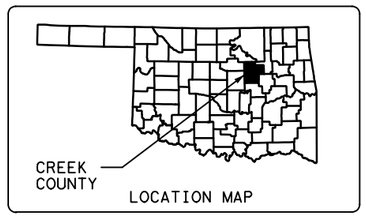
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	0001	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



FOR SURVEY CONTROL DATA,
SEE SURVEY DATA SHEETS.

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

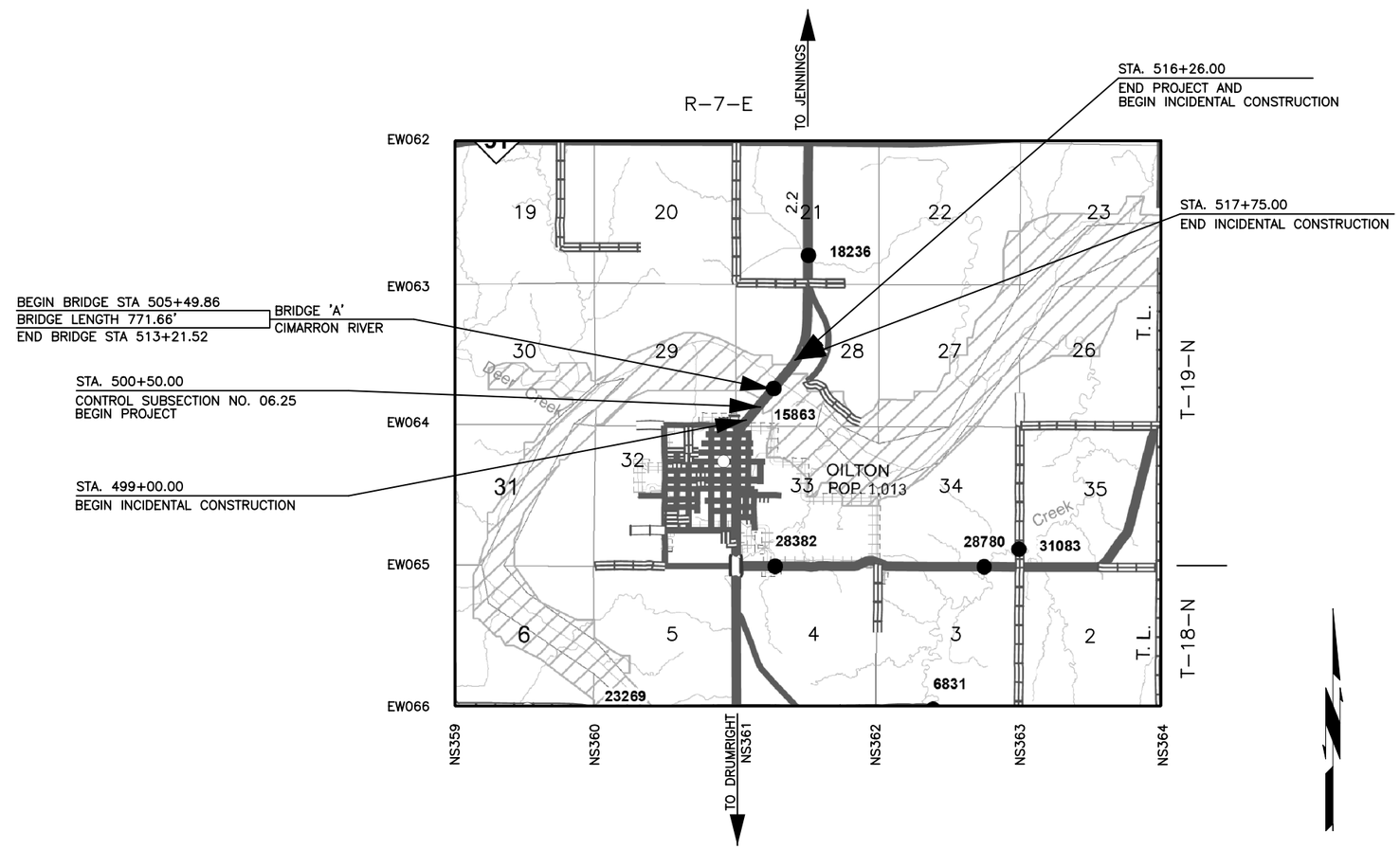
PLAN OF PROPOSED

STATE HIGHWAY

FEDERAL AID PROJECT NO. J2-9829(04)
BRIDGE AND APPROACHES
STATE HIGHWAY 99

CREEK COUNTY

CONTROL SECTION NO. 99-19-35
STATE JOB NO. 29829(04)
SWO NO. 5132(1)
BRIDGE "A" LOCATION NO. 1935-0635-X
EXISTING NBI NO. 15863 ; NEW NBI NO. 32599



DESIGN DATA		
ADT 2020	=	2700
ADT 2040	=	3700
DHV (2-WAY)	=	407
K (DHV/ADT)	=	11%
D	=	57%
T (% DHV)	=	14%
T (% AADT)	=	17%
T3 (% AADT)	=	11%
V	=	55 MPH
20yr FLEX ESALS	=	3.48M

* SCALES 1"
PLAN 1'' = 50'
PROFILE HOR. 1" = 50'
VER. 1" = 5'
LAYOUT MAP 1" = 2640'
* UNLESS OTHERWISE NOTED

CONVENTIONAL SYMBOLS

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

PROJECT LENGTH BASED ON CL SURVEY STATIONING

ROADWAY LENGTH	804.34 FT.	0.152 MI.
BRIDGE "A" LENGTH	771.66 FT.	0.146 MI.
PROJECT LENGTH		0.298 MI.

EQUATIONS : NONE
EXCEPTIONS : NONE

2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION-ENGLISH GOVERN, APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, DECEMBER 18, 2019.

CP&Y
OKLA. REG. NO. 4006

PREPARED BY:
CP&Y, INC.
2000 N. CLASSEN BLVD., SUITE 1410
OKLAHOMA CITY, OK 73106
405-848-2346

DATE _____ DAVID M. NEUHAUSER, P.E.
OKLA. REG. NO. 19980

DATE _____ MICHAEL J. KNAPIK, P.E.
OKLA. REG. NO. 24952

THE FOLLOWING SHEETS ARE INTENDED TO BE AUTHENTICATED BY MY SEAL:
0003, AR01-AR02, AT01-AT02, R001-R006, T001-T005, X001-X010

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

SWO 5132(1) PROJECT NO. 29829(04) SHEET NO. 0001

P.E. NO. 29829(01)
6/30/2021 11:50:26 AM cbyler
pw:/Active Projects/ODOT1700793.00/8.00 Plans and Drawings/8.30 Cut Sheets/8.3.01 General/1700793GNtitle.dgn

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	0002	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

INDEX OF SHEETS

THE FOLLOWING ODOT STANDARDS SHALL BE REQUIRED:

ROADWAY: (2009 STANDARD DRAWINGS)	BRIDGE: (2009 STANDARD DRAWINGS)	TRAFFIC CONTROL: (2009 STANDARD DRAWINGS)	TRAFFIC SIGNING: (2009 STANDARD DRAWINGS)	TRAFFIC SAFETY: (2009 STANDARD DRAWINGS)
LECS–5–0				
SSS–2–0	EJ–DTL–02E	TCS1–1–01	PM1–1–03	THRI–1–02
TSC2–4–0	EJ–SQ–04E	TCS2–1–00	PM2–1–01	SKT–1–00
TSD–3–0	TR4–2–00E	TCS3–1–01	PM3–1–02	GHW1–1–00
PDT–2–0	HP1–2–01E	TCS4–1–01	DU2–1–00	GHW2–1–00
PUD–4–0		TCS5–1–00	RSD1–1–00	
SUEL1–4–0		TCS6–1–02	WSD1–1–00	
SUEL3–4–0		TCS7–1–02	WSD2–1–00	
		TCS8–1–00	SBS1–1–00	
		TCS9–1–01	SBS2–1–00	
		TCS11–1–01	GMS1–1–00	
		TCS13–1–00	SSP1–1–02	
		TCS14–1–00	SSA1–1–00	
		TCS19–1–01		
		TCS20–1–00		
		TCS21–1–02		
		TCS24–1–02		

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

DESIGN:	CPY	2021
DRAWN:	CPY	2021
CHECKED:	CPY	2021
APPRVD:	CPY	2021

CP&Y

SH–99 OVER CIMARRON RIVER — CREEK COUNTY

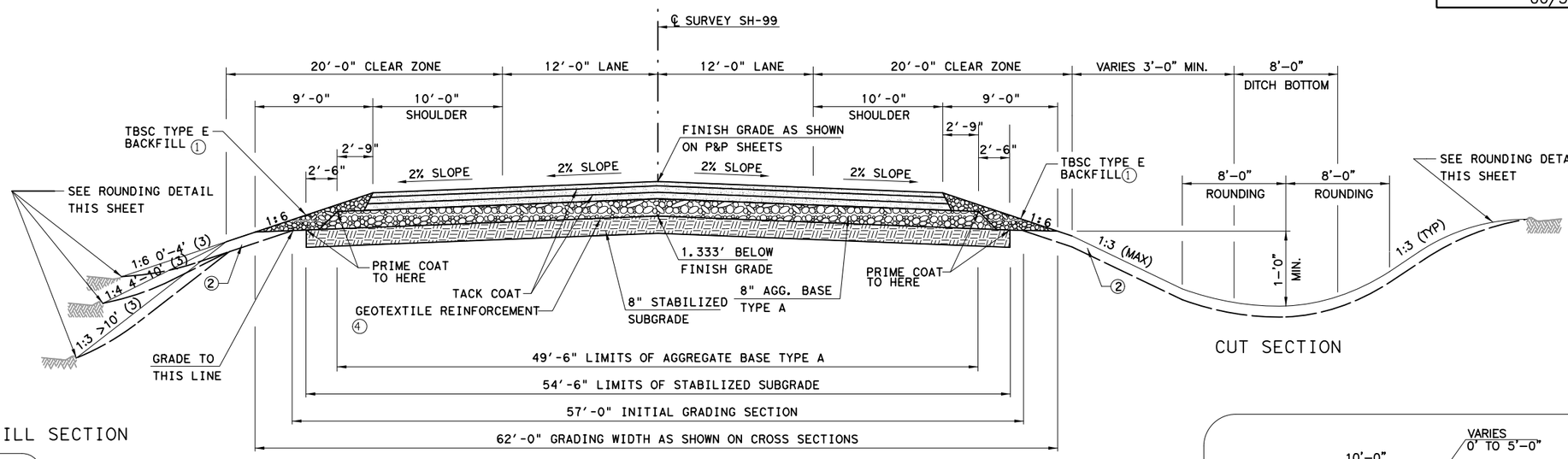
INDEX OF SHEETS AND ODOT STANDARD DRAWINGS

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO. 0002

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	0003	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



FILL SECTION

CUT SECTION

TYPICAL SECTION NO. 1
PROPOSED SH 99

STA 500+50.00 TO STA 505+19.86
STA 513+51.52 TO STA 516+26.00

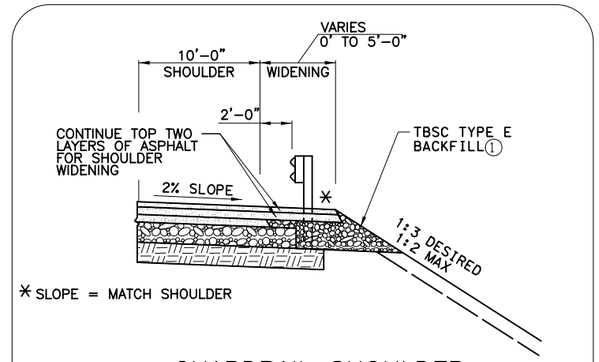
	12'-0" DRIVING LANES	10'-0" PAVED SHOULDERS
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 64-22 OK)	2" SUPERPAVE TYPE S4 (PG 64-22 OK)
INTERMEDIATE COURSE	3" SUPERPAVE TYPE S3 (PG 64-22 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 64-22 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)

(1) BACKFILL NOTE:
TO BE BACKFILLED AND COMPACTED AS PART OF THE FINISHING OPERATIONS. COST TO BE INCLUDED IN TBSC 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 SPECI-FICATIONS. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPE 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 MASS LINE BALANCE.

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

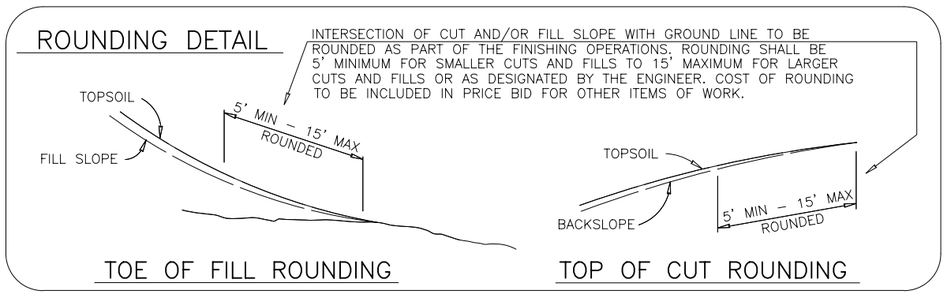
(4) GEOTEXTILE REINFORCEMENT SHALL BE MIRAFI RS380I OR APPROVED EQUIVALENT



GUARDRAIL SHOULDER WIDENING DETAIL

TYPICAL GAURDRAIL SHOULDER WIDENING

STA 500+70.00 TO 505+19.86 RT
STA 500+70.00 TO 505+19.86 LT
STA 513+51.52 TO 516+45.00 RT
STA 513+51.52 TO 517+75.00 LT



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DESIGN:	CPY	2021
DRAWN:	CPY	2021
CHECKED:	CPY	2021
APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

TYPICAL SECTIONS

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO.0003

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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	AB01	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

GENERAL BRIDGE NOTES

SPECIFICATIONS:

COMPLY WITH THE REQUIREMENTS OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLAN AND SPECIAL PROVISIONS.

DESCRIPTION OF WORK:

THE WORK TO BE PERFORMED UNDER THIS CONTRACT CONSISTS OF REMOVING A 6–120' CONT. PLATE GIRDER SPAN BRIDGE AND REPLACE WITH A 44 FOOT CLEAR ROADWAY 5–120' TYPE J AND 2–85' TYPE IV SPAN PC BEAM BRIDGE. PARAPETS FOR THE NEW BRIDGE DECK ARE TR4 TRAFFIC RAILS WITH THRIE BEAM CONNECTIONS AT EACH END OF THE BRIDGE APPROACH SLABS. THE THRIE BEAM WILL THEN TRANSITION TO A GUARDRAIL AND GUARDRAIL EXTRUDER TERMINAL AT ALL FOUR LOCATIONS.

THE BRIDGE WILL REMAIN OPEN TO ONE LANE OF TRAFFIC DURING THE COURSE OF THIS PROJECT AS DETAILED ON THE BRIDGE CONSTRUCTION SEQUENCE AND THE TRAFFIC CONTROL PLAN SHEETS.

VERIFICATION OF EXISTING CONDITIONS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY UNDERSTANDING THE NATURE OF THE WORK AND CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED.

THE CONTRACTOR SHALL ADOPT METHODS CONSISTENT WITH GOOD CONSTRUCTION PRACTICE AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO THE EXISTING BRIDGE AND ATTACHMENTS. ANY DAMAGE TO THE EXISTING BRIDGE STRUCTURE OR ROADWAY DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED, AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

ALL DIMENSIONS OF THE EXISTING BRIDGE COMPONENTS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS NECESSARY TO CONNECT THE NEW MATERIAL AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.

THE ORIGINAL CONSTRUCTION PLANS FOR THE EXISTING BRIDGE STRUCTURE MAY BE OBTAINED FROM THE OFFICE SERVICES DIVISION OF THE DEPARTMENT OF TRANSPORTATION. THE EXISTING BRIDGE WAS CONSTRUCTED UNDER FEDERAL AID PROJECT NO. F–108(9).

CONCRETE:

ALL EXPOSED CONCRETE EDGES OF THE SUPERSTRUCTURE SHALL HAVE A ¾" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER.

DECK SLAB HAUNCHES:

PLAN QUANTITY FOR CLASS AA CONCRETE INCLUDES 71.20 C.Y. FOR HAUNCHES OVER THE BEAMS. THE HAUNCH HEIGHTS WILL BE CALCULATED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER TO PROVIDE DEAD LOAD DEFLECTION AND BEAM CAMBER. NO PAYMENT WILL BE MADE FOR DIFFERENCE BETWEEN PLAN QUANTITY AND THE ACTUAL QUANTITY OF HAUNCH CONCRETE.

APPROACH SLAB:

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 APPROACH SLAB/DECK SLAB CONSTRUCTION JOINTS SHALL BE SAWED AND SEALED WITH RAPID CURE JOINT SEALANT. EXCAVATION, LABOR, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF THE "APPROACH SLAB".

PENETRATING WATER REPELLENT SURFACE TREATMENT:

A PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE APPLIED TO THE CONCRETE SURFACES OF THE BRIDGE AS SHOWN IN THE PLAN DETAILS. THE APPLICATION OF PENETRATING WATER REPELLENT SURFACE TREATMENT SHALL BE IN ACCORDANCE WITH SECTION 515 OF THE STANDARD SPECIFICATIONS. ALL COSTS ASSOCIATED WITH THE USE OF PENETRATING WATER REPELLENT SURFACE TREATMENT INCLUDING MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN COST PER S.F. OF "WATER REPELLENT (VISUALLY INSPECTED).

REINFORCING:

ALL REINFORCING STEEL SHALL HAVE 2" CLEARANCE UNLESS SHOWN OR NOTED OTHERWISE. ALL REINFORCING STEEL SHALL BE DEFORMED BARS, COLD BENT WITH NO WELDS. BAR BEND DIMENSIONS ARE OUT TO OUT, UNLESS NOTED OTHERWISE. ALL REINFORCING STEEL TO BE GRADE 60.

FIELD WELDING OF CROSSING REINFORCING BARS SHALL NOT BE PERMITTED. TACK WELDING OF REINFORCING BARS SHALL BE PROHIBITED IN ALL CASES.

ALL LONGITUDINAL TOP REINFORCING IN THE BRIDGE SLAB SHALL BE SUPPORTED ON APPROVED CONTINUOUS METAL HIGH CHAIRS SPACED AT 4'–0" MAXIMUM ON CENTERS AND THE BOTTOM LAYER OF REINFORCING STEEL SHALL BE SUPPORTED ON APPROVED METAL SLAB BOLSTERS SPACED AT 4'–0" MAXIMUM ON CENTERS.

REMOVAL OF EXISTING BRIDGE STRUCTURE:

THE PAY ITEM "REMOVAL OF EXISTING BRIDGE STRUCTURE" SHALL INCLUDE THE REMOVAL AND DISPOSAL OF THE FOLLOWING ITEMS FROM THE EXISTING BRIDGE:

1. DECK SLAB (INCLUDING THE FOLLOWING):
   - A. BRIDGE PARAPETS ON THE BRIDGE.
   - B. EXPANSION JOINT HARDWARE AND MATERIAL.
2. APPROACH SLABS
3. EXISTING PLATE GIRDERS, DIAPHRAGMS, DIAPHRAGM CONNECTIONS, BEARING ASSEMBLIES AS INDICATED IN PLANS.
4. ALL SUBSTUCTURE ITEMS INCLUDING ABUTMENT AND PIERS.
   - A. ABUTMENT PILING SHALL BE REMOVED TO 1 FOOT BELOW EXISTING GROUND LINE.
   - B. PIER COLUMNS SHALL BE REMOVED TO 1 FOOT BELOW EXISTING GROUND LINE.

THE REMOVAL OF THE EXISTING STRUCTURE SHALL BE IN ACCORDANCE WITH SECTION 619.04B OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND AS APPROVED BY THE ENGINEER. THE EXISTING REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

BEFORE MAKING ANY REMOVALS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A PLAN FOR REMOVING EACH ITEM OR PORTIONS OF ITEMS TO BE REMOVED FROM THE EXISTING BRIDGE. THE CONTRACTOR SHALL NOT MAKE ANY REMOVALS UNTIL THE PLAN HAS BEEN APPROVED BY THE ENGINEER. THE PLAN SHALL INCLUDE A LIST OF ALL EQUIPMENT THAT WILL BE USED TO MAKE THE REMOVALS, A DESCRIPTION OF HOW THE EQUIPMENT WILL BE USED TO MAKE THE REMOVALS AND A SEQUENTIAL LIST OF STEPS THAT WILL BE FOLLOWED BY THE CONTRACTOR TO MAKE THE REMOVALS. ALL MATERIALS REMOVED FROM THE EXISTING BRIDGE SHALL BE PREVENTED FROM FALLING INTO THE CIMARRON RIVER. ALL MATERIALS REMOVED FROM THE EXISTING BRIDGE SHALL BECOME PROPERTY OF CONTRACTOR AND SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

ALL COSTS NECESSARY TO COMPLETE THE WORK AS SPECIFIED OR AS SHOWN IN THE PLANS INCLUDING THE COST OF SAWING, CUTTING, DEMOLITION, CONTAINMENT AND REMOVAL OF DEBRIS, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF "REMOVAL OF EXISTING BRIDGE STRUCTURE".

DIAPHRAGM BOLT:

PROVIDE STRUCTURAL STEEL FOR DIAPHRAGM BOLTS, PLATE WASHERS AND BEVELED SPACERS IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V–NOTCH TESTING NOT REQUIRED). THE CONTRACTOR MAY SUBSTITUTE A #10 REINFORCING BAR IN ACCORDANCE WITH AASHTO M31, GRADE 60, AND THREADED AT THE ENDS AS SHOWN IN THE PLANS AT NO ADDITIONAL COST TO THE DEPARTMENT. PROVIDE HEX NUTS IN ACCORDANCE WITH AASHTO M291 (ASTM A563).

PAINT EXPOSED DIAPHRAGM BOLTS, PLATE WASHERS, BEVELED SPACERS AND HEX NUTS WITH TWO (2) COATS OF ZINC–RICH PAINT (6 MIL MINIMUM THICKNESS) AFTER ASSEMBLY. INCLUDE ALL COST OF DIAPHRAGM BOLTS, PLATE WASHERS, BEVELED SPACERS AND HEX NUTS IN THE CONTRACT UNIT PRICE FOR STRUCTURAL STEEL.

STAY–IN–PLACE DECK FORMS:

STAY–IN–PLACE STEEL DECK FORMS MAY BE USED IF THE MINIMUM DECK SLAB THICKNESS SHOWN IN THE PLANS IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. PREFORMED FILLER SUCH AS POLYSTYRENE OR ANY OTHER FILLER MATERIAL USED IN THE STEEL CORRUGATIONS MUST BE BONDED TO THE STAY–IN–PLACE FORMS, AND NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. ADDITIONAL WEIGHT OF THE STEEL DECK FORMS AND FILLER MATERIAL SHALL NOT EXCEED 5 PSF.

STAY–IN–PLACE PRESTRESSED CONCRETE DECK FORMS MAY BE USED IF THE FOLLOWING CONDITIONS ARE MET:

(1) SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE FORMS ARE SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.
(2) A NEW STRUCTURAL DESIGN, STRUCTURAL CALCULATIONS, AND A NEW REINFORCING SCHEDULE FOR THE DECK SLAB ARE SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.
(3) SHOP DRAWINGS, NEW DECK SLAB REINFORCING SCHEDULE, STRUCTURAL DESIGNS, AND CALCULATONS SHALL BE PREPARED BY AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF OKLAHOMA.

ALL COST ASSOCIATED WITH THE USE OF STAY–IN–PLACE FORMS, INCLUDING ALL MATERIAL, LABOR, EQUIPMENT, INCIDENTALS AND PROFESSIONAL SERVICES SHALL BE AT THE CONTRACTOR'S EXPENSE. FOR ADDITIONAL INFORMATION CONCERNING THE USE OF STAY–IN–PLACE FORMS, SEE SECTION 502 OF THE SPECIFICATIONS.

CONCRETE INTERMEDIATE DIAPHRAGMS:

AFTER PLACING CONCRETE FOR ANY INTERMEDIATE DIAPHRAGMS ON THE BRIDGES, THE SIDE FORMS SHALL NOT BE REMOVED FOR 24 HOURS AND THE BOTTOM FORMS SHALL NOT BE REMOVED FOR 3 DAYS OR AT THE DISCRETION OF THE ENGINEER. THESE TIMES MAY BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH AT THE TIME OF FORM REMOVAL.

THE CONCRETE FOR THE DECK SLABS SHALL NOT BE PLACED AND NO MASSIVE LOADS SHALL BE PLACED ON THE BEAMS OR DIAPHRAGMS UNTIL THE CONCRETE IN THE DIAPHRAGMS HAS BEEN IN PLACE FOR A MINIMUM OF 10 DAYS OR AT THE DISCRETION OF THE ENGINEER. THIS TIME MAY BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH AT THE TIME OF DECK SLAB PLACEMENT.

28929(04)

PAY QUANTITIES

0200 BRIDGE "A" 5–120' TYPE J, AND 2–85' TYPE IV PC–BM SPANS X 44'–0" CLR RDY

ITEM CODE		ITEM		UNIT	TOTAL
501(B)	1300	SUBSTRUCTURE EXCAVATION COMMON	(1)	CY	215.00
501(G)	1800	CLSM BACKFILL	(1)	CY	263.60
503(A)	4240	PRESTRESSED CONCRETE BEAMS (TYPE IV)	(1)	LF	846.67
503(A)	4270	PRESTRESSED CONCRETE BEAMS (TYPE J BT)	(1)	LF	2,991.67
504(A)	5200	APPROACH SLAB	(1)	SY	308.00
504(B)	5300	SAW–CUT GROOVING	(1)	SY	4,066.60
504(D)	5420	CONCRETE RAIL (TR4)	(1)	LF	1,663.40
506(A)	7200	STRUCTURAL STEEL	(1)	LB	7,900.00
507(A)	8200	STAINLESS STEEL FIXED BEARING ASSEMBLY	(1)(2)	EA	20.00
507(B)	8300	STAINLESS STEEL EXPANSION BEARING ASSEMBLY	(1)(3)	EA	50.00
509(A)	0210	CLASS AA CONCRETE	(1)	CY	1,034.80
509(B)	0320	CLASS A CONCRETE	(1)	CY	557.60
509(D)	0510	CLASS C CONCRETE	(4)	CY	8.40
511	2100	MECHANICAL SPLICES	(1)	EA	2,940.00
511(A)	2210	REINFORCING STEEL	(1)	LB	3,370.00
511(B)	2310	EPOXY COATED REINFORCING STEEL	(1)	LB	413,490.00
514(A)	5210	PILES, FURNISHED (HP 10x42)		LF	224.00
514(A)	5220	PILES, FURNISHED (HP 12x53)		LF	1,134.00
514(B)	5310	PILES, DRIVEN (HP 10x42)		LF	224.00
514(B)	5320	PILES, DRIVEN (HP 12x53)		LF	1,134.00
514(L)	6300	PILE SPLICE, H–PILE (NON–BIDDABLE)		EA	1.00
515(A)	7200	WATER REPELLENT (VISUALLY INSPECTED)	(1)	SY	3,905.00
516(A)	8245	DRILLED SHAFT 66" DIAMETER		LF	226.00
516(A)	8250	DRILLED SHAFT 72" DIAMETER		LF	548.00
516(C)	8400	CROSSHOLE SONIC LOGGING		EA	3.00
518(B)	0300	SEALED EXPANSION JOINTS	(1)	LF	94.34
523(A)	3200	SEALER CRACK PREPARATION	(1)(5)	LF	951.00
523(B)	3300	SEALER RESIN	(1)	GAL	10.70
601(B)	1230	TYPE I–A PLAIN RIPRAP	(1)	TON	2,090.00
601(C)	1310	TYPE I–A FILTER BLANKET	(1)	TON	580.00
613(H)	6205	6" PERFORATED PIPE UNDERDRAIN ROUND	(1)	LF	90.00
613(I)	6310	6" NON–PERF. PIPE UNDERDRAIN RND.		LF	64.00
619(D)	6700	REMOVAL OF EXISTING BRIDGE STRUCTURE	(6)	LSUM	1.00

PAY QUANTITY NOTES

(1) PAYMENT FOR THIS ITEM WILL BE BASED ON THE PLAN QUANTITIES. SEE SUBSECTION 109.01(B) OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

(2) PROVIDE AND INSTALL FIXED BEARING ASSEMBLIES OF THE SIZE, SHAPE, AND LOCATION AS DETAILED IN THE PLANS. THERE IS AN ESTIMATED TOTAL OF 150 LBS OF STAINLESS STEEL FOR EACH TYPE IV PC BEAM FIXED BEARING ASSEMBLY AND 200 LBS OF STAINLESS STEEL FOR EACH TYPE J PC BEAM FIXED BEARING ASSEMBLY. INCLUDE ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE ANCHOR PLATES, CONTACT PLATES, AND ANCHOR BOLTS, INCLUDING ALL MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS IN THE CONTRACT UNIT PRICE OF "STAINLESS STEEL FIXED BEARING ASSEMBLY".

(3) PROVIDE AND INSTALL EXPANSION BEARING ASSEMBLIES OF THE SIZE, SHAPE, AND LOCATION AS DETAILED IN THE PLANS. THERE IS AN ESTIMATED TOTAL OF 150 LBS OF STAINLESS STEEL FOR EACH TYPE IV PC BEAM EXPANSION BEARING ASSEMBLY AND 200 LBS OF STAINLESS STEEL FOR EACH TYPE J PC BEAM EXPANSION BEARING ASSEMBLY. INCLUDE ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE ANCHOR PLATES, CONTACT PLATES, AND ANCHOR BOLTS, INCLUDING ALL MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS IN THE CONTRACT UNIT PRICE OF "STAINLESS STEEL EXPANSION BEARING ASSEMBLY".

(4) ACCOUNTS FOR CLASS C CONCRETE QUANTITY USED FOR SLOPE DRAINS.

(5) PREPARE SURFACE AND INSTALL HIGH MOLECULAR WEIGHT METHACRYLATE SEALER FOR DECK SLAB CONSTRUCTION JOINTS AT LOCATIONS SHOWN IN THE PLANS IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS. INCLUDE COSTS FOR LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION".

(6) CONSISTS OF REMOVAL AND DISPOSAL OF BRIDGE ITEMS DESCRIBED IN GENERAL BRIDGE NOTE "REMOVAL OF EXISTING BRIDGE STRUCTURE".

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

DESIGN:		2021
DRAWN:		2021
CHECKED:		2021
APPRVD:		2021

CP&Y

SH–99 OVER CIMARRON RIVER — CREEK COUNTY

GENERAL NOTES AND SUMMARY OF PAY QUANTITIES (BRIDGE)

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO. AB01

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.

LOCATIONS OUTSIDE THE PROJECT AREA IN THE FOLLOWING AREA MUST NOT BE UTILIZED FOR BORROW, EQUIPMENT STAGING, HAUL ROADS, SPOIL DUMPS OR ANY OFF-SITE PROJECT-RELATED ACTIVITY.

T19N R7E
SECTION 28: NW ¼ SW ¼ SE ¼

NON-COMPLIANCE:
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 CONSERVATION:
HAZARDOUS MATERIALS, CHEMICALS, FUELS, LUBRICATING OILS, AND OTHER SUCH SUBSTANCES SHALL BE STORED AT LEAST 100 FEET OUTSIDE OF THE ORDINARY HIGH WATER MARK (OHWM). REFUELING OF CONSTRUCTION EQUIPMENT SHALL ALSO BE CONDUCTED OUTSIDE 100 FEET OUTSIDE OF THE OHWM. SEDIMENT AND EROSION CONTROLS SHALL BE INSTALLED AROUND THESE 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 OHWM, AND THESE MATERIALS SHALL BE REMOVED AND DISPOSED OF PROPERLY FOLLOWING COMPLETION OF THE PROJECT. APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE IMPACTS FROM STORM WATER DISCHARGES, AS ESTABLISHED BY THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY, SHALL BE CONSCIENTIOUSLY IMPLEMENTED THROUGHOUT THE PROPOSED CONSTRUCTION PERIODS. THE EFFECTIVENESS OF EROSION CONTROLS SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION ACTIVITIES.

AMERICAN BURYING BEETLE NOTE:
THE AMERICAN BURYING BEETLE IS A LARGE CARRION BURYING BEETLE THAT OCCURS WITHIN THE PROJECT LIMITS. NO ARTIFICIAL LIGHTING SHALL BE USED DURING CONSTRUCTION WITHOUT PRIOR CONSULTATION WITH USFWS THRU ODOT ENVIRONMENTAL PROGRAMS DIVISION. DO NOT PROCEED WITH ANY USE OF ARTIFICIAL LIGHTING WITHOUT WRITTEN CONSENT FROM ODOT ENVIRONMENTAL PROGRAMS DIVISION. CARCASSES AND ALL FOOD TRASH SHALL BE REMOVED FROM THE PERMANENT AND TEMPORARY RIGHT-OF-WAY THROUGHOUT THE DURATION OF PROJECT ACTIVITIES.

INTERIOR LEAST TERN NOTE:
SUITABLE HABITAT FOR INTERIOR LEAST TERNS IS PRESENT AND DOWNSTREAM OF THE CIMARRON RIVER WITHIN THE PROJECT AREA.

- THE ODOT NATURAL RESOURCES PROGRAM MUST BE NOTIFIED PRIOR TO CONSTRUCTION, IN ORDER TO COMPLETE A PRE-CONSTRUCTION NESTING SURVEY DURING THE MONTH OF JUNE; SURVEYS ARE VALID FOR THAT NESTING SEASON ONLY.
- IF CONSTRUCTION ACTIVITIES WILL OCCUR DURING THE ACTIVE NESTING SEASON FOR THIS SPECIES (MAY 1 THROUGH AUGUST 31), A 0.25 MILE NO-WORK-ZONE BUFFER FROM THE ORDINARY HIGH WATER MARK OF THE CIMARRON RIVER WILL BE ESTABLISHED UNTIL THE NESTING SURVEY CAN BE COMPLETED. IF THE SURVEY FINDS INTERIOR LEAST TERNS NESTING IN THE AREA, ALL WORK WITHIN 0.25 MILES OF ANY NESTING COLONIES WILL BE POSTPONED UNTIL AFTER SEPTEMBER 1 (THE END OF NESTING SEASON) AND BE COMPLETED BY APRIL 30, THE FOLLOWING YEAR.
- IF CONSTRUCTION AND DEMOLITION ACTIVITIES WILL CONTINUE INTO THE FOLLOWING TERN NESTING SEASON, THE ODOT NATURAL RESOURCES PROGRAM MUST BE NOTIFIED IN ORDER TO SCHEDULE A BIOLOGIST WHO WILL MONITOR THE PROJECT AREA TO MAKE SURE ONGOING CONSTRUCTION ACTIVITIES DO NOT PREVENT TERNS FROM NESTING AT THE SITE.
- ONCE TERNS BEGIN NESTING, ALL CONSTRUCTION AND DEMOLITION ACTIVITIES SHALL BE KEPT OUTSIDE OF A 0.25 MILE BUFFER ZONE AROUND THE ACTIVE NESTING COLONY FOR THE DURATION OF THE NESTING SEASON.
- LIMITED CONSTRUCTION ACTIVITIES OUTSIDE OF THE RIVER, BUT WITHIN 0.25 MILES OF AN ACTIVE NEST, MAY BE PERMITTED SUBJECT TO APPROVAL FROM THE US FISH AND WILDLIFE SERVICE (USFWS). THE CONTRACTOR SHALL SUBMIT DETAILED AND EXPLICIT DESCRIPTION OF ALL PROPOSED WORK ACTIVITIES AND TIMEFRAMES TO THE ODOT BIOLOGIST, THROUGH THE RESIDENT ENGINEER. CONSULTATION WITH THE USFWS MAY TAKE UP TO 30 DAYS FROM THE SUBMITTAL OF COMPLETE INFORMATION. NO WORK SHALL OCCUR WITHIN 0.25 MILES OF AN ACTIVE NEST UNTIL APPROVAL HAS BEEN OBTAINED IN WRITING FROM THE USFWS. APPROVAL, HOWEVER, IS NOT GUARANTEED. ANY DELAY DUE TO THIS WILL NOT BE COMPENSATED.
- HAZARDOUS MATERIALS, CHEMICALS, FUELS, LUBRICATING OILS, AND OTHER SUCH SUBSTANCES SHALL BE STORED AT LEAST 100 FEET OUTSIDE OF THE ORDINARY HIGH WATER MARK (OHWM).
- REFUELING OF CONSTRUCTION EQUIPMENT SHALL ALSO BE CONDUCTED 100 FEET OUTSIDE OF THE OHWM.
- SEDIMENT AND EROSION CONTROLS SHALL BE INSTALLED AROUND THESE 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 OHWM, AND THESE MATERIALS SHALL BE REMOVED AND DISPOSED OF PROPERLY FOLLOWING COMPLETION OF THE PROJECT.
- APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE IMPACTS FROM STORM WATER DISCHARGES, AS ESTABLISHED BY THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY, SHALL BE CONSCIENTIOUSLY IMPLEMENTED THROUGHOUT THE PROPOSED CONSTRUCTION PERIODS. THE EFFECTIVENESS OF EROSION CONTROLS SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION ACTIVITIES. THIS COMMITMENT WILL BE ADDRESSED ON THE STORM WATER MANAGEMENT PLAN SHEET AND/OR THE 404 DETAIL PLAN SHEET.
- THE RESIDENT ENGINEER WILL INVITE THE ODOT BIOLOGIST TO THE PRE-WORK MEETING FOR THIS PROJECT.

BALD EAGLE NOTE:
SUITABLE NESTING, ROOSTING OR FORAGING HABITAT FOR THE BALD EAGLE OCCURS WITHIN THE PROJECT'S ACTION AREA. THE BALD EAGLE NESTING SEASON IN OKLAHOMA EXTENDS FROM SEPTEMBER 16, THROUGH MAY 31. THE RESIDENT ENGINEER SHALL CONTACT THE ODOT BIOLOGIST TO SCHEDULE A NEST SURVEY. NEST SEARCH SURVEYS CAN ONLY BE CONDUCTED WHEN LEAVES ARE NOT ON THE TREES TYPICALLY BETWEEN DECEMBER 1ST AND FEBRUARY 28TH. NO WORK MAY OCCUR WITHIN SUITABLE BALD EAGLE HABITAT, LOCATED THE FULL EXTENT OF THE PROJECT AREA, DURING THE NESTING SEASON (SEPTEMBER 16, THROUGH MAY 31) UNTIL THE COMPLETION OF THE SURVEY BY THE ODOT BIOLOGIST. IF NESTS ARE OBSERVED, A NO-WORK BUFFER UP TO A DISTANCE OF 660 FEET SHALL BE PLACED AROUND THE NEST. THE EXACT DISTANCE OF THE BUFFER ZONE SHALL BE ESTABLISHED BY THE ODOT BIOLOGIST IN CONSULTATION WITH US FISH AND WILDLIFE SERVICES. IF THE BUFFER CANNOT BE MAINTAINED, ALL CLEARING, EXTERNAL CONSTRUCTION AND LANDSCAPING ACTIVITIES, WITHIN THE BUFFER, SHALL BE CONDUCTED BETWEEN JUNE 1 AND SEPTEMBER 15 (OUTSIDE THE NESTING SEASON).

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 BIRD SPECIES EXTENDS FROM MARCH 1 TO AUGUST 31. THE PROJECT WAS SURVEYED FOR MIGRATORY BIRD NESTS IN JULY 2019. ALTHOUGH NO NESTS WERE OBSERVED, THE SURVEY IS VALID ONLY UNTIL THE START OF THE 2020 NESTING SEASON (BEGINNING MARCH 1). THE RESIDENT ENGINEER SHALL CONTACT THE ODOT BIOLOGIST IF ANY BIRD USE OF THE EXISTING STRUCTURES IS OBSERVED. IF BIRDS ARE OBSERVED THEN PAINTING, REPAIR, RETROFIT, REHABILITATION OR DEMOLITION OF THE EXISTING BRIDGE SHALL BE CONDUCTED BETWEEN SEPTEMBER 1, AND FEBRUARY 28, WHEN MIGRATORY BIRD NESTS ARE NOT OCCUPIED. THE BRIDGE MAY 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.

ENVIRONMENTAL NOTES

DETAIL		
REVIEW		
APPROVED		

ENVIRONMENTAL DIVISION

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 29829(04) | SHEET NO. AE01

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	AR01	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

GENERAL CONSTRUCTION NOTES

IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THECONTRACTOR 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

THE PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING ROAD TO LOCAL AND THROUGH TRAFFIC. SEE STANDARD SPECIFICATIONS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

MAINTENANCE OF THROUGH TRAFFIC INCLUDES THE MAINTENANCE OF THE EXISTING ROAD IN CLOSE PROXIMITY TO THE NEW CONSTRUCTION AS SHOWN ON THE PLANS.

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING SECTION LINE ROADS TO LOCAL AND THROUGH TRAFFIC. SEE STANDARD SPECIFICATIONS FOR MAINTENANCE OF LOCALAND THROUGH TRAFFIC.

FOR PROJECTS THAT INCLUDE WIDENING AND/OR RESURFACING, THE CONTRACTOR SHALL SCHEDULEOPERATIONS 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 LIMITEDTO ONE SIDE AT A TIME, AND THE PROCEDURES OUTLINED IN THE PAVEMENT DROP-OFF TREATMENTSTANDARD 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.

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.

THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY RIGHT-OF-WAY FENCE AS REQUIRED. WHEN THE PORTION OF THE PROJECT THAT REQUIRED THIS FENCE IS COMPLETED, THE TEMPORARY FENCE SHALL BE REMOVED, AND PERMANENT RIGHT-OF-WAY FENCING SHALL BE RESTORED OR INSTALLED IN A MANNER APPROVED BY THE ENGINEER. ALL COST OF TEMPORARY FENCING SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

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.

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.

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.

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.

THE CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.
VEGATIVE MULCHING: THE VEGATIVE MULCH SHALL BE ANCHORED IN ACCORDANCE WITH THE "MULCHING-TILLER METHOD", AS SPECIFIED IN 233.04B(2) OF THE STANDARD SPECIFICATIONS.

AT THE BEGINNING OF TURFING OPERATIONS, ANY AREAS INCLUDED IN PLANNED QUANTITIES THAT HAVE GROWN A SATISFACTORY VOLUNTEER TURF OF PERENNIAL GRASS, AS DETERMINED BY THE ENGINEER, SHALL BE FERTILIZED AND WATERED AS CALLED FOR ON THE PLANS, BUT SHALL NOT BE SEEDED, SODDED, OR SPRIGGED.

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.

T.B.S.C. SURFACES SHALL BE SPRINKLED WITH WATER AND ROLLED WITH A PNEUMATIC ROLLER IN A MANNER APPROVED BY THE ENGINEER.

ROADWAY PAY QUANTITY NOTES

(R-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY ONLY. SEE SECTION 109.01B OF THE STANDARD SPECIFICATIONS.

(R-3) INCLUDES 500 CU. YDS. FOR DRIVEWAYS, RETURNS, DIKES, AND MISCELLANEOUS EARTHWORK.

(R-4) AN ESTIMATED QUANTITY OF 1,624 C.Y. TOPSOIL TO BE RESERVED FOR PLACEMENT 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 TO INCLUDE THE COST OF WATERING, ESTIMATED AT 80 GALLONS PER S.Y.

(R-8) PRICE BID TO INCLUDE THE COST OF ALL NECESSARY MAINTENANCE, MAINTAINING DEVICE IN PROPERUPRIGHT 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 3 ACRES.

(R-15) QUANTITY BASED ON TWO APPLICATIONS

(R-18) ESTIMATED AT 140 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-24) ESTIMATED AT 0.075 GALLONS PER SQUARE YARD OF ORIGINAL EMULSION OF TACK COAT (BEFORE DILUTION) FOR APPLICATION) IN ACCORDANCE WITH SECTION 407 OF THE STANDARD SPECIFICATIONS.

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

(R-27) PRICE BID TO INCLUDE COST OF FOG SEAL, MEETING THE REQUIREMENTS OF SECTION 407 OF THE STANDARD SPECIFICATIONS.

(R-31) QUANTITY INCLUDES AN ESTIMATED 10 C.Y. TO BE USED AS DIRECTED BY THE ENGINEER.

(R-38) MATERIALS REMOVED SHALL NOT BE MEASURED FOR PAYMENT UNDER SECTION 202.06 UNCLASSIFIED EXCAVATION.

29829(04)
0100 ROADWAY

SUMMARY OF PAY QUANTITIES

ITEM NO.	SPEC CODE	DESCRIPTION	UNIT	QUANTITY
201(A)	1200	CLEARING AND GRUBBING	LSUM	1
202(A)	2200	UNCLASSIFIED EXCAVATION (1)(R-1)	CY	3,204
202(C)	2400	ROCK EXCAVATION (7)	CY	250
202(D)	2500	UNCLASSIFIED BORROW (R-3)	CY	13,711
205(A)	6200	TYPE A-SALVAGED TOPSOIL (R-4)(R-6)	LSUM	1
221(B)	2300	TEMPORARY SILT FENCE (R-8)	LF	2,550
221(E)	2600	TEMPORARY SILT DIKE (R-8)	LF	63
230(A)	7200	SOLID SLAB SODDING (R-6)(R-7)	SY	11,227
233(A)	0200	VEGETATIVE MULCHING (R-11)	AC	3
241	3100	MOWING (R-15)	AC	5
303(A)	1200	AGGREGATE BASE TYPE A	CY	922
307(K)	4200	STABILIZED SUBGRADE (2)	SY	4,507
326(A)	1200	GEOTEXTILE REINFORCEMENT	SY	4,507
402(E)	2600	TRAFFIC BOUND SURFACE COURSE TYPE E (3)(R-18)	TON	772
407(B)	7300	TACK COAT (R-24)	GAL	614
408	8100	PRIME COAT (R-21)	GAL	2,889
411(B)	1330	SUPERPAVE, TYPE S3(PG 64-22 OK) (R-25)	TON	1,388
411(C)	1430	SUPERPAVE, TYPE S4(PG 64-22 OK) (R-25)	TON	584
412	3100	COLD MILLING PAVEMENT (R-27)	SY	729
509(D)	0500	CLASS C CONCRETE (R-31)	CY	10
619(B)	6376	REMOVAL OF CONCRETE PAVEMENT W/ ASPHALT OVERLAY (4)(R-38)	SY	3,920
619(B)	6396	REMOVAL OF GUARDRAIL	LF	656
623	1100	(PL) GUARDRAIL CURBING	EA	4
623(A)	1200	BEAM GUARDRAIL W-BEAM SINGLE	LF	1,050
623(G)	1820	GUARDRAIL END TREATMENT (31")	EA	4
623(I)	2050	GUARDRAIL BRIDGE CONN-THRIE BEAM (31")	EA	4

29829(04)
0600 STAKING

SUMMARY OF PAY QUANTITIES

ITEM NO.	SPEC CODE	DESCRIPTION	UNIT	QUANTITY
642(B)	3300	CONSTRUCTION STAKING LEVEL II (5)	LSUM	1

29829(04)
0640 CONSTRUCTION

SUMMARY OF PAY QUANTITIES

ITEM NO.	SPEC CODE	DESCRIPTION	UNIT	QUANTITY
220	1100	SWPPP DOCUMENTATION AND MANAGEMENT	LSUM	1
640(A)	1210	FIELD OFFICE (6)	LSUM	1
641	2110	MOBILIZATION	LSUM	1

PAY ITEM NOTES

(1) INCLUDES AN ESTIMATED 1800 CY OF EXCAVATION FOR BRIDGE HEADERS EXTENTS

(2) "STABILIZED SUBGRADE" SHALL INCLUDE THE COST OF 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.

(3) INCLUDES 200 TONS TO BE USED AS DIRECTED BY THE ENGINEER.

(4) PRICE BID INCLUDES SAW CUTTING WHERE CALLED FOR ON PLANS OR AS NECESSARY FOR A NEAT EDGE.

(5) 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 CONTRACTOR 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 SURVEYOR WILL IDENTIFY AND VERIFY BENCHMARKS SET AND MAINTAIN ADDITIONAL BENCHMARKS WITHIN 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 BEGINNING ANY EARTHWORK PAY ITEMS. THE CONTRACTOR SHALL PROVIDE FOR THE RESIDENT ENGINEERS USE A ROVING CABLE FREE INTEGRATED GPS & RTK SYSTEM WITH FIELD CONTROLLER. THIS 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.

(6) 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.

(7) QUANTITY IS AN ESTIMATED AMOUNT TO BE USED AS DIRECTED BY ENGINEER.

DESIGN:		2021
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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

GENERAL NOTES AND SUMMARY OF PAY QUANTITIES (ROADWAY)

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO. AR01

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	AR02	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

SUMMARY OF SURFACING

STATION TO STATION CRL	8" AGGREGATE BASE TYPE A	8" STABILIZED SUBGRADE	GEOTEXTTILE REINFORCEMENT	COLD MILLING PAVEMENT	T.B.S.C. TYPE E	TACK COAT	PRIME COAT	SUPERPAVE TYPE S3 (PG 64-22 OK)	SUPERPAVE TYPE S4 (PG 64-22 OK)
	303(A)	307(K)	326(A)	412	402(E)	407(B)	408	411(B)	411 (C)
	CY	SY	SY	SY	TON	GAL	GAL	TON	TON
MAINLINE									
500+50.00 TO 509+00.00	582	2845	2845	0	361	349	1642	789	259
509+00.00 TO 517+75.00	340	1662	1662	729	211	204	959	461	233
TOTALS	922	4,507	4,507	729	572	553	2,601	1,250	492

SUMMARY OF REMOVALS

STATION TO STATION CRL	REMOVAL OF CONCRETE PAVEMENT W/ ASPHALT OVERLAY	REMOVAL OF GUARDRAIL	(*) REMOVAL OF EXISTING SIGNS
	619(B)	619(B)	805(A)
	SY	LF	EA
MAINLINE			
BOP TO STA. 509+00.00	2370	318	2
STA. 509+00.00 TO EOP	1550	338	3
TOTALS	3,920	656	5

(*) SUBSIDIARY TO PAY ITEM "SHEET ALUMINUM SIGNS" (FOR CONTRACTOR'S INFORMATION ONLY)

SUMMARY OF EARTHWORK

STATION TO STATION CRL	UNCLASSIFIED EXCAVATION	EMBANKMENT +15%	(**) EXCESS EXCAVATION	UNCLASSIFIED BORROW
	202(A)			202(D)
	CY	CY	CY	CY
PHASE 1 ESTIMATE 1				
STA. 500+00.00 TO 505+49.86	295	6499		6204
PHASE 1 ESTIMATE 2				
STA. 513+21.52 TO 517+00.00	220	334		114
PHASE 2 ESTIMATE 1				
STA. 500+00.00 TO 505+49.86	520	7382		6862
PHASE 2 ESTIMATE 2				
STA. 513+21.52 TO 517+00.00	369	400		31
BRIDGE HEADERS	1800	0	1800	
PROJECT TOTAL	3204	14615	1800	13211

SUMMARY OF PERMANENT EROSION CONTROL

STATION TO STATION CRL	DESCRIPTION	TYPE A SALVAGED TOPSOIL	SOLID SLAB SODDING	VEGETATIVE MULCHING
		205(A)	230(A)	233(A)
		CY	SY	AC
MAINLINE				
499+00 TO 505+00	LT. SIDE OF ROADWAY	618	4446	0.92
499+00 TO 505+00	RT. SIDE OF ROADWAY	616	4432	0.92
513+00 TO 517+00	LT. SIDE OF ROADWAY	160	1149	0.24
513+00 TO 517+00	RT. SIDE OF ROADWAY	167	1200	0.25
	TOTALS	*1,624	11,227	2.3

(*) QUANTITY IS FOR ESTIMATING PURPOSES ONLY, PAY ITEM TO BE PAID IN LUMP SUM.

SUMMARY OF TEMPORARY SEDIMENT CONTROLS

STATION TO STATION CRL	TEMPORARY SILT FENCE	TEMPORARY SILT DIKE
	221(B)	221(E)
	LF	LF
MAINLINE		
499+00 TO 505+00	1500	21
513+00 TO 517+00	1050	42
TOTALS	2,550	63

SUMMARY OF GUARDRAIL

STATION TO STATION CRL	OFFSET		ANCHOR UNITS		BEAM GUARDRAIL W-BEAM SINGLE	SUPERPAVE TYPE S3 (PG 64-22 OK) 3"	SUPERPAVE TYPE S4 (PG 64-22 OK) 2"	TACK COAT	PRIME COAT	GUARDRAIL DELINEATORS (TYPE 2 CODE 1)
	LEFT	RIGHT	GUARDRAIL BRIDGE CONNECTION THRIE BEAM (31")	GUARDRAIL END TREATMENT (31")						
			623(I)	623(G)	623(A)	411(B)	411(C)	407(B)	408	853
			EA	EA	LF	TON	TON	TON	TON	EA
MAINLINE										
500+70.00 TO 505+19.86		X	1	1	312.5	39	26	17	81	7
500+70.00 TO 505+19.86	X		1	1	312.5	39	26	17	81	7
513+51.52 TO 516+45		X	1	1	150.0	24	16	11	50	4
513+51.52 TO 517+75	X		1	1	275.0	36	24	16	76	6
TOTALS			4	4	1050	138	92	61	288	24

DESIGN:		2021
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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

SUMMARY SHEET (ROADWAY)

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO. AR02

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	AT01	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

TRAFFIC SIGNING GENERAL CONSTRUCTION NOTES

EXISTING ROADWAY SHALL REMAIN OPEN DURING CONSTRUCTION. 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.

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING TRAFFIC ON CROSS STREETS. A MINIMUM OF ONE LANE IN EACH DIRECTION SHALL BE MAINTAINGED AT ALL TIMES.

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING ROAD TO LOCAL AND THROUGH TRAFFIC. SEE O.D.O.T. STANDARDS AND DETAIL DRAWINGS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

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.

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 SUCHTIME AS DIVISION PERSONNEL CAN REMOVE THE MATERIAL FROM THE JOB SITE.

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 DEPARTMENT 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.

ALL REMOVED SIGNS, SIGN POSTS, BOLTS, MISCELLANEOUS HARDWARE, AND DELINEATORS SHALL REMAIN THE PROPERTY OF THE STATE. THE CONTRACTOR SHALL NEATLY STACK SUCH REMOVED MATERIAL AT A LOCATION ON THE JOB SITE AS DESIGNATED BY THE ENGINEER UNTIL SUCH TIME AS DIVISION PERSONNEL CAN REMOVE THE MATERIAL FROM THE JOB SITE.

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 FOOTINGS 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.

ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL MEET ODOT'S, "QUALITY STANDARD FOR TEMPORARY TRAFFIC CONTROL DEVICES".

THE CONTRACTOR SHALL PROVIDE A PERSON TO BE ON 24 HOUR CALL AS NEEDED AS DETERMINED BY THE ENGINEER. THIS 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.

TRAFFIC SIGNING PAY QUANTITY NOTES

(TS–19) QUANTITY SHOWN INCLUDES 5,391 L.F. TRAFFIC STRIPE (PLASTIC)(WHITE) AND 6,636 L.F. TRAFFIC STRIPE (PLASTIC)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR INCH (4") 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.

TRAFFIC CONSTRUCTION PAY QUANTITY NOTES

(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. THE SAME BARRIER WILL BE USED ON OTHER DETOUR PHASES.

(TC–13) A PART, OR ALL, OF THIS ITEM IS INTENDED FOR REPLACEMENT OF REMOVED CONFLICTING STRIPING.

(TC–14) SEE STANDARD DRAWING PM1–1, PM2–1, PM3–1, PM4–1, PM5–1, PM6–1, PM7–1, PM8–1 (LATEST REVISION). A PART, OR ALL, OF THE QUANTITY SHOWN IS TO BE USED AS FINAL PAVEMENT MARKING.

(TC–17) INCLUDES AN ESTIMATED 2,260 L.F. (PAINT)(4" WIDE) WHITE AND 4,000 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 THE 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 STRIPE, ARROWS, WORDS AND SYMBOLS, AS SHOWN IN PLANS. THESE ITEMS MAY CONSIST OF PLASTIC, PAINT OR NON–REMOVABLE MARKING TAPE.

(TC–26) 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.

29829(04) SUMMARY OF PAY QUANTITIES

0300 TRAFFIC SIGNING AND STRIPING

ITEM NO.	SPEC CODE	DESCRIPTION	UNIT	QUANTITY
413(B)	4310	RUMBLE STRIP–METHOD HMA CYC	LF	1,737
850(A)	1200	SHEET ALUMINUM SIGNS (TS–34)	SF	60
851(C)	2415	2" SQUARE TUBE POST (TS–33)	LF	91
853	5175	GUARDRAIL DELINEATORS (TYPE 2, CODE 1)	EA	24
855(A)	7200	TRAFFIC STRIPE (PLASTIC)(4" WIDE) (TC–13,14)(TS–19)	LF	12,027

29829(04) SUMMARY OF PAY QUANTITIES

0340 TRAFFIC CONTROL

ITEM NO.	SPEC CODE	DESCRIPTION	UNIT	QUANTITY
823	6100	(SP) PORTABLE TRAFFIC SIGNAL SYSTEM (TC–84)	SD	340
857(A)	9200	CONSTRUCTION TRAFFIC STRIPE (PAINT)(4" WIDE) (TC–17,20,70,75)	LF	6,260
857(E)	9630	(PL) CONSTRUCTION ZONE PAVEMENT MARKERS (FLEX TABS) TYPE 2–2 (TC–21,61,70,73,75)	EA	2,000
857(F)	9700	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE) (TC–22, 70, 75)	LF	7,000
871(B)	2300	CONST. ZONE IMAPCT ATTEN. (TC–52, 80, 84)	SD	680
877(B)	4300	DELIVER PORTABLE LONGITUDINAL BARRIER (TC–1,2)	LF	3,300
877(C)	4400	RELOCATION OF PORT. LONGITUDINAL BARRIER (TC–1)	LF	3,300
880(B)	6300	CONSTRUCTION SIGNS 0 TO 6.25 SF (TC–26, 33, 84)	SD	6,120
880(B)	6310	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF (TC–26, 33, 84)	SD	2,040
880(B)	6320	CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF (TC–26, 33, 84)	SD	6,120
880(C)	6410	CONSTRUCTION BARRICADES (TYPE III) (TC–26, 84)	SD	1,360
880(E)	6600	WARNING LIGHTS (TYPE A) (TC–26, 84)	SD	5,440
880(F)	6700	DRUMS (TC–26, 84)	SD	6,120
880(G)	6805	CHANNELIZER CONES (TC–26, 84)	SD	4,080
880(I)	7000	FLAGGER (TC–70)	SD	12
882(A)	8210	PORT. CHANGEABLE MESSAGE SIGN (TC–52, 70, 84, 85)(SP–1)	SD	708

TRAFFIC CONSTRUCTION PAY QUANTITY NOTES CONT

(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.

(TC–52) ANY USED CHANGEABLE MESSAGE SIGN OR CONSTRUCTION ZONE IMPACT ATTENUATOR TO BE PLACED ON THIS PROJECT SHALL BE SUBJECT TO INSPECTION AND APPROVAL, BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION, 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 CONTRACTORS 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 CONTRACTORS 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–73) QUANTITY INCLUDES 1000 EA. (WHITE) AND 1000 EA. (YELLOW) CONSTRUCTION ZONE PAVEMENT MARKERS (FLEX TABS). THESE CONSTRUCTION ZONE PAVEMENT MARKERS SHALL BE EITHER "DAVIDSON PLASTICS: MODEL TOM", OR AN APPROVED EQUAL. PRICE BID FOR THIS ITEM SHALL INCLUDE THE INITIAL PLACEMENT, SUBSEQUENT PLACEMENT, AND REMOVAL. THE CONSTRUCTION ZONE PAVEMENT MARKERS (FLEX TABS) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS SHOWN ON STANDARD DRAWING TC21–1–(LATEST REVISION).

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

(TC–80) INCLUDED IN THIS ITEM SHALL BE ONE (1) ADDITIONAL UNIT TO BE USED AS A STAND–BY OR REPLACEMENT. THIS STAND–BY UNIT SHALL BE IMMEDIATELY ACCESSIBLE TO REPLACE A DAMAGED, STOLEN OR MALFUNCTIONING UNIT. THE AMOUNT OF TIME BETWEEN THE REMOVAL OF THE DAMAGED UNIT AND THE INSTALLATION OF THE STAND–BY UNIT SHALL BE NO MORE THAN TWENTY–FOUR (24) HOURS.

(TC–84) 340 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

SPECIAL NOTES

(SP–1) CHANGEABLE MESSAGE BOARDS SHALL BE PLACED TWO WEEKS PRIOR TO ROAD WORK. LOCATIONS FOR THE CHANGEABLE MESSAGE BOARDS SHALL BE DETERMINED BY THE ENGINEER.

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SH–99 OVER CIMARRON RIVER — CREEK COUNTY

GENERAL NOTES AND SUMMARY OF PAY QUANTITIES (TRAFFIC)

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO. AT01

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	AT02	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

SUMMARY OF TRAFFIC CONTROL

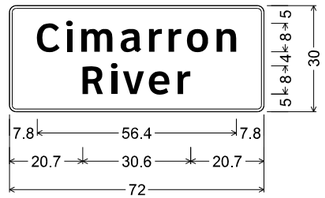
SHEET NO.	CONST. TRAFFIC STRIPE (PAINT) (4" WIDE) YELLOW	CONST. TRAFFIC STRIPE (PAINT) (4" WIDE) WHITE	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	(SP) CONST. ZONE IMPACT ATTEN.		DELIVER PORTABLE LONGITUDINAL BARRIER	RELOCATION PORTABLE LONGITUDINAL BARRIER	CONSTRUCTION SIGNS						CONSTRUCTION BARRICADES (TYPE III)		WARNING LIGHTS (TYPE A)		DRUMS		CHANNELIZER CONES	
								0.00 – 6.25 S.F.		6.26 – 15.99 S.F.		16.0 – 32.99 S.F.									
	857(A)	857(A)	857(F)	871(B)		877(B)	877(C)	880(B)		880(B)		880(B)		880(C)		880(E)		880(F)		880(G)	
	LF	LF	LF	EA	SD	LF	LF	EA	SD	EA	SD	EA	SD	EA	SD	EA	SD	EA	SD	EA	SD
PHASE 1																					
1	4000	1090	2000	2	340	3300		18	3060	6	1020	18	3060	4	680	16	2720	18	3060	12	2040
PHASE 1 TOTALS:	4000	1090	2000	2	340	3300	0	18	3060	6	1020	18	3060	4	680	16	2720	18	3060	12	2040
PHASE 2																					
2	0	1170	5000	2	340		3300	18	3060	6	1020	18	3060	4	680	16	2720	18	3060	12	2040
PHASE 2 TOTALS:	0	1170	5000	2	340	0	3300	18	3060	6	1020	18	3060	4	680	16	2720	18	3060	12	2040
TOTALS:	4000	2260	7000	4	680	3300	3300	36	6120	12	2040	36	6120	8	1360	32	5440	36	6120	24	4080

SUMMARY OF SIGNS

SIGN NUMBER	STATION	OFFSET		SIGN TYPE	DESCRIPTION	SHEET ALUMINUM SIGNS	2" SQUARE TUBE POST
						850(A)	851(C)
	MAINLINE	LT	RT			SF	LF
1	504+50.00		35'	W1-2L	CURVE LEFT	6.25	13
2	505+52.00		35'	SPECIAL #1	CIMMARRON RIVER	15.00	26
3	513+25.00	35'		SPECIAL #1	CIMMARRON RIVER	15.00	26
4	514+95.00		35'	R2-1E(65)	SPEED LIMIT 65	12.00	13
5	515+50.00	35'		R2-1E(55)	SPEED LIMIT 55	12.00	13
					TOTALS	60	91

SUMMARY OF STRIPING

STATION TO STATION CRL	TRAFFIC STRIPE (PLASTIC) (4" WIDE) (WHITE)	TRAFFIC STRIPE (PLASTIC) (4" WIDE) (YELLOW)	RUMBLE STRIP-MERHOD HMA CYC
	855(A)	855(A)	413(B)
MAINLINE	LF	LF	LF
BOP TO EOP	5391	6636	1737
TOTALS	5,391	6,636	1,737



1.9" Radius, 0.8" Border, White on Green;
"Cimarron", ClearviewHwy-5-W-R;
"River", ClearviewHwy-5-W-R;

DESIGN:		2021
DRAWN:		2021
CHECKED:		2021
APPRVD:		2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

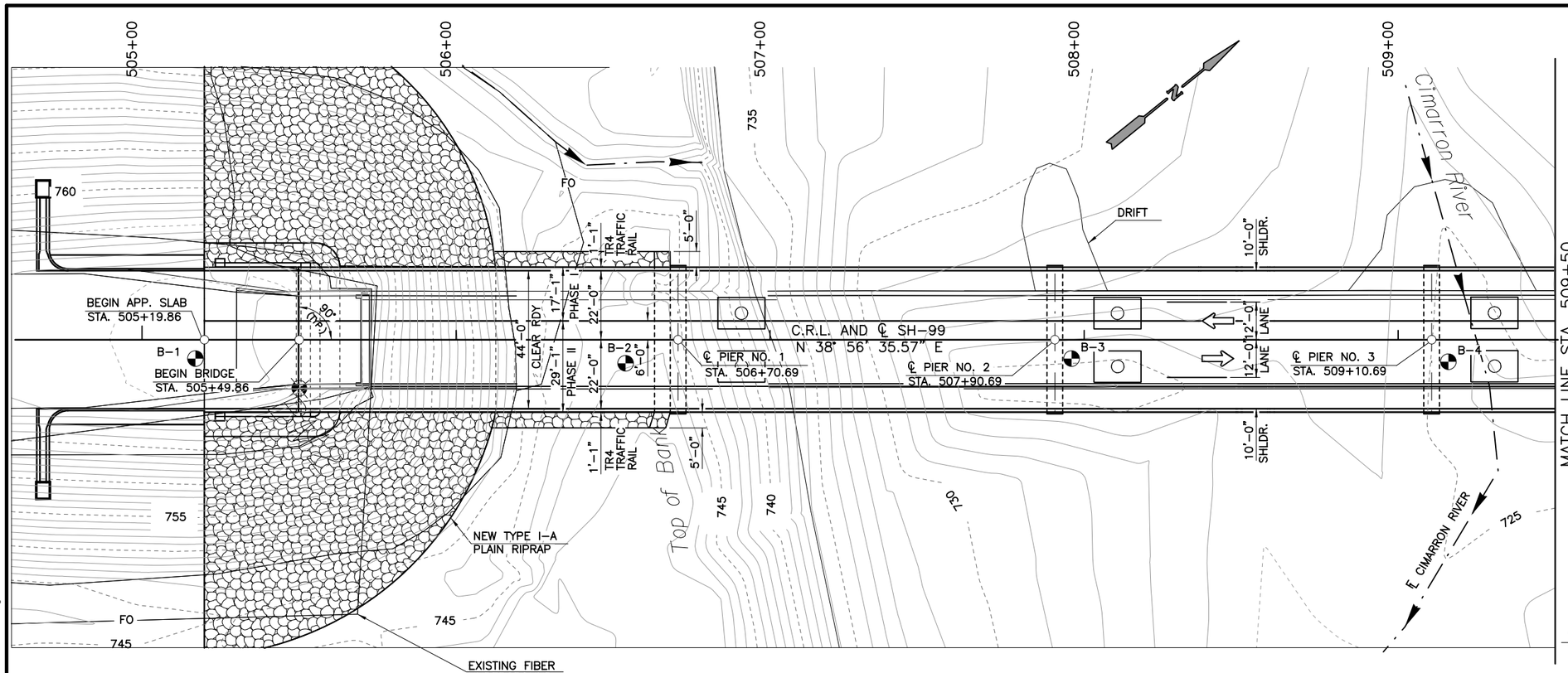
SUMMARY SHEET (TRAFFIC)

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO. AT02

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B001	78

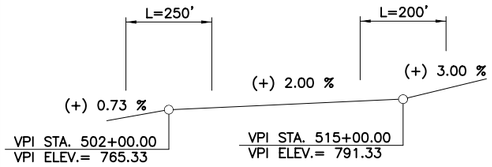
FINAL PLAN FIELD REVIEW MEETING
06/30/2021



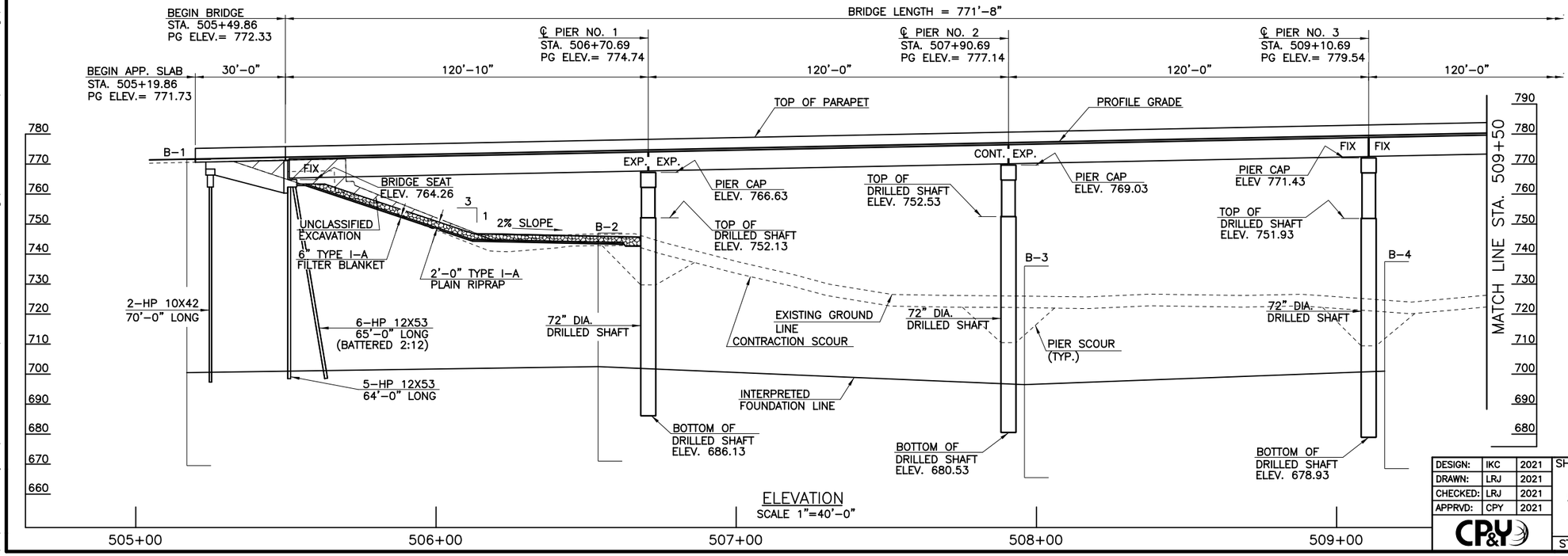
PLAN
SCALE 1"=40'–0"

B.M. 2
"[ ]" ON S.E. CORNER OF BRIDGE–15' RT.
STA. 505+50 ELEV. 772.18

B.M. 3
"[ ]" ON S.E. CORNER OF BRIDGE–15' LT.
STA. 513+11 ELEV. 787.54



VERTICAL GRADE DATA



ELEVATION
SCALE 1"=40'–0"

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

DESIGN:	IKC	2021
DRAWN:	LRJ	2021
CHECKED:	LRJ	2021
APPRVD:	CPY	2021

CP&Y

SH–99 OVER CIMARRON RIVER — CREEK COUNTY

GENERAL PLAN AND ELEVATION

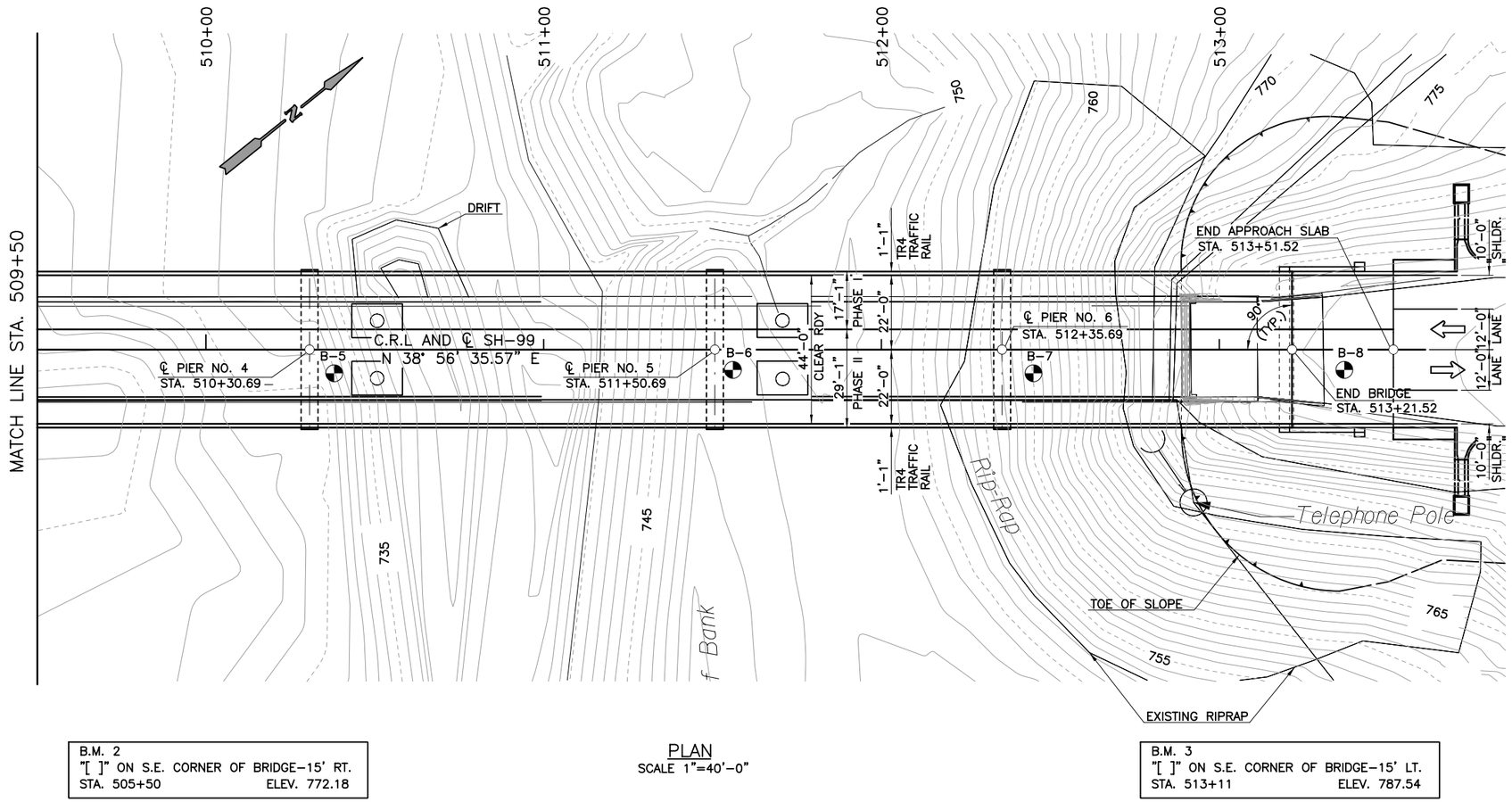
5–120' TYPE J, AND 2–85' TYPE IV PC BM.
44'–0" CLR RDY–TR4 TRAFFIC RAILS

SHEET 1 OF 3

STATE JOB PIECE NO: 29829(04) — SHEET NO. B001

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B002	78

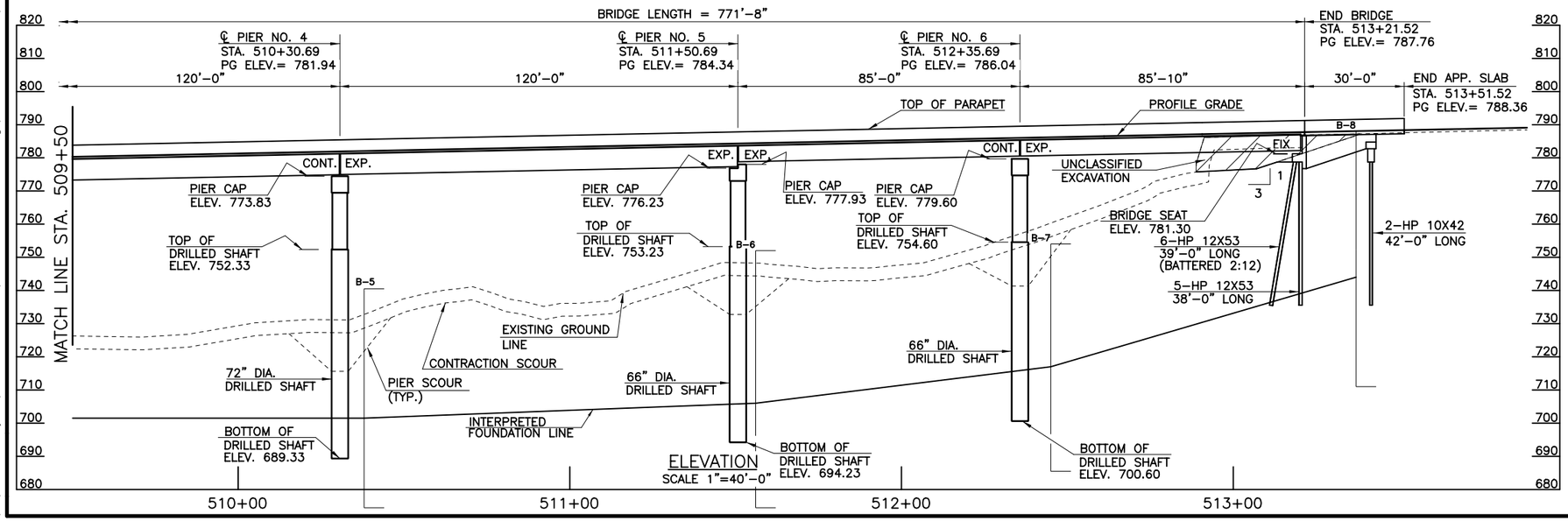
FINAL PLAN FIELD REVIEW MEETING
06/30/2021



PLAN
SCALE 1"=40'-0"

B.M. 2
"[ ]" ON S.E. CORNER OF BRIDGE-15' RT.
STA. 505+50 ELEV. 772.18

B.M. 3
"[ ]" ON S.E. CORNER OF BRIDGE-15' LT.
STA. 513+11 ELEV. 787.54



ELEVATION
SCALE 1"=40'-0"

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DESIGN:	IKC	2021
DRAWN:	LRJ	2021
CHECKED:	LRJ	2021
APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

GENERAL PLAN AND ELEVATION
5-120' TYPE J, AND 2-85' TYPE IV PC BM.
44'-0" CLR RDY-TR4 TRAFFIC RAILS

SHEET 2 OF 3

STATE JOB PIECE NO: 29829(04) SHEET NO.B002

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B003	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

HYDRAULIC DATA

CHW2	= 751.11	CHW25	= 764.65
Q2	= 34039 cfs	Q25	= 132176 cfs
V2	= 3.53 ft/s	V25	= 7.52 ft/s
CHW5	= 756.79	CHW50	= 767.70
Q5	= 66343 cfs	Q50	= 165041 cfs
V5	= 5.13 ft/s	V50	= 8.44 ft/s
CHW10	= 760.28	CHW100	= 770.83
Q10	= 92972 cfs	Q100	= 200968 cfs
V10	= 6.21 ft/s	V100	= 9.24 ft/s
QOT23			
CHWOT	= 763.94	Q100 SCOUR	
QOT	= 125700 cfs	CONTRACTION SCOUR = 3.88 FT.	
VOT	= 7.32 ft/s	PIER SCOUR = 11.16 FT.	
		TOTAL SCOUR = 15.04 FT.	

FOUNDATION DATA

ABUTMENTS (HP 12x53 PILING)		ABUT NO. 1	ABUT NO. 2
FACTORED PILE REACTION (TONS/PILE)	=	100.0	83.0

PIERS (72" DIA DRILLED SHAFT)		PIER NO. 1	PIER NO. 2	PIER NO. 3	PIER NO. 4	PIER NO. 5	PIER NO. 6
FACTORED REACTION (TONS/SHAFT)	=	1,006.0	1,018.0	1,016.0	985.0	816.0	716.0
NOMINAL UNIT BEARING RESISTANCE (T.S.F.)	=	60.0	52.2	46.1	60.0	60.0	36.0
BEARING RESISTANCE FACTOR	=	0.7	0.7	0.7	0.7	0.7	0.7
FACTORED BEARING RESISTANCE (TONS/SHAFT)	=	1,187.0	1,032.0	912.0	1,187.0	997.0	598.0
NOMINAL UNIT FRICTION RESISTANCE (T.S.F.)	=	5.2	2.8	4.5	9.0	9.0	9.0
FRICTION RESISTANCE FACTOR	=	0.45	0.45	0.45	0.45	0.45	0.45
FACTORED FRICTION RESISTANCE (TONS/SHAFT)	=	395.0	213.0	342.0	685.0	560.0	560.0
TOTAL FACTORED RESISTANCE (TONS/SHAFT)	=	1,582.0	1,245.0	1,254.0	1,872.0	1,557.0	1,158.0

DESIGN DATA

CLASS AA CONCRETE	f'c = 4 ksi
CLASS A CONCRETE	f'c = 3 ksi
REINFORCING STEEL (GRADE 60)	fy = 60 ksi
STRUCTURAL STEEL M270 (GRADE 50W)	Fy = 50 ksi
STAINLESS STEEL A240 (TYPE 316)	Fy = 30 ksi

LOADING AND RESISTANCE FACTOR:

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION

ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE

ANSI/AWS D1.6 STRUCTURAL STEEL WELDING CODE–STAINLESS STEEL

LRFR INVENTORY RATING FACTOR: 1.48

LRFR OPERATING RATING FACTOR: 1.92

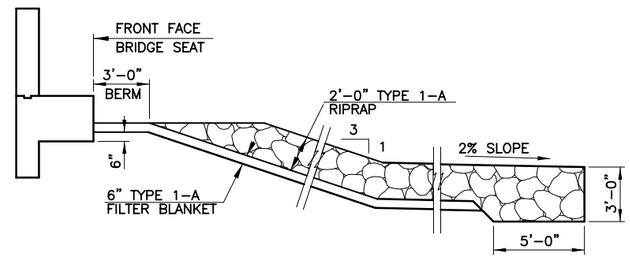
INDEX OF SHEETS

REQUIRED STANDARDS:

EJ–DTL–02E
EJ–SQ–04E
TR4–2–00E
HP1–2–01E

ITEMIZED QUANTITIES

ITEM	UNIT	PHASE I ABUTMENT	PHASE I PIER	PHASE I SUPER–STRUCTURE	PHASE I APPROACH SLAB	PHASE I SUBTOTAL	PHASE II ABUTMENT	PHASE II PIER	PHASE II SUPER–STRUCTURE	PHASE II APPROACH SLAB	PHASE II SUBTOTAL	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	CY	95.00				95.00	120.00				120.00	215.00
CLSM BACKFILL	CY	103.40				103.40	160.20				160.20	263.60
PRESTRESSED CONCRETE BEAMS (TYPE IV)	LF			338.67		338.67			508.00		508.00	846.67
PRESTRESSED CONCRETE BEAMS (TYPE J BT)	LF			1,196.67		1,196.67			1,795.00		1,795.00	2,991.67
APPROACH SLAB	SY				114.00	114.00				194.00	194.00	308.00
SAW–CUT GROOVING	SY			1,372.00	106.80	1,478.80			2,401.00	186.80	2,587.80	4,066.60
CONCRETE RAIL (TR4)	LF			771.70	60.00	831.70			771.70	60.00	831.70	1,663.40
STRUCTURAL STEEL	LB			1,560.00		1,560.00			6,340.00		6,340.00	7,900.00
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA			8.00		8.00			12.00		12.00	20.00
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA			20.00		20.00			30.00		30.00	50.00
CLASS AA CONCRETE	CY			375.60		375.60			659.30		659.30	1,034.80
CLASS A CONCRETE	CY	49.60	428.80			478.40	79.20				79.20	557.60
CLASS C CONCRETE	CY	4.20				4.20	4.20				4.20	8.40
MECHANICAL SPLICES	EA	60.00		2,880.00		2,940.00						2,940.00
REINFORCING STEEL	LB		3,370.00			3,370.00						3,370.00
EPOXY COATED REINFORCING STEEL	LB	6,990.00	118,500.00	104,090.00		229,580.00	9,080.00		174,830.00		183,910.00	413,490.00
PILES, FURNISHED (HP 10x42)	LF	112.00				112.00	112.00				112.00	224.00
PILES, FURNISHED (HP 12x53)	LF	412.00				412.00	722.00				722.00	1,134.00
PILES, DRIVEN (HP 10x42)	LF	112.00				112.00	112.00				112.00	224.00
PILES, DRIVEN (HP 12x53)	LF	412.00				412.00	722.00				722.00	1,134.00
PILE SPLICE, H–PILE (NON–BIDDABLE)	EA											1.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	52.00	592.00	1,553.00	28.00	2,225.00	99.00		1,553.00	28.00	1,680.00	3,905.00
DRILLED SHAFT 66" DIAMETER	LF		226.00			226.00						226.00
DRILLED SHAFT 72" DIAMETER	LF		548.00			548.00						548.00
CROSSHOLE SONIC LOGGING	EA		3.00			3.00						3.00
SEALED EXPANSION JOINTS	LF			35.17		35.17			59.17		59.17	94.34
SEALER CRACK PREPARATION	LF			66.00		66.00			885.00		885.00	951.00
SEALER RESIN	GAL			0.80		0.80			9.90		9.90	10.70
TYPE I–A PLAIN RIPRAP	TON						2,090.00				2,090.00	2,090.00
TYPE I–A FILTER BLANKET	TON						580.00				580.00	580.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	34.00				34.00	56.00				56.00	90.00
6" NON–PERF. PIPE UNDERDRAIN RND.	LF	64.00				64.00						64.00
REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM											1.00



TYPICAL SECTION THROUGH RIPRAP

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DESIGN:	IKC	2021
DRAWN:	LRJ	2021
CHECKED:	LRJ	2021
APPRVD:	CPY	2021

CP&Y

SH–99 OVER CIMARRON RIVER — CREEK COUNTY

GENERAL PLAN AND ELEVATION
5–120' TYPE J, AND 2–85' TYPE IV PC BM.
44'–0" CLR RDY–TR–4 TRAFFIC RAILS

SHEET 3 OF 3

STATE JOB PIECE NO: 29829(04) — SHEET NO. B003

REVISIONS		
REV. NO.	DESCRIPTION	DATE

Boring No. B-1

STATION 505+17 6' RT
(12/19/2020)

Surface Elev. (Ft.): 771.5

Approx. 12 " Portland Cement Concrete	771.5	770.5+/-	SPT-1;N=11; SOIL REC=10 (In.); MC=19%; P200=83%; LL= 36; PL= 18; PI= 18
	770.5		
LEAN CLAY WITH SAND AND GRAVEL (CL) dusky red (5R 3/3), stiff	766.5	766.5+/-	SPT-2; N=5; SOIL REC=6 (In.); MC=22%; P200=79%; LL= 38; PL= 18; PI= 20
LEAN CLAY WITH SAND (CL) dusky red (5R 3/2), medium stiff	761.5	761.5+/-	SPT-3; N=9; SOIL REC=14 (In.); MC=15%; P200=89%; LL= 40; PL= 16; PI= 24
LEAN CLAY (CL) dusky red (5R 3/2), stiff			
-dusky red (5R 3/3), medium stiff below 15'	756.5	756.5+/-	SPT-4; N=7; SOIL REC=1 (In.); MC=12%; LL= 37; PL= 17; PI= 20
SANDY LEAN CLAY WITH GRAVEL (CL) dusky red (5R 3/3) and grayish brown (10YR 5/2), medium stiff	751.5	751.5+/-	SPT-5; N=7; SOIL REC=8 (In.); MC=23%; P200=64%; LL= 45; PL= 19; PI= 26
LEAN CLAY (CL) dusky red (5R 3/2), medium stiff	746.5	746.5+/-	SPT-6; N=7; SOIL REC=12 (In.); MC=25%; P200=88%; LL= 38; PL= 18; PI= 20
SILTY CLAYEY SAND (SC-SM) dusky red (5R 3/2), medium dense	741.5	741.5+/-	SPT-7; N=22; SOIL REC=14 (In.); MC=20%; P200=35%; LL= 21; PL= 15; PI= 6
SILTY SAND (SM) gray (7.5YR 6/1), medium stiff	736.5	736.5+/-	SPT-8; N=17; SOIL REC=18 (In.); MC=18%; P200=21%; LL= NP; PL= NP; PI= NP
SANDY LEAN CLAY (CL) strong brown (7.5YR 5/6), very stiff	731.5	731.5+/-	SPT-9; N=21; SOIL REC=16 (In.); MC=32%; P200=63%; LL= 23; PL= 14; PI= 9
SILTY SAND (SM) strong brown (7.5YR 4/6), loose	726.5	726.5+/-	SPT-10; N=4; SOIL REC=18 (In.); MC=25%; P200=42%; LL= NP; PL= NP; PI= NP
-strong brown (7.5YR 4/6), medium dense below 50'	721.5	721.5+/-	SPT-11; N=18; SOIL REC=18 (In.); MC=23%; P200=5%; LL= NP; PL= NP; PI= NP
SILTY SAND (SM) strong brown (7.5YR 5/6) and brown (7.5YR 5/4), medium dense	716.5	716.5+/-	SPT-12; N=18; SOIL REC=18 (In.); MC=27%; P200=30%; LL= NP; PL= NP; PI= NP
SANDY LEAN CLAY (CL) strong brown (7.5YR 5/6) and brown (7.5YR 5/4), stiff	711.5	711.5+/-	SPT-13;N=9;SOIL REC=18 (In.); MC=32% P200=59%; LL= 26; PL= 14; PI= 12
POORLY GRADED SAND (SP) dark brown (7.5YR 3/4), medium dense	706.5	706.5+/-	SPT-14; N=18; SOIL REC=18 (In.); MC=19%; P200=7%; LL= NP; PL= NP; PI= NP
-clayey sand below 70'	701.5	701.5+/-	SPT-15; N=50/6"; SOIL REC=12 (In.); MC=16%; P200=36%; LL= 32; PL= 19; PI= 13
WEATHERED SHALE with sandstone seams, gray (2.5Y 5/1), soft	700.5	700+/-	TCP 50/9/16" 50/5/16"
			Top of Rock = 700.5 Ft.
		695+/-	TCP 50/1/2" 50/3/8"
WEATHERED SHALE gray (2.5Y 5/1)	690	690+/-	TCP 50/1/4" 50/3/4"
		685+/-	TCP 50/3/8" 50/9/16"
		680+/-	TCP 50/5/16" 50/3/8"
		675+/-	TCP 50/1" 50/1"
		670+/-	TCP 50/3/8" 50/3/16"

BT-102.00
Elevation: 669.5+/-

Boring No. B-2

STATION 506+54 7.5' RT
(2/22/2020)

Surface Elev. (Ft.): 774.5

Approx. 1" Asphalt Concrete	774.5		
Approx. 6 " Portland Cement Concrete	774.5		
Void to top of Ground	774		
SILTY SAND (SM) strong brown (7.5YR 5/6), very loose	747	747+/-	SPT-1; N=2; SOIL REC=6 (In.); MC=12%
SANDY LEAN CLAY (CL) strong brown (7.5YR 4/6), soft	742.5	742.5+/-	SPT-2; N=2; SOIL REC=17 (In.); MC=25%
CLAYEY SAND (SC) strong brown (7.5YR 4/6), very loose	737	737.5+/-	SPT-3; N=1; SOIL REC=18 (In.); MC=39%
CLAYEY SAND WITH GRAVEL (SC) dark brown (7.5YR 3/4), medium dense	732.5	732.5+/-	SPT-4; N=11; SOIL REC=13 (In.); MC=23%
POORLY GRADED SAND WITH GRAVEL (SP) greenish gray (GLEY1 6/1), medium dense	727.5	727.5+/-	SPT-5; N=16; SOIL REC=8 (In.); MC=19%
POORLY GRADED SAND (SP) trace clay, dark brown (7.5YR 3/4), loose	722.5	722.5+/-	SPT-6; N=7; SOIL REC=18 (In.); MC=23%
POORLY GRADED SAND (SP) brown (7.5YR 5/4), medium dense	717.5	717.5+/-	SPT-7; N=10; SOIL REC=18 (In.); MC=19%
POORLY GRADED SAND (SP) trace clay, brown (7.5YR 5/4), loose	712.5	712.5+/-	SPT-8; N=7; SOIL REC=12 (In.); MC=16%
-medium dense below 67'	707.5	707.5+/-	SPT-9; N=22; SOIL REC=18 (In.); MC=15%
WEATHERED SHALE with limestone fragments, gray (GLEY1 5/N), soft	702.5	702.5+/-	SPT-10; N=50/5"; SOIL REC=4 (In.); MC=16%
		701.5+/-	TCP 50/15/16" 50/17/16"
		701+/-	DB-12; ROCK REC=68%; RQD=32%
			Top of Rock = 702.5 Ft.
		696.5+/-	TCP 50/1 1/8" 50/1/4"
		696.5+/-	DB-14; ROCK REC=85%; RQD=58%
-no limestone fragments, gray (GLEY1 5/N) below 85'	689.5	691.5+/-	TCP 50/2 11/16" 50/2 1/4"
		691+/-	DB-16; ROCK REC=100%; RQD=67%
		686.5+/-	TCP 50/1 1/8" 50/1/2"
-reddish brown (2.5YR 4/4) below 93'	681.5	686.5+/-	DB-18; ROCK REC=88%; RQD=68%
		681.5+/-	TCP 50/15/16" 50/1"
-with sand, reddish brown (2.5YR 4/4) and gray (GLEY1 5/N) below 98'	676.5	681.5+/-	DB-20; ROCK REC=95%; RQD=95%
		676.5+/-	TCP 50/1 1/8" 50/9/16"
		676+/-	DB-22; ROCK REC=90%; RQD=90%
		671.5+/-	TCP 50/3 1/2" 50/13/4"

BT-103.50
Elevation: 671+/-

LEGEND

DCD = DIAMOND CORE DRILLING, ASTM D2113-83
SPT = STANDARD PENETRATION TEST, ASTM D1586
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
WCI = WET CAVE IN
= WATER LEVEL WHILE DRILLING OR SAMPLING
= WATER LEVEL AFTER DRILLING
= WATER LEVEL 24 HOURS AFTER DRILLING
= TOP OF ROCK

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

NOTE: "SS" DENOTES STANDARD PENETRATION TEST, AASHTO D1586-84. "TCP" DENOTES TEXAS CONE PENETRATION TEST.

* 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

Based on information published in the Oklahoma Department of Transportation manual, "Engineering Classification of Geologic Materials: Division Eight", the geology of the project site consists of Terrace Deposits (Qts) underlain by the Vamoosa unit (Prs) of the Early Permian Age.

Terrace Deposits (Qts): These materials consist of sand, silt, clay, gravel, and/or mixtures of these. Terrace materials occur adjacent to or near streams at higher elevations then the flood plain (bottom land).

Vamoosa Unit (Pvm): this unit consist of predominantly of shale, which contains lenses of massive sandstone and a few limestones. The shale is gray, grayish green, blue-gray, or maroon, and silty to clayey. The Vamoosa is in zones ranging up to 100 feet in thickness. The sandstones are mostly soft to moderately hard, brown to tan, generally 10 feet to 25 feet or more thick, and locally up to 100 feet thick. Approximately 100 feet above the base of the unit, a 10 foot bed of hard sandstone is present.

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 AT (405) 521-2625. 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.

Terracon

CREEK COUNTY

SUBSURFACE PROFILE
(SHEET 1 of 4)

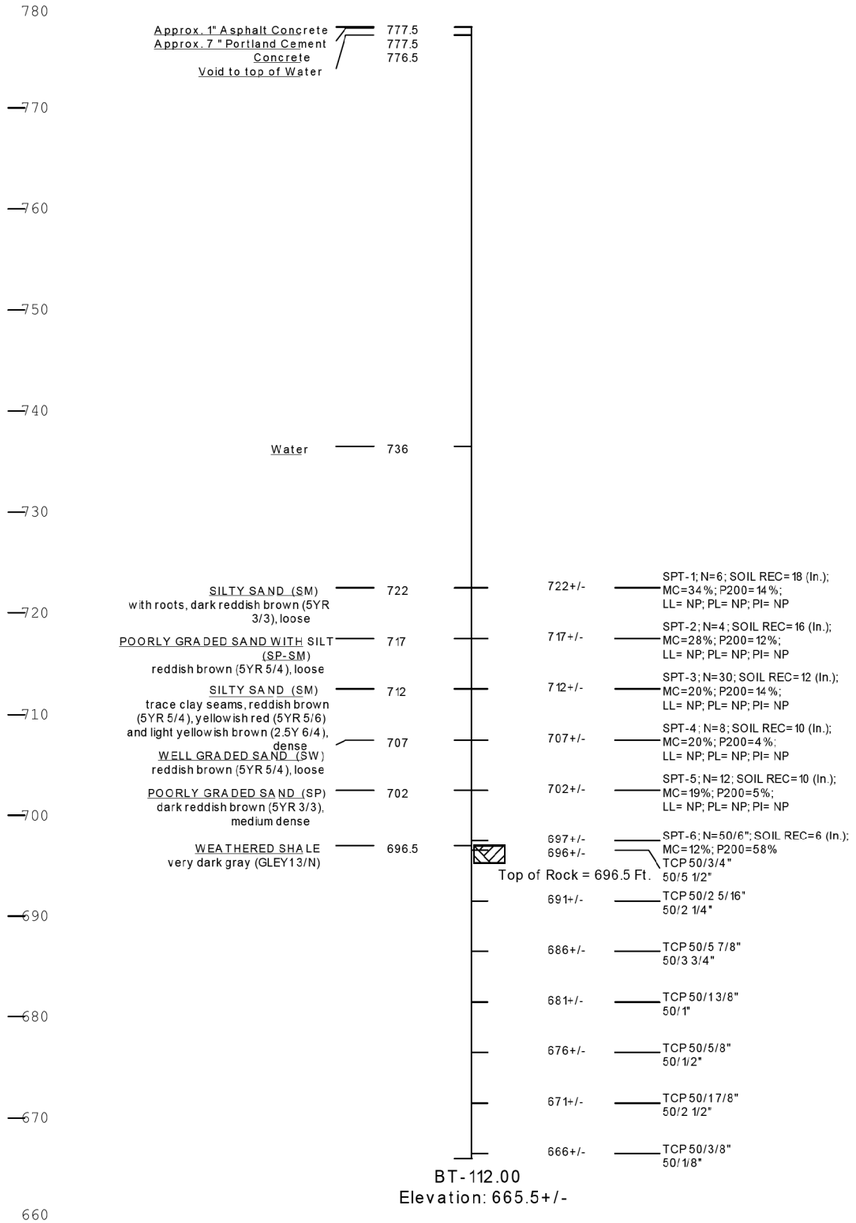
Design	XX	X/XX
Detail	XX	X/XX
Check	XX	X/XX
Squad:	XXXXXXX	
Engr.:	XXXXXXXX	

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 29828(04) | B004

Boring No. B-3

STATION 507+96 6' RT
(1/14/2020)

Surface Elev. (Ft.): 777.5

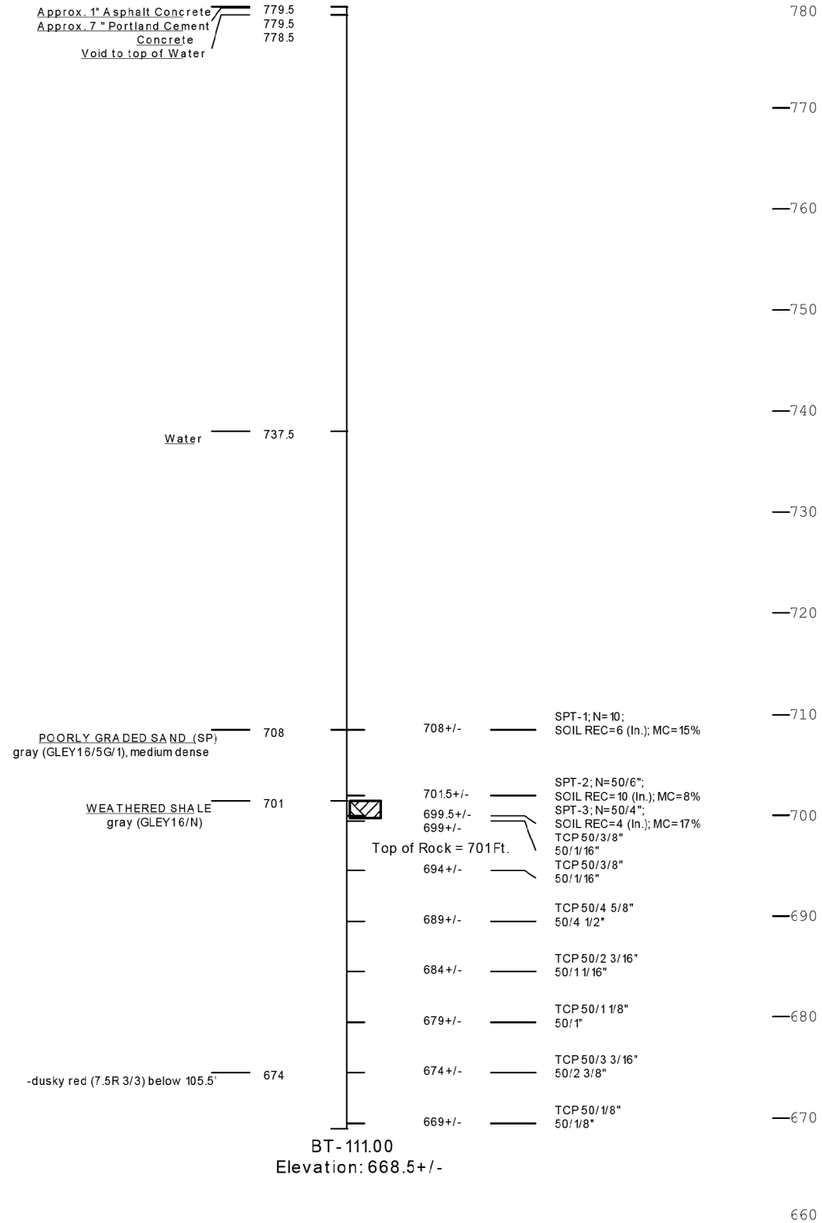


BT-112.00
Elevation: 665.5+/-

Boring No. B-4

STATION 509+16 7' RT
(1/30/2020)

Surface Elev. (Ft.): 779.5



BT-111.00
Elevation: 668.5+/-

REVISIONS		
REV. NO.	DESCRIPTION	DATE

LEGEND

DCD = DIAMOND CORE DRILLING, ASTM D2113-83
SPT = STANDARD PENETRATION TEST, ASTM D1586
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
WCI = WET CAVE IN
= WATER LEVEL WHILE DRILLING OR SAMPLING
= WATER LEVEL AFTER DRILLING
= WATER LEVEL 24 HOURS AFTER DRILLING
= TOP OF ROCK

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

NOTE: "SS" DENOTES STANDARD PENETRATION TEST, AASHTO D1586-84. "TCP" DENOTES TEXAS CONE PENETRATION TEST.

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

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SITE GEOLOGY

Based on information published in the Oklahoma Department of Transportation manual, "Engineering Classification of Geologic Materials: Division Eight", the geology of the project site consists of Terrace Deposits (Qts) underlain by the Vamoosa unit (Prs) of the Early Permian Age.

Terrace Deposits (Qts): These materials consist of sand, silt, clay, gravel, and/or mixtures of these. Terrace materials occur adjacent to or near streams at higher elevations then the flood plain (bottom land).

Vamoosa Unit (Pvm): this unit consist of predominantly of shale, which contains lenses of massive sandstone and a few limestones. The shale is gray, grayish green, blue-gray, or maroon, and silty to clayey. The Vamoosa is in zones ranging up to 100 feet in thickness. The sandstones are mostly soft to moderately hard, brown to tan, generally 10 feet to 25 feet or more thick, and locally up to 100 feet thick. Approximately 100 feet above the base of the unit, a 10 foot bed of hard sandstone is present.

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 AT (405) 521-2625. 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.

Terracon

CREEK COUNTY

SUBSURFACE PROFILE
(SHEET 2 of 4)

Design	XX	X/XX
Detail	XX	X/XX
Check	XX	X/XX
Squad:	XXXXXXX	
Engr.:	XXXXXXXX	

STATE OF OKLAHOMA

DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 29829(04)

B005

Boring No. B-5

STATION 510+38 7' RT
(1/31/2020)

Surface Elev. (Ft.): 782.5

Approx. 1" Asphalt Concrete	782.5		
Approx. 7 " Portland Cement Concrete	782.5 781.5		
Void to top of Water			
Water	740.5		
SILTY CLAYEY SAND WITH GRAVEL (SC-SM) dark gray (GLEY1 4/N), loose	717.5	717.5+/-	SPT-1; N=7; SOIL REC=16 (In.); MC=29%; P200=21%; LL= 20; PL= 14; PI= 6
		712.5+/-	SPT-2; N=8; SOIL REC=5 (In.); MC=25%; P200=21%
WELL GRADED GRAVEL (GW) with rock fragments, very dark gray (GLEY1 3/N), loose	707.5	707.5+/-	SPT-3; N=9; SOIL REC=0 (In.)
SILTY SAND (SM) brown (7.5YR 4/4), very dense	702.5 701.5	702.5+/-	SPT-4; N=50/1"; SOIL REC=11 (In.); MC=21%; P200=36%; LL= NP; PL= NP; PI= NP
WEATHERED SANDSTONE gray (GLEY1 5/N)		700.5+/-	TCP 50/5/16" 50/1/16"
Top of Rock = 701.5 Ft.		695.5+/-	TCP 50/1 1/8" 50/1/2"
WEATHERED SHALE gray (GLEY1 5/N)	690.5	690.5+/-	TCP 50/3/4" 50/1/8"
		685.5+/-	TCP 50/1/4" 50/1/8"
		680.5+/-	TCP 50/1 1/8" 50/7/16"
		675.5+/-	TCP 50/1" 50/9/16"
-dusky red (7.5R 3/4) below 112'	670.5	670.5+/-	TCP 50/5 1/2" 50/4 13/16"

BT-113.00
Elevation: 669.5+/-

Boring No. B-6

STATION 511+56 6' RT
(2/3/2020)

Surface Elev. (Ft.): 784.5

Approx. 1" Asphalt Concrete	784.5			
Approx. 7 " Portland Cement Concrete	784.5 783.5			
Void to top of Ground				
SILTY SAND (SM) yellowish red (5YR 5/6), very soft	752			
POORLY GRADED SAND (SP) yellowish red (5YR 5/6) and reddish yellow (5YR 6/6), loose	746	746+/-	SPT-1; N=8;SOIL REC=9 (In.); MC=18%	
-yellowish red (5YR 4/6) below 43.5'	741	741+/-	SPT-2; N=4 ; SOIL REC=14 (In.); MC=34%	
-trace clay below 48.5'				
CLAYEY SAND (SC) dark gray (5YR 4/1), very loose	736 735.5	736+/-	SPT-3; N=2; SOIL REC=15 (In.); MC=35%	
LEAN CLAY (CL) trace wood, dark reddish gray (5YR 4/2), medium stiff	731 729.5	731+/-	SPT-4 ; N=7; SOIL REC=5 (In.); MC=21%	
WELL GRADED GRAVEL (GW) dark reddish gray (5YR 4/2), loose	726	726+/-	SPT-5; N=3; SOIL REC=16 (In.); MC=19%	
POORLY GRADED SAND (SP) trace gravel, dark gray (7.5YR 4/1), very loose	721	721+/-	SPT-6; N=4 ; SOIL REC=18 (In.); MC=19%	
SILTY SAND (SM) brown (7.5YR 4/3), loose	719.5			
LEAN CLAY WITH SILT (CL) dark brown (7.5YR 3/2), soft	716	716+/-	SPT-7; N=4 ; SOIL REC=12 (In.); MC=19%	
POORLY GRADED SAND (SP) trace clay, dark brown (7.5YR 3/2)	714.5			
-dark gray (7.5YR 4/1) below 70'	711	711+/-	SPT-8; N=4 ; SOIL REC=11 (In.); MC=19%	
LEAN CLAY WITH SAND (CL) dark brown (7.5YR 3/2) and dark gray (7.5YR 4/1), medium stiff	709.5			
POORLY GRADED SAND (SP) trace sandstone seams, yellowish brown (10YR 5/6)	706	706+/-	SPT-9; N=50/1"; SOIL REC=1 (In.); MC=13%	
WEATHERED SHALE dark gray (GLEY1 4/N)		705.5+/-	TCP 50/7/16" 50/3/8"	
Top of Rock = 706 Ft.			TCP 50/3/8"	
		700.5+/-	50/1/8"	
		695.5+/-	TCP 50/5/16" 50/1/8"	
		690.5+/-	TCP 50/5/8" 50/5/16"	
		685.5+/-	TCP 50/1/4" 50/3/8"	
		680.5+/-	TCP 50/2 1/4" 50/1 1/2"	
		675.5+/-	TCP 50/7/8" 50/1/2"	

BT-110.00
Elevation: 674.5+/-

REVISIONS		
REV. NO.	DESCRIPTION	DATE

LEGEND

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Terracon

CREEK COUNTY

SUBSURFACE PROFILE
(SHEET 3 of 4)

Design	XX	X/XX
Detail	XX	X/XX
Check	XX	X/XX
Squad:	XXXXXXX	
Engr.:	XXXXXXXX	

STATE OF OKLAHOMA

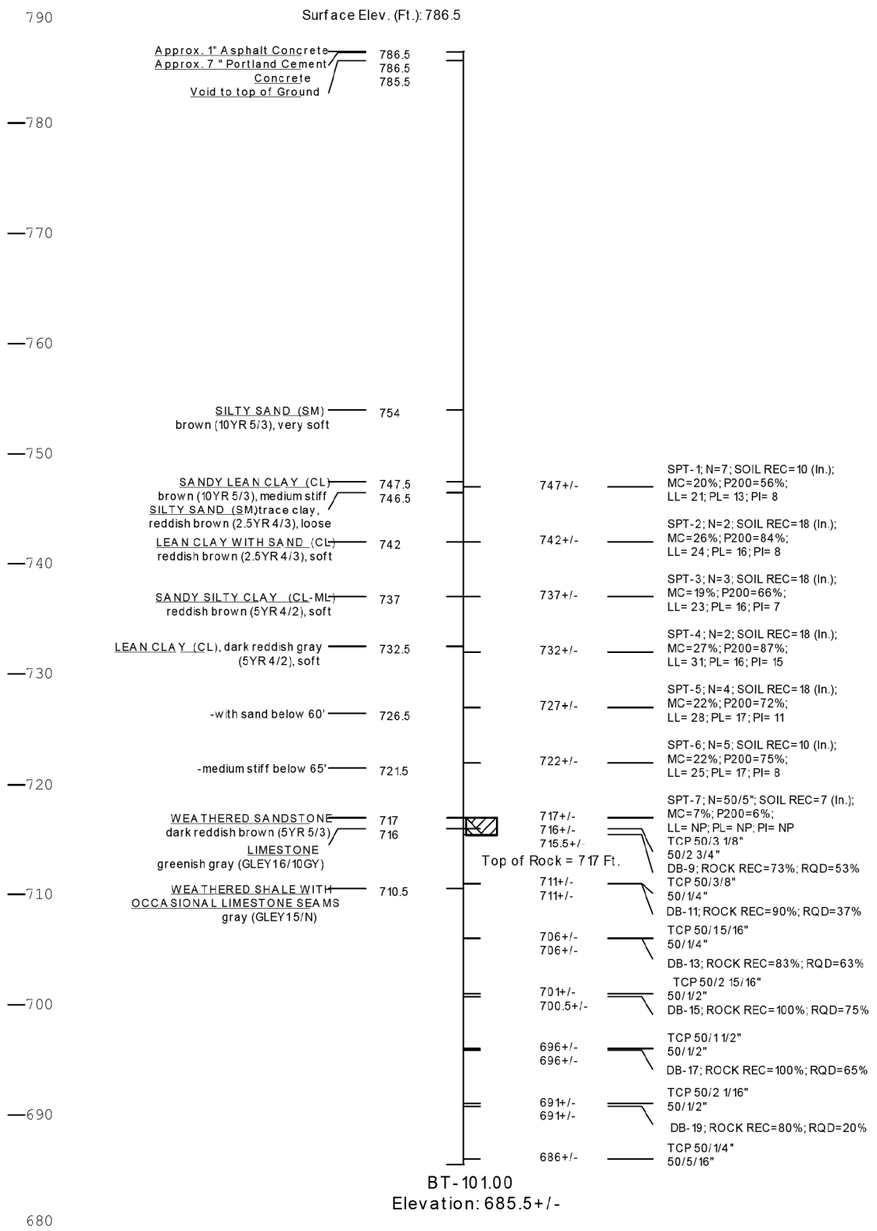
DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 29829(04)

B006

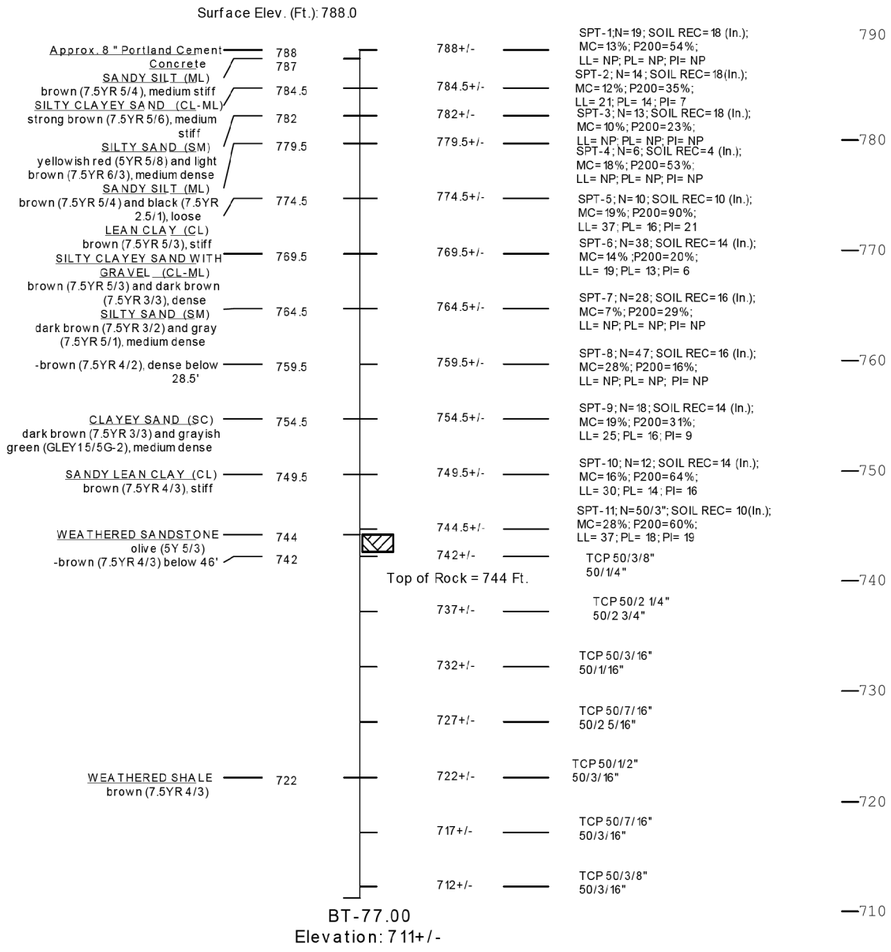
Boring No. B-7

STATION 512+45 7' RT
(2/21/2020)



Boring No. B-8

STATION 513+37 6' RT
(12/17/2019)



REVISIONS		
REV. NO.	DESCRIPTION	DATE

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Terracon

CREEK COUNTY

SUBSURFACE PROFILE
(SHEET 4 of 4)

Design	XX	X/XX
Detail	XX	X/XX
Check	XX	X/XX
Squad:	XXXXXXX	
Engr.:	XXXXXXXX	

STATE OF OKLAHOMA

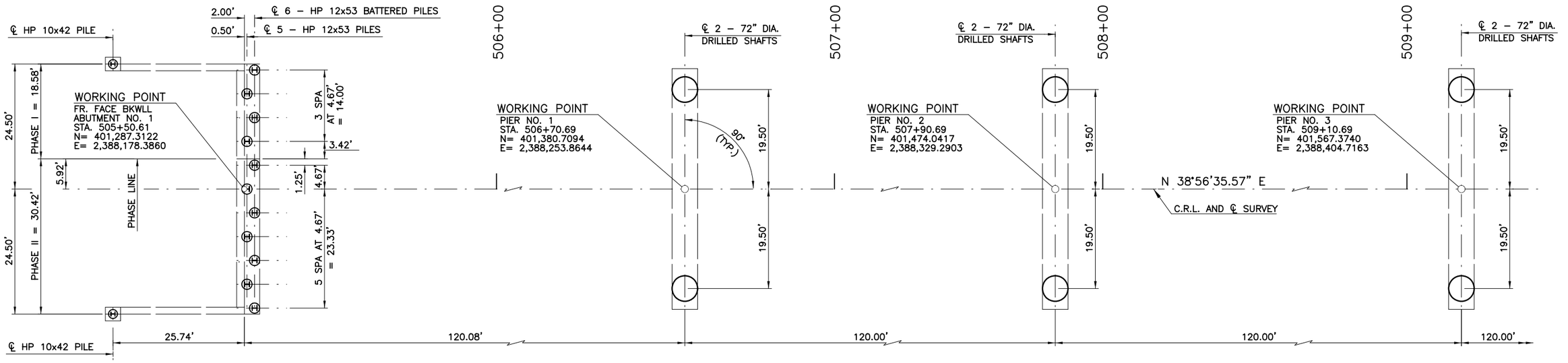
DEPARTMENT OF TRANSPORTATION

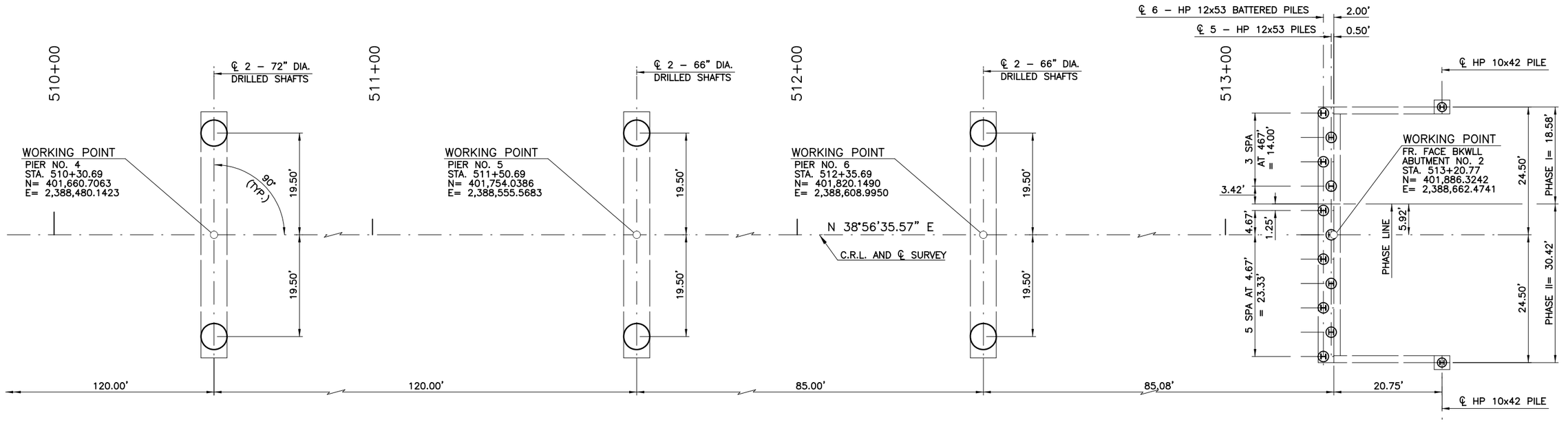
JOB PIECE NO. 29829(04)

B007

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B008	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021





SUBSTRUCTURE STAKING DIAGRAM

ABUTMENT NO. 1 AND NO. 2 (HP 12x53 PILING)

FACTORED PILE REACTION (TONS/PILE)

ABUT. NO. 1 = 100.0
ABUT. NO. 2 = 83.0

PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN IN THE PLANS. IF THE MAXIMUM FACTORED PILE LOAD IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE MAXIMUM FACTORED PILE LOAD IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN IN THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

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

DESIGN:	IKC	2021
DRAWN:	LRJ	2021
CHECKED:	LRJ	2021
APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

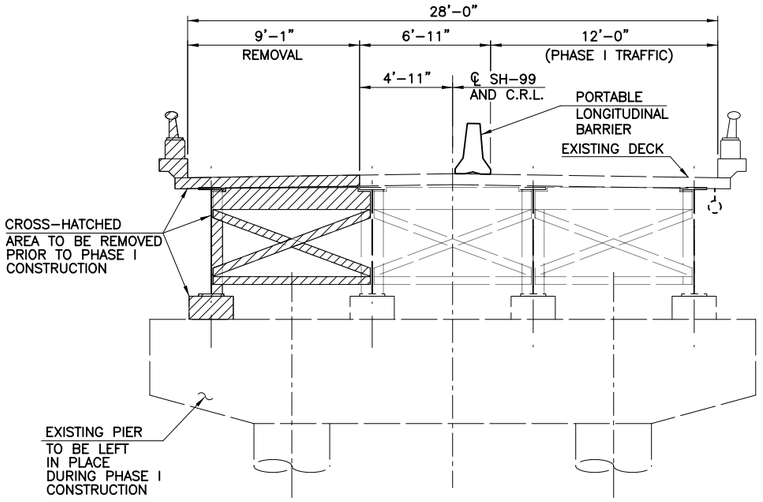
STAKING DIAGRAM

SHEET 1 OF 1

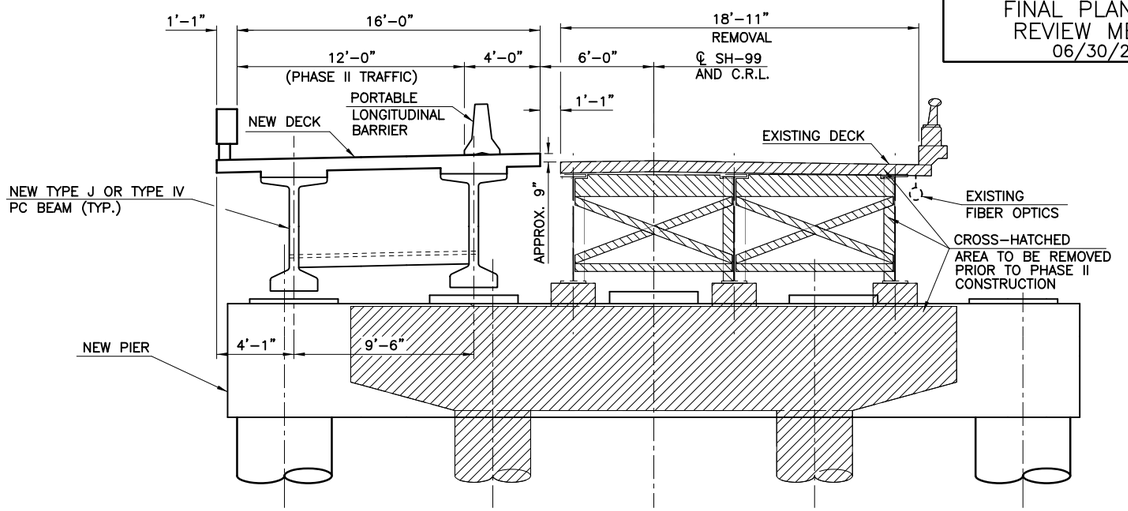
STATE JOB PIECE NO: 29829(04) — SHEET NO.B008

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B009	78

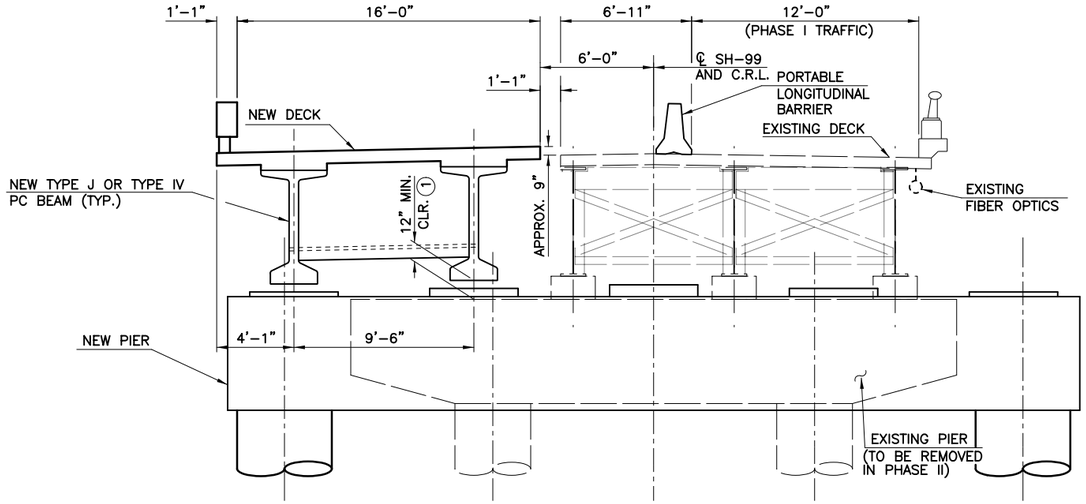
FINAL PLAN FIELD REVIEW MEETING
06/30/2021



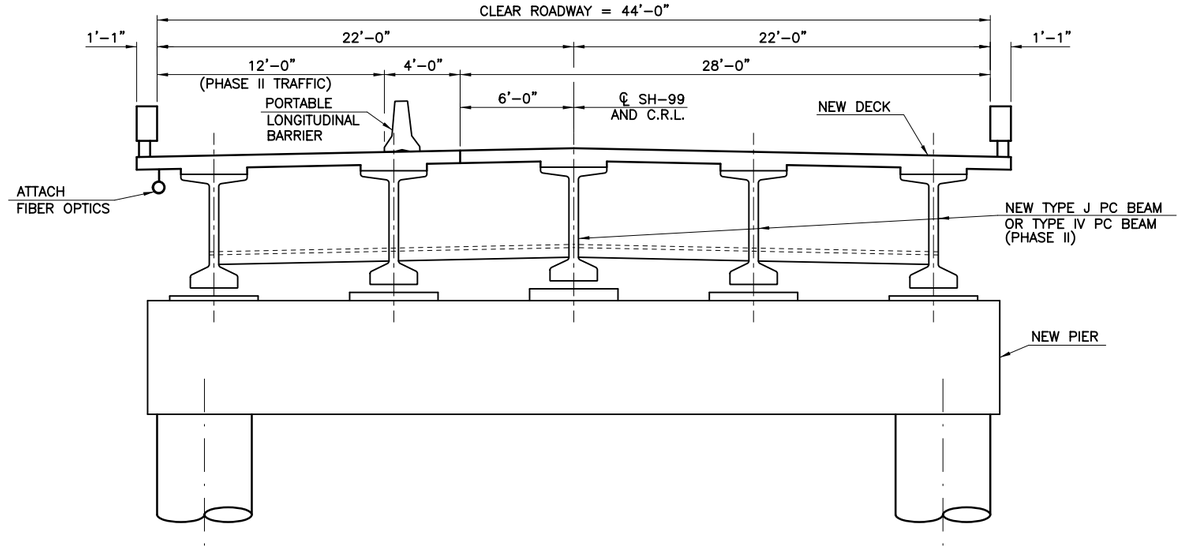
PHASE I REMOVAL



PHASE II REMOVAL



PHASE I CONSTRUCTION



PHASE II CONSTRUCTION

① BOTTOM OF BEAM TO TOP OF EXISTING PIER CAP.

BRIDGE SEQUENCE OF CONSTRUCTION NOTES:

PHASE I

1. REMOVE PHASE I PORTIONS OF EXISTING DECK, CURBS, TRAFFIC RAILS, BEAMS, DIAPHRAGMS, ABUTMENT BACKWALL, WING, AND PIER PEDESTAL. EXISTING PIER CAPS, COLUMNS, AND FOOTINGS SHALL BE LEFT IN PLACE DURING PHASE I CONSTRUCTION.
2. CONSTRUCT PHASE I ACCORDING TO THE CONSTRUCTION DOCUMENTS.

PHASE II

1. PROTECT BEAMS PLACED IN PHASE I. SEE "FRAMING PLAN" FOR LOCATION AND DETAILS.
2. REMOVE REMAINING PORTIONS OF EXISTING DECK, CURBS, TRAFFIC RAILS, BEAMS, DIAPHRAGMS, ABUTMENTS, PIERS. ABUTMENT AND PIERS SHALL BE REMOVED 1 FOOT BELOW EXISTING GROUND LINE.
3. CONSTRUCT PHASE II ACCORDING TO THE CONSTRUCTION DOCUMENTS.

FOLLOW PHASE TRAFFIC AS PER TRAFFIC CONTROL SHEETS.

DESIGN:	IKC	2021
DRAWN:	LRJ	2021
CHECKED:	LRJ	2021
APPRVD:	CPY	2021

CP&Y

SH–99 OVER CIMARRON RIVER — CREEK COUNTY

CONSTRUCTION SEQUENCE

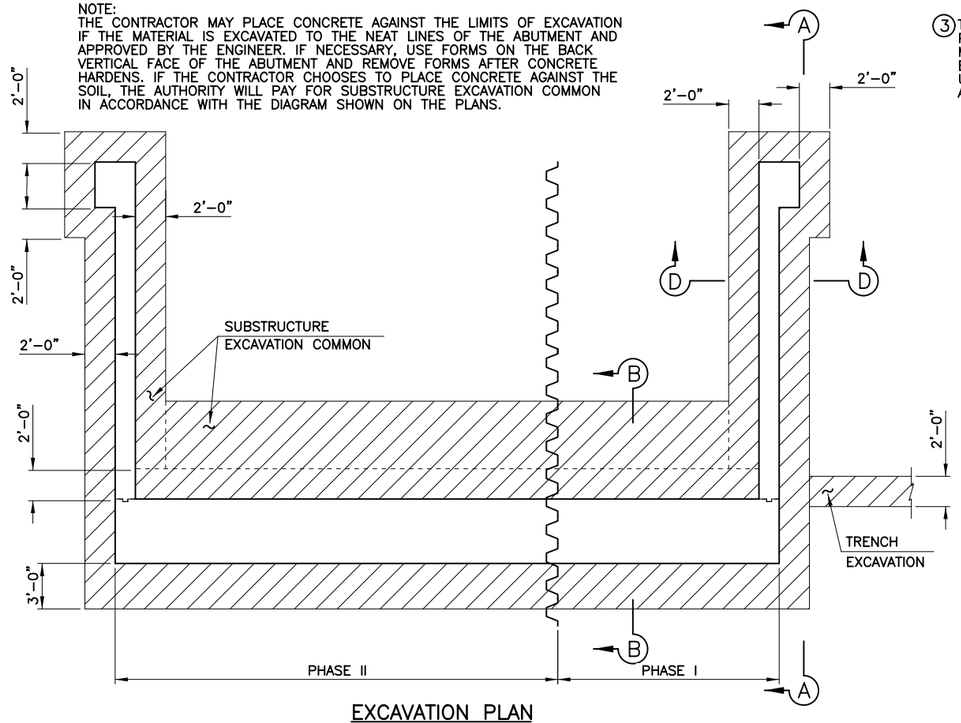
SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO. B009

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B010	78

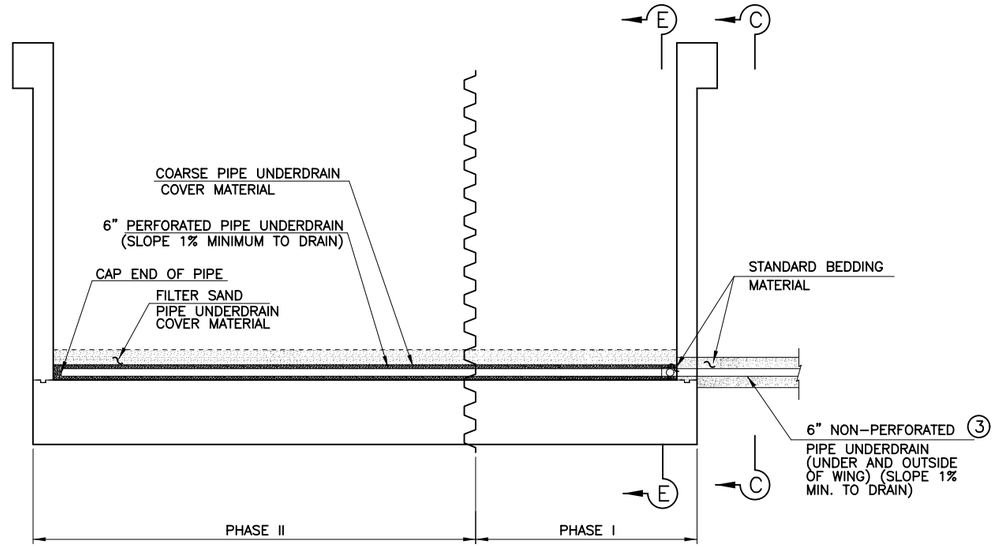
FINAL PLAN FIELD REVIEW MEETING
06/30/2021

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, THE AUTHORITY WILL PAY FOR SUBSTRUCTURE EXCAVATION COMMON IN ACCORDANCE WITH THE DIAGRAM SHOWN ON THE PLANS.

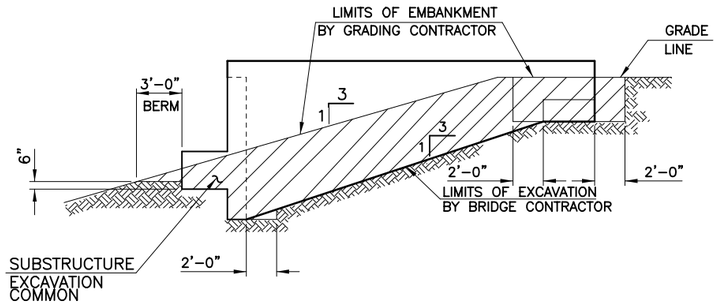


EXCAVATION PLAN
ABUTMENT NO. 1 SHOWN; ABUTMENT NO. 2 OPPOSITE HAND

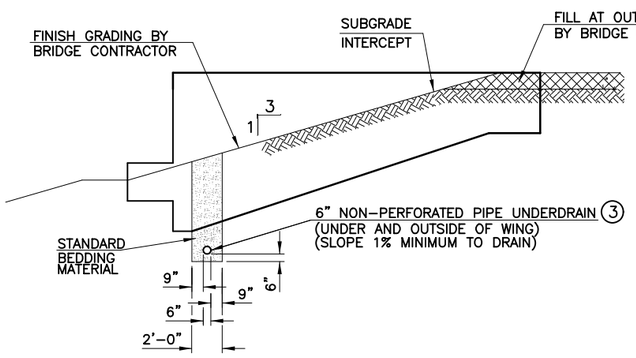
③ THE ENGINEER MAY ADJUST THE EXTENT, LOCATION AND DEPTH OF 6" NON-PERFORATED PIPE UNDERDRAIN DURING CONSTRUCTION. INCLUDE THE COST OF PIPE UNDERDRAIN COVER MATERIAL (BOTH FINE SAND AND COARSE), FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, AND EQUIPMENT AND LABOR FOR THEIR INSTALLATION IN THE CONTRACT UNIT PRICE OF 6" NON-PERF. PIPE UNDERDRAIN RND. INSTALL AS SHOWN ON THE PLANS AND ON STD. PUD-4.



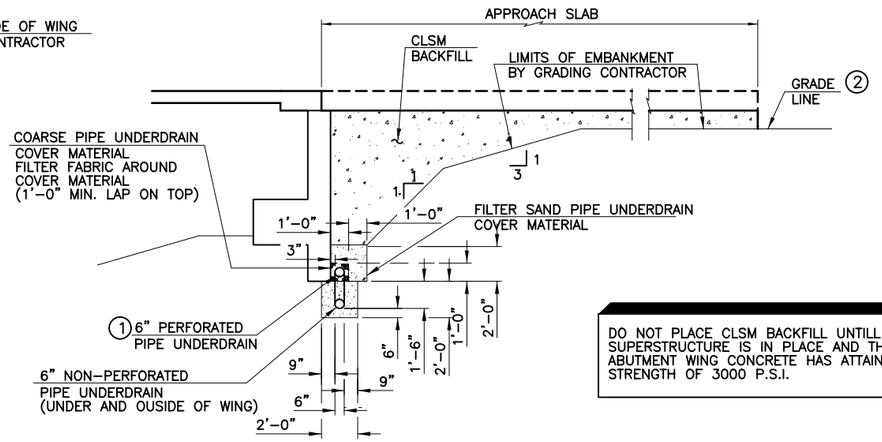
PIPE UNDERDRAIN PLAN
ABUTMENT NO. 1 SHOWN; ABUTMENT NO. 2 OPPOSITE HAND



SECTION A-A

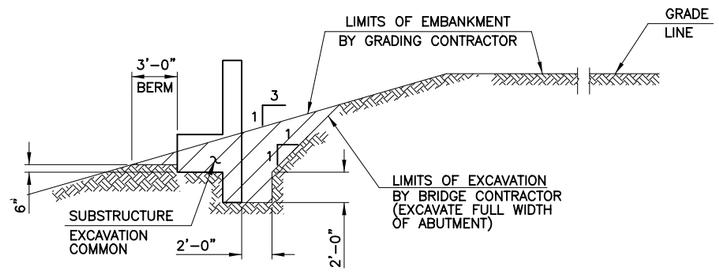


SECTION C-C

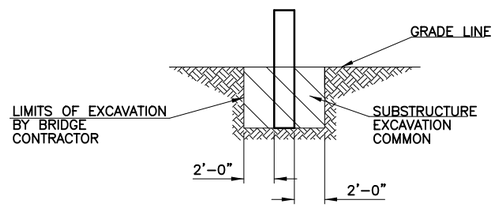


SECTION E-E

DO NOT PLACE CLSM BACKFILL UNTILL SUPERSTRUCTURE IS IN PLACE AND THE ABUTMENT WING CONCRETE HAS ATTAINED A STRENGTH OF 3000 P.S.I.



SECTION B-B



SECTION D-D

① SET BOTTOM OF PIPE 3" ABOVE THE BOTTOM OF THE ABUTMENT AT THE LOW END.

② GRADE LINE ASSUMED TO BE LOCATED 12" BELOW BOTTOM OF APPROACH SLAB FOR COMPUTING CLSM BACKFILL QUANTITY SHOWN ON PLANS. THE DEPARTMENT WILL PAY FOR CLSM BACKFILL IN ACCORDANCE WITH THE PLAN QUANTITY AND NO ADJUSTMENT WILL BE MADE FOR ACTUAL LOCATION OF GRADE LINE.

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

DESIGN:	IKC	2021
DRAWN:	LRJ	2021
CHECKED:	LRJ	2021
APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

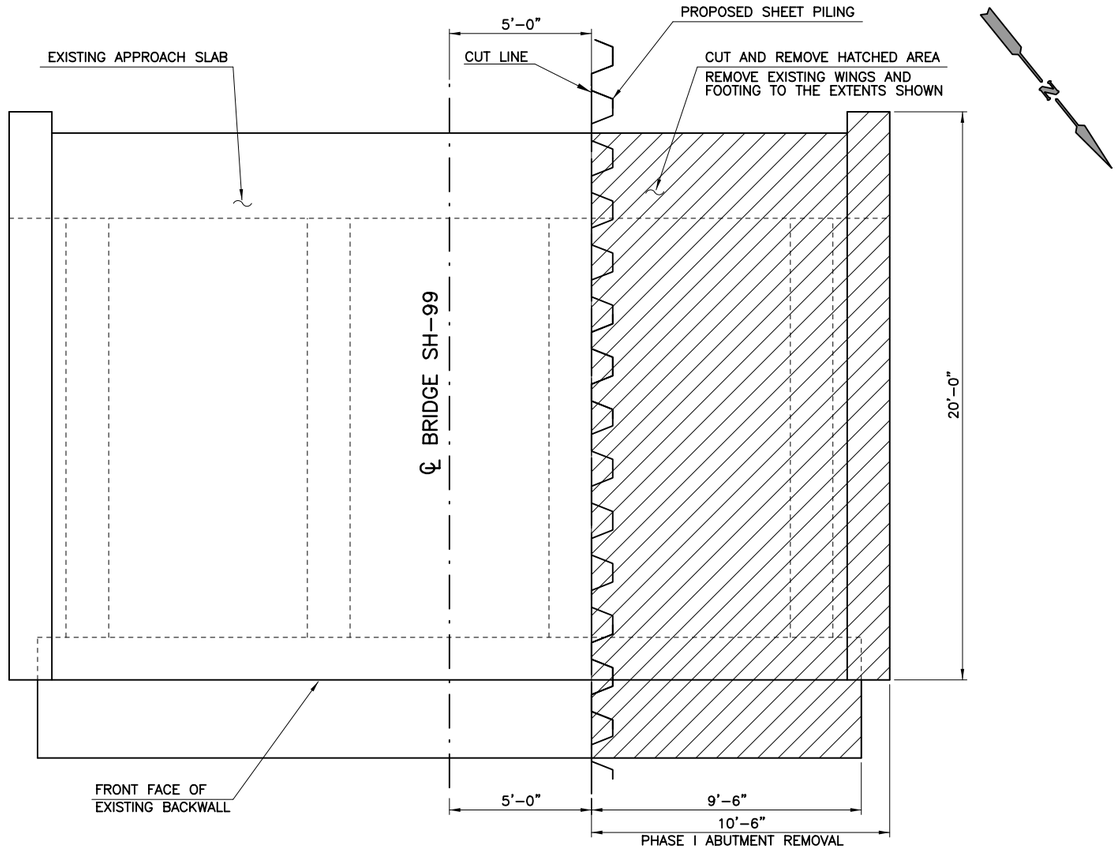
SUBSTRUCTURE EXCAVATION DIAGRAM

SHEET 1 OF 1

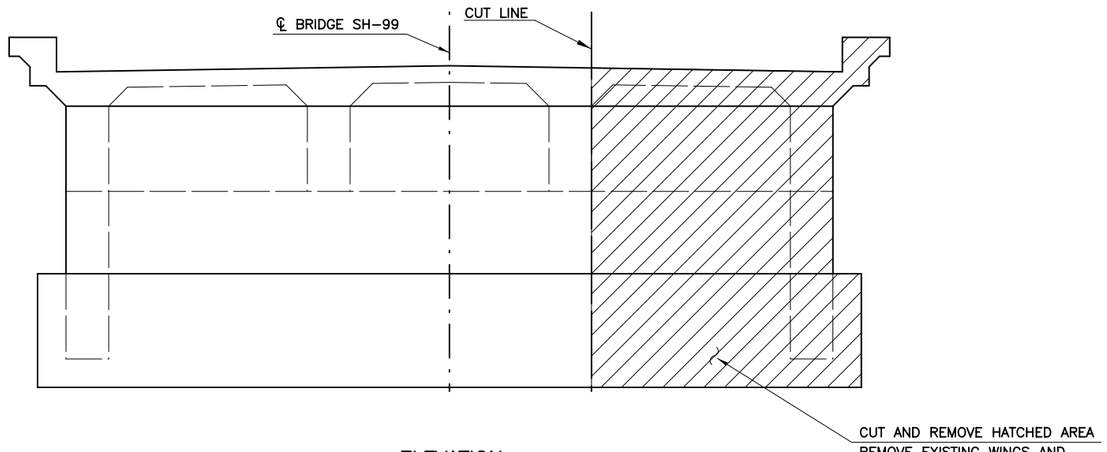
STATE JOB PIECE NO: 29829(04) — SHEET NO.B010

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B011	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



PLAN
(PHASE I)
(ABUTMENT NO. 1 SHOWN, ABUTMENT NO. 2 SIMILAR)



ELEVATION
(PHASE I)
(ABUTMENT NO. 1 SHOWN, ABUTMENT NO. 2 SIMILAR)

ABUTMENT REMOVAL NOTES:

(PHASE I)

1) REMOVE PORTIONS OF THE APPROACH SLAB AND DRIVE SHEET PILING BEHIND THE CUTLINE TO THE BACKFACE OF THE BACKWALL.
2) SAWCUT AND REMOVE PORTIONS OF THE SEAT, BACKWALL AND REMAINING PORTIONS OF THE APPROACH SLAB.
3) CONSTRUCT PHASE I AS PER CONSTRUCTION DOCUMENTS.

(PHASE II)

1) REMOVE ALL REMAINING PORTIONS OF THE APPOACH SLAB, SEAT, BACKWALL AND WING.
2) GRADE THE SOIL AND REMOVE THE SHEET PILING.
3) CONSTRUCT PHASE II AS PER THE CONSTRUCTION DOCUMENTS.

THE PROPOSED STRUCTURE SHALL BE PROTECTED DURING REMOVAL PHASE AND ANY DAMAGE TO THE PROPOSED STRUCTURE SHALL BE FIXED TO THE SATISFACTION OF BRIDGE ENGINEER.

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DESIGN:	JKJ	2021
DRAWN:	LRJ	2021
CHECKED:	JKJ	2021
APPRVD:	CPY	2021

CP&Y

SH–99 OVER CIMARRON RIVER — CREEK COUNTY

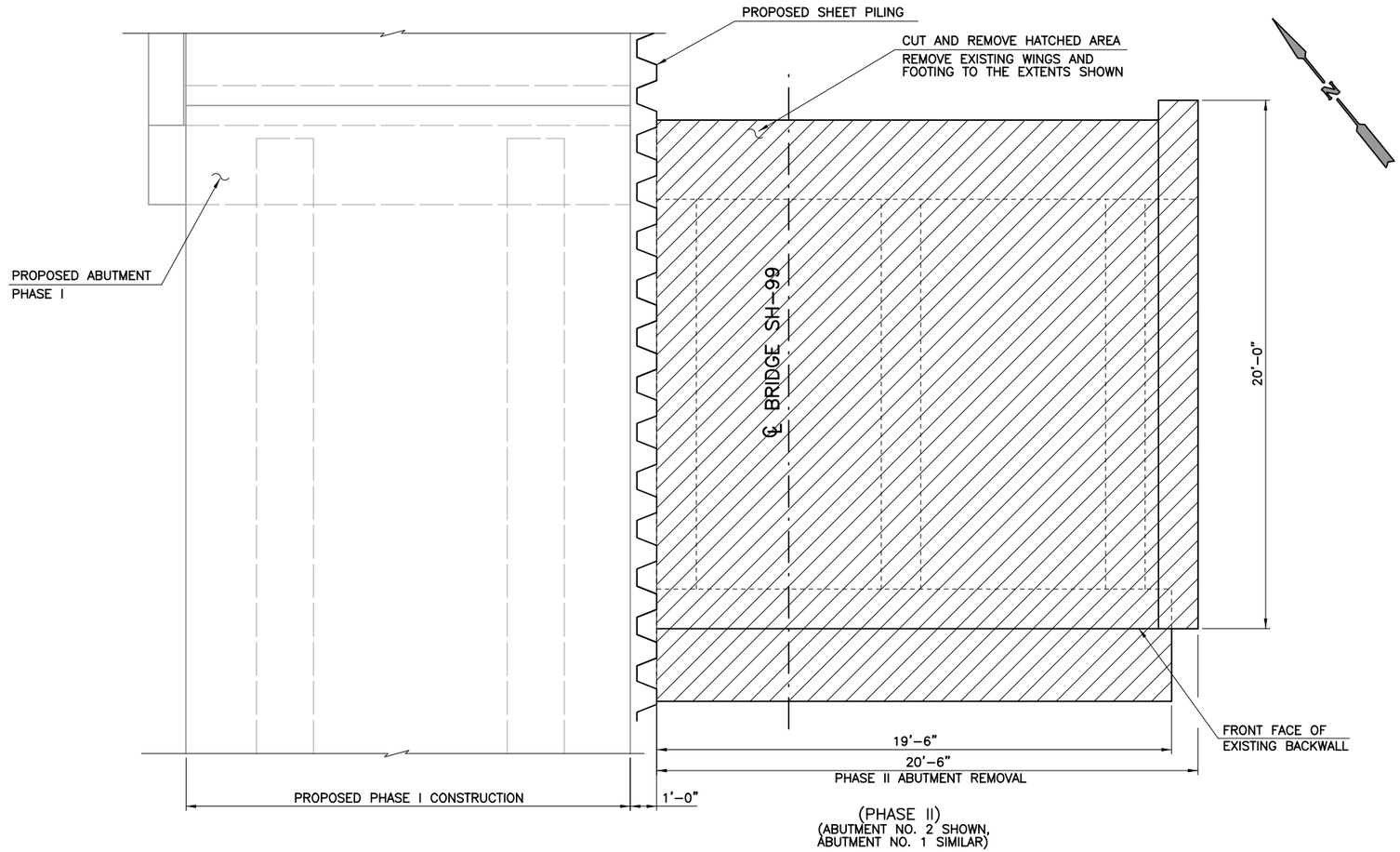
ABUTMENT REMOVAL DETAILS

SHEET 1 OF 2

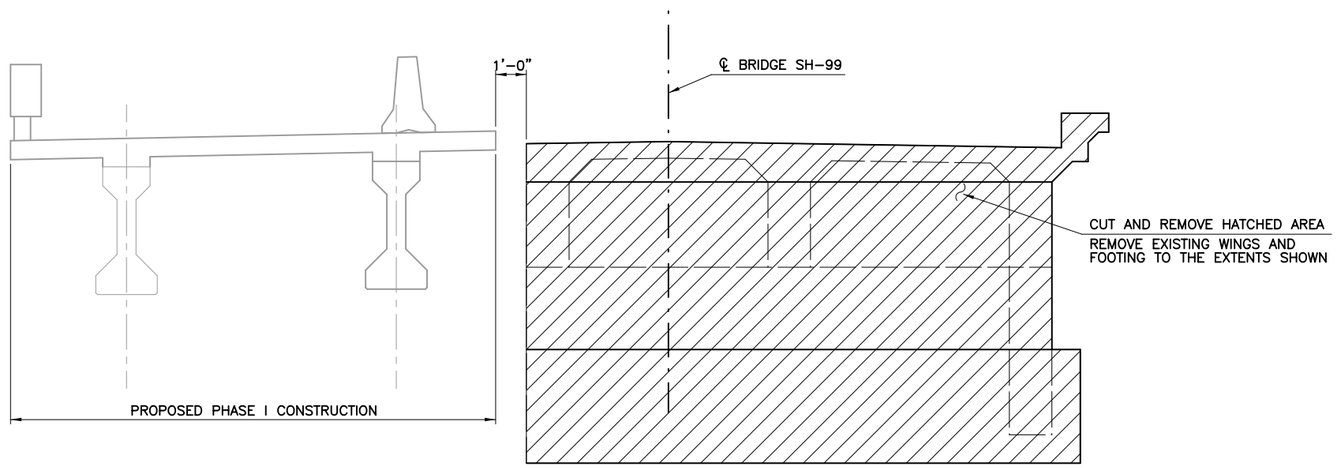
STATE JOB PIECE NO: 29829(04) — SHEET NO. B011

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B012	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



PLAN



ELEVATION

ABUTMENT REMOVAL NOTES:

(PHASE I)

1) REMOVE PORTIONS OF THE APPROACH SLAB AND DRIVE SHEET PILING BEHIND THE CUTLINE TO THE BACKFACE OF THE BACKWALL.
2) SAWCUT AND REMOVE PORTIONS OF THE SEAT, BACKWALL AND REMAINING PORTIONS OF THE APPROACH SLAB.
3) CONSTRUCT PHASE I AS PER CONSTRUCTION DOCUMENTS.

(PHASE II)

1) REMOVE ALL REMAINING PORTIONS OF THE APPOACH SLAB, SEAT, BACKWALL AND WING.
2) GRADE THE SOIL AND REMOVE THE SHEET PILING.
3) CONSTRUCT PHASE II AS PER THE CONSTRUCTION DOCUMENTS.

THE PROPOSED STRUCTURE SHALL BE PROTECTED DURING REMOVAL PHASE AND ANY DAMAGE TO THE PROPOSED STRUCTURE SHALL BE FIXED TO THE SATISFACTION OF BRIDGE ENGINEER.

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APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

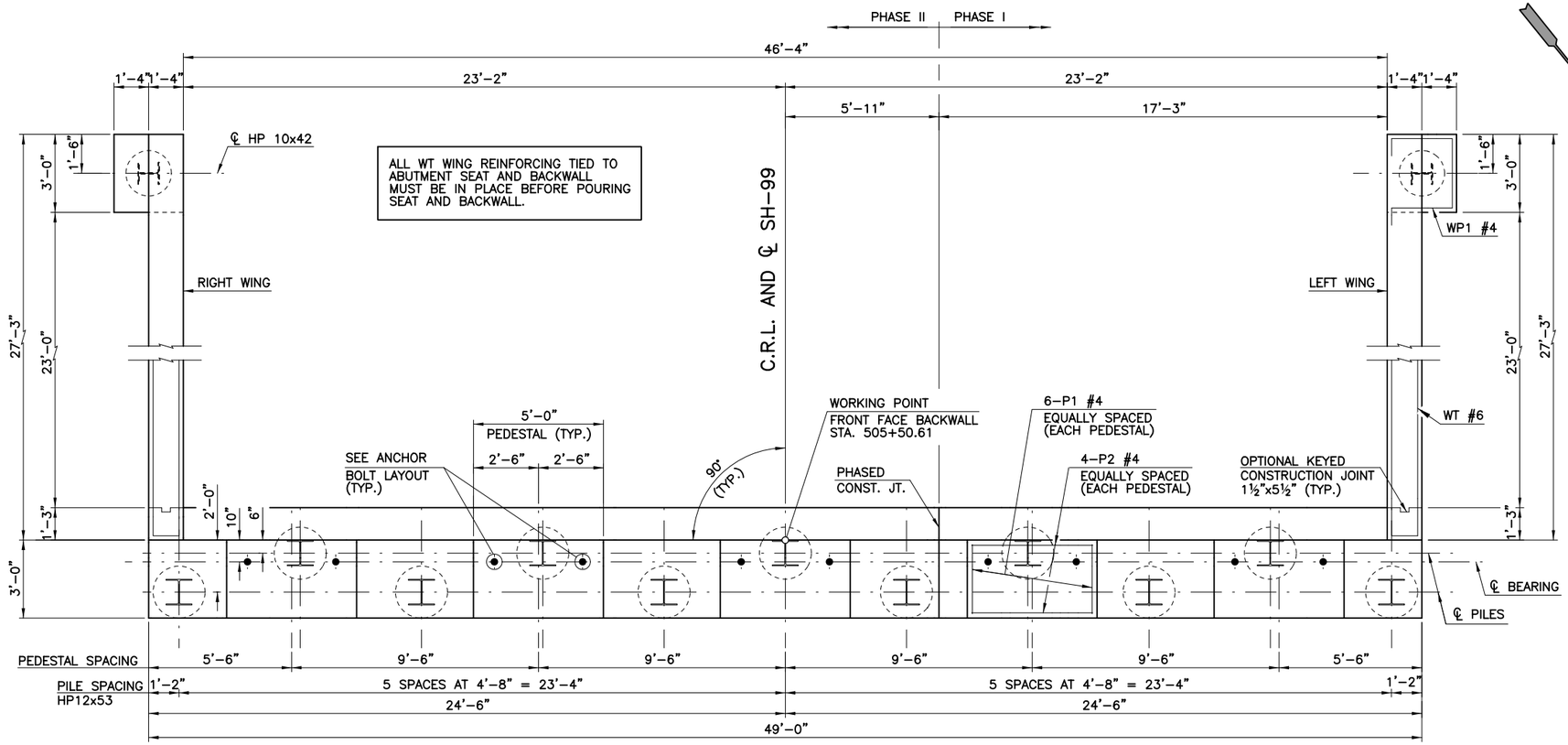
ABUTMENT REMOVAL DETAILS

SHEET 2 OF 2

STATE JOB PIECE NO: 29829(04) — SHEET NO.B012

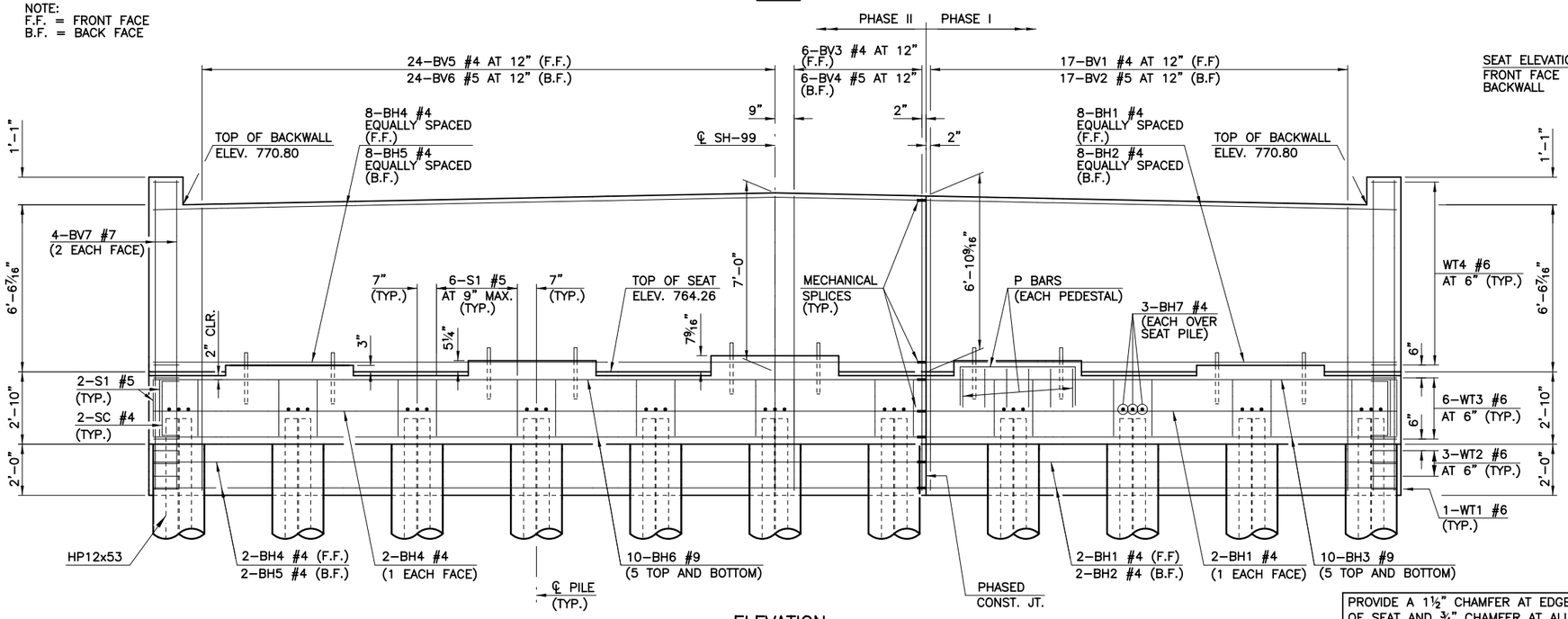
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B013	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



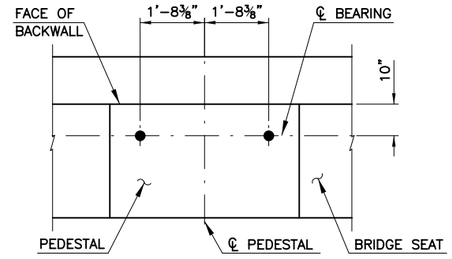
PLAN

NOTE:
F.F. = FRONT FACE
B.F. = BACK FACE

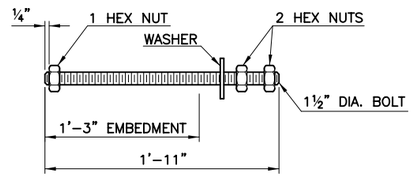


ELEVATION

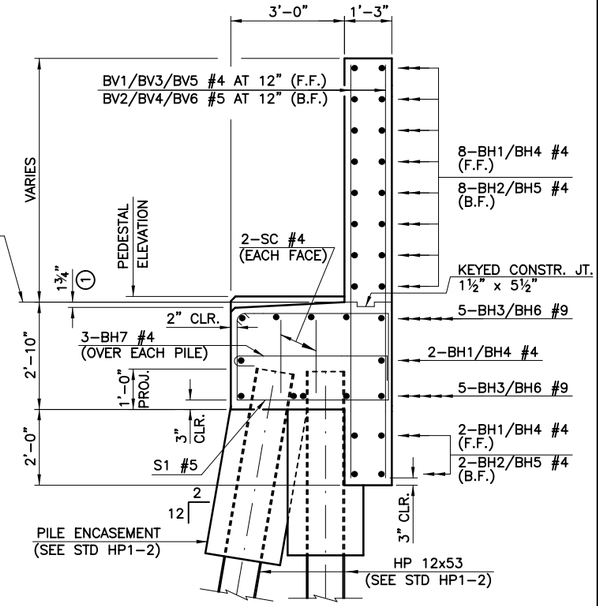
PROVIDE A 1½" CHAMFER AT EDGES OF SEAT AND ¾" CHAMFER AT ALL PEDESTAL EDGES.



ANCHOR BOLT LAYOUT



ANCHOR BOLT DETAIL



TYPICAL SECTION THROUGH SEAT

① SLOPE BRIDGE SEAT AWAY FROM BACKWALL BETWEEN PEDESTALS

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DRAWN:	CMB	2021
CHECKED:	IKC	2021
APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

ABUTMENT DETAILS
(ABUTMENT NO. 1 – TYPE J)

SHEET 1 OF 4

STATE JOB PIECE NO: 29829(04) — SHEET NO.B013

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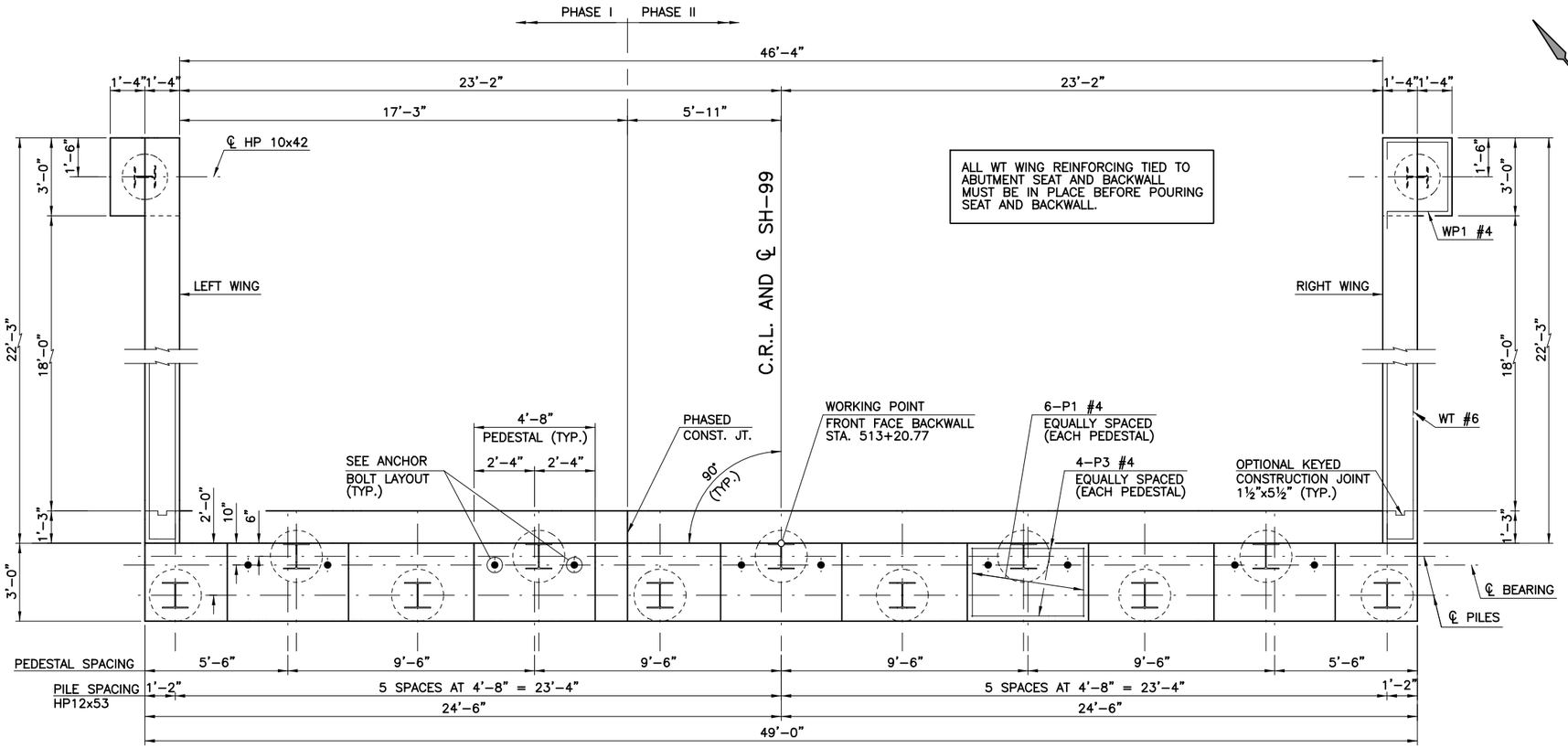
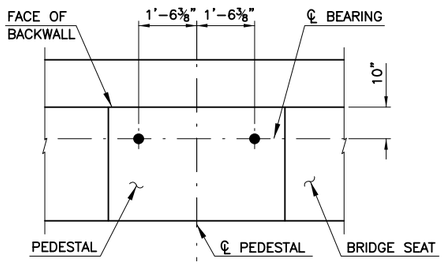
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B014	78

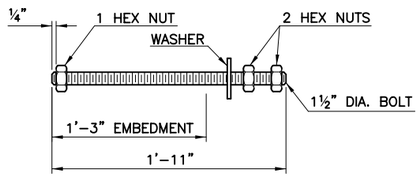
FINAL PLAN FIELD REVIEW MEETING
06/30/2021



PLAN

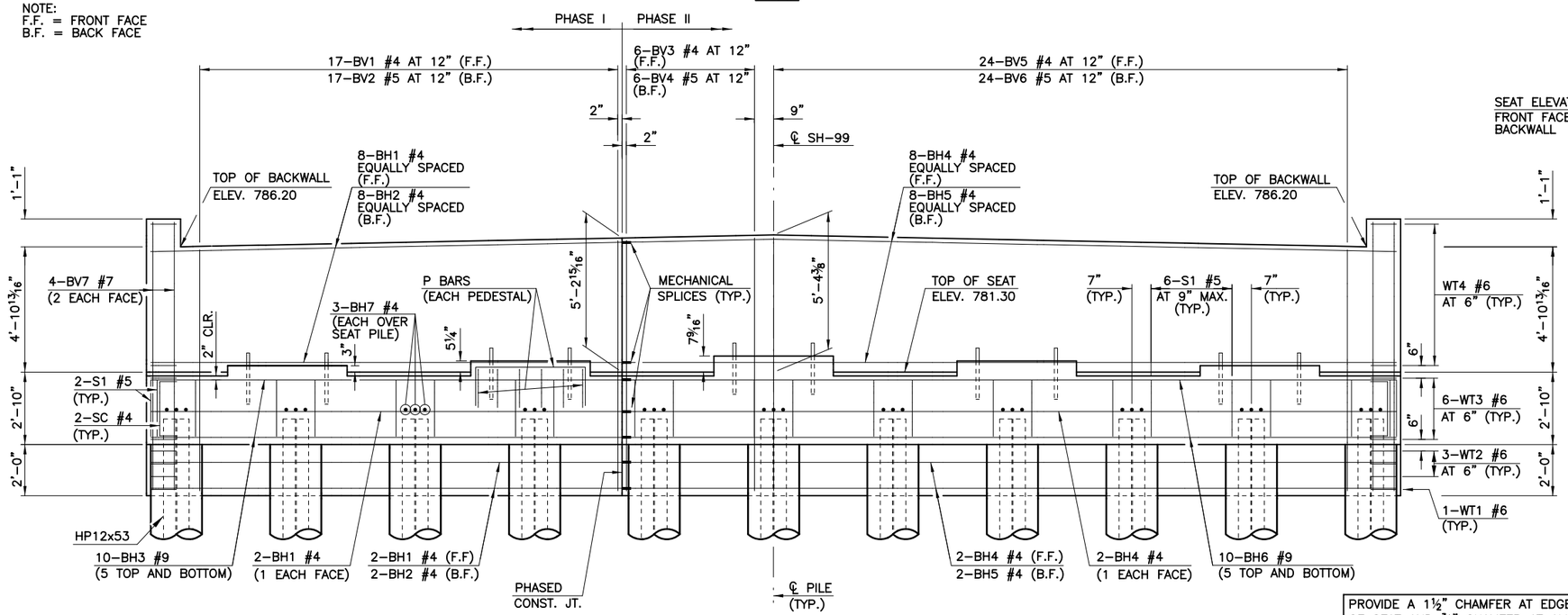


ANCHOR BOLT LAYOUT

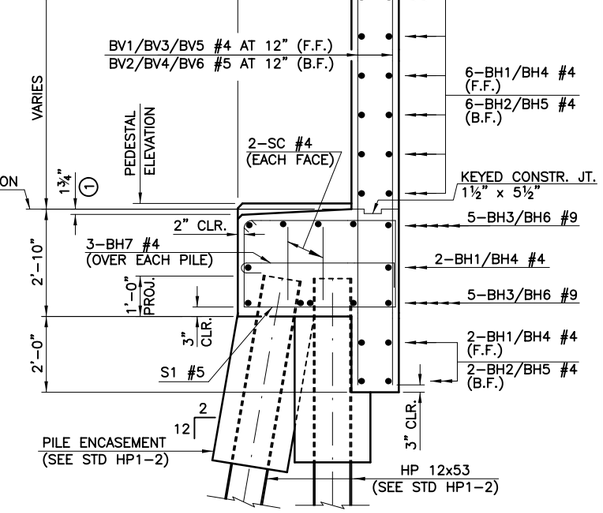


ANCHOR BOLT DETAIL

NOTE:
F.F. = FRONT FACE
B.F. = BACK FACE



ELEVATION



TYPICAL SECTION THROUGH SEAT

① SLOPE BRIDGE SEAT AWAY FROM BACKWALL BETWEEN PEDESTALS

PROVIDE A 1½" CHAMFER AT EDGES OF SEAT AND ¾" CHAMFER AT ALL PEDESTAL EDGES.

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APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

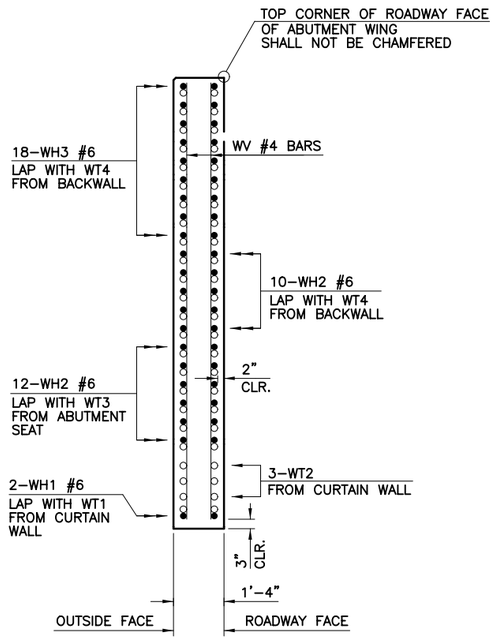
ABUTMENT DETAILS
(ABUTMENT NO. 2 – TYPE IV)

SHEET 2 OF 4

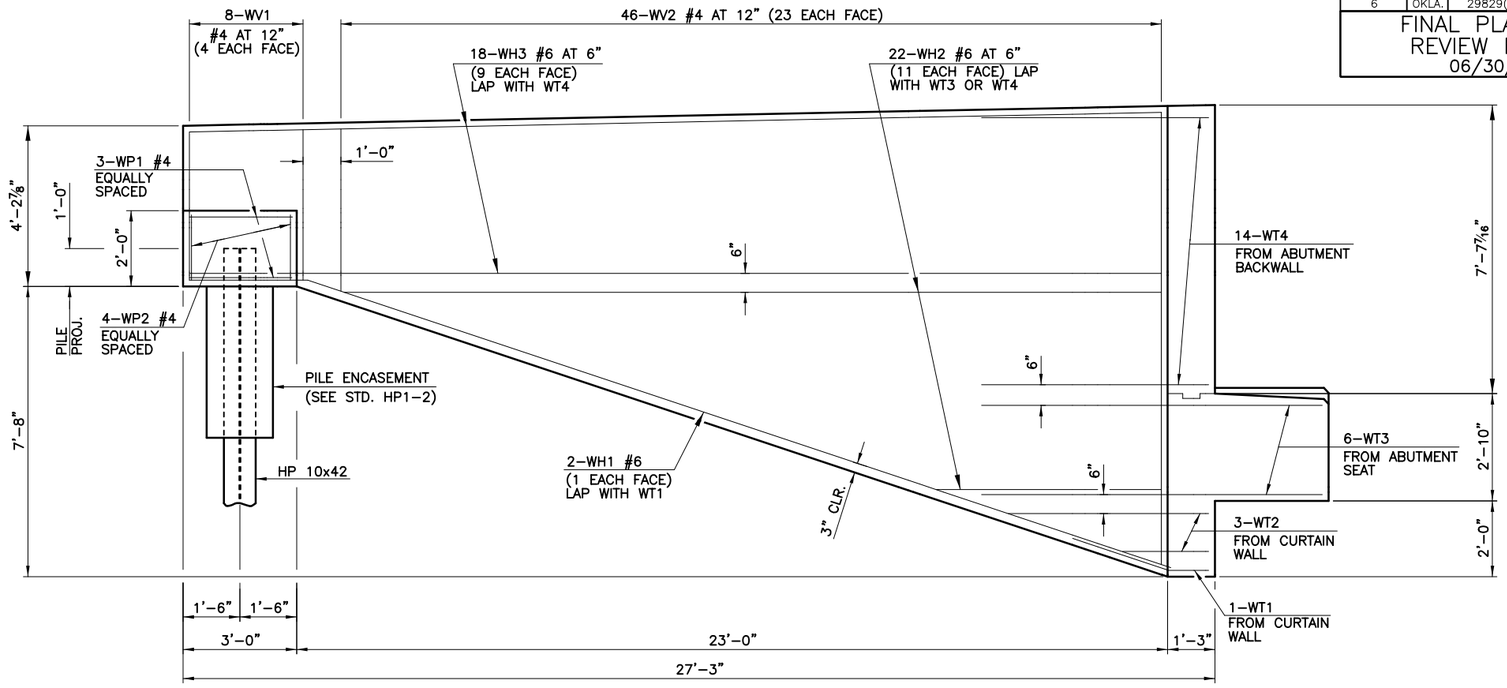
STATE JOB PIECE NO: 29829(04) — SHEET NO.B014

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B015	78

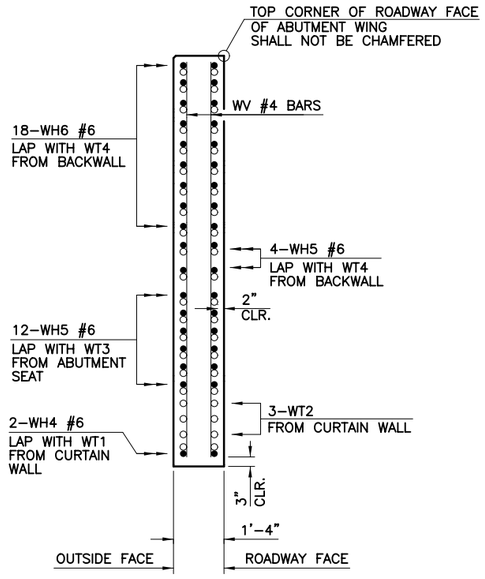
FINAL PLAN FIELD REVIEW MEETING
06/30/2021



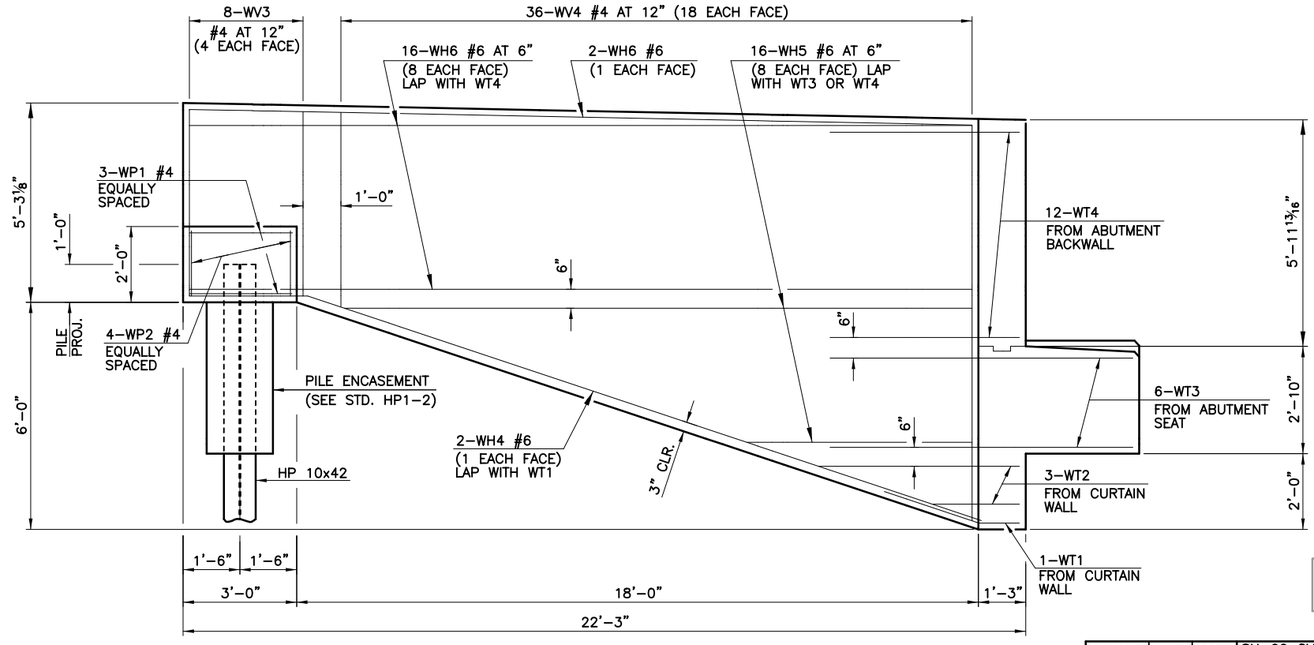
SECTION THROUGH WING AT BACK FACE OF ABUTMENT SEAT



WING ELEVATION
(ABUTMENT NO. 1)



SECTION THROUGH WING AT BACK FACE OF ABUTMENT SEAT



WING ELEVATION
(ABUTMENT NO. 2)

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

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APPRVD:	CPY	2021

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SH–99 OVER CIMARRON RIVER — CREEK COUNTY

ABUTMENT DETAILS

SHEET 3 OF 4

STATE JOB PIECE NO: 29829(04) — SHEET NO.B015

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B016	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

BAR LIST – ABUTMENT NO. 1 (PHASE I)

EPOXY COATED REINFORCING BARS

MARK	SIZE	NO.	FORM	LENGTH	VARIANCE
BH1	#4	12	STR.	18'–5"	
BH2	#4	10	BNT.	19'–1"	
BH3	#9	10	STR.	18'–5"	
BH7	#4	12	BNT.	5'–1"	
BV1	#4	17	STR.	11'–1" AVG.	10'–11" TO 11'–3"
BV2	#5	17	STR.	11'–1" AVG.	10'–11" TO 11'–3"
BV7	#4	4	STR.	12'–0"	
P1	#4	12	BNT.	5'–8"	
P2	#4	8	BNT.	7'–8"	
S1	#5	25	BNT.	13'–5"	
SC	#4	2	BNT.	3'–8"	

BAR LIST – ABUTMENT NO. 2 (PHASE I)

EPOXY COATED REINFORCING BARS

MARK	SIZE	NO.	FORM	LENGTH	VARIANCE
BH1	#4	10	STR.	18'–5"	
BH2	#4	8	BNT.	19'–1"	
BH3	#9	10	STR.	18'–5"	
BH7	#4	12	BNT.	5'–1"	
BV1	#4	17	STR.	9'–6" AVG.	9'–4" TO 9'–8"
BV2	#5	17	STR.	9'–6" AVG.	9'–4" TO 9'–8"
BV7	#4	4	STR.	10'–4"	
P1	#4	12	BNT.	5'–8"	
P3	#4	8	BNT.	7'–4"	
S1	#5	25	BNT.	13'–5"	
SC	#4	2	BNT.	3'–8"	

BAR LIST – ABUTMENT NO. 1 (PHASE II)

EPOXY COATED REINFORCING BARS

MARK	SIZE	NO.	FORM	LENGTH	VARIANCE
BH4	#4	12	STR.	30'–3"	
BH5	#4	10	BNT.	30'–11"	
BH6	#9	10	STR.	30'–3"	
BH7	#4	21	BNT.	5'–1"	
BV3	#4	5	STR.	11'–3½" AVG.	11'–3" TO 11'–4"
BV4	#5	5	STR.	11'–3½" AVG.	11'–3" TO 11'–4"
BV5	#4	24	STR.	11'–2" AVG.	10'–11" TO 11'–5"
BV6	#5	24	STR.	11'–2" AVG.	10'–11" TO 11'–5"
BV7	#4	4	STR.	12'–0"	
P1	#4	18	BNT.	5'–8"	
P2	#4	12	BNT.	7'–8"	
S1	#5	39	BNT.	13'–5"	
SC	#4	2	BNT.	3'–8"	

BAR LIST – ABUTMENT NO. 2 (PHASE II)

EPOXY COATED REINFORCING BARS

MARK	SIZE	NO.	FORM	LENGTH	VARIANCE
BH4	#4	10	STR.	30'–3"	
BH5	#4	8	BNT.	30'–11"	
BH6	#9	10	STR.	30'–3"	
BH7	#4	21	BNT.	5'–1"	
BV3	#4	5	STR.	9'–8½" AVG.	9'–8" TO 9'–9"
BV4	#5	5	STR.	9'–8½" AVG.	9'–8" TO 9'–9"
BV5	#4	24	STR.	9'–6" AVG.	9'–3" TO 9'–9"
BV6	#5	24	STR.	9'–6" AVG.	9'–3" TO 9'–9"
BV7	#4	4	STR.	10'–4"	
P1	#4	18	BNT.	5'–8"	
P3	#4	12	BNT.	7'–4"	
S1	#5	39	BNT.	13'–5"	
SC	#4	2	BNT.	3'–8"	

BAR LIST – ABUTMENT NO. 1 WINGS (ONE SHOWN; TWO REQUIRED)

EPOXY COATED REINFORCING BARS

	MARK	SIZE	NO.	FORM	LENGTH	VARIANCE
	WH1	#6	2	BNT.	26'–11"	
①	WH2	#6	22	STR.	13'–3" AVG.	5'–9" TO 20'–9"
	WH3	#6	18	STR.	25'–8"	
	WP1	#4	3	BNT.	8'–8"	
	WP2	#4	4	STR.	1'–7"	
	WT1	#6	1	BNT.	11'–6"	
	WT2	#6	3	BNT.	9'–0" AVG.	6'–0" TO 12'–0"
	WT3	#6	6	BNT.	19'–0"	
	WT4	#6	14	BNT.	13'–0"	
	WV1	#4	16	STR.	3'–9"	
②	WV2	#4	46	STR.	8'–0½" AVG.	4'–2" TO 11'–11"

① 2 SETS OF 11 BARS

② 2 SETS OF 23 BARS

BAR LIST – ABUTMENT NO. 2 WINGS (ONE SHOWN; TWO REQUIRED)

EPOXY COATED REINFORCING BARS

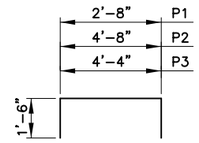
	MARK	SIZE	NO.	FORM	LENGTH	VARIANCE
	WH4	#6	2	BNT.	21'–8"	
③	WH5	#6	16	STR.	11'–0" AVG.	5'–9" TO 16'–3"
	WH6	#6	18	STR.	20'–8"	
	WP1	#4	3	BNT.	8'–8"	
	WP2	#4	4	STR.	1'–7"	
	WT1	#6	1	BNT.	11'–6"	
	WT2	#6	3	BNT.	9'–0" AVG.	6'–0" TO 12'–0"
	WT3	#6	6	BNT.	19'–0"	
	WT4	#6	12	BNT.	13'–0"	
	WV3	#4	8	STR.	4'–10"	
④	WV4	#4	36	STR.	7'–8" AVG.	5'–0" TO 10'–4"

③ 2 SETS OF 8 BARS

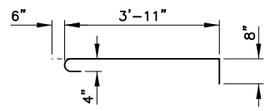
④ 2 SETS OF 18 BARS

ABUTMENT QUANTITIES

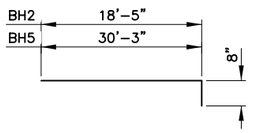
DESCRIPTION	UNIT	PHASE I			PHASE II			TOTAL
		ABUT 1	ABUT 2	TOTAL	ABUT 1	ABUT 2	TOTAL	
SUBSTRUCTURE EXCAVATION COMMON	CY	49.00	46.00	95.00	61.00	59.00	120.00	215.00
CLSM BACKFILL	CY	57.80	45.60	103.40	89.60	70.60	160.20	263.60
CLASS A CONCRETE	CY	26.60	23.00	49.60	42.10	37.10	79.20	128.80
MECHANICAL SPLICES	EA	32.00	28.00	60.00	0.00	0.00	0.00	60.00
EPOXY COATED REINFORCING STEEL	LB	3,770.00	3,220.00	6,990.00	4,850.00	4,230.00	9,080.00	16,070.00
PILES, FURNISHED (HP10x42)	LF	70.00	42.00	112.00	70.00	42.00	112.00	224.00
PILES, FURNISHED (HP12x53)	LF	258.00	154.00	412.00	452.00	270.00	722.00	1,134.00
PILES, DRIVEN (HP10x42)	LF	70.00	42.00	112.00	70.00	42.00	112.00	224.00
PILES, DRIVEN (HP12x53)	LF	258.00	154.00	412.00	452.00	270.00	722.00	1,134.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	28.00	24.00	52.00	53.00	46.00	99.00	151.00
TYPE 1–A PLAIN RIPRAP	LF	0.00	0.00	0.00	0.00	0.00	0.00	2,090.00
TYPE 1–A FILTER BLANKET	LF	0.00	0.00	0.00	0.00	0.00	0.00	580.00
6" PERFORATED PIPE UNDERDRAIN ROUND	LF	17.00	17.00	34.00	28.00	28.00	56.00	90.00
6" NON–PERF. PIPE UNDERDRAIN RND.	LF	47.00	17.00	64.00	0.00	0.00	0.00	64.00



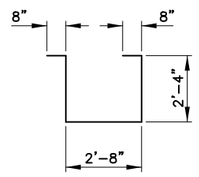
P1 #4 x 5'–8"
P2 #4 x 7'–8"
P3 #4 x 7'–4"



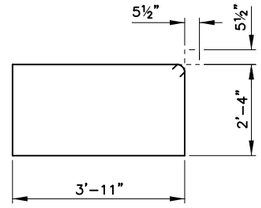
BH7 #4 x 5'–1"



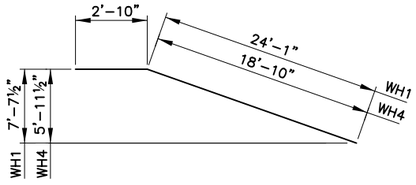
BH2 #4 x 19'–1"
BH5 #4 x 30'–11"



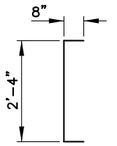
WP1 #4 x 8'–8"



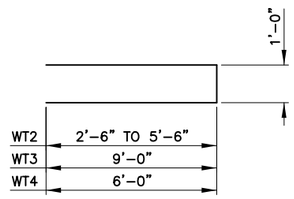
S1 #5 x 13'–5"



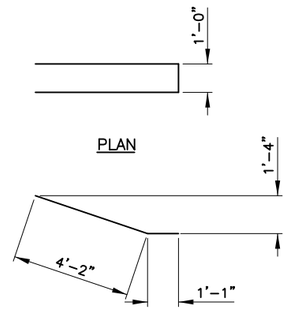
WH1 #6 x 26'–11"
WH4 #6 x 21'–8"



SC #4 x 3'–8"



WT2 #6 x 9'–0" AVG.
WT3 #6 x 19'–0"
WT4 #6 x 13'–0"



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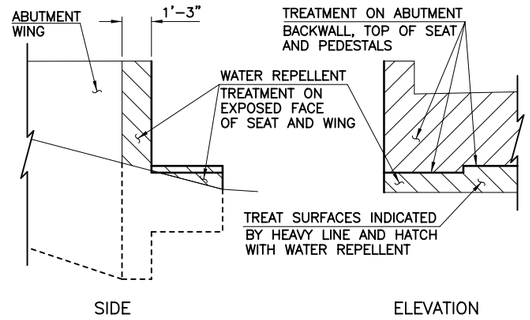

WATER REPELLENT DETAILS

DESIGN:	IKC	2021
DRAWN:	CMB	2021
CHECKED:	IKC	2021
APPRVD:	CPY	2021

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SH–99 OVER CIMARRON RIVER — CREEK COUNTY

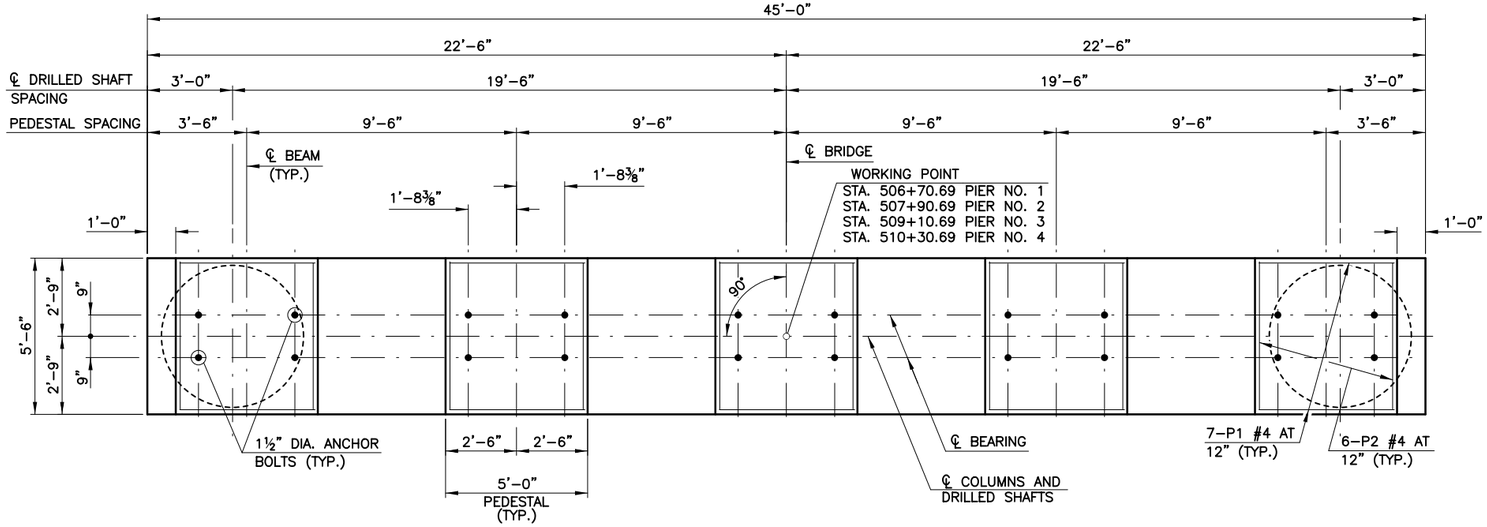
ABUTMENT DETAILS

SHEET 4 OF 4

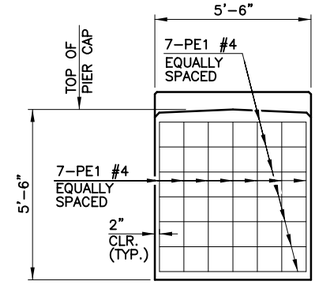
STATE JOB PIECE NO: 29829(04) — SHEET NO.B016

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B017	78

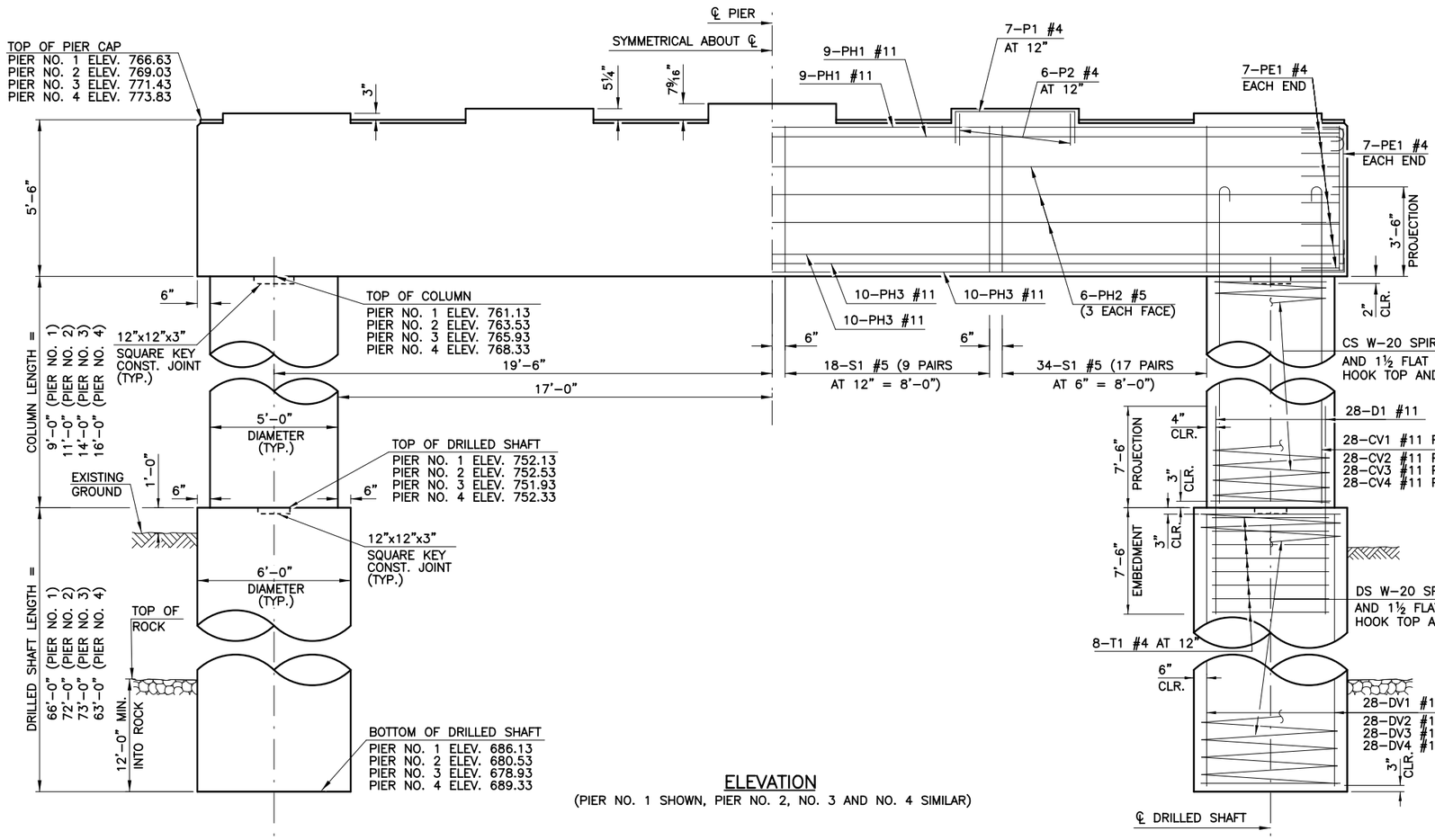
FINAL PLAN FIELD REVIEW MEETING
06/30/2021



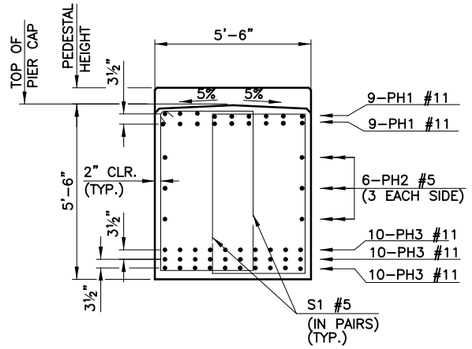
PLAN



END VIEW



ELEVATION
(PIER NO. 1 SHOWN, PIER NO. 2, NO. 3 AND NO. 4 SIMILAR)



TYPICAL SECTION THROUGH CAP

PROVIDE A 1½" CHAMFER AT EDGES OF SEAT AND ¾" CHAMFER AT ALL PEDESTAL EDGES

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

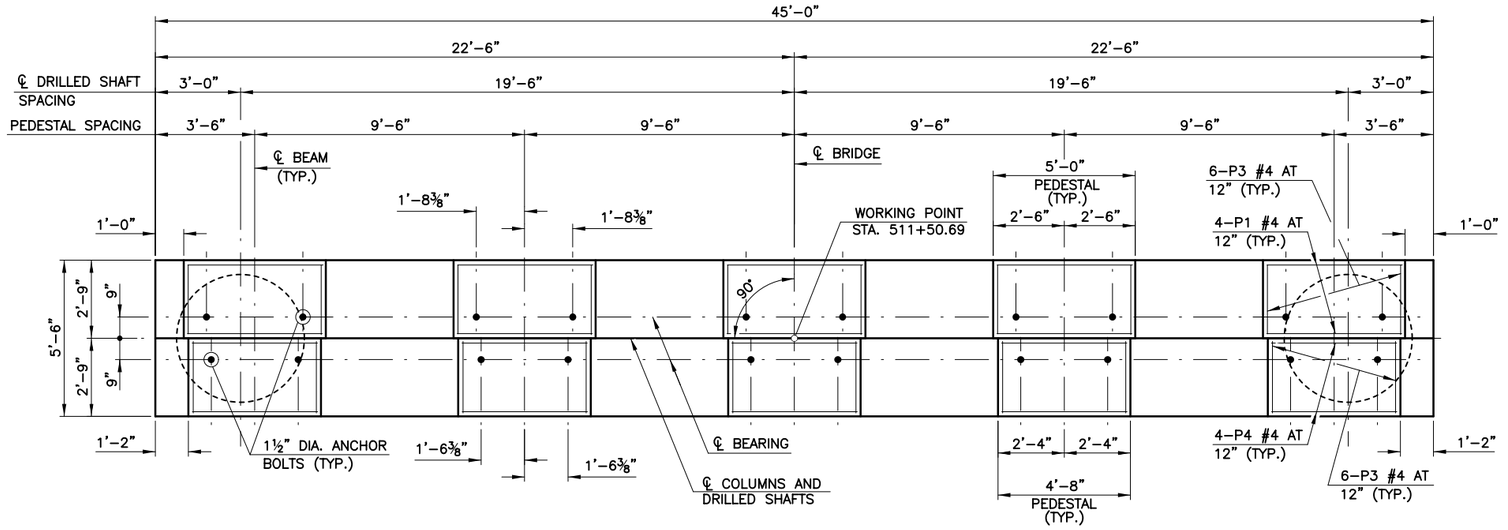
PIER DETAILS
(PIERS NO. 1-4)

SHEET 1 OF 5

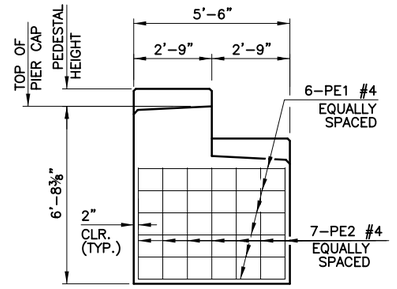
STATE JOB PIECE NO: 29829(04) — SHEET NO.B017

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B018	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



PLAN



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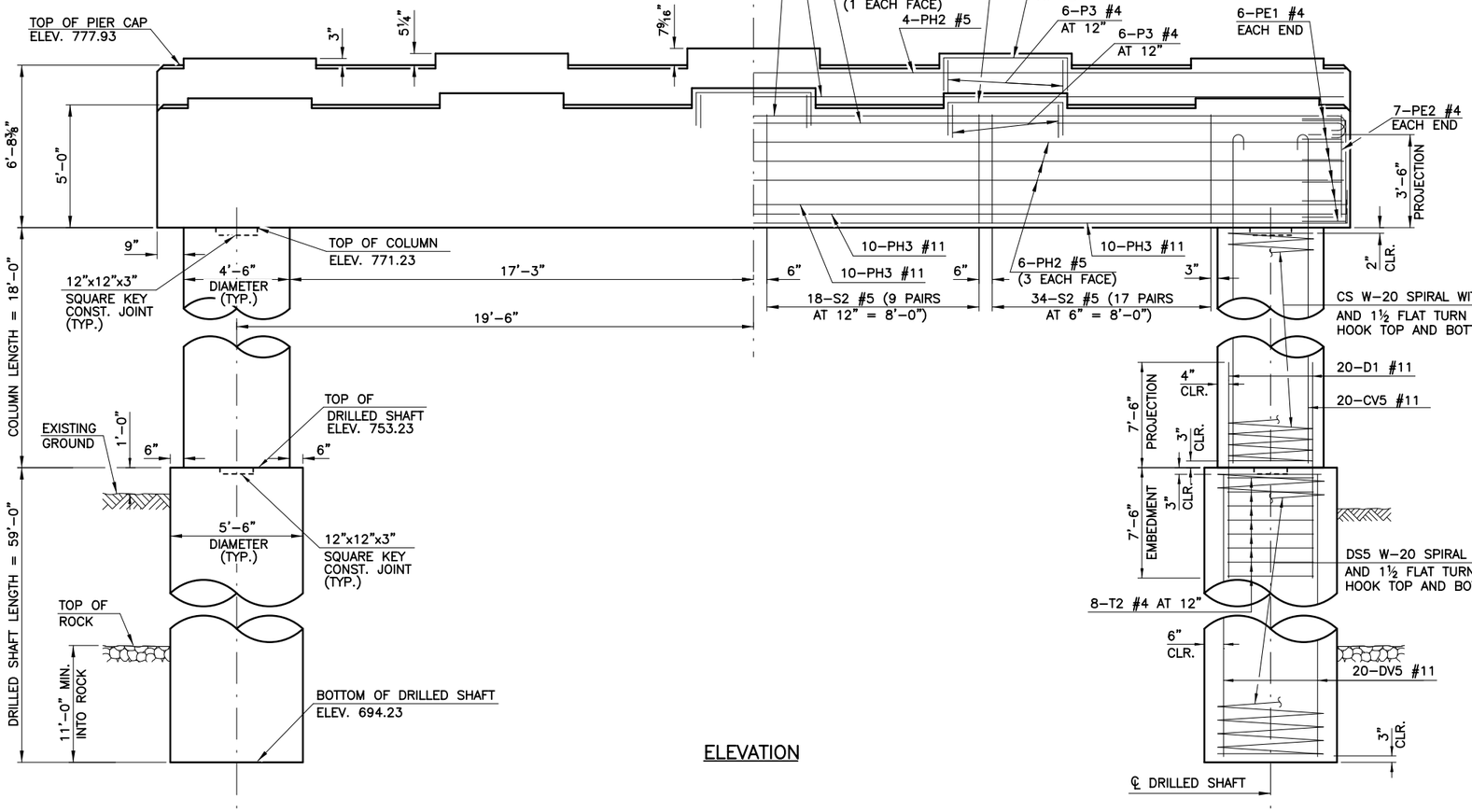

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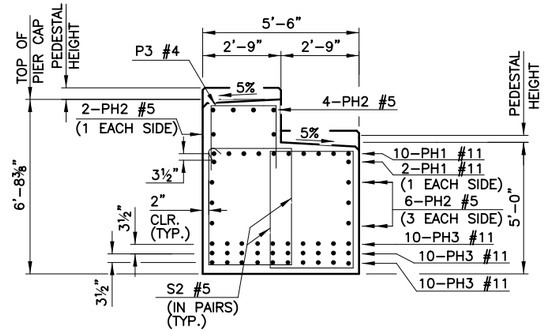

TYPICAL SECTION THROUGH CAP

PROVIDE A 1½" CHAMFER AT EDGES OF SEAT AND ¾" CHAMFER AT ALL PEDESTAL EDGES

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

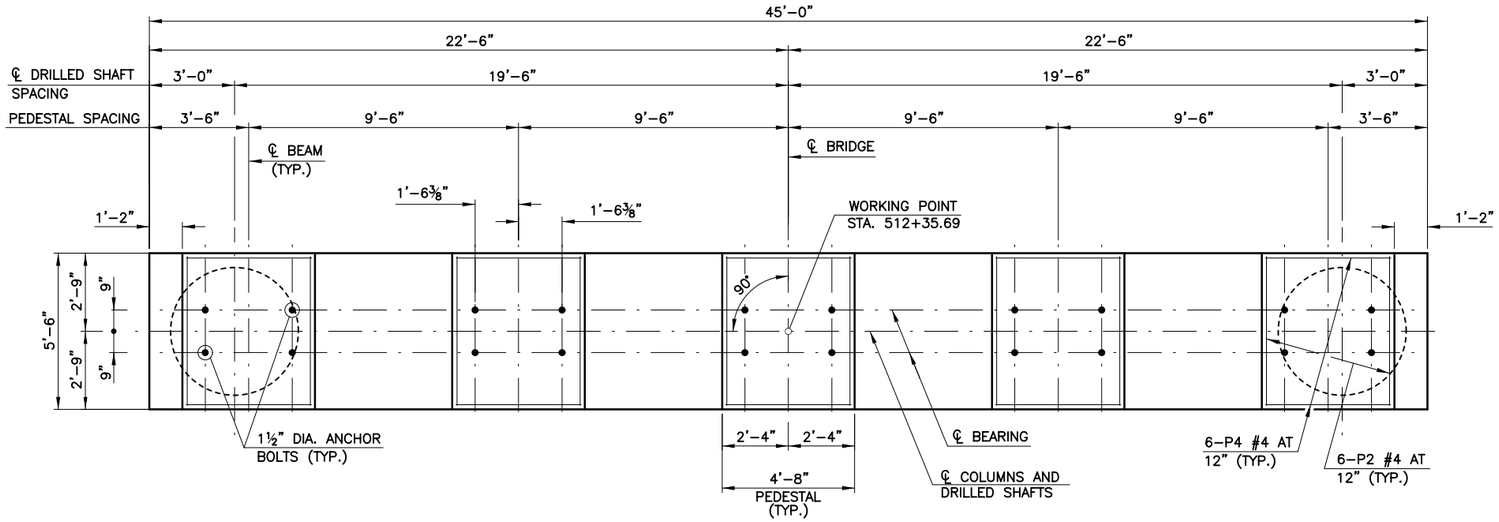
PIER DETAILS
(PIER NO. 5)

SHEET 2 OF 5

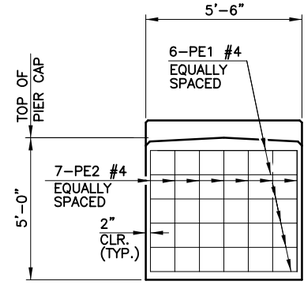
STATE JOB PIECE NO: 29829(04) — SHEET NO.B018

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B019	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



PLAN



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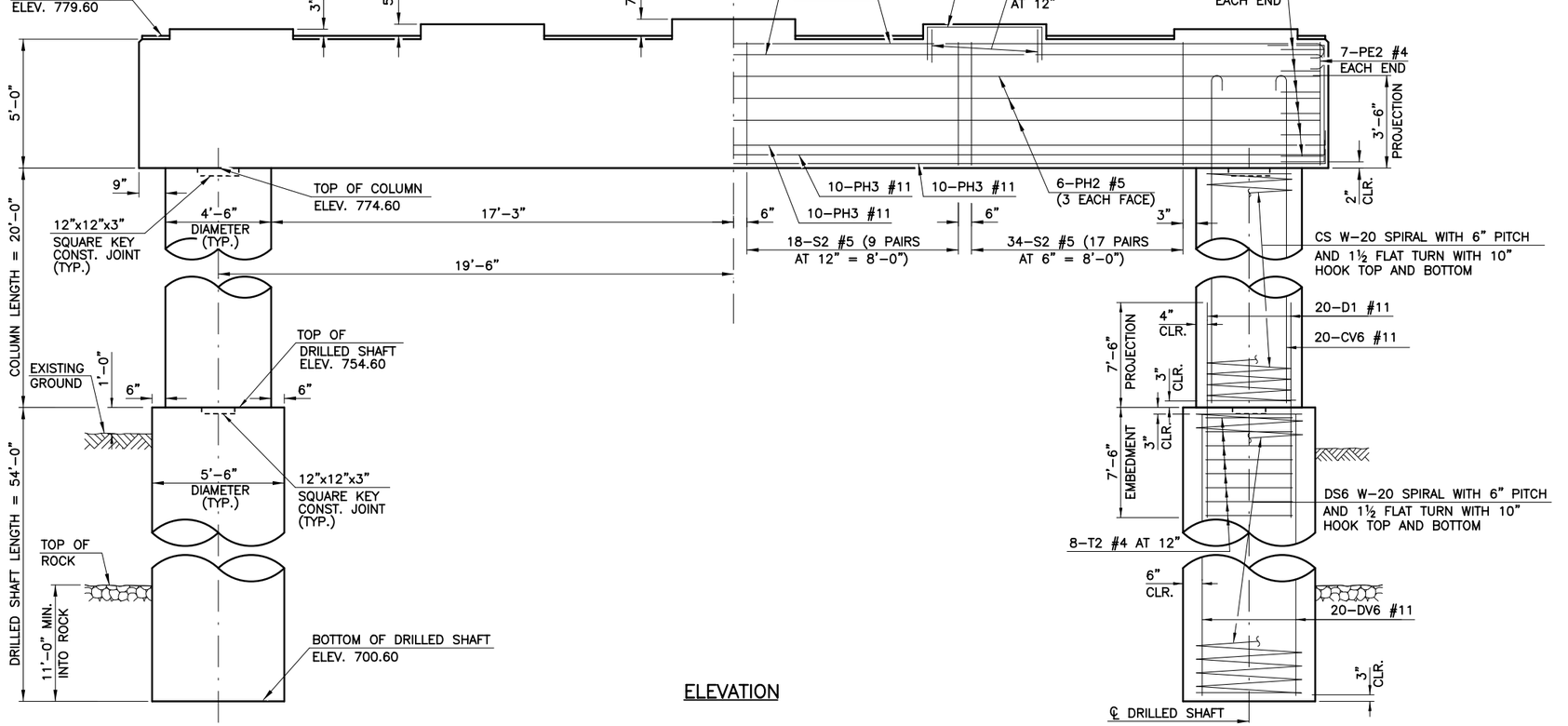

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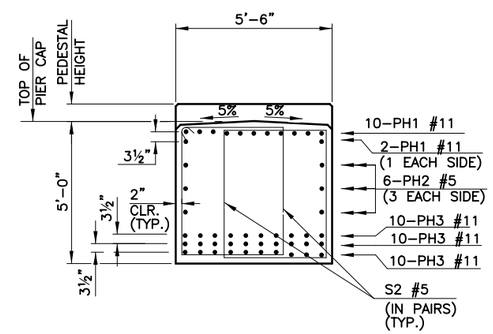

TYPICAL SECTION THROUGH CAP

PROVIDE A 1½" CHAMFER AT EDGES OF SEAT AND ¾" CHAMFER AT ALL PEDESTAL EDGES

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

PIER DETAILS
(PIER NO. 6)

SHEET 3 OF 5

STATE JOB PIECE NO: 29829(04) — SHEET NO. B019

cbyler ANSIB.tbl 6/30/2021 11:54:52 AM
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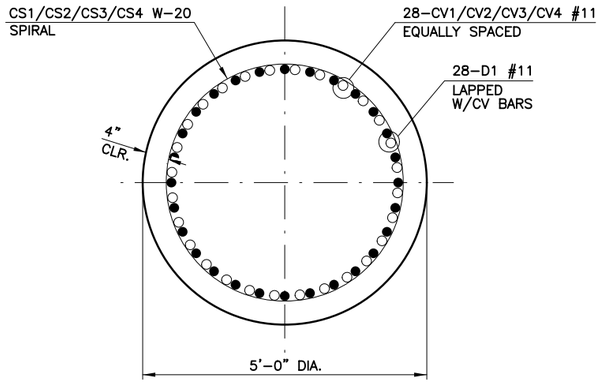
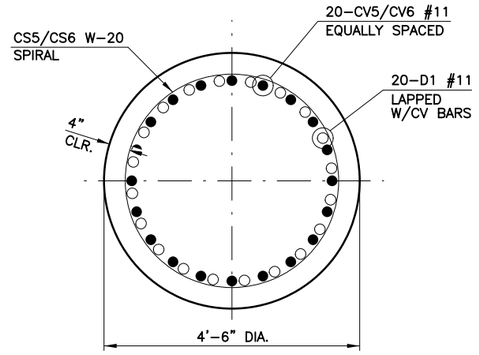
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B020	78

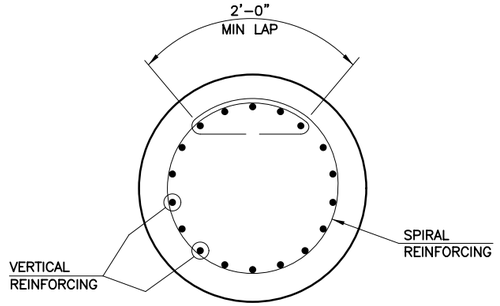
FINAL PLAN FIELD REVIEW MEETING
06/30/2021



TYPICAL SECTION
THROUGH COLUMN

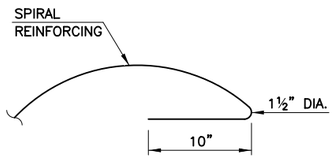


TYPICAL SECTION
THROUGH COLUMN

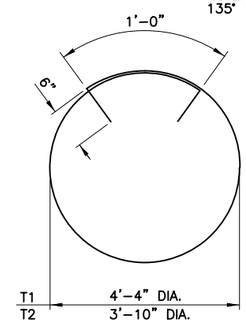


SPIRAL REINFORCING
SPLICE DETAIL

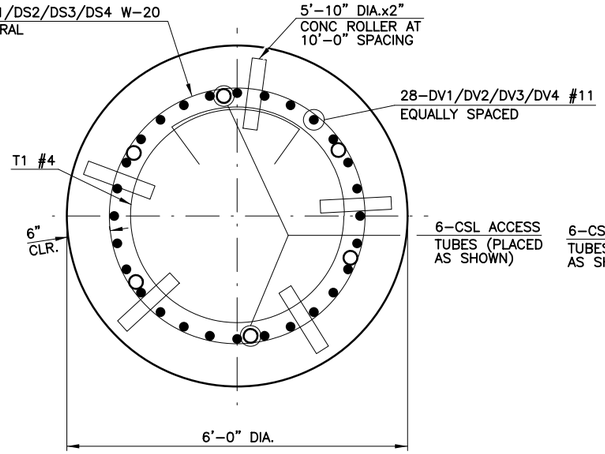
NOTE:
ANCHOR SPIRAL SPLICE
AROUND VERTICAL REINFORCING.



NOTE:
135° BEND.

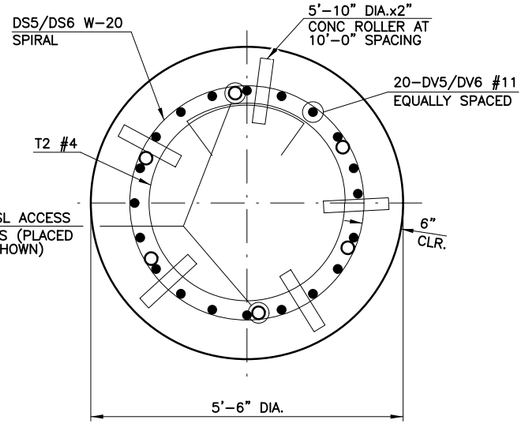


T1 #4x15'-8"
T2 #4x14'-1"



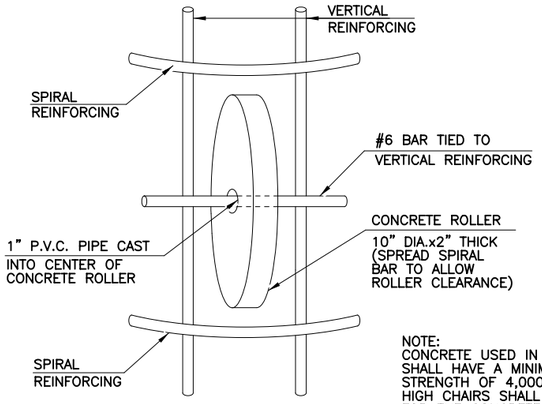
TYPICAL SECTION
THROUGH DRILLED SHAFT

PIERS NO. 1, 2, 3, AND 4



TYPICAL SECTION
THROUGH DRILLED SHAFT

PIERS NO. 5 AND 6



NOTE:
CONCRETE USED IN THE CONCRETE ROLLER SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH OF 4,000 PSI. SLAB BOLSTERS OR HIGH CHAIRS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.

DRILLED SHAFT
ROLLER DETAIL

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CHECKED:	IKC	2021
APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

PIER DETAILS

SHEET 4 OF 5

STATE JOB PIECE NO: 29829(04) — SHEET NO.B020

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B021	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

PIER NO. 1 PIER COLUMN AND CAP BAR LIST

EPOXY COATED REINFORCING

MARK	SIZE	NO.	FORM	LENGTH
CV1	#11	56	BNT.	13'–10"
P1	#4	35	BNT.	8'–8"
P2	#4	30	BNT.	9'–2"
PE1	#4	28	BNT.	7'–2"
PH1	#11	18	BNT.	47'–10"
PH2	#5	6	STR.	44'–8"
PH3	#11	30	STR.	48'–8"
S1	#5	104	BNT.	18'–3"

PLAIN REINFORCING BARS

CS1	W20	2	BNT.	276'–5"

PIER NO. 2 PIER COLUMN AND CAP BAR LIST

EPOXY COATED REINFORCING

MARK	SIZE	NO.	FORM	LENGTH
CV2	#11	56	BNT.	15'–10"
P1	#4	35	BNT.	8'–8"
P2	#4	30	BNT.	9'–2"
PE1	#4	28	BNT.	7'–2"
PH1	#11	18	BNT.	47'–10"
PH2	#5	6	STR.	44'–8"
PH3	#11	30	STR.	48'–8"
S1	#5	104	BNT.	18'–3"

PLAIN REINFORCING BARS

CS2	W20	2	BNT.	330'–10"

PIER NO. 5 PIER COLUMN AND CAP BAR LIST

EPOXY COATED REINFORCING

MARK	SIZE	NO.	FORM	LENGTH
CV5	#11	40	BNT.	22'–10"
P1	#4	20	BNT.	8'–8"
P3	#4	60	BNT.	6'–5"
P4	#4	20	BNT.	8'–4"
PE1	#4	12	BNT.	7'–2"
PE2	#4	14	BNT.	6'–8"
PH1	#11	10	BNT.	47'–10"
PH2	#5	12	STR.	44'–8"
PH3	#11	30	STR.	48'–8"
S2	#5	104	BNT.	17'–3"

PLAIN REINFORCING BARS

CS5	W20	2	BNT.	461'–8"

PIER NO. 6 PIER COLUMN AND CAP BAR LIST

EPOXY COATED REINFORCING

MARK	SIZE	NO.	FORM	LENGTH
CV6	#11	40	BNT.	24'–10"
P2	#4	30	BNT.	9'–2"
P4	#4	30	BNT.	8'–4"
PE1	#4	12	BNT.	7'–2"
PE2	#4	14	BNT.	6'–8"
PH1	#11	10	BNT.	47'–10"
PH2	#5	6	STR.	44'–8"
PH3	#11	30	STR.	48'–8"
S2	#5	104	BNT.	17'–3"

PLAIN REINFORCING BARS

CS6	W20	2	BNT.	509'–11"

PIER NO. 1 DRILLED SHAFT BAR LIST TWO REQUIRED

EPOXY COATED REINFORCING

MARK	SIZE	NO.	FORM	LENGTH
D1	#11	56	STR.	15'–0"

PLAIN REINFORCING BARS

DS1	W20	2	BNT.	2107'–7"
DV1	#11	56	STR.	65'–6"
T1	#4	16	BNT	15'–8"

PIER NO. 2 DRILLED SHAFT BAR LIST TWO REQUIRED

EPOXY COATED REINFORCING

MARK	SIZE	NO.	FORM	LENGTH
D1	#11	56	STR.	15'–0"

PLAIN REINFORCING BARS

DS2	W20	2	BNT.	2296'–3"
DV2	#11	56	STR.	71'–6"
T1	#4	16	BNT	15'–8"

PIER NO. 5 DRILLED SHAFT BAR LIST TWO REQUIRED

EPOXY COATED REINFORCING

MARK	SIZE	NO.	FORM	LENGTH
D1	#11	40	STR.	15'–0"

PLAIN REINFORCING BARS

DS5	W20	2	BNT.	1699'–2"
DV5	#11	40	STR.	58'–6"
T2	#4	16	BNT	14'–1"

PIER NO. 6 DRILLED SHAFT BAR LIST TWO REQUIRED

EPOXY COATED REINFORCING

MARK	SIZE	NO.	FORM	LENGTH
D1	#11	40	STR.	15'–0"

PLAIN REINFORCING BARS

DS6	W20	2	BNT.	1577'–9"
DV6	#11	40	STR.	53'–6"
T2	#4	16	BNT	14'–1"

PIER NO. 3 PIER COLUMN AND CAP BAR LIST

EPOXY COATED REINFORCING

MARK	SIZE	NO.	FORM	LENGTH
CV3	#11	56	BNT.	18'–10"
P1	#4	35	BNT.	8'–8"
P2	#4	30	BNT.	9'–2"
PE1	#4	28	BNT.	7'–2"
PH1	#11	18	BNT.	47'–10"
PH2	#5	6	STR.	44'–8"
PH3	#11	30	STR.	48'–8"
S1	#5	104	BNT.	18'–3"

PLAIN REINFORCING BARS

CS3	W20	2	BNT.	412'–7"

PIER NO. 4 PIER COLUMN AND CAP BAR LIST

EPOXY COATED REINFORCING

MARK	SIZE	NO.	FORM	LENGTH
CV4	#11	56	BNT.	20'–10"
P1	#4	35	BNT.	8'–8"
P2	#4	30	BNT.	9'–2"
PE1	#4	28	BNT.	7'–2"
PH1	#11	18	BNT.	47'–10"
PH2	#5	6	STR.	44'–8"
PH3	#11	30	STR.	48'–8"
S1	#5	104	BNT.	18'–3"

PLAIN REINFORCING BARS

CS4	W20	2	BNT.	467'–1"

PIER NO. 3 DRILLED SHAFT BAR LIST TWO REQUIRED

EPOXY COATED REINFORCING

MARK	SIZE	NO.	FORM	LENGTH
D1	#11	56	STR.	15'–0"

PLAIN REINFORCING BARS

DS3	W20	2	BNT.	2327'–8"
DV3	#11	56	STR.	62'–6"
T1	#4	16	BNT	15'–8"

PIER NO. 4 DRILLED SHAFT BAR LIST TWO REQUIRED

EPOXY COATED REINFORCING

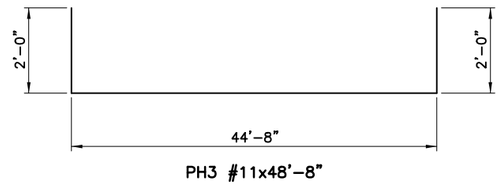
MARK	SIZE	NO.	FORM	LENGTH
D1	#11	56	STR.	15'–0"

PLAIN REINFORCING BARS

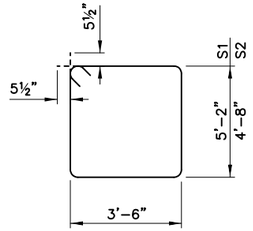
DS4	W20	2	BNT.	2013'–4"
DV4	#11	56	STR.	72'–6"
T1	#4	16	BNT	15'–8"

SUMMARY OF PIER QUANTITIES

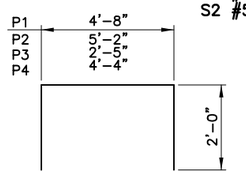
ITEM	UNIT	PIER NO. 1	PIER NO. 2	PIER NO. 3	PIER NO. 4	PIER NO. 5	PIER NO. 6	TOTAL
CLASS A CONCRETE	CY	65.30	68.20	72.60	75.50	76.20	71.00	428.80
REINFORCING STEEL	LB	380.00	450.00	570.00	640.00	630.00	700.00	3,370.00
EPOXY COATED REINFORCING STEEL	LB	19,230.00	19,830.00	20,720.00	21,310.00	18,700.00	18,710.00	118,500.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	95.00	95.00	95.00	95.00	123.00	89.00	592.00
DRILLED SHAFTS 66" DIAMETER	LF					118.00	108.00	226.00
DRILLED SHAFTS 72" DIAMETER	LF	132.00	144.00	146.00	126.00			548.00
CROSSHOLE SONIC LOGGING	EA							3.00



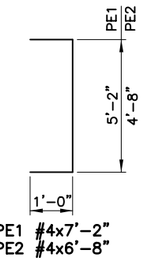
PH3 #11x48'–8"



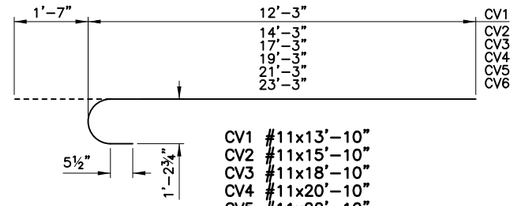
S1 #5x18'–3"
S2 #5x17'–3"



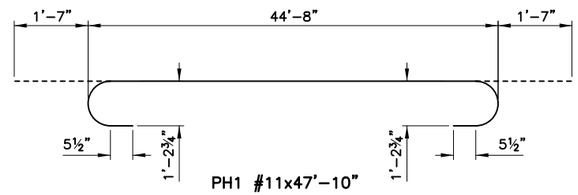
P1 #4x8'–8"
P2 #4x9'–2"
P3 #4x6'–5"
P4 #4x8'–4"



PE1 #4x7'–2"
PE2 #4x6'–8"



CV1 #11x13'–10"
CV2 #11x15'–10"
CV3 #11x18'–10"
CV4 #11x20'–10"
CV5 #11x22'–10"
CV6 #11x24'–10"



PH1 #11x47'–10"

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DRAWN:	LRJ	2021
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APPRVD:	CPY	2021

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SH–99 OVER CIMARRON RIVER — CREEK COUNTY

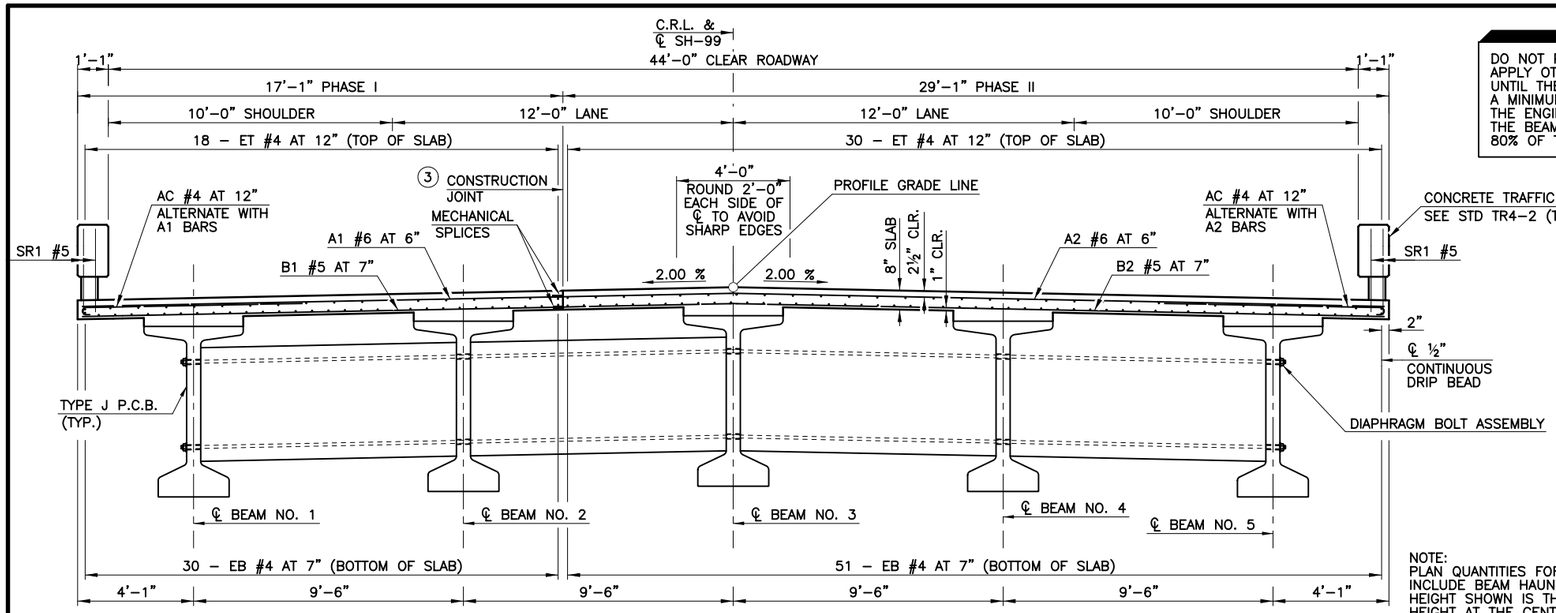
PIER DETAILS

SHEET 5 OF 5

STATE JOB PIECE NO: 29829(04) — SHEET NO. B021

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B022	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



HALF SECTION AT INTERMEDIATE DIAPHRAGM

HALF SECTION AT END DIAPHRAGM

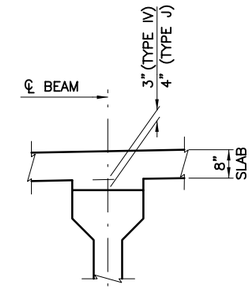
TYPICAL CROSS SECTION
(SPAN 1-5 SHOWN, SPAN 6 AND 7 SIMILAR)

DO NOT PLACE THE CONCRETE FOR THE DECK SLAB OR APPLY OTHER MASSSIVE 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.

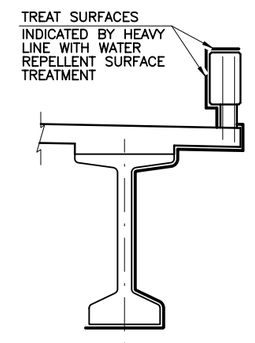
SUPERSTRUCTURE QUANTITES

DESCRIPTION	UNIT	PHASE I	PHASE II	TOTAL
PRESTRESSED CONCRETE BEAMS (TYPE IV)	LF	338.67	508.00	846.67
PRESTRESSED CONCRETE BEAMS (TYPE J)	LF	1,196.67	1,795.00	2,991.67
SAW-CUT GROOVING	SY	1,372.00	2,401.00	3,773.00
CONCRETE RAIL (TR-4)	LF	771.70	771.70	1,543.40
SEALED EXPANSION JOINT	LF	35.17	59.17	94.34
STRUCTURAL STEEL	LB	1,560.00	6,340.00	7,900.00
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA	8.00	12.00	20.00
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA	20.00	30.00	50.00
CLASS AA CONCRETE	CY	375.60	659.30	1,034.80
MECHANICAL SPLICES	EA	2,880.00		2,880.00
EPOXY COATED REINFORCING STEEL	LB	104,090.00	174,830.00	278,920.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	1,553.00	1,553.00	3,106.00
SEALER CRACK PREPARATION	LF	66.00	885.00	951.00
SEALER RESIN	GAL	0.80	9.90	10.70

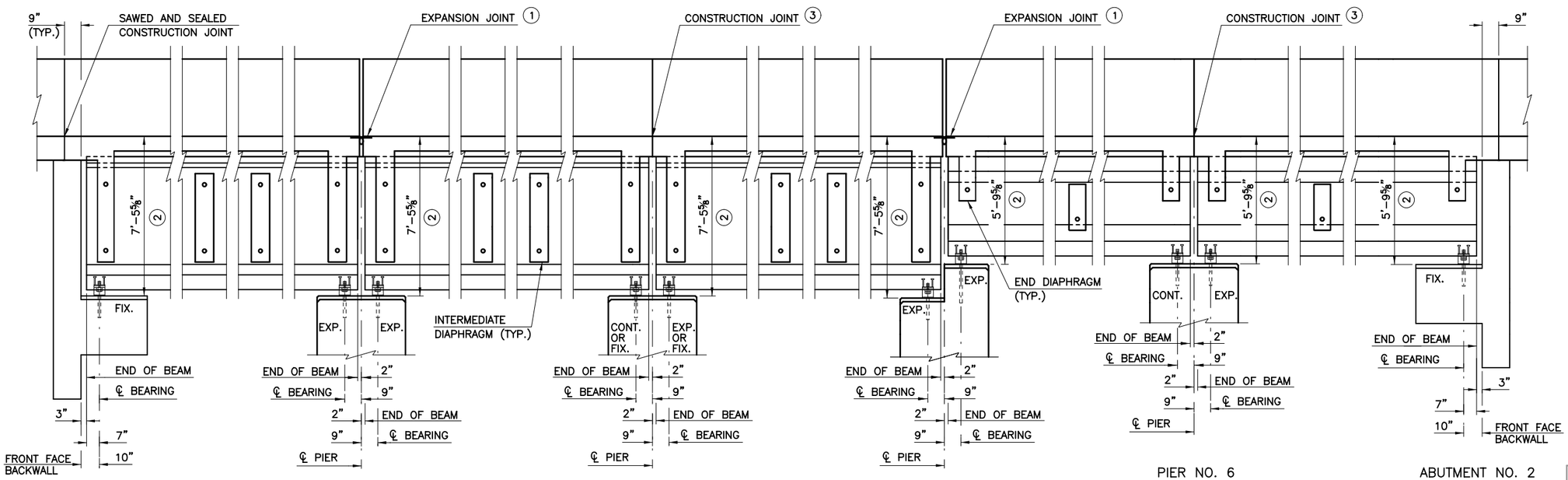
NOTE:
PLAN QUANTITIES FOR CLASS AA CONCRETE INCLUDE BEAM HAUNCHES. THE HAUNCH HEIGHT SHOWN IS THE THEORETICAL HAUNCH HEIGHT AT THE CENTERLINE BEARING ONLY, MEASURED FROM THE BOTTOM OF THE DECK SLAB TO THE TOP OF THE BEAM, AND VARIES ACROSS THE SPAN. DETERMINE THE ACTUAL HAUNCH HEIGHT (ACCOUNTING FOR 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 DIFFERENCE BETWEEN THE THEORETICAL AND THE ACTUAL HAUNCH HEIGHTS FOR PAYMENT.



BEAM HAUNCH DETAIL



WATER REPELLENT DETAIL



ABUTMENT NO. 1 | PIER NO. 1 | PIER NO. 2, PIER NO. 3, PIER NO. 4 | PIER NO. 5 | PIER NO. 6 | ABUTMENT NO. 2

1. FOR DETAILS OF EXPANSION JOINT (SEE ODOT STDS. EJ-SQ AND EJ-DTL) FOR EXPANSION JOINT OPENING TABLE SEE SUPERSTRUCTURE DETAILS SHEET 9 OF 10.
2. DIMENSION IS FROM TOP OF DECK SLAB TO BOTTOM OF BEARING ASSEMBLY AT ℄ BEARING.
3. SEAL WITH HIGH MOLECULAR WEIGHT METHACRYLATE.

LONGITUDINAL SECTION

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

DESIGN:	IKC	04/19
DRAWN:	LRJ	04/19
CHECKED:	IKC	04/19
APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

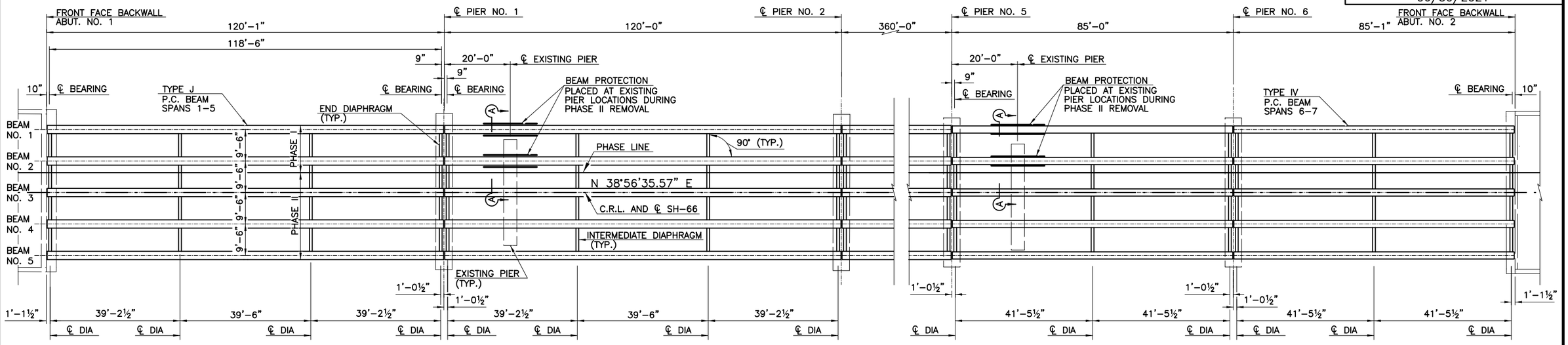
SUPERSTRUCTURE DETAILS

SHEET 1 OF 10

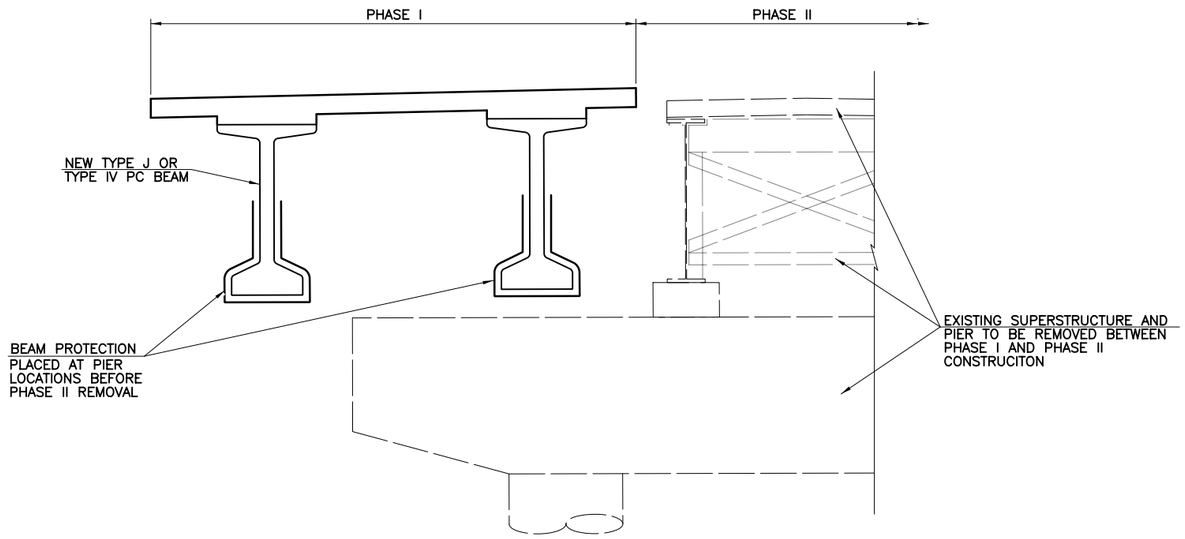
STATE JOB PIECE NO: 29829(04) — SHEET NO. B022

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B023	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



FRAMING PLAN



SECTION A–A

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

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CP&Y

SH–99 OVER CIMARRON RIVER — CREEK COUNTY

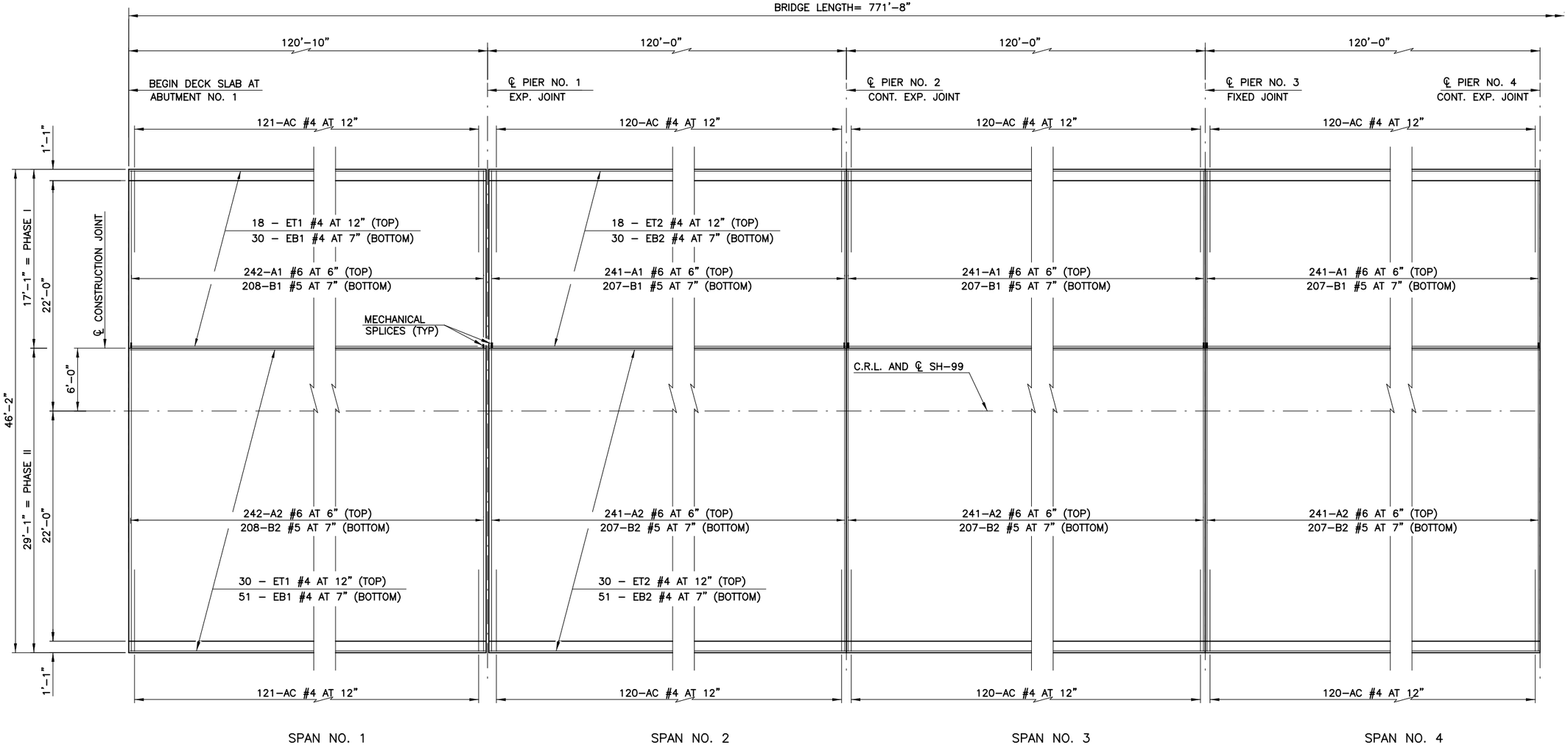
SUPERSTRUCTURE DETAILS

SHEET 2 OF 10

STATE JOB PIECE NO: 29829(04) — SHEET NO. B023

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B024	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



SLAB REINFORCING LAYOUT

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

FOR END SECTION REINFORCING, SEE SHEET NO. B026 AND B027.

FOR TRAFFIC RAIL REINFORCING, SEE SHEET NO. B031.

DESIGN:	IKC	06/18
DRAWN:	LRJ	08/18
CHECKED:	CPY	08/18
APPRVD:	CPY	08/18

CP&Y

SH–99 OVER CIMARRON RIVER — CREEK COUNTY

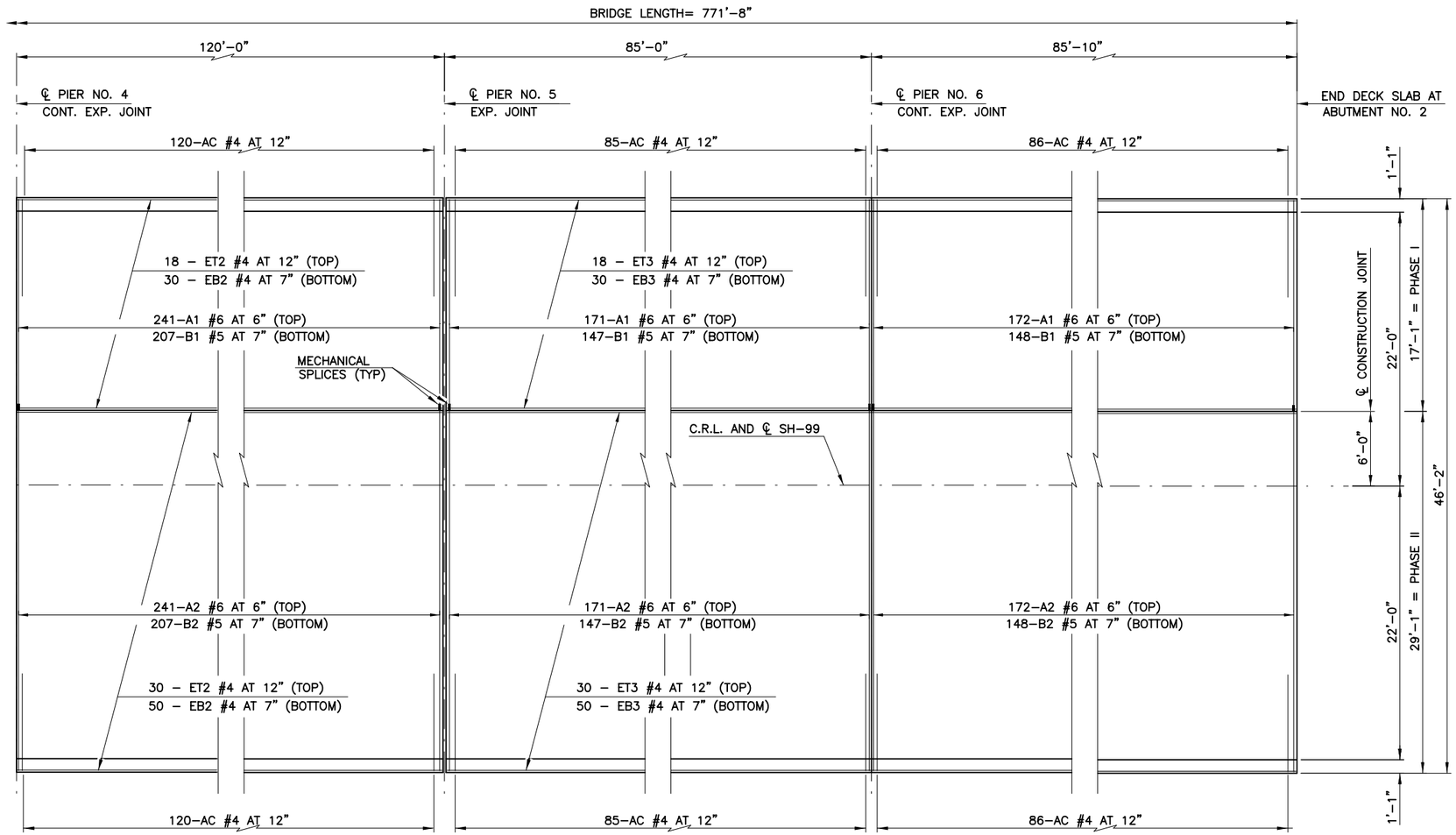
SUPERSTRUCTURE DETAILS

SHEET 3 OF 10

STATE JOB PIECE NO: 29829(04) SHEET NO.B024

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B025	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



SPAN NO. 5 SPAN NO. 6 SPAN NO. 7

SLAB REINFORCING LAYOUT

FOR END SECTION REINFORCING,
SEE SHEET NO. B026 AND B027.

FOR TRAFFIC RAIL REINFORCING,
SEE SHEET NO. B031.

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APPRVD:	CPY	08/18

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

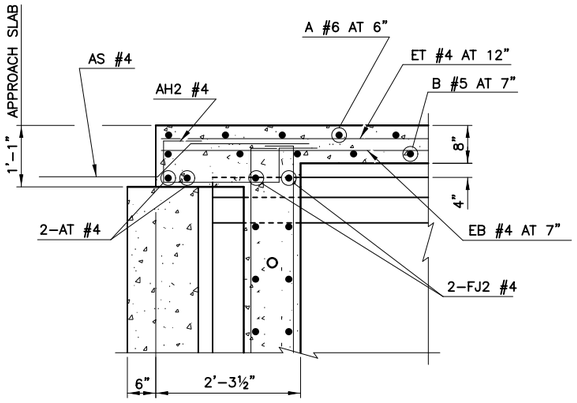
SUPERSTRUCTURE DETAILS

SHEET 4 OF 10

STATE JOB PIECE NO: 29829(04) — SHEET NO.B025

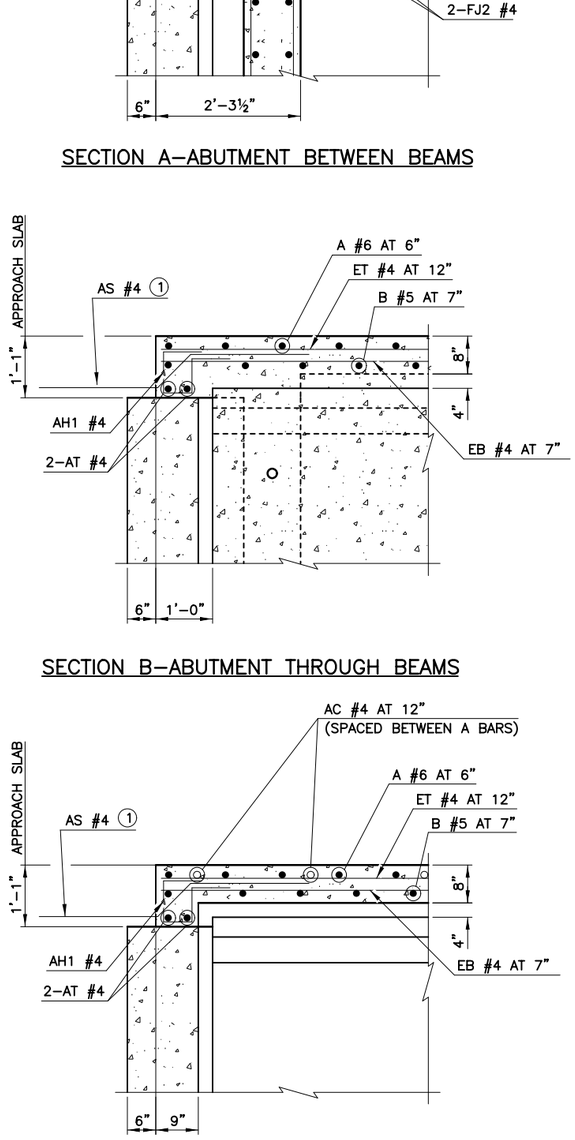
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B026	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

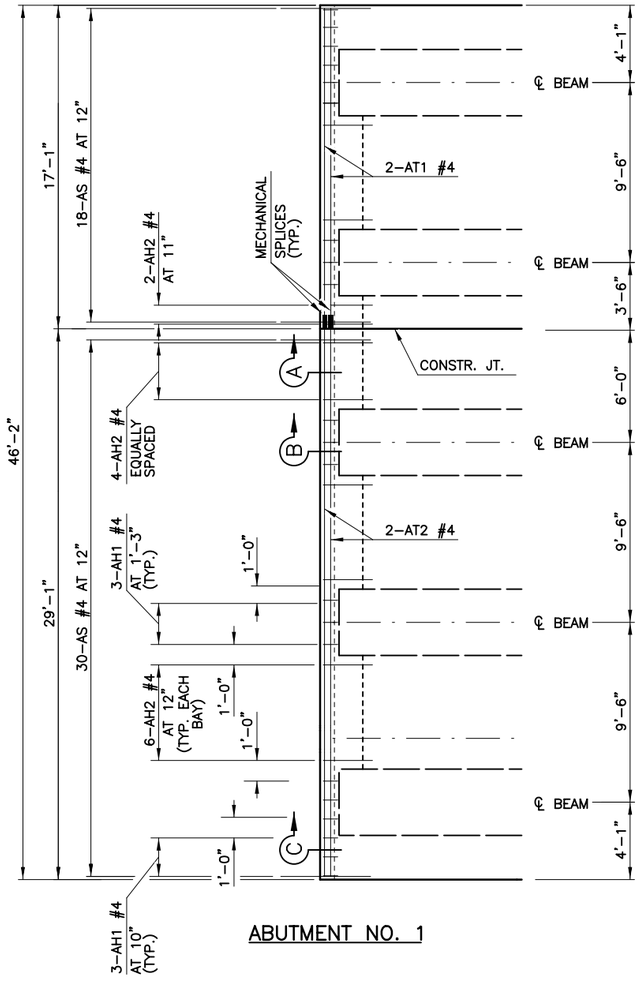


SECTION A–ABUTMENT BETWEEN BEAMS

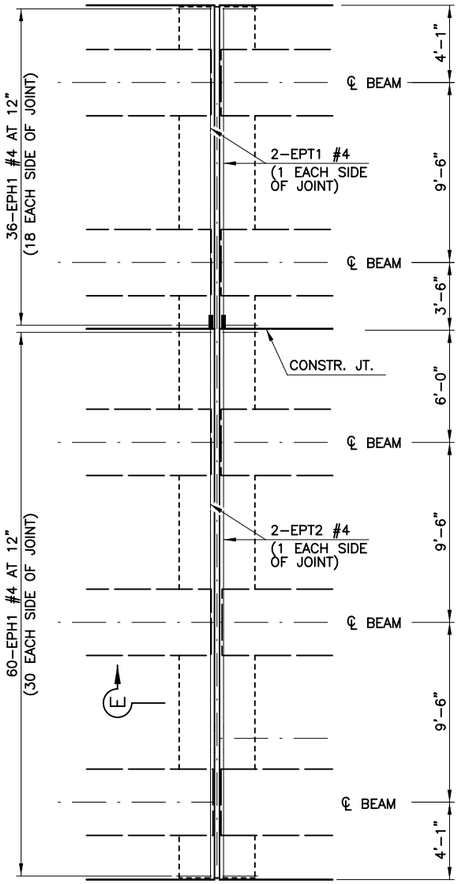
SECTION B–ABUTMENT THROUGH BEAMS



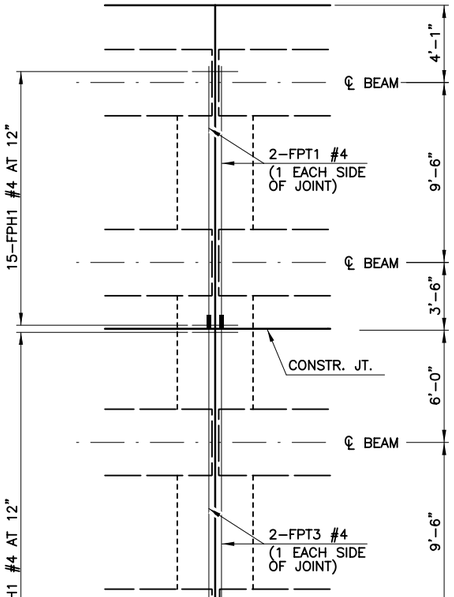
SECTION C–ABUTMENT THROUGH CANTILEVER



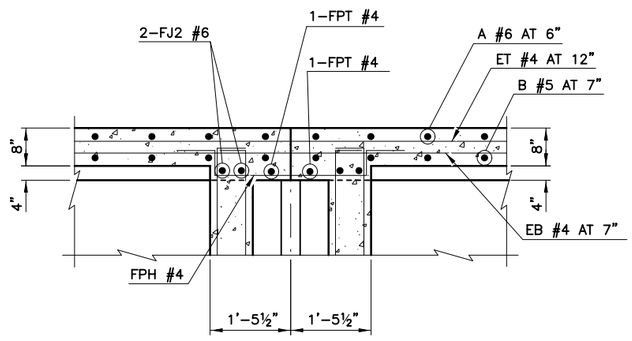
ABUTMENT NO. 1



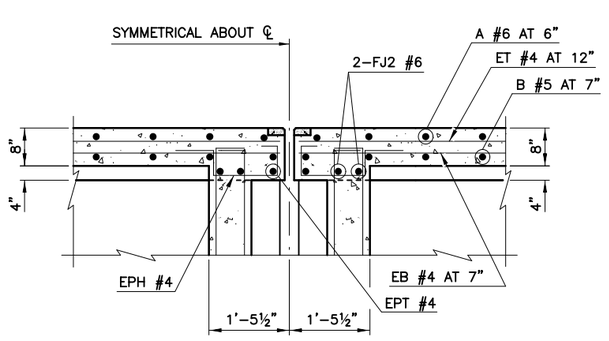
EXPANSION PIER
(PIER NO. 1)



CONTINUOUS EXPANSION PIER
FIXED PIER
(PIERS NO. 2,3,4)



SECTION D–CONTINUOUS EXPANSION PIER OR FIXED PIER



SECTION E–EXPANSION PIER

① TIE TO TOP REINFORCING OF DECK SLAB AND BOTTOM REINFORCING OF THE APPROACH SLAB (PLACE BOTTOM LEG OF AS BAR THROUGH JOINT)

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SH–99 OVER CIMARRON RIVER — CREEK COUNTY

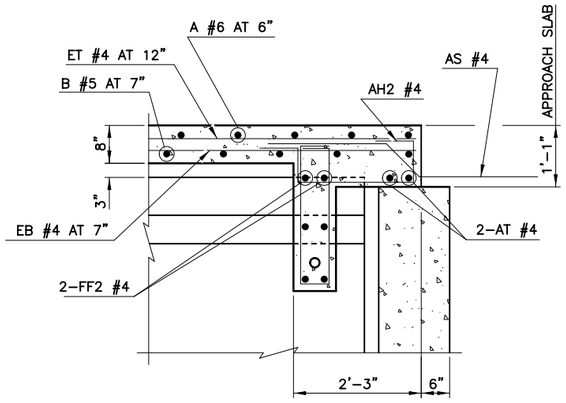
SUPERSTRUCTURE DETAILS

SHEET 5 OF 10

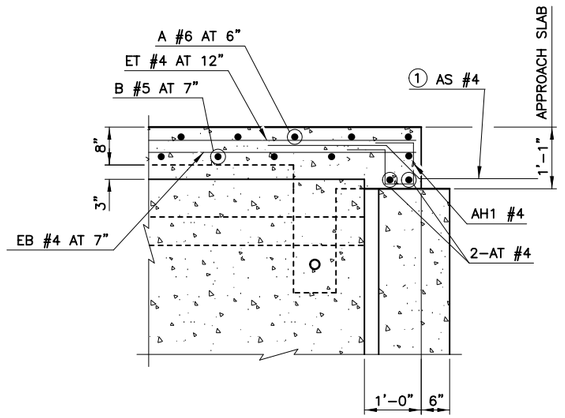
STATE JOB PIECE NO: 29829(04) — SHEET NO. B026

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B027	78

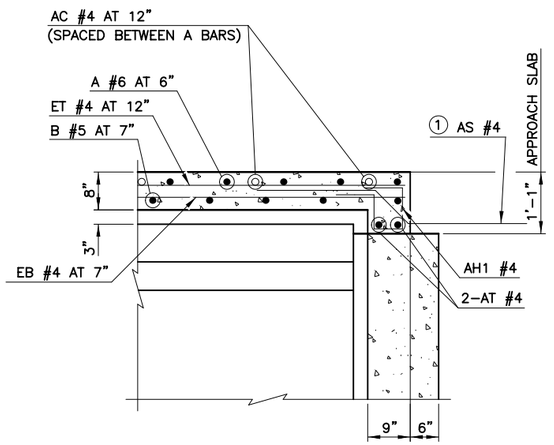
FINAL PLAN FIELD REVIEW MEETING
06/30/2021



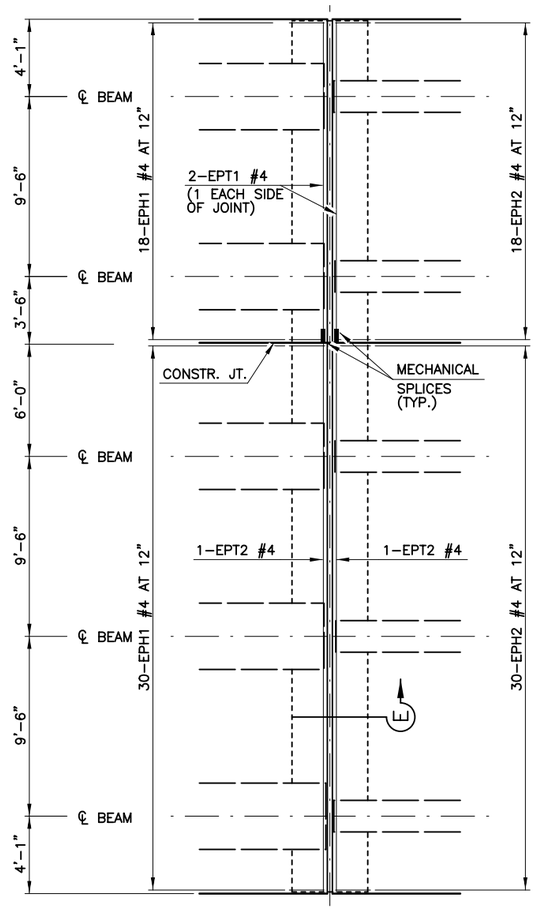
SECTION A–ABUTMENT BETWEEN BEAMS



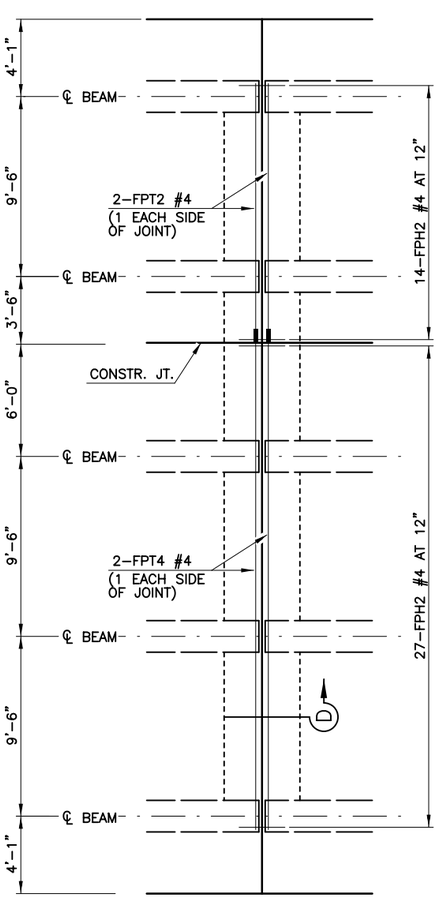
SECTION B–ABUTMENT THROUGH BEAMS



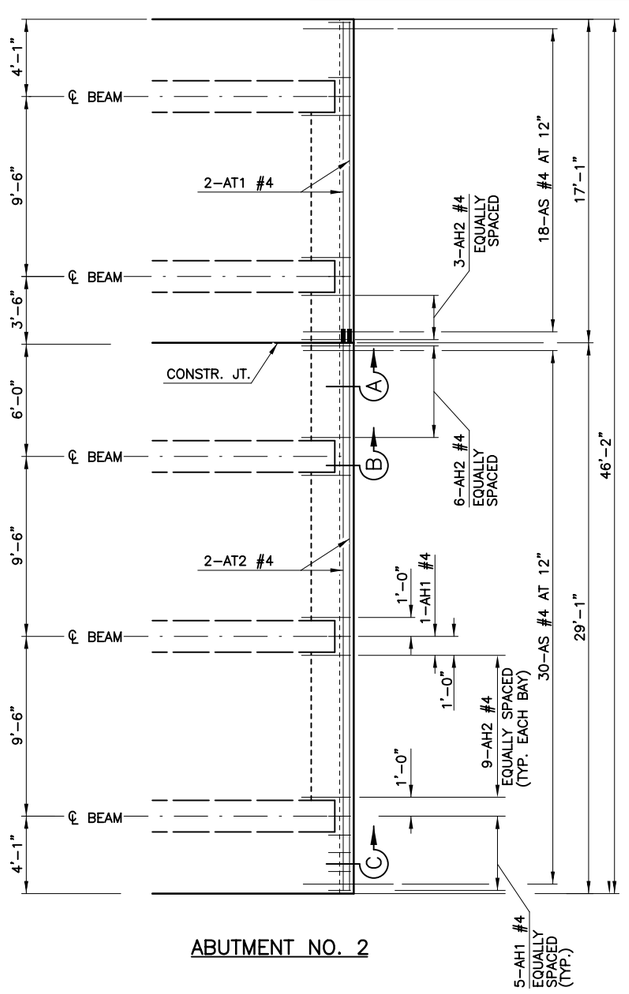
SECTION C–ABUTMENT THROUGH CANTILEVER



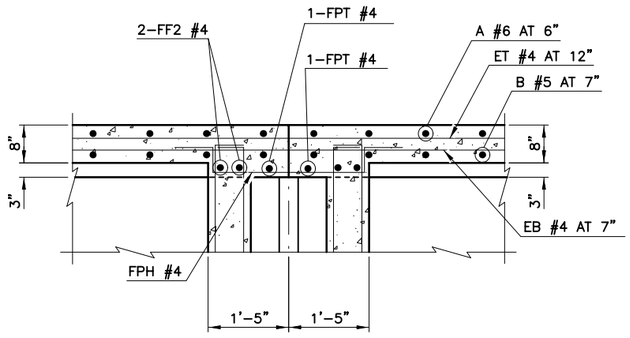
EXPANSION PIER
(PIER NO. 5)



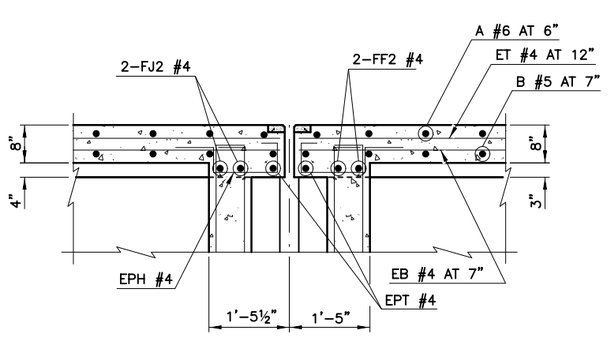
CONTINUOUS EXPANSION PIER
(PIER NO. 6)



ABUTMENT NO. 2



SECTION D–CONTINUOUS EXPANSION PIER OR FIXED PIER



SECTION E–EXPANSION PIER

① TIE TO TOP REINFORCING OF DECK SLAB AND BOTTOM REINFORCING OF THE APPROACH SLAB (PLACE BOTTOM LEG OF AS BAR THROUGH JOINT)

DESIGN:	IKC	2021
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SH–99 OVER CIMARRON RIVER — CREEK COUNTY

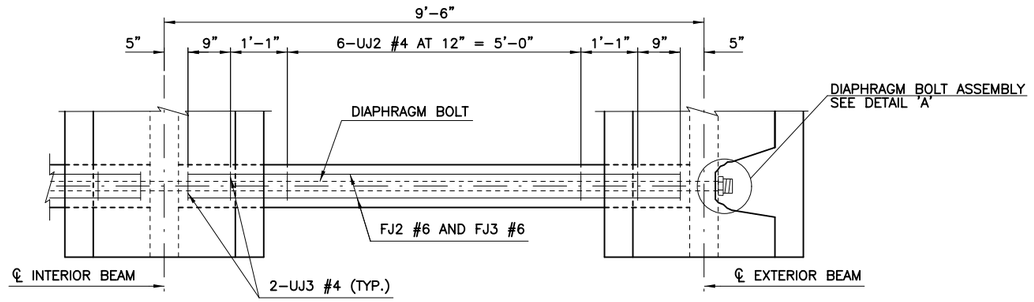
SUPERSTRUCTURE DETAILS

SHEET 6 OF 10

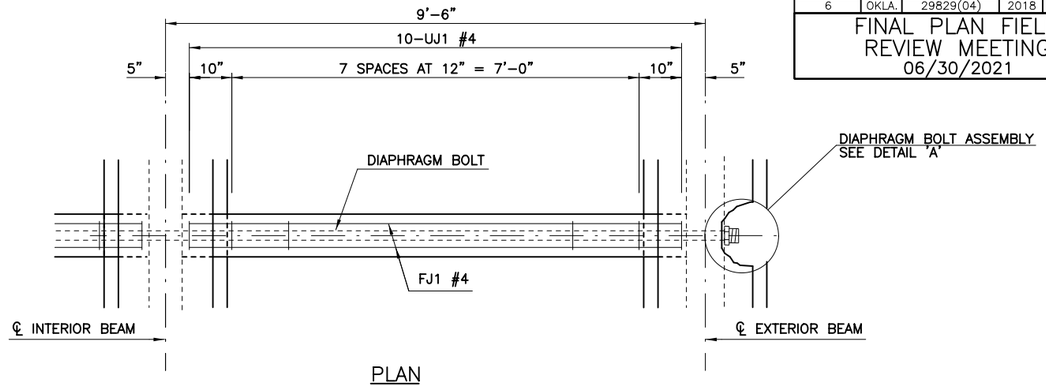
STATE JOB PIECE NO: 29829(04) — SHEET NO. B027

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B028	78

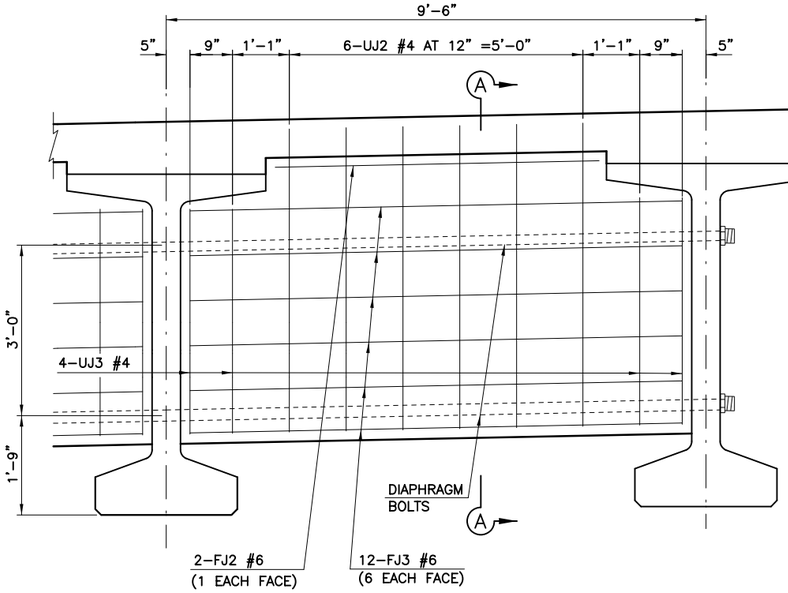
FINAL PLAN FIELD REVIEW MEETING
06/30/2021



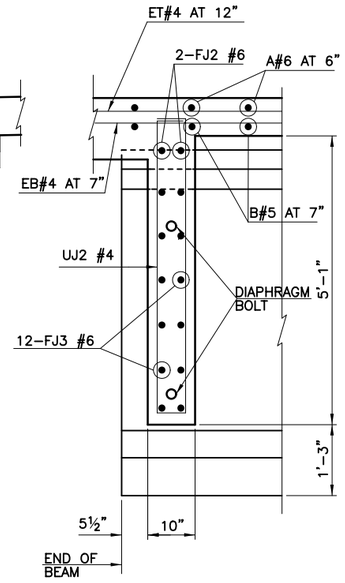
PLAN



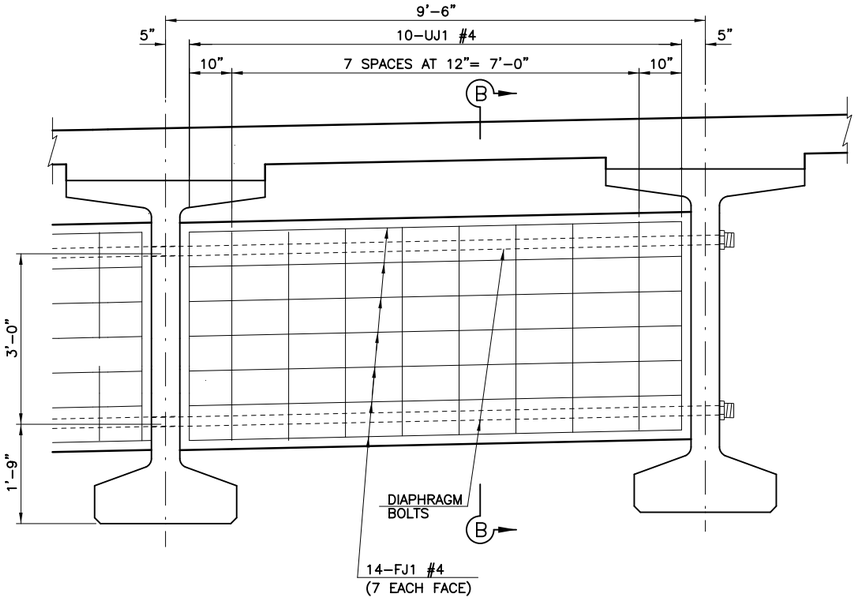
PLAN



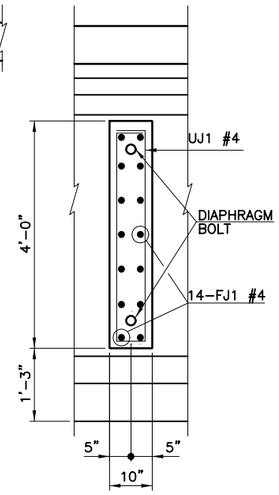
ELEVATION



SECTION A-A



ELEVATION



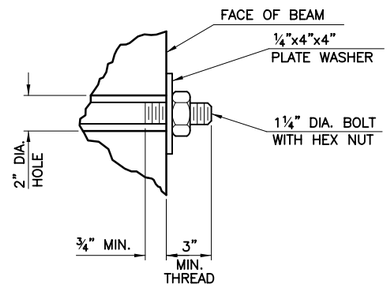
SECTION B-B

END DIAPHRAGM DETAILS
(TYPE J BEAMS, SPANS 1-5)

DIAPHRAGM BOLT NOTES:

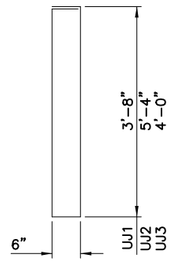
PROVIDE STRUCTURAL STEEL FOR DIAPHRAGM BOLTS AND PLATE WASHERS IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). THE CONTRACTOR MAY SUBSTITUTE A #10 REINFORCING BAR IN ACCORDANCE WITH AASHTO M31, GRADE 60, AND THREADED AT THE ENDS AS SHOWN FOR THE DIAPHRAGM BOLT AT NO ADDITIONAL COST TO THE AUTHORITY. PROVIDE HEX NUTS IN ACCORDANCE WITH AASHTO M291 (ASTM A563).

PAINT EXPOSED DIAPHRAGM BOLT, PLATE WASHER, AND HEX NUT WITH TWO (2) COATS OF ZINC-RICH PAINT (6 MIL MINIMUM THICKNESS) AFTER ASSEMBLY. INCLUDE ALL COST OF DIAPHRAGM BOLT, PLATE WASHER, AND HEX NUT IN THE CONTRACT UNIT PRICE FOR STRUCTUAL STEEL.



DETAIL 'A'

INTERMEDIATE DIAPHRAGM DETAILS
(TYPE J BEAMS, SPANS 1-5)
(2 INTERMEDIATE DIAPHRAGMS PER SPAN)



UJ1 #4x8'-10"
UJ2 #4x12'-2"
UJ3 #4x9'-6"

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

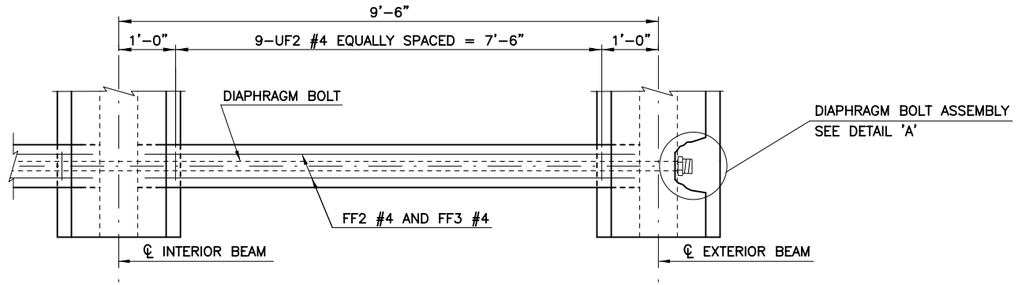
SUPERSTRUCTURE DETAILS

SHEET 7 OF 10

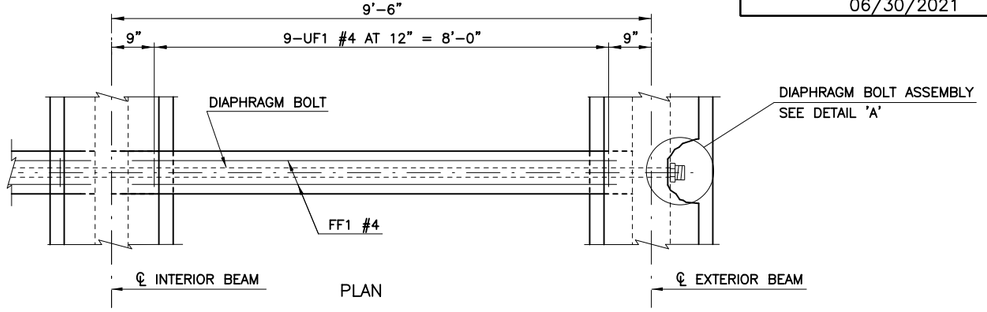
STATE JOB PIECE NO: 29829(04) — SHEET NO. B028

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B029	78

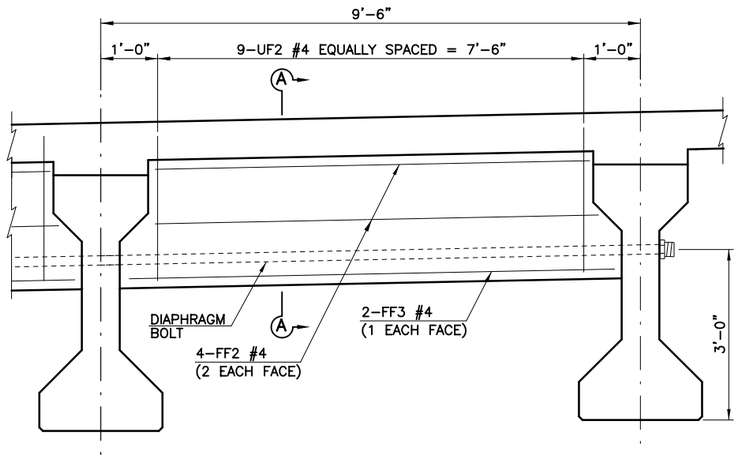
FINAL PLAN FIELD REVIEW MEETING
06/30/2021



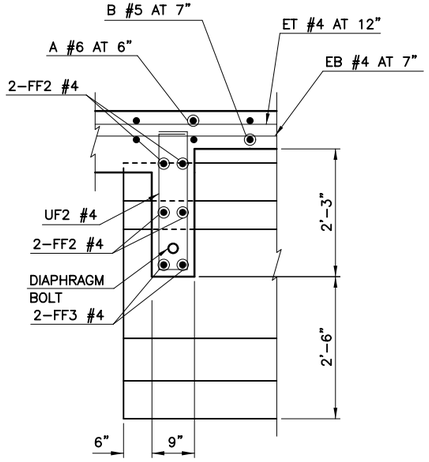
PLAN



PLAN

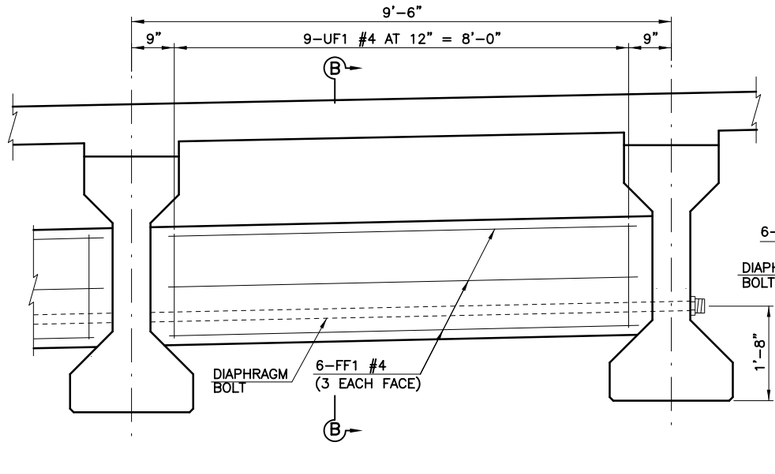


ELEVATION

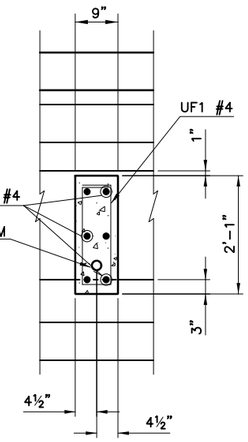


SECTION A-A

END DIAPHRAGM DETAILS
(TYPE IV BEAMS, SPANS 6 AND 7)



ELEVATION



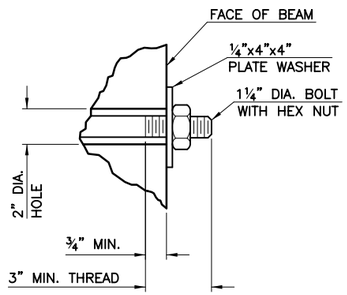
SECTION B-B

INTERMEDIATE DIAPHRAGM DETAILS
(TYPE IV BEAMS, SPANS 6 AND 7)

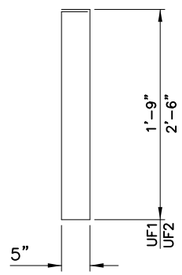
DIAPHRAGM BOLT NOTES:

PROVIDE STRUCTURAL STEEL FOR DIAPHRAGM BOLTS AND PLATE WASHERS IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). THE CONTRACTOR MAY SUBSTITUTE A #10 REINFORCING BAR IN ACCORDANCE WITH AASHTO M31, GRADE 60, AND THREADED AT THE ENDS AS SHOWN FOR THE DIAPHRAGM BOLT AT NO ADDITIONAL COST TO THE AUTHORITY. PROVIDE HEX NUTS IN ACCORDANCE WITH AASHTO M291 (ASTM A563).

PAINT EXPOSED DIAPHRAGM BOLT, PLATE WASHER, AND HEX NUT WITH TWO (2) COATS OF ZINC-RICH PAINT (6 MIL MINIMUM THICKNESS) AFTER ASSEMBLY. INCLUDE ALL COST OF DIAPHRAGM BOLT, PLATE WASHER, AND HEX NUT IN THE CONTRACT UNIT PRICE FOR STRUCTUAL STEEL.



DETAIL 'A'



UF1 #4x4'-9"
UF2 #4x6'-3"

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

SUPERSTRUCTURE DETAILS

SHEET 8 OF 10

STATE JOB PIECE NO: 29829(04) — SHEET NO. B029

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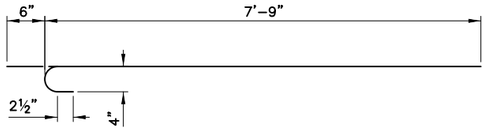
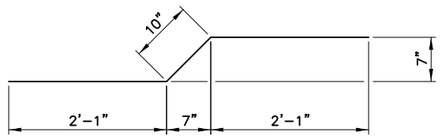
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B030	78

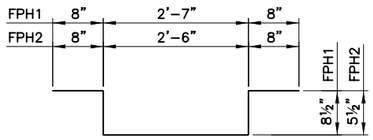
FINAL PLAN FIELD REVIEW MEETING
06/30/2021



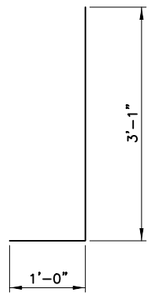
AC #4x8'–3"



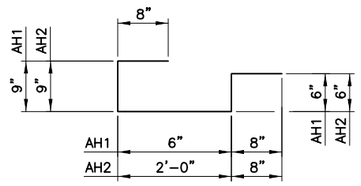
AS #4x5'–0"



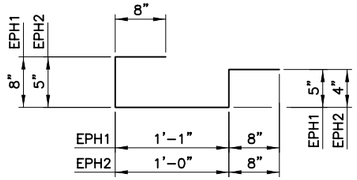
FPH1 #4x5'–4"
FPH2 #4x4'–9"



SR1 #5x4'–1"



AH1 #4x3'–1"
AH2 #4x4'–7"



EPH1 #4x3'–6"
EPH2 #4x3'–1"

SUPERSTRUCTURE BAR LIST – PHASE I				
EPOXY COATED REINFORCING BARS				
MARK	SIZE	NO.	FORM	LENGTH
A1	#6	1549	STR.	16'–11"
AC	#4	772	BNT.	8'–3"
AH1	#4	15	BNT.	3'–1"
AH2	#4	20	BNT.	4'–7"
AS	#4	36	BNT.	5'–0"
AT1	#4	4	STR.	16'–11"
B1	#5	1331	STR.	16'–11"
① EB1	#4	30	STR.	124'–8"
② EB2	#4	30	STR.	495'–10"
③ EB3	#4	30	STR.	176'–8"
EPH1	#4	54	BNT.	3'–6"
EPH2	#4	18	BNT.	3'–1"
EPT1	#4	4	STR.	16'–11"
① ET1	#4	18	STR.	124'–8"
② ET2	#4	18	STR.	495'–10"
③ ET3	#4	18	STR.	176'–8"
FPH1	#4	45	BNT.	5'–4"
FPH2	#4	14	BNT.	4'–9"
FPT1	#4	6	STR.	14'–7"
FPT2	#4	2	STR.	13'–8"
SR1	#5	1504	BNT.	4'–1"

① INCLUDES TWO 2'–0" LAPS
② INCLUDES EIGHT 2'–0" LAPS
③ INCLUDES THREE 2'–0" LAPS

SUPERSTRUCTURE BAR LIST – PHASE II				
EPOXY COATED REINFORCING BARS				
MARK	SIZE	NO.	FORM	LENGTH
A2	#6	1549	STR.	28'–11"
AC	#4	772	BNT.	8'–3"
AH1	#4	19	BNT.	3'–1"
AH2	#4	40	BNT.	4'–7"
AS	#4	60	BNT.	5'–0"
AT2	#4	4	STR.	28'–11"
B2	#5	1331	STR.	28'–11"
① EB1	#4	50	STR.	124'–8"
② EB2	#4	50	STR.	495'–10"
③ EB3	#4	50	STR.	176'–8"
EPH1	#4	90	BNT.	3'–6"
EPH2	#4	30	BNT.	3'–1"
EPT2	#4	4	STR.	28'–11"
① ET1	#4	30	STR.	124'–8"
② ET2	#4	30	STR.	495'–10"
③ ET3	#4	30	STR.	176'–8"
FPH1	#4	84	BNT.	5'–4"
FPH2	#4	27	BNT.	4'–9"
FPT3	#4	6	STR.	26'–7"
FPT4	#4	2	STR.	25'–8"
SR1	#5	1504	BNT.	4'–1"

① INCLUDES TWO 2'–0" LAPS
② INCLUDES EIGHT 2'–0" LAPS
③ INCLUDES THREE 2'–0" LAPS

EXPANSION JOINT SETTING		
EXP JOINT OPENING	TEMP. (°F) PIER NO. 1	TEMP. (°F) PIER NO. 5
2⅝"	19	22
2½"	24	26
2⅜"	29	30
2¼"	33	35
2⅛"	38	39
2"	43	43
1⅞"	48	47
1¾"	53	51
1⅝"	57	56
1½"	62	60
1⅜"	67	64
1¼"	72	68
1⅛"	77	73
1"	81	77
⅞"	86	81
¾"	91	85
⅝"	96	89
½"	101	94
⅜"	106	98
¼"	110	102

DIAPHRAGM BAR LIST– PHASE I				
EPOXY COATED REINFORCING BARS				
MARK	SIZE	NO.	FORM	LENGTH
FF1	#4	12	STR.	8'–6"
FF2	#4	16	STR.	7'–6"
FF3	#4	8	STR.	8'–6"
FJ1	#4	140	STR.	8'–8"
FJ2	#6	20	STR.	5'–8"
FJ3	#6	120	STR.	8'–8"
UF1	#4	18	BNT.	4'–9"
UF2	#4	36	BNT.	6'–3"
UJ1	#4	100	BNT.	8'–10"
UJ2	#4	60	BNT.	12'–2"
UJ3	#4	40	BNT.	9'–6"

DIAPHRAGM BAR LIST– PHASE II				
EPOXY COATED REINFORCING BARS				
MARK	SIZE	NO.	FORM	LENGTH
FF1	#4	36	STR.	8'–6"
FF2	#4	48	STR.	7'–6"
FF3	#4	24	STR.	8'–6"
FJ1	#4	420	STR.	8'–8"
FJ2	#6	60	STR.	5'–8"
FJ3	#6	360	STR.	8'–8"
UF1	#4	54	BNT.	4'–9"
UF2	#4	108	BNT.	6'–3"
UJ1	#4	300	BNT.	8'–10"
UJ2	#4	180	BNT.	12'–2"
UJ3	#4	120	BNT.	9'–6"

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SH–99 OVER CIMARRON RIVER — CREEK COUNTY

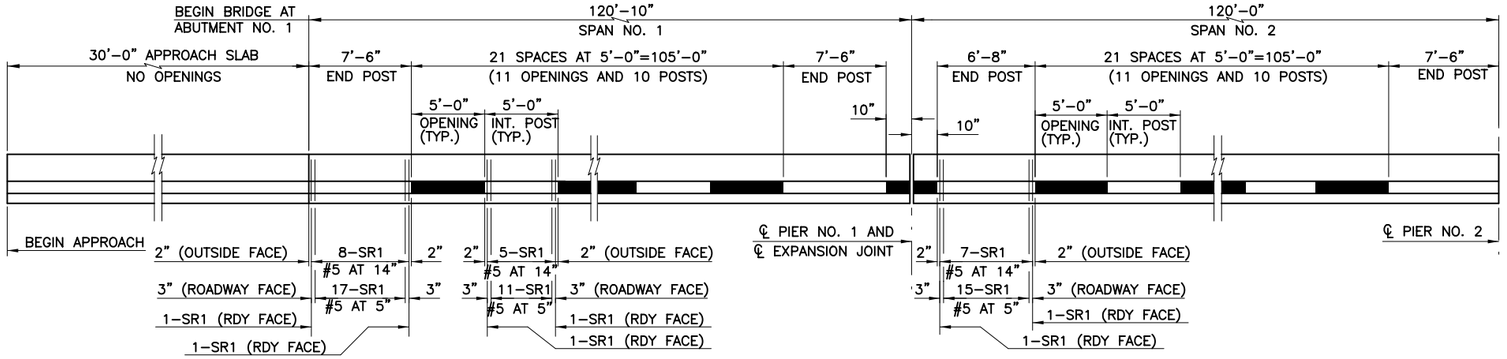
SUPERSTRUCTURE DETAILS

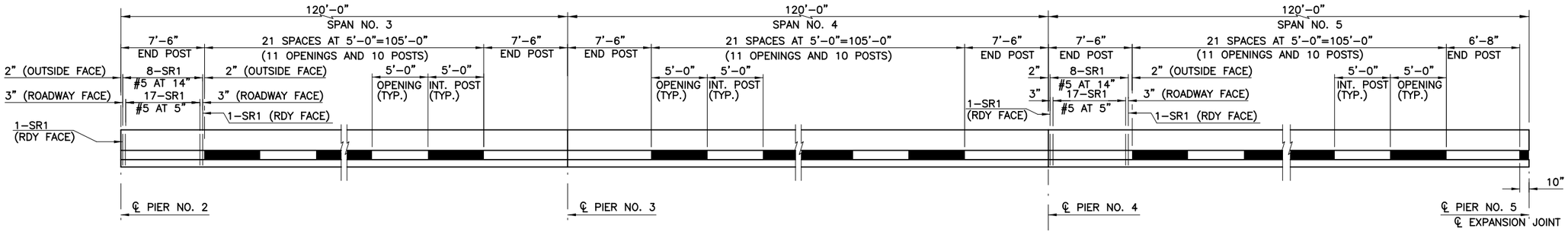
SHEET 9 OF 10

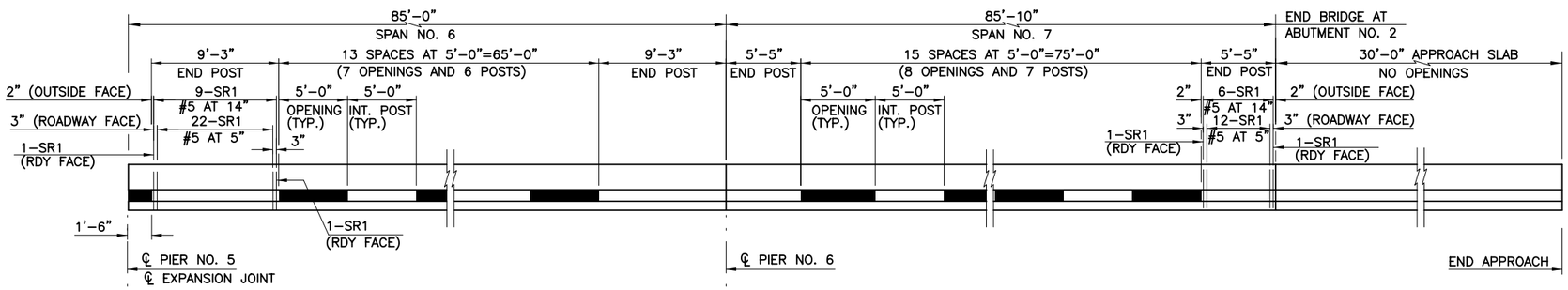
STATE JOB PIECE NO: 29829(04) — SHEET NO. B030

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B031	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021







TR4 TRAFFIC RAIL LAYOUT

NOTE:
FOR ADDITIONAL DETAILS SEE TR4–2.
ALL DIMENSIONS ARE ALONG ROADWAY FACE.

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APPRVD:	CPY	2021

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SH–99 OVER CIMARRON RIVER — CREEK COUNTY

SUPERSTRUCTURE DETAILS

SHEET 10 OF 10

STATE JOB PIECE NO: 29829(04) — SHEET NO. B031

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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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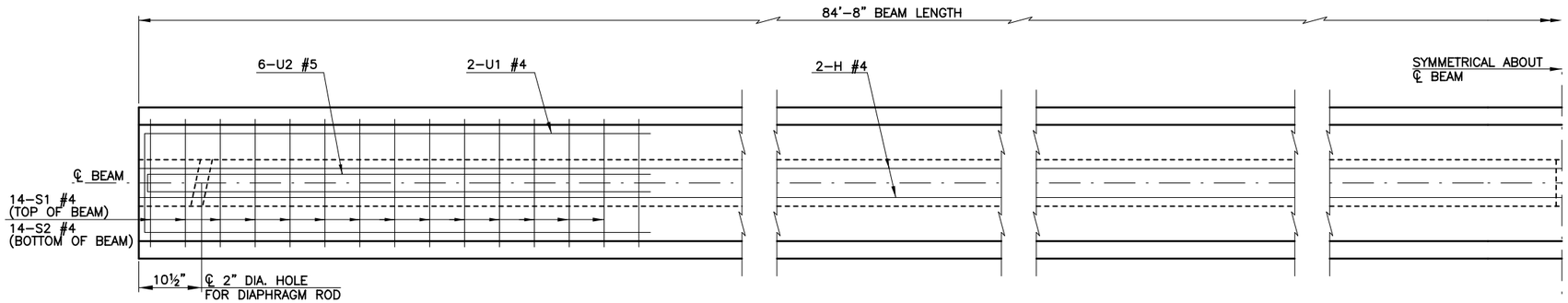
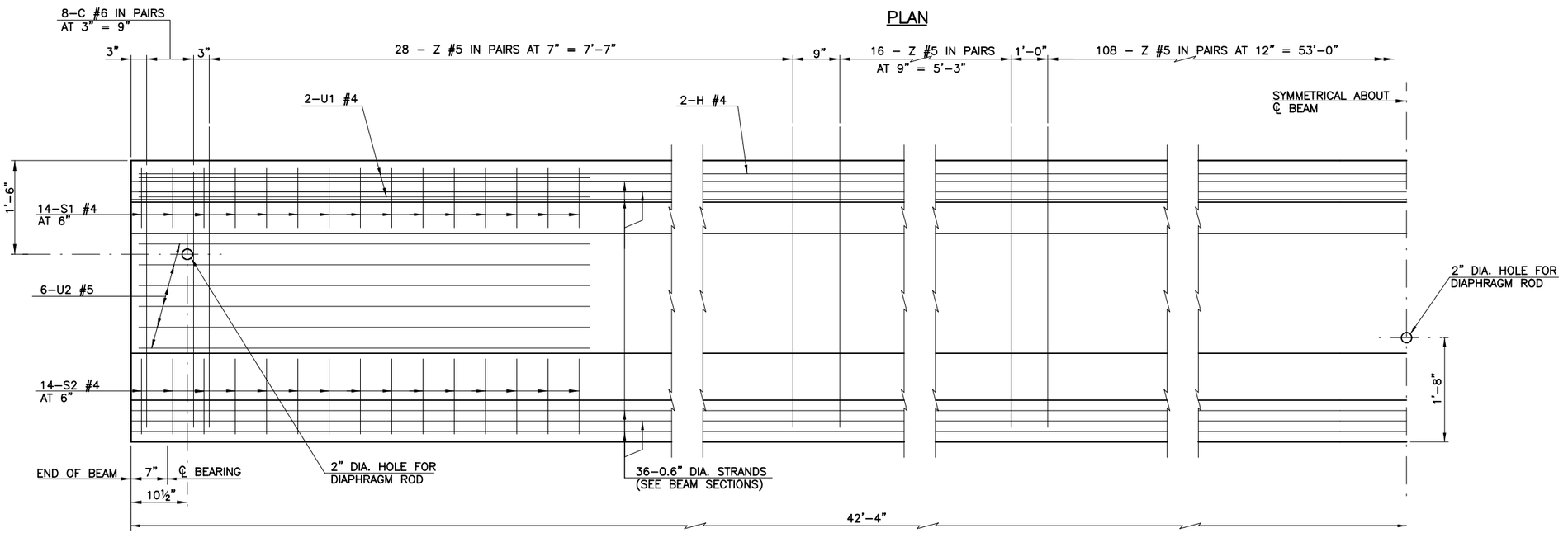
FINAL PLAN FIELD REVIEW MEETING
06/30/2021



PLAN



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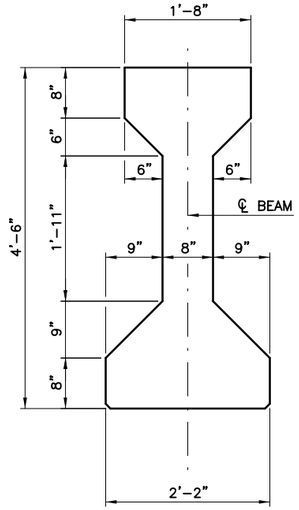


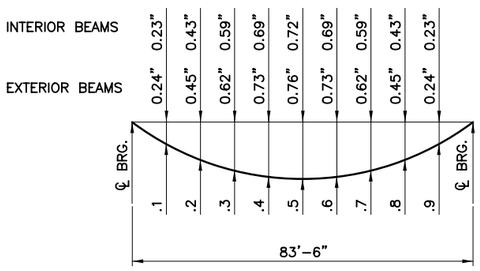
END VIEW
(TYPE IV P.C.B.)

PRESTRESSED CONCRETE BEAM NOTES:

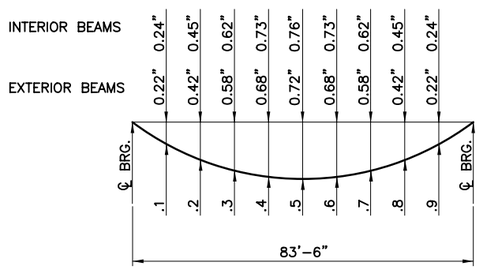
COMPRESSIVE STRENGTH:
PROVIDE CONCRETE WITH A COMPRESSIVE STRENGTH OF 6,200 P.S.I. AT TRANSFER OF PRESTRESS AND 9,000 P.S.I. AT 28 DAYS.

STRAND TYPE:
PROVIDE LOW-RELAXATION STRANDS HAVING A NOMINAL DIAMETER OF 0.6" WITH ULTIMATE TENSILE STRENGTH OF 270 K.S.I.

LRFR INVENTORY RATING FACTOR = 1.63
LRFR OPERATING RATING FACTOR = 2.12



DEAD LOAD DEFLECTION DIAGRAM
PHASE I



DEAD LOAD DEFLECTION DIAGRAM
PHASE II

NOTE:
THE DEAD LOAD DEFLECTION SHOWN AT THE TENTH POINTS ARE THE INITIAL DEFLECTIONS DUE TO DECK SLAB + DIAPHRAGMS + HAUNCH + S.I.P. STEEL FORMS + CONCRETE PARAPETS AND TRAFFIC RAIL. IT DOES NOT INCLUDE THE BEAM WEIGHT OR FUTURE WEARING SURFACE.

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

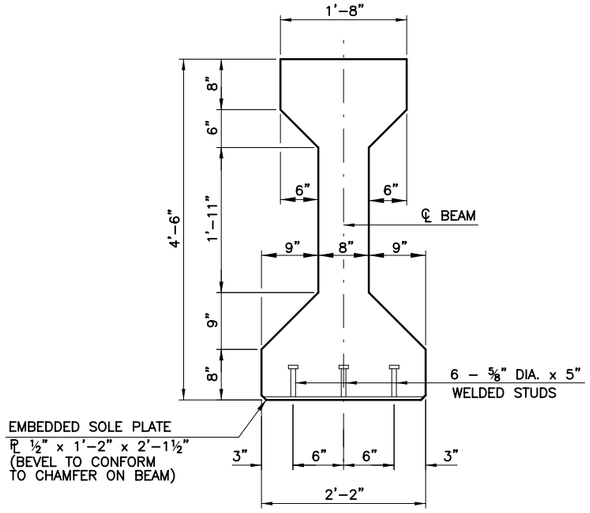
TYPE IV P.C. BEAM DETAILS

SHEET 1 OF 2

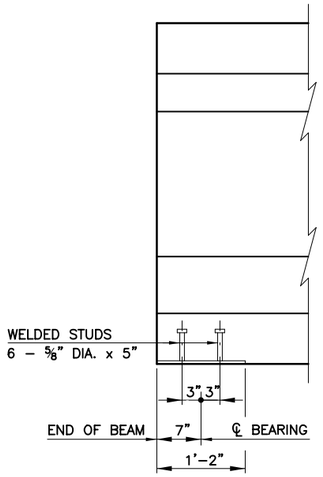
STATE JOB PIECE NO: 29829(04) — SHEET NO.B032

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B033	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

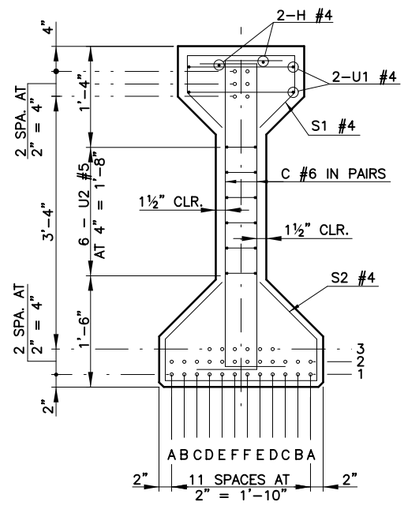


END VIEW
(TYPE IV P.C.B.)



END ELEVATION

NOTE:
PROVIDE AN EMBEDDED SOLE PLATE AT EACH END OF BEAM



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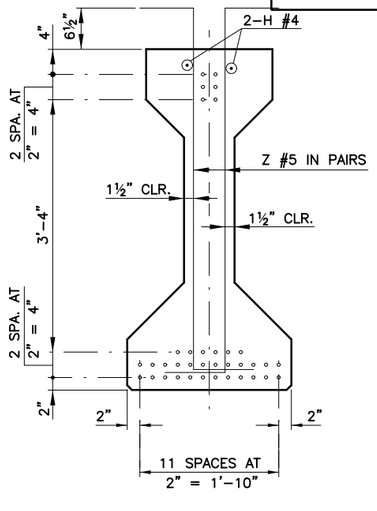
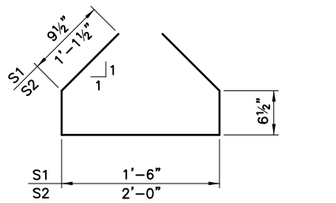
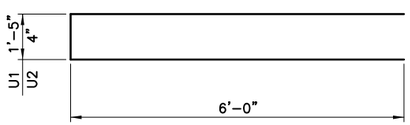


℄ SECTION

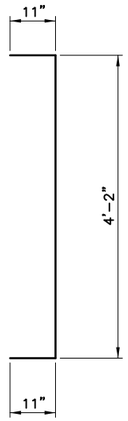
BEAM SECTIONS
(36 – 0.6 DIA. STRANDS)



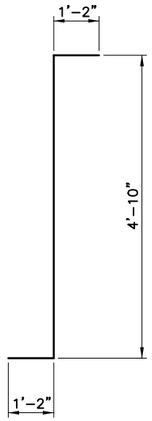
S1 #4 x 4'-2"
S2 #4 x 5'-4"



U1 #4 x 13'-5"
U2 #5 x 12'-4"

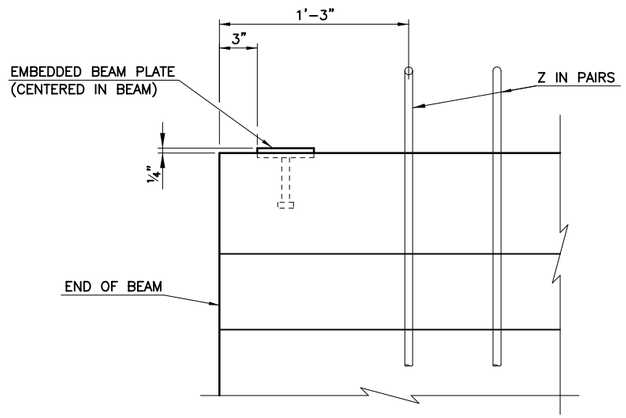


C #6 x 6'-0"



Z #5 x 7'-2"
(EPOXY COATED)

TYPE IV BAR BENDS



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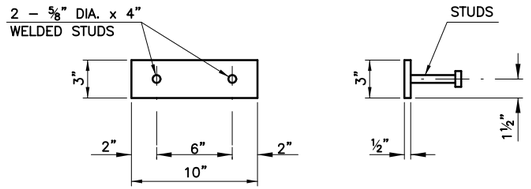
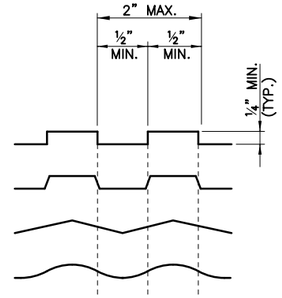


TOP VIEW END VIEW

EMBEDDED BEAM PLATE DETAILS

NOTE:
PROVIDE AN EMBEDDED BEAM PLATE AT EXPANSION ENDS ONLY.



INTENTIONALLY ROUGHENED SURFACE EXAMPLES

TOP SURFACE OF THE BEAMS SHALL BE INTENTIONALLY ROUGHENED TO A MINIMUM HEIGHT OF ¼" OVER A MAXIMUM PITCH OF 2" MEASURED LONGITUDINALLY ALONG THE LENGTH OF THE BEAM. THE CREST AND TROUGH ASSOCIATED WITH THE HEIGHT SHALL NOT BE LESS THAN ½" AND SHALL EXTEND THE FULL WIDTH OF THE TOP FLANGE. ROUGHENED SURFACE MAY BE OBTAINED BY A SPECIAL TROWEL AS SHOWN IN THE EXAMPLES, BY CLEANING THE CONCRETE SURFACE WITH A STIFF WIRE BRUSH, BY BLASTING TO THE EXTENT THE AGGREGATE IS EXPOSED TO A HEIGHT OF ¼" OR BY ANOTHER APPROVED METHOD. THE METHOD USED SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER. REPAIR ANY DAMAGE TO THE EPOXY COATING ON THE REINFORCING STEEL BEFORE PLACEMENT OF THE DECK SLAB CONCRETE.

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APPRVD:	CPY	2021

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

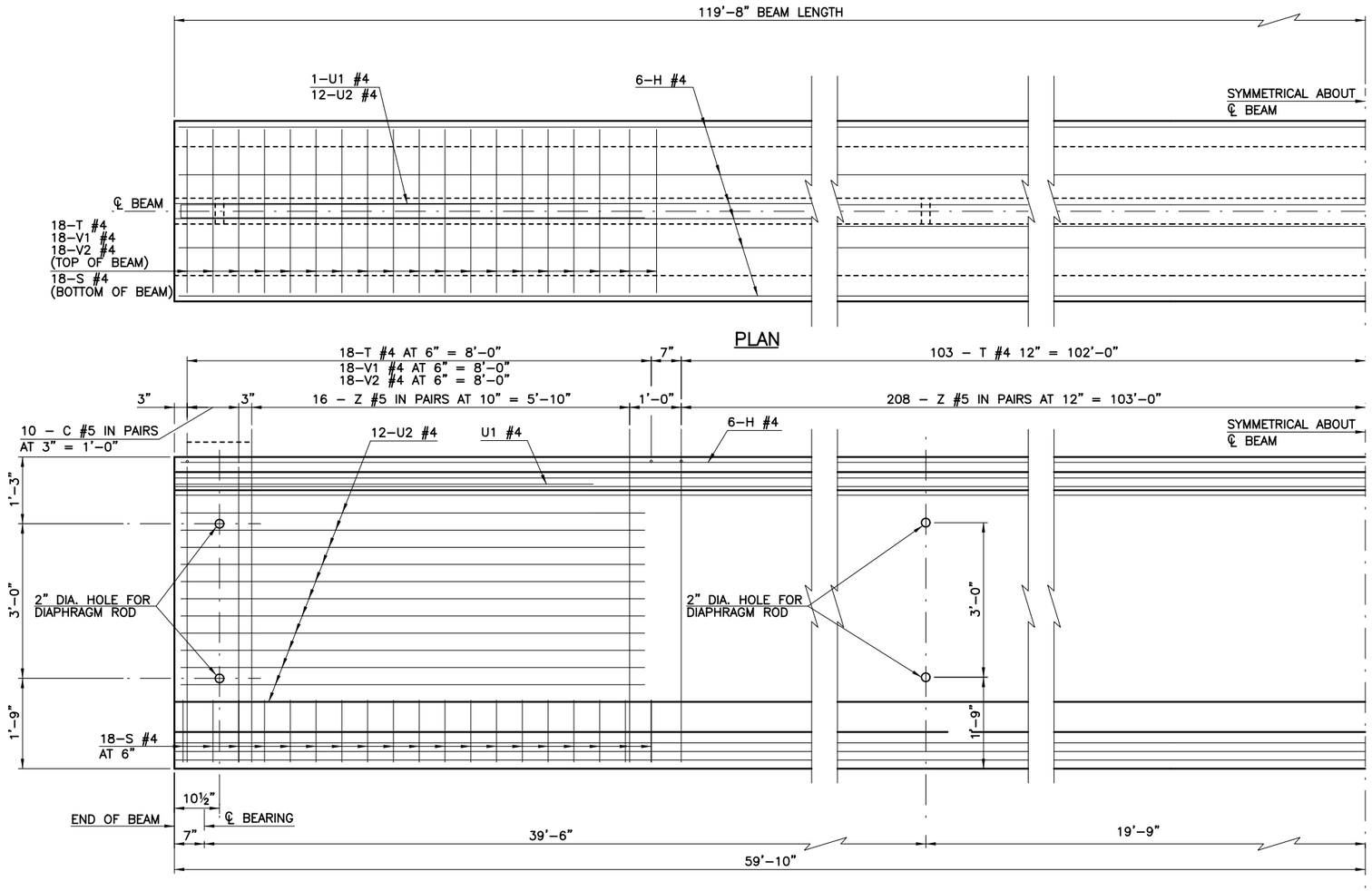
TYPE IV P.C. BEAM DETAILS

SHEET 2 OF 2

STATE JOB PIECE NO: 29829(04) — SHEET NO.B033

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B034	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



PLAN

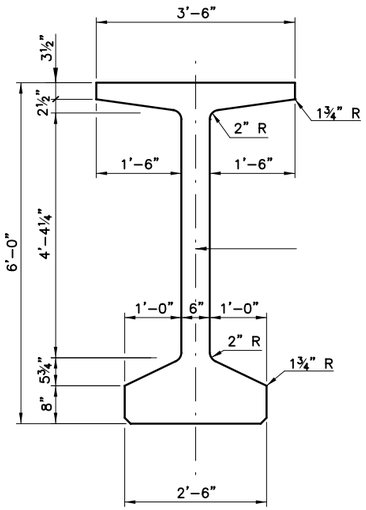
ELEVATION

PRESTRESSED CONCRETE BEAM NOTES:

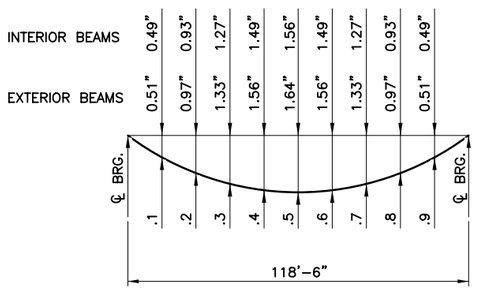
COMPRESSIVE STRENGTH:
PROVIDE CONCRETE WITH A COMPRESSIVE STRENGTH OF 6,400 P.S.I. AT TRANSFER OF PRESTRESS AND 9,000 P.S.I. AT 28 DAYS.

STRAND TYPE:
PROVIDE LOW–RELAXATION STRANDS HAVING A NOMINAL DIAMETER OF 0.6" WITH ULTIMATE TENSILE STRENGTH OF 270 K.S.I.

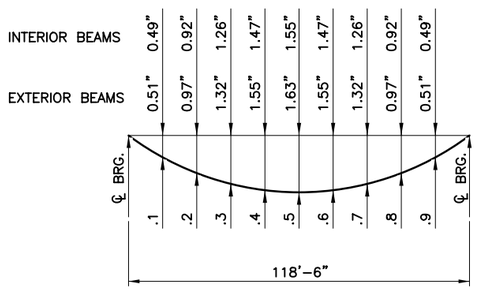
LRFR INVENTORY RATING FACTOR = 1.48
LRFR OPERATING RATING FACTOR = 1.92



END VIEW
(TYPE J P.C.B.)



DEAD LOAD DEFLECTION DIAGRAM
PHASE I



DEAD LOAD DEFLECTION DIAGRAM
PHASE II

NOTE:
THE DEAD LOAD DEFLECTION SHOWN AT THE TENTH POINTS ARE THE INITIAL DEFLECTIONS DUE TO DECK SLAB + STAY–IN–PLACE FORMS + DIAPHRAGMS + HAUNCH + CONCRETE PARAPETS. IT DOES NOT INCLUDE THE BEAM WEIGHT OR FUTURE WEARING SURFACE.

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

DESIGN:	IKC	2021
DRAWN:	CR	2021
CHECKED:	CPY	2021
APPRVD:	CPY	2021

CP&Y

SH–99 OVER CIMARRON RIVER — CREEK COUNTY

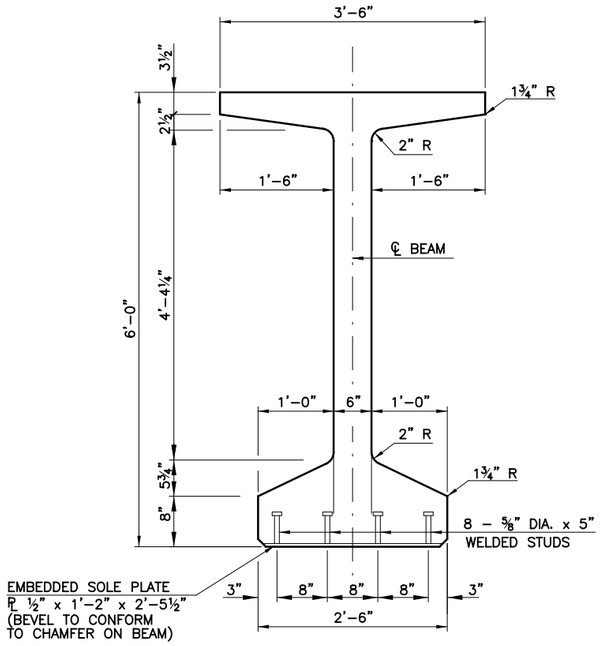
TYPE J P.C. BEAM DETAILS

SHEET 1 OF 2

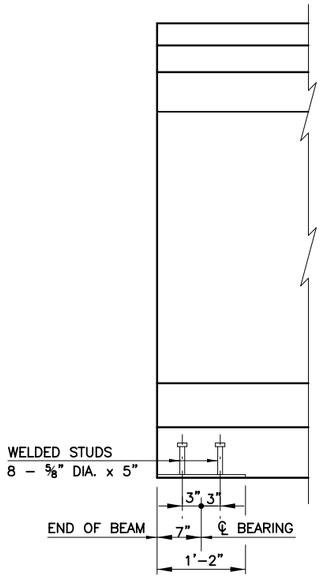
STATE JOB PIECE NO: 29829(04) — SHEET NO.B034

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B035	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

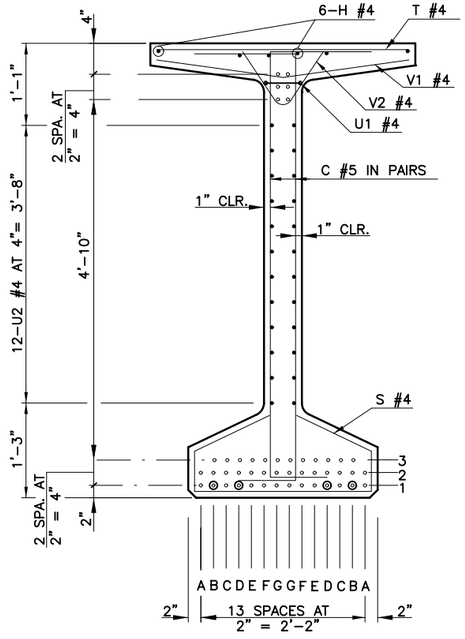


END VIEW
(TYPE J P.C.B.)

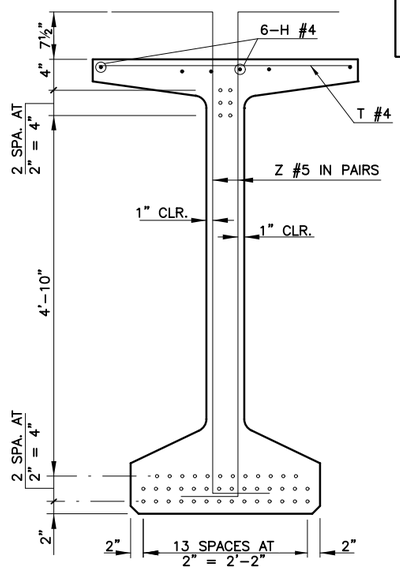


END ELEVATION

NOTE:
PROVIDE AN EMBEDDED SOLE PLATE AT EACH END OF BEAM



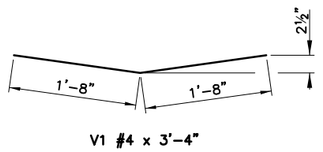
END SECTION



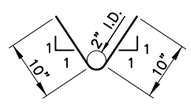
℄ SECTION

DEBOND SCHEDULE	
DEBOND PAIR	DEBOND LENGTH FROM END OF BEAM
B1	12'-0"
D1	6'-0"

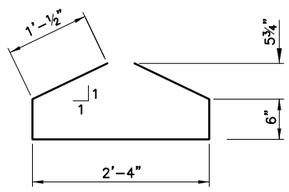
BEAM SEACTIONS
(46 – 0.6 DIA. STRANDS)



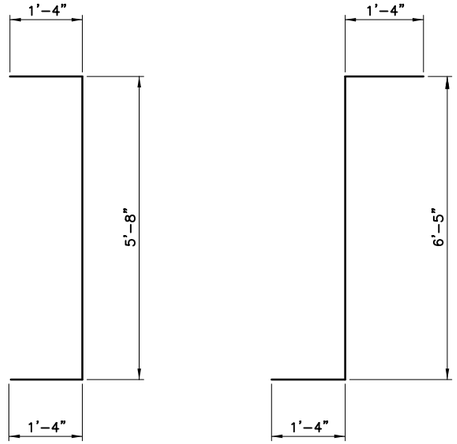
V1 #4 x 3'-4"



V2 #4 x 1'-8"

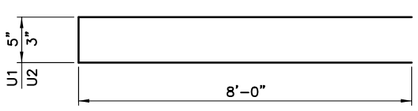


S #4 x 5'-7"

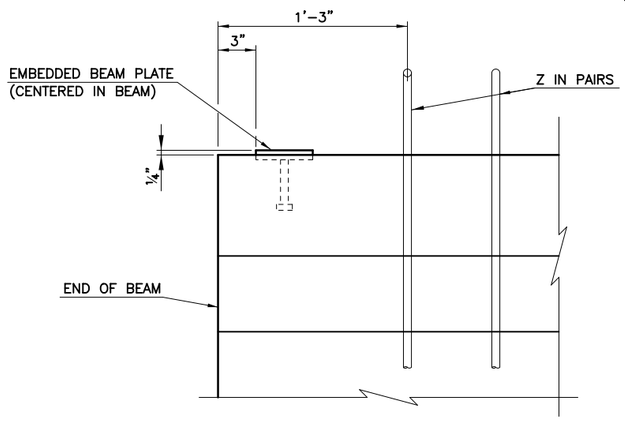


C #5 x 8'-4"

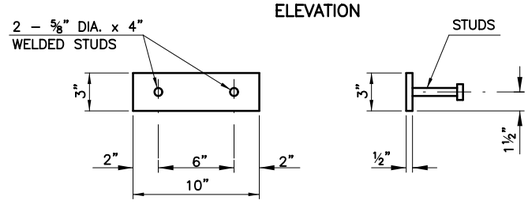
Z #5 x 9'-1"
(EPOXY COATED)



U1 #4 x 16'-5"
U2 #4 x 16'-3"



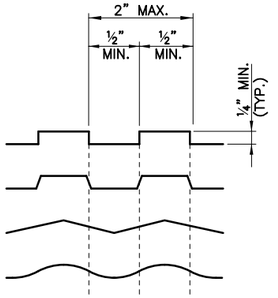
ELEVATION



TOP VIEW END VIEW

EMBEDDED BEAM PLATE DETAILS

NOTE:
PROVIDE AN EMBEDDED BEAM PLATE AT EXPANSION ENDS ONLY.



INTENTIONALLY ROUGHENED SURFACE EXAMPLES

TOP SURFACE OF THE BEAMS SHALL BE INTENTIONALLY ROUGHENED TO A MINIMUM HEIGHT OF ¼" OVER A MAXIMUM PITCH OF 2" MEASURED LONGITUDINALLY ALONG THE LENGTH OF THE BEAM. THE CREST AND TROUGH ASSOCIATED WITH THE HEIGHT SHALL NOT BE LESS THAN ½" AND SHALL EXTEND THE FULL WIDTH OF THE TOP FLANGE. ROUGHENED SURFACE MAY BE OBTAINED BY A SPECIAL TROWEL AS SHOWN IN THE EXAMPLES, BY CLEANING THE CONCRETE SURFACE WITH A STIFF WIRE BRUSH, BY BLASTING TO THE EXTENT THE AGGREGATE IS EXPOSED TO A HEIGHT OF ¼" OR BY ANOTHER APPROVED METHOD. THE METHOD USED SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER. REPAIR ANY DAMAGE TO THE EPOXY COATING ON THE REINFORCING STEEL BEFORE PLACEMENT OF THE DECK SLAB CONCRETE.

DESIGN:	IKC	2021
DRAWN:	CR	2021
CHECKED:	CPY	2021
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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

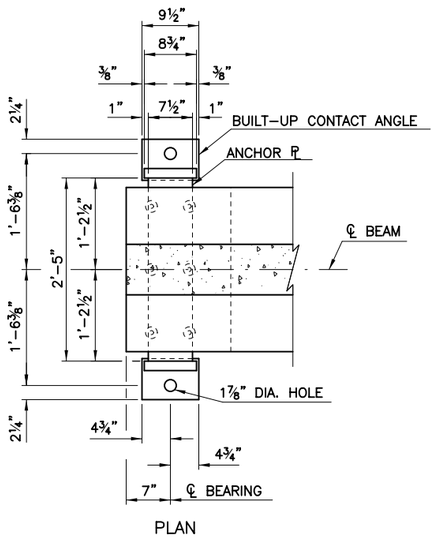
TYPE J P.C. BEAM DETAILS

SHEET 2 OF 2

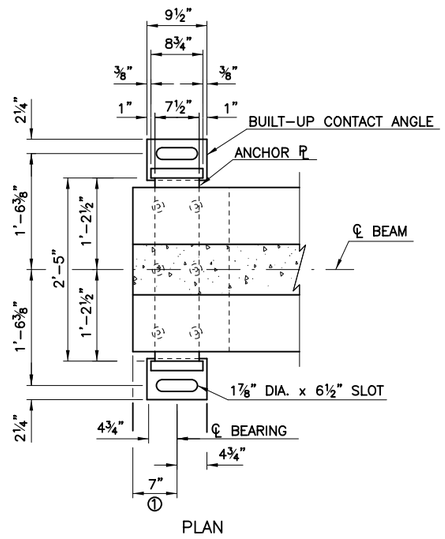
STATE JOB PIECE NO: 29829(04) — SHEET NO.B035

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B036	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

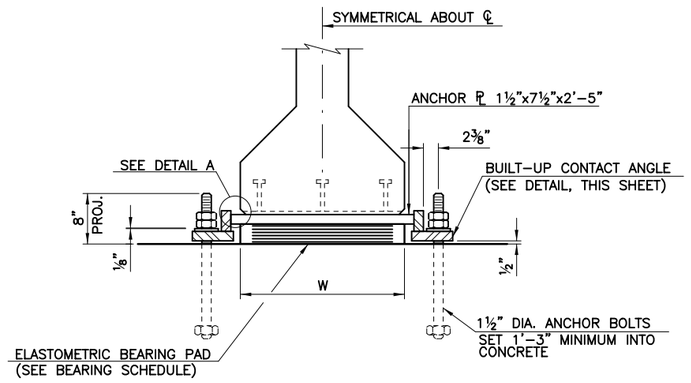


PLAN

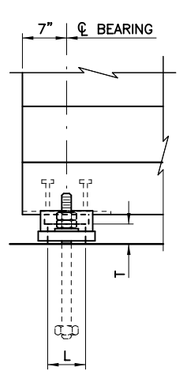


PLAN

BEARING SCHEDULE				
SPAN	60 DUROMETER ELASTOMETER BEARING PAD			
	SIZE (T x L x W)	COVER LAYER	INNER LAYER	LAMINATE PLATE
85'	3⅛"x7"x2'–2"	2 – ¼"	5 – ⅜"	6 – ⅛"

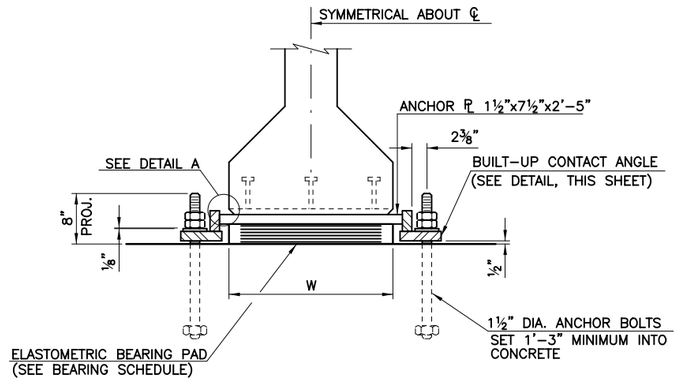


END VIEW

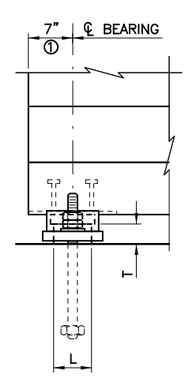


SIDE VIEW

FIXED BEARING DETAILS



END VIEW



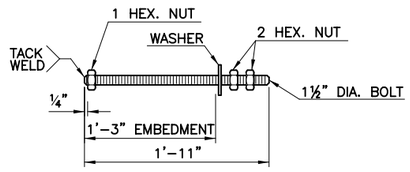
SIDE VIEW

EXPANSION BEARING DETAILS

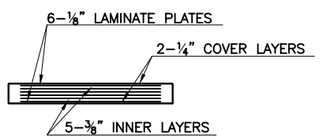
BEARING ASSEMBLY NOTES:

PROVIDE STRUCTURAL STEEL FOR ANCHOR PLATES AND BUILT–UP CONTACT ANGLES 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.

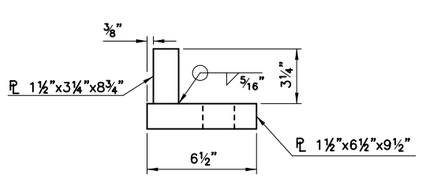
① CENTER ANCHOR BOLTS IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.



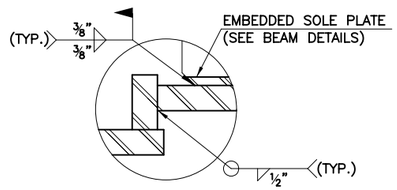
ANCHOR BOLT DETAIL



BEARING PAD DETAIL



BUILT–UP CONTACT ANGLE DETAIL



DETAIL A

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DESIGN:	IKC	2021
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CHECKED:	CPY	2021
APPRVD:	CPY	2021

CP&Y

SH–99 OVER CIMARRON RIVER — CREEK COUNTY

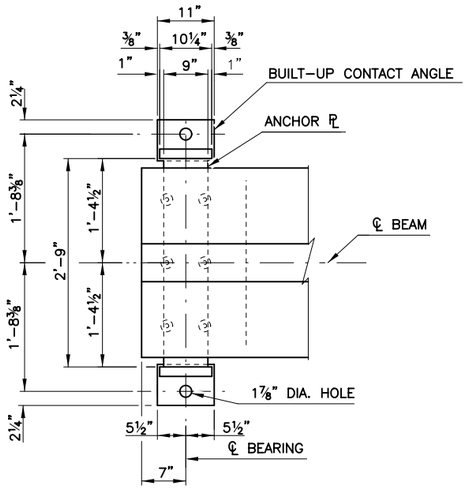
BEARING ASSEMBLY DETAILS
(TYPE IV)

SHEET 1 OF 2

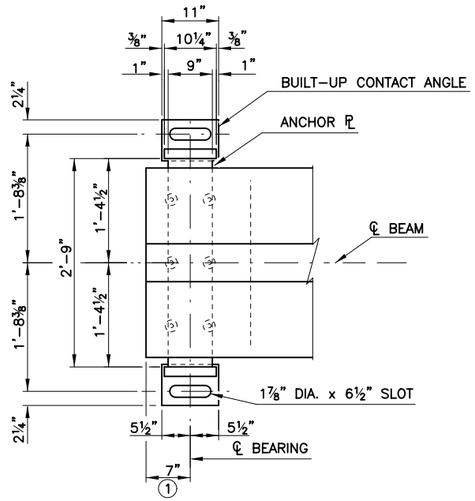
STATE JOB PIECE NO: 29829(04) — SHEET NO. B036

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B037	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

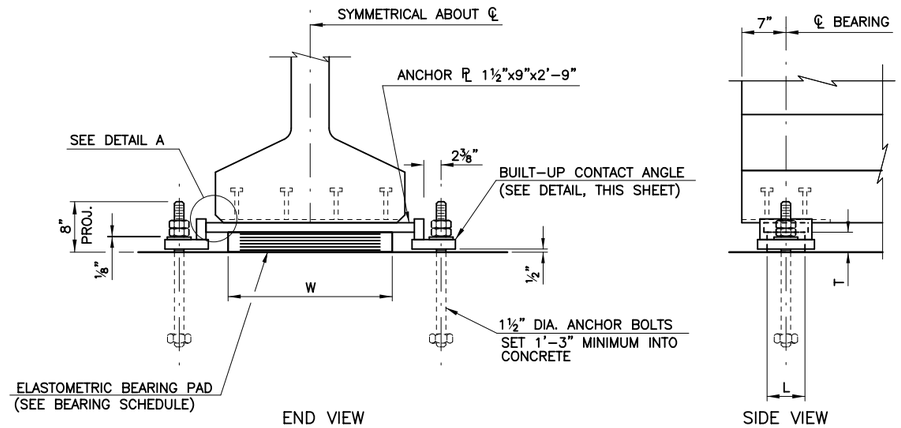


FIXED BEARING PLAN

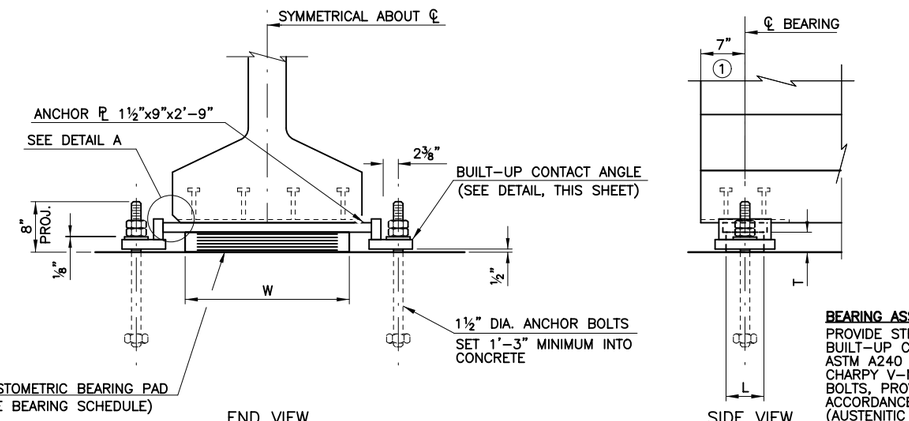


EXPANSION BEARING PLAN

BEARING SCHEDULE				
SPAN	60 DUROMETER ELASTOMETER BEARING PAD			
	SIZE (T x L x W)	COVER LAYER	INNER LAYER	LAMINATE PLATE
120'	4⅛"x8"x2'–6"	2 – ¼"	7 – ⅜"	8 – ⅛"



FIXED BEARING DETAILS

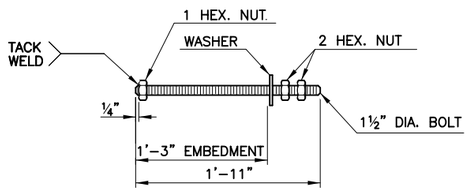


EXPANSION BEARING DETAILS

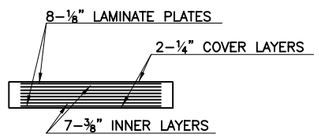
BEARING ASSEMBLY NOTES:

PROVIDE STRUCTURAL STEEL FOR ANCHOR PLATES AND BUILT–UP CONTACT ANGLES 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.

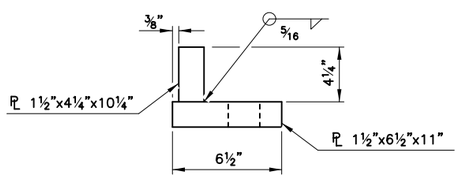
(1) CENTER ANCHOR BOLTS IN SLOTS AT EXPANSION BEARINGS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.



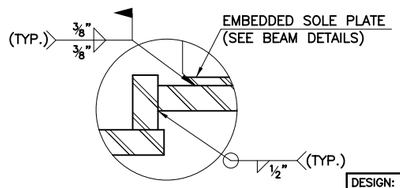
ANCHOR BOLT DETAIL



BEARING PAD DETAIL



BUILT–UP CONTACT ANGLE DETAIL



DETAIL A

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DESIGN:	IKC	2021
DRAWN:	CR	2021
CHECKED:	CPY	2021
APPRVD:	CPY	2021

CP&Y

SH–99 OVER CIMARRON RIVER — CREEK COUNTY

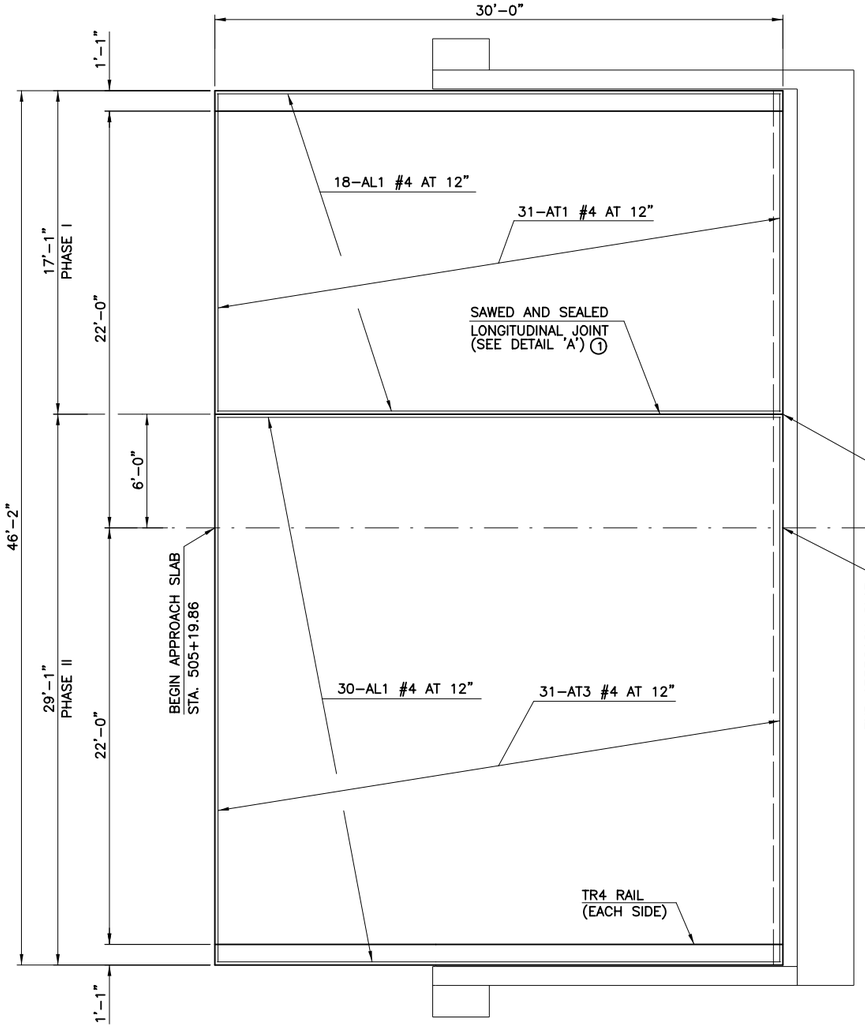
BEARING ASSEMBLY DETAILS
(TYPE J)

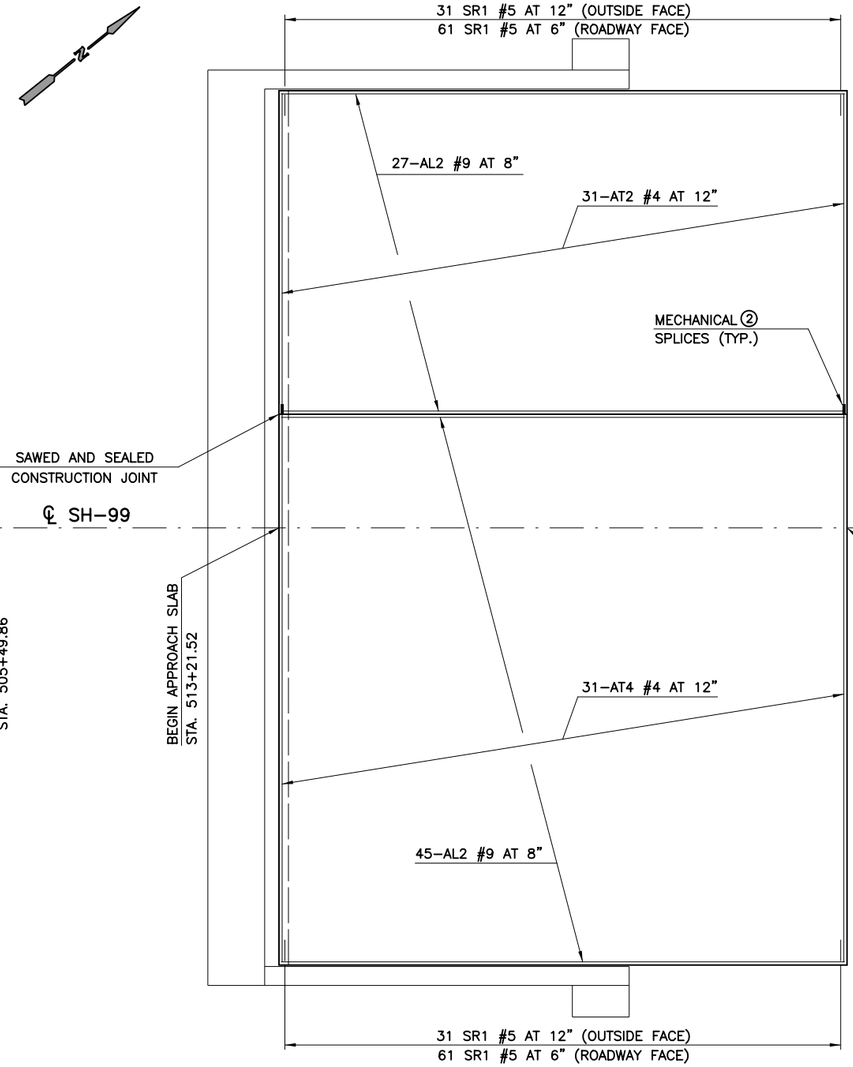
SHEET 2 OF 2

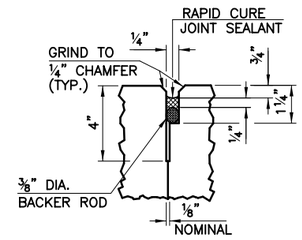
STATE JOB PIECE NO: 29829(04) — SHEET NO. B037

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B038	78

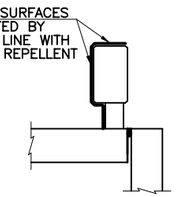
FINAL PLAN FIELD REVIEW MEETING
06/30/2021







DETAIL 'A'



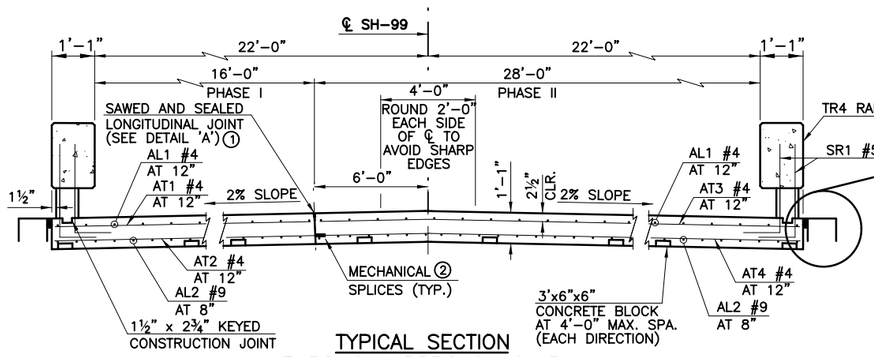
WATER REPELLENT TREATMENT DETAIL

APPROACH SLAB NO. 1
TOP MAT OF REINFORCING STEEL SHOWN
(TYPICAL FOR EACH APPROACH SLAB)

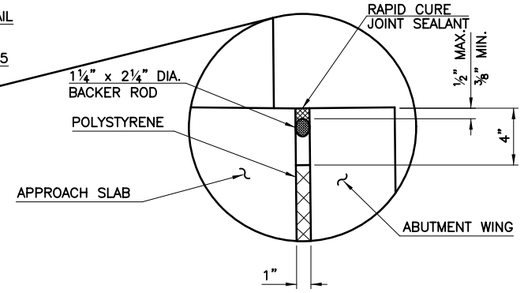
APPROACH SLAB NO. 2
BOTTOM MAT OF REINFORCING STEEL SHOWN
(TYPICAL FOR EACH APPROACH SLAB)

APPROACH SLAB BAR LIST (ONE APPROACH SHOWN, TWO REQ'D) PHASE I				
EPOXY COATED REINFORCING				
MARK	SIZE	NO.	FORM	LENGTH
AL1	#4	18	STR.	29'-10"
AL2	#9	27	STR.	29'-10"
AT1	#4	31	STR.	16'-9"
AT2	#4	31	STR.	16'-11"
SR1	#5	92	BNT.	4'-1"

APPROACH SLAB BAR LIST (ONE APPROACH SHOWN, TWO REQ'D) PHASE II				
EPOXY COATED REINFORCING				
MARK	SIZE	NO.	FORM	LENGTH
AL1	#4	30	STR.	29'-10"
AL2	#9	45	STR.	29'-10"
AT3	#4	31	STR.	28'-9"
AT4	#4	31	STR.	28'-11"
SR1	#5	92	BNT.	4'-1"



TYPICAL SECTION THROUGH APPROACH SLAB



APPROACH SLAB QUANTITIES							
DESCRIPTION	UNIT	PHASE I			PHASE II		
		APP. SLAB NO. 1	APP. SLAB NO. 2	TOTAL	APP. SLAB NO. 1	APP. SLAB NO. 2	TOTAL
APPROACH SLAB	SY	57.00	57.00	114.00	97.00	97.00	194.00
SAW-CUT GROOVING	SY	53.40	53.40	106.80	93.40	93.40	186.80
CONCRETE RAIL (TR4)	LF	30.00	30.00	60.00	30.00	30.00	60.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	14.00	14.00	28.00	14.00	14.00	28.00

① PLACE REINFORCING IN THE TOP OF THE APPROACH SLAB 2" FROM EITHER SIDE OF THE SAWED AND SEALED LONGITUDINAL JOINT

② PLACE MECHANICAL SPLICES– AT2 BARS BOTTOM MAT ONLY. ALL COST TO BE INCLUDED IN SY FOR APPROACH SLAB.

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NOTES:
FOR ADDITIONAL DETAILS OF TR4 RAIL SEE STD. TR4-2.

FOR ADDITIONAL DETAIL OF APPROACH SLAB AT ABUTMENT, SEE LONGITUDINAL SECTION AND DIAPHRAGM DETAILS.

DESIGN:	IKC	07/18
DRAWN:	CR	08/18
CHECKED:	CPY	08/18
APPRVD:	CPY	08/18

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

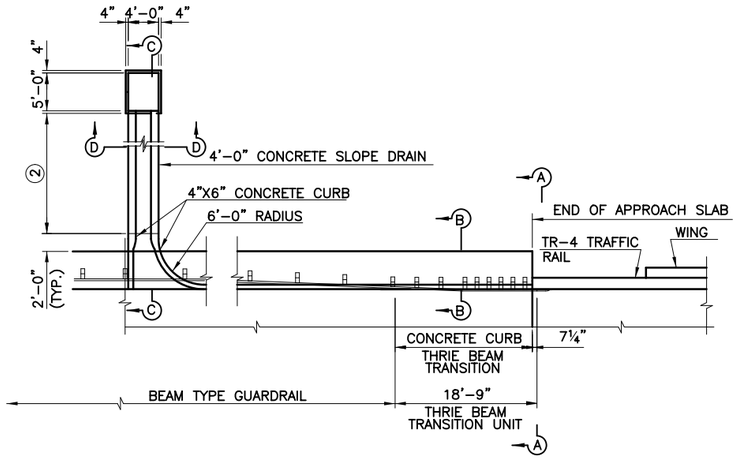
APPROACH SLAB DETAILS

SHEET 1 OF 1

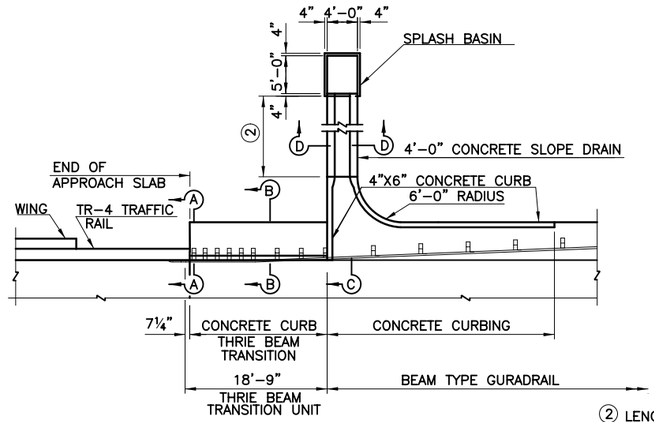
STATE JOB PIECE NO: 29829(04) — SHEET NO.B038

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	B039	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

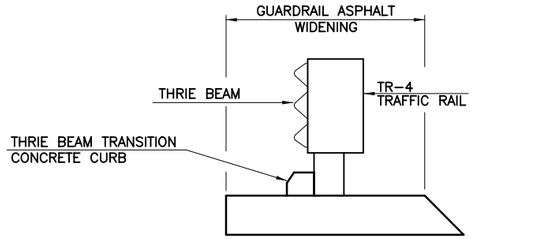


ABUTMENT NO. 1
(BOTH SIDES OF ROADWAY)



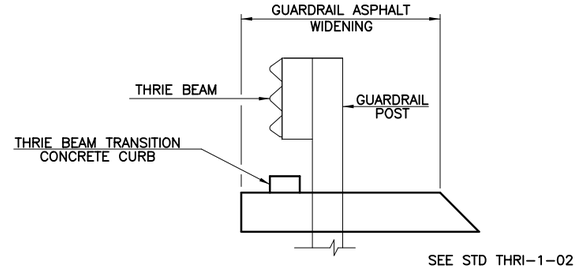
ABUTMENT NO. 2
(BOTH SIDES OF ROADWAY)

② LENGTH TO BE SET IN THE FIELD
(DETERMINED BY THE SLOPE OF HEADER)



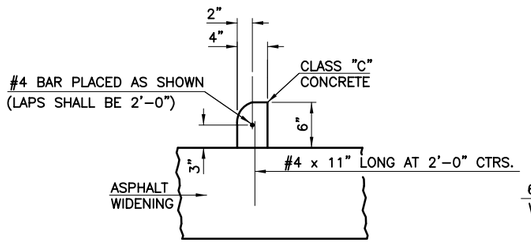
SEE STD THRI-1-02

SECTION A-A

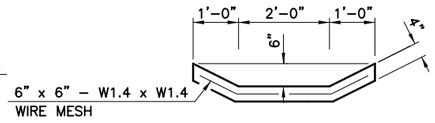


SEE STD THRI-1-02

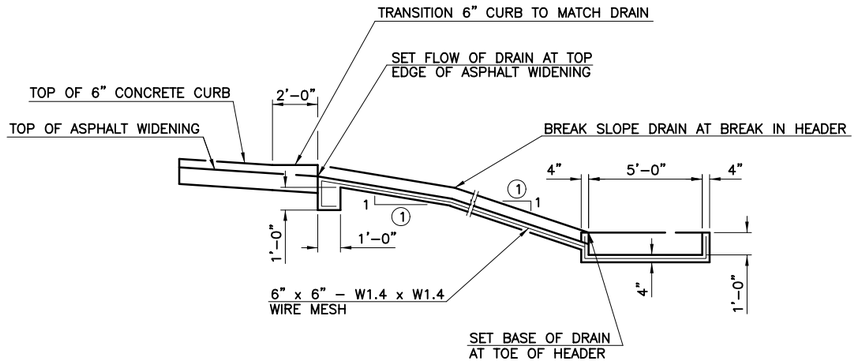
SECTION B-B



DETAIL OF CONCRETE CURB



SECTION D-D



SECTION C-C

① SLOPE TO MATCH SLOPE OF HEADER

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CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

DRAINS AT END OF BRIDGE

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO. B039

STORM WATER MANAGEMENT PLAN

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	R001	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

SITE DESCRIPTION

PROJECT LIMITS: PROJECT BEGINS IN SECTION 28 T-19-N, R-7-E AND EXTENDS 0.30 MILES NE ALONG SH-99

PROJECT DESCRIPTION: GRADING, DRAINAGE, BRIDGE AND SURFACING OF SH-99 OVER CIMARRON RIVER

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES:

1. VEGETATIVE STRIPPING
2. UNDERCUT & STOCKPILE EXISTING TOPSOIL
3. INSTALL PERIMETER EROSION CONTROL MEASURES
4. ROADWAY EXCAVATION AND EMBANKMENT
5. BRIDGE CONSTRUCTION
6. INSTALL TEMP. SEDIMENT FILTERS, SOD DITCHES, & VEGETATIVE MULCH
7. CONST. FINISHED ROADWAY PAVING
8. SPREAD TOPSOIL
9. INSTALL SOLID SLAB SOD

SOIL TYPE: CLAYEY SAND DARK BROWN

TOTAL AREA OF THE CONSTRUCTION SITE: 11.40 AC.

ESTIMATED AREA TO BE DISTURBED: 3.81 AC.

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 1.95 AC.

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 1.95 AC.

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.35

LATITUDE & LONGITUDE OF CENTER OF PROJECT: 36°05'41.00"N 96°34'43.00"W

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: CIMMARON RIVER

SENSITIVE WATERS OR WATERSHEDS: YES ☒ NO ☐

303(d) IMPAIRED WATERS: YES ☒ NO ☐

IF YES, LIST IMPAIRMENT: ENTEROCOCC, FISH BIO, LEAD, pH, TURBIDITY

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.

REVISED 08 / 18 / 2017

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- ____ TEMPORARY SEEDING
- _X_ PERMANENT SODDING, SPRIGGING OR SEEDING
- _X_ VEGETATIVE MULCHING
- ____ SOIL RETENTION BLANKET
- _X_ 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:

- ____ STABILIZED CONSTRUCTION EXIT
- _X_ TEMPORARY SILT FENCE
- _X_ TEMPORARY SILT DIKES
- ____ TEMPORARY FIBER LOG
- ____ DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- ____ DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- ____ ROCK FILTER DAMS
- ____ TEMPORARY SLOPE DRAIN
- ____ PAVED DITCH W/ DITCH LINER PROTECTION
- ____ TEMPORARY DIVERSION CHANNELS
- ____ TEMPORARY SEDIMENT BASINS
- ____ TEMPORARY SEDIMENT TRAPS
- ____ TEMPORARY SEDIMENT FILTERS
- _X_ TEMPORARY SEDIMENT REMOVAL
- _X_ RIP RAP
- ____ INLET SEDIMENT FILTER
- ____ TEMPORARY BRUSH SEDIMENT BARRIERS
- ____ SANDBAG BERMS
- ____ 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:

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.

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

STORM WATER MANAGEMENT PLAN

STATE JOB PIECE NO: 29829(04) — SHEET NO. R001

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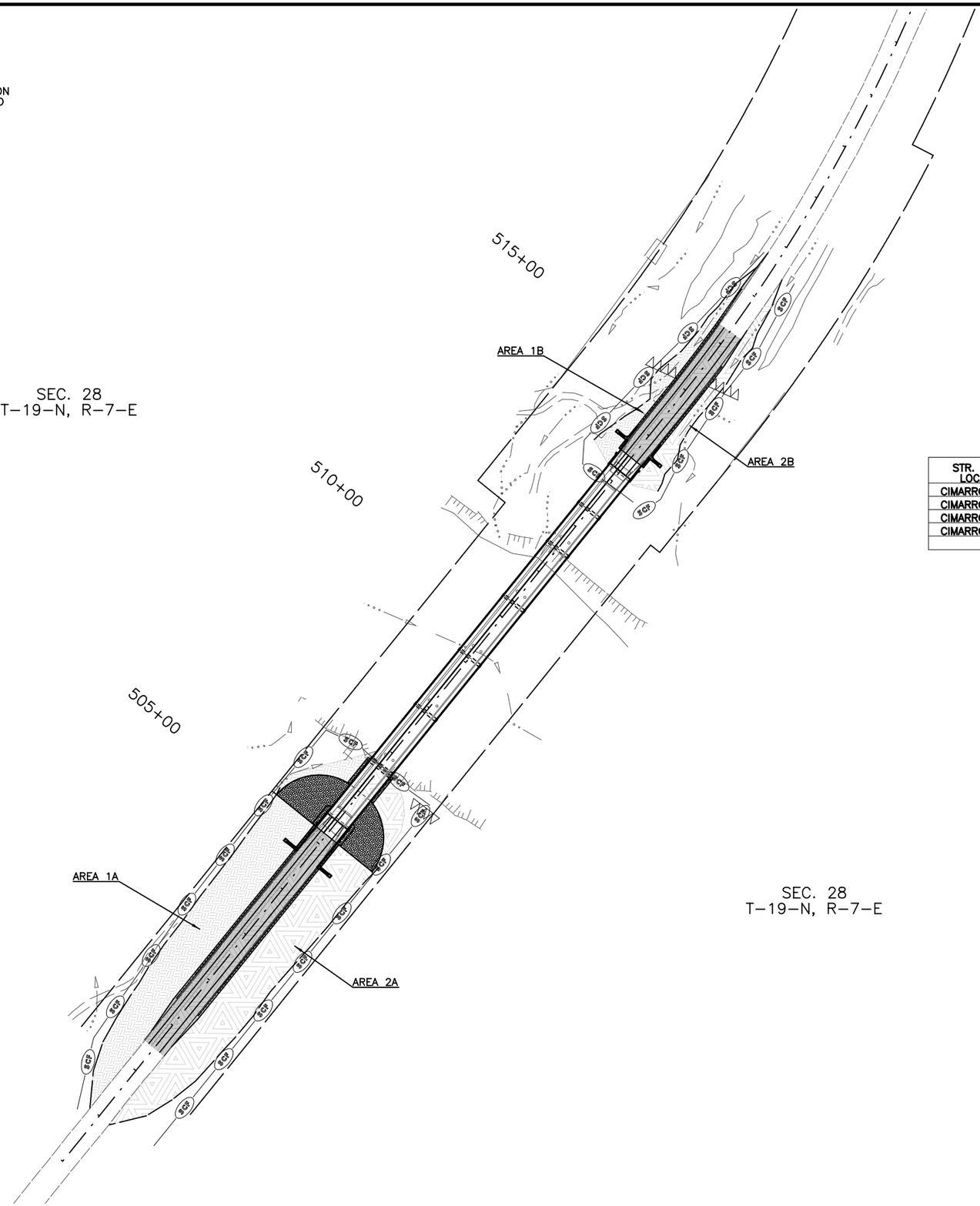
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	R002	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

NOTES
1. ALL EROSION CONTROL MEASURES SHALL BE STAGED IN ACCORDANCE WITH CONSTRUCTION SEQUENCING PHASES.

2. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS AND AS REQUIRED BY CONDITIONS OF THE SITE.



STR. NO OR LOCATION	DISTURBED AREA #	AREA (ac)
CIMARRON RIVER	1A	1.41
CIMARRON RIVER	1B	0.35
CIMARRON RIVER	2A	1.59
CIMARRON RIVER	2B	0.46
	TOTAL	3.81

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

EROSION CONTROL PLAN

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO.R002

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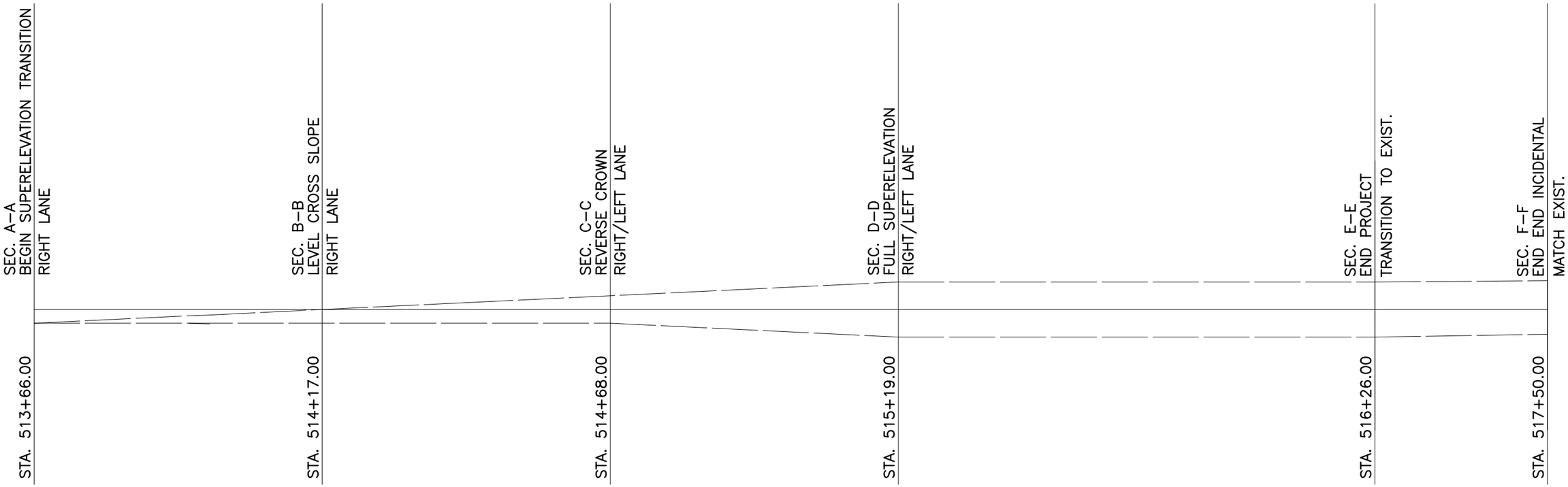
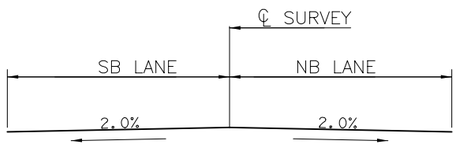
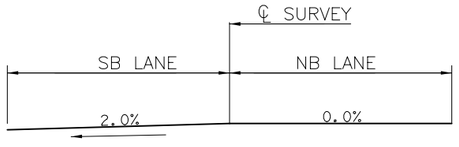
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	R003	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

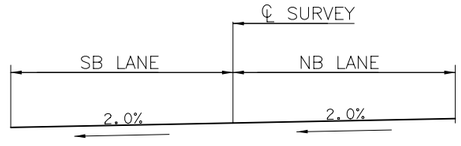




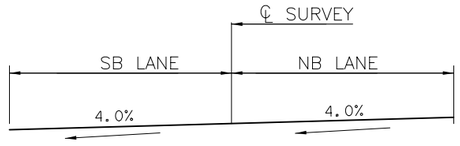
SEC. A–A
STA. 513+66.00
BEGIN SUPERELEVATION TRANSITION RIGHT LANE



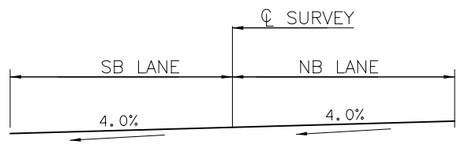
SEC. B–B
STA. 514+17.00
LEVEL CROSS SLOPE RIGHT LANE



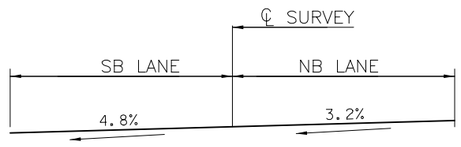
SEC. C–C
STA. 514+68.00
REVERSE CROWN RIGHT LANE



SEC. D–D
STA. 515+19.00
FULL SUPERELEVATION



SEC. E–E
STA. 516+26.00
END PROJECT



SEC. F–F
STA. 517+50.00
END OVERLAY

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SH–99 OVER CIMARRON RIVER — CREEK COUNTY

SUPERELEVATION DETAIL

STATE JOB PIECE NO: 29829(04) — SHEET NO.R003 — SHEET 1 OF 1

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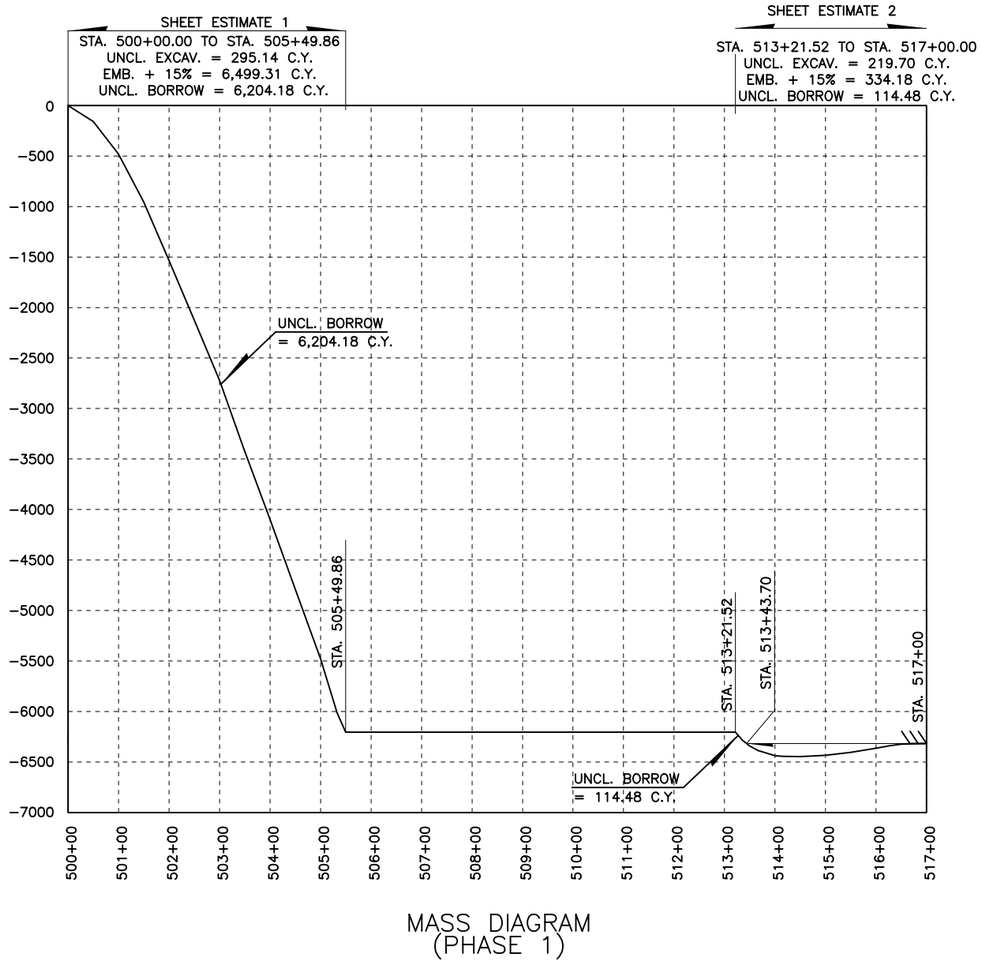
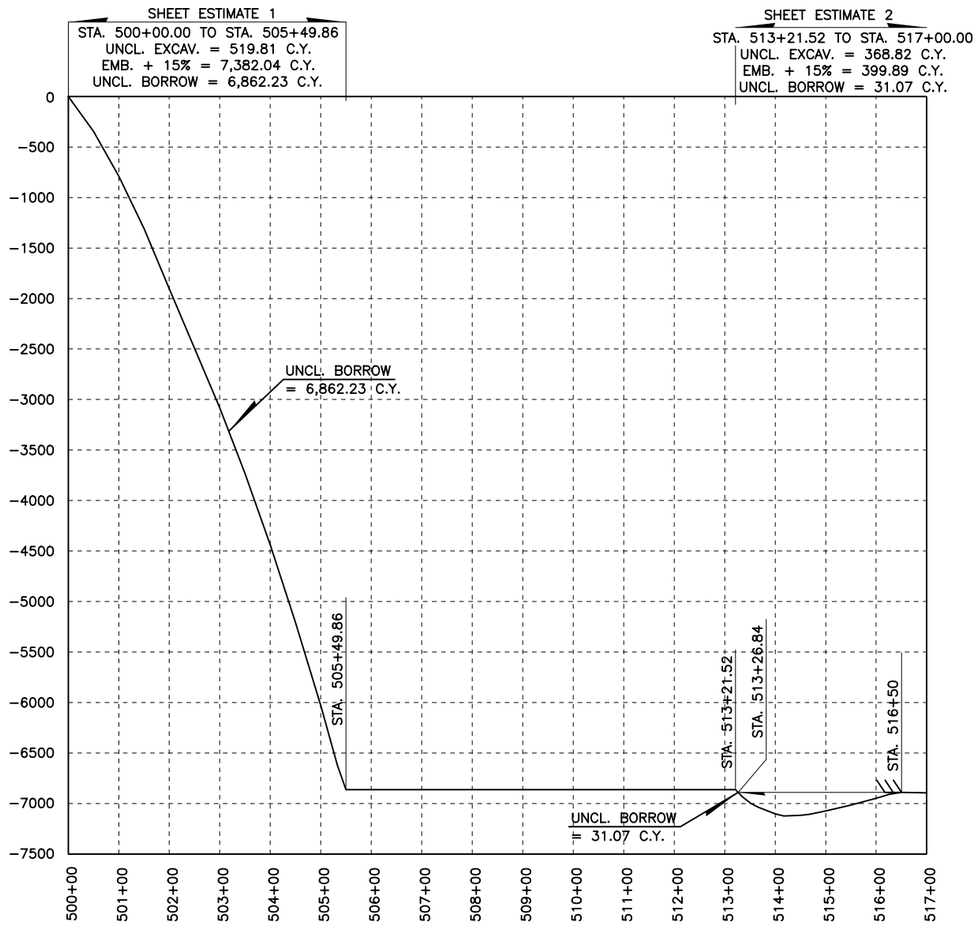
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	R004	78

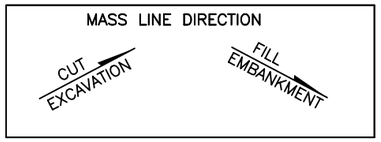
FINAL PLAN FIELD REVIEW MEETING
06/30/2021



MASS DIAGRAM
(PHASE 1)



MASS DIAGRAM
(PHASE 2)



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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 SECTION 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 TME THROUGH THE DURATION OF THE PROJECT.

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

MASS DIAGRAMS

STATE JOB PIECE NO: 29829(04) — SHEET NO.R004

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UTILITY	OWNER	CONTACT
FIBER–OPTIC	AT&T	(800)845–5359
TELEPHONE	AT&T	(800)845–5359
FIBER–OPTIC	COMMUNTIY CABLE AND BROADBAND	(918)396–3019

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	R005	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

50 25 0 50 100
SCALE FEET

500+00 SEC. 28 T–19–N, R–7–E 505+00

TOP OF CUT OR TOE OF SLOPE
Gravel
PRES. R/W
24 Strand Fiber AT&T
300 Pr. AT&T
STA. 500+70 BEGIN GUARDRAIL TAPER
STA. 501+40 BEGIN 5'0" GUARDRAIL WIDENING
Scattered Rip-Rap
STA. 505+19.86 BEGIN APPROACH SLAB
CONST. GUARDRAIL
5'
10'
24' Conc. Pvmt. with Asph. overlay and shoulders
℄ SURVEY SH–99 N38°56'36"E
24'
BM #1
BM # 2
Scattered Rip-Rap
Scattered Rip-Rap
72 Strand Fiber AT&T
24 Strand Fiber Community Cable & Broadband
PRES. R/W
TOP OF CUT OR TOE OF SLOPE
Heavy Timber & Brush
STA. 505+49.86 BEGIN BRIDGE A
120'
120'
Top of Bank
Cimarron River
MATCHLINE STATION 509+00
SEC. 28 T–19–N, R–7–E
EXISTING BRIDGE TO BE REMOVED NBI NO. 15863 ℄ STA. 509+30.66 6–120' CONT. PLATE GIRDER SPANS x 28'–0" RDWY AND 2–18" S.W.
O.T. Sta. 505+50.04 - Begin of 28.00' x 761.24' long conc. bridge rdy. Rt. 14.05' & rdy. Lt. 13.95'

BM # 1
RAILROAD SPIKE IN ASPHALT SHOULDER
STA. 500+22 15' LT.
ELEV. = 763.86

BM # 2
"[]" ON S.E. CORNER BRIDGE
STA. 505+50 15' RT
ELEV. = 772.18

BEGIN INCIDENTAL CONSTRUCTION ℄ SURVEY STA 499+00.00
BEGIN PROJECT ℄ SURVEY STA 500+50.00

K = 197
L= 250.00'
VPC STA. 500+75.00 ELEV.=764.41
VPT STA. 503+25.00 ELEV.=767.83
PROP GRADE AT ℄ SURVEY
EXISTING GRADE AT ℄ SURVEY
(+) 0.733%
(+) 2.000%
BEGIN PROFILE STA. 500+50.00 EL.= 764.23
VPI STA. 502+00.00 EL.= 765.33
SUBGRADE STA. 505+32.62 ELEV. 770.90
PROPOSED BRIDGE "A" ℄ STA. 509+35.69 5–120' TYPE J, 2–85' TYPE IV PC BEAM SPANS 44'–0" CLEAR RDWY W/ TR4 RAILS

BEGIN BRIDGE STA. 505+49.86
771.66' BRIDGE 'A'

780 770 760 750 740

764.23 764.61 765.11 765.73 766.47 767.35 768.33 769.33 770.33 771.33 772.33
773.33 774.33 775.33 776.33 777.33 778.33 779.33

499+00 500+00 501+00 502+00 503+00 504+00 505+00 506+00 507+00 508+00

HYDRAULIC DATA – BRIDGE "A"

CHW2	= 751.11	CHW25	= 764.65
Q2	= 34039 cfs	Q25	= 132176 cfs
V2	= 3.53 ft/s	V25	= 7.52 ft/s
CHW5	= 756.79	CHW50	= 767.70
Q5	= 66343 cfs	Q50	= 165041 cfs
V5	= 5.13 ft/s	V50	= 8.44 ft/s
CHW10	= 760.28	CHW100	= 770.83
Q10	= 92972 cfs	Q100	= 200968 cfs
V10	= 6.21 ft/s	V100	= 9.24 ft/s
QOT23		Q100 SCOUR	
CHWOT	= 763.94	CONTRACTION SCOUR = 3.88 FT.	
QOT	= 125700 cfs	PIER SCOUR = 11.16 FT.	
VOT	= 7.32 ft/s	TOTAL SCOUR = 15.04 FT.	

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SH–99 OVER CIMARRON RIVER — CREEK COUNTY

PLAN AND PROFILE

SHEET 1 OF 2

STATE JOB PIECE NO: 29829(04) — SHEET NO.R005

CP&Y

cbyler
cpybw_ANSIB.tbl
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6/30/2021 11:56:45 AM
cpypdf_ANSIB.pltcfg

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	R006	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

SCALE 50 25 0 50 100 FEET

SEC. 28
T-19-N, R-7-E

MATCHLINE STATION 509+00

510+00 515+00 520+00

BM # 4A
Rock Outcrop
PRES. R/W
Heavy Timber & Brush
Fiber goes overhead here
4-W Barbwire
Gravel
300 Pr. AT&T TUG
24 Strand Fiber Comm. Cable & Broadband
24 Strand Fiber AT&T
Scattered Timber & Brush
BM # 4
STA. 516+26 TO 517+50
CONST 2" COLDMILLING AND VARIABLE OVERLAY TO MATCH EXISTING CROSS-SLOPE
STA. 517+05
END 5'-0" GUARDRAIL WIDENING LT.
STA. 517+75
END 5'-0" GUARDRAIL WIDENING LT.
24' Conc. Pvmt. with Asph. overlay and shoulders
CONST. GUARDRAIL
TOP OF CUT OR TOE OF SLOPE
STA. 513+51.52
END APPROACH SLAB
BM # 3
Cimarron River
℄ SURVEY SH-99
N38°56'36"E
℄ SURVEY SH-99
CURVE 1
PC514+66.70
5"
24"
5"
120'
120'
180'
140'
Rip-Rap
Top of Bank
Telephone Pole
STA. 513+21.52
END BRIDGE A
STA. 515+75
END 5'-0" GUARDRAIL WIDENING RT.
TOP OF CUT OR TOE OF SLOPE
STA. 516+45
END GUARDRAIL TAPER RT.
Heavy Timber & Brush
72 Strand Fiber AT&T
Scattered Timber & Brush
4-W Barbwire
Field Rd.
50 Pr. AT&T
P.O.T. Sta. 509+30.66 - C/L 28.00' x 761.24' long conc. bridge - rdy. Rt. 14.05' & rdy. Lt. 13.95' (Over Cimarron River)
P.O.T. Sta. 513+11.28 - End of 28.00' x 761.24' long conc. bridge rdy. Rt. 13.91' & rdy. Lt. 14.09'

CROSS SLOPE TABLE			
LEFT TRAVEL LANE		RIGHT TRAVEL LANE	
STATION	e (%)	STATION	e (%)
500+50.00	2.00	500+50.00	2.00
		513+66.00	2.00
		514+17.00	0.00
514+68.00	2.00	514+68.00	-2.00
515+19.00	4.00	515+19.00	-4.00
516+26.00	4.00	516+26.00	-4.00

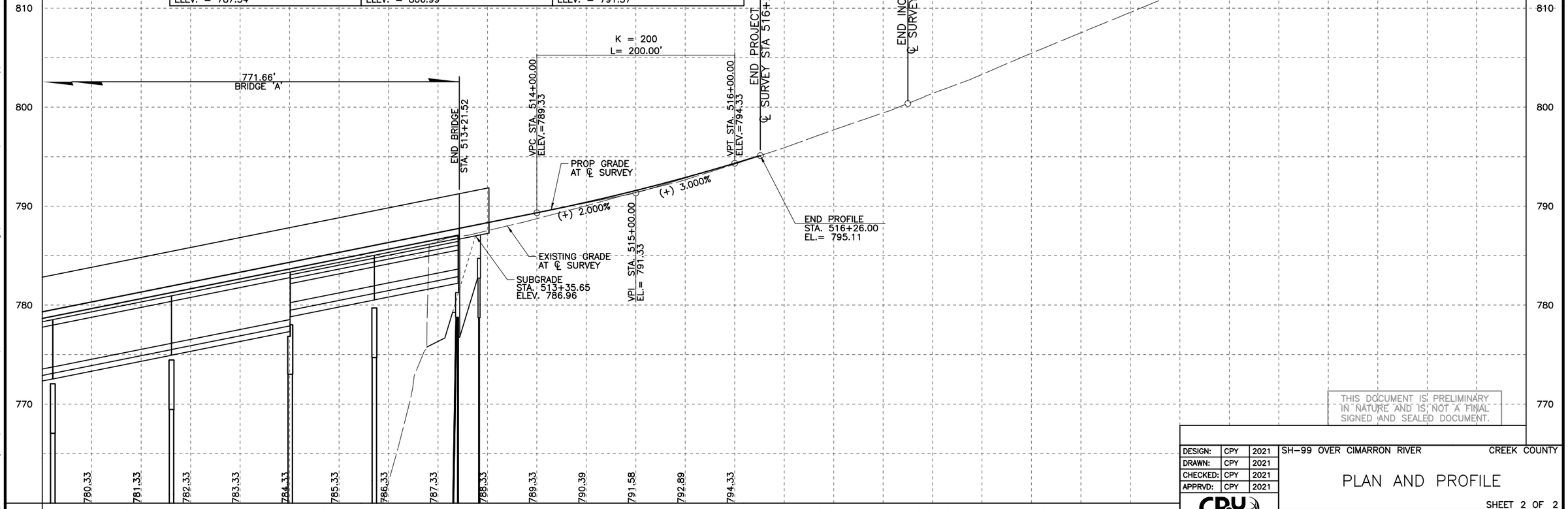
NOTE: SHOULDERS TO MATCH TRAVEL LANE CROSS SLOPE

SEC. 28
T-19-N, R-7-E

CURVE 1 DATA

PI STATION	= 525+01.80	RADIUS	= 2,864.79'
DELTA	= 39°43'53"(LT)	PC STATION	= 514+66.70
DEGREE OF CURVE	= 02°00'00"	PT STATION	= 534+53.27
TANGENT	= 1,035.10'	eMAX	= 6.0%
LENGTH	= 1,986.57'	V	= 55 MPH
		S	= 4.0%

BM # 3	BM # 4A	BM # 4
"[]" ON N.W. CORNER BRIDGE	80d SPIKE IN N. SIDE 15" POST OAK	RAILROAD SPIKE IN ASPHALT SHOULDER
STA. 513+11 15' LT	STA. 515+54 204' LT.	STA. 515+38 16' LT
ELEV. = 787.54	ELEV. = 806.99	ELEV. = 791.57



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

DESIGN:	CPY	2021
DRAWN:	CPY	2021
CHECKED:	CPY	2021
APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

PLAN AND PROFILE

SHEET 2 OF 2

STATE JOB PIECE NO: 29829(04) — SHEET NO.R006

cbyler
cpybw_ANSIB.tbl
pw:/Active Projects/ODOT1700793.00/8.00 Plans and Drawings/8.30 Cut Sheets/8.3.04 Roadway/1700793PP02.dgn
6/30/2021 11:56:50 AM
cpypdf_ANSIB.pltcfg

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	S001	25
REVISIONS					
DESCRIPTION				DATE	

SURVEY DATA SHEETS

CREEK COUNTY
S.H. 99
SWO 5132(1)
STATE JOB NO. 29829(04)

SURVEY CONTROL DATA

1. HORIZONTAL CONTROL:

   A. HORIZONTAL CONTROL FOR THIS SURVEY IS THE NGS OKLAHOMA STATE PLANE COORDINATE SYSTEM, NAD83 (2011), LAMBERT PROJECTION (NORTH ZONE).

   B. ACCURACY - THE PRIMARY CONTROL NETWORK, THE SECONDARY CONTROL NETWORK AND SECTION BOUNDARIES FOR THIS SURVEY ARE IN GENERAL COMPLIANCE WITH THE NGS SECOND ORDER, CLASS II STANDARDS FOR HORIZONTAL CONTROL (1:20,000).

2. BEARINGS:

   THE BEARINGS SHOWN HEREIN OR HEREON ARE GRID BEARINGS DERIVED FROM THE NGS OKLAHOMA STATE PLANE COORDINATE SYSTEM AND ARE NOT ASTRONOMICAL. THE ANGLE OF VARIANCE BETWEEN GRID NORTH (GN) AND THE ASTRONOMICAL TRUE NORTH (TN) IS DEPICTED DIAGRAMMATICALLY.

3. VERTICAL CONTROLS:

   A. LEVEL DATUM IS NAVD 88.

   B. ACCURACY - VERTICAL CONTROL FOR THIS SURVEY IS WITHIN THE CLOSURE REQUIREMENT OF NOAA/NGS "CLASSIFICATION, STANDARDS OF ACCURACY, AND GENERAL SPECIFICATIONS OF GEODETIC CONTROL SURVEYS" (FEB. 1974, REPRINTED FEB. 1977) THIRD ORDER STANDARDS AS A MINIMUM.

SURVEY BEGAN: June 1, 2015.
SURVEY COMPLETED: July 21, 2015.

Derrick E. Anderson, Professional Land Surveyor Level II
Charles W. Pauley, Transportation Specialist Level V
Brandon C. Burnett, Transportation Specialist Level IV
Jimmie R. Wallace, Jr., Transportation Specialist Level IV
Lloyd R. Teeter, Transportation Specialist Level IV

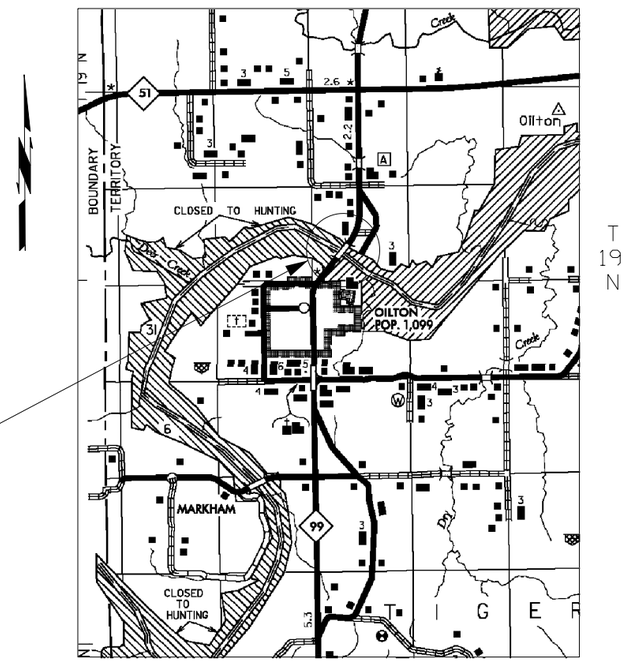
EQUIPMENT:

Leica TCRA1203 Total Station W/Allegra Data Collector
Leica Viva GPS Sensors With Data Collector
Leica GPS1200 GPS Sensor
Wild NA-2 Automatic Level
Leica DNA-10 Electronic Level

INDEX OF SURVEY SHEETS

PROJECT LOCATION

R-7-E



SURVEY EXTENTS

SCALES 1"
SURVEY DATA SHEETS 1" = 100'
GEOMETRIC DATA SHEETS 1" = 500'

CONVENTIONAL SYMBOLS

- RAILROADS
- RANGE & TOWNSHIP
- SECTION LINES
- QUARTER SECTION LINES
- FENCES
- EXISTING ROADS
- BASE LINE
- TELEPHONE & TELEGRAPH
- POWER LINES
- BUILDINGS
- OILWELL
- DRAINAGE STRUCTURES - IN PLACE

Utility Companies:
A.T.&T. - Tulsa, Ok. - 800-845-5359
Community Cable & Broadband - Skiatook, OK., - 918-396-3019

"CALL BEFORE YOU DIG"
THE NEW NATIONAL LOCATE NUMBER
811

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, JUNE 11, 2001.

SPECIFICATIONS FOR SURVEYS FOR PRIMARY AND SECONDARY HIGHWAYS DATED SEPTEMBER 11, 2001 GOVERN.

SDS 1 OF 7

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STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

SWO 5132(1) Job/Piece 29829 (04) Engr. Contract No. _____

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 Surveying Instructions";
-its supplement, "Restoration of Lost or Obliterated Corners and Subdivision of Sections";
-"Oklahoma Minimum Standards for the Practice of Land Surveying" as adopted by the State Board of Registration 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 and that it is true, accurate and correct to the best of my knowledge and belief.

Dated this 21st day of July, 20 18

(seal)

Land Surveyor _____
Signature
Derrick E. Anderson
Printed Name

REGISTERED PROFESSIONAL LAND SURVEYOR — DERRICK ANDERSON — 1551 — OKLAHOMA

Oklahoma Registered Land Surveyor No. _____

Certificate of Authorization No. _____ Exp. Date _____

Scale:
1" = 100'

			OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
PLS	DEA		
DRAWN	DEA		SURVEY DATA SHEET
CHECKED			
APPROVED	DRD		SWO 5132 ( ) STATE JOB NO. 29829(04) SHEET NO. S001
CREW	Tecumseh		

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	S002	25

REVISIONS	
DESCRIPTION	DATE

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION (405) 521-2621 FAX 405-522-0364

Date: July 16, 2015

To Mr. William L. Tackett, Chief of Surveys

From Derrick E. Anderson, Professional Land Surveyor

Subject SW05132(1) - J/P No.29829(04) - S.H. 99 - Creek County.
Bridge over Cimarron River, 4.4 miles E S Payne County Line (1.8 miles south of SH 51 - north of Oilton).

HISTORICAL LETTER AND WRITTEN REPORT

GENERAL:
Survey Began: June 1, 2015
Survey Completed: July 21, 2015

Personnel on this survey:

Derrick E. Anderson	Professional Land Surveyor Lv.II
Charles W. Pauley	Transportation Specialist Lv.V
Brandon C. Burnett	Transportation Specialist Lv.IV
Jimmie R. Wallace	Transportation Specialist Lv.IV
Lloyd L. Teeter	Transportation Specialist Lv.IV

Previous Surveys & Projects relevant to this project:

SW02182(1) - S.H. 99 - Additional Information Survey - Began at the end of 24' concrete pavement, F.A.P. No. 108(10) 1961 plan alignment to P.O.T. Sta. 109+56.37 on SW02182(1).
Truett McCarthy, Location Engineer, Oklahoma Highway Department, dated September 8, 1966.

SW02199(1) S.H. 99 Survey - From Jct. S.H. 33 & S.H. 27 east of Drumright, north through Oilton. Oklahoma Highway Department.

FAP No. 108(10) Revised As-built plans - Beginning just north of the intersection of 3rd St. & S.H. 99, in Oilton, Ok., thence northerly along the present S.H. 99 centerline to approximately 1.0 south of the Jct. of S.H. 51 & S.H. 99.
Benham Engineering for the U.S. Army District, Corps of Engineers, Tulsa, dated October, 1963.

FAP No. 108(25) Revised As-built plans - Beginning approximately 1.0 mile south of the intersection of S.H. 51 & S.H. 99, thence northerly along the present S.H. 99 centerline for 1.35 miles.
Department of Transportation, Federal Highway Administration, Bureau of Highways, dated August, 1970.

ASSIGNMENT:
Authorization for this survey came from an email dated June 1, 2015, from Mr. Danny R. Dees, Land Surveyor Manager.

PURPOSE: The purpose of this project is to obtain and provide adequate data to design construction plans to replace the bridge over the Cimarron River on S.H. 99.

SURVEY LIMITS:
This survey begins approximately 500' before the bridge and ends 500' after the bridge. The limits being 200' left and right of centerline, through the full extents of the survey.

Work on this project was done by the Tecumseh Survey Crew, under the direct supervision of Charles W. Pauley, Transportation Specialist Lv. V.

SURVEY METHOD:
This survey was performed using conventional field methods.

ALIGNMENT:
The centerline of this survey is along and identical to the centerline as depicted on F.A.P. No. 108(10) as-built plans. Centerline of this survey was established by using a 3" Brass Cap found in place at P.I. Sta. 1437+45.86 as per F.A.P. No. 108(10) as built plans, splitting the bridge over Cimarron River and using the plan distance from the north 1/4 corner of section 28, T-19-N, R-7-E, I.M., to the centerline of S.H. 99 as per F.A.P. No. 108(25) as-built plans.

STATIONING:
Stationing on this survey was derived by assigning a station value of 500+00.00 to the beginning of this survey and carried the station forward or northerly to the end of this survey, without any equations.

HORIZONTAL CONTROL:
Horizontal Control for this survey is NGS NAD83(CORS 2011) established by static GPS observation, using the following control points:
NGS CORS Monument "OKMA"
NGS CORS Monument "OKPR"
NGS CORS Monument "OKTU"
NGS CORS Monument "OKDT"
NGS CORS Monument "SAL5"
NGS CORS Monument "ICT1"
NGS HARN Monument "N49"
NGS HARN Monument "JERRY"
ODOT Control Monument P-59-270 (established under SW04994(1) survey).
ODOT Control Monument P-60-729 (established under SW04518(1) survey).
ODOT Control Monument C-19-1018 (established this survey).
ODOT Control Monument C-19-1019 (established this survey).
(See submitted SD Form #20 for complete control information).

COORDINATES:
Coordinates shown on this survey are the National Geodetic Survey (NGS) Oklahoma State Plane Coordinate System of 1983(CORS 2011), North Zone, established this survey.

VERTICAL CONTROL:
Vertical control datum for this survey is NGS NAVD88. Vertical control on this survey was tied via Static GPS to NGS HARN N49, ODOT Monument P-59-270, established under SW04994(1) survey & ODOT Monument P-60-729, established under SW04518(1) survey. Bench Marks established or used this survey are within the requirements of NGS 3rd order standards as a minimum.

MEASUREMENT UNITS:
The distances, coordinates, and elevations shown on this survey are in U.S. Survey Feet.
All angles and bearings shown are in degrees, minutes, and seconds.

TOPOGRAPHY:
The following topography information was obtained during the course of this survey:
- DTM & Topography data 200' Rt. & 200' Lt. of C/L survey, through the extents of this survey.

POTENTIAL ENVIRONMENTAL CONCERNS:
None found this survey.

UTILITIES:
All utility companies that have services within the limits of this project was contacted during the course of this survey. Utilities depicted on the Microstation Design file is shown in the locations which the locator from each utility company marked their lines in the field. No Depth information on utilities was given by any of the owning utility companies.

RIGHT OF WAY:
Right of Way shown on this survey was taken from F.A.P. No. 108(10) as-built plans.

PROPERTY OWNERS:
No property line information was needed or shown on this survey.

LAND TIES:
No land tie information was needed this survey. No new right of way will be obtained.

Derrick E. Anderson, PLS
ODOT Survey Division

Scale:
1" = 100'

PLS	DEA	
DRAWN	DEA	
CHECKED		
APPROVED	DRD	
CREW	TECUMSEH	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

SWO 5132 ( ) PROJECT NO. 29829(04) SHEET NO S002

SDS 2 OF 7

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OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	S003	25

REVISIONS	
DESCRIPTION	DATE

Check Levels — SW05132(1) — Bench Mark List — Page 1 of 1

BM No.	Run 1	Run 2	Mean Diff.	Adjusted Diff.	Unadjusted Elev.	Adjusted Elev.		BM Description	NAVD 88 Datum
								(Level Source)	
C-19-1018						776.01	C-19-1018	2" ODOT aluminum Cap in feno spike encased in a conc. stem flush with the ground - 78' Lt. Sta. 492+53.	
To	-12.16	-12.15	-12.155	-12.15					
BM1					763.855	763.86	BM1	Railroad Spike in asphalt shoulder - 15' Lt. Sta. 500+22.	
To	+8.32	+8.32	+8.32	+8.32					
BM2					772.175	772.18	BM2	"[]" on S.E. corner bridge - 15' Rt. Sta. 505+50.	
To	+15.37	+15.36	+15.365	+15.36					
BM3					787.540	787.54	BM3	"[]" on N.W. corner bridge - 15' Lt. Sta. 513+11.	
To	+4.03	+4.03	+4.03	+4.03					
BM4					791.570	791.57	BM4	Railroad Spike in asphalt shoulder - 16' Lt. Sta. 515+38.	
To	+30.27	+30.30	+30.285	+30.29					
BM5					821.855	821.86	BM5	"[]" on center concrete headwall - 38' Lt. Sta. 523+88.	
To	+31.81	+31.81	+31.81	+31.81					
								(Level Source)	
C-19-1019					853.665	853.67	C-19-1019	2" ODOT aluminum Cap in feno spike encased in a conc. stem flush with the ground - 90' Rt. Sta. 529+82.	
								(Level Source)	
BM4						791.57	BM4	Railroad Spike in asphalt shoulder - 16' Lt. Sta. 515+38.	
To	+15.42	+15.42	+15.42	+15.42					
BM4A					806.99	806.99	BM4A	80d spike in N. side 15" Post Oak - 204' Lt. Sta. 515+54.	
								(Level Source)	
BM1						763.86	BM1	Railroad Spike in asphalt shoulder - 15' Lt. Sta. 500+22.	
To	-15.31	-15.32	-15.315	-15.32					
BM1A					748.545	748.54	BM1A	80d spike in S.E. side 6" Ash - 309' Lt. Sta. 500+26.	

Pnt	X-Coord.	Y-Coord.
300	2387832.3023	400859.0673
301	2389390.5692	403839.8893
7700	2387738.9700	400934.4933
7701	2388465.5359	401833.5479
7702	2388418.8697	401871.2609
7703	2388614.1977	402112.9604
7704	2389091.3477	403008.4322
7705	2389148.6773	402990.7314
7706	2389259.7236	403553.7010
7707	2389279.6426	403551.9028
7708	2389290.5787	403838.5138
7709	2387925.6346	400783.6413
7710	2388715.0555	401760.4729
7711	2388730.6109	401747.9019
7712	2389199.5561	402428.9415
7713	2389163.9662	402447.1996
7714	2389478.8326	403533.9209
7715	2389458.9136	403535.7191
7716	2389470.5616	403840.9897
7717	2388863.0839	401911.8244
10011	2389404.8070	402804.8890
10012	2388754.1962	401999.8214
10013	2389390.5692	403839.8893

Project Name: SW05132 1 V1
Description: Bridge over the Cimarron River, north of Oilton
Horizontal Alignment Name: A001
Description: C/L Survey & SH99
Style: Centerline

	STATION	X-COORD	Y-COORD
Element: Linear			
POB (300)	500+00.00	2387832.3023	400859.0673
PC (10012)	514+66.70	2388754.1962	401999.8214
Tangent Direction:	N 38°56'35.57" E		
Tangent Length:	1466.700'		
Element: Circular			
PC (10012)	514+66.70	2388754.1962	401999.8214
PI (10011)	525+01.80	2389404.8070	402804.8890
CC (2)		2386526.0512	403800.4840
PT (10013)	534+53.27	2389390.5692	403839.8893
Radius:	2864.789'		
Delta:	39°43'52.83" Left		
Degree of Curvature(Arc):	2°00'00.00"		
Length:	1986.567'		
Tangent:	1035.098'		
Chord:	1947.003'		
Middle Ordinate:	170.478'		
External:	181.265'		
Tangent Direction:	N 38°56'35.57" E		
Radial Direction:	S 51°03'24.43" E		
Chord Direction:	N 19°04'39.15" E		
Radial Direction:	N 89°12'42.73" E		
Tangent Direction:	N 0°47'17.27" W		

Scale:
1" = 100'

PLS	DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	DEA		
CHECKED			SURVEY DATA SHEET
APPROVED	DRD		
CREW	TECUMSEH		SWO 5132 ( ) PROJECT NO. 29829(04) SHEET NO. S003

SDS 3 OF 7

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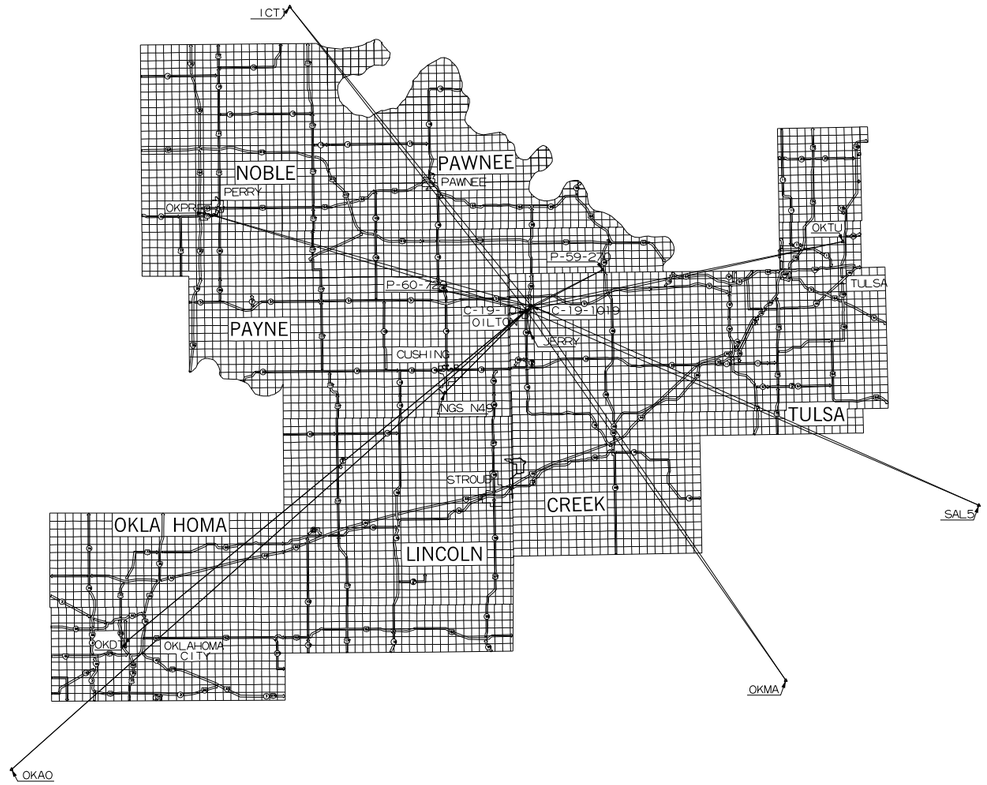

PT NO.	X-Coord.	Y-Coord.	Elev.
C-19-1018	2387301.7838	400326.8207	776.01
C-19-1019	2389447.4061	403356.3849	853.67

SDS 4 OF 7

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: danderson
SOLUTION FILE NAME: network-final.sum
SOLUTION SOFTWARE: GPSCOM(1210.24)
SOLUTION DATE: 2015-06-10T11:00:19 UTC
STANDARD ERROR OF UNIT WEIGHT: 0.837
TOTAL NUMBER OF OBSERVATIONS: 213038
TOTAL NUMBER OF MARKS: 13
NUMBER OF CONSTRAINED MARKS: 11

START TIME: 2015-06-02T00:00:00 GPS
STOP TIME: 2015-06-09T20:20:30 GPS
FREQUENCY: L1-ONLY TO ION-FREE [BY BASELINE LENGTH]
OBSERVATION INTERVAL: 30 s
ELEVATION CUTOFF: 15 deg
TROPO INTERVAL: 7200 s [PIECE-WISE LINEAR PARAMETERIZATION]
DD CORRELATIONS: ON

INCLUDED SOLUTION	RMS	SOFTWARE	RUN DATE
1) 2015-153 A	1.2 cm	page5(1404.11)	2015-06-10T10:17 UTC
2) 2015-154 A	1.2 cm	page5(1404.11)	2015-06-10T10:19 UTC
3) 2015-155 A	1.1 cm	page5(1404.11)	2015-06-10T10:19 UTC
4) 2015-155 B	1.4 cm	page5(1404.11)	2015-06-10T10:21 UTC
5) 2015-159 A	1.4 cm	page5(1404.11)	2015-06-10T10:21 UTC
6) 2015-159 B	1.5 cm	page5(1404.11)	2015-06-10T10:23 UTC
7) 2015-160 A	1.0 cm	page5(1404.11)	2015-06-10T10:23 UTC
8) 2015-160 B	2.0 cm	page5(1404.11)	2015-06-10T10:25 UTC

BASELINE	LENGTH	RMS	OBS	OMITTED	FIXED IN SOLUTION(S)
1019-1018	1.132 km	1.0 cm	18406	0.7%	100.0% 3, 4, 5,...
JERRY -1018	4.716 km	1.1 cm	2167	4.2%	100.0% 4
270 -1019	17.226 km	1.1 cm	2033	1.3%	100.0% 3
729 -1018	17.438 km	1.2 cm	4289	0.6%	100.0% 2, 6
1019-729	17.886 km	1.0 cm	2107	2.4%	100.0% 2
270 -1018	18.225 km	2.2 cm	2221	2.6%	100.0% 8
n49 -1018	23.166 km	1.4 cm	4026	1.2%	95.5% 5, 7
n49 -1019	24.287 km	1.4 cm	1930	1.7%	91.7% 1
oktu-1019	66.012 km	1.3 cm	25384	1.1%	96.7% 1, 2, 3,...
okpr-1018	69.589 km	1.4 cm	22105	0.8%	98.1% 2, 3, 4,...
okpr-1019	69.961 km	1.1 cm	3366	0.8%	100.0% 1
okao-okdt	81.348 km	1.3 cm	18305	2.2%	100.0% 1
okdt-1018	106.988 km	1.5 cm	21780	2.1%	99.0% 2, 3, 4,...
okdt-1019	108.079 km	1.1 cm	3313	1.6%	100.0% 1
ict1-okpr	145.552 km	1.7 cm	18533	1.5%	96.8% 6
okma-1018	150.130 km	1.4 cm	21940	1.0%	94.1% 2, 3, 4,...
okma-1019	150.574 km	1.2 cm	3346	0.8%	92.3% 1
ict1-1019	177.643 km	1.6 cm	20691	1.0%	96.8% 1, 2, 3,...
sal5-1019	178.636 km	1.3 cm	9529	1.0%	100.0% 3, 4, 7, 8
okao-1018	188.173 km	1.7 cm	7567	0.7%	100.0% 5, 8

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UNCONSTRAINED MARKS
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MARK: C-19-1018

REF FRAME:	NAD 83(2011)	(2010.0000)	IGS08 (2015.4319)	
X:	-591530.382 m	0.001 m	-591531.198 m	0.001 m
Y:	-5126186.125 m	0.004 m	-5126184.731 m	0.004 m
Z:	3736509.685 m	0.003 m	3736509.546 m	0.003 m
LAT:	36 05 28.85101	0.002 m	36 05 28.87204	0.002 m
E LON:	263 25 03.11833	0.001 m	263 25 03.07956	0.001 m
W LON:	96 34 56.88167	0.001 m	96 34 56.92044	0.001 m
EL HGT:	208.195 m	0.004 m	207.070 m	0.004 m
ORTHO HGT:	236.527 m	0.009 m	(H = h - N WHERE N = GEOID12A HGT)	

	UTM COORDINATES (UTM (Zone 14))	STATE PLANE COORDINATES (SPC (3501 OK N))
NORTHING (Y)	3996786.182 m	122019.859 m
EASTING (X)	717654.869 m	727651.039 m
CONVERGENCE	1.42466592 deg	0.83655287 deg
POINT SCALE	1.00018375	0.99994629
COMBINED FACTOR	1.00015107	0.99991362

US NATIONAL GRID DESIGNATOR: 14SQE1765496786 (NAD 83)

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MARK: C-19-1019

REF FRAME:	NAD 83(2011)	(2010.0000)	IGS08 (2015.4282)	
X:	-590807.795 m	0.001 m	-590808.611 m	0.001 m
Y:	-5125746.779 m	0.004 m	-5125745.384 m	0.004 m
Z:	3737262.029 m	0.003 m	3737261.890 m	0.003 m
LAT:	36 05 58.49793	0.002 m	36 05 58.51897	0.002 m
E LON:	263 25 29.80088	0.001 m	263 25 29.76210	0.001 m
W LON:	96 34 30.19912	0.001 m	96 34 30.23790	0.001 m
EL HGT:	231.862 m	0.004 m	230.736 m	0.004 m
ORTHO HGT:	260.198 m	0.009 m	(H = h - N WHERE N = GEOID12A HGT)	

	UTM COORDINATES (UTM (Zone 14))	STATE PLANE COORDINATES (SPC (3501 OK N))
NORTHING (Y)	3997716.483 m	122943.272 m
EASTING (X)	718299.496 m	728305.026 m
CONVERGENCE	1.42931882 deg	0.84092694 deg
POINT SCALE	1.00018722	0.99994611
COMBINED FACTOR	1.00015082	0.99990972

US NATIONAL GRID DESIGNATOR: 14SQE1829997716 (NAD 83)

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	S004	25

REVISIONS	
DESCRIPTION	DATE

Scale: 1" = 100'

PLS	DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	DEA		SURVEY DATA SHEET
CHECKED			
APPROVED	DRD		
CREW	TECUMSEH		SWO 5132 ( )PROJECT NO. 29829(04) SHEET NO S004

8-87

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CONSTRAINED MARKS

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MARK: P-59-270
CONSTRAIN: 3-D NORMAL
ADJUST X: 0.013m (0.001m) Y: -0.012m (0.004m) Z: 0.033m (0.003m)
ADJUST N: 0.021m (0.002m) E: 0.014m (0.001m) H: 0.028m (0.004m)

REF FRAME:	NAD 83(2011)	(2010.0000)	IGS08 (2015.4311)	
X:	-574803.124 m	0.001 m	-574803.940 m	0.001 m
Y:	-5123269.970 m	0.004 m	-5123268.576 m	0.004 m
Z:	3743131.456 m	0.003 m	3743131.318 m	0.003 m
LAT:	36 09 53.96524	0.002 m	36 09 53.98641	0.002 m
E LON:	263 35 54.57987	0.001 m	263 35 54.54121	0.001 m
W LON:	96 24 05.42013	0.001 m	96 24 05.45879	0.001 m
EL HGT:	244.502 m	0.004 m	243.375 m	0.004 m
ORTHO HGT:	272.932 m	0.009 m (H = h - N WHERE N = GEOID12A HGT)		

	UTM COORDINATES (Zone 14)	STATE PLANE COORDINATES SPC (3501 OK N)
NORTHING (Y)	4005377.469 m	130442.934 m
EASTING (X)	733731.856 m	743810.991 m
CONVERGENCE	1.53409851 deg	0.94334680 deg
POINT SCALE	1.00027318	0.99994541
COMBINED FACTOR	1.00023480	0.99990704

US NATIONAL GRID DESIGNATOR: 14SQF3373105377 (NAD 83)

++

MARK: JERRY
CONSTRAIN: HOR-ONLY NORMAL
ADJUST X: 0.027m (0.001m) Y: -0.012m (0.004m) Z: 0.023m (0.003m)
ADJUST N: 0.013m (0.002m) E: 0.028m (0.001m) H: 0.021m (0.005m)

REF FRAME:	NAD 83(2011)	(2010.0000)	IGS08 (2015.4241)	
X:	-591945.214 m	0.001 m	-591946.029 m	0.001 m
Y:	-5128957.294 m	0.004 m	-5128955.899 m	0.004 m
Z:	3732715.889 m	0.003 m	3732715.750 m	0.003 m
LAT:	36 02 55.87133	0.002 m	36 02 55.89235	0.002 m
E LON:	263 24 59.34582	0.001 m	263 24 59.30709	0.001 m
W LON:	96 35 00.65418	0.001 m	96 35 00.69291	0.001 m
EL HGT:	238.105 m	0.005 m	236.978 m	0.005 m
ORTHO HGT:	266.423 m	0.010 m (H = h - N WHERE N = GEOID12A HGT)		

	UTM COORDINATES (Zone 14)	STATE PLANE COORDINATES SPC (3501 OK N)
NORTHING (Y)	3992069.238 m	117304.047 m
EASTING (X)	717677.648 m	727625.466 m
CONVERGENCE	1.42259928 deg	0.83593445 deg
POINT SCALE	1.00018388	0.99994754
COMBINED FACTOR	1.00014650	0.99991017

US NATIONAL GRID DESIGNATOR: 14SQE1767792069 (NAD 83)

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MARK: P-60 729
CONSTRAIN: 3-D NORMAL
ADJUST X: 0.015m (0.001m) Y: -0.017m (0.004m) Z: 0.026m (0.003m)
ADJUST N: 0.012m (0.002m) E: 0.017m (0.001m) H: 0.028m (0.004m)

REF FRAME:	NAD 83(2011)	(2010.0000)	IGS08 (2015.4259)	
X:	-608002.812 m	0.001 m	-608003.628 m	0.001 m
Y:	-5121684.796 m	0.004 m	-5121683.403 m	0.004 m
Z:	3740043.144 m	0.003 m	3740043.005 m	0.003 m
LAT:	36 07 50.32822	0.002 m	36 07 50.34920	0.002 m
E LON:	263 13 48.05781	0.001 m	263 13 48.01884	0.001 m
W LON:	96 46 11.94219	0.001 m	96 46 11.98116	0.001 m
EL HGT:	225.916 m	0.004 m	224.795 m	0.004 m
ORTHO HGT:	254.180 m	0.009 m (H = h - N WHERE N = GEOID12A HGT)		

	UTM COORDINATES (Zone 14)	STATE PLANE COORDINATES SPC (3501 OK N)
NORTHING (Y)	4000742.503 m	126149.714 m
EASTING (X)	700669.589 m	710710.589 m
CONVERGENCE	1.31531990 deg	0.72589038 deg
POINT SCALE	1.00009619	0.99994561
COMBINED FACTOR	1.00006073	0.99991016

US NATIONAL GRID DESIGNATOR: 14SQF0066900742 (NAD 83)

++

MARK: ictl
CONSTRAIN: HOR-ONLY NORMAL
ADJUST X: 0.017m (0.001m) Y: -0.024m (0.004m) Z: 0.031m (0.003m)
ADJUST N: 0.011m (0.002m) E: 0.020m (0.001m) H: 0.036m (0.004m)

REF FRAME:	NAD 83(2011)	(2010.0000)	IGS08 (2015.4311)	
X:	-643821.376 m	0.001 m	-643822.197 m	0.001 m
Y:	-5019641.179 m	0.004 m	-5019639.804 m	0.004 m
Z:	3869505.397 m	0.003 m	3869505.274 m	0.003 m
LAT:	37 35 15.77403	0.002 m	37 35 15.79579	0.002 m
E LON:	262 41 28.04179	0.001 m	262 41 28.00147	0.001 m
W LON:	97 18 31.95821	0.001 m	97 18 31.99853	0.001 m
EL HGT:	364.448 m	0.004 m	363.375 m	0.004 m
ORTHO HGT:	393.230 m	0.010 m (H = h - N WHERE N = GEOID12A HGT)		

	UTM COORDINATES (Zone 14)	STATE PLANE COORDINATES SPC (1502 KS S)
NORTHING (Y)	4161417.037 m	502894.123 m
EASTING (X)	649309.036 m	505194.358 m
CONVERGENCE	1.03173356 deg	0.73197840 deg
POINT SCALE	0.99987460	0.99995240
COMBINED FACTOR	0.99981742	0.99989522

US NATIONAL GRID DESIGNATOR: 14SPG4930961417 (NAD 83)

SDS 5 OF 7

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MARK: n49
CONSTRAIN: VER-ONLY NORMAL
ADJUST X: 0.015m (0.001m) Y: -0.028m (0.004m) Z: 0.022m (0.003m)
ADJUST N: 0.002m (0.002m) E: 0.019m (0.001m) H: 0.034m (0.004m)

REF FRAME:	NAD 83(2011)	(2010.0000)	IGS08 (2015.4303)	
X:	-608746.770 m	0.001 m	-608747.586 m	0.001 m
Y:	-5134006.291 m	0.004 m	-5134004.896 m	0.004 m
Z:	3723126.504 m	0.003 m	3723126.364 m	0.003 m
LAT:	35 56 31.31683	0.002 m	35 56 31.33769	0.002 m
E LON:	263 14 16.53343	0.001 m	263 14 16.49457	0.001 m
W LON:	96 45 43.46657	0.001 m	96 45 43.50543	0.001 m
EL HGT:	239.075 m	0.004 m	237.949 m	0.004 m
ORTHO HGT:	267.276 m	0.009 m (H = h - N WHERE N = GEOID12A HGT)		

	UTM COORDINATES (Zone 14)	STATE PLANE COORDINATES SPC (3501 OK N)
NORTHING (Y)	3979833.716 m	105232.964 m
EASTING (X)	701862.551 m	711689.332 m
CONVERGENCE	1.31403126 deg	0.73055838 deg
POINT SCALE	1.00010213	0.99995311
COMBINED FACTOR	1.00006460	0.99991559

US NATIONAL GRID DESIGNATOR: 14SQE0186279833 (NAD 83)

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MARK: okao
CONSTRAIN: HOR-ONLY NORMAL
ADJUST X: 0.019m (0.001m) Y: -0.029m (0.004m) Z: 0.026m (0.003m)
ADJUST N: 0.007m (0.002m) E: 0.023m (0.001m) H: 0.036m (0.004m)

REF FRAME:	NAD 83(2011)	(2010.0000)	IGS08 (2015.4231)	
X:	-749498.257 m	0.001 m	-749499.064 m	0.001 m
Y:	-5171812.779 m	0.004 m	-5171811.375 m	0.004 m
Z:	3645002.537 m	0.003 m	3645002.389 m	0.003 m
LAT:	35 04 35.04575	0.002 m	35 04 35.06557	0.002 m
E LON:	261 45 14.80079	0.001 m	261 45 14.76134	0.001 m
W LON:	98 14 45.19921	0.001 m	98 14 45.23866	0.001 m
EL HGT:	340.482 m	0.004 m	339.355 m	0.004 m
ORTHO HGT:	367.289 m	0.009 m (H = h - N WHERE N = GEOID12A HGT)		

	UTM COORDINATES (Zone 14)	STATE PLANE COORDINATES SPC (3502 OK S)
NORTHING (Y)	3881775.775 m	193378.334 m
EASTING (X)	568750.563 m	577574.791 m
CONVERGENCE	0.43338081 deg	-0.13957051 deg
POINT SCALE	0.99965825	0.99997275
COMBINED FACTOR	0.99960483	0.99991931

US NATIONAL GRID DESIGNATOR: 14SND6875081775 (NAD 83)

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MARK: okdt
CONSTRAIN: HOR-ONLY NORMAL
ADJUST X: 0.019m (0.001m) Y: -0.028m (0.004m) Z: 0.030m (0.003m)
ADJUST N: 0.010m (0.002m) E: 0.022m (0.001m) H: 0.038m (0.004m)

REF FRAME:	NAD 83(2011)	(2010.0000)	IGS08 (2015.4246)	
X:	-679342.204 m	0.001 m	-679343.021 m	0.001 m
Y:	-5154773.599 m	0.004 m	-5154772.196 m	0.004 m
Z:	3682488.901 m	0.003 m	3682488.745 m	0.003 m
LAT:	35 29 24.45407	0.002 m	35 29 24.47413	0.002 m
E LON:	262 29 32.33452	0.001 m	262 29 32.29511	0.001 m
W LON:	97 30 27.66548	0.001 m	97 30 27.70489	0.001 m
EL HGT:	366.615 m	0.004 m	365.479 m	0.004 m
ORTHO HGT:	393.615 m	0.009 m (H = h - N WHERE N = GEOID12A HGT)		

	UTM COORDINATES (Zone 14)	STATE PLANE COORDINATES SPC (3501 OK N)
NORTHING (Y)	3928421.965 m	54494.528 m
EASTING (X)	635364.279 m	644673.388 m
CONVERGENCE	0.86651408 deg	0.29053834 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: okma
CONSTRAIN: HOR-ONLY NORMAL
ADJUST X: 0.013m (0.001m) Y: -0.025m (0.004m) Z: 0.016m (0.003m)
ADJUST N: -0.000m (0.002m) E: 0.015m (0.001m) H: 0.028m (0.004m)

REF FRAME:	NAD 83(2011)	(2010.0000)	IGS08 (2015.4295)	
X:	-523341.218 m	0.001 m	-523342.024 m	0.001 m
Y:	-5208945.338 m	0.004 m	-5208943.926 m	0.004 m
Z:	3631437.450 m	0.003 m	3631437.313 m	0.003 m
LAT:	34 55 40.83439	0.002 m	34 55 40.85533	0.002 m
E LON:	264 15 45.94416	0.001 m	264 15 45.90700	0.001 m
W LON:	95 44 14.05584	0.001 m	95 44 14.09300	0.001 m
EL HGT:	202.024 m	0.004 m	200.860 m	0.004 m
ORTHO HGT:	232.122 m	0.009 m (H = h - N WHERE N = GEOID12A HGT)		

	UTM COORDINATES (Zone 15)	STATE PLANE COORDINATES SPC (3502 OK S)
NORTHING (Y)	3868480.674 m	179205.985 m
EASTING (X)	249970.943 m	806717.329 m
CONVERGENCE	-1.56800929 deg	1.28438160 deg
POINT SCALE	1.00037055	0.99995389
COMBINED FACTOR	1.00033883	0.99992218

US NATIONAL GRID DESIGNATOR: 15STU4997068480 (NAD 83)

++

MARK: okpr
CONSTRAIN: HOR-ONLY NORMAL
ADJUST X: 0.014m (0.001m) Y: -0.030m (0.004m) Z: 0.028m (0.003m)
ADJUST N: 0.006m (0.002m) E: 0.018m (0.001m) H: 0.039m (0.004m)

REF FRAME:	NAD 83(2011)	(2010.0000)	IGS08 (2015.4315)	
X:	-656082.517 m	0.001 m	-656083.330 m	0.001 m
Y:	-5106208.765 m	0.004 m	-5106207.394 m	0.004 m
Z:	3753139.267 m	0.003 m	3753139.134 m	0.003 m
LAT:	36 16 34.46492	0.002 m	36 16 34.48594	0.002 m
E LON:	262 40 42.02508	0.001 m	262 40 41.98568	0.001 m
W LON:	97 19 17.97492	0.001 m	97 19 18.01432	0.001 m
EL HGT:	326.342 m	0.004 m	325.234 m	0.004 m
ORTHO HGT:	354.645 m	0.009 m (H = h - N WHERE N = GEOID12A HGT)		

	UTM COORDINATES (Zone 14)	STATE PLANE COORDINATES SPC (3501 OK N)
NORTHING (Y)	4015894.775 m	141815.892 m
EASTING (X)	650742.047 m	660943.936 m
CONVERGENCE	0.99322563 deg	0.40032054 deg
POINT SCALE	0.99987998	0.99994720
COMBINED FACTOR	0.99982877	0.99989599

US NATIONAL GRID DESIGNATOR: 14SPF5074215894 (NAD 83)

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MARK: oktu
CONSTRAIN: HOR-ONLY NORMAL
ADJUST X: 0.023m (0.001m) Y: -0.022m (0.004m) Z: 0.026m (0.003m)
ADJUST N: 0.009m (0.002m) E: 0.025m (0.001m) H: 0.031m (0.004m)

REF FRAME:	NAD 83(2011)	(2010.0000)	IGS08 (2015.4294)	
X:	-525544.247 m	0.001 m	-525545.062 m	0.001 m
Y:	-5125492.886 m	0.004 m	-5125491.486 m	0.004 m
Z:	3747170.651 m	0.003 m	3747170.514 m	0.003 m
LAT:	36 12 38.11419	0.002 m	36 12 38.13570	0.002 m
E LON:	264 08 44.21842	0.001 m	264 08 44.18024	0.001 m
W LON:	95 51 15.78158	0.001 m	95 51 15.81976	0.001 m
EL HGT:	169.253 m	0.004 m	168.115 m	0.004 m
ORTHO HGT:	198.333 m	0.009 m (H = h - N WHERE N = GEOID12A HGT)		

	UTM COORDINATES (Zone 15)	STATE PLANE COORDINATES SPC (3501 OK N)
NORTHING (Y)	4011083.893 m	136450.075 m
EASTING (X)	243394.544 m	792914.849 m
CONVERGENCE	-1.68716141 deg	1.26622914 deg
POINT SCALE	1.00041139	0.99994569
COMBINED FACTOR	1.00038482	0.99991913

US NATIONAL GRID DESIGNATOR: 15STA4339411083 (NAD 83)

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MARK: sal5
CONSTRAIN: HOR-ONLY NORMAL
ADJUST X: 0.012m (0.001m) Y: -0.000m (0.004m) Z: 0.015m (0.003m)
ADJUST N: 0.013m (0.002m) E: 0.012m (0.001m) H: 0.008m (0.004m)

REF FRAME:	NAD 83(2011)	(2010.0000)	IGS08 (2015.4311)	
X:	-437218.256 m	0.001 m	-437219.069 m	0.001 m
Y:	-5188680.009 m	0.004 m	-5188678.605 m	0.004 m
Z:	3671227.136 m	0.003 m	3671226.987 m	0.003 m
LAT:	35 22 01.46067	0.002 m	35 22 01.48172	0.002 m
E LON:	265 11 00.29145	0.001 m	265 11 00.25469	0.001 m
W LON:	94 48 59.70855	0.001 m	94 48 59.74531	0.001 m
EL HGT:	130.882 m	0.004 m	129.710 m	0.004 m
ORTHO HGT:	161.224 m	0.009 m (H = h - N WHERE N = GEOID12A HGT)		

	UTM COORDINATES (Zone 15)	STATE PLANE COORDINATES SPC (3501 OK N)
NORTHING (Y)	3915265.824 m	45471.062 m
EASTING (X)	334968.025 m	889264.682 m
CONVERGENCE	-1.05170024 deg	1.87868263 deg
POINT SCALE	0.99993565	1.00004222
COMBINED FACTOR	0.99991511	1.00002168

US NATIONAL GRID DESIGNATOR: 15SUV3496815265 (NAD 83)

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	S005	25

REVISIONS	
DESCRIPTION	DATE

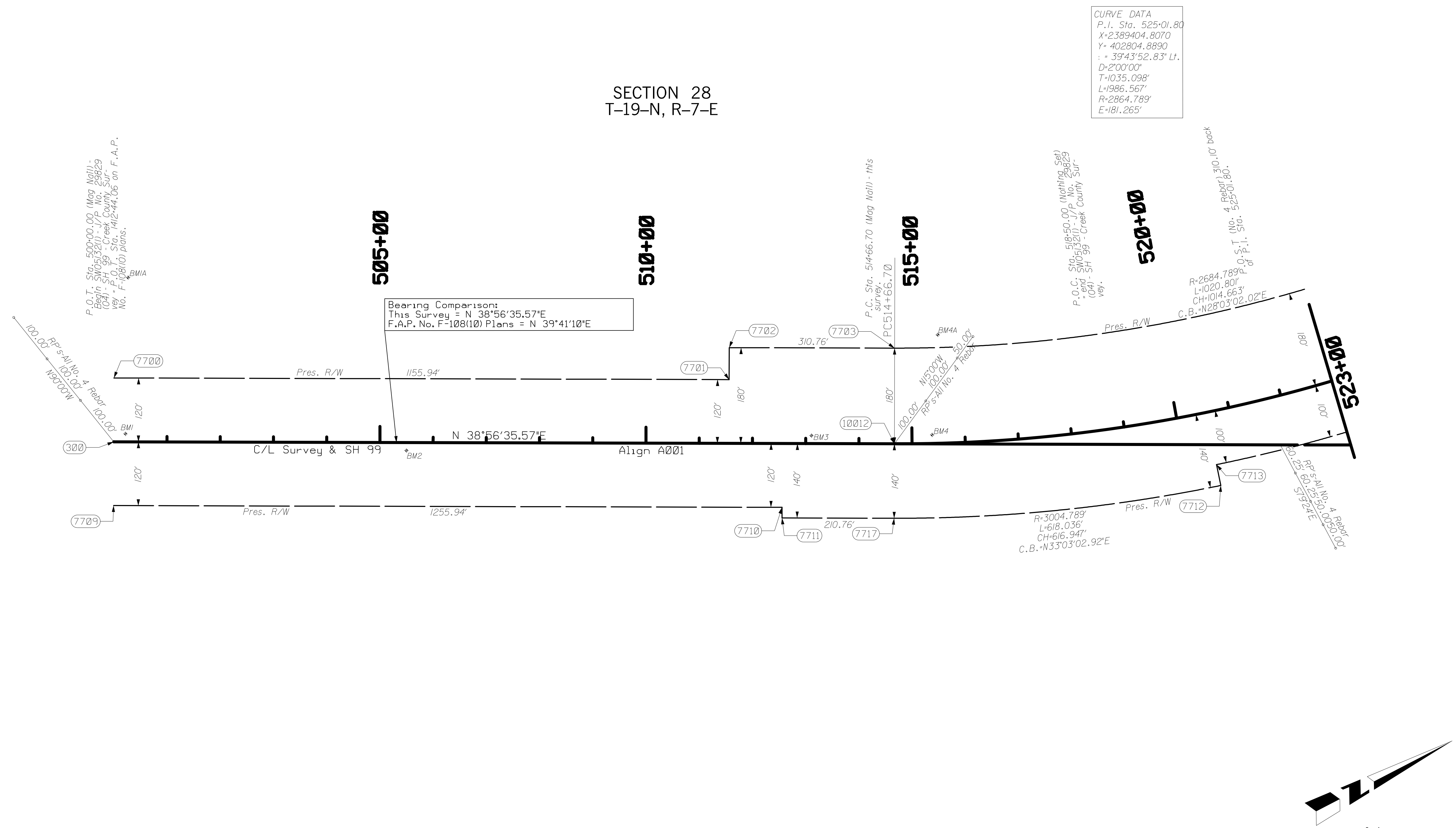
Scale: 1"=100'

PLS	DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	DEA		
CHECKED			SURVEY DATA SHEET
APPROVED	DRD		
CREW	TECUMSEH		SWO 5132 ( )PROJECT NO. 29829(04) SHEET NO S005

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	S006	25

REVISIONS DESCRIPTION	DATE



SECTION 28
T-19-N, R-7-E
CURVE DATA
P.I. Sta. 525+01.80
X=2389404.8070
Y=402804.8890
Δ = 39°43'52.83" Lt.
D=2°00'00"
T=1035.098'
L=1986.567'
R=2864.789'
E=181.265'
Bearing Comparison:
This Survey = N 38°56'35.57"E
F.A.P. No. F-108(10) Plans = N 39°41'10"E
505+00
510+00
515+00
520+00
523+00
N 38°56'35.57"E
C/L Survey & SH 99
Align A001
Pres. R/W
1155.94'
1255.94'
310.76'
210.76'
PC514+66.70
R=2684.789'
L=1020.801'
CH=1014.663'
C.B.=N28°03'02.02"E
R=3004.789'
L=618.036'
CH=616.947'
C.B.=N33°03'02.92"E
300
7700
7701
7702
7703
7709
7710
7711
7717
7712
7713
10012
BM1
BM1A
BM2
BM3
BM4
BM4A
Scale:
1" = 100'

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

PLS	DEA	
DRAWN	DEA	
CHECKED		
APPROVED	DRD	
CREW	TECUMSEH	

SWO 5132 ( ) PROJECT NO. 29829(04) SHEET NO. S006

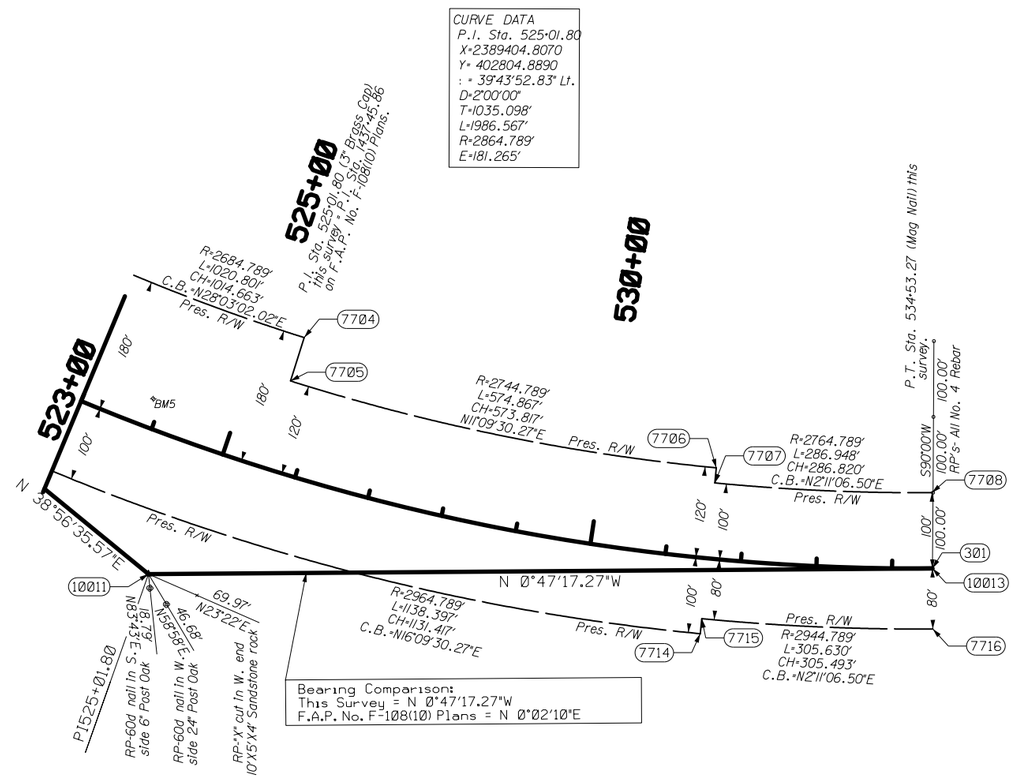
SDS 6 OF 7

8-87

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	S007	25

REVISIONS	
DESCRIPTION	DATE

SECTION 28
T–19–N, R–7–E



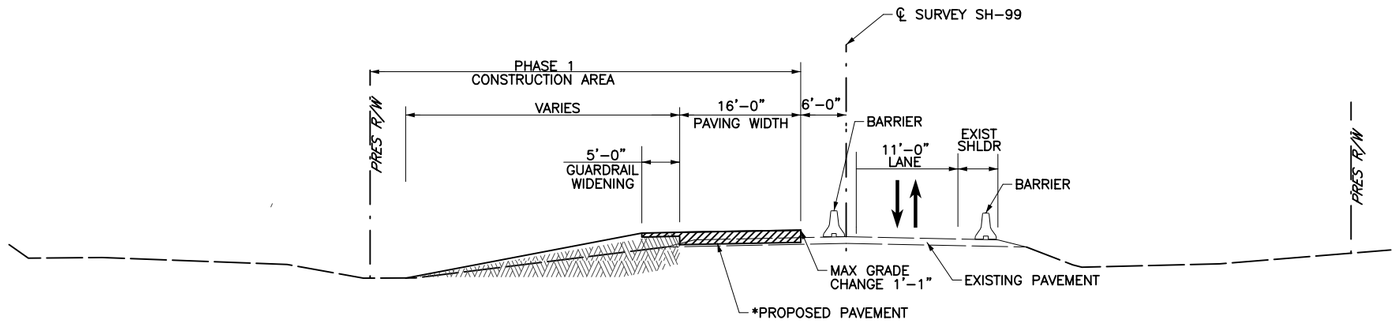
Scale:
1" = 100'

PLS	DEA		OKLAHOMA DEPARTMENT OF TRANSPORTATION SURVEY DIVISION
DRAWN	DEA		
CHECKED			SURVEY DATA SHEET
APPROVED	DRD		
CREW	TECUMSEH		SWO 5/32 ( ) PROJECT NO. 29829(04) SHEET NO. S007

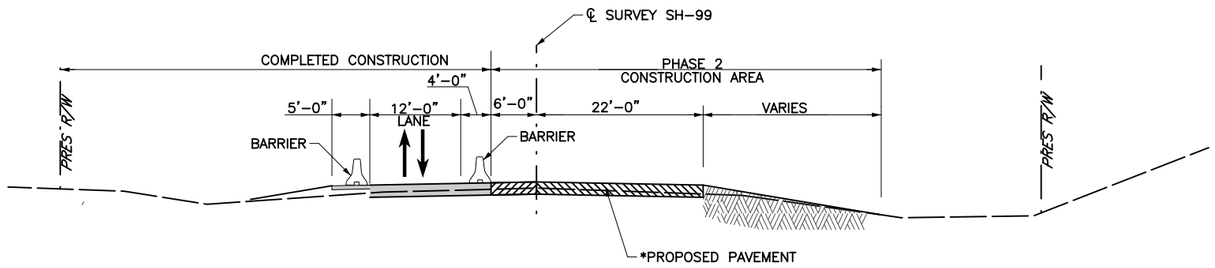
SDS 7 OF 7

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	T001	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



PHASE 1



PHASE 2

* FINAL LIFT OF ASPHALT TO BE PLACED AT THE END OF PHASE 2 UNDER TRAFFIC.

LEGEND

- EXISTING PAVEMENT
- PERMANENT CONSTRUCTION THIS PHASE
- COMPLETED CONSTRUCTION PREVIOUS PHASE

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DESIGN:	CPY	2021
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CHECKED:	CPY	2021
APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

TCP TYPICAL SECTIONS

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO. T001

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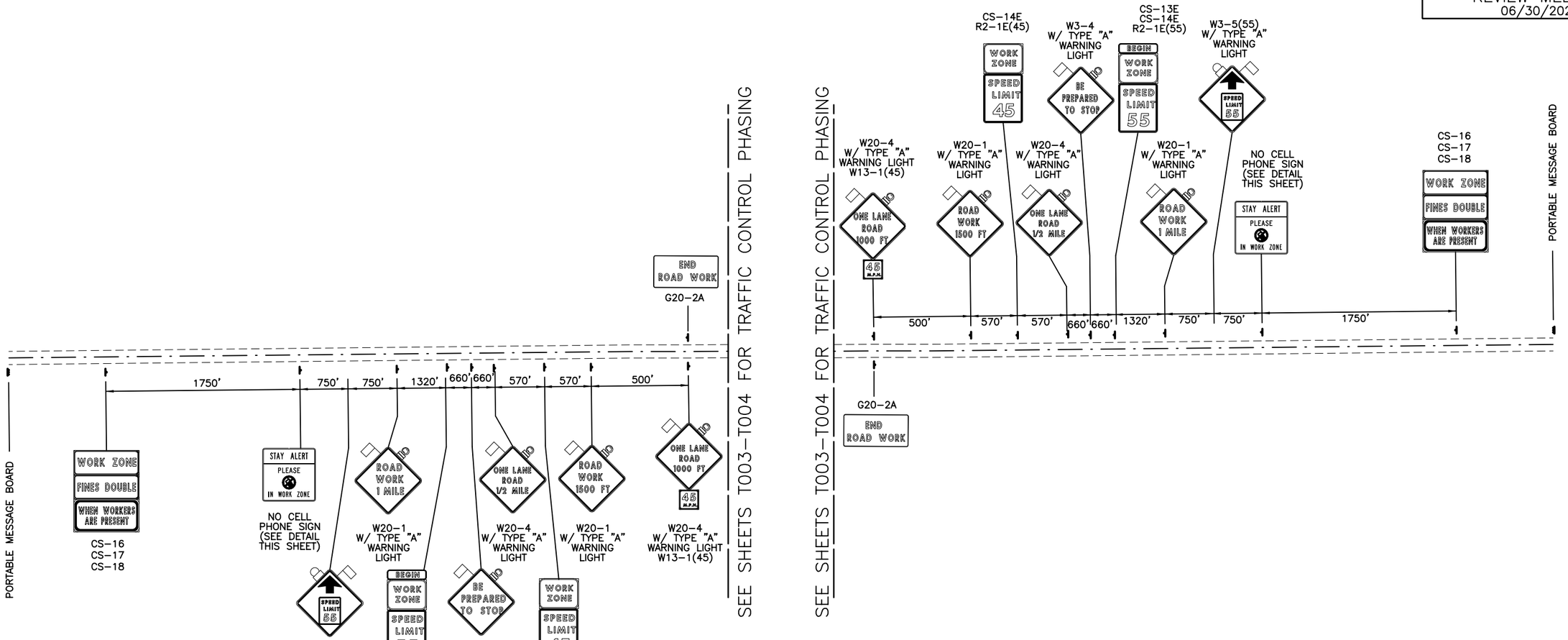
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	T002	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



NO CELL PHONE SIGN

48"X48"

● LEGEND, SYMBOL & BORDER - BLACK NON-REFLECTIVE
BACKGROUND - YELLOW REFELCTIVE

▲ LEGEND, SYMBOL & BORDER - BLACK NON-REFLECTIVE
BACKGROUND - ORANGE REFLECTIVE

DESIGN:	CPY	2021
DRAWN:	CPY	2021
CHECKED:	CPY	2021
APPRVD:	CPY	2021

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

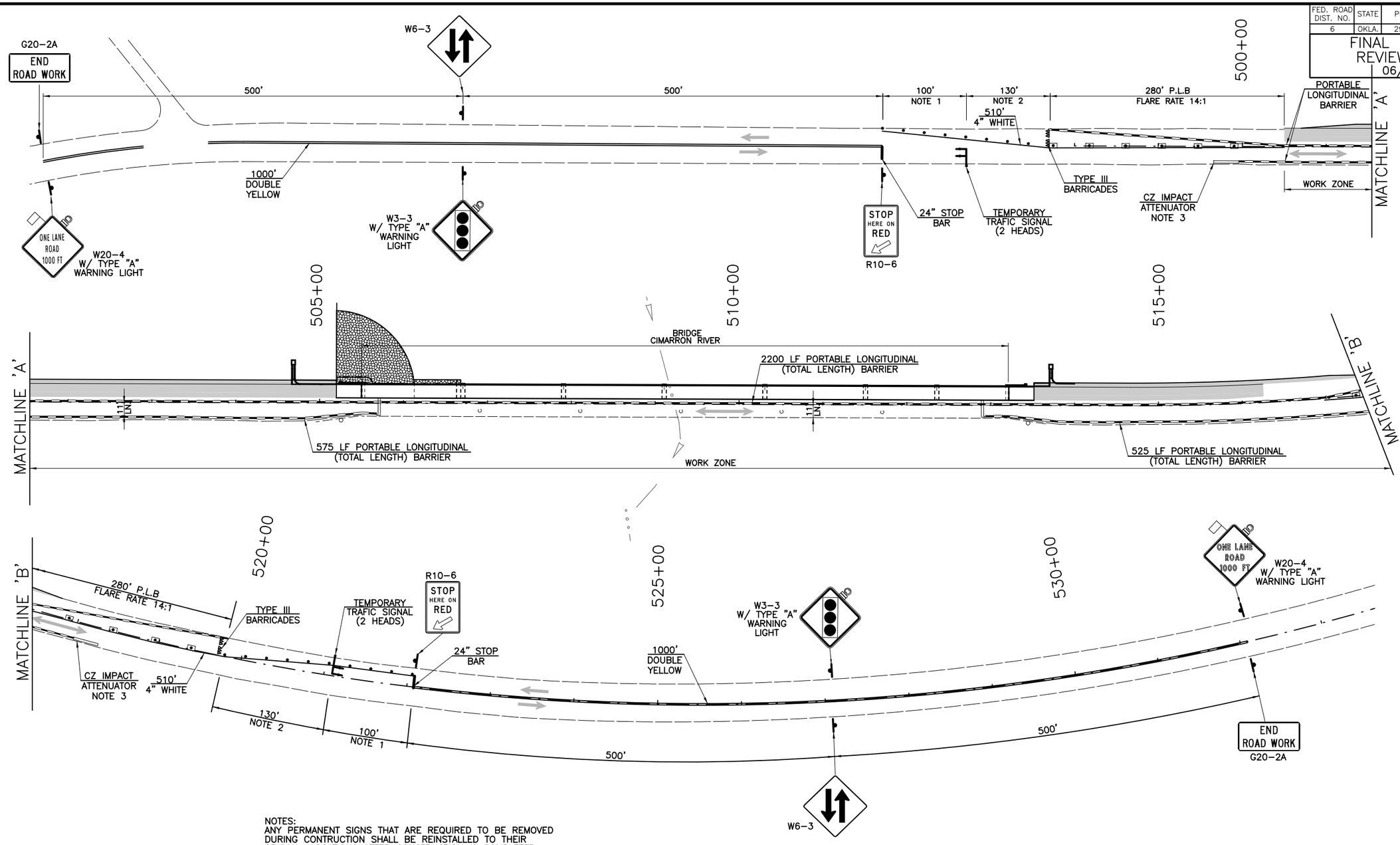
ADVANCED WARNING SIGNAGE

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO. T002

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	T003	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



NOTE 1
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS AREA

NOTE 2
MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE TWICE THE POSTED SPEED LIMIT (MPH) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS. SPACING SHALL NOT EXCEED 75 FEET FOR CHANNELIZER CONES. SPACING SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS, OR DRUMS.

NOTE 3
IF CLEAR ZONE CAN BE MET BY FLARING MEDIAN BARRIER, THE CONST. ZONE IMPACT ATTENUATORS MAY BE OMITTED. SEE FLAIR RATE TABLE AND CLEAR ZONE FOR CONSTRUCTION AREAS ON ODOT STD. TCS2-1.

NOTES:
ANY PERMANENT SIGNS THAT ARE REQUIRED TO BE REMOVED DURING CONTRUCTION SHALL BE REINSTALLED TO THEIR ORIGINAL LOCATIONS AFTER CONSTRUCTION IS COMPLETED. ALL COST SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

FOR ADDITIONAL INFORMATION REFER TO CURRENT O.D.O.T. TRAFFIC STANDARDS AND M.U.T.C.D.

THE INSTALLATION AND TIMING OF SIGNALS SHALL BE APPROVED BY THE DIVISION TRAFFIC ENGINEER PRIOR TO SIGNALS BEING PLACED IN OPERATION.

SIGNALS SHALL BE INSTALLED AND OPERATED IN ACCORDANCE WITH PART IV OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. TEMPORARY TRAFFIC CONTROL SIGNALS SHALL MEET THE PHYSICAL DISPLAY AND OPERATIONAL REQUIREMENTS OF CONVENTIONAL TRAFFIC SIGNALS.

ALL CONFLICTING PAVEMENT MARKINGS AND RAISED PAVEMENT MARKER REFLECTORS BETWEEN THE ACTIVITY AREA AND THE STOP LINE SHALL BE REMOVED. AFTER COMPLETION OF THE WORK, THE STOP LINES AND OTHER TEMPORARY INAPPLICABLE PAVEMENT MARKINGS SHALL BE REMOVED.

LEGEND

- PORTABLE LONGITUDINAL BARRIER
- TYPE III BARRICADES
- POST MOUNDTED SIGN
- DRUM
- CHANNELIZING CONE
- PORTABLE TRAFFIC SIGNAL (2 HEADS)
- CONT. ZONE IMPACT ATTENUATOR

DESIGN:	CPY	2021
DRAWN:	CPY	2021
CHECKED:	CPY	2021
APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

TRAFFIC CONTROL PLAN PHASE ONE

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO. T003

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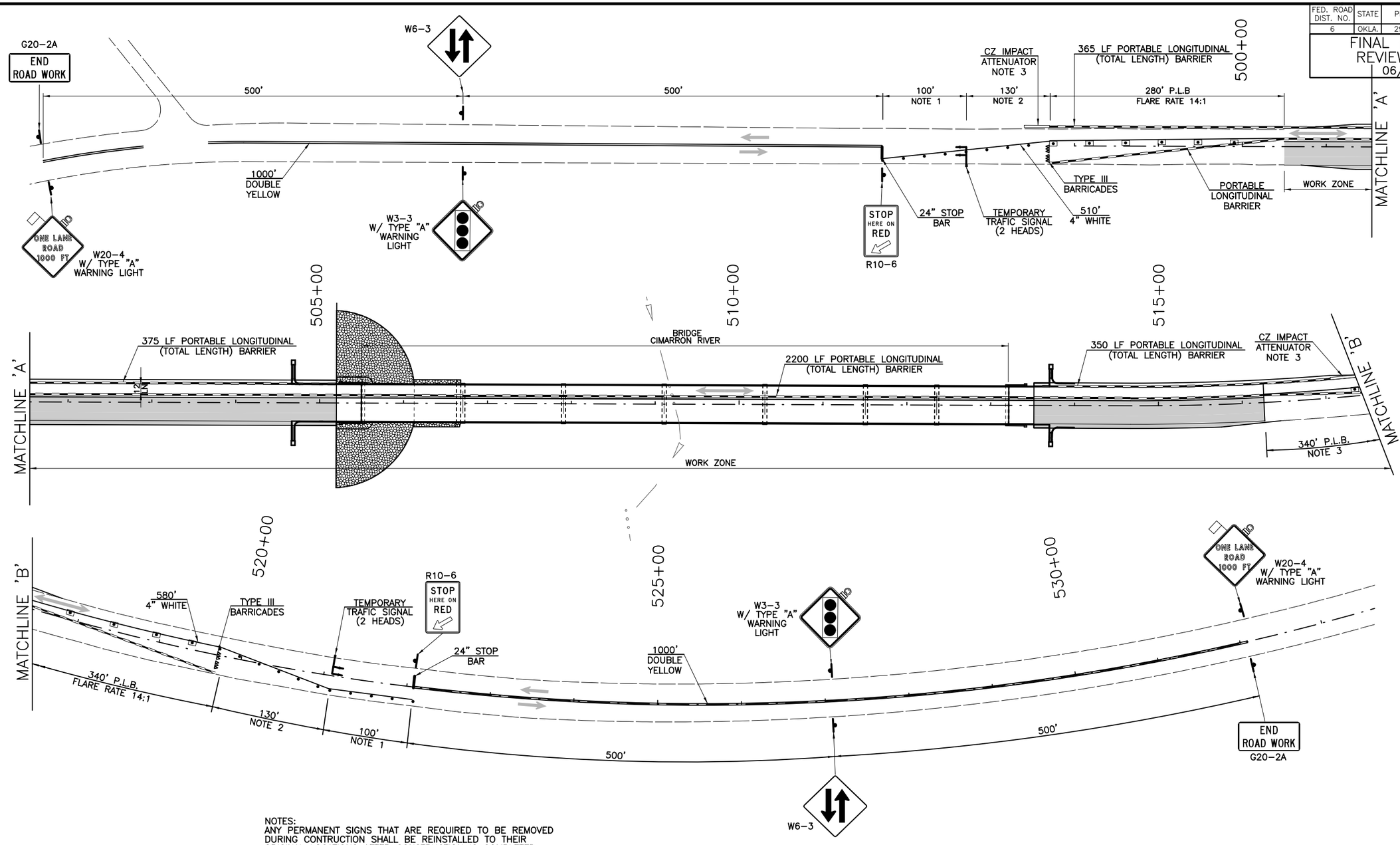
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	T004	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021



NOTE 1
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NOTE 2
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NOTE 3
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NOTES:
ANY PERMANENT SIGNS THAT ARE REQUIRED TO BE REMOVED DURING CONTRUCTION SHALL BE REINSTALLED TO THEIR ORIGINAL LOCATIONS AFTER CONSTRUCTION IS COMPLETED. ALL COST SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

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LEGEND

- PORTABLE LONGITUDINAL BARRIER
- TYPE III BARRICADES
- POST MOUNDTED SIGN
- DRUM
- CHANNELIZING CONE
- PORTABLE TRAFFIC SIGNAL (2 HEADS)
- CONT. ZONE IMPACT ATTENUATOR

DESIGN:	CPY	2021
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APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

TRAFFIC CONTROL PLAN PHASE TWO

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO. T004

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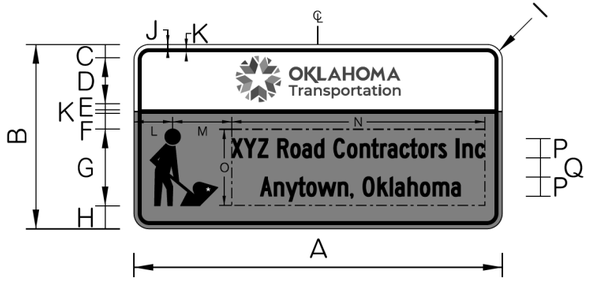
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	T005	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

CS-CONTRACTOR 1

CONTRACTOR SIGN

OKLAHOMA LOGO IS CENTERED VERTICALLY ON PANEL
OKLAHOMA LOGO SIZE PROPORTIONAL BASED ON DIAMETER OF CIRCLE
CONTRACTOR NAME AND LOCATION ARE VARIABLE, TEXT IS TO BE PLACED WITHIN THE DASHED AREA
FONT SIZE AND SPACING MUST BE AT LEAST THE MINIMUM LISTED



*SEE PAGE 6-59 OF THE 2004 STANDARD HIGHWAY SIGNS MANUAL FOR SYMBOL DESIGN

ALL DIMENSIONS IN INCHES

A	B	C	D	E	F	G	H	I	J	K
48	24	1.75	6	0.75	2	10	3	1.5	0.5	0.5
72	36	2.63	9	1.12	3	15	4.5	1.5	.75	.75
96	48	2.63	12	1.5	4	20	6	1.5	1	1

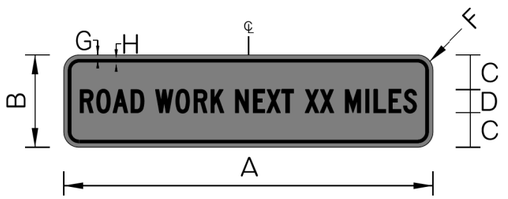
L	M	N	O	P MINIMUM	Q MINIMUM
5	7	33	10	2.5C	2.5
7.6	10.5	49.5	15	3.75C	3.75
10.1	14	66	20	5C	5

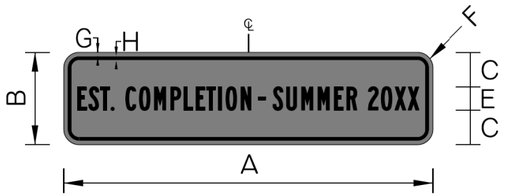
	UPPER SECTION	LOWER SECTION
COLORS: LEGEND, BORDER	- BLACK	BLACK
BACKGROUND	- WHITE (RETROREFLECTIVE)	ORANGE (RETROREFLECTIVE)

CS-CONTRACTOR 2 & 3

CONTRACTOR SUPPLEMENTAL PLAQUES

TEXT LENGTH IS VARIABLE, STRING IS CENTERED VERTICALLY ON PANEL
COMPLETION SIGN TEXT CAN READ EITHER "SPRING", "SUMMER", "FALL", OR "WINTER"
ALTERNATIVELY MONTH NAMES MAY BE USED AND ABBREVIATED IF NECESSARY
ONE OF THE FOLLOWING SIGNS SHOULD BE PLACED BELOW THE CONTRACTOR SIGN





ALL DIMENSIONS IN INCHES

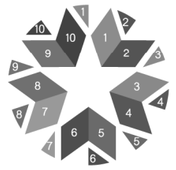
USE GUIDANCE	A	B	C	D	E	F	G	H
LOW SPEED URBAN/TOWN	48	12	4.5	3 C	3 B	1.5	0.5	0.5
CONVENTIONAL TWO LANE HIGHWAY	72	18	6.75	4.5C	4.5B	1.5	0.75	0.75
FREEWAY/ EXPRESSWAY	96	24	9	6 C	6 B	1.5	1	1

COLORS: LEGEND, BORDER - BLACK
BACKGROUND - ORANGE (RETROREFLECTIVE)

OKLAHOMA TRANSPORTATION LOGO

DIMENSIONS ARE ALL APPROXIMATE
COLORS ARE LISTED AS RGB AND PANTONE VALUES
DESIGN GUIDELINES AND IMAGES MAY BE FOUND AT _____

A	B	C	D
6	21.4	1.8	1.3
9	32.1	2.7	2
12	42.8	3.6	2.7



1	2	3	4	5	6	7	8	9	10	11	12
SKY BLUE BRIGHT	SKY BLUE DARK	WOODLAND GREEN BRIGHT	WOODLAND GREEN DARK	CLAY RED BRIGHT	CLAY RED DARK	PRAIRIE GOLD BRIGHT	PRAIRIE GOLD DARK	WATER BLUE BRIGHT	WATER BLUE DARK	SLATE GRAY BRIGHT	SLATE GRAY DARK
R28 G166 B223 #1CA6DF	R0 G102 B166 #0066A6	R102 G155 B65 #669B41	R50 G104 B32 #326820	R209 G84 B32 #D15420	R145 G65 B21 #914115	R222 G144 B39 #DE9027	R169 G103 B40 #A96728	R24 G123 B192 #187BC0	R0 G78 B154 #004E9A	R120 G120 B120 #787878	R70 G70 B70 #464646
2171	2384	7490	2280	7580	7587	131	132	660	7686	COOL GRAY 8	COOL GRAY 10

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APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

CONTRACTOR SIGN

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO. T005

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	T006	78

FINAL PLAN FIELD REVIEW MEETING
06/30/2021

50 25 0 50 100
SCALE FEET

SEC. 28
T-19-N, R-7-E

500+00

505+00

717 LF 4" YELLOW STRIPING

550 LF 4" WHITE STRIPING

87 LF 4" YELLOW DASH

850 LF 4" WHITE STRIPING

124 LF 4" YELLOW DASH

90 LF 4" YELLOW DASH

180 LF 4" YELLOW DASH

445 LF 4" DOUBLE YELLOW

550 LF 4" WHITE STRIPING

850 LF 4" WHITE STRIPING

STA 504+50 TYPE W1-2L

STA 505+52 TYPE

CIMARRON RIVER

STA 505+50 TYPE

357 LF 4" YELLOW STRIPING

MATCHLINE STATION 509+00

SEC. 28
T-19-N, R-7-E

510+00

SEC. 28
T-19-N, R-7-E

515+00

520+00

CIMARRON RIVER STA 513+50 TYPE

728 LF 4" WHITE STRIPING

STA 513+24.52 TYPE

135 LF 4" YELLOW DASH

PC51+66.70

STA 515+50 TYPE R2-1 SPEED LIMIT 55

565 LF 4" WHITE STRIPING

570 LF 4" WHITE STRIPING

MATCHLINE STATION 509+00

728 LF 4" WHITE STRIPING

540 LF 4" YELLOW STRIPING

SPEED LIMIT 65 STA 514+95 TYPE R2-1

188 LF 4" DOUBLE YELLOW

1570 LF 4" DOUBLE YELLOW

MATCHLINE STATION 522+00

SEC. 28
T-19-N, R-7-E

50 25 0 50 100
SCALE FEET

DESIGN:	CPY	2021
DRAWN:	CPY	2021
CHECKED:	CPY	2021
APPRVD:	CPY	2021

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

SIGNING AND STRIPING

SHEET 1 OF 1

STATE JOB PIECE NO: 29829(04) — SHEET NO. T006

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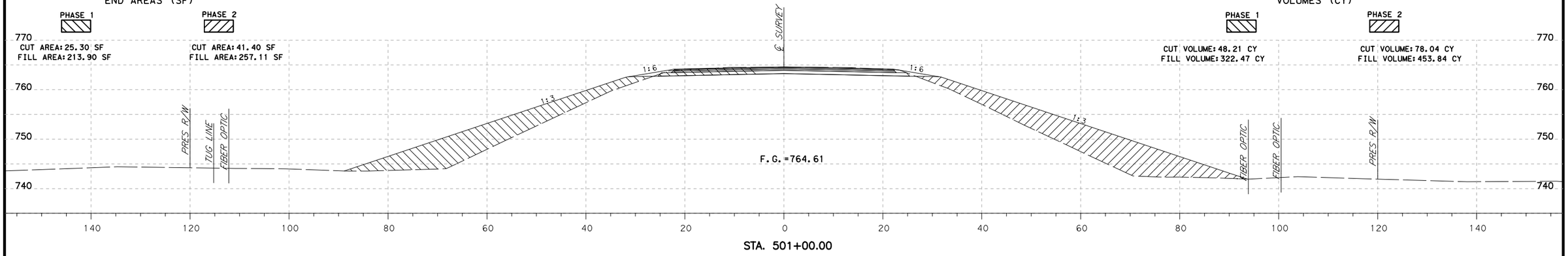
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	X001	28

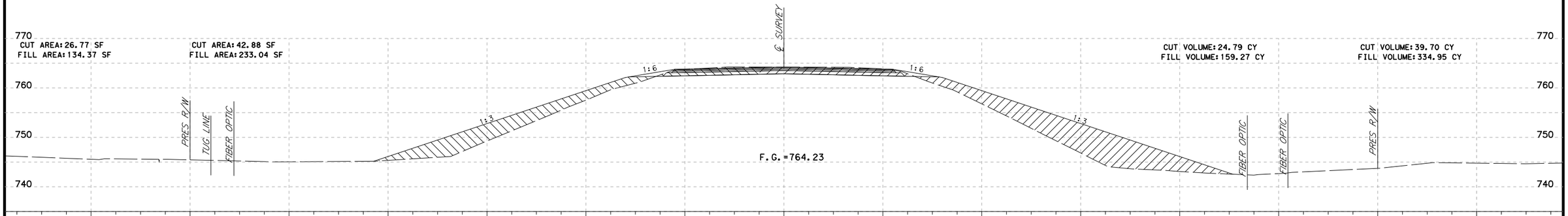
FINAL PLAN FIELD REVIEW
06/30/2021

END AREAS (SF)

VOLUMES (CY)



STA. 501+00.00



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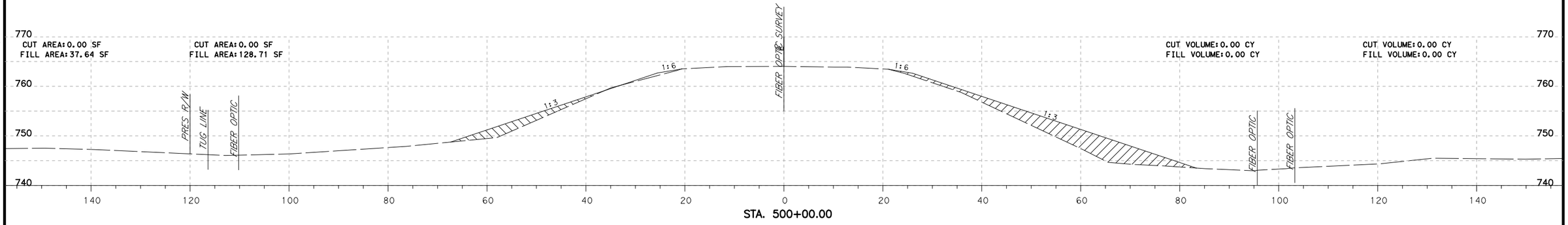
BEGIN PROJECT



STA. 500+00.00

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DESIGN:	CPY	2018
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APPRVD:	CPY	2018

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

CROSS SECTIONS

STATE JOB PIECE NO: 29829(04) — SHEET NO. X001

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	X002	28

FINAL PLAN FIELD REVIEW
06/30/2021

END AREAS (SF) — VOLUMES (CY)

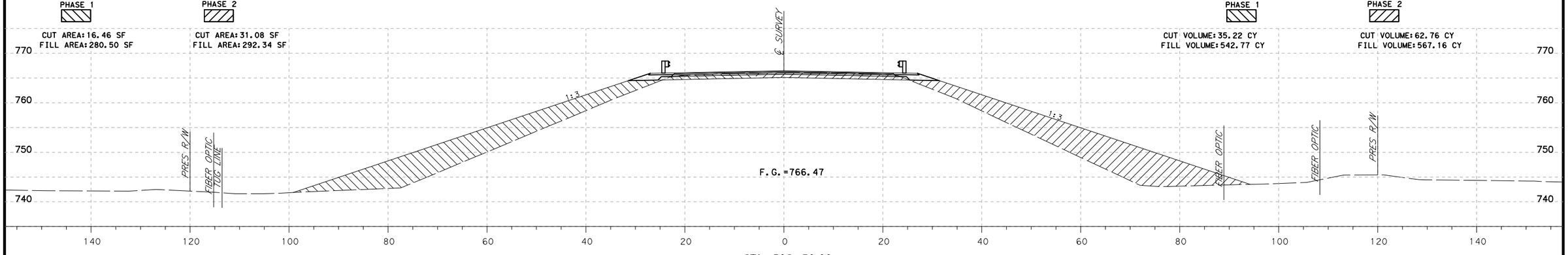
PHASE 1 — PHASE 2

CUT AREA: 16.46 SF
FILL AREA: 280.50 SF

CUT AREA: 31.08 SF
FILL AREA: 292.34 SF

CUT VOLUME: 35.22 CY
FILL VOLUME: 542.77 CY

CUT VOLUME: 62.76 CY
FILL VOLUME: 567.16 CY



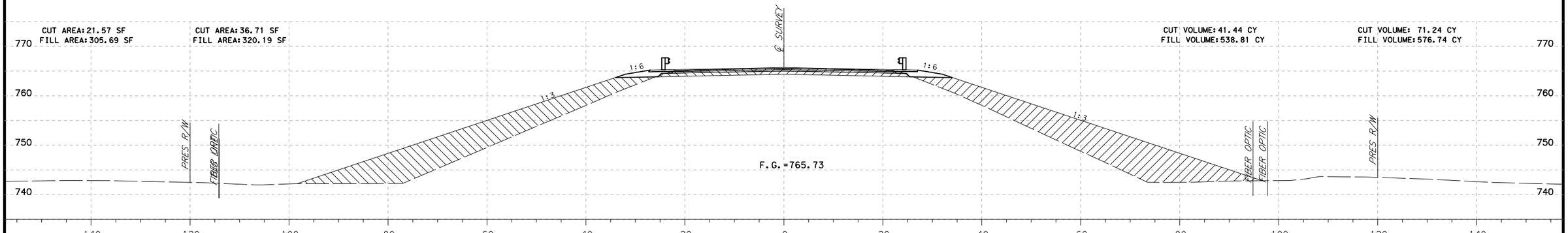
STA. 502+50.00

CUT AREA: 21.57 SF
FILL AREA: 305.69 SF

CUT AREA: 36.71 SF
FILL AREA: 320.19 SF

CUT VOLUME: 41.44 CY
FILL VOLUME: 538.81 CY

CUT VOLUME: 71.24 CY
FILL VOLUME: 576.74 CY



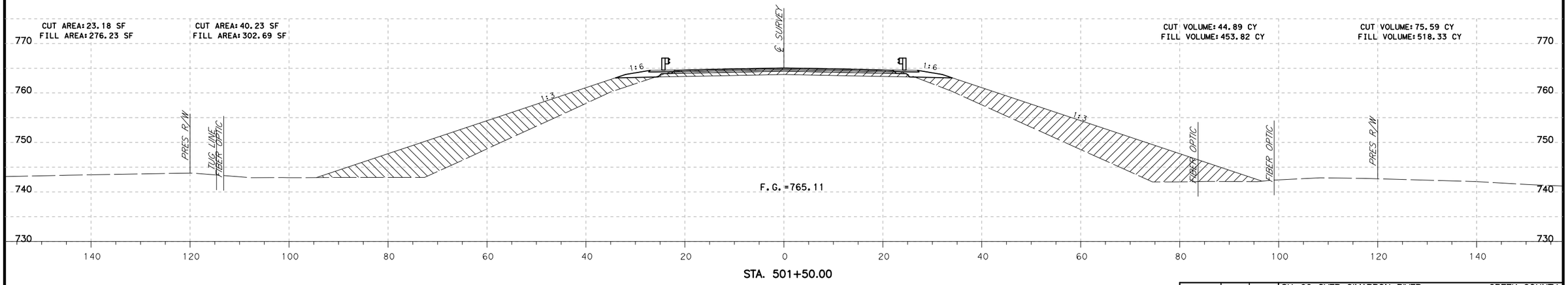
STA. 502+00.00

CUT AREA: 23.18 SF
FILL AREA: 276.23 SF

CUT AREA: 40.23 SF
FILL AREA: 302.69 SF

CUT VOLUME: 44.89 CY
FILL VOLUME: 453.82 CY

CUT VOLUME: 75.59 CY
FILL VOLUME: 518.33 CY



STA. 501+50.00

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CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

CROSS SECTIONS

STATE JOB PIECE NO: 29829(04) — SHEET NO. X002

cbyler
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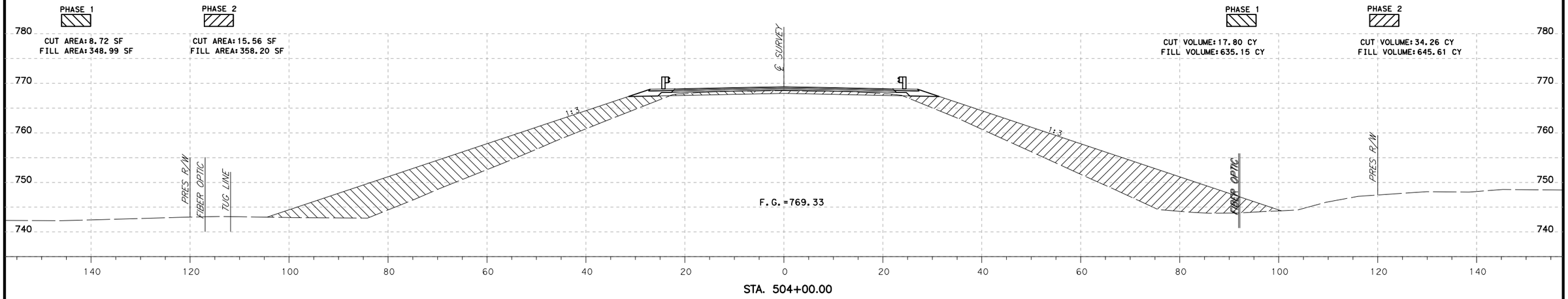
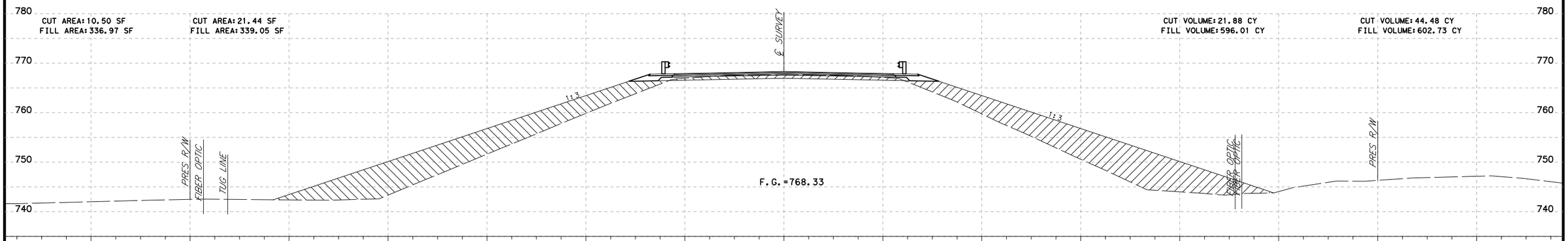
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	X003	28

FINAL PLAN FIELD REVIEW
06/30/2021

END AREAS (SF) | VOLUMES (CY)



STA. 504+00.00



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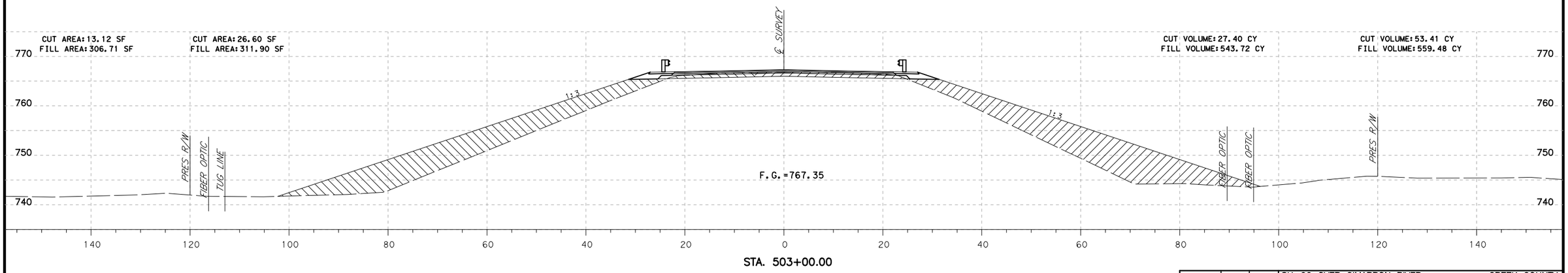

STA. 503+00.00

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APPRVD:	CPY	2018

CP&Y

SH-99 OVER CIMARRON RIVER — CREEK COUNTY

CROSS SECTIONS

STATE JOB PIECE NO: 29829(04) — SHEET NO. X003

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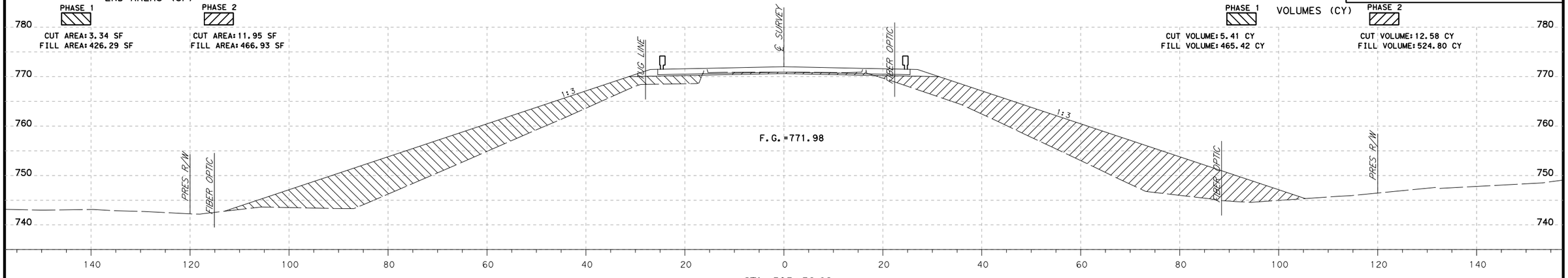
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	X004	28

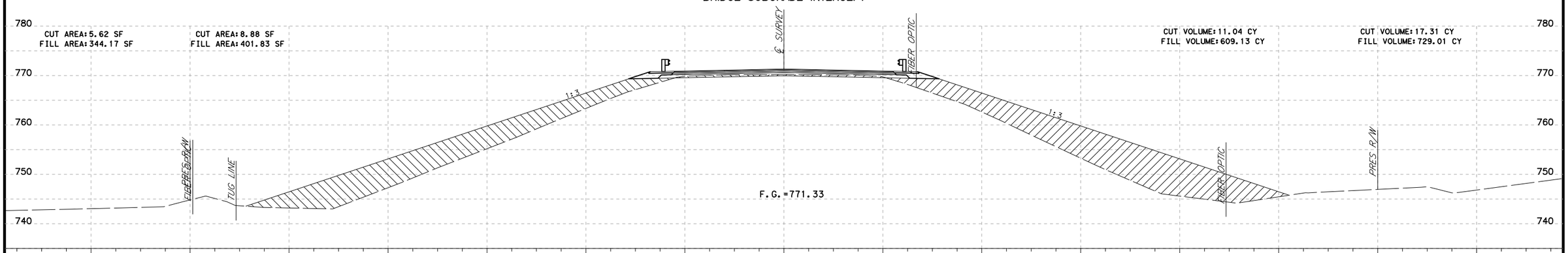
FINAL PLAN FIELD REVIEW
06/30/2021

END AREAS (SF) — PHASE 1 / PHASE 2

VOLUMES (CY) — PHASE 1 / PHASE 2



STA. 505+32.62
BRIDGE SUBGRADE INTERCEPT



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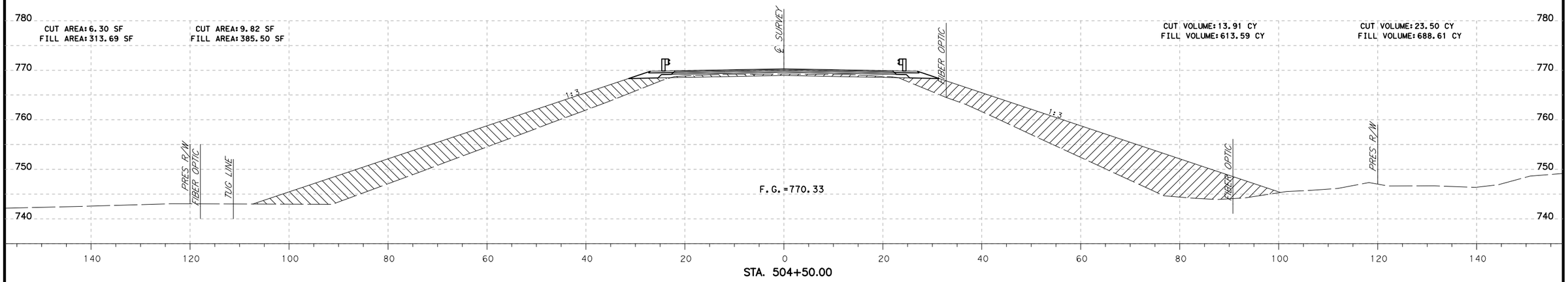

STA. 504+50.00

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

CROSS SECTIONS

STATE JOB PIECE NO: 29829(04) — SHEET NO. X004

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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	X005	28

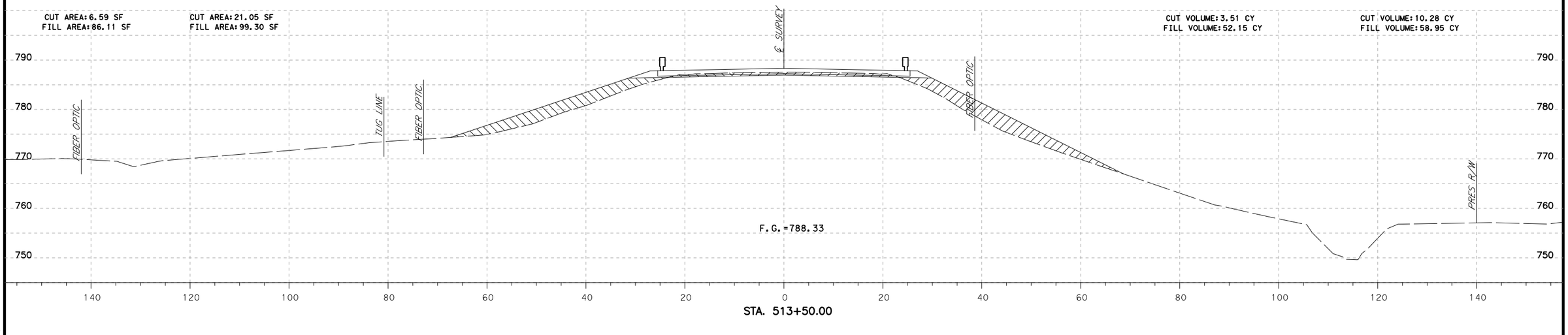
FINAL PLAN FIELD REVIEW
06/30/2021

END AREAS (SF)

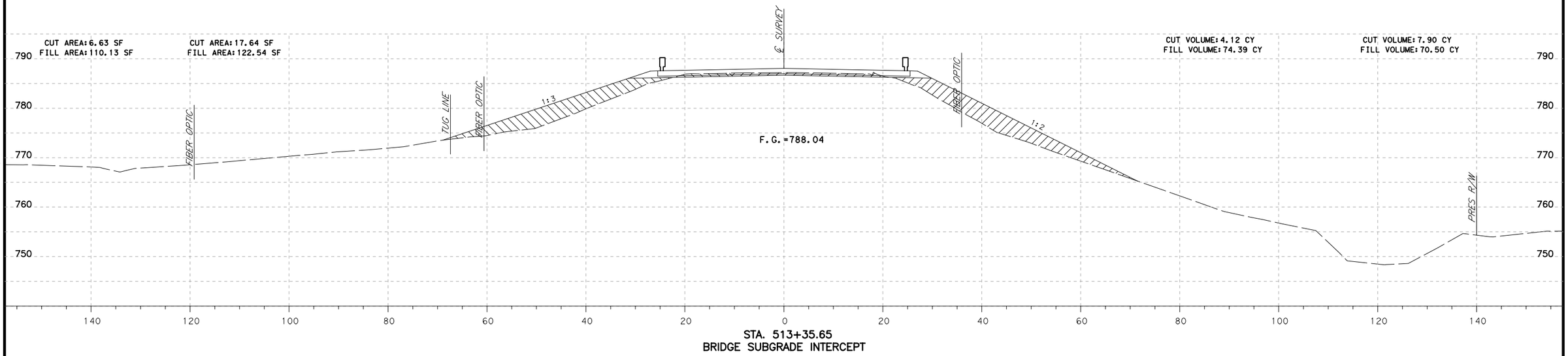
PHASE 1 PHASE 2

VOLUMES (CY)

PHASE 1 PHASE 2



STA. 513+50.00



STA. 513+35.65
BRIDGE SUBGRADE INTERCEPT

END BRIDGE "A" STA 513+21.52
BEGIN BRIDGE "A" STA 505+49.86

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

CROSS SECTIONS

STATE JOB PIECE NO: 29829(04) — SHEET NO. X005

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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	X006	28

FINAL PLAN FIELD REVIEW
06/30/2021

END AREAS (SF)

PHASE 1 PHASE 2

CUT AREA: 10.54 SF
FILL AREA: 25.52 SF

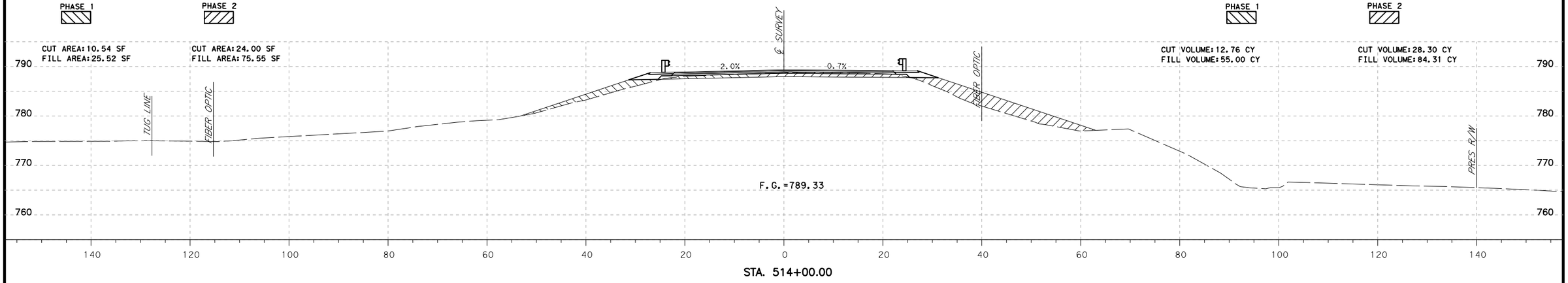
CUT AREA: 24.00 SF
FILL AREA: 75.55 SF

VOLUMES (CY)

PHASE 1 PHASE 2

CUT VOLUME: 12.76 CY
FILL VOLUME: 55.00 CY

CUT VOLUME: 28.30 CY
FILL VOLUME: 84.31 CY



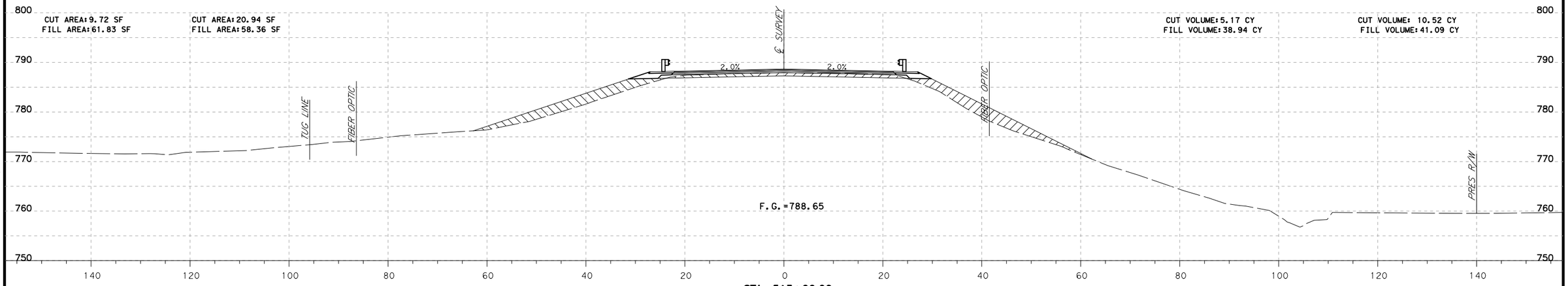
STA. 514+00.00

CUT AREA: 9.72 SF
FILL AREA: 61.83 SF

CUT AREA: 20.94 SF
FILL AREA: 58.36 SF

CUT VOLUME: 5.17 CY
FILL VOLUME: 38.94 CY

CUT VOLUME: 10.52 CY
FILL VOLUME: 41.09 CY



STA. 513+66.00
BEGIN SUPERELEVATION TRANSITION RIGHT LANE

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

CROSS SECTIONS

STATE JOB PIECE NO: 29829(04) — SHEET NO. X006

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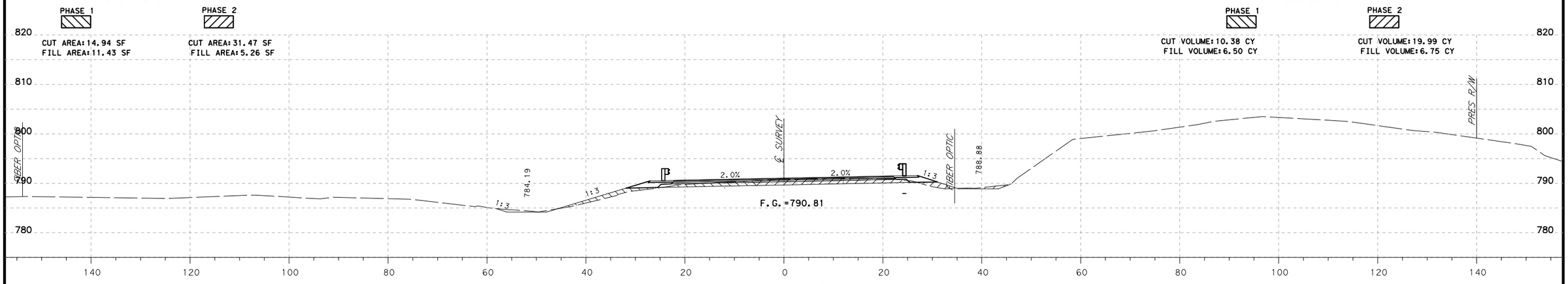
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	X007	28

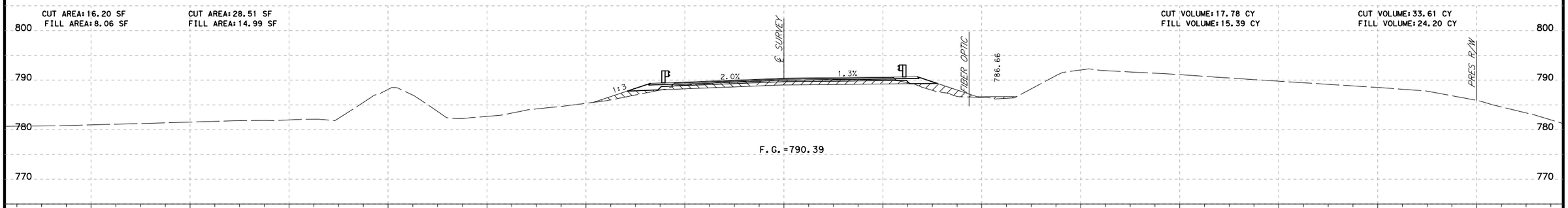
FINAL PLAN FIELD REVIEW
06/30/2021

END AREAS (SF)

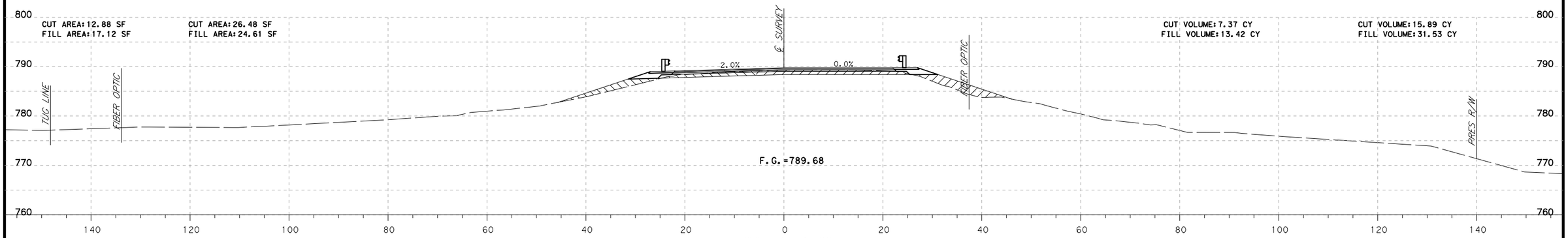
VOLUMES (CY)



STA. 514+68.00
REVERSE CROWN RIGHT LANE



STA. 514+50.00



STA. 514+17.00
LEVEL CROSS SLOPE RIGHT LANE

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

CROSS SECTIONS

STATE JOB PIECE NO: 29829(04) — SHEET NO. X007

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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	X008	28

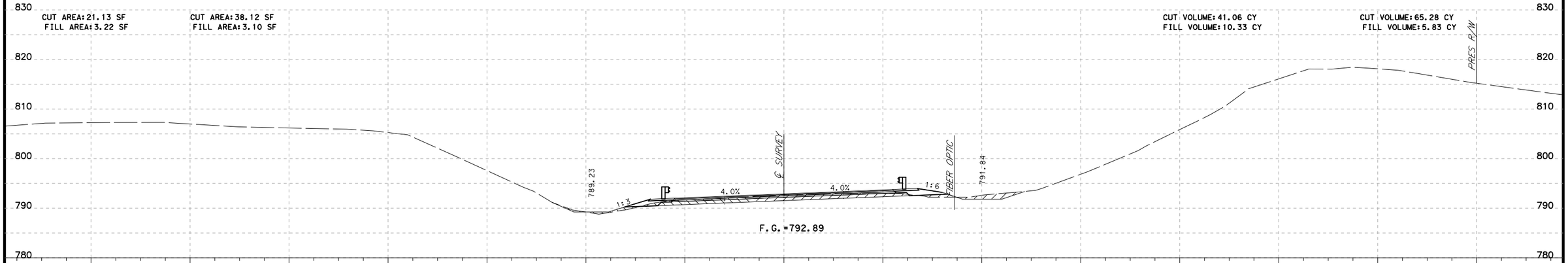
FINAL PLAN FIELD REVIEW
06/30/2021

END AREAS (SF)

PHASE 1 PHASE 2

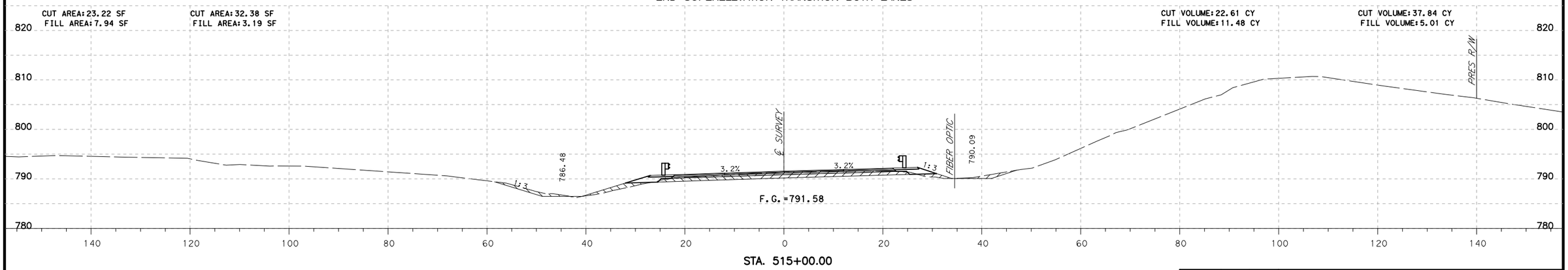
VOLUMES (CY)

PHASE 1 PHASE 2



STA. 515+50.00

STA. 515+19.00
END SUPERELEVATION TRANSITION BOTH LANES



STA. 515+00.00

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

CROSS SECTIONS

STATE JOB PIECE NO: 29829(04) — SHEET NO. X008

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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29829(04)	2018	X009	28

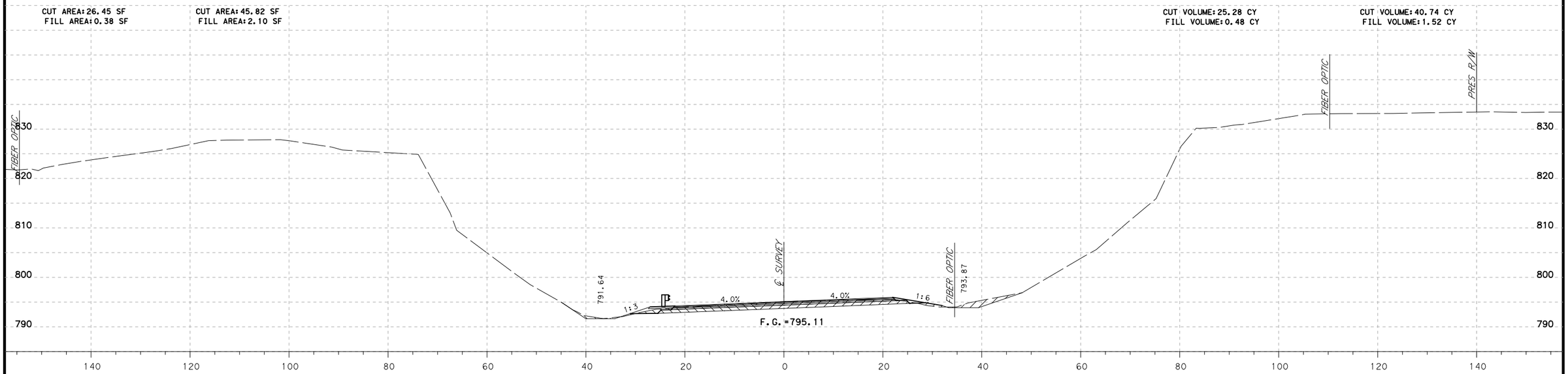
FINAL PLAN FIELD REVIEW
06/30/2021

END AREAS (SF)

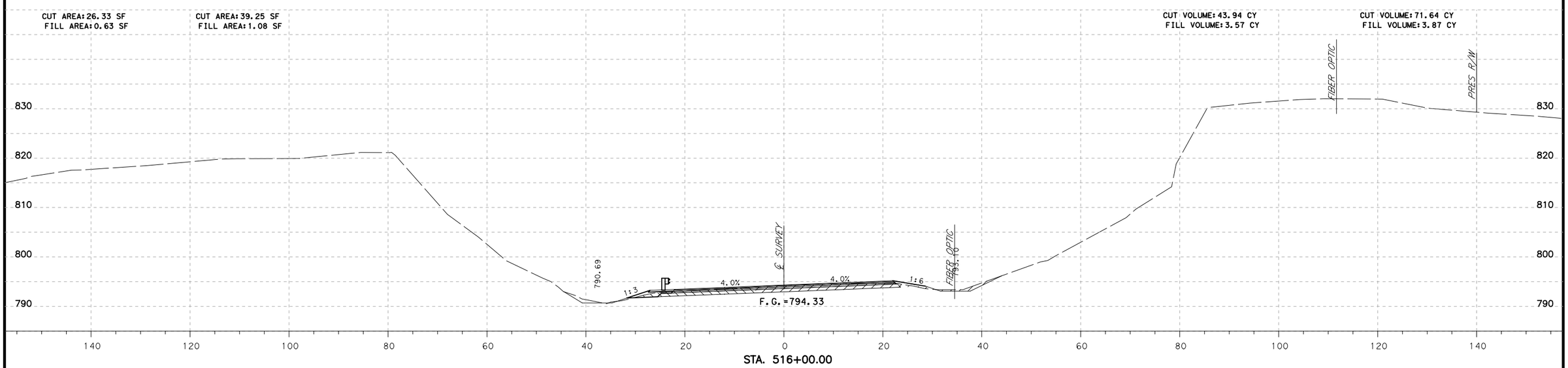
PHASE 1 PHASE 2

VOLUMES (CY)

PHASE 1 PHASE 2



STA. 516+25.86
END PROJECT



STA. 516+00.00

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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

CROSS SECTIONS

STATE JOB PIECE NO: 29829(04) — SHEET NO. X009

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6	OKLA.	29829(04)	2018	X010	28

FINAL PLAN FIELD REVIEW
06/30/2021

END AREAS (SF)

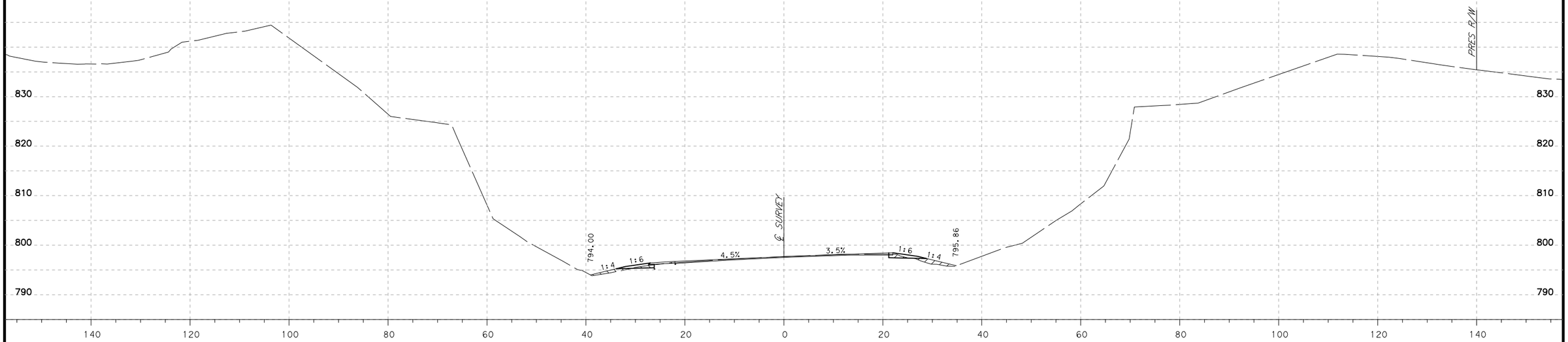
PHASE 1 — CUT AREA: 1.55 SF, FILL AREA: 3.18 SF

PHASE 2 — CUT AREA: 1.91 SF, FILL AREA: 4.62 SF

VOLUMES (CY)

PHASE 1 — CUT VOLUME: 9.53 CY, FILL VOLUME: 3.65 CY

PHASE 2 — CUT VOLUME: 4.11 CY, FILL VOLUME: 6.63 CY



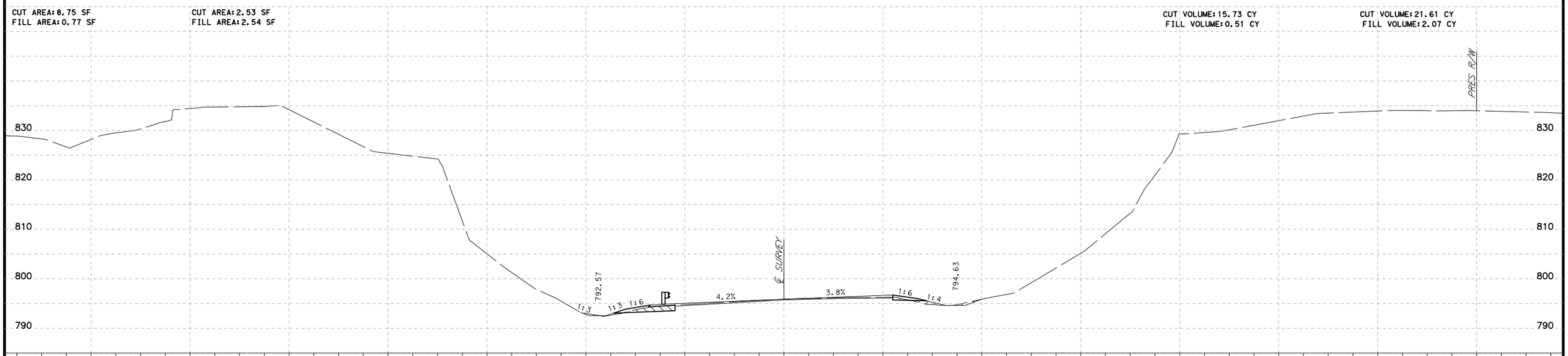
STA. 517+00.00

CUT AREA: 8.75 SF, FILL AREA: 0.77 SF

CUT AREA: 2.53 SF, FILL AREA: 2.54 SF

CUT VOLUME: 15.73 CY, FILL VOLUME: 0.51 CY

CUT VOLUME: 21.61 CY, FILL VOLUME: 2.07 CY



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SH-99 OVER CIMARRON RIVER — CREEK COUNTY

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