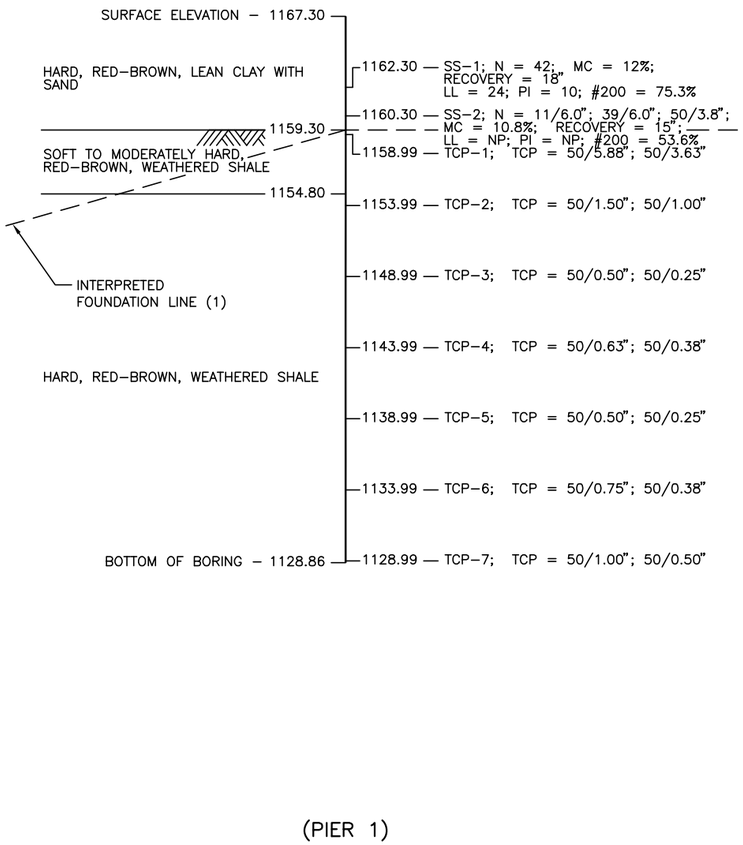
(NOVEMBER 26, 2019)



(ABUT. 1)

BORING NO. D–2
STA. 139+93.90
28.3' RT.

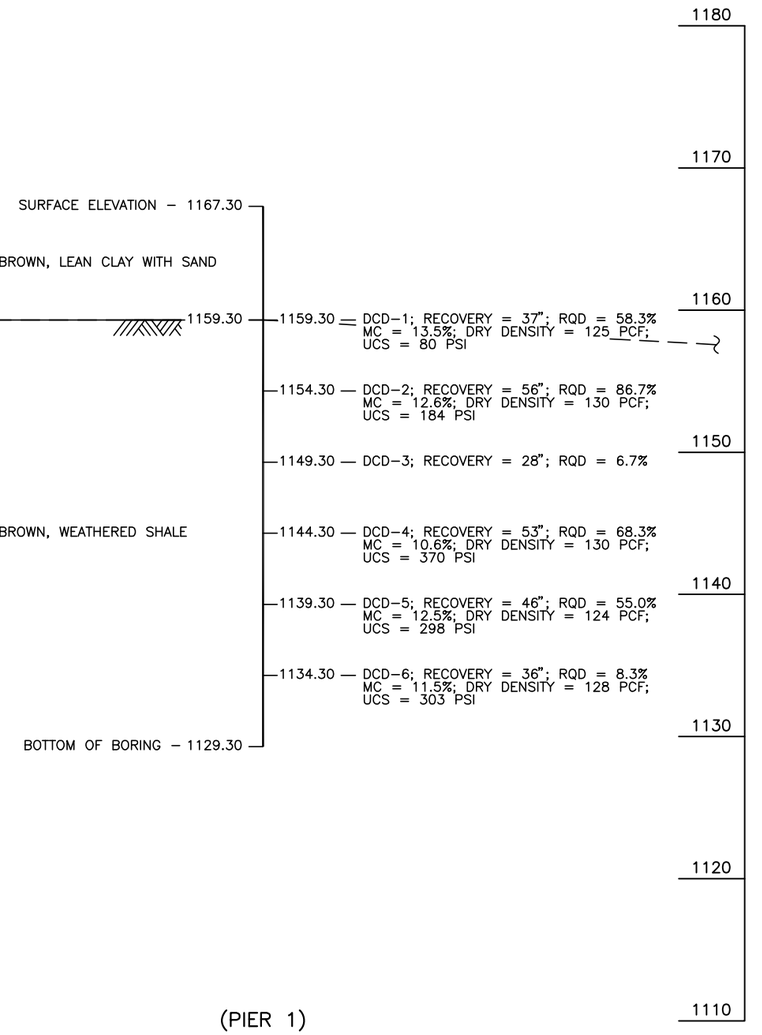
(DECEMBER 5, 2019)



(PIER 1)

BORING NO. D–2A
STA. 139+93.90
28.3' RT.

(DECEMBER 5, 2019)



(PIER 1)

NOTES: ALL GEOTECHNICAL INFORMATION CONTAINED ON THIS SHEET IS COVERED BY THE ENGINEERING SEAL AFFIXED TO AN ORIGINAL GEOTECHNICAL ENGINEERING REPORT THAT HAS BEEN STAMPED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN OKLAHOMA. TO OBTAIN A COPY OF THE COMPLETE REPORT, CONTACT THE ODOT OFFICE ENGINEER AT (405)521–2625. THE CONTRACTOR SHOULD BE FULLY AWARE OF THE SITE CONDITIONS PRIOR TO BEGINNING WORK. ANY ADDITIONAL GEOTECHNICAL INFORMATION WHICH MAY BE DESIRED IS THE RESPONSIBILITY OF THE CONTRACTOR.

BORING LOCATIONS (STATIONS) ARE NOT TO SCALE HORIZONTALLY.

ALL STATIONS AND OFFSETS ARE REFERENCED TO THE ℄ SURVEY US 81.

GEOLOGY:

THE SUBJECT BRIDGE IS SITUATED IN A GEOLOGIC AREA BEST DESCRIBED AS BEING PART OF THE DOG CREEK–BLAINE SUBUNIT (PDB) UNDIFFERENTIATED. ACCORDING TO PUBLISHED MATERIALS ("ENGINEERING CLASSIFICATION OF GEOLOGIC MATERIALS: DIVISION SEVEN", 1969, OKLAHOMA HIGHWAY DEPARTMENT), THE DOG CREEK–BLAINE SUBUNIT CONSISTS OF DARK RED SHALES INTERBEDDED WITH MINOR AMOUNTS OF FINE–GRAINED GYPSIFEROUS SANDSTONES THAT LOCALLY GRADE INTO PURE GYPSUM. MUDSTONE CONGLOMERATES A FEW FEET IN THICKNESS OCCUR SPARINGLY WITHIN THE STRATA.

NOTE: GROUNDWATER LEVELS WERE OBTAINED DURING THE DRILLING OPERATIONS, AND MAY FLUCTUATE THROUGHOUT THE YEAR.

TOP OF ROCK

WATER LEVEL WHILE DRILLING OR SAMPLING

WATER LEVEL 24 HOURS AFTER DRILLING

(1) FOR ESTIMATION PURPOSES ONLY.

Design	.	
Drawn	PKW	01/20
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US–81 OVER QUAIL RD.

FOUNDATION REPORT (1 OF 2)

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B102

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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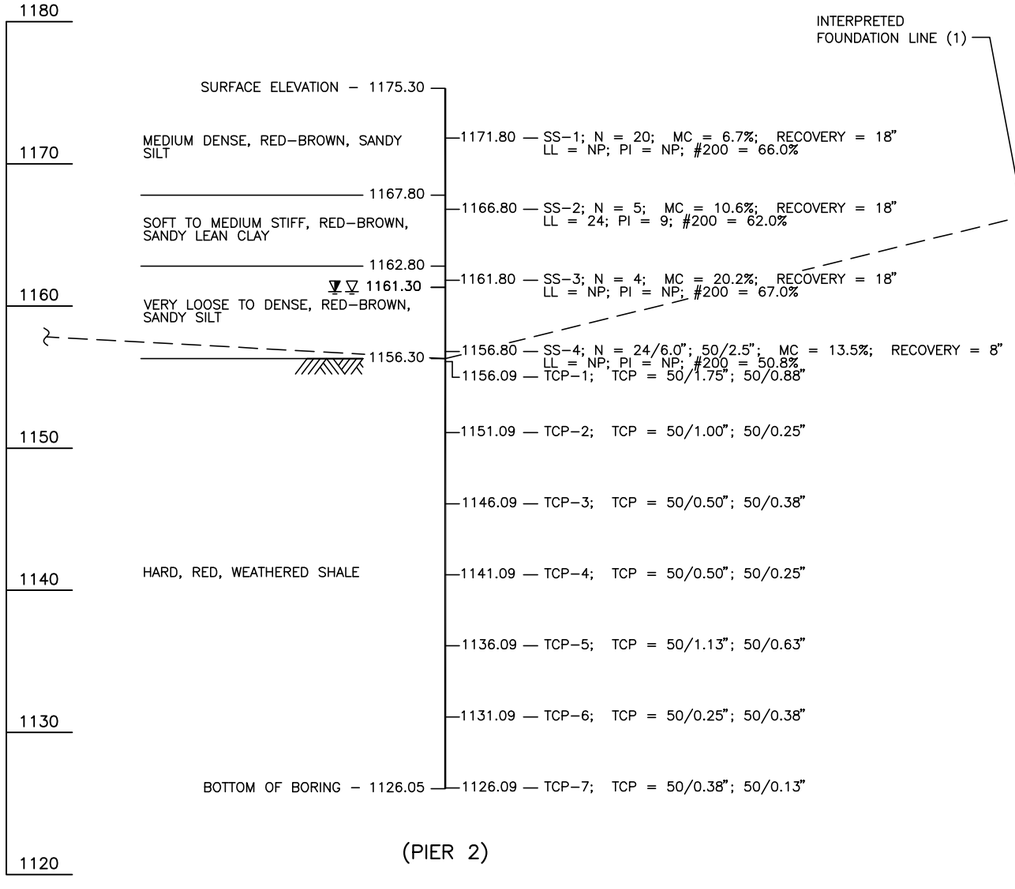
REVISIONS	
DESCRIPTION	DATE

BORING NO. D–3
STA. 141+07.10
64.2' RT.

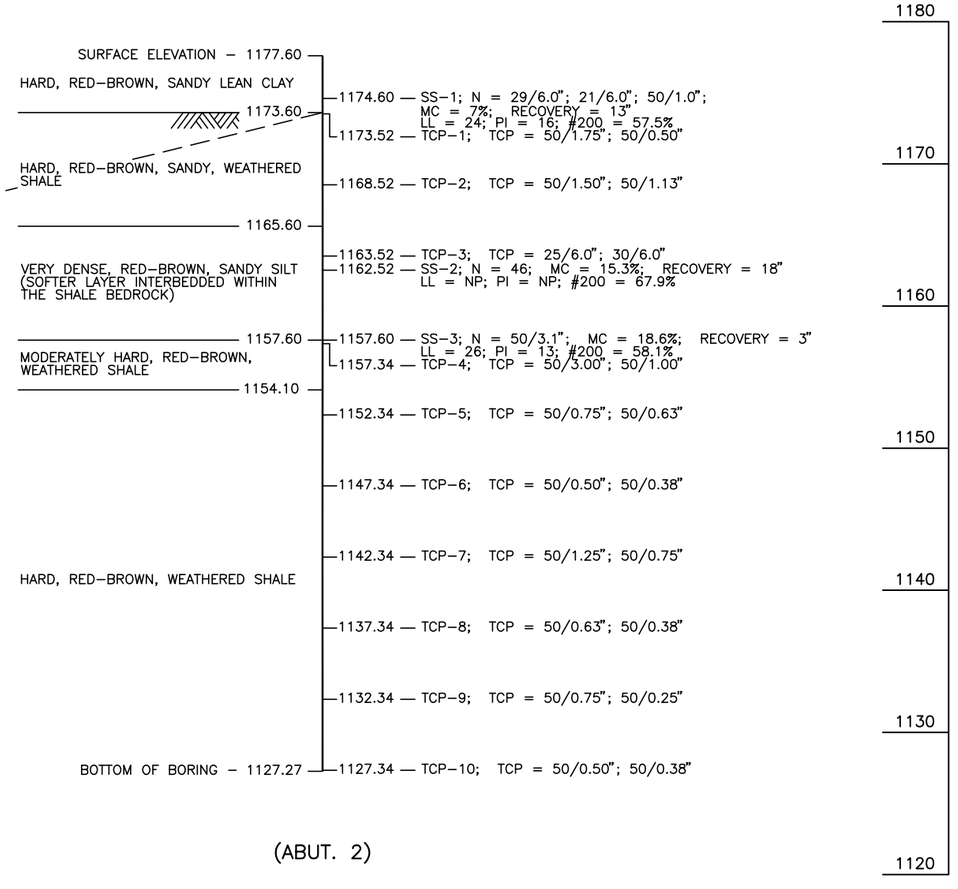
(DECEMBER 12, 2019)



(PIER 2)

BORING NO. D–4
STA. 141+56.50
58.5' RT.

(DECEMBER 12, 2019)



(ABUT. 2)

NOTES: ALL GEOTECHNICAL INFORMATION CONTAINED ON THIS SHEET IS COVERED BY THE ENGINEERING SEAL AFFIXED TO AN ORIGINAL GEOTECHNICAL ENGINEERING REPORT THAT HAS BEEN STAMPED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN OKLAHOMA. TO OBTAIN A COPY OF THE COMPLETE REPORT, CONTACT THE ODOT OFFICE ENGINEER AT (405)521–2625. THE CONTRACTOR SHOULD BE FULLY AWARE OF THE SITE CONDITIONS PRIOR TO BEGINNING WORK. ANY ADDITIONAL GEOTECHNICAL INFORMATION WHICH MAY BE DESIRED IS THE RESPONSIBILITY OF THE CONTRACTOR.

BORING LOCATIONS (STATIONS) ARE NOT TO SCALE HORIZONTALLY.

ALL STATIONS AND OFFSETS ARE REFERENCED TO THE ℄ SURVEY US 81.

GEOLOGY:

THE SUBJECT BRIDGE IS SITUATED IN A GEOLOGIC AREA BEST DESCRIBED AS BEING PART OF THE DOG CREEK–BLAINE SUBUNIT (PDB) UNDIFFERENTIATED. ACCORDING TO PUBLISHED MATERIALS ("ENGINEERING CLASSIFICATION OF GEOLOGIC MATERIALS: DIVISION SEVEN", 1969, OKLAHOMA HIGHWAY DEPARTMENT), THE DOG CREEK–BLAINE SUBUNIT CONSISTS OF DARK RED SHALES INTERBEDDED WITH MINOR AMOUNTS OF FINE–GRAINED GYPSIFEROUS SANDSTONES THAT LOCALLY GRADE INTO PURE GYPSUM. MUDSTONE CONGLOMERATES A FEW FEET IN THICKNESS OCCUR SPARINGLY WITHIN THE STRATA.

NOTE: GROUNDWATER LEVELS WERE OBTAINED DURING THE DRILLING OPERATIONS, AND MAY FLUCTUATE THROUGHOUT THE YEAR.

TOP OF ROCK

WATER LEVEL WHILE DRILLING OR SAMPLING

WATER LEVEL 24 HOURS AFTER DRILLING

(1) FOR ESTIMATION PURPOSES ONLY.

Design	.	
Drawn	PKW	01/20
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US–81 OVER QUAIL RD.

FOUNDATION REPORT (2 OF 2)

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B103

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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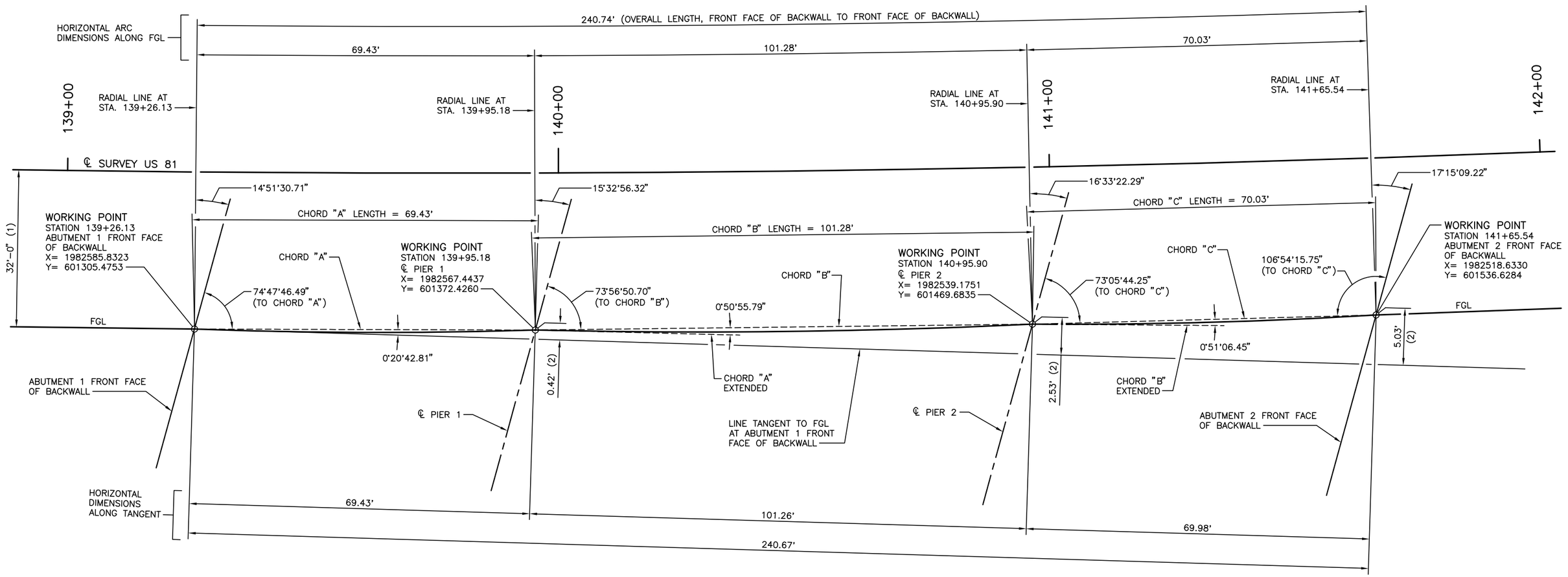
REVISIONS	
DESCRIPTION	DATE



SUBSTRUCTURE LAYOUT DATA
(NOT TO SCALE)

NOTES: THE FGL CURVE WITHIN EACH SPAN IS EXAGGERATED TO CLARIFY THE DIMENSIONS AND CHORD LINES. IN REALITY, THE CURVE FOLLOWS A CONSTANT RADIUS.

ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ALL SUBSTRUCTURE WORKING LINES (FRONT FACE OF BACKWALL AND ℄ PIER LINES) ARE PARALLEL TO A LINE SKEWED 14°51'30.71" LEFT FORWARD TO A RADIAL LINE AT STA. 139+26.13.

FOR SUBSTRUCTURE STAKING DIAGRAM, SEE SHEET NO. B105.

℄ SURVEY US 81 CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

NOTE: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

(1) RADIAL DIMENSION.

(2) PERPENDICULAR DIMENSION FROM TANGENT LINE TO WORKING POINT.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

SUBSTRUCTURE LAYOUT DATA
℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B104

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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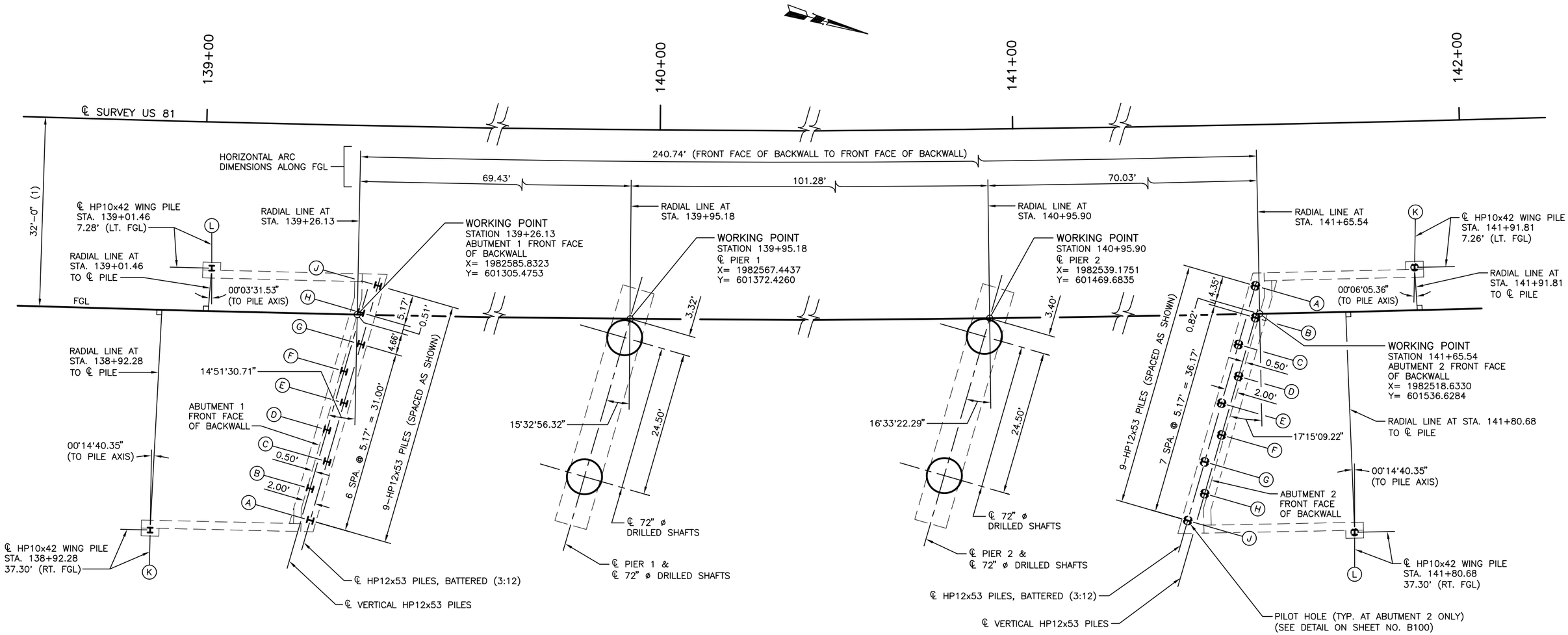
REVISIONS	
DESCRIPTION	DATE



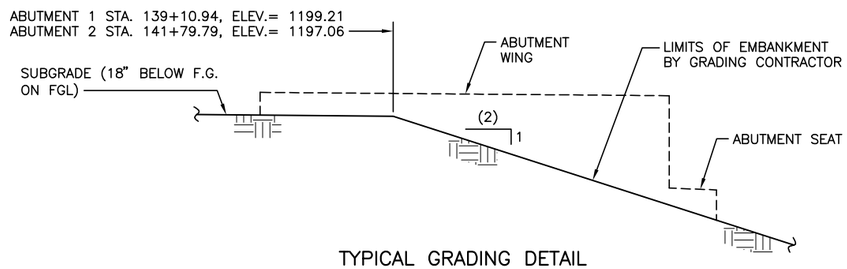
(1) RADIAL DIMENSION.

(2) 3.10 (ABUTMENT 1)
3.14 (ABUTMENT 2)

SUBSTRUCTURE STAKING DIAGRAM

(NOT TO SCALE)
(PILE ENCASEMENTS NOT SHOWN FOR CLARITY.)

PILE CUT-OFF ELEVATIONS		
PILE	ABUTMENT 1	ABUTMENT 2
A	1194.09	1190.78
B	1193.91	1190.96
C	1193.73	1191.14
D	1193.55	1191.32
E	1193.37	1191.50
F	1193.19	1191.68
G	1193.01	1191.86
H	1192.83	1192.04
J	1192.65	1192.22
K	1199.08	1195.27
L	1197.61	1196.75



TYPICAL GRADING DETAIL
(ALONG FGL)

℄ SURVEY US 81
CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

ALL SUBSTRUCTURE WORKING LINES (FRONT FACE OF BACKWALL AND ℄ PIER LINES) ARE PARALLEL.

NOTES: BRIDGE SEAT PILES SHALL BE ORIENTED SUCH THAT THE FACE OF THE PILE WEB IS PERPENDICULAR TO THE FACE OF THE BRIDGE SEAT.

ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

FOR SUMMARY OF QUANTITIES, SEE SHEET NO. B101.

FOR SUBSTRUCTURE LAYOUT DATA, SEE SHEET NO. B104.

SEE STD. HP1-2 FOR STEEL PILE ENCASEMENT DETAILS.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

SUBSTRUCTURE STAKING DIAGRAM

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B105

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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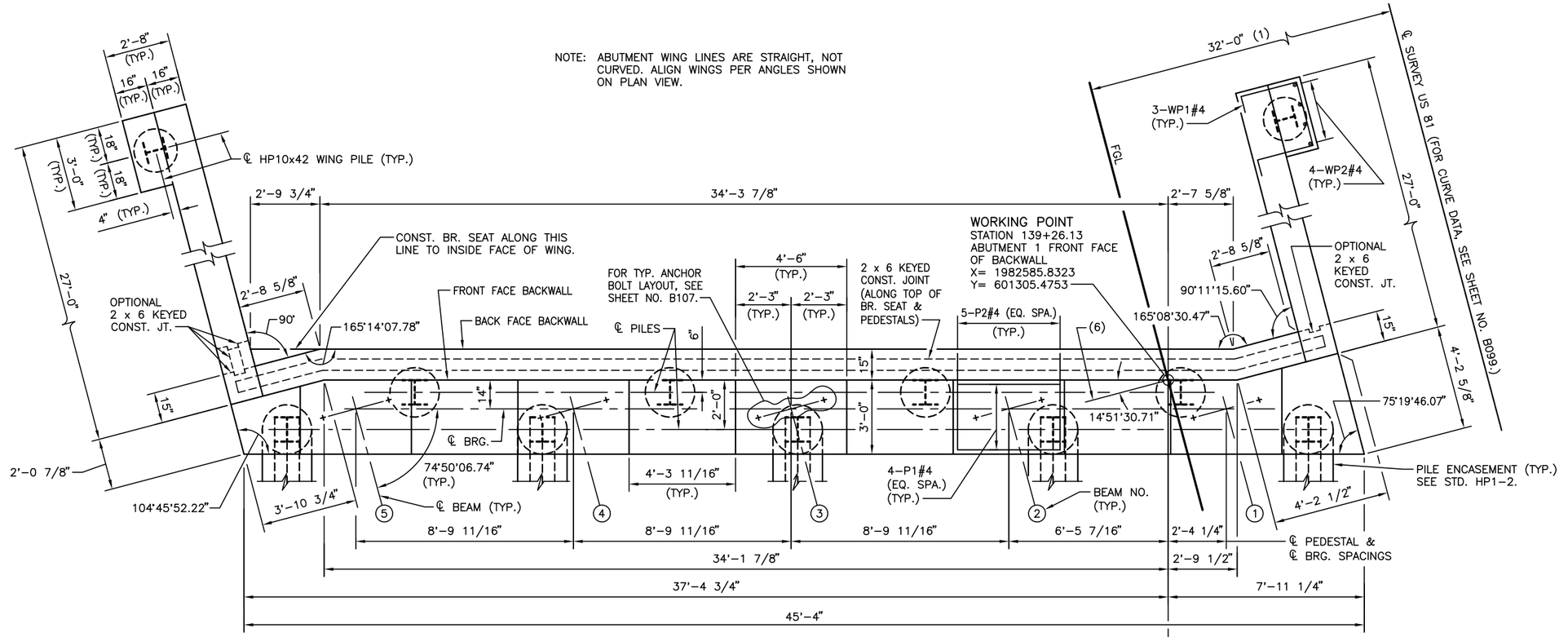
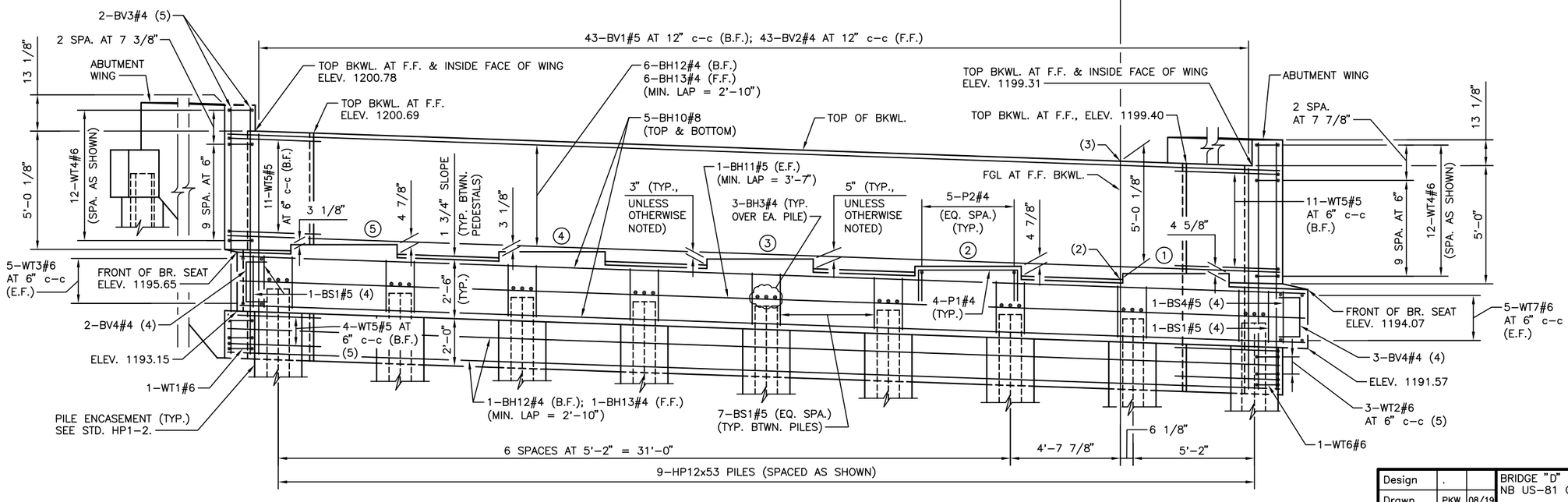
REVISIONS	
DESCRIPTION	DATE

NOTE: ABUTMENT WING LINES ARE STRAIGHT, NOT CURVED. ALIGN WINGS PER ANGLES SHOWN ON PLAN VIEW.



PLAN



ELEVATION
(LOOKING BACK-STATION)

(1) RADIAL DIMENSION.

(2) BR. SEAT ELEV. AT FGL & F.F. 1194.49

(3) TOP BKWL. AT F.F. & FGL ELEV. 1199.50

(4) PLACED AS SHOWN ON SHEET NO. B107.

(5) TYP. EA. END.

(6) RADIAL LINE AT STA. 139+26.13.

B.F. – DENOTES BACK FACE
F.F. – DENOTES FRONT FACE
E.F. – DENOTES EACH FACE

SCHEDULE OF PEDESTAL ELEVATIONS	
PEDESTAL	ELEVATION
1	1194.74
2	1195.05
3	1195.36
4	1195.67
5	1195.97

NOTES:

ALL REINFORCING STEEL CONNECTING THE BRIDGE SEAT AND/OR BACKWALL TO THE WINGS SHALL BE TIED IN PLACE PRIOR TO POURING BRIDGE SEAT AND BACKWALL (WT AND WV2 BARS).

FOR ADDITIONAL ABUTMENT 1 DETAILS, BAR BENDS, BAR LIST AND QUANTITIES, SEE SHEET NO. B107.

FOR WING DETAILS, SEE SHEET NO. B108.

FOR SUBSTRUCTURE STAKING DIAGRAM AND TOP OF PILE ELEVATIONS, SEE SHEET NO. B105.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

ABUTMENT 1 DETAILS (1 OF 2)

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B106

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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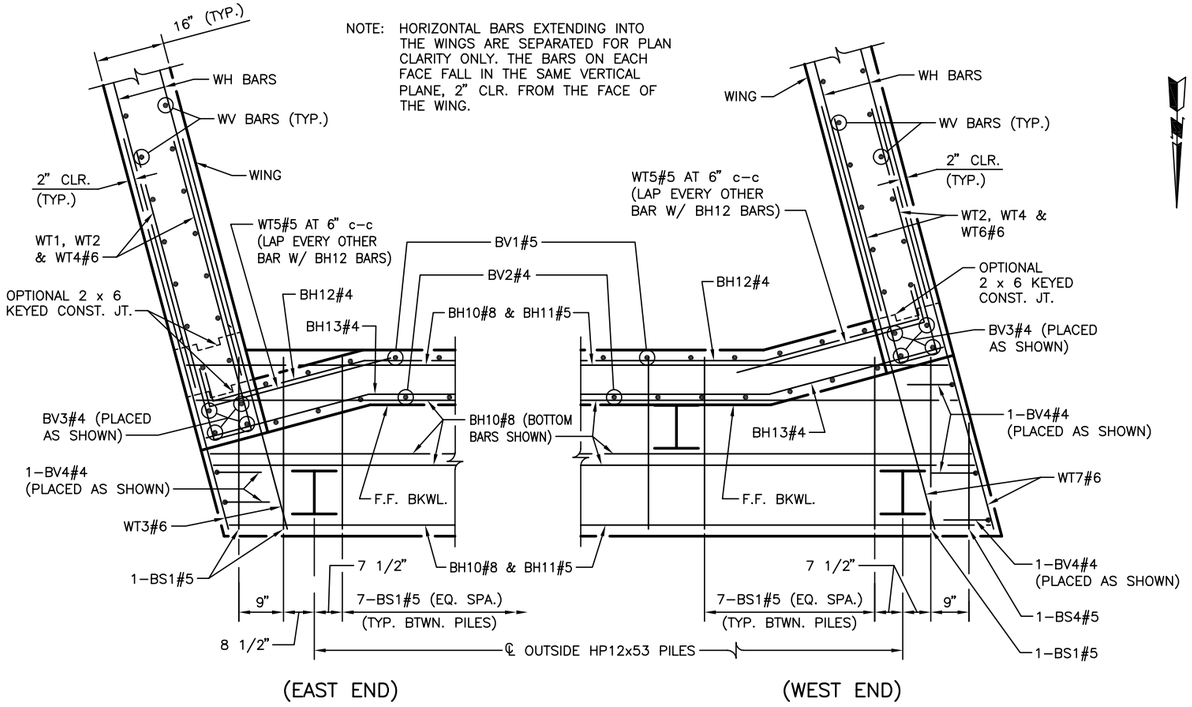
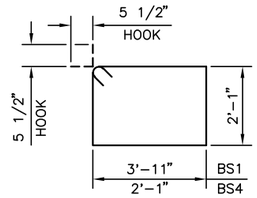
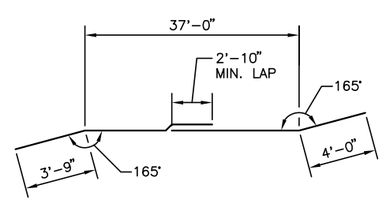


PART PLAN OF BRIDGE SEAT AND BACKWALL SHOWING REINFORCING STEEL

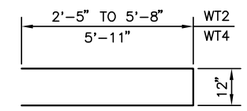
(BH3#4 BARS, OVER PILES, NOT SHOWN FOR CLARITY.)
(DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.)



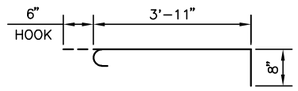
BS1#5 x 12'-11"
BS4#5 x 9'-3"



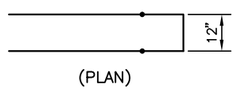
BH13#4 x 47'-7"



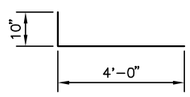
WT2#6 x 9'-1" AVG.
(VARIES 5'-10" TO 12'-4")
WT4#6 x 12'-10"



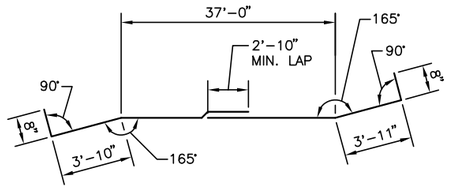
BH3#4 x 5'-1"



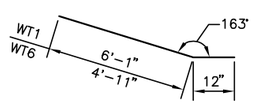
(PLAN)



WT5#5 x 4'-10"

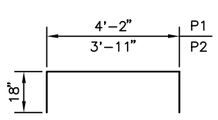


BH12#4 x 48'-11"

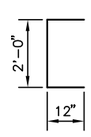


(ELEVATION)

WT1#6 x 15'-2"
WT6#6 x 12'-10"



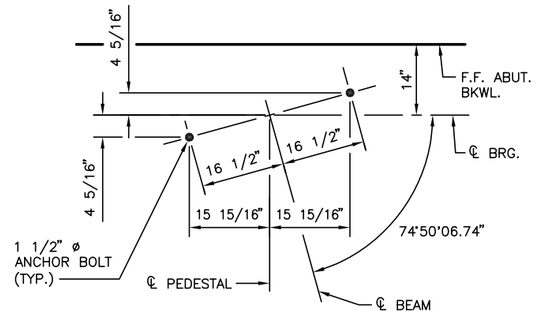
P1#4 x 7'-2"
P2#4 x 6'-11"



BV4#4 x 4'-0"

BAR BEND DETAILS

NOTE: FOR BAR BEND DETAILS NOT SHOWN, SEE SHEET NO. B108.



TYPICAL ANCHOR BOLT LAYOUT

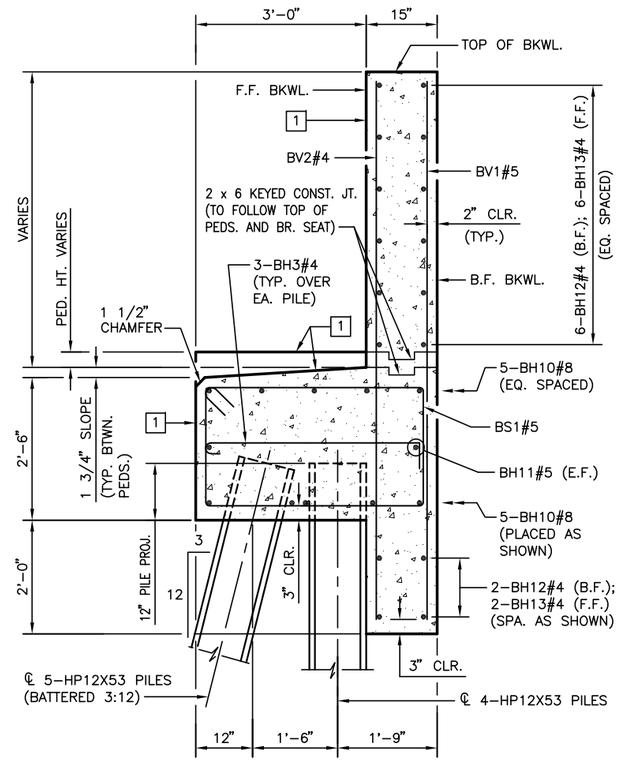
ABUTMENT 1 BAR LIST					
MARK	NO.	SIZE	SHAPE	LENGTH	
(EPOXY COATED)					
BH3	27	4	BNT.	5'-1"	
BH10	10	8	STR.	44'-11"	
BH11	2	5	STR.	48'-7"	(1)
BH12	8	4	BNT.	48'-11"	(2)
BH13	8	4	BNT.	47'-7"	(2)
BS1	59	5	BNT.	12'-11"	
BS4	1	5	BNT.	9'-3"	
BV1	43	5	STR.	9'-2"	
BV2	43	4	STR.	9'-2"	
BV3	8	4	STR.	10'-3"	
BV4	5	4	BNT.	4'-0"	
P1	20	4	BNT.	7'-2"	
P2	25	4	BNT.	6'-11"	
WH1	2	6	BNT.	25'-3"	
WH2	10	6	STR.	8'-4 1/2" AVG.	(3)
WH4	24	6	STR.	25'-5"	
WH5	2	6	BNT.	26'-5"	
WH6	22	6	STR.	14'-1 1/2" AVG.	(4)
WH12	12	6	STR.	18'-5 1/2" AVG.	(5)
WP1	6	4	BNT.	8'-8"	
WP2	8	4	STR.	1'-7"	
WT1	1	6	BNT.	15'-2"	
WT2	6	6	BNT.	9'-1" AVG.	(6)
WT3	10	6	STR.	9'-5"	
WT4	24	6	BNT.	12'-10"	
WT5	30	5	BNT.	4'-10"	
WT6	1	6	BNT.	12'-10"	
WT7	10	6	STR.	10'-1"	
WV1	16	4	STR.	3'-6"	
WV2	88	4	STR.	6'-11 1/2" AVG.	(7)

(1) LENGTH INCLUDES ONE (1) 3'-7" LAP SPLICE.
(2) LENGTH INCLUDES ONE (1) 2'-10" LAP SPLICE.
(3) 5 BARS VARYING FROM 5'-1" TO 11'-8"; TWO OF EACH LENGTH.
(4) 11 BARS VARYING FROM 6'-0" TO 22'-3"; TWO OF EACH LENGTH.
(5) 6 BARS VARYING FROM 14'-4" TO 22'-7"; TWO OF EACH LENGTH.
(6) 3 BARS VARYING FROM 5'-10" TO 12'-4"; TWO OF EACH LENGTH.
(7) 22 BARS VARYING FROM 3'-10" TO 10'-1"; FOUR OF EACH LENGTH.

NOTES: FOR WING DETAILS, SEE SHEET NO. B108.

STEEL PILE CONCRETE ENCASEMENTS NOT SHOWN FOR CLARITY. SEE STD. HP1-2 FOR DETAILS.

ALL EDGES OF THE ABUTMENT AND WINGS SHALL HAVE A 3/4" CHAMFER, UNLESS OTHERWISE SHOWN.



SECTION THRU BRIDGE SEAT

(SHOWN BETWEEN BENDS IN BACKWALL.)
(PILE ENCASEMENTS ARE NOT SHOWN FOR CLARITY.)

[1] TREAT WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT, INCLUDING SIDES OF PEDESTALS. THE FRONT FACE OF THE BRIDGE SEAT NEED ONLY BE TREATED ABOVE THE TOP OF SLOPE WALL.

B.F. – DENOTES BACK FACE
F.F. – DENOTES FRONT FACE
E.F. – DENOTES EACH FACE

ABUTMENT 1 QUANTITIES		
ITEM	UNITS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	105.00
CLSM BACKFILL	CY	108.20
CLASS A CONCRETE	CY	52.80
EPOXY COATED REINFORCING STEEL	LB	7190.00
PILES, FURNISHED (HP10x42)	LF	113.00
PILES, FURNISHED (HP12x53)	LF	471.00
PILES, DRIVEN (HP10x42)	LF	113.00
PILES, DRIVEN (HP12x53)	LF	471.00
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	1.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	56.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	43.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	80.00

REVISIONS	
DESCRIPTION	DATE

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

ABUTMENT 1 DETAILS (2 OF 2)

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B107

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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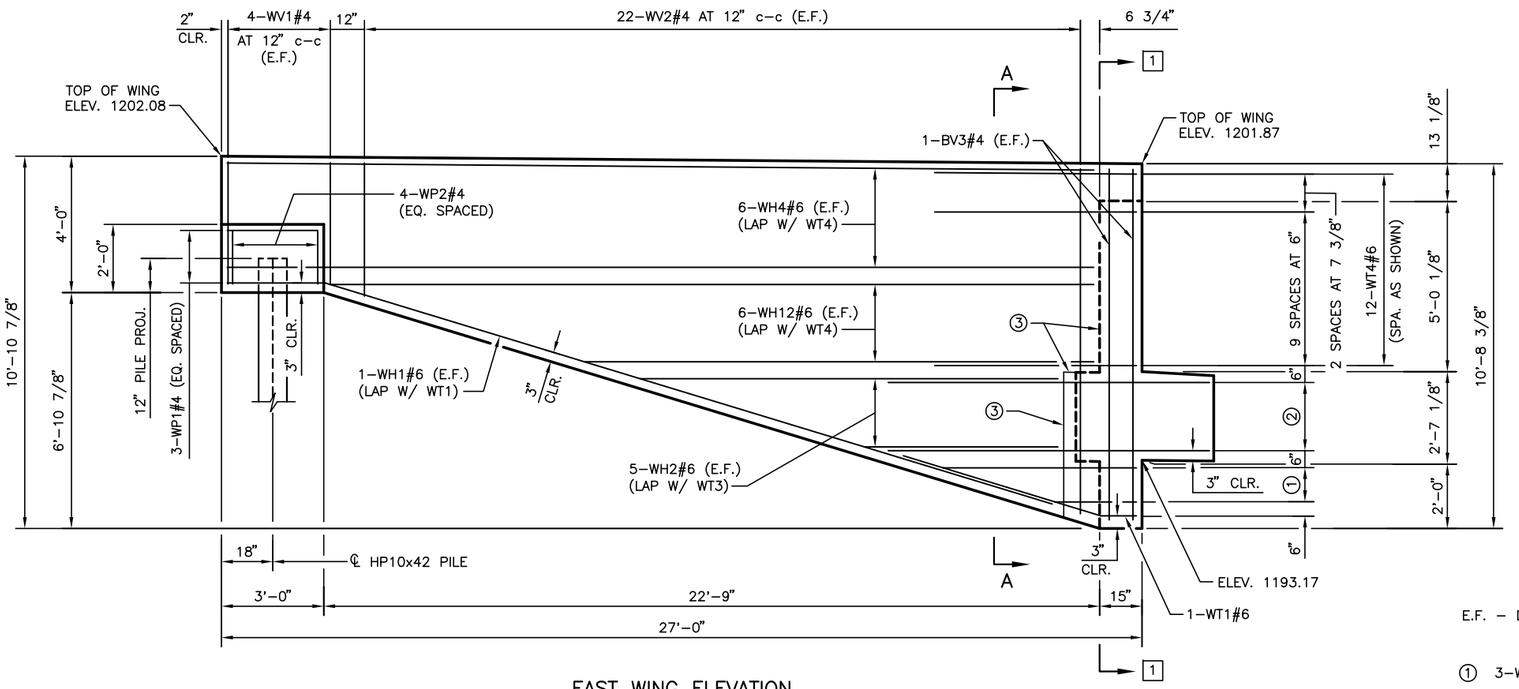
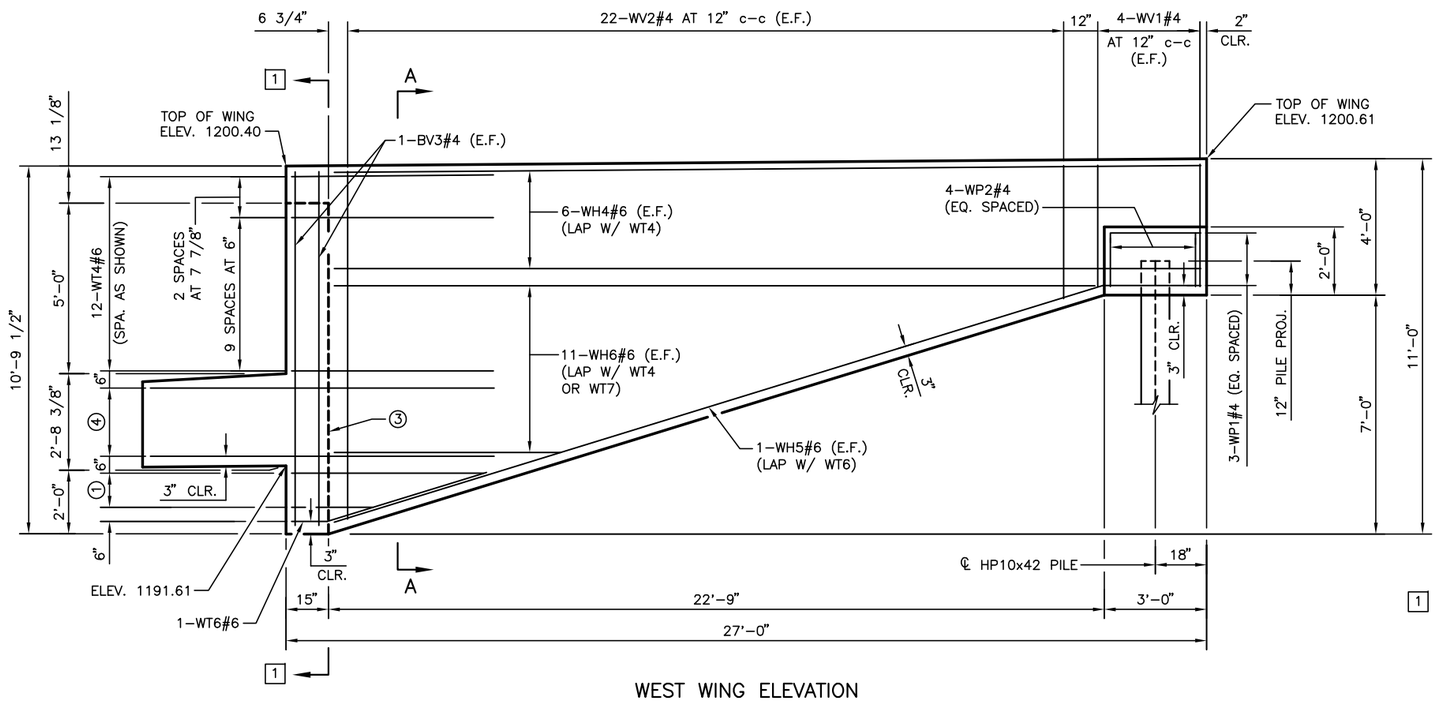


EAST WING ELEVATION



WEST WING ELEVATION

E.F. – DENOTES EACH FACE

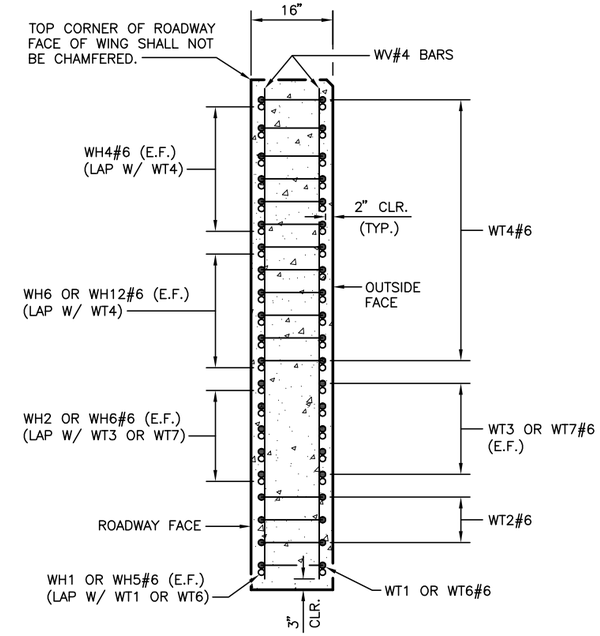
① 3–WT2#6 AT 6" c–c

② 5–WT3#6 AT 6" c–c (E.F.)

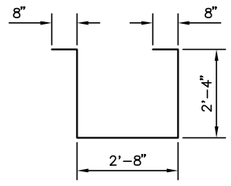
③ OPTIONAL KEYED CONST. JOINT

④ 5–WT7#6 AT 6" c–c (E.F.)

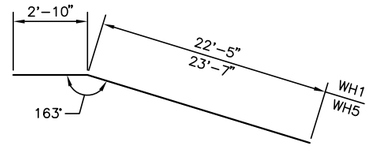
1 TREAT ENDS OF BRIDGE SEAT AND ALL EXPOSED SURFACES OF WINGS WITH A WATER REPELLENT SURFACE TREATMENT, ABOVE THE FINISHED GROUND SURFACE AND IN FRONT (AHEAD) OF THE BACK FACE OF BACKWALL LINE.



SECTION A–A



WP1#4 x 8'–8"



WH1#6 x 25'–3"
WH5#6 x 26'–5"

BAR BEND DETAILS

NOTE: FOR ABUTMENT BAR LIST AND WT BAR BEND DETAILS, SEE SHEET NO. B107.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US–81 OVER QUAIL RD.

ABUTMENT 1 WINGWALL DETAILS

℄ STA. 140+45.84

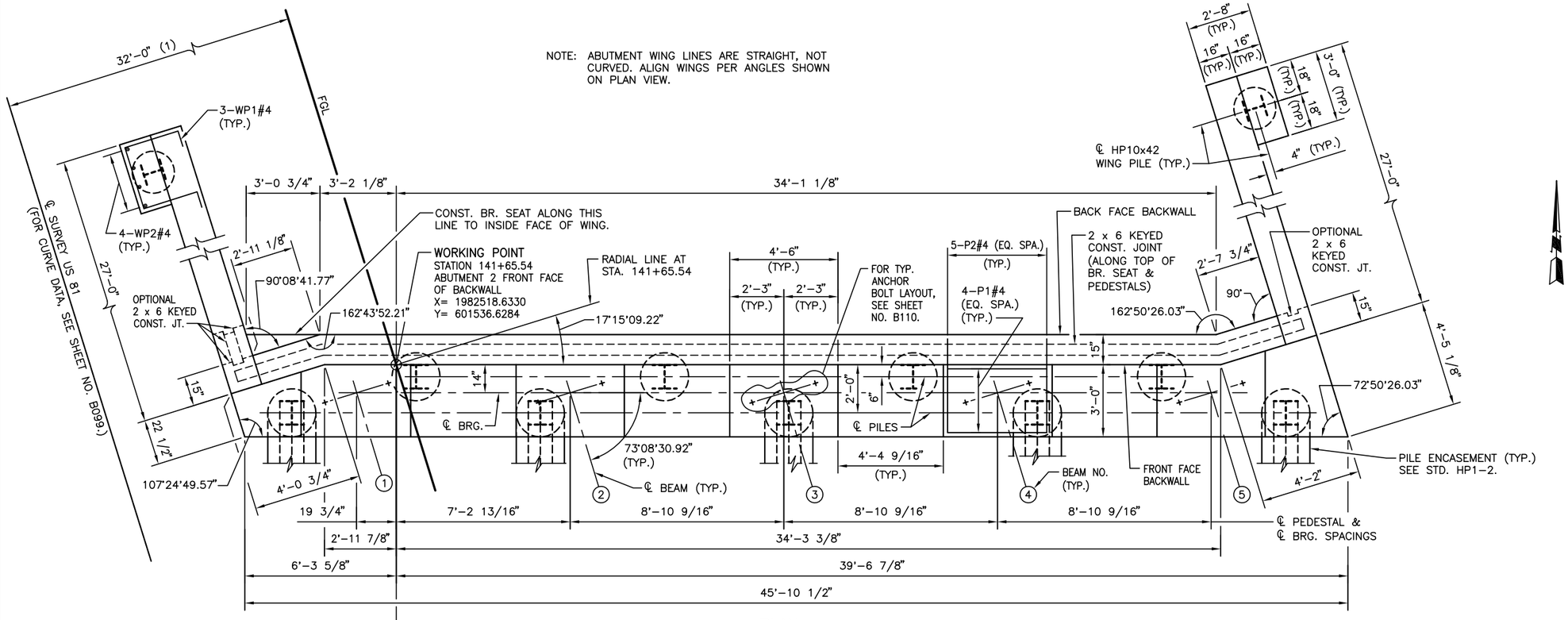
Job Piece No. 24428(13) Sheet No. B108

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

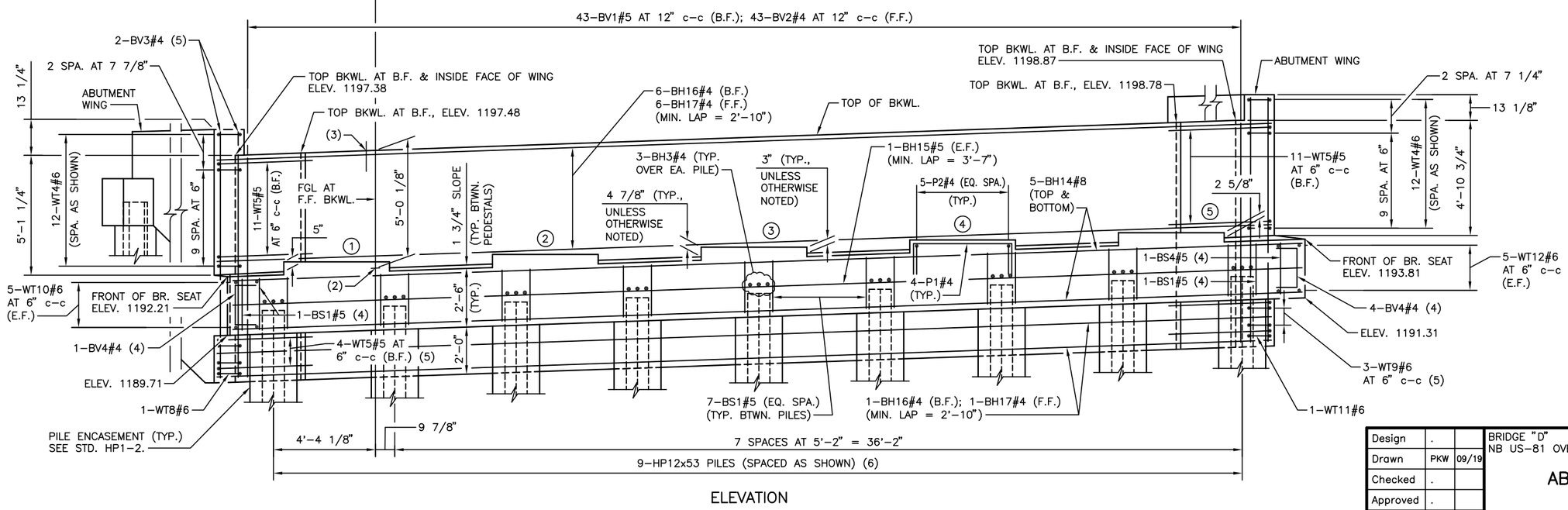
M:\W2M Projects\Project Files\M179\Final Design C & D\B109-2442813-ABUTMENT 2 DETAILS 1.dwg 5/18/2020 3:01:55 PM

REVISIONS	
DESCRIPTION	DATE

NOTE: ABUTMENT WING LINES ARE STRAIGHT, NOT CURVED. ALIGN WINGS PER ANGLES SHOWN ON PLAN VIEW.



PLAN



ELEVATION

(1) RADIAL DIMENSION.

(2) BR. SEAT ELEV. AT FGL & F.F. 1192.58

(3) TOP BKWL. AT B.F. & FGL ELEV. 1197.58

(4) PLACED AS SHOWN ON SHEET NO. B110.

(5) TYP. EA. END.

(6) PILOT HOLES SHALL BE DRILLED BELOW THE PILE ENCASEMENTS TO FACILITATE THE PLACEMENT OF THE H-PILES AT ABUTMENT 2. SEE SHEET NO. B100 FOR DETAILS.

B.F. – DENOTES BACK FACE
F.F. – DENOTES FRONT FACE
E.F. – DENOTES EACH FACE

SCHEDULE OF PEDESTAL ELEVATIONS	
PEDESTAL	ELEVATION
1	1192.85
2	1193.16
3	1193.47
4	1193.78
5	1194.09

NOTES:

ALL REINFORCING STEEL CONNECTING THE BRIDGE SEAT AND/OR BACKWALL TO THE WINGS SHALL BE TIED IN PLACE PRIOR TO POURING BRIDGE SEAT AND BACKWALL (WT AND WV3 BARS).

FOR ADDITIONAL ABUTMENT 2 DETAILS, BAR BENDS, BAR LIST AND QUANTITIES, SEE SHEET NO. B110.

FOR WING DETAILS, SEE SHEET NO. B111.

FOR SUBSTRUCTURE STAKING DIAGRAM AND TOP OF PILE ELEVATIONS, SEE SHEET NO. B105.

Design	.	
Drawn	PKW	09/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

ABUTMENT 2 DETAILS (1 OF 2)

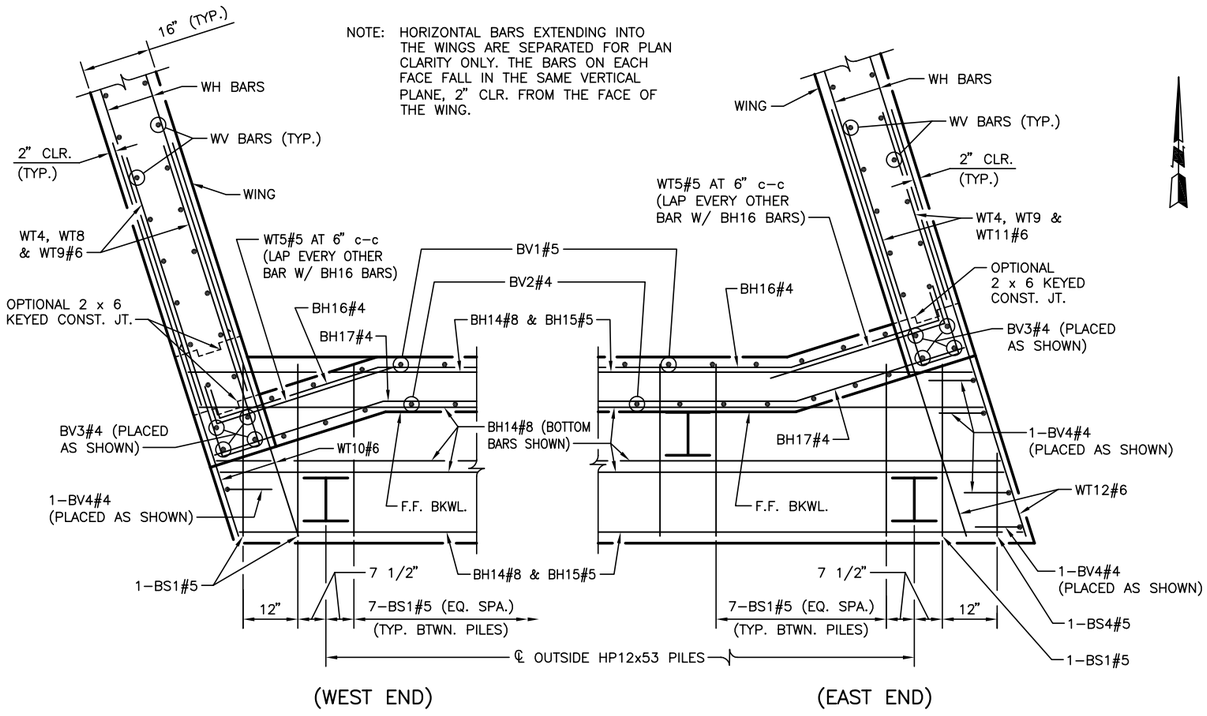
℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B109

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

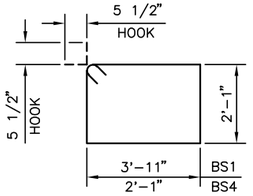
M:\W2M Projects\Project Files\M179\Final Design C & D\B110-2442813-ABUTMENT 2 DETAILS 2.dwg 5/18/2020 3:02:50 PM

NOTE: HORIZONTAL BARS EXTENDING INTO THE WINGS ARE SEPARATED FOR PLAN CLARITY ONLY. THE BARS ON EACH FACE FALL IN THE SAME VERTICAL PLANE, 2" CLR. FROM THE FACE OF THE WING.

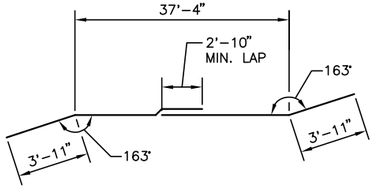


PART PLAN OF BRIDGE SEAT AND BACKWALL SHOWING REINFORCING STEEL

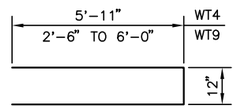
(BH3#4 BARS, OVER PILES, NOT SHOWN FOR CLARITY.)
(DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.)



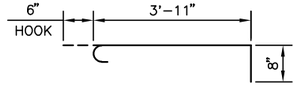
BS1#5 x 12'-11"
BS4#5 x 9'-3"



BH17#4 x 48'-0"

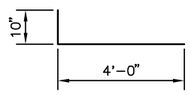


WT4#6 x 12'-10"
WT9#6 x 9'-6" AVG.
(VARIES 6'-0" TO 13'-0")

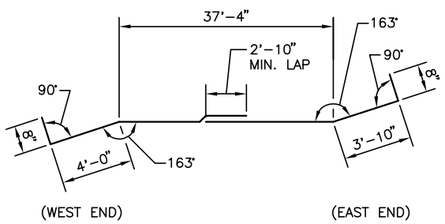


BH3#4 x 5'-1"

(PLAN)

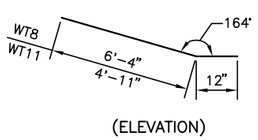


WT5#5 x 4'-10"



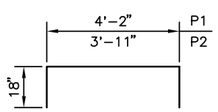
(WEST END) (EAST END)

BH16#4 x 49'-4"

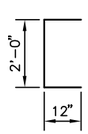


(ELEVATION)

WT8#6 x 15'-8"
WT11#6 x 12'-10"



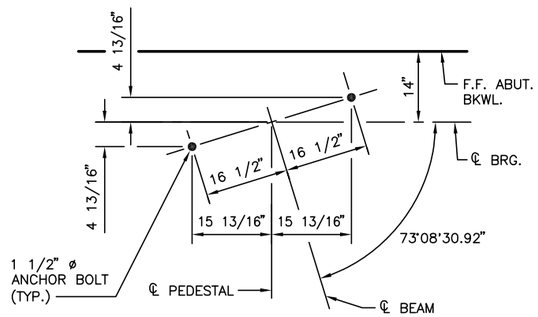
P1#4 x 7'-2"
P2#4 x 6'-11"



BV4#4 x 4'-0"

BAR BEND DETAILS

NOTE: FOR BAR BEND DETAILS NOT SHOWN, SEE SHEET NO. B111.



TYPICAL ANCHOR BOLT LAYOUT

ABUTMENT 2 BAR LIST					
MARK	NO.	SIZE	SHAPE	LENGTH	
		(EPOXY COATED)			
BH3	27	4	BNT.	5'-1"	
BH14	10	8	STR.	45'-6"	
BH15	2	5	STR.	49'-1"	(1)
BH16	8	4	BNT.	49'-4"	(2)
BH17	8	4	BNT.	48'-0"	(2)
BS1	59	5	BNT.	12'-11"	
BS4	1	5	BNT.	9'-3"	
BV1	43	5	STR.	9'-2"	
BV2	43	4	STR.	9'-2"	
BV3	8	4	STR.	10'-3"	
BV4	5	4	BNT.	4'-0"	
P1	20	4	BNT.	7'-2"	
P2	25	4	BNT.	6'-11"	
WH4	28	6	STR.	25'-5"	
WH7	2	6	BNT.	24'-11"	
WH8	10	6	STR.	8'-7 1/2" AVG.	(3)
WH9	10	6	STR.	18'-6 1/2" AVG.	(4)
WH10	2	6	BNT.	26'-3"	
WH11	20	6	STR.	14'-5 1/2" AVG.	(5)
WP1	6	4	BNT.	8'-8"	
WP2	8	4	STR.	1'-7"	
WT4	24	6	BNT.	12'-10"	
WT5	30	5	BNT.	4'-10"	
WT8	1	6	BNT.	15'-8"	
WT9	6	6	BNT.	9'-6" AVG.	(6)
WT10	10	6	STR.	9'-6"	
WT11	1	6	BNT.	12'-10"	
WT12	10	6	STR.	10'-4"	
WV1	16	4	STR.	3'-6"	
WV3	88	4	STR.	7'-0" AVG.	(7)

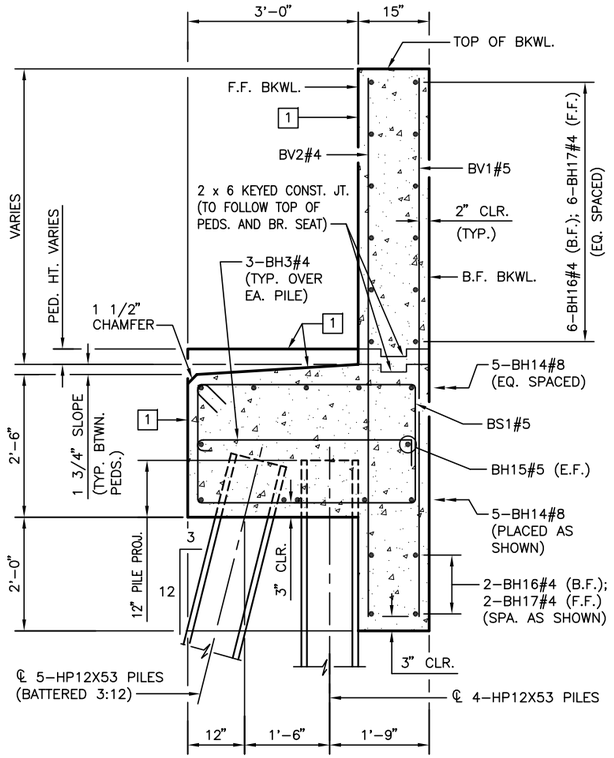
(1) LENGTH INCLUDES ONE (1) 3'-7" LAP SPLICE.
(2) LENGTH INCLUDES ONE (1) 2'-10" LAP SPLICE.
(3) 5 BARS VARYING FROM 5'-2" TO 12'-1"; TWO OF EACH LENGTH.
(4) 5 BARS VARYING FROM 15'-1" TO 22'-0"; TWO OF EACH LENGTH.
(5) 10 BARS VARYING FROM 6'-7" TO 22'-4"; TWO OF EACH LENGTH.
(6) 3 BARS VARYING FROM 6'-0" TO 13'-0"; TWO OF EACH LENGTH.
(7) 22 BARS VARYING FROM 3'-11" TO 10'-1"; FOUR OF EACH LENGTH.

NOTES: FOR WING DETAILS, SEE SHEET NO. B111.

STEEL PILE CONCRETE ENCASEMENTS NOT SHOWN FOR CLARITY. SEE STD. HP1-2 FOR DETAILS.

ALL EDGES OF THE ABUTMENT AND WINGS SHALL HAVE A 3/4" CHAMFER, UNLESS OTHERWISE SHOWN.

REVISIONS	
DESCRIPTION	DATE



SECTION THRU BRIDGE SEAT

(SHOWN BETWEEN BENDS IN BACKWALL.)
(PILE ENCASEMENTS ARE NOT SHOWN FOR CLARITY.)

[1] TREAT WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT, INCLUDING SIDES OF PEDESTALS. THE FRONT FACE OF THE BRIDGE SEAT NEED ONLY BE TREATED ABOVE THE TOP OF SLOPE WALL.

B.F. – DENOTES BACK FACE
F.F. – DENOTES FRONT FACE
E.F. – DENOTES EACH FACE

ABUTMENT 2 QUANTITIES		
ITEM	UNITS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	105.00
CLSM BACKFILL	CY	111.50
CLASS A CONCRETE	CY	53.10
EPOXY COATED REINFORCING STEEL	LB	7290.00
PILES, FURNISHED (HP10x42)	LF	81.00
PILES, FURNISHED (HP12x53)	LF	327.00
PILES, DRIVEN (HP10x42)	LF	81.00
PILES, DRIVEN (HP12x53)	LF	327.00
(PL) PILOT HOLES	LF	263.00
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA	0.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	56.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	43.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	90.00

Design	.	
Drawn	PKW	09/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

ABUTMENT 2 DETAILS (2 OF 2)

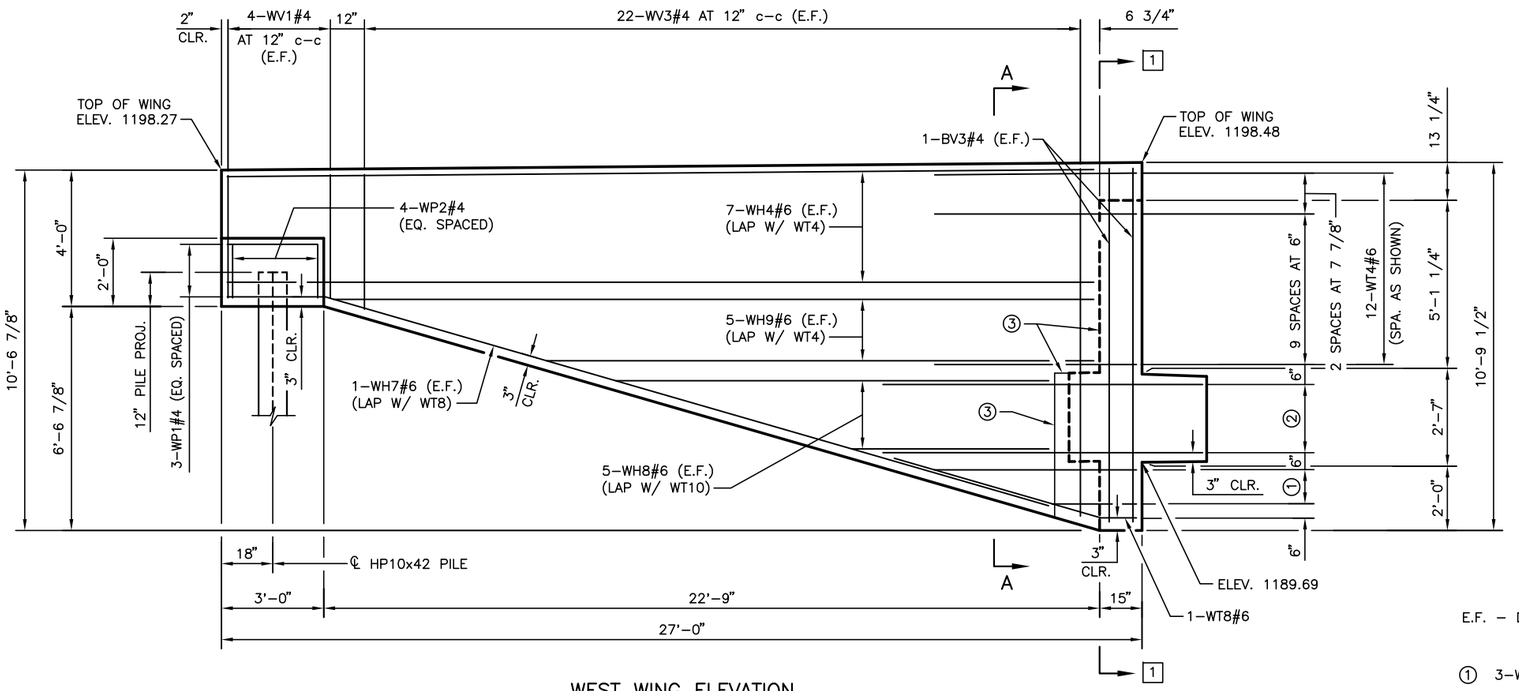
℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B110

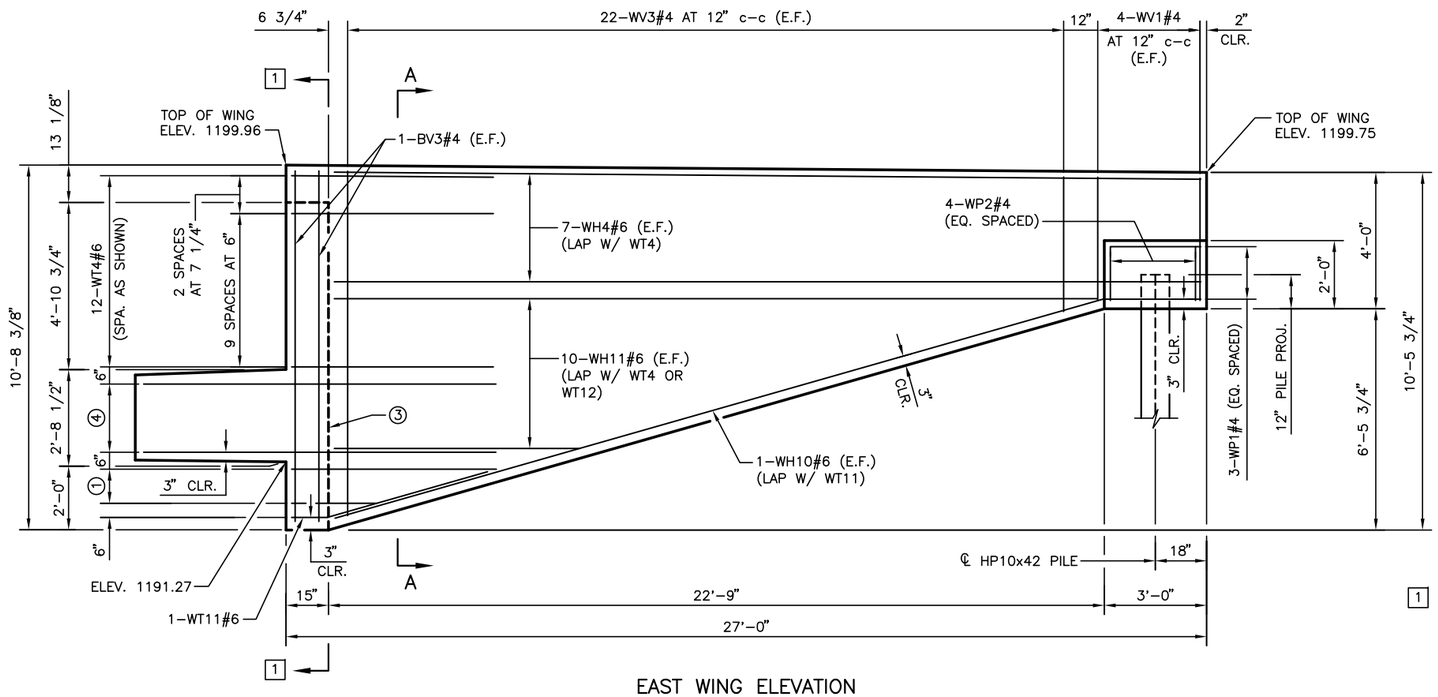
"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

M:\W2M Projects\Project Files\M179\Final Design C & D\B111-2442813-ABUTMENT 2 WINGWALL DETAILS.dwg 5/18/2020 3:03:28 PM

REVISIONS	
DESCRIPTION	DATE



WEST WING ELEVATION



EAST WING ELEVATION

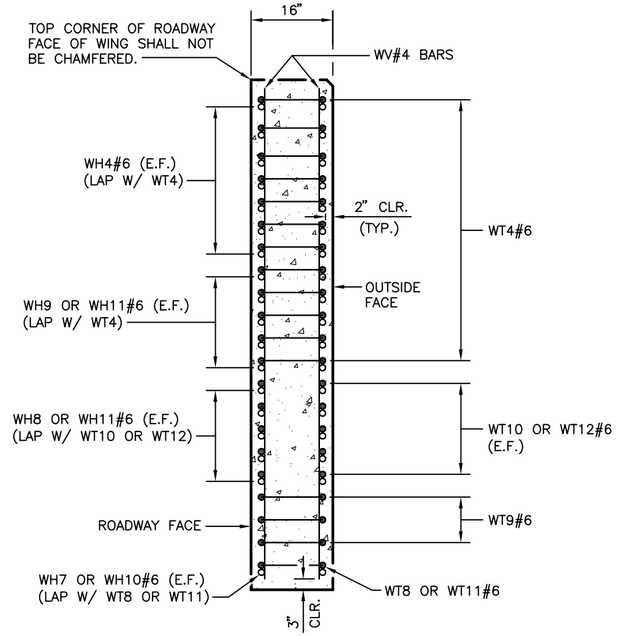
E.F. – DENOTES EACH FACE

① 3–WT9#6 AT 6" c–c

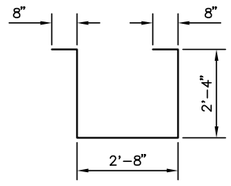
② 5–WT10#6 AT 6" c–c (E.F.)

③ OPTIONAL KEYED CONST. JOINT

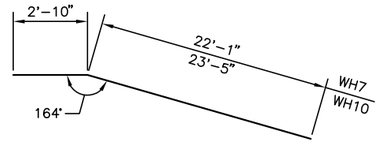
④ 5–WT12#6 AT 6" c–c (E.F.)



SECTION A–A



WP1#4 x 8'–8"



WH7#6 x 24'–11"
WH10#6 x 26'–3"

BAR BEND DETAILS

NOTE: FOR ABUTMENT BAR LIST AND WT BAR BEND DETAILS, SEE SHEET NO. B110.

1 TREAT ENDS OF BRIDGE SEAT AND ALL EXPOSED SURFACES OF WINGS WITH A WATER REPELLENT SURFACE TREATMENT, ABOVE THE FINISHED GROUND SURFACE AND IN FRONT (AHEAD) OF THE BACK FACE OF BACKWALL LINE.

Design	.	
Drawn	PKW	09/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US–81 OVER QUAIL RD.

ABUTMENT 2 WINGWALL DETAILS

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B111

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

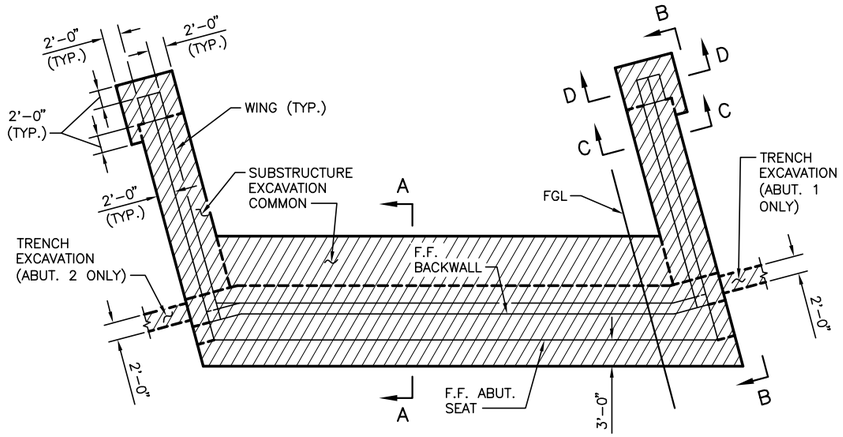
M:\W2M Projects\Project Files\M179\Final Design C & D\B112-2442813-SUBSTRUCTURE EXCAVATION AND PIPE UNDERDRAIN ASSEMBLY DETAILS.dwg 5/18/2020 3:04:26 PM

REVISIONS	
DESCRIPTION	DATE

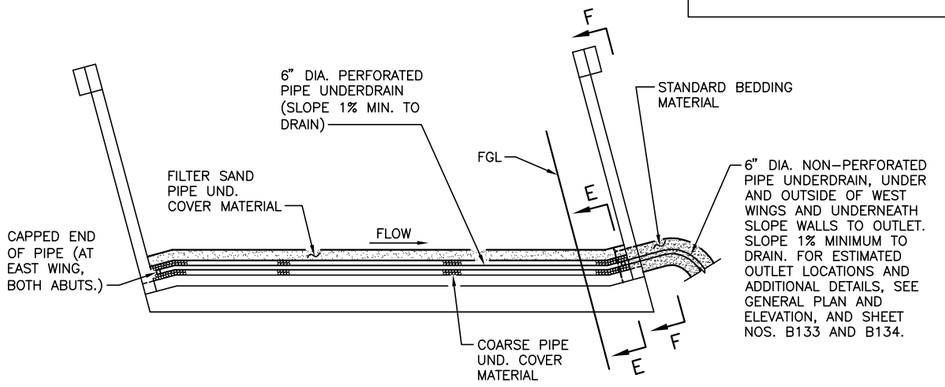
NOTES: CONCRETE MAY BE PLACED AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE ABUTMENT AND APPROVED BY THE ENGINEER. IF NECESSARY, FORMS SHALL BE USED ON THE BACK VERTICAL FACE OF THE ABUTMENT AND REMOVED AFTER CONCRETE IS SET.

MEASUREMENT AND PAYMENT FOR "SUBSTRUCTURE EXCAVATION COMMON" SHALL BE IN ACCORDANCE WITH THE DIAGRAM SHOWN ON THE PLANS.

F.F. – DENOTES FRONT FACE

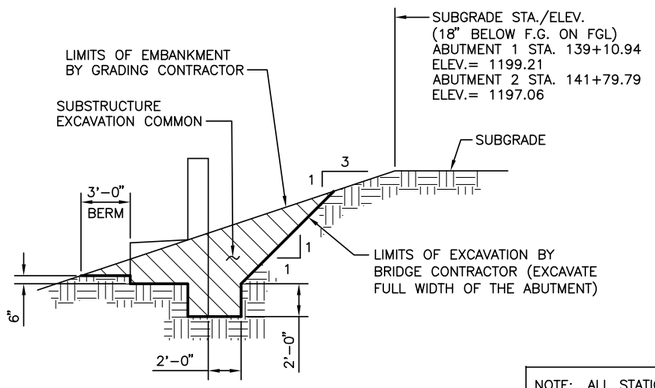


ABUTMENT EXCAVATION PLAN
(ABUTMENT 1 SHOWN. ABUTMENT 2 SIMILAR.)

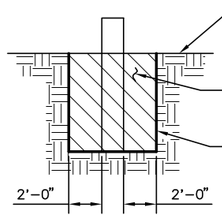


PLAN OF PIPE UNDERDRAIN
(ABUTMENT 1 SHOWN.)

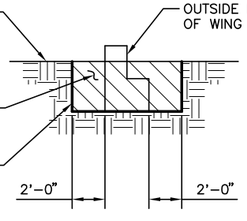
NOTE: THE ENGINEER MAY ADJUST THE EXTENT, LOCATION AND DEPTH OF THE 6" NON-PERFORATED PIPE UNDERDRAIN DURING CONSTRUCTION. INCLUDE THE COST OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION IN THE CONTRACT UNIT PRICE OF 6" PERFORATED PIPE UNDERDRAIN ROUND AND 6" NON-PERF. PIPE UNDERDRAIN RND. INSTALL AS SHOWN ON THE PLANS AND STD. PUD-3.



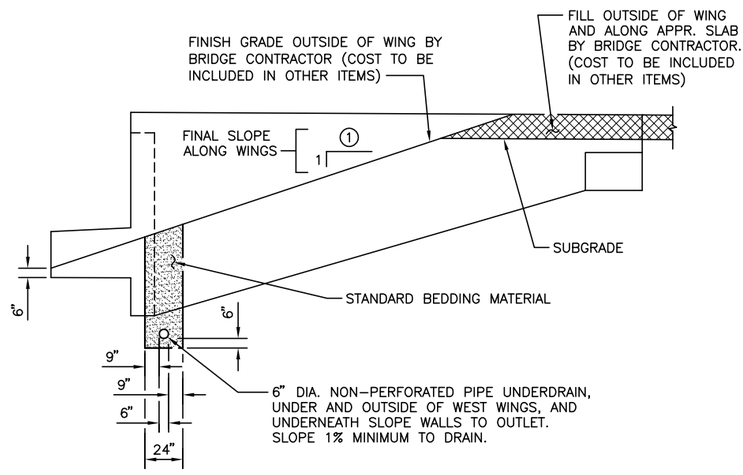
SECTION A–A



SECTION C–C

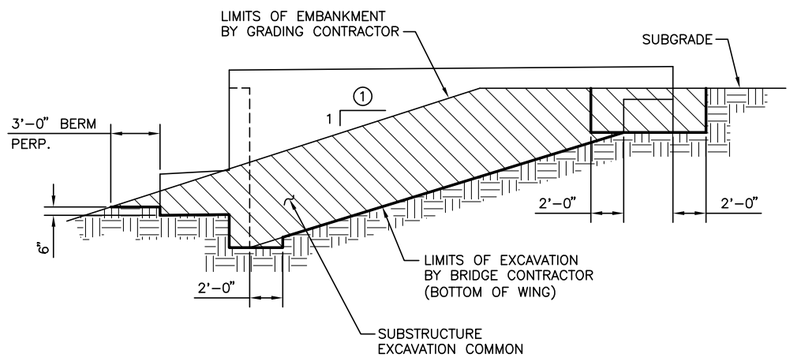


SECTION D–D

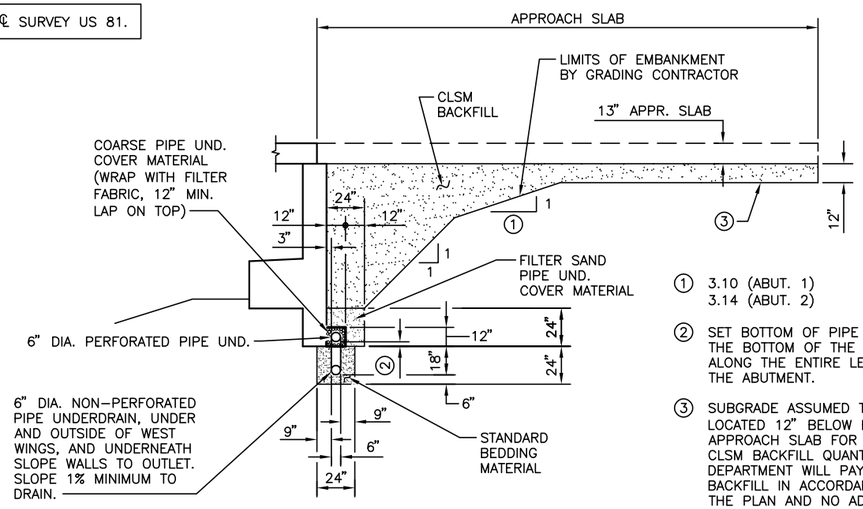


SECTION F–F

NOTE: ALL STATIONING FOLLOWS ℄ SURVEY US 81.



SECTION B–B



SECTION E–E

① 3.10 (ABUT. 1)
3.14 (ABUT. 2)

② SET BOTTOM OF PIPE 3" ABOVE THE BOTTOM OF THE ABUTMENT, ALONG THE ENTIRE LENGTH OF THE ABUTMENT.

③ SUBGRADE ASSUMED TO BE LOCATED 12" BELOW BOTTOM OF APPROACH SLAB FOR COMPUTING CLSM BACKFILL QUANTITY. THE DEPARTMENT WILL PAY FOR CLSM BACKFILL IN ACCORDANCE WITH THE PLAN AND NO ADJUSTMENT WILL BE MADE FOR ACTUAL LOCATION OF SUBGRADE.

NOTE: DO NOT PLACE CLSM BACKFILL UNTIL SUPERSTRUCTURE IS IN PLACE AND THE ABUTMENT WING CONCRETE HAS ATTAINED A STRENGTH OF 3000 PSI.

NOTE: FOR DETAILS OF PIPE UNDERDRAIN NOT SHOWN, SEE STD. PUD-3, AND SHEET NOS. B133 AND B134.

Design	.	
Drawn	PKW	09/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

SUBSTRUCTURE EXCAVATION AND PIPE UNDERDRAIN ASSEMBLY DETAILS

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B112

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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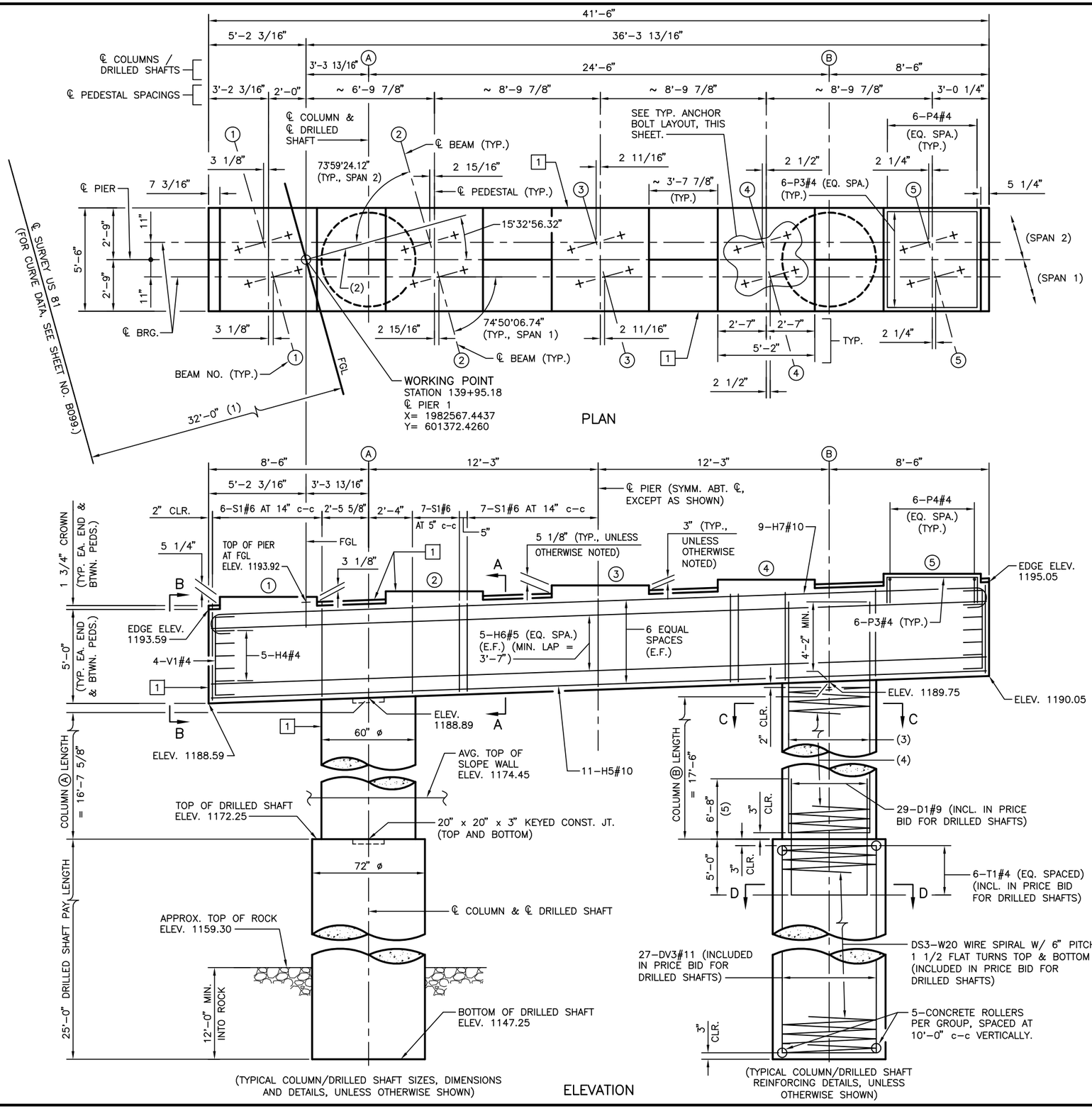
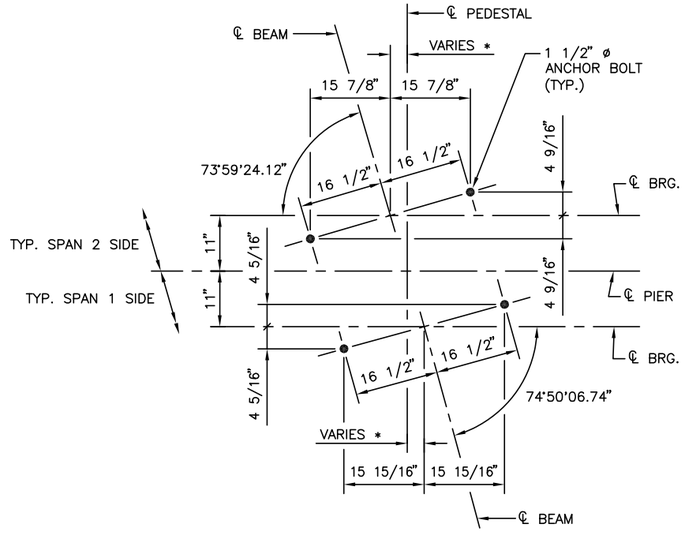


PLAN

(TYPICAL COLUMN/DRILLED SHAFT SIZES, DIMENSIONS AND DETAILS, UNLESS OTHERWISE SHOWN)

ELEVATION

(TYPICAL COLUMN/DRILLED SHAFT REINFORCING DETAILS, UNLESS OTHERWISE SHOWN)



TYPICAL ANCHOR BOLT LAYOUT

* SEE PLAN VIEW, AT LEFT.

REVISIONS	
DESCRIPTION	DATE

SCHEDULE OF PEDESTAL ELEVATIONS	
PEDESTAL	ELEVATION
1	1194.20
2	1194.50
3	1194.81
4	1195.12
5	1195.43

(1) RADIAL DIMENSION.

(2) RADIAL LINE AT STA. 139+95.18.

(3) 29-CV7#9 (COL. Ⓐ);
29-CV8#9 (COL. Ⓑ)

(4) CS7-W20 (COL. Ⓐ);
CS8-W20 (COL. Ⓑ)
WIRE SPIRAL W/ 6" PITCH, 1 1/2 FLAT TURNS TOP & BOTTOM

(5) NOT TO BE CONSIDERED AS ADD'L DRILLED SHAFT PAY LENGTH.

[1] TREAT TOP OF PIER CAP, INCLUDING ALL SURFACES OF PEDESTALS, ALL VERTICAL FACES OF THE PIER CAP AND ALL SURFACES OF THE COLUMNS ABOVE THE TOP OF SLOPE WALL, WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

E.F. – DENOTES EACH FACE

NOTES: ALL EDGES OF THE PIER CAP SHALL HAVE A 1 1/2" CHAMFER, EXCEPT FOR EDGES OF PEDESTALS, WHICH SHALL HAVE 3/4" CHAMFERS.

FOR SECTION VIEWS, BAR BEND DETAILS, BAR LISTS, QUANTITIES, AND SPIRAL REINFORCING AND CONCRETE ROLLER DETAILS, SEE SHEET NOS. B115 AND B116.

Design	.	
Drawn	PKW	09/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

PIER 1 DETAILS

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B113

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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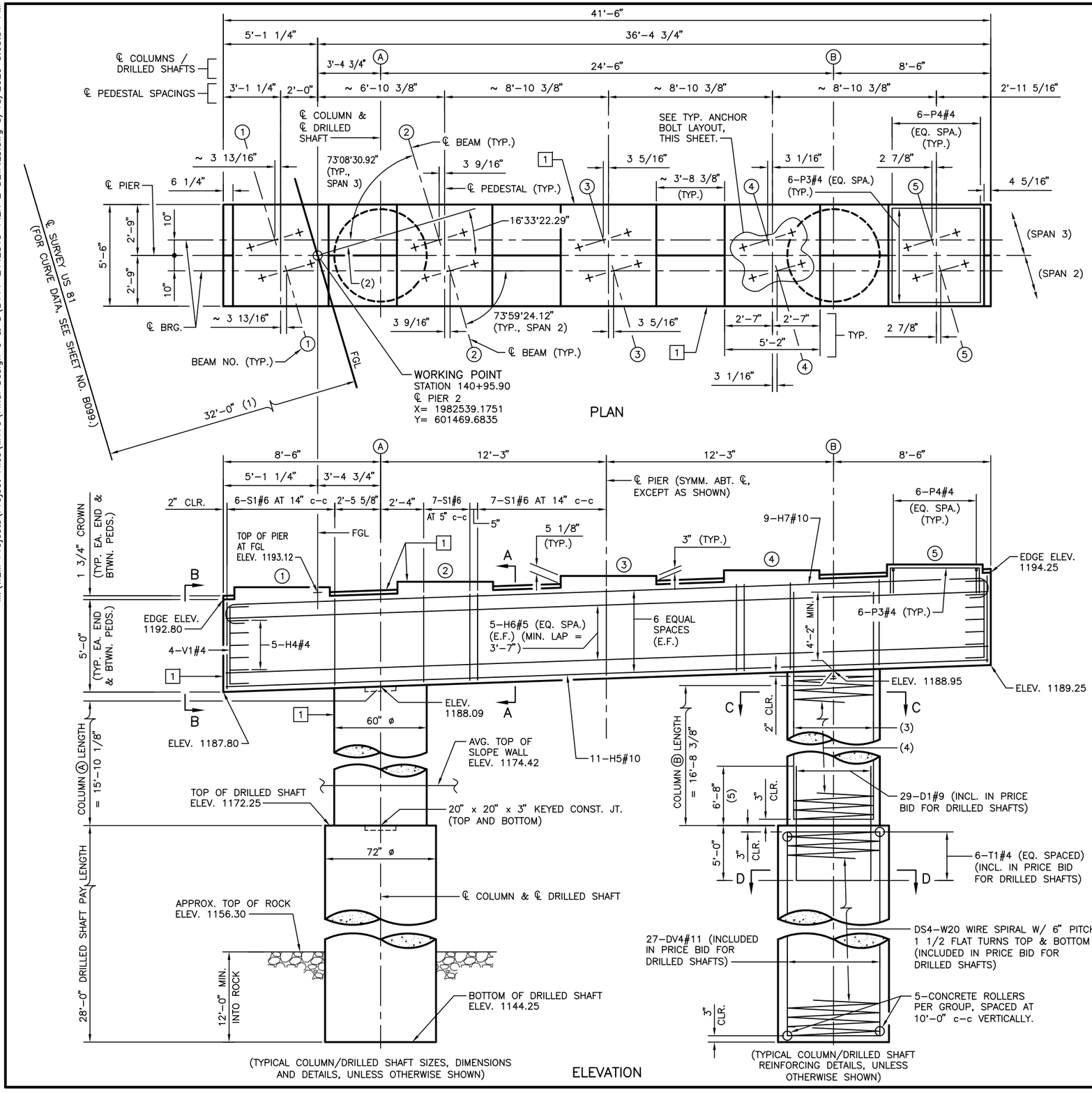
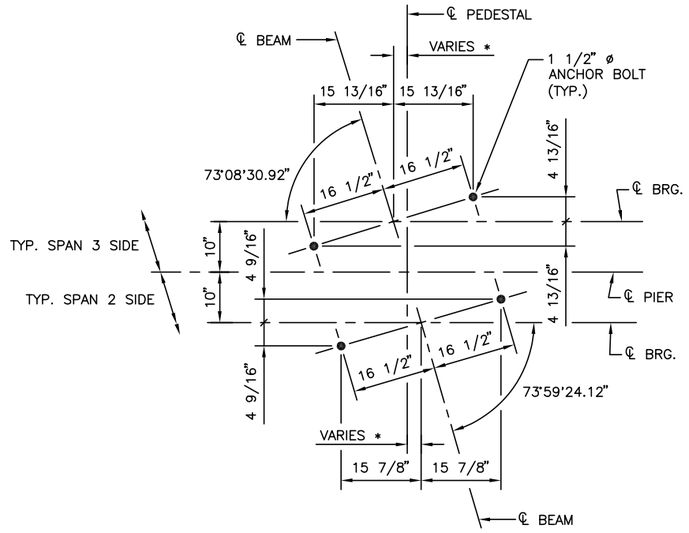


REVISIONS	
DESCRIPTION	DATE



TYPICAL ANCHOR BOLT LAYOUT

* SEE PLAN VIEW, AT LEFT.

SCHEDULE OF PEDESTAL ELEVATIONS	
PEDESTAL	ELEVATION
1	1193.39
2	1193.70
3	1194.01
4	1194.32
5	1194.63

(1) RADIAL DIMENSION.

(2) RADIAL LINE AT STA. 140+95.90.

(3) 29-CV9#9 (COL. Ⓐ); 29-CV10#9 (COL. Ⓑ)

(4) CS9-W20 (COL. Ⓐ); CS10-W20 (COL. Ⓑ) WIRE SPIRAL W/ 6" PITCH, 1 1/2 FLAT TURNS TOP & BOTTOM

(5) NOT TO BE CONSIDERED AS ADD'L DRILLED SHAFT PAY LENGTH.

[1] TREAT TOP OF PIER CAP, INCLUDING ALL SURFACES OF PEDESTALS, ALL VERTICAL FACES OF THE PIER CAP AND ALL SURFACES OF THE COLUMNS ABOVE THE TOP OF SLOPE WALL, WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

E.F. – DENOTES EACH FACE

NOTES: ALL EDGES OF THE PIER CAP SHALL HAVE A 1 1/2" CHAMFER, EXCEPT FOR EDGES OF PEDESTALS, WHICH SHALL HAVE 3/4" CHAMFERS.

FOR SECTION VIEWS, BAR BEND DETAILS, BAR LISTS, QUANTITIES, AND SPIRAL REINFORCING AND CONCRETE ROLLER DETAILS, SEE SHEET NOS. B115 AND B116.

Design	.	
Drawn	PKW	09/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

PIER 2 DETAILS

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B114

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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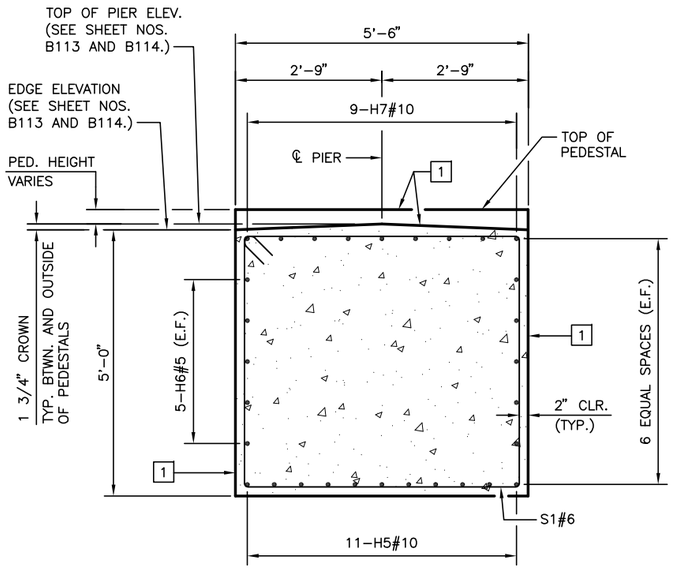
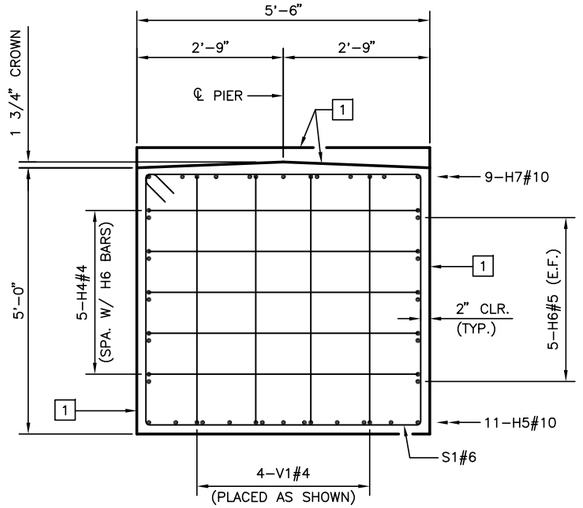
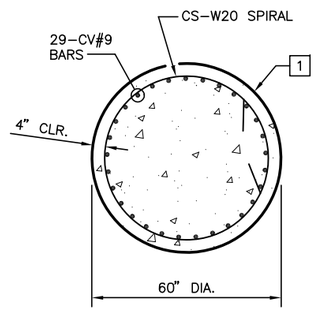
REVISIONS	
DESCRIPTION	DATE



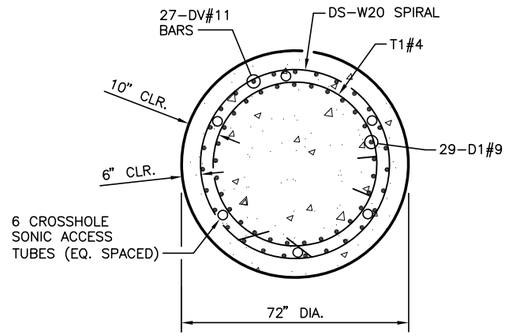
SECTION A–A



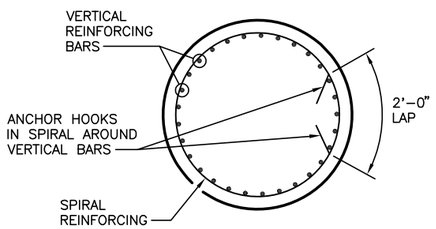
VIEW B–B
(TYP. EACH END OF CAP.)
(FOR DETAILS NOT SHOWN, SEE SECTION A–A.)



SECTION C–C

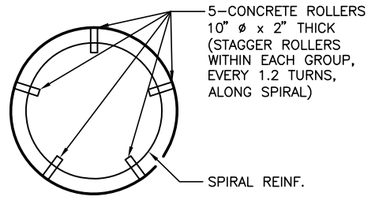


SECTION D–D



SPIRAL REINFORCING SPLICE DETAIL

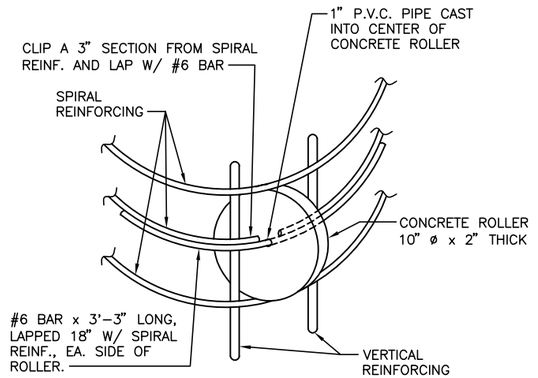
NOTE: SPIRAL BARS SHALL CONFORM TO AASHTO M32. SPIRAL BAR LENGTHS DO NOT INCLUDE LAPS. IF LAPS ARE REQUIRED, THE LENGTH OF THE LAP SHALL BE 2'–0", WITH 10" HOOKS.



ROLLER PLACEMENT DETAIL

NOTES: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.

PLASTIC ROLLERS MAY BE SUBSTITUTED FOR THE CONCRETE ROLLERS IN ACCORDANCE WITH THE SPECIAL PROVISIONS FOR DRILLED SHAFT FOUNDATIONS.



DETAIL OF ROLLER INSTALLATION

ALL MATERIALS, LABOR AND INCIDENTALS REQUIRED FOR THE INSTALLATION OF THE ROLLERS TO BE INCLUDED IN THE PRICE BID PER LF OF DRILLED SHAFTS.

[1] TREAT TOP OF PIER CAP, INCLUDING ALL SURFACES OF THE PEDESTALS, ALL VERTICAL FACES OF THE PIER CAP AND ALL SURFACES OF THE COLUMNS ABOVE THE TOP OF SLOPE WALL, WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT.

E.F. – DENOTES EACH FACE

NOTES: PEDESTAL REINFORCING NOT SHOWN FOR CLARITY.

FOR BAR BEND DETAILS, BAR LISTS AND QUANTITIES, SEE SHEET NO. B116.

Design	.	
Drawn	PKW	09/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US–81 OVER QUAIL RD.

MISCELLANEOUS PIER DETAILS (1 OF 2)

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B115

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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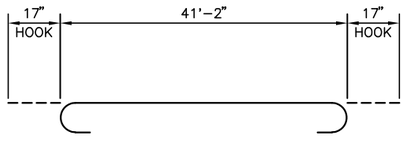
REVISIONS	
DESCRIPTION	DATE

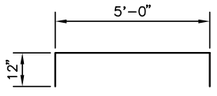
PIER 1 BAR LIST					
MARK	NO.	SIZE	SHAPE	LENGTH	
(EPOXY COATED)					
CV7	29	9	STR.	20'–7"	
CV8	29	9	STR.	21'–5"	
H4	10	4	BNT.	7'–0"	
H5	11	10	STR.	41'–2"	
H6	10	5	STR.	44'–9"	(1)
H7	9	10	BNT.	44'–0"	
P3	30	4	BNT.	7'–10"	
P4	30	4	BNT.	8'–2"	
S1	39	6	BNT.	21'–0"	
V1	8	4	BNT.	6'–6"	
(NON–EPOXY COATED)					
CS7	1	W20	SPIRAL	480'–4"	
CS8	1	W20	SPIRAL	503'–7"	
PIER 1 DRILLED SHAFTS					
(NON–EPOXY COATED)					
D1	58	9	STR.	11'–8"	(2)
DS3	2	W20	SPIRAL	812'–8"	(2)
DV3	54	11	STR.	24'–6"	(2)
T1	12	4	BNT.	15'–6"	(2)

PIER 2 BAR LIST					
MARK	NO.	SIZE	SHAPE	LENGTH	
(EPOXY COATED)					
CV9	29	9	STR.	19'–10"	
CV10	29	9	STR.	20'–8"	
H4	10	4	BNT.	7'–0"	
H5	11	10	STR.	41'–2"	
H6	10	5	STR.	44'–9"	(1)
H7	9	10	BNT.	44'–0"	
P3	30	4	BNT.	7'–10"	
P4	30	4	BNT.	8'–2"	
S1	39	6	BNT.	21'–0"	
V1	8	4	BNT.	6'–6"	
(NON–EPOXY COATED)					
CS9	1	W20	SPIRAL	458'–9"	
CS10	1	W20	SPIRAL	481'–11"	
PIER 2 DRILLED SHAFTS					
(NON–EPOXY COATED)					
D1	58	9	STR.	11'–8"	(2)
DS4	2	W20	SPIRAL	906'–3"	(2)
DV4	54	11	STR.	27'–6"	(2)
T1	12	4	BNT.	15'–6"	(2)

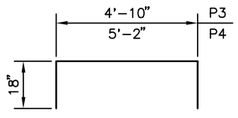
(1) LENGTH INCLUDES ONE (1) 3'–7" LAP SPLICE.
(2) INCLUDED IN THE PRICE BID PER LIN. FT. OF DRILLED SHAFT.



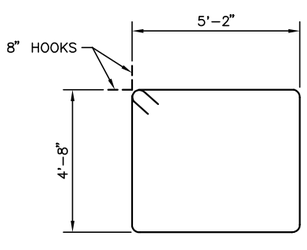
H7#10 x 44'–0"



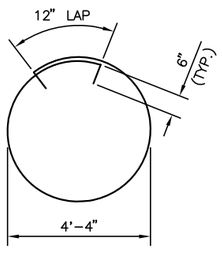
H4#4 x 7'–0"



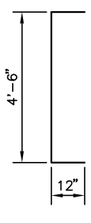
P3#4 x 7'–10"
P4#4 x 8'–2"



S1#6 x 21'–0"



T1#4 x 15'–6"



V1#4 x 6'–6"

BAR BEND DETAILS

PIER QUANTITIES			
ITEM	UNITS	PIER 1	PIER 2
CLASS A CONCRETE	CY	70.00	68.80
REINFORCING STEEL	LB	670.00	640.00
EPOXY COATED REINFORCING STEEL	LB	9900.00	9750.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	135.00	133.00
DRILLED SHAFTS 72" DIAMETER	LF	50.00	56.00
CROSSHOLE SONIC LOGGING	EA	1.00	0.00 ①

① ESTIMATED QUANTITY ONLY, TO BE USED AS DIRECTED BY THE ENGINEER.

Design	.	
Drawn	PKW	09/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US–81 OVER QUAIL RD.

MISCELLANEOUS PIER DETAILS (2 OF 2)

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B116

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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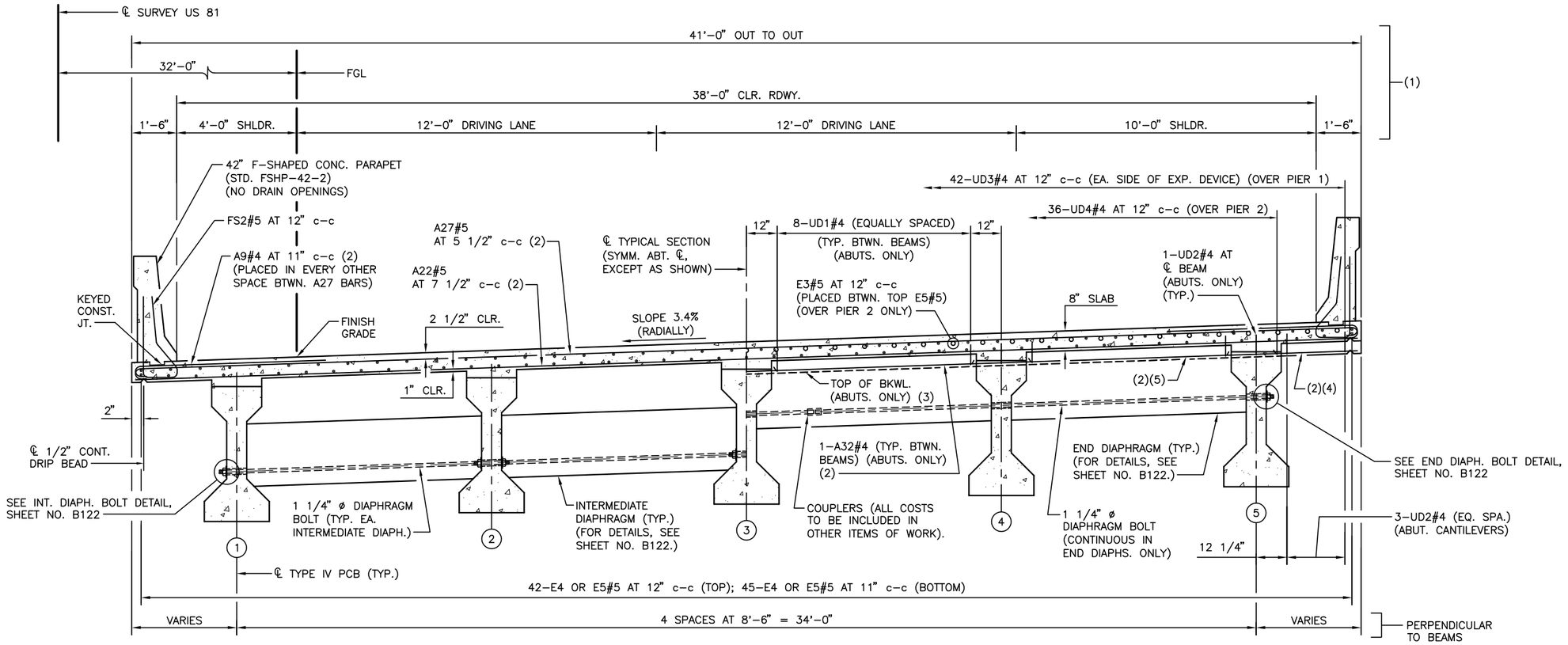
REVISIONS	
DESCRIPTION	DATE



HALF SECTION WITHIN SPANS

HALF SECTION NEAR ABUTMENTS AND PIERS

TYPICAL CROSS SECTION

NOTE: ROTATE A11 AND A27 BARS TO ENSURE MINIMUM CLEARANCE IS MET TOP & BOTTOM OF HOOK(S).

NOTE: DO NOT PLACE CONCRETE FOR THE BRIDGE SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE CONCRETE IN THE DIAPHRAGMS HAS BEEN IN PLACE A MINIMUM OF 10 DAYS, OR AT THE DISCRETION OF THE ENGINEER. THE ENGINEER MAY APPROVE SHORTENED TIME IF THE BEAM AND DIAPHRAGM CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH.

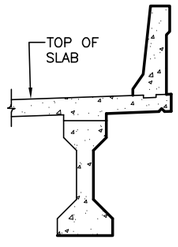
(1) RADIAL DIMENSIONS.

(2) ALL TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE SKEW ANGLE.

(3) FOR SLAB FORMING REQUIREMENTS BEHIND END DIAPHRAGMS AND IN CANTILEVERS, SEE SHEET NOS. B118 AND B119.

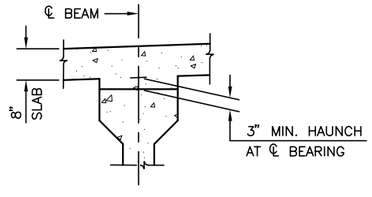
(4) 2–A31#4 (CONT. – ABUT. 1); 1–A33#4 (CONT. – EA. SIDE OF EXP. DEVICE, OVER PIER 1); 1–A34#4 (CANTILEVERS ONLY, EA. SIDE OF EXP. DEVICE, OVER PIER 1); 2–A36#4 (CONT. – ABUT. 2)

(5) 2–A35#4 (CONT. – OVER PIER 2)



WATER REPELLENT SURFACE TREATMENT

NOTE: SURFACES INDICATED WITH HEAVY LINES SHALL BE TREATED WITH A PENETRATING WATER REPELLENT SURFACE TREATMENT. (TYP. EA. SIDE)



HAUNCH DETAIL AT BEARINGS

NOTE: PLAN QUANTITIES FOR CLASS "AA" CONCRETE INCLUDE 16.2 CY FOR BEAM HAUNCHES. HAUNCH HEIGHT SHOWN IS THE THEORETICAL HAUNCH HEIGHT AT THE CENTERLINE BEARING ONLY, MEASURED FROM THE BOTTOM OF THE SLAB TO THE TOP OF THE BEAM, AND VARIES ACROSS EACH SPAN. DETERMINE THE ACTUAL HAUNCH HEIGHT (ACCOUNTING FOR BEAM CAMBER, DEAD LOAD DEFLECTION AND ROADWAY GRADE) AFTER ERECTION OF THE BEAMS AND SUBMIT TO THE ENGINEER FOR APPROVAL. THE ENGINEER WILL NOT MEASURE DIFFERENCES BETWEEN THE THEORETICAL AND THE ACTUAL HAUNCH HEIGHTS FOR PAYMENT.

SUPERSTRUCTURE QUANTITIES

ITEM	UNITS	TOTAL
PRESTRESSED CONCRETE BEAMS (TYPE IV)	LF	1190.58
SAW–CUT GROOVING	SY	1022.90
SEALED EXPANSION JOINT	LF	40.36
42" F–SHAPED PARAPET	LF	484.10
STRUCTURAL STEEL	LB	1460.00
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA	10.00
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA	20.00
CLASS AA CONCRETE	CY	281.10
EPOXY COATED REINFORCING STEEL	LB	76010.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	1009.00
SEALER CRACK PREPARATION	LF	40.00
SEALER RESIN	GAL	0.40

NOTES: FS2 BARS IN PARAPETS SHALL BE TIED IN PLACE PRIOR TO SLAB POUR.

FOR LONGITUDINAL SECTION, SEE SHEET NOS. B118 AND B119.

FOR P.C. BEAM AND DIAPHRAGM LAYOUT PLAN, SEE SHEET NO. B121.

FOR INTERMEDIATE AND END DIAPHRAGM DETAILS, SEE SHEET NO. B122.

FOR SLAB PLAN SHOWING CANTILEVER LAYOUT DIMENSIONS, SEE SHEET NO. B123.

FOR SLAB REINFORCING PLANS, SEE SHEET NOS. B124 AND B125.

FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, BAR BEND DETAILS AND SUPERSTRUCTURE BAR LIST, SEE SHEET NO. B126.

FOR P.C. BEAM DETAILS AND DEAD LOAD DEFLECTION DIAGRAMS, SEE SHEET NOS. B128 AND B129.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US–81 OVER QUAIL RD.

TYPICAL SECTION

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B117

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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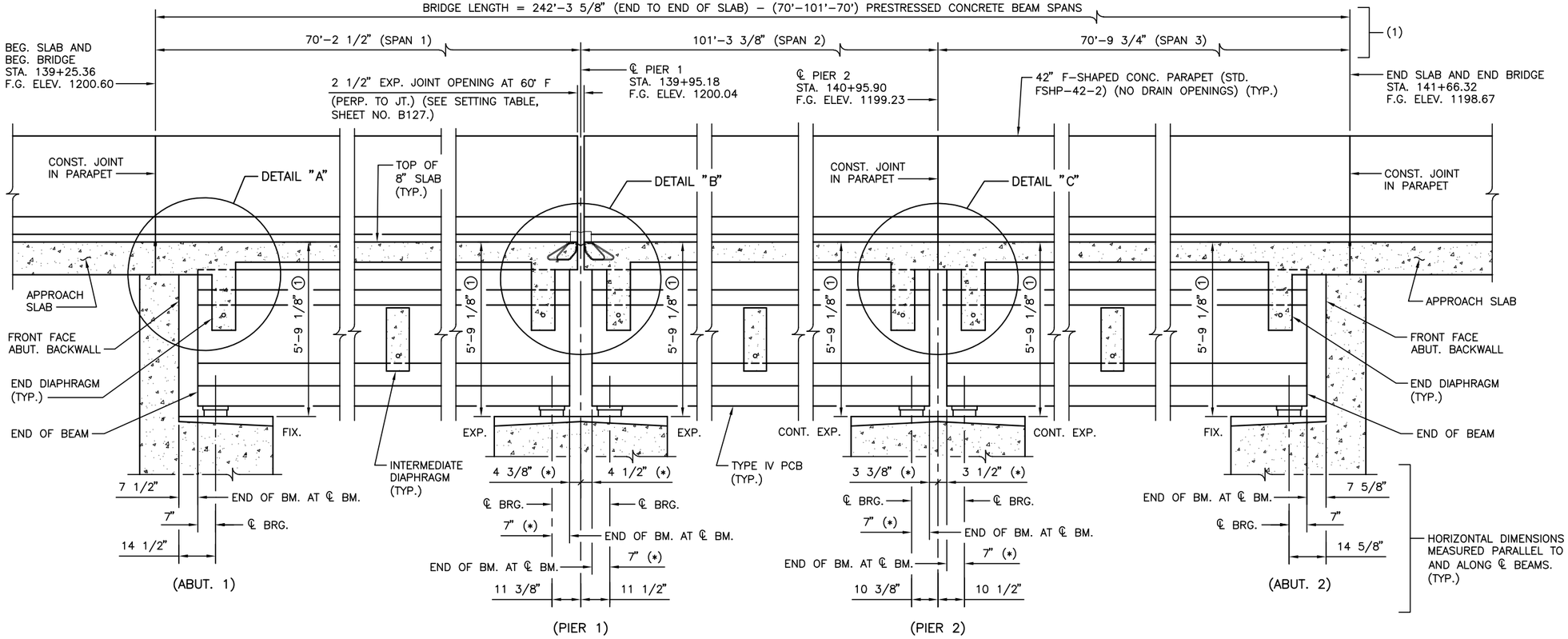
REVISIONS	
DESCRIPTION	DATE



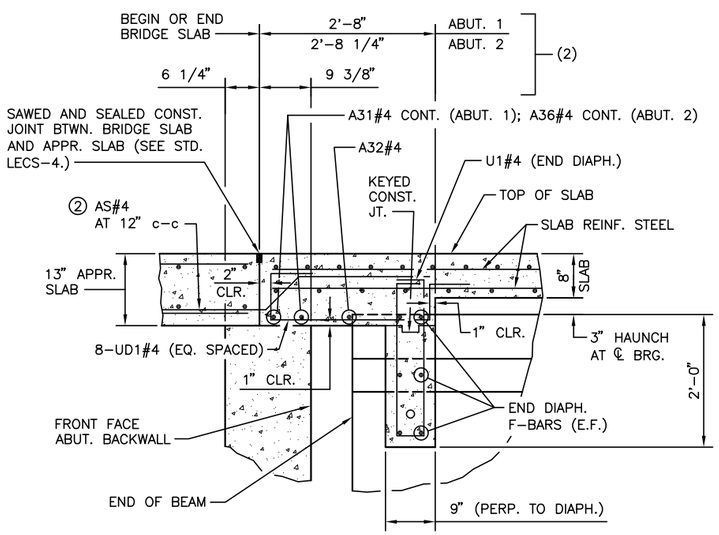
(1) HORIZONTAL ARC DIMENSIONS ALONG FGL.

(2) HORIZONTAL DIMENSIONS PARALLEL TO P.C. BEAMS.

LONGITUDINAL SECTION

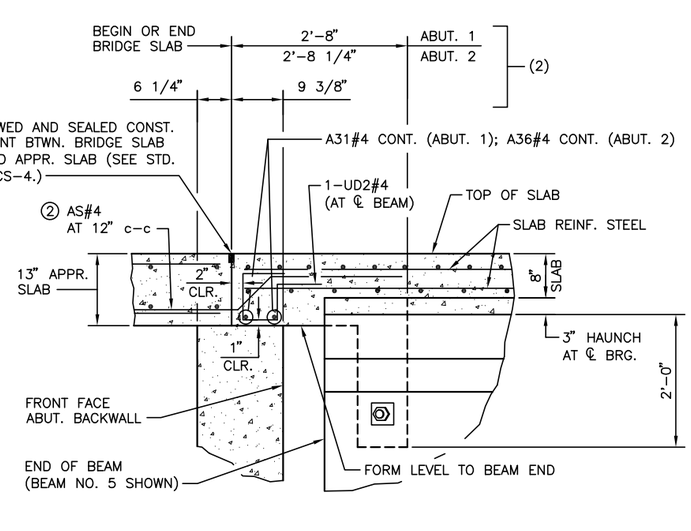
(*) AT 60° F ONLY.

NOTE: DO NOT SAW-CUT GROOVE WITHIN 6" OF CONSTRUCTION JOINTS OR EXPANSION DEVICE.



DETAIL "A" (BTWN. BEAMS)
(TYP. AT ABUTS.)

E.F. - DENOTES EACH FACE



DETAIL "A" (AT BEAMS)
(TYP. AT ABUTS.)

① DIMENSION IS FROM TOP OF SLAB TO BOTTOM OF BEARING ASSEMBLY AT ℄ BEARING.

② AS#4 BARS SHALL BE TIED TO THE TOP MAT OF REINFORCING IN THE BRIDGE SLAB AND THE BOTTOM MAT OF REINFORCING IN THE APPROACH SLAB. THE BOTTOM LEG OF THE AS#4 BAR SHALL CROSS JOINT.

NOTES:

THE WORKING LINE FOR BRIDGE "D" IS THE FGL (32' RT. OF ℄ SURVEY US 81). STATIONING FOLLOWS THE ℄ SURVEY US 81.

ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ALL UD BARS SHALL BE PLACED PARALLEL TO THE P.C. BEAMS.

DETAILS "A" ARE SHOWN AND DIMENSIONED PARALLEL TO THE P.C. BEAMS, UNLESS OTHERWISE NOTED.

FOR DETAILS "B" AND "C", SEE SHEET NO. B119.

FOR CONTROL CRACK JOINT LOCATIONS IN PARAPETS, SEE STD. FSHP-42-2.

FOR P.C. BEAM AND DIAPHRAGM LAYOUT PLAN, SEE SHEET NO. B121.

FOR INTERMEDIATE AND END DIAPHRAGM DETAILS, SEE SHEET NO. B122.

FOR SLAB REINFORCING PLANS, SEE SHEET NOS. B124 AND B125.

FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, BAR BEND DETAILS AND SUPERSTRUCTURE BAR LIST, SEE SHEET NO. B126.

FOR EXPANSION JOINT DETAILS, SEE SHEET NO. B127.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

LONGITUDINAL SECTION (1 OF 2)

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B118

"PRELIMINARY PLANS - NOT FOR CONSTRUCTION"

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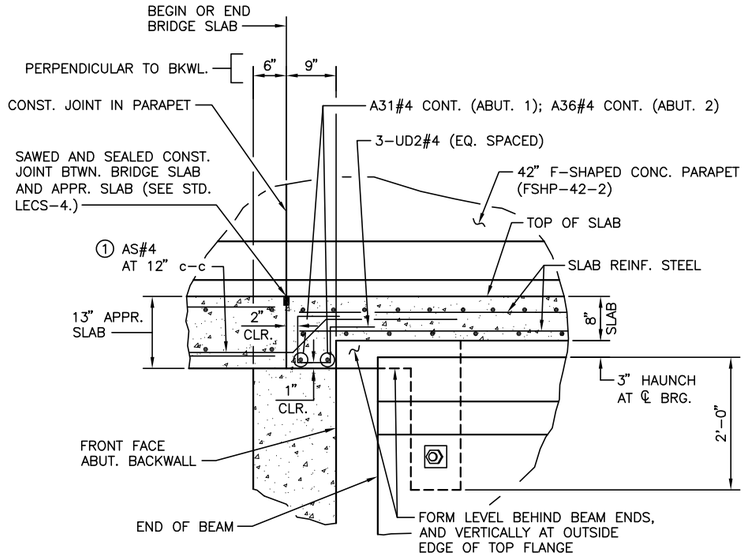
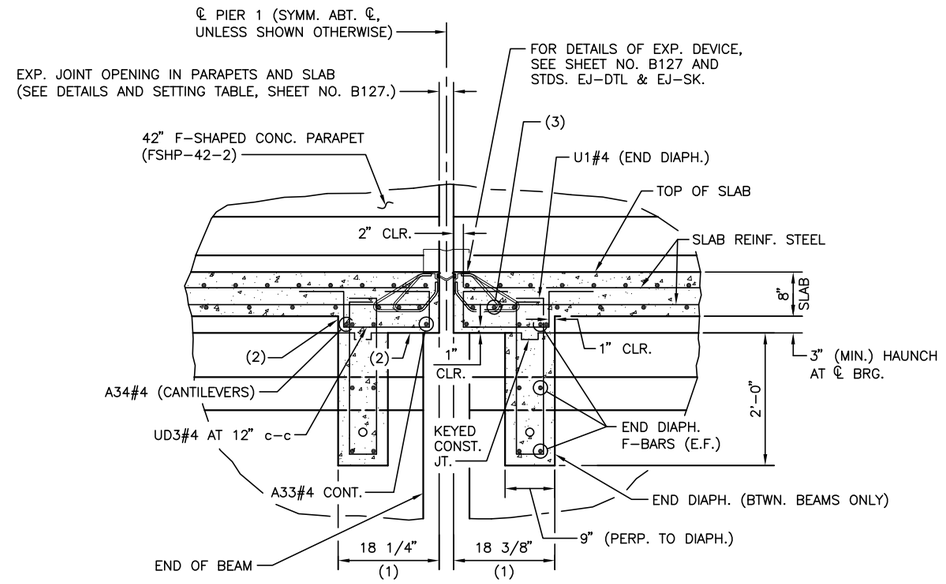
DESCRIPTION	DATE



DETAIL "A" (AT CANTILEVERS)

(TYP. AT ABUTS.)



DETAIL "B"

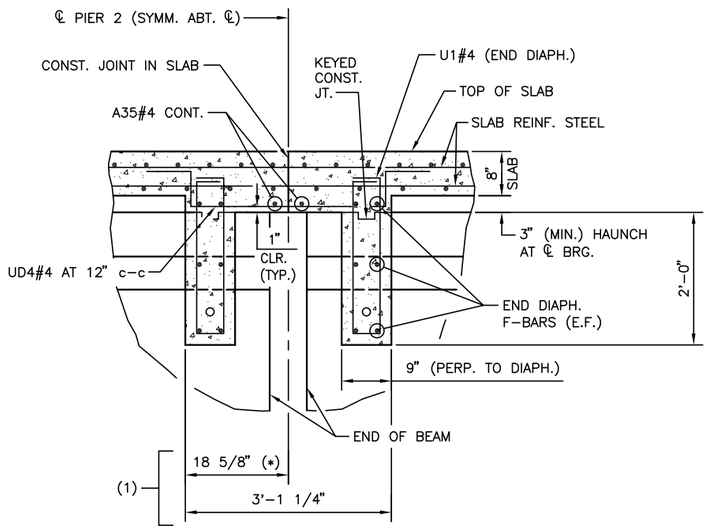
(FULL WIDTH OF BRIDGE SLAB, UNLESS NOTED.)
(AT PIER 1)

① AS#4 BARS SHALL BE TIED TO THE TOP MAT OF REINFORCING IN THE BRIDGE SLAB AND THE BOTTOM MAT OF REINFORCING IN THE APPROACH SLAB. THE BOTTOM LEG OF THE AS#4 BAR SHALL CROSS JOINT.

(1) HORIZONTAL DIMENSION PARALLEL TO P.C. BEAMS.

(2) FORM SLAB IN CANTILEVERS TO THESE LINES TO PROVIDE ADEQUATE CLEARANCE TO W1 & W2 EXPANSION DEVICE ANCHOR BARS.

(3) EJ2#5 W-BAR ANCHOR. USE BOTTOM TRANSVERSE A22 AND A23 BARS TO ANCHOR W-BARS EITHER SIDE.



DETAIL "C"

(DETAIL "C" EXTENDS OUT-OUT OF EXTERIOR BEAM TOP FLANGES.)
(SLAB THICKENING NOT REQUIRED IN CANTILEVERS.)
(AT PIER 2)

(*) AT 60° F ONLY.

E.F. – DENOTES EACH FACE

NOTES: ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ALL UD BARS SHALL BE PLACED PARALLEL TO THE P.C. BEAMS.

DETAILS "A", "B" AND "C" ARE SHOWN AND DIMENSIONED PARALLEL TO THE P.C. BEAMS, UNLESS OTHERWISE NOTED.

FOR P.C. BEAM AND DIAPHRAGM LAYOUT PLAN, SEE SHEET NO. B121.

FOR DIAPHRAGM DETAILS, SEE SHEET NO. B122.

FOR SLAB REINFORCING PLANS, SEE SHEET NOS. B124 AND B125.

FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, BAR BEND DETAILS AND SUPERSTRUCTURE BAR LIST, SEE SHEET NO. B126.

FOR EXPANSION JOINT DETAILS, SEE SHEET NO. B127.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

LONGITUDINAL SECTION (2 OF 2)

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B119

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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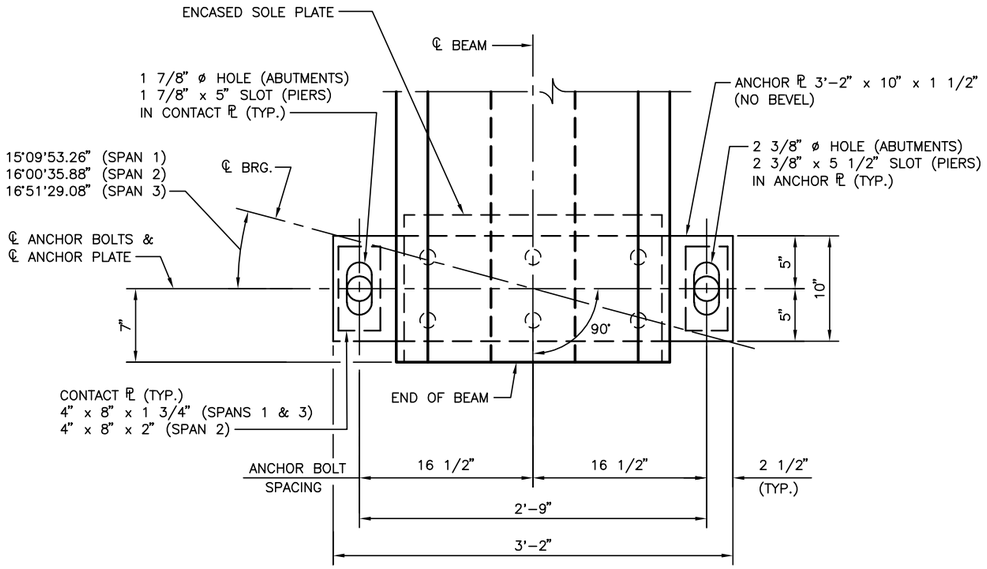
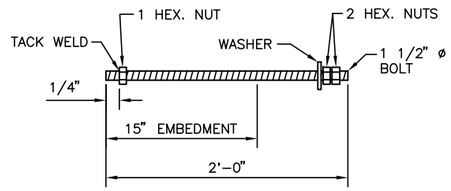
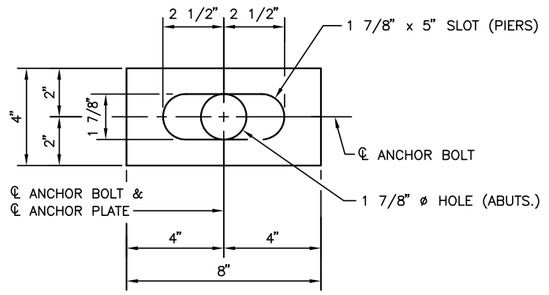
REVISIONS	
DESCRIPTION	DATE



PLAN VIEW



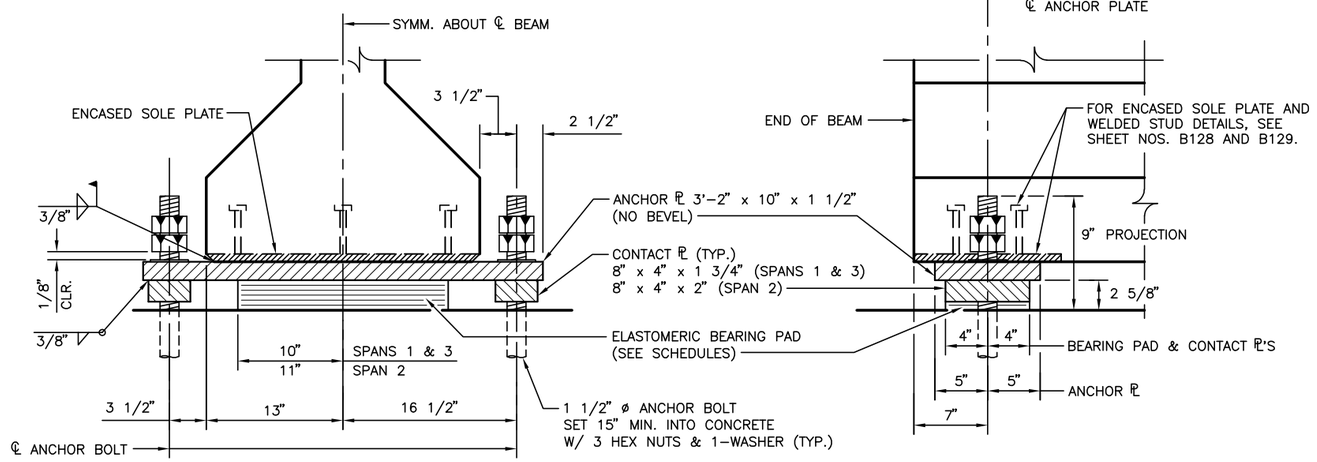
ANCHOR BOLT DETAIL



DETAIL OF CONTACT PLATES
1 3/4" THICK – SPANS 1 & 3
2" THICK – SPAN 2

BEARING PAD SCHEDULE FOR SPANS 1 & 3 (DURO 60) (20 REQ'D)
SIZE – 8" x 20" x 2 5/8" WITH 5 – 1/8" STEEL LAMINATES 2 – 1/4" EXTERIOR ELASTOMER LAYERS 4 – 3/8" INTERIOR ELASTOMER LAYERS

BEARING PAD SCHEDULE FOR SPAN 2 (DURO 60) (10 REQ'D)
SIZE – 8" x 22" x 2 5/8" WITH 5 – 1/8" STEEL LAMINATES 2 – 1/4" EXTERIOR ELASTOMER LAYERS 4 – 3/8" INTERIOR ELASTOMER LAYERS



END VIEW

SIDE VIEW

BEARING ASSEMBLY DETAILS

NOTES: BEARING ASSEMBLIES SHALL BE IN ACCORDANCE WITH SECTION 507 OF THE STANDARD SPECIFICATIONS, AND PER THE ANSI/AASHTO/AWS D1.6 STRUCTURAL WELDING CODE FOR STAINLESS STEEL.

PROVIDE STRUCTURAL STEEL FOR ANCHOR PLATES AND CONTACT PLATES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE B8M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M AND ASTM A320, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL.

ANCHOR PLATES FOR BEARING ASSEMBLIES SHALL BE MATCH-MARKED, SHIPPED LOOSE, AND FIELD WELDED TO THE ENCASED SOLE PLATES IN ORDER THAT MINOR HORIZONTAL ADJUSTMENT OF THE BEARING LOCATION MAY BE MADE IF NECESSARY.

METAL USED IN FIELD WELDS WILL NOT BE MEASURED FOR PAYMENT.

ALL BEARING PADS SHALL BE CENTERED BETWEEN ANCHOR BOLTS.

BONDING BETWEEN THE ANCHOR PLATES AND BEARING PADS WILL NOT BE REQUIRED.

AT THE TIME OF SETTING SLOTTED BEARING ASSEMBLIES (PIERS), THE SLOTS IN THE ANCHOR PLATES SHALL BE CENTERED ON THE ANCHOR BOLTS. THE DIMENSION FROM THE END OF THE BEAM TO THE CENTERLINE OF THE ANCHOR BOLTS MAY VARY FROM THAT SHOWN, DEPENDING ON THE SETTING TEMPERATURE.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

BEARING DETAILS

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B120

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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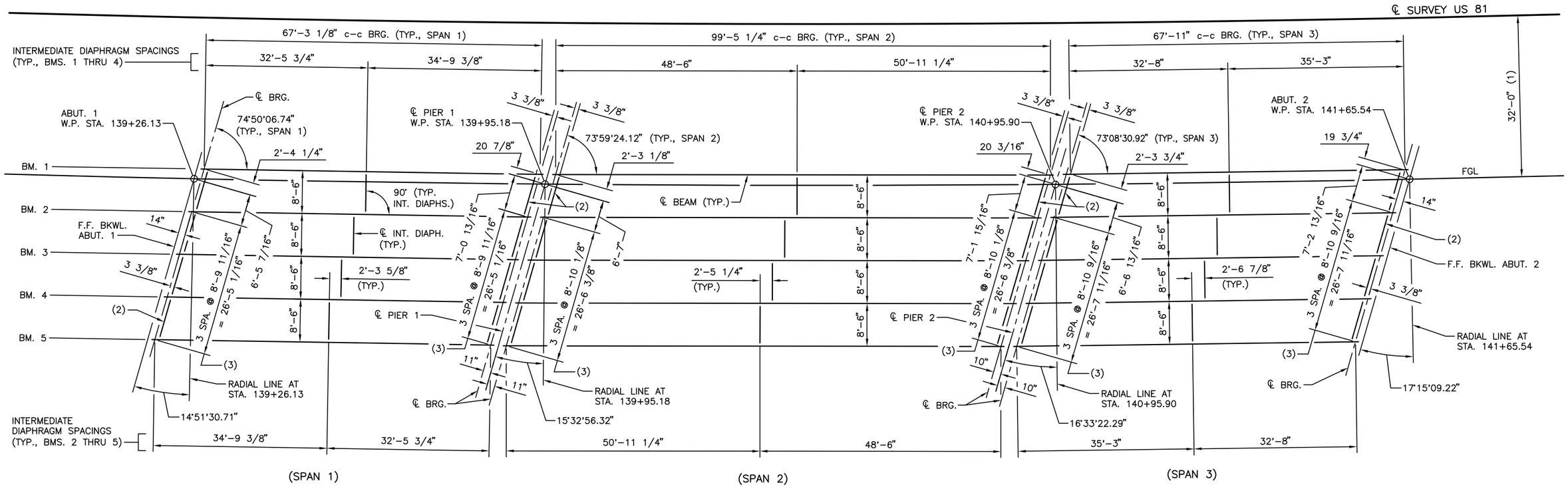
DESCRIPTION	DATE



P.C. BEAM AND DIAPHRAGM LAYOUT PLAN

(ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.)

(1) RADIAL DIMENSION.

(2) ℄ END DIAPHRAGM (ALONG SKEW)

(3) MEASURED ALONG ℄ BRG.

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

THE FRONT FACE BKWL., ℄ BEARING, ℄ END DIAPHRAGM AND ℄ PIER LINES ARE PARALLEL.

FOR ℄ US 81 CURVE DATA, SEE SHEET NO. B099.

NOTE: FOR INTERMEDIATE AND END DIAPHRAGM DETAILS, SEE SHEET NO. B122.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US–81 OVER QUAIL RD.

P.C. BEAM AND DIAPHRAGM LAYOUT PLAN

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B121

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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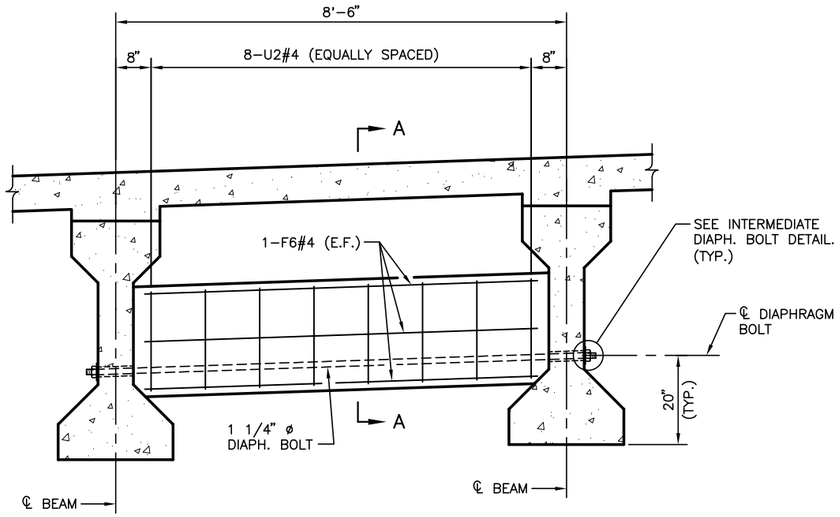
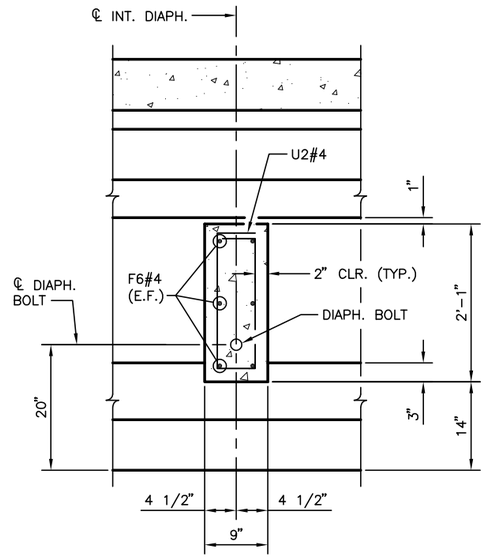
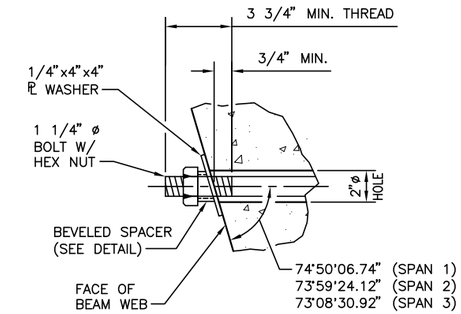
DESCRIPTION	DATE



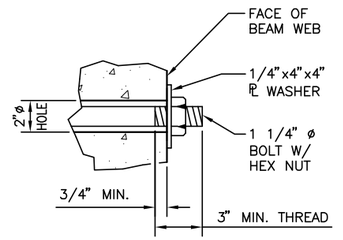
TYPICAL INTERMEDIATE DIAPHRAGM



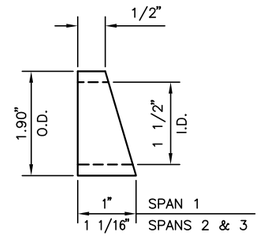
SECTION A-A



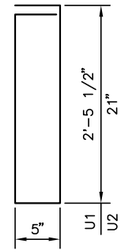
END DIAPHRAGM BOLT DETAIL
(EXTERIOR BEAMS ONLY)



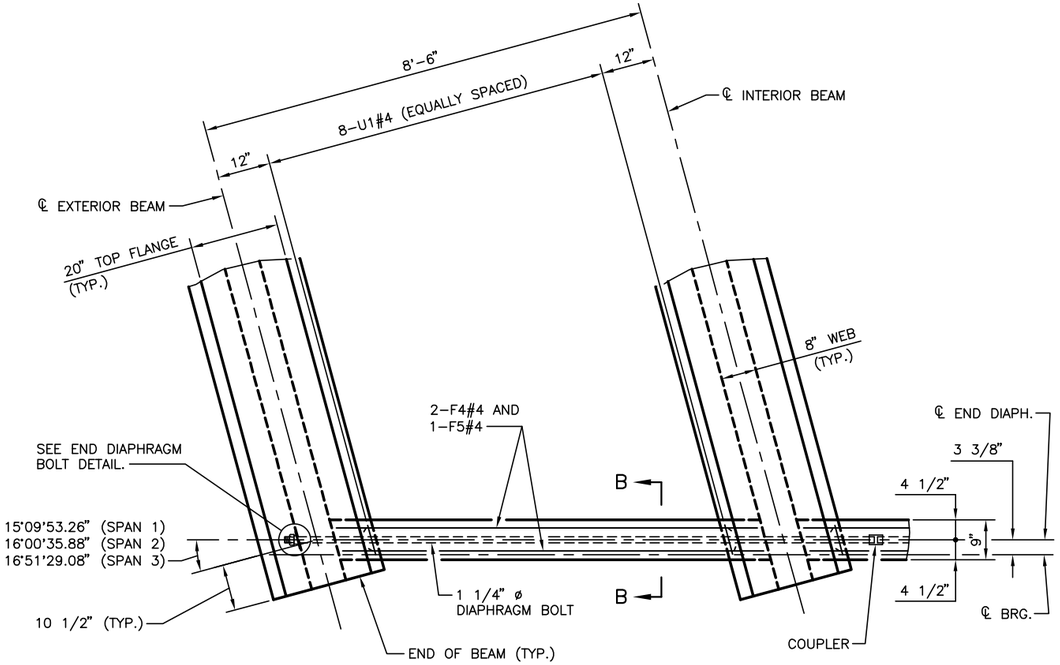
INTERMEDIATE DIAPHRAGM BOLT DETAIL



BEVELED SPACER
1 1/2" ø EXTRA STRONG PIPE SLEEVE
(END DIAPHRAGMS ONLY)

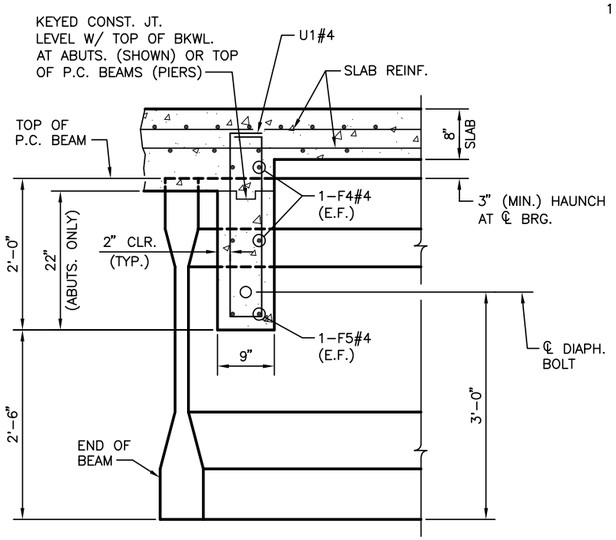


U1#4 x 6'-2"
U2#4 x 4'-9"
(USE STIRRUP BEND DIAMETERS)



PART PLAN OF END DIAPHRAGM
(TYPICAL BTWN. BEAMS, AT ABUTMENTS AND PIERS.)

E.F. – DENOTES EACH FACE



SECTION B-B

NOTES: STRUCTURAL STEEL FOR DIAPHRAGM BOLTS, SPACERS AND PLATE WASHERS SHALL CONFORM TO AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). A #10 REINFORCING BAR CONFORMING TO AASHTO M31, GRADE 60, AND THREADED AT THE ENDS AS SHOWN MAY BE SUBSTITUTED FOR THE DIAPHRAGM BOLT AT NO ADDITIONAL COST TO THE DEPARTMENT. HEX NUTS SHALL CONFORM TO AASHTO M291 (ASTM A563).

PAINT EXPOSED DIAPHRAGM BOLTS, HEX NUTS, SPACERS AND PLATE WASHERS WITH TWO (2) COATS OF ZINC RICH PAINT (6 MIL. MIN. THICKNESS) AFTER ASSEMBLY. ALL COSTS FOR DIAPHRAGM BOLTS, PLATE WASHERS, SPACERS AND HEX NUTS TO BE INCLUDED IN PRICE BID FOR STRUCTURAL STEEL.

ALL COSTS FOR DIAPHRAGM BOLT COUPLERS TO BE INCLUDED IN OTHER ITEMS.

FOR P.C. BEAM AND DIAPHRAGM LAYOUT PLAN, SEE SHEET NO. B121.

U1 AND U2 BARS SHALL BE PLACED PARALLEL TO THE P.C. BEAMS.

FOR ADDITIONAL REINFORCING DETAILS OVER END DIAPHRAGMS, SEE SHEET NOS. B117 THRU B119.

FOR SUPERSTRUCTURE BAR LIST, SEE SHEET NO. B126.

CONCRETE FOR ALL INTERMEDIATE AND END DIAPHRAGMS SHALL BE CLASS AA CONCRETE.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

DIAPHRAGM DETAILS

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B122

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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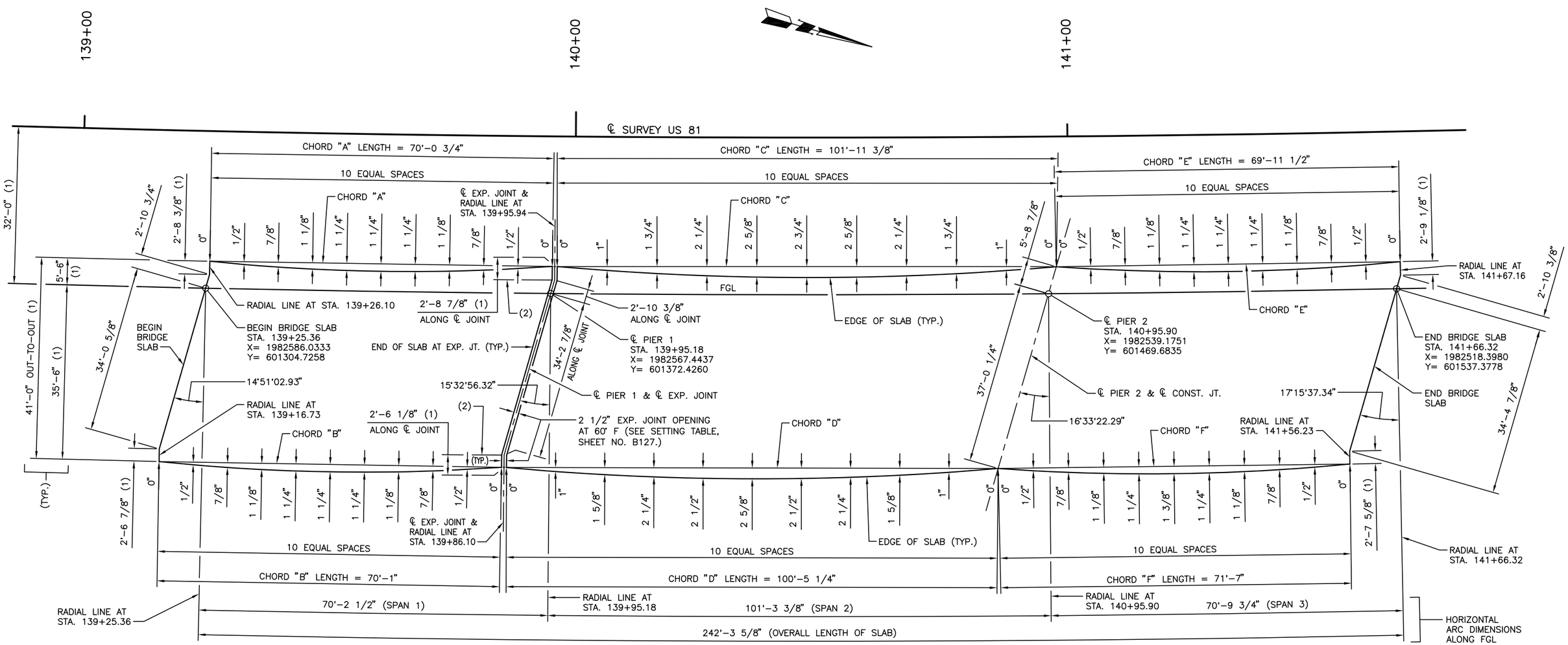
REVISIONS	
DESCRIPTION	DATE



SLAB PLAN SHOWING CANTILEVER LAYOUT
(NOT TO SCALE)

℄ SURVEY US 81
CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

THE BEGIN/END BRIDGE SLAB AND ℄ PIER LINES ARE PARALLEL.

(1) RADIAL DIMENSION.

(2) BEND POINT AT ℄ EXP. JOINT.

NOTES: THE CURVED EDGES OF THE BRIDGE SLAB WITHIN EACH SPAN ARE EXAGGERATED TO CLARIFY THE DIMENSIONS AND CHORD LINES. IN REALITY, THE EDGES OF THE SLAB FOLLOW A CONSTANT RADIUS AND ARE PARALLEL TO THE FGL AND THE ℄ SURVEY US 81.

PARAPETS ARE NOT SHOWN FOR CLARITY.

ALL PLAN DIMENSIONS ARE HORIZONTAL DIMENSIONS.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

SLAB PLAN SHOWING CANTILEVER LAYOUT

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B123

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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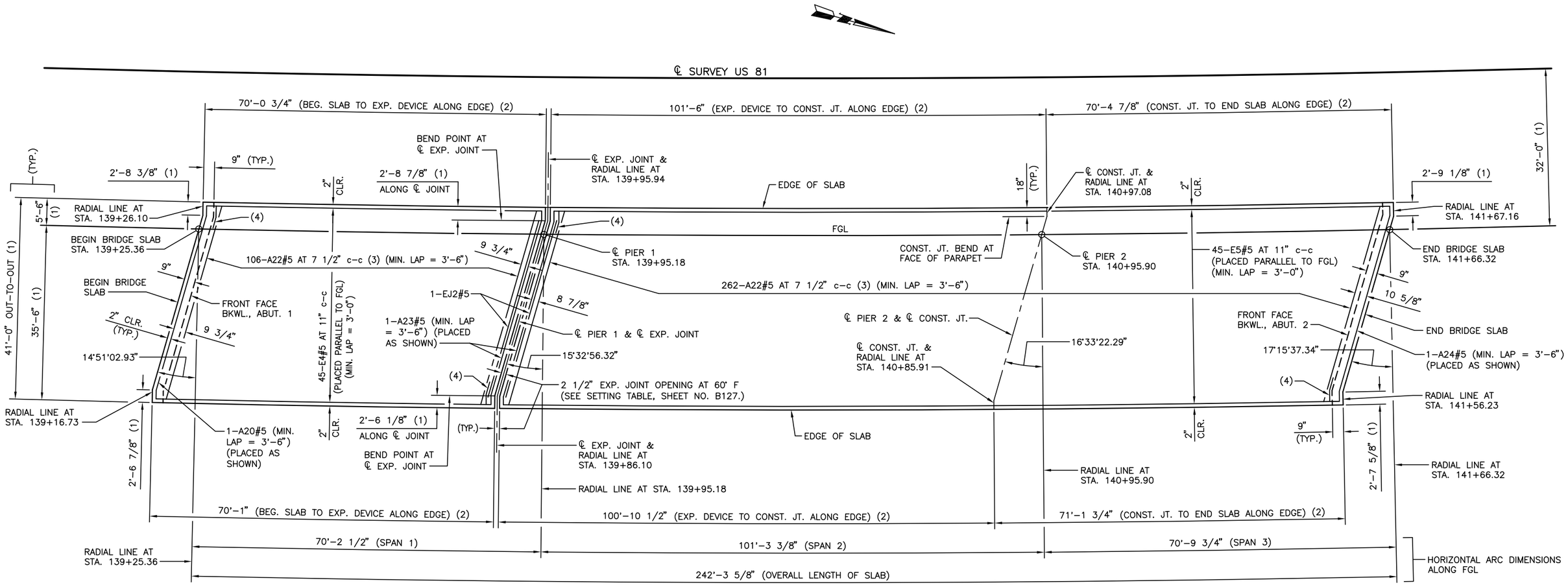
REVISIONS	
DESCRIPTION	DATE



BOTTOM SLAB REINFORCING PLAN
(NOT TO SCALE)

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

THE BEGIN/END BRIDGE SLAB, FRONT FACE BKWL. AND ℄ PIER LINES ARE PARALLEL.

(1) RADIAL DIMENSION.

(2) MEASURED ALONG CURVED EDGE OF SLAB.

(3) TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE SKEW AND SPACED PERPENDICULAR TO THE SKEW.

(4) 1-A21#5 (LAP 3'-0" LEG W/ FIRST OR LAST A22 BAR AS SHOWN).

℄ SURVEY US 81
CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

NOTES: ALL PLAN DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ALL LAPS SHALL BE STAGGERED.

THE A20, A21, A23 AND A24 BARS SHALL BE PLACED AT THE SAME LEVEL AS THE A22#5 BARS.

E5 BARS SHALL BE CONTINUOUS ACROSS THE CONSTRUCTION JOINT OVER PIER 2. E5 BAR LAPS SHALL NOT BE MADE WITHIN 10' OF THE ℄ PIER 2.

UD1 THRU UD4 AND A31 THRU A36 BARS IN ABUTMENT AND PIER CONCRETE END DIAPHRAGMS ARE NOT SHOWN FOR CLARITY. SEE DETAILS "A", "B" AND "C" ON SHEET NOS. B118 AND B119 FOR PLACEMENT DETAILS. THIS STEEL SHALL BE TIED IN PLACE WITH AND BELOW THE BOTTOM MAT OF SLAB REINFORCING STEEL.

FS2 BARS IN PARAPETS SHALL BE TIED IN PLACE PRIOR TO SLAB POUR. FOR DETAILS AND BAR SPACINGS, SEE STD. FSHP-42-2 AND SHEET NO. B125.

FOR EXPANSION JOINT DETAILS, SEE SHEET NO. B127, AND STDS. EJ-SK AND EJ-DTL. W1 AND W2 EXPANSION JOINT ANCHOR BARS SHALL BE ANCHORED WITH THE A22, A23 AND EJ2 BARS AS SHOWN ON SHEET NO. B119.

FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, BAR BEND DETAILS AND SUPERSTRUCTURE BAR LIST, SEE SHEET NO. B126.

FOR TYPICAL SECTION AND LONGITUDINAL SECTION, SEE SHEET NOS. B117-B119.

FOR SLAB PLAN SHOWING CANTILEVER LAYOUT AND OTHER DIMENSIONS NOT SHOWN ON THIS SHEET, SEE SHEET NO. B123.

FOR TOP SLAB REINFORCING PLAN AND PARAPET LAYOUT, SEE SHEET NO. B125.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

BOTTOM SLAB REINFORCING PLAN

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B124

"PRELIMINARY PLANS - NOT FOR CONSTRUCTION"

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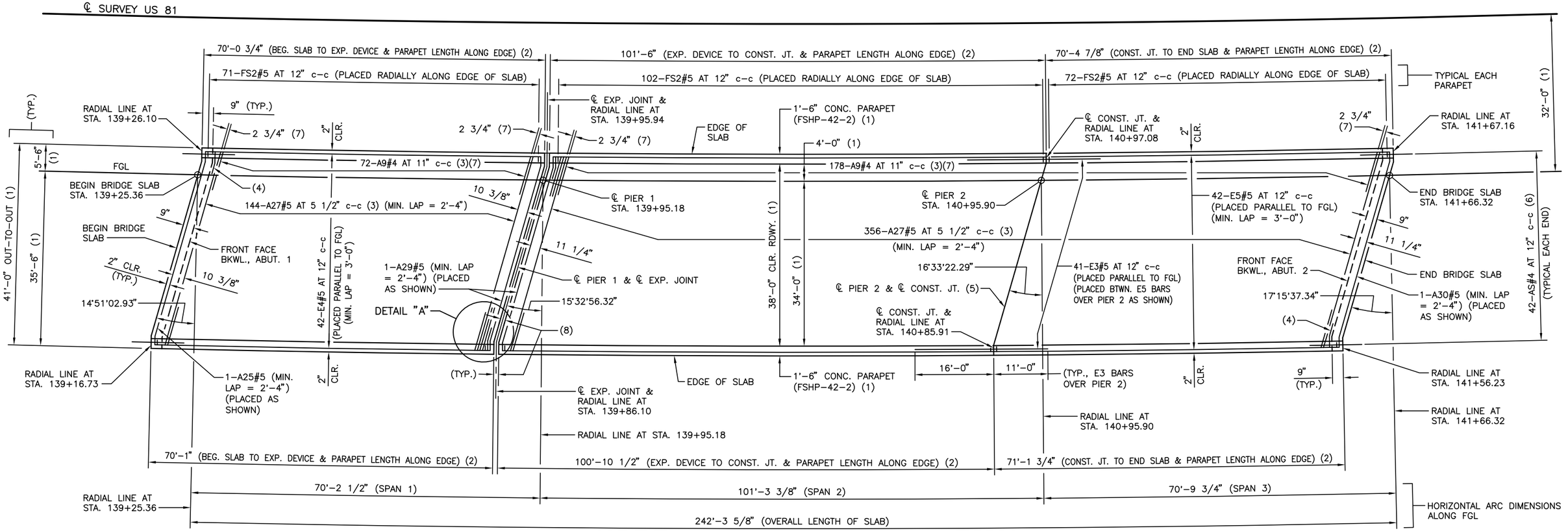
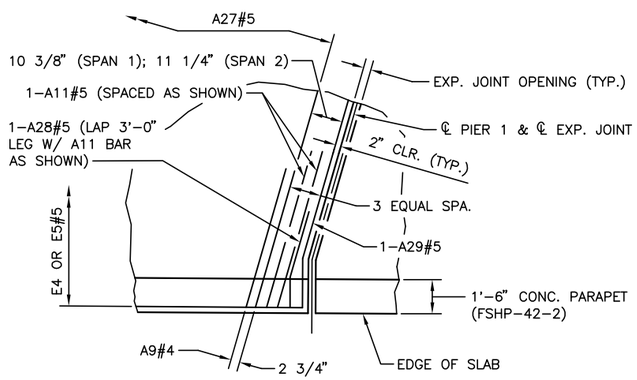
REVISIONS	
DESCRIPTION	DATE



TOP SLAB REINFORCING PLAN AND PARAPET LAYOUT
(NOT TO SCALE)



DETAIL "A"
(TYP., OBTUSE CORNERS OF SLAB AT PIER 1.)
(FS2 BARS NOT SHOWN FOR CLARITY.)

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

THE BEGIN/END BRIDGE SLAB, FRONT FACE BKWL. AND ℄ PIER LINES ARE PARALLEL.

NOTES:

ALL PLAN DIMENSIONS ARE HORIZONTAL DIMENSIONS.

ALL LAPS SHALL BE STAGGERED.

THE A11, A25, A26 AND A28 THRU A30 BARS SHALL BE PLACED AT THE SAME LEVEL AS THE A9 AND A27 BARS.

E5 BARS SHALL BE CONTINUOUS ACROSS THE CONSTRUCTION JOINT OVER PIER 2. E5 BAR LAPS SHALL NOT BE MADE WITHIN 10' OF THE ℄ PIER 2.

FS2 BARS IN PARAPETS SHALL BE TIED IN PLACE PRIOR TO SLAB POUR. FOR ADDITIONAL DETAILS, SEE STD. FSHP-42-2.

FOR CONTROL CRACK JOINT LOCATIONS IN PARAPETS, SEE STD. FSHP-42-2.

FOR EXPANSION JOINT DETAILS, SEE SHEET NO. B127, AND STDS. EJ-SK AND EJ-DTL.

FOR BRIDGE SLAB AND CONSTRUCTION JOINT NOTES, BAR BEND DETAILS AND SUPERSTRUCTURE BAR LIST, SEE SHEET NO. B126.

FOR TYPICAL SECTION AND LONGITUDINAL SECTION, SEE SHEET NOS. B117-B119.

FOR SLAB PLAN SHOWING CANTILEVER LAYOUT AND OTHER DIMENSIONS NOT SHOWN ON THIS SHEET, SEE SHEET NO. B123.

℄ SURVEY US 81 CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

(1) RADIAL DIMENSION.

(2) MEASURED ALONG CURVED EDGE OF SLAB.

(3) TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE SKEW AND SPACED PERPENDICULAR TO THE SKEW.

(4) 1-A26#5 (LAP 3'-0" LEG W/ FIRST OR LAST A27 BAR AS SHOWN)

(5) SEAL CONSTRUCTION JOINT WITH HIGH MOLECULAR WEIGHT METHACRYLATE OR EPOXY RESIN.

(6) SEE DETAILS "A", SHEET NOS. B118 AND B119.

(7) TYPICAL EACH CANTILEVER.

(8) 2 1/2" EXP. JOINT OPENING AT 60° F (SEE SETTING TABLE, SHEET NO. B127.)

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

TOP SLAB REINFORCING PLAN AND PARAPET LAYOUT

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B125

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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REVISIONS	
DESCRIPTION	DATE

FINISHED TOP OF DECK ELEVATIONS												
SPAN	BEAM NO.	0.0L	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	1.0L
1	1	1200.51	1200.46	1200.40	1200.35	1200.29	1200.24	1200.19	1200.13	1200.08	1200.03	1199.98
	2	1200.82	1200.76	1200.71	1200.65	1200.60	1200.55	1200.49	1200.44	1200.39	1200.34	1200.28
	3	1201.12	1201.07	1201.02	1200.96	1200.91	1200.85	1200.80	1200.75	1200.70	1200.64	1200.59
	4	1201.43	1201.38	1201.32	1201.27	1201.22	1201.16	1201.11	1201.06	1201.00	1200.95	1200.90
	5	1201.74	1201.68	1201.63	1201.58	1201.52	1201.47	1201.42	1201.36	1201.31	1201.26	1201.21
2	1	1199.96	1199.88	1199.80	1199.72	1199.64	1199.56	1199.48	1199.40	1199.33	1199.25	1199.17
	2	1200.27	1200.19	1200.11	1200.03	1199.95	1199.87	1199.79	1199.71	1199.63	1199.56	1199.48
	3	1200.58	1200.50	1200.42	1200.34	1200.26	1200.18	1200.10	1200.02	1199.94	1199.87	1199.79
	4	1200.89	1200.80	1200.72	1200.64	1200.56	1200.48	1200.41	1200.33	1200.25	1200.17	1200.10
	5	1201.19	1201.11	1201.03	1200.95	1200.87	1200.79	1200.71	1200.64	1200.56	1200.48	1200.41
3	1	1199.15	1199.10	1199.04	1198.99	1198.94	1198.88	1198.83	1198.77	1198.72	1198.67	1198.62
	2	1199.46	1199.41	1199.35	1199.30	1199.24	1199.19	1199.14	1199.08	1199.03	1198.98	1198.92
	3	1199.77	1199.72	1199.66	1199.61	1199.55	1199.50	1199.45	1199.39	1199.34	1199.29	1199.23
	4	1200.08	1200.03	1199.97	1199.92	1199.86	1199.81	1199.76	1199.70	1199.65	1199.60	1199.54
	5	1200.39	1200.34	1200.28	1200.23	1200.17	1200.12	1200.07	1200.01	1199.96	1199.91	1199.85

BRIDGE SLAB AND CONSTRUCTION JOINT NOTES:

EPOXY-COAT OR GALVANIZE STEEL ITEMS USED TO FACILITATE CONSTRUCTION, SUCH AS FORM HANGER ASSEMBLIES, TY-BAR CLIPS, INSERT WELD ANCHORS, OR OTHER APPURTENANCES THAT WILL REMAIN IN PLACE IN THE BRIDGE SLAB. EPOXY-COAT IN ACCORDANCE WITH AASHTO M284 OR GALVANIZE IN ACCORDANCE WITH AASHTO M111.

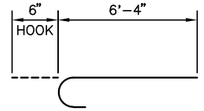
THE BRIDGE SLAB SHALL BE POURED ONE SPAN AT A TIME, IN THE UPHILL DIRECTION. NO ADJACENT SPAN AT PIER 2 SHALL BE POURED UNTIL AT LEAST 48 HOURS AFTER THE OPPOSITE SPAN POUR HAS BEEN COMPLETED.

THE FINISHING MACHINE SHALL BE POSITIONED TO OPERATE PARALLEL TO THE SKEW OF THE BRIDGE.

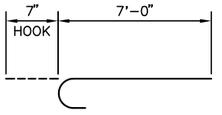
THE CONSTRUCTION JOINT OVER PIER 2 SHALL NOT BE KEYED. IN THE EVENT OF AN EMERGENCY, HALT THE PLACEMENT OF CONCRETE BY FORMING A CONSTRUCTION JOINT PARALLEL TO THE SKEW OR AS DIRECTED BY THE ENGINEER. LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THRU ALL TRANSVERSE CONSTRUCTION JOINTS. DO NOT PLACE ANY HEAVY EQUIPMENT ON THE FINISHED BRIDGE SLAB WITHIN 5'-0" OF ANY CONSTRUCTION JOINT UNTIL CONCRETE IS IN PLACE ON BOTH SIDES OF THE RESPECTIVE JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT.

SEAL ALL BRIDGE SLAB CONSTRUCTION JOINTS WITH HIGH MOLECULAR WEIGHT METHACRYLATE OR EPOXY RESIN IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS. INCLUDE ALL COSTS OF EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER OR EPOXY RESIN IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION". INCLUDE ALL COSTS OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER OR EPOXY RESIN IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". THE DEPARTMENT WILL NOT MEASURE THE PREPARATION AND SEALER RESIN ON EMERGENCY CONSTRUCTION JOINTS FOR PAYMENT.

DO NOT SAW CUT GROOVE WITHIN 6" OF ANY CONSTRUCTION JOINT.



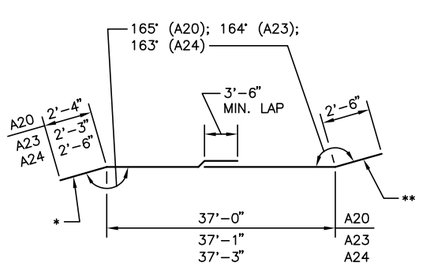
A9#4 x 6'-10"



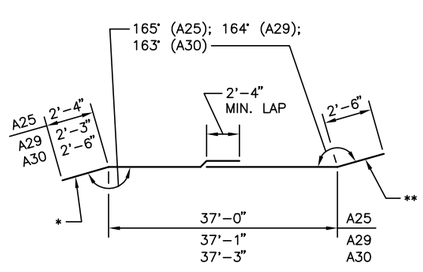
A11#5 x 7'-7"

SUPERSTRUCTURE BAR LIST				
MARK	NO.	SIZE	SHAPE	LENGTH
		(EPOXY COATED)		
A9	500	4	BNT.	6'-10"
A11	4	5	BNT.	7'-7"
A20	1	5	BNT.	45'-4" (1)
A21	4	5	BNT.	5'-6"
A22	368	5	STR.	46'-1" (1)(2)
A23	2	5	BNT.	45'-4" (1)
A24	1	5	BNT.	45'-9" (1)
A25	1	5	BNT.	44'-2" (3)
A26	2	5	BNT.	5'-7"
A27	500	5	BNT.	46'-1" (2)(3)
A28	2	5	BNT.	4'-7"
A29	2	5	BNT.	44'-2" (3)
A30	1	5	BNT.	44'-7" (3)
A31	2	4	BNT.	43'-10" (4)
A32	8	4	STR.	7'-4"
A33	2	4	BNT.	43'-11" (4)
A34	4	4	STR.	2'-8"
A35	2	4	STR.	36'-9"
A36	2	4	BNT.	44'-3" (4)
AS	84	4	BNT.	4'-11"
E3	41	5	STR.	27'-0"
E4	87	5	STR.	72'-10" (5)
E5	87	5	STR.	183'-9" (6)
EJ2	2	5	STR.	43'-0" (1)
F4	96	4	STR.	6'-10"
F5	48	4	STR.	7'-11"
F6	72	4	STR.	7'-4"
FS2	490	5	BNT.	7'-4" (7)
U1	192	4	BNT.	6'-2"
U2	96	4	BNT.	4'-9"
UD1	64	4	BNT.	4'-11 1/2"
UD2	22	4	BNT.	3'-1"
UD3	84	4	BNT.	3'-8"
UD4	36	4	BNT.	5'-4"

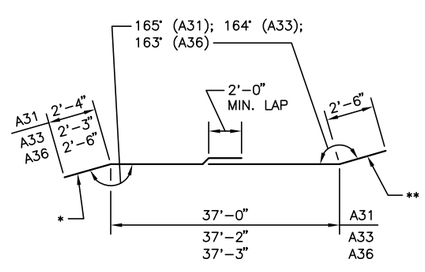
(1) LENGTH INCLUDES ONE (1) 3'-6" LAP SPLICE.
(2) LAP IS REQUIRED TO ACHIEVE PROPER FIT AND CLEARANCES.
(3) LENGTH INCLUDES ONE (1) 2'-4" LAP SPLICE.
(4) LENGTH INCLUDES ONE (1) 2'-0" LAP SPLICE.
(5) LENGTH INCLUDES ONE (1) 3'-0" LAP SPLICE.
(6) LENGTH INCLUDES FOUR (4) 3'-0" LAP SPLICES.
(7) FOR BAR BEND DETAILS, SEE STD. FSHP-42-2.



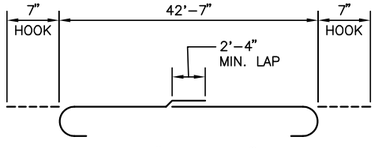
A20#5 x 45'-4"
A23#5 x 45'-4"
A24#5 x 45'-9"



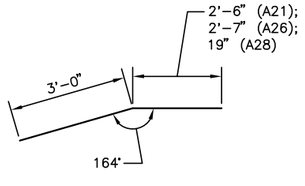
A25#5 x 44'-2"
A29#5 x 44'-2"
A30#5 x 44'-7"



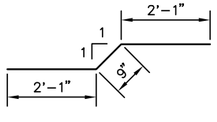
A31#4 x 43'-10"
A33#4 x 43'-11"
A36#4 x 44'-3"



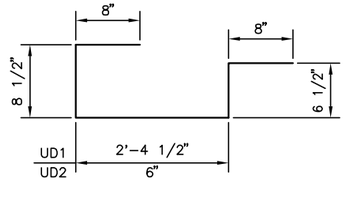
A27#5 x 46'-1"



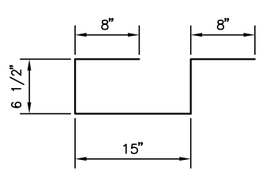
A21#5 x 5'-6"
A26#5 x 5'-7"
A28#5 x 4'-7"



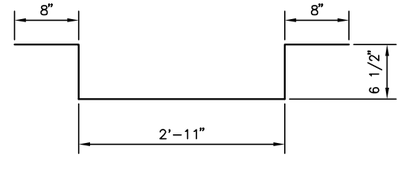
AS#4 x 4'-11"



UD1#4 x 4'-11 1/2"
UD2#4 x 3'-1"



UD3#4 x 3'-8"



UD4#4 x 5'-4"

BAR BEND DETAILS

(USE STIRRUP BEND DIAMETERS FOR ALL UD BARS.)

* EAST EDGE OF SLAB.

** WEST EDGE OF SLAB.

NOTE: FOR U1 AND U2 BAR BEND DETAILS, SEE SHEET NO. B122.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

MISCELLANEOUS SUPERSTRUCTURE DETAILS

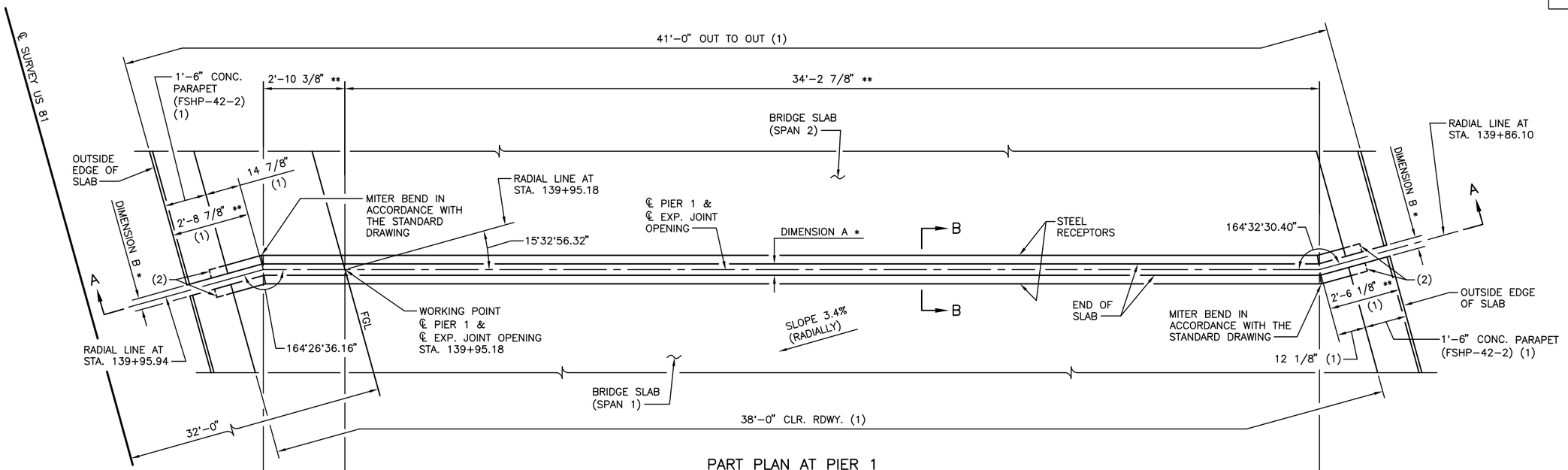
℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B126

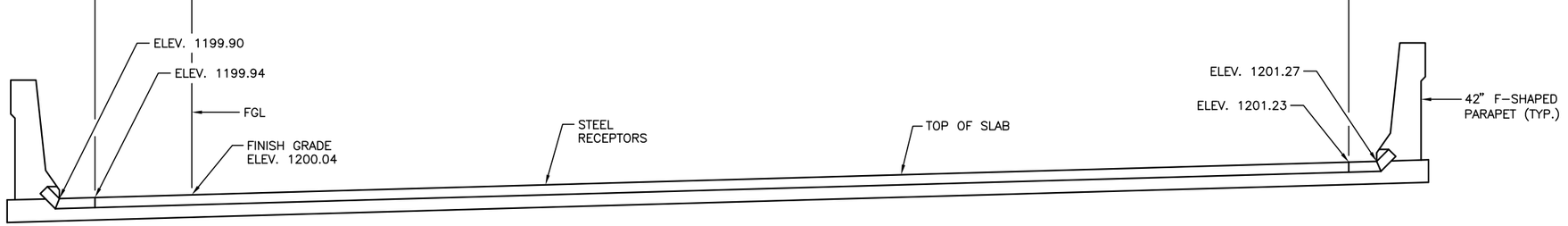
"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

M:\W2M Projects\Project Files\M179\Final Design C & D\B127-244281J-EXPANSION JOINT DETAILS.dwg 5/18/2020 3:12:42 PM

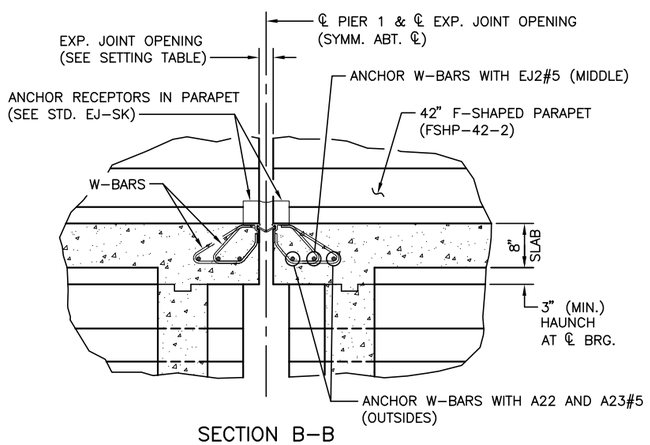
REVISIONS	
DESCRIPTION	DATE



PART PLAN AT PIER 1
(NOT TO SCALE)



SECTION A-A



SECTION B-B

EXPANSION JOINT SETTING TABLE AT PIER 1 (PERPENDICULAR TO ℄ JOINT)		
TEMPERATURE	DIMENSION A	DIMENSION B
0°F	3 1/2"	3 9/16"
15°F	3 1/4"	3 5/16"
30°F	3"	3"
45°F	2 3/4"	2 3/4"
60°F	2 1/2"	2 1/2"
75°F	2 1/4"	2 1/4"
90°F	2"	2"
105°F	1 3/4"	1 11/16"
120°F	1 1/2"	1 7/16"

℄ SURVEY US 81
CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

(1) RADIAL DIMENSION.

(2) ANCHOR RECEPTORS IN PARAPET (SEE STD. EJ-SK)

* EXPANSION JOINT OPENING - SEE SETTING TABLE

** ALONG ℄ JOINT

NOTE: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

NOTE: FOR ADDITIONAL DETAILS AND EXPANSION JOINT NOTES, SEE STDS. EJ-SK AND EJ-DTL.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

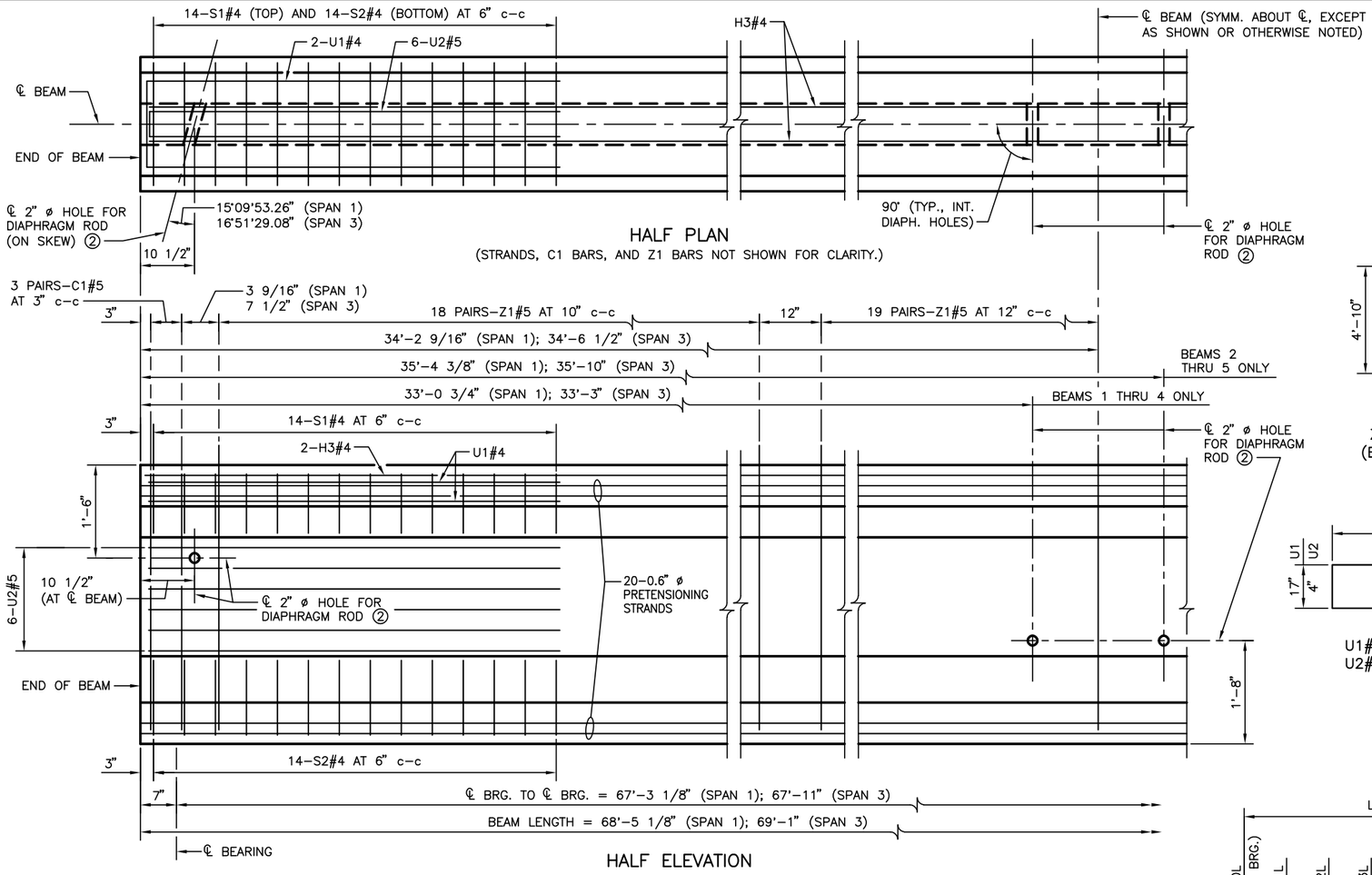
EXPANSION JOINT DETAILS

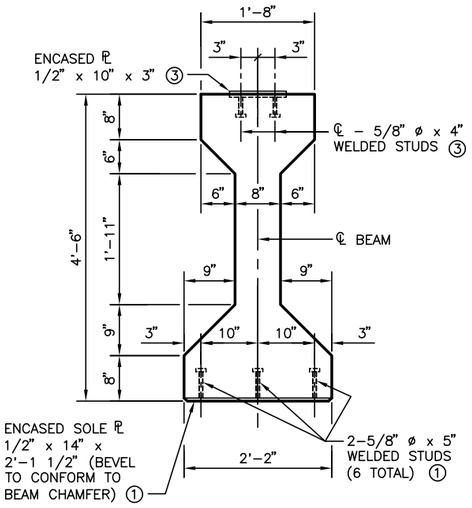
℄ STA. 140+45.84

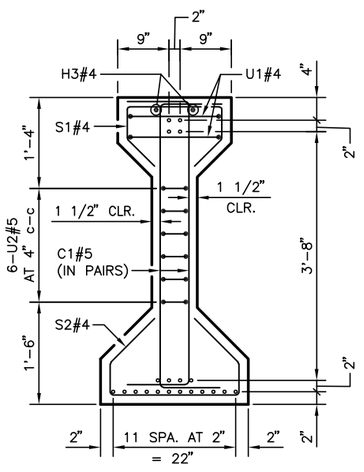
Job Piece No. 24428(13) Sheet No. B127

"PRELIMINARY PLANS - NOT FOR CONSTRUCTION"

M:\W2M Projects\Project Files\M179\Final Design C & D\B128-2442813-70' TYPE IV PC BEAM DETAILS.dwg 5/18/2020 3:15:10 PM

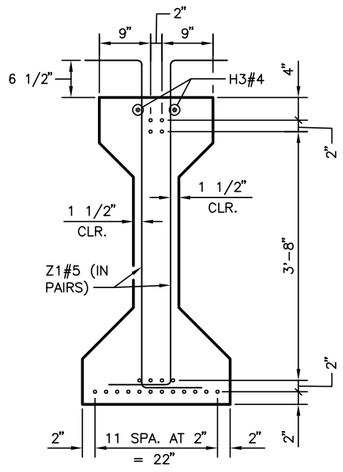






NOTE: WELDED STUDS & ENCASED PLATES OMITTED FOR CLARITY.

∘ – DENOTES PRESTRESSING STRAND



20 – 0.6" DIA. STRANDS

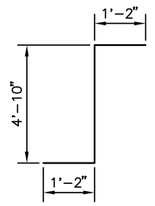
PC BEAM NOTES:

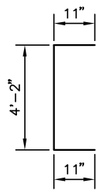
COMPRESSIVE STRENGTH: PROVIDE CONCRETE WITH A COMPRESSIVE STRENGTH OF 6,000 PSI AT TRANSFER OF PRESTRESS AND 8,000 PSI AT 28 DAYS.

STRAND TYPE: PROVIDE LOW–RELAXATION STRANDS HAVING A NOMINAL DIAMETER OF 0.6" WITH AN ULTIMATE TENSILE STRENGTH OF 270 KSI.

LRFR INVENTORY RATING FACTOR = 1.32
LFD OPERATING RATING = HS 48

FOR ADDITIONAL DESIGN DATA, SEE SHEET NO. B101.

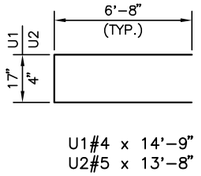


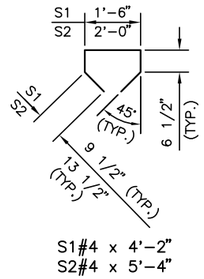


① INSTALL AT BOTH ENDS OF EACH BEAM.

② SHIFT PLAIN REINFORCING STEEL AS NECESSARY TO PROVIDE 1" MIN. CLR. TO DIAPHRAGM ROD HOLE.

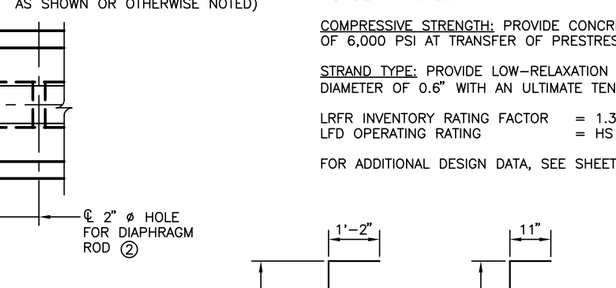
③ INSTALL AT BEAM ENDS OVER PIER 1 ONLY.





BAR BEND DETAILS

NOTE: ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.



DEAD LOAD DEFLECTION DIAGRAM

NOTE: THE DEAD LOAD DEFLECTIONS SHOWN ABOVE ARE DUE TO THE SLAB, HAUNCH, DIAPHRAGMS, PARAPETS AND STAY–IN–PLACE FORMS, AND ARE THEORETICAL ONLY. (DEFLECTIONS DO NOT INCLUDE BEAM WEIGHT OR FUTURE WEARING SURFACE.) DEAD LOAD DEFLECTIONS SHALL BE TAKEN INTO CONSIDERATION IN FORMING AND POURING THE SLAB AND HAUNCHES.

NOTES: ALL DIMENSIONS AND DETAILS ARE TYPICAL FOR SPANS 1 AND 3, UNLESS OTHERWISE SHOWN.

FOR 101' TYPE IV P.C. BEAM DETAILS, SEE SHEET NO. B129.

FOR TYPICAL SECTION, SEE SHEET NO. B117.

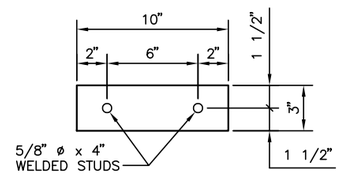
FOR LONGITUDINAL SECTION, SEE SHEET NO. B118.

FOR BEARING DETAILS, SEE SHEET NO. B120.

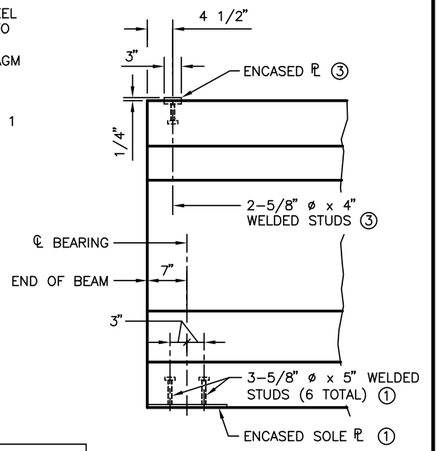
FOR P.C. BEAM LAYOUT AND DIAPHRAGM DETAILS, SEE SHEET NOS. B121 AND B122.

FOR 1/10TH POINT FINISH GRADE ELEVATIONS, SEE SHEET NO. B126.

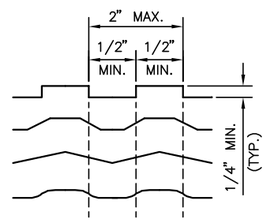
REVISIONS	
DESCRIPTION	DATE



TOP VIEW OF ENCASED PLATE ③
(1/2" THICK ℙ)



ENCASED PLATE DETAILS AT END OF BEAM



INTENTIONALLY ROUGHENED SURFACE EXAMPLES

INTENTIONALLY ROUGHEN THE ENTIRE TOP SURFACE OF THE P.C. BEAMS TO A MINIMUM HEIGHT OF 1/4" OVER A MAXIMUM PITCH OF 2" MEASURED LONGITUDINALLY ALONG THE LENGTH OF THE BEAM. PROVIDE A CREST AND TROUGH ASSOCIATED WITH THE HEIGHT OF NOT LESS THAN 1/2", THE FULL WIDTH OF THE TOP FLANGE. PRODUCE THE ROUGHENED SURFACE BY USING A SPECIAL TROWEL TO FORM ONE OF THE SURFACES SHOWN IN THE DETAILS, BY CLEANING THE CONCRETE SURFACE WITH A STIFF WIRE BRUSH (OR BLASTING) TO EXPOSE THE AGGREGATE TO A HEIGHT OF 1/4", OR BY USING ANOTHER APPROVED METHOD. SUBMIT THE METHOD TO BE USED FOR APPROVAL BY THE ENGINEER. REPAIR ANY DAMAGE TO REINFORCEMENT'S EPOXY COATING BEFORE PLACEMENT OF SLAB CONCRETE.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US–81 OVER QUAIL RD.

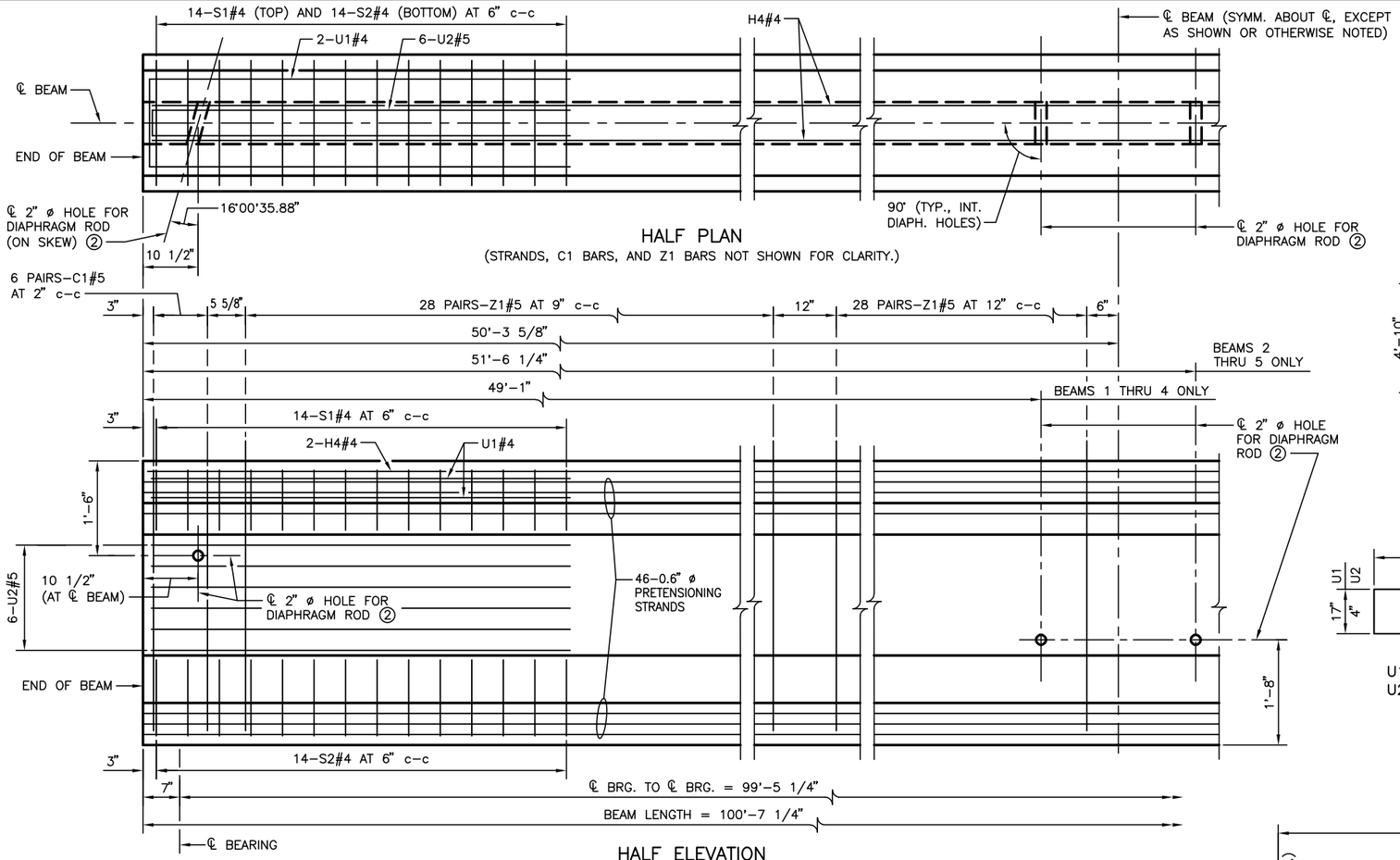
70' TYPE IV P.C. BEAM DETAILS

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B128

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

M:\W2M Projects\Project Files\M179\Final Design C & D\B129-244281S-101' TYPE IV PC BEAM DETAILS.dwg 5/18/2020 3:16:39 PM



HALF PLAN

(STRANDS, C1 BARS, AND Z1 BARS NOT SHOWN FOR CLARITY.)

HALF ELEVATION

PC BEAM NOTES:

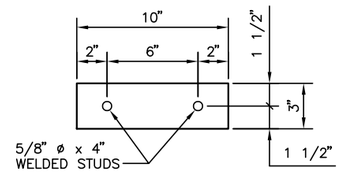
COMPRESSIVE STRENGTH: PROVIDE CONCRETE WITH A COMPRESSIVE STRENGTH OF 7,500 PSI AT TRANSFER OF PRESTRESS AND 10,000 PSI AT 28 DAYS.

STRAND TYPE: PROVIDE LOW–RELAXATION STRANDS HAVING A NOMINAL DIAMETER OF 0.6" WITH AN ULTIMATE TENSILE STRENGTH OF 270 KSI.

LRFR INVENTORY RATING FACTOR = 1.64
LFD OPERATING RATING = HS 66

FOR ADDITIONAL DESIGN DATA, SEE SHEET NO. B101.

REVISIONS	
DESCRIPTION	DATE



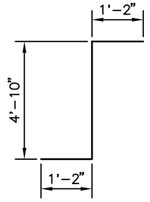
TOP VIEW OF ENCASED PLATE ③

(1/2" THICK ℄)

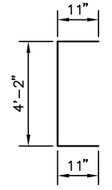
① INSTALL AT BOTH ENDS OF EACH BEAM.

② SHIFT PLAIN REINFORCING STEEL AS NECESSARY TO PROVIDE 1" MIN. CLR. TO DIAPHRAGM ROD HOLE.

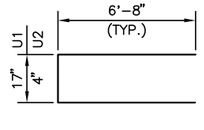
③ INSTALL AT BEAM ENDS OVER PIER 1 ONLY.



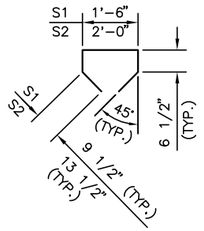
Z1#5 x 7'–2"
(EPOXY COATED)



C1#5 x 6'–0"



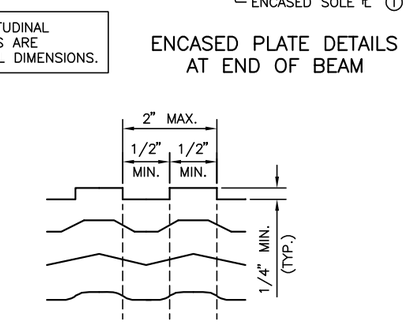
U1#4 x 14'–9"
U2#5 x 13'–8"



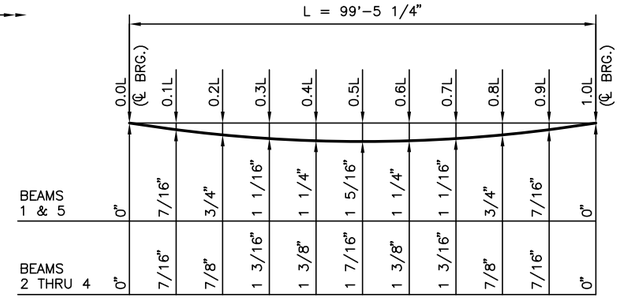
S1#4 x 4'–2"
S2#4 x 5'–4"

BAR BEND DETAILS

NOTE: ALL LONGITUDINAL DIMENSIONS ARE HORIZONTAL DIMENSIONS.



ENCASED PLATE DETAILS AT END OF BEAM

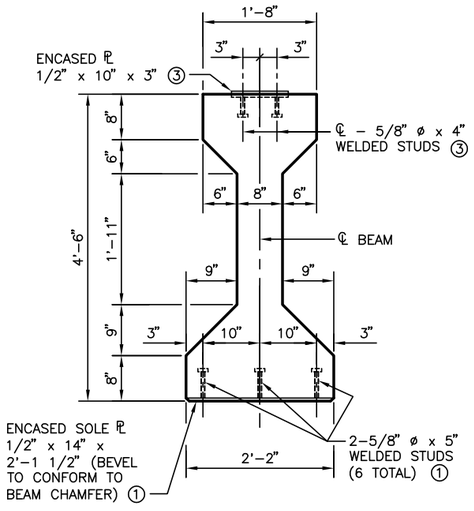


DEAD LOAD DEFLECTION DIAGRAM

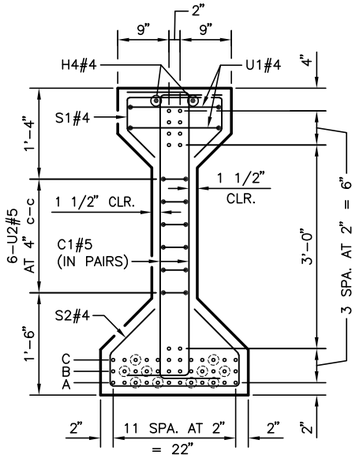
NOTE: THE DEAD LOAD DEFLECTIONS SHOWN ABOVE ARE DUE TO THE SLAB, HAUNCH, DIAPHRAGMS, PARAPETS AND STAY–IN–PLACE FORMS, AND ARE THEORETICAL ONLY. (DEFLECTIONS DO NOT INCLUDE BEAM WEIGHT OR FUTURE WEARING SURFACE.) DEAD LOAD DEFLECTIONS SHALL BE TAKEN INTO CONSIDERATION IN FORMING AND POURING THE SLAB AND HAUNCHES.

INTENTIONALLY ROUGHENED SURFACE EXAMPLES

INTENTIONALLY ROUGHEN THE ENTIRE TOP SURFACE OF THE P.C. BEAMS TO A MINIMUM HEIGHT OF 1/4" OVER A MAXIMUM PITCH OF 2" MEASURED LONGITUDINALLY ALONG THE LENGTH OF THE BEAM. PROVIDE A CREST AND TROUGH ASSOCIATED WITH THE HEIGHT OF NOT LESS THAN 1/2", THE FULL WIDTH OF THE TOP FLANGE. PRODUCE THE ROUGHENED SURFACE BY USING A SPECIAL TROWEL TO FORM ONE OF THE SURFACES SHOWN IN THE DETAILS, BY CLEANING THE CONCRETE SURFACE WITH A STIFF WIRE BRUSH (OR BLASTING) TO EXPOSE THE AGGREGATE TO A HEIGHT OF 1/4", OR BY USING ANOTHER APPROVED METHOD. SUBMIT THE METHOD TO BE USED FOR APPROVAL BY THE ENGINEER. REPAIR ANY DAMAGE TO REINFORCEMENT'S EPOXY COATING BEFORE PLACEMENT OF SLAB CONCRETE.



TYPICAL SECTION

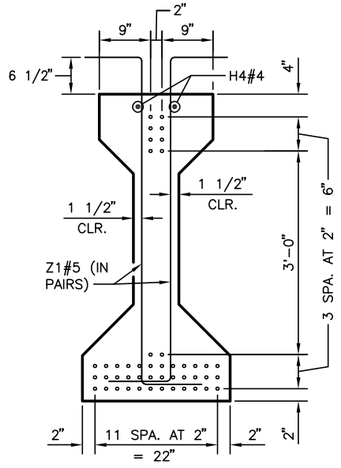


END SECTION

NOTE: WELDED STUDS & ENCASED PLATES OMITTED FOR CLARITY.

∘ – DENOTES PRESTRESSING STRAND

⊙ – DENOTES DEBONDED STRAND *



℄ SECTION

46 – 0.6" DIA. STRANDS

* DEBOND LENGTH FROM END OF BEAM = 13'–0" (ROW "A")
16'–0" (ROW "B")
19'–0" (ROW "C")

NOTES: FOR TYPICAL SECTION, SEE SHEET NO. B117.

FOR LONGITUDINAL SECTION, SEE SHEET NO. B118.

FOR BEARING DETAILS, SEE SHEET NO. B120.

FOR P.C. BEAM LAYOUT AND DIAPHRAGM DETAILS, SEE SHEET NOS. B121 AND B122.

FOR 1/10TH POINT FINISH GRADE ELEVATIONS, SEE SHEET NO. B126.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US–81 OVER QUAIL RD.

101' TYPE IV P.C. BEAM DETAILS

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B129

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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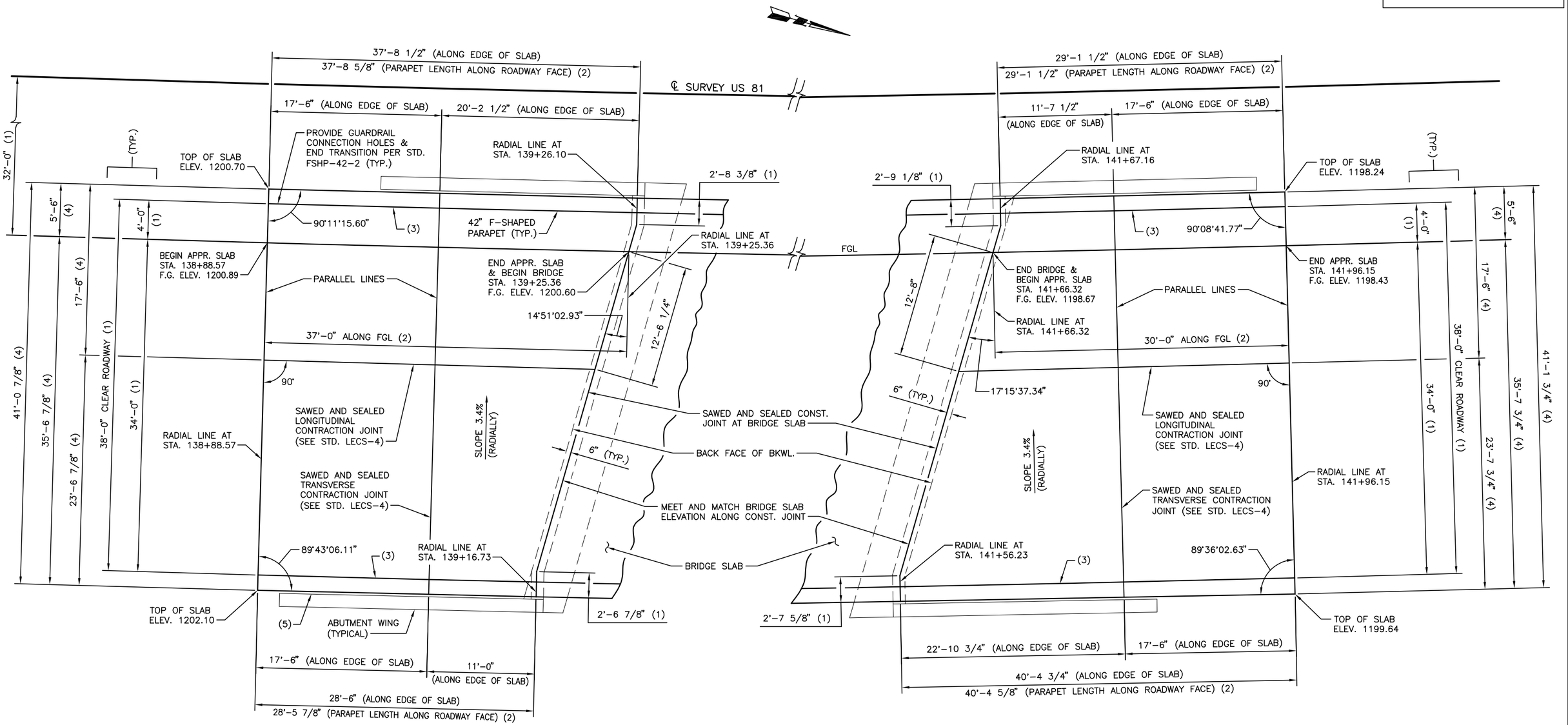
REVISIONS	
DESCRIPTION	DATE



APPROACH SLAB LAYOUT PLAN
(NOT TO SCALE)

℄ SURVEY US 81
CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

NOTE: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

NOTE: DO NOT SAW-CUT GROOVE WITHIN 6" OF THE SAWED AND SEALED JOINTS.

(1) RADIAL DIMENSION.

(2) HORIZONTAL ARC DIMENSION.

(3) ROADWAY FACE OF PARAPET, CURVED AND PARALLEL TO FGL.

(4) DIMENSION ALONG END OF APPROACH SLAB ONLY.

(5) 1" SEALED EXPANSION JOINT. (TYP. EA. WING) (SEE DETAIL "A", SHEET NO. B132)

NOTES: ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

FOR APPROACH SLAB REINFORCING PLAN, SEE SHEET NO. B131.

FOR ADDITIONAL APPROACH SLAB DETAILS, BAR LIST, BAR BEND DETAILS AND QUANTITIES, SEE SHEET NO. B132.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

APPROACH SLAB DETAILS (1 OF 3)

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B130

"PRELIMINARY PLANS - NOT FOR CONSTRUCTION"

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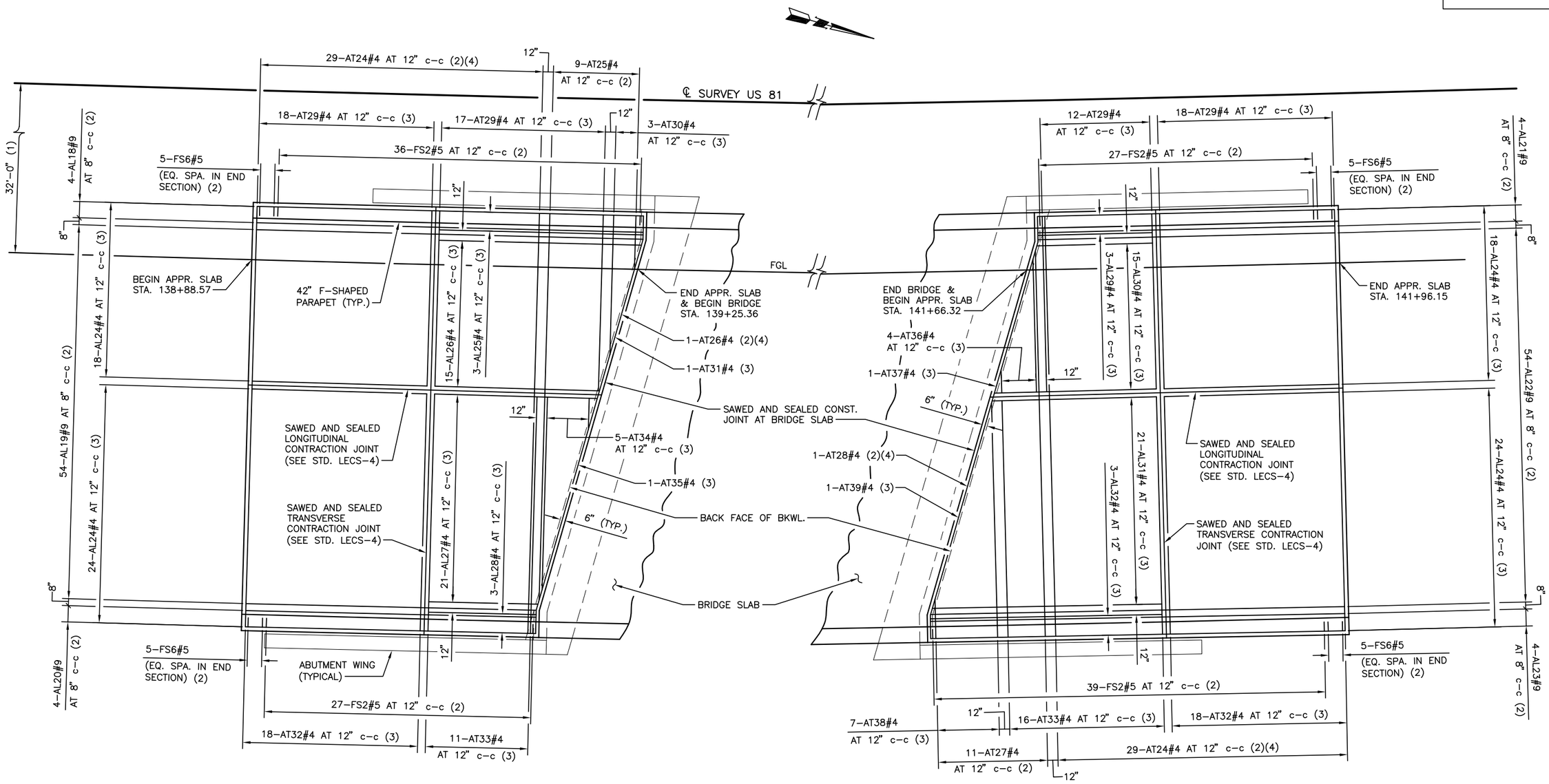
REVISIONS	
DESCRIPTION	DATE



PLAN SHOWING APPROACH SLAB REINFORCING STEEL

(NOT TO SCALE)

℄ SURVEY US 81
CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

NOTE: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

(1) RADIAL DIMENSION.

(2) BOTTOM SLAB REINFORCING STEEL.

(3) TOP SLAB REINFORCING STEEL.

(4) MIN. LAP = 2'-0".

NOTES: ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

FOR APPROACH SLAB LAYOUT PLAN, SEE SHEET NO. B130.

FOR ADDITIONAL APPROACH SLAB DETAILS, BAR LIST, BAR BEND DETAILS AND QUANTITIES, SEE SHEET NO. B132.

FS2 AND FS6 BARS IN PARAPETS SHALL BE TIED IN PLACE PRIOR TO POURING THE APPROACH SLABS. FOR ADDITIONAL DETAILS, SEE STD. FSHP-42-2.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

APPROACH SLAB DETAILS (2 OF 3)

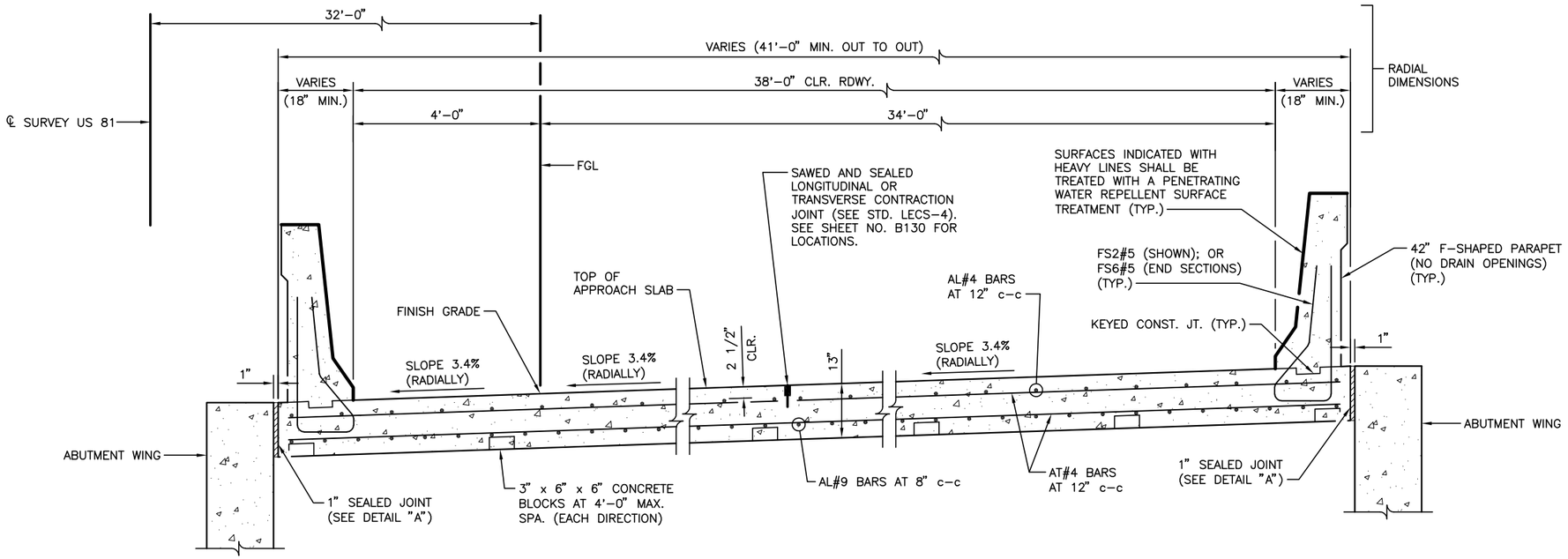
℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B131

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

M:\W2M Projects\Project Files\M179\Final Design C & D\B132-2442813-APPROACH SLAB DETAILS 3.dwg 5/18/2020 3:18:14 PM

REVISIONS	
DESCRIPTION	DATE



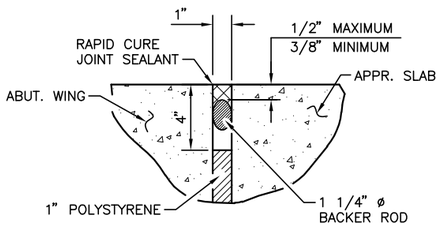
TYPICAL SECTION THRU APPROACH SLAB

NOTES: THE REINFORCING STEEL IN THE TOP OF THE APPROACH SLABS SHALL END 2" EITHER SIDE OF THE LONGITUDINAL AND TRANSVERSE CONTRACTION JOINTS.

FOR PARAPET DETAILS NOT SHOWN, SEE STD. FSHP-42-2.

APPROACH SLABS BAR LIST				
MARK	NO.	SIZE	SHAPE	LENGTH
		(EPOXY COATED)		
AL18	4	9	STR.	37'-4"
AL19	54	9	STR.	32'-9" AVG. (1)
AL20	4	9	STR.	28'-1"
AL21	4	9	STR.	28'-9"
AL22	54	9	STR.	34'-4 1/2" AVG. (2)
AL23	4	9	STR.	40'-0"
AL24	84	4	STR.	17'-2"
AL25	3	4	STR.	19'-10"
AL26	15	4	STR.	17'-10 1/2" AVG. (3)
AL27	21	4	STR.	13'-4" AVG. (4)
AL28	3	4	STR.	10'-7"
AL29	3	4	STR.	11'-3"
AL30	15	4	STR.	13'-8" AVG. (5)
AL31	21	4	STR.	19'-2" AVG. (6)
AL32	3	4	STR.	22'-6"
AT24	58	4	STR.	42'-9" (7)
AT25	9	4	STR.	19'-1 1/2" AVG. (8)
AT26	1	4	BNT.	43'-11" (7)
AT27	11	4	STR.	21'-3" AVG. (9)
AT28	1	4	BNT.	44'-4" (7)
AT29	65	4	STR.	17'-2"
AT30	3	4	STR.	9'-5 1/2" AVG. (10)
AT31	1	4	BNT.	17'-9"
AT32	36	4	STR.	23'-2"
AT33	27	4	STR.	23'-1"
AT34	5	4	STR.	11'-2" AVG. (11)
AT35	1	4	BNT.	23'-9"
AT36	4	4	STR.	7'-4" AVG. (12)
AT37	1	4	BNT.	17'-10"
AT38	7	4	STR.	13'-4" AVG. (13)
AT39	1	4	BNT.	24'-0"
FS2	129	5	BNT.	7'-4" (14)
FS6	20	5	BNT.	7'-6 1/2" (14)

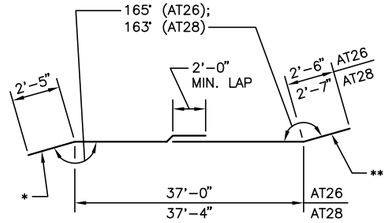
(1) 54 BARS VARYING FROM 28'-2" TO 37'-4".
(2) 54 BARS VARYING FROM 28'-9" TO 40'-0".
(3) 15 BARS VARYING FROM 16'-0" TO 19'-9".
(4) 21 BARS VARYING FROM 10'-9" TO 15'-11".
(5) 15 BARS VARYING FROM 11'-5" TO 15'-11".
(6) 21 BARS VARYING FROM 16'-0" TO 22'-4".
(7) LENGTH INCLUDES ONE (1) 2'-0" LAP SPLICE.
(8) 9 BARS VARYING FROM 3'-8" TO 34'-7".
(9) 11 BARS VARYING FROM 5'-5" TO 37'-1".
(10) 3 BARS VARYING FROM 5'-7" TO 13'-4".
(11) 5 BARS VARYING FROM 3'-5" TO 18'-11".
(12) 4 BARS VARYING FROM 2'-7" TO 12'-1".
(13) 7 BARS VARYING FROM 3'-10" TO 22'-10".
(14) FOR BAR BEND DETAILS, SEE STD. FSHP-42-2.



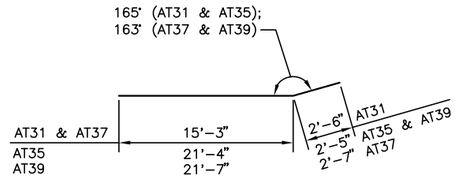
DETAIL "A"

APPROACH SLAB QUANTITIES			
ITEM	UNITS	TOTAL	
APPROACH SLAB	SY	309.60	(1)
SAW-CUT GROOVING	SY	286.60	
42" F-SHAPED PARAPET	LF	135.80	
WATER REPELLENT (VISUALLY INSPECTED)	SY	64.00	

(1) THE UNIT PRICE BID FOR APPROACH SLAB SHALL INCLUDE ALL CONCRETE AND REINFORCING STEEL IN THE APPROACH SLABS, INCLUDING FS2 AND FS6 BARS, RAPID CURE JOINT SEALANT, BACKER RODS, POLYSTYRENE, LABOR, EQUIPMENT AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN. THERE IS AN ESTIMATED 111.8 C.Y. OF CLASS AA CONCRETE, AND AN ESTIMATED 21060 LBS. OF EPOXY COATED REINFORCING STEEL IN THE APPROACH SLABS.



AT26#4 x 43'-11"
AT28#4 x 44'-4"



AT31#4 x 17'-9"
AT35#4 x 23'-9"
AT37#4 x 17'-10"
AT39#4 x 24'-0"

BAR BEND DETAILS

* EAST EDGE OF SLAB.

** WEST EDGE OF SLAB.

Design	.	
Drawn	PKW	08/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

APPROACH SLAB DETAILS (3 OF 3)

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B132

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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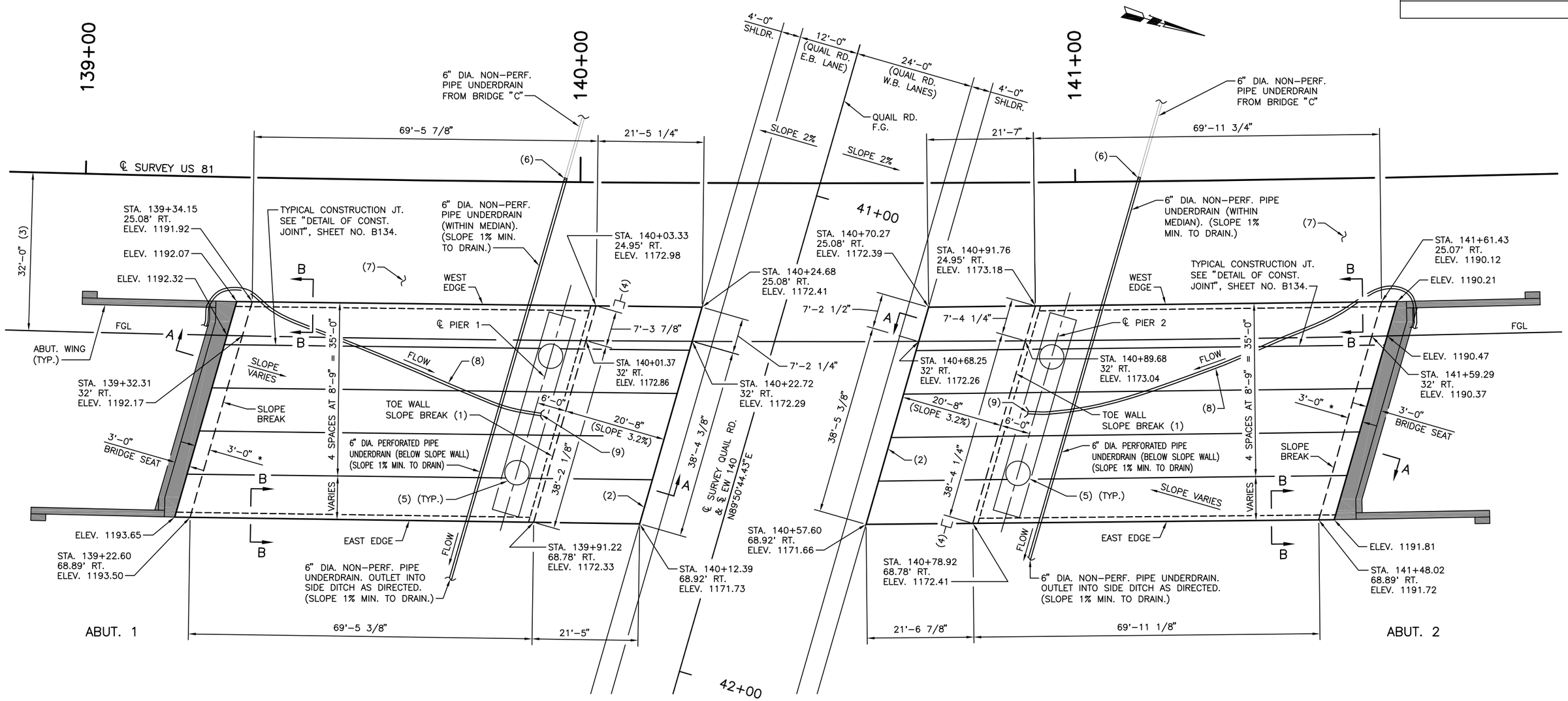
REVISIONS	
DESCRIPTION	DATE



PLAN OF SLOPE WALLS

SCALE 1"=20'

* SLOPE 1 1/2" IN 3'-0"

(1) TOE WALL SLOPE BREAK ELEVATION AT ANY PARTICULAR POINT IS GIVEN BY THE FOLLOWING EQUATIONS (BASED ON FUTURE QUAIL RD. TYPICAL SECTION):

ELEV. (ABUT. 1) = QUAIL RD. F.G. + 0.35'
ELEV. (ABUT. 2) = QUAIL RD. F.G. + 0.11'

(2) TOP OF SLOPE WALL ELEVATION AT ANY PARTICULAR POINT ALONG THE EDGE OF SHOULDER IS GIVEN BY THE FOLLOWING EQUATIONS:

ELEV. (ABUT. 1) = QUAIL RD. F.G. – 0.32'
ELEV. (ABUT. 2) = QUAIL RD. F.G. – 0.56'

(3) RADIAL DIMENSION.

(4) TOE WALL LENGTH.

(5) PROVIDE 1/2" PREFORMED EXPANSION JOINT FILLER MATERIAL AROUND COLUMNS (SEC. 701.08.B). SEAL WITH LOW MODULUS SILICONE JOINT SEALANT (SEC. 701.08.E).

(6) CONNECT NON-PERF. PIPE UNDERDRAIN, NEAR THE ℄ SURVEY US 81, TO THE NON-PERF. PIPE UNDERDRAIN FROM BRIDGE "C" IN A MANNER APPROVED BY THE ENGINEER. IF BRIDGE "D" IS BUILT FIRST, A TEMPORARY CAP WILL BE NECESSARY UNTIL THE CONNECTION TO BRIDGE "C" IS MADE. (COSTS TO BE INCLUDED IN OTHER ITEMS.)

(7) AFTER CONSTRUCTING THE SLOPE WALLS, THE BRIDGE CONTRACTOR SHALL GRADE THE MEDIAN AREAS, BETWEEN SLOPE WALLS, IN A MANNER APPROVED BY THE ENGINEER. COSTS TO BE INCLUDED IN OTHER ITEMS. SODDING IS INCLUDED IN THE ROADWAY ITEMS.

(8) 6" DIA. NON-PERFORATED PIPE UNDERDRAIN (FROM ABUTMENT). INSTALL BELOW SLOPE WALL. (SLOPE 1% MIN. TO DRAIN.).

(9) EXTEND AND OUTLET PIPE UNDERDRAIN THROUGH SLOPE WALL AS SHOWN ON SHEET NO. B134. (COSTS TO BE INCLUDED IN OTHER ITEMS.)

℄ SURVEY US 81 CURVE DATA

P.C. STA. 124+31.69
P.I. STA. 147+93.78
P.T. STA. 169+12.58

Δ = 44°48'32.01" LT.
D = 01°00'00.00"
R = 5729.5801'
L = 4480.8909'
T = 2362.0826'
S = 0.034'/'

NOTES:

ELEVATIONS SHOWN ARE AT TOP OF SLOPE WALL CONCRETE.

ALL STATIONS AND OFFSETS FOLLOW ℄ SURVEY US 81, UNLESS NOTED OR SHOWN OTHERWISE.

ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

THE BRIDGE SUPERSTRUCTURE IS NOT SHOWN FOR CLARITY.

FOR SLOPE WALL SECTIONS, NOTES AND QUANTITIES, SEE SHEET NO. B134.

Design	.	
Drawn	PKW	09/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

SLOPE WALL DETAILS (1 OF 2)

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B133

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

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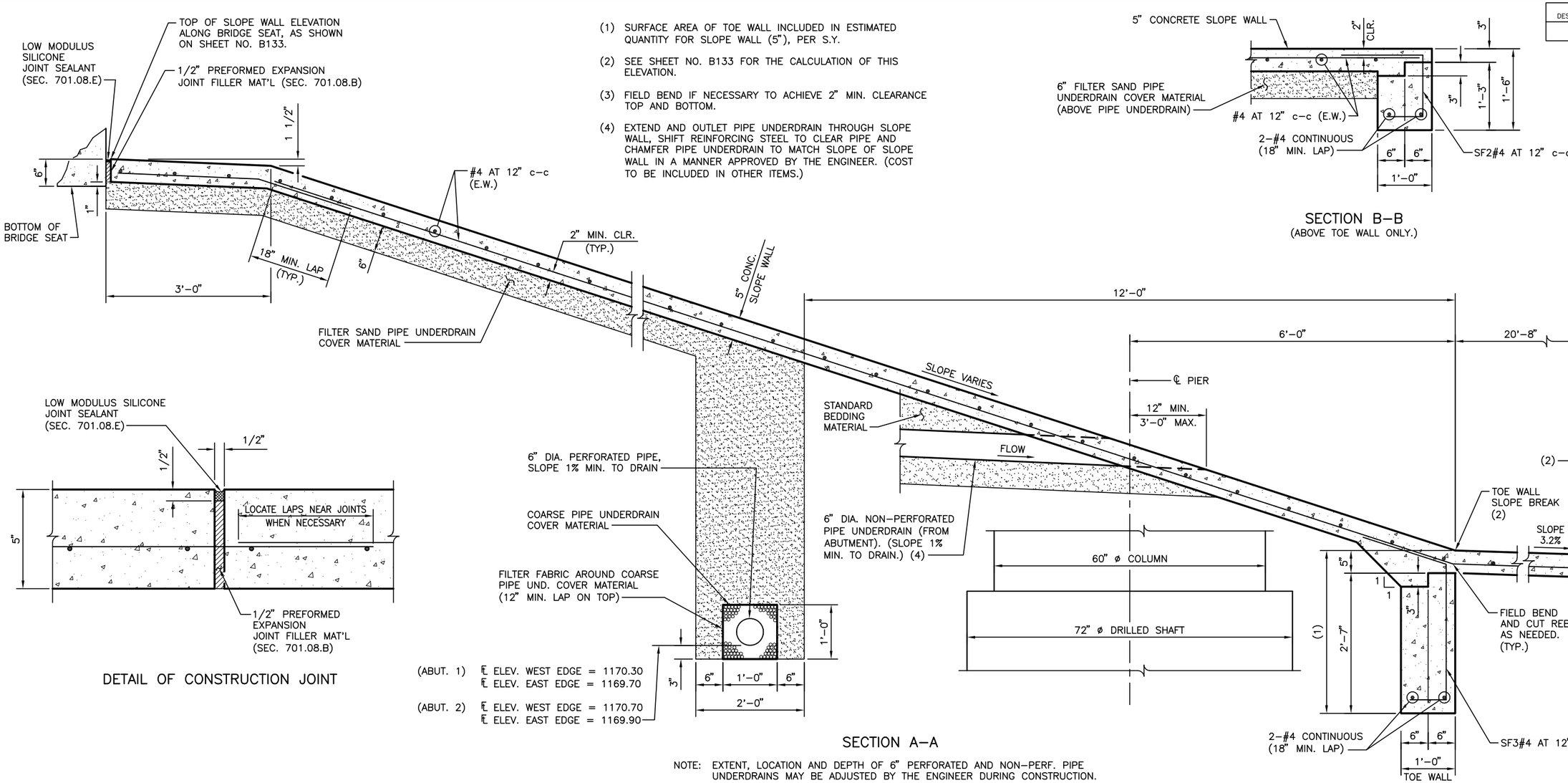
REVISIONS	
DESCRIPTION	DATE

(1) SURFACE AREA OF TOE WALL INCLUDED IN ESTIMATED QUANTITY FOR SLOPE WALL (5"), PER S.Y.

(2) SEE SHEET NO. B133 FOR THE CALCULATION OF THIS ELEVATION.

(3) FIELD BEND IF NECESSARY TO ACHIEVE 2" MIN. CLEARANCE TOP AND BOTTOM.

(4) EXTEND AND OUTLET PIPE UNDERDRAIN THROUGH SLOPE WALL, SHIFT REINFORCING STEEL TO CLEAR PIPE AND CHAMFER PIPE UNDERDRAIN TO MATCH SLOPE OF SLOPE WALL IN A MANNER APPROVED BY THE ENGINEER. (COST TO BE INCLUDED IN OTHER ITEMS.)



SECTION A-A

NOTE: EXTENT, LOCATION AND DEPTH OF 6" PERFORATED AND NON-PERF. PIPE UNDERDRAINS MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION.

SECTION B-B
(ABOVE TOE WALL ONLY.)

DETAIL OF CONSTRUCTION JOINT

SLOPE WALL NOTES:

ALL CONCRETE IN THE SLOPE WALLS SHALL BE CLASS A CONCRETE AND SHALL BE POURED IN THE DRY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTIONS 509 AND 610 OF THE STANDARD SPECIFICATIONS. COARSE AGGREGATE FOR THIN SECTION CONCRETE (SEC. 701.06) MAY BE USED.

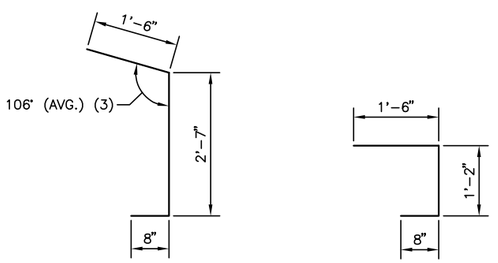
NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN THE SLOPE WALLS EXCEPT AS SHOWN ON THE PLANS. FINAL NUMBER AND LOCATION OF ALL CONSTRUCTION JOINTS WILL BE DETERMINED BY THE ENGINEER. JOINTS SHALL HAVE A MAXIMUM SPACING OF 10'-0".

5" CONCRETE SLOPE WALL WILL BE MEASURED FROM EDGE TO EDGE AND FROM TOP TO BOTTOM ALONG THE TOP SURFACE OF THE SLOPE WALL AND ALONG THE FRONT FACE OF THE TOE WALL. PAYMENT WILL BE MADE AT THE CONTRACT PRICE BID FOR SLOPE WALL (5"), PER S.Y. PRICE BID SHALL INCLUDE ALL COSTS OF JOINT SEALERS, FILLER MATERIALS, REINFORCING STEEL, CONCRETE, EXCAVATIONS, LABOR, FORMS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN.

ALL COSTS OF PIPE UNDERDRAIN COVER MATERIALS (BOTH FILTER SAND AND COARSE MATERIAL), FILTER FABRICS, EXCAVATIONS, EQUIPMENT, LABOR AND INCIDENTALS FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR 6" PERFORATED PIPE UNDERDRAIN ROUND. INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND STD. PUD-3.

ALL COSTS OF TRENCH EXCAVATION AND STANDARD BEDDING MATERIAL FOR PIPE UNDERDRAIN CONSTRUCTION OUTSIDE THE LIMITS OF THE SLOPE WALLS, PLUS OTHER MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS FOR THEIR INSTALLATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF 6" NON-PERF. PIPE UNDERDRAIN RND. INSTALLATION SHALL BE AS SHOWN ON THE PLANS AND STD. PUD-3.

ALL COSTS FOR TEMPORARY PIPE UNDERDRAIN CAPS NEAR THE ℄ SURVEY US 81 AND/OR CONNECTIONS TO THE PIPE UNDERDRAIN FROM BRIDGE "C", AS REQUIRED, INCLUDING LABOR, EQUIPMENT AND INCIDENTALS FOR THEIR INSTALLATION SHALL BE INCLUDED IN OTHER ITEMS.



BAR BEND DETAILS

SLOPE WALL QUANTITIES		
ITEM	UNITS	TOTAL
SLOPE WALL (5")	SY	977.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	92.00
6" NON-PERF. PIPE UNDERDRAIN RND.	LF	160.00

Design	.	
Drawn	PKW	09/19
Checked	.	
Approved	.	
Squad		

BRIDGE "D" GRADY COUNTY
NB US-81 OVER QUAIL RD.

SLOPE WALL DETAILS (2 OF 2)

℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B134

"PRELIMINARY PLANS - NOT FOR CONSTRUCTION"

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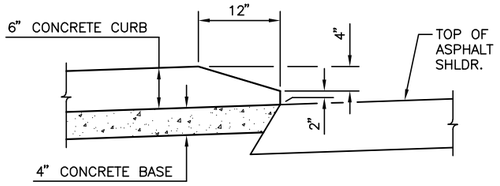
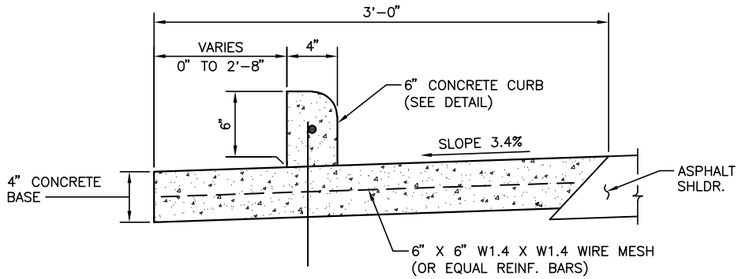
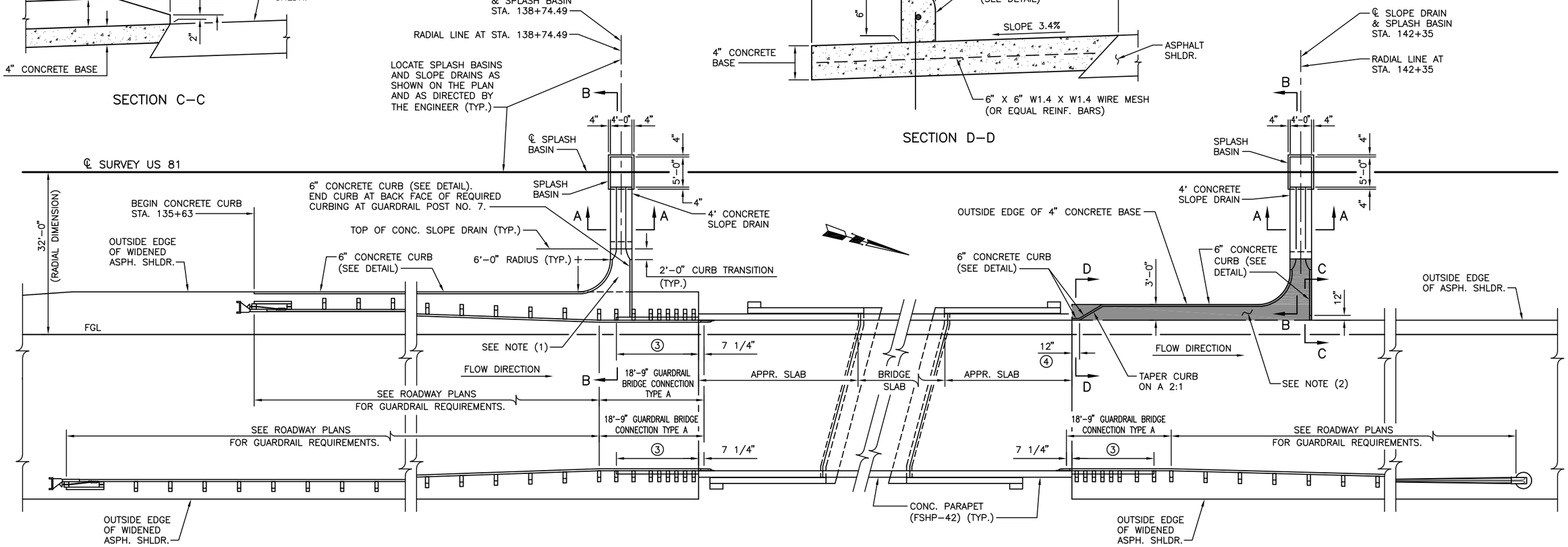
DESCRIPTION	DATE



SECTION C–C



SECTION D–D



PLAN OF GUARD RAIL WIDENING, CURBING, SLOPE DRAINS AND SPLASH BASINS

NOTES: SLOPE DRAINS, SPLASH BASINS AND CURBING TO BE LOCATED AS SHOWN ON THE PLAN AND AS DIRECTED BY THE ENGINEER.

THE CURVATURE OF US 81 AND THE BRIDGE IS NOT DEPICTED FOR CLARITY.

NOTES: ALL STATIONING FOLLOWS ℄ SURVEY US 81.

CURBING, SLOPE DRAINS AND SPLASH BASINS ARE NOT REQUIRED ON THE EAST SIDE OF BRIDGE "D".

NOTE (1): BETWEEN EDGE OF ASPHALT SHOULDER AND TOP OF CONCRETE SLOPE DRAIN, CONST. 4" CONCRETE BASE OVER AREA OUTLINED BY CURBING. COST TO BE INCLUDED IN PRICE BID FOR "CLASS C CONCRETE", PER C.Y.

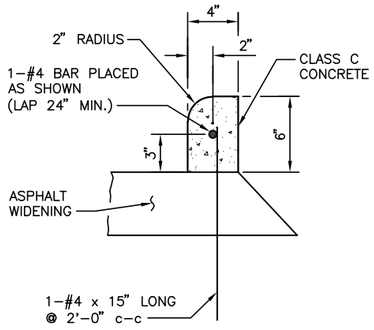
NOTE (2): CONST. 4" CONCRETE BASE OVER HATCHED AREA. COST TO BE INCLUDED IN PRICE BID FOR "CLASS C CONCRETE", PER C.Y.

① SLOPE TO MATCH SLOPE OF HEADER.

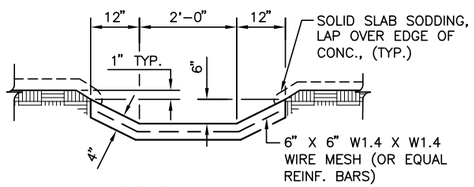
② SET TOP OF SPLASH BASIN AT THE FLOWLINE ELEVATION OF THE MEDIAN DITCH.

③ 15'–0" CONCRETE CURBING (REQUIRED), SEE STD. THRI–1.

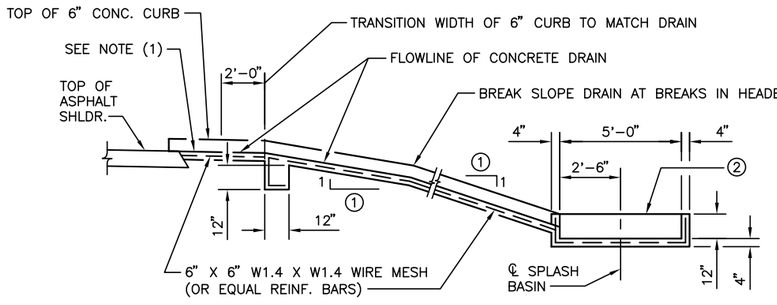
④ TRANSITION THE ROADWAY FACE OF CURB, OVER A 12" LENGTH, TO MATCH THE ROADWAY FACE OF THE PARAPET, IN A MANNER APPROVED BY THE ENGINEER. THE ROADWAY FACES OF THE CURB AND PARAPET SHALL BE ALIGNED IN THIS REGION.



DETAIL OF 6" CONCRETE CURB
(SHOWN AT OUTSIDE EDGE OF WIDENED ASPH. SHLDR. AT THE SW CORNER.)



SECTION A–A



SECTION B–B
(SHOWN AT THE SW CORNER.)

NOTES: ASPHALT SHOULDER WIDENING SHALL BE IN ACCORDANCE WITH THE ROADWAY PLANS AND DETAILS SHOWN ON THIS SHEET. ALL COSTS OF ASPHALT SHOULDER WIDENING SHALL BE INCLUDED IN THE ROADWAY PAY ITEMS.

THE SLOPE DRAINS AND SPLASH BASINS SHALL BE CONSTRUCTED USING CLASS "C" CONCRETE AS SHOWN ON THIS SHEET. ALL COSTS OF THE SLOPE DRAINS AND SPLASH BASINS INCLUDING WIRE MESH, EXCAVATIONS AND BACKFILLING SHALL BE INCLUDED IN THE BRIDGE PAY ITEM FOR "CLASS C CONCRETE".

THE 6" CONCRETE CURBS SHALL BE CONSTRUCTED AS SHOWN ON THIS SHEET. ALL COSTS TO CONSTRUCT THE 6" CONCRETE CURBS INCLUDING CONCRETE AND REINFORCING STEEL SHALL BE INCLUDED IN THE BRIDGE PAY ITEM FOR "CLASS C CONCRETE".

PAYMENT FOR THE 15'–0" CONCRETE CURBING IS INCLUDED IN THE ROADWAY PAY ITEMS FOR GUARDRAIL.

Design	.	
Drawn	PKW	09/19
Checked	.	
Approved	.	
Squad		

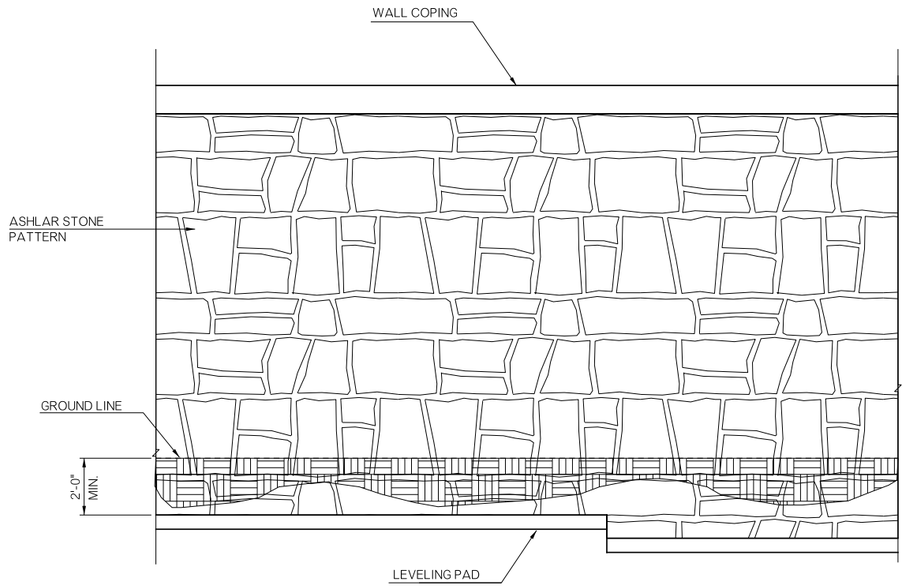
BRIDGE "D" GRADY COUNTY
NB US–81 OVER QUAIL RD.

DRAIN AT END BRIDGE DETAILS

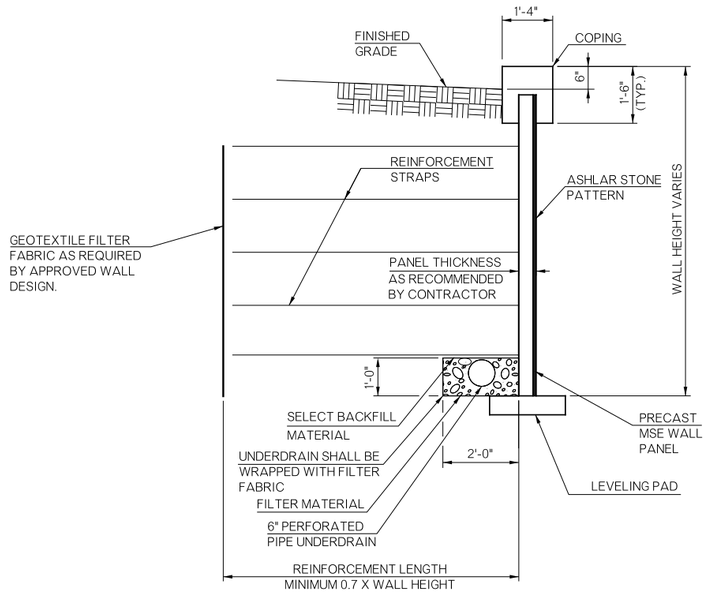
℄ STA. 140+45.84

Job Piece No. 24428(13) Sheet No. B135

"PRELIMINARY PLANS – NOT FOR CONSTRUCTION"

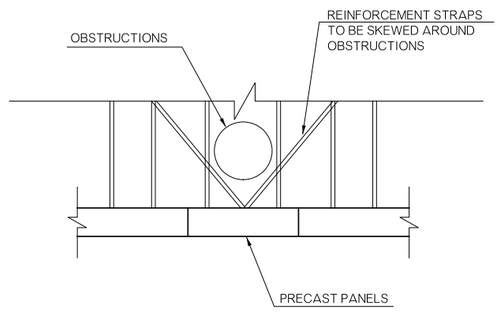


TYPICAL MSE WALL ELEVATION



TYPICAL MSE WALL SECTION

FINAL DEIGN OF WALL, REINFORCEMENT, AND DRAINAGE SYSTEM TO BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.



STRAP SKEWING DETAIL AT OBSTRUCTIONS

NOTE: IF BARMAT OR WIRE MESH SOIL REINFORCEMENT IS USED, THEN A STRUCTURAL YOKE SYSTEM MUST BE ATTACHED TO THE OBSTRUCTED PANEL(S) AND THE OBSTRUCTED SECTIONS OF SOIL REINFORCEMENTS MUST BE ATTACHED TO THE YOKE ON THE BACKSIDE OF THE OBSTRUCTION.

NOTES:
FOR MORE INFORMATION, INCLUDING EXTENTS AND HEIGHT OF RETAINING WALL, REFER TO CROSS SECTIONS FOR RAMP DD.

THE MSE WALL PANELS SHALL BE STACKED AND MAY BE ERECTED IN A STAGGERED HORIZONTAL JOINT PATTERN.

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SB US-81 OVER GRAND AVENUE
RAMP DD

RETAINING WALL DETAILS

State Job No. 24428(17) Sheet No. B136

US 81 REALIGNMENT
GRADY COUNTY

6/26/2020

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REVISIONS		
REV. NO.	DESCRIPTION	DATE

U.S. ARMY CORPS OF ENGINEERS SECTION 404 PERMIT CONDITIONS

404 PERMIT INFORMATION

NATIONWIDE PERMIT NO. _____

☐ TO BE PROVIDED AT A LATER DATE

SECTION 404 OF THE CLEAN WATER ACT REQUIRES PRIOR AUTHORIZATION FROM SECRETARY OF THE ARMY (CORPS) FOR THE DISCHARGE OF DREDGED OR FILL MATERIAL INTO WATERS OF THE UNITED STATES.

☐ NO PRE-CONSTRUCTION NOTIFICATION REQUIRED: PROJECT DOES NOT REQUIRE NOTIFICATION TO THE US ARMY CORPS OF ENGINEERS (USACE) IN ORDER TO COMMENCE.

☐ PRE-CONSTRUCTION NOTIFICATION REQUIRED: RESIDENT ENGINEER MUST NOTIFY THE USACE WITHIN 30 DAYS OF THE START OF CONSTRUCTION AND 30 DAYS PRIOR TO COMPLETION OF CONSTRUCTION, FORMS LOCATED IN THE CONTRACT.

☐ INDIVIDUAL PERMIT: WILL BE MONITORED CLOSELY BY THE USACE.

☐ GENERAL PERMIT: PROJECT WITHIN A DESIGNATED CRITICAL RESOURCE WATER AND WILL REQUIRE PRE-CONSTRUCTION NOTIFICATION SEE ABOVE FOR EXPLANATION OF PRE-CONSTRUCTION NOTIFICATION.

☐ NO PERMIT REQUIRED

SWT TRACKING NO. _____

SPECIAL CONDITIONS

☐ NAVIGABLE WATER OF THE U.S.

☐ ON-SITE MITIGATION

☐ ENDANGERED SPECIES PRESENT

☐ HISTORIC PROPERTIES PRESENT

☐ DESIGNATED CRITICAL RESOURCE WATERS

PERMIT GENERAL CONDITIONS

THE CONTRACTOR SHALL BE RESPONSIBLE BUT NOT LIMITED TO THE FOLLOWING HIGHLIGHTS OF THE 404 PERMIT (SEE CONTRACT FOR COMPLETE LIST):

TEMPORARY FILLS:

APPROPRIATE MEASURES MUST BE TAKEN TO MAINTAIN NORMAL DOWNSTREAM FLOWS AND MINIMIZE FLOODING TO THE MAXIMUM EXTENT PRACTICABLE, WHEN TEMPORARY STRUCTURES (WORK ROADS, WORK PADS, ETC.,) WORK, AND DISCHARGES, INCLUDING COFFERDAMS, ARE NECESSARY FOR CONSTRUCTION ACTIVITIES, ACCESS FILLS, OR DE WATERING OF CONSTRUCTION SITES. TEMPORARY FILLS MUST CONSIST OF MATERIALS, AND BE PLACED IN A MANNER, THAT WILL NOT BE ERODED BY EXPECTED HIGH FLOWS. TEMPORARY FILLS MUST BE REMOVED IN THEIR ENTIRETY AND THE AFFECTED AREAS RETURNED TO PRE-CONSTRUCTION ELEVATIONS. THE AREAS AFFECTED BY TEMPORARY FILLS MUST BE RE VEGETATED, AS APPROPRIATE.

NAVIGATION:

NO ACTIVITY MAY CAUSE MORE THAN A MINIMAL ADVERSE EFFECT ON NAVIGATION WITHIN A NAVIGABLE WATER OF THE U.S. IF THIS PROJECT IS LOCATED WITHIN A NAVIGABLE WATER OF THE U.S., IT WILL BE IDENTIFIED IN THE SPECIAL CONDITIONS.

AQUATIC LIFE MOVEMENTS & ADVERSE EFFECTS FROM IMPOUNDMENTS:

NO ACTIVITY MAY LARGELY DISRUPT THE NECESSARY LIFE CYCLE MOVEMENTS OF THOSE SPECIES INDIGENOUS TO THE BODY OF WATER, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA. CULVERTS WILL BE DESIGNED TO PROVIDE SUFFICIENT PASSAGE FOR AQUATIC LIFE AND INSTALLED TO MAINTAIN LOW FLOW. RATE OF FLOW CANNOT BE MADE HIGHER THAN WHAT WAS PRIOR TO THE START OF CONSTRUCTION. EROSION CONTROL MEASURES SHOULD BE UTILIZED AROUND THE PERIMETER OF NEW STRUCTURES TO AVOID SILT BUILD UP. CAUTION SHOULD BE TAKEN TO MINIMIZE HARM IF CONSTRUCTION ACTIVITIES TAKE PLACE WITHIN A STREAM OR RIVER CHANNEL AND CREATE A CONFINED BODY OF WATER, CAUSE ADVERSE EFFECTS TO THE AQUATIC SYSTEM IN ANY WAY, AND/OR RESTRICTING ITS FLOW.

MANAGEMENT OF WATER FLOWS:

CONSTRUCTION ACTIVITIES MAY NOT IMPEDE THE PASSAGE OF NORMAL OR HIGH FLOWS. TO THE GREATEST EXTENT POSSIBLE, THE PRE- CONSTRUCTION COURSE, CONDITIONS, CAPACITY AND LOCATION OF OPEN WATERS MUST BE MAINTAINED. THIS INCLUDES STREAM CANALIZATION AND STORM WATER MANAGEMENT.

SUITABLE MATERIAL:

NO ACTIVITY MAY USE UNSUITABLE MATERIAL (E.G., TRASH, DEBRIS, CAR BODIES, ASPHALT, ETC.). MATERIALS USED FOR CONSTRUCTION OR DISCHARGED MUST BE FREE FROM TOXIC POLLUTANTS IN TOXIC AMOUNTS (SEE SECTION 307 OF CLEAN WATER ACT).

PROPER MAINTENANCE:

ANY AUTHORIZED STRUCTURE OR FILL SHALL BE PROPERLY MAINTAINED, INCLUDING MAINTENANCE TO ENSURE PUBLIC SAFETY AND COMPLIANCE WITH APPLICABLE NATION WIDE PERMIT GENERAL CONDITIONS, AS WELL AS ANY ACTIVITY- SPECIFIC CONDITIONS ADDED BY THE DISTRICT ENGINEER TO AN NATIONWIDE PERMIT AUTHORIZATION

HAZARDOUS MATERIALS:

HAZARDOUS MATERIALS, CHEMICALS, FUELS, LUBRICATING OILS AND OTHER SUCH SUBSTANCES SHOULD BE STORED AWAY FROM ANY STREAM OR RIVERCHANNEL (SEE SECTION 307 OF CLEAN WATER ACT)

EQUIPMENT:

HEAVY EQUIPMENT WORKING IN WETLANDS OR MUDFLATS MUST BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE; FOR EXAMPLE IF WETLANDS ARE PRESENT WITHIN THE CONSTRUCTION, THE FOOTPRINT WILL BE SHOWN ON THE PLANS. MEASURES SHOULD BE TAKEN TO PREVENT DISCHARGE INTO ANY WATERS OF THE STATE (e.g. CONCRETE WASHOUT).

SOIL EROSION AND SEDIMENT CONTROLS:

APPROPRIATE SOIL EROSION AND SEDIMENT CONTROLS MUST BE USED AND MAINTAINED IN EFFECTIVE OPERATING CONDITION DURING CONSTRUCTION, AND ALL EXPOSED SOILS AND OTHER FILLS, AS WELL AS ANY WORK WITHIN STREAM OR RIVER CHANNELS OR BANKS, MUST BE PERMANENTLY STABILIZED AS SOON AS POSSIBLE.

404 COMPLIANCE:

IN ORDER TO REMAIN COMPLIANT WITH THE 404 PERMIT, THE PROJECT MUST COMPLY WITH ALL FEDERAL ENVIRONMENTAL PROTECTION LAWS ASSOCIATED AND, THE ENVIRONMENTAL COMMITMENTS AS SHOWN ON THE PLANS. THIS INCLUDES BUT IS NOT LIMITED TO COMPLIANCE WITH ALL ENVIRONMENTAL NOTES IN THE PLANS, INCLUDING CULTURAL RESOURCES, HAZARDOUS WASTE, BIOLOGICAL FOR PROTECTED SPECIES, AND DEQ STORM WATER REGULATIONS AS THEY PERTAIN TO THE SWMP SHEET WITHIN THE PLANS. ALL OF THE 404 PERMIT GENERAL AND SPECIFIC CONDITIONS MUST BE ADHERED TO. A COPY OF THESE CONDITIONS CAN BE FOUND IN THE CONTRACT WITH THE 404 PERMIT.

PERMIT GENERAL CONDITIONS

FUELING:

ALL FUELING AND SERVICING OF VEHICLES AND EQUIPMENT SHALL BE DONE ABOVE THE ORDINARY HIGH WATER MARK (OHWM).

MATERIAL STORAGE:

STORE MATERIAL AND FUEL OUTSIDE OF THE ORDINARY HIGH WATER MARK OR ANY AREA LIKELY TO FLOOD.

DEBRIS STORAGE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY MATERIALS, DEBRIS, OR REFUSE WHICH HAS FALLEN INTO ANY STREAM OR RIVER CHANNELS RESULTING FROM THE EXECUTION OF THE PROJECT AS SOON AS POSSIBLE

SEE NATIONWIDE PERMIT 14 IN THE CONTRACT

401 CERTIFICATION CONDITIONS

THE CONTRACTOR SHALL BE RESPONSIBLE BUT NOT LIMITED TO THE FOLLOWING HIGHLIGHTS OF THE 401 CERTIFICATION (SEE CONTRACT FOR COMPLETE LIST):

☐ ALL SPILLS OF FUEL OR POLLUTANTS IN EXCESS OF FIVE GALLONS SHALL BE REPORTED TO ODEQ WITHIN 24 HRS AND REPORTED TO POLLUTION PREVENTION HOTLINE (1-800-522-0206)

☐ ALL FUELING AND SERVICING OF VEHICLES AND EQUIPMENT SHALL BE DONE OUTSIDE THE ORDINARY HIGH WATER MARK

☐ THE PERMITTEE SHALL PROVIDE ACCESS TO THE PROPERTY TO ODEQ FOR INSPECTIONS.

☐ ANY STOCKPILE SHALL BE ABOVE ORDINARY HIGH WATER MARK AND REMOVED FROM LIKELY FLOOD ZONE

☐ BEST MANAGEMENT PRACTICES SHOULD BE USED TO CONTROL SOIL EROSION AND MAINTAIN COMPLIANCE WITH WATER QUALITY STANDARDS.

☐ FOR ANY PROJECT THAT INVOLVES BANK STABILIZATION, THE PERMITTEE SHALL CONSIDER INSTALLING BIOENGINEERING PRACTICES IN PLACE OF STRUCTURAL PRACTICES (RIPRAP) TO MINIMIZE IMPACTS TO AQUATIC RESOURCES

PLACEHOLDER

SECTION 404 PERMIT COMPLIANCE

DETAIL			
REVIEW			
APPROVED			
ENVIRONMENTAL DIVISION			

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 24428(13) | SHEET NO. E001

Revised 2/14/2017

STORM WATER MANAGEMENT PLAN

FINAL FIELD MEETING
JUNE 2020

SITE DESCRIPTION

PROJECT LIMITS: US-81 REALIGNMENT FROM 1 MI N OF THE US 81/US 277 JCT S OF CHICKASHA EXT N 8.63 MI TO .85 MI N OF THE US 62/US 81 JCT

PROJECT DESCRIPTION: INTERCHANGE

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES: PRIOR TO INITIATING SOIL DISTURBING ACTIVITIES, THE CONTRACTOR WILL INSTALL ALL PERIMETER TEMPORARY SEDIMENT CONTROLS SPECIFIED, STRIP, STOCKPILE AND STABILIZE TOPSOIL. CLEAR AND GRUB ONLY IN NECESSARY AREAS, PRESERVING AS MUCH NATIVE VEGETATION AS POSSIBLE. INSTALL, MAINTAIN AND/OR MOVE TEMPORARY SEDIMENT ITEMS WITH CONSTRUCTION OPERATIONS AS PRACTICAL. IF DIRECTED BY THE ENGINEER, PLANT TEMPORARY SEEDING, REPLACE TOPSOIL AND DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER, THE CONTRACTOR WILL MAINTAIN A LOG OF THE DATES OF MAJOR SOIL DISTURBANCE ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: SILT LOAM

TOTAL AREA OF THE CONSTRUCTION SITE: 155.41 ACRES

ESTIMATED AREA TO BE DISTURBED: 79.68 ACRES

OFFSITE AREA TO BE DISTURBED: . (FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 15.73 ACRES

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 30.26 ACRES

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.52

LATITUDE & LONGITUDE OF CENTER OF PROJECT: 34.98379° N, 97.95264° W

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: UNNAMED CREEK

SENSITIVE WATERS OR WATERSHEDS: YES ☐ NO ☒

303(D) IMPAIRED WATERS: YES ☐ NO ☒

IF YES, LIST IMPAIRMENT: _____

LOCATED IN A TMDL: YES ☐ NO ☒

LAKE THUNDERBIRD TMDL: YES ☐ NO ☒

MS4 ENTITY: YES ☐ NO ☒

IF YES, LOCATION: _____

NOTE:
THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- . TEMPORARY SEEDING
- X PERMANENT SODDING, SPRIGGING OR SEEDING
- X VEGETATIVE MULCHING
- . SOIL RETENTION BLANKET
- . PRESERVATION OF EXISTING VEGETATION

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

- X STABILIZED CONSTRUCTION EXIT
- X TEMPORARY SILT FENCE
- X TEMPORARY SILT DIKES
- . TEMPORARY FIBER LOG
- . DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- . DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- X ROCK FILTER DAMS
- . TEMPORARY SLOPE DRAIN
- X PAVED DITCH W/ DITCH LINER PROTECTION
- . TEMPORARY DIVERSION CHANNELS
- . TEMPORARY SEDIMENT BASINS
- X TEMPORARY SEDIMENT TRAPS
- X TEMPORARY SEDIMENT FILTERS
- X TEMPORARY SEDIMENT REMOVAL
- X RIP RAP
- . INLET SEDIMENT FILTER
- . TEMPORARY BRUSH SEDIMENT BARRIERS
- . SANDBAG BERMS
- X TEMPORARY STREAM CROSSINGS

OFFSITE VEHICLE TRACKING:

- X HAUL ROADS DAMPENED FOR DUST CONTROL
- X LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- X EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

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. _____
. _____
. _____

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCH AS RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT NEED TO BE INSPECTED.

WASTE MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING, SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

HAZARDOUS MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIALS IS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, STATE AND FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS, CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

GENERAL NOTES:

A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO COMPLY WITH THE OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (OPDES) REGULATIONS. THIS PLAN IS INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORM AND PERMIT CERTIFICATE THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING THE PROGRESSION OF THE PROJECT. ALL CONTRACTOR OFF-SITE OPERATIONS ASSOCIATED WITH THE PROJECT MUST BE DOCUMENTED IN THE SWPPP, I.E., BORROW PITS, WORK ROADS, DISPOSAL SITES, ASPHALT/CONCRETE PLANTS, ETC. THE BASIC GOAL OF STORM WATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUTION DUE TO EXPOSED SOILS AND THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORM WATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2009 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

103.05 BONDING REQUIREMENTS
104.10 FINAL CLEANING UP
104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK
104.13 ENVIRONMENTAL PROTECTION
106.08 STORAGE AND HANDLING OF MATERIAL
107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED
107.20 STORM WATER MANAGEMENT
220 MANAGEMENT OF EROSION, SEDIMENTATION AND STORM WATER POLLUTION PREVENTION AND CONTROL
221 TEMPORARY SEDIMENT CONTROL

IN ADDITION:

"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, SEPTEMBER 13, 2017.

STORM WATER MANAGEMENT PLAN

State Job No. 24428(13) Sheet No. R001

US 81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

DRAINAGE RECORD

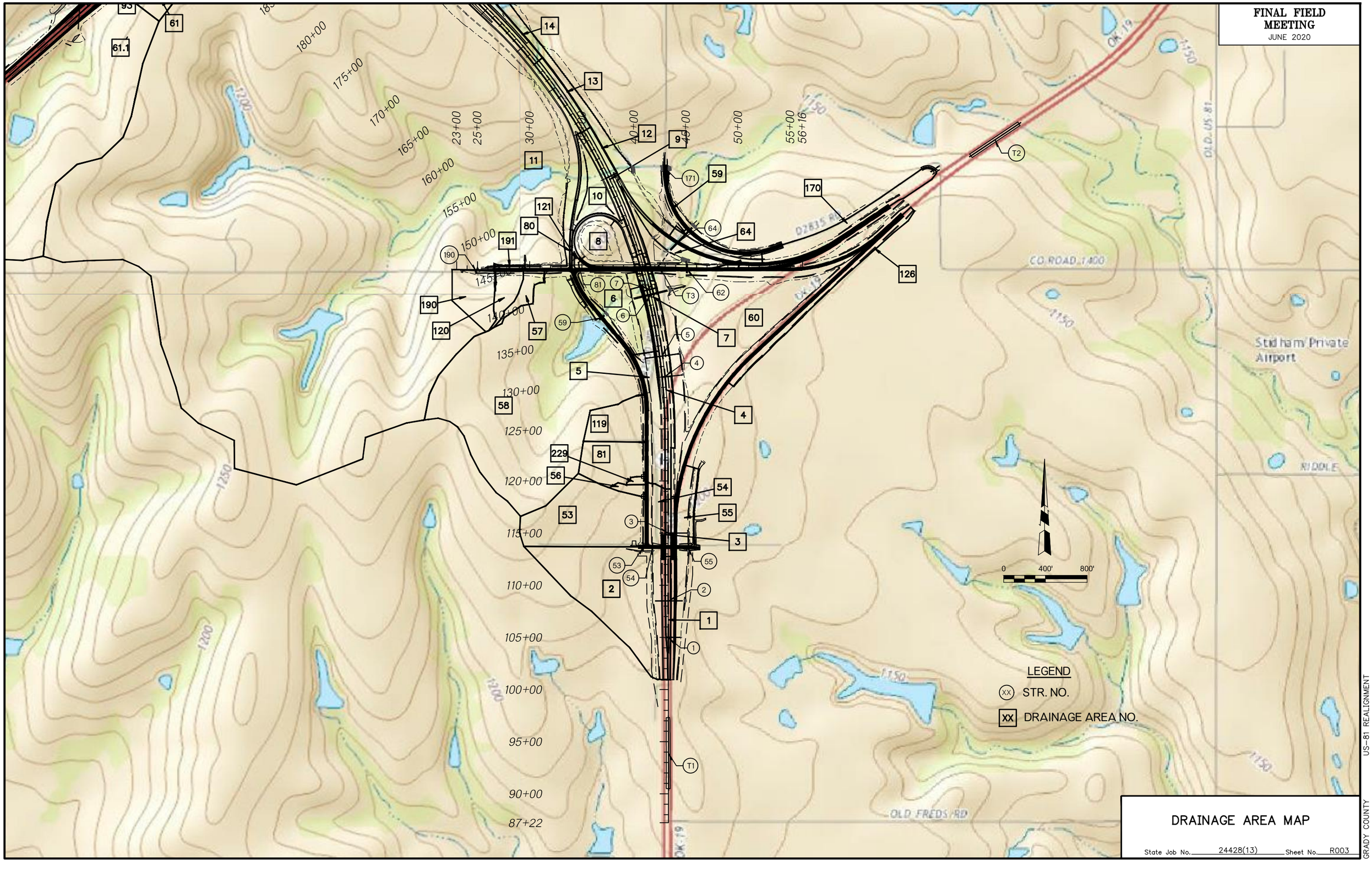
STR. NO.	ALIGNMENT	LOCATION (STATION)	LOCATION (OFFSET)	LT/RT		D.A. NO.	AREA (AC)	C	Tc (MIN)	I_D (IN/HR)	I_{50} (IN/HR)	TOTAL Q_{ID} (CFS)	TOTAL Q_{50} (CFS)	Q_{INTD} (CFS)	Q_{IN50} (CFS)	INLET TYPE	NO. GRATES	DESIGN Q	ADJ. CA	ADD'N CA	FROM STR. NO.	CUMULATIVE TC (MIN)	I (IN/HR)	TOTAL Q IN CONDUIT (CFS)	PIPE DIA. (IN)	SLOPE (FT/FT)	VELOCITY (FT/S)	SLOPE LENGTH (FT/FT)	LENGTH (FT)	TIME IN PIPE (MIN)	TOTAL TC (MIN)	TO STR. NO.	FLOWLINE (FT)	D.S. FLOWLINE (FT)	TOP OF RIM/GRATE (FT)
1	US 81	105+00.00	0.00'	℄		1	0.88	0.53	10.00	4.54	7.31	3.00	4.58	3.00	4.58	SMD TYPE 2		Q50	0.5597	0.00	DA 1	10.00	8.18	4.58	18"	0.0300	8.18	119.88	120	0.24	10.24	DITCH	1193.39	1189.79	1200.42
2	US 81	108+50.00	0.00'	℄		2	20.96	0.50	31.98	2.47	4.44	38.99	62.50	38.99	62.50	RCB		Q50	12.5760	0.00	DA 2	31.98	4.97	62.48	4'x4'	0.0066	8.68	258.01	258	0.50	32.48	DITCH	1190.50	1188.80	
3	US 81	115+00.00	0.00'	℄		3	0.52	0.53	10.00	4.54	7.31	1.77	2.71	1.77	2.71	SMD TYPE 2		Q50	0.3307	0.00	DA 3	10.00	8.18	2.70	18"	0.0788	10.48	187.60	188	0.30	10.30	DITCH	1208.70	1193.96	1223.64
4	US 81	130+00.00	0.00'	℄		4	1.98	0.65	11.48	4.29	6.99	7.86	12.06	7.86	12.06	SMD TYPE 2		Q50	1.5444	0.00	DA 4	11.48	7.81	12.07	18"	0.0630	13.64	167.53	168	0.20	11.68	DITCH	1195.60	1185.07	1210.60
5	US 81	132+00.00	0.00'	℄		5	5.24	0.50	15.71	3.70	6.22	14.04	21.85	14.04	21.85	RCP		Q50	3.1440	0.00	DA 5	15.71	6.95	21.86	36"	0.0035	6.17	333.12	334	0.90	16.61	DITCH	1183.17	1182.02	
6	US 81	138+00.00	0.00'	℄		6	9.15	0.50	2.41	6.72	9.73	41.13	59.73	41.13	59.73	RCB		Q50	5.4900	37.93	DA 6 & STR 7, 59	33.16	4.87	211.52	2-5'x4'	0.0030	8.90	326.00	326	0.61	33.77	DITCH	1170.00	1169.03	
7	US 81	138+50.00	0.00'	℄		7	1.88	0.70	12.51	4.12	6.78	7.78	11.97	7.78	11.97	SMD TYPE 2		Q50	1.5792	0.00	DA 7	12.51	7.58	11.97	18"	0.1316	20.56	44.06	44	0.04	12.55	STR 6	1177.53	1171.78	1197.53
53	EW 140.5	30+60.00	0.00'	℄		53	14.33	0.50	33.35	2.41	4.34	26.08	41.79	26.08	41.79	RCP		Q50	8.5980	0.00	DA 53	33.35	4.86	41.76	43"x26"	0.0104	9.29	74.35	76	0.13	33.48	DITCH	1203.60	1202.83	
54	EW 140.5	31+50.00	0.00'	℄		54	2.47	0.52	11.00	4.37	7.09	7.99	12.22	7.99	12.22	RCP		Q50	1.5413	0.00	DA 54	11.00	7.93	12.22	28"x18"	0.0076	6.23	69.37	70	0.19	11.19	DITCH	1200.93	1200.40	
55	EW 140.5	34+95.00	0.00'	℄		55	3.63	0.50	13.24	4.02	6.64	10.49	16.18	10.49	16.18	RCP		Q50	2.1780	0.33	DA 55 & STR 3	13.24	7.43	18.63	28"x18"	0.0097	7.06	62.84	64	0.15	13.39	DITCH	1191.47	1190.86	
56	16TH ST. (SOUTH)	5118+50.00	28.80'	LT.		56	0.67	0.63	10.00	4.54	7.31	2.72	4.14	2.72	4.14	RCP		Q10	0.4221	0.00	DA 56	10.00	6.44	2.72	22"x13"	0.0179	5.83	80.05	80	0.23	10.23	DITCH	1212.42	1210.99	
57	16TH ST. (SOUTH)	5123+73.00	33.00'	LT.		81	5.48	0.50	23.86	2.95	5.16	12.00	18.97	12.00	18.97	RCP		Q10	2.7400	0.00	DA 81	23.86	4.38	11.99	28"x18"	0.0240	8.50	50.01	50	0.10	23.96	DITCH	1205.07	1203.87	
58	16TH ST. (SOUTH)	5128+30.00	33.00'	LT.		119	4.93	0.50	25.86	2.82	4.96	10.33	16.42	10.33	16.42	RCP		Q10	2.4650	0.00	DA 119	25.86	4.19	10.33	28"x18"	0.0091	6.23	50.35	52	0.13	25.99	DITCH	1195.25	1194.79	
59	16TH ST. (SOUTH)	5136+90.00	0.00'	℄		58	60.58	0.50	30.67	2.54	4.54	115.40	184.65	115.40	184.65	RCB		Q50	36.3480	0.00	DA 58	30.67	5.08	184.67	8'x4'	0.0109	11.72	58.00	58	0.08	30.75	DITCH	1182.66	1182.03	
60	QUAIL ROAD	26+68.00	33.00'	RT.		120	2.21	0.50	21.16	3.16	5.46	5.15	8.10	5.15	8.10	RCP		Q10	1.1050	0.00	DA 120	21.16	4.66	5.14	22"x13"	0.0129	6.23	40.27	40	0.11	21.27	DITCH	1197.05	1196.53	
61	QUAIL ROAD	31+40.00	34.50'	RT.		57	1.61	0.50	22.82	3.03	5.27	3.61	5.70	3.61	5.70	RCP		Q10	0.8050	0.00	DA 57	22.82	4.48	3.61	22"x13"	0.0157	6.09	57.35	58	0.16	22.98	DITCH	1197.39	1196.49	
62	QUAIL ROAD	45+07.66	0.00'	℄		60	34.26	0.50	3.36	6.33	9.33	146.46	214.60	146.46	214.60	RCB		Q50	20.5560	43.42	DA 60 & STR 6	37.13	4.58	292.76	10'x4'	0.0030	9.87	83.31	83	0.14	37.27	DITCH	1163.06	1162.81	
63	16TH ST. (NORTH)	29+50.00	58.00'	LT.		59	2.42	0.50	10.71	4.42	7.15	7.60	11.62	7.60	11.62	SP. BOX INLET		Q50	1.4520	71.25	DA 59 & STR 64	42.12	4.26	309.53	2-5'x4'	0.0120	13.70	87.01	88	0.11	42.22	CHANNEL	1161.04	1160.00	1166.54
64	RAMP D	240+96.10	0.00'	℄		64	5.38	0.50	4.60	5.88	8.86	21.63	31.99	21.63	31.99	RCB		Q50	3.2280	68.02	DA 64 & STR 8, 62	41.87	4.27	304.38	2-5'x4'	0.0089	13.42	197.01	198	0.24	42.12	STR 63	1162.79	1161.04	
81	RAMP A	153+29.19	42.74'	RT.		121	0.33	0.67	10.00	4.54	7.31	1.42	2.17	1.42	2.17	SMD TYPE 2		Q50	0.2653	0.00	DA 121	10.00	8.18	2.17	18"	0.0030	3.69	82.01	82	0.37	10.37	DITCH	1182.52	1182.27	1185.44
170	RAMP D	216+61.33	42.45'	RT.		170	6.19	0.50	15.28	3.75	6.29	16.81	26.11	16.81	26.11	RCP		Q10	3.0950	0.00	DA 170	15.28	5.43	16.81	28"x18"	0.0355	11.85	89.35	90	0.13	15.41	DITCH	1155.62	1152.45	
171	16TH ST. (NORTH)	36+08.37	0.00'	℄		171	407.43	0.50	70.51	1.45	2.77	462.43	757.82	462.43	757.82	RCB		Q50	244.4580	0.00	STR 11	73.81	3.00	801.23	16'x6'	0.0066	13.57	44.00	44	0.05	73.86	CREEK	1152.81	1152.52	
190	QUAIL ROAD	24+87.85	0.00'	℄		190	4.39	0.50	1.22	7.30	10.29	21.14	30.32	21.14	30.32	CGSP		Q10	2.1950	1.11	DA 190 & STR 60	22.49	4.51	14.89	36"	0.0474	8.56	8.24	8	0.02	22.50	DITCH	1190.53	1190.14	
191	QUAIL ROAD	26+61.00	33.00'	LT.		191	0.31	0.62	12.64	4.10	6.76	1.13	1.74	1.13	1.74	RCP		Q10	0.1922	0.00	DA 191	12.64	5.89	1.13	22"x13"	0.0033	2.81	48.00	48	0.28	12.92	DITCH	1197.70	1197.54	
233	16TH ST. (SOUTH)	5120+42.00	28.37'	LT.		229	0.30	0.63	10.00	4.54	7.31	1.22	1.86	1.22	1.86	RCP		Q10	0.1890	0.00	DA 229	10.00	6.44	1.22	22"x13"	0.0136	4.09	86.01	86	0.35	10.35	DITCH	1212.88	1211.71	
T1	US 81	90+35.00	0'	℄												RCPA		Q10	0.0000	0.00	EXIST. STR.	0.00			22"x13"	0.0089		711.03	712			DITCH	1195.70	1189.37	
T2	CROSSOVER 2		0'	℄												RCPA		Q10	0.0000	0.00	EXIST. STR.	0.00			28"x18"	0.0294		588.86	590			DITCH	1147.61	1130.31	
T3	QUAIL ROAD	41+99.00	0'	℄												CGSP		Q10	0.0000	0.00	EXIST. STR.	0.00			48"	0.0022		68.62	70			DITCH	1165.37	1165.22	
T4	QUAIL ROAD DETOUR	49+11.00	0'	℄			0.25	0.76	10.00	4.54	7.31	1.22	1.87	1.22	1.87	CGSP		Q10	0.1900	0.00	DITCH	10.00	6.44	1.22	18"	0.0238		106.64	108			DITCH	1181.60	1179.06	

US-81 REALIGNMENT
GRADY COUNTY

DRAINAGE RECORD

State Job No. 24428(13) Sheet No. R002

FINAL FIELD MEETING
JUNE 2020



LEGEND

(XX) STR. NO.

XX DRAINAGE AREA NO.

DRAINAGE AREA MAP

State Job No. 24428(13) Sheet No. R003

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SUMMARY OF DISTURBED DRAINAGE AREAS

ALIGNMENT	DISTURBED AREA NO.	OUTFLOW LOCATION (STATION)	DISTURBED AREA (STATION TO STATION)	DIRECTION TO OUTFALL	DESCRIPTION OF AREA	EROSION CONTROL MEASURES	DISTURBED AREA (AC.)
US 81	D1	STA. 90+50	STA. 90+50 TO STA. 99+93	S	CROWN OF ROAD LT. TO RT.	SILT DIKE & SOLID SLAB SODDING	0.57
US 81	D2	STA. 103+10	STA. 100+94 TO STA. 103+10	N	CROWN OF ROAD RT. TO TOE OF SLOPE RT.	FIBER LOG & SOLID SLAB SODDING	0.41
US 81	D3	STA. 100+94	STA. 100+94 TO STA. 105+00	S	CROWN OF ROAD LT. TO RT.	FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	0.26
US 81	D4	STA. 108+50	STA. 100+94 TO STA. 108+50	E	CROWN OF ROAD LT. TO TOE OF SLOPE LT.	SEDIMENT TRAP, FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	2.04
US 81	D5	TOE OF SLOPE	STA. 103+10 TO STA. 112+50	E	CROWN OF ROAD LT. TO TOE OF SLOPE RT.	FIBER LOG, SEDIMENT FILTER, SILT DIKE, & SOLID SLAB SODDING	1.90
US 81	D6	STA. 108+50	STA. 107+60 TO STA. 113+65	E	CROWN OF ROAD RT. TO TOE OF SLOPE RT.	SEDIMENT TRAP, FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	2.49
US 81	D7	STA. 108+50	STA. 108+50 TO STA. 113+65	E	CROWN OF ROAD LT. TO TOE OF SLOPE LT.	SEDIMENT TRAP, FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	1.75
EW 140.5	D8	STA. 36+05	STA. 35+40 TO STA. 36+05	E	CROWN OF ROAD TO TOE OF SLOPE RT.	SOLID SLAB SODDING	0.04
US 81	D9	TOE OF SLOPE	STA. 113+65 TO STA. 122+00	W & E	TOE OF SLOPE LT. TO RT.	SILT FENCE, & SOLID SLAB SODDING	0.53
US 81	D10	STA. 108+50	STA. 113+65 TO STA. 121+60	E	CROWN OF ROAD LT. TO TOE OF SLOPE RT.	SEDIMENT TRAP, FIBER LOG, SEDIMENT FILTER, SILT DIKE, & SOLID SLAB SODDING	3.71
US 81	D11	STA. 108+50	STA. 113+67 TO STA. 119+64	E	CROWN OF ROAD LT. TO CROWN OF ROAD LT.	SEDIMENT TRAP, FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	2.36
US 81	D12	STA. 143+15	STA. 118+50 TO STA. 135+50	NE	CROWN OF ROAD RT. TO TOE OF SLOPE RT.	(2) SEDIMENT TRAP, FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	4.55
US 81	D13	STA. 143+15	STA. 119+23 TO STA. 130+00	NE	CROWN OF ROAD LT. TO RT.	SEDIMENT TRAP, FIBER LOG, SEDIMENT FILTER, SILT DIKE, & SOLID SLAB SODDING	1.83
US 81	D14	STA. 143+15	STA. 119+64 TO STA. 132+00	NE	CROWN OF ROAD LT. TO CROWN OF ROAD LT.	(2) SEDIMENT TRAP, FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	4.87
US 81	D15	STA. 143+15	STA. 130+00 TO STA. 139+13	NE	CROWN OF ROAD LT. TO RT.	FIBER LOG, SEDIMENT FILTER, SILT DIKE, & SOLID SLAB SODDING	1.73
US 81	D16	STA. 143+15	STA. 132+00 TO STA. 138+00	NE	CROWN OF ROAD LT. TO TOE OF SLOPE LT.	SEDIMENT TRAP, FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	2.65
US 81	D17	STA. 143+15	STA. 135+50 TO STA. 138+88	NE	CROWN OF ROAD RT. TO TOE OF SLOPE RT.	FIBER LOG, SILT DIKE, SILT FENCE, & SOLID SLAB SODDING	1.04
US 81	D18	STA. 149+50	STA. 143+80 TO STA. 165+00	E	PAVED SURFACE	SOLID SLAB SODDING	2.29
US 81	D19	STA. 149+50	STA. 141+96 TO STA. 148+68	E	PAVED SURFACE	SOLID SLAB SODDING	1.62
US 81	D20	STA. 149+50	STA. 143+72 TO STA. 165+00	E	PAVED SURFACE	SOLID SLAB SODDING	2.80
QUAIL RD.	D21	STA. 24+88	STA. 23+33 TO STA. 29+38	N	CROWN OF ROAD TO TOE OF SLOPE RT.	SILT DIKE & SOLID SLAB SODDING	0.71
QUAIL RD.	D22	STA. 24+88	STA. 25+73 TO STA. 29+55	N	CROWN OF ROAD TO TOE OF SLOPE LT.	SILT DIKE & SOLID SLAB SODDING	0.42
QUAIL RD.	D23	STA. 46+03	STA. 29+38 TO STA. 36+90	NE	CROWN OF ROAD RT. TO TOE OF SLOPE RT.	FIBER LOG, SILT DIKE & SOLID SLAB SODDING	1.50
QUAIL RD.	D24	STA. 40+19	STA. 29+55 TO STA. 34+06	E	CROWN OF ROAD LT. TO TOE OF SLOPE LT.	SILT DIKE & SOLID SLAB SODDING	0.75
QUAIL RD.	D25	STA.46+03	STA. 34+06 TO STA. 41+34	NE	CROWN OF ROAD LT. TO TOE OF SLOPE LT.	FIBER LOG, SILT DIKE & SOLID SLAB SODDING	1.63
QUAIL RD.	D26	STA. 40+19	STA. 34+05 TO STA. 40+00	E	CROWN OF ROAD TO TOE OF SLOPE	FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	1.26
QUAIL RD.	D27	STA. 46+03	STA. 40+15 TO STA. 45+09	NE	CROWN OF ROAD RT. TO TOE OF SLOPE RT.	SILT DIKE & SOLID SLAB SODDING	1.17
QUAIL RD.	D28	STA. 46+03	STA. 40+00 TO STA. 44+41	NE	CROWN OF ROAD LT. TO TOE OF SLOPE LT.	SEDIMENT TRAP, FIBER LOG, & SOLID SLAB SODDING	0.82
QUAIL RD.	D29	STA. 46+03	STA. 45+07 TO STA. 52+00	NE	CROWN OF ROAD RT. TO TOE OF SLOPE RT.	SEDIMENT TRAP, FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	1.67
16TH ST. (NORTH)	D30	STA. 29+50	STA. 19+90 TO STA. 32+75	NE	CROWN OF ROAD RT. TO TOE OF SLOPE RT.	SILT DIKE & SOLID SLAB SODDING	1.80
16TH ST. (NORTH)	D31	STA. 36+07	STA. 29+81 TO STA. 37+59	E	CROWN OF ROAD LT. TO RT.	SILT DIKE, SILT FENCE, & SOLID SLAB SODDING	1.14
16TH ST. (SOUTH)	D32	STA. 5113+67	STA. 5113+67 TO STA. 5119+65	S	CROWN OF ROAD LT. TO TOE OF SLOPE LT.	FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	0.72
16TH ST. (SOUTH)	D33	STA. 5136+90	STA. 5119+65 TO STA. 5136+90	SW	CROWN OF ROAD LT. TO TOE OF SLOPE LT.	SEDIMENT TRAP, FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	2.48
16TH ST. (SOUTH)	D34	STA. 5136+90	STA. 5131+02 TO STA. 5136+90	SW	CROWN OF ROAD LT. TO TOE OF SLOPE RT.	FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	0.83
16TH ST. (SOUTH)	D35	STA. 5136+90	STA. 5136+90 TO STA. 5142+35	SW	CROWN OF ROAD RT. TO TOE OF SLOPE RT.	FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	0.81
RAMP C	D36	STA. 134+22	STA. 113+86 TO STA. 141+53	NE	CROWN OF ROAD LT. TO TOE OF SLOPE LT.	SEDIMENT TRAP, FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	3.24
RAMP C	D37	TOE OF SLOPE	STA. 117+00 TO STA. 126+00	N/A	CROWN OF ROAD RT. TO TOE OF SLOPE RT.	FIBER LOG, SILT FENCE, & SOLID SLAB SODDING	1.48
RAMP C	D38	STA. 149+17	STA. 126+00 TO STA. 150+32	NE	CROWN OF ROAD RT. TO TOE OF SLOPE RT.	(2) SEDIMENT TRAP, FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	3.92
RAMP D	D39	STA. 213+00	STA. 212+28 TO STA. 214+38	NE	RAMP D & 16th ST. (NORTH) INTERSECTION	SOLID SLAB SODDING	0.39
RAMP D	D40	STA. 213+66	STA. 213+66 TO STA. 217+50	NE	CROSSOVER 2	SOLID SLAB SODDING	0.51
RAMP D	D41	STA. 217+31	STA. 217+29 TO STA. 231+65	NE	RAMP E & F INTERCHANGE	(2) SEDIMENT TRAP, FIBER LOG, SILT FENCE, SILT DIKE, & SOLID SLAB SODDING	3.11
RAMP D	D42	STA. 217+54	STA. 217+52 TO STA. 232+62	NE	CROWN OF ROAD RT. TO TOE OF SLOPE RT.	SEDIMENT TRAP, FIBER LOG, SILT FENCE, SILT DIKE, & SOLID SLAB SODDING	2.06
RAMP D	D43	STA. 240+19	STA. 228+06 TO STA. 241+23	NE	CROWN OF ROAD LT. TO RT.	SEDIMENT TRAP, FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	2.38
RAMP D	D44	STA. 240+19	STA. 232+25 TO STA. 242+00	NE	CROWN OF ROAD LT. TO RT.	SEDIMENT TRAP, FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	2.37
RAMP D	D45	STA. 240+19	STA. 241+00 TO STA. 243+48	NE	CROWN OF ROAD LT. TO TOE OF SLOPE LT.	FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	0.64
RAMP D	D46	STA. 249+35	STA. 242+00 TO STA. 244+00	E	CROWN OF ROAD LT. TO TOE OF SLOPE RT.	FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	0.51
RAMP E	D47	STA. 252+00	STA. 252+00 TO STA. 262+64	W	CROWN OF ROAD LT. TO TOE OF SLOPE LT.	FIBER LOG, SILT DIKE, & SOLID SLAB SODDING	1.99

NOTES:

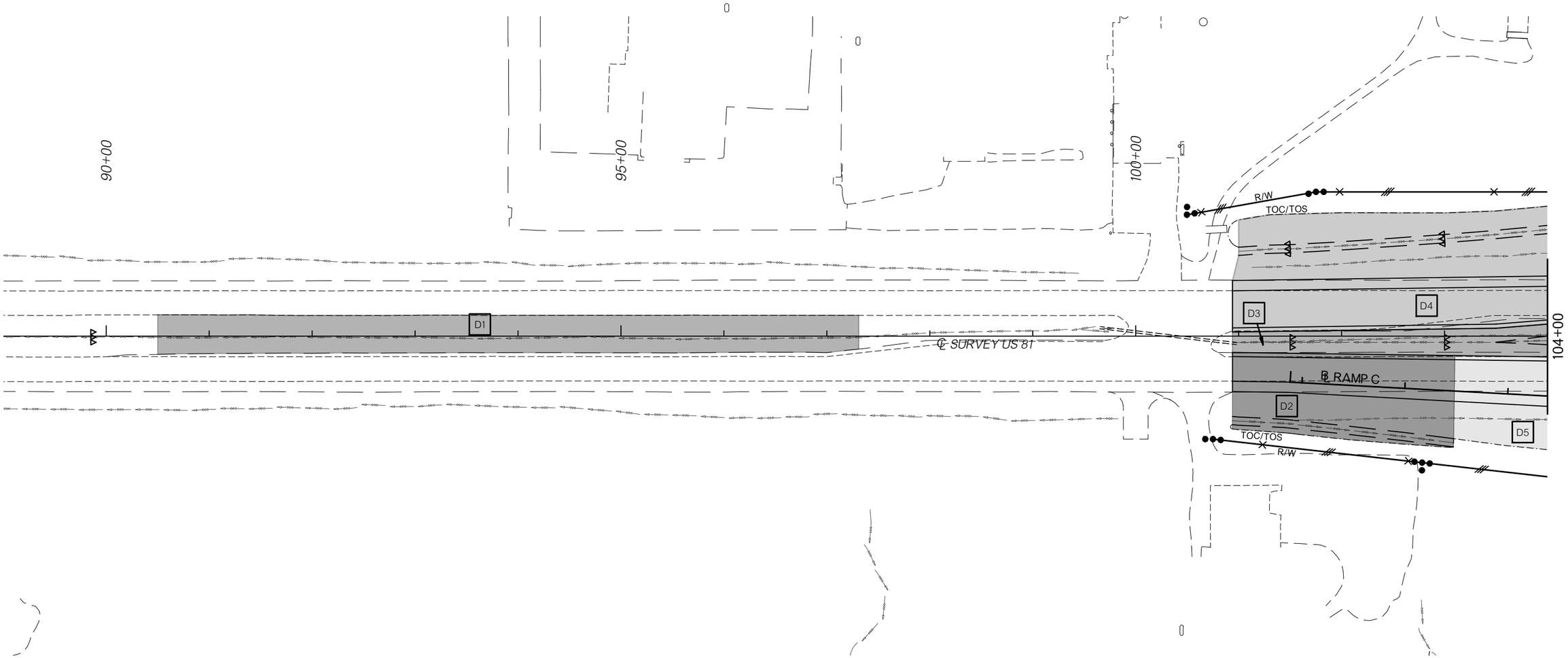
1) PLACE SOLID SLAB SOD ON FINISHED SLOPES IMMEDIATELY AFTER COMPLETION TO REDUCE THE AMOUNT OF DISTURED AREAS IN EACH PHASE OF CONSTRUCTION.

US-81 REALIGNMENT
GRADY COUNTY

SUMMARY OF DISTURBED DRAINAGE AREAS

State Job No. 24428(13) Sheet No. R004

FINAL FIELD MEETING
JUNE 2020



LEGEND

TEMP. SILT DIKE	
TEMP. SILT FENCE	XXXXX
TEMP. SEDIMENT FILTER	
TEMP. SEDIMENT TRAP	
DITCH/PAVED DITCH	
RIPRAP	
DRAINAGE DIRECTION	
ROCK FILTER DAM	RFD

0 50' 100'

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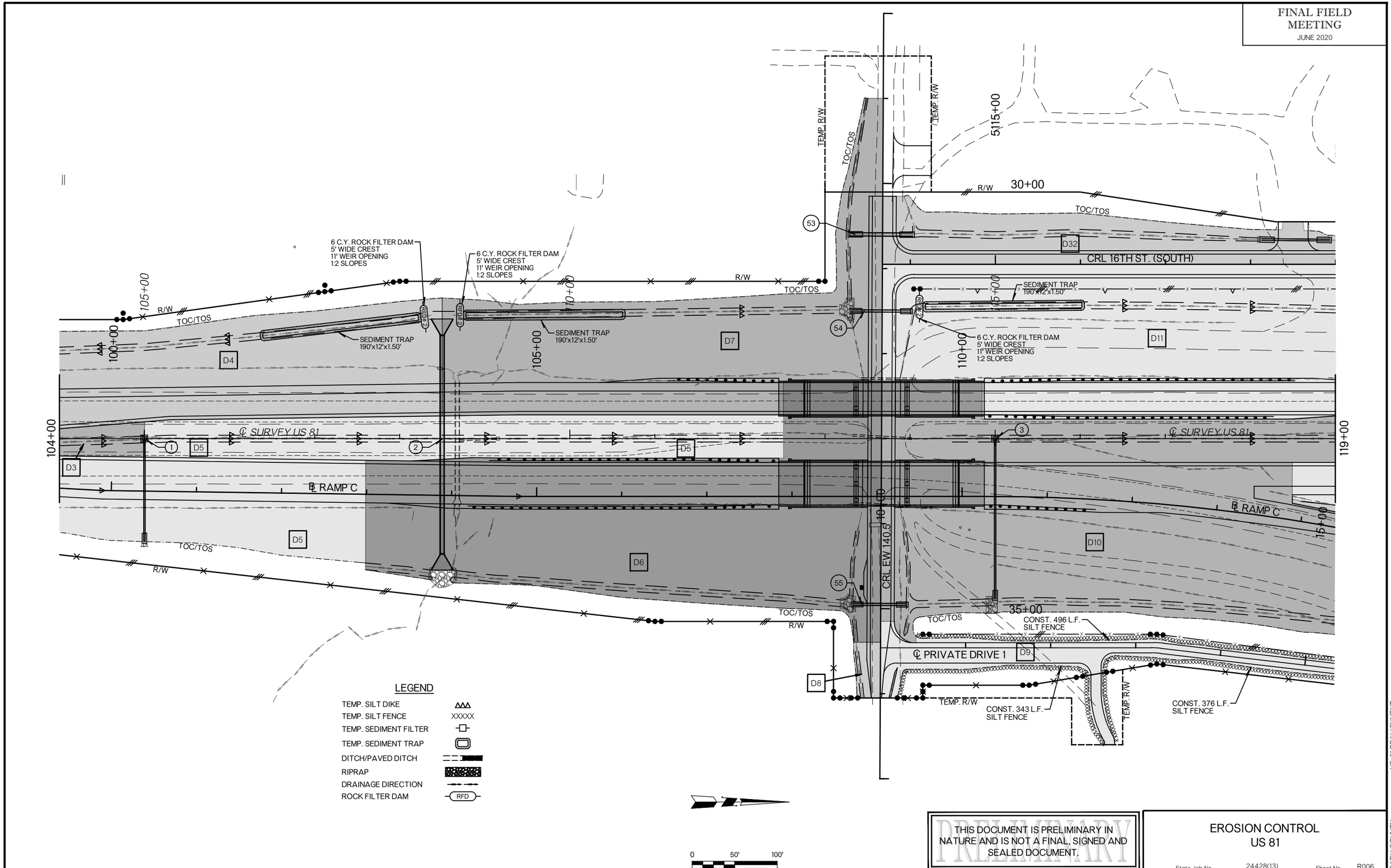
EROSION CONTROL
US 81

State Job No. 24428(13) Sheet No. R005

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



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EROSION CONTROL
US 81

State Job No. 24428(13) Sheet No. R006

US-81 REALIGNMENT

GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

5120+00
5125+00
5130+00
R/W
TOC/TOS
D32
D33
CRL 16TH ST. (SOUTH)
120+00
125+00
130+00
7 C.Y. ROCK FILTER DAM
5' WIDE CREST
13' WEIR OPENING
1:2 SLOPES
RFD#1
SEDIMENT TRAP
165'x14'x1.50'
D11
D14
D16
115+00
SEDIMENT TRAP
305'x8'x1.50'
℄ RAMP A
5 C.Y. ROCK FILTER DAM
5' WIDE CREST
7' WEIR OPENING
1:2 SLOPES
RFD#3
119+00
134+00
℄ SURVEY US 81
D10
D12
D13
D15
5
4
120+00
7 C.Y. ROCK FILTER DAM
5' WIDE CREST
13' WEIR OPENING
1:2 SLOPES
RFD#2
SEDIMENT TRAP
160'x14'x1.50'
D36
19+00
TOC/TOS
CONST. 139 L.F.
SILT FENCE
℄ PRIVATE DRIVE 1
D9
R/W
CONST. 336 L.F.
SILT FENCE
℄ RAMP C
D37

LEGEND

TEMP. SILT DIKE	ΔΔΔ
TEMP. SILT FENCE	XXXXX
TEMP. SEDIMENT FILTER	
TEMP. SEDIMENT TRAP	
DITCH/PAVED DITCH	
RIPRAP	
DRAINAGE DIRECTION	
ROCK FILTER DAM	RFD

0 50' 100'

125+00

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EROSION CONTROL
US 81

State Job No. 24428(13) Sheet No. R007

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

LEGEND

- TEMP. SILT DIKE
- TEMP. SILT FENCE — XXXXX
- TEMP. SEDIMENT FILTER
- TEMP. SEDIMENT TRAP
- DITCH/PAVED DITCH
- RIPRAP
- DRAINAGE DIRECTION
- ROCK FILTER DAM — RFD

CRL 16TH ST (SOUTH)
R/W
TOC/TOS
℄ RAMP A
℄ RAMP B
℄ SURVEY EW 140 (QUAIL RD.)
℄ SURVEY US 81
℄ RAMP D
D12 D15 D16 D17 D18 D19 D20 D25 D26 D27 D28 D29 D31 D43 D44 D45 D46
59 6 62 64
RFD
SEDIMENT TRAP
165'x14'x1.50'
7 C.Y. ROCK FILTER DAM
5' WIDE CREST
13' WEIR OPENING
1:2 SLOPES
CONST. 211 L.F.
SILT FENCE
CONST. 118 L.F.
SILT FENCE
134+00
135+00
140+00
145+00
150+00
155+00
160+00
35+00
40+00
45+00
240+00
245+00
PHILLIP LANE
0 50' 100'

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EROSION CONTROL
US 81

State Job No. 24428(13) Sheet No. R008

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

250+00
R/W
TOC/TOS
255+00
260+00
R/W
R/W
150+00
155+00
160+00
TOC/TOS
℄ RAMP B
D20
250+00
255+00
260+00
℄ RAMP B
D20
149+00
℄ SURVEY US 81
℄ SURVEY US 81
164+00
D18
℄ RAMP D
D18
℄ RAMP D
TOC/TOS
R/W
TOC/TOS
R/W
GLENDA WAY
CREEK
HAVEN
ESTATES
38+00

LEGEND

TEMP. SILT DIKE	
TEMP. SILT FENCE	XXXXX
TEMP. SEDIMENT FILTER	
TEMP. SEDIMENT TRAP	
DITCH/PAVED DITCH	
RIPRAP	
DRAINAGE DIRECTION	
ROCK FILTER DAM	RFD

0 50' 100'

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EROSION CONTROL
US 81

State Job No. 24428(13) Sheet No. R009

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

R/W
TOC/TOS
165+00
170+00
175+00
164+00
179+00
D20
D18
℄ SURVEY US 81
℄ RAMP D
TOC/TOS
R/W
TEMP. R/W
TEMP. R/W
TEMP. R/W
TOC/TOS
R/W

LEGEND

TEMP. SILT DIKE	
TEMP. SILT FENCE	XXXXX
TEMP. SEDIMENT FILTER	
TEMP. SEDIMENT TRAP	
DITCH/PAVED DITCH	
RIPRAP	
DRAINAGE DIRECTION	
ROCK FILTER DAM	RFD

0 50' 100'

SOD PLACED IN J/P 24428(04)

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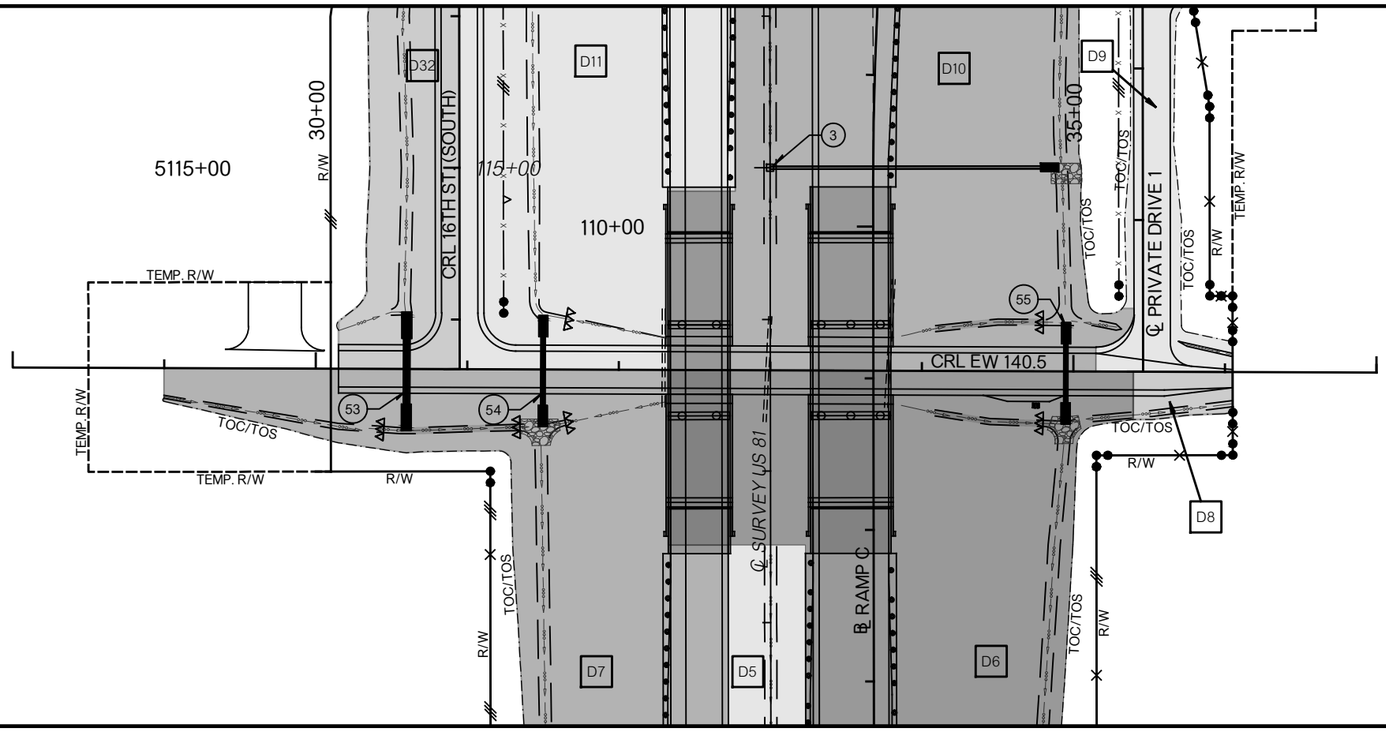
EROSION CONTROL
US 81

State Job No. 24428(13) Sheet No. R010

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



LEGEND

- TEMP. SILT DIKE
- TEMP. SILT FENCE — XXXXX
- TEMP. SEDIMENT FILTER
- TEMP. SEDIMENT TRAP
- DITCH/PAVED DITCH
- RIPRAP
- DRAINAGE DIRECTION
- ROCK FILTER DAM — RFD

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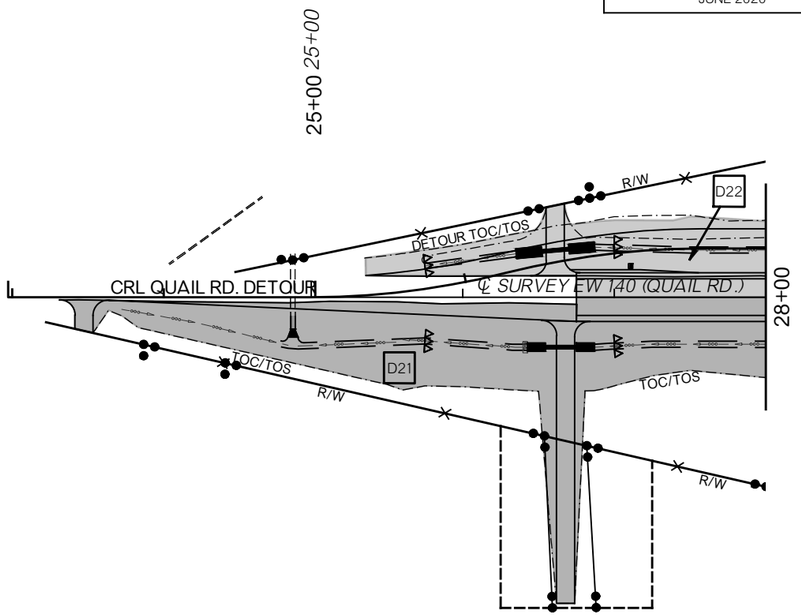
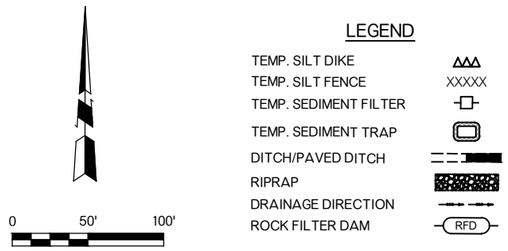
EROSION CONTROL
EW 140.5

State Job No. 24428(13) Sheet No. R011

US-81 REALIGNMENT
GRADY COUNTY

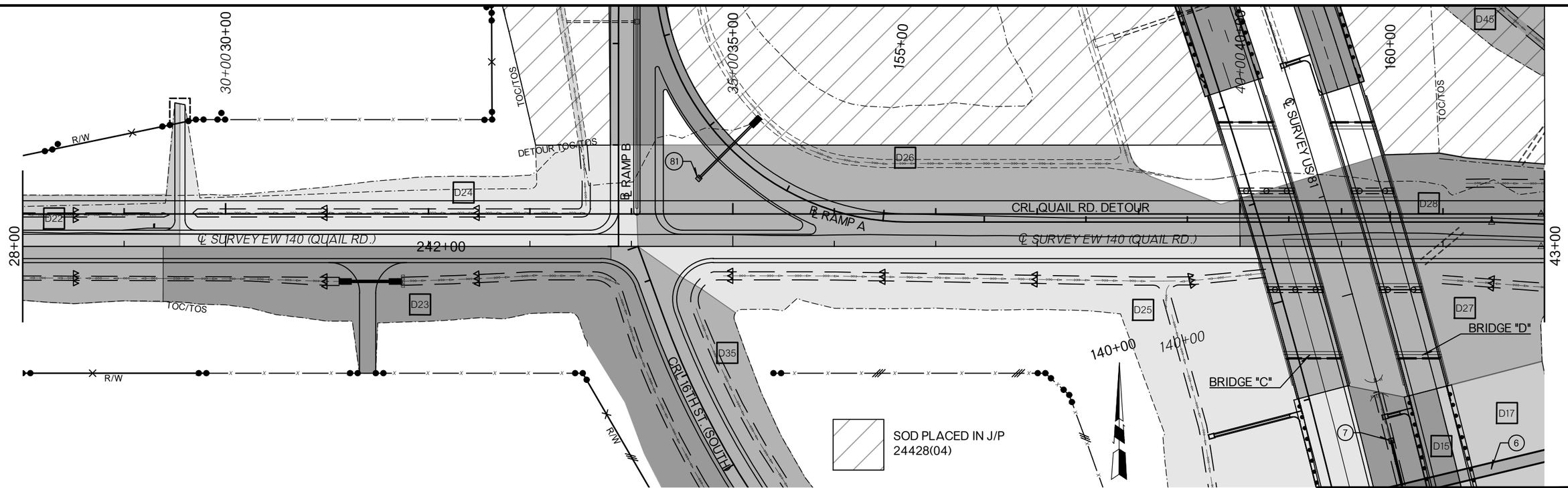
FINAL FIELD MEETING
JUNE 2020





LEGEND

TEMP. SILT DIKE	ΔΔΔ
TEMP. SILT FENCE	XXXXX
TEMP. SEDIMENT FILTER	
TEMP. SEDIMENT TRAP	
DITCH/PAVED DITCH	
RIPRAP	
DRAINAGE DIRECTION	
ROCK FILTER DAM	RFD



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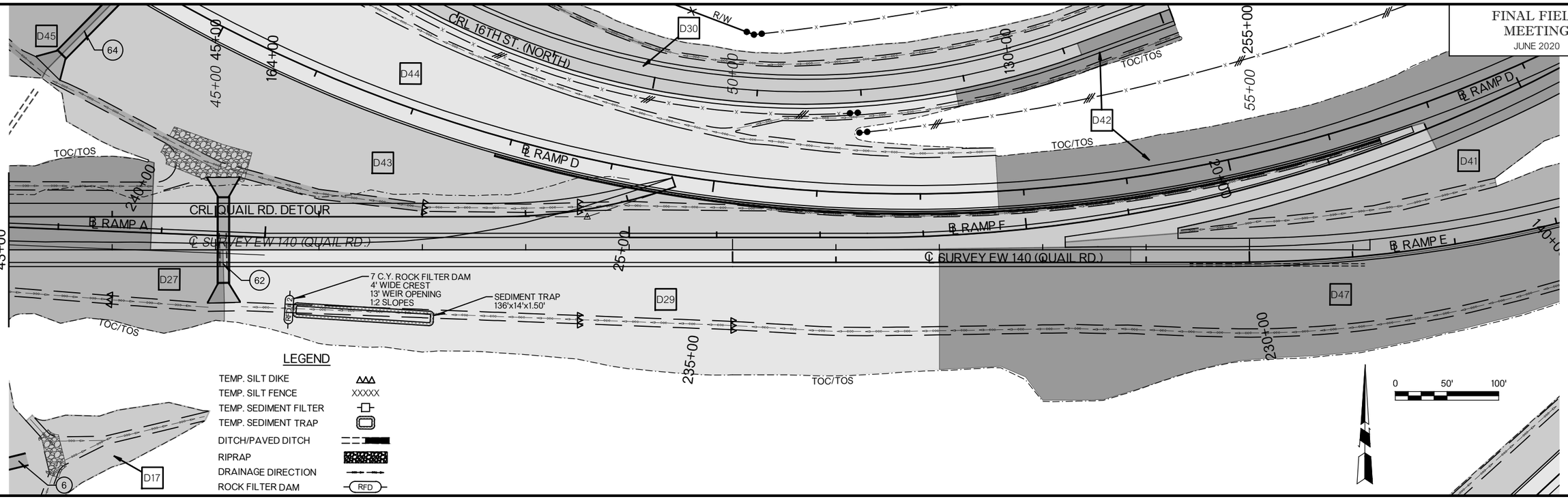
EROSION CONTROL
QUAIL RD.

State Job No. 24428(13) Sheet No. R012

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



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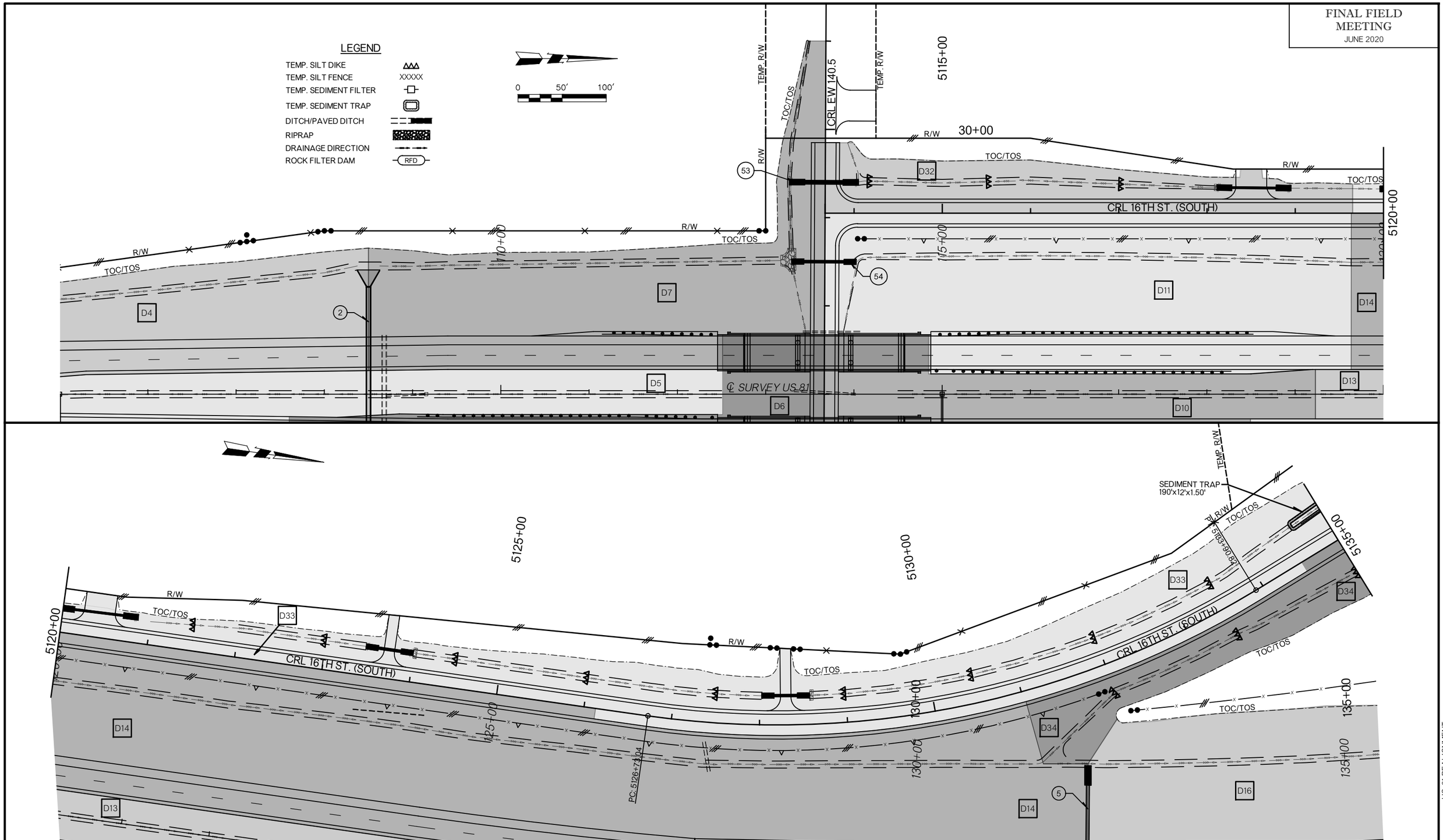
EROSION CONTROL
QUAIL RD.

State Job No. 24428(13) Sheet No. R013

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



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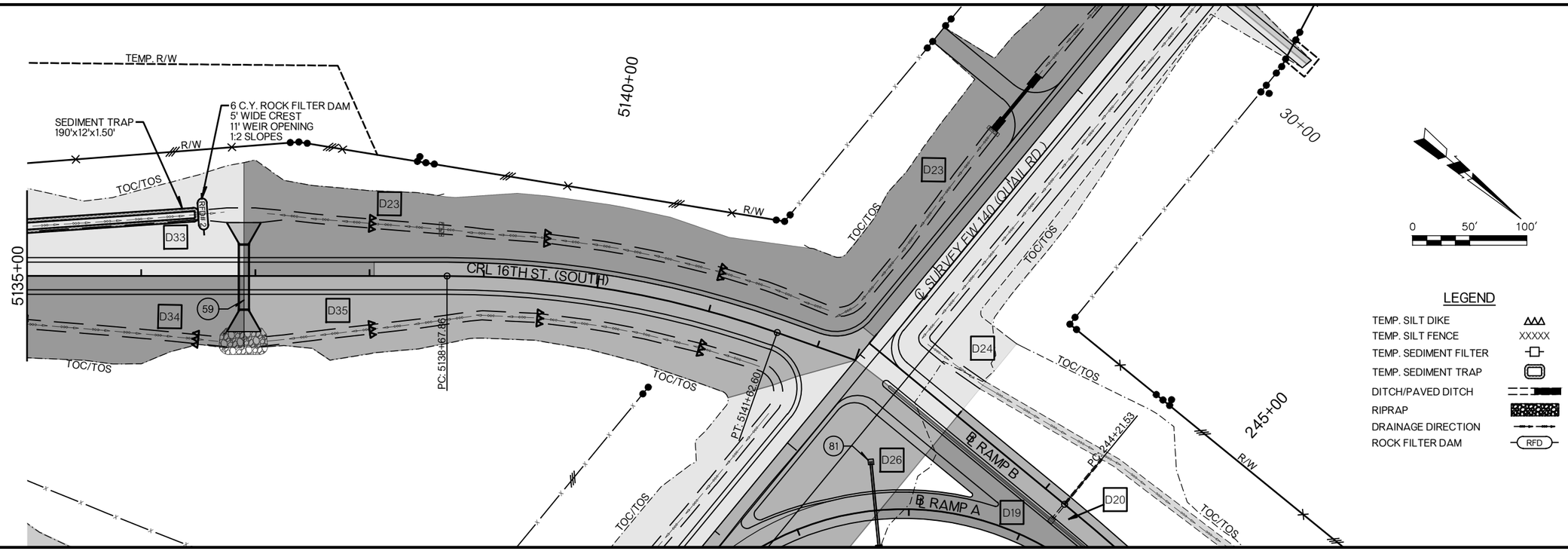
EROSION CONTROL
16TH ST. (SOUTH)

State Job No. 24428(13) Sheet No. R014

US-81 REALIGNMENT

GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



LEGEND

TEMP. SILT DIKE	ΔΔΔ
TEMP. SILT FENCE	XXXXX
TEMP. SEDIMENT FILTER	□
TEMP. SEDIMENT TRAP	▭
DITCH/PAVED DITCH	
RIPRAP	
DRAINAGE DIRECTION	
ROCK FILTER DAM	RFD

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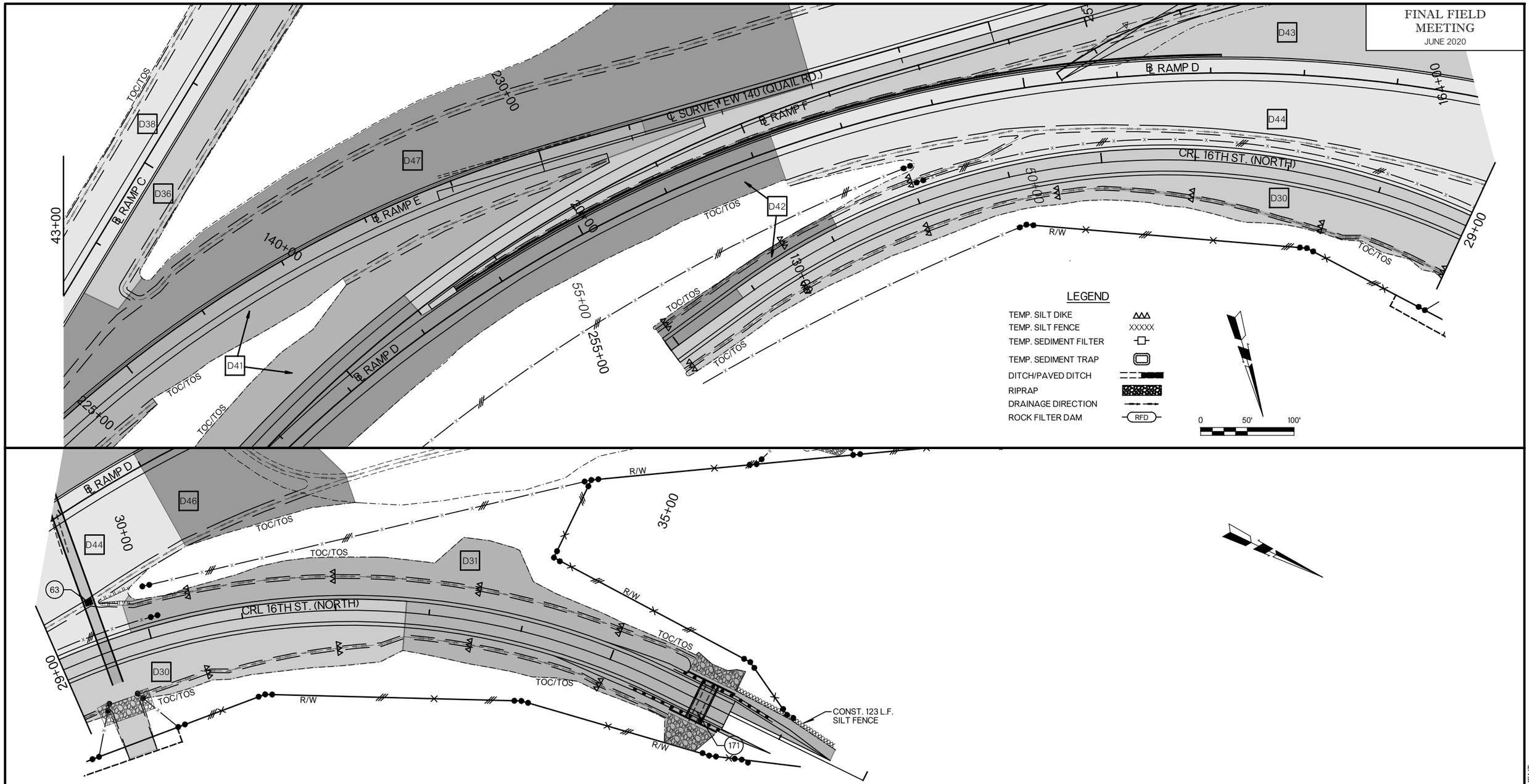
PRELIMINARY

EROSION CONTROL
16TH ST. (SOUTH)

State Job No. 24428(13) Sheet No. R015

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



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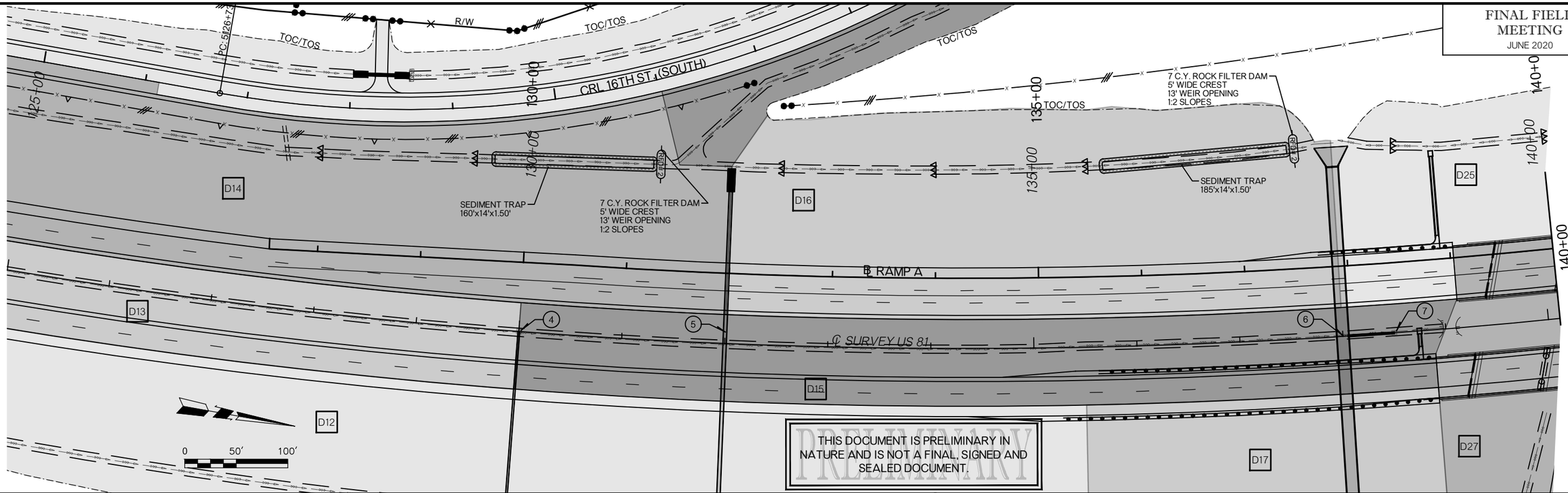
EROSION CONTROL
16TH (NORTH)

State Job No. 24428(13) Sheet No. R016

US-81 REALIGNMENT

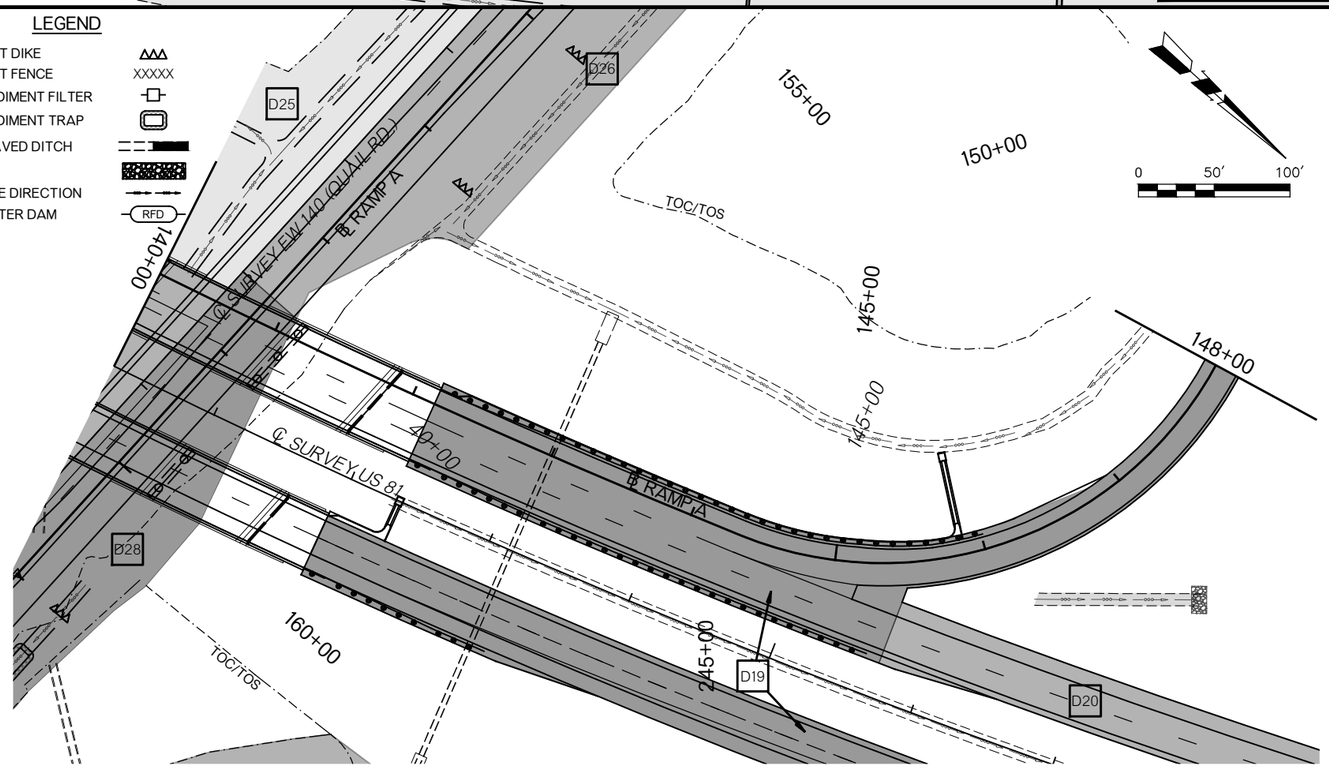
GRADY COUNTY

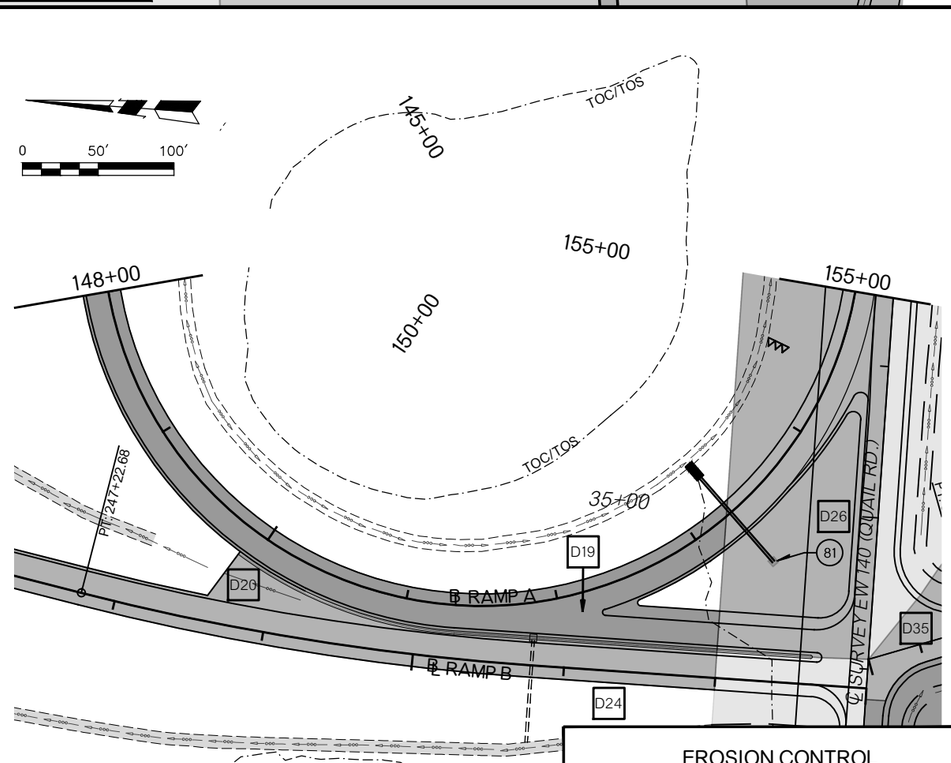
FINAL FIELD MEETING
JUNE 2020



LEGEND

- TEMP. SILT DIKE
- TEMP. SILT FENCE (XXXXX)
- TEMP. SEDIMENT FILTER
- TEMP. SEDIMENT TRAP
- DITCH/PAVED DITCH
- RIPRAP
- DRAINAGE DIRECTION
- ROCK FILTER DAM (RFD)



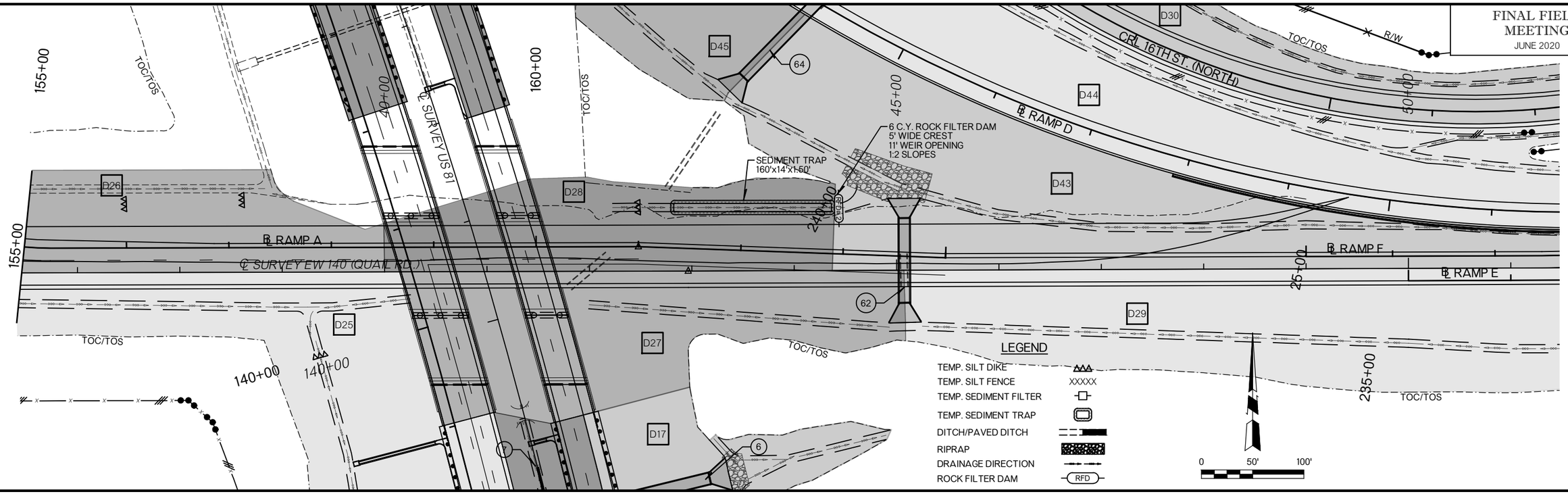


EROSION CONTROL
RAMP A

State Job No. 24428(13) Sheet No. R017

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



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EROSION CONTROL
RAMP A

State Job No. 24428(13) Sheet No. R018

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

100+00
105+00
109+00
110+00
115+00
120+00
124+00
℄ SURVEY US 81
℄ RAMP C
℄ SE DRIVEWAY
R/W
TOC/TOS
TEMP. R/W
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
D36
D37
PI: 99+48.87
PI: 104+78.92
PC: 110+29.90
PC: 113+18.05
PC: 117+35.56
PT: 117+82.60
CONST. 259 L.F. SILT FENCE
CONST. 190 L.F. SILT FENCE
CONST. 689 L.F. SILT FENCE
6 C.Y. ROCK FILTER DAM
5' WIDE CREST
11' WEIR OPENING
1:2 SLOPES
SEDIMENT TRAP
185'x12'x1.50'
1
2
3
55
0 50′ 100′

LEGEND

TEMP. SILT DIKE	ΔΔΔ
TEMP. SILT FENCE	XXXXX
TEMP. SEDIMENT FILTER	
TEMP. SEDIMENT TRAP	
DITCH/PAVED DITCH	
RIPRAP	
DRAINAGE DIRECTION	
ROCK FILTER DAM	RFD

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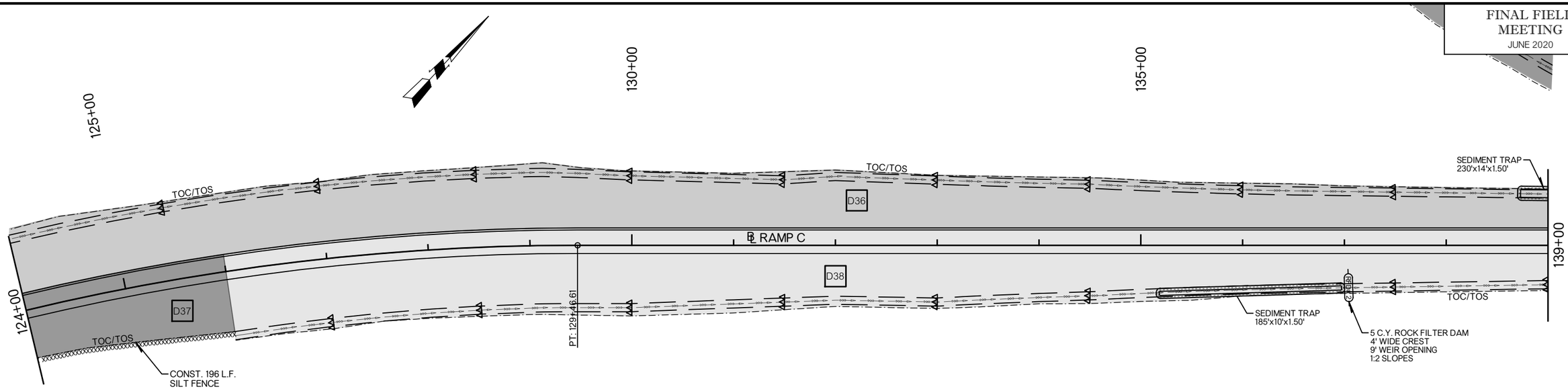
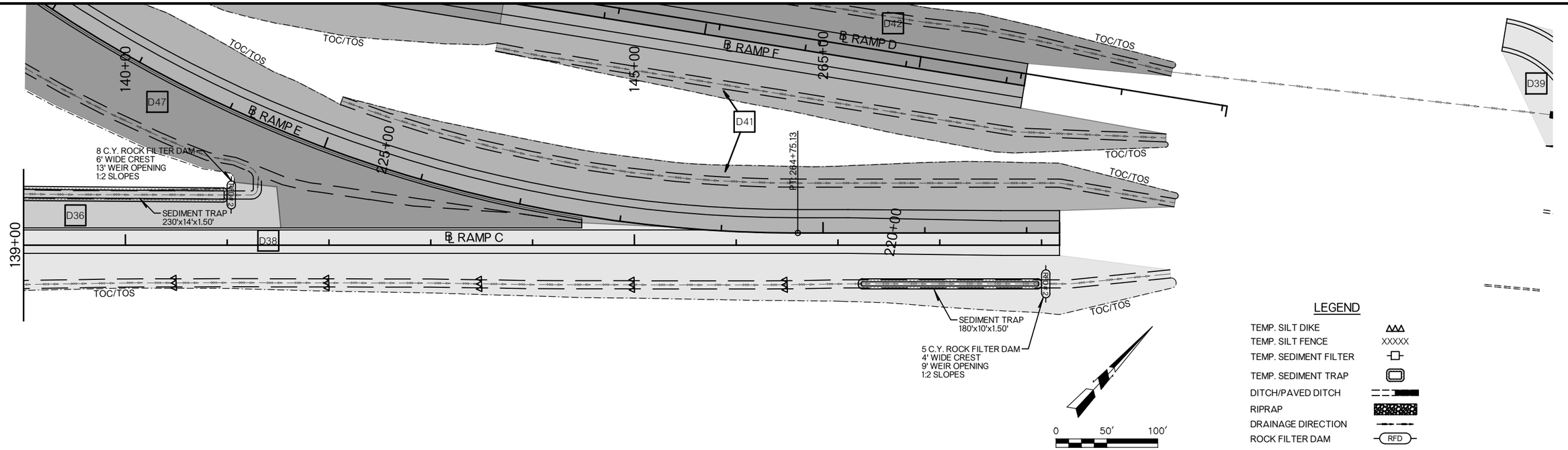
EROSION CONTROL
RAMP C

State Job No. 24428(13) Sheet No. R019

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020





LEGEND

TEMP. SILT DIKE	ΔΔΔ
TEMP. SILT FENCE	XXXXX
TEMP. SEDIMENT FILTER	
TEMP. SEDIMENT TRAP	
DITCH/PAVED DITCH	
RIPRAP	
DRAINAGE DIRECTION	
ROCK FILTER DAM	RFD

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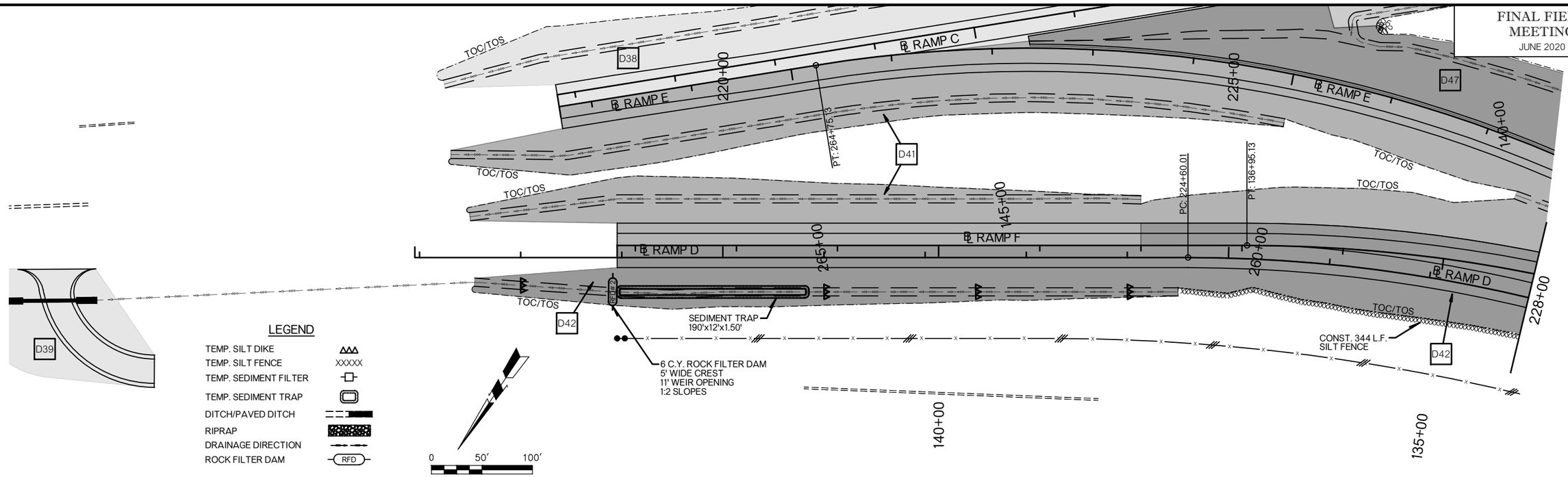
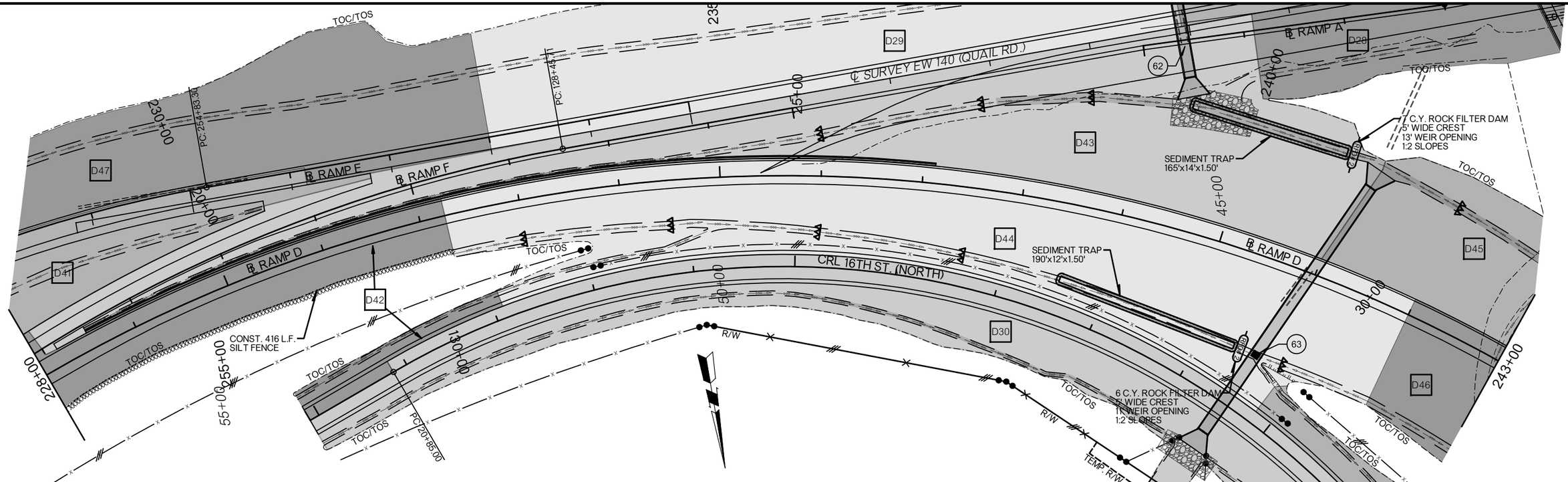
EROSION CONTROL
RAMP C

State Job No. 24428(13) Sheet No. R020

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020





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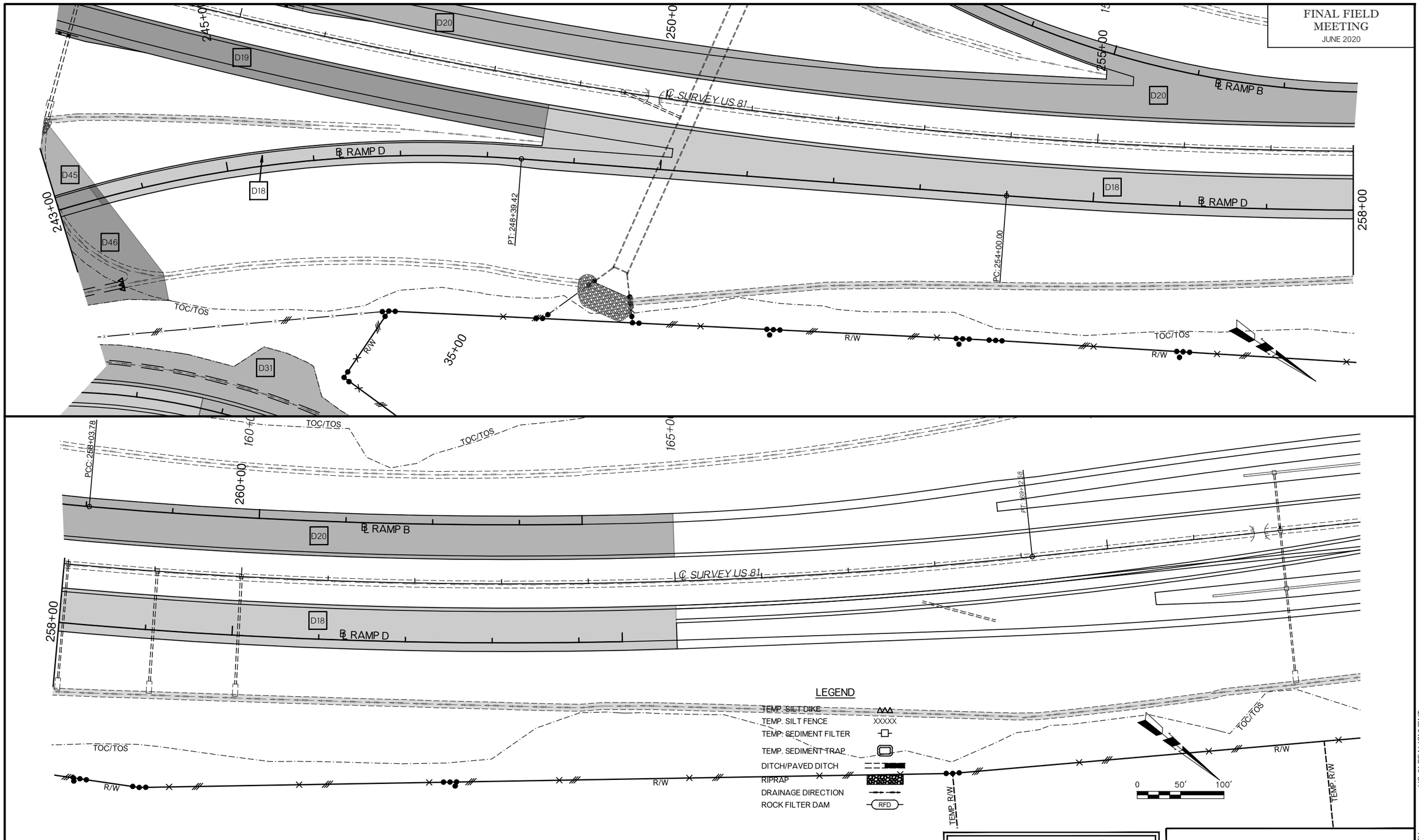
EROSION CONTROL
RAMP D

State Job No. 24428(13) Sheet No. R021

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



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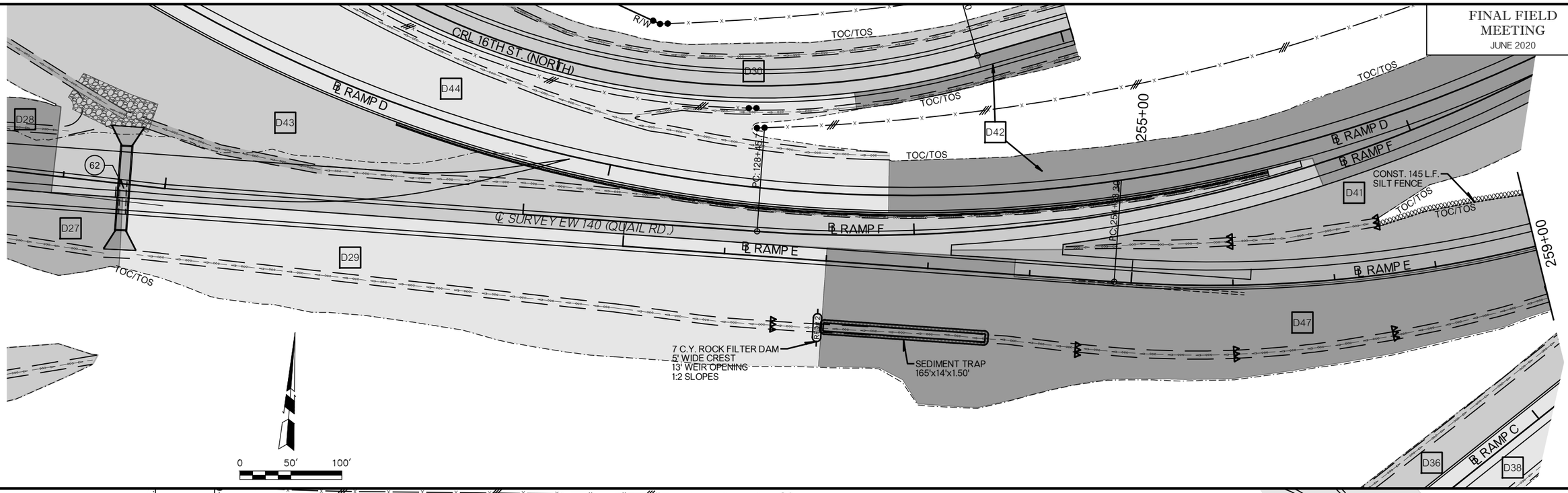
EROSION CONTROL
RAMP D

State Job No. 24428(13) Sheet No. R022

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



LEGEND

TEMP. SILT DIKE	ΔΔΔ
TEMP. SILT FENCE	XXXXX
TEMP. SEDIMENT FILTER	
TEMP. SEDIMENT TRAP	
DITCH/PAVED DITCH	
RIPRAP	
DRAINAGE DIRECTION	
ROCK FILTER DAM	RFD

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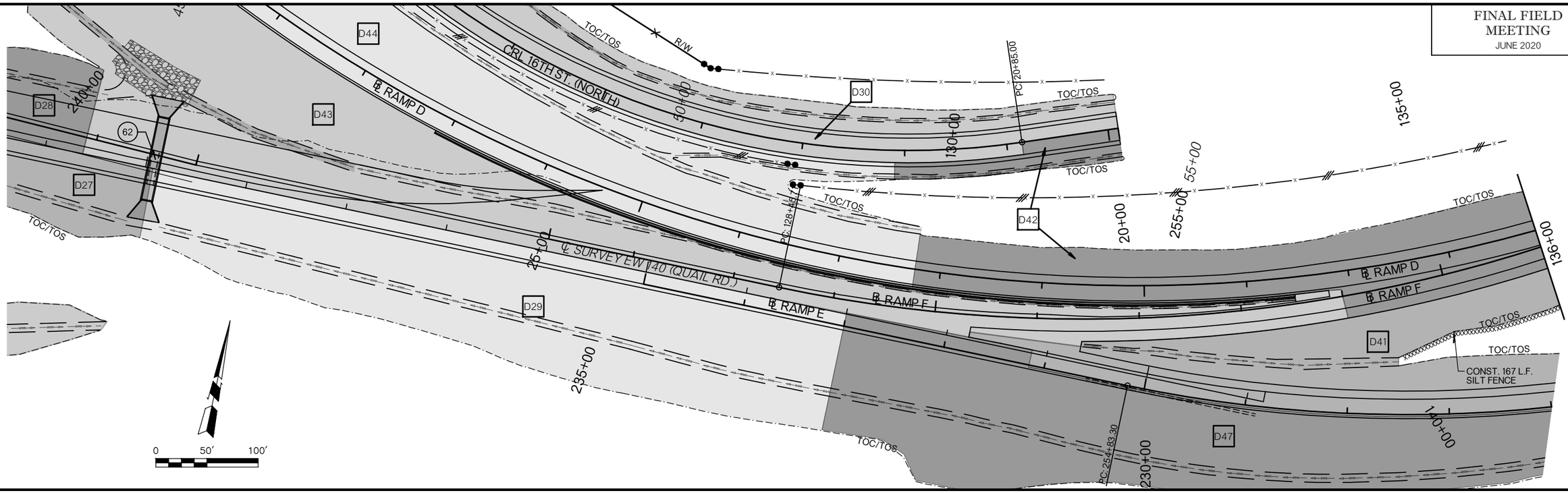
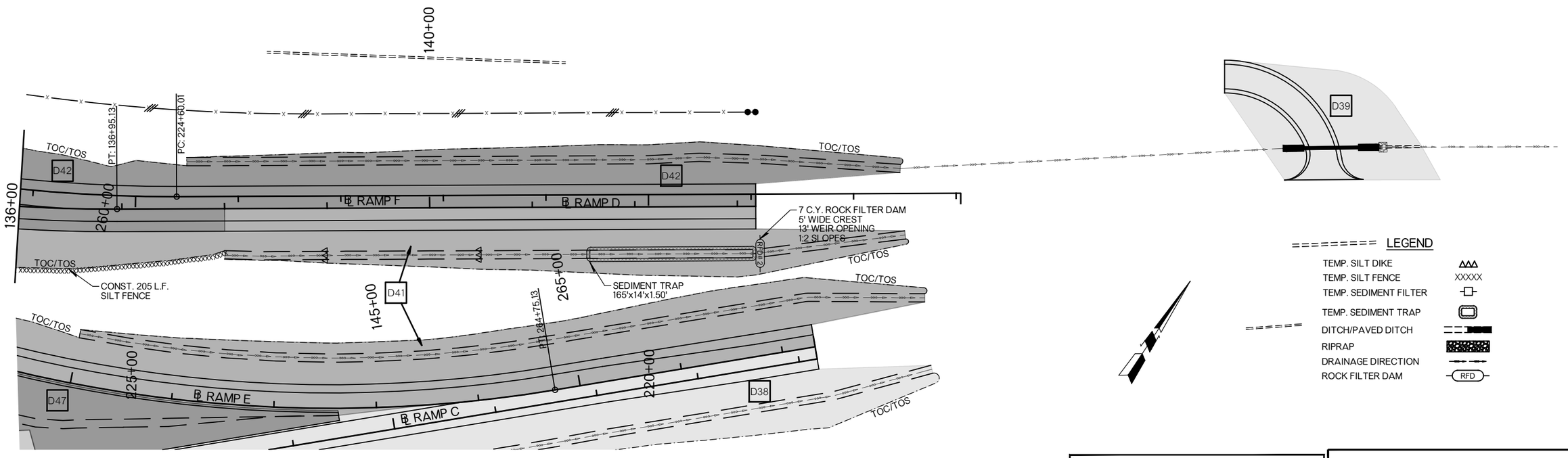
EROSION CONTROL
RAMP E

State Job No. 24428(13) Sheet No. R023

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020





LEGEND

- TEMP. SILT DIKE
- TEMP. SILT FENCE
- TEMP. SEDIMENT FILTER
- TEMP. SEDIMENT TRAP
- DITCH/PAVED DITCH
- RIPRAP
- DRAINAGE DIRECTION
- ROCK FILTER DAM (RFD)

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EROSION CONTROL
RAMP F

State Job No. 24428(13) Sheet No. R024

US-81 REALIGNMENT
GRADY COUNTY

SEC. 20 T6N R7W

FINAL FIELD MEETING
JUNE 2020

0 100′ 200′

EW 141
N 89°55'59.02" W

90+00

BOP: 30+00.00

30+00

CRL OLD FREDS RD.
N89°55'58.53"E

PI: 32+71.36

NS 283 ℄
N00°03'22.08"W

28.64'

℄ SURVEY US 81 (A001)
N00°04'06.40"W

95+00

BOP STA: 87+22.42 ℄ SURVEY US 81
= POT STA: 33+00.00 CRL OLD FREDS RD.

N89°55'15.68"E

35+00

EOP: 36+00.00

EW 141
S 89°55'15.68" W

PRELIMINARY

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SEE SURVEY DATA SHEETS FOR ALIGNMENT AND COGO INFORMATION FOR THE FOLLOWING ALIGNMENTS:
A001 - A019

SEC. 21 T6N R7W

GEOMETRIC LAYOUT

State Job No. 24428(13) Sheet No. R025

US-81 REALIGNMENT

GRADY COUNTY

SEC. 20 T6N R7W

FINAL FIELD MEETING
JUNE 2020

0 100′ 200′

EW 1405
N 89°53'35.30" W

5113+67

BOP: 28+00.00
CRL EW 140.5

BOP STA: 5113+67.22 CRL 16TH ST. (SOUTH)
= POT STA: 30+95.00 CRL EW 140.5

BOP 5113+67.22

BOP: 30+00.00

30+00

CRL 16TH ST. (SOUTH) 1305.82'
N00°03'59.50"W

BOP STA. 1109+14.73 ℄ SURVEY SB US 81
= POT STA: 113+75.27 ℄ SURVEY US 81, -32.00 LT.

S89°47'08.08"E
CRL EW 140.5

℄ SURVEY EW 140.5 (CR 1405)
(A010)

PI: 32+71.93

POT STA: 113+66.44 ℄ SURVEY US 81
= POT STA: 33+00.00 CRL EW 140.5

PC: I24+31.69

2652.85'
N 00°03'22.08" W

NS283

847.66'
N00°04'02.66"W

℄ SURVEY SB US 81 (A003)
N00°04'02.66"W

℄ SURVEY US 81 (A001)
N00°04'06.40"W

BOP STA. 1097+73.99 ℄ SURVEY NB US 81
= POT STA: 102+35.08 ℄ SURVEY US 81, 43.68 LT.

44.71

61'

68'

℄ SURVEY NB US 81 (A002)

300.44'
N03°02'19.85"E

490.05'
N00°03'01.95"W

℄ RAMP C

550.98'
N00°45'00.04"E

N00°04'06.40"W

℄ RAMP C

BOP STA: 96+88.43 ℄ RAMP C
= POT STA: 101+50.00 ℄ SURVEY US 81, 44.71 LT.

BOP: 96+88.43

BOP: 1097+73.99

PI: 99+88.87

PI: 104+78.92

PC: 1107+80.13

BOP: 101+50.00

S89°47'08.08"E

PC: 110+29.90

℄ RAMP C
C-1

℄ SURVEY NB US 81 (A002)

℄ RAMP C

TS: 1117+62.39

19+00

120+00

120+00

35+00

EOP: 36+00.00

36+00

℄ PRIVATE DRIVE 1

POT STA: 1109+05.17 ℄ SURVEY NB US 81
= POT STA: 33+46.73 ℄ SURVEY EW 140.5 (CR 1405)

POT STA: 109+05.11 ℄ RAMP C
= POT STA: 33+68.00 CRL EW 140.5

POT STA: 35+46.00 ℄ SURVEY EW 140.5 (CR 1405)
= POT STA: 10+00.00 ℄ PRIVATE DRIVE 1

POC STA: 1111+88.60 ℄ SURVEY NB US 81
= POC STA: 111+87.32 ℄ RAMP C

PC: 13+18.05

PT: 13+29.63

EOP: 37+00.00
CRL EW 140.5

PC: 17+35.56

PT: 17+82.60

EOP: 19+00.00

CURVE DATA
CURVE NO. C-1
P.I. STA. 120+46.22
Δ= 047°07'58.16"
R = 2330.0000'
D = 002°27'32.57"
T = 1016.3257'
L = 1916.7114'
Ch = 1863.1228'
E = 212.0106'
e =0.06'/'
S =0.05'/'
V = 60 mi/h

EW 140.5
S 89°55'12.12" W

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SEE SURVEY DATA SHEETS FOR ALIGNMENT AND COGO INFORMATION FOR THE FOLLOWING ALIGNMENTS:
A001 - A019

SEC. 21 T6N R7W

GEOMETRIC LAYOUT

State Job No. 24428(13) Sheet No. R026

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SEC. 20 T6N R7W

SEC. 17 T6N R7W

SEC. 21 T6N R7W

SEC. 16 T6N R7W

CURVE DATA
CURVE NO. US 81-1
P.I. STA. 147+93.78
Δ= 044°48'32.01"
R = 5729.5801'
D = 001°00'00.00"
T = 2362.0826'
L = 4480.8909'
Ch = 4367.5686'
E = 467.8002'
e = 0.06'/'
S = 0.034'/'
V = 70 mi/h

CURVE DATA
CURVE NO. A-1
P.I. STA. 137+46.08
Δ= 014°01'06.35"
R = 5661.5801'
D = 001°00'43.24"
T = 696.0790'
L = 1385.2062'
Ch = 1381.7537'
E = 42.6302'
e = 0.06'/'
S = 0.034'/'
V = 70 mi/h

CURVE DATA
CURVE NO. A-2
P.I. STA. 140+77.40
Δ= 249°53'03.76"
R = 250.0000'
D = 022°55'05.92"
T = 357.8048'
L = 1090.3263'
Ch = 409.8652'
E = 686.4909'
e = 0.06'/'
S = 0.06'/'
V = 30 mi/h

CURVE DATA
CURVE NO. FR-2
P.I. STA. 5140+16.66
Δ= 019°27'21.73"
R = 868.0000'
D = 006°36'03.23"
T = 148.8069'
L = 294.7484'
Ch = 293.3343'
E = 12.6631'
e =0.06'/'
S =0.044'/'
V = 35 mi/h

CURVE DATA
CURVE NO. A-1 EXT.
P.I. STA. 245+52.42
Δ= 032°44'07.81"
R = 267.0000'
D = 021°27'32.74"
T = 78.4191'
L = 152.5484'
Ch = 150.4820'
E = 11.2778'
e = 0.06'/'
S = 0.06'/'
V = 30 mi/h

CURVE DATA
CURVE NO. B-1
P.I. STA. 245+72.52
Δ= 010°23'39.28"
R = 1660.0000'
D = 003°27'05.59"
T = 150.9878'
L = 301.1469'
Ch = 300.7341'
E = 6.8525'
e = 0.06'/'
S = 0.048'/'
V = 50 mi/h

CURVE DATA
CURVE NO. B-2
P.I. STA. 254+13.01
Δ= 044°10'35.95"
R = 1070.0000'
D = 005°21'17.08"
T = 434.2280'
L = 825.0000'
Ch = 804.7159'
E = 84.7528'
e = 0.06'/'
S = 0.058'/'
V = 50 mi/h

CURVE DATA
CURVE NO. FR-1
P.I. STA. 5130+46.89
Δ= 039°32'37.80"
R = 1040.0000'
D = 005°30'33.15"
T = 373.8473'
L = 717.7769'
Ch = 703.6156'
E = 65.1524'
e =0.06'/'
S =0.042'/'
V = 35 mi/h

CURVE DATA
CURVE NO. C-1
P.I. STA. 120+46.22
Δ= 047°07'58.16"
R = 2330.0000'
D = 002°27'32.57"
T = 1016.3257'
L = 1916.7114'
Ch = 1863.1228'
E = 212.0106'
e =0.06'/'
S =0.05'/'
V = 60 mi/h

CURVE DATA
CURVE NO. 16TH-1
P.I. STA. 31+90.97
Δ= 110°35'12.32"
R = 766.0000'
D = 007°28'47.52"
T = 1105.9713'
L = 1478.4589'
Ch = 1259.4239'
E = 579.3359'
e =0.06'/'
S =0.04'/'
V = 30 mi/h

CURVE DATA
CURVE NO. D-1
P.I. STA. 240+15.52
Δ= 094°01'15.99"
R = 1450.0000'
D = 003°57'05.16"
T = 1555.5090'
L = 2379.4180'
Ch = 2121.2900'
E = 676.5249'
e = 0.06'/'
S = 0.052'/'
V = 50 mi/h

BOP STA: 242+00.00 ℄ RAMP B
= POT STA: 33+87.30 ℄ SURVEY EW 140 (QUAIL RD.)

EOP STA: 5142+35.26 CRL 16TH ST. (SOUTH)
= BOP STA: 242+00.00 ℄ RAMP A EXT
= POT STA: 34+06.46 ℄ SURVEY EW 140 (QUAIL RD.)

EOP PT STA: 246+26.56 ℄ RAMP A EXT
= POC STA: 246+26.56 ℄ RAMP A EXT 17' RT.

BOP STA. 127+53.04 ℄ RAMP A
= POT STA. 127+50.00 ℄ SURVEY US 81, 56' RT.

POC STA: 140+56.21 ℄ RAMP A
= POT STA: 40+26.55 ℄ SURVEY EW 140 (QUAIL RD.)

POT STA: 40+97.36 ℄ SURVEY EW 140 (QUAIL RD.)
= POC STA: 140+48.44 ℄ SURVEY US 81

PI STA: 42+96.60
℄ SURVEY EW 140 (QUAIL RD.)

POT STA: 159+42.45 ℄ RAMP A
= POC STA: 140+73.43 ℄ SURVEY US 81

EOP STA. 164+00.22 ℄ RAMP A
= POT STA. 45+47.93 ℄ SURVEY EW 140 (QUAIL RD.) 12' RT.

POT STA: 109+24.49 ℄ SURVEY 16TH AVE.
= PT STA: 35+63.46 CRL 16TH ST. (NORTH)

EOP STA: 38+00.00 CRL 16TH ST. (NORTH)

SEE SURVEY DATA SHEETS FOR ALIGNMENT AND COGO INFORMATION FOR THE FOLLOWING ALIGNMENTS:
A001 - A019

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PRELIMINARY

GEOMETRIC LAYOUT

State Job No. 24428(13) Sheet No. R027

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SEC. 17 T6N R7W

CURVE DATA
CURVE NO. B-2
P.I. STA. 254+13.01
Δ= 044°10'35.95"
R = 1070.0000'
D = 005°21'17.08"
T = 434.2280'
L = 825.0000'
Ch = 804.7159'
E = 84.7528'
e = 0.06'/'
S = 0.058'/'
V = 50 mi/h

CURVE DATA
CURVE NO. B-3
P.I. STA. 260+88.29
Δ= 005°45'13.21"
R = 5661.5801'
D = 001°00'43.24"
T = 284.5084'
L = 568.5386'
Ch = 568.2998'
E = 7.1441'
e = 0.06'/'
S = 0.034'/'
V = 70 mi/h

CURVE DATA
CURVE NO. D-2
P.I. STA. 259+26.44
Δ= 010°22'36.62"
R = 5797.5801'
D = 000°59'17.77"
T = 526.4396'
L = 1049.9997'
Ch = 1048.5653'
E = 23.8522'
e = 0.06'/'
S = 0.034'/'
V = 70 mi/h

CURVE DATA
CURVE NO. SB CD-1
P.I. STA. 264+05.84
Δ= 000°40'57.00"
R = 5661.5801'
D = 001°00'43.24"
T = 33.7204'
L = 67.4400'
Ch = 67.4396'
E = 0.1004'
e =0.06'/'
S =0.034'/'
V = 70 mi/h

CURVE DATA
CURVE NO. SB CD-2
P.I. STA. 266+11.36
Δ= 006°41'18.66"
R = 2940.0000'
D = 001°56'55.81"
T = 171.7980'
L = 343.2057'
Ch = 343.0108'
E = 5.0152'
e =0.06'/'
S =0.034'/'
V = 50 mi/h

CURVE DATA
CURVE NO. SB CD-3
P.I. STA. 271+66.51
Δ= 002°11'02.70"
R = 7870.0000'
D = 000°43'40.90"
T = 150.0182'
L = 300.0000'
Ch = 299.9818'
E = 1.4297'
e =0.06'/'
S =NC
V = 50 mi/h

CURVE DATA
CURVE NO. G-1
P.I. STA. 1194+92.65
Δ= 087°03'00.25"
R = 1670.0000'
D = 003°25'51.19"
T = 1586.1582'
L = 2537.2483'
Ch = 2300.1627'
E = 633.2147'
e = 0.06'/'
S = 0.048'/'
V = 50 mi/h

CURVE DATA
CURVE NO. US 81-1
P.I. STA. 147+93.78
Δ= 044°48'32.01"
R = 5729.5801'
D = 001°00'00.00"
T = 2362.0826'
L = 4480.8909'
Ch = 4367.5686'
E = 467.8002'
e =0.06'/'
S =0.034'/'
V = 70 mi/h

CURVE DATA
CURVE NO. D-2
P.I. STA. 259+26.44
Δ= 010°22'36.62"
R = 5797.5801'
D = 000°59'17.77"
T = 526.4396'
L = 1049.9997'
Ch = 1048.5653'
E = 23.8522'
e =
S =
V = 50 mi/h

CURVE DATA
CURVE NO. NB CD-1
P.I. STA. 264+81.53
Δ= 000°37'23.37"
R = 5797.5801'
D = 000°59'17.77"
T = 31.5280'
L = 63.0553'
Ch = 63.0550'
E = 0.0857'
e = 0.06'/'
S = 0.034'/'
V = 70 mi/h

CURVE DATA
CURVE NO. NB CD-2
P.I. STA. 270+71.68
Δ= 004°07'33.00"
R = 6200.0000'
D = 000°55'26.85"
T = 223.3256'
L = 446.4583'
Ch = 446.3618'
E = 4.0208'
e =0.06'/'
S =RC
V = 50 mi/h

CURVE DATA
CURVE NO. K-1
P.I. STA. 3195+77.25
Δ= 086°08'37.79"
R = 1940.0000'
D = 002°57'12.21"
T = 1813.6370'
L = 2916.7773'
Ch = 2649.7132'
E = 715.7257'
e = 0.06'/'
S = 0.044'/'
V = 50 mi/h

BOP STA: 273+40.00 ℄ US 81 SB CD RD. 2
= EOP STA: 273+16.49 ℄ US 81 SB CD RD. 1 15', LT.
= POT STA: 173+44.37 ℄ SURVEY US 81, 78.17' LT.

EOP PT STA: 263+72.32 ℄ RAMP B
= BOP PC STA: 263+72.12 ℄ US 81 SB CD RD. 1
= POC STA: 163+93.89 ℄ SURVEY US 81, 68.00' RT.

EOP PT STA: 264+50.00 ℄ RAMP D
= BOP PC STA: 264+50.00 ℄ US 81 NB CD RD. 1
= POC STA: 164+37.68 ℄ SURVEY US 81, 68.00' LT.

= POC STA: 169+12.58 ℄ SURVEY US 81, 32.00' LT.

BOP STA: 273+16.49 ℄ US 81 SB CD RD. 1
= EOP STA: 273+39.86 ℄ RAMP G
= POT STA: 173+44.37 ℄ SURVEY US 81, 93.17' RT.

BOP STA: 273+28.50 ℄ US 81 NB CD RD. 2
= BOP STA: 272+94.81 ℄ US 81 NB CD RD. 1-15.00', RT.
= POT STA: 172+75.97 ℄ SURVEY US 81, 78.17' LT.

EOP STA: 273+18.85 ℄ US 81 NB CD RD. 1
= BOP STA: 3172+99.60 ℄ RAMP K
= POT STA: 173+00.00 ℄ SURVEY US 81, 93.17' LT.

PI: 1176+35.63
PC: 1179+06.50
PT: 272+94.81
PI: 3175+00.00
PC: 3177+63.61

B-2 ℄ RAMP B
B-3
SB CD-1
SB CD-2
SB CD-3
℄ RAMP G
G-1
℄ US 81 SB CD RD. 1
℄ US 81 SB CD RD. 2
US 81-1
℄ SURVEY US 81 (A001)
D-2 ℄ RAMP D
NB CD-1
NB CD-2
℄ US 81 NB CD RD. 1
℄ US 81 NB CD RD. 2
K-1 ℄ RAMP K

68'
93.17'
102.17'
24.03'
233.73' N47°03'41.11"W
335.30' N40°45'05.40"W
295.77' N46°37'15.91"W
270.87' N44°52'38.41"W
200.20' N42°18'02.75"W
263.61' N44°52'38.41"W
4655.63' N44°52'38.41"W
1829.03' N44°52'38.41"W

NS 282.5 ℄
2655.60' N00°16'54.24"E
2656.02' N00°21'02.57"E
EW 139.5 ℄
2675.16' S89°34'13.03"E
EW 139.5 ℄
2648.98' S 89°53'28.73" W

255+00 260+00 265+00 270+00 275+00 280+00 285+00
155+00 160+00 165+00 175+00 180+00 185+00 190+00
3175+00 3180+00 3185+00
120+00

0 100' 200'

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PRELIMINARY

SEE SURVEY DATA SHEETS FOR ALIGNMENT AND COGO INFORMATION FOR THE FOLLOWING ALIGNMENTS:
A001 - A019

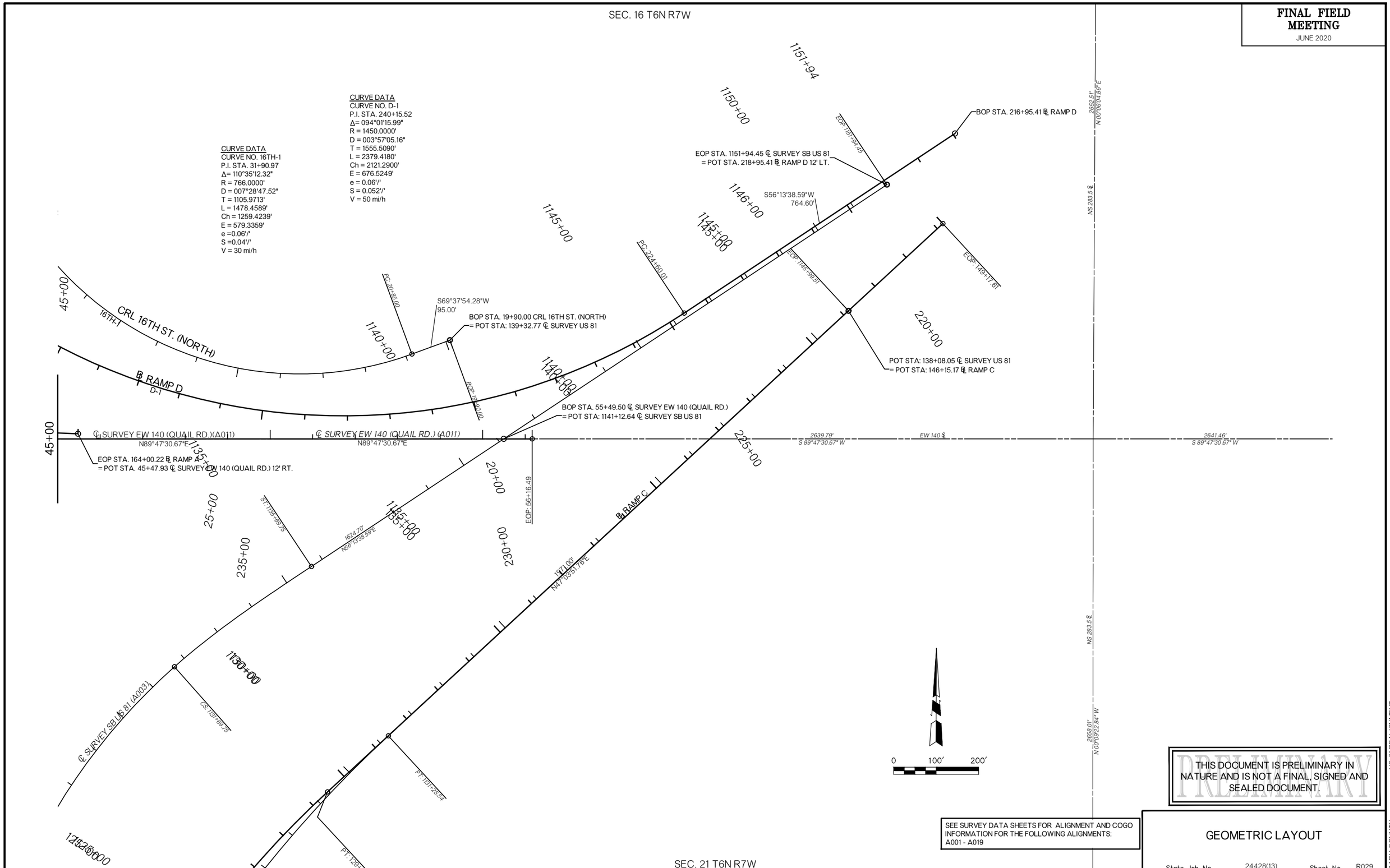
SEC. 16 T6N R7W

SEC. 17 T6N R7W

GEOMETRIC LAYOUT

State Job No. 24428(13) Sheet No. R028

US-81 REALIGNMENT
GRADY COUNTY



FINAL FIELD MEETING
JUNE 2020

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SEE SURVEY DATA SHEETS FOR ALIGNMENT AND COGO INFORMATION FOR THE FOLLOWING ALIGNMENTS:
A001 - A019

GEOMETRIC LAYOUT

State Job No. 24428(13) Sheet No. R029

US-81 REALIGNMENT

GRADY COUNTY

SEC. 17 T6N R7W

FINAL FIELD MEETING
JUNE 2020

SEC. 16 T6N R7W

CURVE DATA
CURVE NO. A-1
P.I. STA. 137+46.08
Δ= 014°01'06.35"
R = 5661.5801'
D = 001°00'43.24"
T = 696.0790'
L = 1385.2062'
Ch = 1381.7537'
E = 42.6302'
e = 0.06'/'
S = 0.034'/'
V = 70 mi/h

CURVE DATA
CURVE NO. A-2
P.I. STA. 140+77.40
Δ= 249°53'03.76"
R = 250.0000'
D = 022°55'05.92"
T = 357.8048'
L = 1090.3263'
Ch = 409.8652'
E = 686.4909'
e = 0.06'/'
S = 0.06'/'
V = 30 mi/h

CURVE DATA
CURVE NO. B-1
P.I. STA. 245+72.52
Δ= 010°23'39.28"
R = 1660.0000'
D = 003°27'05.59"
T = 150.9878'
L = 301.1469'
Ch = 300.7341'
E = 6.8525'
e = 0.06'/'
S = 0.048'/'
V = 50 mi/h

CURVE DATA
CURVE NO. B-2
P.I. STA. 254+13.01
Δ= 044°10'35.95"
R = 1070.0000'
D = 005°21'17.08"
T = 434.2280'
L = 825.0000'
Ch = 804.7159'
E = 84.7528'
e = 0.06'/'
S = 0.058'/'
V = 50 mi/h

CURVE DATA
CURVE NO. D-1
P.I. STA. 240+15.52
Δ= 094°01'15.99"
R = 1450.0000'
D = 003°57'05.16"
T = 1555.5090'
L = 2379.4180'
Ch = 2121.2900'
E = 676.5249'
e = 0.06'/'
S = 0.052'/'
V = 50 mi/h

CURVE DATA
CURVE NO. US 81-1
P.I. STA. 147+93.78
Δ= 044°48'32.01"
R = 5729.5801'
D = 001°00'00.00"
T = 2362.0826'
L = 4480.8909'
Ch = 4367.5686'
E = 467.8002'
e =0.06'/'
S =0.034'/'
V = 70 mi/h

CURVE DATA
CURVE NO. A-1EXT
P.I. STA. 245+52.42
Δ= 032°44'07.81"
R = 267.0000'
D = 021°27'32.74"
T = 78.4191'
L = 152.5484'
Ch = 150.4820'
E = 11.2778'
e =0.06'/'
S =0.06'/'
V = 30 mi/h

CURVE DATA
CURVE NO. 16TH-1
P.I. STA. 31+90.97
Δ= 110°35'12.32"
R = 766.0000'
D = 007°28'47.52"
T = 1105.9713'
L = 1478.4589'
Ch = 1259.4239'
E = 579.3359'
e =0.06'/'
S =0.04'/'
V = 30 mi/h

CURVE DATA
CURVE NO. FR-2
P.I. STA. 5140+16.66
Δ= 019°27'21.73"
R = 868.0000'
D = 006°36'03.23"
T = 148.8069'
L = 294.7484'
Ch = 293.3343'
E = 12.6631'
e =0.06'/'
S =0.044'/'
V = 35 mi/h

CURVE DATA
CURVE NO. FR-1
P.I. STA. 5130+46.89
Δ= 039°32'37.80"
R = 1040.0000'
D = 005°30'33.15"
T = 373.8473'
L = 717.7769'
Ch = 703.6156'
E = 65.1524'
e =0.06'/'
S =0.042'/'
V = 35 mi/h

110+00
POT STA: 109+24.49 ℄ SURVEY 16TH AVE.
= PT STA: 35+63.46 CRL 16TH ST. (NORTH)
PT: 35+63.46

PT: 248+39.42

℄ SURVEY US 81 (A001)

℄ RAMP D
D-1

CRL 16TH ST. (NORTH)

℄ SURVEY 16TH AVE. (A012)

℄ RAMP B
B-1

B-2

PC: 249+78.78

PT: 247+22.68

256.10'
N00°14'23.71"E

250+00
150+00
105+00
160+00
245+00
30+00
23+00
25+00
35+00
155+00
145+00
68'
PT: 246+26.55
PC: 144+35.21
PC: 244+74.00
PC: 244+21.53
19'
40+00
150+00

℄ RAMP A
A-2

A-1EXT

EOP PT STA: 246+26.56 ℄ RAMP A EXT
= POC STA: 246+26.56 ℄ RAMP A EXT 17' RT.

POT STA: 159+42.45 ℄ RAMP A
= POC STA: 140+73.43 ℄ SURVEY US 81

PI: 161+00.00
PI: 42+96.60

274.00'
N00°09'15.57"W

N00°09'15.57"W
221.53'

PT: 155+25.53

N89°50'44.43"E
574.47'

S87°54'31.14"E
300.22'

100+00

BOP: 23+00.00
PI: 25+00.00

2653.47'
S 89°50'44.43" W

EW 140 ℄

N20°09'15.57"W
72.65'

PT: 5141+62.60

EOP: 5142+35.26

POC STA: 140+56.21 ℄ RAMP A
= POT STA: 40+26.55 ℄ SURVEY EW 140 (QUAIL RD.)

BOP STA: 242+00.00 ℄ RAMP B
= POT STA: 33+87.30 ℄ SURVEY EW 140 (QUAIL RD.)

140+00

POT STA: 40+97.36 ℄ SURVEY EW 140 (QUAIL RD.)
= POC STA: 140+48.44 ℄ SURVEY US 81

EOP STA: 5142+35.26 CRL 16TH ST. (SOUTH)
= BOP STA: 242+00.00 ℄ RAMP A EXT
= POT STA: 34+06.46 ℄ SURVEY EW 140 (QUAIL RD.)

PI STA: 42+96.60
℄ SURVEY EW 140 (QUAIL RD.)

240+00

45+00

PC: 5136+67.86

N39°36'27.30"W
477.04'

CRL 16TH ST. (SOUTH)

135+00

5140+00

5135+00

PT: 5133+90.82

℄ RAMP A

℄ SURVEY US 81 (A001)

A-1

FR-2

FR-1

2653.46'
N 00°13'06.60" E

1130+00

2655.60'
N 00°18'54.24" E

NS 282.5 ℄

2640.01'
N 00°05'53.38" W

NS 282.5 ℄

0 100′ 200′

SEE SURVEY DATA SHEETS FOR ALIGNMENT AND COGO INFORMATION FOR THE FOLLOWING ALIGNMENTS:
A001 - A019

PRELIMINARY
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SEC. 20 T6N R7W

SEC. 21 T6N R7W

GEOMETRIC LAYOUT

State Job No. 24428(13) Sheet No. R030

US-81 REALIGNMENT
GRADY COUNTY

Alignment: ℄ SURVEY US 81
Description: A001

Tangent Data

Description	PT Station	Northing	Easting
Start:	87+22.420	596110.5945000	1982754.9150000
End:	124+31.693	599819.8646060	1982750.4840007
Parameter	Value	Parameter	Value
Length:	3709.273	Course:	N 00° 04' 06.40" W

Curve Point Data

Description	Station	Northing	Easting
PC:	124+31.69	599819.8646060	1982750.4840007
RP:		599813.0202009	1977020.9079996
PT:	169+12.58	603855.7621970	1981080.9973030

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	44° 48' 32.01"	Type:	LEFT
Radius:	5729.58	Tangent:	
Length:	4480.89	External:	2362.08
Mid-Ord:	432.49	Course:	467.8
Chord:	4367.57		N 22° 28' 22.40" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	169+12.58	603855.7621970	1981080.9973030
End:	275+17.98	611370.9494532	1973597.9197501
Parameter	Value	Parameter	Value
Length:	10605.4	Course:	N 44° 52' 38.41" W

Curve Point Data

Description	Station	Northing	Easting
PC:	275+17.98	611370.9494532	1973597.9197501
RP:		615413.6912974	1977658.0089010
PCC:	321+78.07	615586.0139434	1971931.0209983

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	46° 36' 02.96"	Type:	RIGHT
Radius:	5729.58		
Length:	4660.08	Tangent:	2467.6
Mid-Ord:	467.28	External:	508.78
Chord:	4532.69	Course:	N 21° 34' 36.93" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	321+78.07	615586.0139434	1971931.0209983
End:	384+81.79	621886.8867931	1972120.6115998
Parameter	Value	Parameter	Value
Length:	6303.72	Course:	N 01° 43' 24.55" E

Curve Point Data

Description	Station	Northing	Easting
PC:	384+81.79	621886.8867931	1972120.6115998
RP:		621772.0050265	1975938.6036215
PT:	434+53.73	625483.0914641	1975034.1157272

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	74° 34' 44.76"	Type:	RIGHT
Radius:	3819.72		
Length:	4971.94	Tangent:	2908.75
Mid-Ord:	780.81	External:	981.43
Chord:	4628.3	Course:	N 39° 00' 46.93" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	434+53.73	625483.0914641	1975034.1157272
End:	449+55.47	625838.6934974	1976493.1401006
Parameter	Value	Parameter	Value
Length:	1501.73	Course:	N 76° 18' 09.31" E

Curve Point Data

Description	Station	Northing	Easting
PC:	449+55.47	625838.6934974	1976493.1401006
RP:		629146.7828053	1975686.8730064
PCC:	480+65.80	627763.8263981	1978798.2960043

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	52° 20' 18.72"	Type:	LEFT
Radius:	3404.93		
Length:	3110.33	Tangent:	1673.16
Mid-Ord:	349.02	External:	388.88
Chord:	3003.31	Course:	N 50° 07' 59.95" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	540+17.63	633542.5435000	1980032.6969000
End:	543+00.00	633824.9174000	1980033.4440000
Parameter	Value	Parameter	Value
Length:	282.37	Course:	N 00° 09' 05.73" E

Alignment: ℄ US 81 NB CD RD. 1
Description: ℄ US 81 NB CD RD. 1

Curve Point Data

Description	Station	Northing	Easting
PC:	264+50.00	603549.5719	1981453.753
RP:		599813.0202	1977020.908
PT:	265+13.06	603597.5622	1981412.853

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	00° 37' 23.37"	Type:	LEFT
Radius:	5797.58	Tangent:	31.53
Length:	63.06	External:	0.09
Mid-Ord:	0.09	Course:	N 40° 26' 23.72" W
Chord:	63.06		

Tangent Data

Description	PT Station	Northing	Easting
Start:	265+13.06	603597.5622293	1981412.8525035
End:	268+48.35	603851.5671462	1981193.9762672
Parameter	Value	Parameter	Value
Length:	335.30	Course:	N 40° 45' 05.40" W

Curve Point Data

Description	Station	Northing	Easting
PC:	268+48.35	603851.5671462	1981193.9762672
RP:		599804.3336081	1976497.1794130
PT:	272+94.81	604178.9998116	1980890.6172024

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	04° 07' 33.00"	Type:	LEFT
Radius:	6200.00	Tangent:	223.33
Length:	446.46	External:	4.02
Mid-Ord:	4.02	Course:	N 42° 48' 51.91" W
Chord:	446.36		

Tangent Data

Description	PT Station	Northing	Easting
Start:	272+94.81	604178.9998116	1980890.6172024
End:	273+18.85	604196.0304214	1980873.6593583
Parameter	Value	Parameter	Value
Length:	24.03	Course:	N 44° 52' 38.41" W

Alignment: ℄ US 81 SB CD RD. 1
Description: ℄ US 81 SB CD RD. 1

Curve Point Data

Description	Station	Northing	Easting
PC:	263+72.12	603428.7256860	1981377.5308834
RP:		599813.0202002	1977020.9080029
PT:	264+39.56	603480.3634862	1981334.1529884

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	00° 40' 57.00"	Type:	LEFT
Radius:	5661.58		
Length:	67.44	Tangent:	33.72
Mid-Ord:	0.1	External:	0.1
Chord:	67.44	Course:	N 40° 01' 53.95" W

Curve Point Data

Description	Station	Northing	Easting
PC:	264+39.56	603480.3634862	1981334.1529884
RP:		601575.9500382	1979094.3294643
PT:	267+82.77	603728.2780547	1981097.0985747

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 41' 18.66"	Type:	LEFT
Radius:	2940		
Length:	343.21	Tangent:	171.8
Mid-Ord:	5.01	External:	5.02
Chord:	343.01	Course:	N 43° 43' 01.78" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	267+82.77	603728.2780547	1981097.0985747
End:	270+16.49	603887.4971140	1980925.9896634
Parameter	Value	Parameter	Value
Length:	233.73	Course:	N 47° 03' 41.11" W

Curve Point Data

Description	Station	Northing	Easting
PC:	270+16.49	603887.4971140	1980925.9896634
RP:		609649.0010228	1986287.1437111
PT:	273+16.49	604095.9973092	1980710.3121939

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	02° 11' 02.70"	Type:	RIGHT
Radius:	7870		
Length:	300	Tangent:	150.02
Mid-Ord:	1.43	External:	1.43
Chord:	299.98	Course:	N 45° 58' 09.76" W

Alignment: ℄ US 81 NB CD RD. 2
Description: ℄ US 81 NB CD RD. 2

Tangent Data

Description	PT Station	Northing	Easting
Start:	273+28.50	604168.4159417	1980879.9879175
End:	321+57.53	607590.3608383	1977472.6637657
Parameter	Value	Parameter	Value
Length:	4829.03	Course:	N 44° 52' 38.41" W

Alignment: ℄ US 81 SB CD RD. 2
Description: ℄ US 81 SB CD RD. 2

Tangent Data

Description	PT Station	Northing	Easting
Start:	273+40.00	604106.5800946	1980720.9425587
End:	319+95.63	607405.6483529	1977435.9700373
Parameter	Value	Parameter	Value
Length:	4655.63	Course:	N 44° 52' 38.41" W

Alignment: ℄ US 81 NB CD RD. 3
Description: ℄ US 81 NB CD RD. 3

Curve Point Data

Description	Station	Northing	Easting
PC:	321+57.53	607600.9447082	1977483.2930507
RP:		603579.0741665	1973444.1647606
PT:	324+57.53	607807.8631025	1977266.1202983

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 00' 56.04"	Type:	LEFT
Radius:	5700.00	Tangent:	150.03
Length:	300.00	External:	1.97
Mid-Ord:	1.97	Course:	N 46° 23' 06.43" W
Chord:	299.97		

Tangent Data

Description	PT Station	Northing	Easting
Start:	324+57.53	607807.8631025	1977266.1202983
End:	326+35.85	607927.4292003	1977133.8268202
Parameter	Value	Parameter	Value
Length:	178.32	Course:	N 47° 53' 34.45" W

Curve Point Data

Description	Station	Northing	Easting
PC:	326+35.85	607927.4292003	1977133.8268202
RP:		612156.2181368	1980955.7823585
PT:	329+35.85	608134.3475946	1976916.6540678

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 00' 56.04"	Type:	RIGHT
Radius:	5700.00	Tangent:	150.03
Length:	300.00	External:	1.97
Mid-Ord:	1.97	Course:	N 46° 23' 06.43" W
Chord:	299.97		

Tangent Data

Description	PT Station	Northing	Easting
Start:	329+35.85	608134.3475946	1976916.6540678
End:	336+03.05	608607.1417555	1976445.8799870
Parameter	Value	Parameter	Value
Length:	667.21	Course:	N 44° 52' 38.41" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	336+03.05	608607.1417555	1976445.8799870
End:	339+03.29	608811.2603591	1976225.6991621
Parameter	Value	Parameter	Value
Length:	300.24	Course:	N 47° 10' 04.61" W

Alignment: ℄ US 81 SB CD RD. 3
Description: ℄ US 81 SB CD RD. 3

Tangent Data

Description	PT Station	Northing	Easting
Start:	319+95.63	607395.0644831	1977425.3407524
End:	320+55.85	607437.7393479	1977382.8482219
Parameter	Value	Parameter	Value
Length:	60.22	Course:	N 44° 52' 38.41" W

Curve Point Data

Description	Station	Northing	Easting
PC:	320+55.85	607437.7393479	1977382.8482219
RP:		611459.6098898	1981421.9765120
PT:	323+55.85	607655.7960865	1977176.8616080

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 00' 56.04"	Type:	RIGHT
Radius:	5700		
Length:	300	Tangent:	150.03
Mid-Ord:	1.97	External:	1.97
Chord:	299.97	Course:	N 43° 22' 10.39" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	323+55.85	607655.7960865	1977176.8616080
End:	325+34.17	607788.6003063	1977057.8630565
Parameter	Value	Parameter	Value
Length:	178.32	Course:	N 41° 51' 42.37" W

Curve Point Data

Description	Station	Northing	Easting
PC:	325+34.17	607788.6003063	1977057.8630565
RP:		603984.7865027	1972812.7481521
PT:	328+34.17	608006.6570448	1976851.8764425

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	03° 00' 56.04"	Type:	LEFT
Radius:	5700		
Length:	300	Tangent:	150.03
Mid-Ord:	1.97	External:	1.97
Chord:	299.97	Course:	N 43° 22' 10.39" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	328+34.17	608006.6570448	1976851.8764425
End:	335+96.15	608546.6122855	1976314.2282371
Parameter	Value	Parameter	Value
Length:	761.98	Course:	N 44° 52' 38.41" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	335+96.15	608546.6122855	1976314.2282371
End:	338+96.39	608767.6650809	1976111.0542682
Parameter	Value	Parameter	Value
Length:	300.24	Course:	N 42° 35' 12.21" W

Alignment: CRL OLD FREDS RD.
Description: EW 141 ℄

Tangent Data

Description	PT Station	Northing	Easting
Start:	30+00.00	596110.2373205	1982454.9137129
End:	32+71.36	596110.5550000	1982726.2750000
Parameter	Value	Parameter	Value
Length:	271.36	Course:	N 89° 55' 58.5283" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	32+71.36	596110.555	1982726.275
End:	36+00.00	596111.008	1983054.915
Parameter	Value	Parameter	Value
Length:	328.64	Course:	N 89° 55' 15.6850" E

Alignment: CRL EW 140.5
Description: CRL EW 140.5

Tangent Data

Description	PT Station	Northing	Easting
Start:	28+00.00	598756.4866929	1982251.7159825
End:	37+00.00	598753.1185502	1983151.7096801
Parameter	Value	Parameter	Value
Length:	900.00	Course:	S 89° 47' 08.08" E

FINAL FIELD MEETING
JUNE 2020

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SEE SURVEY DATA SHEETS FOR ALIGNMENT AND COGO INFORMATION FOR THE FOLLOWING ALIGNMENTS:
A001 - A019

GEOMETRIC LAYOUT

State Job No. 24428(13) Sheet No. R031

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

Alignment: ℄ PRIVATE DRIVE 1
Description: ℄ PRIVATE DRIVE 1

Tangent Data

Description	PT Station	Northing	Easting
Start:	10+00.00	598753.6947000	1982997.7578000
End:	13+18.05	599077.5387300	1982997.3709400
Parameter	Value	Parameter	Value
Length:	318.047	Course:	N 0° 04' 06" W

Curve Point Data

Description	Station	Northing	Easting
PC:	13+18.05	599077.5387300	1982997.3709400
RP:		599071.8611700	1983097.3777900
PT:	13+29.63	599083.2977100	1982998.0339200

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	06° 38' 07.68"	Type:	RIGHT
Radius:	100.00	Tangent:	5.80
Length:	11.58	External:	0.17
Mid-Ord:	0.17	Course:	N 3° 14' 57.44" E
Chord:	11.58		

Tangent Data

Description	PT Station	Northing	Easting
Start:	13+29.63	599083.2977100	1982998.0339200
End:	17+35.56	599486.5674900	1983044.4586100
Parameter	Value	Parameter	Value
Length:	405.93	Course:	N 6° 34' 1.28" E

Curve Point Data

Description	Station	Northing	Easting
PC:	17+35.56	599486.5674900	1983044.4586100
RP:		599475.1309500	1983143.8024900
PT:	17+82.60	599530.3479000	1983060.4293000

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	26° 56' 56.23"	Type:	RIGHT
Radius:	100.00	Tangent:	23.96
Length:	47.04	External:	2.83
Mid-Ord:	2.75	Course:	N 20° 2' 29.39" E
Chord:	46.60		

Tangent Data

Description	PT Station	Northing	Easting
Start:	17+82.60	599530.3479000	1983060.4293000
End:	19+00.00	599628.2311000	1983125.2560300
Parameter	Value	Parameter	Value
Length:	117.40	Course:	N 33° 30' 57.50" E

Alignment: 16TH ST. (SOUTH)
Description: 16TH ST. (SOUTH)

Tangent Data

Description	PT Station	Northing	Easting
Start:	5113+67.22	598755.3826893	1982546.7142445
End:	5126+73.04	600061.2012399	1982545.1980147
Parameter	Value	Parameter	Value
Length:	1305.82	Course:	N 00° 03' 59.50" W

Curve Point Data

Description	Station	Northing	Easting
PC:	5126+73.04	600061.2012399	1982545.1980147
RP:		600059.9936618	1981505.1987158
PT:	5133+90.82	600723.0595129	1982306.4125930

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	39° 32' 37.80"	Type:	LEFT
Radius:	1040.00	Tangent:	373.85
Length:	717.78	External:	65.15
Mid-Ord:	61.31	Course:	N 19° 50' 18.40" W
Chord:	703.62		

Tangent Data

Description	PT Station	Northing	Easting
Start:	5133+90.82	600723.0595129	1982306.4125930
End:	5138+67.86	601090.5693598	1982002.2700459
Parameter	Value	Parameter	Value
Length:	477.04	Course:	N 39° 36' 37.30" W

Curve Point Data

Description	Station	Northing	Easting
PC:	5138+67.86	601090.5693598	1982002.2700459
RP:		601643.9743202	1982670.9754742
PT:	5141+62.60	601344.9049861	1981856.1248539

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	19° 27' 21.73"	Type:	RIGHT
Radius:	868.00	Tangent:	148.81
Length:	294.75	External:	12.66
Mid-Ord:	12.48	Course:	N 29° 52' 56.43" W
Chord:	293.33		

Tangent Data

Description	PT Station	Northing	Easting
Start:	5141+62.60	601344.9049861	1981856.1248539
End:	5142+35.26	601413.1094626	1981831.0922076
Parameter	Value	Parameter	Value
Length:	72.65	Course:	N 20° 09' 15.57" W

Alignment: CRL 16TH ST. (NORTH)
Description: NS 283 CONNECTION TO OLD QUAIL ROAD

Tangent Data

Description	PT Station	Northing	Easting
Start:	19+90.00	601652.0249968	1983846.4114633
End:	20+85.00	601618.9599903	1983757.3513412
Parameter	Value	Parameter	Value
Length:	95	Course:	S 69° 37' 54.2794" W

Curve Point Data

Description	Station	Northing	Easting
PC:	20+85.00	601618.9599903	1983757.3513412
RP:		602337.0658168	1983490.7429730
PT:	35+63.46	602339.9869685	1982724.7485430

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	110° 35' 12.3162"	Type:	RIGHT
Radius:	766		
Length:	1478.46	Tangent:	1105.97
Mid-Ord:	329.86	External:	579.34
Chord:	1259.42	Course:	N 55° 04' 29.5625" W

Tangent Data

Description	PT Station	Northing	Easting
Start:	35+63.46	602339.9869685	1982724.7485430
End:	38+00.00	602576.5263695	1982725.6505958
Parameter	Value	Parameter	Value
Length:	236.54	Course:	N 00° 13' 06.5956" E

Alignment: ℄ RAMP A
Description: QUAIL RD. WB to US 81 SB

Tangent Data

Description	PT Station	Northing	Easting
Start:	127+53.04	600134.8210820	1982685.3545941
End:	130+50.00	600429.5274662	1982648.8212806
Parameter	Value	Parameter	Value
Length:	296.96	Course:	N 07° 03' 59.86" W

Curve Point Data

Description	Station	Northing	Easting
PC:	130+50.00	600429.5274662	1982648.8212806
RP:		599813.0202009	1977020.9079996
PCC:	144+35.21	601774.4385278	1982331.8709305

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	14° 01' 06.35"	Type:	LEFT
Radius:	5661.58	Tangent:	696.08
Length:	1385.21	External:	42.63
Mid-Ord:	42.31	Course:	N 13° 15' 38.63" W
Chord:	1381.75		

Curve Point Data

Description	Station	Northing	Easting
PCC:	144+35.21	601774.4385278	1982331.8709305
RP:		601687.8276216	1982097.3532319
PT:	155+25.53	601437.8285285	1982098.0265961

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	249° 53' 03.76"	Type:	LEFT
Radius:	250.00	Tangent:	357.8
Length:	1090.33	External:	686.49
Mid-Ord:	393.19	Course:	S 34° 47' 16.32" W
Chord:	409.87		

Tangent Data

Description	PT Station	Northing	Easting
Start:	155+25.53	601437.8285285	1982098.0265961
End:	161+00.00	601439.3758259	1982672.4898578
Parameter	Value	Parameter	Value
Length:	574.47	Course:	N 89° 50' 44.43" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	161+00.00	601439.3758259	1982672.4898578
End:	164+00.22	601428.4199736	1982972.5090471
Parameter	Value	Parameter	Value
Length:	300.22	Course:	S 87° 54' 31.14" E

SEE SURVEY DATA SHEETS FOR ALIGNMENT AND COGO INFORMATION FOR THE FOLLOWING ALIGNMENTS:
A001 - A019

Alignment: ℄ RAMP B
Description: SB US 81 to QUAIL RD.

Tangent Data

Description	PT Station	Northing	Easting
Start:	242+00.00	601413.0578380	1981811.9256071
End:	244+21.53	601634.5897648	1981811.3289183
Parameter	Value	Parameter	Value
Length:	221.53	Course:	N 00° 09' 15.57" W

Curve Point Data

Description	Station	Northing	Easting
PC:	244+21.53	601634.5897648	1981811.3289183
RP:		601639.0609028	1983471.3228969
PT:	247+22.68	601934.1597849	1981837.7633939

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	10° 23' 39.28"	Type:	RIGHT
Radius:	1660.00	Tangent:	150.99
Length:	301.15	External:	6.85
Mid-Ord:	6.82	Course:	N 05° 02' 34.07" E
Chord:	300.73		

Tangent Data

Description	PT Station	Northing	Easting
Start:	247+22.68	601934.1597849	1981837.7633939
End:	249+78.78	602186.1799947	1981883.2902829
Parameter	Value	Parameter	Value
Length:	256.10	Course:	N 10° 14' 23.71" E

Curve Point Data

Description	Station	Northing	Easting
PC:	249+78.78	602186.1799947	1981883.2902829
RP:		602376.3943343	1980830.3332539
PCC:	258+03.78	602973.7508585	1981718.0636087

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	44° 10' 35.95"	Type:	LEFT
Radius:	1070.00	Tangent:	434.23
Length:	825.00	External:	84.75
Mid-Ord:	78.53	Course:	N 11° 50' 54.26" W
Chord:	804.72		

Curve Point Data

Description	Station	Northing	Easting
PCC:	258+03.78	602973.7508585	1981718.0636087
RP:		599813.0201932	1977020.9079894
PT:	263+72.32	603428.7256860	1981377.5308834

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	05° 45' 13.21"	Type:	LEFT
Radius:	5661.58	Tangent:	284.51
Length:	568.54	External:	7.14
Mid-Ord:	7.14	Course:	N 36° 48' 48.85" W
Chord:	568.3		

Alignment: ℄ RAMP C
Description: NB US 81 REALIGNMENT to EB US 81

Tangent Data

Description	PT Station	Northing	Easting
Start:	96+88.43	597538.2268959	1982797.9239044
End:	99+88.87	597838.2461364	1982813.8512350
Parameter	Value	Parameter	Value
Length:	300.44	Course:	N 03° 02' 19.85" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	99+88.87	597838.2461364	1982813.8512350
End:	104+78.92	598328.2541488	1982820.2658890
Parameter	Value	Parameter	Value
Length:	490.05	Course:	N 00° 45' 00.04" E

Tangent Data

Description	PT Station	Northing	Easting
Start:	104+78.92	598328.2541488	1982820.2658890
End:	110+29.90	598879.2290818	1982819.6077084
Parameter	Value	Parameter	Value
Length:	550.98	Course:	N 00° 04' 06.40" W

Curve Point Data

Description	Station	Northing	Easting
PC:	110+29.90	598879.2290818	1982819.6077084
RP:		598882.0124383	1985149.6060460
PT:	129+46.61	600587.8509775	1983562.4655739

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	47° 07' 58.16"	Type:	RIGHT
Radius:	2330.00	Tangent:	1016.33
Length:	1916.71	External:	212.01
Mid-Ord:	194.33	Course:	N 23° 29' 52.68" E
Chord:	1863.12		

Tangent Data

Description	PT Station	Northing	Easting
Start:	129+46.61	600587.8509775	1983562.4655739
End:	149+17.61	601930.4521500	1985005.4763616
Parameter	Value	Parameter	Value
Length:	1971.00	Course:	N 47° 03' 51.76" E

Alignment: ℄ RAMP D
Description: US 81 WB to NB

Tangent Data

Description	PT Station	Northing	Easting
Start:	216+95.41	602142.5928868	1985032.9594460
End:	224+60.01	601717.5546608	1984397.3879713
Parameter	Value	Parameter	Value
Length:	764.60	Course:	S 56° 13' 38.59" W

Curve Point Data

Description	Station	Northing	Easting
PC:	224+60.01	601717.5546608	1984397.3879713
RP:		602922.8675538	1983591.3353490
PT:	248+39.42	602203.3205466	1982332.4659736

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	94° 01' 15.99"	Type:	RIGHT
Radius:	1450.00	Tangent:	1555.51
Length:	2379.42	External:	676.52
Mid-Ord:	461.30	Course:	N 76° 45' 43.41" W
Chord:	2121.29		

Tangent Data

Description	PT Station	Northing	Easting
Start:	248+39.42	602203.3205466	1982332.4659736
End:	254+00.00	602690.0073749	1982054.2845692
Parameter	Value	Parameter	Value
Length:	560.58	Course:	N 29° 45' 05.42" W

Curve Point Data

Description	Station	Northing	Easting
PC:	254+00.00	602690.0073749	1982054.2845692
RP:		599813.0202009	1977020.9079996
PT:	264+50.00	603549.5719132	1981453.7531573

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	10° 22' 36.62"	Type:	LEFT
Radius:	5797.58	Tangent:	526.44
Length:	1050.00	External:	23.85
Mid-Ord:	23.75	Course:	N 34° 56' 23.73" W
Chord:	1048.57		

Alignment: ℄ RAMP E
Description: ℄ RAMP E

Tangent Data

Description	PT Station	Northing	Easting
Start:	250+00.00	601406.0623109	1983424.6273052
End:	254+83.30	601407.8180728	1983907.9235668
Parameter	Value	Parameter	Value
Length:	483.30	Course:	N 89° 47' 30.67" E

Curve Point Data

Description	Station	Northing	Easting
PC:	254+83.30	601407.8180728	1983907.9235668
RP:		602737.8092963	1983903.0918557
PT:	264+75.13	601764.0903015	1984809.0561591

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	42° 43' 38.90"	Type:	LEFT
Radius:	1330.00	Tangent:	520.25
Length:	991.83	External:	98.13
Mid-Ord:	91.39	Course:	N 68° 25' 41.21" E
Chord:	969.00		

Tangent Data

Description	PT Station	Northing	Easting
Start:	264+75.13	601764.0903015	1984809.0561591
End:	267+32.25	601939.2375845	1984997.3022476
Parameter	Value	Parameter	Value
Length:	257.12	Course:	N 47° 03' 51.76" E

Alignment: ℄ RAMP F
Description: WB US 81 TO QUAIL RD.

Tangent Data

Description	PT Station	Northing	Easting
Start:	126+15.39	601429.6989320	1983324.5589406
End:	128+45.71	601430.5356459	1983554.8752974
Parameter	Value	Parameter	Value
Length:	230.32	Course:	N 89° 47' 30.67" E

Curve Point Data

Description	Station	Northing	Easting
PC:	128+45.71	601430.5356459	1983554.8752974
RP:		602880.5260775	1983549.6076424
PT:	136+95.13	601675.2131845	1984355.6602647

Circular Curve Data

Parameter	Value	Parameter	Value
Delta:	33° 33' 52.08"	Type:	LEFT
Radius:	1450.00	Tangent:	437.29
Length:	849.43	External:	64.50
Mid-Ord:	61.76	Course:	N 73° 00' 34.63" E
Chord:	837.33		

Tangent Data

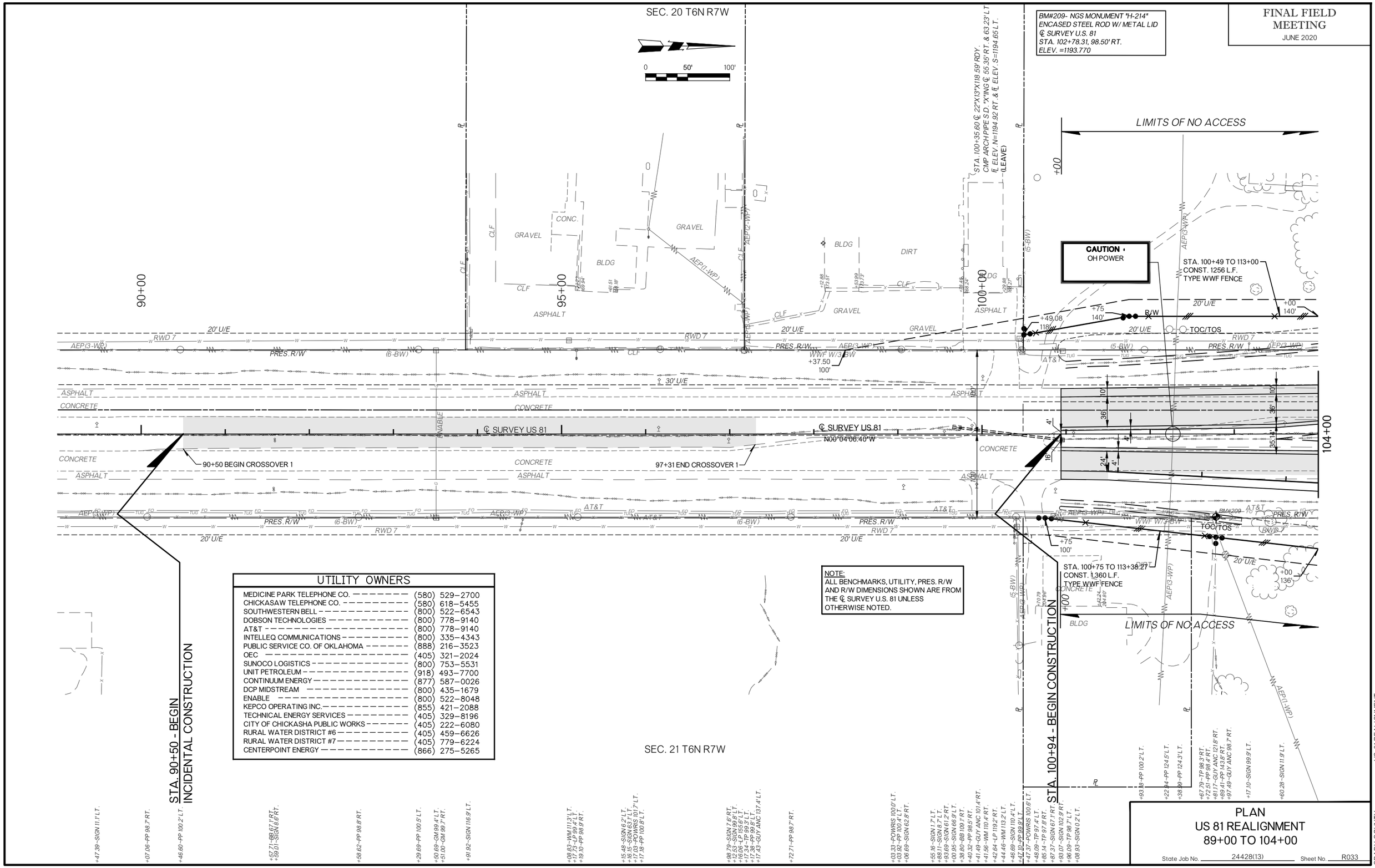
Description	PT Station	Northing	Easting
Start:	136+95.13	601675.2131845	1984355.6602647
End:	143+17.95	602021.4382115	1984873.3801721
Parameter	Value	Parameter	Value
Length:	622.82	Course:	N 56° 13' 38.59" E

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

GEOMETRIC LAYOUT

State Job No. 24428(13) Sheet No. R032

US-81 REALIGNMENT
GRADY COUNTY



NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.

UTILITY OWNERS

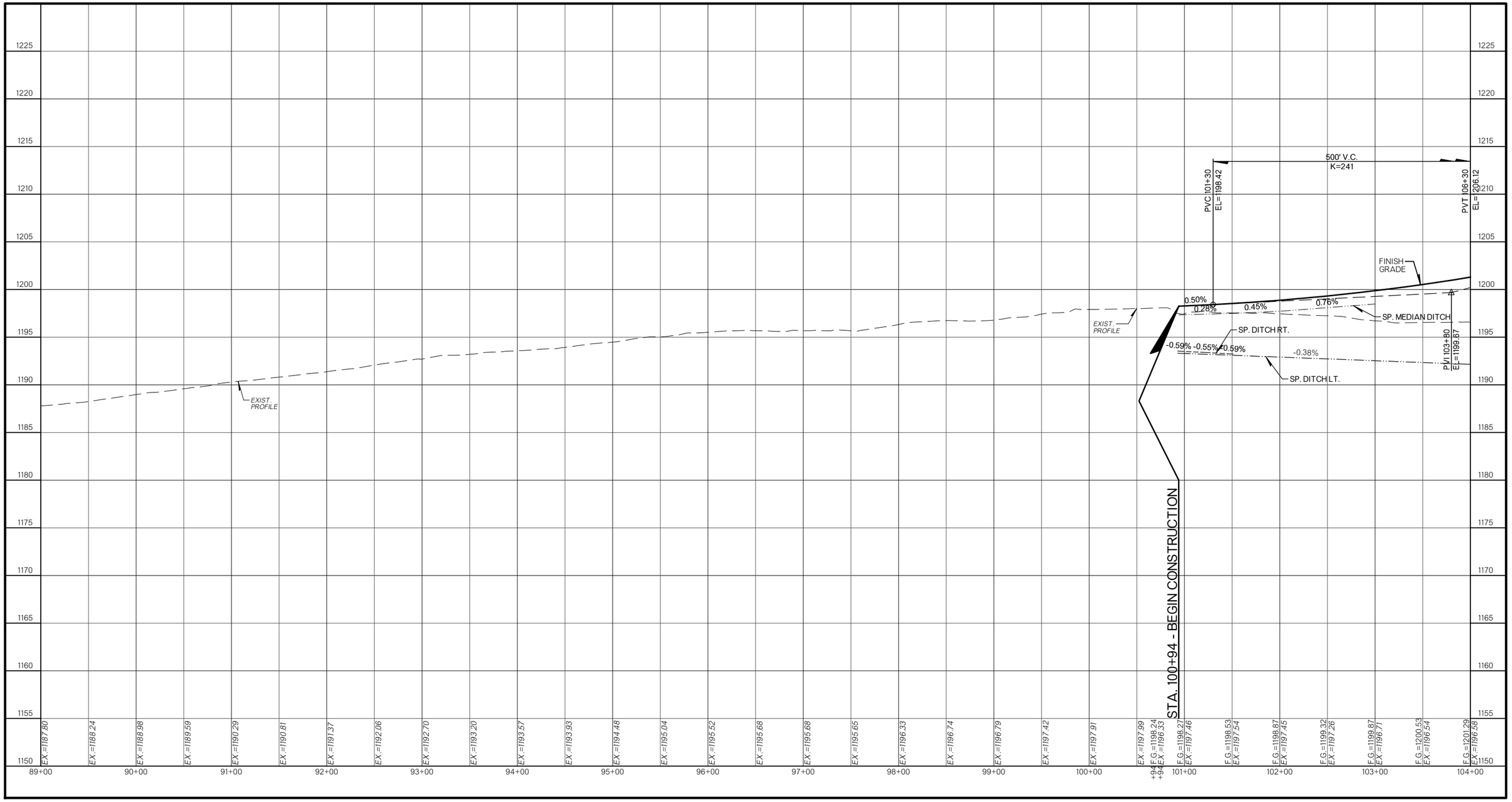
MEDICINE PARK TELEPHONE CO.	(580)	529-2700
CHICKASAW TELEPHONE CO.	(580)	618-5455
SOUTHWESTERN BELL	(800)	522-6543
DOBSON TECHNOLOGIES	(800)	778-9140
AT&T	(800)	778-9140
INTELLEQ COMMUNICATIONS	(800)	335-4343
PUBLIC SERVICE CO. OF OKLAHOMA	(888)	216-3523
OEC	(405)	321-2024
SUNOCO LOGISTICS	(800)	753-5531
UNIT PETROLEUM	(918)	493-7700
CONTINUUM ENERGY	(877)	587-0026
DCP MIDSTREAM	(800)	435-1679
ENABLE	(800)	522-8048
KEPCO OPERATING INC.	(855)	421-2088
TECHNICAL ENERGY SERVICES	(405)	329-8196
CITY OF CHICKASHA PUBLIC WORKS	(405)	222-6080
RURAL WATER DISTRICT #6	(405)	459-6626
RURAL WATER DISTRICT #7	(405)	779-6224
CENTERPOINT ENERGY	(866)	275-5265

PLAN
US 81 REALIGNMENT
89+00 TO 104+00

State Job No. 24428(13) Sheet No. R033

GRADY COUNTY US-81 REALIGNMENT

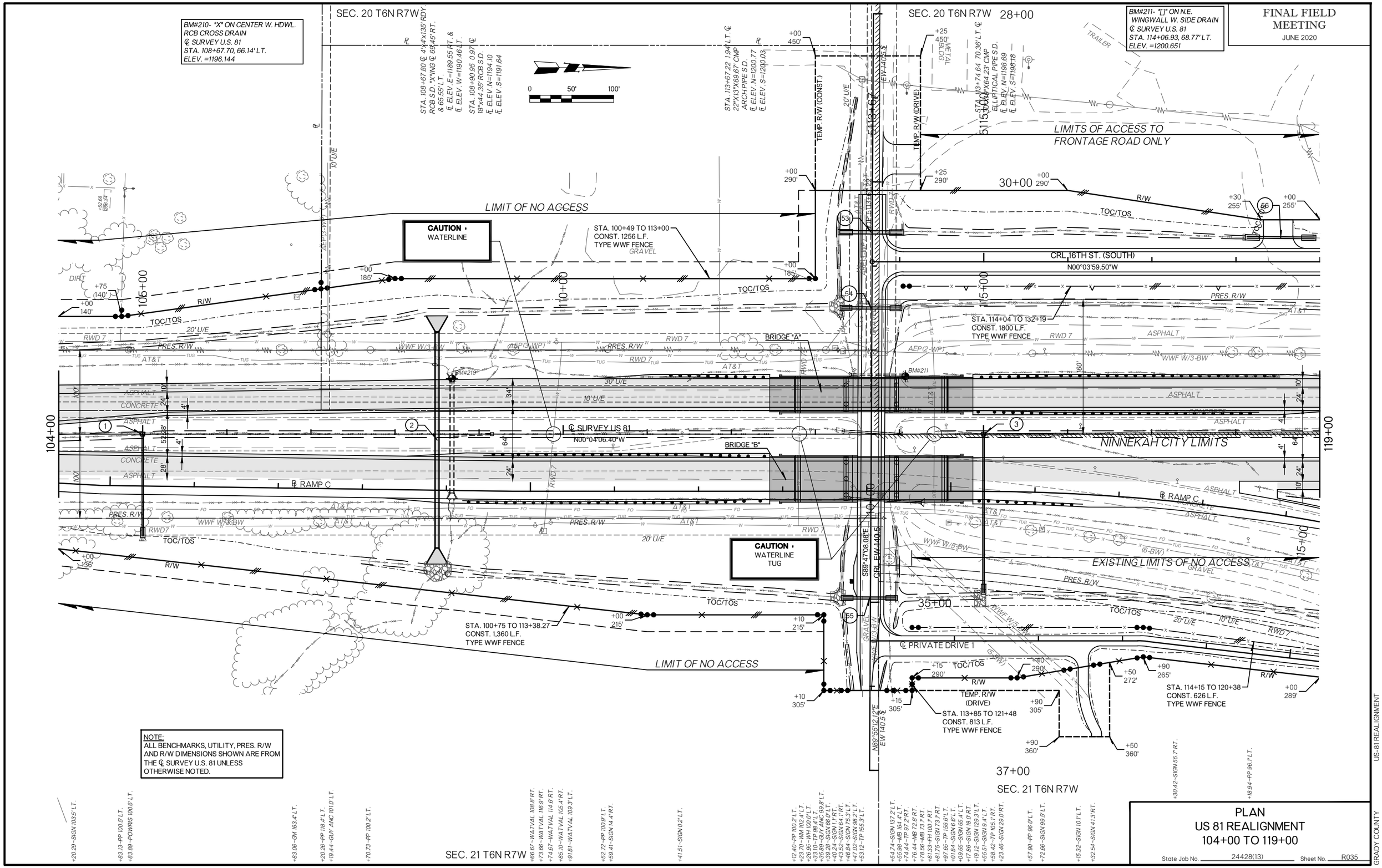
FINAL FIELD MEETING
JUNE 2020



PROFILE
US 81 REALIGNMENT
89+00 TO 104+00

State Job No. 24428(13) Sheet No. R034

US-81 REALIGNMENT
GRADY COUNTY



FINAL FIELD MEETING
JUNE 2020
BM#210- "X" ON CENTER W. HDWL.
RCB CROSS DRAIN
℄ SURVEY U.S. 81
STA. 108+67.70, 66.14' LT.
ELEV. =1196.144
BM#211- "[]" ON N.E.
WINGWALL W. SIDE DRAIN
℄ SURVEY U.S. 81
STA. 114+06.93, 68.77' LT.
ELEV. =1200.651
SEC. 20 T6N R7W
28+00
30+00
35+00
37+00
LIMITS OF ACCESS TO FRONTAGE ROAD ONLY
LIMIT OF NO ACCESS
CAUTION - WATERLINE
CAUTION - WATERLINE TUG
STA. 100+49 TO 113+00
CONST. 1256 L.F.
TYPE WWF FENCE
STA. 114+04 TO 132+19
CONST. 1800 L.F.
TYPE WWF FENCE
STA. 100+75 TO 113+38.27
CONST. 1,360 L.F.
TYPE WWF FENCE
STA. 113+85 TO 121+48
CONST. 813 L.F.
TYPE WWF FENCE
STA. 114+15 TO 120+38
CONST. 626 L.F.
TYPE WWF FENCE
CRL 16TH ST. (SOUTH)
N00°03'59.50"W
℄ SURVEY US 81
N00°04'06.40"W
BRIDGE "A"
BRIDGE "B"
NINNEKAH CITY LIMITS
EXISTING LIMITS OF NO ACCESS
℄ PRIVATE DRIVE 1
TEMP. R/W (CONST.)
TEMP. R/W (DRIVE)
104+00
105+00
110+00
115+00
119+00
SEC. 21 T6N R7W
NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.
PLAN
US 81 REALIGNMENT
104+00 TO 119+00
State Job No. 24428(13)
Sheet No. R035
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

1 STA. 105+00 ℄ SURVEY US 81
CONST. SMD, TYPE 2, ON ℄
STUB 120 LF 18" RCP INTO DITCH RT.
TG=1200.42, FL=1193.39, DS FL=1189.79

2 STA. 108+50 ℄ SURVEY US 81
CONST. 4'X4'X258' LG. RCB
122' LG. LT. & 136' LG. RT.
FL LT.=1190.50, FL RT.=1188.80

3 STA. 115+00 ℄ SURVEY US 81
CONST. SMD, TYPE 2, ON ℄
STUB 188 LF 18" RCP INTO DITCH RT.
TG=1223.64, FL=1208.70, DS FL=1193.96

BRIDGE "A" LENGTH = 181' - 8"
BRIDGE "B" LENGTH = 181' - 8"

+75.61 BEGIN BRIDGE "A"
+75.61 BEGIN BRIDGE "B"
+57.28 END BRIDGE "A"
+57.28 END BRIDGE "B"

PVC 101+30
EL=1198.42

500' V.C.
K=241

PVT 106+30
EL=1206.12

PVC 112+75
EL=1222.76

1150' V.C.
K=251

PVT 124+25
EL=1226.10

PVI 118+50
EL=1237.60

-0.38%
2.58%
0.00%
2.11%
1.24%
-0.00%
4.77%

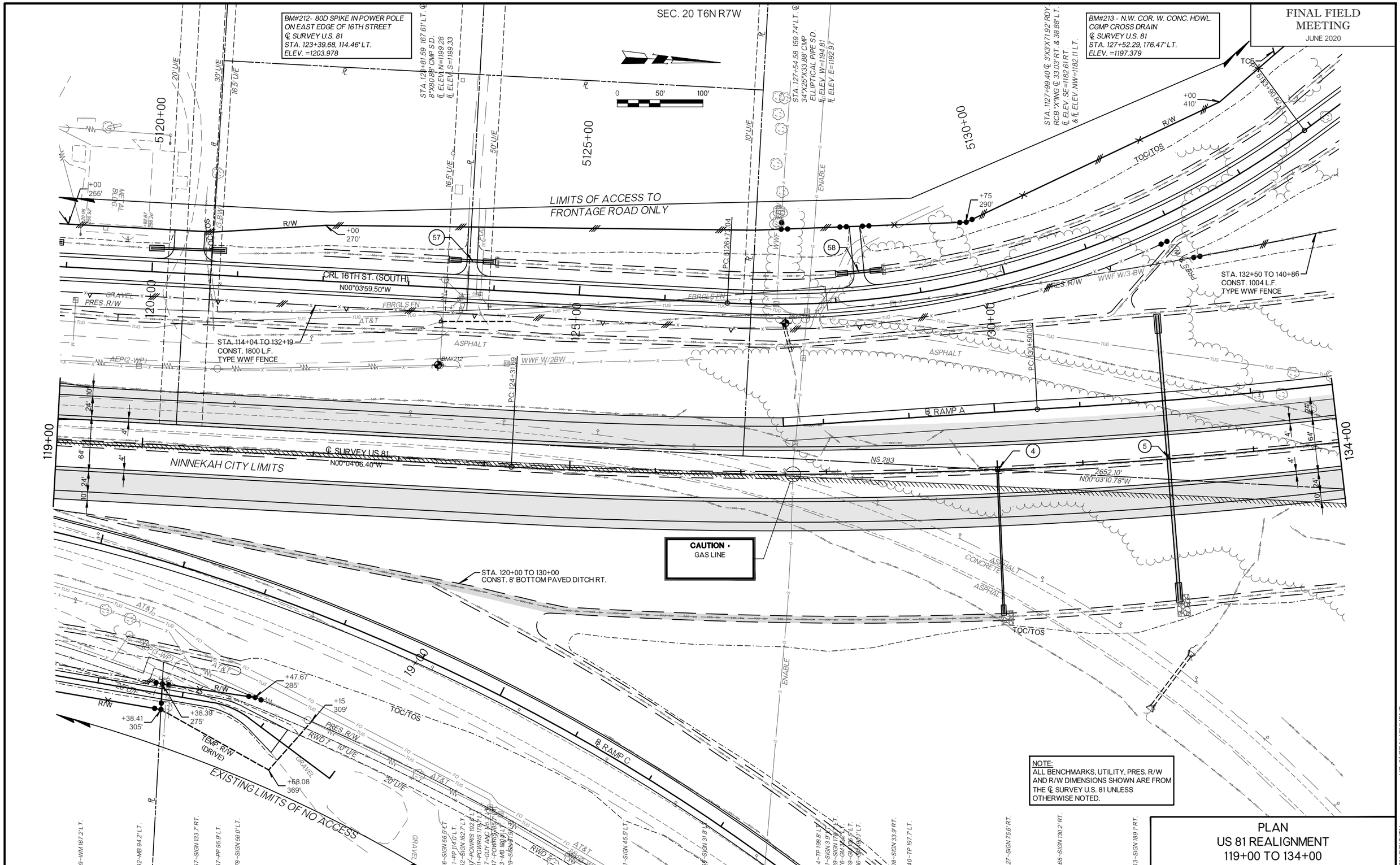
FINISH GRADE
SP. DITCH RT.
SP. DITCH LT.
EXIST. PROFILE

104+00	105+00	106+00	107+00	108+00	109+00	110+00	111+00	112+00	113+00	114+00	115+00	116+00	117+00	118+00	119+00
F.G.=1201.29	F.G.=1202.15	F.G.=1203.12	F.G.=1204.19	F.G.=1205.37	F.G.=1206.64	F.G.=1207.93	F.G.=1209.22	F.G.=1210.51	F.G.=1211.80	F.G.=1213.09	F.G.=1214.38	F.G.=1215.67	F.G.=1216.96	F.G.=1218.25	F.G.=1219.54	F.G.=1220.83	F.G.=1222.12	F.G.=1223.40	F.G.=1224.59	F.G.=1225.66	F.G.=1226.67	F.G.=1227.56	F.G.=1228.35	F.G.=1229.05	F.G.=1229.64	F.G.=1230.13	F.G.=1230.53	F.G.=1230.82	F.G.=1231.02	F.G.=1231.11
EX.=1196.58	EX.=1196.55	EX.=1196.48	EX.=1196.76	EX.=1196.95	EX.=1196.99	EX.=1197.12	EX.=1197.24	EX.=1197.35	EX.=1197.35	EX.=1197.37	EX.=1197.52	EX.=1198.05	EX.=1198.52	EX.=1199.31	EX.=1200.24	EX.=1200.46	EX.=1201.47	EX.=1201.77	EX.=1202.77	EX.=1203.16	EX.=1202.27	EX.=1202.61	EX.=1202.92	EX.=1203.41	EX.=1203.74	EX.=1204.03	EX.=1204.62	EX.=1205.01	EX.=1205.25	EX.=1205.35

PROFILE
US 81 REALIGNMENT
104+00 TO 119+00

State Job No. 24428(13) Sheet No. R036

US-81 REALIGNMENT
GRADY COUNTY



FINAL FIELD MEETING
JUNE 2020
SEC. 20 T6N R7W
BM#212- 80D SPIKE IN POWER POLE ON EAST EDGE OF 16TH STREET
℄ SURVEY U.S. 81
STA. 123+39.68, 114.46' LT.
ELEV. =1203.978
BM#213 - N.W. COR. W. CONC. HDWL. CGMP CROSS DRAIN
℄ SURVEY U.S. 81
STA. 127+52.29, 176.47' LT.
ELEV. =1197.379
STA. 123+81.59 167.61' LT. ℄ 8"X80.88' CMP S.D.
℄ ELEV. N=1199.28
℄ ELEV. S=1199.33
STA. 127+54.58 159.74' LT. ℄ 34"X25"X33.88' CMP ELLIPTICAL PIPE S.D.
℄ ELEV. W=1194.81
℄ ELEV. E=1192.97
STA. 1127+99.40 ℄ 3'X3'X71.92' RDY. RCB "X"ING ℄ 33.03' RT. & 38.88' LT.
℄ ELEV. SE=1182.61 RT.
& ℄ ELEV. NW=1182.11 LT.
LIMITS OF ACCESS TO FRONTAGE ROAD ONLY
CRL 16TH ST. (SOUTH)
N00°03'59.50"W
STA. 114+04 TO 132+19
CONST. 1800 L.F.
TYPE WWF FENCE
STA. 132+50 TO 140+86
CONST. 1004 L.F.
TYPE WWF FENCE
STA. 120+00 TO 130+00
CONST. 8' BOTTOM PAVED DITCH RT.
NINNEKAH CITY LIMITS
℄ SURVEY US 81
N00°04'06.40"W
NS 283
2652.10'
N00°03'10.78"W
CAUTION
GAS LINE
℄ RAMP A
℄ RAMP C
EXISTING LIMITS OF NO ACCESS
TEMP. R/W (DRIVE)
PRES. R/W
R/W
TOC/TOS
ASPHALT
CONCRETE
GRAVEL
ENABLE
SEC. 21 T6N R7W
NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.
PLAN
US 81 REALIGNMENT
119+00 TO 134+00
State Job No. 24428(13)
Sheet No. R037
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

4 STA. 130+00 ℄ SURVEY US 81
CONST. SMD, TYPE 2, ON ℄
STUB 168 LF 18" RCP INTO DITCH RT.
TG=1210.60, FL=1195.60, DS FL=1185.07

5 STA. 132+00 ℄ SURVEY US 81
CONST. 36"X334' LG. RCP
168' LG. LT. & 166' LG. RT.
FL LT.=1183.17, FL RT.=1182.02

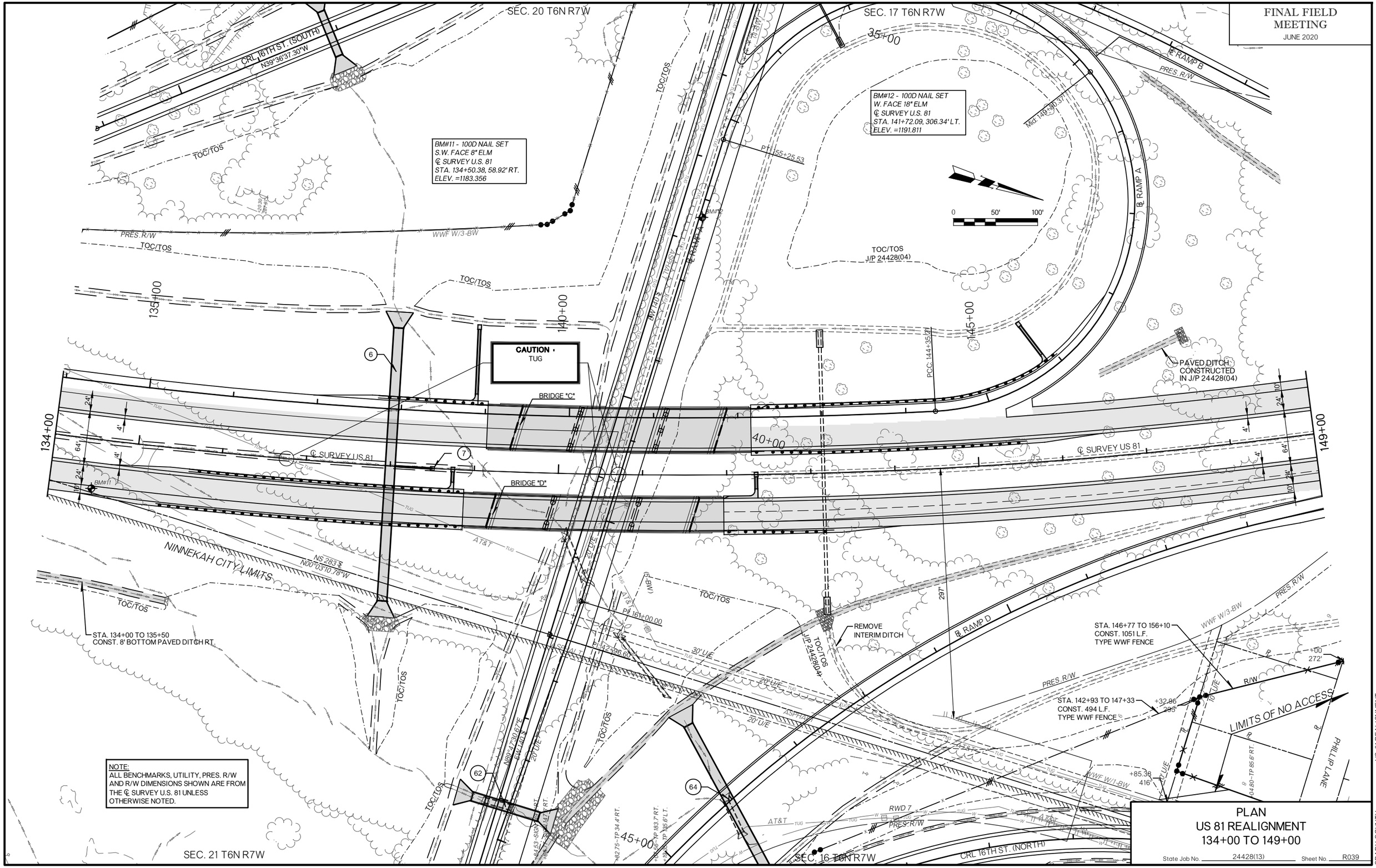
HIGH PT. 119+22.82
EL=1231.12
PVC 112+75
EL=1222.76
SP. DITCH RT.
FINISH GRADE
-1.50%
-3.41%
-4.56%
-5.05%
-6.20%
1150' V.C.
K=251
PVT 124+25
EL=1226.10
-7.61%
-2.00%
SP. DITCH LT.
-0.89%
-2.15%
EXIST. PROFILE
-2.18%
SP. DITCH LT.
-1.34%
0.00%
-2.65%
-2.46%
-2.33%
-1.66%
-1.39%
-1.21%
-2.30%
FINISH GRADE
EXIST. PROFILE
SP. DITCH RT.

STA	F.G.	EX.
119+00	1231.11	1205.35
120+00	1231.11	1205.68
121+00	1231.00	1205.77
122+00	1230.80	1205.34
123+00	1230.50	1204.93
124+00	1230.09	1204.09
125+00	1229.59	1203.09
126+00	1228.99	1202.20
127+00	1228.29	1201.35
128+00	1227.49	1200.36
129+00	1226.59	1199.04
130+00	1225.60	1197.89
131+00	1224.60	1197.36
132+00	1223.60	1196.91
133+00	1222.60	1196.74
134+00	1221.60	1196.88
	1220.60	1197.21
	1219.60	1196.93
	1218.60	1193.49
	1217.60	1188.96
	1216.60	1187.47
	1215.60	1186.38
	1214.60	1185.35
	1213.60	1184.50
	1212.60	1183.84
	1211.60	1182.90
	1210.60	1182.57
	1209.60	1184.12
	1208.60	1185.43
	1207.60	1186.70
	1206.60	1186.72

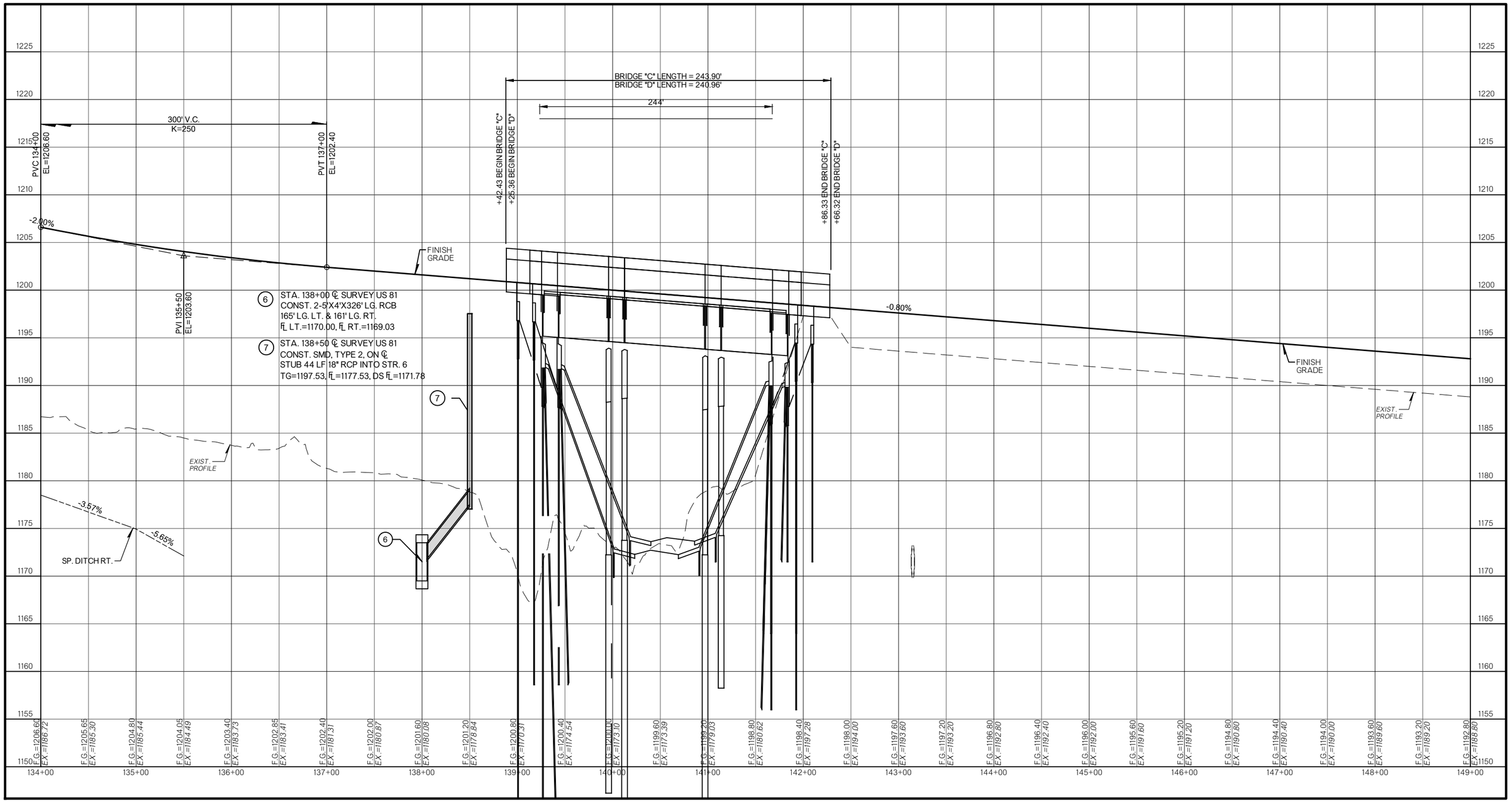
PROFILE
US 81 REALIGNMENT
119+00 TO 134+00

State Job No. 24428(13) Sheet No. R038

US-81 REALIGNMENT
GRADY COUNTY


FINAL FIELD MEETING
JUNE 2020
SEC. 20 T6N R7W
SEC. 17 T6N R7W
SEC. 21 T6N R7W
SEC. 16 T6N R7W
CRL 16TH ST. (SOUTH)
N39°36'37.30"W
BM#11 - 100D NAIL SET
S.W. FACE 8" ELM
℄ SURVEY U.S. 81
STA. 134+50.38, 58.92' RT.
ELEV. =1183.356
BM#12 - 100D NAIL SET
W. FACE 18" ELM
℄ SURVEY U.S. 81
STA. 141+72.09, 306.34' LT.
ELEV. =1191.811
PT 155+25.53
Mid: 149+80.37
TOC/TOS
J/P 24428(04)
PRES. R/W
WWF W/3-BW
℄ RAMP A
℄ RAMP B
℄ RAMP D
CAUTION
TUG
BRIDGE "C"
BRIDGE "D"
℄ SURVEY US 81
PCC: 144+35.21
PAVED DITCH CONSTRUCTED IN J/P 24428(04)
NINNEKAH CITY LIMITS
NS 283 S
N00°03'10.78"W
STA. 134+00 TO 135+50
CONST. 8' BOTTOM PAVED DITCH RT.
PI 161+00.00
PI 142+96.60
REMOVE INTERIM DITCH
TOC/TOS
J/P 24428(04)
STA. 146+77 TO 156+10
CONST. 1051 L.F.
TYPE WWF FENCE
STA. 142+93 TO 147+33
CONST. 494 L.F.
TYPE WWF FENCE
LIMITS OF NO ACCESS
PHILLIP LANE
RWD 7
NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.
PLAN
US 81 REALIGNMENT
134+00 TO 149+00
State Job No. 24428(13)
Sheet No. R039
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



PROFILE
US 81 REALIGNMENT
134+00 TO 149+00

State Job No. 24428(13) Sheet No. R040

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SEC. 17 T6N R7W

BM#13 - 100D NAIL SET N. FACE 24" COTTONWOOD
NEAR S.E. CORNER OF POND DAM
℄ SURVEY U.S. 81
STA. 151+40.21, 517.03' LT.
ELEV. =1173.321

BM#215 - 80D SPIKE IN FENCE POST
℄ SURVEY U.S. 81
STA. 155+15.31, 300.60' LT.
ELEV. =1186.551

0 50' 100'

CHICKASHA CITY LIMITS

LIMITS OF NO ACCESS

℄ RAMP B

℄ RAMP D
N29°45'05.42"W

℄ SURVEY US 81

149+00
150+00
155+00
160+00
164+00

+86.41
142'

+85.58
310'

+74.04
278'

+00
219'

+00
226'

+00
235'

+00
250'

+00
272'

PAVED DITCH
CONSTRUCTED
IN J/P 24428(04)

TOC/TOS
J/P 24428(04)

CAUTION :
WATERLINE

WWF W/3-BW

PRES. R/W

R/W

RWD

AEP(2-WP)

15' U/E

20' U/E

25' U/E

30' U/E

16' U/E

(7-BW)

ENABLE

BLDG

CREEK HAVEN ESTATES

1-Story Brick

Metal Bldg.

GLENDA WAY

38+00

SEC. 17 T6N R7W

+09.21-LP 150.3' RT.
+10.63-POWRIS 150.4' RT.
+19.24-GUY ANC 131.1' RT.

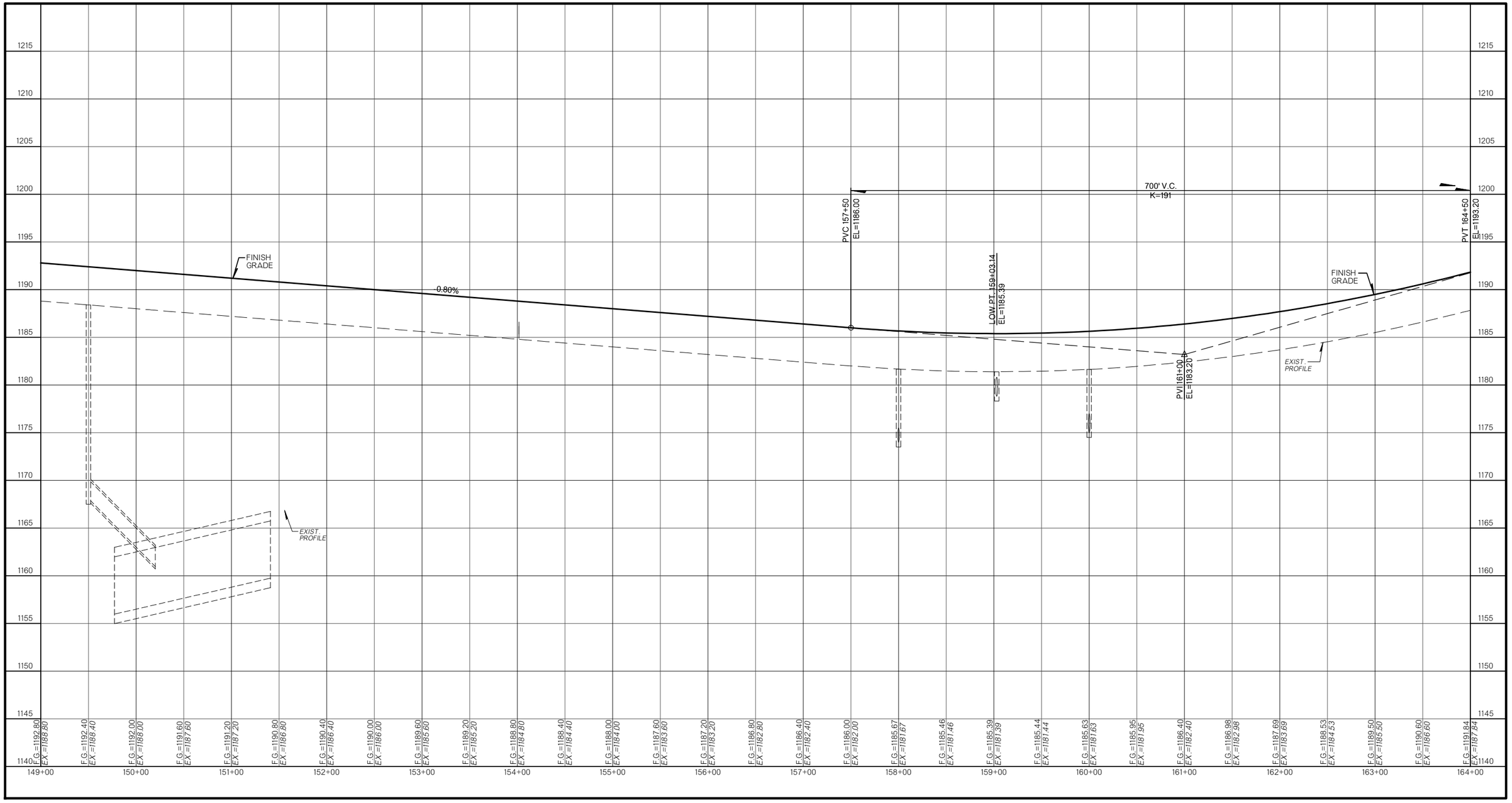
NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.

PLAN
US 81 REALIGNMENT
149+00 TO 164+00

State Job No. 24428(13) Sheet No. R041

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



US-81 REALIGNMENT

GRADY COUNTY

PROFILE
US 81 REALIGNMENT
149+00 TO 164+00

State Job No. 24428(13) Sheet No. R042

SEC. 17 T6N R7W

CONSTRUCTED IN OTHER PROJECTS

STA. 168+23.08, 54.54' RT. ℄
24"X86.82" CGMP
f. ELEV. NW=1195.04
f. ELEV. SE=1182.31
(REMOVE)

BM#217 - 80D SPIKE IN R.R. TIE FENCE POST
℄ SURVEY U.S. 81
STA. 174+72.74, 845.39' LT.
ELEV. =1237.332

0 50' 100'

STA. 177+55.85, 93.94' RT. ℄
24"X91.67" CGMP
f. ELEV. NW=1261.04
f. ELEV. SE=1199.27
(REMOVE)

FINAL FIELD MEETING
JUNE 2020

LIMITS OF NO ACCESS

2648.98'
N89°53'28.73"E

FW 139.5

+00
210'

+50
225'

TOC/TOS
J/P 24428(04)

R/W

+50
305'

+00
302'

TOC/TOS
J/P 24428(04)

R/W

165+00

170+00

175+00

164+00

10'
36'
4'
64'
4'
36'
10'

P.I. 169+22.28

℄ SURVEY US 81
N44°52'38.41"W

TOC/TOS
J/P 24428(04)

PAVED DITCH
CONSTRUCTED
IN J/P 24428(04)

+00
226'

R/W

+00
240'

FW 139.5

2618.88'
N89°53'28.73"E

TEMP. R/W
(DRAIN POND)

LIMITS OF NO ACCESS

TEMP. R/W
(DRAIN POND)

+25
247'

+00
250'

TOC/TOS
J/P 24428(04)

R/W

+00
253'

TEMP. R/W
(DRAIN POND)

+00
410'

TEMP. R/W
(DRAIN POND)

+25
410'

STA. 165+00 - END CONSTRUCTION

ENABLE

SEC. 17 T6N R7W

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PRELIMINARY

NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.

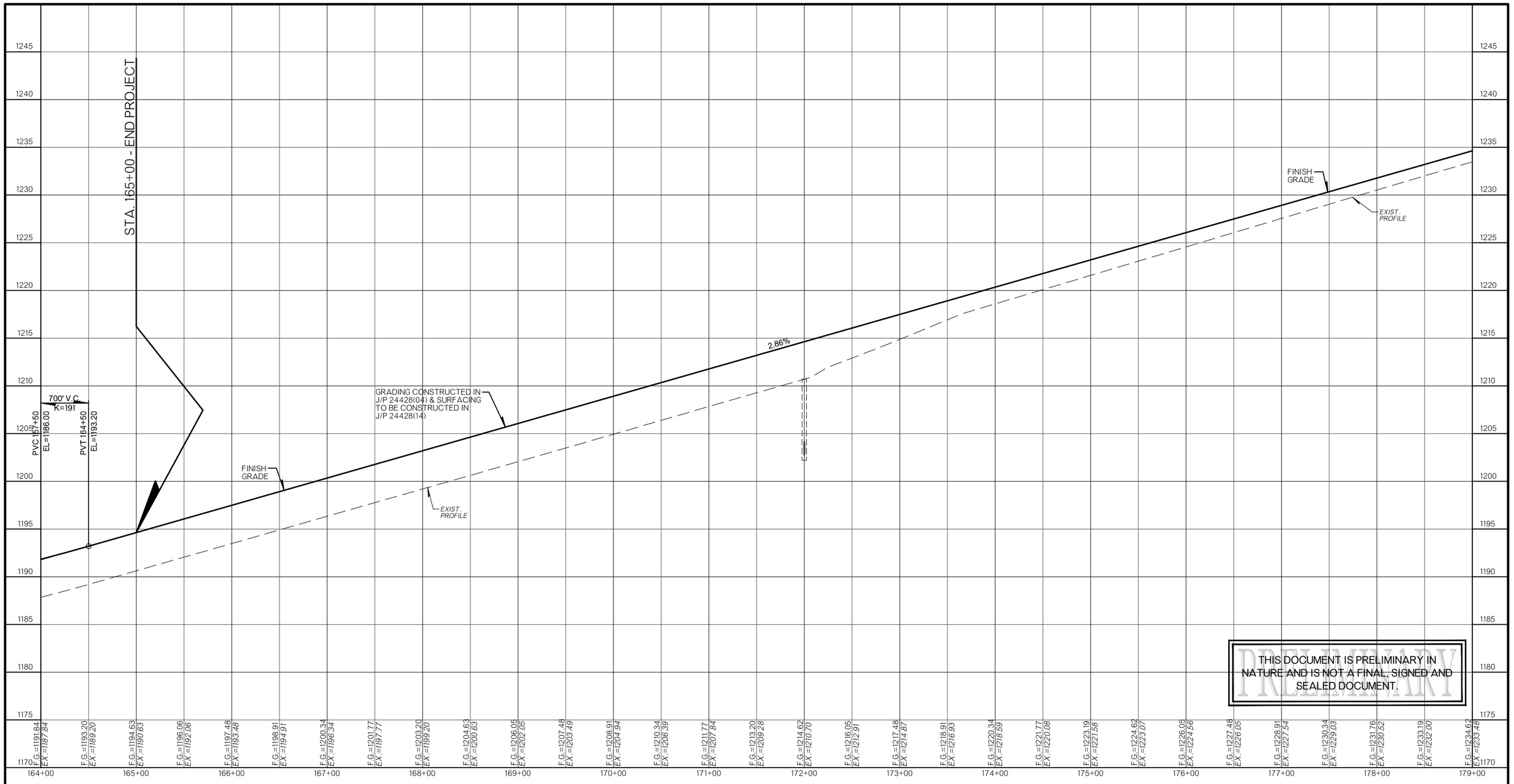
PLAN
US 81 REALIGNMENT
164+00 TO 179+00

State Job No. 24428(13) Sheet No. R043

US-81 REALIGNMENT

GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



PRELIMINARY
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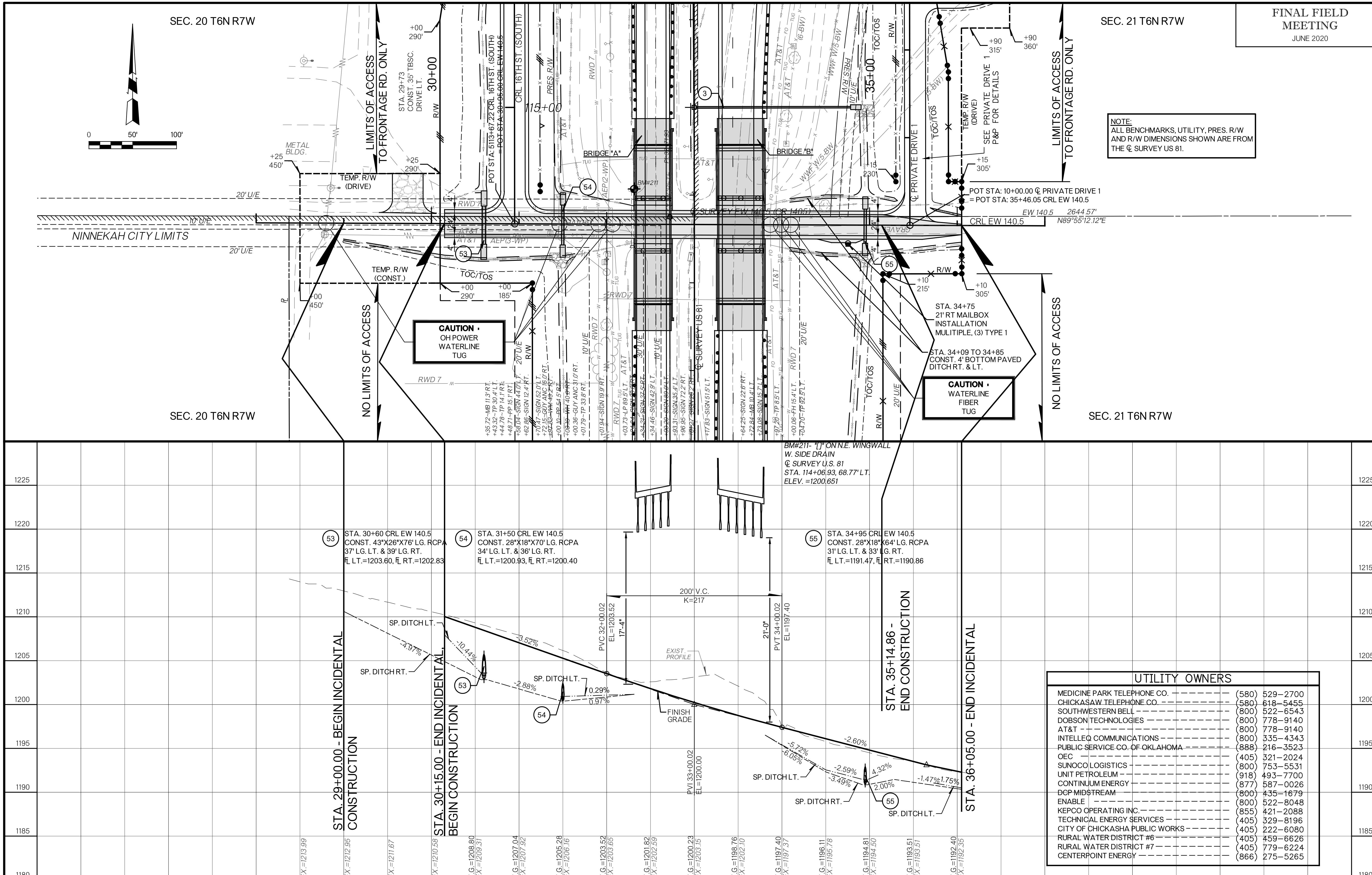
PROFILE
US 81 REALIGNMENT
164+00 TO 179+00

State Job No. 24428(13) Sheet No. R044

US-81 REALIGNMENT
GRADY COUNTY



UTILITY OWNERS

MEDICINE PARK TELEPHONE CO.	(580) 529–2700
CHICKASAW TELEPHONE CO.	(580) 618–5455
SOUTHWESTERN BELL	(800) 522–6543
DOBSON TECHNOLOGIES	(800) 778–9140
AT&T	(800) 778–9140
INTELLEQ COMMUNICATIONS	(800) 335–4343
PUBLIC SERVICE CO. OF OKLAHOMA	(888) 216–3523
OEC	(405) 321–2024
SUNOCO LOGISTICS	(800) 753–5531
UNIT PETROLEUM	(918) 493–7700
CONTINUUM ENERGY	(877) 587–0026
DCP MIDSTREAM	(800) 435–1679
ENABLE	(800) 522–8048
KEPCO OPERATING INC.	(855) 421–2088
TECHNICAL ENERGY SERVICES	(405) 329–8196
CITY OF CHICKASHA PUBLIC WORKS	(405) 222–6080
RURAL WATER DISTRICT #6	(405) 459–6626
RURAL WATER DISTRICT #7	(405) 779–6224
CENTERPOINT ENERGY	(866) 275–5265

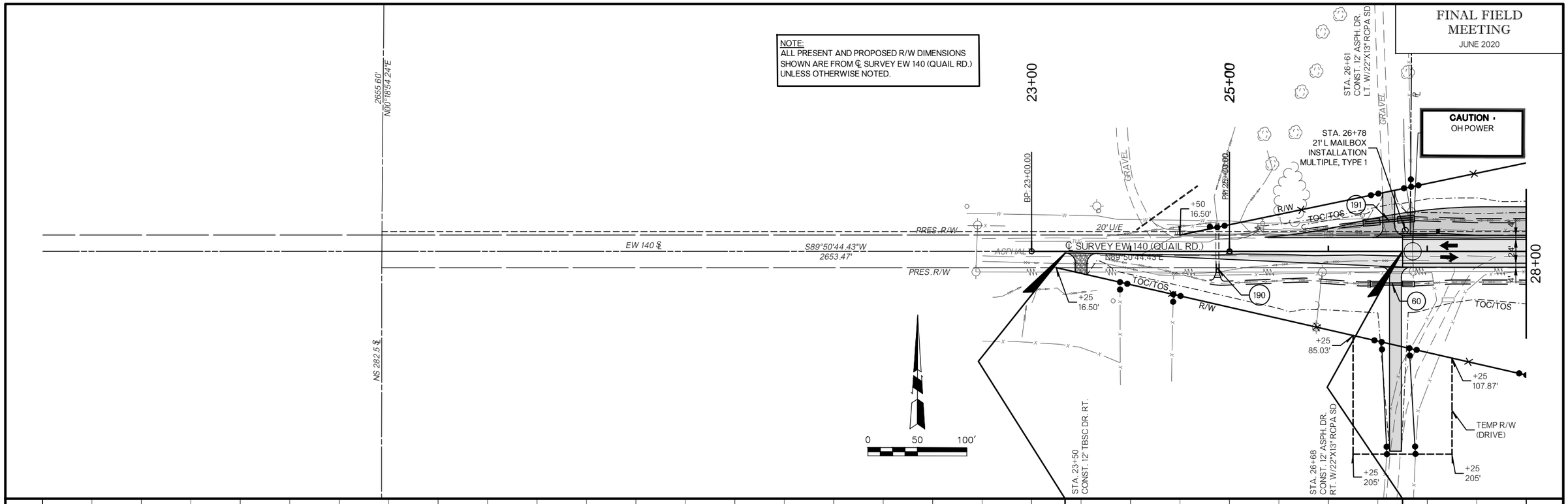
EW 140.5 (CR 1405)

State Job No. 24428(13) Sheet No. R045

GRADY COUNTY US-81 REALIGNMENT

FINAL FIELD MEETING
JUNE 2020

NOTE:
ALL PRESENT AND PROPOSED R/W DIMENSIONS SHOWN ARE FROM ℄ SURVEY EW 140 (QUAIL RD.) UNLESS OTHERWISE NOTED.



UTILITY OWNERS

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SOUTHWESTERN BELL	(800) 522-6543
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CITY OF CHICKASHA PUBLIC WORKS	(405) 222-6080
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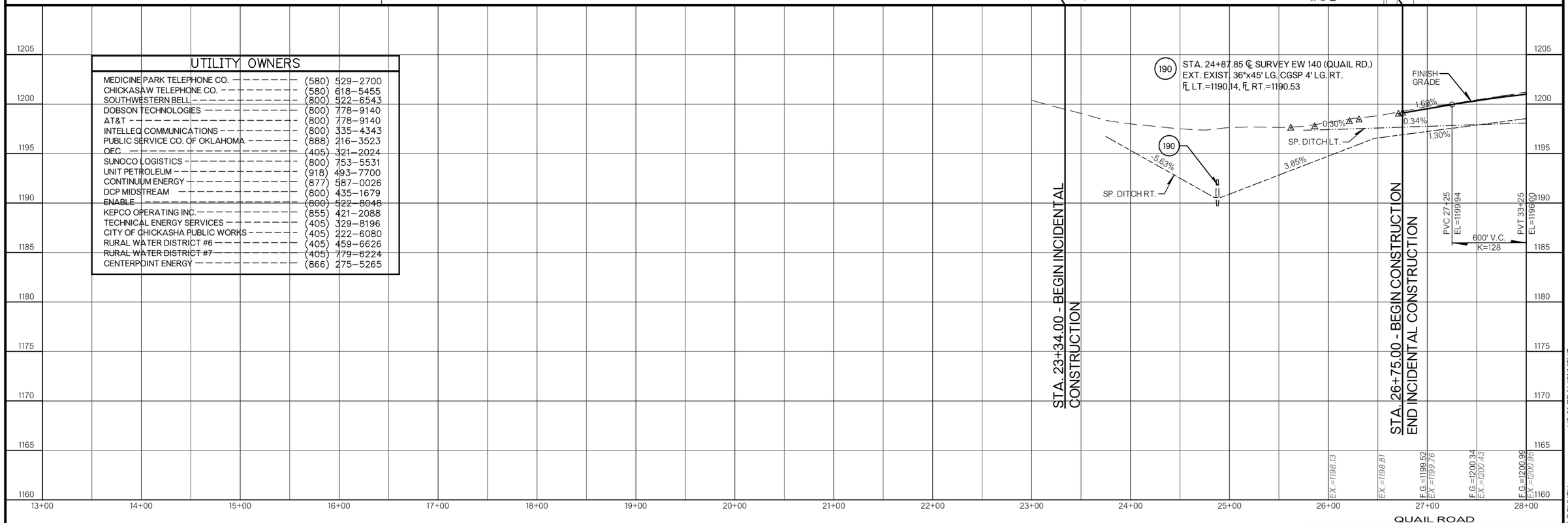
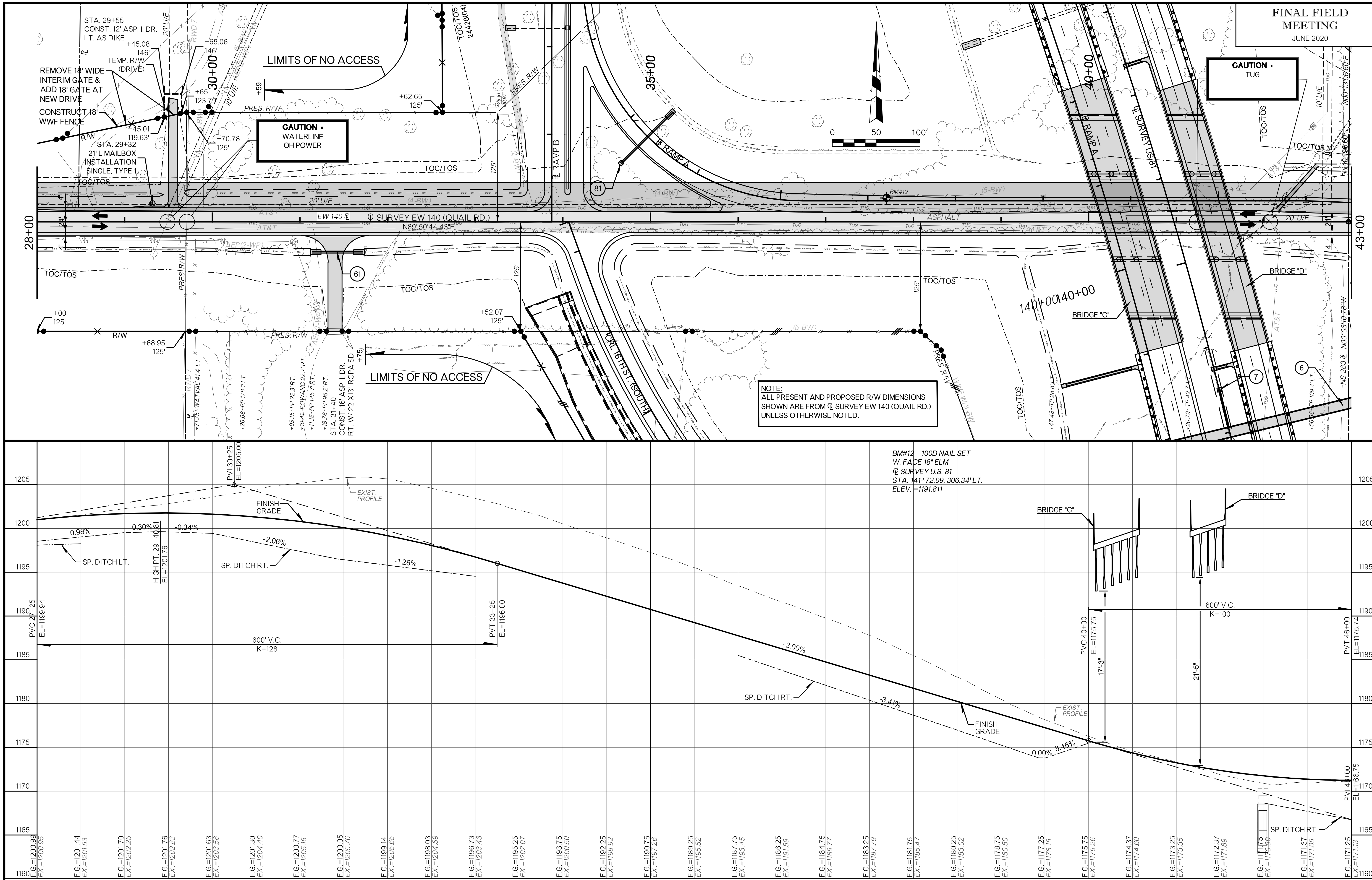


State Job No. 24428(13) Sheet No. R046

US 81 REALIGNMENT

GRADY COUNTY

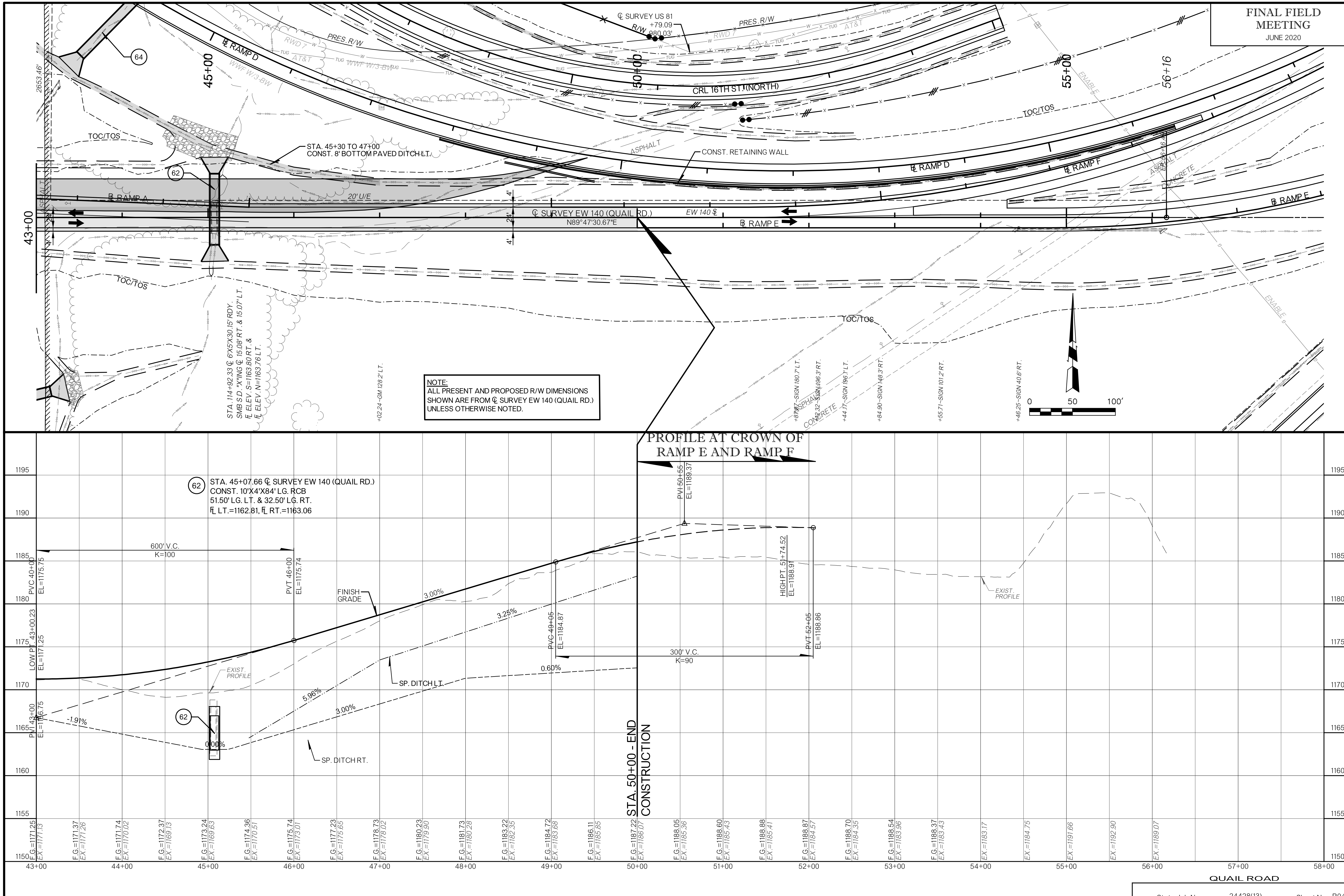
FINAL FIELD MEETING
JUNE 2020



QUAIL ROAD

State Job No. 24428(13) Sheet No. R047

US 81 REALIGNMENT
GRADY COUNTY


FINAL FIELD MEETING
JUNE 2020
64
45+00
50+00
55+00
56+16
43+00
2653.46'
℄ RAMP D
PRES. R/W
RWD 7
AT&T
WWF W/3-BW
TUG
℄ SURVEY US 81 +79.09
R/W 980.03'
CRL 16TH ST. (NORTH)
TOC/TOS
STA. 45+30 TO 47+00
CONST. 8' BOTTOM PAVED DITCH LT.
ASPHALT
CONST. RETAINING WALL
℄ RAMP D
℄ RAMP F
℄ RAMP A
20' U/E
62
℄ SURVEY EW 140 (QUAIL RD.)
N89°47'30.67"E
EW 140 ℄
℄ RAMP E
4'
24'
EP 56+16.40
CONCRETE
ENABLE
TOC/TOS
STA. 114+92.33 ℄ 6'X5'X30.15' RDY.
SMB S.D. "X"ING ℄ 15.08' RT. & 15.07' LT.
FL ELEV. S=1163.80 RT. &
FL ELEV. N=1163.76 LT.
+02.24~GM 128.2' LT.
NOTE:
ALL PRESENT AND PROPOSED R/W DIMENSIONS
SHOWN ARE FROM ℄ SURVEY EW 140 (QUAIL RD.)
UNLESS OTHERWISE NOTED.
+87.67~SIGN 180.7' LT.
+93.32~SIGN 196.3' RT.
+44.17~SIGN 196.1' LT.
+84.90~SIGN 148.3' RT.
+55.71~SIGN 101.2' RT.
+46.25~SIGN 40.6' RT.
0
50
100'
PROFILE AT CROWN OF
RAMP E AND RAMP F
62 STA. 45+07.66 ℄ SURVEY EW 140 (QUAIL RD.)
CONST. 10'X4'X84' LG. RCB
51.50' LG. LT. & 32.50' LG. RT.
FL LT.=1162.81, FL RT.=1163.06
600' V.C.
K=100
PVC 40+00
EL=1175.75
PVT 46+00
EL=1175.74
LOW PT. 43+00.23
EL=1171.25
PVI 43+00
EL=1166.75
-1.91%
0.00%
5.96%
3.00%
3.00%
3.25%
0.60%
FINISH GRADE
EXIST. PROFILE
SP. DITCH LT.
SP. DITCH RT.
PVI 50+55
EL=1189.37
HIGH PT. 51+74.52
EL=1188.91
PVC 49+05
EL=1184.87
PVT 52+05
EL=1188.86
300' V.C.
K=90
STA. 50+00 - END
CONSTRUCTION
1195
1190
1185
1180
1175
1170
1165
1160
1155
1150
F.G.=1171.25 EX.=1171.13
F.G.=1171.37 EX.=1171.26
F.G.=1171.74 EX.=1170.02
F.G.=1172.37 EX.=1169.13
F.G.=1173.24 EX.=1169.63
F.G.=1174.36 EX.=1170.51
F.G.=1175.74 EX.=1173.01
F.G.=1177.23 EX.=1175.65
F.G.=1178.73 EX.=1178.02
F.G.=1180.23 EX.=1179.90
F.G.=1181.73 EX.=1180.28
F.G.=1183.22 EX.=1182.35
F.G.=1184.72 EX.=1183.68
F.G.=1186.11 EX.=1185.85
F.G.=1187.22 EX.=1186.07
F.G.=1188.05 EX.=1185.36
F.G.=1188.60 EX.=1185.43
F.G.=1188.88 EX.=1185.41
F.G.=1188.87 EX.=1184.57
F.G.=1188.70 EX.=1184.35
F.G.=1188.54 EX.=1183.96
F.G.=1188.37 EX.=1183.43
EX.=1183.17
EX.=1184.75
EX.=1191.66
EX.=1192.90
EX.=1189.07
43+00
44+00
45+00
46+00
47+00
48+00
49+00
50+00
51+00
52+00
53+00
54+00
55+00
56+00
57+00
58+00
QUAIL ROAD
State Job No. 24428(13)
Sheet No. R048
US 81 REALIGNMENT
GRADY COUNTY

NOTE:
ALL BENCHMARKS, UTILITY, FENCE, PRES. R/W, AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81.

0 50′ 100′

FINAL FIELD MEETING
JUNE 2020

SEC. 20 T6N R7W

LIMITS OF NO ACCESS

LIMITS OF ACCESS TO FRONTAGE RD. ONLY

TEMP. R/W (DRIVE)

STA. 5118+50 CONST. 35' TBSC DRIVE LT. W/22'X13'X58' LG. RCPA SD

CRL 16TH ST. (SOUTH)
N00°03'59.50"W

℄ SURVEY U.S. 81

SEC. 20 T6N R7W

BM#210- "X" ON CENTER W. HDWL.
RCB CROSS DRAIN
℄ SURVEY U.S. 81
STA. 108+67.70, 66.14' LT.
ELEV. =1196.144

BM#211- "[]" ON N.E. WINGWALL
W. SIDE DRAIN
℄ SURVEY U.S. 81
STA. 114+06.93, 68.77' LT.
ELEV. =1200.651

UTILITY OWNERS

MEDICINE PARK TELEPHONE CO.	(580) 529-2700
CHICKASAW TELEPHONE CO.	(580) 618-5455
SOUTHWESTERN BELL	(800) 522-6543
DOBSON TECHNOLOGIES	(800) 778-9140
AT&T	(800) 778-9140
INTELLEQ COMMUNICATIONS	(800) 335-4343
PUBLIC SERVICE CO. OF OKLAHOMA	(888) 216-3523
OEC	(405) 321-2024
SUNOCO LOGISTICS	(800) 753-5531
UNIT PETROLEUM	(918) 493-7700
CONTINUUM ENERGY	(877) 587-0026
DCP MIDSTREAM	(800) 435-1679
ENABLE	(800) 522-8048
KEPCO OPERATING INC.	(855) 421-2088
TECHNICAL ENERGY SERVICES	(405) 329-8196
CITY OF CHICKASHA PUBLIC WORKS	(405) 222-6080
RURAL WATER DISTRICT #6	(405) 459-6626
RURAL WATER DISTRICT #7	(405) 779-6224
CENTERPOINT ENERGY	(866) 275-5265

STA. 5113+79.22 - BEGIN CONSTRUCTION

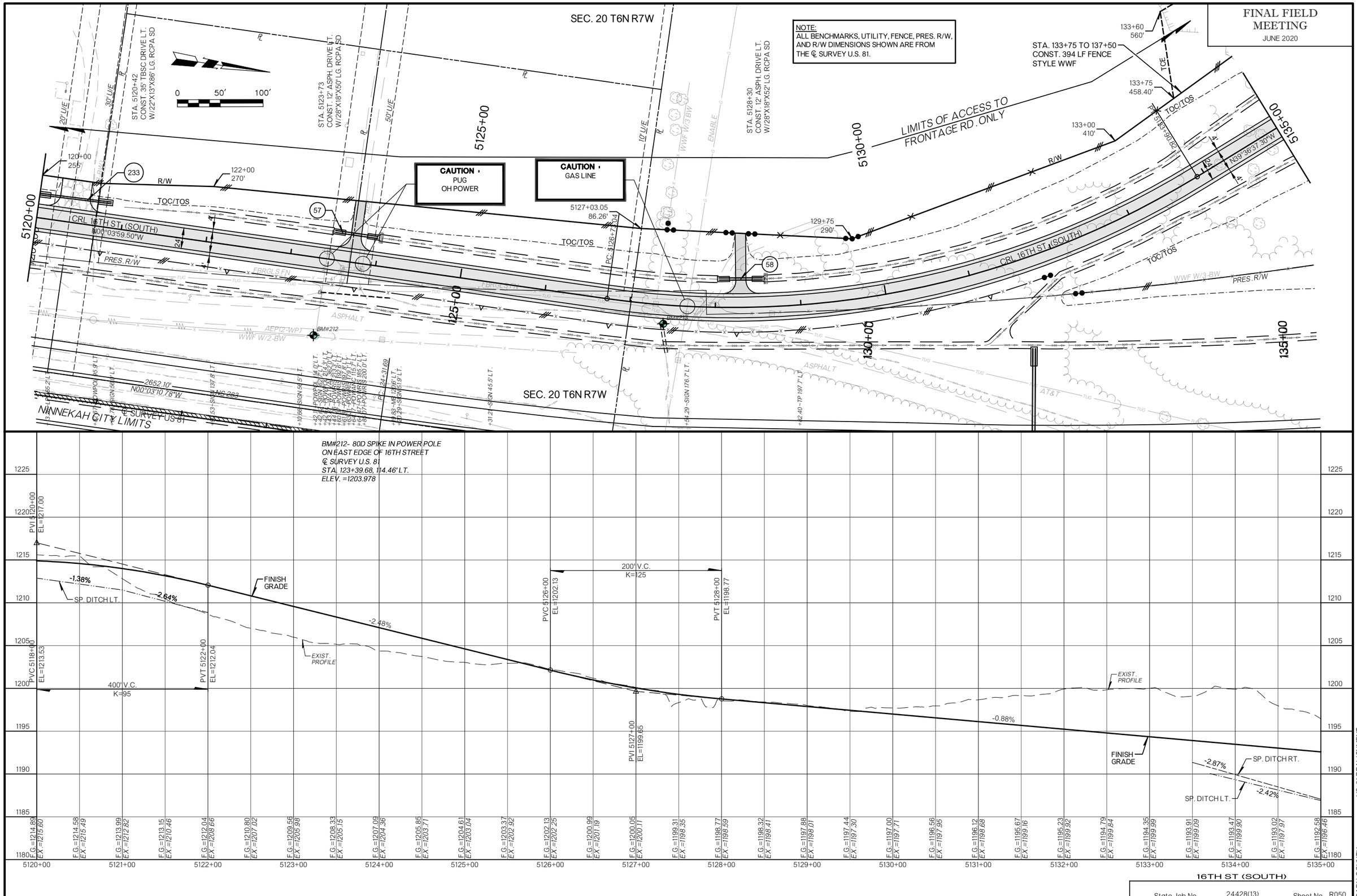
FINISH GRADE
EXIST. PROFILE
-2.00%
1.74%
1.15%
1.24%
2.16%
1.78%
0.86%
-0.66%
SP. DITCH LT.
SP. DITCH RT.
SP. DITCH LT.
PVC 5118+00 EL.=1213.53
HIGH PT. 5119+64.75 EL.=1214.96
400' V.C. K=95
PVT 5122+00 EL.=1212.04

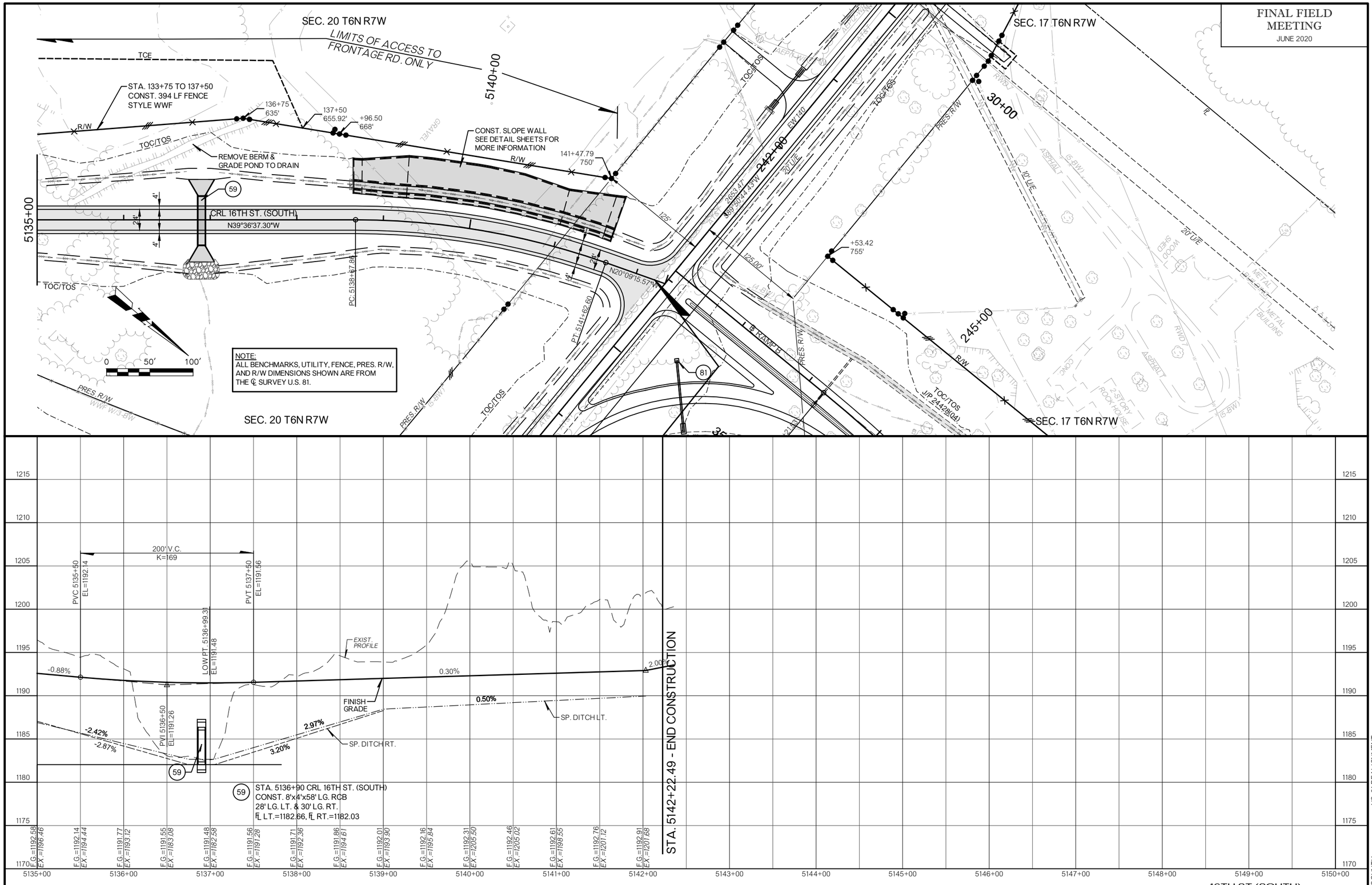
5105+00 5106+00 5107+00 5108+00 5109+00 5110+00 5111+00 5112+00 5113+00 5114+00 5115+00 5116+00 5117+00 5118+00 5119+00 5120+00

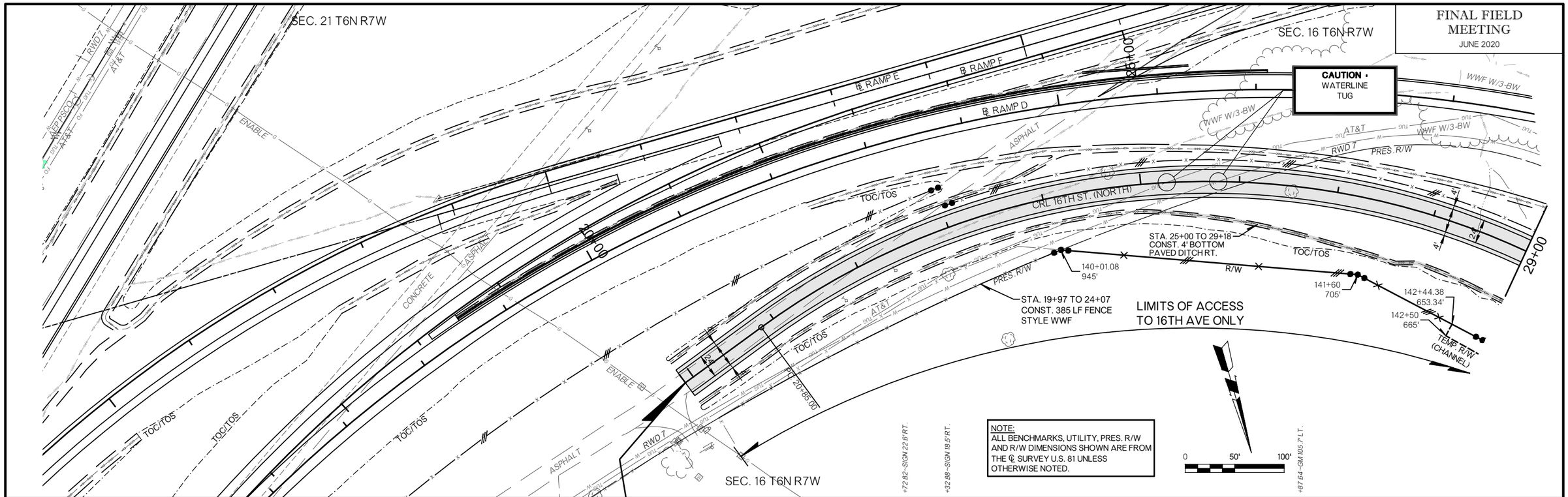
16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. R049


FINAL FIELD MEETING
JUNE 2020
NOTE:
ALL BENCHMARKS, UTILITY, FENCE, PRES. R/W, AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81.
SEC. 20 T6N R7W
STA. 5120+42 CONST. 35' TBSC DRIVE LT. W/22"X13"X86' LG. RCPA SD
STA. 5123+73 CONST. 12' ASPH. DRIVE LT. W/28"X18"X50' LG. RCPA SD
STA. 5128+30 CONST. 12' ASPH. DRIVE LT. W/28"X18"X52' LG. RCPA SD
STA. 133+75 TO 137+50 CONST. 394 LF FENCE STYLE WWF
LIMITS OF ACCESS TO FRONTAGE RD. ONLY
CAUTION · PUG OH POWER
CAUTION · GAS LINE
CRL 16TH ST. (SOUTH)
N00°03'59.50"W
N39°36'37.30"W
N00°03'10.78"W
2652.10'
NINNEKAH CITY LIMITS
℄ SURVEY US 81
BM#212- 80D SPIKE IN POWER POLE ON EAST EDGE OF 16TH STREET
℄ SURVEY U.S. 81
STA. 123+39.68, 114.46' LT.
ELEV. =1203.978
PVI 5120+00 EL=1217.00
PVC 5118+00 EL=1213.53
PVT 5122+00 EL=1212.04
PVC 5126+00 EL=1202.13
PVT 5128+00 EL=1198.77
PVI 5127+00 EL=1199.65
400' V.C. K=95
200' V.C. K=125
-1.38%
-2.64%
-2.48%
-0.88%
-2.87%
-2.42%
FINISH GRADE
SP. DITCH LT.
SP. DITCH RT.
EXIST. PROFILE
16TH ST (SOUTH)
US-81 REALIGNMENT
GRADY COUNTY
State Job No. 24428(13)
Sheet No. R050

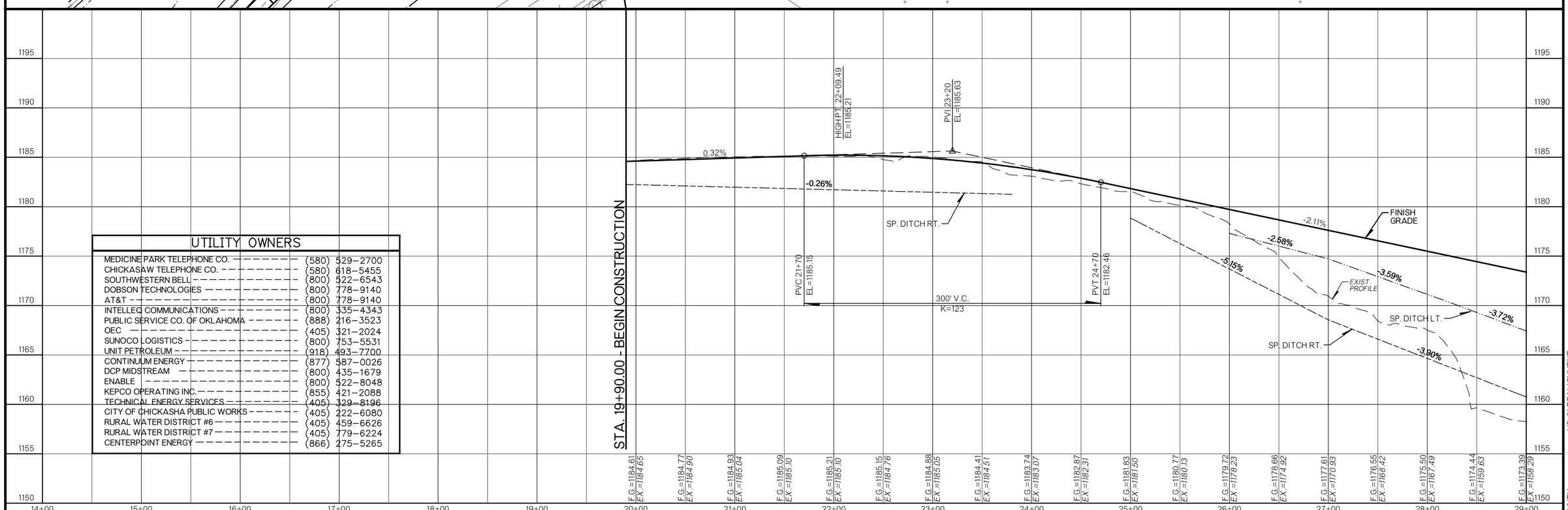

FINAL FIELD MEETING
JUNE 2020
SEC. 20 T6N R7W
SEC. 17 T6N R7W
LIMITS OF ACCESS TO FRONTAGE RD. ONLY
TCE
STA. 133+75 TO 137+50
CONST. 394 LF FENCE
STYLE WWF
136+75
635'
137+50
655.92'
+96.50
668'
CONST. SLOPE WALL
SEE DETAIL SHEETS FOR
MORE INFORMATION
141+47.79
750'
REMOVE BERM &
GRADE POND TO DRAIN
CRL 16TH ST. (SOUTH)
N39°36'37.30"W
N20°09'15.57"W
PC: 5138+67.86
PT: 5141+62.60
+53.42
755'
5135+00
5140+00
242+00
245+00
30+00
TOC/TOS
PRES. R/W
R/W
EW 140
20' U/E
10' U/E
RAMP B
TOC/TOS
J/P 24428(04)
NOTE:
ALL BENCHMARKS, UTILITY, FENCE, PRES. R/W, AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81.
0 50' 100'
200' V.C.
K=169
PVC 5135+50
EL=1192.14
PVT 5137+50
EL=1191.56
LOW PT. 5136+99.31
EL=1191.48
PVI 5136+50
EL=1191.26
EXIST. PROFILE
FINISH GRADE
SP. DITCH RT.
SP. DITCH LT.
-0.88%
0.30%
2.00%
0.50%
2.97%
3.20%
-2.42%
-2.87%
STA. 5136+90 CRL 16TH ST. (SOUTH)
CONST. 8'x4'x58' LG. RCB
28' LG. LT. & 30' LG. RT.
FL LT.=1182.66, FL RT.=1182.03
STA. 5142+22.49 - END CONSTRUCTION
16TH ST (SOUTH)
State Job No. 24428(13)
Sheet No. R051
US-81 REALIGNMENT
GRADY COUNTY



NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.

FINAL FIELD MEETING

JUNE 2020



UTILITY OWNERS

MEDICINE PARK TELEPHONE CO.	(580) 529-2700
CHICKASAW TELEPHONE CO.	(580) 618-5455
SOUTHWESTERN BELL	(800) 522-6543
DOBSON TECHNOLOGIES	(800) 778-9140
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CONTINUUM ENERGY	(877) 587-0026
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KEPCO OPERATING INC.	(855) 421-2088
TECHNICAL ENERGY SERVICES	(405) 329-8196
CITY OF CHICKASHA PUBLIC WORKS	(405) 222-6080
RURAL WATER DISTRICT #6	(405) 459-6626
RURAL WATER DISTRICT #7	(405) 779-6224
CENTERPOINT ENERGY	(866) 275-5265

State Job No. 24428(13) Sheet No. R052

US-81 REALIGNMENT

GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SEC. 16 T6N R7W

SEC. 17 T6N R7W

CRL 16TH ST. (NORTH)

CHICKASHA CITY LIMITS

NINNEKAH CITY LIMITS

CREEK HAVEN ESTATES

PHILLIP LANE

GENOA WAY

LIMITS OF ACCESS TO 16TH AVE ONLY

CAUTION
WATERLINE
TUG
OHE

STA. 25+00 TO 29+18
CONST. 4' BOTTOM PAVED DITCH RT.

NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.

63 STA. 29+50 CRL 16TH ST. (NORTH)
CONST. SP. DROP INLET, 58' LT.
STUB 87 LF 2-5'x4' RCB INTO CHANNEL RT.
TG=1166.54, FL=1161.04, DS FL=1160.00

171 STA. 36+08.37 CRL 16TH ST. (NORTH)
CONST. 16'X6'X44' LG. RCB
22' LG. LT. & 22' LG. RT.
W/ SP. INLINE WINGS
FL LT.=1152.81, FL RT.=1152.52

STA. 36+17.79 - END CONSTRUCTION
BEGIN INCIDENTAL CONSTRUCTION

STA. 37+58.84 - END
INCIDENTAL CONSTRUCTION

200' V.C.
K=110

PVC 33+80.21
EL=1163.25

PVT 35+80.23
EL=1160.84

PVI 34+80.22
EL=1161.14

FINISH GRADE

EXIST. PROFILE

-2.11%
0.68%
-2.18%
-1.84%
0.30%
-1.88%-1.55%-1.23%
-0.50%
-36.43%
0.30%

SP. DITCH RT.
SP. DITCH LT.
SP. DITCH RT.

F.G.=1173.39 EX.=1158.29
F.G.=1172.33 EX.=1158.45
F.G.=1171.28 EX.=1164.59
F.G.=1170.22 EX.=1164.74
F.G.=1169.17 EX.=1165.13
F.G.=1168.11 EX.=1167.18
F.G.=1167.06 EX.=1168.77
F.G.=1166.00 EX.=1169.91
F.G.=1164.94 EX.=1169.28
F.G.=1163.89 EX.=1166.34
F.G.=1162.85 EX.=1163.54
F.G.=1162.00 EX.=1162.05
F.G.=1161.37 EX.=1161.12
F.G.=1160.97 EX.=1161.06
F.G.=1160.78 EX.=1160.78
EX.=1160.92
EX.=1161.62
EX.=1162.53

29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00 40+00 41+00 42+00 43+00 44+00

16TH ST (NORTH)

State Job No. 24428(13) Sheet No. R053

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SEC. 20 T6N R7W

CRL 16TH ST. (SOUTH)

CAUTION : GAS

CAUTION : TUG

BOP: 127+53.04

PC: 130+50.00

℄ RAMP A
N07°03'59.86"W

℄ SURVEY US 81

2652.10'
N00°03'10.78"W

NS 283 ℄

BM#11

BM#213

CONST. GUARDRAIL

BRIDGE "C"

BRIDGE "D"

NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND PROP. R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.

NINNEKAH CITY LIMITS

SEC. 21 T6N R7W

0 50′ 100′

+41.41 –TP 198.8' LT.
+51.01 –SIGN 3.9' LT.
+54.91 –SIGN 176.7' LT.
+61.74 –GM 35.2' LT.
+72.88 –SIGN 180.1' LT.
+91.08 –SIGN 33.9' RT.
+92.40 –TP 197.7' LT.
+53.27 –SIGN 75.6' RT.
+45.69 –SIGN 130.2' RT.

BM#213 - N.W. COR. W. CONC. HDWL.
CGMP CROSS DRAIN
℄ SURVEY U.S. 81
STA. 127+52.29, 176.47' LT.
ELEV. =1197.379

BM#11 - 100D NAIL SET
S.W. FACE 8" ELM
℄ SURVEY U.S. 81
STA. 134+50.38, 58.92' RT.
ELEV. =1183.356

VARIABLE GRADE

FINISH GRADE

-2.00%

IDENTICAL POINTS

STA. 127+53.04 - BEGIN CONSTRUCTION

EXIST. PROFILE

-2.78%

SP. DITCH LT.

-2.27%

2.22%

5 STA. 132+00 ℄ SURVEY US 81
CONST. 36"x334' LG. RCP
168' LG. LT. & 166' LG. RT.
FL LT.=1183.17, FL RT.=1182.02

6 STA. 138+00 ℄ SURVEY US 81
CONST. 2-8'X4'X326' LG. RCB
165' LG. LT. & 161' LG. RT.
FL LT.=1170.00, FL RT.=1169.03

+42.43 BEGIN BRIDGE "C"
+25.36 BEGIN BRIDGE "D"
BRIDGE "C" LENGTH = 243.90'
BRIDGE "D" LENGTH = 240.96'

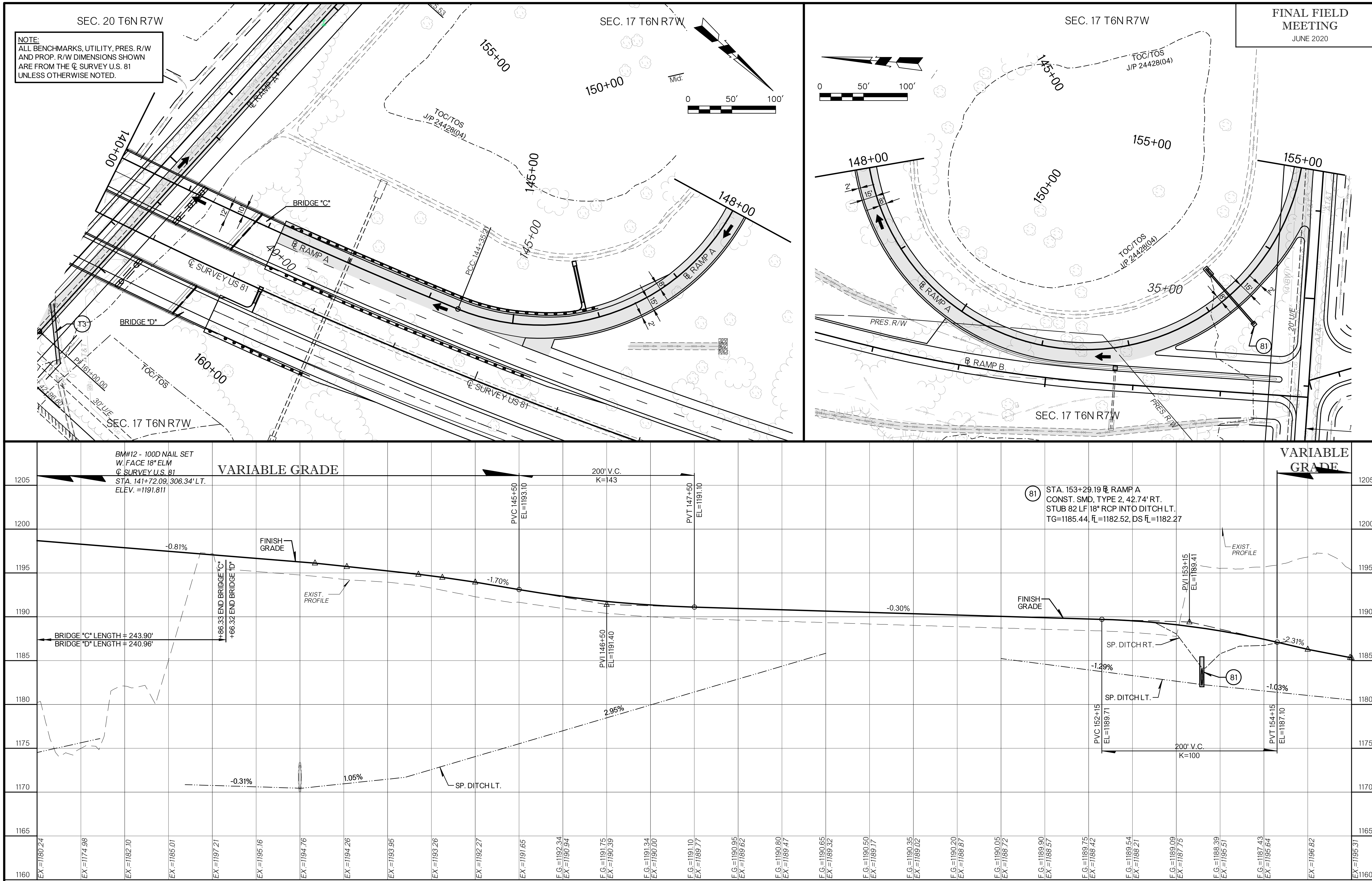
EX.=1190.67 EX.=1189.03 EX.=1188.45 EX.=1188.10 EX.=1188.19 EX.=1188.00 EX.=1187.78 EX.=1189.28 EX.=1189.58 EX.=1188.85 EX.=1187.96 EX.=1189.02 EX.=1189.13 EX.=1188.28 EX.=1187.98 EX.=1188.32 EX.=1186.44 EX.=1184.94 EX.=1183.89 EX.=1181.84 EX.=1174.76 EX.=1169.09 EX.=1175.83 EX.=1180.41 EX.=1180.24

125+00 126+00 127+00 128+00 129+00 130+00 131+00 132+00 133+00 134+00 135+00 135+50 136+00 137+00 138+00 139+00 140+00

RAMP A

State Job No. 24428(13) Sheet No. R054

US-81 REALIGNMENT
GRADY COUNTY

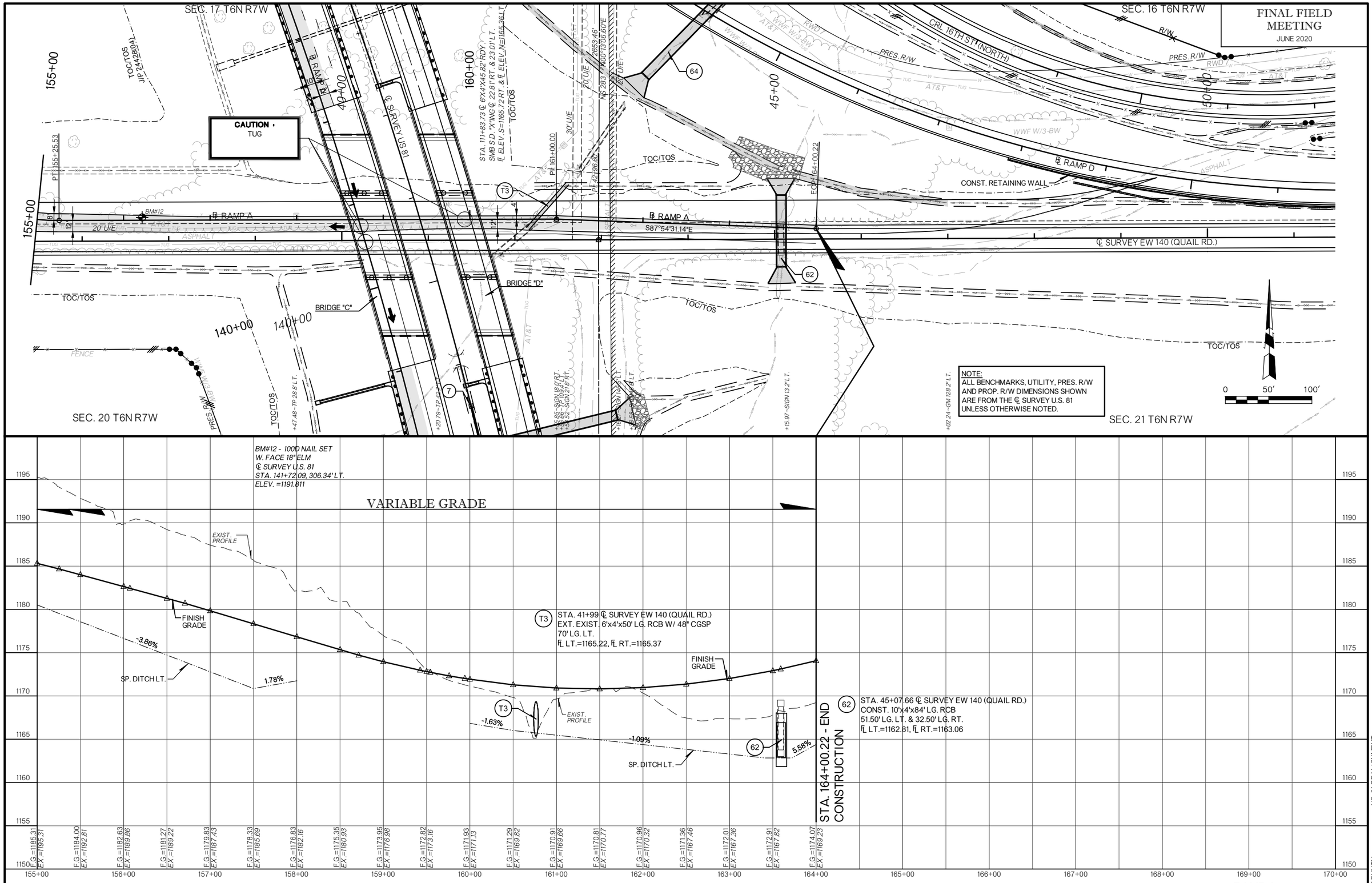


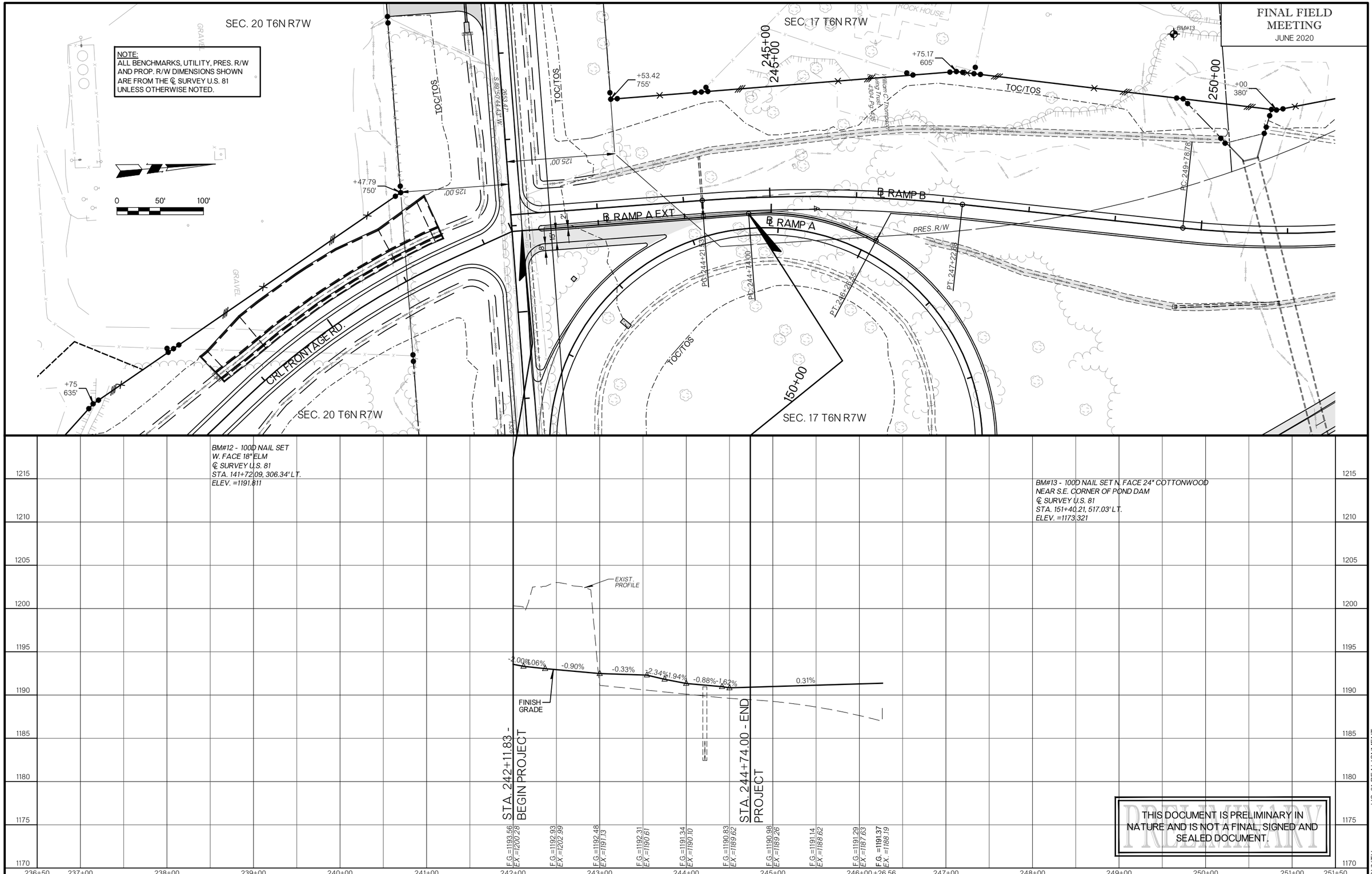
RAMP A

State Job No. 24428(13) Sheet No. R055

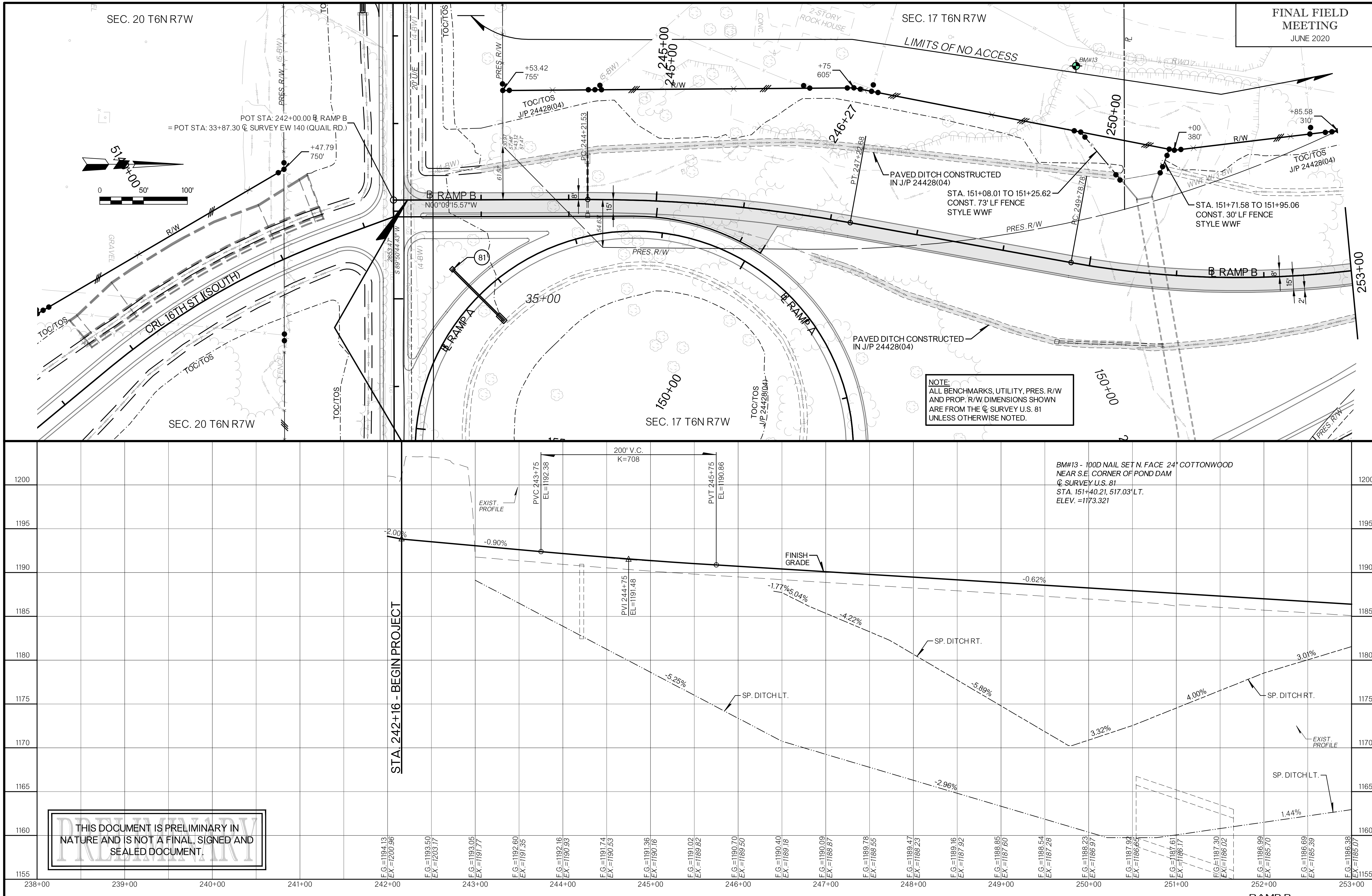
US 81 REALIGNMENT

GRADY COUNTY


FINAL FIELD MEETING
JUNE 2020
SEC. 17 T6N R7W
SEC. 16 T6N R7W
SEC. 20 T6N R7W
SEC. 21 T6N R7W
CAUTION
TUG
℄ SURVEY US 81
℄ RAMP A
℄ RAMP D
CRL 16TH ST (NORTH)
CONST. RETAINING WALL
℄ SURVEY EW 140 (QUAIL RD.)
BRIDGE "C"
BRIDGE "D"
S87°54'31.14"E
STA. 111+83.73 ℄ 6'X4'X45.82' RDY.
SMB S.D. "X"ING ℄ 22.81' RT. & 23.01' LT.
FL ELEV. S=1165.72 RT. & FL ELEV. N=1165.36 LT.
NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND PROP. R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.
0 50' 100'
BM#12 - 100D NAIL SET
W. FACE 18" ELM
℄ SURVEY U.S. 81
STA. 141+72.09, 306.34' LT.
ELEV. =1191.811
VARIABLE GRADE
EXIST. PROFILE
FINISH GRADE
SP. DITCH LT.
-3.86%
1.78%
-1.63%
-1.09%
5.58%
T3 STA. 41+99 ℄ SURVEY EW 140 (QUAIL RD.)
EXT. EXIST. 6'x4'x50' LG. RCB W/ 48" CGSP
70' LG. LT.
FL LT.=1165.22, FL RT.=1165.37
62 STA. 45+07.66 ℄ SURVEY EW 140 (QUAIL RD.)
CONST. 10'x4'x84' LG. RCB
51.50' LG. LT. & 32.50' LG. RT.
FL LT.=1162.81, FL RT.=1163.06
STA. 164+00.22 - END CONSTRUCTION
RAMP A
State Job No. 24428(13)
Sheet No. R056
US-81 REALIGNMENT
GRADY COUNTY



FINAL FIELD MEETING
JUNE 2020
NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND PROP. R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.
SEC. 20 T6N R7W
SEC. 17 T6N R7W
0 50' 100'
TOC/TOS
GRAVEL
CRL FRONTAGE RD.
℄ RAMP A EXT
℄ RAMP A
℄ RAMP B
PRES. R/W
PC: 244+21.53
PC: 244+74.00
PT: 246+26.55
PT: 247+22.68
PC: 249+78.78
+53.42 755'
+75.17 605'
+00 380'
+47.79 750'
+75 635'
125.00'
245+00
250+00
150+00
BM#13
BM#12 - 100D NAIL SET
W. FACE 18" ELM
℄ SURVEY U.S. 81
STA. 141+72.09, 306.34' LT.
ELEV. =1191.811
BM#13 - 100D NAIL SET N. FACE 24" COTTONWOOD
NEAR S.E. CORNER OF POND DAM
℄ SURVEY U.S. 81
STA. 151+40.21, 517.03' LT.
ELEV. =1173.321
EXIST. PROFILE
FINISH GRADE
-2.00% -1.06% -0.90% -0.33% -2.34% -1.94% -0.88% -1.62% 0.31%
STA. 242+11.83 - BEGIN PROJECT
STA. 244+74.00 - END PROJECT
F.G.=1193.56 EX.=1200.28
F.G.=1192.93 EX.=1202.99
F.G.=1192.48 EX.=1191.13
F.G.=1192.31 EX.=1190.61
F.G.=1191.34 EX.=1190.10
F.G.=1190.83 EX.=1189.62
F.G.=1190.98 EX.=1189.26
F.G.=1191.14 EX.=1188.62
F.G.=1191.29 EX.=1187.63
F.G.=1191.37 EX.=1188.19
1215 1210 1205 1200 1195 1190 1185 1180 1175 1170
236+50 237+00 238+00 239+00 240+00 241+00 242+00 243+00 244+00 245+00 246+00 +26.56 247+00 248+00 249+00 250+00 251+00 251+50
PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.
RAMP A EXTENSION
State Job No. 24428(13)
Sheet No. R057
US-81 REALIGNMENT
GRADY COUNTY

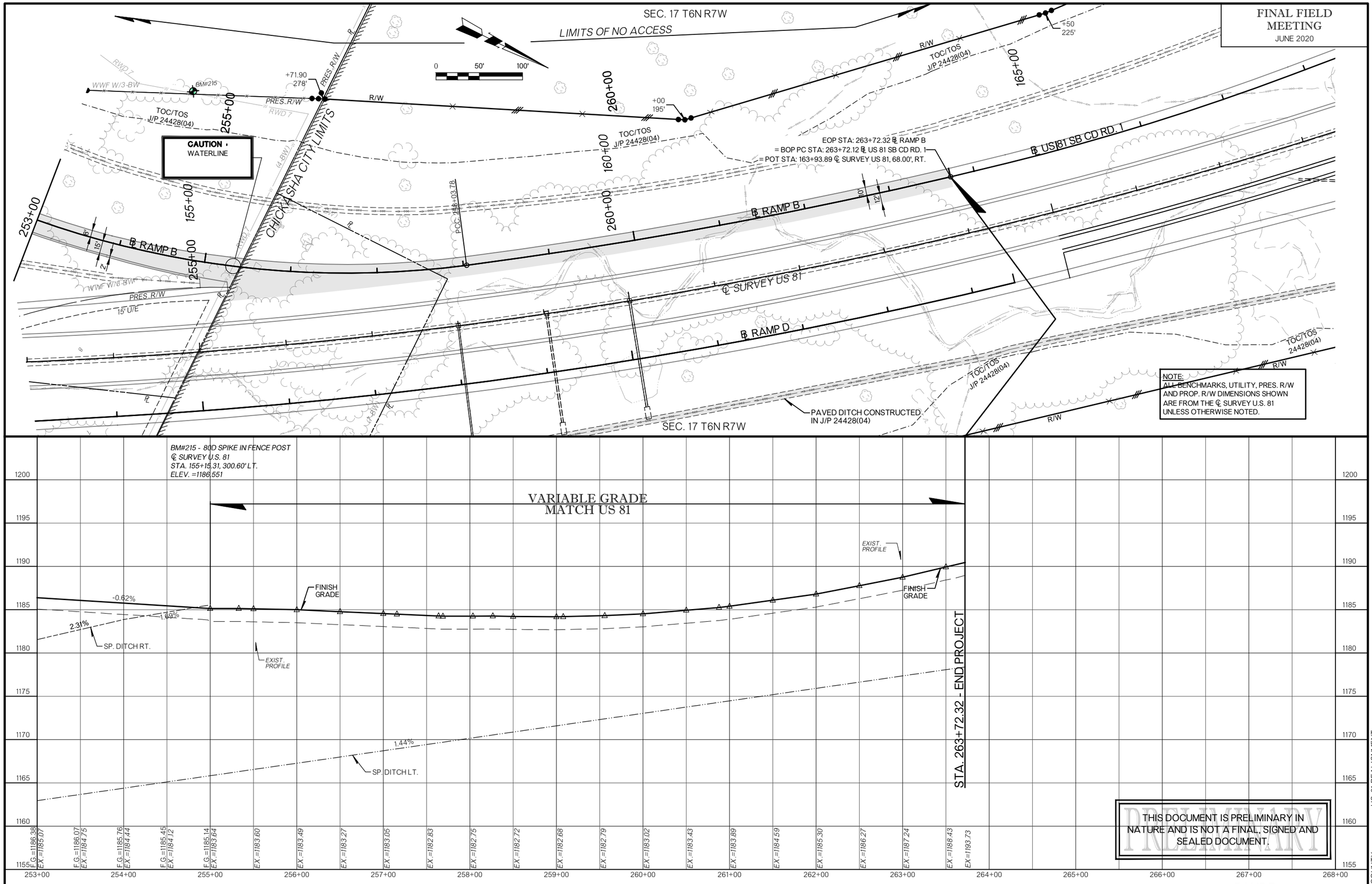


FINAL FIELD MEETING
JUNE 2020

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

State Job No. 24428(13) Sheet No. R058

US-81 REALIGNMENT
GRADY COUNTY



FINAL FIELD MEETING
JUNE 2020
SEC. 17 T6N R7W
LIMITS OF NO ACCESS
0 50' 100'
CAUTION - WATERLINE
CHICKASHA CITY LIMITS
TOC/TOS J/P 24428(04)
PRES. R/W
R/W
BM#215
+71.90 278'
+00 195'
+50 225'
253+00
255+00
155+00
260+00
160+00
165+00
EOP STA: 263+72.32 ℄ RAMP B
= BOP PC STA: 263+72.12 ℄ US 81 SB CD RD. 1
= POT STA: 163+93.89 ℄ SURVEY US 81, 68.00', RT.
℄ US 81 SB CD RD. 1
℄ RAMP B
℄ SURVEY US 81
℄ RAMP D
PCC: 258+03.78
15' U/E
PAVED DITCH CONSTRUCTED IN J/P 24428(04)
NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND PROP. R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.
BM#215 - 80D SPIKE IN FENCE POST
℄ SURVEY U.S. 81
STA. 155+15.31, 300.60' LT.
ELEV. =1186.551
VARIABLE GRADE
MATCH US 81
EXIST. PROFILE
FINISH GRADE
-0.62%
1.69%
2.31%
SP. DITCH RT.
1.44%
SP. DITCH LT.
STA. 263+72.32 - END PROJECT
1200
1195
1190
1185
1180
1175
1170
1165
1160
1155
F.G.=1186.38 EX.=1185.07
F.G.=1186.07 EX.=1184.75
F.G.=1185.76 EX.=1184.44
F.G.=1185.45 EX.=1184.12
F.G.=1185.14 EX.=1183.64
EX.=1183.60
EX.=1183.49
EX.=1183.27
EX.=1183.05
EX.=1182.83
EX.=1182.75
EX.=1182.72
EX.=1182.68
EX.=1182.79
EX.=1183.02
EX.=1183.43
EX.=1183.89
EX.=1184.59
EX.=1185.30
EX.=1186.27
EX.=1187.24
EX.=1188.43
EX.=1193.73
253+00
254+00
255+00
256+00
257+00
258+00
259+00
260+00
261+00
262+00
263+00
264+00
265+00
266+00
267+00
268+00
PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.
RAMP B
State Job No. 24428(13)
Sheet No. R059
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SEC. 20 T6N R7W

SEC. 21 T6N R7W

℄ SURVEY US 81

℄ SURVEY NB US-81

℄ RAMP C
N00°45'00.04"E

2652.85'
N 00°03'22.08" W

BM#209

TOC/TOS

BM#210

BRIDGE "A"

BRIDGE "B"

CAUTION - OH POWER

CAUTION - WATER

EXISTING LIMITS OF NO ACCESS

20' U/E

NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81.

0 50' 100'

BM#209- NGS MONUMENT "H-214"
ENCASED STEEL ROD W/ METAL LID
℄ SURVEY U.S. 81
STA. 102+78.31, 98.50' RT.
ELEV. =1193.770

BM#210- "X" ON CENTER W. HDWL.
RCB CROSS DRAIN
℄ SURVEY U.S. 81
STA. 108+67.70, 66.14' LT.
ELEV. =1196.144

STA. 96+88.43 - BEGIN CONSTRUCTION

FINISH GRADE

EXIST. PROFILE

-0.61%

SP. DITCH RT.

1 STA. 105+00 ℄ SURVEY US 81
CONST. SMD, TYPE 2, ON ℄
STUB 120 LF 18" RCP INTO DITCH RT.
TG=1200.42, FL=1193.39, DS FL=1189.79

2 STA. 108+50 ℄ SURVEY US 81
CONST. 4'x4'x258' LG. RCB
122' LG. LT. & 136' LG. RT.
FL LT.=1190.50, FL RT.=1188.80

-0.26%

-0.00%

0.96%

0.34%

0.98%

+14.53 BEGIN BRIDGE "B"

BRIDGE "B"
LENGTH = 181' - 8"

VARIABLE GRADE

EX.=1198.12 EX.=1198.08 EX.=1198.16 EX.=1198.21 EX.=1197.51 EX.=1196.90 EX.=1196.09 EX.=1196.03 EX.=1196.09 EX.=1196.02 EX.=1195.47 EX.=1195.39 EX.=1195.31 EX.=1194.89 EX.=1194.83 EX.=1194.95 EX.=1195.43 EX.=1195.72 EX.=1196.07 EX.=1196.68 EX.=1197.56 EX.=1197.77 EX.=1198.07 EX.=1198.29 EX.=1201.08

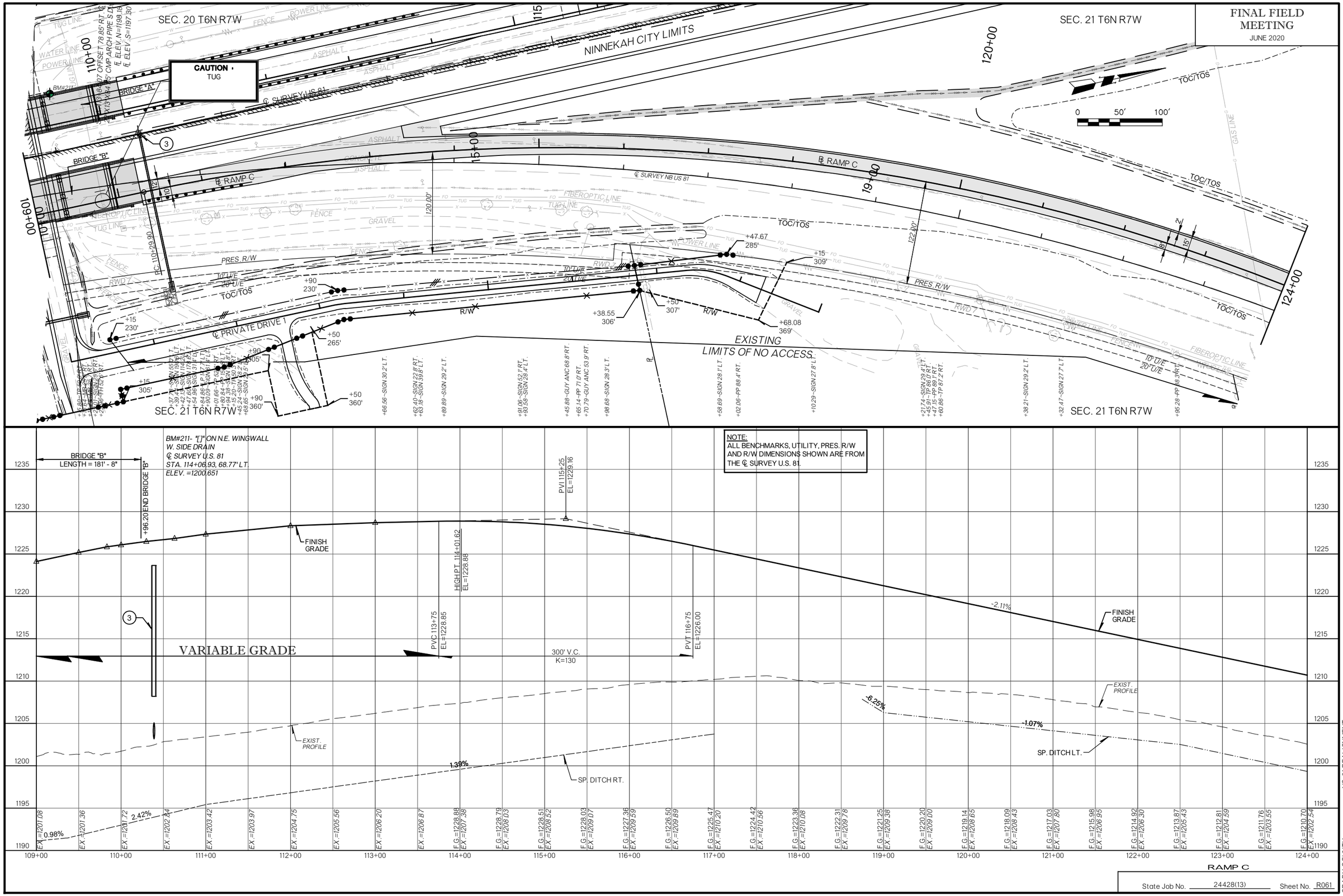
94+00 95+00 96+00 97+00 98+00 99+00 100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00

1220 1215 1210 1205 1200 1195 1190 1185 1180 1175

RAMP C

State Job No. 24428(13) Sheet No. R060

US-81 REALIGNMENT
GRADY COUNTY


FINAL FIELD MEETING
JUNE 2020
SEC. 20 T6N R7W
SEC. 21 T6N R7W
NINNEKAH CITY LIMITS
CAUTION
TUG
BRIDGE "A"
BRIDGE "B"
℄ SURVEY US 81
℄ RAMP C
℄ SURVEY NB US 81
℄ PRIVATE DRIVE 1
PRES. R/W
R/W
TOC/TOS
EXISTING LIMITS OF NO ACCESS
0 50' 100'
BM#211- "[]" ON N.E. WINGWALL
W. SIDE DRAIN
℄ SURVEY U.S. 81
STA. 114+06.93, 68.77' LT.
ELEV. =1200.651
BRIDGE "B"
LENGTH = 181' - 8"
+96.20 END BRIDGE "B"
FINISH GRADE
HIGH PT. 114+01.62
EL=1228.88
PVI 115+25
EL=1229.16
PVC 113+75
EL=1228.85
PVT 116+75
EL=1226.00
VARIABLE GRADE
300' V.C.
K=130
-2.11%
-6.25%
-1.07%
1.39%
2.42%
0.98%
EXIST. PROFILE
SP. DITCH RT.
SP. DITCH LT.
NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81.
RAMP C
State Job No. 24428(13)
Sheet No. R061
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SEC. 21 T6N R7W

NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY NB U.S. 81.

0 50′ 100′

125+00 130+00 135+00 139+00 124+00

CAUTION :
GAS LINE

TOC/TOS
℄ RAMP C
CONCRETE
ASPHALT
N47°03'51.76"E
℄ SURVEY NB US 81
℄ SURVEY NB US 81
15'
2'
8'
87.92'
TOC/TOS
FIBEROPTIC LINE
FENCE
POWER LINE
WATER LINE
GAS LINE
U/E
PRES R/W
RWD 7
PT-129+46.61
BM#86
BM#87
EXISTING
LIMITS OF NO ACCESS
SEC. 21 T6N R7W

+28.14 -GM 86.8' RT.
+63.56 -SIGN 29.5' LT.
+33.45 -POWRS 127.1' RT.
+36.28 -PP 87.8' RT.
+78.27 -SIGN 29.3' LT.
+82.44 -SIGN 26.9' LT.
+92.70 -SIGN 27.8' LT.
+09.09 -TP 87.2' RT.
+16.75 -PP 88.3' RT.
+04.30 -SIGN 28.7' LT.
+06.99 -SIGN 29.2' LT.
+01.40 -PP 88.5' RT.
+17.46 -SIGN 26.9' LT.
+28.49 -SIGN 28.2' LT.
+28.97 -SIGN 28.5' LT.
+84.48 -PP 88.2' RT.
+63.27 -PP 88.2' RT.
+59.64 -GM 86.5' RT.
+79.98 -TP 86.6' RT.

BM#86 -SET 3/4" I.P.(30" LONG)
℄ SURVEY U.S. 81 NB
STA. 1124+46.43, 95.92' RT.
ELEV. =1196.021

BM#87 - SET 3/4" I.P.(30" LONG)
℄ SURVEY U.S. 81 NB
STA. 1133+42.40, 96.38' RT.
ELEV. =1182.701

FINISH GRADE
SP. DITCH LT.
SP. DITCH RT.
EXIST. PROFILE
-2.11%
-2.12%
-1.84%
-1.22%
-0.90%
-0.71%
-0.40%
-0.32%
350' V.C.
K=250
PVC 133+25
EL=1191.19
PVT 136+75
EL=1186.26
PVI 135+00
EL=1187.50

1210 1205 1200 1195 1190 1185 1180 1175 1170 1165

F.G.=1210.70	F.G.=1209.65	F.G.=1208.59	F.G.=1207.54	F.G.=1206.49	F.G.=1205.43	F.G.=1204.38	F.G.=1203.32	F.G.=1202.27	F.G.=1201.21	F.G.=1200.16	F.G.=1199.10	F.G.=1198.05	F.G.=1196.99	F.G.=1195.94	F.G.=1194.88	F.G.=1193.83	F.G.=1192.77	F.G.=1191.72	F.G.=1190.68	F.G.=1189.72	F.G.=1188.87	F.G.=1188.11	F.G.=1187.46	F.G.=1186.90	F.G.=1186.45
EX.=1202.54	EX.=1201.79	EX.=1201.05	EX.=1200.24	EX.=1199.17	EX.=1197.99	EX.=1196.91	EX.=1195.78	EX.=1194.65	EX.=1193.41	EX.=1192.20	EX.=1190.84	EX.=1189.78	EX.=1188.66	EX.=1187.67	EX.=1187.05	EX.=1186.46	EX.=1185.97	EX.=1185.40	EX.=1184.88	EX.=1184.46	EX.=1184.21	EX.=1184.05	EX.=1183.81	EX.=1183.70	EX.=1183.54

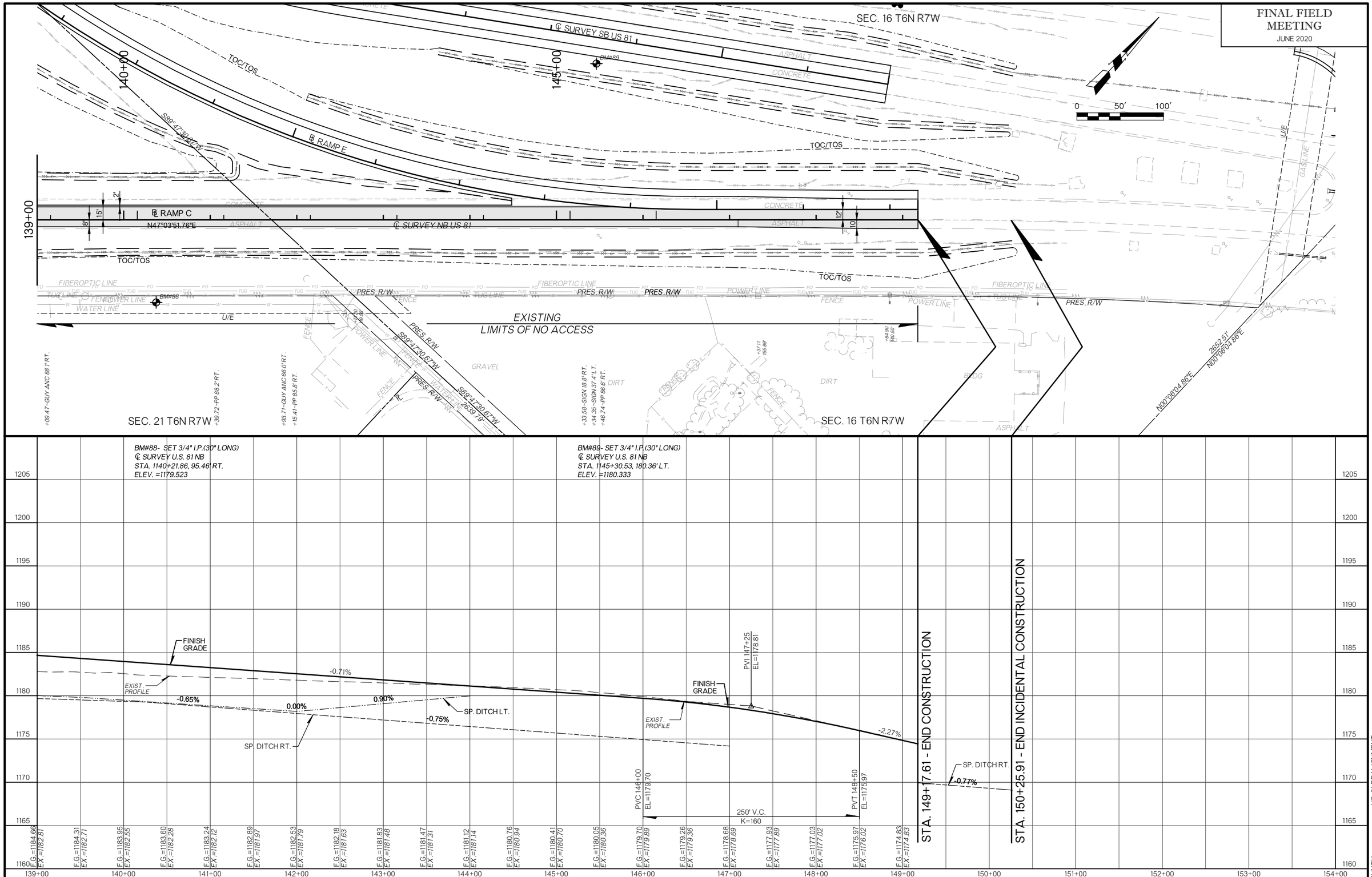
F.G.=1186.08	F.G.=1185.73	F.G.=1185.37	F.G.=1185.02	F.G.=1184.66																					
EX.=1183.44	EX.=1183.18	EX.=1183.09	EX.=1182.97	EX.=1182.81																					

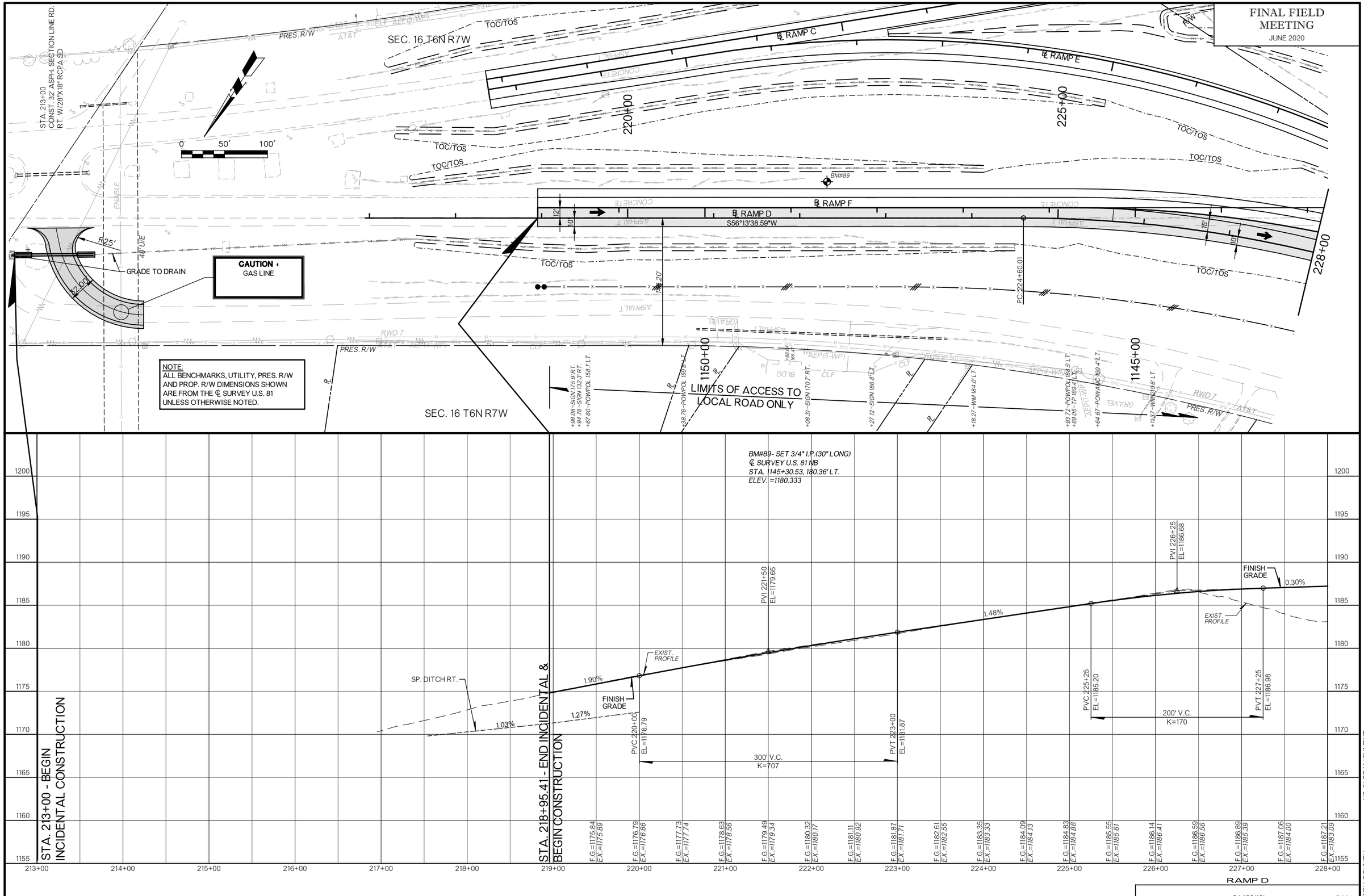
124+00 125+00 126+00 127+00 128+00 129+00 130+00 131+00 132+00 133+00 134+00 135+00 136+00 137+00 138+00 139+00

RAMP C

State Job No. 24428(13) Sheet No. R062

US-81 REALIGNMENT
GRADY COUNTY


FINAL FIELD MEETING
JUNE 2020
SEC. 16 T6N R7W
℄ SURVEY SB US 81
BM#89
ASPHALT
CONCRETE
TOC/TOS
140+00
145+00
139+00
S89°47'30.67"W
℄ RAMP E
℄ RAMP C
N47°03'51.76"E
℄ SURVEY NB US 81
FIBEROPTIC LINE
TUG LINE
FENCE
POWER LINE
WATER LINE
BM#88
U/E
PRES. R/W
EXISTING
LIMITS OF NO ACCESS
GRAVEL
DIRT
BLDG
GAS LINE
0 50' 100'
SEC. 21 T6N R7W
SEC. 16 T6N R7W
+09.47-GUY ANC 88.1' RT.
+39.72-PP 88.2' RT.
+93.71-GUY ANC 66.0' RT.
+15.41-PP 85.8' RT.
+33.58-SIGN 18.8' RT.
+34.35-SIGN 37.4' LT.
+46.74-PP 86.6' RT.
N00°06'04.86"E
2652.51'
BM#88- SET 3/4" I.P.(30" LONG)
℄ SURVEY U.S. 81 NB
STA. 1140+21.86, 95.46' RT.
ELEV. =1179.523
BM#89- SET 3/4" I.P.(30" LONG)
℄ SURVEY U.S. 81 NB
STA. 1145+30.53, 180.36' LT.
ELEV. =1180.333
FINISH GRADE
EXIST. PROFILE
-0.71%
-0.65%
0.00%
0.90%
-0.75%
-2.27%
-0.77%
SP. DITCH LT.
SP. DITCH RT.
PVI 147+25
EL=1178.81
PVC 146+00
EL=1179.70
PVT 148+50
EL=1175.97
250' V.C.
K=160
STA. 149+17.61 - END CONSTRUCTION
STA. 150+25.91 - END INCIDENTAL CONSTRUCTION
1205
1200
1195
1190
1185
1180
1175
1170
1165
1160
139+00
140+00
141+00
142+00
143+00
144+00
145+00
146+00
147+00
148+00
149+00
150+00
151+00
152+00
153+00
154+00
RAMP C
State Job No. 24428(13)
Sheet No. R063
US-81 REALIGNMENT
GRADY COUNTY


FINAL FIELD MEETING
JUNE 2020
STA. 213+00
CONST. 32' ASPH. SECTION LINE RD.
RT. W/28"X18" RCPA SD
SEC. 16 T6N R7W
PRES. R/W
TOC/TOS
℄ RAMP C
℄ RAMP E
℄ RAMP F
℄ RAMP D
S56°13'38.59"W
220+00
225+00
228+00
1150+00
1145+00
BM#89
0 50' 100'
R25'
GRADE TO DRAIN
CAUTION
GAS LINE
NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND PROP. R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.
LIMITS OF ACCESS TO LOCAL ROAD ONLY
PC:224+60.01
BM#89- SET 3/4" I.P.(30" LONG)
℄ SURVEY U.S. 81 NB
STA. 1145+30.53, 180.36' LT.
ELEV. =1180.333
STA. 213+00 - BEGIN INCIDENTAL CONSTRUCTION
STA. 218+95.41 - END INCIDENTAL & BEGIN CONSTRUCTION
SP. DITCH RT.
1.90%
1.27%
1.03%
1.48%
0.30%
FINISH GRADE
EXIST. PROFILE
PVC 220+00 EL=1176.79
PVI 221+50 EL=1179.65
PVT 223+00 EL=1181.87
PVC 225+25 EL=1185.20
PVI 226+25 EL=1186.68
PVT 227+25 EL=1186.98
300' V.C. K=707
200' V.C. K=170
RAMP D
State Job No. 24428(13)
Sheet No. R064
US-81 REALIGNMENT
GRADY COUNTY

NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND PROP. R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.

FINAL FIELD MEETING
JUNE 2020

SEC. 21 T6N R7W

℄ SURVEY SB US 81

℄ SURVEY EW #40 (QUAIL RD.)

℄ RAMP E

℄ RAMP F

℄ RAMP D

CRL 16TH ST. (NORTH)

CONST. RETAINING WALL

CONST. IMPACT ATTENUATER

CAUTION
GAS

CAUTION
TUG

NINNEKAH CITY LIMITS

TOC/TOS

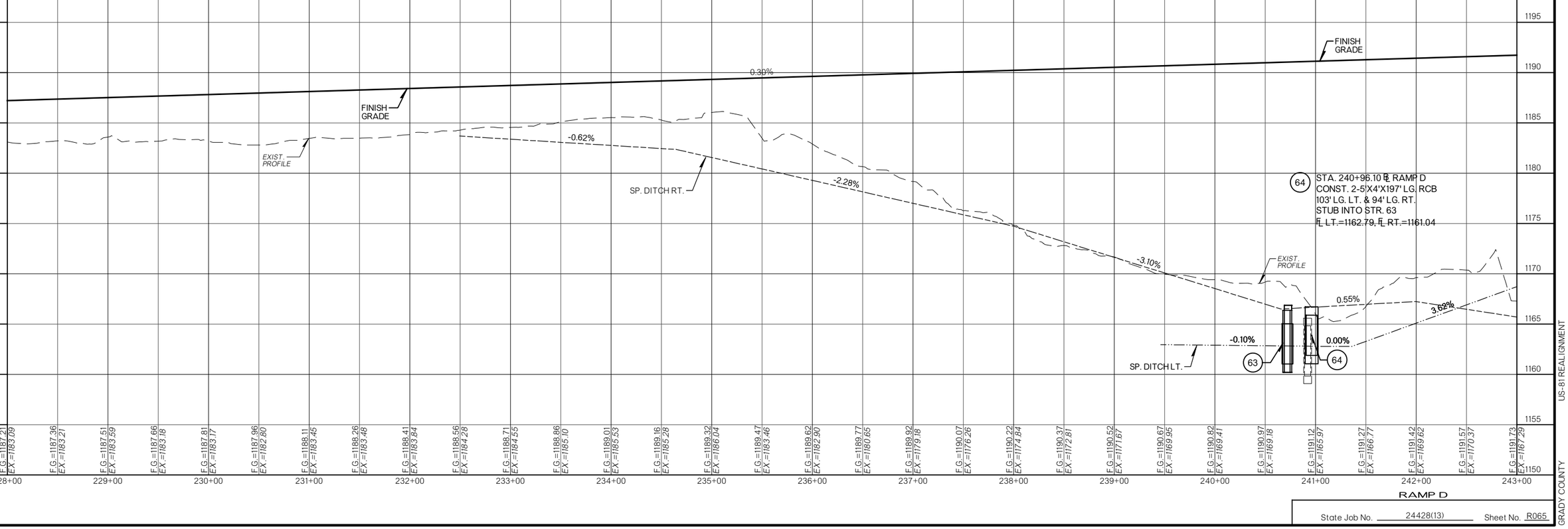
PRES. R/W

R/W

TEMP. R/W (CHANNEL)

SEC. 16 T6N R7W

0 50′ 100′

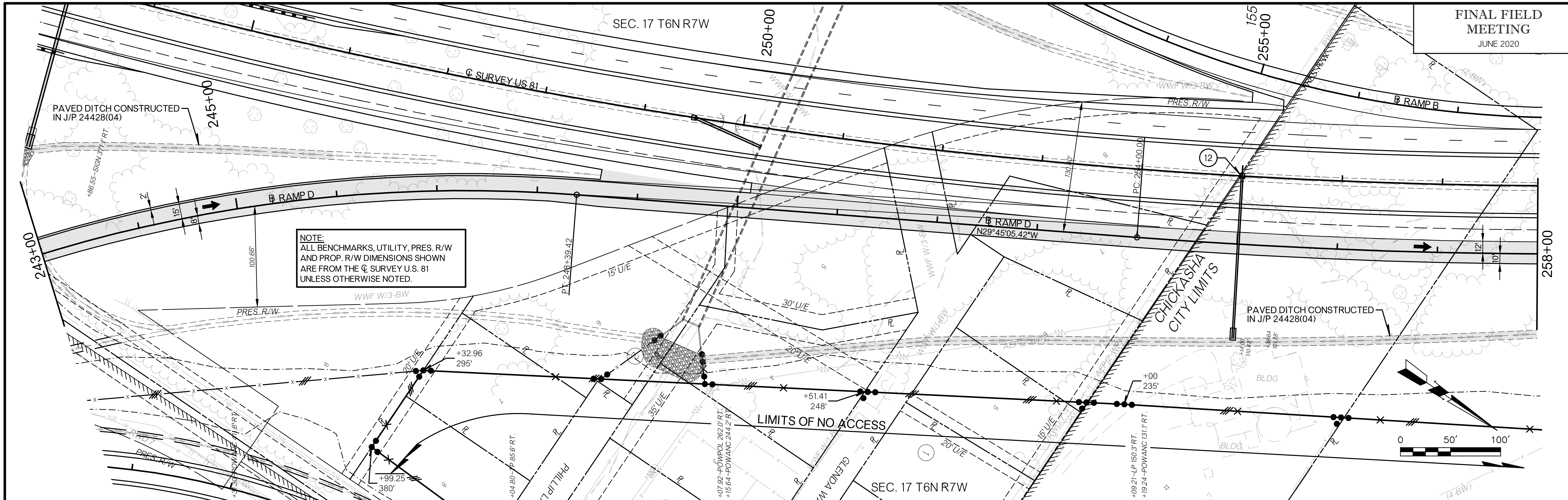


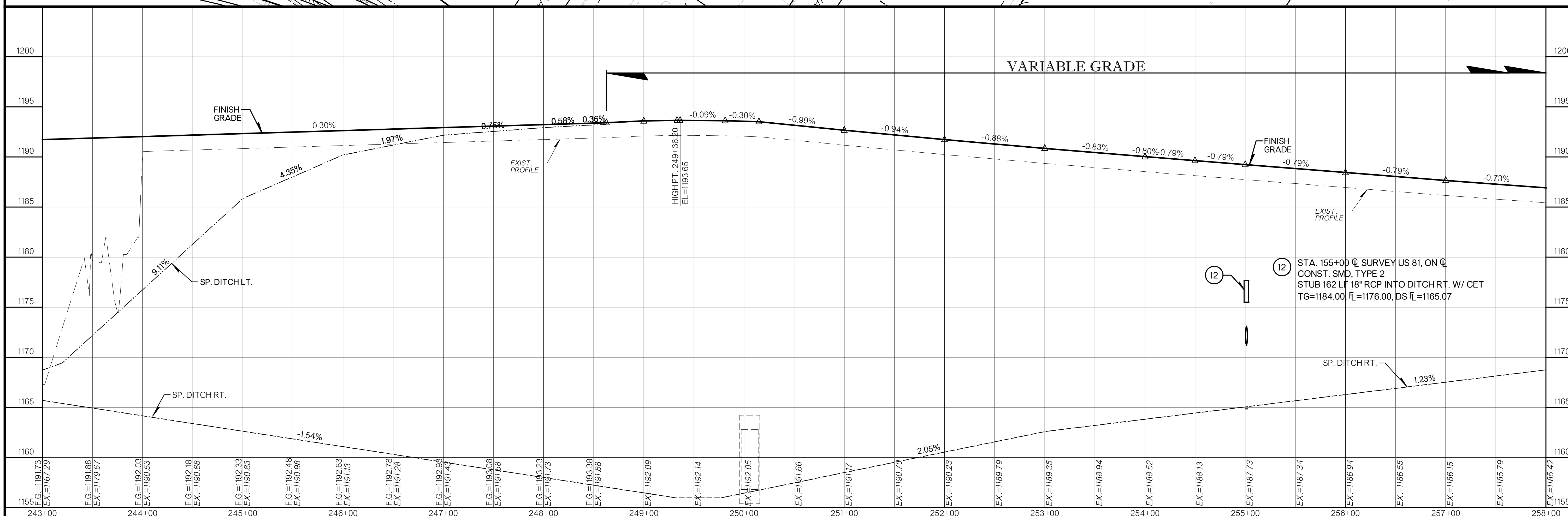
RAMP D

State Job No. 24428(13) Sheet No. R065

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

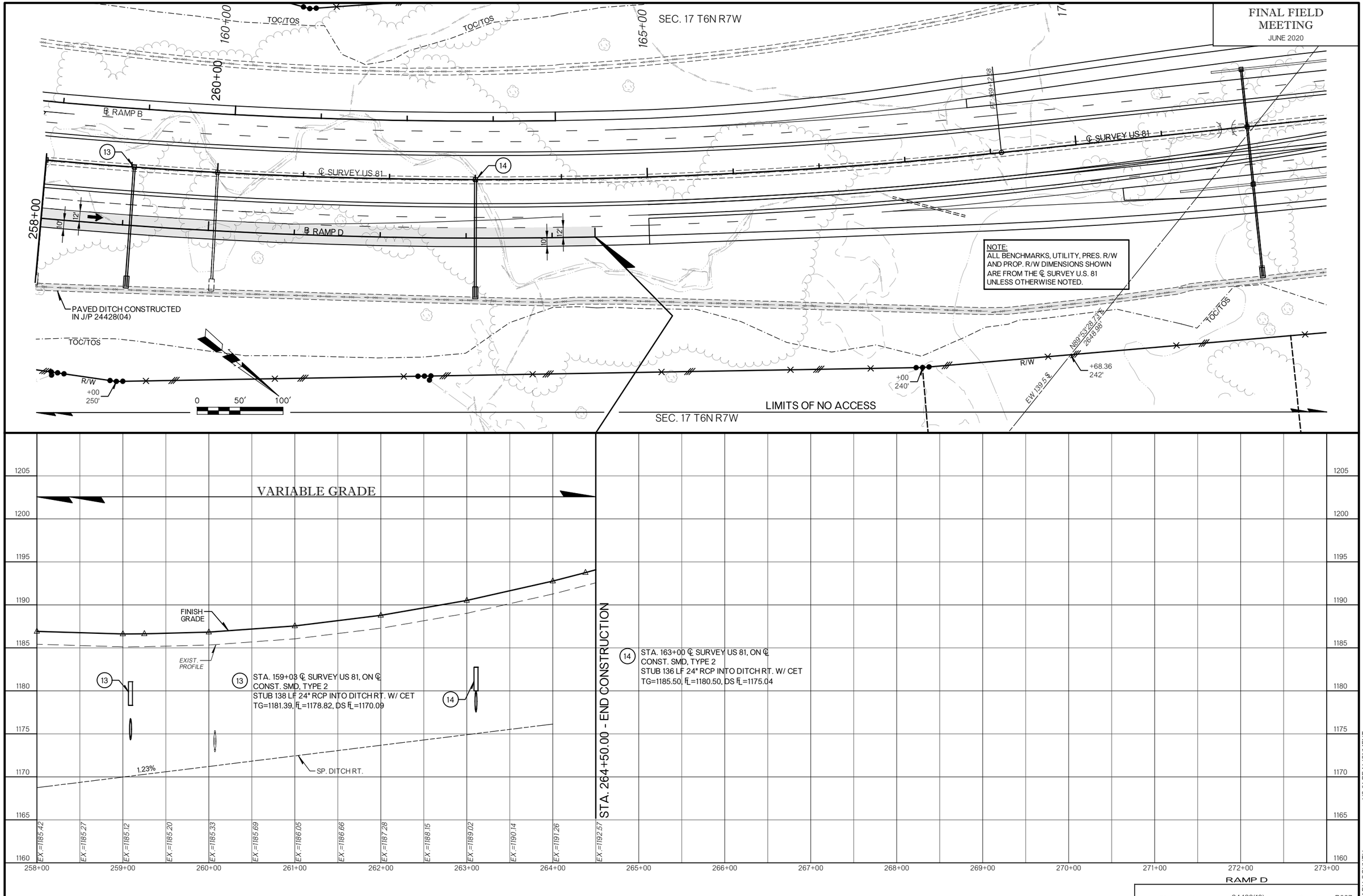


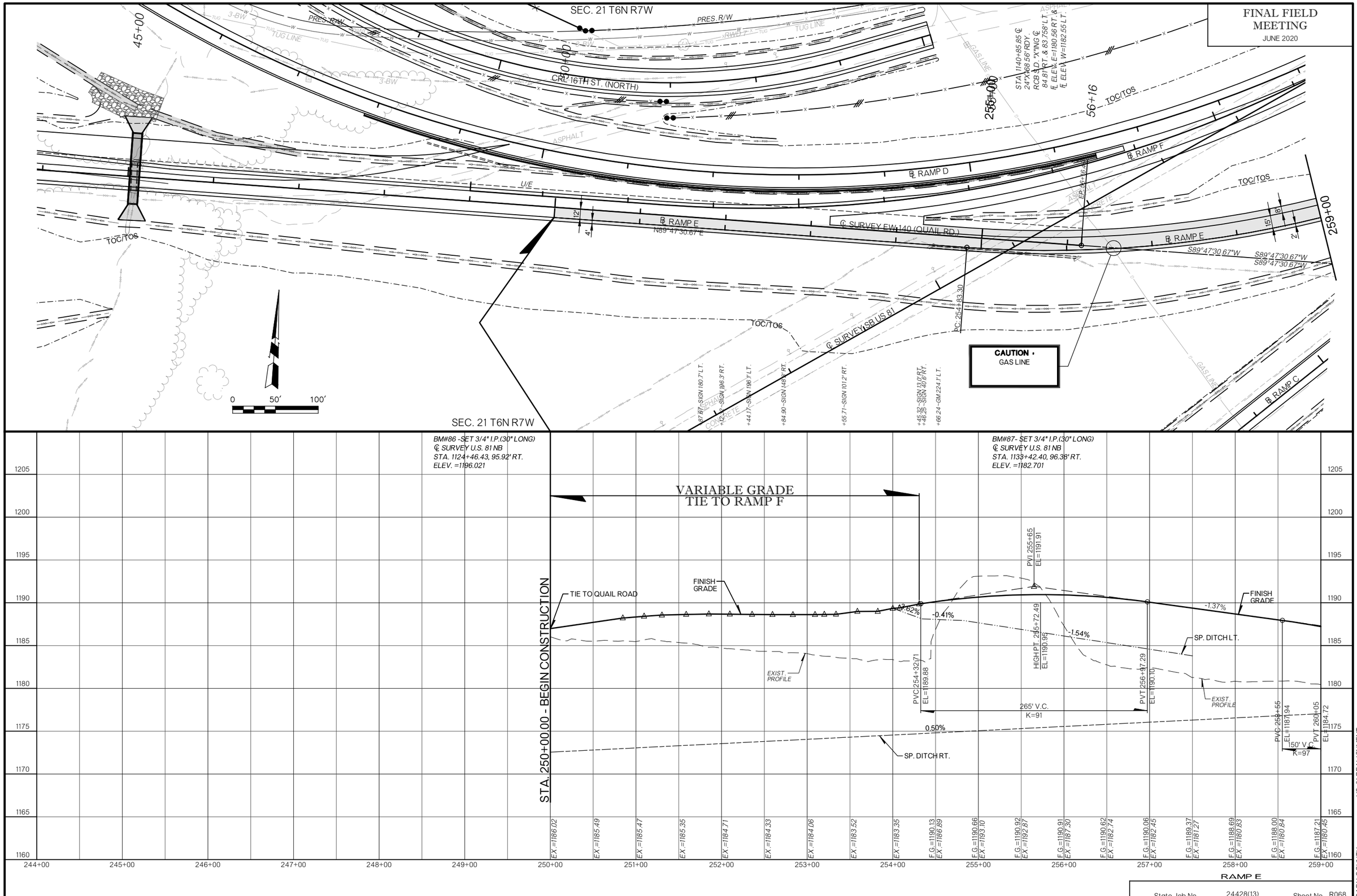


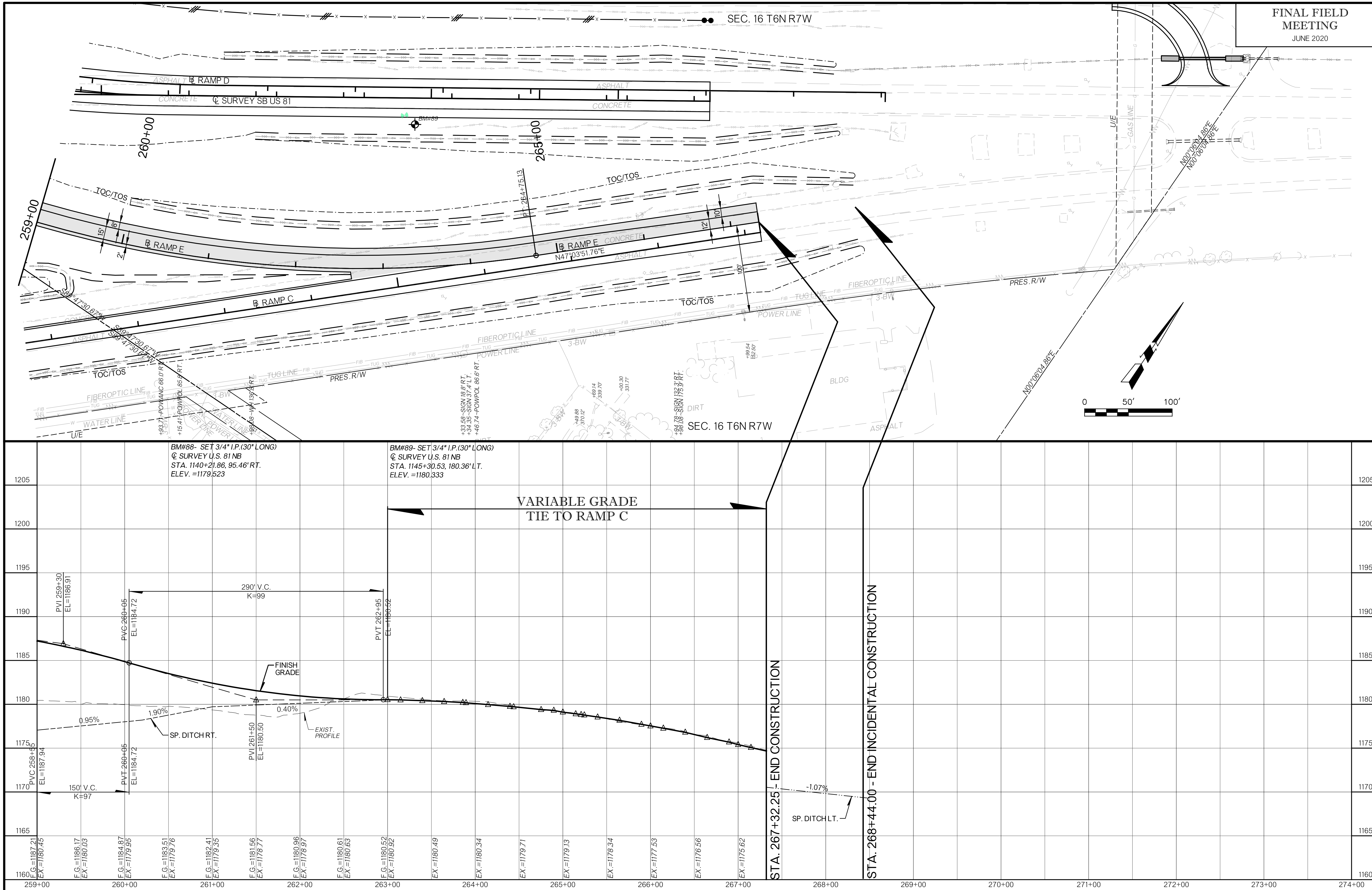
RAMP D

State Job No. 24428(13) Sheet No. R066

US 81 REALIGNMENT
GRADY COUNTY


FINAL FIELD MEETING
JUNE 2020
SEC. 17 T6N R7W
TOC/TOS
160+00
165+00
260+00
258+00
℄ RAMP B
℄ SURVEY US 81
℄ RAMP D
13
14
10'
12'
PAVED DITCH CONSTRUCTED IN J/P 24428(04)
NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND PROP. R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81 UNLESS OTHERWISE NOTED.
R/W
+00
250'
0
50'
100'
+00
240'
+68.36
242'
N89°53'28.73"E
2648.98'
EW 139.5 ℄
LIMITS OF NO ACCESS
SEC. 17 T6N R7W
VARIABLE GRADE
FINISH GRADE
EXIST. PROFILE
13 STA. 159+03 ℄ SURVEY US 81, ON ℄
CONST. SMD, TYPE 2
STUB 138 LF 24" RCP INTO DITCH RT. W/ CET
TG=1181.39, FL=1178.82, DS FL=1170.09
14 STA. 163+00 ℄ SURVEY US 81, ON ℄
CONST. SMD, TYPE 2
STUB 136 LF 24" RCP INTO DITCH RT. W/ CET
TG=1185.50, FL=1180.50, DS FL=1175.04
1.23%
SP. DITCH RT.
STA. 264+50.00 - END CONSTRUCTION
1205
1200
1195
1190
1185
1180
1175
1170
1165
1160
EX.=1185.42
EX.=1185.27
EX.=1185.12
EX.=1185.20
EX.=1185.33
EX.=1185.69
EX.=1186.05
EX.=1186.66
EX.=1187.28
EX.=1188.15
EX.=1189.02
EX.=1190.14
EX.=1191.26
EX.=1192.57
258+00
259+00
260+00
261+00
262+00
263+00
264+00
265+00
266+00
267+00
268+00
269+00
270+00
271+00
272+00
273+00
RAMP D
State Job No. 24428(13)
Sheet No. R067
US 81 REALIGNMENT
GRADY COUNTY


FINAL FIELD MEETING
JUNE 2020
SEC. 21 T6N R7W
PRES. R/W
TUG LINE
CRL 16TH ST. (NORTH)
ASPHALT
U/E
℄ RAMP D
℄ RAMP F
℄ RAMP E
N89°47'30.67"E
℄ SURVEY EW 140 (QUAIL RD.)
S89°47'30.67"W
℄ SURVEY SB US 81
TOC/TOS
CAUTION
GAS LINE
PC: 254+83.30
STA 1140+85.85 ℄
24"X68.56' RDY.
RCB S.D. "X"ING ℄
84.81' RT. & 83.758' LT.
℄ ELEV. E=1180.56 RT. &
℄ ELEV. W=1182.55 LT.
45+00
50+00
255+00
56+16
259+00
0 50' 100'
BM#86 -SET 3/4" I.P.(30" LONG)
℄ SURVEY U.S. 81 NB
STA. 1124+46.43, 95.92' RT.
ELEV. =1196.021
BM#87- SET 3/4" I.P.(30" LONG)
℄ SURVEY U.S. 81 NB
STA. 1133+42.40, 96.38' RT.
ELEV. =1182.701
VARIABLE GRADE
TIE TO RAMP F
STA. 250+00.00 - BEGIN CONSTRUCTION
TIE TO QUAIL ROAD
FINISH GRADE
EXIST. PROFILE
SP. DITCH LT.
SP. DITCH RT.
PVI 255+65
EL=1191.91
HIGH PT. 255+72.49
EL=1190.95
PVC 254+32.71
EL=1189.88
PVT 256+97.29
EL=1190.10
PVC 258+55
EL=1187.94
PVT 260+05
EL=1184.72
265' V.C.
K=91
150' V.C.
K=97
-0.41%
-1.54%
-1.37%
0.50%
1205
1200
1195
1190
1185
1180
1175
1170
1165
1160
244+00
245+00
246+00
247+00
248+00
249+00
250+00
251+00
252+00
253+00
254+00
255+00
256+00
257+00
258+00
259+00
RAMP E
State Job No. 24428(13)
Sheet No. R068
US-81 REALIGNMENT
GRADY COUNTY



State Job No. 24428(13) Sheet No. R069

US-81 REALIGNMENT

GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SEC. 16 T6N R7W

SEC. 21 T6N R7W

SEC. 16 T6N R7W

SEC. 21 T6N R7W

240+00
235+00
230+00
140+01.08
945.00'
PRES. R/W
RWD 7
AT&T
TUG
ASPHALT
CRL SURVEYING 283 (16TH AVE)
130+00
135+00
CONST. RETAINING WALL
T4
62
U/E
S89°47'30.67"W
2639.79'
S89°47'30.67"W
N89°47'30.67"E
192.85'
PC 128+45.77
CAUTION - GAS
55+00
56+16
TOC/TOS
CONST. IMPACT ATTENUATOR
136+00
RAMP F
RAMP D
RAMP E
EP 56+16
CONCRETE
TILE
+87.67' -SIGN 180.7' LT.
+84.90' -SIGN 148.3' RT.
+55.71' -SIGN 101.2' RT.
+45.32' -SIGN 137.6' RT.
+46.25' -SIGN 47.8' RT.
0 50' 100'

NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY U.S. 81.

BM#86 -SET 3/4" I.P.(30" LONG)
℄ SURVEY U.S. 81 NB
STA. 1124+46.43, 95.92' RT.
ELEV. =1196.021

BM#87- SET 3/4" I.P.(30" LONG)
℄ SURVEY U.S. 81 NB
STA. 1133+42.40, 96.38' RT.
ELEV. =1182.701

VARIABLE GRADE TIE TO RAMP E

VARIABLE GRADE TIE TO RAMP D

STA. 127+15.45 - BEGIN CONSTRUCTION

TIE TO QUAIL ROAD

EXIST. PROFILE

FINISH GRADE

2.28%

-0.56%

0.30%

SP. DITCH LT.

PVC 130+50 EL=1187.51

150' V.C. K=100

LOW PT. 131+06.17 EL=1187.36

PVI 131+25 EL=1187.09

PVT 132+00 EL=1187.79

0.94%

1.15%

PVI 133+25 EL=1188.96

HIGH PT. 133+46.21 EL=1188.71

-0.52%

PVC 132+50 EL=1188.26

150' V.C. K=103

PVT 134+00 EL=1188.57

EX.=1184.87
EX.=1185.50
F.G.=1187.50 EX.=1185.64
F.G.=1188.22 EX.=1185.30
F.G.=1188.33 EX.=1185.29
F.G.=1188.25 EX.=1184.76
F.G.=1188.05 EX.=1184.36
F.G.=1187.79 EX.=1183.93
F.G.=1187.51 EX.=1183.44
F.G.=1187.36 EX.=1183.33
F.G.=1187.45 EX.=1183.30
F.G.=1187.79 EX.=1183.47
F.G.=1188.26 EX.=1183.48
F.G.=1188.61 EX.=1183.89
F.G.=1188.71 EX.=1186.35
F.G.=1188.57 EX.=1187.97
EX.=1189.01
EX.=1188.34
EX.=1187.68
EX.=1187.04

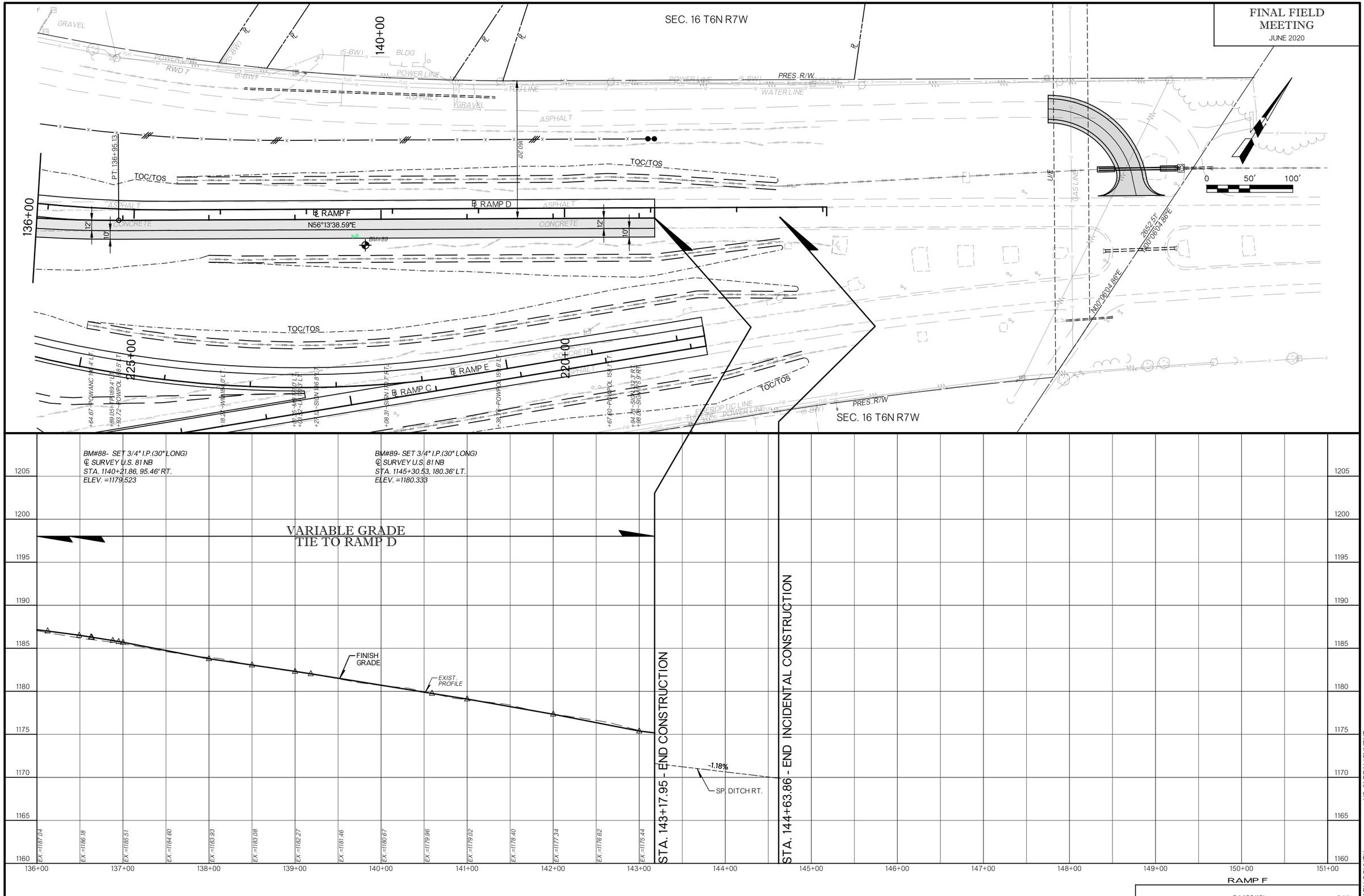
121+00 122+00 123+00 124+00 125+00 126+00 127+00 128+00 129+00 130+00 131+00 132+00 133+00 134+00 135+00 136+00

1205 1200 1195 1190 1185 1180 1175 1170 1165 1160

RAMP F

State Job No. 24428(13) Sheet No. R070

US-81 REALIGNMENT
GRADY COUNTY


FINAL FIELD MEETING
JUNE 2020
SEC. 16 T6N R7W
140+00
136+00
225+00
220+00
PRES. R/W
TOC/TOS
℄ RAMP F
℄ RAMP D
℄ RAMP E
℄ RAMP C
N56°13'38.59"E
BM#89
PT: 136+95.13
160.20'
GRAVEL
POWER LINE
RWD 7
BLDG
ASPHALT
CONCRETE
WATER LINE
GAS LINE
FIBEROPTIC LINE
N00°06'04.86"E
2652.51'
0 50' 100'
BM#88- SET 3/4" I.P.(30" LONG)
℄ SURVEY U.S. 81 NB
STA. 1140+21.86, 95.46' RT.
ELEV. =1179.523
BM#89- SET 3/4" I.P.(30" LONG)
℄ SURVEY U.S. 81 NB
STA. 1145+30.53, 180.36' LT.
ELEV. =1180.333
VARIABLE GRADE
TIE TO RAMP D
FINISH GRADE
EXIST. PROFILE
-1.18%
SP. DITCH RT.
STA. 143+17.95 - END CONSTRUCTION
STA. 144+63.86 - END INCIDENTAL CONSTRUCTION
1205
1200
1195
1190
1185
1180
1175
1170
1165
1160
136+00
137+00
138+00
139+00
140+00
141+00
142+00
143+00
144+00
145+00
146+00
147+00
148+00
149+00
150+00
151+00
RAMP F
State Job No. 24428(13)
Sheet No. R071
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

℄ SURVEY US 81
℄ SURVEY NB US 81
℄ PRIVATE DRIVE 1
BRIDGE "B"
10+00
15+00
20+00
35+00
ASPHALT
CONCRETE
GRAVEL
AT&T
FO
TUG
W
WWF W/5-BW
(6-BW)
PRES. R/W
10' U/E
20' U/E
R/W
TOC/TOS
TEMP. R/W (DRIVE)
CRL EW 140.5
EW 140.5
N89°55'12.12"E
2644.57'
N00°04'06.48"W
PC: 13+29.63
PC: 13+18.05
P.T. 17+82.60
PC: 17+35.56
+10 215'
+15 230'
+10 305'
+15 305'
+90 305'
+90 360'
+50 272'
+50 360'
55
SEC. 21 T6N R7W
SEC. 21 T6N R7W
0 50' 100'

NOTE:
ALL BENCHMARKS, UTILITY, PRES. R/W AND R/W DIMENSIONS SHOWN ARE FROM THE ℄ SURVEY US 81.

STA. 10+07.92 -BEGIN CONSTRUCTION
STA. 18+27.10 - END CONSTRUCTION
FINISH GRADE
EXIST. PROFILE
2.00%
2.75%
1.60%
2.07%
PVI 13+25 EL=1201.00
PVI 17+00 EL=1207.00
HIGH PT. 16+87.08 EL=1206.10
PVC 12+25 EL=1198.25
PVT 14+25 EL=1202.60
PVC 16+00 EL=1205.40
PVT 18+00 EL=1204.93
200' V.C. K=174
200' V.C. K=54

	7+00	8+00	9+00	10+00	11+00	12+00	13+00	14+00	15+00	16+00	17+00	18+00	19+00	20+00	21+00	22+00
F.G.=				1193.59	1193.44	1194.82	1196.19	1197.56	1198.92	1200.15	1201.24	1202.18	1203.00	1203.80	1204.60	1205.40	1205.97	1206.08	1205.73	1204.93		
EX.=				1193.59	1194.86	1195.54	1195.42	1196.73	1198.04	1198.76	1200.04	1201.25	1201.51	1202.43	1204.21	1204.44	1204.91	1205.61	1204.94	1204.65	1204.19	1203.61

1220 1215 1210 1205 1200 1195 1190 1185 1180 1175

PRIVATE DRIVE 1

State Job No. 24428(13) Sheet No. R072

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SEC. 20 T6N R7W

SEC. 21 T6N R7W

SEC. 16 T6N R7W

90+00

95+00

100+00

0 50' 100'

BLDG

PRES. R/W

20' U/E

R/W

TOC/TOS

N=596438.14975
E=1982733.90849

T1

90+50
0.00'

℄ SURVEY US 81

97+31
0.00'

N=597119.14944
E=1982733.65275

N=596438.19553
E=1982772.23169

N=597119.18839
E=1982766.25756

T2

N=602522.06733
E=1985643.71158

N=602829.42956
E=1986104.62856

N=602488.78812
E=1985665.90380

N=602796.15036
E=1986126.82078

REMOVE 2,462.22 S.Y.
ASPH. PAVEMENT

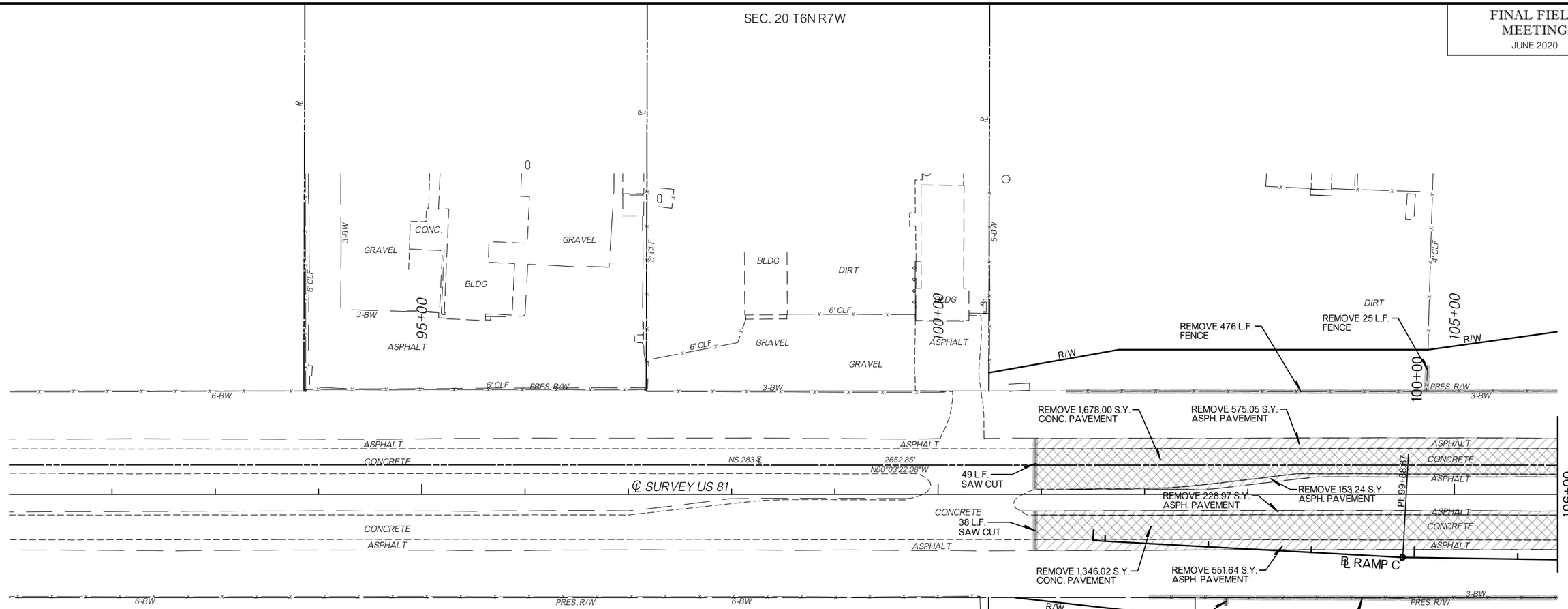
CROSSOVERS

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. R073

FINAL FIELD MEETING
JUNE 2020

SEC. 20 T6N R7W



LEGEND

- ASPHALT PAVEMENT REMOVAL
- CONCRETE PAVEMENT REMOVAL
- MISCELLANEOUS REMOVAL

REMOVAL QUANTITIES		
FENCE	L.F.	905
CONCRETE PAVEMENT	S.Y.	3,024.02
ASPHALT PAVEMENT	S.Y.	1,508.90
SAWING PAVEMENT	L.F.	87

SEC. 21 T6N R7W

0 50' 100'

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REMOVAL
US 81

State Job No. 24428(13) Sheet No. R074

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SEC. 20 T6N R7W

TEMP. R/W

METAL BLDG.

5115+00

5120+00

R/W 30+00

R/W

CRL 16TH ST. (SOUTH)

GRAVEL

PRES. R/W

110+00

115+00

120+00

R/W

REMOVE 169 L.F. FENCE

REMOVE 41 L.F. FENCE

REMOVE 625 L.F. FENCE

105+00

3-BW

ASPHALT

WWF W/3BW

REMOVE 3,570.18 S.Y. ASPH. PAVEMENT

REMOVE 633 L.F. FENCE

NS 283 ℄

CONCRETE PI 32+71.93

2652.10'
N00°03'10.78"W

ASPHALT

CONCRETE

ASPHALT

REMOVE 249.20 S.Y. ASPH. PAVEMENT

REMOVE 198.42 S.Y. ASPH. PAVEMENT

℄ SURVEY US 81

PI 104+79.92

REMOVE 6,742.99 S.Y. CONC. PAVEMENT

NINNEKAH CITY LIMITS

106+00

121+00

℄ RAMP C

REMOVE 919.90 S.Y. ASPH. PAVEMENT

ASPHALT

CONCRETE

ASPHALT

3-BW

PRES. R/W

REMOVE 752 L.F. FENCE

CRL EW 140.5

PC: 110+29.90

6-BW

5-BW

GRAVEL

CRL EW 140.5 (CR 140.5)

GRAVEL

3-BW

℄ SURVEY EW 140.5 (CR 140.5)

35+00 35+00

PRES. R/W

6-BW

5-BW

R/W

TEMP. R/W

TEMP. R/W

R/W

R/W

LEGEND

- ASPHALT PAVEMENT REMOVAL
- CONCRETE PAVEMENT REMOVAL
- MISCELLANEOUS REMOVAL

REMOVAL QUANTITIES		
FENCE	L.F.	2,220
CONCRETE PAVEMENT	S.Y.	6,742.99
ASPHALT PAVEMENT	S.Y.	4,937.70

0 50' 100'

SEC. 21 T6N R7W

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US-81 REALIGNMENT

GRADY COUNTY

REMOVAL
US 81

State Job No. 24428(13) Sheet No. R075

FINAL FIELD MEETING
JUNE 2020

SEC. 20 T6N R7W

5125+00

5130+00

TEMP R/W

℄ 5133+90.82

R/W

4 BW

R/W

PC: 5126+73.04

WWF W/3BW

PRES. R/W

CRL 16TH ST. (SOUTH)

130+00

135+00

PRES. R/W

WWF W/3BW

135+00

PRES. R/W

FBRGL FN

FBRGL FN

125+00

ASPHALT

130+00

ASPHALT

REMOVE 556 L.F.
FENCE

REMOVE 3,773.92 S.Y.
ASPH. PAVEMENT

PC: 130+50.00

℄ RAMP A

PC: 124+31.69

121+00

NINNEKAH CITY LIMITS

NS 283 ℄

℄ SURVEY US 81

2652.10'
N00°03'10.78"W

136+00

NINNEKAH CITY LIMITS

REMOVE 1,348.76 S.Y.
ASPH. PAVEMENT

120+00

REMOVE 436.86 S.Y.
ASPH. PAVEMENT

ASPHALT
CONCRETE
ASPHALT

REMOVE 3,765.13 S.Y.
CONC. PAVEMENT

℄ RAMP C

TEMP. R/W

GRAVEL

PRES. R/W

WWF W/3BW

GRAVEL

0 50' 100'

LEGEND

- ASPHALT PAVEMENT REMOVAL
- CONCRETE PAVEMENT REMOVAL
- MISCELLANEOUS REMOVAL

125+00

SEC. 21 T6N R7W

REMOVAL QUANTITIES		
FENCE	L.F.	556
CONCRETE PAVEMENT	S.Y.	3,765.13
ASPHALT PAVEMENT	S.Y.	5,559.54

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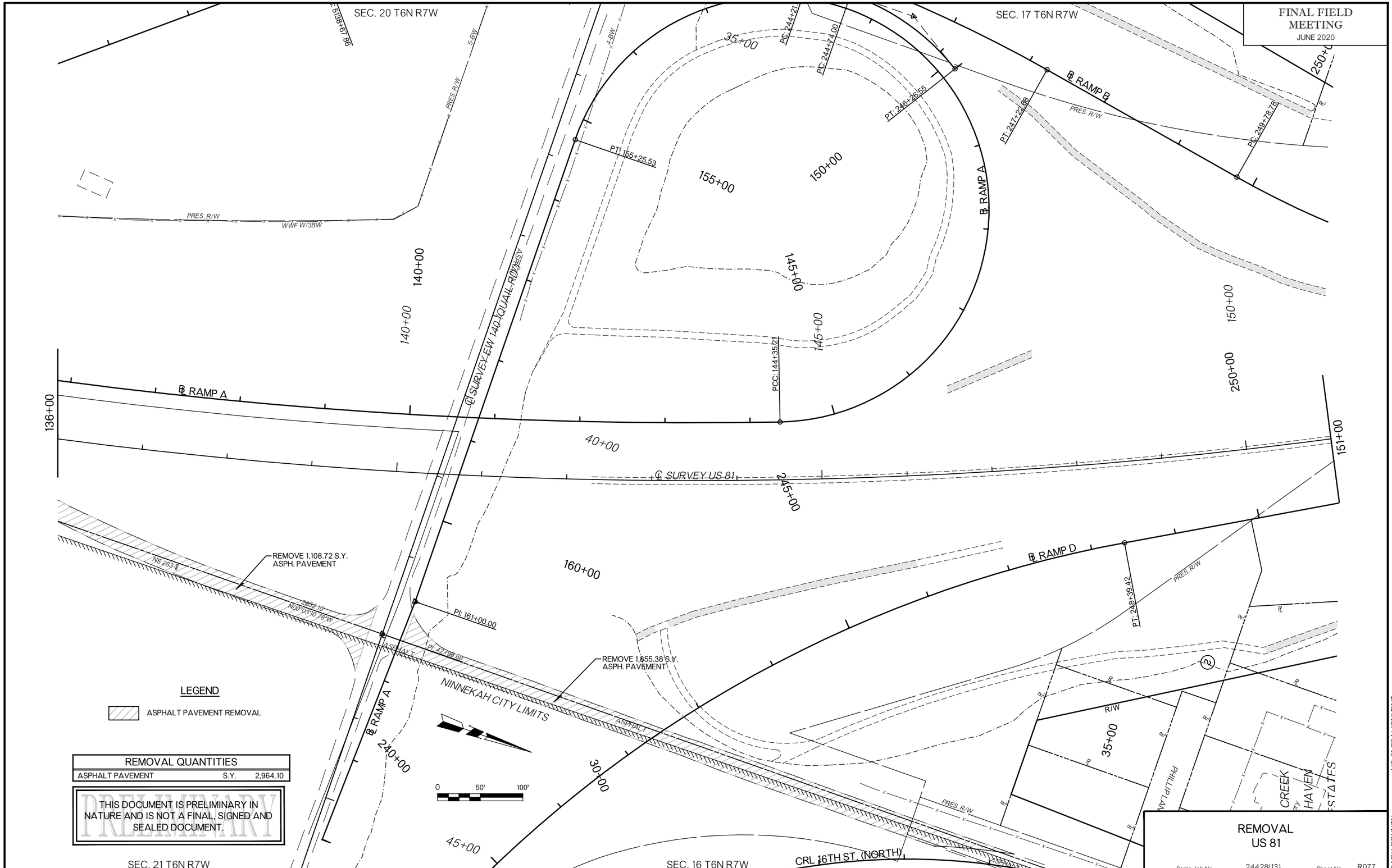
REMOVAL
US 81

State Job No. 24428(13) Sheet No. R076

US-81 REALIGNMENT

GRADY COUNTY


FINAL FIELD MEETING
JUNE 2020
SEC. 20 T6N R7W
SEC. 17 T6N R7W
SEC. 21 T6N R7W
SEC. 16 T6N R7W
℄ RAMP A
℄ RAMP B
℄ RAMP D
℄ SURVEY EW 140 (QUAIL RD)
℄ SURVEY US 81
NINNEKAH CITY LIMITS
CRL 16TH ST. (NORTH)
PRES. R/W
WWF W/3BW
PT: 155+25.53
PC: 244+21
PC: 244+74.00
PT: 246+26.55
PT: 247+22.68
PC: 249+78.78
PCC: 144+35.21
PI: 161+00.00
PT: 248+39.42
PI: 42+96.60
REMOVE 1,108.72 S.Y. ASPH. PAVEMENT
REMOVE 1,855.38 S.Y. ASPH. PAVEMENT
ASPHALT
NS 283 ℄
2852.10'
N00°03'10.78"W
136+00
140+00
145+00
150+00
155+00
160+00
35+00
40+00
45+00
30+00
240+00
245+00
250+00
151+00
0
50'
100'
LEGEND
ASPHALT PAVEMENT REMOVAL
REMOVAL QUANTITIES
ASPHALT PAVEMENT S.Y. 2,964.10
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REMOVAL
US 81
State Job No. 24428(13)
Sheet No. R077
GRADY COUNTY
US-81 REALIGNMENT

FINAL FIELD MEETING
JUNE 2020

SEC. 17 T6N R7W

CHICKASHA CITY LIMITS

250+00

49+78.78

R/W

255+00

155+00

255+00

R/W

260+00

160+00

165+00

R/W

PCC: 258+03.78

℄ RAMP B

260+00

166+00

151+00

℄ SURVEY US 81

PC: 254+00.00

℄ RAMP D

BLDG

BLDG

R/W

R/W

R/W

GLENN

SEC. 17 T6N R7W

0 50' 100'

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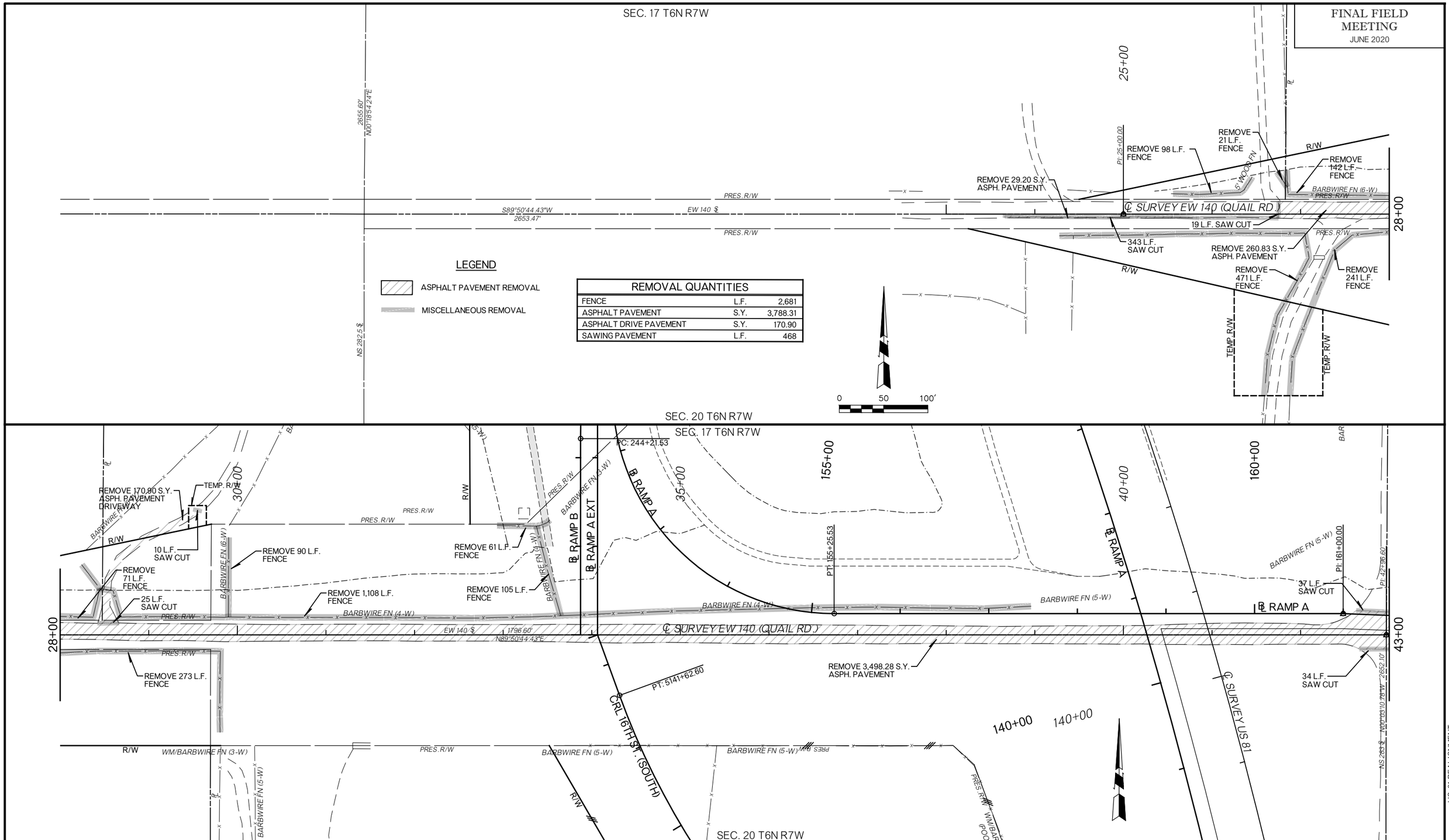
REMOVAL
US 81

State Job No. 24428(13) Sheet No. R078

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



LEGEND

- ASPHALT PAVEMENT REMOVAL
- MISCELLANEOUS REMOVAL

REMOVAL QUANTITIES		
FENCE	L.F.	2,681
ASPHALT PAVEMENT	S.Y.	3,788.31
ASPHALT DRIVE PAVEMENT	S.Y.	170.90
SAWING PAVEMENT	L.F.	468

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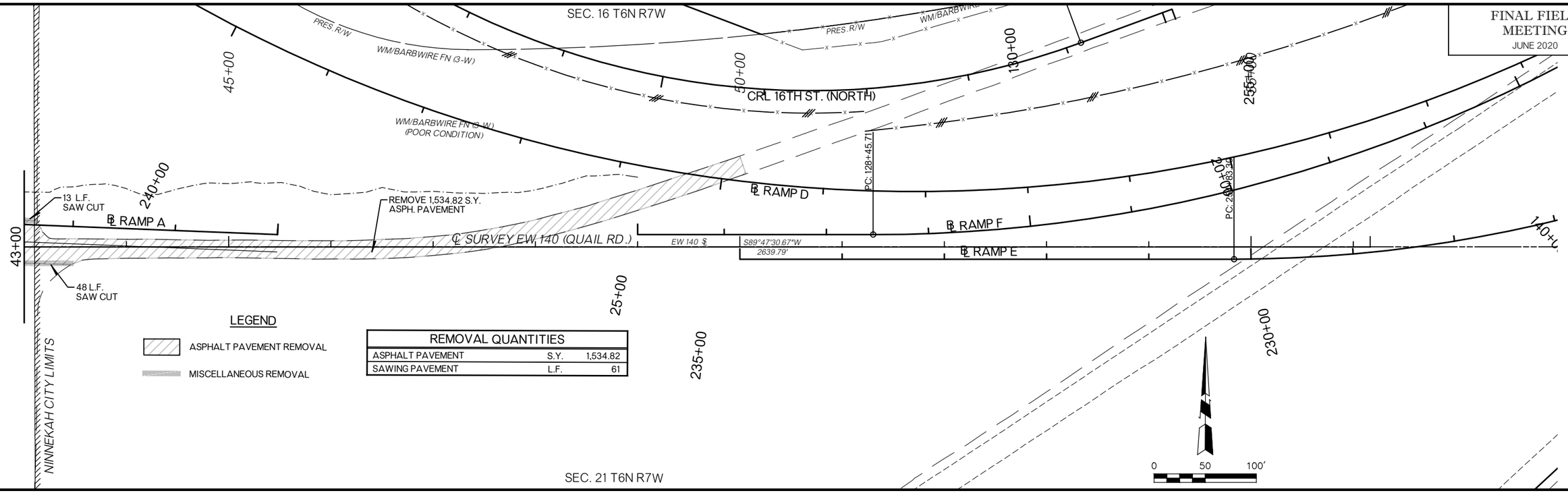
REMOVAL
QUAIL RD.

State Job No. 24428(13) Sheet No. R079

US-81 REALIGNMENT

GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



LEGEND

ASPHALT PAVEMENT REMOVAL

MISCELLANEOUS REMOVAL

REMOVAL QUANTITIES		
ASPHALT PAVEMENT	S.Y.	1,534.82
SAWING PAVEMENT	L.F.	61

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REMOVAL
QUAIL RD.

State Job No. 24428(13) Sheet No. R080

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SEC. 20 T6N R7W

0 50′ 100′

TEMP. R/W

TEMP. R/W

5115+00

R/W

30+00

R/W

METAL BLDG.

CRL 16TH ST. (SOUTH)

5120+00

R/W

R/W

110+00

105+00

PRES. R/W

WWF W/3BW

PRES. R/W

PRES. R/W

115+00

110+00

WWF W/3BW

℄ SURVEY EW 140.5 (CR 1405)

PI: 32+71.93

℄ SURVEY US 81

115+00

PI: 104+78.92

SEC. 20 T6N R7W

SEC. 20 T6N R7W

TEMP. R/W

LEGEND

ASPHALT PAVEMENT REMOVAL

MISCELLANEOUS REMOVAL

REMOVAL QUANTITIES		
FENCE	L.F.	1,592
ASPHALT DRIVE PAVEMENT	S.Y.	264.42
SAWING PAVEMENT	L.F.	12

5125+00

5130+00

PI: 5133+90.82

5135+00

4-BW

3-BW

R/W

R/W

5120+00

CRL 16TH ST. (SOUTH)

12 L.F. SAW CUT

PC: 5126+73.04

WWF W/3BW

REMOVE 421 L.F. FENCE

CRL 16TH ST. (SOUTH)

FBRGLS FN

REMOVE 389 L.F. FENCE

FBRGLS FN

125+00

130+00

WWF W/3BW

REMOVE 782 L.F. FENCE

WWF W/2BW

REMOVE 264.42 S.Y. ASPH. DRIVE PAVEMENT

135+00

135+00

PC: 124+31.69

PC: 130+50.00

NINNEKAH CITY LIMITS

SEC. 20 T6N R7W

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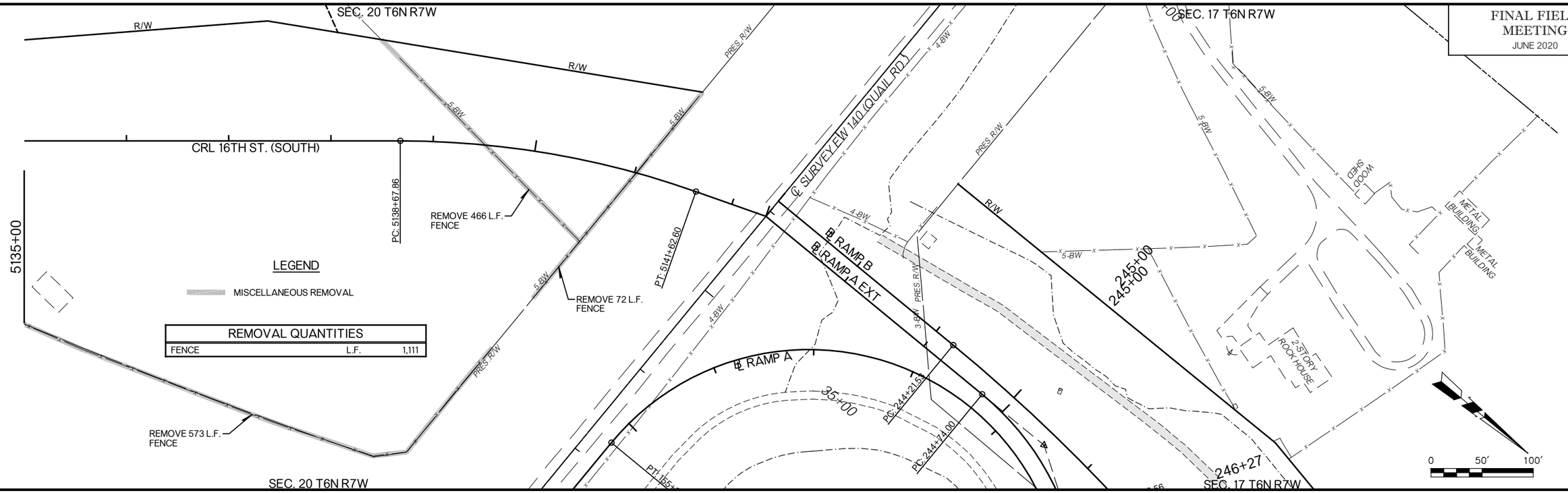
REMOVAL
16TH (SOUTH)

State Job No. 24428(13) Sheet No. R081

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



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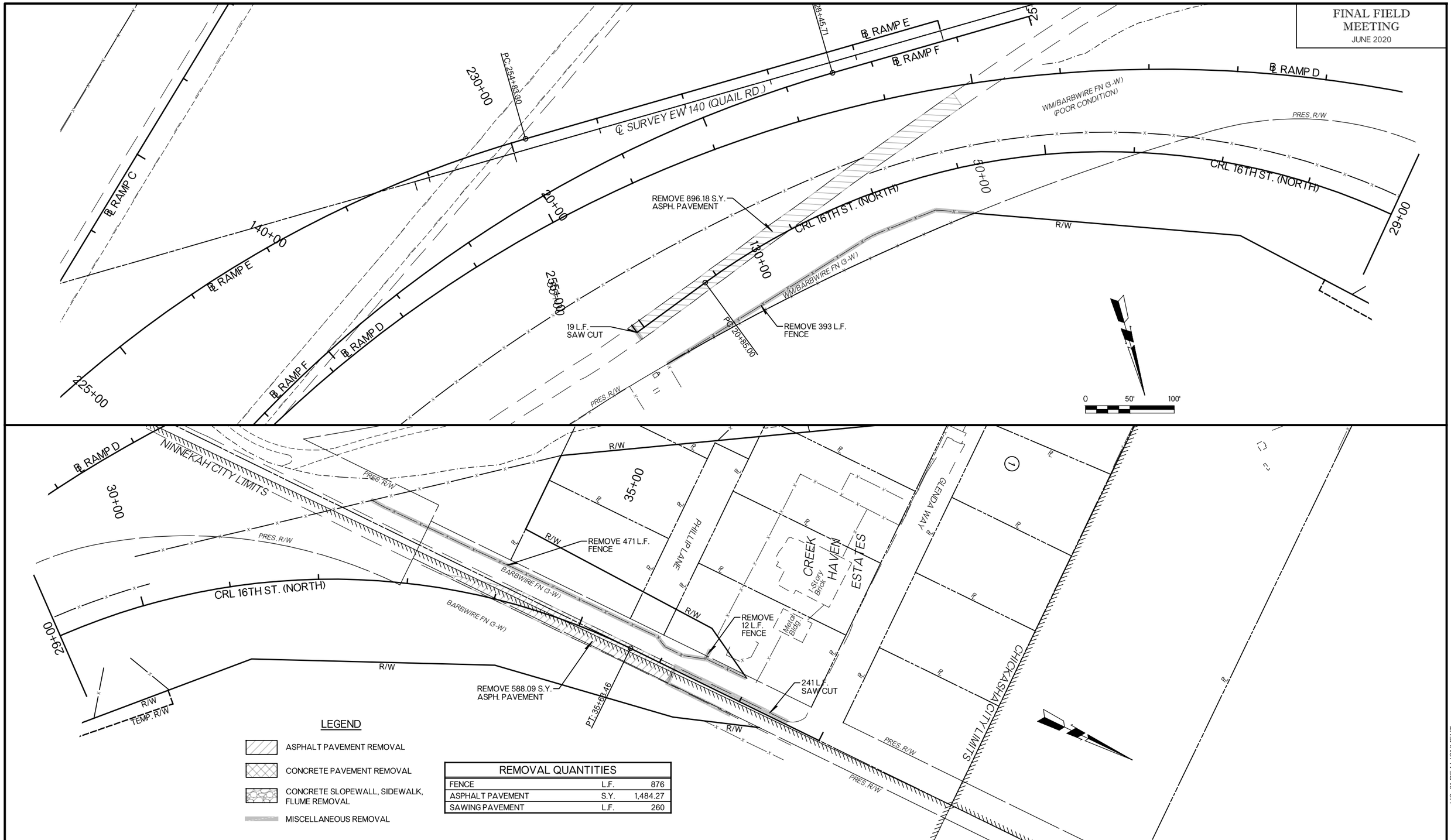
REMOVAL
16TH (SOUTH)

State Job No. 24428(13) Sheet No. R082

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



LEGEND

- ASPHALT PAVEMENT REMOVAL
- CONCRETE PAVEMENT REMOVAL
- CONCRETE SLOPEWALL, SIDEWALK, FLUME REMOVAL
- MISCELLANEOUS REMOVAL

REMOVAL QUANTITIES		
FENCE	L.F.	876
ASPHALT PAVEMENT	S.Y.	1,484.27
SAWING PAVEMENT	L.F.	260

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REMOVAL
16TH(NORTH)

State Job No. 24428(13) Sheet No. R083

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

SEC. 20 T6N R7W

SEC. 21 T6N R7W

100+00

105+00

109+00

PRES. R/W

WWF W/3BW

5-BW

℄ SURVEY US 81

℄ RAMP C

PI: 99+88.87

PI: 104+78.92

2652.85'
N00°03'22.08"W

NS 283 S

R/W

BLDG

0 50′ 100′

SEC. 20 T6N R7W

SEC. 21 T6N R7W

110+00

120+00

NINNEKAH CITY LIMITS

2652.10'
N00°03'10.78"W

PI: 32+71.93

REMOVE 205.90 S.Y.
ASPH. PAVEMENT

REMOVE 3,889.48 S.Y.
CONC. PAVEMENT

REMOVE 1,615.53 S.Y.
ASPH. PAVEMENT

REMOVE 41 L.F.
FENCE

REMOVE 695 L.F.
FENCE

REMOVE 730 L.F.
FENCE

REMOVE 232 L.F.
FENCE

REMOVE 222 L.F.
FENCE

REMOVE 200 L.F.
FENCE

6-BW

PC: 110+29.90

℄ SURVEY EW 1405 (CR 1405)

TEMP. R/W

LEGEND

ASPHALT PAVEMENT REMOVAL

CONCRETE PAVEMENT REMOVAL

MISCELLANEOUS REMOVAL

REMOVAL QUANTITIES		
FENCE	L.F.	2,120
CONCRETE PAVEMENT	S.Y.	3,889.48
ASPHALT PAVEMENT	S.Y.	1,821.43

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REMOVAL
RAMP C

State Job No. 24428(13) Sheet No. R084

US-81 REALIGNMENT

GRADY COUNTY

SEC. 21 T6N R7W

FINAL FIELD MEETING
JUNE 2020

REMOVE 1,012.16 S.Y.
ASPH. PAVEMENT

REMOVE 152.79 S.Y.
ASPH. PAVEMENT

REMOVE 2,733.58 S.Y.
CONC. PAVEMENT

℄ RAMP D

℄ RAMP F

℄ RAMP E

℄ SURVEY EW 140 (QUAIL RD.)

PC: 230+83.54

230+00

125+00

130+00

135+00

0 50′ 100′

REMOVE 3,996.92 S.Y.
CONC. PAVEMENT

℄ RAMP C

139+00

REMOVE 39.24 S.Y.
ASPH. PAVEMENT

REMOVE 1,592.66 S.Y.
ASPH. PAVEMENT

124+00

PT: 129+46.61

WWF W/3BW

PRES. R/W

WWF W/3BW

PRES. R/W

℄

℄

℄

LEGEND

ASPHALT PAVEMENT REMOVAL

CONCRETE PAVEMENT REMOVAL

REMOVAL QUANTITIES		
CONCRETE PAVEMENT	S.Y.	6,730.50
ASPHALT PAVEMENT	S.Y.	2,796.85

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REMOVAL
RAMP C

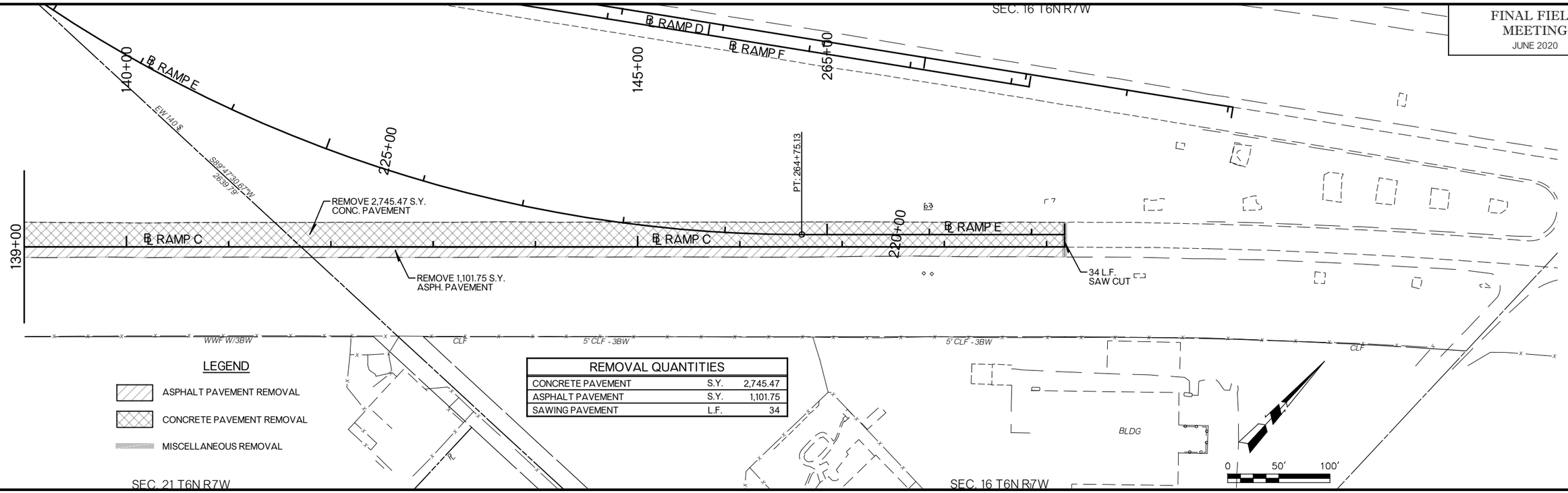
State Job No. 24428(13) Sheet No. R085

US-81 REALIGNMENT

GRADY COUNTY

SEC. 21 T6N R7W

FINAL FIELD MEETING
JUNE 2020



REMOVAL QUANTITIES		
CONCRETE PAVEMENT	S.Y.	2,745.47
ASPHALT PAVEMENT	S.Y.	1,101.75
SAWING PAVEMENT	L.F.	34

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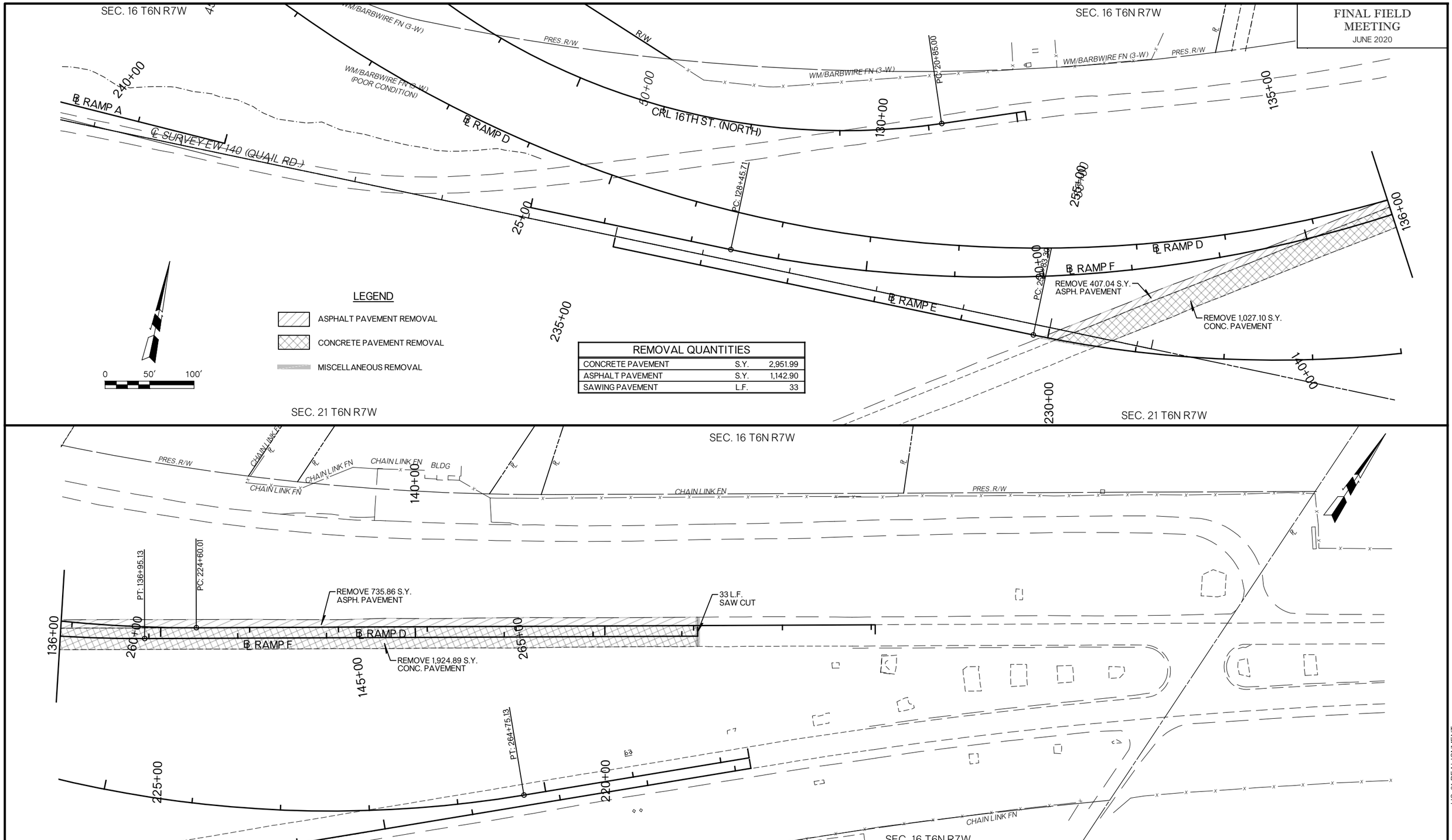
REMOVAL
RAMP C

State Job No. 24428(13) Sheet No. R086

US-81 REALIGNMENT
GRADY COUNTY



FINAL FIELD MEETING
JUNE 2020

REMOVAL QUANTITIES		
CONCRETE PAVEMENT	S.Y.	2,951.99
ASPHALT PAVEMENT	S.Y.	1,142.90
SAWING PAVEMENT	L.F.	33

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PRELIMINARY

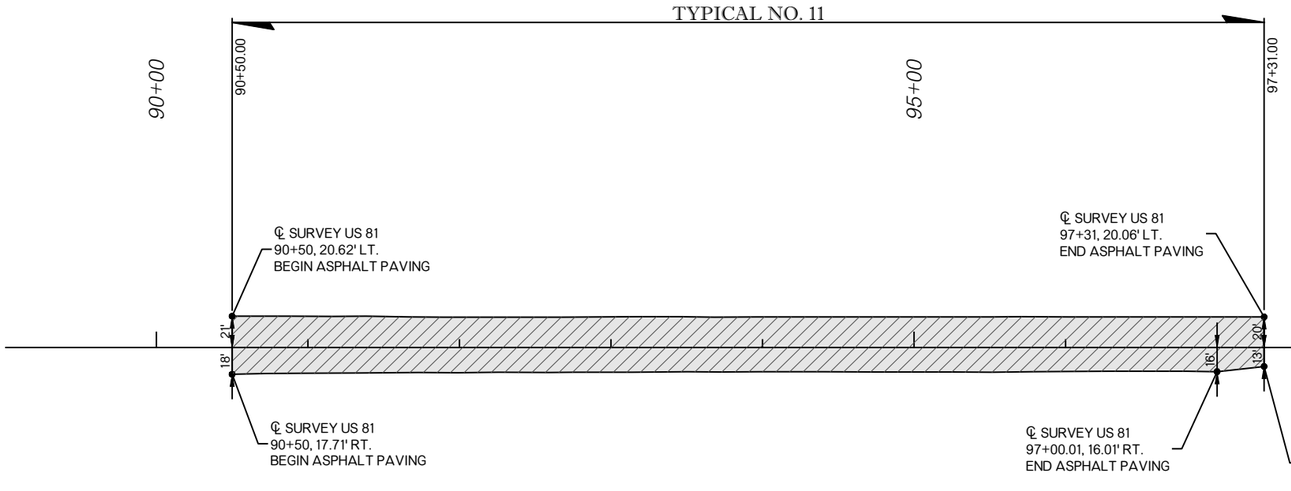
REMOVAL
RAMP F

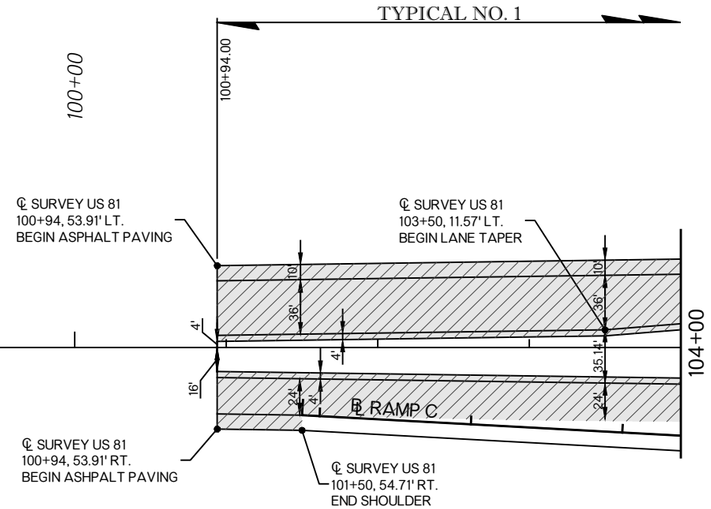
State Job No. 24428(13) Sheet No. R087

US-81 REALIGNMENT

GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020





LEGEND

ASPHALT PAVING

0 50' 100'

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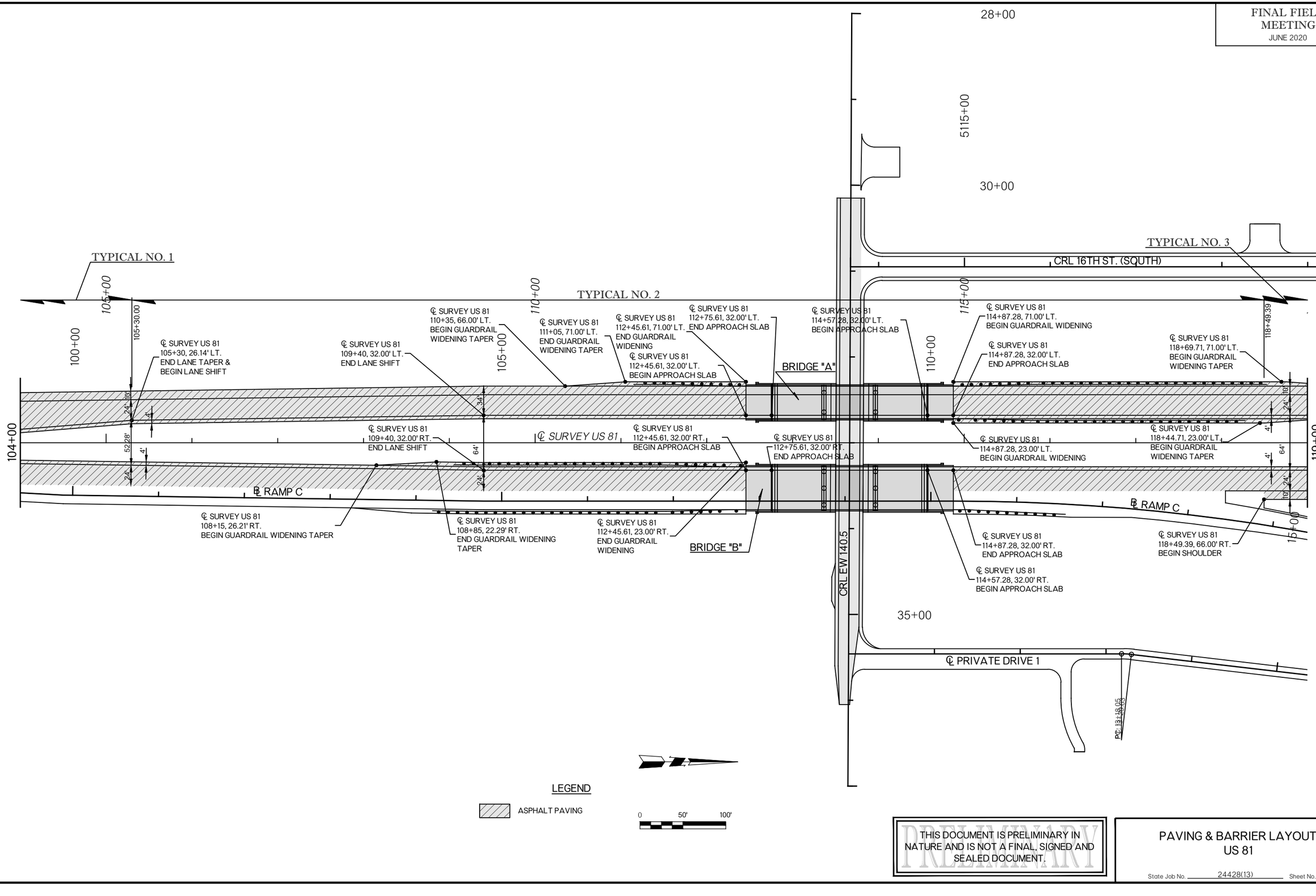
PAVING & BARRIER LAYOUT
US 81

State Job No. 24428(13) Sheet No. R088

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



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PAVING & BARRIER LAYOUT US 81

State Job No. 24428(13) Sheet No. R089

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

5120+00
5125+00
5130+00
PT: 5133+90.82
PC: 5126+73.04
127+53
CRL 16TH ST. (SOUTH)
120+00
125+00
130+00
TYPICAL NO. 3
TYPICAL NO. 2
℄ SURVEY US 81
119+45, 66.00' LT.
END GUARDRAIL WIDENING TAPER
℄ SURVEY US 81
127+50, 66.00' LT.
END SHOULDER
127+50.00
℄ RAMP A
PC: 124+31.69
115+00
119+00
134+00
℄ SURVEY US 81
119+20, 28.00' LT.
END GUARDRAIL WIDENING TAPER
℄ SURVEY US 81
24'
10'
4'
6.4'
℄ PRIVATE DRIVE 1
BC: 17+35.56
EC: 17+82.60
℄ RAMP C
120+00
125+00

LEGEND

ASPHALT PAVING

0 50' 100'

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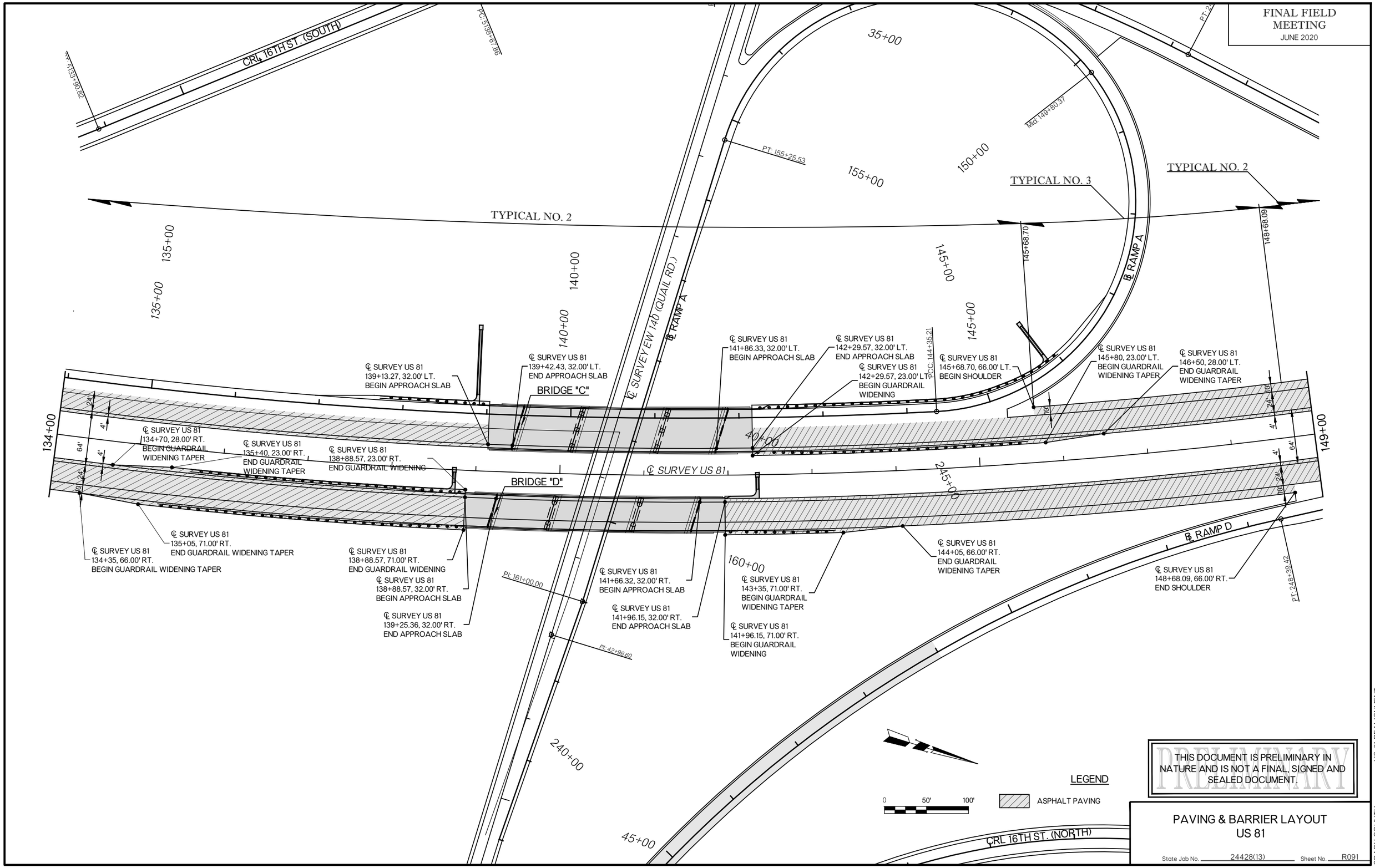
PRELIMINARY

PAVING & BARRIER LAYOUT
US 81

State Job No. 24428(13) Sheet No. R090

US-81 REALIGNMENT
GRADY COUNTY


FINAL FIELD MEETING
JUNE 2020
CRL 16TH ST. (SOUTH)
PC: 5138+67.86
PT: 5133+90.82
35+00
Mid: 149+80.37
PT: 155+25.53
155+00
150+00
TYPICAL NO. 3
TYPICAL NO. 2
TYPICAL NO. 2
135+00
135+00
140+00
140+00
145+00
145+00
145+68.70
148+68.09
℄ SURVEY EW 140 (QUAIL RD.)
℄ RAMP A
℄ RAMP A
℄ SURVEY US 81
139+13.27, 32.00' LT.
BEGIN APPROACH SLAB
℄ SURVEY US 81
139+42.43, 32.00' LT.
END APPROACH SLAB
BRIDGE "C"
℄ SURVEY US 81
141+86.33, 32.00' LT.
BEGIN APPROACH SLAB
℄ SURVEY US 81
142+29.57, 32.00' LT.
END APPROACH SLAB
℄ SURVEY US 81
142+29.57, 23.00' LT.
BEGIN GUARDRAIL WIDENING
PCC: 144+35.21
℄ SURVEY US 81
145+68.70, 66.00' LT.
BEGIN SHOULDER
℄ SURVEY US 81
145+80, 23.00' LT.
BEGIN GUARDRAIL WIDENING TAPER
℄ SURVEY US 81
146+50, 28.00' LT.
END GUARDRAIL WIDENING TAPER
134+00
149+00
40+00
245+00
℄ SURVEY US 81
134+70, 28.00' RT.
BEGIN GUARDRAIL WIDENING TAPER
℄ SURVEY US 81
135+40, 23.00' RT.
END GUARDRAIL WIDENING TAPER
℄ SURVEY US 81
138+88.57, 23.00' RT.
END GUARDRAIL WIDENING
BRIDGE "D"
℄ SURVEY US 81
℄ SURVEY US 81
135+05, 71.00' RT.
END GUARDRAIL WIDENING TAPER
℄ SURVEY US 81
134+35, 66.00' RT.
BEGIN GUARDRAIL WIDENING TAPER
℄ SURVEY US 81
138+88.57, 71.00' RT.
END GUARDRAIL WIDENING
℄ SURVEY US 81
138+88.57, 32.00' RT.
BEGIN APPROACH SLAB
℄ SURVEY US 81
139+25.36, 32.00' RT.
END APPROACH SLAB
PI: 161+00.00
PI: 42+96.60
℄ SURVEY US 81
141+66.32, 32.00' RT.
BEGIN APPROACH SLAB
℄ SURVEY US 81
141+96.15, 32.00' RT.
END APPROACH SLAB
160+00
℄ SURVEY US 81
143+35, 71.00' RT.
BEGIN GUARDRAIL WIDENING TAPER
℄ SURVEY US 81
141+96.15, 71.00' RT.
BEGIN GUARDRAIL WIDENING
℄ SURVEY US 81
144+05, 66.00' RT.
END GUARDRAIL WIDENING TAPER
℄ RAMP D
℄ SURVEY US 81
148+68.09, 66.00' RT.
END SHOULDER
PT: 248+39.42
240+00
45+00
CRL 16TH ST. (NORTH)
LEGEND
0
50'
100'
ASPHALT PAVING
PRELIMINARY
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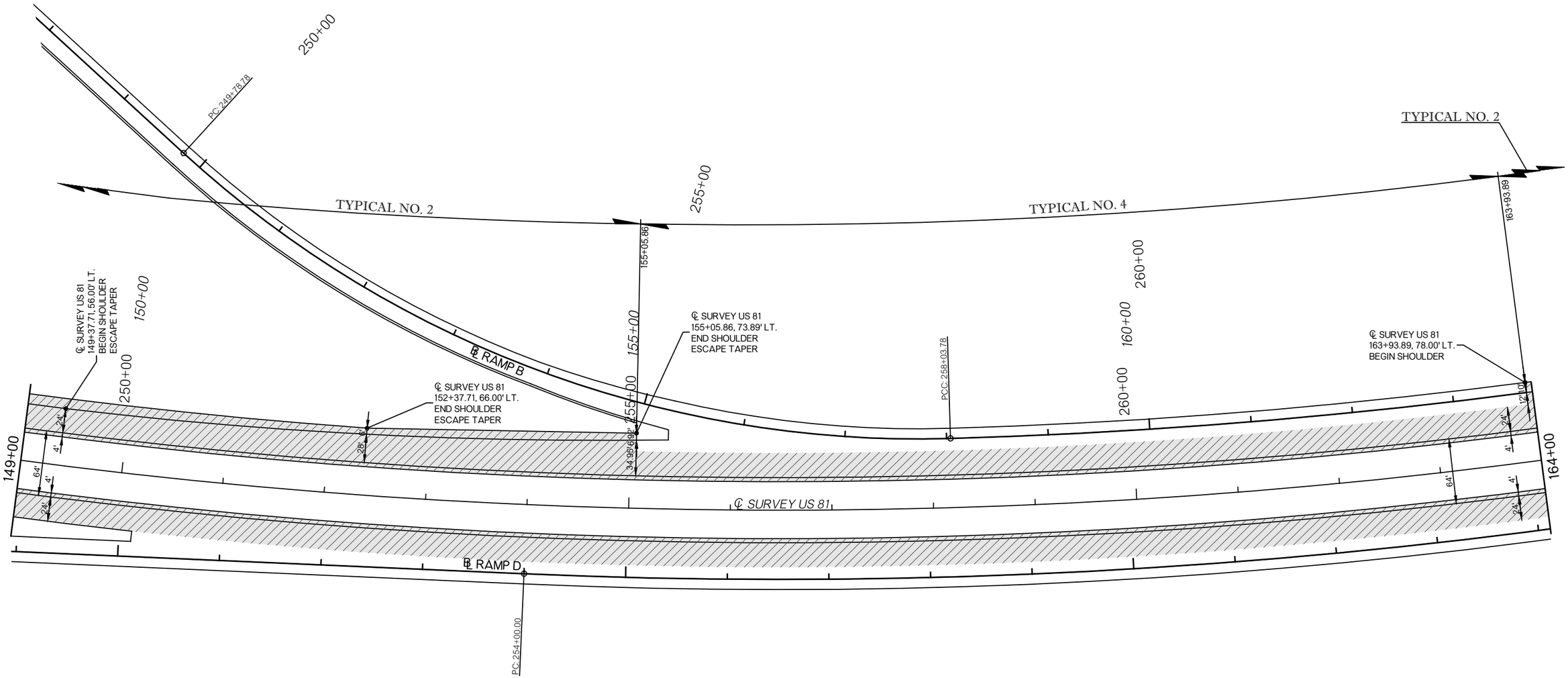
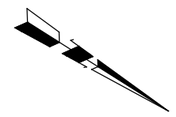
PAVING & BARRIER LAYOUT
US 81
State Job No. 24428(13)
Sheet No. R091
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020





LEGEND

ASPHALT PAVING

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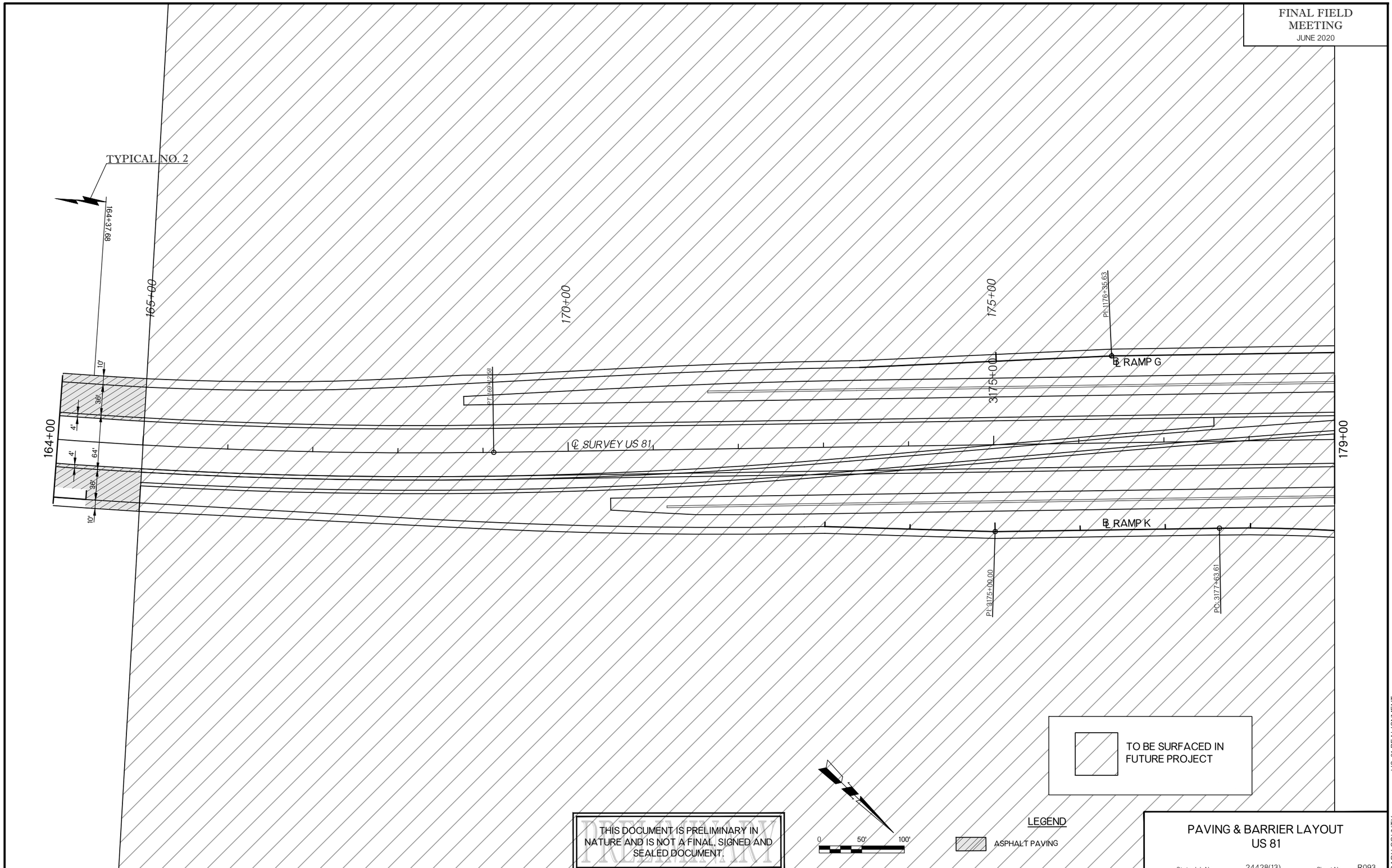
PAVING & BARRIER LAYOUT
US 81

State Job No. 24428(13) Sheet No. R092

US-81 REALIGNMENT
GRADY COUNTY


FINAL FIELD MEETING
JUNE 2020
TYPICAL NO. 2
164+37.68
165+00
170+00
175+00
3175+00
164+00
179+00
PI: 1176+35.63
PT: 169+12.58
℄ RAMP G
℄ SURVEY US 81
℄ RAMP K
PI: 3175+00.00
PC: 3177+63.61
10'
36'
4'
64'
TO BE SURFACED IN FUTURE PROJECT
LEGEND
ASPHALT PAVING
0
50'
100'
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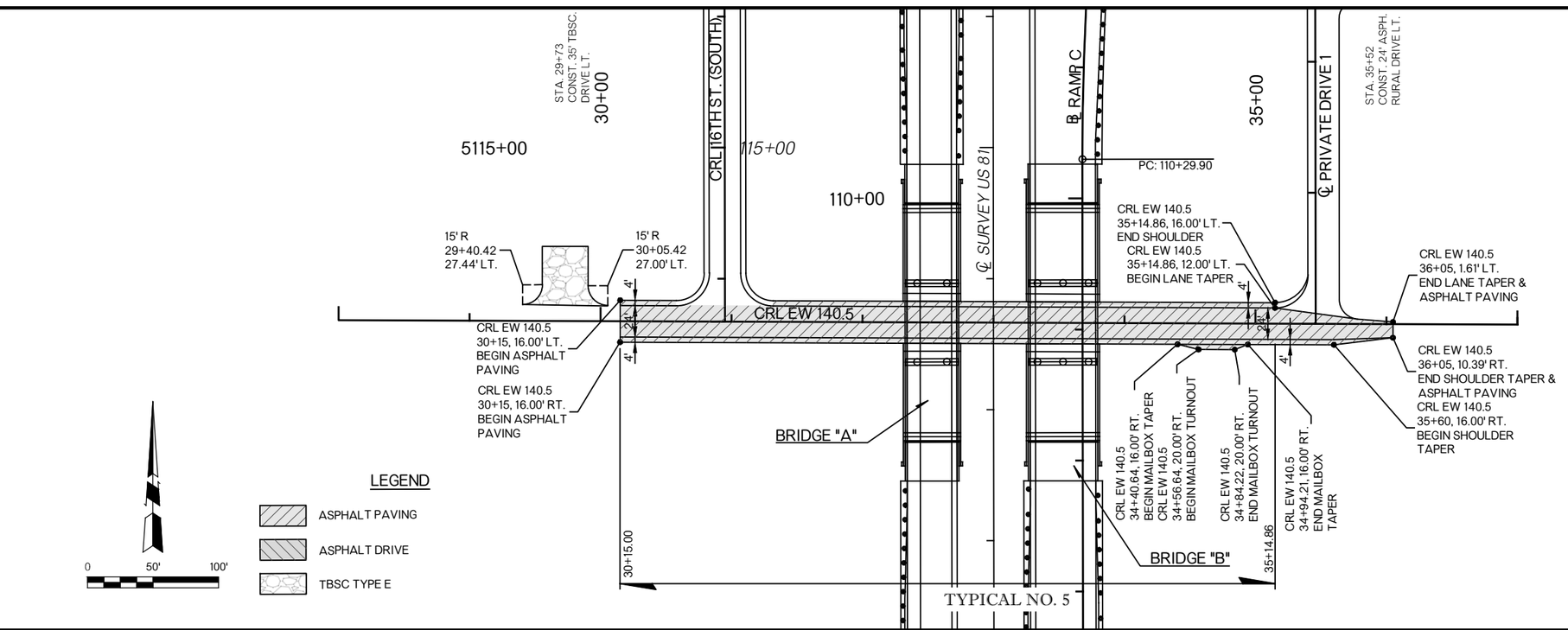
PRELIMINARY
PAVING & BARRIER LAYOUT
US 81
State Job No. 24428(13)
Sheet No. R093
GRADY COUNTY
US-81 REALIGNMENT

FINAL FIELD MEETING
JUNE 2020



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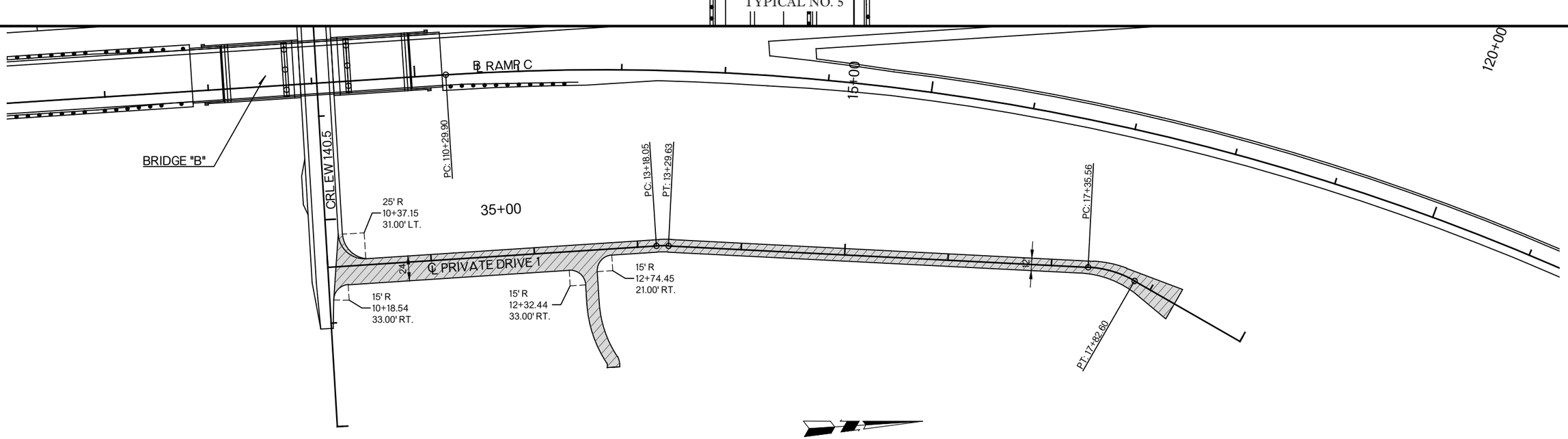

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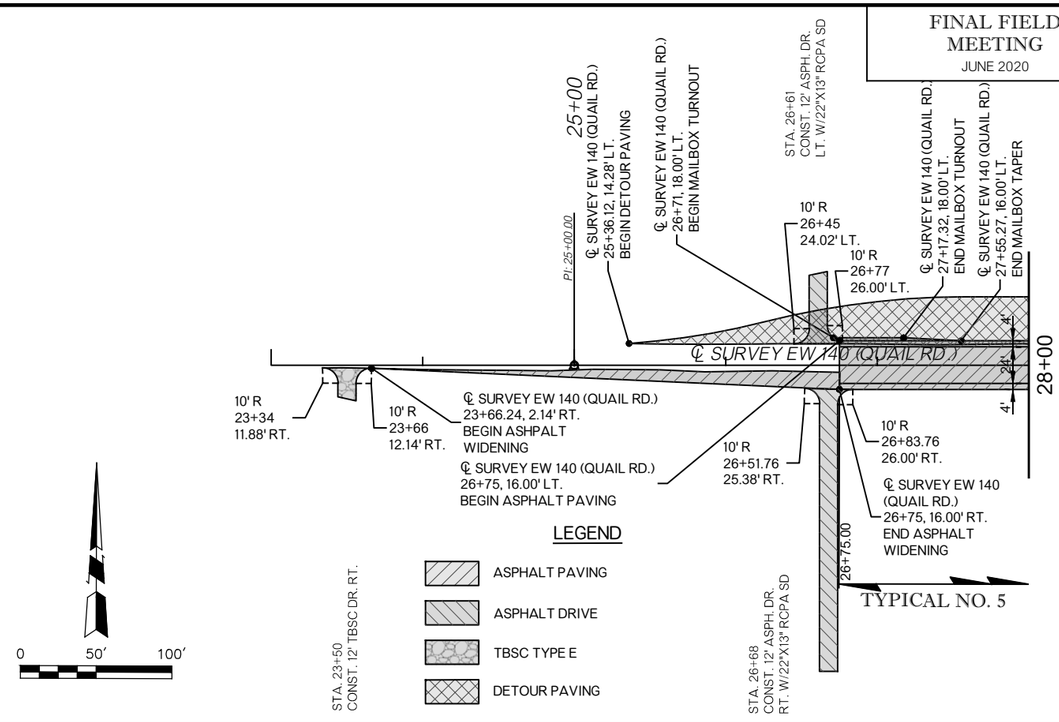
PAVING & BARRIER LAYOUT
EW 140.5

State Job No. 24428(13) Sheet No. R094

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



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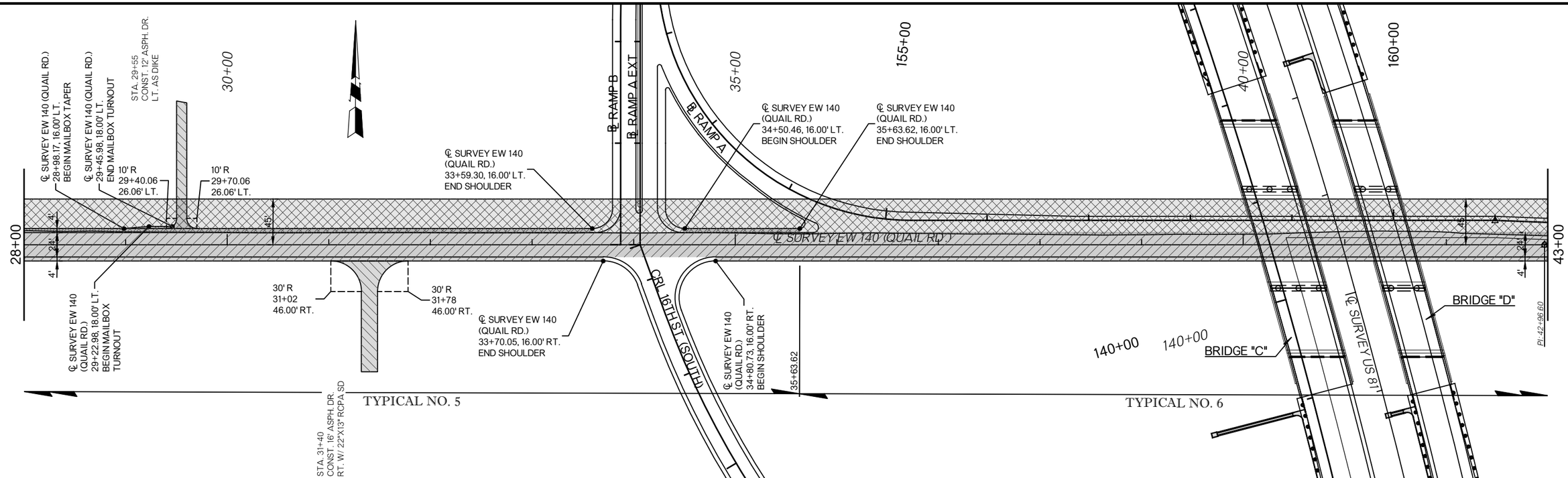

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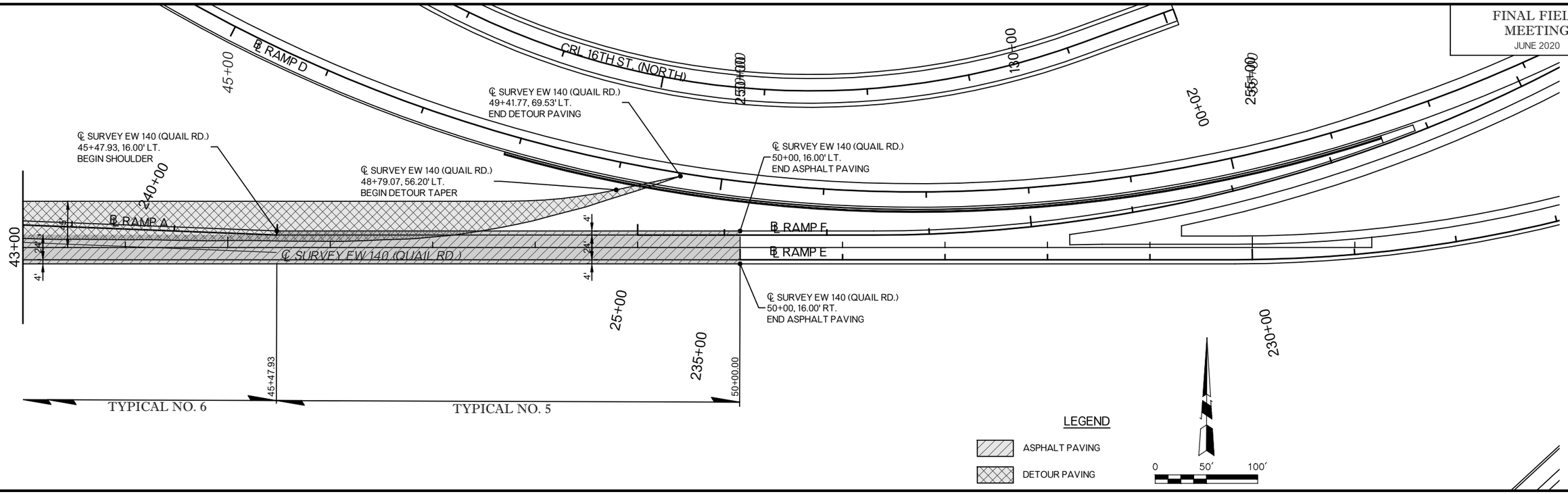
PAVING & BARRIER LAYOUT QUAIL RD.

State Job No. 24428(13) Sheet No. R095

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



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PAVING & BARRIER LAYOUT
QUAIL RD.

State Job No. 24428(13) Sheet No. R096

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

LEGEND

ASPHALT PAVING

ASPHALT DRIVE

TBSC TYPE E

0 50′ 100′

TYPICAL NO. 5

STA. 5118+50
CONST. 35' TBSC DRIVE LT.
W/22"X13"X58' LG. RCPA SD

5115+00

5113+79.22

CRL 16TH ST. (SOUTH)
5113+79.40, 37.08' LT.
BEGIN ASPHALT PAVING

30+00

21' R
5114+04.40
36.96' LT.

15' R
5118+17.66
30.97' LT.

15' R
5118+82.66
30.98' LT.

4'
24
4'

CRL 16TH ST. (SOUTH)

5120+00

110+00

115+00

CRL EW 140.5

21' R
5114+04.04
37.04' RT.

CRL 16TH ST. (SOUTH)
5113+79.04, 36.92' RT.
BEGIN ASPHALT PAVING

BRIDGE "A"

℄ SURVEY US 81

STA. 5120+42
CONST. 35' TBSC DRIVE LT.
W/22"X13"X86' LG. RCPA SD

STA. 5123+73
CONST. 12' ASPH. DRIVE LT.
W/28"X18"X50' LG. RCPA SD

STA. 5128+30
CONST. 12' ASPH. DRIVE LT.
W/28"X18"X52' LG. RCPA SD

5125+00

TYPICAL NO. 5

5130+00

PT: 5133+90.82

5135+00

15' R
5120+09.19
30.98' LT.

15' R
5120+74.19
30.98' LT.

15' R
5123+51.69
30.99' LT.

15' R
5123+93.69
30.99' LT.

PC: 5126+73.04

127+53

15' R
5128+08.35
31.00' LT.

15' R
5128+51.65
31.00' LT.

5120+00

125+00

130+00

135+00

CRL 16TH ST. (SOUTH)

℄ SURVEY US 81

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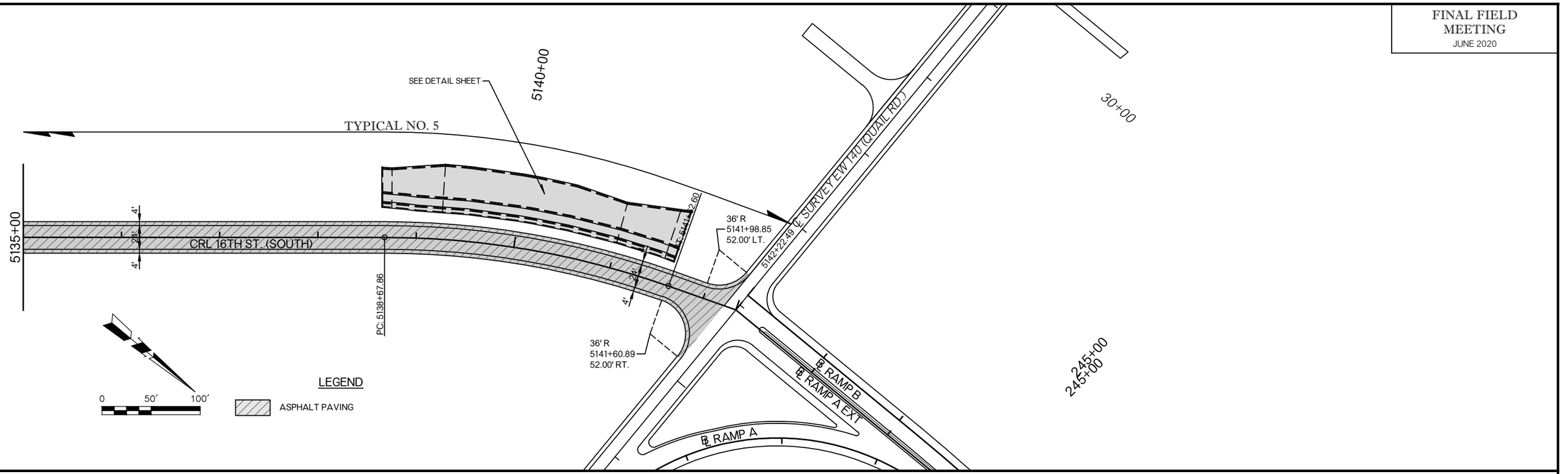
PAVING & BARRIER LAYOUT
16TH ST. (SOUTH)

State Job No. 24428(13) Sheet No. R097

US-81 REALIGNMENT

GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



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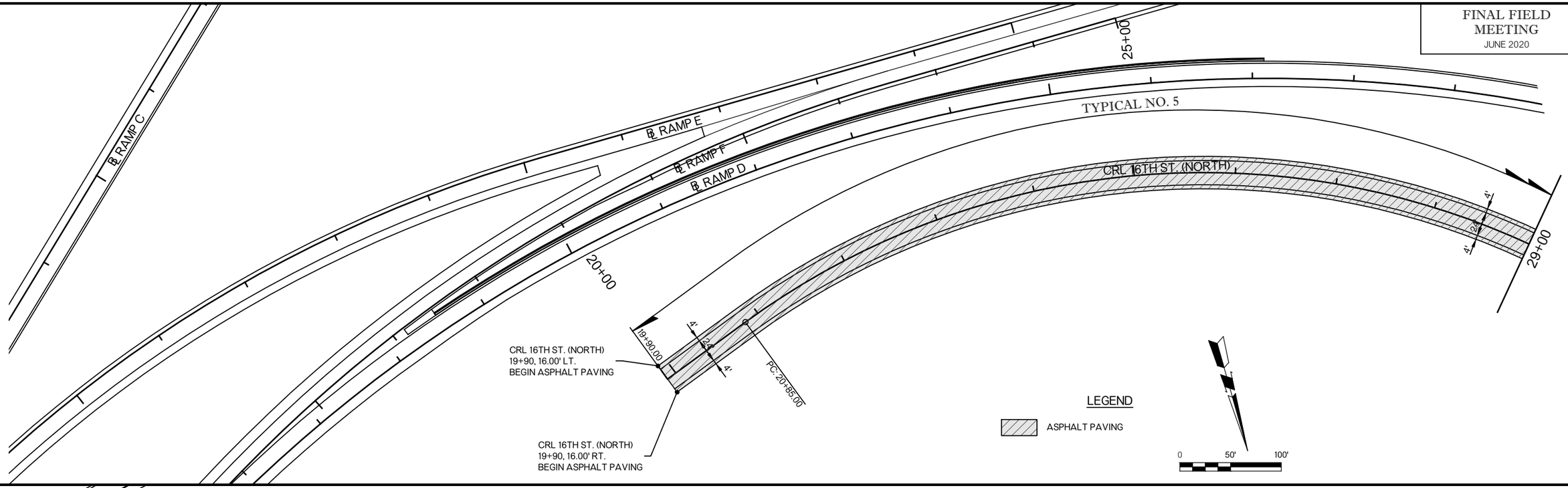
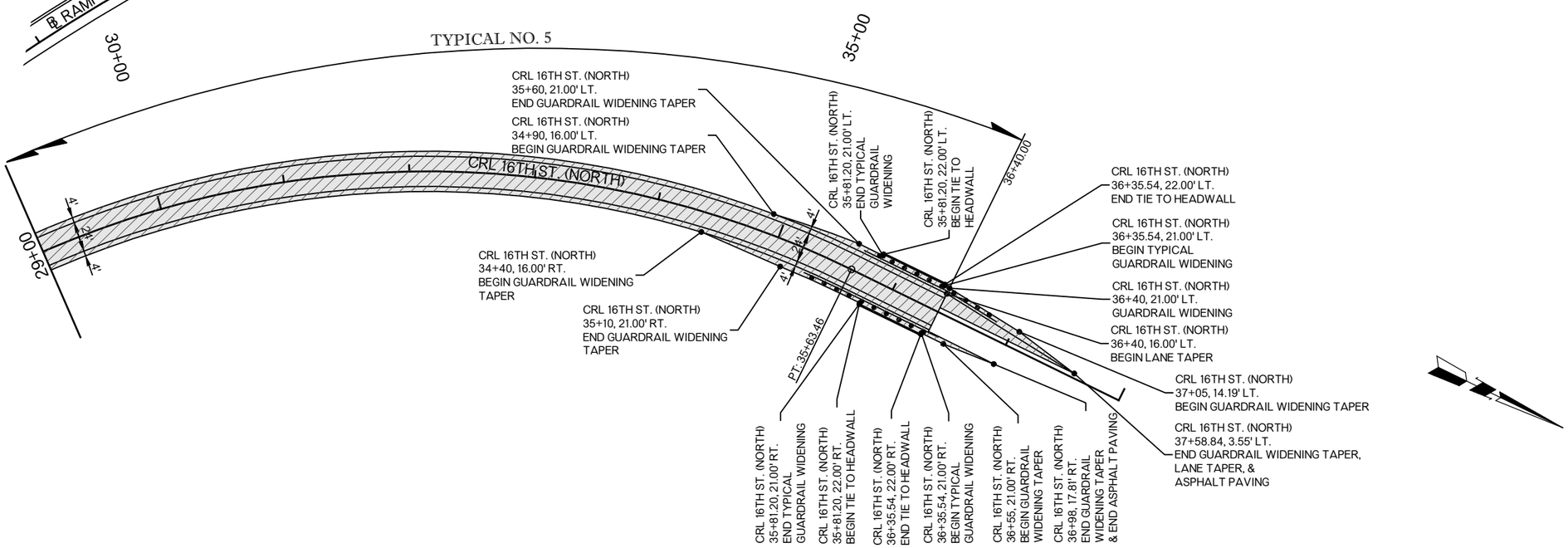
PAVING & BARRIER LAYOUT
16TH ST. (SOUTH)

State Job No. 24428(13) Sheet No. R098

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020





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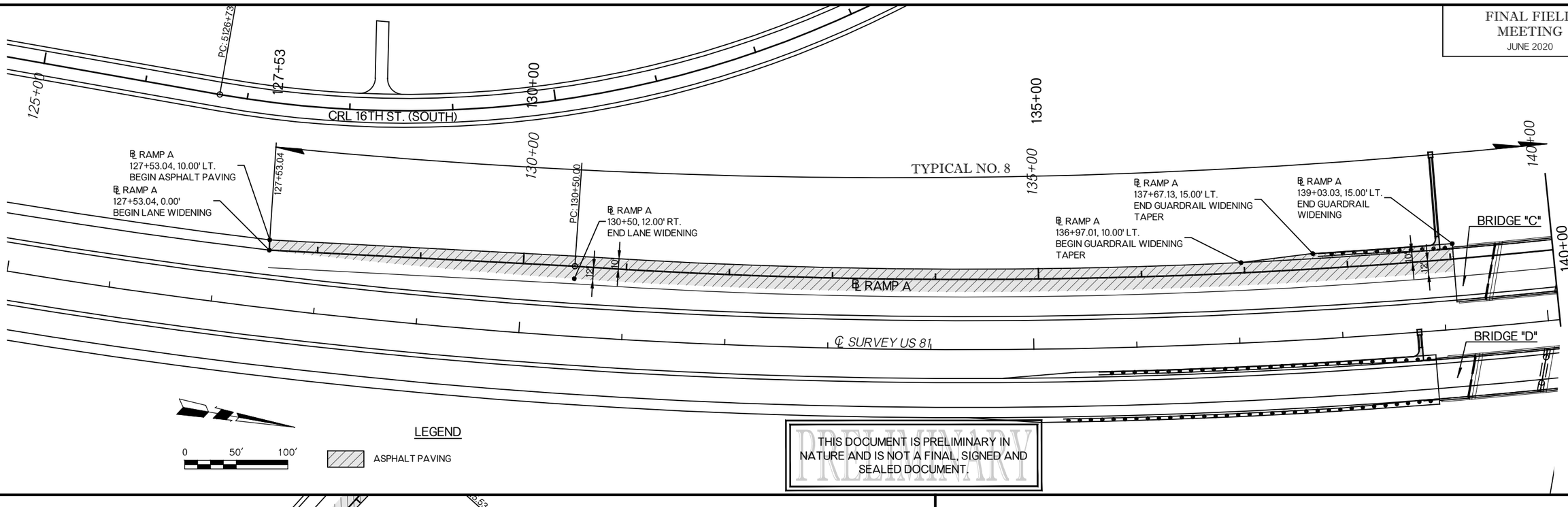
PAVING & BARRIER LAYOUT 16TH ST. (NORTH)

State Job No. 24428(13) Sheet No. R099

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



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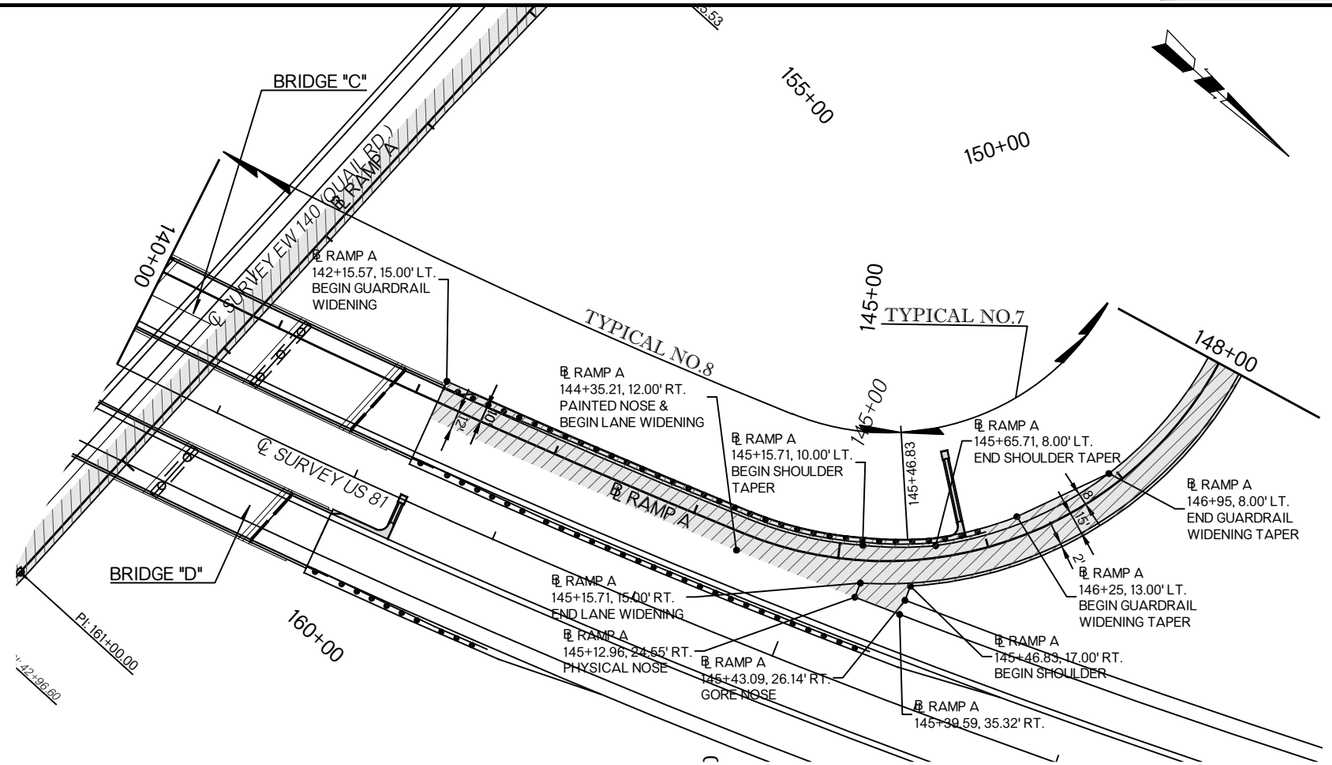

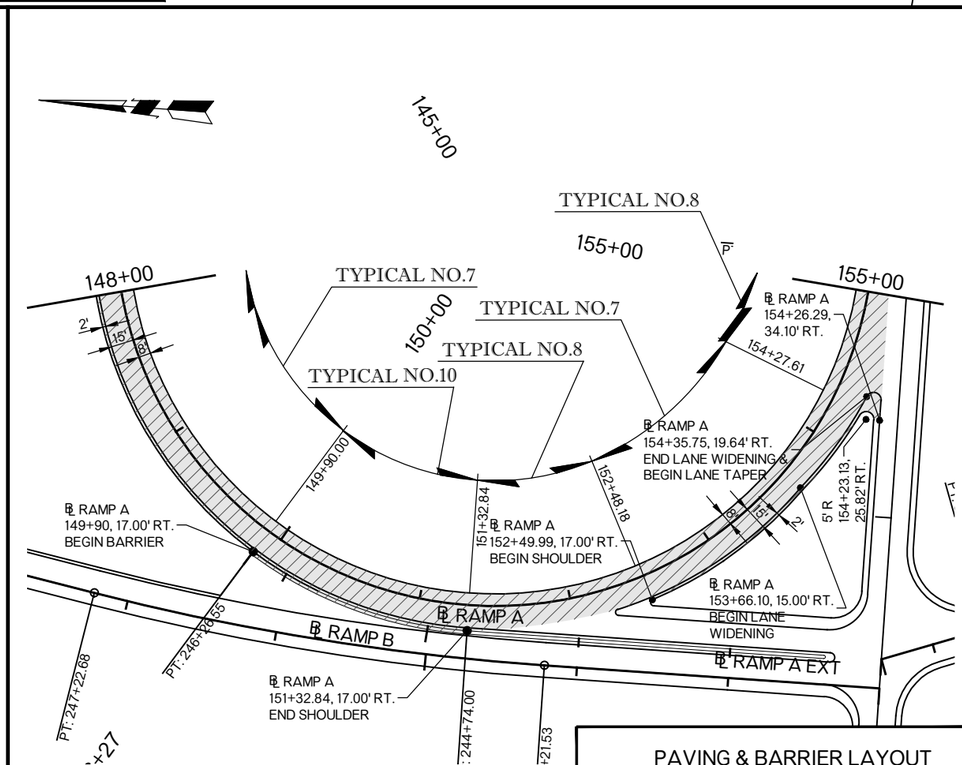

PAVING & BARRIER LAYOUT RAMP A

State Job No. 24428(13) Sheet No. R100

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

℄ RAMP A
℄ SURVEY US 81
℄ RAMP D
CRL 16TH ST. (NORTH)
℄ SURVEY EW 140 (QUAIL RD.)
℄ RAMP E
℄ RAMP B
℄ RAMP A EXT
CRL 16TH ST. (SOUTH)
℄ SURVEY EW 140 (QUAIL RD.)

155+00
160+00
164+00
240+00
25+00
235+00
140+00
245+00
250+00
5142+35
246+27
5140+00
150+00

TYPICAL NO. 8

℄ RAMP A
155+25.53, 8.00' LT.
BEGIN SHOULDER TAPER

℄ RAMP A
156+85.53, 4.00' LT.
END SHOULDER TAPER

℄ RAMP A
161+00, 12.00' RT
BEGIN LANE TAPER

℄ RAMP A
164+00.22, 4.00' LT.
END ASPHALT PAVING

℄ RAMP A
164+00.22, 0.00'
END LANE TAPER

℄ RAMP A
155+25.53, 12.00' RT.
END LANE TAPER

PT: 155+25.53
PI: 161+00.00
PI: 42+96.80
164+00.22
8'
12'
4'

BRIDGE "C"
BRIDGE "D"

TYPICAL NO. 10

℄ RAMP A EXT
242+38.08, 1.08' LT.
BEGIN BARRIER

3'-1" R
242+33.92
1.08' LT.
BEGIN SHOULDER

℄ RAMP A EXT
242+12, 44.00' RT.
BEGIN ASPH PAVING

19' R
242+35,
44.00' RT.

℄ RAMP A EXT
243+75.82, 20.86' RT.
BEGIN LANE TAPER

℄ RAMP A EXT
243+54.31, 30.57' RT.

2' R
243+52.51,
27.00' RT.

℄ RAMP A EXT
244+74, 2.00' RT.
END LANE TAPER

℄ RAMP A EXT
246+26.55, 1.08' LT.
END BARRIER

242+12.00
244+74.00
PC: 244+21.53
PC: 244+74.00
PT: 246+26.55
PT: 247+22.68
PC: 249+78.78
PT: 5141+62.60
PC
15'
8'

0 50' 100'

LEGEND
ASPHALT PAVING

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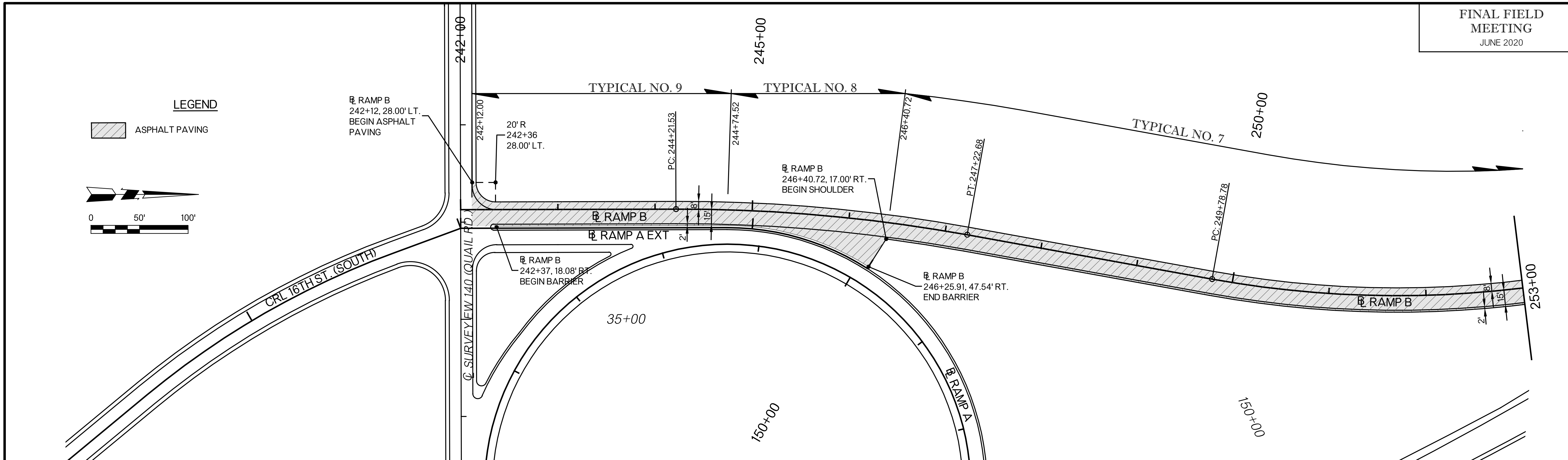
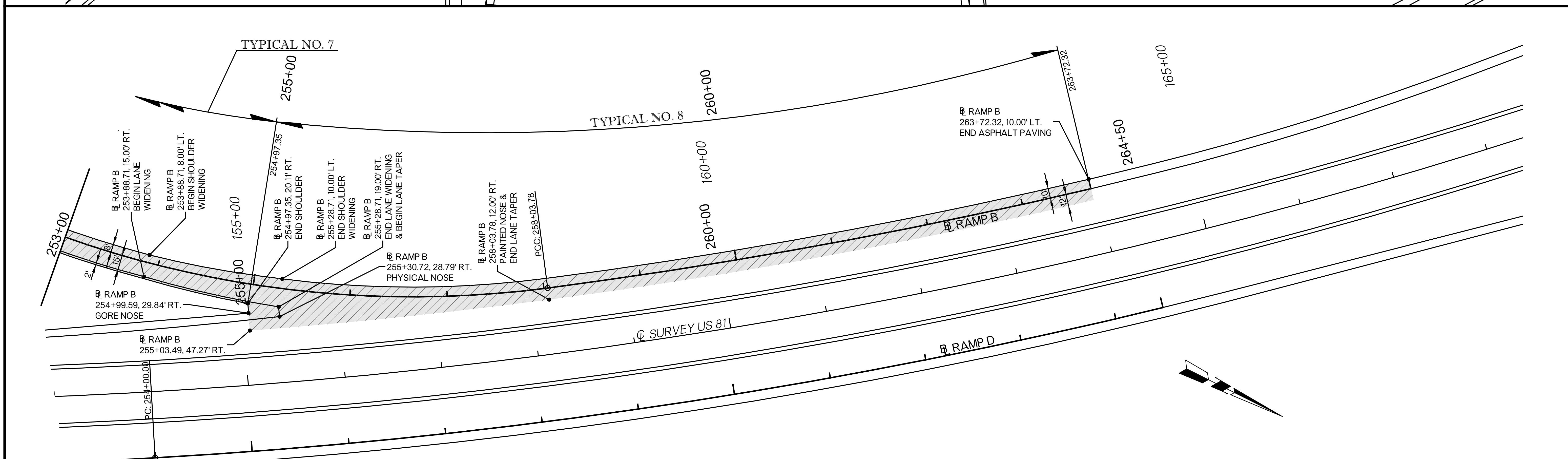
PAVING & BARRIER LAYOUT RAMP A & RAMP A EXT.

State Job No. 24428(13) Sheet No. R101

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020





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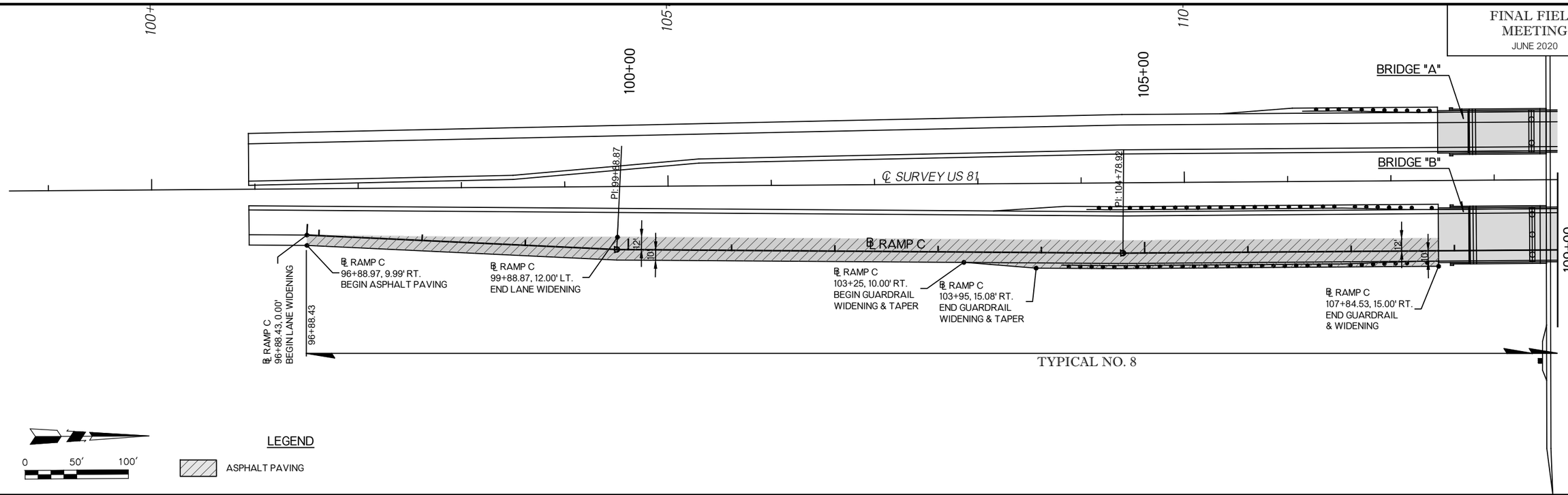
PRELIMINARY

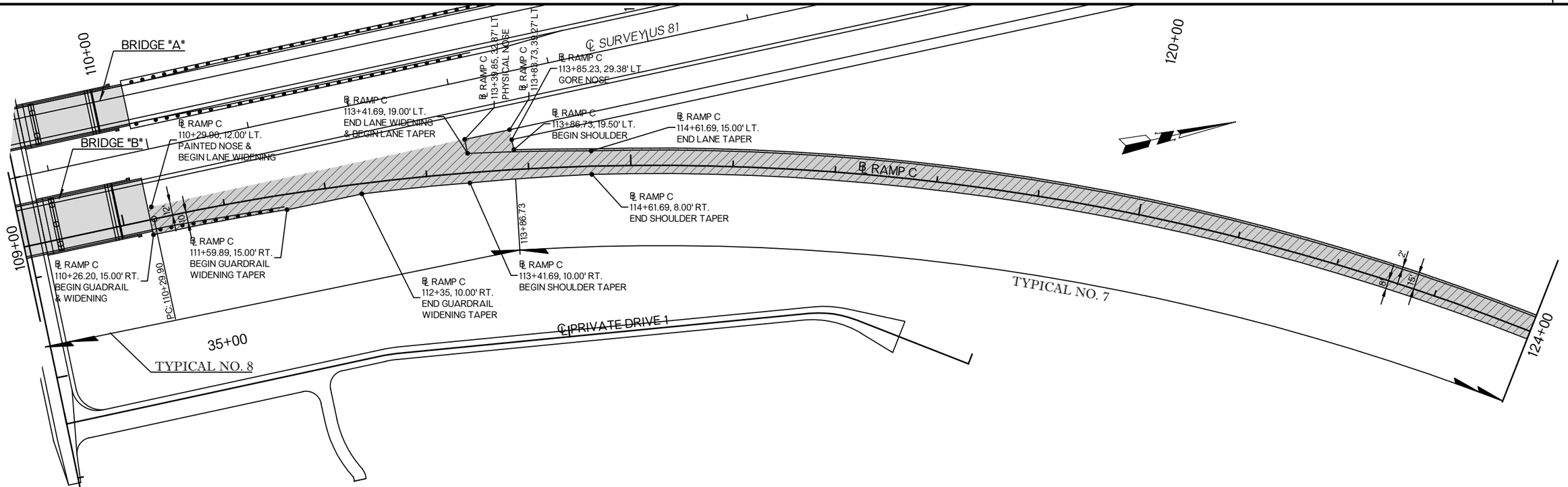
PAVING & BARRIER LAYOUT
RAMP B

State Job No. 24428(13) Sheet No. R102

GRADY COUNTY US-81 REALIGNMENT

FINAL FIELD MEETING
JUNE 2020





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PAVING & BARRIER LAYOUT
RAMP C

State Job No. 24428(13) Sheet No. R103

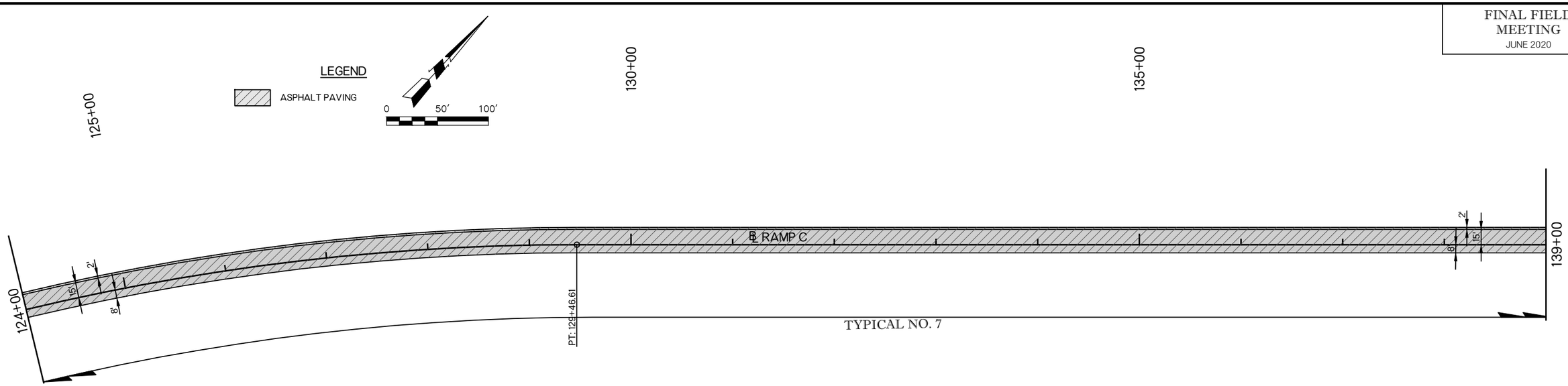
US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

LEGEND

ASPHALT PAVING

0 50′ 100′



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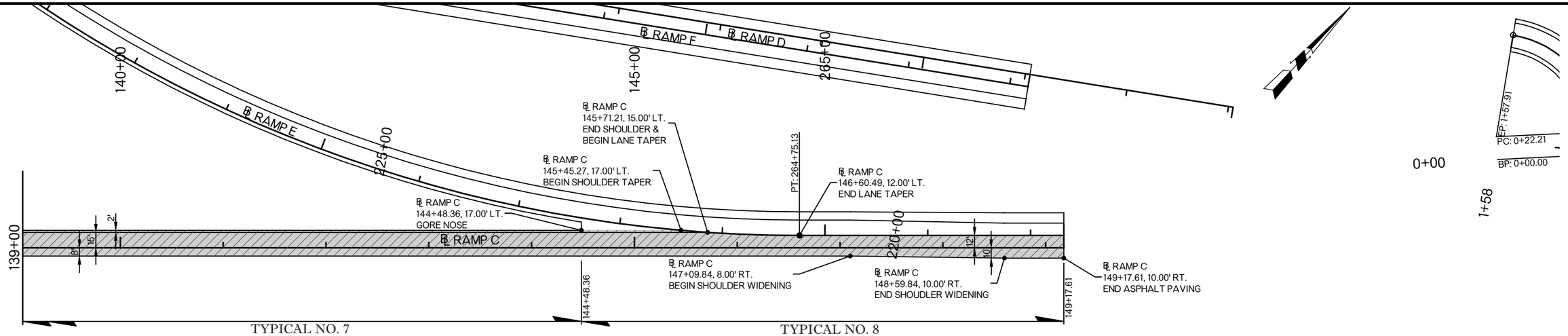

TYPICAL NO. 7 TYPICAL NO. 8

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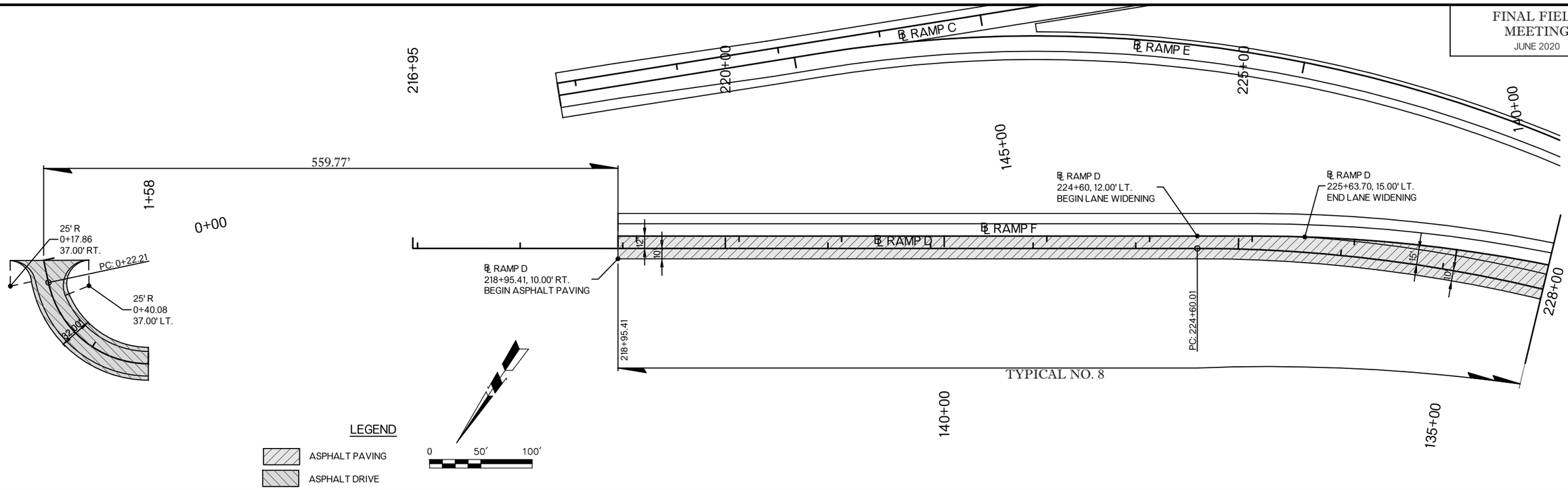
PRELIMINARY

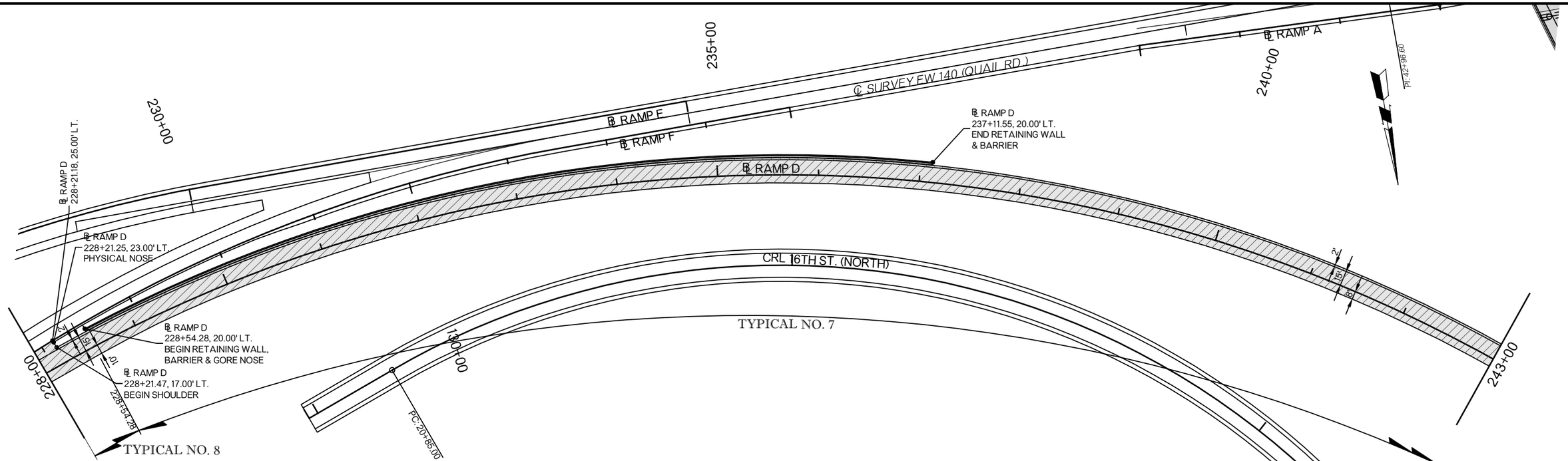
PAVING & BARRIER LAYOUT
RAMP C

State Job No. 24428(13) Sheet No. R104

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020





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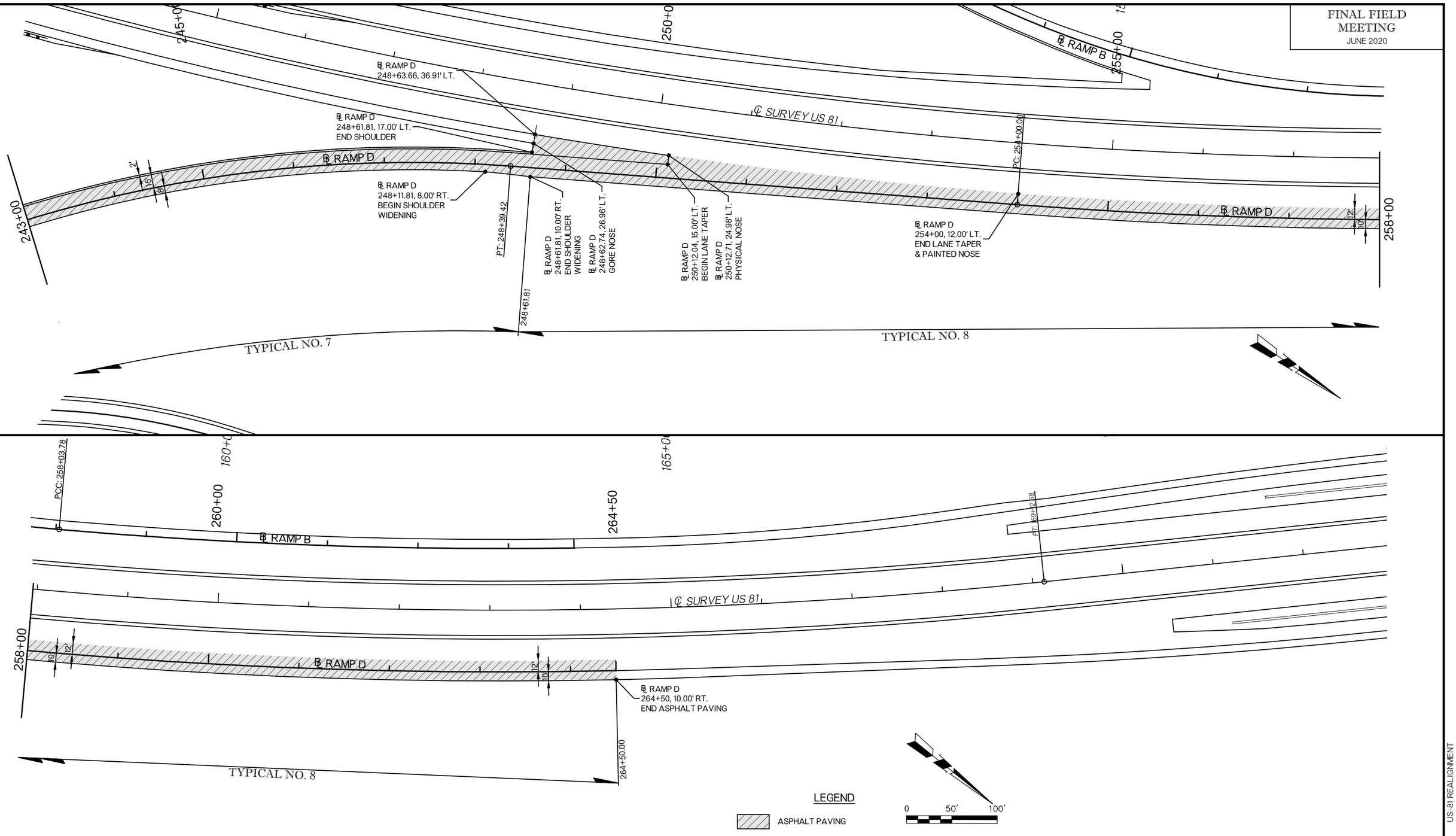
PAVING & BARRIER LAYOUT RAMP D

State Job No. 24428(13) Sheet No. R105

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



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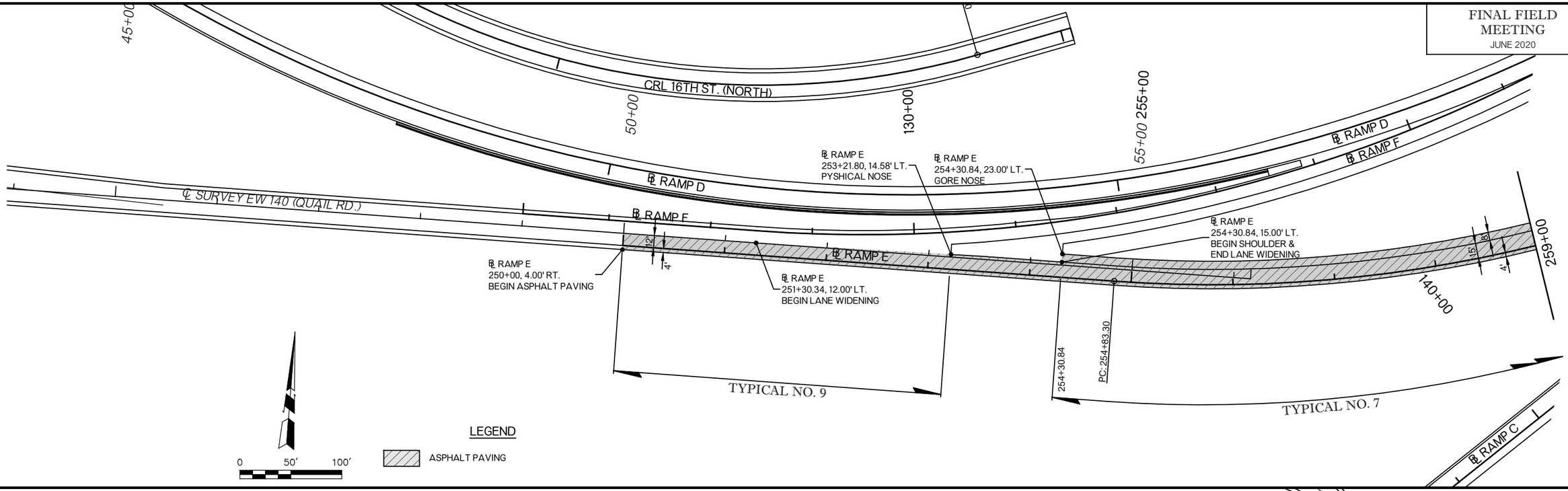
PRELIMINARY

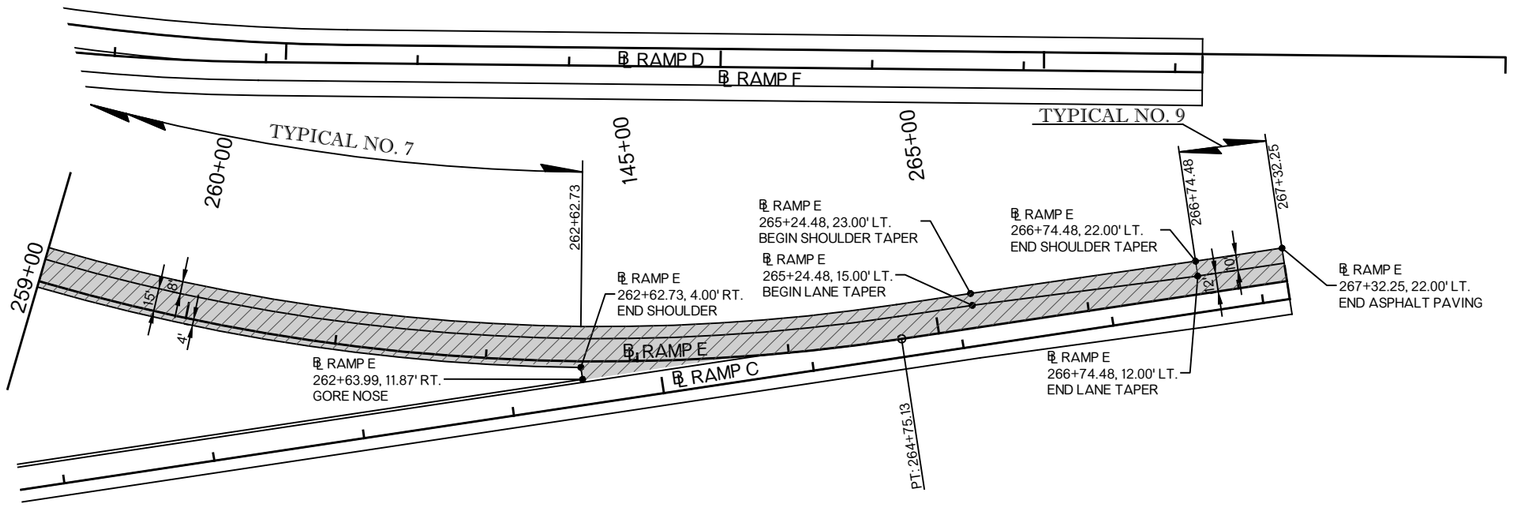
PAVING & BARRIER LAYOUT
RAMP D

State Job No. 24428(13) Sheet No. R106

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020





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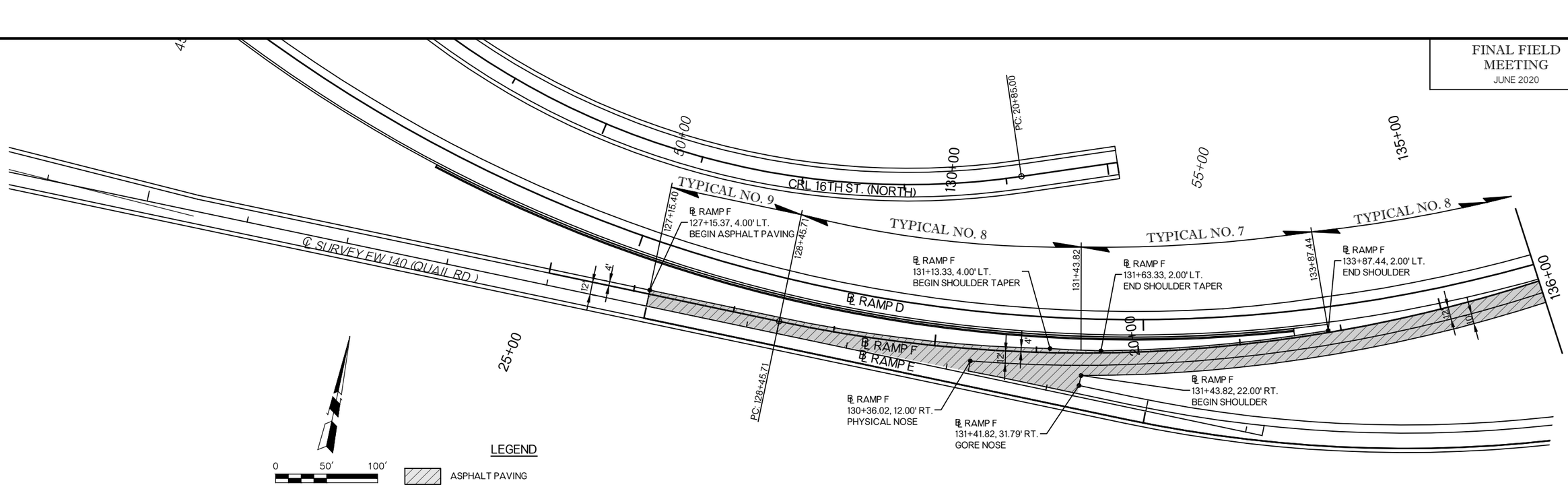
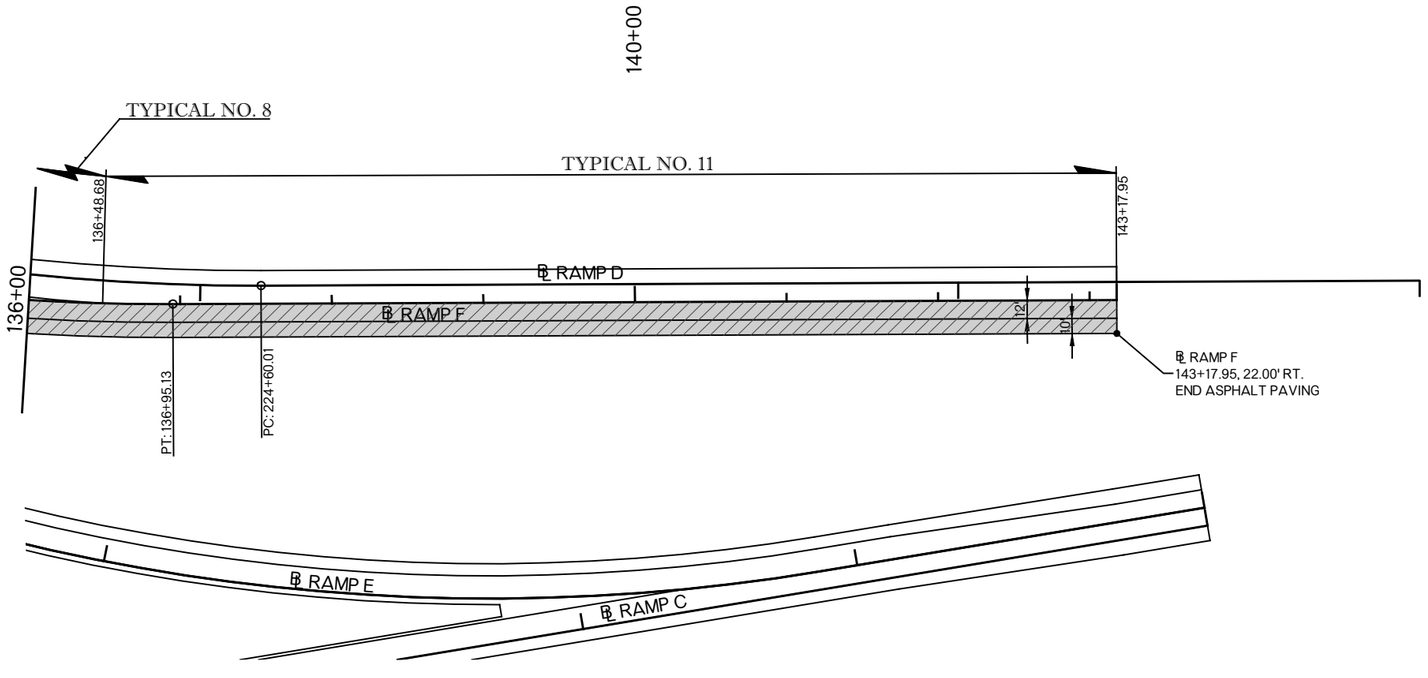
PAVING & BARRIER LAYOUT
RAMP E

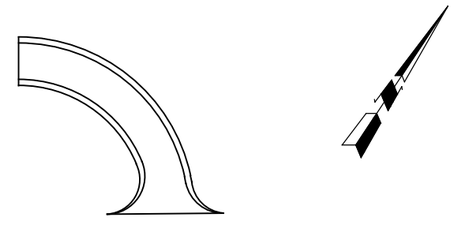
State Job No. 24428(13) Sheet No. R107

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020







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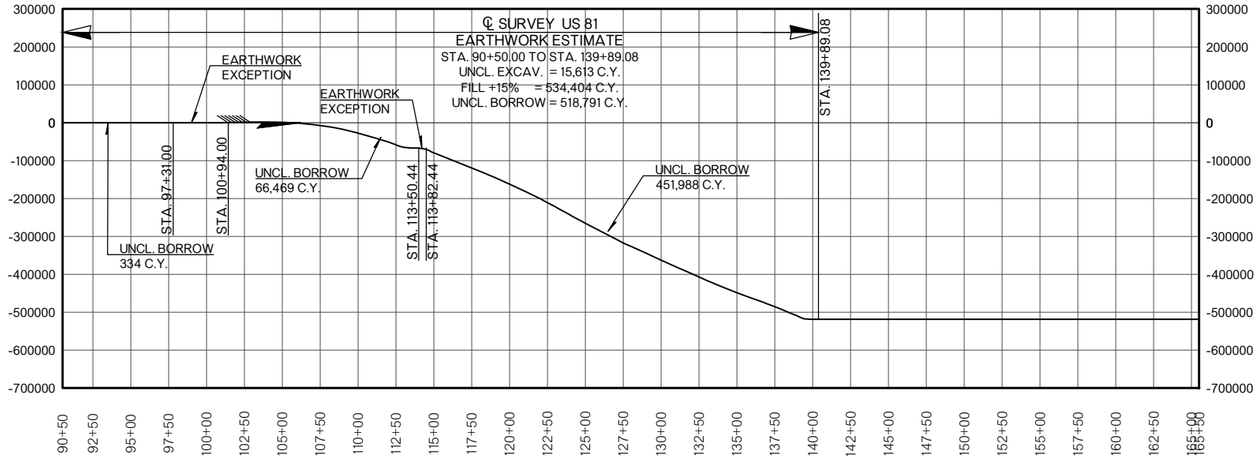
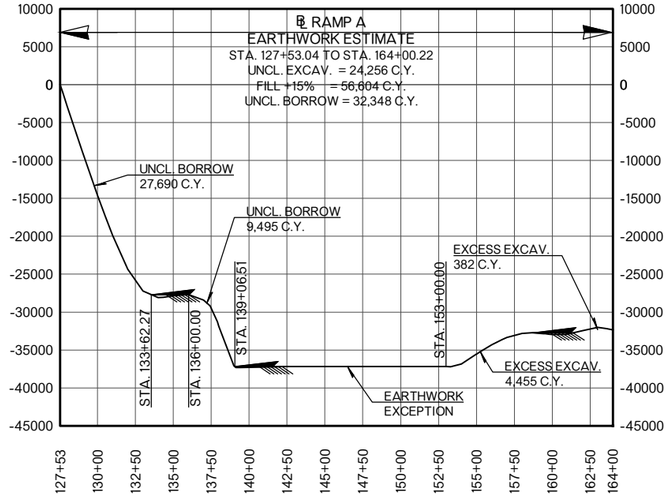
PAVING & BARRIER LAYOUT
RAMP F

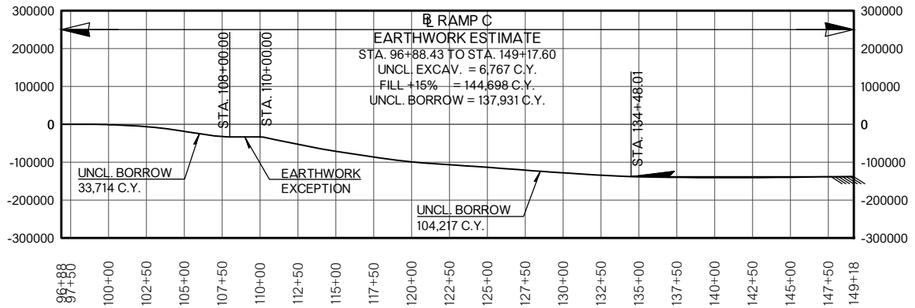
State Job No. 24428(13) Sheet No. R108

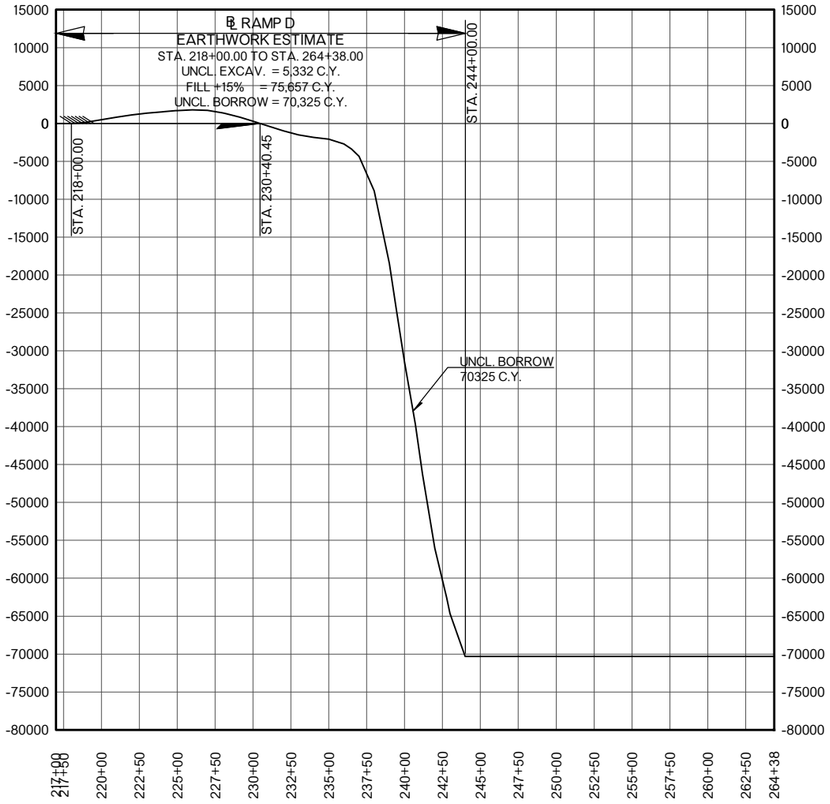
US-81 REALIGNMENT
GRADY COUNTY

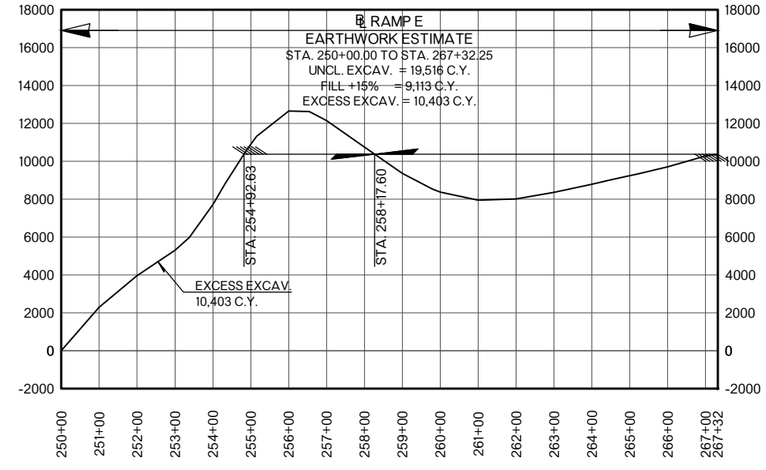
FINAL FIELD MEETING
JUNE 2020











MASS DIAGRAM PROVIDED FOR BIDDING PURPOSES ONLY. ACTUAL BALANCE POINTS TO BE DETERMINED BY CONTRACTOR AND VOLUME OF MATERIAL ENCOUNTERED DURING GRADING OPERATIONS. WHENEVER POSSIBLE, THE CONTRACTOR SHALL SEQUENCE EARTHWORK OPERATIONS IN ORDER TO OBTAIN THE MATERIAL FROM THE CUT SECTIONS FOR USE AS FILL RATHER THAN OBTAINING UNCLASSIFIED BORROW. MATERIAL DEPICTED AS WASTE SHALL ONLY BE CONSIDERED WASTE ONCE ALL EARTHWORK OPERATIONS HAVE BEEN COMPLETED. THIS MATERIAL SHALL BE USED TO REDUCE THE NEED FOR UNCLASSIFIED BORROW AT ANY LOCATION AND TIME THROUGH THE DURATION OF THE PROJECT.

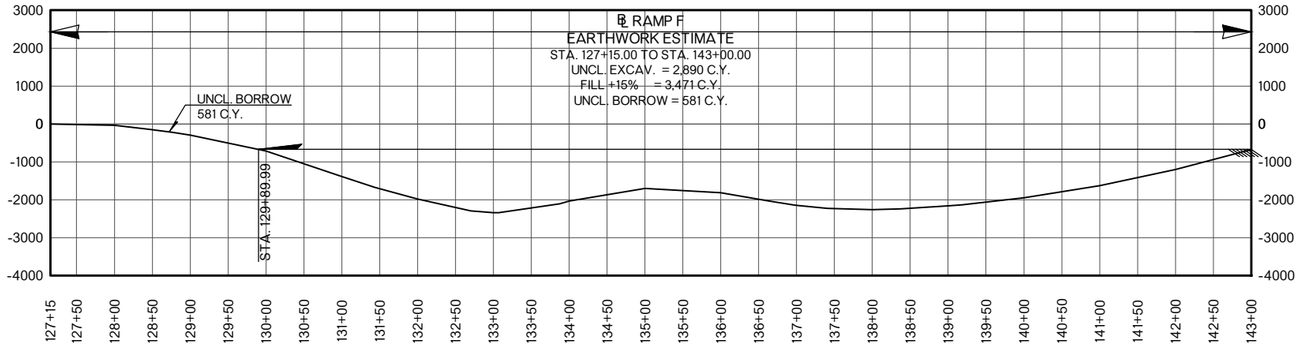
MASS LINE DIRECTION
CUT / FILL

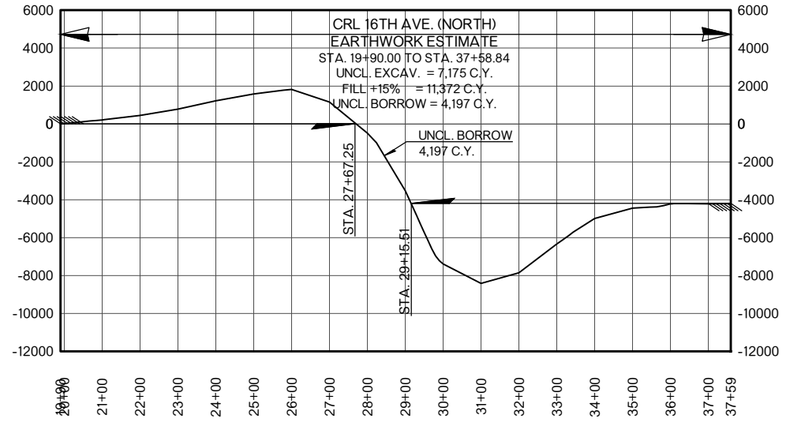
MASS DIAGRAMS

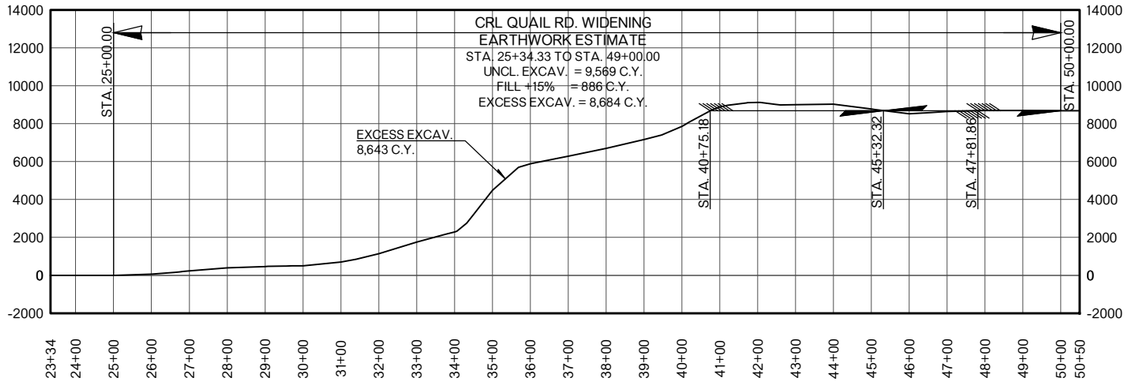
State Job No. J2-4428(013) Sheet No. R109

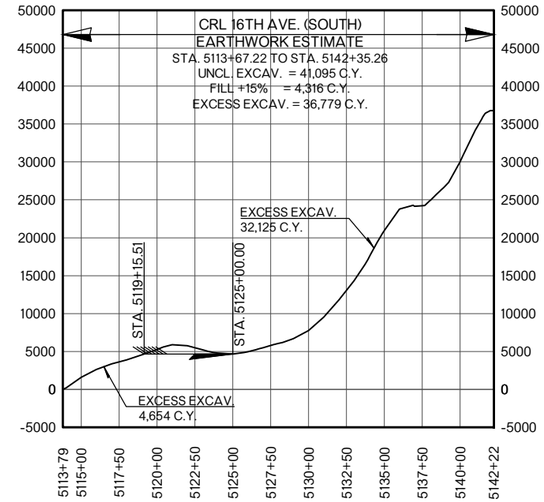
US-81 REALIGNMENT
GRADY COUNTY

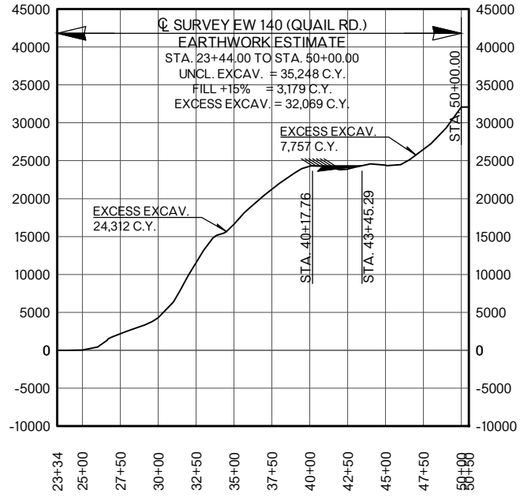
FINAL FIELD MEETING
JUNE 2020

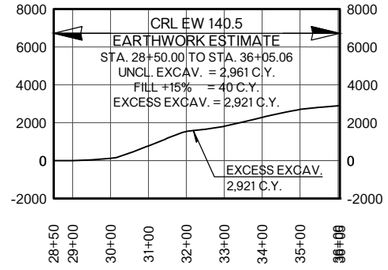












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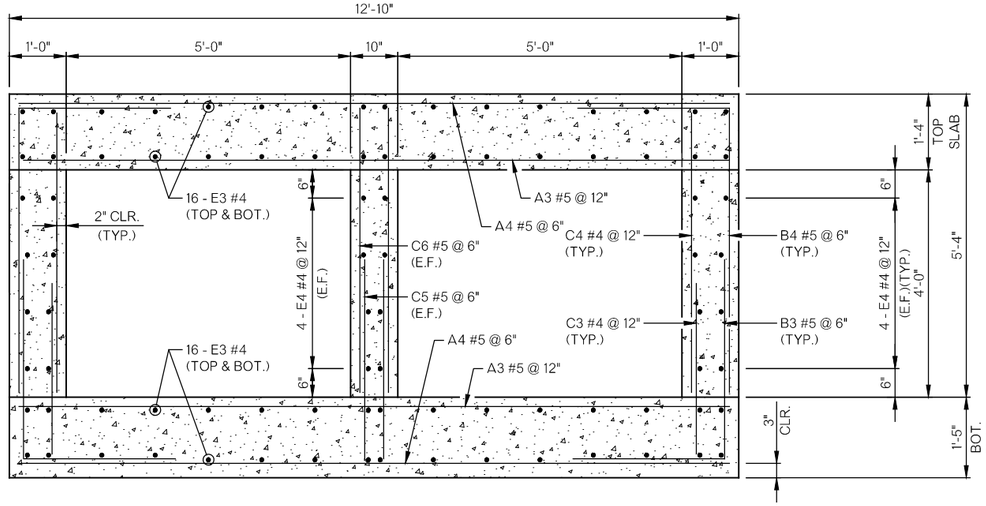
MASS LINE DIRECTION
CUT / FILL

MASS DIAGRAMS

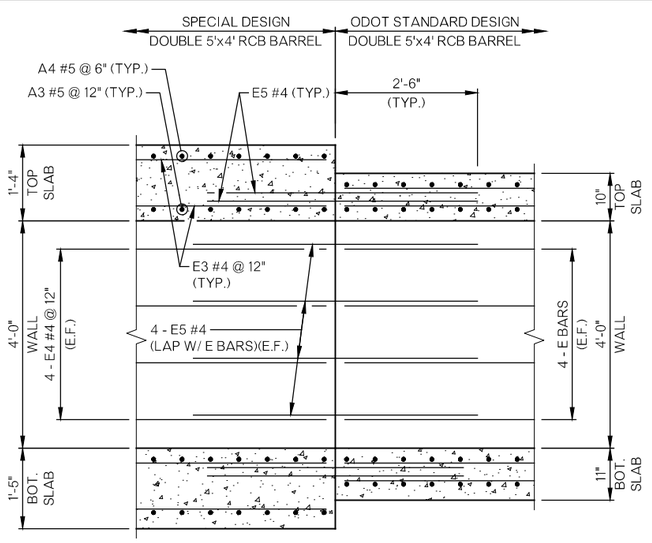
State Job No. J2-4428(013) Sheet No. R110

US-81 REALIGNMENT
GRADY COUNTY



BARREL SECTION

NOTE
E.F. = DENOTES EACH FACE



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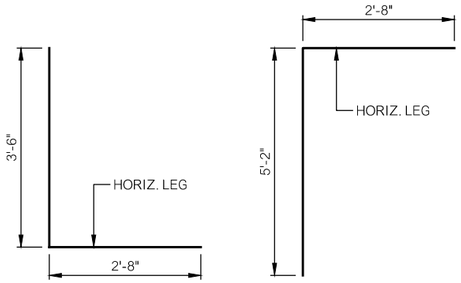
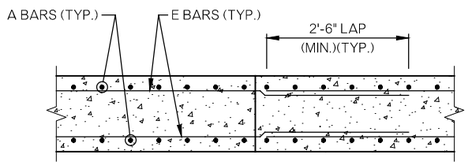
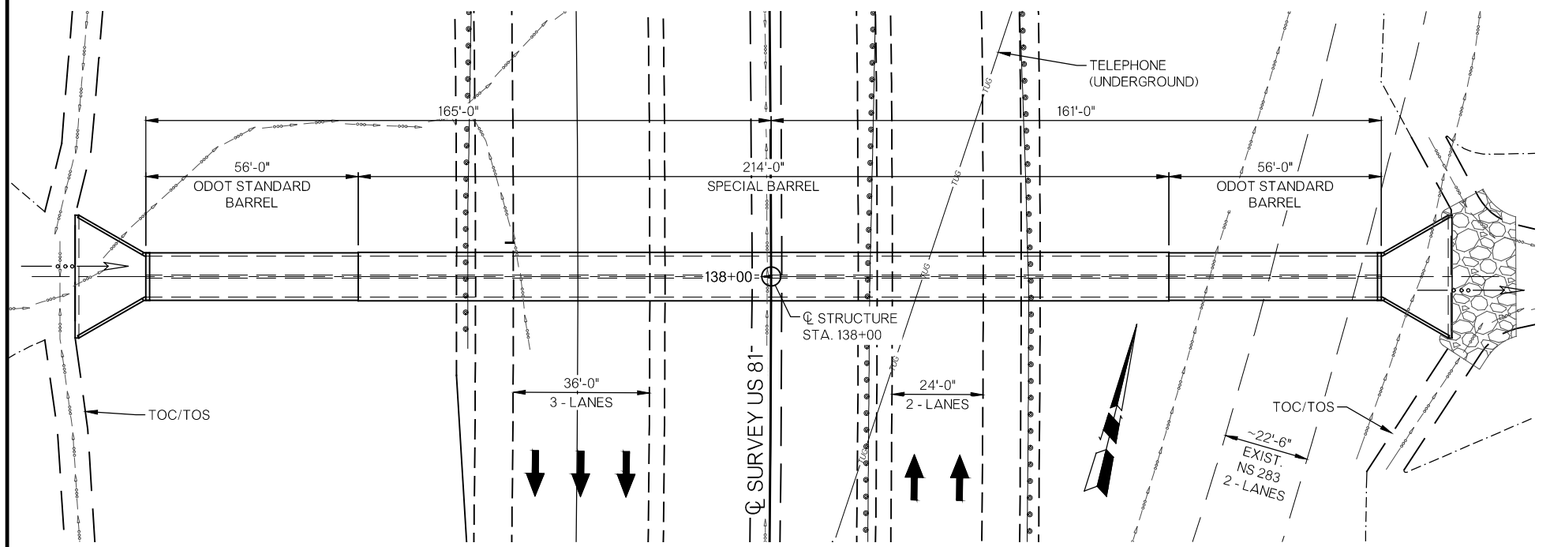




SECTION THRU CONSTRUCTION JOINT IN SPECIAL RCB BARREL

BAR BEND DETAILS



STRUCTURE 6 PLAN

LOAD AND RESISTANCE FACTOR DESIGN

DESIGN DATA

CLASS "AA" CONCRETE F'C = 4,000 PSI
REINFORCING STEEL FY = 60,000 PSI

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

NOTES

ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

ALL CONCRETE EDGES SHALL HAVE A 1 1/2" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER.

THE CONTRACTOR SHALL MAINTAIN DRAINAGE AT ALL TIMES DURING CONSTRUCTION.

SEE ROADWAY PLAN & PROFILE SHEETS AND CROSS-SECTION SHEETS FOR GRADING DETAILS.

ALL REINFORCING STEEL SHALL HAVE 2" MINIMUM CLEARANCE UNLESS OTHERWISE SHOWN ON PLANS.

TRANSVERSE CONSTRUCTION JOINTS SHALL BE SPACED AT 60 FT. MAX.

ALL COST FOR CLASS "AA" CONCRETE, LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PLACE CLASS "AA" CONCRETE SHALL BE INCLUDED IN PRICE BID PER CUBIC YARD OF "CLASS AA CONCRETE".

ALL COST FOR REINFORCING STEEL, LABOR, MATERIALS, TOOLS AND OTHER INCIDENTALS NECESSARY TO PLACE REINFORCING STEEL SHALL BE INCLUDED IN PRICE BID PER POUND OF "REINFORCING STEEL".

SOME REINFORCING STEEL BAR MARKS ARE REPEATED. THE STRUCTURAL COMPONENT SHOULD ACCOMPANY THE BAR MARK TO ENSURE THAT ALL BARS ARE PLACED WITH THE CORRECT STRUCTURAL COMPONENT.

THE FOLLOWING STANDARDS SHALL BE REQUIRED:

RCB-C2-4&5(2-20)-01E
RCB-E2-H4-0-1-01E
RCB-E2-H4-0-2-01E
RCB-CW2-D4-0-01E
SBI-4-2

FINAL FIELD MEETING
JUNE 2020

STRUCTURE 6 REINFORCING LIST

	MARK	NO.	SIZE	FORM	LENGTH	REMARKS
	PLAIN REINFORCING BARS					
	A3	430	#5	STR.	12'-6"	
	A4	858	#5	STR.	12'-6"	
	B3	858	#5	BNT.	6'-2"	
	B4	858	#5	BNT.	7'-10"	
	C3	430	#4	STR.	3'-0"	
	C4	430	#4	STR.	5'-2"	
	C5	858	#5	STR.	3'-6"	
	C6	858	#5	STR.	5'-2"	
(1)	E3	64	#4	STR.	226'-2"	
(1)	E4	24	#4	STR.	226'-2"	
	E5	176	#4	STR.	5'-0"	

(1) INCLUDES FIVE (5) 2'-6" LAPS.

STRUCTURE 6 QUANTITIES

DESCRIPTION	UNIT	TOTAL
CLASS AA CONCRETE	CY	545.80
REINFORCING STEEL	LB	81,200.00

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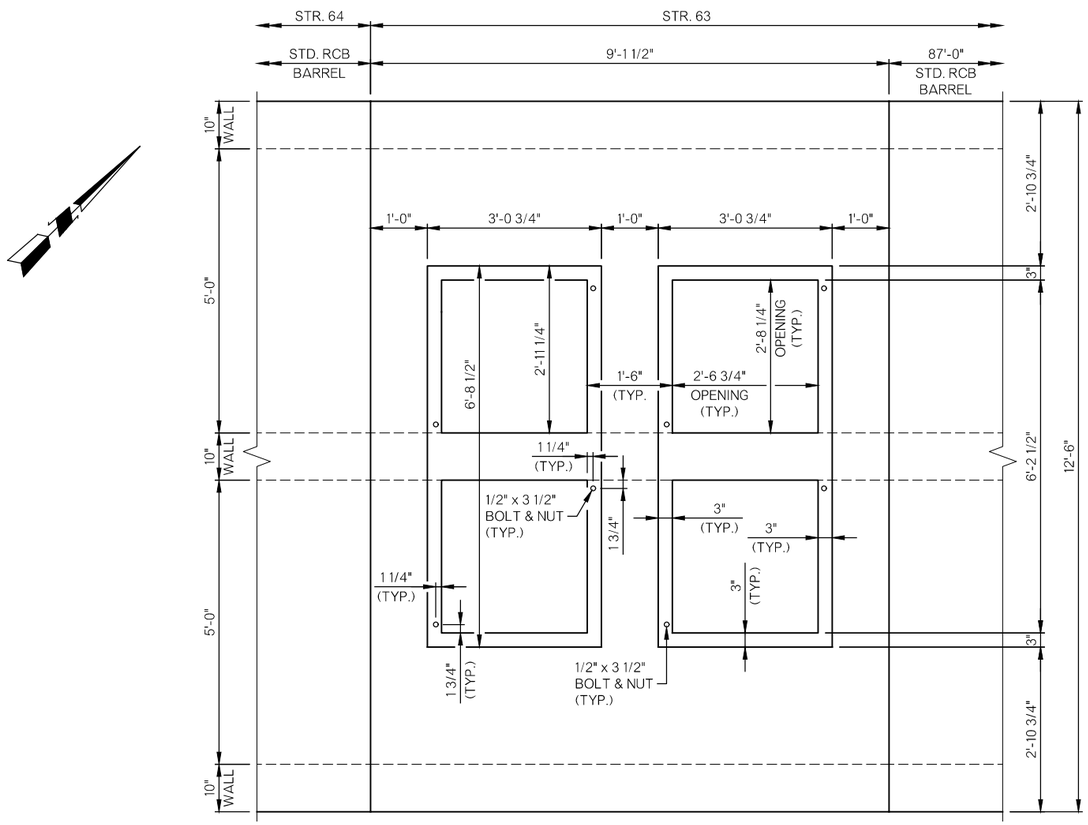
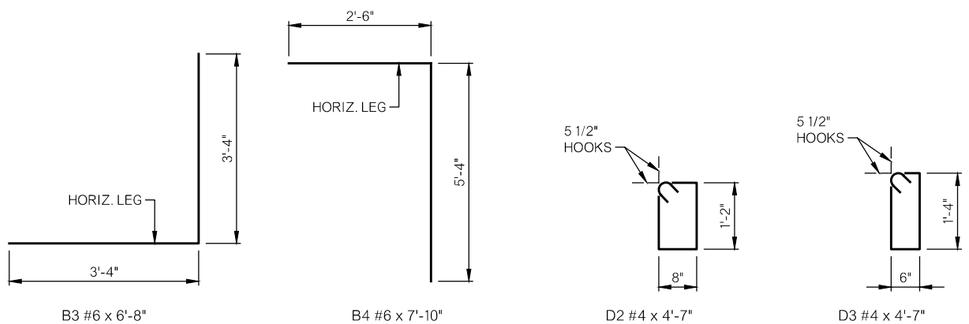
STRUCTURE 6 DETAILS

State Job No. 24428(13) Sheet No. R111

US-81 REALIGNMENT
GRADY COUNTY



INLET LAYOUT



B3 #6 x 6'-8" B4 #6 x 7'-10" D2 #4 x 4'-7" D3 #4 x 4'-7"

BAR BEND DETAILS

FINAL FIELD MEETING
JUNE 2020

LOAD AND RESISTANCE FACTOR DESIGN

DESIGN DATA

CLASS "AA" CONCRETE F'C = 4,000 PSI
REINFORCING STEEL FY = 60,000 PSI

DESIGN: RCB STANDARD BARRELS AND STANDARD END SECTIONS DESIGNED IN ACCORDANCE WITH 2007 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND INTERIM SPECIFICATION FROM 2008.

DROP INLET END SECTION DESIGNED IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

NOTES

ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

THE CONTRACTOR SHALL MAINTAIN DRAINAGE AT ALL TIMES DURING CONSTRUCTION.

SEE ROADWAY PLAN & PROFILE SHEETS AND CROSS-SECTION SHEETS FOR GRADING DETAILS.

ALL CONCRETE EDGES SHALL HAVE A 1 1/2" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER.

ALL REINFORCING STEEL SHALL HAVE 2" MINIMUM CLEARANCE UNLESS OTHERWISE SHOWN ON PLANS.

ALL COST FOR CLASS "AA" CONCRETE, LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PLACE CLASS "AA" CONCRETE SHALL BE INCLUDED IN PRICE BID PER CUBIC YARD OF "CLASS AA CONCRETE".

ALL COST FOR REINFORCING STEEL, LABOR, MATERIALS, TOOLS AND OTHER INCIDENTALS NECESSARY TO PLACE REINFORCING STEEL SHALL BE INCLUDED IN PRICE BID PER POUND OF "REINFORCING STEEL".

SEE "SUMMARY OF DRAINAGE STRUCTURES" FOR COMPLETE QUANTITIES.

SEE ODOT STANDARD SMD-3-2 FOR INLET GRATE DETAILS. TYPE 2 GRATE SHALL BE USED. A TOTAL OF 4 TYPE 2 GRATES ARE REQUIRED FOR STRUCTURE 63. INLET GRATE SHALL BE OF HOT-DIP GALVANIZED. PIPE GRATE ENDS SHALL BE HELD DOWN WITH 1/2" x 3 1/2" GALVANIZED BOLT, WASHER AND NUT MEETING THE REQUIREMENTS OF ASTM A235. BOLT THREADS, 1 1/2", SHALL REMAIN EXPOSED FOR INSTALLING GRATE. COST OF GALVANIZED WELDED STEEL GRATE, ALL COSTS OF LABOR AND MATERIALS NECESSARY TO FABRICATE GRATE, COST OF BOLTS, NUTS, WASHERS, CLIPS, FASTENING DEVICES, AND/OR OTHER ITEMS NECESSARY FOR COMPLETE AND ACCEPTABLE IN PLACE INSTALLATION OF INLET GRATE SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

STRUCTURE 63 INLET QUANTITIES

DESCRIPTION	UNIT	TOTAL
CLASS AA CONCRETE	CY	11.70
REINFORCING STEEL	LB	3,580.00

STRUCTURE 63 INLET REINFORCING LIST

MARK	NO.	SIZE	FORM	LENGTH	REMARKS
PLAIN REINFORCING BARS					
A3	54	#6	STR.	12'-2"	
A4	20	#6	STR.	2'-9"	
B3	38	#6	BNT.	6'-8"	
B4	38	#6	BNT.	7'-10"	
C3	38	#4	STR.	2'-4"	
C4	38	#4	STR.	5'-4"	
D1	7	#4	STR.	1'-2"	
D2	42	#4	BNT.	4'-7"	
D3	10	#4	BNT.	4'-7"	
E3	32	#4	STR.	8'-9"	
E4	16	#4	STR.	8'-9"	
E5	20	#5	STR.	8'-9"	
E6	4	#6	STR.	8'-9"	
E7	128	#5	STR.	6'-0"	

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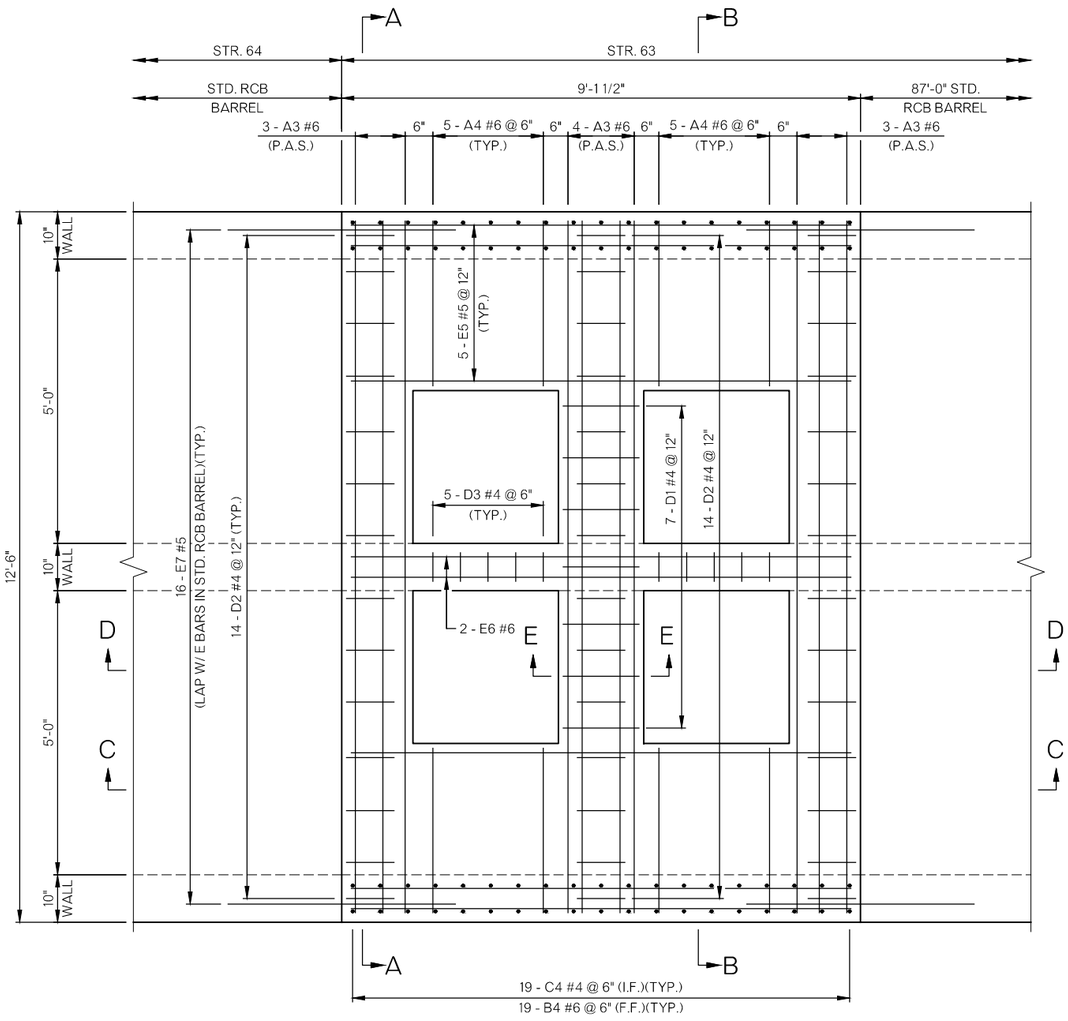
STRUCTURE 63 DETAILS
(SHEET 1 OF 4)

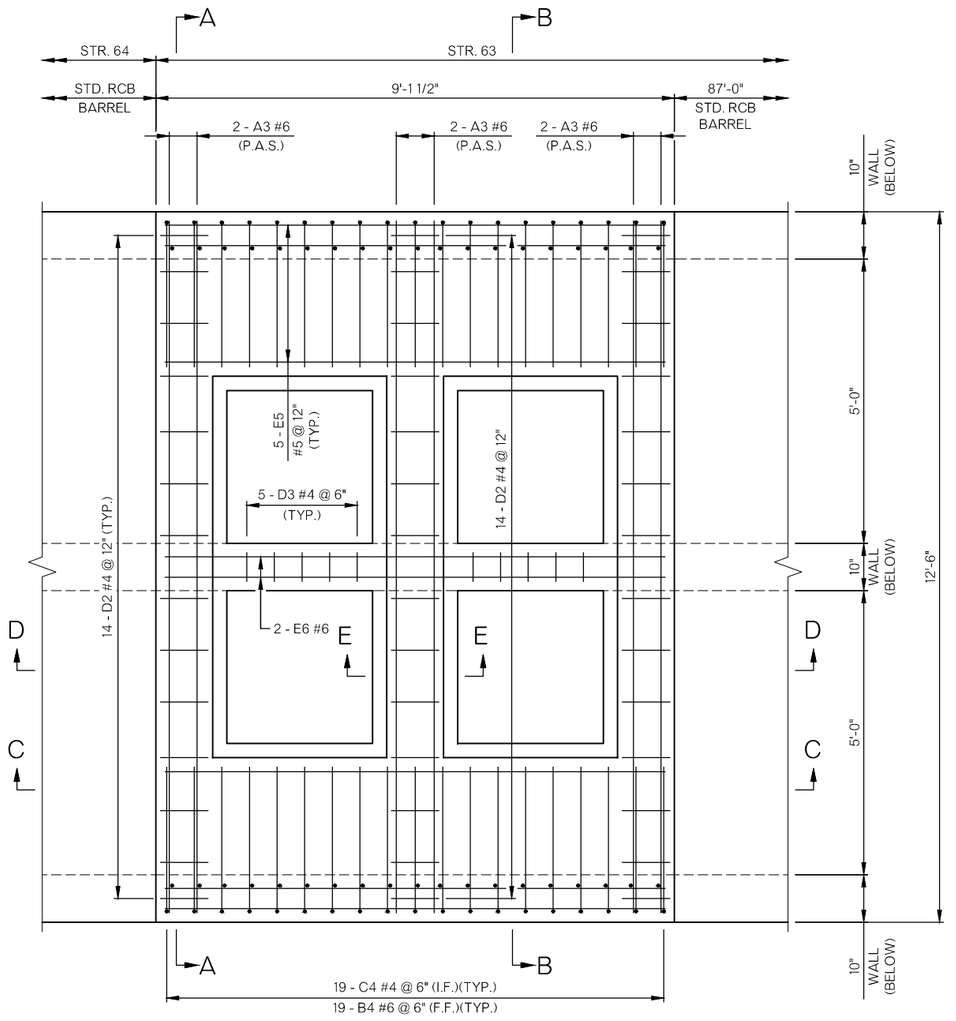
State Job No. 24428(13) Sheet No. R112

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



TOP SLAB
BOTTOM REINFORCING MAT PLAN



TOP SLAB
TOP REINFORCING MAT PLAN

NOTES
F.F. = DENOTES FILL FACE
I.F. = DENOTES INSIDE FACE
P.A.S. = DENOTES PLACED AS SHOWN

NOTES
SEE SHEET R115 FOR SECTION A-A, SECTION B-B, SECTION C-C, SECTION D-D, AND SECTION E-E.

SEE SHEET R112 FOR BAR BEND DETAILS.

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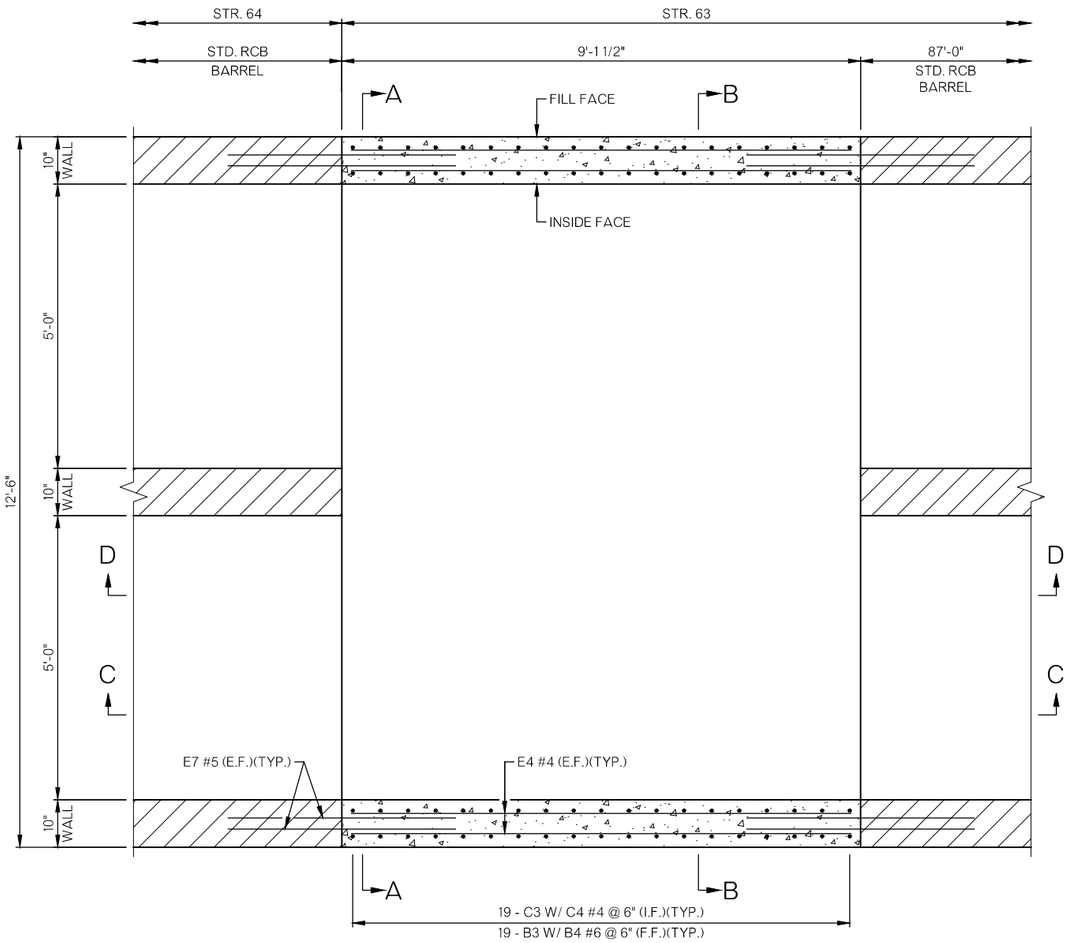
STRUCTURE 63 DETAILS
(SHEET 2 OF 4)

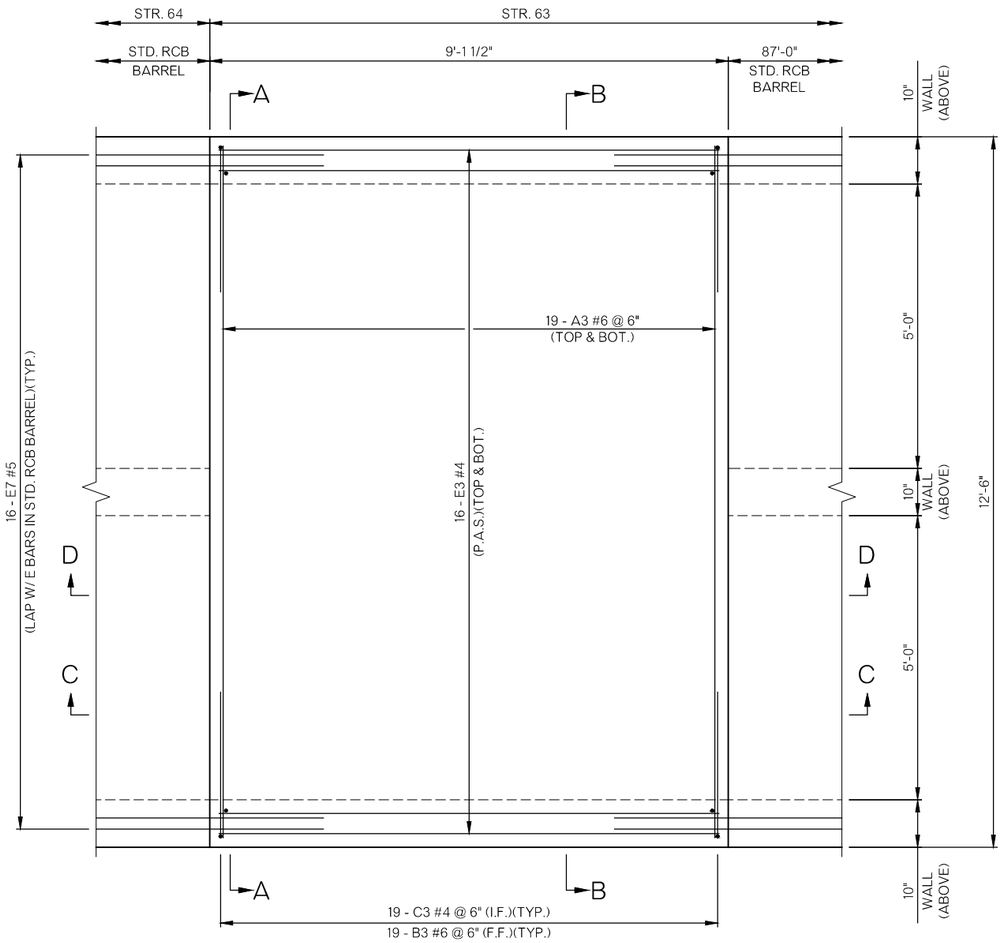
State Job No. 24428(13) Sheet No. R113

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



WALL REINFORCING PLAN



BOTTOM SLAB REINFORCING PLAN

NOTES
F.F. = DENOTES FILL FACE
I.F. = DENOTES INSIDE FACE
E.F. = DENOTES EACH FACE
P.A.S. = DENOTES PLACED AS SHOWN

NOTES
SEE SHEET R115 FOR SECTION A-A, SECTION B-B, SECTION C-C, SECTION D-D, AND SECTION E-E.

SEE SHEET R112 FOR BAR BEND DETAILS.

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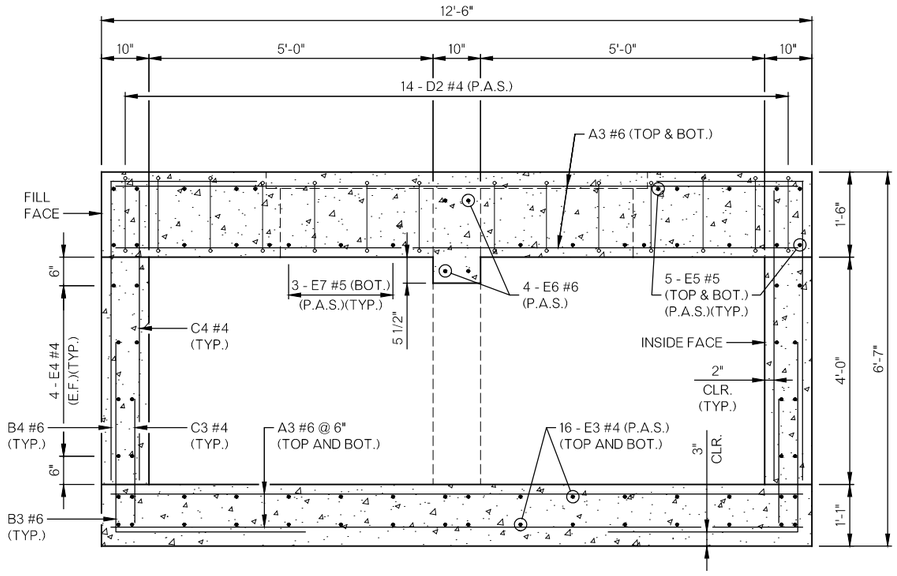
STRUCTURE 63 DETAILS
(SHEET 3 OF 4)

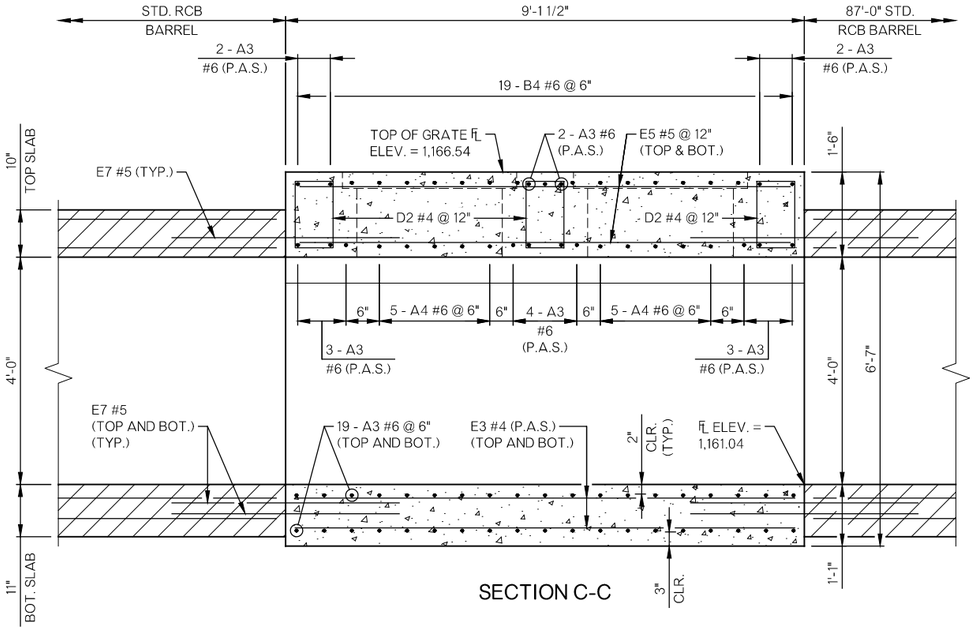
State Job No. 24428(13) Sheet No. R114

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



SECTION A-A



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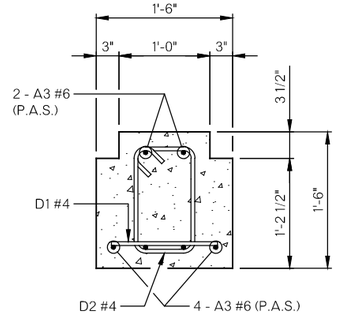

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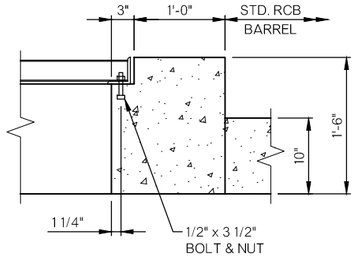
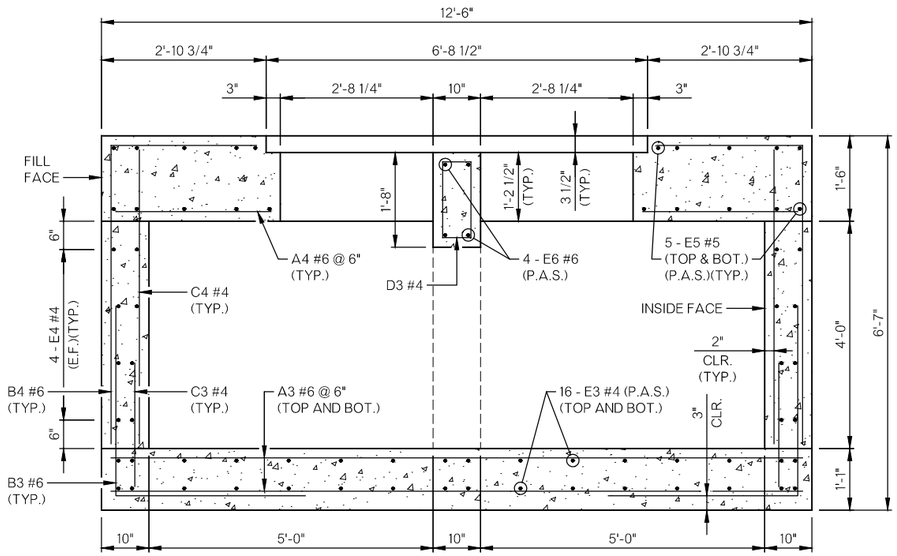
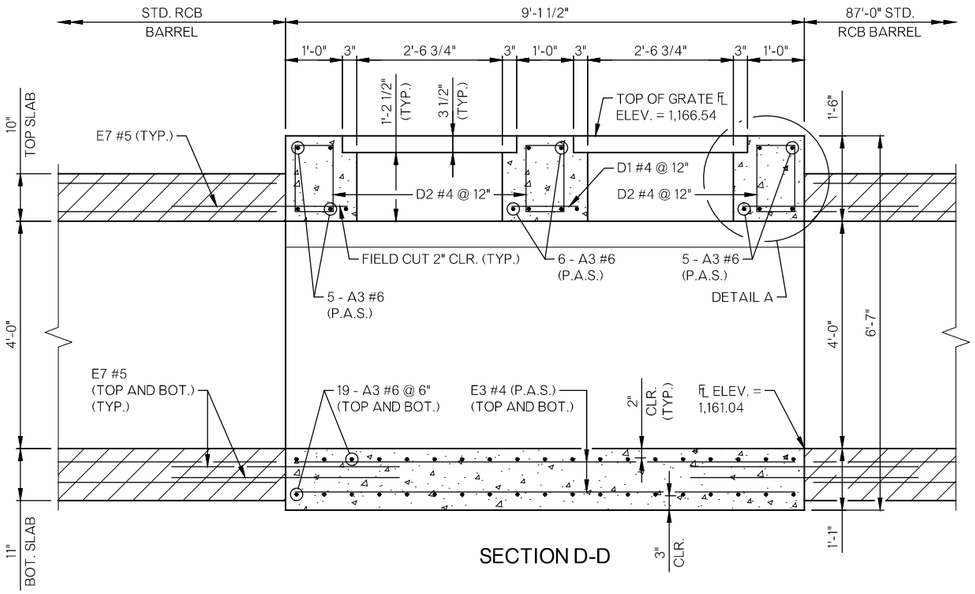


DETAIL A
(INLET GRATE BOLT DETAIL)



SECTION B-B



SECTION D-D

NOTES
E.F. = DENOTES EACH FACE
P.A.S. = DENOTES PLACED AS SHOWN

SEE SHEET R112 FOR BAR BEND DETAILS.

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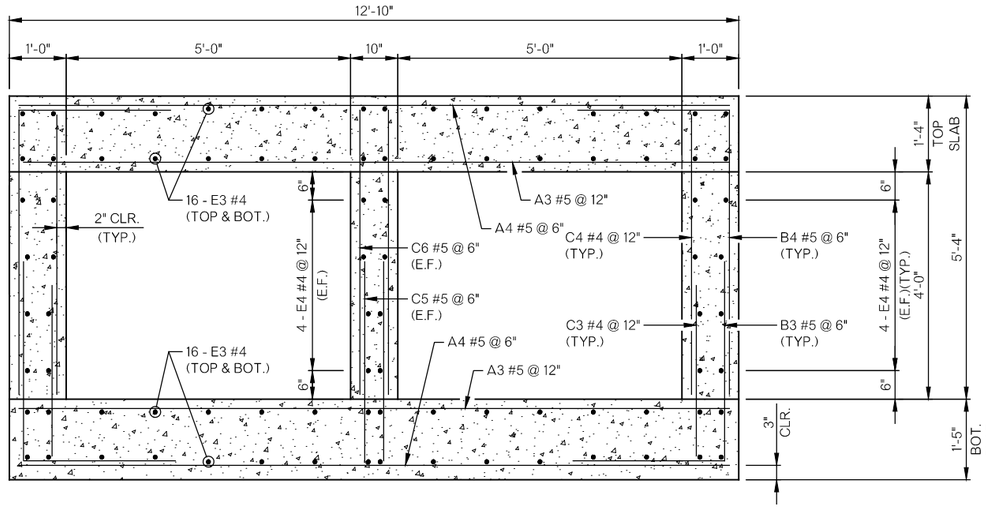
STRUCTURE 63 DETAILS
(SHEET 4 OF 4)

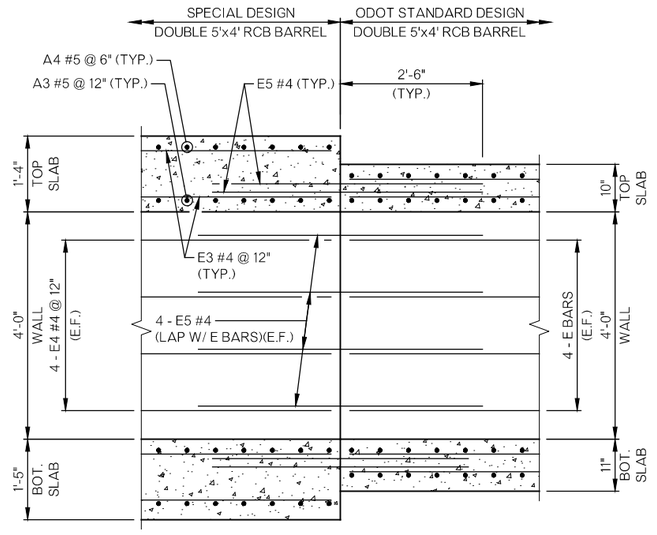
State Job No. 24428(13) Sheet No. R115

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020

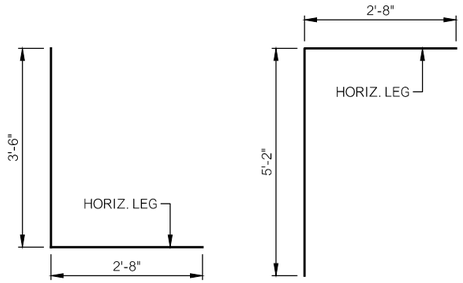


BARREL SECTION



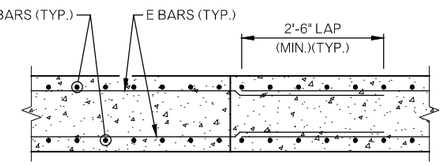
SECTION THRU CONSTRUCTION JOINT BETWEEN SPECIAL AND STANDARD RCB BARRELS

NOTE
E.F. = DENOTES EACH FACE



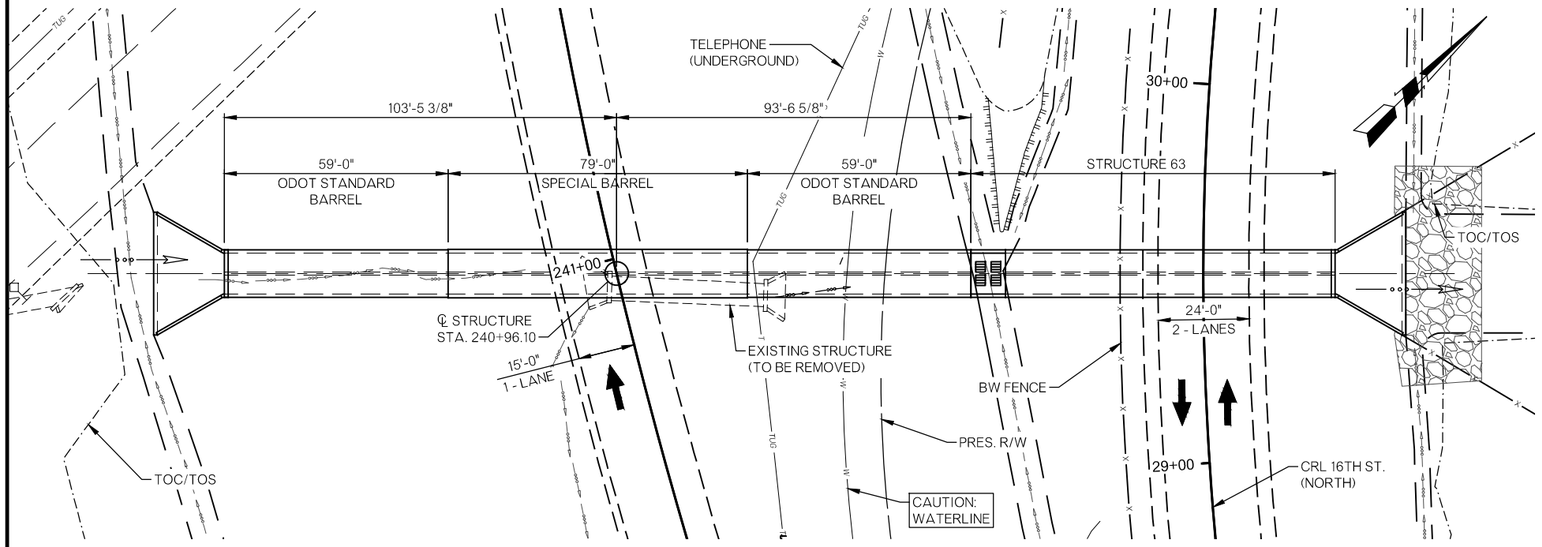
B3 #5 x 6'-2"

B4 #5 x 7'-10"



SECTION THRU CONSTRUCTION JOINT IN SPECIAL RCB BARREL

BAR BEND DETAILS



STRUCTURE 64 PLAN

LOAD AND RESISTANCE FACTOR DESIGN

DESIGN DATA

CLASS "AA" CONCRETE F'C = 4,000 PSI
REINFORCING STEEL FY = 60,000 PSI

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

NOTES
ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

ALL CONCRETE EDGES SHALL HAVE A 1 1/2" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER.

THE CONTRACTOR SHALL MAINTAIN DRAINAGE AT ALL TIMES DURING CONSTRUCTION.

SEE ROADWAY PLAN & PROFILE SHEETS AND CROSS-SECTION SHEETS FOR GRADING DETAILS.

ALL REINFORCING STEEL SHALL HAVE 2" MINIMUM CLEARANCE UNLESS OTHERWISE SHOWN ON PLANS..

ALL COST FOR CLASS "AA" CONCRETE, LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PLACE CLASS "AA" CONCRETE SHALL BE INCLUDED IN PRICE BID PER CUBIC YARD OF "CLASS AA CONCRETE".

ALL COST FOR REINFORCING STEEL, LABOR, MATERIALS, TOOLS AND OTHER INCIDENTALS NECESSARY TO PLACE REINFORCING STEEL SHALL BE INCLUDED IN PRICE BID PER POUND OF "REINFORCING STEEL".

SOME REINFORCING STEEL BAR MARKS ARE REPEATED. THE STRUCTURAL COMPONENT SHOULD ACCOMPANY THE BAR MARK TO ENSURE THAT ALL BARS ARE PLACED WITH THE CORRECT STRUCTURAL COMPONENT.

THE FOLLOWING STANDARDS SHALL BE REQUIRED:

RCB-C2-4&5(2-20)-01E
RCB-E2-H4-0-1-01E
RCB-E2-H4-0-2-01E
RCB-CW2-D4-0-01E
SBI-4-2

STRUCTURE 64
REINFORCING LIST

MARK	NO.	SIZE	FORM	LENGTH	REMARKS
PLAIN REINFORCING BARS					
A3	160	#5	STR.	12'-6"	
A4	318	#5	STR.	12'-6"	
B3	318	#5	BNT.	6'-2"	
B4	318	#5	BNT.	7'-10"	
C3	160	#4	STR.	3'-0"	
C4	160	#4	STR.	5'-2"	
C5	318	#5	STR.	3'-6"	
C6	318	#5	STR.	5'-2"	
(1) E3	64	#4	STR.	83'-8"	
(1) E4	24	#4	STR.	83'-8"	
E5	176	#4	STR.	5'-0"	

(1) INCLUDES TWO (2) 2'-6" LAP.

STRUCTURE 64 QUANTITIES

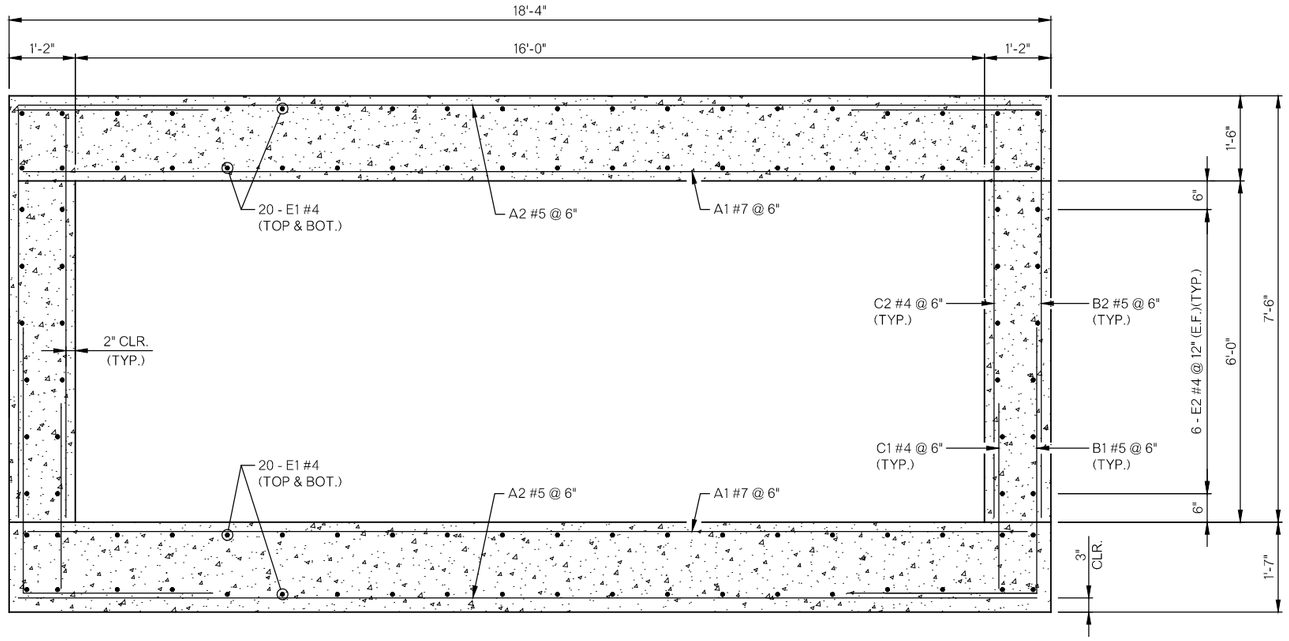
DESCRIPTION	UNIT	TOTAL
CLASS AA CONCRETE	CY	297.80
REINFORCING STEEL	LB	45,850.00

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

STRUCTURE 64 DETAILS

State Job No. 24428(13) Sheet No. R116

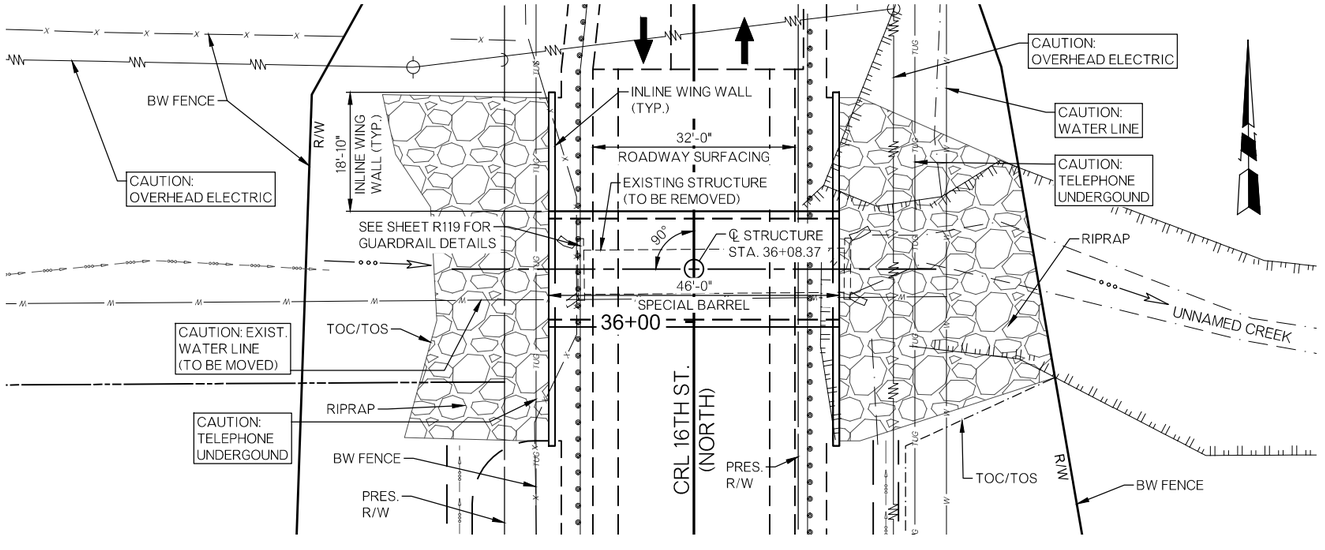
US-81 REALIGNMENT
GRADY COUNTY



BARREL SECTION

NOTE

E.F. = DENOTES EACH FACE



STRUCTURE 171 PLAN

LOAD AND RESISTANCE FACTOR DESIGN

FINAL FIELD MEETING
JUNE 2020

DESIGN DATA

CLASS "AA" CONCRETE	F'C = 4,000 PSI
REINFORCING STEEL	FY = 60,000 PSI
NEW STRUCTURAL STEEL AASHTO M270 (GR. 50W)	FY = 50,000 PSI

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

GENERAL NOTES

ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

THE CONTRACTOR SHALL MAINTAIN DRAINAGE AT ALL TIMES DURING CONSTRUCTION.

SEE ROADWAY PLAN & PROFILE SHEETS AND CROSS-SECTION SHEETS FOR GRADING DETAILS.

ALL REINFORCING STEEL SHALL HAVE 2" MINIMUM CLEARANCE UNLESS OTHERWISE SHOWN ON PLANS.

ALL COST FOR CLASS "AA" CONCRETE, LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PLACE CLASS "AA" CONCRETE SHALL BE INCLUDED IN PRICE BID PER CUBIC YARD OF "CLASS AA CONCRETE".

REINFORCING STEEL SHALL BE GRADE 60 AND CONFORM TO AASHTO M31. NO WELDING OR TACK WELDING OF REINFORCING BARS WILL BE PERMITTED. ALL BAR BENDS ARE OUT TO OUT. SOME REINFORCING STEEL BAR MARKS ARE REPEATED. THE STRUCTURAL COMPONENT SHOULD ACCOMPANY THE BAR MARK TO ENSURE THAT ALL BARS ARE PLACED WITH THE CORRECT STRUCTURAL COMPONENT. ALL COST FOR REINFORCING STEEL, LABOR, MATERIALS, TOOLS AND OTHER INCIDENTALS NECESSARY TO PLACE REINFORCING STEEL SHALL BE INCLUDED IN PRICE BID PER POUND OF "REINFORCING STEEL".

SEE SHEET R121 FOR BACKFILL DETAILS AND NOTES.

THE FOLLOWING STANDARDS SHALL BE REQUIRED: SBI-4-2

WINGWALL GENERAL NOTES

ALL GRANULAR BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 703 OF THE STANDARD SPECIFICATIONS. GRANULAR BACKFILL SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 501 OF THE STANDARD SPECIFICATIONS. ALL COSTS FOR GRANULAR BACKFILL, LABOR, MATERIALS, TOOLS AND OTHER INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER CUBIC YARD OF "GRANULAR BACKFILL".

AGGREGATE BASE TYPE "A" SHALL BE IN ACCORDANCE WITH SECTION 703 OF THE STANDARD SPECIFICATIONS AND SHALL BE INCLUDED IN PRICE BID PER CUBIC YARD OF "STANDARD BEDDING MATERIAL, CLASS B".

ALL COSTS FOR SELECT BORROW, LABOR, MATERIALS, TOOLS AND OTHER INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER CUBIC YARD OF "SELECT BORROW".

UNDERDRAIN COVER MATERIAL(S) SHALL BE SEPARATED FROM OTHER SOIL, SAND, AND/OR AGGREGATE SURFACES WITH A FILTER FABRIC IN ACCORDANCE WITH SECTION 510 OF THE STANDARD SPECIFICATIONS. ALL COARSE AND FILTER SAND PIPE UNDERDRAIN COVER MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 703 OF THE STANDARD SPECIFICATIONS. FOR PIPE UNDERDRAIN DETAILS, SEE SHEET R120 AND ODOT ROADWAY STANDARD PUD-3. ALL COSTS OF PIPE UNDERDRAIN COVER MATERIAL, FILTER FABRIC, APPURTENANCES, 6" PERFORATED PIPE UNDERDRAIN ROUND, STANDARD BEDDING MATERIAL, LABOR, MATERIALS AND OTHER INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER CUBIC YARD OF " 6" PERFORATED PIPE UNDERDRAIN ROUND".

CONTRACTOR SHALL DETERMINE THE NEED AND EXTENT OF TEMPORARY EARTH RETAINAGE SHOULD A TEMPORARY EARTH RETAINAGE BE NECESSARY FOR CONSTRUCTION OF THE WINGWALLS AND ASSOCIATED EARTHWORK. THE CONTRACTOR SHALL HAVE THE TEMPORARY EARTH RETAINAGE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OKLAHOMA. CALCULATIONS AND DRAWINGS FOR THE TEMPORARY EARTH RETAINAGE SHALL BE SUBMITTED AND APPROVED BY THE ENGINEER BEFORE STARTING WORK ON THE TEMPORARY EARTH RETAINAGE. ALL COSTS OF TEMPORARY EARTH RETAINAGE, INCLUDING ENGINEERING, DRAWINGS, LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO CONSTRUCT AND DEMOLISH TEMPORARY RETAINING STRUCTURE(S) SHALL BE INCLUDED IN PRICE BID PER CUBIC YARD OF "SHEET PILING, FURNISHED".

GEOTECHNICAL REPORT

ALL BORING LOG DATA AND INFORMATION CAN BE REFERENCED IN THE PROJECT SPECIAL PROVISIONS AND/OR CONTRACT DOCUMENTS.

WINGWALL FOUNDATION DATA

NOMINAL BEARING RESIST. = 1,500 PSF
RESISTANCE FACTOR FOR BEARING = 0.45
FACTORED BEARING PRESS. = 300 PSF

STRUCTURE 171 QUANTITIES

DESCRIPTION	UNIT	TOTAL
UNCLASSIFIED EXCAVATION	CY	620.00
SELECT BORROW	CY	220.00
STRUCTURAL EXCAVATION UNCLASSIFIED	CY	140.00
STRUCTURAL STEEL	LB	6,950.00
CLASS AA CONCRETE	CY	126.20
REINFORCING STEEL	LB	18,950.00
PILES, FURNISHED (HP 10x42)	LF	208.00
SHEET PILING, FURNISHED	SY	109.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	76.00
STANDARD BEDDING MATERIAL, CLASS B	CY	300.00

PRELIMINARY
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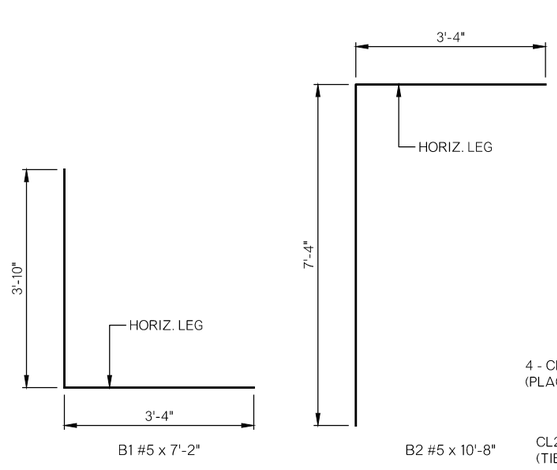
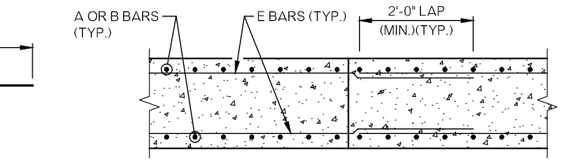
US-81 REALIGNMENT
GRADY COUNTY

STRUCTURE 171 DETAILS
(SHEET 1 OF 5)

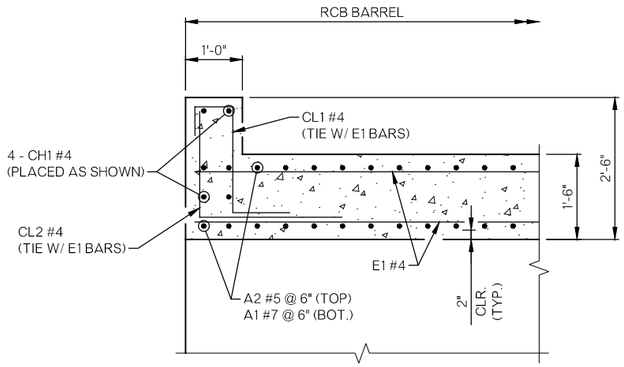
State Job No. 24428(13) Sheet No. R117

FINAL FIELD MEETING
JUNE 2020

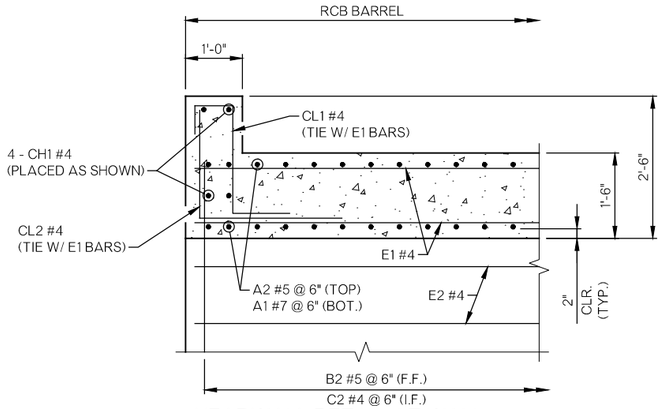




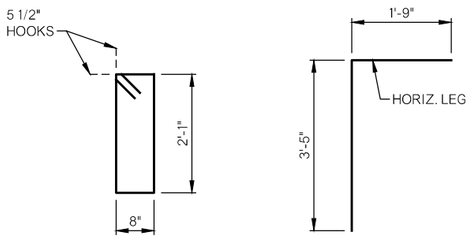
SECTION THRU CONSTRUCTION JOINT IN RCB BARREL

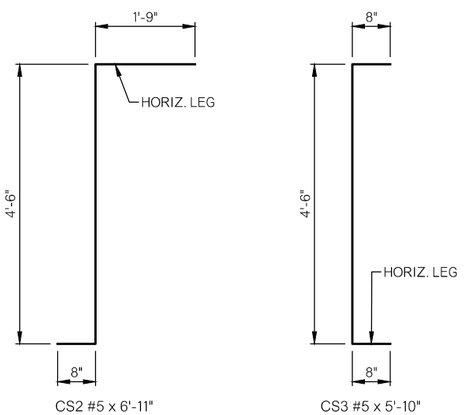


HEADWALL DETAIL AT MIDSPAN

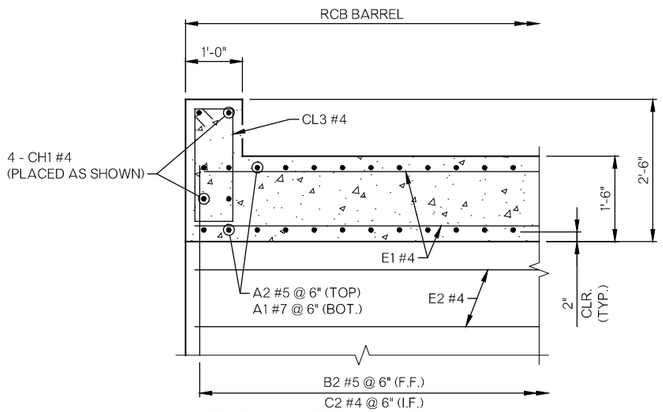


HEADWALL DETAIL AT WALL
(SHOWING CL1 AND CL2 BARS)

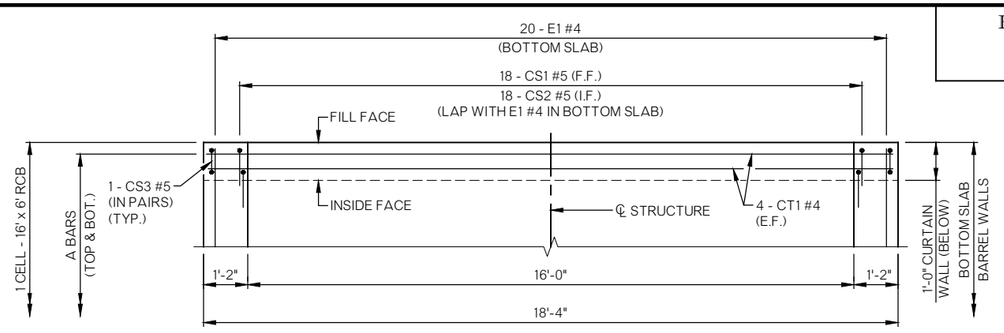




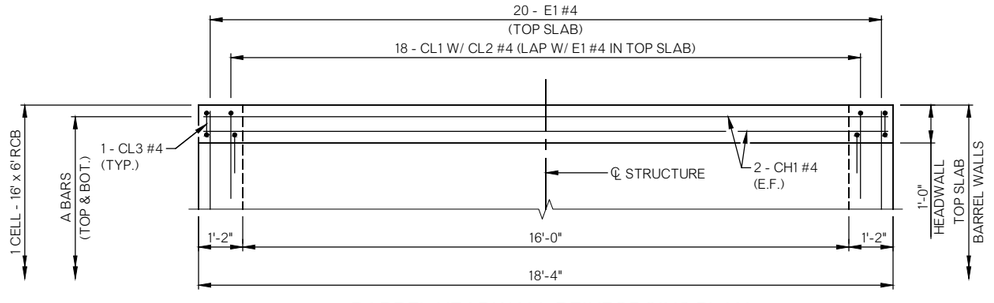
BAR BEND DETAILS



HEADWALL DETAIL AT WALL
(SHOWING CL3 BARS)



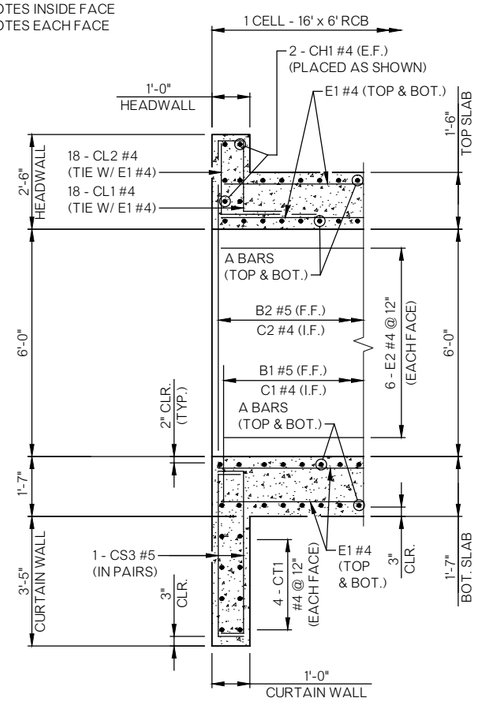
BARREL CURTAIN WALL REINFORCING PLAN
(NOT SHOWING WING WALLS OR BARREL WALL REINFORCING FOR CLARITY)



BARREL HEADWALL REINFORCING PLAN
(NOT SHOWING WING WALLS OR BARREL WALL REINFORCING FOR CLARITY)

NOTES

F.F. = DENOTES FILL FACE
I.F. = DENOTES INSIDE FACE
E.F. = DENOTES EACH FACE



TYPICAL SECTION THRU END OF BARREL AT EXTERIOR WALL

STRUCTURE 171
BARREL REINFORCING LIST

MARK	NO.	SIZE	FORM	LENGTH	REMARKS
PLAIN REINFORCING BARS					
A1	186	#7	STR.	18'-0"	
A2	186	#5	STR.	18'-0"	
B1	186	#5	BNT.	7'-2"	
B2	186	#5	BNT.	10'-8"	
C1	186	#4	STR.	3'-4"	
C2	186	#4	STR.	7'-4"	
CH1	4	#4	STR.	18'-0"	
CL1	18	#4	BNT.	4'-3"	
CL2	18	#4	BNT.	4'-7"	
CL3	2	#4	BNT.	6'-5"	
CS1	18	#5	BNT.	5'-2"	
CS2	18	#5	BNT.	6'-11"	
CS3	4	#5	BNT.	5'-10"	
CT1	8	#4	STR.	18'-0"	
(1) E1	80	#4	STR.	47'-8"	
(1) E2	24	#4	STR.	47'-8"	

(1) LENGTH INCLUDES ONE (1) 2'-0" LAP SPLICE.

PRELIMINARY
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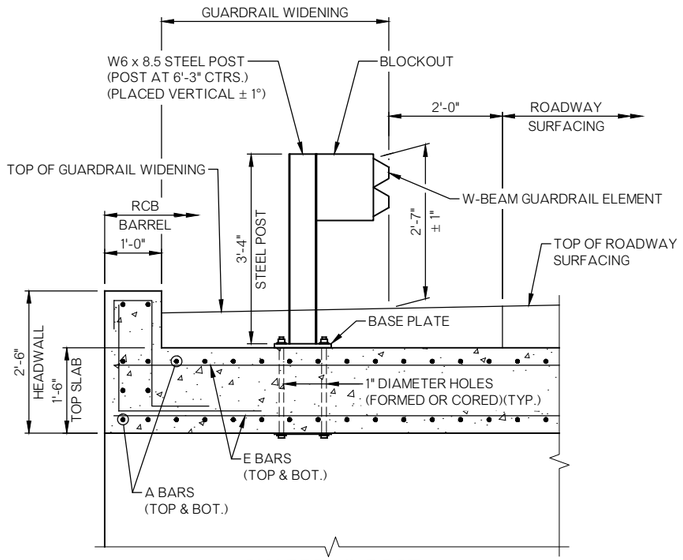
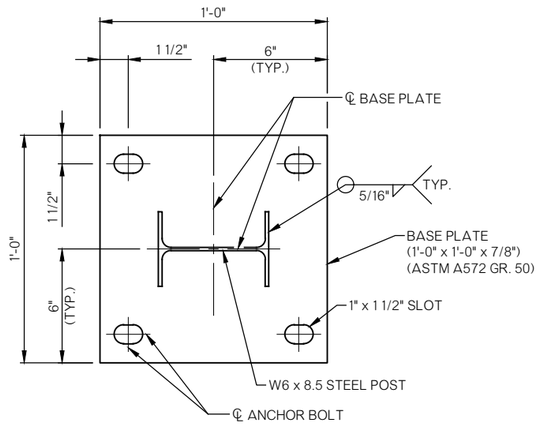
STRUCTURE 171 DETAILS
(SHEET 2 OF 5)

State Job No. 24428(13) Sheet No. R118

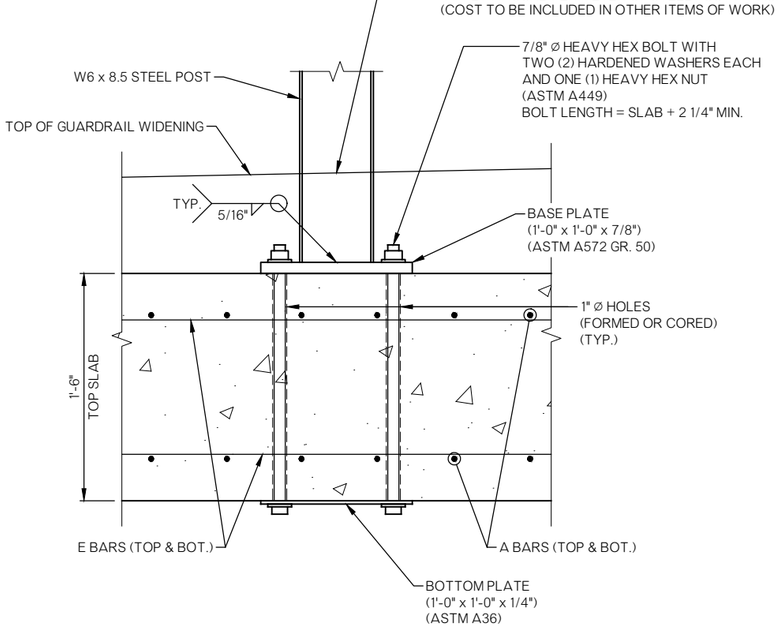
US-81 REALIGNMENT
GRADY COUNTY



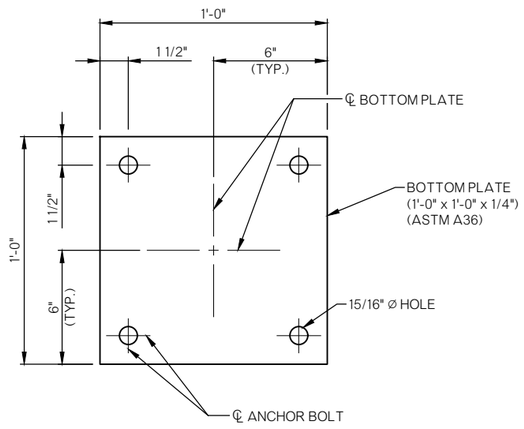
GUARDRAIL POST
MOUNTED ON TOP SLAB



GUARDRAIL POST
BASE PLATE DETAIL



GUARDRAIL POST
TOP SLAB MOUNT DETAIL



GUARDRAIL POST
BOTTOM PLATE DETAIL

NOTES

ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

SEE ROADWAY PLAN & PROFILE SHEETS AND CROSS-SECTION SHEETS FOR GRADING DETAILS.

SEE ODOT TRAFFIC STANDARD GHW1-1 AND GHW2-1 FOR ADDITIONAL GUARDRAIL DETAILS AND NOTES.

STANDARD GUARDRAIL WITH 6'-3" POST SPACING MEETS NHCRP-350, TEST LEVEL 3.

IF OPTIONAL WOOD BLOCKOUTS ARE USED, THEN THEY SHALL BE STRESS GRADE 1200F.

ALL STANDARD GUARDRAIL SHALL BE OFFSET SO THAT RAIL FACE IS TWO FEET OUTSIDE THE SHOULDER.

ALL GUARDRAIL, METAL POSTS, PLATES AND HARDWARE SHALL BE GALVANIZED AFTER FABRICATION.

ANY FIELD CUTS OR HOLES DRILLED IN GALVANIZED MATERIALS SHALL BE COATED WITH A ZINC OXIDE PAINT. SEE SECTION 730 OF THE 2009 SPECIFICATIONS.

BOLTS FOR GUARDRAIL POST BASE PLATE MUST BE 7/8" DIAMETER ASTM A449 OR A193 GRADE B7 WITH TWO (2) HARDENED WASHERS AND ONE (1) HEAVY HEX NUT EACH.

PROVIDE STRUCTURAL STEEL FOR BASE PLATE IN ACCORDANCE WITH ASTM 572 GRADE 50.

PROVIDE STRUCTURAL STEEL FOR BOTTOM PLATE IN ACCORDANCE WITH ASTM A36.

DRILLING INTO THE EXISTING CONCRETE TO INSTALL THE BOLTS SHALL BE ACCOMPLISHED WITHOUT CUTTING THE EXISTING CONCRETE REINFORCING STEEL BARS. PRIOR TO DRILLING, THE CONTRACTOR SHALL LOCATE AND MARK THE EXISTING CONCRETE REINFORCING STEEL BARS WITH NONDESTRUCTIVE TOOLS, EQUIPMENT AND METHODS APPROVED BY THE ENGINEER. IF EXISTING REINFORCING STEEL BARS ARE ENCOUNTERED DURING DRILLING, THE DRILLING SHALL CEASE AND THE HOLE SHALL BE GROUTED. THE HOLE SHALL THEN BE RELOCATED TO CLEAR THE EXISTING REINFORCING STEEL BARS.

AN ESTIMATED 750 LB OF STEEL WILL BE REQUIRED FOR THE CONSTRUCTION OF THE GUARDRAIL POST AND PLATE SYSTEM ON RCB TOP SLAB.

ALL COST TO CONSTRUCT THE GUARDRAIL POST AND PLATE SYSTEM ON TOP SLAB OF RCB AS SPECIFIED OR AS SHOWN IN THE PLANS INCLUDING THE COST OF LOCATING THE EXISTING CONCRETE REINFORCING STEEL BARS, DRILLING, REPAIRING FLAWED DRILL HOLES, ANCHORING INTO THE EXISTING CONCRETE, MATERIALS, RAPID CURE JOINT SEALANT, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER LINEAR FOOT OF "BEAM GUARDRAIL W-BEAM SINGLE".

EPOXY ANCHOR OPTION

THREADED ANCHOR RODS MUST BE 7/8" DIAMETER ASTM A449 OR A193 GRADE B7 WITH ONE (1) HEAVY HEX NUT, AND ONE (1) HARDENED WASHER EACH.

EMBED ANCHOR RODS 8" WITH HILTI HIT-RE 500 EPOXY ADHESIVE.

OTHER TYPES OF EPOXY ADHESIVE MAY BE USED IF IT CAN BE DEMONSTRATED THAT THEY MEET OR EXCEED THE STRENGTH OF HILTI HIT-RE 500 WITH THE SAME EMBEDMENT DEPTH AND THREADED ROD DIAMETER.

FOLLOW THE MANUFACTURER'S REQUIREMENTS FOR INSTALLING EPOXIED THREADED RODS. EXTEND RODS 1/4" MIN. BEYOND NUT.

DRILLING INTO THE EXISTING CONCRETE TO INSTALL THE ANCHORAGES SHALL BE ACCOMPLISHED WITHOUT CUTTING THE EXISTING CONCRETE REINFORCING STEEL BARS. PRIOR TO DRILLING, THE CONTRACTOR SHALL LOCATE AND MARK THE EXISTING CONCRETE REINFORCING STEEL BARS WITH NONDESTRUCTIVE TOOLS, EQUIPMENT AND METHODS APPROVED BY THE ENGINEER. IF EXISTING REINFORCING STEEL BARS ARE ENCOUNTERED DURING DRILLING, THE DRILLING SHALL CEASE AND THE HOLE SHALL BE GROUTED. THE HOLE SHALL THEN BE RELOCATED TO CLEAR THE EXISTING REINFORCING STEEL BARS.

ALL COST TO ANCHOR THE THREADED ANCHORS INTO THE RCB TOP SLAB AS SPECIFIED OR AS SHOWN IN THE PLANS INCLUDING THE COST OF LOCATING THE EXISTING CONCRETE REINFORCING STEEL BARS, DRILLING, REPAIRING FLAWED DRILL HOLES, ANCHORING INTO THE EXISTING CONCRETE, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN PRICE BID PER LINEAR FOOT OF "BEAM GUARDRAIL W-BEAM SINGLE".

PRELIMINARY
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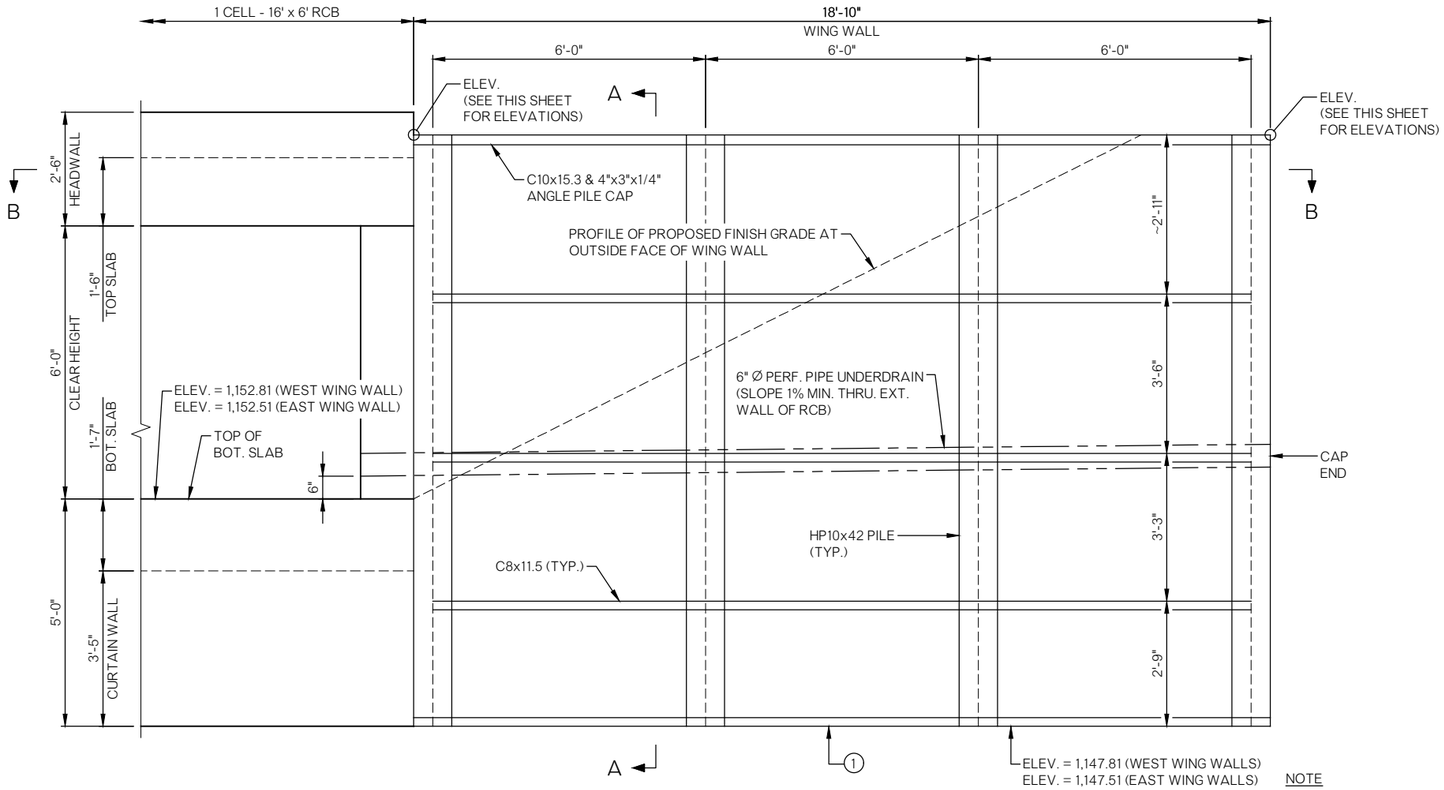
STRUCTURE 171 DETAILS
(SHEET 3 OF 5)

State Job No. 24428(13) Sheet No. R119

US-81 REALIGNMENT
GRADY COUNTY

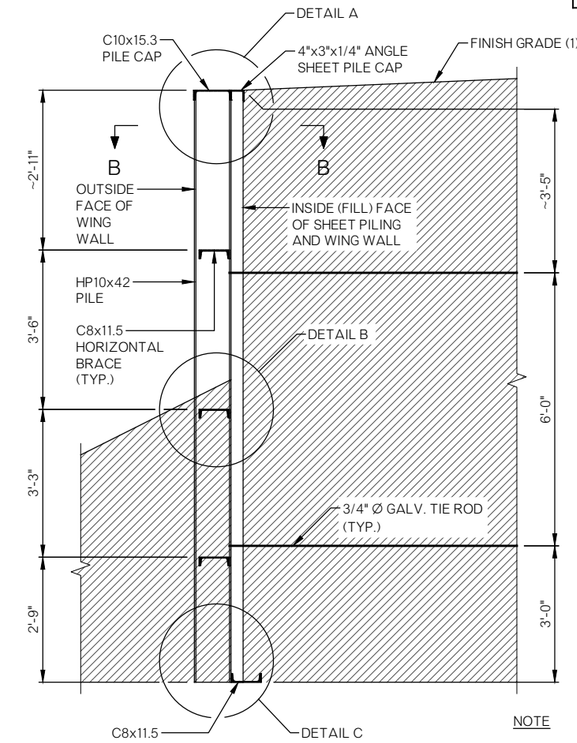
FINAL FIELD MEETING
JUNE 2020



WING WALL ELEVATION
(SOUTHWEST WING WALL SHOWN, OTHER WING WALLS SIMILAR)

NOTE

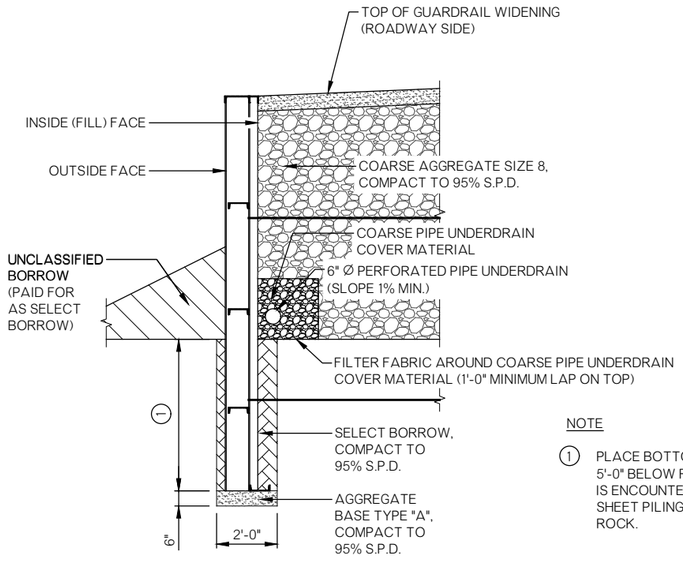
SEE SHEET R121 FOR DETAIL A, DETAIL B, DETAIL C, AND SECTION B-B.



SECTION A-A

NOTE

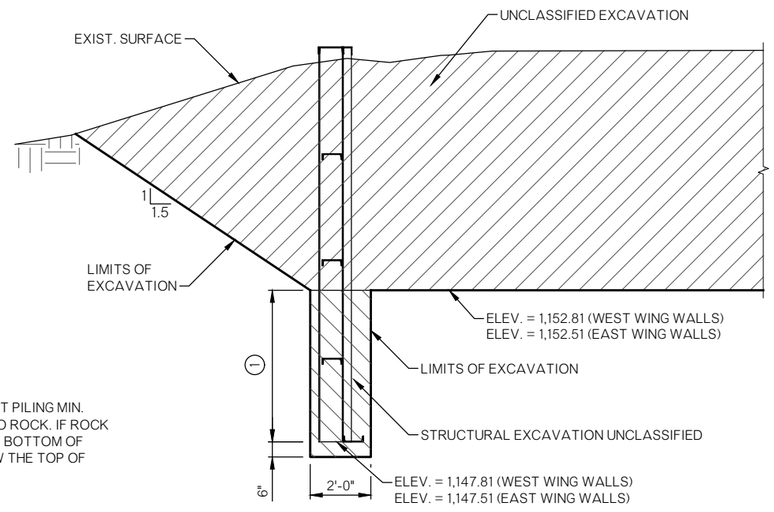
(1) SEE ROADWAY PLAN & PROFILE, TYPICAL SECTION, AND ROADWAY CROSS-SECTION SHEETS.



PIPE DRAIN DETAIL AT WING WALL

NOTE

(1) PLACE BOTTOM OF SHEET PILING MIN. 5'-0" BELOW RCB FL OR TO ROCK. IF ROCK IS ENCOUNTERED, PLACE BOTTOM OF SHEET PILING 1'-0" BELOW THE TOP OF ROCK.



WING WALL EXCAVATION

WEST WING WALLS ELEVATIONS		
LOCATION	NORTH WING WALL	SOUTH WING WALL
NORTH ELEV.	1160.21	1160.23
SOUTH ELEV.	1160.23	1161.01

EAST WING WALLS ELEVATIONS		
LOCATION	NORTH WING WALL	SOUTH WING WALL
NORTH ELEV.	1159.93	1159.93
SOUTH ELEV.	1159.93	1160.51

NOTES

FINISH GROUND ALONG OUTSIDE FACE OF WING WALL VARIES. SEE ROADWAY PLAN & PROFILE AND ROADWAY CROSS-SECTION SHEETS.

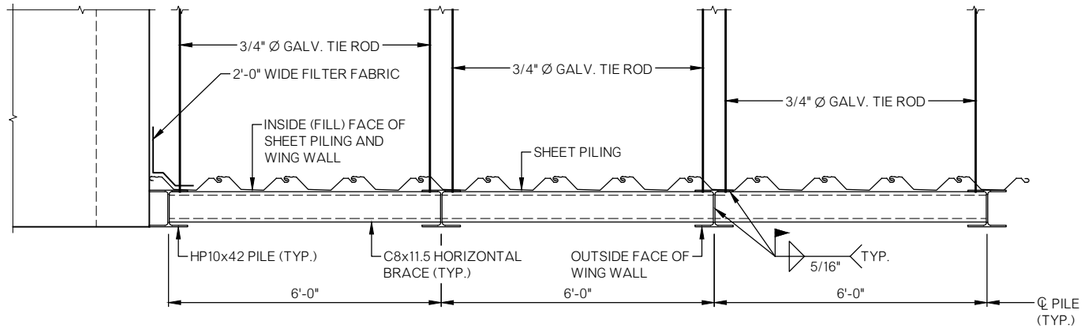
ALL COSTS TO INSTALL THE PERFORATED PIPE UNDERDRAIN AS SHOWN ABOVE INCLUDING THE COST OF ALL PERFORATED PIPE, UNDERDRAIN COVER MATERIAL, SEPARATOR FABRIC, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF " 6" PERFORATED PIPE UNDERDRAIN ROUND ".

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

STRUCTURE 171 DETAILS
(SHEET 4 OF 5)

State Job No. 24428(13) Sheet No. R120

US-81 REALIGNMENT
GRADY COUNTY



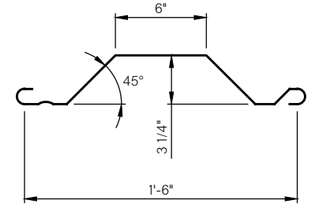
SECTION B-B

NOTES

HP PILES, C BRACES, AND L4x3x1/4 SHEET PILE CAP SHALL BE COMPOSED OF NEW STRUCTURAL STEEL (GR. 50W).

ALL COST FOR HP PILES SHALL BE INCLUDED IN PRICE BID PER LINEAR FOOT OF "PILES, FURNISHED (HP 10x42)".

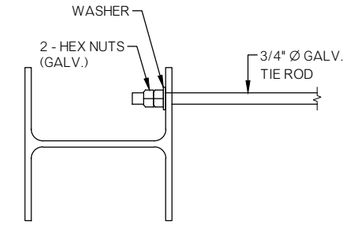
ALL COST FOR C BRACES, ANGLES, TIE RODS, AND OTHER MATERIALS USED TO CONSTRUCT THE WING WALL SHALL BE INCLUDED IN PRICE BID PER POUND OF "STRUCTURAL STEEL."



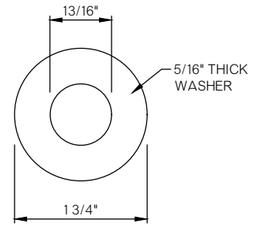
SHEET PILE SECTION

NOTE

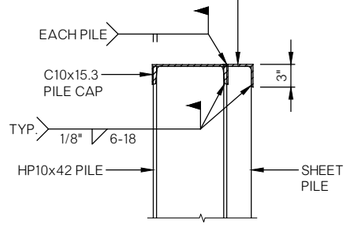
SHEET PILING SHALL BE MADE FROM STEEL CONFORMING TO AASHTO M160 (GR. 50W). SHEET PILING SHALL BE 10 GAGE, 0.134 INCHES THICK, WEIGHING 10.80 POUNDS PER LINEAR FOOT OF PILE OR 7.2 POUNDS PER SQUARE FOOT OF WALL, SHALL HAVE A SECTION MODULUS OF 2.72 INCHES^3 PER SECTION AND A MOMENT OF INERTIA OF 4.05 INCHES^4 PER SECTION AND SHALL HAVE A MINIMUM YIELD STRENGTH OF 50,000 PSI. ALL COST FOR SHEET PILING AND FILTER FABRIC BETWEEN WING WALL AND RCB BARREL SHALL BE INCLUDED IN PRICE BID PER SQUARE YARD OF "SHEET PILING, FURNISHED".



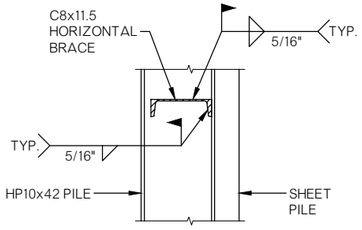
TIE ROD CONNECTION TO PILE DETAIL



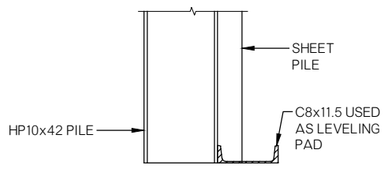
WASHER DETAIL
(AASHTO M270 GRADE 50W)



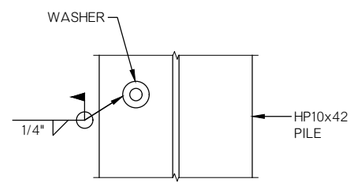
DETAIL A



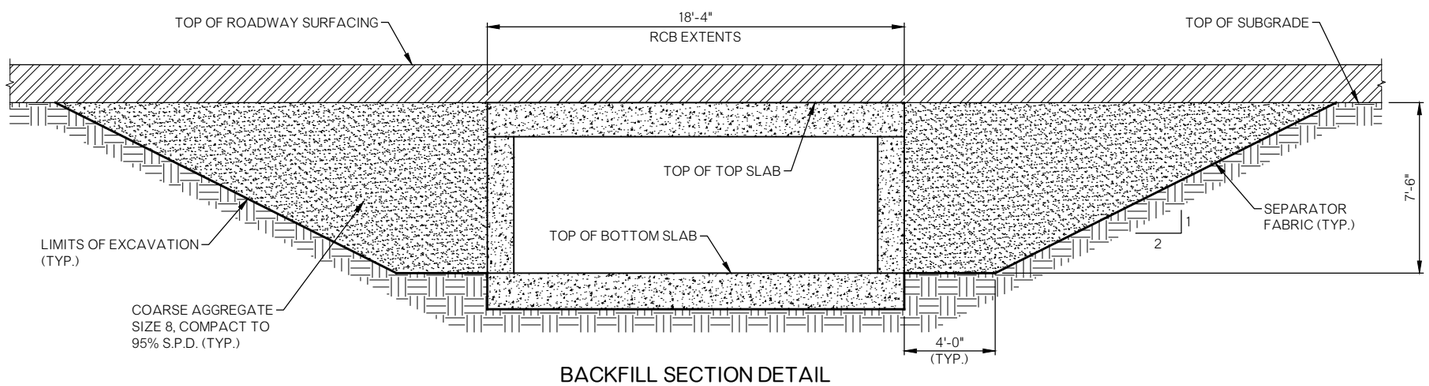
DETAIL B



DETAIL C



WASHER WELD DETAIL



BACKFILL SECTION DETAIL

NOTES

SEE ROADWAY PLAN & PROFILE AND ROADWAY CROSS-SECTION SHEETS FOR FINISH GRADE AND SUBGRADE INFORMATION.

ALL COSTS TO PLACE BACKFILL, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER CUBIC YARD OF "STANDARD BEDDING MATERIAL, CLASS "B" ".

COARSE AGGREGATE SIZE 8 SHALL BE IN ACCORDANCE WITH SECTION 701 OF THE STANDARD SPECIFICATIONS.

PRELIMINARY
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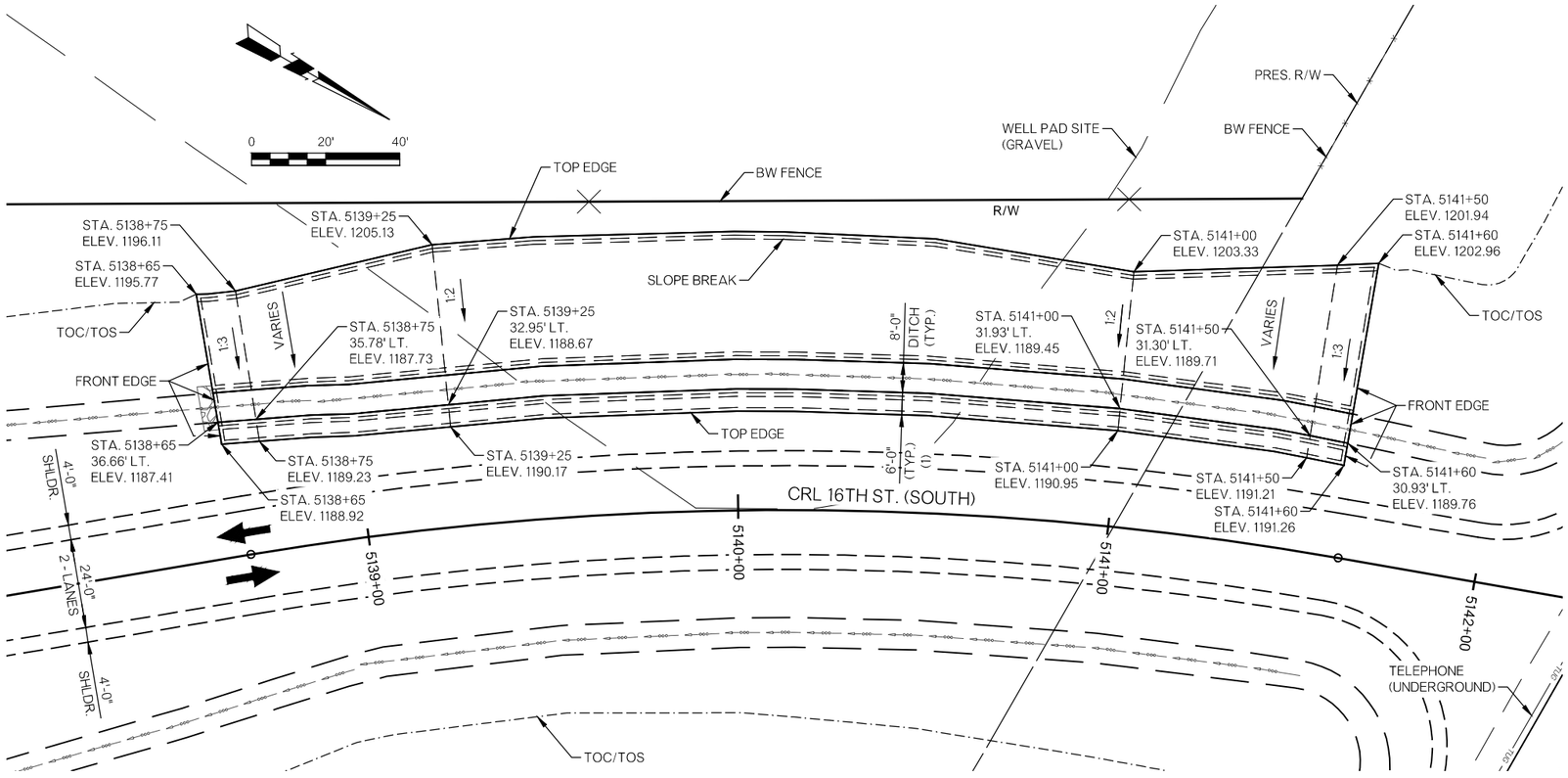
STRUCTURE 171 DETAILS
(SHEET 5 OF 5)

State Job No. 24428(13) Sheet No. R121

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD MEETING
JUNE 2020



PLAN
SCALE 1" = 20'

5" CONCRETE SLOPE WALL NOTES

ALL CONCRETE IN THE SLOPE WALL SHALL BE CLASS "A" CONCRETE AND SHALL BE POURED IN THE DRY. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH SECTION 510 AND 610 OF THE STANDARD SPECIFICATIONS.

NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN THE SLOPE WALL. FINAL NUMBER AND LOCATION OF VERTICAL CONSTRUCTION JOINTS WILL BE DETERMINED BY THE ENGINEER. JOINTS WILL HAVE A MAXIMUM SPACING OF 10'-0" MEASURED ALONG THE TOP OF THE SLOPE.

5" CONCRETE SLOPE WALL WILL BE MEASURED FROM EDGE TO EDGE AND FROM TOP TO BOTTOM ALONG THE TOP SURFACE OF THE SLOPE WALL AND FULL FACE OF THE TOE OF THE SLOPE WALL.

ALL COSTS OF SLOPE WALL, FILTER SAND, COARSE AGGREGATE, FILTER FABRIC, LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO CONSTRUCT 5" CONCRETE SLOPE WALL SHALL BE INCLUDED IN PRICE BID PER SQUARE YARD OF "SLOPE WALL (5") ".

ALL COSTS OF CLASS "A" CONCRETE, REINFORCING STEEL, LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO CONSTRUCT CONCRETE PAVED DITCH SHALL BE INCLUDED IN PRICE BID PER CUBIC YARD OF "CLASS A CONCRETE".

THE CONCRETE PAVED DITCH WILL REQUIRE 4,300.00 LBS OF REINFORCING STEEL TO CONSTRUCT.

PAVED DITCH BAR LIST					
MARK	NO.	SIZE	FORM	LENGTH	REMARKS
PLAIN REINFORCING BARS					
D1	310	#4	BNT.	9'-10"	
(1) D2	11	#4	STR.	307'-2" AVG.	305'-6" TO 308'-10"

(1) LAPS NOT INCLUDED IN LENGTH (MIN. 18" LAP WHEN REQ'D.)

NOTES
ELEVATIONS SHOWN ARE AT TOE OF SLOPE WALL CONCRETE.

ALL DIMENSIONS ARE HORIZONTAL DIMENSIONS.

FOR SLOPE WALL SECTIONS, NOTES, AND QUANTITIES, SEE SHEET NO. R123.

NOTE
(1) SLOPE 1:4

NOTE
ALL STATIONING FOLLOWS CRL FRONTAGE RD., UNLESS NOTED OTHERWISE .

SLOPE WALL QUANTITIES		
DESCRIPTION	UNIT	TOTAL
CLASS A CONCRETE	CY	64.50
SLOPE WALL (5")	SY	1,734.00
DITCH LINER PROTECTION	LF	310.00

PRELIMINARY
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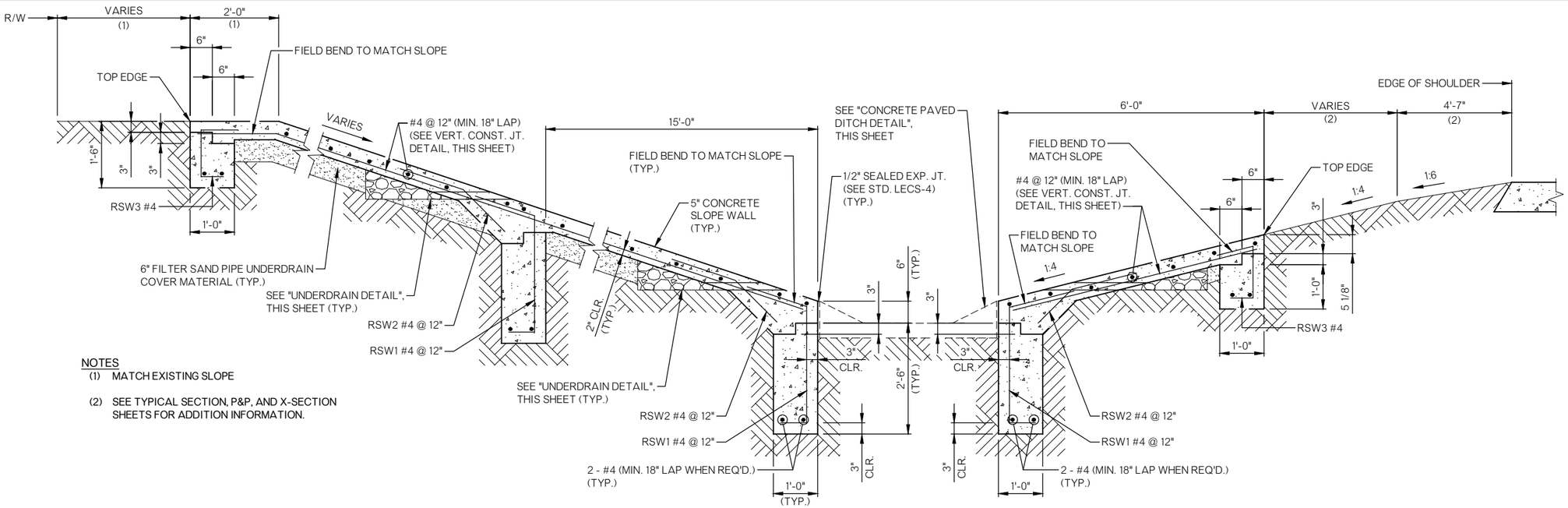
SLOPE WALL DETAILS
(SHEET 1 OF 2)

State Job No. 24428(13) Sheet No. R122

US-81 REALIGNMENT
GRADY COUNTY

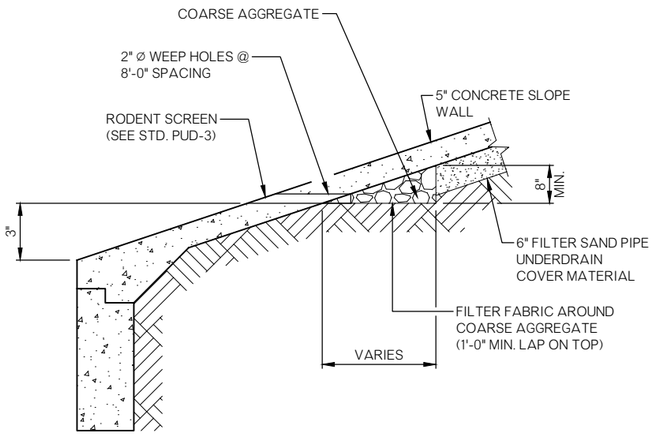
FINAL FIELD MEETING
JUNE 2020



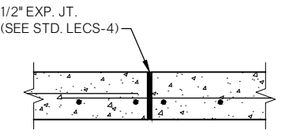
NOTES
(1) MATCH EXISTING SLOPE

(2) SEE TYPICAL SECTION, P&P, AND X-SECTION SHEETS FOR ADDITION INFORMATION.

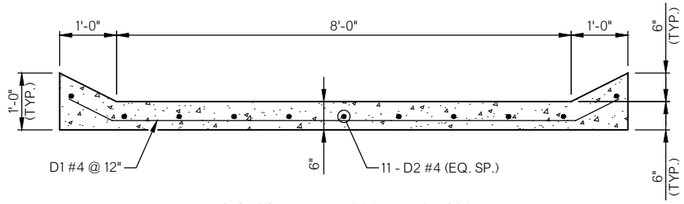
TYPICAL SECTION THRU SLOPE WALL



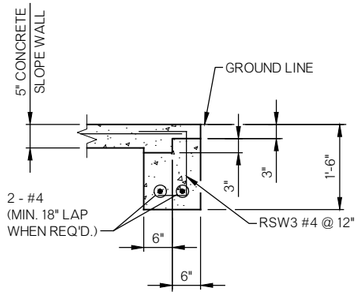
UNDERDRAIN DETAIL



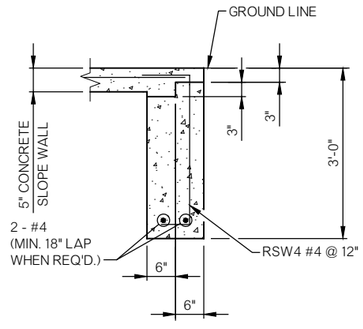
VERTICAL CONSTRUCTION JOINT DETAIL



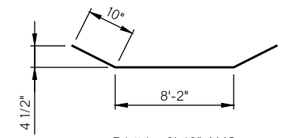
CONCRETE PAVED DITCH DETAIL



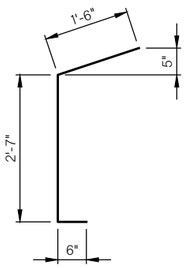
TYPICAL SECTION THRU TOP EDGE OF SLOPE WALL



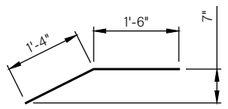
TYPICAL SECTION THRU FRONT EDGE OF SLOPE WALL



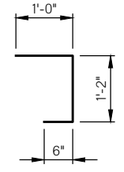
D1 #4 x 9'-10" AVG.



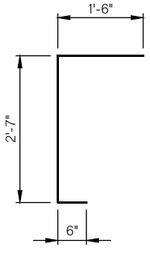
RSW1 #4 x 4'-7"



RSW2 #4 x 2'-10"



RSW3 #4 x 2'-8"



RSW4 #4 x 4'-7"

BAR BEND DETAILS

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SLOPE WALL DETAILS
(SHEET 2 OF 2)

State Job No. 24428(13) Sheet No. R123

US-81 REALIGNMENT
GRADY COUNTY

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SWO 4380(1) J/P 24428(04) ; CO. Grady

HORIZONTAL CONTROL:
( ) Oklahoma Coordinate System of 1927 _____Zone.
(x) Oklahoma Coordinate System of 1983 South Zone. (Cors96)
( ) Oklahoma Dept. of Transportation Plane Coordinate System of 1927 _____ Zone.
( ) Oklahoma Dept. of Transportation Plane Coordinate System of 1983 _____ Zone.
( ) Arbitrary Coordinate System

HORIZONTAL PLANE DATUM DEFINITION:
Oklahoma Department of Transportation coordinates were derived by multiplying the Oklahoma Coordinate Systems of 1927 or 1983 by the combined adjustment factor of 1.00010. The ODOT Coordinate System is 2350 feet above sea level.

1. GPS Network adjusted to CORS (1st) Order
Stations okoa, okar, okcl, okdt, oklw, wmok
A) Closure before adjustment X _____ : Y _____ Angles _____
Trav. Length _____ No. Angles _____ ; 1: _____
B) _____ ; is ( ) Order before adjustment.
C) Method of Distance Measurement:
( ) Electronic (x) GPS ( ) Triangulation ( ) :hained
D) Instrument used for angles _____
2. _____ adjusted to _____ ( ) Order
Stations _____
A) Closure before adjustment X _____ : Y _____ Angles _____
B) _____ ; is ( ) Order; Tied to _____
C) of Distance Measurement:
( ) Electronic ( ) GPS ( ) Triangulation ( ) :hained
D) Instrument used for angles _____

VERTICAL CONTROL IS (3rd) order. Level Line taken from BM 7 & BM8 SWO 4380 (1)
(3rd) order and tied to BM 35 & BM37 SWO 4380 (1) (3rd) order.
( ) NGVD 29 datum
(x) NAVD 88 datum

ACCURACY DEFINITION:
(1) HORIZONTAL: (3rd Order = Class I = 1 : 10,000')
(3rd Order = Class II = 1 : 5,000')
(2) VERTICAL: (1st Order = 0.017 Ft. x sqrt. of Mi.) (2nd Order = 0.035 Ft. x sqrt. of Mi.)
(3rd Order = 0.050 Ft. x sqrt. of Mi.)

Distribution:
Copy w/survey reports
Copy in each Alignment
and level book

Bill R. Webb
Professional Land Surveyor

12/21/2015
Date

(FORM SD #20)
Rev. 11/03

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

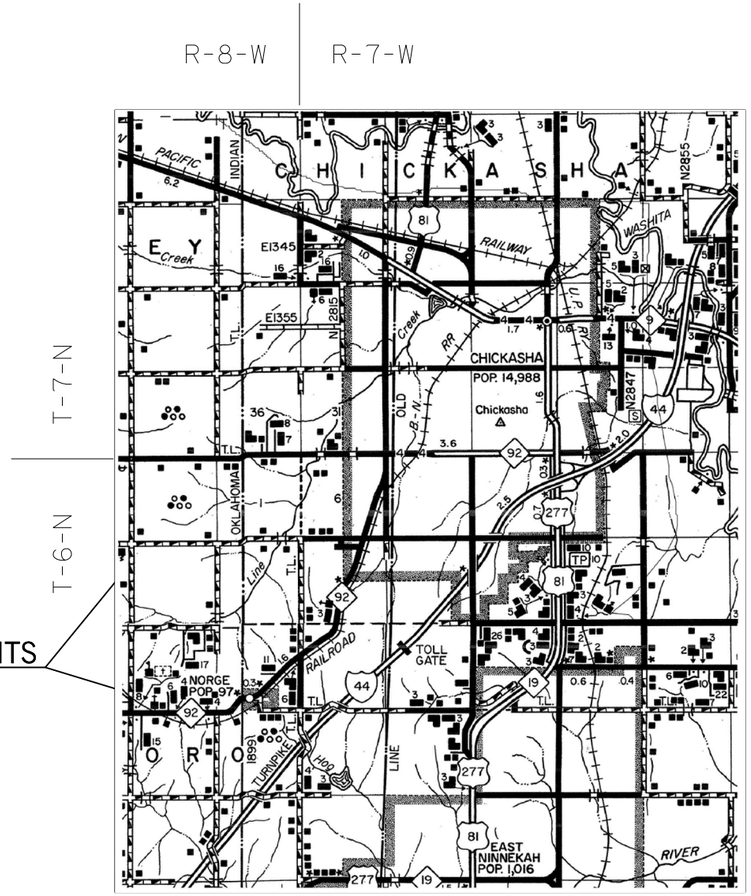
SURVEY OF

U.S. 81, CHICKASHA WEST BYPASS

SWO 4380(1)

J/P NO. 24428(04)

GRADY COUNTY



U.S. 81, WEST BYPASS,
MAIN SURVEY PROJECT LENGTH: 45,577.58 Ft. 8.63 MI.

BEGINNING STATION : 87+22.42
ENDING STATION : 543+00.00

UTILITIES

Company Name	Phone No.
Communication Lines:	
Chickasaw Telephone Co.	580-618-5455
Southwestern Bell	800-522-6543
AT&T	800-778-9140
Dobson Technologies	800-778-9140
Intelleq Communications	800-335-4343
Medicine Park Telephone Co.	580-529-2700
Electric Lines:	
AEP Public Service Co. of Oklahoma	888-216-3523
Oklahoma Electric Cooperative	405-321-2024
Water & Sewer Lines:	
City of Chickasha Public Works	405-222-6080
Rural Water District # 6	405-459-6626
Rural Water District # 7	405-779-6224
Natural Gas Lines:	
Centerpoint Energy	866-275-5265
Natural Gas / Petroleum Pipelines:	
Enable Midstream	800-522-8048
Continuum Energy	877-587-0026
DCP Midstream	800-435-1679
Unit Petroleum	918-493-7700
Sunoco Logistics	800-753-5531
Kepco Operating Inc.	855-421-2088

THIS SURVEY MEETS THE OKLAHOMA MINIMUM STANDARDS FOR THE PRACTICE OF LAND SURVEYING AS ADOPTED BY THE OKLAHOMA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS, MAY 17, 2010.

SPECIFICATIONS FOR SURVEYS FOR PRIMARY AND SECONDARY HIGHWAYS DATED JAN 1, 2011 GOVERN. WHERE THERE IS A CONFLICT BETWEEN THESE SPECIAL PROVISIONS AND THE SPECIFICATIONS, THE SPECIAL PROVISIONS SHALL TAKE PRECEDENCE.

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BEFORE YOU DIG OKIE CALL OKIE

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

INDEX OF SHEETS

1. TITLE SHEET
2. KEY PLAN
3-4. HISTORICAL LETTER & WRITTEN REPORT
4-6 LEVEL REPORT
7-9 ALIGNMENT REPORT
10-13 COORDINATE GEOMETRY REPORT
14-18 SURVEY CONTROL NETWORK
19-59 SURVEY DATA SHEETS
60-76 GEOMETRIC DATA SHEETS

SURVEY BEGAN: FEBRUARY 17, 2011
SURVEY COMPLETED: JUNE 17, 2016

BENHAM DESIGN, LLC

PERSONNEL:
JOHN T. BIRKHAHN, PROFESSIONAL LAND SURVEYOR
ANDREW KIS, PARTY CHIEF
JAMES JACKSON, SURVEY TECHNICIAN
DANIEL BENNETT, PARTY CHIEF
CHRIS SHIPMAN, SURVEY TECHNICIAN
BRANDON HOLLAND, SURVEY TECHNICIAN
JOHN OKON, SURVEY TECHNICIAN

EQUIPMENT:
TRIMBLE R8 MODEL 3 RECEIVER
SOKKIA SET3 TOTAL STATION
TRIMBLE DiNi DIGITAL LEVEL

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

SWO 4380(1) Job/Piece 24428(04) Engr. Contract No. 1218

LAND SURVEYOR'S CERTIFICATION

I hereby certify that all land and property sub-division distances, angles, corners, and monumentation made or used in conjunction with this survey and depicted or recorded herein or hereon were recovered, established or re-established in substantial conformity with:

- Applicable instructions contained in the U.S. Government Bureau of Land Management publication **"Manual of Survey Instruction"**,
- Its supplement, **"Restoration of Lost or Obliterated Corners and Sub-division of Sections"**;
- **"Oklahoma Minimum Standards for the Practice of Land Surveying"** as adopted by the State Board of Licensure for Professional Engineers and Land Surveyors; **and**
- Sound land surveying practices;

including a thorough search, study, analysis and consideration of all existing records and field evidence.

I further certify that all survey monuments depicted exist and that all land survey work was done by me or under my direct supervision.

Dated this 24th day of June , 2016 .

Land Surveyor _____ (seal)
Signature

John T. Birkhahn
Printed Name

Oklahoma Licensed Land Surveyor No. 1738

Certificate of Authorization No. 3722

JOHN T. BIRKHAHN 1738 LICENSED PROFESSIONAL LAND SURVEYOR OKLAHOMA

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	JTB		SURVEY DATA SHEET
CHECKED	JTB		SDS 1 OF 76
APPROVED	JTB		
CREW	BENHAM		SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S001

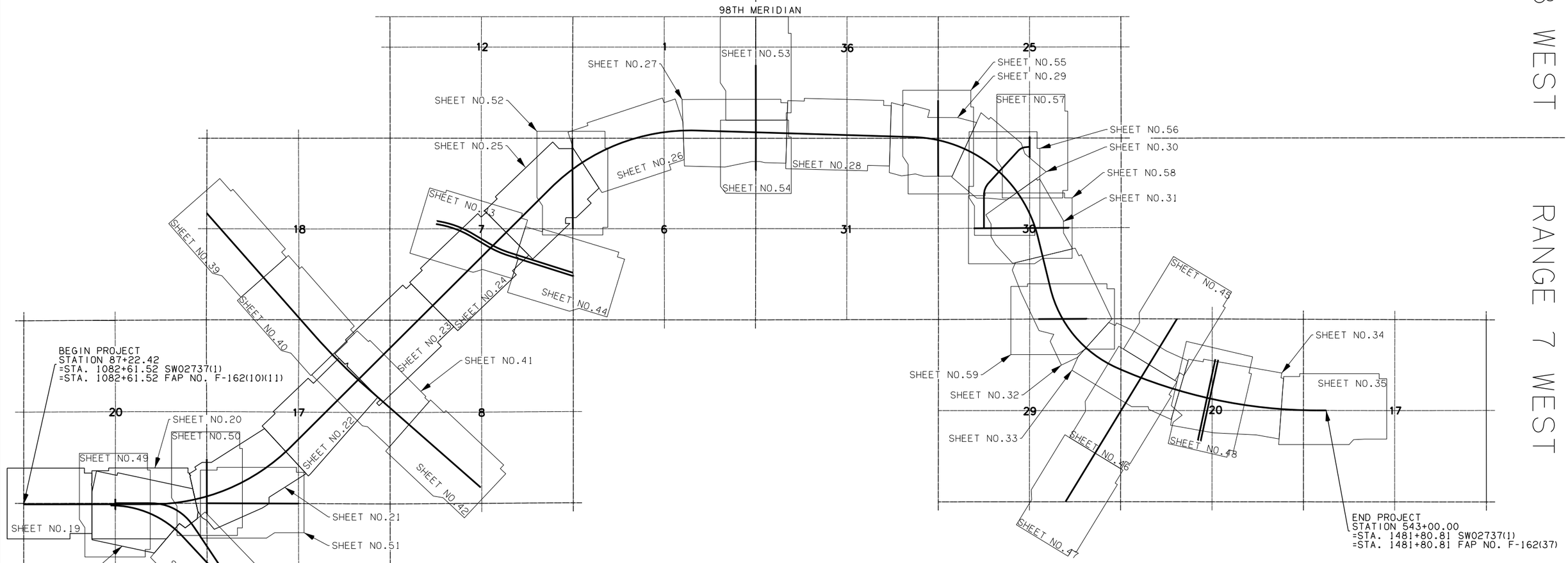
8-87

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

TOWNSHIP 6 NORTH | TOWNSHIP 7 NORTH

RANGE 8 WEST | RANGE 7 WEST



SCALE:
NTS

			OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
PLS	JTB		SURVEY DATA SHEET
DRAWN	APK		SDS 2 OF 76
CHECKED	JTB		SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S002
APPROVED	JTB		
CREW	BENHAM		

8-87

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
REVISIONS					
DESCRIPTION				DATE	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

SURVEY DIVISION (405) 521-2621 FAX 405-522-0364

Date: July 6, 2016

To: Mr. William Tackett, Chief of Surveys
From: John Birkhahn, Professional Land Surveyor
Subject: SWO 4380(1) J/P 24428(04) – Grady County
U.S. 81 Chickasha West Bypass.

HISTORICAL LETTER & WRITTEN REPORT

1. GENERAL:

A. Survey began: February 17, 2011.
Survey completion: June 17, 2016.
B. The measurement unit for this project will be the U.S. Survey Foot.

2. SURVEY ASSIGNMENT:

The above survey was assigned to me by Mr. Larry Reser, Chief of Surveys in September 2010, and then again by Mr. William Tackett, Chief of Surveys, with revised Survey Special Provisions in November 2014.

3. PURPOSE OF SURVEY:

The purpose of this survey is to develop plans to design a highway on a new highway alignment, to include all road crossings, interchanges, bridges, frontage roads, and other facilities required by the design. The survey will also include sufficient data to design the connections to the existing highway at the beginning and end of the project. The survey will include the Alignment, Topographic/Planimetric data, Surface Features/Digital Terrain Model Data, Land and Property Ties, Utilities, Drainage and all other pertinent information needed to aid in the design.

4. SURVEY LIMITS:

West Bypass Main Survey: Beginning at P.O.T. Sta. 1082+61.52 (on EW-141 Section Line) as established under SWO 2737(1) Section One survey and shown on FAP No. F-162(10)(11) plans, and extending northerly along US 81, then northwesterly on a new alignment (one of two similar alternatives selected on October 29, 2014) continuing Northwesterly, Northeasterly, and finally Northerly, tying back to existing US 81, near the present junction of US 81 & US 62, Northwest of Chickasha. From there, the survey continues to and ends at P.T. Sta. 1481+80.81 as established under SWO 2737(1) Section 2 survey and shown on FAP No. F-162(37) plans (approximate centerline length=8.63 miles).

US 81 Northbound Survey: Beginning at P.C. Sta. 1107+80.13 as shown on FAP No. F-162(10)(11) plans, and extending northeasterly along existing US 81 for approximately 4300 feet.

US 81 Southbound Survey: Beginning at P.O.T. Sta. 1109+14.72 as shown on FAP No. F-162(10)(11) plans, and extending northeasterly along existing US 81 for approximately 4500 feet.

H.E. Bailey Turnpike Connection Survey: Beginning approximately 4840 feet Southwest of the centerline of the Main survey and extending Northeast along H.E. Bailey Turnpike approximately 9700 feet

S.H. 92 (Norge Rd.) & BNSF Railroad Connection Survey: Beginning 600 feet Southwest of the centerline of the Main Survey and extending Northeast along S.H. 92 & BNSF Railroad approximately 1200 feet.

U.S. 62 Connection Survey: Beginning at P.O.T. Sta. 385+47.37 (NS-282 Section Line) as established under SWO 2738(1) Section 1 survey & SWO 3609(1) survey and shown on FAP No. STPY-026B(240) plans, and extending Southeasterly along U.S. 62 approximately 6200 feet.

Old U.S. 62 Connection Survey: Beginning 1150 feet Northwest of the centerline of the Main Survey and extending Southeast along Old U.S. 62 approximately 2400 feet.

Union Pacific Railroad Connection Survey: Beginning 1150 feet Northwest of the centerline of the Main Survey and extending Southeast along Old U.S. 62 approximately 2400 feet.

EW-140.5 Section Line Connection Survey: Beginning 300 feet West of the centerline of the Main Survey and extending East 600 feet along Section Line.

EW-140 Section Line Connection Survey: Beginning 1100 feet West of the centerline of the Main Survey and extending East approximately 3400 feet along Section Line.

NS-283 Section Line (16th St.) Connection Survey: Beginning at EW-140 Section Line, extending North approximately 400 feet along Section Line.

EW-138 Section Line (Country Club Rd.) Connection Survey: Beginning at NS-281 Section Line and extending East to NS-281.5 ¼ Section Line, approximately 2620 feet.

EW-137 Section Line (Grand Ave.) Connection Survey: Beginning approximately 1950 feet West of the centerline of the Main Survey and extending East approximately 3050 feet along Section Line.

EW-136 Section Line (Idaho Ave.) Connection Survey: This survey will begin approximately 1150 feet West of the centerline of the Main Survey and will extend East approximately 2200 feet along Section Line..

Iowa Ave. Connection Survey: Beginning at EW-135.5 ¼ Section Line, approximately 250 feet East of NS-281 Section Line, then extending Southeasterly for approximately 3000 feet to the present intersection of Iowa Ave. and C.S. 2815 Rd.

EW-135.5 Section Line (C.R. 1355) Connection Survey: Beginning at NS-281 Section Line and extending East, approximately 600 feet along Section Line.

NS-281.5 Section line (C.S. 2815 Rd.) Connection Survey: Beginning approximately 300 feet South of the centerline of the Main Survey and extending North approximately 1300 feet along Section Line.

NS-282 Section line (29th St.) Connection Survey: Beginning approximately 700 feet South of the centerline of the Main Survey and extending North approximately 1400 feet along Section Line.

ROCK HOLLOW CREEK FEMA FLOOD PLAIN: Parallel flight lines, parallel to U.S. 62, are to be laid out by the Aerial Photo/Mapping sub-consultant to cover the flood plain area approved by ODOT.

5. ALIGNMENTS:

West Bypass Main Survey: This Centerline of Survey is along the proposed alignment submitted to ODOT by Benham Design, LLC (one of two similar alternatives selected on October 29, 2014).

US 81 Northbound Survey: The Centerline of Survey will be along and identical to the Centerline of Survey as shown on FAP No. F-162(10)(11) plans.

US 81 Southbound Survey: The Centerline of Survey will be along and identical to the Centerline of Survey as shown on FAP No. F-162(10)(11) plans.

H.E. Bailey Turnpike Connection Survey: The Centerline of Survey will be along and identical to the Centerline of Survey established under SWO 2737(1) Section One survey and shown in Alignment Book 2.

S.H. 92 (Norge Rd.) & BNSF Railroad Connection Survey: The Centerline of Survey will be along and identical to the centerline of S.H. 92 as established under SWO 1148 survey & SWO 1148(REV.) survey and shown as FAS No. S-219(1) plans. Note: Reference points were found for two P.I.'s at Sta. 146+17.19 and Sta. 182+70.95 from said plans. All curve data and tangent angles were held between these points to determine alignment.

U.S. 62 Connection Survey: The Centerline of Survey will be along and identical to the Centerline of Survey established under SWO 2738(1) Section 1 survey and SWO 3609(1) survey and shown on FAP No. STPY-026B(240) plans.

Old U.S. 62 Connection Survey: The Centerline of Survey will be along and identical to the centerline of Old U.S. 62 as established under SWO 2737(1) Section 2 survey and shown in Alignment Book No. 2.

Union Pacific Railroad Connection Survey: The Centerline of Survey will be along and identical to the centerline of the former C.R.I. & P. Railway as established under SWO 2737(1) Section 2 survey and shown in Alignment Book No. 2.

EW-140.5 Section Line Connection Survey: The Centerline of Survey will be along and identical to EW-140.5 ¼ Section Line.

EW-140 Section Line Connection Survey: The Centerline of Survey will be along and identical to EW-140 Section Line.

NS-283 Section Line (16th St.) Connection Survey: The Centerline of Survey will be along and identical to NS-283 Section Line.

EW-138 Section Line (Country Club Rd.) Connection Survey: The Centerline of Survey will be along and identical to EW-138 Section Line.

EW-137 Section Line (Grand Ave.) Connection Survey: The Centerline of Survey will be along and identical to EW-137 Section Line.

EW-136 Section Line (Idaho Ave.) Connection Survey: The Centerline of Survey will be along and identical to EW-136 Section Line.

Iowa Ave. Connection Survey: This Centerline of Survey is along the proposed alignment submitted to ODOT by Benham Design, LLC (one of two similar alternatives selected on October 29, 2014).

EW-135.5 Section Line (C.R. 1355) Connection Survey: The Centerline of Survey will be along and identical to EW-135.5 ¼ Section Line.

NS-281.5 Section line (C.S. 2815 Rd.) Connection Survey: The Centerline of Survey will be along and identical to NS-281.5 ¼ Section Line.

NS-282 Section line (29th St.) Connection Survey: The Centerline of Survey will be along and identical to NS-282 Section Line.

ROCK HOLLOW CREEK FEMA FLOOD PLAIN: N/A.

6. STATIONING:

West Bypass Main Survey: Stationing for this survey is taken from SWO 2737(1) Section One survey at P.O.T. Sta. 1082+61.52 (at the EW-141 Section Line). Stationing increases Northerly from this point, field measured distance, to the End of Survey without equation, except with previous surveys and plans.

US 81 Northbound Survey: Stationing for this survey is taken from SWO 2737(1) Section One survey at P.C. Sta. 1107+80.13. Stationing increases Northeasterly from this point to the End of Survey without equation, except with previous surveys and plans.

US 81 Southbound Survey: Stationing for this survey is taken from SWO 2737(1) Section One survey at P.O.T. Sta. 1109+14.72 (at the EW-140.5 ¼ Section Line). Stationing increases Northeasterly from this point to the End of Survey without equation, except with previous surveys and plans.

H.E. Bailey Turnpike Connection Survey: Stationing for this survey is taken from SWO 2737(1) Section One survey.

S.H. 92 (Norge Rd.): Stationing for this survey is taken from FAS No. S-219(1) plans.at P.C. Sta. 162+81.10. Stationing increases Northeasterly from this point to the End of Survey without equation, except with previous surveys and plans.

BNSF Railroad Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey and stationing increases Northeast to the End of Survey without equation, except with other surveys and plans.

U.S. 62 Connection Survey: Stationing for this survey is taken from SWO 2738(1) Section 1 survey.

Old U.S. 62 Connection Survey: Stationing for this survey is taken from SWO 2737(1) Section 2 survey.

Union Pacific Railroad Connection Survey: Stationing for this survey is taken from SWO 2737(1) Section 2 survey.

EW-140.5 Section Line Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey, and stationing increases East to the End of Survey without equation, except with other surveys and plans.

EW-140 Section Line Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey, and stationing increases East to the End of Survey without equation, except with other surveys and plans.

NS-283 Section Line (16th St.) Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey, and stationing increases North to the End of Survey without equation, except with other surveys and plans.

EW-138 Section Line (Country Club Rd.) Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey, and stationing increases East to the End of Survey without equation, except with other surveys and plans.

EW-137 Section Line (Grand Ave.) Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey, and stationing increases East to the End of Survey without equation, except with other surveys and plans.

EW-136 Section Line (Idaho Ave.) Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey and stationing increases East to the End of Survey without equation, except with other surveys and plans.

Iowa Ave. Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey and stationing increases Southeast to the End of Survey without equation, except with other surveys and plans.

EW-135.5 Section Line (C.R. 1355) Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey, and stationing increases East to the End of Survey without equation, except with other surveys and plans.

NS-281.5 Section line (C.S. 2815 Rd.) Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey and stationing increases North to the End of Survey without equation, except with other surveys and plans.

NS-282 Section line (29th St.) Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey and stationing increases North to the End of Survey without equation, except with other surveys and plans.

ROCK HOLLOW CREEK FEMA FLOOD PLAIN: N/A

7. HORIZONTAL CONTROL:

A. Horizontal control for this survey is NGS Oklahoma State Plane Coordinate System NAD83 (CORS 96) (EPOCH: 2002), Lambert Projection, South Zone (3502). Primary Control points for this survey are the following:

Existing Monuments

"UNION" (From N.G.S. Data Sheet, NAD 83 (2007), PID-FJ1044)
"1 TF" (From N.G.S. Data Sheet, NAD 83 (1993), PID-EL1033)
"CHICK" (From N.G.S. Data Sheet, NAD 83 (1993), PID-FJ1049)
"D 214" (From N.G.S. Data Sheet, NAD 83, PID-EL0693)
"POCASSET" (From N.G.S. Data Sheet, NAD 83 (1993), PID-FJ0789)

"K 41 1953" (From N.G.S. Data Sheet, NAD 83, PID-FJ0528)

Set Monuments

ODOT monuments "G-26-865 thru G-26-868" NAD 83 (CORS 96)
(by Benham Design, LLC)
ODOT monuments "G-26-1032 thru G-26-1039" (CORS 96)
(by Aerial Data Services, Inc.)

ODOT monuments "G-26-865 thru G-26-868" were set 5/8" iron pins with stamped aluminum cap in concrete. They were established using GPS, for three separate static survey data occupations for a minimum of two hours, on three separate days, at different times of day. All data was uploaded to http://www.ngs.noaa.gov/OPUS/. The solutions were then averaged to obtain coordinates in NAD 83 (CORS96)(EPOCH: 2002).

ODOT monuments "G-26-1032 thru G-26-1039" were set chiseled "X"'s in concrete. They were set using GPS from selected points from OPUS Projects network adjustment shown in SWO4380_1_v2.dgn. Existing N.G.S. monuments listed above were used as a check for primary and secondary control.

A coordinate shift of ΔN= 0.002, ΔE= -0.129 was applied to all NAD 83 (CORS 2011) coordinate solutions to conform to NAD 83 (CORS 96) horizontal datum. This was calculated by uploading identical static sessions for ODOT Monuments "G-26-865 thru G-26-868" to http://www.ngs.noaa.gov/OPUS/, and subtracting resulting coordinate differences between CORS 96 and CORS 2011 solutions.

B. Secondary Control for this survey was established using GPS RTK, based off of primary control points.

8. VERTICAL CONTROL:

Level datum for this survey is NAVD 88. Benchmarks for this survey were set by Aerial Data Services Inc. All bench marks were tied to the following ODOT bench marks from SWO 4380(1): BM 7-13, 15-20, 24-28, 30, 32-34, & 37. Bench marks established or used on this survey meet the requirements of the N.G.S. 3rd order standards as a minimum.

9. PHOTO CONTROLS:

A total of 110 Aerial Targets were set and tied on this project. Aerial targets were set and measured by Aerial Data Service, Inc. Aerial targets are shown in SWO4380_1_v2.dgn, Cogo Points List, and X,Y,Z coordinates were placed in the following file: SWO4380_1_v2_targets.txt

10. TOPOGRAPHY:

The majority of the topography on this survey was obtained from aerial photogrammetry survey data by Aerial Data Service, Inc. The date of flight for the aerial survey was March 11, 2015. GPS RTK and conventional field methods were used to survey the following:

1. Drainage structures
2. Creek flow lines.
3. Ponds

			OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
PLS	JTB		SURVEY DATA SHEET
DRAWN	JTB		SDS 3 OF 76
CHECKED	JTB		SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S003
APPROVED	JTB		
CREW	BENHAM		

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
REVISIONS					
DESCRIPTION				DATE	

OKLAHOMA DEPARTMENT OF TRANSPORTATION

SURVEY DIVISION (405) 521-2621 FAX 405-522-0364

Date: July 6, 2016

To: Mr. William Tackett, Chief of Surveys
From: John Birkhahn, Professional Land Surveyor
Subject: SWO 4380(1) J/P 24428(04) – Grady County
U.S. 81 Chickasha West Bypass.

HISTORICAL LETTER & WRITTEN REPORT

1. GENERAL:

A. Survey began: February 17, 2011.
Survey completion: June 17, 2016.
B. The measurement unit for this project will be the U.S. Survey Foot.

2. SURVEY ASSIGNMENT:

The above survey was assigned to me by Mr. Larry Reser, Chief of Surveys in September 2010, and then again by Mr. William Tackett, Chief of Surveys, with revised Survey Special Provisions in November 2014.

3. PURPOSE OF SURVEY:

The purpose of this survey is to develop plans to design a highway on a new highway alignment, to include all road crossings, interchanges, bridges, frontage roads, and other facilities required by the design. The survey will also include sufficient data to design the connections to the existing highway at the beginning and end of the project. The survey will include the Alignment, Topographic/Planimetric data, Surface Features/Digital Terrain Model Data, Land and Property Ties, Utilities, Drainage and all other pertinent information needed to aid in the design.

4. SURVEY LIMITS:

West Bypass Main Survey: Beginning at P.O.T. Sta. 1082+61.52 (on EW-141 Section Line) as established under SWO 2737(1) Section One survey and shown on FAP No. F-162(10)(11) plans, and extending northerly along US 81, then northwesterly on a new alignment (one of two similar alternatives selected on October 29, 2014) continuing Northwesterly, Northeasterly, and finally Northerly, tying back to existing US 81, near the present junction of US 81 & US 62, Northwest of Chickasha. From there, the survey continues to and ends at P.T. Sta. 1481+80.81 as established under SWO 2737(1) Section 2 survey and shown on FAP No. F-162(37) plans (approximate centerline length=8.63 miles).

US 81 Northbound Survey: Beginning at P.C. Sta. 1107+80.13 as shown on FAP No. F-162(10)(11) plans, and extending northeasterly along existing US 81 for approximately 4300 feet.

US 81 Southbound Survey: Beginning at P.O.T. Sta. 1109+14.72 as shown on FAP No. F-162(10)(11) plans, and extending northeasterly along existing US 81 for approximately 4500 feet.

H.E. Bailey Turnpike Connection Survey: Beginning approximately 4840 feet Southwest of the centerline of the Main survey and extending Northeast along H.E. Bailey Turnpike approximately 9700 feet

S.H. 92 (Norge Rd.) & BNSF Railroad Connection Survey: Beginning 600 feet Southwest of the centerline of the Main Survey and extending Northeast along S.H. 92 & BNSF Railroad approximately 1200 feet.

U.S. 62 Connection Survey: Beginning at P.O.T. Sta. 385+47.37 (NS-282 Section Line) as established under SWO 2738(1) Section 1 survey & SWO 3609(1) survey and shown on FAP No. STPY-026B(240) plans, and extending Southeasterly along U.S. 62 approximately 6200 feet.

Old U.S. 62 Connection Survey: Beginning 1150 feet Northwest of the centerline of the Main Survey and extending Southeast along Old U.S. 62 approximately 2400 feet.

Union Pacific Railroad Connection Survey: Beginning 1150 feet Northwest of the centerline of the Main Survey and extending Southeast along Old U.S. 62 approximately 2400 feet.

EW-140.5 Section Line Connection Survey: Beginning 300 feet West of the centerline of the Main Survey and extending East 600 feet along Section Line.

EW-140 Section Line Connection Survey: Beginning 1100 feet West of the centerline of the Main Survey and extending East approximately 3400 feet along Section Line.

NS-283 Section Line (16th St.) Connection Survey: Beginning at EW-140 Section Line, extending North approximately 400 feet along Section Line.

EW-138 Section Line (Country Club Rd.) Connection Survey: Beginning at NS-281 Section Line and extending East to NS-281.5 ¼ Section Line, approximately 2620 feet.

EW-137 Section Line (Grand Ave.) Connection Survey: Beginning approximately 1950 feet West of the centerline of the Main Survey and extending East approximately 3050 feet along Section Line.

EW-136 Section Line (Idaho Ave.) Connection Survey: This survey will begin approximately 1150 feet West of the centerline of the Main Survey and will extend East approximately 2200 feet along Section Line..

Iowa Ave. Connection Survey: Beginning at EW-135.5 ¼ Section Line, approximately 250 feet East of NS-281 Section Line, then extending Southeasterly for approximately 3000 feet to the present intersection of Iowa Ave. and C.S. 2815 Rd.

EW-135.5 Section Line (C.R. 1355) Connection Survey: Beginning at NS-281 Section Line and extending East, approximately 600 feet along Section Line.

NS-281.5 Section line (C.S. 2815 Rd.) Connection Survey: Beginning approximately 300 feet South of the centerline of the Main Survey and extending North approximately 1300 feet along Section Line.

NS-282 Section line (29th St.) Connection Survey: Beginning approximately 700 feet South of the centerline of the Main Survey and extending North approximately 1400 feet along Section Line.

ROCK HOLLOW CREEK FEMA FLOOD PLAIN: Parallel flight lines, parallel to U.S. 62, are to be laid out by the Aerial Photo/Mapping sub-consultant to cover the flood plain area approved by ODOT.

5. ALIGNMENTS:

West Bypass Main Survey: This Centerline of Survey is along the proposed alignment submitted to ODOT by Benham Design, LLC (one of two similar alternatives selected on October 29, 2014).

US 81 Northbound Survey: The Centerline of Survey will be along and identical to the Centerline of Survey as shown on FAP No. F-162(10)(11) plans.

US 81 Southbound Survey: The Centerline of Survey will be along and identical to the Centerline of Survey as shown on FAP No. F-162(10)(11) plans.

H.E. Bailey Turnpike Connection Survey: The Centerline of Survey will be along and identical to the Centerline of Survey established under SWO 2737(1) Section One survey and shown in Alignment Book 2.

S.H. 92 (Norge Rd.) & BNSF Railroad Connection Survey: The Centerline of Survey will be along and identical to the centerline of S.H. 92 as established under SWO 1148 survey & SWO 1148(REV.) survey and shown as FAS No. S-219(1) plans. Note: Reference points were found for two P.I.'s at Sta. 146+17.19 and Sta. 182+70.95 from said plans. All curve data and tangent angles were held between these points to determine alignment.

U.S. 62 Connection Survey: The Centerline of Survey will be along and identical to the Centerline of Survey established under SWO 2738(1) Section 1 survey and SWO 3609(1) survey and shown on FAP No. STPY-026B(240) plans.

Old U.S. 62 Connection Survey: The Centerline of Survey will be along and identical to the centerline of Old U.S. 62 as established under SWO 2737(1) Section 2 survey and shown in Alignment Book No. 2.

Union Pacific Railroad Connection Survey: The Centerline of Survey will be along and identical to the centerline of the former C.R.I. & P. Railway as established under SWO 2737(1) Section 2 survey and shown in Alignment Book No. 2.

EW-140.5 Section Line Connection Survey: The Centerline of Survey will be along and identical to EW-140.5 ¼ Section Line.

EW-140 Section Line Connection Survey: The Centerline of Survey will be along and identical to EW-140 Section Line.

NS-283 Section Line (16th St.) Connection Survey: The Centerline of Survey will be along and identical to NS-283 Section Line.

EW-138 Section Line (Country Club Rd.) Connection Survey: The Centerline of Survey will be along and identical to EW-138 Section Line.

EW-137 Section Line (Grand Ave.) Connection Survey: The Centerline of Survey will be along and identical to EW-137 Section Line.

EW-136 Section Line (Idaho Ave.) Connection Survey: The Centerline of Survey will be along and identical to EW-136 Section Line.

Iowa Ave. Connection Survey: This Centerline of Survey is along the proposed alignment submitted to ODOT by Benham Design, LLC (one of two similar alternatives selected on October 29, 2014).

EW-135.5 Section Line (C.R. 1355) Connection Survey: The Centerline of Survey will be along and identical to EW-135.5 ¼ Section Line.

NS-281.5 Section line (C.S. 2815 Rd.) Connection Survey: The Centerline of Survey will be along and identical to NS-281.5 ¼ Section Line.

NS-282 Section line (29th St.) Connection Survey: The Centerline of Survey will be along and identical to NS-282 Section Line.

ROCK HOLLOW CREEK FEMA FLOOD PLAIN: N/A.

6. STATIONING:

West Bypass Main Survey: Stationing for this survey is taken from SWO 2737(1) Section One survey at P.O.T. Sta. 1082+61.52 (at the EW-141 Section Line). Stationing increases Northerly from this point, field measured distance, to the End of Survey without equation, except with previous surveys and plans.

US 81 Northbound Survey: Stationing for this survey is taken from SWO 2737(1) Section One survey at P.C. Sta. 1107+80.13. Stationing increases Northeasterly from this point to the End of Survey without equation, except with previous surveys and plans.

US 81 Southbound Survey: Stationing for this survey is taken from SWO 2737(1) Section One survey at P.O.T. Sta. 1109+14.72 (at the EW-140.5 ¼ Section Line). Stationing increases Northeasterly from this point to the End of Survey without equation, except with previous surveys and plans.

H.E. Bailey Turnpike Connection Survey: Stationing for this survey is taken from SWO 2737(1) Section One survey.

S.H. 92 (Norge Rd.): Stationing for this survey is taken from FAS No. S-219(1) plans.at P.C. Sta. 162+81.10. Stationing increases Northeasterly from this point to the End of Survey without equation, except with previous surveys and plans.

BNSF Railroad Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey and stationing increases Northeast to the End of Survey without equation, except with other surveys and plans.

U.S. 62 Connection Survey: Stationing for this survey is taken from SWO 2738(1) Section 1 survey.

Old U.S. 62 Connection Survey: Stationing for this survey is taken from SWO 2737(1) Section 2 survey.

Union Pacific Railroad Connection Survey: Stationing for this survey is taken from SWO 2737(1) Section 2 survey.

EW-140.5 Section Line Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey, and stationing increases East to the End of Survey without equation, except with other surveys and plans.

EW-140 Section Line Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey, and stationing increases East to the End of Survey without equation, except with other surveys and plans.

NS-283 Section Line (16th St.) Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey, and stationing increases North to the End of Survey without equation, except with other surveys and plans.

EW-138 Section Line (Country Club Rd.) Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey, and stationing increases East to the End of Survey without equation, except with other surveys and plans.

EW-137 Section Line (Grand Ave.) Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey, and stationing increases East to the End of Survey without equation, except with other surveys and plans.

EW-136 Section Line (Idaho Ave.) Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey and stationing increases East to the End of Survey without equation, except with other surveys and plans.

Iowa Ave. Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey and stationing increases Southeast to the End of Survey without equation, except with other surveys and plans.

EW-135.5 Section Line (C.R. 1355) Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey, and stationing increases East to the End of Survey without equation, except with other surveys and plans.

NS-281.5 Section line (C.S. 2815 Rd.) Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey and stationing increases North to the End of Survey without equation, except with other surveys and plans.

NS-282 Section line (29th St.) Connection Survey: A value of Sta. 100+00.00 is assigned to the Beginning of Survey and stationing increases North to the End of Survey without equation, except with other surveys and plans.

ROCK HOLLOW CREEK FEMA FLOOD PLAIN: N/A

7. HORIZONTAL CONTROL:

A. Horizontal control for this survey is NGS Oklahoma State Plane Coordinate System NAD83 (CORS 96) (EPOCH: 2002), Lambert Projection, South Zone (3502). Primary Control points for this survey are the following:

Existing Monuments

"UNION" (From N.G.S. Data Sheet, NAD 83 (2007), PID-FJ1044)
"1 TF" (From N.G.S. Data Sheet, NAD 83 (1993), PID-EL1033)
"CHICK" (From N.G.S. Data Sheet, NAD 83 (1993), PID-FJ1049)
"D 214" (From N.G.S. Data Sheet, NAD 83, PID-EL0693)
"POCASSET" (From N.G.S. Data Sheet, NAD 83 (1993), PID-FJ0789)

"K 41 1953" (From N.G.S. Data Sheet, NAD 83, PID-FJ0528)

Set Monuments

ODOT monuments "G-26-865 thru G-26-868" NAD 83 (CORS 96)
(by Benham Design, LLC)
ODOT monuments "G-26-1032 thru G-26-1039" (CORS 96)
(by Aerial Data Services, Inc.)

ODOT monuments "G-26-865 thru G-26-868" were set 5/8" iron pins with stamped aluminum cap in concrete. They were established using GPS, for three separate static survey data occupations for a minimum of two hours, on three separate days, at different times of day. All data was uploaded to http://www.ngs.noaa.gov/OPUS/. The solutions were then averaged to obtain coordinates in NAD 83 (CORS96)(EPOCH: 2002).

ODOT monuments "G-26-1032 thru G-26-1039" were set chiseled "X"'s in concrete. They were set using GPS from selected points from OPUS Projects network adjustment shown in SWO4380_1_v2.dgn. Existing N.G.S. monuments listed above were used as a check for primary and secondary control.

A coordinate shift of ΔN= 0.002, ΔE= -0.129 was applied to all NAD 83 (CORS 2011) coordinate solutions to conform to NAD 83 (CORS 96) horizontal datum. This was calculated by uploading identical static sessions for ODOT Monuments "G-26-865 thru G-26-868" to http://www.ngs.noaa.gov/OPUS/, and subtracting resulting coordinate differences between CORS 96 and CORS 2011 solutions.

B. Secondary Control for this survey was established using GPS RTK, based off of primary control points.

8. VERTICAL CONTROL:

Level datum for this survey is NAVD 88. Benchmarks for this survey were set by Aerial Data Services Inc. All bench marks were tied to the following ODOT bench marks from SWO 4380(1): BM 7-13, 15-20, 24-28, 30, 32-34, & 37. Bench marks established or used on this survey meet the requirements of the N.G.S. 3rd order standards as a minimum.

9. PHOTO CONTROLS:

A total of 110 Aerial Targets were set and tied on this project. Aerial targets were set and measured by Aerial Data Service, Inc. Aerial targets are shown in SWO4380_1_v2.dgn, Cogo Points List, and X,Y,Z coordinates were placed in the following file: SWO4380_1_v2_targets.txt

10. TOPOGRAPHY:

The majority of the topography on this survey was obtained from aerial photogrammetry survey data by Aerial Data Service, Inc. The date of flight for the aerial survey was March 11, 2015. GPS RTK and conventional field methods were used to survey the following:

1. Drainage structures
2. Creek flow lines.
3. Ponds

			OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
PLS	JTB		SURVEY DATA SHEET
DRAWN	JTB		SDS 3 OF 76
CHECKED	JTB		SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S003
APPROVED	JTB		
CREW	BENHAM		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

BM NO.	RUN 1	RUN 2	MEAN DIFF.	ADJ. ELEV.	PUBLISHED ELEV.	ALIGNMENT	STATION	OFFSET	DESCRIPTION
TO	44.6668	44.6616	44.6642						
BM #228				1177.1270	1177.127	A001	328+31.01	2986.12 R	"X" ON S.E. EDGE OF SANITARY SEWER MANHOLE
TO	-45.0259	-45.0198	-45.0229						
BM #23				1132.0986		A001	331+35.67	232.88 R	SET 3/4" I.P. (30" LONG)
TO	0.5628	0.5690	0.5659						
BM #24				1132.6589		A014	121+84.30	37.10 L	SET 3/4" I.P. (30" LONG)
TO	-1.8574	-1.8702	-1.8638						
BM #25				1130.7895		A001	347+12.25	244.09 R	SET 3/4" I.P. (30" LONG)
TO	9.3828	9.3843	9.3836						
BM #26				1140.1674		A001	354+96.15	244.55 R	SET 3/4" I.P. (30" LONG)
TO	7.4180	7.4400	7.4290						
BM #230				1147.5910	1147.591	A001	359+92.92	3390.76 R	80D SPIKE IN 10" FENCE CORNER POST
TO	-11.0928	-11.0866	-11.0897						
BM #27				1136.5030		A001	357+02.39	391.80 R	CHIS. "X" SET ON N.E. CORNER OF HIGHEST CONC. SLAB, SOUTH OF LINE CREEK
TO	11.4861	11.4853	11.4857						
BM #28				1147.9903		A001	362+57.30	371.62 R	SET 3/4" I.P. (30" LONG)
TO	17.1013	17.1026	17.1020						
BM #29				1165.0940		A001	370+58.95	310.52 R	SET 3/4" I.P. (30" LONG)
TO	9.5380	9.5288	9.5334						
BM #30				1174.6291		A001	378+29.20	336.61 R	SET 3/4" I.P. (30" LONG)
TO	-2.2641	-2.2504	-2.2573						
BM #31				1172.3735		A001	386+19.74	310.53 R	SET 3/4" I.P. (30" LONG)
TO	4.2783	4.2873	4.2828						
BM #32				1176.6579		A001	399+38.08	1873.77 R	CHIS. "X" SET, N.W. COR. CONC. PAD OF WATER VAULT
TO	-16.0683	-16.0684	-16.0683						
BM #232				1160.5913		A001	406+08.72	2379.36 R	80D SPIKE IN POWER POLE ON SOUTH EDGE OF RD. AT INTERSECTION OF CS 2815 AND CR 1360
TO	16.4558	16.4620	16.4589						
BM #33				1177.0519		A015	114+28.25	120.83 L	SET 3/4" I.P. (30" LONG)
TO	-2.7761	-2.7706	-2.7734						
BM #34				1174.2801		A001	401+84.95	255.39 R	SET 3/4" I.P. (30" LONG)
TO	-4.2906	-4.2887	-4.2896						
BM #35				1169.9922		A001	409+18.77	333.74 R	SET 3/4" I.P. (30" LONG)
TO	-7.5702	-7.5625	-7.5663						
BM #36				1162.4276		A001	417+60.46	271.62 R	SET 3/4" I.P. (30" LONG)
TO	-3.8914	-3.8937	-3.8926						
BM #37				1158.5366		A001	425+88.69	267.77 R	SET 3/4" I.P. (30" LONG)
TO	2.2423	2.2392	2.2407						
BM #233				1160.7790		A018	115+89.10	23.91 L	60D SPIKE IN FENCE CORNER POST, S.W. QUADRANT OF INTERSCTION
TO	1.4349	1.4402	1.4375						
BM #39				1162.2182		A001	435+13.73	191.30 R	SET 3/4" I.P. (30" LONG)
TO	-22.4610	-22.4665	-22.4638						
BM #40				1139.7561		A001	442+62.04	214.40 R	SET 3/4" I.P. (30" LONG)
TO	2.6942	2.6954	2.6948						
BM #234				1142.4525		A001	444+05.54	480.86 R	80D SPIKE IN SOUTH BRACE POST OF FENCE CORNER POST
TO	-34.0483	-34.0352	-34.0418						
BM #41				1108.4124		A001	448+29.10	358.03 L	SET 3/4" I.P. (30" LONG)
TO	-6.8526	-6.8592	-6.8559						
BM #42				1101.5582		A019	103+55.35	104.61 L	SET 3/4" I.P. (30" LONG)
TO	4.2737	4.2746	4.2741						
BM #235				1105.8340	1105.834	A001	455+62.40	732.35 R	80D SPIKE IN POWER POLE, SOUTH OF CIRCLE GRAVEL DRIVE, WEST SIDE 29TH ST.
TO	-6.8580	-6.8646	-6.8613						
BM #43				1098.9817		A001	465+43.47	284.38 R	SET 3/4" I.P. (30" LONG)
TO	-0.1867	-0.1867	-0.1867						
BM #44				1098.8040		A001	473+41.96	307.35 R	SET 3/4" I.P. (30" LONG)
TO	-5.1050	-5.0889	-5.0970						
BM #45				1093.7161		A001	480+83.78	283.55 R	SET 3/4" I.P. (30" LONG) - 1' UNDERGROUND
TO	9.5741	9.5759	9.5750						
BM #237				1103.3000	1103.300	A001	488+32.41	12.28 L	O.D.O.T. STANDARD BRASS MONUMENT "G-26-399" IN CENTER MEDIAN OF U.S. 62
TO	-2.8455	-2.8426	-2.8440						
BM #47				1100.4535		A007	409+70.68	75.84 R	CHIS. BOX SET ON TOP CENTER OF HDWL, SOUTH SIDE HWY 62, APPROX. 500' +/- EAST OF HWY 81
TO	-0.8708	-0.8706	-0.8707						
BM #48				1099.5803		A001	496+14.08	236.05 R	SET 3/4" I.P. (30" LONG)
TO	-3.7094	-3.7148	-3.7121						
BM #49				1095.8657		A001	503+82.60	227.46 R	SET 3/4" I.P. (30" LONG)
TO	-2.9876	-2.9819	-2.9847						
BM #50				1092.8784		A001	512+02.76	231.34 R	SET 3/4" I.P. (30" LONG)
TO	0.5777	0.5839	0.5808						
BM #51				1093.4567		A001	519+62.64	230.00 R	SET 3/4" I.P. (30" LONG)
TO	-0.1968	-0.1979	-0.1974						
BM #52				1093.2569		A001	527+58.98	209.80 R	SET 3/4" I.P. (30" LONG)
TO	-0.1486	-0.1499	-0.1493						
BM #53				1093.1051		A001	535+55.51	210.93 R	SET 3/4" I.P. (30" LONG)
TO	2.0849	2.0906	2.0878						
BM #54				1095.1904		A001	542+99.05	221.48 R	SET 3/4" I.P. (30" LONG)
TO	16.8700	16.8734	16.8717						
BM #238				1112.0600	1112.060	A001	N/A	N/A	THIS NATIONAL GEODETIC SURVEY MONUMENT (NGS "W") IS APPROXIMATELY 3/4 MILE NORTH OF THE MOST NORTHERLY BENCHMARK SET FOR THE PROJECT, (ADS BM 54). BEYOND STATIONING LIMITS.

BM NO.	RUN 1	RUN 2	MEAN DIFF.	ADJ. ELEV.	PUBLISHED ELEV.	ALIGNMENT	STATION	OFFSET	DESCRIPTION
BM #224				1228.7503		A001	269+87.18	660.24 R	80D SPIKE IN POWER POLE, W. OF CHAIN LINK FENCE
TO	-13.1070	-13.1085	-13.1077						
BM #225				1215.6424		A013	125+48.17	44.82 R	80D SPIKE IN POWER POLE IN S.E. QUADRANT INTERSECTION OF COUNTRY CLUB AND HILL RD.
TO	-14.0185	-14.0261	-14.0223						
BM #226				1201.6199		A001	284+47.01	2182.28 R	BENT 80D SPIKE IN GATE POST APPROX. 20' N. OF N/S AND E/W FENCE LINE INTERSECTION
TO	-11.5288	-11.5189	-11.5239						
BM #227				1190.0958		A001	302+90.70	3267.36 R	80D SPIKE IN POWER POLE, S. EDGE GRAVEL DRIVE ON WEST SIDE 29TH STREET
TO	-12.9654	-12.9721	-12.9688						
BM #228				1177.1270	1177.127	A001	328+31.01	2986.12 R	"X" ON S.E. EDGE OF SANITARY SEWER MANHOLE

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	JTB		SURVEY DATA SHEET
CHECKED	JTB		SDS 5 OF 76
APPROVED	JTB		SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S005
CREW	BENHAM		

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

U.S. 81 CHICKASHA BYPASS
GRADY COUNTY
SWO4380(1) J/P 24428(04)

BENCHMARK AND CHECK LEVEL LIST **NAVD 88 DATUM**

BM NO.	RUN 1	RUN 2	MEAN DIFF.	ADJ. ELEV.	ALIGNMENT	STATION	OFFSET	DESCRIPTION
GRAND AVE.								
BM #24				1132.6589	A014	121+84.30	37.10 L	SET 3/4" I.P. (30" LONG)
TO	17.6650	17.6608	17.6629					
BM #91				1150.3224	A014	111+74.40	213.43 L	SET 3/4" I.P. (30" LONG)
TO	33.2406	33.2414	33.2410					
BM #92				1183.5639	A014	104+11.22	212.64 R	SET 3/4" I.P. (30" LONG)
TO	-51.4608	-51.4709	-51.4659					
BM #23				1132.0986	A001	331+35.67	232.88 R	SET 3/4" I.P. (30" LONG)
S.H. 92								
BM #8				1231.7588	A005	172+17.70	13.67 L	CHIX. "X" SET (N. END OF CONC. HDWL.)
TO	-8.3495	-8.3484	-8.3490					
BM #90				1223.4025	A005	188+24.32	61.45 R	SET 3/4" I.P. (30" LONG)
TO	15.4124	15.4145	15.4135					
BM #9				1238.8087	A001	260+20.24	215.00 R	SET 3/4" I.P. (30" LONG)
N.B. U.S. 81								
BM #212				1203.9780	A001	123+39.68	114.46 L	80D SPIKE IN POWER POLE ON EAST SIDE OF 16TH STREET
TO	-7.9579	-7.9584	-7.9582					
BM #86				1196.0211	A002	1124+46.43	95.92 R	SET 3/4" I.P. (30" LONG)
TO	-13.3237	-13.3191	-13.3214					
BM #87				1182.7010	A002	1133+42.40	96.38 R	SET 3/4" I.P. (30" LONG)
TO	-3.1818	-3.1770	-3.1794					
BM #88				1179.5229	A002	1140+21.86	95.46 R	SET 3/4" I.P. (30" LONG)
TO	0.8077	0.8102	0.8089					
BM #89				1180.3331	A002	1145+30.53	180.36 L	SET 3/4" I.P. (30" LONG)
TO	17.0502	17.0394	17.0448					
BM #213				1197.3790	A001	127+52.38	176.47 L	N.W. COR. OF W. CONC. HDWL. CGMP CROSS DRAIN
U.S. 62 (N.W.)								
BM #237				1103.3000	A001	488+32.41	12.28 L	O.D.O.T. STANDARD BRASS MONUMENT "G-26-399" IN CENTER MEDIAN OF U.S. 62
TO	-3.0553	-3.0493	-3.0523					
BM #60				1100.2491	A007	397+63.99	244.47 R	SET 3/4" I.P. (30" LONG)
TO	-0.2098	-0.2101	-0.2099					
BM #61				1100.0406	A007	389+65.23	281.40 L	SET 3/4" I.P. (30" LONG)
TO	1.2618	1.2671	1.2645					
BM #62				1101.3065	A007	N/A	N/A	SET 3/4" I.P. (30" LONG) - BM BEYOND STATIONING LIMITS
TO	-0.8952	-0.8952	-0.8952					
BM #63				1100.4127	A007	N/A	N/A	SET 3/4" I.P. (30" LONG) - BM BEYOND STATIONING LIMITS
TO	1.5374	1.5377	1.5376					
BM #64				1101.9517	A007	N/A	N/A	SET 3/4" I.P. (30" LONG) - BM BEYOND STATIONING LIMITS
TO	-1.9369	-1.9357	-1.9363					
BM #65				1100.0168	A007	N/A	N/A	SET 3/4" I.P. (30" LONG) - BM BEYOND STATIONING LIMITS
TO	1.2218	1.2265	1.2242					
BM #66				1101.2424	A007	N/A	N/A	SET 3/4" I.P. (30" LONG) - BM BEYOND STATIONING LIMITS
TO	0.3224	0.3283	0.3254					
BM #67				1101.5692	A007	N/A	N/A	SET 3/4" I.P. (30" LONG) - BM BEYOND STATIONING LIMITS
TO	1.1359	1.1373	1.1366					
BM #74				1102.7072	A007	N/A	N/A	SET 3/4" I.P. (30" LONG) - BM BEYOND STATIONING LIMITS
TO	1.6896	1.7028	1.6962					
BM #75				1104.4048	A007	N/A	N/A	80D NAIL SET W/ BRACE NAIL IN N.W. FACE OF 15" TREE - BM BEYOND STATIONING LIMITS
TO	-4.8159	-4.8362	-4.8260					
BM #48				1099.5803	A001	496+14.08	236.05 R	SET 3/4" I.P. (30" LONG)
U.S. 62 (S.E.)								
BM #237				1103.3000	A001	488+32.41	12.28 L	O.D.O.T. STANDARD BRASS MONUMENT "G-26-399" IN CENTER MEDIAN OF U.S. 62
TO	-8.4625	-8.4688	-8.4656					
BM #55				1094.8369	A007	386+78.63	5138.29 L	CHIS. BOX SET, TOP CURB, N. SIDE OF CURB INLET
TO	4.8364	4.8325	4.8344					
BM #56				1099.6738	A007	421+19.53	278.63 L	CHIS. BOX SET, TOP CURB @ P.C., NW OF AEP BLDG.
TO	-3.7519	-3.7732	-3.7626					
BM #57				1095.9138	A007	429+32.54	227.20 R	CHIS. BOX SET ON N.W. COR. OF AC CONC. PAD
TO	3.0570	3.0524	3.0547					
BM #58				1098.9710	A007	437+83.65	420.30 R	CHIS. BOX SET ON TOP CENTER @ W. END OF A 24" R.C.P., NEXT TO PLAYGROUND EQUIP.
TO	10.3774	10.3772	10.3773					
BM #59				1109.3508	A007	444+44.64	282.84 R	CHIS. BOX SET ON THE S.E.S. CURB RETURN @ HARLY DR. & 17TH ST.
TO	-9.7710	-9.7750	-9.7730					
BM #48				1099.5803	A001	496+14.08	236.05 R	SET 3/4" I.P. (30" LONG)

BM NO.	RUN 1	RUN 2	MEAN DIFF.	ADJ. ELEV.	ALIGNMENT	STATION	OFFSET	DESCRIPTION
OLD U.S. 62 (N.W.)								
BM #49				1095.8657	A001	503+82.60	227.46 R	SET 3/4" I.P. (30" LONG)
TO	4.0860	4.0831	4.0846					
BM #73				1099.9474	A008	103+43.30	168.26 R	CHIS. BOX SET, TOP CURB, WEST SIDE OF ROAD ENTRY TO FACTORY ENTRANCE
TO	-7.0613	-7.0709	-7.0661					
BM #50				1092.8784	A001	512+02.76	231.34 R	SET 3/4" I.P. (30" LONG)
OLD U.S. 62 (S.E.)								
BM #49				1095.8657	A001	503+82.60	227.46 R	SET 3/4" I.P. (30" LONG)
TO	-3.0997	-3.0985	-3.0991					
BM #72				1092.7641	A008	119+46.13	146.73 R	SET 3/4" I.P. (30" LONG)
TO	0.1168	0.1170	0.1169					
BM #50				1092.8784	A001	512+02.76	231.34 R	SET 3/4" I.P. (30" LONG)
I-44 H.E. BAILEY TPK. (N.E.)								
BM #220				1254.7730	A004	283+25.13	73.71 R	N.E. COR. TOP CONC. STEP ON N. SIDE OF TOLL GATE BLDG.
TO	-9.6066	-9.6026	-9.6046					
BM #76				1245.1689	A004	298+85.08	158.03 R	SET 3/4" I.P. (30" LONG)
TO	-17.7011	-17.7064	-17.7038					
BM #77				1227.4655	A004	307+00.59	200.57 R	SET 3/4" I.P. (30" LONG)
TO	-12.7253	-12.7281	-12.7267					
BM #78				1214.7393	A004	314+30.67	184.43 R	SET 3/4" I.P. (30" LONG)
TO	-8.3884	-8.3917	-8.3900					
BM #99				1206.3497	A004	320+53.51	168.85 R	CHIX. "X" SET, TOP CENTER HEADWALL
TO	-0.0764	-0.0737	-0.0750					
BM #79				1206.2752	A004	322+38.88	141.94 R	SET 3/4" I.P. (30" LONG)
TO	-8.5709	-8.5783	-8.5746					
BM #80				1197.7010	A004	330+30.42	142.27 R	SET 3/4" I.P. (30" LONG)
TO	-4.0590	-4.0591	-4.0591					
BM #81				1193.6424	A004	N/A	N/A	SET 3/4" I.P. (30" LONG)
TO	58.8690	58.9048	58.8869					
BM #219				1252.5297	A004	273+25.31	199.18 R	80D SPIKE IN POWER POLE, E. R/W FENCE I-44
I-44 H.E. BAILEY TPK. (S.W.)								
BM #220				1254.7730	A004	283+25.13	73.71 R	N.E. CORNER OF TOP CONC. STEP ON N. SIDE OF TOLL GATE BLDG.
TO	-10.6684	-10.6757	-10.6721					
BM #82				1244.1017	A004	264+99.64	192.11 R	SET 3/4" I.P. (30" LONG)
TO	-9.8726	-9.8574	-9.8650					
BM #83				1234.2375	A004	257+17.31	121.51 R	SET 3/4" I.P. (30" LONG)
TO	21.2560	21.2687	21.2624					
BM #84				1255.5007	A004	249+19.21	136.16 R	SET 3/4" I.P. (30" LONG)
TO	21.5506	21.5566	21.5536					
BM #85				1277.0551	A004	241+58.38	197.59 R	SET 3/4" I.P. (30" LONG)
TO	-24.5263	-24.5262	-24.5263					
BM #219				1252.5297	A004	273+25.31	199.18 R	80D SPIKE IN POWER POLE, E. R/W FENCE I-44
IOWA AVE.								
BM #37				1158.5377	A001	425+88.63	267.77 R	SET 3/4" I.P. (30" LONG)
TO	-3.9362	-3.9283	-3.9323					
BM #71				1154.6045	A016	128+02.43	218.63 L	SET 3/4" I.P. (30" LONG) - 1' UNDERGROUND
TO	6.1837	6.1836	6.1837					
BM #70				1160.7873	A016	120+72.88	219.14 L	SET 3/4" I.P. (30" LONG) - 1' UNDERGROUND
TO	9.2073	9.2058	9.2066					
BM #35				1169.9931	A001	409+18.77	333.74 R	SET 3/4" I.P. (30" LONG)
IOWA AVE.								
BM #37				1158.5377	A001	425+88.63	267.77 R	SET 3/4" I.P. (30" LONG)
TO	6.1841	6.1917	6.1879					
BM #69				1164.7245	A016	104+40.34	252.44 L	SET 3/4" I.P. (30" LONG)
TO	-2.2968	-2.2928	-2.2948					
BM #36				1162.4286	A001	417+60.40	271.62 R	SET 3/4" I.P. (30" LONG)
IDAHO AVE.								
BM #33				1177.0526	A015	114+28.25	120.83 L	SET 3/4" I.P. (30" LONG)
TO	9.9920	9.9895	9.9908					
BM #68				1187.0347	A015	103+91.14	217.57 L	SET 3/4" I.P. (30" LONG) - 1' UNDERGROUND
TO	-14.6544	-14.6496	-14.6520					
BM #31				1172.3739	A001	386+19.68	310.53 R	SET 3/4" I.P. (30" LONG)

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	JTB		SURVEY DATA SHEET
CHECKED	JTB		SDS 6 OF 76
APPROVED	JTB		SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S006
CREW	BENHAM		

Project Name: SWO_4380_1_V2
Description: US81 Existing Alignments

Horizontal Alignment Name: A001

Description: CRL_Prop_US81 Bypass
Style: proposed 100

	STATION	EASTING	NORTHING
Element: Linear			
POB (300)	87+22.42	1982754.9150	596110.5945
PC (302)	124+31.69	1982750.4840	599819.8646
Tangent Direction:	N 0°04'06.40" W		
Tangent Length:	3709.27		
Element: Circular			
PC (302)	124+31.69	1982750.4840	599819.8646
PI (309)	147+93.78	1982747.6623	602181.9456
CC ( )		1977020.9080	599813.0202
PT (311)	169+12.58	1981080.9973	603855.7622
Radius:	5729.58		
Delta:	44°48'32.01" Left		
Degree of Curvature(Arc):	1°00'00.00"		
Length:	4480.89		
Tangent:	2362.08		
Chord:	4367.57		
Middle Ordinate:	432.49		
External:	467.80		
Tangent Direction:	N 0°04'06.40" W		
Radial Direction:	N 89°55'53.60" E		
Chord Direction:	N 22°28'22.40" W		
Radial Direction:	N 45°07'21.59" E		
Tangent Direction:	N 44°52'38.41" W		
Element: Linear			
PT (311)	169+12.58	1981080.9973	603855.7622
PC (324)	275+17.98	1973597.9198	611370.9495
Tangent Direction:	N 44°52'38.41" W		
Tangent Length:	10605.40		
Element: Circular			
PC (324)	275+17.98	1973597.9198	611370.9495
PI (328)	299+85.58	1971856.8057	613119.5346
CC ( )		1977658.0089	615413.6913
PT (332)	321+78.07	1971931.0210	615586.0139
Radius:	5729.58		
Delta:	46°36'02.96" Right		
Degree of Curvature(Arc):	1°00'00.00"		
Length:	4660.08		
Tangent:	2467.60		
Chord:	4532.69		
Middle Ordinate:	467.28		
External:	508.78		
Tangent Direction:	N 44°52'38.41" W		

Radial Direction:	N 45°07'21.59" E		
Chord Direction:	N 21°34'36.93" W		
Radial Direction:	S 88°16'35.45" E		
Tangent Direction:	N 1°43'24.55" E		
Element: Linear			
PT (332)	321+78.07	1971931.0210	615586.0139
PC (335)	384+81.79	1972120.6116	621886.8868
Tangent Direction:	N 1°43'24.55" E		
Tangent Length:	6303.72		
Element: Circular			
PC (335)	384+81.79	1972120.6116	621886.8868
PI (340)	413+90.54	1972208.0949	624794.3170
CC ( )		1975938.6036	621772.0050
PT (346)	434+53.73	1975034.1157	625483.0915
Radius:	3819.72		
Delta:	74°34'44.76" Right		
Degree of Curvature(Arc):	1°30'00.00"		
Length:	4971.94		
Tangent:	2908.75		
Chord:	4628.30		
Middle Ordinate:	780.81		
External:	981.43		
Tangent Direction:	N 1°43'24.55" E		
Radial Direction:	S 88°16'35.45" E		
Chord Direction:	N 39°00'46.93" E		
Radial Direction:	S 13°41'50.69" E		
Tangent Direction:	N 76°18'09.31" E		
Element: Linear			
PT (346)	434+53.73	1975034.1157	625483.0915
PC ( )	449+55.47	1976493.1401	625838.6935
Tangent Direction:	N 76°18'09.32" E		
Tangent Length:	1501.73		
Element: Circular			
PC (347)	449+55.47	1976493.1401	625838.6935
PI (350)	466+28.63	1978118.7183	626234.8890
CC ( )		1975686.8730	629146.7828
PCC (352)	480+65.80	1978798.2960	627763.8264
Radius:	3404.93		
Delta:	52°20'18.72" Left		
Degree of Curvature(Arc):	1°40'57.84"		
Length:	3110.33		
Tangent:	1673.16		
Chord:	3003.31		
Middle Ordinate:	349.02		
External:	388.88		
Tangent Direction:	N 76°18'09.31" E		
Radial Direction:	S 13°41'50.69" E		
Chord Direction:	N 50°07'59.95" E		
Radial Direction:	S 66°02'09.41" E		

Tangent Direction:	N 23°57'50.59" E		
Element: Circular			
PCC (352)	480+65.80	1978798.2960	627763.8264
PI (366)	510+85.30	1980024.7080	630523.0503
CC ( )		1965711.8941	633580.4331
PT (368)	540+17.63	1980032.6969	633542.5435
Radius:	14320.85		
Delta:	23°48'44.87" Left		
Degree of Curvature(Arc):	0°24'00.31"		
Length:	5951.83		
Tangent:	3019.50		
Chord:	5909.09		
Middle Ordinate:	308.09		
External:	314.86		
Tangent Direction:	N 23°57'50.59" E		
Radial Direction:	S 66°02'09.41" E		
Chord Direction:	N 12°03'28.16" E		
Radial Direction:	S 89°50'54.27" E		
Tangent Direction:	N 0°09'05.73" E		
Element: Linear			
PT (368)	540+17.63	1980032.6969	633542.5435
POE (369)	543+00.00	1980033.4440	633824.9174
Tangent Direction:	N 0°09'05.73" E		
Tangent Length:	282.37		

Project Name: SWO_4380_1_V2
Description: US81 Existing Alignments

Horizontal Alignment Name: A002

Description: Exist_NB US 81
Style: Existing 100

	STATION	EASTING	NORTHING
Element: Circular			
PC (372)	1107+80.13	1982783.9067	598628.8989
PI (375)	1120+29.70	1982782.4140	599878.4680
CC ( )		1985648.6937	598632.3211
PT (376)	1131+36.73	1983697.2355	600729.6592
Radius:	2864.79		
Delta:	47°07'55.00" Right		
Degree of Curvature(Arc):	2°00'00.00"		
Length:	2356.60		
Tangent:	1249.57		
Chord:	2290.71		
Middle Ordinate:	238.92		
External:	260.66		
Tangent Direction:	N 0°04'06.40" W		
Radial Direction:	N 89°55'53.60" E		

Chord Direction:	N 23°29'51.10" E		
Radial Direction:	S 42°56'11.40" E		
Tangent Direction:	N 47°03'48.60" E		
Element: Linear			
PT (376)	1131+36.73	1983697.2355	600729.6592
PC (378)	1149+12.47	1984997.2710	601939.2709
Tangent Direction:	N 47°03'48.61" E		
Tangent Length:	1775.74		
Element: Circular			
PC (378)	1149+12.47	1984997.2710	601939.2709
PI (379)	1153+72.27	1985333.8969	602252.4828
CC ( )		1988900.1885	597744.5930
PT (382)	1158+30.11	1985716.1640	602508.0030
Radius:	5729.58		
Delta:	9°10'35.00" Right		
Degree of Curvature(Arc):	1°00'00.00"		
Length:	917.64		
Tangent:	459.80		
Chord:	916.66		
Middle Ordinate:	18.36		
External:	18.42		
Tangent Direction:	N 47°03'48.61" E		
Radial Direction:	S 42°56'11.39" E		
Chord Direction:	N 51°39'06.11" E		
Radial Direction:	S 33°45'36.39" E		
Tangent Direction:	N 56°14'23.61" E		

Project Name: SWO_4380_1_V2
Description: US81 Existing Alignments

Horizontal Alignment Name: A003

Description: Exist_SB US 81
Style: Existing 100

	STATION	EASTING	NORTHING
Element: Linear			
POB (383)	1109+14.73	1982719.7460	598763.4060
TS (384)	1117+63.02	1982718.7326	599611.6990
Tangent Direction:	N 0°04'06.40" W		
Tangent Length:	848.29		
Element: Clothoid			
TS (384)	1117+63.02	1982718.7326	599611.6990
SPI (386)	1120+29.72	1982718.4138	599878.6383
SC (388)	1121+63.02	1982736.8467	600010.9418
Entrance Radius:	0.00		
Exit Radius:	1432.39		

Length:	400.00		
Angle:	8°00'00.00" Right		
Constant:	756.94		
Long Tangent:	266.94		
Short Tangent:	133.58		
Long Chord:	399.65		
Xs:	399.22		
Ys:	18.59		
P:	4.65		
K:	199.87		
Tangent Direction:	N 0°04'06.40" W		
Radial Direction:	N 89°55'53.60" E		
Chord Direction:	N 2°35'52.02" E		
Radial Direction:	S 82°04'06.40" E		
Tangent Direction:	N 7°55'53.60" E		
Element: Circular			
SC (388)	1121+63.02	1982736.8467	600010.9418
PI (389)	1126+88.74	1982809.3905	600531.6306
CC ( )		1984155.5383	599813.2856
CS (392)	1131+70.73	1983201.5446	600881.7658
Radius:	1432.39		
Delta:	40°18'30.01" Right		
Degree of Curvature(Arc):	4°00'00.00"		
Length:	1007.71		
Tangent:	525.72		
Chord:	987.06		
Middle Ordinate:	87.71		
External:	93.43		
Tangent Direction:	N 7°55'53.60" E		
Radial Direction:	S 82°04'06.40" E		
Chord Direction:	N 28°05'08.61" E		
Radial Direction:	S 41°45'36.39" E		
Tangent Direction:	N 48°14'23.61" E		
Element: Clothoid			
CS (392)	1131+70.73	1983201.5446	600881.7658
SPI (393)	1133+04.03	1983301.1883	600970.7327
ST (394)	1135+70.73	1983523.1142	601119.0755
Entrance Radius:	1432.39		
Exit Radius:	0.00		
Length:	400.00		
Angle:	8°00'00.00" Right		
Constant:	756.94		
Long Tangent:	266.94		
Short Tangent:	133.58		
Long Chord:	399.65		
Xs:	399.22		
Ys:	18.59		
P:	4.65		
K:	199.87		
Tangent Direction:	N 48°14'23.61" E		
Radial Direction:	S 41°45'36.39" E		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	JTB		SURVEY DATA SHEET
CHECKED	JTB		SDS 7 OF 76
APPROVED	JTB		SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S007
CREW	BENHAM		

Chord Direction:	N 53°34'25.20" E		
Radial Direction:	S 33°45'36.39" E		
Tangent Direction:	N 56°14'23.61" E		
Element: Linear			
ST (394)	1135+70.73	1983523.1142	601119.0755
POE (397)	1174+28.12	1986730.0384	603262.6923
Tangent Direction:	N 56°14'23.61" E		
Tangent Length:	3857.39		

Project Name: SWO_4380_1_V2
Description: US81 Existing Alignments

Horizontal Alignment Name: A004

Description: I-44 H.E. Bailey Tpk.
Style: Existing 100

	STATION	EASTING	NORTHING
Element: Linear			
POB (400)	224+16.63	1974322.9807	601411.6615
PC (404)	270+98.50	1977834.8922	604507.8469
Tangent Direction:	N 48°35'59.38" E		
Tangent Length:	4681.87		
Element: Circular			
PC (404)	270+98.50	1977834.8922	604507.8469
PI (406)	282+00.00	1978661.1403	605236.2869
CC ( )		1966467.7422	617401.2691
PT (407)	292+98.50	1979387.6506	606064.2323
Radius:	17188.73		
Delta:	7°20'00.00" Left		
Degree of Curvature(Arc):	0°20'00.00"		
Length:	2200.00		
Tangent:	1101.50		
Chord:	2198.50		
Middle Ordinate:	35.19		
External:	35.26		
Tangent Direction:	N 48°35'59.38" E		
Radial Direction:	S 41°24'00.62" E		
Chord Direction:	N 44°55'59.38" E		
Radial Direction:	S 48°44'00.62" E		
Tangent Direction:	N 41°15'59.38" E		
Element: Linear			
PT (407)	292+98.50	1979387.6506	606064.2323
POE (410)	336+62.15	1982265.7510	609344.1717
Tangent Direction:	N 41°15'59.38" E		
Tangent Length:	4363.65		

Project Name: SWO_4380_1_V2
Description: US81 Existing Alignments

Horizontal Alignment Name: A005

Description: NorgeRd_S.H. 92
Style: Existing 100

	STATION	EASTING	NORTHING
Element: Circular			
PC (423)	162+81.10	1974551.0482	608080.1439
PI (424)	168+44.01	1974634.2886	608636.8678
CC ( )		1977384.3431	607656.5147
PT (427)	173+92.76	1974921.9921	609120.7037
Radius:	2864.79		
Delta:	22°13'59.66" Right		
Degree of Curvature(Arc):	2°00'00.00"		
Length:	1111.66		
Tangent:	562.91		
Chord:	1104.70		
Middle Ordinate:	53.75		
External:	54.78		
Tangent Direction:	N 8°30'13.56" E		
Radial Direction:	S 81°29'46.44" E		
Chord Direction:	N 19°37'13.39" E		
Radial Direction:	S 59°15'46.78" E		
Tangent Direction:	N 30°44'13.22" E		
Element: Linear			
PT (427)	173+92.76	1974921.9921	609120.7037
PC (429)	179+36.62	1975199.9584	609588.1642
Tangent Direction:	N 30°44'13.22" E		
Tangent Length:	543.86		
Element: Circular			
PC (429)	179+36.62	1975199.9584	609588.1642
PI (430)	182+67.67	1975369.1550	609872.7050
CC ( )		1972737.6074	611052.3531
PT (431)	185+95.79	1975468.9980	610188.3351
Radius:	2864.79		
Delta:	13°11'00.00" Left		
Degree of Curvature(Arc):	2°00'00.00"		
Length:	659.17		
Tangent:	331.05		
Chord:	657.71		
Middle Ordinate:	18.94		
External:	19.06		
Tangent Direction:	N 30°44'13.22" E		
Radial Direction:	S 59°15'46.78" E		
Chord Direction:	N 24°08'43.22" E		

Radial Direction:	S 72°26'46.78" E		
Tangent Direction:	N 17°33'13.22" E		
Element: Linear			
PT (431)	185+95.79	1975468.9980	610188.3351
POE (432)	205+14.96	1976047.8167	612018.1349
Tangent Direction:	N 17°33'13.22" E		
Tangent Length:	1919.17		

Project Name: SWO_4380_1_V2
Description: US81 Existing Alignments

Horizontal Alignment Name: A006

Description: BNSF Railroad
Style: Existing 100

	STATION	EASTING	NORTHING
Element: Circular			
PC (413)	100+00.00	1974637.4401	608049.3148
PI (415)	105+62.94	1974720.6841	608606.0692
CC ( )		1977470.8781	607625.6689
PT (417)	111+11.72	1975008.4033	609089.9315
Radius:	2864.93		
Delta:	22°14'00.00" Right		
Degree of Curvature(Arc):	1°59'59.64"		
Length:	1111.72		
Tangent:	562.94		
Chord:	1104.76		
Middle Ordinate:	53.76		
External:	54.78		
Tangent Direction:	N 8°30'13.22" E		
Radial Direction:	S 81°29'46.78" E		
Chord Direction:	N 19°37'13.22" E		
Radial Direction:	S 59°15'46.78" E		
Tangent Direction:	N 30°44'13.22" E		
Element: Linear			
PT (417)	111+11.72	1975008.4033	609089.9315
PC (419)	116+48.25	1975282.6223	609551.0902
Tangent Direction:	N 30°44'13.22" E		
Tangent Length:	536.53		
Element: Circular			
PC (419)	116+48.25	1975282.6223	609551.0902
PI (420)	119+79.31	1975451.8275	609835.6453
CC ( )		1972820.1476	611015.3527
PT (421)	123+07.45	1975551.6754	610151.2912
Radius:	2864.93		
Delta:	13°11'00.00" Left		

Degree of Curvature(Arc):	1°59'59.64"		
Length:	659.20		
Tangent:	331.06		
Chord:	657.75		
Middle Ordinate:	18.94		
External:	19.06		
Tangent Direction:	N 30°44'13.22" E		
Radial Direction:	S 59°15'46.78" E		
Chord Direction:	N 24°08'43.22" E		
Radial Direction:	S 72°26'46.78" E		
Tangent Direction:	N 17°33'13.22" E		
Element: Linear			
PT (421)	123+07.45	1975551.6754	610151.2912
POE (422)	142+65.97	1976142.3619	612018.6081
Tangent Direction:	N 17°33'13.22" E		
Tangent Length:	1958.52		

Project Name: SWO_4380_1_V2
Description: US81 Existing Alignments

Horizontal Alignment Name: A007

Description: US 62
Style: Existing 100

	STATION	EASTING	NORTHING
Element: Linear			
POB (451)	385+47.37	1977383.1249	629504.0692
PI (355)	405+43.89	1979087.9771	628465.0413
Tangent Direction:	S 58°38'22.71" E		
Tangent Length:	1996.52		
Element: Linear			
PI (355)	405+43.89	1979087.9771	628465.0413
POE (454)	447+48.56	1982678.3889	626276.8528
Tangent Direction:	S 58°38'22.71" E		
Tangent Length:	4204.67		

Project Name: SWO_4380_1_V2
Description: US81 Existing Alignments

Horizontal Alignment Name: A008

Description: Old US Hwy 62
Style: Existing 100

	STATION	EASTING	NORTHING

Element: Linear			
POB (455)	100+00.00	1978550.0910	630618.0045
POE (458)	124+00.00	1980896.1336	630111.9570
Tangent Direction:	S 77°49'39.53" E		
Tangent Length:	2400.00		

Project Name: SWO_4380_1_V2
Description: US81 Existing Alignments

Horizontal Alignment Name: A009

Description: Union Pacific Railroad
Style: Existing 100

	STATION	EASTING	NORTHING
Element: Linear			
POB (459)	100+00.00	1978567.5918	630699.1385
POE (462)	124+00.00	1980913.6344	630193.0910
Tangent Direction:	S 77°49'39.53" E		
Tangent Length:	2400.00		

Project Name: SWO_4380_1_V2
Description: US81 Existing Alignments

Horizontal Alignment Name: A010

Description: CR 1405
Style: Existing 100

	STATION	EASTING	NORTHING
Element: Linear			
POB (370)	100+00.00	1982591.7456	598763.6511
PI (463)	101+31.93	1982723.6760	598763.4050
Tangent Direction:	S 89°53'35.30" E		
Tangent Length:	131.93		
Element: Linear			
PI (463)	101+31.93	1982723.6760	598763.4050
POE (371)	103+15.30	1982907.0488	598763.6609
Tangent Direction:	N 89°55'12.12" E		
Tangent Length:	183.37		

Project Name: SWO_4380_1_V2
Description: US81 Existing Alignments

Horizontal Alignment Name: A011

Description: CR1400
Style: Existing 100

	STATION	EASTING	NORTHING

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB	
DRAWN	JTB	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 8 OF 76

SWO 4380 (I) PROJECT NO. 24428(04) SHEET NO. S008

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Element: Linear
             POB (  398   )          100+00.00  1981439.5820   601412.0549
              PI (  464   )          112+81.65  1982721.2230   601415.5070
     Tangent Direction:   N 89°50'44.43" E
        Tangent Length:             1281.65

Element: Linear
              PI (  464   )          112+81.65  1982721.2230   601415.5070
             POE (  399   )          115+87.04  1983026.6137   601416.6165
     Tangent Direction:   N 89°47'30.67" E
        Tangent Length:              305.39


          Project Name: SWO_4380_1_V2
           Description: US81 Existing Alignments
Horizontal Alignment Name: A012
           Description: 16thSt
                 Style: Existing 100
                                    STATION       EASTING       NORTHING

Element: Linear
             POB (  464   )          100+00.00  1982721.2230   601415.5070
             POE (  465   )          126+53.46  1982731.3420   604068.9490
     Tangent Direction:   N  0°13'06.60" E
        Tangent Length:             2653.46


          Project Name: SWO_4380_1_V2
           Description: US81 Existing Alignments
Horizontal Alignment Name: A013
           Description: Country Club Rd
                 Style: Existing 100
                                    STATION       EASTING       NORTHING

Element: Linear
             POB (  466   )          100+00.00  1972152.1270   611997.4360
             POE (  467   )          126+19.75  1974771.8420   612011.7490
     Tangent Direction:   N 89°41'13.07" E
        Tangent Length:             2619.75


          Project Name: SWO_4380_1_V2
           Description: US81 Existing Alignments
Horizontal Alignment Name: A014
           Description: Grand Ave
                 Style: Existing 100
                                    STATION       EASTING       NORTHING
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```
Element: Linear
             POB (  433   )          100+00.00  1970029.5777   617309.4145
              PI (  468   )          121+24.83  1972154.4060   617312.2990
     Tangent Direction:   N 89°55'19.99" E
        Tangent Length:             2124.83

Element: Linear
              PI (  468   )          121+24.83  1972154.4060   617312.2990
             POE (  434   )          130+53.40  1973082.9725   617310.3684
     Tangent Direction:   S 89°52'51.14" E
        Tangent Length:              928.57


          Project Name: SWO_4380_1_V2
           Description: US81 Existing Alignments
Horizontal Alignment Name: A015
           Description: Idaho Ave
                 Style: Existing 100
                                    STATION       EASTING       NORTHING

Element: Linear
             POB (  435   )          100+00.00  1971053.5069   622589.7015
              PI (  469   )          111+00.01  1972153.5150   622587.5440
     Tangent Direction:   S 89°53'15.44" E
        Tangent Length:             1100.01

Element: Linear
              PI (  469   )          111+00.01  1972153.5150   622587.5440
             POE (  436   )          122+00.01  1973253.5119   622590.1401
     Tangent Direction:   N 89°51'53.20" E
        Tangent Length:             1100.00


          Project Name: SWO_4380_1_V2
           Description: US81 Existing Alignments
Horizontal Alignment Name: A016
           Description: Iowa Ave
                 Style: proposed 100
                                    STATION       EASTING       NORTHING

Element: Linear
             POB (  439   )          100+00.00  1972401.2398   625238.7968
              PC (  440   )          101+15.64  1972411.4002   625123.6043
     Tangent Direction:   S  5°02'26.40" E
        Tangent Length:              115.64
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Element: Circular
              PC (  440   )          101+15.64  1972411.4002   625123.6043
              PI (  441   )          102+46.58  1972422.9049   624993.1717
              CC (      )                     1972747.1308   625153.2170
              PT (  442   )          103+65.42  1972519.4484   624904.7162
                  Radius:                337.03
                   Delta:       42°27'45.65" Left
 Degree of Curvature(Arc):        16°59'59.99"
                  Length:                249.78
                 Tangent:                130.94
                   Chord:                244.10
          Middle Ordinate:                22.88
                External:                24.54
     Tangent Direction:   S  5°02'26.40" E
      Radial Direction:   S 84°57'33.60" W
       Chord Direction:   S 26°16'19.22" E
      Radial Direction:   S 42°29'47.95" W
     Tangent Direction:   S 47°30'12.05" E

Element: Linear
              PT (  442   )          103+65.42  1972519.4484   624904.7162
              PI (  341   )          111+82.99  1973122.2599   624352.4060
     Tangent Direction:   S 47°30'12.05" E
        Tangent Length:              817.57

Element: Linear
              PI (  341   )          111+82.99  1973122.2599   624352.4060
              PC (  443   )          116+27.03  1973449.6530   624052.4406
     Tangent Direction:   S 47°30'12.02" E
        Tangent Length:              444.03

Element: Circular
              PC (  443   )          116+27.03  1973449.6530   624052.4406
              PI (  444   )          118+30.03  1973599.3274   623915.3053
              CC (      )                     1973801.5258   624436.4873
              PT (  445   )          120+14.16  1973802.3261   623915.6172
                  Radius:                520.87
                   Delta:       42°35'04.90" Left
 Degree of Curvature(Arc):        11°00'00.00"
                  Length:                387.13
                 Tangent:                203.00
                   Chord:                378.28
          Middle Ordinate:                35.55
                External:                38.16
     Tangent Direction:   S 47°30'12.02" E
      Radial Direction:   S 42°29'47.98" W
       Chord Direction:   S 68°47'44.47" E
      Radial Direction:   S  0°05'16.92" E
     Tangent Direction:   N 89°54'43.08" E

Element: Linear
              PT (  445   )          120+14.16  1973802.3261   623915.6172
             POE (  446   )          129+71.43  1974759.5890   623917.0880
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     Tangent Direction:   N 89°54'43.08" E
        Tangent Length:              957.26


          Project Name: SWO_4380_1_V2
           Description: US81 Existing Alignments
Horizontal Alignment Name: A017
           Description: CR 1355
                 Style: Default
                                    STATION       EASTING       NORTHING

Element: Linear
             POB (  437   )          100+00.00  1972102.8245   625238.6000
              PI (  470   )          100+47.28  1972150.1025   625238.6185
     Tangent Direction:   N 89°58'39.45" E
        Tangent Length:               47.28

Element: Linear
              PI (  470   )          100+47.28  1972150.1025   625238.6185
             POE (  438   )          105+98.10  1972700.9205   625239.0095
     Tangent Direction:   N 89°57'33.60" E
        Tangent Length:              550.82


          Project Name: SWO_4380_1_V2
           Description: US81 Existing Alignments
Horizontal Alignment Name: A018
           Description: CS 2815 Rd.
                 Style: Existing 100
                                    STATION       EASTING       NORTHING

Element: Linear
             POB (  447   )          100+00.00  1974761.0641   623620.2837
              PI (  471   )          116+20.20  1974753.0120   625240.4660
     Tangent Direction:   N  0°17'05.10" W
        Tangent Length:             1620.20

Element: Linear
              PI (  471   )          116+20.20  1974753.0120   625240.4660
             POE (  448   )          127+55.13  1974747.3442   626375.3838
     Tangent Direction:   N  0°17'10.07" W
        Tangent Length:             1134.93


          Project Name: SWO_4380_1_V2
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           Description: US81 Existing Alignments
Horizontal Alignment Name: A019
           Description: 29thSt
                 Style: Existing 100
                                    STATION       EASTING       NORTHING

Element: Linear
             POB (  449   )          100+00.00  1977388.4353   625492.1445
             POE (  450   )          113+99.84  1977382.5628   626891.9712
     Tangent Direction:   N  0°14'25.31" W
        Tangent Length:             1399.84
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OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB	
DRAWN	JTB	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 9 OF 76

SWO 4380 (I) PROJECT NO. 24428(04) SHEET NO. S009

COORDINATE POINT LIST

SWO 4380(1) **J/P 24428(04)**

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
Benchmarks			25	1972251.2150	618111.7170
1	1978841.1480	605699.6310		(ADS BM #25)	Elev.= 1130.790
	(ADS BM #1)	Elev.=1249.875	26	1972275.2520	618895.2520
2	1978218.0860	606288.1870		(ADS BM #26)	Elev.= 1140.167
	(ADS BM #2)	Elev.= 1230.502	27	1972428.6430	619096.9680
3	1977757.4090	606842.7990		(ADS BM #27)	Elev.= 1136.503
	(ADS BM #3)	Elev.= 1192.676	28	1972425.1570	619652.2330
4	1977183.0180	607419.8540		(ADS BM #28)	Elev.= 1147.990
	(ADS BM #4)	Elev.= 1216.539	29	1972388.1950	620455.3600
5	1976661.0070	607967.3760		(ADS BM #29)	Elev.= 1165.094
	(ADS BM #5)	Elev.= 1227.592	30	1972437.4420	621224.4710
6	1976078.9750	608496.4700		(ADS BM #30)	Elev.= 1174.629
	(ADS BM #6)	Elev.= 1220.147	31	1972437.1030	622004.1350
7	1975565.3010	609084.4550		(ADS BM #31)	Elev.= 1172.374
	(ADS BM #7)	Elev.= 1215.394	32	1974154.9710	622550.0650
8	1974825.0230	608973.8620		(ADS BM #32)	Elev.= 1176.658
	(ADS BM #8)	Elev.= 1231.759	33	1972481.4690	622709.1440
9	1974807.0600	610461.3240		(ADS BM #33)	Elev.= 1177.052
	(ADS BM #9)	Elev.= 1238.809	34	1972770.4470	623405.1760
10	1974204.2510	611069.8640		(ADS BM #34)	Elev.= 1174.280
	(ADS BM #10)	Elev.= 1235.990	35	1973202.0670	623931.5060
11	1982716.9260	600843.5790		(ADS BM #35)	Elev.= 1169.992
	(ADS BM #11)	Elev.= 1183.356	36	1973701.0720	624525.6350
12	1982193.9250	601441.3300		(ADS BM #36)	Elev.= 1162.428
	(ADS BM #12)	Elev.= 1191.811	37	1974344.1450	624945.9720
13	1981658.9650	602191.9150		(ADS BM #37)	Elev.= 1158.537
	(ADS BM #13)	Elev.= 1173.321	39	1975134.7890	625310.7540
14	1973628.5160	611660.2010		(ADS BM #39)	Elev.= 1162.218
	(ADS BM #14)	Elev.= 1220.248	40	1975870.2120	625466.1970
15	1971835.6870	611990.4310		(ADS BM #40)	Elev.= 1139.756
	(ADS BM #15)	Elev.= 1147.737	41	1976285.5930	626156.6140
16	1972730.2480	612135.3450		(ADS BM #41)	Elev.= 1108.412
	(ADS BM #16)	Elev.= 1176.360	42	1977282.3320	625847.0560
17	1972746.8400	612790.0870		(ADS BM #42)	Elev.= 1101.558
	(ADS BM #17)	Elev.= 1175.535	43	1978078.9390	626338.0440
18	1972456.9750	613496.7430		(ADS BM #43)	Elev.= 1098.982
	(ADS BM #18)	Elev.= 1149.767	44	1978684.6660	626957.2040
19	1972262.6480	614239.5260		(ADS BM #44)	Elev.= 1098.804
	(ADS BM #19)	Elev.= 1138.639	45	1979064.8430	627665.4310
20	1972118.1330	614995.4590		(ADS BM #45)	Elev.= 1093.716
	(ADS BM #20)	Elev.= 1135.884	47	1979412.9510	628178.1720
21	1972099.3890	615774.2160		(ADS BM #47)	Elev.= 1100.454
	(ADS BM #21)	Elev.= 1143.252	48	1979574.3110	629137.8170
22	1973384.5140	617306.6460		(ADS BM #48)	Elev.= 1099.580
	(ADS BM #22)	Elev.= 1132.463	49	1979784.3430	629889.9550
23	1972192.5920	616536.1870		(ADS BM #49)	Elev.= 1095.866
	(ADS BM #23)	Elev.= 1132.099	50	1979976.3100	630700.7280
24	1972213.9530	617349.2790		(ADS BM #50)	Elev.= 1092.878
	(ADS BM #24)	Elev.= 1132.659			

COORDINATE POINT LIST

SWO 4380(1) **J/P 24428(04)**

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
51	1980107.6360	631461.5060	75	1972111.6950	631702.9640
	(ADS BM #51)	Elev.= 1093.457		(ADS BM #75)	Elev.= 1104.405
52	1980183.0320	632266.7050	76	1979893.3290	606400.9110
	(ADS BM #52)	Elev.= 1093.257		(ADS BM #76)	Elev.= 1245.169
53	1980234.8240	633073.1720	77	1980463.1810	606985.8320
	(ADS BM #53)	Elev.= 1093.105		(ADS BM #77)	Elev.= 1227.466
54	1980254.9160	633823.3880	78	1980932.5840	607545.2410
	(ADS BM #54)	Elev.= 1095.190		(ADS BM #78)	Elev.= 1214.739
55	1980169.3000	628661.8070	79	1981433.7120	608180.7580
	(ADS BM #55)	Elev.= 1094.837		(ADS BM #79)	Elev.= 1206.275
56	1980578.4370	627882.9710	80	1981956.0260	608775.4940
	(ADS BM #56)	Elev.= 1099.674		(ADS BM #80)	Elev.= 1197.701
57	1981009.4350	627027.9370	81	1982471.9980	609367.1330
	(ADS BM #57)	Elev.= 1095.914		(ADS BM #81)	Elev.= 1193.642
58	1981635.7080	626420.1070	82	1977512.7310	603967.7060
	(ADS BM #58)	Elev.= 1098.971		(ADS BM #82)	Elev.= 1244.102
59	1982271.678	626193.4960	83	1976879.2060	603503.3060
	(ADS BM #59)	Elev.= 1109.351		(ADS BM #83)	Elev.= 1234.238
60	1978294.7840	628662.1560	84	1976290.2350	602964.5200
	(ADS BM #60)	Elev.= 1100.249		(ADS BM #84)	Elev.= 1255.501
61	1977886.3850	629526.8930	85	1975760.1550	602415.2950
	(ADS BM #61)	Elev.= 1100.041		(ADS BM #85)	Elev.= 1277.055
62	1976968.7150	629469.4640	86	1983333.4360	600150.9120
	(ADS BM #62)	Elev.= 1101.307		(ADS BM #86)	Elev.= 1196.021
63	1976306.7050	629896.9480	87	1983913.4650	600799.2070
	(ADS BM #63)	Elev.= 1100.413		(ADS BM #87)	Elev.= 1182.701
64	1975861.7200	630667.0870	88	1984410.2850	601262.7180
	(ADS BM #64)	Elev.= 1101.952		(ADS BM #88)	Elev.= 1179.523
65	1975247.5890	631261.3150	89	1984594.8020	601811.1580
	(ADS BM #65)	Elev.= 1100.017		(ADS BM #89)	Elev.= 1180.333
66	1974445.1560	631403.2850	90	1975596.5090	610387.6980
	(ADS BM #66)	Elev.= 1101.242		(ADS BM #90)	Elev.= 1223.403
67	1973712.3230	631708.4000	91	1971203.6930	617524.4430
	(ADS BM #67)	Elev.= 1101.569		(ADS BM #91)	Elev.= 1150.322
68	1971445.0770	622806.5060	92	1970441.0940	617097.3300
	(ADS BM #68)	Elev.= 1187.035		(ADS BM #92)	Elev.= 1183.564
69	1972745.2320	625040.2230	99	1981331.6670	608023.6740
	(ADS BM #69)	Elev.= 1164.725		(ADS BM #99)	Elev.= 1206.350
70	1973860.7150	624134.8490	207	1982694.3780	595847.9470
	(ADS BM #70)	Elev.= 1160.787		(ODOT BM #7)	Elev.=1182.382
71	1974590.2650	624135.4590	208	1982685.2120	596138.1950
	(ADS BM #71)	Elev.= 1154.605		(ODOT BM #8)	Elev.=1185.019
72	1980421.5360	630064.2250	209	1982851.5600	597666.6100
	(ADS BM #72)	Elev.= 1092.764		(ODOT BM #9)	Elev.=1193.770
73	1978850.2010	630381.1390	210	1982686.2110	598255.8020
	(ADS BM #73)	Elev.= 1099.947		(ODOT BM #10)	Elev.=1196.144
74	1972854.0350	631577.3890	211	1982682.9370	598795.0300
	(ADS BM #74)	Elev.= 1102.707		(ODOT BM #11)	Elev.=1200.651

COORDINATE POINT LIST

SWO 4380(1) **J/P 24428(04)**

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
212	1982636.1500	599729.5560	309	1982747.6623	602181.9456
	(ODOT BM #12)	Elev.=1203.978	310	1982724.2356	602205.4728
213	1982564.9500	600130.2130	311	1981080.9973	603855.7622
	(ODOT BM #13)	Elev.=1197.379	312	1980872.2330	604065.4223
215	1981679.1000	602601.4050	313	1980087.2029	604853.8210
	(ODOT BM #15)	Elev.=1186.551	314	1979150.7670	605794.2751
216	1981051.4160	602509.8200	315	1979148.1169	605796.9365
	(ODOT BM #16)	Elev.=1190.800	316	1978230.2833	606718.7086
217	1980086.6950	603656.2010	317	1977420.3831	607532.0840
	(ODOT BM #17)	Elev.=1237.332	318	1975593.1950	609367.1125
218	1978770.7790	604048.1160	319	1975330.2498	609631.1860
	(ODOT BM #18)	Elev.=1249.759	320	1975329.1362	609632.3044
219	1978137.7440	604511.3410	321	1975264.6910	609697.0261
	(ODOT BM #19)	Elev.=1252.530	322	1975262.6271	609699.0989
220	1978777.8360	605299.4730	323	1974773.9107	610189.9123
	(ODOT BM #20)	Elev.=1254.773	324	1973597.9198	611370.9495
224	1974440.3040	611460.6790	325	1973054.6458	612002.3670
	(ODOT BM #24)	Elev.=1228.750	326	1972969.6624	612001.9027
225	1974700.5050	611966.5420	327	1972152.4808	612822.5907
	(ODOT BM #25)	Elev.=1215.642	328	1971856.8057	613119.5346
226	1974773.2270	613349.3770	329	1972152.9109	613825.6164
	(ODOT BM #26)	Elev.=1201.620	330	1971978.8697	614655.0982
227	1975305.2680	614687.6410	331	1971903.0132	614655.1986
	(ODOT BM #27)	Elev.=1190.096	332	1971931.0210	615586.0139
228	1974935.4320	616148.8610	333	1971982.9572	617312.0663
	(ODOT BM #28)	Elev.=1177.127	334	1972062.3300	619949.9492
230	1975434.9870	619297.1650	335	1972120.6116	621886.8868
	(ODOT BM #30)	Elev.=1147.591	336	1972153.5660	622285.5724
232	1974739.2790	622569.6650	337	1972206.9885	622587.6702
	(ODOT BM #32)	Elev.=1160.591	338	1972141.6948	622587.5672
233	1974729.2520	625209.2460	339	1972153.0301	622964.2851
	(ODOT BM #33)	Elev.=1160.779	340	1972208.0949	624794.3170
234	1976072.7260	625241.2960	341	1973122.2599	624352.4060
	(ODOT BM #34)	Elev.=1142.453	342	1974337.9528	625240.1714
235	1977363.7580	625364.5710	343	1974036.5443	625239.9575
	(ODOT BM #35)	Elev.=1105.834	344	1974752.2013	625402.8053
237	1979079.3070	628476.7410	345	1974752.1435	625414.3675
	(ODOT BM #37)	Elev.=1103.300	346	1975034.1157	625483.0915
			347	1976493.1401	625838.6935
Centerline			348	1977385.4833	626195.8093
300	1982754.9150	596110.5945	349	1977386.0685	626056.3233
301	1982751.7460	598763.4442	350	1978118.7183	626234.8890
302	1982750.4840	599819.8646	351	1980014.5850	626696.9609
303	1982745.0414	600062.7899	352	1978798.2960	627763.8264
304	1982744.8079	600068.0842	353	1978850.1258	627881.8634
305	1982722.1790	600381.8757	354	1978850.7601	627881.8618
306	1982717.7617	600424.5318	355	1979087.9771	628465.0413
307	1982521.9846	601414.9704	356	1979105.2823	628454.4946
308	1982748.5778	601415.6064	357	1980017.7120	627878.8419

COORDINATE POINT LIST

SWO 4380(1) **J/P 24428(04)**

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
358	1980017.7637	627898.3797	407	1979387.6506	606064.2323
359	1979669.7446	630376.4923	408	1979962.9130	606719.8125
360	1979688.0803	630457.4462	409	1980097.6628	606873.3760
361	1979702.6519	630523.4041	410	1982265.7510	609344.1717
362	1979934.2107	630319.4463	411	1982292.0111	609374.2247
363	1979968.6490	630396.9268	412	1982292.1221	609374.2247
364	1980024.1180	630300.0531	413	1974637.4401	608049.3148
365	1980024.3425	630384.9136	414	1974775.7192	608597.2477
366	1980024.7080	630523.0503	415	1974720.6840	608606.0691
367	1980026.7774	633166.9785	416	1974775.6043	608698.4295
368	1980032.6969	633542.5435	417	1975008.4033	609089.9315
369	1980033.4440	633824.9174	418	1975172.7219	609366.2688
370	1982591.7456	598763.6511	419	1975282.6223	609551.0902
371	1982907.0488	598763.6609	420	1975451.8275	609835.6453
372	1982783.9067	598628.8989	421	1975551.6754	610151.2912
373	1982783.7459	598763.4888	422	1976142.3619	612018.6081
374	1982786.9093	598763.4933	423	1974551.0482	608080.1439
375	1982782.4140	599878.4680	424	1974634.2886	608636.8678
376	1983697.2355	600729.6592	425	1974775.4435	608840.0116
377	1984441.0685	601421.7550	426	1974775.4047	608874.1853
378	1984997.2710	601939.2709	427	1974921.9921	609120.7037
379	1985333.8969	602252.4828	428	1975067.8875	609366.0584
380	1985362.4569	602251.5368	429	1975199.9584	609588.1642
381	1985362.4924	602271.5970	430	1975369.1550	609872.7050
382	1985716.1640	602508.0030	431	1975468.9980	610188.3351
383	1982719.7460	598763.4060	432	1976047.8167	612018.1349
384	1982718.7326	599611.6990	433	1970029.5777	617309.4145
385	1982722.6660	599855.5818	434	1973082.9725	617310.3684
386	1982718.4138	599878.6383	435	1971053.5069	622589.7015
387	1982722.6166	599908.8043	436	1973253.5119	622590.1401
388	1982736.8467	600010.9418	437	1972102.8245	625238.6000
389	1982809.3905	600531.6306	438	1972700.9205	625239.0095
390	1982717.5752	600580.6260	439	1972401.2398	625238.7968
391	1982721.9925	600583.5787	440	1972411.4002	625123.6043
392	1983201.5446	600881.7658	441	1972422.9049	624993.1717
393	1983301.1883	600970.7327	442	1972519.4484	624904.7162
394	1983523.1142	601119.0755	443	1973449.6530	624052.4406
395	1983973.3913	601420.0560	444	1973599.3274	623915.3053
396	1985362.6287	602348.6693	445	1973802.3261	623915.6172
397	1986730.0384	603262.6923	446	1974759.5890	623917.0880
398	1981439.5820	601412.0549	447	1974761.0641	623620.2837
399	1983026.6137	601416.6165	448	1974747.3442	626375.3838
400	1974322.9807	601411.6615	449	1977388.4353	625492.1445
401	1974774.2269	601809.4909	450	1977382.5628	626891.9712
402	1977353.9701	604083.8544	451	1977383.1249	629504.0692
403	1977407.5463	604131.0884	452	1980037.3858	627886.4210
404	1977834.8922	604507.8469	453	1980049.9574	627878.7592
405	1978636.1803	605261.1887	454	1982678.3889	626276.8528
406	1978661.1403	605236.2869	455	1978550.0910	630618.0045

COORDINATE POINT LIST

SWO 4380(1) **J/P 24428(04)**

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
456	1978985.0048	630524.1925	7032	1982500.6730	609497.1590
457	1980034.7909	630297.7509	7033	1982706.6880	609206.3880
458	1980896.1336	630111.9570	7034	1977830.1110	606504.3240
459	1978567.5918	630699.1385	7035	1978494.4150	607187.1340
460	1979380.6589	630523.7578	7036	1976908.5720	608034.0480
461	1980034.6995	630382.6796	7037	1975469.5450	608596.2060
462	1980913.6344	630193.0910	7038	1976202.1200	609861.2810
463	1982723.6760	598763.4050	7039	1974699.6960	610350.2890
464	1982721.2230	601415.5070	7040	1973346.8770	611147.1510
465	1982731.3420	604068.9490	7041	1973672.8570	612002.4290
466	1972152.1270	611997.4360	7042	1974768.3200	612573.0530
467	1974771.8420	612011.7490	7043	1975006.8010	611557.7230
468	1972154.4060	617312.2990	7044	1971698.6990	612662.3570
469	1972153.5150	622587.5440	7045	1971956.6120	612008.1570
470	1972150.1025	625238.6185	7046	1972145.7060	611299.8360
471	1974753.0120	625240.4660	7047	1973076.0220	612851.1770
			7048	1972020.7740	614311.9470
Aerial Targets			7049	1971329.5390	615430.2330
7001	1982241.0120	595908.1250	7050	1972632.5950	615544.8940
7002	1982823.3150	595785.5150	7051	1971819.9410	617300.2790
7003	1983526.8240	596095.8410	7052	1970129.0450	618016.0360
7004	1982828.0310	597344.5350	7053	1969792.4220	617325.5530
7005	1982275.5240	598741.2470	7054	1969796.8380	616901.6320
7006	1982877.3930	598776.9980	7055	1973507.7780	617891.6760
7007	1981924.6130	600916.3920	7056	1973193.8390	617335.6430
7008	1982965.7680	600681.5310	7057	1972864.2970	616659.2420
7009	1983476.4310	600428.0520	7058	1971590.1660	618185.4140
7010	1981090.3440	601400.5740	7059	1972667.8540	618924.8400
7011	1981567.5230	602137.1870	7060	1971252.3050	619888.8060
7012	1982749.0930	602924.7800	7061	1972233.2150	620572.5600
7013	1983280.4410	601416.8260	7062	1970497.4780	622134.5550
7014	1984138.4840	601589.9120	7063	1970869.4490	623320.9920
7015	1984803.2050	602628.1870	7064	1971342.3850	622594.2790
7016	1985206.9640	602316.1090	7065	1972163.1590	622189.4310
7017	1985575.4640	601418.7260	7066	1972924.3870	621922.4270
7018	1981320.6180	603548.5690	7067	1972918.5760	622608.1980
7019	1980000.1160	604335.7560	7068	1974399.2950	622610.1300
7020	1980665.6230	604997.0320	7069	1972052.4900	625343.5260
7021	1975107.3680	602709.0420	7070	1973203.6640	623924.2760
7022	1975475.6260	602318.7740	7071	1975281.1660	623938.7300
7023	1975778.5820	602163.5620	7072	1974061.3790	625353.7350
7024	1976621.7760	603350.4120	7073	1972100.2190	627873.3180
7025	1977521.9280	604690.5050	7074	1973344.7330	627059.2290
7026	1977987.1940	604202.1140	7075	1974566.8140	626244.3110
7027	1979098.4890	605621.0380	7076	1975803.1960	625320.7870
7028	1979747.2520	607052.1840	7077	1977367.7050	624512.7320
7029	1980153.9500	606653.4630	7078	1978300.2820	623905.3490
7030	1981252.4380	608085.8200	7079	1980293.9370	622593.8380
7031	1982097.6850	609815.7120	7080	1972167.0450	629538.6340

COORDINATE POINT LIST

SWO 4380(1) **J/P 24428(04)**

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
7081	1973478.9270	628736.5070	7401	1975760.6380	611988.9370
7082	1974819.4420	627910.1880		(ODOT Mon. G-26-866)	Elev.=1203.038
7083	1976085.3540	627097.5130	7402	1970825.7430	622610.6510
7084	1977359.9720	626351.6300		(ODOT Mon. G-26-867)	Elev.=1192.622
7085	1979485.9460	625082.7940		(Obliterated)	
7086	1980729.1010	624305.1280	7403	1977426.7640	631081.5300
7087	1972177.8070	631642.6820		(ODOT Mon. G-26-868)	Elev.=1100.522
7088	1974402.0770	630241.8400	7410	1982694.3780	595847.9470
7089	1976847.3330	628818.6360		(ODOT Mon. G-26-1032)	Elev.=1182.382
7090	1978331.9350	627901.0310	7411	1982686.2110	598255.8020
7091	1980033.4450	626828.3360		(ODOT Mon. G-26-1033)	Elev.=1196.144
7092	1981290.2250	626042.7550	7412	1974825.0230	608973.8620
7093	1982250.5660	625485.0520		(ODOT Mon. G-26-1034)	Elev.=1231.759
7094	1972047.2820	632207.2960	7413	1971835.6870	611990.4310
7095	1974030.8420	631568.7820		(ODOT Mon. G-26-1035)	Elev.=1147.737
7096	1975588.8120	631261.9180	7414	1972428.6430	619096.9680
7097	1977375.0950	630560.4850		(ODOT Mon. G-26-1036)	Elev.=1136.503
7098	1979367.9960	629350.6560	7415	1974154.9710	622550.0650
7099	1980547.9690	628607.9680		(ODOT Mon. G-26-1037)	Elev.=1176.658
7100	1981839.4030	627823.5030	7416	1981331.6670	608023.6740
7101	1983357.3330	626780.2060		(ODOT Mon. G-26-1038)	Elev.=1206.349
7102	1978780.1620	631769.5990	7417	1979412.9510	628178.1720
7103	1978933.4050	630552.6320		(ODOT Mon. G-26-1039)	Elev.=1100.453
7104	1980216.5650	630178.8790	7418	1955406.8950	622392.0180
7105	1981585.7150	629951.1100		(CP115-ADS CTRL)	Elev=1229.279
7106	1980073.7490	631837.3600			
7107	1979998.5850	632922.9580	**Existing Right-of-Way**		
7108	1979381.7330	635326.0180	7600	1980082.2582	596097.1440
7109	1980046.1320	634205.8230	7601	1982655.0345	596010.4751
7110	1980865.9320	635121.4890	7602	1982855.0344	596010.7140
			7603	1985367.0200	596097.6950
Control Points by Others			7604	1980082.1940	596130.1441
7300	2002283.7500	606745.7000	7605	1982654.9346	596094.1383
	("UNION" PID: FJ1044)	Elev.=1173.554	7606	1982854.9346	596094.2323
7301	1972127.2000	601396.1300	7607	1982654.8954	596127.1384
	("1 TF" PID: EL1033)	Elev.=1260.050	7608	1982854.8952	596127.2323
7302	1995750.8100	633009.7000	7609	1985367.0276	596130.6950
	("CHICK" PID: FJ1049)	Elev.=1195.726	7610	1982591.7456	598763.6511
7303	1982945.0550	576441.9860	7611	1982651.7458	598763.5392
	("D 214" PID: EL0693)	Elev.=1212.200	7612	1982851.7459	598763.5837
7304	1980005.6800	653006.9500	7613	1982907.0488	598763.6609
	("POCASSET"PID:FJ0789)	Elev.=1186.340	7614	1982591.1204	599287.0027
7305	2014559.8870	606712.9650	7615	1982995.4271	599409.6464
	("K 41 1953" PID:FJ0528)	Elev.=1061.090	7616	1983014.6203	599404.0234
			7617	1982519.3211	600174.3293
Control Points by Crew			7618	1982546.9622	600178.7981
7400	1976814.1860	601376.3200	7619	1982248.4800	601289.2332
	(ODOT Mon. G-26-865)	Elev.=1282.936	7620	1981394.6588	601286.9335
			7621	1975123.0870	601409.0523

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB	
DRAWN	JTB	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 10 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S010

COORDINATE POINT LIST

SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
7622	1975123.1416	601425.5522	7671	1977407.5625	603864.4748
7623	1975123.2525	601459.0520	7672	1977407.5207	603897.7665
7624	1977394.1282	601418.0348	7673	1977424.0443	603879.0055
7625	1977427.1283	601418.0227	7674	1977392.4385	604384.3970
7626	1980067.7933	601391.8600	7675	1977425.5998	604413.6327
7627	1980067.8557	601424.8603	7676	1977702.6294	604657.8687
7628	1981394.5384	601395.4336	7677	1977834.8952	604507.8494
7629	1981394.4940	601411.9335	7678	1977967.1551	604357.8251
7630	1981394.5708	601428.4338	7679	1978598.3906	604942.7259
7631	1981395.0761	601536.9321	7680	1978661.1403	605236.2869
7632	1981750.0748	601537.8883	7681	1978426.4004	605334.4783
7633	1984570.6434	601405.7256	7682	1979218.2206	605541.1135
7634	1985361.0400	601408.5971	7683	1979199.9154	605558.1405
7635	1984606.2495	601438.8552	7684	1979388.8547	605727.2448
7636	1985361.0242	601441.5972	7685	1979109.4975	606052.1296
7637	1985065.3897	601866.0600	7686	1979387.6481	606064.2294
7638	1985362.2304	602123.5226	7687	1979556.7719	605915.8308
7639	1981865.9992	601651.7825	7688	1979623.7192	605992.1253
7639a	1981868.0676	601885.9119	7689	1979604.9279	606008.6143
7640	1981620.0739	602739.6886	7690	1974777.8646	606698.9560
7640a	1981746.8205	602459.7544	7691	1974777.8373	606731.9560
7641	1981982.6842	602740.2456	7692	1977405.1772	606701.6762
7641a	1982405.6766	602232.3974	7693	1977405.2402	606734.6763
7642	1982673.0909	601905.4178	7694	1977438.1779	606701.7038
7642a	1982519.5262	602119.8596	7695	1977438.2402	606734.7039
7643	1982673.7385	602075.1165	7696	1979108.6348	606702.7682
7644	1982693.7384	602075.1624	7697	1979108.6132	606719.2682
7645	1982131.2046	602424.1783	7698	1979763.2404	606719.6853
7646	1983765.3543	600656.4483	7699	1979777.7270	606736.1945
7649	1982696.2820	602742.1598	7700	1980214.6565	606703.4729
7650	1982701.3416	604068.8921	7701	1980229.1432	606719.9822
7652a	1977400.1082	629669.3810	7702	1980758.6128	606720.3195
7653	1982747.8423	604069.0032	7703	1980758.4455	606736.8194
7653a	1977399.0830	629318.6812	7704	1982712.2342	606705.0643
7654	1982723.7389	602075.2313	7705	1982712.3024	606721.5644
7655	1982740.2388	602075.1684	7707	1982725.6907	606738.0729
7656	1982773.7385	602075.0406	7708	1980752.5662	607316.4853
7658	1982875.1470	601756.3120	7709	1981450.8711	608112.2872
7660	1983157.5252	601609.9464	7710	1981413.2886	608145.2653
7661	1984651.8843	602066.0368	7711	1982378.4985	609245.2374
7662	1985362.9695	602541.3502	7713	1982489.7849	609374.3319
7663	1974773.7854	601609.1308	7714	1982153.0036	609443.1060
7664	1974774.6684	602009.8511	7716	1982248.3609	609553.4933
7665	1976091.7409	603171.0138	7717	1982707.8446	609374.4502
7666	1976091.8676	603405.7976	7718	1973726.7125	605763.2524
7667	1976282.7193	603406.0419	7719	1973667.9156	605844.1407
7668	1976812.7454	603406.7268	7720	1973620.8781	605908.8514
7669	1976850.6052	603406.7764	7721	1974370.7625	607144.8492
7670	1977391.0389	603883.2357	7722	1974449.8830	607133.0194

COORDINATE POINT LIST

SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
7723	1974548.7836	607118.2321	7772	1970574.4069	617777.5532
7724	1974689.5096	608059.4392	7773	1970624.4069	617777.6221
7725	1974590.6090	608074.2265	7774	1970624.4382	617360.2221
7726	1974511.4885	608086.0563	7775	1970833.1380	617360.5054
7727	1975042.3265	609049.1520	7776	1970833.1405	617327.0054
7728	1974956.3742	609100.2618	7778	1972137.9032	617328.7766
7729	1974887.6124	609141.1497	7779	1972170.9032	617328.7647
7730	1975320.2915	609516.6104	7780	1974771.7874	617323.3571
7731	1975234.3393	609567.7203	7781	1972137.4605	619949.9265
7732	1975165.5775	609608.6081	7782	1972170.4605	619949.8946
7733	1975602.4788	610146.1112	7783	1969511.9765	622576.2250
7734	1975507.1353	610176.2711	7784	1972137.0178	622571.0763
7735	1975430.8606	610200.3991	7785	1972170.0178	622571.0829
7736	1977400.7540	609370.7399	7786	1974766.1836	622577.2100
7737	1977433.7540	609370.7870	7787	1969511.9657	622609.2251
7738	1972135.0600	609360.2095	7788	1972136.9937	622604.0764
7739	1972168.0600	609360.2025	7789	1972169.9937	622604.0829
7740	1969512.4938	611993.7083	7790	1974766.0840	622610.2099
7741	1969512.4860	612026.7087	7791	1972133.6025	625238.6121
7742	1972135.6235	611981.0157	7792	1972166.6025	625238.6302
7743	1972135.6341	612014.0160	7793	1969508.4251	627865.9449
7744	1972168.6235	611981.0259	7794	1972130.2113	627873.1477
7745	1972168.6341	612014.0264	7795	1972163.2113	627873.1800
7746	1974438.9295	611993.4299	7796	1974739.7790	627871.1520
7747	1974438.9713	611985.0828	7797	1976059.1688	627870.1619
7748	1974647.6687	611986.1272	7798	1976059.2079	627861.6619
7749	1974697.6681	611986.3775	7799	1977353.4986	627860.6907
7750	1974771.8428	612028.2493	7800	1977364.4867	625241.4657
7751	1974771.8437	612044.7494	7801	1977405.9867	625241.5445
7752	1975997.8757	611992.8847	7802	1977394.9635	627869.1291
7753	1976005.7966	612017.9246	7803	1977394.9422	627902.1292
7754	1976089.8368	612018.3452	7804	1977513.1467	625241.1701
7755	1976016.2521	612050.9774	7805	1977841.1457	625240.3606
7756	1976194.8870	612018.8710	7806	1977959.0787	626244.3199
7757	1976860.9212	614721.2007	7807	1978084.2626	626516.0727
7758	1976932.5377	614682.3468	7808	1978582.2263	626907.4644
7759	1977027.8812	614652.1868	7809	1978784.9000	627293.2282
7760	1972136.7665	614654.8893	7810	1978949.5918	627551.6034
7761	1972169.7665	614654.8980	7811	1979201.0968	627880.9552
7762	1969511.8832	617258.7117	7812	1978433.3455	627345.8324
7763	1972137.8845	617262.2765	7814	1978493.3692	627501.4314
7764	1972170.8989	617295.7647	7815	1978560.0330	627866.1141
7765	1974771.8061	617290.3570	7816	1978560.3989	627882.6132
7766	1969511.8784	617358.7118	7817	1978561.3773	627899.1107
7767	1970107.0386	617359.5183	7818	1979188.5216	627864.4877
7768	1970107.0073	617776.9183	7819	1979760.5002	627879.5076
7769	1970157.0110	617776.9876	7820	1979787.6891	627862.9371
7770	1970157.0423	617359.5876	7821	1979997.4512	627735.0970
7771	1970574.4382	617360.1532	7822	1979998.4431	625235.0367

COORDINATE POINT LIST

SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
7823	1980038.4430	625234.9380	7872	1981661.3088	629143.1796
7824	1980037.4607	627710.7130	7873	1980241.6040	629141.7299
7825	1982421.7373	626257.6077	7874	1980240.5068	630161.3075
7826	1982078.1015	626257.9435	7875	1980190.4952	630172.0951
7827	1982094.1334	626207.9278	7876	1981661.7618	627924.6797
7828	1982228.1334	626207.7969	7877	1980641.7651	627927.2614
7829	1982228.2451	626032.7970	7878	1980242.4542	628351.7415
7830	1982288.2452	626032.7383	7879	1980241.7116	629041.7300
7831	1982288.1334	626207.7382	7880	1981661.4109	629043.1797
7832	1982407.6791	626207.6214	7881	1982627.6752	628853.8348
7833	1982638.2228	626067.1157	7882	1982200.9614	629474.7264
7834	1982638.2450	626032.3962	7883	1981802.7007	629754.0603
7835	1982678.2766	626452.5835	7884	1981300.3821	629973.6096
7836	1981861.0755	626950.6295	7885	1981291.9479	629934.5089
7837	1981804.8385	627002.4696	7886	1980190.4919	630175.1649
7838	1980417.2330	627848.1504	7887	1980034.8867	630208.7293
7839	1980448.4581	627899.3851	7888	1980034.9010	630195.4272
7840	1980192.7732	628055.2131	7889	1978632.0257	630498.0311
7841	1980153.7449	627991.1678	7890	1978643.2009	630549.8395
7842	1979536.6234	628367.2746	7891	1977403.4349	630817.2603
7843	1979577.7642	628642.9492	7892	1977386.9449	630820.8172
7844	1979540.7539	628893.7160	7893	1982678.1077	629761.3396
7845	1979529.2522	629012.4891	7894	1977387.1760	630902.6073
7846	1979585.3834	629392.4060	7895	1982678.1476	629863.6309
7847	1979832.7571	630239.0302	7896	1977387.4648	631004.8449
7848	1979461.3004	630319.1544	7897	1982661.6490	629867.1897
7849	1979292.6424	629670.8935	7898	1982661.9040	630520.1414
7850	1979102.4758	629222.8892	7899	1982663.9412	633151.6318
7851	1978818.8318	628804.7351	7900	1980176.3602	633150.5439
7852	1977383.6374	629679.4192	7901	1979884.6255	630466.2009
7853	1977382.6123	629328.7193	7902	1979890.8552	630494.6895
7854	1978602.0827	628585.5090	7903	1979897.0276	630523.1906
7855	1982628.2574	626483.0679	7904	1980034.5485	630523.0395
7856	1982627.3807	627855.7355	7905	1980033.4892	631507.3921
7857	1980425.2527	627861.3092	7906	1980167.6965	633542.1863
7858	1982627.3799	627897.2355	7907	1980168.7081	633924.5599
7859	1982327.3801	627897.9949	7908	1982663.9660	633184.6318
7860	1982327.3898	627922.9950	7909	1980177.3033	633183.5444
7861	1981761.7619	627924.4266	7910	1979513.1691	630546.3250
7862	1981761.4234	629003.2818	7912	1979633.3413	631156.7348
7863	1982124.8232	629003.6529	7913	1979792.3350	631982.2288
7864	1982211.4768	628953.7413	7915	1979876.7123	633166.9129
7865	1982411.4767	628953.9456	7916	1979886.7167	633166.9173
7866	1982411.3306	629193.9455	7917	1979892.6974	633542.9139
7867	1982211.3308	629193.7413	7918	1979893.7091	633925.2875
7868	1982124.7793	629143.6529	7919	1979876.2210	633150.4127
7869	1981761.3795	629143.2818	7920	1977410.0225	633149.3342
7870	1981761.1791	629782.0745	7921	1979887.1884	633183.4175
7871	1981661.1606	629841.1341	7922	1977410.1254	633182.3342

COORDINATE POINT LIST

SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
7923	1977419.1075	635813.4687	8022	1981397.1100	599427.3915
7924	1984046.6432	596128.8750	8023	1981769.6805	599427.1215
7925	1981404.2264	596128.5996	8024	1982032.5298	599426.9310
7926	1978210.6256	601420.0514	8025	1982032.4856	599460.1109
7927	1977468.5456	601418.1300	8026	1982599.0977	599456.8255
7928	1977426.4722	601941.5223	8027	1982601.8297	599426.5184
7929	1981420.3563	606737.2412	8028	1982723.0628	599426.4305
7930	1977432.9863	609821.8766	8029	1982722.4495	600089.4560
7931	1977431.4955	610697.8802	8030	1982542.0819	600089.3363
7932	1977431.3830	610763.9752	8031	1983316.0344	596111.3679
7933	1977429.2370	612024.9941	8032	1983516.0342	596111.6436
7934	1977396.2370	612024.9379	8033	1983000.5647	599426.9728
7935	1970832.3100	612020.3224	8034	1983475.5638	599427.9011
7936	1970434.6647	611989.2462	8035	1983471.5373	600091.3387
7937	1972170.3363	615983.5814	8036	1983299.9527	600090.9074
7938	1975399.5216	627870.6569	8037	1984043.5355	600092.7763
7939	1977397.2158	628679.9259	8038	1984704.0785	600094.4364
7940	1977403.9548	631001.2880	8039	1984701.0520	601422.6995
7941	1982662.6368	631466.6426	8040	1983516.9405	596128.1449
7942	1982662.9290	631844.1424	8041	1985364.6215	600096.0965
7943	1982663.0118	631951.1321	8042	1984042.0620	601761.6950
7944	1982663.1837	632173.1321	8043	1984043.1785	602161.6935
7945	1977414.5883	634489.6514	8044	1984043.8924	602417.4325
7946	1982665.8755	635808.6061	8045	1984386.7939	602418.6782
7947	1973419.8746	627872.1909	8046	1984813.4866	602629.2215
			8047	1984977.7435	602283.8521
Property Corners			8048	1984537.2749	602419.2249
8000	1981404.2655	596112.0995	8049	1984352.3967	602201.1791
8001	1982654.9149	596110.6384	8050	1984351.9474	601892.2662
8002	1982725.6252	596773.7675	8051	1984401.9494	602207.5068
8003	1982064.1599	596774.6558	8052	1984401.5276	601917.5303
8004	1982063.6048	597106.3200	8053	1984589.6563	602231.4761
8005	1982725.3004	597105.3738	8054	1982653.7265	597105.4761
8006	1982724.9755	597436.9800	8055	1981272.0944	601411.6038
8007	1982063.0496	597437.9843	8056	1981107.0942	601411.1594
8008	1981401.1238	597438.9885	8057	1981275.9790	602245.7948
8009	1981399.5529	598102.4330	8058	1981822.5506	602247.2669
8010	1982289.9266	598100.9272	8059	1981113.2753	602738.5253
8011	1982724.3258	598100.1925	8060	1981741.1651	602739.9666
8012	1982289.2768	598764.2152	8061	1981742.0082	602961.0550
8013	1983316.9461	596127.8709	8062	1982727.1256	602963.3164
8014	1984046.6475	596112.3750	8063	1982726.2825	602742.2280
8015	1984046.3047	597438.8128	8064	1982695.7100	602592.1602
8016	1983173.3301	597437.6019	8065	1984638.2770	602057.0005
8017	1982853.3304	597437.1580	8066	1981807.8291	631327.7646
8018	1982853.0915	597637.1579	8067	1981808.2292	631844.4244
8019	1983173.0912	597637.6017	8068	1984589.3566	602025.4763
8020	1984045.9620	598765.2505	8069	1978772.5121	606060.5170
8021	1981398.0057	598765.8775	8070	1981875.8279	630036.7113

COORDINATE POINT LIST

SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
8071	1981743.8578	630065.1522	8120	1982652.5381	598100.3139
8072	1981775.5698	630272.5085	8121	1982378.4985	609245.2374
8073	1981937.6511	630247.7206	8122	1982714.2001	610873.1355
8074	1981975.1723	630238.2555	8123	1982664.2001	610873.1132
8075	1982678.3068	630271.1305	8124	1982658.1953	610778.1816
8076	1982283.1368	631466.7678	8125	1982222.1900	610776.1523
8077	1982283.0290	631327.6078	8126	1982111.5321	610471.0179
8078	1977580.1707	606059.7466	8127	1982115.5753	610344.7026
8079	1977596.0082	606718.3044	8128	1982630.0197	610347.0969
8080	1977623.0160	608044.6351	8129	1982607.5683	610003.0204
8081	1978761.3797	609371.9094	8130	1982385.6581	609718.7018
8082	1982679.5118	631951.1393	8131	1982588.3478	599456.8878
8083	1982363.5119	631951.0012	8132	1981591.8993	609389.6073
8084	1982363.6837	632173.0011	8133	1981582.7496	610466.2086
8085	1982679.6837	632173.1393	8134	1981838.4534	611038.9805
8086	1978020.6472	631845.6785	8135	1982033.2371	611369.5074
8087	1980075.0665	602736.1420	8136	1982029.7020	611785.4634
8088	1974776.2859	602743.8241	8137	1981937.0819	611945.2473
8089	1976092.6270	602743.2789	8138	1981936.3871	612026.9903
8090	1977408.9682	602742.7336	8139	1982281.3871	612027.1446
8091	1977500.3952	602742.5059	8140	1982283.1514	611766.5073
8092	1977532.6336	604083.0471	8141	1982708.1514	611766.6975
8093	1978061.5447	634489.3825	8142	1981403.3224	609350.0431
8094	1977408.1278	603413.3604	8143	1980113.3226	609349.3434
8095	1976092.9416	603411.9958	8144	1980117.7252	608674.0078
8096	1976093.2561	604080.7127	8145	1981407.4919	608710.4922
8097	1978717.4833	634489.0663	8146	1981510.1963	608710.5504
8098	1977414.5278	605401.0903	8147	1981408.2490	608594.3692
8099	1977564.3209	605400.6758	8148	1981407.7252	608674.7074
8100	1978768.7048	605396.4449	8149	1980118.8864	608495.8815
8101	1978761.1216	604073.8334	8150	1980436.9456	608271.5155
8102	1979109.4819	606060.7348	8151	1981125.2770	608271.8888
8103	1977418.1480	606059.6419	8152	1980127.7575	607135.0961
8104	1978722.1975	635811.6645	8153	1977419.5111	608044.4832
8105	1978776.2880	606719.0564	8154	1978768.8338	608045.4832
8106	1981420.4638	606720.7412	8155	1982570.7443	599757.8372
8107	1982733.3238	608048.0213	8156	1981403.0672	609389.1962
8108	1981411.6830	608067.6276	8157	1973454.8605	609362.8214
8109	1981411.8159	608047.2419	8158	1973457.8614	606719.2348
8110	1982728.8343	608711.2402	8159	1975901.8015	611821.7766
8111	1982520.0839	608711.1221	8160	1973451.8617	612004.5372
8112	1982311.3339	608711.0039	8161	1973453.3611	610683.6809
8113	1981909.5166	608710.7764	8162	1972151.8435	610678.8210
8114	1982309.9214	608919.7491	8163	1975889.7317	611783.6408
8115	1982518.6713	608919.8673	8164	1974230.1501	612008.7894
8116	1982727.4213	608919.9854	8165	1974231.3197	611775.0924
8117	1982725.4904	609205.2289	8166	1974440.0158	611776.3854
8118	1982675.4904	609205.2006	8167	1974438.8470	612009.9297
8119	1978078.7592	635812.5554	8168	1982532.3361	600089.3771

COORDINATE POINT LIST

SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
8169	1981107.1709	601427.6597	8218	1976289.7044	603412.2001
8170	1981272.1713	601428.1041	8219	1970157.0267	617568.2876
8171	1974441.0251	611308.9859	8220	1975053.9228	623126.0860
8172	1975292.6600	611313.2481	8221	1970365.7071	617777.2698
8173	1975041.5504	610519.4239	8222	1970365.7228	617568.5698
8174	1975486.9016	610377.5598	8223	1970365.7384	617359.8698
8175	1984588.4464	601422.2904	8224	1975054.6682	622976.0878
8176	1975927.8696	611771.5769	8225	1970574.4226	617568.8532
8177	1975939.9338	611809.7143	8226	1974764.2690	622975.4025
8178	1975742.0578	611991.6044	8227	1972154.0720	619289.9215
8179	1975088.6522	612046.3350	8228	1970624.4225	617568.9221
8180	1974771.8437	612044.7494	8229	1975095.4663	622594.4872
8181	1974771.8513	612194.7494	8230	1976730.9448	625571.3301
8182	1975088.6598	612196.3350	8231	1970833.1223	617569.2054
8183	1974771.9093	613335.7300	8232	1970833.1067	617777.9054
8184	1973451.9203	613330.9029	8233	1970833.0428	618630.4128
8185	1972152.6968	613326.1517	8234	1972154.1833	618631.1103
8186	1970832.5160	613330.2185	8235	1973450.3995	618628.7050
8187	1970832.3075	612003.8223	8236	1973449.6954	619288.2567
8188	1970832.6268	613993.4166	8237	1972789.2482	619289.4083
8189	1972152.9816	613990.5096	8238	1972154.0719	619290.5159
8190	1970832.7246	614656.6147	8239	1970900.0720	619290.3000
8191	1984701.0896	601406.1993	8240	1970900.0163	619620.2999
8192	1973451.9789	614657.2696	8241	1971164.0163	619620.2203
8193	1973451.8934	615983.4349	8242	1971163.9605	619950.2203
8194	1970832.9332	615983.5600	8243	1970832.9438	619950.3202
8195	1972153.5514	615319.2254	8244	1976729.4953	625901.4363
8196	1970832.8289	615320.0873	8245	1972788.5441	619948.8860
8197	1970832.8810	615651.8237	8246	1973448.9912	619947.8083
8198	1972153.6938	615651.4043	8247	1973447.5804	621269.2027
8199	1982697.1252	602963.2486	8248	1972153.7378	621268.7328
8200	1973451.8079	617309.6015	8249	1972153.6264	621928.1384
8201	1975606.7975	602743.4801	8250	1976728.0457	626231.5425
8202	1970833.1417	617310.5054	8251	1970832.7459	622590.1345
8203	1976060.2310	602743.2921	8252	1976726.5958	626561.6489
8204	1970701.1418	617310.3262	8253	1976725.1466	626891.7553
8205	1970701.0511	616732.8262	8254	1970831.4486	623914.1188
8206	1970833.0510	616733.0054	8255	1970171.2685	623914.6375
8207	1970434.8766	617309.9636	8256	1970170.1756	625237.8453
8208	1970434.9363	616791.3636	8257	1970830.1513	625238.1030
8209	1969933.6268	616790.6837	8258	1976723.6970	627221.8614
8210	1969923.8771	617309.2710	8259	1972151.8088	623913.0813
8211	1969511.9372	616790.1117	8260	1972783.3164	623914.0515
8212	1969898.3388	617359.2350	8261	1972787.4215	622589.0401
8213	1969898.3232	617567.9350	8262	1972799.8423	622589.0694
8214	1969898.3075	617776.6350	8263	1972935.9991	622589.3907
8215	1976092.6405	602771.8645	8264	1972800.2507	621929.0186
8216	1970107.0230	617568.2183	8265	1972936.1106	621929.2035
8217	1976092.9385	603405.7990	8266	1973166.1530	621929.5166

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB	
DRAWN	JTB	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 11 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S011

COORDINATE POINT LIST

SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
8267	1973166.1029	622225.9331	8316	1976063.6634	626891.9737
8268	1973166.0415	622589.9336	8317	1977256.5643	626891.5821
8269	1973396.0898	622590.4765	8318	1977256.4848	626910.5414
8270	1973396.4781	622226.4768	8319	1977357.4848	626910.5080
8271	1973446.8751	621929.8987	8320	1977356.1798	627221.5623
8272	1973626.5174	622227.0197	8321	1978770.3612	605685.3443
8273	1973626.1292	622591.0195	8322	1976059.0930	627886.6620
8274	1974106.1678	622592.1524	8323	1977920.1353	625240.1657
8275	1974106.8736	621930.7974	8324	1977933.4184	626562.2322
8276	1973446.1697	622590.5947	8325	1977948.6321	627884.1963
8277	1973439.5757	623915.0599	8326	1978713.7429	625238.2072
8278	1974759.5890	623917.0880	8327	1978710.8361	626560.2493
8279	1975001.6888	623917.4199	8328	1978707.9295	627882.2314
8280	1974763.5236	623125.4006	8329	1979446.5248	625236.3988
8281	1975089.0188	623917.5397	8330	1979570.1006	625564.3733
8282	1974999.4524	624367.4144	8331	1979817.6801	625619.3497
8283	1974757.3526	624367.0824	8332	1979906.4016	625576.8627
8284	1973432.9816	625239.5291	8333	1979982.8154	625580.8930
8285	1973426.3870	626564.1082	8334	1980038.3210	625542.4280
8286	1972148.3963	626564.1557	8335	1980038.2787	625648.9580
8287	1976857.4237	603412.7890	8336	1980190.8479	625600.7640
8288	1977391.6278	603413.3455	8337	1980097.7087	606570.1968
8289	1977050.6659	604083.0985	8338	1980038.2058	624665.6480
8290	1973431.5129	625534.5254	8339	1980438.2057	624665.2570
8291	1973726.5129	625534.7348	8340	1980437.8932	623915.2571
8292	1973727.9815	625239.7385	8341	1981829.9724	623913.7304
8293	1977409.0191	604399.0112	8342	1982709.9081	625116.4274
8294	1977543.0744	604517.2012	8343	1982067.6888	625115.4933
8295	1978489.5602	605397.4025	8344	1982067.5035	625360.4932
8296	1975399.4425	627887.1570	8345	1982712.3340	608711.2309
8297	1975402.6146	627225.5473	8346	1982078.1091	626246.0735
8298	1976062.1321	627225.2392	8347	1982042.5851	626236.8851
8299	1976071.2494	625240.9706	8348	1981959.0121	626209.3252
8300	1976072.5678	625240.9711	8349	1981880.9430	626196.9752
8301	1976073.8954	624368.8881	8350	1981692.9598	626197.8730
8302	1976732.3944	625241.2237	8351	1981685.9323	626553.9736
8303	1977383.9402	626563.6343	8352	1981646.6301	626554.0426
8304	1976069.7322	625571.1712	8353	1981358.0658	626554.5488
8305	1977363.1022	625571.4818	8354	1981219.3430	626554.7921
8306	1976068.2150	625901.3719	8355	1981155.1779	626470.9094
8307	1977361.7178	625901.4979	8356	1980647.3518	626251.9993
8308	1976066.6978	626231.5725	8357	1980671.1256	626149.7262
8309	1977020.2833	626231.5294	8358	1980386.5295	625779.4640
8310	1977360.3333	626231.5140	8359	1980523.0831	625201.3643
8311	1977019.7459	626359.6282	8360	1980669.3705	625450.3732
8312	1977258.7959	626359.6174	8361	1981229.8629	625960.3821
8313	1977359.7959	626359.6129	8362	1981520.3686	626117.3487
8314	1977358.9488	626561.5301	8363	1981704.8685	626117.1684
8315	1976065.1806	626561.7731	8364	1981703.7565	625233.3103

COORDINATE POINT LIST

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COORDINATE POINT LIST

SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
8561	1981378.7290	601412.0164	8610	1977400.4405	626563.5915
8562	1981394.4940	601411.9335	8611	1985362.2373	602127.4136
8563	1981394.6024	601431.9338	8612	1985362.3636	602198.7781
8564	1982691.2225	601415.4262	8613	1984088.9444	604087.4667
8565	1982701.2989	601435.4534	8614	1984059.7252	604059.2519
8566	1982741.2997	601435.5801	8615	1982804.2734	605020.5927
8567	1973451.8804	611988.0370	8616	1982764.1893	605000.3247
8568	1983026.6137	601416.6165	8617	1982805.8219	605395.3302
8569	1984041.1648	601440.3023	8618	1982765.8223	605395.5257
8570	1984041.1090	601420.3020	8619	1982813.3031	606721.8189
8571	1984042.0346	600913.8842	8620	1982773.3017	606721.6863
8572	1984042.0845	600886.6123	8621	1977417.0466	603588.0401
8573	1984650.2913	601452.5153	8622	1977407.8965	603597.9040
8574	1981380.7672	602759.1394	8623	1977159.5104	603865.6675
8575	1981400.6745	602739.1850	8624	1977119.9042	604164.8808
8576	1981380.6741	602739.1391	8625	1976997.7408	604297.1908
8577	1973451.8624	612021.0374	8626	1976737.0153	605248.0689
8578	1981400.7676	602759.1853	8627	1977024.0298	606717.7816
8579	1981534.3700	601797.0160	8628	1977049.4930	606717.8080
8580	1981543.5560	601793.0640	8629	1977182.7838	607400.2764
8581	1972136.1968	613326.2026	8630	1977157.7062	607402.2977
8582	1972169.1968	613326.2121	8631	1977160.2751	608103.4836
8583	1972136.4816	613990.5459	8632	1977135.2078	608105.1852
8584	1972137.0514	615319.2361	8633	1977364.6540	609311.8444
8585	1972137.1938	615651.4096	8634	1977339.6491	609313.9148
8586	1972137.3362	615983.5830	8635	1977362.1637	610381.9502
8587	1969924.8171	617259.2723	8636	1977337.1704	610379.0400
8588	1970434.8823	617259.9647	8637	1977336.8998	610490.0878
8589	1970701.1340	617260.3261	8638	1977311.8998	610487.2063
8590	1970833.1339	617260.5053	8639	1977311.8998	611988.9237
8591	1973451.8089	617293.1015	8640	1977336.8998	611984.1057
8592	1973451.7902	617326.1016	8641	1977353.1372	612024.6677
8593	1972137.6833	618631.1015	8642	1977326.1544	612024.5327
8594	1972170.6833	618631.0796	8643	1977397.6904	603645.6666
8595	1972137.5720	619289.9265	8644	1977407.7112	603745.7674
8596	1972170.5719	619290.4871	8645	1977443.3395	603850.6884
8597	1972170.2377	621268.7387	8646	1977709.2966	604081.7221
8598	1972170.1264	621928.1608	8647	1977705.5472	604081.7503
8599	1970832.7297	622606.6346	8648	1977668.0529	604082.0315
8600	1972787.3704	622605.5400	8649	1977664.3035	604082.0596
8601	1972799.8525	622572.5693	8650	1977654.4463	604082.1335
8602	1972936.0019	622572.8907	8651	1977978.5083	604079.7030
8603	1973166.0442	622573.4336	8652	1981374.4935	601411.8796
8604	1973396.1074	622573.9765	8653	1978661.2390	604094.5944
8605	1973446.0875	622607.0946	8654	1977677.0791	604102.0872
8606	1973626.1468	622574.5194	8655	1977980.1688	604369.3098
8607	1972168.3087	623913.1066	8656	1977989.5320	604368.6564
8608	1977929.5570	626177.9092	8657	1978000.2711	604387.0958
8609	1982751.3424	604069.0147	8658	1978203.0464	604523.8423

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SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
8365	1981703.9928	624932.7104	8414	1980680.1995	627318.9937
8366	1981685.4828	624932.7285	8415	1980594.8084	627371.0356
8367	1981685.9546	624332.7287	8416	1980454.2953	627140.4796
8368	1980751.1650	624333.6423	8417	1980358.4958	627175.4433
8369	1980750.8309	624758.6422	8418	1980509.4173	627423.0775
8370	1980523.4310	624758.8645	8419	1980411.2176	627482.9256
8371	1982710.9210	608919.9761	8420	1980329.5118	627348.8616
8372	1982677.9695	626933.5092	8421	1980240.8324	627203.3552
8373	1982177.6860	626943.9940	8422	1980037.6437	627249.4831
8374	1981861.0755	626950.6295	8423	1980244.1207	627400.9035
8375	1982708.9901	609205.2196	8424	1980141.0536	627463.7181
8376	1982092.4661	609374.1164	8425	1980325.8265	627534.9675
8377	1980096.2470	607099.1862	8426	1980171.9194	627534.1518
8378	1978776.1934	606702.5564	8427	1980216.7820	627601.4250
8379	1978776.1953	606735.5564	8428	1980037.4746	627675.5721
8380	1977595.6114	606701.8042	8429	1979702.6085	627879.6574
8381	1977596.3442	606734.8046	8430	1981310.9247	630022.4855
8382	1977436.0111	608044.4954	8431	1980192.9635	627878.3972
8383	1974505.1080	608043.3819	8432	1981586.9801	627135.2441
8384	1974585.5731	608040.5451	8433	1981583.6435	627874.8773
8385	1974568.9670	608371.6778	8434	1981860.8726	627874.1756
8386	1974651.5871	608371.6926	8435	1981910.9725	627874.0488
8387	1974775.8930	608444.2109	8436	1982177.3716	627873.3745
8388	1974674.5631	608702.8871	8437	1981911.0513	627641.0488
8389	1982094.2452	626032.9279	8438	1982627.3818	627902.2356
8390	1975021.2944	609365.9649	8439	1982327.3820	627902.9949
8391	1975114.4806	609366.1519	8440	1982327.4999	628202.9949
8392	1975230.9632	609366.3856	8441	1982627.4989	628202.2356
8393	1982177.4504	627640.3746	8442	1982327.6300	628537.9963
8394	1976110.3147	612348.3342	8443	1982627.6290	628537.2369
8395	1982077.9679	626467.1191	8444	1978283.9710	627883.3285
8396	1981173.8535	626783.9182	8445	1978334.9308	628748.3256
8397	1981205.0786	626835.1528	8446	1977870.7447	629031.2253
8398	1981277.9373	626954.7004	8447	1977869.7142	628678.7032
8399	1981013.4797	626905.0802	8448	1977380.7159	628679.9686
8400	1981107.1551	627058.7842	8449	1977381.5928	628979.9673
8401	1980928.0886	626957.1221	8450	1977431.5927	628979.8379
8402	1980937.6685	626953.6257	8451	1977631.5920	628979.3204
8403	1981030.3031	627105.6219	8452	1977632.1687	629176.6263
8404	1981021.7640	627110.8261	8453	1977381.9429	629099.7268
8405	1980856.1276	626992.7701	8454	1977382.2530	629205.8105
8406	1980953.4511	627152.4596	8455	1977432.5148	629298.3060
8407	1980936.3729	627162.8680	8456	1977382.6123	629328.7193
8408	1980837.4933	627000.6249	8457	1977483.8691	629267.0204
8409	1980741.6938	627035.5886	8458	1977973.2820	629204.7202
8410	1980850.9818	627214.9099	8459	1978709.1908	629203.3888
8411	1980765.5907	627266.9518	8460	1977603.5112	629545.4163
8412	1980651.0985	627079.0913	8461	1977433.8472	629751.0901
8413	1980552.6969	627109.7855	8462	1977433.5488	629649.0005

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SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
8659	1978182.7646	604545.9477	8708	1978778.0199	609359.7725
8660	1978396.4855	604701.3230	8709	1978900.5972	610234.4987
8661	1978376.0125	604723.2530	8710	1978900.6321	610254.4987
8662	1978556.5291	604853.3474	8711	1978352.3178	610235.4557
8663	1978535.8679	604875.0986	8712	1978341.6139	610255.4744
8664	1978666.2813	605008.9722	8713	1978097.4841	610632.5201
8665	1978716.6087	605005.4060	8714	1978097.2733	610670.0279
8666	1978695.6873	605026.9100	8715	1978097.1830	610686.1027
8667	1978767.0579	605109.2081	8716	1978104.8274	610698.3158
8668	1978870.1709	605158.4257	8717	1978097.1144	610698.3108
8669	1978849.5431	605180.2223	8718	1977205.4342	608405.6848
8670	1979091.6978	605357.5025	8719	1977208.1342	608430.5386
8671	1979080.2262	605387.5275	8720	1975273.5980	608615.5494
8672	1979541.7445	605356.5261	8721	1975278.7167	608640.1404
8673	1979579.3741	605384.8116	8722	1974504.6890	608040.5799
8674	1979531.7555	605386.5479	8723	1974484.4680	608040.5886
8675	1979551.8179	605401.6284	8724	1974891.8056	608760.7733
8676	1979618.7086	605614.4344	8725	1974884.3643	608736.9064
8677	1979589.1394	605619.4996	8726	1974775.5572	608739.8766
8678	1979656.6920	605836.1685	8727	1974775.3373	608933.5787
8679	1979627.8120	605845.2585	8728	1974711.5389	608790.7907
8680	1979804.2140	606149.3992	8729	1974718.9802	608814.6576
8681	1979778.8740	606166.0048	8730	1974678.8354	608800.9871
8682	1980062.3826	606443.7244	8731	1974683.3815	608825.7567
8683	1980041.0474	606464.8956	8732	1974065.9604	608838.2932
8684	1980097.1240	606474.6760	8733	1974078.0373	608862.6044
8685	1980097.3713	606515.0754	8734	1973468.9404	609533.6194
8686	1974627.8566	606715.8854	8735	1973454.6639	609535.9914
8687	1981412.7416	606754.8093	8736	1973481.9938	609556.7933
8688	1981387.7421	606754.6463	8737	1973454.6351	609561.3389
8689	1981408.4012	607420.5727	8738	1975411.7919	610206.4310
8690	1981383.4739	607409.3420	8739	1977357.5643	626891.5462
8691	1981387.5473	607551.4880	8740	1982731.3420	604068.9490
8692	1981412.5468	607551.6510	8741	1978103.4995	626561.7984
8693	1981412.3150	607587.2060	8742	1978428.1986	626560.9702
8694	1981387.3880	607575.9317	8743	1978709.5399	627149.7898
8695	1980914.0370	608031.1555	8744	1977998.5078	604079.5530
8696	1980912.3880	608029.2763	8745	1978284.9429	627899.8261
8697	1980899.1964	608014.2429	8746	1977400.4653	629791.5571
8698	1980897.5474	608012.3637	8747	1979729.7975	627863.0869
8699	1980888.2830	608028.0754	8748	1979997.4651	627699.9560
8700	1980898.2892	608041.8379	8749	1980435.2932	627877.7839
8701	1980809.4599	607957.3433	8750	1982627.9691	626934.5571
8702	1980793.8585	607937.7548	8751	1978637.7511	630524.5740
8703	1980576.3174	608075.9160	8752	1979142.3131	630524.0197
8704	1980584.1305	608094.8799	8753	1980034.7546	630331.5177
8705	1978823.0157	609312.7342	8754	1980190.3598	630297.9533
8706	1978838.4177	609326.3448	8755	1980190.2497	630400.2770
8707	1978797.2724	609376.7857	8756	1980176.8412	633167.0441

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SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
8757	1977046.7416	612023.1343	8806	1972130.0689	619308.0848
8758	1976200.6890	611970.8994	8807	1972129.9647	619924.9287
8759	1976207.0257	611990.9314	8808	1972217.4513	619949.8179
8760	1976186.0157	611990.8262	8809	1972178.6614	619949.8812
8761	1976179.6790	611970.7943	8810	1972149.9613	619944.9227
8762	1981396.2380	600088.9055	8811	1972121.8840	619949.9312
8763	1975984.7936	612017.8195	8812	1971923.9530	619924.9909
8764	1975640.0312	612016.0561	8813	1971923.9590	619944.9909
8765	1976625.0312	612016.0569	8814	1971948.4314	619949.9835
8766	1974871.8420	612012.2495	8815	1972376.4568	620206.2497
8767	1974871.8586	612338.7482	8816	1972350.4052	620226.8563
8768	1970832.9253	615933.5600	8817	1971686.9639	620823.4851
8769	1970832.9332	615983.5600	8818	1971687.0179	620504.1829
8770	1971493.3701	615933.5716	8819	1971959.4896	619949.9802
8771	1971493.3847	615983.5716	8820	1972652.9467	620483.8485
8772	1972153.8363	615983.5833	8821	1972700.2515	620515.1287
8773	1972153.8148	615933.5832	8822	1972677.7885	620539.8373
8774	1970833.0296	616597.0327	8823	1972631.9393	620509.5195
8775	1970833.0374	616647.0327	8824	1971696.9637	620825.1216
8776	1971493.5798	616647.4869	8825	1971697.0175	620506.4238
8777	1971493.5646	616597.4869	8826	1971498.2063	621416.4284
8778	1972154.0997	616597.9411	8827	1971488.7274	621413.2422
8779	1972154.1211	616647.9411	8828	1968633.0012	622574.4490
8780	1973451.7011	617409.6019	8829	1972799.8547	622569.0693
8781	1973451.7545	617359.6017	8830	1972799.8423	622589.0694
8782	1972154.3891	617412.2991	8831	1972936.1711	622589.4020
8783	1972154.3976	617362.2990	8832	1972946.1711	622589.4010
8784	1970833.1342	617410.5054	8833	1972941.2217	622321.9029
8785	1978708.8742	628871.7492	8834	1972936.2158	622324.4020
8786	1970833.1417	617310.5054	8835	1972941.2099	622326.9029
8787	1970813.1417	617310.4777	8836	1981769.2226	599774.5458
8788	1970798.1417	617310.4578	8837	1973041.2214	622322.1388
8789	1970624.4415	617310.2221	8838	1973041.2096	622327.1388
8790	1978163.0939	629204.3768	8839	1973446.1910	622570.5947
8791	1977975.3282	629318.8112	8840	1977401.1228	630016.4631
8792	1977968.9264	628971.3882	8841	1974726.1661	622593.6156
8793	1977584.8962	629205.4367	8842	1974706.4020	626564.0605
8794	1970574.4419	617310.1542	8843	1974746.4020	626564.0590
8795	1970157.0424	617309.5876	8844	1977398.5225	629126.9393
8796	1970157.0384	617359.5876	8845	1973399.5755	623914.9984
8797	1981396.6526	599774.3912	8846	1977398.0928	628979.9246
8798	1970107.0425	617309.5197	8847	1973439.4498	623940.3595
8799	1970798.0428	618630.3943	8848	1973399.5024	623929.6982
8800	1970813.0428	618630.4022	8849	1972150.7047	624770.7671
8801	1970630.5628	619900.3812	8850	1972150.6398	624821.2038
8802	1972121.8689	619899.9312	8851	1972594.6138	624830.1454
8803	1972125.9370	619290.5127	8852	1972565.4325	624876.6873
8804	1972146.4830	619290.5150	8853	1972663.4133	625238.9828
8805	1972150.0693	619305.7667	8854	1972708.1523	625239.0146

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OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB	
DRAWN	JTB	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 12 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S012

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SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
8855	1972946.2158	622324.4037	8904	1976069.7783	624006.7792
8856	1972173.8464	626214.4647	8905	1976079.6571	624006.8206
8857	1972173.3963	626564.1542	8906	1977364.3639	625266.4698
8858	1972213.3963	626564.1532	8907	1976096.1348	625265.9802
8859	1972213.8353	626223.9610	8908	1976063.8308	626855.5323
8860	1972791.5734	625229.0738	8909	1976053.5059	627856.7448
8861	1972791.6046	625219.1137	8910	1976063.5058	627856.7868
8862	1972791.7300	625179.0739	8911	1976084.2082	627861.6431
8863	1972721.9229	625122.4154	8912	1977385.4382	626206.5638
8864	1978666.4840	605009.3916	8913	1977385.3335	626231.5092
8865	1973433.0242	625179.5303	8914	1977400.1765	629692.7610
8866	1973433.4110	625153.2915	8915	1977383.6572	629686.1820
8867	1973475.9992	625179.5561	8916	1982756.2750	596110.5964
8868	1974071.2072	624587.8088	8917	1977383.6110	629666.8034
8869	1974095.3331	624631.6031	8918	1978011.5320	629287.4736
8870	1974064.7138	624648.4710	8919	1978002.5561	629273.6245
8871	1974017.7414	624617.2626	8920	1978144.2089	629215.8864
8872	1974049.2102	624794.7503	8921	1978152.6930	629210.7157
8873	1973998.8859	624795.1676	8922	1978309.7964	629468.3956
8874	1973999.0982	625190.5907	8923	1978309.7964	629487.6123
8875	1973992.4405	625209.9262	8924	1978524.1931	629116.5746
8876	1974004.0617	625229.9344	8925	1978524.1931	629135.7913
8877	1974054.0621	625229.9699	8926	1978567.4913	629187.6261
8878	1974093.0118	625151.4863	8927	1978558.9520	629192.8299
8879	1974040.8704	625137.1038	8928	1978807.2605	628811.7873
8880	1974047.3957	625209.9652	8929	1978817.6689	628828.8655
8881	1974054.0077	625239.9699	8930	1978804.8142	628794.3397
8882	1974039.0123	625239.9592	8931	1978816.5907	628806.1010
8883	1974035.6412	625914.9936	8932	1978832.2033	628831.7183
8884	1974015.6414	625914.8938	8933	1979138.4089	628593.2434
8885	1974019.0571	625239.9451	8934	1979146.5008	628607.6281
8886	1974004.0120	625239.9344	8935	1979802.9221	628185.5262
8887	1974694.8569	623271.4999	8936	1979810.4680	628200.3791
8888	1974733.1233	623303.9935	8937	1980037.1588	628097.3541
8889	1974753.3102	625180.4662	8938	1980037.1966	628062.1986
8890	1974713.0121	625240.4252	8939	1980192.8626	627972.1295
8891	1978710.3114	630481.1447	8940	1980192.8424	627990.9498
8892	1974753.0616	625230.4660	8941	1978592.4145	628591.4013
8893	1975283.7187	625181.2754	8942	1978602.0827	628585.5090
8894	1975250.8790	625230.6566	8943	1978550.3829	627882.6391
8895	1975255.2999	625240.6583	8944	1978560.2880	627882.6135
8896	1975309.9113	625240.5338	8945	1978605.7071	627861.4960
8897	1975584.2303	625861.1615	8946	1978605.7151	627841.4960
8898	1975538.3312	625880.9933	8947	1978855.6600	627840.8492
8899	1975844.9379	626469.4956	8948	1978855.7063	627860.8490
8900	1975801.1941	626494.3564	8949	1979464.5110	627839.2058
8901	1976064.2190	626771.0492	8950	1979479.8052	627859.2340
8902	1976066.6978	626231.5725	8951	1979828.1720	627838.2647
8903	1976066.9749	626206.5725	8952	1979795.1042	627858.4180

COORDINATE POINT LIST

SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
8953	1979997.3944	627878.2168	8003a	1982382.1366	626202.6463
8954	1979998.4431	625235.0367	8004a	1979321.7650	628980.1987
8955	1980037.3671	627903.7910	8005a	1979321.7903	628990.1986
8956	1980313.6476	627868.0918	8006a	1980191.7622	628977.9966
8957	1980313.6476	627878.0918	8007a	1980191.7875	628987.9966
8958	1980422.4349	627856.6858	8008a	1977999.9837	630688.5832
8959	1978710.4343	630617.1771	8009a	1978001.3053	630770.1380
8960	1980436.0462	627836.7034	8010a	1977387.4424	630994.6198
8961	1980672.4361	627855.9575	8012a	1978710.3593	630535.3533
8962	1981643.6433	627864.7254	8013a	1978634.7903	630510.7337
8963	1981677.5111	627874.6397	8014a	1978632.0257	630498.0311
8964	1981645.3168	627874.5146	8015a	1979067.8906	630642.3727
8965	1981643.6433	627874.7023	8016a	1979075.7034	633166.5605
8966	1982677.3798	627897.1090	8017a	1979491.5489	630523.4443
8967	1982627.3702	627872.2356	8018a	1979491.5651	630493.6360
8968	1978710.5279	630719.4568	8019a	1980034.6555	630423.6090
8969	1980194.5708	627568.1185	8020a	1980034.6445	630433.8414
8970	1981088.0462	627076.2856	8022a	1980034.8867	630208.7293
8971	1981082.8420	627067.7465	8023a	1980034.8517	630195.4379
8972	1981086.3383	627024.6277	8024a	1980184.8694	630176.3776
8973	1981769.2443	599758.0497	8025a	1980200.2654	630169.9877
8974	1981258.8284	626972.2018	8026a	1981291.9479	629934.5089
8975	1981253.6242	626963.6627	8027a	1981300.3821	629973.6096
8976	1982694.6918	602325.1606	8029a	1980200.1002	630295.8522
8977	1981257.0878	626920.5639	8030a	1980184.7878	630299.1552
8978	1982010.9862	626946.2088	8031a	1980190.1507	630492.8686
8979	1982038.8987	626957.2039	8032a	1980190.1453	630497.8685
8980	1981936.1759	626553.5347	8033a	1980190.1177	630522.8686
8981	1982077.9128	626553.2860	8034a	1982678.3942	630495.1350
8982	1982694.8520	602367.1611	8035a	1980034.3316	630724.5841
8983	1982046.4512	626394.1812	8036a	1980034.2187	630829.4946
8984	1982044.3586	626403.9598	8037a	1982060.8413	631369.8139
8985	1981901.1244	626363.0855	8038a	1982679.0450	631369.1348
8986	1981899.6507	626372.9965	8039a	1982679.1387	631469.1347
8987	1981800.9054	626354.5950	8040a	1982045.3594	631469.8310
8988	1981799.4647	626364.5171	8041a	1980031.7883	633087.9806
8989	1981722.1612	626328.0905	8042a	1980031.7345	633137.9808
8990	1981718.6449	626337.4519	8043a	1979901.8724	633087.4087
8991	1982193.1662	626797.5809	8044a	1979913.6528	633137.4610
8992	1982241.7063	626551.8250	8045a	1979855.2164	633166.9035
8993	1982478.2651	626597.8788	8046a	1979744.1902	633166.8549
8994	1982477.8220	626852.9963	8047a	1982474.6924	602324.6556
8995	1982628.0025	626882.2358	8048a	1982474.5960	602366.6555
8996	1982678.1579	626638.6080	8049a	1982121.4923	602431.0714
8997	1982628.3082	626403.5815	8050a	1982081.5745	602461.7541
8998	1982678.4582	626168.4091	8051a	1982238.5587	602551.1107
8999	1982638.1365	626202.2398	8052a	1982168.5614	602550.9500
8001a	1982638.2067	626092.3961	8053a	1982144.8033	602550.8955
8002a	1982382.2068	626092.6552	8054a	1982144.7114	602590.8954

COORDINATE POINT LIST

SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
8055a	1982695.7100	602592.1602	8104a	1978712.7538	633149.9039
8056a	1982695.5575	602552.1598	8105a	1979070.8322	633150.0605
8057a	1984048.5145	604073.2745	8106a	1981356.1065	633184.0599
8058a	1977529.9725	603972.3944	8107a	1982754.9755	597437.0216
8059a	1977425.4682	602742.6925	8108a	1978760.2968	596114.9403
8060a	1977392.4682	602742.7404	8109a	1978756.6723	597439.2957
8061a	1977431.0277	605401.0337	8110a	1977431.4320	597437.6265
8062a	1977434.6483	606059.6525	8111a	1977428.0000	598097.4652
8063a	1982716.8235	608048.0116	8112a	1977436.0370	598758.8922
8064a	1974446.2909	606716.4052	8113a	1978753.0480	598763.6171
8065a	1974339.5450	606716.7108	8114a	1978749.4337	600084.3001
8066a	1974253.5692	606716.9569	8115a	1977452.0936	600080.3165
8067a	1974251.5496	608052.3210	8116a	1978745.8194	601404.9371
8068a	1974251.1871	608371.6208	8117a	1977468.1488	601401.6289
8069a	1973455.9858	608371.4781	8118a	1977481.1360	601941.6638
8070a	1973455.2356	609032.3736	8119a	1978209.9696	601943.5510
8071a	1974115.2293	609033.2961	8120a	1978753.4705	602739.3853
8072a	1974115.6049	608702.4463	8121a	1973453.3539	601414.4643
8073a	1972168.3435	610678.8826	8122a	1973454.4838	602744.3021
8074a	1975332.5775	610581.6785	8123a	1972151.6315	602744.7382
8075a	1975284.9366	610596.8543	8124a	1973455.6138	604074.1399
8076a	1975830.5707	611463.9892	8125a	1973456.7376	605396.6873
8077a	1975631.7156	611527.3334	8126a	1972151.2155	605396.8967
8078a	1975578.0228	611523.3776	8127a	1971505.7940	606721.8419
8079a	1974440.7349	611517.6857	8128a	1968632.5197	608041.2095
8080a	1974441.0603	611567.6880	8129a	1969513.8981	608041.3061
8081a	1974649.7577	611568.7325	8130a	1972151.2765	608041.5910
8082a	1974699.7570	611568.9827	8131a	1973456.3609	608041.0303
8083a	1975650.7604	611573.7422	8132a	1981403.1679	609373.7426
8084a	1975845.6507	611511.6610	8133a	1980113.1681	609373.0429
8085a	1974230.2327	611992.2896	8134a	1978104.5715	609371.3541
8086a	1972154.3846	617262.2989	8135a	1977650.0239	609370.9698
8087a	1972164.8963	626564.1551	8136a	1977659.0493	609821.9777
8088a	1977921.9639	625422.1657	8137a	1978102.0380	609822.1760
8089a	1977948.9401	627900.6956	8138a	1977676.5806	610698.0387
8090a	1977948.4422	627867.6968	8139a	1977677.9023	610764.0855
8091a	1977398.7530	629205.7801	8140a	1978096.7437	610764.2729
8092a	1981860.8762	627857.6756	8141a	1978753.9233	610698.7361
8093a	1981910.9780	627857.5487	8142a	1979907.5066	610699.4820
8094a	1982177.3772	627856.8745	8143a	1979939.5066	610699.5027
8095a	1982661.8065	630270.3590	8144a	1980073.6740	610699.5895
8096a	1981984.0164	630013.3568	8145a	1979931.5682	612026.0931
8097a	1981904.4340	630030.5229	8146a	1979899.5683	612026.0788
8098a	1981889.2884	629931.4900	8147a	1978746.4669	612025.5628
8099a	1981860.6797	629937.6609	8148a	1978089.6572	612025.2689
8100a	1977402.6120	630525.9309	8149a	1977703.1370	612025.0959
8101a	1977406.3406	631845.8825	8150a	1975640.0478	612342.5561
8102a	1978003.1850	630872.0325	8151a	1975624.5525	612542.5177
8103a	1978712.8277	633182.9039	8152a	1974871.8688	612538.7508

COORDINATE POINT LIST

SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
8153a	1974871.9093	613336.0728	8801a	1970613.1902	619950.3865
8154a	1970372.4043	609362.9473			
8155a	1970125.7830	609937.6419	**Cadastral Land Corners**		
8156a	1969512.9580	610687.2397	9000	1977438.3040	596116.4020
8157a	1968632.7247	610690.0465	9001	1980082.2560	596113.6440
8158a	1970437.1471	612005.7343	9002	1982726.2750	596110.5550
8159a	1968632.9295	613336.9950	9003	1985367.0200	596114.1950
8160a	1969512.3353	613334.2852	9004	1988006.2650	596118.5670
8161a	1968633.1343	615983.5220	9005	1977424.5600	598758.8510
8162a	1969512.0301	615983.5368	9006	1980072.2880	598768.3500
8163a	1974771.8908	615983.2840	9007	1982723.6760	598763.4050
8164a	1976092.1279	615983.9395	9008	1985368.2480	598767.0960
8165a	1977412.3650	615984.5950	9009	1988004.3490	598776.6300
8166a	1976092.0231	617304.1121	9010	1972151.8250	601418.6590
8167a	1968633.3220	618629.2515	9011	1974773.3470	601410.2100
8168a	1969511.9023	618629.7153	9012	1977410.6490	601401.4800
8169a	1968633.2027	621272.7165	9013	1980067.7650	601408.3600
8170a	1969511.9519	621271.7219	9014	1982721.2230	601415.5070
8171a	1969511.0884	623915.1563	9015	1985360.9950	601425.0970
8172a	1968632.7661	623915.8469	9016	1988002.4331	601434.6931
8173a	1968631.8606	626558.6399	9017	1972151.4380	604070.8900
8174a	1969509.3070	626560.0162	9018	1974779.2248	604077.4383
8175a	1974106.1854	622575.6524	9019	1977407.2874	604083.9872
8176a	1972757.1477	625141.3899	9020	1980082.3680	604063.9240
8177a	1972825.0925	625179.0976	9021	1982731.3420	604068.9490
8178a	1973419.7924	627888.6910	9022	1985365.6870	604077.6000
8179a	1978719.5575	622598.1905	9023	1987998.6250	604086.1420
8180a	1977893.5882	622599.2778	9024	1972150.9930	606722.9760
8181a	1978716.6502	623918.1988	9025	1974777.8560	606715.4560
8182a	1977906.8619	623919.7321	9026	1977421.7683	606718.1934
8183a	1977395.0278	623920.7013	9027	1980098.6250	606719.8990
8184a	1980542.5174	625234.4453	9028	1982742.3027	606721.5835
8185a	1982067.6000	625232.9547	9029	1985368.6550	606730.2940
8186a	1982078.6747	625360.5095	9030	1987994.8150	606738.9283
8187a	1978726.9215	637137.0010	9031	1972151.5600	609360.2060
8188a	1978095.9922	637137.1553	9032	1974774.8469	609365.4703
8189a	1977407.1268	637137.3238	9033	1977417.2540	609370.7730
8190a	1978731.6455	638462.3461	9034	1980081.9910	609373.0260
8191a	1978113.2257	638461.7885	9035	1982724.3449	609374.4591
8192a	1975625.0478	612342.5569	9036	1972152.1270	611997.4360
8193a	1975625.5535	612342.5202	9037	1974771.8420	612011.7490
8269a	1973406.1697	622590.5003	9038	1977412.7370	612024.9660
8574a	1984620.8157	601452.4082	9039	1980065.3570	612026.1530
8623a	1977183.2501	603876.8361	9040	1982706.3871	612027.3348
8624a	1977143.6481	604176.0176	9041	1972153.2665	614654.8675
8625a	1977020.2404	604309.6753	9042	1974771.9766	614659.7111
8626a	1976762.6749	605249.0285	9043	1977412.4890	614664.5950
8738a	1975586.2196	610691.5304	9044	1972154.4060	617312.2990
8739a	1975670.1969	610691.7521	9045	1974771.8050	617306.8570

COORDINATE POINT LIST

SWO 4380(1) J/P 24428(04)

PT NO.	EASTING	NORTHING	PT NO.	EASTING	NORTHING
9046	1977412.2413	617301.3671	9095	1968633.2368	617307.5190
9047	1972153.9605	619949.9215	9096	1969511.8774	617308.7117
9048	1974768.9904	619945.6544	9097	1968633.4260	619752.0860
9049	1977406.4254	619941.3507	9098	1968633.4300	619804.2260
9050	1972153.5150	622587.5440	9099	1968633.4073	619950.9840
9051	1974766.1660	622593.7100	9100	1969511.9271	619950.7188
9052	1977400.5687	622599.9273	9101	1968633.0283	622399.0890
9053	1980037.3437	622596.4536	9102	1968633.0215	622443.3090
9054	1982681.1310	622593.2390	9103	1968632.9981	622594.4490
9055	1972150.1025	625238.6185	9104	1969511.9768	622592.7250
9056	1974753.0120	625240.4660	9105	1968632.6204	625034.8720
9057	1977389.4869	625241.4753	9106	1968632.6130	625082.3920
9058	1980038.4430	625234.9380	9107	1968632.5341	625237.2448
9059	1982679.0560	625232.3570	9108	1969510.2000	625237.5875
9060	1972146.6900	627889.6930	9109	1968631.2921	627675.4350
9061	1974739.7920	627887.6520	9110	1968631.2680	627722.2950
9062	1977378.3940	627885.6720	9111	1968631.1870	627880.0350
9063	1980037.3940	627878.7910	9112	1969508.4140	627882.4450
9064	1982677.3700	627872.1090			
9065	1977386.1120	630525.9490			
9066	1980034.5485	630523.0395			
9067	1982678.4040	630520.1350			
9068	1977393.5690	633165.8270			
9069	1980031.7033	633166.9807			
9070	1982680.4540	633168.1390			
9071	1977402.6075	635813.4915			
9072	1980038.6957	635809.8418			
9073	1982682.3755	635808.5983			
9074	1977411.6460	638461.1560			
9075	1980033.6780	638463.5200			
9076	1982684.3090	638465.6540			
9077	1968632.4054	606543.8710			
9078	1968632.4090	606611.1910			
9079	1968632.4172	606716.7910			
9080	1969514.3682	606718.3413			
9081	1968632.6068	609166.6380			
9082	1968632.6132	609249.7980			
9083	1968632.6222	609365.6280			
9084	1969513.4280	609364.2708			
9085	1968632.8103	611796.6650			
9086	1968632.8174	611888.4050			
9087	1968632.8272	612014.4650			
9088	1969512.4879	612010.2085			
9089	1968633.0147	614437.9120			
9090	1968633.0216	614527.0120			
9091	1968633.0319	614659.5250			
9092	1969512.1828	614658.3618			
9093	1968633.2214	617108.8590			
9094	1968633.2258	617165.6190			

SWO4380_1_ADD3.txt

*PT NO.	EASTING	NORTHING
7647	1982256.60036	601267.84551
7648	1982232.89352	601289.19125
7706	1981249.23300	606720.63215
7712	1981249.39247	606690.63224
7715	1980301.60352	606690.02833
7813	1980291.76320	606720.02206
7911	1980115.78579	606590.79790
7948	1980111.96977	606550.77601

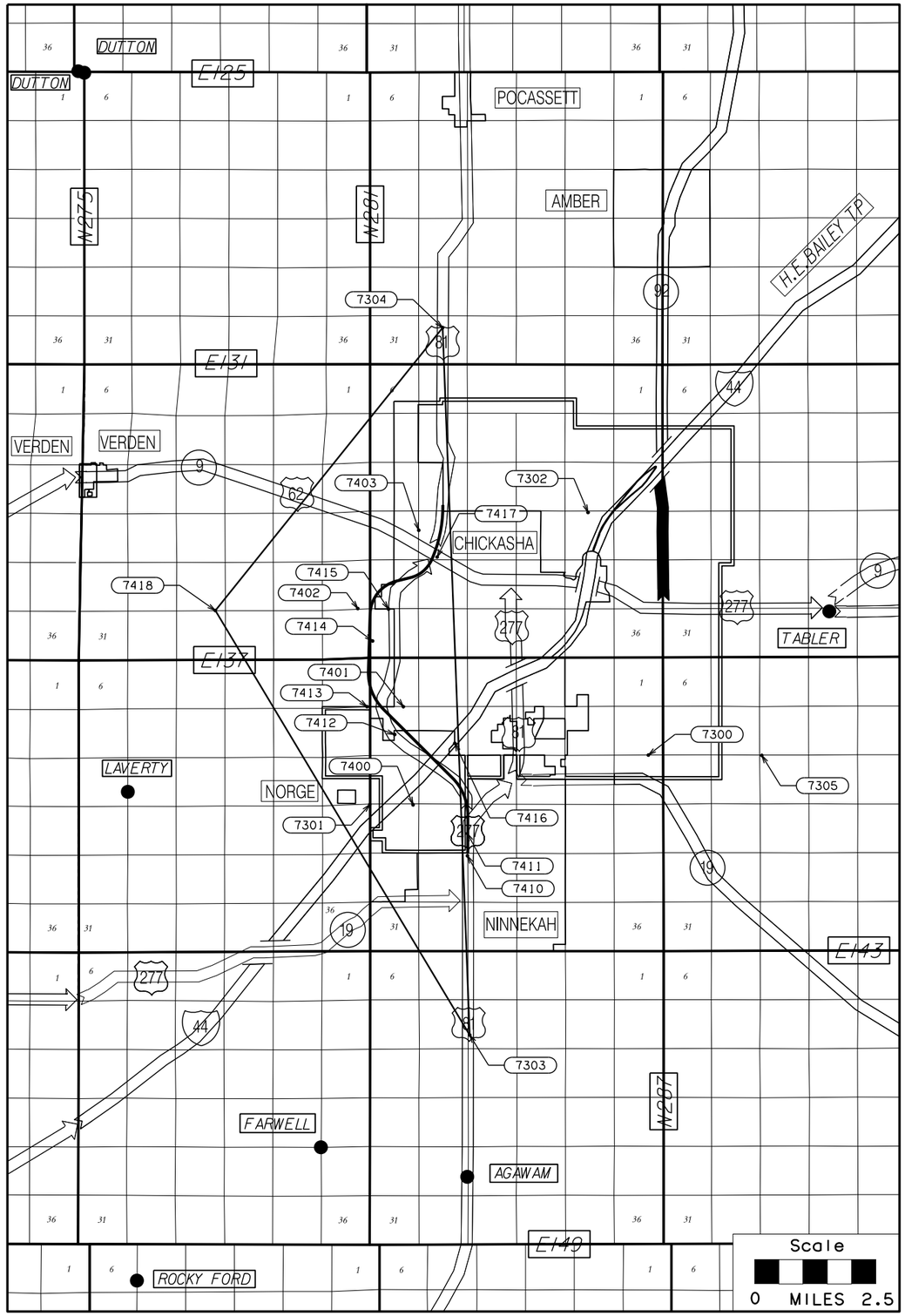
OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	JTB		SURVEY DATA SHEET
CHECKED	JTB		SDS 13 OF 76
APPROVED	JTB		SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S013
CREW	BENHAM		



Network Adjustment for "D 214" (7303)

```
                NGS OPUS-PROJECTS NETWORK ADJUSTMENT REPORT
                ===========================================

All coordinate accuracies reported here are 1 times the formal
uncertainties from the solution. For additional information:
geodesy.noaa.gov/OPUS/Using_OPUS-Projects.html#accuracy

These positions were computed without any knowledge by the National
Geodetic Survey regarding the equipment or field operating procedures used.

SUBMITTED BY:                   bwebb
SOLUTION FILE NAME:             network-D214final.sum
SOLUTION SOFTWARE:              GPSCOM(1210.24)
SOLUTION DATE:                  2015-05-13T10:31:17 UTC
STANDARD ERROR OF UNIT WEIGHT: 0.677
TOTAL NUMBER OF OBSERVATIONS:  60076
TOTAL NUMBER OF MARKS:         9
NUMBER OF CONSTRAINED MARKS:   8

START TIME:                     2015-04-09T17:39:00 GPS
STOP TIME:                      2015-04-09T23:32:00 GPS
FREQUENCY:                      L1-ONLY TO ION-FREE [BY BASELINE LENGTH]
OBSERVATION INTERVAL:           30 s
ELEVATION CUTOFF:               15 deg
TROPO INTERVAL:                 1800 s [STEP-OFFSET PARAMETERIZATION]
DD CORRELATIONS:                ON

    INCLUDED SOLUTION              RMS     SOFTWARE          RUN DATE
-------------------------------------------------------------------------
1) 2015-099 D214A                  1.2 cm  page5(1404.11)   2015-05-13T10:05 UTC
2) 2015-099 D214B                  1.2 cm  page5(1404.11)   2015-05-13T10:15 UTC

 BASELINE       LENGTH          RMS       OBS    OMITTED     FIXED IN SOLUTION(S)
-------------------------------------------------------------------------------
7125-5978      13.342 km      1.8 cm      4110      4.7%    100.0%    1, 2
poca-5978      23.356 km      1.0 cm      7976      1.4%    100.0%    1, 2
okao-5978      32.132 km      1.3 cm      8248      1.3%    100.0%    1, 2
oklw-5978      56.750 km      1.2 cm      7298     10.6%    100.0%    1, 2
okdt-5978      75.334 km      1.1 cm      8098      2.2%    100.0%    1, 2
wmok-5978      78.382 km      1.0 cm      8256      1.1%     94.4%    1, 2
okar-5978     109.824 km      1.4 cm      8152      2.3%     95.0%    1, 2
okcl-5978     112.090 km      1.1 cm      7938      2.9%    100.0%    1, 2
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
UNCONSTRAINED MARKS
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:       5978 (5978    1)

REF FRAME:          NAD_83(2011) (2010.0000)                IGS08 (2015.2709)
X:                -724344.945 m    0.001 m          -724345.753 m    0.001 m
Y:               -5185621.433 m    0.004 m         -5185620.031 m    0.004 m
Z:                3630542.442 m    0.004 m          3630542.292 m    0.004 m
LAT:            34 55 02.21320      0.002 m       34 55 02.23293      0.002 m
E LON:         262 02 53.46469      0.001 m      262 02 53.42551      0.001 m
W LON:          97 57 06.53531      0.001 m       97 57 06.57449      0.001 m
EL HGT:               343.311 m     0.005 m             342.179 m     0.005 m
ORTHO HGT:            369.539 m     0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                  UTM (Zone 14)          SPC (3502 OK S)
NORTHING (Y)       3864371.293 m          175699.868 m
EASTING (X)         595746.595 m          604402.901 m
CONVERGENCE         0.60001940 deg        0.02735040 deg
POINT SCALE         0.99971298            0.99995279
COMBINED FACTOR     0.99965911            0.99988891

US NATIONAL GRID DESIGNATOR: 14SND9574664371 (NAD 83)
```


Network Adjustment for "D 214" (7303)

```
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
CONSTRAINED MARKS
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:       7125 (7125    1)
CONSTRAIN: VER-ONLY NORMAL
ADJUST  X:    -0.004m (0.001m)   Y:   -0.045m (0.004m)   Z:    0.042m (0.003m)
ADJUST  N:     0.008m (0.002m)   E:    0.002m (0.001m)   H:    0.061m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)                IGS08 (2015.2710)
X:                -714059.069 m    0.001 m          -714059.878 m    0.001 m
Y:               -5181677.945 m    0.004 m         -5181676.544 m    0.004 m
Z:                3638070.518 m    0.003 m          3638070.370 m    0.003 m
LAT:            35 00 01.31683      0.002 m       35 00 01.33667      0.002 m
E LON:         262 09 13.66416      0.001 m      262 09 13.62501      0.001 m
W LON:          97 50 46.33584      0.001 m       97 50 46.37499      0.001 m
EL HGT:               297.023 m     0.005 m             295.892 m     0.005 m
ORTHO HGT:            323.343 m     0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                  UTM (Zone 14)          SPC (3502 OK S)
NORTHING (Y)       3873691.742 m          184926.481 m
EASTING (X)         605287.744 m          614039.121 m
CONVERGENCE         0.66185685 deg        0.08729695 deg
POINT SCALE         0.99971662            0.99996225
COMBINED FACTOR     0.99969001            0.99991563

US NATIONAL GRID DESIGNATOR: 14SPD0528773691 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:       okao (okao a  2)
CONSTRAIN: HOR-ONLY NORMAL
ADJUST  X:   -0.010m (0.001m)   Y:   -0.042m (0.004m)   Z:    0.027m (0.004m)
ADJUST  N:   -0.003m (0.002m)   E:   -0.004m (0.001m)   H:    0.051m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)                IGS08 (2015.2709)
X:                -749498.285 m    0.001 m          -749499.090 m    0.001 m
Y:               -5171812.793 m    0.004 m         -5171811.389 m    0.004 m
Z:                3645002.537 m    0.004 m          3645002.390 m    0.004 m
LAT:            35 04 35.04542      0.002 m       35 04 35.06527      0.002 m
E LON:         261 45 14.79978      0.001 m      261 45 14.76038      0.001 m
W LON:          98 14 45.20022      0.001 m       98 14 45.23962      0.001 m
EL HGT:               340.497 m     0.005 m             339.370 m     0.005 m
ORTHO HGT:            367.304 m     0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                  UTM (Zone 14)          SPC (3502 OK S)
NORTHING (Y)       3881775.765 m          193378.324 m
EASTING (X)         568750.537 m          577574.765 m
CONVERGENCE         0.43338065 deg       -0.13957067 deg
POINT SCALE         0.99965825            0.99997275
COMBINED FACTOR     0.99960482            0.99991931

US NATIONAL GRID DESIGNATOR: 14SND6875081775 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:       okar (okar a  3)
CONSTRAIN: HOR-ONLY NORMAL
ADJUST  X:   -0.007m (0.001m)   Y:   -0.039m (0.004m)   Z:    0.027m (0.004m)
ADJUST  N:    0.000m (0.002m)   E:   -0.002m (0.001m)   H:    0.048m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)                IGS08 (2015.2709)
X:                -659318.976 m    0.001 m          -659319.782 m    0.001 m
Y:               -5241679.389 m    0.004 m         -5241677.972 m    0.004 m
Z:                3562055.730 m    0.004 m          3562055.575 m    0.004 m
LAT:            34 10 06.45066      0.002 m       34 10 06.47030      0.002 m
E LON:         262 49 50.74924      0.001 m      262 49 50.71110      0.001 m
W LON:          97 10 09.25076      0.001 m       97 10 09.28890      0.001 m
EL HGT:               236.971 m     0.005 m             235.804 m     0.005 m
ORTHO HGT:            263.085 m     0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                  UTM (Zone 14)          SPC (3502 OK S)
```


OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB	
DRAWN	JTB	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 14 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S014

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE


```
NORTHING (Y)       3782348.990 m         92950.122 m
EASTING (X)         668743.272 m        676594.319 m
CONVERGENCE         1.02845104 deg      0.47155532 deg
POINT SCALE         0.99995101          0.99996210
COMBINED FACTOR     0.99991381          0.99992490

US NATIONAL GRID DESIGNATOR: 14SPC6874382348 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:      okcl (okcl a  1)
CONSTRAIN: HOR-ONLY NORMAL
ADJUST  X:   -0.004m (0.001m)   Y:   -0.049m (0.004m)   Z:    0.030m (0.004m)
ADJUST  N:   -0.003m (0.002m)   E:    0.004m (0.001m)   H:    0.057m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)             IGS08 (2015.2709)
X:                -810881.810 m    0.001 m        -810882.622 m    0.001 m
Y:               -5136265.213 m    0.004 m       -5136263.819 m    0.004 m
Z:                3681919.306 m    0.004 m        3681919.167 m    0.004 m
LAT:            35 28 59.34891     0.002 m      35 28 59.36880     0.002 m
E LON:         261 01 42.75365     0.001 m     261 01 42.71322     0.001 m
W LON:          98 58 17.24635     0.001 m      98 58 17.28678     0.001 m
EL HGT:               470.750 m    0.005 m            469.651 m    0.005 m
ORTHO HGT:            497.952 m    0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)         SPC (3501 OK N)
NORTHING (Y)     3926625.352 m        54048.585 m
EASTING (X)       502589.165 m       511841.910 m
CONVERGENCE       0.01656799 deg     -0.57330269 deg
POINT SCALE       0.99960008          1.00001621
COMBINED FACTOR   0.99952623          0.99994233

US NATIONAL GRID DESIGNATOR: 14SNE0258926625 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:      okdt (okdt a  4)
CONSTRAIN: HOR-ONLY NORMAL
ADJUST  X:   -0.005m (0.001m)   Y:   -0.040m (0.004m)   Z:    0.032m (0.004m)
ADJUST  N:    0.002m (0.002m)   E:    0.000m (0.001m)   H:    0.051m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)             IGS08 (2015.2709)
X:                -679342.228 m    0.001 m        -679343.043 m    0.001 m
Y:               -5154773.611 m    0.004 m       -5154772.208 m    0.004 m
Z:                3682488.902 m    0.004 m        3682488.747 m    0.004 m
LAT:            35 29 24.45381     0.002 m      35 29 24.47392     0.002 m
E LON:         262 29 32.33364     0.001 m     262 29 32.29433     0.001 m
W LON:          97 30 27.66636     0.001 m      97 30 27.70567     0.001 m
EL HGT:               366.628 m    0.005 m            365.492 m    0.005 m
ORTHO HGT:            393.628 m    0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)         SPC (3501 OK N)
NORTHING (Y)     3928421.957 m        54494.520 m
EASTING (X)       635364.257 m       644673.365 m
CONVERGENCE       0.86651393 deg      0.29053820 deg
POINT SCALE       0.99982581          1.00001477
COMBINED FACTOR   0.99976828          0.99995723

US NATIONAL GRID DESIGNATOR: 14SPE3536428421 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:      oklw (oklw a  1)
CONSTRAIN: HOR-ONLY NORMAL
ADJUST  X:   -0.006m (0.001m)   Y:   -0.037m (0.004m)   Z:    0.032m (0.004m)
ADJUST  N:    0.005m (0.002m)   E:   -0.001m (0.001m)   H:    0.049m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)             IGS08 (2015.2709)
X:                -768964.438 m    0.001 m        -768965.241 m    0.001 m
Y:               -5201189.562 m    0.004 m       -5201188.165 m    0.004 m
Z:                3599120.822 m    0.004 m        3599120.674 m    0.004 m
LAT:            34 34 21.98765     0.002 m      34 34 22.00698     0.002 m
E LON:         261 35 24.31094     0.001 m     261 35 24.27175     0.001 m
W LON:          98 24 35.68906     0.001 m      98 24 35.72825     0.001 m
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               NGS OPUS-PROJECTS NETWORK ADJUSTMENT REPORT
               ===========================================

All coordinate accuracies reported here are 1 times the formal
uncertainties from the solution. For additional information:
geodesy.noaa.gov/OPUS/Using_OPUS-Projects.html#accuracy

These positions were computed without any knowledge by the National
Geodetic Survey regarding the equipment or field operating procedures used.

SUBMITTED BY:                    bwebb
SOLUTION FILE NAME:              network-PocaFinal.sum
SOLUTION SOFTWARE:               GPSCOM(1210.24)
SOLUTION DATE:                   2015-05-13T11:50:06 UTC
STANDARD ERROR OF UNIT WEIGHT:   0.671
TOTAL NUMBER OF OBSERVATIONS:    81106
TOTAL NUMBER OF MARKS:           9
NUMBER OF CONSTRAINED MARKS:     8

START TIME:                      2015-04-09T15:27:00 GPS
STOP TIME:                       2015-04-09T23:31:00 GPS
FREQUENCY:                       L1-ONLY TO ION-FREE [BY BASELINE LENGTH]
OBSERVATION INTERVAL:            30 s
ELEVATION CUTOFF:                15 deg
TROPO INTERVAL:                  1800 s [STEP-OFFSET PARAMETERIZATION]
DD CORRELATIONS:                 ON

   INCLUDED SOLUTION           RMS    SOFTWARE         RUN DATE
------------------------------------------------------------------------
 1) 2015-099 PocaA            1.2 cm  page5(1404.11)   2015-05-13T11:27 UTC
 2) 2015-099 PocaB            1.2 cm  page5(1404.11)   2015-05-13T11:36 UTC

  BASELINE     LENGTH         RMS        OBS   OMITTED    FIXED IN SOLUTION(S)
------------------------------------------------------------------------
 7125-poca     17.609 km    1.9 cm      4380     2.2%   100.0%    1, 2
 poca-5978     23.356 km    1.0 cm      7992     1.2%   100.0%    1, 2
 okao-poca     26.544 km    1.1 cm     11896     0.6%    96.2%    1, 2
 okdt-poca     57.629 km    1.1 cm     11490     3.0%   100.0%    1, 2
 oklw-poca     73.968 km    1.2 cm     10392     9.9%    91.7%    1, 2
 wmok-poca     86.425 km    0.9 cm     11848     0.9%    96.2%    1, 2
 okcl-poca     99.966 km    1.0 cm     11346     3.5%   100.0%    1, 2
 okar-poca    128.836 km    1.4 cm     11762     1.3%    92.6%    1, 2
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
UNCONSTRAINED MARKS
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:      poca (poca    1)

REF FRAME:          NAD_83(2011) (2010.0000)             IGS08 (2015.2708)
X:                -723367.281 m    0.001 m        -723368.091 m    0.001 m
Y:               -5172226.607 m    0.004 m       -5172225.208 m    0.004 m
Z:                3649650.888 m    0.003 m        3649650.741 m    0.003 m
LAT:            35 07 39.52758     0.002 m      35 07 39.54745     0.002 m
E LON:         262 02 18.52037     0.001 m     262 02 18.48104     0.001 m
W LON:          97 57 41.47963     0.001 m      97 57 41.51896     0.001 m
EL HGT:               334.990 m    0.005 m            333.864 m    0.005 m
ORTHO HGT:            361.690 m    0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)         SPC (3502 OK S)
NORTHING (Y)     3887692.146 m       199036.797 m
EASTING (X)       594617.194 m       603507.044 m
CONVERGENCE       0.59758450 deg      0.02184069 deg
POINT SCALE       0.99971033          0.99998082
COMBINED FACTOR   0.99965777          0.99992824

US NATIONAL GRID DESIGNATOR: 14SND9461787692 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
CONSTRAINED MARKS
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
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POINT SCALE       0.99965825          0.99997275
COMBINED FACTOR   0.99960482          0.99991931

US NATIONAL GRID DESIGNATOR: 14SND6875081775 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:      okar (okar a  3)
CONSTRAIN: HOR-ONLY NORMAL
ADJUST  X:   -0.010m (0.001m)   Y:   -0.050m (0.004m)   Z:    0.036m (0.004m)
ADJUST  N:    0.001m (0.002m)   E:   -0.004m (0.001m)   H:    0.062m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)             IGS08 (2015.2707)
X:                -659318.978 m    0.001 m        -659319.784 m    0.001 m
Y:               -5241679.399 m    0.004 m       -5241677.982 m    0.004 m
Z:                3562055.738 m    0.004 m        3562055.584 m    0.004 m
LAT:            34 10 06.45069     0.002 m      34 10 06.47034     0.002 m
E LON:         262 49 50.74921     0.001 m     262 49 50.71106     0.001 m
W LON:          97 10 09.25079     0.001 m      97 10 09.28894     0.001 m
EL HGT:               236.984 m    0.005 m            235.817 m    0.005 m
ORTHO HGT:            263.098 m    0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)         SPC (3502 OK S)
NORTHING (Y)     3782348.990 m        92950.123 m
EASTING (X)       668743.271 m       676594.319 m
CONVERGENCE       1.02845104 deg      0.47155531 deg
POINT SCALE       0.99995101          0.99996210
COMBINED FACTOR   0.99991381          0.99992490

US NATIONAL GRID DESIGNATOR: 14SPC6874382348 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:      okcl (okcl a  1)
CONSTRAIN: HOR-ONLY NORMAL
ADJUST  X:   -0.006m (0.001m)   Y:   -0.061m (0.004m)   Z:    0.037m (0.004m)
ADJUST  N:   -0.005m (0.002m)   E:    0.004m (0.001m)   H:    0.071m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)             IGS08 (2015.2707)
X:                -810881.812 m    0.001 m        -810882.623 m    0.001 m
Y:               -5136265.225 m    0.004 m       -5136263.831 m    0.004 m
Z:                3681919.313 m    0.004 m        3681919.174 m    0.004 m
LAT:            35 28 59.34887     0.002 m      35 28 59.36874     0.002 m
E LON:         261 01 42.75365     0.001 m     261 01 42.71323     0.001 m
W LON:          98 58 17.24635     0.001 m      98 58 17.28677     0.001 m
EL HGT:               470.764 m    0.005 m            469.665 m    0.005 m
ORTHO HGT:            497.966 m    0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)         SPC (3501 OK N)
NORTHING (Y)     3926625.351 m        54048.584 m
EASTING (X)       502589.165 m       511841.910 m
CONVERGENCE       0.01656799 deg     -0.57330269 deg
POINT SCALE       0.99960008          1.00001621
COMBINED FACTOR   0.99952622          0.99994232

US NATIONAL GRID DESIGNATOR: 14SNE0258926625 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:      okdt (okdt a  4)
CONSTRAIN: HOR-ONLY NORMAL
ADJUST  X:   -0.006m (0.001m)   Y:   -0.052m (0.004m)   Z:    0.040m (0.003m)
ADJUST  N:    0.002m (0.002m)   E:    0.001m (0.001m)   H:    0.066m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)             IGS08 (2015.2707)
X:                -679342.229 m    0.001 m        -679343.044 m    0.001 m
Y:               -5154773.623 m    0.004 m       -5154772.221 m    0.004 m
Z:                3682488.911 m    0.003 m        3682488.756 m    0.003 m
LAT:            35 29 24.45382     0.002 m      35 29 24.47390     0.002 m
E LON:         262 29 32.33366     0.001 m     262 29 32.29435     0.001 m
W LON:          97 30 27.66634     0.001 m      97 30 27.70565     0.001 m
EL HGT:               366.643 m    0.005 m            365.507 m    0.005 m
ORTHO HGT:            393.643 m    0.010 m  (H = h - N WHERE N = GEOID12A HGT)
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EL HGT:               314.751 m    0.005 m            313.626 m    0.005 m
ORTHO HGT:            340.377 m    0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)         SPC (3502 OK S)
NORTHING (Y)     3825825.192 m       137559.216 m
EASTING (X)       554125.070 m       562388.796 m
CONVERGENCE       0.33485415 deg     -0.23267381 deg
POINT SCALE       0.99963611          0.99993596
COMBINED FACTOR   0.99958672          0.99988656

US NATIONAL GRID DESIGNATOR: 14SND5412525825 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:      poca (poca    1)
CONSTRAIN: VER-ONLY NORMAL
ADJUST  X:   -0.005m (0.001m)   Y:   -0.043m (0.004m)   Z:    0.031m (0.003m)
ADJUST  N:    0.000m (0.002m)   E:    0.001m (0.001m)   H:    0.053m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)             IGS08 (2015.2709)
X:                -723367.278 m    0.001 m        -723368.088 m    0.001 m
Y:               -5172226.594 m    0.004 m       -5172225.195 m    0.004 m
Z:                3649650.880 m    0.003 m        3649650.733 m    0.003 m
LAT:            35 07 39.52761     0.002 m      35 07 39.54748     0.002 m
E LON:         262 02 18.52041     0.001 m     262 02 18.48109     0.001 m
W LON:          97 57 41.47959     0.001 m      97 57 41.51891     0.001 m
EL HGT:               334.975 m    0.005 m            333.849 m    0.005 m
ORTHO HGT:            361.675 m    0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)         SPC (3502 OK S)
NORTHING (Y)     3887692.147 m       199036.798 m
EASTING (X)       594617.195 m       603507.046 m
CONVERGENCE       0.59758451 deg      0.02184069 deg
POINT SCALE       0.99971033          0.99998082
COMBINED FACTOR   0.99965777          0.99992824

US NATIONAL GRID DESIGNATOR: 14SND9461787692 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:      wmok (wmok a  1)
CONSTRAIN: HOR-ONLY NORMAL
ADJUST  X:   -0.007m (0.001m)   Y:   -0.048m (0.004m)   Z:    0.034m (0.004m)
ADJUST  N:   -0.000m (0.002m)   E:    0.000m (0.001m)   H:    0.059m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)             IGS08 (2015.2709)
X:                -801019.801 m    0.001 m        -801020.609 m    0.001 m
Y:               -5185937.833 m    0.004 m       -5185936.433 m    0.004 m
Z:                3614276.354 m    0.004 m        3614276.203 m    0.004 m
LAT:            34 44 16.39680     0.002 m      34 44 16.41609     0.002 m
E LON:         261 13 10.14602     0.001 m     261 13 10.10622     0.001 m
W LON:          98 46 49.85398     0.001 m      98 46 49.89378     0.001 m
EL HGT:               468.568 m    0.005 m            467.446 m    0.005 m
ORTHO HGT:            493.948 m    0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)         SPC (3502 OK S)
NORTHING (Y)     3843998.397 m       156074.790 m
EASTING (X)       520092.044 m       528526.788 m
CONVERGENCE       0.12506804 deg     -0.44303333 deg
POINT SCALE       0.99960498          0.99993953
COMBINED FACTOR   0.99953146          0.99986599

US NATIONAL GRID DESIGNATOR: 14SND2009243998 (NAD 83)
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MARK:      5978 (5978    1)
CONSTRAIN: VER-ONLY NORMAL
ADJUST  X:   -0.004m (0.001m)   Y:   -0.051m (0.004m)   Z:    0.043m (0.003m)
ADJUST  N:    0.006m (0.002m)   E:    0.003m (0.001m)   H:    0.066m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)             IGS08 (2015.2709)
X:                -724344.947 m    0.001 m        -724345.755 m    0.001 m
Y:               -5185621.442 m    0.004 m       -5185620.041 m    0.004 m
Z:                3630542.449 m    0.003 m        3630542.300 m    0.003 m
LAT:            34 55 02.21322     0.002 m      34 55 02.23293     0.002 m
E LON:         262 02 53.46466     0.001 m     262 02 53.42549     0.001 m
W LON:          97 57 06.53534     0.001 m      97 57 06.57451     0.001 m
EL HGT:               343.322 m    0.005 m            342.191 m    0.005 m
ORTHO HGT:            369.550 m    0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)         SPC (3502 OK S)
NORTHING (Y)     3864371.294 m       175699.869 m
EASTING (X)       595746.594 m       604402.900 m
CONVERGENCE       0.60001939 deg      0.02735040 deg
POINT SCALE       0.99971298          0.99995279
COMBINED FACTOR   0.99965911          0.99989890

US NATIONAL GRID DESIGNATOR: 14SND9574664371 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:      7125 (7125    1)
CONSTRAIN: VER-ONLY NORMAL
ADJUST  X:   -0.004m (0.001m)   Y:   -0.051m (0.004m)   Z:    0.047m (0.003m)
ADJUST  N:    0.010m (0.002m)   E:    0.003m (0.001m)   H:    0.069m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)             IGS08 (2015.2710)
X:                -714059.069 m    0.001 m        -714059.878 m    0.001 m
Y:               -5181677.951 m    0.004 m       -5181676.550 m    0.004 m
Z:                3638070.524 m    0.003 m        3638070.375 m    0.003 m
LAT:            35 00 01.31688     0.002 m      35 00 01.33671     0.002 m
E LON:         262 09 13.66419     0.001 m     262 09 13.62506     0.001 m
W LON:          97 50 46.33581     0.001 m      97 50 46.37494     0.001 m
EL HGT:               297.032 m    0.005 m            295.900 m    0.005 m
ORTHO HGT:            323.352 m    0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)         SPC (3502 OK S)
NORTHING (Y)     3873691.743 m       184926.483 m
EASTING (X)       605287.745 m       614039.122 m
CONVERGENCE       0.66185686 deg      0.08729695 deg
POINT SCALE       0.99973662          0.99996225
COMBINED FACTOR   0.99969001          0.99991563

US NATIONAL GRID DESIGNATOR: 14SPD0528773691 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:      okao (okao a  2)
CONSTRAIN: HOR-ONLY NORMAL
ADJUST  X:   -0.011m (0.001m)   Y:   -0.050m (0.004m)   Z:    0.033m (0.003m)
ADJUST  N:   -0.003m (0.002m)   E:   -0.004m (0.001m)   H:    0.060m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)             IGS08 (2015.2707)
X:                -749498.287 m    0.001 m        -749499.091 m    0.001 m
Y:               -5171812.800 m    0.004 m       -5171811.397 m    0.004 m
Z:                3645002.543 m    0.003 m        3645002.396 m    0.003 m
LAT:            35 04 35.04544     0.002 m      35 04 35.06527     0.002 m
E LON:         261 45 14.79974     0.001 m     261 45 14.76037     0.001 m
W LON:          98 14 45.20026     0.001 m      98 14 45.23963     0.001 m
EL HGT:               340.506 m    0.005 m            339.379 m    0.005 m
ORTHO HGT:            367.313 m    0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)         SPC (3502 OK S)
NORTHING (Y)     3881775.765 m       193378.325 m
EASTING (X)       568750.536 m       577574.764 m
CONVERGENCE       0.43338064 deg     -0.13957068 deg
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                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)         SPC (3501 OK N)
NORTHING (Y)     3928421.957 m        54494.520 m
EASTING (X)       635364.257 m       644673.366 m
CONVERGENCE       0.86651394 deg      0.29053820 deg
POINT SCALE       0.99982581          1.00001477
COMBINED FACTOR   0.99976828          0.99995722

US NATIONAL GRID DESIGNATOR: 14SPE3536428421 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:      oklw (oklw a  1)
CONSTRAIN: HOR-ONLY NORMAL
ADJUST  X:   -0.008m (0.001m)   Y:   -0.048m (0.004m)   Z:    0.039m (0.004m)
ADJUST  N:    0.005m (0.002m)   E:   -0.001m (0.001m)   H:    0.062m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)             IGS08 (2015.2707)
X:                -768964.441 m    0.001 m        -768965.244 m    0.001 m
Y:               -5201189.573 m    0.004 m       -5201188.175 m    0.004 m
Z:                3599120.829 m    0.004 m        3599120.681 m    0.004 m
LAT:            34 34 21.98763     0.002 m      34 34 22.00696     0.002 m
E LON:         261 35 24.31089     0.001 m     261 35 24.27172     0.001 m
W LON:          98 24 35.68911     0.001 m      98 24 35.72828     0.001 m
EL HGT:               314.765 m    0.005 m            313.639 m    0.005 m
ORTHO HGT:            340.391 m    0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)         SPC (3502 OK S)
NORTHING (Y)     3825825.192 m       137559.215 m
EASTING (X)       554125.069 m       562388.795 m
CONVERGENCE       0.33485414 deg     -0.23267382 deg
POINT SCALE       0.99963611          0.99993596
COMBINED FACTOR   0.99958672          0.99988656

US NATIONAL GRID DESIGNATOR: 14SND5412525825 (NAD 83)
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:      wmok (wmok a  1)
CONSTRAIN: HOR-ONLY NORMAL
ADJUST  X:   -0.007m (0.001m)   Y:   -0.059m (0.004m)   Z:    0.040m (0.004m)
ADJUST  N:   -0.001m (0.002m)   E:    0.002m (0.001m)   H:    0.072m (0.005m)

REF FRAME:          NAD_83(2011) (2010.0000)             IGS08 (2015.2707)
X:                -801019.802 m    0.001 m        -801020.610 m    0.001 m
Y:               -5185937.843 m    0.004 m       -5185936.443 m    0.004 m
Z:                3614276.361 m    0.004 m        3614276.210 m    0.004 m
LAT:            34 44 16.39680     0.002 m      34 44 16.41608     0.002 m
E LON:         261 13 10.14604     0.001 m     261 13 10.10627     0.001 m
W LON:          98 46 49.85396     0.001 m      98 46 49.89373     0.001 m
EL HGT:               468.580 m    0.005 m            467.459 m    0.005 m
ORTHO HGT:            493.960 m    0.010 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)         SPC (3502 OK S)
NORTHING (Y)     3843998.397 m       156074.790 m
EASTING (X)       520092.045 m       528526.788 m
CONVERGENCE       0.12506804 deg     -0.44303332 deg
POINT SCALE       0.99960498          0.99993953
COMBINED FACTOR   0.99953146          0.99986599

US NATIONAL GRID DESIGNATOR: 14SND2009243998 (NAD 83)
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PLS	JTB	OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	JTB	SURVEY DATA SHEET
CHECKED	JTB	SDS 15 OF 76
APPROVED	JTB	
CREW	BENHAM	SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S015

8-87

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                NGS OPUS-PROJECTS NETWORK ADJUSTMENT REPORT
                ===========================================

All coordinate accuracies reported here are 1 times the formal
uncertainties from the solution. For additional information:
geodesy.noaa.gov/OPUS/Using_OPUS-Projects.html#accuracy

These positions were computed without any knowledge by the National
Geodetic Survey regarding the equipment or field operating procedures used.

SUBMITTED BY:                 bwebb
SOLUTION FILE NAME:           network-115final.sum
SOLUTION SOFTWARE:            GPSCOM(1210.24)
SOLUTION DATE:                2015-05-13T13:49:07 UTC
STANDARD ERROR OF UNIT WEIGHT: 0.687
TOTAL NUMBER OF OBSERVATIONS:  34926
TOTAL NUMBER OF MARKS:         10
NUMBER OF CONSTRAINED MARKS:   9

START TIME:                   2015-04-09T21:24:30 GPS
STOP TIME:                    2015-04-09T23:55:00 GPS
FREQUENCY:                    L1-ONLY TO ION-FREE [BY BASELINE LENGTH]
OBSERVATION INTERVAL:         30 s
ELEVATION CUTOFF:             15 deg
TROPO INTERVAL:               1800 s [STEP-OFFSET PARAMETERIZATION]
DD CORRELATIONS:              ON

    INCLUDED SOLUTION             RMS    SOFTWARE          RUN DATE
-------------------------------------------------------------------------
 1) 2015-099 115A                 1.2 cm  page5(1404.11)   2015-05-13T13:28 UTC
 2) 2015-099 115B                 1.2 cm  page5(1404.11)   2015-05-13T13:37 UTC

  BASELINE      LENGTH        RMS      OBS   OMITTED    FIXED IN SOLUTION(S)
-------------------------------------------------------------------------------
 poca-0115      11.971 km     1.0 cm    3490     0.8%   100.0%    1, 2
 5978-0115      16.330 km     1.0 cm    3518     0.9%   100.0%    1, 2
 7125-0115      18.654 km     1.8 cm    4096     1.0%   100.0%    1, 2
 okao-0115      18.798 km     1.2 cm    4084     1.7%   100.0%    1, 2
 okjw-0115      62.051 km     1.2 cm    3644     8.6%    91.7%    1, 2
 okdt-0115      69.531 km     1.2 cm    3960     2.2%   100.0%    1, 2
 wmok-0115      75.406 km     0.9 cm    4082     1.5%   100.0%    1, 2
 okcl-0115      97.499 km     1.1 cm    3942     2.0%   100.0%    1, 2
 okar-0115     125.929 km     1.1 cm    4110     0.8%   100.0%    1, 2
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
UNCONSTRAINED MARKS
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
MARK:       0115 (0115    1)

REF FRAME:        NAD_83(2011) (2010.0000)              IGS08 (2015.2711)
X:                 -731540.693 m    0.001 m          -731541.502 m    0.001 m
Y:                -5176505.319 m    0.004 m         -5176503.919 m    0.004 m
Z:                 3642021.900 m    0.003 m          3642021.752 m    0.003 m
LAT:            35 02 36.71782      0.002 m       35 02 36.73759      0.002 m
E LON:         261 57 22.53418      0.001 m      261 57 22.49487      0.001 m
W LON:          98 02 37.46582      0.001 m       98 02 37.50513      0.001 m
EL HGT:            348.132 m        0.004 m             347.005 m      0.004 m
ORTHO HGT:         374.685 m        0.009 m  (H = h - N WHERE N = GEOID12A HGT)

                UTM COORDINATES    STATE PLANE COORDINATES
                 UTM (Zone 14)          SPC (3502 OK S)
NORTHING (Y)       3878288.625 m         189705.466 m
EASTING (X)         587215.413 m         596009.253 m
CONVERGENCE          0.54911756 deg      -0.02482784 deg
POINT SCALE          0.99969374           0.99996799
COMBINED FACTOR      0.99963911           0.99991335

US NATIONAL GRID DESIGNATOR: 14SND8721578288 (NAD 83)
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 CONSTRAINED MARKS
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 MARK:       5978 (5978    1)
 CONSTRAIN: VER-ONLY NORMAL
 ADJUST  X:    0.002m (0.001m)   Y:   -0.022m (0.004m)   Z:    0.022m (0.003m)
 ADJUST  N:    0.006m (0.002m)   E:    0.005m (0.001m)   H:    0.030m (0.004m)

 REF FRAME:        NAD_83(2011) (2010.0000)              IGS08 (2015.2711)
 X:                 -724344.941 m    0.001 m          -724345.749 m    0.001 m
 Y:                -5185621.413 m    0.004 m         -5185620.012 m    0.004 m
 Z:                 3630542.428 m    0.003 m          3630542.279 m    0.003 m
 LAT:            34 55 02.21321      0.002 m       34 55 02.23295      0.002 m
 E LON:         262 02 53.46474      0.001 m      262 02 53.42556      0.001 m
 W LON:          97 57 06.53526      0.001 m       97 57 06.57444      0.001 m
 EL HGT:            343.286 m        0.004 m             342.155 m      0.004 m
 ORTHO HGT:         369.514 m        0.009 m  (H = h - N WHERE N = GEOID12A HGT)

                 UTM COORDINATES    STATE PLANE COORDINATES
                  UTM (Zone 14)          SPC (3502 OK S)
 NORTHING (Y)       3864371.293 m         175699.868 m
 EASTING (X)         595746.596 m         604402.902 m
 CONVERGENCE          0.60001941 deg       0.02735041 deg
 POINT SCALE          0.99971298           0.99995279
 COMBINED FACTOR      0.99965911           0.99989891

 US NATIONAL GRID DESIGNATOR: 14SND9574664371 (NAD 83)
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 MARK:       7125 (7125    1)
 CONSTRAIN: VER-ONLY NORMAL
 ADJUST  X:   -0.000m (0.001m)   Y:   -0.032m (0.004m)   Z:    0.033m (0.003m)
 ADJUST  N:    0.008m (0.002m)   E:    0.004m (0.001m)   H:    0.045m (0.004m)

 REF FRAME:        NAD_83(2011) (2010.0000)              IGS08 (2015.2711)
 X:                 -714059.066 m    0.001 m          -714059.874 m    0.001 m
 Y:                -5181677.932 m    0.004 m         -5181676.531 m    0.004 m
 Z:                 3638070.509 m    0.003 m          3638070.361 m    0.003 m
 LAT:            35 00 01.31684      0.002 m       35 00 01.33667      0.002 m
 E LON:         262 09 13.66421      0.001 m      262 09 13.62509      0.001 m
 W LON:          97 50 46.33579      0.001 m       97 50 46.37491      0.001 m
 EL HGT:            297.007 m        0.004 m             295.876 m      0.004 m
 ORTHO HGT:         323.327 m        0.009 m  (H = h - N WHERE N = GEOID12A HGT)

                 UTM COORDINATES    STATE PLANE COORDINATES
                  UTM (Zone 14)          SPC (3502 OK S)
 NORTHING (Y)       3873691.742 m         184926.481 m
 EASTING (X)         605287.745 m         614039.122 m
 CONVERGENCE          0.66185686 deg       0.08729695 deg
 POINT SCALE          0.99973662           0.99996225
 COMBINED FACTOR      0.99969001           0.99991563

 US NATIONAL GRID DESIGNATOR: 14SPD0528773691 (NAD 83)
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 MARK:       okao (okao a  2)
 CONSTRAIN: HOR-ONLY NORMAL
 ADJUST  X:   -0.006m (0.001m)   Y:   -0.027m (0.004m)   Z:    0.013m (0.003m)
 ADJUST  N:   -0.006m (0.002m)   E:   -0.002m (0.001m)   H:    0.030m (0.004m)

 REF FRAME:        NAD_83(2011) (2010.0000)              IGS08 (2015.2711)
 X:                 -749498.282 m    0.001 m          -749499.087 m    0.001 m
 Y:                -5171812.778 m    0.004 m         -5171811.374 m    0.004 m
 Z:                 3645002.523 m    0.003 m          3645002.376 m    0.003 m
 LAT:            35 04 35.04533      0.002 m       35 04 35.06518      0.002 m
 E LON:         261 45 14.79981      0.001 m      261 45 14.76043      0.001 m
 W LON:          98 14 45.20019      0.001 m       98 14 45.23957      0.001 m
 EL HGT:            340.476 m        0.004 m             339.349 m      0.004 m
 ORTHO HGT:         367.283 m        0.009 m  (H = h - N WHERE N = GEOID12A HGT)

                 UTM COORDINATES    STATE PLANE COORDINATES
                  UTM (Zone 14)          SPC (3502 OK S)
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NORTHING (Y)       3881775.762 m         193378.321 m
EASTING (X)         568750.538 m         577574.766 m
CONVERGENCE          0.43338066 deg      -0.13957066 deg
POINT SCALE          0.99965825           0.99997275
COMBINED FACTOR      0.99960483           0.99991931

US NATIONAL GRID DESIGNATOR: 14SND6875081775 (NAD 83)
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 MARK:       okar (okar a  3)
 CONSTRAIN: HOR-ONLY NORMAL
 ADJUST  X:   -0.006m (0.001m)   Y:   -0.024m (0.004m)   Z:    0.016m (0.003m)
 ADJUST  N:   -0.000m (0.002m)   E:   -0.003m (0.001m)   H:    0.030m (0.004m)

 REF FRAME:        NAD_83(2011) (2010.0000)              IGS08 (2015.2711)
 X:                 -659318.974 m    0.001 m          -659319.780 m    0.001 m
 Y:                -5241679.374 m    0.004 m         -5241677.957 m    0.004 m
 Z:                 3562055.719 m    0.003 m          3562055.564 m    0.003 m
 LAT:            34 10 06.45064      0.002 m       34 10 06.47028      0.002 m
 E LON:         262 49 50.74924      0.001 m      262 49 50.71109      0.001 m
 W LON:          97 10 09.25076      0.001 m       97 10 09.28891      0.001 m
 EL HGT:            236.952 m        0.004 m             235.785 m      0.004 m
 ORTHO HGT:         263.066 m        0.009 m  (H = h - N WHERE N = GEOID12A HGT)

                 UTM COORDINATES    STATE PLANE COORDINATES
                  UTM (Zone 14)          SPC (3502 OK S)
 NORTHING (Y)       3782348.989 m          92950.122 m
 EASTING (X)         668743.272 m         676594.319 m
 CONVERGENCE          1.02845104 deg       0.47155532 deg
 POINT SCALE          0.99995101           0.99996210
 COMBINED FACTOR      0.99991382           0.99992491

 US NATIONAL GRID DESIGNATOR: 14SPC6874382348 (NAD 83)
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 MARK:       okcl (okcl a  1)
 CONSTRAIN: HOR-ONLY NORMAL
 ADJUST  X:   -0.001m (0.001m)   Y:   -0.036m (0.004m)   Z:    0.022m (0.003m)
 ADJUST  N:   -0.003m (0.002m)   E:    0.005m (0.001m)   H:    0.042m (0.004m)

 REF FRAME:        NAD_83(2011) (2010.0000)              IGS08 (2015.2711)
 X:                 -810881.807 m    0.001 m          -810882.619 m    0.001 m
 Y:                -5136265.201 m    0.004 m         -5136263.806 m    0.004 m
 Z:                 3681919.298 m    0.003 m          3681919.158 m    0.003 m
 LAT:            35 28 59.34893      0.002 m       35 28 59.36880      0.002 m
 E LON:         261 01 42.75370      0.001 m      261 01 42.71327      0.001 m
 W LON:          98 58 17.24630      0.001 m       98 58 17.28673      0.001 m
 EL HGT:            470.735 m        0.004 m             469.636 m      0.004 m
 ORTHO HGT:         497.937 m        0.009 m  (H = h - N WHERE N = GEOID12A HGT)

                 UTM COORDINATES    STATE PLANE COORDINATES
                  UTM (Zone 14)          SPC (3501 OK N)
 NORTHING (Y)       3926625.353 m          54048.586 m
 EASTING (X)         502589.166 m         511841.912 m
 CONVERGENCE          0.01656799 deg      -0.57330269 deg
 POINT SCALE          0.99960008           1.00001621
 COMBINED FACTOR      0.99952623           0.99994233

 US NATIONAL GRID DESIGNATOR: 14SNE0258926625 (NAD 83)
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 MARK:       okdt (okdt a  4)
 CONSTRAIN: HOR-ONLY NORMAL
 ADJUST  X:   -0.002m (0.001m)   Y:   -0.017m (0.004m)   Z:    0.012m (0.003m)
 ADJUST  N:    0.000m (0.002m)   E:    0.001m (0.001m)   H:    0.021m (0.004m)

 REF FRAME:        NAD_83(2011) (2010.0000)              IGS08 (2015.2711)
 X:                 -679342.225 m    0.001 m          -679343.039 m    0.001 m
 Y:                -5154773.588 m    0.004 m         -5154772.185 m    0.004 m
 Z:                 3682488.883 m    0.003 m          3682488.728 m    0.003 m
 LAT:            35 29 24.45375      0.002 m       35 29 24.47384      0.002 m
 E LON:         262 29 32.33364      0.001 m      262 29 32.29434      0.001 m
 W LON:          97 30 27.66636      0.001 m       97 30 27.70566      0.001 m
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EL HGT:            366.598 m        0.004 m             365.462 m      0.004 m
ORTHO HGT:         393.598 m        0.009 m  (H = h - N WHERE N = GEOID12A HGT)

                 UTM COORDINATES    STATE PLANE COORDINATES
                  UTM (Zone 14)          SPC (3501 OK N)
NORTHING (Y)       3928421.955 m          54494.518 m
EASTING (X)         635364.257 m         644673.365 m
CONVERGENCE          0.86651393 deg       0.29053820 deg
POINT SCALE          0.99982581           1.00001477
COMBINED FACTOR      0.99976828           0.99995723

US NATIONAL GRID DESIGNATOR: 14SPE3536428421 (NAD 83)
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 MARK:       okjw (okjw a  1)
 CONSTRAIN: HOR-ONLY NORMAL
 ADJUST  X:   -0.003m (0.001m)   Y:   -0.007m (0.004m)   Z:    0.012m (0.003m)
 ADJUST  N:    0.006m (0.002m)   E:   -0.001m (0.001m)   H:    0.013m (0.005m)

 REF FRAME:        NAD_83(2011) (2010.0000)              IGS08 (2015.2711)
 X:                 -768964.435 m    0.001 m          -768965.238 m    0.001 m
 Y:                -5201189.532 m    0.004 m         -5201188.135 m    0.004 m
 Z:                 3599120.802 m    0.003 m          3599120.654 m    0.003 m
 LAT:            34 34 21.98767      0.002 m       34 34 22.00699      0.002 m
 E LON:         261 35 24.31089      0.001 m      261 35 24.27172      0.001 m
 W LON:          98 24 35.68911      0.001 m       98 24 35.72828      0.001 m
 EL HGT:            314.715 m        0.005 m             313.590 m      0.005 m
 ORTHO HGT:         340.341 m        0.009 m  (H = h - N WHERE N = GEOID12A HGT)

                 UTM COORDINATES    STATE PLANE COORDINATES
                  UTM (Zone 14)          SPC (3502 OK S)
 NORTHING (Y)       3825825.193 m         137559.217 m
 EASTING (X)         554125.069 m         562388.795 m
 CONVERGENCE          0.33485414 deg      -0.23267382 deg
 POINT SCALE          0.99963611           0.99993596
 COMBINED FACTOR      0.99958673           0.99988656

 US NATIONAL GRID DESIGNATOR: 14SND5412525825 (NAD 83)
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 MARK:       poca (poca    1)
 CONSTRAIN: VER-ONLY NORMAL
 ADJUST  X:   -0.002m (0.001m)   Y:   -0.029m (0.004m)   Z:    0.016m (0.003m)
 ADJUST  N:   -0.003m (0.002m)   E:    0.002m (0.001m)   H:    0.033m (0.004m)

 REF FRAME:        NAD_83(2011) (2010.0000)              IGS08 (2015.2711)
 X:                 -723367.276 m    0.001 m          -723368.085 m    0.001 m
 Y:                -5172226.580 m    0.004 m         -5172225.181 m    0.004 m
 Z:                 3649650.866 m    0.003 m          3649650.718 m    0.003 m
 LAT:            35 07 39.52750      0.002 m       35 07 39.54736      0.002 m
 E LON:         262 02 18.52042      0.001 m      262 02 18.48111      0.001 m
 W LON:          97 57 41.47958      0.001 m       97 57 41.51889      0.001 m
 EL HGT:            334.955 m        0.004 m             333.829 m      0.004 m
 ORTHO HGT:         361.655 m        0.009 m  (H = h - N WHERE N = GEOID12A HGT)

                 UTM COORDINATES    STATE PLANE COORDINATES
                  UTM (Zone 14)          SPC (3502 OK S)
 NORTHING (Y)       3887692.144 m         199036.794 m
 EASTING (X)         594617.105 m         603507.046 m
 CONVERGENCE          0.59758450 deg       0.02184069 deg
 POINT SCALE          0.99971033           0.99998082
 COMBINED FACTOR      0.99965777           0.99992825

 US NATIONAL GRID DESIGNATOR: 14SND9461787692 (NAD 83)
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
 MARK:       wmok (wmok a  1)
 CONSTRAIN: HOR-ONLY NORMAL
 ADJUST  X:   -0.001m (0.001m)   Y:   -0.025m (0.004m)   Z:    0.017m (0.003m)
 ADJUST  N:   -0.000m (0.002m)   E:    0.002m (0.001m)   H:    0.030m (0.004m)

 REF FRAME:        NAD_83(2011) (2010.0000)              IGS08 (2015.2711)
 X:                 -801019.795 m    0.001 m          -801020.603 m    0.001 m
```



```
Y:                 -5185937.809 m    0.004 m          -5185936.409 m    0.004 m
Z:                  3614276.338 m    0.003 m           3614276.187 m    0.003 m
LAT:             34 44 16.39683      0.002 m       34 44 16.41610      0.002 m
E LON:          261 13 10.14611      0.001 m      261 13 10.10630      0.001 m
W LON:           98 46 49.85389      0.001 m       98 46 49.89370      0.001 m
EL HGT:             468.538 m        0.004 m             467.416 m      0.004 m
ORTHO HGT:          493.918 m        0.009 m  (H = h - N WHERE N = GEOID12A HGT)

                 UTM COORDINATES    STATE PLANE COORDINATES
                  UTM (Zone 14)          SPC (3502 OK S)
NORTHING (Y)       3843998.398 m         156074.790 m
EASTING (X)         520092.046 m         528526.790 m
CONVERGENCE          0.12506805 deg      -0.44303331 deg
POINT SCALE          0.99960498           0.99993953
COMBINED FACTOR      0.99953147           0.99986599

US NATIONAL GRID DESIGNATOR: 14SND2009243998 (NAD 83)
```


OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB		**OKLAHOMA DEPARTMENT OF TRANSPORTATION** **SURVEY DIVISION**
DRAWN	JTB		SURVEY DATA SHEET
CHECKED	JTB		SDS 16 OF 76
APPROVED	JTB		
CREW	BENHAM		SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S016

NGS OPUS SOLUTION FOR G-26-865 (7400)

```
FILE: 47050680.11o 000184978 (Session 1)

                        NGS OPUS SOLUTION REPORT
                        ========================

All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: http://www.ngs.noaa.gov/OPUS/about.html#accuracy

      USER: john.t.birkhahn@saic.com                DATE: March 21, 2011
RINEX FILE: 4705068r.11o                            TIME: 18:57:23 UTC


  SOFTWARE: page5  1009.28 master50.pl 121510      START: 2011/03/09  17:27:00
 EPHEMERIS: igr16263.eph [rapid]                    STOP: 2011/03/09  19:33:00
  NAV FILE: brdc0680.11n                        OBS USED:  6122 /  6279  :  97%
  ANT NAME: TRM8_GNSS3      NONE              # FIXED AMB:   33 /    35  :  94%
ARP HEIGHT: 2.25                              OVERALL RMS: 0.014(m)


 REF FRAME: NAD_83(CORS96)(EPOCH:2002.0000)           ITRF00 (EPOCH:2011.1857)

         X:      -725592.234(m)   0.020(m)           -725592.975(m)   0.020(m)
         Y:    -5181067.518(m)   0.051(m)         -5181066.124(m)   0.051(m)
         Z:      3636785.113(m)   0.047(m)           3636784.950(m)   0.047(m)

      LAT:   34 59  8.86732      0.031(m)        34 59  8.88676      0.031(m)
    E LON:  262  1 39.92301      0.013(m)       262  1 39.88645      0.013(m)
    W LON:   97 58 20.07699      0.013(m)        97 58 20.11355      0.013(m)
   EL HGT:          364.667(m)   0.066(m)             363.527(m)   0.066(m)
 ORTHO HGT:          391.009(m)   0.113(m) [NAVD88 (Computed using GEOID09)]

                    UTM COORDINATES    STATE PLANE COORDINATES
                        UTM (Zone 14)        SPC (3502 OK S)
Northing (Y) [meters]     3871950.360          183299.871
Easting (X)  [meters]      593802.412          602534.168
Convergence  [degrees]      0.58933113          0.01575499
Point Scale                 0.99970844          0.99996043
Combined Factor             0.99965122          0.99990320

US NATIONAL GRID DESIGNATOR: 14SND9380271950(NAD 83)

                        BASE STATIONS USED
PID       DESIGNATION                    LATITUDE    LONGITUDE DISTANCE(m)
DE8099 OKLW LAWTON CORS ARP              N343421.987 W0982435.690   60865.8
DG9755 OKAO ANADARKO CORS ARP            N350435.045 W0981445.200   26919.8
DG9791 OKDN DUNCAN CORS ARP              N342845.501 W0975759.560   56193.1

                    NEAREST NGS PUBLISHED CONTROL POINT
EL1033      1 TF USGS 1957                N345909.072 W0975916.406    1427.1

This position and the above vector components were computed without any knowledge by the National
Geodetic Survey regarding the equipment or field operating procedures used.
```


NGS OPUS SOLUTION FOR G-26-865 (7400)

```
FILE: 47460741.11o 000184911 (Session 2)

                        NGS OPUS SOLUTION REPORT
                        ========================

All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: http://www.ngs.noaa.gov/OPUS/about.html#accuracy

      USER: john.t.birkhahn@saic.com                DATE: March 21, 2011
RINEX FILE: 4746074s.11o                            TIME: 18:10:19 UTC


  SOFTWARE: page5  1009.28 master2.pl 1215103      START: 2011/03/15  18:23:00
 EPHEMERIS: igr16272.eph [rapid]                    STOP: 2011/03/15  21:15:00
  NAV FILE: brdc0740.11n                        OBS USED:  7308 /  7859  :  93%
  ANT NAME: TRM8_GNSS3      NONE              # FIXED AMB:   63 /    65  :  97%
ARP HEIGHT: 2.25                              OVERALL RMS: 0.015(m)


 REF FRAME: NAD_83(CORS96)(EPOCH:2002.0000)           ITRF00 (EPOCH:2011.2023)

         X:      -725592.239(m)   0.016(m)           -725592.980(m)   0.016(m)
         Y:    -5181067.551(m)   0.028(m)         -5181066.157(m)   0.028(m)
         Z:      3636785.132(m)   0.007(m)           3636784.969(m)   0.007(m)

      LAT:   34 59  8.86721      0.014(m)        34 59  8.88665      0.014(m)
    E LON:  262  1 39.92299      0.018(m)       262  1 39.88644      0.018(m)
    W LON:   97 58 20.07701      0.018(m)        97 58 20.11356      0.018(m)
   EL HGT:          364.705(m)   0.024(m)             363.565(m)   0.024(m)
 ORTHO HGT:          391.047(m)   0.041(m) [NAVD88 (Computed using GEOID09)]

                    UTM COORDINATES    STATE PLANE COORDINATES
                        UTM (Zone 14)        SPC (3502 OK S)
Northing (Y) [meters]     3871950.356          183299.868
Easting (X)  [meters]      593802.412          602534.167
Convergence  [degrees]      0.58933113          0.01575499
Point Scale                 0.99970844          0.99996043
Combined Factor             0.99965121          0.99990319

US NATIONAL GRID DESIGNATOR: 14SND9380271950(NAD 83)

                        BASE STATIONS USED
PID       DESIGNATION                    LATITUDE    LONGITUDE DISTANCE(m)
DE8099 OKLW LAWTON CORS ARP              N343421.987 W0982435.690   60865.8
DG9755 OKAO ANADARKO CORS ARP            N350435.045 W0981445.200   26919.8
DG9791 OKDN DUNCAN CORS ARP              N342845.501 W0975759.560   56193.1

                    NEAREST NGS PUBLISHED CONTROL POINT
EL1033      1 TF USGS 1957                N345909.072 W0975916.406    1427.1

This position and the above vector components were computed without any knowledge by the National
Geodetic Survey regarding the equipment or field operating procedures used.
```


NGS OPUS SOLUTION FOR G-26-865 (7400)

```
FILE: 48820770.11o 000184736 (Session 3)

                        NGS OPUS SOLUTION REPORT
                        ========================

All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: http://www.ngs.noaa.gov/OPUS/about.html#accuracy

      USER: john.t.birkhahn@saic.com                DATE: March 21, 2011
RINEX FILE: 4882077o.11o                            TIME: 16:08:53 UTC


  SOFTWARE: page5  1009.28 master11.pl 121510      START: 2011/03/18  14:39:00
 EPHEMERIS: igr16275.eph [rapid]                    STOP: 2011/03/18  17:51:30
  NAV FILE: brdc0770.11n                        OBS USED:  8023 /  8553  :  94%
  ANT NAME: TRM8_GNSS3      NONE              # FIXED AMB:   48 /    50  :  96%
ARP HEIGHT: 2.25                              OVERALL RMS: 0.014(m)


 REF FRAME: NAD_83(CORS96)(EPOCH:2002.0000)           ITRF00 (EPOCH:2011.2101)

         X:      -725592.231(m)   0.016(m)           -725592.972(m)   0.016(m)
         Y:    -5181067.535(m)   0.040(m)         -5181066.141(m)   0.040(m)
         Z:      3636785.122(m)   0.020(m)           3636784.959(m)   0.020(m)

      LAT:   34 59  8.86726      0.008(m)        34 59  8.88669      0.008(m)
    E LON:  262  1 39.92322      0.014(m)       262  1 39.88666      0.014(m)
    W LON:   97 58 20.07678      0.014(m)        97 58 20.11334      0.014(m)
   EL HGT:          364.686(m)   0.046(m)             363.546(m)   0.046(m)
 ORTHO HGT:          391.028(m)   0.078(m) [NAVD88 (Computed using GEOID09)]

                    UTM COORDINATES    STATE PLANE COORDINATES
                        UTM (Zone 14)        SPC (3502 OK S)
Northing (Y) [meters]     3871950.358          183299.869
Easting (X)  [meters]      593802.417          602534.173
Convergence  [degrees]      0.58933117          0.01575502
Point Scale                 0.99970844          0.99996043
Combined Factor             0.99965122          0.99990320

US NATIONAL GRID DESIGNATOR: 14SND9380271950(NAD 83)

                        BASE STATIONS USED
PID       DESIGNATION                    LATITUDE    LONGITUDE DISTANCE(m)
DE8099 OKLW LAWTON CORS ARP              N343421.987 W0982435.690   60865.8
DG9755 OKAO ANADARKO CORS ARP            N350435.045 W0981445.200   26919.8
DG9791 OKDN DUNCAN CORS ARP              N342845.501 W0975759.560   56193.1

                    NEAREST NGS PUBLISHED CONTROL POINT
EL1033      1 TF USGS 1957                N345909.072 W0975916.406    1427.1

This position and the above vector components were computed without any knowledge by the National
Geodetic Survey regarding the equipment or field operating procedures used.
```


NGS OPUS SOLUTION FOR G-26-866 (7401)

```
FILE: 48820682.11o 000184732 (Session 1)

                        NGS OPUS SOLUTION REPORT
                        ========================

All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: http://www.ngs.noaa.gov/OPUS/about.html#accuracy

      USER: john.t.birkhahn@saic.com                DATE: March 21, 2011
RINEX FILE: 4882068s.11o                            TIME: 16:06:43 UTC


  SOFTWARE: page5  1009.28 master.pl 1215103       START: 2011/03/09  18:13:00
 EPHEMERIS: igr16263.eph [rapid]                    STOP: 2011/03/09  20:23:00
  NAV FILE: brdc0680.11n                        OBS USED:  5853 /  6121  :  96%
  ANT NAME: TRM8_GNSS3      NONE              # FIXED AMB:   39 /    40  :  98%
ARP HEIGHT: 2.25                              OVERALL RMS: 0.013(m)


 REF FRAME: NAD_83(CORS96)(EPOCH:2002.0000)           ITRF00 (EPOCH:2011.1858)

         X:      -725649.266(m)   0.015(m)           -725650.007(m)   0.015(m)
         Y:    -5179165.634(m)   0.004(m)         -5179164.240(m)   0.004(m)
         Z:      3639421.172(m)   0.011(m)           3639421.010(m)   0.011(m)

      LAT:   35  0 53.84063      0.009(m)        35  0 53.86011      0.009(m)
    E LON:  262  1 27.29177      0.015(m)       262  1 27.25520      0.015(m)
    W LON:   97 58 32.70823      0.015(m)        97 58 32.74480      0.015(m)
   EL HGT:          340.282(m)   0.007(m)             339.143(m)   0.007(m)
 ORTHO HGT:          366.694(m)   0.015(m) [NAVD88 (Computed using GEOID09)]

                    UTM COORDINATES    STATE PLANE COORDINATES
                        UTM (Zone 14)        SPC (3502 OK S)
Northing (Y) [meters]     3875180.900          186534.611
Easting (X)  [meters]      593449.004          602213.047
Convergence  [degrees]      0.58774591          0.01376341
Point Scale                 0.99970763          0.99996412
Combined Factor             0.99965423          0.99991072

US NATIONAL GRID DESIGNATOR: 14SND9344975180(NAD 83)

                        BASE STATIONS USED
PID       DESIGNATION                    LATITUDE    LONGITUDE DISTANCE(m)
DE8099 OKLW LAWTON CORS ARP              N343421.987 W0982435.690   63129.9
DG9755 OKAO ANADARKO CORS ARP            N350435.045 W0981445.200   25573.3
DG9791 OKDN DUNCAN CORS ARP              N342845.501 W0975759.560   59431.7

                    NEAREST NGS PUBLISHED CONTROL POINT
FJ1053      CHICKASHA KNDR RADIO MAST     N350037.113 W0975838.818     539.9

This position and the above vector components were computed without any knowledge by the National
Geodetic Survey regarding the equipment or field operating procedures used.
```


NGS OPUS SOLUTION FOR G-26-866 (7401)

```
FILE: 47050741.11o 000184982 (Session 2)

                        NGS OPUS SOLUTION REPORT
                        ========================

All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: http://www.ngs.noaa.gov/OPUS/about.html#accuracy

      USER: john.t.birkhahn@saic.com                DATE: March 21, 2011
RINEX FILE: 4705074r.11o                            TIME: 18:57:44 UTC


  SOFTWARE: page5  1009.28 master29.pl 121510      START: 2011/03/15  17:41:00
 EPHEMERIS: igr16272.eph [rapid]                    STOP: 2011/03/15  20:48:30
  NAV FILE: brdc0740.11n                        OBS USED:  8270 /  8727  :  95%
  ANT NAME: TRM8_GNSS3      NONE              # FIXED AMB:   63 /    65  :  97%
ARP HEIGHT: 2.25                              OVERALL RMS: 0.013(m)


 REF FRAME: NAD_83(CORS96)(EPOCH:2002.0000)           ITRF00 (EPOCH:2011.2022)

         X:      -725649.262(m)   0.012(m)           -725650.003(m)   0.012(m)
         Y:    -5179165.655(m)   0.018(m)         -5179164.261(m)   0.018(m)
         Z:      3639421.166(m)   0.014(m)           3639421.004(m)   0.014(m)

      LAT:   35  0 53.84009      0.006(m)        35  0 53.85957      0.006(m)
    E LON:  262  1 27.29204      0.014(m)       262  1 27.25547      0.014(m)
    W LON:   97 58 32.70796      0.014(m)        97 58 32.74453      0.014(m)
   EL HGT:          340.295(m)   0.021(m)             339.156(m)   0.021(m)
 ORTHO HGT:          366.707(m)   0.036(m) [NAVD88 (Computed using GEOID09)]

                    UTM COORDINATES    STATE PLANE COORDINATES
                        UTM (Zone 14)        SPC (3502 OK S)
Northing (Y) [meters]     3875180.884          186534.594
Easting (X)  [meters]      593449.011          602213.054
Convergence  [degrees]      0.58774595          0.01376345
Point Scale                 0.99970763          0.99996412
Combined Factor             0.99965423          0.99991071

US NATIONAL GRID DESIGNATOR: 14SND9344975180(NAD 83)

                        BASE STATIONS USED
PID       DESIGNATION                    LATITUDE    LONGITUDE DISTANCE(m)
DE8099 OKLW LAWTON CORS ARP              N343421.987 W0982435.690   63129.8
DG9755 OKAO ANADARKO CORS ARP            N350435.045 W0981445.200   25573.3
DG9791 OKDN DUNCAN CORS ARP              N342845.501 W0975759.560   59431.6

                    NEAREST NGS PUBLISHED CONTROL POINT
FJ1053      CHICKASHA KNDR RADIO MAST     N350037.113 W0975838.818     539.9

This position and the above vector components were computed without any knowledge by the National
Geodetic Survey regarding the equipment or field operating procedures used.
```


NGS OPUS SOLUTION FOR G-26-866 (7401)

```
FILE: 47050770.11o 000184983 (Session 3)

                        NGS OPUS SOLUTION REPORT
                        ========================

All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: http://www.ngs.noaa.gov/OPUS/about.html#accuracy

      USER: john.t.birkhahn@saic.com                DATE: March 21, 2011
RINEX FILE: 4705077o.11o                            TIME: 18:57:58 UTC


  SOFTWARE: page5  1009.28 master.pl 1215103       START: 2011/03/18  14:15:00
 EPHEMERIS: igr16275.eph [rapid]                    STOP: 2011/03/18  17:25:00
  NAV FILE: brdc0770.11n                        OBS USED:  7765 /  8315  :  93%
  ANT NAME: TRM8_GNSS3      NONE              # FIXED AMB:   45 /    48  :  94%
ARP HEIGHT: 2.25                              OVERALL RMS: 0.014(m)


 REF FRAME: NAD_83(CORS96)(EPOCH:2002.0000)           ITRF00 (EPOCH:2011.2100)

         X:      -725649.270(m)   0.010(m)           -725650.011(m)   0.010(m)
         Y:    -5179165.617(m)   0.029(m)         -5179164.223(m)   0.029(m)
         Z:      3639421.144(m)   0.032(m)           3639420.982(m)   0.032(m)

      LAT:   35  0 53.84019      0.013(m)        35  0 53.85967      0.013(m)
    E LON:  262  1 27.29152      0.006(m)       262  1 27.25495      0.006(m)
    W LON:   97 58 32.70848      0.006(m)        97 58 32.74505      0.006(m)
   EL HGT:          340.253(m)   0.043(m)             339.113(m)   0.043(m)
 ORTHO HGT:          366.665(m)   0.073(m) [NAVD88 (Computed using GEOID09)]

                    UTM COORDINATES    STATE PLANE COORDINATES
                        UTM (Zone 14)        SPC (3502 OK S)
Northing (Y) [meters]     3875180.886          186534.597
Easting (X)  [meters]      593448.998          602213.041
Convergence  [degrees]      0.58774586          0.01376337
Point Scale                 0.99970763          0.99996412
Combined Factor             0.99965424          0.99991072

US NATIONAL GRID DESIGNATOR: 14SND9344875180(NAD 83)

                        BASE STATIONS USED
PID       DESIGNATION                    LATITUDE    LONGITUDE DISTANCE(m)
DE8099 OKLW LAWTON CORS ARP              N343421.987 W0982435.690   63129.9
DG9755 OKAO ANADARKO CORS ARP            N350435.045 W0981445.200   25573.3
DG9791 OKDN DUNCAN CORS ARP              N342845.501 W0975759.560   59431.6

                    NEAREST NGS PUBLISHED CONTROL POINT
FJ1053      CHICKASHA KNDR RADIO MAST     N350037.113 W0975838.818     539.9

This position and the above vector components were computed without any knowledge by the National
Geodetic Survey regarding the equipment or field operating procedures used.
```


OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB		**OKLAHOMA DEPARTMENT OF TRANSPORTATION** **SURVEY DIVISION**
DRAWN	JTB		SURVEY DATA SHEET
CHECKED	JTB		SDS 17 OF 76
APPROVED	JTB		SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S017
CREW	BENHAM		

NGS OPUS SOLUTION FOR G-26-867 (7402)

FILE: 48820683.11o 000184734 (Session 1)

NGS OPUS SOLUTION REPORT
========================

All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: http://www.ngs.noaa.gov/OPUS/about.html#accuracy

USER: john.t.birkhahn@saic.com DATE: March 21, 2011
RINEX FILE: 4882068v.11o TIME: 16:07:49 UTC

SOFTWARE: page5 1009.28 master28.pl 121510 START: 2011/03/09 21:06:00
EPHEMERIS: igr16263.eph [rapid] STOP: 2011/03/09 23:16:00
NAV FILE: brdc0680.11n OBS USED: 5816 / 6129 : 95%
ANT NAME: TRM8_GNSS3 NONE # FIXED AMB: 51 / 55 : 93%
ARP HEIGHT: 2.25 OVERALL RMS: 0.013(m)

REF FRAME: NAD_83(CORS96)(EPOCH:2002.0000) ITRF00 (EPOCH:2011.1861)

X:	-726879.951(m)	0.021(m)	-726880.692(m)	0.021(m)
Y:	-5177113.536(m)	0.025(m)	-5177112.142(m)	0.025(m)
Z:	3642070.762(m)	0.034(m)	3642070.600(m)	0.034(m)
LAT:	35 2 38.90696	0.016(m)	35 2 38.92646	0.016(m)
E LON:	262 0 27.97098	0.022(m)	262 0 27.93438	0.022(m)
W LON:	97 59 32.02902	0.022(m)	97 59 32.06562	0.022(m)
EL HGT:	337.032(m)	0.040(m)	335.893(m)	0.040(m)
ORTHO HGT:	363.528(m)	0.068(m) [NAVD88 (Computed using GEOID09)]		

	UTM COORDINATES (UTM (Zone 14))	STATE PLANE COORDINATES (SPC (3502 OK S))
Northing (Y) [meters]	3878402.305	189772.089
Easting (X) [meters]	591912.871	600708.879
Convergence [degrees]	0.57870932	0.00441022
Point Scale	0.99970412	0.99996808
Combined Factor	0.99965123	0.99991518

US NATIONAL GRID DESIGNATOR: 14SND9191278402(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DG9755	OKAO ANADARKO CORS ARP	N350435.045	W0981445.200	23415.5
DG9791	OKDN DUNCAN CORS ARP	N342845.501	W0975759.560	62707.7
DE6009	OKDT OKLAHOMA CITY CORS ARP	N352924.454	W0973027.666	66276.2

NEAREST NGS PUBLISHED CONTROL POINT

FJ0783	R 214	N350330.	W0975737.	3312.8

This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.

NGS OPUS SOLUTION FOR G-26-867 (7402)

FILE: 47050740.11o 000184981 (Session 2)

NGS OPUS SOLUTION REPORT
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All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: http://www.ngs.noaa.gov/OPUS/about.html#accuracy

USER: john.t.birkhahn@saic.com DATE: March 21, 2011
RINEX FILE: 4705074o.11o TIME: 18:57:07 UTC

SOFTWARE: page5 1009.28 master.pl 1215103 START: 2011/03/15 14:07:00
EPHEMERIS: igr16272.eph [rapid] STOP: 2011/03/15 17:20:00
NAV FILE: brdc0740.11n OBS USED: 7677 / 8241 : 93%
ANT NAME: TRM8_GNSS3 NONE # FIXED AMB: 52 / 57 : 91%
ARP HEIGHT: 2.25 OVERALL RMS: 0.012(m)

REF FRAME: NAD_83(CORS96)(EPOCH:2002.0000) ITRF00 (EPOCH:2011.2018)

X:	-726879.936(m)	0.027(m)	-726880.677(m)	0.027(m)
Y:	-5177113.505(m)	0.044(m)	-5177112.111(m)	0.044(m)
Z:	3642070.770(m)	0.052(m)	3642070.608(m)	0.052(m)
LAT:	35 2 38.90779	0.037(m)	35 2 38.92728	0.037(m)
E LON:	262 0 27.97140	0.028(m)	262 0 27.93480	0.028(m)
W LON:	97 59 32.02860	0.028(m)	97 59 32.06520	0.028(m)
EL HGT:	337.010(m)	0.051(m)	335.871(m)	0.051(m)
ORTHO HGT:	363.506(m)	0.086(m) [NAVD88 (Computed using GEOID09)]		

	UTM COORDINATES (UTM (Zone 14))	STATE PLANE COORDINATES (SPC (3502 OK S))
Northing (Y) [meters]	3878402.330	189772.115
Easting (X) [meters]	591912.881	600708.890
Convergence [degrees]	0.57870939	0.00441029
Point Scale	0.99970412	0.99996808
Combined Factor	0.99965123	0.99991518

US NATIONAL GRID DESIGNATOR: 14SND9191278402(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DG9755	OKAO ANADARKO CORS ARP	N350435.045	W0981445.200	23415.5
DG9791	OKDN DUNCAN CORS ARP	N342845.501	W0975759.560	62707.7
DE6009	OKDT OKLAHOMA CITY CORS ARP	N352924.454	W0973027.666	66276.1

NEAREST NGS PUBLISHED CONTROL POINT

FJ0783	R 214	N350330.	W0975737.	3312.8

This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.

NGS OPUS SOLUTION FOR G-26-867 (7402)

FILE: 47050771.11o 000184984 (Session 3)

NGS OPUS SOLUTION REPORT
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All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: http://www.ngs.noaa.gov/OPUS/about.html#accuracy

USER: john.t.birkhahn@saic.com DATE: March 21, 2011
RINEX FILE: 4705077s.11o TIME: 18:58:23 UTC

SOFTWARE: page5 1009.28 master.pl 1215103 START: 2011/03/18 18:07:00
EPHEMERIS: igr16275.eph [rapid] STOP: 2011/03/18 21:14:00
NAV FILE: brdc0770.11n OBS USED: 7425 / 7957 : 93%
ANT NAME: TRM8_GNSS3 NONE # FIXED AMB: 58 / 63 : 92%
ARP HEIGHT: 2.25 OVERALL RMS: 0.013(m)

REF FRAME: NAD_83(CORS96)(EPOCH:2002.0000) ITRF00 (EPOCH:2011.2105)

X:	-726879.932(m)	0.021(m)	-726880.673(m)	0.021(m)
Y:	-5177113.503(m)	0.028(m)	-5177112.109(m)	0.028(m)
Z:	3642070.767(m)	0.060(m)	3642070.605(m)	0.060(m)
LAT:	35 2 38.90775	0.036(m)	35 2 38.92725	0.036(m)
E LON:	262 0 27.97154	0.021(m)	262 0 27.93494	0.021(m)
W LON:	97 59 32.02846	0.021(m)	97 59 32.06506	0.021(m)
EL HGT:	337.006(m)	0.054(m)	335.867(m)	0.054(m)
ORTHO HGT:	363.502(m)	0.091(m) [NAVD88 (Computed using GEOID09)]		

	UTM COORDINATES (UTM (Zone 14))	STATE PLANE COORDINATES (SPC (3502 OK S))
Northing (Y) [meters]	3878402.329	189772.114
Easting (X) [meters]	591912.885	600708.894
Convergence [degrees]	0.57870941	0.00441031
Point Scale	0.99970412	0.99996808
Combined Factor	0.99965124	0.99991518

US NATIONAL GRID DESIGNATOR: 14SND9191278402(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DG9755	OKAO ANADARKO CORS ARP	N350435.045	W0981445.200	23415.5
DG9791	OKDN DUNCAN CORS ARP	N342845.501	W0975759.560	62707.7
DE6009	OKDT OKLAHOMA CITY CORS ARP	N352924.454	W0973027.666	66276.1

NEAREST NGS PUBLISHED CONTROL POINT

FJ0783	R 214	N350330.	W0975737.	3312.8

This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.

NGS OPUS SOLUTION FOR G-26-868 (7403)

FILE: 47050681.11o 000184979 (Session 1)

NGS OPUS SOLUTION REPORT
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All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: http://www.ngs.noaa.gov/OPUS/about.html#accuracy

USER: john.t.birkhahn@saic.com DATE: March 21, 2011
RINEX FILE: 4705068u.11o TIME: 18:56:52 UTC

SOFTWARE: page5 1009.28 master28.pl 121510 START: 2011/03/09 20:02:00
EPHEMERIS: igr16263.eph [rapid] STOP: 2011/03/09 22:17:00
NAV FILE: brdc0680.11n OBS USED: 5111 / 5798 : 88%
ANT NAME: TRM8_GNSS3 NONE # FIXED AMB: 49 / 51 : 96%
ARP HEIGHT: 2.25 OVERALL RMS: 0.014(m)

REF FRAME: NAD_83(CORS96)(EPOCH:2002.0000) ITRF00 (EPOCH:2011.1860)

X:	-724677.684(m)	0.038(m)	-724678.425(m)	0.038(m)
Y:	-5175901.599(m)	0.027(m)	-5175900.206(m)	0.027(m)
Z:	3644168.015(m)	0.033(m)	3644167.853(m)	0.033(m)
LAT:	35 4 2.68057	0.045(m)	35 4 2.70007	0.045(m)
E LON:	262 1 47.39127	0.034(m)	262 1 47.35468	0.034(m)
W LON:	97 58 12.60873	0.034(m)	97 58 12.64532	0.034(m)
EL HGT:	308.855(m)	0.015(m)	307.717(m)	0.015(m)
ORTHO HGT:	335.394(m)	0.026(m) [NAVD88 (Computed using GEOID09)]		

	UTM COORDINATES (UTM (Zone 14))	STATE PLANE COORDINATES (SPC (3502 OK S))
Northing (Y) [meters]	3881003.622	192354.046
Easting (X) [meters]	593898.372	602720.896
Convergence [degrees]	0.59172212	0.01693252
Point Scale	0.99970866	0.99997141
Combined Factor	0.99966020	0.99992294

US NATIONAL GRID DESIGNATOR: 14SND9389881003(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DE8099	OKLW LAWTON CORS ARP	N343421.987	W0982435.690	68044.5
DG9755	OKAO ANADARKO CORS ARP	N350435.045	W0981445.200	25169.0
DE6009	OKDT OKLAHOMA CITY CORS ARP	N352924.454	W0973027.666	63009.4

NEAREST NGS PUBLISHED CONTROL POINT

FJ0784	S 214	N350423.	W0975739.	1057.5

This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.

NGS OPUS SOLUTION FOR G-26-868 (7403)

FILE: 47460740.11o 000184910 (Session 2)

NGS OPUS SOLUTION REPORT
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All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: http://www.ngs.noaa.gov/OPUS/about.html#accuracy

USER: john.t.birkhahn@saic.com DATE: March 21, 2011
RINEX FILE: 4746074o.11o TIME: 18:10:36 UTC

SOFTWARE: page5 1009.28 master40.pl 121510 START: 2011/03/15 14:42:00
EPHEMERIS: igr16272.eph [rapid] STOP: 2011/03/15 17:58:30
NAV FILE: brdc0740.11n OBS USED: 7964 / 8491 : 94%
ANT NAME: TRM8_GNSS3 NONE # FIXED AMB: 51 / 57 : 89%
ARP HEIGHT: 2.25 OVERALL RMS: 0.013(m)

REF FRAME: NAD_83(CORS96)(EPOCH:2002.0000) ITRF00 (EPOCH:2011.2019)

X:	-724677.699(m)	0.009(m)	-724678.440(m)	0.009(m)
Y:	-5175901.597(m)	0.056(m)	-5175900.204(m)	0.056(m)
Z:	3644167.995(m)	0.044(m)	3644167.833(m)	0.044(m)
LAT:	35 4 2.68003	0.016(m)	35 4 2.69953	0.016(m)
E LON:	262 1 47.39067	0.016(m)	262 1 47.35409	0.016(m)
W LON:	97 58 12.60933	0.016(m)	97 58 12.64591	0.016(m)
EL HGT:	308.843(m)	0.070(m)	307.705(m)	0.070(m)
ORTHO HGT:	335.382(m)	0.118(m) [NAVD88 (Computed using GEOID09)]		

	UTM COORDINATES (UTM (Zone 14))	STATE PLANE COORDINATES (SPC (3502 OK S))
Northing (Y) [meters]	3881003.606	192354.030
Easting (X) [meters]	593898.352	602720.881
Convergence [degrees]	0.59172202	0.01693243
Point Scale	0.99970866	0.99997141
Combined Factor	0.99966020	0.99992294

US NATIONAL GRID DESIGNATOR: 14SND9389881003(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DE8099	OKLW LAWTON CORS ARP	N343421.987	W0982435.690	68044.5
DG9755	OKAO ANADARKO CORS ARP	N350435.045	W0981445.200	25169.0
DE6009	OKDT OKLAHOMA CITY CORS ARP	N352924.454	W0973027.666	63009.4

NEAREST NGS PUBLISHED CONTROL POINT

FJ0784	S 214	N350423.	W0975739.	1057.5

This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.

NGS OPUS SOLUTION FOR G-26-868 (7403)

FILE: 48820771.11o 000184737 (Session 3)

NGS OPUS SOLUTION REPORT
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All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: http://www.ngs.noaa.gov/OPUS/about.html#accuracy

USER: john.t.birkhahn@saic.com DATE: March 21, 2011
RINEX FILE: 4882077s.11o TIME: 16:09:17 UTC

SOFTWARE: page5 1009.28 master10.pl 121510 START: 2011/03/18 18:21:00
EPHEMERIS: igr16275.eph [rapid] STOP: 2011/03/18 21:05:00
NAV FILE: brdc0770.11n OBS USED: 6401 / 6952 : 92%
ANT NAME: TRM8_GNSS3 NONE # FIXED AMB: 55 / 60 : 92%
ARP HEIGHT: 2.25 OVERALL RMS: 0.014(m)

REF FRAME: NAD_83(CORS96)(EPOCH:2002.0000) ITRF00 (EPOCH:2011.2105)

X:	-724677.712(m)	0.018(m)	-724678.453(m)	0.018(m)
Y:	-5175901.628(m)	0.041(m)	-5175900.235(m)	0.041(m)
Z:	3644168.016(m)	0.038(m)	3644167.854(m)	0.038(m)
LAT:	35 4 2.67999	0.009(m)	35 4 2.69949	0.009(m)
E LON:	262 1 47.39033	0.024(m)	262 1 47.35375	0.024(m)
W LON:	97 58 12.60967	0.024(m)	97 58 12.64625	0.024(m)
EL HGT:	308.882(m)	0.053(m)	307.744(m)	0.053(m)
ORTHO HGT:	335.421(m)	0.090(m) [NAVD88 (Computed using GEOID09)]		

	UTM COORDINATES (UTM (Zone 14))	STATE PLANE COORDINATES (SPC (3502 OK S))
Northing (Y) [meters]	3881003.604	192354.028
Easting (X) [meters]	593898.349	602720.872
Convergence [degrees]	0.59172197	0.01693237
Point Scale	0.99970866	0.99997141
Combined Factor	0.99966019	0.99992293

US NATIONAL GRID DESIGNATOR: 14SND9389881003(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DE8099	OKLW LAWTON CORS ARP	N343421.987	W0982435.690	68044.4
DG9755	OKAO ANADARKO CORS ARP	N350435.045	W0981445.200	25169.0
DE6009	OKDT OKLAHOMA CITY CORS ARP	N352924.454	W0973027.666	63009.4

NEAREST NGS PUBLISHED CONTROL POINT

FJ0784	S 214	N350423.	W0975739.	1057.5

This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.

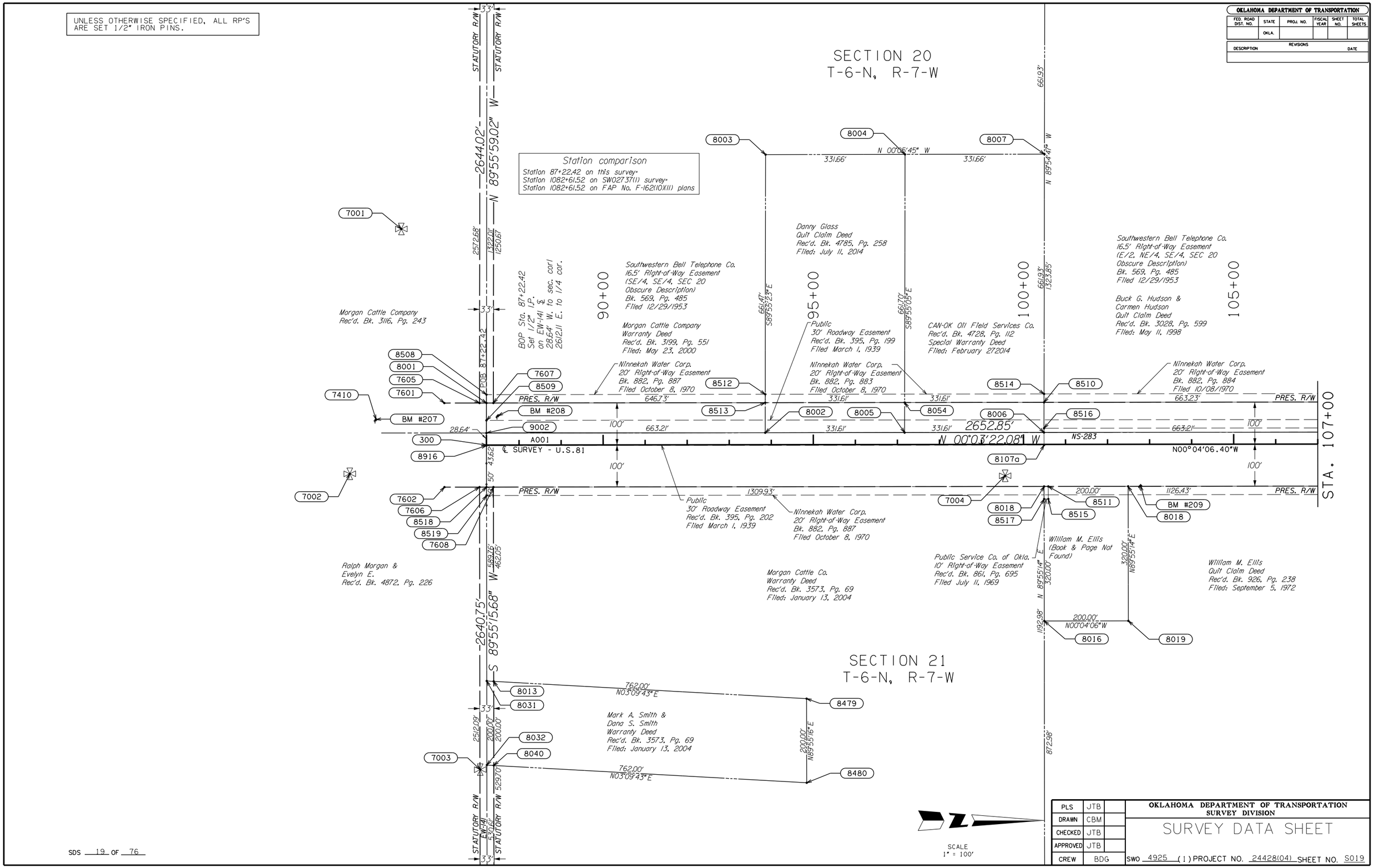
OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB		**OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION**
DRAWN	JTB		SURVEY DATA SHEET
CHECKED	JTB		SDS 18 OF 76
APPROVED	JTB		SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S018
CREW	BENHAM		


UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.
OKLAHOMA DEPARTMENT OF TRANSPORTATION
FED. ROAD DIST. NO.
STATE
PROJ. NO.
FISCAL YEAR
SHEET NO.
TOTAL SHEETS
OKLA.
REVISIONS
DESCRIPTION
DATE
SECTION 20
T-6-N, R-7-W
Station comparison
Station 87+22.42 on this survey=
Station 1082+61.52 on SW02737(1) survey=
Station 1082+61.52 on FAP No. F-162(10)(11) plans
STATUTORY R/W
2644.02'
N 89°55'59.02" W
2572.68'
1322.01'
1250.67'
33'
Morgan Cattle Company
Rec'd. Bk. 3116, Pg. 243
BOP Sta. 87+22.42
Set 1/2" I.P.
on EW-141 ℄
28.64' W. to sec. cor.
2612.11 E. to 1/4 cor.
90+00
95+00
100+00
105+00
Southwestern Bell Telephone Co.
16.5' Right-of-Way Easement
(SE/4, SE/4, SEC 20
Obscure Description)
Bk. 569, Pg. 485
Filed 12/29/1953
Morgan Cattle Company
Warranty Deed
Rec'd. Bk. 3199, Pg. 551
Filed: May 23, 2000
Danny Glass
Quit Claim Deed
Rec'd. Bk. 4785, Pg. 258
Filed: July 11, 2014
Public
30' Roadway Easement
Rec'd. Bk. 395, Pg. 199
Filed March 1, 1939
CAN-OK Oil Field Services Co.
Rec'd. Bk. 4728, Pg. 112
Special Warranty Deed
Filed: February 272014
Southwestern Bell Telephone Co.
16.5' Right-of-Way Easement
(E/2, NE/4, SE/4, SEC 20
Obscure Description)
Bk. 569, Pg. 485
Filed 12/29/1953
Buck G. Hudson &
Carmen Hudson
Quit Claim Deed
Rec'd. Bk. 3028, Pg. 599
Filed: May 11, 1998
Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 882, Pg. 887
Filed October 8, 1970
Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 882, Pg. 883
Filed October 8, 1970
Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 882, Pg. 884
Filed 10/08/1970
PRES. R/W
646.73'
331.61'
663.23'
100'
663.21'
2652.85'
N 00°03'22.08" W
NS-283
N00°04'06.40"W
℄ SURVEY - U.S.81
STA. 107+00
1309.93'
200.00'
1126.43'
Public
30' Roadway Easement
Rec'd. Bk. 395, Pg. 202
Filed March 1, 1939
Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 882, Pg. 887
Filed October 8, 1970
William M. Ellis
(Book & Page Not
Found)
Public Service Co. of Okla.
10' Right-of-Way Easement
Rec'd. Bk. 861, Pg. 695
Filed July 11, 1969
William M. Ellis
Quit Claim Deed
Rec'd. Bk. 926, Pg. 238
Filed: September 5, 1972
Ralph Morgan &
Evelyn E.
Rec'd. Bk. 4872, Pg. 226
Morgan Cattle Co.
Warranty Deed
Rec'd. Bk. 3573, Pg. 69
Filed: January 13, 2004
-2640.75'
S 89°55'15.68" W
N 89°55'14" E
320.00'
N89°55'14"E
200.00'
N00°04'06"W
1192.98'
872.98'
SECTION 21
T-6-N, R-7-W
762.00'
N03°09'43"E
Mark A. Smith &
Dana S. Smith
Warranty Deed
Rec'd. Bk. 3573, Pg. 69
Filed: January 13, 2004
2512.09'
200.00'
N89°55'16"E
SCALE
1" = 100'
EW-141
530.61'
SDS 19 OF 76
PLS JTB
DRAWN CBM
CHECKED JTB
APPROVED JTB
CREW BDG
OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION
SURVEY DATA SHEET
SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S019
8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

Station comparison

Mstr. PI Station 1127+31.95 on this survey*
Mstr. PI Station 1127+31.95 on SW0273.37(1) survey*
Mstr. PI Station 1127+31.95 on FAP No. F-162(10)XII) plans

CURVE #1

PI STA= 147+93.78
X= 1982747.6623
Y= 602181.9456
Δ= 44°48'32.01" LT
D= 1°00'00.00"
T= 2362.08'
L= 4480.89'
R= 5729.58'
E= 467.80'

Station comparison

Station 1107+80.13 on this survey*
Station 1107+80.13 on SW0273.37(1) survey*
Station 1107+80.13 on FAP No. F-162(10)XII) plans

SECTION 20
T-6-N, R-7-W

SECTION 21
T-6-N, R-7-W

N 89°53'35.30" W 2651.39'

N 00°03'22.08" W 2652.85'

N 00°03'10.78" W 2652.10'

S 89°55'12.12" W 2644.57'

Ninnekah Water Corp.
20' Easement
Bk. 1048, Pg. 297
Filed February 15, 1977

Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 1048, Pg. 297
Filed February 15, 1977

Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 882, Pg. 884
Filed October 8, 1970

Scott E. Bradford &
Michael A Bradford
Warranty Deed
Rec'd. Bk. 4853, Pg. 314
Filed: December 22, 2014

Public
30' Roadway Easement
Rec'd. Bk. 395, Pg. 199
Filed March 1, 1939

Public Service Co. of Okla.
10' Right-of-Way Easement
Rec'd. Bk. 912, Pg. 758
Filed November 14, 1972

Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 882, Pg. 882
Filed October 8, 1970

William M. Ellis
Quit Claim Deed
Rec'd. Bk. 926, Pg. 238
Filed: September 5, 1972

Southwestern Bell Telephone Co.
16.5' Right-of-Way Easement
(N/2, SE/4, NE/4, SEC 20
Obscure Description)
Bk. 569, Pg. 484
Filed 12/29/1953

Patricia J. Rogstad
(F.K.A. Patricia J. LaForge)
Quit Claim Deed
Rec'd. Bk. 3375, Pg. 328
Filed: May 6, 2002
Stipulation of Insurance
& Cross Conveyance
Rec'd. Bk. 3793, Pg. 219
Filed: November 22, 2005

Southwestern Bell Telephone Co.
16.5' Right-of-Way Easement
(S/2, SE/4, NE/4, SEC 20
Obscure Description)
Bk. 569, Pg. 485
Filed 12/29/1953

Carol Lister Living Trust
Rec'd. Bk. 3793, Pg. 220
Filed: November 22, 2005

Jerry Chambers-Oil Producer
30' Easement
Bk. 995, Pg. 24
Filed May 19, 1975

Tims Family Revocable Trust
Quit Claim Deed
Rec'd. Bk. 3909, Pg. 472
Filed: December 6, 2006

Michael Joe Ersland
Affidavit by Surviving
Joint Tenant
Rec'd. Bk. 4446, Pg. 543
Filed: December 15, 2011

Ezra E. Flowers &
James W. Flowers
Quit Claim Deed
Bk. 1191, Pg. 603
Filed: May 12, 1980

Arkansas Louisiana Gas Co.
50' Pipeline Easement
(NE/4, NE/4, SEC 20
Obscure Description)
Rec'd. Bk. 1215, Pg. 21
Filed October 15, 1980

Southwestern Bell Telephone Co.
16.5' Right-of-Way Easement
(NE/4, NE/4, SEC 20
Obscure Description)
Bk. 569, Pg. 483
Filed 12/29/1953

POT Sta. 113+75.27
Set PK nail w/tag
on EW-140.5 1/4 $
28.07' W. to 1/4 cor.
2616.50' E. to 1/4 cor.

TS Sta. 1117+63.02
Set PK nail w/tag

PC Sta. 1124+31.69
Set 1/2" capped I.P.

POC Sta. 1120+06.97
Set 1/2" capped I.P.
on NS-283 $
1559.93' N. to sec. cor.
1092.18' S. to 1/4 cor.

PT Sta. 1120+29.96
Set 1/2" capped I.P.

POST Set PK nail w/tag
30.46' ahead of PI

SC Sta. 1121+63.02 &
Set 1/2" capped I.P.

POC Sta. 1122+15.52 &
POC Sta. 1126+74.70
Set 1/2" capped I.P.

POST Sta. 1122+20.71 &
POC Sta. 1126+80.00
Set PK nail w/tag

POC Sta. 1129+94.64
Set 1/2" capped I.P.
on NS-283 $
1033.63' N. to sec. cor.
1618.47' S. to 1/4 cor.

PI Sta. 1127+31.95
Set 1/2" capped I.P.

Master PI Sta. 1127+31.95
Set 1/2" capped I.P.

PI Sta. 1126+88.74
Set 1/2" capped I.P.

CS Sta. 1131+70.73
Set PK nail w/tag

TS Sta. 1117+63.02

SC Sta. 1121+63.02

FND. 5/8" I.P. (BENT)

Set 1/2" capped I.P. Sta. 1120+29.70

R=5729.58' L=1151.86' Ch=1149.85' N15°02'43"W

R=5601.58' C=890.23' L=333.80' L=891.17' N04°37'34"W

R=2744.79' L=650.86' Ch=649.34' N09°32'09"E

R=2764.79' L=1463.37' Ch=1433.09' S31°41'46"W

R=2744.79' L=734.58'

PRES. R/W

A001 ℄ SURVEY - U.S.81

A002 ℄ SURVEY - N.B.U.S.81

A003 ℄ SURVEY - S.B.U.S.81

C-1

STA. 1107+00
STA. 1110+00
STA. 1115+00
STA. 1120+00
STA. 1125+00
STA. 1130+00
STA. 1135+00
STA. 1128+00
STA. 1133+00
STA. 137+00

SCALE
1" = 100'

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S020

SDS 20 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

SECTION 20
T-6-N, R-7-W

SECTION 17
T-6-N, R-7-W

SECTION 16
T-6-N, R-7-W

STA. 101+00 PRES. R/W

POST Sta. 140+27.43 & POT Sta. 113+09.00 on Pk nail w/tag 27.36' W. to sec. cor. 2612.43' E. to 1/4 cor.

POC Sta. 140+48.44 & POT Sta. 112+81.65 on Pk nail w/tag 2454.23' W. to 1/4 cor. 199.24' E. to sec. cor.

125' N89°50'44.43"E 853.82' 125' EW-140 2653.47' S 89°50'44.43" W

355.00' PRES. R/W

7632 — N45°30'22"E 1622.51' — 7639 — 234.14' N00°30'22"E — 7639a — L=365.30' PRES. R/W

100+00 105+00 110+00 115+00 120+00 125+00 130+00 135+00 140+00 145+00 150+00 155+00 160+00 165+00 167+00

8579 8580 Public Service Co. of Okla. 10' Right-of-way Easement Bk. 1207, Pg. 342 Filed August 27, 1980

William C. Thompson Living Trust Bk. 4304, Pg. 435

7011

BM #13

8508

7640a R=1361.70' L=590.96' Ch=586.34' S11°55'36"E L=225.66' 307.47' N24°21'35"W BM #215 PRES. R/W 7640

8507 S88°51'44"W 546.57'

BM #216 CHICKASHA CITY LIMITS N89°52'07"E 1656.10' 1038.21'

8059 Ninnekah Water Corp. 20' Water Line Easement Bk. 1047, Pg. 450 Filed February 7, 1977

506.80' 8574 8576 8578 8575

Pike, Rhonda Revocable Trust Quit Claim Deed Bk. 4789, Pg. 480 Filed 07/23/2014

8060 N89°52'07"E 242.47' N00°13'07"E 221.09' 8601 7018

STA. 167+00

R=817.01' L=419.37' Ch=414.78' S40°21'07"E L=357.05' PRES. R/W 7641 A001 SURVEY - U.S.81 N20°06'47"W 202.17' 8053a 8054a N00°15'11"W 151.92' 8052a N00°13'07"E 150.16' N00°50'07"W 150.16' 8051a N44°31'23"W 97.21' N89°52'07"E 985.12'

8050a 8049a 7645 S6°11'17"E 94.05' N44°16'54"E 167.57' S44°16'54"W 167.57' N89°52'07"E 155.22' S 55°37'25" E 119.55' N15°37'33"W 64.44' S00°13'07"W 185' 7641a R=473.84' L=160.85' Ch=160.08' S45°19'55"E

7642 7642a S35°36'25"E 263.76' 7643 7644 N00°13'07"E 169.70' 8047a 8048a 8056a 8055a 8063 8199 7649 8602

State of Oklahoma Bk.659, Pg.639

C-1 A012 SURVEY - 16th AVE. EW-140 NS-283

8564 N 00°03'10.78" W 2652.10' 1326.05' 27.36' 8565 9104 308 464 8566 27.36'

PI 112+81.65 PI 115+87.04 S 44°39'16" E 50' 50' 399

POE STA 115+87.04 R=348.85' L=330.55' Ch=318.32' S62°38'25"E

POB Sta. 100+00.00 Fnd. 3/8" I.P. on ℄ SURVEY - CR 1400 & A011 1326.73 & EW-140 & NS-283 307 POB STA 100+00.00 100'

POE Sta. 100+00.00 on EW-140 & NS-283 Set PK nail w/tag 305.39' W. to sec. cor. 2334.40' E. to 1/4 cor.

PI Sta. 112+81.65 Fnd. 3/8" I.P. on EW-140 & & NS-283 & Set PK nail w/tag

Ninnekah Water Corp. 20' Water Line Easement Bk. 1022, Pg. 14 Filed May 13, 1976

PRES. R/W R=5629.58' L=1151.86' Ch=1149.85' N15°02'43"W 7619 BM #12 297.4'

R=545.06' L=339.96' Ch=334.47' S17°38'57"E 7668 7654 7655 7656 S 44°52'38" 66.80' 33.20' 310 8976 8982

PI Sta. 147+93.78 Set 1/2" capped I.P. P.I. 147+93.78

R=270.47' L=90.63' Ch=90.22' N7°30'39"E PRES. R/W 7660

ST Sta. 1135+70.73 Set PK nail w/tag

STA. 137+00

2639.79' S 89°47'30.57" W

STATUTORY R/W N 00°13'06.60" E 2653.46' 16.5' 30' 1595.35' STATUTORY R/W

STA. 118+00

1105.55' N05.64' PRES. R/W

Public 30' Roadway Easement Rec'd. Bk. 395, Pg. 203 Filed March 1, 1939

Public 30' Roadway Easement Rec'd. Bk. 395, Pg. 200 Filed March 1, 1939

Arkansas Louisiana Gas Co. 50' Pipeline Easement (W/2, SW/4, SEC 16 Obscure Description) Rec'd. Bk. 1196, Pg. 367 Filed June 12, 1980

Arkansas Louisiana Gas Co. 50' Pipeline Easement (W/2, SW/4, SEC 16 Obscure Description) Rec'd. Bk. 1206, Pg. 864 Filed August 22, 1980

Briggett Inc. Warranty Deed Rec'd. Bk. 2485, Pg. 219 Filed: October 28, 1992

Bobby M. Kizzia & Leslie B. Kizzia Warranty Deed Rec'd. Bk. 3928, Pg. 274 Filed: February 8, 2007

CREEK HAVEN ESTATES PHILLIP LANE GLENDA WAY

CURVE "I"

PI STA= 147+93.78
X= 1982747.6623
Y= 602181.9456
Δ= 44°48'32.01" LT
D= 1°00'00.00"
T= 2362.08'
L= 4480.89'
R= 5729.58'
E= 467.80'

Pike, Rhonda Revocable Trust Quit Claim Deed Bk. 4789, Pg. 480 Filed 07/23/2014

Southwestern Bell Telephone Co. 16.5' Right-of-Way Easement (E/2, NE/4 & NE/4, SE/4 & SE/4, SE/4, SEC 17 Obscure Description) Bk. 569, Pg. 481, 482 Filed 12/29/1953

2648.98' S 89°53'28.73" W EW-139.5

SCALE 1" = 100'

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

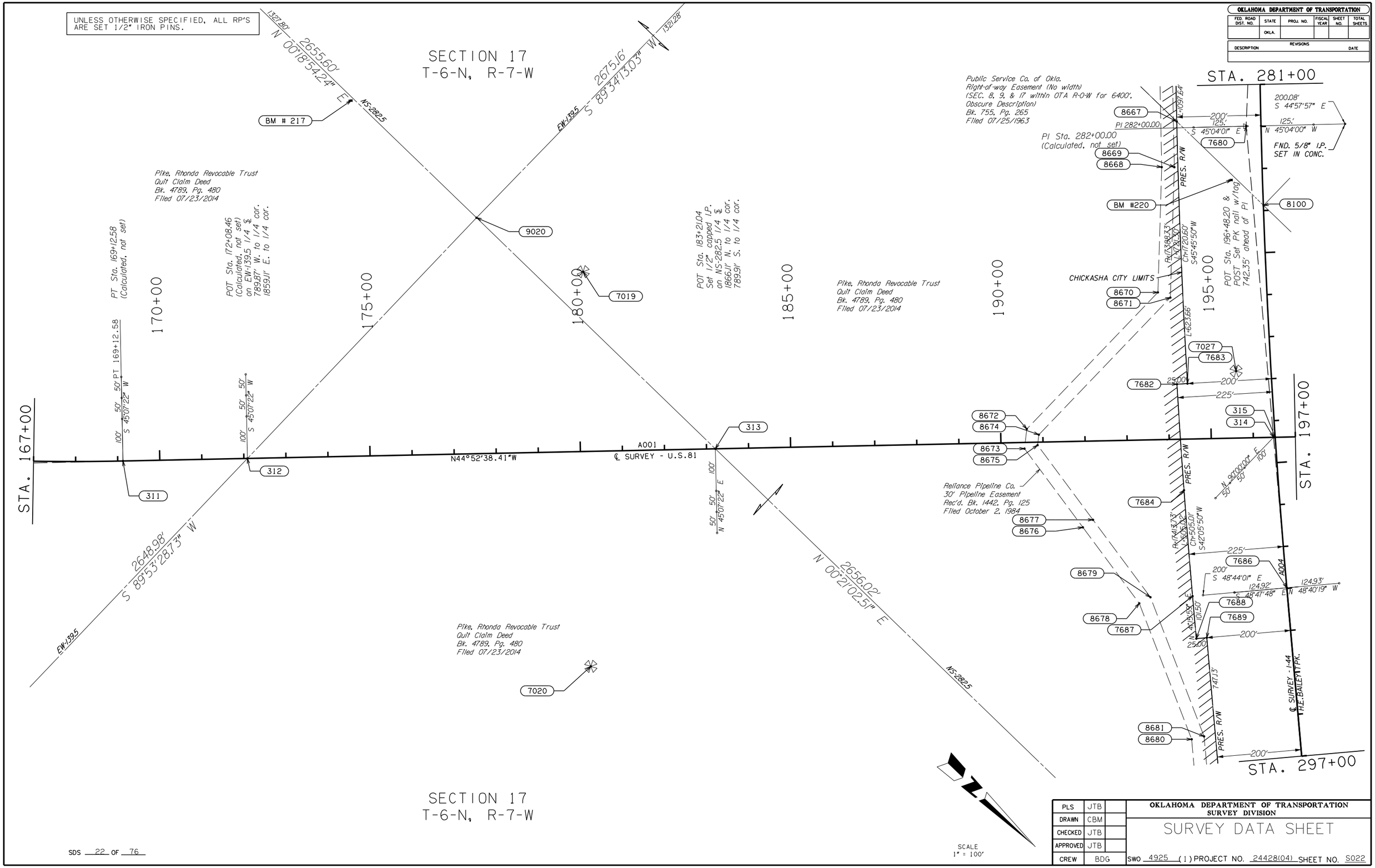
OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

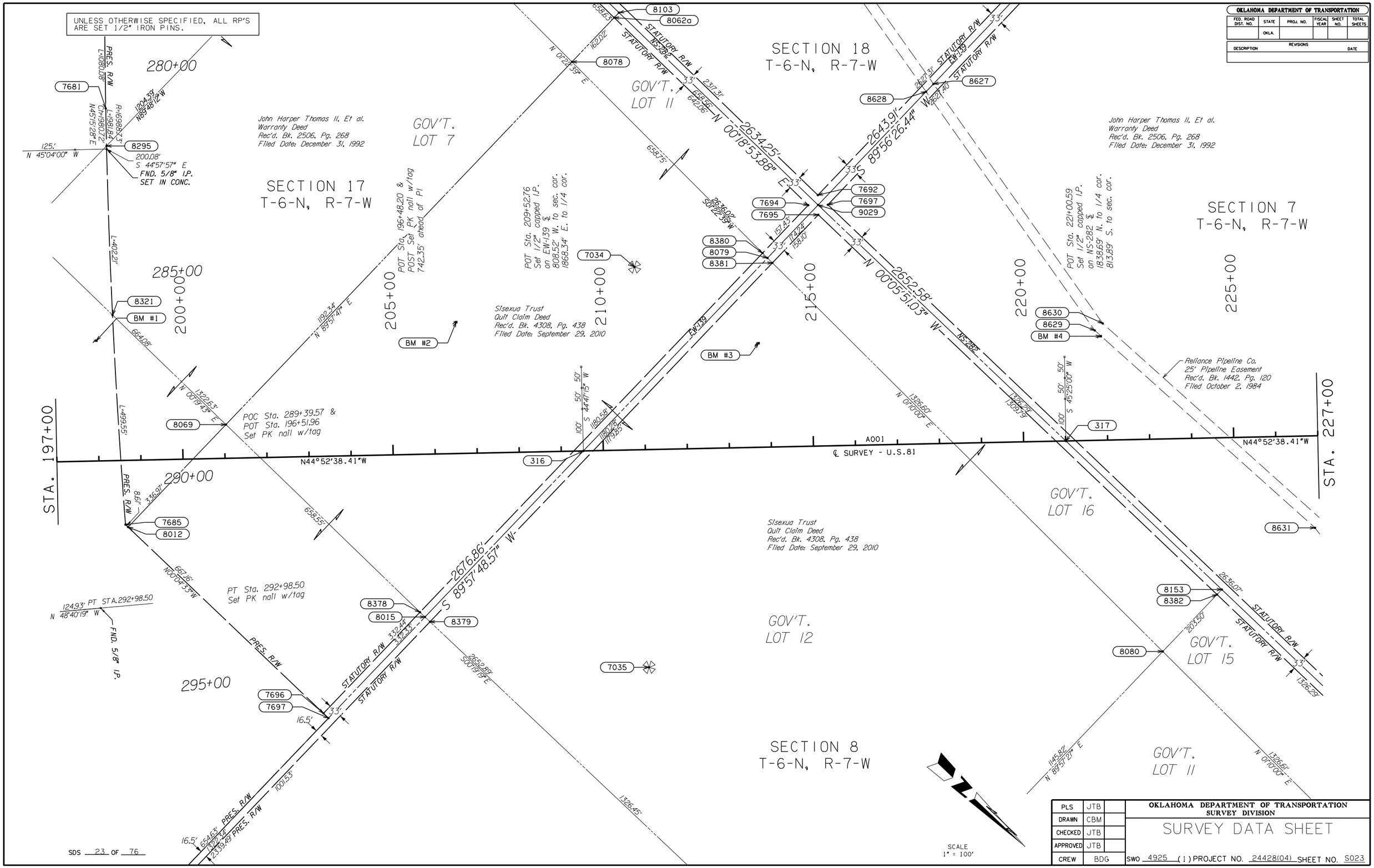
SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S021

SDS 21 OF 76

8-87



UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.
OKLAHOMA DEPARTMENT OF TRANSPORTATION
FED. ROAD DIST. NO.
STATE
PROJ. NO.
FISCAL YEAR
SHEET NO.
TOTAL SHEETS
OKLA.
REVISIONS
DESCRIPTION
DATE
SECTION 17
T-6-N, R-7-W
1327.80'
N 00°18'54.24" E
2655.60'
NS-282.5
BM # 217
EW-139.5
2675.16'
S 89°34'13.03" W
1321.28'
Pike, Rhonda Revocable Trust
Quit Claim Deed
Bk. 4789, Pg. 480
Filed 07/23/2014
PT Sta. 169+12.58
(Calculated, not set)
POT Sta. 172+08.46
(Calculated, not set)
on EW-139.5 1/4 ℄
789.87' W. to 1/4 cor.
1859.11' E. to 1/4 cor.
POT Sta. 183+21.04
Set 1/2" capped I.P.
on NS-282.5 1/4 ℄
1866.11' N. to 1/4 cor.
789.91' S. to 1/4 cor.
170+00
175+00
180+00
185+00
190+00
195+00
STA. 167+00
STA. 281+00
STA. 197+00
STA. 297+00
9020
7019
313
312
311
A001
℄ SURVEY - U.S.81
N44°52'38.41"W
2648.98'
S 89°53'28.73" W
2656.02'
N 00°21'02.51" E
7020
Public Service Co. of Okla.
Right-of-way Easement (No width)
(SEC. 8, 9, & 17 within OTA R-O-W for 6400'.
Obscure Description)
Bk. 755, Pg. 265
Filed 07/25/1963
PI Sta. 282+00.00
(Calculated, not set)
PRES. R/W
BM #220
CHICKASHA CITY LIMITS
POT Sta. 196+48.20 &
POST Set PK nail w/tag
742.35' ahead of PI
200.08'
S 44°57'57" E
N 45°04'00" W
FND. 5/8" I.P.
SET IN CONC.
Reliance Pipeline Co.
30' Pipeline Easement
Rec'd. Bk. 1442, Pg. 125
Filed October 2, 1984
℄ SURVEY - I-44
H.E. BAILEY TPK.
8667
8669
8668
8670
8671
8672
8674
8673
8675
8677
8676
8679
8678
7687
7680
8100
7027
7683
7682
315
314
7684
7686
7688
7689
8681
8680
SCALE
1" = 100'
SDS 22 OF 76
PLS JTB
DRAWN CBM
CHECKED JTB
APPROVED JTB
CREW BDG
OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION
SURVEY DATA SHEET
SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S022
8-87



UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.
OKLAHOMA DEPARTMENT OF TRANSPORTATION
FED. ROAD DIST. NO.
STATE
PROJ. NO.
FISCAL YEAR
SHEET NO.
TOTAL SHEETS
OKLA.
REVISIONS
DESCRIPTION
DATE
SECTION 18
T-6-N, R-7-W
SECTION 17
T-6-N, R-7-W
SECTION 7
T-6-N, R-7-W
SECTION 8
T-6-N, R-7-W
GOV'T. LOT 7
GOV'T. LOT 11
GOV'T. LOT 12
GOV'T. LOT 15
GOV'T. LOT 16
GOV'T. LOT 11
John Harper Thomas II, Et al.
Warranty Deed
Rec'd. Bk. 2506, Pg. 268
Filed Date: December 31, 1992
Sisexua Trust
Quit Claim Deed
Rec'd. Bk. 4308, Pg. 438
Filed Date: September 29, 2010
Reliance Pipeline Co.
25' Pipeline Easement
Rec'd. Bk. 1442, Pg. 120
Filed October 2, 1984
POT Sta. 196+48.20 & POST Set PK nail w/tag 742.35' ahead of PI
POT Sta. 209+52.76 Set 1/2" capped I.P. on EW-139 ℄ 808.52' W. to sec. cor. 1868.34' E. to 1/4 cor.
POT Sta. 221+00.59 Set 1/2" capped I.P. on NS-282 ℄ 1838.69' N. to 1/4 cor. 813.89' S. to sec. cor.
POC Sta. 289+39.57 & POT Sta. 196+51.96 Set PK nail w/tag
PT Sta. 292+98.50 Set PK nail w/tag
STA. 197+00
STA. 227+00
280+00
285+00
290+00
295+00
200+00
205+00
210+00
215+00
220+00
225+00
N44°52'38.41"W
℄ SURVEY - U.S.81
A001
N 00°18'53.88" E
2634.25'
S 89°56'26.44" W
2643.91'
N 00°05'51.03" W
2652.58'
S 89°57'48.57" W
2676.86'
N 45°04'00" W
S 44°57'57" E
FND. 5/8" I.P. SET IN CONC.
N 48°40'19" W
FND. 5/8" I.P.
STATUTORY R/W
PRES. R/W
SCALE 1" = 100'
SDS 23 OF 76
PLS JTB
DRAWN CBM
CHECKED JTB
APPROVED JTB
CREW BDG
OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION
SURVEY DATA SHEET
SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S023

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 7
T-6-N, R-7-W

PI Sta. 105+62.94
Set PK nail w/tag

POC Sta. 105+66.03
Set PK nail w/tag
on ℄ & NS-281.5 1/4 ℄
768.22' N. to 1/4 cor.
1881.79' S. to 1/4 cor.

POST Set 1/2" capped I.P.
107.46' ahead of PI
on NS-281.5 1/4 ℄
667.04' N. to 1/4 cor.
1982.97' S. to 1/4 cor.

PT Sta. 111+11.72
Set 1/2" capped I.P.

POST Sta. 246+90.18
Set 1/2" capped I.P.
on EW-138.5 1/4 ℄
818.35' W. to 1/4 cor.
1824.06' E. to 1/4 cor.

POST Sta. 114+33.22
Set 1/2" capped I.P.
on EW-138.5 1/4 ℄
397.88' W. to 1/4 cor.
2244.54' E. to 1/4 cor.

PC Sta. 179+36.62
Set 1/2" capped I.P.

POC Sta. 117+41.85 &
POT Sta. 250+64.41
Set 1/2" capped I.P.

POST Sta. 117+41.44 &
POT Sta. 250+62.84
Set 1/2" capped I.P.

PI Sta. 119+79.31
Set 1/2" capped I.P.

PT Sta. 123+07.45
Set 1/2" capped I.P.

PC Sta. 179+36.62
Set PK nail w/tag

POC Sta. 180+64.05 &
POT Sta. 251+58.67
Set 1/2" capped I.P.
POST Sta. 180+63.28
POT Sta. 251+55.75
Set PK nail w/tag

PI Sta. 182+67.67
Fnd. 1/2" I.P.

PT Sta. 173+92.76
Set PK nail w/tag

POST Set 1/2" capped I.P.
Set PK nail w/tag
on NS-281.5 1/4 ℄
667.04' N. to 1/4 cor.
1982.97' S. to 1/4 cor.

POST Sta. 176+78.23
Set PK nail w/tag
on EW-138.5 1/4 ℄
293.04' W. to 1/4 cor.
2349.37' E. to 1/4 cor.

FND. 1/2" I.P.

PT STA.111+11.72 50' 50' S 59°15'46" E

PT STA.173+92.76 50' 50' N 59°15'43" W

PT STA.185+95.79 50' 50' N 72°26'47" W

PT STA.123+07.45 50' 50' S 72°26'47" E

PC STA.116+48.25 50' 50' S 59°15'47" E

PC STA.179+36.62 50' 50' N 59°15'47" W

PI 119+79.31 50' S 65°51'17" E

PI 182+67.67 50' N 13°41'28" W

S 72°19'52" E 54.35'

L=663.55' R=2724.79' Ch=1057.34' S19°37'13"W

L=403.55' R=2824.79' Ch=1050.12' S19°37'13"W

L=1120.13' R=2824.79' Ch=1096.15' S19°37'13"W

L=236.06' R=2824.79' Ch=235.99' S13°31'54"W

L=1668.96' R=2824.79' Ch=1668.55' N24°08'43"E

L=1668.37' R=2904.79' Ch=1668.00' N24°08'43"E

L=1668.90' R=3004.79' Ch=1668.38' N24°08'43"E

L=1668.86' R=3004.79' Ch=1668.38' N24°08'43"E

L=1668.96' R=2824.79' Ch=1668.55' N24°08'43"E

L=1668.37' R=2904.79' Ch=1668.00' N24°08'43"E

L=1668.90' R=3004.79' Ch=1668.38' N24°08'43"E

L=1668.86' R=3004.79' Ch=1668.38' N24°08'43"E

L=1668.96' R=2824.79' Ch=1668.55' N24°08'43"E

L=1668.37' R=2904.79' Ch=1668.00' N24°08'43"E

L=1668.90' R=3004.79' Ch=1668.38' N24°08'43"E

L=1668.86' R=3004.79' Ch=1668.38' N24°08'43"E

N44°52'38.41"W

N30°44'13.22"E

S 45°07'22" W 100'

S 89°53'08" W 2642.41'

N 00°03'54.22" W 2650.04'

N 00°03'54.22" W 2646.28'

S 89°53'16.08" W 2623.29'

EW-1385

NS-2815

Reliance Pipeline Co.
25' Pipeline Easement
Rec'd. Bk. 1534, Pg. 219
Filed April 17, 1985

Southwestern Light & Power Co.
Right-of-Way (No width specified)
Bk. 259, Pg. 76, 86, 90
Filed March 15, 1927

John H. Thomas II, Etal
Warranty Deed
Rec'd. Bk. 2266, Pg. 185
Filed December 26, 1990

John H. Thomas II, Etal
Warranty Deed
Rec'd. Bk. 2266, Pg. 184
Filed December 26, 1990

Chester Stanton Thomas, Etal
Warranty Deed
Rec'd. Bk. 2506, Pg. 270
Filed December 31, 1992

Public
80' Roadway Easement
Rec'd. Bk. 498, Pg. 377
Filed Augus 13, 1947

Norge Water and Sewer Co. Inc.
20' Easement
Bk. 1020, Pg. 429
Filed April 23, 1976

Public Service Co. of Okla.
Right-of-way Easement
(No width specified)
(SW/4, NE/4, Sec. 7
Obscure Description)
Bk. 818, Pg. 691
Filed August 8, 1966

Chester Stanton Thomas, Etal
Warranty Deed
Rec'd. Bk. 2506, Pg. 270
Filed December 31, 1992

GOV'T. LOT 15

Sisexua Trust
Quit Claim Deed
Rec'd. Bk. 4308, Pg. 438
Filed Date: September 29, 2010

33' STATUTORY R/W

CHICKASHA CITY LIMITS

PRES. R/W

A001 ℄ SURVEY - U.S.81

A005 ℄ SURVEY - SH-92

A006 BUS SH-92

BM #5 BM #6 BM #7 BM #8

7036 7037 7038 7412 7724 7725 7727 7728 7729 7730 7731 7732 7733 7734 7735 7738 8632 8718 8719 8720 8721 8724 8725 8727 8731 8732 8733 8734 8735 8736 8737 8738 8739 8740 8741 8742 8743 8744 8745 8746 8747 8748 8749 8750 8751 8752 8753 8754 8755 8756 8757 8758 8759 8760 8761 8762 8763 8764 8765 8766 8767 8768 8769 8770 8771 8772 8773 8774 8775 8776 8777 8778 8779 8780 8781 8782 8783 8784 8785 8786 8787 8788 8789 8790 8791 8792 8793 8794 8795 8796 8797 8798 8799 8800 8801 8802 8803 8804 8805 8806 8807 8808 8809 8810 8811 8812 8813 8814 8815 8816 8817 8818 8819 8820 8821 8822 8823 8824 8825 8826 8827 8828 8829 8830 8831 8832 8833 8834 8835 8836 8837 8838 8839 8840 8841 8842 8843 8844 8845 8846 8847 8848 8849 8850 8851 8852 8853 8854 8855 8856 8857 8858 8859 8860 8861 8862 8863 8864 8865 8866 8867 8868 8869 8870 8871 8872 8873 8874 8875 8876 8877 8878 8879 8880 8881 8882 8883 8884 8885 8886 8887 8888 8889 8890 8891 8892 8893 8894 8895 8896 8897 8898 8899 8900 8901 8902 8903 8904 8905 8906 8907 8908 8909 8910 8911 8912 8913 8914 8915 8916 8917 8918 8919 8920 8921 8922 8923 8924 8925 8926 8927 8928 8929 8930 8931 8932 8933 8934 8935 8936 8937 8938 8939 8940 8941 8942 8943 8944 8945 8946 8947 8948 8949 8950 8951 8952 8953 8954 8955 8956 8957 8958 8959 8960 8961 8962 8963 8964 8965 8966 8967 8968 8969 8970 8971 8972 8973 8974 8975 8976 8977 8978 8979 8980 8981 8982 8983 8984 8985 8986 8987 8988 8989 8990 8991 8992 8993 8994 8995 8996 8997 8998 8999 9000 9001 9002 9003 9004 9005 9006 9007 9008 9009 9010 9011 9012 9013 9014 9015 9016 9017 9018 9019 9020 9021 9022 9023 9024 9025 9026 9027 9028 9029 9030 9031 9032 9033 9034 9035 9036 9037 9038 9039 9040 9041 9042 9043 9044 9045 9046 9047 9048 9049 9050 9051 9052 9053 9054 9055 9056 9057 9058 9059 9060 9061 9062 9063 9064 9065 9066 9067 9068 9069 9070 9071 9072 9073 9074 9075 9076 9077 9078 9079 9080 9081 9082 9083 9084 9085 9086 9087 9088 9089 9090 9091 9092 9093 9094 9095 9096 9097 9098 9099 9100 9101 9102 9103 9104 9105 9106 9107 9108 9109 9110 9111 9112 9113 9114 9115 9116 9117 9118 9119 9120 9121 9122 9123 9124 9125 9126 9127 9128 9129 9130 9131 9132 9133 9134 9135 9136 9137 9138 9139 9140 9141 9142 9143 9144 9145 9146 9147 9148 9149 9150 9151 9152 9153 9154 9155 9156 9157 9158 9159 9160 9161 9162 9163 9164 9165 9166 9167 9168 9169 9170 9171 9172 9173 9174 9175 9176 9177 9178 9179 9180 9181 9182 9183 9184 9185 9186 9187 9188 9189 9190 9191 9192 9193 9194 9195 9196 9197 9198 9199 9200 9201 9202 9203 9204 9205 9206 9207 9208 9209 9210 9211 9212 9213 9214 9215 9216 9217 9218 9219 9220 9221 9222 9223 9224 9225 9226 9227 9228 9229 9230 9231 9232 9233 9234 9235 9236 9237 9238 9239 9240 9241 9242 9243 9244 9245 9246 9247 9248 9249 9250 9251 9252 9253 9254 9255 9256 9257 9258 9259 9260 9261 9262 9263 9264 9265 9266 9267 9268 9269 9270 9271 9272 9273 9274 9275 9276 9277 9278 9279 9280 9281 9282 9283 9284 9285 9286 9287 9288 9289 9290 9291 9292 9293 9294 9295 9296 9297 9298 9299 9300 9301 9302 9303 9304 9305 9306 9307 9308 9309 9310 9311 9312 9313 9314 9315 9316 9317 9318 9319 9320 9321 9322 9323 9324 9325 9326 9327 9328 9329 9330 9331 9332 9333 9334 9335 9336 9337 9338 9339 9340 9341 9342 9343 9344 9345 9346 9347 9348 9349 9350 9351 9352 9353 9354 9355 9356 9357 9358 9359 9360 9361 9362 9363 9364 9365 9366 9367 9368 9369 9370 9371 9372 9373 9374 9375 9376 9377 9378 9379 9380 9381 9382 9383 9384 9385 9386 9387 9388 9389 9390 9391 9392 9393 9394 9395 9396 9397 9398 9399 9400 9401 9402 9403 9404 9405 9406 9407 9408 9409 9410 9411 9412 9413 9414 9415 9416 9417 9418 9419 9420 9421 9422 9423 9424 9425 9426 9427 9428 9429 9430 9431

STA. 227+00 230+00 235+00 240+00 245+00 255+00 257+00

115+00 120+00 125+00 180+00 185+00

SCALE
1" = 100'

SDS 24 OF 76

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

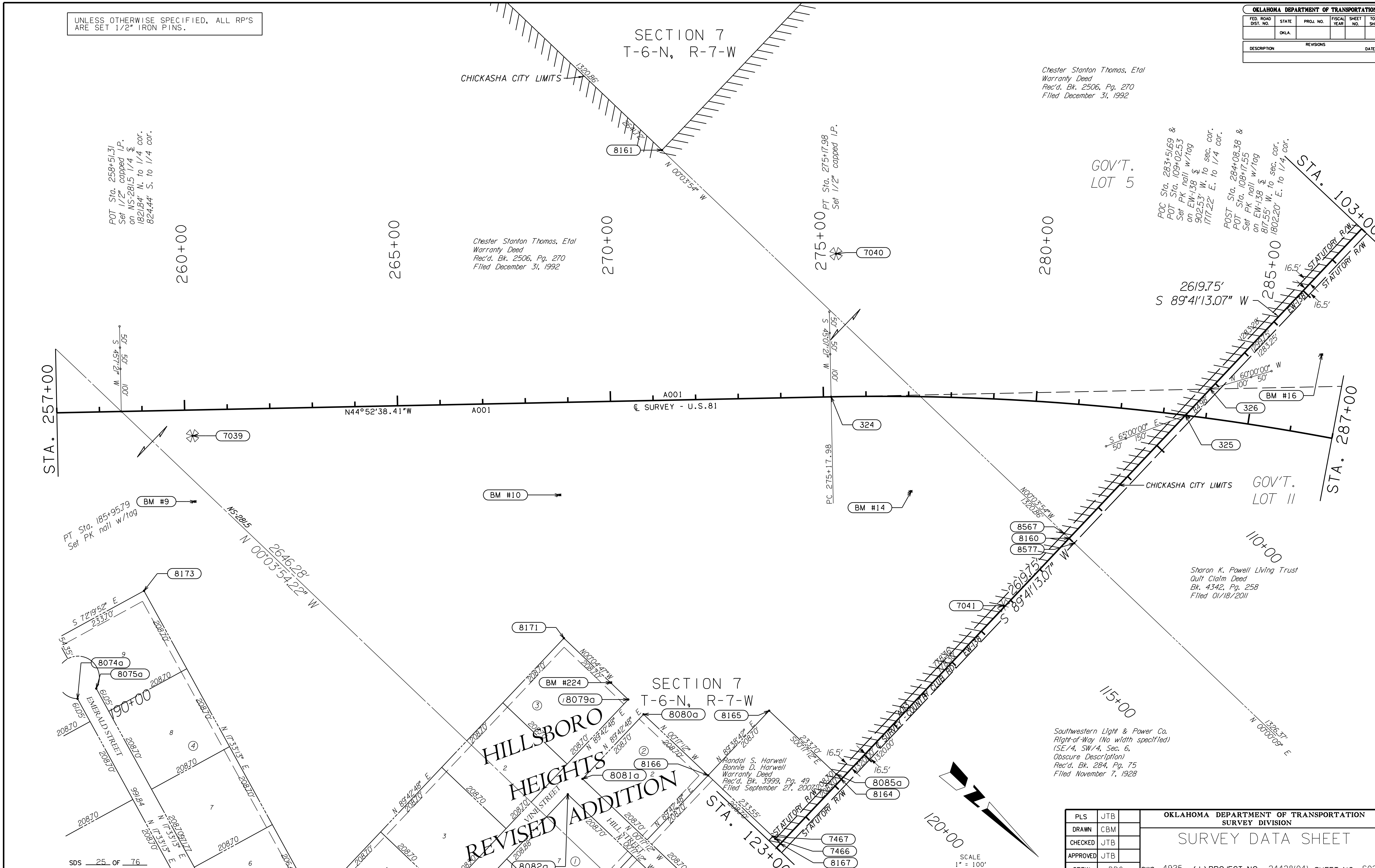
PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S024

8-87



SDS 25 OF 76

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

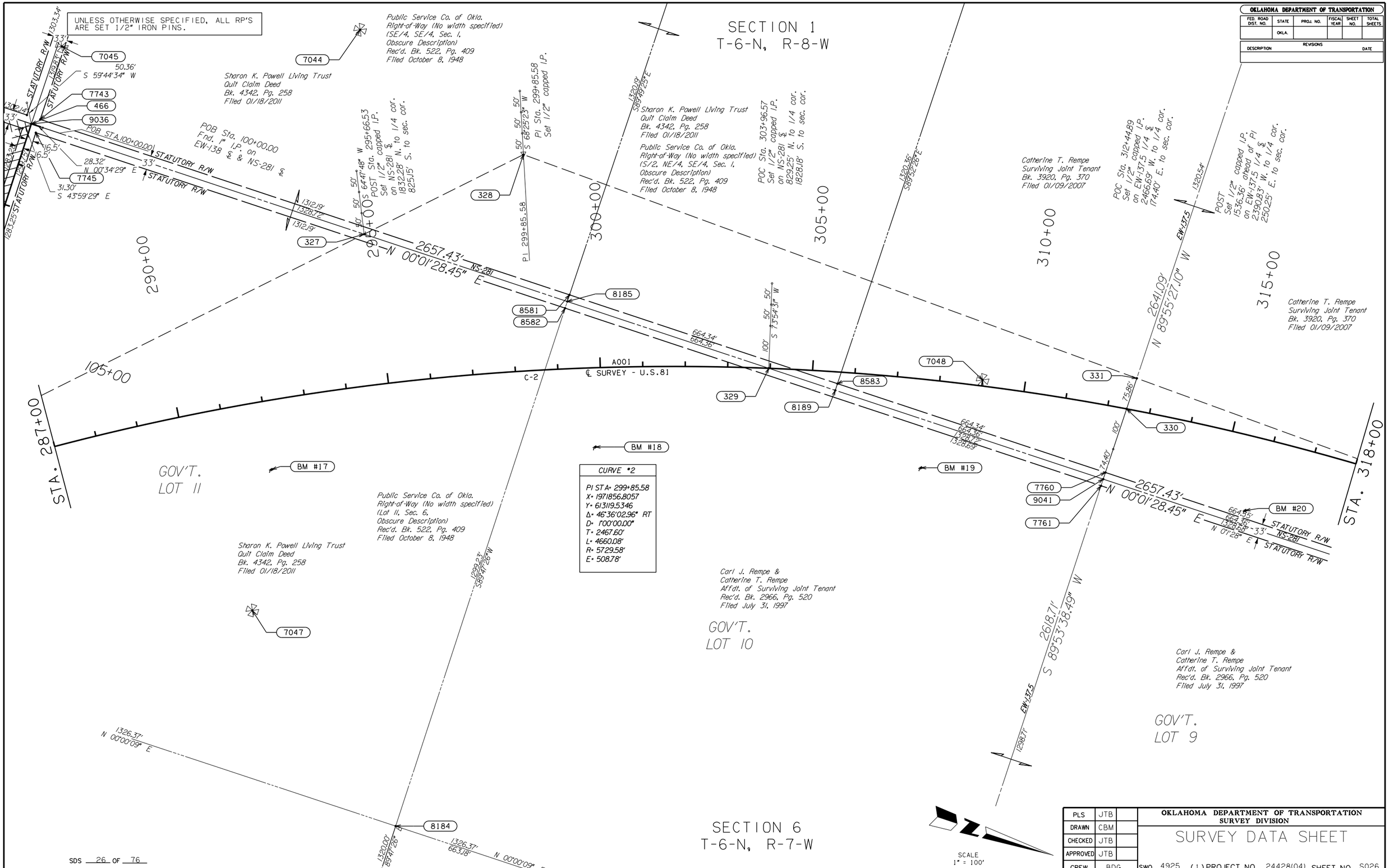
PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S025

8-87



OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
REVISIONS					
DESCRIPTION					DATE

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

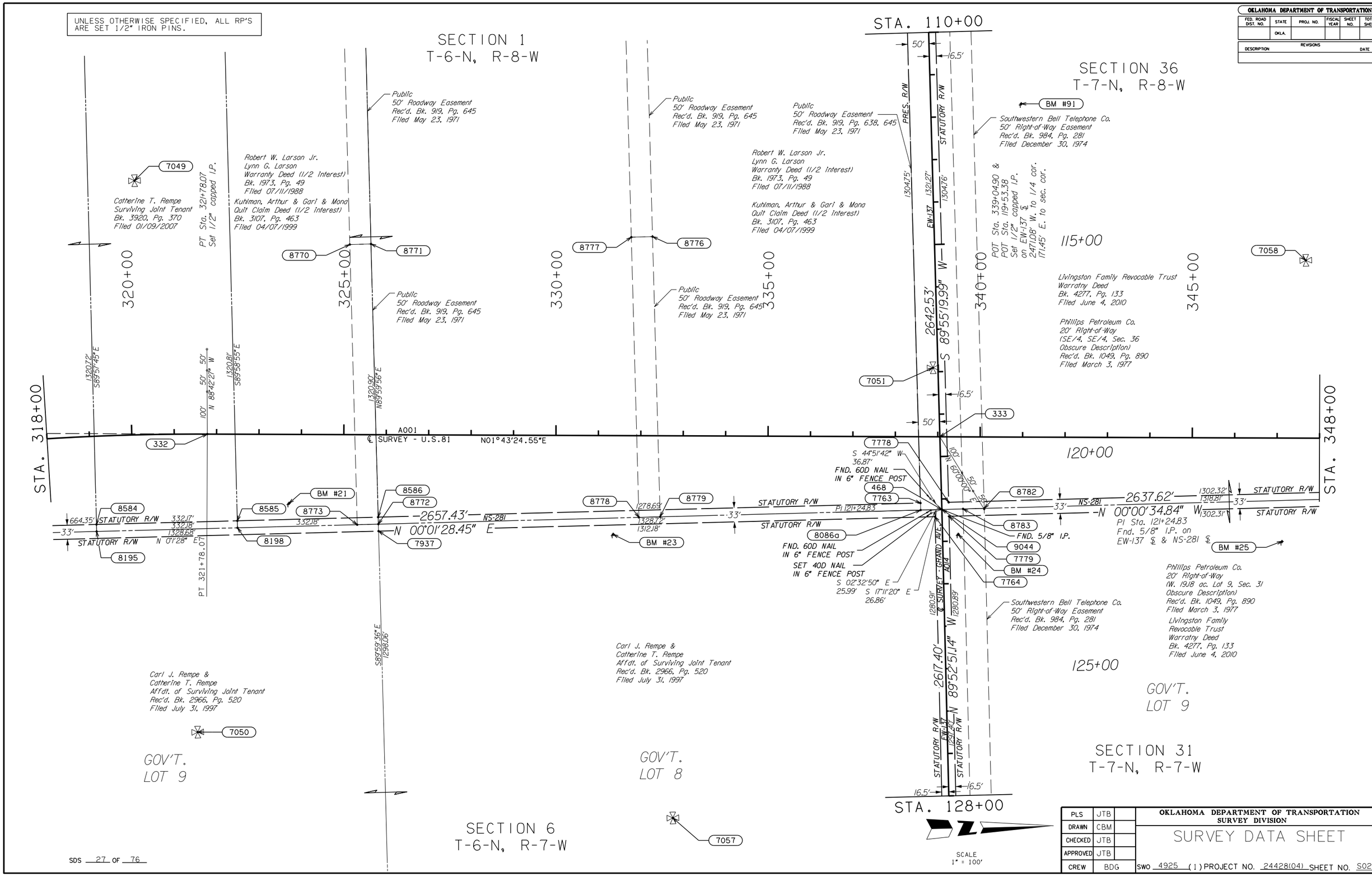
OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S026

SDS 26 OF 76

8-87



UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.
OKLAHOMA DEPARTMENT OF TRANSPORTATION
FED. ROAD DIST. NO.
STATE
PROJ. NO.
FISCAL YEAR
SHEET NO.
TOTAL SHEETS
OKLA.
REVISIONS
DESCRIPTION
DATE
STA. 110+00
SECTION 1
T-6-N, R-8-W
SECTION 36
T-7-N, R-8-W
Public
50' Roadway Easement
Rec'd. Bk. 919, Pg. 645
Filed May 23, 1971
Public
50' Roadway Easement
Rec'd. Bk. 919, Pg. 638, 645
Filed May 23, 1971
Robert W. Larson Jr.
Lynn G. Larson
Warranty Deed (1/2 interest)
Bk. 1973, Pg. 49
Filed 07/11/1988
Kuhlman, Arthur & Gari & Mona
Quit Claim Deed (1/2 interest)
Bk. 3107, Pg. 463
Filed 04/07/1999
Catherine T. Rempe
Surviving Joint Tenant
Bk. 3920, Pg. 370
Filed 01/09/2007
PT Sta. 321+78.07
Set 1/2" capped I.P.
Southwestern Bell Telephone Co.
50' Right-of-Way Easement
Rec'd. Bk. 984, Pg. 281
Filed December 30, 1974
POT Sta. 339+04.90 &
POT Sta. 119+53.38
Set 1/2" capped I.P.
on EW-137 ℄
2471.08' W. to 1/4 cor.
171.45' E. to sec. cor.
Livingston Family Revocable Trust
Warratny Deed
Bk. 4277, Pg. 133
Filed June 4, 2010
Phillips Petroleum Co.
20' Right-of-Way
(SE/4, SE/4, Sec. 36
Obscure Description)
Rec'd. Bk. 1049, Pg. 890
Filed March 3, 1977
320+00
325+00
330+00
335+00
340+00
345+00
115+00
120+00
125+00
STA. 318+00
STA. 348+00
STA. 128+00
A001
℄ SURVEY - U.S.81
N01°43'24.55"E
2642.53'
S 89°55'19.99" W
2637.62'
N 00°00'34.84" W
2657.43'
N 00°01'28.45" E
2617.40'
N 89°52'51.14" W
PI Sta. 121+24.83
Fnd. 5/8" I.P. on
EW-137 ℄ & NS-281 ℄
FND. 60D NAIL
IN 6" FENCE POST
FND. 5/8" I.P.
SET 40D NAIL
IN 6" FENCE POST
S 44°51'42" W
36.87'
S 02°32'50" E
25.99'
S 17°11'20" E
26.86'
Carl J. Rempe &
Catherine T. Rempe
Affdt. of Surviving Joint Tenant
Rec'd. Bk. 2966, Pg. 520
Filed July 31, 1997
GOV'T.
LOT 9
GOV'T.
LOT 8
GOV'T.
LOT 9
SECTION 6
T-6-N, R-7-W
SECTION 31
T-7-N, R-7-W
SCALE
1" = 100'
SDS 27 OF 76
PLS JTB
DRAWN CBM
CHECKED JTB
APPROVED JTB
CREW BDG
OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION
SURVEY DATA SHEET
SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S027
8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

STA. 348+00

STA. 350+00

STA. 355+00

STA. 360+00

STA. 365+00

STA. 370+00

STA. 375+00

STA. 378+00

N01°43'24.55"E A001

A001

℄ SURVEY - U.S.81

1321.14' N89°58'11"E

N89°58'58"W 2641.00'

N89°58'58"W 2641.00'

331.02'

8241

N00°00'35"W 330.00'

8242

SECTION 36
T-7-N, R-8-W

7060

2642.03'

N 89°58'57.75" W

EW-136.5

990.00'

POT Sta. 365+43.98
Set 1/2" capped I.P.
on EW-136.5 1/4 §
2550.40' W. to 1/4 cor.
9163' E. to 1/4 cor.

Livingston Family Revocable Trust
Warratny Deed
Bk. 4277, Pg. 133
Filed June 4, 2010

Mid Continent Pipe Line Co.
20' Right-of-Way
(S/2, NE/4, SE/4, Sec. 36
Obscure Description)
Rec'd. Bk. 1032, Pg. 425
Filed September 13, 1976

Mid Continent Pipe Line Co.
20' Right-of-Way
(S/2, NE/4, SE/4, Sec. 36
Obscure Description)
Rec'd. Bk. 1046, Pg. 364
Filed January 27, 1977

Phillips Petroleum Co.
20' Right-of-Way
(S/2, N/2, SE/4, Sec. 36
Obscure Description)
Rec'd. Bk. 1049, Pg. 890
Filed March 3, 1977

Livingston Family Revocable Trust
Warratny Deed
Bk. 4277, Pg. 133
Filed June 4, 2010

Phillips Petroleum Co.
20' Right-of-Way
(N/2, NE/4, SE/4, Sec. 36
Obscure Description)
Rec'd. Bk. 1054, Pg. 579
Filed April 21, 1977

David L. Perryman &
Gwendolyn Jo Perryman
Trustee's Deed
Rec'd. Bk. 2078, Pg. 284
Filed May 19, 1989

Public
50' Roadway Easement
Rec'd. Bk. 1353, Pg. 177
Filed April 7, 1983

SCHENK, DON
SCHENK, ELIZABETH
REVOCABLE TRUST
Quit Claim Deed
Rec'd. Bk. 2889, Pg. 507
Filed October 8, 1996

8818
8825
8817
8824

Phillips Petroleum Co.
Right-of-Way
(NE/4, Sec. 36
Obscure Description)
Rec'd. Bk. 1051, Pg. 155
Filed March 16, 1977

Phillips Petroleum Co.
50' Pipeline Right-of-Way
(E/2, NE/4, Sec. 36
Obscure Description)
Rec'd. Bk. 2968, Pg. 275
Filed Jun 7, 1994

8814
8819
8813
8812
334

Public Service Co. of Okla.
10' Right-of-Way Easement
Rec'd. Bk. 2348, Pg. 57
Filed August 19, 1991

50' 50' 100' N 45°00'00" W

8811
8802
8803
8804
8595
8593

1302.32' STATUTORY R/W
33'
1318.81'
1302.31' STATUTORY R/W

NS-282 2637.62' N 00°00'34.84" W

658.82'
658.81'
659.41'
659.41'

660.00'
660.00'
659.41'
659.41'

2637.62' NS-282 N 00°00'34.84" W

STATUTORY R/W 2621.15'
33'
1318.81'
STATUTORY R/W 1318.84'

8807
8810
7782
8809
8808
7781
9047
7061

8227
8238
8806
8805
8596
8594
8234

Mid Continent Pipe Line Co.
20' Easement
Rec'd. Bk. 1046, Pg. 851
Filed January 31, 1977

634.58'

BM #26

Mid Continent Pipe Line Co.
20' Pipeline Easement
(Lot 8, Sec. 31
Obscure Description)
Rec'd. Bk. 1032, Pg. 425
Filed September 7, 1976

Phillips Petroleum Co.
20' Right-of-Way
(W. 19.5 ac. Lot 8, Sec. 31
Obscure Description)
Rec'd. Bk. 1049, Pg. 890
Filed March 3, 1977

7414
BM #27

Livingston Family Revocable Trust
Warratny Deed
Bk. 4277, Pg. 133
Filed June 4, 2010

7059

BM #28

Mid Continent Pipe Line Co.
20' Easement
(N. 10 ac. Lot 8, Sec. 31
Obscure Description)
Rec'd. Bk. 1030, Pg. 734
Filed August 25, 1976

David L. Perryman &
Gwendolyn Jo Perryman
Warranty Deed
Rec'd. Bk. 4259, Pg. 13
Filed March 23, 2010

8816
8815
BM #29

COMMISSIONER'S LAND OFFICE
(Book & Page Not Found)

Phillips Petroleum Co.
33' Right-of-Way
(S/2, NW/4, & S/2, N/2, NW/4,
Sec. 31, Obscure Description)
Rec'd. Bk. 1293, Pg. 890
Filed March 22, 1982

8823
8822
8820
8821

GOV'T. LOT 9

GOV'T. LOT 8

GOV'T. LOT 7

1296.22'
N89°53'37"W

635.18'
N89°54'00"W

EW-1365

2615.03'
N 89°54'23.42" W

8245
8237
N00°03'40"W 659.48'
1295.03'

660.45'

SECTION 31
T-7-N, R-7-W

SCALE
1" = 100'

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

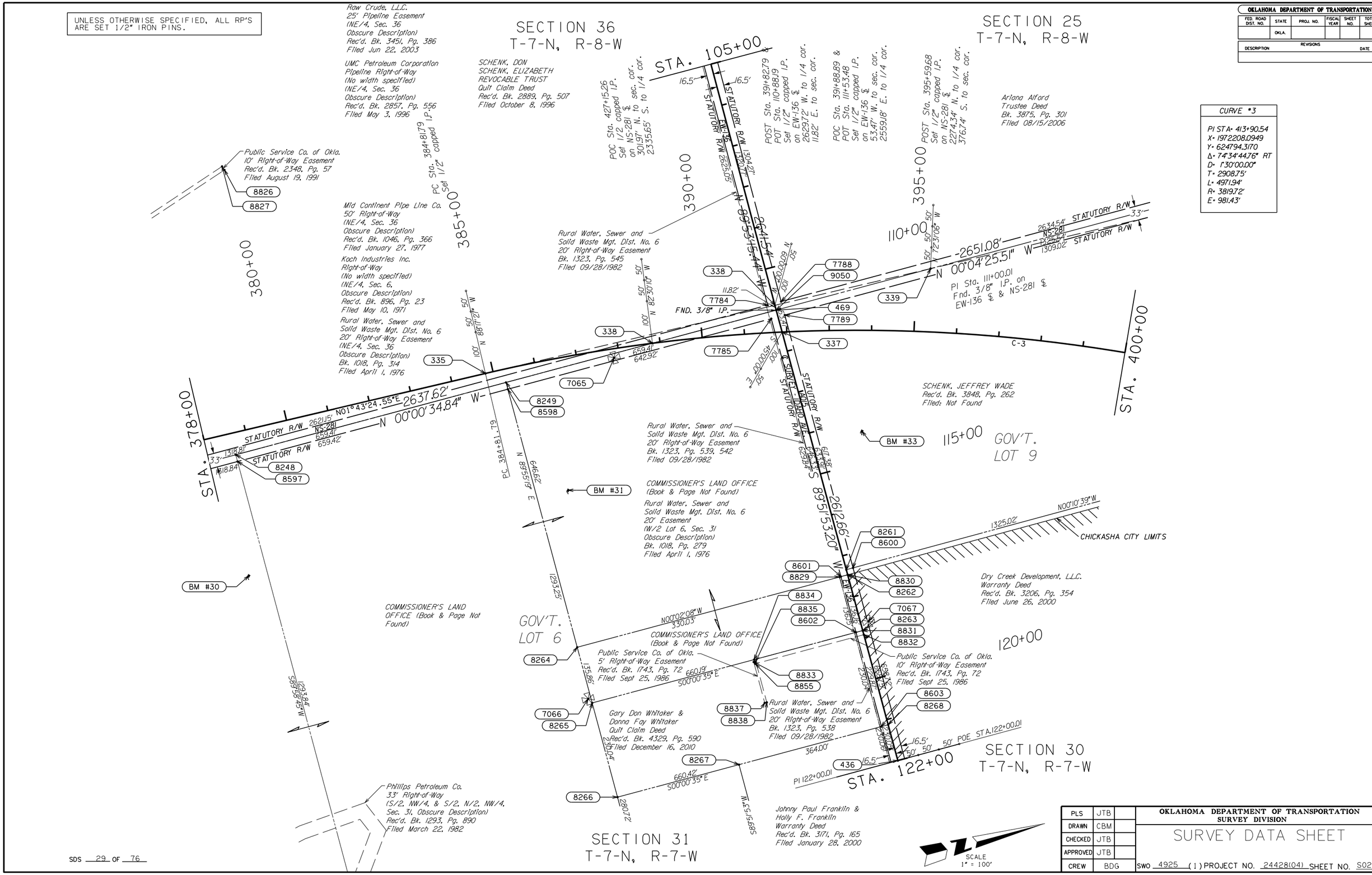
SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S028

SDS 28 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

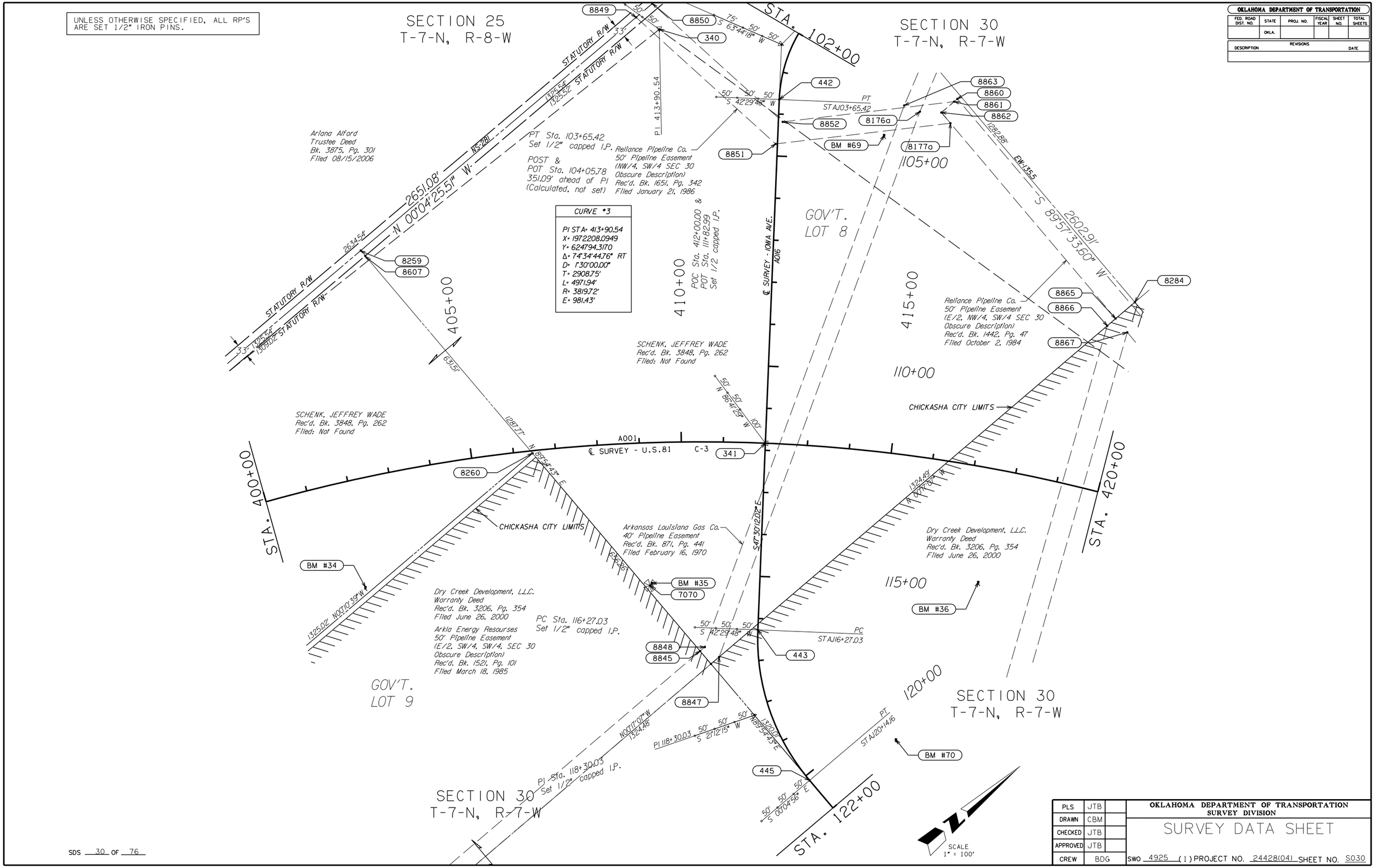
OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
REVISIONS					
DESCRIPTION					DATE



PLS	JTB	OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	CBM	SURVEY DATA SHEET
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S029

SDS 29 OF 76

8-87



OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
REVISIONS					
DESCRIPTION					DATE

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S030

SDS 30 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 25
T-7-N, R-8-W

CURVE #3
PI STA= 413+90.54
X= 1972208.0949
Y= 624794.3170
Δ= 74°34'44.76" RT
D= 1°30'00.00"
T= 2908.75'
L= 4971.94'
R= 3819.72'
E= 981.43'

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

8290 — N89°57'34"E 295.00'

8291 — RAWSON, REBECCA KATHLEEN, 724 COUNTY ROAD 1355, CHICKASHA, OK 73018

295.00' N 00°17'07" W

N 00°17'07" W 295.00'

8292

EW-135.5

S 89°57'33.60" W 2602.9'

8885, 8886

Reliance Pipeline Co. 50' Pipeline Easement Rec'd. Bk. 1442, Pg. 49 Filed October 2, 1984

8875, 8876, 8874, 8879

STA. 420+00

A001 ℄ SURVEY - U.S.81

8880, 8878

1025.03'

100' 50' 50' N 24°46'28" W

342

C-3

8873, 8872

BM #37

Reliance Pipeline Co. 50' Pipeline Easement Rec'd. Bk. 2490, Pg. 25-39 Filed November 12, 1992

8871, 8870, 8868, 8869

125+00

Dry Creek Development, L.L.C. Warranty Deed Rec'd. Bk. 3206, Pg. 354 Filed June 26, 2000

00+011

Chickasha Municipal Authority 40' Easement Rec'd. Bk. 3534, Pg. 270 Filed September 10, 2003

℄ SURVEY - C.S.2815

8283

1323.39'

N89°55'17"E 242.10'

8282

450.00'

N 00°17'05" W 450.00'

BM #71

STA. 105+00

John A. Soos & Ramona G. Soos Warranty Deed Rec'd. Bk. 4140, Pg. 478 Filed December 1, 2008

SECTION 25
T-7-N, R-8-W

Reliance Pipeline Co. 20' Pipeline Easement Rec'd. Bk. 1442, Pg. 62 Filed October 2, 1984

8883, 8884

POST Set 1/2 capped I.P. 1881.97' ahead of PI on EW-135.5 1/4 ℄ 1886.44' W. to 1/4 cor. 716.47' E. to 1/4 cor.

425+00

POC Sta. 427+15.26 Set 1/2 capped I.P. on EW-135.5 1/4 ℄ 2187.85' W. to 1/4 cor. 415.06' E. to 1/4 cor.

RAWSON, DAVID DALE & JO EDYTHA (BK. & PG. NOT FOUND)

120+00

430+00

POC Sta. 431+60.54 & POT Sta. 1117+82.54 Set 1/2 capped I.P. on NS-2815 1/4 ℄ 2484.88' N. to 1/4 cor. 162.34' S. to 1/4 cor.

7072, 343, 8882, 8881, 8877

50' 50' N 28°44'36" W

Chickasha Municipal Authority 40' Easement Rec'd. Bk. 3537, Pg. 151 Filed September 18, 2003

100' 50' 50' N 24°46'28" W

8875, 8876, 8874, 8879

342

8880, 8878

C-3

50' 50' N 44°59'59" W

CHICKASHA CITY LIMITS

345, 344

3" STL. FENCE POST

8890

115+00

CHICKASHA CITY LIMITS

39.94' S 48°24'42" W

FND. 60D NAIL IN 5" FENCE POST

BM #233

8889

39.06' S 36°01'51" W

8873, 8872

BM #37

Reliance Pipeline Co. 50' Pipeline Easement Rec'd. Bk. 2490, Pg. 25-39 Filed November 12, 1992

8871, 8870, 8868, 8869

Chickasha Municipal Authority 40' Easement Rec'd. Bk. 3534, Pg. 270 Filed September 10, 2003

Dry Creek Development, L.L.C. Warranty Deed Rec'd. Bk. 3206, Pg. 354 Filed June 26, 2000

00+011

℄ SURVEY - C.S.2815

NS-2822.5 873.39' N 00°17'05.10" W 2646.79'

4018

8283

1323.39'

N89°55'17"E 242.10'

8282

450.00'

N 00°17'05" W 450.00'

BM #71

STA. 105+00

John A. Soos & Ramona G. Soos Warranty Deed Rec'd. Bk. 4140, Pg. 478 Filed December 1, 2008

1317.89'

125+00

Dan S. Winham & Kathy R. Winham Warranty Deed Rec'd. Bk. 3361, Pg. 195 Filed March 15, 2002

125+00

STA. 126+00

N 00°17'07" W 2647.22'

NS-2822.5

PT Sta. 434+53.73 Set 1/2" capped I.P.

435+00

SIMMONS, GLORIA MARCELLA VANDEVENTER (W/2, NE/4, Less NE/4, NW/4, NE/4, Sec. 30) 5329 26TH ST ARLINGTON, VA 22207 (No Bk. & Pg. Found)

100' 50' 50' N 13°41'51" W

346

29.22' N 59°38'02" W

9056

FND. 5/8" CAPPED I.P.

471

8892

N76°18'09.32"E

BM #39

PT 434+53.73

EW-135.5

8894, 8895, 8893, 8896

Reliance Pipeline Co. 50' Pipeline Easement (Obscure Description) Rec'd. Bk. 1442, Pg. 60 Filed October 2, 1984

1318.24' 1319.56'

S 89°58'41.04" W 2636.48'

POST Set 1/2 capped I.P. on NS-2815 1/4 ℄ 2473.32' N. to 1/4 cor. 1739.50' S. to 1/4 cor.

Sta. 1174+94.11 2618.51' ahead of PI

Pl Sta. 1176+20.20 Fnd. 5/8" capped I.P. at sec. cor.

440+00

SCALE 1" = 100'

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S031

SDS 31 OF 76

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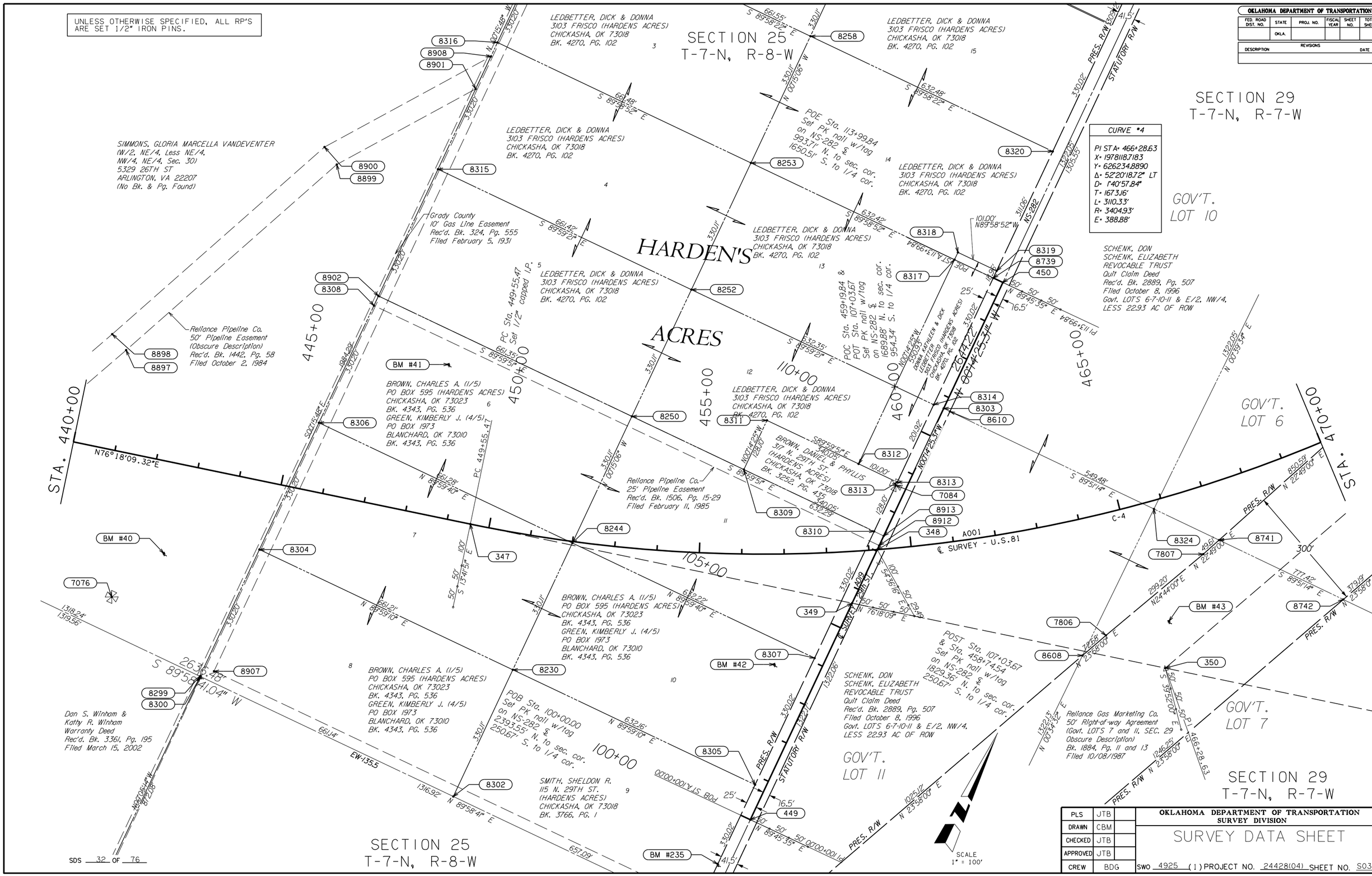
UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.
OKLAHOMA DEPARTMENT OF TRANSPORTATION
FED. ROAD DIST. NO.
STATE
PROJ. NO.
FISCAL YEAR
SHEET NO.
TOTAL SHEETS
OKLA.
REVISIONS
DESCRIPTION
DATE
SECTION 25
T-7-N, R-8-W
SECTION 29
T-7-N, R-7-W
HARDEN'S
ACRES
CURVE #4
PI STA= 466+28.63
X= 1978118.7183
Y= 626234.8890
Δ= 52°20'18.72" LT
D= 1°40'57.84"
T= 1673.16'
L= 3110.33'
R= 3404.93'
E= 388.88'
GOV'T. LOT 10
GOV'T. LOT 6
GOV'T. LOT 7
GOV'T. LOT 11
STA. 440+00
STA. 470+00
445+00
450+00
455+00
460+00
465+00
110+00
105+00
100+00
N76°18'09.32"E
℄ SURVEY - U.S.81
A001
C-4
PRES. R/W
STATUTORY R/W
SIMMONS, GLORIA MARCELLA VANDEVENTER
(W/2, NE/4, Less NE/4, NW/4, NE/4, Sec. 30)
5329 26TH ST
ARLINGTON, VA 22207
(No Bk. & Pg. Found)
LEDBETTER, DICK & DONNA
3103 FRISCO (HARDENS ACRES)
CHICKASHA, OK 73018
BK. 4270, PG. 102
Grady County
10' Gas Line Easement
Rec'd. Bk. 324, Pg. 555
Filed February 5, 1931
Reliance Pipeline Co.
50' Pipeline Easement
(Obscure Description)
Rec'd. Bk. 1442, Pg. 58
Filed October 2, 1984
BROWN, CHARLES A. (1/5)
PO BOX 595 (HARDENS ACRES)
CHICKASHA, OK 73023
BK. 4343, PG. 536
GREEN, KIMBERLY J. (4/5)
PO BOX 1973
BLANCHARD, OK 73010
BK. 4343, PG. 536
Reliance Pipeline Co.
25' Pipeline Easement
Rec'd. Bk. 1506, Pg. 15-29
Filed February 11, 1985
BROWN, DANIEL & PHYLLIS
317 N. 29TH ST.
(HARDENS ACRES)
CHICKASHA, OK 73018
BK. 3252, PG. 435
SCHENK, DON
SCHENK, ELIZABETH
REVOCABLE TRUST
Quit Claim Deed
Rec'd. Bk. 2889, Pg. 507
Filed October 8, 1996
Govt. LOTS 6-7-10-11 & E/2, NW/4,
LESS 22.93 AC OF ROW
Dan S. Winham &
Kathy R. Winham
Warranty Deed
Rec'd. Bk. 3361, Pg. 195
Filed March 15, 2002
SMITH, SHELDON R.
115 N. 29TH ST.
(HARDENS ACRES)
CHICKASHA, OK 73018
BK. 3766, PG. 1
Reliance Gas Marketing Co.
50' Right-of-way Agreement
(Govt. LOTS 7 and 11, SEC. 29
Obscure Description)
Bk. 1884, Pg. 11 and 13
Filed 10/08/1987
POE Sta. 113+99.84
Set PK nail w/tag
on NS-282 ℄
993.71' N. to sec. cor.
1650.51' S. to 1/4 cor.
POC Sta. 459+19.84 &
POT Sta. 107+03.67
Set PK nail w/tag
on NS-282 ℄
1689.88' N. to sec. cor.
954.34' S. to 1/4 cor.
POST Sta. 107+03.67
& Sta. 458+74.54
Set PK nail w/tag
on NS-282 ℄
1829.36' N. to sec. cor.
250.67' S. to 1/4 cor.
POB Sta. 100+00.00
Set PK nail w/tag
on NS-282 ℄
2393.55' N. to sec. cor.
250.67' S. to 1/4 cor.
PC Sta. 449+55.47
Set 1/2" capped I.P.
BM #41
BM #40
BM #42
BM #43
BM #235
SCALE
1" = 100'
SDS 32 OF 76
PLS JTB
DRAWN CBM
CHECKED JTB
APPROVED JTB
CREW BDG
OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION
SURVEY DATA SHEET
SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S032
8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 29
T-7-N, R-7-W

SECTION 20
T-7-N, R-7-W

GOV'T. LOT 10

GOV'T. LOT 13

GOV'T. LOT 9

GOV'T. LOT 8

GOV'T. LOT 6

33'
554.00'
STATUTORY R/W
553.48'

1320.75'
N 0°04'10" E

1322.05'
N00°39'34" E

8089a
8090a
8325
8445
BM #60

Frac Tech Services, LTD.
Warranty Deed
Rec'd. Bk. 3955, Pg. 473
Filed May 16, 2007

SCHENK, DON
SCHENK, ELIZABETH
REVOCABLE TRUST
Quit Claim Deed
Rec'd. Bk. 2889, Pg. 507
Filed October 8, 1996
Govt. LOTS 6-7-10-11 & E/2. NW/4.
LESS 22.93 AC OF ROW

866.50'
S03°22'18" W

PCC Sta. 490+65.80
Set 1/2" capped I.P.

Andra McNeil
Deed (Type not found)
Bk. & Pg. (Not found)
Filed (Not found)

POC Sta. 488+24.58 &
POT Sta. 405+43.89
Set 1/2" capped I.P.

PRES. R/W 428.62'

Southwestern Bell Telephone Co.
16.5' Right-of-Way Easement
Bk. 664, Pg. 442
Filed 06/12/1958

312.86'

8444
8745
7090
8941
8942
7854

Public Service Co. of Okla.
10' Right-of-Way Easement
Rec'd. Bk. 894, Pg. 100
Filed April 12, 1971

PRES. R/W

8943
7816
704.13'
S03°23'38"W

14.66'
N01°16'00"E

7815
8945
7817

R=1183.20'
L=374.10'
Ch=372.54'
N10°18'53" E

8946

EW-135
41.53'

8328

7814
7812
R=2774.80'
L=166.80'
Ch=166.77'
N21°05'40" E

PRES. R/W
850.59'
N 22°49'00" E

PCC 480+65.80
100'
S 66°02'10" E

State of Oklahoma
Report of Commissioners
Bk. 842, Pg. 240
Filed 02/21/1968

50' 50' N 45°00'00" W
100'

354
353
SET 1/2" CAPPED I.P.
A001

PI 405+43.89
355
BM #237
8933
8934

20.27'
PI STA. 405+43.89

℄ SURVEY - U.S.81

SET 1/2" CAPPED I.P.
352
356

Public Service Co. of Okla.
20' Right-of-Way Easement
Rec'd. Bk. 852, Pg. 306
Filed December 9, 1968

8948
8947

493.17'
S89°51'06" E
1200.11'

Reliance Pipeline Co.
50' RIght-of-way Agreement
(Govt. LOTS 6-7-10-11 & E/2. NW/4.
SEC. 29 Obscure Description)
Bk. 1506, Pg. 9
Filed 02/11/1985

1321.98'
N 00°07'34" W

8743
379.19'
PRES. R/W
N 23°58'0" E
7808
BM #44

273.73'
N 27°43'0" E
162.03'
N 27°43'0" E
7809
7810
BM #45

R=1819.90'
L=306.76'
Ch=306.40'
N32°30'50" E

PRES. R/W 414.40'
S37°22'00"W

7818
7811

N00°07'34"W
2644.03'

8327

2659.01'
N89°56'23" W

1329.47'
5991'

8949
8950

POC Sta. 481+94.71
Set 1/2" capped I.P.
on EW-135 ℄
1471.74' W. to sec. cor.
1187.27' E. to 1/4 cor.

POST Sta. 481+94.97
Set 1/2" capped I.P.
on EW-135 ℄
1472.37' W. to sec. cor.
1186.64' E. to 1/4 cor.

Public Service Co. of Okla.
20' Right-of-Way Easement
Rec'd. Bk. 852, Pg. 306
Filed December 9, 1968

STATUTORY R/W
16.5'
8429

7417
BM #47

STA. 414+00

150'
722.70'
PRES. R/W
8935
8936

SECTION 29
T-7-N, R-7-W

SECTION 20
T-7-N, R-7-W

STA. 395+00
150' 150'
S 89°53'47" E 735.91'
639.15'
PRES. R/W

395+00

Public Service Co. of Okla.
10' Right-of-way Easement
Rec'd. Bk. 1006 Pg. 946
Filed October 29, 1975

8924
8925
8927
8926
8459

City of Chickasha
20' Easement
Rec'd. Bk. 2840, Pg. 595
Filed February 20, 1996

1321.11'
N 00°03'01" E

Industrial Compounding, LLC
Warranty Deed
Rec'd. Bk. 3950, Pg. 34
Filing date not listed

Hadson Gas Systems
50' Right-of-Way Easement
(E/2. SW/4. Sec. 20
N. of Hwy 62. E. of Hwy 81.
Obscure Description)
Rec'd. Bk. 1988, Pg. 299
Filed August 25, 1988

8785
400+00
8928
8929
8932
8931
7851
8930

1321.11'
N 00°03'17" E

490+00
495+00

PRES. R/W
505.28'
S34°09'00"W
7850
486.69'
S23°00'00"W

500+00

STA. 500+00

7098

405+00
8005a
8004a

State of Oklahoma
Report of Commissioners
Bk. 842, Pg. 240
Filed 02/21/1968

POT Sta. 405+64.16 &
POST Sta. 488+21.62
Set 1/2" capped I.P.

14.12'
N08°24'16" E
N 16°17'16" E
397.46'
7846
8478

369.92'
N 08°24'16" E
PRES. R/W
BM #48

City of Chickasha
Easement & Right-of-Way Agreement
Rec'd. Bk. 1004, Pg. 407
Filed September 22, 1975

7844
R=1193.20'
L=119.38'
Ch=119.33'
N05°31'52"W
7845

253.48'
N 8°23'44" W
7843

Arkansas Louisiana Gas Co.
10' Pipeline Easement
Rec'd. Bk. 1014, Pg. 132
Filed February 9, 1976

S89°56'13"E
2680.07'

R=480.00'
L=282.80'
Ch=278.73'
N08°29'17" E
PRES. R/W
7842

410+00

City of Chickasha
Warranty Deed
Rec'd. Bk. 3921, Pg. 135
Filed November 11, 2007

2644.25'
N 00°03'41.97" W
N5282.5

1322.56'
1019.58'
N 0°3'42" W

SCALE
1" = 100'

SCHENK, DON
SCHENK, ELIZABETH
REVOCABLE TRUST
Quit Claim Deed
Rec'd. Bk. 2889, Pg. 507
Filed October 8, 1996
Govt. LOTS 6-7-10-11 & E/2. NW/4.
LESS 22.93 AC OF ROW

SDS 33 OF 76

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	CBM		SURVEY DATA SHEET
CHECKED	JTB		
APPROVED	JTB		
CREW	BDG		SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S033

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

SECTION 20
T-7-N, R-7-W

POB Sta. 100+00.00
Set 1/2" capped I.P.

1320.96'
N 00°03'09" E

Maribeth Smith
Decree of Distribution & Discharge
Rec'd. Bk. 3247, Pg. 533
Filed December 20, 2000

Intersearch Gas Corp.
Right-of-Way Easement
(No width specified)
Rec'd. Bk. 2169, Pg. 173
Filed February 26, 1990

Hadson Gas Systems
50' Right-of-Way Easement
(Lots 6 & 7, &
E/2, NW/4, Sec. 20
Obscure Description)
Rec'd. Bk. 1988, Pg. 301
Filed August 25, 1988

Louise Turley
Warranty Deed
Rec'd. Bk. 700, Pg. 530
Filed November 17, 1960

Public Service Co. of Okla.
Right-of-Way Easement
(Blanket Easement E/2, NW/4, Sec. 20)
Rec'd. Bk. 810, Pg. 402
Filed March 4, 1966

Public Service Co. of Okla.
100' Right-of-Way Easement
Rec'd. Bk. 814, Pg. 173
Filed April 22, 1966

Industrial Compounding, LLC
Warranty Deed
Rec'd. Bk. 3950, Pg. 34
Filing date not listed

POT Sta. 104+44.92
Set PK nail w/tag
on EW-134.5 1/4 &
1598.89' W. to 1/4 cor.
1049.54' E. to 1/4 cor.

BM #73

State of Oklahoma
80' Right-of-Way Easement
Rec'd. Bk. 187, Pg. 591
Filed August 6, 1929

Hadson Gas Systems
50' Right-of-Way Easement
(E/2, SW/4, Sec. 20
N. of Hwy 62, E. of Hwy 81,
Obscure Description)
Rec'd. Bk. 1988, Pg. 299
Filed August 25, 1988

POC Sta. 508+24.23
POT Sta. 111+45.40
Set 1/2" capped I.P.

POC Sta. 509+07.23
POT Sta. 111+46.26
Set 1/2" capped I.P.
on ℄ US 81 & ℄ UP RR

POC Sta. 509+74.78
Set 1/2" capped I.P.
on EW-134.5 1/4 &
2316.54' W. to 1/4 cor.
331.90' E. to 1/4 cor.

POT Sta. 108+31.77
Set 1/2" capped I.P.
on EW-134.5 1/4 &
1994.55' W. to 1/4 cor.
653.89' E. to 1/4 cor.

State of Oklahoma
120' Right-of-Way Easement
Rec'd. Bk. 187, Pg. 60
Filed September 5, 1929

State of Oklahoma
13' Right-of-Way Easement
Rec'd. Bk. 334, Pg. 248
Filed December 5, 1936

City of Chickasha
10' Waterline Easement
Rec'd. Bk. 751, Pg. 581
Filed May 8, 1963

City of Chickasha
30' Easement
Rec'd. Bk. 745, Pg. 37
Filed January 4, 1963

State of Oklahoma
Report of Commissioners
Bk. 860, Pg. 880
Filed 06/03/1969

State of Oklahoma
Report of Commissioners
Bk. 842, Pg. 240
Filed 02/21/1968

State of Oklahoma
Quitclaim Deed
Bk. 864, Pg. 491
Filed 09/08/1969

POST Sta. 509+47.28 &
POT Sta. 114+33.28
Set PK nail w/tag

POST Sta. 508+62.49 &
POT Sta. 114+15.95
Set PK nail w/tag

POST Sta. 114+15.95
Set PK nail w/tag
3603.10' ahead of Mstr. PI

POST Sta. 114+90.26
Set PK nail w/tag
3687.97' ahead of Mstr. PI

POT Sta. 115+00.85
Set 1/2" capped I.P.
on NS-282.5 1/4 &
140.36' N. to 1/4 cor.
2503.89' S. to 1/4 cor.

POT Sta. 115+18.85
Set PK nail w/tag
on NS-282.5 1/4 &
1225.29' N. to 1/4 cor.
2418.96' S. to 1/4 cor.

Allen, Beverly Rev. Trust
Warranty Deed
Bk. 4462, Pg. 142
Filed 02/06/2012

Johnson-Beck Properties, LLC
Quit Claim Deed
Bk. 4773, Pg. 171
Filed 06/11/2014

Orange Oil, LLC
Warranty Deed
Bk. 4777, Pg. 493
Filed 06/20/2014

Smith Commercial Holdings LLC
Rec'd. Bk. 3918, Pg. 597
Filed January 4, 2007

Henry and Jo Ann
Hoffman Rev. Trust
Warranty Deed
Bk. 3972, Pg. 56
Filed 07/05/2007

Gerdes, Steven & Barbara
Warranty Deed
Bk. 3002, Pg. 72
Filed 01/29/1998

CURVE #5
PI STA= 510+85.30
X= 1980024.7080
Y= 630523.0503
Δ= 23°48'44.87" LT
D= 0°24'00.31"
T= 3019.50'
L= 5951.83'
R= 14320.85'
E= 314.86'

Station comparison (UP RR)
Station 115+00.85 on this survey
Station 86+00.00 on SW02737(1) survey

SCALE
1" = 100'

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	CBM		SURVEY DATA SHEET
CHECKED	JTB		
APPROVED	JTB		
CREW	BDG		SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S034

SDS 34 OF 76

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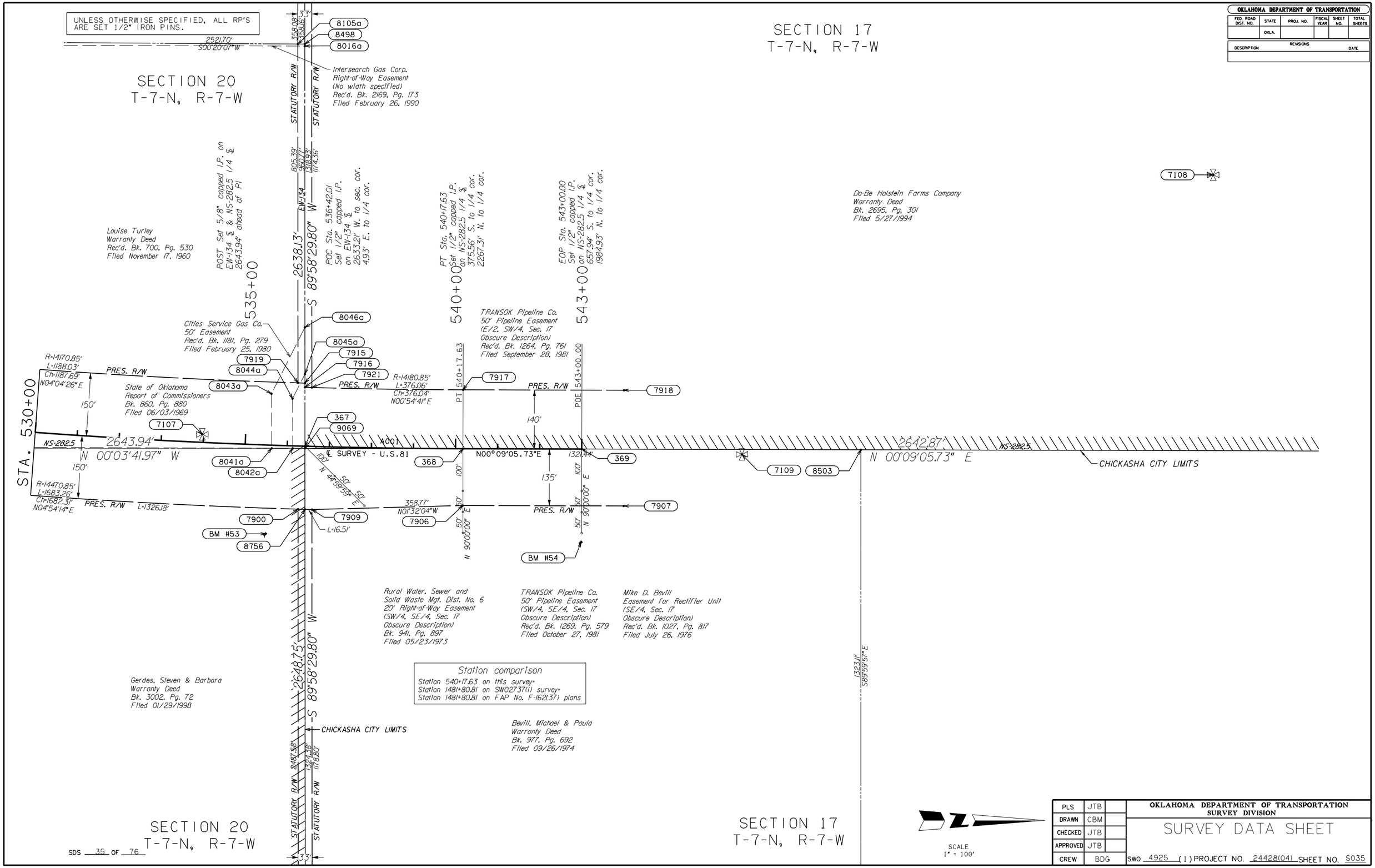


OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
REVISIONS					
DESCRIPTION					DATE

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S035

SDS 35 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 20
T-6-N, R-7-W

OKLAHOMA DEPARTMENT OF TRANSPORTATION						
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
REVISIONS					
DESCRIPTION				DATE	

Southwestern Bell Telephone Co.
16.5' Right-of-Way Easement
(S/2, SE/4, NE/4, SEC 20
Obscure Description)
Bk. 569, Pg. 485
Filed 12/29/1953

Ninnekah Water Corp.
20' Easement
Bk. 1048, Pg. 297
Filed February 15, 1977

Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 882, Pg. 884
Filed October 8, 1970

POT Sta. 113+75.27
Set PK nail w/tag
1/4 $
28.07' W. to 1/4 cor.
2616.50' E. to 1/4 cor.

POB Sta. 1109+14.73
Set PK nail w/tag
on EW-140.5 1/4 $
2647.46' W. to 1/4 cor.
3.93' E. to 1/4 cor.

Patricia J. Ragsdale (F.K.A. Patricia J. LaForge)
Quit Claim Deed
Rec'd. Bk. 3375, Pg. 328
Filed: May 6, 2002

Stipulation of Insurance & Cross Conveyance
Rec'd. Bk. 3793, Pg. 219
Rec'd: November 22, 2005
Filed: November 22, 2005

Jerry Chambers-OII Producer
30' Easement
Bk. 995, Pg. 24
Filed May 19, 1975

Carol Lister Living Trust
Rec'd. Bk. 3793, Pg. 220
Filed: November 22, 2005

Scott E. Bradford & Michael A Bradford
Warranty Deed
Rec'd. Bk. 4853, Pg. 314
Filed: December 22, 2014

POB Sta. 100+00.00
Set 1/2" capped I.P.
on EW-140.5 1/4 $
259.46' W. to 1/4 cor.
131.93' E. to sec. cor.
PI Sta. 101+31.93
Fnd. 5/8" I.P.
on EW-140.5 1/4 $
& NS-283 $

Public Service Co. of Okla.
10' Right-of-Way Easement
Rec'd. Bk. 912, Pg. 758
Filed November 14, 1972

Public
30' Roadway Easement
Rec'd. Bk. 395, Pg. 199
Filed March 1, 1939

POE Sta. 103+15.30
Set 1/2" capped I.P.
on EW-140.5 1/4 $
183.37' W. to 1/4 cor.
2461.20' E. to 1/4 cor.

Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 882, Pg. 882
Filed October 8, 1970

Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 882, Pg. 885
Filed October 8, 1970

Public Service Co. of Okla.
10' Right-of-Way Easement
Rec'd. Bk. 870, Pg. 468
Filed January 16, 1970

Michael Joe Ersland
Affidavit by Surviving Joint Tenant
Rec'd. Bk. 4446, Pg. 543
Filed: December 15, 2011

William M. Ellis
Quit Claim Deed
Rec'd. Bk. 926, Pg. 238
Filed: September 5, 1972

Tims Family Revocable Trust
Quit Claim Deed
Rec'd. Bk. 3909, Pg. 472
Filed: December 6, 2006

Tims Family Revocable Trust
Quit Claim Deed
Rec'd. Bk. 3909, Pg. 472
Filed: December 6, 2006

Southwestern Bell Telephone Co.
16.5' Right-of-Way Easement
(NE/4, NE/4, SEC 20
Obscure Description)
Bk. 569, Pg. 483
Filed 12/29/1953

Arkansas Louisiana Gas Co.
50' Pipeline Easement
(NE/4, NE/4, SEC 20
Obscure Description)
Rec'd. Bk. 1215, Pg. 21
Filed October 15, 1980

CURVE #9
PI STA= 1126+88.74
X= 1982809.3905
Y= 600531.6306
Δ= 40°18'30.01" RT
D= 4°00'00.00"
T= 525.72'
L= 1007.71'
R= 1432.39'
E= 93.43'

CURVE #8
PI STA= 1120+29.96
X= 1982718.4138
Y= 599878.6383
Δ= 8°00'00.00" RT
Ls= 400.00'
Sc= 756.94

CURVE #6
PI STA= 1120+29.70
X= 1982782.4140
Y= 599878.4680
Δ= 47°07'55.00" RT
D= 2°00'00.00"
T= 1249.57'
L= 2356.60'
R= 2864.79'
E= 260.66'

Station comparison
Station 1107+80J3 on this survey"
Station 1107+80J3 on SW02737(1) survey"
Station 1107+80J3 on FAP No. F-162(10)X(1) plans

SECTION 21
T-6-N, R-7-W

SCALE 1" = 100'

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	CBM		SURVEY DATA SHEET
CHECKED	JTB		
APPROVED	JTB		
CREW	BDG		SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S036

SDS 36 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 21
T-6-N, R-7-W

SECTION 16
T-6-N, R-7-W

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

CURVE #10
PI STA= 1133+04.31
X= 1983301.1883
Y= 600970.7327
Δ= 8°00'00.00" RT
Ls=400.00'
Sc=756.94

CURVE #7
PI STA= 1153+72.27
X= 1985333.8969
Y= 602252.4828
Δ= 9°10'35.00" RT
D= 1°00'00.00"
T= 459.80'
L= 917.64'
R= 5729.58'
E= 18.42'

STA. 1133+00
N 47°45'56" W
SET 1/2" CAPPED I.P.
PI Sta. 1133+04.31 Set 1/2" capped I.P.
393
394
395
7013
7014
8569
8570
7646
376
377
8572
8571
8175
7635
8574
8573
8039
8191
7633
BM #87
BM #88
BM #89
7636
9015
7634
7017
7637
378
379
381
380
8612
8611
7638
396
7016
7661
8047
8065
8068
8052
8050
8053
8048
8045
8043
8042
8049
8051
7015
8046
C-10
C-7
A003 ℄ SURVEY - S.B.U.S.81
A002 ℄ SURVEY - N.B.U.S.81
PRES. R/W
EW-140
L=90.63'
L=336.49'
L=55.65'
L=216.70'
L=58.26'
L=16.28'
391.95' N 56°14'24" E
463.36' N 56°14'24" E
160'
245.9'
133.50'
134.18'
100'
50'
L=734.58'
1124.28' N 47°3'49" E
651.46' N 47°3'49" E
130.45'
1128+00
1130+00
1135+00
1140+00
1145+00
1150+00
1155+00
STA. 1158+00
STA. 1155+00
S 89°47'30.67" W
2639.79'
2641.46'
2652.51' N 00°06'04.86" E
2658.01' N 00°09'22.84" W
1329.01'
1328.27'
N00°07'57"W
S 27°01'
S 72°27'05.68" W
N 47°03'48.61" E
N 56°14'23.61" E
N 00°09'36" E 2311.59'
S 89°47'58" E 2639.79'
S 00°09'36" W 2311.59'
N 89°47'58" W 2639.79'
N 63°44'13" E 475.81'
S 25°26'08" E 382.44'
N 15°35'00" W 194.82'
N 00°05'00" E 308.91'
N 00°05'00" E 286.98'
N 00°05'00" E 296.00'
N 84°42'58" E 396.82'
S 84°42'58" W 396.82'
S 42°56'12" E 50'
S 33°45'36" E 50'
S 42°56'11" E 50'
S 44°39'16" E 50'
N 56°14'24" E 100'
S 56°14'24" W 100'
S 33°45'36" E 100'
S 42°56'12" E 100'
S 42°56'11" E 100'
N 56°14'24" E 100'
S 56°14'24" W 100'
N 47°03'48.61" E 100'
S 47°03'48.61" W 100'
N 47°3'49" E 100'
S 47°3'49" W 100'
N 56°14'24" E 50'
S 56°14'24" W 50'
N 47°3'49" E 50'
S 47°3'49" W 50'
R=348.85' L=330.55' CH=318.32' S62°38'25"E
R=2704.79' L=1584.99' CH=1562.41' N7°30'39"E
R=5629.58' L=393.02' CH=392.94' S49°03'49"W
PC STA.1149+12.47
PT STA.1131+36.73
PT STA.1135+70.73
POT Sta. 1141+12.34 Set PK nail w/tag on EW-140 S. to 1/4 cor. 1252.18' W. to 1/4 cor. 1387.61' E. to 1/4 cor.
POT Sta. 1157+83.36 Set PK nail w/tag on NS-283.5 1/4 ℄ 1728.93' N. to 1/4 cor. 923.57' S. to 1/4 cor.
POT Sta. 1141+52.74 Set PK nail w/tag on EW-140 ℄ 1719.86' W. to 1/4 cor. 919.93' E. to 1/4 cor.
PI Sta. 1153+72.27
PI Sta. 1149+12.47 Set PK nail w/tag
POC Sta. 1153+93.10 Set PK nail w/tag on NS-283.5 1/4 ℄ 1826.07' N. to 1/4 cor. 826.44' S. to 1/4 cor.
POST Set PK nail w/tag 34.40' ahead of PI on NS-283.5 1/4 ℄ 1806.01' N. to 1/4 cor. 846.50' S. to 1/4 cor.
Sta. 1149+12.47 Set PK nail w/tag
Sta. 1135+70.73 Set PK nail w/tag
ST STA.1135+70.73

Arkansas Louisiana Gas Co.
50' Pipeline Easement
(W/2, SW/4, SEC 16
Obscure Description)
Rec'd. Bk. 1196, Pg. 367
Filed June 12, 1980

Arkansas Louisiana Gas Co.
50' Pipeline Easement
(W/2, SW/4, SEC 16
Obscure Description)
Rec'd. Bk. 1206, Pg. 864
Filed August 22, 1980

Arkansas Louisiana Gas Co.
40' Pipeline Easement
Rec'd. Bk. 871, Pg. 411
Filed February 16, 1970

Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 882, Pg. 894
Filed October 8, 1970

Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 882, Pg. 887
Filed October 8, 1970

Thomas D. Butler & Delores A Butler
Warranty Deed
Rec'd. Bk. 4408, Pg. 563
Filed: August 17, 2011

H & B Machine & Manufacturing Inc.
Warranty Deed
Rec'd. Bk. 3078, Pg. 151
Filed: December 10, 1998

Charles Henry Bickerstaff
Quit Claim Deed
Rec'd. Bk. 3494, Pg. 414
Filed: May 27, 2003

H & B Machine & Manufacturing Inc.
Warranty Deed
Rec'd. Bk. 3111, Pg. 493
Filed: April 27, 1999

Briggett Inc.
Warranty Deed
Rec'd. Bk. 2256, Pg. 165
Filed: Novemer 16, 1990

Oklahoma Dept. of Trans.
Report of Commissioners Easement
Bk. 659, Pg. 707
Filed February 7, 1958

Glenn McConnell & Charlotte McConnell
Sherriff's Deed
Rec'd. Bk. 3550, Pg. 38
Filed: October 27, 2003

Glenn McConnell & Charlotte McConnell
Quit Claim Deed
Rec'd. Bk. 4033, Pg. 189
Filed: January 15, 2008

Glenn McConnell & Charlotte McConnell
Warranty Deed
Rec'd. Bk. 4385, Pg. 573
Filed: June 10, 2011

STATUTORY R/W
33'
7.44'18"
1719.86'
659.95'

SCALE
1" = 100'

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S037

SDS 37 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 16
T-6-N, R-7-W

OKLAHOMA DEPARTMENT OF TRANSPORTATION						
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
	OKLA.					
REVISIONS						
DESCRIPTION					DATE	

NS-2835

1536.25'

Briggett Inc.
Warranty Deed
Rec'd. Bk. 2256, Pg. 165
Filed: Novemer 16, 1990

POT Sta. 1157+83.36
Set PK nail w/tag
on NS-283.5 1/4 §
1728.93' N. to 1/4 cor.
923.57' S. to 1/4 cor.

2652.5'
N 00°06'04.86" E

1160+00

1165+00

1170+00

CHICKASHA CITY LIMITS

2632.95'
S 89°48'50.82" W

EW-1395

1174+28 POE Sta. 1174+28.12
Set PK nail w/tag

STA. 1158+00

PRES. R/W

7662

20'

STA. 1155+00

A002
℄ SURVEY - N.B.U.S.81

382

A003
℄ SURVEY - S.B.U.S.81
N56°14'23.61"E

N 33°45'36" W POE STA.1174+28.12
100' 50' + 50'

397

POST Set PK nail w/tag
34.40' ahead of PI
on NS-283.5 1/4 §
1806.01' N. to 1/4 cor.
846.50' S. to 1/4 cor.

POE/PT Sta. 1158+30.11
Set PK nail w/tag

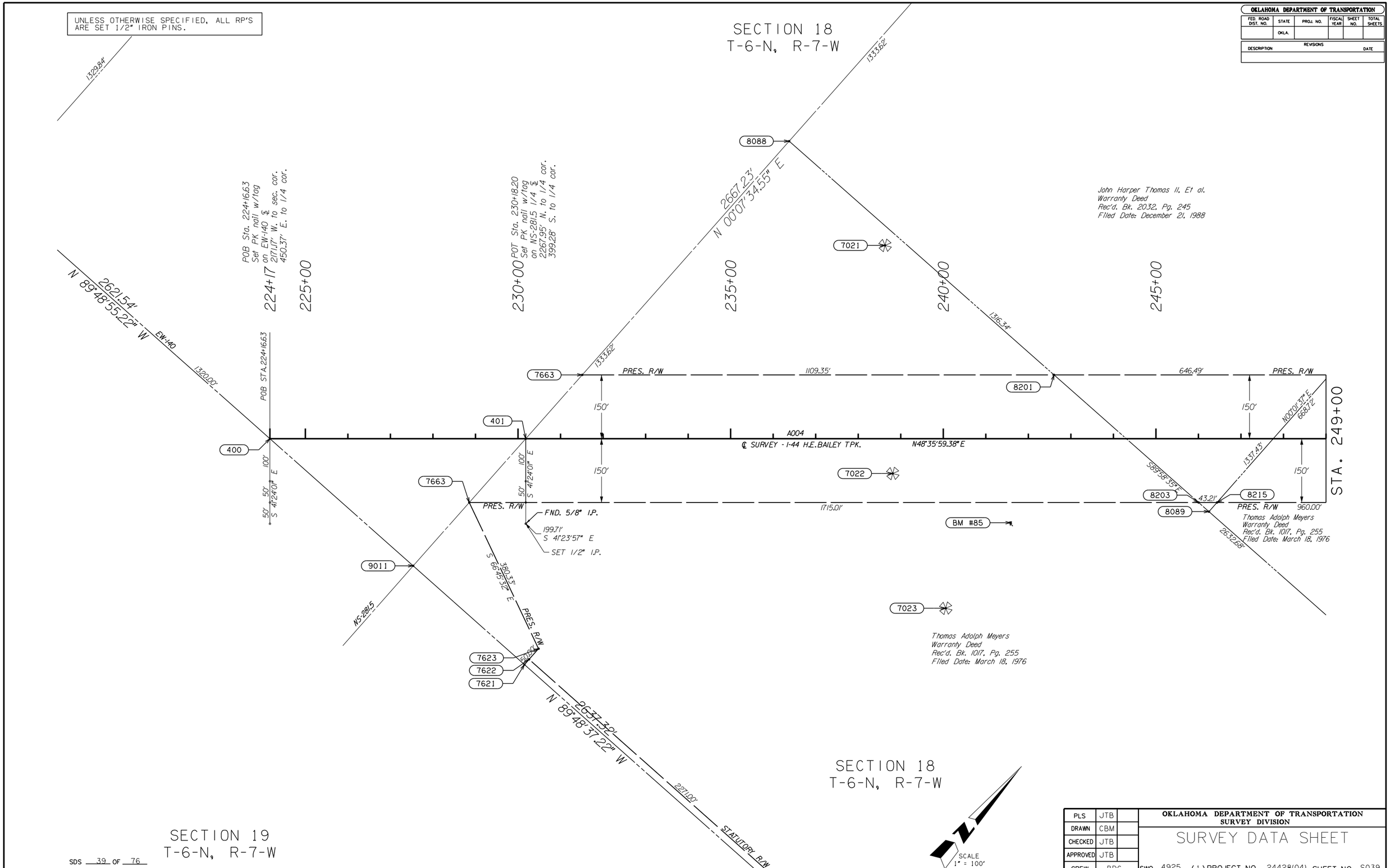
1158+30 PT STA.1158+30.11 S 33°45'36" E
50' 50'
100'

SCALE
1" = 100'

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	CBM		SURVEY DATA SHEET
CHECKED	JTB		
APPROVED	JTB		
CREW	BDG		SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S038

SDS 38 OF 76

8-87



OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
REVISIONS					
DESCRIPTION					DATE

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S039

SDS 39 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 18
T-6-N, R-7-W

OKLAHOMA DEPARTMENT OF TRANSPORTATION						
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
	OKLA.					
REVISIONS						
DESCRIPTION					DATE	

8096 — 1314.04' — N 89°51'26.00" W 2628.07' — EW-139.5 — 1314.04' — 260+00

8098 — 8061a — 237.31' — 33' — 658.63' — 658.56' — 149.19' — 8099 — 659.36' — N 01°22'39" E

John Harper Thomas II, Et al.
Warranty Deed
Rec'd. Bk. 2032, Pg. 245
Filed Date: December 21, 1988

John Harper Thomas II, Et al.
Warranty Deed
Rec'd. Bk. 2032, Pg. 245
Filed Date: December 21, 1988

John Harper Thomas II, Et al.
Warranty Deed
Rec'd. Bk. 2506, Pg. 268
Filed Date: December 31, 1992

GOV'T. LOT 12

1320.4.39' N89°48'12"W

668.72' — N00°01'37"E — 1337.43' — 250+00 — 255+00 — 265+00 — 270+00 — 275+00

8095 — 7666 — 8217 — 190.25' N89°55'35"E — 7667 — 8218 — 8289 — 1023.80' — 477.71' — 8625a — 8625 — 8624a — 8624

Reliance Pipeline Co.
25' Pipeline Easement
Rec'd. Bk. 1442, Pg. 120
Filed October 2, 1984

POT Sta. 264+57.36
Set PK nail w/tag
on EW-139.5
2574.75' W. to 1/4 cor.
53.32' E. to 1/4 cor.

POT Sta. 265+28.79
Set PK nail w/tag
on NS-282
2587.14' N. to 1/4 cor.
47.10' S. to 1/4 cor.

PC Sta. 270+98.50
Set PK nail w/tag

NS-282 — 2634.25' — N 00°18'53.88" E

STATUTORY R/W — 33' — 1317.91' — 987.42' — 7025 — 270+00 — N 01°22'39" E

7675 — 7674 — 8293 — 178.71' — 8294 — 212.71' — 7676

PRES. R/W — PC STA. 270+98.50 — R=16988.73' L=1981.84 Ch=1980.72' N45°15'28" E — L=1080.08'

125' N 41°24'01" W — 125' S 41°24'01" E — 75' S 41°24'01" E

STA. 249+00 — STA. 279+00

200' — 150' — 200'

N48°35'59.38"E — A004 — ℄ SURVEY - I-44 H.E.BAILEY TPK. — N48°35'59.38"E

7665 — 7024 — BM #84 — PRES. R/W — 960.00' — 1315.19' N88°56'26"E — 1317.86' N 89°55'35" E — BM #83 — PRES. R/W — 742.45'

8623 — 8623a — 7672 — 7673 — 7670 — 8645 — 7671 — 402 — 9019 — 403 — 100' — 125.35' — 2636.02' S01°22'39"W — 8092 — 8058a — 163.19' — 165.94' PRES. R/W — 416.88'

50' S 41°24'49" E — 50' S 41°24'34" E — 50' S 41°24'01" E

8650 — 8649 — 8648 — 8654 — 8647 — 8646 — 404 — 7677

GOV'T. LOT 8

BM #219 — PRES. R/W — L=1007.24' — R=17388.73' L=1721.30' Ch=1720.50 S45°45'50"W — 8659 — 8658 — 8657 — 8656 — 8655 — 7678 — 8663 — 8661 — 8662 — 8660

7668 — 7669 — 8287 — 469.89' — 670.63' — BM #82 — 8644 — 8643 — 8622 — 8621 — 33' — N S-282

Reliance Pipeline Co.
25' Pipeline Easement
Rec'd. Bk. 1442, Pg. 127
Filed October 2, 1984

Ninnekah Water Corp.
20' Water Line Easement
Bk. 1021, Pg. 746
Filed May 11, 1976

Reliance Pipeline Co.
30' Pipeline Easement
Rec'd. Bk. 1442, Pg. 125
Filed October 2, 1984

Ninnekah Water Corp.
100' Water Line Easement
Bk. 1021, Pg. 746
Filed May 11, 1976

7026 — 1330.56' — 1009.43' — Ninnekah Water Corp.
20' Water Line Easement
Bk. 1047, Pg. 543
Filed February 8, 1977

8651 — 8744 — 1228.52' — S 89°34'13.03" W — 2675.16' — CHICKASHA CITY LIMITS — 1035.39' N 00°19'43" E

Station comparison
PI Station 282+00.00 on this survey*
PI Station 282+00.00 on SW02737(1) survey*
PI Station 282+00.00 on Sec. 1-B, No. 206 plans

Pike, Rhonda Revocable Trust
Quit Claim Deed
Bk. 4789, Pg. 480
Filed 07/23/2014

Thomas Adolph Meyers
Warranty Deed
Rec'd. Bk. 1017, Pg. 255
Filed Date: March 18, 1976

S88°56'35"E 2632.68' — 1316.34' — 8288 — 8094 — 670.63' — 670.63' — 136.31' — STATUTORY R/W — STATUTORY R/W — 33' — 2682.51' — N 00°04'18.48" W — 1340.93' N 01°22'39" E

Mike & Darlene Crawford
Warranty Deed
Rec'd. Bk. 2906, Pg. 196
Filed Date: December 13, 1996

GOV'T. LOT 13

GOV'T. LOT 9

SECTION 17
T-6-N, R-7-W

SCALE 1" = 100'

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	CBM		SURVEY DATA SHEET
CHECKED	JTB		
APPROVED	JTB		
CREW	BDG		SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S040

SDS 40 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
REVISIONS					
DESCRIPTION				DATE	

STA. 207+00

SECTION 17
T-6-N, R-7-W

BM #2

1192.34'
N 89°57'47" E

205+00

GOV'T.
LOT 7

Sisexua Trust
Quit Claim Deed
Rec'd. Bk. 4308, Pg. 438
Filed Date: September 29, 2010

John Harper Thomas II, Et al.
Warranty Deed
Rec'd. Bk. 2506, Pg. 268
Filed Date: December 31, 1992

8069

POC Sta. 289+39.57 &
POT Sta. 196+51.96
Set PK nail w/tag

1326.45'
N 00°19'43" E

658.55'

N44°52'38.41"W

PT Sta. 292+98.50
Set PK nail w/tag

1179.85'
1180.58'
33'
STATUTORY R/W

2652.89'
S00°19'09"E

8105
8378

8379

2676.86'
S 89°57'48.57" W

33'
EW-139
16.5'

332.44'

7697
7696

PRES. R/W

100.53'

1327.54'

STATUTORY R/W

PRES. R/W

16.5'

Lottie F. Dickenson, Trustee
of the Dickenson Family Trust
Quit Claim Deed
Rec'd. Bk. 2699, Pg. 104
Filed Date: Not Found

POT Sta. 301+70.69
Set PK nail w/tag
on EW-139 &
2541.15' W. to sec. cor.
135.71' E. to 1/4 cor.

7028

POT Sta. 303+74.99
(Calculated, not set)
on NS-282.5 1/4 &
2499.70' N. to 1/4 cor.
153.48' S. to 1/4 cor.

280+00

285+00

200+00

290+00

295+00

300+00

305+00

1204.39'
N69°48'12"W

8295
200.08'
S 44°57'57" E
FND. 5/8" I.P.
SET IN CONC.

R=16988.73'
L=1080.08'
L=1981.84'
Ch=1980.72'
N45°15'28"E

PRES. R/W

L=402.21'

8231

L=499.55'

PRES. R/W

8.61'

8102
7685

BM #1

FND. 5/8" I.P.

STA. 292+98.50

200'
N 48°44'01" W

FND. 5/8" I.P.
504.89'

175'

47.77'

PRES. R/W

1512.40'

2653.18'
N 00°21'33.18" W

1360.81'

8152
8376

150'

7681

CALCULATED
(NOT SET)

125'
N 45°04'00" W

8100

315

7686
7407

124.93'
S 48°40'19" W

A004

℄ SURVEY - I-44 H.E.BAILEY TPK.

N41°15'59.38"E

124.91'
S 48°44'28" W

150'

125'
N 48°44'01" W

409

408

124.91'
S 48°42'57" W

125'
S 48°44'01" E

STA. 279+00

STA. 309+00

7680
406

POT Sta. 196+48.20 &
POST Set PK nail w/tag
742.35' ahead of PI

BM #220

7027

314

200'

100'
N 90°00'00" E
50'
50'

FND. 5/8" I.P.
200'
S 48°44'01" E

200'

200'

7948

9027

7911

7700

8667
8664
8666

R=17388.73'
L=1721.30'
Ch=1720.68'
S 45°45'50" W

195+00

PRES. R/W

L=623.66'

PRES. R/W

7687

R=17413.73'
L=505.02'
Ch=505.01'
S 42°05'50" W

101.50'
N 41°15'59"

25'

7689
7688

CHICKASHA CITY LIMITS

BM #76

PRES. R/W

747.13'

8337

FND. 5/8" I.P.

7701

7029

7813

8685
8684

8669
8668

8671
8670

7683
7682

7684

8681
8680

8682
8683

7679

8665

PI Sta. 282+00.00

PI Sta. 282+00.00
(Calculated, not set)

1035.39'
N 00°19'43" E

Ninnekah Water Corp.
100' Water Line Easement
Bk. 1021, Pg. 746
Filed May 11, 1976

Public Service Co. of Okla.
Right-of-way Easement (No width)
(SEC. 8, 9, & 17 within OTA R-O-W for 6400'.
Obscure Description)
Bk. 755, Pg. 265
Filed 07/25/1963

Reliance Pipeline Co.
30' Pipeline Easement
Rec'd. Bk. 1442, Pg. 125
Filed October 2, 1984

Oklahoma Turnpike Authority 30' Easement
Rec'd. Bk. 4361, Pg. 385
Filed November 14, 2012

Pike, Rhonda Revocable Trust
Quit Claim Deed
Bk. 4789, Pg. 480
Filed 07/23/2014

Public Service Co. of Okla.
Right-of-way Easement (No width)
(SEC. 8, 9, & 17 within OTA R-O-W for 6400'.
Obscure Description)
Bk. 755, Pg. 265
Filed 07/25/1963

8679
8678

8677
8676

8674
8675
8672
8673

A001

℄ SURVEY - U.S.81

N15°28'25"E

2656.02'
N 00°21'02.51" E

7715

SECTION 8
T-6-N, R-7-W

2643.68'
S 89°57'48.57" W

5304.47'

5296.20'
N00°34'15"W

PRES. R/W

7703
7702

STATUTORY R/W

66.19'
66.35'
33'

190+00

STA. 188+00

SECTION 17
T-6-N, R-7-W

CURVE "11
PI STA= 282+00.00
X= 1978661.1403
Y= 605236.2869
Δ= 7°20'00.00" LT
D= 0°20'00.00"
T= 1101.50'
L= 2200.00'
R= 17188.73'
E= 35.26'

SCALE
1" = 100'

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	CBM		SURVEY DATA SHEET
CHECKED	JTB		
APPROVED	JTB		
CREW	BDG		SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S041

SDS 41 OF 76

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UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 8
T-6-N, R-7-W

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

2653.18'
N 00°21'33.18" W
NS-2882.5
2237.99'
1360.81'

389.23'
S5°48'00" E

1290.00'
N89°58'08" E

8150

8704
8703

8699
8700
8695
8696
8697
8698

8701
8702

8151

8148
8147

8145

8146

8156
8142

8132

15.45'
20.39'

1288.83'
N89°59'33" E

N 00°22'25" W
675.35'
709.39'

CHICKASHA CITY LIMITS

S 89°58'8.13" W
2642.35'
689.30'

7031

7714
7716

8376

7711
8121

BM #81
7713

7707

7705

7706

7712

7708

BM #78

7416
BM #99

BM #79
7710
7709
8108
8109

BM #80
8113

8114

8112

8115

8111

8116
8371

8345
8110

8118
7033
8375
8117

8694
8693
8692
8691

8689
8690

7030

410

411
412

7711
8121

BM #81
7713

James E. Parker
Revocable Trust
Quit Claim Deed
Bk. 4214, Pg. 436
Filed Date: October 1, 2009

James E. Parker
Revocable Trust
Quit Claim Deed
Bk. 4214, Pg. 436
Filed Date: October 1, 2009

City of Chickasha
Vacating Order
Bk. 2600, Pg. 25
Filed 03/21/1993

City of Chickasha
Vacating Order
Bk. 2600, Pg. 25
Filed 03/21/1993

Arkla Energy Resources
20' Pipeline Easement
Rec'd. Bk. 1869, Pg. 196
Filed August 27, 1987

Duffie, Ileta
Quit Claim Deed
Bk. 4130, Pg. 513
Filed 10/27/2008

Reliance Pipeline Co.
20' Pipeline Easement
(SE/4, NE/4, Sec. 8,
Obscure Description)
Rec'd. Bk. 1984, Pg. 312
Filed August 15, 1988

Public Service Co. of Okla.
Right-of-way Easement (No width)
(SEC. 8, 9, & 17 within OTA R-O-W for
6400', Obscure Description)
Bk. 755, Pg. 265
Filed 07/25/1963

Arkla Energy Resources
25' Pipeline Easement
Rec'd. Bk. 1866, Pg. 206
Filed August 19, 1987

Arkansas Louisiana Gas Co.
25' Pipeline Easement
Rec'd. Bk. 871, Pg. 416
Filed Febuary 16, 1970

Pike, Rhonda Revocable
Trust
Quit Claim Deed
Bk. 4789, Pg. 480
Filed 07/23/2014

Reliance Pipeline Co.
25' Pipeline Easement
(W/2, SE/4, Sec. 8, SE of
H.E. Bailey Tpk.
Obscure Description)
Rec'd. Bk. 1539, Pg. 328
Filed April 29, 1985

Reliance Pipeline Co.
25' Pipeline Easement
(SE/4, Sec. 8,
Obscure Description)
Rec'd. Bk. 1539, Pg. 325
Filed April 29, 1985

Duffie, Ileta
Quit Claim Deed
Bk. 4130, Pg. 513
Filed 10/27/2008

Reliance Pipeline Co.
20' Pipeline Easement
(NE/4, SE/4, Sec. 8,
Obscure Description)
Rec'd. Bk. 1984, Pg. 312
Filed August 15, 1988

Traca LaDon Conrad
Quit Claim Deed
Bk. 4191, Pg. 585
Filed 06/25/2009

Geneva Conrad &
Traca LaDon Gonzales
Quit Claim Deed
Bk. 3089, Pg. 598
Filed 01/27/1999

Geneva Conrad
Traca LaDon Gonzales
Quit Claim Deed
Bk. 3089, Pg. 598
Filed 01/27/1999

POE Sta. 336+62.15
Set PK nail w/tag

POC Sta. 337+02.06
Set PK nail w/tag
on EW-138.5 1/4 ℄
2210.02' W. to 1/4 cor.
432.33' E. to 1/4 cor.

POST Sta. 337+02.13
Set PK nail w/tag
on EW-138.5 1/4 ℄
2210.13' W. to 1/4 cor.
432.22' E. to 1/4 cor.

R=9399.30'
L=721.38'
Ch=721.20'
N39°04'17" E

A004
℄ SURVEY - I-44 H.E.BAILEY TPK.

STA. 309+00
310+00
315+00
320+00
325+00
330+00
335+00
336+62

PRES. R/W
1512.40'
429.03'
1037.38'
752.36'
711.05'
399.38'
1346.92'
1326.53'
N 00°22'25" W
5362.20'
N00°34'5"W
N 89°58'03" E
N00°23'16"W
208.75'
285.25'
STATUTORY R/W
663.23'
N5°28'3"
N 00°23'16.22" W
2653.94'
2643.68'
S 89°57'48.57" W
N41°15'59.38" E
N41°15'59" E
413.45'
150'
200'
100'
50'
91.78'
80.34'
20.39'
59.41'
3.86' (GLO BM)
15°02'E
S 48°44'01" E
POE STA.336+62.15
EW-1385

BM #78 — 7708 — PRES. R/W — 399.38' — N00°34'5"W 5362.20' — PRES. R/W

BM #80 — 8113 — 752.36' — 711.05' — PRES. R/W — 7711 / 8121 — BM #81 — 7713 — N41°15'59" E 413.45'

SECTION 8
T-6-N, R-7-W

SECTION 9
T-6-N, R-7-W

SCALE
1" = 100'

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	CBM		SURVEY DATA SHEET
CHECKED	JTB		
APPROVED	JTB		
CREW	BDG		SWO 4925 (I) PROJECT NO. 24428(04) SHEET NO. S042

SDS 42 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

Station comparison
Station 162+81.10 on this survey=
Station 162+81.10 on SW02737(1) survey=
Station 162+81.10 on FAS No. 219(1) plans

SECTION 7
T-6-N, R-7-W

CURVE #14
PI STA= 168+44.01
X= 1974634.2886
Y= 608636.8678
Δ= 22°13'59.66" RT
D= 2°00'00.00"
T= 562.91'
L= 1111.66'
R= 2864.79'
E= 54.78'

CURVE #15
PI STA= 182+67.67
X= 1975369.1550
Y= 609872.7050
Δ= 13°11'00.00" LT
D= 2°00'00.00"
T= 331.05'
L= 659.17'
R= 2864.79'
E= 19.06'

CURVE #12
PI STA= 105+62.94
X= 1974720.6841
Y= 608606.0692
Δ= 22°14'00.00" RT
D= 1°59'59.64"
T= 562.94'
L= 1111.72'
R= 2864.93'
E= 54.78'

CURVE #13
PI STA= 119+79.31
X= 1975451.8275
Y= 609835.6453
Δ= 13°11'00.00" LT
D= 1°59'59.64"
T= 331.06'
L= 659.20'
R= 2864.93'
E= 19.06'

Bertha B. Thomas
Warranty Deed
Rec'd. Bk. 2831, Pg. 482
Filed January 4, 1996

Chester Stanton Thomas, Etal
Warranty Deed
Rec'd. Bk. 2506, Pg. 270
Filed December 31, 1992

John H. Thomas II, Etal
Warranty Deed
Rec'd. Bk. 2266, Pg. 184
Filed December 26, 1990

Cowboy Country Church Inc.
Warranty Deed
Rec'd. Bk. 4275, Pg. 545
Filed May 27, 2010

Public
80' Roadway Easement
Rec'd. Bk. 498, Pg. 377
Filed Augus 13, 1947

Reliance Pipeline Co.
25' Pipeline Easement
Rec'd. Bk. 1534, Pg. 219
Filed April 17, 1985

Norge Water and Sewer Co. Etal
20' Easement
Bk. 1020, Pg. 429
Filed April 23, 1976

Public Service Co. of Okla.
Right-of-way Easement
(No width specified)
(SW/4, NE/4, Sec. 7
Obscure Description)
Bk. 818, Pg. 691
Filed August 8, 1966

Southwestern Light & Power Co.
Right-of-Way (No width specified)
Bk. 259, Pg. 76, 86, 90
Filed March 15, 1927

POB/PC Sta. 162+81.10
Set PK nail w/tag

POB/PC Sta. 100+00.00
Set 1/2" capped I.P.

PI Sta. 168+44.01
Set 1/2" capped I.P.

POC Sta. 170+75.96
Set PK nail w/tag
on ℄ & NS-281.5 1/4 ℄
525.46' N. to 1/4 cor.
2124.56' S. to 1/4 cor.

POST Set 1/2" capped I.P.
276.10' ahead of PI
on NS-281.5 1/4 ℄
491.29' N. to 1/4 cor.
2158.73' S. to 1/4 cor.

PT Sta. 172+92.76
Set PK nail w/tag

POT Sta. 176+78.23
Set PK nail w/tag
on EW-138.5 1/4 ℄
293.04' W. to 1/4 cor.
2349.37' E. to 1/4 cor.

PC Sta. 179+36.62
Set PK nail w/tag

POC Sta. 180+64.05 &
POT Sta. 251+58.67
Set 1/2" capped I.P.

POST Sta. 180+63.28 &
POT Sta. 251+55.75
Set PK nail w/tag

PI Sta. 182+67.67
Fnd. 1/2" I.P.

POT Sta. 258+51.31
on Set 1/2" capped I.P.
N. 10 1/4 cor.
S. 10 1/4 cor.

PT Sta. 185+95.79
Set PK nail w/tag

POC Sta. 105+66.03
Set PK nail w/tag
on ℄ & NS-281.5 1/4 ℄
768.22' N. to 1/4 cor.
1881.79' S. to 1/4 cor.

POST Set 1/2" capped I.P.
107.46' ahead of PI
on NS-281.5 1/4 ℄
667.04' N. to 1/4 cor.
1982.97' S. to 1/4 cor.

PI Sta. 105+62.94
Set PK nail w/tag

PT Sta. 111+41.72
Set 1/2" capped I.P.

POT Sta. 246+90.18
on Set 1/2" capped I.P.
EW-138.5 1/4 ℄
818.35' W. to 1/4 cor.
1824.06' E. to 1/4 cor.

PC Sta. 114+33.22
Set 1/2" capped I.P.
on EW-138.5 1/4 ℄
397.88' W. to 1/4 cor.
2244.54' E. to 1/4 cor.

PC Sta. 179+36.62
Set 1/2" capped I.P.

POC Sta. 117+41.85 &
POT Sta. 250+64.41
Set 1/2" capped I.P.

POST Sta. 117+41.44 &
POT Sta. 250+62.84
Set 1/2" capped I.P.

PI Sta. 119+79.31
Set 1/2" capped I.P.

PT Sta. 123+07.45
Set 1/2" capped I.P.

PI Sta. 182+67.67
Fnd. 1/2" I.P.

FND. 1/2" I.P.

BM #8 — 43.89
BM #9
BM #90 — 1964.22'
BM #7

CHICKASHA CITY LIMITS

℄ SURVEY - S.H.92 A005
℄ SURVEY - B.N.S.F.R.R A006
A001 ℄ SURVEY - U.S.-81

PRES. R/W 951.67' N 8°30'13" E
PRES. R/W 1932.04'
PRES. R/W

2650.02' N 00°03'54.22" W
2646.28' N 00°03'54.22" W

N44°52'38.41"W

STA. 188+00
STA. 126+00

SCALE 1" = 100'

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	CBM		SURVEY DATA SHEET
CHECKED	JTB		
APPROVED	JTB		
CREW	BDG		SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S043

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS
DESCRIPTION | DATE

SDS 43 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

SECTION 7
T-6-N, R-7-W

SECTION 6
T-6-N, R-7-W

NS-2815

2646.28'
N 00°03'54.22" W

Chester Stanton Thomas, Etal
Warranty Deed
Rec'd. Bk. 2506, Pg. 270
Filed December 31, 1992

HILLSBORO HEIGHTS 2000
REVISED ADDITION

VINE STREET

EMERALD STREET

7043 8179 8172 8078a 8075a 8074a 8077a 8083a 8738a 8739a 8076a 8084a 8176 8177 8163 8159 8763 7752 7401 8765 8764 8192a 8193a 8150a 8151a 8394 7753 7755 432 7754 422 8761 8760 7756 8759 8758 8757

Public Service Co. of Okla.
200' Utility Easement as per
Warranty Deed
Rec'd. Bk. 930, Pg. 885
Filed November 14, 1972

Perdue Housing Ind. Inc.
Warranty Deed
Rec'd. Bk. 930, Pg. 885
Filed November 14, 1972

Public Service Co. of Okla.
15' Utility Easement as per
Warranty Deed
Rec'd. Bk. 930, Pg. 885
Filed November 14, 1972

Norge Water and Sewer Co. Inc.
20' Easement
Bk. 1020, Pg. 429
Filed April 23, 1976

Station comparison
Station 142+65.97 on this survey*
Station 7106+52.42 on SW02737(1) survey

POE Sta. 205+14.96
Set PK nail w/tag
on EW-138 &
1275.99' W. to 1/4 cor.
1364.94' E. to 1/4 cor.

POE Sta. 142+65.97
Set PK nail w/tag
on EW-138 &
1370.54' W. to 1/4 cor.
1270.39' E. to 1/4 cor.

Southwestern Light & Power Co.
Right-of-Way (No width specified)
Bk. 259, Pg. 76, 86, 90
Filed March 15, 1927

STA. 188+00
STA. 126+00
190+00
195+00
200+00
205+00
130+00
135+00
140+00

PRES. R/W
EW-138
A005 ℄ SURVEY - S.H.92
A006 ℄ SURVEY - B.N.S.F.R.R.
N17°33'13.22"E
1932.04'
1964.22'
80'
100'

SCALE
1" = 100'

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S044

SDS 44 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

SECTION 20
T-7-N, R-7-W

GOV'T. LOT 8

GOV'T. LOT 12

GOV'T. LOT 9

GOV'T. LOT 13

SECTION 19
T-7-N, R-7-W

SECTION 20
T-7-N, R-7-W

EW-1345

STATUTORY R/W

PRES. R/W

7097 9065 8100a 8468 8469 8467 8466 8840 8465 8464 8746 8463 8461 8914 8915 7852 8917 8916 7852a 8462 451 8460 8791 8790 8458 8455 8456 7853 7853a 8457 8452 8793 8792 8446 8445 7854 8942 8941 8454 8091a 8844 8453 8451 8450 8449 8846 8447 8448 8844 7939 7089 8923 8922 8459 8926 8927 8925 8924 8785 8921 8920 8918 8919 BM #61 BM #62 BM #63 BM #60

2648.44' N 89°56'13.40" W

297.00' S65°56'13" E

240.00' S00°03'47" W

310.49' N75°12'46" E

POB Sta. 385+47.57
Set 1/2" capped I.P.
on NS-282 S 1/4 cor.
1021.88' N. to sec. cor.
1618.40' S. to sec. cor.

POB STA 385+47.37

S89°56'13" E 50.00'

2640.29' N 00°10'02.95" W

1320.77' N 01°01'39" E

1321.11' N 00°03'01" E

1320.16' N 00°03'11" E

1320.75' N 01°04'10" E

390+00 395+00 400+00 401+00 STA.

435.43' 219.89' 639.15' 128.77'

735.91' S 89°53'47" E

199.04' 58.45' 266.62' S 89°31'38" E

150' 150' 150'

A007 ℄ SURVEY - U.S.62 S58°38'22.71" E

591.03' S 89°53'40" E

279.39' 114.98' 428.62' 312.86'

704.13'

N58°38'23"W 58.44'

173.68' N31°21'09" E 99.34'

N00°10'02"E 191.74'

N00°10'02"E 352.52'

200.00' S89°51'06" E

489.00' S89°51'06" E

300.00' 300.00'

777.80' 724.30'

868.50' S03°22'18"W

60.13' 27.91' 19.74' 276.39' 9.56' 202.35' 47.02' 5.00' 19.76'

29.36' 179.24' 16.5' 60.85'

Public Service Co. of Okla.
100' Right-of-Way Easement
Rec'd. Bk. 814, Pg. 173
Filed April 22, 1966

Public Service Co. of Oklahoma
Central & South West Corp.
Deed (Type not found)
Bk. & Pg. (Not found)
Filed (Not found)

City of Chickasha
17' Right-of-Way Easement
Rec'd. Bk. 2592, Pg. 48
Filed August 30, 1993

Chickasha Municipal Auth.
Special Warranty Deed
Rec'd. Bk. 2609, Pg. 139
Filed October 19, 1993

State of Oklahoma
Warranty Deed
Rec'd. Bk. 3200, Pg. 547
Filed May 26, 2000

Industrial Compounding, LLC
Warranty Deed
Rec'd. Bk. 3950, Pg. 34
Filing date not listed

Industrial Compounding, LLC
Warranty Deed
Rec'd. Bk. 3950, Pg. 34
Filing date not listed

Industrial Compounding, LLC
Warranty Deed
Rec'd. Bk. 3950, Pg. 34
Filing date not listed

Public Service Co. of Okla.
10' Right-of-way Easement
Rec'd. Bk. 1006 Pg. 946
Filed October 29, 1975

City of Chickasha
20' Easement
Rec'd. Bk. 2840, Pg. 595
Filed February 20, 1996

Southwestern Bell Telephone Co.
16.5' Right-of-Way Easement
Bk. 664, Pg. 442
Filed 06/12/1958

State of Oklahoma
Report of Commissioners
Bk. 842, Pg. 240
Filed 02/21/1968

No ownership
Information found
for this area.

Ken D. Ledford and
Leslie Ann Ledford
Warranty Deed
Rec'd. Bk. 4335, Pg. 576
Filed: January 4, 2011

Public Service Co. of Okla.
10' Right-of-Way Easement
Rec'd. Bk. 894, Pg. 100
Filed April 12, 1971

Andra McNeil
Deed (Type not found)
Bk. & Pg. (Not found)
Filed (Not found)

Frac Tech Services, LTD.
Warranty Deed
Rec'd. Bk. 3955, Pg. 473
Filed May 16, 2007

Morgan Well Service, Inc.
Warranty Deed
Rec'd. Bk. 1905, Pg. 52
Filed December 10, 1987

Frac Tech Services, LTD.
Warranty Deed
Rec'd. Bk. 3955, Pg. 473
Filed May 16, 2007

Frac Tech Services, LTD.
Warranty Deed
Rec'd. Bk. 3955, Pg. 473
Filed May 16, 2007

State of Oklahoma
Warranty Deed
Rec'd. Bk. 3200, Pg. 547
Filed May 26, 2000

Station comparison
Station 385+47.57 on this survey=
Station 385+47.57 on SW02738(1) survey

SCALE 1" = 100'

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S045

SDS 45 OF 76

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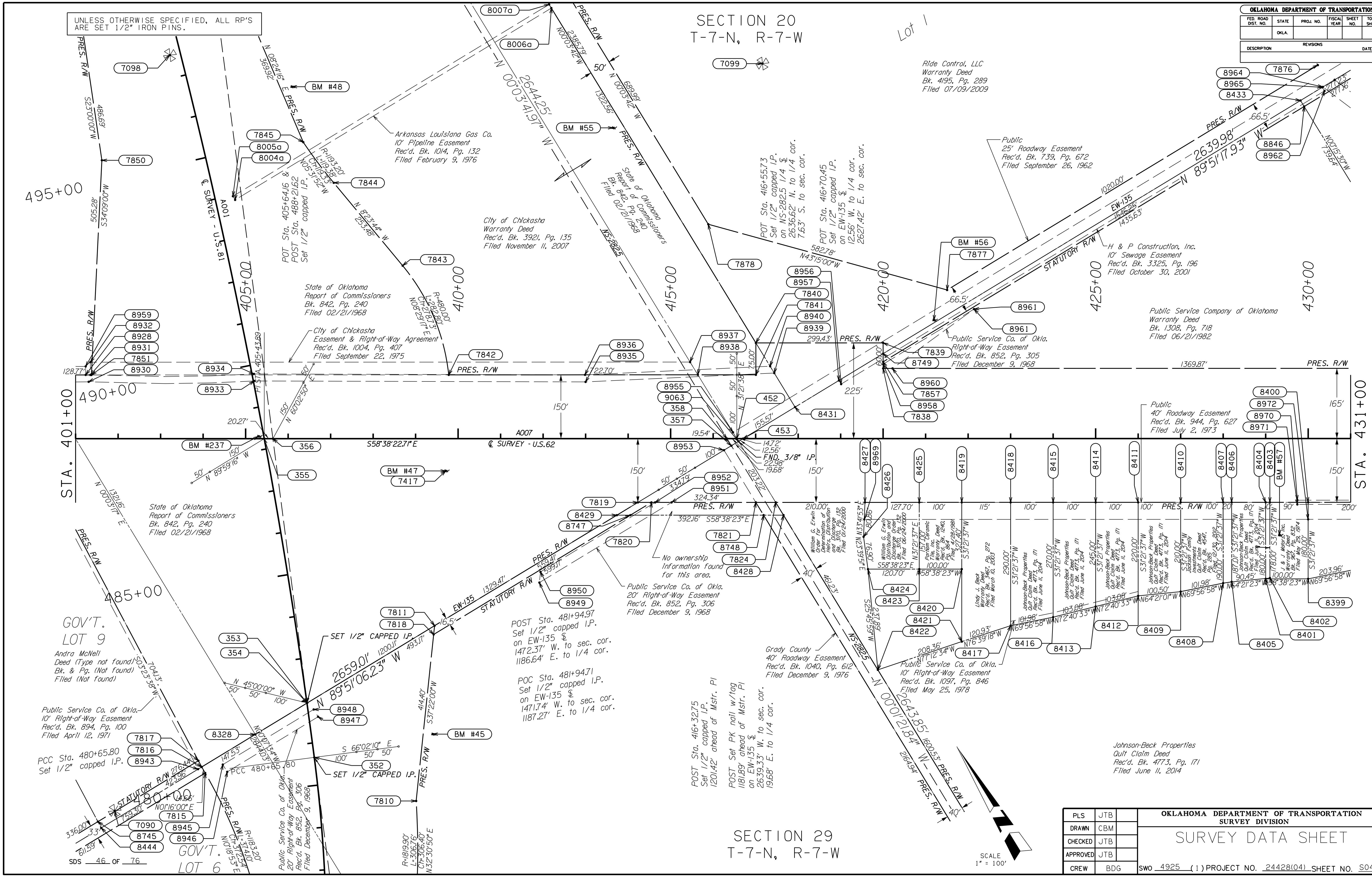

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.
SECTION 20
T-7-N, R-7-W
Lot 1
Ride Control, LLC
Warranty Deed
Bk. 4195, Pg. 289
Filed 07/09/2009
Arkansas Louisiana Gas Co.
10' Pipeline Easement
Rec'd. Bk. 1014, Pg. 132
Filed February 9, 1976
City of Chickasha
Warranty Deed
Rec'd. Bk. 3921, Pg. 135
Filed November 11, 2007
State of Oklahoma
Report of Commissioners
Bk. 842, Pg. 240
Filed 02/21/1968
City of Chickasha
Easement & Right-of-Way Agreement
Rec'd. Bk. 1004, Pg. 407
Filed September 22, 1975
POT Sta. 405+64.16 &
POST Sta. 488+21.62
Set 1/2" capped I.P.
POT Sta. 416+55.73
Set 1/2" capped I.P.
on NS-282.5 1/4 ℄
2636.62' N. to 1/4 cor.
7.63' S. to sec. cor.
POT Sta. 416+70.45
Set 1/2" capped I.P.
on EW-135 ℄
12.56' W. to 1/4 cor.
2627.42' E. to sec. cor.
Public
25' Roadway Easement
Rec'd. Bk. 739, Pg. 672
Filed September 26, 1962
H & P Construction, Inc.
10' Sewage Easement
Rec'd. Bk. 3325, Pg. 196
Filed October 30, 2001
Public Service Co. of Okla.
Right-of-Way Easement
Rec'd. Bk. 852, Pg. 305
Filed December 9, 1968
Public Service Company of Oklahoma
Warranty Deed
Bk. 1308, Pg. 718
Filed 06/21/1982
Public
40' Roadway Easement
Rec'd. Bk. 944, Pg. 627
Filed July 2, 1973
℄ SURVEY - U.S.81
℄ SURVEY - U.S.62
S58°38'22.71"E
N 89°51'17.93" W 2639.98'
N 00°03'41.97" W 2644.25'
N 89°51'06.23" W 2659.01'
N 00°01'21.84" W 2643.85'
STA. 401+00
STA. 431+00
GOV'T. LOT 9
Andra McNeil
Deed (Type not found)
Bk. & Pg. (Not found)
Filed (Not found)
Public Service Co. of Okla.
10' Right-of-Way Easement
Rec'd. Bk. 894, Pg. 100
Filed April 12, 1971
PCC Sta. 480+65.80
Set 1/2" capped I.P.
SET 1/2" CAPPED I.P.
POST Sta. 481+94.97
Set 1/2" capped I.P.
on EW-135 ℄
1472.37' W. to sec. cor.
1186.64' E. to 1/4 cor.
POC Sta. 481+94.71
Set 1/2" capped I.P.
on EW-135 ℄
1471.74' W. to sec. cor.
1187.27' E. to 1/4 cor.
No ownership information found for this area.
Public Service Co. of Okla.
20' Right-of-Way Easement
Rec'd. Bk. 852, Pg. 306
Filed December 9, 1968
Grady County
40' Roadway Easement
Rec'd. Bk. 1040, Pg. 612
Filed December 9, 1976
POST Sta. 416+32.75
Set 1/2" capped I.P.
1201.42' ahead of Mstr. PI
POST Set PK nail w/tag
1181.89' ahead of Mstr. PI
on EW-135 ℄
2639.33' W. to sec. cor.
19.68' E. to 1/4 cor.
Public Service Co. of Okla.
10' Right-of-Way Easement
Rec'd. Bk. 1097, Pg. 846
Filed May 25, 1978
Johnson-Beck Properties
Quit Claim Deed
Rec'd. Bk. 4773, Pg. 171
Filed June 11, 2014
GOV'T. LOT 6
SECTION 29
T-7-N, R-7-W
SDS 46 OF 76
SCALE 1" = 100'
OKLAHOMA DEPARTMENT OF TRANSPORTATION
FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS
OKLA.
REVISIONS
DESCRIPTION
DATE
PLS JTB
DRAWN CBM
CHECKED JTB
APPROVED JTB
CREW BDG
OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION
SURVEY DATA SHEET
SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S046

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 29
T-7-N, R-7-W

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

8092a 8393 8434 7100 8437 8372 8750 8995 8994 8996 8373 8979 8978 8836 7837 8974 8992 8993 8997 8835 7855 454 8999 8998 8001a 7833 7834 8002a 7830 7829 8389 8981 8395 8984 8983 8980 7732 7825 8003a 7831 7826 8346 7825 8347 8985 8986 7828 BM #59 8988 8987 8352 8351 BM #58 8353 8990 8989 8348 8349 8354 8355 8350 8363 8362 7092 8361 8398 8974 8975 8977 8397 8396 7827 7836 8432 7101 7093

50' 921.18' PRES. R/W

N 00°02'11.74" W 2639.75' NS-283

POE Sta. 447+48.56
Set 1/2" rebar capped I.P.
on NS-283 &
1595.26' N. to sec. cor.
1044.50' S. to 1/4 cor.

POE STA. 447+48.56

N 31°21'38" E 100' 50' 50'

5010' 271.23' 271.16' 5010'

N89°51'16"W 266.40'

S00°01'10"E 2233.00'

929.38' S00°01'10"E

922.56' S00°00'45"E

N00°15'30"W 1739.24'

City of Chickasha
30' Storm Sewer Easement
Rec'd. Bk. 1291, Pg. 410
Filed March 11, 1982

H & P Construction, Inc.
Warranty Deed
Bk. 3219, Pg. 228
Filed 06/27/2000

435+00

Standridge Real Estate Investments
Warranty Deed
Bk. 4334, Pg. 241
Filed 12/30/2010

Harlow, Jonas
Warranty Deed
Bk. 4400, Pg. 536
Filed 07/20/2011

440+00

500.39' S88°41'58"E

316.68' S88°41'58"E

Channel Right-of-Way from FAP F-162(31)

445+00

PRES. R/W

State of Oklahoma
Right-of-Way Easement
Rec'd. Bk. 334, Pg. 388
Filed March 16, 1934

480.93'

451.49'

PRES. R/W 58.58'

255.13'

898.43'

PRES. R/W

431+00

STA. 431+00

Public Service Co. of Okla.
10' Right-of-Way Easement
Rec'd. Bk. 941, Pg. 805
Filed May 22, 1973

165'

150'

State of Oklahoma
Right-of-Way Easement
Rec'd. Bk. 334, Pg. 389
Filed March 16, 1934

State of Oklahoma
50' Right-of-Way Easement
Rec'd. Bk. 187, Pg. 441
Filed December 5, 1928

150'

A007
℄ SURVEY - U.S.62

S58°38'22.71"E

Fred E. Basset, Et al.
40' Right-of-Way Easement
Rec'd. Bk. 941, Pg. 592
Filed May 21, 1973

150'

200'

PRES. R/W

936.90'

402.58'

PRES. R/W

200'

256.00'

S58°38'23"E 163.59'

167TH ST. 100.00'

Public Service Co. of Okla.
Right-of-Way Easement
Rec'd. Bk. 676, Pg. 343
Filed April 8, 1959

10.16'

34.72'

J & J Motors, Inc.
Quit Claim Deed
Rec'd. Bk. 2546, Pg. 250
Filed May 3, 1993

203.96' N69°56'58"W

140' S31°21'37"W

60'

525.70' N64°04'11"W

No ownership information found for this area.

City of Chickasha
Highway Easement
Rec'd. Bk. 831, Pg. 886
Filed July 10, 1967

Public Service Co. of Okla.
10' Right-of-Way Easement
Rec'd. Bk. 3972, Pg. 93
Filed July 5, 2007

S00°05'56"E 1066.71'

S00°01'50"E

Chickasha Municipal Authority
Warranty Deed
Bk. 3704, Pg. 86
Filed 02/23/2005

343.64' S89°56'38"E

BM #59

ILLINOIS AVE.

BURCH'S SIXTH ADDITION

S 89°56'38" E

214.47'

156.33'

165'

40'

20'

60'

134'

94'

165'

60'

177TH ST.

327.81' S89°53'58"E

N71°44'55"E 88.00'

No ownership information found for this area.

R=279.18'
L=36.72'
Ch=36.69'
N75°30'58"E

187.99' S89°43'35"E

R=245.52'
L=79.39'
Ch=79.04'
N81°00'39"E

The Independent School District #001 of the State of Oklahoma
Quit Claim Deed
Bk. 4186, Pg. 387
Filed 06/04/2009

N37°24'50"E 105.61'

N69°40'50"E 553.00'

N69°56'38"W 184.50'

N69°37'00"E 530.20'

Reliance Pipeline Co.
25' Pipeline Easement
(S/2, NE/4 SEC 29
Obscure Description)
Rec'd. Bk. 1884, Pg. 39
Filed October 8, 1987

887.43' S00°02'12"E

883.86' S00°04'20"W

NS-283

SECTION 28
T-7-N, R-7-W

SECTION 29
T-7-N, R-7-W

SCALE
1" = 100'

SDS 47 OF 76

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	CBM		SURVEY DATA SHEET
CHECKED	JTB		
APPROVED	JTB		
CREW	BDG		SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S047

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 20
T-7-N, R-7-W

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

Station comparison (UP RR)
Station 115+00.85 on this survey"
Station 86+00.00 on SW02737(1) survey

Intersearch Gas Corp.
Right-of-Way Easement
(No width specified)
Rec'd. Bk. 2169, Pg. 173
Filed February 26, 1990

Louise Turley
Warranty Deed
Rec'd. Bk. 700, Pg. 530
Filed November 17, 1960

POT Sta. 108+31.77
Set 1/2" capped I.P.
on EW-134.5 1/4 $
1994.55' W. to 1/4 cor.
653.89' E. to 1/4 cor.

515+00

105+00

POC Sta. 509+74.78
Set 1/2" capped I.P.
on EW-134.5 1/4 $
2316.54' W. to 1/4 cor.
331.90' E. to 1/4 cor.

POC Sta. 509+07.23 &
POT Sta. 111+46.26
Set 1/2" capped I.P.
on ℄ US 81 & ℄ UP RR

Maribeth Smith
Decree of Distribution & Discharge
Rec'd. Bk. 3247, Pg. 533
Filed December 20, 2000

POB Sta. 100+00.00
Set 1/2" capped I.P.

GOV'T.
LOT 7

City of Chickasha
10' Waterline Easement
Rec'd. Bk. 751, Pg. 581
Filed May 8, 1963

510+00

State of Oklahoma
80' Right-of-Way Easement
Rec'd. Bk. 187, Pg. 591
Filed August 6, 1929

State of Oklahoma
Report of Commissioners
Bk. 860, Pg. 880
Filed 06/03/1969

POST Sta. 509+47.28 &
POT Sta. 114+33.28
Set PK nail w/tag

POST Sta. 114+90.26
Set PK nail w/tag
3687.59' ahead of Mstr. PI

POT Sta. 115+00.85
Set 1/2" capped I.P.
on NS-2825 1/4 $
140.36' N. to 1/4 cor.
2503.89' S. to 1/4 cor.

Henry and Jo Ann
Hoffman Rev. Trust
Warranty Deed
Bk. 3972, Pg. 56
Filed 07/05/2007

Public Service Co. of Okla.
100' Right-of-Way Easement
Rec'd. Bk. 814, Pg. 173
Filed April 22, 1966

POE Sta. 124+00.00
Set 1/2" capped I.P.

℄ SURVEY - U.S. 81 A001

115+00

120+00

Pl Sta. 510+85.30
Set 1/2" capped I.P.
on EW-134.5 1/4 $
2638.60' W. to 1/4 cor.
9.84' E. to 1/4 cor.

City of Chickasha
30' Easement
Rec'd. Bk. 745, Pg. 37
Filed January 4, 1963

City of Chickasha
25' Easement
Rec'd. Bk. 748, Pg. 155
Filed February 27, 1963

State of Oklahoma
Right-of-Way Easement
Rec'd. Bk. 187, Pg. 590
Filed August 6, 1929

State of Oklahoma
Quitclaim Deed
Bk. 864, Pg. 491
Filed 09/08/1969

No ownership information found for this area.

℄ SURVEY - UNION PACIFIC R.R. A009

℄ SURVEY - OLD U.S.62 A008

PRES. R/W
2528.24'

PRES. R/W
2544.96'

PRES. R/W

POB STA.100+00.00

POE STA.124+00.00

BM #50

BM #72

BM #73

BM #49

768.26'
State of Oklahoma
13' Right-of-Way Easement
Rec'd. Bk. 334, Pg. 248
Filed December 5, 1936

State of Oklahoma
120' Right-of-Way Easement
Rec'd. Bk. 187, Pg. 601
Filed September 5, 1929

505+00

110+00

POT Sta. 104+44.92
Set PK nail w/tag
on EW-134.5 1/4 $
1598.89' W. to 1/4 cor.
1049.54' E. to 1/4 cor.

Hadson Gas Systems
50' Right-of-Way Easement
(E/2, SW/4, Sec. 20
N. of Hwy 62, E. of Hwy 81,
Obscure Description)
Rec'd. Bk. 1988, Pg. 299
Filed August 25, 1988

Industrial Compounding, LLC
Warranty Deed
Rec'd. Bk. 3950, Pg. 34
Filing date not listed

Public Service Co. of Okla.
100' Right-of-Way Easement
Rec'd. Bk. 814, Pg. 173
Filed April 22, 1966

Industrial Compounding, LLC
Warranty Deed
Rec'd. Bk. 3950, Pg. 34
Filing date not listed

GOV'T.
LOT 8

500+00

State of Oklahoma
Report of Commissioners
Bk. 842, Pg. 240
Filed 02/21/1968

Allen, Beverly Rev. Trust
Warranty Deed
Bk. 4462, Pg. 142
Filed 02/06/2012

POST Sta. 508+62.49 &
POT Sta. 114+15.95
Set PK nail w/tag

POST Sta. 114+15.95
Set PK nail w/tag
3603.10' ahead of Mstr. PI

POT Sta. 115+48.85
Set PK nail w/tag
on NS-2825 1/4 $
225.29' N. to 1/4 cor.
2418.96' S. to 1/4 cor.

Orange Oil, LLC
Warranty Deed
Bk. 4777, Pg. 493
Filed 06/20/2014

Johnson-Beck
Properties, LLC
Quit Claim Deed
Bk. 4773, Pg. 171
Filed 06/11/2014

Smith Commercial Holdings LLC
Rec'd. Bk. 3918, Pg. 597
Filed January 4, 2001

Lot 2

SCALE
1" = 100'

SECTION 20
T-7-N, R-7-W

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN	CBM		SURVEY DIVISION
CHECKED	JTB		SURVEY DATA SHEET
APPROVED	JTB		
CREW	BDG		SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S048

SDS 48 OF 76

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UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

Bernt John Rogstad III
Warranty Deed
Rec'd. Bk. 3835, Pg. 223
Filed: April 11, 2006

Patricia J. Rogstad
(F.K.A. Patricia J. LaForge)
Quit Claim Deed
Rec'd. Bk. 3375, Pg. 328
Filed: May 6, 2002
Stipulation of Insurance
& Cross Conveyance
Rec'd. Bk. 3793, Pg. 219
Filed: November 22, 2005

TS Sta. 1117+63.02
Set PK nail w/tag

Jerry Chambers-Oil Producer
30' Easement
Bk. 995, Pg. 24
Filed May 19, 1975

SECTION 20
T-6-N, R-7-W

Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 1048, Pg. 297
Filed February 15, 1977

Carol Lister Living Trust
Rec'd. Bk. 3793, Pg. 220
Filed: November 22, 2005

Southwestern Bell Telephone Co.
16.5' Right-of-Way Easement
(N/2, SE/4, NE/4, SEC 20
Obscure Description)
Bk. 569, Pg. 484
Filed 12/29/1953

Southwestern Bell Telephone Co.
16.5' Right-of-Way Easement
(S/2, SE/4, NE/4, SEC 20
Obscure Description)
Bk. 569, Pg. 485
Filed 12/29/1953

POB Sta. 1109+14.73
Set PK nail w/tag
on EW-140.5 1/4 ℄
2647.46' W. to 1/4 cor.
3.93' E. to 1/4 cor.

Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 882, Pg. 884
Filed October 8, 1970

POT Sta. 113+75.27
Set PK nail w/tag
on EW-140.5 1/4 ℄
28.07' W. to 1/4 cor.
2616.50' E. to 1/4 cor.

Ninnekah Water Corp.
20' Easement
Bk. 1048, Pg. 297
Filed February 15, 1977

Rural Water, Sewer, Gas, and Solid
Waste Management District No. 7
50' Easement
Bk. 2431, Pg. 89
Filed May 12, 1992

POB Sta. 100+00.00
Set 1/2" capped I.P.
on EW-140.5 1/4 ℄
2519.46' W. to 1/4 cor.
131.93' E. to sec. cor.
PI Sta. 101+31.93
Fnd. 5/8" I.P.
on EW-140.5 1/4
& NS-283 ℄

PI 100+00.00
S 00°00'07" E 50'

℄ SURVEY
N89°55'12.15" E
FND. 5/8" I.P.

PI 101+31.93

Scott E. Bradford &
Michael A Bradford
Warranty Deed
Rec'd. Bk. 4853, Pg. 314
Filed: December 22, 2014

Buck G. Hudson &
Carmen Hudson
Quit Claim Deed
Rec'd. Bk. 3028, Pg. 599
Filed: May 11, 1998

Southwestern Bell Telephone Co.
16.5' Right-of-Way Easement
(E/2, NE/4, SE/4, SEC 20
Obscure Description)
Bk. 569, Pg. 485
Filed 12/29/1953

SECTION 20
T-6-N, R-7-W

Public Service Co. of Okla.
10' Right-of-Way Easement
Rec'd. Bk. 870, Pg. 468
Filed January 16, 1970

Michael Joe Ersland
Affidavit by Surviving
Joint Tenant
Rec'd. Bk. 4446, Pg. 543
Filed: December 15, 2011

PI Sta. 1120+29.70
Set 1/2" capped I.P.

Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 882, Pg. 885
Filed October 8, 1970

Tims Family Revocable Trust
Quit Claim Deed
Rec'd. Bk. 3909, Pg. 472
Filed: December 6, 2006

SECTION 21
T-6-N, R-7-W

POST Sta. 1109+14.72
Set PK nail w/tag
on EW-140.5 1/4 ℄
60.07' W. to 1/4 cor.
2584.50' E. to 1/4 cor.

POC Sta. 1109+14.77
Set PK nail w/tag
on EW-140.5 1/4 ℄
63.23' W. to 1/4 cor.
2581.34' E. to 1/4 cor.

POB/PC Sta. 1107+80J3
Set PK nail w/tag

Public
30' Roadway Easement
Rec'd. Bk. 395, Pg. 199
Filed March 1, 1939

Public Service Co. of Okla.
10' Right-of-Way Easement
Rec'd. Bk. 912, Pg. 758
Filed November 14, 1972

POE Sta. 103+15.30
Set 1/2" capped I.P.
on EW-140.5 1/4 ℄
183.37' W. to 1/4 cor.
2461.20' E. to 1/4 cor.

William M. Ellis
Quit Claim Deed
Rec'd. Bk. 926, Pg. 238
Filed: September 5, 1972

Station comparison

Station 1107+80J3 on this survey*
Station 1107+80J3 on SW02737(1) survey*
Station 1107+80J3 on FAP No. F-162(10)(11) plans

Ninnekah Water Corp.
20' Right-of-Way Easement
Bk. 882, Pg. 882
Filed October 8, 1970

SECTION 21
T-6-N, R-7-W

SCALE
1" = 100'

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S049

SDS 49 OF 76

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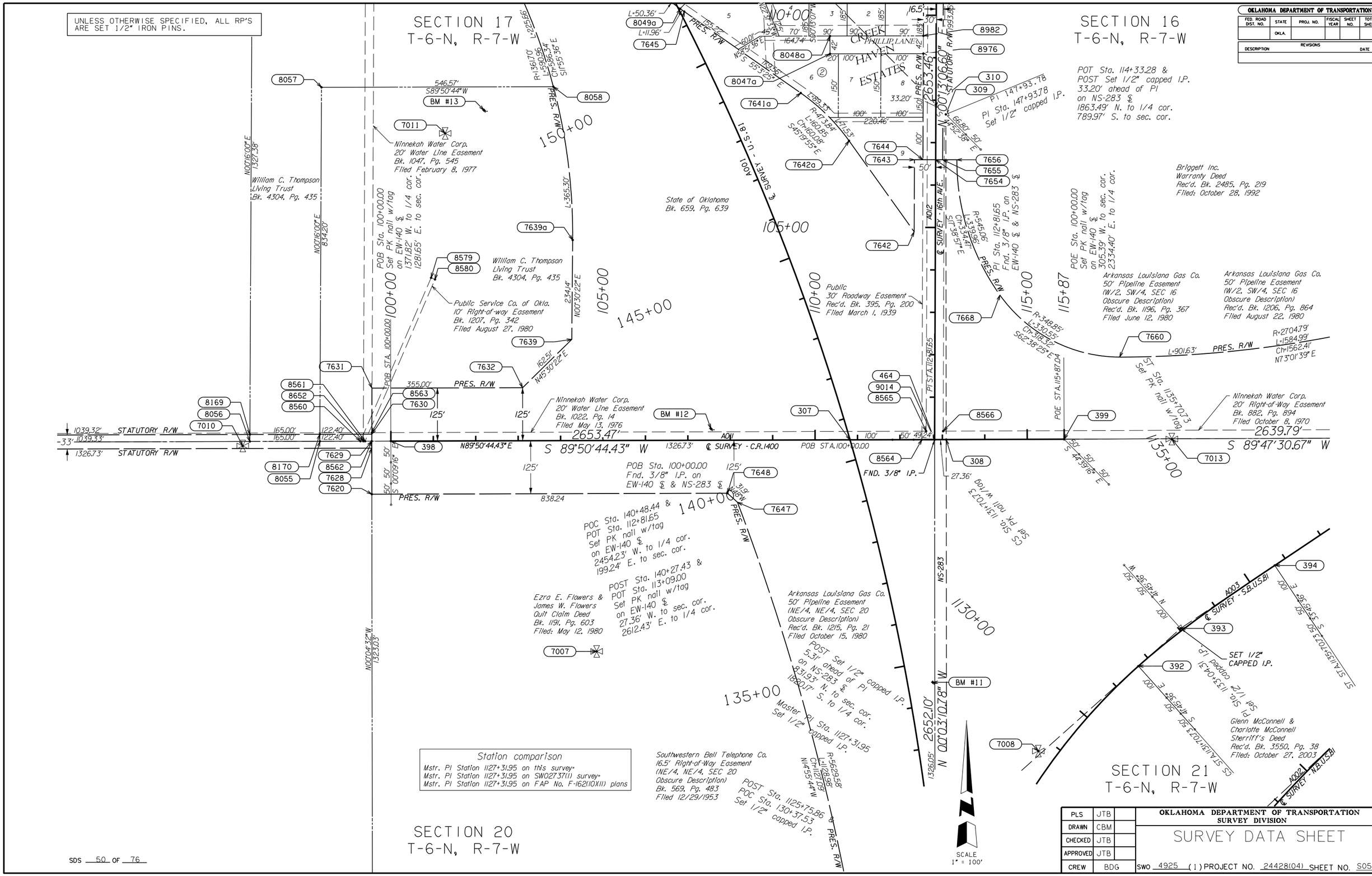


OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
REVISIONS					
DESCRIPTION					DATE

PLS	JTB	OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	CBM	SURVEY DATA SHEET
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S050

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 20
T-6-N, R-7-W

SECTION 17
T-6-N, R-7-W

SECTION 21
T-6-N, R-7-W

SECTION 16
T-6-N, R-7-W

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	CBM		SURVEY DATA SHEET
CHECKED	JTB		
APPROVED	JTB		
CREW	BDG		SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S051

SCALE 1" = 100'

SDS 51 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 1
T-6-N, R-8-W

SECTION 6
T-6-N, R-7-W

SECTION 12
T-6-N, R-8-W

SECTION 7
T-6-N, R-7-W

OKLAHOMA DEPARTMENT OF TRANSPORTATION						
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

Public Service Co. of Okla.
Right-of-Way (No width specified)
(Lot 11, Sec. 6,
Obscure Description)
Rec'd. Bk. 522, Pg. 409
Filed October 8, 1948

Public Service Co. of Okla.
Right-of-Way (No width specified)
(SE/4, SE/4, Sec. 1,
Obscure Description)
Rec'd. Bk. 522, Pg. 409
Filed October 8, 1948

Sharon K. Powell Living Trust
Quit Claim Deed
Bk. 4342, Pg. 258
Filed 01/18/2011

Doris D. Lyons Rothe
Warranty Deed
Rec'd. Bk. 1806, Pg. 184
Filed March 11, 1987

Southwestern Light & Power Co.
Right-of-Way (No width specified)
(SE/4, SW/4, Sec. 6,
Obscure Description)
Rec'd. Bk. 284, Pg. 75
Filed November 7, 1928

Public Service Co. of Okla.
100' Utility Easement as per
Warranty Deed
Rec'd. Bk. 930, Pg. 885
Filed November 14, 1972

Kevin Lynn Whitener
Warranty Deed
Rec'd. Bk. 2705, Pg. 122
Filed June 24, 1994

Chester Stanton Thomas, Etal
Warranty Deed
Rec'd. Bk. 2506, Pg. 270
Filed December 31, 1992

Randal S. Harwell
Connie D. Harwell
Warranty Deed
Rec'd. Bk. 3999, Pg. 49
Filed September 27, 2007

Connie Sue Fraser
Warranty Deed
Rec'd. Bk. 4239, Pg. 448
Filed November 9, 2009

David Todd O'Connell &
Carmelita Trammell
Warranty Deed
Rec'd. Bk. 4209, Pg. 448
Filed November 9, 2009

HILLSBORO HEIGHTS REVISED ADDITION

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S052

SDS 52 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 36
T-7-N, R-8-W

GOV'T. LOT 4

98TH MERIDIAN

132.73'

N 00°00'15.96" E (M.P. TO C.C.)

141.90'

9095 9094 9093

878.64'
S 89°55'19.99" W
EW-137

9096 7766 7762

PRES. R/W

386.46'

100'

412.00'

412.93'

Public
50' Roadway Easement
Rec'd. Bk. 919, Pg. 635
Filed May 23, 1971

NS-280.5

1321.00'

2642.01'
N 00°00'03.88" E

POB Sta. 100+00.00
Set 1/2" capped I.P.
on EW-137 ℄
5177.70' W. to 1/4 cor.
2124.83' E. to sec. cor.

Southwestern Bell Telephone Co.
16.5' Right-of-Way Easement
(SW/4, SE/4, SEC 36
Obscure Description)
Bk. 985, Pg. 32
Filed 1/8/1975

Mid Continent Pipe Line Co.
20' Right-of-Way
(SW/4, SE/4, Sec. 36
Obscure Description)
Rec'd. Bk. 1032, Pg. 411
Filed September 13, 1976

7052

Phillips Petroleum Co.
20' Right-of-Way
(W/2, SE/4, Sec. 36
Obscure Description)
Rec'd. Bk. 1054, Pg. 579
Filed April 21, 1977

8214 7768 8213 8212 8210 7053 8567 433

208.70'

N00°00'15"W

Palmer, Don & Sandra
Warranty Deed
Bk. 3411, Pg. 113
Filed 09/13/2002

100+00

POB STA. 100+00.00

Little, Allen & LaNell
Warranty Deed
Bk. 1415, Pg. 239
Filed 04/18/1984

PRES. R/W

7769 8221 7772

S89°55'20"W

Miller, Karl
Warranty Deed
Bk. 3830, Pg. 553
Filed 03/27/2006

Mona Michelle Powell &
Phillip R. Powell
Warranty Deed
Bk. 4684, Pg. 271
Filed 11/05/2013

105+00

8222 8219 8216 8223 8207 A014

Maluf, Billie A.
Warranty Deed
Bk. 3302, Pg. 380
Filed 08/01/2001

7771

7773 8228 8225

Stumpf, Sharon K.
Warranty Deed
Bk. 4761, Pg. 196
Filed 05/16/2014

Taylor, Kenneth
Quit Claim Deed
Bk. 4063, Pg. 280
Filed 04/18/2008

110+00

Public
15' Roadway Easement
Rec'd. Bk. 400, Pg. 187
Filed September 18, 1939

8232 8231 8784 7775 7776 8202

Livingston Family Revocable Trust
Warranty Deed
Bk. 4277, Pg. 133
Filed June 4, 2010

Phillips Petroleum Co.
20' Right-of-Way
(SE/4, SE/4, Sec. 36
Obscure Description)
Rec'd. Bk. 1049, Pg. 890
Filed March 3, 1977

115+00

BM #91

POT Sta. 339+04.90 &
POT Sta. 119+53.38
Set 1/2" capped I.P.
on EW-137 ℄
2471.08' W. to 1/4 cor.
171.45' E. to sec. cor.

Southwestern Bell Telephone Co.
50' Right-of-Way Easement
Rec'd. Bk. 984, Pg. 281
Filed December 30, 1974

N 00°00'15" W 2172.41' 1319.91'

116+00

STA. 116+00

1304.76' STATUTORY R/W 16.5'

2642.53' EW-137

S 89°55'19.99" W

N89°55'19.99"E 1321.27'

1304.75'

8787 8590 8788

Public
50' Roadway Easement
Rec'd. Bk. 919, Pg. 638, 645
Filed May 23, 1971

℄ SURVEY - GRAND AVE.

Public
50' Roadway Easement
Rec'd. Bk. 1353, Pg. 177
Filed April 7, 1983

7767 7798 7770 8795 8588 8794 7774 8789

510.07'

511.00'

S 78°06'41" W

Pi 100+00.00

266.27'

266.25'

PRES. R/W 208.70'

50'

132.00'

8204 8589

Public
50' Roadway Easement
Rec'd. Bk. 1408, Pg. 797
Filed March 15, 1984

577.50'

S00°00'32"W

BM #92

518.60'

S00°00'24"E

Quillin, Rick
Warranty Deed
Bk. 4794, Pg. 459
Filed 08/04/2014

Crawford, Kent & Victory
Warranty Deed
Bk. 4794, Pg. 132
Filed 08/01/2014

Catherine T. Rempe
Surviving Joint Tenant
Bk. 3920, Pg. 370
Filed 01/09/2007

Mary Catherine Rempe
Warranty Deed
Bk. 1438, Pg. 297
Filed 09/11/1984

Robert W. Larson Jr.
Lynn G. Larson
Warranty Deed (1/2 Interest)
Bk. 1973, Pg. 49
Filed 07/11/1988

Kuhlman, Arthur & Carl & Mona
Quit Claim Deed (1/2 Interest)
Bk. 3107, Pg. 463
Filed 04/07/1999

N00°04'37"W 518.68'

7054

8209 8208 8211

421.69'

501.31'

N 89°55'20" E 923.00'

8205 8206 8775 8774 8776 8777

132.00'
S89°55'20"W

N00°00'32"E 1326.95'

2076.39'

Public
50' Roadway Easement
Rec'd. Bk. 919, Pg. 645
Filed May 23, 1971

Public
50' Roadway Easement
Rec'd. Bk. 919, Pg. 645
Filed May 23, 1971

NS-280.5

1325.17'

2650.35'
N 00°00'23.76" W

1324.00'

GOV'T. LOT 1

SECTION 1
T-6-N, R-8-W

SCALE
1" = 100'

SDS 53 OF 76

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

7058

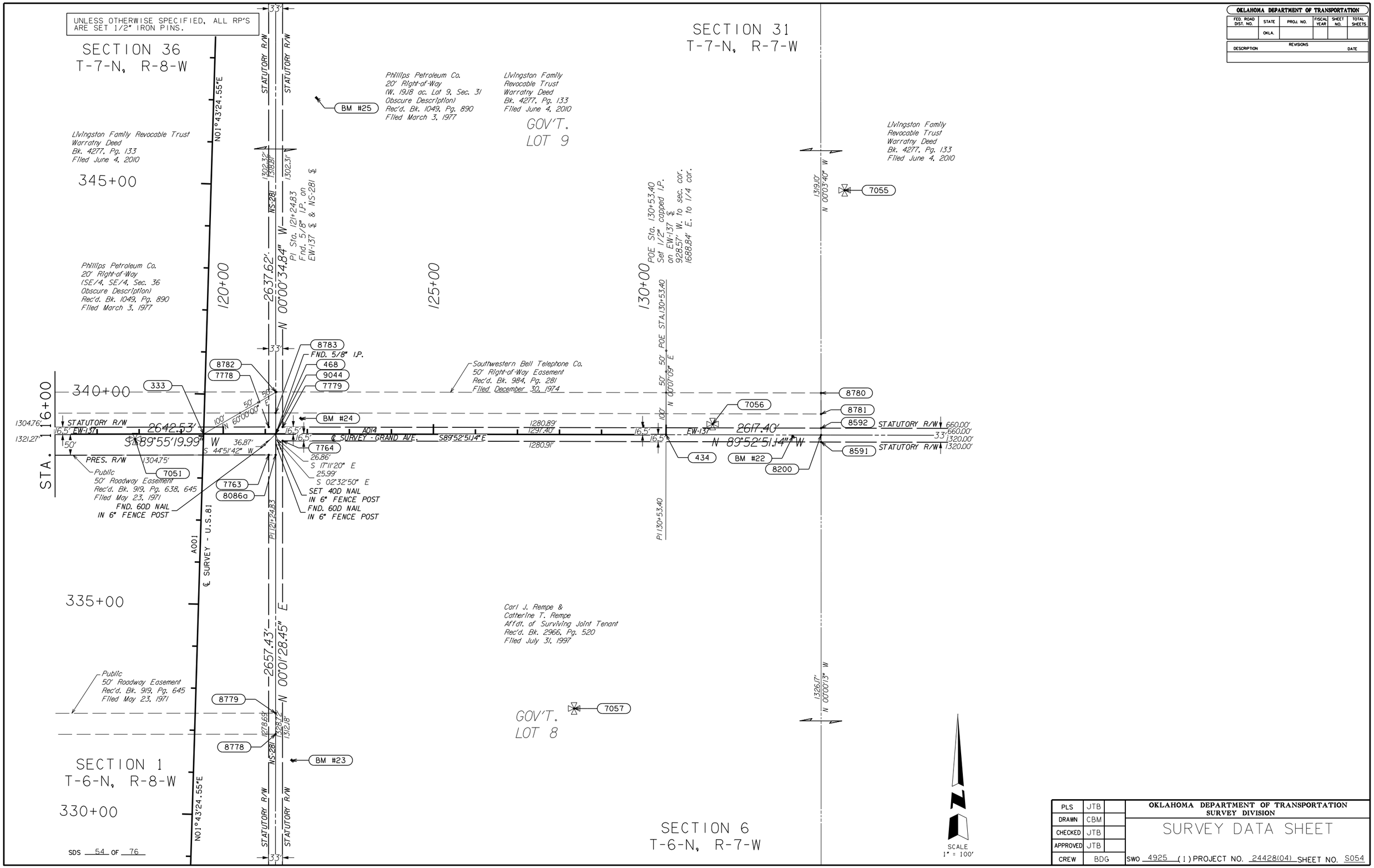
PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S053

8-87



OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

PLS	JTB	OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	CBM	SURVEY DATA SHEET
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S054

SDS 54 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 25
T-7-N, R-8-W

SECTION 30
T-7-N, R-7-W

SECTION 36
T-7-N, R-8-W

SECTION 31
T-7-N, R-7-W

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

7063 — POB Sta. 100+00.00 Set 1/2" capped I.P. on EW-136 ℄ 1541.53' W. to 1/4 cor. 1100.01' E. to sec. cor. — 1323.98' S00°03'22"E

Ariana Alford Trustee Deed Bk. 3875, Pg. 301 Filed 08/15/2006

POST Sta. 395+59.68 Set 1/2" capped I.P. on NS-281 ℄ 2274.34' N. to 1/4 cor. 376.74' S. to sec. cor.

POC Sta. 391+88.89 & POT Sta. 111+53.48 Set 1/2" capped I.P. on EW-136 ℄ 53.47' W. to sec. cor. 2559.18' E. to 1/4 cor.

POST Sta. 391+82.79 & POT Sta. 110+88.19 Set 1/2" capped I.P. on EW-136 ℄ 2629.72' W. to 1/4 cor. 11.82' E. to sec. cor.

339 — N 72°31'06" W 50' 50' 50'

PI Sta. 111+00.01 Fnd. 3/8" I.P. on EW-136 ℄ & NS-281 ℄

2634.54' — 1323.54' — 1309.02' — N 00°04'25.51" W — 2651.08'

STATUTORY R/W — STATUTORY R/W

100+00 — 105+00 — 110+00 — 115+00 — 120+00 — 122+00 POE Sta. 122+00.01 Set 1/2" capped I.P. on EW-136 ℄ 1100.00' W. to sec. cor. 1512.66' E. to 1/4 cor.

A001 ℄ SURVEY - U.S. 81

BM #68 — BM #34 — BM #33 — BM #31

SCHENK, JEFFREY WADE Rec'd. Bk. 3848, Pg. 262 Filed: Not Found

N00°10'39"W 1325.02'

GOV'T. LOT 9

Arkla Energy Resources 50' Pipeline Easement (E/2, SW/4, SW/4, SEC 30 Obscure Description) Rec'd. Bk. 1521, Pg. 101 Filed March 18, 1985

Dry Creek Development, L.L.C. Warranty Deed Rec'd. Bk. 3206, Pg. 354 Filed June 26, 2000

CHICKASHA CITY LIMITS

N00°17'07"W 1324.98'

9050 7788 338 — 50' N 60°00'00" W 100'

7789 337

7402 8599 8251 — 435 — 7064

1320.77' 1320.77' 2625.05' — 33' — 2641.54' N 89°53'15.44" W — 16.5' 16.5' — STATUTORY R/W — EW-136 — STATUTORY R/W — 1304.27' 1320.17' S89°53'15.44"E — 16.5' 16.5' — A015 ℄ SURVEY - IDAHO AVE.

30' 50' 50' POB STA.100+00.00 S 00°00'00" E

53.41' — N89°51'53.20"E 617.38' 633.91' 646.33' 629.84' — S 89°51'53.20" W 2612.66'

8262 8830 8600 — 8261 8601 8829 — 8602

7067 8832 8268 — 8831 8263 — 8603

8269 8269a 8605 — 8606 8276 8839 8604 — 436 — 8273

136.16' 229.81' 230.04' 230.04' 230.05' 230.06' 230.04' 230.04' 230.04' 480.04' 480.04' — 16.5' 16.5' — 33' — STATUTORY R/W 1320.00' 1320.00' — STATUTORY R/W 480.04'

50' 50' POE STA.122+00.01 N 00°08'06" W

11.82' — 7784 469 — FND. 3/8" I.P. — 7785

S 45°00'00" E 100' 50' 50'

Rural Water, Sewer and Solid Waste Mgt. Dist. No. 6 20' Right-of-Way Easement Bk. 1323, Pg. 545 Filed 09/28/1982

Rural Water, Sewer and Solid Waste Mgt. Dist. No. 6 20' Right-of-Way Easement Bk. 1323, Pg. 539, 542 Filed 09/28/1982

Rural Water, Sewer and Solid Waste Mgt. Dist. No. 6 20' Right-of-Way Easement Bk. 1323, Pg. 538 Filed 09/28/1982

Public Service Co. of Okla. 10' Right-of-Way Easement Rec'd. Bk. 1743, Pg. 72 Filed Sept 25, 1986

COMMISSIONER'S LAND OFFICE (Book & Page Not Found)

Rural Water, Sewer and Solid Waste Mgt. Dist. No. 6 20' Easement (W/2 Lot 6, Sec. 31 Obscure Description) Bk. 1018, Pg. 279 Filed April 1, 1976

Johnny Paul Franklin & Holly F. Franklin Warranty Deed Rec'd. Bk. 3171, Pg. 165 Filed January 28, 2000

Laverne Nightingale & Ada J. Nightingale Quit Claim Deed Rec'd. Bk. 2741, Pg. 86 Filed October 11, 1994

8838 8837 — 8855 8835 8834 8833 — 8270 — 8267 — S89°51'53"W 230.38' — 8272

364.00' — N00°03'40"W 364.00' — N00°03'40"W 364.00'

POC Sta. 427+15.26 Set 1/2 capped I.P. on NS-281 ℄ 301.97' N. to sec. cor. 2335.65' S. to 1/4 cor.

390+00

M 01°50'28" N 50' 50' 100'

338 — 659.41' 642.92' — 7065

Public Service Co. of Okla. 5' Right-of-Way Easement Rec'd. Bk. 1743, Pg. 72 Filed Sept 25, 1986

N00°02'08"W 330.03' — S00°00'35"E 660.19'

SCHENK, DON SCHENK, ELIZABETH REVOCABLE TRUST Quit Claim Deed Rec'd. Bk. 2889, Pg. 507 Filed October 8, 1996

Gary Don Whitaker & Donna Fay Whitaker Quit Claim Deed Rec'd. Bk. 4329, Pg. 590 Filed December 16, 2010

D. L. Smith & LaVera Smith Warranty Deed Rec'd. Bk. 830, Pg. 103 Filed May 17, 1967

N 00°00'34.84" W — 2637.62' — NS-281

8264 — 646.62' — 8265 — 135.86' — 230.04' — 8266 — 280.72' — 8271 — 660.00' — 1320.00' — N 89°55'19" E

N 89°55'19" E 1293.25'

8598 — 8249 — PC 384+81.79 — 335

N 88°17'27" W 50' 50' 100'

385+00

PC Sta. 384+81.79 Set 1/2" capped I.P.

N01°43'24.55"E — 2621.15' — 659.41' 659.42' — STATUTORY R/W — STATUTORY R/W — 33'

660.70' N 00°03'40" W

GOV'T. LOT 6

7066

SCALE 1" = 100'

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S055

SDS 55 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 25
T-7-N, R-8-W

SECTION 30
T-7-N, R-7-W

SECTION 25
T-7-N, R-8-W

SECTION 30
T-7-N, R-7-W

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S056

SCALE 1" = 100'

SDS 56 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 25
T-7-N, R-8-W

SECTION 30
T-7-N, R-7-W

OKLAHOMA DEPARTMENT OF TRANSPORTATION						
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS	
	OKLA.					
REVISIONS						
DESCRIPTION					DATE	

33'

STATUTORY R/W

8858
8856

Arkansas Louisiana Gas Co.
40' Pipeline Easement
Rec'd. Bk. 871, Pg. 443
Filed February 16, 1970

GOV'T. LOT 7

Wheeler Family Farms, L.L.C.
Warranty Deed
Rec'd. Bk. 3372, Pg. 61
Filed April 23, 2002

CURVE #16
PI STA= 102+46.58
X= 1972422.9049
Y= 624993.1717
Δ= 42°27'45.65" LT
D= 16°59'59.99"
T= 130.94'
L= 249.78'
R= 337.03'
E= 24.54'

POB Sta. 100+00.00
Set 1/2" capped I.P.
on EW-135.5 1/4 $
2639.90' W. to 1/4 cor.
47.28' E. to sec. cor.

263.54'
262.54'
1325.53'

100+00

265.08'

NS-281

N 00°04'25.51" W

PI Sta. 100+47.28
Set 5/8" capped I.P.
at sec. cor.

105+00

POE Sta. 105+98.10
Set 1/2" capped I.P.
on EW-135.5 1/4 $
550.82' W. to 1/4 cor.
2052.09' E. to sec. cor.

105+98

Wheeler Family Farms, L.L.C.
Warranty Deed
Rec'd. Bk. 3372, Pg. 61
Filed April 23, 2002

1329.60'
N 00°17'07" W

RAWSON, DAVID DALE & JO EDYTHA
(BK. & PG. NOT FOUND)

POST Set 1/2 capped I.P.
1881.91' ahead of PI
on EW-135.5 1/4 $
1886.44' W. to 1/4 cor.
716.47' E. to 1/4 cor.

8290
8291

N89°57'34"E
295.00'

RAWSON, REBECCA KATHLEEN
(BK. & PG. NOT FOUND)

295.00'
N 00°17'07" W

N00°17'07"W
295.00'

8284
8867

8292

1025.03'
1320.03'

7069

7791

FND. 1/2" I.P.

9055
7792

439

8853

8860
8861

8862

8176a

8863

BM #69

8865
8866

Reliance Pipeline Co.
50' Pipeline Easement
(E/2, NW/4, SW/4 SEC 30
Obscure Description)
Rec'd. Bk. 1442, Pg. 47
Filed October 2, 1984

Reliance Pipeline Co.
50' Pipeline Easement
Rec'd. Bk. 1442, Pg. 49
Filed October 2, 1984

2639.90'
S 89°58'39.45" W

1319.95'

437

47.28'

POB Sta. 100+00.00 &
POT Sta. 102+98.42
Set 1/2" capped I.P.
on EW-135.5 1/4 $
2511.14' W. to sec. cor.
2351.77' E. to 1/4 cor.

PC Sta. 101+15.64
Set 1/2" capped I.P.

470
2.0
N 66°17'30" E

N89°57'33.60"E

℄ SURVEY - C.R.1355

POB STA 100+00.00
A017

438
8854

1282.88'

EW-135.5

2602.91'
S 89°57'33.60" W

120+00

440

75' 50' 50' PC
N 84°56'19" E STA 101+15.64

C-16

441

PI Sta. 413+90.54
Set 1/2" capped I.P.

PI 102+46.58 75' 50' 50'
S 63°44'18" W

PI STA 103+65.42

442

340

8850

PI Sta. 102+46.58
Set 1/2" capped I.P.

50' 50' 50'
S 76°18'09" W

50' 50' 50'
S 42°29'48" W

8852
8851

℄ SURVEY - IOWA AVE. S41°30'12.05"E

A016

GOV'T. LOT 8

Reliance Pipeline Co.
50' Pipeline Easement
(NW/4, SW/4 SEC 30
Obscure Description)
Rec'd. Bk. 1651, Pg. 342
Filed January 21, 1986

Arkansas Louisiana Gas Co.
40' Pipeline Easement
Rec'd. Bk. 871, Pg. 443
Filed February 16, 1970

105+00

110+00

115+00

120+00

CHICKASHA CITY LIMITS

℄ SURVEY - U.S.81

A001

1324.49'
N 00°17'07" W

Dry Creek Development, L.L.C.
Warranty Deed
Rec'd. Bk. 3206, Pg. 354
Filed June 26, 2000

BM #36

8849

PI 413+90.54

SCHENK, JEFFREY WADE
Rec'd. Bk. 3848, Pg. 262
Filed: Not Found

POC Sta. 412+00.00 &
POT Sta. 111+82.99
Set 1/2 capped I.P.

410+00

Arkansas Louisiana Gas Co.
40' Pipeline Easement
Rec'd. Bk. 871, Pg. 441
Filed February 16, 1970

Reliance Pipeline Co.
50' Pipeline Easement
(E/2, SE/4 SEC 25
Obscure Description)
Rec'd. Bk. 1651, Pg. 340
Filed January 21, 1986

Arlana Alford
Trustee Deed
Bk. 3875, Pg. 301
Filed 08/15/2006

263.54'
262.54'
1325.52'

PT Sta. 103+65.42
Set 1/2" capped I.P.

POST & POT Sta. 104+05.78
351.09' ahead of PI
(Calculated, not set)

SCALE
1" = 100'

PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S057

SDS 57 OF 76

8-87

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.

SECTION 30
T-7-N, R-7-W

BM #70

BM #71

BM #37

BM #233

BM #39

BM #39

POB Sta. 100+00.00
Set 1/2 capped I.P.
on NS-281.5 1/4 §
1620.20' N. to 1/4 cor.
1026.59' E. to 1/4 cor.

Dry Creek Development, L.L.C.
Warranty Deed
Rec'd. Bk. 3206, Pg. 354
Filed June 26, 2000

Reliance Pipeline Co.
50' Pipeline Easement
Rec'd. Bk. 1442, Pg. 49
Filed October 2, 1984

Reliance Pipeline Co.
50' Pipeline Easement
Rec'd. Bk. 2490, Pg. 25-39
Filed November 12, 1992

Reliance Pipeline Co.
20' Pipeline Easement
Rec'd. Bk. 1442, Pg. 62
Filed October 2, 1984

POST Set 1/2 capped I.P.
1881.97' ahead of PI
on EW-135.5 1/4 §
1886.44' W. to 1/4 cor.
716.47' E. to 1/4 cor.

POC Sta. 427+15.26
Set 1/2 capped I.P.
on EW-135.5 1/4 §
2187.85' W. to 1/4 cor.
415.06' E. to 1/4 cor.

POC Sta. 431+60.54 &
POT Sta. 117+82.54
Set 1/2 capped I.P.
on NS-281.5 1/4 §
2484.88' N. to 1/4 cor.
162.34' S. to 1/4 cor.

POE Sta. 127+55.13
Set 1/2 capped I.P.
on NS-281.5 1/4 §
512.29' N. to 1/4 cor.
1134.93' S. to 1/4 cor.

RAWSON, DAVID DALE & JO EDYTHA
(BK. & PG. NOT FOUND)

CHICKASHA CITY LIMITS

Chickasha Municipal Authority
40' Easement
Rec'd. Bk. 3534, Pg. 270
Filed September 10, 2003

Chickasha Municipal Authority
40' Easement
Rec'd. Bk. 3537, Pg. 151
Filed September 18, 2003

3" STL. FENCE POST
FND. 5/8" CAPPED I.P.

FND. 60D NAIL IN 5" FENCE POST

POB STA.100+00.00

POE STA.127+55.13

POE STA.AJ29+71.43

PI STA.116+20.20

PI 116+20.20

PT 434+53.73

PT Sta. 434+53.73
Set 1/2" capped I.P.

PI Sta. 116+20.20
Fnd. 5/8" capped I.P.
at sec. cor.

POST Sta. 117+94.11
Set 1/2 capped I.P.
2618.51' ahead of PI
on NS-281.5 1/4 §
2473.32' N. to 1/4 cor.
173.90' S. to 1/4 cor.

John A. Soos & Ramona G. Soos
Warranty Deed
Rec'd. Bk. 4140, Pg. 478
Filed December 1, 2008

Public Service Co. of Okla.
10' Right-of-Way Easement
Rec'd. Bk. 4210, Pg. 285
Filed September 11, 2009

Marlon Wayne Griswold &
Evelyn Lynn Griswold
Warranty Deed
Rec'd. Bk. 3223, Pg. 552
Filed September 13, 2000

Dan S. Winham &
Kathy R. Winham
Warranty Deed
Rec'd. Bk. 3361, Pg. 195
Filed March 15, 2002

SIMMONS, GLORIA MARCELLA VANDEVENTER
(W/2, NE/4, Less NE/4,
NW/4, NE/4, Sec. 30)
5329 26TH ST
ARLINGTON, VA 22207
(No Bk. & Pg. Found)

Reliance Pipeline Co.
50' Pipeline Easement
(Obscure Description)
Rec'd. Bk. 1442, Pg. 60
Filed October 2, 1984

N89°54'43.08"E 1320.81'

N 89°55'17" E 242.10'

N00°16'45"W 1323.07'

N00°05'16.92"W 791.70'

N00°17'05.10"W 450.00'

N00°17'05.10"W 873.39'

N00°17'10.07"W 661.80'

S 89°57'33.60" W 2602.91'

N 00°17'05.10" W 2640.79'

N 00°17'10.07" W 2647.22'

S 89°58'41.04" W 2636.48'

N 89°55'17" E 1317.89'

N 89°32'20" E 1322.55'

N 76°18'09.32"E

N 28°44'36" W

N 13°41'51" W

N 34°26'50" W

N 59°38'02" W 29.22'

S 48°24'42" W 39.94'

N 44°59'59" W

S 36°01'51" W 39.06'

N 00°00'05" W

S 00°00'05" E

EW-135.5

EW-355

A016 ℄ SURVEY - IOWA AVE.

A001 ℄ SURVEY - U.S. 81

A018 ℄ SURVEY - C.S. 2815

100+00
105+00
110+00
115+00
120+00
125+00
127+55
425+00
430+00
435+00
440+00

8278 8279 8281 8283 8282 8284 8285 8286 8287 8288 8289 8290 8291 8292 8293 8294 8295 8296 8297 8298 8299 8300 8301 8302 8303 8304 8305 8306 8307 8308 8309 8310 8311 8312 8313 8314 8315 8316 8317 8318 8319 8320 8321 8322 8323 8324 8325 8326 8327 8328 8329 8330 8331 8332 8333 8334 8335 8336 8337 8338 8339 8340 8341 8342 8343 8344 8345 8346 8347 8348 8349 8350 8351 8352 8353 8354 8355 8356 8357 8358 8359 8360 8361 8362 8363 8364 8365 8366 8367 8368 8369 8370 8371 8372 8373 8374 8375 8376 8377 8378 8379 8380 8381 8382 8383 8384 8385 8386 8387 8388 8389 8390 8391 8392 8393 8394 8395 8396 8397 8398 8399 8400 8401 8402 8403 8404 8405 8406 8407 8408 8409 8410 8411 8412 8413 8414 8415 8416 8417 8418 8419 8420 8421 8422 8423 8424 8425 8426 8427 8428 8429 8430 8431 8432 8433 8434 8435 8436 8437 8438 8439 8440 8441 8442 8443 8444 8445 8446 8447 8448 8449 8450 8451 8452 8453 8454 8455 8456 8457 8458 8459 8460 8461 8462 8463 8464 8465 8466 8467 8468 8469 8470 8471 8472 8473 8474 8475 8476 8477 8478 8479 8480 8481 8482 8483 8484 8485 8486 8487 8488 8489 8490 8491 8492 8493 8494 8495 8496 8497 8498 8499 8500 8501 8502 8503 8504 8505 8506 8507 8508 8509 8510 8511 8512 8513 8514 8515 8516 8517 8518 8519 8520 8521 8522 8523 8524 8525 8526 8527 8528 8529 8530 8531 8532 8533 8534 8535 8536 8537 8538 8539 8540 8541 8542 8543 8544 8545 8546 8547 8548 8549 8550 8551 8552 8553 8554 8555 8556 8557 8558 8559 8560 8561 8562 8563 8564 8565 8566 8567 8568 8569 8570 8571 8572 8573 8574 8575 8576 8577 8578 8579 8580 8581 8582 8583 8584 8585 8586 8587 8588 8589 8590 8591 8592 8593 8594 8595 8596 8597 8598 8599 8600 8601 8602 8603 8604 8605 8606 8607 8608 8609 8610 8611 8612 8613 8614 8615 8616 8617 8618 8619 8620 8621 8622 8623 8624 8625 8626 8627 8628 8629 8630 8631 8632 8633 8634 8635 8636 8637 8638 8639 8640 8641 8642 8643 8644 8645 8646 8647 8648 8649 8650 8651 8652 8653 8654 8655 8656 8657 8658 8659 8660 8661 8662 8663 8664 8665 8666 8667 8668 8669 8670 8671 8672 8673 8674 8675 8676 8677 8678 8679 8680 8681 8682 8683 8684 8685 8686 8687 8688 8689 8690 8691 8692 8693 8694 8695 8696 8697 8698 8699 8700 8701 8702 8703 8704 8705 8706 8707 8708 8709 8710 8711 8712 8713 8714 8715 8716 8717 8718 8719 8720 8721 8722 8723 8724 8725 8726 8727 8728 8729 8730 8731 8732 8733 8734 8735 8736 8737 8738 8739 8740 8741 8742 8743 8744 8745 8746 8747 8748 8749 8750 8751 8752 8753 8754 8755 8756 8757 8758 8759 8760 8761 8762 8763 8764 8765 8766 8767 8768 8769 8770 8771 8772 8773 8774 8775 8776 8777 8778 8779 8780 8781 8782 8783 8784 8785 8786 8787 8788 8789 8790 8791 8792 8793 8794 8795 8796 8797 8798 8799 8800 8801 8802 8803 8804 8805 8806 8807 8808 8809 8810 8811 8812 8813 8814 8815 8816 8817 8818 8819 8820 8821 8822 8823 8824 8825 8826 8827 8828 8829 8830 8831 8832 8833 8834 8835 8836 8837 8838 8839 8840 8841 8842 8843 8844 8845 8846 8847 8848 8849 8850 8851 8852 8853 8854 8855 8856 8857 8858 8859 8860 8861 8862 8863 8864 8865 8866 8867 8868 8869 8870 8871 8872 8873 8874 8875 8876 8877 8878 8879 8880 8881 8882 8883 8884 8885 8886 8887 8888 8889 8890 8891 8892 8893 8894 8895 8896 8897 8898 8899 8900 8901 8902 8903 8904 8905 8906 8907 8908 8909 8910 8911 8912 8913 8914 8915 8916 8917 8918 8919 8920 8921 8922 8923 8924 8925 8926 8927 8928 8929 8930 8931 8932 8933 8934 8935 8936 8937 8938 8939 8940 8941 8942 8943 8944 8945 8946 8947 8948 8949 8950 8951 8952 8953 8954 8955 8956 8957 8958 8959 8960 8961 8962 8963 8964 8965 8966 8967 8968 8969 8970 8971 8972 8973 8974 8975 8976 8977 8978 8979 8980 8981 8982 8983 8984 8985 8986 8987 8988 8989 8990 8991 8992 8993 8994 8995 8996 8997 8998 8999 9000 9001 9002 9003 9004 9005 9006 9007 9008 9009 9010 9011 9012 9013 9014 9015 9016 9017 9018 9019 9020 9021 9022 9023 9024 9025 9026 9027 9028 9029 9030 9031 9032 9033 9034 9035 9036 9037 9038 9039 9040 9041 9042 9043 9044 9045 9046 9047 9048 9049 9050 9051 9052 9053 9054 9055 9056 9057 9058 9059 9060 9061 9062 9063 9064 9065 9066 9067 9068 9069 9070 9071 9072 9073 9074 9075 9076 9077 9078 9079 9080 9081 9082 9083 9084 9085 9086 9087 9088 9089 9090 9091 9092 9093 9094 9095 9096 9097 9098 9099 9100 9101 9102 9103 9104 9105 9106 9107 9108 9109 9110 9111 9112 9113 9114 9115 9116 9117 9118 9119 9120 9121 9122 9123 9124 9125 9126 9127 9128 9129 9130 9131 9132 9133 9134 9135 9136 9137 9138 9139 9140 9141 9142 9143 9144 9145 9146 9147 9148 9149 9150 9151 9152 9153 9154 9155 9156 9157 9158 9159 9160 9161 9162 9163 9164 9165 9166 9167 9168 9169 9170 9171 9172 9173 9174 9175 9176 9177 9178 9179 9180 9181 9182 9183 9184 9185 9186 9187 9188 9189 9190 9191 9192 9193 9194 9195 9196 9197 9198 9199 9200 9201 9202 9203 9204 9205 9206 9207 9208 9209 9210 9211 9212 9213 9214 9215 9216 9217 9218 9219 9220 9221 9222 9223 9224 9225 9226 9227 9228 9229 9230 9231 9232 9233 9234 9235 9236 9237 9238 9239 9240 9241 9242 9243 9244 9245 9246 9247 9248 9249 9250 9251 9252 9253 9254 9255 9256 9257 9258 9259 9260 9261 9262 9263 9264 9265 9266 9267 9268 9269 9270 9271 9272 9273 9274 9275 9276 9277 9278 9279 9280 9281 9282 9283 9284 9285 9286 9287 9288 9289 9290 9291 9292 9293 9294 9295 9296 9297 9298 9299 9300 9301 9302 9303 9304 9305 9306 9307 9308 9309 9310 9311 9312 9313 9314 9315 9316 9317 9318 9319 9320 9321 9322 9323 9324 9325 9326 9327 9328 9329 9330 9331 9332 9333 9334 9335 9336 9337 9338 9339 9340 9341 9342 9343 9344 9345 9346 9347 9348 9349 9350 9351 9352 9353 9354 9355 9356 9357 9358 9359 9360 9361 9362 9363 9364 9365 9366 9367 9368 9369 9370 9371 9372 9373 9374 9375 9376 9377 9378 9379 9380 9381 9382 9383 9384 9385 9386 9387 9388 9389 9390 9391 9392 9393 9394 9395 9396 9397 9398 9399 9400 9401 9402 9403 9404 9405 9406 9407 9408 9409 9410 9411 9412 9413 9414 9415 9416 9417 9418 9419 9420 9421 9422 9423 9424 9425 9426 9427 9428 9429 9430 9431 9432 9433 9434 9435 9436 9437 9438 9439 9440 9441 9442 9443 9444 9445 9446 9447 9448 9449 9450 9451 9452 9453 9454 9455 9456 9457 9458 9459 9460 9461 9462 9463 9464 9465 9466 9467 9468 9469 9470 9471 9472 9473 9474 9475 9476 9477 9478 9479 9480 9481 9482 9483 9484 9485 9486 9487 9488 9489 9490 9491 9492 9493 9494 9495 9496 9497 9498 9499 9500 9501 9502 9503 9504 9505 9506 9507 9508 9509 9510 9511 9512 9513 9514 9515 9516 9517 9518 9519 9520 9521 9522 9523 9524 9525 9526 9527 9528 9529 9530 9531 9532 9533 9534 9535 9536 9537 9538 9539 9540 9541 9542 9543 9544 9545 9546 9547 9548 9549 9550 9551 9552 9553 9554 9555 9556 9557 9558 9559 9560 9561 9562 9563 9564 9565 9566 9567 9568 9569 9570 9571 9572 9573 9574 9575 9576 9577 9578 9579 9580 9581 9582 9583 9584 9585 9586 9587 9588 9589 9590 9591 9592 9593 9594 9595 9596 9597 9598 9599 9600 9601 9602 9603 9604 9605 9606 9607 9608 9609 9610 9611 9612 9613 9614 9615 9616 9617 9618 9619 9620 9621 9622 9623 9624 9625 9626 9627 9628 9629 9630 9631 9632 9633 9634 9635 9636 9637 9638 9639 9640 9641 9642 9643 9644 9645 9646 9647 9648 9649 9650 9651 9652 9653 9654 9655 9656 9657 9658 9659 9660 9661 9662 9663 9664 9665 9666 9667 9668 9669 9670 9671 9672 9673 9674 9675 9676 9677 9678 9679 9680 9681 9682 9683 9684 9685 9686 9687 9688 9689 9690 9691 9692 9693 9694 9695 9696 9697 9698 9699 9700 9701 9702 9703 9704 9705 9706 9707 9708 9709 9710 9711 9712 9713 9714 9715 9716 9717 9718 9719 9720 9721 9722 9723 9724 9725 9726 9727 9728 9729 9730 9731 9732 9733 9734 9735 9736 9737 9738 9739 9740 9741 9742 9743 9744 9745 9746 9747 9748 9749 9750 9751 9752 9753 9754 9755 9756 9757 9758 9759 9760 9761 9762 9763 9764 9765 9766 9767 9768 9769 9770 9771 9772 9773 9774 9775 9776 9777 9778 9779 9780 9781 9782 9783 9784 9785 9786 9787 9788 9789 9790 9791 9792 9793 9794 9795 9796 9797 9798 9799 9800 9801 9802 9803 9804 9805 9806 9807 9808 9809 9810 9811 9812 9813 9814 9815 9816 9817 9818 9819 9820 9821 9822 9823 9824 9825 9826 9827 9828 9829 9830 9831 9832 9833 9834 9835 9836 9837 9838 9839 9840 9841 9842 9843 9844 9845 9846 9847 9848 9849 9850 9851 9852 9853 9854 9855 9856 9857 9858 9859 9860 9861 9862 9863 9864 9865 9866 9867 9868 9869 9870 9871 9872 9873 9874 9875 9876 9877 9878 9879 9880 9881 9882 9883 9884 9885 9886 9887 9888 9889 9890 9891 9892 9893 9894 9895 9896 9897 9898 9899 9900 9901 9902 9903 9904 9905 9906 9907 9908 9909 9910 9911 9912 9913 9914 9915 9916 9917 9918 9919 9920 9921 9922 9923 9924 9925 9926 9927 9928 9929 9930 9931 9932 9933 9934 9935 9936 9937 9938 9939 9940 9941 9942 9943 9944 9945 9946 9947 9948 9949 9950 9951 9952 9953 9954 9955 9956 9957 9958 9959 9960 9961 9962 9963 9964 9965 9966 9967 9968 9969 9970 9971 9972 9973 9974 9975 9976 9977 9978 9979 9980 9981 9982 9983 9984 9985 9986 9987 9988 9989 9990 9991 9992 9993 9994 9995 9996 9997 9998 9999 10000

SDS 58 OF 76

SCALE 1" = 100'

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

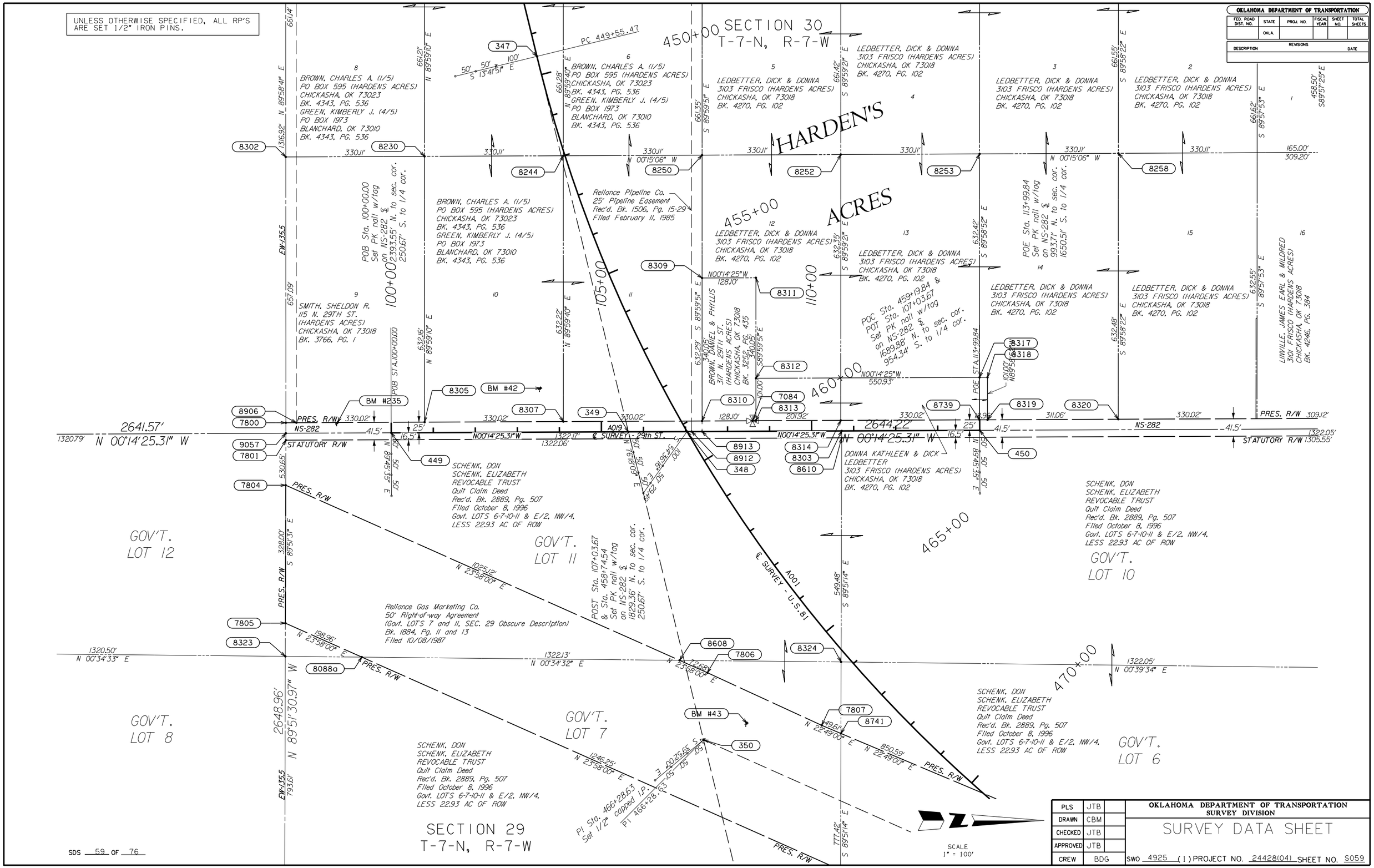
PLS	JTB	
DRAWN	CBM	
CHECKED	JTB	
APPROVED	JTB	
CREW	BDG	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

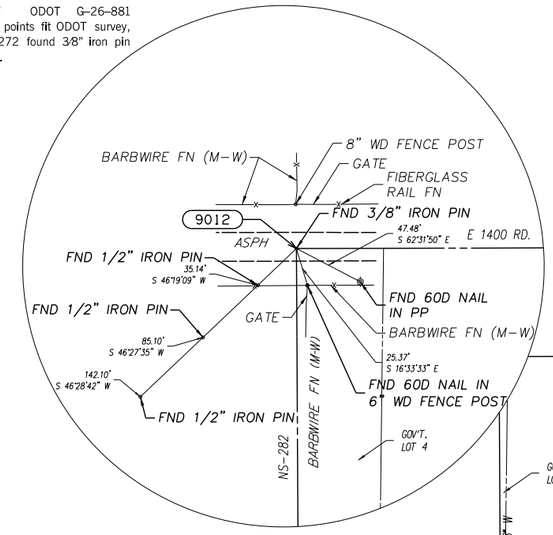
SURVEY DATA SHEET

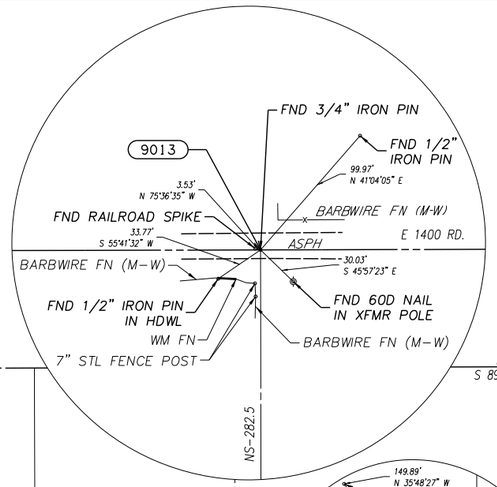
SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S058

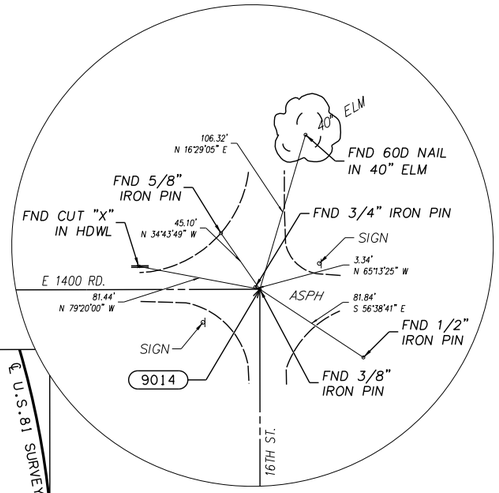
8-87

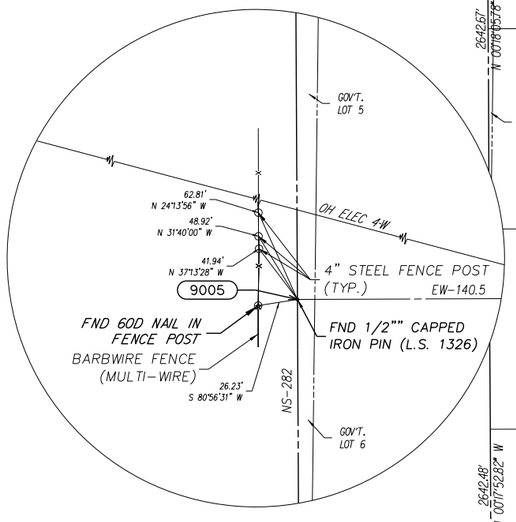

UNLESS OTHERWISE SPECIFIED, ALL RP'S ARE SET 1/2" IRON PINS.
OKLAHOMA DEPARTMENT OF TRANSPORTATION
FED. ROAD DIST. NO.
STATE
PROJ. NO.
FISCAL YEAR
SHEET NO.
TOTAL SHEETS
OKLA.
REVISIONS
DESCRIPTION
DATE
SECTION 30
T-7-N, R-7-W
HARDEN'S ACRES
450+00
455+00
460+00
465+00
470+00
100+00
105+00
110+00
PC 449+55.47
BROWN, CHARLES A. (1/5)
PO BOX 595 (HARDENS ACRES)
CHICKASHA, OK 73023
BK. 4343, PG. 536
GREEN, KIMBERLY J. (4/5)
PO BOX 1973
BLANCHARD, OK 73010
BK. 4343, PG. 536
LEDBETTER, DICK & DONNA
3103 FRISCO (HARDENS ACRES)
CHICKASHA, OK 73018
BK. 4270, PG. 102
SMITH, SHELDON R.
115 N. 29TH ST.
(HARDENS ACRES)
CHICKASHA, OK 73018
BK. 3766, PG. 1
BROWN, DANIEL & PHYLLIS
317 N. 29TH ST.
(HARDENS ACRES)
CHICKASHA, OK 73018
BK. 3252, PG. 435
LINVILLE, JAMES EARL & MILDRED
3101 FRISCO (HARDENS ACRES)
CHICKASHA, OK 73018
BK. 4246, PG. 384
DONNA KATHLEEN & DICK LEDBETTER
3103 FRISCO (HARDENS ACRES)
CHICKASHA, OK 73018
BK. 4270, PG. 102
SCHENK, DON
SCHENK, ELIZABETH
REVOCABLE TRUST
Quit Claim Deed
Rec'd. Bk. 2889, Pg. 507
Filed October 8, 1996
Govt. LOTS 6-7-10-11 & E/2, NW/4,
LESS 22.93 AC OF ROW
Reliance Pipeline Co.
25' Pipeline Easement
Rec'd. Bk. 1506, Pg. 15-29
Filed February 11, 1985
Reliance Gas Marketing Co.
50' Right-of-way Agreement
(Govt. LOTS 7 and 11, SEC. 29 Obscure Description)
Bk. 1884, Pg. 11 and 13
Filed 10/08/1987
POB Sta. 100+00.00
Set PK nail w/tag
on NS-282 ℄
2393.55' N. to sec. cor.
250.67' S. to 1/4 cor.
POE Sta. 113+99.84
Set PK nail w/tag
on NS-282 ℄
993.71' N. to sec. cor.
1650.51' S. to 1/4 cor.
POC Sta. 459+19.84 &
POT Sta. 107+03.67
Set PK nail w/tag
on NS-282 ℄
1689.88' N. to sec. cor.
954.34' S. to 1/4 cor.
POST Sta. 107+03.67
& Sta. 458+74.54
Set PK nail w/tag
on NS-282 ℄
1829.36' N. to sec. cor.
250.67' S. to 1/4 cor.
PI Sta. 466+28.63
Set 1/2" capped I.P.
PI 466+28.63
℄ SURVEY - 29th ST.
℄ SURVEY - U.S. 81
A019
A001
2641.57'
N 00°14'25.31" W
2644.22'
N 00°14'25.31" W
2648.96'
N 89°51'30.97" W
PRES. R/W
STATUTORY R/W
NS-282
EW-135.5
GOV'T. LOT 12
GOV'T. LOT 11
GOV'T. LOT 10
GOV'T. LOT 8
GOV'T. LOT 7
GOV'T. LOT 6
SECTION 29
T-7-N, R-7-W
SCALE
1" = 100'
SDS 59 OF 76
PLS JTB
DRAWN CBM
CHECKED JTB
APPROVED JTB
CREW BDG
OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION
SURVEY DATA SHEET
SWO 4925 (1) PROJECT NO. 24428(04) SHEET NO. S059
8-87

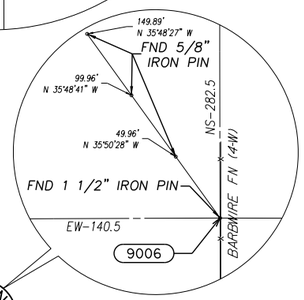
NW Corner of Section 20, T-6N, R-7W ODOT G-26-881
I found 3/8" iron pin. Monument and reference points fit ODOT survey, SWO 2737(1), and corner record in which L.S. 1272 found 3/8" iron pin in 1998 survey. Nothing set. I used 3/8" iron pin.

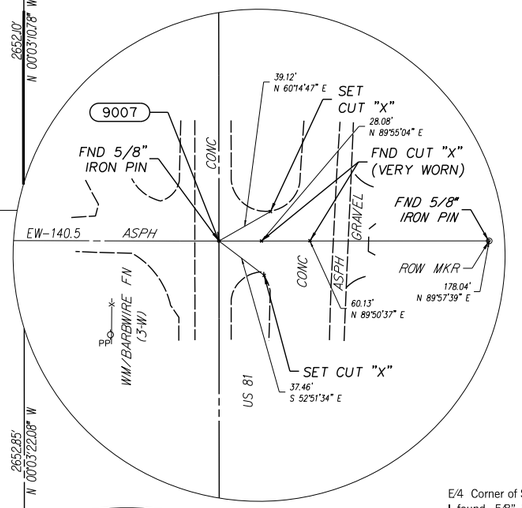


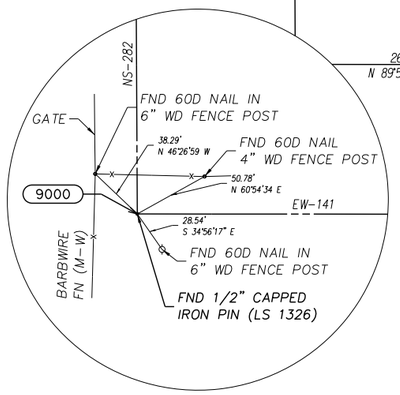


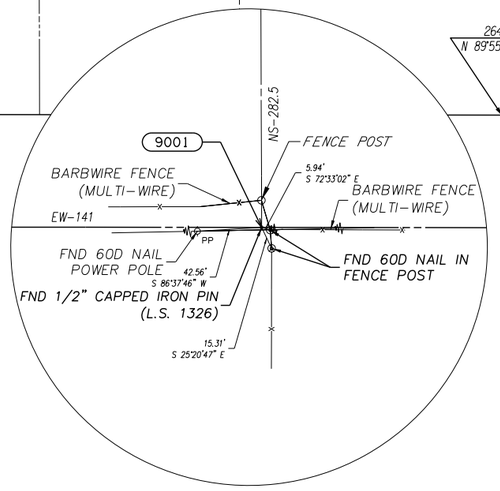


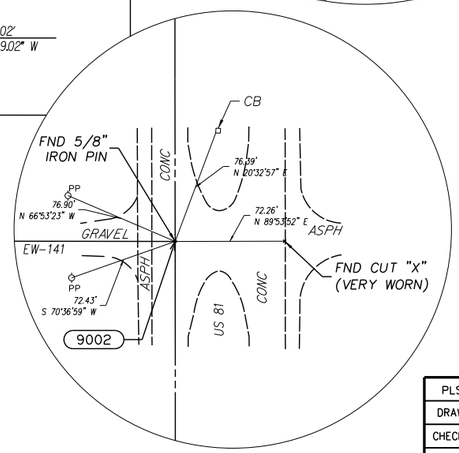












Angle Of Variance
At Sta. 9006 (C/4 Cor.)
X= 1980072.2880
Y= 598768.3500
Lat.= 34°58'43.06084"
Long.= 97°57'40.93182"
θ = 0°01'18.93742"

2657.12' S 89°51'05.93" W
2653.47' S 89°50'44.43" W
℄ U.S.-81 SURVEY
2642.67' N 00°18'05.78" W
2640.01' N 00°05'53.38" W
2652.01' N 00°03'10.18" W
2647.75' S 89°47'40.01" W
2651.39' N 89°53'35.30" W
2654.72' N 00°12'54.49" W
2642.48' N 00°17'52.82" W
2652.85' N 00°03'22.08" W
2643.95' N 89°56'24.84" W
2644.02' N 89°55'59.02" W

GOV'T. LOT 1
GOV'T. LOT 4
GOV'T. LOT 5
GOV'T. LOT 2
GOV'T. LOT 3
GOV'T. LOT 4

N/4 Corner of Section 20, T-6N, R-7W ODOT G-26-880
I found 3/4" iron pin and railroad spike. 3/4" iron pin and reference points fit ODOT survey, SWO 2737(1). Railroad spike and reference fit corner record in which L.S. 1326 found railroad spike in 2012 survey. The railroad spike had been set using the Southwest corner and one of two monuments at the Southeast corner of Section 17. Railroad spike was set by others for new fence line to the south in 2011. Nothing set. I used 3/4" iron pin.

NE Corner of Section 20, T-6N, R-7W ODOT G-26-879
I found 3/8" iron pin and 3/4" iron pin. The 3/4" iron pin does not fit ODOT survey, SWO 2737(1), but it does fit the following corner records:

L.S. 1272 found 3/4" iron pin in 1998 survey
L.S. 1384 found #6 rebar in 2008 survey.

The 3/8" iron pin and reference points fit said ODOT survey. Nothing set. I used 3/8" iron pin.

C/4 Corner of Section 20, T-6N, R-7W ODOT G-26-874
I found 1 1/2" iron pin. Monument and reference points fit ODOT survey, SWO 2737(1). Nothing set. I used 1 1/2" iron pin.

W/4 Corner of Section 20, T-6N, R-7W ODOT G-26-873
I found 1/2" capped iron pin. Monument fits corner record in which L.S. 1326 set 1/2" iron pin with cap in 2012 survey. Monument fits single proportionate method between the Northwest and Southwest corners of Section 20. Nothing set. I used 1/2" capped iron pin.

E/4 Corner of Section 20, T-6N, R-7W ODOT G-26-163
I found 5/8" iron pin. Monument and reference points fit ODOT survey, SWO 2737(1). Nothing set. I used 5/8" iron pin and set additional reference points.

SW Corner of Section 20, T-6N, R-7W ODOT G-26-872
I found 1/2" capped iron pin. Monument and reference points fit corner record in which L.S. 1326 set 1/2" capped iron pin in 2007 survey. Nothing set. I used 1/2" iron pin.

SE Corner of Section 20, T-6N, R-7W ODOT G-26-162
I found 5/8" iron pin. Monument and reference point fit ODOT survey, SWO 2737(1). Nothing set. I used 5/8" iron pin.

S/4 Corner of Section 20, T-6N, R-7W ODOT G-26-871
I found 1/2" capped iron pin. Monument and reference points fit corner record in which L.S. 1326 set 1/2" iron pin with cap in 2012 survey. Monument fits single proportionate method between the southwest and southeast corners of Section 20. Nothing set. I used 1/2" capped iron pin.

SCALE:
1" = 500'
LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

PLS	JTB	
DRAWN	JSO	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 60 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S060

8-87

N/4 Corner of Section 21, T–6N, R–7W ODOT G–26–880
I found 3/4" iron pin and railroad spike. 3/4" iron pin and reference points fit ODOT survey, SWO 2737(1). Railroad spike and reference fit corner record in which L.S. 1326 found railroad spike in monuments at the Southeast corner of Section 17. Railroad spike was set by others for new fence line to the South in 2011. Nothing set. I used 3/4" iron pin.

GN TN θ

Angle Of Variance
At Sta. 9008 (C/4 Cor.)
X= 1985368.2480
Y= 598767.0960
Lat.= 34°58'43.02381"
Long.= 97°56'37.28846"
θ = 0°01'55.06245"

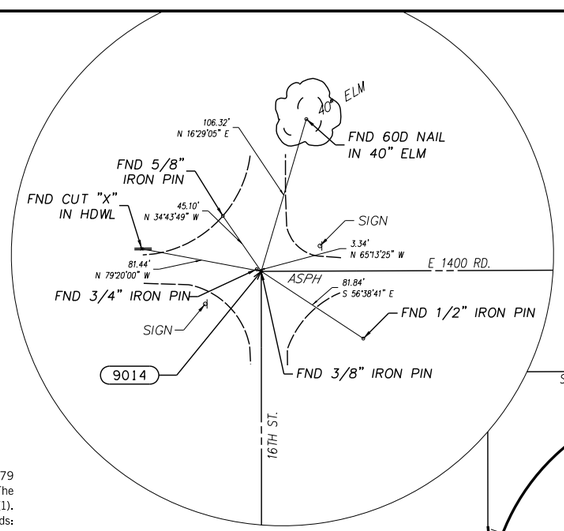
NW Corner of Section 21, T–6N, R–7W ODOT G–26–879
I found 3/8" iron pin and 3/4" iron pin. The 3/4" iron pin does not fit ODOT survey, SWO 2737(1). It does fit the following corner records:

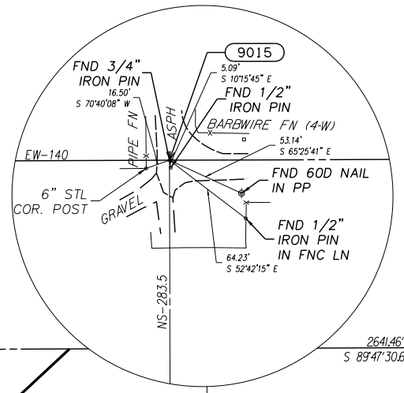
L.S. 1272 found 3/4" iron pin in 1998 survey
L.S. 1384 found #6 rebar in 2008 survey.

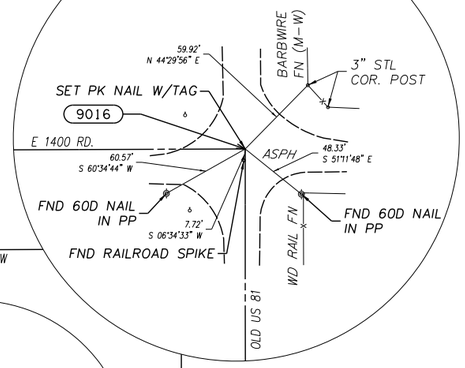
The 3/8" iron pin and reference points fit said ODOT survey. No evidence set. I used 3/8" iron pin.

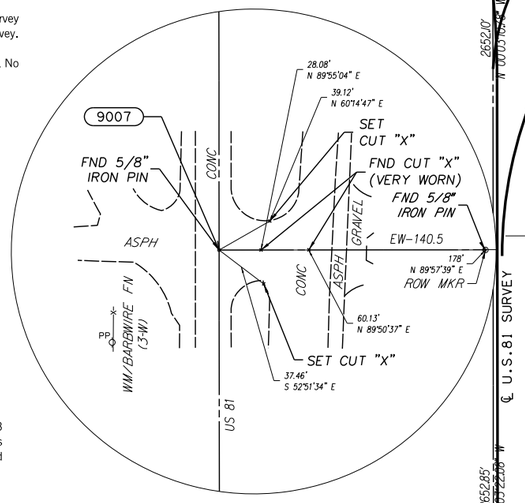
W/4 Corner of Section 21, T–6N, R–7W ODOT G–26–163
I found 5/8" iron pin. Monument and reference points fit ODOT survey, SWO 2737(1). Nothing set. I used 5/8" iron pin and set additional reference points.

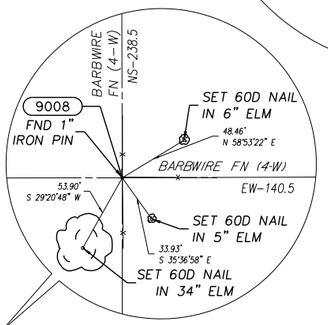
SW Corner of Section 21, T–6N, R–7W ODOT G–26–162
I found 5/8" iron pin. Monument and reference point fits ODOT survey, SWO 2737(1). Nothing set. I used 5/8" iron pin.

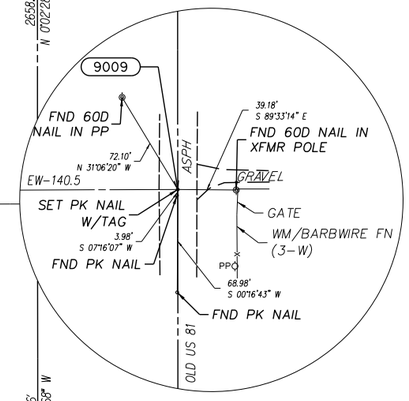


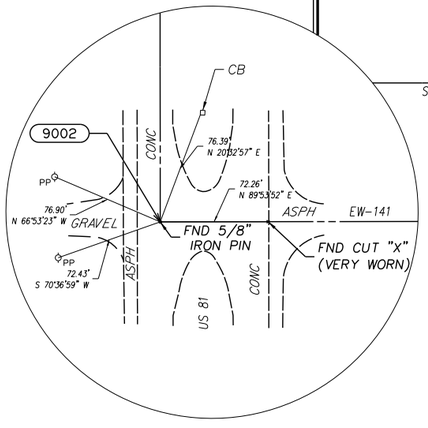


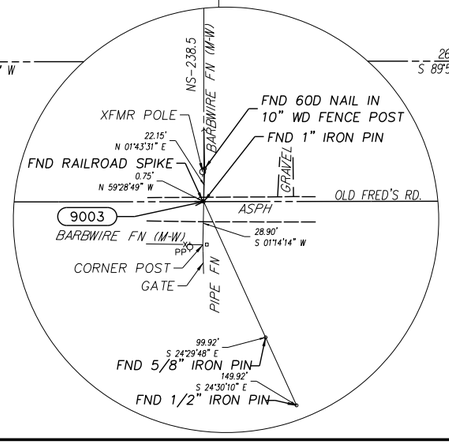


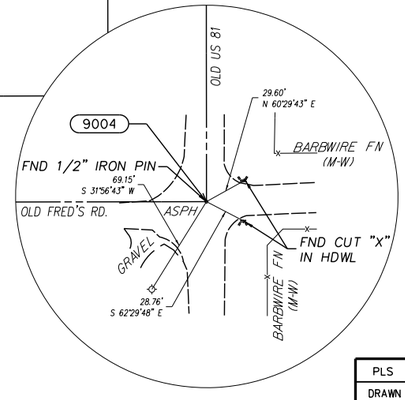












2639.79' S 89°41'30.67" W
2641.46' S 89°41'30.67" W
2652.01' N 00°03'16.64" W
2658.01' N 00°09'22.84" W
2658.06' N 00°28'58" W
2644.57' S 89°55'12.12" W
2636.12' S 89°47'34.00" W
2652.85' N 00°03'22.06" W
2652.30' N 00°01'35.48" E
2658.06' N 00°28'58" W
2640.75' S 89°55'15.68" W
2639.25' S 89°54'18.32" W
T–6–N R–7–W 21
℄ U.S.81 SURVEY

NE Corner of Section 21, T–6N, R–7W ODOT G–26–877
I found R.R. Spike. Monument and references do not fit ODOT survey, SWO 2028(1). Monument and references fit the following C.C.R.'s:

L.S. 1071 found PK nail in 1989 survey
L.S. 1272 found R.R. Spike in 1997 survey
L.S. 696 found R.R. Spike in 1999 survey.

I set PK nail with tag using measurements from said ODOT survey. I did not accept R.R. Spike since it did not fit G.L.O. Notes or ODOT survey.

C/4 Corner of Section 21, T–6N, R–7W ODOT G–26–875
I found 1" iron pin. Monument fits measurements from ODOT survey, SWO 2737(1). Monument position fits existing fence lines. Nothing set. I used 1" iron pin and set reference points

E/4 Corner of Section 21, T–6N, R–7W ODOT G–26–876
I found PK nail. Monument and reference points fit corner record in which L.S. 1326 set PK nail in 2001 survey. Monument had been set using single proportionate method using a questionable railroad spike at the Northeast corner of Section 21. Monument does not fit measurements from ODOT survey, SWO 2028(1), or existing fence lines. I set PK nail with tag. I set monument using single proportionate method using the northeast and southeast corners of Section 21. Monument location fits said ODOT survey and existing fence lines.

SE Corner of Section 21, T–6N, R–7W ODOT G–26–869
I found 1/2" iron pin. Monument and references fit corner record in which L.S. 1272 found 1/2" iron pin in 1997 survey. Nothing set. I used 1/2" iron pin.

S/4 Corner of Section 21, T–6N, R–7W ODOT G–26–870
I found 1" iron pin and railroad spike. The railroad spike fits corner record in which L.S. 1326 set railroad spike in 2001 survey. The 1" iron pin and reference points fit ODOT survey, SWO 2737(1). Nothing set. I used 1" iron pin.

N

SCALE:
1" = 500'
LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB	
DRAWN	JSO	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 61 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S061

8–87

NW Corner of Section 18, T–6N, R–7W ODOT G–26–897
I found 3/4" iron pin. Corner location and found reference points match the following corner records. L.S. 449 found iron pin in 1982 survey. L.S. 1272 found 3/8" iron pin in 1998 survey. L.S. 1272 found iron pin in 2001 survey. Nothing set. I used 3/4" iron pin.

N/4 Corner of Section 18, T–6N, R–7W ODOT G–26–896
I found original stone. No certified corner records found, although monument is referenced on C.C.R.'s filed on the SW and N/4 corner of Section 7. No original reference points were found. The stone was marked "1/4" on the north face and looked undisturbed. Nothing set. I used original stone and set reference points.

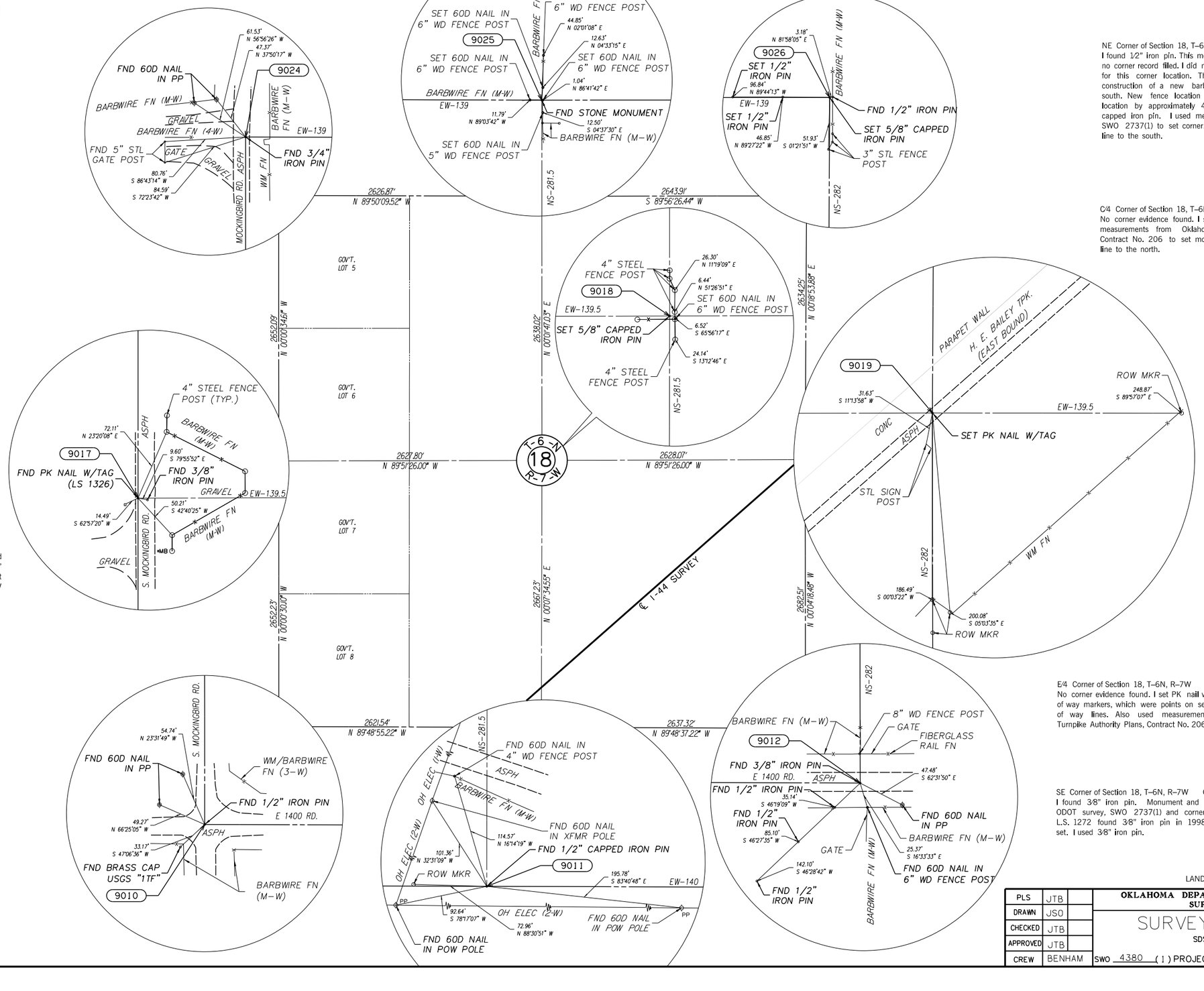
GN TN θ

Angle Of Variance
At Sta. 9018 (C/4 Cor.)
X= 1974779.2248
Y= 604077.4383
Lat.= 34°59'35.58920"
Long.= 97°58'44.52714"
θ = 0°00'42.83966"

W/4 Corner of Section 18, T–6N, R–7W ODOT G–26–884
I found PK nail with tag set by L.S. 1326. Monument and reference points fit corner record in which L.S. 615 found a 1/2" iron pin and set another 1/2" iron pin in 2001 survey. Monument fits single proportionate method measurements to NW and SW corners of Section 18. Nothing set. I used PK nail with tag.

SW Corner of Section 18, T–6N, R–7W ODOT G–26–883
I found 1/2" iron pin. Monument and reference points fit the following corner records. L.S. 449 found iron pin in 1981 survey. L.S. 1082 found iron pin in 1994 survey. L.S. 1272 found 3/8" iron pin in 1998 survey. Monument also fits measurements from Oklahoma Turnpike Authority Plans, Contract 206. No Corner evidence found. I used 1/2" iron pin.

S/4 Corner of Section 18, T–6N, R–7W ODOT G–26–882
I found 1/2" capped iron pin. Monument and references fit corner record in which L.S. 1326 set 1/2" iron pin with cap in 2012 survey. Monument also fits single proportionate method from G.L.O. Notes. Nothing set. I used 1/2" capped iron pin.



NE Corner of Section 18, T–6N, R–7W ODOT G–26–895
I found 1/2" iron pin. This monument was set by others with no corner record filed. I did not find any supporting evidence for this corner location. This corner was used in the construction of a new barb–wire fence running north & south. New fence location deviates from the old fence location by approximately 4 feet to the east. I set 5/8" capped iron pin. I used measurements from ODOT survey, SWO 2737(1) to set corner. Corner location fits old fence line to the south.

C/4 Corner of Section 18, T–6N, R–7W ODOT G–26–885
No corner evidence found. I set 5/8" capped iron pin. I used measurements from Oklahoma Turnpike Authority Plans, Contract No. 206 to set monument. Position fits old fence line to the north.

E/4 Corner of Section 18, T–6N, R–7W ODOT G–26–886
No corner evidence found. I set PK nail with tag. I used right of way markers, which were points on section lines and right of way lines. Also used measurements from Oklahoma Turnpike Authority Plans, Contract No. 206 to set monument.

SE Corner of Section 18, T–6N, R–7W ODOT G–26–881
I found 3/8" iron pin. Monument and reference points fit ODOT survey, SWO 2737(1) and corner record in which L.S. 1272 found 3/8" iron pin in 1998 survey. Nothing set. I used 3/8" iron pin.

SCALE:
1" = 500'
LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB	
DRAWN	JSO	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 62 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S062

8–87

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

N/4 Corner of Section 17, T–6N, R–7W ODOT G–26–892
I found 1/2" iron pin. Monument and references fit the following C.C.R.'s.:

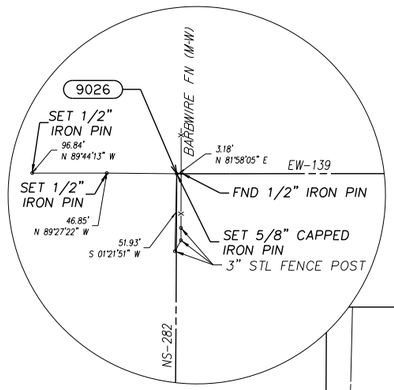
L.S. 1326 found 1/2" iron pin in 2005 survey
L.S. 189 found #3 rebar in 2009 survey.

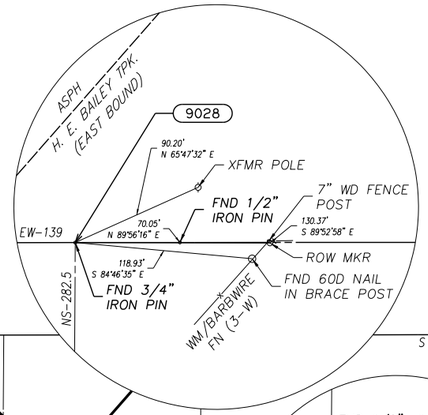
Nothing set. I used 1/2" iron pin.

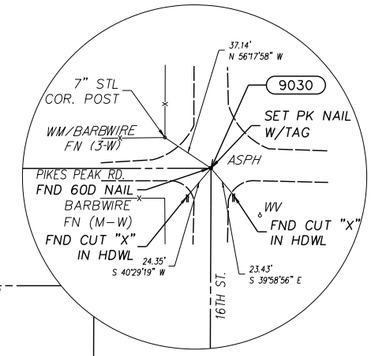
NW Corner of Section 17, T–6N, R–7W ODOT G–26–895
I found 1/2" iron pin. This monument was set by others with no corner record filed. I did not find any supporting evidence for this corner location. This corner was used in the construction of a new barbed–wire fence running north and south. New fence location deviates from the old fence location by approximately 4 feet to the east. I set 5/8" capped iron pin. I used measurements from ODOT survey, SWO 2737(1), to set corner. Corner location fits old fence line to the south

W/4 Corner of Section 17, T–6N, R–7W ODOT G–26–886
No corner evidence found. I set PK nail with tag. I used right of way markers, which were points on section lines and right of way lines. Also used measurements from Oklahoma Turnpike Authority Plans, Contract No. 206 to set monument.

Angle Of Variance
At Sta. 9020 (C/4 Cor.)
X= 1980082.3680
Y= 604063.9240
Lat.= 34°59'35.44004"
Long.= 97°57'40.78631"
θ = 0°01'19.02001"

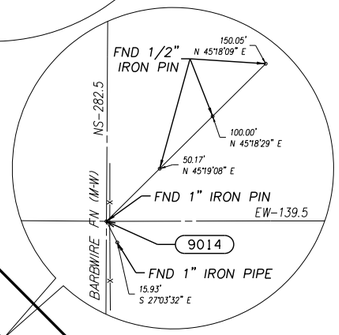






2676.86'
S 89°57'48.57" W

2643.68'
S 89°57'48.57" W



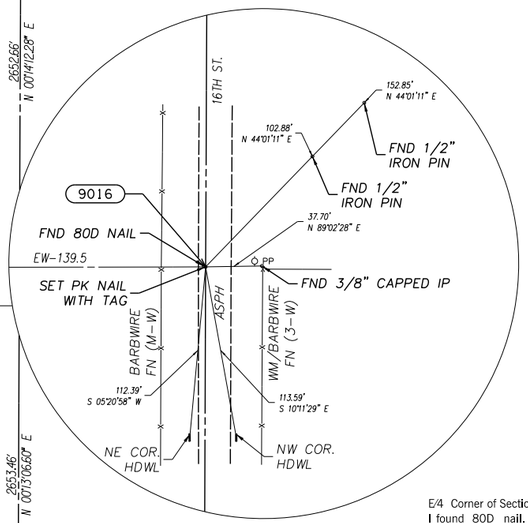
2634.25'
N 00°18'53.88" E

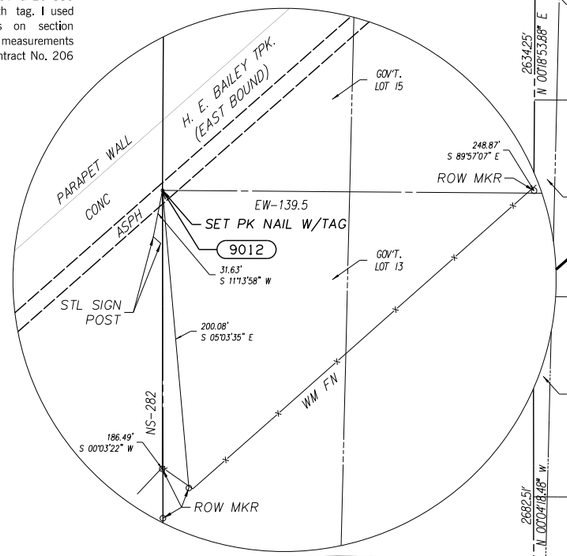
GOV'T. LOT 11
GOV'T. LOT 7

℄ I-44 SURVEY

2656.02'
N 00°20'02.5" E

2652.66'
N 00°14'12.28" E





GOV'T. LOT 12
GOV'T. LOT 8

2675.16'
S 89°34'13.03" W

2648.98'
S 89°53'28.73" W

T-6-N
17
R-7-W

℄ U.S.81 SURVEY

GOV'T. LOT 13
GOV'T. LOT 9

2682.51'
N 00°04'18.48" W

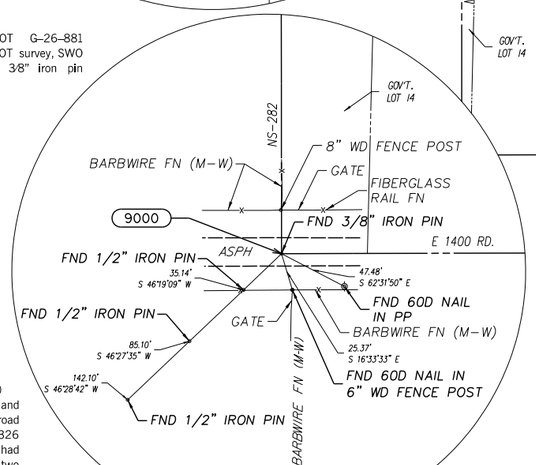
2655.60'
N 00°18'54.24" E

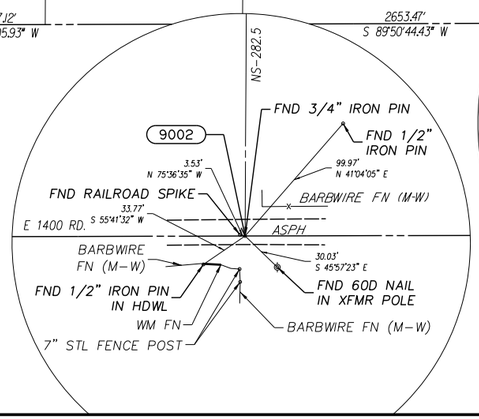
2653.46'
N 00°13'06.80" E

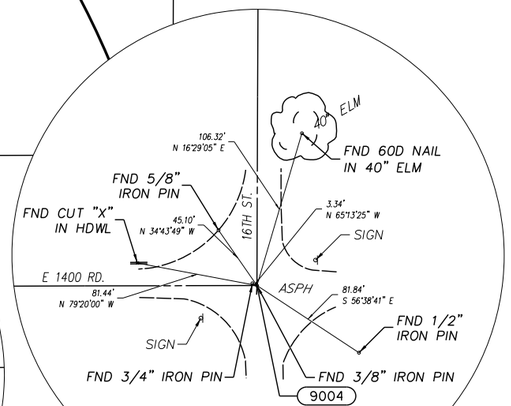
GOV'T. LOT 14
GOV'T. LOT 10

2657.12'
S 89°51'05.93" W

2653.47'
S 89°50'44.43" W







NE Corner of Section 17, T–6N, R–7W ODOT G–26–893
I found 60D nail. Removed 60D nail to look for iron pin. Nothing found below nail. Monument and references fit ODOT survey and the following C.C.R.'s:

L.S. 1272 found 3/8" iron pin in 1998 survey
L.S. 1384 found #3 rebar in 2008 survey.

I set PK nail with tag back in place of 60D nail. I used references from ODOT survey, SWO 2028(1), to check monument location.

C/4 Corner of Section 17, T–6N, R–7W ODOT G–26–887
I found 1" iron pin. Found monument and reference points from ODOT survey, SWO 2737(1). Nothing set. I used 1" iron pin

E/4 Corner of Section 17, T–6N, R–7W ODOT G–26–888
I found 80D nail. Monument does not fit ODOT survey, SWO 2737(1). Monument and reference points fit the corner record in which L.S. 1384 set 80D nail in 2008 survey. The 80D nail had been set using single proportionate method using the Northeast corner and one of two monuments at the southeast corner of Section 17. I set PK nail with tag. I used existing reference points from said ODOT survey to set monument, which also fits single proportionate method between the northeast and southeast corners of Section 17. Monument is 1.26 feet east and 0.48 feet south of found 80D nail.

SW Corner of Section 17, T–6N, R–7W ODOT G–26–881
I found 3/8" iron pin. Monument and reference points fit ODOT survey, SWO 2737(1) and corner record in which L.S. 1272 found 3/8" iron pin in 1998 survey. Nothing set. I used 3/8" iron pin.

S/4 Corner of Section 17, T–6N, R–7W ODOT G–26–880
I found 3/4" iron pin and railroad spike. 3/4" iron pin and reference points fit ODOT survey, SWO 2737(1). Railroad spike and reference fit corner record in which L.S. 1326 found railroad spike in 2012 survey. The railroad spike had been set using the southwest corner and one of two monuments at the southeast corner of Section 17. Railroad spike was set by others for new fence line to the south in 2011. Nothing set. I used 3/4" iron pin.

SE Corner of Section 17, T–6N, R–7W ODOT G–26–879
I found 3/8" iron pin and 3/4" iron pin. The 3/4" iron pin does not fit ODOT survey, SWO 2737(1), but it does fit the following corner records:

L.S. 1272 found 3/4" iron pin in 1998 survey
L.S. 1384 found #6 rebar in 2008 survey.

The 3/8" iron pin and reference points fit said ODOT survey. Nothing set. I used 3/8" iron pin.

SCALE:
1" = 500'

LAND CORNER DETAILS ARE SHOWN AT 1"=50'

PLS	JTB	
DRAWN	JSO	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 63 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S063

8–87

N/4 Corner of Section 16, T–6N, R–7W ODOT G–26–892
I found 1/2" iron pin. Monument and references fit the following C.C.R.'s:

L.S. 1326 found 1/2" iron pin in 2005 survey
L.S. 189 found #3 rebar in 2009 survey.

Nothing set. I used 1/2" iron pin.

NW Corner of Section 16, T–6N, R–7W ODOT G–26–893
I found 60D nail. Removed 60D nail to look for iron pin. Nothing found below nail. Monument and references fit ODOT survey and the following C.C.R.'s:

L.S. 1272 found 3/8" iron pin in 1998 survey
L.S. 1384 found #3 rebar in 2008 survey.

I set PK nail with tag back in place of 60D nail. I used references from ODOT survey, SWO 2028(1), to check monument location.

Angle Of Variance
At Sta. 9022 (C/4 Cor.)
X= 1985365.6870
Y= 604077.6000
Lat.= 34°59'35.55072"
Long.= 97°56'37.28364"
θ = 0°01'55.06519"

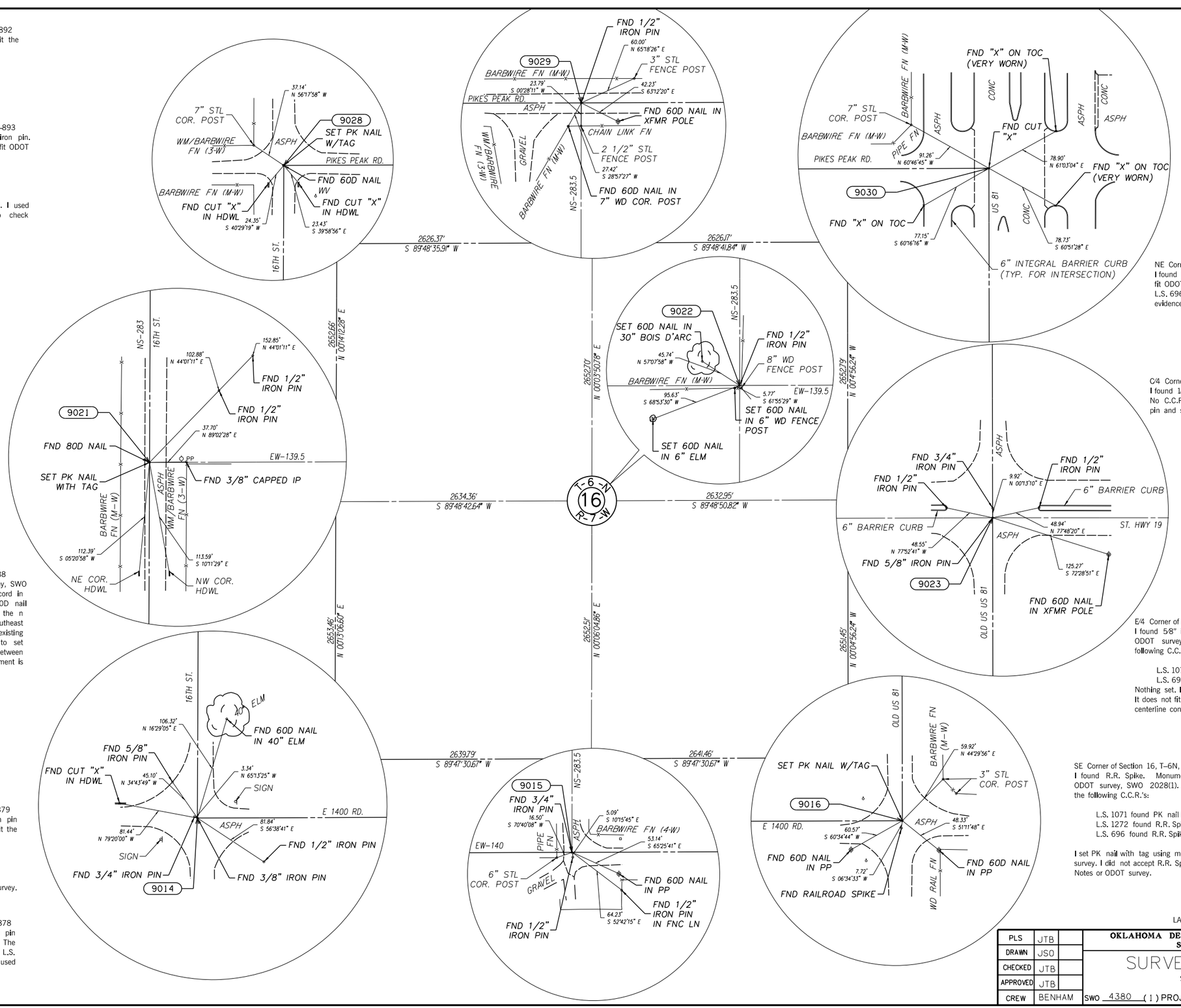
W/4 Corner of Section 16, T–6N, R–7W ODOT G–26–888
I found 80D nail. Monument does not fit ODOT survey, SWO 2737(1). Monument and reference points fit the corner record in which L.S. 1384 set 80D nail in 2008 survey. The 80D nail had been set using single proportionate method using the northeast corner and one of two monuments at the southeast corner of Section 17. I set PK nail with tag. I used existing reference points from ODOT survey, SWO 2737(1), to set monument, which also fits single proportionate method between the northeast and southeast corners of Section 17. Monument is 1.26 feet east and 0.48 feet south of found 80D nail.

SW Corner of Section 16, T–6N, R–7W ODOT G–26–879
I found 3/8" iron pin and 3/4" iron pin. The 3/4" iron pin does not fit ODOT survey, SWO 2737(1), but it does fit the following corner records:

L.S. 1272 found 3/4" iron pin in 1998 survey
L.S. 1384 found #6 rebar in 2008 survey.

The 3/8" iron pin and reference points fit said ODOT survey. Nothing set. I used 3/8" iron pin.

S/4 Corner of Section 16, T–6N, R–7W ODOT G–26–878
I found 3/4" iron pin and 1/2" iron pin. The 3/4" iron pin and reference point fit ODOT survey, SWO 2737(1). The 1/2" iron pin and reference points fit C.C.R. in which L.S. found 3/8" iron pin in 1997 survey. Nothing set. I used 3/4" iron pin.



NE Corner of Section 16, T–6N, R–7W ODOT G–26–891
I found cut "X" in concrete. Monument and references fit ODOT survey, SWO 2028(1), and the C.C.R. in which L.S. 696 found cut "X" in 1999 survey. No corner evidence set. I used cut "X".

C/4 Corner of Section 16, T–6N, R–7W ODOT G–26–889
I found 1/2" iron pin. Monument fits ODOT survey 2737 (1). No C.C.R.'s found for corner. Nothing set. I used 1/2" iron pin and set references.

E/4 Corner of Section 16, T–6N, R–7W ODOT G–26–890
I found 5/8" iron pin and 3/4" iron pin. The 5/8" iron pin fits ODOT survey, SWO 2028(1). The 3/4" iron pin fits the following C.C.R.'s:

L.S. 1071 found 5/8" iron pin in 1989 survey
L.S. 696 found R.R. spike in 1999 survey.

Nothing set. I used 5/8" iron pin. I did not accept 3/4" iron pin. It does not fit with G.L.O. notes or ODOT survey. It is possibly a centerline control point for S.H. 19.

SE Corner of Section 16, T–6N, R–7W ODOT G–26–877
I found R.R. Spike. Monument and references do not fit ODOT survey, SWO 2028(2). Monument and references fit the following C.C.R.'s:

L.S. 1071 found PK nail in 1989 survey
L.S. 1272 found R.R. Spike in 1997 survey
L.S. 696 found R.R. Spike in 1999 survey.

I set PK nail with tag using measurements from said ODOT survey. I did not accept R.R. Spike, since it did not fit G.L.O. Notes or ODOT survey.

SCALE:
1" = 500'

LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

PLS	JTB	OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	JSO	SURVEY DATA SHEET
CHECKED	JTB	SDS 64 OF 76
APPROVED	JTB	SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S064
CREW	BENHAM	

8–87

NW Corner of Section 7, T–6N, R–7W ODOT G–26–907
I found 1/2" iron pin, railroad spike, and 1" iron pin. 1/2" iron pin and found reference points fit corner record in which L.S. 1272 found 1/2" iron pin in 2001 survey with no supporting evidence listed. No corner record was found for railroad spike. 1" iron pin fits measurements from ODOT survey, SWO 2737(1). Nothing set. I used 1" iron pin.

N/4 Corner of Section 7, T–6N, R–7W ODOT G–26–908
I found 1/2" iron pin. Corner location and found reference points fit ODOT survey, SWO 2737(1), and corner record in which L.S. 1272 found 1/2" iron pin in 2001 survey. Nothing set. I used 1" iron pin.

GN TN
θ

Angle Of Variance
At Sta. 9032 (C/4 Cor.)
X= 1974774.8469
Y= 609365.4703
Lat.= 35°00'27.89363"
Long.= 97°58'44.56656"
θ = 0°00'42.81728"

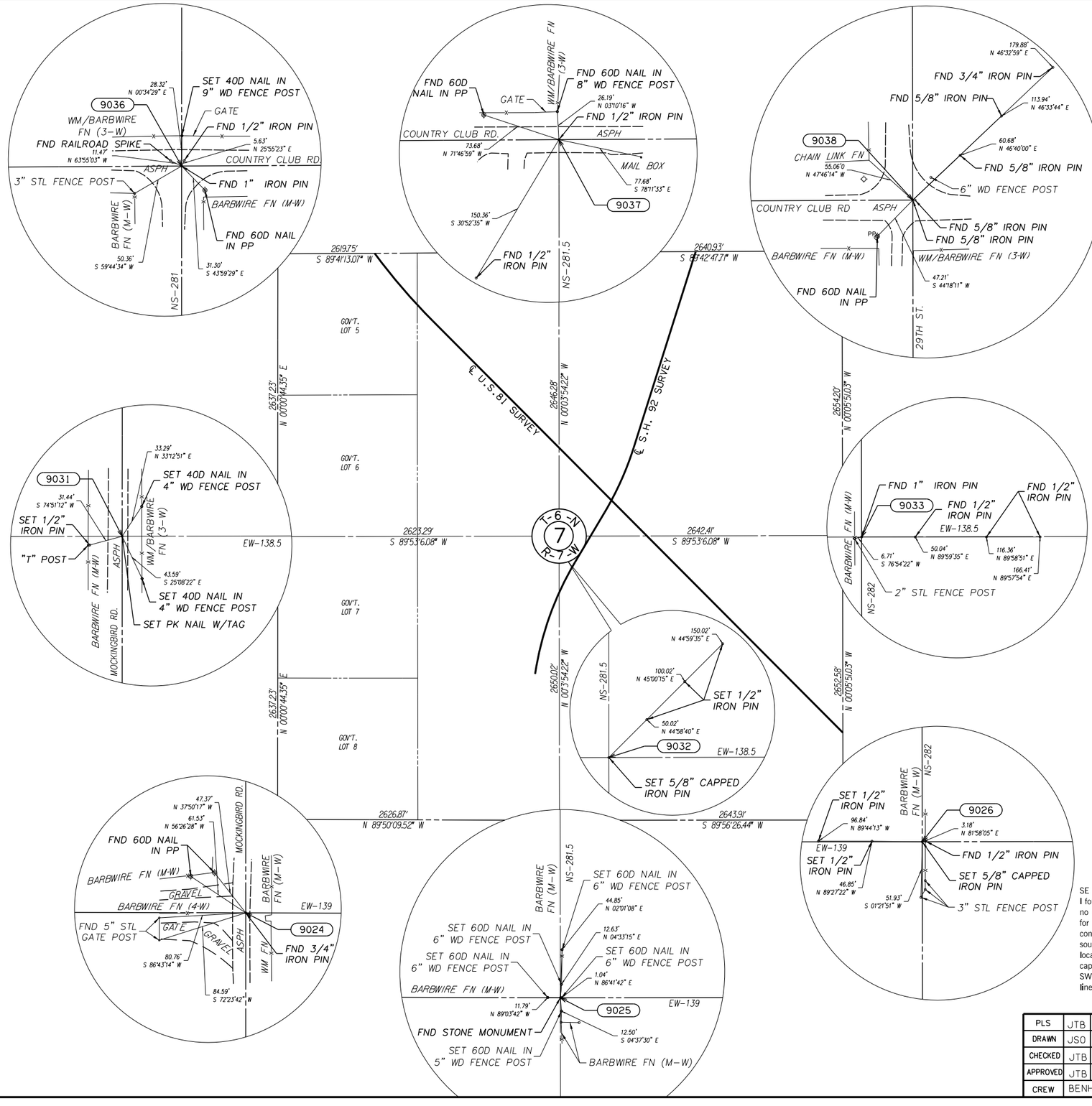
W/4 Corner of Section 7, T–6N, R–7W ODOT G–26–898
No corner evidence found. I set PK nail with tag. I used single proportion method to set the corner between the northwest and southwest corner of Section 7.

SW Corner of Section 7, T–6N, R–7W ODOT G–26–897
I found 3/4" iron pin. Corner location and found reference points match the following corner records:

L.S. 449 found iron pin (CCR filed June 8, 1982)
L.S. 1082 found 3/4" iron pin (CCR filed APR 18, 1994)
L.S. 1272 found 3/8" iron pin (CCR filed Dec 7, 1998)
L.S. 1272 found iron pin (CCR filed Aug 31, 2001).

Nothing set. I used 3/4" iron pin.

S/4 Corner of Section 7, T–6N, R–7W ODOT G–26–896
I found original stone. No certified corner records found, although monument is referenced on C.C.R.'s filed on the southwest and N/4 corner of Section 7. No original reference points were found. Stone was marked, "1/4" on n orth face, and looked undisturbed. Nothing set. I used original stone and set reference points.



NE Corner of Section 7, T–6N, R–7W ODOT G–26–905
I found 5/8" iron pin. Corner location and found reference points fit ODOT survey, SWO 2737(1). Also found 5/8" iron pin 2 feet east of corner, which is a P.O.T. point for Country Club Road Alignment from same survey. Corner location and found reference points do not fit the following corner records, in which supporting evidence was not listed:

L.S. 449 found 1/2" iron pin in 1981 survey
L.S. 1272 found R.R. spike in 1998 survey.

C/4 Corner of Section 7, T–6N, R–7W ODOT G–26–899
No corner evidence found. No corner records found. I set 5/8" iron pin. I used the intersection of lines between opposite quarter section corners to set center of section.

E/4 Corner of Section 7, T–6N, R–7W ODOT G–26–900
I found 1" iron pin. Monument and found reference points match ODOT survey, SWO 2737(1). Nothing set. I used 1" iron pin

SE Corner of Section 7, T–6N, R–7W ODOT G–26–895
I found 1/2" iron pin. This monument was set by others with no corner record filed. I did not find any supporting evidence for this corner location. This corner was used in the construction of a new barbed–wire fence running north and south. New fence location deviates from the old fence location by approximately 4 feet to the east. I set 5/8" capped iron pin. I used measurements from ODOT survey, SWO 2737(1), to set corner. Corner location fits old fence line to the south

SCALE:
1" = 500'

LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				
REVISIONS					
DESCRIPTION				DATE	

PLS	JTB		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	JSO		SURVEY DATA SHEET
CHECKED	JTB		SDS 65 OF 76
APPROVED	JTB		SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S065
CREW	BENHAM		

8–87

NW Corner of Section 8, T–6N, R–7W ODOT G–26–905
I found 5/8" iron pin. Corner location and found reference points fit ODOT survey, SWO 2737(1). Also found 5/8" iron pin 2 feet east of corner which is a P.O.T. point for Country Club Road Alignment from same survey. Corner location and found reference points do not fit the following corner records, in which supporting evidence was not listed:

L.S. 449 found 1/2" iron pin (CCR filed Apr 23, 1981)
L.S. 1272 found railroad spike (CCR filed June 26, 1998).

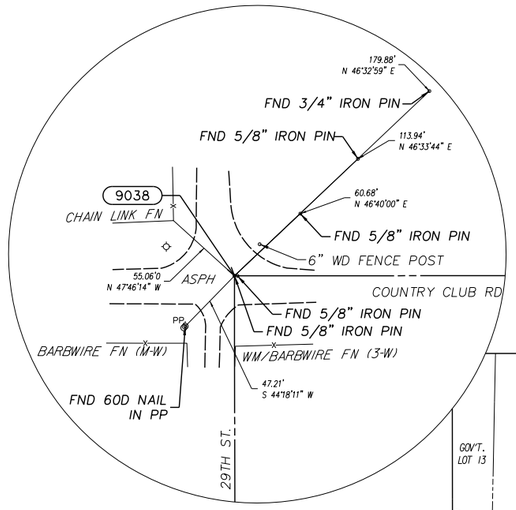
N/4 Corner of Section 8, T–6N, R–7W ODOT G–26–904
I found 5/8" iron pin. Corner and found reference points fit ODOT survey, SWO 2737(1). No previous corner records found. Nothing set. I used 5/8" iron pin.

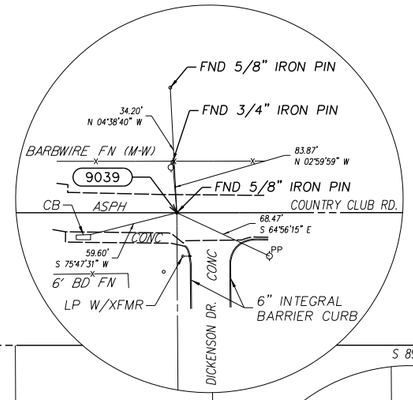
Angle Of Variance
At Sta. 9034 (C/4 Cor.)
X= 1980081.9910
Y= 609373.0260
Lat.= 35°00'27.95285"
Long.= 97°57'40.76639"
θ = 0°01'19.03132"

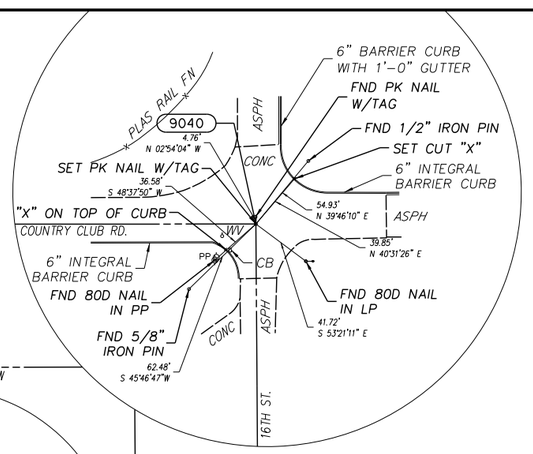
W/4 Corner of Section 8, T–6N, R–7W ODOT G–26–900
I found 1" iron pin. Monument and found reference points match ODOT survey, SWO 2737(1). Nothing set. I used 1" iron pin.

S/4 Corner of Section 8, T–6N, R–7W ODOT G–26–894
I found 3/4" iron pin. Corner location and reference points fits ODOT survey, SWO 2737(1), and corner record in which L.S. 1706 found 3/4" iron pin in 2011 survey. Nothing set. I used 3/4" iron pin.

SW Corner of Section 8, T–6N, R–7W ODOT G–26–895
I found 1/2" iron pin. This monument was set by others with no corner record filed. I did not find any supporting evidence for this corner location. This corner was used in the construction of a new barbed–wire fence running north and south. New fence location deviates from the old fence location by approximately 4 feet to the east. I set 5/8" capped iron pin. I used measurements from ODOT survey, SWO 2737(1) to set corner. Corner location fits old fence line to the south





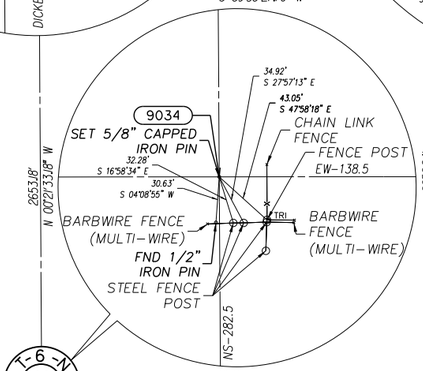


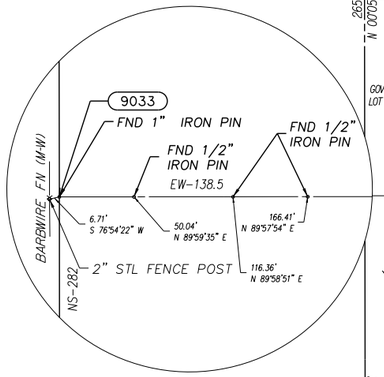
NE Corner of Section 8, T–6N, R–7W ODOT G–26–903
I found PK nail with tag (C.A. 3949). Monument was set during the course of this survey. No corner record had been filed at the time. Monument fit corner records listed below:

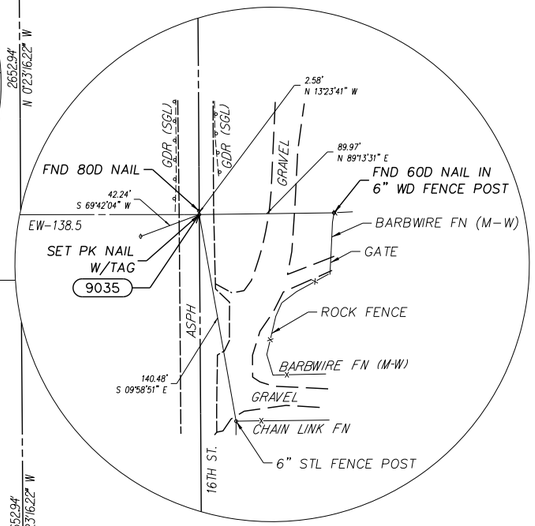
L.S. 449 found iron pin (CCR filed Aug 15, 1984)
L.S. 1272 found PK nail in 1998 survey
L.S. 1407 found PK nail in 2002 survey.

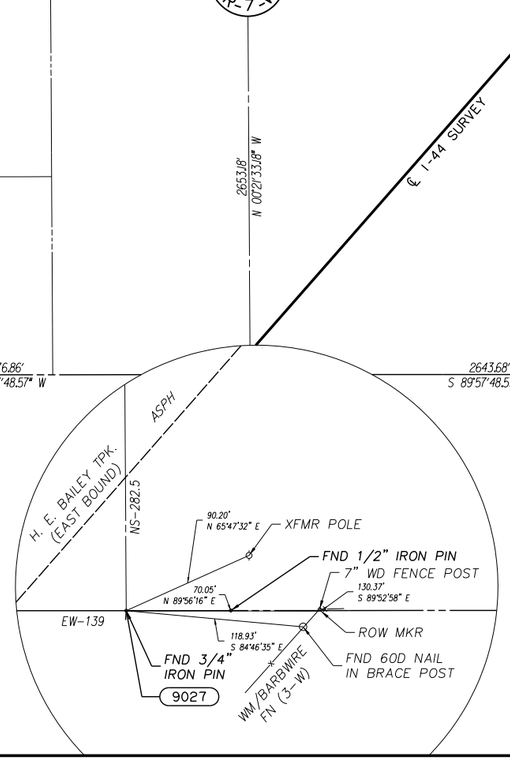
Corner records did not have any supporting evidence listed. Monument and corner records did not fit ODOT survey, SWO 2737(1). I set PK nail with tag. I used reference points and measurements from said ODOT survey to set corner.

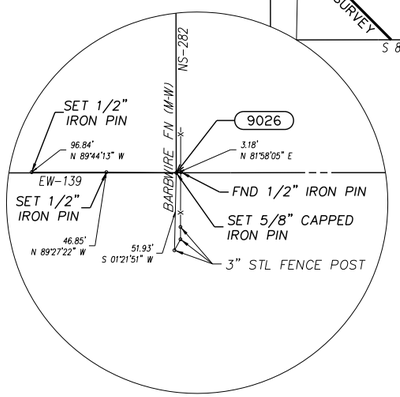
C/4 Corner of Section 8, T–6N, R–7W ODOT G–26–901
No corner evidence found. I set 5/8" capped iron pin and references as shown. I used measurements from ODOT survey, SWO 2737(1), to set center of section.

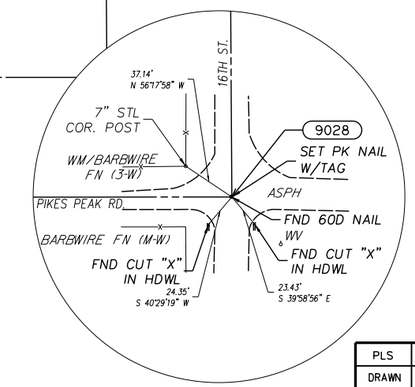












E/4 Corner of Section 8, T–6N, R–7W ODOT G–26–902
I found 80D nail. Corner and found references matched corner record in which L.S. 1326 found 80D nail in 2005 survey. Corner location does not fit measurements from ODOT survey, SWO 2737(1). I set PK nail. I used measurements from said ODOT survey and used single proportion method to set corner between the southeast and northeast corner of Section 8.

SE Corner of Section 8, T–6N, R–7W ODOT G–26–893
I found 60D nail. Removed 60D nail to look for iron pin. Nothing was found below nail. Monument and references fit ODOT survey and the following CCR.'s:

L.S. 1272 found 3/8" iron pin in 1998 survey
L.S. 1384 found #3 rebar in 2008 survey.

I set PK nail with tag back in place of 60D nail. I used references from ODOT survey, SWO 2028(1), to check monument location.

SCALE:
1" = 500'
LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB	
DRAWN	JSO	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

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SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S066

8–87

N/4 Corner of Section 6, T–6N, R–7W ODOT G–26–912
I found 3/4" iron pin. Monument and reference points fit ODOT survey, SWO 2737(1), and corner record in which L.S. 1200 found 5/8" iron pin in 2012 survey. Nothing set. I used 3/4" iron pin.

NW Corner of Section 6, T–6N, R–7W ODOT G–26–913
I found 5/8" iron pin. Corner location and found reference points fit ODOT survey, SWO 2737(1), and corner record in which L.S. 1378 found 5/8" iron pin in 1995 survey. Nothing set. I used 5/8" iron pin.

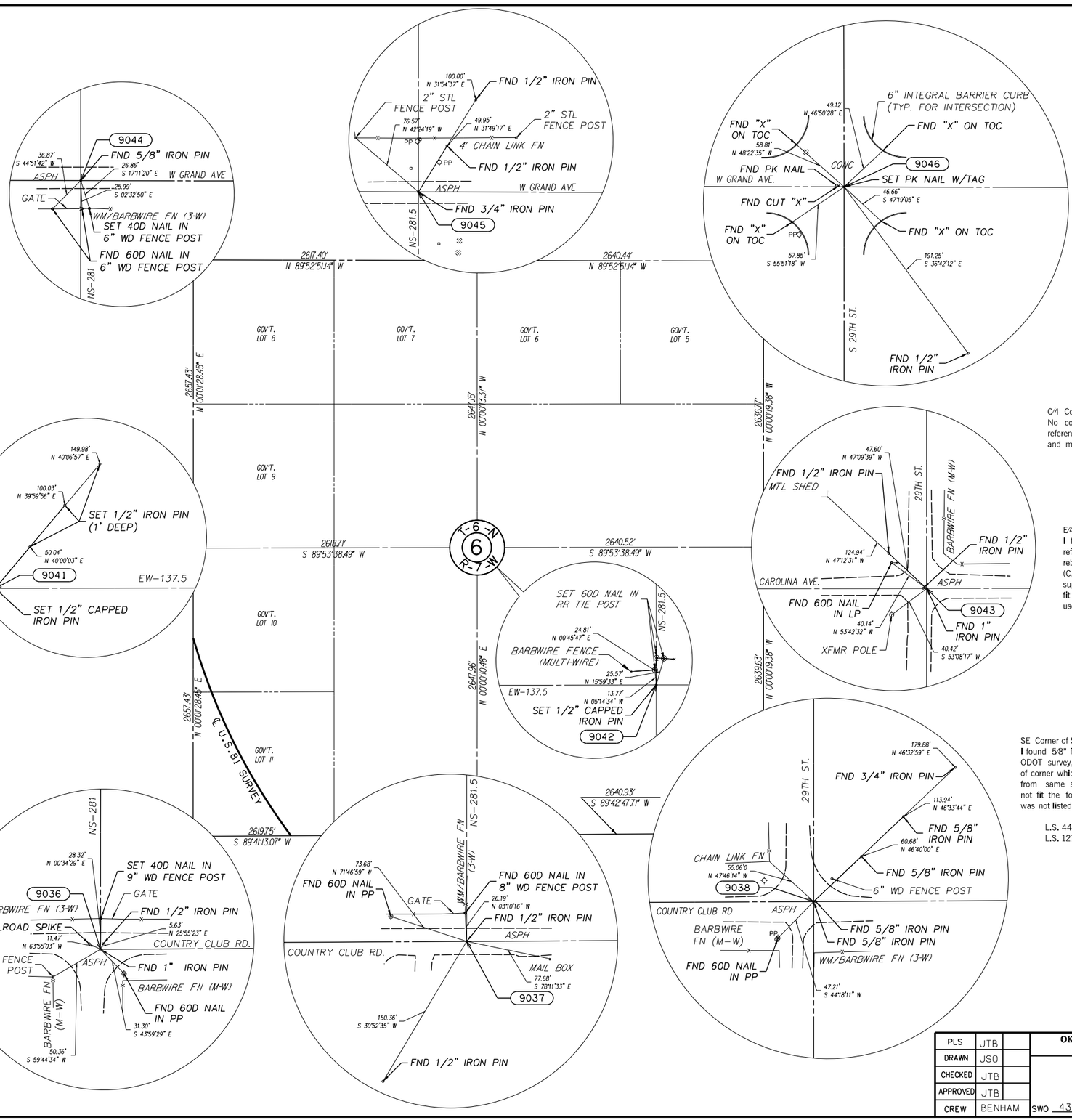
GN TN
θ

Angle Of Variance
At Sta. 9042 (C/4 Cor.)
X= 1974771.9766
Y= 614659.7111
Lat.= 35°01'20.25923"
Long.= 97°58'44.58786"
θ = 0°00'42.80519"

W/4 Corner of Section 6, T–6N, R–7W ODOT G–26–908
No corner evidence found. I set 5/8" iron pin and references. I set corner using single proportionate method.

SW Corner of Section 6, T–6N, R–7W ODOT G–26–907
I found 1/2" iron pin, railroad spike, and 1" iron pin. 1/2" iron pin and found reference points fit corner record in which L.S. 1272 found 1/2" iron pin in 2001 survey, with no supporting evidence listed. No corner record found for railroad spike. 1" iron pin fits measurements from ODOT survey, SWO 2737(1). Nothing set. I used 1" iron pin.

S/4 Corner of Section 6, T–6N, R–7W ODOT G–26–908
I found 1/2" iron pin. Corner location and found reference points fit ODOT survey, SWO 2737(1), and corner record in which L.S. 1272 found 1/2" iron pin in 2001 survey. Nothing set. I used 1" iron pin.



NE Corner of Section 6, T–6N, R–7W ODOT G–26–911
I found a chiseled "X" and nail. Monuments and reference points do not fit ODOT survey, SWO 2737(1), or the following corner records. L.S. 955 found 1" iron pin in 1985 survey. L.S. 1272 found an iron pin in 1988 survey. Monuments and reference points fit the following corner records. L.S. 1272 found a chiseled "X" in 1998 survey, with no supporting evidence listed. L.S. 1200 found a nail at an "X" in intersection in 2012 survey. I set a PK nail with tag. I used found reference points and measurements from said ODOT survey to set monument. I did not find supporting evidence for the chiseled "X", although it was used for subdivision surveys to the Southwest. I did not find supporting evidence for the nail that was found at the intersection of two paving joints, which was placed there by others during the course of this survey.

C/4 Corner of Section 6, T–6N, R–7W ODOT G–26–909
No corner evidence found. I set 1/2" capped iron pin and references. I used the intersection of opposite quarter corners, and measurements from ODOT Survey, SWO 2737(1).

E/4 Corner of Section 6, T–6N, R–7W ODOT G–26–910
I found 1/2" iron pin & 1" iron pin. 1/2" iron pin and found reference points fit the following corner records. L.S. 449 found 1/2" rebar in 1981 survey. L.S. 1272 found iron pin in 1998 survey (C.C.R. filed June 26, 1998). These corner records did not have any supporting evidence listed. 1" iron pin and found reference points fit measurements from ODOT survey, SWO 2737(1). Nothing set. I used 1" iron pin.

SE Corner of Section 6, T–6N, R–7W ODOT G–26–905
I found 5/8" iron pin. Corner location and found reference points fit ODOT survey, SWO 2737(1). Also found 5/8" iron pin 2 feet east of corner which is a P.O.T. point for Country Club Road alignment from same survey. Corner location and found reference points do not fit the following corner records, in which supporting evidence was not listed:

L.S. 449 found 1/2" iron pin (C.C.R. filed Apr 23, 1981)
L.S. 1272 found railroad spike (C.C.R. filed June 26, 1998).

N

SCALE:
1" = 500'
LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB	
DRAWN	JSO	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 67 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S067

8-87

N/4 Corner of Section 31, T–7N, R–7W ODOT G–26–919
I found 3/4" iron pin. Corner location and found references fit ODOT survey, SWO 2737(1) and the following corner records: L.S. 1281 found 3/4" rebar in 1994 survey and L.S. 1378 found R.R. Spike in 1996 survey. Nothing set. I used 3/4" iron pin.

NW Corner of Section 31, T–7N, R–7W ODOT G–26–920
I found 3/8" iron pin. Monument and reference points fit ODOT survey, SWO 2737(1), and the following corner records:

L.S. 1378 found 1" iron pin in 1996 survey
L.S. 1272 found iron pin in 1998 survey
L.S. 1200 found 3/8" iron pin in 2012 survey.

Nothing set. I used 3/8" iron pin

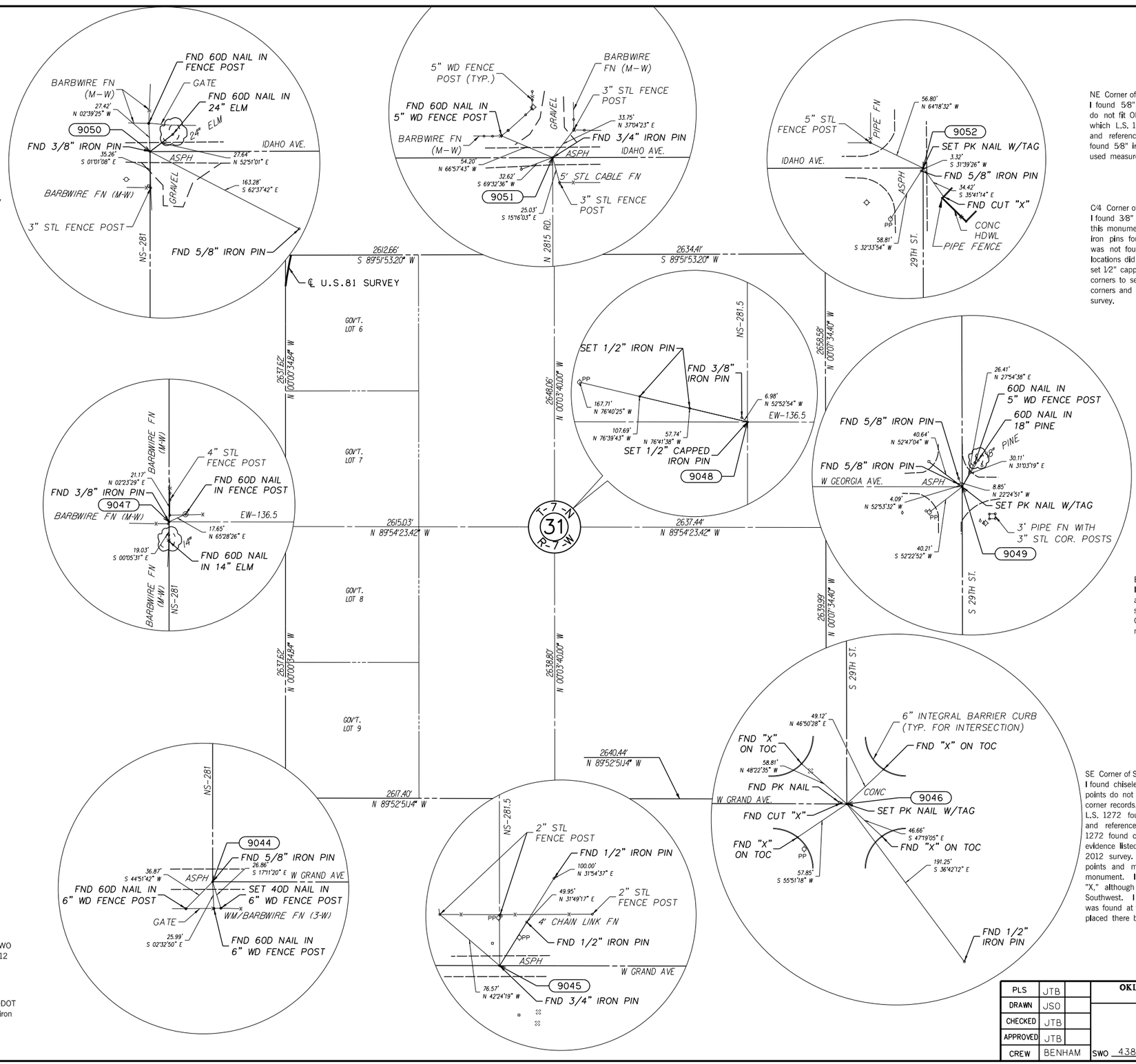
GN TN θ

Angle Of Variance
At Sta. 9048 (C/4 Cor.)
X= 1974768.9904
Y= 619945.6544
Lat.= 35°02'12.54254"
Long.= 97°58'44.61058"
θ = 0°00'42.79229"

W/4 Corner of Section 31, T–7N, R–7W ODOT G–26–914
I found 3/8" iron pin. Monument and references fit corner record in which L.S. 1200 set 3/8" iron pin in 2012 survey. Nothing set. I used 3/8" iron pin.

S/4 Corner of Section 31, T–7N, R–7W ODOT G–26–912
I found 3/4" iron pin. Monument and reference points fit ODOT survey, SWO 2737(1), and corner record in which L.S. 1200 found 5/8" iron pin in 2012 survey. Nothing set. I used 3/4" iron pin.

SW Corner of Section 31, T–7N, R–7W ODOT G–26–913
I found 5/8" iron pin. Corner location and found reference points fit ODOT survey, SWO 2737(1), and corner record in which L.S. 1378 found 5/8" iron pin in 1995 survey. Nothing set. I used 5/8" iron pin.



NE Corner of Section 31, T–7N, R–7W ODOT G–26–918
I found 5/8" iron pin. This monument and found references do not fit ODOT survey, SWO 2737(1), or corner record in which L.S. 1272 found iron pin in 1988 survey. Monument and reference points fit corner record in which L.S. 1200 found 5/8" iron pin in 2012 survey. I set PK nail with tag. I used measurements from said ODOT survey to set corner.

C/4 Corner of Section 31, T–7N, R–7W ODOT G–26–915
I found 3/8" iron pin. No corner record or supporting evidence found for this monument. This iron pin appeared to be set from one of the two iron pins found at the E/4 corner of Section 31. Supporting evidence was not found for the iron pins at the said E/4 corner, and their locations did not fit measurements from ODOT survey, SWO 2737(1). I set 1/2" capped iron pin. I used the intersection of opposite 1/4 section corners to set center of section. The E–W 1/4 section line also fits 1/16 corners and P.O.T. iron pins (on Georgia Ave.) Found from said ODOT survey.

E/4 Corner of Section 31, T–7N, R–7W ODOT G–26–916
I found two 5/8" iron pins. One monument was set by others, and one was found by L.S. 449 in 1984 survey (no supporting evidence listed). These monuments do not fit ODOT survey, SWO 2737(1). I set PK nail with tag. I used measurements from said ODOT survey to set corner.

SE Corner of Section 31, T–7N, R–7W ODOT G–26–911
I found chiseled "X" and nail. Monuments and reference points do not fit ODOT survey, SWO 2737(1), or the following corner records. L.S. 955 found 1" iron pin in 1985 survey. L.S. 1272 found an iron pin in 1988 survey. Monuments and reference points fit the following corner records. L.S. 1272 found chiseled "X" in 1998 survey, with no supporting evidence listed. L.S. 1200 found nail at "X" in intersection in 2012 survey. I set PK nail with tag. I used found reference points and measurements from said ODOT survey to set monument. I did not find supporting evidence for the chiseled "X," although it was used for subdivision surveys to the Southwest. I did not find supporting evidence for the nail that was found at the intersection of two paving joints, which was placed there by others during the course of this survey.

SCALE:
1" = 500'
LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

PLS	JTB	
DRAWN	JSO	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

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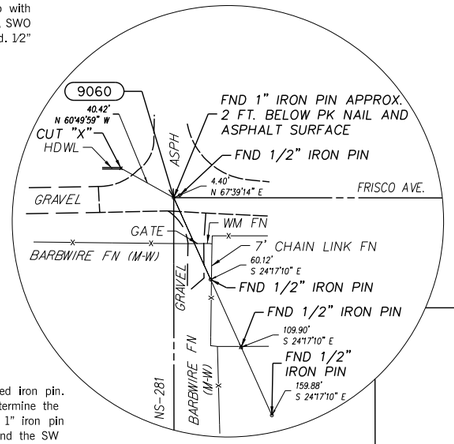
SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S068

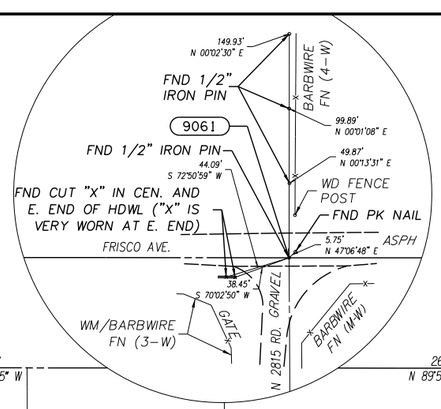
8–87

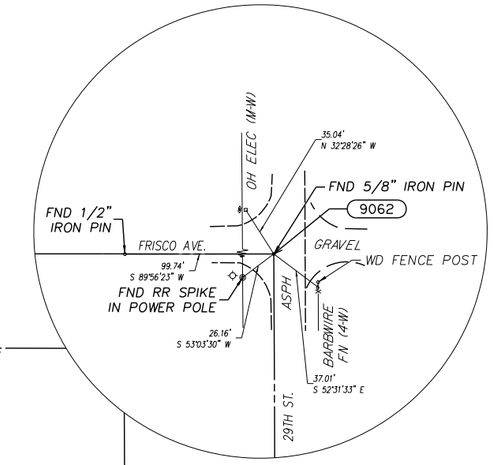
N/4 Corner of Section 30, T–7N, R–7W ODOT G–26–445
I found PK nail & 1/2" iron pin no corner record was found for PK nail (lines up with property fence to the north). 1/2" iron pin fits measurements from ODOT surveys, SWO 2737(1) and SWO 3609(1), and reference points from the following corner record. 1/2" iron pin set by L.S. 1155 in 1991 survey. Nothing set. I used 1/2" iron pin.

NW Corner of Section 30, T–7N, R–7W ODOT G–26–444
I found 1" iron pin, PK nail, & 1/2" iron pin. 1/2 iron pin was found by L.S. 189 in 1984 survey, with no supporting evidence listed. No corner record was filed for PK nail, which I removed to find 1" iron pin two feet below asphalt surface. 1" iron pin and found references fit measurements from ODOT survey, SWO 3609(1), and corner record which L.S. 1155 found 1" iron pin in 1991 survey. Nothing set. I used 1" iron pin.

W/4 Corner of Section 30, T–7N, R–7W ODOT G–26–921
I found 1/2" capped iron pin set by L.S. 1326 in 2005 survey. I set 5/8" capped iron pin. L.S. 1326 used a 1/2" iron pin, located at the NW corner of Section 30 to determine the W/4 corner. I did not find supporting evidence for that 1/2" iron pin. I used a 1" iron pin found at the NW corner of Section 30, which fits ODOT survey, SWO 3609(1), and the SW corner. I used single proportion method to set point on line and between said corners.







NE Corner of Section 30, T–7N, R–7W ODOT G–26–450
I found 5/8" iron pin. Monument fits measurements from ODOT surveys, SWO 2737(1) and SWO 3609(1). It also fits found reference points and measurements from the following corner records: 1/2" iron pin was recovered by L.S. 449 in 1979 survey, 1" iron pin was recovered by L.S. 1155 in 1991 survey, and 1" iron pin was recovered by L.S. 696 in 1997 survey. Nothing set. I used 5/8" iron pin.

2593.10'
N 89°57'17.65" W

2638.60'
N 89°57'25.22" W

GOV'T. LOT 6

GOV'T. LOT 7

GOV'T. LOT 8

GOV'T. LOT 9

2551.08'
N 00°04'25.51" W

2641.22'
N 00°17'10.01" W

2644.22'
N 00°14'25.31" W

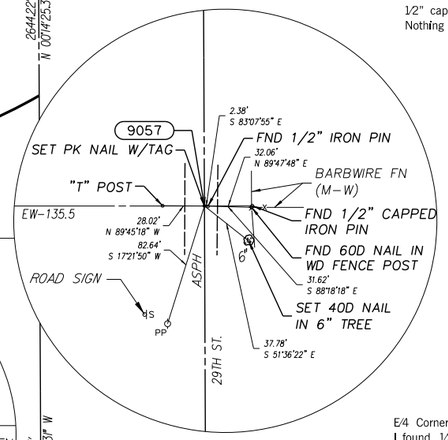
2602.91'
S 89°57'33.60" W

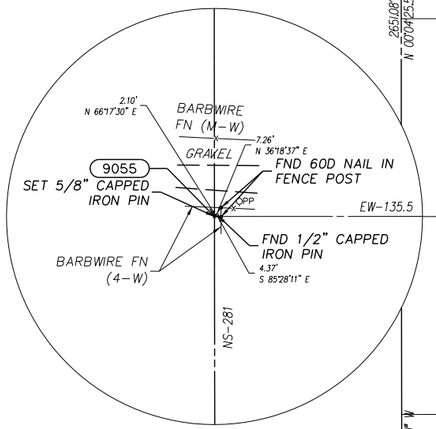
2636.48'
S 89°58'41.04" W

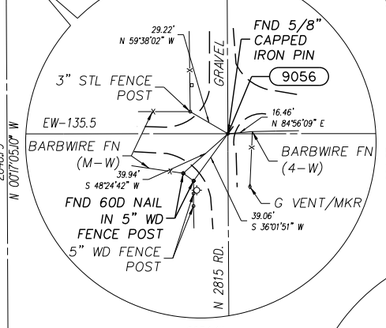
℄ U.S.81 SURVEY

1-7-N
30
R-7-W

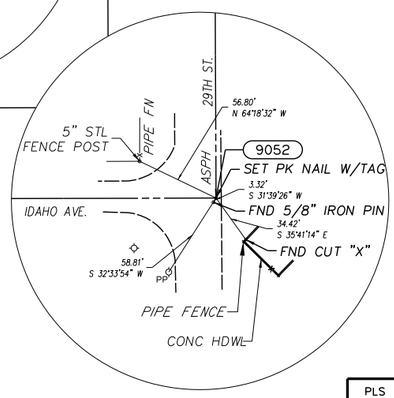
C/4 Corner of Section 30, T–7N, R–7W ODOT G–26–922
I found 5/8" capped iron pin. Corner location and reference points fit 1/2" capped iron pin set by L.S. 1326 in 2000 and 2001 survey. Nothing set. I used 5/8" capped iron pin.

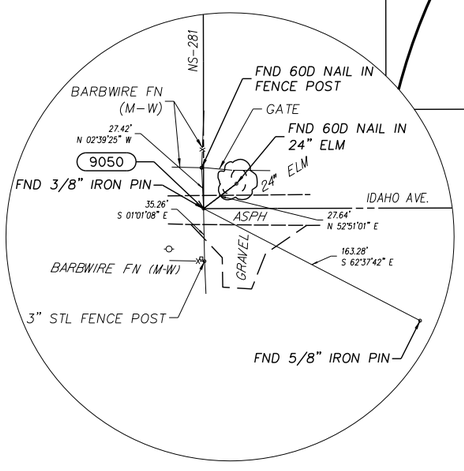


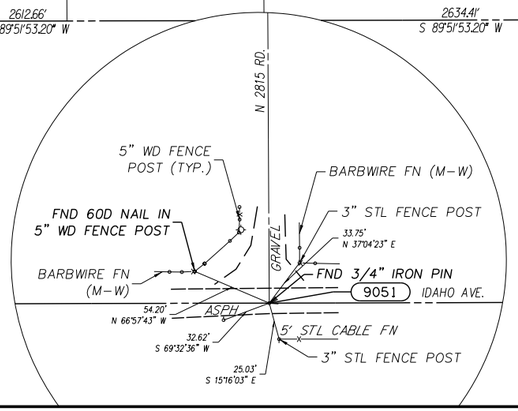




E/4 Corner of Section 30, T–7N, R–7W ODOT G–26–923
I found 1/2" iron pin. Monument and reference points do not fit measurements from ODOT survey, SWO 2737(1), or corner record in which L.S. 1089 set PK nail in 1994 survey. I set PK nail with tag. I used measurements from said ODOT survey to set corner. Corner location fits existing fence lines and reference points from corner record by L.S. 1089.







SW Corner of Section 30, T–7N, R–7W ODOT G–26–920
I found 3/8" iron pin. Monument and reference points fit ODOT survey, SWO 2737(1), and the following corner records. L.S. 1378 found 1" iron pin in 1996 survey. L.S. 1272 found iron pin in 1998 survey. L.S. 1200 found 3/8" iron pin in 2012 survey. Nothing set. I used 3/8" iron pin.

S/4 Corner of Section 30, T–7N, R–7W ODOT G–26–919
I found 3/4" iron pin. Corner location and found references fit ODOT survey, SWO 2737(1), and the following corner records. L.S. 1281 found 3/4" rebar in 1994 survey. L.S. 1378 found R.R. Spike in 1996 survey. Nothing set. I used 3/4" iron pin.

SE Corner of Section 30, T–7N, R–7W ODOT G–26–918
I found 5/8" iron pin. This monument and found references does not fit ODOT survey, SWO 2737(1), or corner record in which L.S. 1272 found iron pin in 1988 survey. Monument and reference points fit corner record in which L.S. 1200 found 5/8" iron pin in 2012 survey. I set PK nail with tag. I used measurements from said ODOT survey to set corner.

GN TN

Angle Of Variance
At Sta. 9056 (C/4 Cor.)
X= 1974753.0120
Y= 625240.4660
Lat.= 35°03'04.91337"
Long.= 97°58'44.78955"
θ = 0°00'42.69070"

SCALE:
1" = 500'
LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

PLS	JTB	
DRAWN	JSO	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 69 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S069

8-87

NW Corner of Section 29, T–7N, R–7W ODOT G–26–450
I found 5⁄8" iron pin. Monument fits measurements from ODOT survey, SWO 2737(1) and SWO 3609(1), and fits found reference points and measurements from the following corner records:

1⁄2" iron pin was recovered by L.S. 449 in 1979 survey
1" iron pin was recovered by L.S. 1155 in 1991 survey
1" iron pin was recovered by L.S. 696 in 1997 survey.

Nothing set. I used 5⁄8" iron pin.

N/4 Corner of Section 29, T–7N, R–7W ODOT G–26–451
I found 5⁄8" iron pin and 3⁄8" iron pin. Monuments are only 0.2 feet apart. The 3⁄8" monument fits measurements from ODOT survey, SWO 2737(1) and SWO 3609(1), and fits found reference points and measurements from the following corner record: L.S. 1155 set a 5⁄8" capped iron pin in 1991 ODOT survey. Nothing set. I used 3⁄8" iron pin.

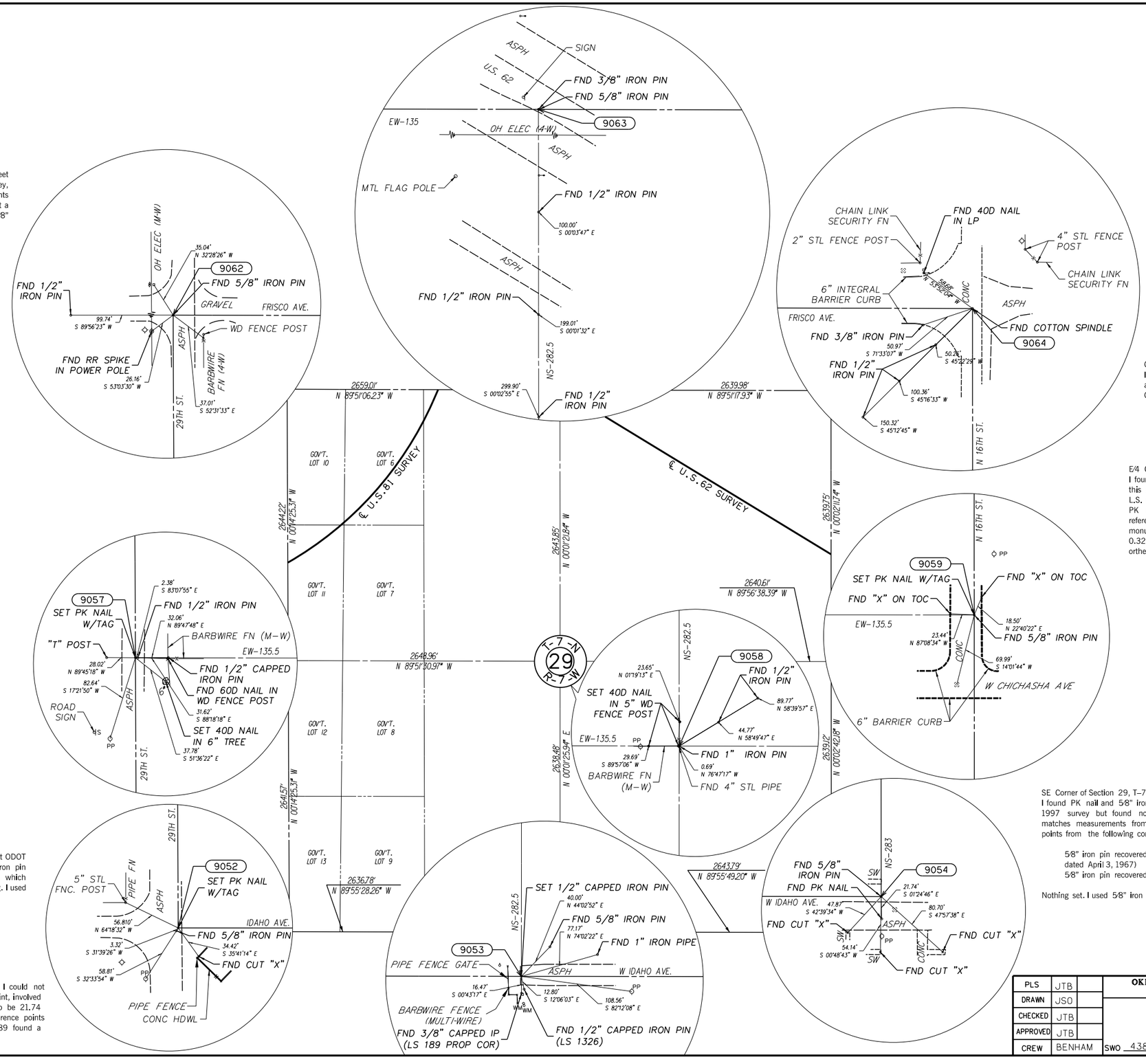
GN TN θ

Angle Of Variance
At Sta. 9058 (C/4 Cor.)
X= 1980038.4430
Y= 625234.9380
Lat.= 35°03'04.84330"
Long.= 97°57'41.21708"
θ = 0°01'18.77550"

W/4 Corner of Section 29, T–7N, R–7W ODOT G–26–923
I found 1⁄2" iron pin. Monument and reference points do not fit measurements from ODOT survey, SWO 2737(1), or corner record in which L.S. 1089 set PK nail in 1994 survey. I set PK nail with tag. I used measurements from said ODOT survey to set corner. Corner location fits existing fence lines and reference points from corner record by L.S. 1089.

SW Corner of Section 29, T–7N, R–7W ODOT G–26–918
I found 5⁄8" iron pin. This monument and found references do not fit ODOT survey, SWO 2737(1), or corner record in which L.S. 1272 found iron pin in 1988 survey. Monument and reference points fit corner record in which L.S. 1200 found 5⁄8" iron pin in 2012 survey. I set PK nail with tag. I used measurements from said ODOT survey to set corner.

S/4 Corner of Section 29, T–7N, R–7W ODOT G–26–917
I found 1⁄2" capped iron pin, set by L.S. 1326 in 2004 survey. I could not accept this monument, because the method used to calculate this point, involved using a PK nail at the SE corner of Section 29, which was found to be 21.74 feet south of actual corner. I set PK nail with tag using found reference points from ODOT survey, SWO 2737(1), and a corner record where L.S. 189 found a car axle in 2006 survey.



NE Corner of Section 29, T–7N, R–7W ODOT G–26–48
I found cotton spindle. Monument was found inside an impression of concrete made by a brass cap, and it fits found references and measurements from ODOT surveys, SWO 2737(1) and SWO 3609(1). ODOT brass cap was recovered by L.S. 1155 in 1991 ODOT survey and by L.S. 1407 in 1997 survey. Nothing set. I used cotton spindle.

C/4 Corner of Section 29, T–7N, R–7W ODOT G–26–924
I found 1" iron pin monument. It fits found reference points and measurements from ODOT survey, SWO 2738(1). No C.C.R.'s found for this corner. Nothing set. I used 1" iron pin.

E/4 Corner of Section 29, T–7N, R–7W ODOT G–26–925
I found 5⁄8" iron pin. It was later obliterated during the course of this survey. I also found references from corner record in which L.S. 1326 set mag nail in 2012. Survey mag nail not found. I set PK nail with tag. I used previously measured coordinates and reference points to restore the location of the 5⁄8" iron pin. This monument fits ODOT survey, SWO 2738(1). Monument location is 0.32 feet south and 0.19 feet west of the mid–point between the n ortheast and southeast corner of Section 29.

SE Corner of Section 29, T–7N, R–7W ODOT G–26–154
I found PK nail and 5⁄8" iron pin. PK nail that was found was set by L.S. 1407 in 1997 survey but found none of the supporting evidence listed. 5⁄8" iron pin matches measurements from ODOT survey, SWO 2737(1) and found reference points from the following corner records:

5⁄8" iron pin recovered by Mr. J. P. Andrews, location engineer (SD 11 form dated April 3, 1967)
5⁄8" iron pin recovered by L.S. 189 in 2006 survey.

Nothing set. I used 5⁄8" iron pin.

N

SCALE:
1" = 500'

LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB	
DRAWN	JSO	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 70 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S070

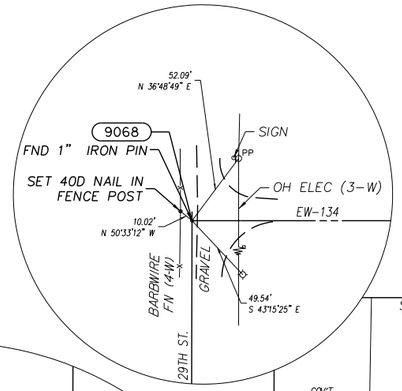
8–87

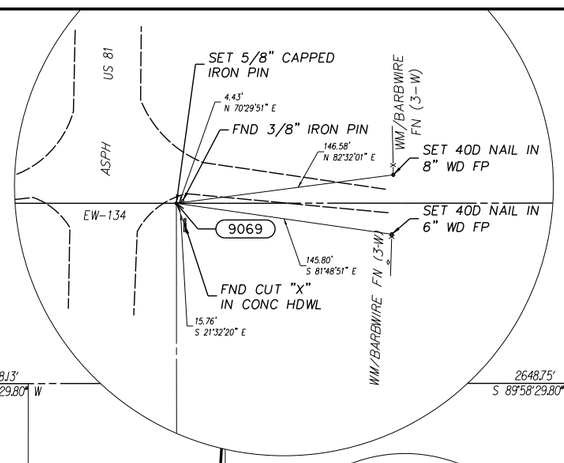
N/4 Corner of Section 20, T–7N, R–7W ODOT G–26–453
I found 3/8" iron pin set by others. No corner record or supporting evidence found for this iron pin. 1/2" iron pin and reference points that was set by L.S. 1155 were not found from 1991 survey. I set 5/8" capped iron pin. I applied single proportionate method between the northwest and northeast corners of Section 20. Monument fits measurements from ODOT surveys, SWO 2737(1) and SWO 3609(1).

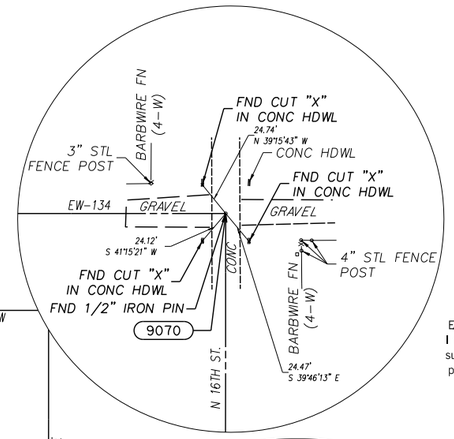
NW Corner of Section 20, T–7N, R–7W ODOT G–26–448
I found 1" iron pin that was recovered by L.S. 1155 in 1991 ODOT survey. Reference points were not found. Monument fits measurements to other section corners, from ODOT surveys, SWO 2737(1) and 3609(1). Nothing set. I used 1" iron pin.

GN TN θ

Angle Of Variance
At Sta. 9066 (C/4 Cor.)
X= 1980034.5485
Y= 630523.0395
Lat.= 35°03'57.14750"
Long.= 97°57'41.23963"
θ = 0°01'18.76270"







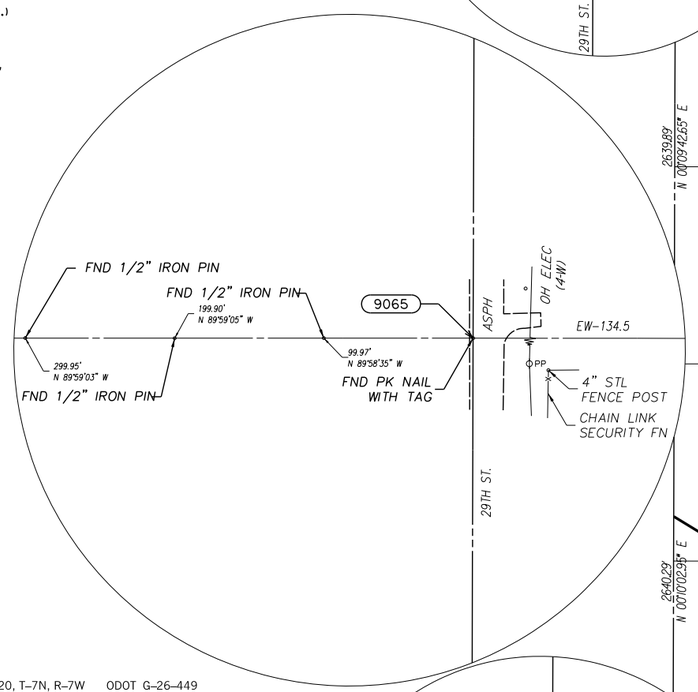
NE Corner of Section 20, T–7N, R–7W ODOT G–26–454
I found 1/2" iron pin that was set by L.S. 1155 in 1991 survey. Corner location and reference points fit ODOT surveys, SWO 2737(1) and SWO 3609(1). Nothing set. I used 1/2" iron pin.

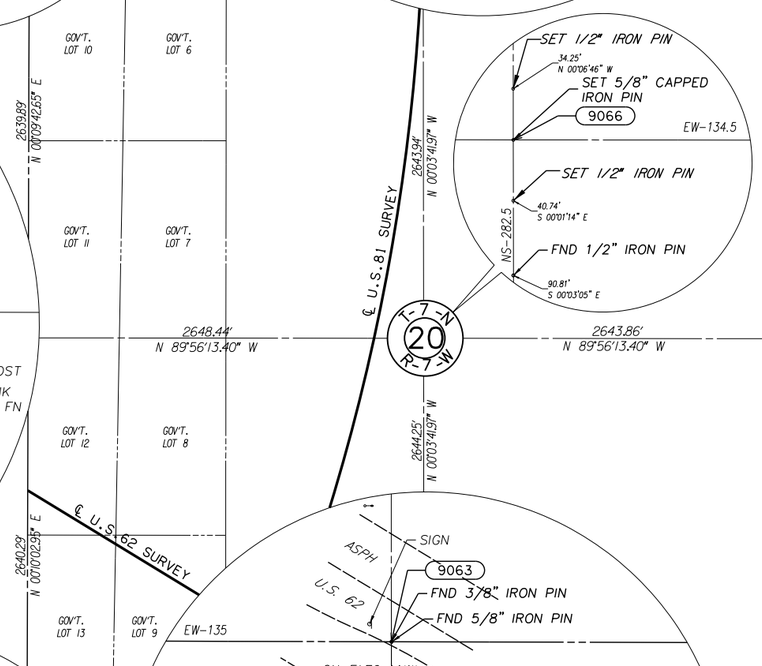
C/4 Corner of Section 20, T–7N, R–7W ODOT G–26–452
No corner evidence found. I set 5/8" iron pin using intersecting lines from 1/4 corners and measurements from ODOT surveys, SWO 2737(1) and SWO 3609(1). Calculated point fits found reference point and 5/8" iron pin that was set by L.S. 1155 in 1991 ODOT survey. Set reference points.

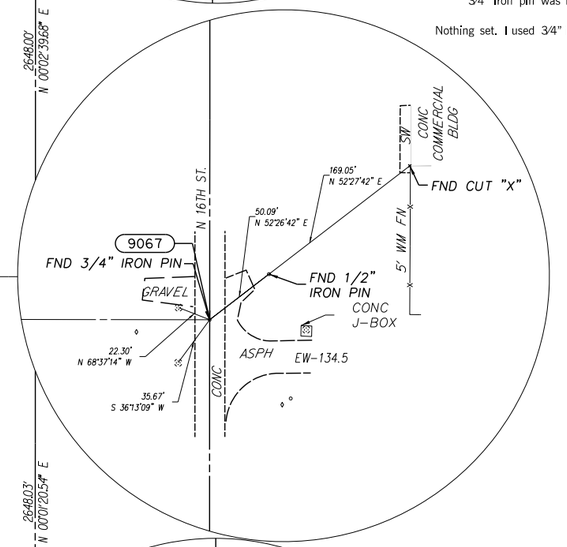
E/4 Corner of Section 20, T–7N, R–7W ODOT G–26–455
I found 3/4" iron pin. Current monument fits measurements from ODOT surveys, SWO 2737(1) and SWO 3609(1). It also fits found reference points and measurements from the following corner records:

OHD brass MON recovered by Mr. J.P. Andrews, location engineer (SD form 11, dated Aug 10, 1966)
3/4" iron pin was recovered by L.S. 1155 1991 survey.

Nothing set. I used 3/4" iron pin.







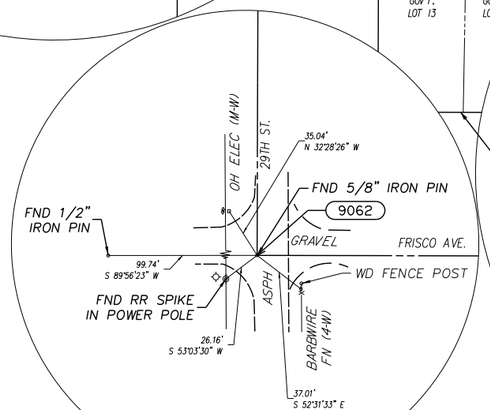
W/4 Corner of Section 20, T–7N, R–7W ODOT G–26–449
I found PK nail with tag that was set by others. No corner record was filed for this PK nail. Monument fits the found reference points and 3/4" iron pin that was recovered by L.S. 1155 in 1991 ODOT survey. Nothing set. I used PK nail with tag.

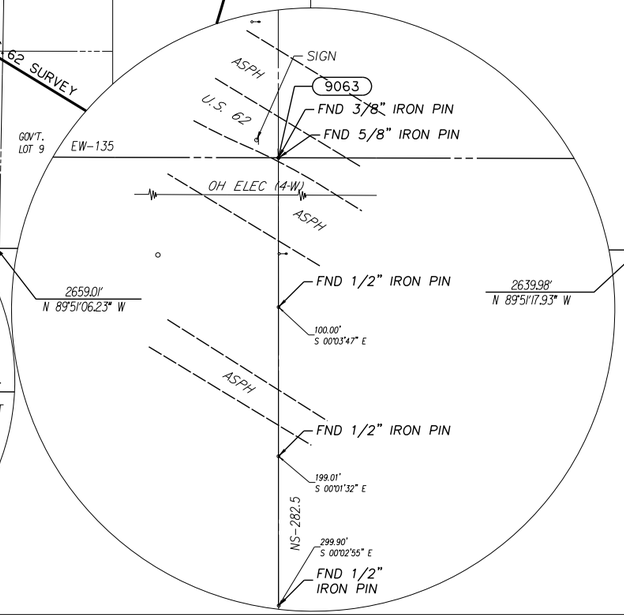
SW Corner of Section 20, T–7N, R–7W ODOT G–26–450
I found 5/8" iron pin. Monument fits measurements from ODOT survey SWO 2737(1) and SWO 3609(1) and fits found reference points and measurements from the following corner records:

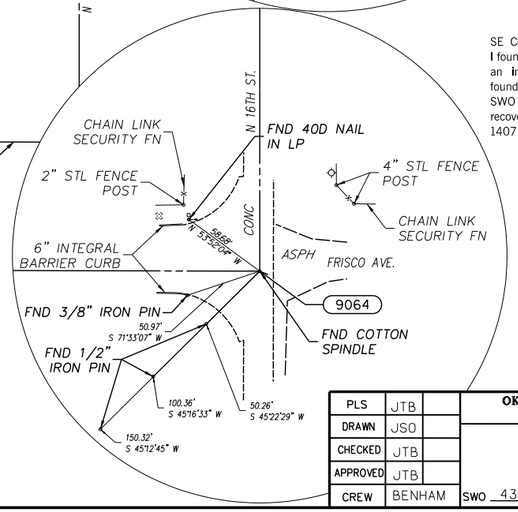
1/2" iron pin was recovered by L.S. 449 in 1979 survey
1" iron pin was recovered by L.S. 1155 in 1991 survey
1" iron pin was recovered by L.S. 696 in 1997 survey.

Nothing set. I used 5/8" iron pin.

S/4 Corner of Section 20, T–7N, R–7W ODOT G–26–451
I found 5/8" iron pin and 3/8" iron pin. Monuments are only 0.2 feet apart. The 3/8" monument fits measurements from ODOT surveys, SWO 2737(1) and SWO 3609(1). It also fits found reference points and measurements from the corner record in which L.S. 1155 set a 5/8" capped iron pin in 1991 ODOT survey. Nothing set. I used 3/8" iron pin.







SE Corner of Section 20, T–7N, R–7W ODOT G–26–48
I found cotton spindle. Monument was found inside an impression of concrete made by a brass cap, and fits found references and measurements from ODOT surveys, SWO 2737(1) and SWO 3609(1). ODOT brass cap was recovered by L.S. 1407 in 1997 survey. Nothing set. I used cotton spindle.

N

SCALE:
1" = 500'

LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB	
DRAWN	JSO	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

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SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S071

8–87

NW Corner of Section 17, T–7N, R–7W ODOT G–26–931
I found 1" iron pin. Monument and reference points fit corner record in which L.S. 1407 found a 1" iron pin in 1999 and 2001 surveys. Monument fits measurements from ODOT survey, SWO 2737(1). Nothing set. I used 1" iron pin.

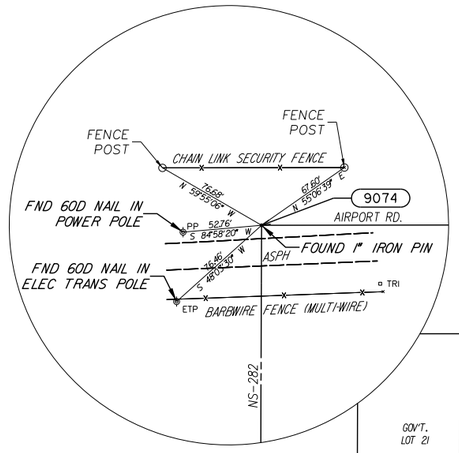
N/4 Corner of Section 17, T–7N, R–7W ODOT G–26–930
I set 3/4" iron pin. Monument and reference points fit corner record in which L.S. 1272 found 3/4" iron pin in 2003 survey. Monument and reference points fit measurements from ODOT, SWO survey 2737(1). Nothing set. I used 3/4" iron pin.

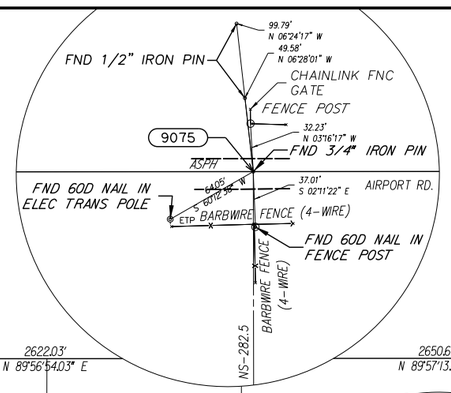
W/4 Corner of Section 17, T–7N, R–7W ODOT G–26–926
No corner evidence found. I set 5/8" capped iron pin. Monument was set using single proportionate method between the northwest and southwest corners of Section 17.

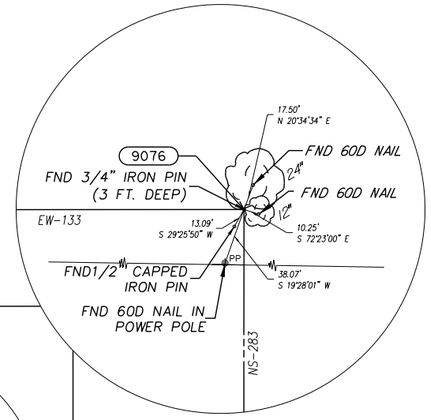
Angle Of Variance
At Sta. 9072 (C/4 Cor.)
X= 1980038.6957
Y= 635809.8418
Lat.= 35°04'49.43858"
Long.= 97°57'41.16544"
θ = 0°01'18.80481"

SW Corner of Section 17, T–7N, R–7W ODOT G–26–448
I found 1" iron pin that was recovered by L.S. 1155 in 1991 ODOT survey. Reference points were not found. Monument fits measurements to other section corners from ODOT surveys, SWO 2737(1) and 3609(1). Nothing set. I used 1" iron pin.

S/4 Corner of Section 17, T–7N, R–7W ODOT G–26–453
I found 3/8" iron pin set by others. No corner record or supporting evidence found for this iron pin. 1/2" iron pin and reference points were not found from 1991 survey, set by L.S. 1155. I set 5/8" capped iron pin. I applied single proportionate method between the northwest and northeast corners of Section 20. Monument fits measurements from ODOT surveys, SWO 2737(1) and SWO 3609 (1).



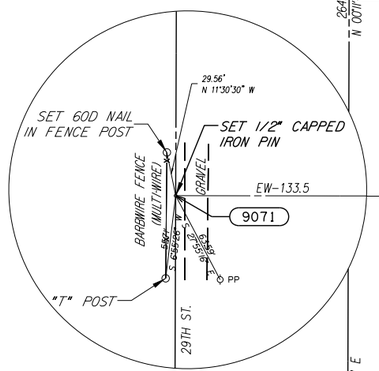


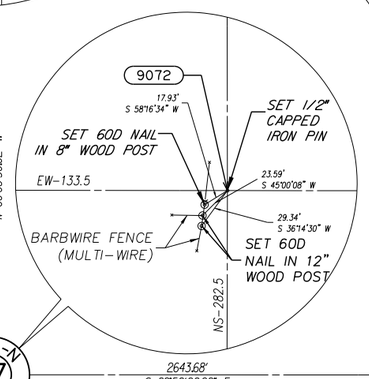


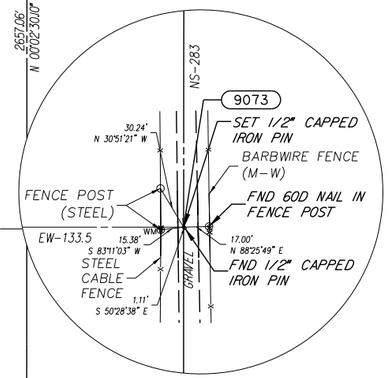
NE Corner of Section 17, T–7N, R–7W ODOT G–26–929
I found 1/2" capped iron pin and 3/4" iron pin. The 1/2" capped iron pin and reference points fit corner record in which L.S. 1326 set 1/2" capped iron pin in 2012 survey using double proportionate method. The 3/4" iron pin was found in place three feet below surface. The measurements fit ODOT survey, SWO 2737(1). Nothing set. I used 3/4" iron pin.

C/4 Corner of Section 17, T–7N, R–7W ODOT G–26–927
No corner evidence found. I set 1/2" capped iron pin. Monument was set using measurements from ODOT survey, SWO 2737(1).

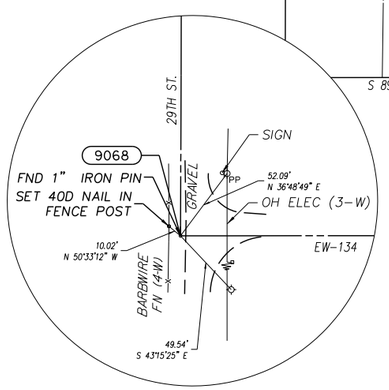
2622.03' N 89°56'54.03" E
2650.63' N 89°57'13.94" E
2647.68' N 00°11'44.4" E
GOV'T. LOT 21
GOV'T. LOT 17
GOV'T. LOT 22
GOV'T. LOT 18
GOV'T. LOT 23
GOV'T. LOT 19
GOV'T. LOT 24
GOV'T. LOT 20
2636.09' S 89°55'14.42" E
2643.68' S 89°58'22.98" E
2638.13' S 89°58'29.80" W
2648.75' S 89°58'29.80" W
2653.68' N 00°06'30.02" W
2651.06' N 00°02'30.00" E
2647.68' N 00°11'44.4" E
2642.87' N 00°09'05.7" E
2640.46' N 00°02'30.00" E
℄ U.S.81 SURVEY
T-7-N
17
R-7-W

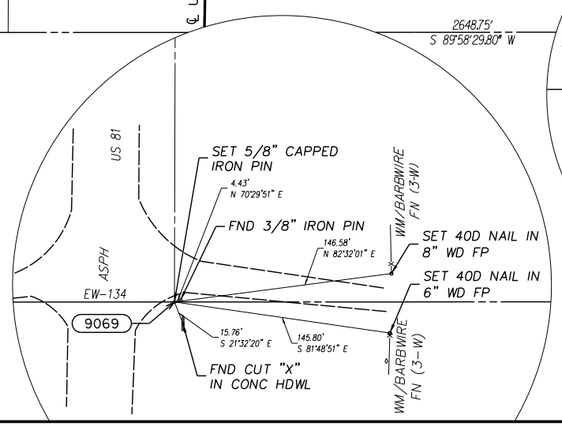


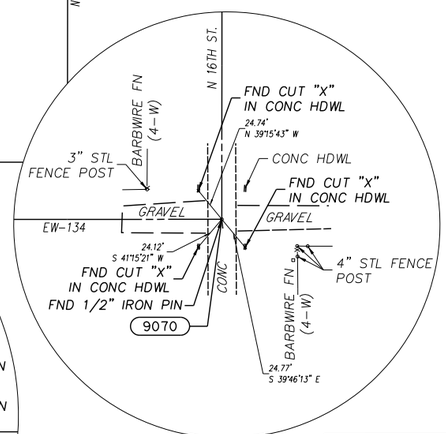




E/4 Corner of Section 17, T–7N, R–7W ODOT G–26–928
I found 1/2" capped iron pin. I did not find supporting evidence for this monument or any corner records. The information on the cap could not be determined. I set 1/2" capped iron pin. Monument was set with single proportionate method between the northeast and southeast corners of Section 17. I used the measurements from ODOT survey, SWO 2737(1).







SE Corner of Section 17, T–7N, R–7W ODOT G–26–454
I found 1/2" iron pin that was set by L.S. 1155 in 1991 survey. Corner location and reference points fit ODOT surveys, SWO 2737(1) and SWO 3609(1). Nothing set. I used 1/2" iron pin.

SCALE:
1" = 500'

LAND CORNER DETAILS ARE SHOWN AT 1"=50'

PLS	JTB	
DRAWN	JSO	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 72 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S072

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

8–87

NW Closing Corner of Section 25, T–7N, R–8W ODOT G–26–964
No monument found. Reference points were found from C.C.R. filed by L.S. 1155 in 1991 ODOT survey. I set 1/2" capped iron pin and reference points as shown. I used found reference points from C.C.R. filed by L.S. 1155 to set monument. However, the distance between the northwest closing corner of Section 25 and milepost 72 should be 2.39 chains, according to the May 22, 1900 G.L.O. Plat, instead of 2.59 chains, which had been used in the 1991 ODOT survey.

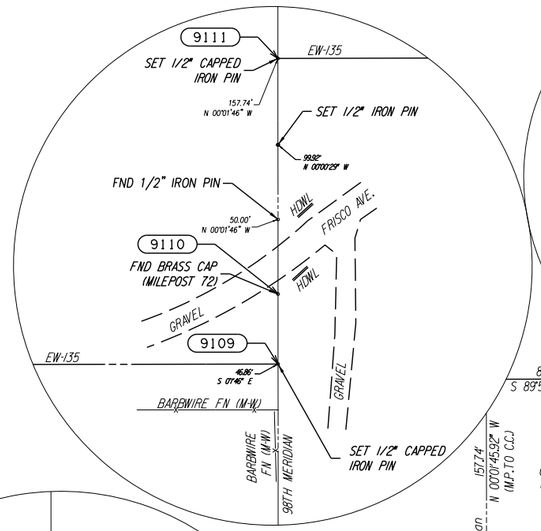
Milepost 72 Corner of Section 25, T–7N, R–8W ODOT G–26–436
I found ODOT brass cap set in concrete L.S. 1155 set monument and filed C.C.R. in 1991 ODOT survey. I used ODOT brass monument and set reference points as shown.

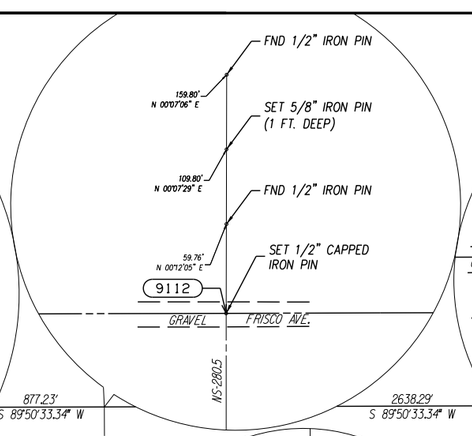
NE Closing Corner of Section 25, T–7N, R–8W ODOT G–26–437
No monument found. Reference points were found from C.C.R. filed by L.S. 1155 in 1991 ODOT survey. I set 1/2" capped iron pin and reference points as shown.

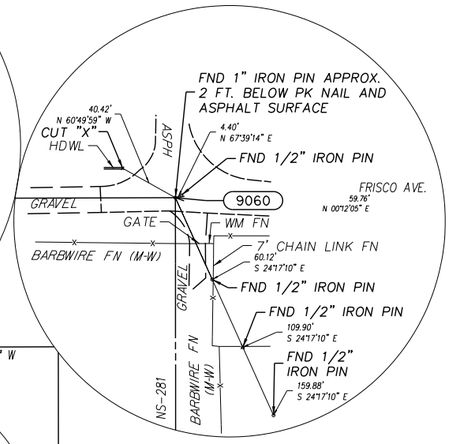
W Closing Corner of Section 25, T–7N, R–8W ODOT G–26–961
Nothing set in 1900 or 1901 survey. No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, north of milepost 71 1/2.

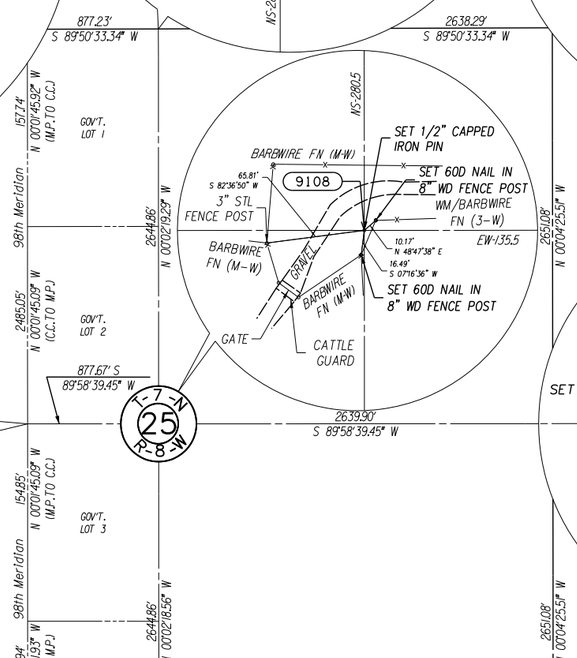
Milepost 71.5 Corner of Section 25, T–7N, R–8W ODOT G–26–43
I found 4" iron pipe with brass cap set in concrete marked "MP 71 1/2," and reference points. L.S. 1155 found monument and filed C.C.R. in 1991 ODOT survey. I used brass cap and set reference points as shown.

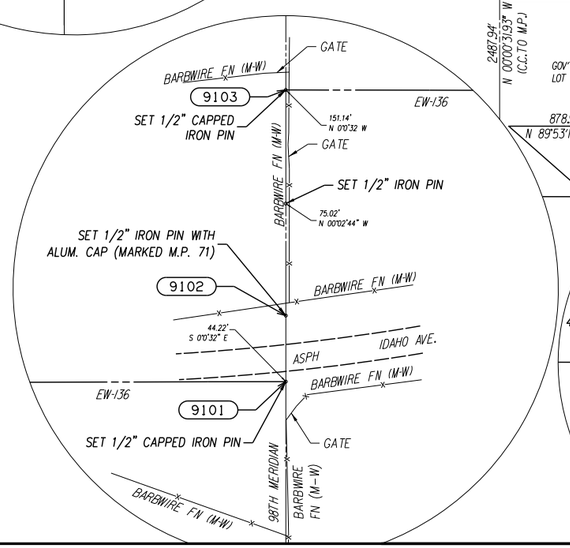
Angle Of Variance
At Sta. 9108 (C/4 Cor.)
X= 1969510.2000
Y= 625237.5875
Lat.= 35°03'04.89113"
Long.= 97°59'47.84944"
θ = 0°00'06.89686"

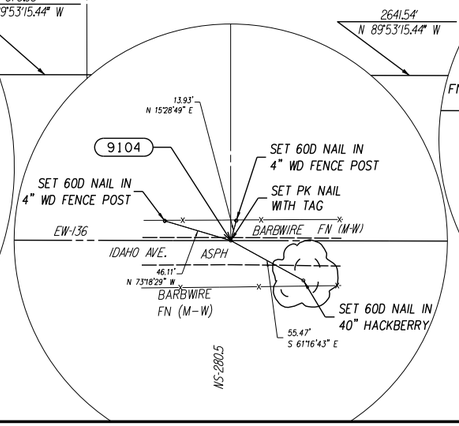


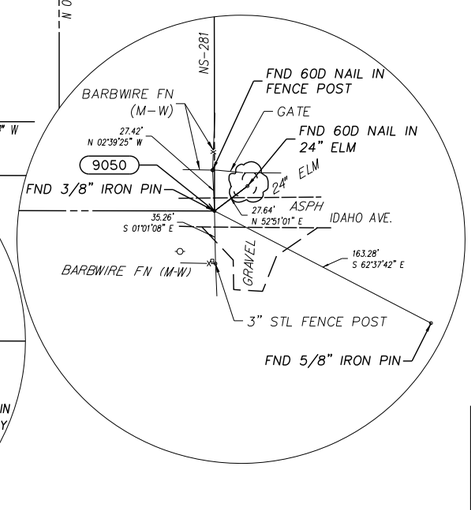












E Closing Corner of Section 25, T–7N, R–8W ODOT G–26–962
I found original stone in place. Stone was marked with "1/4" on west side of stone. Pits and mound were worn away but still evident. Monument fits distance to milepost 71 1/2 from G.L.O. notes and Plat. I used original stone and set reference points as shown.

SW Closing Corner of Section 25, T–7N, R–8W ODOT G–26–957
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, north of milepost 71.

Milepost 71 Corner of Section 25, T–7N, R–8W ODOT G–26–958
No corner evidence found. I set 1/2" iron pin with aluminum cap, stamped, "MP 71" and "G–26–958." I set reference points as shown. I set monument using single proportionate method between found mileposts 70 1/2 and 71 1/2.

SE Closing Corner of Section 25, T–7N, R–8W ODOT G–26–959
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, south of milepost 71.

S/4 Corner of Section 25, T–7N, R–8W ODOT G–26–956
No corner evidence found. I set PK nail with tag and reference points as shown. I used single proportionate method between the southwest closing corner and southeast corner of Section 25 using distances from G.L.O. Notes and Plat.

N/4 Corner of Section 25, T–7N, R–8W ODOT G–26–963
No monument found. Reference points were found from C.C.R. filed by L.S. 1155 in 1991 ODOT survey. I did not agree with the position of this monument. It was based on an incorrectly placed monument milepost 72 instead of 2.39 chains as shown on May 22, 1900 G.L.O. Plat. This affected the position of the north quarter corner of Section 25. Therefore I did not use reference points to reset the monument. I set 1/2" capped iron pin and reference point as shown. I used single proportionate method between the northwest closing corner and northeast corner of Section 25 using distances from G.L.O. Notes and Plat.

NE Corner of Section 25, T–7N, R–8W ODOT G–26–444
I found 1" iron pin, PK nail, and 1/2" iron pin. 1/2" iron pin was found by L.S. 189 in 1984 survey with no supporting evidence listed. No corner record was filed for PK nail, which I removed to find 1" iron pin two feet below asphalt surface. 1" iron pin and found references fit measurements from ODOT survey, SWO 3609(1), and corner record which L.S. 1155 found 1" iron pin in 1991 survey. Nothing set. I used 1" iron pin.

C/4 Corner of Section 25, T–7N, R–8W ODOT G–26–960
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was set on intersecting lines between north and south quarter corners and the west closing corner and east quarter corner of Section 25.

E/4 Corner of Section 25, T–7N, R–8W ODOT G–26–921
I found 1/2" capped iron pin set by L.S. 1326 in 2005 survey. I set 5/8" capped iron pin. L.S. 1326 used a 1/2" iron pin located at the NW corner of Section 30 to determine the W/4 corner. I did not find supporting evidence for that 1/2" iron pin. I used a 1" iron pin found at the NW corner of section 30 (fits ODOT survey, SWO 3609), and the SW corner, and used single proportion method to set point on line and between said corners.

SE Corner of Section 25, T–7N, R–8W ODOT G–26–920
I found 3/8" iron pin. Monument and reference points fit ODOT survey, SWO 2737(1), and the following corner records:

L.S. 1378 found 1" iron pin in 1996 survey
L.S. 1272 found iron pin in 1998 survey
L.S. 1200 found 3/8" iron pin in 2012 survey.

Nothing set. I used 3/8" iron pin.

SCALE:
1" = 500'
LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS

DESCRIPTION	DATE

PLS	JTB	OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	JSO	SURVEY DATA SHEET
CHECKED	JTB	SDS 73 OF 76
APPROVED	JTB	SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S073
CREW	BENHAM	

8–87

NW Closing Corner of Section 36, T–7N, R–8W ODOT G–26–957
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, north of milepost 71.

Milepost 71 Corner of Section 36, T–7N, R–8W ODOT G–26–958
No corner evidence found. I set 1/2" iron pin with aluminum cap, stamped MP 71 and G–26–958. I set reference points as shown. I set monument using single proportionate method between found mileposts 70 1/2 and 71 1/2.

GN TN θ

Angle Of Variance
At Sta. 9100 (C/4 Cor.)
X= 1969511.9271
Y= 619950.7188
Lat.= 35°02'12.59890"
Long.= 97°59'47.83080"
θ = 0°00'06.90744"

NE Closing Corner of Section 36, T–7N, R–8W ODOT G–26–959
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, south of milepost 71.

W Closing Corner of Section 36, T–7N, R–8W ODOT G–26–953
Nothing set in 1900 or 1901 survey. No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, north of milepost 70 1/2.

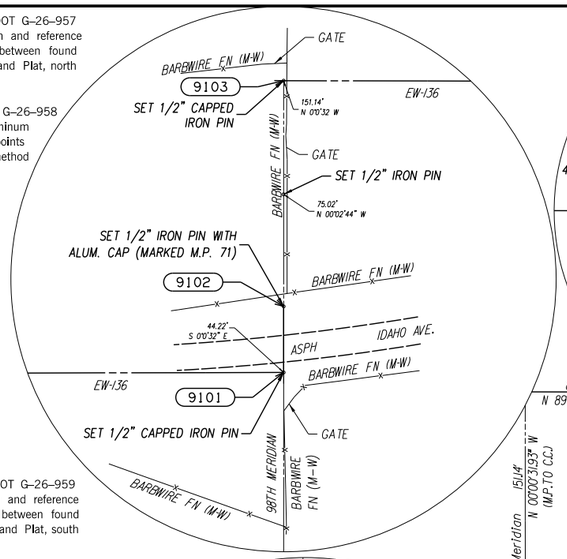
Milepost 70.5 Corner of Section 36, T–7N, R–8W ODOT G–26–954
I found 4" iron pipe with brass cap set in concrete marked MP 70 1/2. I used brass cap and set reference points as shown.

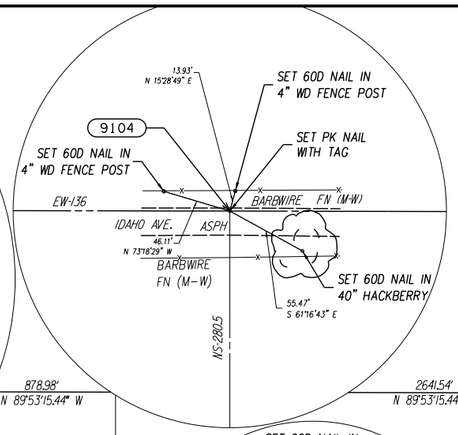
E Closing Corner of Section 36, T–7N, R–8W ODOT G–26–955
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, south of milepost 70 1/2.

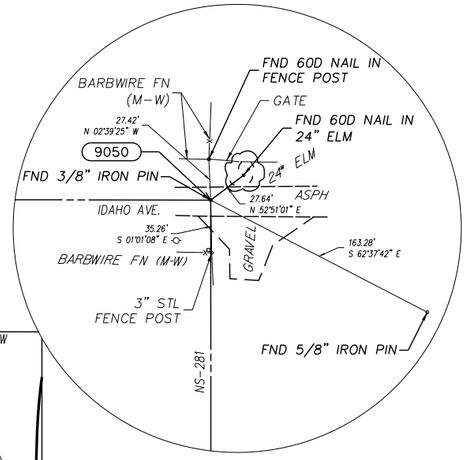
SW Closing Corner of Section 36, T–7N, R–8W ODOT G–26–949
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, north of milepost 70.

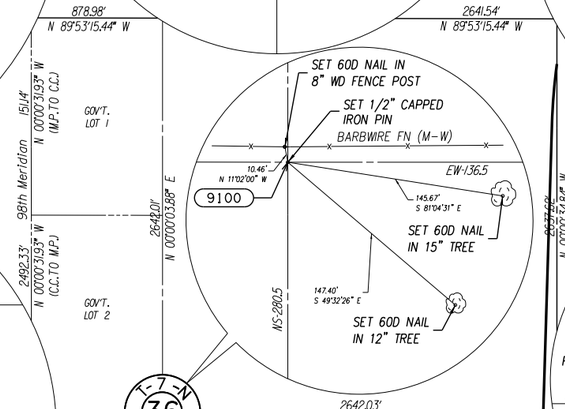
Milepost 70 Corner of Section 36, T–7N, R–8W ODOT G–26–950
No corner evidence found. I set 1/2" iron pin with aluminum cap, stamped MP 70 and G–26–950. I set reference points as shown. I set monument using single proportionate method between found mileposts 68 and 70 1/2.

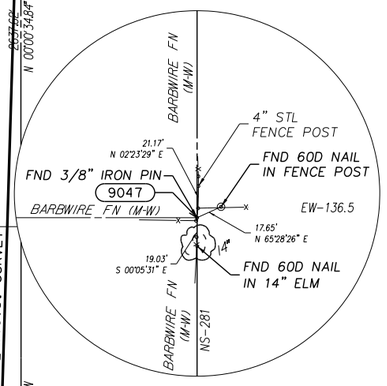
SE Closing Corner of Section 36, T–7N, R–8W ODOT G–26–951
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, south of milepost 70.

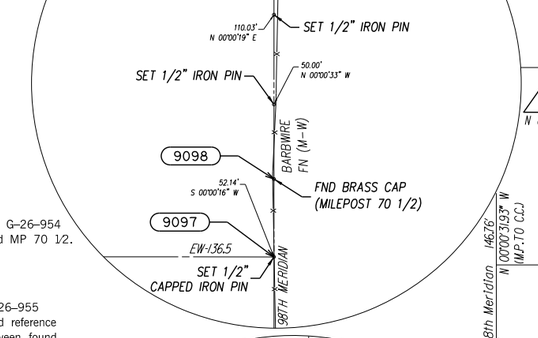


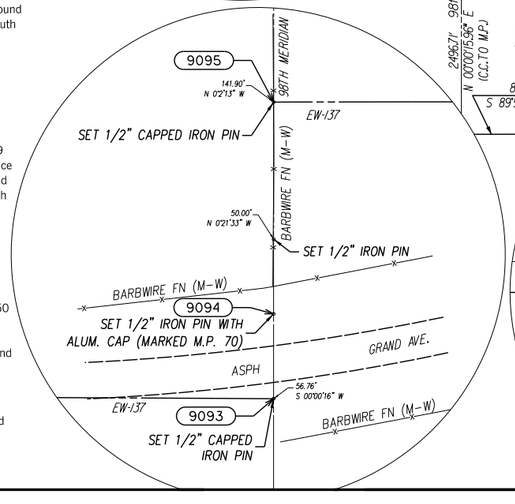


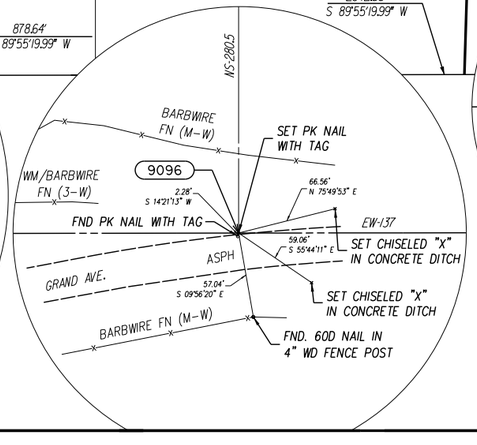


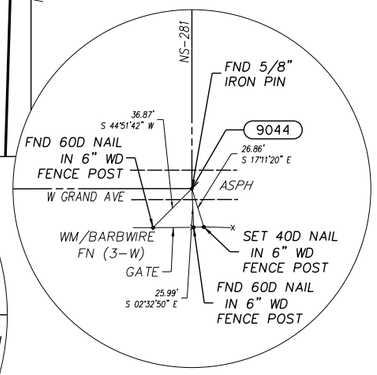












N/4 Corner of Section 36, T–7N, R–8W ODOT G–26–956
No corner evidence found. I set PK nail with tag and reference points as shown. I used single proportionate method between the southwest closing corner and southeast corner of Section 25 using distances from G.L.O. Notes and Plat.

NE Corner of Section 36, T–7N, R–8W ODOT G–26–920
I found 3/8" iron pin. Monument and reference points fit ODOT survey, SWO 2737(1), and the following corner records:

L.S. 1378 found 1" iron pin in 1996 survey
L.S. 1272 found iron pin in 1998 survey
L.S. 1200 found 3/8" iron pin in 2012 survey.

Nothing set. I used 3/8" iron pin

C/4 Corner of Section 36, T–7N, R–8W ODOT G–26–952
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was set on intersecting lines between north and south quarter corners and the west closing corner and east quarter corner of Section 36.

E/4 Corner of Section 36, T–7N, R–8W ODOT G–26–914
I found 3/8" iron pin. Monument and references fit corner record in which L.S. 1200 set 3/8" iron pin in 2012 survey. Nothing set. I used 3/8" iron pin.

SE Corner of Section 36, T–7N, R–8W ODOT G–26–913
I found 5/8" iron pin. Corner location and found reference points fit ODOT survey, SWO 2737(1), and corner record in which L.S. 1378 found 5/8" iron pin in 1995 survey. Nothing set. I used 5/8" iron pin.

S/4 Corner of Section 36, T–7N, R–8W ODOT G–26–948
I found PK nail with tag. L.S. 1326 set PK nail and filed C.C.R. in 2003 survey. Monument did not fit proportionate distances between southwest closing corner and southeast corner of Section 36. I set PK nail with tag and reference points as shown. I used single proportionate method between the southwest closing corner and southeast corner of Section 36 using distances from G.L.O. Notes and Plat.

N

SCALE:
1" = 500'
LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

PLS	JTB	
DRAWN	JSO	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 74 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S074

8–87

NW Closing Corner of Section 1, T–6N, R–8W ODOT G–26–949
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, north of milepost 70.

Milepost 70 Corner of Section 1, T–6N, R–8W ODOT G–26–950
No corner evidence found. I set 1/2" iron pin with aluminum cap, stamped MP 70 and G–26–950. I set reference points as shown. I set monument using single proportionate method between found mileposts 68 and 70 1/2.

NE Closing Corner of Section 1, T–6N, R–8W ODOT G–26–951
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, south of milepost 70.

W Closing Corner of Section 1, T–6N, R–8W ODOT G–26–945
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, north of milepost 69 1/2.

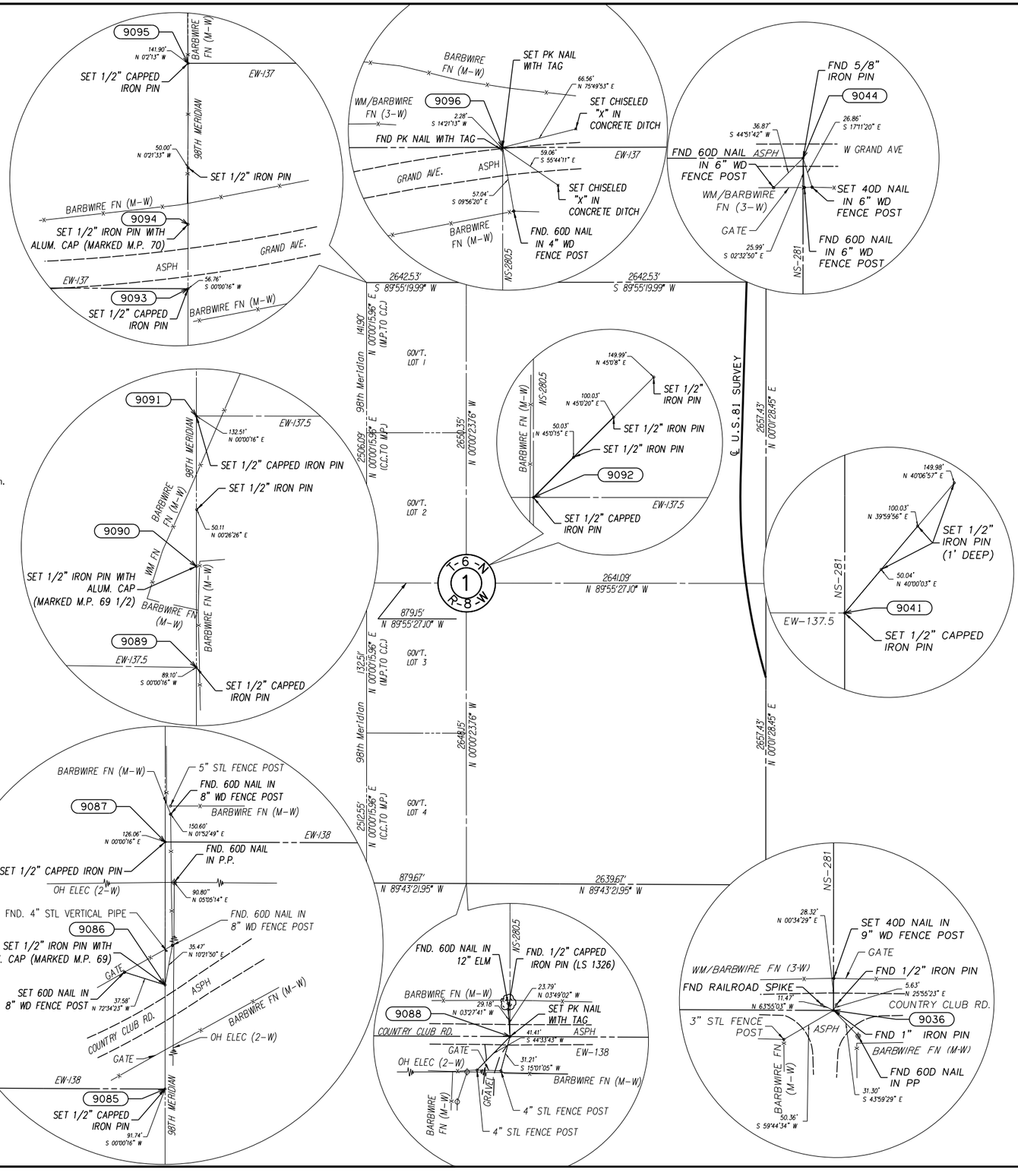
Milepost 69.5 Corner of Section 1, T–6N, R–8W ODOT G–26–946
No Corner evidence found. I set 1/2" iron pin with aluminum cap, stamped MP 69 1/2 and G–26–946. I set reference points as shown. I set monument using single proportionate method between found mileposts 68 and 70 1/2.

E Closing Corner of Section 1, T–6N, R–8W ODOT G–26–947
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, south of milepost 69 1/2.

SW Closing Corner of Section 1, T–6N, R–8W ODOT G–26–941
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, north of milepost 69

Milepost 69 Corner of Section 1, T–6N, R–8W ODOT G–26–942
I found 4" steel post with no brass cap that was found by L.S. 1082 in 1994 survey. The C.C.R. by L.S. 1082 did not list any supporting evidence. I found milepost 68 to the south and milepost 70 1/2 to the north and the 4" steel post did not fit the proportionate distance by nearly 30 feet. I determined that the 4" steel post was most likely a fence post that used to be connected to old fence line to the north. I set 1/2" iron pin with aluminum cap, stamped MP 69 and G–26–942. I set reference points as shown. I set monument using single proportionate method between found mileposts 68 and 70 1/2.

SE Closing Corner of Section 1, T–6N, R–8W ODOT G–26–943
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, south of milepost 69.



N/4 Corner of Section 1, T–6N, R–8W ODOT G–26–948
I found PK nail with tag. L.S. 1326 set PK nail and filed C.C.R. in 2003 survey. Monument did not fit proportionate distances between southwest closing corner and southeast corner of Section 36. I set PK nail with tag and reference points as shown. I used single proportionate method between the southwest closing corner and southeast corner of Section 36 using distances from G.L.O. Notes and Plat.

NE Corner of Section 1, T–6N, R–8W ODOT G–26–913
I found 5/8" iron pin. Corner location and found reference points fit ODOT survey, SWO 2737(1), and corner record in which L.S. 1378 found 5/8" iron pin in 1995 survey. Nothing set. I used 5/8" iron pin.

C/4 Corner of Section 1, T–6N, R–8W ODOT G–26–944
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was set on intersecting lines between north and south quarter corners and the west closing corner and east quarter corner of Section One.

E/4 Corner of Section 1, T–6N, R–8W ODOT G–26–908
No corner evidence found. I set 5/8" iron pin and references. I set corner using single proportionate method.

Angle Of Variance
At Sta. 9092 (C/4 Cor.)
X= 1969512.1828
Y= 614658.3618
Lat.= 35°01'20.25216"
Long.= 97°59'47.82985"
θ = 0°00'06.90798"

SE Corner of Section 1, T–6N, R–8W ODOT G–26–907
I found 1/2" iron pin, railroad spike, & 1" iron pin. 1/2" iron pin and found reference points fit corner record in which L.S. 1272 found 1/2" iron pin in 2001 survey, with no supporting evidence listed. No corner record found for railroad spike. 1" iron pin fits measurements from ODOT survey, SWO 2737(1). Nothing set. I used 1" iron pin.

S/4 Corner of Section 1, T–6N, R–8W ODOT G–26–940
Found 1/2" capped iron pin marked L.S. 1326. This monument is from a C.C.R. in which L.S. 1326 set a 1/2" capped iron pin in a 2014 survey. The monument was set using an incorrectly identified monument at milepost 69 in a C.C.R. by L.S. 1082 in a 1994 survey. This is further evidenced by the monument at the south quarter corner of Section One not fitting the section line road and fences. Set PK nail with tag. I set monument using single proportionate method between the southwest closing corner and southeast corner of Section One using distances from G.L.O. Notes and Plat.

SCALE:
1" = 500'
LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

PLS	JTB	
DRAWN	JSO	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SDS 75 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S075

8-87

NW Closing Corner of Section 12, T–6N, R–8W ODOT G–26–941
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, north of milepost 69

Milepost 69 Corner of Section 12, T–6N, R–8W ODOT G–26–942
I found 4" steel post with no brass cap that was found by L.S. 1082 in 1994 survey. The C.C.R. by L.S. 1082 did not list any supporting evidence. I found milepost 68 to the south and milepost 70 1/2 to the north and the 4" steel post did not fit the proportionate distance by nearly 30 feet. I determined that the 4" steel post was most likely a fence post that used to be connected to old fence line to the north. I set 1/2" iron pin with aluminum cap, stamped MP 69 and G–26–942. I set reference points as shown. I set monument using single proportionate method between found mileposts 68 and 70 1/2.

NE Closing Corner of Section 12, T–6N, R–8W ODOT G–26–943
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, south of milepost 69.

W Closing Corner of Section 12, T–6N, R–8W ODOT G–26–937
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, north of milepost 68 1/2

Milepost 68.5 Corner of Section 12, T–6N, R–8W ODOT G–26–938
No corner evidence found. I set 1/2" iron pin with aluminum cap, stamped MP 68 1/2 and G–26–938. I set reference points as shown. I set monument using single proportionate method between found mileposts 68 and 70 1/2.

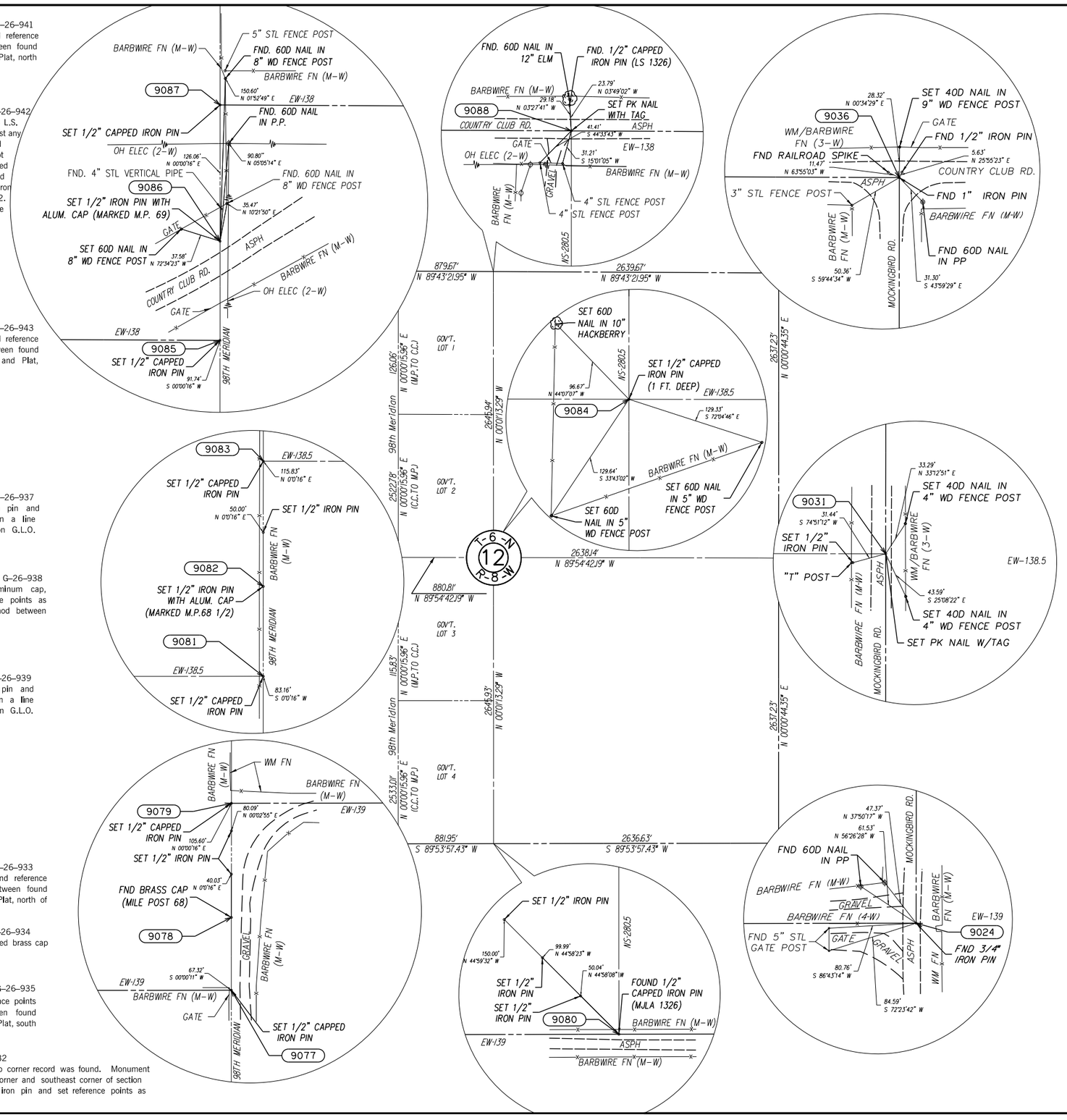
E Closing Corner of Section 12, T–6N, R–8W ODOT G–26–939
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, south of milepost 68 1/2.

SW Closing Corner of Section 12, T–6N, R–8W ODOT G–26–933
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, north of milepost 68

Milepost 68 Corner of Section 12, T–6N, R–8W ODOT G–26–934
Corner evidence found brass cap, marked, "MILE 68." I used brass cap and set reference points as shown.

SE Closing Corner of Section 12, T–6N, R–8W ODOT G–26–935
No evidence found. Set 1/2" capped iron pin and reference points as shown. Monument was placed on a line between found mileposts, at the distance specified on G.L.O. Notes and Plat, south of milepost 68.

S/4 Corner of Section 12, T–6N, R–8W ODOT G–26–932
I found 1/2" capped iron pin marked, "MJLA 1326". No corner record was found. Monument fits proportionate distances between southwest closing corner and southeast corner of section 12, from G.L.O. notes and Plat. I used 1/2" capped iron pin and set reference points as shown.



N/4 Corner of Section 12, T–6N, R–8W ODOT G–26–940
Found 1/2" capped iron pin marked L.S. 1326. This monument is from a C.C.R. in which L.S. 1326 set a 1/2" capped iron pin in a 2014 survey. The monument was set using an incorrectly identified monument at milepost 69 in a C.C.R. by L.S. 1082 in a 1994 survey. This is further evidenced by the monument at the south quarter corner of section one not fitting the section line road and fences. Set PK nail with tag. I set monument using single proportionate method between the southwest closing corner and southeast corner of Section One using distances from G.L.O. Notes and Plat.

NE Corner of Section 12, T–6N, R–8W ODOT G–26–907
I found 1/2" iron pin, railroad spike, & 1" iron pin. 1/2" iron pin and found reference points fit corner record in which L.S. 1272 found 1/2" iron pin in 2001 survey, with no supporting evidence listed. No corner record found for railroad spike. 1" iron pin fits measurements from ODOT survey, SWO 2737 (1). Nothing set. I used 1" iron pin.

C/4 Corner of Section 12, T–6N, R–8W ODOT G–26–936
No corner evidence found. I set 1/2" capped iron pin and reference points as shown. Monument was set on intersecting lines between north and south quarter corners and the west closing corner and east quarter corner of Section 12.

E/4 Corner of Section 12, T–6N, R–8W ODOT G–26–898
No corner evidence found. I set PK nail with tag. I used single proportion method to set the corner between the northwest and southwest corner of Section 7.

Angle Of Variance
At Sta. 9084 (C/4 Cor.)
X= 1969513.4280
Y= 609364.2708
Lat.= 35°00'27.88803"
Long.= 97°59'47.81702"
θ = 0°00'06.91526"

SE Corner of Section 12, T–6N, R–8W ODOT G–26–897
I found 3/4" iron pin. Corner location and found reference points match the corner records filed by the following surveyors:

L.S. 449 found iron pin (C.C.R. filed June 8, 1982)
L.S. 1082 found 3/4" iron pin (C.C.R. filed APR 18, 1994)
L.S. 1272 found 3/8" iron pin (C.C.R. filed Dec 7, 1998)
L.S. 1272 found iron pin (C.C.R. filed Aug 31, 2001).

Nothing set. I used 3/4" iron pin.

SCALE:
1" = 500'
LAND CORNER DETAILS ARE SHOWN AT 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	OKLA.				

REVISIONS	
DESCRIPTION	DATE

PLS	JTB	
DRAWN	JSO	
CHECKED	JTB	
APPROVED	JTB	
CREW	BENHAM	

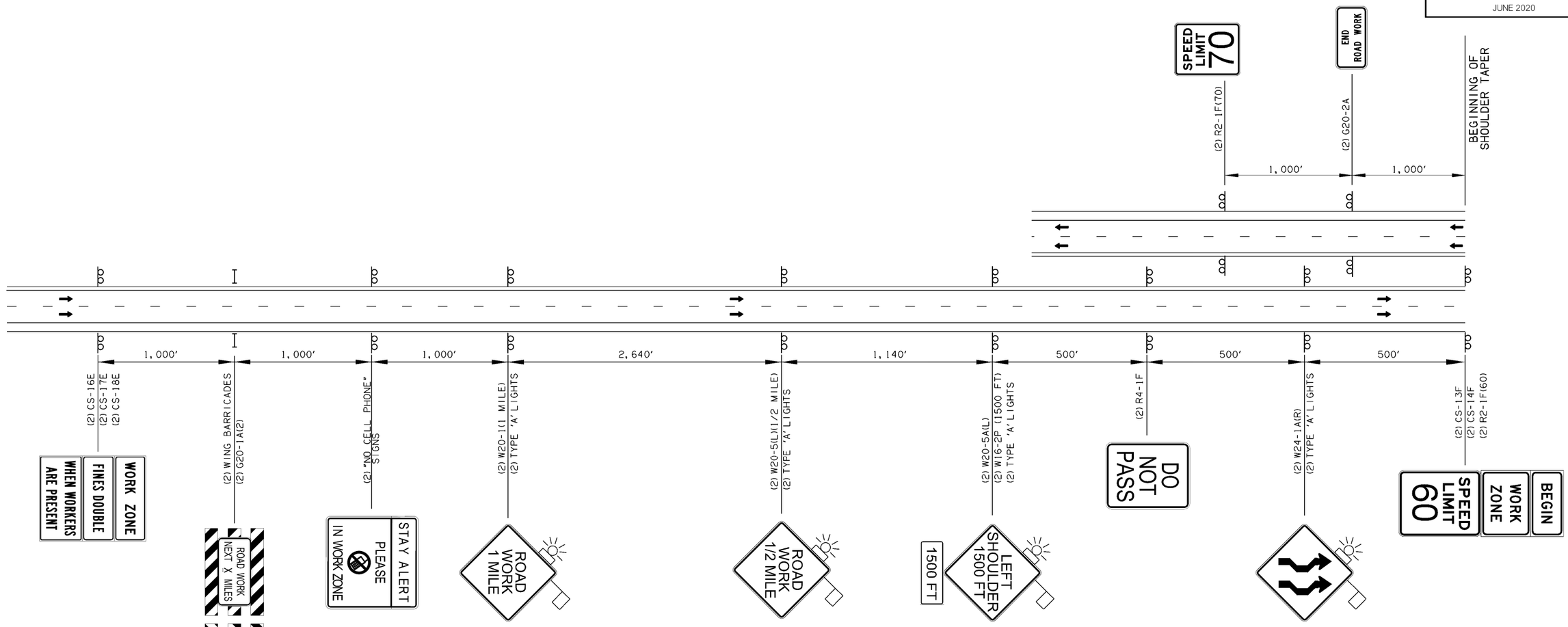
OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

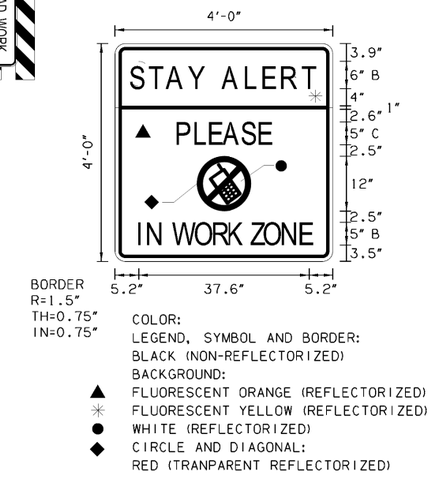
SURVEY DATA SHEET

SDS 76 OF 76

SWO 4380 (1) PROJECT NO. 24428(04) SHEET NO. S076

FINAL FIELD REVIEW MEETING
JUNE 2020





COLOR:
LEGEND, SYMBOL AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
▲ FLUORESCENT ORANGE (REFLECTORIZED)
✳ FLUORESCENT YELLOW (REFLECTORIZED)
● WHITE (REFLECTORIZED)
◆ CIRCLE AND DIAGONAL:
RED (TRANPARENT REFLECTORIZED)

TYPICAL ADVANCE SIGNING
SHIFTING TAPER - TO OUTSIDE
(PHASES 1 & 6 - US-81)

NOTES:

1. TRAFFIC CONTROL ADVANCE WARNING SIGNS SHALL BE MIRRORED FOR OPPOSITE DIRECTION.
2. TWO (2) PORTABLE CHANGEABLE MESSAGE SIGNS PER APPROACH SHALL BE PROVIDED. THESE SIGNS WILL BE USED AT THE DISCRETION OF THE ENGINEER.

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUGGESTED TRAFFIC CONTROL (1)-
ADVANCE SIGNING

State Job No. 24428(13) Sheet No. T001

US-81 REALIGNMENT
GRADY COUNTY

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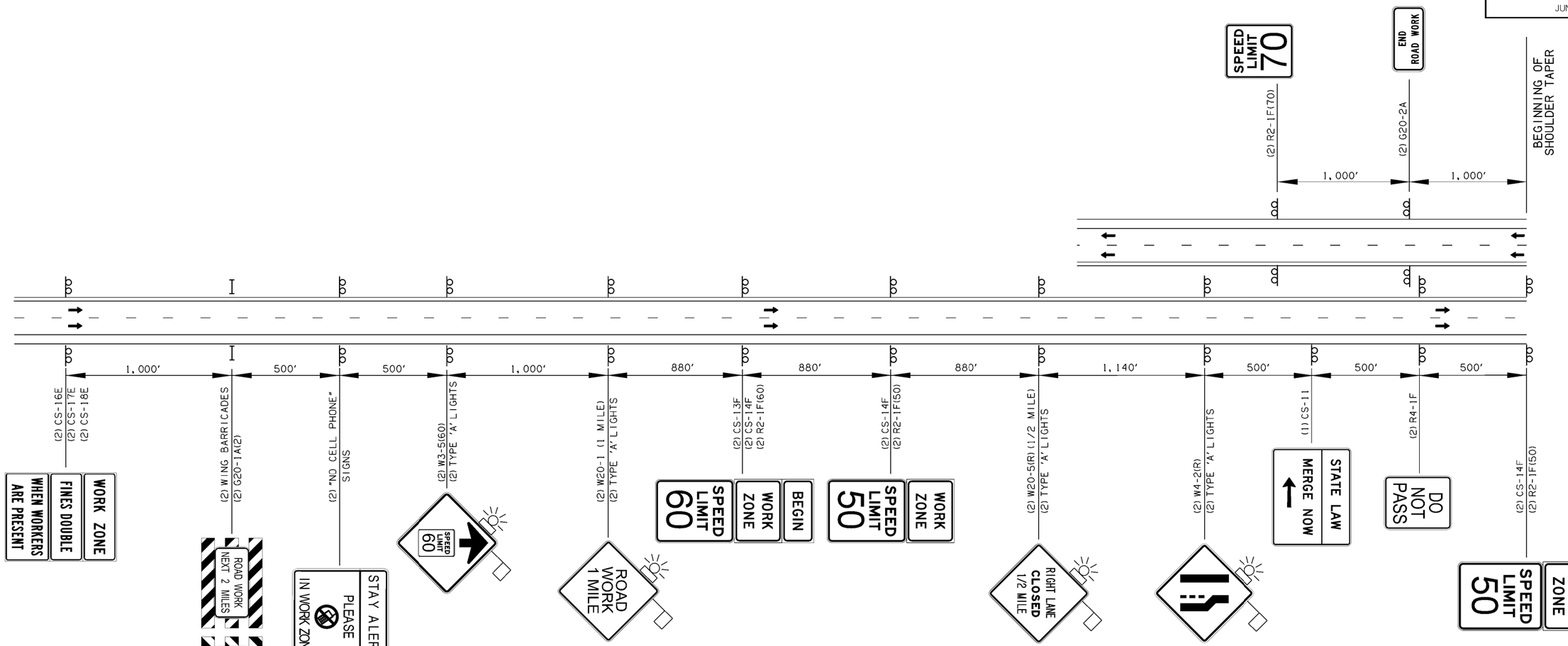
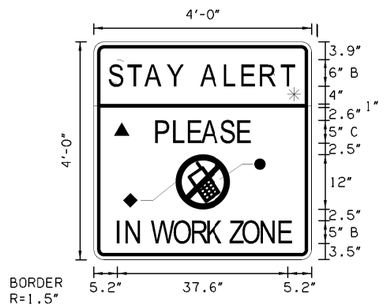
FINAL FIELD REVIEW MEETING
JUNE 2020





COLOR:
LEGEND, SYMBOL AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
▲ FLUORESCENT ORANGE (REFLECTORIZED)
✳ FLUORESCENT YELLOW (REFLECTORIZED)
● WHITE (REFLECTORIZED)
◆ CIRCLE AND DIAGONAL:
RED (TRANPARENT REFLECTORIZED)

TYPICAL ADVANCE SIGNING
OUTSIDE LANE CLOSURE
(MULTIPLE PHASES - US-81)

NOTES:

1. TRAFFIC CONTROL ADVANCE WARNING SIGNS SHALL BE MIRRORED FOR OPPOSITE DIRECTION.
2. TWO (2) PORTABLE CHANGEABLE MESSAGE SIGNS PER APPROACH SHALL BE PROVIDED. THESE SIGNS WILL BE USED AT THE DISCRETION OF THE ENGINEER.

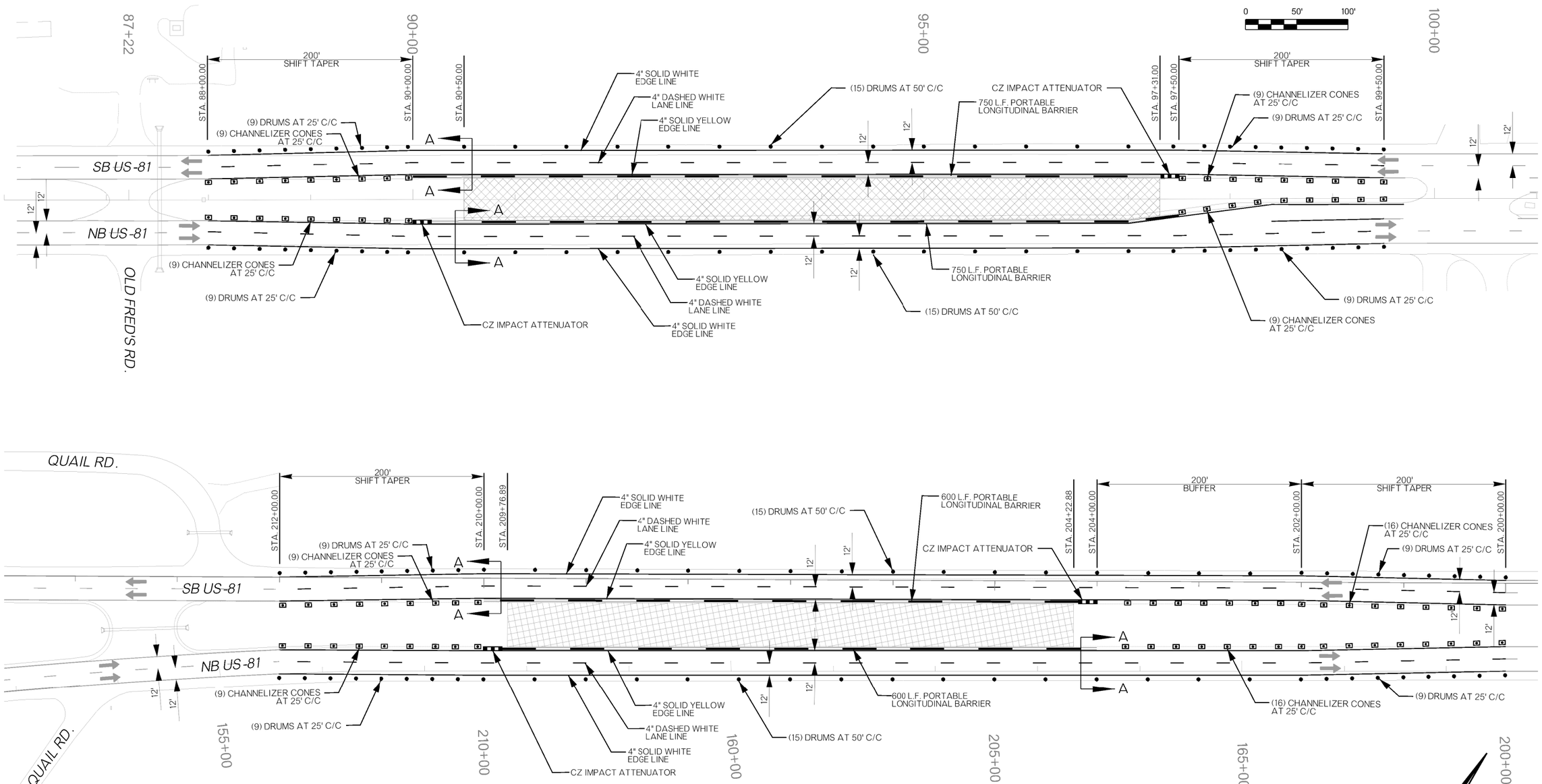
PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUGGESTED TRAFFIC CONTROL (2) - ADVANCE SIGNING

State Job No. 24428(13) Sheet No. T002

US-81 REALIGNMENT
GRADY COUNTY

FINAL FIELD REVIEW MEETING
JUNE 2020



SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 1: CONSTRUCT QUAIL RD. DETOUR AND US 81 CROSS OVERS TRAFFIC ON EXISTING US-81 AND QUAIL RD.

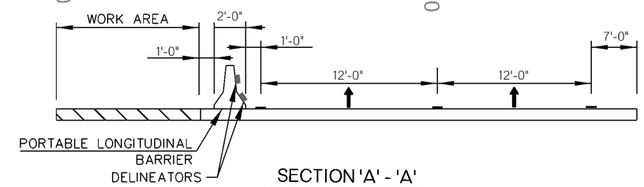
A SHIFT TRAFFIC AWAY FROM THE MEDIAN ALONG EXISTING US 81.
B CONSTRUCT CROSS OVER ALONG US 81 FROM STA 90+50 TO STA 97+31 INCLUDING STR T1.
C CONSTRUCT CROSS OVER ALONG EXISTING US 81 APPROXIMATELY 723 LF NORTHEAST OF RAMP D STA. 217+00 AND CONTINUING FOR 554 LF, INCLUDING STR T2.
D SHIFT TRAFFIC TO THE SOUTH EDGE OF PAVEMENT ON QUAIL RD.
E CONSTRUCT STRS T3 AND STR 62 FROM 12' LT. OF CENTERLINE OF QUAIL RD. TO NORTH END SECTION WITH TEMPORARY CONNECTION TO EXISTING RCB.
F CONSTRUCT QUAIL RD. DETOUR.
G CLOSE ACCESS TO 16TH AVE. SOUTH OF QUAIL ROAD. SHIFT TRAFFIC TO QUAIL RD. DETOUR. SOUTHBOUND 16TH AVE. WILL ACCESS EW 140.5 VIA SOUTHBOUND US 81.

NOTES:

1. BARRIER DELINEATORS SHALL BE PLACED AS SHOWN AT 12'-6" SPACING C/C. COST TO BE INCLUDED IN PAY ITEM 877(B) "DELIVER PORTABLE LONGITUDINAL BARRIER."
2. SEE ADVANCE SIGNING SHEETS FOR ADDITIONAL SIGNS REQUIRED ON US-81.
3. NORTH CROSSOVER STATIONING IS BASED ON PROJECTED RAMP D ALIGNMENT

LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE



SECTION 'A' - 'A'

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUGGESTED TRAFFIC CONTROL (3) - PHASE 1 (US-81) (1)

State Job No. 24428(13) Sheet No. T003

US-81 REALIGNMENT

GRADY COUNTY

6/25/2020

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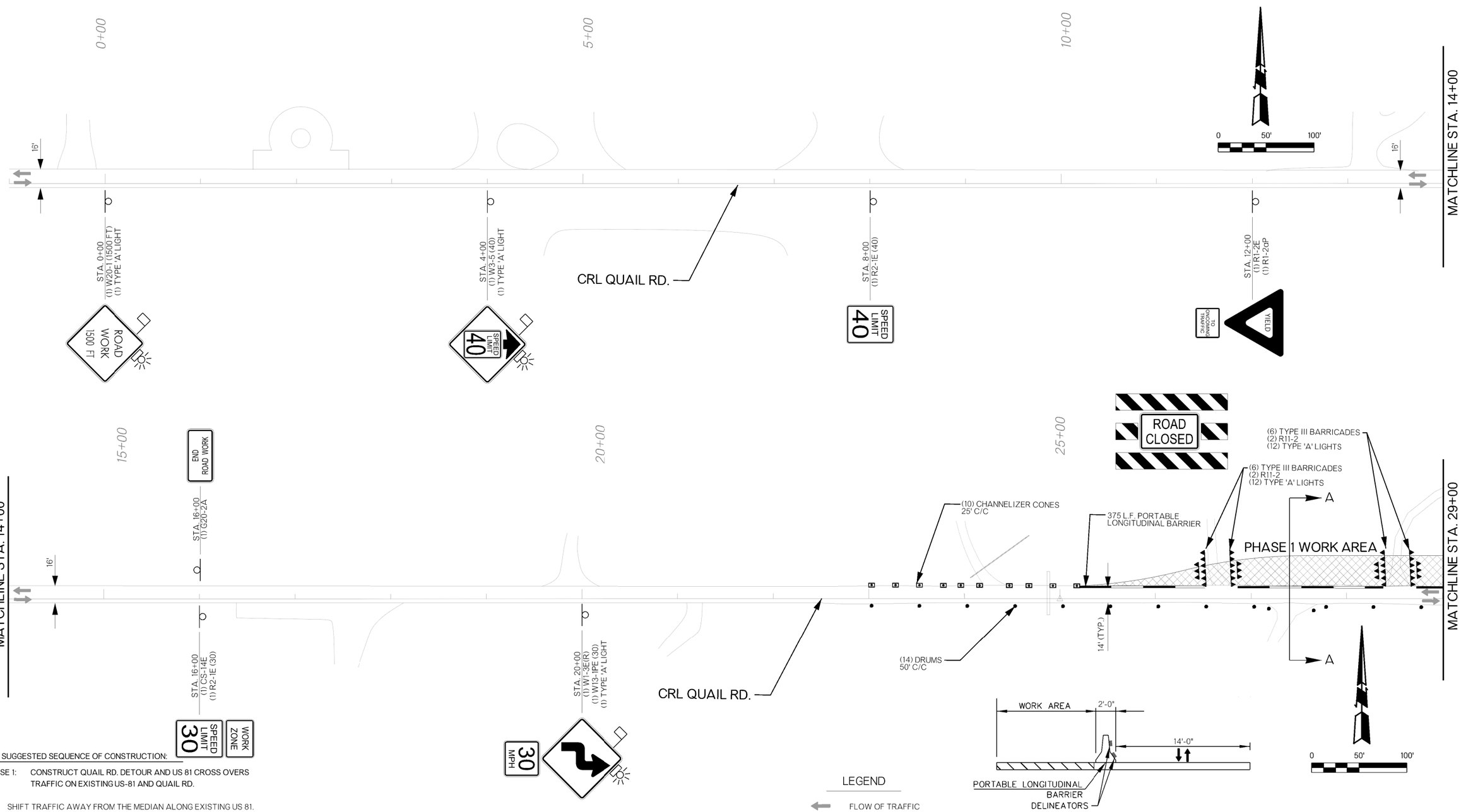
FINAL FIELD REVIEW MEETING
JUNE 2020



SECTION 'A' - 'A'

SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 1: CONSTRUCT QUAIL RD. DETOUR AND US 81 CROSS OVERS TRAFFIC ON EXISTING US-81 AND QUAIL RD.

A SHIFT TRAFFIC AWAY FROM THE MEDIAN ALONG EXISTING US 81.
B CONSTRUCT CROSS OVER ALONG US 81 FROM STA 90+50 TO STA 97+31 INCLUDING STR T1.
C CONSTRUCT CROSS OVER ALONG EXISTING US 81 APPROXIMATELY 723 LF NORTHEAST OF RAMP D STA. 217+00 AND CONTINUING FOR 554 LF, INCLUDING STR T2.
D SHIFT TRAFFIC TO THE SOUTH EDGE OF PAVEMENT ON QUAIL RD.
E CONSTRUCT STRS T3 AND STR 62 FROM 12' LT. OF CENTERLINE OF QUAIL RD. TO NORTH END SECTION WITH TEMPORARY CONNECTION TO EXISTING RCB.
F CONSTRUCT QUAIL RD. DETOUR.
G CLOSE ACCESS TO 16TH AVE. SOUTH OF QUAIL ROAD. SHIFT TRAFFIC TO QUAIL RD. DETOUR. SOUTHBOUND 16TH AVE. WILL ACCESS EW 140.5 VIA SOUTHBOUND US 81.

NOTES:

1. MAINTAIN ACCESS TO LOCAL DRIVEWAYS THROUGHOUT THIS PHASE OF CONSTRUCTION.
2. BARRIER DELINEATORS SHALL BE PLACED AS SHOWN AT 12'-6" SPACING C/C. COST TO BE INCLUDED IN PAY ITEM 877(B) "DELIVER PORTABLE LONGITUDINAL BARRIER."

LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUGGESTED TRAFFIC CONTROL (4) - PHASE 1 (QUAIL RD) (1)

State Job No. 24428(13) Sheet No. T004

US-81 REALIGNMENT
GRADY COUNTY

6/25/2020
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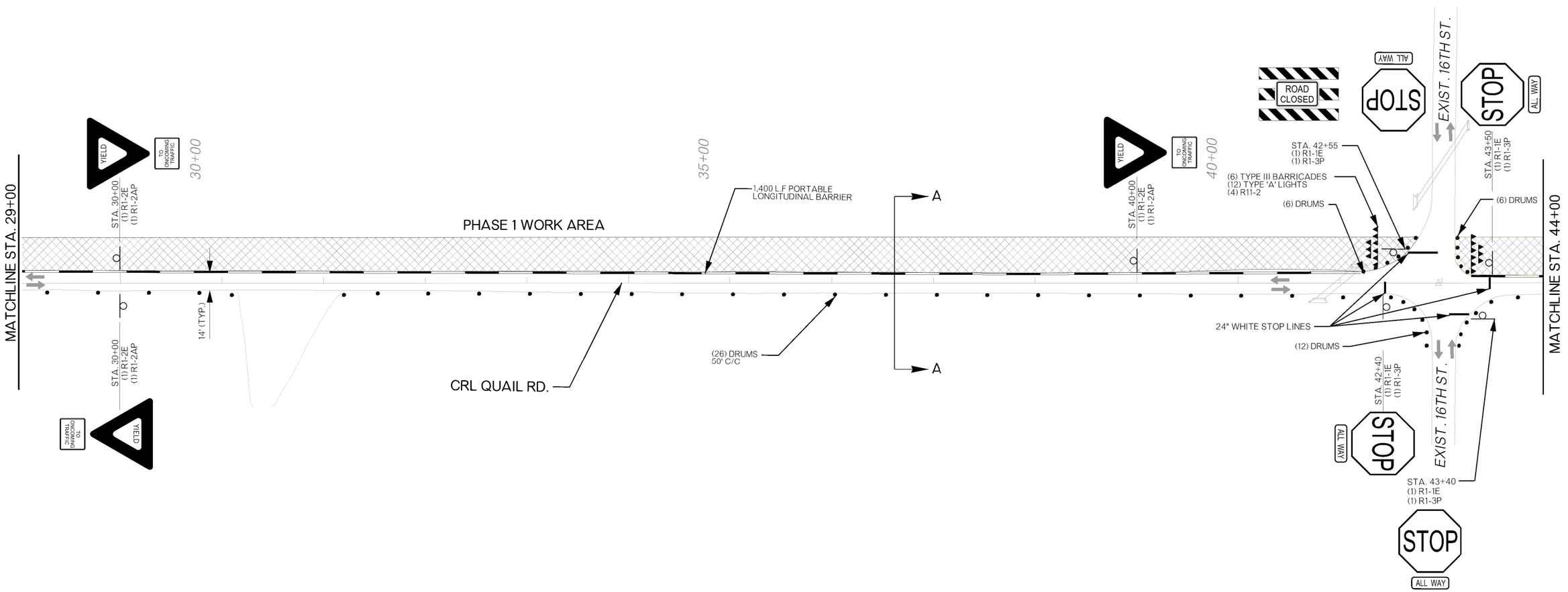
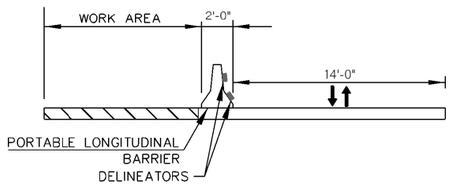
FINAL FIELD REVIEW MEETING
JUNE 2020

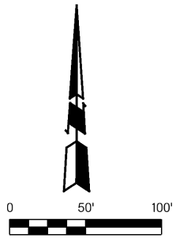


NOTES:

1. BARRIER DELINEATORS SHALL BE PLACED AS SHOWN AT 12'-6" SPACING C/C. COST TO BE INCLUDED IN PAY ITEM 877(B) "DELIVER PORTABLE LONGITUDINAL BARRIER."



SECTION 'A' - 'A'



LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE

SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 1: CONSTRUCT QUAIL RD. DETOUR AND US 81 CROSS OVERS TRAFFIC ON EXISTING US-81 AND QUAIL RD.

A SHIFT TRAFFIC AWAY FROM THE MEDIAN ALONG EXISTING US 81.
B CONSTRUCT CROSS OVER ALONG US 81 FROM STA 90+50 TO STA 97+31 INCLUDING STR T1.
C CONSTRUCT CROSS OVER ALONG EXISTING US 81 APPROXIMATELY 723 LF NORTHEAST OF RAMP D STA. 217+00 AND CONTINUING FOR 554 LF, INCLUDING STR T2.
D SHIFT TRAFFIC TO THE SOUTH EDGE OF PAVEMENT ON QUAIL RD.
E CONSTRUCT STRS T3 AND STR 62 FROM 12' LT. OF CENTERLINE OF QUAIL RD. TO NORTH END SECTION WITH TEMPORARY CONNECTION TO EXISTING RCB.
F CONSTRUCT QUAIL RD. DETOUR.
G CLOSE ACCESS TO 16TH AVE. SOUTH OF QUAIL ROAD. SHIFT TRAFFIC TO QUAIL RD. DETOUR. SOUTHBOUND 16TH AVE. WILL ACCESS EW 140.5 VIA SOUTHBOUND US 81.

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUGGESTED TRAFFIC CONTROL (5) - PHASE 1 (QUAIL RD) (2)

State Job No. 24428(13) Sheet No. T005

US-81 REALIGNMENT
GRADY COUNTY

6/25/2020
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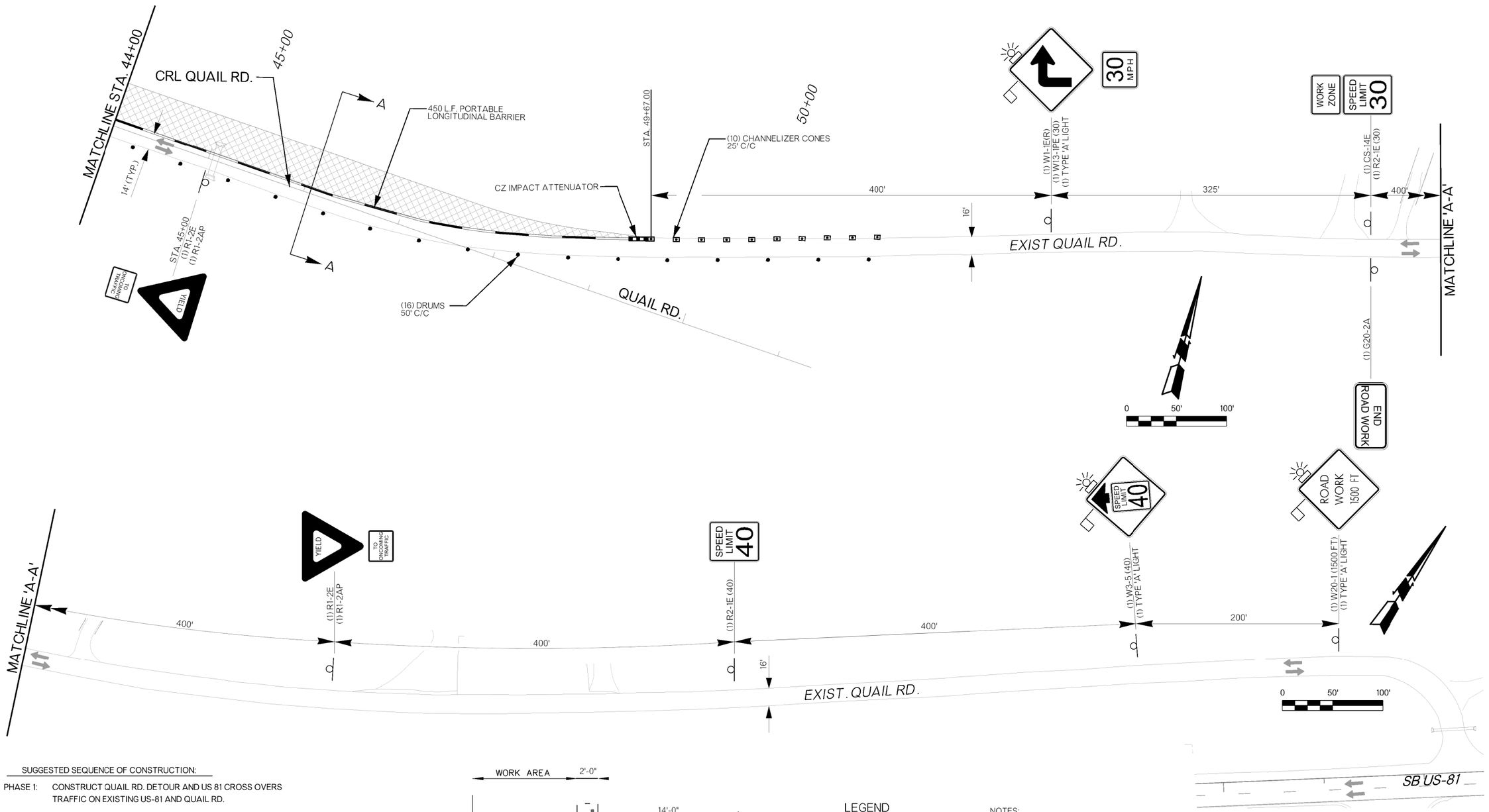
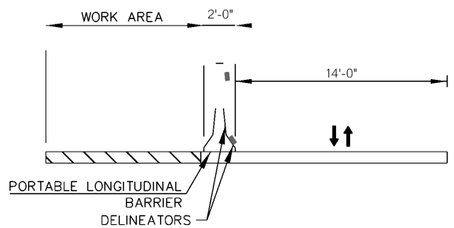
FINAL FIELD REVIEW MEETING
JUNE 2020



SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 1: CONSTRUCT QUAIL RD. DETOUR AND US 81 CROSS OVERS TRAFFIC ON EXISTING US-81 AND QUAIL RD.

A SHIFT TRAFFIC AWAY FROM THE MEDIAN ALONG EXISTING US 81.
B CONSTRUCT CROSS OVER ALONG US 81 FROM STA 90+50 TO STA 97+31 INCLUDING STR T1.
C CONSTRUCT CROSS OVER ALONG EXISTING US 81 APPROXIMATELY 723 LF NORTHEAST OF RAMP D STA. 217+00 AND CONTINUING FOR 554 LF, INCLUDING STR T2.
D SHIFT TRAFFIC TO THE SOUTH EDGE OF PAVEMENT ON QUAIL RD.
E CONSTRUCT STRS T3 AND STR 62 FROM 12' LT. OF CENTERLINE OF QUAIL RD. TO NORTH END SECTION WITH TEMPORARY CONNECTION TO EXISTING RCB.
F CONSTRUCT QUAIL RD. DETOUR.
G CLOSE ACCESS TO 16TH AVE. SOUTH OF QUAIL ROAD. SHIFT TRAFFIC TO QUAIL RD. DETOUR. SOUTHBOUND 16TH AVE. WILL ACCESS EW 140.5 VIA SOUTHBOUND US 81.



SECTION 'A' - 'A'

LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE

NOTES:

1. BARRIER DELINEATORS SHALL BE PLACED AS SHOWN AT 12'-6" SPACING C/C. COST TO BE INCLUDED IN PAY ITEM 877(B) "DELIVER PORTABLE LONGITUDINAL BARRIER."

PRELIMINARY

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SUGGESTED TRAFFIC CONTROL (6) - PHASE 1 (QUAIL RD) (3)

State Job No. 24428(13) Sheet No. T006

US-81 REALIGNMENT
GRADY COUNTY

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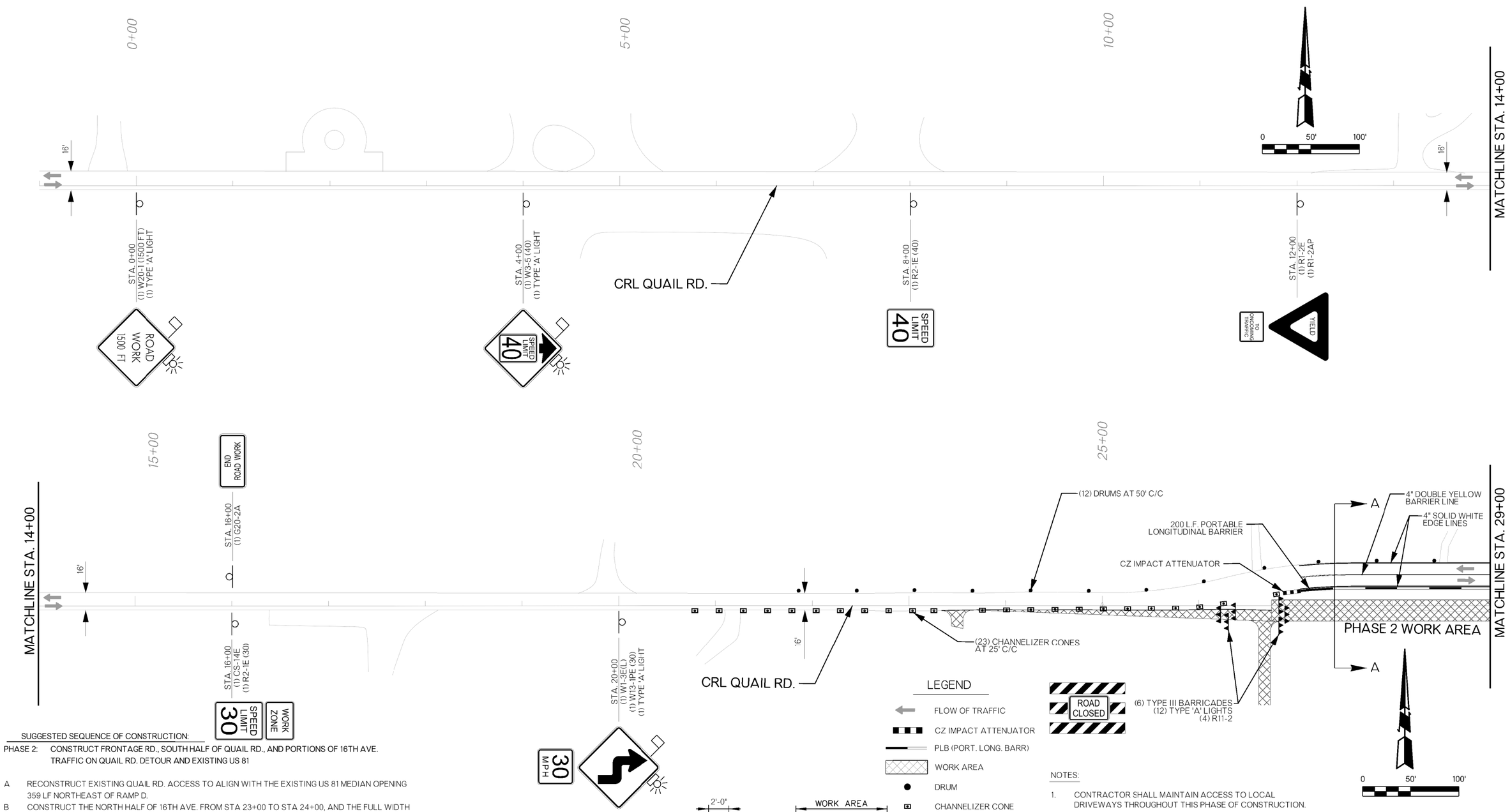
FINAL FIELD REVIEW MEETING
JUNE 2020



SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 2: CONSTRUCT FRONTAGE RD., SOUTH HALF OF QUAIL RD., AND PORTIONS OF 16TH AVE. TRAFFIC ON QUAIL RD. DETOUR AND EXISTING US 81

A RECONSTRUCT EXISTING QUAIL RD. ACCESS TO ALIGN WITH THE EXISTING US 81 MEDIAN OPENING 359 LF NORTHEAST OF RAMP D.

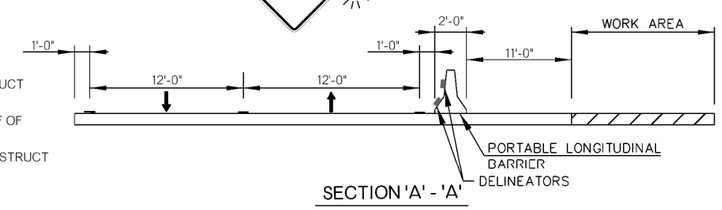
B CONSTRUCT THE NORTH HALF OF 16TH AVE. FROM STA 23+00 TO STA 24+00, AND THE FULL WIDTH OF 16TH AVE. FROM STA 24+00 TO STA 32+00.

C CONSTRUCT INCIDENTAL QUAIL RD. FROM STA 23+34 TO STA 26+75. CONSTRUCT REMAINDER OF STR 62 AND QUAIL RD. FROM 6' LT. OF CENTERLINE TO SOUTH TOE FROM STA 26+75 TO STA 46+75. CONSTRUCT FROM 16' LT. OF CENTERLINE OF QUAIL RD. TO SOUTH TOE FROM STA 46+75 TO STA 50+00.

D CONSTRUCT TEMPORARY CONNECTION BETWEEN EXISTING QUAIL RD. AND THE PROPOSED SOUTH HALF OF QUAIL AT STA 48+00. CONSTRUCT TEMPORARY CONNECTION AND STR T4 ONE HALF AT A TIME.

E CONSTRUCT THE FRONTAGE RD. AND THE WEST HALF OF EW 140.5 FROM STA 29+00 TO STA 32+00. CONSTRUCT STRS 53 AND 54 ONE HALF AT A TIME. UTILIZE EXISTING 16TH AVE. PAVEMENT FOR ACCESS DURING CONSTRUCTION OF FRONTAGE RD.

F SHIFT TRAFFIC TO THE SOUTH SIDE OF QUAIL RD.



SECTION 'A' - 'A'

LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE

NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO LOCAL DRIVEWAYS THROUGHOUT THIS PHASE OF CONSTRUCTION.
2. BARRIER DELINEATORS SHALL BE PLACED AS SHOWN AT 12'-6' SPACING C/C. COST TO BE INCLUDED IN PAY ITEM 877(B) "DELIVER PORTABLE LONGITUDINAL BARRIER".

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUGGESTED TRAFFIC CONTROL (7) - PHASE 2 (QUAIL RD) (1)

State Job No. 24428(13) Sheet No. T007

US-81 REALIGNMENT

GRADY COUNTY

6/25/2020

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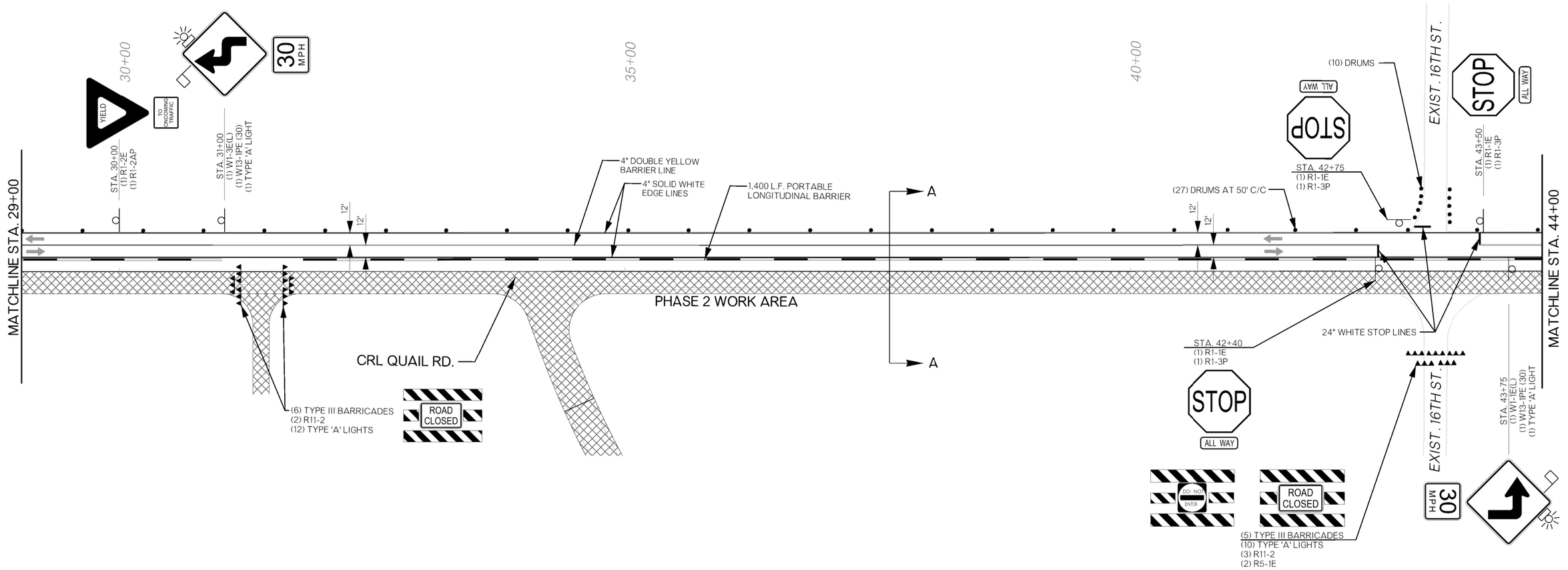
FINAL FIELD REVIEW MEETING
JUNE 2020



SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 2: CONSTRUCT FRONTAGE RD., SOUTH HALF OF QUAIL RD., AND PORTIONS OF 16TH AVE. TRAFFIC ON QUAIL RD. DETOUR AND EXISTING US 81

A RECONSTRUCT EXISTING QUAIL RD. ACCESS TO ALIGN WITH THE EXISTING US 81 MEDIAN OPENING 359 LF NORTHEAST OF RAMP D.

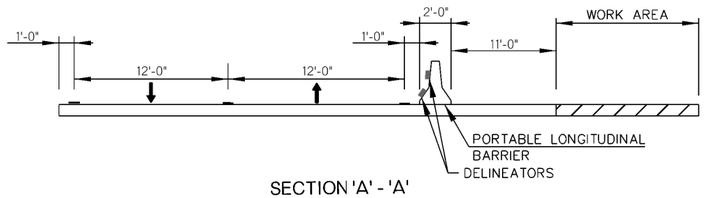
B CONSTRUCT THE NORTH HALF OF 16TH AVE. FROM STA 23+00 TO STA 24+00, AND THE FULL WIDTH OF 16TH AVE. FROM STA 24+00 TO STA 32+00.

C CONSTRUCT INCIDENTAL QUAIL RD. FROM STA 23+34 TO STA 26+75. CONSTRUCT REMAINDER OF STR 62 AND QUAIL RD. FROM 6' LT. OF CENTERLINE TO SOUTH TOE FROM STA 26+75 TO STA 46+75. CONSTRUCT FROM 16' LT. OF CENTERLINE OF QUAIL RD. TO SOUTH TOE FROM STA 46+75 TO STA 50+00.

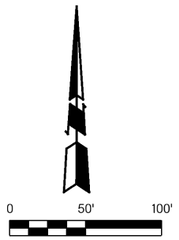
D CONSTRUCT TEMPORARY CONNECTION BETWEEN EXISTING QUAIL RD. AND THE PROPCSED SOUTH HALF OF QUAIL AT STA 48+00. CONSTRUCT TEMPORARY CONNECTION AND STR T4 ONE HALF AT A TIME.

E CONSTRUCT THE FRONTAGE RD. AND THE WEST HALF OF EW 140.5 FROM STA 29+00 TO STA 32+00. CONSTRUCT STRS 53 AND 54 ONE HALF AT A TIME. UTILIZE EXISTING 16TH AVE. PAVEMENT FOR ACCESS DURING CONSTRUCTION OF FRONTAGE RD.

F SHIFT TRAFFIC TO THE SOUTH SIDE OF QUAIL RD.



SECTION 'A' - 'A'



LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE

NOTES:

1. BARRIER DELINEATORS SHALL BE PLACED AS SHOWN AT 12'-6' SPACING C/C. COST TO BE INCLUDED IN PAY ITEM 877(B) "DELIVER PORTABLE LONGITUDINAL BARRIER".

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUGGESTED TRAFFIC CONTROL (8) - PHASE 2 (QUAIL RD) (2)

State Job No. 24428(13) Sheet No. T008

GRADY COUNTY US-81 REALIGNMENT

6/25/2020

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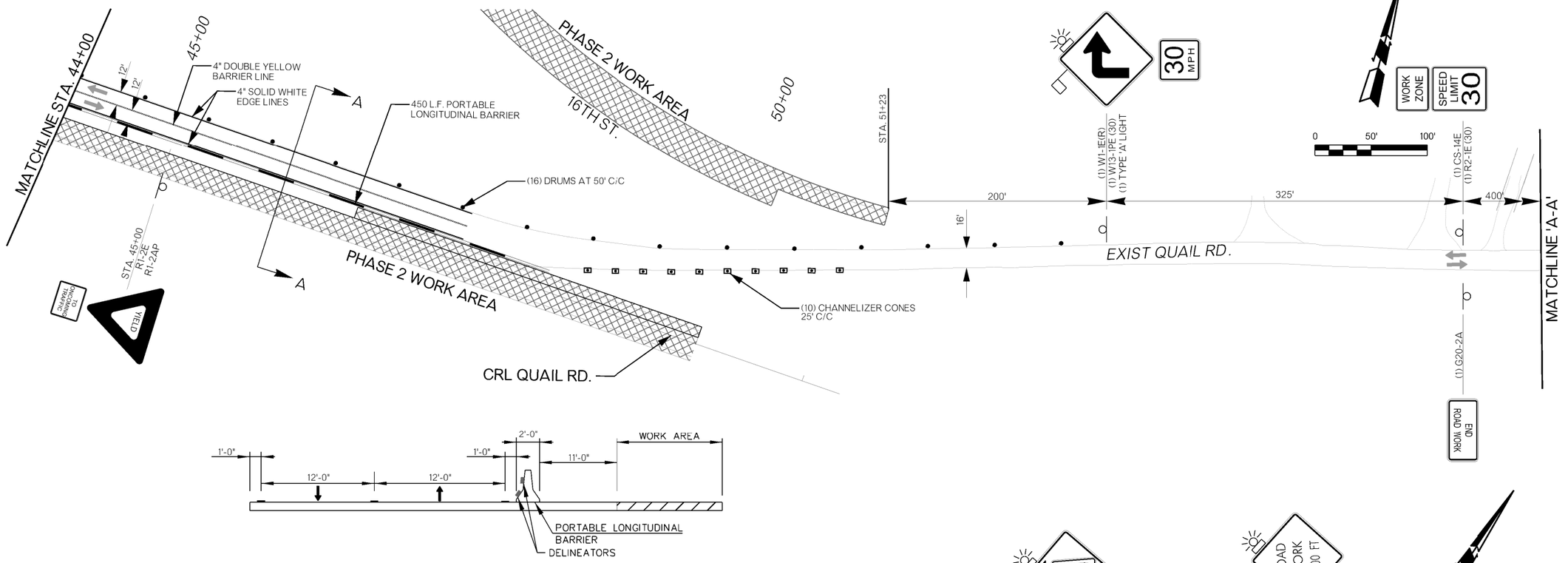
FINAL FIELD REVIEW MEETING
JUNE 2020



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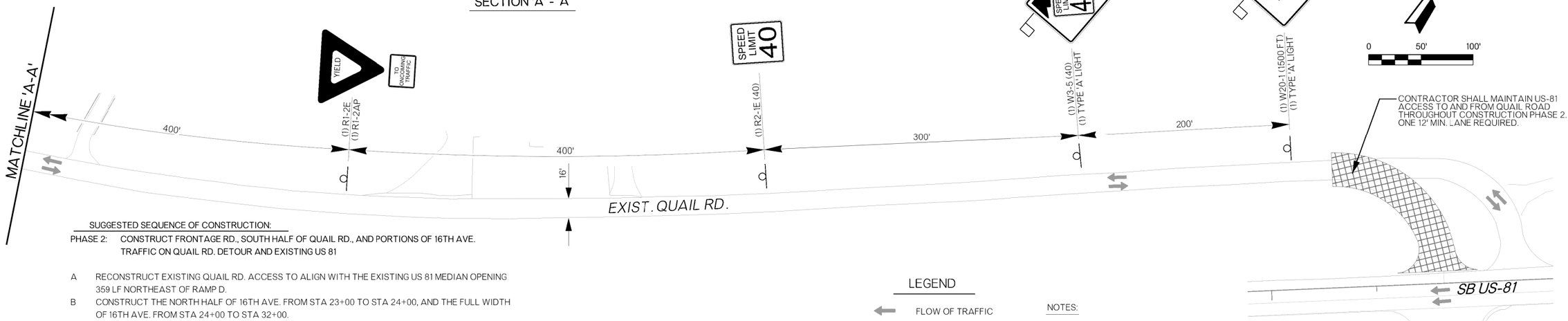

SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 2: CONSTRUCT FRONTAGE RD., SOUTH HALF OF QUAIL RD., AND PORTIONS OF 16TH AVE. TRAFFIC ON QUAIL RD. DETOUR AND EXISTING US 81

A RECONSTRUCT EXISTING QUAIL RD. ACCESS TO ALIGN WITH THE EXISTING US 81 MEDIAN OPENING 359 LF NORTHEAST OF RAMP D.

B CONSTRUCT THE NORTH HALF OF 16TH AVE. FROM STA 23+00 TO STA 24+00, AND THE FULL WIDTH OF 16TH AVE. FROM STA 24+00 TO STA 32+00.

C CONSTRUCT INCIDENTAL QUAIL RD. FROM STA 23+34 TO STA 26+75. CONSTRUCT REMAINDER OF STR 62 AND QUAIL RD. FROM 6' LT. OF CENTERLINE TO SOUTH TOE FROM STA 26+75 TO STA 46+75. CONSTRUCT FROM 16' LT. OF CENTERLINE OF QUAIL RD. TO SOUTH TOE FROM STA 46+75 TO STA 50+00.

D CONSTRUCT TEMPORARY CONNECTION BETWEEN EXISTING QUAIL RD. AND THE PROPOSED SOUTH HALF OF QUAIL AT STA 48+00. CONSTRUCT TEMPORARY CONNECTION AND STR T4 ONE HALF AT A TIME.

E CONSTRUCT THE FRONTAGE RD. AND THE WEST HALF OF EW 140.5 FROM STA 29+00 TO STA 32+00. CONSTRUCT STRS 53 AND 54 ONE HALF AT A TIME. UTILIZE EXISTING 16TH AVE. PAVEMENT FOR ACCESS DURING CONSTRUCTION OF FRONTAGE RD.

F SHIFT TRAFFIC TO THE SOUTH SIDE OF QUAIL RD.

LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE

NOTES:

1. BARRIER DELINEATORS SHALL BE PLACED AS SHOWN AT 12'-6" SPACING C/C. COST TO BE INCLUDED IN PAY ITEM 877(B) "DELIVER PORTABLE LONGITUDINAL BARRIER".

PRELIMINARY

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SUGGESTED TRAFFIC CONTROL (9) - PHASE 2 (QUAIL RD) (3)

State Job No. 24428(13) Sheet No. T009

US-81 REALIGNMENT
GRADY COUNTY

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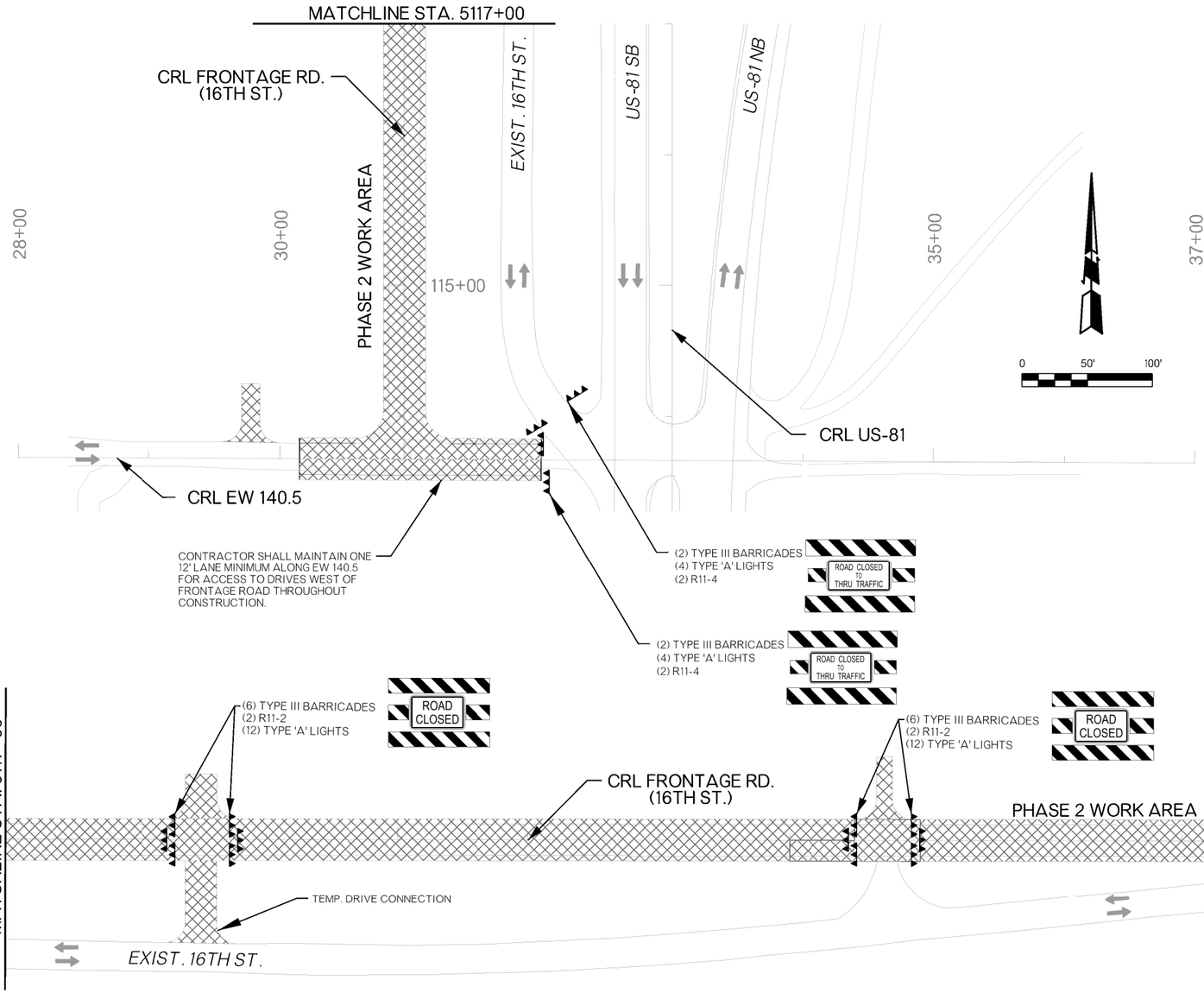
FINAL FIELD REVIEW MEETING
JUNE 2020

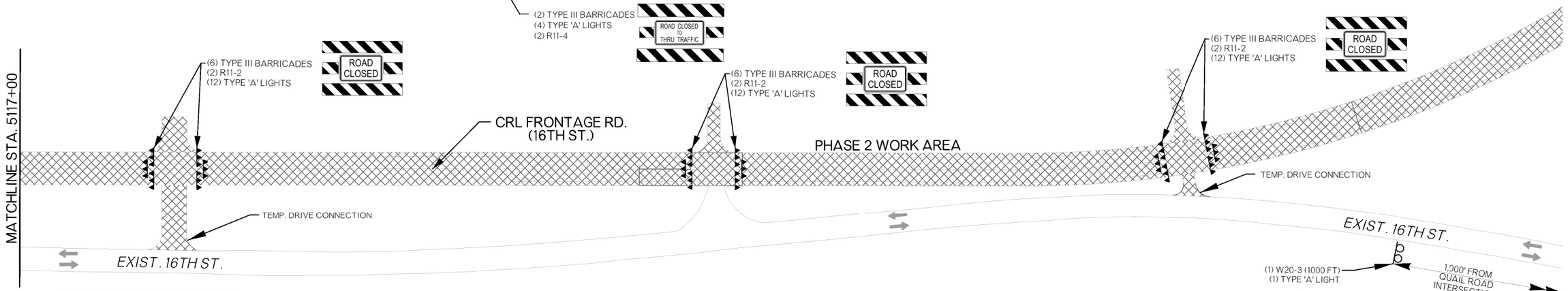


LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE

NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO LOCAL DRIVEWAYS THROUGHOUT THIS PHASE OF CONSTRUCTION.



SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 2: CONSTRUCT FRONTAGE RD., SOUTH HALF OF QUAIL RD., AND PORTIONS OF 16TH AVE. TRAFFIC ON QUAIL RD. DETOUR AND EXISTING US 81

A RECONSTRUCT EXISTING QUAIL RD. ACCESS TO ALIGN WITH THE EXISTING US 81 MEDIAN OPENING 359 LF NORTHEAST OF RAMP D.

B CONSTRUCT THE NORTH HALF OF 16TH AVE. FROM STA 23+00 TO STA 24+00, AND THE FULL WIDTH OF 16TH AVE. FROM STA 24+00 TO STA 32+00.

C CONSTRUCT INCIDENTAL QUAIL RD. FROM STA 23+34 TO STA 26+75. CONSTRUCT REMAINDER OF STR 62 AND QUAIL RD. FROM 6' LT. OF CENTERLINE TO SOUTH TOE FROM STA 26+75 TO STA 46+75. CONSTRUCT FROM 16' LT. OF CENTERLINE OF QUAIL RD. TO SOUTH TOE FROM STA 46+75 TO STA 50+00.

D CONSTRUCT TEMPORARY CONNECTION BETWEEN EXISTING QUAIL RD. AND THE PROPOSED SOUTH HALF OF QUAIL AT STA 48+00. CONSTRUCT TEMPORARY CONNECTION AND STR T4 ONE HALF AT A TIME.

E CONSTRUCT THE FRONTAGE RD. AND THE WEST HALF OF EW 140.5 FROM STA 29+00 TO STA 32+00. CONSTRUCT STRS 53 AND 54 ONE HALF AT A TIME. UTILIZE EXISTING 16TH AVE. PAVEMENT FOR ACCESS DURING CONSTRUCTION OF FRONTAGE RD.

F SHIFT TRAFFIC TO THE SOUTH SIDE OF QUAIL RD.

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUGGESTED TRAFFIC CONTROL (10) - PHASE 2 (16TH ST.)

State Job No. 24428(13) Sheet No. T010

US-81 REALIGNMENT
GRADY COUNTY

6/25/2020
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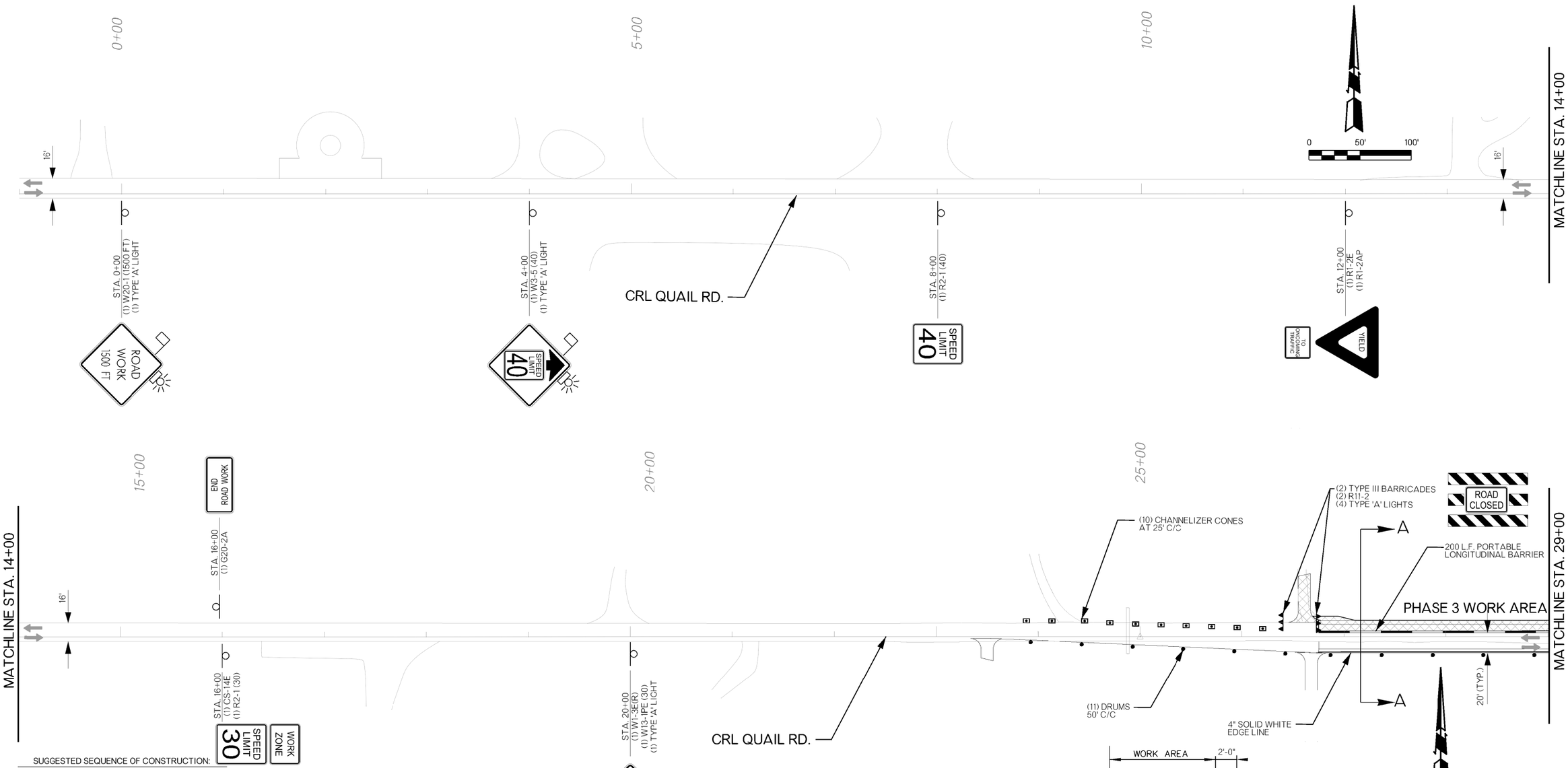
FINAL FIELD REVIEW MEETING
JUNE 2020



SECTION 'A' - 'A'

SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 3: CONSTRUCT REMAINDER OF QUAIL RD. AND PORTIONS OF 16TH AVE. TRAFFIC ON SOUTH HALF OF QUAIL RD.

A TEMPORARILY CLOSE ACCESS TO 16TH AVE. AT STA 37+70. 16TH AVE. WILL ACCESS US 81 BY UTILIZING PIKES PEAK RD. NORTH OF STA 37+70. EXISTING QUAIL RD. EAST OF STA 19+85 WILL ACCESS US 81 BY THE NEWLY CONSTRUCTED TIE TO US 81 AT THE EXISTING MEDIAN OPENING. QUAIL RD. TRAFFIC WEST OF THE INTERCHANGE SHOULD ACCESS US 81 FROM EW 140.5.

B CONSTRUCT THE NORTH HALF OF QUAIL RD. (INCLUDING PORTIONS OF RAMP A, RAMP A EXT., AND RAMP B) FROM STA 25+61 TO STA 46+75. GRADE REMAINDER OF NORTH RAMPS TO TIE TO J/P 24428(C4). UTILIZE TEMPORARY CONNECTION BETWEEN PROPOSED QUAIL RD. AND EXISTING QUAIL RD. FOR ACCESS TO US 81.

C BEGIN GRADING NORTHBOUND AND SOUTHBOUND US 81 FROM STA 132+00 TO QUAIL RD. AND RAMP D FROM STA 244+00 TO STA 237+15. ALSO COMPLETE ANY FINE GRADING REQUIRED NORTH OF QUAIL RD. NECESSARY TO CONSTRUCT BRIDGE "C" AND BRIDGE "D".

D CONSTRUCT BRIDGE "C" AND BRIDGE "D".

E SHIFT US 81 TRAFFIC TO THE EXISTING SOUTHBOUND LANES VIA CROSS OVERS CONSTRUCTED DURING PHASE 1. CONTINUE TO UTILIZE THE TEMPORARY CONNECTION BETWEEN EXISTING QUAIL RD. AND PROPOSED QUAIL RD. RAMP E AND RAMP F WILL BE CONSTRUCTED AT A LATER TIME.

LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE

NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO LOCAL DRIVEWAYS THROUGHOUT THIS PHASE OF CONSTRUCTION.
2. BARRIER DELINEATORS SHALL BE PLACED AS SHOWN AT 12'-6" SPACING C/C. COST TO BE INCLUDED IN PAY ITEM 877(B) "DELIVER PORTABLE LONGITUDINAL BARRIER."

PRELIMINARY

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SUGGESTED TRAFFIC CONTROL (11) - PHASE 3 (QUAIL RD) (1)

State Job No. 24428(13) Sheet No. T011

US-81 REALIGNMENT
GRADY COUNTY

6/25/2020
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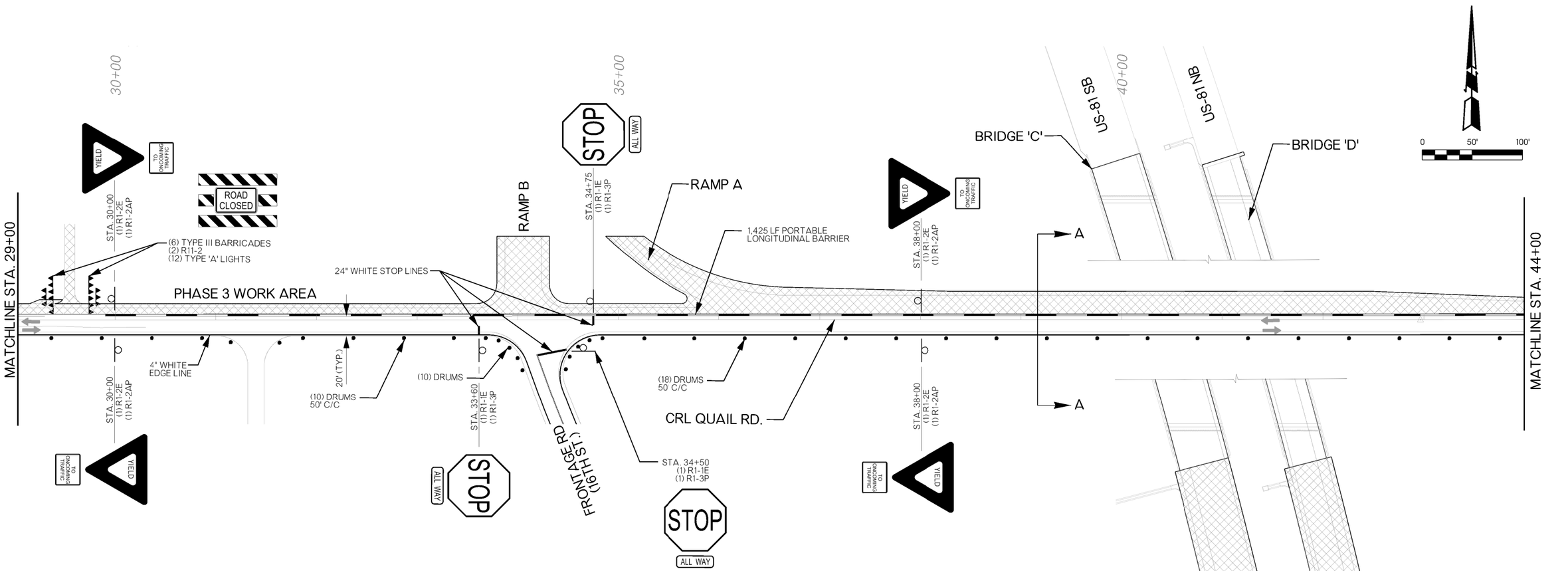
FINAL FIELD REVIEW MEETING
JUNE 2020



SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 3: CONSTRUCT REMAINDER OF QUAIL RD. AND PORTIONS OF 16TH AVE. TRAFFIC ON SOUTH HALF OF QUAIL RD.

A TEMPORARILY CLOSE ACCESS TO 16TH AVE. AT STA 37+70. 16TH AVE. WILL ACCESS US 81 BY UTILIZING PIKES PEAK RD. NORTH OF STA 37+70. EXISTING QUAIL RD. EAST OF STA 19+85 WILL ACCESS US 81 BY THE NEWLY CONSTRUCTED TIE TO US 81 AT THE EXISTING MEDIAN OPENING. QUAIL RD. TRAFFIC WEST OF THE INTERCHANGE SHOULD ACCESS US 81 FROM EW 140.5.

B CONSTRUCT THE NORTH HALF OF QUAIL RD. (INCLUDING PORTIONS OF RAMP A, RAMP A EXT., AND RAMP B) FROM STA 25+61 TO STA 46+75. GRADE REMAINDER OF NORTH RAMPS TO TIE TO J/P 24428(04). UTILIZE TEMPORARY CONNECTION BETWEEN PROPOSED QUAIL RD. AND EXISTING QUAIL RD. FOR ACCESS TO US 81.

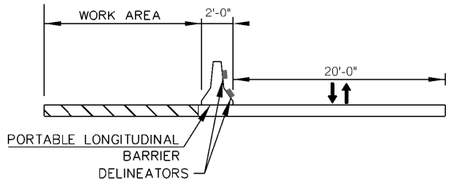
C BEGIN GRADING NORTHBOUND AND SOUTHBOUND US 81 FROM STA 132+00 TO QUAIL RD. AND RAMP D FROM STA 244+00 TO STA 237+15. ALSO COMPLETE ANY FINE GRADING REQUIRED NORTH OF QUAIL RD. NECESSARY TO CONSTRUCT BRIDGE "C" AND BRIDGE "D".

D CONSTRUCT BRIDGE "C" AND BRIDGE "D".

E SHIFT US 81 TRAFFIC TO THE EXISTING SOUTHBOUND LANES VIA CROSS OVERS CONSTRUCTED DURING PHASE 1. CONTINUE TO UTILIZE THE TEMPORARY CONNECTION BETWEEN EXISTING QUAIL RD. AND PROPOSED QUAIL RD. RAMP E AND RAMP F WILL BE CONSTRUCTED AT A LATER TIME.

NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO LOCAL DRIVEWAYS THROUGHOUT THIS PHASE OF CONSTRUCTION.
2. BARRIER DELINEATORS SHALL BE PLACED AS SHOWN AT 12'-6" SPACING C/C. COST TO BE INCLUDED IN PAY ITEM 877(B) "DELIVER PORTABLE LONGITUDINAL BARRIER."



SECTION 'A' - 'A'

LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE

PRELIMINARY

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SUGGESTED TRAFFIC CONTROL (12) - PHASE 3 (QUAIL RD) (2)

State Job No. 24428(13) Sheet No. T012

US-81 REALIGNMENT
GRADY COUNTY

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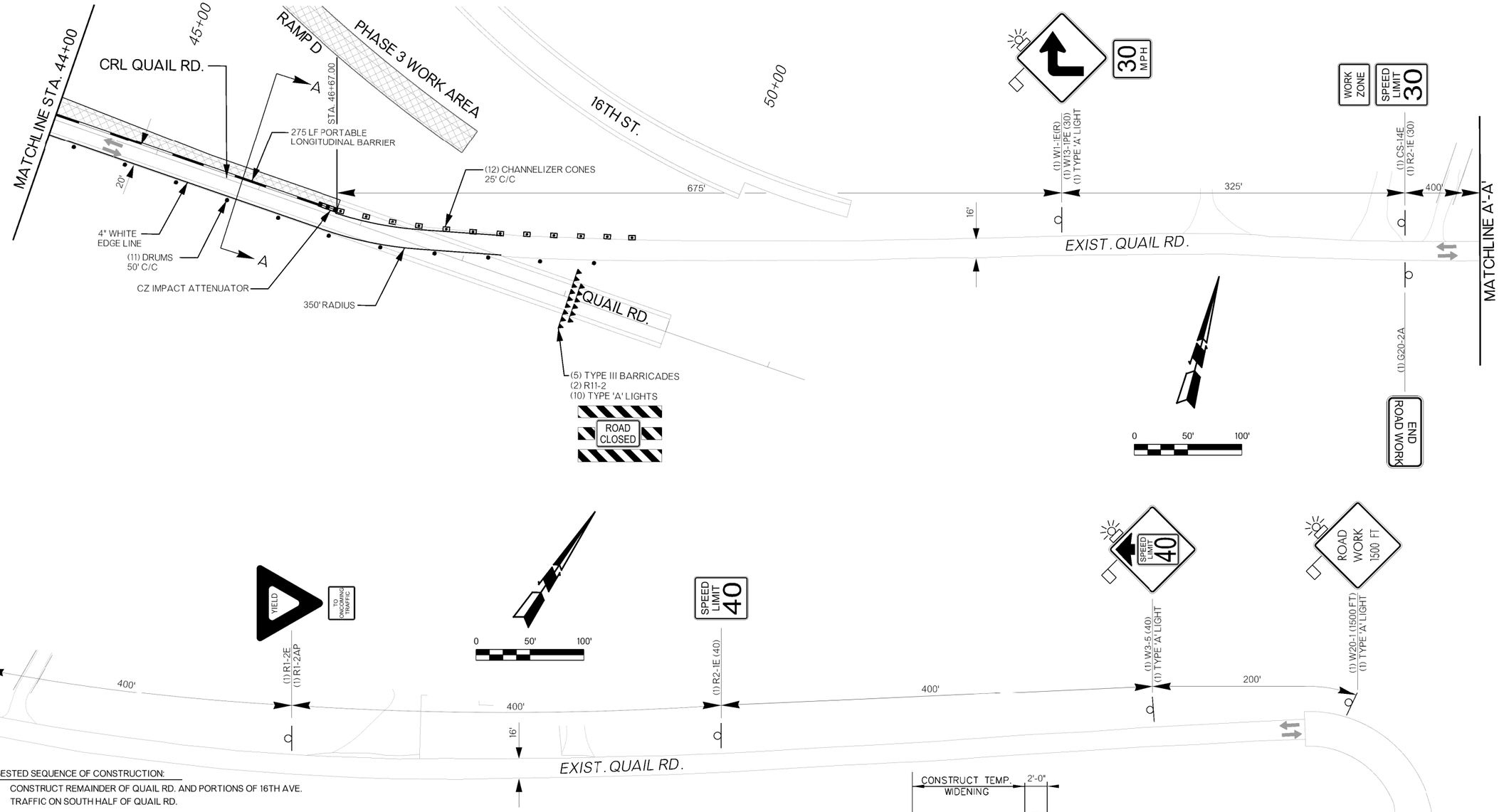


SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 3: CONSTRUCT REMAINDER OF QUAIL RD. AND PORTIONS OF 16TH AVE. TRAFFIC ON SOUTH HALF OF QUAIL RD.

A TEMPORARILY CLOSE ACCESS TO 16TH AVE. AT STA 37+70. 16TH AVE. WILL ACCESS US 81 BY UTILIZING PIKES PEAK RD. NORTH OF STA 37+70. EXISTING QUAIL RD. EAST OF STA 19+85 WILL ACCESS US 81 BY THE NEWLY CONSTRUCTED TIE TO US 81 AT THE EXISTING MEDIAN OPENING. QUAIL RD. TRAFFIC WEST OF THE INTERCHANGE SHOULD ACCESS US 81 FROM EW 140.5.

B CONSTRUCT THE NORTH HALF OF QUAIL RD. (INCLUDING PORTIONS OF RAMP A, RAMP A EXT., AND RAMP B) FROM STA 25+61 TO STA 46+75. GRADE REMAINDER OF NORTH RAMPS TO TIE TO J/P 24428(04). UTILIZE TEMPORARY CONNECTION 3ETWEEN PROPOSED QUAIL RD. AND EXISTING QUAIL RD. FOR ACCESS TO US 81.

C BEGIN GRADING NORTHBOUND AND SOUTHBOUND US 81 FROM STA 132+00 TO QUAIL RD. AND RAMP D FROM STA 244+00 TO STA 237+15. ALSO COMPLETE ANY FINE GRADING REQUIRED NORTH OF QUAIL RD. NECESSARY TO CONSTRUCT BRIDGE "C" AND BRIDGE "D".

D CONSTRUCT BRIDGE "C" AND BRIDGE "D".

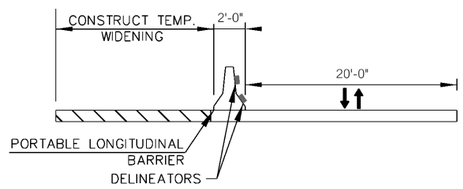
E SHIFT US 81 TRAFFIC TO THE EXISTING SOUTHBOUND LANES VIA CROSS OVERS CONSTRUCTED DURING PHASE 1. CONTINUE TO UTILIZE THE TEMPORARY CONNECTION BETWEEN EXISTING QUAIL RD. AND PROPOSED QUAIL RD. RAMP E AND RAMP F WILL BE CONSTRUCTED AT A LATER TIME.

LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE

NOTES:

1. BARRIER DELINEATORS SHALL BE PLACED AS SHOWN AT 12'-6" SPACING C/C. COST TO BE INCLUDED IN PAY ITEM 877(B) "DELIVER PORTABLE LONGITUDINAL BARRIER."



SECTION 'A' - 'A'

PRELIMINARY
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUGGESTED TRAFFIC CONTROL (13) - PHASE 3 (QUAIL RD) (3)

State Job No. 24428(13) Sheet No. T013

US-81 REALIGNMENT
GRADY COUNTY

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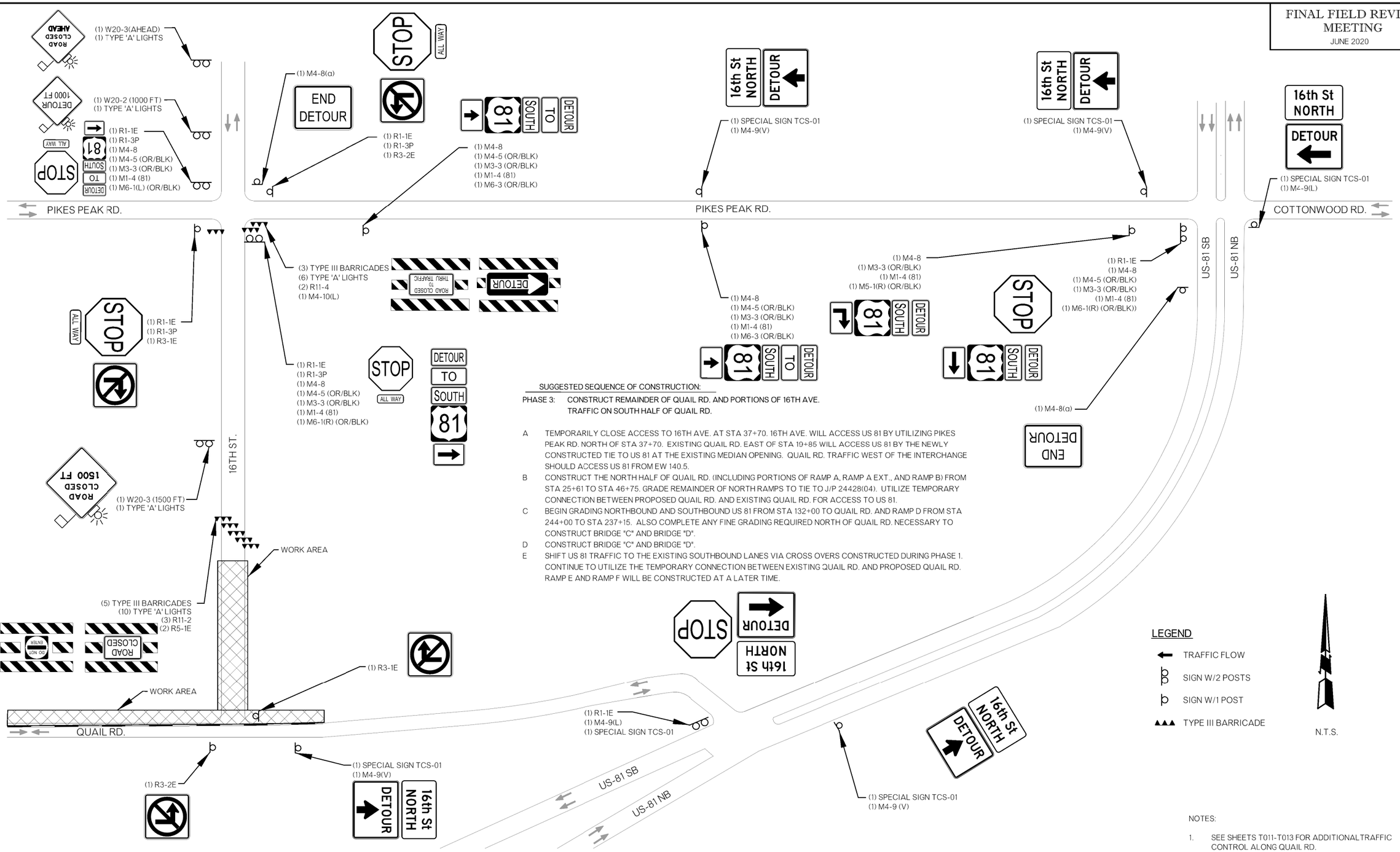

SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 3: CONSTRUCT REMAINDER OF QUAIL RD. AND PORTIONS OF 16TH AVE. TRAFFIC ON SOUTH HALF OF QUAIL RD.

A TEMPORARILY CLOSE ACCESS TO 16TH AVE. AT STA 37+70. 16TH AVE. WILL ACCESS US 81 BY UTILIZING PIKES PEAK RD. NORTH OF STA 37+70. EXISTING QUAIL RD. EAST OF STA 19+85 WILL ACCESS US 81 BY THE NEWLY CONSTRUCTED TIE TO US 81 AT THE EXISTING MEDIAN OPENING. QUAIL RD. TRAFFIC WEST OF THE INTERCHANGE SHOULD ACCESS US 81 FROM EW 140.5.

B CONSTRUCT THE NORTH HALF OF QUAIL RD. (INCLUDING PORTIONS OF RAMP A, RAMP A EXT., AND RAMP B) FROM STA 25+61 TO STA 46+75. GRADE REMAINDER OF NORTH RAMPS TO TIE TO J/P 24428(04). UTILIZE TEMPORARY CONNECTION BETWEEN PROPOSED QUAIL RD. AND EXISTING QUAIL RD. FOR ACCESS TO US 81.

C BEGIN GRADING NORTHBOUND AND SOUTHBOUND US 81 FROM STA 132+00 TO QUAIL RD. AND RAMP D FROM STA 244+00 TO STA 237+15. ALSO COMPLETE ANY FINE GRADING REQUIRED NORTH OF QUAIL RD. NECESSARY TO CONSTRUCT BRIDGE "C" AND BRIDGE "D".

D CONSTRUCT BRIDGE "C" AND BRIDGE "D".

E SHIFT US 81 TRAFFIC TO THE EXISTING SOUTHBOUND LANES VIA CROSS OVERS CONSTRUCTED DURING PHASE 1. CONTINUE TO UTILIZE THE TEMPORARY CONNECTION BETWEEN EXISTING QUAIL RD. AND PROPOSED QUAIL RD. RAMP E AND RAMP F WILL BE CONSTRUCTED AT A LATER TIME.

LEGEND

- TRAFFIC FLOW
- SIGN W/2 POSTS
- SIGN W/1 POST
- TYPE III BARRICADE

N.T.S.

NOTES:

1. SEE SHEETS T011-T013 FOR ADDITIONAL TRAFFIC CONTROL ALONG QUAIL RD.

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUGGESTED TRAFFIC CONTROL (14) - PHASE 3
16TH ST. DETOUR

State Job No. 24428(13) Sheet No. T014

US-81 REALIGNMENT
GRADY COUNTY

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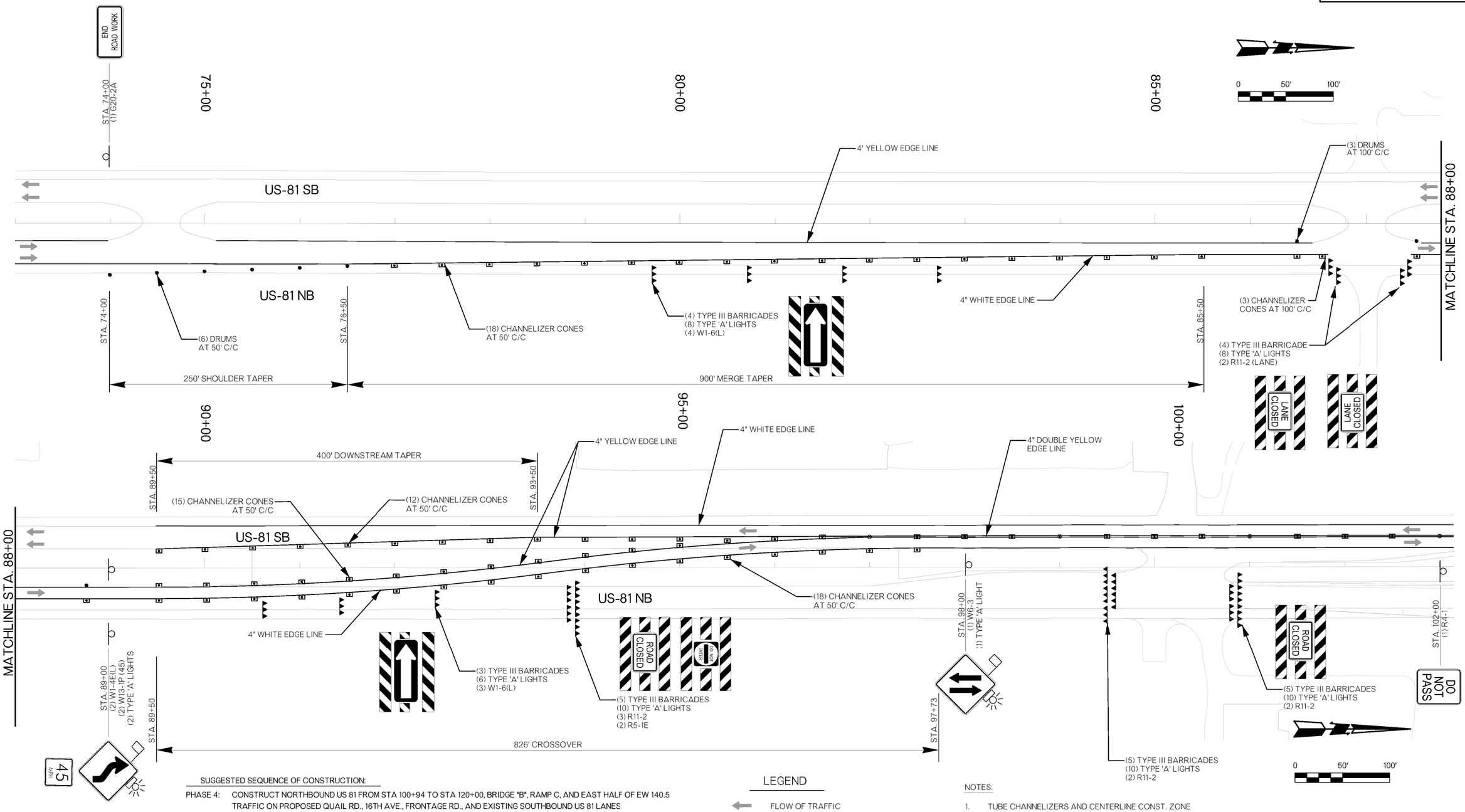
FINAL FIELD REVIEW MEETING
JUNE 2020



SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 4: CONSTRUCT NORTHBOUND US 81 FROM STA 100+94 TO STA 120+00, BRIDGE "B", RAMP C, AND EAST HALF OF EW 140.5 TRAFFIC ON PROPOSED QUAIL RD., 16TH AVE., FRONTAGE RD., AND EXISTING SOUTHBOUND US 81 LANES

A CONSTRUCT EW 140.5 FROM STA 33+00 TO STA 36+05.06, INCLUDING PROPOSED DRIVE EAST OF RAMP C AND STR 55 ONE HALF AT A TIME. ACCESS TO ADJACENT PROPERTY OWNERS MUST BE MAINTAINED AT ALL TIMES.

B UTILIZE FLAGMEN AS NEEDED TO CONSTRUCT STR 2 FROM 70' LT. OF CENTERLINE OF US 81 TO EAST END SECTION WITH GRADING TO EXISTING LT. DITCH. CONSTRUCT US 81 FROM STA 100+94 TO STA 120+00 ALONG US 81.

C CONSTRUCT RAMP C AND RAMP E FROM STA 260+00 TO RAMP C.

D CONSTRUCT BRIDGE "B".

E SHIFT US 81 TRAFFIC TO NORTHBOUND US 81 AND PROPOSED RAMP C.

LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE
- CENTERLINE CONST. ZONE PAVE. MARKER (YEL)
- TUBE CHANNELIZER

NOTES:

1. TUBE CHANNELIZERS AND CENTERLINE CONST. ZONE PAVEMENT MARKERS TO BE INSTALLED AS PER ODOT STANDARD TCS22-1-00. FOR A TOTAL DISTANCE OF 7,000' ALONG RAMP F/EXISTING SB US-81 BEGINNING AT US-81 CRL STA. 97+00.00

PRELIMINARY

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SUGGESTED TRAFFIC CONTROL (15) - PHASE 4 (US-81) (1)

State Job No. 24428(13) Sheet No. T015

US-81 REALIGNMENT

GRADY COUNTY

6/25/2020

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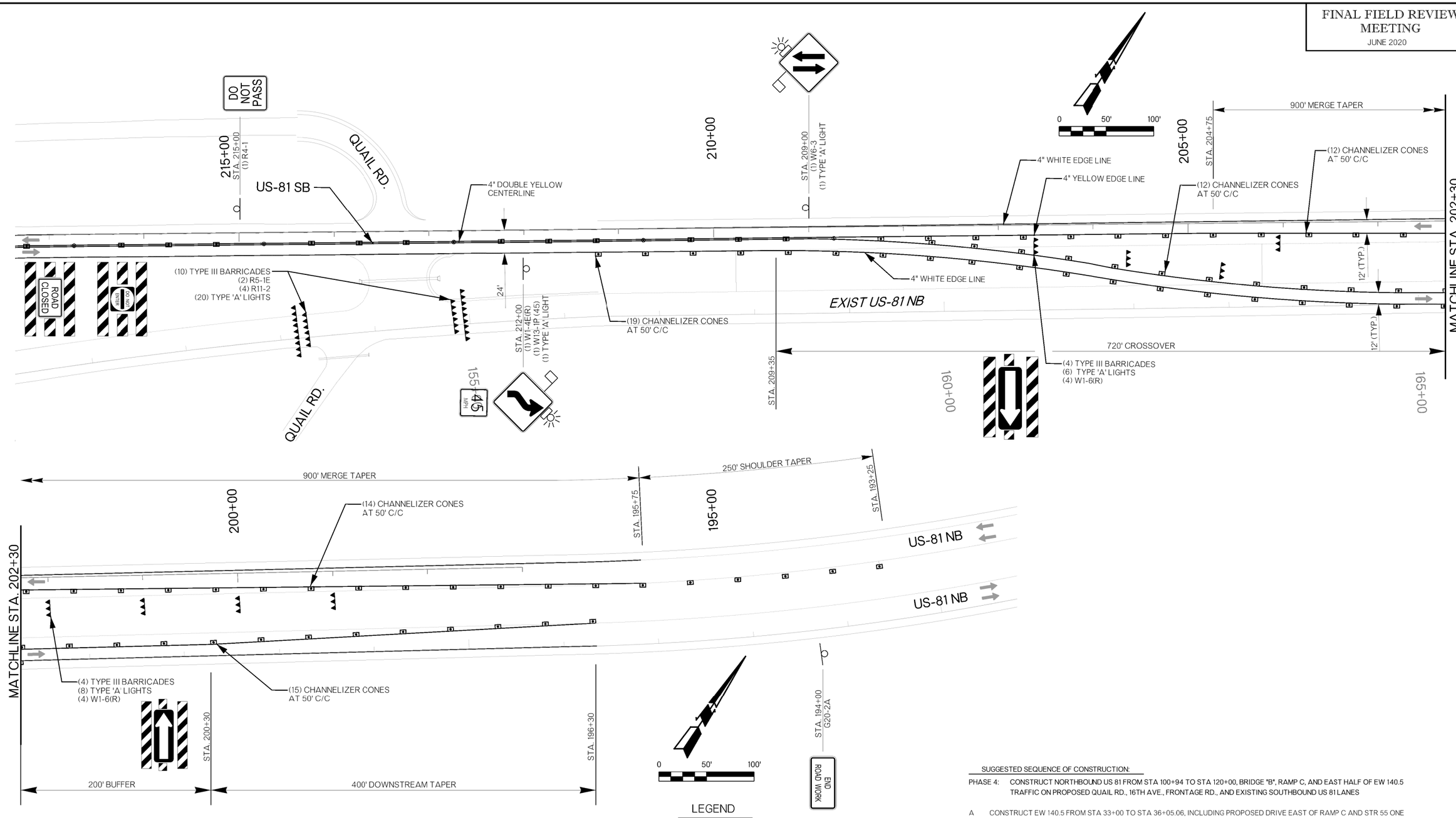
FINAL FIELD REVIEW MEETING
JUNE 2020



LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE
- CENTERLINE CONST. ZONE PAVE. MARKER (YEL)
- TUBE CHANNELIZER

NOTES:

1. TUBE CHANNELIZERS AND CENTERLINE CONST. ZONE PAVEMENT MARKERS TO BE INSTALLED AS PER ODOT STANDARD TCS22-1-00. FOR A TOTAL DISTANCE OF 7,000' ALONG RAMP F/EXISTING SB US-81 BEGINNING AT US-81 CRL STA. 97+00.00

SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 4: CONSTRUCT NORTHBOUND US 81 FROM STA 100+94 TO STA 120+00, BRIDGE "B", RAMP C, AND EAST HALF OF EW 140.5 TRAFFIC ON PROPOSED QUAIL RD., 16TH AVE., FRONTAGE RD., AND EXISTING SOUTHBOUND US 81 LANES

A CONSTRUCT EW 140.5 FROM STA 33+00 TO STA 36+05.06, INCLUDING PROPOSED DRIVE EAST OF RAMP C AND STR 55 ONE HALF AT A TIME. ACCESS TO ADJACENT PROPERTY OWNERS MUST BE MAINTAINED AT ALL TIMES.

B UTILIZE FLAGMEN AS NEEDED TO CONSTRUCT STR 2 FROM 70' LT. OF CENTERLINE OF US 81 TO EAST END SECTION WITH GRADING TO EXISTING LT. DITCH. CONSTRUCT US 81 FROM STA 100+94 TO STA 120+00 ALONG US 81.

C CONSTRUCT RAMP C AND RAMP E FROM STA 260+00 TO RAMP C.

D CONSTRUCT BRIDGE "B".

E SHIFT US 81 TRAFFIC TO NORTHBOUND US 81 AND PROPOSED RAMP C.

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUGGESTED TRAFFIC CONTROL (16) - PHASE 4 (US-81) (2)

State Job No. 24428(13) Sheet No. T016

US-81 REALIGNMENT

GRADY COUNTY

6/25/2020

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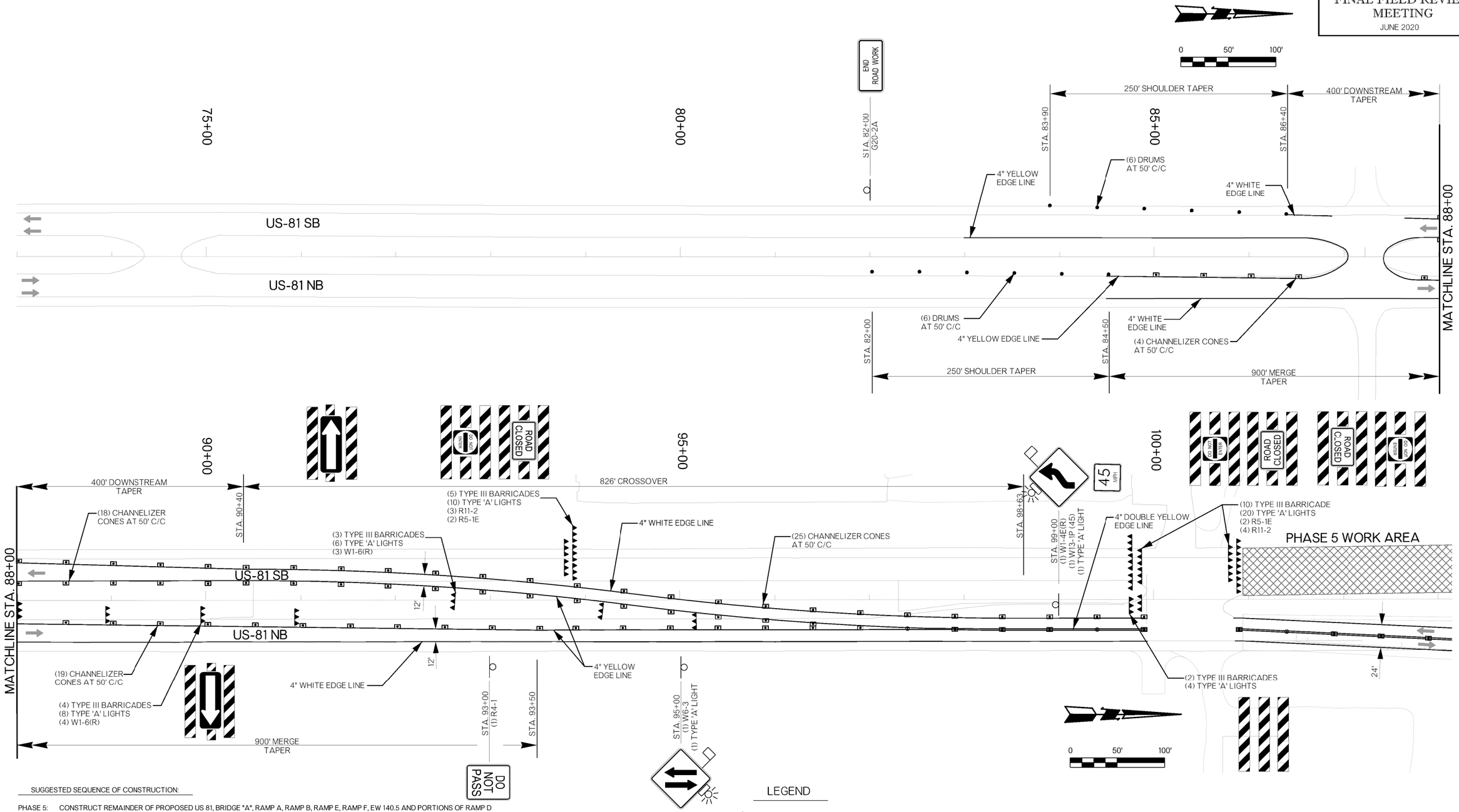
FINAL FIELD REVIEW MEETING
JUNE 2020



SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 5: CONSTRUCT REMAINDER OF PROPOSED US 81, BRIDGE "A", RAMP A, RAMP B, RAMP E, RAMP F, EW 140.5 AND PORTIONS OF RAMP D TRAFFIC ON PROPOSED NORTHBOUND US 81, RAMP C, QUAIL RD., 16TH AVE., AND FRONTAGE RD.

A CONSTRUCT REMAINDER OF EW 140.5 ONE HALF AT A TIME. MAINTAIN ACCESS TO FRONTAGE RD. AT ALL TIMES.
B CONSTRUCT REMAINDER OF STR 2 AND PROPOSED SOUTHBOUND US 81 FROM STA 100+94 TO STA 120+00.
C CONSTRUCT BRIDGE "A".
D CONSTRUCT PROPOSED US 81 FROM STA 120+00 TO STA 132+00.
E SURFACE PROPOSED US 81 NORTH OF QUAIL RD. TO STA 165+00 (GRADING AND MAJOR DRAINAGE CROSSINGS CONSTRUCTED IN J/P 24428(04)). SIGNING & STRIPING NORTH OF QUAIL RD. WILL OCCUR IN J/P 24428(14).
F SURFACE RAMP B AND THE REMAINDER OF RAMP A. RAMP B TO REMAIN CLOSED TO TRAFFIC UNTIL PROPOSED US 81 SURFACING CONSTRUCTED IN J/P 24428(14).
G CONSTRUCT REMAINDER OF RAMP E & RAMP F.
H SHIFT SOUTHBOUND US 81 TRAFFIC ONTO RAMP F, QUAIL RD., RAMP A, AND MAINLINE SOUTHBOUND US 81. SHIFT EASTBOUND QUAIL RD. TRAFFIC ONTO RAMP E.
I OPEN FRONTAGE RD. AND EW 140.5 TO PROPOSED CONFIGURATION.

NOTES:

1. TUBE CHANNELIZERS AND CENTERLINE CONST. ZONE PAVEMENT MARKERS TO BE INSTALLED AS PER ODOT STANDARD TCS22-1-00 FOR A TOTAL DISTANCE OF 6,600' ALONG RAMP C/EXISTING NB US-81 BEGINNING AT US-81 CRL STA. 97+40.00.

LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE
- CENTERLINE CONST. ZONE PAVE. MARKER (YEL)
- TUBE CHANNELIZER

PRELIMINARY

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

SUGGESTED TRAFFIC CONTROL (17) - PHASE 5 (US-81) (1)

State Job No. 24428(13) Sheet No. T017

US-81 REALIGNMENT

GRADY COUNTY

6/25/2020

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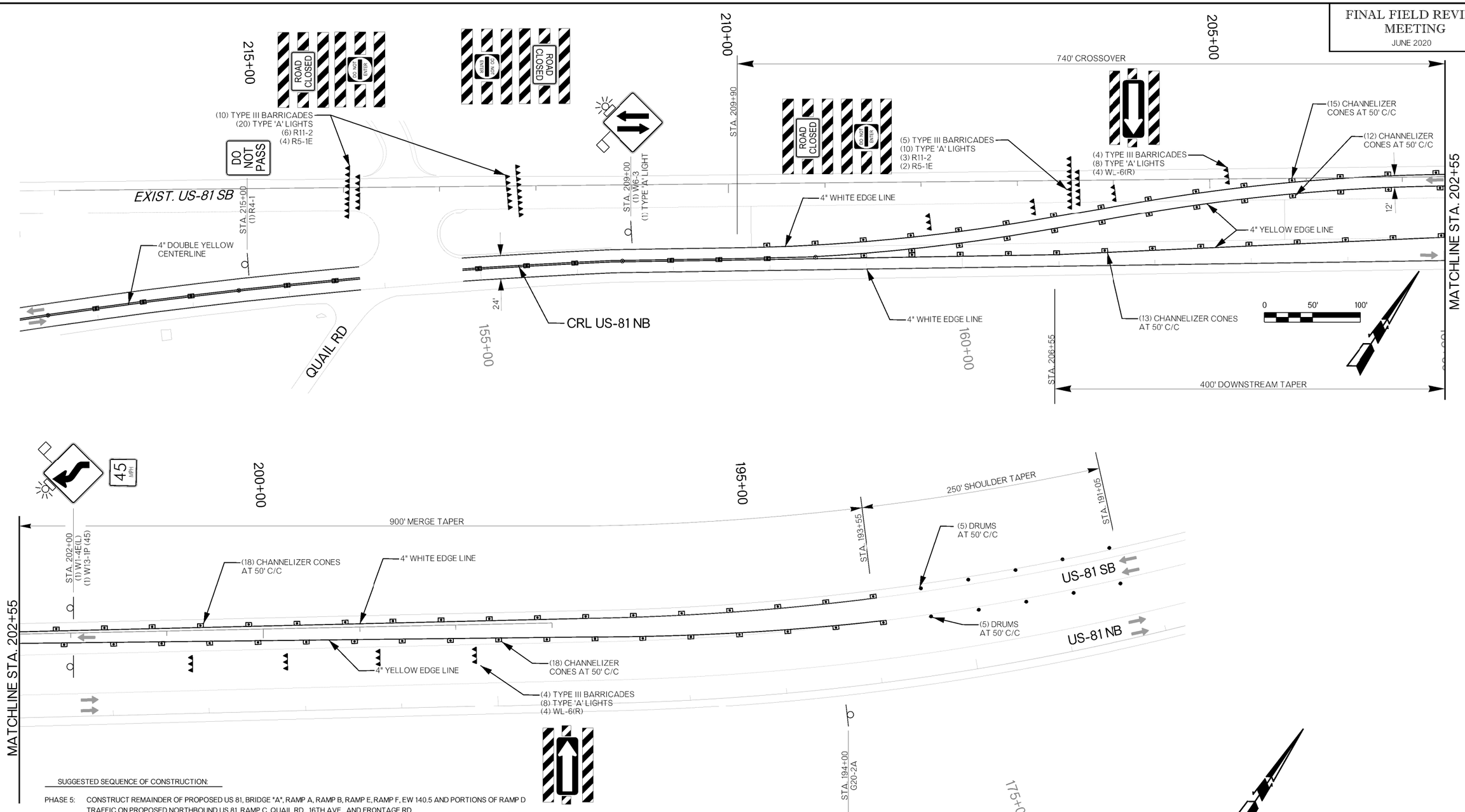
FINAL FIELD REVIEW MEETING
JUNE 2020



SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 5: CONSTRUCT REMAINDER OF PROPOSED US 81, BRIDGE "A", RAMP A, RAMP B, RAMP E, RAMP F, EW 140.5 AND PORTIONS OF RAMP D TRAFFIC ON PROPOSED NORTHBOUND US 81, RAMP C, QUAIL RD., 16TH AVE., AND FRONTAGE RD.

A CONSTRUCT REMAINDER OF EW 140.5 ONE HALF AT A TIME. MAINTAIN ACCESS TO FRONTAGE RD. AT ALL TIMES.
B CONSTRUCT REMAINDER OF STR 2 AND PROPOSED SOUTHBOUND US 81 FROM STA 100+94 TO STA 120+00.
C CONSTRUCT BRIDGE "A".
D CONSTRUCT PROPOSED US 81 FROM STA 120+00 TO STA 132+00.
E SURFACE PROPOSED US 81 NORTH OF QUAIL RD. TO STA 165+00 (GRADING AND MAJOR DRAINAGE CROSSINGS CONSTRUCTED IN J/P 24428(04)). SIGNING & STRIPING NORTH OF QUAIL RD. WILL OCCUR IN J/P 24428(14).
F SURFACE RAMP B AND THE REMAINDER OF RAMP A. RAMP B TO REMAIN CLOSED TO TRAFFIC UNTIL PROPOSED US 81 SURFACING CONSTRUCTED IN J/P 24428(14).
G CONSTRUCT REMAINDER OF RAMP E & RAMP F.
H SHIFT SOUTHBOUND US 81 TRAFFIC ONTO RAMP F, QUAIL RD., RAMP A, AND MAINLINE SOUTHBOUND US 81. SHIFT EASTBOUND QUAIL RD. TRAFFIC ONTO RAMP E.
I OPEN FRONTAGE RD. AND EW 140.5 TO PROPOSED CONFIGURATION.

LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE
- CENTERLINE CONST. ZONE PAVE. MARKER (YEL)
- TUBE CHANNELIZER

NOTES:

1. TUBE CHANNELIZERS AND CENTERLINE CONST. ZONE PAVEMENT MARKERS TO BE INSTALLED AS PER ODOT STANDARD TCS22-1-00 FOR A TOTAL DISTANCE OF 6,600' ALONG RAMP C/EXISTING NB US-81 BEGINNING AT US-81 CRL STA. 97+40.00.

0 50' 100'

PRELIMINARY

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SUGGESTED TRAFFIC CONTROL (18) - PHASE 5 (US-81) (2)

State Job No. 24428(13) Sheet No. T018

US-81 REALIGNMENT
GRADY COUNTY

6/25/2020
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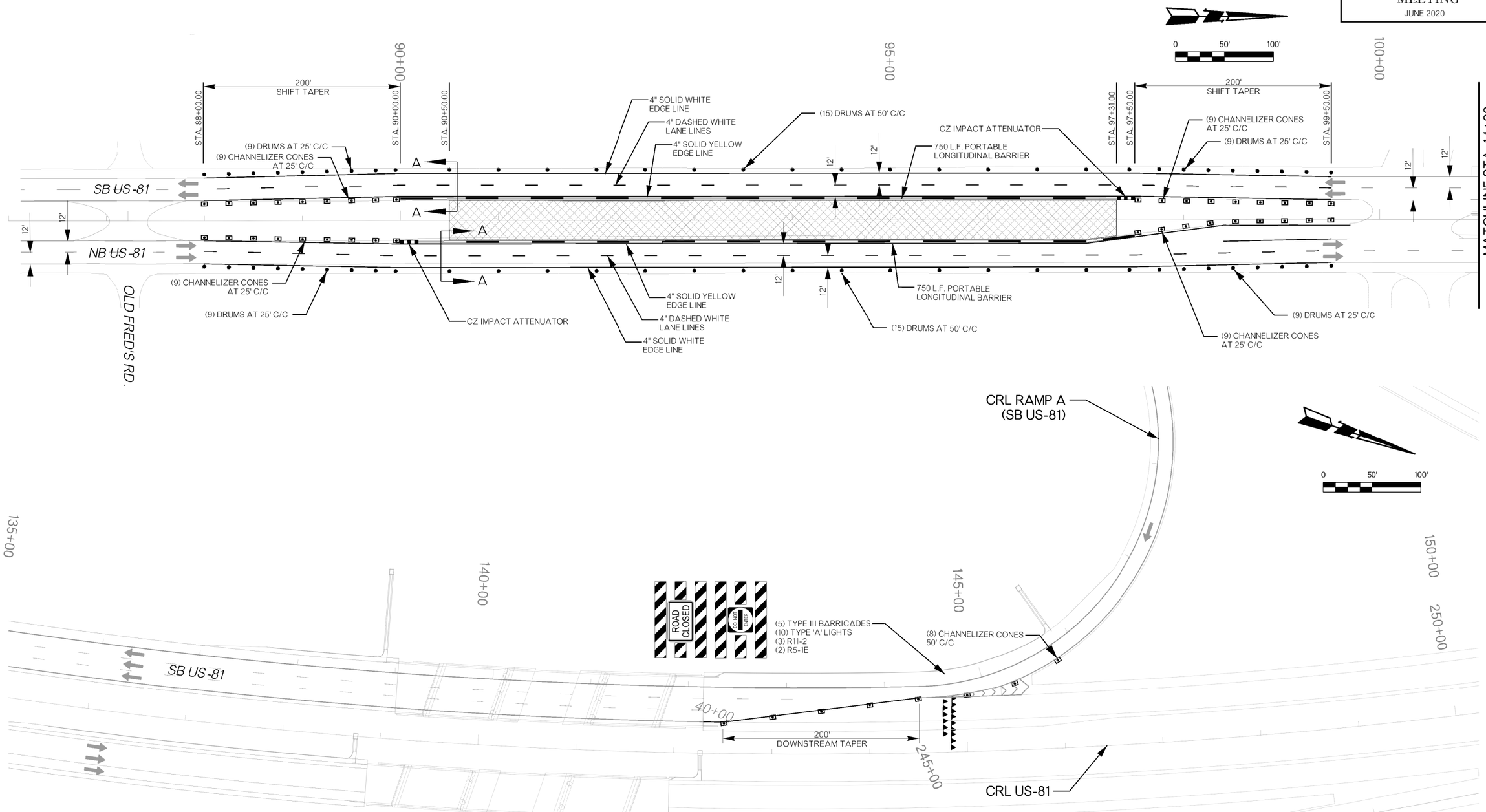
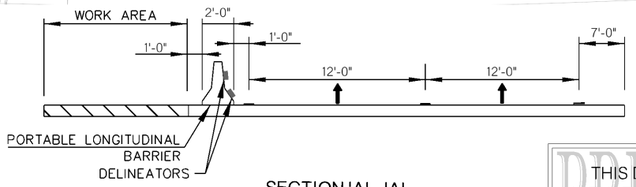
FINAL FIELD REVIEW MEETING
JUNE 2020





SECTION 'A' - 'A'

SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 6: CONSTRUCT REMAINDER OF RAMP D AND 16TH AVE.
TRAFFIC ON PROPOSED US 81, RAMP A, RAMP C, RAMP E, RAMP F, QUAIL RD., 16TH AVE., AND FRONTAGE RD.

A CONSTRUCT REMAINDER OF RAMP D, INCLUDING RETAINING WALL 1, AND RAMP E SLOPEWALL.
B CONSTRUCT REMAINDER OF 16TH AVE.
C REMOVE US 81 CROSSOVERS CONSTRUCTED IN PHASE 1.
D COMPLETE FINISHING OPERATIONS.
E OPEN RAMP E, RAMP F, QUAIL RD., AND 16TH AVE. TO PROPOSED CONFIGURATION. NORTHBOUND US 81 NORTH OF STA 118+00, RAMP B, AND RAMP D TO REMAIN CLOSED TO TRAFFIC UNTIL PROPOSED US 81 SURFACING CONSTRUCTED IN J/P 24428(14).

NOTES:

1. BARRIER DELINEATORS SHALL BE PLACED AS SHOWN AT 12'-6" SPACING C/C. COST TO BE INCLUDED IN PAY ITEM 877(B) "DELIVER PORTABLE LONGITUDINAL BARRIER."
2. SEE ADVANCE SIGNING SHEETS FOR ADDITIONAL SIGNS REQUIRED ON US-81

PRELIMINARY

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SUGGESTED TRAFFIC CONTROL (19)-
PHASE 6
(US-81) (1)

State Job No. 24428(13) Sheet No. T019

US-81 REALIGNMENT
GRADY COUNTY

6/25/2020
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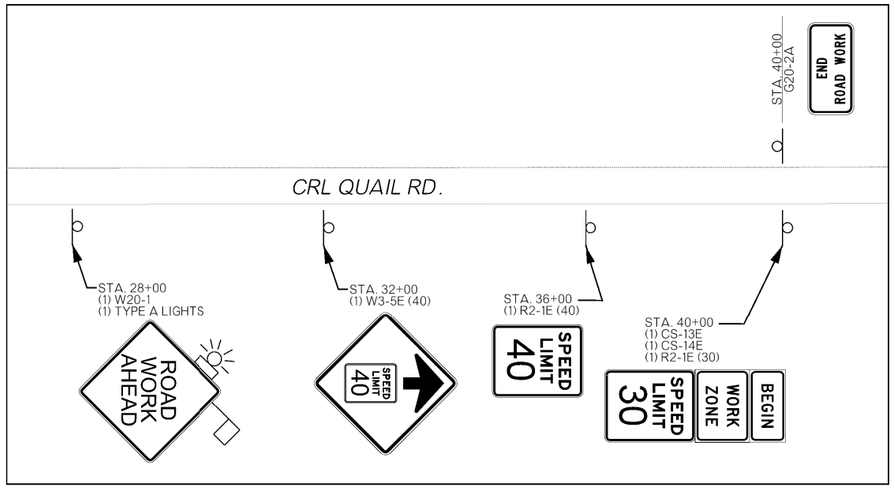
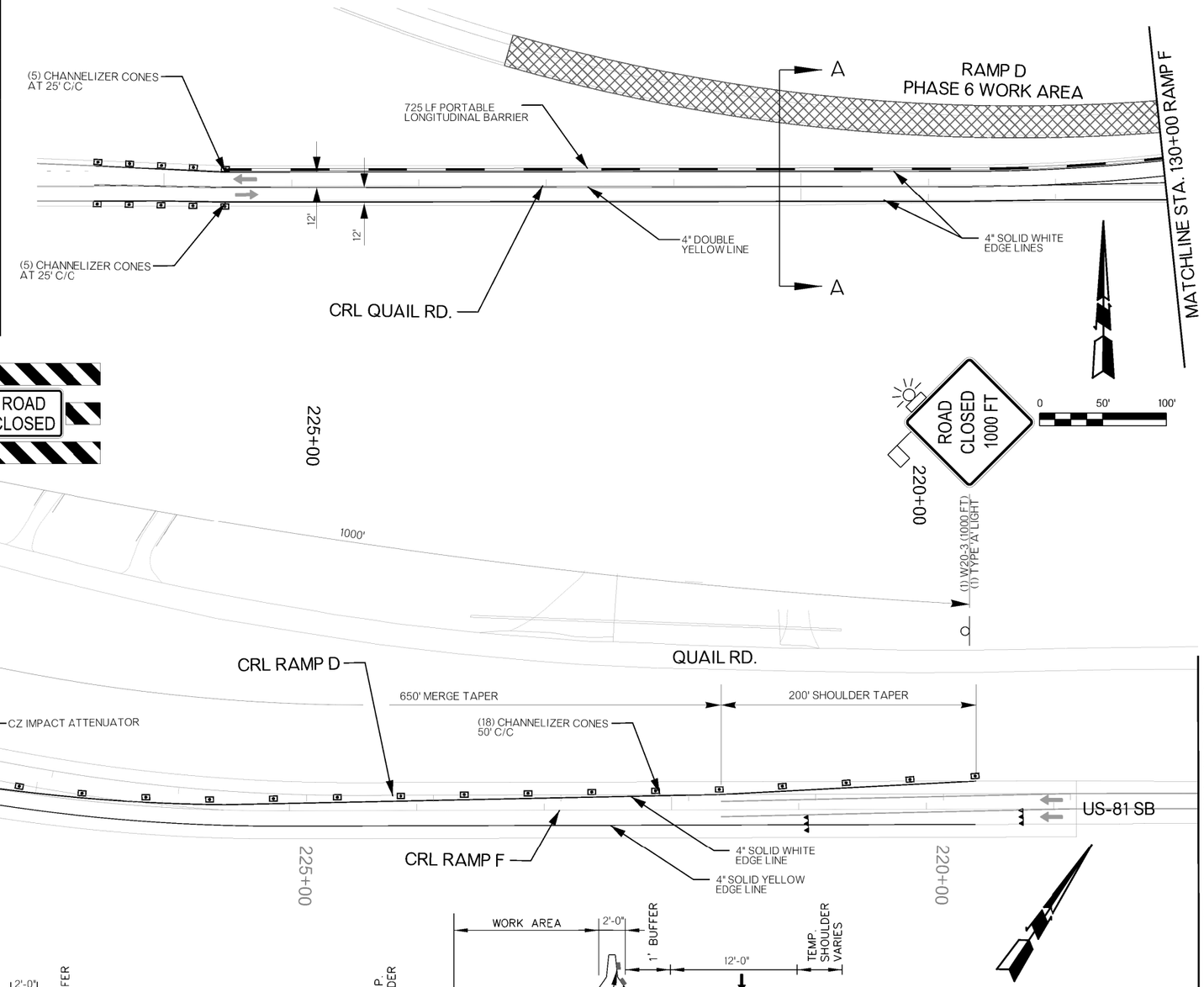
FINAL FIELD REVIEW MEETING
JUNE 2020





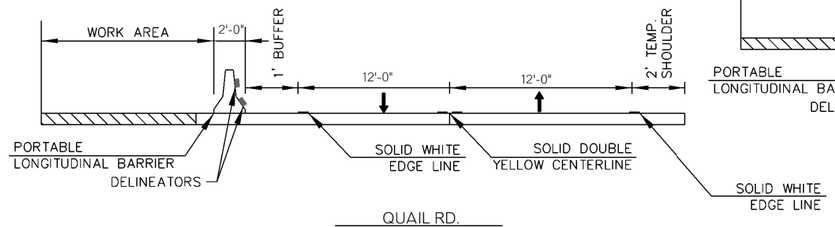
LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE

SUGGESTED SEQUENCE OF CONSTRUCTION:

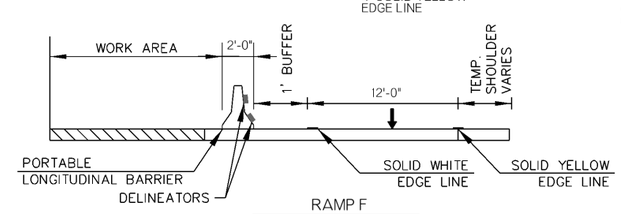
PHASE 6: CONSTRUCT REMAINDER OF RAMP D AND 16TH AVE.
TRAFFIC ON PROPOSED US 81, RAMP A, RAMP C, RAMP E, RAMP F, QUAIL RD., 16TH AVE., AND FRONTAGE RD.

A CONSTRUCT REMAINDER OF RAMP D, INCLUDING RETAINING WALL 1, AND RAMP E SLOPEWALL.
B CONSTRUCT REMAINDER OF 16TH AVE.
C REMOVE US 81 CROSSOVERS CONSTRUCTED IN PHASE 1.
D COMPLETE FINISHING OPERATIONS.
E OPEN RAMP E, RAMP F, QUAIL RD., AND 16TH AVE. TO PROPOSED CONFIGURATION. NORTHBOUND US 81 NORTH OF STA 118+00, RAMP B, AND RAMP D TO REMAIN CLOSED TO TRAFFIC UNTIL PROPOSED US 81 SURFACING CONSTRUCTED IN J/P 24428(14).



QUAIL RD.

SECTION 'A' - 'A'



RAMP F

SECTION 'B' - 'B'

NOTES:

1. BARRIER DELINEATORS SHALL BE PLACED AS SHOWN AT 12'-6" SPACING C/C. COST TO BE INCLUDED IN PAY ITEM 877(B) "DELIVER PORTABLE LONGITUDINAL BARRIER."

PRELIMINARY

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SUGGESTED TRAFFIC CONTROL (20)
PHASE 6
(US-81) (2)

State Job No. 24428(13) Sheet No. T020

US-81 REALIGNMENT
GRADY COUNTY

6/25/2020
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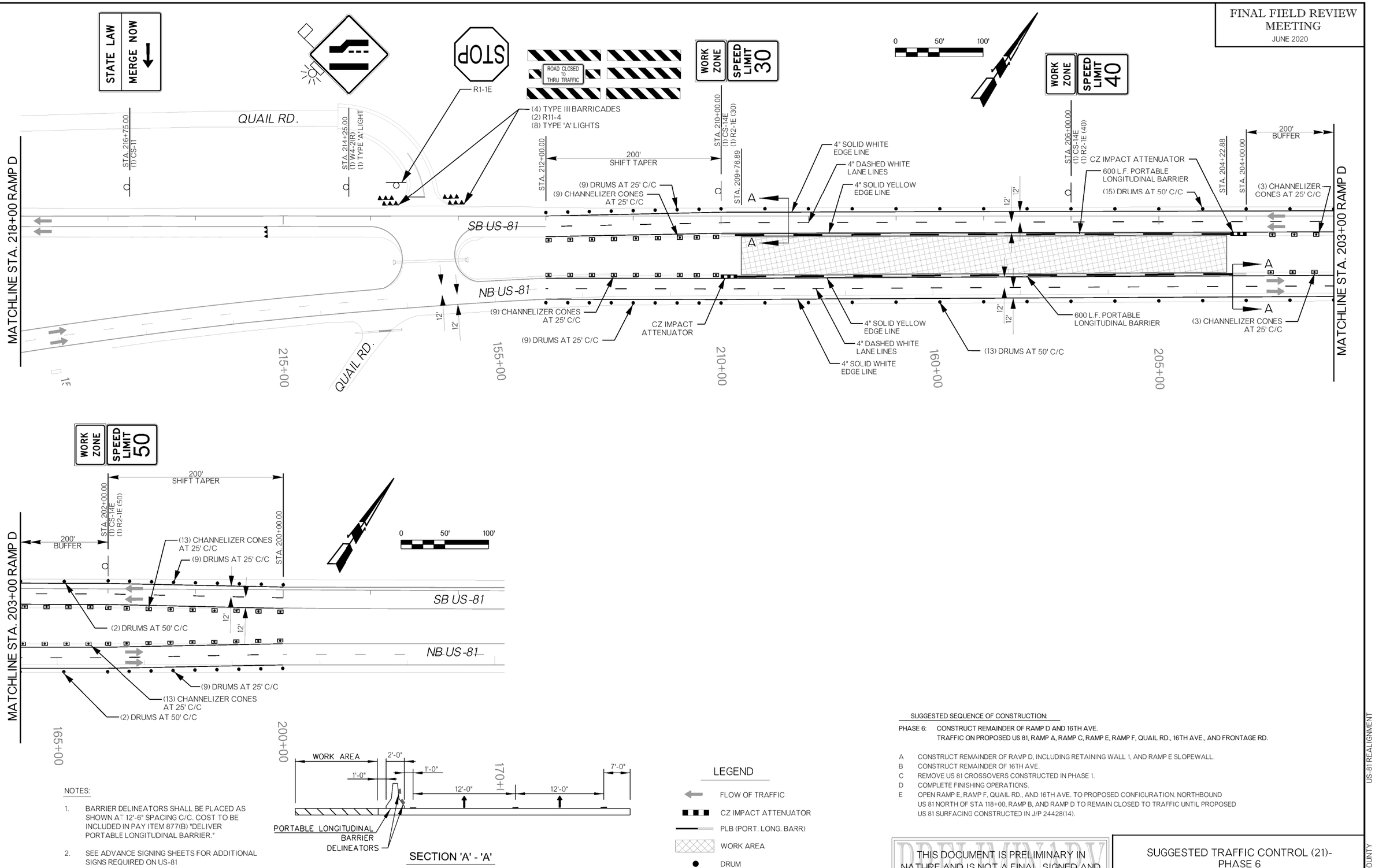
FINAL FIELD REVIEW MEETING
JUNE 2020



SECTION 'A' - 'A'

NOTES:

1. BARRIER DELINEATORS SHALL BE PLACED AS SHOWN AT 12'-6" SPACING C/C. COST TO BE INCLUDED IN PAY ITEM 877(B) "DELIVER PORTABLE LONGITUDINAL BARRIER."
2. SEE ADVANCE SIGNING SHEETS FOR ADDITIONAL SIGNS REQUIRED ON US-81
3. NORTH CROSSOVER STATIONING IS BASED ON PROJECTED RAMP D ALIGNMENT

LEGEND

- FLOW OF TRAFFIC
- CZ IMPACT ATTENUATOR
- PLB (PORT. LONG. BARR)
- WORK AREA
- DRUM
- CHANNELIZER CONE

SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 6: CONSTRUCT REMAINDER OF RAMP D AND 16TH AVE.
TRAFFIC ON PROPOSED US 81, RAMP A, RAMP C, RAMP E, RAMP F, QUAIL RD., 16TH AVE., AND FRONTAGE RD.

A CONSTRUCT REMAINDER OF RAMP D, INCLUDING RETAINING WALL 1, AND RAMP E SLOPEWALL.
B CONSTRUCT REMAINDER OF 16TH AVE.
C REMOVE US 81 CROSSOVERS CONSTRUCTED IN PHASE 1.
D COMPLETE FINISHING OPERATIONS.
E OPEN RAMP E, RAMP F, QUAIL RD., AND 16TH AVE. TO PROPOSED CONFIGURATION. NORTHBOUND US 81 NORTH OF STA 118+00, RAMP B, AND RAMP D TO REMAIN CLOSED TO TRAFFIC UNTIL PROPOSED US 81 SURFACING CONSTRUCTED IN J/P 24428(14).

PRELIMINARY
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SUGGESTED TRAFFIC CONTROL (21)- PHASE 6 (US-81) (3)

State Job No. 24428(13) Sheet No. T021

US-81 REALIGNMENT
GRADY COUNTY

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FINAL FIELD REVIEW MEETING
JUNE 2020

ROAD CLOSED AHEAD
(1) W20-3(AHEAD)
(1) TYPE 'A' LIGHTS

DETOUR 1000 FT
(1) W20-2 (1000 FT)
(1) TYPE 'A' LIGHTS

STOP ALL WAY
81 SOUTH TO DETOUR
(1) R1-1E
(1) R1-3P
(1) M4-8
(1) M4-5 (OR/BLK)
(1) M3-3 (OR/BLK)
(1) M1-4 (81)
(1) M6-1(L) (OR/BLK)

PIKES PEAK RD.

STOP ALL WAY
(1) M4-8(a)
END DETOUR
(1) R1-1E
(1) R1-3P
(1) R3-2E
(1) M4-8
(1) M4-5 (OR/BLK)
(1) M3-3 (OR/BLK)
(1) M1-4 (81)
(1) M6-3 (OR/BLK)

16th St NORTH DETOUR
(1) SPECIAL SIGN TCS-01
(1) M4-9(V)

PIKES PEAK RD.

16th St NORTH DETOUR
(1) SPECIAL SIGN TCS-01
(1) M4-9(V)

16th St NORTH
DETOUR
(1) SPECIAL SIGN TCS-01
(1) M4-9(L)

COTTONWOOD RD.

US-81 SB

US-81 NB

STOP ALL WAY
(1) R3-1E
(1) R1-3P
(1) R3-2E

S 16TH ST.

(3) TYPE III BARRICADES
(6) TYPE 'A' LIGHTS
(2) R11-4
(1) M4-10(L)
ROAD CLOSED TO THRU TRAFFIC
DETOUR

(1) R1-1E
(1) R1-3P
(1) M4-8
(1) M4-5 (OR/BLK)
(1) M3-3 (OR/BLK)
(1) M1-4 (81)
(1) M6-1(R) (CR/BLK)

STOP ALL WAY
DETOUR TO SOUTH 81

(1) M4-8
(1) M4-5 (OR/BLK)
(1) M3-3 (OR/BLK)
(1) M1-4 (81)
(1) M6-3 (OR/BLK)
81 SOUTH TO DETOUR

(1) M4-8
(1) M3-3 (OR/BLK)
(1) M1-4 (81)
(1) M5-1(R) (OR/BLK)
81 SOUTH DETOUR

STOP
81 SOUTH DETOUR

(1) R1-1E
(1) M4-8
(1) M4-5 (OR/BLK)
(1) M3-3 (OR/BLK)
(1) M1-4 (81)
(1) M6-1(R) (OR/BLK))

(1) M4-8(a)
END DETOUR

DETOUR 16th ST NORTH
STOP

ROAD CLOSED 500 FT
ROAD CLOSED 1000 FT
(1) W20-3 (1000)
(1) TYPE 'A' LIGHTS
(1) W20-3 (500 FT)
(1) TYPE 'A' LIGHT
DO NOT ENTER
ROAD CLOSED

(1) R1-1E
(1) SPECIAL SIGN TCS-01
(1) M4-9(L)

ROAD CLOSED 1500 FT
(1) W20-3 (1500 FT)
(1) TYPE 'A' LIGHT

(5) TYPE III BARRICADES
(10) TYPE 'A' LIGHTS
(3) R11-2
(2) R5-1E

WORK AREA

16TH ST/QUAIL RD

(1) SPECIAL SIGN TCS-01
(1) M4-9 (V)
16th St NORTH DETOUR

(4) TYPE III BARRICADES
(8) TYPE 'A' LIGHTS
(2) R11-4
(2) M4-10(R)

(5) TYPE III BARRICADES
(10) TYPE 'A' LIGHTS
(3) R11-2
(2) R5-1E
DO NOT ENTER
ROAD CLOSED

DETOUR
ROAD CLOSED TO THRU TRAFFIC

RAMP F/US-81 SB
RAMP E
US-81 NB
QUAIL RD./ US-81 SB

N.T.S.

NOTES:

1. SEE SHEETS T019 - T021 FOR ADDITIONAL PHASE 6 TRAFFIC CONTROL.

LEGEND

- TRAFFIC FLOW
- SIGN W/2 POSTS
- SIGN W/1 POST
- TYPE III BARRICADE

SUGGESTED SEQUENCE OF CONSTRUCTION:

PHASE 6: CONSTRUCT REMAINDER OF RAMP D AND 16TH AVE.
TRAFFIC ON PROPOSED US 81, RAMP A, RAMP C, RAMP E, RAMP F, QUAIL RD., 16TH AVE., AND FRONTAGE RD.

A CONSTRUCT REMAINDER OF RAMP D, INCLUDING RETAINING WALL 1, AND RAMP E SLOPEWALL.
B CONSTRUCT REMAINDER OF 16TH AVE.
C REMOVE US 81 CROSSOVERS CONSTRUCTED IN PHASE 1.
D COMPLETE FINISHING OPERATIONS.
E OPEN RAMP E, RAMP F, QUAIL RD., AND 16TH AVE. TO PROPOSED CONFIGURATION. NORTHBOUND US 81 NORTH OF STA 118+00, RAMP B, AND RAMP D TO REMAIN CLOSED TO TRAFFIC UNTIL PROPOSED US 81 SURFACING CONSTRUCTED IN J/P 24428(14).

PRELIMINARY
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SUGGESTED TRAFFIC CONTROL (22) - PHASE 6
16TH ST. DETOUR

State Job No. 24428(13) Sheet No. T022

US-81 REALIGNMENT
GRADY COUNTY

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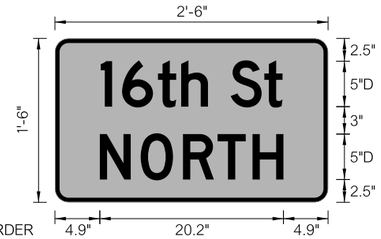
SIGN DETAIL
N.T.S.



BORDER
R=1.5"
TH=0.5"

SIGN NUMBER	SP. SIGN TCS-01
WIDTH x HEIGHT	2'-6" x 1'-6"
BORDER WIDTH	0.5"
CORNER RADIUS	1.5"
MOUNTING	GROUND
SIGN AREA	3.75 SQ. FT.
BACKGROUND	TYPE: REFLECTIVE
	COLOR: ORANGE
LEGEND/BORDER	TYPE: NON-REFLECTIVE
	COLOR: BLACK

SYMBOL	X	Y	WID	HT

Dimensions are in inches.tenths

Letter locations are paneledge to lower left corner

LETTER POSITIONS (X)																					LENGTH	SERIES / SIZE
I	6	†	h		S	†																D 2000
5	7.4	11.3	13.9	16.8	19.3	23															20	
N	O	R	T	H																		D 2000
4.9	9.4	14.1	17.9	21.7																	20.2	

PRELIMINARY
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SUGGESTED TRAFFIC CONTROL (23) - SPECIAL SIGN LAYOUTS (1)

State Job No. 24428(13) Sheet No. T023

US-81 REALIGNMENT
GRADY COUNTY

6/25/2020
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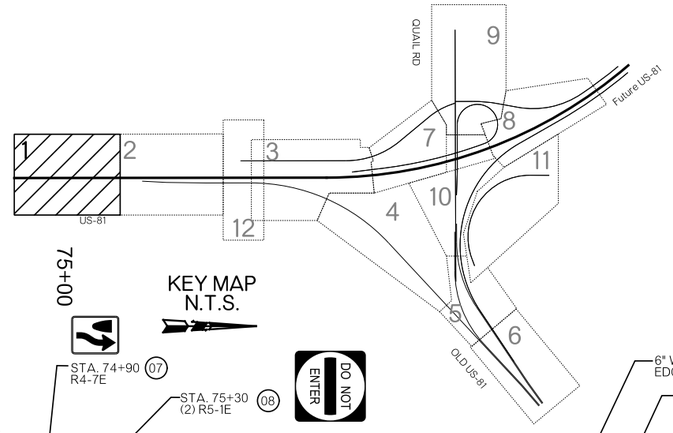
6/25/2020

FINAL FIELD REVIEW MEETING
JUNE 2020

PRELIMINARY



KEY MAP
N.T.S.

0 50' 100'

70+00 75+00 80+00 85+00 90+00 95+00

MATCHLINE STA. 85+00

MATCHLINE STA. 100+00

US-81 SB

US-81 NB

STA. 72+00.00
BEGIN STRIPING
MEET & MATCH EXIST.

06 STA. 74+75
R6-1(L)

STA. 74+90 07
R4-7E

STA. 75+30
(2) R5-1E 08

DO NOT ENTER

6" WHITE EDGE LINE
6" WHITE DASHED LANE LINE
6" YELLOW EDGE LINE

STA. 74+20 04
R4-7E

STA. 74+25 05
R6-1(L)

ONE WAY

STA. 73+00
W4-2E(R) 02

STA. 73+82 03
(2) R5-1E

6" YELLOW EDGE LINE
6" WHITE DASHED LANE LINES
6" WHITE EDGE LINE

STA. 78+00

277 19 JCT 1 14 33
Rush Springs
Duncan

STA. 65+50
W20-5 (L) (AHEAD) 01

LEFT LANE CLOSED AHEAD

11 STA. 86+90
R4-7E
R6-1(R)
R6-1(L)

10 STA. 86+85
R6-1(L)

15 STA. 87+55
R6-1(L)

STA. 87+55 14
R4-7E
R6-1(R)
R6-1(L)

STA. 88+00
(2) R5-1E 16

6" WHITE EDGE LINE
6" WHITE DASHED LANE LINES
6" YELLOW EDGE LINES

18 STA. 97+00
SP. SIGN 01

22 STA. 99+82
R4-7E

20 STA. 99+45
(2) R5-1E

SOLID WHITE TRAFFIC STRIPE (LANE REDUCTION ARROW)

09 STA. 86+56
(2) R5-1E

12 STA. 86+92
R6-1(L)

OLD FRED'S RD

STA. 88+00

6" YELLOW EDGE LINE
6" WHITE EDGE LINE

17 (3) TYPE III BARRICADES
(6) TYPE 'A' LIGHTS
(3) W1-6(R)

900' MERGE TAPER

STA. 97+00

SOLID WHITE TRAFFIC STRIPE (LEFT TURN ARROW)

6" WHITE EDGE LINE

19 (2) TYPE III BARRICADES
(4) TYPE 'A' LIGHTS
(2) R11-2 (LANE)

21 STA. 99+72
R6-1(L)

LANE CLOSED

STA. 87+50 13
R1-1E
R6-1(R)
R6-1(L)
(2) SNS (OLD FRED'S RD)

STOP

LEGEND

FLOW OF TRAFFIC

DELINEATOR
(TYPE 2, CODE 3)

GROUND-MOUNTED SIGN
(SEE SIGN SUMMARY FOR
NUMBER AND TYPE OF POSTS)

3" MIN. TO 4" MAX.
BETWEEN LINES

TYPICAL STRIPING DETAIL
4" DOUBLE YELLOW BARRIER LINE

3' 9' 3' 9' 3' 9' 3' 9' 3' 9' 3'

TYPICAL STRIPING DETAIL
DOTTED LANE LINE

10' 30' 10'

TYPICAL STRIPING DETAIL
DASHED LANE LINE
(ASPHALT)

10' 10' 20' 10' 10'

TYPICAL STRIPING DETAIL
DASHED LANE LINE
(CONCRETE)
DIRECTION OF TRAVEL

WHITE
BLACK

SIGNING & STRIPING (01)
US-81
STA. 70+00 TO STA. 110+00

State Job No. 24428(13) Sheet No. T024

GRADY COUNTY US-81 REALIGNMENT

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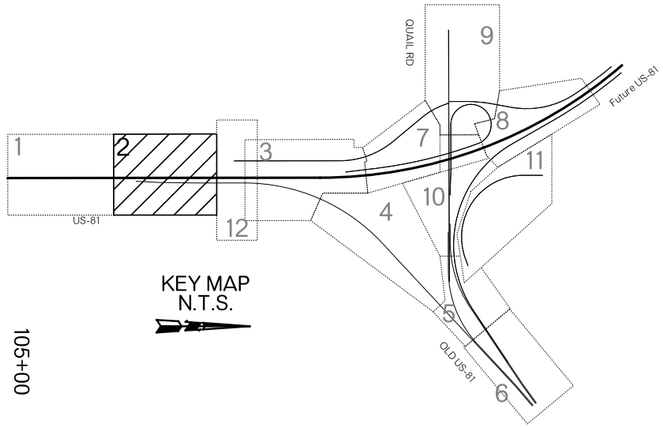

KEY MAP
N.T.S.

0 50' 100'

105+00

110+00

EW 140.5

ONE WAY

DO NOT ENTER

STA. 100+90 (23)
R6-1(L)

STA. 101+40 (25)
(2) R5-1E

SOLID WHITE TRAFFIC STRIPE (LEFT TURN ARROW)

6" YELLOW EDGE LINE

6" WHITE DASHED LANE LINE

6" SOLID WHITE LANE LINE

6" WHITE EDGE LINE

CRL US-81

SPEED LIMIT 70

STA. 107+00 (29)
R2-1F (70)

MATCHLINE STA. 100+00

MATCHLINE STA. 115+00

12'
12'
12'
12'
12'
24'

6" YELLOW EDGE LINE

6" SOLID WHITE LANE LINE

+88.43

+88.87

+78.82

+23.25

STA. 100+98 (24)
R4-7E

(2) TYPE III BARRICADES (26)
(4) TYPE 'A' LIGHTS
(2) R11-2 (LANE)

LANE CLOSED

STA. 105+00 (27)
W8-13F

BRIDGE ICES BEFORE ROAD

STA. 107+50
ROUTE ASSY. NO. 1 (30)

(3) TYPE III BARRICADES (28)
(6) TYPE 'A' LIGHTS
(3) W1-6(R)

STA. 105+00

STA. 111+00

600' SHIFT TAPER

(31)
(4) TYPE III BARRICADES
(8) TYPE 'A' LIGHTS
(2) R11-2 (LANE)

LANE CLOSED

277 81 NORTH

19 EAST

LEGEND

- FLOW OF TRAFFIC
- DELINEATOR (TYPE 2, CODE 3)
- GROUND-MOUNTED SIGN (SEE SIGN SUMMARY FOR NUMBER AND TYPE OF POSTS)

PRELIMINARY

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SIGNING & STRIPING (02)
US-81
STA. 100+00 TO STA. 115+00

State Job No. 24428(13) Sheet No. T025

US-81 REALIGNMENT

GRADY COUNTY

6/25/2020

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FINAL FIELD REVIEW MEETING
JUNE 2020

0 50' 100'

5120+00 5125+00

CRL FRONTAGE ROAD (16TH ST.)

WEST 19 SOUTH 81 277

+73.04

MATCHLINE STA. 5130+00 (SEE SIGNING (07))

(SEE SIGNING (12)) MATCHLINE STA. 5115+00

12' 12'

STA. 5116+00 CRL FRONTAGE RD R2-1 (45) (41)

4" DOUBLE YELLOW BARRIER LINE

4" WHITE EDGE LINE

4" WHITE EDGE LINE

SPEED LIMIT 45

120+00 125+00

(39) STA. 122+10 D10-2a (78.5) MILE 7.8.5

BRIDGE ICES BEFORE ROAD

(40) STA. 124+00 W18-3

PC STA. 124+31.69

+53.73

6" WHITE DASHED LANE LINE

6" WHITE DOTTED LINE

6" YELLOW EDGE LINE

6" WHITE EDGE LINE

8" SOLID WHITE LANE LINE 300'

STA. 117+00 (35) ROUTE ASSEMBLY NO. 3

CRL US-81

10' 12' 12'

MATCHLINE STA. 115+00

24' 12'

24'

RAMP C STA. 110+23.26

(2) TYPE 3 BARRICADES (33)
(4) TYPE 'A' LIGHTS
(1) R11-2

ROAD CLOSED

+49.39

6" YELLOW EDGE LINE

6" WHITE EDGE LINE

STA. 122+10 (38) D10-2a (78.5) MILE 7.8.5

115+00

STA. 118+60 (37) R4-7F

15'

RAMP C

STA. 118+00 (42) RAMP C W3-5E (65)

MATCHLINE STA. 120+00 (SEE SIGNING (04))

STA. 116+25 (34) ROUTE ASSY. NO. 2

277 81 NORTH

19 EAST

(6) TYPE 3 BARRICADES (36)
(12) TYPE 'A' LIGHTS
(3) R11-2
(2) R5-1

ROAD CLOSED

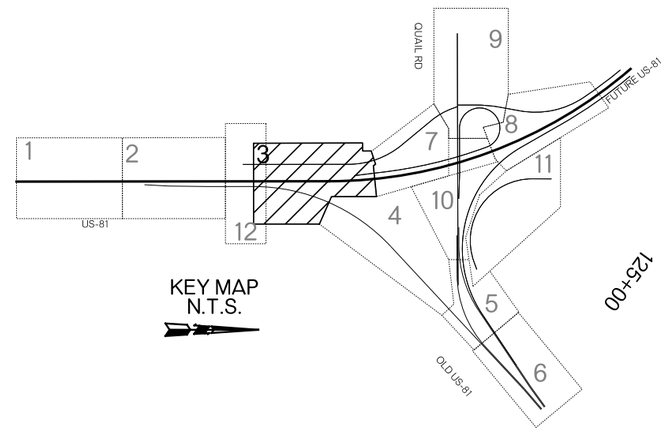
ROAD CLOSED AHEAD

SPEED LIMIT 65

60 M.P.H. RAMP

STA. 115+25 (32) W13-3F (60)

KEY MAP N.T.S.



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SIGNING & STRIPING (03)
US-81
STA. 115+00 TO STA. 130+00

State Job No. 24428(13) Sheet No. T026

US-81 REALIGNMENT
GRADY COUNTY

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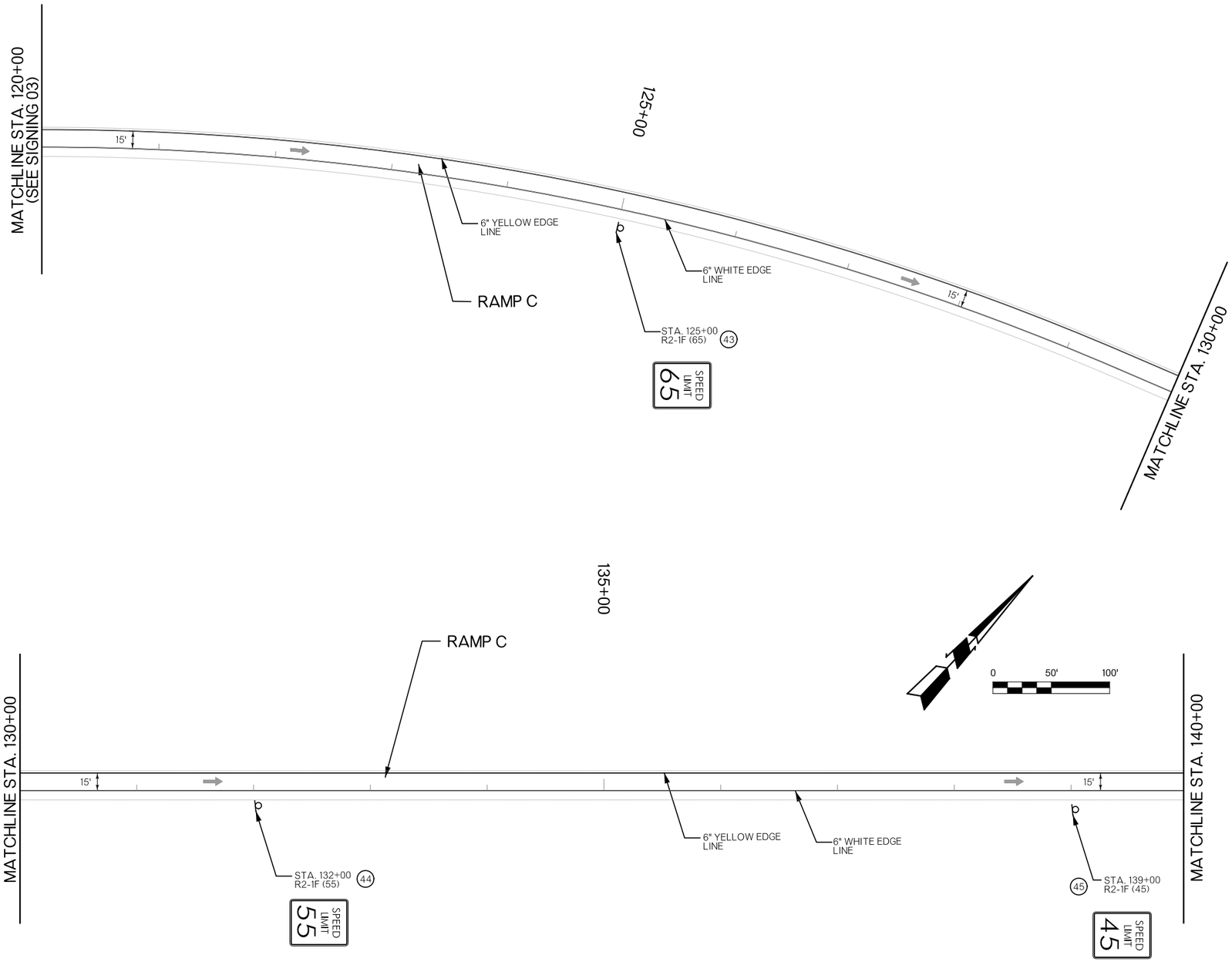
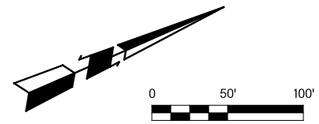
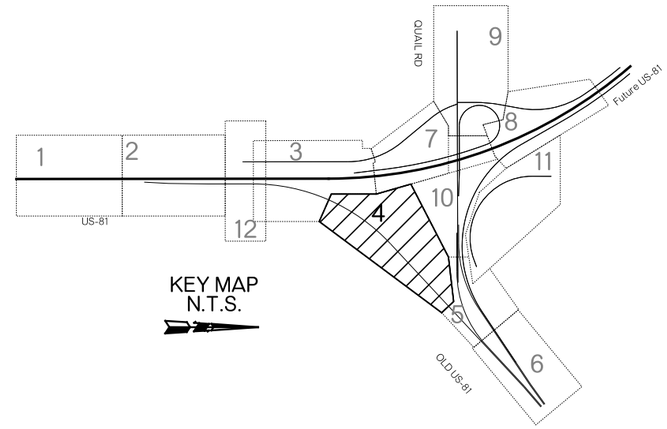
FINAL FIELD REVIEW MEETING
JUNE 2020







KEY MAP
N.T.S.

LEGEND

- FLOW OF TRAFFIC
- DELINEATOR (TYPE 2, CODE 3)
- GROUND-MOUNTED SIGN (SEE SIGN SUMMARY FOR NUMBER AND TYPE OF POSTS)

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PRELIMINARY

SIGNING & STRIPING (04)
RAMP C/US-81 NB
STA. 120+00 TO STA. 140+00

State Job No. 24428(13) Sheet No. T027

US-81 REALIGNMENT
GRADY COUNTY

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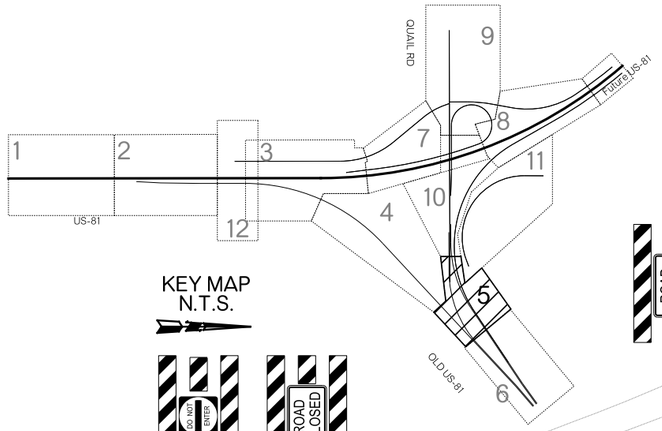
KEY MAP
N.T.S.



0 50' 100'

STA. 218+50
ROUTE ASSY.
NO.6

STA. 219+00

220+00

MATCHLINE STA. 150+00

600' SHIFT TAPER

6" WHITE EDGE LINE

6" YELLOW EDGE LINE

12'
12'

WEST 19

SOUTH 81 277

RAMP 45 M.P.H.

STA. 222+50
W13-3F (45)

(2) TYPE III BARRICADES
(4) TYPE 'A' LIGHTS
(2) W1-6(L)

STA. 224+00
ROUTE ASSY. NO. 5

265+00

(2) TYPE III BARRICADES
(4) TYPE 'A' LIGHTS
(2) R11-2 (LANE)

ROAD CLOSED

LANE CLOSED

225+00

STA. 225+00

STA. 148+00
CRL RAMP C
(2) W2-1E
(2) W13-1PE (45)

45 M.P.H.

6" WHITE DASHED LANE LINE

8" SOLID WHITE LINE 100'

STA 133+80
(2) TYPE III BARRICADES
(4) TYPE 'A' LIGHTS
(1) R11-2

8" SOLID WHITE GORE LINES

CHEVRON STRIPES AT 10' C/C 12' WHITE GORE MARKING

QUAIL RD. (SEE SIGNING (11))

RAMP D

STA. 133+95
RAMP F
R4-8F

STA 133+80
(3) TYPE III BARRICADES
(6) TYPE 'A' LIGHTS
(2) R11-2
(1) R5-1

8" SOLID WHITE GORE LINES

CHEVRON STRIPES AT 10' C/C
12' WHITE GORE MARKING

260+00

145+00

STA. 131+00
CRL RAMP F
W6-3

6" YELLOW EDGE LINE

6" WHITE EDGE LINE

6" YELLOW EDGE LINE

6" WHITE EDGE LINE

STA. 143+00
CRL RAMP C
W4-3(L)

STA. 61+00
CRL RAMP E
W4-3(L)

12'
15'

15'

MATCHLINE STA. 53+00
(SEE SIGNING (10))

8" SOLID WHITE GORE LINES

STA. 54+40
RAMP E
R4-8F

RAMP E

RAMP F

255+00

6" YELLOW EDGE LINE

6" WHITE EDGE LINE

12' WHITE GORE MARKING STRIPE AT 15' C/C

RAMP C

MATCHLINE STA. 140+00
(SEE SIGNING (04))

LEGEND

- FLOW OF TRAFFIC
- DELINEATOR (TYPE 2, CODE 3)
- GROUND-MOUNTED SIGN (SEE SIGN SUMMARY FOR NUMBER AND TYPE OF POSTS)

PRELIMINARY

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SIGNING & STRIPING (05)
RAMP C /US-81 NB
STA. 140+00 TO STA. 150+00

State Job No. 24428(13) Sheet No. T028

US-81 REALIGNMENT
GRADY COUNTY

6/25/2020

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FINAL FIELD REVIEW MEETING
JUNE 2020

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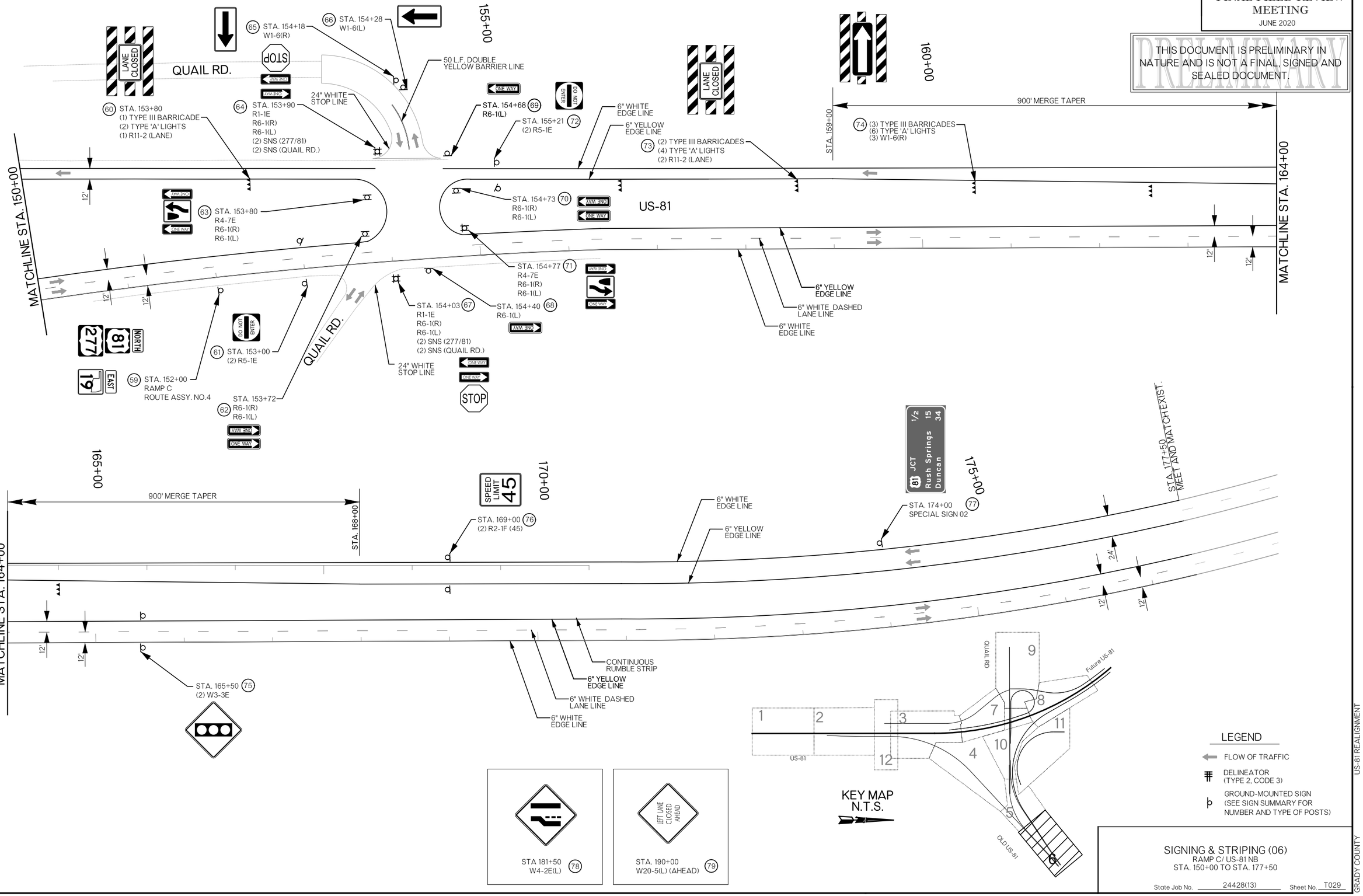

KEY MAP
N.T.S.

STA 181+50
W4-2E(L) 78

STA. 190+00
W20-5(L) (AHEAD) 79

LEFT LANE CLOSED AHEAD

LEGEND

- FLOW OF TRAFFIC
- DELINEATOR (TYPE 2, CODE 3)
- GROUND-MOUNTED SIGN (SEE SIGN SUMMARY FOR NUMBER AND TYPE OF POSTS)

SIGNING & STRIPING (06)
RAMP C/ US-81 NB
STA. 150+00 TO STA. 177+50

State Job No. 24428(13) Sheet No. T029

US-81 REALIGNMENT
GRADY COUNTY

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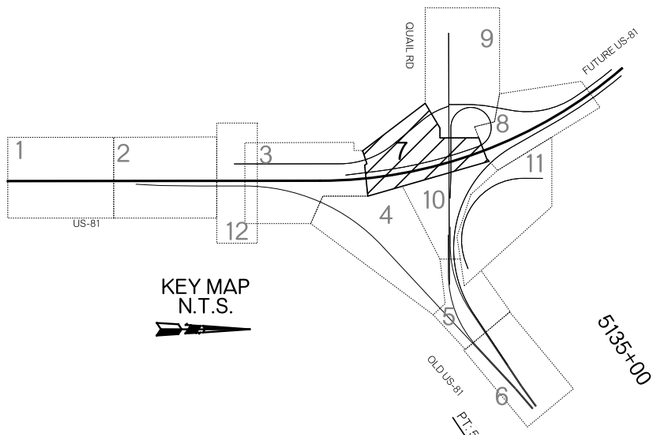
FINAL FIELD REVIEW MEETING
JUNE 2020



KEY MAP
N.T.S.

0 50' 100'

MATCHLINE STA. 140+00

PC: 5138+67.86

5135+00

PT: 5133+90.82

CRL FRONTAGE ROAD
(16TH ST.)

4" WHITE EDGE LINE

STA. 5135+00
CRL FRONTAGE RD (82)
W3-1

4" DOUBLE YELLOW BARRIER LINE (TYP.)

4" WHITE EDGE LINE

12'
12'

MATCHLINE STA. 130+00
(SEE SIGNING (03))

MATCHLINE STA. 135+00
(SEE SIGNING (03))

+50.76

6" WHITE DOTTED LANE LINE

CRL US-81

6" YELLOW EDGE LINE

6" WHITE EDGE LINE

12'
12'
12'

135+00

140+00

QUAIL ROAD

XX FT XX IN

STA. 40+16
CRL QUAIL RD
W12-2P (80)

+51.06

+51.60
END DASHED LANE LINE US-81 SB

8" SOLID WHITE LANE LINE 100'

6" WHITE DASHED LANE LINE

40+00

245+00

MATCHLINE STA. 145+00

STA. 41+64
CRL QUAIL RD
W12-2P (81)

XX FT XX IN

LEGEND

FLOW OF TRAFFIC

DELINEATOR
(TYPE 2, CODE 3)

GROUND-MOUNTED SIGN
(SEE SIGN SUMMARY FOR
NUMBER AND TYPE OF POSTS)

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SIGNING & STRIPING (07)
NEW US-81
STA. 130+00 TO STA. 145+00

State Job No. 24428(13) Sheet No. T030

US-81 REALIGNMENT

GRADY COUNTY

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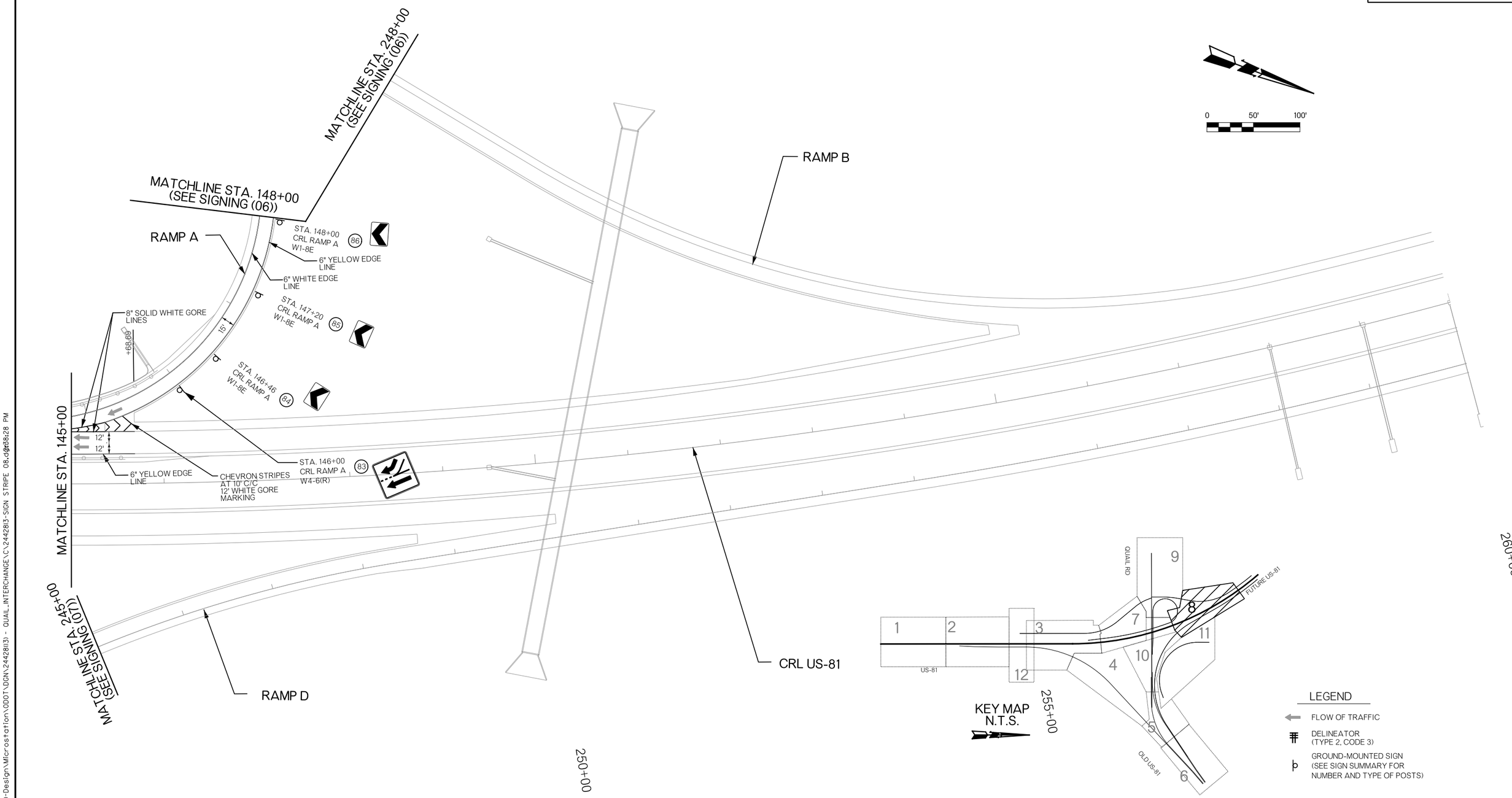

LEGEND

- FLOW OF TRAFFIC
- DELINEATOR (TYPE 2, CODE 3)
- GROUND-MOUNTED SIGN (SEE SIGN SUMMARY FOR NUMBER AND TYPE OF POSTS)

NOTES:

1. ADDITIONAL SIGNING, STRIPING, AND RUMBLE STRIP ON US-81, RAMP B, AND RAMP D TO BE INSTALLED BY OTHERS (J/P NO. 24428(14)).

PRELIMINARY

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SIGNING & STRIPING (08)
NEW US-81
STA. 145+00 TO STA. 148+00

State Job No. 24428(13) Sheet No. T031

US-81 REALIGNMENT
GRADY COUNTY

6/25/2020

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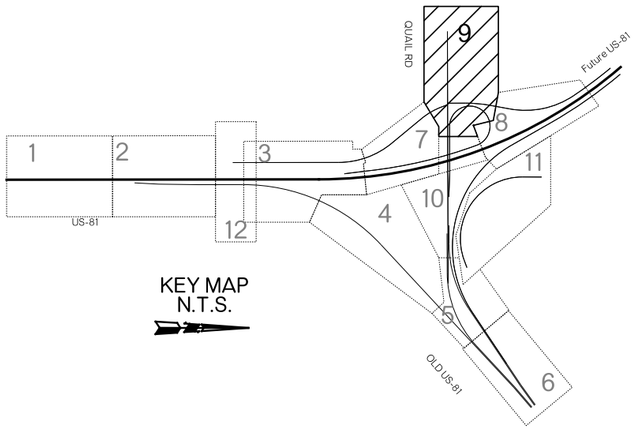

KEY MAP
N.T.S.

0 50' 100'

ROUTE ASSY NO.8

ROUTE ASSY NO.7

MATCHLINE STA. 248+00

MATCHLINE STA. 148+00

MATCHLINE STA. 38+00

MATCHLINE STA. 5140+00
(SEE SIGNING 07)

RAMP A

RAMP B

CRL QUAIL ROAD

CRL FRONTAGE ROAD

25+00

30+00

35+00

5142+35

STA. 27+00
BEGIN STRIPING
ON QUAIL RD.

4" WHITE EDGE LINE

4" YELLOW DOUBLE BARRIER LINE

STA. 29+00
CRL QUAIL RD
W5-1
97

ROAD NARROWS

SPEED LIMIT 40

STA. 31+00
CRL QUAIL RD
R2-1 (40)
99

STA. 30+00
ROUTE ASSY NO.6
98

STA. 33+75
ROUTE ASSY NO.7
100

STA. 34+50
ROUTE ASSY NO.8
102

STA. 148+80
CRL RAMP A
W1-9E
87

STA. 149+60
CRL RAMP A
W1-8E
88

STA. 150+20
CRL RAMP A
W1-8E
89

STA. 151+00
CRL RAMP A
W1-8E
90

STA. 151+80
CRL RAMP A
W1-8E
91

STA. 152+36
CRL RAMP A
R1-2E
92

STA. 152+80
CRL RAMP A
W1-8E
93

STA. 153+45
CRL RAMP A
W1-8E
94

STA. 154+10
CRL RAMP A
W1-8E
95

STA. 155+00
CRL RAMP A
W13-7 (25)
96

6" WHITE EDGE LINE

6" YELLOW EDGE LINE

6" DOTTED WHITE LANE LINE

SOLID WHITE YIELD SYMBOL

YIELD

RAMP 25 MPH

(4) TYPE III BARRICADE
(8) TYPE 'A' LIGHTS
(2) R11-2
(1) R5-1
101

ROAD CLOSED

ROAD CLOSED AHEAD

STA. 5141+90
CRL FRONTAGE RD
R1-1E
(2) SNS (QUAIL RD.)
(1) SNS (16TH ST. LT)
(1) SNS (16TH ST. RT)
105

STOP

STA. 5141+30
CRL FRONTAGE RD
W14-1
104

DEAD END

STA. 5140+00
CRL FRONTAGE RD
R2-1 (45)
103

SPEED LIMIT 45

6" WHITE EDGE LINE

6" YELLOW DOUBLE BARRIER LINE

4" YELLOW DOUBLE BARRIER LINE

4" WHITE EDGE LINE

10'
10'
12'
12'
16'
13'

LEGEND

FLOW OF TRAFFIC

DELINEATOR
(TYPE 2, CODE 3)

GROUND-MOUNTED SIGN
(SEE SIGN SUMMARY FOR
NUMBER AND TYPE OF POSTS)

PRELIMINARY

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SIGNING & STRIPING (09)
QUAIL ROAD
STA. 23+60 TO STA. 38+00

State Job No. 24428(13) Sheet No. T032

US-81 REALIGNMENT
GRADY COUNTY

6/25/2020

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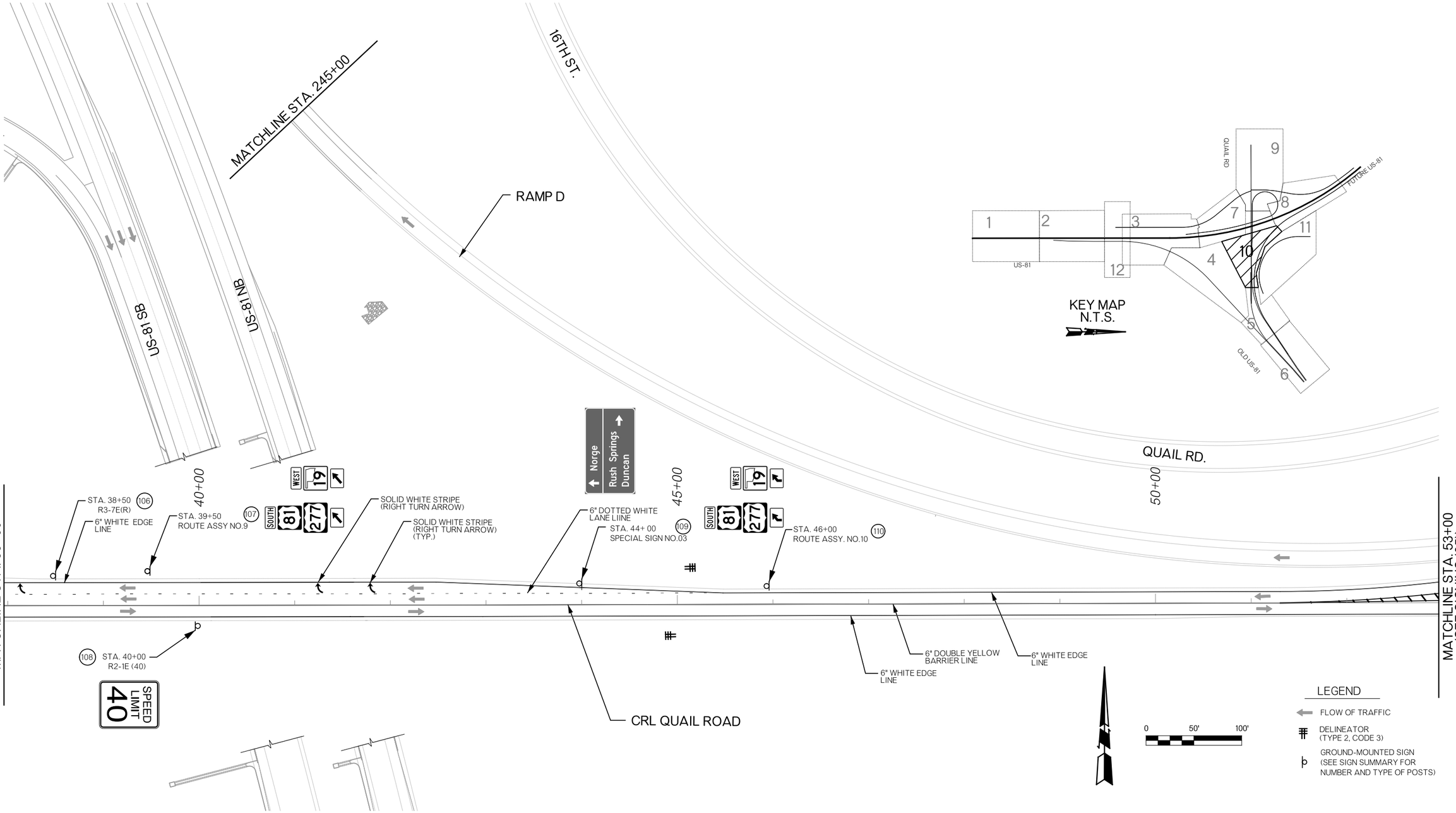
FINAL FIELD REVIEW MEETING
JUNE 2020



KEY MAP
N.T.S.

LEGEND

- FLOW OF TRAFFIC
- DELINEATOR (TYPE 2, CODE 3)
- GROUND-MOUNTED SIGN (SEE SIGN SUMMARY FOR NUMBER AND TYPE OF POSTS)

PRELIMINARY

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SIGNING & STRIPING (10)
QUAIL ROAD
STA. 38+00 TO STA. 50+00

State Job No. 24428(13) Sheet No. T033

GRADY COUNTY US-81 REALIGNMENT

6/25/2020

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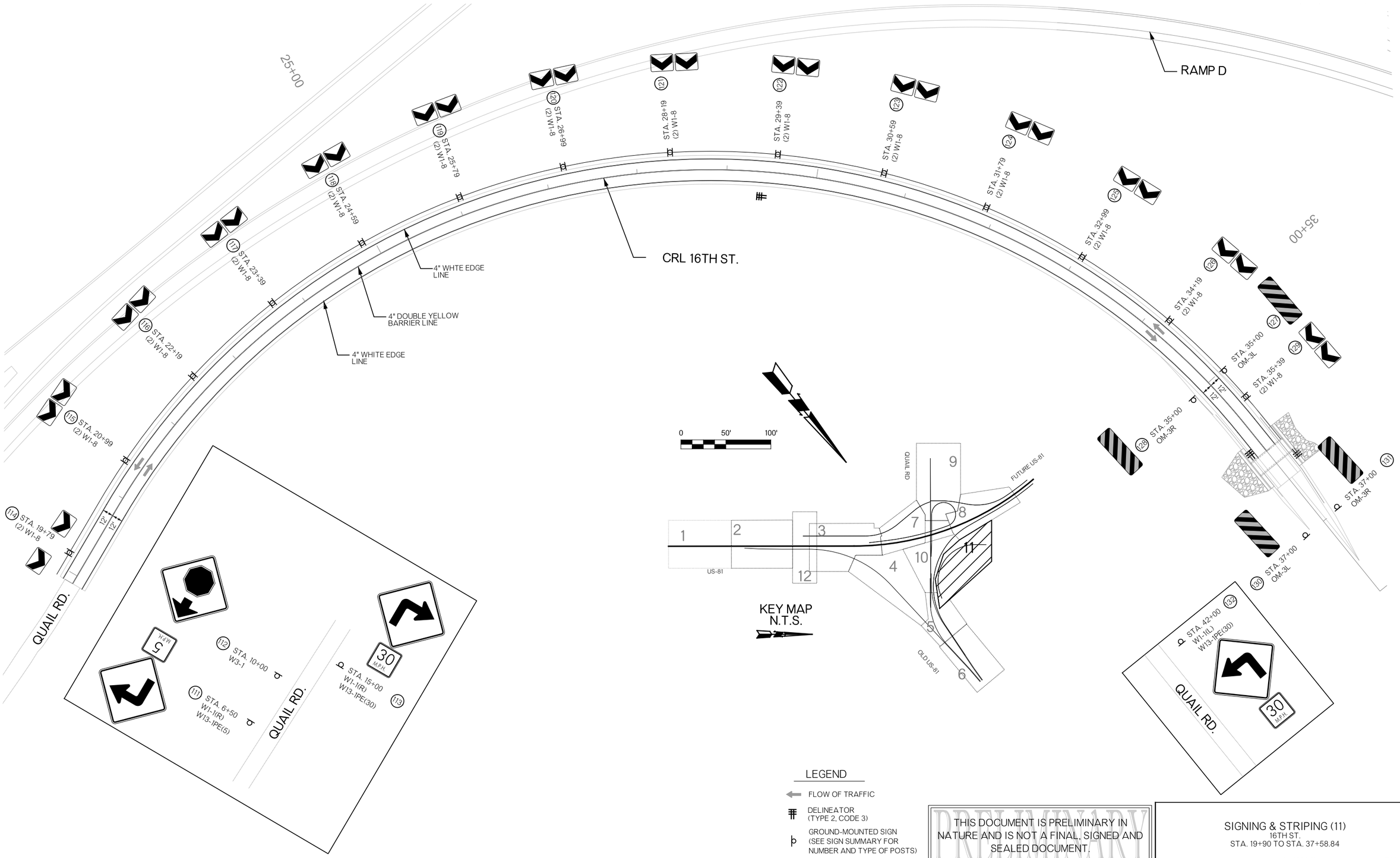
FINAL FIELD REVIEW MEETING
JUNE 2020



LEGEND

- FLOW OF TRAFFIC
- DELINEATOR (TYPE 2, CODE 3)
- GROUND-MOUNTED SIGN (SEE SIGN SUMMARY FOR NUMBER AND TYPE OF POSTS)

PRELIMINARY

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SIGNING & STRIPING (11)
16TH ST.
STA. 19+90 TO STA. 37+58.84

State Job No. 24428(13) Sheet No. T034

US-81 REALIGNMENT
GRADY COUNTY

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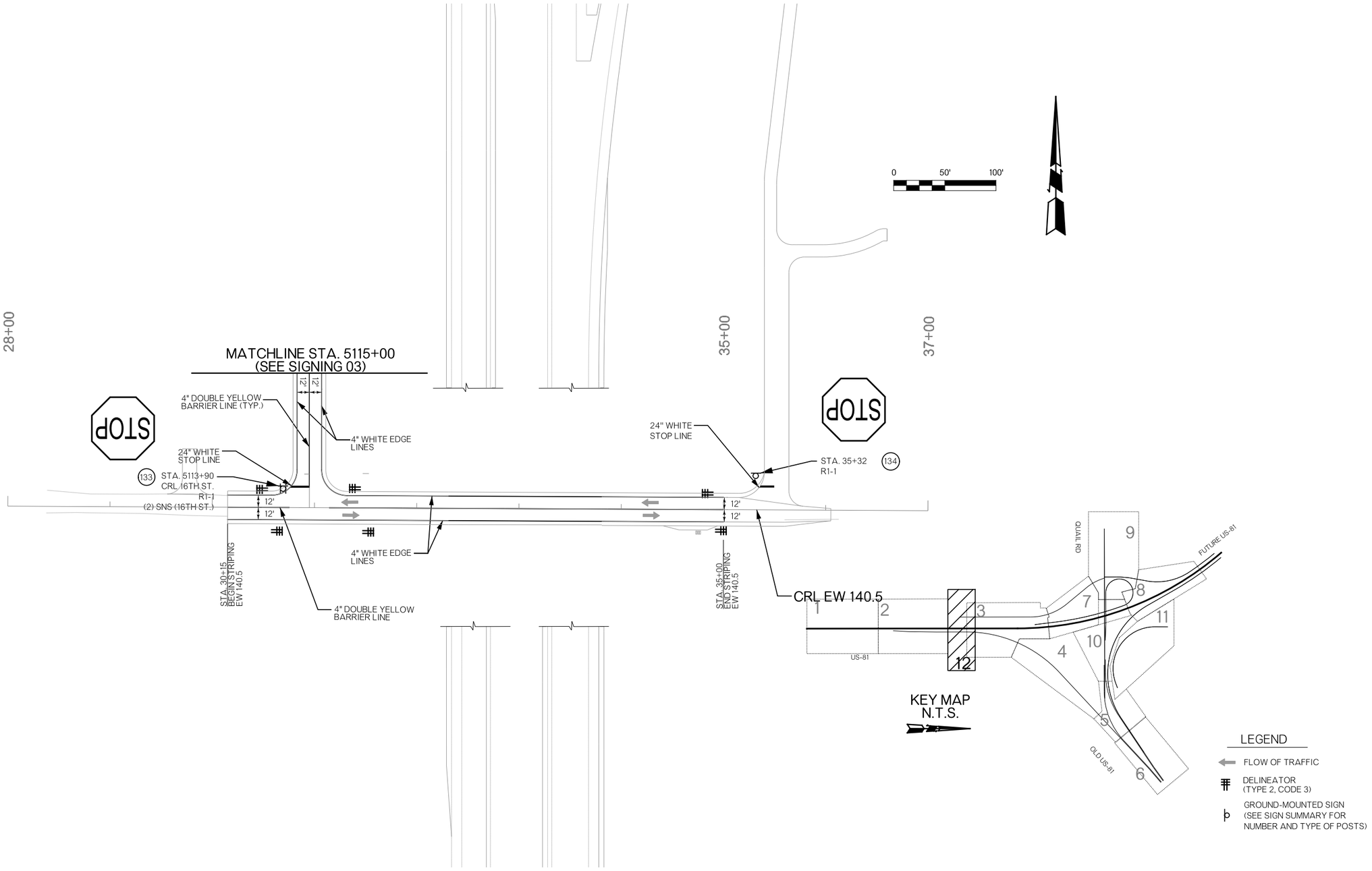

PRELIMINARY

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SIGNING & STRIPING (12)
EW 140.5
STA. 30+15 TO STA. 35+00

State Job No. 24428(13) Sheet No. T035

GRADY COUNTY US-81 REALIGNMENT

6/25/2020 12:38:36 PM
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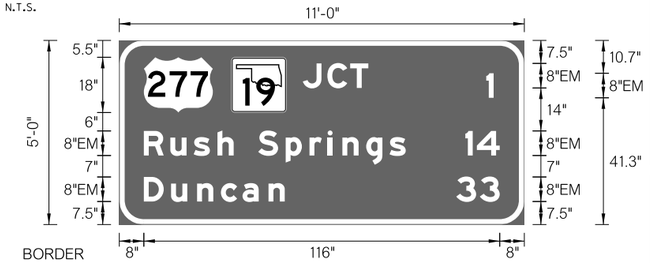
6/25/2020

FINAL FIELD REVIEW MEETING
JUNE 2020

SIGN DETAIL
N.T.S.



BORDER
R=9"
TH=2.0"

SIGN NUMBER	SPECIAL SIGN NO. 01
WIDTH x HEIGHT	11'-0" x 5'-0"
BORDER WIDTH	2.0"
CORNER RADIUS	9"
MOUNTING	GROUND
SIGN AREA	55.0 SQ. FT.
BACKGROUND	TYPE: REFLECTIVE
	COLOR: GREEN
LEGEND /BORDER	TYPE: REFLECTIVE
	COLOR: WHITE

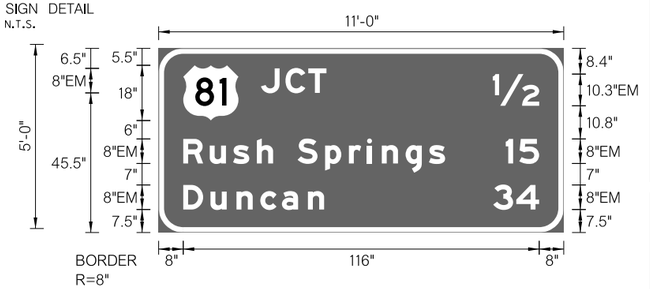
SYMBOL	X	Y	WID	HT
MI-4(277)	8	36.5	22.5	18
MI-6(19)	36.5	36.5	18	18

Dimensions are in inches.tenths Letter locations are paneledge to lower left corner

LETTER POSITIONS (X)

J	C	T																		LENGTH	SERIES / SIZE
59.8	67.8	75.3																		21.4	EM 2000
I																					EM 2000
119.6																				2.4	
R	u	s	h		S	p	r	i	n	g	s	l	4								EM 2000
8	16.6	24.2	32	37.3	45.3	54.2	62	67.9	72.7	80.5	88.1	112.8	116.6							116	
D	u	n	c	a	n	3	3														EM 2000
8	16.9	25.4	33.1	40.2	48.6	109.8	117.5													116	

SIGN DETAIL
N.T.S.



BORDER
R=8"
TH=1.75"

SIGN NUMBER	SPECIAL SIGN NO. 02
WIDTH x HEIGHT	11'-0" x 5'-0"
BORDER WIDTH	2.0"
CORNER RADIUS	9"
MOUNTING	GROUND
SIGN AREA	55.0 SQ. FT.
BACKGROUND	TYPE: REFLECTIVE
	COLOR: GREEN
LEGEND/BORDER	TYPE: REFLECTIVE
	COLOR: WHITE

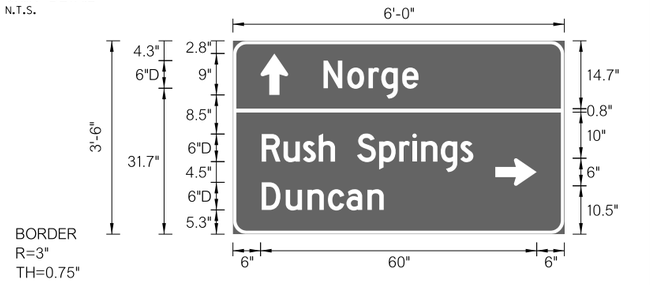
SYMBOL	X	Y	WID	HT
MI-4(277)	8	36.5	18	18

Dimensions are in inches.tenths Letter locations are paneledge to lower left corner

LETTER POSITIONS (X)

J	C	T																		LENGTH	SERIES / SIZE
33.3	41.3	48.8																		21.4	EM 2000
1/2																					EM 2000
108.9																				15.1	
R	u	s	h		S	p	r	i	n	g	s	l	5								EM 2000
8	16.7	24.3	32	37.3	45.3	54.3	62	67.9	72.7	80.5	88.1	113.1	117.5							116	
D	u	n	c	a	n	3	4														EM 2000
8	16.9	25.4	33.1	40.2	48.7	109.1	116.6													116	

SIGN DETAIL
N.T.S.



BORDER
R=3"
TH=0.75"

SIGN NUMBER	SPECIAL SIGN NO. 03
WIDTH x HEIGHT	6'-0" x 3'-6"
BORDER WIDTH	0.75"
CORNER RADIUS	3"
MOUNTING	GROUND
SIGN AREA	21.0 SQ. FT.
BACKGROUND	TYPE: REFLECTIVE
	COLOR: GREEN
LEGEND /BORDER	TYPE: REFLECTIVE
	COLOR: WHITE

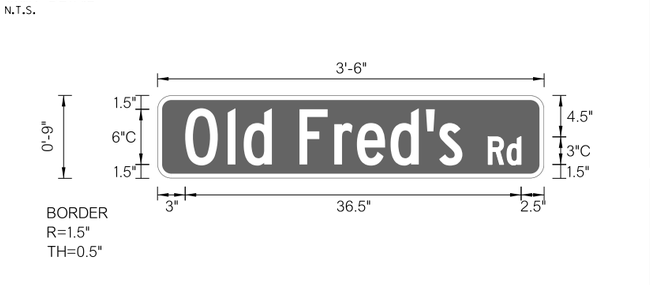
SYMBOL	X	Y	WID	HT
AR_Type D	6	30.3	6	9
AR_Type D	57	10.5	6	9

Dimensions are in inches.tenths Letter locations are paneledge to lower left corner

LETTER POSITIONS (X)

N	o	r	g	e																LENGTH	SERIES / SIZE
19.7	24.8	29.5	32.2	36.8																20.6	D 2000
R	u	s	h		S	p	r	i	n	g	s										D 2000
6.3	11	15.2	18.7	22.2	27	31.8	36.1	39	40.9	45.2	49.4									46	
D	u	n	c	a	n																D 2000
6.3	11.5	16.2	20.7	24.7	29.2															26.5	

SIGN DETAIL
N.T.S.



BORDER
R=1.5"
TH=0.5"

SIGN NUMBER	SNS (OLD FRED'S RD)
WIDTH x HEIGHT	3'-6" x 0'-9"
BORDER WIDTH	0.5"
CORNER RADIUS	1.5"
MOUNTING	GROUND
SIGN AREA	2.625 SQ. FT.
BACKGROUND	TYPE: REFLECTIVE
	COLOR: GREEN
LEGEND / BORDER	TYPE: REFLECTIVE
	COLOR: WHITE

Dimensions are in inches.tenths Letter locations are paneledge to lower left corner

LETTER POSITIONS (X)

O	l	d		F	r	e	d	'	s											LENGTH	SERIES / SIZE
3	7.6	9.4	12.4	15.4	19.2	21.7	25.3	29.2	30.6											30.1	C 2000
R	d																				C 2000
35.9	38																			3.6	

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SIGNING & STRIPING (13) -
SPECIAL SIGN LAYOUTS (1)

State Job No. 24428(13) Sheet No. T036

US-81 REALIGNMENT
GRADY COUNTY

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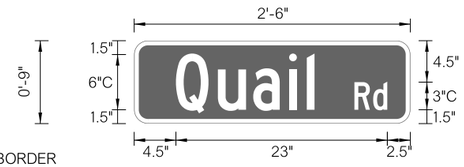
FINAL FIELD REVIEW MEETING
JUNE 2020

SIGN DETAIL
N.T.S.



BORDER
R=1.5"
TH=0.5"

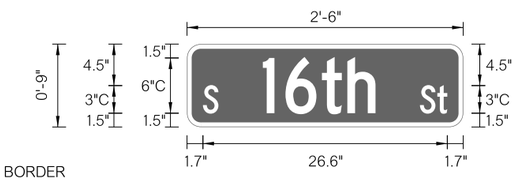
SIGN NUMBER	SNS (QUAIL RD)
WIDTH x HEIGHT	2'-6" x 0'-9"
BORDER WIDTH	0.5"
CORNER RADIUS	1.5"
MOUNTING	GROUND
SIGN AREA	1.875 SQ. FT.
BACKGROUND	TYPE: REFLECTIVE
	COLOR: GREEN
LEGEND / BORDER	TYPE: REFLECTIVE
	COLOR: WHITE

SYMBOL	X	Y	WID	HT

Dimensions are in inches.tenths Letter locations are paneledge to lower left corner

LETTER POSITIONS (X)																					LENGTH	SERIES / SIZE
Q	u	a	i	l																		C 2000
4.5	9.1	12.9	16.8	18.8																	15.1	
R	d																					C 2000
23.9	26																				3.6	

SIGN DETAIL
N.T.S.



BORDER
R=1.5"
TH=0.5"

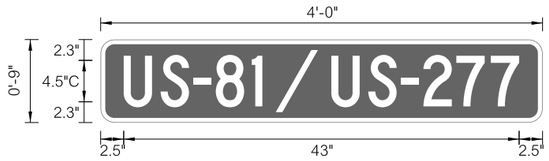
SIGN NUMBER	SNS (S 16TH ST)
WIDTH x HEIGHT	2'-6" x 0'-9"
BORDER WIDTH	0.5"
CORNER RADIUS	1.5"
MOUNTING	GROUND
SIGN AREA	1.875 SQ. FT.
BACKGROUND	TYPE: REFLECTIVE
	COLOR: GREEN
LEGEND / BORDER	TYPE: REFLECTIVE
	COLOR: WHITE

SYMBOL	X	Y	WID	HT

Dimensions are in inches.tenths Letter locations are paneledge to lower left corner

LETTER POSITIONS (X)																					LENGTH	SERIES / SIZE
S																						C 2000
1.7																					1.7	
l	6	t	h																			C 2000
8.2	10.7	14.7	17.4																		12.2	
S	t																					C 2000
25.3	27.2																				3	

SIGN DETAIL
N.T.S.



BORDER
R=1.5"
TH=0.5"

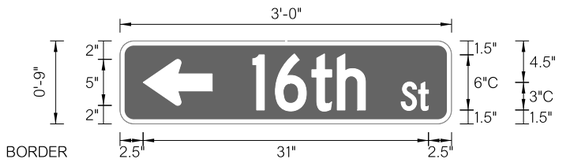
SIGN NUMBER	SNS (US-81 / US-277)
WIDTH x HEIGHT	4'-0" x 0'-9"
BORDER WIDTH	0.5"
CORNER RADIUS	1.5"
MOUNTING	GROUND
SIGN AREA	3.0 SQ. FT.
BACKGROUND	TYPE: REFLECTIVE
	COLOR: GREEN
LEGEND / BORDER	TYPE: REFLECTIVE
	COLOR: WHITE

SYMBOL	X	Y	WID	HT

Dimensions are in inches.tenths Letter locations are paneledge to lower left corner

LETTER POSITIONS (X)																					LENGTH	SERIES / SIZE
U	S	-	8	I	/	U	S	-	2	7	7											C 2000
2.5	6.5	10.1	12.5	16.4	19	25.1	29.1	32.7	35.1	38.6	42.4										43	

SIGN DETAIL
N.T.S.



BORDER
R=1.5"
TH=0.5"

SIGN NUMBER	SNS (16TH ST LT)
WIDTH x HEIGHT	3'-0" x 0'-9"
BORDER WIDTH	0.5"
CORNER RADIUS	1.5"
MOUNTING	GROUND
SIGN AREA	2.25 SQ. FT.
BACKGROUND	TYPE: REFLECTIVE
	COLOR: GREEN
LEGEND / BORDER	TYPE: REFLECTIVE
	COLOR: WHITE

SYMBOL	X	Y	WID	HT
AR_Type D	2.5	2	5	7.5

Dimensions are in inches.tenths Letter locations are paneledge to lower left corner

LETTER POSITIONS (X)																					LENGTH	SERIES / SIZE
l	6	t	h																			C 2000
14.4	16.9	20.8	23.6																		12.2	
S	t																					C 2000
30.5	32.4																				3	

PRELIMINARY

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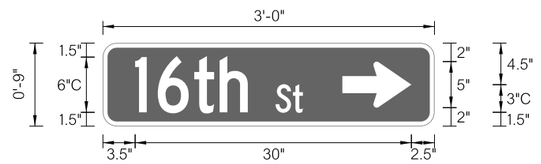
SIGNING & STRIPING (14) -
SPECIAL SIGN LAYOUTS (2)

State Job No. 24428(13) Sheet No. T037

FINAL FIELD REVIEW MEETING
JUNE 2020

SIGN DETAIL
N.T.S.



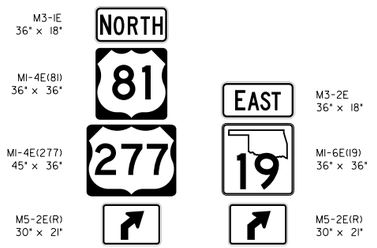
BORDER
R=1.5"
TH=0.5"

SIGN NUMBER	SNS (16TH ST RT)
WIDTH x HEIGHT	3'-0" x 0'-9"
BORDER WIDTH	0.5"
CORNER RADIUS	1.5"
MOUNTING	GROUND
SIGN AREA	2.25 SQ.FT.
BACKGROUND	TYPE: REFLECTIVE
	COLOR: GREEN
LEGEND /BORDER	TYPE: REFLECTIVE
	COLOR: WHITE

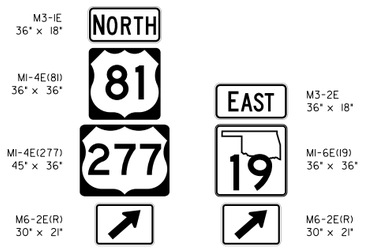
SYMBOL	X	Y	WID	HT
AR_Type D	26	2	5	7.5

Dimensions are in inches.tenths Letter locations are paneledge to lower left corner

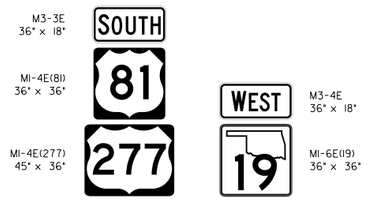
LETTER POSITIONS (X)																				LENGTH	SERIES / SIZE
I	6	t	h																		C 2000
3.5	6	9.9	12.7																	12.2	
S	t																				C 2000
18.8	20.6																			3	



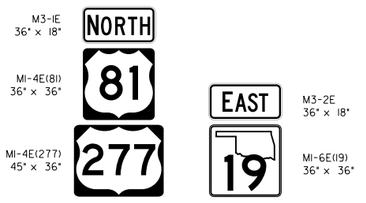
ROUTE ASSEMBLY NO. 1



ROUTE ASSEMBLY NO. 2



ROUTE ASSEMBLY NO. 3



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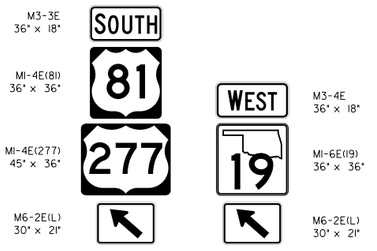

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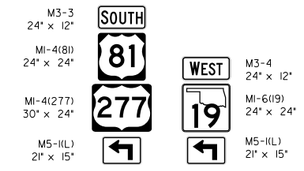
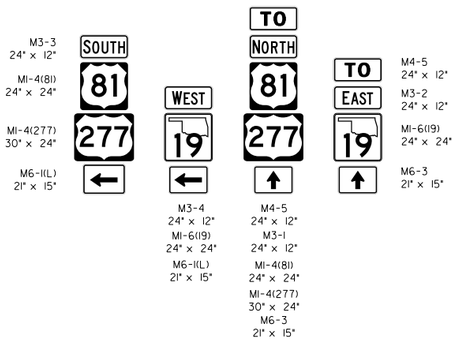


ROUTE ASSEMBLY NO. 6



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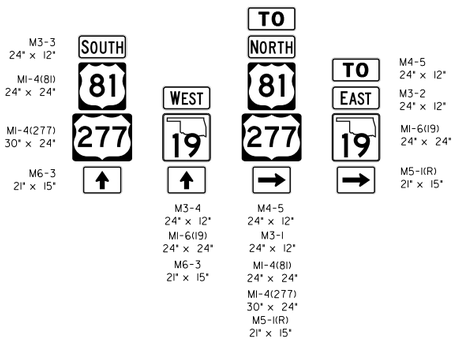

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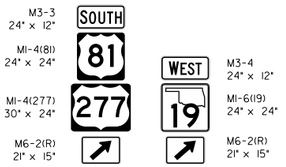

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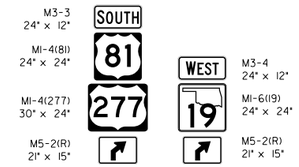

ROUTE ASSEMBLY NO. 10

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SIGNING & STRIPING (15) -
SPECIAL SIGN LAYOUTS (3)

State Job No. 24428(13) Sheet No. T038

GRADY COUNTY US-81 REALIGNMENT

6/25/2020

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FINAL FIELD REVIEW MEETING
JUNE 2020

PRELIMINARY
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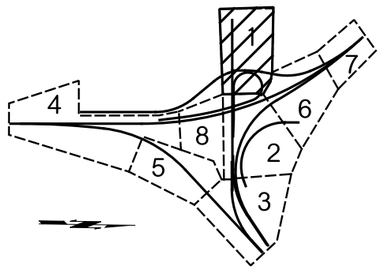
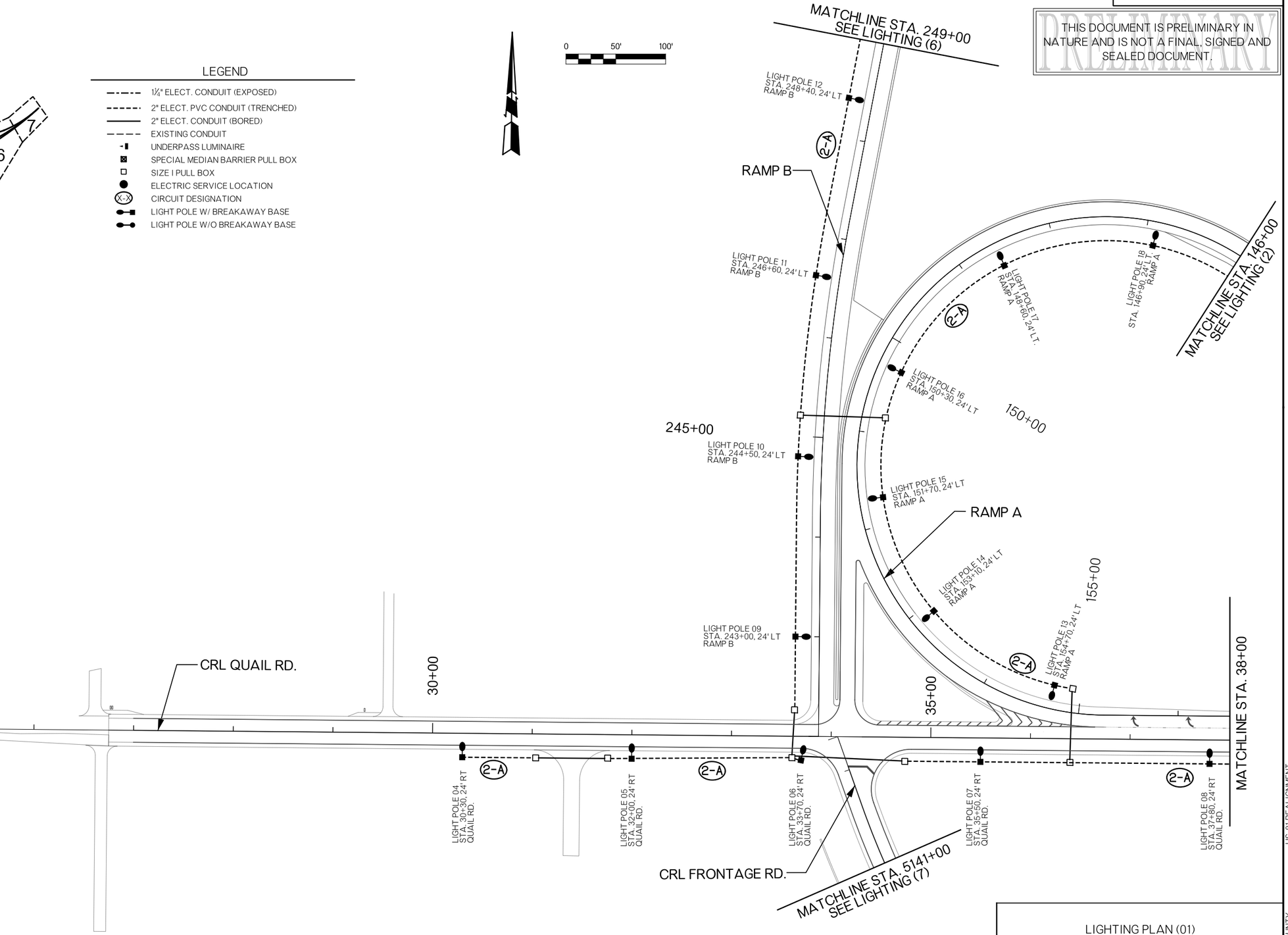
KEY MAP



LEGEND

- 1¼" ELECT. CONDUIT (EXPOSED)
- 2" ELECT. PVC CONDUIT (TRENCHED)
- 2" ELECT. CONDUIT (BORED)
- EXISTING CONDUIT
- UNDERPASS LUMINAIRE
- SPECIAL MEDIAN BARRIER PULL BOX
- SIZE I PULL BOX
- ELECTRIC SERVICE LOCATION
- CIRCUIT DESIGNATION (X-X)
- LIGHT POLE W/ BREAKAWAY BASE
- LIGHT POLE W/O BREAKAWAY BASE

0 50' 100'

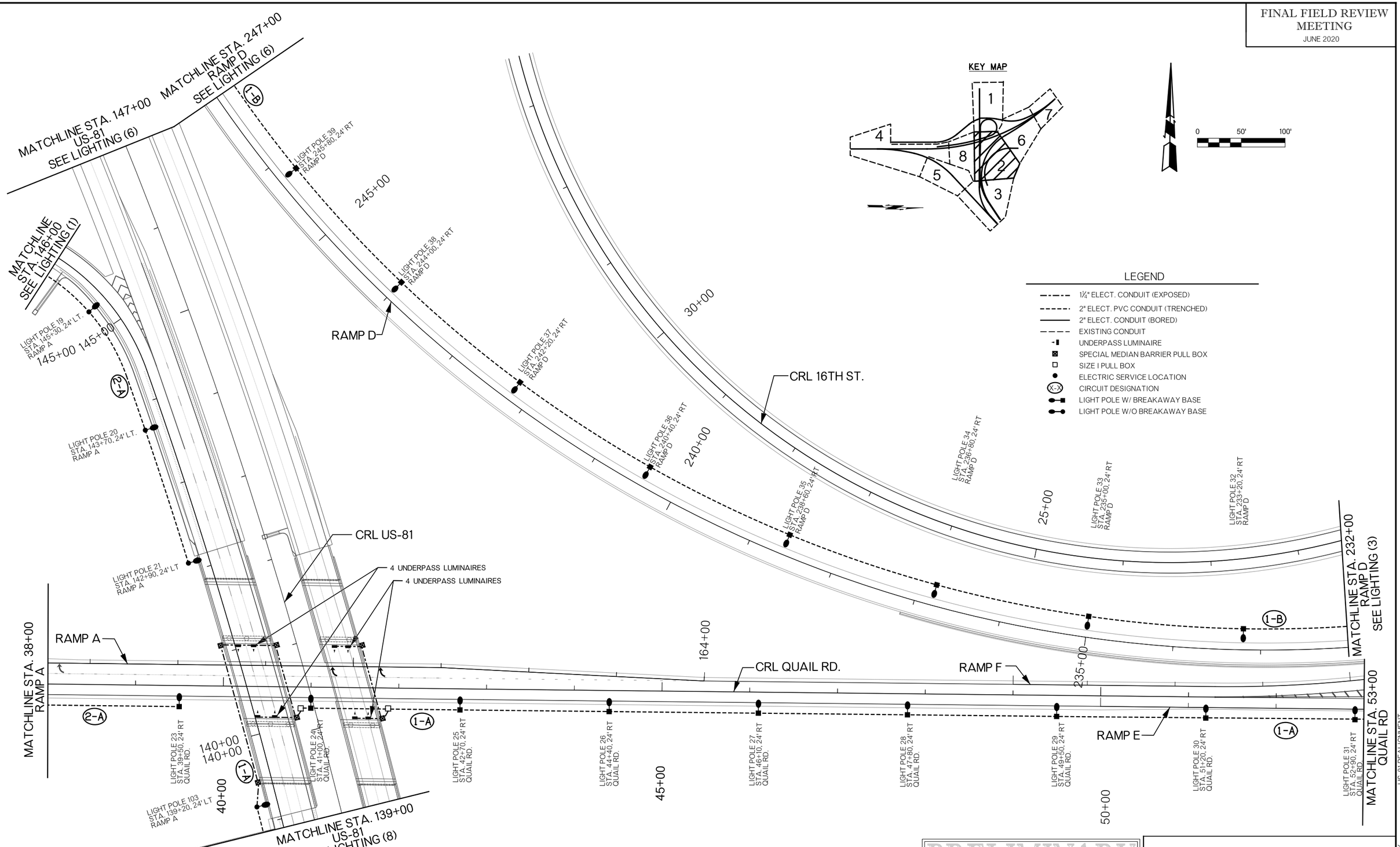


LIGHTING PLAN (01)

State Job No. 24428(13) Sheet No. T039

GRADY COUNTY US-81 REALIGNMENT

FINAL FIELD REVIEW MEETING
JUNE 2020



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LIGHTING PLAN (02)

State Job No. 24428(13) Sheet No. T040

US-81 REALIGNMENT

GRADY COUNTY

6/25/2020

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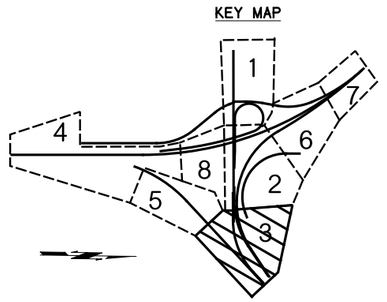
FINAL FIELD REVIEW MEETING
JUNE 2020

KEY MAP



0 50' 100'

MATCHLINE STA. 232+00
SEE LIGHTING (2)

MATCHLINE STA. 53+00
SEE LIGHTING (2)

CRL QUAIL RD.

LIGHT POLE 40
STA. 231+40, 24' RT
RAMP D

LIGHT POLE 41
STA. 229+60, 24' RT
RAMP D

LIGHT POLE 42
STA. 227+80, 24' RT
RAMP D

LIGHT POLE 43
STA. 226+00, 24' RT
RAMP D

LIGHT POLE 44
STA. 224+20, 24' RT
RAMP D

LIGHT POLE 45
STA. 222+40, 24' RT
RAMP D

LIGHT POLE 46
STA. 220+60, 24' RT
RAMP D

LIGHT POLE 47
STA. 54+60, 24' RT
QUAIL RD.

LIGHT POLE 48
STA. 256+10, 12' RT
RAMP E

LIGHT POLE 49
STA. 257+90, 12' RT
RAMP E

LIGHT POLE 50
STA. 259+70, 12' RT
RAMP E

LIGHT POLE 51
STA. 261+20, 12' RT
RAMP E

230+00
225+00
220+00
55+00
140+00
145+00

1-A
1-B

RAMP D
RAMP E
RAMP F

MATCHLINE STA. 135+00
SEE LIGHTING (5)

RAMP C

LIGHT POLE 52
STA. 136+30, 24' RT
RAMP C

LIGHT POLE 53
STA. 138+10, 24' RT
RAMP C

LIGHT POLE 54
STA. 139+90, 24' RT
RAMP C

LIGHT POLE 55
STA. 141+70, 24' RT
RAMP C

LIGHT POLE 56
STA. 143+50, 24' RT
RAMP C

LIGHT POLE 57
STA. 145+30, 24' RT
RAMP C

LIGHT POLE 58
STA. 147+10, 24' RT
RAMP C

LIGHT POLE 59
STA. 148+90, 24' RT
RAMP C

SERVICE POLE NO. 1
STA. 144+20, 62.5' RT.
RAMP C

1-C

LEGEND

- 1¼" ELECT. CONDUIT (EXPOSED)
- 2" ELECT. PVC CONDUIT (TRENCHED)
- 2" ELECT. CONDUIT (BORED)
- EXISTING CONDUIT
- UNDERPASS LUMINAIRE
- SPECIAL MEDIAN BARRIER PULL BOX
- SIZE I PULL BOX
- ELECTRIC SERVICE LOCATION
- (X-X) CIRCUIT DESIGNATION
- LIGHT POLE W/ BREAKAWAY BASE
- LIGHT POLE W/O BREAKAWAY BASE

PRELIMINARY

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LIGHTING PLAN (03)

State Job No. 24428(13) Sheet No. T041

GRADY COUNTY US-81 REALIGNMENT

6/25/2020

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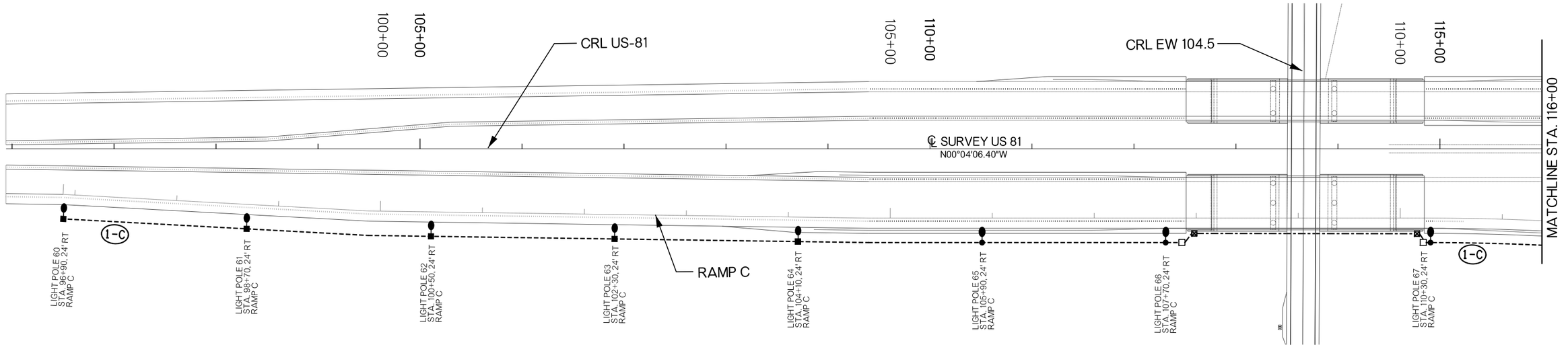
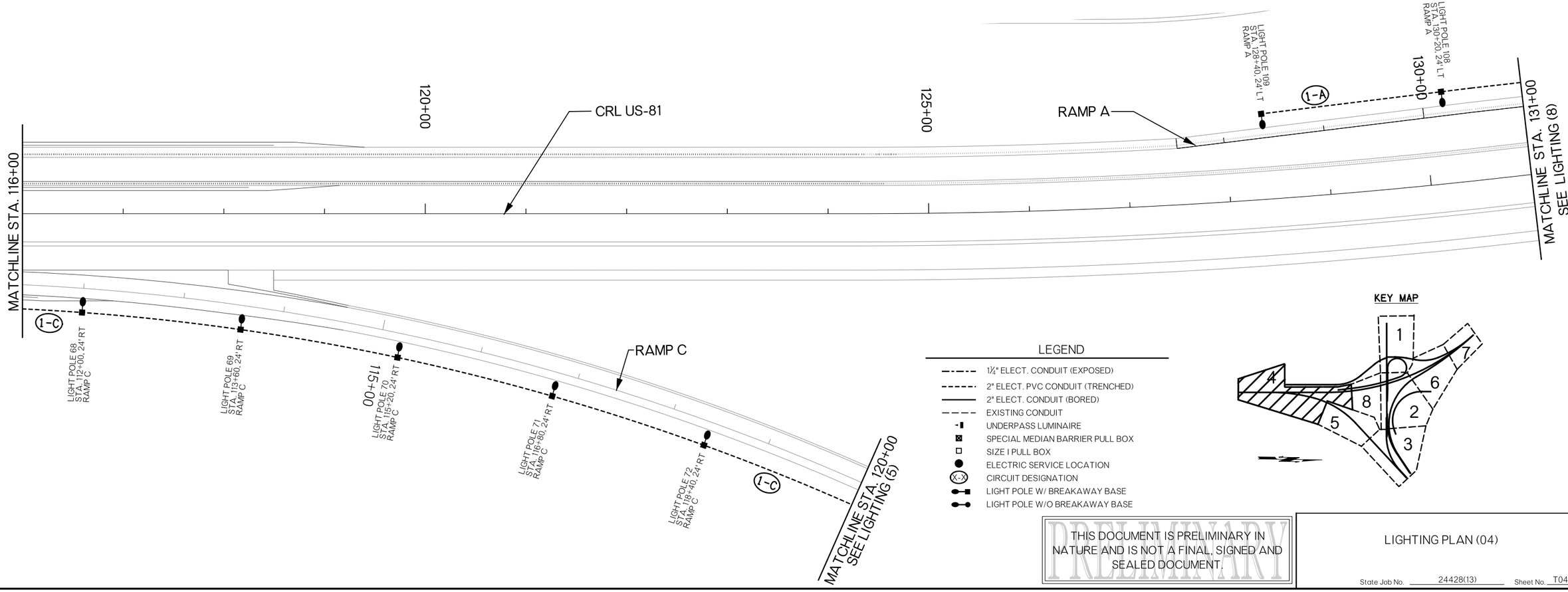
6/25/2020

FINAL FIELD REVIEW MEETING
JUNE 2020

0 50' 100'





KEY MAP

LEGEND

- 1¼" ELECT. CONDUIT (EXPOSED)
- 2" ELECT. PVC CONDUIT (TRENCHED)
- 2" ELECT. CONDUIT (BORED)
- EXISTING CONDUIT
- UNDERPASS LUMINAIRE
- SPECIAL MEDIAN BARRIER PULL BOX
- SIZE I PULL BOX
- ELECTRIC SERVICE LOCATION
- X-X CIRCUIT DESIGNATION
- LIGHT POLE W/ BREAKAWAY BASE
- LIGHT POLE W/O BREAKAWAY BASE

PRELIMINARY

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LIGHTING PLAN (04)

State Job No. 24428(13) Sheet No. T042

US-81 REALIGNMENT
GRADY COUNTY

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0 50' 100'

MATCHLINE STA. 120+00
SEE LIGHTING (4)

1-C

LIGHT POLE 73
STA. 120+10, 24' RT
RAMP C

LIGHT POLE 74
STA. 121+90, 24' RT
RAMP C

LIGHT POLE 75
STA. 123+70, 24' RT
RAMP C

125+00

LIGHT POLE 76
STA. 125+50, 24' RT
RAMP C

LIGHT POLE 77
STA. 127+30, 24' RT
RAMP C

RAMP C

130+00

LIGHT POLE 78
STA. 129+10, 24' RT
RAMP C

LIGHT POLE 79
STA. 130+90, 24' RT
RAMP C

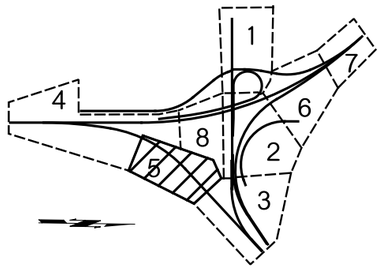
LIGHT POLE 80
STA. 132+70, 24' RT
RAMP C

1-C

LIGHT POLE 81
STA. 134+50, 24' RT
RAMP C

MATCHLINE STA. 135+00
SEE LIGHTING (3)

KEY MAP



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- CIRCUIT DESIGNATION (X-X)
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- LIGHT POLE W/O BREAKAWAY BASE

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PRELIMINARY

LIGHTING PLAN (05)

State Job No. 24428(13) Sheet No. T043

US-81 REALIGNMENT

GRADY COUNTY

6/25/2020

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6/25/2020

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FINAL FIELD REVIEW MEETING
JUNE 2020

0 50' 100'

MATCHLINE STA. 249+00
SEE LIGHTING (1)

250+00
LIGHT POLE 90
STA. 250+20, 24' LT
RAMP B

SERVICE POLE NO. 2
STA. 251+50, 70.0' LT.
RAMP B

2-A

LIGHT POLE 91
STA. 252+00, 24' LT
RAMP B

2-B

RAMP B

LIGHT POLE 92
STA. 253+80, 24' LT
RAMP B

255+00

LIGHT POLE 93
STA. 255+60, 24' LT
RAMP B

LIGHT POLE 94
STA. 257+40, 24' LT
RAMP B

LIGHT POLE 95
STA. 259+20, 24' LT
RAMP B

260+00

2-B

MATCHLINE STA. 147+00
SEE LIGHTING (2)

150+00

155+00

CRL US-81

160+00

MATCHLINE STA. 161+00

MATCHLINE STA. 247+00
SEE LIGHTING (2)

1-B

LIGHT POLE 82
STA. 247+60, 24' RT
RAMP D

LIGHT POLE 83
STA. 249+40, 24' RT
RAMP D

250+00

LIGHT POLE 84
STA. 251+20, 24' RT
RAMP D

RAMP D

LIGHT POLE 85
STA. 253+00, 24' RT
RAMP D

LIGHT POLE 86
STA. 254+80, 24' RT
RAMP D

255+00

LIGHT POLE 87
STA. 256+60, 24' RT
RAMP D

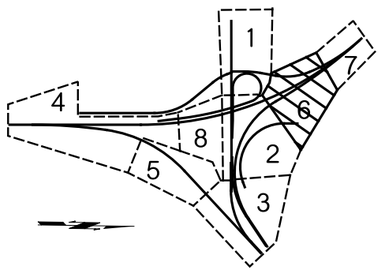
LIGHT POLE 88
STA. 258+40, 24' RT
RAMP D

1-B

260+00

LIGHT POLE 89
STA. 260+20, 24' RT
RAMP D

KEY MAP



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- ELECTRIC SERVICE LOCATION
- (X-X) CIRCUIT DESIGNATION
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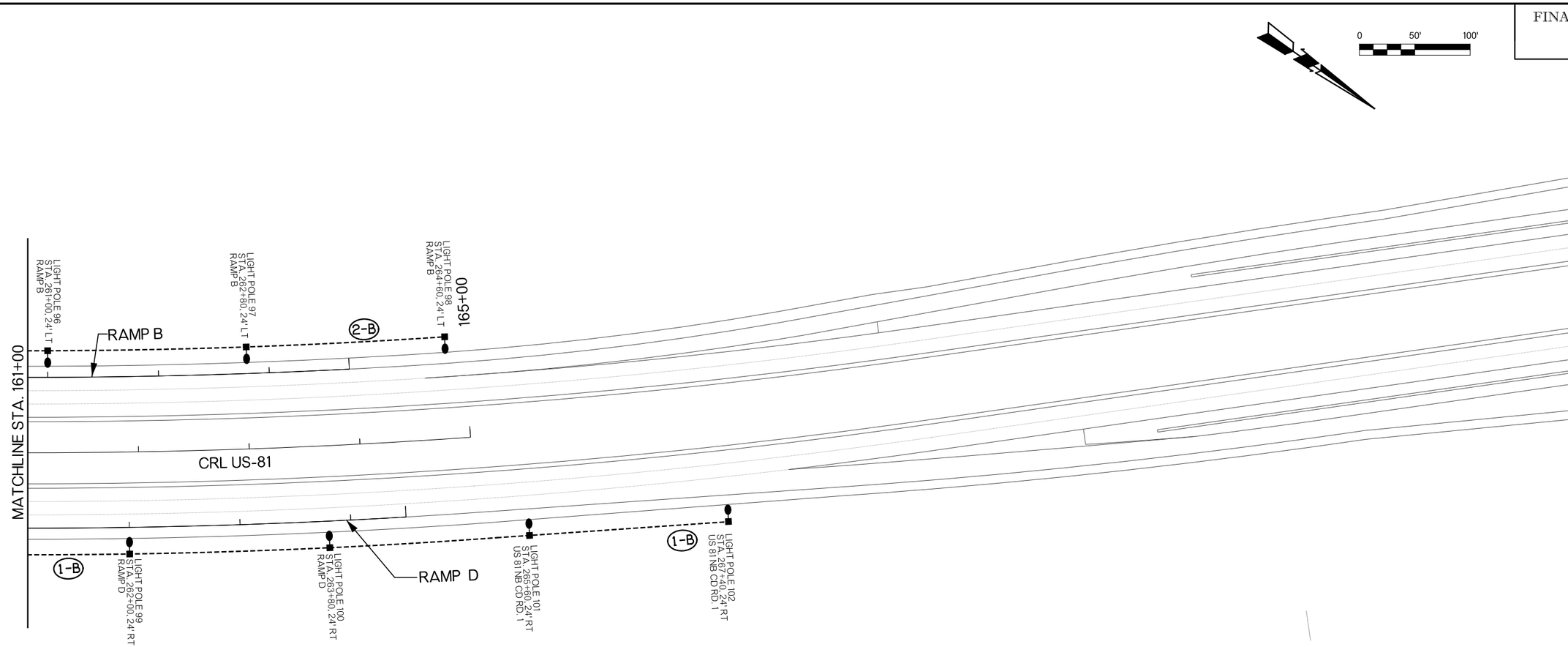
LIGHTING PLAN (06)

State Job No. 24428(13) Sheet No. T044

GRADY COUNTY US-81 REALIGNMENT

FINAL FIELD REVIEW MEETING
JUNE 2020



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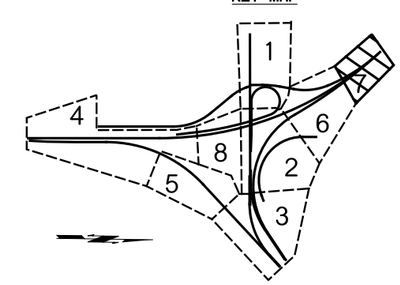

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LIGHTING PLAN (07)

State Job No. 24428(13) Sheet No. T045

US-81 REALIGNMENT

GRADY COUNTY

6/25/2020

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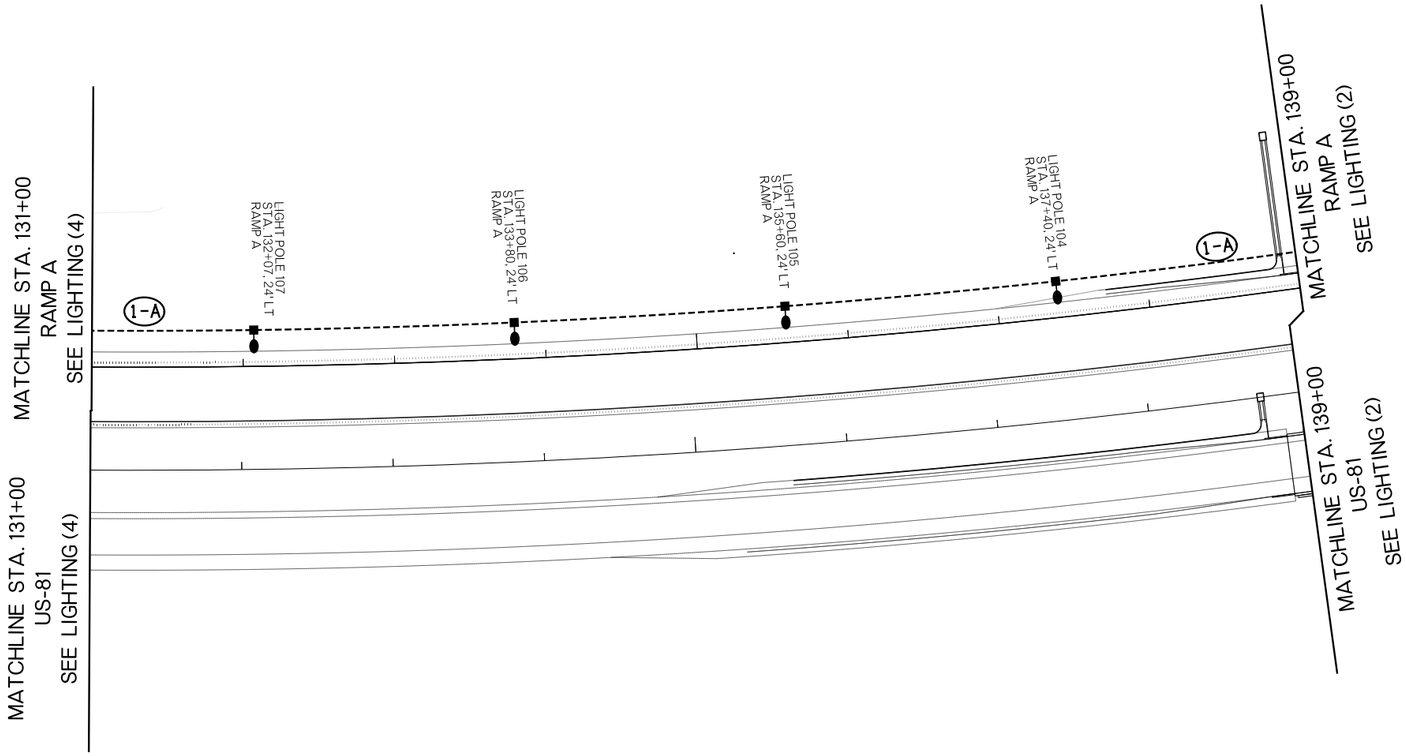
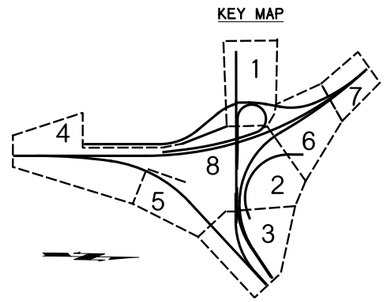
FINAL FIELD REVIEW MEETING
JUNE 2020



0 50' 100'

KEY MAP



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LIGHTING PLAN (08)

State Job No. 24428(13) Sheet No. T046

US-81 REALIGNMENT
GRADY COUNTY

6/25/2020

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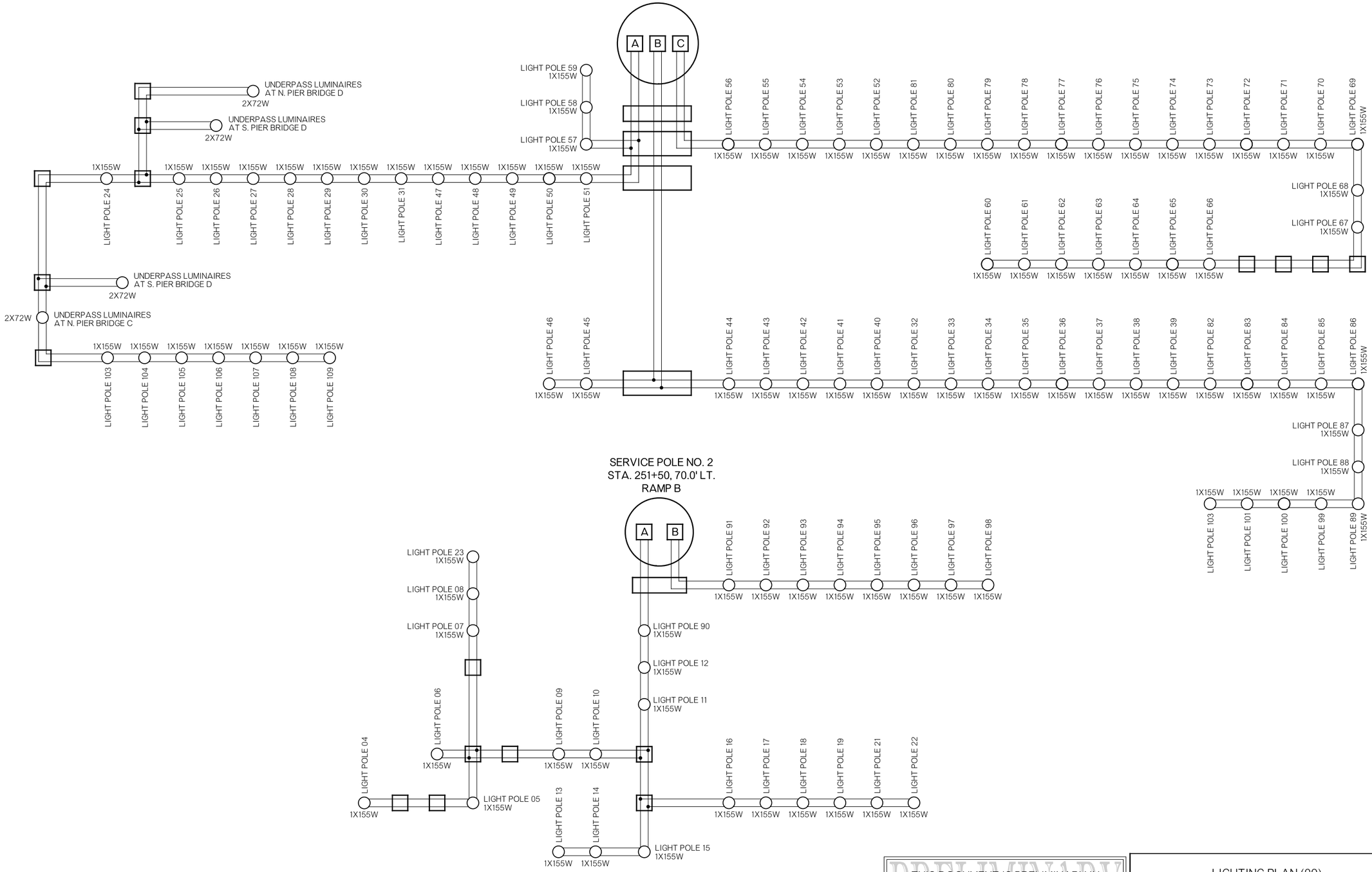
FINAL FIELD REVIEW MEETING
JUNE 2020



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LIGHTING PLAN (09) - WIRING DIAGRAM

State Job No. 24428(13) Sheet No. T047

US-81 REALIGNMENT

GRADY COUNTY

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FINAL FIELD MEETING
JUNE 2020

94+00

+1.00% +1.00%

FILL AREA~21
CUT AREA~5
FILL VOLUME~36
CUT VOLUME~10

93+50.94

+1.00% +1.00%

FILL AREA~19
CUT AREA~6
STA. 93+50.94
GAS LINE UNKOWN DEPTH
FILL VOLUME~32
CUT VOLUME~13

93+00

+1.00% +1.00%

FILL AREA~16
CUT AREA~7
FILL VOLUME~57
CUT VOLUME~29

92+00

+1.00% +1.00%

FILL AREA~15
CUT AREA~8
FILL VOLUME~53
CUT VOLUME~32

91+00

+1.00% +1.00%

FILL AREA~13
CUT AREA~9
FILL VOLUME~25
CUT VOLUME~16

BEGIN INCIDENTAL 90+50

+1.00% +1.00%

FILL AREA~14
CUT AREA~9
FILL VOLUME~0
CUT VOLUME~0

90+49.99

FILL AREA~0
CUT AREA~0
FILL VOLUME~0
CUT VOLUME~0

PRELIMINARY

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THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE LOCATIONS OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO MAKE THE DETERMINATIONS AS TO THE TYPE & LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING OWNERS OF UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS.

SCALE: HORIZ.: 1" = 20'
VERT.: 1" = 20'

US 81

State Job No. 24428(13) Sheet No. X001

US-81 REALIGNMENT
GRADY COUNTY

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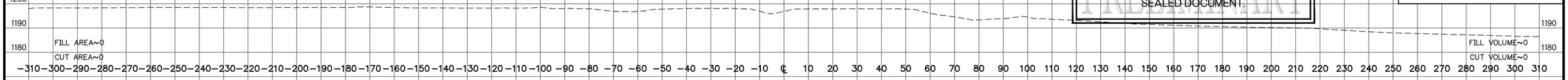
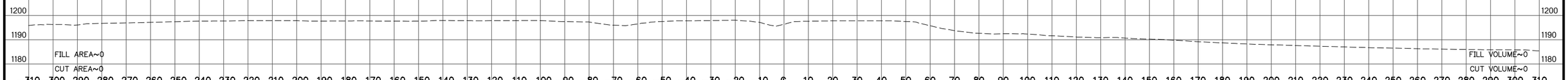
FINAL FIELD MEETING
JUNE 2020

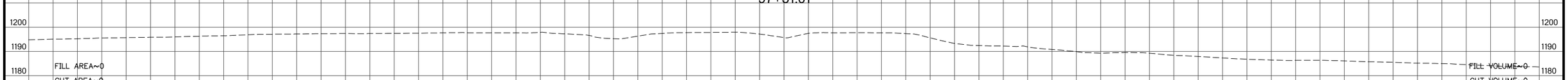
99+00



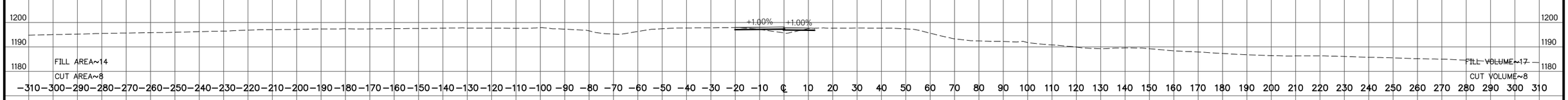
98+00



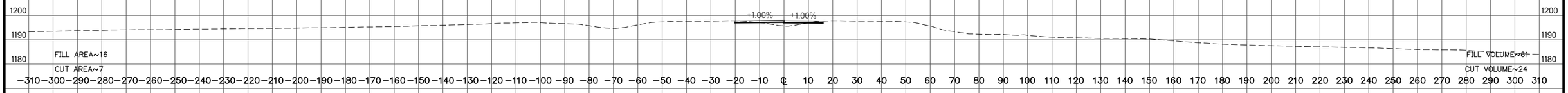
97+31.01



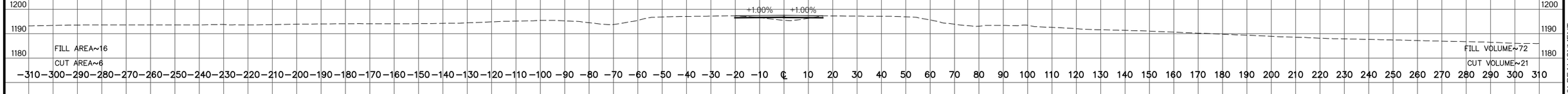
END INCIDENTAL
97+31



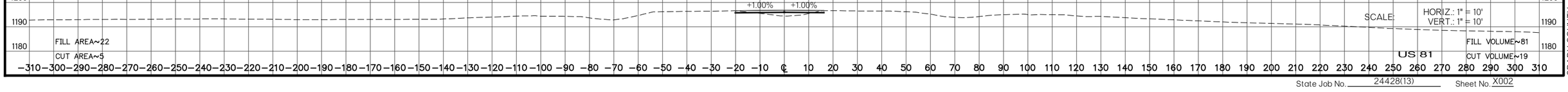
97+00



96+00



95+00



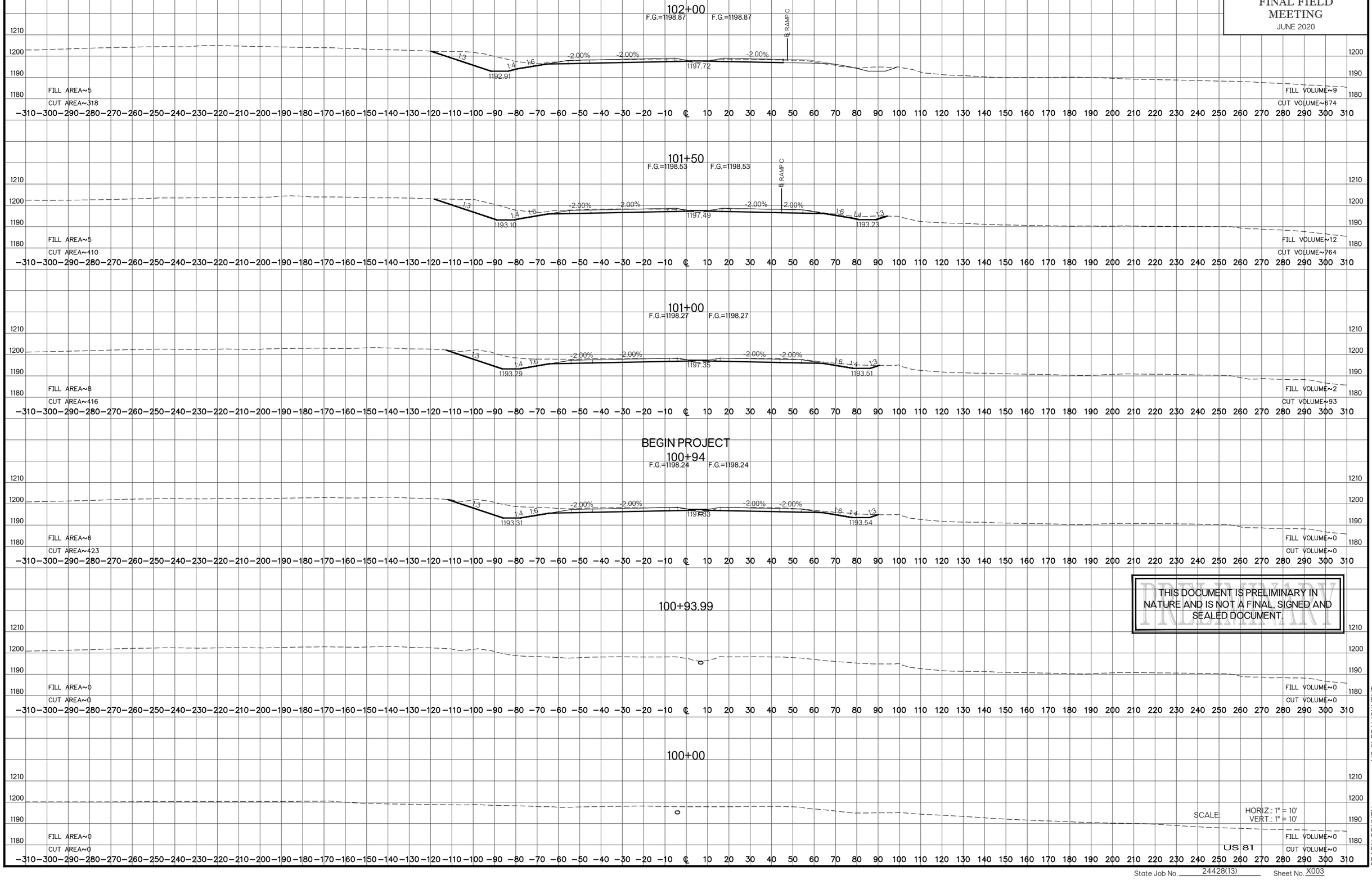
SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X002

FINAL FIELD MEETING
JUNE 2020



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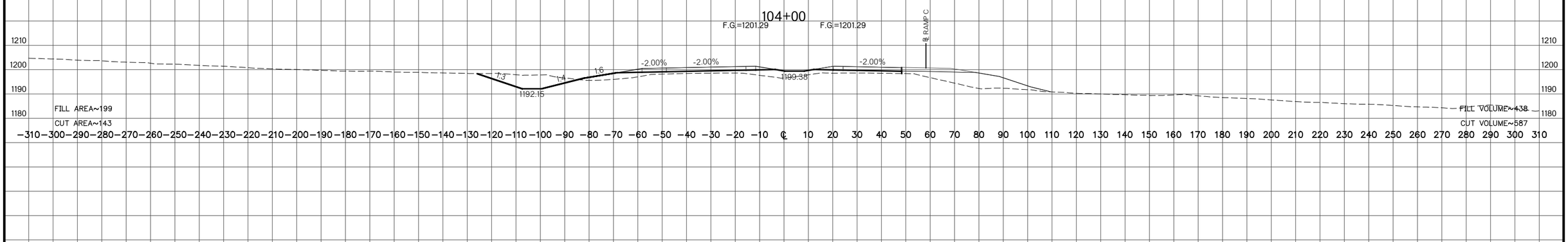
SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

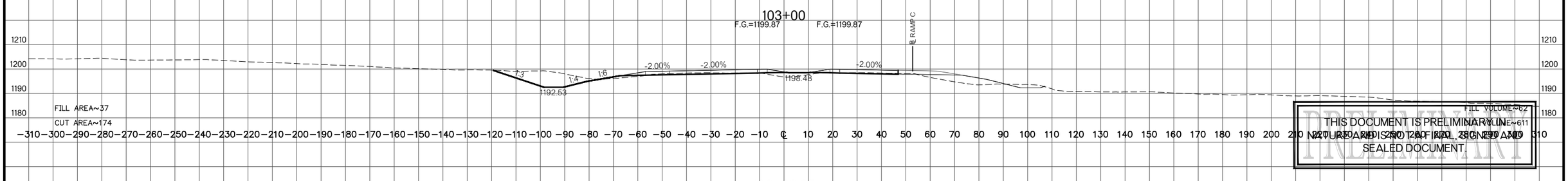
US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X003

FINAL FIELD MEETING
JUNE 2020





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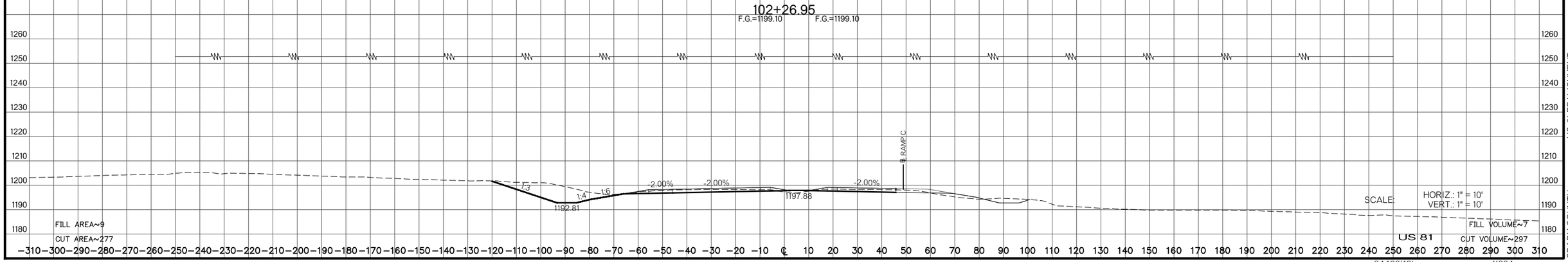

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X004

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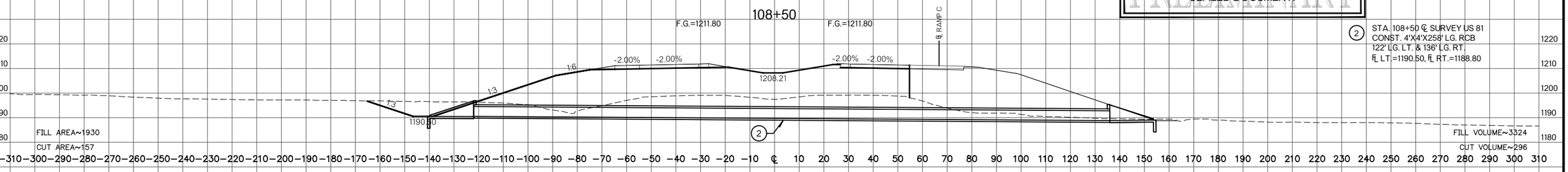
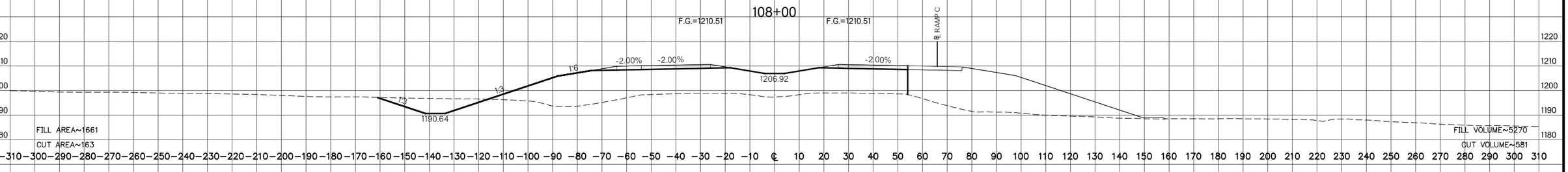
FINAL FIELD MEETING
JUNE 2020

108+50

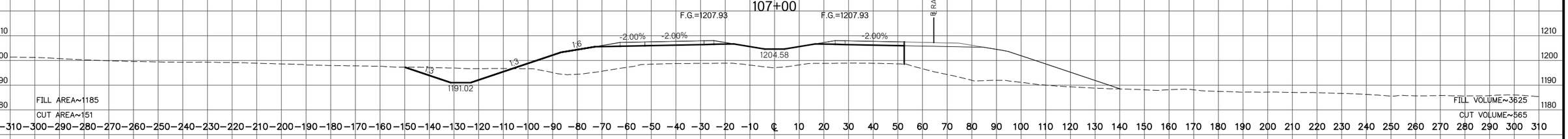


2 STA. 108+50 ℄ SURVEY US 81
CONST. 4'X4'X258' LG. RCB
122' LG. LT. & 136' LG. RT.
FL LT.=1190.50, FL RT.=1188.80

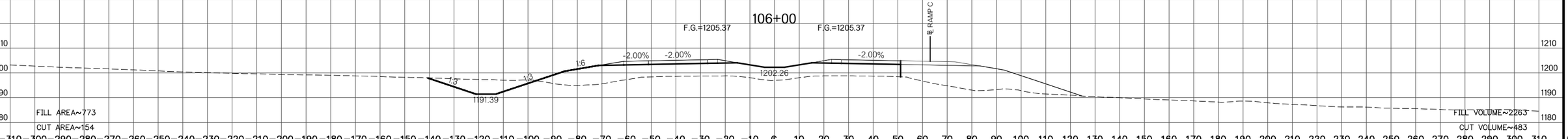
108+00



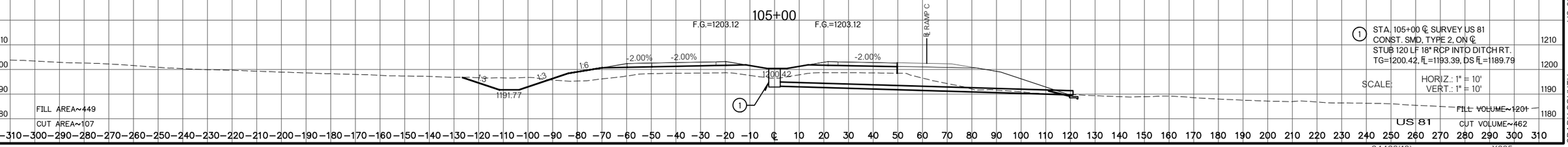
107+00



106+00



105+00



1 STA. 105+00 ℄ SURVEY US 81
CONST. SMD, TYPE 2, ON ℄
STUB 120 LF 18" RCP INTO DITCH RT.
TG=1200.42, FL=1193.39, DS FL=1189.79

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X005

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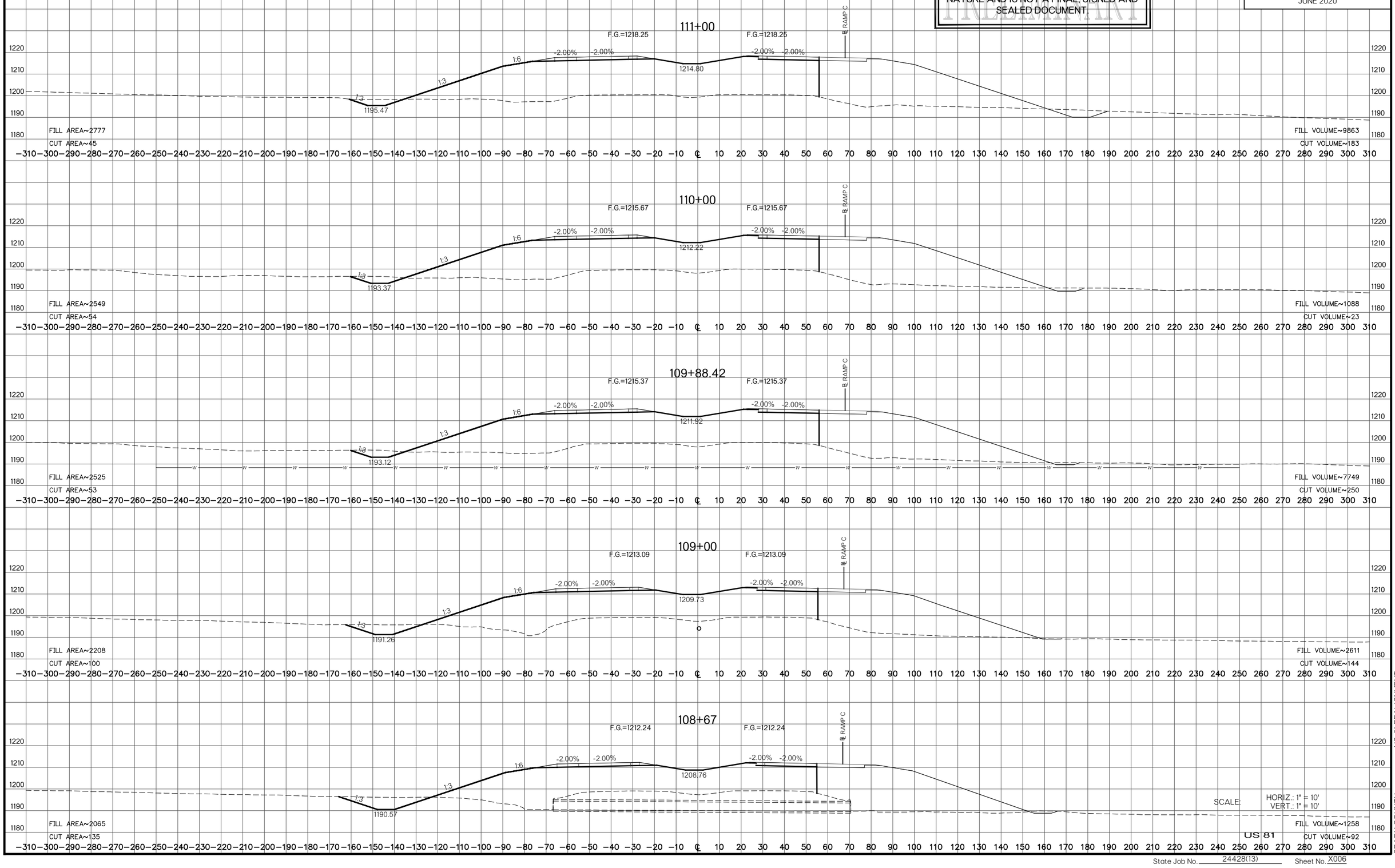
FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X006

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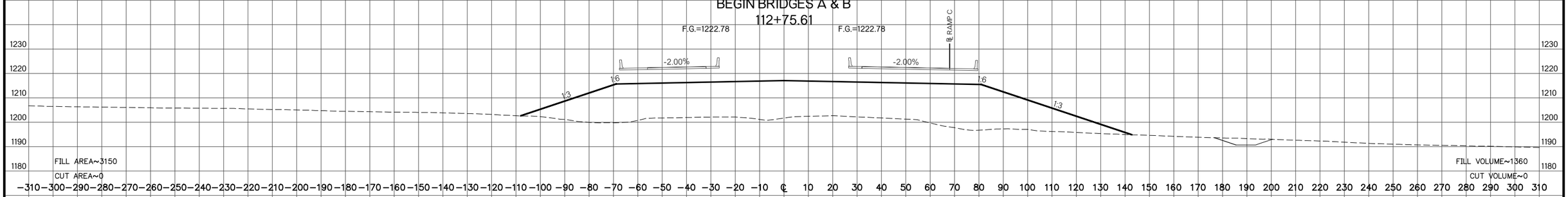
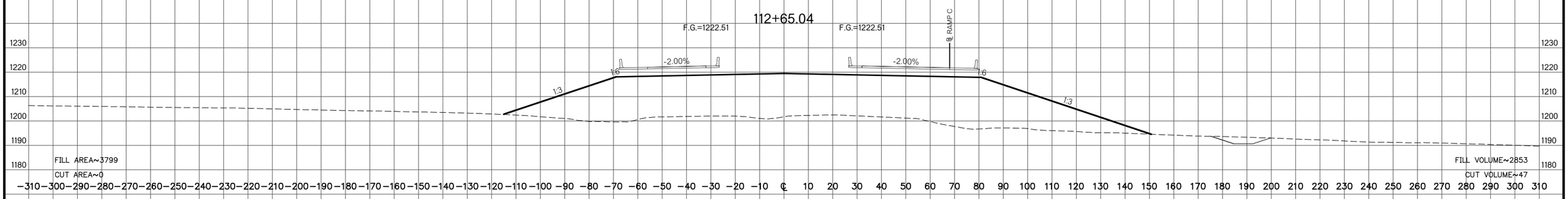
FINAL FIELD MEETING
JUNE 2020

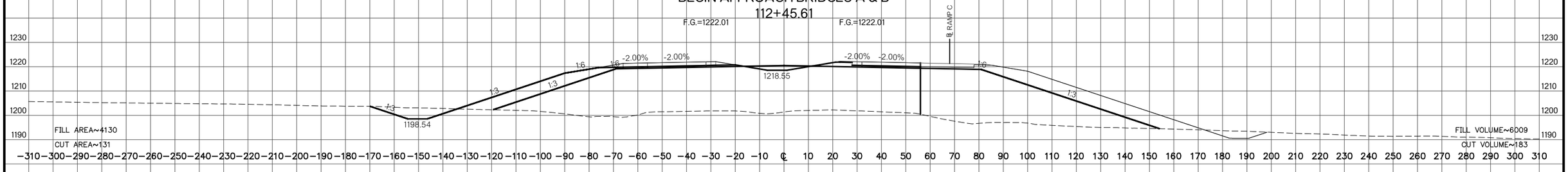
BEGIN BRIDGES A & B
112+75.61



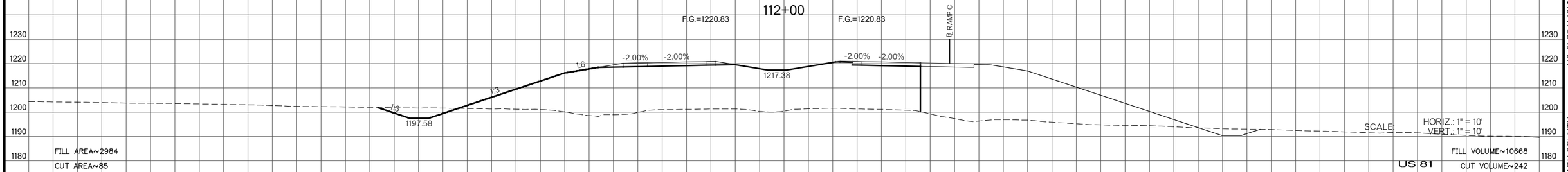
112+65.04



BEGIN APPROACH BRIDGES A & B
112+45.61



112+00



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X007

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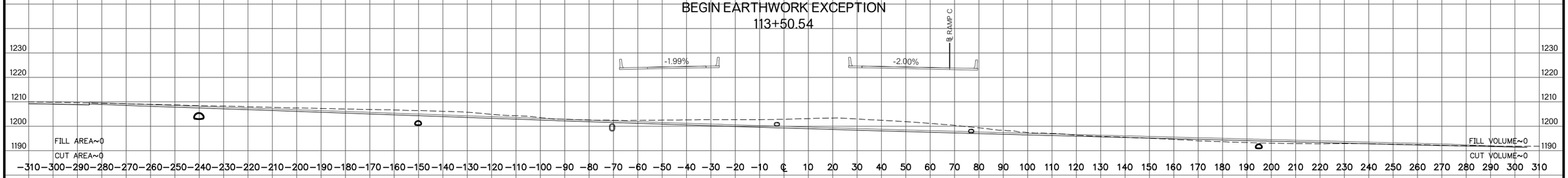
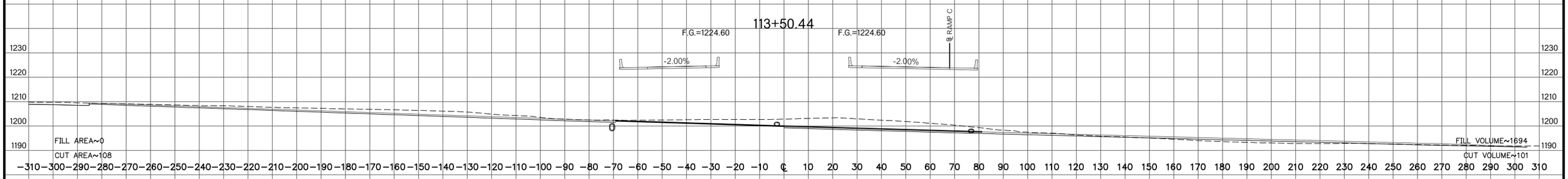
FINAL FIELD MEETING
JUNE 2020

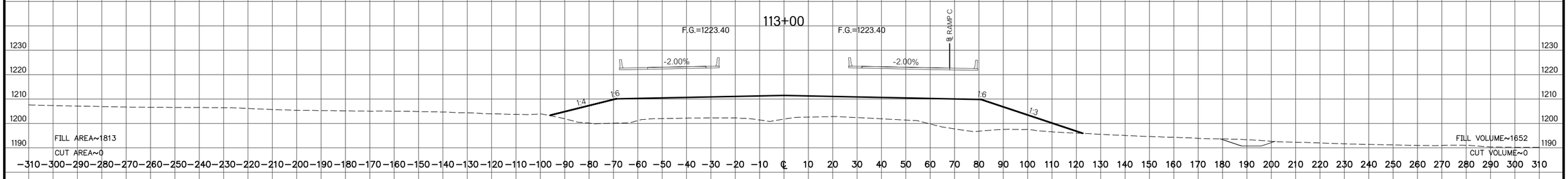
BEGIN EARTHWORK EXCEPTION
113+50.54



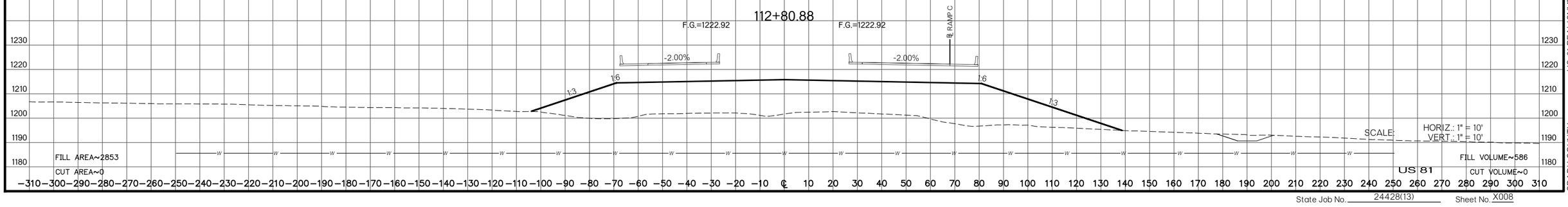
113+50.44



113+00



112+80.88



US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X008

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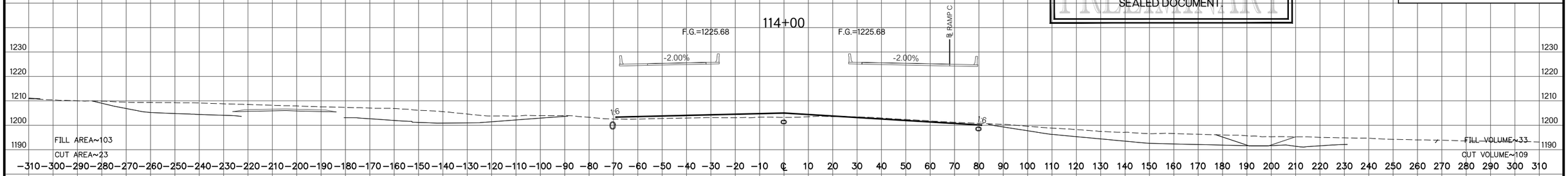
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

114+00



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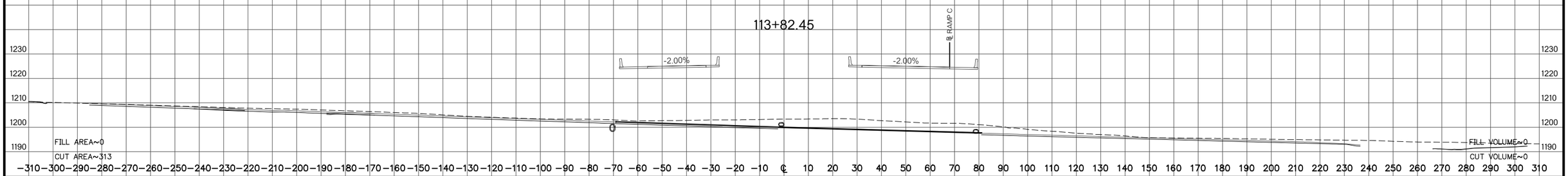
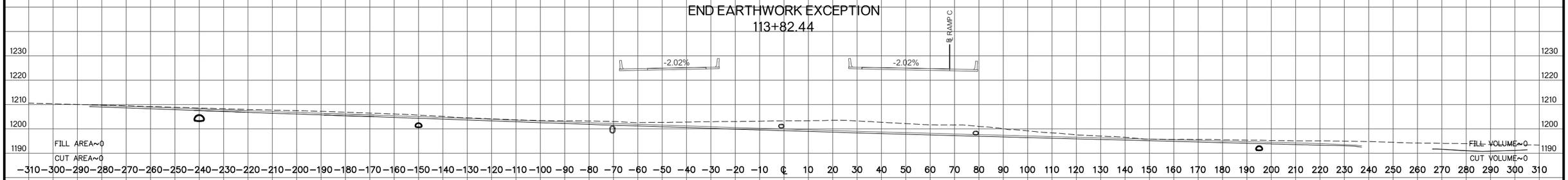
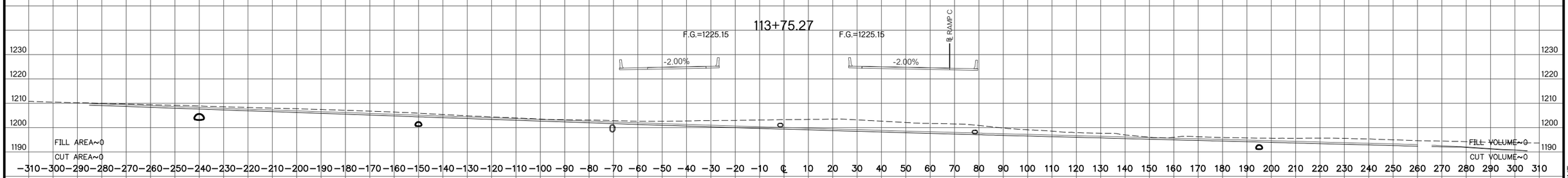


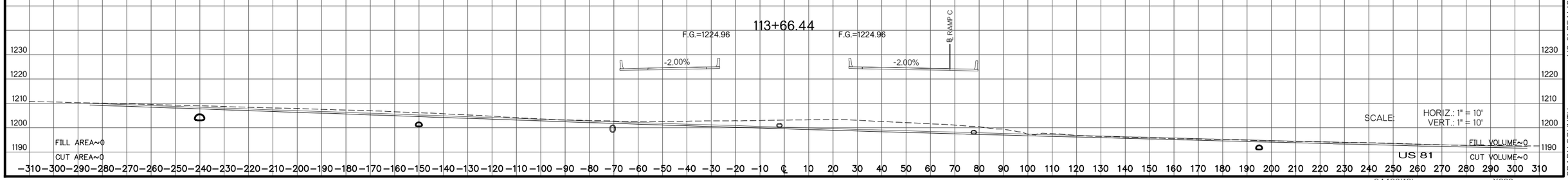
END EARTHWORK EXCEPTION
113+82.44



113+75.27



113+66.44



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X009

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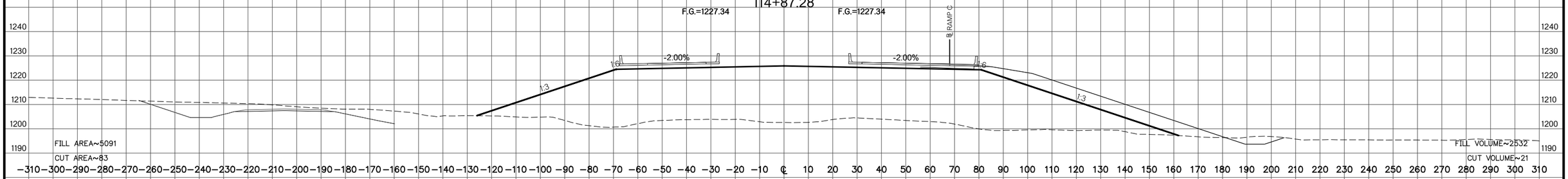
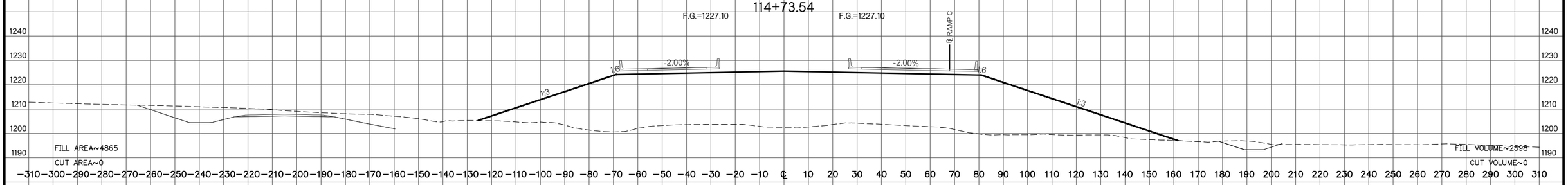
FINAL FIELD MEETING
JUNE 2020

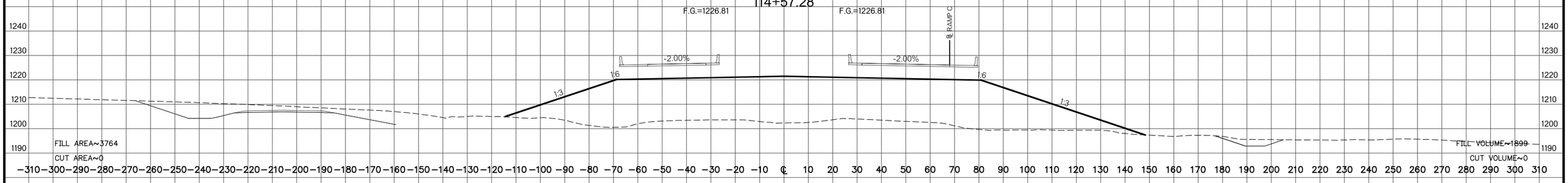
END APPROACH SLAB BRIDGES A & B
114+87.28



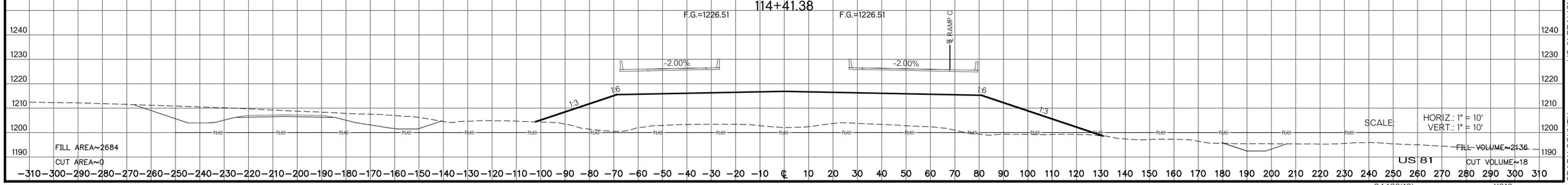
114+73.54



END BRIDGES A & B
114+57.28



114+41.38



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X010

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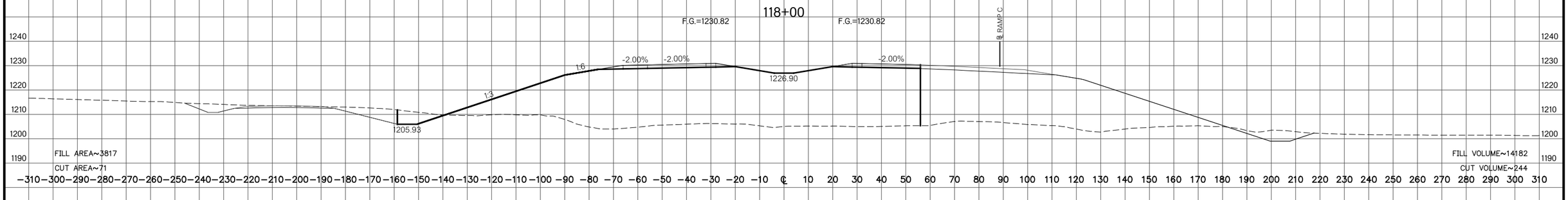
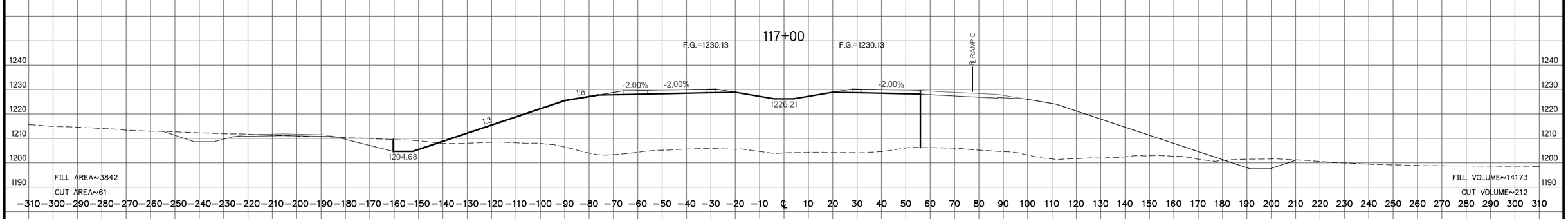
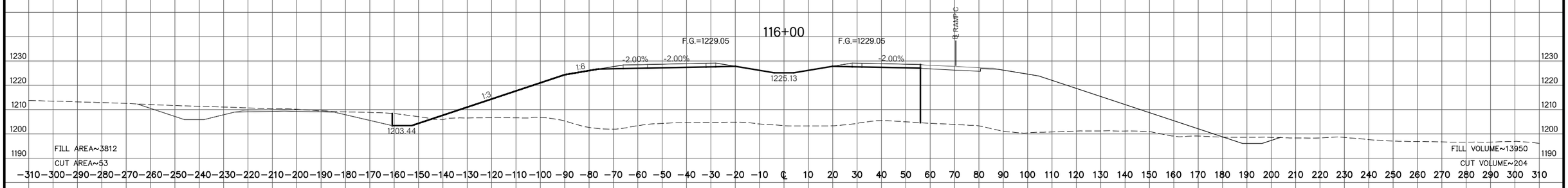
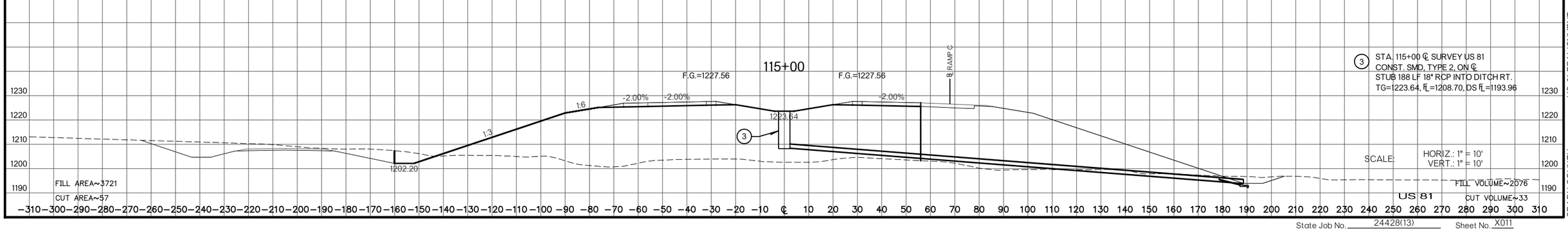
FINAL FIELD MEETING
JUNE 2020









3 STA. 115+00 ℄ SURVEY US 81
CONST. SMD, TYPE 2, ON ℄
STUB 188 LF 18" RCP INTO DITCH RT.
TG=1223.64, FL=1208.70, DS FL=1193.96

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X011

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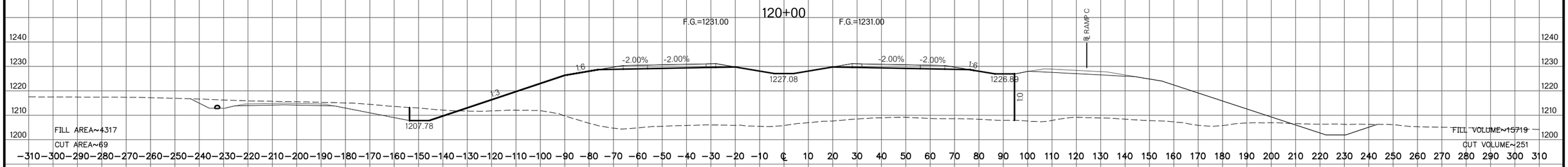
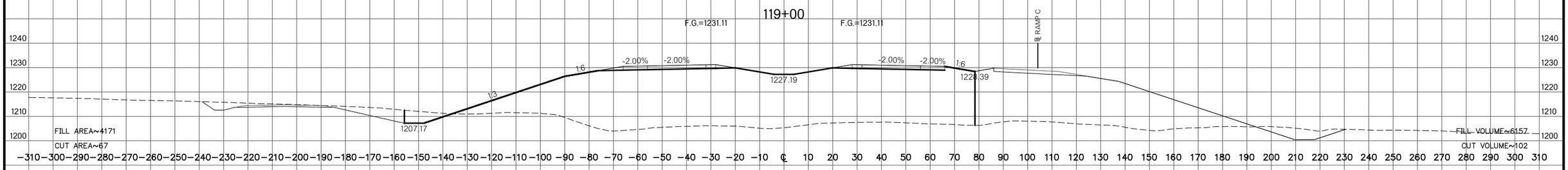
FINAL FIELD MEETING
JUNE 2020

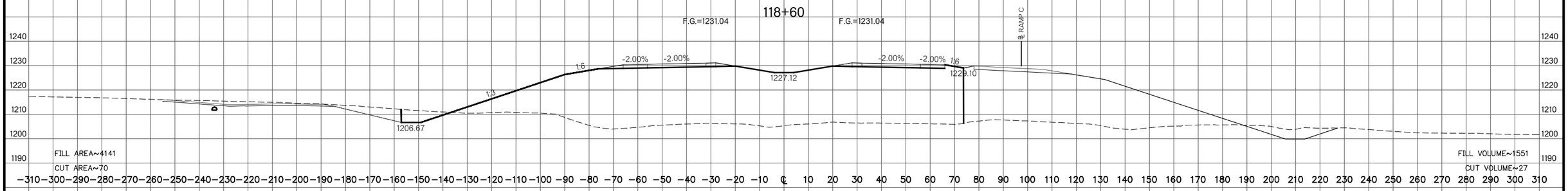
120+00



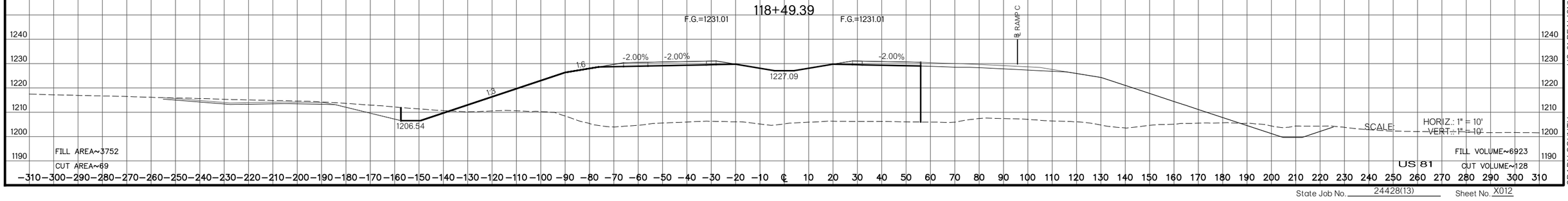
119+00



118+60



118+49.39



US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X012

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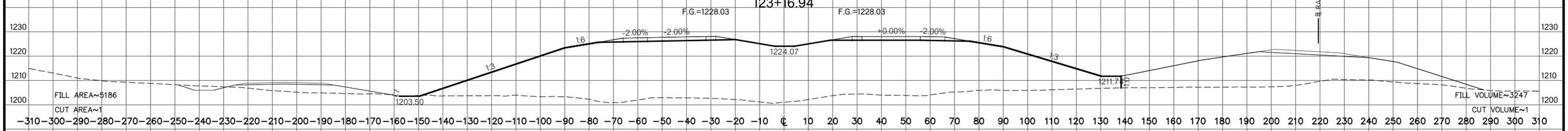
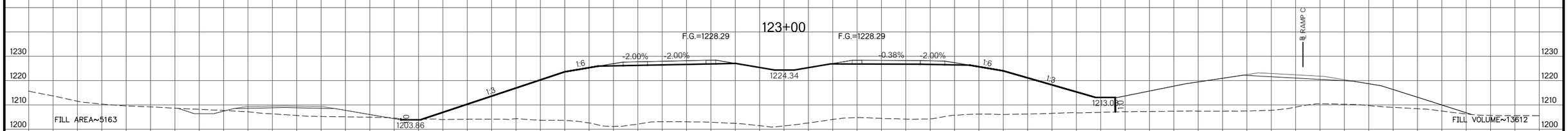
FINAL FIELD MEETING
JUNE 2020

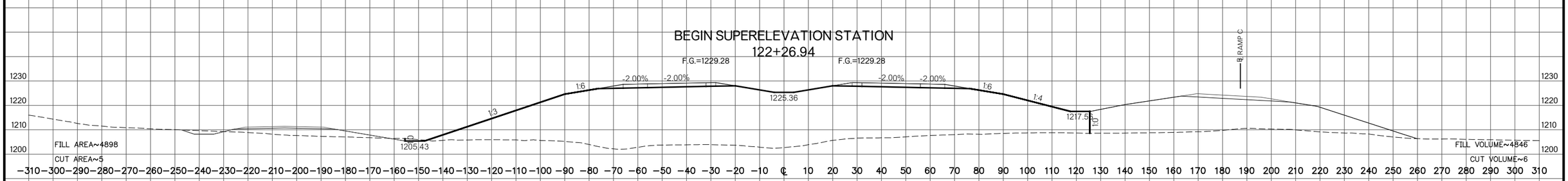
BEGIN SUPERELEVATION RUNOFF STATION 123+16.94



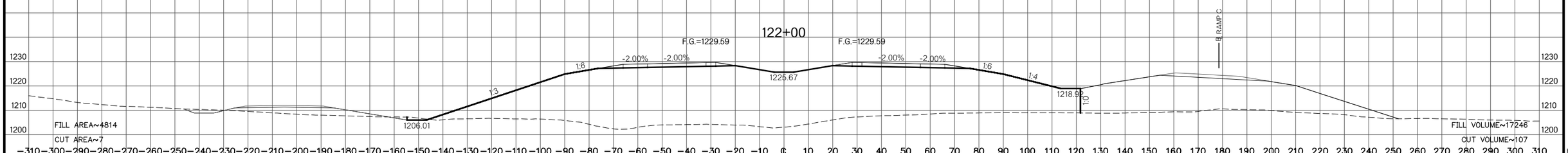
123+00



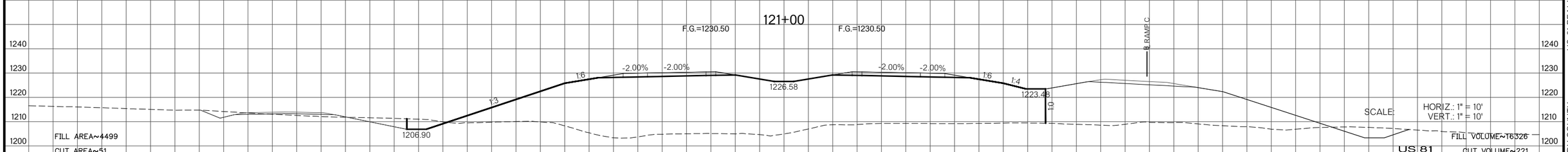
BEGIN SUPERELEVATION STATION 122+26.94



122+00



121+00



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X013

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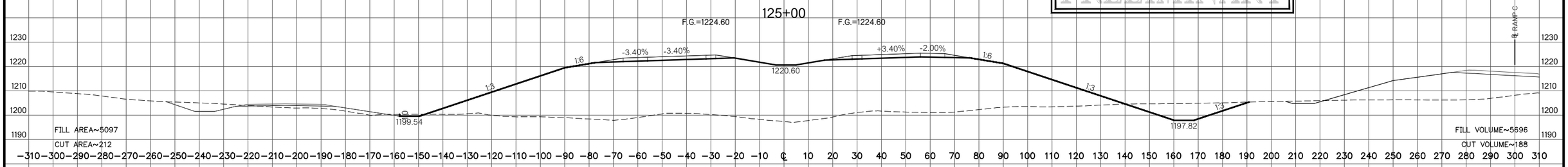
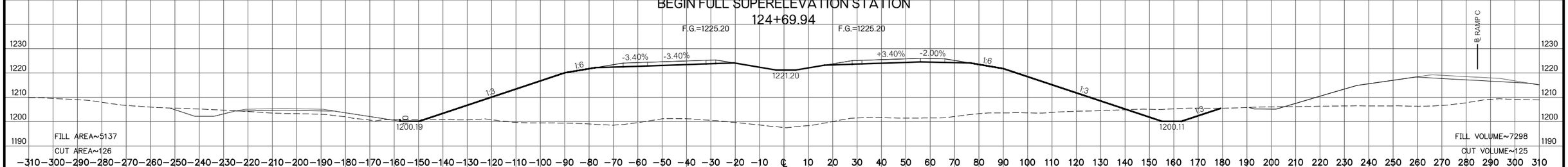
FINAL FIELD MEETING
JUNE 2020

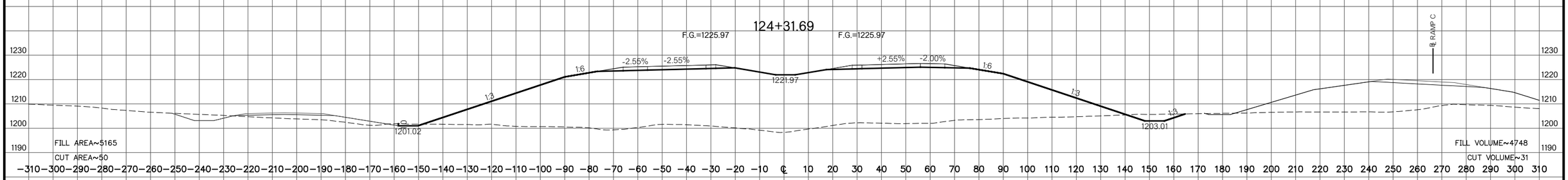
125+00



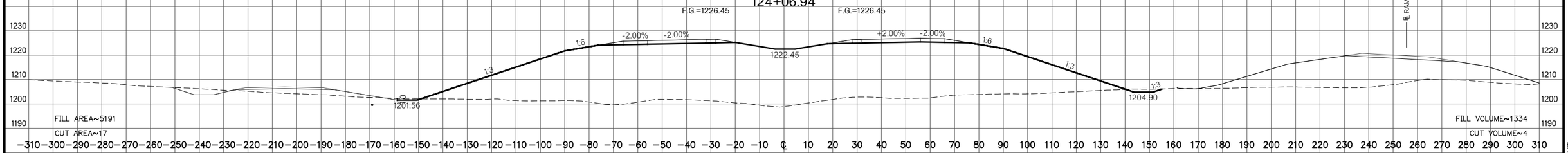
BEGIN FULL SUPERELEVATION STATION
124+69.94



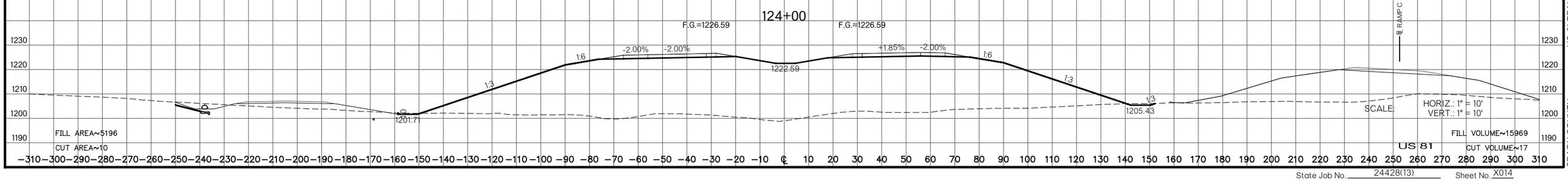
124+31.69



REVERSE CROSS SLOPE STATION
124+06.94



124+00



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X014

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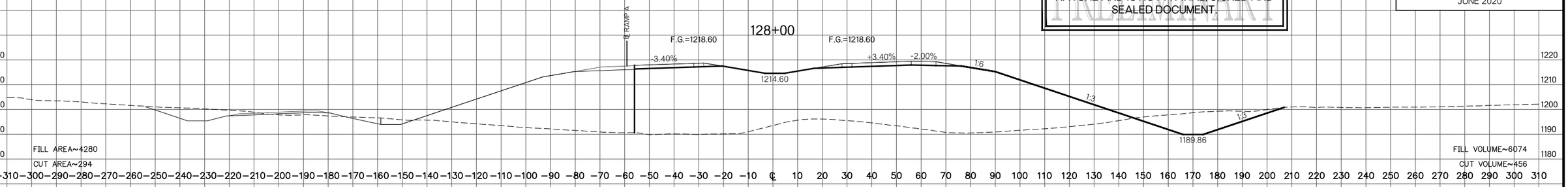
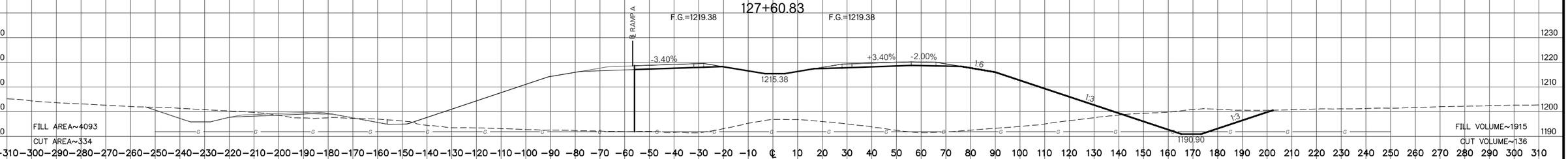
FINAL FIELD MEETING
JUNE 2020

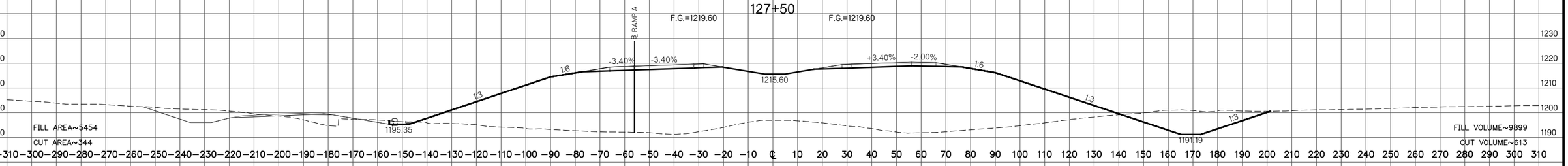
128+00



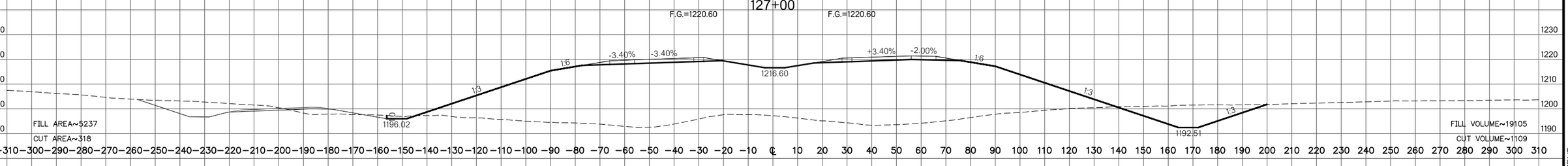
127+60.83



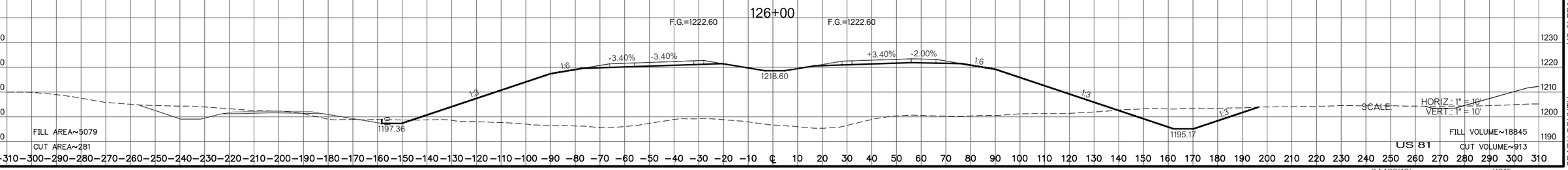
127+50



127+00



126+00



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X015

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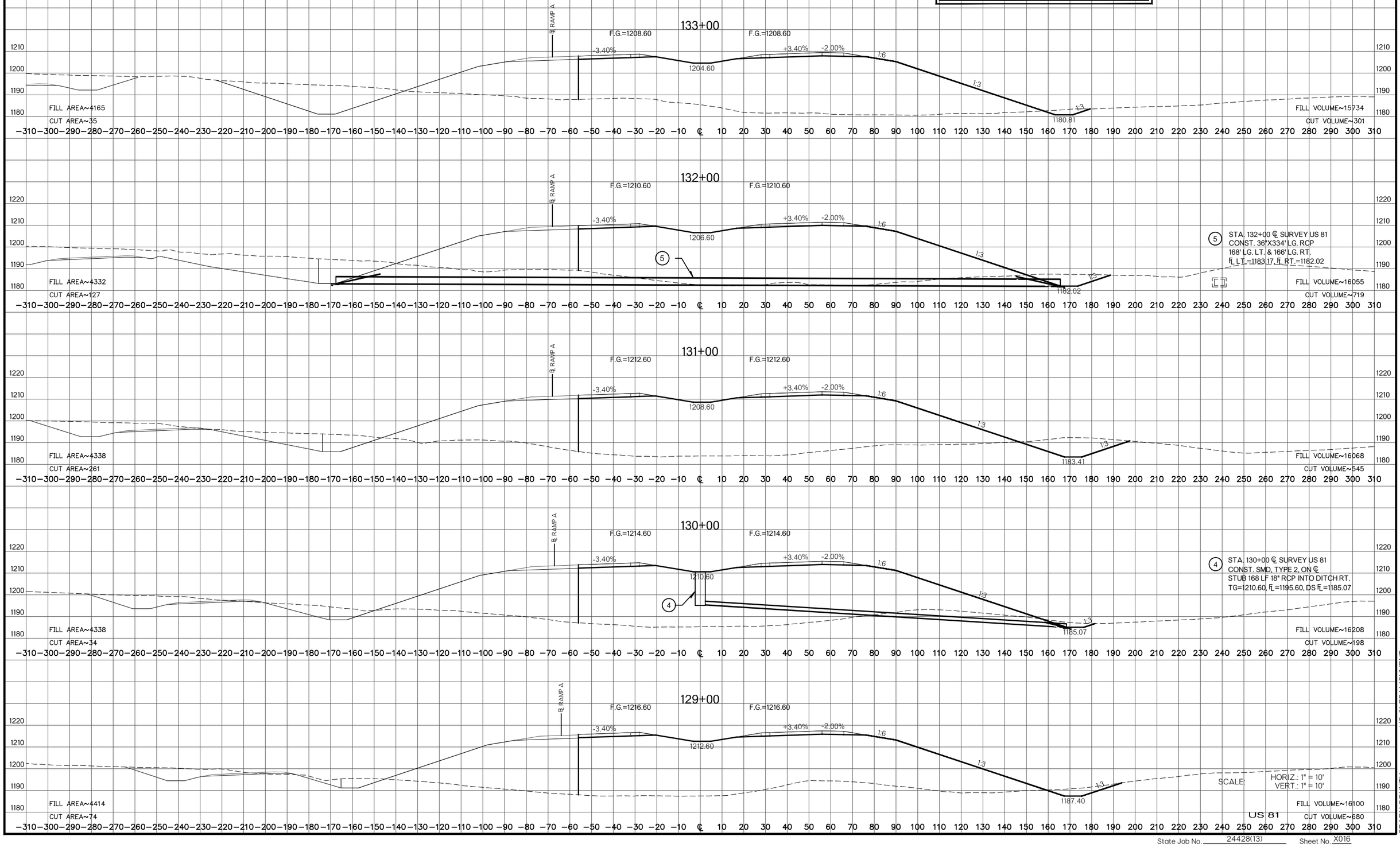
FINAL FIELD MEETING
JUNE 2020



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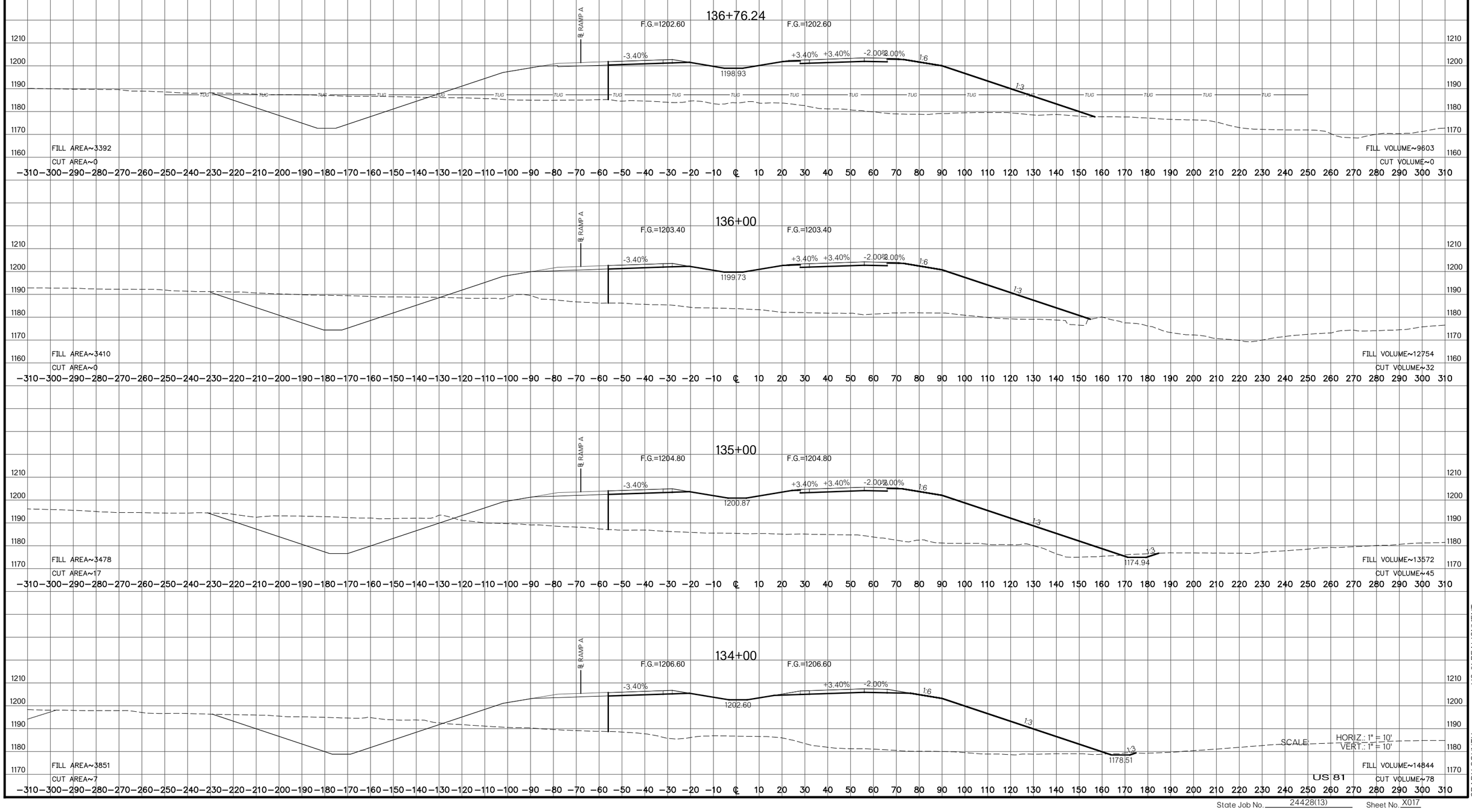
FINAL FIELD MEETING
JUNE 2020



State Job No. 24428(13) Sheet No. X017

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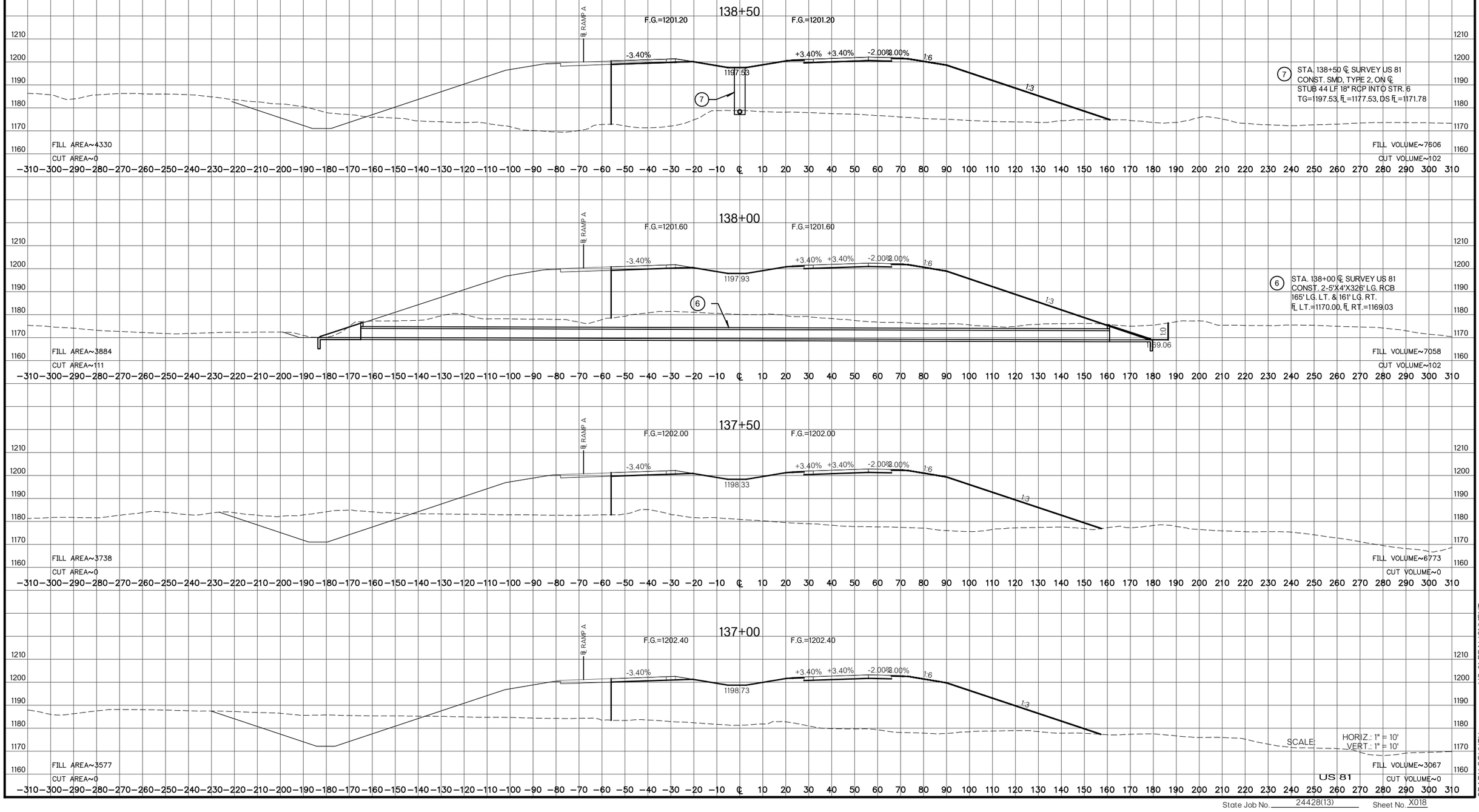
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020



US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X018

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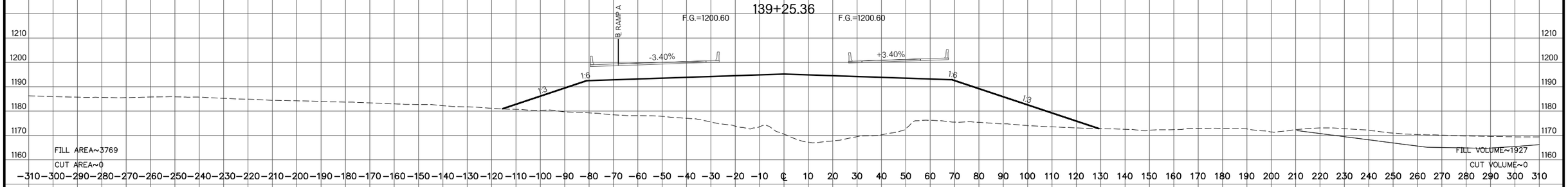
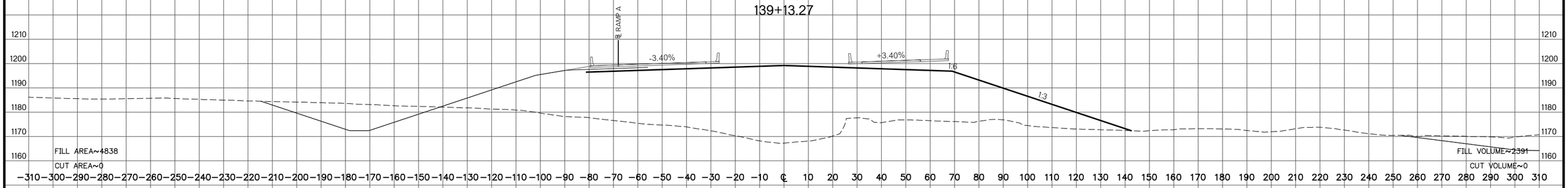
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

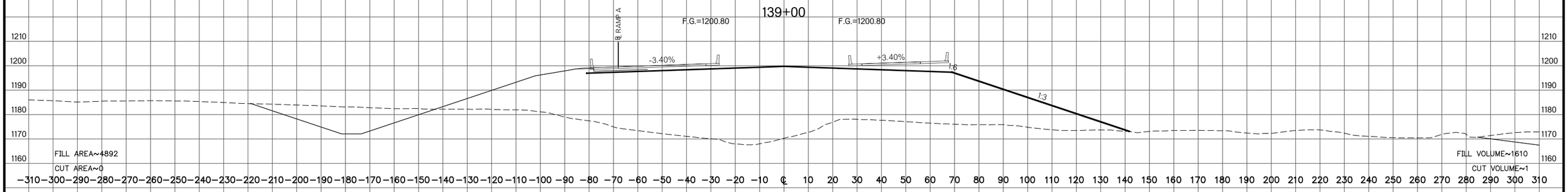
BEGIN BRIDGE D
139+25.36



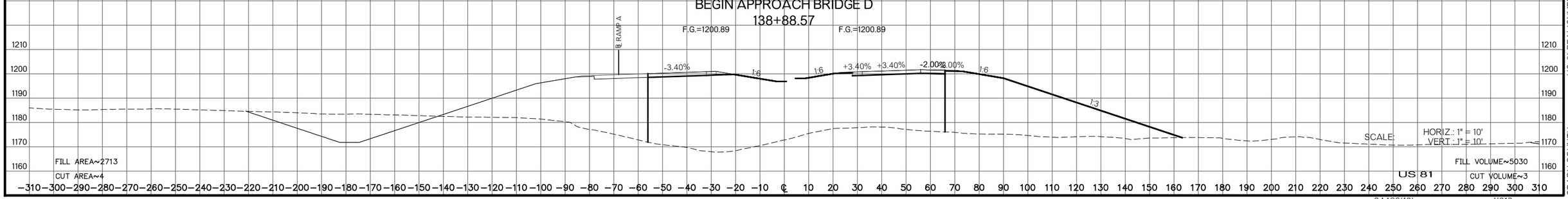
BEGIN APPROACH BRIDGE C
139+13.27



139+00



BEGIN APPROACH BRIDGE D
138+88.57



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X019

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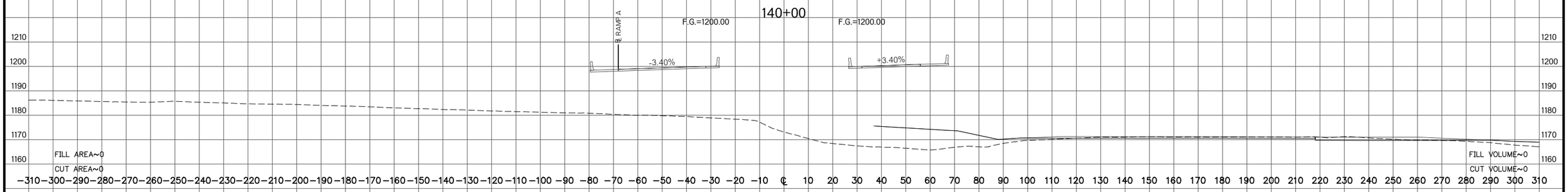
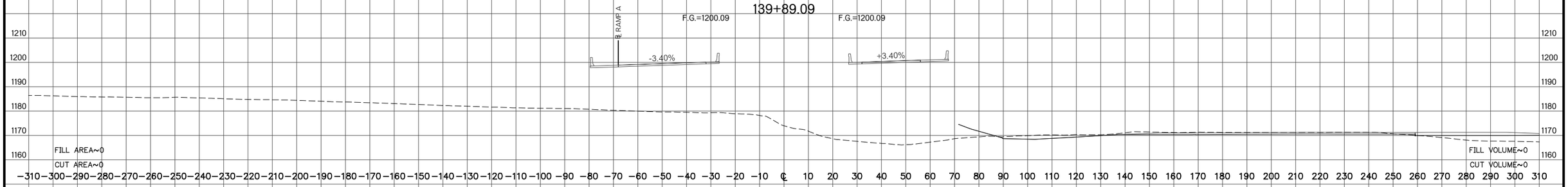
FINAL FIELD MEETING
JUNE 2020

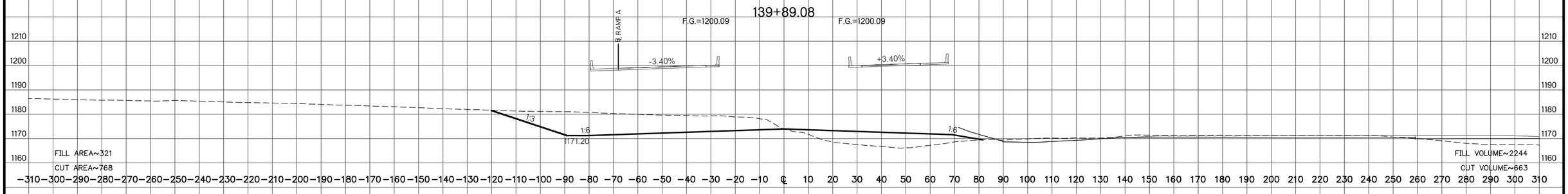
140+00



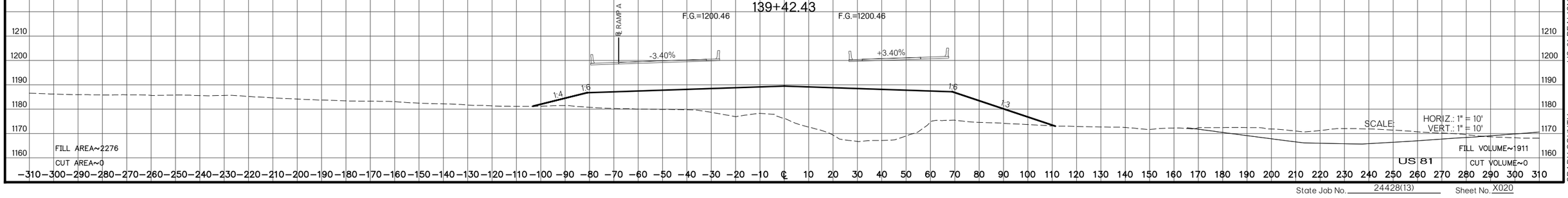
BEGIN EARTHWORK EXCEPTION
139+89.09



139+89.08



BEGIN BRIDGE C
139+42.43



US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X020

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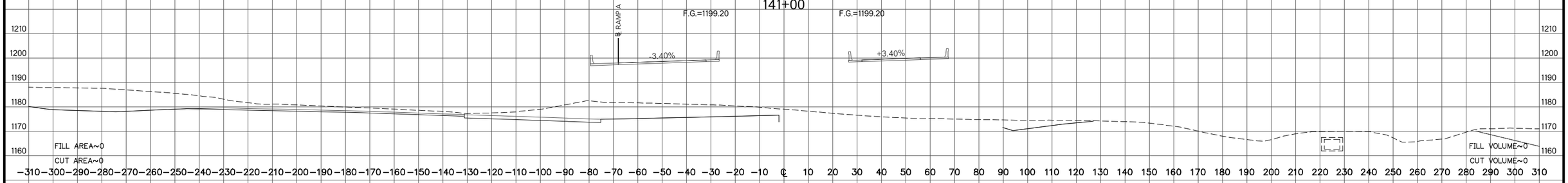
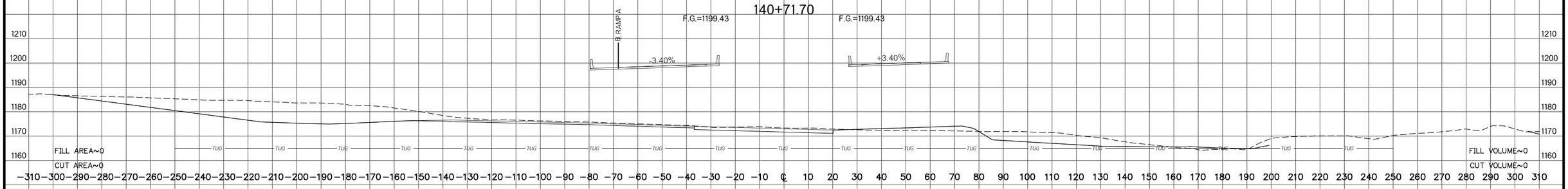
FINAL FIELD MEETING
JUNE 2020

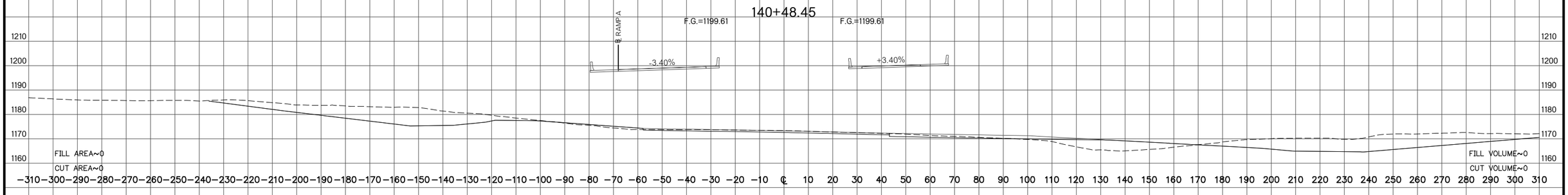
141+00



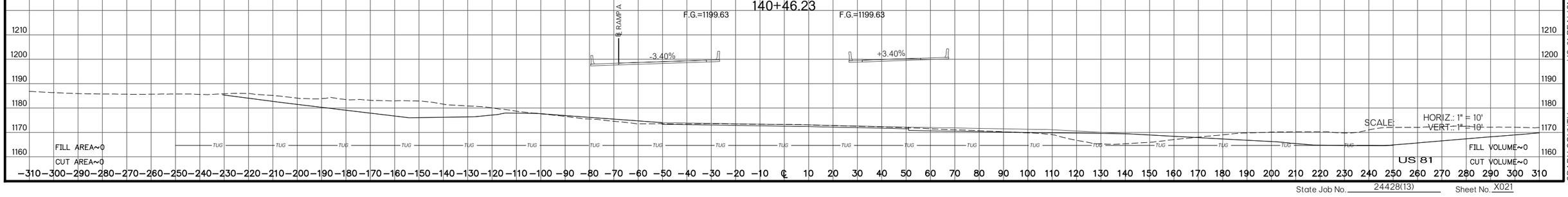
140+71.70



140+48.45



140+46.23



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X021

FINAL FIELD MEETING
JUNE 2020

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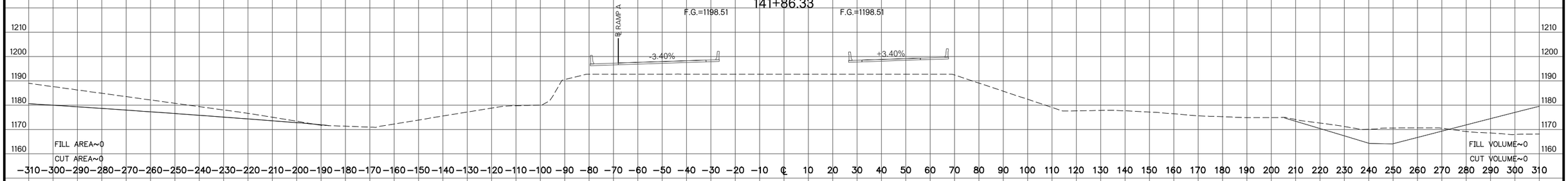
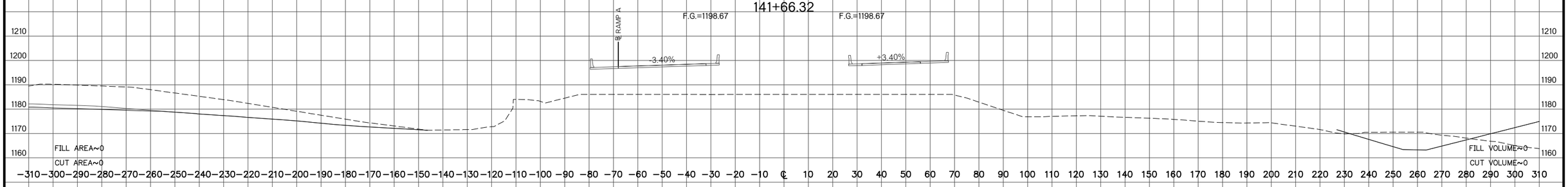
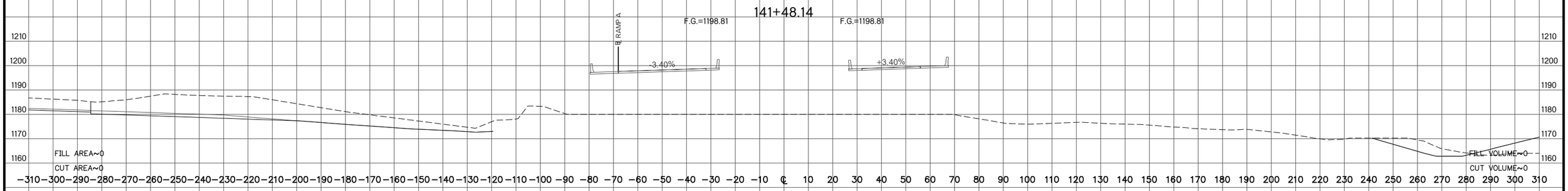
END BRIDGE C
141+86.33



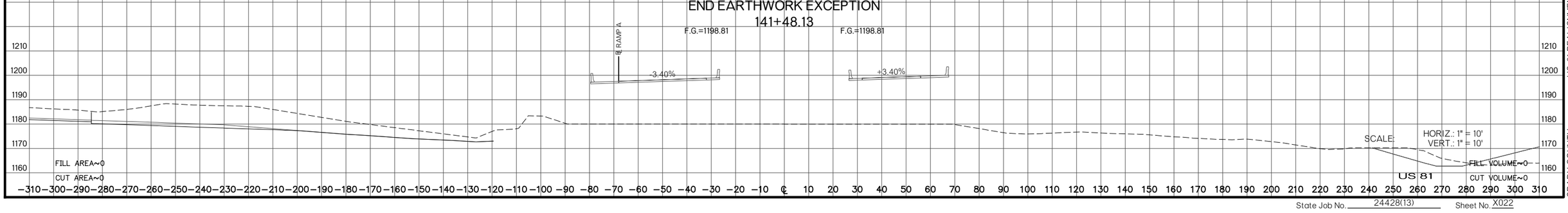
END BRIDGE D
141+66.32



141+48.14



END EARTHWORK EXCEPTION
141+48.13



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X022

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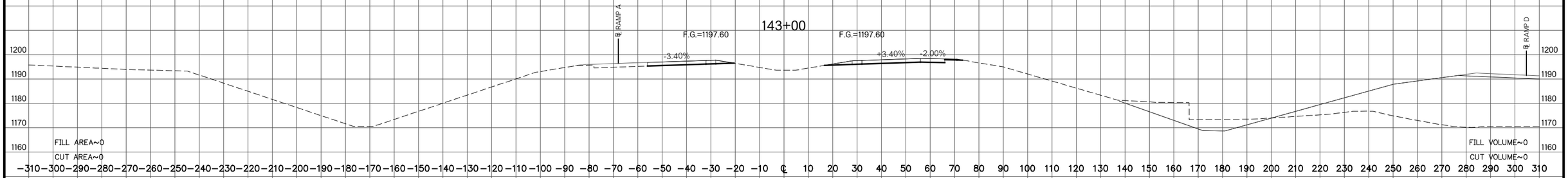
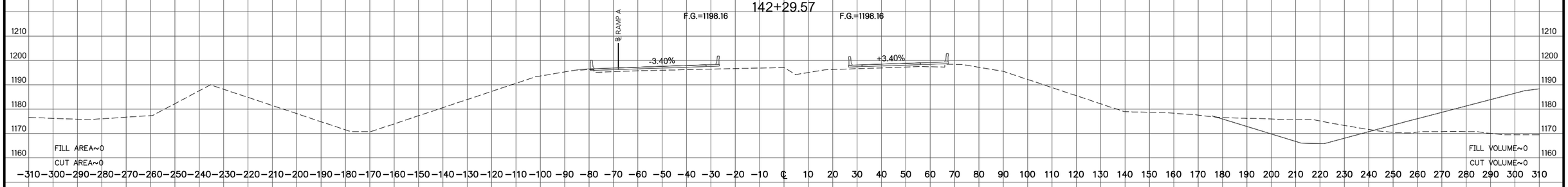
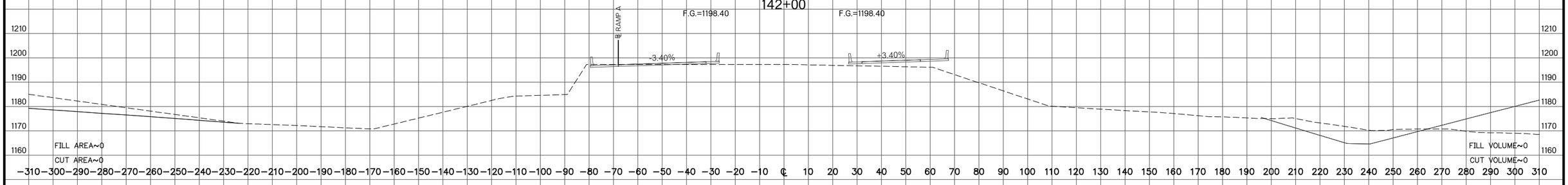
143+00



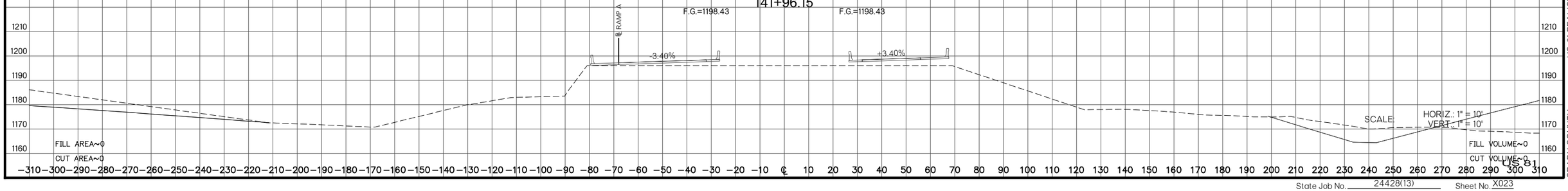
END BRIDGE C APPROACH
142+29.57



142+00



END BRIDGE D APPROACH
141+96.15



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US-81 REALIGNMENT
GRADY COUNTY

US 81

State Job No. 24428(13) Sheet No. X023

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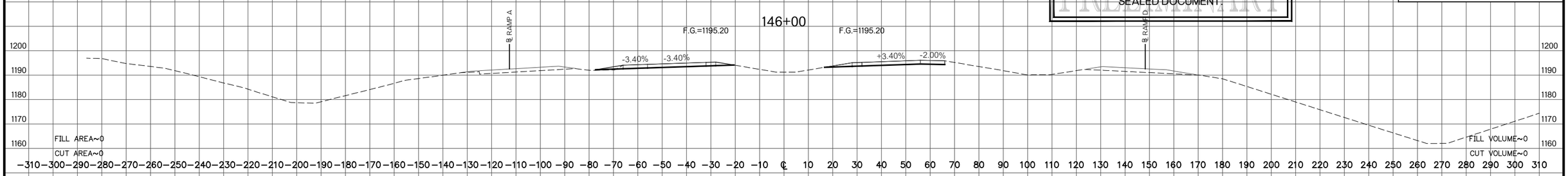
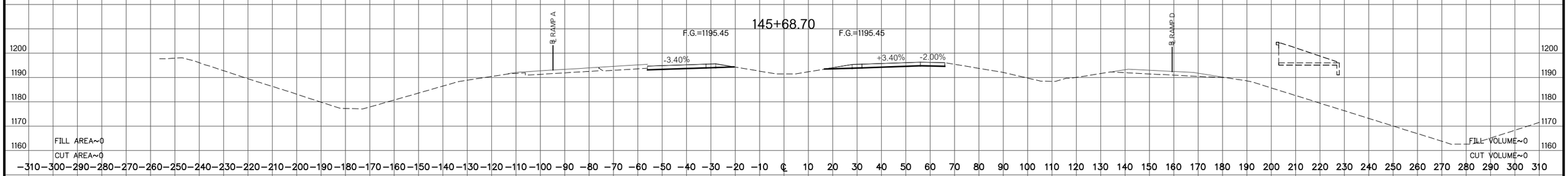
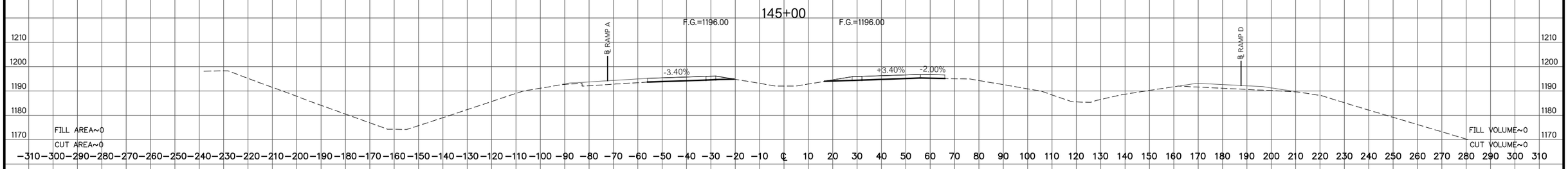
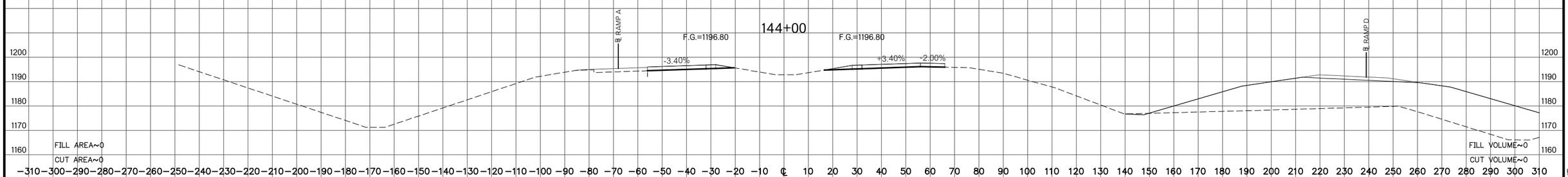
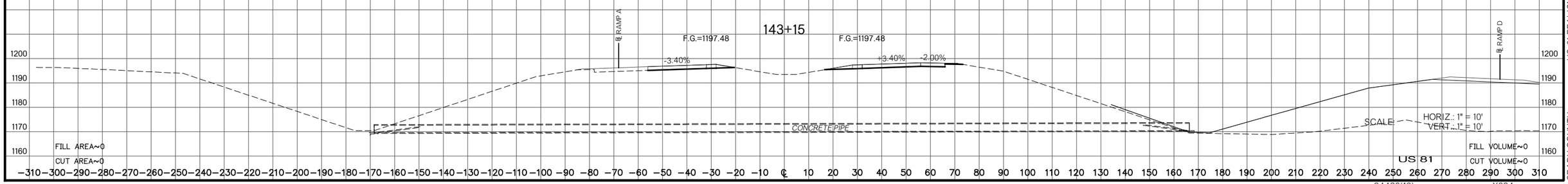
JUNE 2020











US 81

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GRADY COUNTY

State Job No. 24428(13) Sheet No. X024

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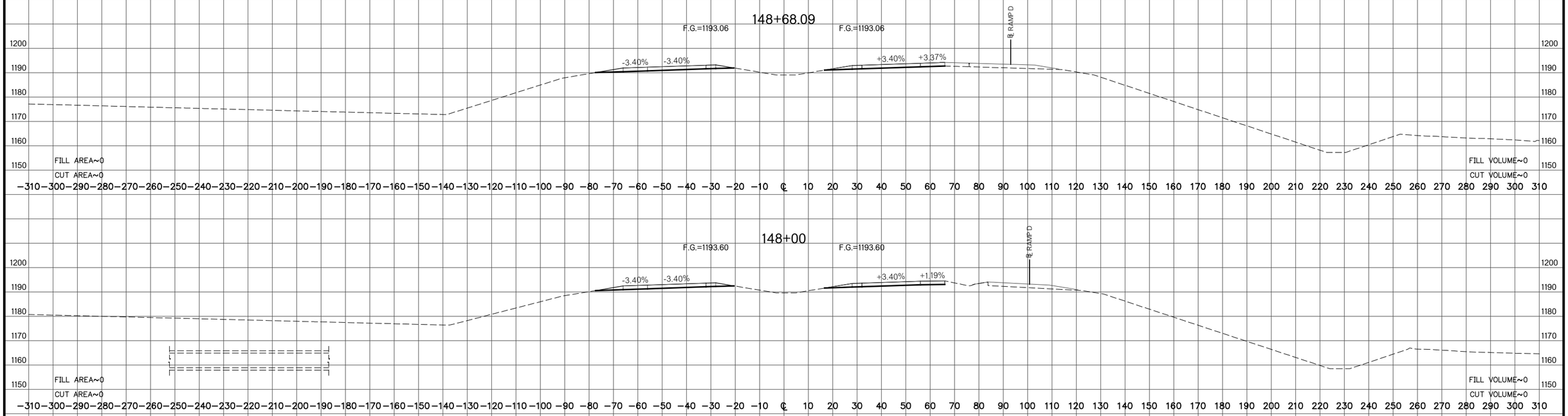

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X025

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FINAL FIELD MEETING
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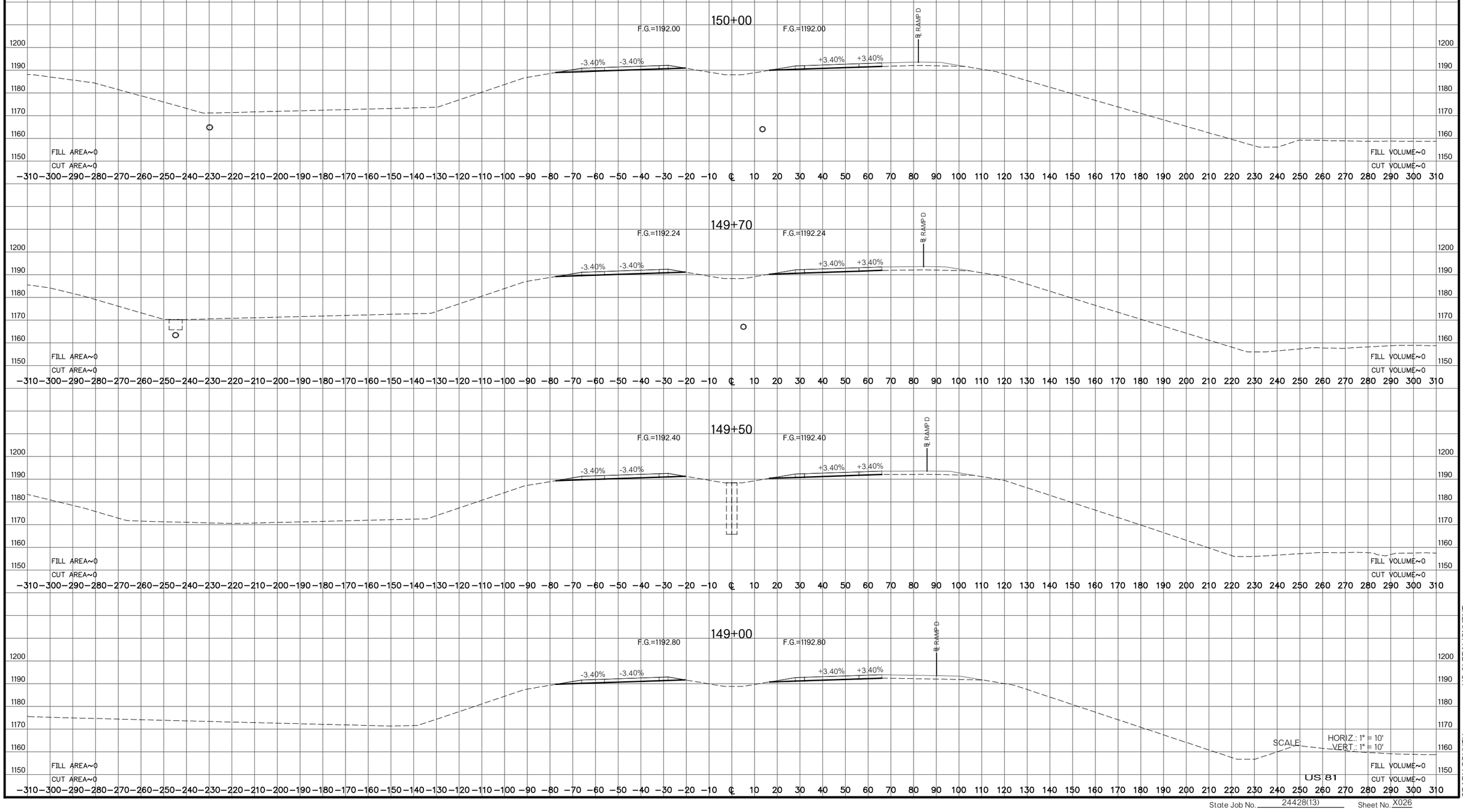

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

GRADY COUNTY

US-81 REALIGNMENT

State Job No. 24428(13) Sheet No. X026

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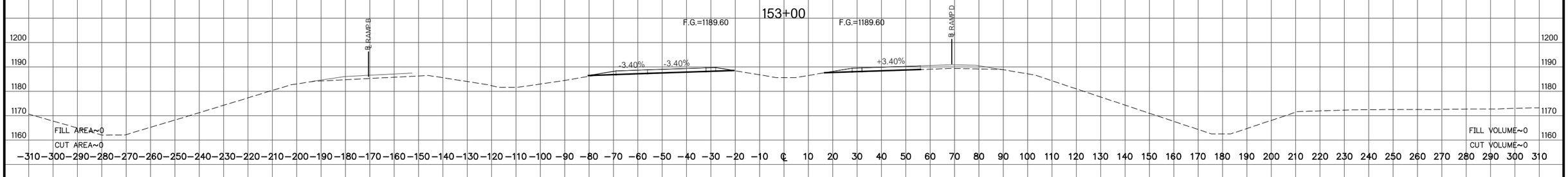

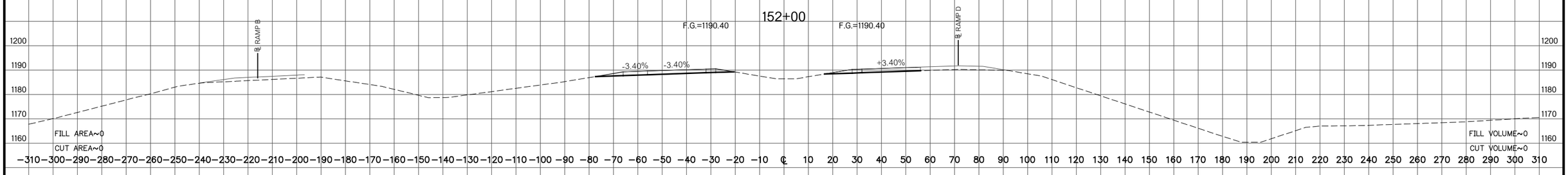

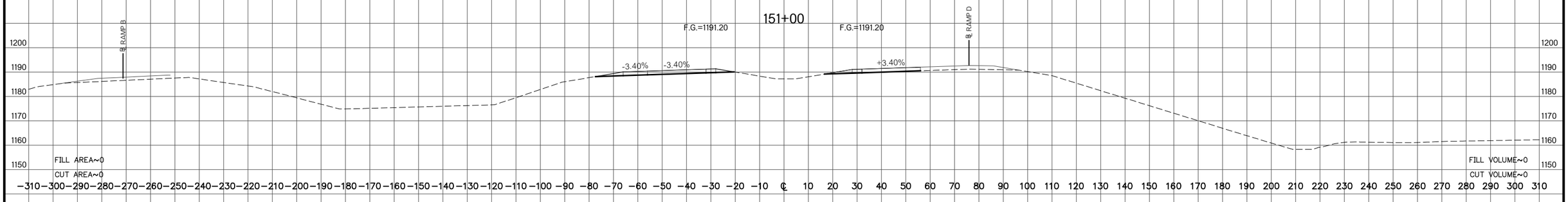

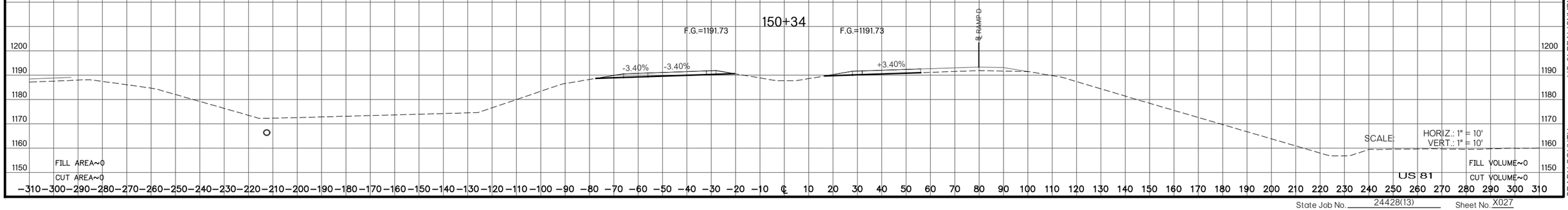

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X027

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FINAL FIELD MEETING
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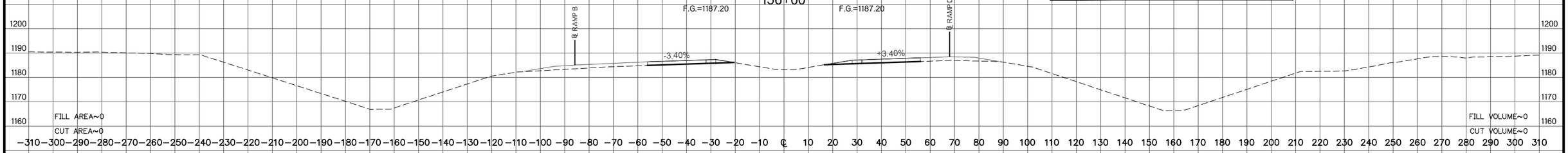
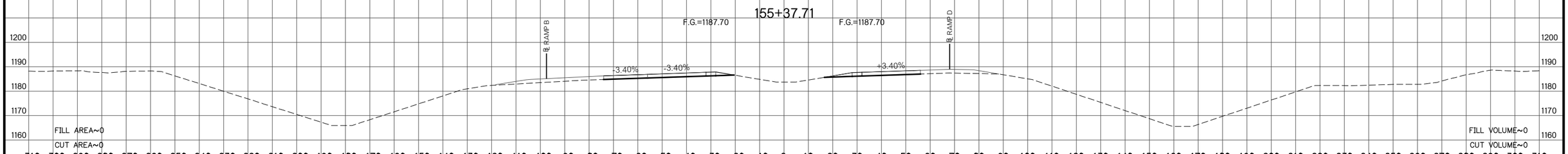
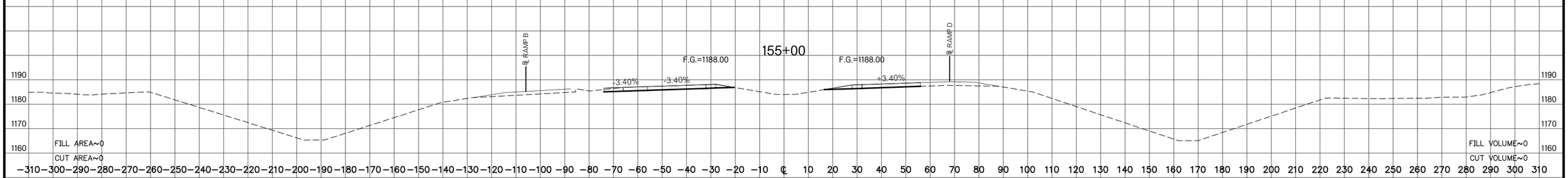
156+00



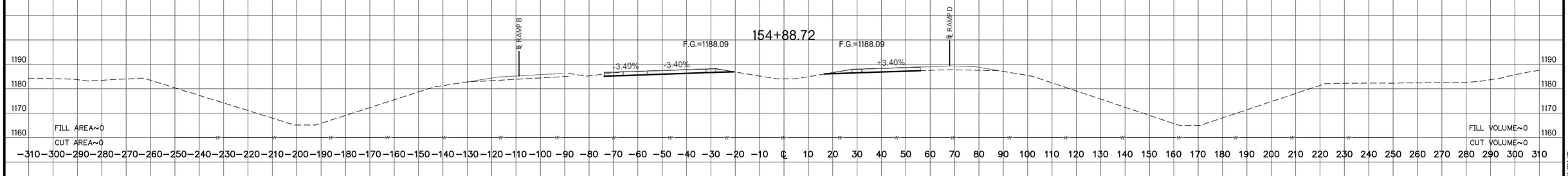
155+37.71



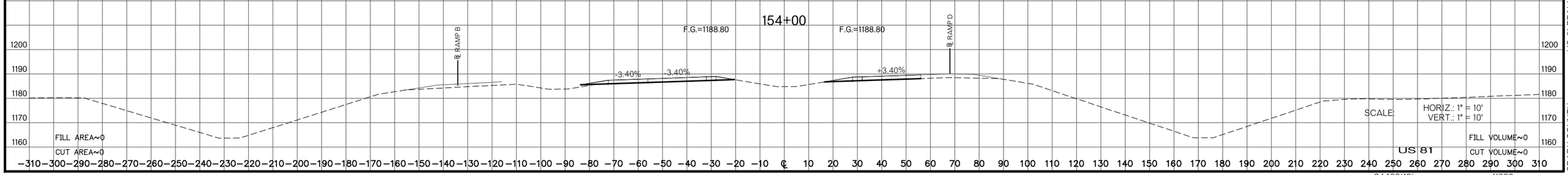
155+00



154+88.72



154+00



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X028

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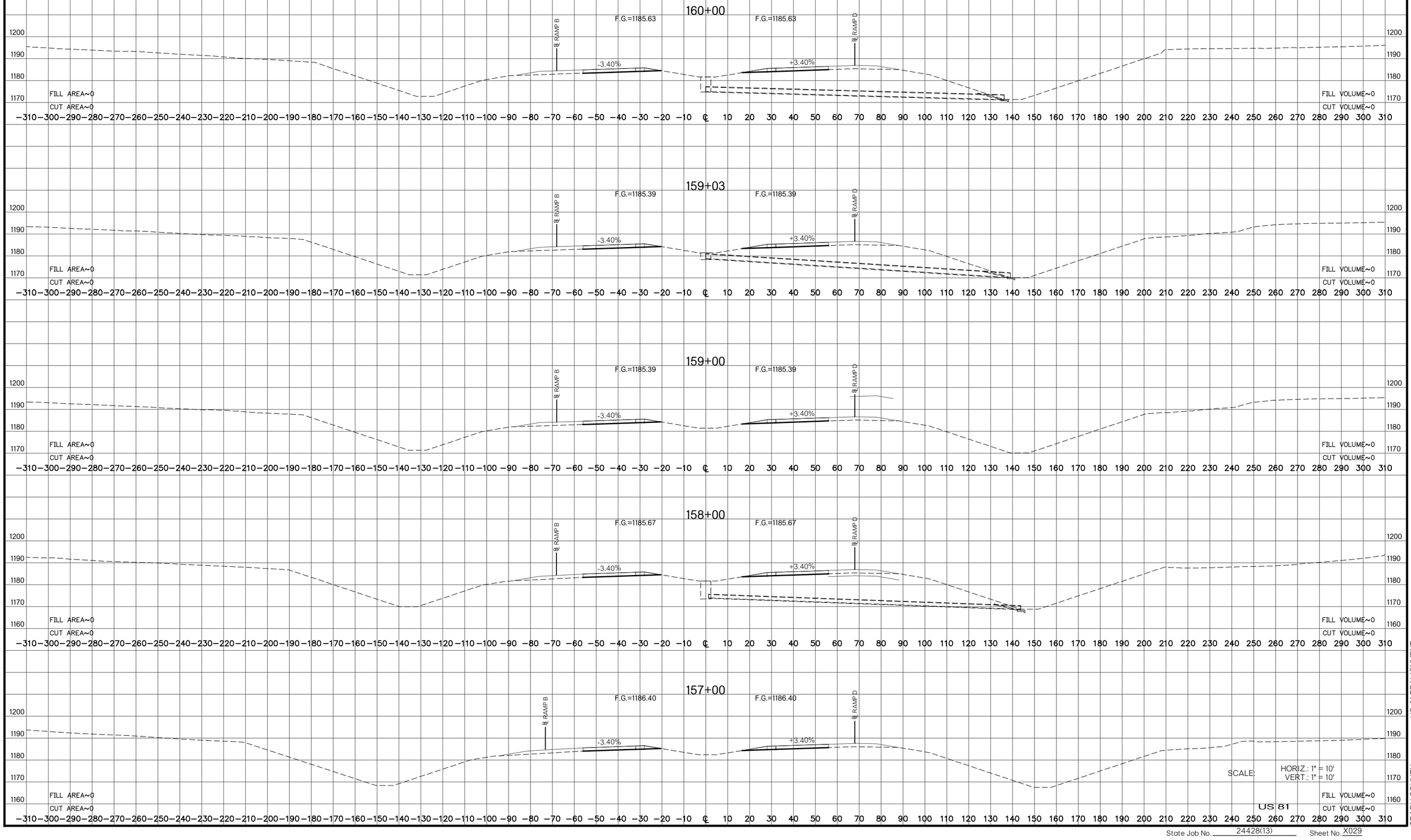

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GRADY COUNTY

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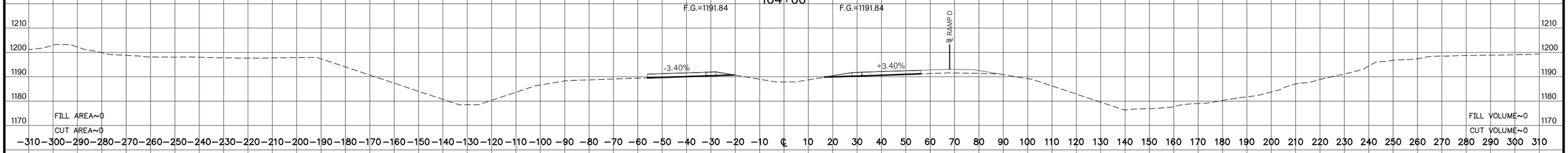
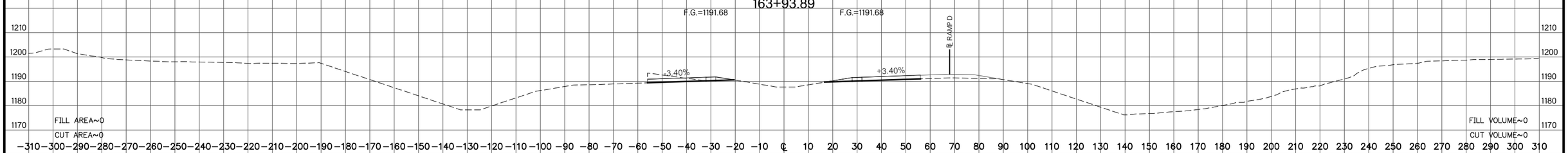
FINAL FIELD MEETING
JUNE 2020

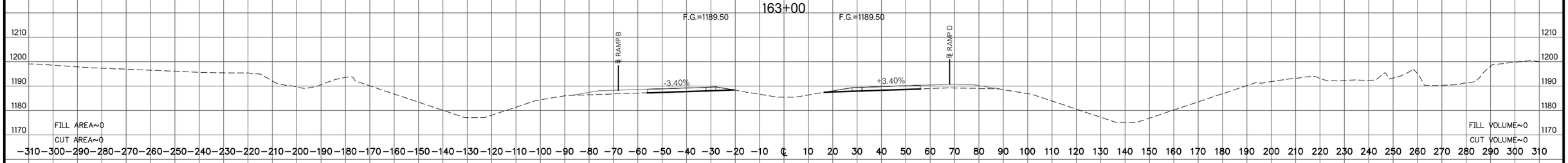
164+00



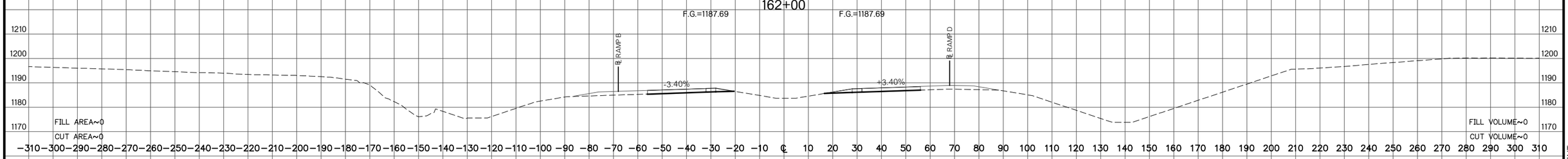
163+93.89



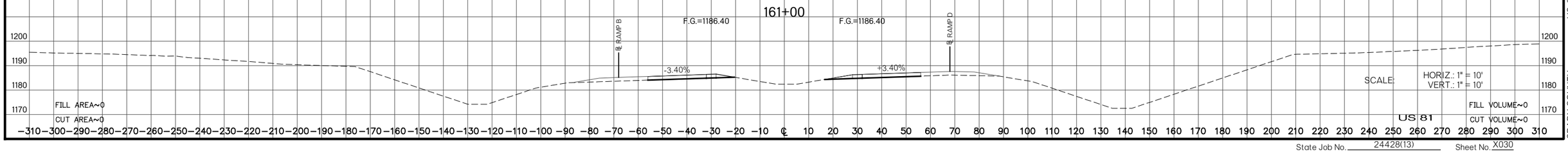
163+00



162+00



161+00



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X030

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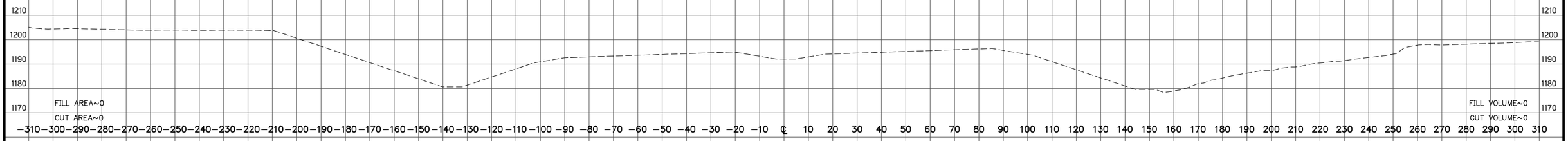
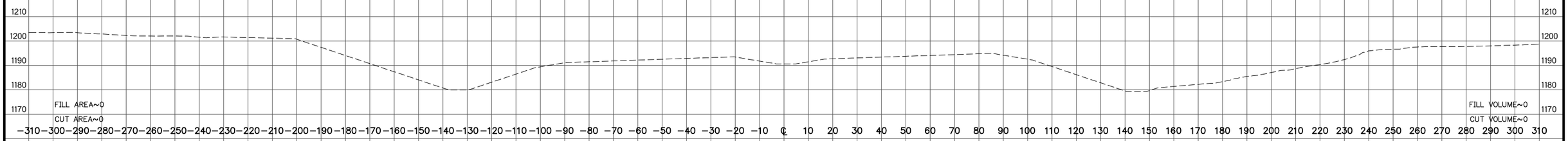
FINAL FIELD MEETING
JUNE 2020

165+50



165+00.01



END PROJECT
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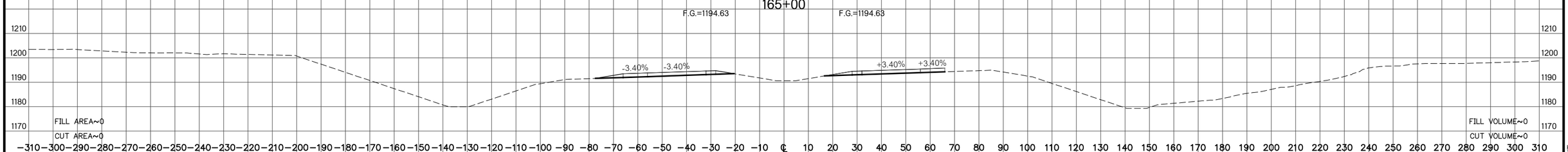
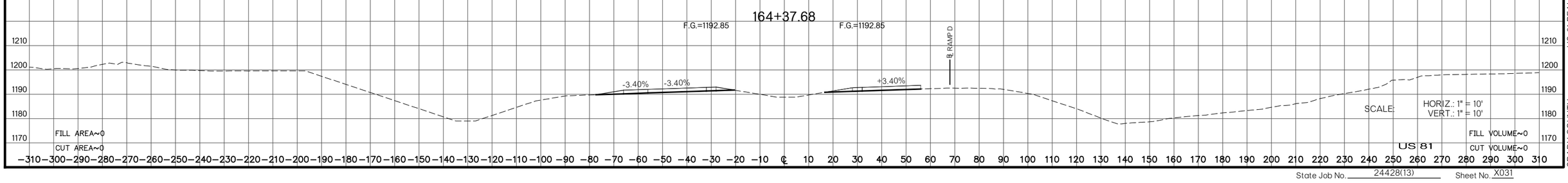


164+37.68



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

US 81

US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X031

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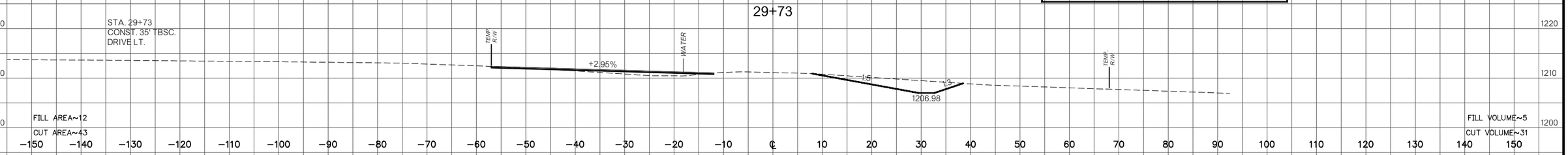
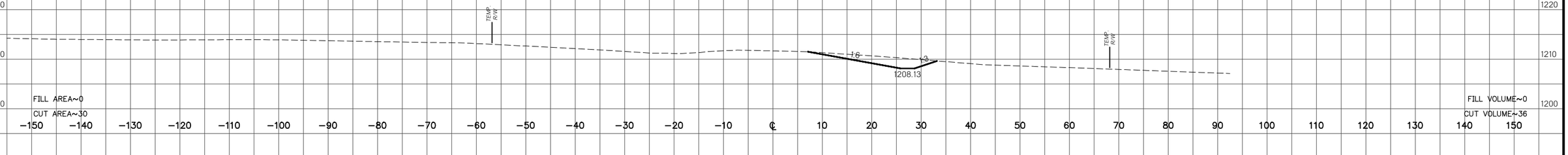
FINAL FIELD MEETING
JUNE 2020

29+73

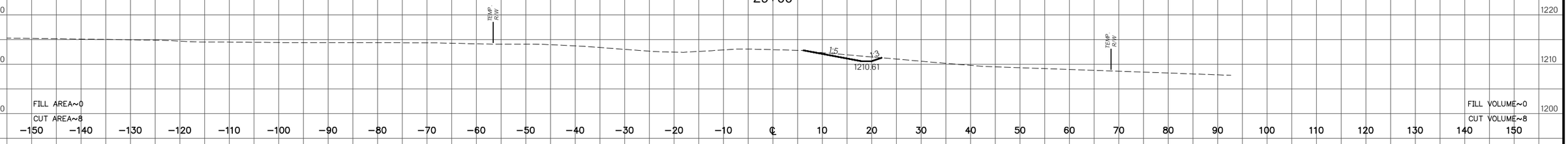


29+50

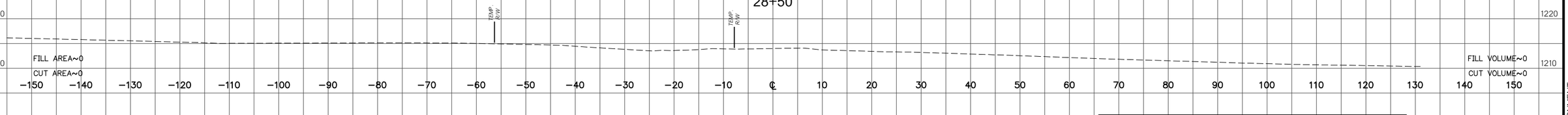


BEGIN INCIDENTAL

29+00

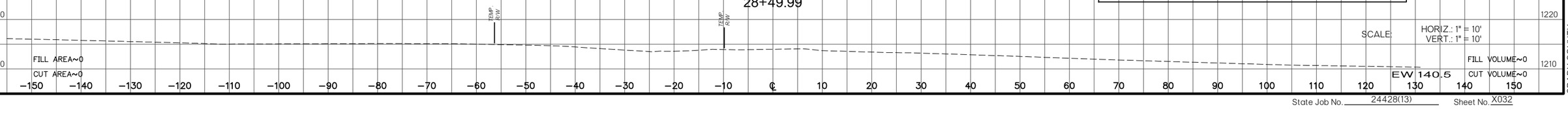


28+50



THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPES & LOCATIONS OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO MAKE THE DETERMINATIONS AS TO THE TYPE & LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING OWNERS OF UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS.

28+49.99



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

EW140.5

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X032

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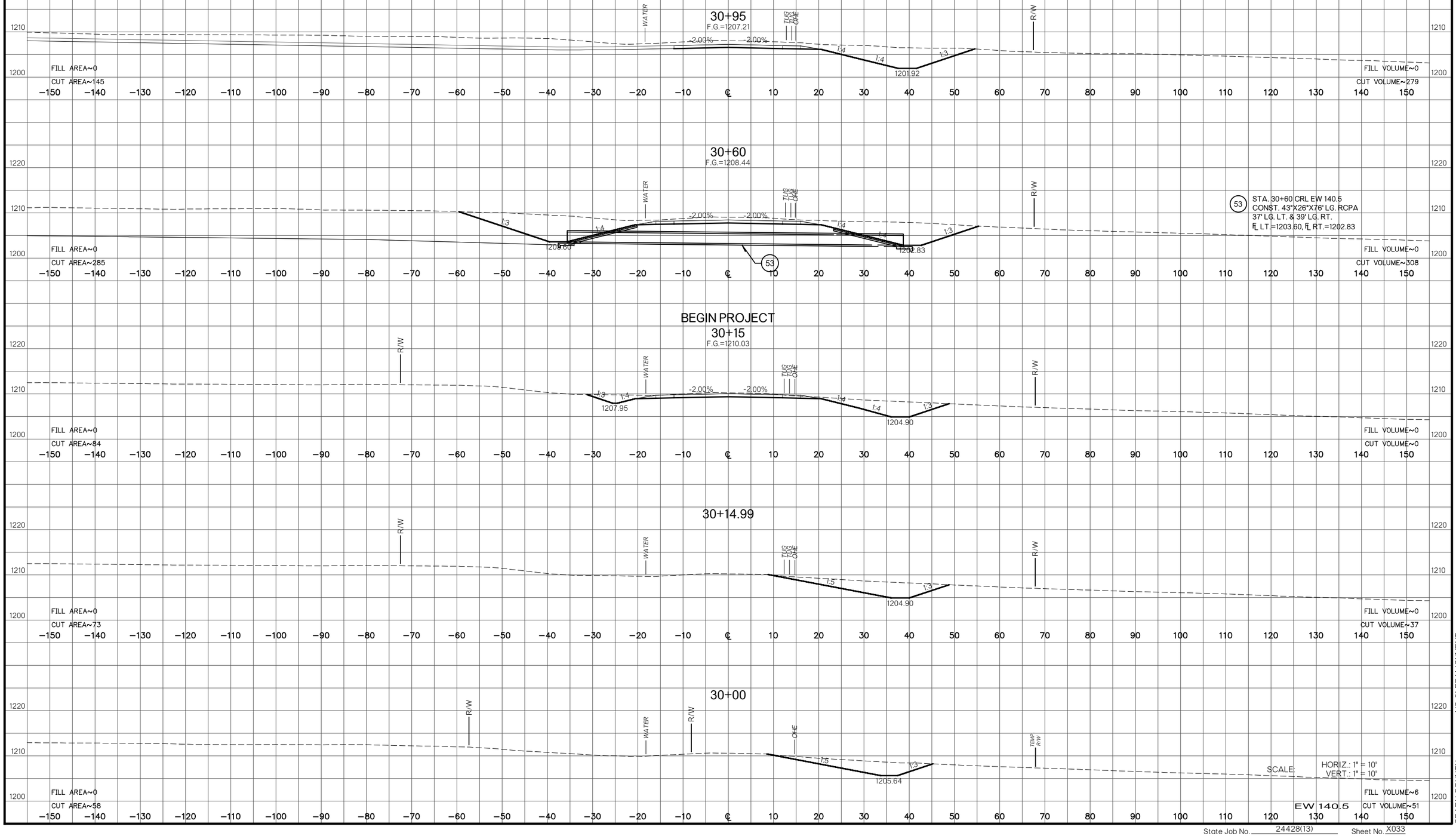
JUNE 2020



US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X033

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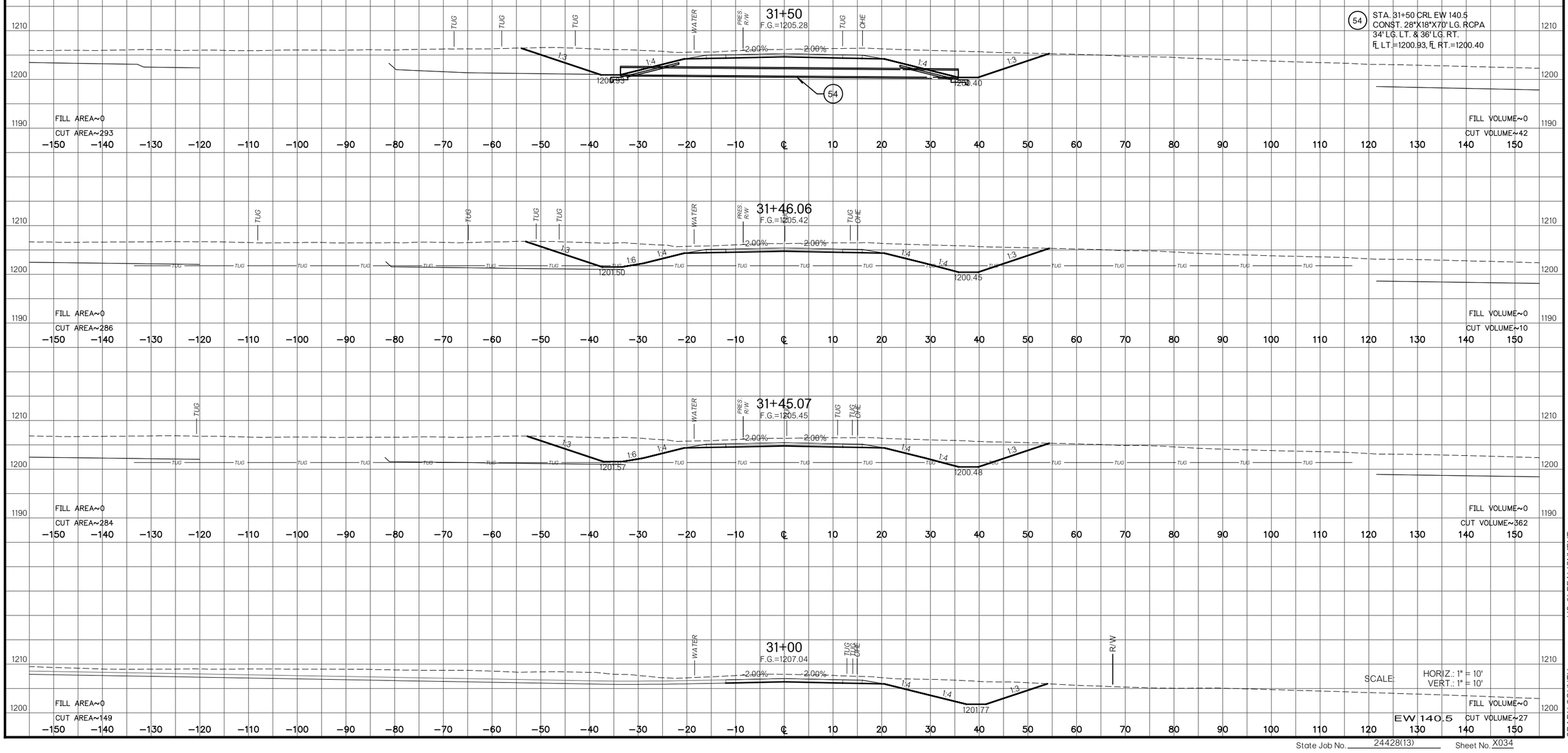
FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

EW 140.5

US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X034

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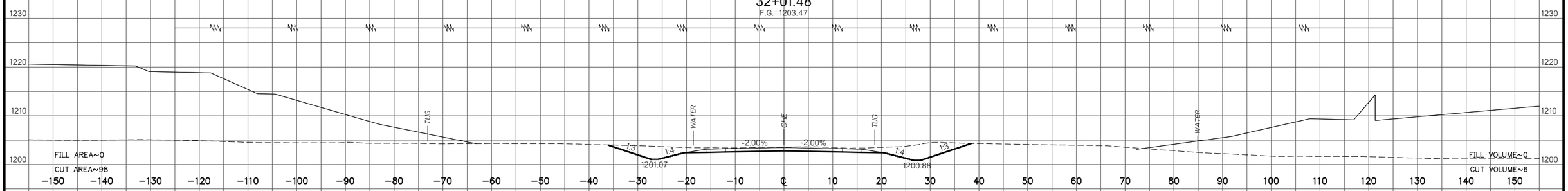
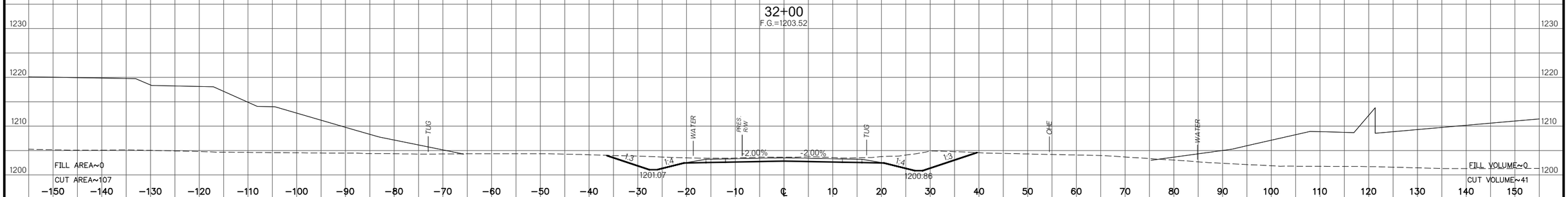
FINAL FIELD MEETING
JUNE 2020

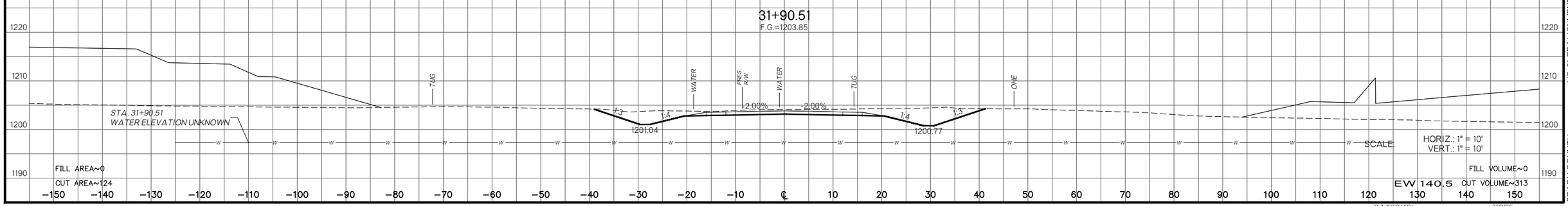
32+01.48
F.G.=1203.47



32+00
F.G.=1203.52



31+90.51
F.G.=1203.85



SCALE:
HORIZ.: 1" = 10'
VERT.: 1" = 10'

EW140.5

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X035

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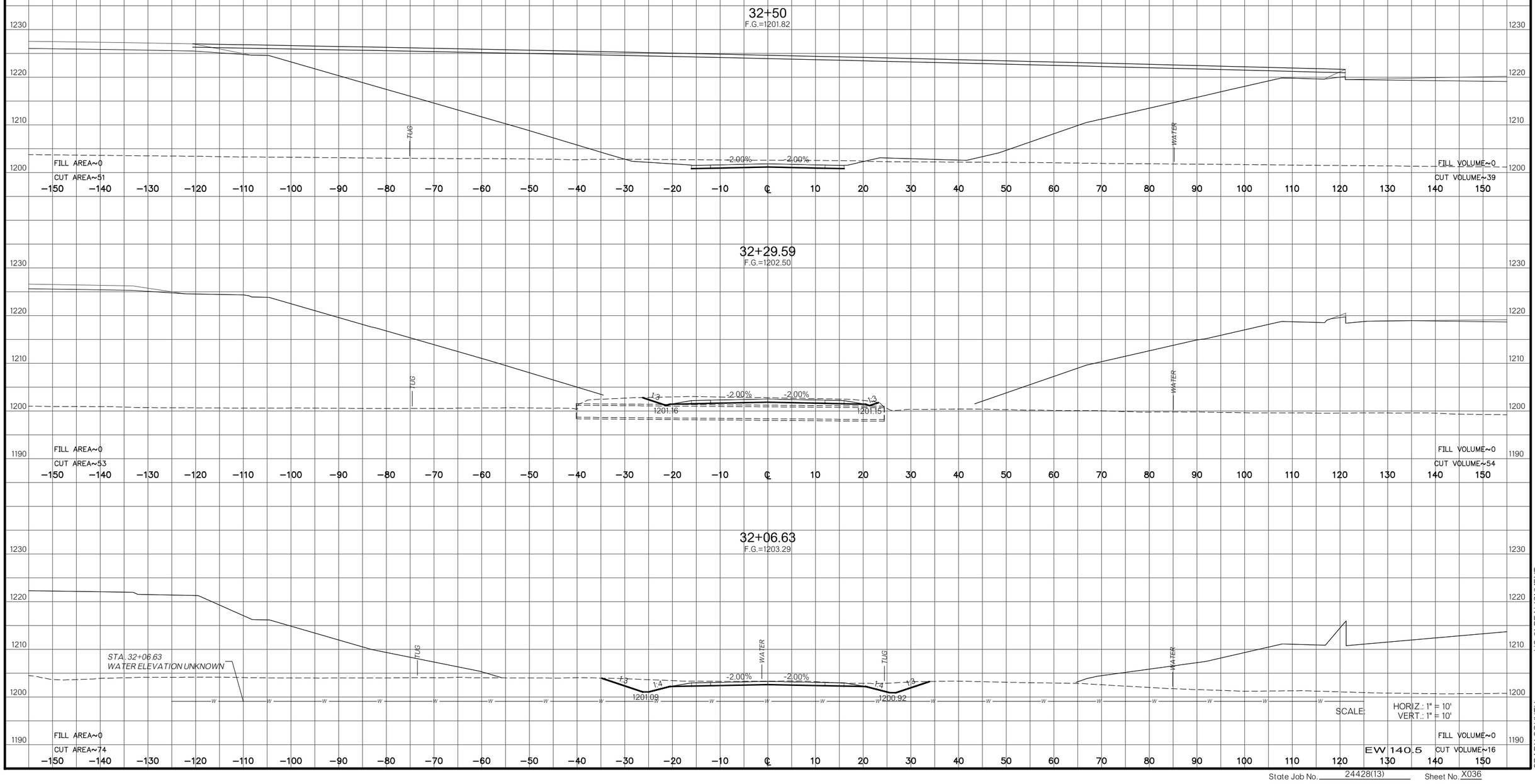
FINAL FIELD MEETING
JUNE 2020



US-81 REALIGNMENT

GRADY COUNTY

EW 140.5

State Job No. 24428(13) Sheet No. X036

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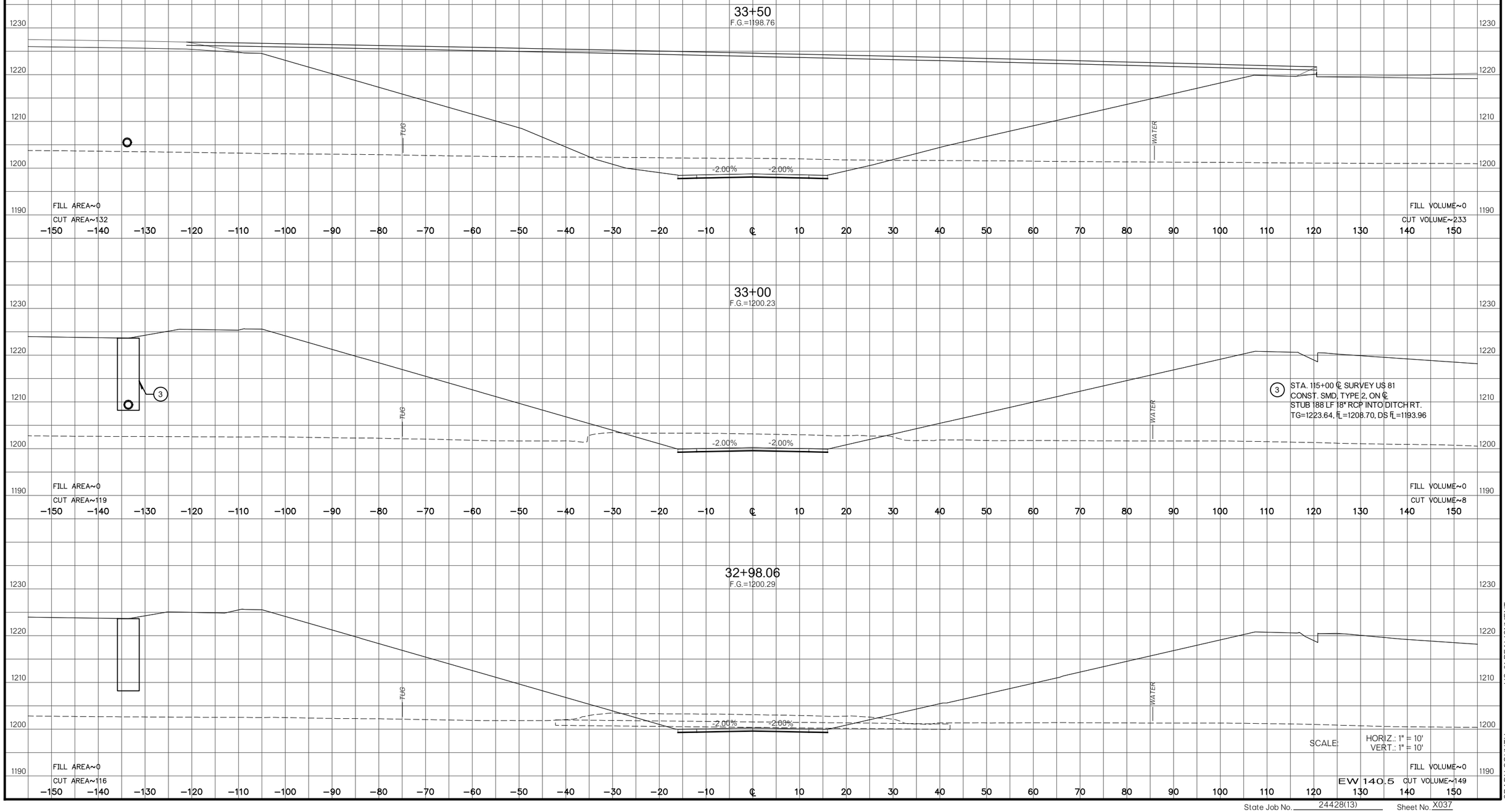
FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

EW140.5

US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X037

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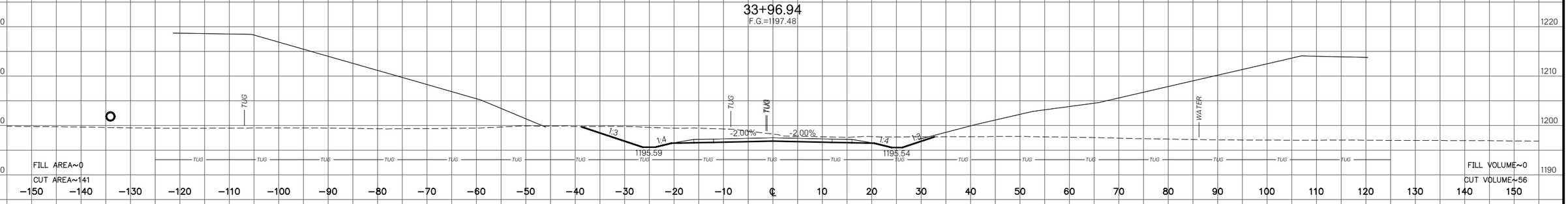
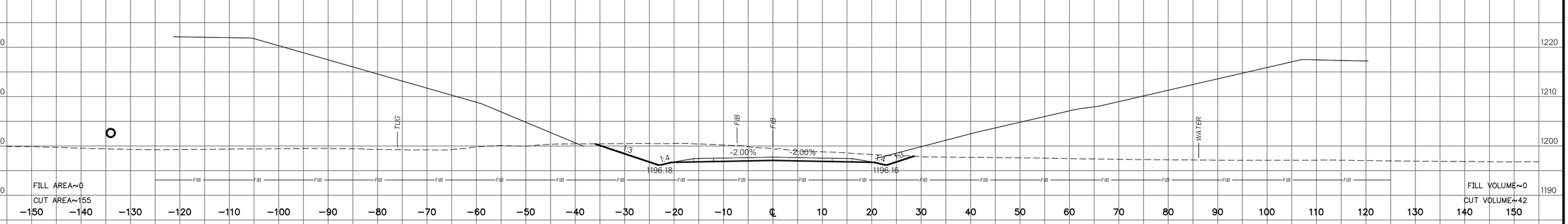
FINAL FIELD MEETING
JUNE 2020

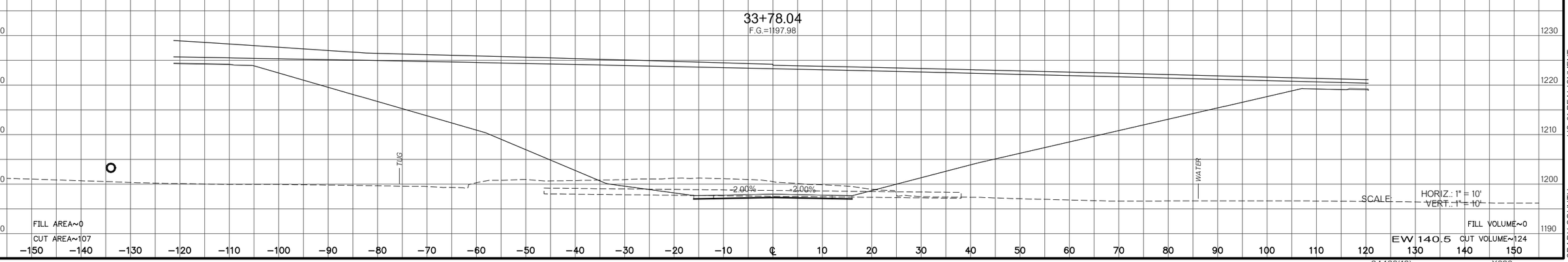
33+96.94
F.G.=1197.48



33+86.66
F.G.=1197.75



33+78.04
F.G.=1197.98



EW140.5

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X038

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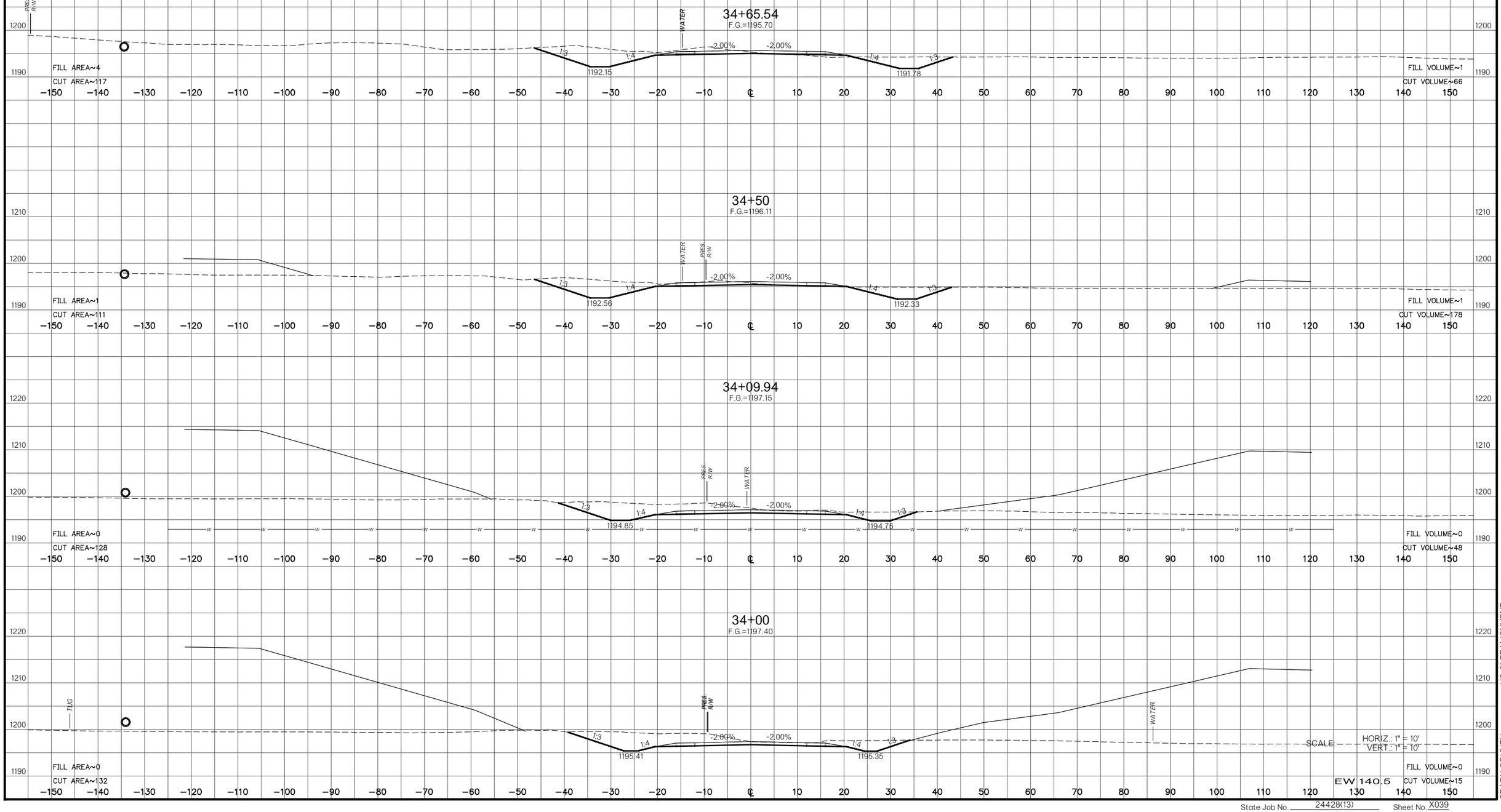
FINAL FIELD MEETING
JUNE 2020



US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X039

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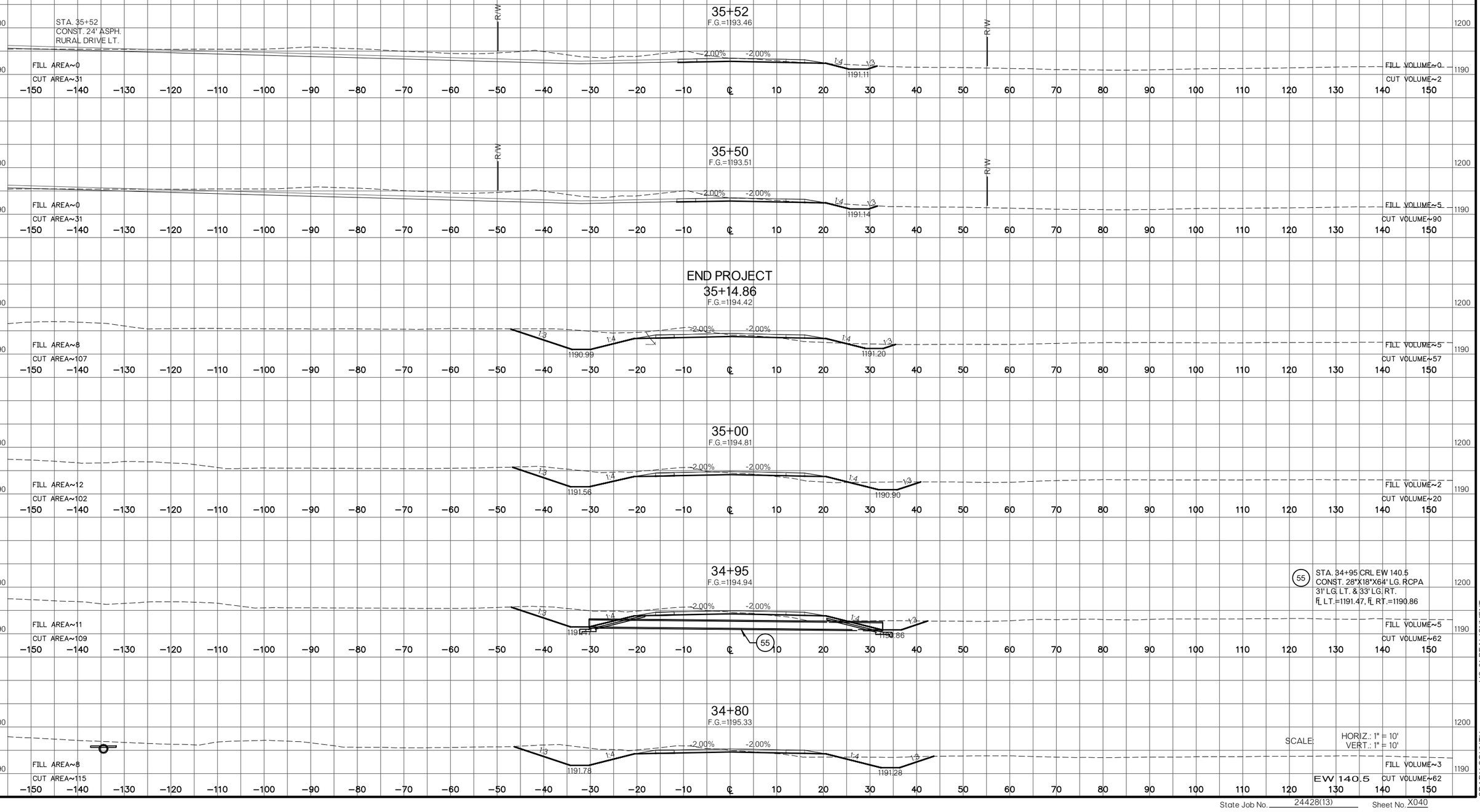
FINAL FIELD MEETING
JUNE 2020



US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X040

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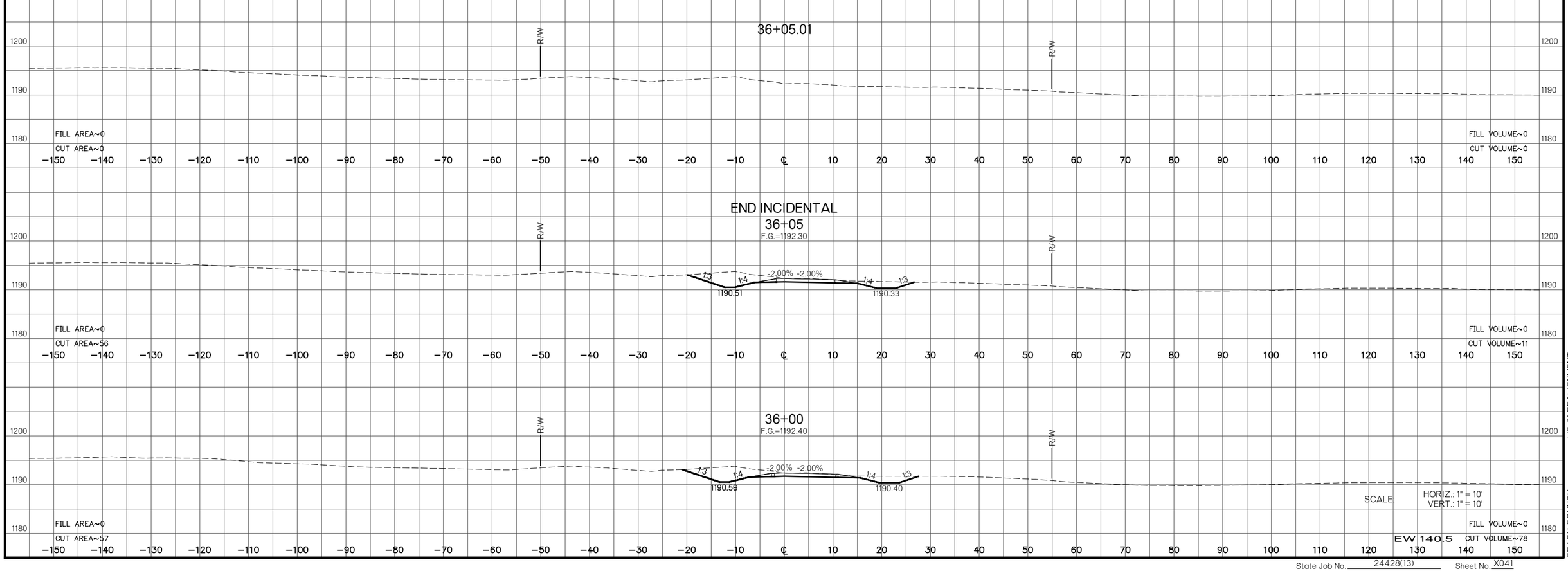
FINAL FIELD MEETING
JUNE 2020



US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X041

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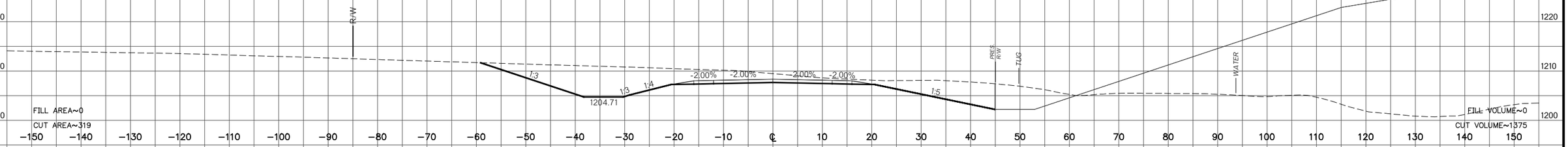
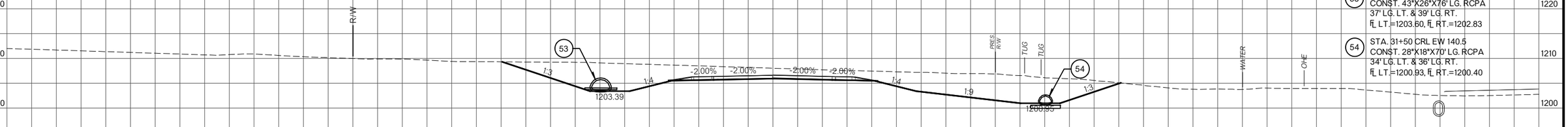
FINAL FIELD MEETING
JUNE 2020

5115+00
F.G.=1208.32



FILL AREA~0
CUT AREA~319
FILL VOLUME~0
CUT VOLUME~1375

5114+00
F.G.=1206.59



(53) STA. 30+60 CRL EW 140.5
CONST. 43"X26"X76' LG. RCPA
37' LG. LT. & 39' LG. RT.
℄ LT.=1203.60, ℄ RT.=1202.83

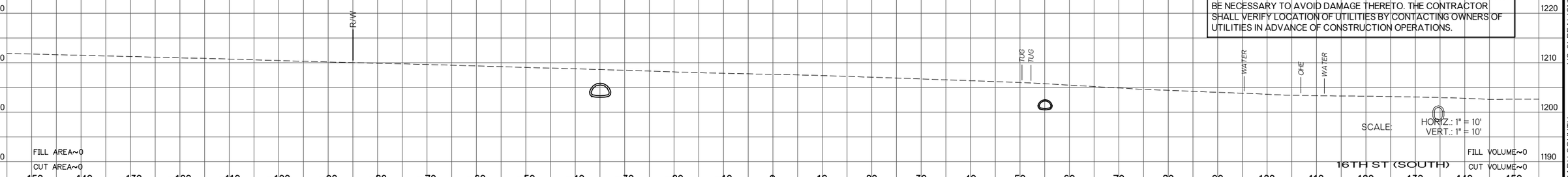
(54) STA. 31+50 CRL EW 140.5
CONST. 28"X18"X70' LG. RCPA
34' LG. LT. & 36' LG. RT.
℄ LT.=1200.93, ℄ RT.=1200.40

FILL AREA~0
CUT AREA~424
FILL VOLUME~0
CUT VOLUME~200

BEGIN PROJECT
5113+79.22

FILL AREA~0
CUT AREA~97
FILL VOLUME~0
CUT VOLUME~0

5113+79.21



THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPES & LOCATIONS OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO MAKE THE DETERMINATIONS AS TO THE TYPE & LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING OWNERS OF UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS.

FILL AREA~0
CUT AREA~0
FILL VOLUME~0
CUT VOLUME~0

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X042

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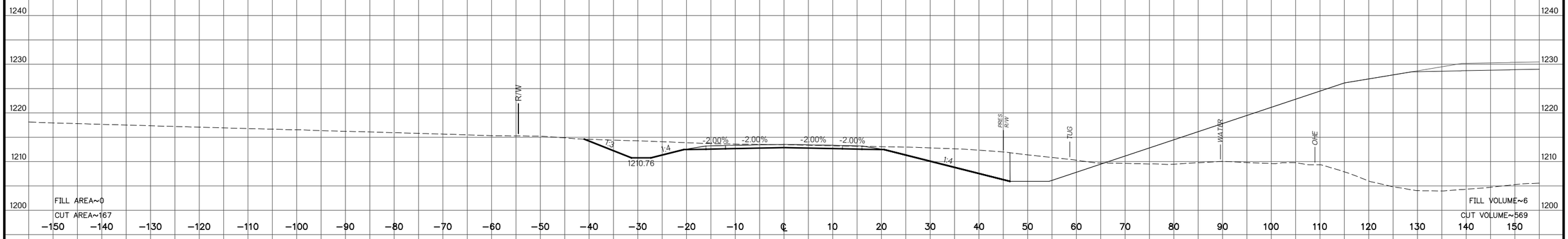
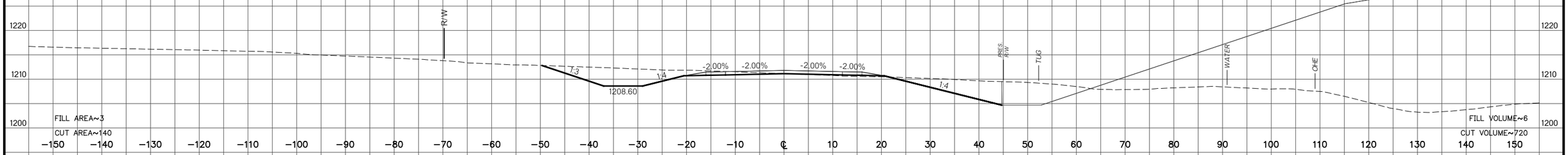
FINAL FIELD MEETING
JUNE 2020

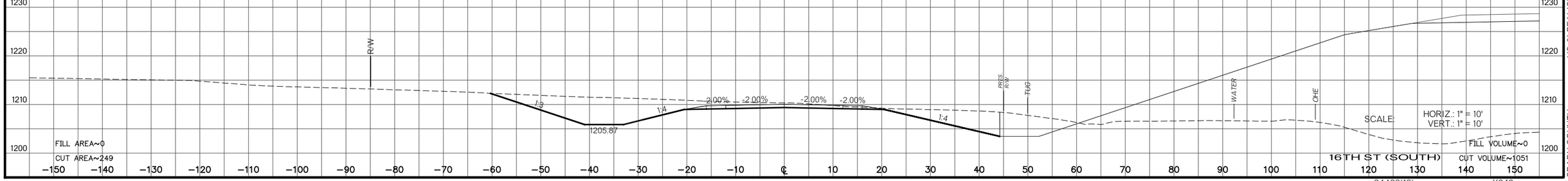
5118+00
F.G.=1213.53



5117+00
F.G.=1211.79



5116+00
F.G.=1210.06



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X043

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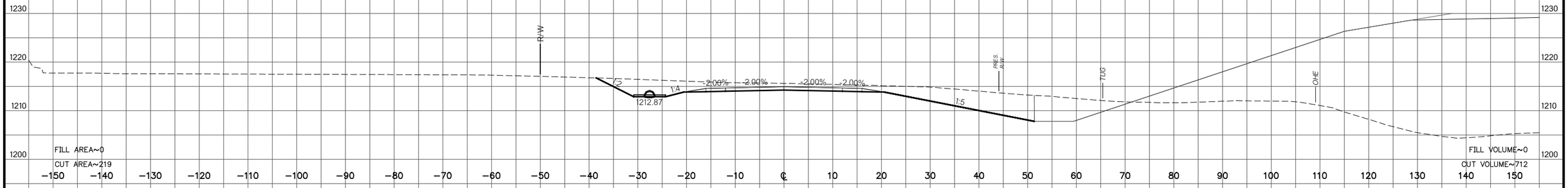
FINAL FIELD MEETING
JUNE 2020

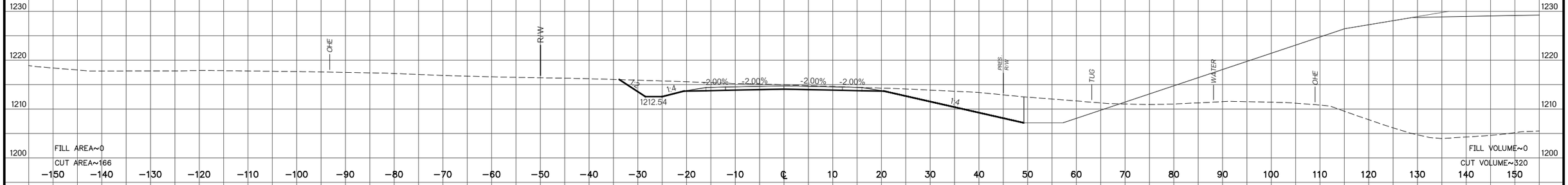
5120+00
F.G.=1214.89



FILL AREA~0
CUT AREA~219

FILL VOLUME~0
CUT VOLUME~712

5119+00
F.G.=1214.74

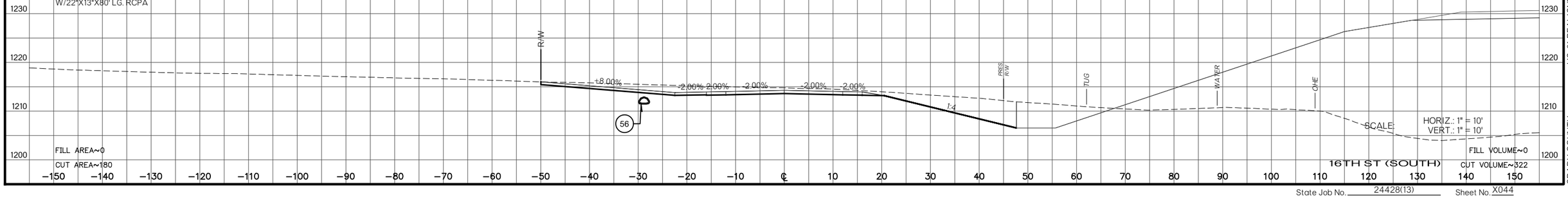


FILL AREA~0
CUT AREA~166

FILL VOLUME~0
CUT VOLUME~320

5118+50
F.G.=1214.26

STA. 5118+50
CONST. 35' ASPH. DRIVE LT.
W/22"X13"X80' LG. RCPA



FILL AREA~0
CUT AREA~180

FILL VOLUME~0
CUT VOLUME~322

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X044

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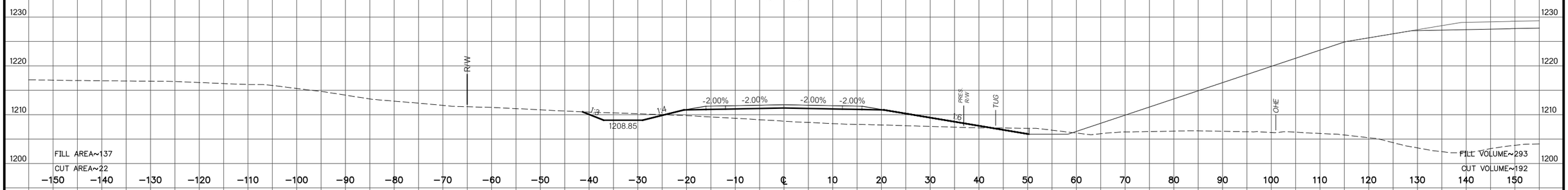
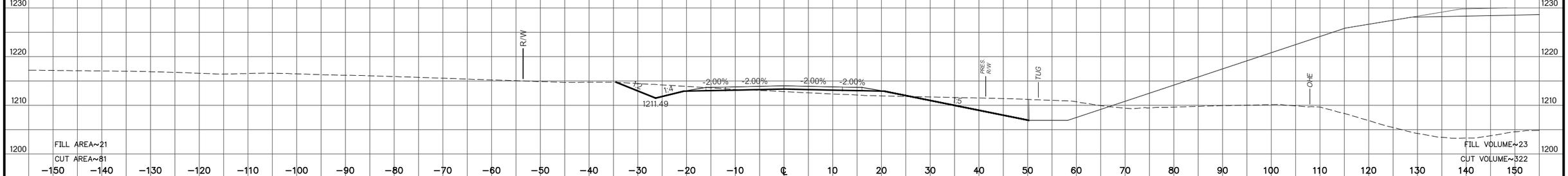
FINAL FIELD MEETING
JUNE 2020

5122+00
F.G.=1212.04

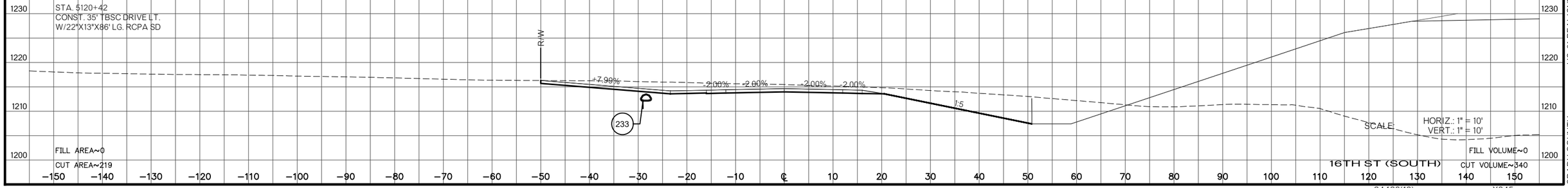


5121+00
F.G.=1213.99



5120+42
F.G.=1214.64

STA. 5120+42
CONST. 35' TBSC DRIVE LT.
W/22"X13"X86' LG. RCPA SD



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X045

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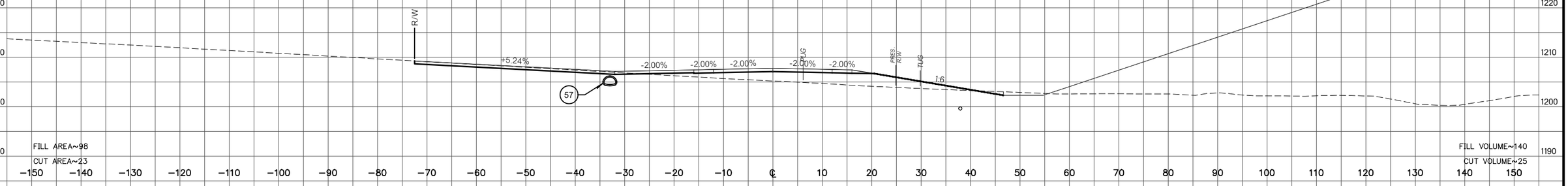
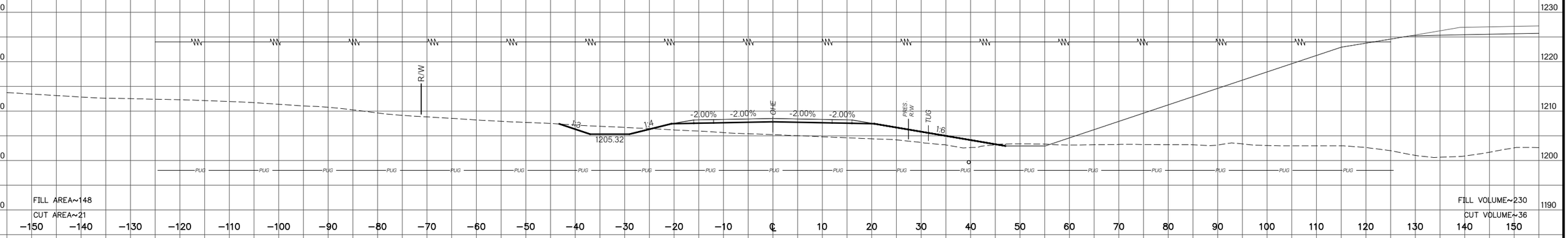
FINAL FIELD MEETING
JUNE 2020

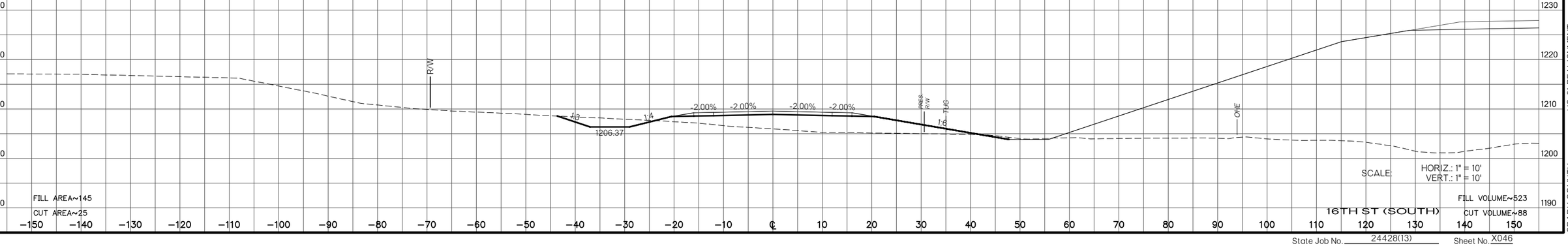
5123+73
F.G.=1207.75



5123+42.38
F.G.=1208.51



5123+00
F.G.=1209.56



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X046

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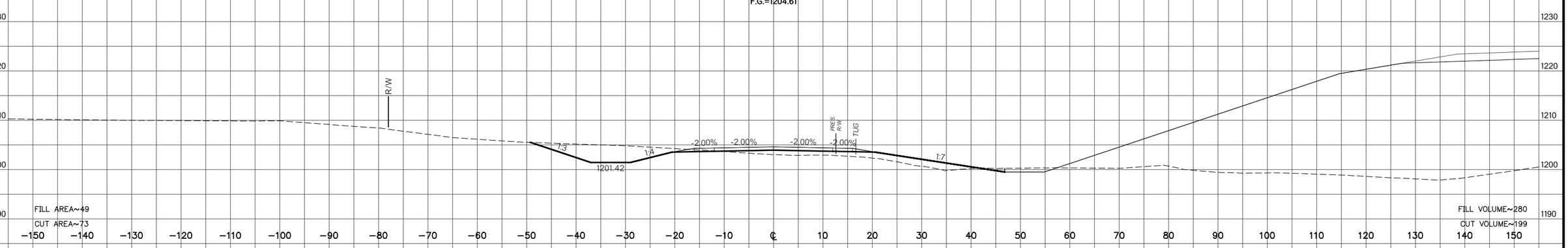
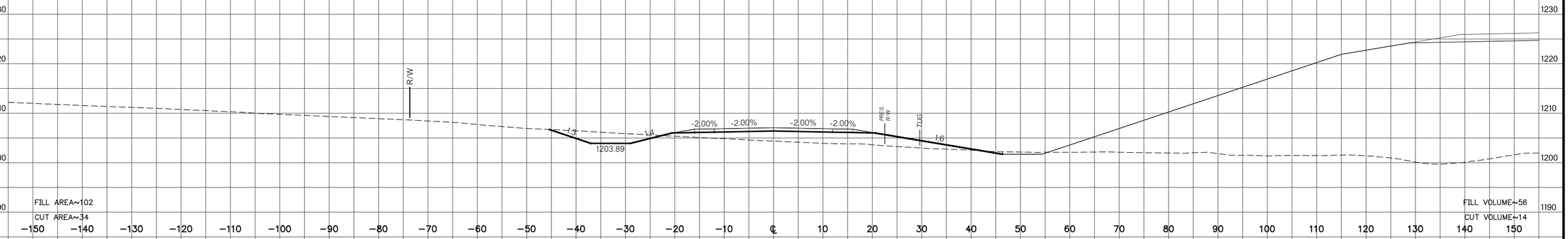
FINAL FIELD MEETING
JUNE 2020

5125+00
F.G.=1204.61



5124+00
F.G.=1207.09



5123+84.88
F.G.=1207.46

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X047

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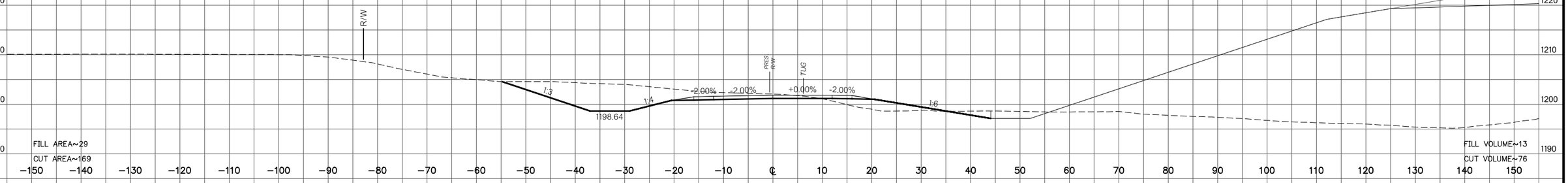
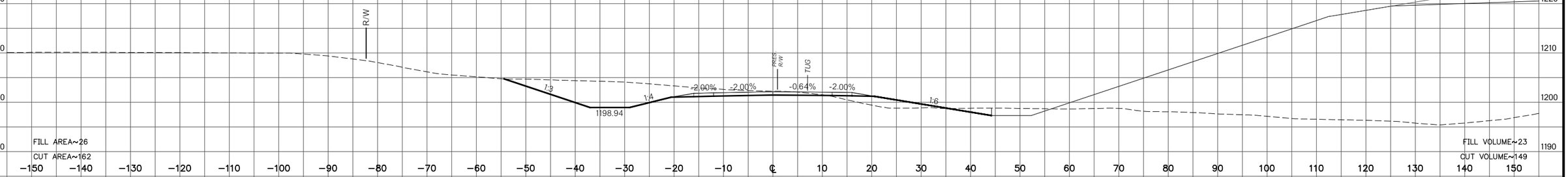
FINAL FIELD MEETING
JUNE 2020

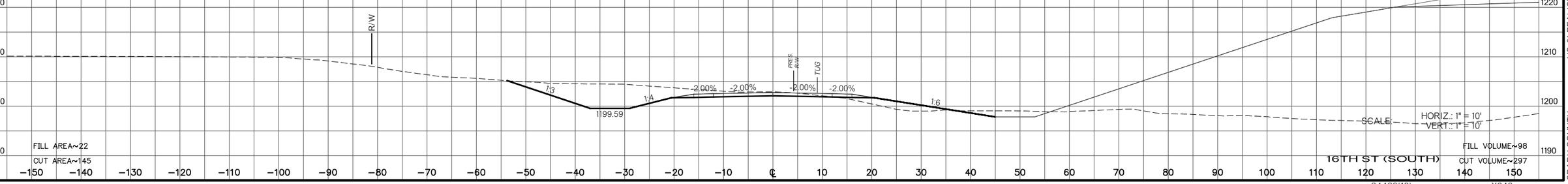
RUNOFF BEGINS STATION
5126+12.32
F.G.=1201.83



5126+00
F.G.=1202.13



END NORMAL CROWN
5125+73.75
F.G.=1202.78



16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X048

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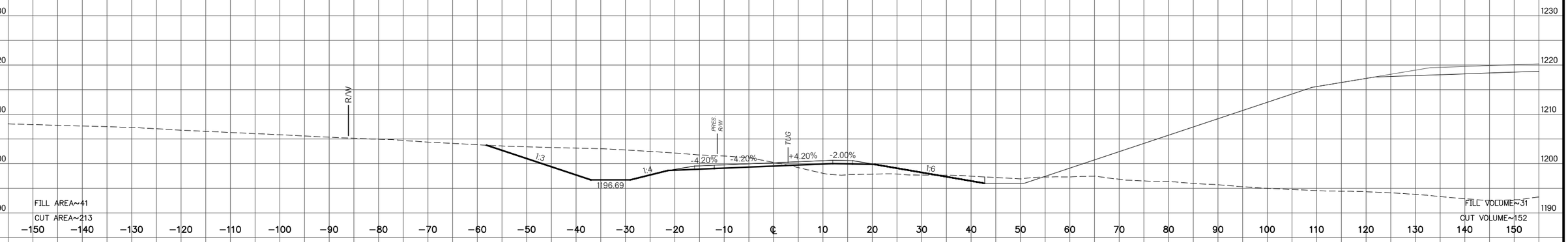
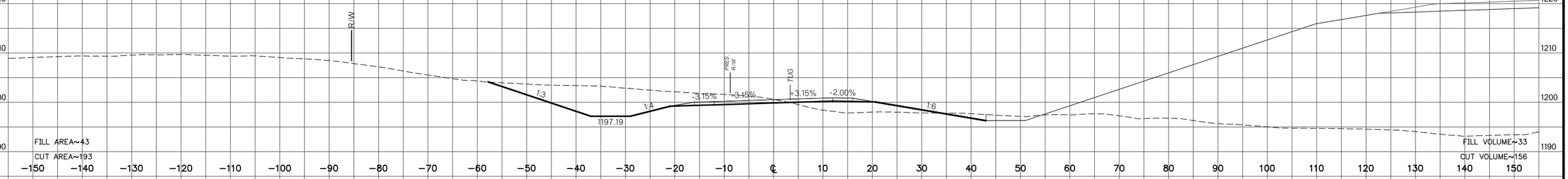
FINAL FIELD MEETING
JUNE 2020

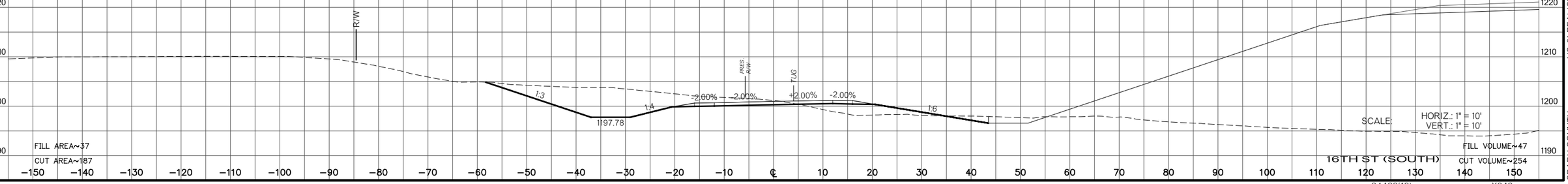
BEGIN FULL SUPERELEVATION
5126+93.32
F.G.=1200.16



5126+73.07
F.G.=1200.53



REVERSE CROSS SLOPE STATION
5126+50.89
F.G.=1200.97



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X049

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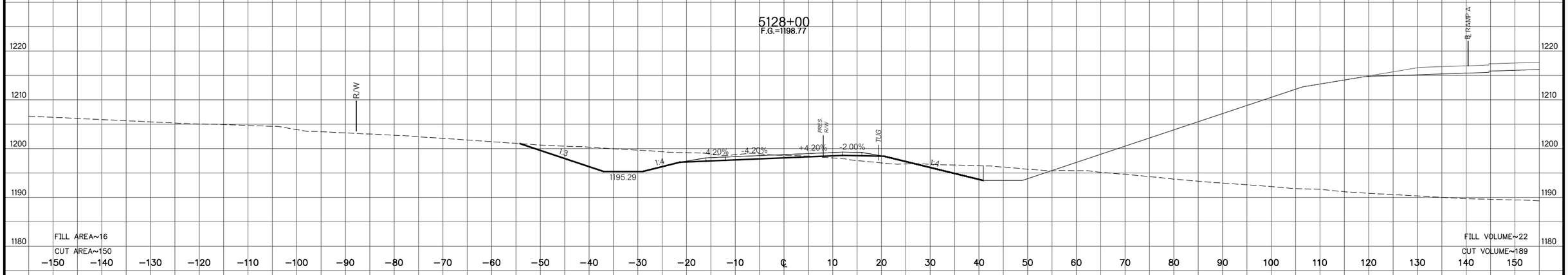
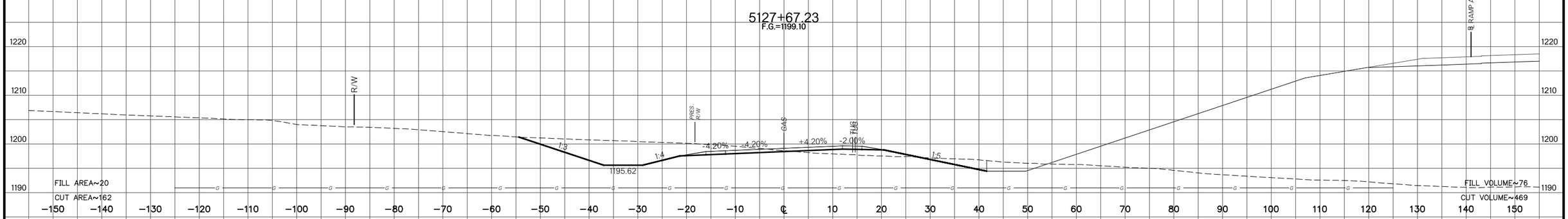
FINAL FIELD MEETING
JUNE 2020

5128+00
F.G.=1198.77



5127+67.23
F.G.=1199.10



5127+00
F.G.=1200.05

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X050

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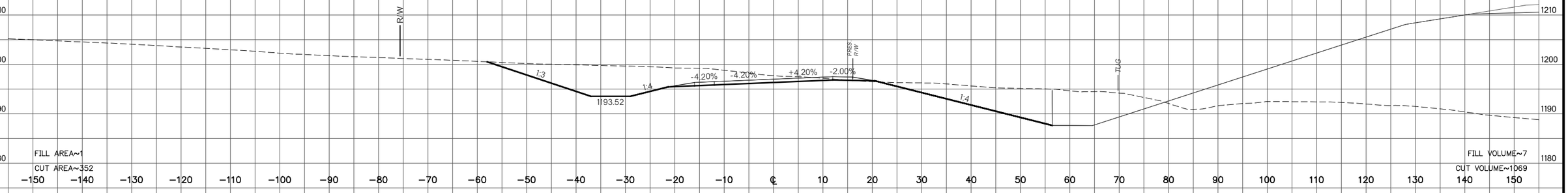
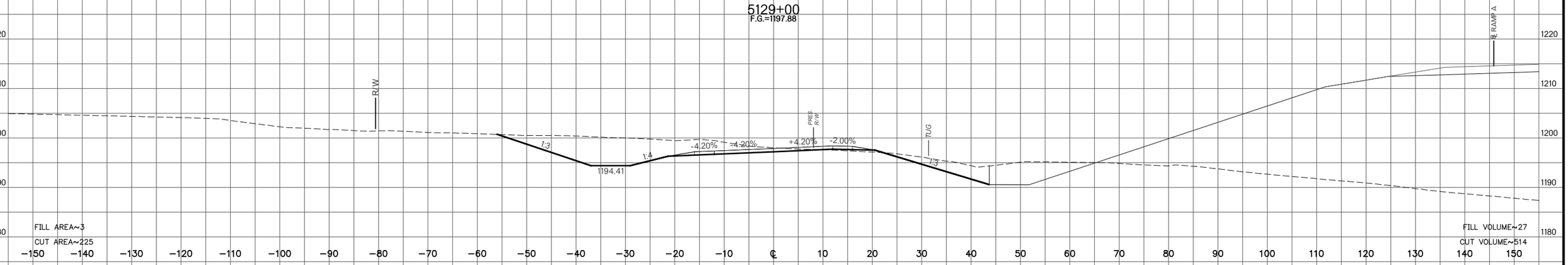
FINAL FIELD MEETING
JUNE 2020

5130+00
F.G.=1197.00



FILL AREA~1
CUT AREA~352
FILL VOLUME~7
CUT VOLUME~1069

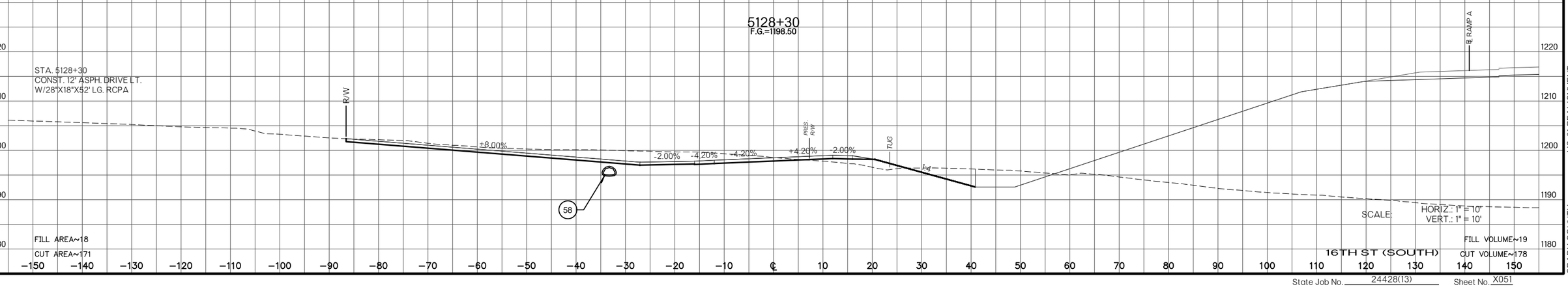
5129+00
F.G.=1197.88



FILL AREA~3
CUT AREA~225
FILL VOLUME~27
CUT VOLUME~514

5128+30
F.G.=1198.50

STA. 5128+30
CONST. 12' ASPH. DRIVE LT.
W/28"X18"X52' LG. RCPA



FILL AREA~18
CUT AREA~171
FILL VOLUME~19
CUT VOLUME~178

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X051

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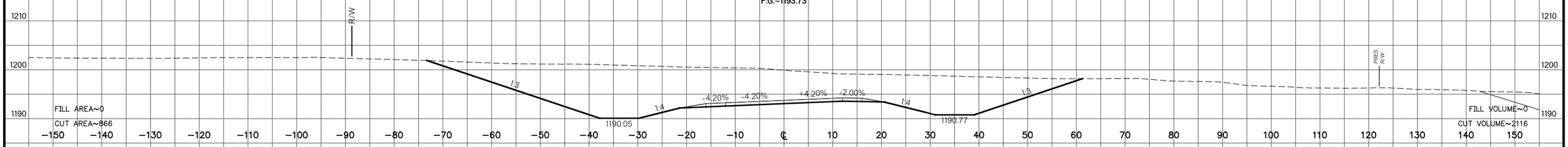
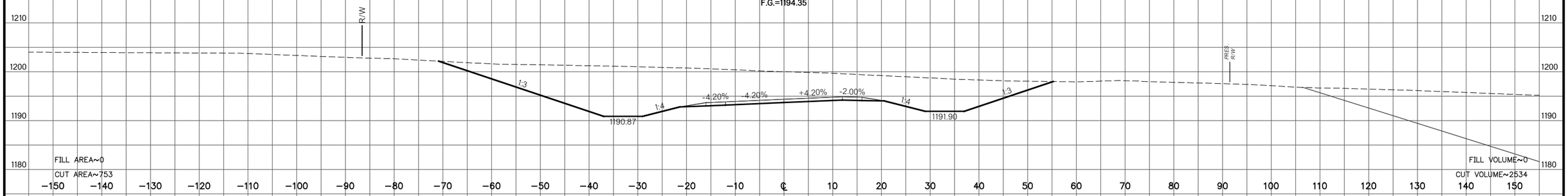
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

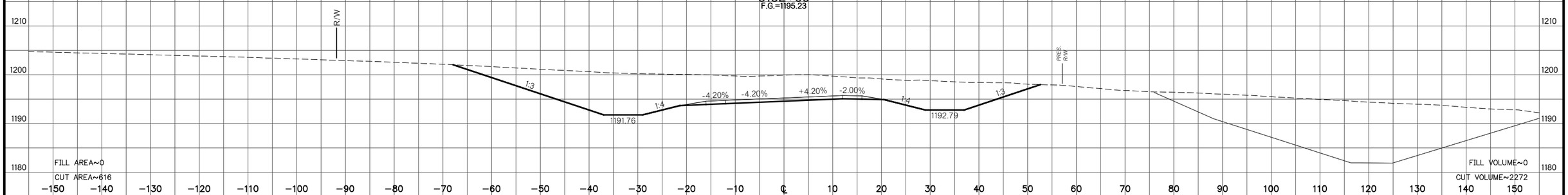
END FULL SUPERELEVATION
5133+70.57
F.G.=1193.73



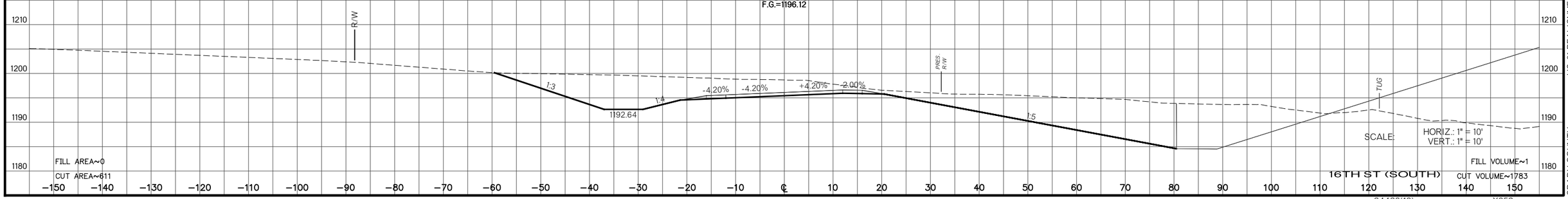
5133+00
F.G.=1194.35



5132+00
F.G.=1195.23



5131+00
F.G.=1196.12



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X052

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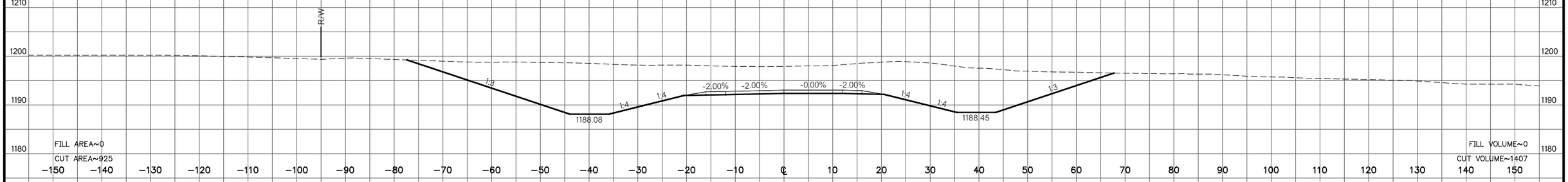
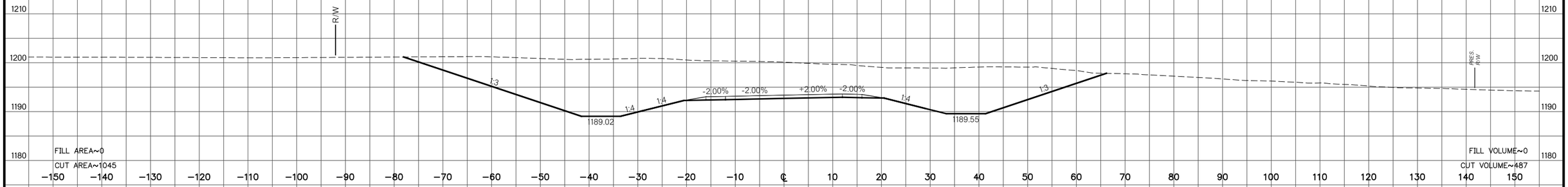
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

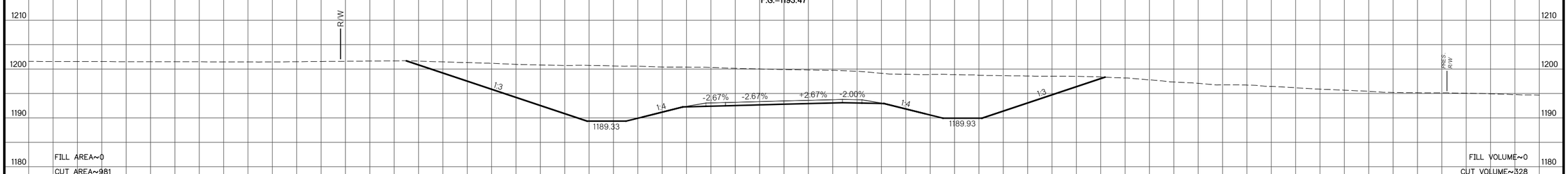
RUNOFF ENDS STATION
5134+51.57
F.G.=1193.01



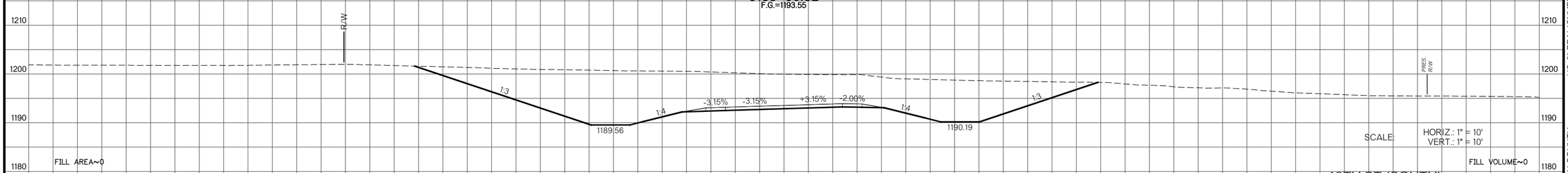
REVERSE CROSS SLOPE STATION
5134+13
F.G.=1193.35



5134+00
F.G.=1193.47



5133+90.82
F.G.=1193.55



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X053

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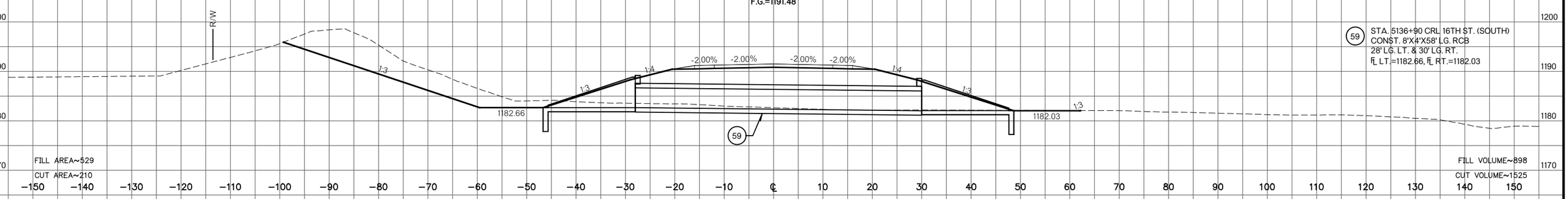
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

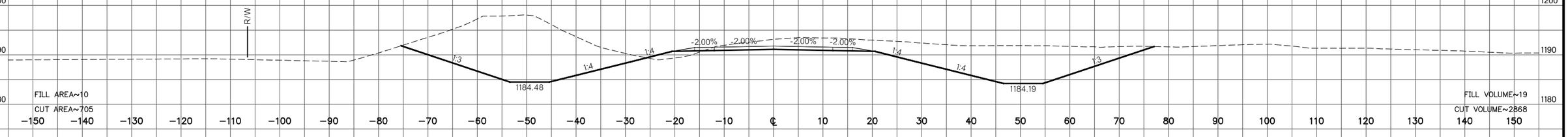
5136+90
F.G.=1191.48



59 STA. 5136+90 CRL 16TH ST. (SOUTH)
CONST. 8'X4'X58' LG. RCB
28' LG. LT. & 30' LG. RT.
FL LT.=1182.66, FL RT.=1182.03

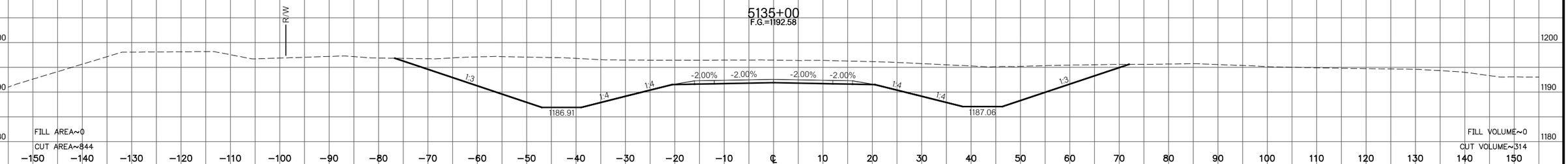
FILL AREA~529
CUT AREA~210
FILL VOLUME~898
CUT VOLUME~1525

5136+00
F.G.=1191.77



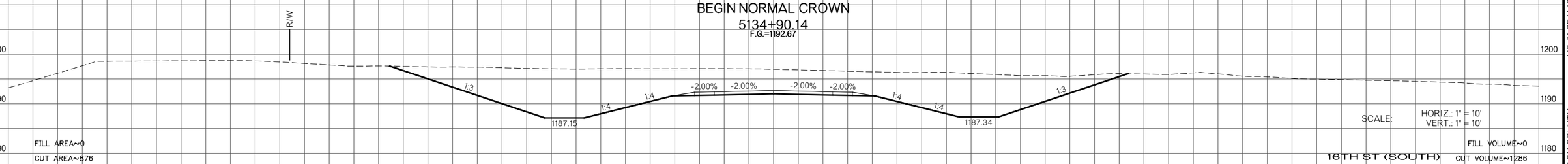
FILL AREA~10
CUT AREA~705
FILL VOLUME~19
CUT VOLUME~2868

5135+00
F.G.=1192.58



FILL AREA~0
CUT AREA~844
FILL VOLUME~0
CUT VOLUME~314

BEGIN NORMAL CROWN
5134+90.14
F.G.=1192.67



FILL AREA~0
CUT AREA~876
FILL VOLUME~0
CUT VOLUME~1286

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X054

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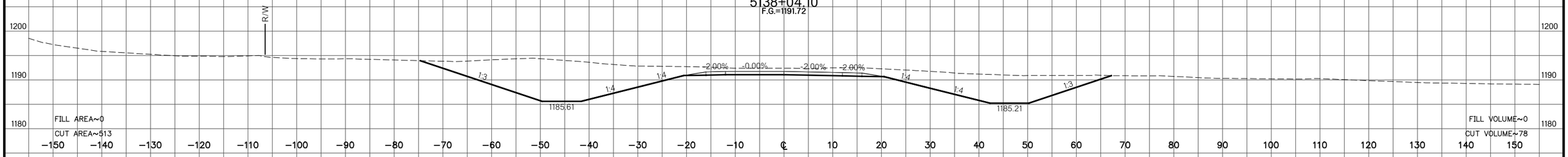
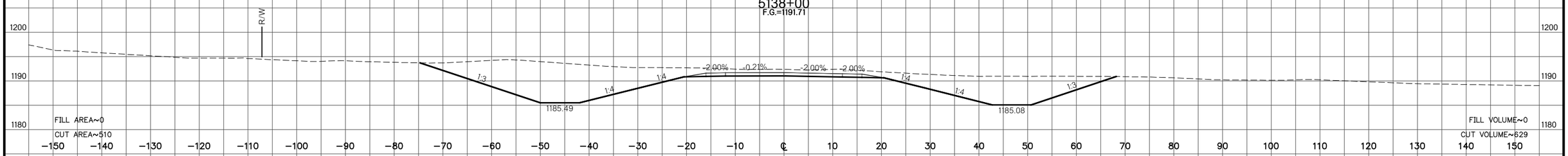
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

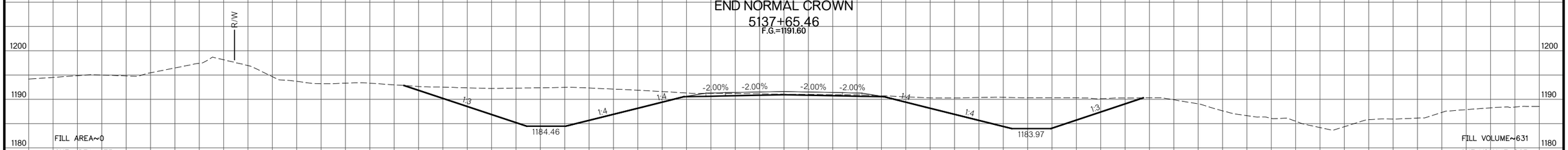
RUNOFF BEGINS STATION
5138+04.10
F.G.=1191.72



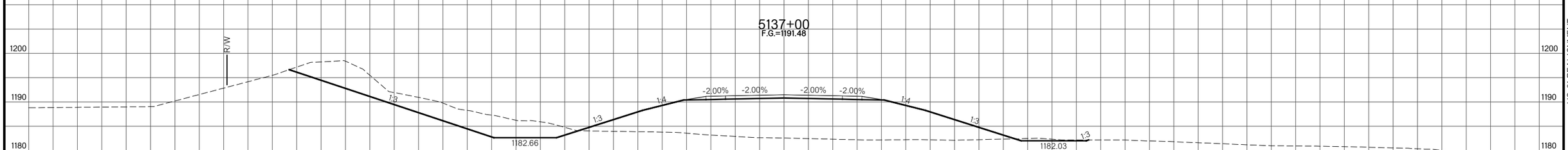
5138+00
F.G.=1191.71



END NORMAL CROWN
5137+65.46
F.G.=1191.60



5137+00
F.G.=1191.48



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X055

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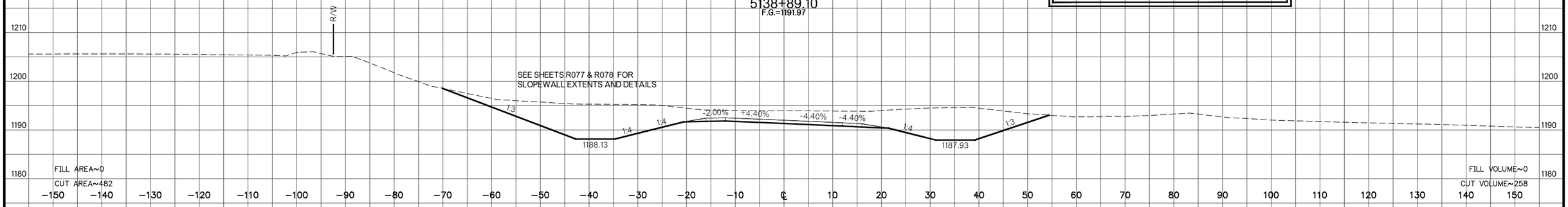
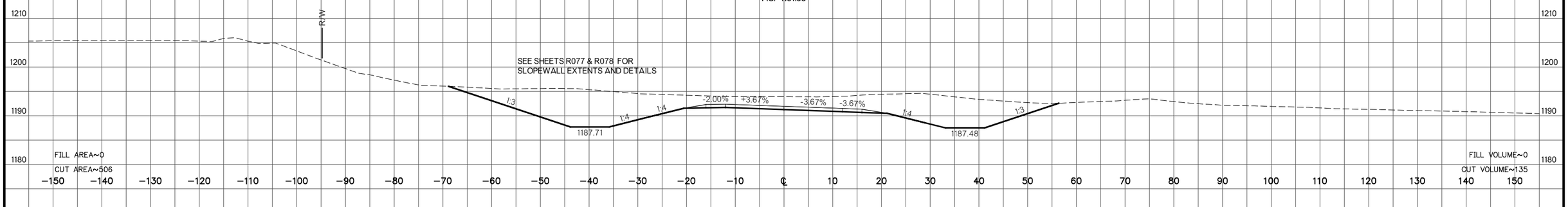
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

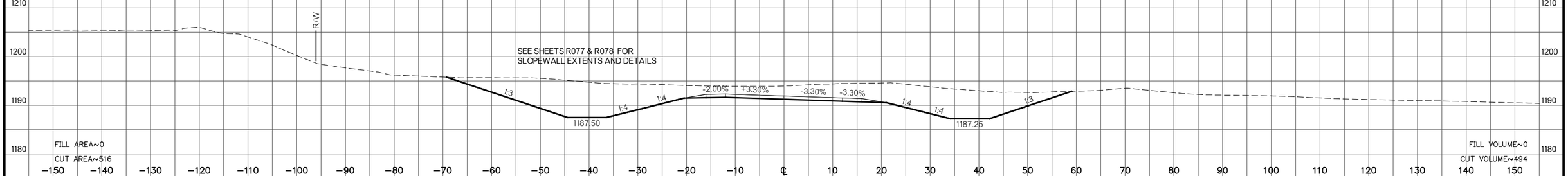
BEGIN FULL SUPERELEVATION
5138+89.10
F.G.=1191.97



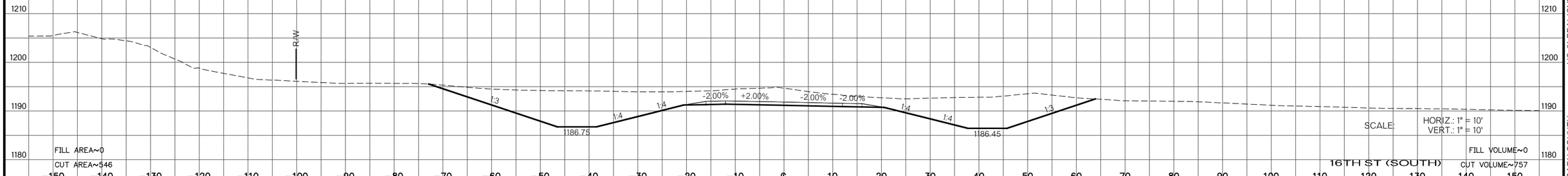
5138+75
F.G.=1191.93



5138+67.85
F.G.=1191.91



REVERSE CROSS SLOPE STATION
5138+42.74
F.G.=1191.83



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X056

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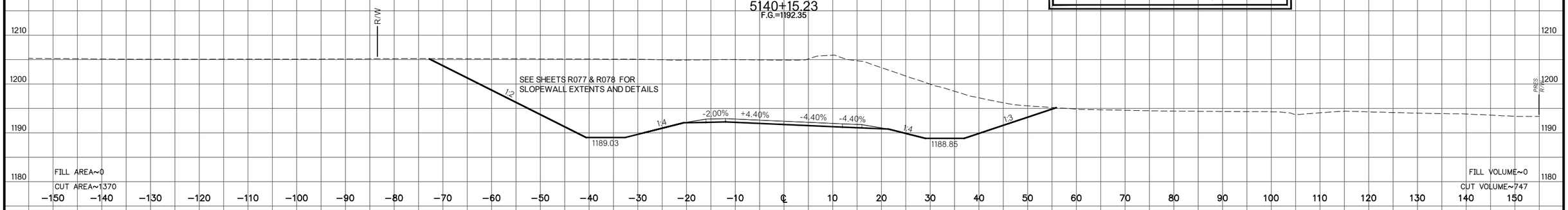
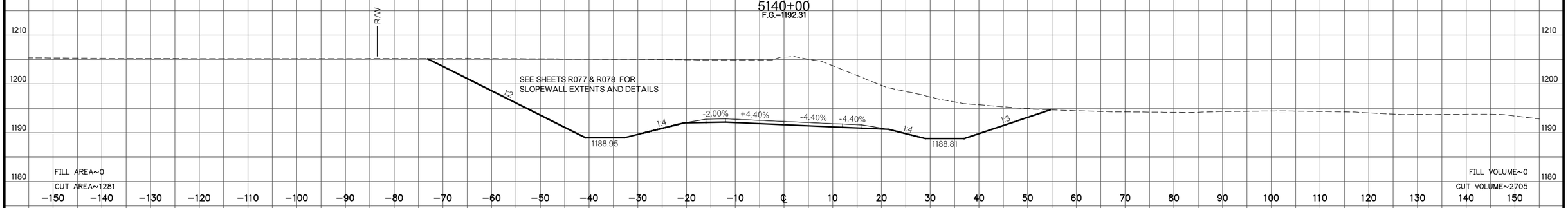
FINAL FIELD MEETING
JUNE 2020

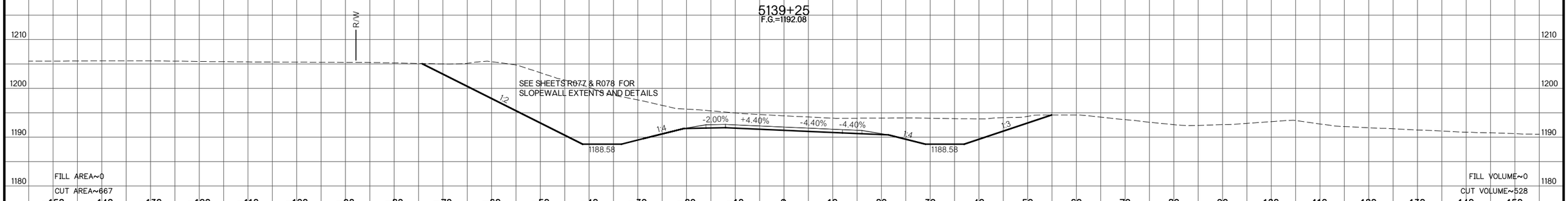
5140+15.23
F.G.=1192.35



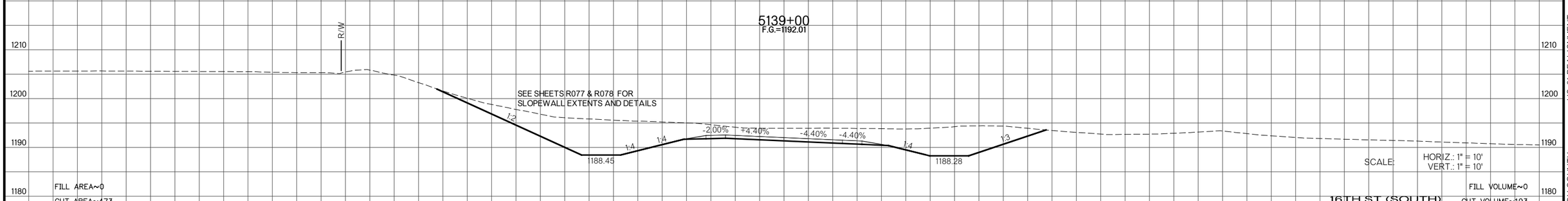
5140+00
F.G.=1192.31



5139+25
F.G.=1192.08



5139+00
F.G.=1192.01



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X057

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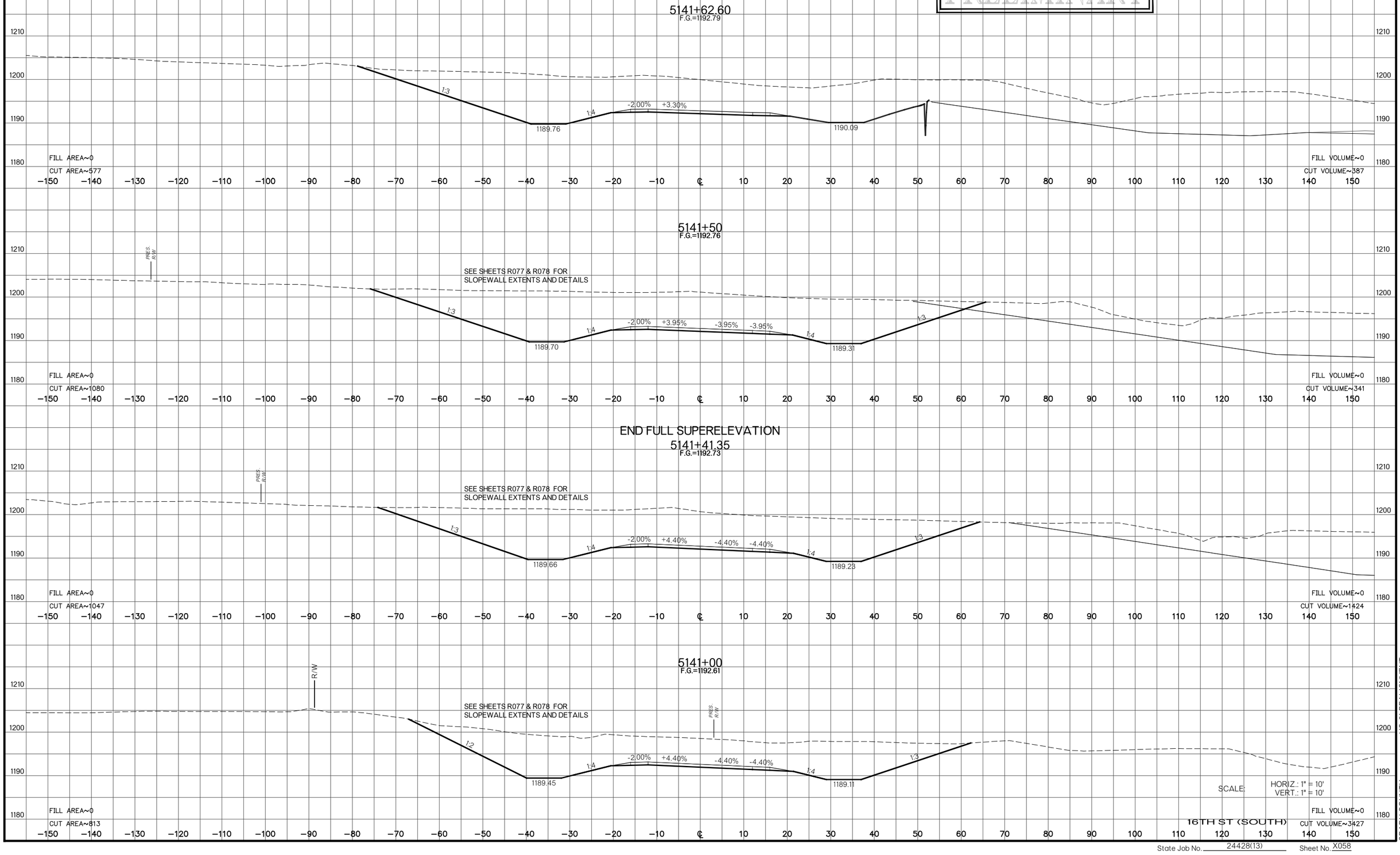
FINAL FIELD MEETING
JUNE 2020



US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X058

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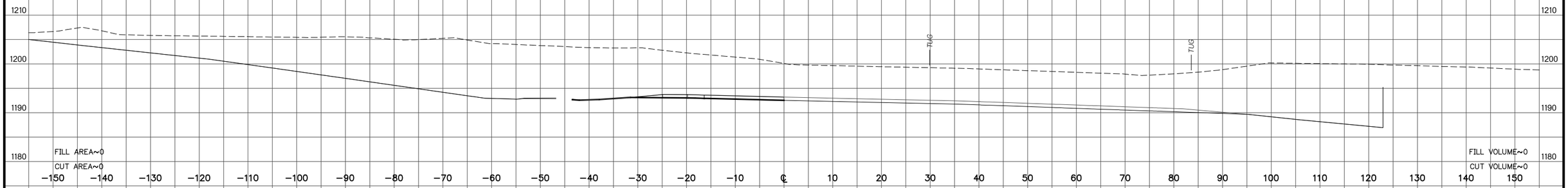
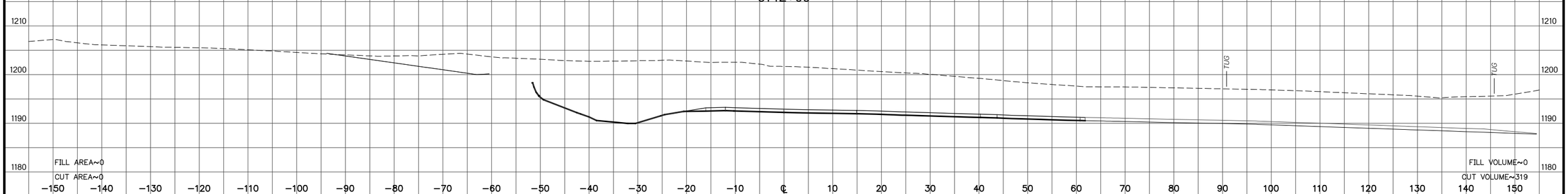
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

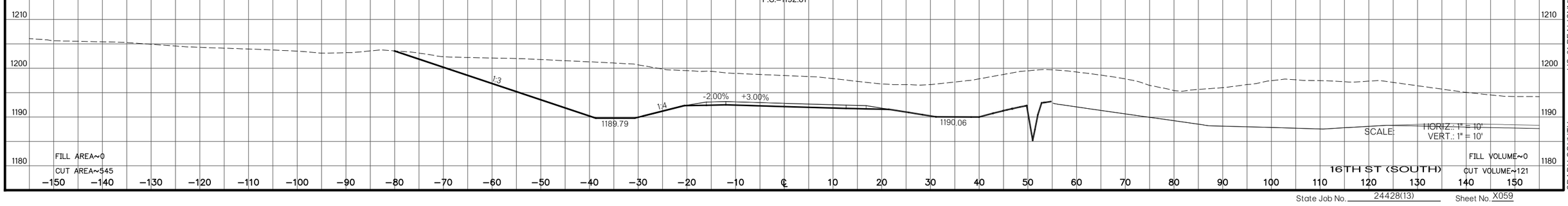
END PROJECT
5142+22.49



5142+00



REVERSE CROSS SLOPE STATION
5141+68.40
F.G.=1192.81



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (SOUTH)

US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X059

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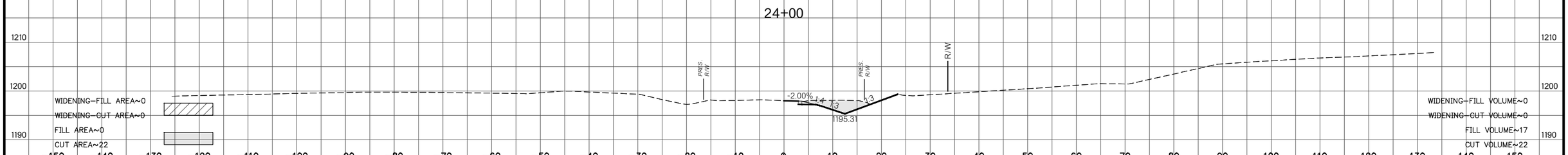
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

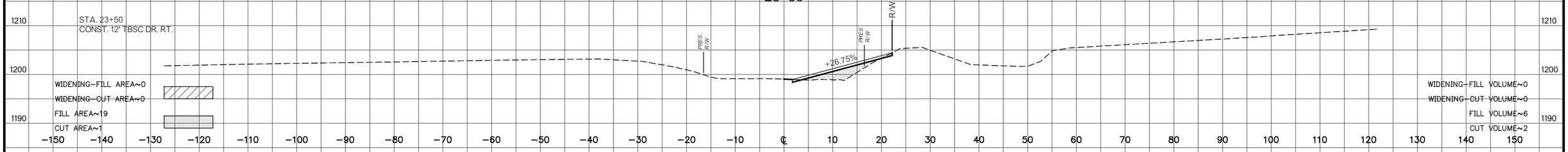
THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPES & LOCATIONS OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO MAKE THE DETERMINATIONS AS TO THE TYPE & LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING OWNERS OF UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS.

24+00



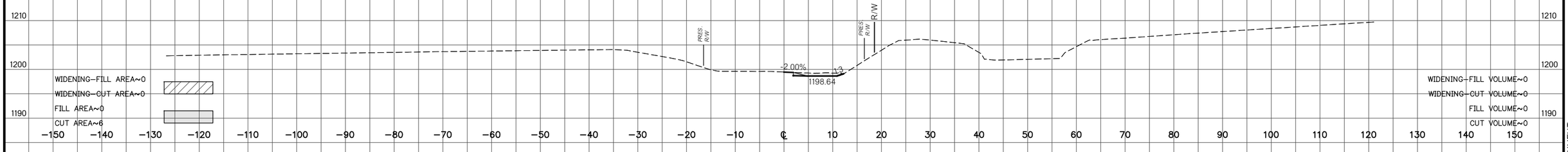
23+50

STA. 23+50
CONST. 12" TBSC DR. RT.

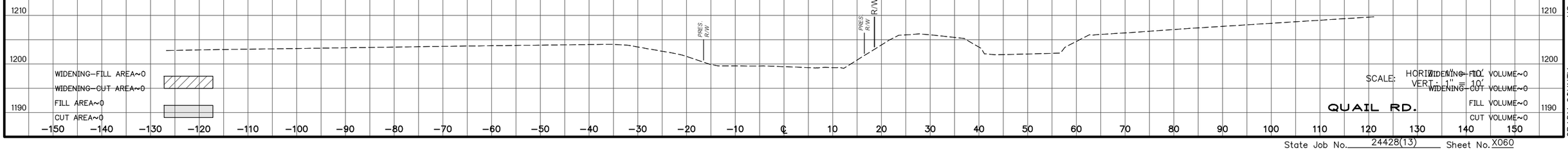


BEGIN INCIDENTAL CONSTRUCTION

23+34



23+33.99



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

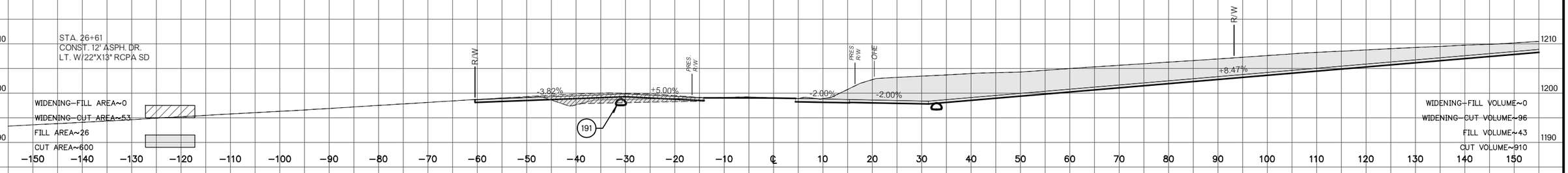
QUAIL RD.

US–81 REALIGNMENT
GRADY COUNTY

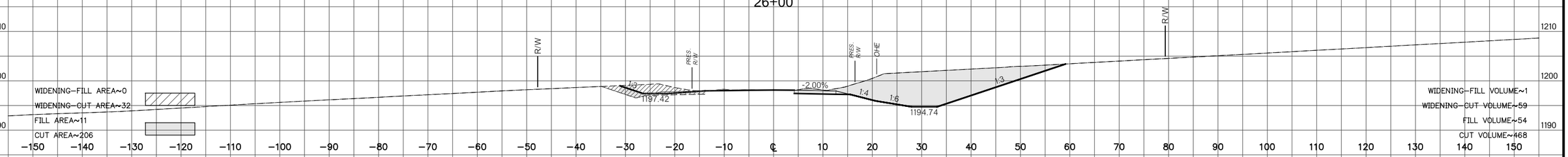
State Job No. 24428(13) Sheet No. X060

FINAL FIELD MEETING
JUNE 2020

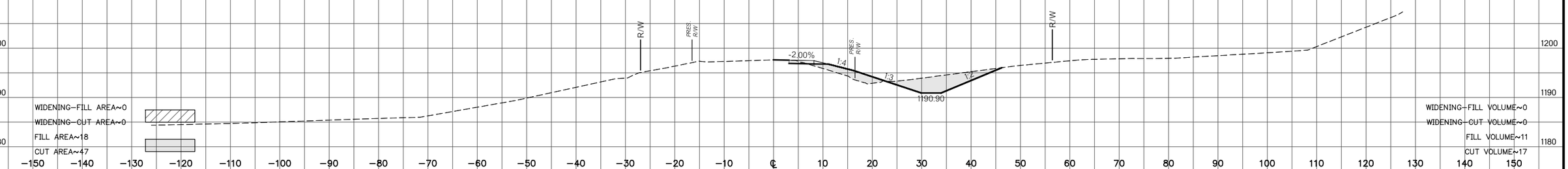
26+61



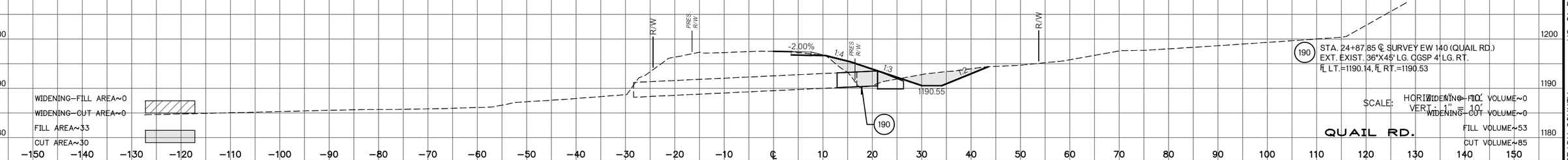
26+00



25+00



24+87.90



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

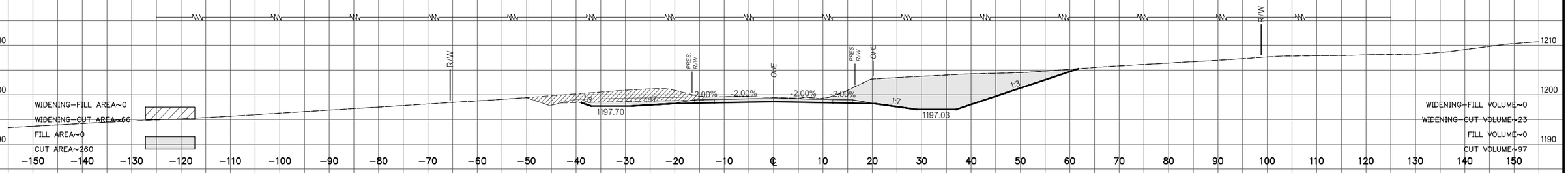
QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

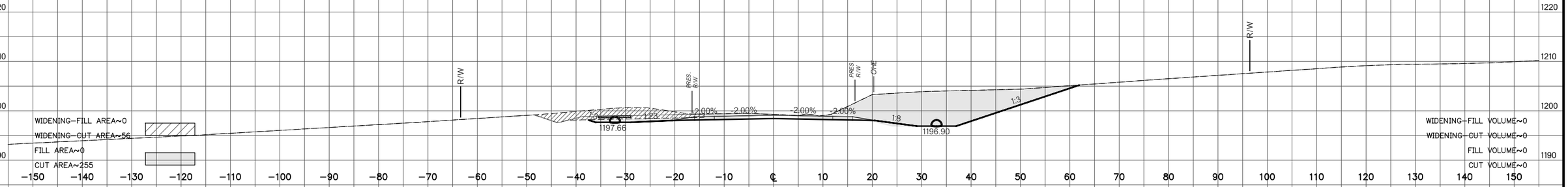
State Job No. 24428(13) Sheet No. X061

FINAL FIELD MEETING
JUNE 2020

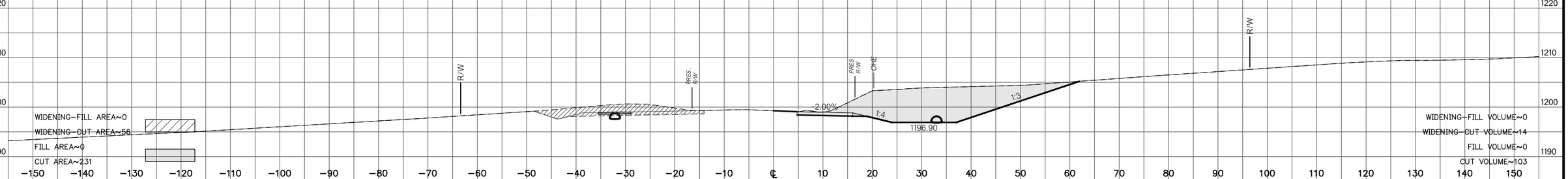
26+85.14
F.G.=1199.27



BEGIN PROJECT
26+75
F.G.=1199.10

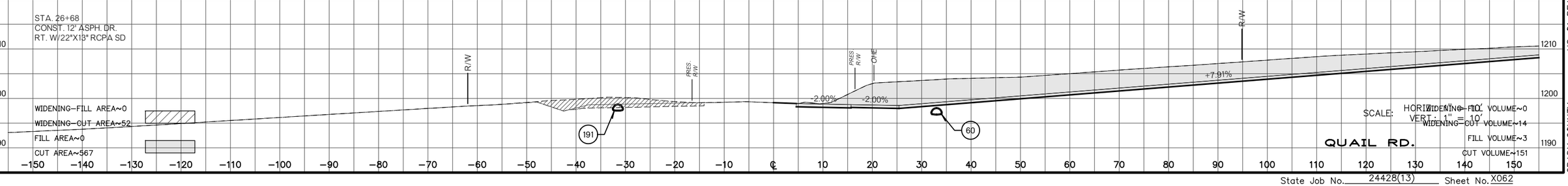


END INCIDENTAL CONSTRUCTION
26+74.99



26+68

STA. 26+68
CONST. 12' ASPH. DR.
RT. W/22"X13" RCP/A SD



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

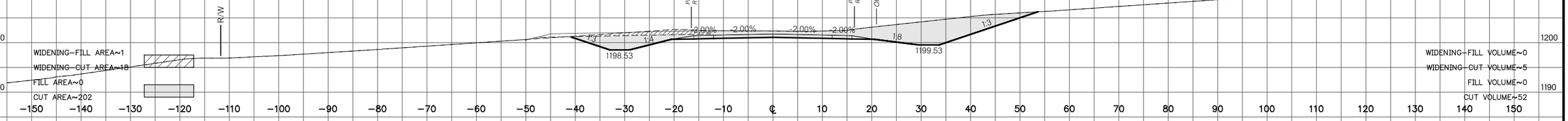
QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

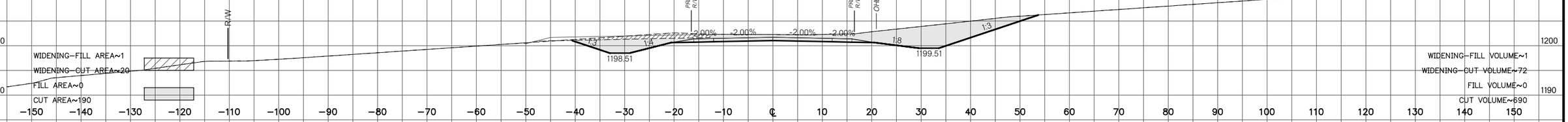
State Job No. 24428(13) Sheet No. X062

FINAL FIELD MEETING
JUNE 2020

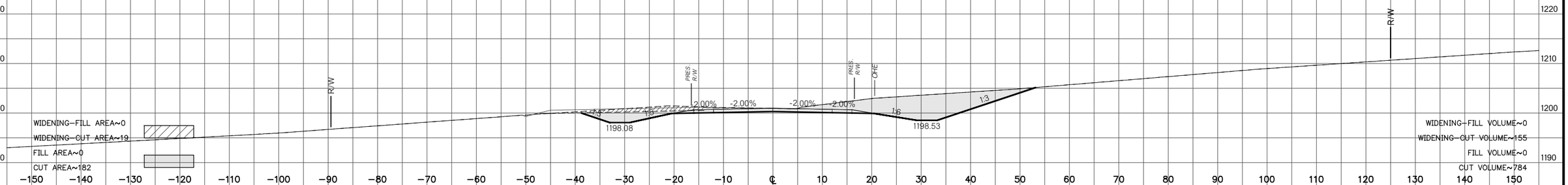
29+07.11
F.G.=1201.72



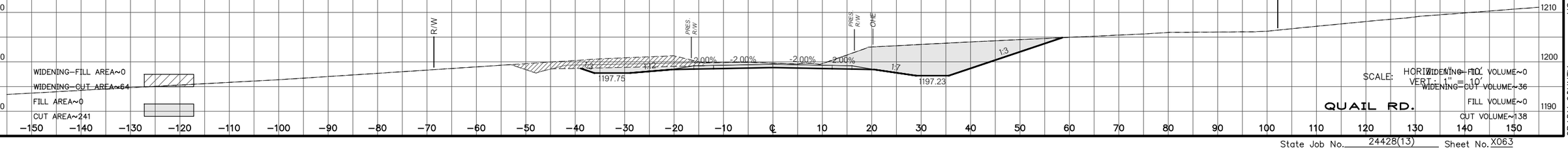
29+00
F.G.=1201.70



28+00
F.G.=1200.99



27+00
F.G.=1199.52



SCALE: HORIZ: 1" = 10'
VERT: 1" = 10'

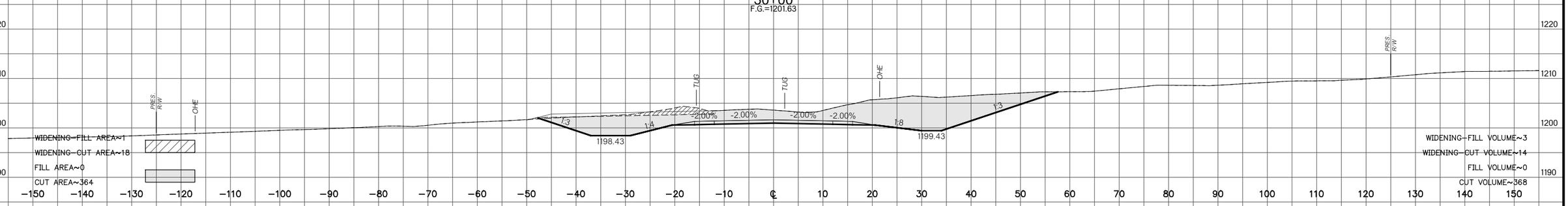
QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X063

FINAL FIELD MEETING
JUNE 2020

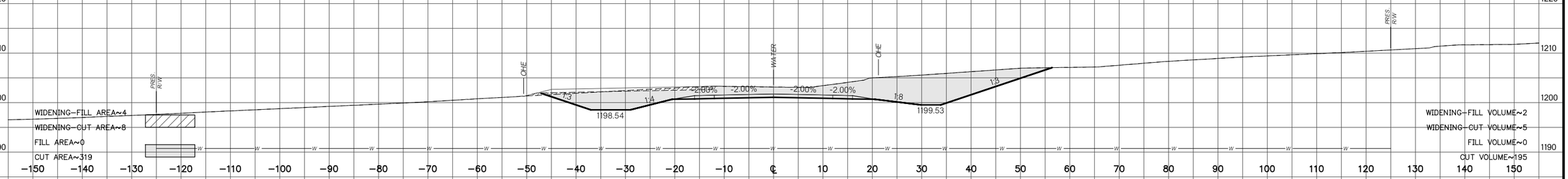
30+00
F.G.=1201.63



WIDENING–FILL AREA~1
WIDENING–CUT AREA~18
FILL AREA~0
CUT AREA~364

WIDENING–FILL VOLUME~3
WIDENING–CUT VOLUME~14
FILL VOLUME~0
CUT VOLUME~368

29+70.90
F.G.=1201.73

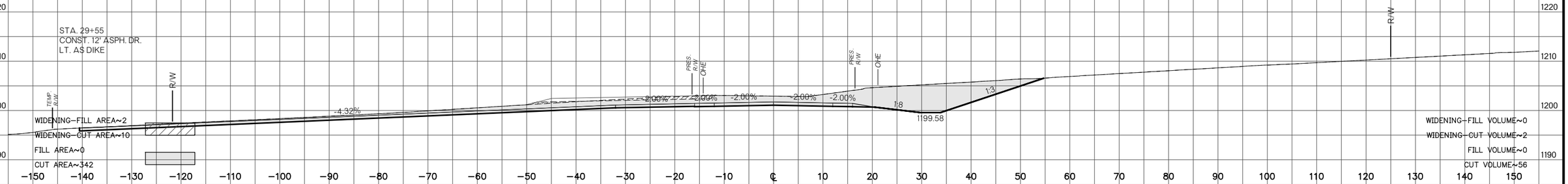


WIDENING–FILL AREA~4
WIDENING–CUT AREA~8
FILL AREA~0
CUT AREA~319

WIDENING–FILL VOLUME~2
WIDENING–CUT VOLUME~5
FILL VOLUME~0
CUT VOLUME~195

29+55
F.G.=1201.76

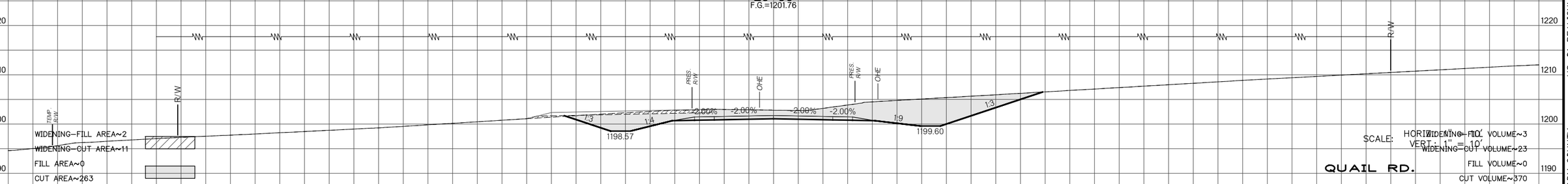
STA. 29+55
CONST. 12' ASPH. DR.
LT. A$ DIKE



WIDENING–FILL AREA~2
WIDENING–CUT AREA~10
FILL AREA~0
CUT AREA~342

WIDENING–FILL VOLUME~0
WIDENING–CUT VOLUME~2
FILL VOLUME~0
CUT VOLUME~56

29+50
F.G.=1201.76



WIDENING–FILL AREA~2
WIDENING–CUT AREA~11
FILL AREA~0
CUT AREA~263

WIDENING–FILL VOLUME~3
WIDENING–CUT VOLUME~23
FILL VOLUME~0
CUT VOLUME~370

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

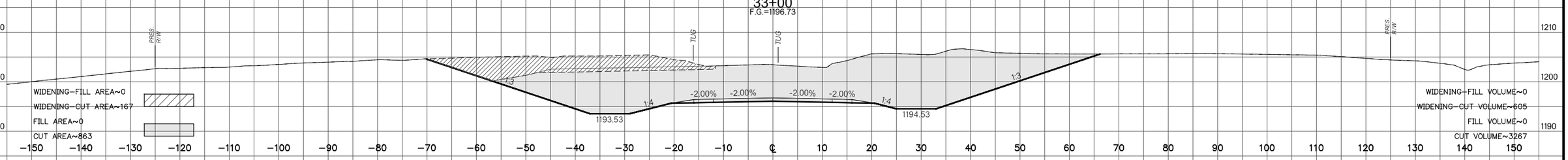
QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

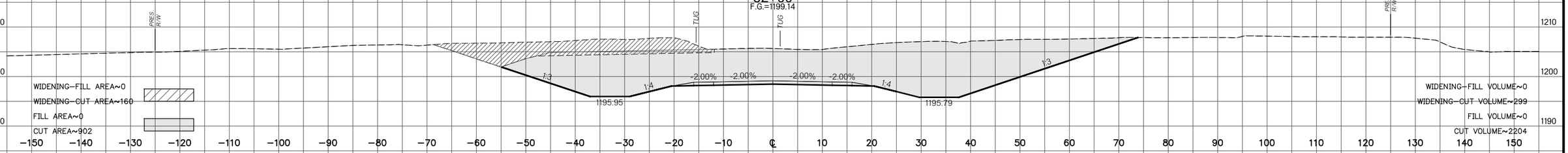
State Job No. 24428(13) Sheet No. X064

FINAL FIELD MEETING
JUNE 2020

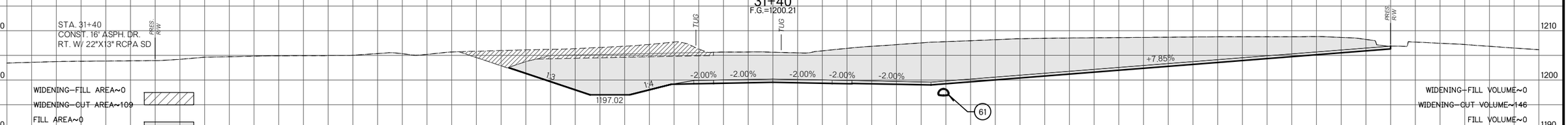
33+00
F.G.=1196.73



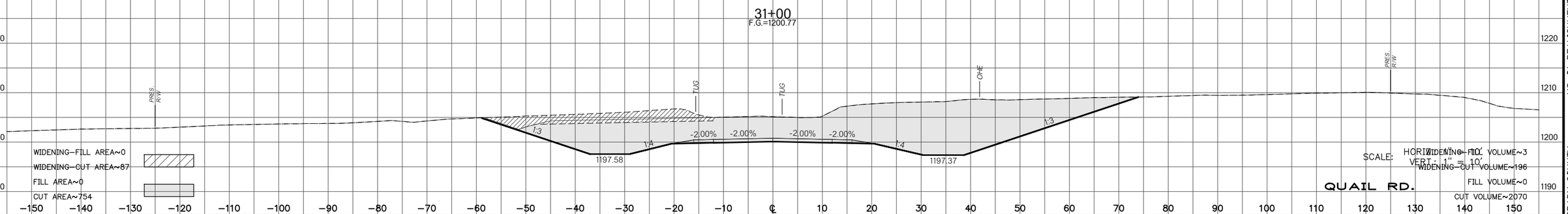
32+00
F.G.=1199.14



31+40
F.G.=1200.21



31+00
F.G.=1200.77



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

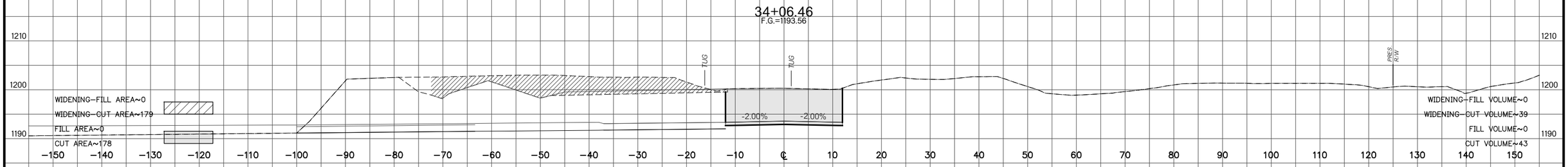
QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

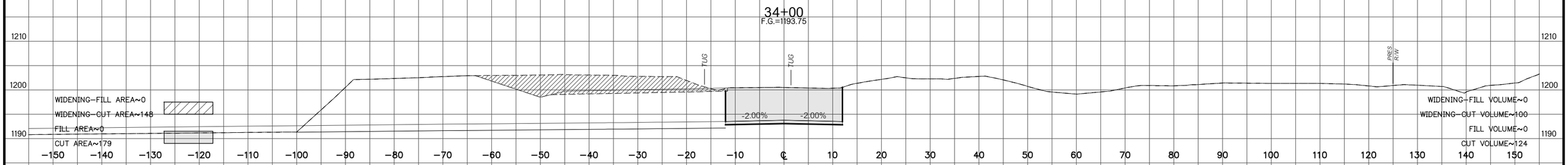
State Job No. 24428(13) Sheet No. X065

FINAL FIELD MEETING
JUNE 2020

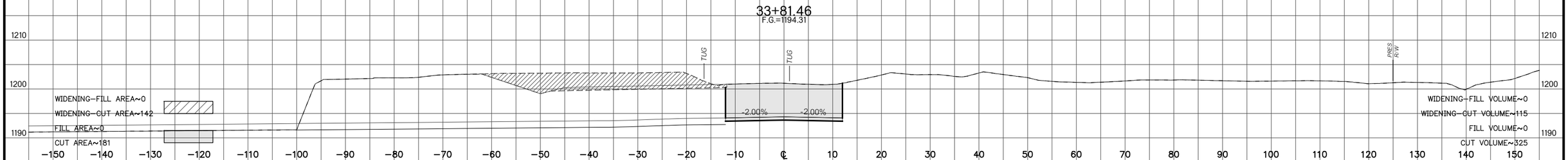
34+06.46
F.G.=1193.56



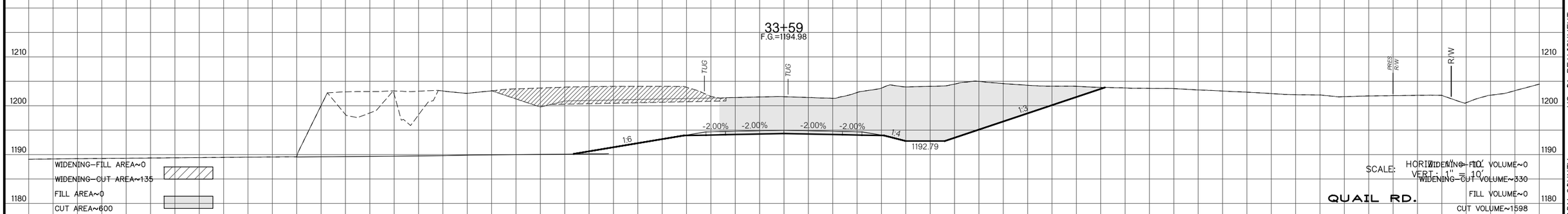
34+00
F.G.=1193.75



33+81.46
F.G.=1194.31



33+59
F.G.=1194.98



SCALE: HORIZ: 1" = 10'
VERT: 1" = 10'

QUAIL RD.

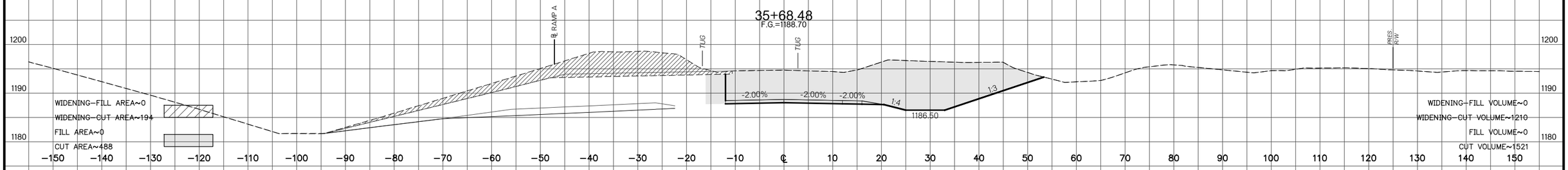
US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X066

FINAL FIELD MEETING
JUNE 2020

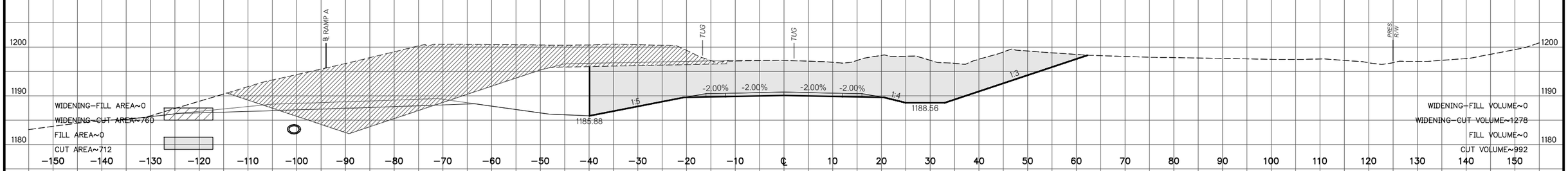
35+68.48
F.G.=1188.70



WIDENING–FILL AREA~0
WIDENING–CUT AREA~194
FILL AREA~0
CUT AREA~488

WIDENING–FILL VOLUME~0
WIDENING–CUT VOLUME~1210
FILL VOLUME~0
CUT VOLUME~1521

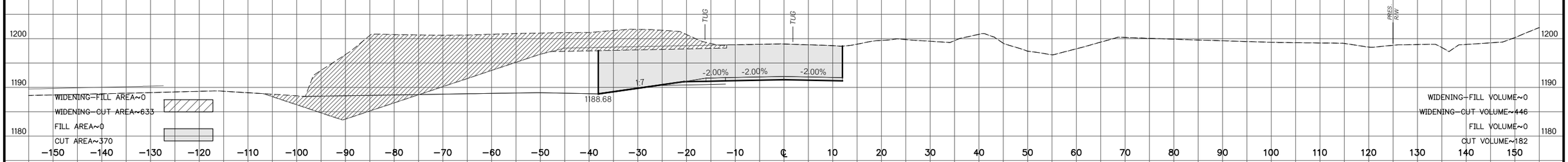
35+00
F.G.=1190.75



WIDENING–FILL AREA~0
WIDENING–CUT AREA~760
FILL AREA~0
CUT AREA~712

WIDENING–FILL VOLUME~0
WIDENING–CUT VOLUME~1278
FILL VOLUME~0
CUT VOLUME~992

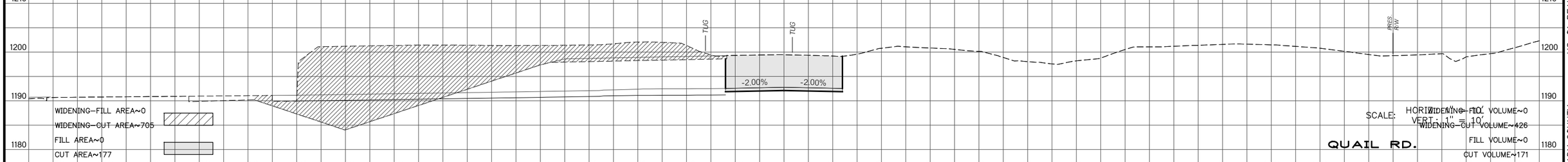
34+50.46
F.G.=1192.24



WIDENING–FILL AREA~0
WIDENING–CUT AREA~633
FILL AREA~0
CUT AREA~370

WIDENING–FILL VOLUME~0
WIDENING–CUT VOLUME~446
FILL VOLUME~0
CUT VOLUME~182

34+32.46
F.G.=1192.78



WIDENING–FILL AREA~0
WIDENING–CUT AREA~705
FILL AREA~0
CUT AREA~177

WIDENING–FILL VOLUME~0
WIDENING–CUT VOLUME~426
FILL VOLUME~0
CUT VOLUME~171

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

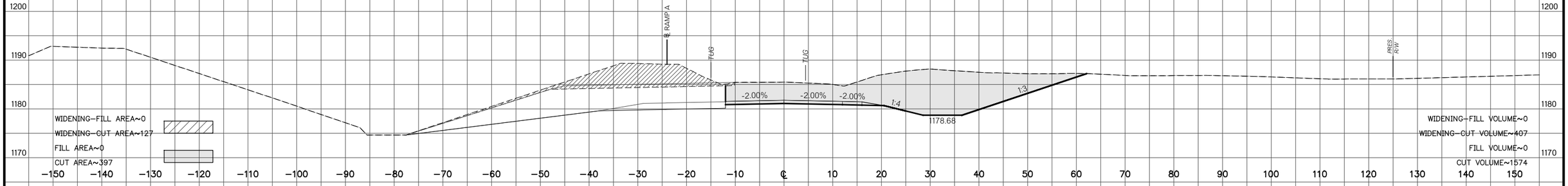
QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X067

FINAL FIELD MEETING
JUNE 2020

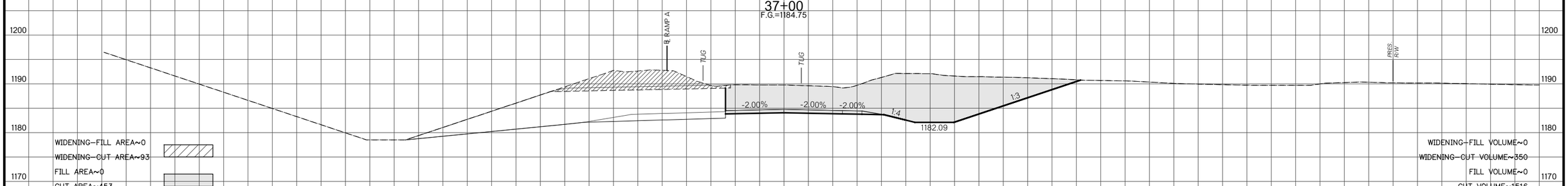
38+00
F.G.=1181.75



WIDENING–FILL AREA~0
WIDENING–CUT AREA~127
FILL AREA~0
CUT AREA~397

WIDENING–FILL VOLUME~0
WIDENING–CUT VOLUME~407
FILL VOLUME~0
CUT VOLUME~1574

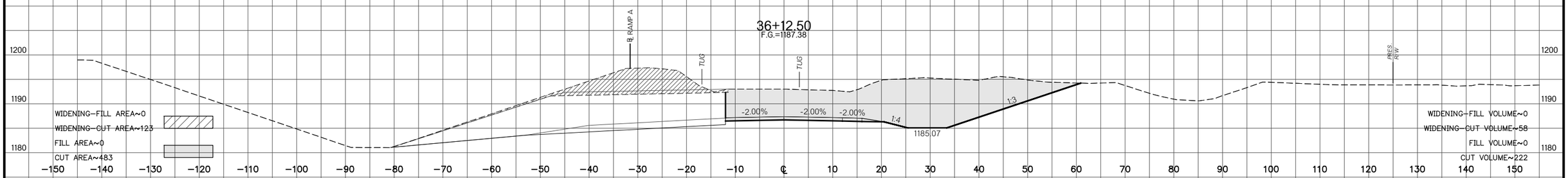
37+00
F.G.=1184.75



WIDENING–FILL AREA~0
WIDENING–CUT AREA~93
FILL AREA~0
CUT AREA~453

WIDENING–FILL VOLUME~0
WIDENING–CUT VOLUME~350
FILL VOLUME~0
CUT VOLUME~1516

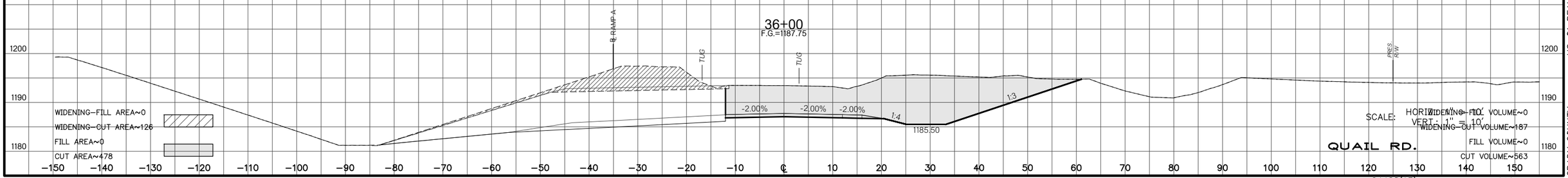
36+12.50
F.G.=1187.38



WIDENING–FILL AREA~0
WIDENING–CUT AREA~123
FILL AREA~0
CUT AREA~483

WIDENING–FILL VOLUME~0
WIDENING–CUT VOLUME~58
FILL VOLUME~0
CUT VOLUME~222

36+00
F.G.=1187.75



WIDENING–FILL AREA~0
WIDENING–CUT AREA~126
FILL AREA~0
CUT AREA~478

WIDENING–FILL VOLUME~0
WIDENING–CUT VOLUME~187
FILL VOLUME~0
CUT VOLUME~563

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

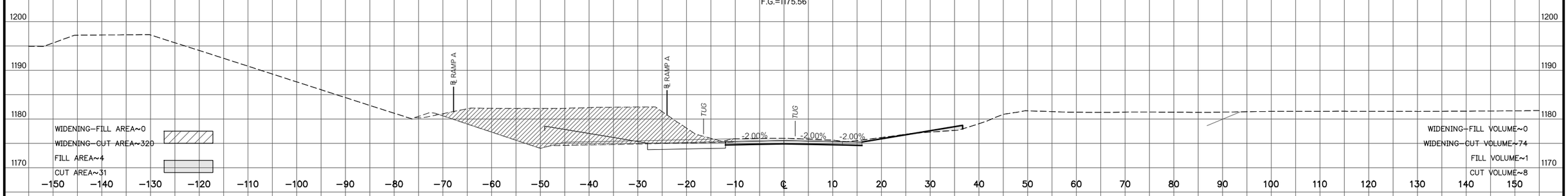
QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

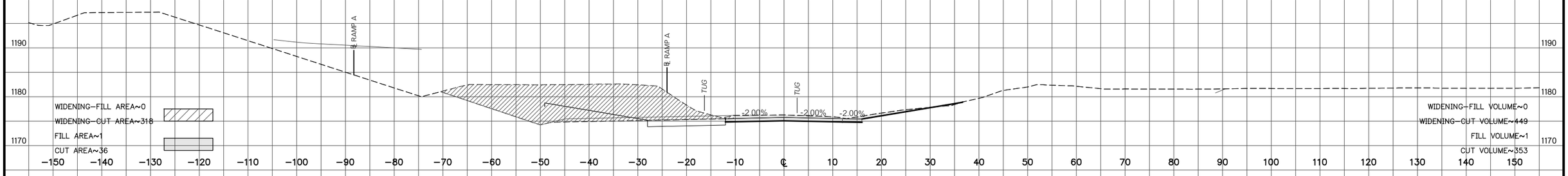
State Job No. 24428(13) Sheet No. X068

FINAL FIELD MEETING
JUNE 2020

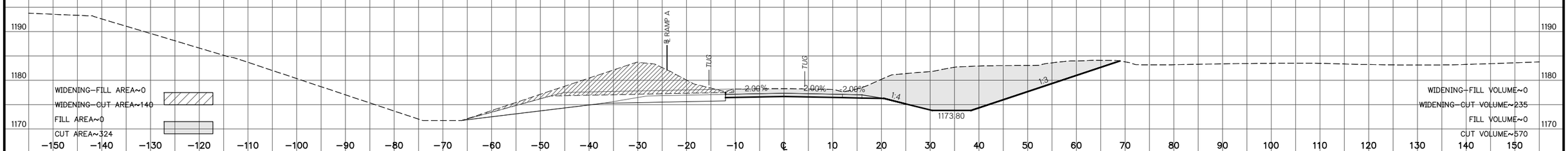
40+06.30
F.G.=1175.56



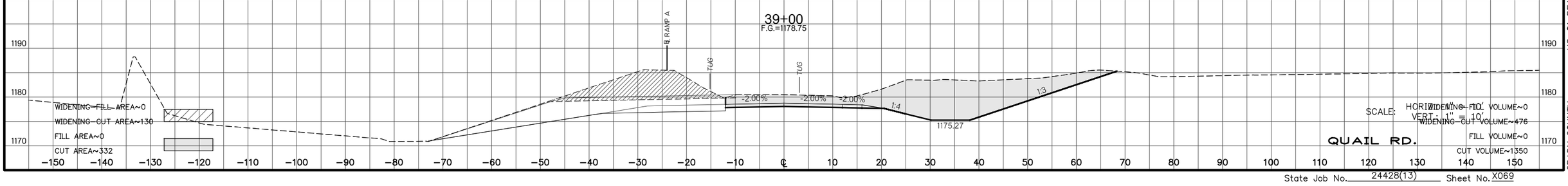
40+00
F.G.=1175.75



39+47
F.G.=1177.34



39+00
F.G.=1178.75



SCALE: HORIZ: 1" = 10'
VERT: 1" = 10'

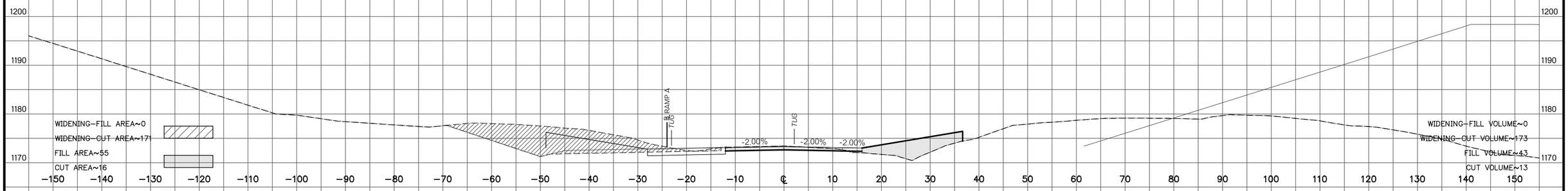
QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

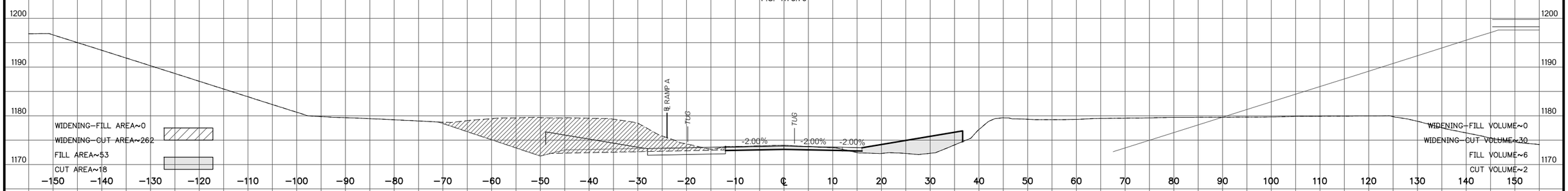
State Job No. 24428(13) Sheet No. X069

FINAL FIELD MEETING
JUNE 2020

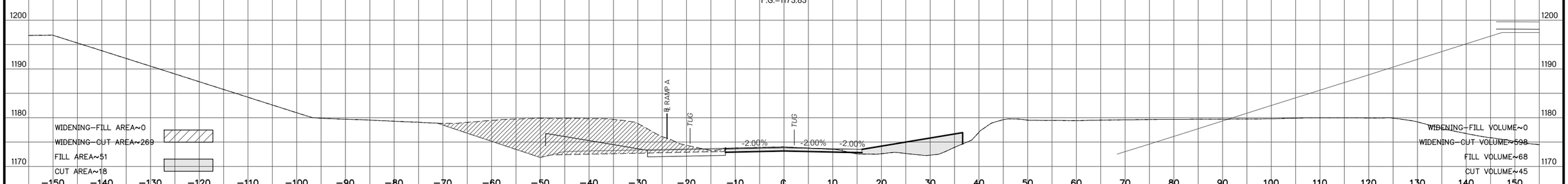
40+97.36
F.G.=1173.30



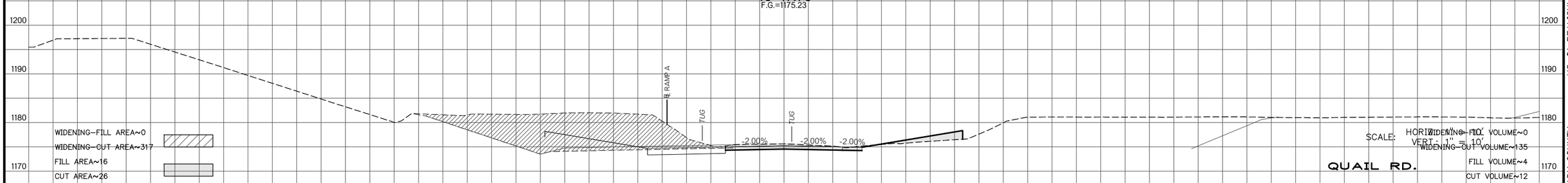
40+75.86
F.G.=1173.76



40+72.82
F.G.=1173.83



40+17.76
F.G.=1175.23



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

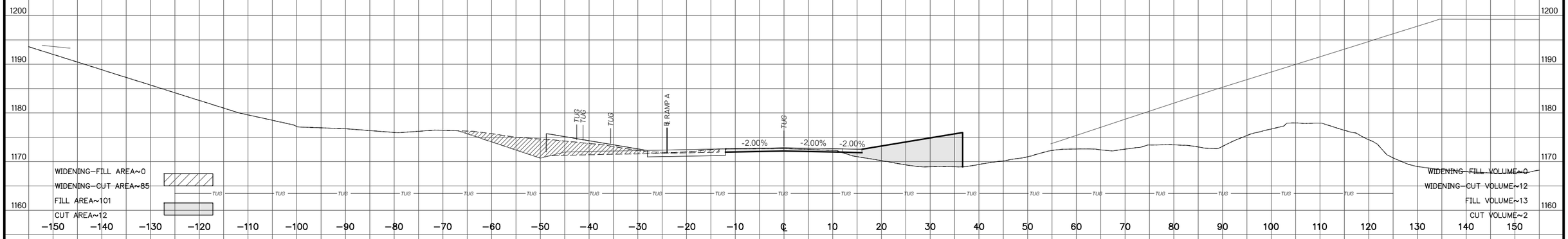
QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

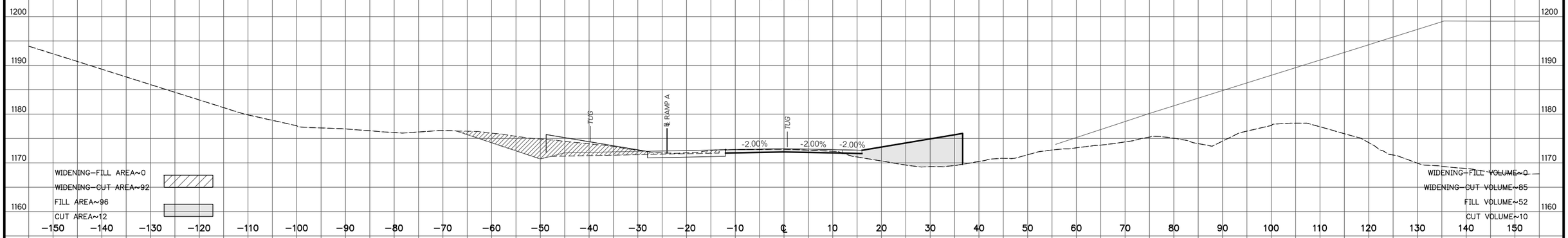
State Job No. 24428(13) Sheet No. X070

FINAL FIELD MEETING
JUNE 2020

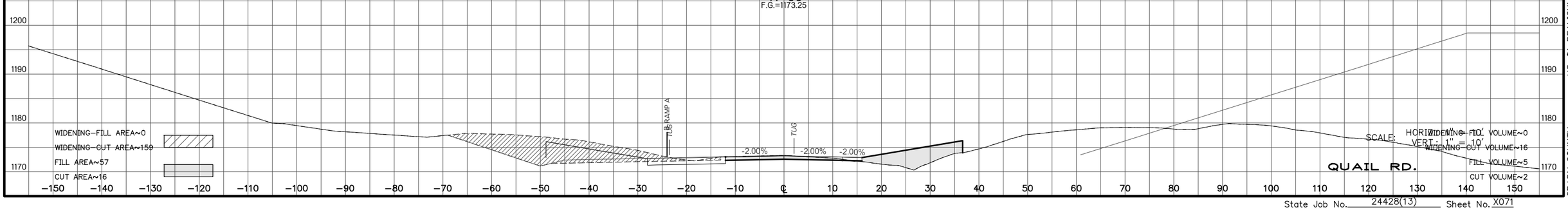
41+21.98
F.G.=1172.83



41+18.39
F.G.=1172.90



41+00
F.G.=1173.25



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

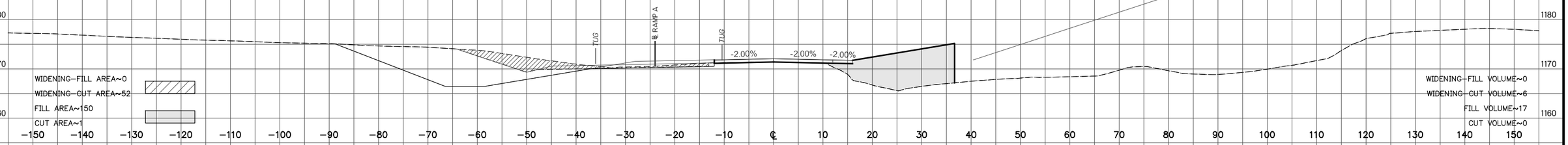
QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

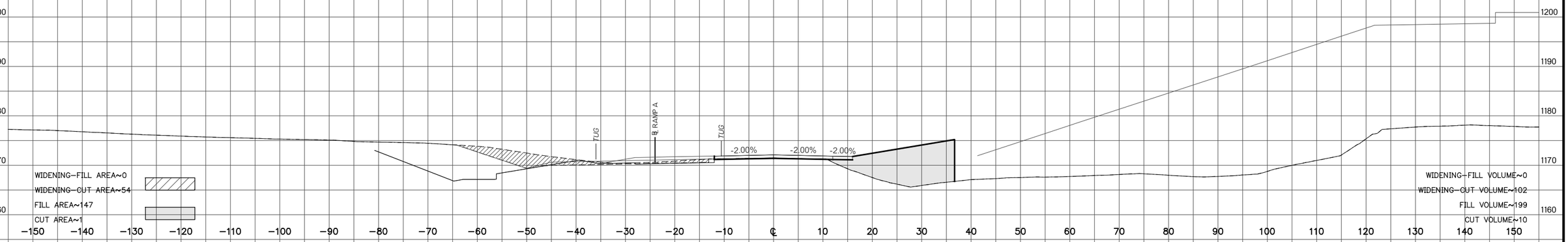
State Job No. 24428(13) Sheet No. X071

FINAL FIELD MEETING
JUNE 2020

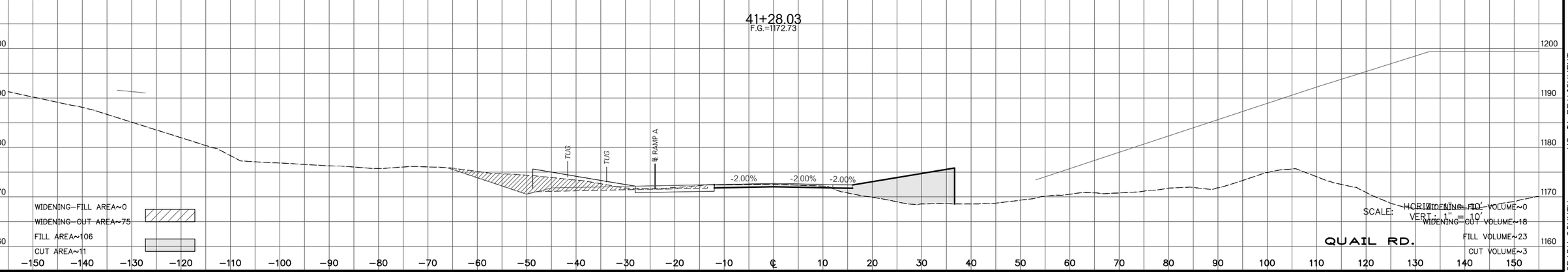
41+73.58
F.G.=1172.05



41+70.55
F.G.=1172.09



41+28.03
F.G.=1172.73



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

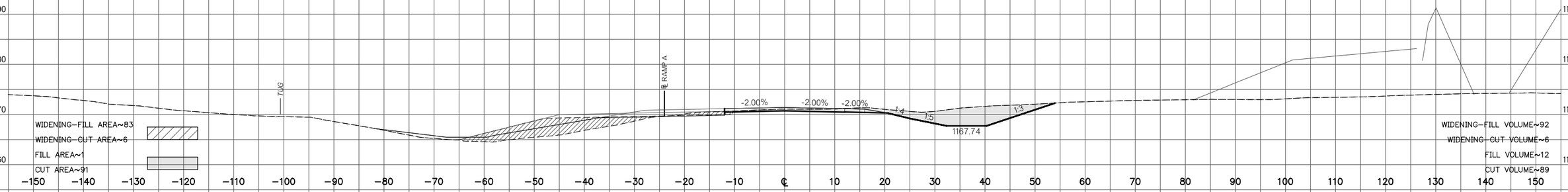
QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

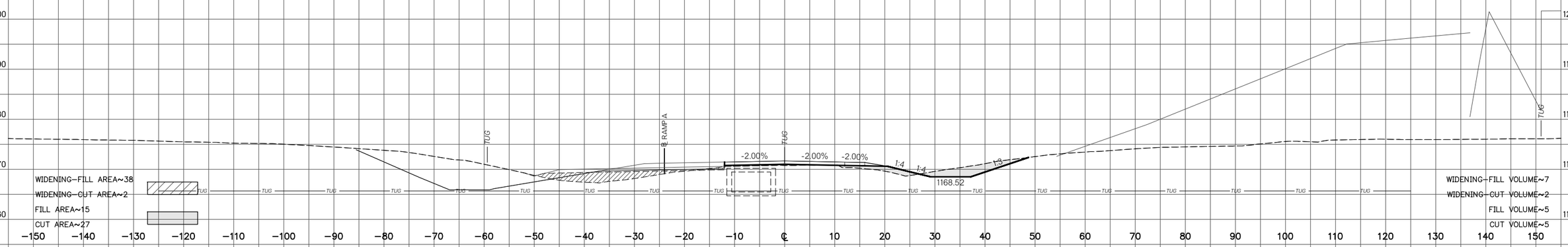
State Job No. 24428(13) Sheet No. X072

FINAL FIELD MEETING
JUNE 2020

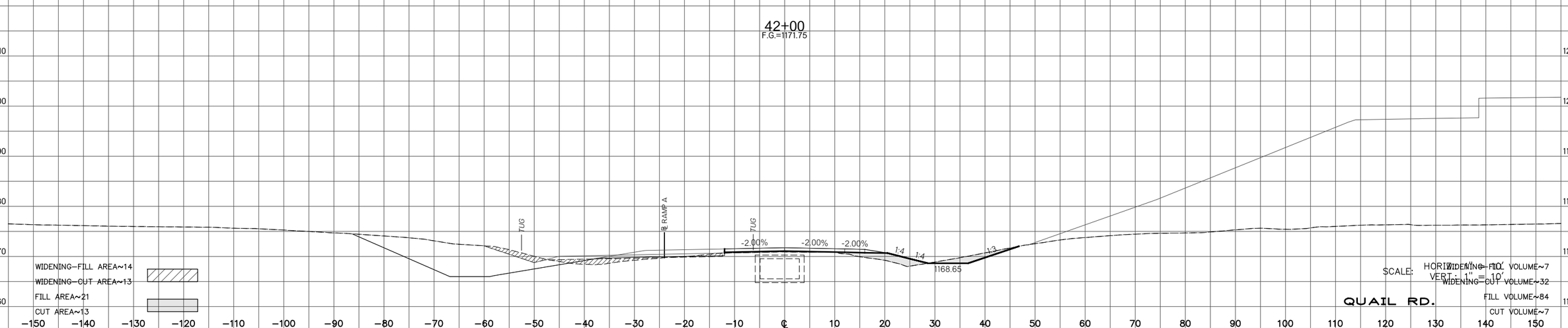
42+47.93
F.G.=1171.38



42+06.83
F.G.=1171.68



42+00
F.G.=1171.75



SCALE: HORIZ: 1" = 10'
VERT: 1" = 10'

QUAIL RD.

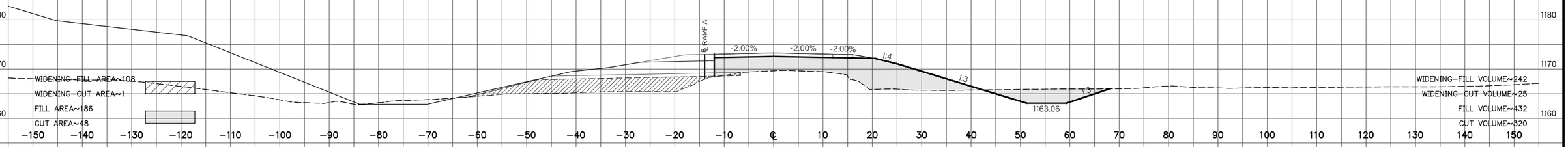
US-81 REALIGNMENT

GRADY COUNTY

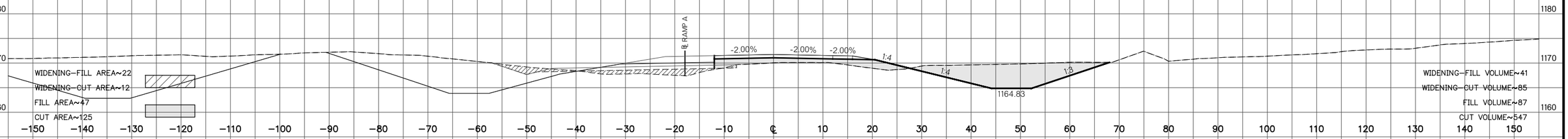
State Job No. 24428(13) Sheet No. X073

FINAL FIELD MEETING
JUNE 2020

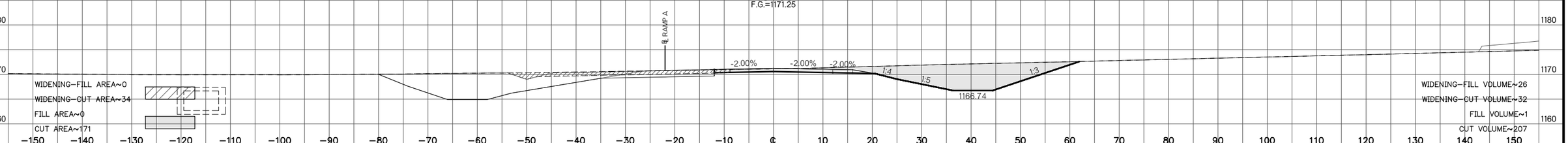
45+00
F.G.=1173.24



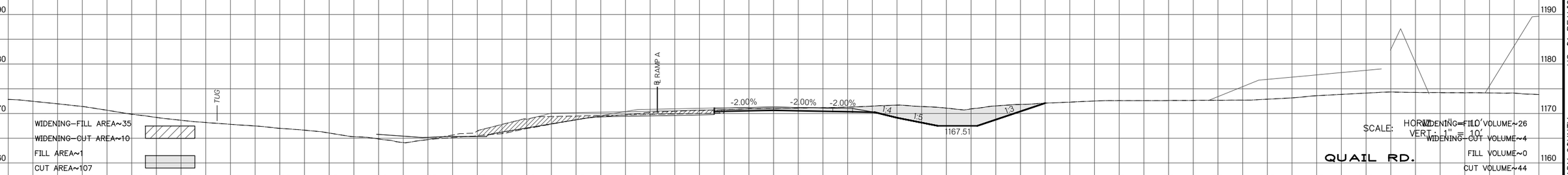
44+00
F.G.=1171.74



43+00
F.G.=1171.25



42+59.92
F.G.=1171.33



SCALE: HORIZ. 1" = 10'
VERT. 1" = 10'

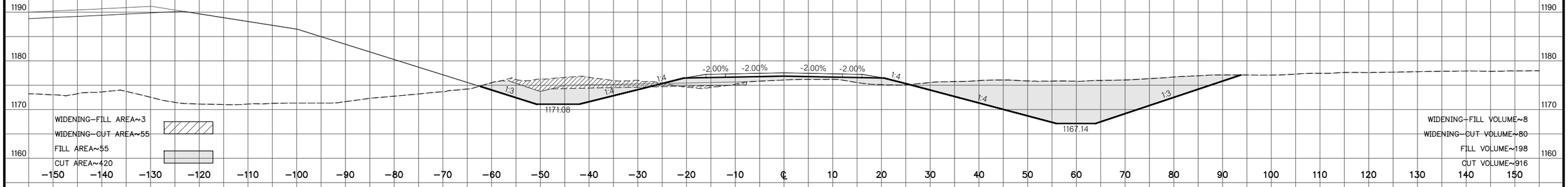
QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

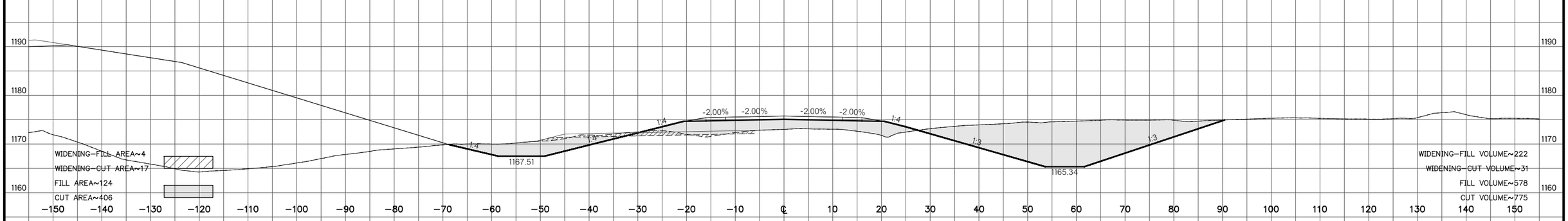
State Job No. 24428(13) Sheet No. X074

FINAL FIELD MEETING
JUNE 2020

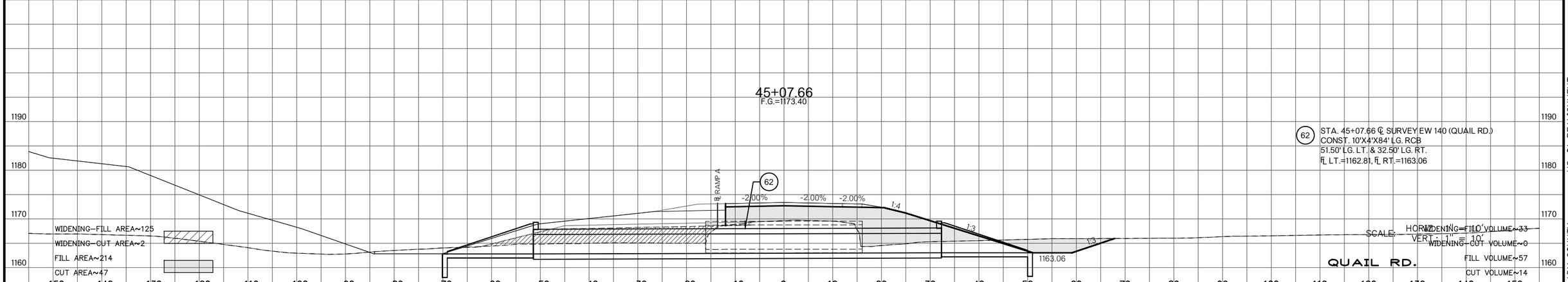
46+59.93
F.G.=1177.53



46+00
F.G.=1175.74



45+07.66
F.G.=1173.40



62 STA. 45+07.66 ℄ SURVEY EW 140 (QUAIL RD.)
CONST. 10'X4'X84' LG. RCB
51.50' LG. LT. & 32.50' LG. RT.
FL LT.=1162.81, FL RT.=1163.06

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

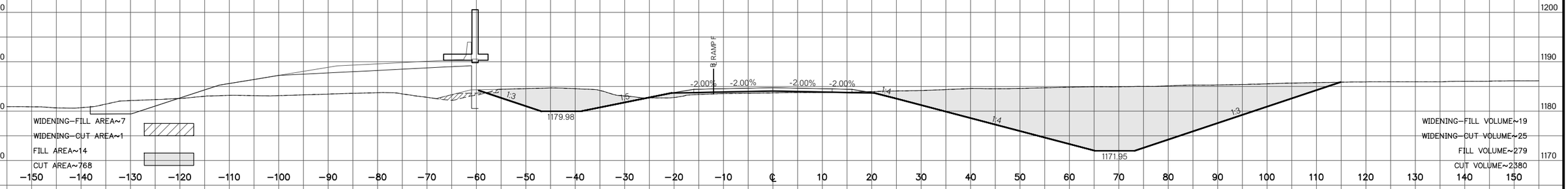
QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

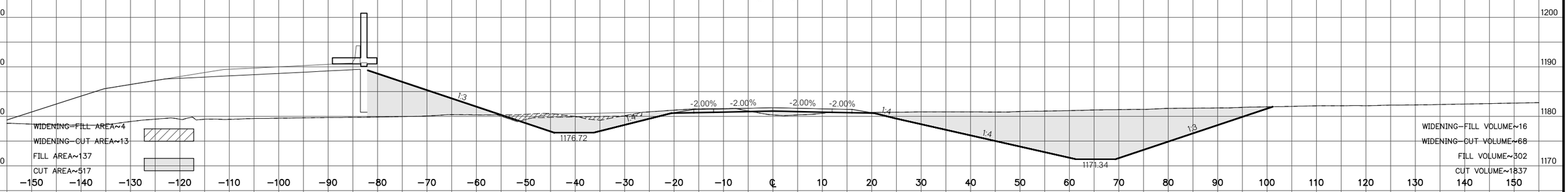
State Job No. 24428(13) Sheet No. X075

FINAL FIELD MEETING
JUNE 2020

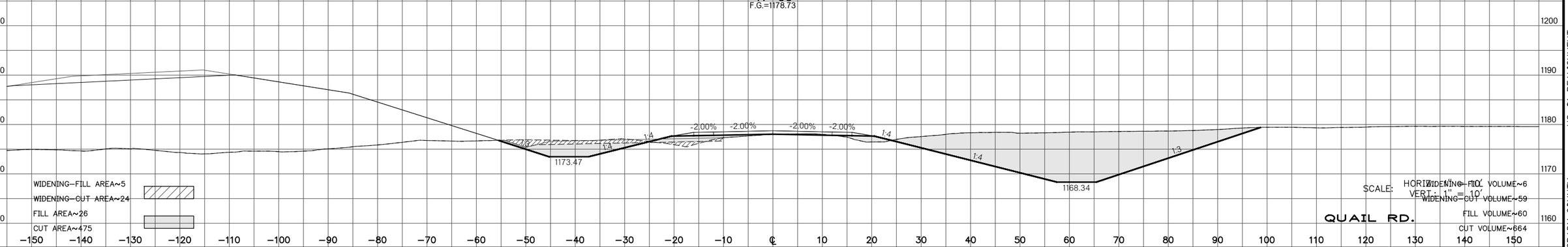
49+00
F.G.=1184.72



48+00
F.G.=1181.73



47+00
F.G.=1178.73



SCALE: HORIZ: 1" = 10'
VERT: 1" = 10'

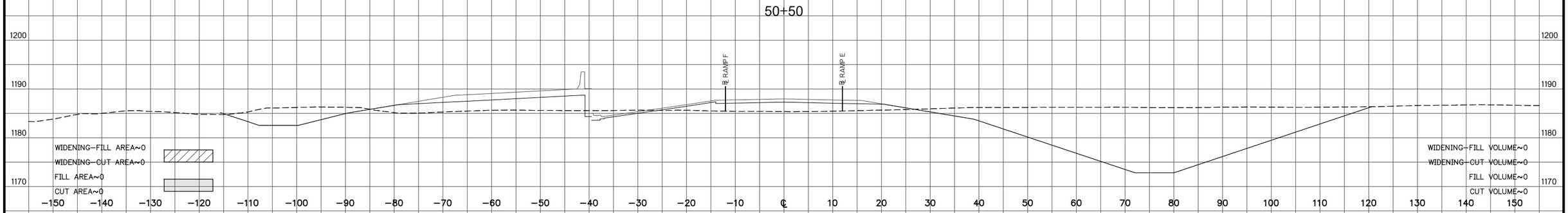
QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

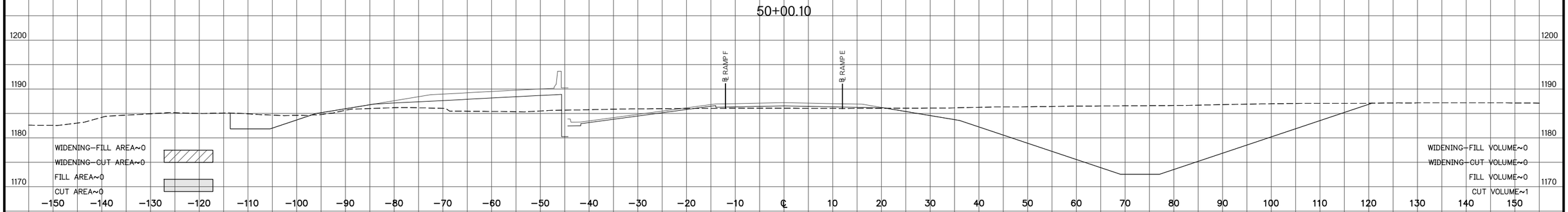
State Job No. 24428(13) Sheet No. X076

FINAL FIELD MEETING
JUNE 2020

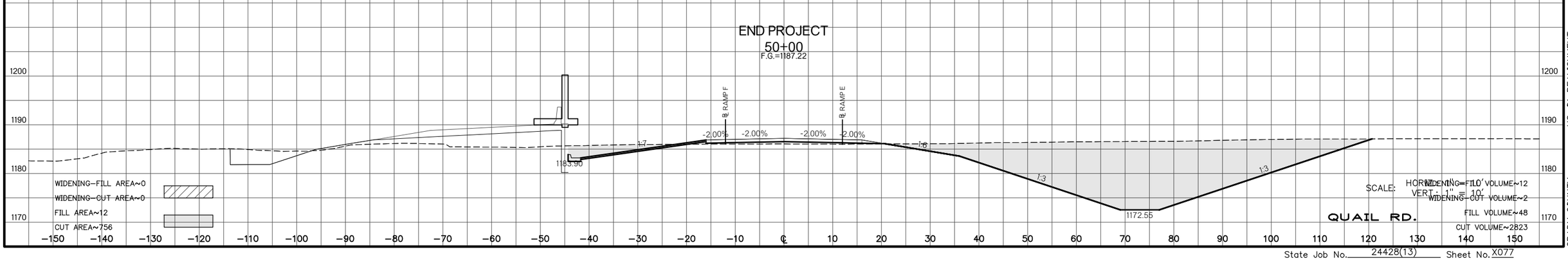
50+50



50+00.10



END PROJECT
50+00
F.G.=1187.22



SCALE: HORIZ. 1" = 10'
VERT. 1" = 10'

QUAIL RD.

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X077

PRELIMINARY

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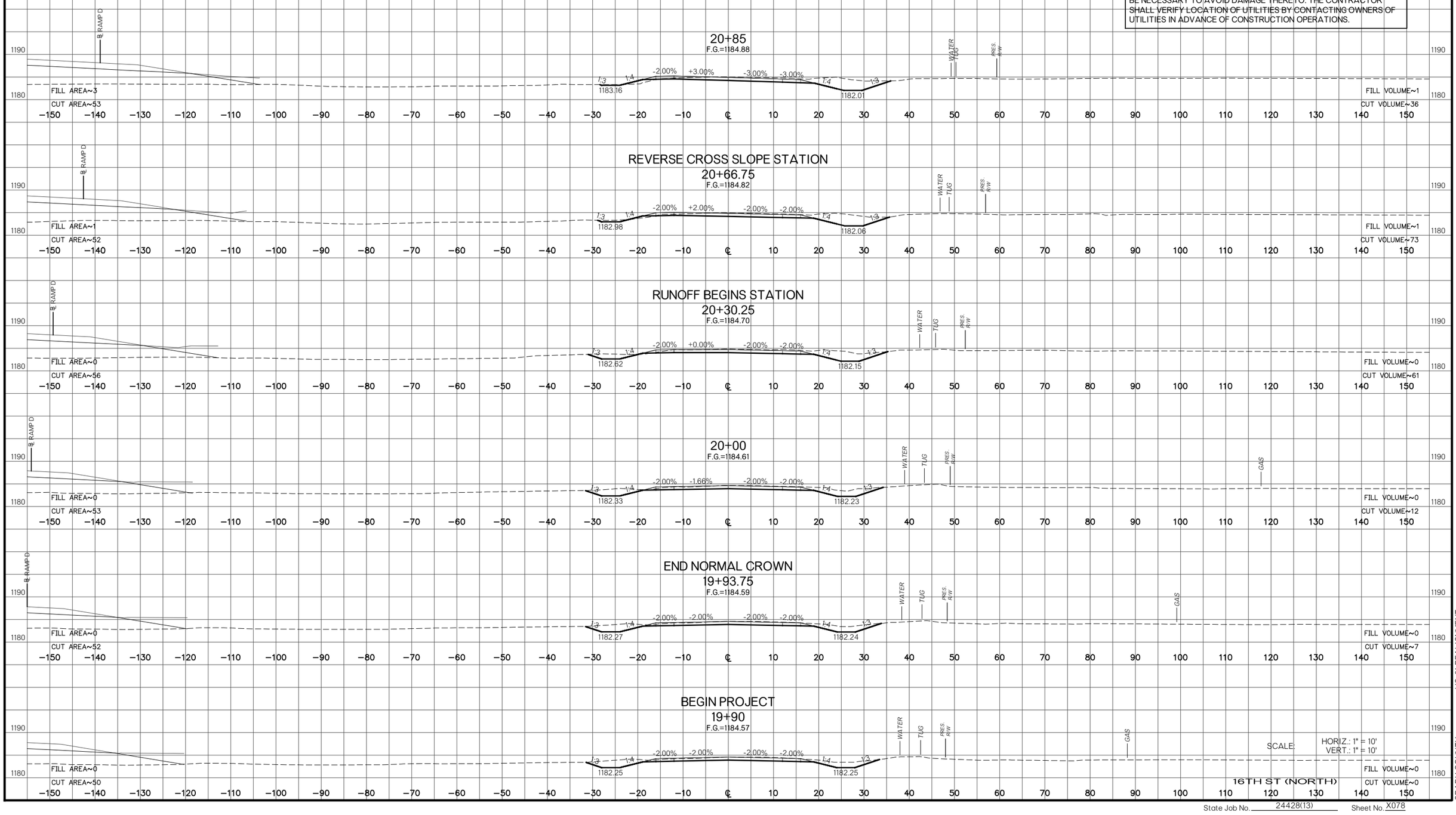
FINAL FIELD MEETING
JUNE 2020

THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPES & LOCATIONS OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO MAKE THE DETERMINATIONS AS TO THE TYPE & LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING OWNERS OF UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS.



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (NORTH)

US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X078

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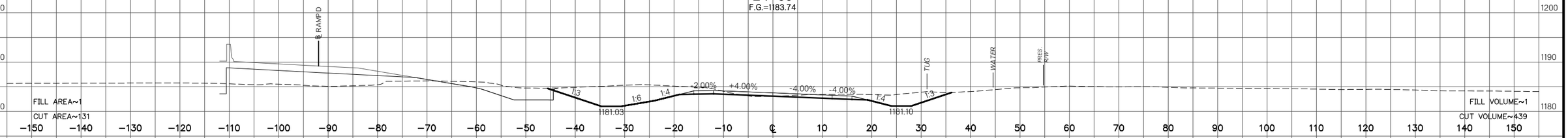
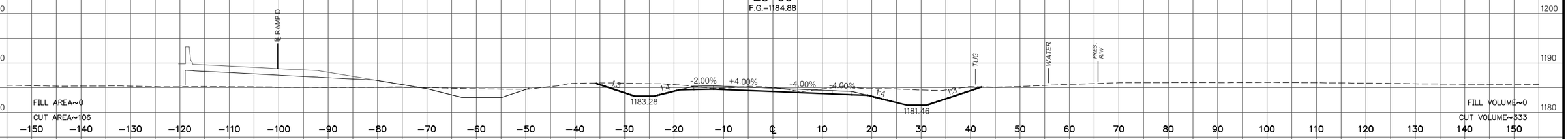
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

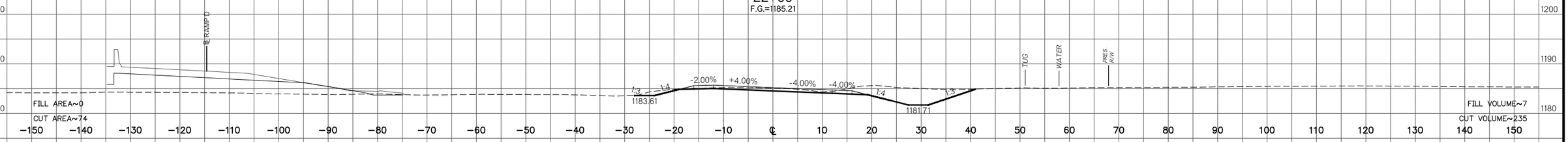
24+00
F.G.=1183.74



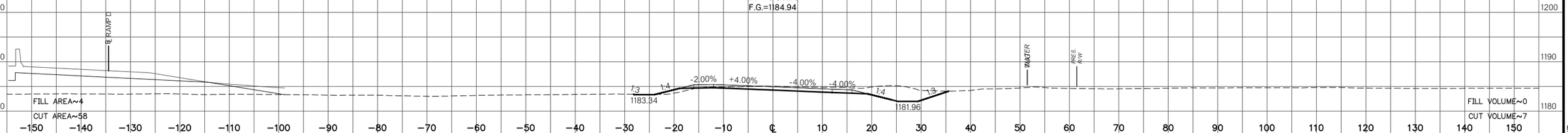
23+00
F.G.=1184.88



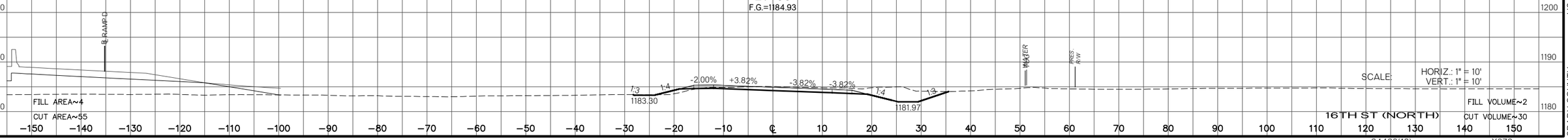
22+00
F.G.=1185.21



BEGIN FULL SUPERELEVATION
21+03.25
F.G.=1184.94



21+00
F.G.=1184.93



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (NORTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X079

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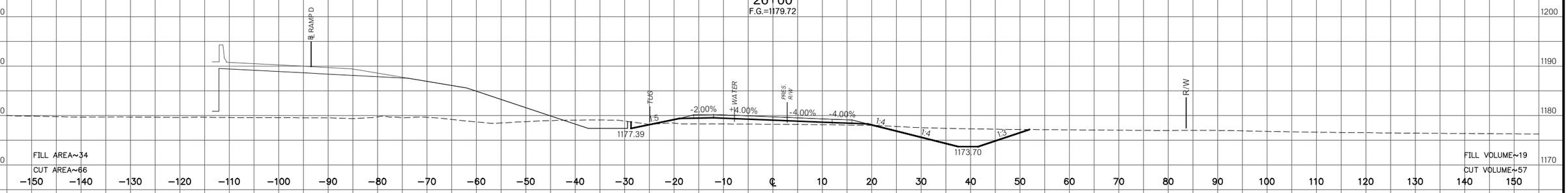
PRELIMINARY

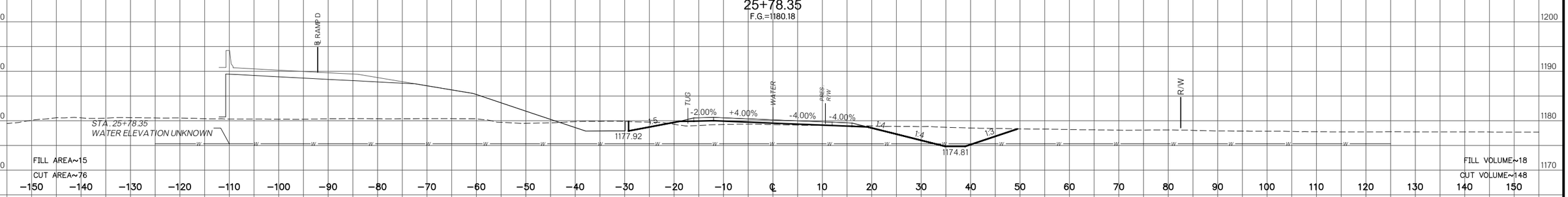
FINAL FIELD MEETING
JUNE 2020

26+00
F.G.=1179.72



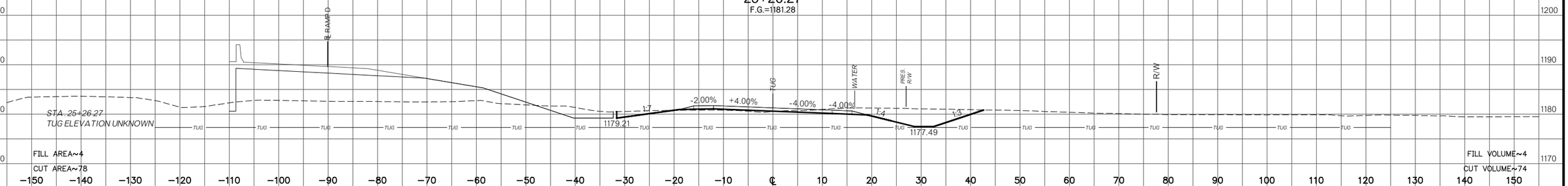
FILL AREA~34
CUT AREA~66
FILL VOLUME~19
CUT VOLUME~57

25+78.35
F.G.=1180.18



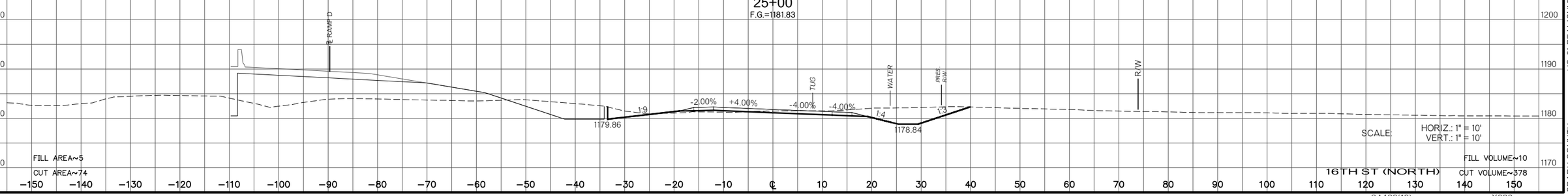
FILL AREA~15
CUT AREA~76
FILL VOLUME~18
CUT VOLUME~148

25+26.27
F.G.=1181.28



FILL AREA~4
CUT AREA~78
FILL VOLUME~4
CUT VOLUME~74

25+00
F.G.=1181.83



FILL AREA~5
CUT AREA~74
FILL VOLUME~10
CUT VOLUME~378

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (NORTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X080

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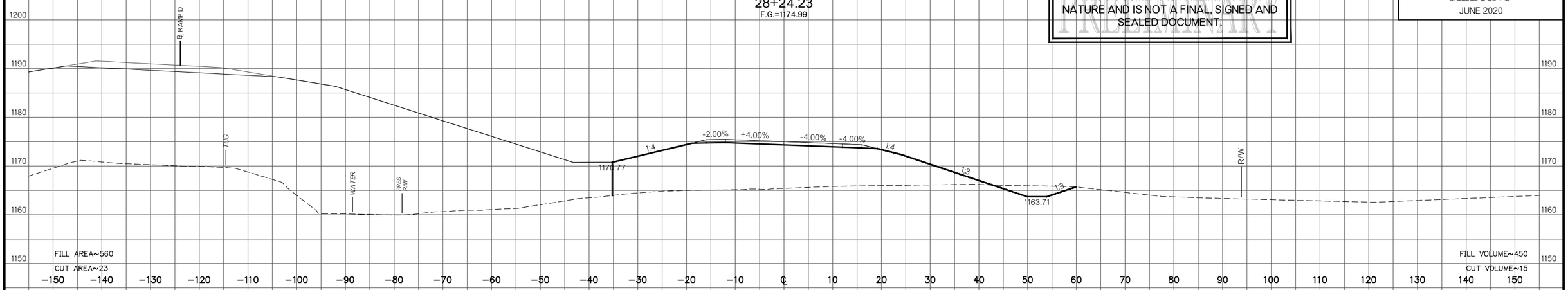
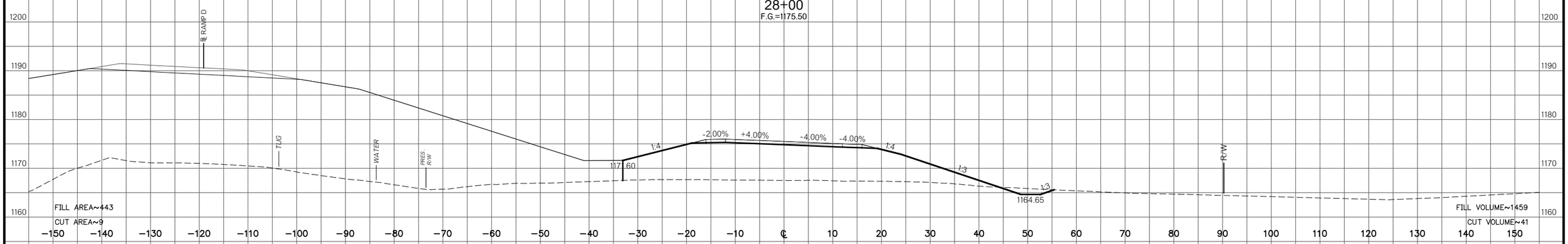
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

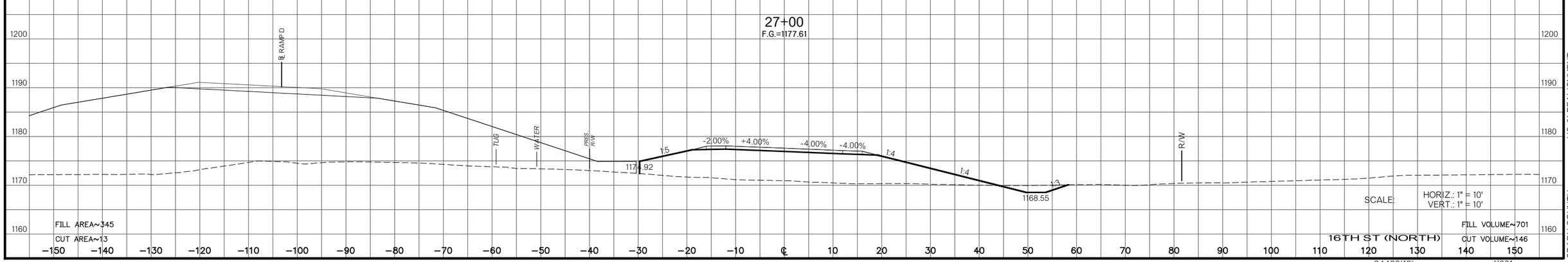
28+24.23
F.G.=1174.99



28+00
F.G.=1175.50



27+00
F.G.=1177.61



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (NORTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X081

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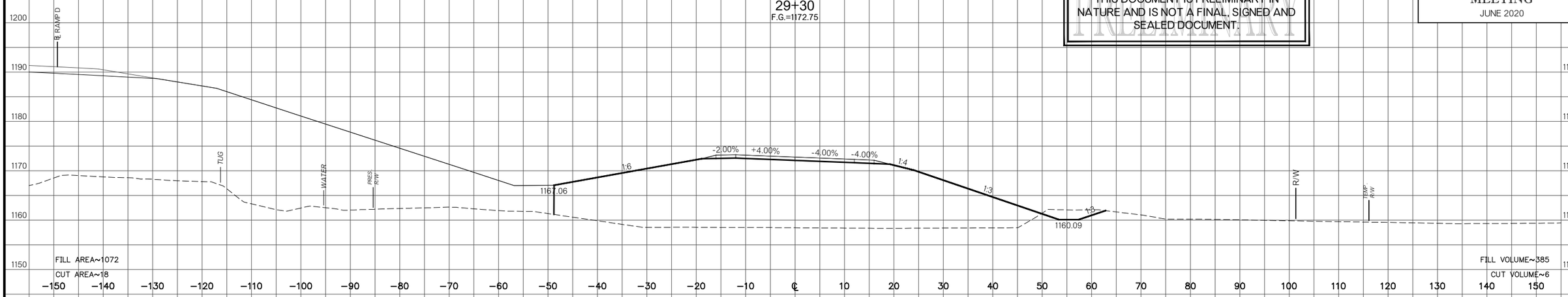
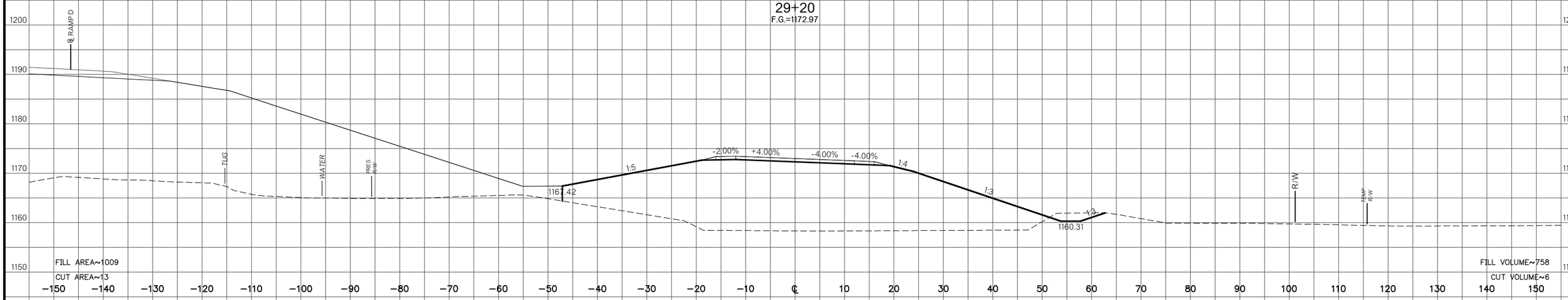
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

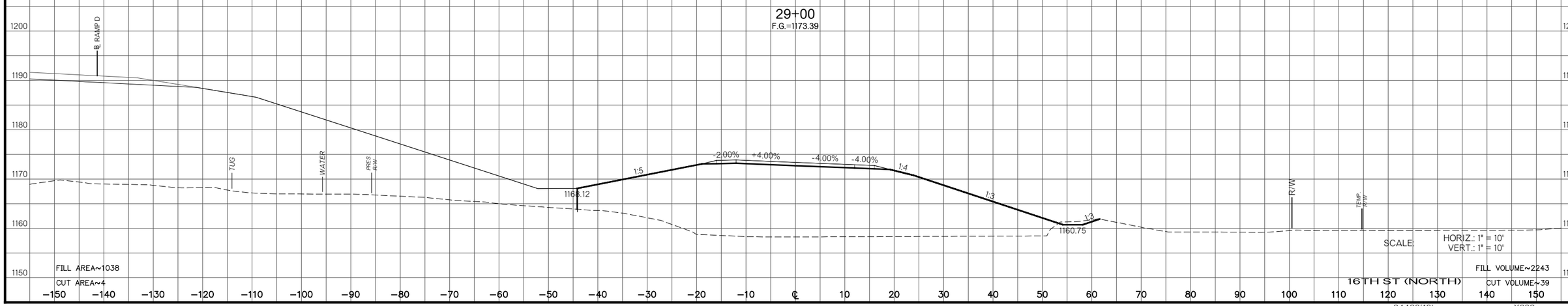
29+30
F.G.=1172.75



29+20
F.G.=1172.97



29+00
F.G.=1173.39



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (NORTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X082

PRELIMINARY

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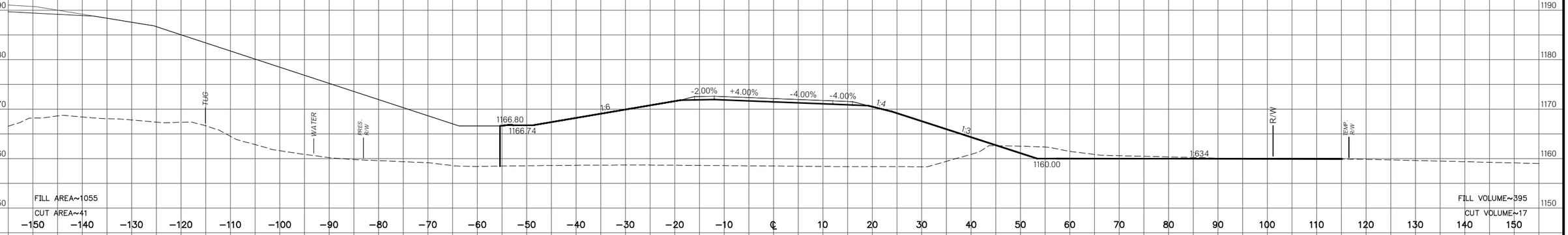
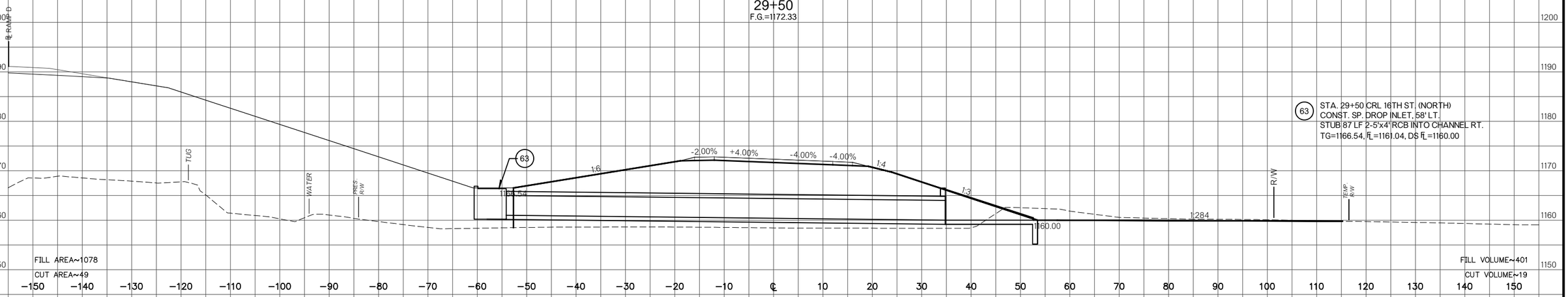
FINAL FIELD MEETING
JUNE 2020

29+60
F.G.=1172.12

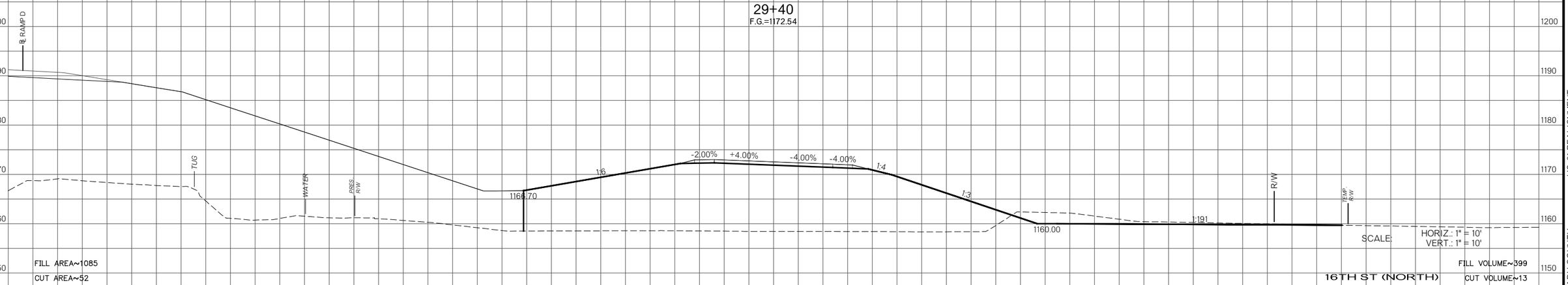


29+50
F.G.=1172.33



63 STA. 29+50 CRL 16TH ST. (NORTH)
CONST. SP. DROP INLET, 58' LT.
STUB 87 LF 2-5'x4' RCB INTO CHANNEL RT.
TG=1166.54, ℄=1161.04, DS ℄=1160.00

29+40
F.G.=1172.54



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (NORTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X083

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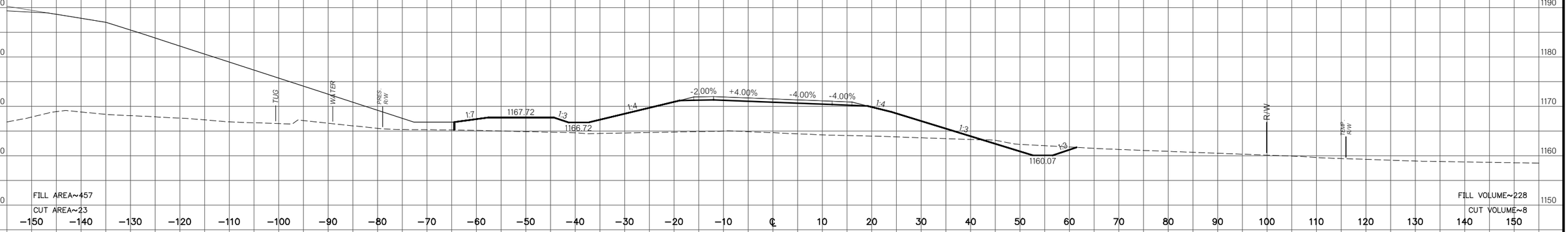
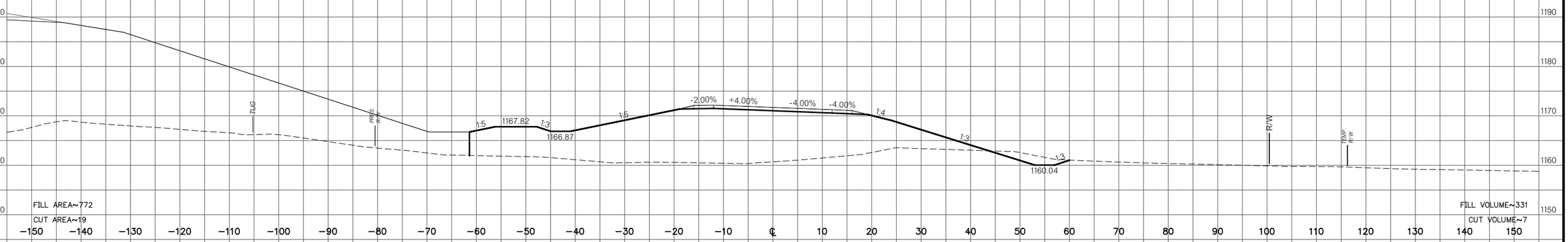
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

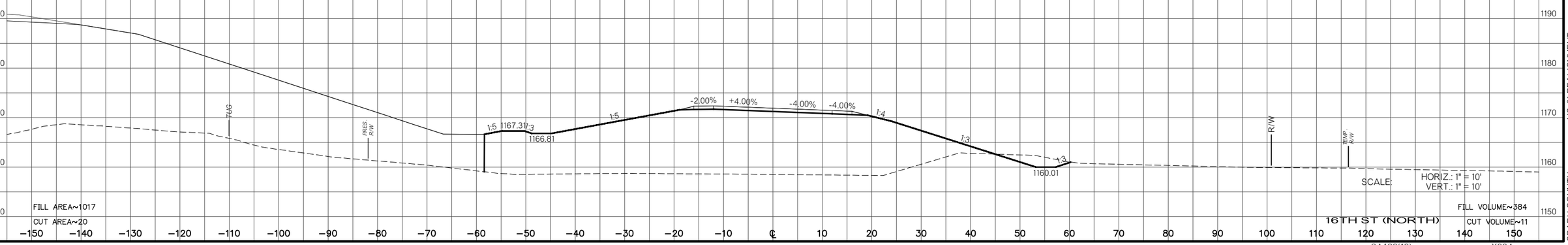
29+90
F.G.=1171.49



29+80
F.G.=1171.70



29+70
F.G.=1171.91



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (NORTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X084

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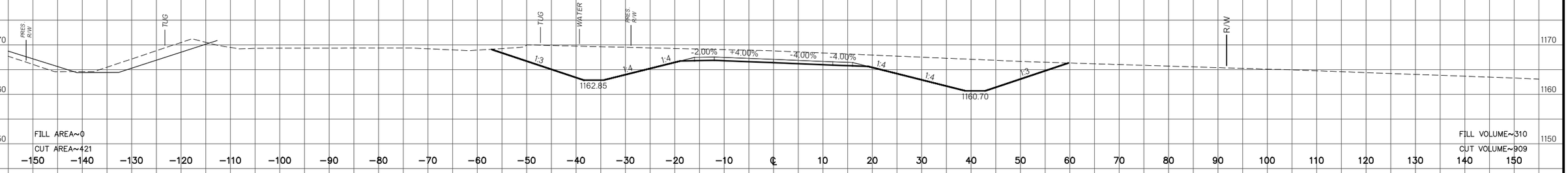
PRELIMINARY

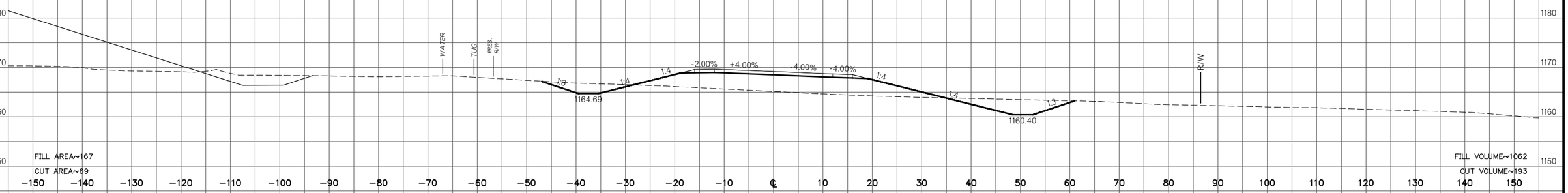
FINAL FIELD MEETING
JUNE 2020

32+00
F.G.=1167.06



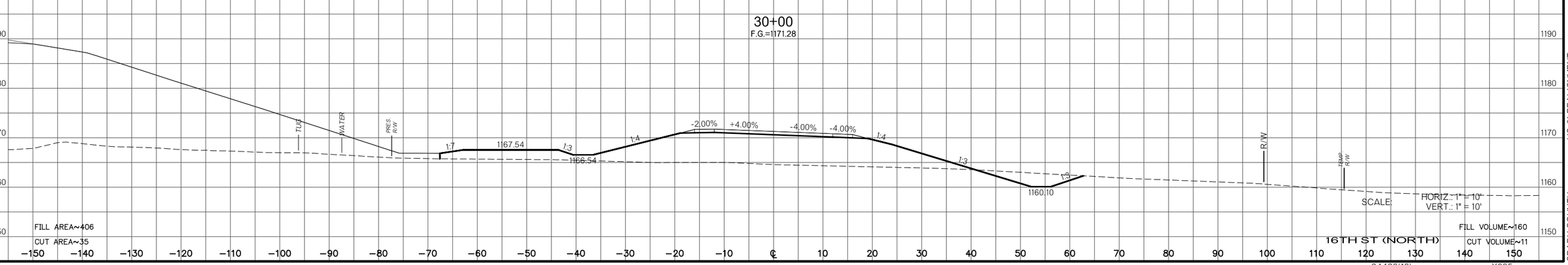
FILL AREA~0
CUT AREA~421
FILL VOLUME~310
CUT VOLUME~909

31+00
F.G.=1169.17



FILL AREA~167
CUT AREA~69
FILL VOLUME~1062
CUT VOLUME~193

30+00
F.G.=1171.28



FILL AREA~406
CUT AREA~35
FILL VOLUME~160
CUT VOLUME~11

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (NORTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X085

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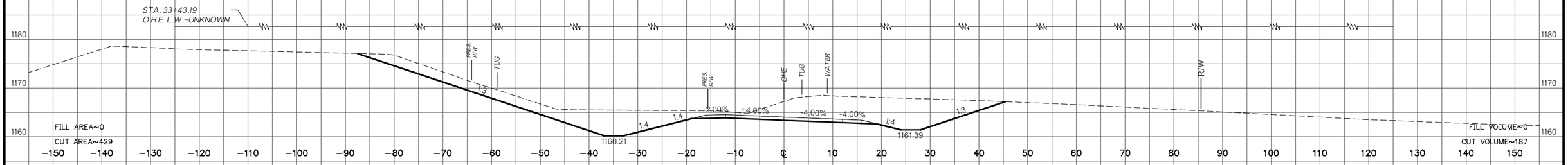
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

33+43.19
F.G.=1164.03



33+31.01
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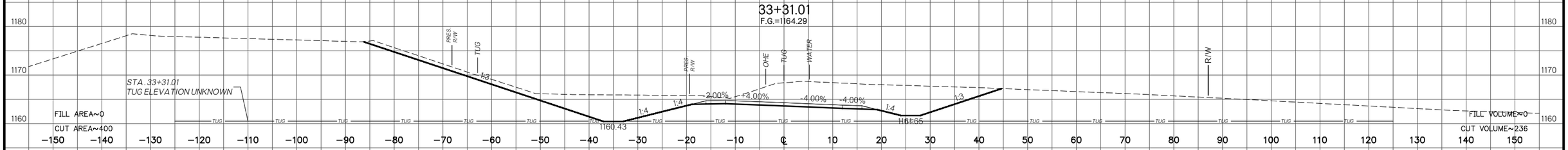

33+14.82
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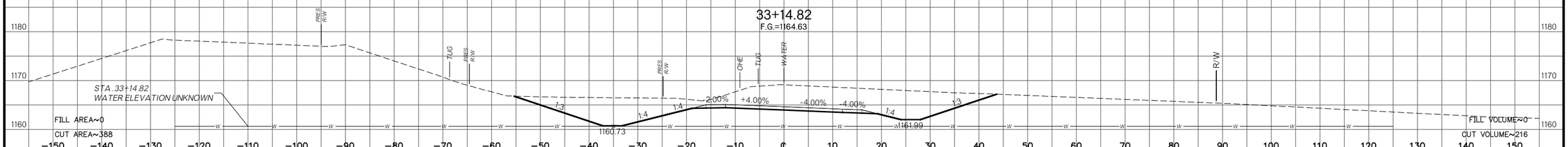
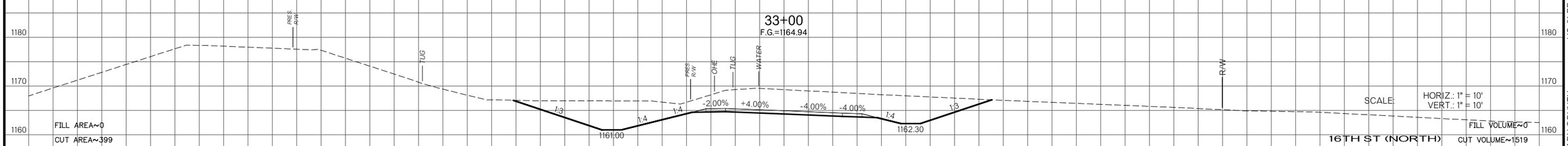


33+00
F.G.=1164.94



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (NORTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X086

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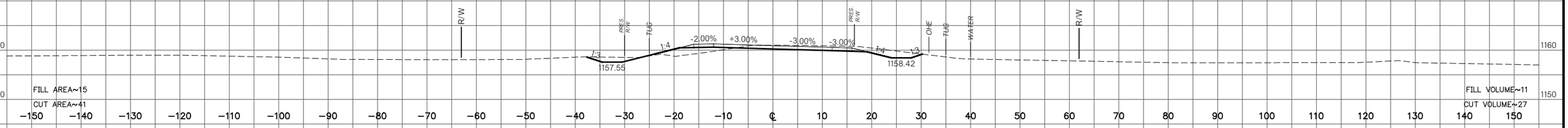
PRELIMINARY

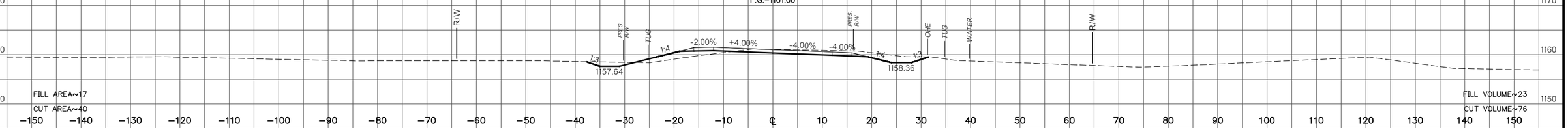
FINAL FIELD MEETING
JUNE 2020

35+63.46
F.G.=1160.90



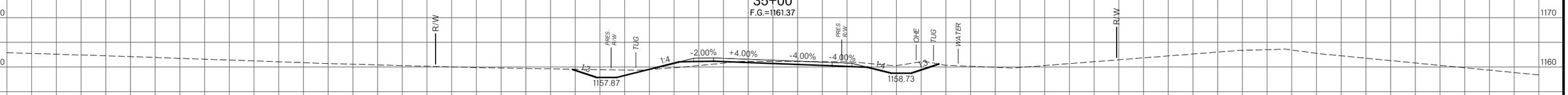
FILL AREA~15
CUT AREA~41
FILL VOLUME~11
CUT VOLUME~27

END FULL SUPERELEVATION
35+45.21
F.G.=1161.00



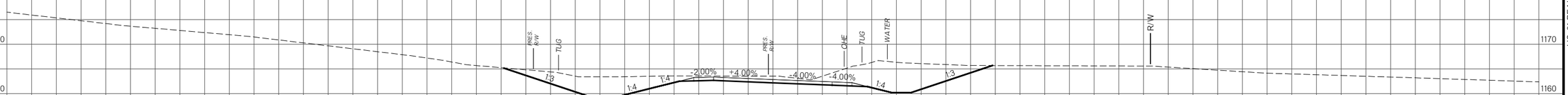
FILL AREA~17
CUT AREA~40
FILL VOLUME~23
CUT VOLUME~76

35+00
F.G.=1161.37



FILL AREA~11
CUT AREA~51
FILL VOLUME~20
CUT VOLUME~565

34+00
F.G.=1162.85



FILL AREA~0
CUT AREA~254
FILL VOLUME~0
CUT VOLUME~719

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

16TH ST (NORTH)

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X087

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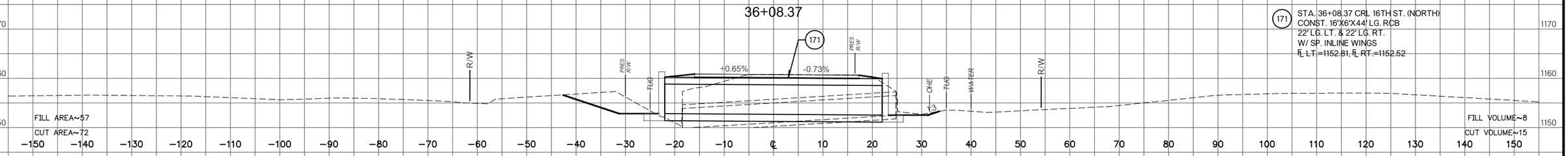
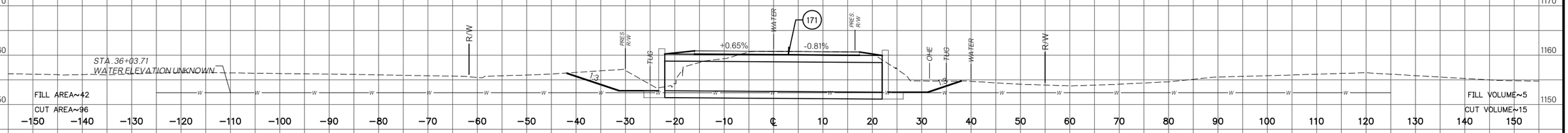
FINAL FIELD MEETING
JUNE 2020

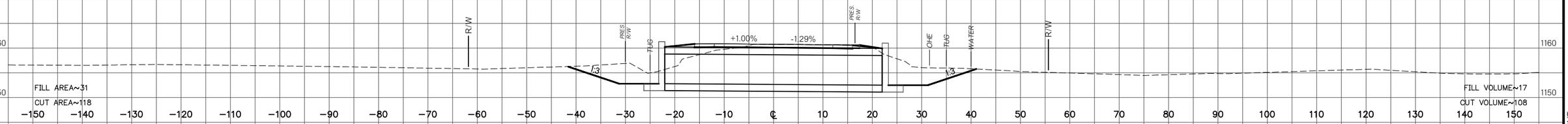
36+08.37



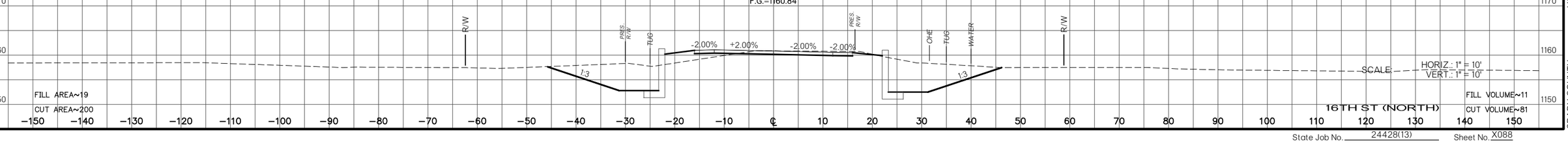
36+03.71



BEGIN INCIDENTAL
36+00
F.G.=1160.78



REVERSE CROSS SLOPE STATION
35+81.71
F.G.=1160.84



US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X088

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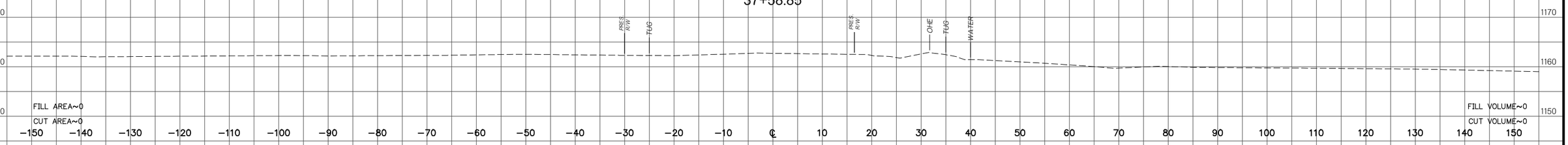
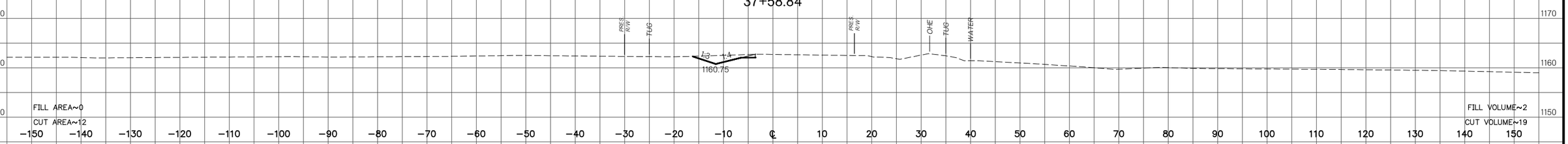
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

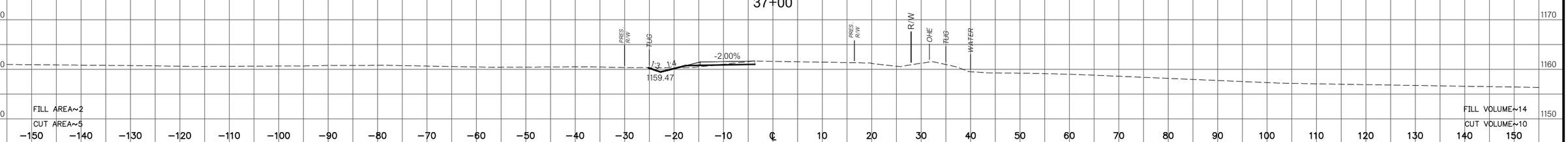
37+58.85



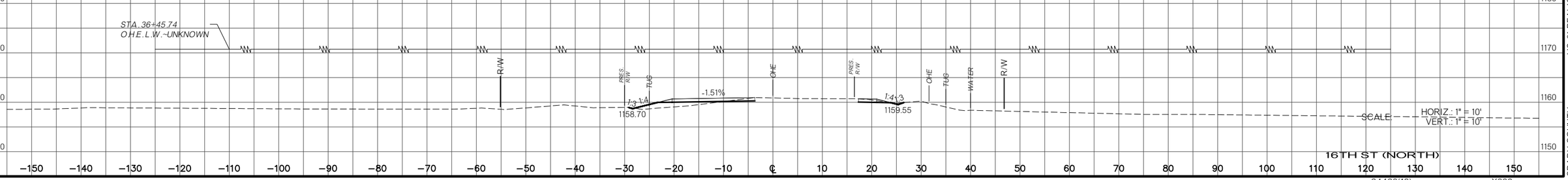
END INCIDENTAL
37+58.84



37+00



36+45.74



US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X089

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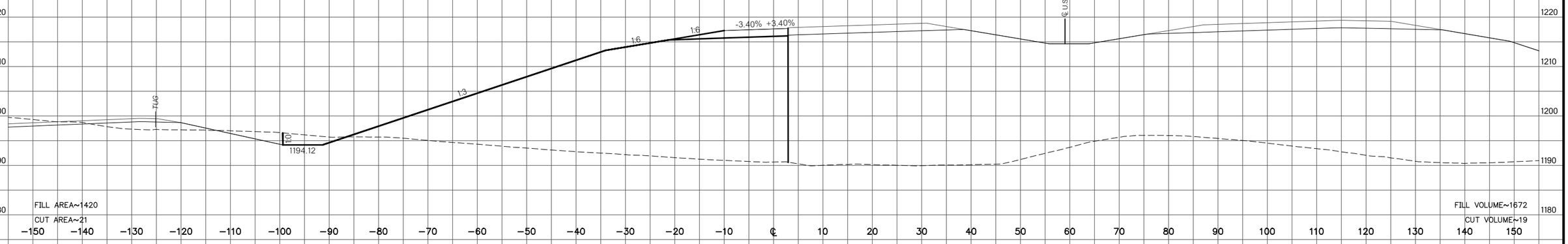
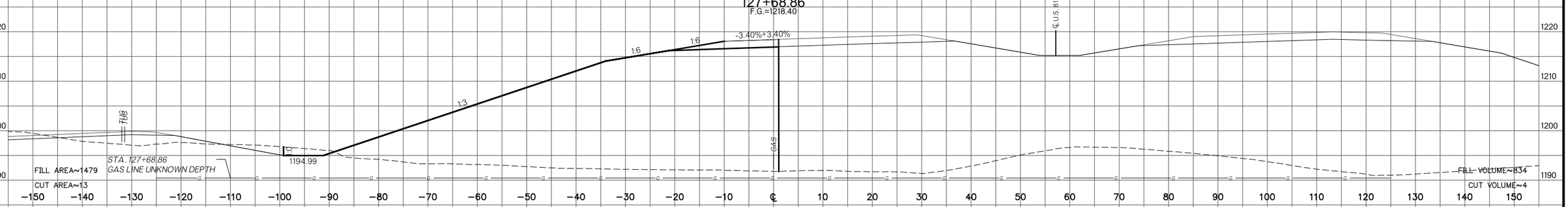
FINAL FIELD MEETING
JUNE 2020

128+00
F.G.=1217.58

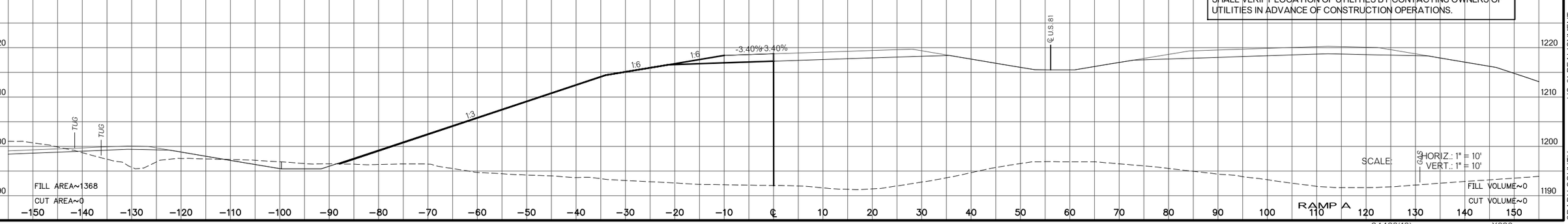


127+68.86
F.G.=1218.40



BEGIN PROJECT
127+53.04
F.G.=1218.78

THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPES & LOCATIONS OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO MAKE THE DETERMINATIONS AS TO THE TYPE & LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING OWNERS OF UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS.



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

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US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X090

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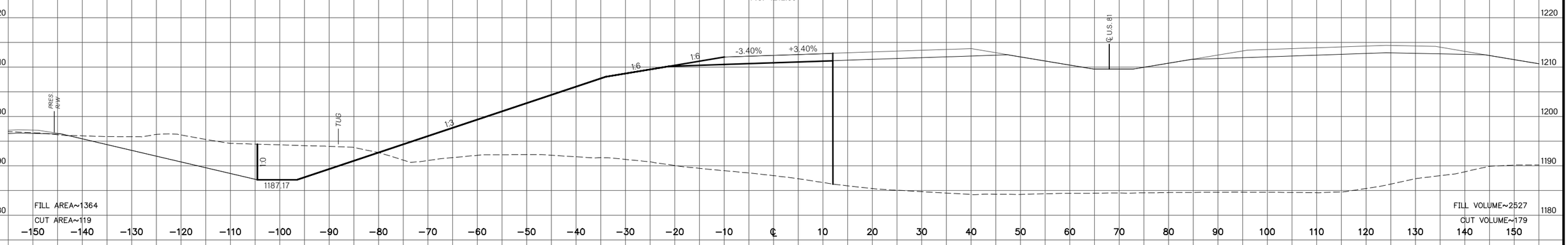
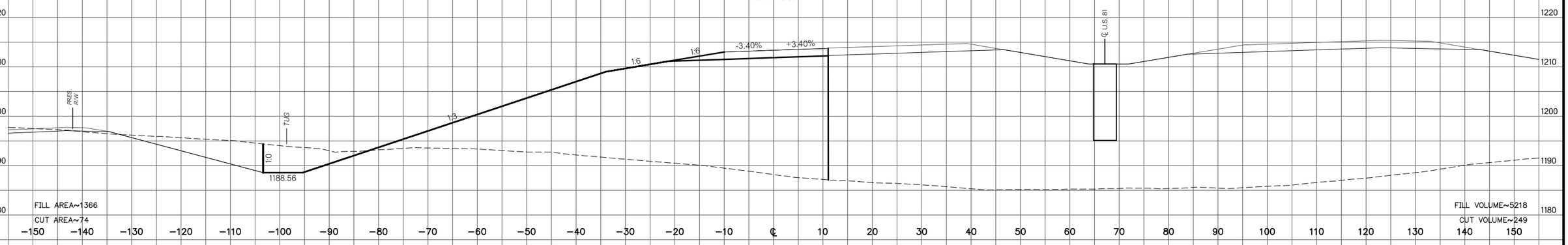
FINAL FIELD MEETING
JUNE 2020

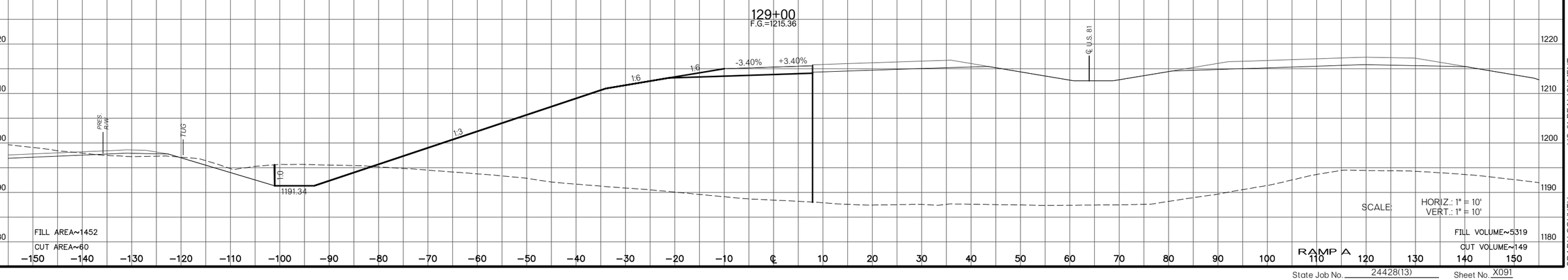
130+50
F.G.=1212.35



130+00
F.G.=1213.35



129+00
F.G.=1215.36



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

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US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X091

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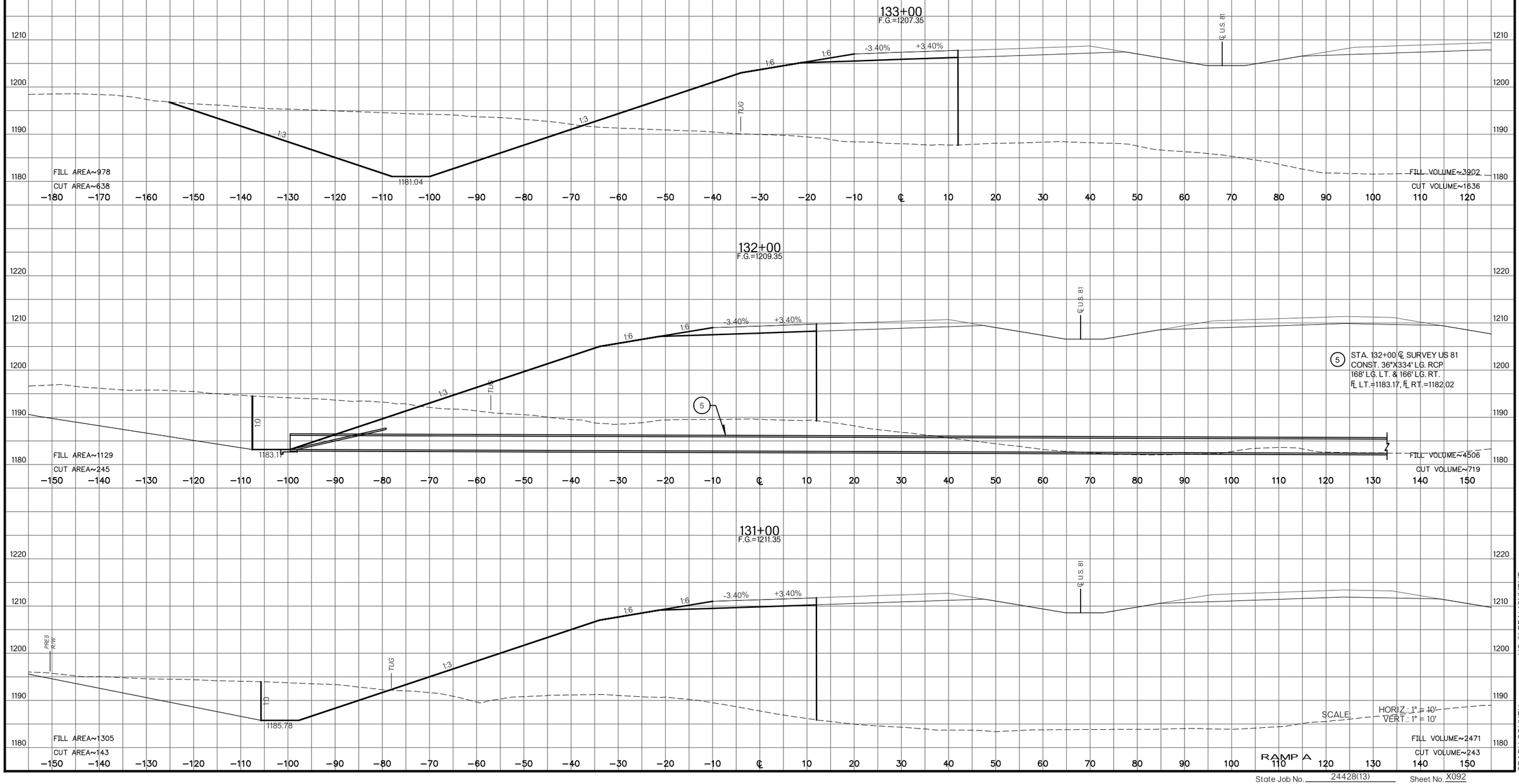
FINAL FIELD MEETING
JUNE 2020



US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X092

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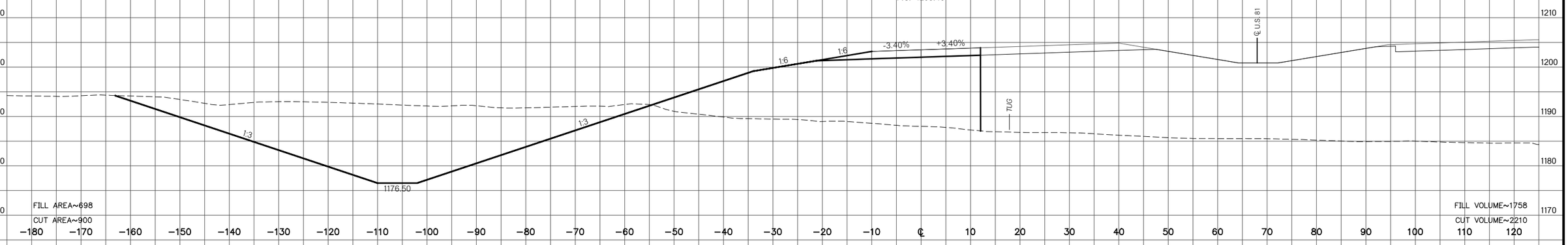
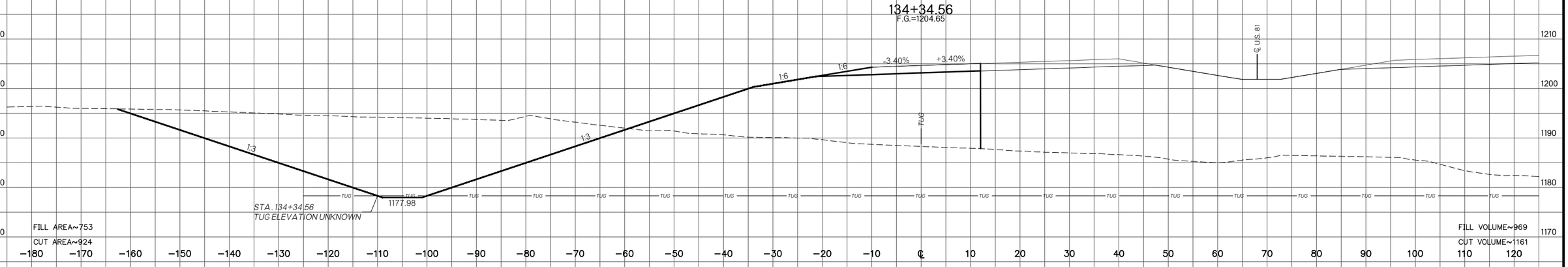
FINAL FIELD MEETING
JUNE 2020

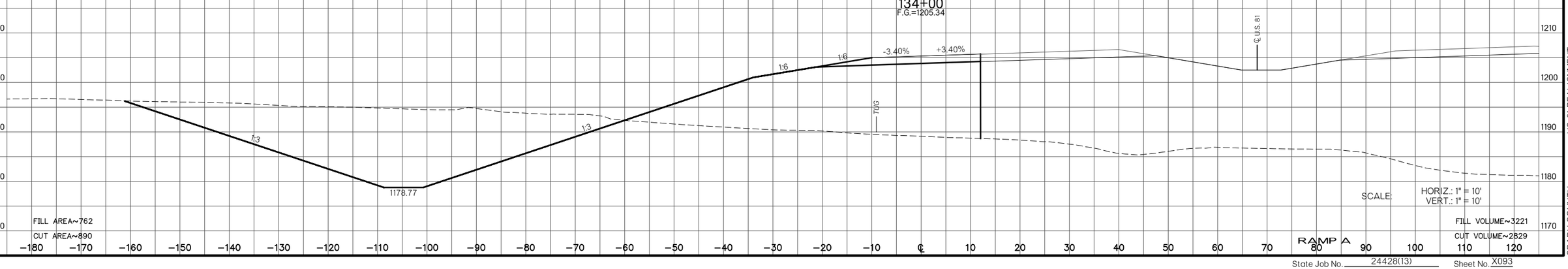
135+00
F.G.=1203.49



134+34.56
F.G.=1204.65



134+00
F.G.=1205.34



US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X093

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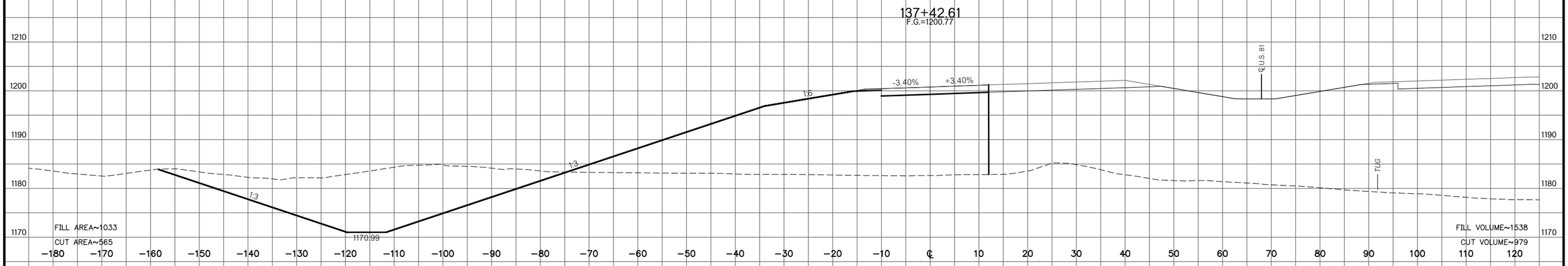
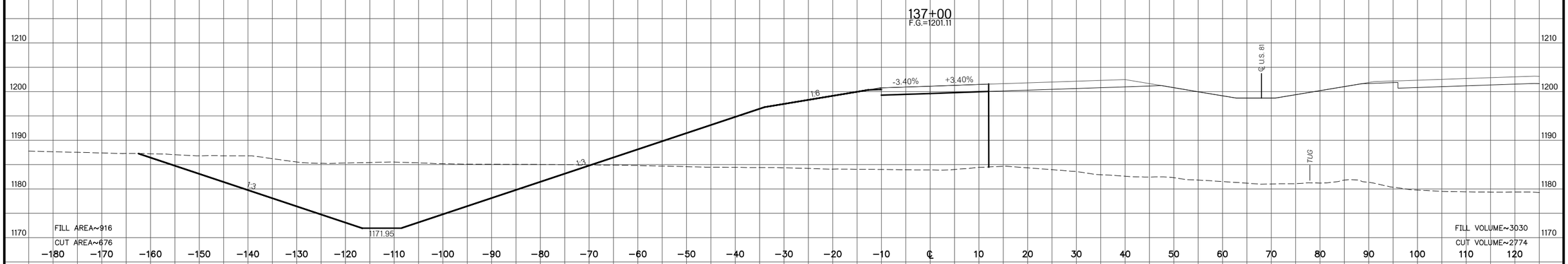
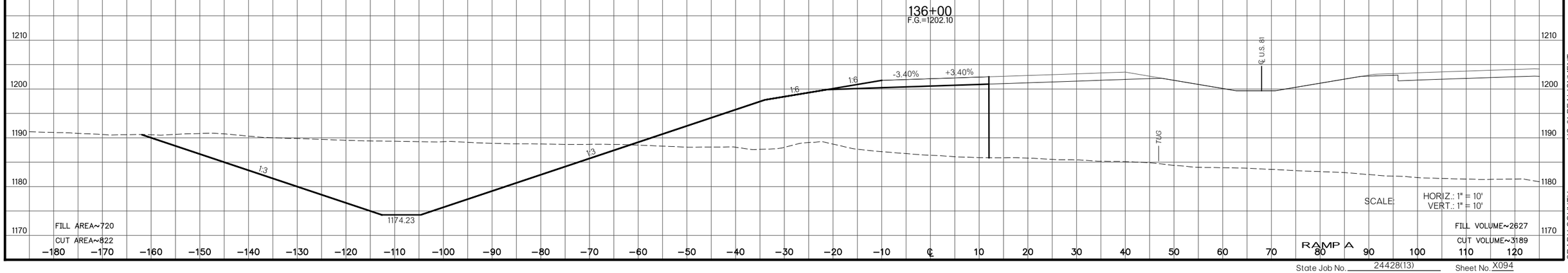
FINAL FIELD MEETING
JUNE 2020







SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

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State Job No. 24428(13) Sheet No. X094

US-81 REALIGNMENT
GRADY COUNTY

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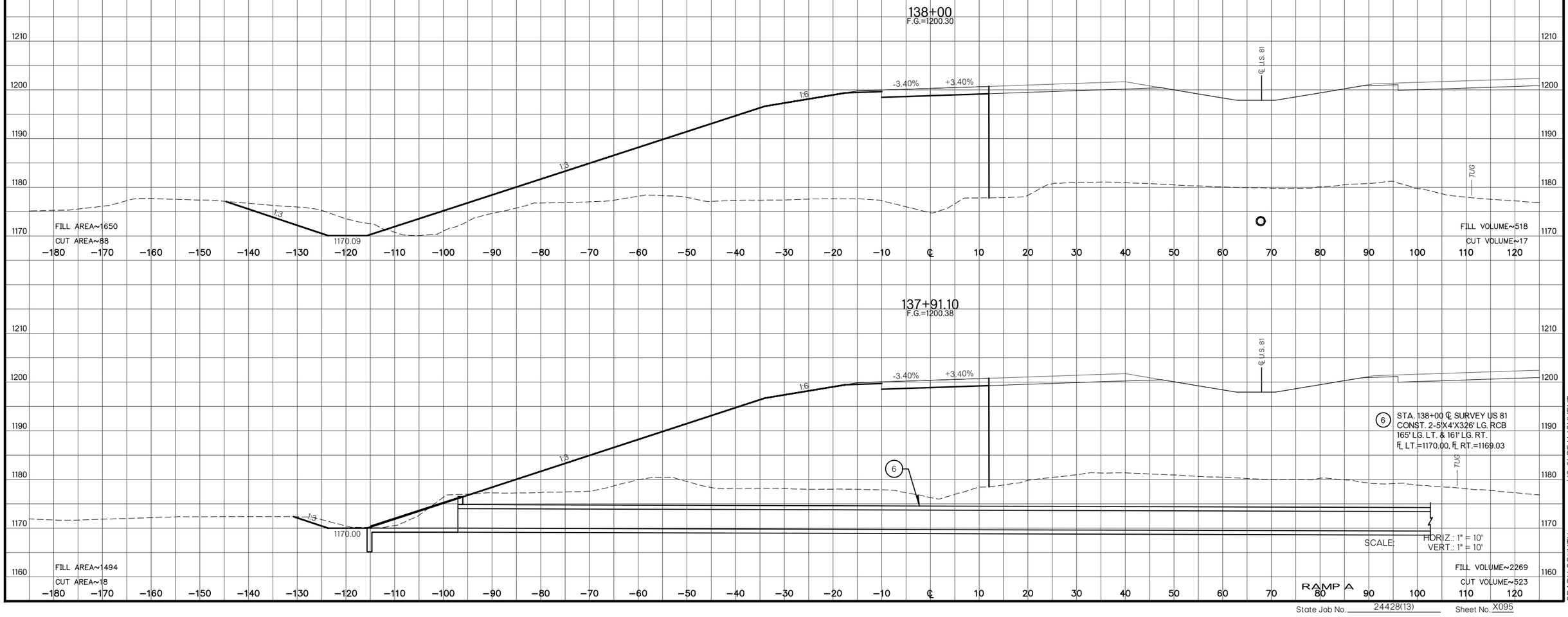
FINAL FIELD MEETING
JUNE 2020



US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X095

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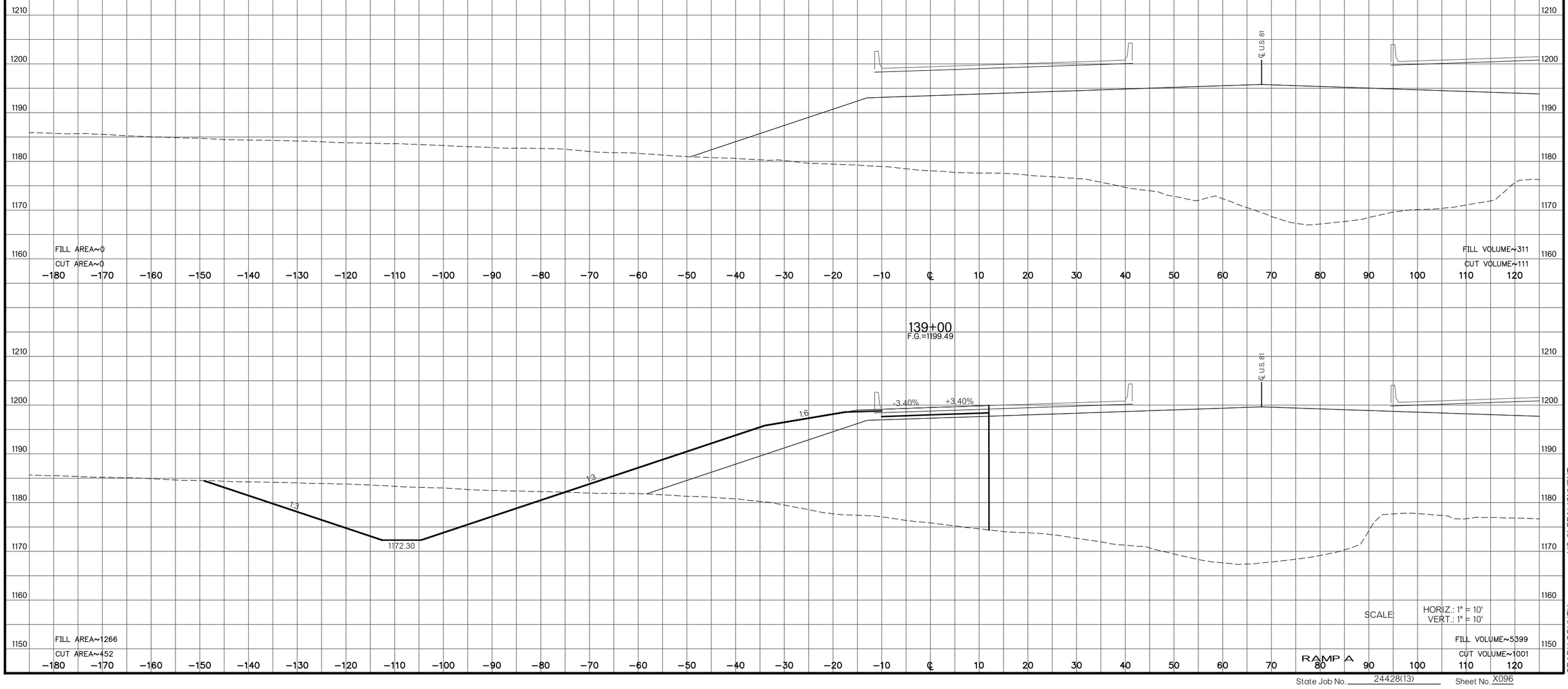
FINAL FIELD MEETING
JUNE 2020

BEGIN APPROACH BRIDGE C
139+13.27



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP A

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X096

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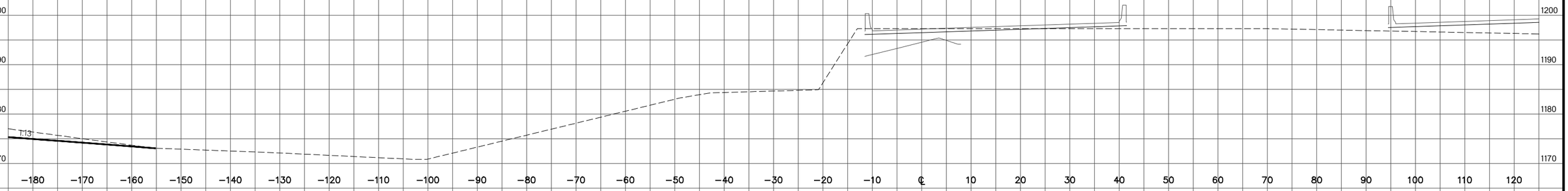
PRELIMINARY

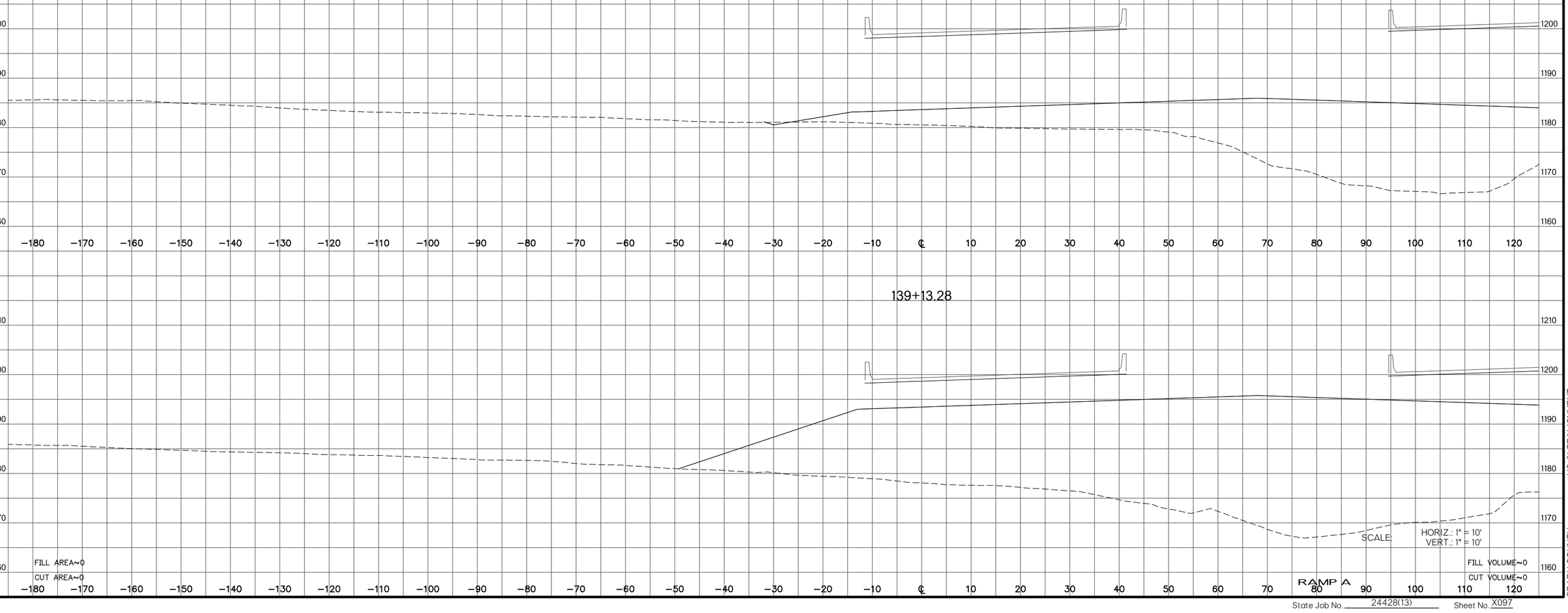
FINAL FIELD MEETING
JUNE 2020

END BRIDGE & BEGIN APPROACH
141+86.33



END APPROACH & BEGIN BRIDGE
139+42.43

139+13.28



FILL AREA~0
CUT AREA~0

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

FILL VOLUME~0
CUT VOLUME~0

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GRADY COUNTY

State Job No. 24428(13) Sheet No. X097

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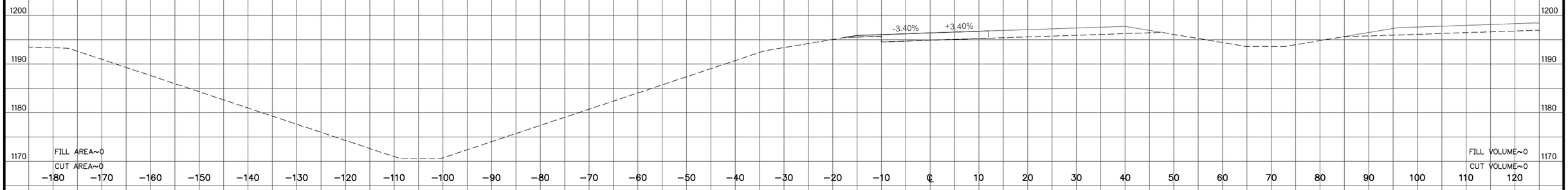
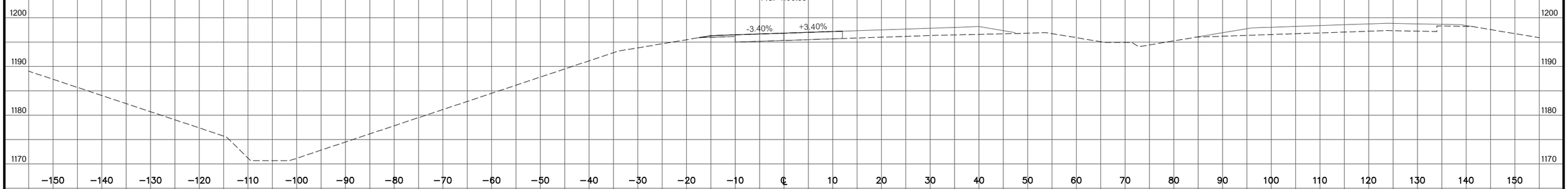
FINAL FIELD MEETING
JUNE 2020

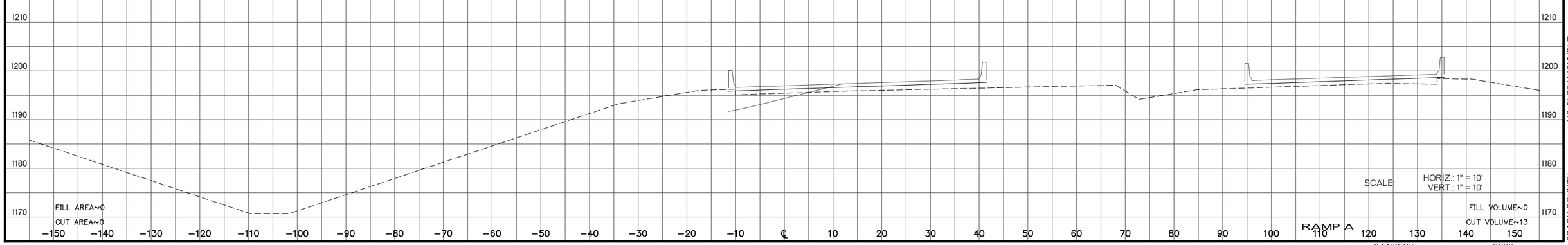
142+85.17
F.G.=1196.38



END APPROACH BRIDGE C
142+29.57
F.G.=1196.83



142+15.56



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

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State Job No. 24428(13) Sheet No. X098

US-81 REALIGNMENT

GRADY COUNTY

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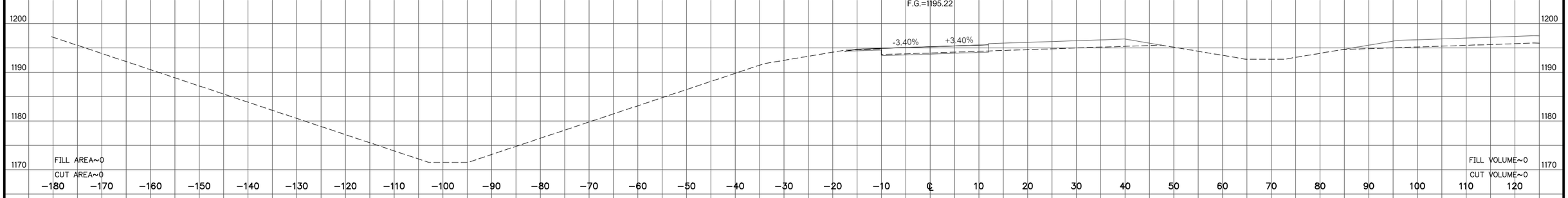
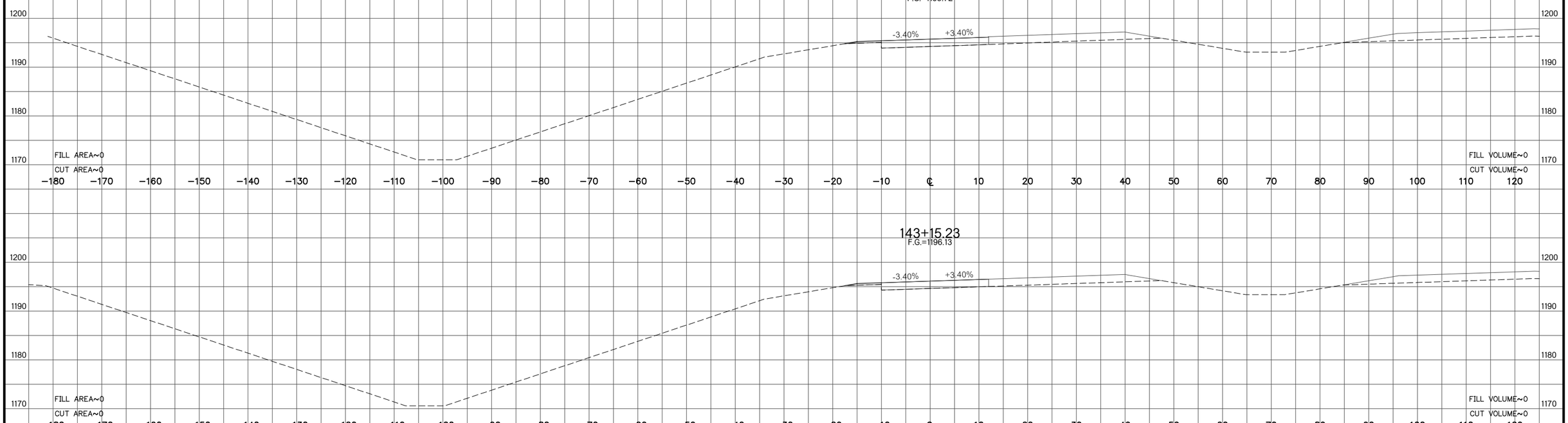
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

144+00
F.G.=1195.22

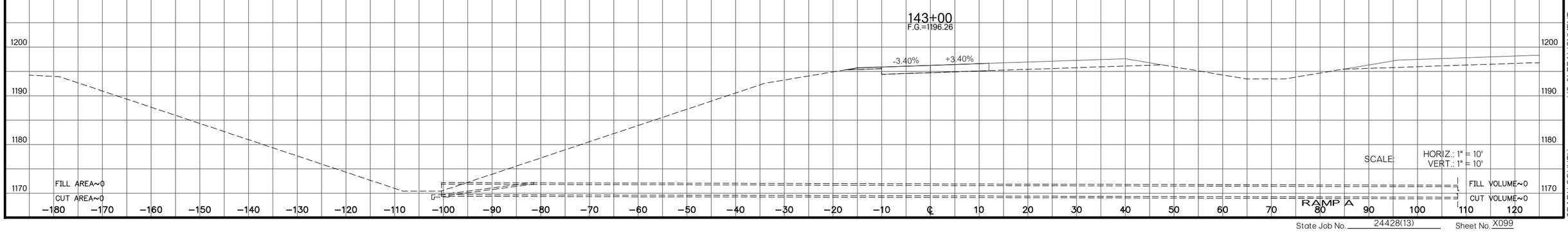


143+53.46
F.G.=1195.72



143+15.23
F.G.=1196.13

143+00
F.G.=1196.26



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP A

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X099

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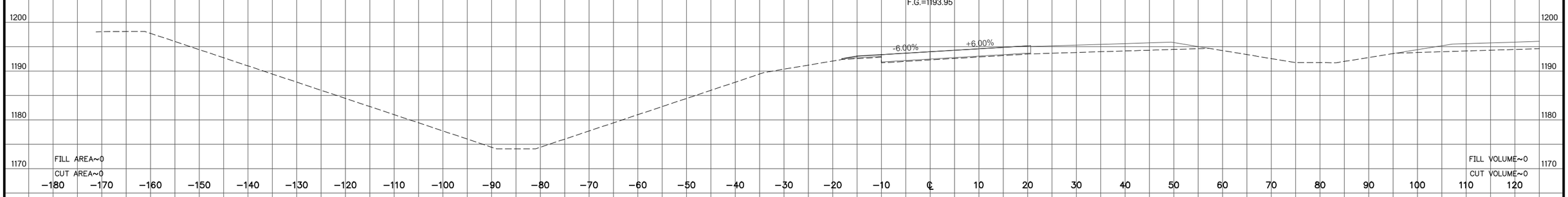
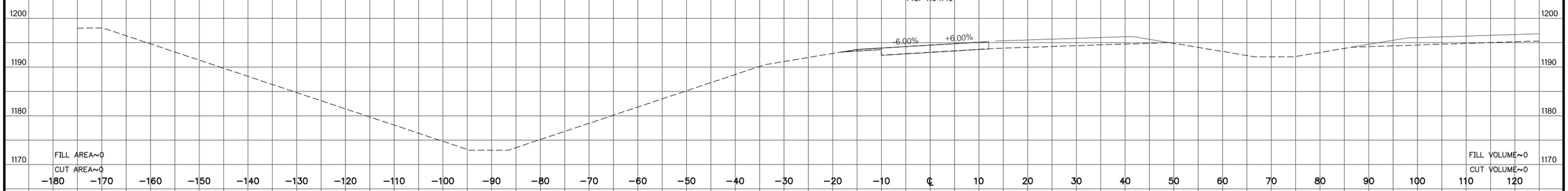
FINAL FIELD MEETING
JUNE 2020

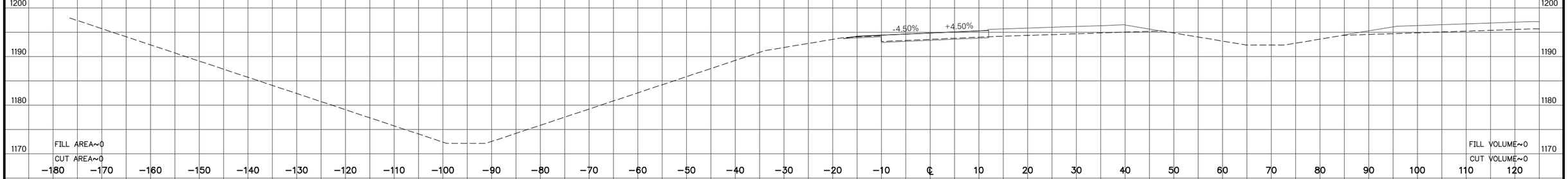
145+00
F.G.=1193.95



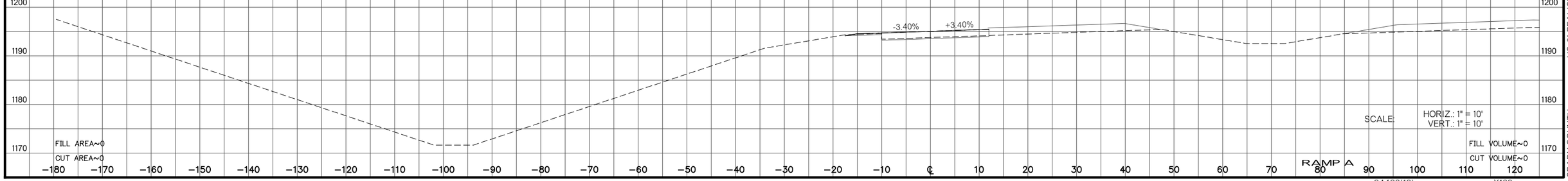
BEGIN FULL SUPERELEVATION
144+62.46
F.G.=1194.49



144+35.21
F.G.=1194.84



END NORMAL CROWN
144+15.23
F.G.=1195.06



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP A

State Job No. 24428(13) Sheet No. X100

US-81 REALIGNMENT
GRADY COUNTY

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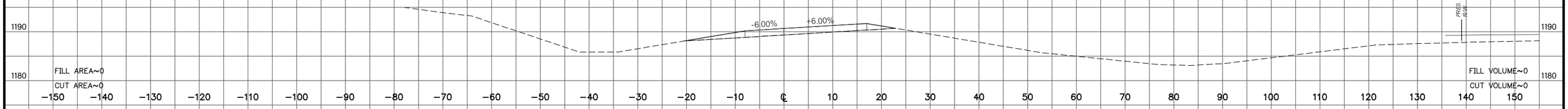
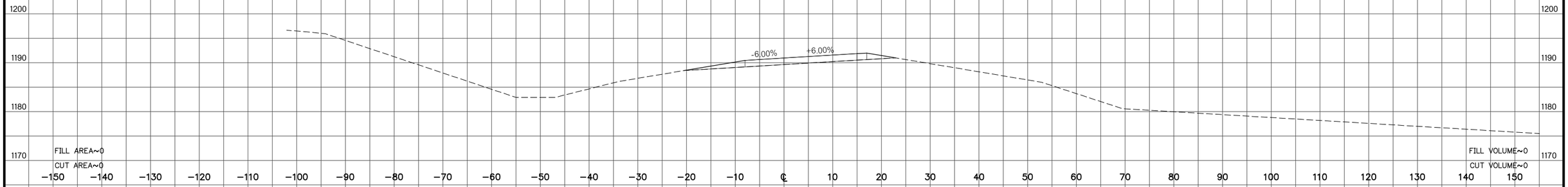
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

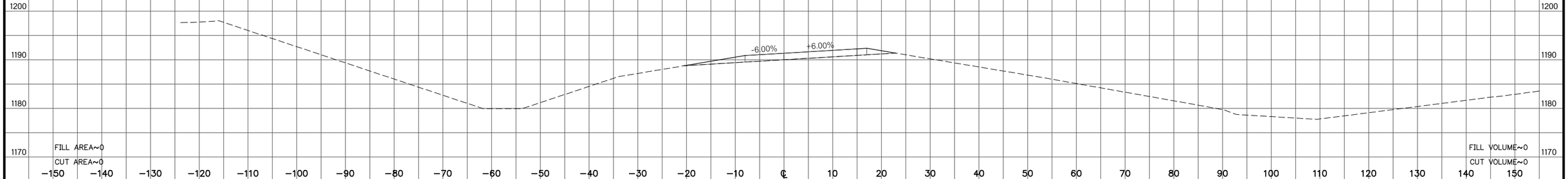
149+00
F.G.=1190.65



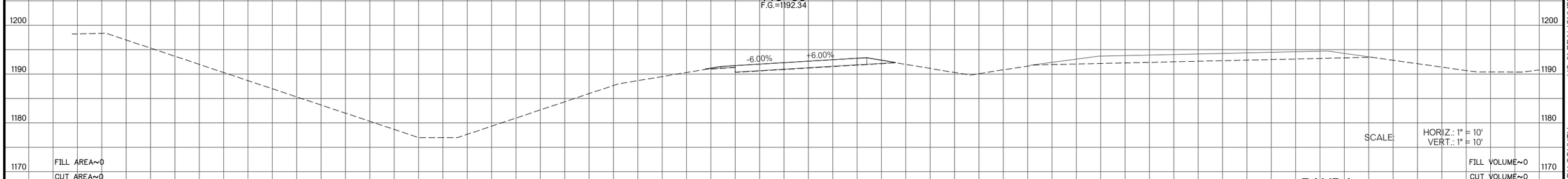
148+00
F.G.=1190.95



147+00
F.G.=1191.34



146+00
F.G.=1192.34



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP A

State Job No. 24428(13) Sheet No. X101

US-81 REALIGNMENT
GRADY COUNTY

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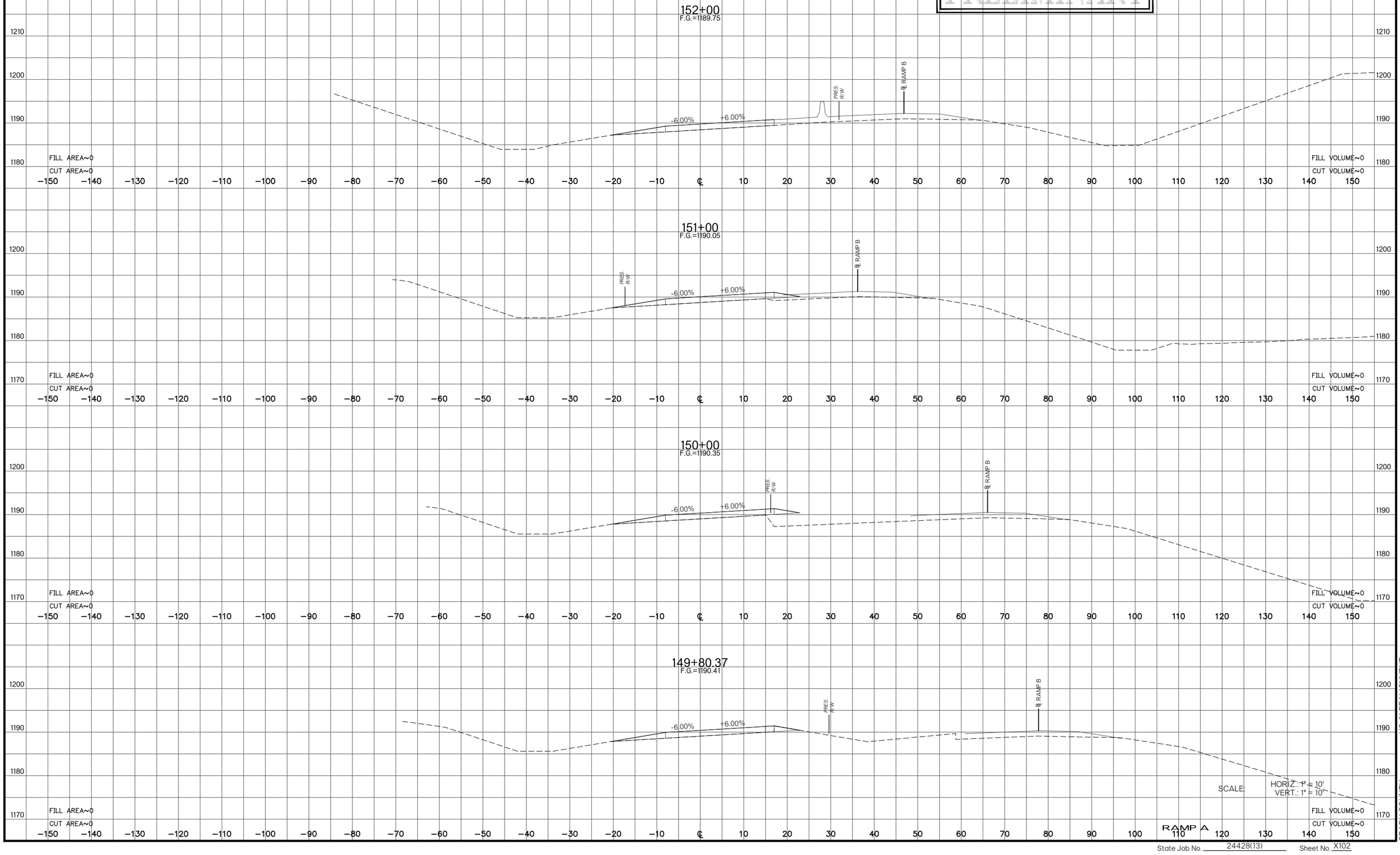
FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP A

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X102

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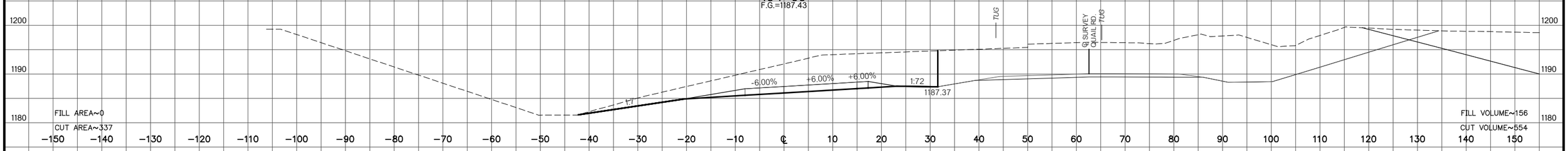
PRELIMINARY

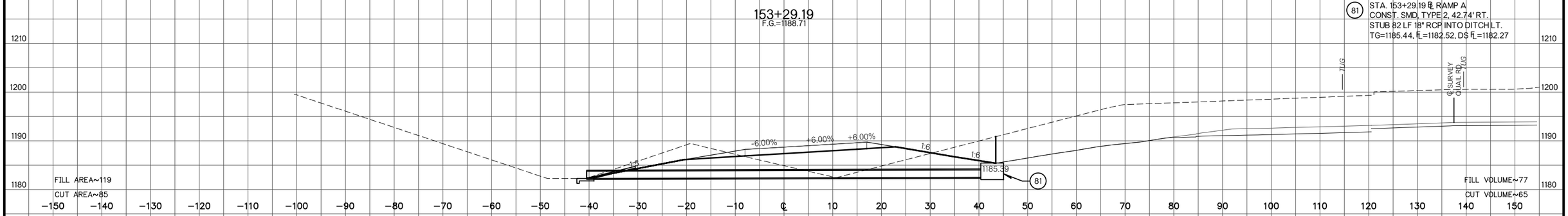
FINAL FIELD MEETING
JUNE 2020

154+00
F.G.=1187.43

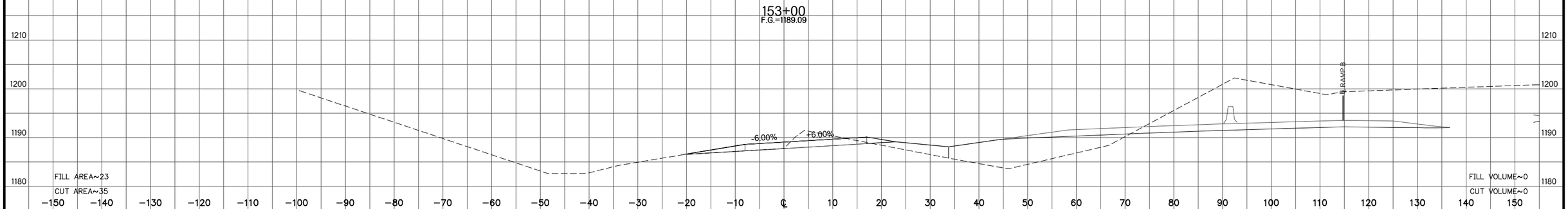


153+29.19
F.G.=1188.71

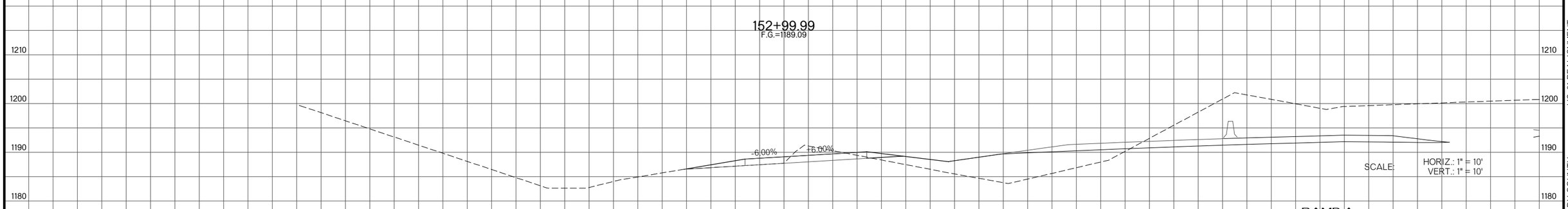
(81) STA. 153+29.19 ℄ RAMP A
CONST. SMD. TYPE 2, 42.74' RT.
STUB 82 LF 18" RCP INTO DITCH LT.
TG=1185.44, FL=1182.52, DS FL=1182.27



153+00
F.G.=1189.09



152+99.99
F.G.=1189.09



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP A

State Job No. 24428(13) Sheet No. X103

US-81 REALIGNMENT
GRADY COUNTY

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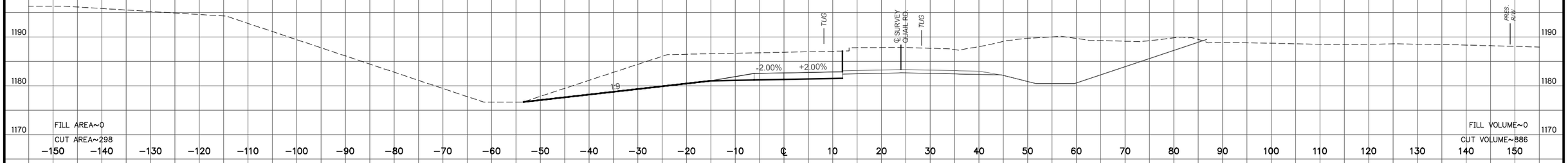
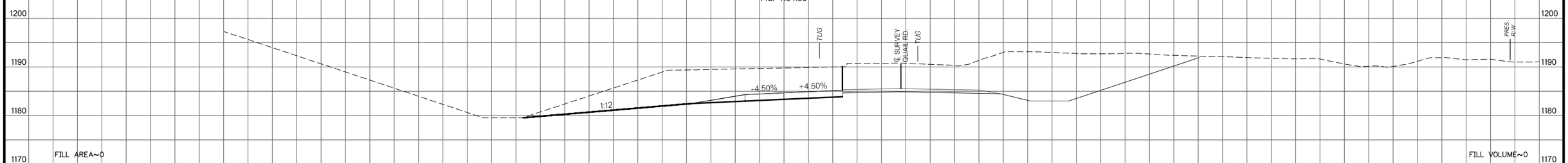
FINAL FIELD MEETING
JUNE 2020

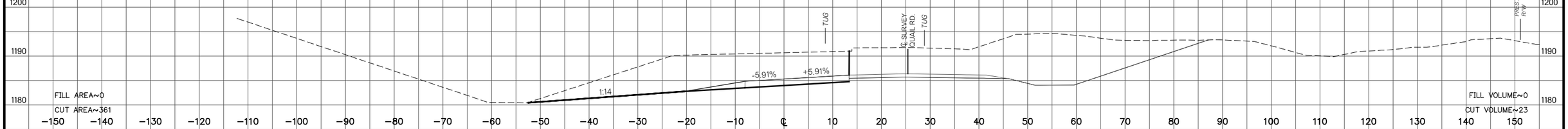
156+00
F.G.=1182.63



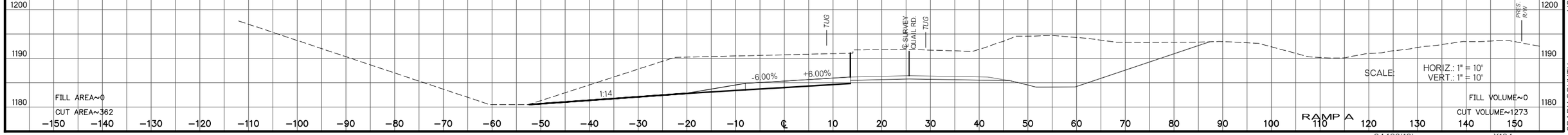
155+25.53
F.G.=1184.66



155+00
F.G.=1185.31



END FULL SUPERELEVATION
154+98.28
F.G.=1185.35



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP A

State Job No. 24428(13) Sheet No. X104

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GRADY COUNTY

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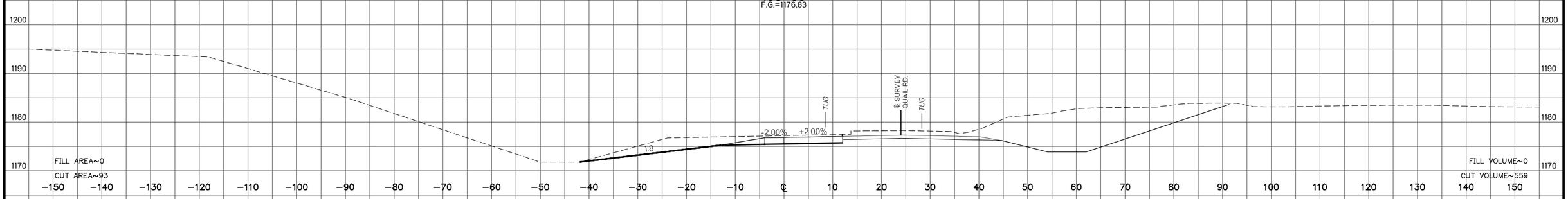
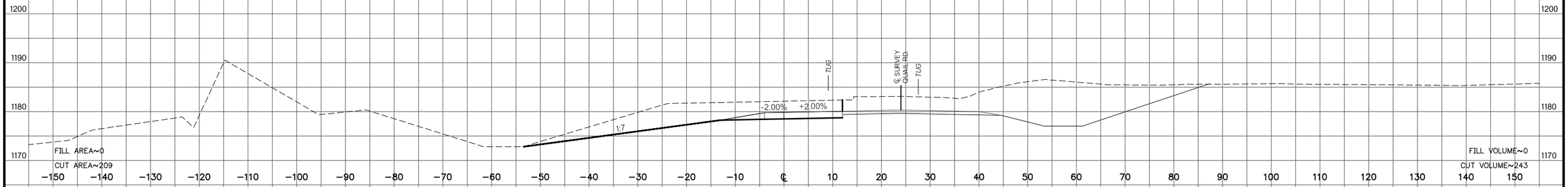
FINAL FIELD MEETING
JUNE 2020

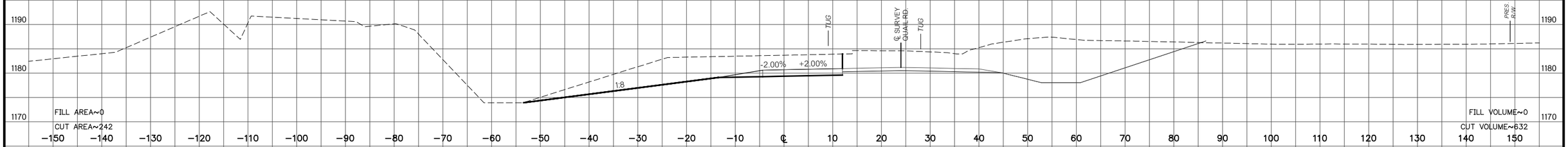
158+00
F.G.=1176.83



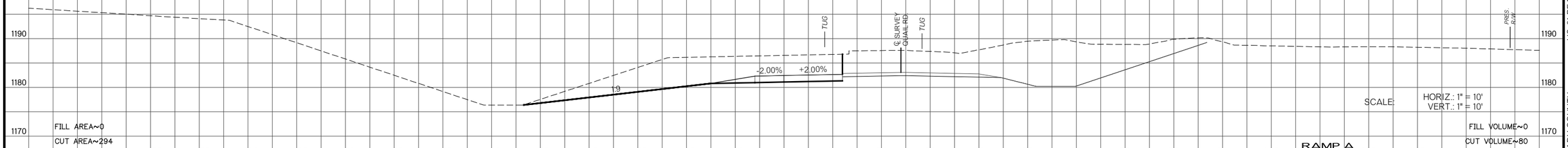
157+00
F.G.=1179.83



BEGIN NORMAL CROWN
156+70.95
F.G.=1180.70



156+07.28
F.G.=1182.44



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP A

State Job No. 24428(13) Sheet No. X105

US-81 REALIGNMENT
GRADY COUNTY

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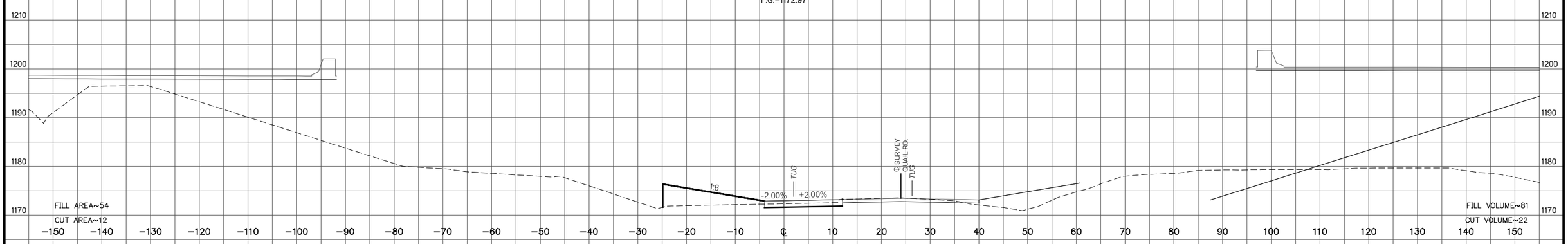
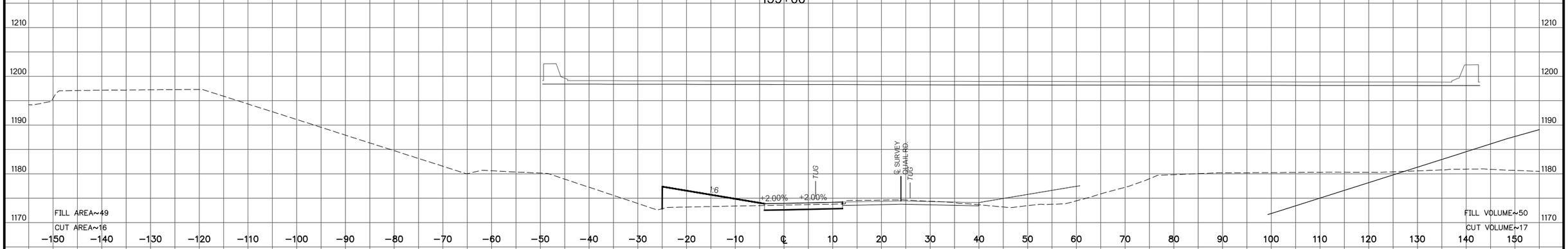
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

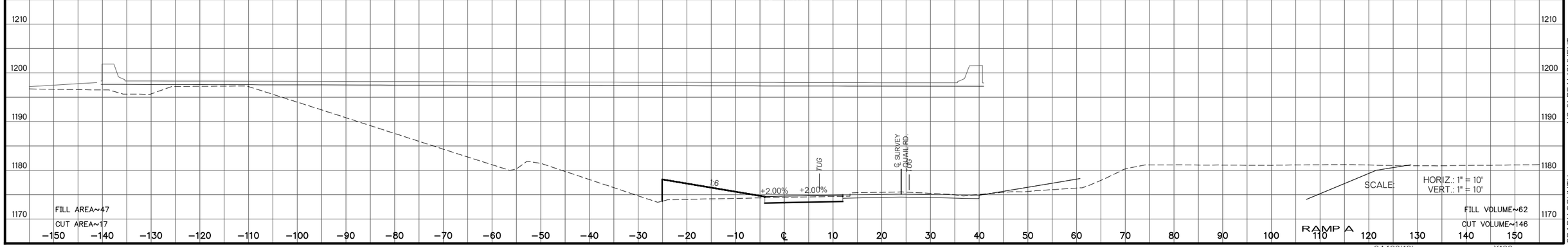
159+42.45
F.G.=1172.97



159+00



158+71.56



RAMP A

State Job No. 24428(13) Sheet No. X106

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GRADY COUNTY

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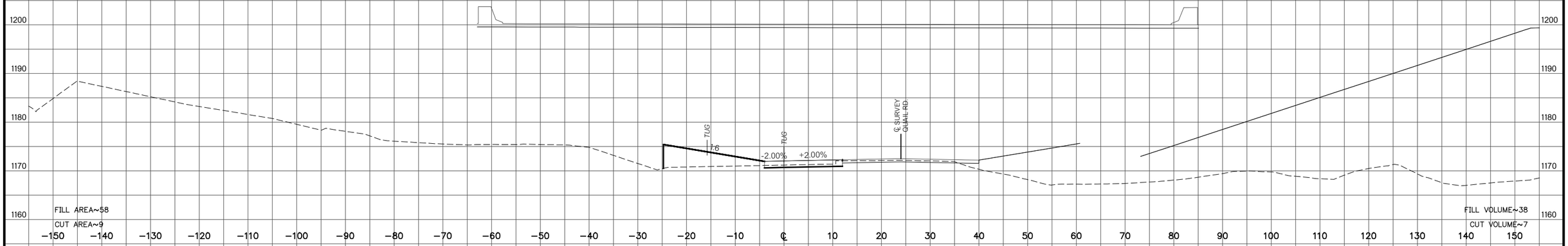
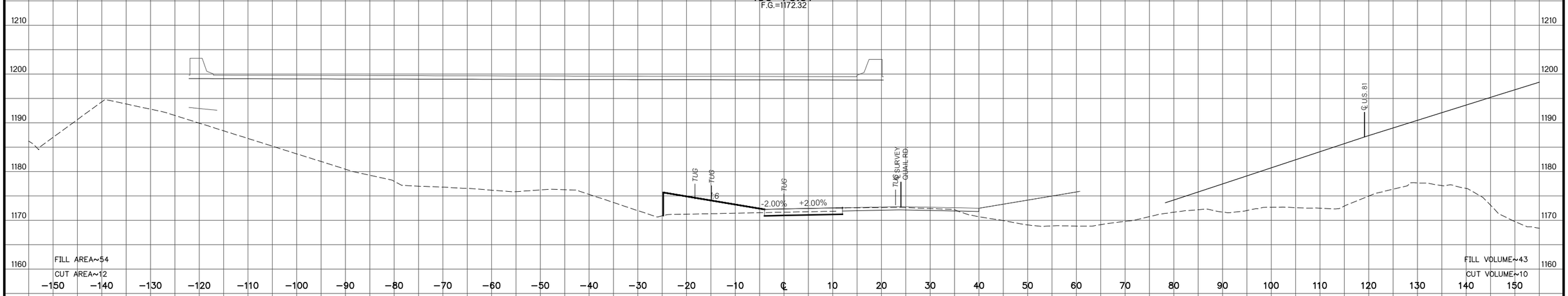
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

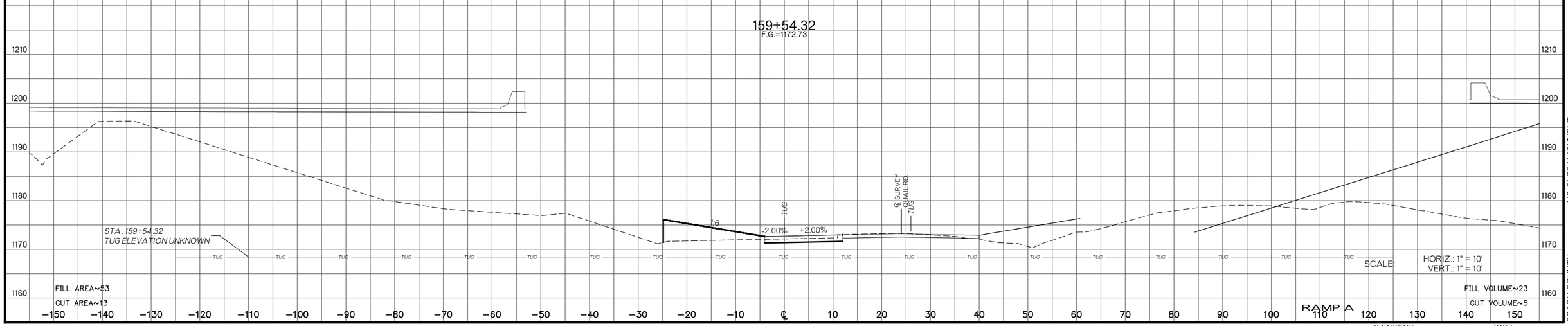
159+94.16
F.G.=1172.02



159+75.97
F.G.=1172.32



159+54.32
F.G.=1172.73



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP A

State Job No. 24428(13) Sheet No. X107

US-81 REALIGNMENT
GRADY COUNTY

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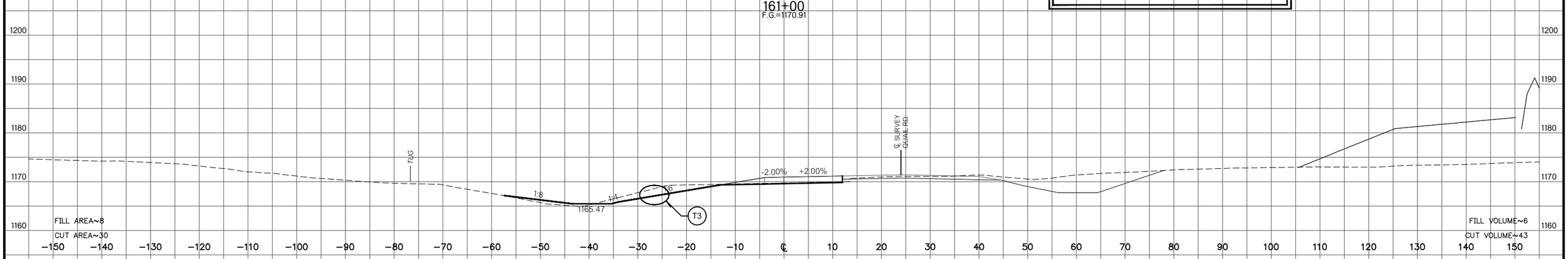
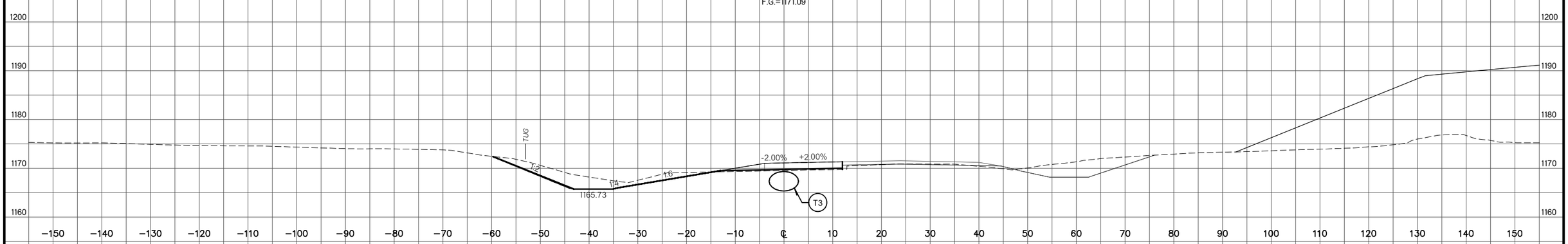
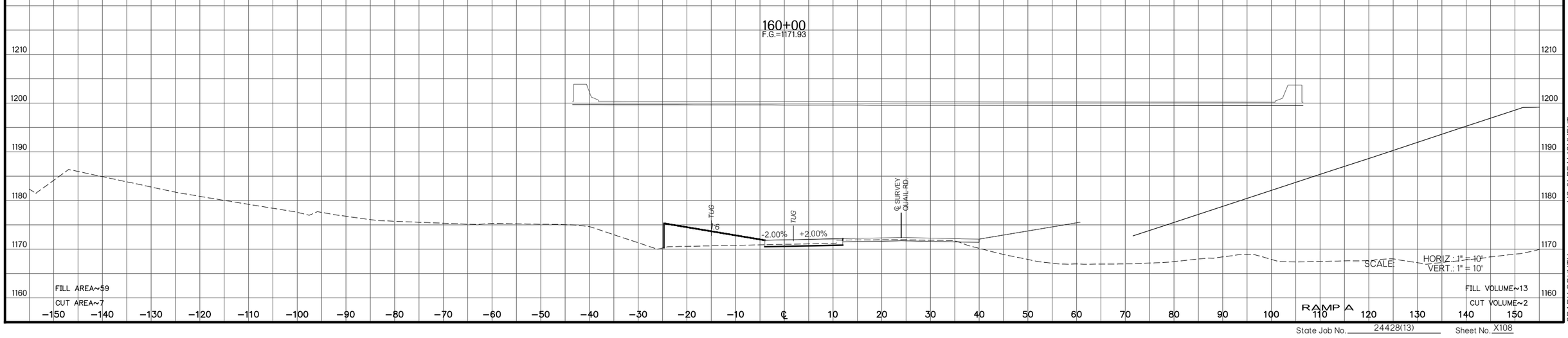
FINAL FIELD MEETING
JUNE 2020







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GRADY COUNTY

State Job No. 24428(13) Sheet No. X108

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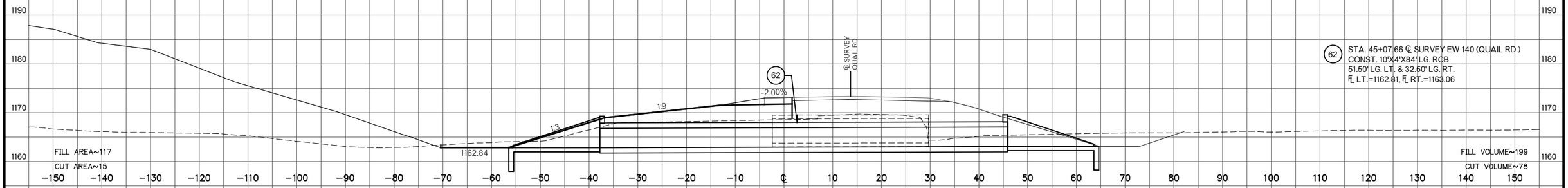
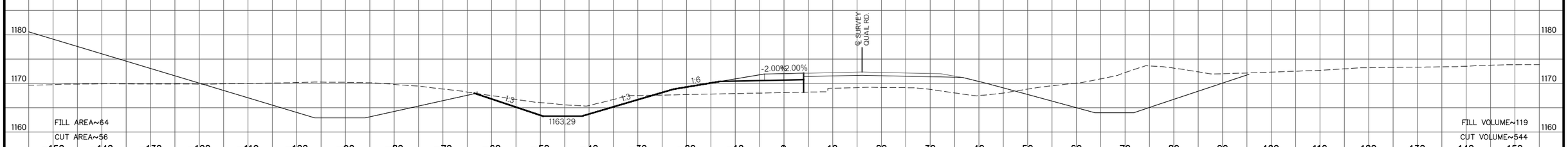
FINAL FIELD MEETING
JUNE 2020

163+59.11
F.G.=1173.11

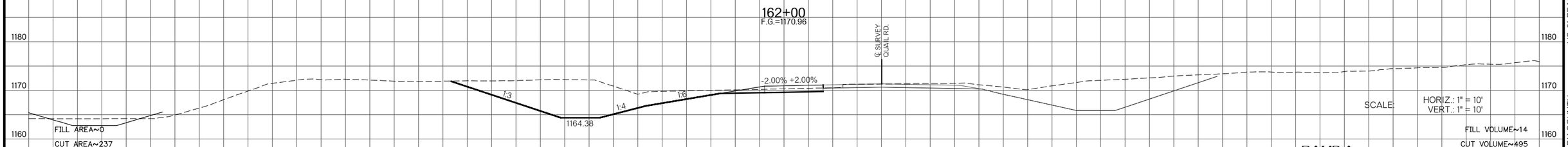


62 STA. 45+07.66 ℄ SURVEY EW 140 (QUAIL RD.)
CONST. 10'X4'X84'LG. RCB
51.50'LG. LT. & 32.50'LG. RT.
F‗ LT.=1162.81, F‗ RT.=1163.06

163+00
F.G.=1172.01



162+00
F.G.=1170.96



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP A

State Job No. 24428(13) Sheet No. X109

US-81 REALIGNMENT
GRADY COUNTY

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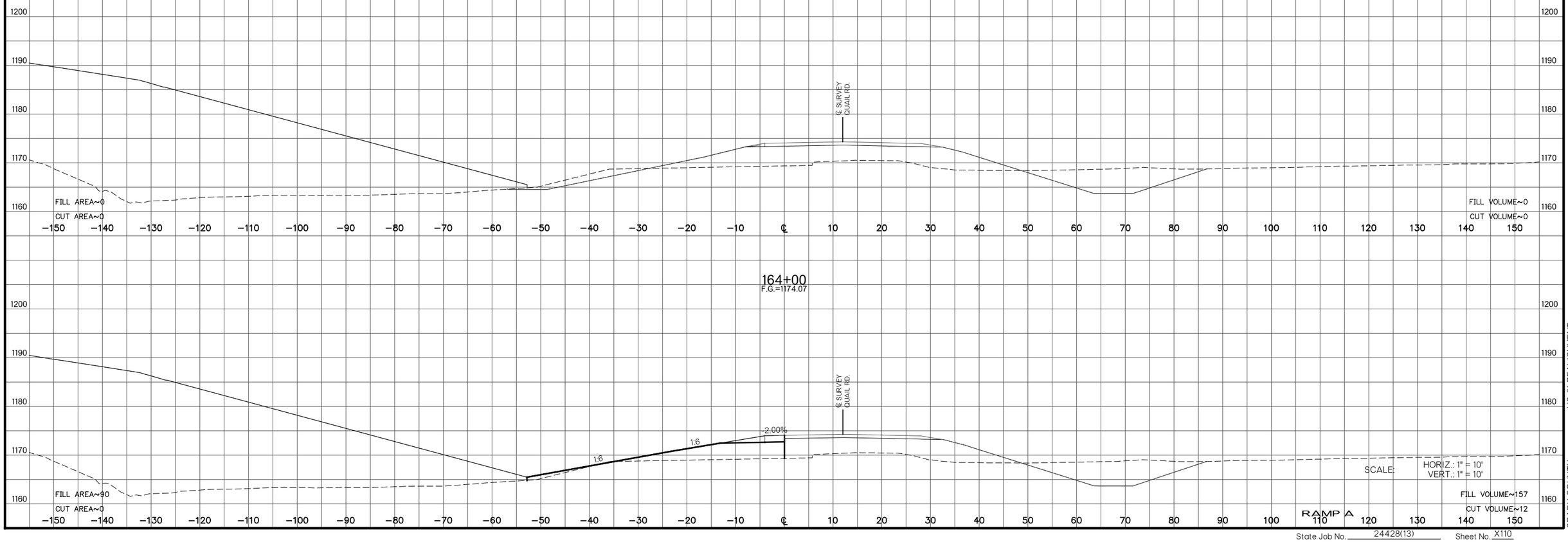
FINAL FIELD MEETING
JUNE 2020

END PROJECT
164+00.22



US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X110

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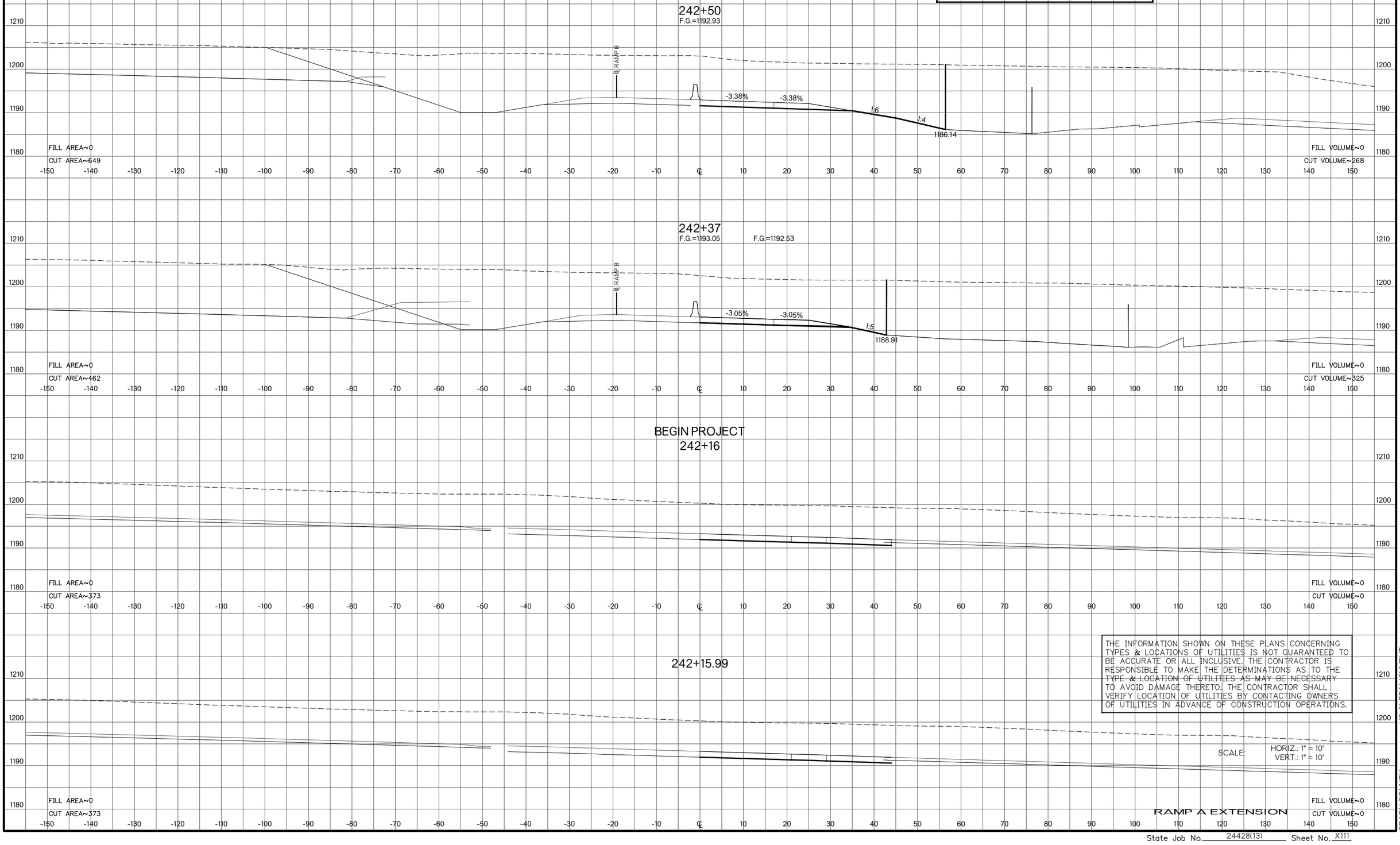
FINAL FIELD MEETING
JUNE 2020



THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPES & LOCATIONS OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO MAKE THE DETERMINATIONS AS TO THE TYPE & LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING OWNERS OF UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS.

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP A EXTENSION

State Job No. 24428(13) Sheet No. X111

US-81 REALIGNMENT
GRADY COUNTY

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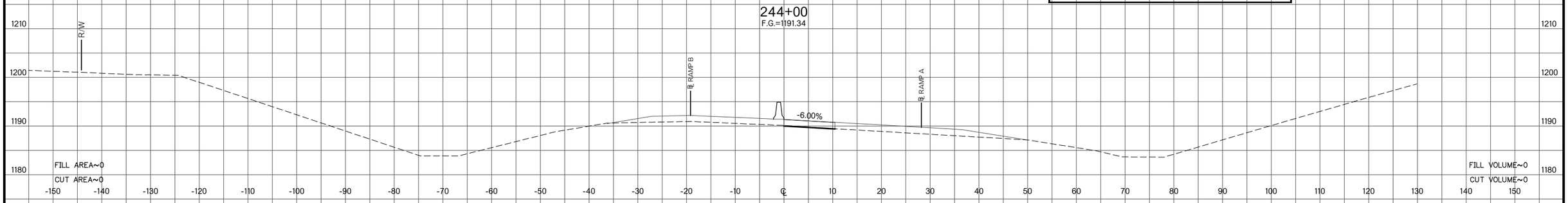
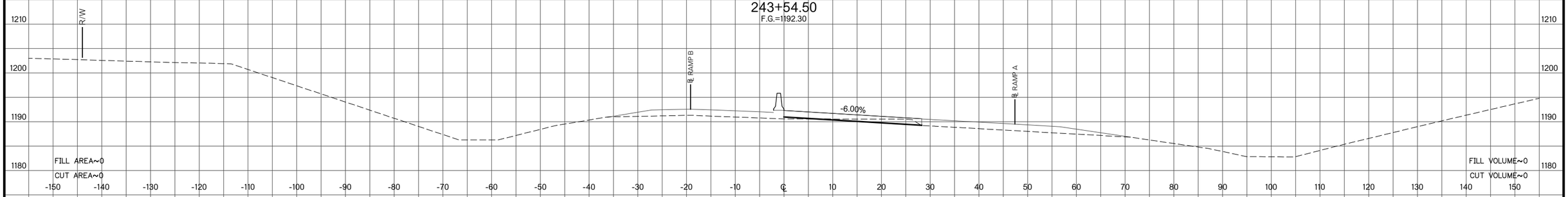
FINAL FIELD MEETING
JUNE 2020

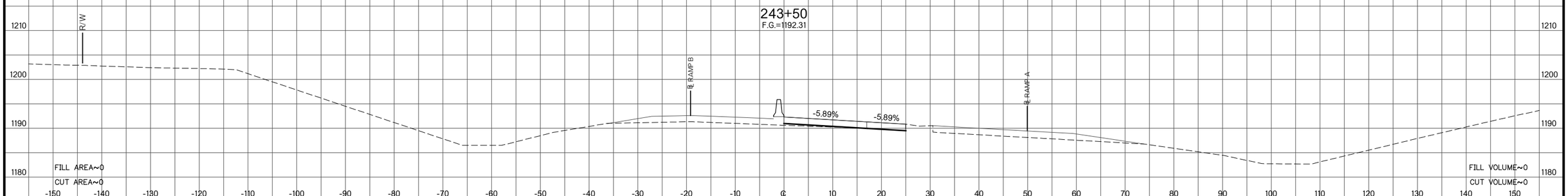
244+00
F.G.=1191.34



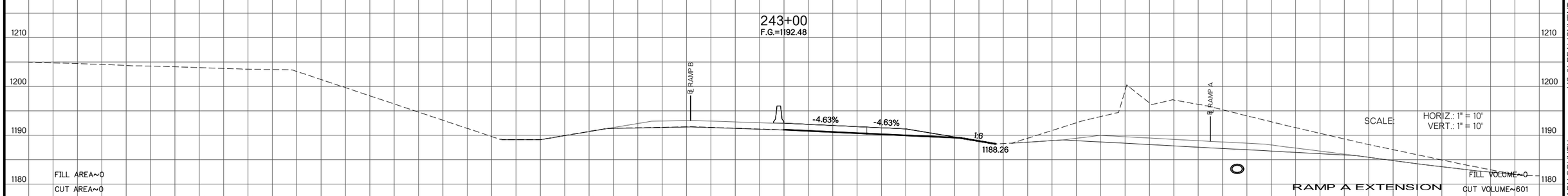
243+54.50
F.G.=1192.30



243+50
F.G.=1192.31



243+00
F.G.=1192.48



RAMP A EXTENSION

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X112

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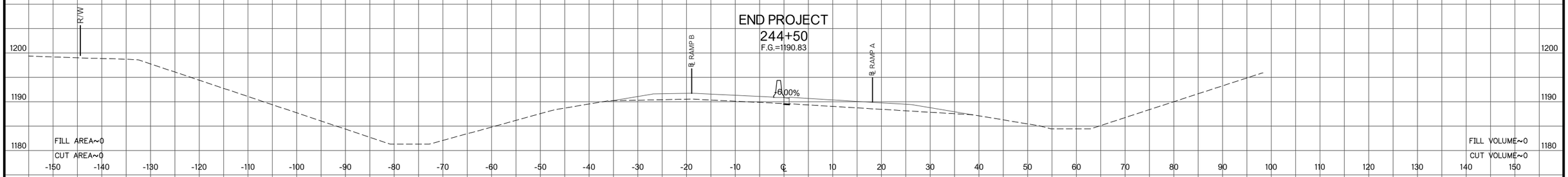
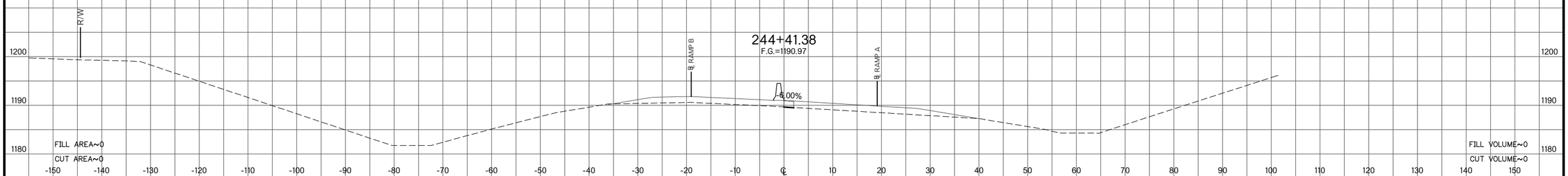
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

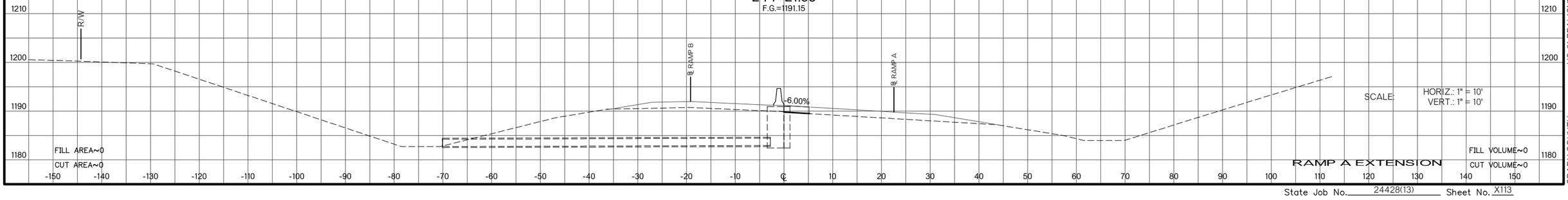
END PROJECT
244+50
F.G.=1190.83



244+41.38
F.G.=1190.97



244+21.53
F.G.=1191.15



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP A EXTENSION

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X113

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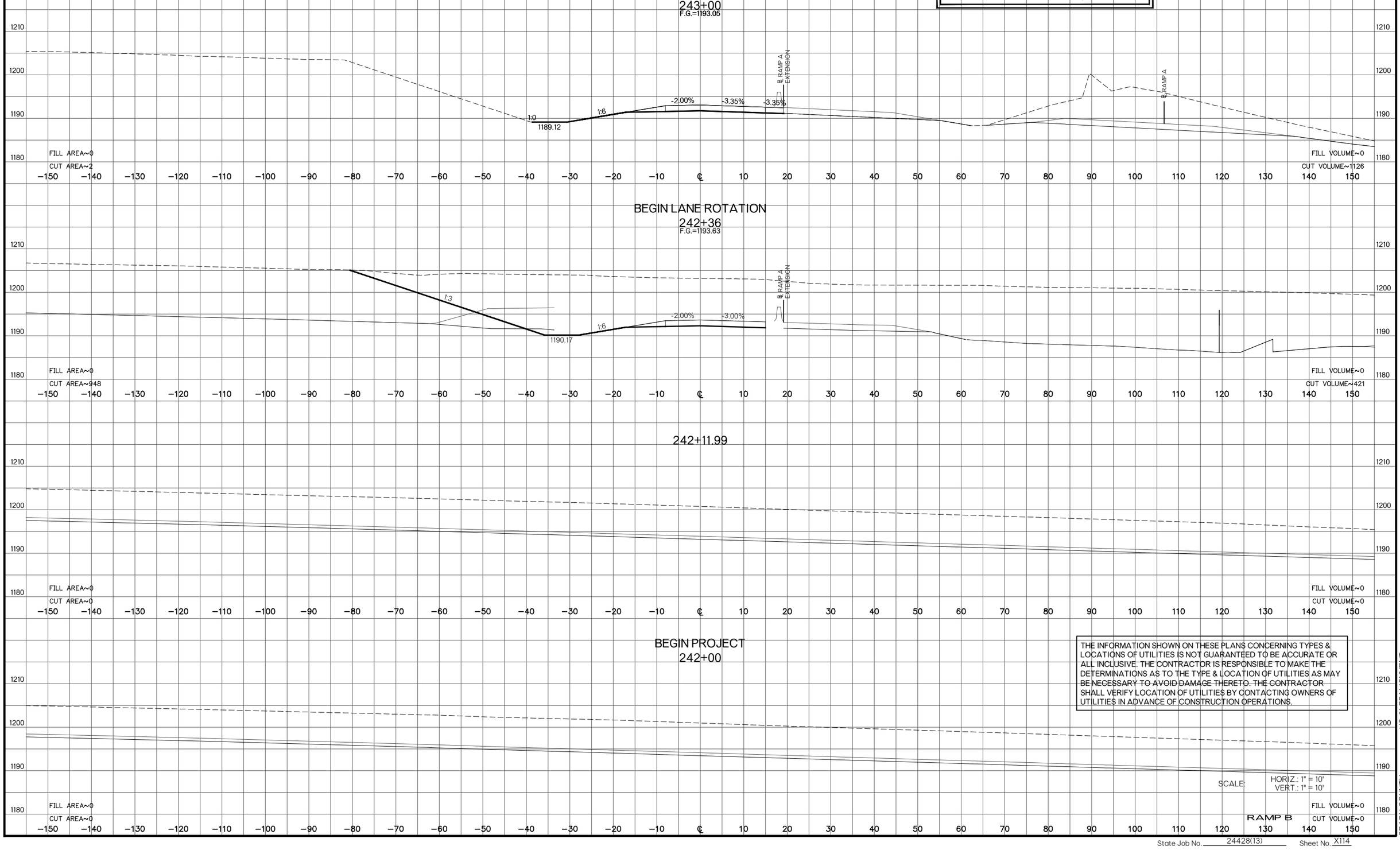
FINAL FIELD MEETING
JUNE 2020



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SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP B

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X114

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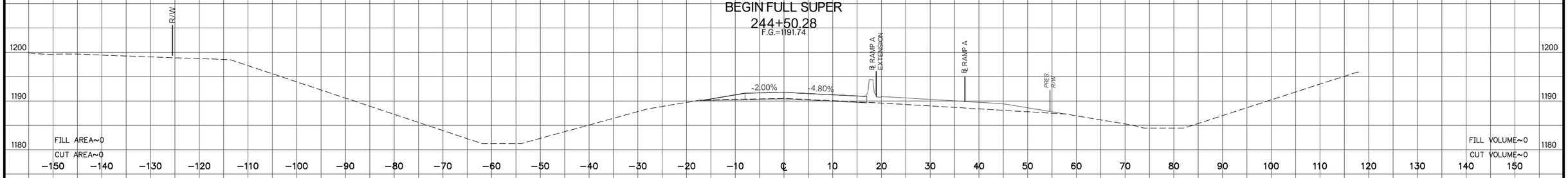
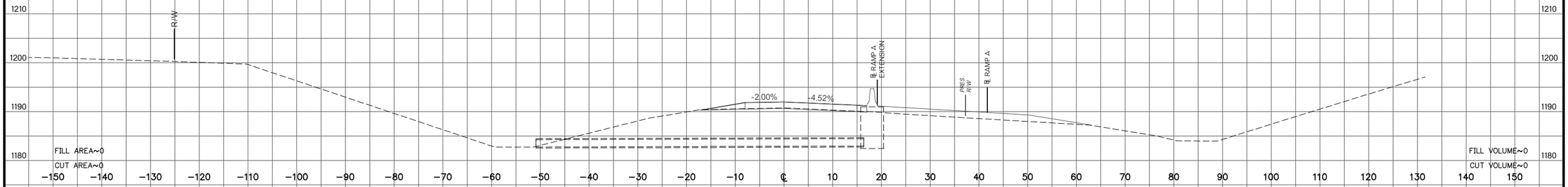
FINAL FIELD MEETING
JUNE 2020

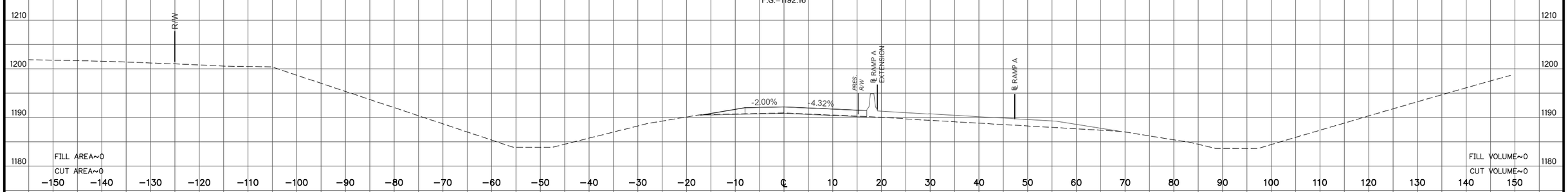
BEGIN FULL SUPER
244+50.28
F.G.=1191.74



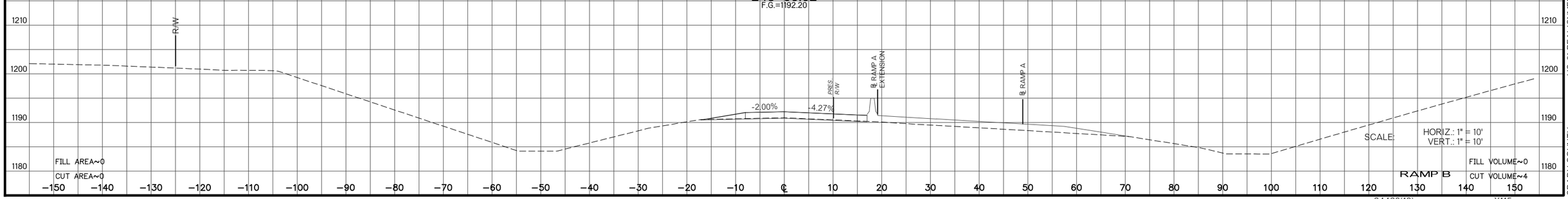
244+21.53
F.G.=1191.97



244+00
F.G.=1192.16



243+95.02
F.G.=1192.20



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP B

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X115

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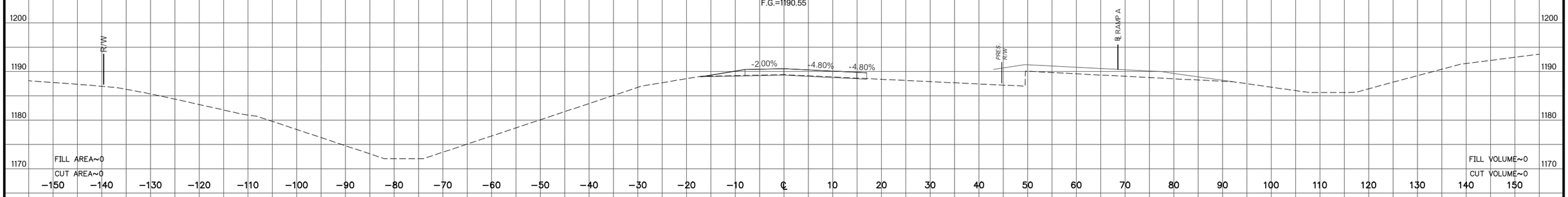
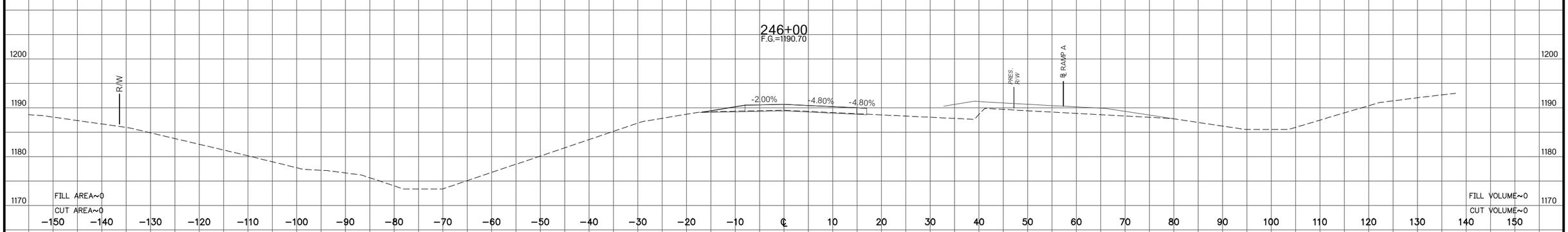
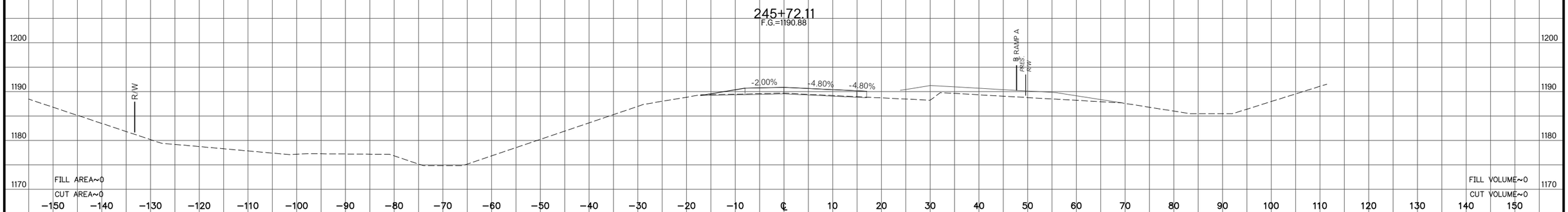
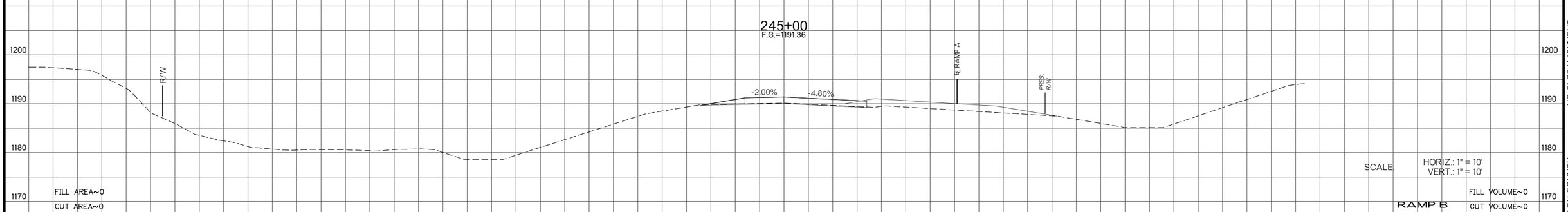
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020









SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP B

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X116

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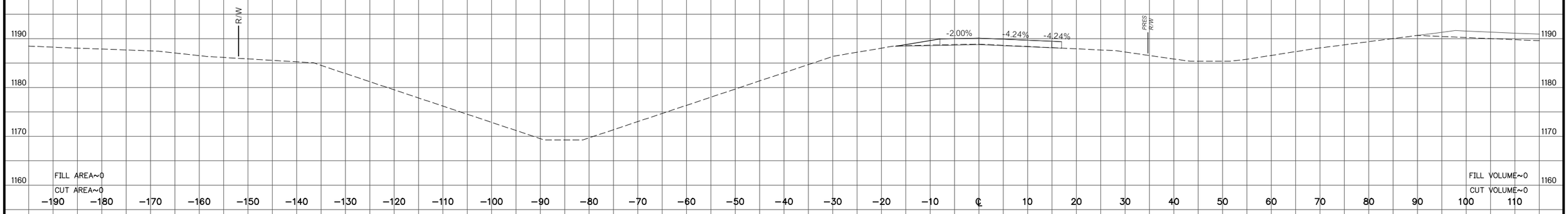
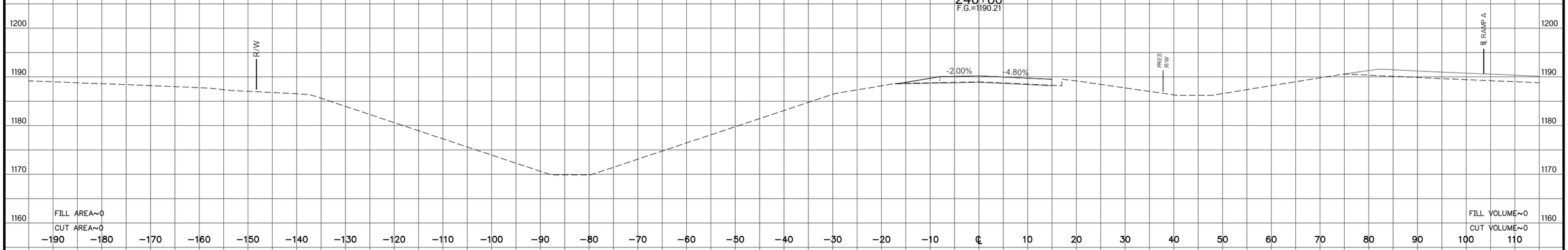
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

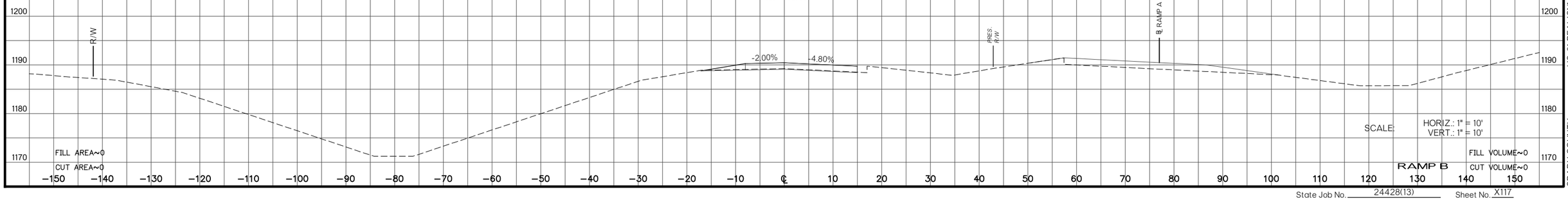
247+00
F.G.=1190.09



END FULL SUPERELEVATION
246+80
F.G.=1190.21



246+40.72
F.G.=1190.45



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP B

US-81 REALIGNMENT
GRADY COUNTY

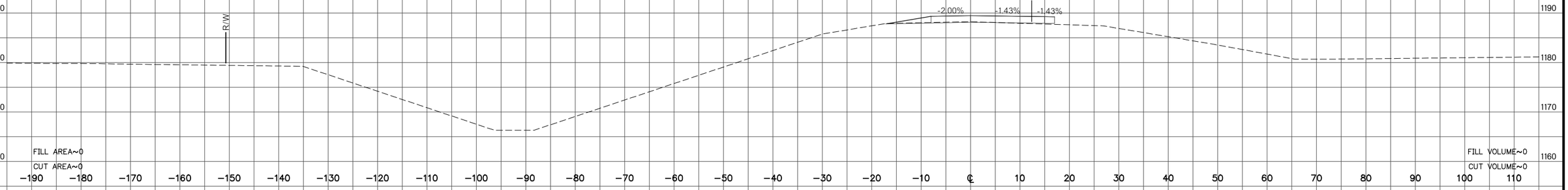
State Job No. 24428(13) Sheet No. X117

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

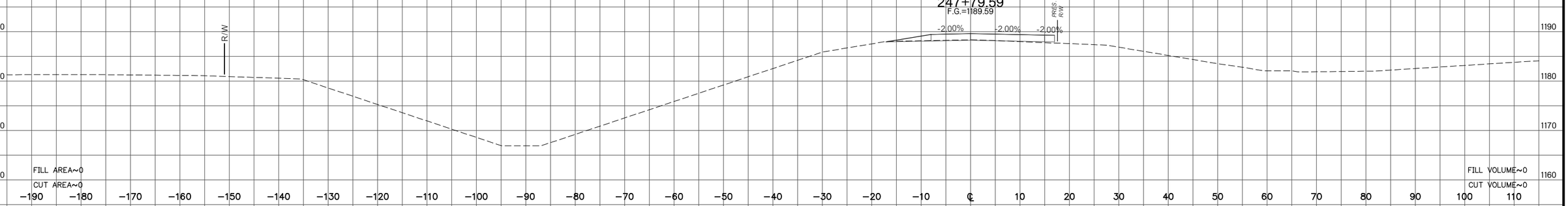
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

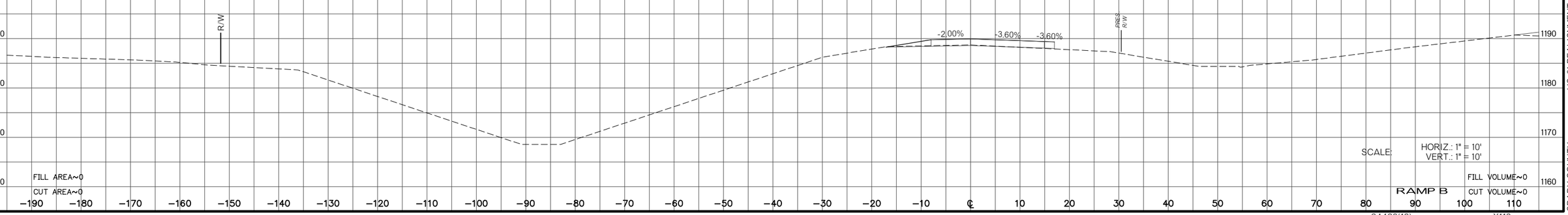
248+00
F.G.=1189.47



REVERSE CROSS SLOPE STATION
247+79.59
F.G.=1189.59



247+22.68
F.G.=1189.95



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP B

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X118

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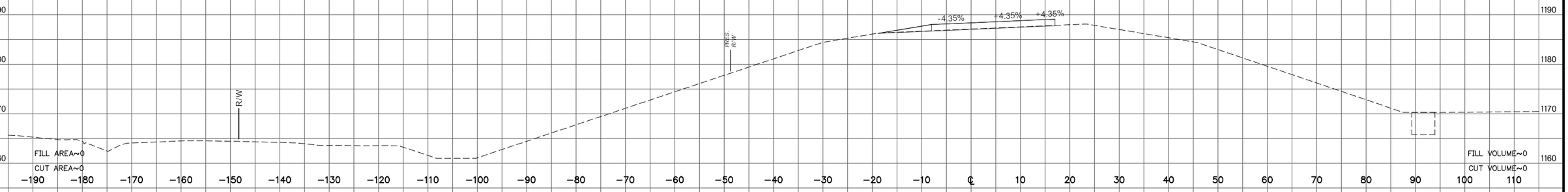
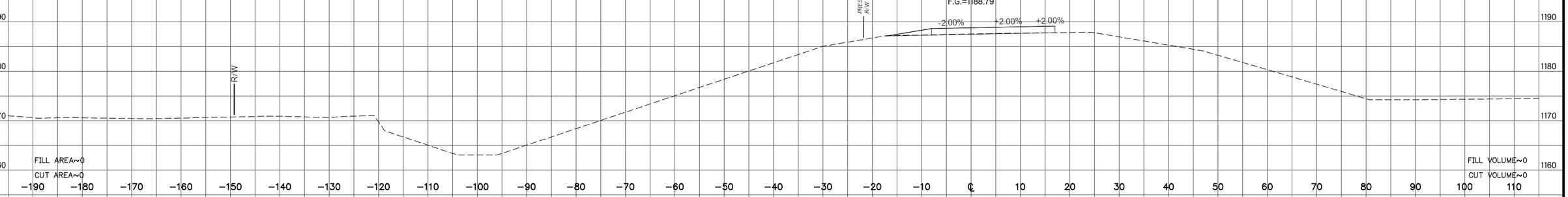
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

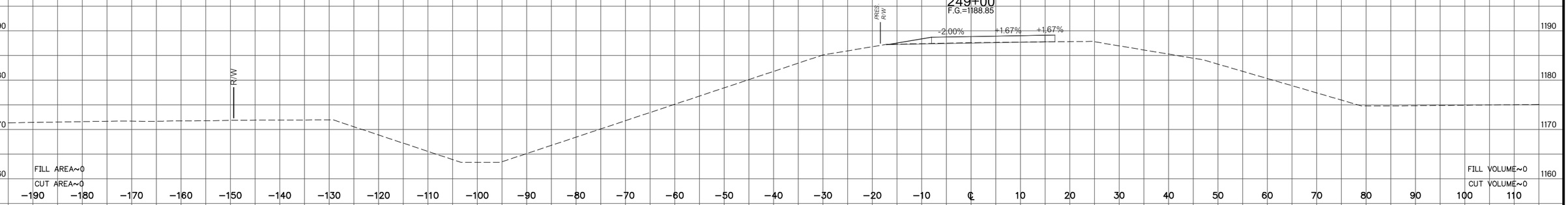
249+78.78
F.G.=1188.36



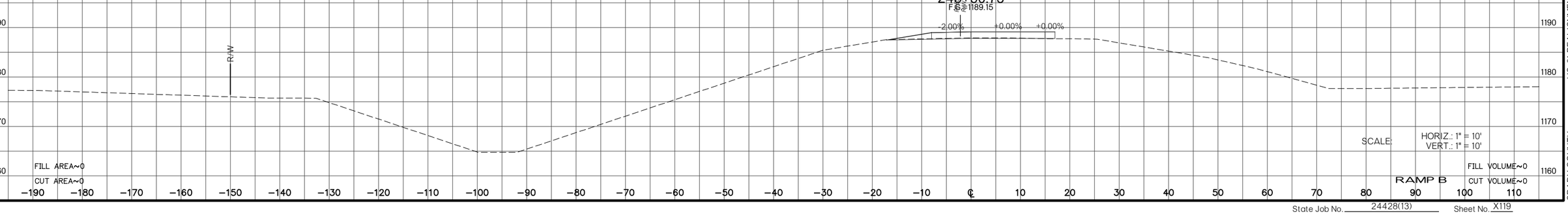
REVERSE CROSS SLOPE STATION
249+09.60
F.G.=1188.79



249+00
F.G.=1188.85



FLAT
248+50.73
F.G.=1189.15



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP B

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X119

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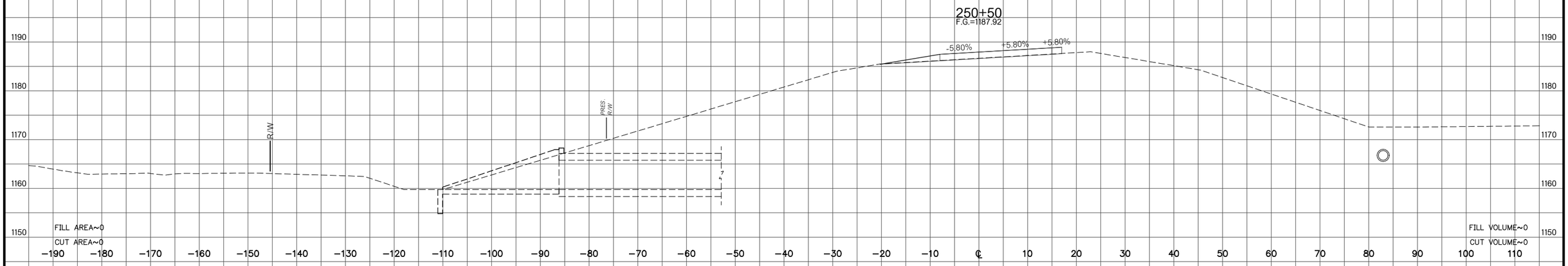
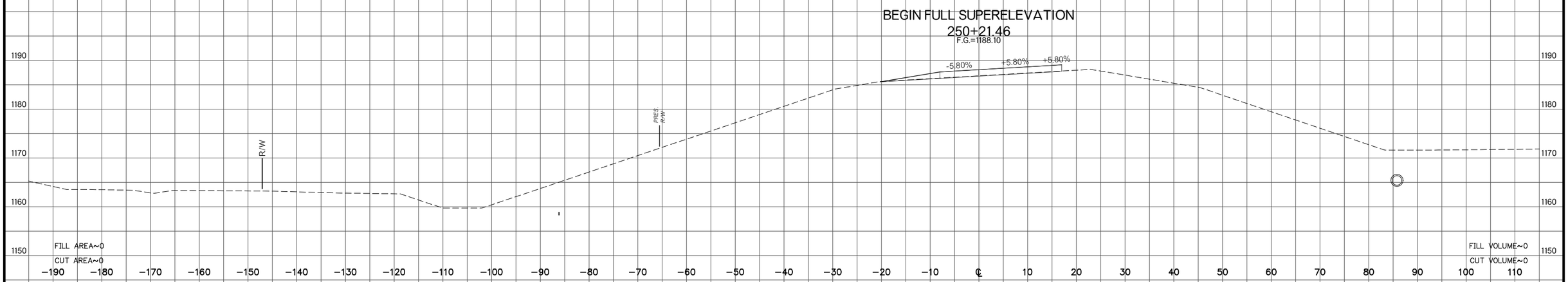
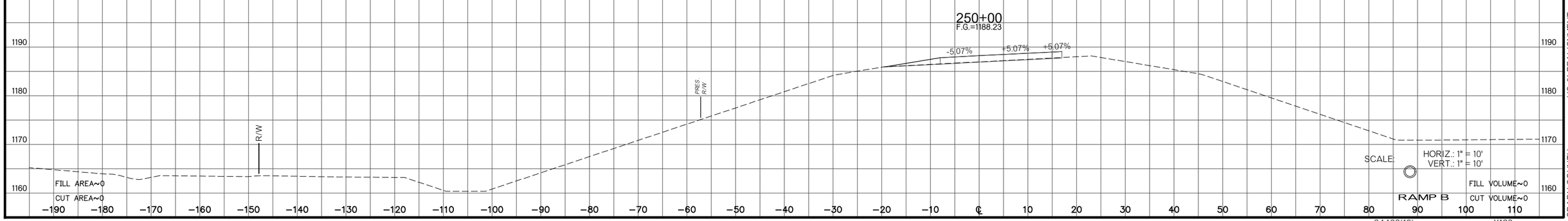
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020







SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP B

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X120

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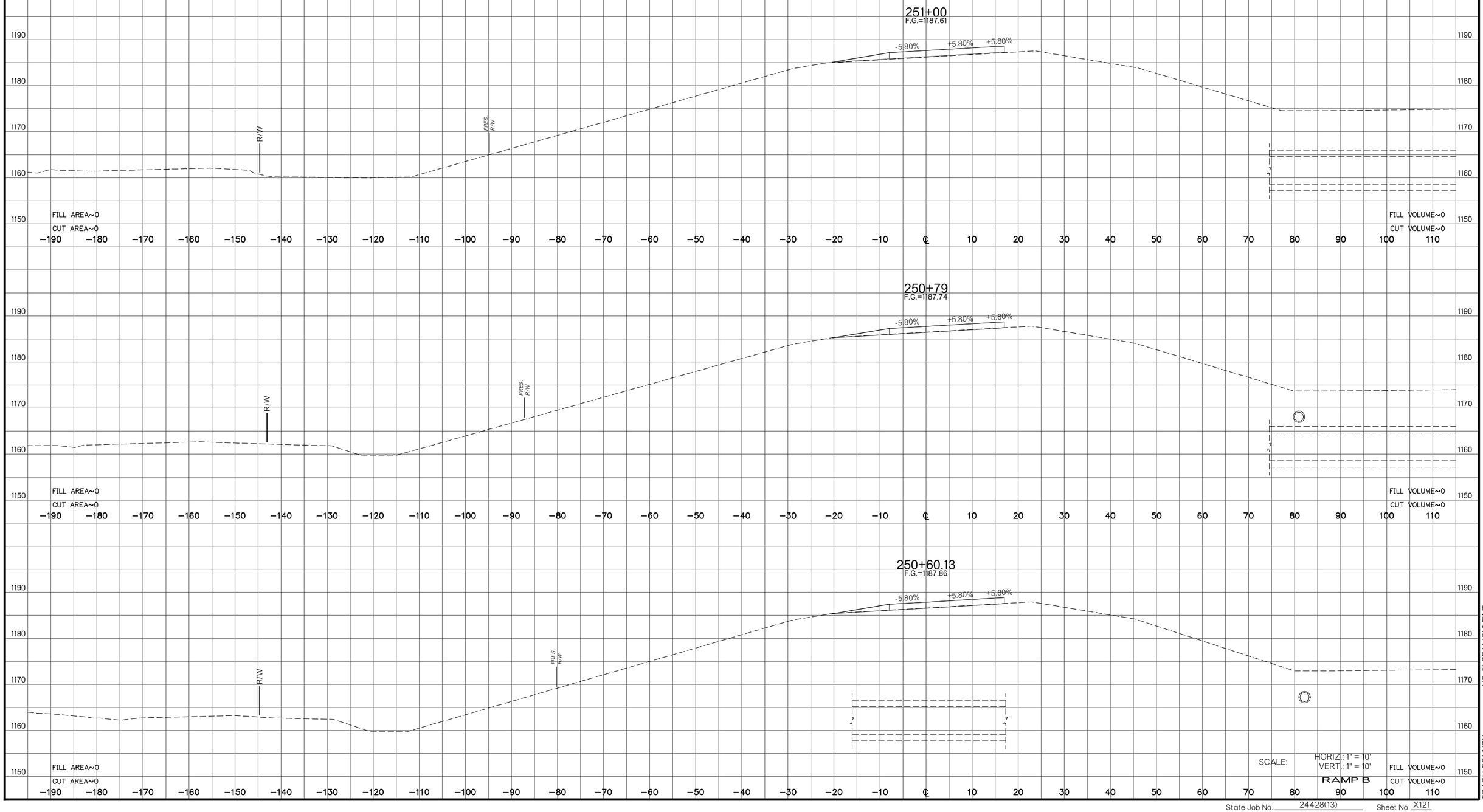
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP B

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X121

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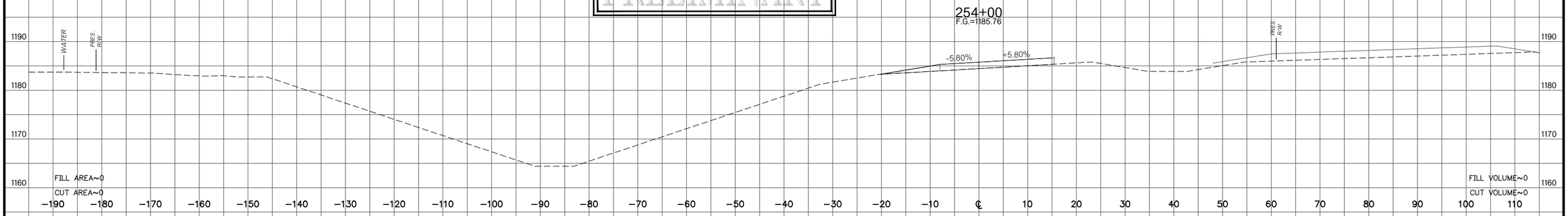
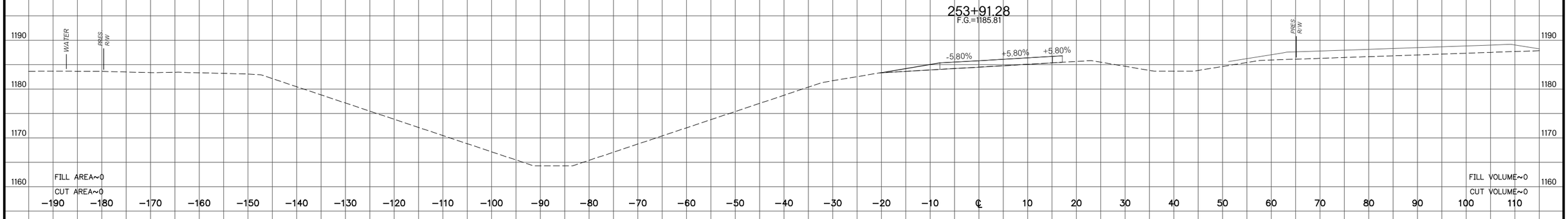
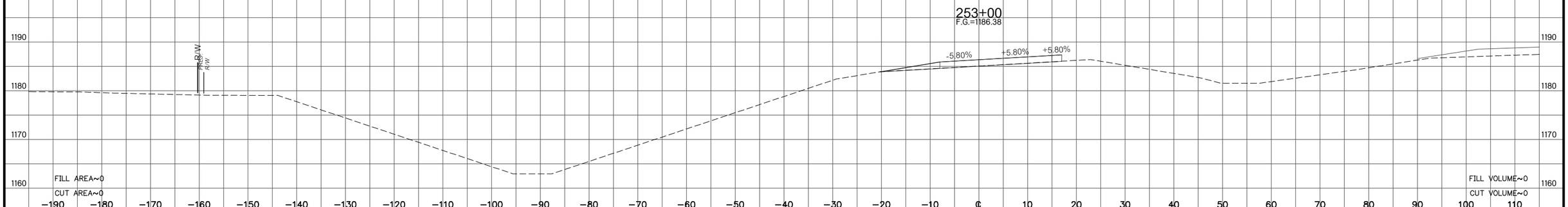
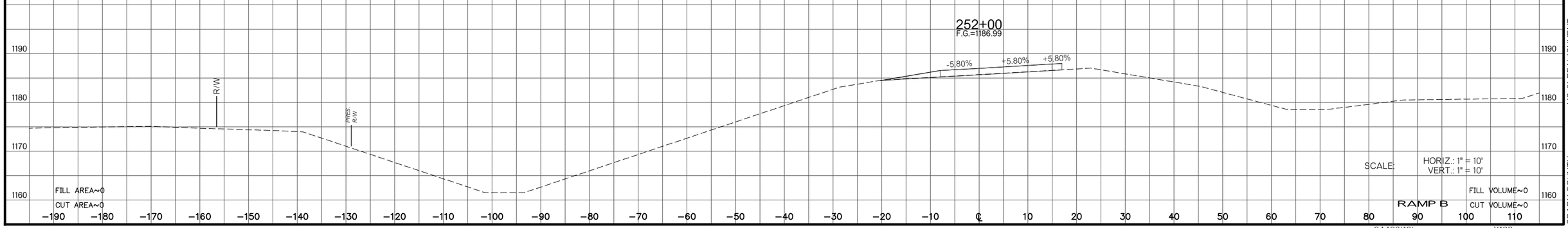
FINAL FIELD MEETING
JUNE 2020









SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP B

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X122

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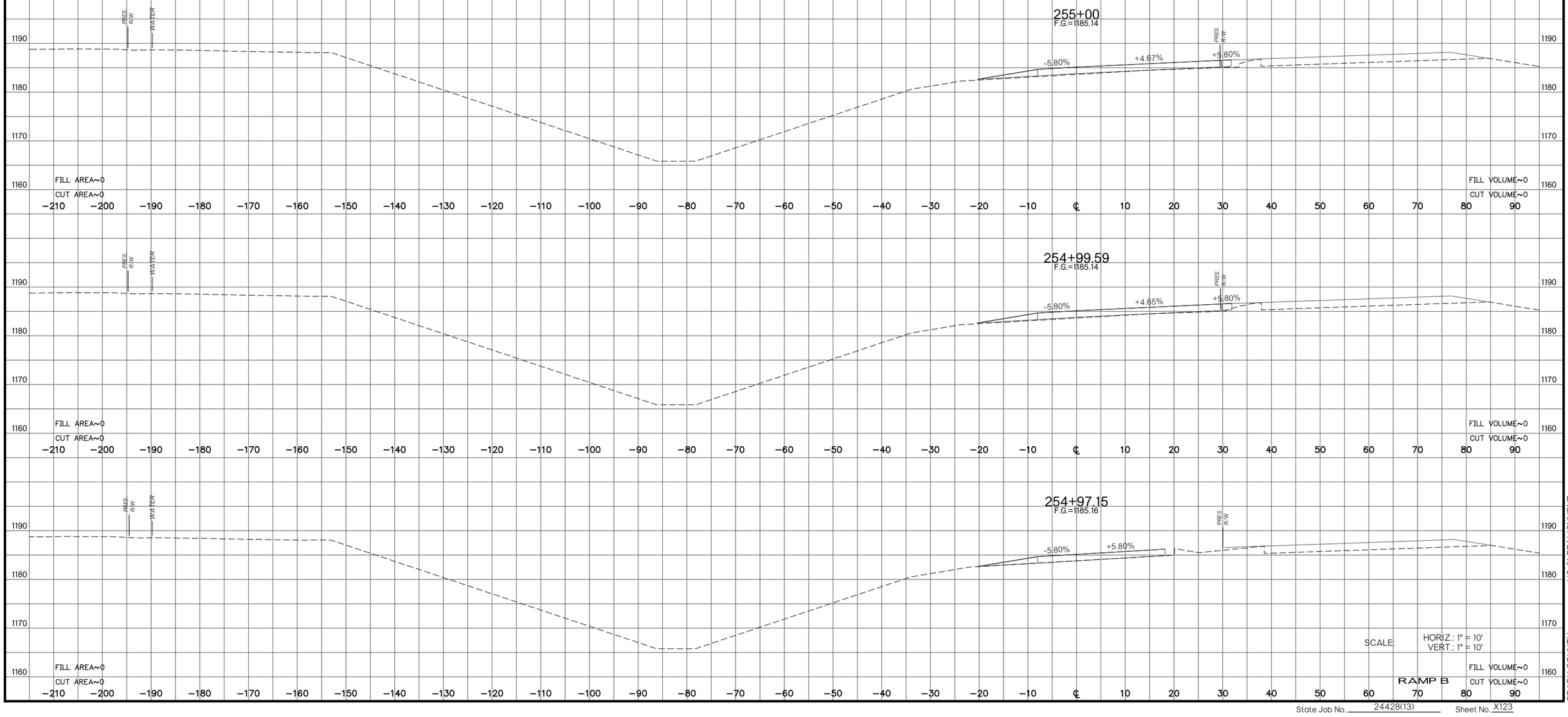
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020



State Job No. 24428(13) Sheet No. X123

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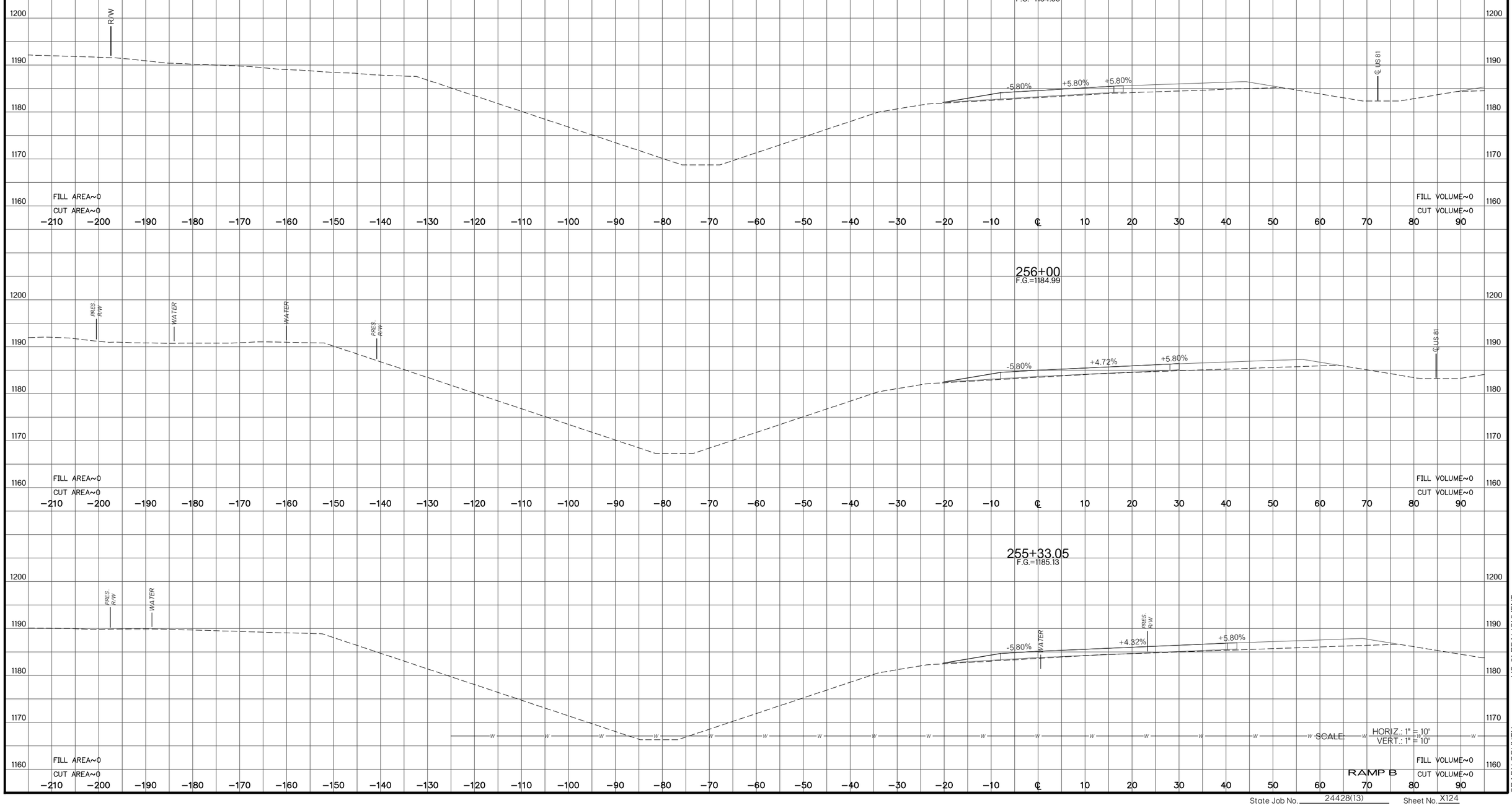
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020



US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X124

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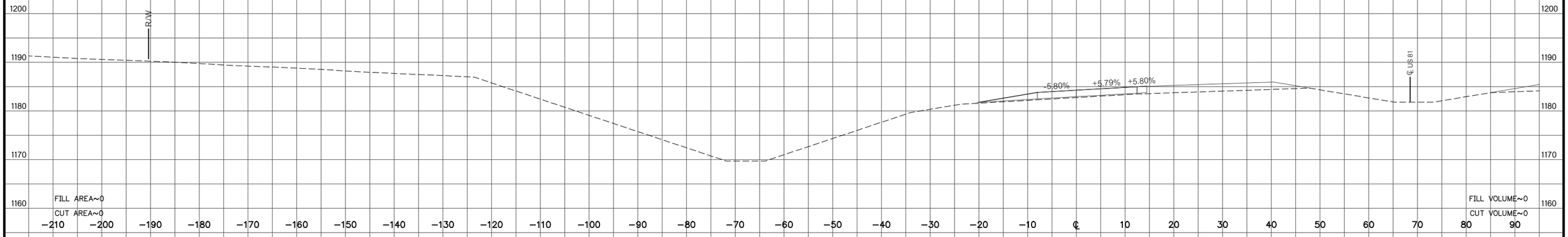
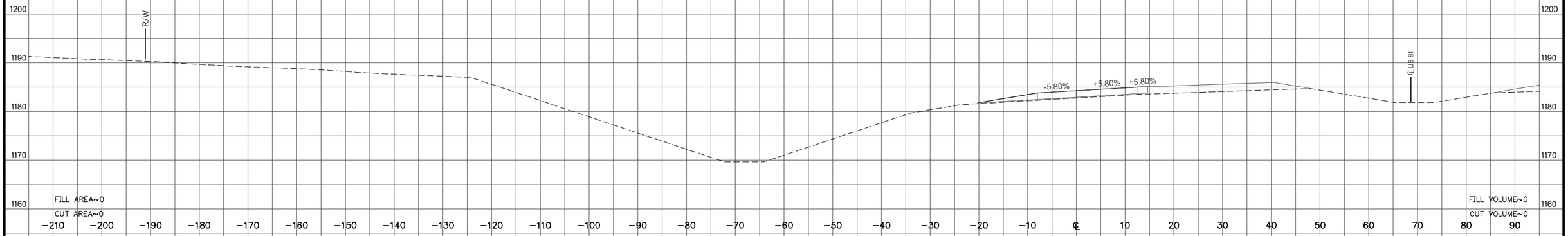
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

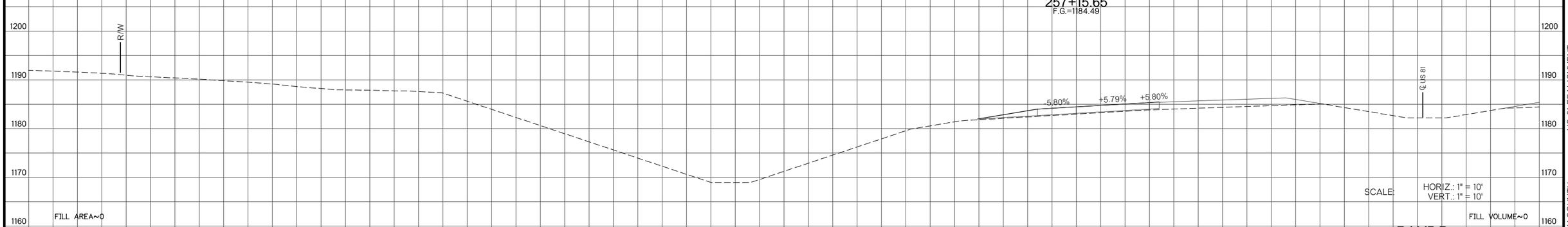
END FULL SUPERELEVATION
257+69.03
F.G.=1184.24



257+63.83
F.G.=1184.27



257+15.65
F.G.=1184.49



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP B

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X125

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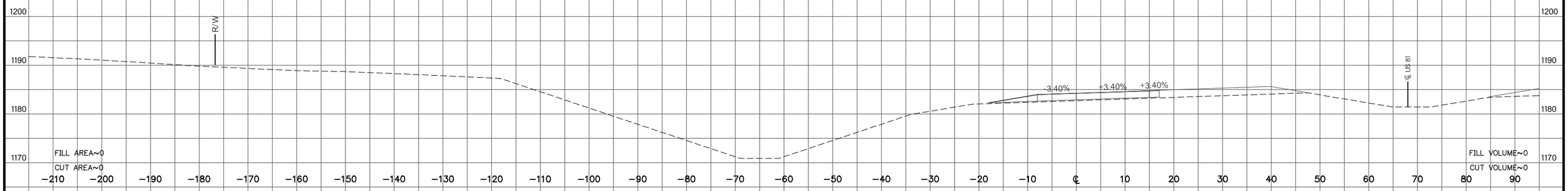
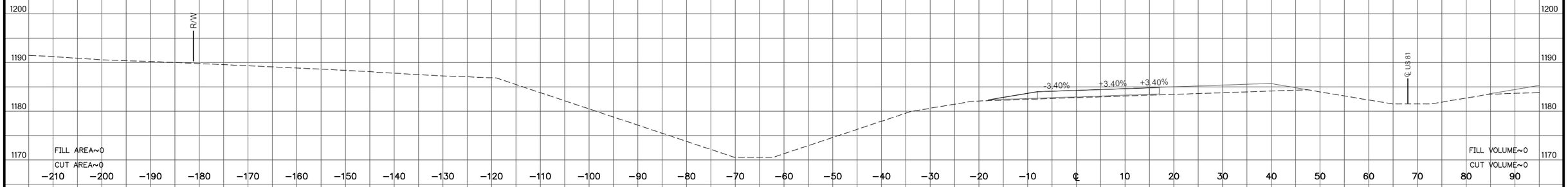
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

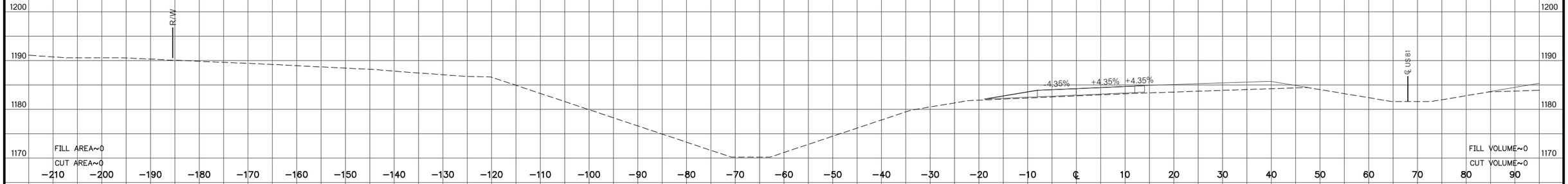
258+50
F.G.=1184.22



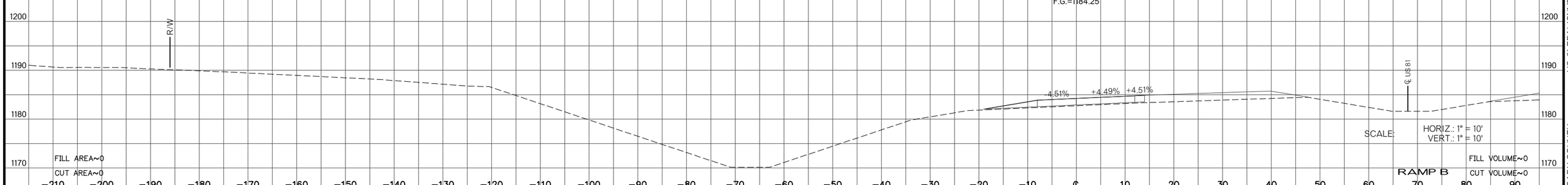
END LANE ROTATION
END SHOULDER ROTATION
258+26.55
F.G.=1184.27



258+03.78
F.G.=1184.25



258+00
F.G.=1184.25



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP B

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X126

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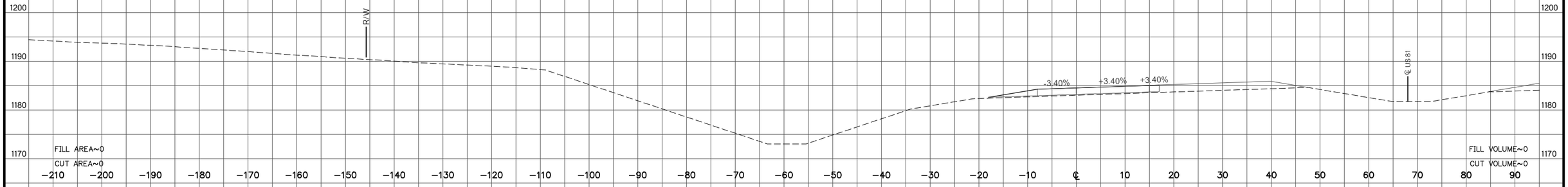
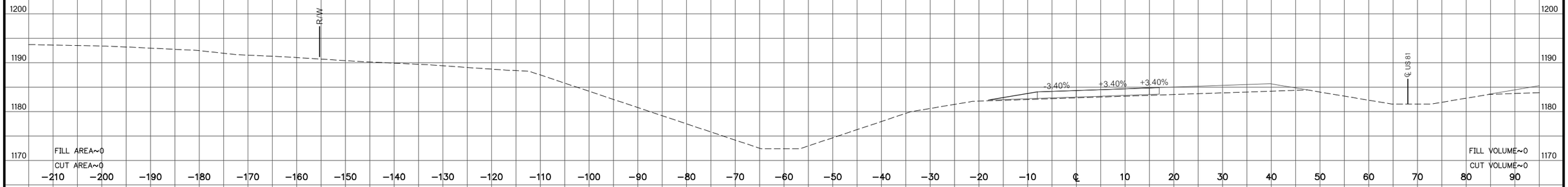
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

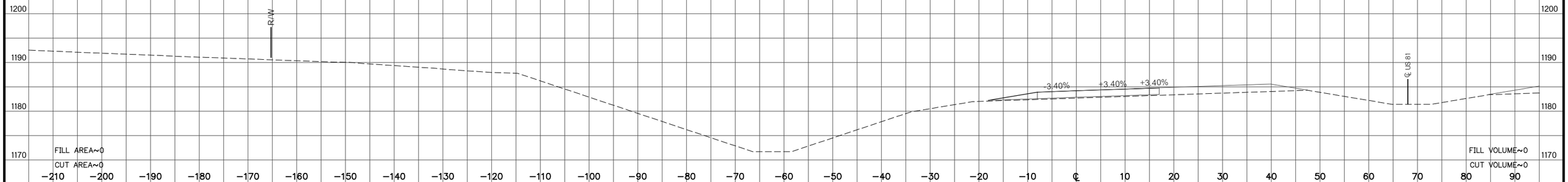
260+00
F.G.=1184.52



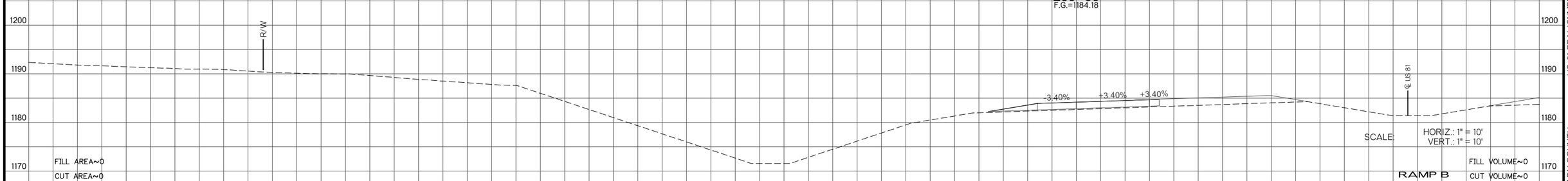
259+55.76
F.G.=1184.31



259+07.83
F.G.=1184.19



259+00
F.G.=1184.18



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP B

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X127

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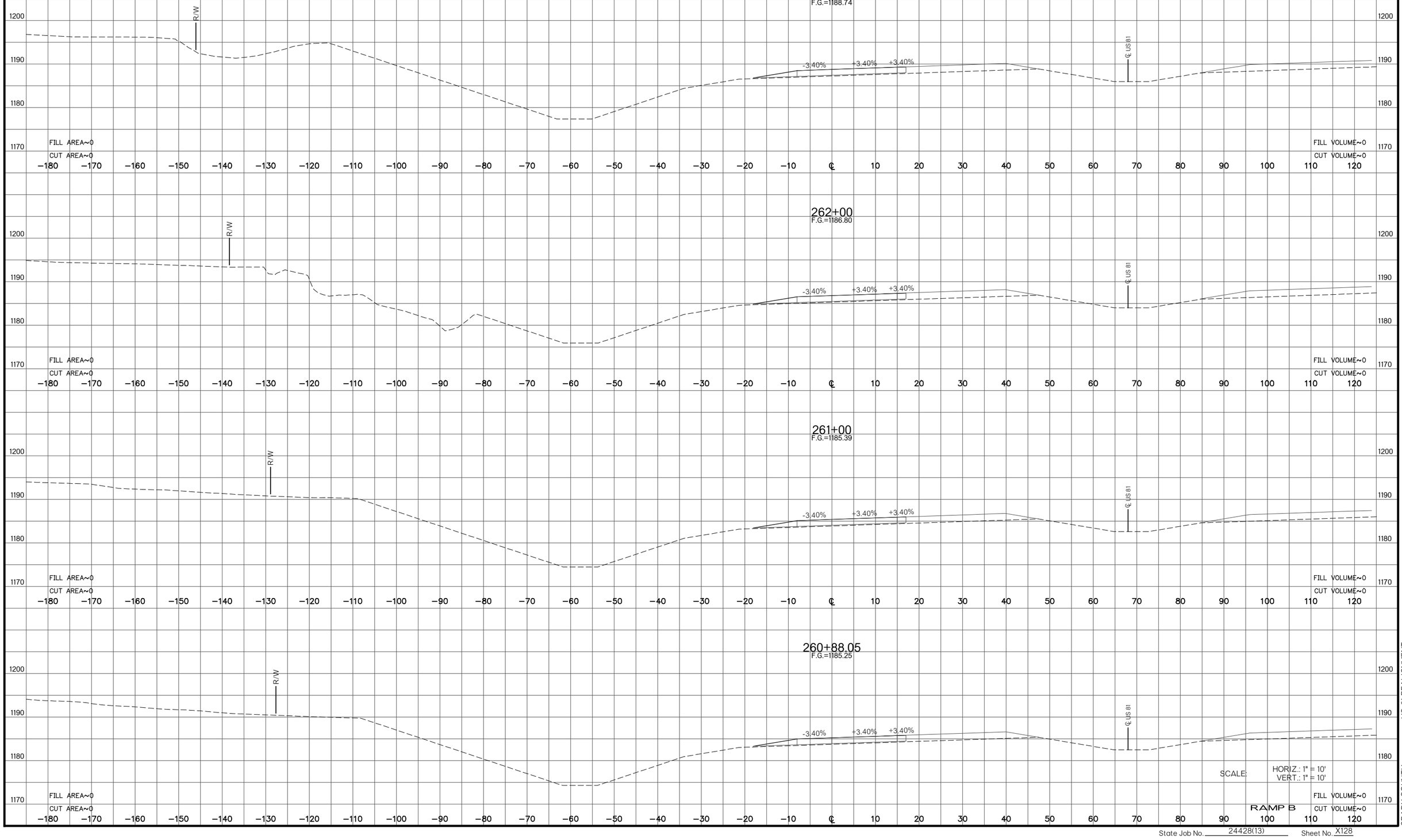
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP B

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X128

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PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

END PROJECT
263+72.32

R/W

℄ US 81

1200
1190
1180
1170

FILL AREA~0
CUT AREA~0

−180 −170 −160 −150 −140 −130 −120 −110 −100 −90 −80 −70 −60 −50 −40 −30 −20 −10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

FILL VOLUME~0
CUT VOLUME~0

RAMP B

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X129

PRELIMINARY

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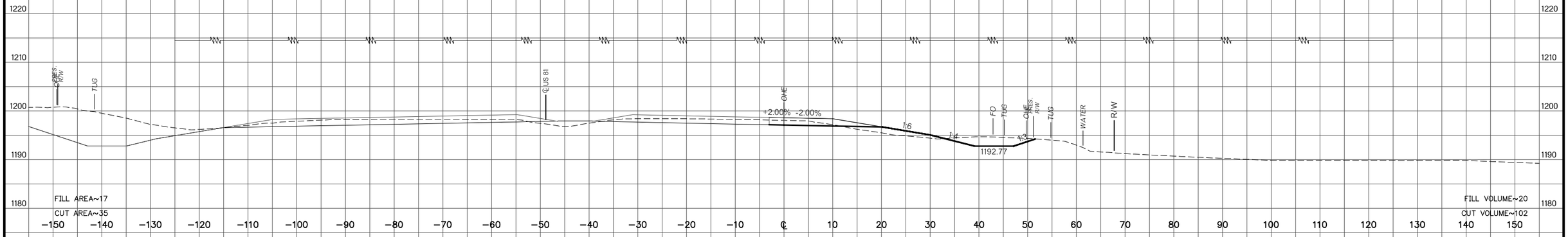
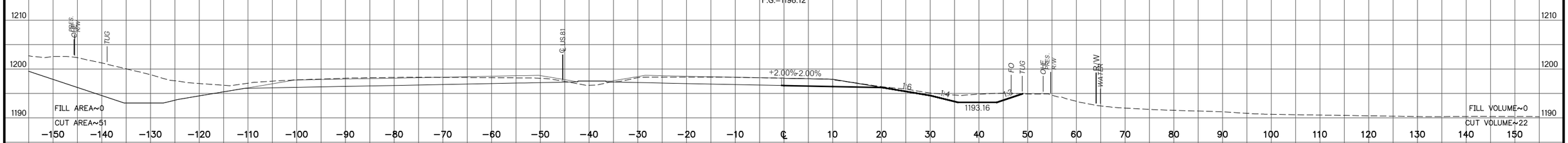
FINAL FIELD MEETING
JUNE 2020

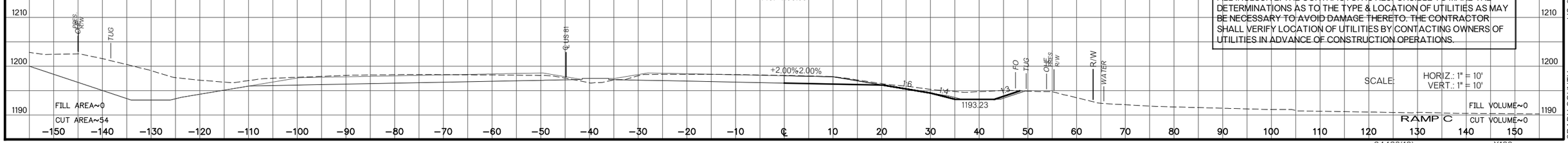
97+63.85
F.G.=1198.59



97+00
F.G.=1198.12



BEGIN PROJECT
96+88.43
F.G.=1198.05



THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPES & LOCATIONS OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO MAKE THE DETERMINATIONS AS TO THE TYPE & LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING OWNERS OF UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS.

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP C

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X130

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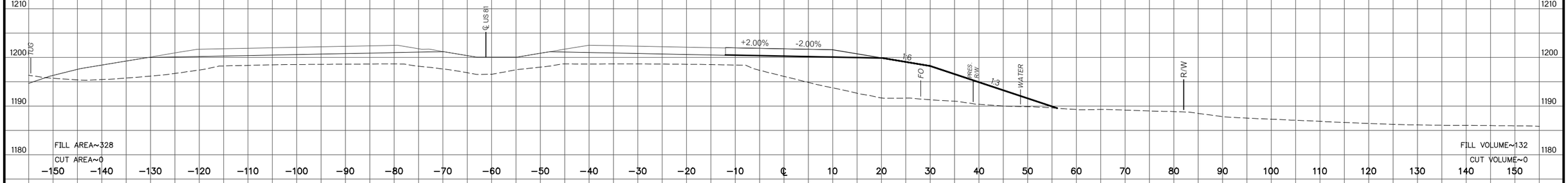
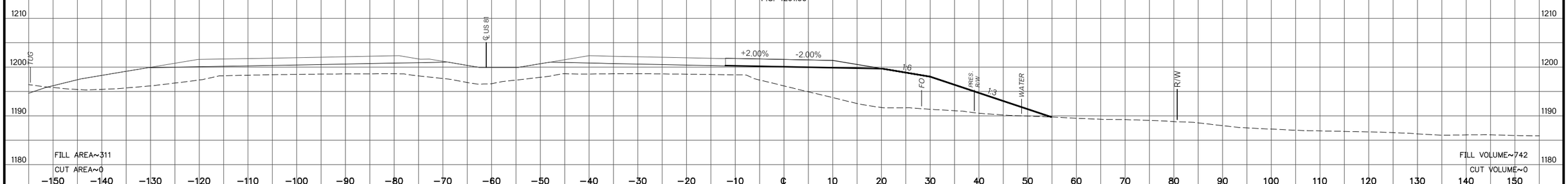
FINAL FIELD MEETING
JUNE 2020

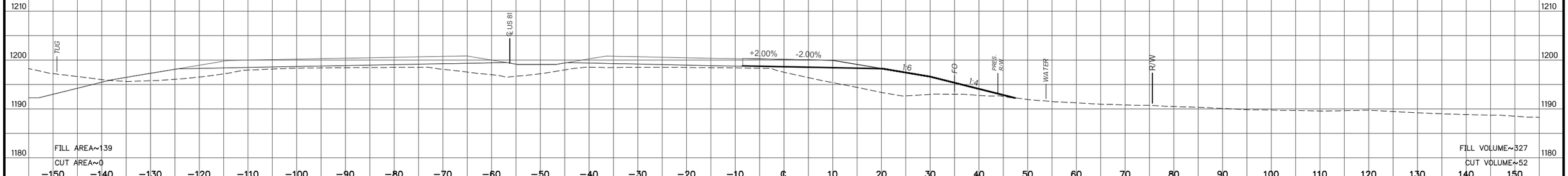
100+00
F.G.=1201.76



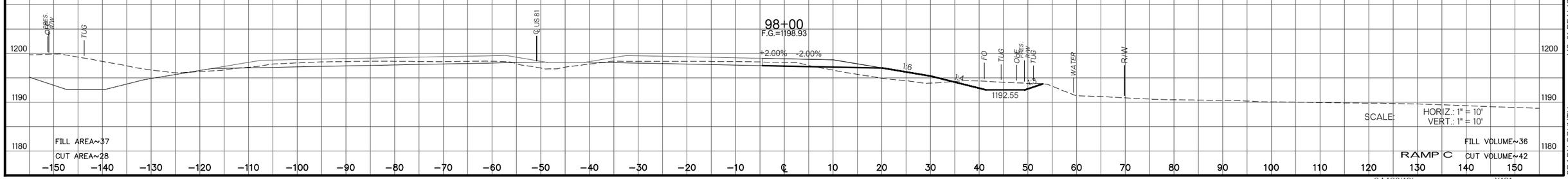
99+88.87
F.G.=1201.56



99+00
F.G.=1200.14



98+00
F.G.=1198.93



State Job No. 24428(13) Sheet No. X131

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GRADY COUNTY

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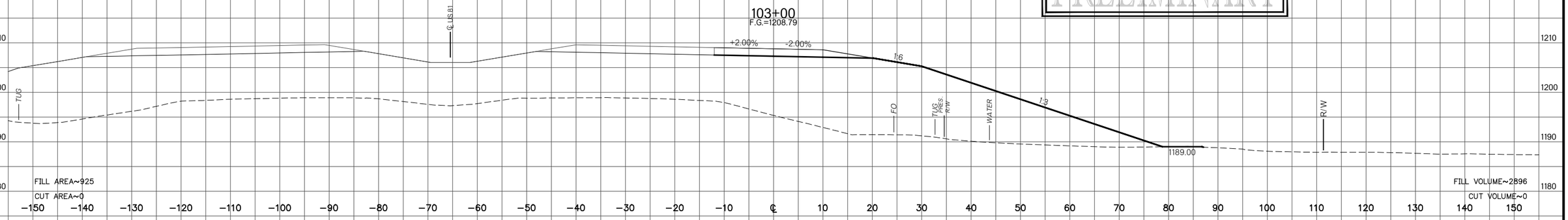
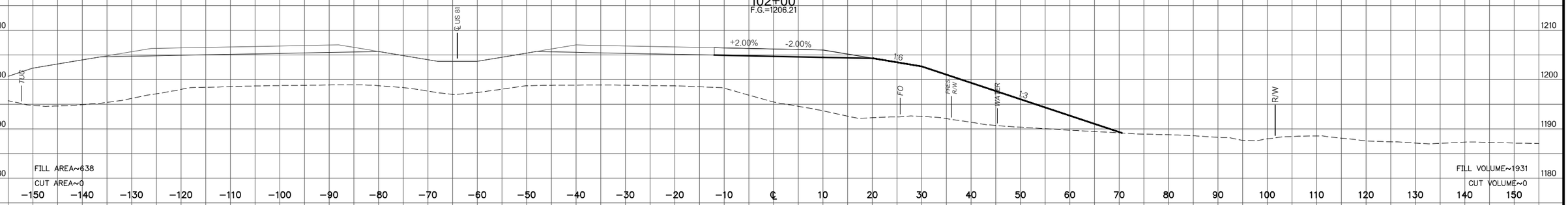
FINAL FIELD MEETING
JUNE 2020

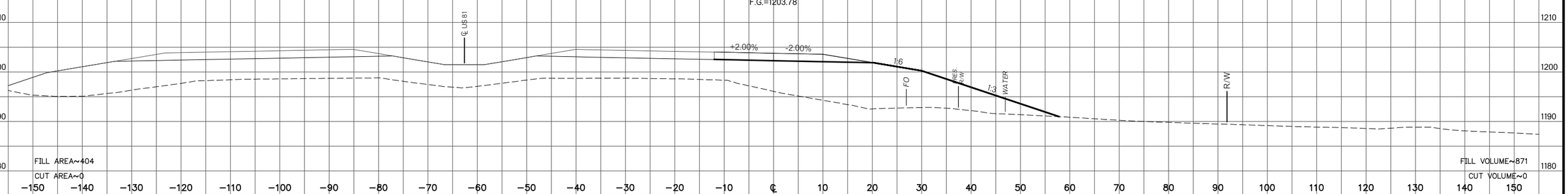
103+00
F.G.=1208.79



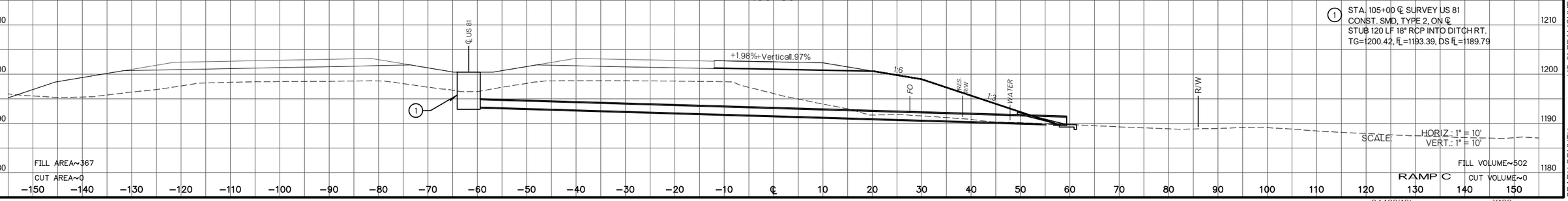
102+00
F.G.=1206.21



101+00
F.G.=1203.78



100+39



1. STA. 105+00 ℄ SURVEY US 81
CONST. SMD, TYPE 2, ON ℄
STUB 120 LF 18" RCP INTO DITCH RT.
TG=1200.42, FL=1193.39, DS FL=1189.79

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP C

US-81 REALIGNMENT
GRADY COUNTY

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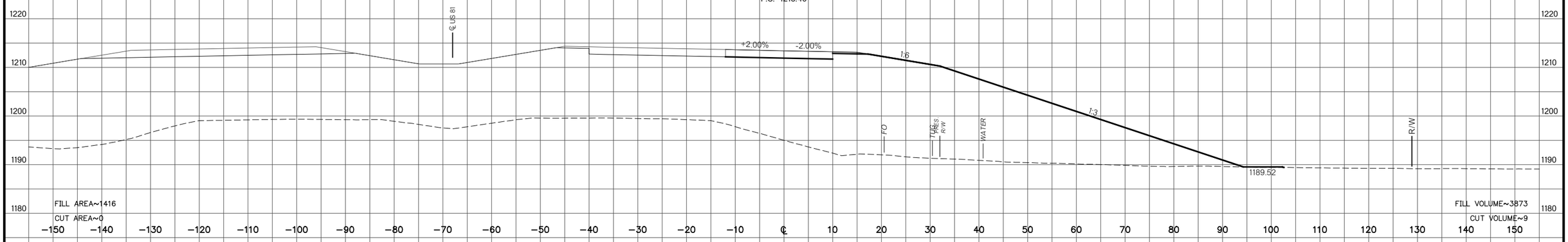
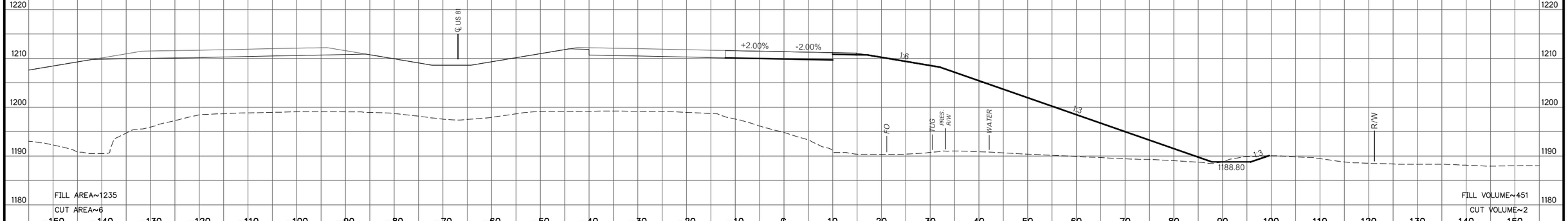
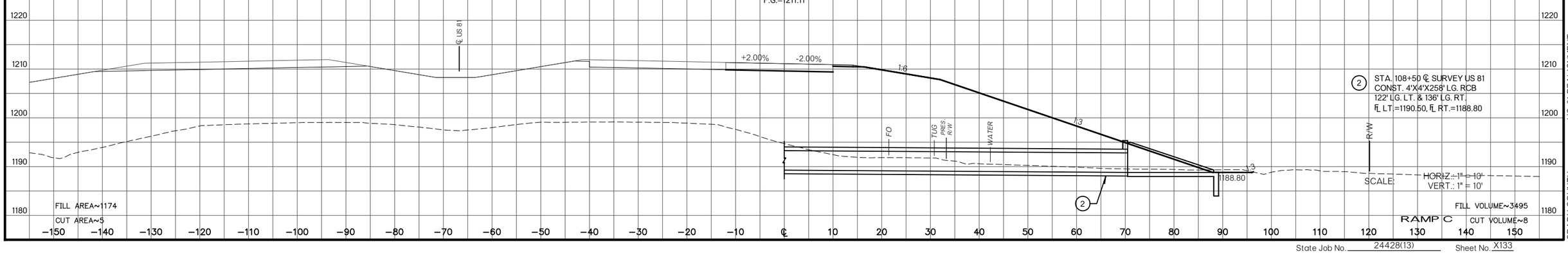
104+78.92
F.G.=1213.40



104+00
F.G.=1211.37



103+89.89
F.G.=1211.11



(2) STA. 108+50 ℄ SURVEY US 81
CONST. 4'X4'X258' LG. RCB
122' LG. LT. & 136' LG. RT.
FL LT.=1190.50, FL RT.=1188.80

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP C

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GRADY COUNTY

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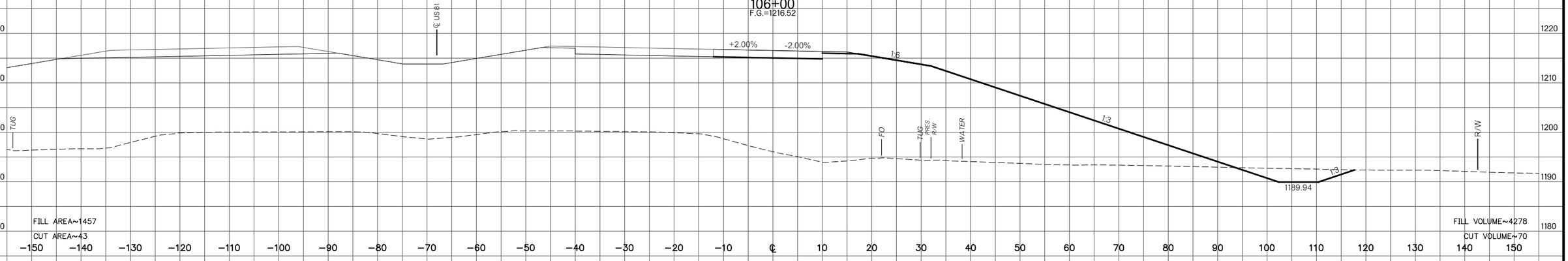
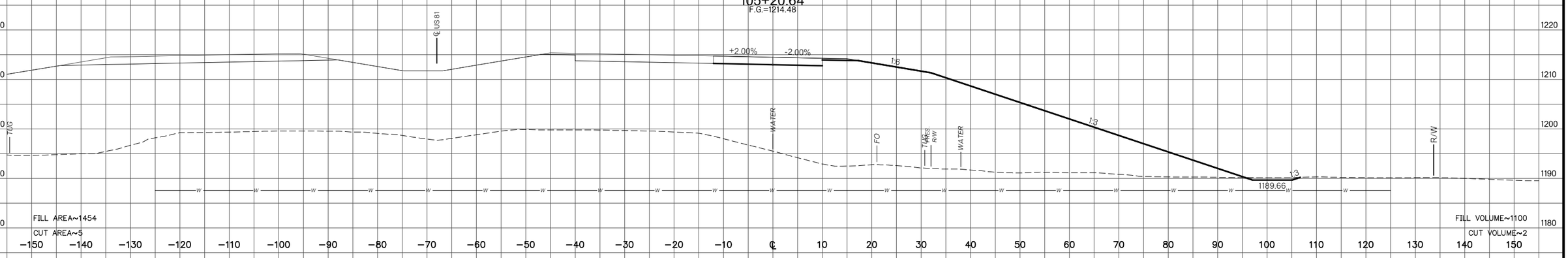
FINAL FIELD MEETING
JUNE 2020

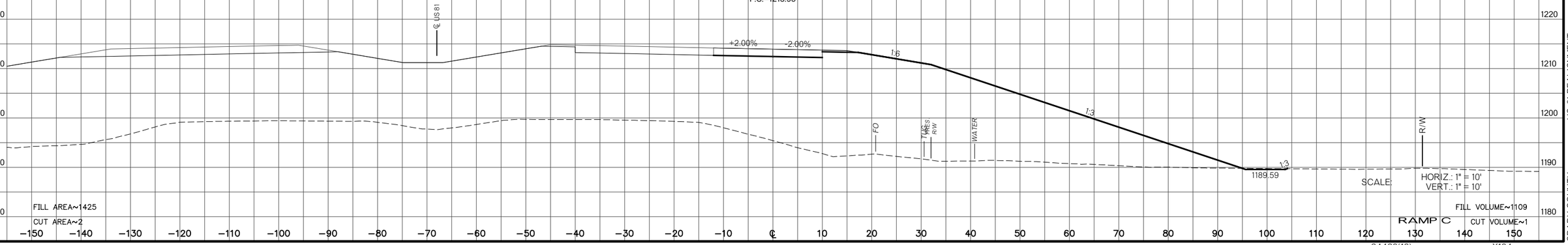
106+00
F.G.=1216.52



105+20.64
F.G.=1214.48



105+00
F.G.=1213.95



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP C

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GRADY COUNTY

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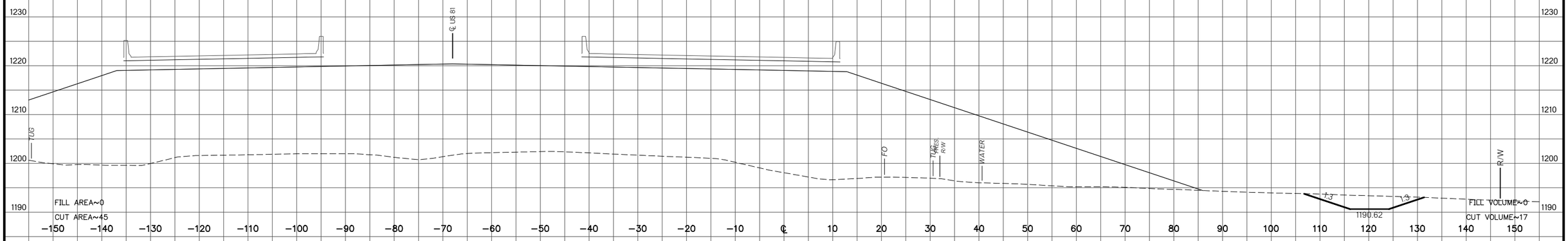
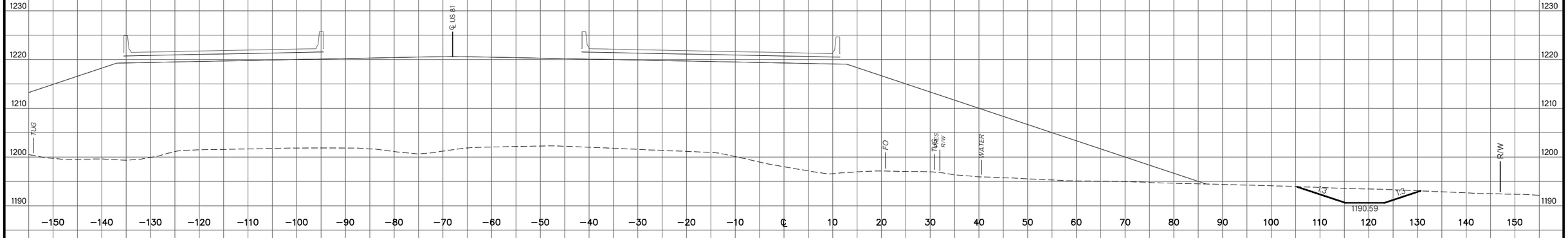
FINAL FIELD MEETING
JUNE 2020

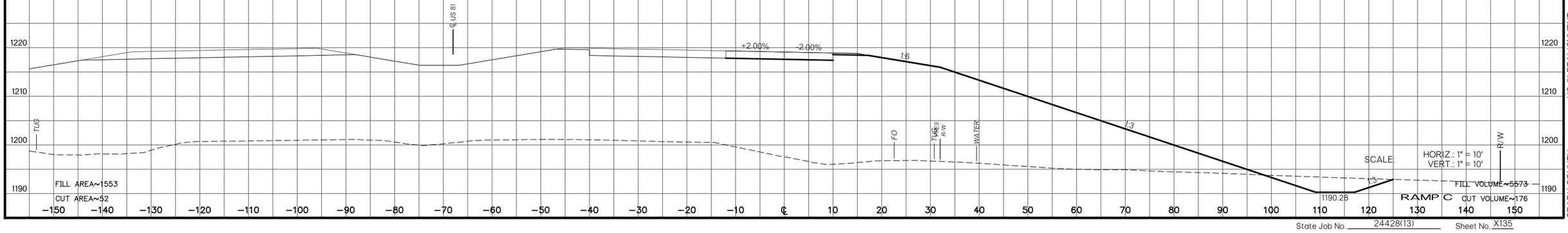
108+00



BEGIN BRIDGE B APPROACH
107+90.12



107+00
F.G.=1219.10



SCALE:
HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP C

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X135

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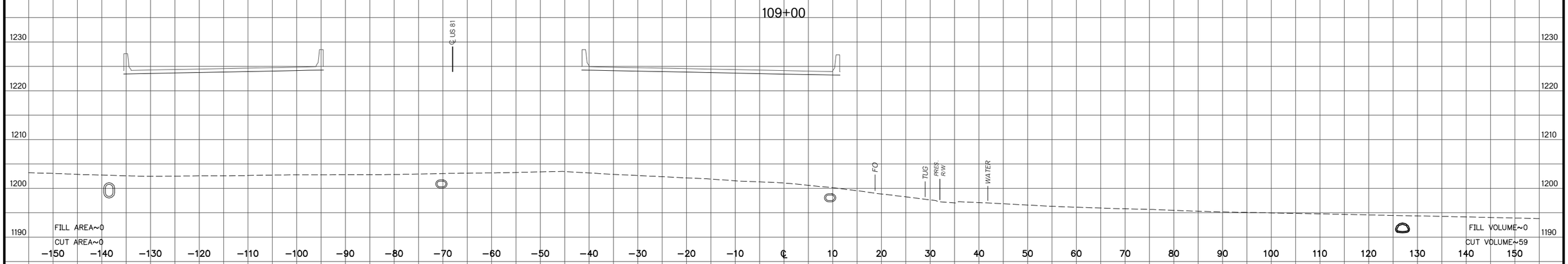
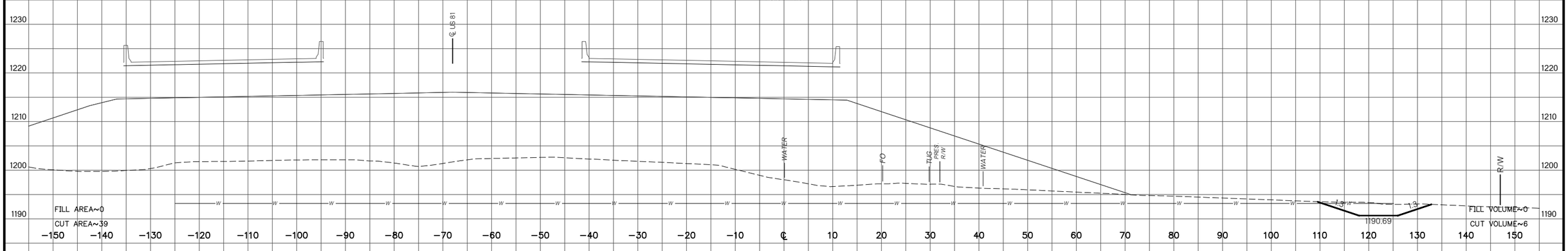
FINAL FIELD MEETING
JUNE 2020

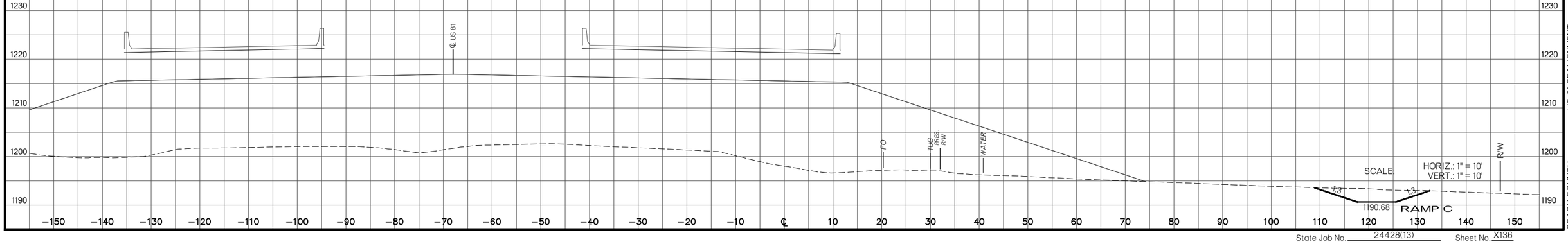
109+00



108+19



BEGIN BRIDGE B
108+15.12



US-81 REALIGNMENT

GRADY COUNTY

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BEGIN SUPERELEVATION
109+96.65

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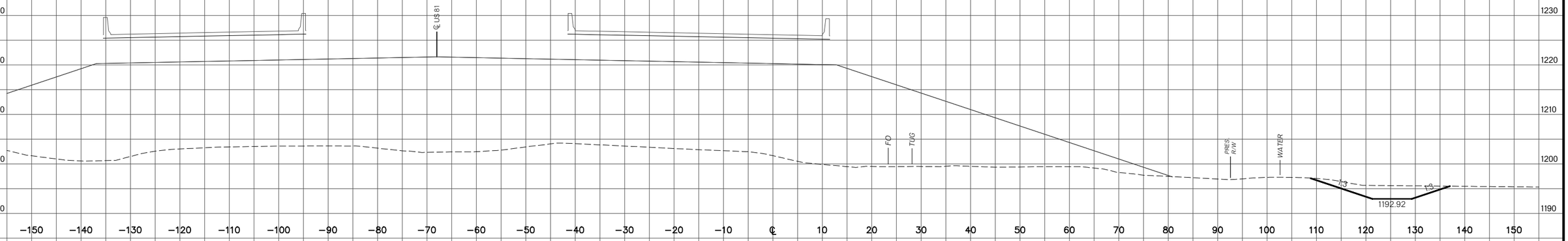
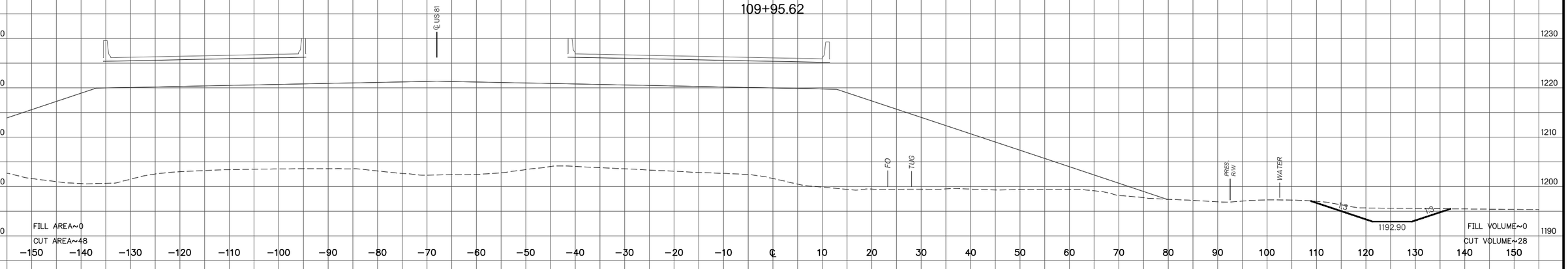
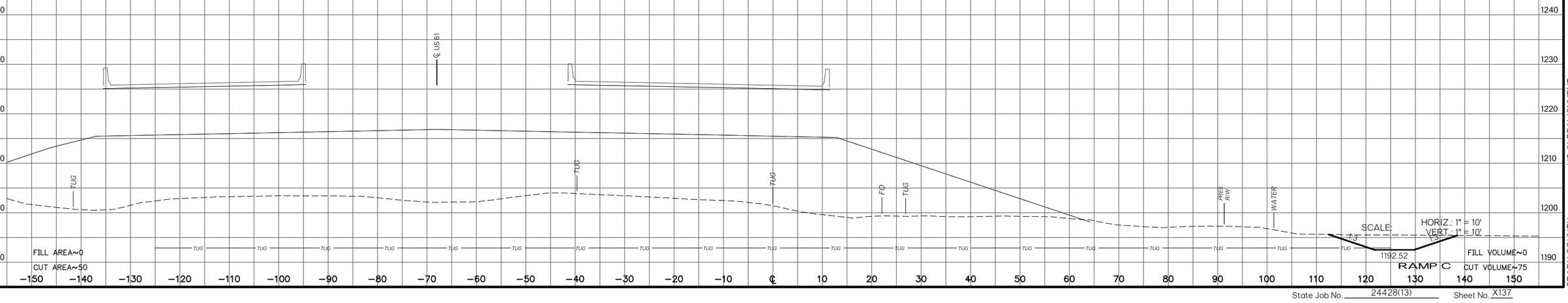
JUNE 2020



END BRIDGE B
109+95.62



109+80.08



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GRADY COUNTY

State Job No. 24428(13) Sheet No. X137

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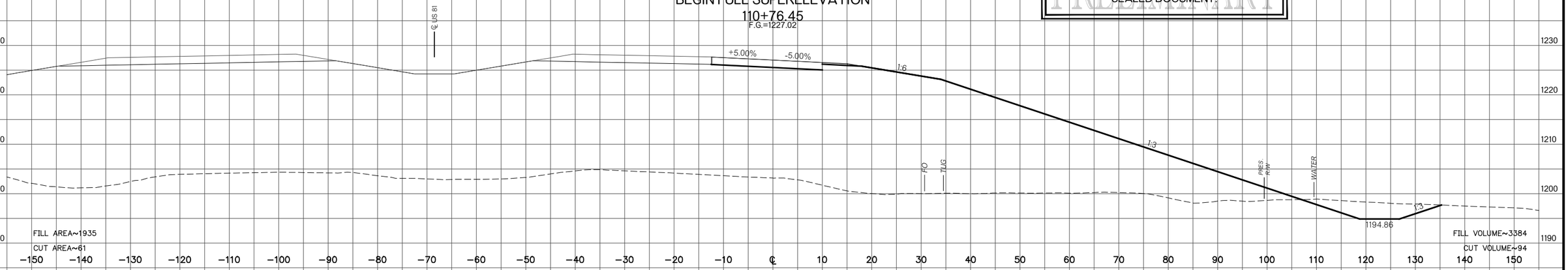
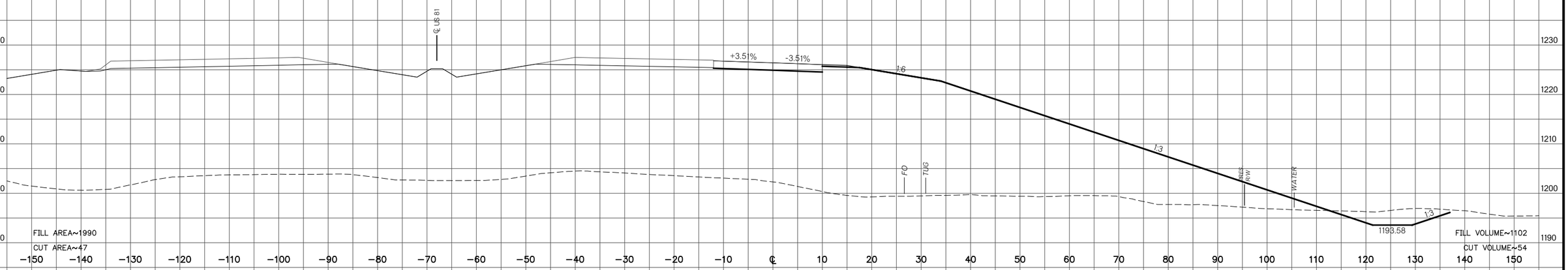
BEGIN FULL SUPERELEVATION
110+76.45
F.G.=1227.02



END BRIDGE B APPROACH SLAB
110+29.90
F.G.=1226.39



110+00

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GRADY COUNTY

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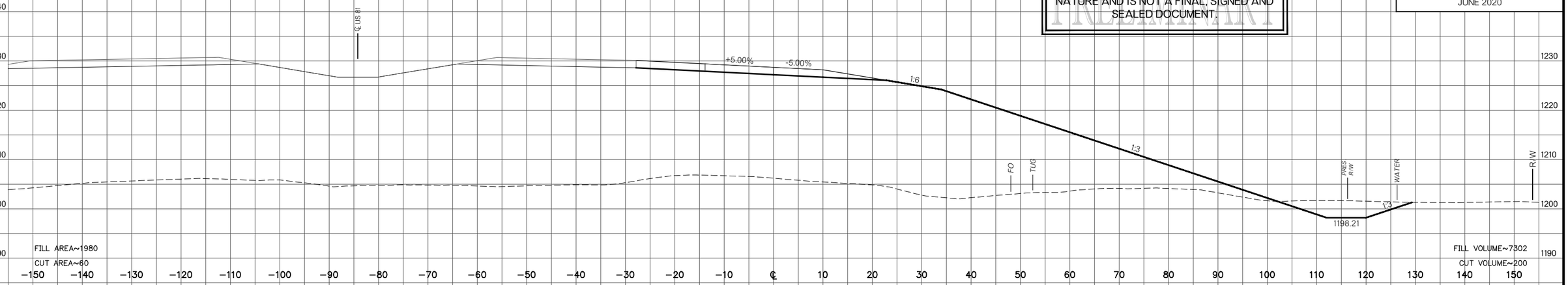
FINAL FIELD MEETING
JUNE 2020

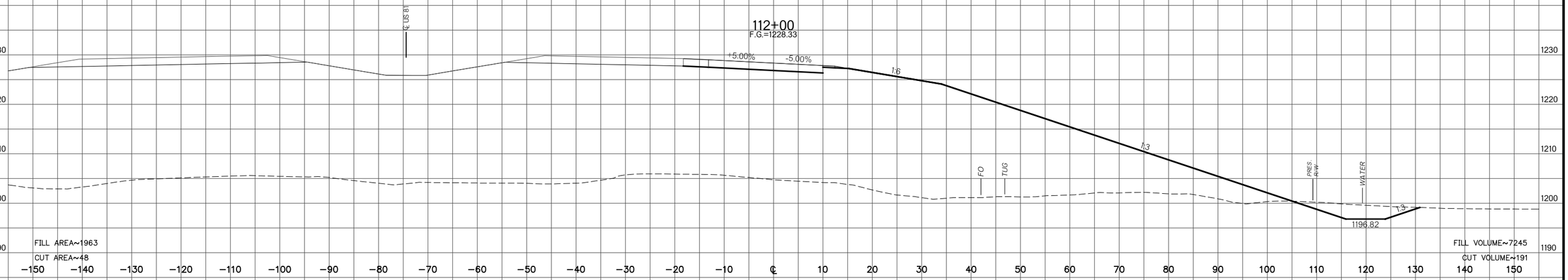
113+00
F.G.=1228.70



FILL AREA~1980
CUT AREA~60

FILL VOLUME~7302
CUT VOLUME~200

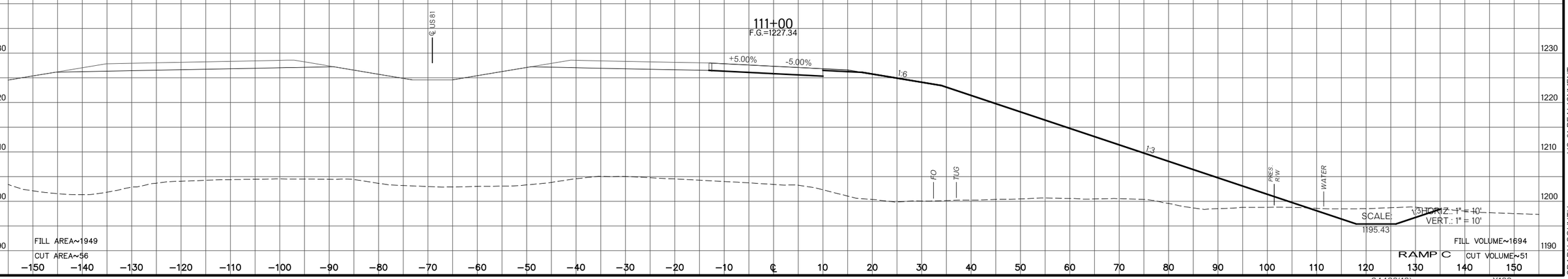
112+00
F.G.=1228.33



FILL AREA~1963
CUT AREA~48

FILL VOLUME~7245
CUT VOLUME~191

111+00
F.G.=1227.34



FILL AREA~1949
CUT AREA~56

FILL VOLUME~1694
CUT VOLUME~51

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

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GRADY COUNTY

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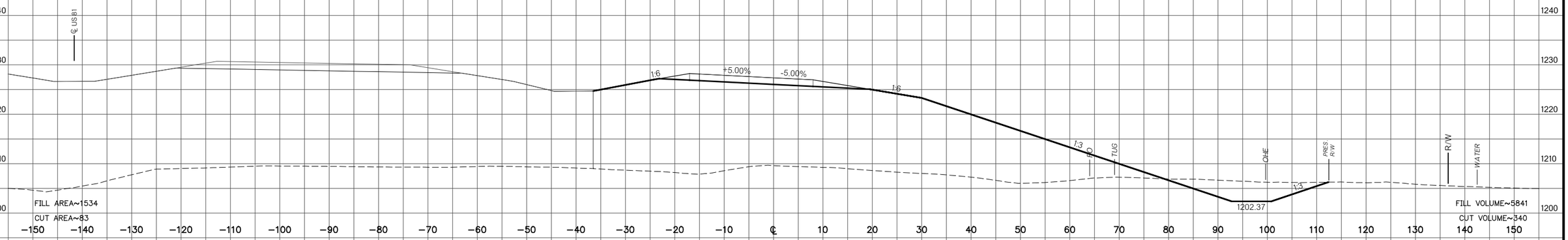
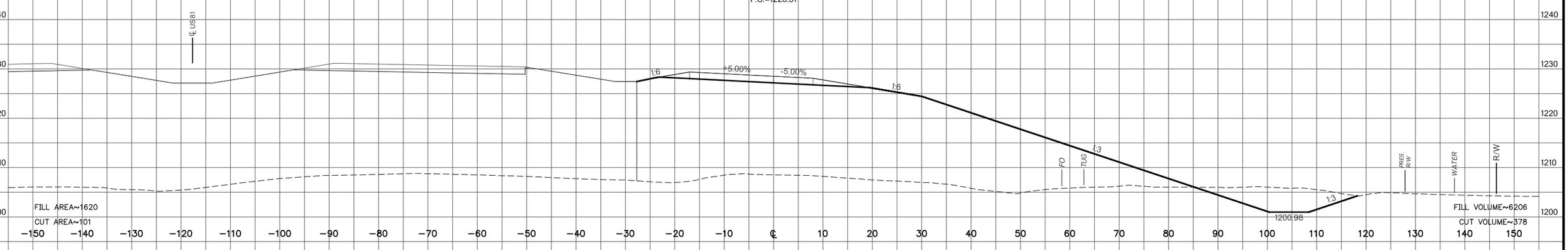
FINAL FIELD MEETING
JUNE 2020

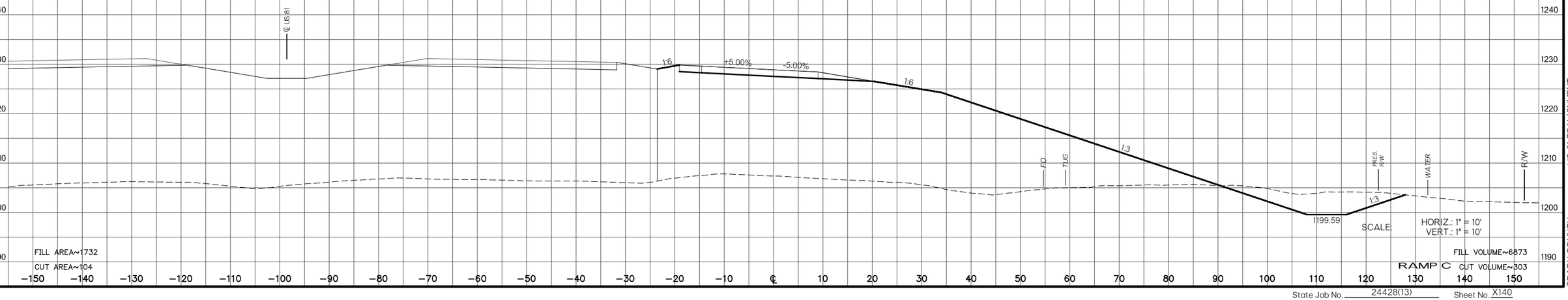
116+00
F.G.=1227.36



115+00
F.G.=1228.51



114+00
F.G.=1228.88



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP C

US-81 REALIGNMENT
GRADY COUNTY

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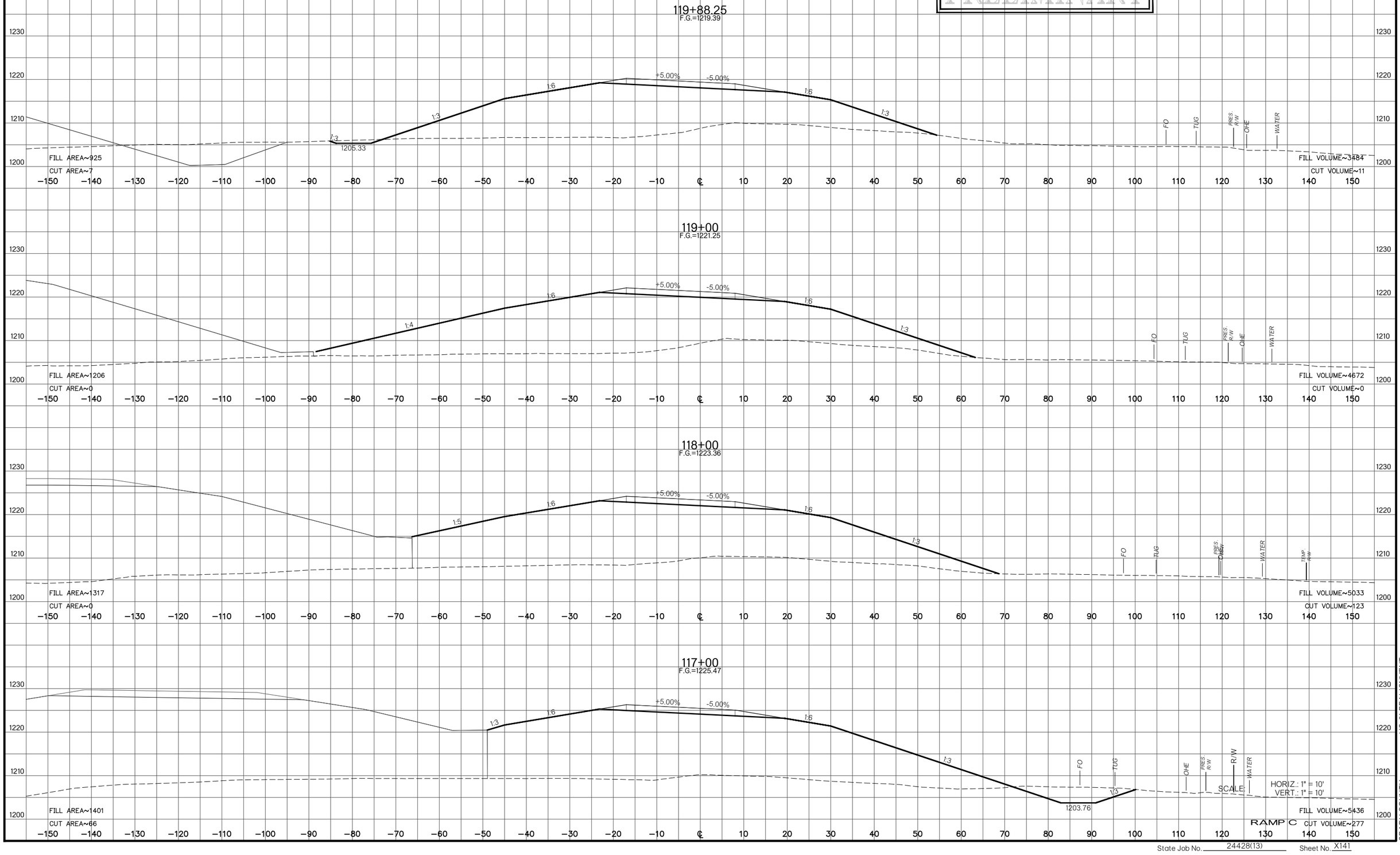
FINAL FIELD MEETING
JUNE 2020



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GRADY COUNTY

State Job No. 24428(13) Sheet No. X141

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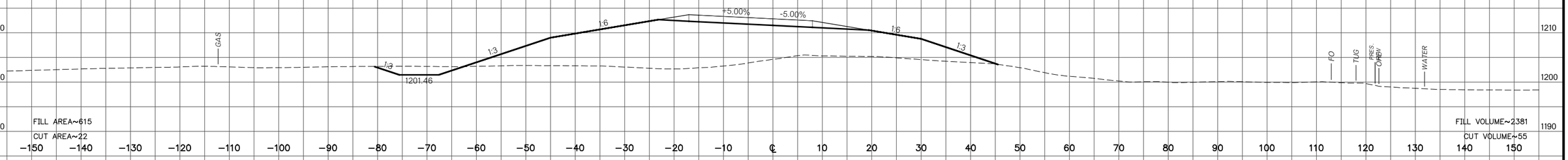
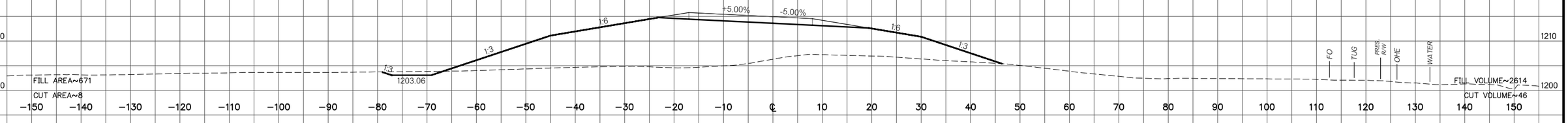
FINAL FIELD MEETING
JUNE 2020

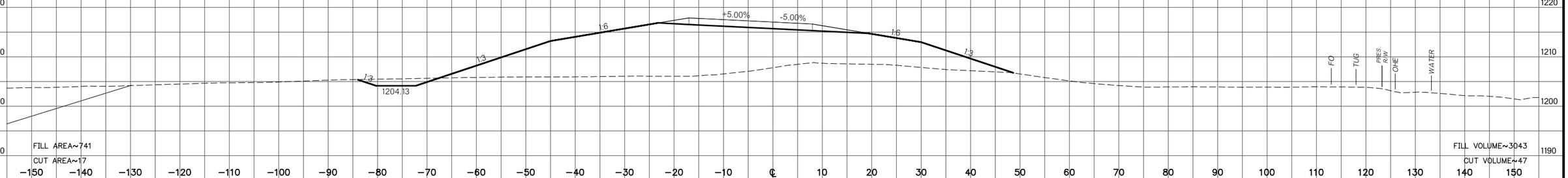
123+00
F.G.=1212.81



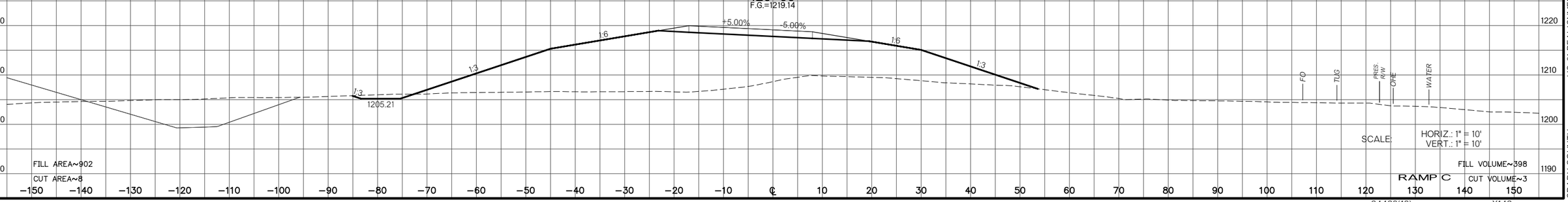
122+00
F.G.=1214.92



121+00
F.G.=1217.03



120+00
F.G.=1219.14



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GRADY COUNTY

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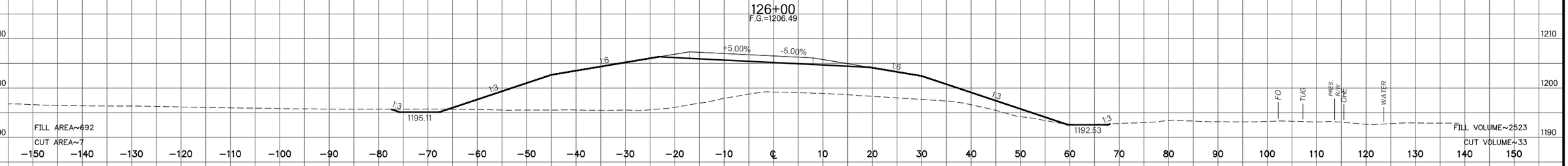
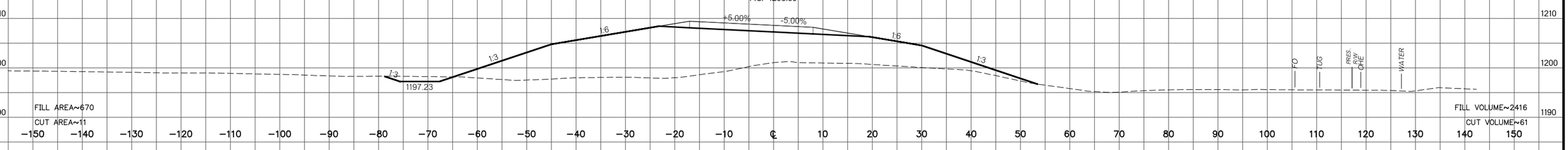
FINAL FIELD MEETING
JUNE 2020

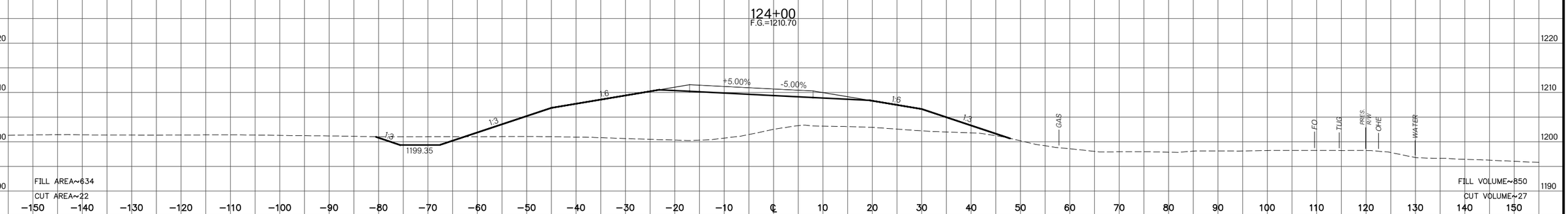
126+00
F.G.=1206.49



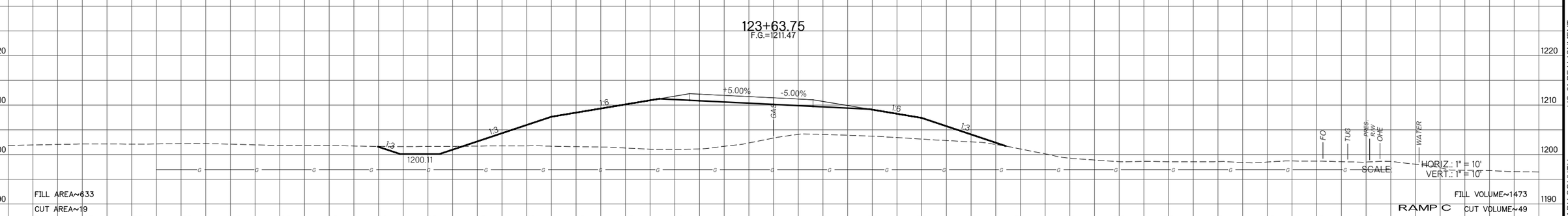
125+00
F.G.=1208.59



124+00
F.G.=1210.70



123+63.75
F.G.=1211.47



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GRADY COUNTY

State Job No. 24428(13) Sheet No. X143

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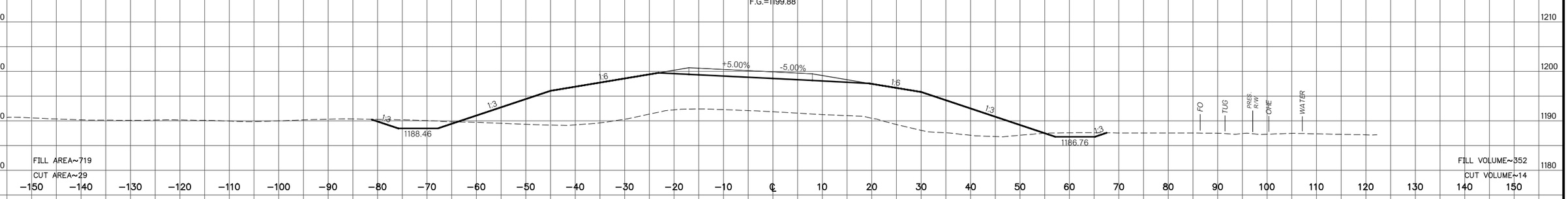
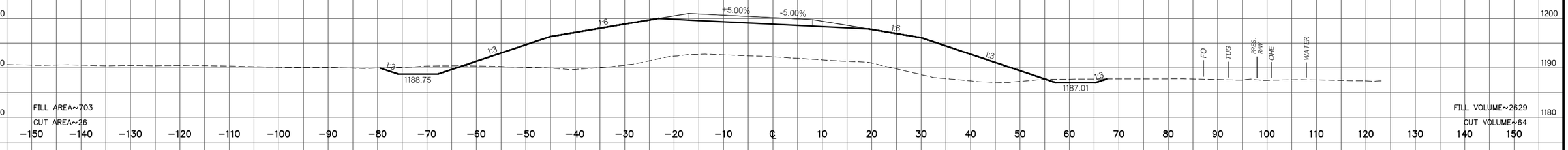
FINAL FIELD MEETING
JUNE 2020

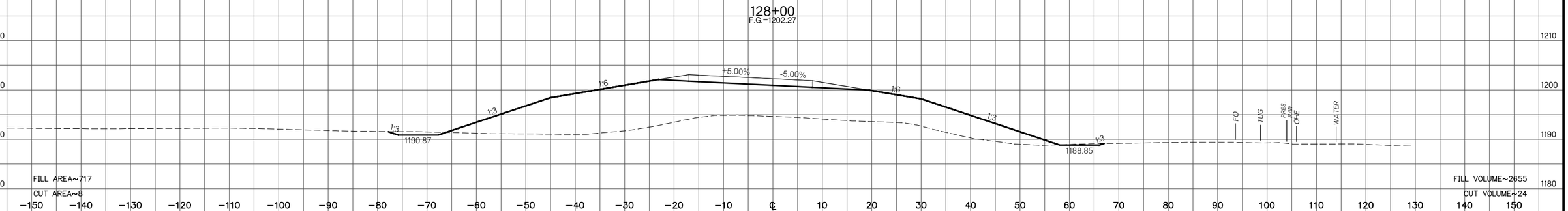
END FULL SUPERELEVATION
129+13.36
F.G.=1199.88



129+00
F.G.=1200.16



128+00
F.G.=1202.27



127+00
F.G.=1204.38

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X144

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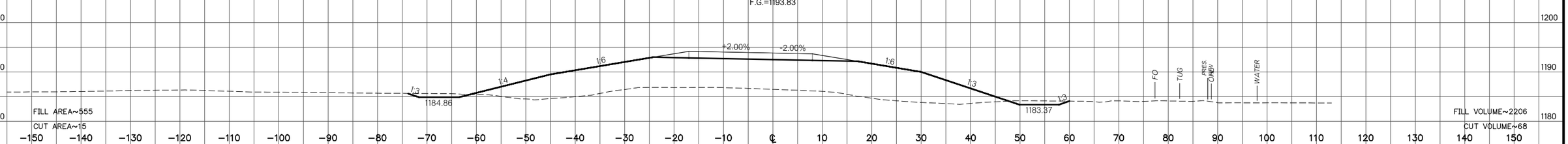
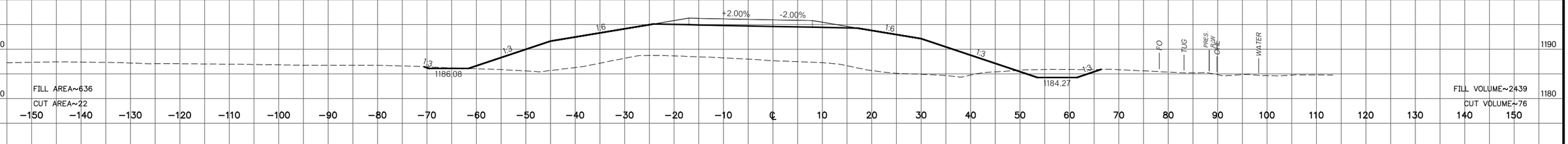
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

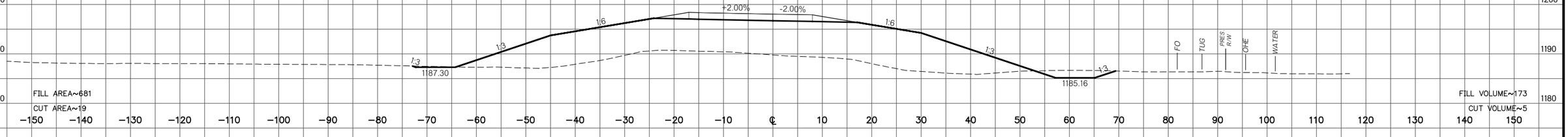
132+00
F.G.=1193.83



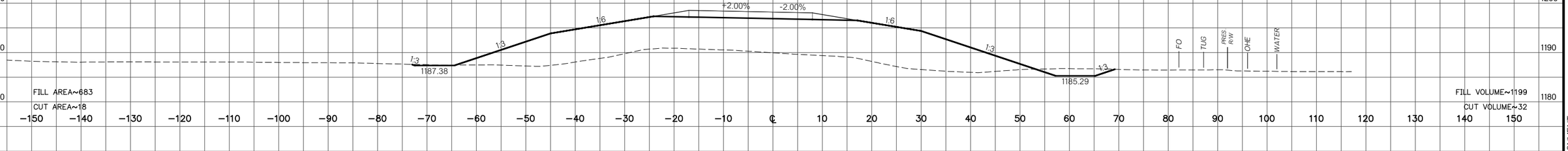
131+00
F.G.=1195.94



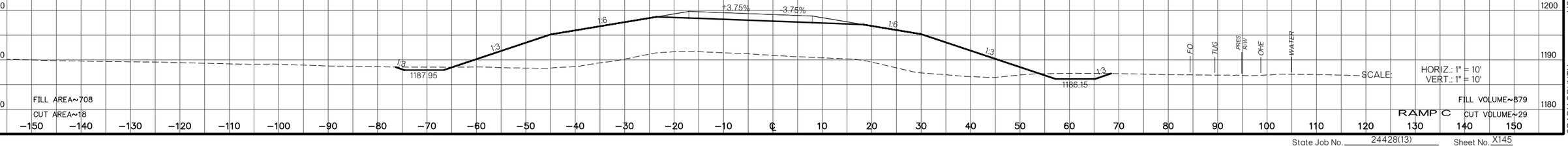
130+00
F.G.=1198.05



BEGIN NORMAL CROWN
129+93.16
F.G.=1198.19



129+46.61
F.G.=1199.17



RAMP C

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X145

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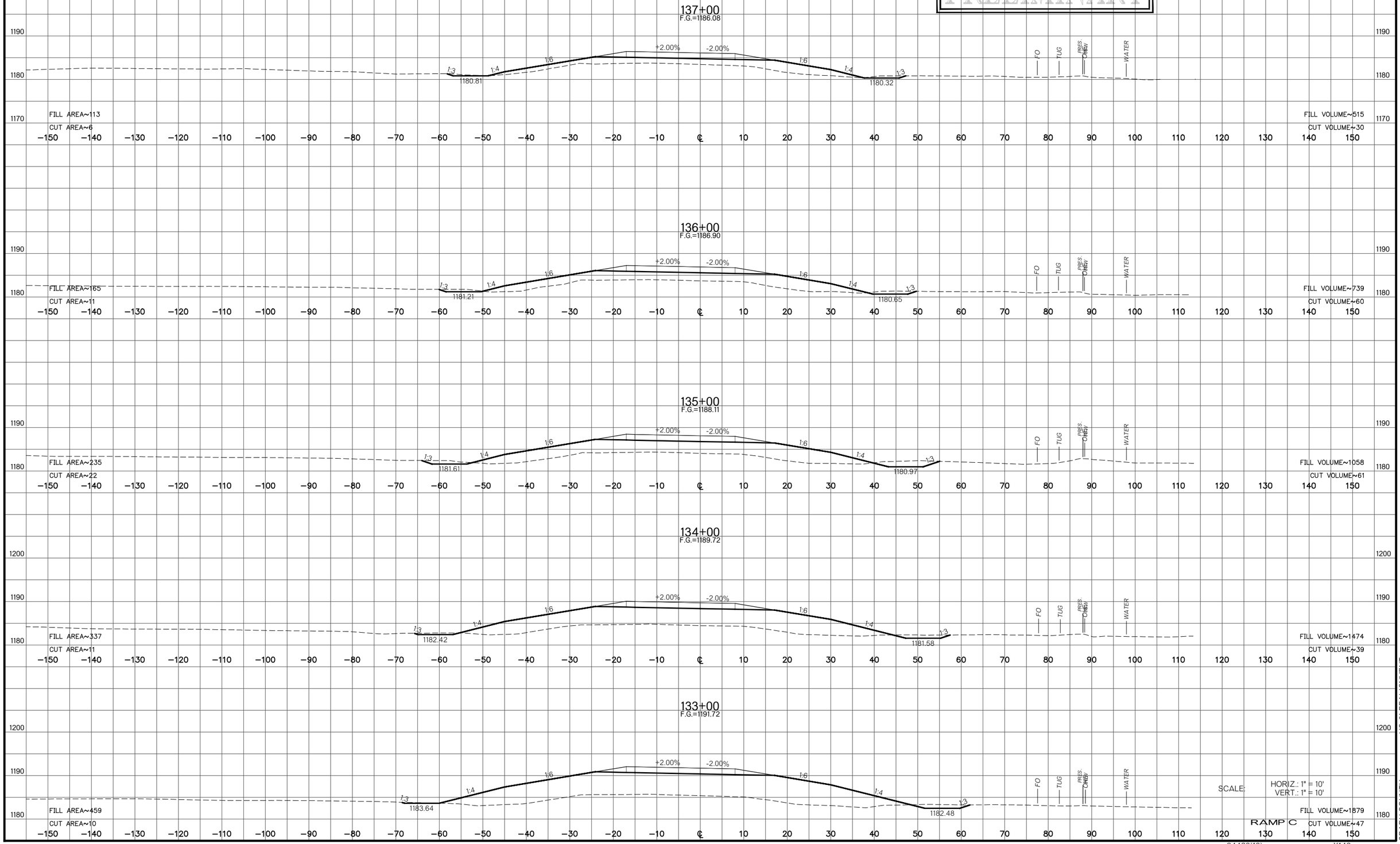
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP C

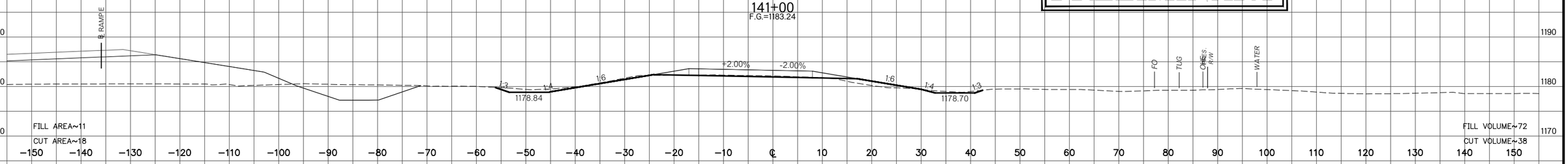
State Job No. 24428(13) Sheet No. X146

US-81 REALIGNMENT
GRADY COUNTY

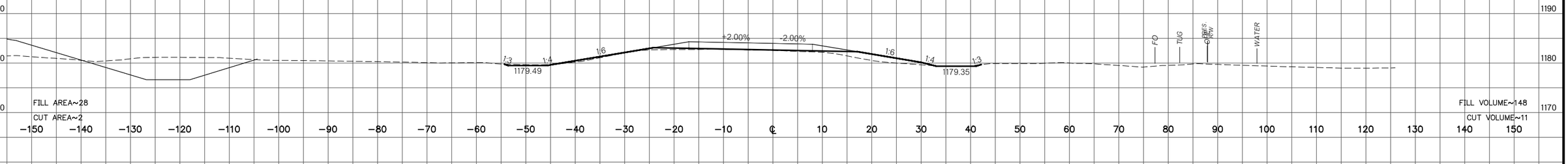
THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

FINAL FIELD MEETING
JUNE 2020

141+00
F.G.=1183.24

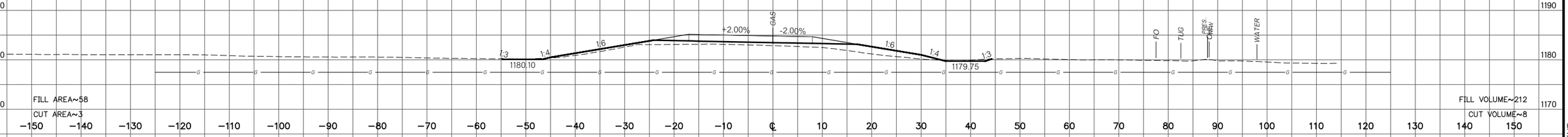


140+00
F.G.=1183.95

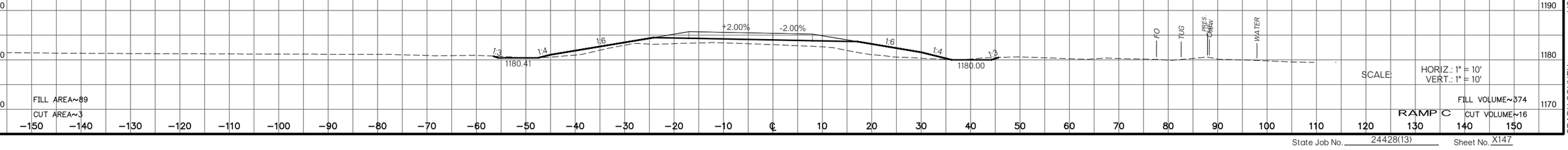


139+00
F.G.=1184.66

138+78.01
F.G.=1184.82



138+00
F.G.=1185.37



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP C

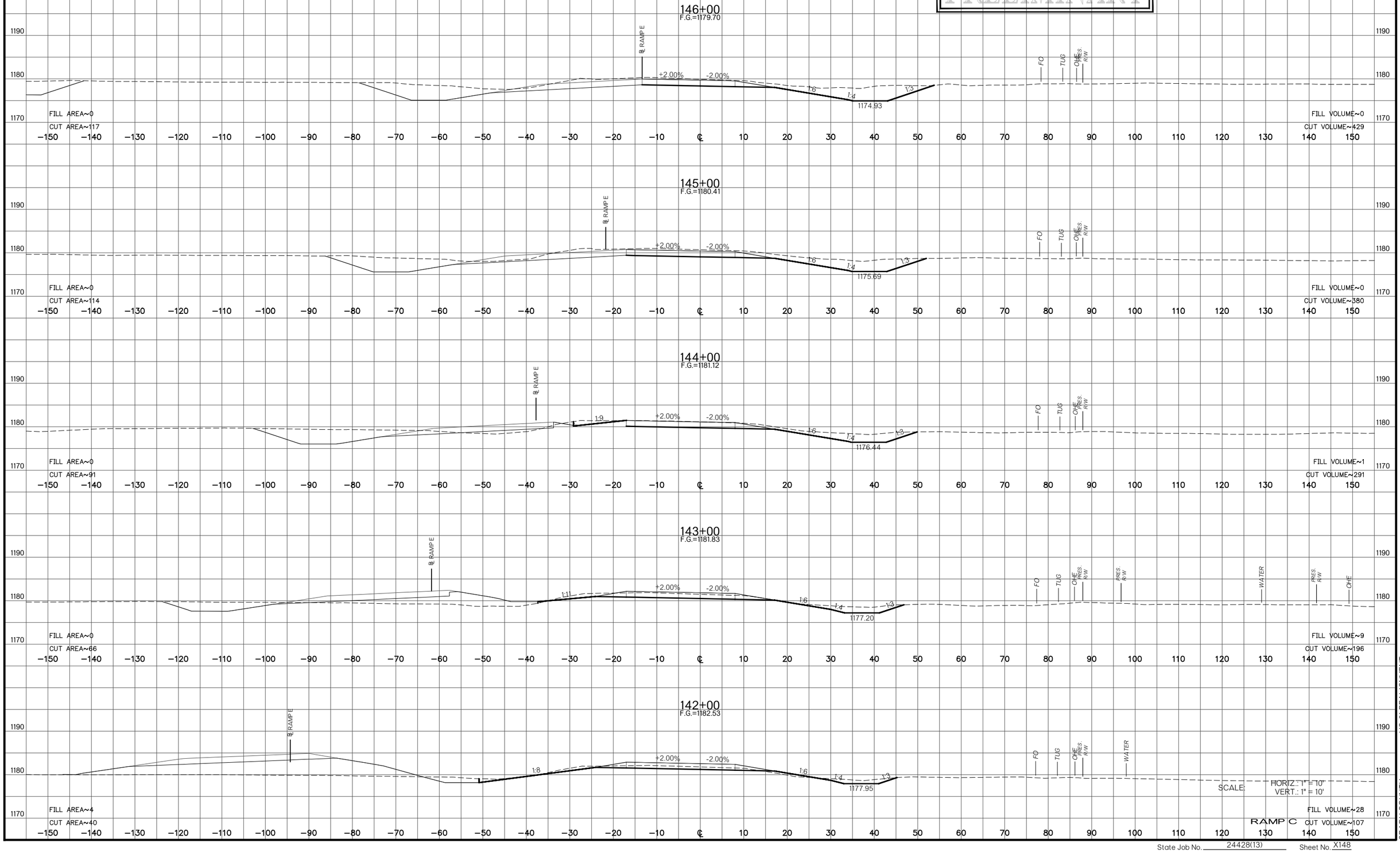
US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X147

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

PRELIMINARY

FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP C

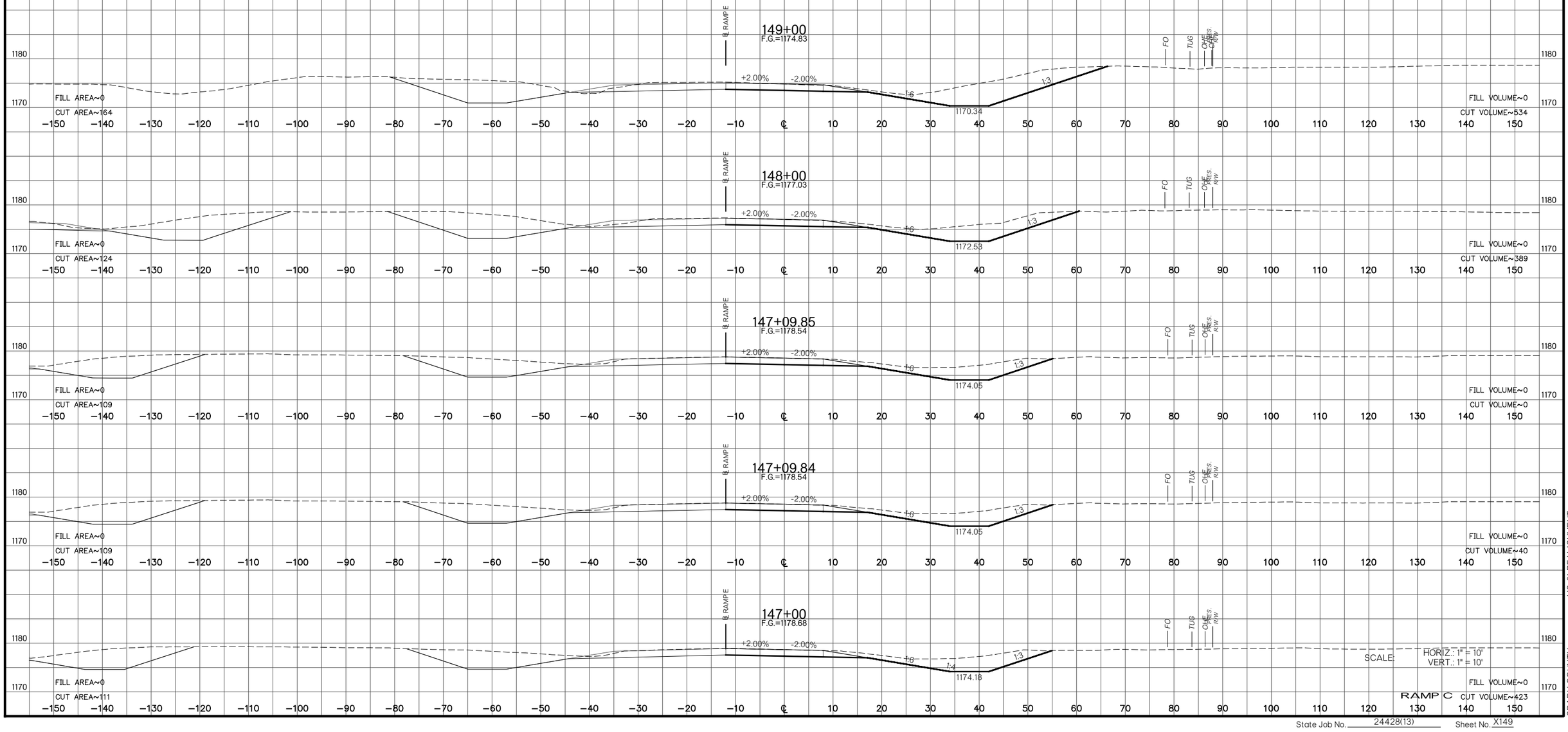
US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X148

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

PRELIMINARY

FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP C

US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X149

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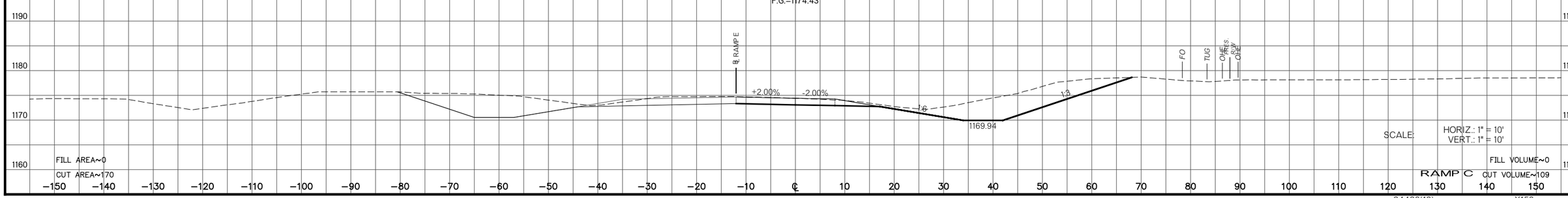
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

END INCIDENTAL CONSTRUCTION STA. 150+25.91
END PROJECT
149+17.60
F.G.=1174.43



FILL AREA~0
CUT AREA~170

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

FILL VOLUME~0
RAMP C CUT VOLUME~109

US-81 REALIGNMENT
GRADY COUNTY

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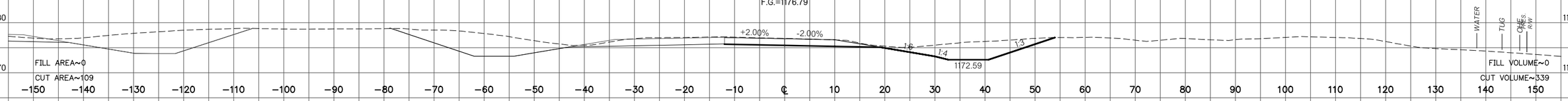
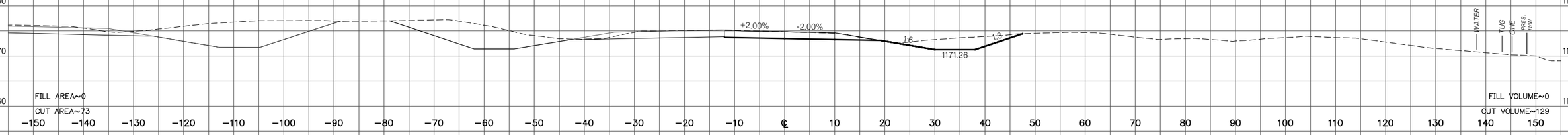
FINAL FIELD MEETING
JUNE 2020

220+00
F.G.=1176.79

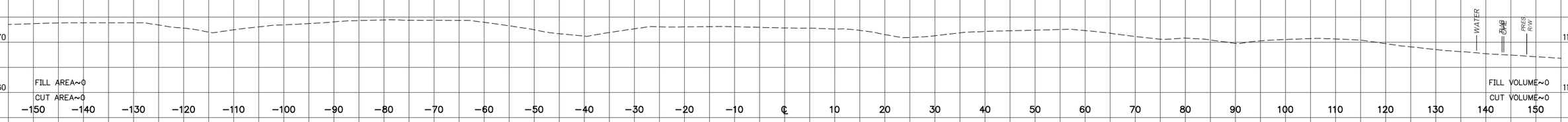


219+00
F.G.=1174.89

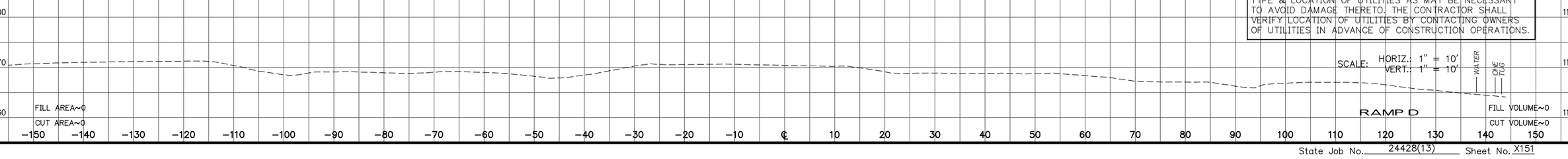
BEGIN PROJECT
218+95.41
F.G.=1174.80



218+00



BEGIN INCIDENTAL CONSTRUCTION 213+00
217+00



THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPES & LOCATIONS OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO MAKE THE DETERMINATIONS AS TO THE TYPE & LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING OWNERS OF UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS.

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP D

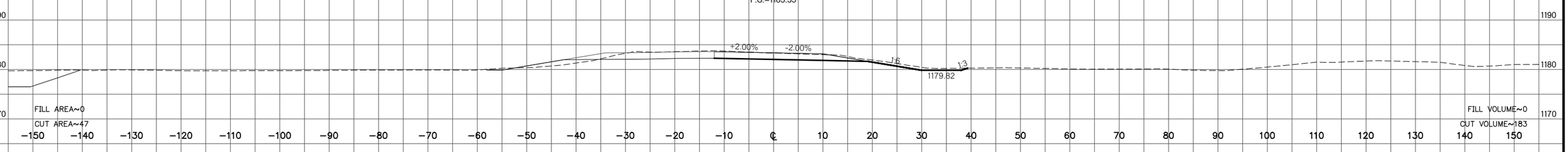
US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X151

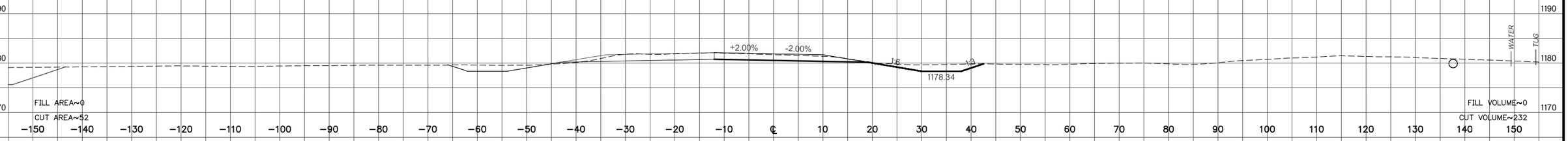
FINAL FIELD MEETING
JUNE 2020

REVERSE CROSS SLOPE STATION
224+14.33
F.G.=1183.56

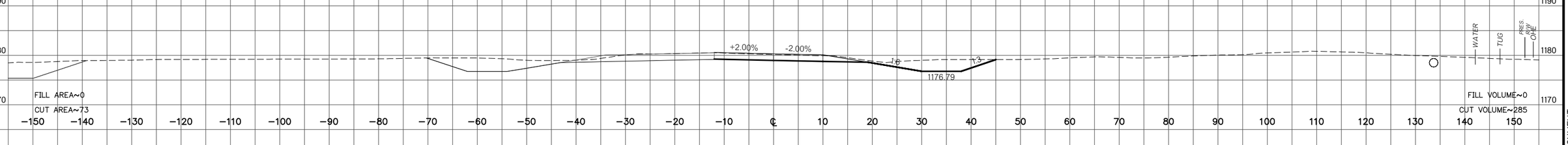
224+00
F.G.=1183.35



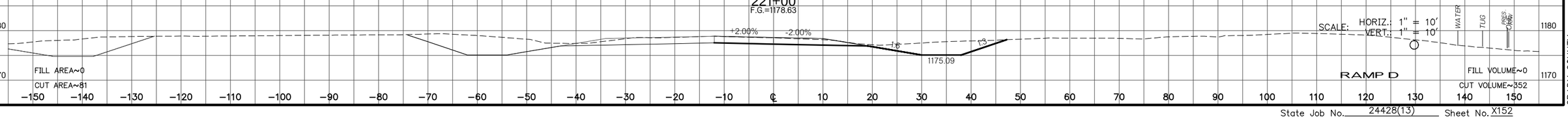
223+00
F.G.=1181.87



222+00
F.G.=1180.32



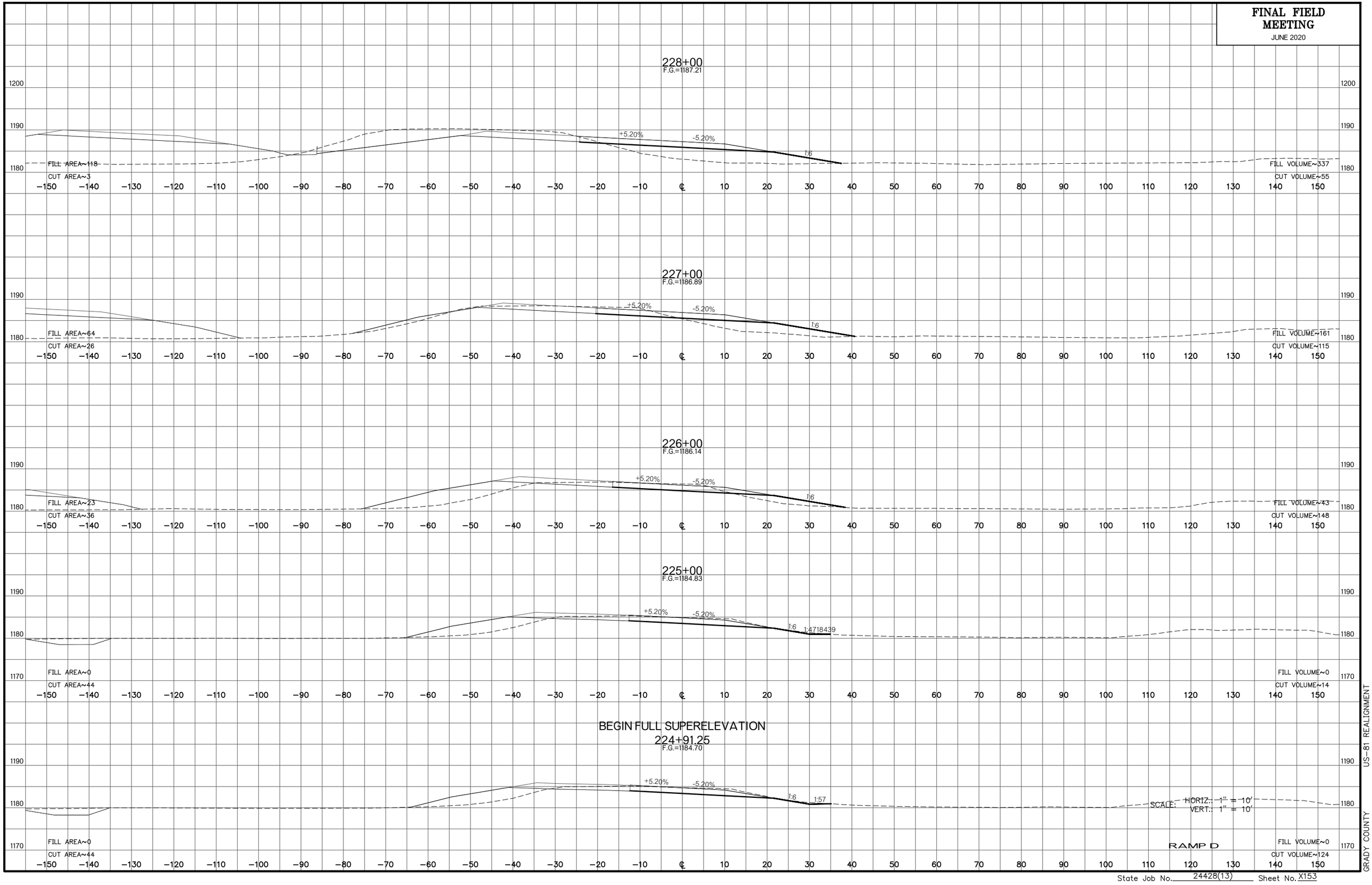
221+00
F.G.=1178.63



US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X152

FINAL FIELD MEETING
JUNE 2020



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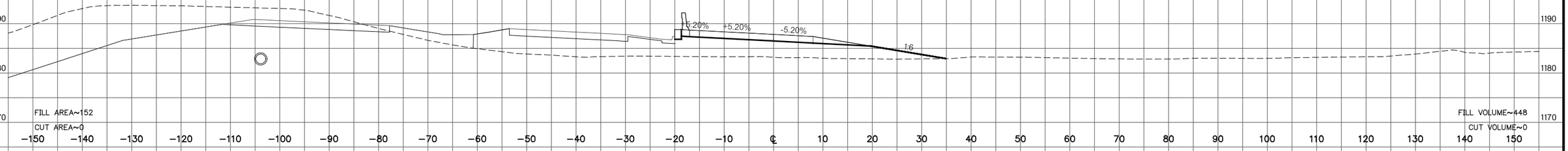
GRADY COUNTY

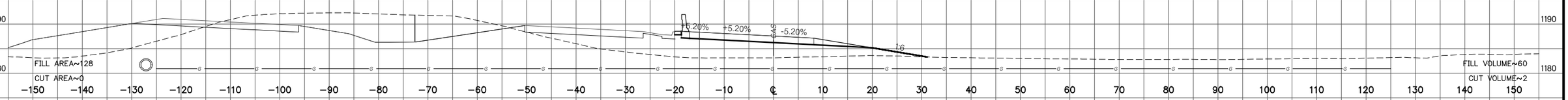
State Job No. 24428(13) Sheet No. X153

FINAL FIELD MEETING
JUNE 2020

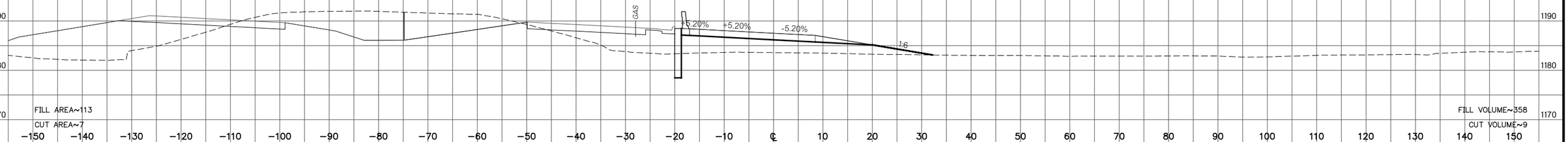
230+00
F.G.=1187.81



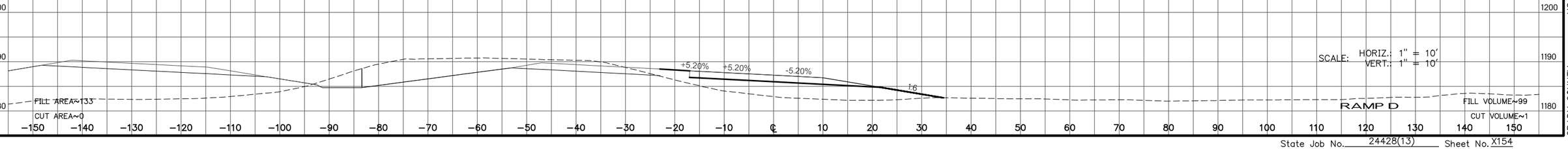
229+13.37
F.G.=1187.55



229+00
F.G.=1187.51



228+21.36
F.G.=1187.27

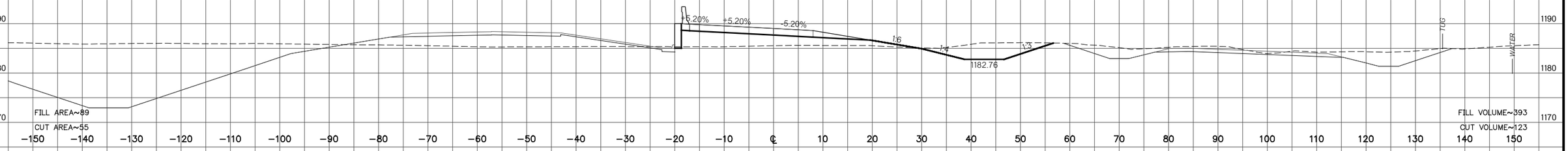


US-81 REALIGNMENT
GRADY COUNTY

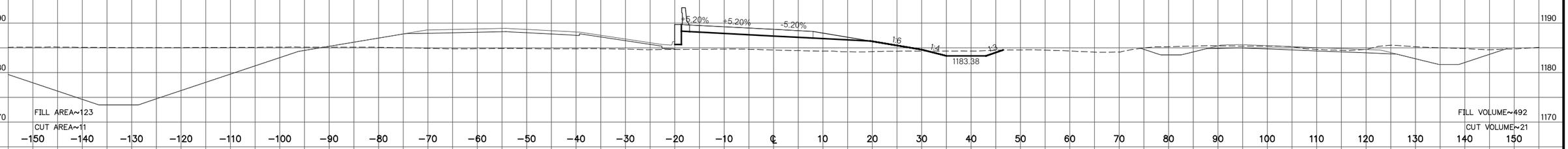
State Job No. 24428(13) Sheet No. X154

FINAL FIELD MEETING
JUNE 2020

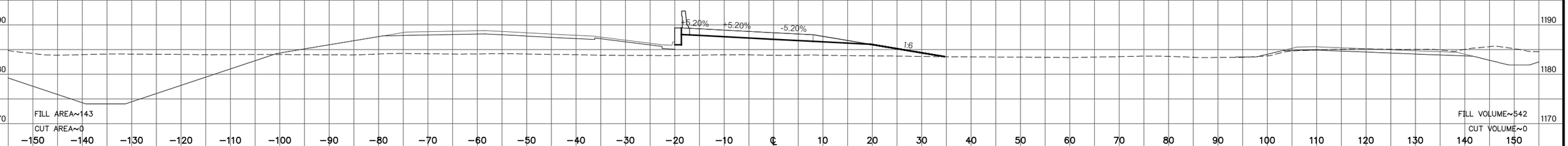
234+00
F.G.=1189.01



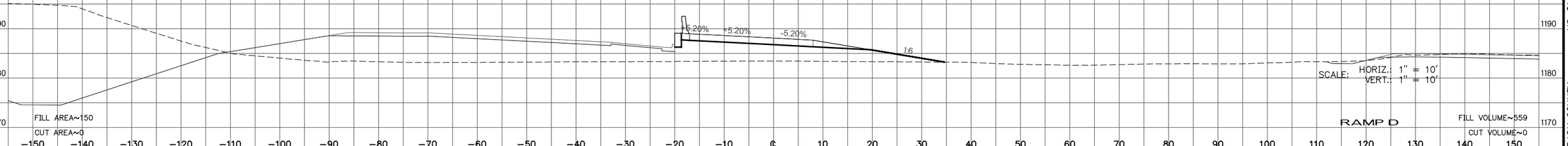
233+00
F.G.=1188.71



232+00
F.G.=1188.41



231+00
F.G.=1188.11



US-81 REALIGNMENT
GRADY COUNTY

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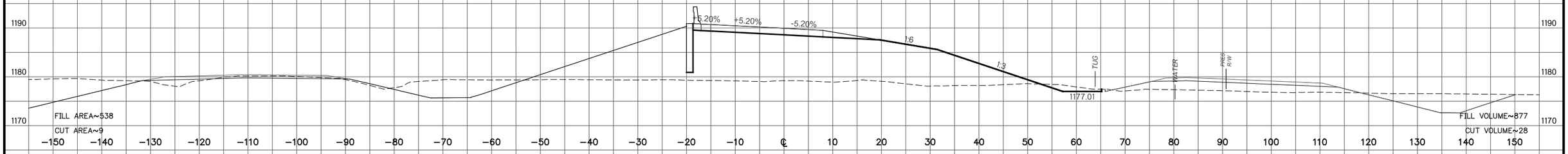
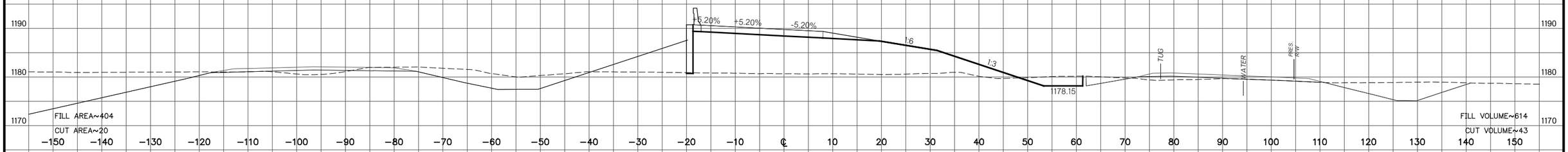
FINAL FIELD MEETING
JUNE 2020

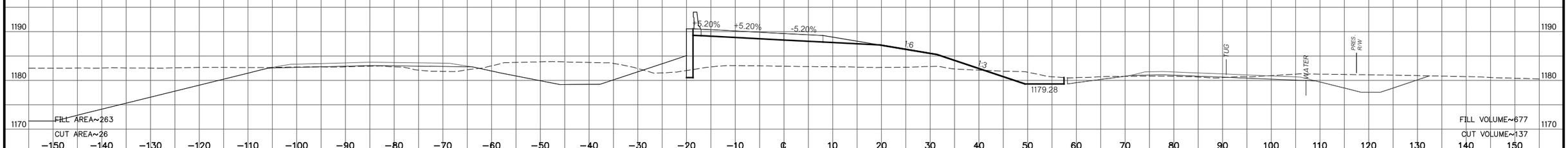
237+00
F.G.=1189.92



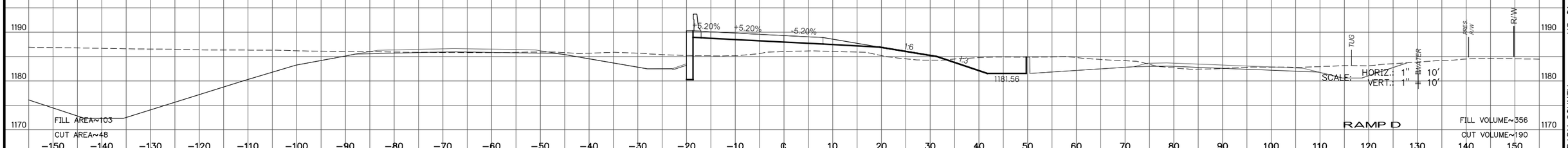
236+49.72
F.G.=1189.77



236+00
F.G.=1189.62



235+00
F.G.=1189.32



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP D

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GRADY COUNTY

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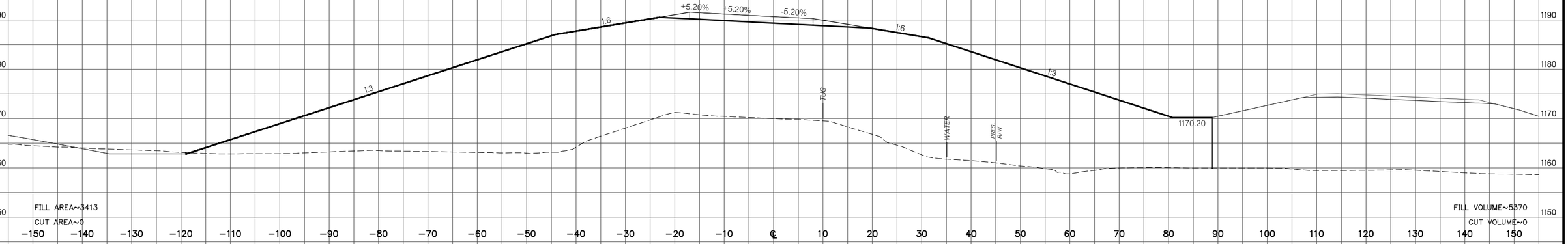
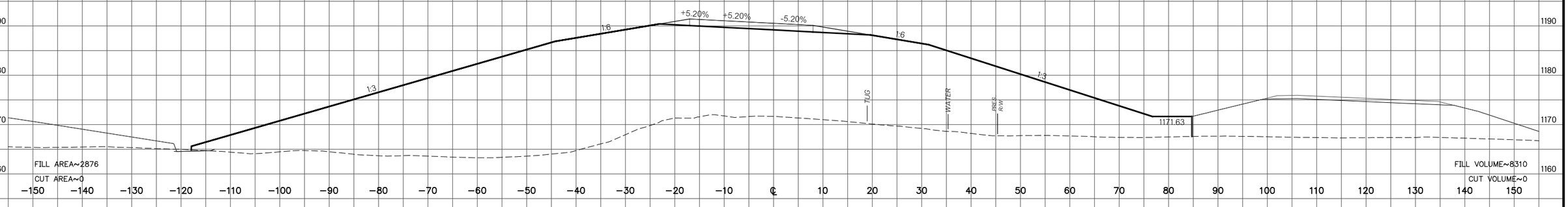
FINAL FIELD MEETING
JUNE 2020

239+46.10
F.G.=1190.66



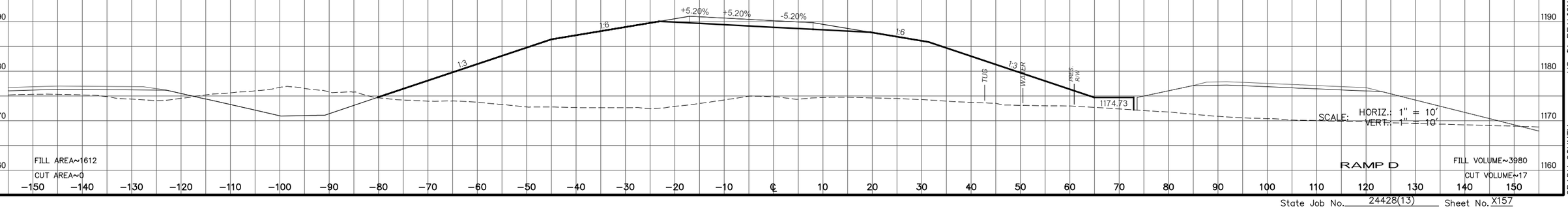
FILL AREA~3413
CUT AREA~0
FILL VOLUME~5370
CUT VOLUME~0

239+00
F.G.=1190.52



FILL AREA~2876
CUT AREA~0
FILL VOLUME~8310
CUT VOLUME~0

238+00
F.G.=1190.22



FILL AREA~1612
CUT AREA~0
FILL VOLUME~3980
CUT VOLUME~17

−150 −140 −130 −120 −110 −100 −90 −80 −70 −60 −50 −40 −30 −20 −10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

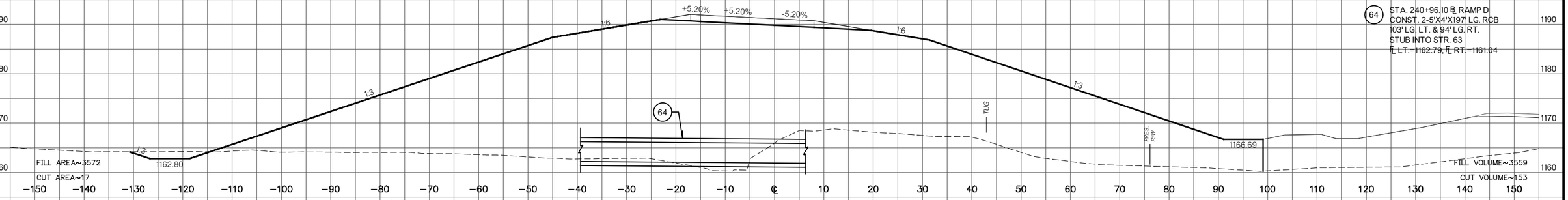
RAMP D

US−81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X157

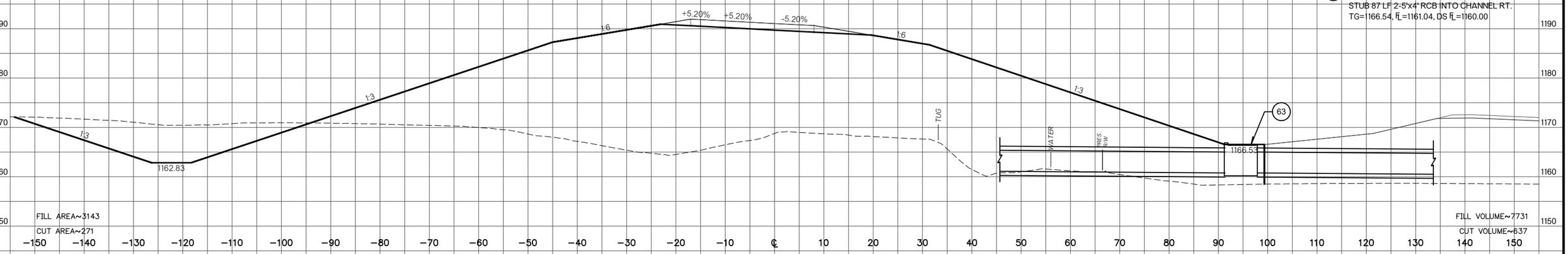
FINAL FIELD MEETING
JUNE 2020

241+00
F.G.=1191.12



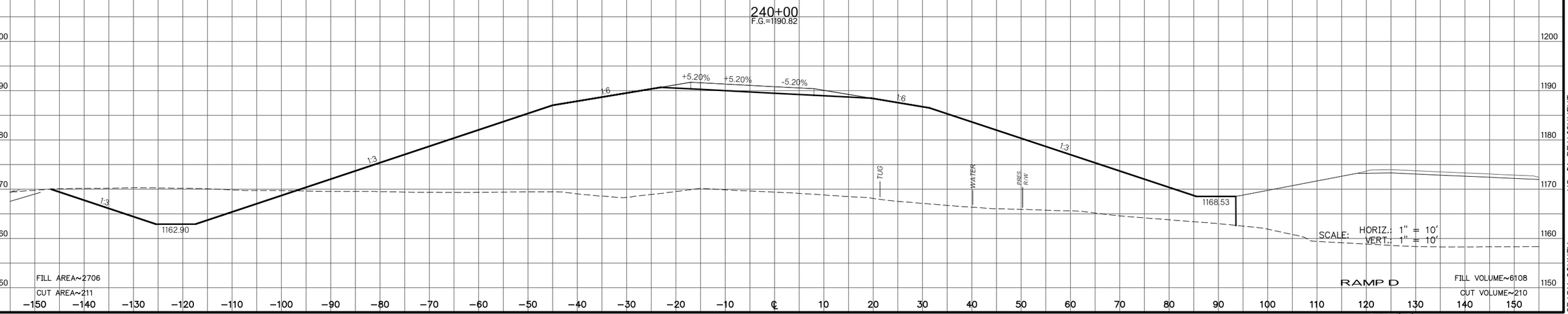
64 STA. 240+96.10 ℄ RAMP D
CONST. 2-5'X4'X197' LG. RCB
103' LG. LT. & 94' LG. RT.
STUB INTO STR. 63
FL LT.=1162.79, FL RT.=1161.04

240+71.38
F.G.=1191.04



63 STA. 29+50 CRL 16TH ST. (NORTH)
CONST. SP. DROP INLET, 58' LT.
STUB 87 LF 2-5'x4' RCB INTO CHANNEL RT.
TG=1166.54, FL=1161.04, DS FL=1160.00

240+00
F.G.=1190.82



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

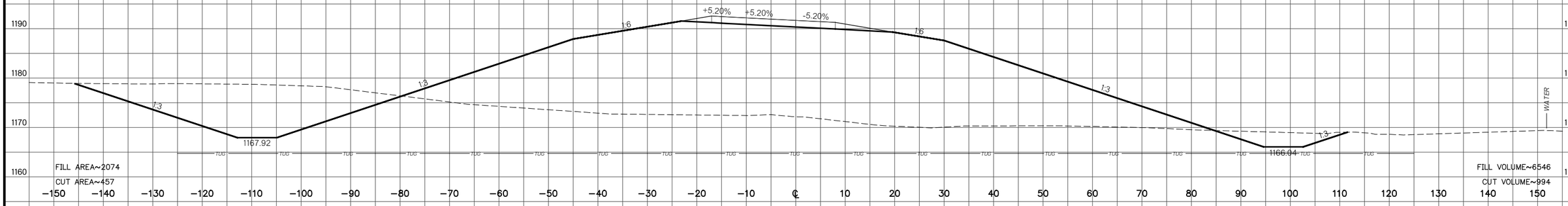
RAMP D

US-81 REALIGNMENT
GRADY COUNTY

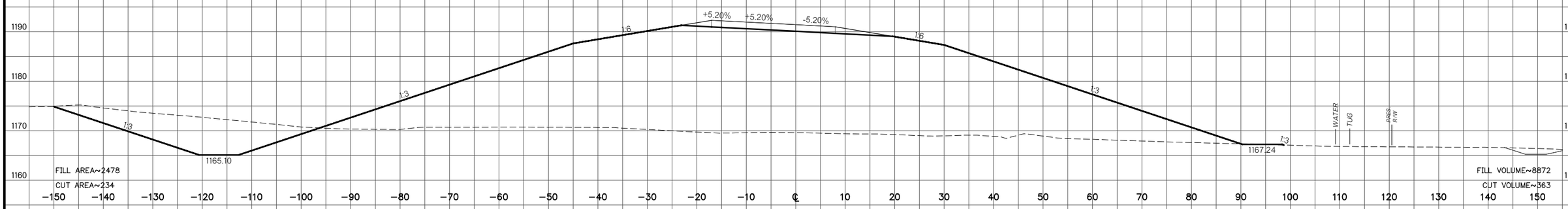
State Job No. 24428(13) Sheet No. X158

FINAL FIELD MEETING
JUNE 2020

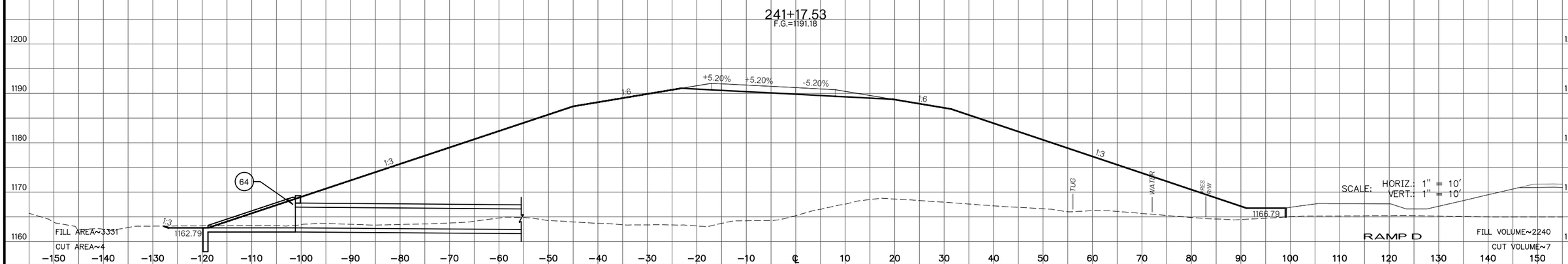
242+77.65
F.G.=1191.66



242+00
F.G.=1191.42



241+17.53
F.G.=1191.18

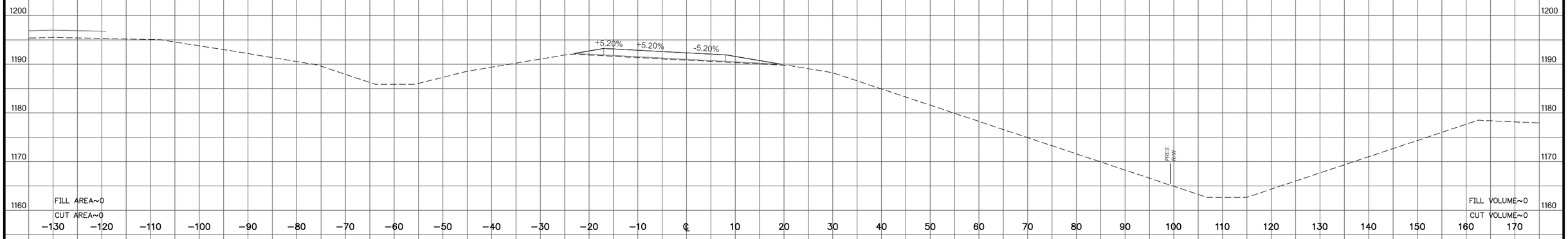


US-81 REALIGNMENT
GRADY COUNTY

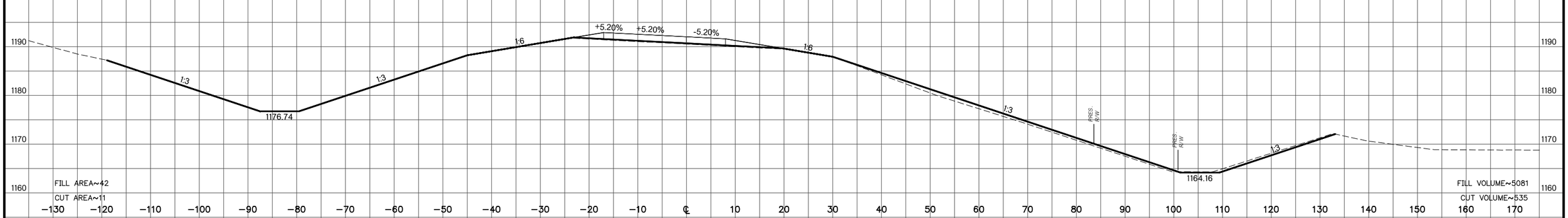
State Job No. 24428(13) Sheet No. X159

FINAL FIELD MEETING
JUNE 2020

245+00
F.G.=1192.33



244+00
F.G.=1192.03



243+00
F.G.=1191.73

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

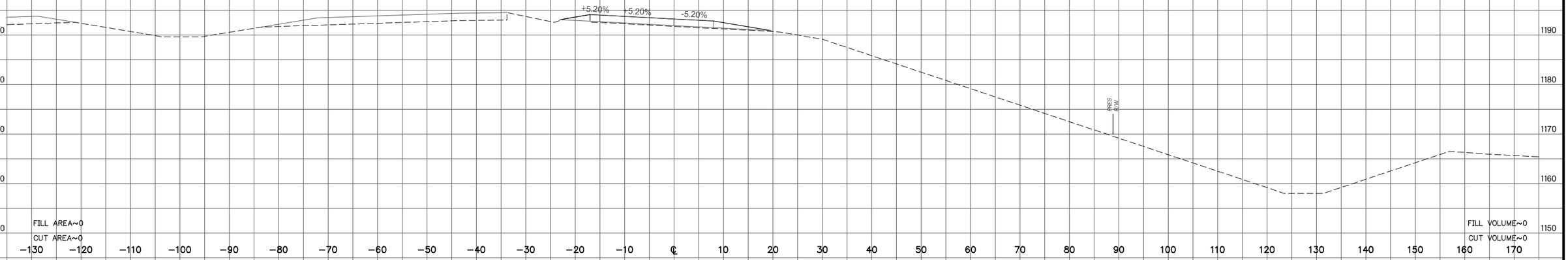
RAMP D

US-81 REALIGNMENT
GRADY COUNTY

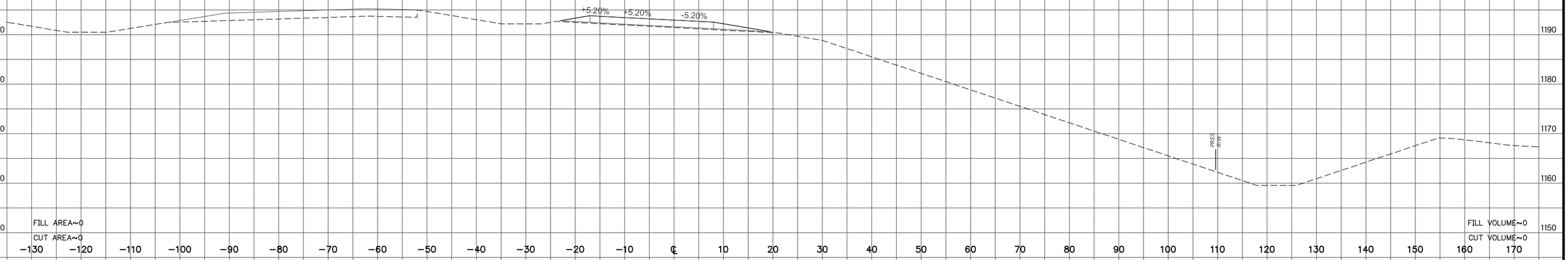
State Job No. 24428(13) Sheet No. X160

FINAL FIELD MEETING
JUNE 2020

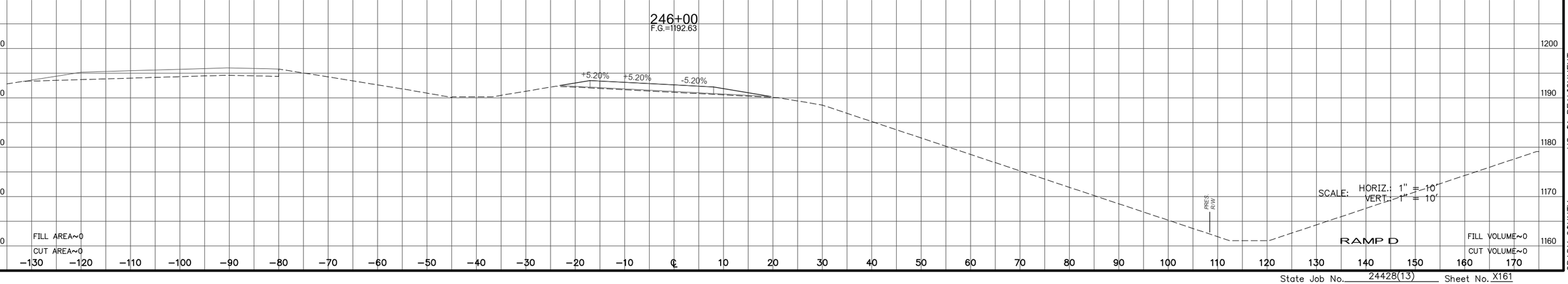
248+00
F.G.=1193.23



247+00
F.G.=1192.93



246+00
F.G.=1192.63



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

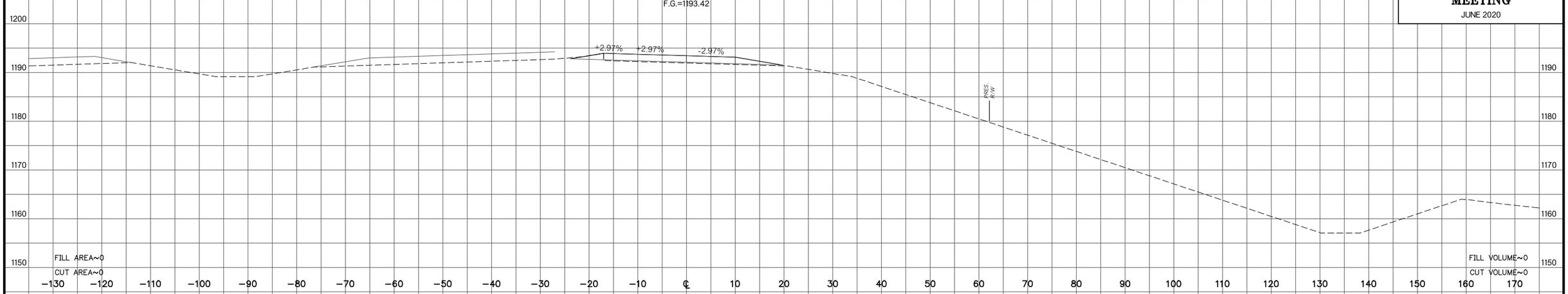
RAMP D

US-81 REALIGNMENT
GRADY COUNTY

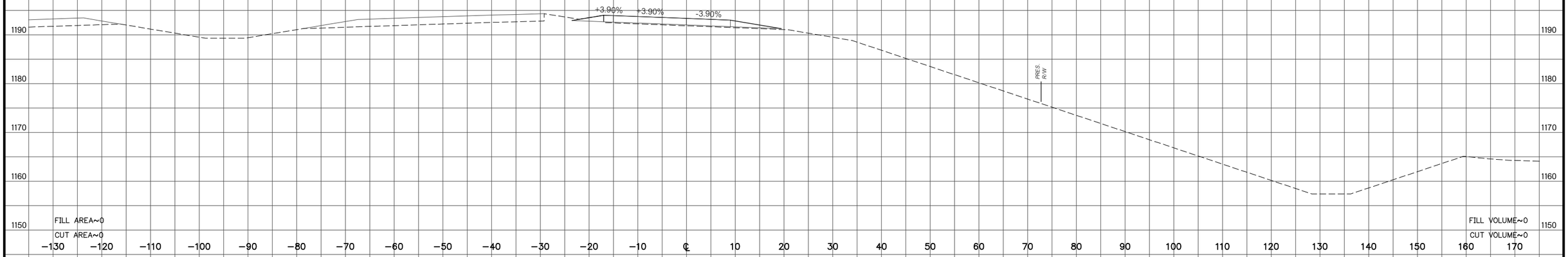
State Job No. 24428(13) Sheet No. X161

FINAL FIELD MEETING
JUNE 2020

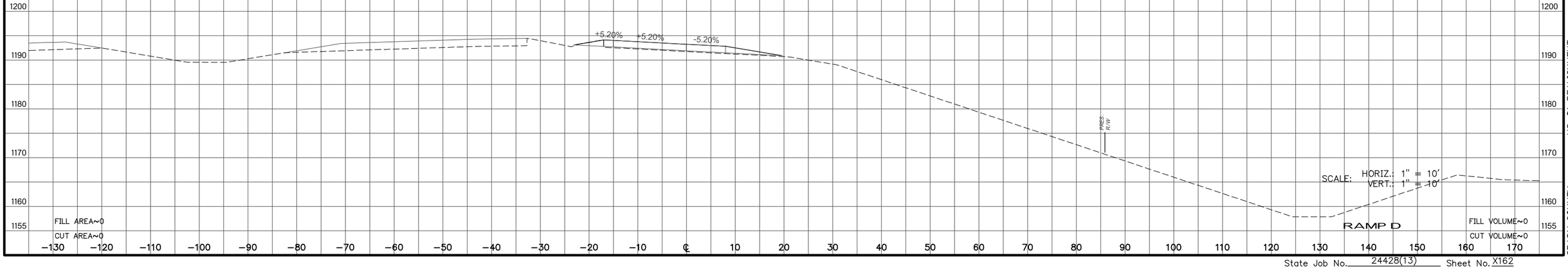
248+61.81
F.G.=1193.42



248+39.42
F.G.=1193.35



END FULL SUPERELEVATION
248+08.17
F.G.=1193.26



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

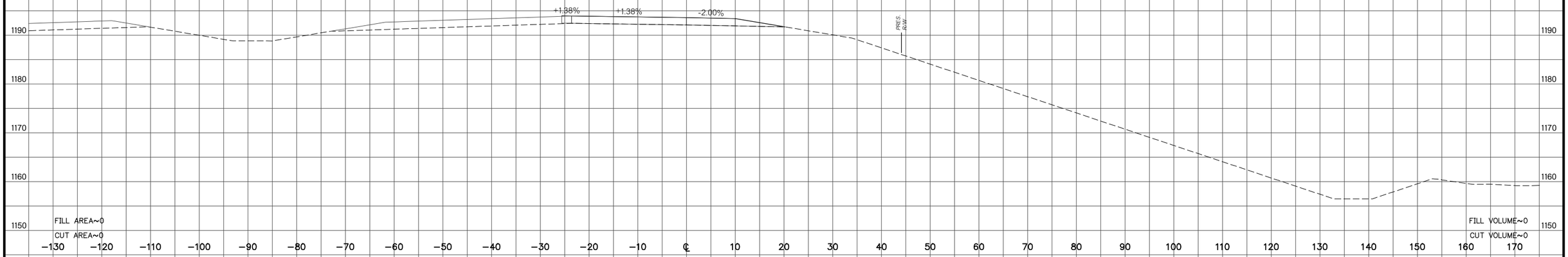
RAMP D

US-81 REALIGNMENT
GRADY COUNTY

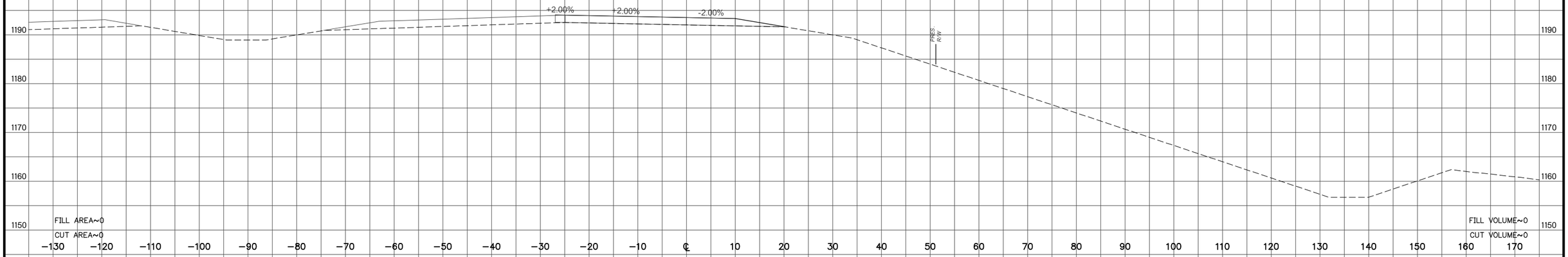
State Job No. 24428(13) Sheet No. X162

FINAL FIELD MEETING
JUNE 2020

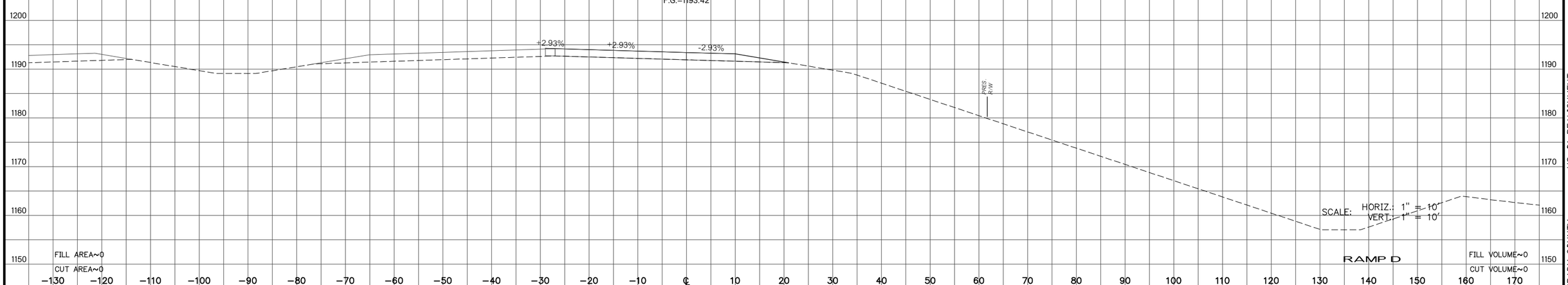
249+00
F.G.=1193.59



REVERSE CROSS SLOPE STATION
248+85.09
F.G.=1193.52



248+62.73
F.G.=1193.42



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

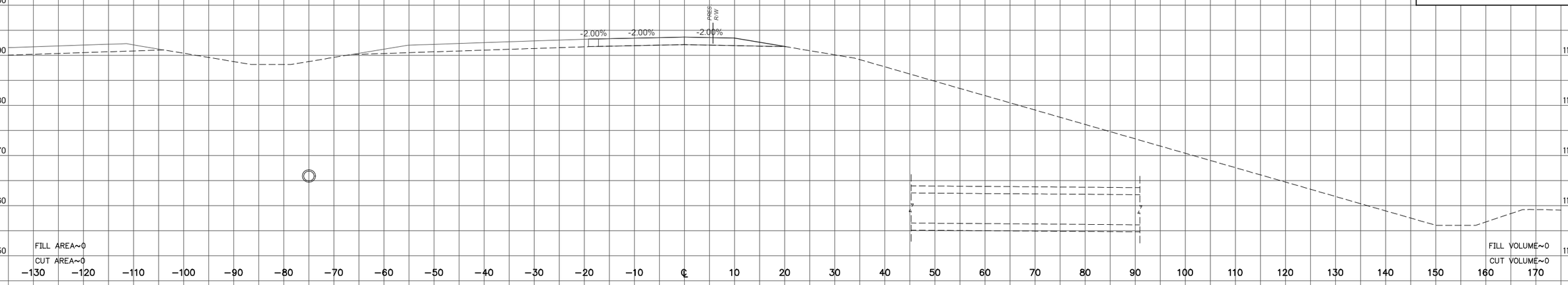
RAMP D

US-81 REALIGNMENT
GRADY COUNTY

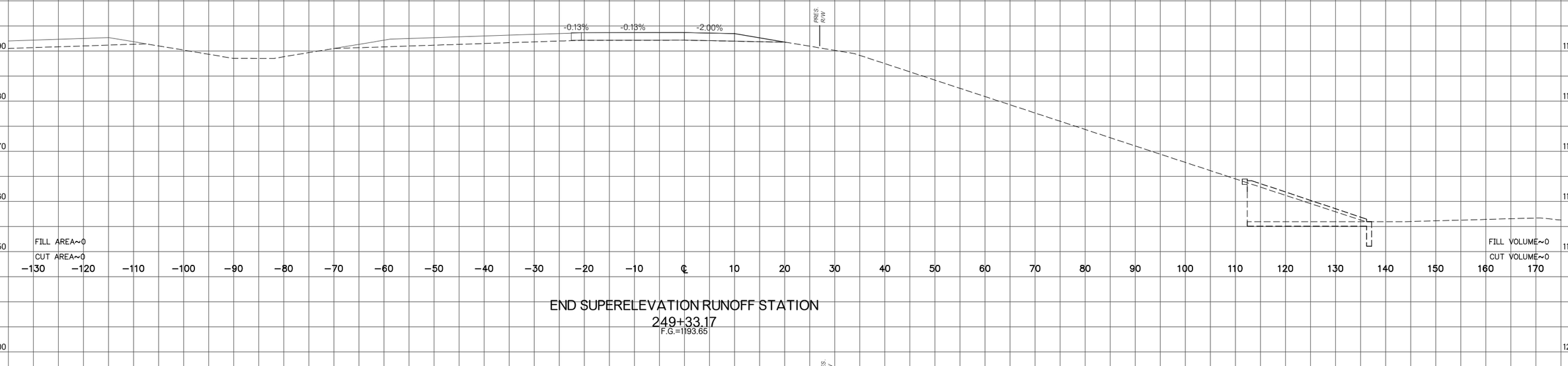
State Job No. 24428(13) Sheet No. X163

FINAL FIELD MEETING
JUNE 2020

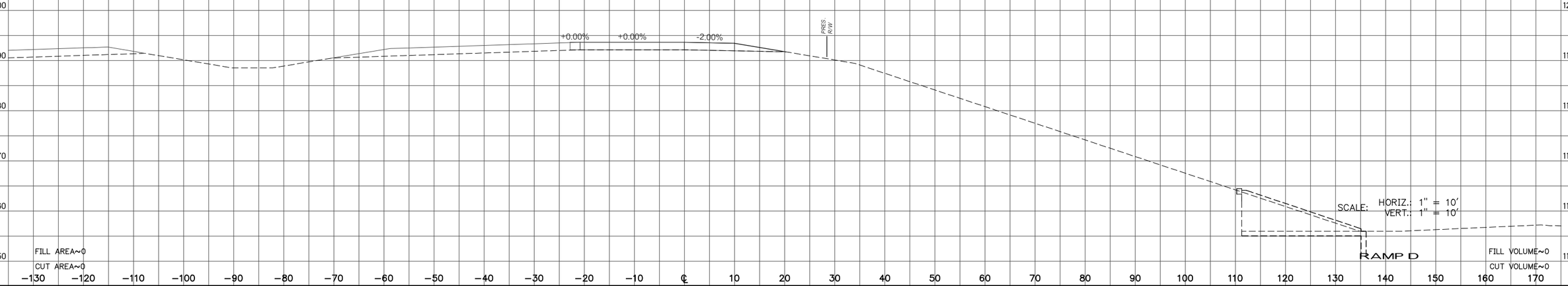
249+81.25
F.G.=1193.61



249+36.20
F.G.=1193.65



END SUPERELEVATION RUNOFF STATION
249+33.17
F.G.=1193.65

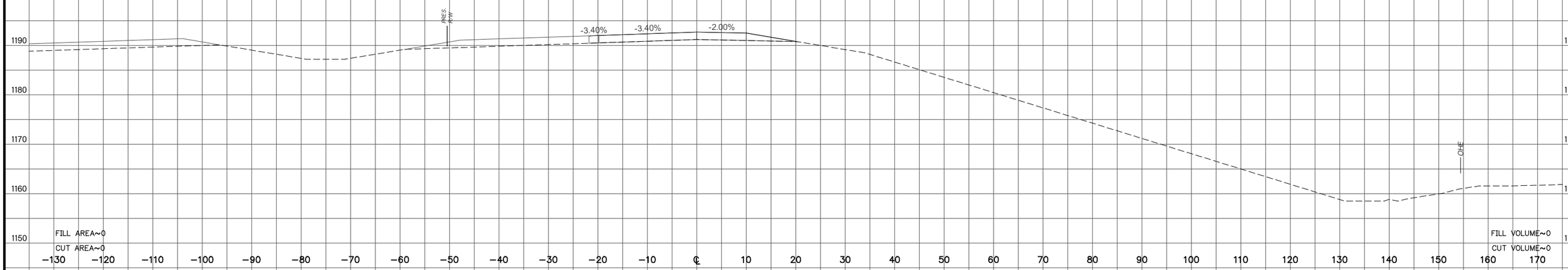


US-81 REALIGNMENT
GRADY COUNTY

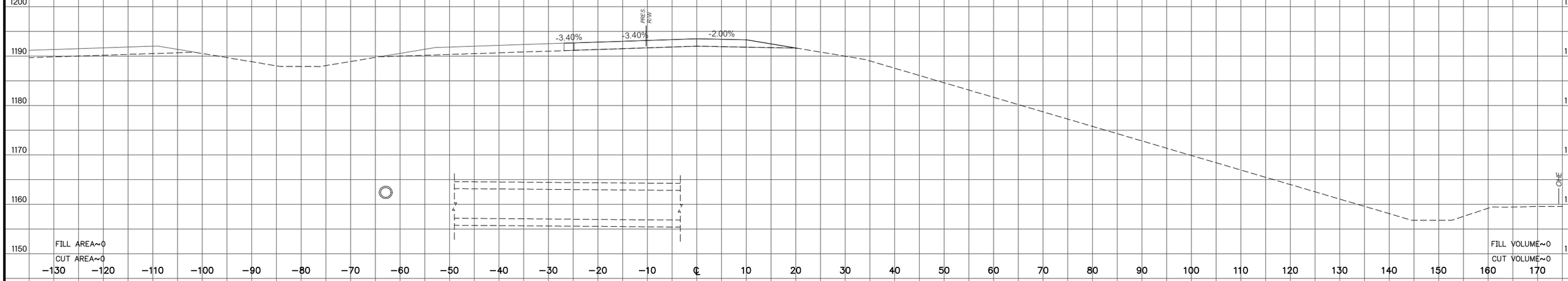
State Job No. 24428(13) Sheet No. X164

FINAL FIELD MEETING
JUNE 2020

251+00
F.G.=1192.67



MATCH US 81 CROSS SLOPE
250+14.90
F.G.=1193.51



250+00
F.G.=1193.55

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

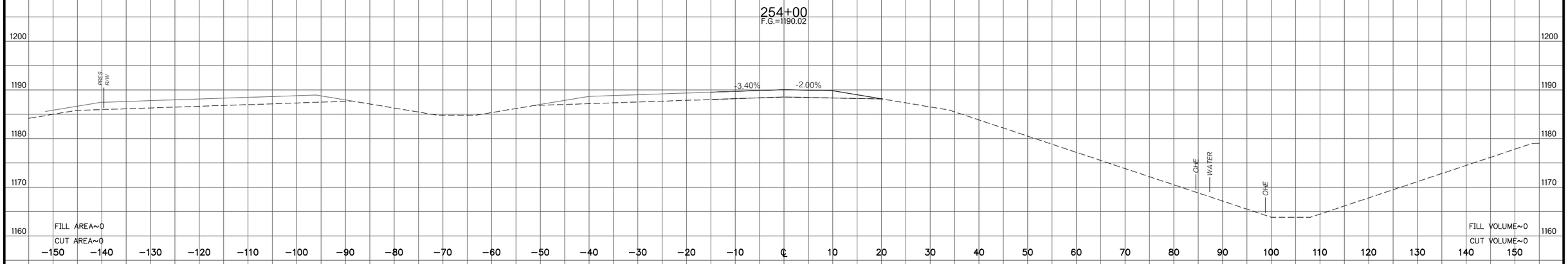
RAMP D

US-81 REALIGNMENT
GRADY COUNTY

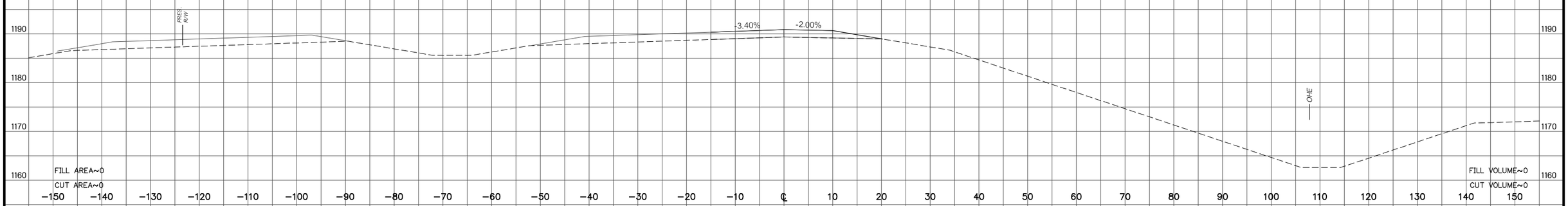
State Job No. 24428(13) Sheet No. X165

FINAL FIELD MEETING
JUNE 2020

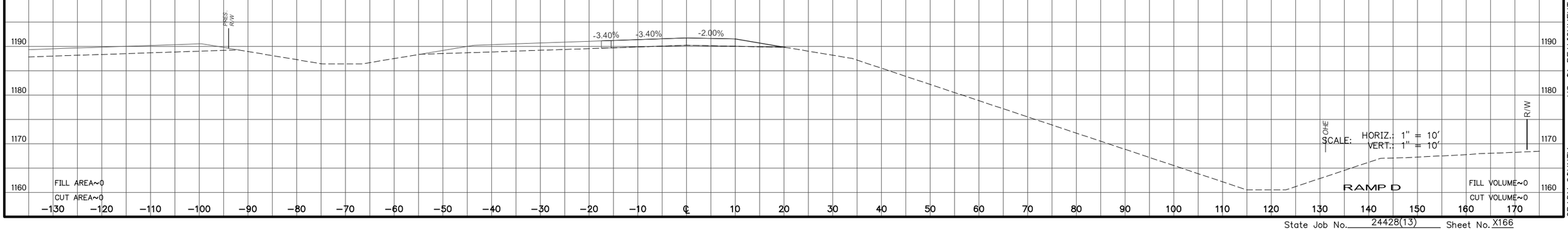
254+00
F.G.=1190.02



253+00
F.G.=1190.85



252+00
F.G.=1191.73



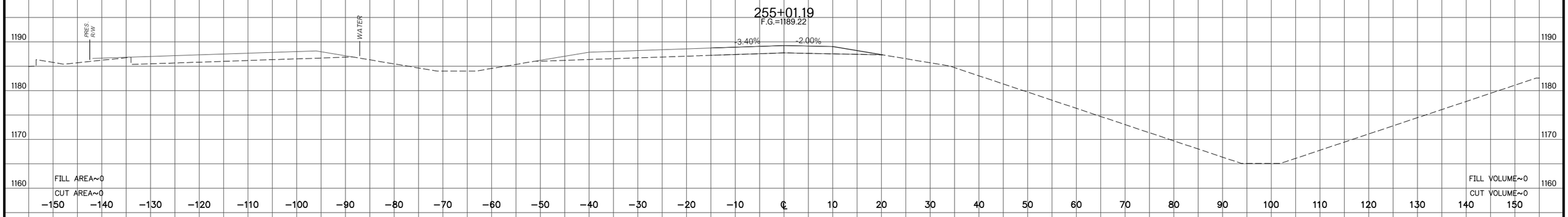
SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

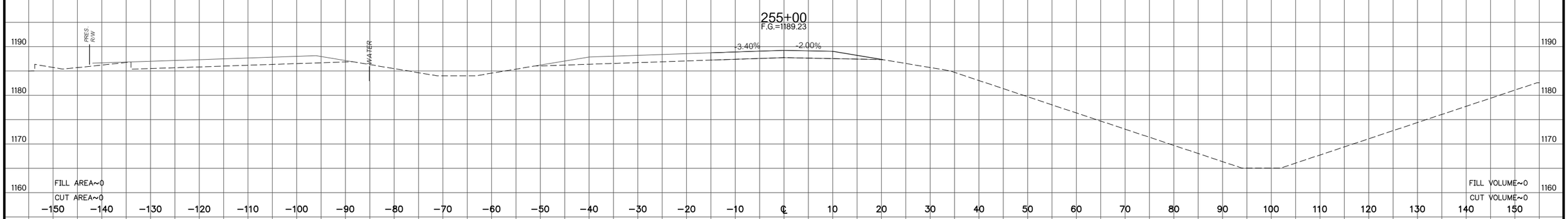
RAMP D

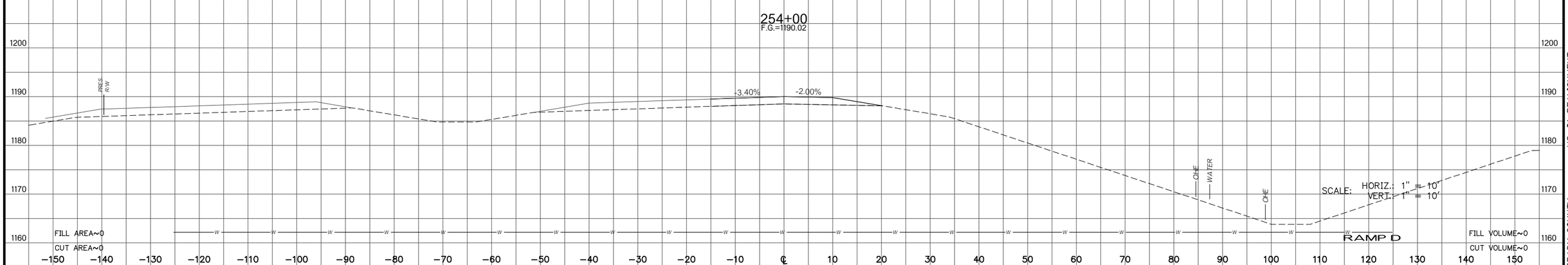
US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X166

FINAL FIELD MEETING
JUNE 2020



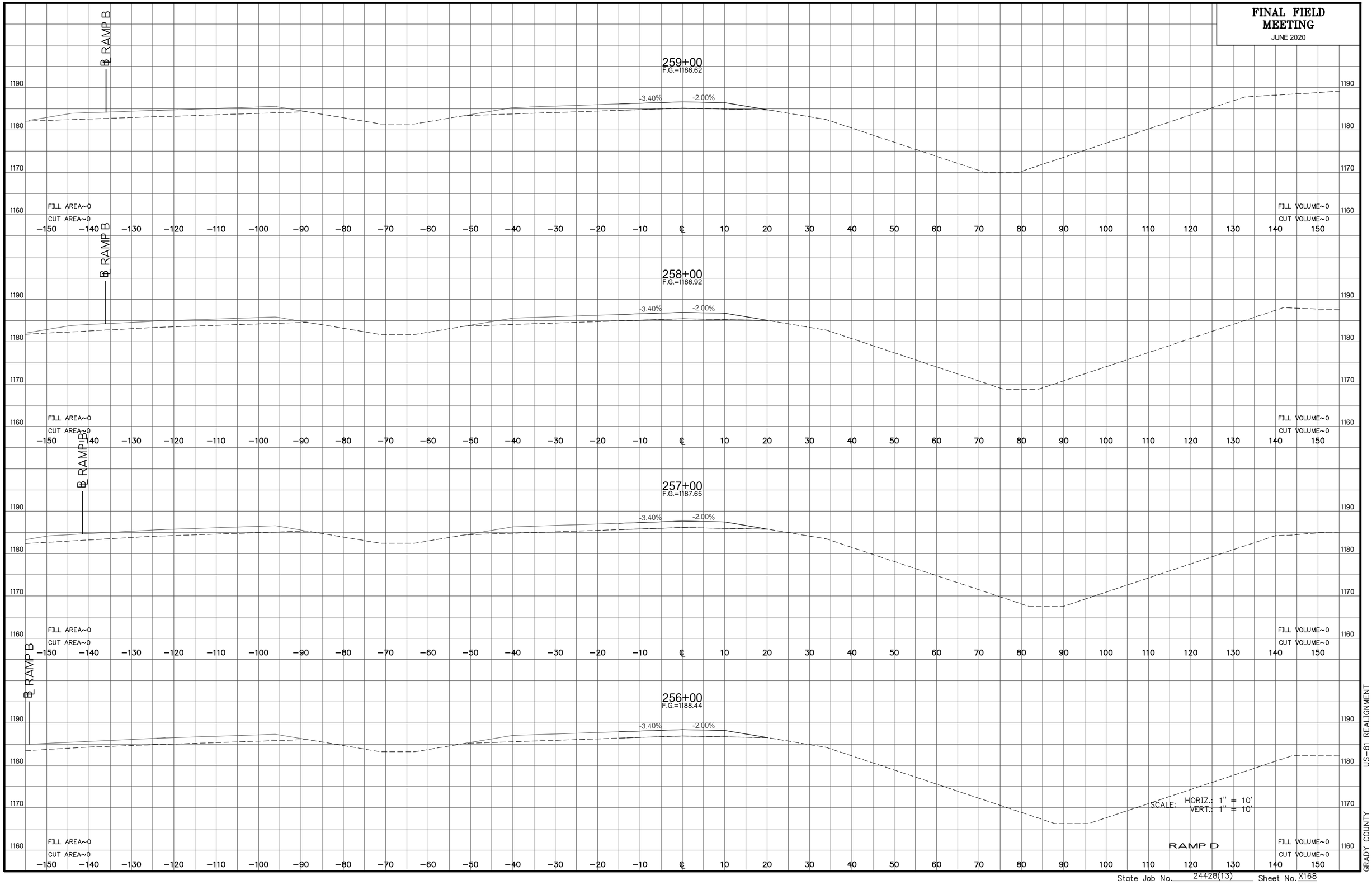




US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X167

FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP D

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X168

FINAL FIELD MEETING
JUNE 2020

℄ RAMP B

261+00
F.G.=1187.55

-3.40% -2.00%

FILL AREA~0
CUT AREA~0
FILL VOLUME~0
CUT VOLUME~0

1200 1190 1180 1170

−150 −140 −130 −120 −110 −100 −90 −80 −70 −60 −50 −40 −30 −20 −10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

℄ RAMP B

260+00
F.G.=1186.83

-3.40% -2.00%

FILL AREA~0
CUT AREA~0
FILL VOLUME~0
CUT VOLUME~0

1200 1190 1180 1170

−150 −140 −130 −120 −110 −100 −90 −80 −70 −60 −50 −40 −30 −20 −10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

℄ RAMP B

259+25
F.G.=1186.63

-3.40% -2.00%

FILL AREA~0
CUT AREA~0
FILL VOLUME~0
CUT VOLUME~0

1200 1190 1180 1170

−150 −140 −130 −120 −110 −100 −90 −80 −70 −60 −50 −40 −30 −20 −10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

℄ RAMP B

259+08.97
F.G.=1186.63

-3.40% -2.00%

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP D

FILL AREA~0
CUT AREA~0
FILL VOLUME~0
CUT VOLUME~0

1190 1180 1170

−150 −140 −130 −120 −110 −100 −90 −80 −70 −60 −50 −40 −30 −20 −10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X169

FINAL FIELD MEETING
JUNE 2020

℄ RAMP B

264+00
F.G.=1192.76

-3.40% -2.00%

FILL AREA~0
CUT AREA~0
FILL VOLUME~0
CUT VOLUME~0

1200 1190 1180 1170

−150 −140 −130 −120 −110 −100 −90 −80 −70 −60 −50 −40 −30 −20 −10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

℄ RAMP B

263+10.69
F.G.=1190.76

-3.40% -2.00%

FILL AREA~0
CUT AREA~0
FILL VOLUME~0
CUT VOLUME~0

1200 1190 1180 1170

−150 −140 −130 −120 −110 −100 −90 −80 −70 −60 −50 −40 −30 −20 −10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

℄ RAMP B

263+00
F.G.=1190.52

-3.40% -2.00%

FILL AREA~0
CUT AREA~0
FILL VOLUME~0
CUT VOLUME~0

1200 1190 1180 1170

−150 −140 −130 −120 −110 −100 −90 −80 −70 −60 −50 −40 −30 −20 −10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

℄ RAMP B

262+00
F.G.=1188.78

-3.40% -2.00%

FILL AREA~0
CUT AREA~0
FILL VOLUME~0
CUT VOLUME~0

1200 1190 1180 1170

−150 −140 −130 −120 −110 −100 −90 −80 −70 −60 −50 −40 −30 −20 −10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP D

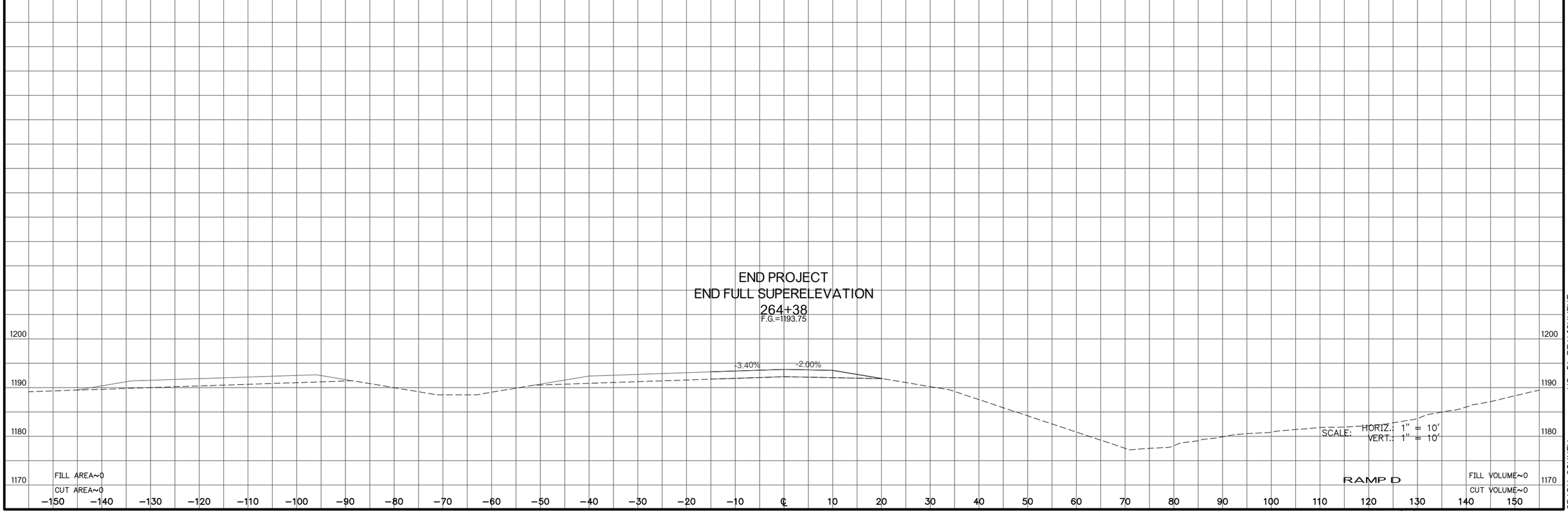
US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X170

FINAL FIELD MEETING

JUNE 2020

END PROJECT
END FULL SUPERELEVATION
264+38
F.G.=1193.75



US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X171

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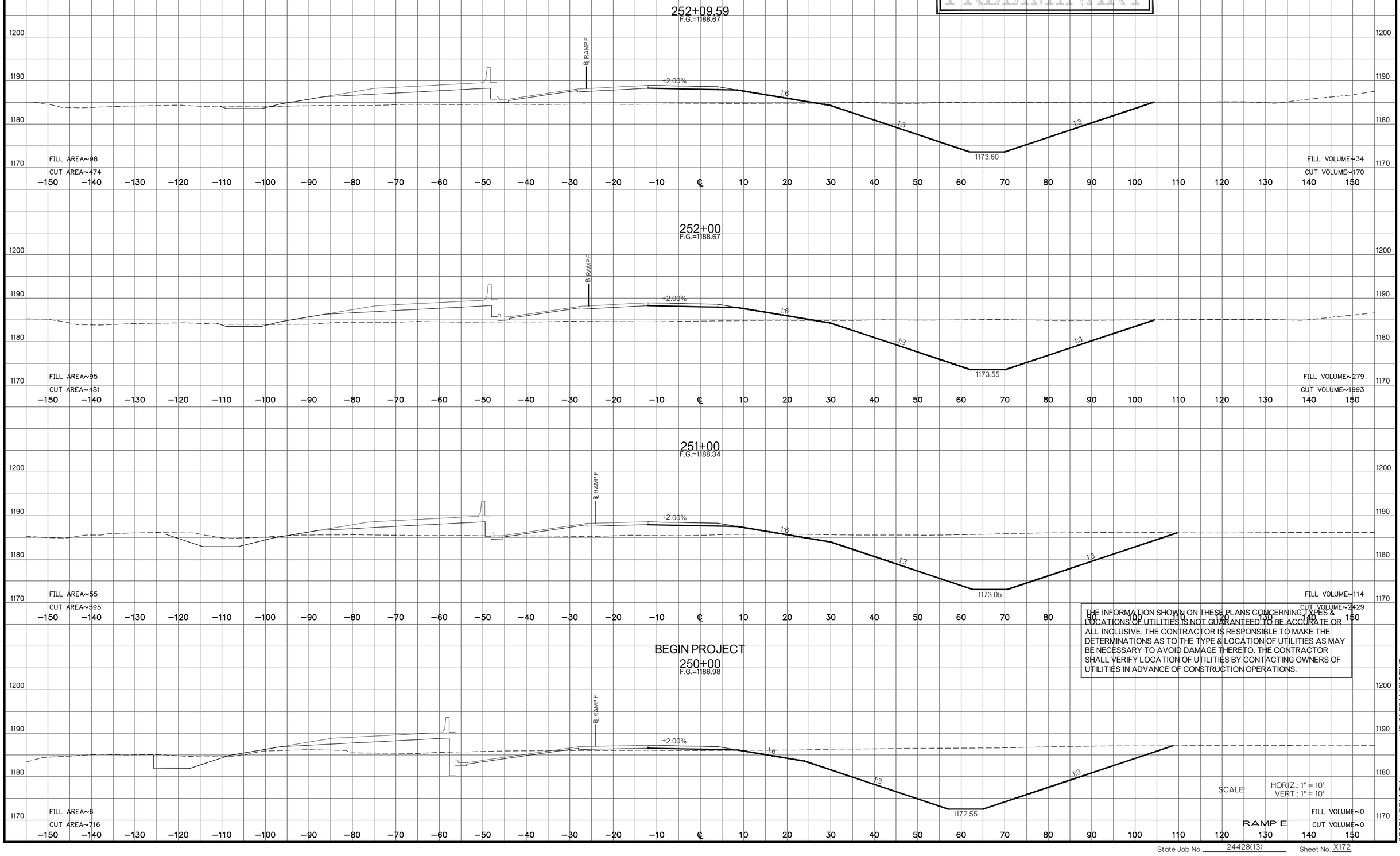
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020



THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPES & LOCATIONS OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO MAKE THE DETERMINATIONS AS TO THE TYPE & LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING OWNERS OF UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS.

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP E

State Job No. 24428(13) Sheet No. X172

US-81 REALIGNMENT
GRADY COUNTY

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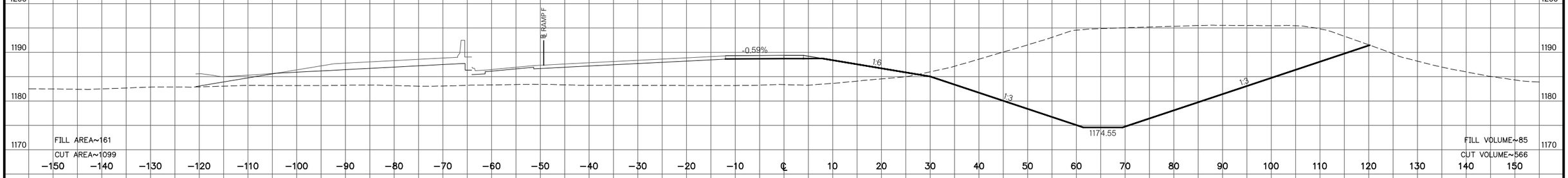
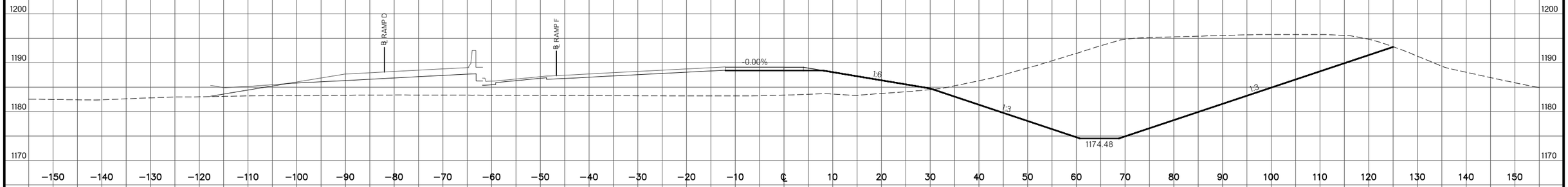
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

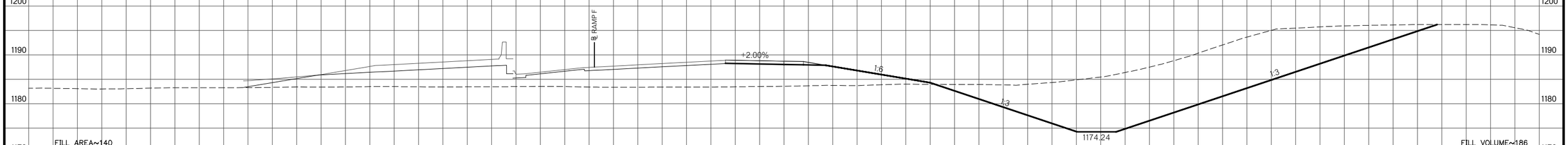
254+00
F.G.=1189.35



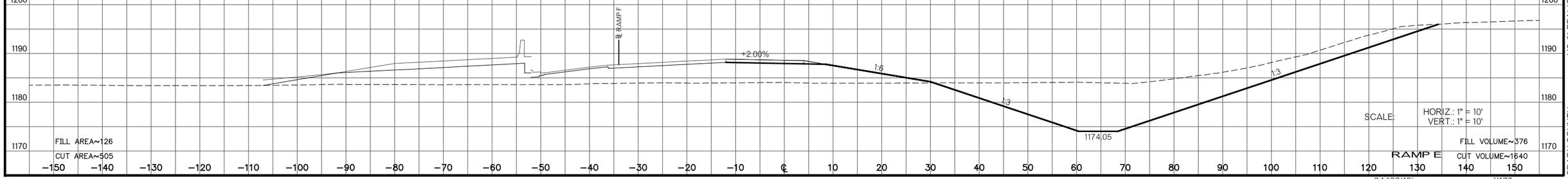
BEGIN SUPERELEVATION RUNOFF STATION
253+85.79
F.G.=1189.06



END NORMAL CROWN
253+37.64
F.G.=1188.70



253+00
F.G.=1188.62



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP E

State Job No. 24428(13) Sheet No. X173

US-81 REALIGNMENT
GRADY COUNTY

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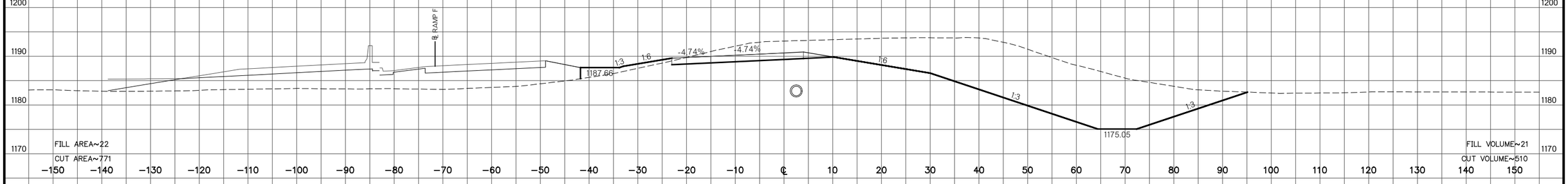
PRELIMINARY

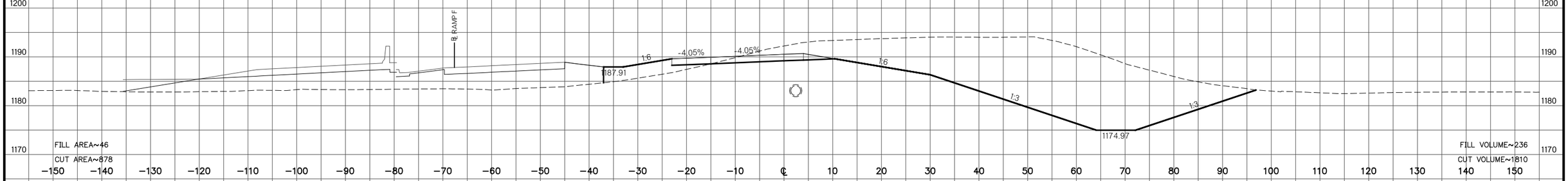
FINAL FIELD MEETING
JUNE 2020

255+00
F.G.=1190.66



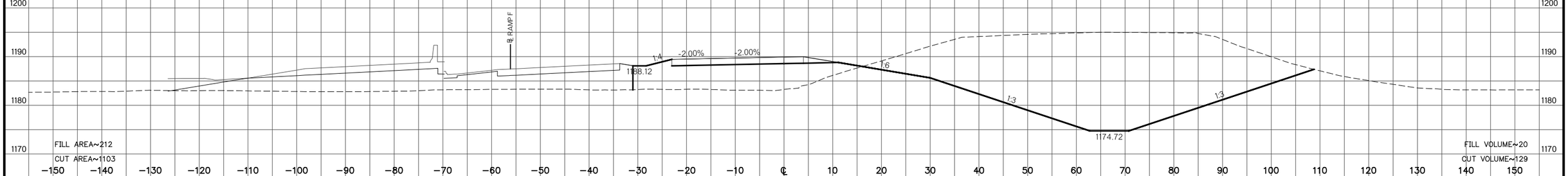
FILL AREA~22
CUT AREA~771
FILL VOLUME~21
CUT VOLUME~510

254+83.30
F.G.=1190.52



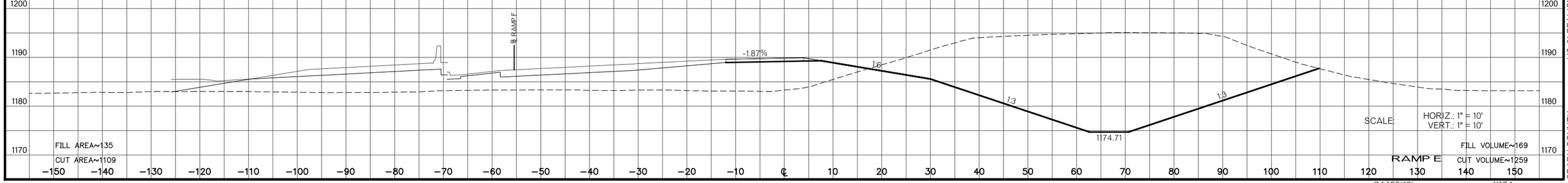
FILL AREA~46
CUT AREA~878
FILL VOLUME~236
CUT VOLUME~1810

REVERSE CROSS SLOPE STATION
254+33.95
F.G.=1189.90



FILL AREA~212
CUT AREA~1103
FILL VOLUME~20
CUT VOLUME~129

254+30.80
F.G.=1189.85



FILL AREA~135
CUT AREA~1109
FILL VOLUME~169
CUT VOLUME~1259

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP E

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X174

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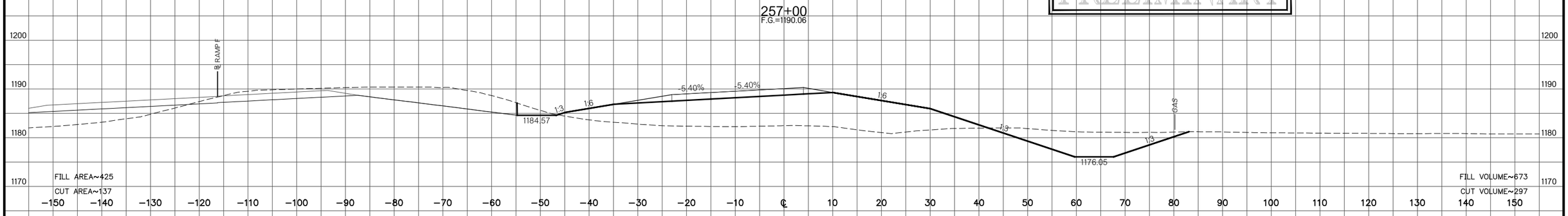
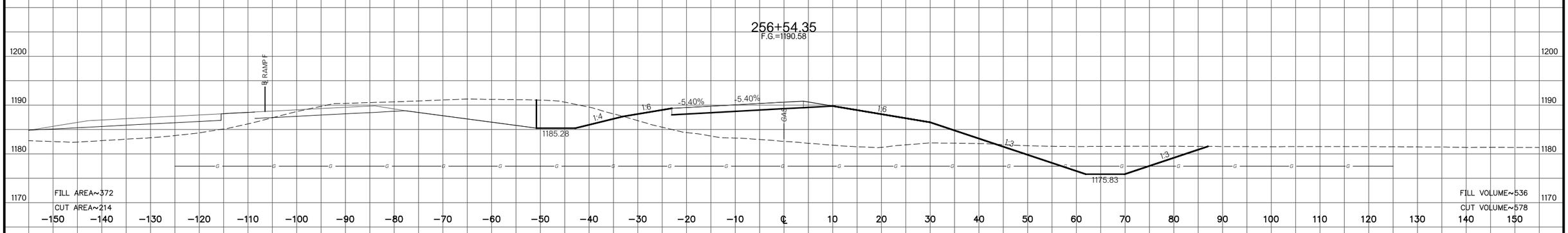
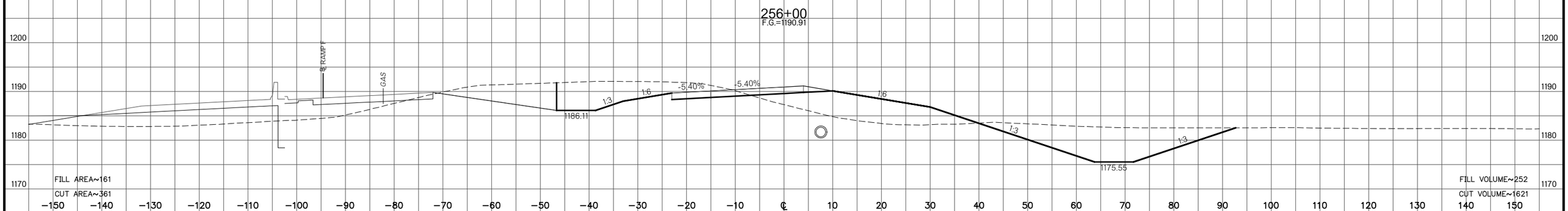
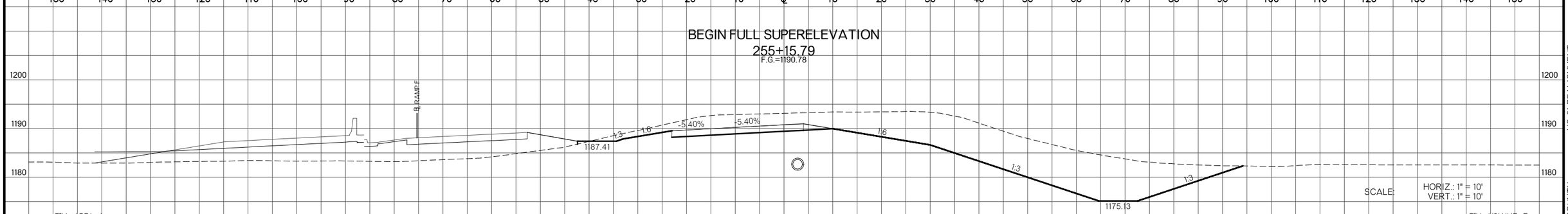
FINAL FIELD MEETING
JUNE 2020









SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP E

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X175

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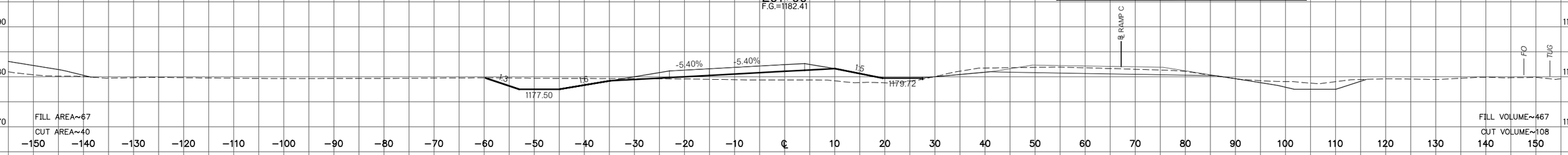
PRELIMINARY

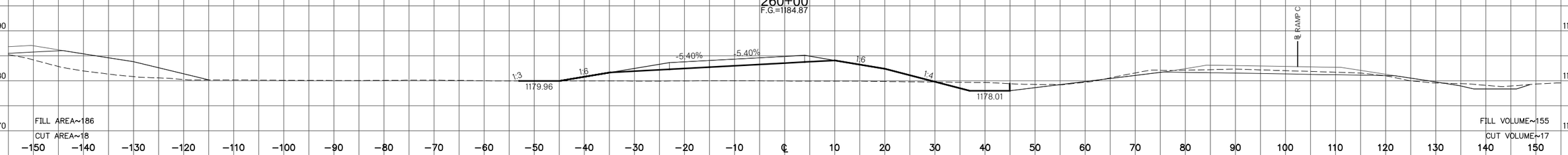
FINAL FIELD MEETING
JUNE 2020

261+00
F.G.=1182.41



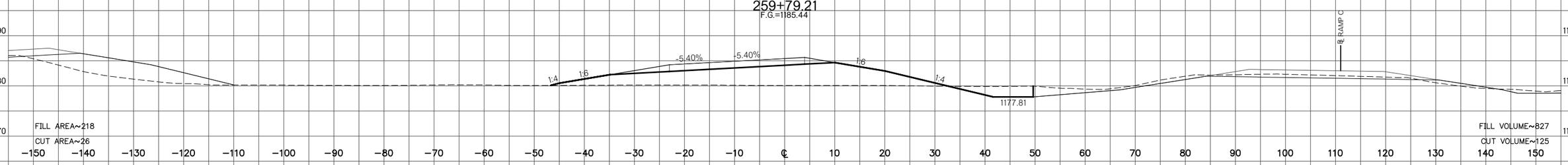
FILL AREA~67
CUT AREA~40
FILL VOLUME~467
CUT VOLUME~108

260+00
F.G.=1184.87



FILL AREA~186
CUT AREA~18
FILL VOLUME~155
CUT VOLUME~17

259+79.21
F.G.=1185.44

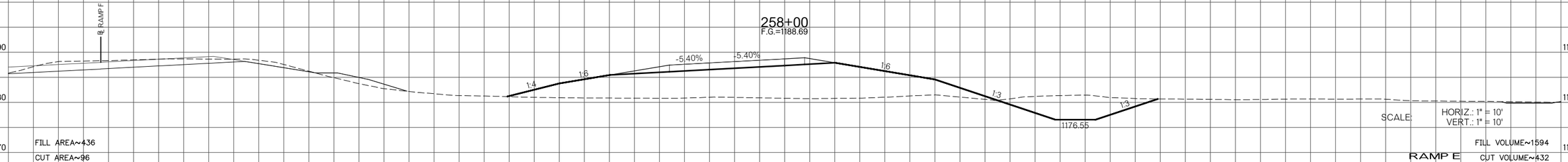


FILL AREA~218
CUT AREA~26
FILL VOLUME~827
CUT VOLUME~125

259+00
F.G.=1187.21

FILL AREA~346
CUT AREA~59
FILL VOLUME~1448
CUT VOLUME~287

258+00
F.G.=1188.69



FILL AREA~436
CUT AREA~96
FILL VOLUME~1594
CUT VOLUME~432

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP E

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X176

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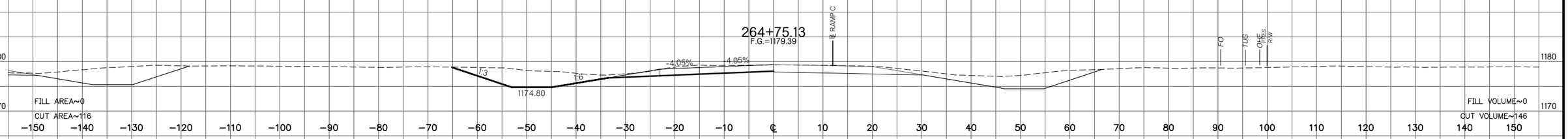
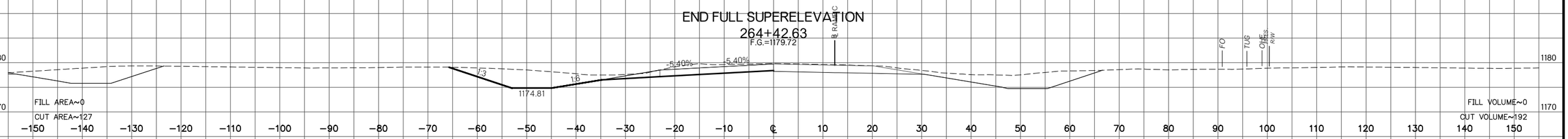
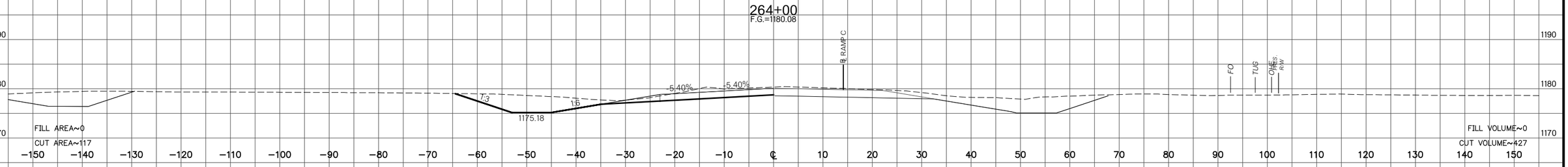
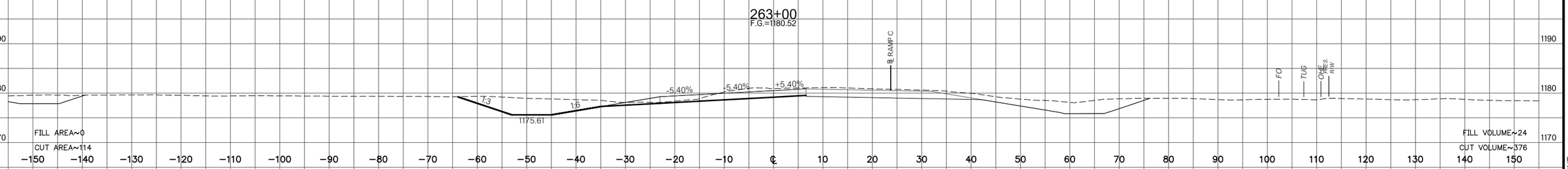
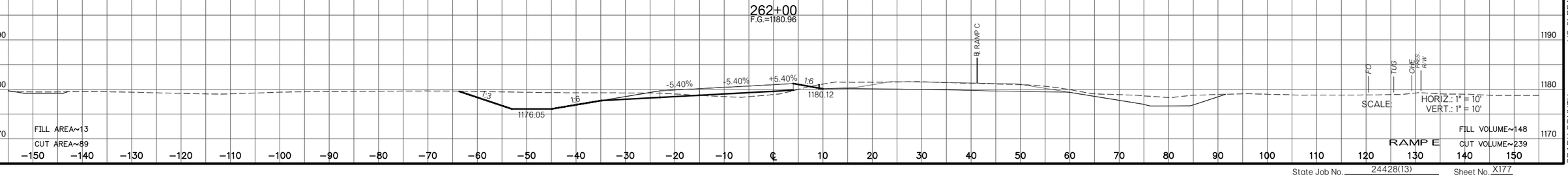
FINAL FIELD MEETING
JUNE 2020











SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP E

US-81 REALIGNMENT
GRADY COUNTY

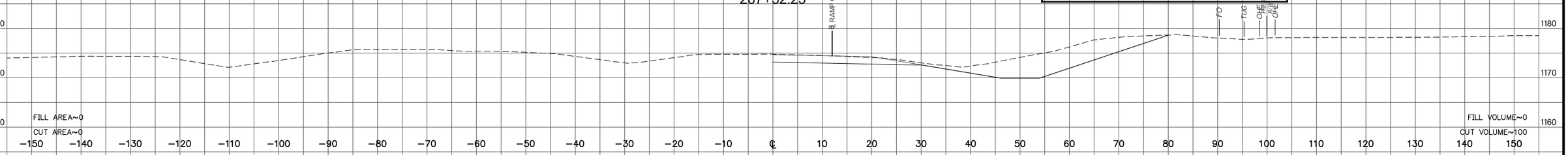
State Job No. 24428(13) Sheet No. X177

THIS DOCUMENT IS PRELIMINARY IN NATURE AND IS NOT A FINAL, SIGNED AND SEALED DOCUMENT.

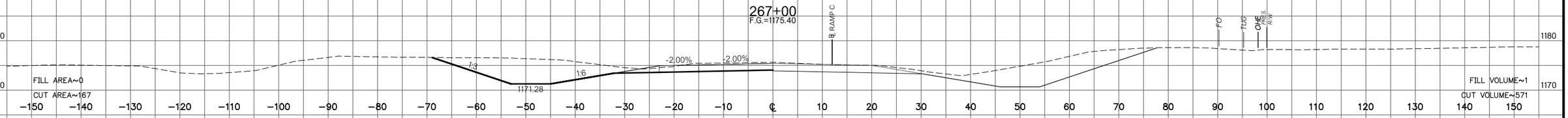
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

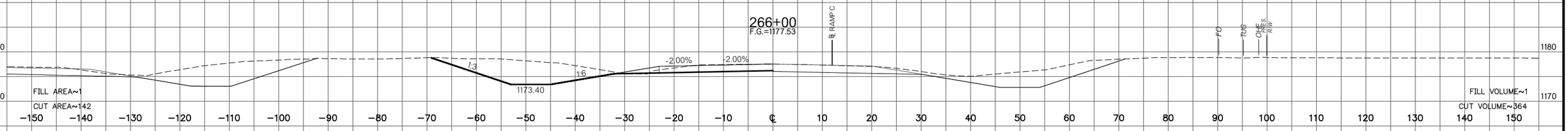
END PROJECT
267+32.25



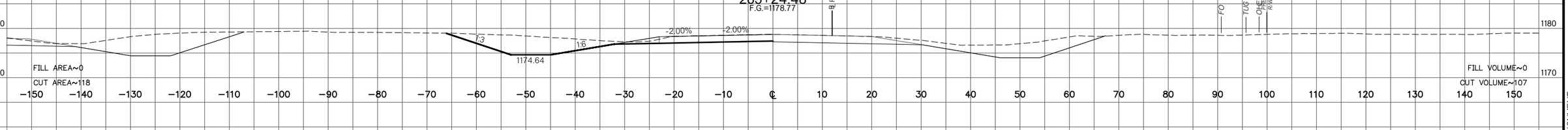
267+00
F.G.=1175.40



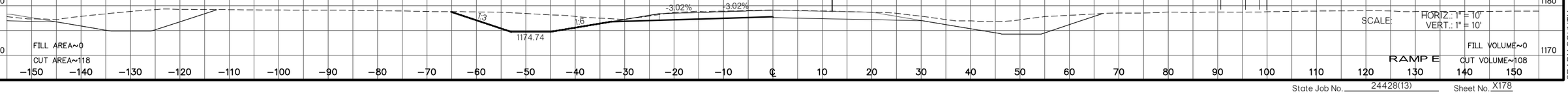
266+00
F.G.=1177.53



BEGIN NORMAL CROWN
265+24.48
F.G.=1178.77



265+00
F.G.=1179.10



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP E

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X178

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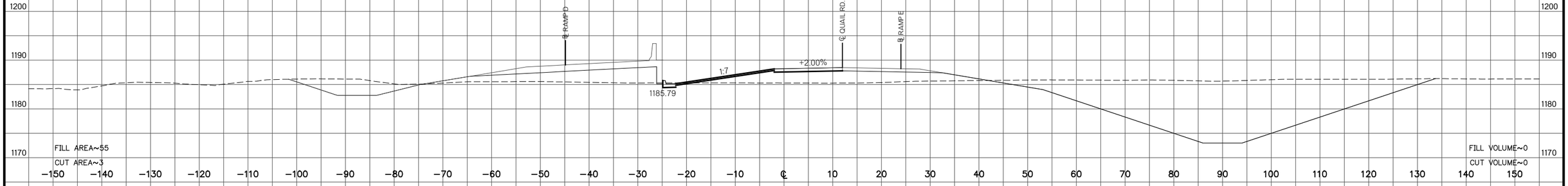
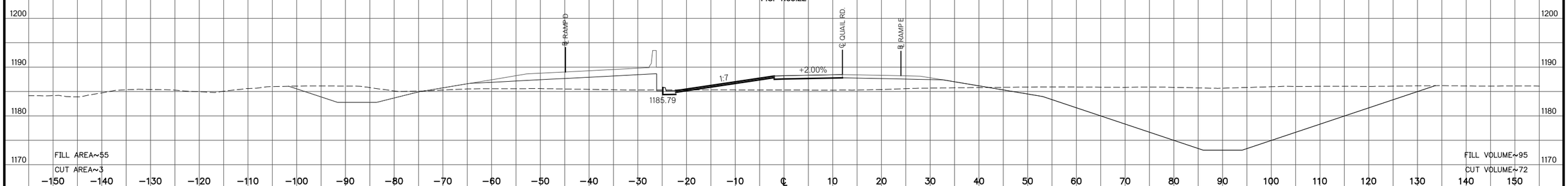
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

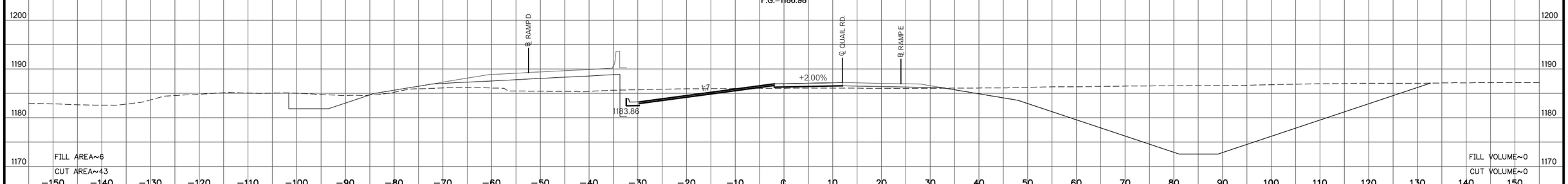
BEGIN SUPERELEVATION STATION
128+00.04
F.G.=1188.22



128+00
F.G.=1188.22

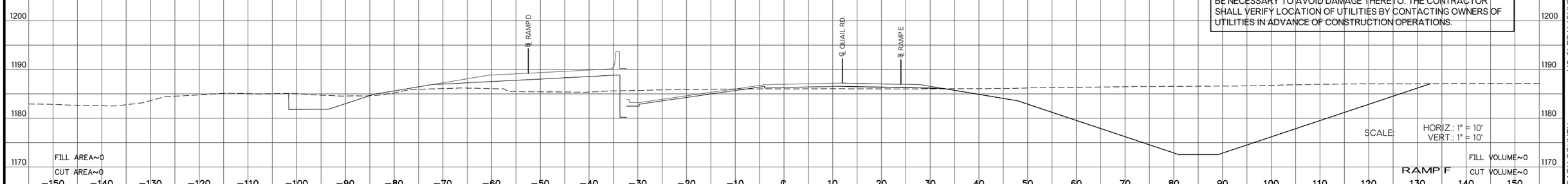


BEGIN PROJECT
127+15.45
F.G.=1186.98



THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPES & LOCATIONS OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO MAKE THE DETERMINATIONS AS TO THE TYPE & LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING OWNERS OF UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS.

127+15.40



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP F

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X179

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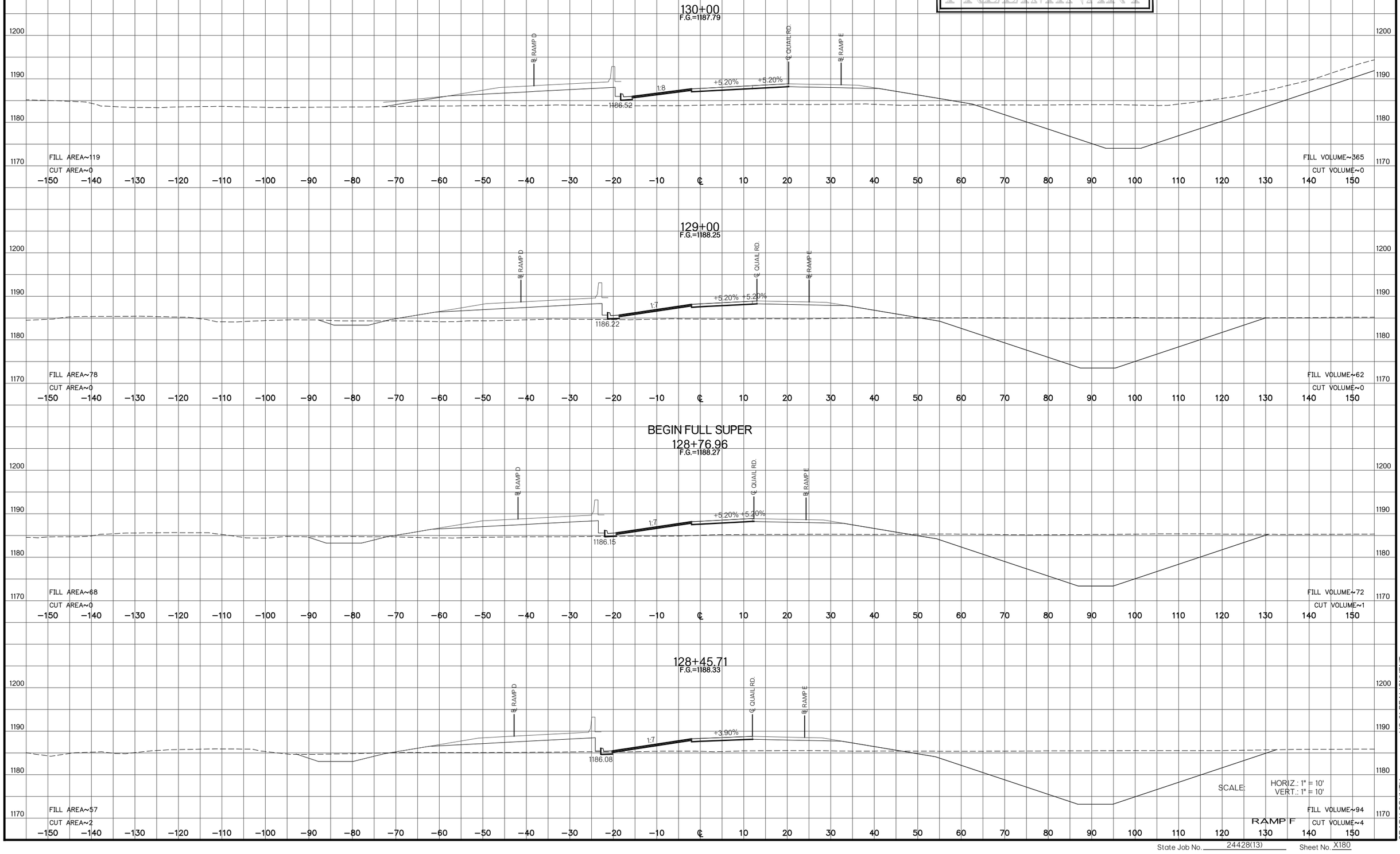
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP F

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X180

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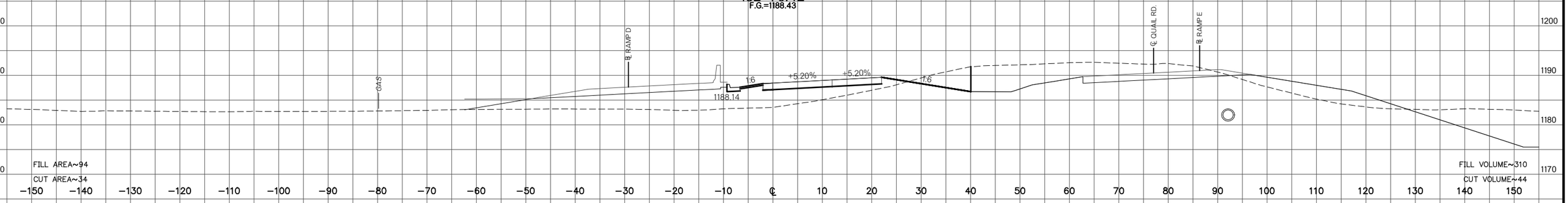
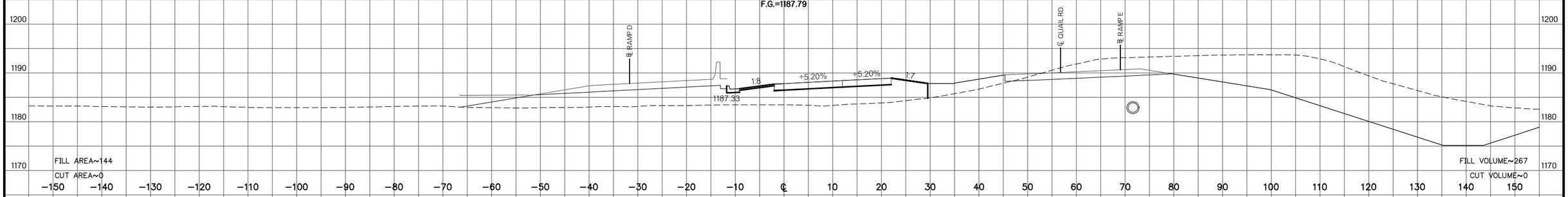
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

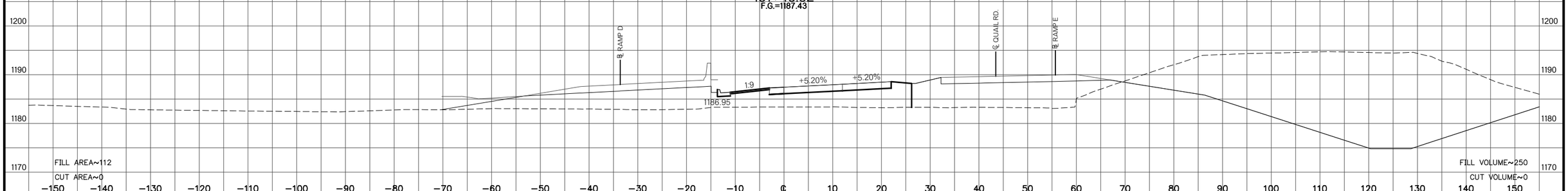
132+70.42
F.G.=1188.43



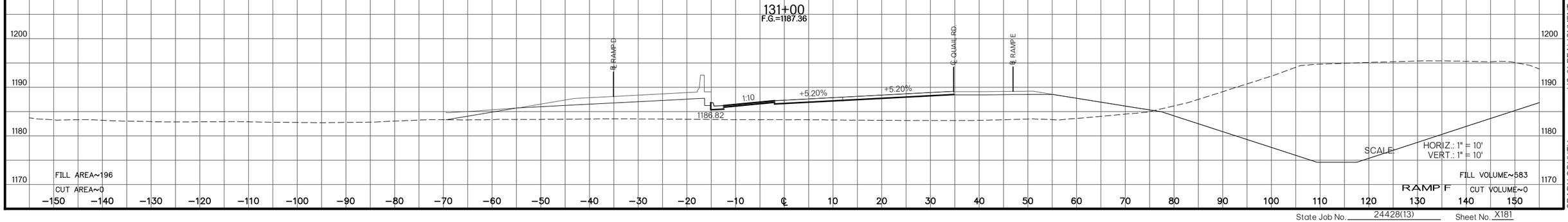
132+00
F.G.=1187.79



131+43.82
F.G.=1187.43



131+00
F.G.=1187.36



US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X181

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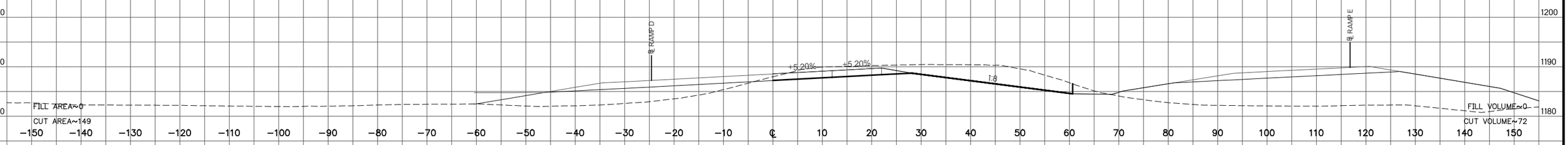
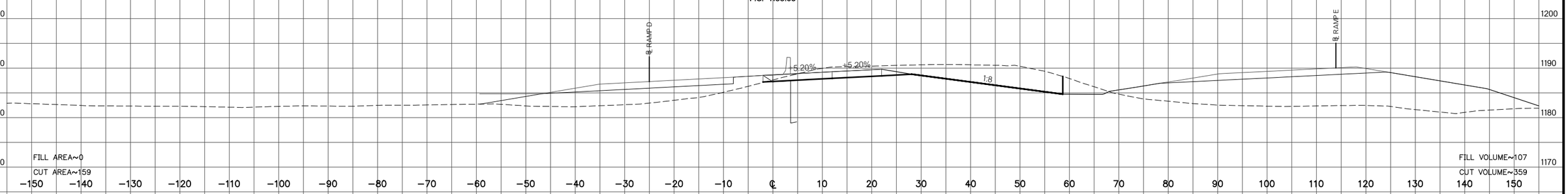
FINAL FIELD MEETING
JUNE 2020

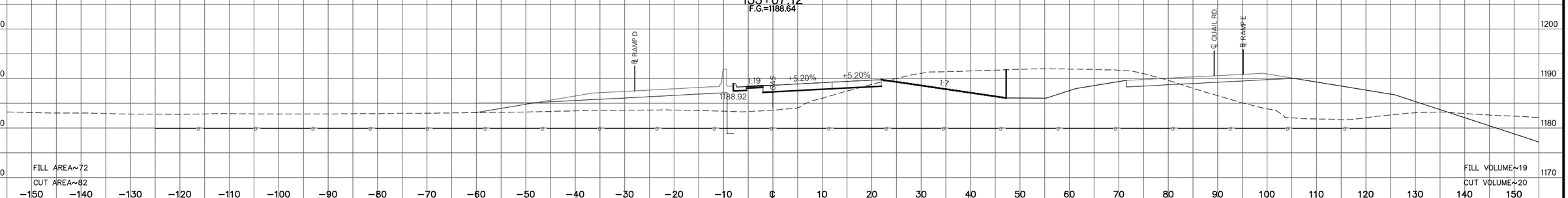
134+00
F.G.=1188.57



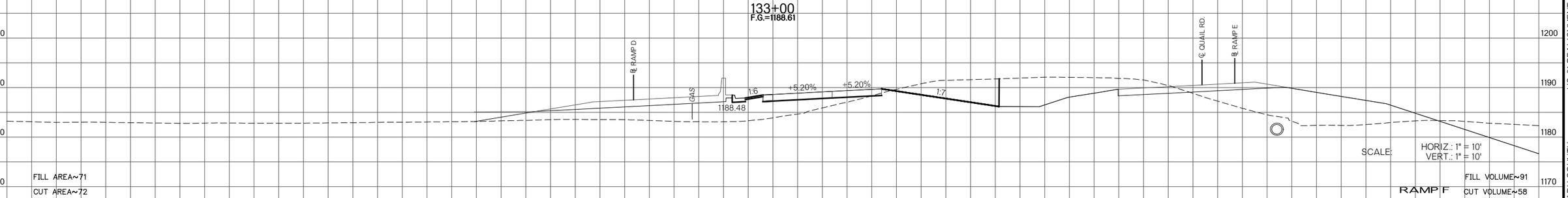
133+87.44
F.G.=1188.63



133+07.12
F.G.=1188.64



133+00
F.G.=1188.61



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP F

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X182

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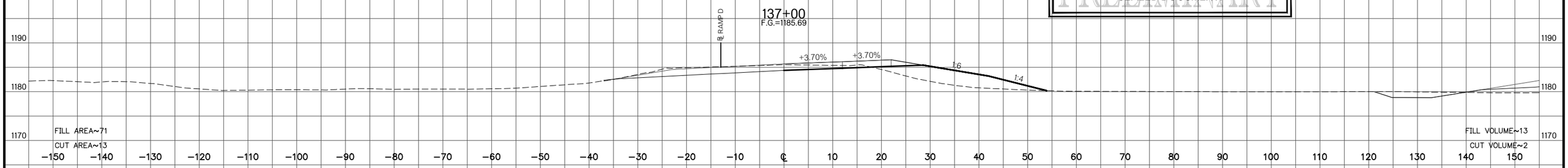
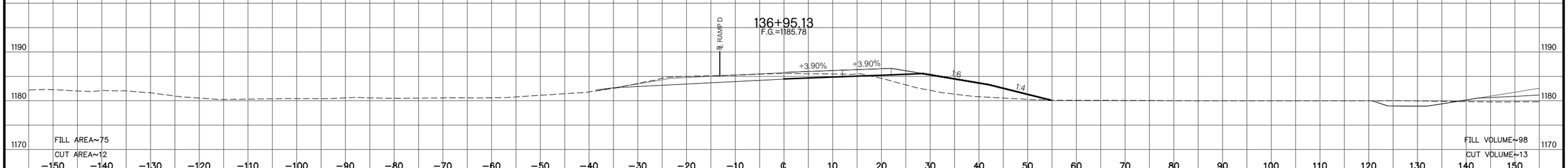
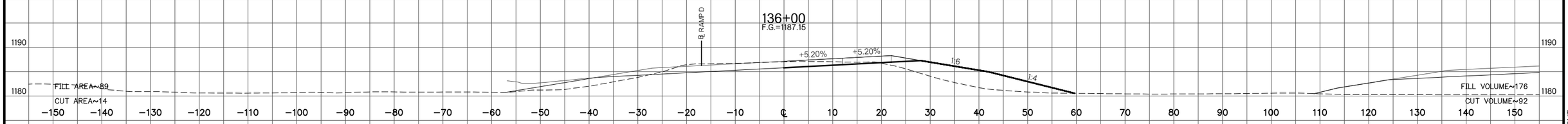
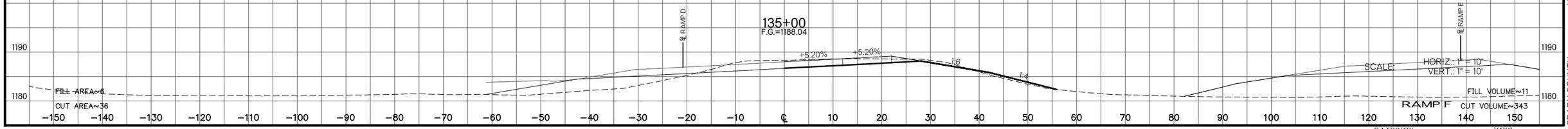
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020









US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X183

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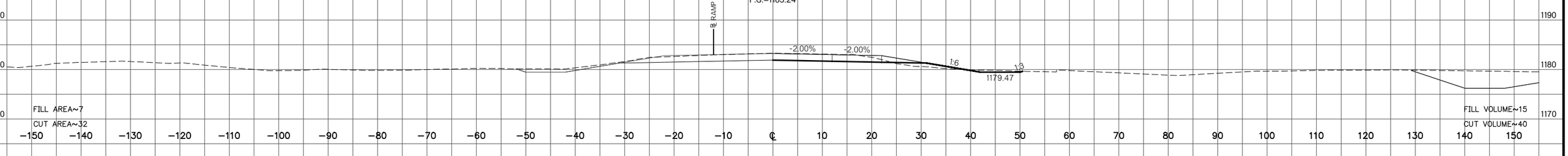
PRELIMINARY

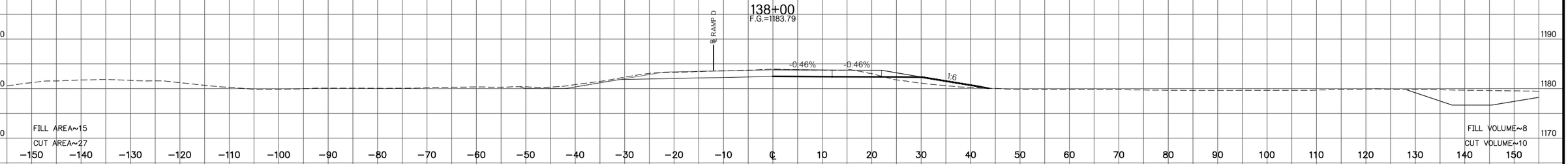
FINAL FIELD MEETING
JUNE 2020

139+00
F.G.=1182.31

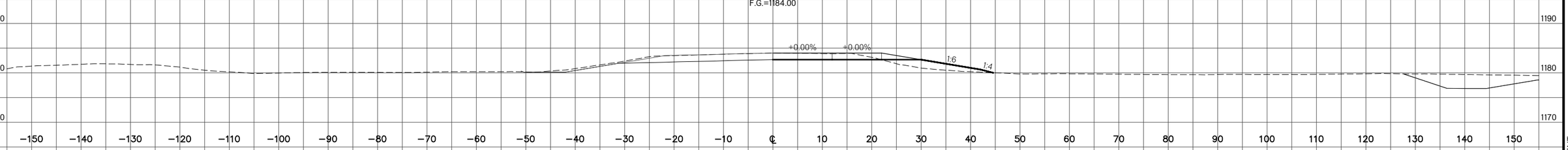
REVERSE CROSS SLOPE STATION
138+36.96
F.G.=1183.24



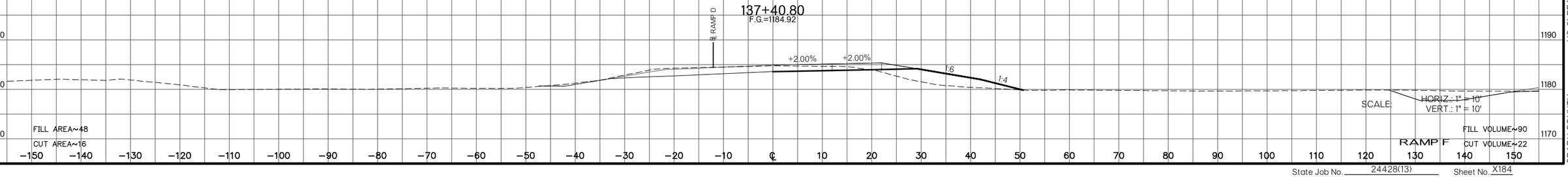
138+00
F.G.=1183.79



END SUPERELEVATION RUNOFF STATION
137+88.88
F.G.=1184.00



REVERSE CROSS SLOPE STATION
137+40.80
F.G.=1184.92



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

RAMP F

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X184

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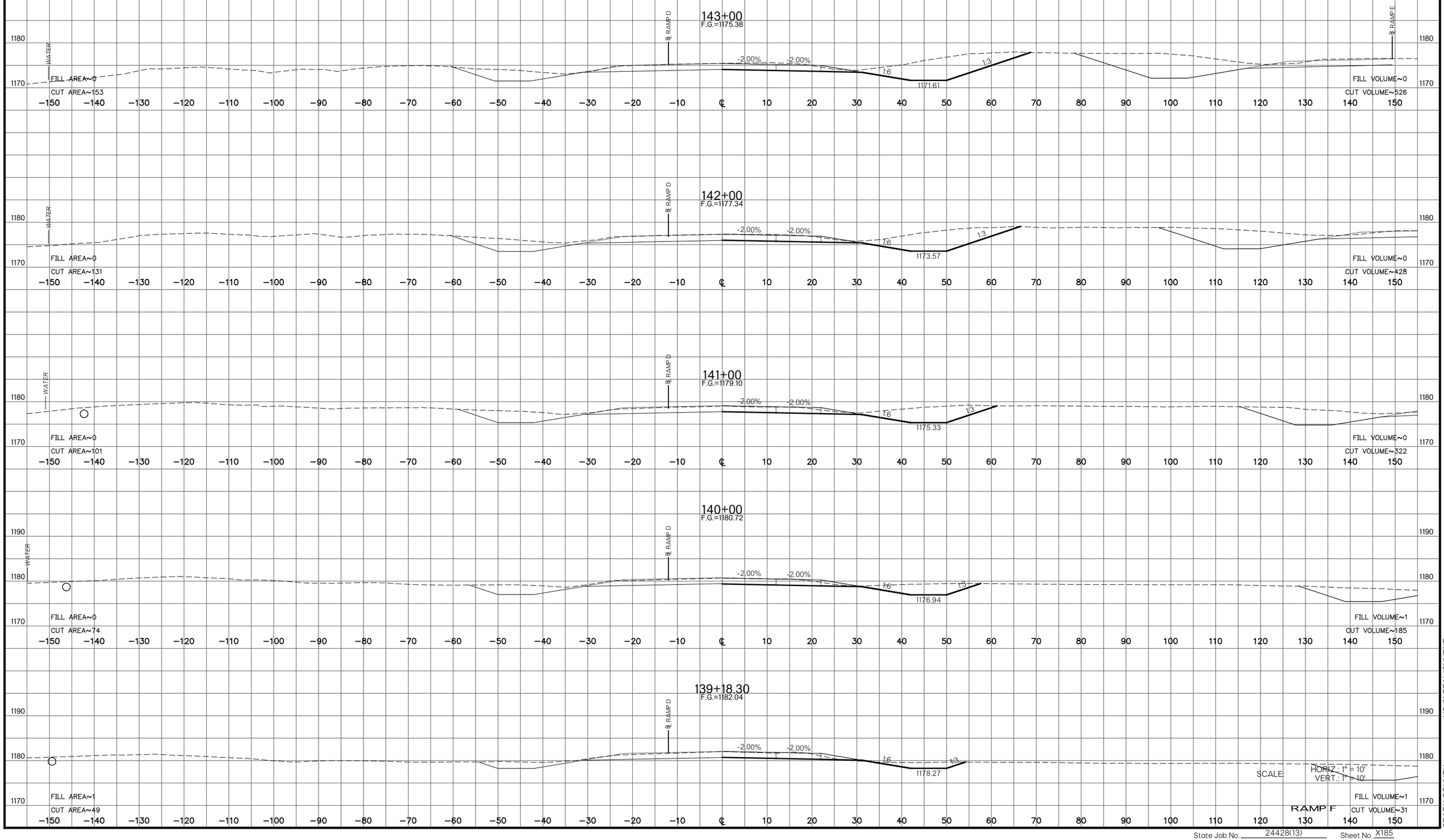
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020



State Job No. 24428(13) Sheet No. X185

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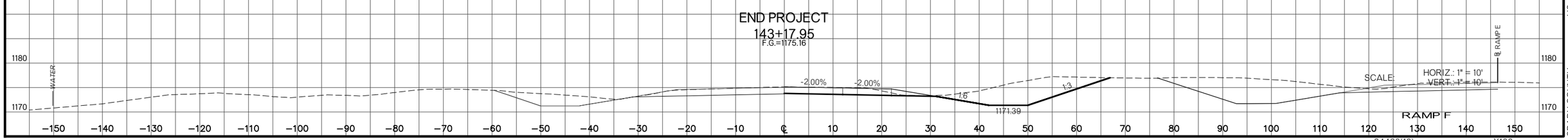
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

END PROJECT
143+17.95
F.G.=1175.16



US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X186

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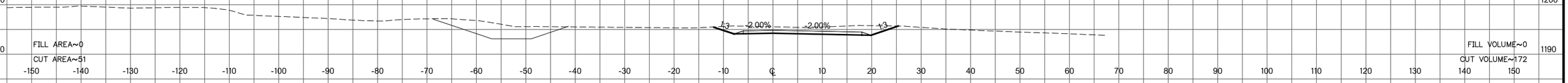
PRELIMINARY

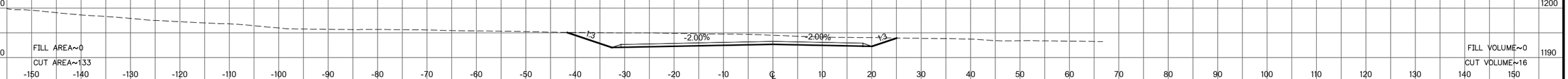
FINAL FIELD MEETING
JUNE 2020

11+00
F.G.=1194.82

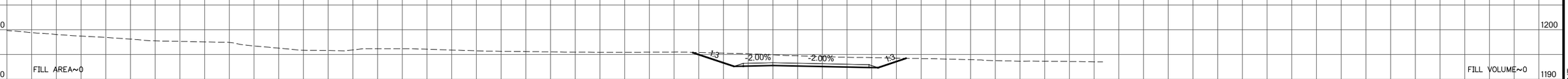


10+22.04
F.G.=1193.15

10+16.15
F.G.=1193.27



10+12.15
F.G.=1193.35



BEGIN PROJECT
10+07.92
F.G.=1193.43

THE INFORMATION SHOWN ON THESE PLANS CONCERNING TYPES & LOCATIONS OF UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE TO MAKE THE DETERMINATIONS AS TO THE TYPE & LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL VERIFY LOCATION OF UTILITIES BY CONTACTING OWNERS OF UTILITIES IN ADVANCE OF CONSTRUCTION OPERATIONS.

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X187

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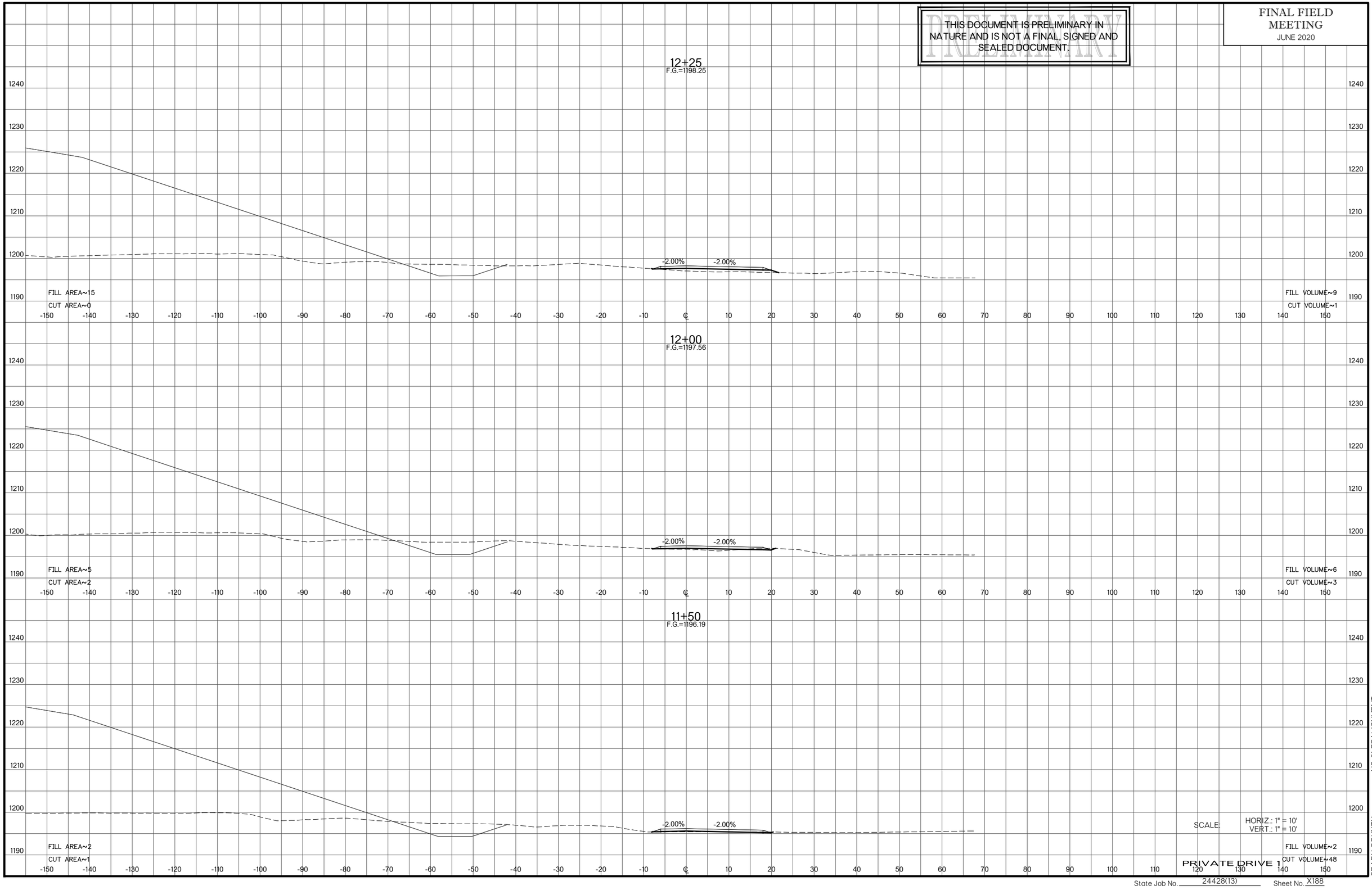
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X188

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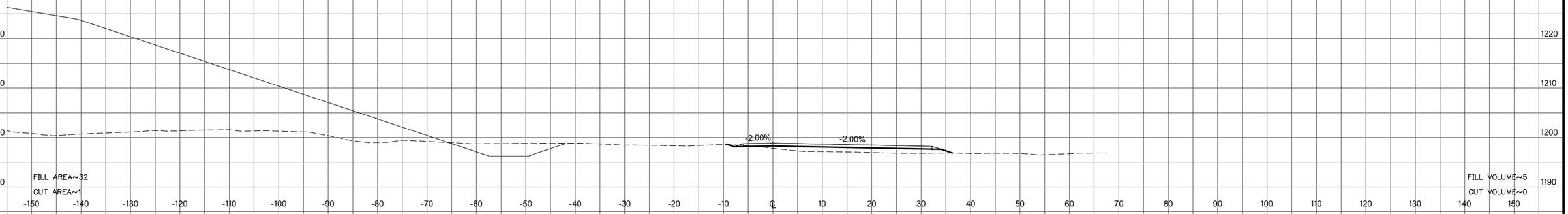
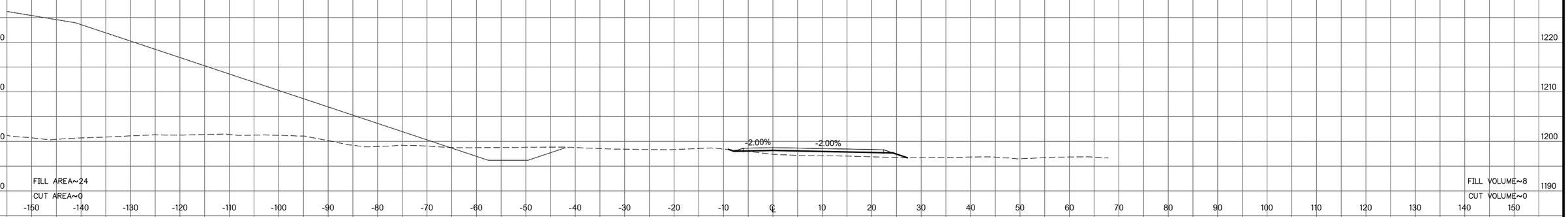
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

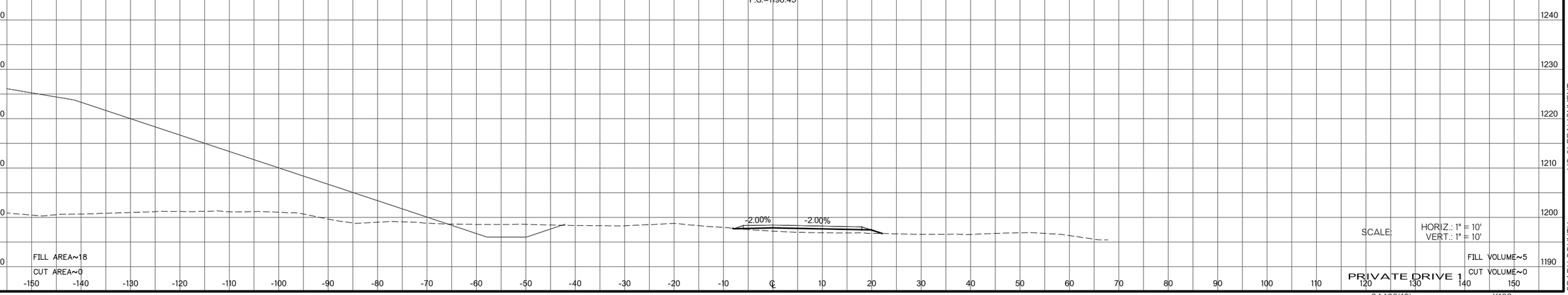
12+47.42
F.G.=1198.85



12+43.05
F.G.=1198.74



12+32.44
F.G.=1198.45



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X189

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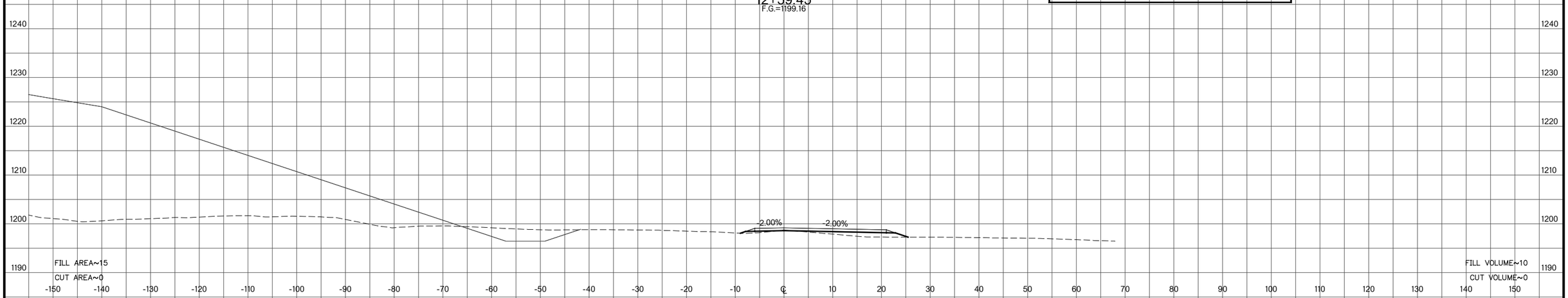
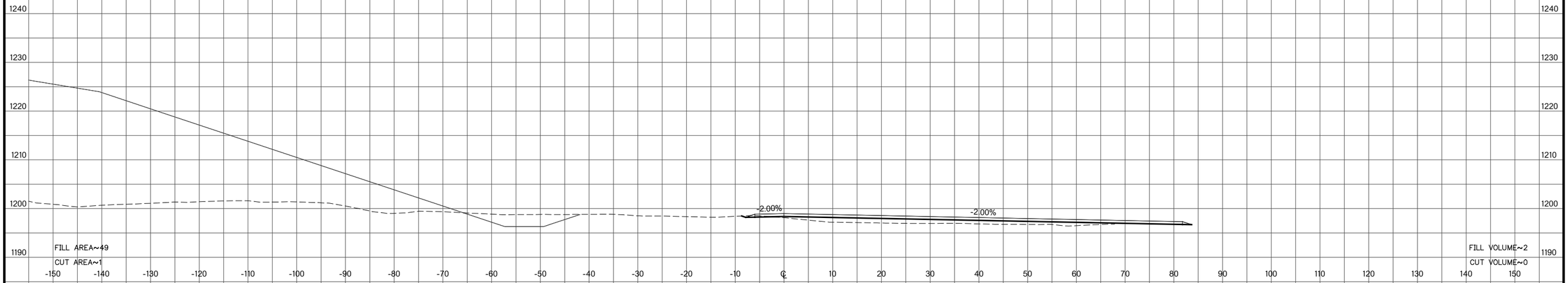
FINAL FIELD MEETING
JUNE 2020

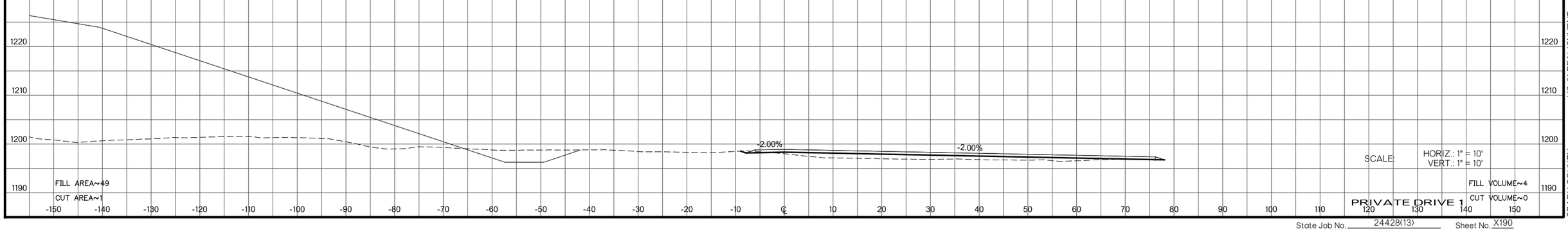
12+59.45
F.G.=1199.16



12+51.35
F.G.=1198.96



12+50
F.G.=1198.92



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X190

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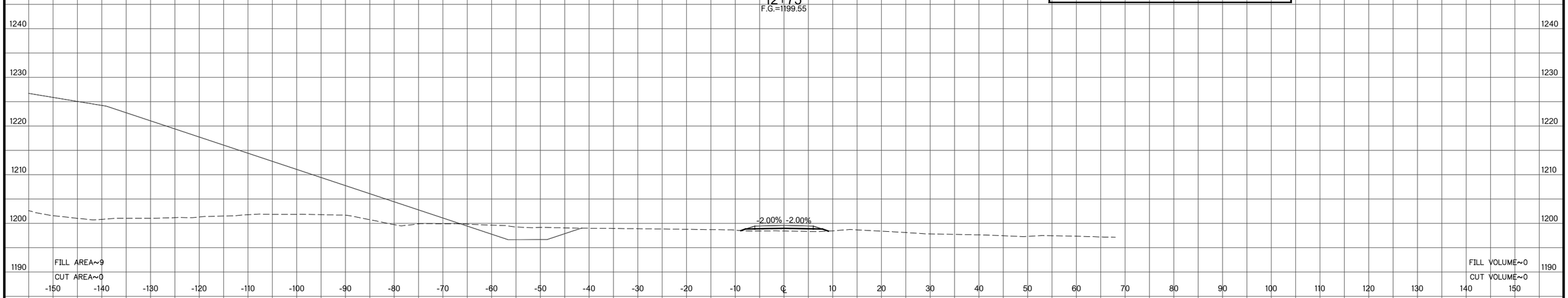
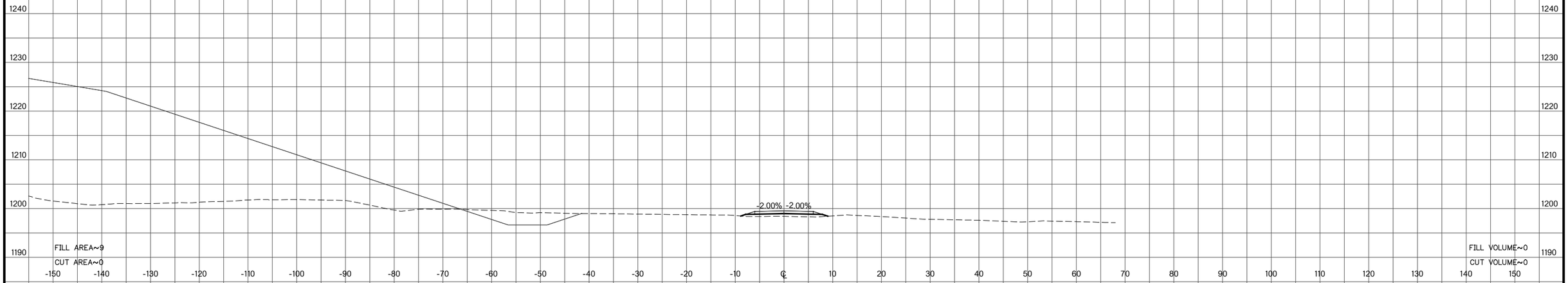
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

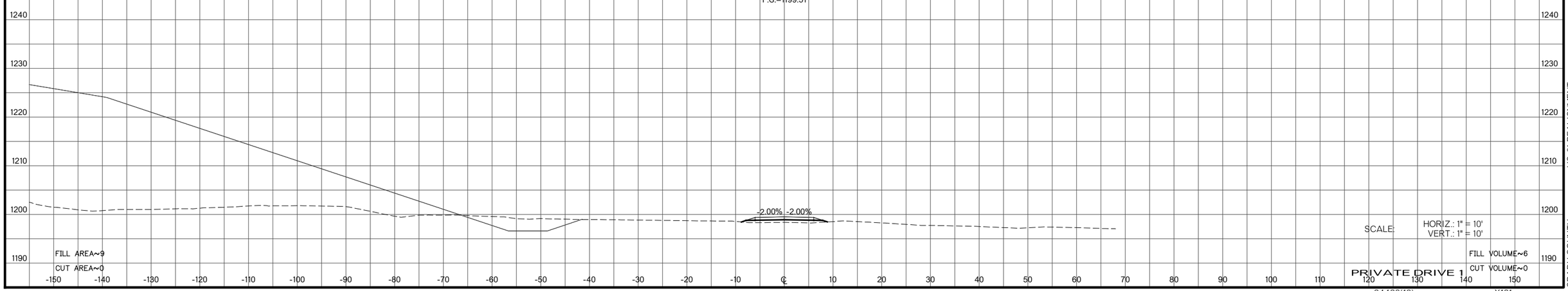
12+75
F.G.=1199.55



12+74.34
F.G.=1199.54



12+73.35
F.G.=1199.51



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X191

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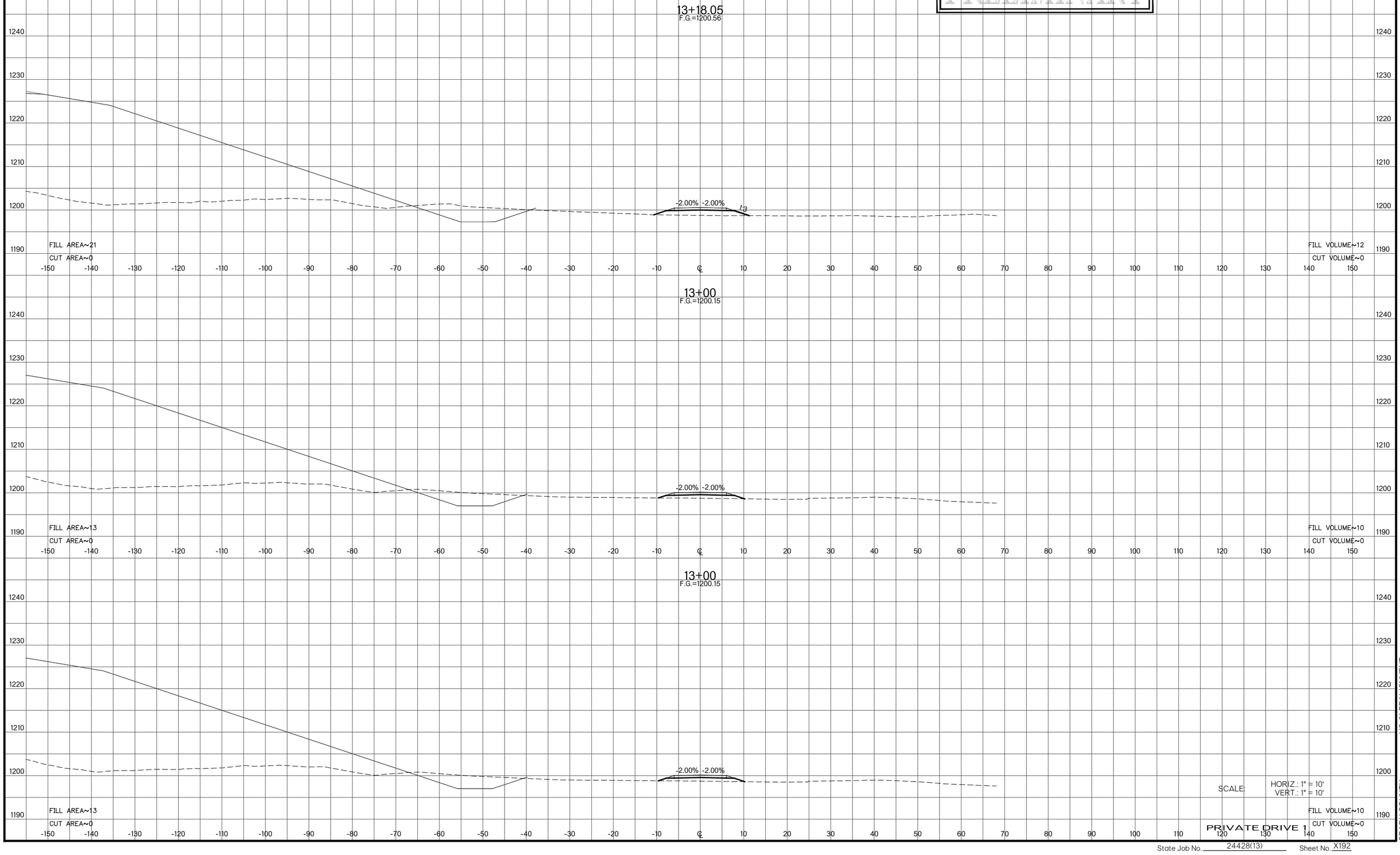
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X192

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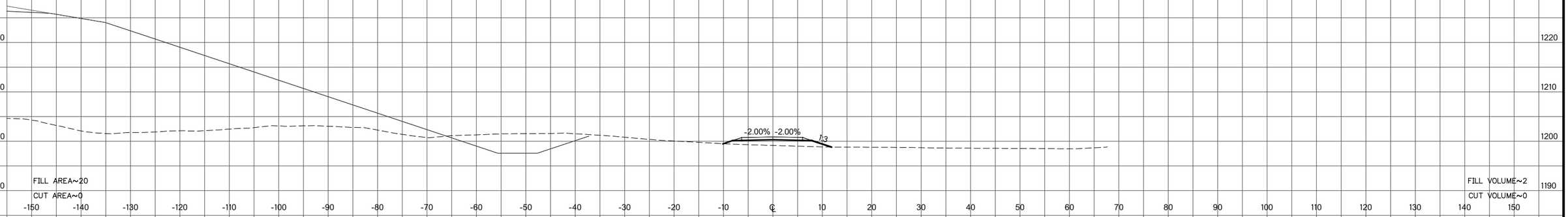
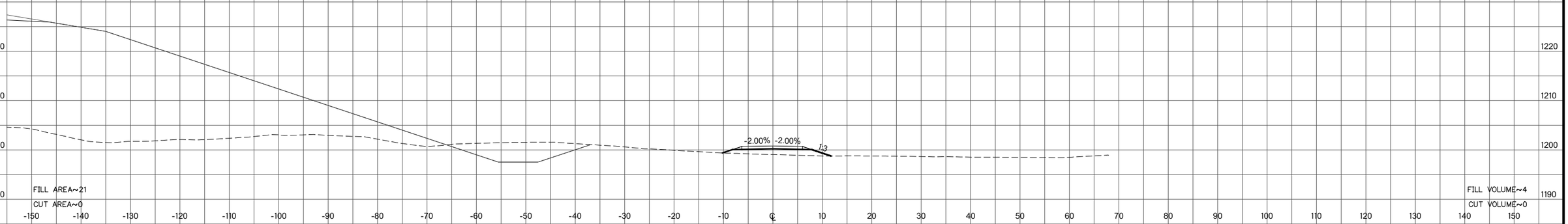
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

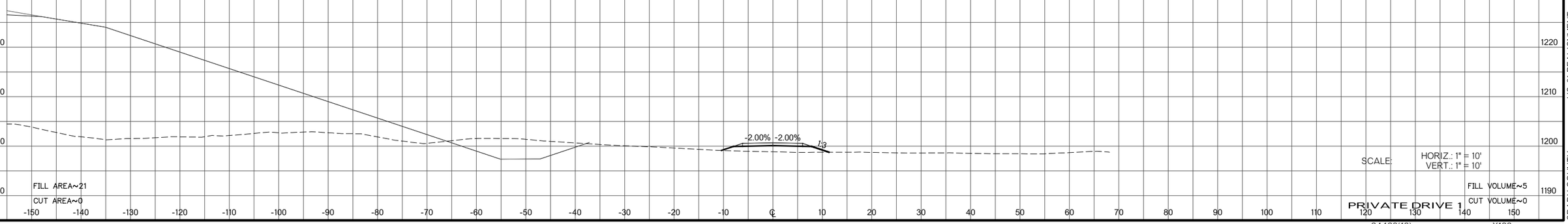
13+32.01
F.G.=1200.86



13+29.63
F.G.=1200.81



13+23.84
F.G.=1200.69



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X193

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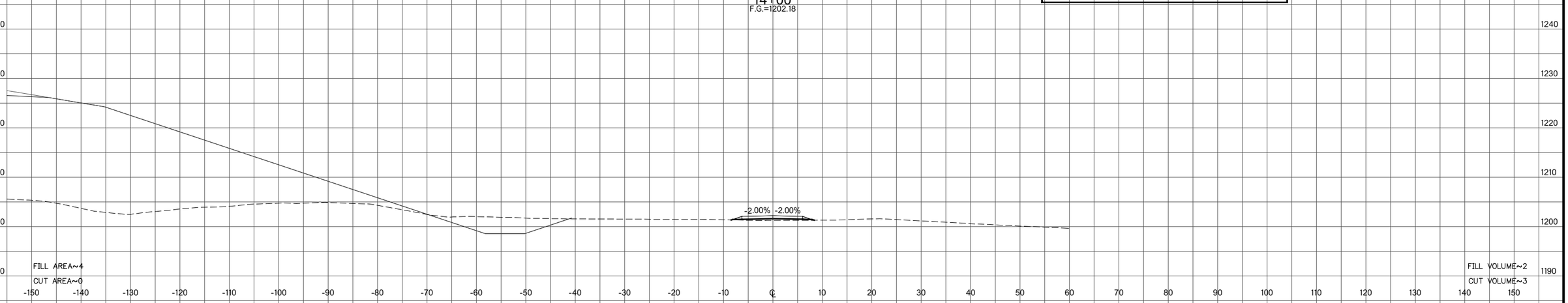
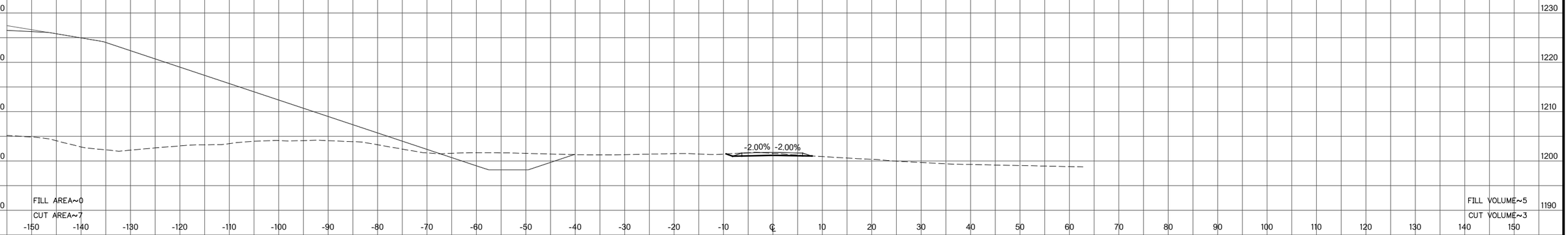
FINAL FIELD MEETING
JUNE 2020

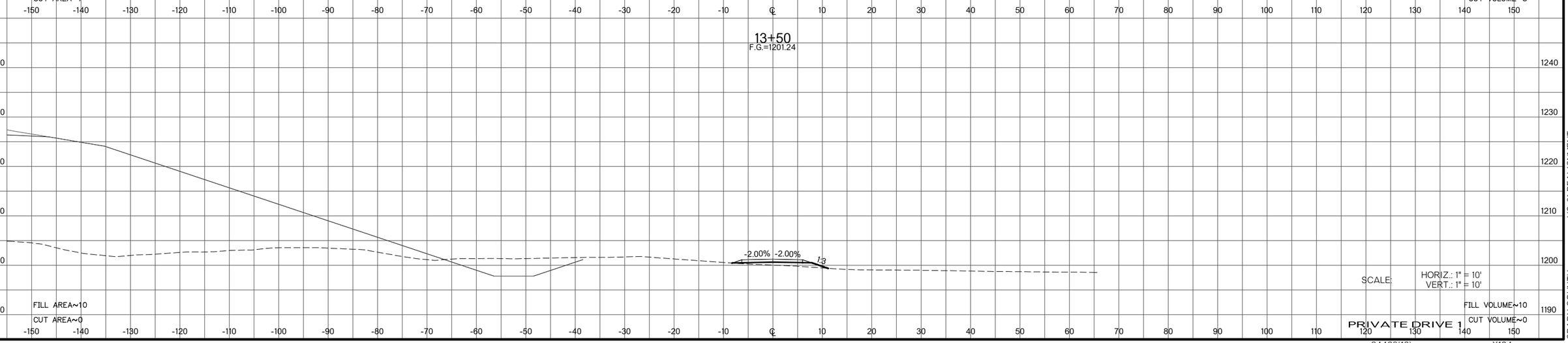
14+00
F.G.=1202.18



13+75
F.G.=1201.73



13+50
F.G.=1201.24



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X194

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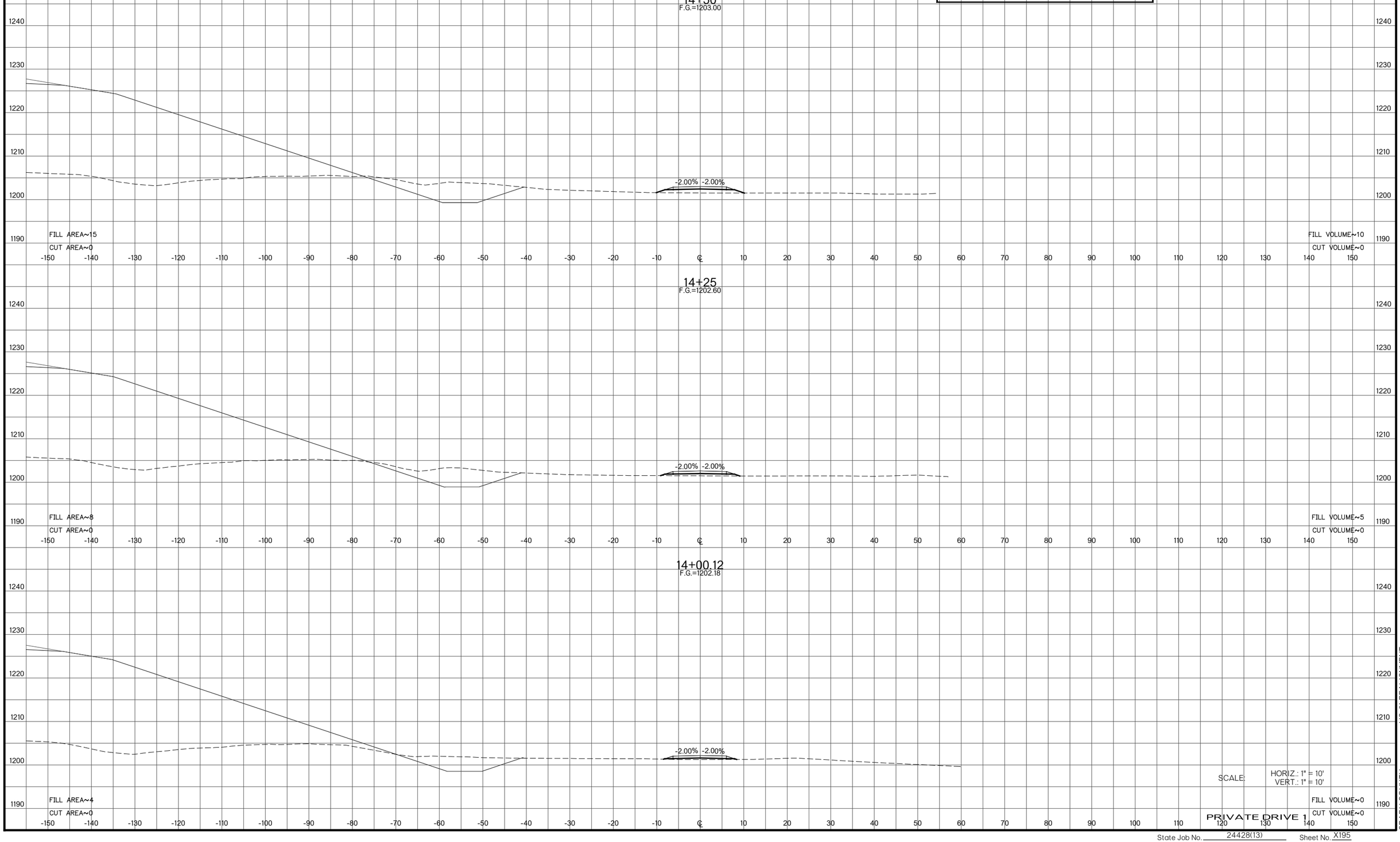
FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT

GRADY COUNTY

State Job No. 24428(13) Sheet No. X195

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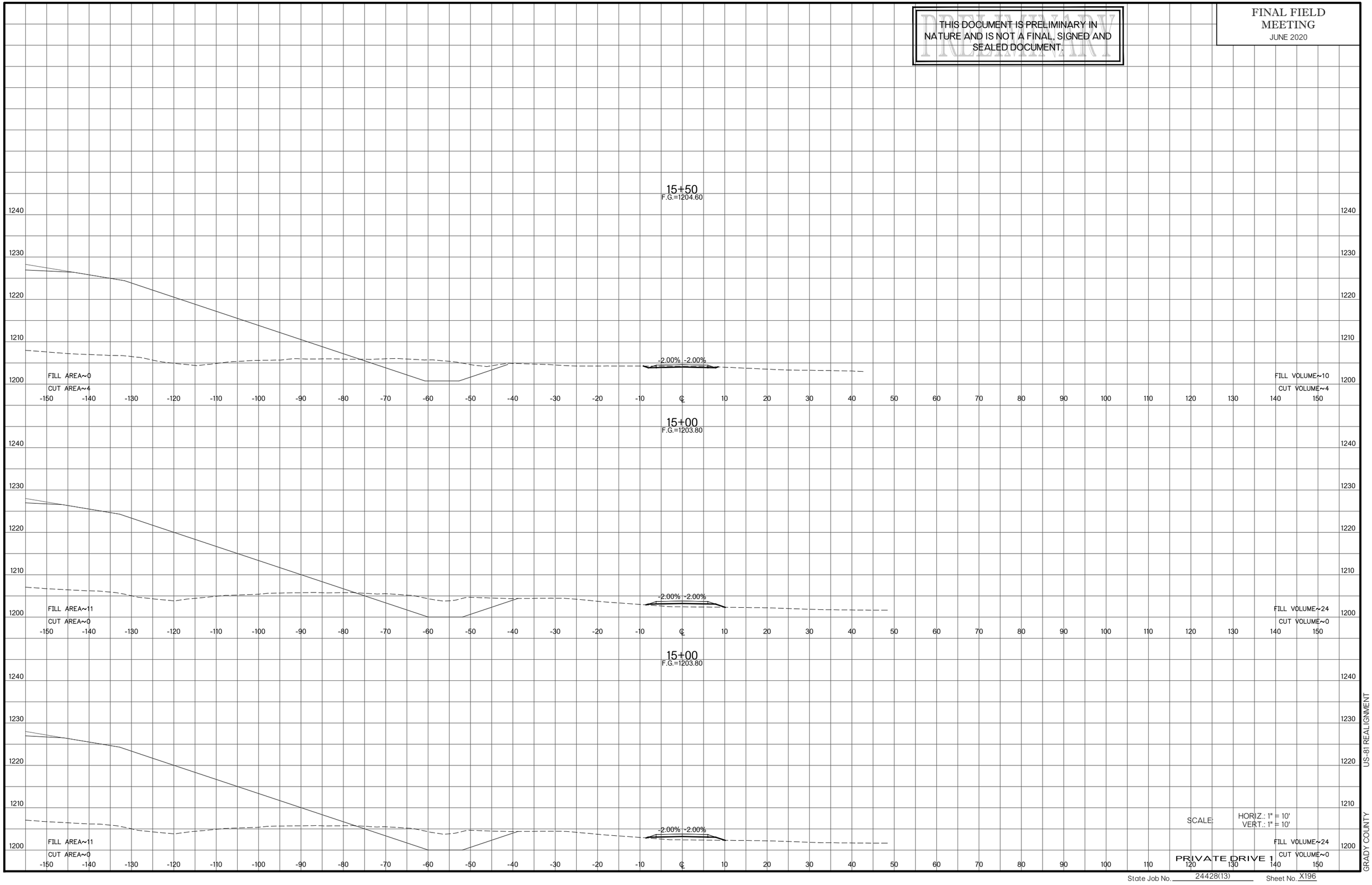
FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X196

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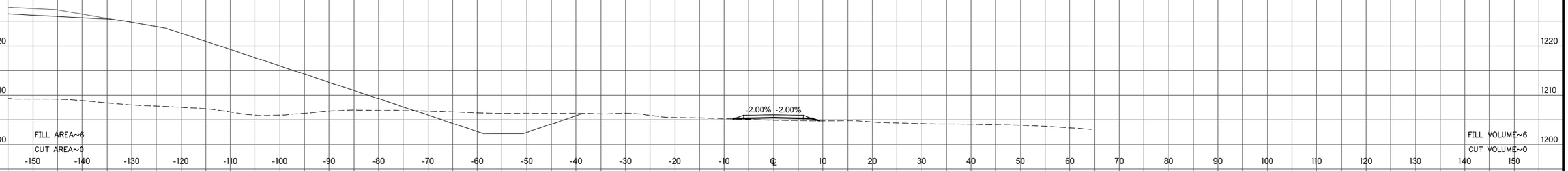
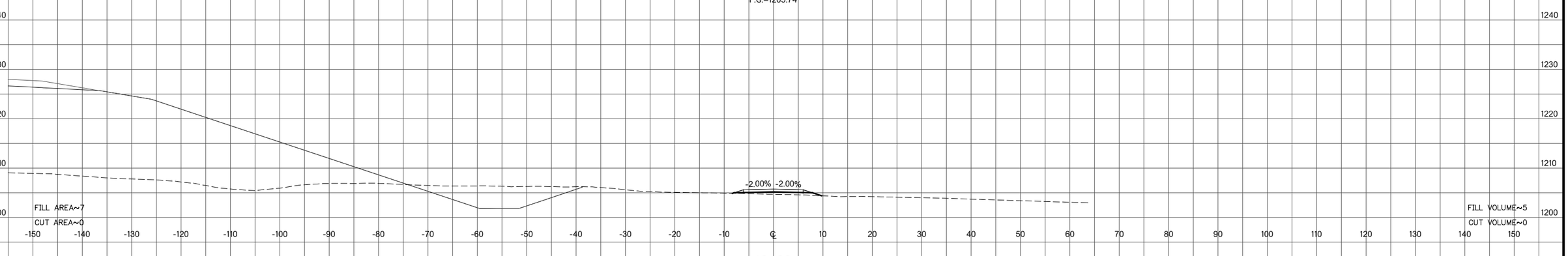
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

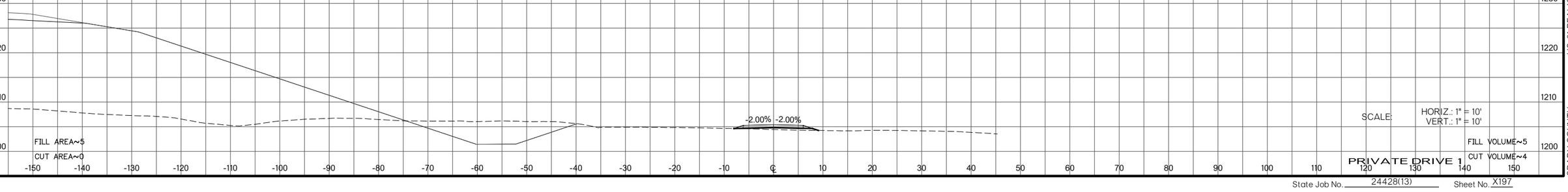
16+50
F.G.=1205.97



16+25
F.G.=1205.74



16+00
F.G.=1205.40



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X197

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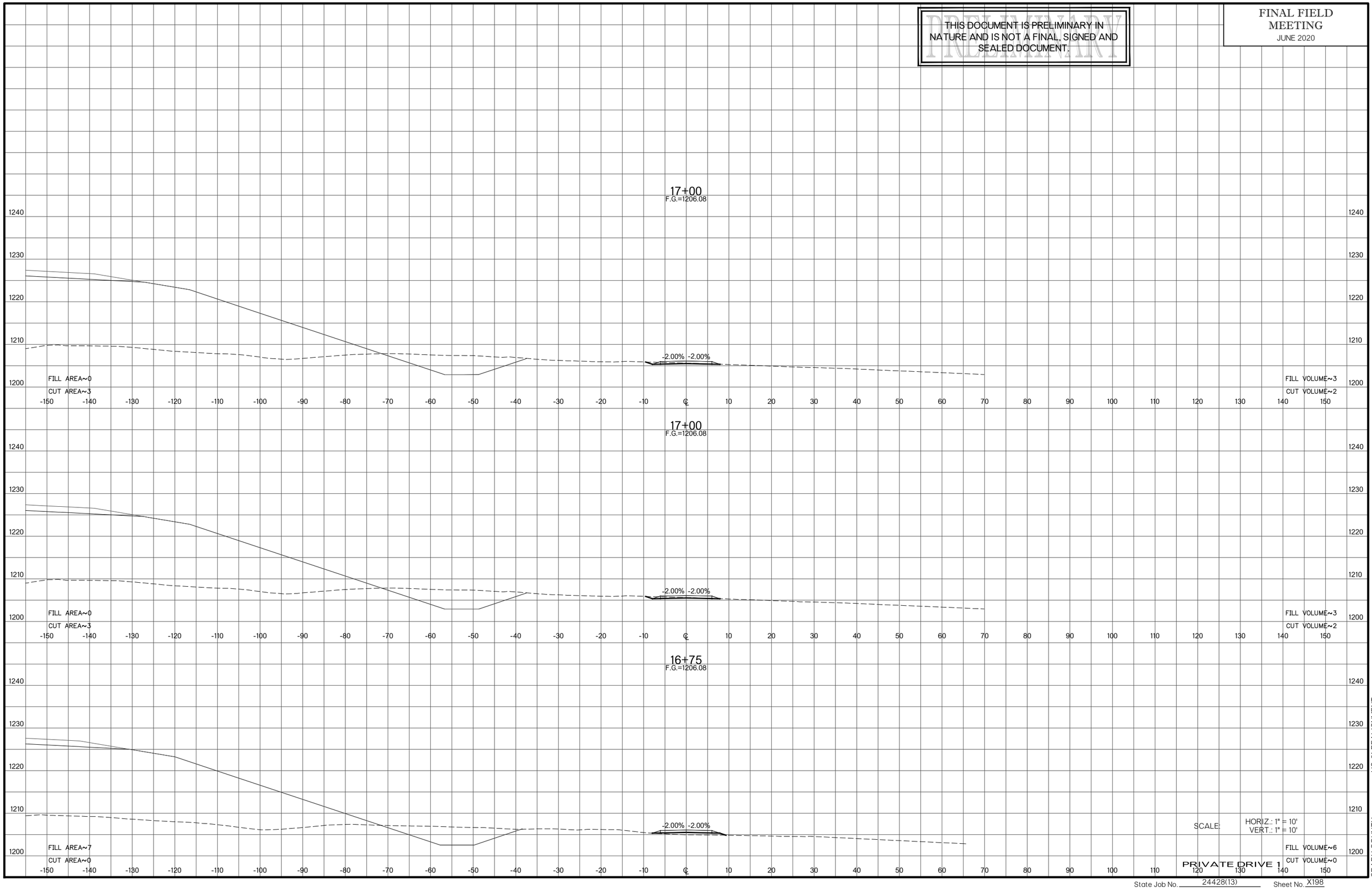
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X198

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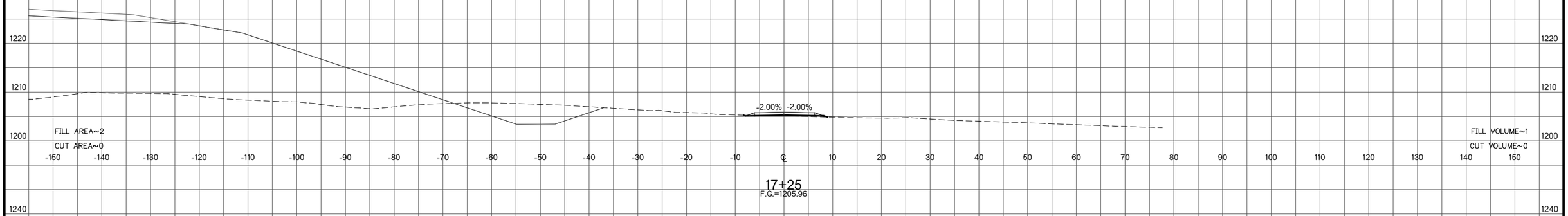
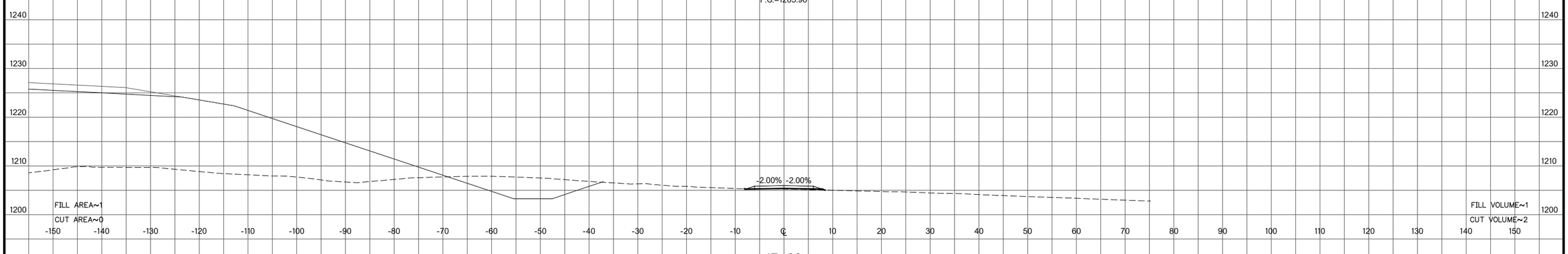
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

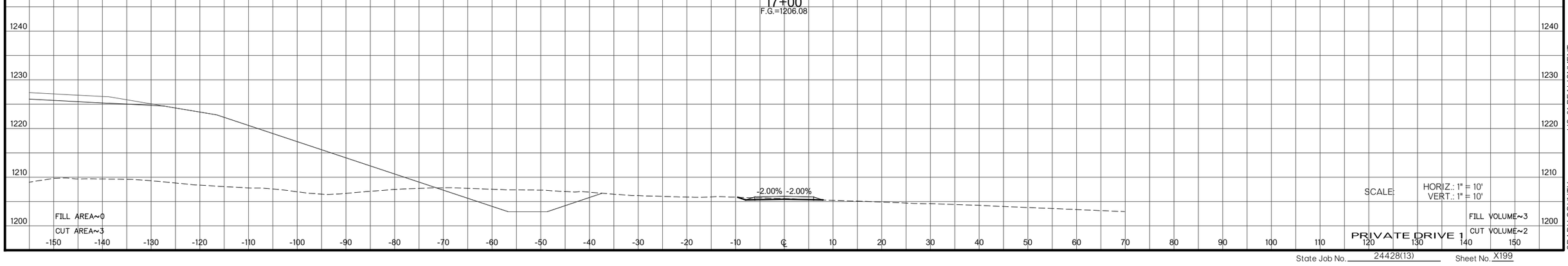
17+35.56
F.G.=1205.88



17+25
F.G.=1205.96



17+00
F.G.=1206.08



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X199

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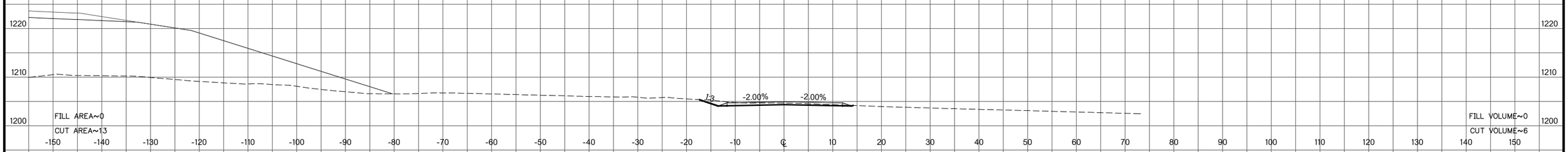
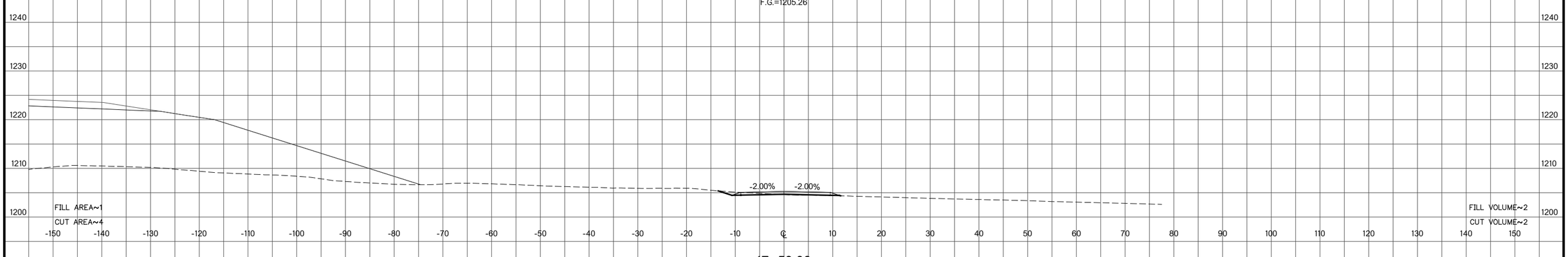
FINAL FIELD MEETING
JUNE 2020

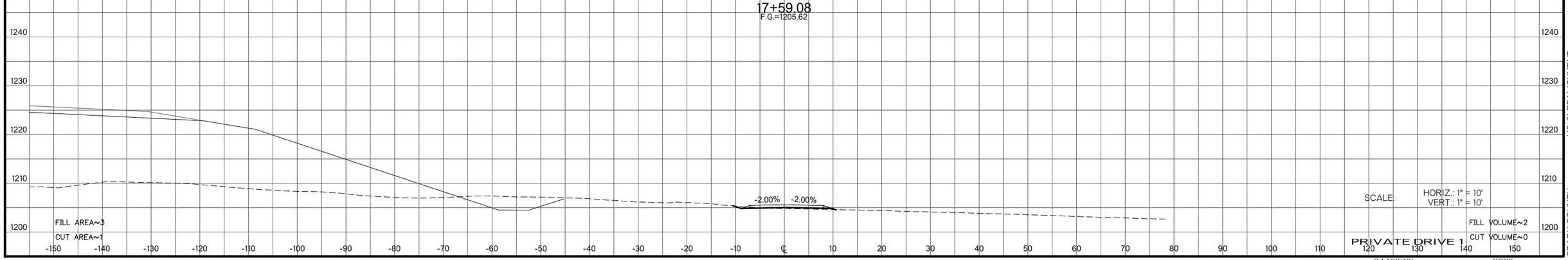
18+00
F.G.=1204.93



17+82.60
F.G.=1205.26



17+59.08
F.G.=1205.62



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X200

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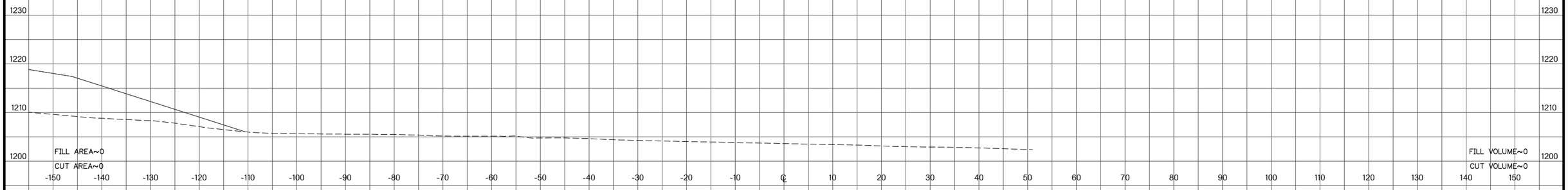
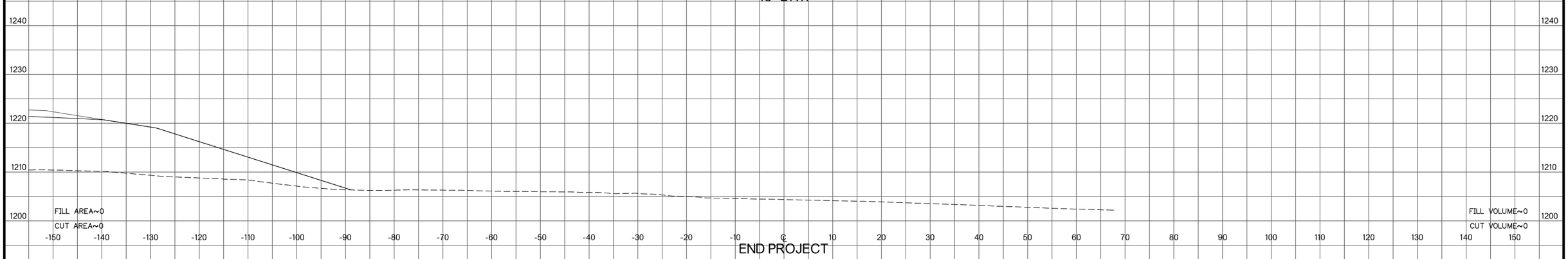
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

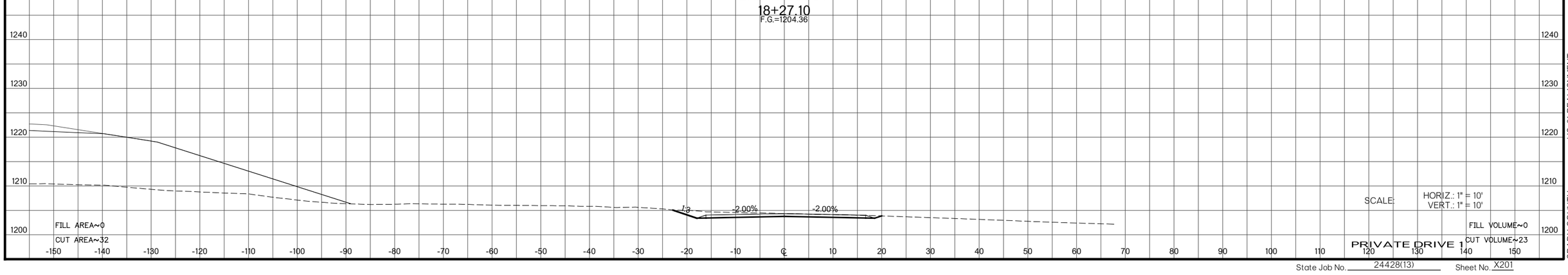
19+00



18+27.11



END PROJECT
18+27.10
F.G.=1204.36



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

PRIVATE DRIVE 1

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X201

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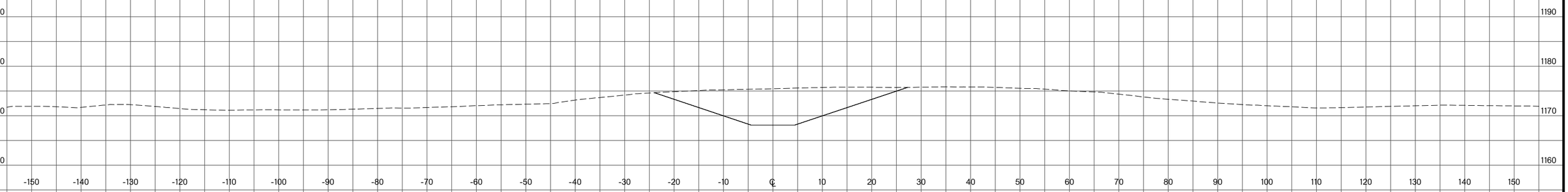
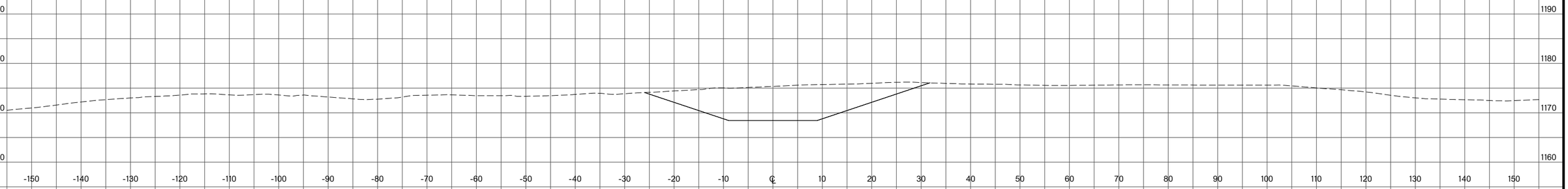
PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

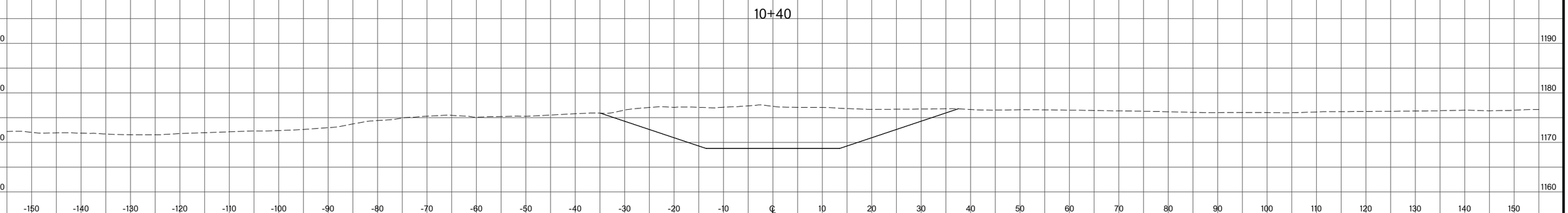
10+80



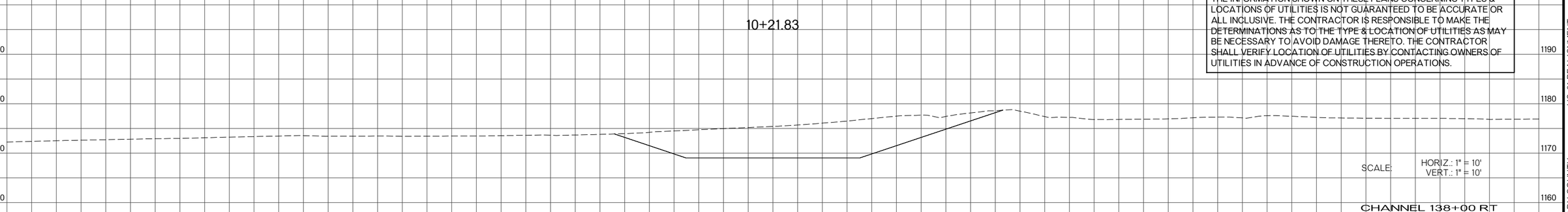
10+60



10+40



10+21.83



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SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

CHANNEL 138+00 RT

State Job No. 24428(13) Sheet No. X202

US-81 REALIGNMENT
GRADY COUNTY

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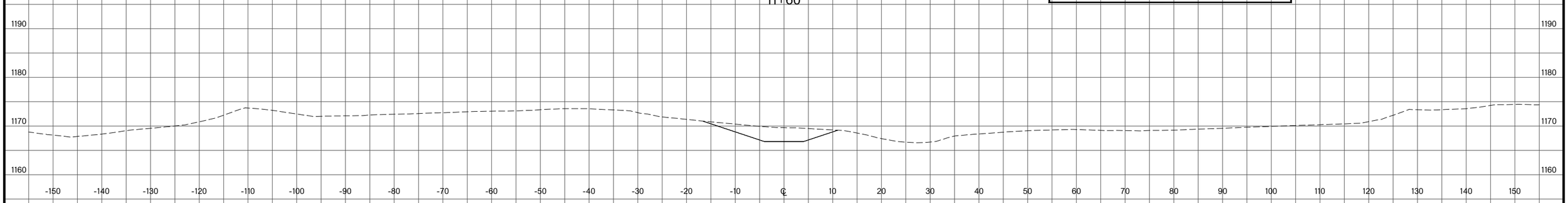
PRELIMINARY

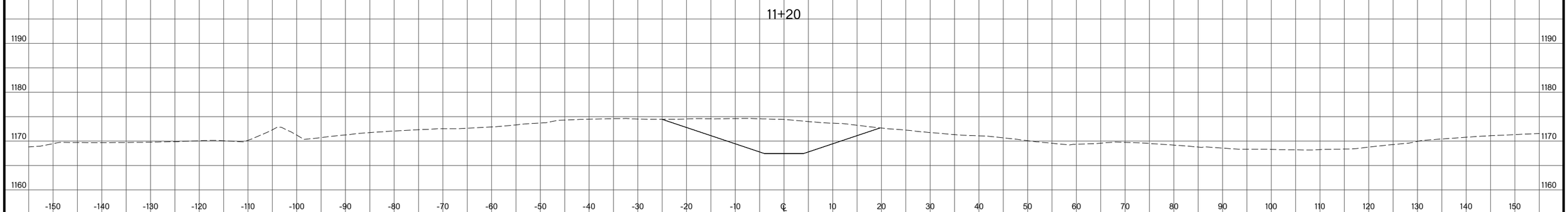
FINAL FIELD MEETING
JUNE 2020

11+60

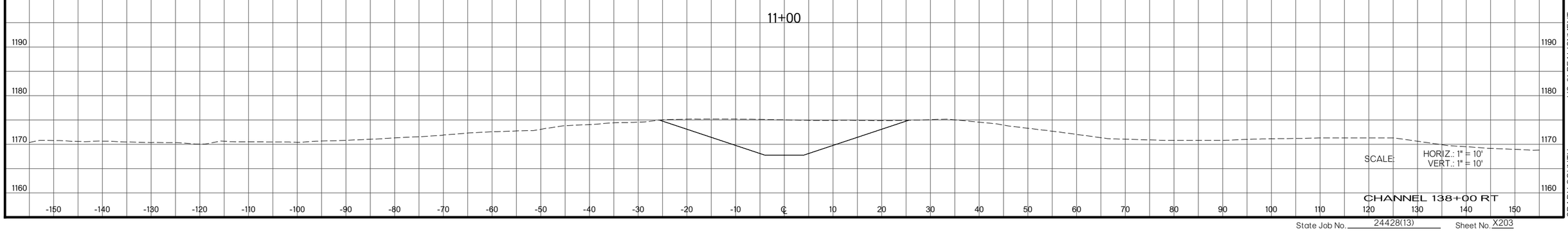


11+40

11+20



11+00



SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

CHANNEL 138+00 RT

US-81 REALIGNMENT
GRADY COUNTY

State Job No. 24428(13) Sheet No. X203

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PRELIMINARY

FINAL FIELD MEETING
JUNE 2020

11+80

1190
1180
1170
1160

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 ℄ 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

SCALE: HORIZ.: 1" = 10'
VERT.: 1" = 10'

CHANNEL 138+00 RT

US-81 REALIGNMENT
GRADY COUNTY

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