



**Documented Categorical Exclusion (DCE) for  
I-40 and Douglas Boulevard Bridge and Interchange Improvement  
Oklahoma County  
Division IV  
J2-8992(004)SS, JP#28992(04)**

**Existing Conditions and Purpose and Need for the Action**

The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA), is proposing to improve the I-40 and Douglas Boulevard bridge and interchange, Oklahoma County, Oklahoma.

The Douglas Boulevard bridge over I-40 (NBI #15573) is six lanes wide including four through lanes, two loop ramp weaving lanes, curb and gutter, and 3-ft. wide sidewalks on each side of the bridge. The existing Douglas Boulevard bridge has a clear roadway width of 80 ft. and a sufficiency rating of 77.0. The vertical clearance for I-40 is posted as 16 ft. 9 in. (eastbound) and 16 ft. 4 in. (westbound). The current annual average daily traffic (AADT) on Douglas Boulevard is 26,100 vehicles per day (vpd), and is projected to increase to 48,000 vpd by the year 2045.

I-40 underneath Douglas Boulevard is a four-lane divided urban interstate with a 40-ft. wide grass median, 12-ft. wide driving lanes, 3-ft. wide inside shoulders, and 10-ft. wide outside shoulders. The current AADT on I-40 is 54,600 vpd, and is projected to increase to 84,600 vpd by the year 2045. The existing I-40 and Douglas Boulevard interchange is a full cloverleaf interchange with collector-distributor roads along I-40. The number of collisions at this location is higher than the state average at similar locations.

The existing Engle Road bridge over I-40 (NBI #15560) over I-40 formerly provided access to a residential neighborhood south of I-40. However, the neighborhood no longer exists, and the property is now owned by Tinker Air Force Base and Oklahoma County. Therefore, Engle Road bridge is closed to traffic and not in use.

The existing Industrial Boulevard bridge over I-40 (NBI #15559) is approximately 0.5 miles west of Douglas Boulevard, has a clear roadway width of 48 ft., and has a sufficiency rating of 67.8. The bridge is four lanes wide, including three through lanes and one left-turn lane. The bridge's vertical clearance for I-40 is posted as 18 ft. (eastbound) and 16 ft. 6 in. (westbound). The Industrial Road bridge over I-40 provides access to the Hruskocy Gate to Tinker Air Force Base.

This project will tie to an adjacent project east for I-40 improvements eastward to the I-40/Choctaw Road interchange.

The purpose of this project is to correct the functionally obsolete Douglas Boulevard bridge and improve safety while accommodating future traffic volumes.



The project is included in ODOT's 8-Year Construction Work Plan FFY 2018 through FFY 2025, as well as the Association of Central Oklahoma Government (ACOG) Oklahoma City Area Regional Transportation Study (OCARTS) Transportation Improvement Program for FFY 2017 – 2020.

### **Prior Planning and Alternatives Considered**

Three (3) interchange alternatives were identified for consideration:

- **Alternative 1 - Single Point Urban Interchange (SPUI).** A Single Point Urban Interchange is a basic diamond interchange with a single signalized central intersection in the center of the bridge. The Douglas Boulevard traffic along with the I-40 ramp traffic will converge to a single point utilizing a single set of traffic signals. The SPUI accommodates large traffic volumes efficiently with minimal right-of-way impacts. I-40 will be improved to a six-lane facility. Through the interchange, Douglas Boulevard will consist of six through lanes, dual left-turn lanes, and right-turn lanes where needed. Entrance and exit ramp lanes will also be constructed along I-40. Collector-distributor roads will be removed and will not be re-constructed. Alternative 1 would require less than one acre of right-of-way to be acquired from Oklahoma County in the southwest quadrant.
- **Alternative 2 - Tight Urban Diamond Interchange (TUDI) with Ramp Flyover.** A Tight Urban Diamond Interchange is an interchange that compresses a standard diamond interchange. This design includes all four interchange ramps, as well as the option of adding a future flyover ramp for northbound Douglas Boulevard traffic destined for westbound I-40. I-40 will be improved to a six-lane facility. Through the interchange, Douglas Boulevard will consist of six through lanes, dual left-turn lanes, and right-turn lanes where needed. Upon construction of the northbound to westbound ramp flyover, the northbound to westbound left-turn lanes on Douglas will be removed. Entrance and exit ramp lanes will also be constructed along I-40. Collector-distributor roads will be removed and will not be re-constructed. Alternative 2 would require less than one acre of right-of-way to be acquired from Oklahoma County in the southwest quadrant.
- **Alternative 3 - Cloverleaf Interchange.** The existing cloverleaf will be completely reconstructed to accommodate widening I-40 to a six-lane facility. All ramps and both collector-distributor roads will be reconstructed. Through the interchange, Douglas Boulevard will consist of four through lanes, two lanes for loop ramp weaving, two additional lanes located in the median which can be used in the future for left turning traffic, and entrance and exit lanes where needed. Entrance and exit ramp lanes will also be constructed along I-40. Alternative 3 would require less than one acre of right-of-way to be acquired from Oklahoma County in the southwest quadrant.

All three alternatives included the removal of Engle Road Bridge. All three alternatives required reconstruction of the Industrial Boulevard on-ramp and bridge, to be completed as part of another project. An Access Justification Report has been prepared as a separate document and the text and summary is included as an attachment.

### **Public Involvement & Agency Solicitations**

Notifications of specialist field studies were mailed November 28, 2016 to all area landowners.

A Public Meeting was held to present the project information on January 17, 2017, 6:00 p.m., in the Raider Room of the Bill Atkinson Student Center at Rose State College, Midwest City, Oklahoma. At that meeting, the three alternatives described previously were presented, based on the results of an



engineering design study. In addition, 20 agency solicitation letters were sent to federal and state resource agencies (see agency solicitation list in attached Public Involvement section). ODOT received 10 comments from state and federal agencies and 13 comments from the public. Agency comments expressed either no concerns with the project or recommendations for compliance with agency protocols. More than half of the written public comments received which expressed support for an alternative supported Alternative 1. Alternative 2 received the next most support. Other public comments addressed traffic operations at the nearby S.E. 29th Street/Douglas Boulevard intersection, pedestrian accommodations, and other miscellaneous issues. Based on these comments and the completed engineering design study, ODOT has selected Alternative 1, the Single Point Urban Interchange, as the Preferred Alternative. Alternative 1 improves safety, accommodates large volumes of traffic, and provides greater mobility for both cars and large trucks due to long, gradual turns. Alternative 2 was eliminated due to higher construction costs and less efficient traffic operations and turning traffic mobility. Alternative 3 was eliminated due to less than desirable interchange geometry, fewer safety improvements, and difficulty in providing pedestrian facilities. ODOT informed the public of the Preferred Alternative selection by mailing a letter April 11, 2017 to all parties on the project mailing list and by posting a public involvement summary and supporting graphics on the ODOT website.

The project does not have any substantial or public controversy on environmental grounds.

### **Description of Proposed Action**

The Preferred Alternative is Alternative 1 - Single Point Urban Interchange (SPUI). A SPUI is a basic diamond interchange with a single signalized central intersection in the center of the bridge. The Douglas Boulevard traffic along with the I-40 ramp traffic will converge to a single point utilizing a single set of traffic signals. The SPUI accommodates large traffic volumes efficiently with minimal right-of-way impacts. I-40 will be improved to a six-lane facility. Through the interchange, Douglas Boulevard will consist of six through lanes, dual left-turn lanes, and right-turn lanes where needed. Entrance and exit ramp lanes will also be constructed along I-40. Collector-distributor roads will be removed and will not be re-constructed. Alternative 1 would require less than one acre of right-of-way to be acquired from Oklahoma County in the southwest quadrant. No relocations are anticipated for the Preferred Alternative. An Access Justification Report has been prepared as a separate document and the text and summary is included as an attachment.

### **Social, Economic and Environmental Impacts & Agency Coordination**

#### **Right-of-Way and Relocations**

The project involves acquisition of right-of-way. However, the acquisition does not involve any residential or commercial relocations nor involve property in which another Federal Agency or Federally Recognized Tribe has ownership, oversight or any other encumbrance.

### **Environmental Justice**

U.S. Census data were used to evaluate the NEPA study area for high concentrations of minority and low-income populations. For purposes of this demographic analysis, the census tracts, census block groups, and census blocks which contain the proposed project were assessed. Eight census blocks associated with the 2010 Census are relevant for minority analysis, and four census block groups associated with the 2012-2016 ACS 5-Year Estimates are relevant for low-income population analysis. The eight census blocks report a minority percentage ranging from 0% to 26%, which is lower than the reported minority percentages for Midwest City, Oklahoma City, Oklahoma County, and the state of Oklahoma. The



census block groups report median household income in the past 12 months ranging from \$32,813 to \$195,441, which is above the \$25,100 DHHS poverty guideline for a family of four for 2018. Therefore, no minority or low-income populations have been identified that would cause disproportionately high and adverse impacts by the proposed project. In accordance with the provisions of E.O. 12898 and FHWA Order 6640.23A, no further environmental justice analysis is required.

Based upon the *2012-2016 ACS 5-Year Estimates*, less than 5% and less than 1,000 persons residing in the census blocks within the NEPA study area speak English less than “very well.” Therefore, no LEP language assistance efforts were required, per ODOT’s Title VI Plan and E.O. 13166.

### **Cultural Resources**

On behalf of the Federal Highway Administration (FHWA), ODOT has consulted with the Oklahoma State Historic Preservation Office (SHPO), the Oklahoma Archaeological Survey, and appropriate Native American tribes regarding the impacts of this undertaking on historic properties. No historic properties are present in the project area of potential effect (APE).

### **Section 4(f) and Section 6(f) Involvement**

The action does not involve the use of properties protected by Section 4(f) of the Department of Transportation Act (49 U.S.C. 303).

### **Waters and Wetlands**

The action involves work in unnamed potentially jurisdictional waterways. The proposed construction activities will be evaluated to ensure that the appropriate Clean Water Act Section 404 permit application is made.

### **Threatened & Endangered Species and Migratory Birds**

A biological field review was performed for the referenced project. ODOT has determined that the project, as proposed, will have no effect on the federally-listed Interior Least Tern, Whooping Crane, Piping Plover, and Red Knot. The U.S. Fish and Wildlife Service (USFWS) has concurred with the department’s findings.

The project as proposed could adversely affect Migratory Birds, protected by the Migratory Bird Treaty Act (MBA), if construction activities occur during the nesting season of this species. A plan note requiring avoidance of demolition or construction of any existing structures with migratory bird use during the nesting season will be added to the final construction plans.

### **Floodplains**

The project is not located in a regulatory floodway that will require a flood plain revision as determined by the appropriate state or local authority.

### **Farmlands**

The action occurs mostly within existing right-of-way and in an urban area. Hence, the project will not affect any farmlands.



### **Hazardous Waste**

There are no known hazardous materials sites or previous land uses with potential for hazardous material remains within the proposed action area.

### **Changes to Access or Access Control**

Full access to/from I-40 and Douglas Boulevard will remain, but access control will change from free flow to a signal control on Douglas Boulevard. The Engle Road bridge, which is not in use, will be removed and will not be replaced. An Access Justification Report has been prepared as a separate document and the text and summary is included as an attachment.

### **Temporary Construction Impacts**

Both roads will remain open to through traffic, and access will be provided to local property owners at all times during construction. Closure of ramps from time to time will be necessary during construction. ODOT will notify the public in advance of ramp closures.

### **Noise**

The analysis had utilized the FHWA Traffic Noise Model version 2.5 in accordance with FHWA 23 CFR 772 and complies with the ODOT Noise Policy dated July 13, 2011. For the purposes of validating the noise model, a precision sound level meter was utilized in conducting field measurements along the existing I-40 which proved successful. The land use within the project limits consists primarily of commercial and industrial mix; however, two medical facilities, one Recreational Vehicle (RV) Park, one mobile home park and scattered residences exist. Thirty-one (31) model receptor locations representing a total of 67 receptors were analyzed. For the existing (2014) condition, three (3) residential and twenty-one (21) RV Park receptors approach, meet or exceed the 67 dB(A) LEQ(h) for NAC Activity Categories B and C, respectively. For the future condition (design year 2045), seven (7) residential and two (2) RV Park receptors approach, meet or exceed the 67 dB(A) LEQ (h) for NAC Activity Categories B and C. No commercial receptors approach the 72 dB(A) LEQ (h) for NAC Activity Category E. An interior analysis was conducted for the St. Anthony's HealthPlex and Animal Medical facility; these receptors were evaluated as NAC Activity Category D in which no existing or future noise impacts occur. In addition, the affected receptors are anticipated to experience an increase in future noise levels ranging from -2.0 to 4.0 dB, and thus, no substantial increase (15 dB) over the current condition when considering noise impact determination.

Noise mitigation in the form of a free-standing noise wall was considered for the impacted receptors. Seven (7) of the residential receptors located at the south end of the project limits have direct driveway access onto Douglas Boulevard. Without access control, the gap that would be required for the driveway connections would make noise abatement measures ineffective and, therefore, noise mitigation would not prove feasible. The other two (2) impacted receptors are located within the Eastland Hills RV Park. A noise barrier was modeled inside the highway right-of-way line along the access road to the RV Park at various heights. Based on the barrier analysis of a noise wall consisting of 608 feet in length at a maximum height of 22-feet was not able to achieve the desired 5.0 to 7.0 dB(A) noise reduction; therefore, noise mitigation is not feasible. Based on the inability of this noise wall not able to attain the acceptable reduction of future noise levels for these receptors, no noise barrier is recommended for design.



### FAA Permitting

The action may require notifying the Federal Aviation Administration (FAA) of proposed construction via FAA Form 7460-1 prior to construction, in accordance with 14 CFR 77.13 – 77.17, due to the location of Tinker Air Force Base (FAA Code TIK) within four (4) miles of this project.

### Summary of Commitments

1. The action may involve work in potentially jurisdictional waters. The Section 404 permit application form will be submitted by the Designer through Project Management Division to Environmental Programs Division at the time of right-of-way submittal for evaluation and determination of the appropriate Clean Water Act Section 404 permit application for the project.
2. The following plan notes requiring construction season restrictions for migratory birds will be added to the final project plans under “Environmental Mitigation Notes” per policy Directive C-201-2D(2): **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 January 2017. Although no nests were observed, the survey is valid only until the start of the 2017 nesting season (beginning March 1). The Resident Engineer shall contact the ODOT Biologist at 405-521-2515 if any bird use of the existing structures is observed. If birds are observed, then extension or demolition of the existing bridges and culverts shall be conducted between September 1 and February 28 (when migratory bird nests are not occupied).**
3. The following airports are located within 4 miles of this project. This action may require notifying the Federal Aviation Administration (FAA) of proposed construction via FAA Form 7460-1 prior to construction:
  - Tinker Air Force Base (FAA Code TIK)

### Conclusions

The Oklahoma Department of Transportation (ODOT) has completed the environmental analysis and review of the referenced project. ODOT has determined that this project does not individually or cumulatively have a significant impact on the environment as defined by the National Environmental Policy Act (NEPA), or involve unusual circumstances as defined in 23 CFR 771.117(b), and is therefore excluded from the requirements to prepare an Environmental Assessment or Environmental Impact Statement. As provided by the 2011 Federal Highway Administration (FHWA)/ODOT Programmatic Agreement Process of Categorical Exclusions, FHWA has previously determined that processing this action as a Documented Categorical Exclusions (DCE) is appropriate. Based on consideration of prior planning studies, appropriate agency solicitation, thorough environmental review, and public coordination, ODOT has determined that this action results in no significant impacts to the human and natural environment, involves no public controversy on environmental grounds, and no inconsistency with any Federal, State or local laws, regulations, and administrative determinations relating to the environment. FHWA concurrence with this finding is requested.

All documentation, analyses, and agency coordination regarding this Categorical Exclusion are contained in a support appendix maintained in the project file at the Oklahoma Department of Transportation, Environmental Programs Division.



**Preparer/Reviewer Signatures**

<i>Diane Abernathy</i>	09/14/18
Environmental Consultant Project Manager	Date
<b>Triad Design Group</b>	
Environmental Consultant Firm Name	
County Commissioner or City Manager	Date
ODOT Environmental Project Manager	Date
Assistant Environmental Programs Division Engineer	Date
Environmental Programs Division Engineer	Date

Concurrence that this project qualifies for a Documented Categorical Exclusion:

Environmental Programs Manager, FHWA	Date

**Attachments:**

- Memos with Plan Notes
- Location Map
- Plans/Study Footprint
- Studies
- DCE Justification Document
- AJR Text and Summary

**Distribution List**

X	Project Management Division
X	Roadway Design Division
X	Bridge Division
X	Traffic Division
X	Local Government Division
	Special Projects
	Safe Routes to School Coordinator
X	Field Division Engineer
X	Right-of-Way Division
X	Office Engineer Division
X	FHWA

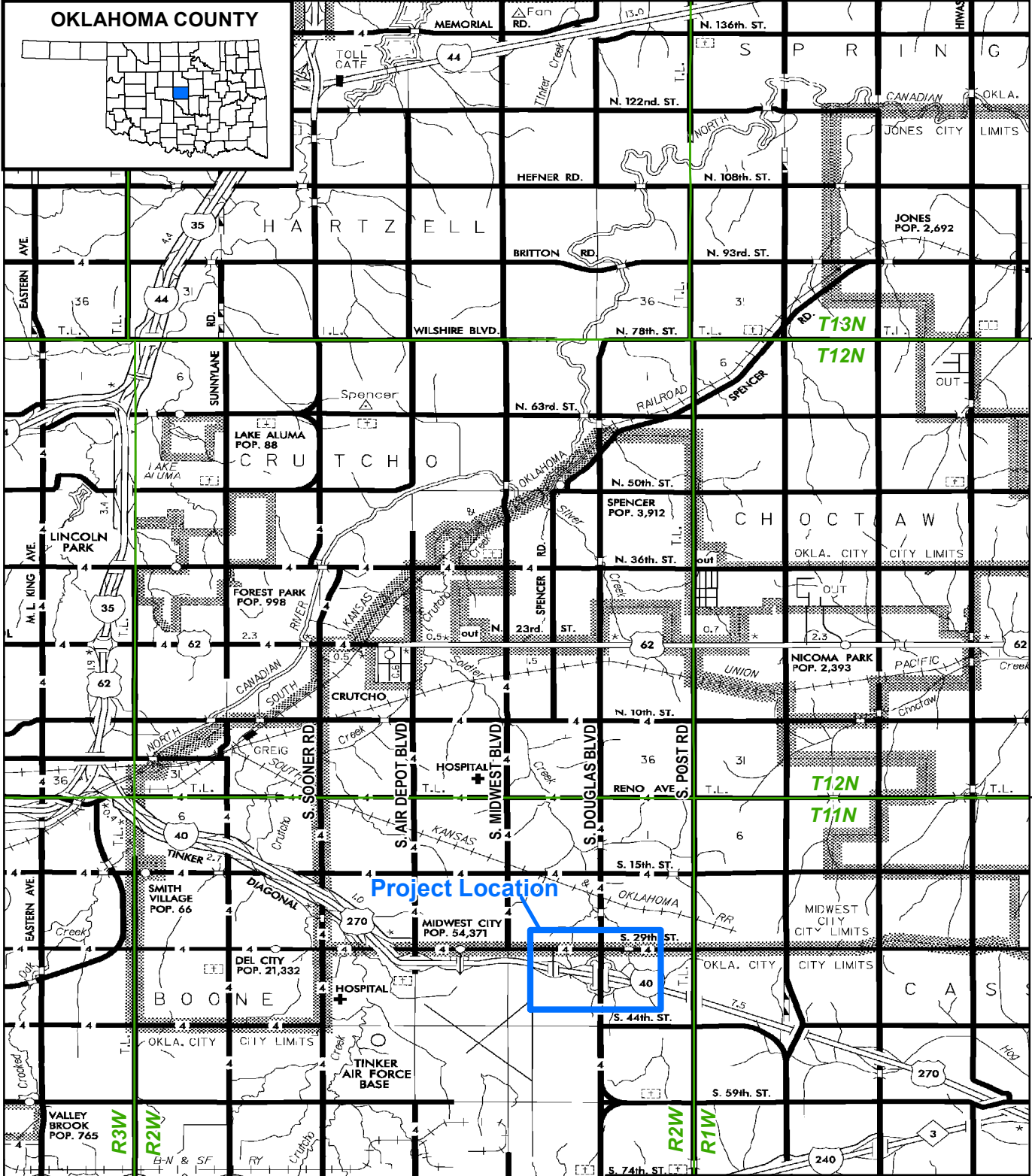
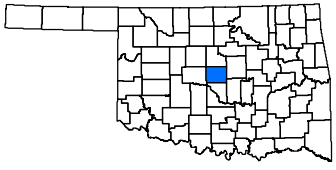
NS 312

NS 314

NS 316

NS 318

OKLAHOMA COUNTY



Project Location

I-40/Douglas Boulevard Interchange  
Oklahoma County  
JP No 28992(04)  
Proj No J2-8992(004)



Location Map  
November 11, 2016

R3W

R2W

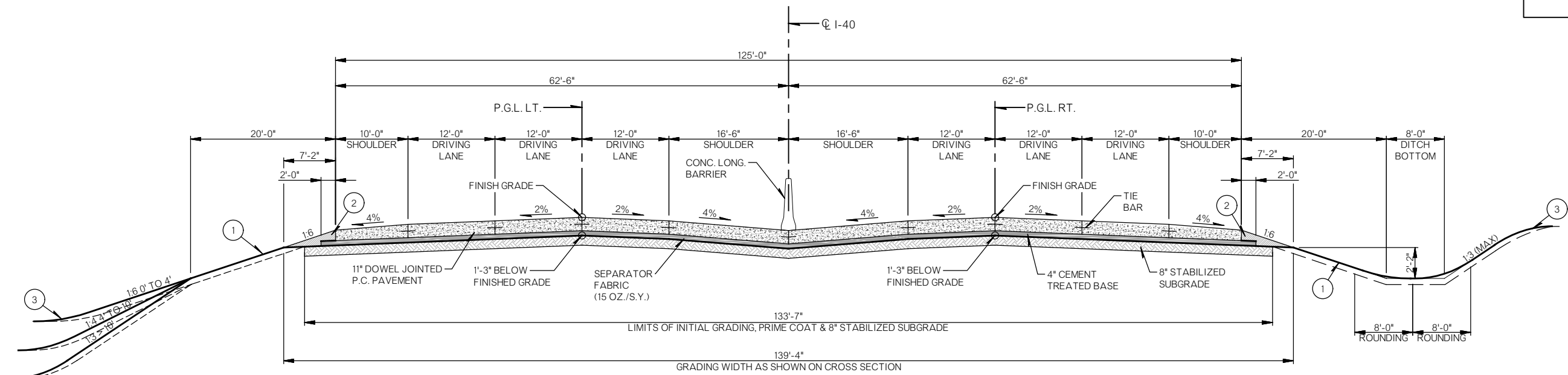
R1W



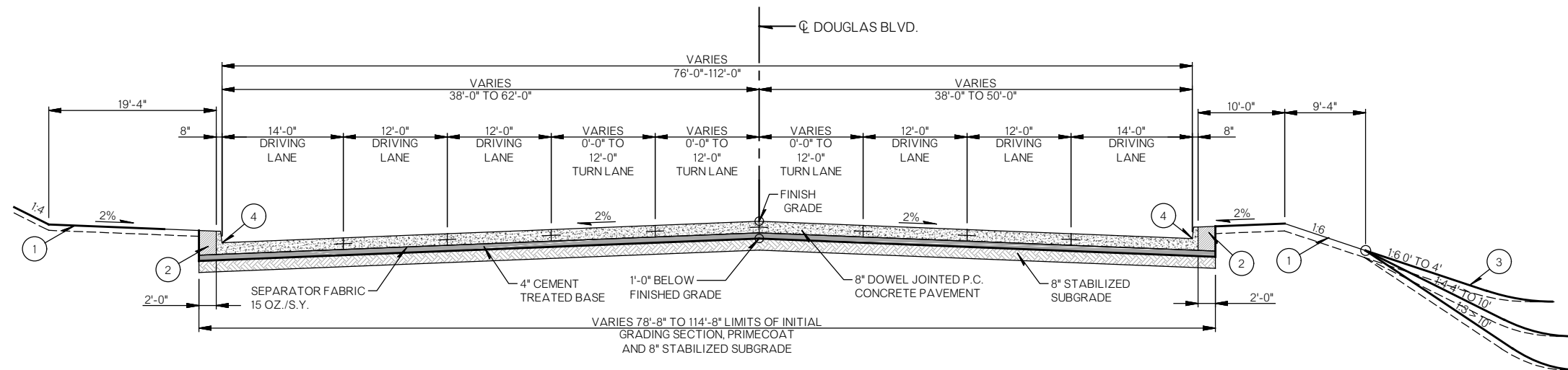


# **PLANS OR FOOTPRINTS**





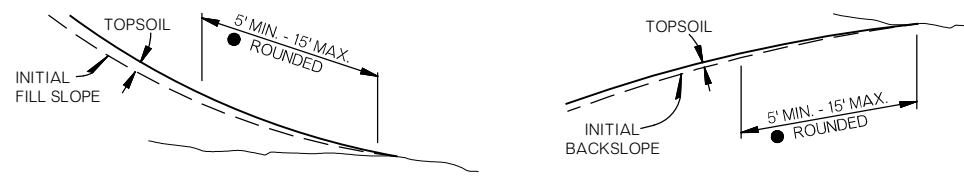
TYPICAL SECTION NO. 1  
I-40



TYPICAL SECTION NO. 2  
DOUGLAS BLVD.

**ROUNDING DETAIL**

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



TOE OF FILL ROUNDING

TOP OF CUT ROUNDING

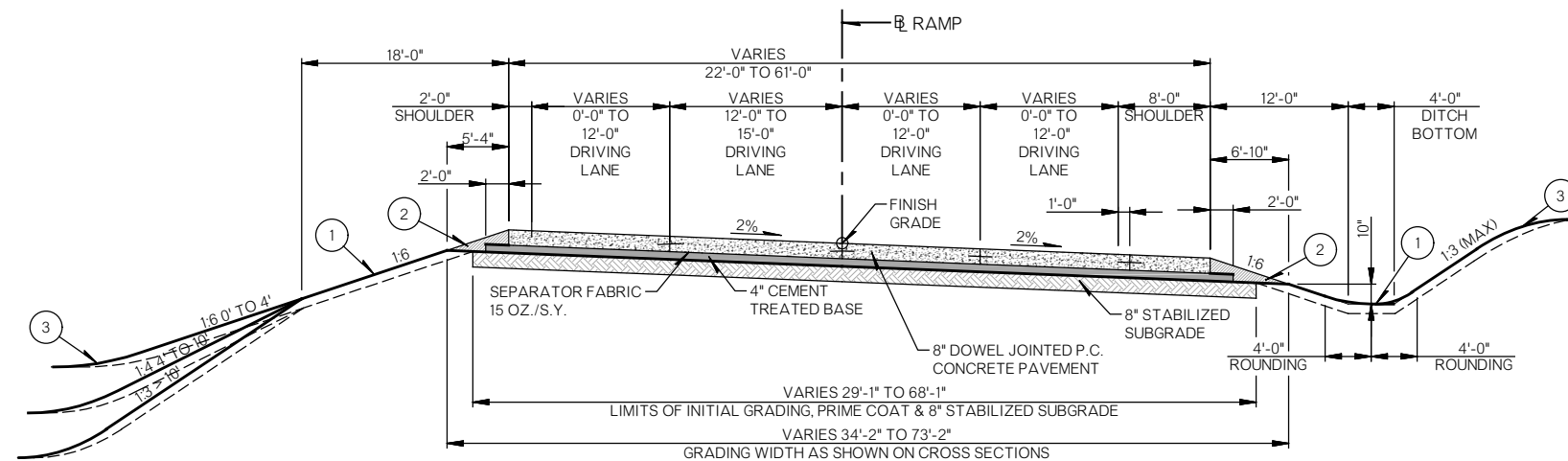
1 BACKFILL NOTE:  
TO BE BACKFILLED AS PART OF THE FINISHING OPERATIONS. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

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

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

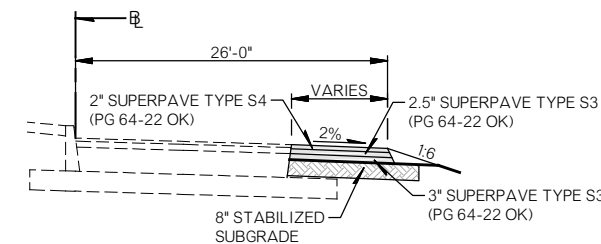
- 3 SEE ROUNDING DETAIL
- 4 CONCRETE CURB (8" BARRIER-INTEGRAL)

TYPICAL SECTION



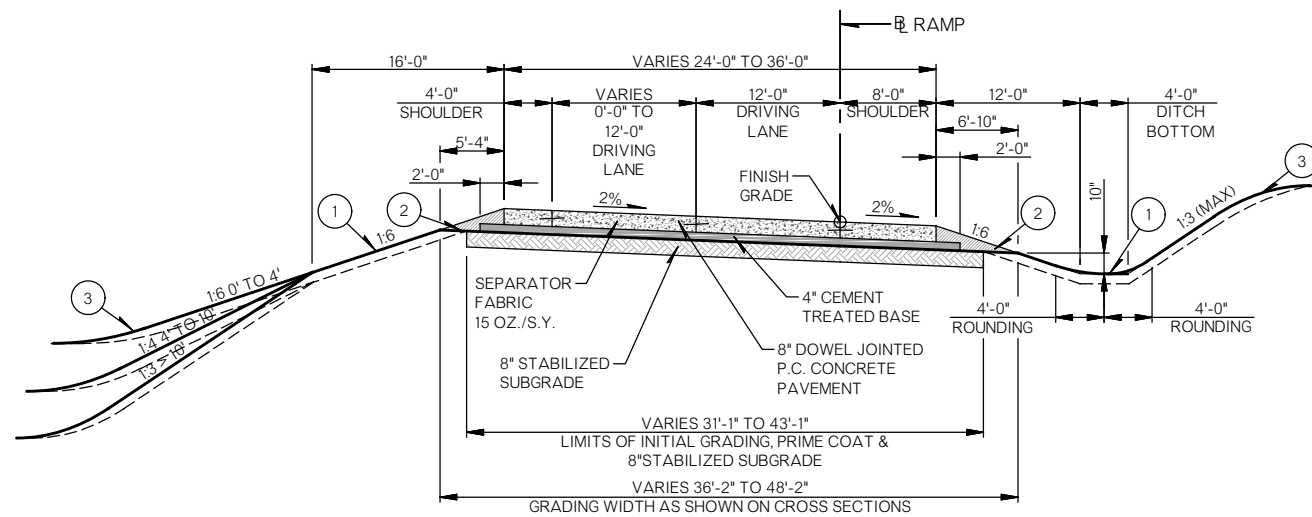
TYPICAL SECTION NO. 3

- RAMP A
- RAMP B
- RAMP C
- RAMP D



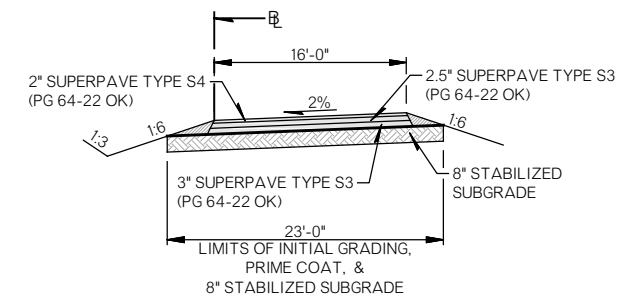
TYPICAL SECTION NO. 5

- TEMPORARY WIDENING
- COLLECTOR - DISTRIBUTOR ROAD EASTBOUND
- COLLECTOR - DISTRIBUTOR ROAD WESTBOUND



TYPICAL SECTION NO. 4

- RAMP A.1
- RAMP B.1
- RAMP C.1
- RAMP D.1

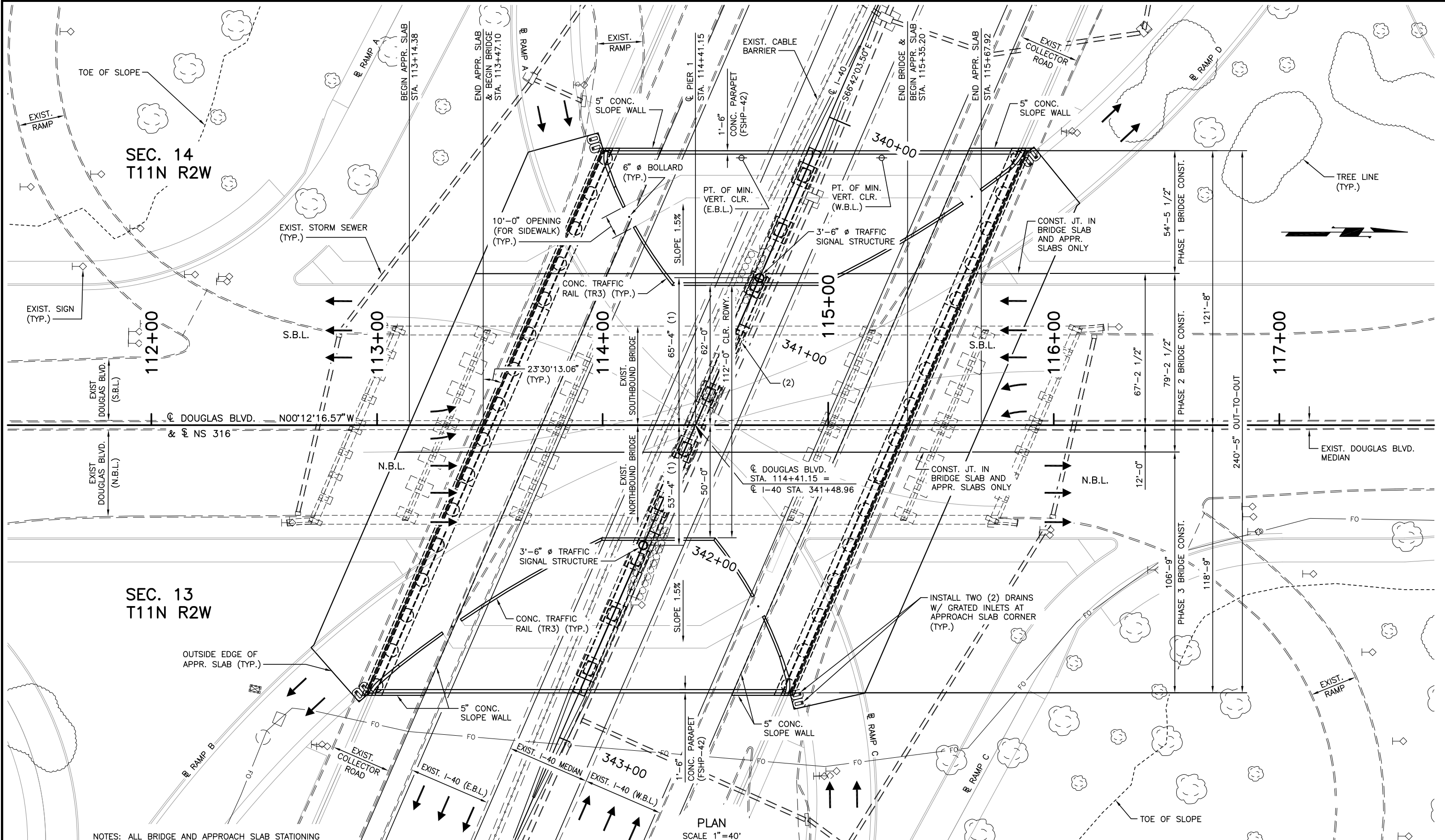


TYPICAL SECTION NO. 6

- RAMP P DETOUR
- RAMP Q DETOUR
- RAMP S DETOUR
- RAMP U DETOUR

- 1 SEE TOPSOIL NOTE ON SHEET 2
- 2 SEE BACKFILL NOTE ON SHEET 2
- 3 SEE ROUNDING DETAIL ON SHEET 2

TYPICAL SECTION



NOTES: ALL BRIDGE AND APPROACH SLAB STATIONING FOLLOWS  $\text{CL}$  DOUGLAS BLVD.  
 FOR ELEVATION OF BRIDGE, FINISH GRADE DATA AND EXISTING BRIDGE NOTE, SEE SHEET NO. B2.  
 RAMP BASELINES AND STATIONS ARE NOT SHOWN FOR CLARITY.

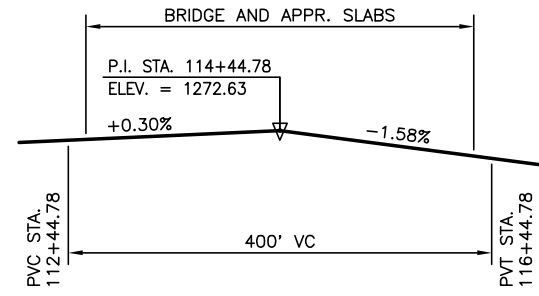
- (1) DIMENSION IS FROM  $\text{CL}$  DOUGLAS BLVD. TO  $\text{CL}$  3'-6"  $\text{O}$  TRAFFIC SIGNAL STRUCTURE.
- (2) EXISTING PIER FOOTINGS THAT CONFLICT WITH NEW DRILLED SHAFTS/PIER FOOTINGS SHALL BE REMOVED, AS NECESSARY.

CONST. TWO (2) 94' PRESTRESSED CONCRETE BEAM SPANS; 112'-0" MIN. CLR. RDWY. W/ CONC. PARAPETS (FSHP-42) AND CONC. TRAFFIC RAILS (TR3) SKEWED 23'30"13.06" LF

Design	.		I-40/DOUGLAS BOULEVARD INTERCHANGE	OKLAHOMA COUNTY
Drawn	PKW	07/16	GENERAL PLAN AND ELEVATION (BRIDGE "A") (ALTERNATE 1)	
Checked	.		(SHEET 1 OF 2)	
Approved	.		$\text{CL}$ STA. 114+41.15	
Squad			State Job No. 28992(04)	Sheet No. B1

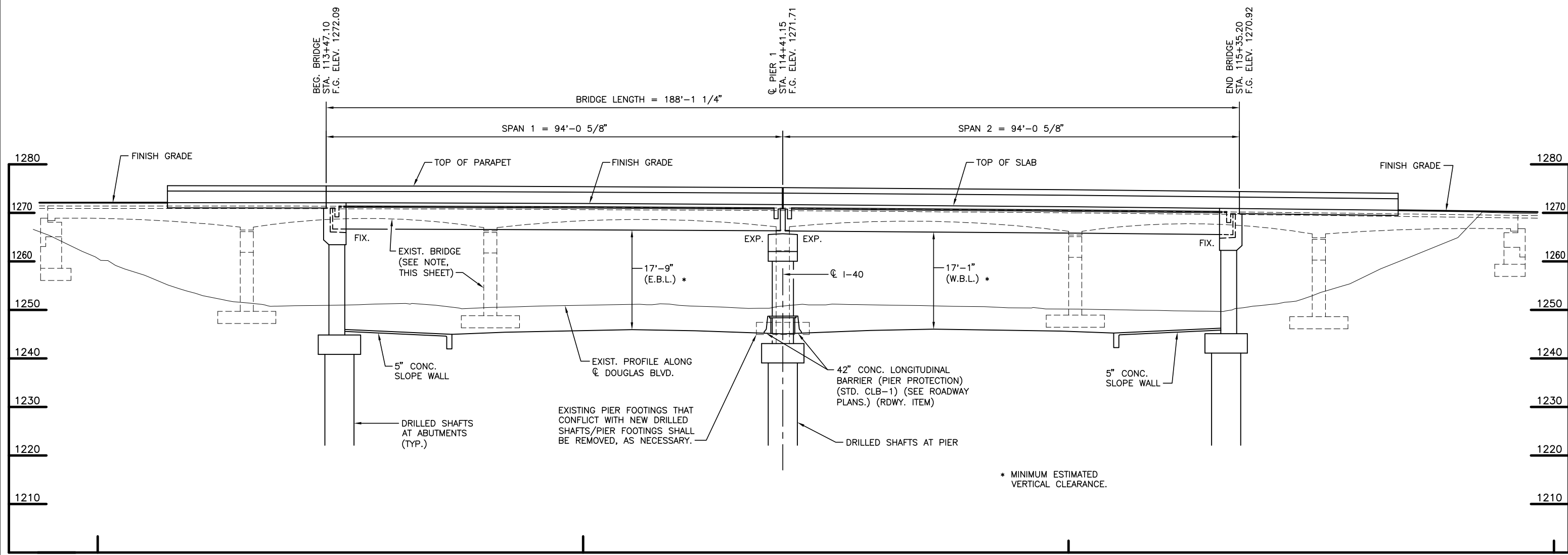
"CONCEPTUAL PLANS - NOT FOR CONSTRUCTION"

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FINISH GRADE DATA  
 ☉ DOUGLAS BLVD.

EXISTING BRIDGE NOTE:  
 ☉ DOUGLAS BLVD. STA. 114+41.15, TWIN-SIX (6)  
 SPAN (41'-50'-60'-60'-50'-41') x 43.90' WIDE  
 CONCRETE SLAB SPAN BRIDGES, SKEWED 23'30" LF  
 REMOVE FOLLOWING PHASE 1 BRIDGE  
 CONSTRUCTION.



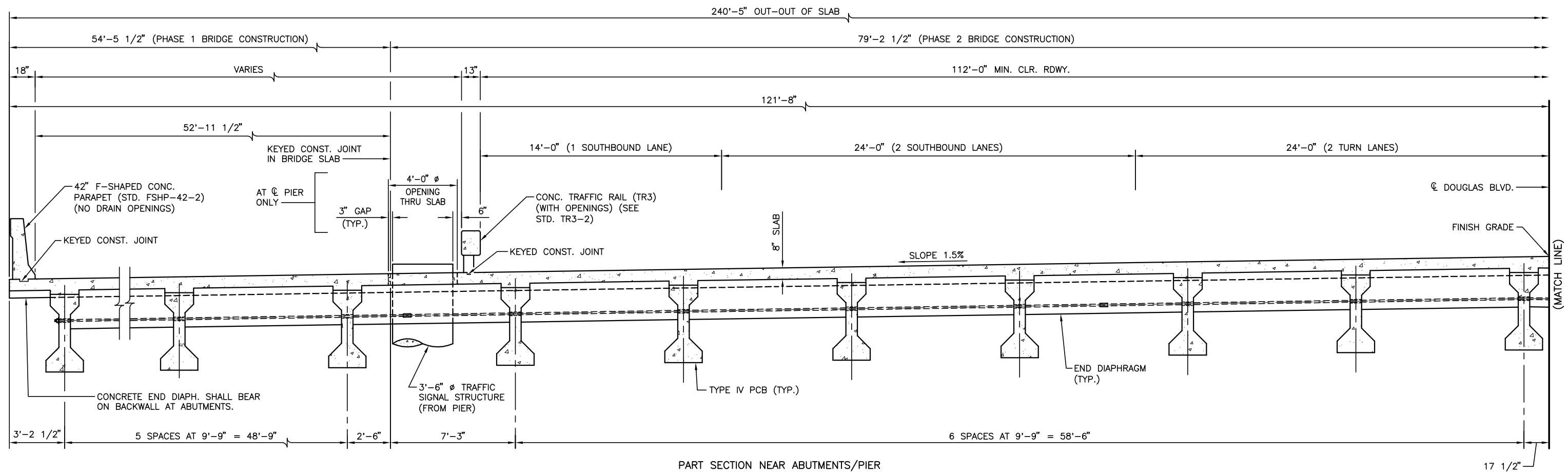
NOTE: FOR PLAN VIEW OF BRIDGE, SEE SHEET NO. B1.

CONST. TWO (2) 94' PRESTRESSED CONCRETE BEAM SPANS;  
 112'-0" MIN. CLR. RDWY. W/ CONC. PARAPETS (FSHP-42)  
 AND CONC. TRAFFIC RAILS (TR3) SKEWED 23'30"13.06" LF

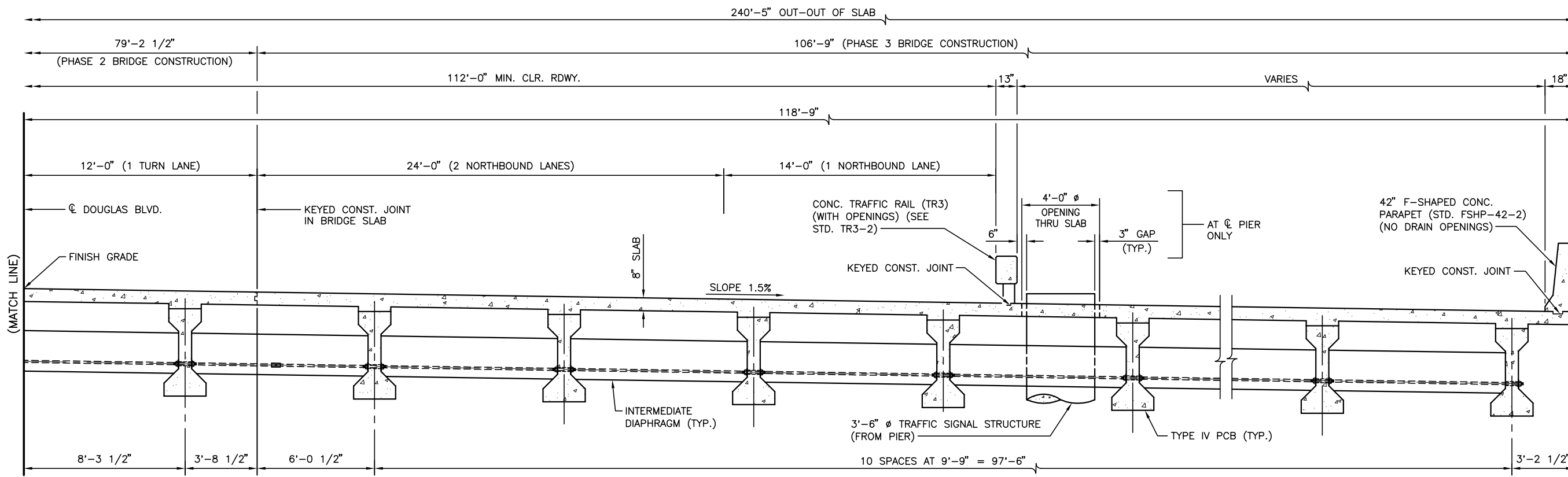
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Drawn	PKW	07/16	GENERAL PLAN AND ELEVATION (BRIDGE "A") (ALTERNATE 1)	
Checked	.		(SHEET 2 OF 2)	
Approved			☉ STA. 114+41.15	
Squad			State Job No. 28992(04)	Sheet No. B2

"CONCEPTUAL PLANS - NOT FOR CONSTRUCTION"

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PART SECTION NEAR ABUTMENTS/PIER



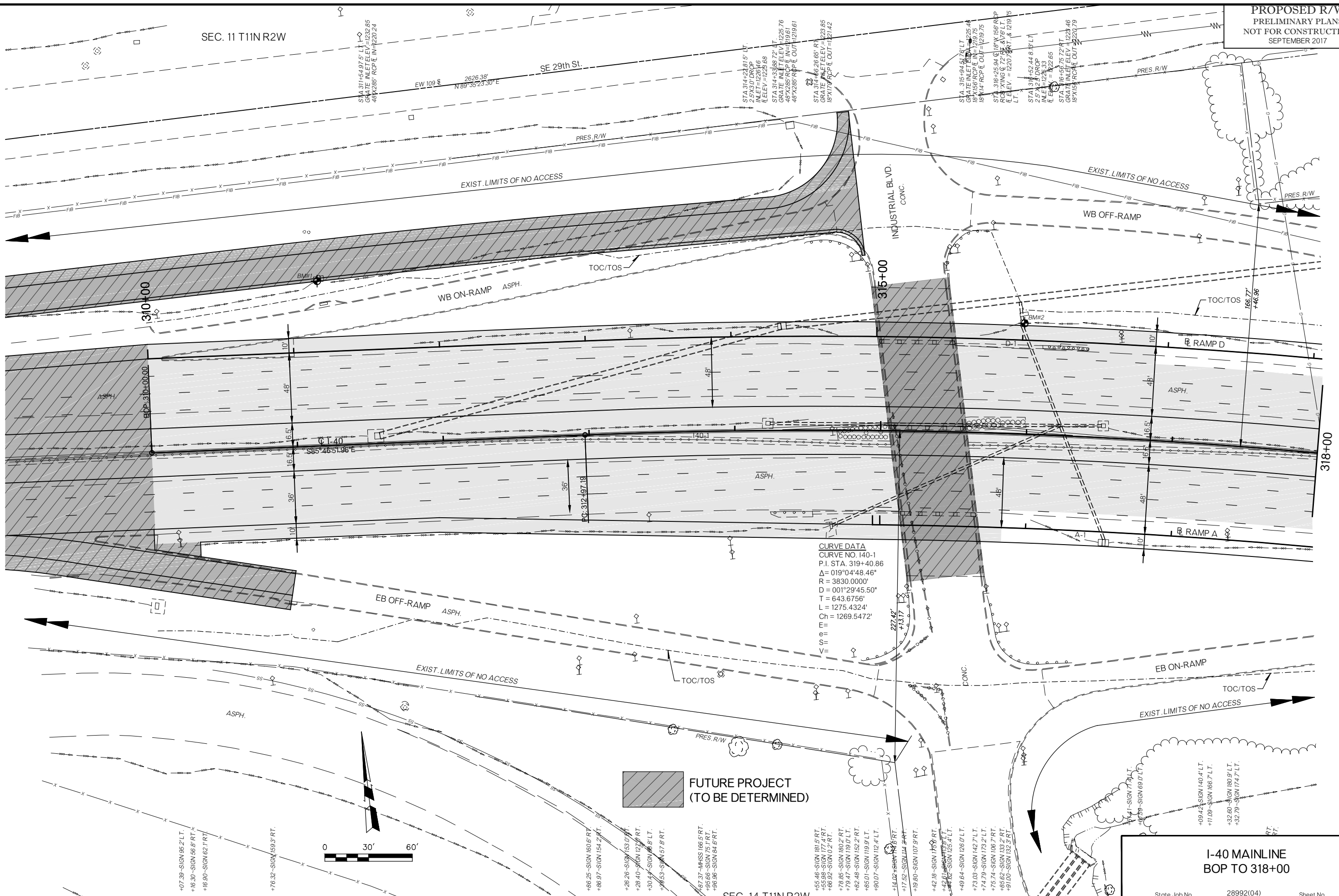
PART SECTION NEAR MIDSPAN

TYPICAL BRIDGE CROSS SECTION

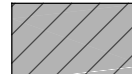
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Drawn	PKW 06/16	TYPICAL BRIDGE CROSS SECTION (BRIDGE "A") (ALTERNATE 1)	
Checked	.		
Approved	.		
Squad	.	State Job No. 28992(04)	Sheet No. B3

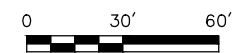
"CONCEPTUAL PLANS - NOT FOR CONSTRUCTION"

SEC. 11 T11N R2W



CURVE DATA  
 CURVE NO. 140-1  
 P.I. STA. 319+40.86  
 $\Delta = 019^{\circ}04'48.46''$   
 $R = 3830.0000'$   
 $D = 001^{\circ}29'45.50''$   
 $T = 643.6756'$   
 $L = 1275.4324'$   
 $Ch = 1269.5472'$   
 $E =$   
 $e =$   
 $S =$   
 $V =$

 FUTURE PROJECT  
(TO BE DETERMINED)



+07.39-SIGN 95.2' LT.  
 +16.30-SIGN 56.8' RT.  
 +16.90-SIGN 62.1' RT.  
 +76.32-SIGN 169.3' RT.

+86.25-SIGN 160.6' RT.  
 +86.97-SIGN 154.2' RT.  
 +26.26-SIGN 153.0' RT.  
 +28.40-SIGN 127.0' RT.  
 +30.44-SIGN 65.8' LT.  
 +65.53-SIGN 57.8' RT.  
 +97.37-SIGN 166.5' RT.  
 +95.66-SIGN 75.1' RT.  
 +96.96-SIGN 84.6' RT.

+65.46-SIGN 181.5' RT.  
 +65.99-SIGN 191.1' RT.  
 +66.92-SIGN 12.1' RT.  
 +78.86-SIGN 180.2' RT.  
 +79.47-SIGN 119.0' LT.  
 +82.48-SIGN 152.2' RT.  
 +85.01-SIGN 119.9' LT.  
 +90.07-SIGN 112.4' LT.  
 +14.00-SIGN 146.6' RT.  
 +17.52-SIGN 114.8' RT.  
 +19.80-SIGN 107.9' RT.  
 +42.18-SIGN 175.8' RT.  
 +42.61-SIGN 175.8' RT.  
 +47.62-SIGN 125.4' LT.  
 +49.64-SIGN 126.0' LT.  
 +73.03-SIGN 142.7' LT.  
 +74.79-SIGN 173.2' LT.  
 +75.74-SIGN 106.7' RT.  
 +85.62-SIGN 133.2' RT.  
 +91.00-SIGN 152.3' RT.

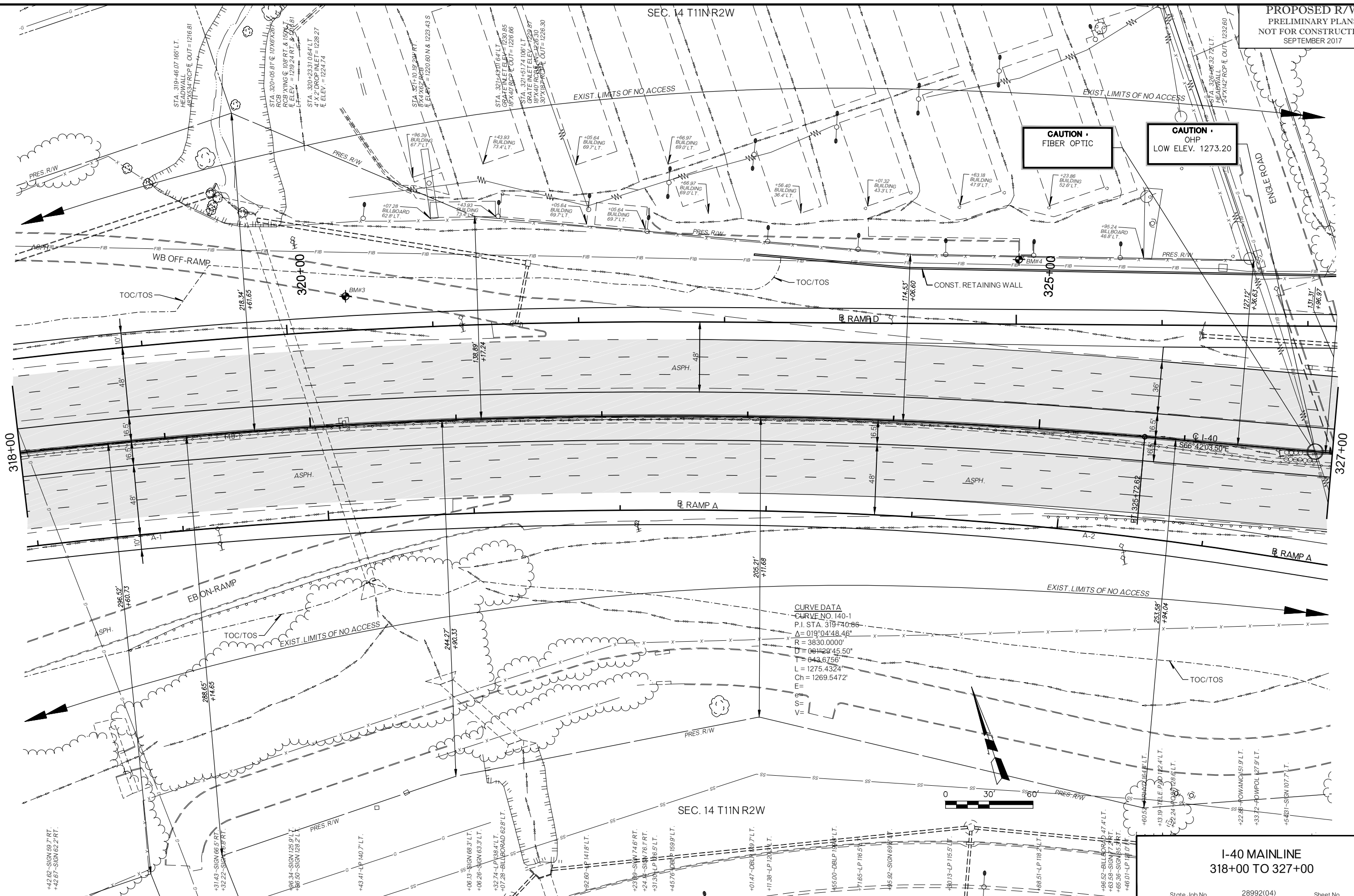
+09.42-SIGN 140.4' LT.  
 +11.09-SIGN 166.7' LT.  
 +32.60-SIGN 180.9' LT.  
 +32.79-SIGN 174.7' LT.

I-40 MAINLINE  
BOP TO 318+00



SEC. 14 T11N R2W

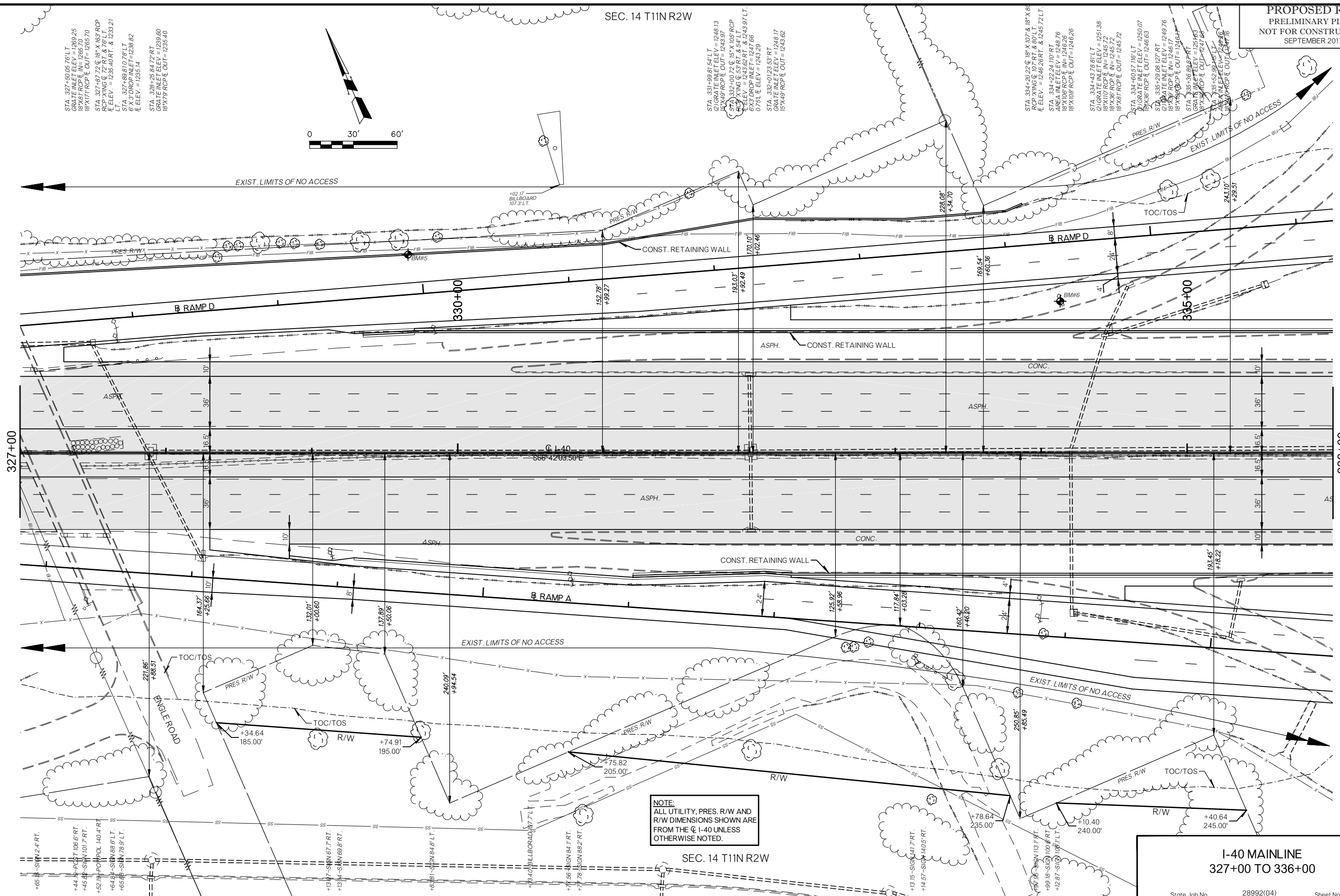
SEC. 14 T11N R2W



CURVE DATA  
CURVE NO. 140-1  
P.I. STA. 319+40.86  
 $\Delta = 019^{\circ}04'48.46''$   
 $R = 3830.0000'$   
 $D = 061^{\circ}29'45.50''$   
 $T = 643.6756'$   
 $L = 1275.4324'$   
 $Ch = 1269.5472'$   
E =  
S =  
V =

I-40 MAINLINE  
318+00 TO 327+00

SEC. 14 T11N R2W



STA. 327+50.05 76' LT.  
GRATE INLET ELEV = 1269.25  
18'X17' RCP I.E. IN = 1265.70  
18'X17' RCP I.E. OUT = 1265.70  
STA. 327+87.72 Q. 18' X 18' RCP  
RCP XING Q. 72' RT. & 76' LT.  
I.E. ELEV. = 1235.40 RT. & 1233.21  
LT.  
STA. 327+89.81 0.78' LT.  
6' X 3' DROP INLET = 1238.82  
I.E. ELEV. = 1235.14  
STA. 328+25.84 72' RT.  
GRATE INLET ELEV = 1239.60  
18'X19' RCP I.E. OUT = 1235.40

STA. 331+60.81 54' LT.  
GRATE INLET ELEV = 1248.13  
15'X49' RCP I.E. IN = 1245.97  
15'X49' RCP I.E. OUT = 1245.97  
STA. 332+07.72 Q. 15' X 18' RCP  
RCP XING Q. 53' RT. & 54' LT.  
I.E. ELEV. = 1243.62 RT. & 1243.97 LT.  
6' X 3' DROP INLET = 1247.66  
0.75' I.E. ELEV. = 1243.29  
STA. 332+01.23 53' RT.  
GRATE INLET ELEV = 1248.17  
15'X49' RCP I.E. OUT = 1243.62

STA. 334+20.22 Q. 18' X 107' & 18' X 81'  
RCP XING Q. 107' RT. & 80' LT.  
I.E. ELEV. = 1246.26 RT. & 1245.72 LT.  
STA. 334+22.24 110' RT.  
AREA INLET ELEV = 1248.76  
18'X106' RCP I.E. IN = 1246.26  
18'X106' RCP I.E. OUT = 1246.26

STA. 334+43.78 81' LT.  
GRATE INLET ELEV = 1251.38  
18'X110' RCP I.E. IN = 1245.72  
18'X106' RCP I.E. IN = 1245.72  
18'X106' RCP I.E. OUT = 1245.72  
STA. 334+60.57 116' LT.  
GRATE INLET ELEV = 1250.07  
18'X106' RCP I.E. OUT = 1246.63  
STA. 335+29.08 127' RT.  
GRATE INLET ELEV = 1249.76  
18'X106' RCP I.E. IN = 1246.17  
18'X106' RCP I.E. OUT = 1246.17  
STA. 335+36.83 83' RT.  
GRATE INLET ELEV = 1251.63  
18'X106' RCP I.E. IN = 1246.17  
18'X106' RCP I.E. OUT = 1246.17

NOTE:  
ALL UTILITY, PRES. R/W AND  
R/W DIMENSIONS SHOWN ARE  
FROM THE Q 1-40 UNLESS  
OTHERWISE NOTED.

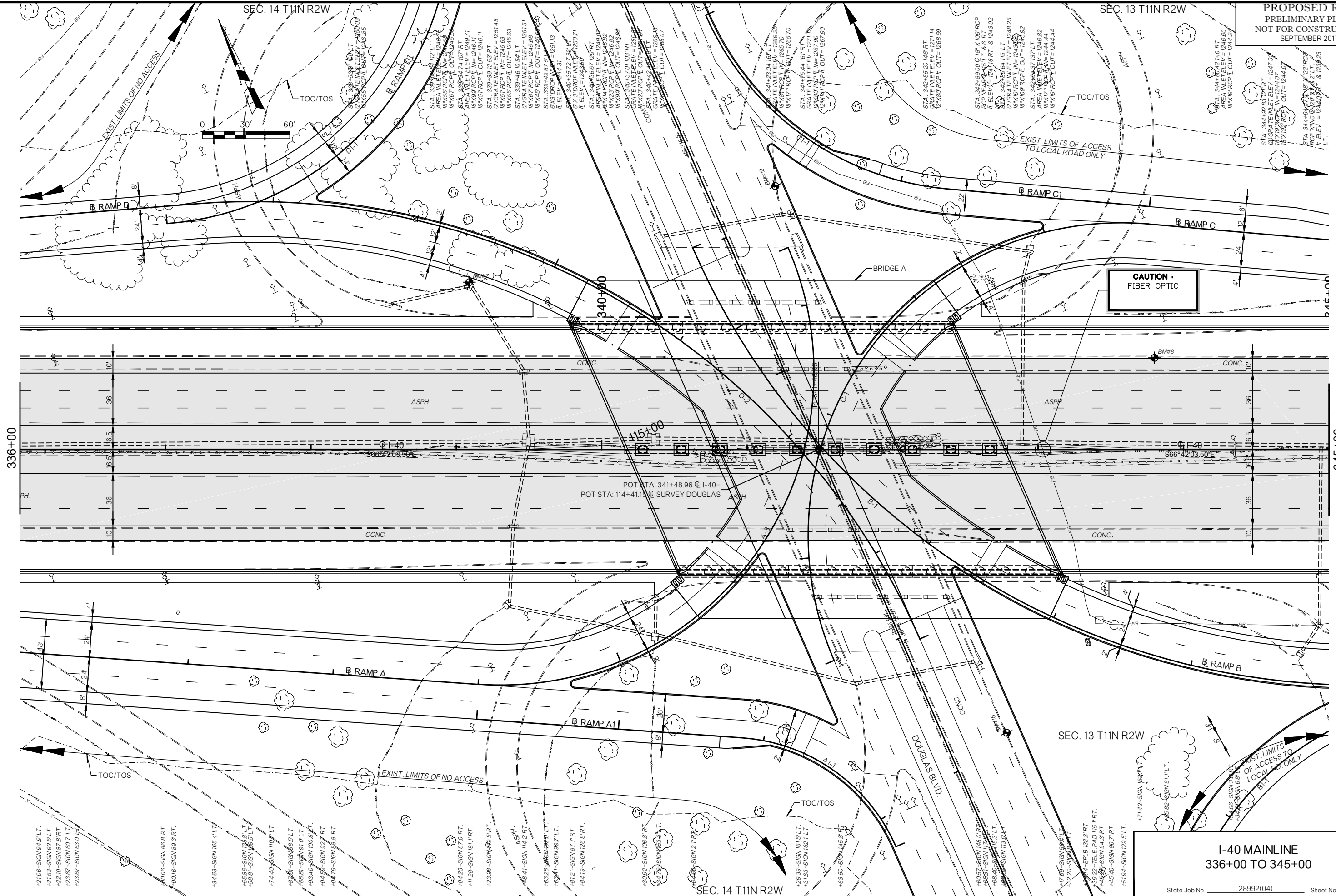
I-40 MAINLINE  
327+00 TO 336+00

SEC. 14 T11N R2W

SEC. 13 T11N R2W

SEC. 14 T11N R2W

SEC. 13 T11N R2W



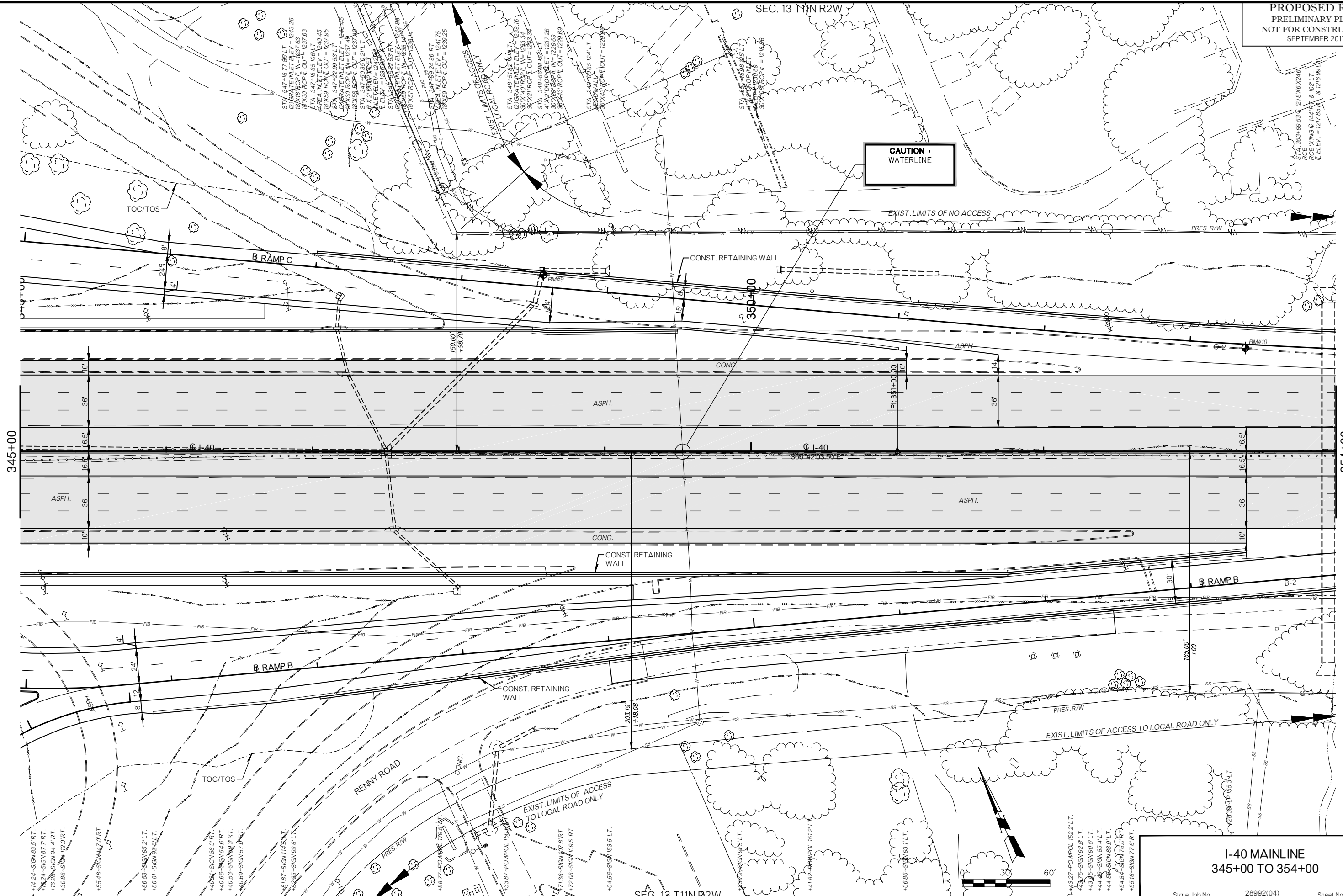
CAUTION -  
FIBER OPTIC

I-40 MAINLINE  
336+00 TO 345+00

SEC. 13 T11N R2W

CAUTION  
WATERLINE

STA. 353+99.53 @ 1218'X6'X24'6"  
RCB XING @ 144' R/L & 102' L/T  
ELEV. = 1217'85.14'



345+00

354+00

I-40 MAINLINE  
345+00 TO 354+00

SEC. 13 T11N R2W



+14.24-SIGN 89.5' RT.  
+16.24-SIGN 87.7' RT.  
+16.24-SIGN 94.4' RT.  
+30.86-SIGN 112.0' RT.  
+55.48-SIGN 147.0' RT.  
+66.56-SIGN 95.2' LT.  
+66.81-SIGN 94.8' LT.  
+40.14-SIGN 86.9' RT.  
+40.66-SIGN 54.6' RT.  
+40.53-SIGN 49.3' RT.  
+40.69-SIGN 57.0' RT.  
+81.87-SIGN 114.8' LT.  
+62.96-SIGN 99.8' LT.  
+88.77-POW POL 179.5' N  
+33.87-POW POL 150.0' N  
+71.36-SIGN 107.8' RT.  
+72.06-SIGN 109.5' RT.  
+04.56-SIGN 163.5' LT.  
+84.70-SIGN 95.1' LT.  
+41.82-POW POL 151.2' LT.  
+06.86-SIGN 93.7' LT.

+43.27-POW POL 152.2' LT.  
+43.75-SIGN 92.8' LT.  
+44.35-SIGN 90.5' LT.  
+44.20-SIGN 85.4' LT.  
+44.59-SIGN 88.0' LT.  
+54.84-SIGN 76.0' RT.  
+55.16-SIGN 77.6' RT.

TOC/TOS

TOC/TOS

RENNY ROAD

EXIST. LIMITS OF ACCESS TO LOCAL ROAD ONLY

EXIST. LIMITS OF ACCESS TO LOCAL ROAD ONLY

EXIST. LIMITS OF ACCESS TO LOCAL ROAD ONLY

EXIST. LIMITS OF NO ACCESS

PRES. R/W

PRES. R/W

CONST. RETAINING WALL

CONST. RETAINING WALL

CONST. RETAINING WALL

B RAMP B

B RAMP C

C I-40

B RAMP B

TOC/TOS

TOC/TOS

TOC/TOS

TOC/TOS

TOC/TOS

TOC/TOS

TOC/TOS

TOC/TOS

TOC/TOS

TOC/TOS

TOC/TOS

TOC/TOS

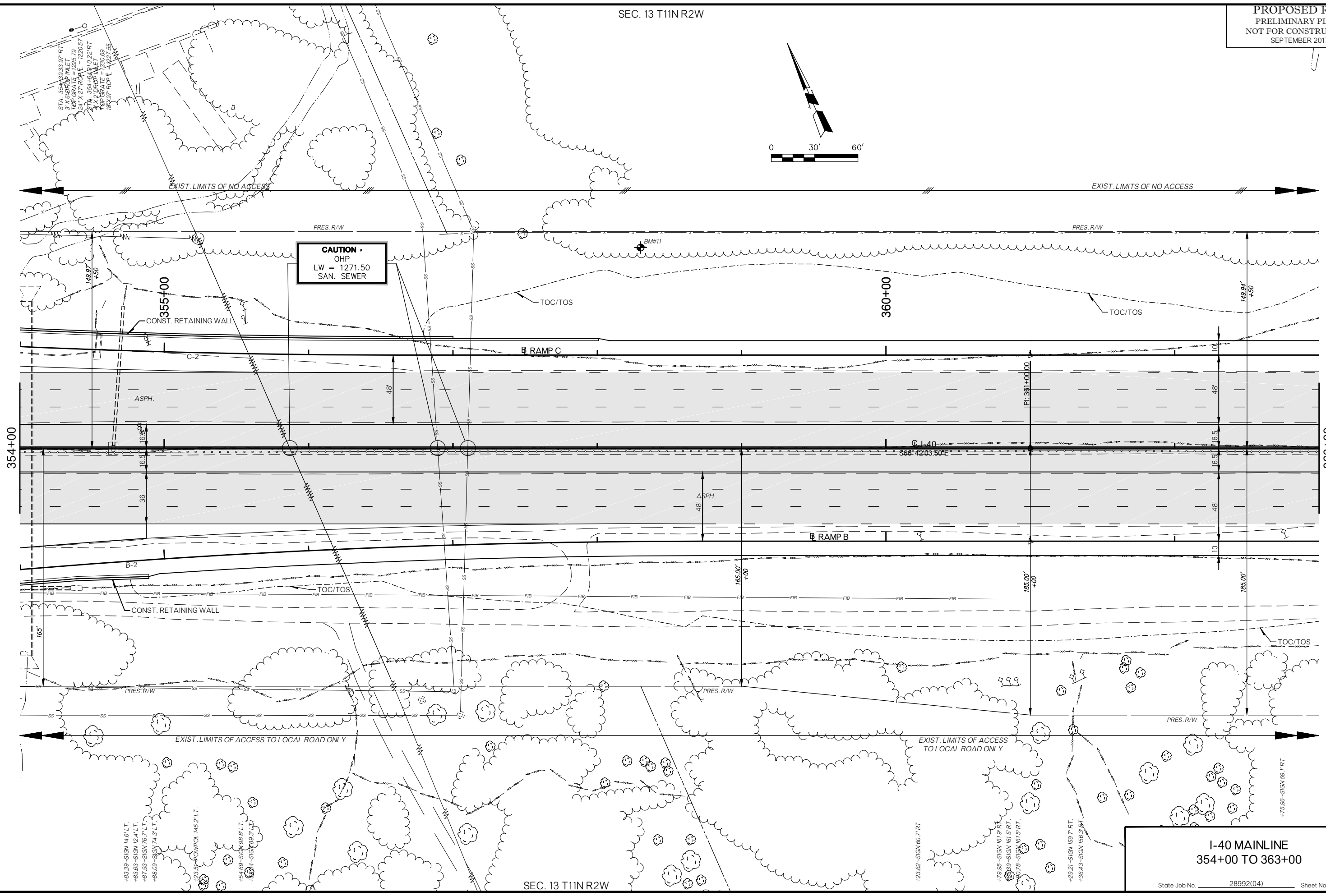
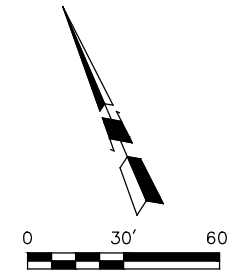
TOC/TOS

TOC/TOS

TOC/TOS

TOC/TOS

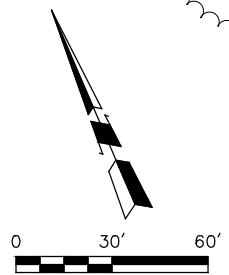
OKLAHOMA COUNTY I-40 & DOUGLASBLVD. INTERCHANGE



**CAUTION**  
OHP  
LW = 1271.50  
SAN. SEWER

**I-40 MAINLINE  
354+00 TO 363+00**

SEC. 13 T11N R2W



STA. 364+77.30 10' RT  
CMP S.C. 24'X25'  
E. ELEV. = 1228.75

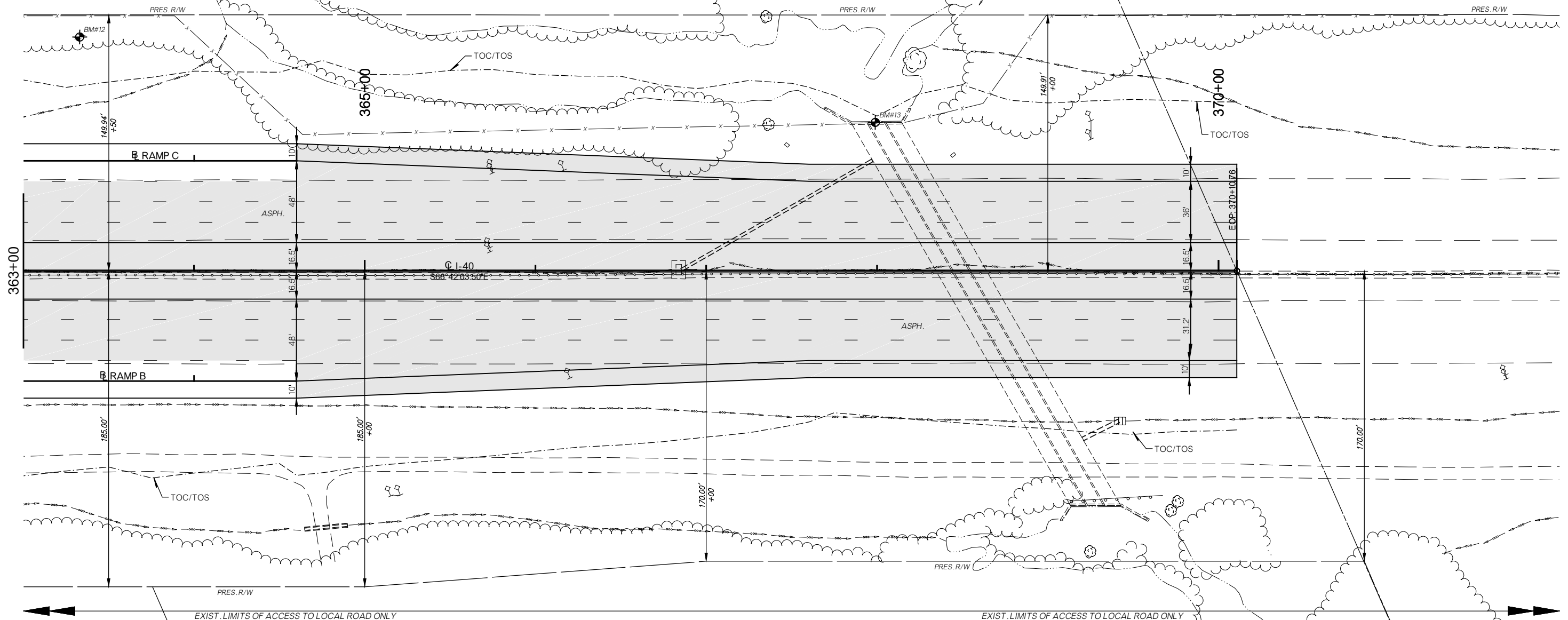
STA. 366+63.90 0.66' LT  
6' X 5' BOX CULVERT  
TOP GRADE = 1229.46  
18'X18' RCP E. ELEV. = 1226.36

STA. 368+49.42 0.10'X7'X258'  
RCB X'ING @ 89' RT. & 87' LT.  
E. ELEV. = 1210.97 RT. & 1215.70 LT.

STA. 369+42.65 88' RT  
4' X 2' DROP INLET  
TOP GRADE = 1223.88  
E. ELEV. = 1220.93

EXIST. LIMITS OF NO ACCESS

EXIST. LIMITS OF NO ACCESS



363+00

365+00

370+00

RAMP C

ASPH.

I-40

ASPH.

RAMP B

TOC/TOS

TOC/TOS

EXIST. LIMITS OF ACCESS TO LOCAL ROAD ONLY

EXIST. LIMITS OF ACCESS TO LOCAL ROAD ONLY

+20.83-SIGN 128.9' RT.  
+18.62-SIGN 128.9' RT.

+22.08-SIGN 14.1' LT.  
+72.74-SIGN 16' LT.  
+73.40-SIGN 16.2' LT.  
+73.63-SIGN 16.5' LT.

+15.32-SIGN 61.9' LT.  
+18.96-SIGN 59.8' RT.

+24.08-SIGN 80.7' LT.  
+24.11-SIGN 80.9' LT.

SEC. 13 T11N R2W

I-40 MAINLINE  
363+00 TO EOP

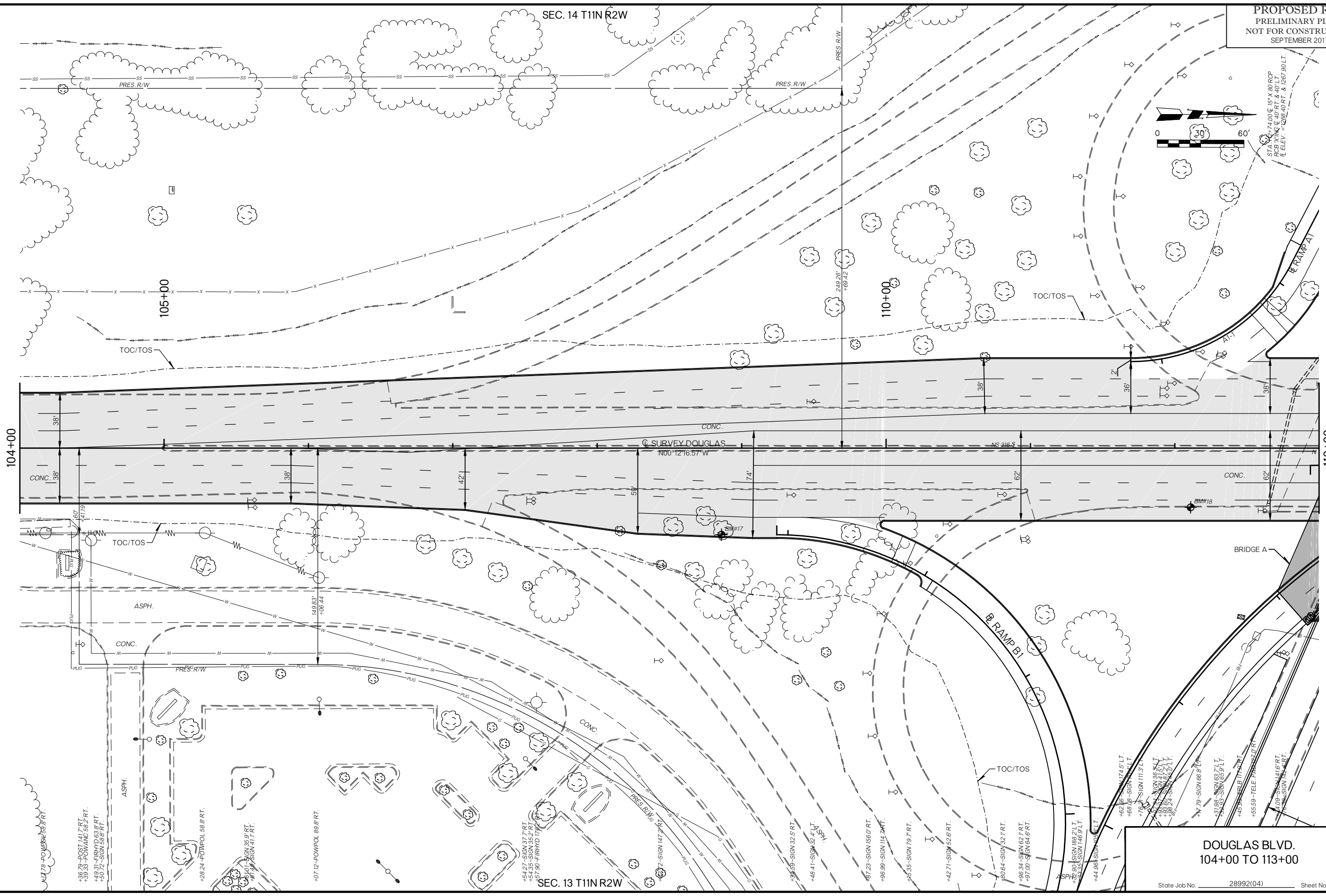


SEC. 14 T11N R2W

SEC. 13 T11N R2W



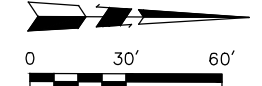
STA. 104+74.00, 15' X 80' RCP  
R/W CROSSING 6' 40' RT. & 40' LT.  
E. ELEV. = 6288.40 FT. & 1267.90 LT.



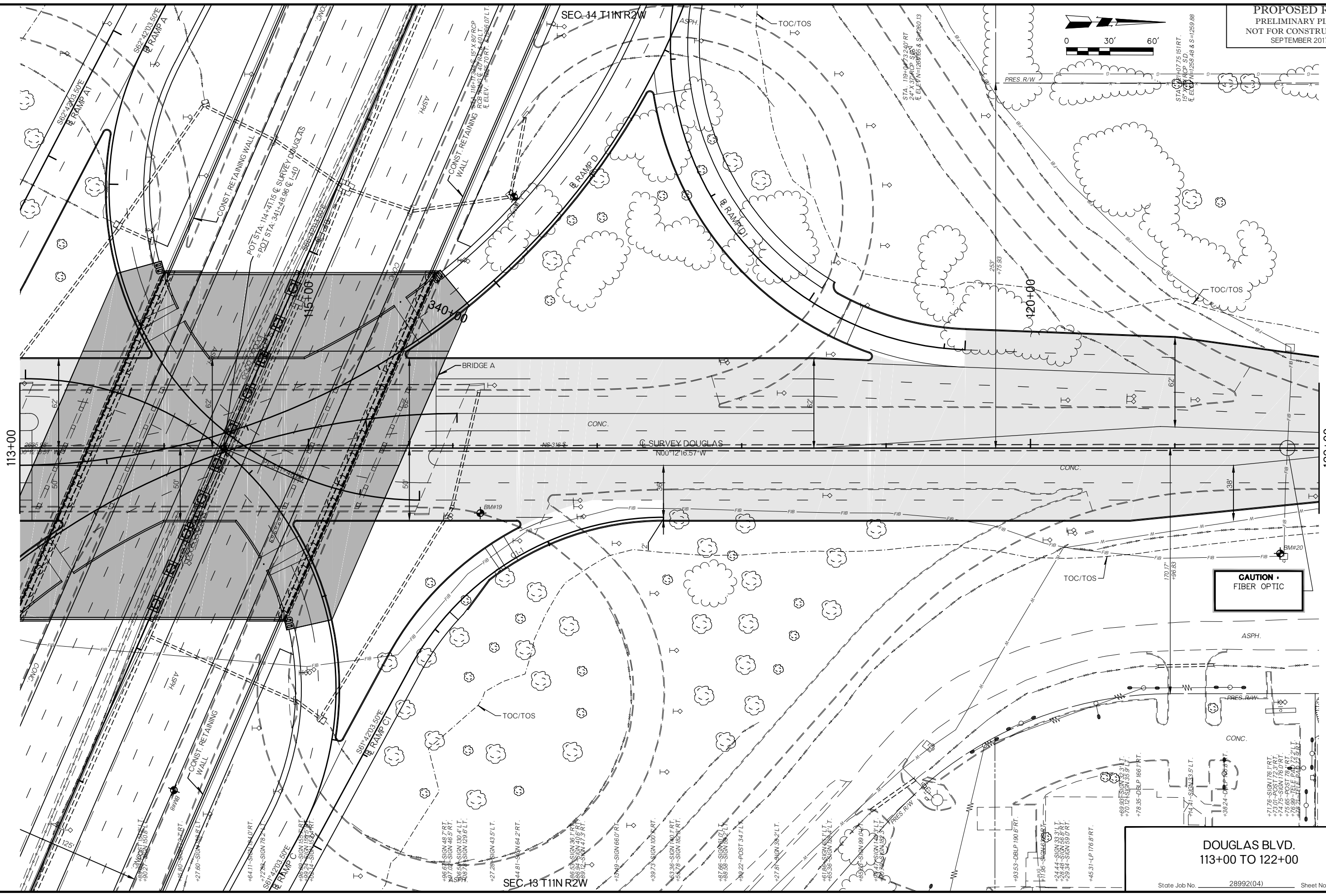
- +36.79 - POST 141.7 RT.
- +39.35 - POINANG 56.2 RT.
- +49.31 - FIRHYD 69.8 RT.
- +50.72 - SIGN 58.8 RT.
- +28.24 - POWPOL 58.8 RT.
- +07.12 - POWPOL 89.8 RT.
- +54.27 - SIGN 37.7 RT.
- +54.35 - SIGN 35.2 RT.
- +57.90 - FIRHYD 119.8 RT.
- +32.55 - SIGN 32.5 RT.
- +48.41 - SIGN 32.4 LT.
- +87.23 - SIGN 166.0 RT.
- +96.99 - SIGN 114.2 RT.
- +16.35 - SIGN 79.7 RT.
- +42.71 - SIGN 52.8 RT.
- +30.64 - SIGN 32.7 RT.
- +95.34 - SIGN 62.7 RT.
- +97.00 - SIGN 64.0 RT.
- +44.98 - SIGN 106.6 LT.
- +62.86 - SIGN 174.5 LT.
- +68.08 - SIGN 111.3 LT.
- +76.27 - SIGN 111.3 LT.
- +80.04 - SIGN 36.8 LT.
- +85.27 - SIGN 41.5 LT.
- +88.24 - SIGN 51.0 LT.
- +79.79 - SIGN 66.8 RT.
- +31.98 - SIGN 63.7 LT.
- +35.93 - SIGN 65.9 LT.
- +45.38 - SIGN 114.1 RT.
- +55.59 - TELE. POINANG 40 RT.
- +40.00 - SIGN 141.6 RT.
- +38.88 - SIGN 114.1 RT.

DOUGLAS BLVD.  
104+00 TO 113+00





STA. 119+00 TO 124+00 RT.  
15' X 30' RCP S.D.  
I.E. ELEV. = 1289.85 & S = 1259.88



**CAUTION**  
FIBER OPTIC

**DOUGLAS BLVD.**  
113+00 TO 122+00

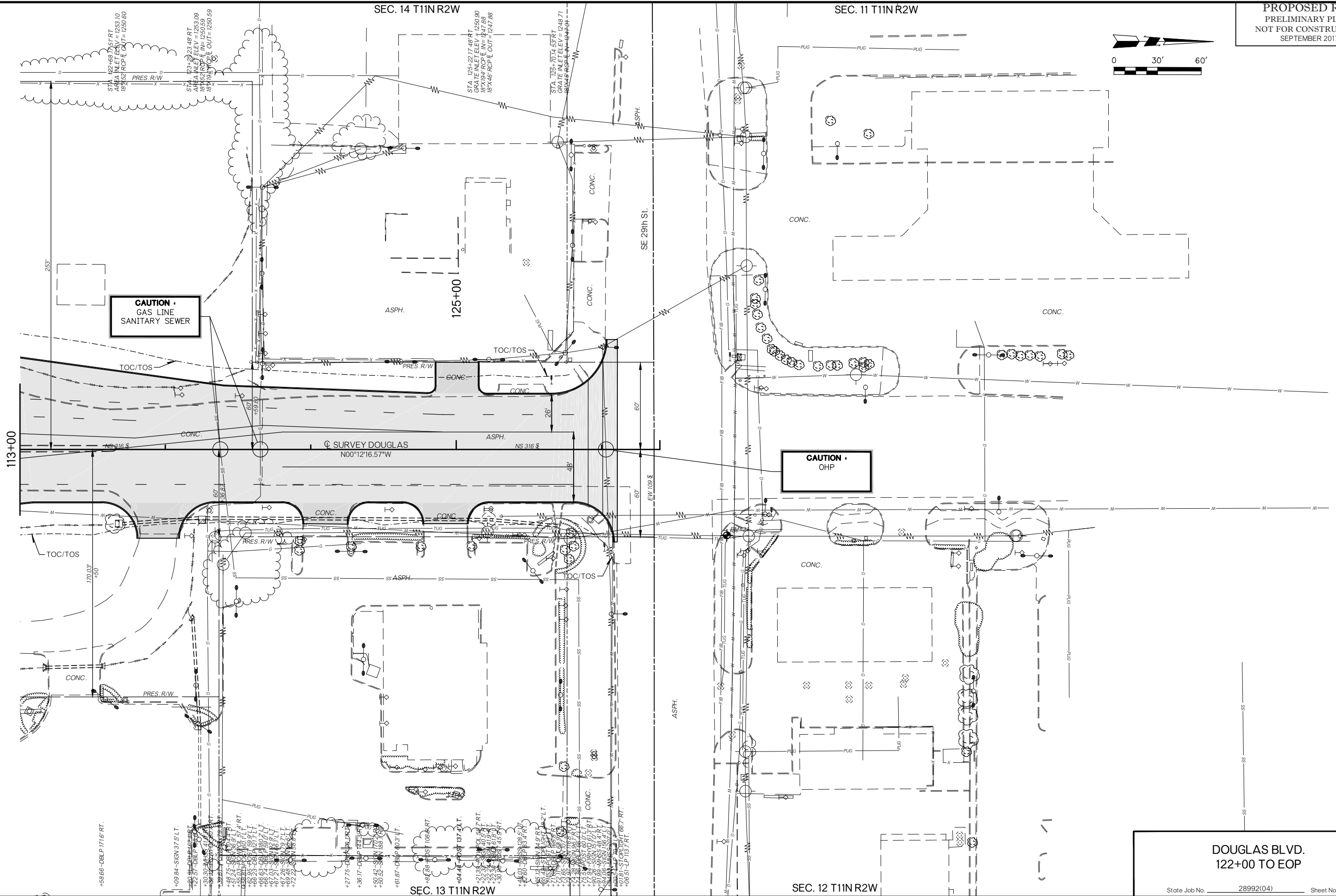
SEC. 14 T11NR2W

SEC. 13 T11NR2W



SEC. 14 T11N R2W

SEC. 11 T11N R2W



**CAUTION**  
GAS LINE  
SANITARY SEWER

**CAUTION**  
OHP

+58.66 -DBLP 171.6' RT.

+09.84 -SIGN 37.5' LT.

+22.57 -DBLP 160.0' RT.

+30.30 -DBLP 160.0' RT.

+48.75 -DBLP 160.0' RT.

+50.03 -DBLP 160.0' RT.

+62.95 -DBLP 160.0' RT.

+66.83 -DBLP 160.0' RT.

+67.21 -DBLP 160.0' RT.

+67.26 -SIGN 79.7' LT.

+72.22 -DBLP 160.0' RT.

+27.75 -DBLP 160.0' RT.

+36.17 -DBLP 160.0' RT.

+50.42 -SIGN 188.7' LT.

+61.87 -DBLP 160.0' RT.

+81.88 -DBLP 108.4' RT.

+04.46 -DBLP 137.4' LT.

+21.93 -DBLP 160.0' RT.

+23.25 -DBLP 160.0' RT.

+23.25 -DBLP 160.0' RT.

+30.30 -DBLP 160.0' RT.

+46.03 -DBLP 160.0' RT.

+61.87 -DBLP 160.0' RT.

+61.87 -DBLP 160.0' RT.

+77.94 -DBLP 160.0' RT.

+90.26 -SIGN 167.0' LT.

+99.06 -SIGN 167.0' LT.

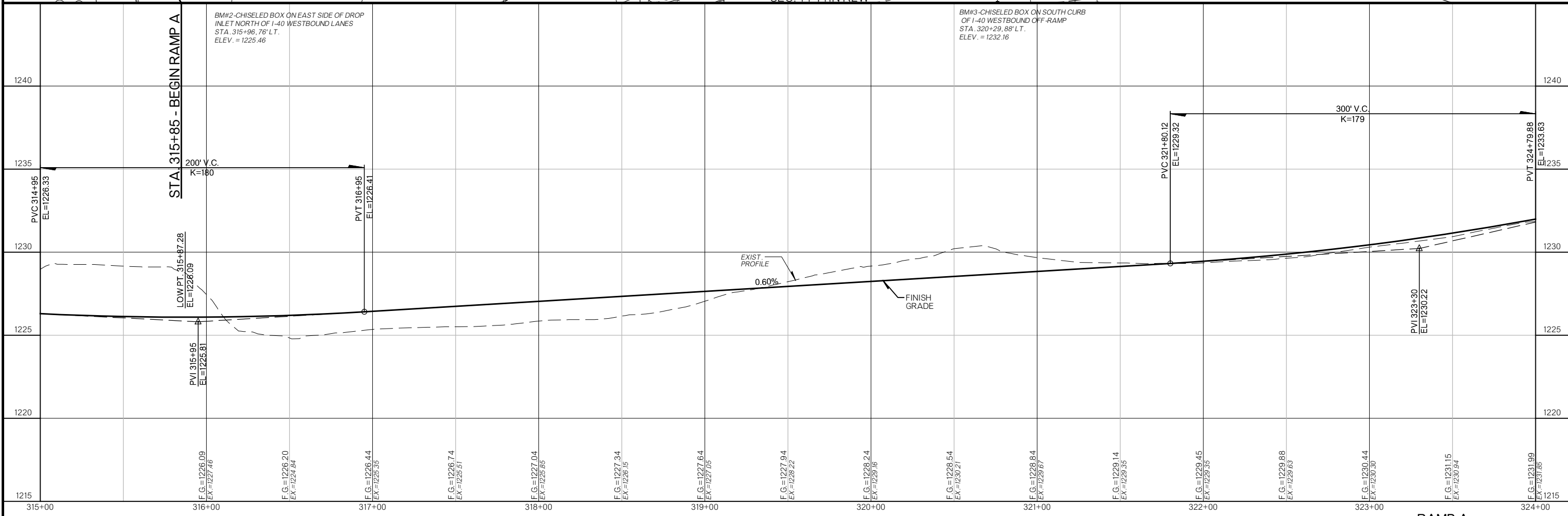
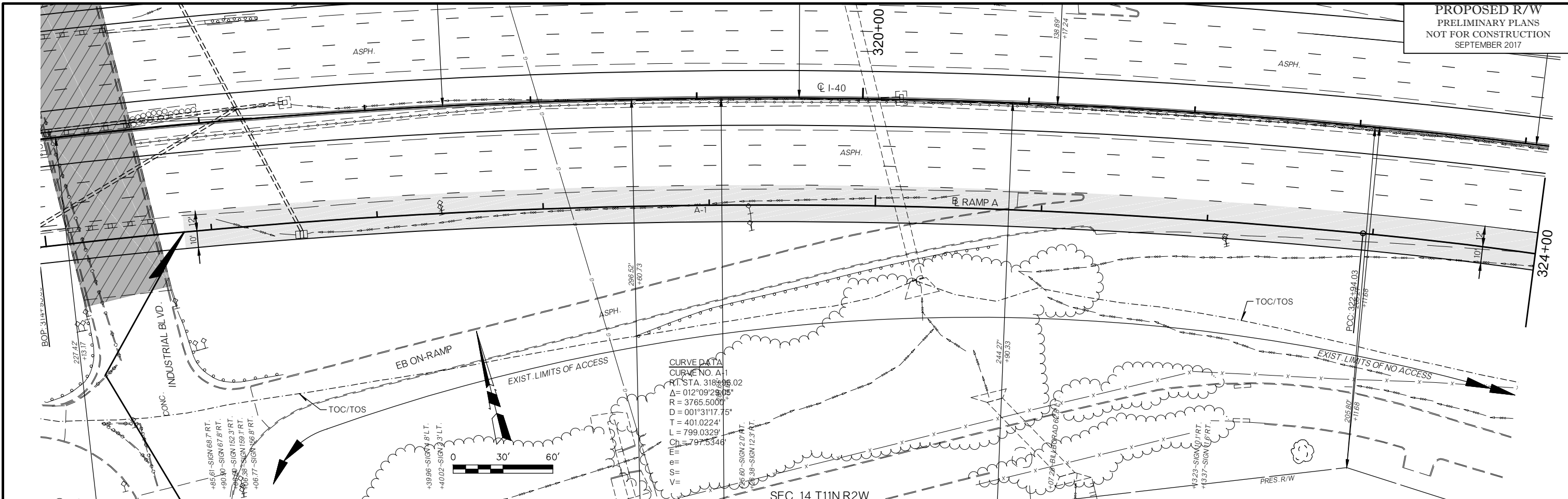
+101.81 -SIGN 167.0' LT.

+106.51 -LP 113.7' RT.

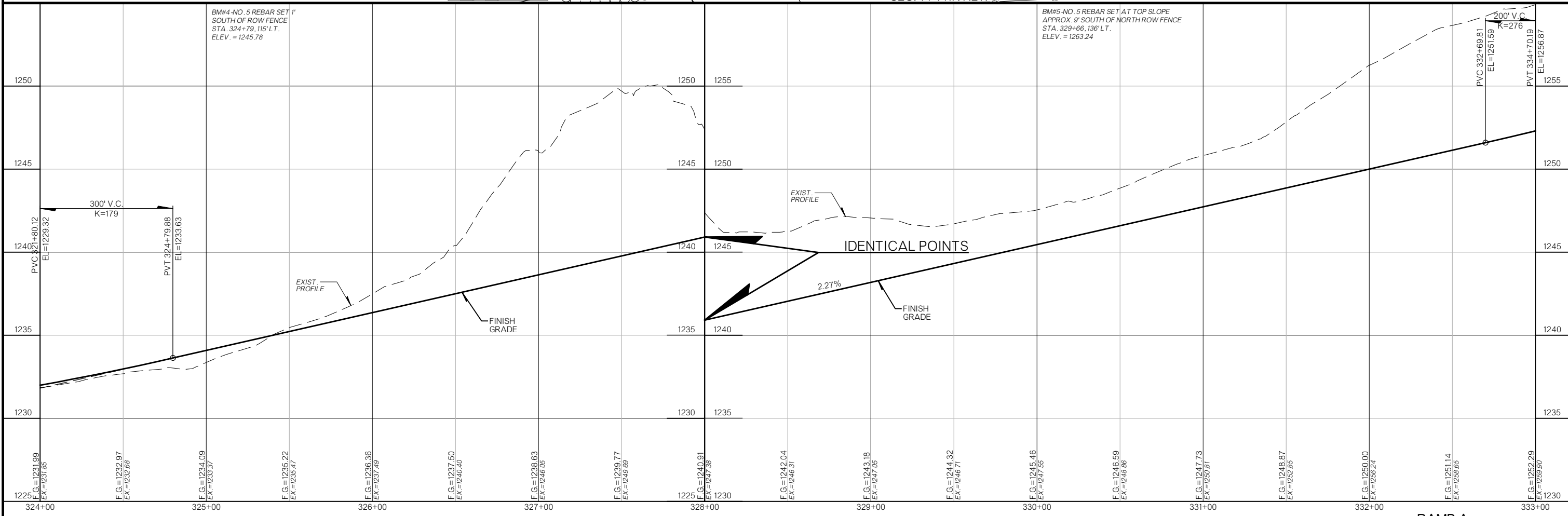
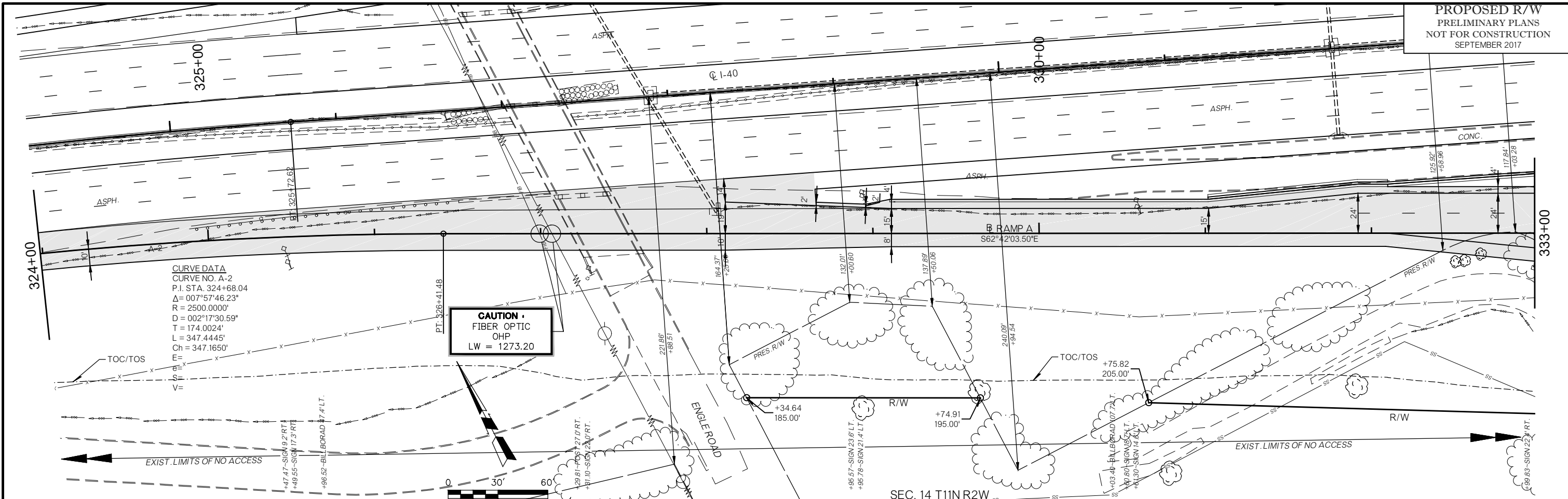
SEC. 13 T11N R2W

SEC. 12 T11N R2W

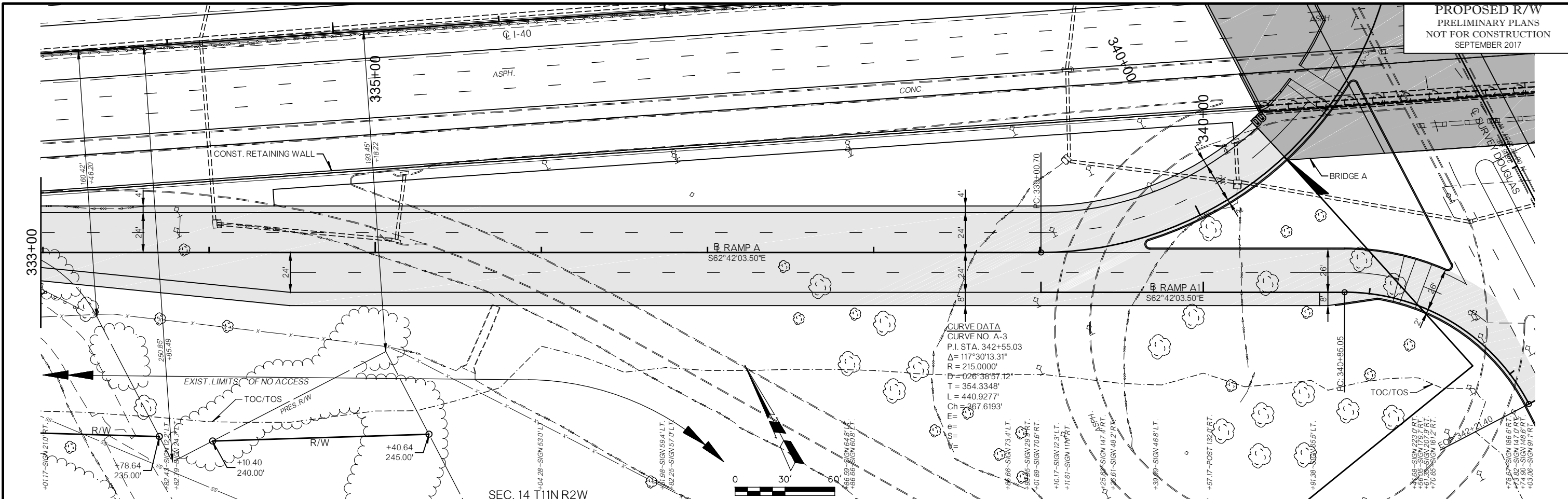
DOUGLAS BLVD.  
122+00 TO EOP



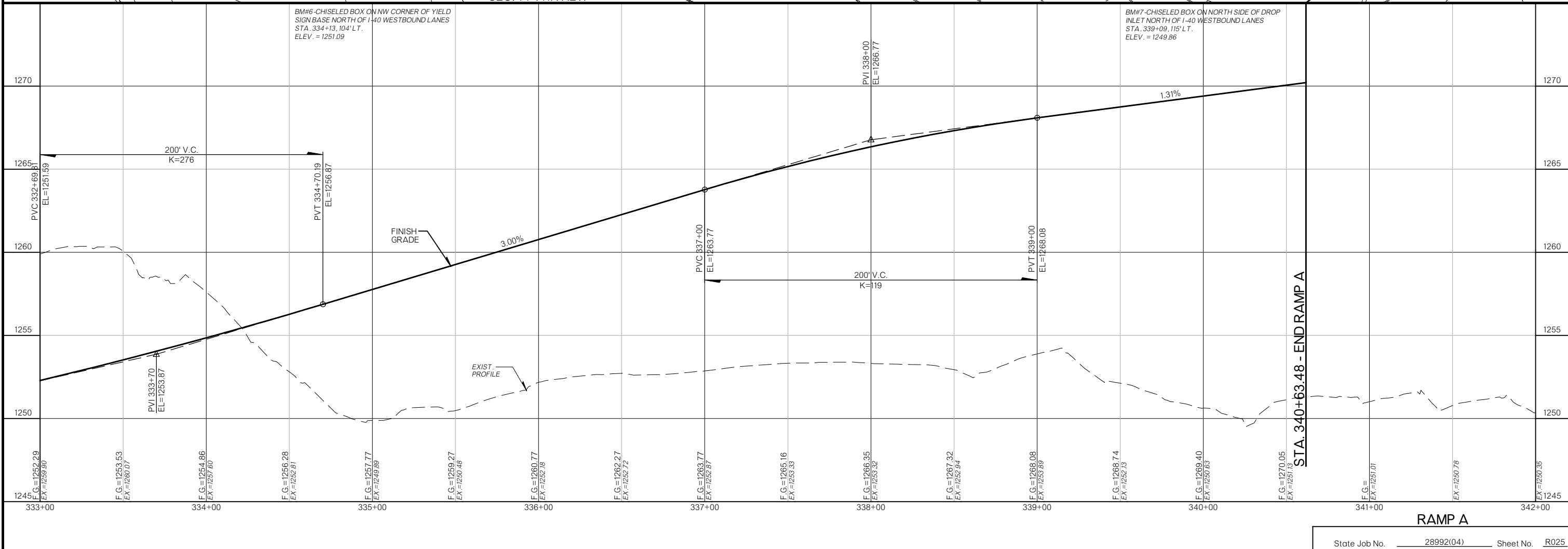
RAMP A



**RAMP A**

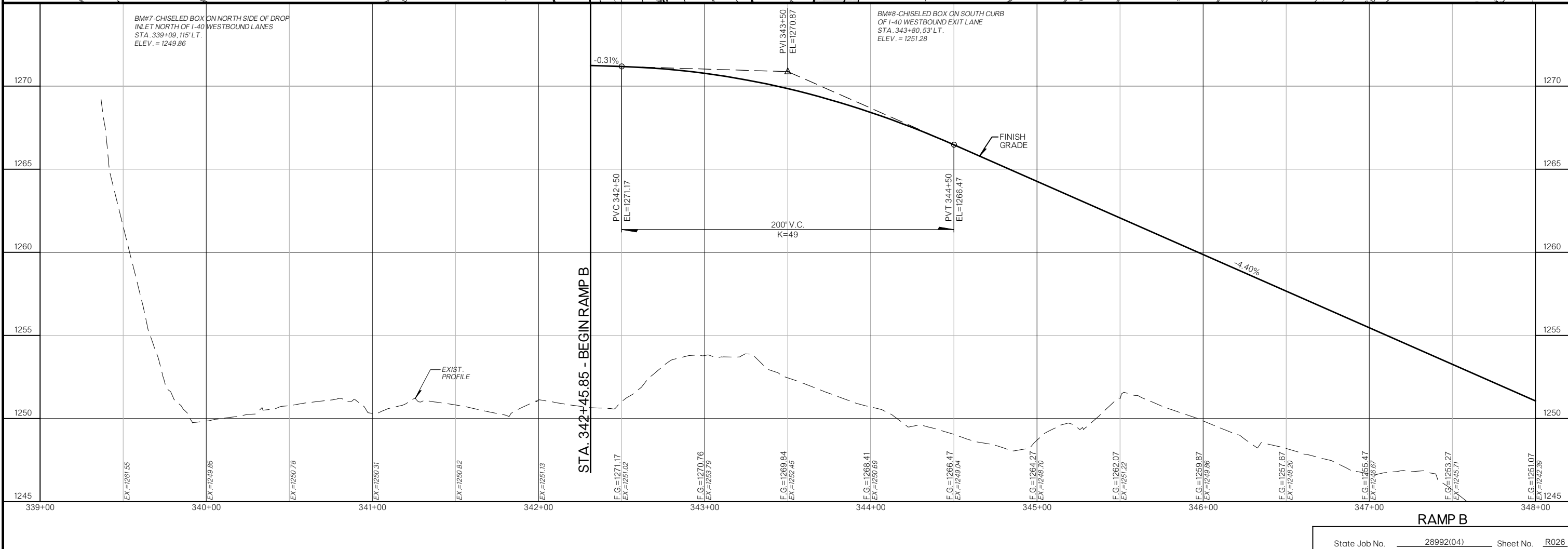
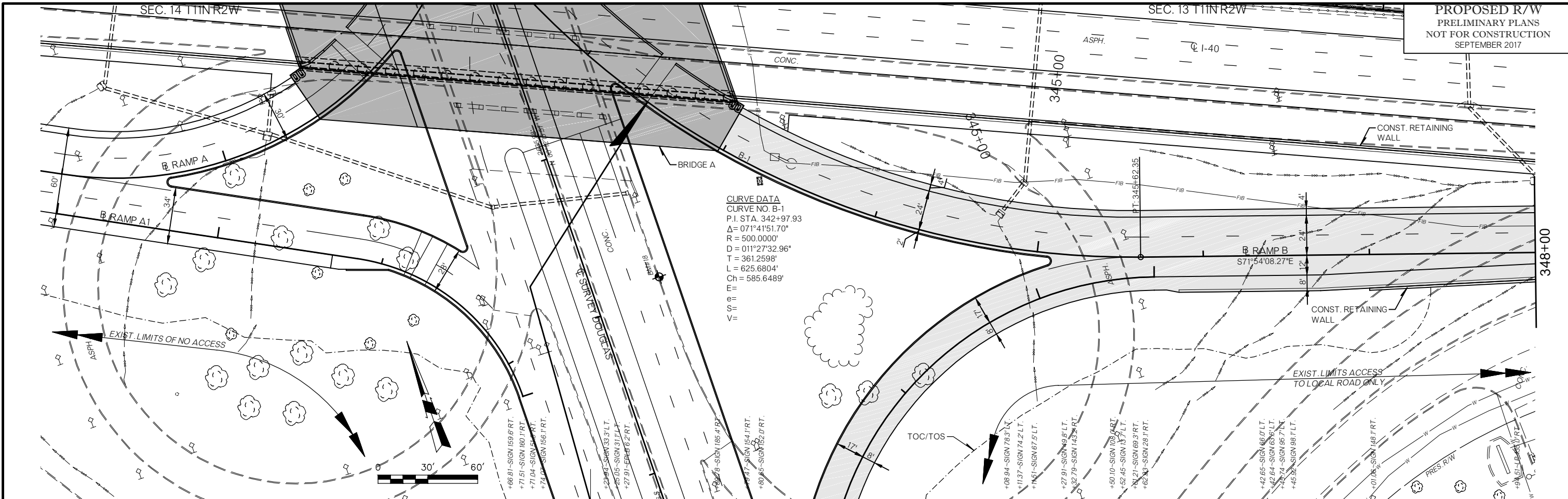


SEC. 14 T11N R2W

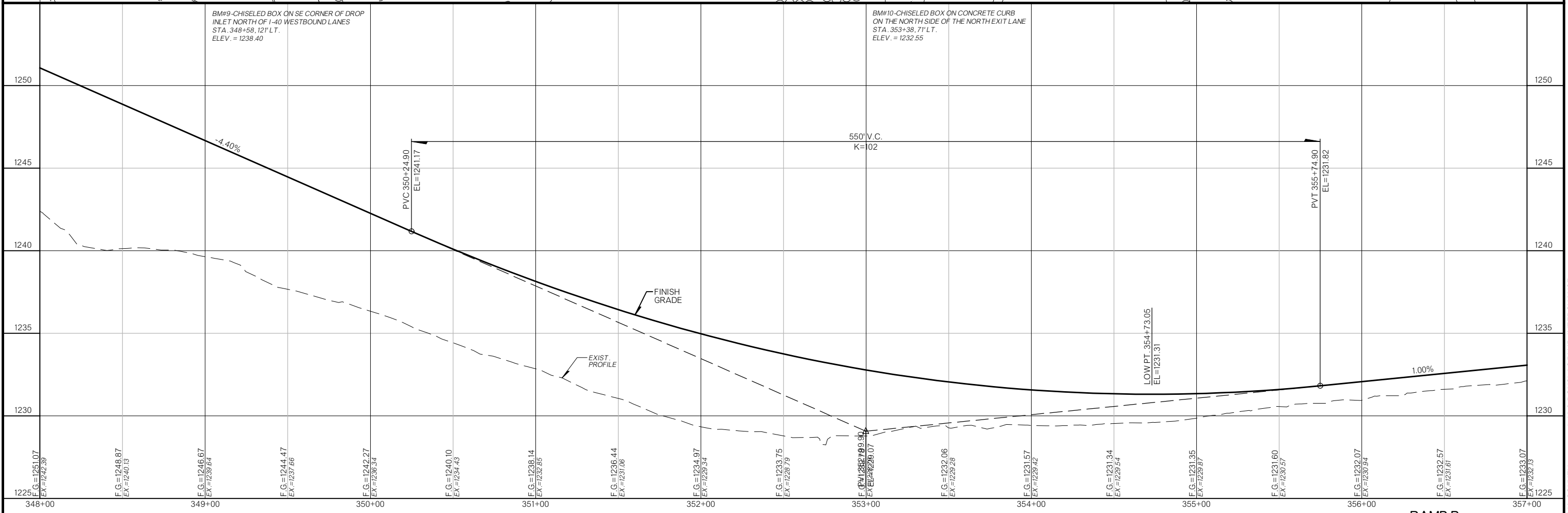
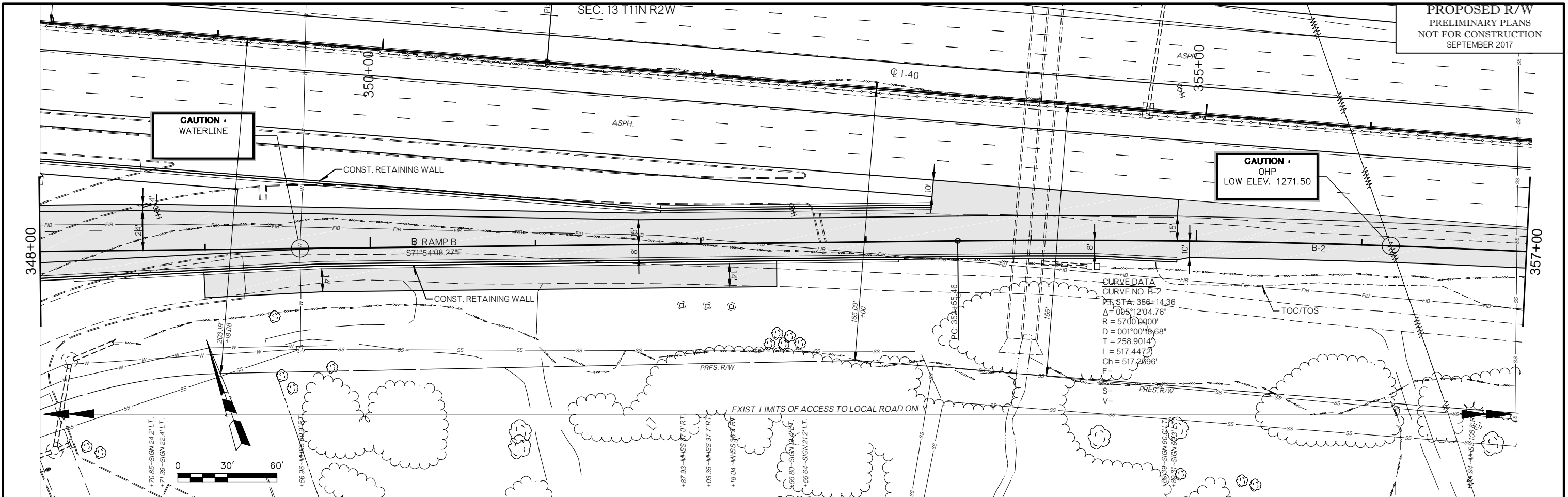


STA. 340+63.48 - END RAMP A

RAMP A



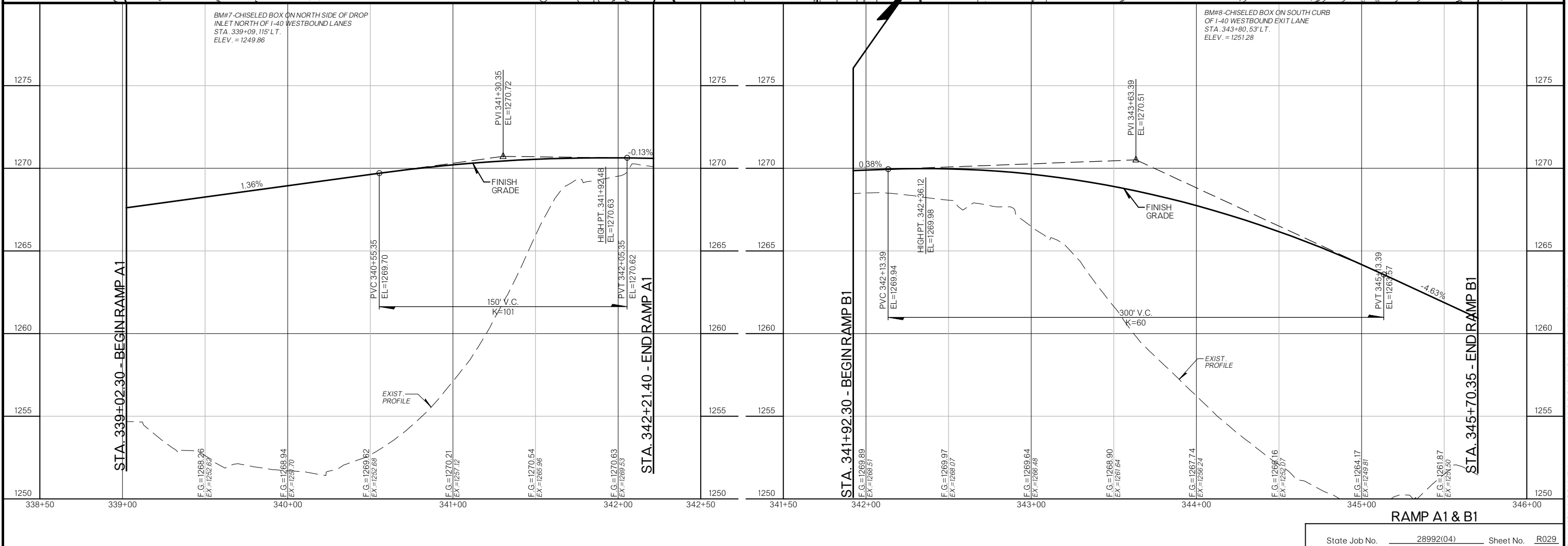
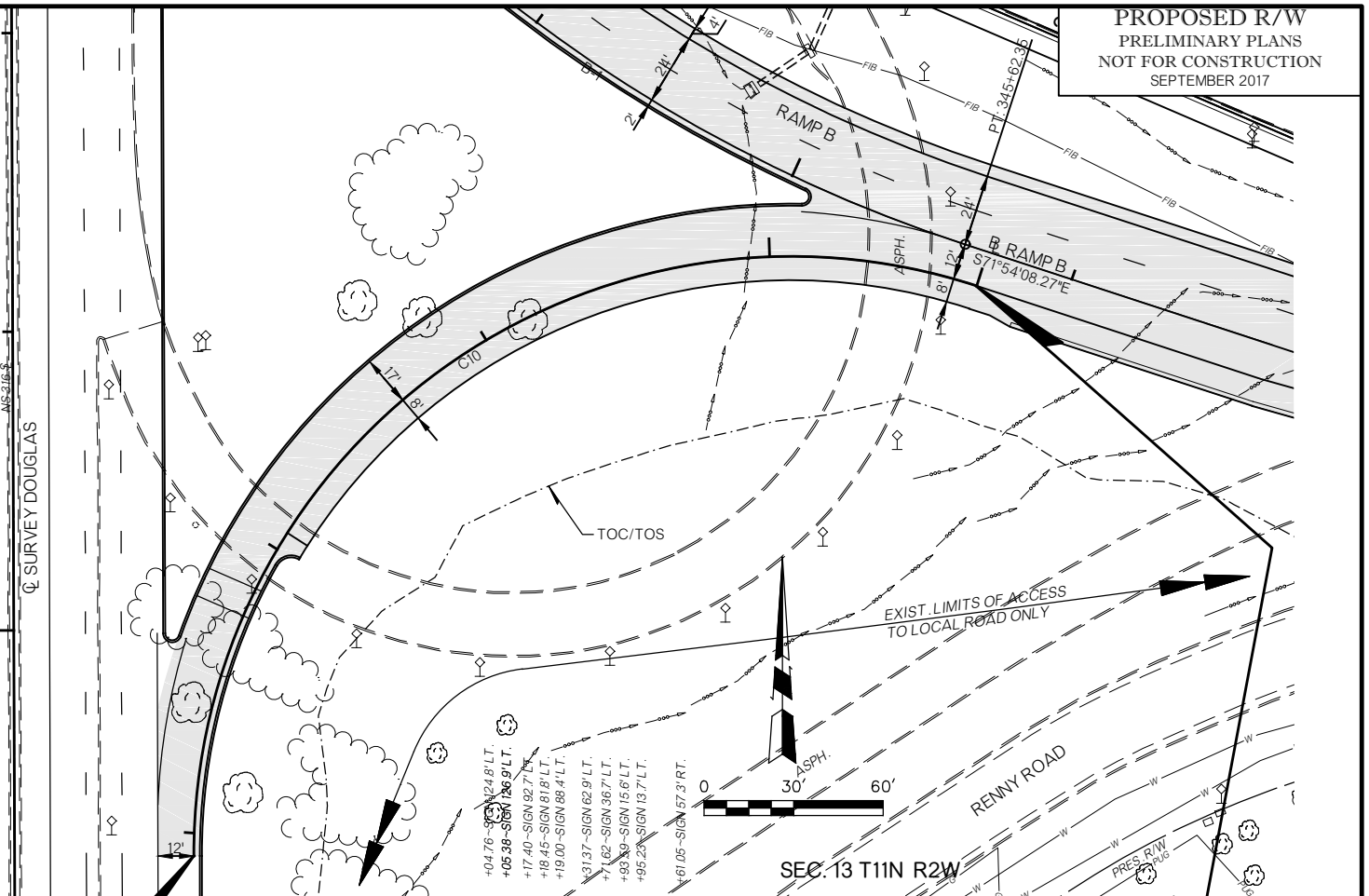
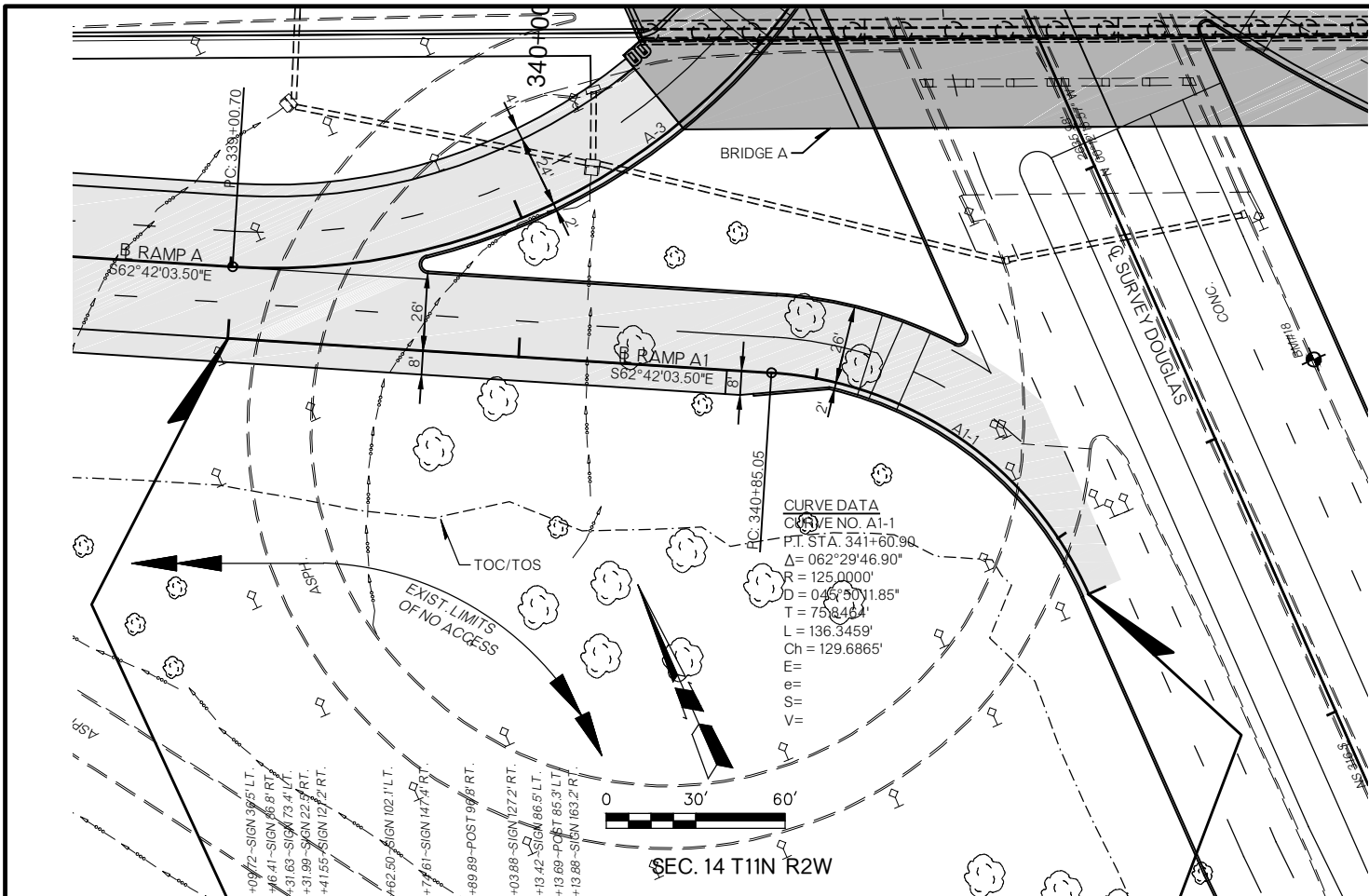
SEC. 13 T11N R2W



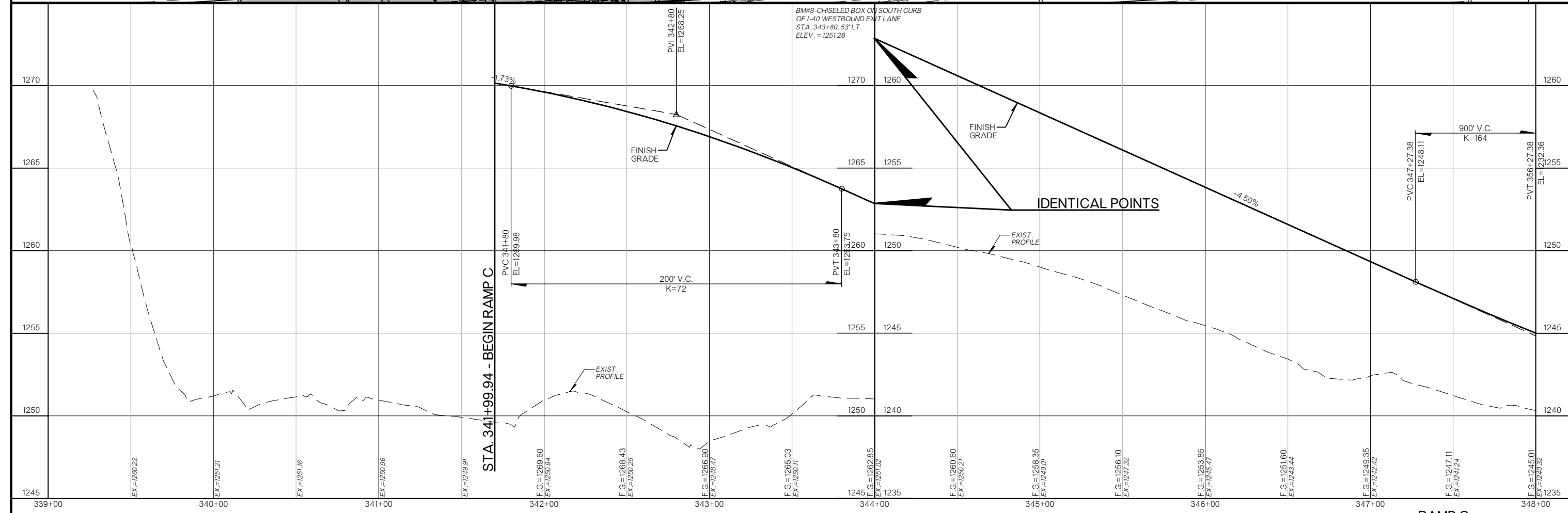
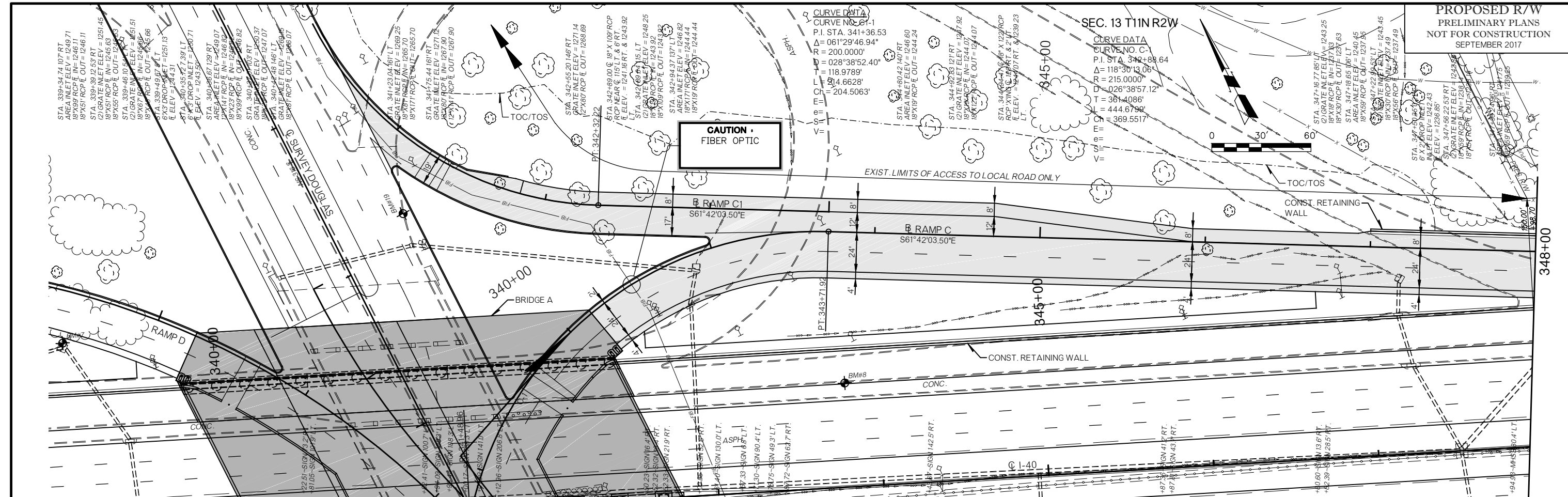
RAMP B







SEC. 13 T11N R2W



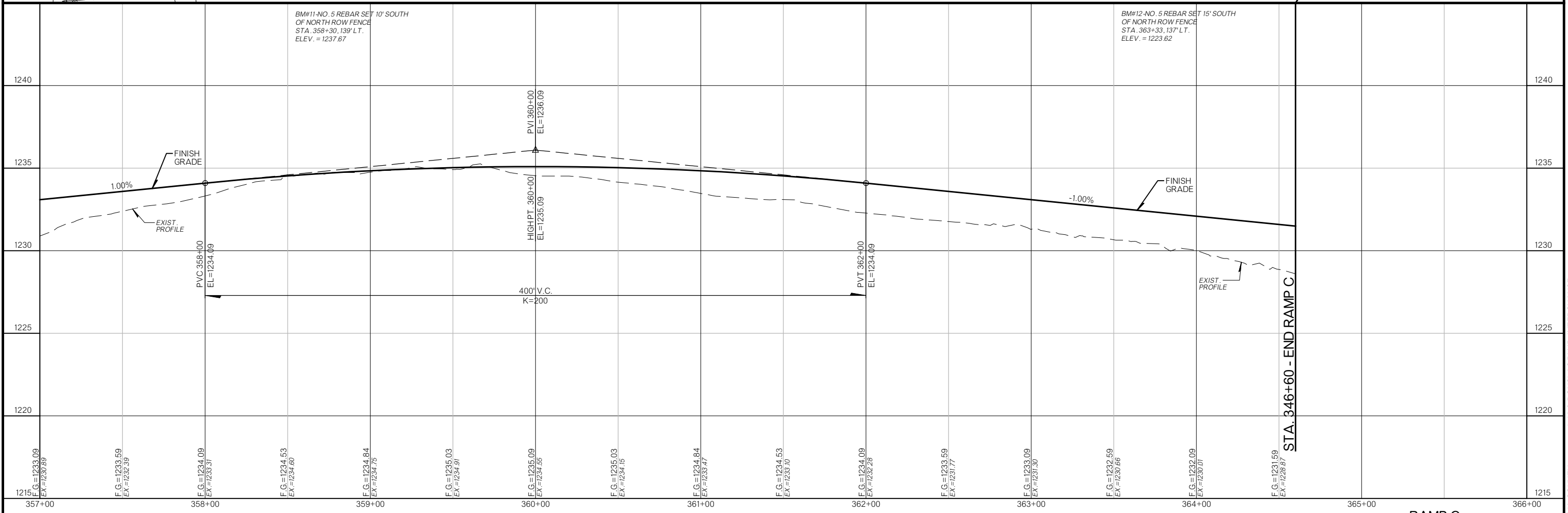
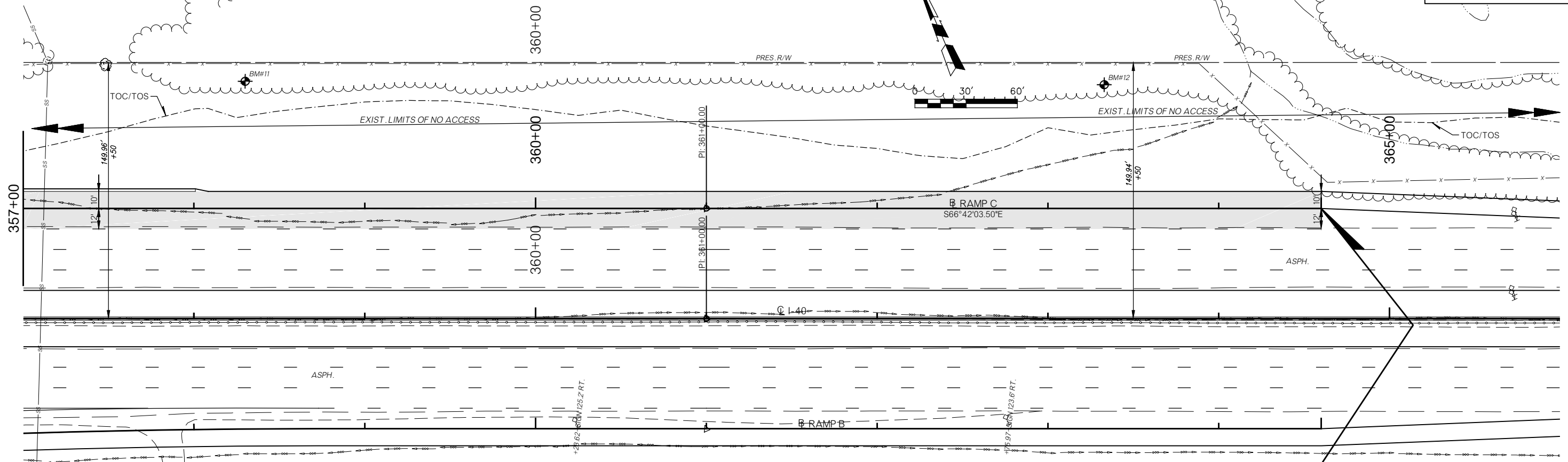
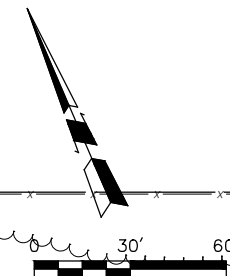
STA. 341+99.94 - BEGIN RAMP C

IDENTICAL POINTS

RAMP C



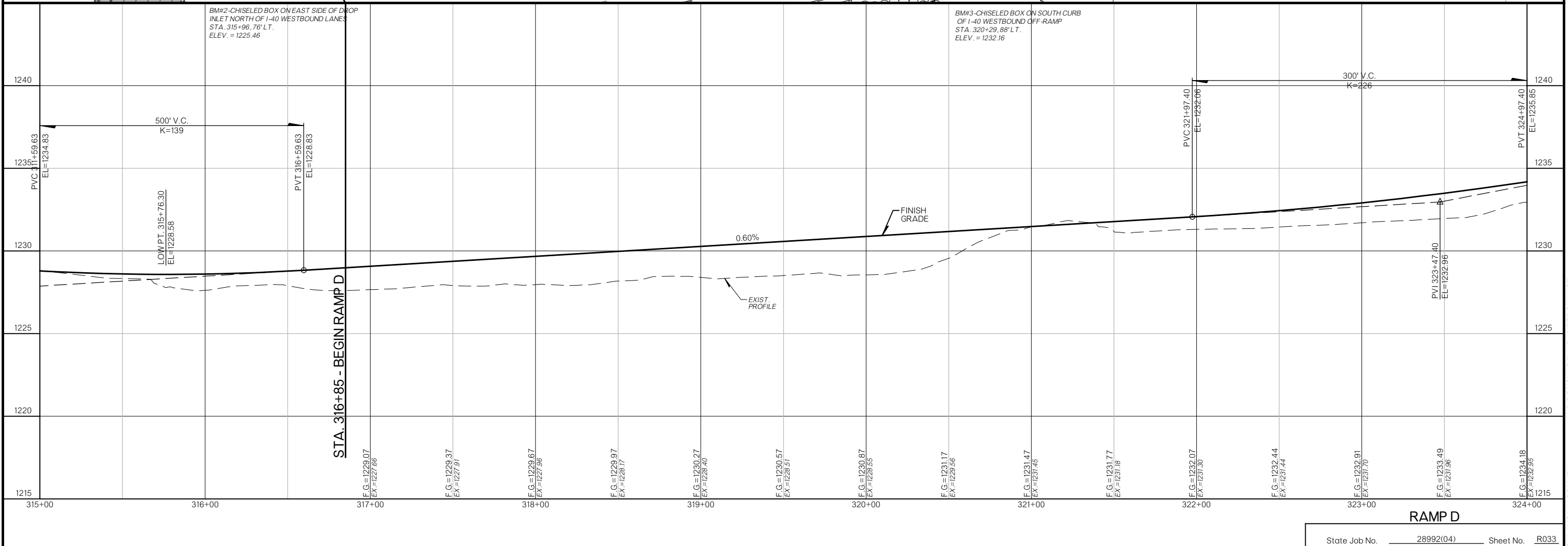
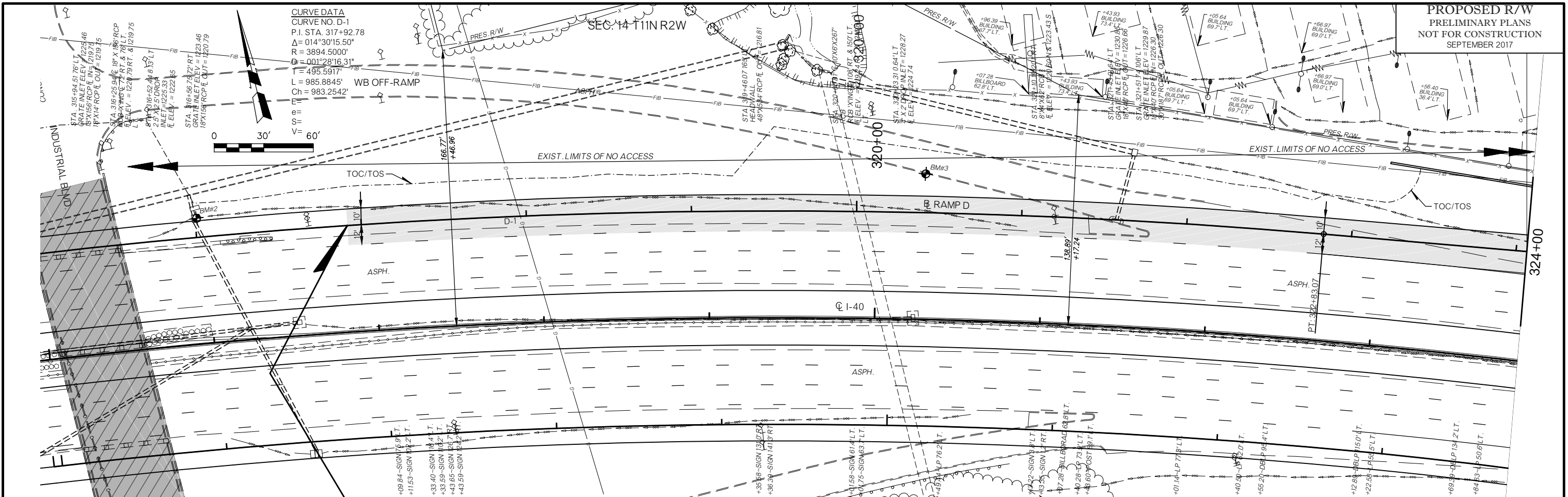
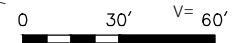
SEC. 13 T11N R2W



STA. 346+60 - END RAMP C

RAMP C

CURVE DATA  
CURVE NO. D-1  
P.I. STA. 317+92.78  
 $\Delta = 014^{\circ}30'15.50"$   
 $R = 3894.5000'$   
 $\Theta = 001^{\circ}28'16.31"$   
 $L = 495.5917'$   
 $L = 985.8845'$   
 $Ch = 983.2542'$   
 $V =$



BM#2-CHISELED BOX ON EAST SIDE OF D-DROP  
INLET NORTH OF I-40 WESTBOUND LANES  
STA. 315+96.76' LT.  
ELEV. = 1225.46

BM#3-CHISELED BOX ON SOUTH CURB  
OF I-40 WESTBOUND OFF-RAMP  
STA. 320+29.88' LT.  
ELEV. = 1232.16

STA. 316+85 - BEGIN RAMP D

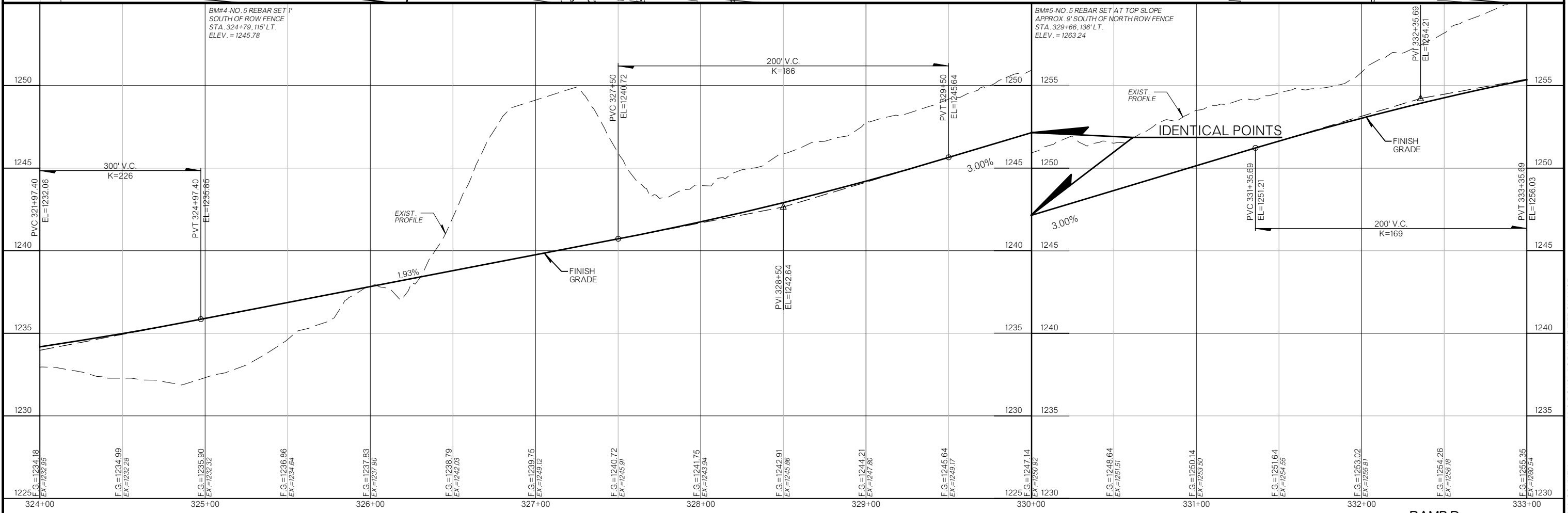
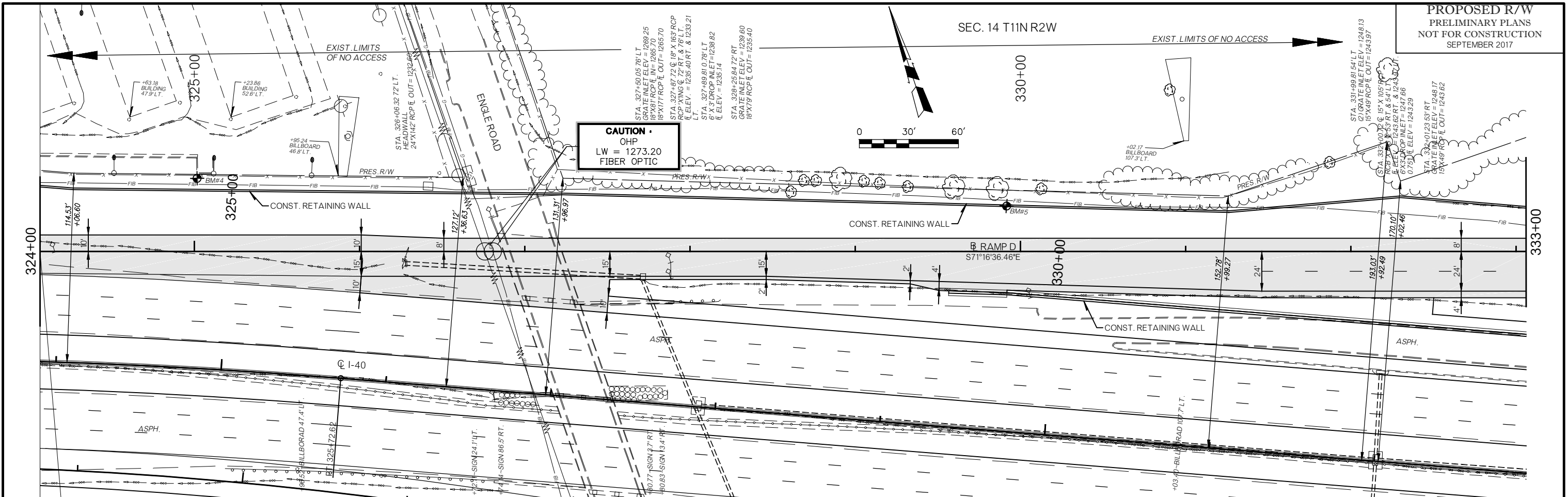
RAMP D

SEC. 14 T11N R2W

EXIST. LIMITS OF NO ACCESS



**CAUTION**  
OHP  
LW = 1273.20  
FIBER OPTIC

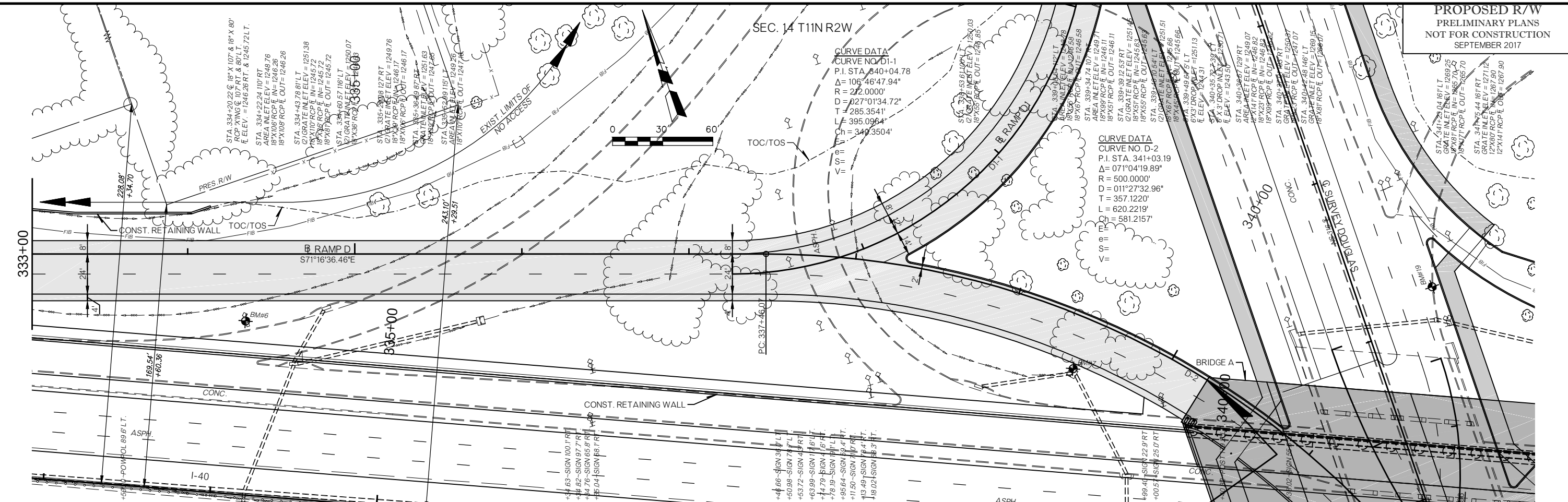


RAMP D

SEC. 14 T11N R2W

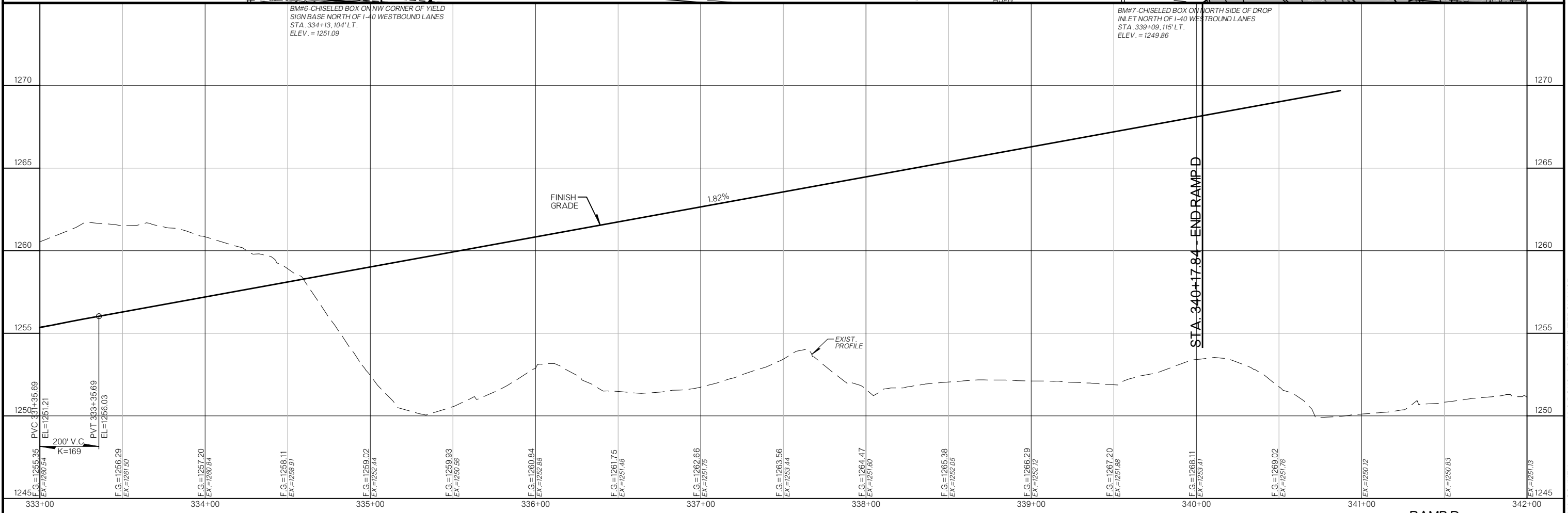
**CURVE DATA**  
CURVE NO. D-1  
P.I. STA. 340+04.78  
 $\Delta = 106^{\circ}46'47.94"$   
R = 272.0000'  
D = 027^{\circ}01'34.72"  
T = 285.3541'  
L = 395.0964'  
Ch = 349.3504'

**CURVE DATA**  
CURVE NO. D-2  
P.I. STA. 341+03.19  
 $\Delta = 071^{\circ}04'19.89"$   
R = 500.0000'  
D = 011^{\circ}27'32.96"  
T = 357.1220'  
L = 620.2219'  
Ch = 581.2157'

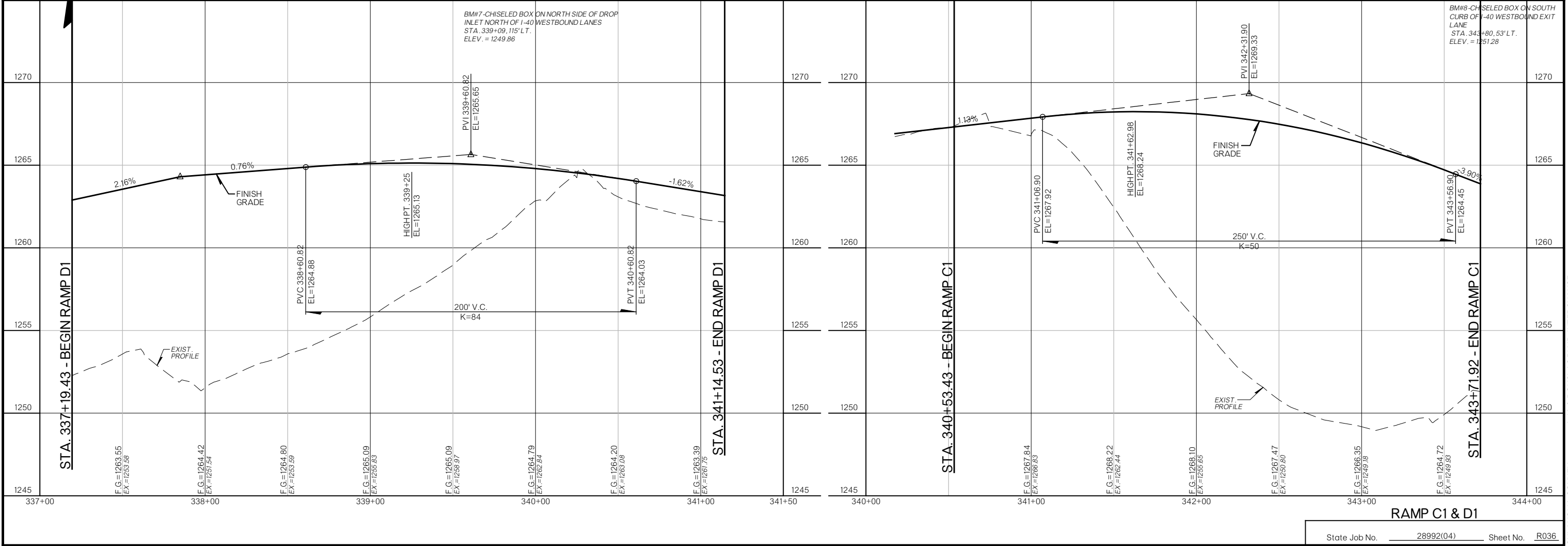
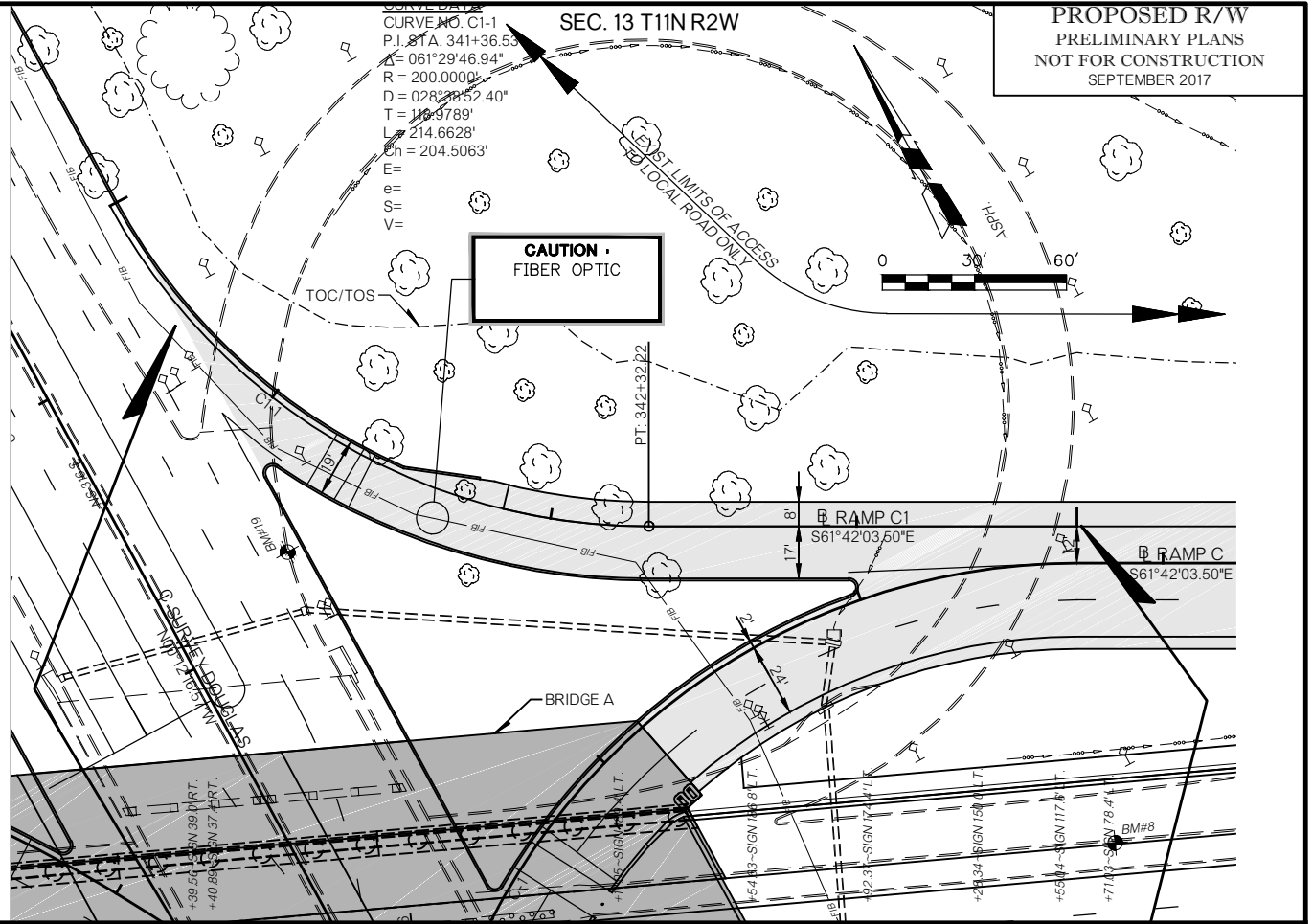
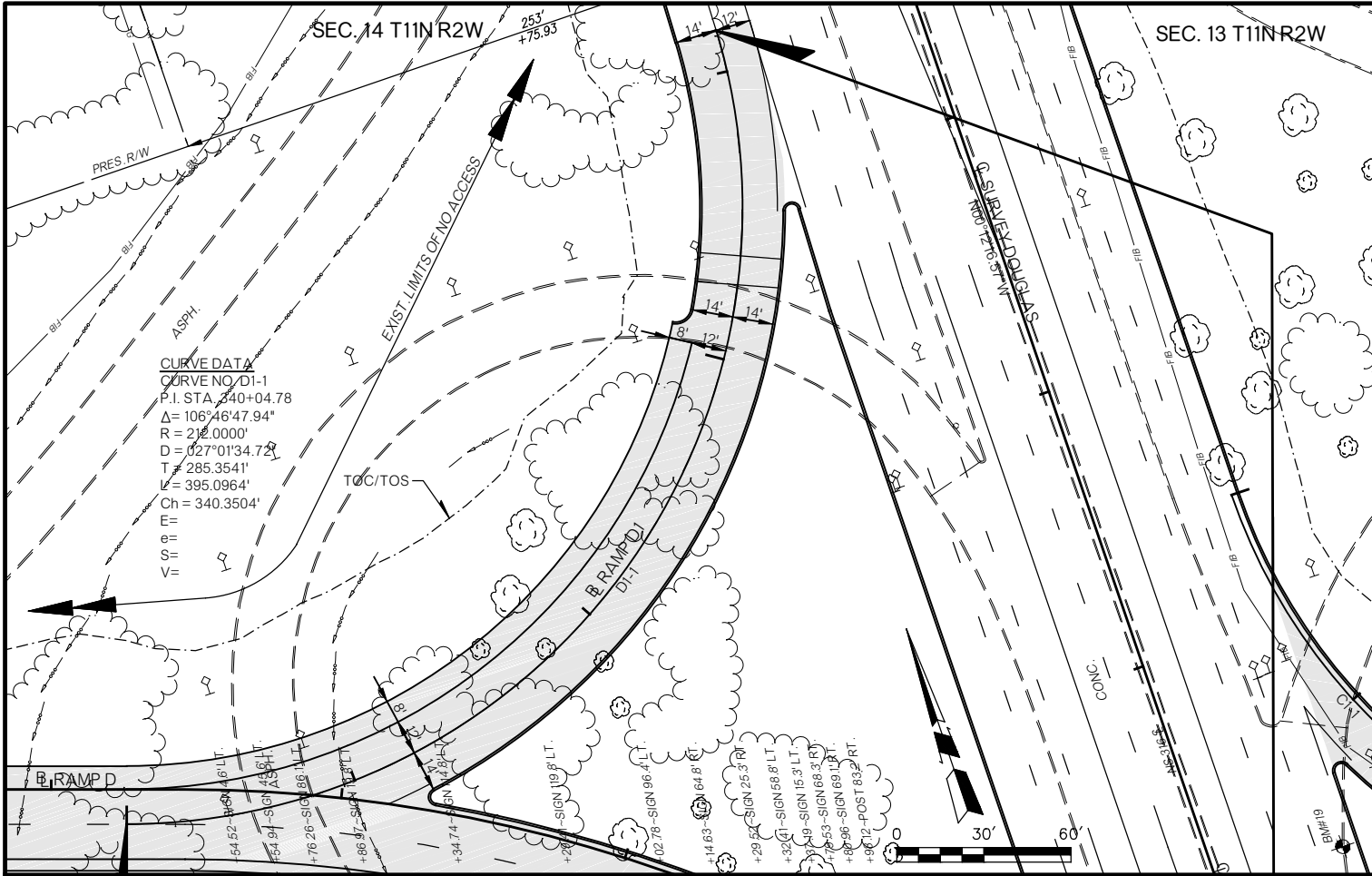


BM#6 - CHISELED BOX ON NW CORNER OF YIELD SIGN BASE NORTH OF I-40 WESTBOUND LANES  
STA. 334+13.104' LT.  
ELEV. = 1251.09

BM#7 - CHISELED BOX ON NORTH SIDE OF DROP INLET NORTH OF I-40 WESTBOUND LANES  
STA. 339+09.115' LT.  
ELEV. = 1249.86



RAMP D







3020 N.W. 149th Street  
 Oklahoma City, Oklahoma 73134  
 Ph. (405) 752-1122  
 Fax (405) 752-8855

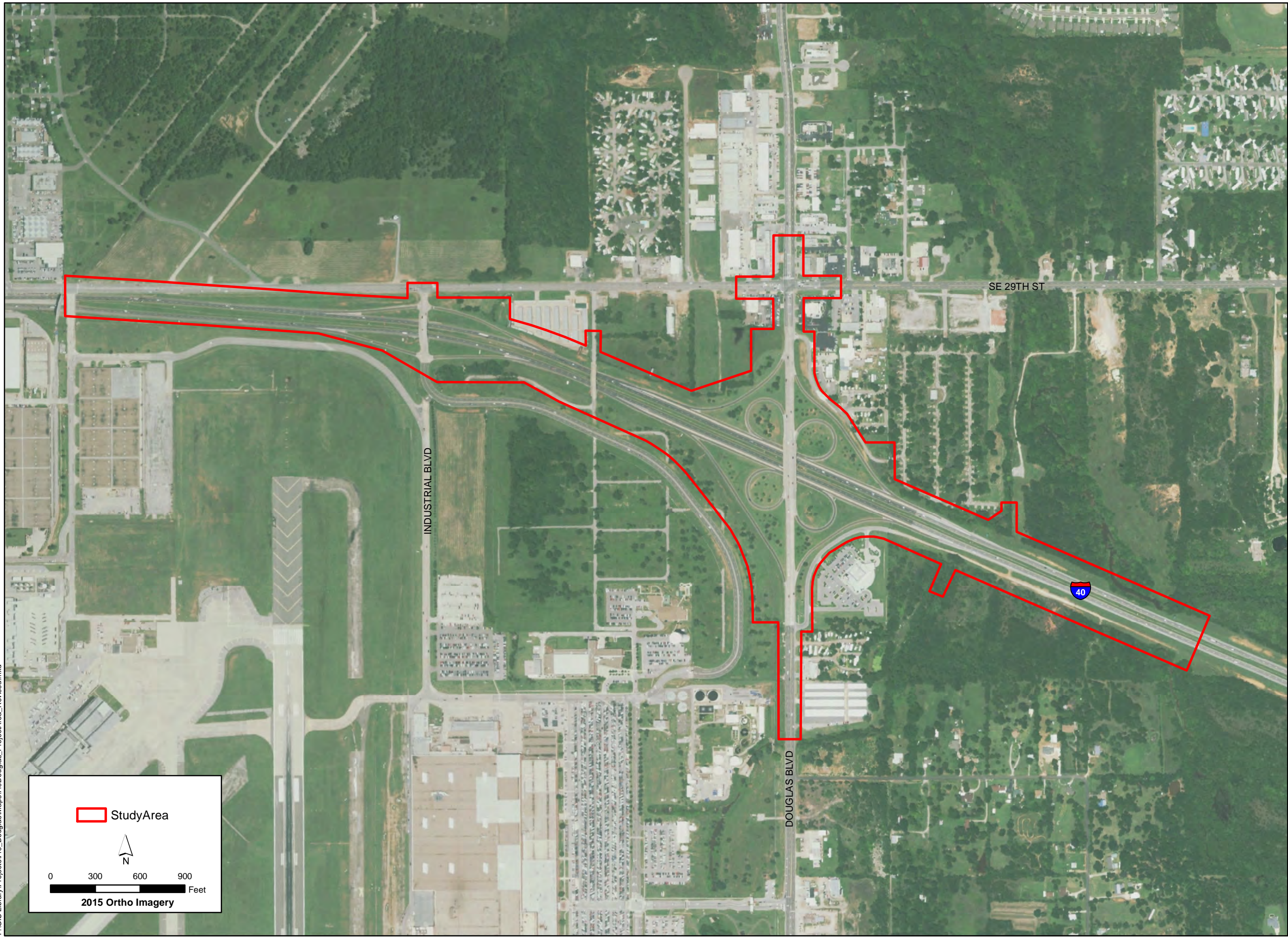


FIGURE TITLE

**STUDY AREA MAP FOR JP 28992 (04)**

DOCUMENT TITLE

BIOLOGICAL ASSESSMENT - I-40 & DOUGLAS BOULEVARD INTERCHANGE

CLIENT

OKLAHOMA DEPARTMENT OF TRANSPORTATION

LOCATION

OKLAHOMA COUNTY, OKLAHOMA

DATE	1/5/2017
SCALE	AS SHOWN
DESIGNED BY	TS
APPROVED BY	RE
DRAWN BY	RE

FIGURE NUMBER
---------------

# **PUBLIC INVOLVEMENT**

# **PUBLIC MEETING SUMMARY AND RESPONSES TO COMMENTS**

**I-40/Douglas Boulevard Bridge Replacement  
and Interchange Reconstruction**

**Oklahoma County, Oklahoma  
JP 28992(04)**

**Prepared for:**



**Oklahoma Department of Transportation  
200 N.E. 21<sup>st</sup> Street  
Oklahoma City, OK 73105**

**Prepared by:**

**Triad Design Group  
Oklahoma Certificate of Authority No. 1759  
3020 Northwest 149<sup>th</sup> Street  
Oklahoma City, OK 73134  
405-752-1122**

**March 2017**



# **PUBLIC MEETING SUMMARY AND RESPONSES TO COMMENTS**

**I-40/Douglas Boulevard Bridge Replacement  
and Interchange Reconstruction**

**Oklahoma County, Oklahoma  
JP 28992(04)**

**Prepared for:**



**Oklahoma Department of Transportation  
200 N.E. 21<sup>st</sup> Street  
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**Triad Design Group  
Oklahoma Certificate of Authority No. 1759  
3020 Northwest 149<sup>th</sup> Street  
Oklahoma City, OK 73134  
405-752-1122**

**March 2017**



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**EXECUTIVE SUMMARY**

This document summarizes the public meeting conducted for the I-40/Douglas Boulevard Bridge replacement and interchange reconstruction project in Oklahoma County, Oklahoma. The purpose of the public meeting was to present information about the proposed alternatives to the public and obtain input. The public meeting was held on January 17, 2017 at 6:00 p.m. in the Bill Atkinson Center Raider Room, Rose State College. Fifty-four attendees signed in for the meeting. The meeting included a presentation on the project from the Oklahoma Department of Transportation's (ODOT) engineering consultant, Triad Design Group (Triad). Representatives from ODOT and Triad were available for discussion before and after the presentation. The comment period was open until February 14, 2017 with a total of 22 written comments received, including 10 from agencies and 13 from members of the public (1 of the public comments was received by telephone). Agency comments and ODOT responses are summarized in Table ES.1.

**TABLE ES.1: AGENCY COMMENT AND RESPONSE SUMMARY**

Agency	Response
Bureau of Indian Affairs	No tribal or individual Indian trust lands; no concerns
National Park Service	No comments.
Natural Resources Conservation Service	No considerations or permits needed from the agency.
Oklahoma Aeronautics Commission	Recommends determining if a Form 7460-1 should be submitted.
Oklahoma Conservation Commission	<ul style="list-style-type: none"> <li>• No comments specific to the alternatives.</li> <li>• Concerns:               <ul style="list-style-type: none"> <li>○ Disturbance of riparian areas</li> <li>○ Siltation problems</li> <li>○ Mechanical disturbance in the stream</li> <li>○ Reduction of cross-sectional area needed for adequate drainage</li> </ul> </li> <li>• Recommendations:               <ul style="list-style-type: none"> <li>○ Reduce disturbance</li> <li>○ Develop sufficient erosion control plans to minimize sedimentation</li> <li>○ Minimize changes in stream configuration, or mitigate through conservation easement</li> </ul> </li> <li>• Suggests sufficient cross-sectional drainage area through any modified bridge crossings.</li> <li>• Requests streams remain free flowing after construction.</li> </ul>
Oklahoma Corporation Commission	No records of oil and gas wells located within Project Area.
Oklahoma Department of Commerce	<ul style="list-style-type: none"> <li>• Supports alternative that supports the most traffic volume, including semi-trucks and trailers, due to TAFB projected growth.</li> <li>• Consider impact of construction of the Eastern Oklahoma County turnpike.</li> <li>• Before construction begins at I-40/Douglas, review interchanges at I-240/Douglas and I-240/Air Depot for maintenance needed to accommodate diverted commercial traffic.</li> </ul>
Oklahoma Department of Environmental Quality	<ul style="list-style-type: none"> <li>• Storm Water Permit required for construction disturbing &gt;1 acre.</li> <li>• Recommends contacting TAFB Environmental Restoration Branch re: monitoring wells in the Project Area, and potential for interaction with the perched aquifer in the Project Area.</li> </ul>
Oklahoma Tourism and Recreation Department	No adverse impacts on federally-funded parks, recreation areas, or state parks.
Oklahoma Water Resources Board	Recommends contacting the local floodplain administrator (i.e., Oklahoma County) for possible permit requirements. Also notes that if development falls on state owned or operated property, a floodplain development permit is required from OWRB.

Most of the public comments expressed support for one (or in some cases two) of the three alternatives presented at the public meeting. In addition to expressing support for an alternative, several other miscellaneous questions or comments were expressed. Table ES.2 summarizes the comments received. Note that the total number of comments is greater than the number of comments received, as several people made multiple comments.

**TABLE ES.2: PUBLIC COMMENT SUMMARY**

Comment	# of Comments
Expressed support for Alternative 1	8
Expressed support for Alternative 2	4
Expressed support for Alternative 3	1
Against Alternative 2, with questions about the Future Flyover	2
Against Alternative 3 - various reasons (i.e., dislike weaving and ramp loops, not pedestrian friendly)	2
Requested detail of SPUI phased traffic movements	1
Suggested truck traffic be considered in design process	1
Suggested placing the rest of the road in front of Tinker underground	1
Supports pedestrian accommodations	2
Requested more visible lane striping	1
Requested better media coverage of public meetings	1
Expressed concerns regarding St. Anthony Healthplex access	1
Expressed concerns regarding traffic operations at S.E. 29th Street/Douglas Boulevard	2

## **1 PROJECT INTRODUCTION**

This document summarizes the public meeting conducted for the I-40/Douglas Boulevard Bridge replacement and interchange reconstruction project in Oklahoma County, JP 28992(04). The purpose of the public meeting was to present information about the proposed alternatives to the public and to obtain public input.

## **2 AGENCY SOLICITATION**

Initial agency solicitation letters were sent to federal and state resource agencies. These letters presented a short project description and the purpose of the proposed project, and included enclosures consisting of a project location map and graphics of the three alternatives. The letter, dated December 22, 2016, also invited recipients to the public meeting and requested input be provided by February 14, 2017. Copies of the letter and mailing list are included in Appendix A.

## **3 PUBLIC MEETING**

### **3.1 MEETING NOTIFICATION**

Notice of the public meeting was sent by letter dated December 22, 2016 to elected officials (federal and state), the Governor's office, Oklahoma County Commissioners, the Cities of Midwest City and Oklahoma City, local school districts, emergency service providers, and medical facilities in the study area. The officials letter provided a brief description of the purpose and need for the project, and an invitation to the public meeting. The officials letter was accompanied by a project location map. Copies of the letter and list are included in Appendix B.

Notice of the public meeting was also sent by letter dated December 22, 2016 to all utility companies and to all property owners in the study area, based upon Oklahoma County Assessor information. Copies of this letter and mailing list are included in Appendix C.

### **3.2 MEETING INFORMATION AND FORMAT**

The public meeting was held on January 17, 2017 at 6:00 p.m. in the Bill Atkinson Center Raider Room, Rose State College. Fifty-four people signed in for the meeting, including representatives from ODOT, Triad, City of Midwest City, City of Oklahoma City, Tinker Air Force Base, Rose State College, St. Anthony Healthplex, several business owners, and members of the public. Copies of the sign-in-sheets are included in Appendix D.

Mr. Brian Taylor, ODOT Division 4 Engineer, opened the meeting with some general remarks. Triad then gave a presentation about the project, providing detailed information on the three (3) alternatives under consideration:

- Alternative 1 – Single Point Urban Interchange (SPUI)
- Alternative 2 – Tight Urban Diamond Interchange (TUDI) with Future Flyover Ramp
- Alternative 3 – Cloverleaf Interchange



The presentation was followed by an open question and answer period, after which ODOT and Triad staff were available for one-on-one and small group discussions. Display boards showing the three alternatives under consideration and environmental constraints were available for public viewing.

A handout with project information and a map of the proposed alternative was provided to attendees. A copy of the presentation is included in Appendix E. Copies of the handouts and displays are included in Appendix F.

The presentation covered:

- Purpose of the Meeting
- Existing Facility
- Collision History
- Purpose and Need for the Project
- Proposed Project Description
- Description of Three (3) Alternatives Considered
- Constraints in the Area
- Comparison Matrix of the Alternatives
- Request for Public Input
- Next Steps

### **3.3 SUMMARY OF COMMENTS**

Nine (9) written comments from agencies, and 1 telephone and 12 written comments from the public were received both before and after the public meeting.

#### **3.3.1 AGENCY COMMENTS**

The nine written agency comments are summarized in the following text, and copies of the agency response letters are included in Appendix G.

- The National Park Service had no comments on the project.
- The Natural Resources Conservation Services stated no considerations or permits are needed from the agency.
- The Oklahoma Aeronautics Commission recommends determining if a Form 7450-1 should be submitted, due to the proximity of Tinker Air Force Base.
- The Oklahoma Conservation Commission (OCC) listed several general concerns including disturbance and siltation of streams and riparian areas and changes to stream channels that may constrict flows and result in flooding.
- The Oklahoma Corporation Commission had no records of oil and gas wells located within the Project Area.

- The Oklahoma Department of Commerce supports the alternative that supports the most traffic volume, including semi-trucks and trailers, due to Tinker Air Force Base projected growth. The agency also suggested that ODOT consider the impact of construction of the Eastern Oklahoma County turnpike, and recommended that the interchanges at I-240/Douglas and I-240/Air Depot be evaluated for any maintenance which may be needed to accommodate commercial traffic which may be diverted during construction at I-40/Douglas.
- The Oklahoma Department of Environmental Quality (ODEQ) noted that construction projects disturbing greater than 1 acre require storm water permitting. The ODEQ also attached a list of recommendations for general construction/improvement projects which addressed items such as plumbing codes, lead-based paint, asbestos, fugitive dust, solid waste, and OPDES permitting. Lastly, the ODEQ recommended contacting Tinker Air Force Base Environmental Restoration Branch regarding monitoring wells in the Project Area and the potential for interaction with the perched aquifer in the Project Area.
- The Oklahoma Tourism and Recreation Department responded that no adverse impacts were anticipated on federally-funded parks, recreation areas, or state parks.
- The Oklahoma Water Resources Board recommended contacting the Oklahoma County floodplain administrator for possible permit requirements, and noted that if development falls on state owned or operated property, a floodplain development permit is required from OWRB.

### **3.3.2 PUBLIC COMMENTS**

Most of the public comments expressed support for one (or in some cases two) of the three alternatives presented at the public meeting. In addition to expressing support for an alternative, several other miscellaneous questions or comments were expressed. Table 3.1 summarizes the comments received. Note that the total number of comments is greater than the number of comments received, as several people made multiple comments. Copies of the public comments received are included in Appendix H.

**TABLE 3.1: PUBLIC COMMENT SUMMARY**

Comment	# of Comments
Expressed support for Alternative 1	8
Expressed support for Alternative 2	4
Expressed support for Alternative 3	1
Against Alternative 2, with questions about the Future Flyover	2
Against Alternative 3 - various reasons (i.e., dislike weaving and ramp loops, not pedestrian friendly)	2
Requested detail of SPUI phased traffic movements	1
Suggested truck traffic be considered in design process	1
Suggested placing the rest of the road in front of Tinker underground	1
Supports pedestrian accommodations	2
Requested more visible lane striping	1
Requested better media coverage of public meetings	1
Expressed concerns regarding St. Anthony Healthplex access	1
Expressed concerns regarding traffic operations at S.E. 29th Street/Douglas Boulevard	2

**3.4 RESPONSE TO PUBLIC COMMENTS**

ODOT’s responses to the general comment topics are summarized in the following sections of text.

- **Support for Alternative 1, Alternative 2, and/or Alternative 3**

ODOT thanks you for your input.

- **Purpose of Alternative 2 Future Flyover**

Alternative 2 includes construction of a northbound Douglas to westbound I-40 flyover ramp in the future because traffic analysis forecasts the traffic volumes associated with that movement to increase in the future, primarily due to an increase in Tinker Air Force Base traffic.

- **Against Alternative 3**

Traffic analysis predicts that traffic operations for Alternative 3 – Cloverleaf will degrade to an unacceptable level in the future. Therefore, ODOT considered two additional interchange design solutions, i.e., Alternative 1 – SPUI and Alternative 2 – TUDI with Future Flyover.

- **Clarification of SPUI Phased Traffic Movements**

The SPUI design will include signalization that controls traffic moving through both the northwest quadrant (i.e., northbound and southbound Douglas traffic destined to WB I-40) and the southeast quadrant (i.e., northbound and southbound Douglas traffic destined to EB I-40). This signalization will ensure that both left-turning and right-turning Douglas traffic destined to I-40 within the same quadrant will move in separate, sequential phases of the traffic light, thus avoiding the need for either traffic movement to yield to the other.

- **Consideration of Truck Traffic in Design**

ODOT agrees that truck traffic on this bridge and through this interchange must be considered in the design process. In fact, truck traffic is one of the chief reasons this project (which includes additional lanes on I-40) is needed.

- **Suggestions Relating to Tinker Air Force Base**

ODOT recognizes that Tinker Air Force Base (TAFB) is a vital stakeholder in any proposed improvement to this area. Because the TAFB mission is of the utmost importance, ODOT has coordinated extensively with TAFB staff and considered their input in the design process.

- **Pedestrian Accommodations**

ODOT considers all modes of transportation (i.e., including pedestrian) in the planning process.

- **More Visible Lane Striping**

ODOT is continuously evaluating more durable paints, and anticipates that the visibility of lane striping will continue to improve in the future.

- **Better Media Coverage of Meetings**

ODOT provides notice of all public meetings to the local news outlets, who then determine if and/or how to disseminate the notice.

- **St. Anthony Healthplex Access**

St. Anthony Healthplex representatives expressed concerns that access to the full-service emergency room be maintained throughout construction, and pointed out a traffic conflict that exists for eastbound I-40 traffic exiting at Douglas Boulevard, destined for the Healthplex. ODOT has incorporated these concerns into the design development and selection process.

- **S.E. 29TH Street/Douglas Boulevard Traffic Operations**

ODOT's traffic analysis has shown this area is currently in need of improvement and that traffic conditions will worsen in the future unless improvements are made. ODOT will work with the Cities of Midwest City and Oklahoma City to identify and implement improvements to this intersection.

**APPENDIX A  
AGENCY SOLICITATION LETTER  
AND MAILING LIST**





December 23, 2016

Mr. Tim Vermillion  
Oklahoma Department of Transportation  
200 N. E. 21<sup>st</sup> Street  
Oklahoma City, OK 73105-3204

Re: Public Meeting Letters, I-40 and Douglas, JP 28992(04)

Dear Tim:

This letter is to document that Triad Design Group mailed 20 solicitation letters, 50 officials letters, and 26 landowner/utility letters for the above-referenced project on December 23, 2016. All letters were sent via USPS.

I personally checked the contents of all the envelopes, and checked that the letter inside address matched the envelope address. If you have any comments or questions, please feel free to call me at 405-919-0481.

Sincerely,

A handwritten signature in cursive script that reads 'Diane Abernathy'.

Diane Abernathy, P. E.  
Senior Project Manager

*Triad Project E211-06*

December 22, 2016

Inside Address

RE: Solicitation for I-40 and Douglas Boulevard Bridge and Interchange Improvement in Oklahoma County, Oklahoma, State Job Piece: JP 28992(04), Project No.: J2-8992(004)

Dear \_\_\_\_\_:

The Oklahoma Department of Transportation (ODOT), in cooperation with Federal Highway Agency (FHWA), is soliciting comments on possible improvements to the I-40 and Douglas Boulevard bridge and interchange in Oklahoma County, Oklahoma.

The Douglas Boulevard bridge over I-40 is six lanes wide including four through lanes, two loop ramp weaving lanes, curb and gutter, and 3-ft wide sidewalks on each side of the bridge. The existing Douglas Boulevard bridge is an 80-ft wide concrete continuous slab bridge, with a sufficiency rating of 77.0. The vertical clearance for I-40 is posted as 16-ft-9-in (eastbound) and 16-ft-4-in (westbound). The current annual average daily traffic (AADT) on Douglas Boulevard is 26,100 vehicles per day (vpd), and is projected to increase to 47,980 vpd by the year 2045.

I-40 underneath Douglas Blvd is a four-lane divided urban interstate with a 40-ft wide grass median, 12-ft wide driving lanes, 3-ft wide inside shoulders, and 10-ft wide outside shoulders. The current AADT on I-40 is 54,574 vehicles per day (vpd), and is projected to increase to 84,580 vpd by the year 2045. The existing I-40 and Douglas Boulevard interchange is a full cloverleaf interchange with collector-distributor roads along I-40. The number of collisions at this location is higher than the state average at similar locations.

The existing Engle Road bridge over I-40 formerly provided access to a residential neighborhood south of I-40. However, the neighborhood no longer exists and the property is now owned by Tinker Air Force Base. Therefore, Engle Road bridge is closed to traffic and not in use.

The purpose of this project is to correct the functionally obsolete Douglas Boulevard bridge and improve safety while accommodating future traffic volumes, which indicate I-40 should be widened from four lanes to six lanes. Three (3) interchange alternatives have been identified for consideration:

- **Alternative 1 - Single Point Urban Interchange (SPUI).** A Single Point Urban Interchange is a basic diamond interchange with a single signalized central intersection in the center of the bridge. The Douglas Boulevard traffic along with the I-40 ramp traffic will converge to a single point utilizing the single set of traffic signals. The SPUI interchange accommodates large traffic volumes efficiently with minimal right-of-way impacts. I-40 will be improved to a six-lane facility. Through the interchange, Douglas Boulevard will consist of six through lanes, dual left-turn lanes, and right-turn lanes where needed. Entrance and exit ramp lanes will also be constructed along I-40. Collector-distributor roads will be removed and will not be re-constructed.
- **Alternative 2 - Tight Urban Diamond Interchange (TUDI) with Ramp Flyover.** A Tight Urban Diamond Interchange is an interchange that compresses a standard diamond interchange. This design includes all four interchange ramps, as well as the option of adding a future flyover ramp for northbound Douglas Boulevard traffic destined for westbound I-40. I-40 will be improved to a six-lane facility. Through the interchange, Douglas Boulevard will consist of six through lanes, dual left-turn lanes, and right-turn lanes where needed. Upon construction of the northbound to westbound ramp flyover, the northbound to westbound left-turn lanes on Douglas will be removed. Entrance and exit ramp lanes will also be constructed along I-40. Collector-distributor roads will be removed and will not be re-constructed.

*"The mission of the Oklahoma Department of Transportation is to provide a safe, economical, and effective transportation network for the people, commerce and communities of Oklahoma."*



**OKLAHOMA DEPARTMENT OF TRANSPORTATION**

**Environmental Programs Division**

200 N.E. 21<sup>st</sup> Street  
Oklahoma City, OK 73105-3204  
[www.odot.org](http://www.odot.org)

- Alternative 3 - Cloverleaf Interchange. The existing cloverleaf will be completely reconstructed to accommodate widening I-40 to a six-lane facility. All ramps and both collector-distributor roads will be reconstructed. Through the interchange, Douglas Boulevard will consist of four through lanes, two lanes for loop ramp weaving, two additional lanes located in the median which can be used in the future for left turning traffic, and entrance and exit lanes where needed. Entrance and exit ramp lanes will also be constructed along I-40.

Please see the enclosed figures which depict the areas associated with the improvements to the subject bridge and interchange. Regardless of the interchange alternative selected, the Engle Road bridge over I-40, which is no longer in service, will be removed as a part of this project.

A Public Meeting is being held to present the project information on **January 17, 2017, 6:00 p.m.**, in the Raider Room of the Bill Atkinson Student Center at Rose State College, 6420 SE 15<sup>th</sup> Street, Midwest City, Oklahoma. The purpose of the Public Meeting is to solicit public and agency input on the proposed improvements for further consideration. All 3 alternatives will be presented to the public and the Preferred Alternative will be selected, taking into consideration public and agency input in addition to the cost, right-of-way, utilities and environmental impacts.

This project is in the early developmental stages and any comments relative to the social, economic, or environmental effects of this proposal will be appreciated. To allow adequate time for evaluation of your comments, we would appreciate receiving a response by February 14, 2017. Your written comments should be directed to the Environmental Programs Division Engineer, Oklahoma Department of Transportation, 200 N. E. 21st Street, Oklahoma City, Oklahoma 73105 or [odot-environment@odot.org](mailto:odot-environment@odot.org).

We sincerely appreciate your cooperation in this matter. ODOT has contracted with Triad Design Group on this project. Should you have any questions regarding the project, please contact our Consultant, Diane Abernathy, Triad Design Group, at 405-919-0481, [dabernathy@triaddesigngroup.com](mailto:dabernathy@triaddesigngroup.com) or Tim Vermillion, ODOT Environmental Project Manager at 405-521-2676, [tvermillion@odot.org](mailto:tvermillion@odot.org).

Sincerely,

Siv Sundaram, P.E.  
Environmental Programs Division Engineer

SS:TV:Triad:DA

Enclosures: Location Map and 3 Alternatives Maps with Constraints

The Oklahoma Department of Transportation (ODOT) ensures that no person or groups of persons shall, on the grounds of race, color, sex, religion, national origin, age, disability, retaliation or genetic information, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any and all programs, services, or activities administered by ODOT, its recipients, sub-recipients, and contractors. If any interested individual has a disability that may require accommodation to participate in this meeting, please contact ODOT ADA Coordinator at (405) 521-4140. Upon advance notification of the need for accommodation, reasonable arrangements will be made to provide accessibility to the meeting.

*"The mission of the Oklahoma Department of Transportation is to provide a safe, economical, and effective transportation network for the people, commerce and communities of Oklahoma."*

AN EQUAL OPPORTUNITY EMPLOYER



Mr. Gary McDonald  
Acting Assistant Field Manager,  
Multi Resources Oklahoma Field Office  
Bureau of Land Management  
201 Stephenson Parkway, Suite 1200  
Norman, Oklahoma 73019

Mr. Basharat Siddiqi  
Division Administrator  
Federal Highway Administration  
5801 N. Broadway Extension, Suite 300  
Oklahoma City, Oklahoma 73118

Ms. Marjorie McColl Petty  
Regional Director  
Health & Human Services Region 6  
1301 Young Street, Ste.124  
Dallas, Texas 75202

Mr. Andrew Commer  
Regulatory Branch Chief  
Tulsa District Corps of Engineers  
1645 S. 101 E. Avenue  
Tulsa, Oklahoma 74128-4629

Colonel Richard Pratt  
District Engineer  
Tulsa District Corps of Engineers  
1645 S. 101 E. Avenue  
Tulsa, Oklahoma 74128-4629

Mr. Steve Nolen  
Planning & Environmental (PER) Division  
Tulsa District Corps of Engineers  
1645 S. 101 E. Avenue  
Tulsa, Oklahoma 74128-4629

Mr. Greg Estep  
Chief - Hydraulics & Hydrology Branch  
Tulsa District Corps of Engineers  
1645 S. 101 E. Avenue  
Tulsa, Oklahoma 74128-4629

Mr. Scott Henderson  
Chief - Water Management  
Tulsa District Corps of Engineers  
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Tulsa, Oklahoma 74128-4629

Ms. Michelle Lay  
Chief - Civil Design Section  
Tulsa District Corps of Engineers  
1645 S. 101 E. Avenue  
Tulsa, Oklahoma 74128-4629

Mr. David Blackmore  
Engineering Branch, Infrastructure Section  
Tulsa District Corps of Engineers  
1645 S. 101 E. Avenue  
Tulsa, Oklahoma 74128-4629

Mr. Eddie Streater  
Regional Director, Eastern Oklahoma Region  
Bureau of Indian Affairs  
P.O. Box 8002  
Muskogee, Oklahoma 74402-8002

Mr. Christopher Best  
District Conservationist  
Natural Resources Conservation Service  
4850 N. Lincoln Blvd.  
Oklahoma City, Oklahoma 73116

Ms. Sharon Gordon-Ribeiro  
Tulsa Field Office Director  
U.S. Housing & Urban Development  
Williams Center Tower II, 2 West Street, Ste. 400  
Tulsa, Oklahoma 74103

Ms. Sue E. Masica  
Regional Director - Intermountain Region Office,  
Planning & Environmental Quality  
National Park Service  
12795 W. Alameda Parkway  
Denver, Colorado 80225

Mr. Steve Spencer  
Regional Environmental Officer  
U.S. Department of the Interior  
1001 Indian School NW, Suite 348  
Albuquerque, New Mexico 87104

Mr. Victor N. Bird  
Director  
Oklahoma Aeronautics Commission  
120 N. Robinson, Suite 1244W  
Oklahoma City, Oklahoma 73102

Mr. Tim Baker  
Director - Oil & Gas Division  
Oklahoma Corporation Commission  
Jim Thorpe Building, 2101 N. Lincoln Blvd.  
Oklahoma City, Oklahoma 73105

Environmental Review Coordinator  
DEQ Customer Assistance Program  
P.O. Box 1677  
Oklahoma City, Oklahoma 73101-1677

Ms. Melvena Heisch  
Deputy Historic Preservation Officer  
Oklahoma Historical Society  
800 Nazih Zuhdi Drive  
Oklahoma City, Oklahoma 73105-7917

Ms. Deby Snodgrass  
Secretary of Commerce and Tourism,  
Executive Director of Commerce  
Oklahoma Department of Commerce  
900 North Stiles  
Oklahoma City, Oklahoma 73104

Mr. J. D. Strong  
Director  
Department of Wildlife Conservation  
P.O. Box 53465  
Oklahoma City, Oklahoma 73152

Mr. Trey Lam  
Executive Director  
Oklahoma Conservation Commission  
2800 North Lincoln Blvd., Ste. 160  
Oklahoma City, Oklahoma 73105

Mr. Jim Reese  
Commissioner of Agriculture  
Department of Agriculture  
2800 N. Lincoln Blvd., P.O. Box 54298  
Oklahoma City, Oklahoma 73105-4298

Ms. Julie Cunningham  
Interim Executive Director  
Oklahoma Water Resources Board  
3800 North Classen  
Oklahoma City, Oklahoma 73118

Dr. Jeremy Boak  
Director  
Oklahoma Geological Survey  
100 East Boyd, Room N-131  
Norman, Oklahoma 73019-0628

Dr. Kary Stackelbeck  
Oklahoma State Archeologist  
111 East Chesapeake, Building 134  
Norman, Oklahoma 73019-5111

Ms. Joy Hofmeister  
State Superintendent  
State Department of Education  
2500 North Lincoln Blvd., Rm. 121  
Oklahoma City, Oklahoma 73105-4599

Ms. Kristina S. Marek  
Director, State Parks  
Oklahoma Tourism & Recreation Department  
900 North Stiles  
Oklahoma City, Oklahoma 73104

Chairperson John A. Barrett  
Citizen Pottawatomie Nation  
1601 S. Gordon Cooper Drive  
Shawnee, Oklahoma 74801

Chairman Bobby Walkup  
Iowa Tribe Of Oklahoma  
Rte 1, Box 721  
Perkins, Oklahoma 74059

Chairperson David Pacheco, Jr.  
Kickapoo Tribe Of Oklahoma  
P.O. Box 70  
McLoud, Oklahoma 74851

Principal Chief Geoffrey Standing Bear  
Osage Nation  
627 Grandview  
Pawhuska, Oklahoma 74056

President Terri Parton  
Wichita And Affiliated Tribes  
P.O. Box 729  
Anadarko, Oklahoma 73005

**APPENDIX B  
OFFICIALS NOTICE LETTER  
AND MAILING LIST**





December 23, 2016

Mr. Tim Vermillion  
Oklahoma Department of Transportation  
200 N. E. 21<sup>st</sup> Street  
Oklahoma City, OK 73105-3204

Re: Public Meeting Letters, I-40 and Douglas, JP 28992(04)

Dear Tim:

This letter is to document that Triad Design Group mailed 20 solicitation letters, 50 officials letters, and 26 landowner/utility letters for the above-referenced project on December 23, 2016. All letters were sent via USPS.

I personally checked the contents of all the envelopes, and checked that the letter inside address matched the envelope address. If you have any comments or questions, please feel free to call me at 405-919-0481.

Sincerely,

A handwritten signature in cursive script that reads "Diane Abernathy".

Diane Abernathy, P. E.  
Senior Project Manager

*Triad Project E211-06*

December 22, 2016

Inside Address

RE: I-40 and Douglas Boulevard Bridge and Interchange Improvement in Oklahoma County, Oklahoma, State Job Piece: JP 28992(04), Project No: J2-8992(004)

Dear \_\_\_\_\_:

The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA), is proposing to improve the I-40 and Douglas Boulevard bridge and interchange, Oklahoma County, Oklahoma. The purpose of this project is to correct the functionally obsolete Douglas Boulevard bridge and improve safety while accommodating future traffic volumes, which indicate I-40 should be widened from four lanes to six lanes. Replacement of the Douglas Boulevard bridge will require I-40 to be lowered to provide the required vertical clearance of 16-ft-9-in. Also, the bridge replacement project will require reconstruction of the I-40/Douglas Boulevard interchange. ODOT recently tasked a consultant to study several interchange improvement alternatives while taking into consideration construction cost, right-of-way requirements, and environmental constraints.

A Public Meeting is being held to present the project information on **January 17, 2017, 6:00 p.m.** in the Raider Room of the Bill Atkinson Student Center at Rose State College, 6420 SE 15<sup>th</sup> Street, Midwest City, Oklahoma. The purpose of the Public Meeting is to solicit public and agency input on the proposed improvements for further consideration.

Should you have any questions regarding the project, please contact our Consultant, Diane Abernathy, Triad Design Group, at 405-919-0481, [dabernathy@triaddesigngroup.com](mailto:dabernathy@triaddesigngroup.com) or Tim Vermillion, ODOT Environmental Project Manager at 405-521-2676, [tvermillion@odot.org](mailto:tvermillion@odot.org).

Sincerely,

Siv Sundaram, P.E.  
Environmental Programs Division Engineer

SS:TV:Triad:DA

Enclosure: Location Map

The Oklahoma Department of Transportation (ODOT) ensures that no person or groups of persons shall, on the grounds of race, color, sex, religion, national origin, age, disability, retaliation or genetic information, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any and all programs, services, or activities administered by ODOT, its recipients, sub-recipients, and contractors. If any interested individual has a disability that may require accommodation to participate in this meeting, please contact ODOT ADA Coordinator at (405) 521-4140. Upon advance notification of the need for accommodation, reasonable arrangements will be made to provide accessibility to the meeting.

*"The mission of the Oklahoma Department of Transportation is to provide a safe, economical, and effective transportation network for the people, commerce and communities of Oklahoma."*

AN EQUAL OPPORTUNITY EMPLOYER

Mr. Mike Patterson  
Director  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Mr. Russell Hulin  
Deputy Director  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Mr. Casey Shell  
Chief Engineer  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Mr. Tim Tegeler  
Director of Engineering  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Mr. Darren Saliba  
Director of Operations  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Mr. Matt Swift  
Strategic Asset & Performance  
Management  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Mr. Rick Johnson  
Project Management Division Manager  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Mr. Caleb Austin  
Roadway Design Engineer  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Ms. Siv Sundaram  
Environmental Programs Division Engineer  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Mr. Robert Blackwell  
Chief of Right of Way  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Mr. Harold Smart  
Traffic Division Engineer  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Mr. Shannon Sheffert  
Local Government Division Engineer  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Mr. William Tackett  
Chief of Survey  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Mr. Steve Jacobi  
Bridge Division Engineer  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Ms. Terri Angier  
Chief of Media & Public Relations  
Oklahoma Department of Transportation  
200 N.E. 21st Street  
Oklahoma City, Oklahoma 73105

Mr. Brian Taylor  
Division IV Engineer  
Oklahoma Department of Transportation  
P.O. Box 471  
Perry, Oklahoma 73077

Mr. Basharat Siddiqi  
Division Administrator  
Federal Highway Administration (FHWA)  
5801 N Broadway Extension, Suite 300  
Oklahoma City, Oklahoma 73118

Commissioner Greg Love  
District IV  
Oklahoma Transportation Commissioner  
10601 N. Pennsylvania Avenue  
Oklahoma City, Oklahoma 73120

Ms. Melvena Heisch  
Deputy Historic Preservation Officer  
Oklahoma Historical Society  
800 Nazih Zuhdi Drive  
Oklahoma City, Oklahoma 73105

Dr. Kary Stackelbeck  
Oklahoma State Archeologist  
111 East Chesapeake, Building 134  
Norman, Oklahoma 73019

Mr. John Johnson  
Executive Director  
Association of Central Oklahoma  
Governments  
21 E. Main Street, Suite 100  
Oklahoma City, Oklahoma 73104

Mr. Cody Inman  
Office of the Governor  
2300 N. Lincoln Blvd., Ste. 212  
Oklahoma City, Oklahoma 73105

Board of County Commissioners  
Oklahoma County  
320 Robert S. Kerr Ave.  
Oklahoma City, Oklahoma 73102

The Honorable Matt Dukes  
Mayor  
City of Midwest City  
100 N Midwest Boulevard  
Midwest City, OK 73110

Mr. J. Guy Henson  
Midwest City, City Manager  
City of Midwest City  
100 N Midwest Boulevard  
Midwest City, OK 73110

Mr. Daniel McClure, Jr.  
Midwest City, Ward 1  
City of Midwest City  
100 N Midwest Boulevard  
Midwest City, OK 73110

Mr. Pat Byrne  
Midwest City, Ward 2  
City of Midwest City  
100 N Midwest Boulevard  
Midwest City, OK 73110

Mr. Rick Dawkins  
Midwest City, Ward 3  
City of Midwest City  
100 N Midwest Boulevard  
Midwest City, OK 73110

Mr. Sean Reed  
Midwest City, Ward 4  
City of Midwest City  
100 N Midwest Boulevard  
Midwest City, OK 73110

Mr. Christine Allen  
Midwest City, Ward 5  
City of Midwest City  
100 N Midwest Boulevard  
Midwest City, OK 73110

Mr. Jeff Moore  
Midwest City, Ward 6  
City of Midwest City  
100 N Midwest Boulevard  
Midwest City, OK 73110

The Honorable Mick Cornett  
Mayor  
City of Oklahoma City  
200 N Walker Ave.  
Oklahoma City, OK 73102

Mr. James D. Couch  
Oklahoma City, City Manager  
City of Oklahoma City  
200 N Walker Ave.  
Oklahoma City, OK 73102

Mr. James Greiner  
Oklahoma City, Ward 1  
City of Oklahoma City  
200 N Walker Ave.  
Oklahoma City, OK 73102

Mr. Ed Shadid  
Oklahoma City, Ward 2  
City of Oklahoma City  
200 N Walker Ave.  
Oklahoma City, OK 73102

Mr. Larry McAtee  
Oklahoma City, Ward 3  
City of Oklahoma City  
200 N Walker Ave.  
Oklahoma City, OK 73102

Mr. Pete White  
Oklahoma City, Ward 4  
City of Oklahoma City  
200 N Walker Ave.  
Oklahoma City, OK 73102

Mr. David Greenwell  
Oklahoma City, Ward 5  
City of Oklahoma City  
200 N Walker Ave.  
Oklahoma City, OK 73102

Mr. Meg Salyer  
Oklahoma City, Ward 6  
City of Oklahoma City  
200 N Walker Ave.  
Oklahoma City, OK 73102

Mr. John A. Pettis, Jr.  
Oklahoma City, Ward 7  
City of Oklahoma City  
200 N Walker Ave.  
Oklahoma City, OK 73102

Mr. Mark K. Stonecipher  
Oklahoma City, Ward 8  
City of Oklahoma City  
200 N Walker Ave.  
Oklahoma City, OK 73102

The Honorable Gary Banz  
Oklahoma House of Representatives  
2300 North Lincoln Boulevard, State House,  
Room 433  
Oklahoma City, OK 73020

The Honorable Gary Banz  
Oklahoma House of Representatives  
11061 Canterbury Lane  
Midwest City, OK 73130

The Honorable Tess Teague  
Oklahoma House of Representatives  
2300 North Lincoln Boulevard, State House,  
Room 433  
Oklahoma City, OK 73105

The Honorable Tess Teague  
Oklahoma House of Representatives  
1909 Overland Trail  
Choctaw, OK 73020

The Honorable Roger Ford  
Oklahoma House of Representatives  
2300 North Lincoln Boulevard, State House,  
Room 436  
Oklahoma City, OK 73105

The Honorable Roger Ford  
Oklahoma House of Representatives  
PO Box 10498  
Midwest City, OK 73140

The Honorable Charlie Joyner  
Oklahoma House of Representatives  
2300 North Lincoln Boulevard, State House,  
Room 436  
Oklahoma City, OK 73105

The Honorable Charlie Joyner  
Oklahoma House of Representatives  
3500 Bella Vista Drive  
Midwest City, OK 73110

The Honorable Jack Fry  
Oklahoma Senate  
2300 North Lincoln Boulevard, State House,  
Room 413A  
Oklahoma City, OK 73105

The Honorable Tom Cole  
U.S. House of Representatives  
2424 Springer Drive  
Norman, OK 73069

The Honorable Tom Cole  
U.S. House of Representatives  
2467 Rayburn House Office Building  
Washington, DC 20515

The Honorable Steve Russell  
U.S. House of Representatives  
128 Cannon House Office Building  
Washington, DC 20515

The Honorable Steve Russell  
U.S. House of Representatives  
4600 SE 29th, Suite 400  
Del City, OK 73115

The Honorable James Inhofe  
U.S. Senate  
1900 NW Expressway #1210  
Oklahoma City, OK 73118

The Honorable James Inhofe  
U.S. Senate  
205 Russell Senate Office Building  
Washington, DC 20510

The Honorable James Lankford  
U.S. Senate  
1015 North Broadway Avenue, Suite 310  
Oklahoma City, OK 73102

The Honorable James Lankford  
U.S. Senate  
316 Hart Senate Office Building  
Washington, DC 20510

Ms. Aurora Lora  
Superintendent  
Oklahoma City Public Schools  
900 North Klein  
Oklahoma City, OK 73106

Dr. Rick Cobb, Ph.D.  
Mid-Del School District  
7217 SE 15th Street  
Midwest City, OK 73110

Rose State College  
6420 SE 15th Street  
Midwest City, OK 73110

Chief Bert Norton  
Midwest City Fire Department  
8201 E Reno Ave  
Midwest City, OK 73110

Chief Brandon Clabes  
Midwest City Police Department  
100 N Midwest Boulevard  
Midwest City, OK 73110

Administrator  
AllianceHealth Midwest  
2825 Parklawn Drive  
Midwest City, OK 73110

Administrator  
St. Anthony Healthplex East  
3400 S Douglas Blvd  
Oklahoma City, OK 73150

Mr. Brad Beam  
Tinker Air Force Base  
72 ABW/CE  
Attn. Beam 7535 5th Street, Building 400  
Tinker AFB, OK 73145

Mr. Michael Daly  
Tinker Air Force Base  
72 ABW/CE  
Attn. Daly 7535 5th Street, Building 400  
Tinker AFB, OK 73145

Colonel Stephanie Wilson  
Tinker Air Force Base  
72 ABW/CC  
7460 Arnold St., Suite 234  
Tinker AFB, OK 73145



**APPENDIX C  
LANDOWNER AND UTILITY  
NOTICE LETTER  
AND MAILING LIST**



December 23, 2016

Mr. Tim Vermillion  
Oklahoma Department of Transportation  
200 N. E. 21<sup>st</sup> Street  
Oklahoma City, OK 73105-3204

Re: Public Meeting Letters, I-40 and Douglas, JP 28992(04)

Dear Tim:

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Sincerely,

A handwritten signature in cursive script that reads "Diane Abernathy". The signature is written in black ink and is positioned below the word "Sincerely,".

Diane Abernathy, P. E.  
Senior Project Manager

*Triad Project E211-06*



**OKLAHOMA DEPARTMENT OF TRANSPORTATION**

**Environmental Programs Division**

200 N.E. 21<sup>st</sup> Street  
Oklahoma City, OK 73105-3204  
www.odot.org

December 22, 2016

RE: I-40 and Douglas Boulevard Bridge and Interchange Improvement in Oklahoma County, Oklahoma, State Job Piece: JP 28992(04), Project No: J2-8992(004)

Dear Property Owner/Utility Company:

The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA), is proposing to improve the I-40 and Douglas Boulevard bridge and interchange, Oklahoma County, Oklahoma. The purpose of this project is to correct the functionally obsolete Douglas Boulevard bridge and improve safety while accommodating future traffic volumes, which indicate I-40, should be widened from four lanes to six lanes. Replacement of the Douglas Boulevard bridge will require I-40 to be lowered to provide the required vertical clearance of 16-ft-9-in. Also, the bridge replacement project will require reconstruction of the I-40/Douglas Boulevard interchange.

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A Public Meeting is being held to present the project information on **January 17, 2017, 6:00 p.m.** in the Raider Room of the Bill Atkinson Student Center at Rose State College, 6420 SE 15<sup>th</sup> Street, Midwest City, Oklahoma. The purpose of the Public Meeting is to solicit public and agency input on the proposed improvements for further consideration.

If you are currently leasing this property, please notify your lessee of the planned meeting.

Should you have any questions regarding the project, please contact our Consultant, Diane Abernathy, Triad Design Group, at 405-919-0481, [dabernathy@triaddesigngroup.com](mailto:dabernathy@triaddesigngroup.com) or Tim Vermillion, ODOT Environmental Project Manager at 405-521-2676, [tvermillion@odot.org](mailto:tvermillion@odot.org).

Sincerely,

Siv Sundaram, P.E.  
Environmental Programs Division Engineer

SS:TV:Triad:DA

Enclosure: Location Map

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*"The mission of the Oklahoma Department of Transportation is to provide a safe, economical, and effective transportation network for the people, commerce and communities of Oklahoma."*

AN EQUAL OPPORTUNITY EMPLOYER

TWODSVENTURE1, LLC  
252 NW 70TH ST  
OKLAHOMA CITY, OK 73116-7807

NEWHEY FAMILY PARTNERS  
PO BOX 50471  
MIDWEST CITY, OK 73140-5471

N R FARD INC  
405 WALTHAM ST #189  
LEXINGTON, MA 02421-7934

STANLEY, INC  
6508 S COUNTRY CLUB DRIVE  
OKLAHOMA CITY, OK 73159-2942

AMPLE STORAGE LLC  
4117 S POST RD  
OKLAHOMA CITY, OK 73150

VIERSEN OIL & GAS CO  
PO BOX 702708  
TULSA, OK 74170-2708

PINKERTON, SUE CARMEL  
1701 E FAIRLAWN  
CUSHING, OK 74023-5755

MIDWEST CITY MEMORIAL HOSPITAL  
100 N MIDWEST BLVD  
MIDWEST CITY, OK 73110-4319

CITY OF MIDWEST CITY  
ATTENTION: COUNTY CLERK  
100 N MIDWEST BLVD  
MIDWEST CITY, OK 73110-4327

JOHNSON, DONNIE B & JOANN  
14050 HUMMINGBIRD DRIVE  
CHOCTAW, OK 73020-7018

GRIFFIN PROPERTIES OKC LLC  
MCDONALDS CORP  
PO BOX 182571  
COLUMBUS, OH 43218

LEX LLC  
PO BOX 10537  
MIDWEST CITY, OK 73140-1537

GRIFFIN PROPERTIES OKC, LLC  
3025 GRIFFIN CENTER  
OKLAHOMA CITY, OK 73150-1000

GRIFFIN PROPERTIES OKC, LLC  
C/O LJS #24034  
1024 SERPENTINE LN , STE 101  
PLEASANTON, C , 94566

2917 S DOUGLAS LLC  
C/O SAVAGE SAVAGE AND BROWN  
PO BOX 22845  
OKLAHOMA CITY, OK 73123

SHAW INVESTMENT PROPERTIES, LLC  
C/O SAVAGE SAVAGE AND BROWN  
PO BOX 22845  
OKLAHOMA CITY, OK 73123

WATERMARKED KH LLC  
PO BOX 300125  
MIDWEST CITY, OK 73140-0125

GRIFFIN JACK L & RUTH M  
3025 GRIFFIN CTR  
OKLAHOMA CITY, OK 73150-1000

MR. PATRICK MENEFFEE  
CITY OF MIDWEST CITY  
100 N. MIDWEST BLVD.  
MIDWEST CITY, OK 73110

MS. CINDY MORGAN  
CITY OF OKLAHOMA CITY  
420 W. MAIN, SUITE 500  
OKLAHOMA CITY, OK 73102

MR. WOODY HARJO  
AT&T  
6632 MELROSE LANE  
OKLAHOMA CITY, OK 73127

MS. ELLEN HARRIS  
ONG GAS TRANSMISSION  
401 N. HARVEY AVENUE  
OKLAHOMA CITY, OK 73102

MS. RAE LAWRENCE  
OG&E  
PO BOX 321  
OKLAHOMA CITY, OK 73101

MR. RANDY LINGLE  
PHILLIPS 66  
201 NW. 63<sup>RD</sup> STREET, SUITE 300  
OKLAHOMA CITY, OK 73116

MR. CODY PRES GROVE  
SCISSORTAIL ENERGY/COPANO  
ROUTE 3, BOX 137  
DUNCAN, OK 73533

MR. ALAN STEVENSON  
OCAN  
200 NE 21<sup>ST</sup> STREET  
OKLAHOMA CTIY, OK 73105

**APPENDIX D**  
**PUBLIC MEETING SIGN-IN SHEETS**





# PUBLIC MEETING SIGN-IN SHEET

# PUBLIC MEETING SIGN-IN SHEET

WWW.ODOT.ORG/PUBLICMEETINGS

(Please Print Clearly)

XX/XX/XX 18:00

SH-XX in XXXXXX County (City) / JP: XXXXX(XX)

NAME & EMAIL		ADDRESS & PHONE NUMBER	BUSINESS / ORGANIZATION	GENDER / RACE [OPTIONAL]			
<input type="checkbox"/> Mr.	Frank V. Roesler III froesler@odot.org	200 N.E. 21st Street Oklahoma City, OK 73105 (405) 521-2350	Oklahoma Department of Trans. SAPM Division Office of Public Involvement	<input checked="" type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Mr.	Clinton A. Tillette ctillett@odot.org	200 N.E. 21st Street Oklahoma City, OK 73105 (405) 522-1041	Oklahoma Department of Trans. SAPM Division Office of Public Involvement	<input checked="" type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input checked="" type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Mr.	Timothy Vermillion tverm@kmeodot.org	200 W F 21 Street OKC, OK 73105 405 522-2676	ODOT Environmental	<input checked="" type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	Melissa Evans mevans@trindesigngroup.com	3020 NW 14th St. Oklahoma City, OK 73134	Trind Design Group	<input type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Mrs.				<input checked="" type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	Marie Bootwe marieb@cox.net	11123 Burning Oaks OKC 73150		<input type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Mrs.				<input checked="" type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	Lindsey Johnson lindsey.johnson@hilton.com	1833 Center Drive Midwest City OK 73110	Kusum Hospitality	<input type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input checked="" type="checkbox"/> Ms.				<input checked="" type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	Peranda Perry	ODOT	NPR	<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	Jeff James	3000 United Boulevard Suite 119 OKC, OK 73112	Don Minn State Conv	<input checked="" type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other



**ODOT**

# PUBLIC MEETING SIGN-IN SHEET

WWW.ODOT.ORG/PUBLICMEETINGS

(Please Print Clearly)

XX/XX/XX 18:00

SH-XX in XXXXXX County (City) / JP: XXXXX(XX)

NAME & EMAIL		ADDRESS & PHONE NUMBER	BUSINESS / ORGANIZATION	GENDER / RACE [OPTIONAL]						
<input type="checkbox"/> Mr.	BRAD Taylor		ODOT	<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female						
<input type="checkbox"/> Mrs.										
<input type="checkbox"/> Mr.	Lisa Salim		ODOT MPR	<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female						
<input type="checkbox"/> Mrs.										
<input type="checkbox"/> Mr.	GEORGE BERNARD		ST ANTHONY HOSPITAL	<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female						
<input type="checkbox"/> Mrs.										
<input checked="" type="checkbox"/> Mr.	Glenn Goldschlager		SELF	<input checked="" type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female						
<input type="checkbox"/> Mrs.										
<input checked="" type="checkbox"/> Mr.	Jimmy DURANT		ST. ANTHONY HOSPITAL	<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female						
<input type="checkbox"/> Mrs.										
<input checked="" type="checkbox"/> Mr.	FRED HAWK fhawk@cox.net			<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female						
<input type="checkbox"/> Mrs.										
<input type="checkbox"/> Mr.	Kary Hunt		City of MWC	<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female						
<input checked="" type="checkbox"/> Mrs.										
<input type="checkbox"/> Mr.	Dawn Sullivan		ODOT	<input type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black	<input type="checkbox"/> Other
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female						
<input type="checkbox"/> Mrs.				<input checked="" type="checkbox"/> Female						



**ODOT**

# PUBLIC MEETING SIGN-IN SHEET

WWW.ODOT.ORG/PUBLICMEETINGS

(Please Print Clearly)

XX/XX/XX 18:00

SH-XX in XXXXXX County (City) / JP: XXXXX(XX)

NAME & EMAIL		ADDRESS & PHONE NUMBER	BUSINESS / ORGANIZATION	GENDER / RACE [OPTIONAL]		
<input checked="" type="checkbox"/> Mr.	Russell Bode	11123 Banning Oaks Rd Oklahoma City, OK 73155	Tinker TAG Agency	<input checked="" type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Mr.	Ken Newey	2839 S. Douglas Site 112 mwc ok. 73130		<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Mr.	Michael Sharkness	200 NE 21st ST Oklahoma City OK 71102	Oklahoma Department of Transportation	<input checked="" type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Mr.	John Sharp	4205 N. Lincoln Blvd OKC, OK 73105	AWG	<input checked="" type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Mr.	JARED SCHWENKESER		ODOT ENV	<input checked="" type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	Siv Sundaran		N	<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.				<input checked="" type="checkbox"/> Female	<input checked="" type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	Brad Beam	734-3451	Tinker AFB	<input checked="" type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	Dannal North	420 W main	The City of Oklahoma City	<input checked="" type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other





# PUBLIC MEETING SIGN-IN SHEET

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XX/XX/XX 18:00

SH-XX in XXXXXX County (City) / JP: XXXXX(XX)

NAME & EMAIL		ADDRESS & PHONE NUMBER	BUSINESS / ORGANIZATION	GENDER / RACE [OPTIONAL]		
<input type="checkbox"/> Mr.				<input type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.		405-741-5276		<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input checked="" type="checkbox"/> Mrs.	Susan Evans	16509 SE 44th St		<input checked="" type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Mr.		405-720-7721	Traffic Engineering	<input checked="" type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.	Hao Liu	6000 S. Western Ste 300	Consultants.	<input type="checkbox"/> Female	<input checked="" type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	RAKESH SHRIVASTAVA	15601 KESTRAL PARK CT		<input checked="" type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.	RS243@HOTMAIL.COM	EDMOND, OK-73013		<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	BILLY HARKES	1001 MIDWEST BLVD	CITY OF MUK	<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.	harkes@midwestcityok	MIDWEST CITY OK		<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.		73110		<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	Nicholas Ajimine	1970 Potter Ct.		<input checked="" type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.		MWC, OK 73130		<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.		(580) 284-1638		<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input checked="" type="checkbox"/> Other
<input type="checkbox"/> Mr.	Debbie Sapp	12815 Marshall		<input type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input checked="" type="checkbox"/> Ms.		Choctaw, OK 73020		<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.		(405) 740-9609		<input checked="" type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Mr.	Roger Ford	4908 KENNINGTON	State Representative	<input checked="" type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.		OKC 73150		<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	Debbay Williams	3924 Coventry Ln	Creative Design Resolutions	<input type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.		Norman, OK		<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.		73072		<input checked="" type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other



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XX/XX/XX 18:00

SH-XX in XXXXXX County (City) / JP: XXXXX(XX)

NAME & EMAIL		ADDRESS & PHONE NUMBER	BUSINESS / ORGANIZATION	GENDER / RACE [OPTIONAL]			
<input checked="" type="checkbox"/> Mr.	M. Khan mkhan@somco.com	815 W. Main OKC, OK 73106	SMC	<input checked="" type="checkbox"/> Male	<input type="checkbox"/> White <input checked="" type="checkbox"/> Asian <input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other	
<input checked="" type="checkbox"/> Mr.	Laurie Charlie Efinger	19250 Ranchwood Harrah OK 73045		<input checked="" type="checkbox"/> Male	<input checked="" type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other	
<input type="checkbox"/> Mr.	LAUREN WING			<input type="checkbox"/> Male	<input type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other	
<input checked="" type="checkbox"/> Mr.	Kevin Burns			<input checked="" type="checkbox"/> Male	<input type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other	
<input type="checkbox"/> Mr.	Robert Mallette amallette95@gmail	9489 Rhy Ann Rd. Mug OK 73138	Base Roots Homes	<input checked="" type="checkbox"/> Male	<input checked="" type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input checked="" type="checkbox"/> Other	
<input type="checkbox"/> Mr.	Katrina Fire	ODOT		<input checked="" type="checkbox"/> Male	<input checked="" type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other	
<input checked="" type="checkbox"/> Mr.	ROBERT FAYHO	ODOT		<input checked="" type="checkbox"/> Male	<input type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other	
<input type="checkbox"/> Mr.	Cindy Mikeman	12200 Jaycie Circle Midwest City, OK (405) 259-9094	Rose State College	<input type="checkbox"/> Male	<input checked="" type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other	
<input checked="" type="checkbox"/> Mrs.				<input checked="" type="checkbox"/> Female	<input type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other	



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(Please Print Clearly)

NAME & EMAIL		ADDRESS & PHONE NUMBER	BUSINESS / ORGANIZATION	GENDER / RACE [OPTIONAL]			
<input type="checkbox"/> Mr.	Di Abernathy	OKC, OK	TRIAD	<input type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Ms.	dabernathy@triaddesigngroup.com	405-919-0481		<input checked="" type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Mr.	David Buren	502-7602	ODOT	<input checked="" type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Ms.	dgsuren@odot.in			<input type="checkbox"/> Female	<input checked="" type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	Juan Kang	11708 S. Grandway Meridian, MS New Valley, OK 74485		<input type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Ms.		405-990-3037		<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Mr.	DAVID SAULSBERRY	2326 BERRY LN MWC, OK 73130		<input checked="" type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Ms.		405-821-2247		<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mrs.	Ellen Mallette	512 E Lockwood Dr MWC, OK 73110		<input type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Mr.	Joe Davis	405-517-3298	Triad Design	<input checked="" type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Ms.				<input type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.	Susan Davis		Triad Desig	<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.				<input type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mrs.	Craig Mussatto	3801 S. Post Rd OKC, OK 73150	Tony's Tree Plantation	<input checked="" type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Mr.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Ms.				<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Native American	<input type="checkbox"/> Other



**DOT**

# PUBLIC MEETING SIGN-IN SHEET

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XX/XX/XX 18:00

SH-XX in XXXXXX County (City) / JP: XXXXX(XX)

NAME & EMAIL		ADDRESS & PHONE NUMBER	BUSINESS / ORGANIZATION	GENDER / RACE [OPTIONAL]				
<input type="checkbox"/> Mr.	<input type="checkbox"/> Ms.	<input type="checkbox"/> Mrs.	<i>PAT BYRNE</i>	<i>1202 THREE OAKS CIR MWC</i>	<i>MWC COUNCIL</i>	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American <input type="checkbox"/> Other	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other
<input type="checkbox"/> Mr.	<input type="checkbox"/> Ms.	<input type="checkbox"/> Mrs.	<i>Guy Hensen</i>	<i>100 W. Midwest Bldg MWC OK 73110</i>	<i>City Manager City of MWC</i>	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	<input checked="" type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American <input type="checkbox"/> Other	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other
<input checked="" type="checkbox"/> Mr.	<input type="checkbox"/> Ms.	<input type="checkbox"/> Mrs.	<i>GARY W. BANZ</i>	<i>11061 Canterbury LN MWC, OK 73130</i>	<i>Former St. Rep.</i>	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	<input checked="" type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American <input type="checkbox"/> Other	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other
<input type="checkbox"/> Mr.	<input type="checkbox"/> Ms.	<input type="checkbox"/> Mrs.	<i>Larry Polard</i>	<i>9320 NE 13 st MWC, OK 73130</i>		<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	<input checked="" type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American <input type="checkbox"/> Other	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other
<input type="checkbox"/> Mr.	<input type="checkbox"/> Ms.	<input type="checkbox"/> Mrs.				<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American <input type="checkbox"/> Other	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other
<input type="checkbox"/> Mr.	<input type="checkbox"/> Ms.	<input type="checkbox"/> Mrs.				<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American <input type="checkbox"/> Other	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other
<input type="checkbox"/> Mr.	<input type="checkbox"/> Ms.	<input type="checkbox"/> Mrs.				<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American <input type="checkbox"/> Other	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other
<input type="checkbox"/> Mr.	<input type="checkbox"/> Ms.	<input type="checkbox"/> Mrs.				<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American <input type="checkbox"/> Other	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other
<input type="checkbox"/> Mr.	<input type="checkbox"/> Ms.	<input type="checkbox"/> Mrs.				<input type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> White <input type="checkbox"/> Asian <input type="checkbox"/> Native American <input type="checkbox"/> Other	<input type="checkbox"/> Hispanic <input type="checkbox"/> Black <input type="checkbox"/> Other



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SH-XX in Xxxxxxx County (City) / JP: XXXXX(XX)

(Please Print Clearly)

NAME & EMAIL		ADDRESS & PHONE NUMBER	BUSINESS / ORGANIZATION	GENDER / RACE [OPTIONAL]		
<input type="checkbox"/> Mr.	Kyle Nondorb		St. Anthony	<input checked="" type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.	Kyle.Nondorb@smhcnh.com			<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	Liz MacBean	110 Hudson Pl.	Gardener	<input type="checkbox"/> Male	<input checked="" type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input checked="" type="checkbox"/> Ms.		MWC		<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input checked="" type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.	Randy Lee	522-1447	ODOT-SAPH	<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.				<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.				<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.				<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other
<input type="checkbox"/> Mr.				<input type="checkbox"/> Male	<input type="checkbox"/> White	<input type="checkbox"/> Hispanic
<input type="checkbox"/> Ms.				<input type="checkbox"/> Female	<input type="checkbox"/> Asian	<input type="checkbox"/> Black
<input type="checkbox"/> Mrs.				<input type="checkbox"/> Female	<input type="checkbox"/> Native American	<input type="checkbox"/> Other



# MEDIA SIGN-IN SHEET

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NAME	PHONE or EMAIL	STATION
Jeff Harrison Midwest City Bracan	455-1110 Newsp @ midwestcitybracan.com	
<del>Randy Lee</del>		

**APPENDIX E**  
**PUBLIC MEETING PRESENTATION**







**I-40/Douglas Boulevard  
Bridge Replacement  
and  
Interchange  
Reconstruction**  
Oklahoma County


**Public Meeting**


January 17, 2017



**Stakeholders**

*I-40/Douglas Improvements*







## Meeting Purpose

*I-40/Douglas Improvements*



- Purpose and Need for Project
- 3 Interchange Alternatives Considered
- Public Input/Feedback



## Project Location & The Surrounding Area

*I-40/Douglas Improvements*



# Existing Douglas Boulevard and Bridge

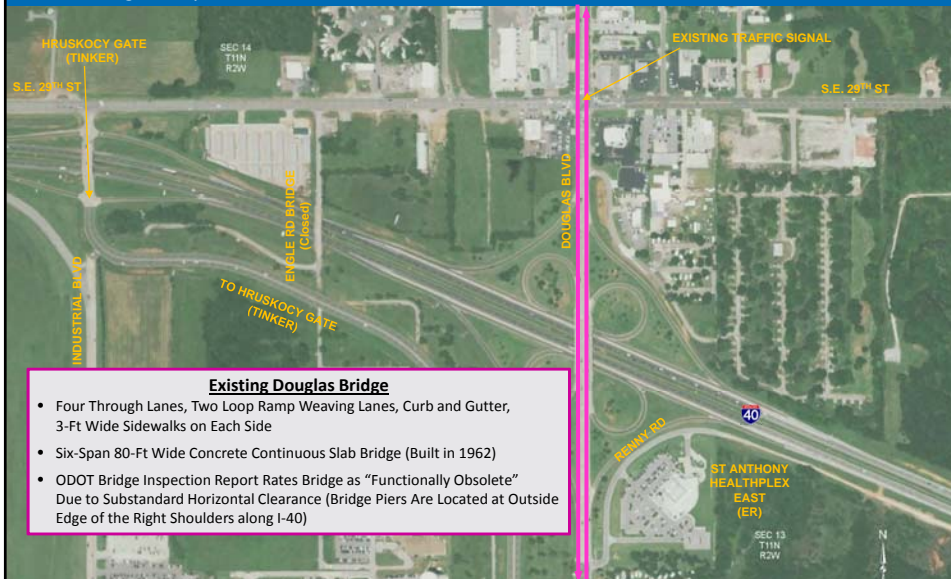
I-40/Douglas Improvements



- Existing Douglas Boulevard**
- Four 12-Ft Wide Lanes, with Additional Left-Turn and Right-Turn Lanes
  - Existing Annual Average Daily Traffic is 26,100 vehicles per day (vpd)
  - Traffic Signal @ S.E. 29<sup>th</sup> Street
  - Traffic Signal South of Interchange @ Lancer Gate

# Existing Douglas Boulevard and Bridge

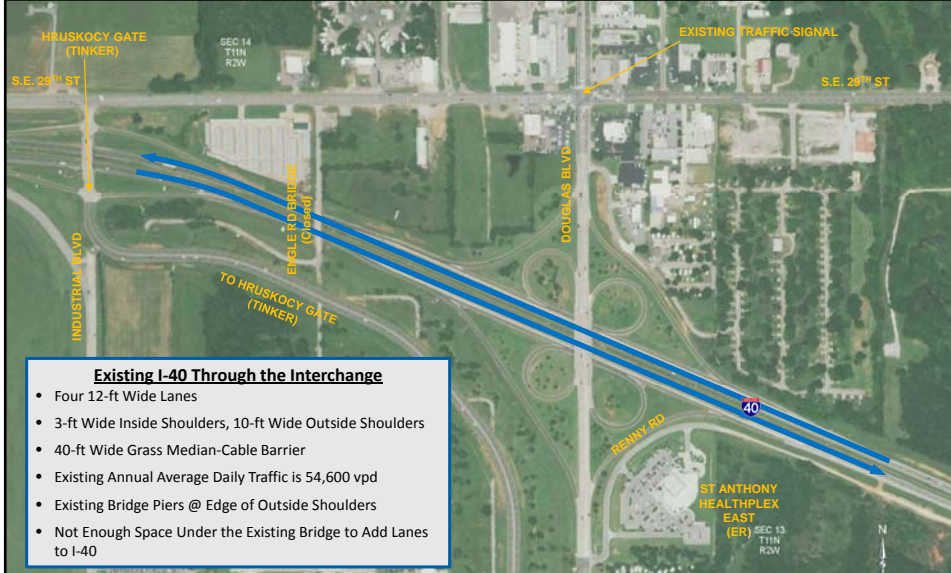
I-40/Douglas Improvements



- Existing Douglas Bridge**
- Four Through Lanes, Two Loop Ramp Weaving Lanes, Curb and Gutter, 3-Ft Wide Sidewalks on Each Side
  - Six-Span 80-Ft Wide Concrete Continuous Slab Bridge (Built in 1962)
  - ODOT Bridge Inspection Report Rates Bridge as "Functionally Obsolete" Due to Substandard Horizontal Clearance (Bridge Piers Are Located at Outside Edge of the Right Shoulders along I-40)

# Existing I-40

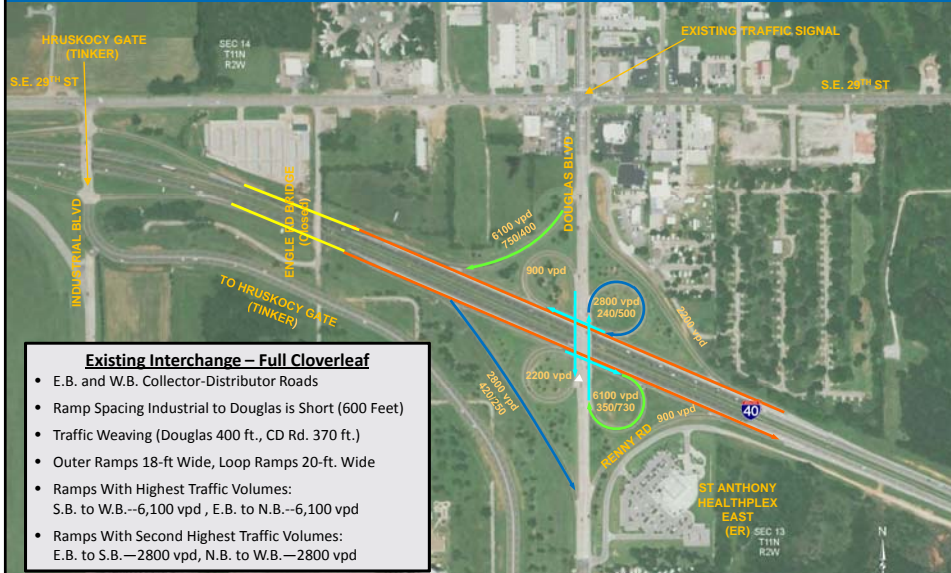
I-40/Douglas Improvements



- Existing I-40 Through the Interchange**
- Four 12-ft Wide Lanes
  - 3-ft Wide Inside Shoulders, 10-ft Wide Outside Shoulders
  - 40-ft Wide Grass Median-Cable Barrier
  - Existing Annual Average Daily Traffic is 54,600 vpd
  - Existing Bridge Piers @ Edge of Outside Shoulders
  - Not Enough Space Under the Existing Bridge to Add Lanes to I-40

# Existing I-40/Douglas Interchange

I-40/Douglas Improvements



- Existing Interchange – Full Cloverleaf**
- E.B. and W.B. Collector-Distributor Roads
  - Ramp Spacing Industrial to Douglas is Short (600 Feet)
  - Traffic Weaving (Douglas 400 ft., CD Rd. 370 ft.)
  - Outer Ramps 18-ft Wide, Loop Ramps 20-ft. Wide
  - Ramps With Highest Traffic Volumes:  
S.B. to W.B.--6,100 vpd , E.B. to N.B.--6,100 vpd
  - Ramps With Second Highest Traffic Volumes:  
E.B. to S.B.—2800 vpd, N.B. to W.B.—2800 vpd

# Collision History

I-40/Douglas Improvements



# Purpose and Need

I-40/Douglas Improvements



- Correct Functionally Obsolete Douglas Boulevard Bridge
- Improve Safety



# Proposed Project

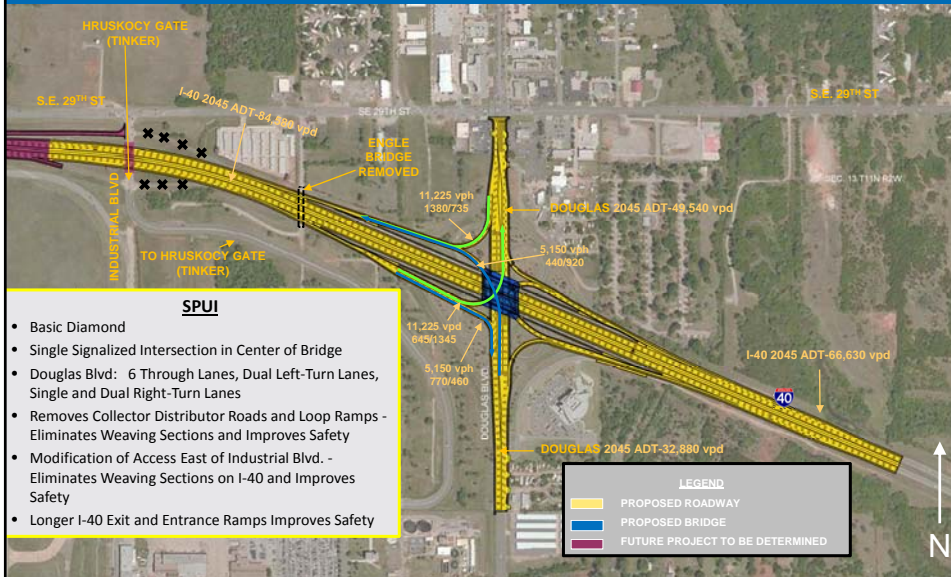
## I-40/Douglas Improvements



- Replace Douglas Boulevard Bridge
- Widen I-40 from 4 Lanes to 6 Lanes
- Improve I-40/Douglas Boulevard Interchange
- 3 Interchange Alternatives
  - Single Point Urban Interchange (SPUI)
  - Tight Urban Diamond Interchange (TUDI) with Future Flyover
  - Cloverleaf Reconstruction
- Remove Engle Road Bridge Over I-40
- Modify Access At I-40 and Industrial Blvd. Interchange to Improve Safety and Operations between Industrial Blvd. and Douglas Blvd.



# Alternative 1 Single Point Urban Interchange (SPUI)



## Alternative 1 Single Point Urban Interchange (SPUI)

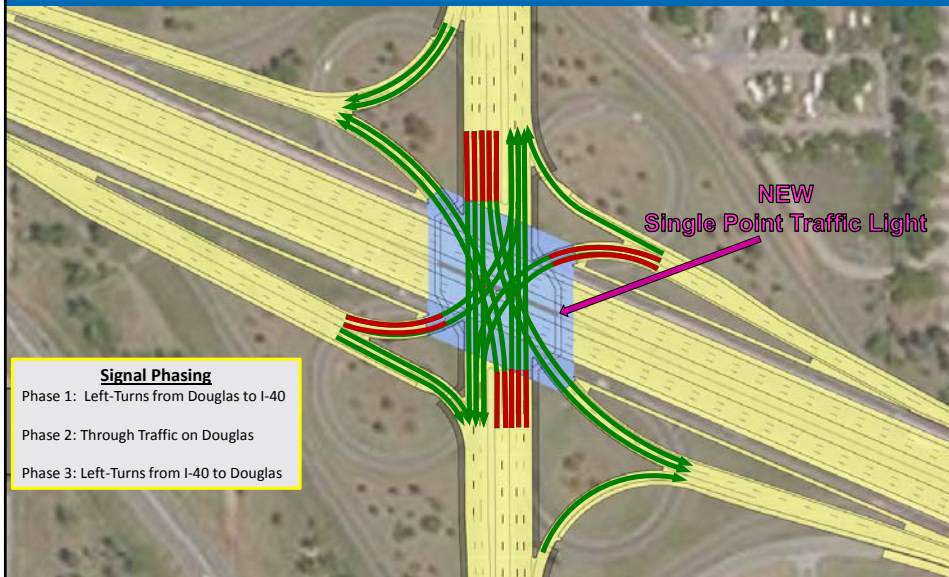


What is a SPUI?

- Grade Separated Two Level Diamond
- One Large Intersection Instead of Two Separate Diamond Ramp Intersections
- At-Grade Intersection is Located at the Center of the Interchange and is Signalized
- All Through Arterial Traffic and All Traffic Turning Left Onto or From the Interchange Ramps is Controlled with the Signal
- The Right Turn Movements May Be Free-Flow (Merge or Yield) or Signalized. Right-Turns Do Not Pass Through the Central Signal
- For Left Turns, Opposing Traffic is on the Right



## Alternative 1 Single Point Urban Interchange (SPUI)



## Alternative 1 Single Point Urban Interchange (SPUI)



I-40 and Morgan Road, Oklahoma City

## Alternative 1 Single Point Urban Interchange (SPUI)



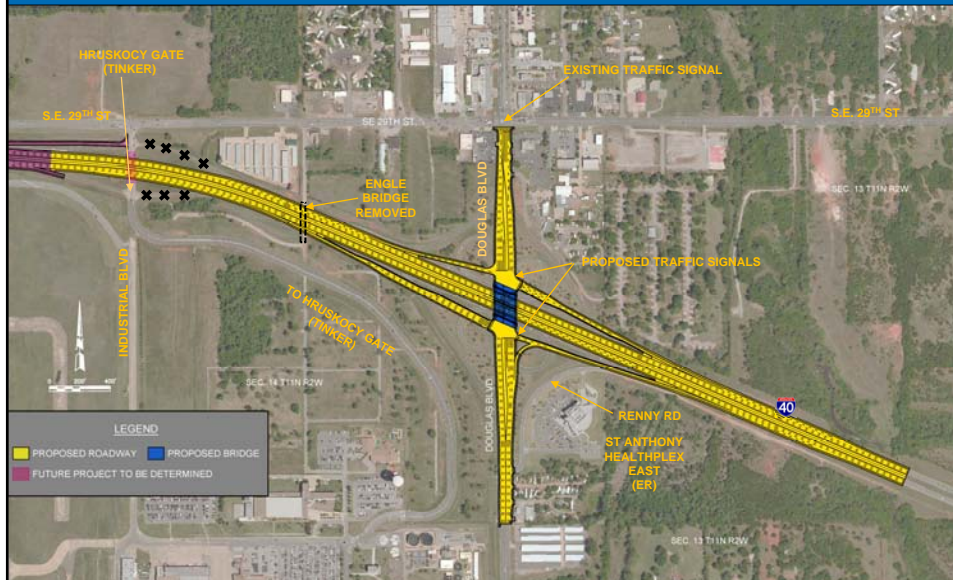
### When To Consider a SPUI?

- Traffic Volumes are High and There is Major Congestion
- Left Turn Volumes are High
- Right-of-Way is Restricted
- Truck Volumes are High

In Most Cases When We Consider A SPUI as an Interchange Alternative, We Also Evaluate a Tight Urban Diamond Interchange (TUDI) as an Alternative as Well.



## Alternative 2 Tight Urban Diamond Interchange (TUDI)



## Alternative 2 Tight Urban Diamond Interchange (TUDI) With Future Ramp Flyover



What is a TUDI?

- Grade Separated Two Level Diamond
- Two Separate Diamond Ramp Intersections
- Ramp Spacing 250'-400' (Operates Better Than Wider Diamonds)
- Two Continuous Left-Turn Lanes for Each Direction Between Signals
- Typically Costs Less Than a SPUI Due to Smaller Bridge
- Good Option When Right-of-Way is Restricted
- Accommodates High Traffic Volumes

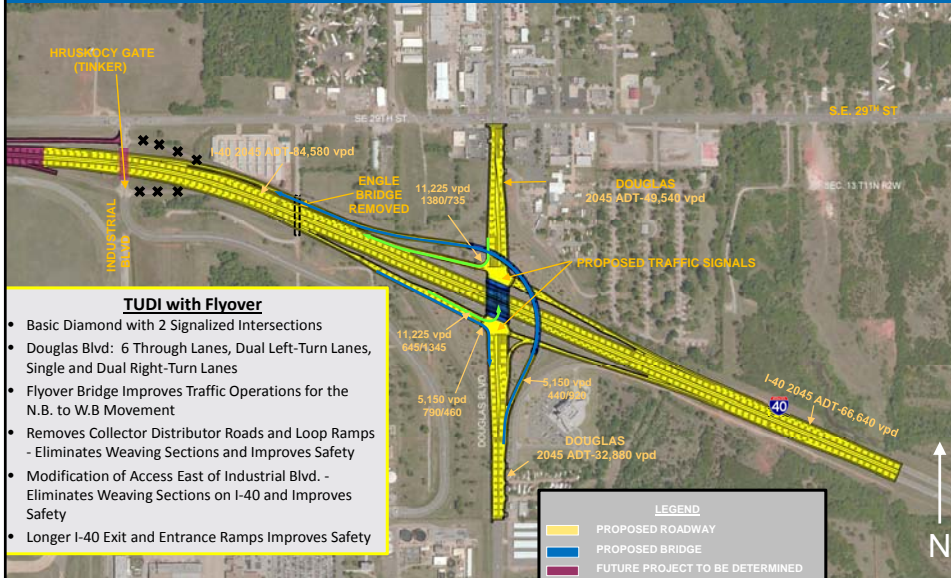
Initial Construction is the TUDI.

Future Ramp Flyover Would Be Constructed In the Future  
When Warranted

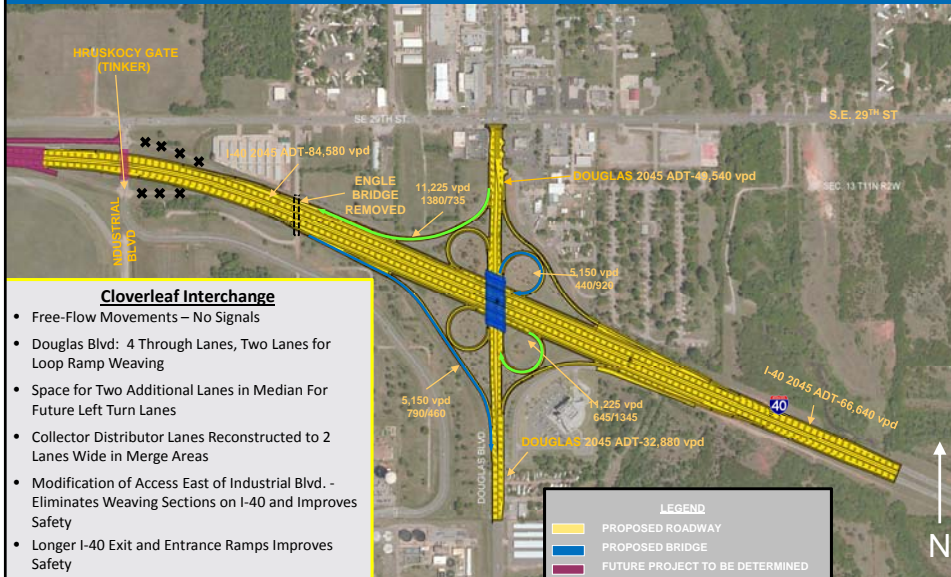




# Alternative 2 Tight Urban Diamond Interchange (TUDI) With Future Ramp Flyover



# Alternative 3 Reconstruction of Cloverleaf Interchange



# Constraints Mapping

I-40/Douglas Improvements



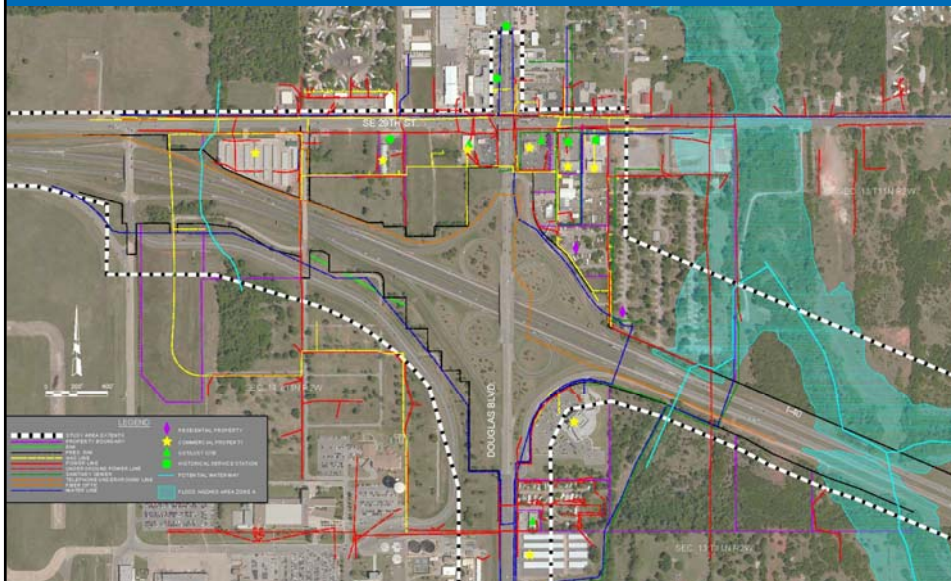
## Reconnaissance Performed to Identify Constraints

- Wetlands and Waters
- Threatened & Endangered Species Critical Habitat
- Archeological Sites and Historic Properties
- Aboveground or Underground Storage Tanks
- Oil/Gas Wells
- Residences
- Commercial Facilities
- Tribal Properties
- Utilities



# Composite Constraints Map

I-40/Douglas Improvements



# Comparison of Alternatives



## I-40/Douglas Improvements

Comparison Parameters	Alternative 1 Single Point Urban Interchange (SPUI)	Alternative 2 Tight Urban Diamond Interchange (TUDI) with Future Ramp Flyover	Alternative 3 Cloverleaf Interchange Reconstruction
<b>Traffic Operations<sup>1</sup></b>	<ul style="list-style-type: none"> <li>I-40 Facilities: Good</li> <li>1 Interchange Signal on Douglas</li> <li>SPUI Operates Better than TUDI for All Movements Except NB to WB Movement</li> </ul>	<ul style="list-style-type: none"> <li>I-40 Facilities: Good</li> <li>2 Interchange Signals on Douglas</li> <li>NB to WB Movement Operates Better than SPUI (All Other Movements Operate Better With the SPUI)</li> </ul>	<ul style="list-style-type: none"> <li>I-40 Facilities: Good</li> <li>No Interchange Signal on Douglas</li> <li>Traffic on Douglas Remains Free-Flow</li> <li>Weaving on Douglas and CD Roads Remains</li> </ul>
<b>Interchange Geometry</b>	<ul style="list-style-type: none"> <li>Ramp Design Speed 50 mph</li> <li>All Weaving Eliminated</li> <li>Flat Dual Left-Turn Curves Allow for Ease of Movement Between Ramps and Douglas</li> </ul>	<ul style="list-style-type: none"> <li>Ramp Design Speed 35-50 mph</li> <li>All Weaving Eliminated</li> <li>Dual Left-Turns Between Ramps and Douglas Will Be at Slow Speed Due to Ramp Intersection Angles</li> </ul>	<ul style="list-style-type: none"> <li>Ramp Design Speed 20 mph</li> <li>Loops and Weaving on Douglas and CD Roads Remain</li> <li>CD Roads Reconstructed 2 Lanes Wide in Ramp Merge Areas</li> </ul>
<b>Environmental Impacts<sup>2</sup></b>	Minimal Wetland and Stream Impacts	Minimal Wetland and Stream Impacts	Minimal Wetland and Stream Impacts
<b>Utility Relocations</b>	7 Utilities Impacted	7 Utilities Impacted	7 Utilities Impacted
<b>Right-of-Way Impacts</b>	Approx. 0.74 Acres S.W. Quadrant—Oklahoma County	Approx. 0.74 Acres S.W. Quadrant—Oklahoma County	Approx. 0.74 Acres S.W. Quadrant—Oklahoma County
<b>Total Project Cost</b>	\$47 million	\$56 million	\$45 million

Colors are to aid visual comparison only; i.e., green, yellow, and red indicate which alternate is better, neutral, and worse, respectively, for each parameter of comparison. The color scheme has relevance only to the comparison of Alternatives 1, 2, and 3, and is not meant to imply any parameter is "ideal", as compared to other projects or situations.

**Notes:**

1: By 2045, the Douglas & 29<sup>th</sup> Street intersection will need additional lanes to ensure proper interchange operations. In addition, eastbound to northbound pm traffic will need an additional route alternative to ensure proper interchange operations.

2: No other environmental constraints identified.



# What Happens Next? / Process



## I-40/Douglas Improvements

- Consider Comments from Public Meeting
- Select a Preferred Interchange Alternative & Complete Preliminary Design Report
- Complete Detailed Environmental Studies and Design Plans
- 8-Year Construction Work Plan:
  - Right-of-Way (Year 2017)
  - Utilities (Year 2017)
  - Construction (Year 2020)



## Submit Your Comments

*I-40/Douglas Improvements*



- Leave your written comments with us tonight.
- Download and submit a comment form at:  
[www.odot.org/publicmeetings](http://www.odot.org/publicmeetings)
- Submit your written comments by mail to:  
Oklahoma Department of Transportation  
Environmental Programs Division  
200 N. E. 21st Street  
Oklahoma City, OK 73105
- Fax your written comments to:  
(405) 522-5193
- Email your comments to:  
[Odot-environment@odot.org](mailto:Odot-environment@odot.org)
- **Please submit your comments by January 31, 2017.**



## I-40/Douglas Boulevard Improvements



*Thank  
you!*



**APPENDIX F**  
**PUBLIC MEETING HANDOUT AND DISPLAYS**



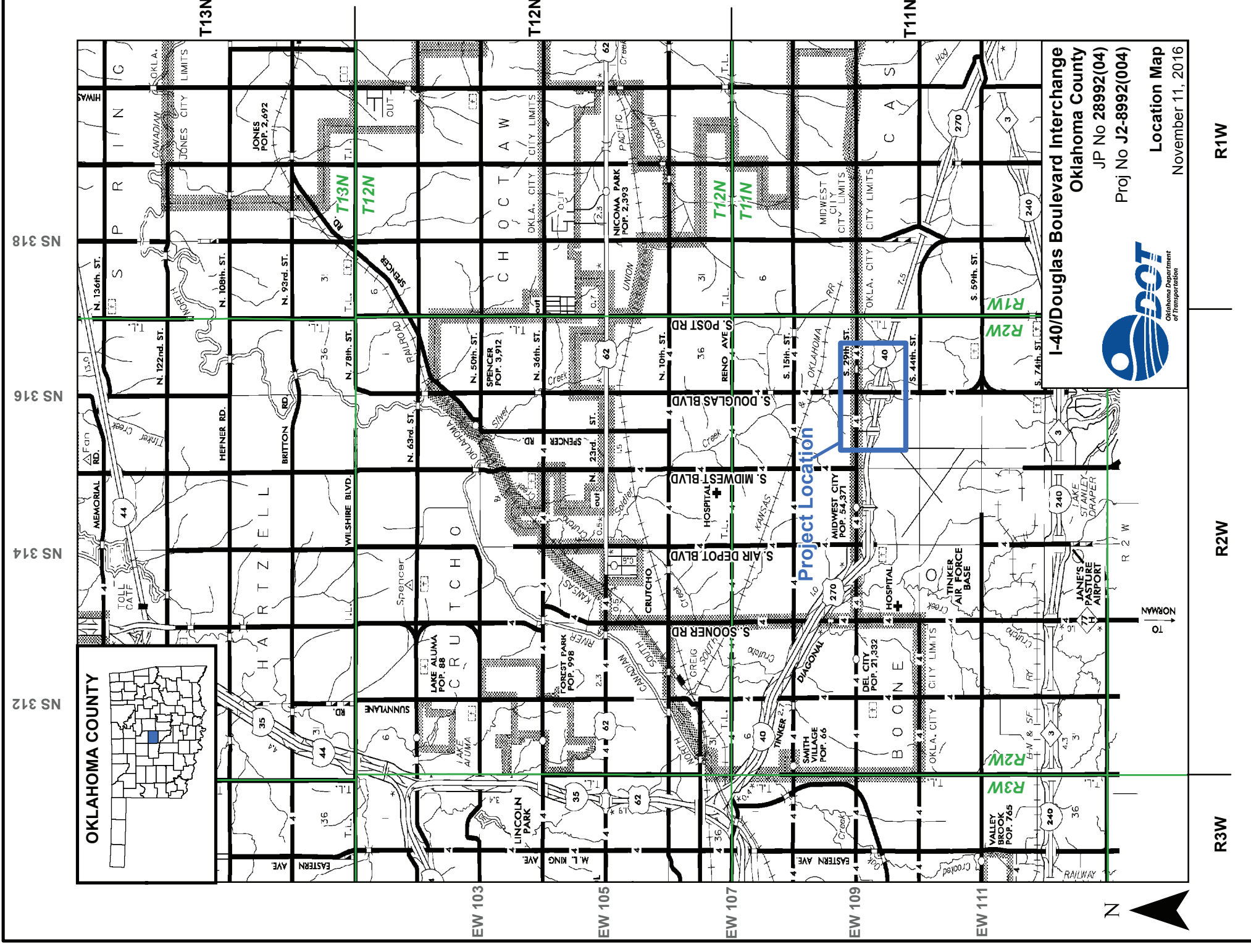


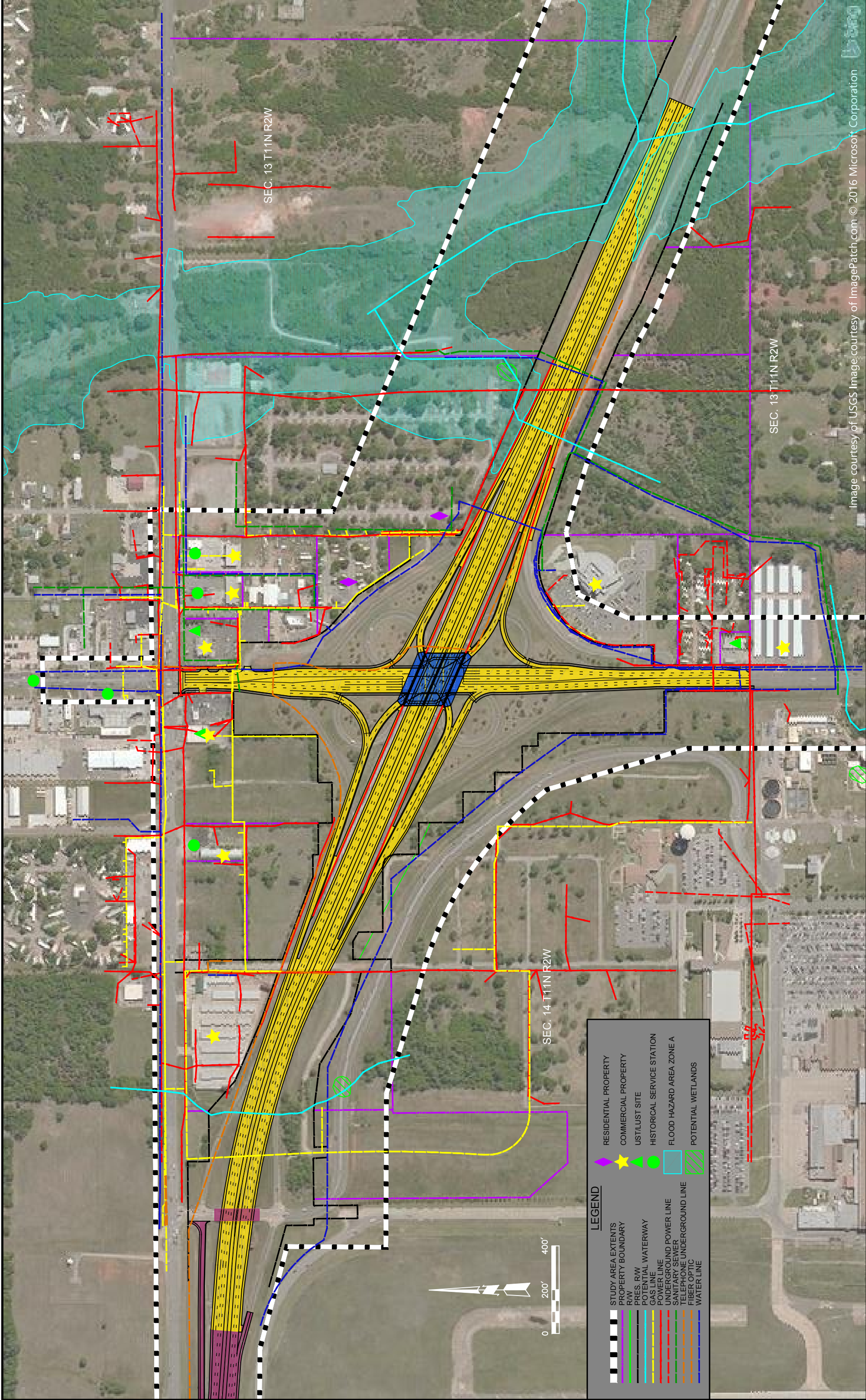
## Project Description

Three (3) interchange alternatives have been identified for consideration:

- Alternative 1 - Single Point Urban Interchange (SPUI). A Single Point Urban Interchange is a basic diamond interchange with a single signalized central intersection in the center of the bridge. The Douglas Boulevard traffic along with the I-40 ramp traffic will converge to a single point utilizing the single set of traffic signals. The SPUI interchange accommodates large traffic volumes efficiently with minimal right-of-way impacts. I-40 will be improved to a six-lane facility. Through the interchange, Douglas Boulevard will consist of six through lanes, dual left-turn lanes, and right-turn lanes where needed. Entrance and exit ramp lanes will also be constructed along I-40. Collector-distributor roads will be removed and will not be re-constructed.
- Alternative 2 - Tight Urban Diamond Interchange (TUDI) with Ramp Flyover. A Tight Urban Diamond Interchange is an interchange that compresses a standard diamond interchange. This design includes all four interchange ramps, as well as the option of adding a future flyover ramp for northbound Douglas Boulevard traffic destined for westbound I-40. I-40 will be improved to a six-lane facility. Through the interchange, Douglas Boulevard will consist of six through lanes, dual left-turn lanes, and right-turn lanes where needed. Upon construction of the northbound to westbound ramp flyover, the northbound to westbound left-turn lanes on Douglas will be removed. Entrance and exit ramp lanes will also be constructed along I-40. Collector-distributor roads will be removed and will not be re-constructed.
- Alternative 3 - Cloverleaf Interchange. The existing cloverleaf will be completely reconstructed to accommodate widening I-40 to a six-lane facility. All ramps and both collector-distributor roads will be reconstructed. Through the interchange, Douglas Boulevard will consist of four through lanes, two lanes for loop ramp weaving, two additional lanes located in the median which can be used in the future for left turning traffic, and entrance and exit lanes where needed. Entrance and exit ramp lanes will also be constructed along I-40.

Regardless of the interchange alternative selected, the Engle Road bridge over I-40, which is no longer in service, will be removed as a part of this project.





SEC. 13 T11N R2W

SEC. 13 T11N R2W

SEC. 14 T11N R2W

**LEGEND**

	STUDY AREA EXTENTS		RESIDENTIAL PROPERTY
	PROPERTY BOUNDARY		COMMERCIAL PROPERTY
	PROV. ROW		UST/ILUST SITE
	POTENTIAL WATERWAY		HISTORICAL SERVICE STATION
	GAS LINE		FLOOD HAZARD AREA ZONE A
	POWER LINE		POTENTIAL WETLANDS
	UNDERGROUND POWER LINE		
	SANITARY SEWER		
	TELEPHONE UNDERGROUND LINE		
	FIBER OPTIC		
	WATER LINE		



I-40 & DOUGLAS BOULEVARD  
OKLAHOMA COUNTY

DATE: 12-14-16  
SCALE: AS SHOWN  
DRWN BY: ME

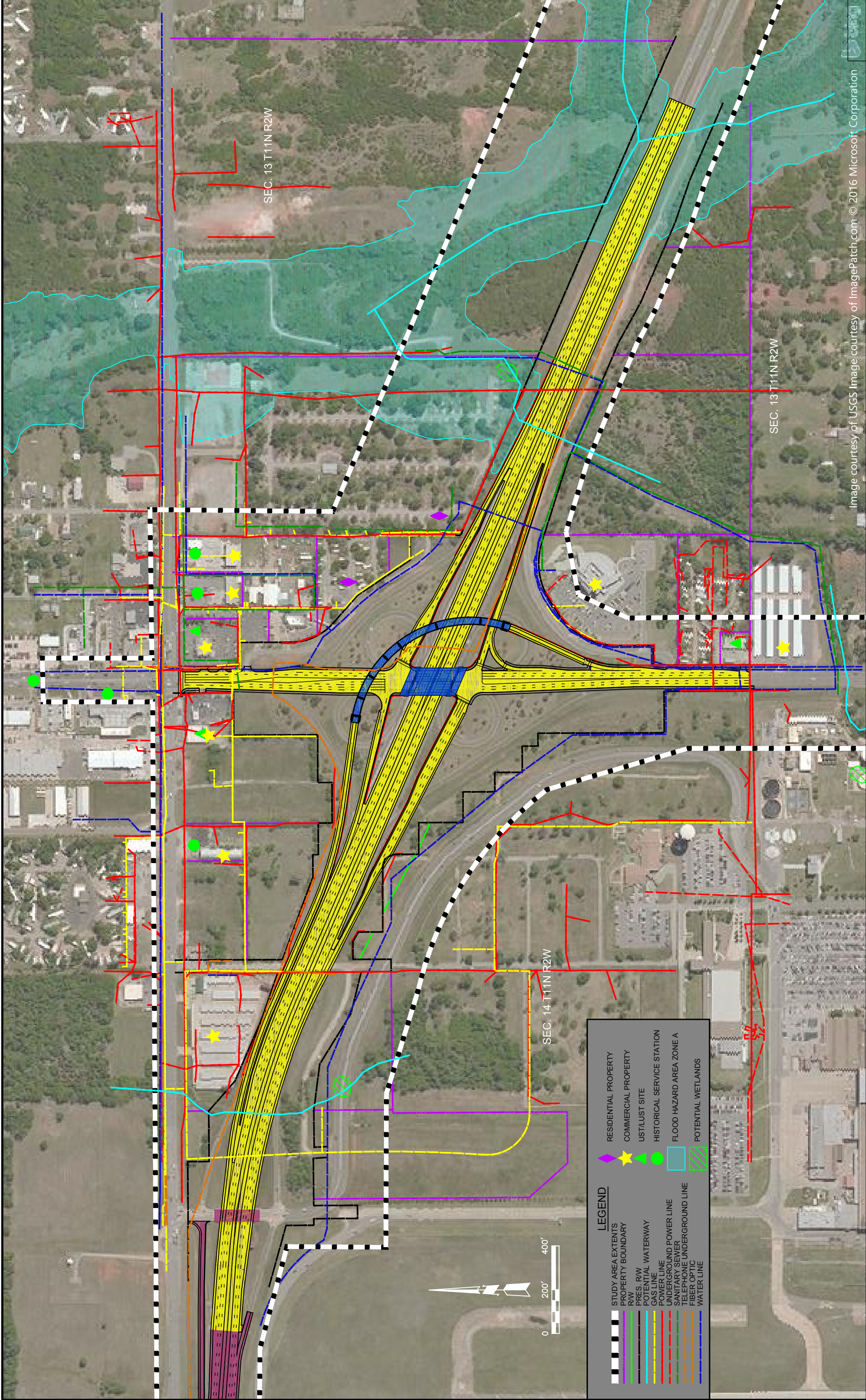


J/P 28992(04)

ALTERNATIVE 1  
SINGLE POINT URBAN INTERCHANGE (SPUI)

Image courtesy of USGS Image courtesy of ImagePatch.com © 2016 Microsoft Corporation





**LEGEND**

STUDY AREA EXTENTS	RESIDENTIAL PROPERTY
PROPERTY BOUNDARY	COMMERCIAL PROPERTY
PRES. R/W	UST/LULUST SITE
POTENTIAL WATERWAY	HISTORICAL SERVICE STATION
GAS LINE	FLOOD HAZARD AREA ZONE A
UNDERGROUND POWER LINE	POTENTIAL WETLANDS
SANITARY SEWER	
TELEPHONE UNDERGROUND LINE	
FIBER OPTIC	
WATER LINE	



**I-40 & DOUGLAS BOULEVARD  
OKLAHOMA COUNTY**

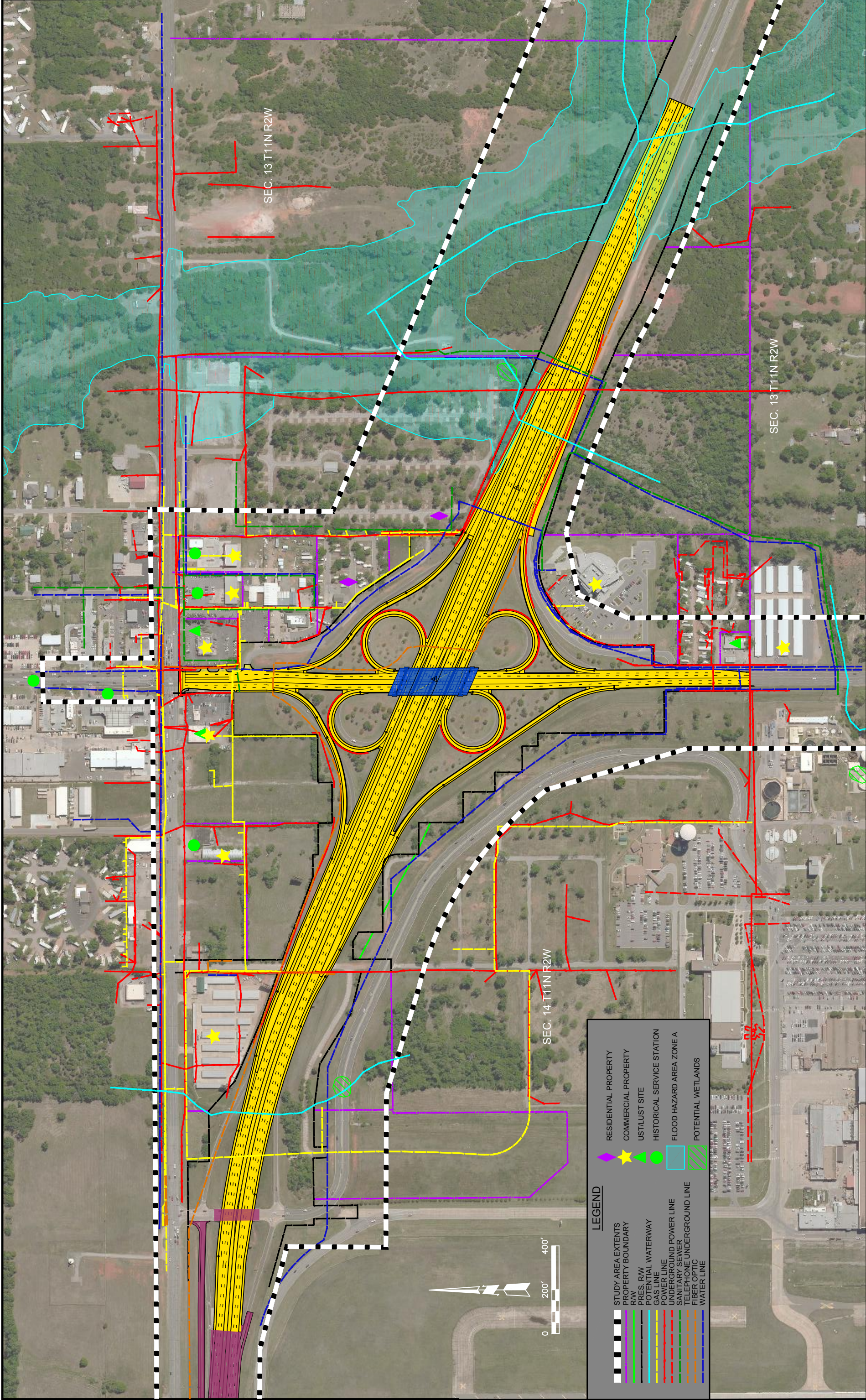
**TRIAD DESIGN GROUP**  
Architecture • Engineering

DATE: 12-14-16  
SCALE: AS SHOWN  
DRWN BY: ME

**ALTERNATIVE 2  
TIGHT URBAN DIAMOND INTERCHANGE (TUDI) WITH FLYOVER**

J/P 28992(04)

Image courtesy of USGS Image courtesy of ImagePatch.com © 2016 Microsoft Corporation



<p><b>ALTERNATIVE 3</b> <b>RECONSTRUCTED CLOVERLEAF</b></p>	<p><b>TRIAD DESIGN GROUP</b> Architecture • Engineering</p>	<p><b>I-40 &amp; DOUGLAS BOULEVARD</b> <b>OKLAHOMA COUNTY</b></p>
<p>J/P 28992(04)</p>	<p>DATE: 12-14-16 SCALE: AS SHOWN DRWN BY: ME</p>	

# Comparison of Alternatives

## I-40/Douglas Improvements



Comparison Parameters	Alternative 1 Single Point Urban Interchange (SPUI)	Alternative 2 Tight Urban Diamond Interchange (TUDI) with Future Ramp Flyover	Alternative 3 Cloverleaf Interchange Reconstruction
<b>Traffic Operations<sup>1</sup></b>	<ul style="list-style-type: none"> <li>I-40 Facilities: Good</li> <li>1 Interchange Signal on Douglas</li> <li>SPUI Operates Better than TUDI for All Movements Except NB to WB Movement</li> </ul>	<ul style="list-style-type: none"> <li>I-40 Facilities: Good</li> <li>2 Interchange Signals on Douglas</li> <li>NB to WB Movement Operates Better than SPUI (All Other Movements Operate Better With the SPUI)</li> </ul>	<ul style="list-style-type: none"> <li>I-40 Facilities: Good</li> <li>No Interchange Signal on Douglas</li> <li>Traffic on Douglas Remains Free-Flow</li> <li>Weaving on Douglas and CD Roads Remains</li> </ul>
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<b>Total Project Cost</b>	\$47 million	\$56 million	\$45 million

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**Notes:**

- 1: By 2045, the Douglas & 29<sup>th</sup> Street intersection will need additional lanes to ensure proper interchange operations. In addition, eastbound to northbound pm traffic will need an additional route alternative to ensure proper interchange operations.
- 2: No other environmental constraints identified.



**APPENDIX G**  
**AGENCY RESPONSE LETTERS**



**UNITED STATES DEPARTMENT OF THE INTERIOR**  
**BUREAU OF INDIAN AFFAIRS**  
**SOUTHERN PLAINS REGION**  
**BRANCH OF NATURAL RESOURCES**  
**P.O. BOX 368**  
**ANADARKO, OKLAHOMA 73005**

IN REPLY REFER TO:  
NATURAL RESOURCES (405) 247-6873

**FEB 28 2017**

Oklahoma Department of Transportation  
Siv Sundaram, P.E.  
Environmental Programs Division  
200 NE 21<sup>st</sup> Street  
Oklahoma City, OK 73105-3204

Dear Mr. Sundaram:

Thank you for the opportunity to comment on the proposed improvements to the I-40/Douglas Boulevard Bridge and interchange in Oklahoma County, Oklahoma (Project Number J2-8992[004]). A review of maps of the Bureau of Indian Affairs (BIA), Southern Plains Region, indicates that there are no tribal or Individual Indian trust lands in the vicinity of the proposed improvement area. The Southern Plains Region has no concerns that the proposed project will impact Indian trust lands within the Southern Plains Region's jurisdiction.

If any additional information is required, please contact David Anderson, Regional Environmental Scientist at 405-247-1532.

Sincerely,

**ACTING**

Regional Director



**From:** Tim Vermillion  
**To:** [Diane Abernathy](#)  
**Subject:** FW: Solicitation for I-40 and Douglas Blvd Bridge and Interchange Improvement in Oklahoma County, Oklahoma Job Piece Number 28992(04) Project Number J2-8992(004)  
**Date:** Wednesday, January 18, 2017 7:16:23 AM

---

**From:** david\_hurd@nps.gov [mailto:david\_hurd@nps.gov] **On Behalf Of** IMRextrev, NPS  
**Sent:** Tuesday, January 17, 2017 5:43 PM  
**To:** Tim Vermillion  
**Subject:** Re: Solicitation for I-40 and Douglas Blvd Bridge and Interchange Improvement in Oklahoma County, Oklahoma Job Piece Number 28992(04) Project Number J2-8992(004)

Dear Mr. Vermillion,

The National Park Service (NPS) would like to thank you for the opportunity to be involved in your project. The NPS has reviewed this project and has found no comments at this time.

Regards,

National Park Service  
Intermountain Region External Review Team  
Serving MT, UT, WY, CO, AZ, NM, OK, TX  
[imrextrev@nps.gov](mailto:imrextrev@nps.gov)

On Thu, Dec 22, 2016 at 3:09 PM, Tim Vermillion <[TVERMILLION@odot.org](mailto:TVERMILLION@odot.org)> wrote:  
Ms. Sue E. Masica,

Please see attached pdf letter.

Tim Vermillion  
Environmental Project Manager  
Division 4  
Oklahoma Department of Transportation  
405-521-2676

United States Department of Agriculture

NRCS

Natural Resources Conservation Service  
Oklahoma City Service Center  
4850 N Lincoln Blvd, Ste B  
Oklahoma City, OK 73105  
Telephone (405) 521-1332 ext. 3

Subject: Environmental Impact Study

Date: 1/03/2017

To: Oklahoma Department of Transportation  
200 N.E. 21<sup>st</sup> Street  
Oklahoma City, OK 73105-3204  
Room No. 3-D2a

Upon reviewing your study, I foresee no problems with any of the environmental factors mentioned within your proposal. If any new construction or other disturbances outside of your proposal occur and needs to be address please let us know. No other considerations or permits need to be addressed from our agency.

Thank you for your environmental concern.



Christopher Best  
District Conservationist  
USDA-NRCS  
Oklahoma Field Office

1-18-17  
1-40 & Douglas  
Blvd. Bridge &  
Interchange Agreement  
Josh - NRCS OKC



Rob't



## OKLAHOMA AERONAUTICS COMMISSION

January 10, 2017

Siv Sundaram, P.E.  
Environmental Programs Division Engineer  
Oklahoma Department of Transportation  
200 Northeast 21<sup>st</sup> Street  
Oklahoma City, OK 73105-3204

Re: Solicitation for I-40 and Douglas Boulevard Bridge and Interchange Improvement in Oklahoma County, Oklahoma, State Job Piece: JP 28992(04), Project No.: J2-8992(004)  
**\*Potential Hazard\***

Dear Ms. Sundaram,

This is in reference to your December 22, 2016 letter concerning the changes to the I-40 and Douglas Boulevard Bridge and Interchange in Oklahoma County. The Commission would like to draw your attention to the CFR Title 14 Part 77.13, which states that any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA:

- any construction or alteration exceeding 200 ft above ground level
- any construction or alteration:
  - within 20,000 ft of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 ft
  - within 10,000 ft of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 ft
  - within 5,000 ft of a public use heliport which exceeds a 25:1 surface
- any highway, railroad or other traverse way whose prescribed adjusted height would exceed the above noted standards
- when requested by the FAA
- any construction or alteration located on a public use airport or heliport regardless of height or location





Based on the limited information provided in your letter and our cursory review, it appears that the proposed changes **may pose a hazard to the safe and efficient use of navigable airspace**. Due to the proximity of Tinker Air Force Base to Douglas Boulevard, changes to this road may create an obstruction to aircraft approaching the runway. Because of this, the Commission recommends that you use FAA's notice criteria tool (at the web address given below) to determine if a 7460-1 form needs to be filed with the FAA.

<https://oeaaa.faa.gov/oeaaa/external/gisTools/gisAction.jsp?action=showNoNoticeRequiredToolForm>

If a 7460-1 form is required for any permanent structure with this project, including the roadway, please inform the Commission as soon as possible. You will likely be required to file a permit application, under the rules of the Aircraft Pilot and Passenger Protection Act, with the Commission. Should you have any questions in the matter, please do not hesitate to contact me at [ctaber@oac.ok.gov](mailto:ctaber@oac.ok.gov) or (405) 604-6910.

Sincerely,



Catherine Taber  
Aviation Program Manager  
Oklahoma Aeronautics Commission

MARY FALLIN  
GOVERNOR

TODD LAMB  
LIEUTENANT GOVERNOR



Our Land • Our Heritage • Our Future

TREY LAM  
EXECUTIVE DIRECTOR

LISA KNAUF OWEN  
ASSISTANT DIRECTOR

February 6, 2017

Siv Sundaram  
Environmental Programs Division Engineer  
Oklahoma Dept. of Transportation  
200 NE 21<sup>st</sup> St.  
Oklahoma City, OK 73105

**RE: Solicitation for I-40 and Douglas Boulevard Bridge and Interchange Improvement in Oklahoma County, Oklahoma, State Job Piece: JP 28992(04), Project No.: J2-8992(004)**

Dear Ms. Sundaram:

Thank you for the opportunity to review and comment on the three alternatives for this ODOT project as described in your letter of December 22, 2016. The Oklahoma Conservation Commission does not have specific comments on any of the three alternatives. Each alternative appears to cross Soldier Creek near the eastern project boundary. In addition to general concerns about the impact of construction activities on Soldier Creek, although it appears to be low, there is the potential for impact on wetland resources and riparian areas but the potential impact appears to be similar for all alternatives. No other specific wetland or waterbody resource concerns were observed.

The Oklahoma Conservation Commission (OCC) has general concerns that should be addressed throughout this project. One concern is that riparian areas will be disturbed and siltation problems could arise during this process. OCC is also concerned about mechanical disturbance in the stream itself, whether it is simply for construction or that it involve the redirecting or "re-designing" of the channel. Additionally, OCC is concerned that the cross-sectional area may be reduced and not allow for needed drainage. OCC recommends plans that reduce disturbance, and thus siltation, in the creeks and erosion control plans sufficient to minimize sedimentation impacts from construction activities outside the stream channel. OCC also recommends minimizing changes in the stream configuration (slope, width, depth and path) or if the streams must be manipulated, natural designs be used to reshape and stabilize the stream. This natural stabilization method is considerably more economical and beneficial to the environment than historical stabilization techniques. Restoring riparian corridors using natural design ultimately produces stream systems that are more stable and efficient in transporting bed load and flood flows while providing habitat for riparian/wetland wildlife. If this method cannot be used, OCC recommends that permanently protected riparian mitigation be implemented possibly through a conservation easement. Tying to this recommendation, OCC suggests that if bridge crossings are modified, sufficient cross-sectional drainage area through the bridge crossings be incorporated in the plan to allow for maximum periodic flood drainage. Many older bridge designs do not account for all expected flood drainage and the bridge functions as a dam, constricting flow, creating stress on banks and structures, and effectively reducing the natural positive effects of the flood plain. OCC requests that following completion of this project, the streams remain free flowing (stream slope unaffected by construction) with naturally vegetated stable banks and with stream substrate free of excess sedimentation from project activities.

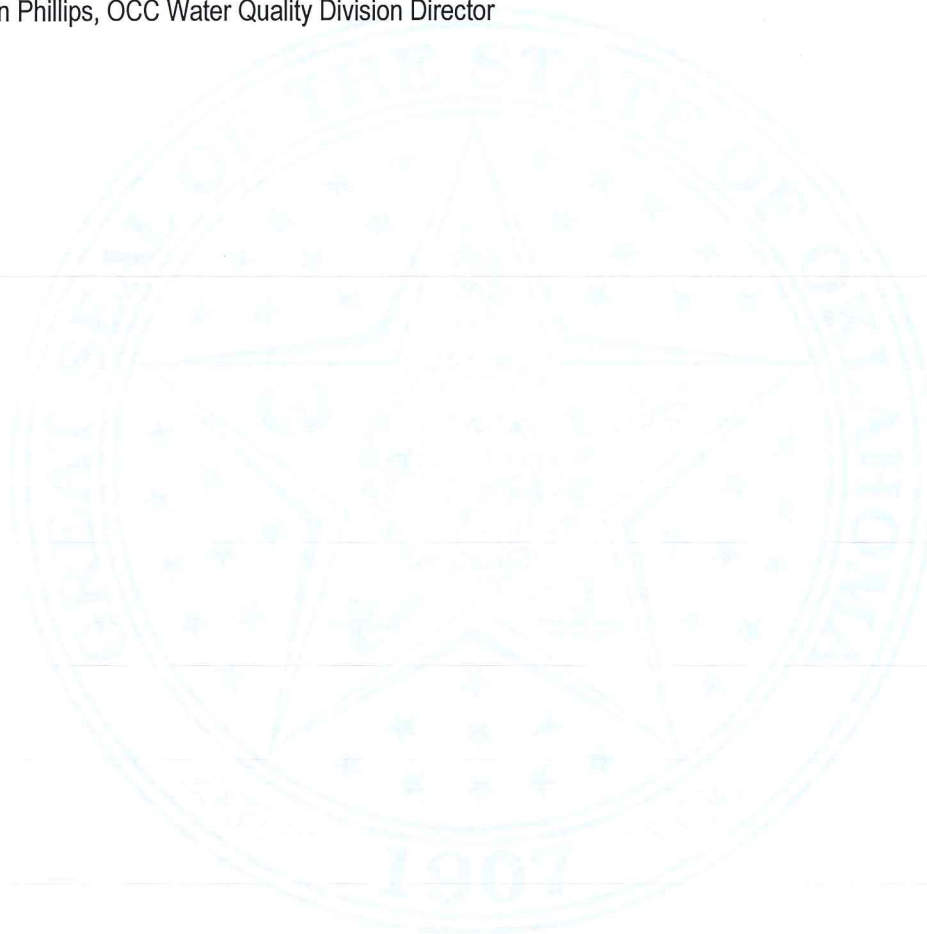
If you have any further questions or concerns, please contact me at 405/522-6908 or at [brooks.tramell@conservation.ok.gov](mailto:brooks.tramell@conservation.ok.gov).

Sincerely,



Brooks Tramell  
Director of Monitoring, Assessment, and Wetlands Programs  
Water Quality Division

cc: Wetlands file  
Shanon Phillips, OCC Water Quality Division Director



**From:** Brad Ice  
**To:** [Diane Abernathy; tvermillion@odot.org](mailto:tvermillion@odot.org)  
**Subject:** JP 28992(04), Project No.:J2-8992(04)  
**Date:** Monday, January 09, 2017 12:47:22 PM

---

Diane and Tim,

RE: Solicitation for I-40 and Douglas Boulevard Bridge and Interchange Improvement in Oklahoma City, Oklahoma, State Job Piece: JP 28992(04), Project No.: J2-8992(04).

I have found no records of any oil and gas wells located in 14-11N-02W or 13-11N-02W Oklahoma Co. for the project listed above.

If you have any questions please contact me.

Thanks

Brad Ice  
District Manager  
Distr. 2  
OCC  
Off. 405-375-5570  
[b.ice@occemail.com](mailto:b.ice@occemail.com)

January 3, 2017

SENT VIA EMAIL TO: [Odot-environment@odot.org](mailto:Odot-environment@odot.org)

Environmental Programs Division Engineer  
Oklahoma Department of Transportation  
200 N.E. 21<sup>st</sup> Street  
Oklahoma City, Oklahoma 73105

Re: 1-40 and Douglas Boulevard Bridge and Interchange, State Job Piece JP 28992(04)

To Whom It May Concern,

Due to anticipated continued growth and expansion of the mission of Tinker Air Force Base, the Oklahoma Department of Commerce supports the alternative that supports the most traffic volume including semi-trucks and trailers. Tinker Air Force Base is projecting continued growth along the east side of Douglas Boulevard between Interstate 40 and Interstate 240.

The United States Air Force is constructing new maintenance and hanger facilities in the area east of Air Depot Boulevard and north of Interstate 240. This is to support Tinker Air Force base's role as the maintenance center for the new KC-46A Pegasus tanker that may impact traffic in the area of the above project.

The impact of the construction of the new "Eastern Oklahoma County" turnpike needs to be factored in the decision to be made by the Oklahoma Department of Transportation. It may be necessary to review the interchanges at Douglas Boulevard and Air Depot Boulevard with Interstate 240 for needed maintenance before construction is commenced on the Interstate 40 and Douglas Boulevard interchange to accommodate diverted commercial traffic.

If you have any questions, please contact the undersigned at your convenience.

Sincerely,



Donald R. Hackler, Jr.  
Deputy Director/General Counsel

**From:** Roberts, Jon  
**To:** [odot-environment@odot.org](mailto:odot-environment@odot.org); [Diane Abernathy](mailto:Diane.Abernathy@odot.org); "[tvermillion@odot.org](mailto:tvermillion@odot.org)"  
**Subject:** Environmental Review  
**Date:** Thursday, January 12, 2017 9:33:35 AM  
**Attachments:** [FactSheet-GeneralConstructionProjects.pdf](#)

---

Dear Ms. Sundaram:

In response to your request, we have completed an environmental review of air, land and water records for the project listed below. Attached is a list of environmental recommendations that you should consider as you complete your project.

**Project**

Letter dated December 22, 2016 – I-40 & Douglass Blvd. Bridge Improvements, Oklahoma County, OK, Job Piece: JP28992(04), Project No: J2-8992(004)

**Comments**

Prior to beginning any construction activity disturbing more than one acre, you must submit an NOI and obtain authorization under OKR10, construction stormwater.

DEQ highly recommends ODOT contact TAFB ERB for details on monitor wells and potential interaction with the perched aquifer in in the area.

Contact:

Mr. Albert Aguilar, Chief  
Environmental Restoration Branch  
72 ABW/CEPR  
7701 Arnold St., Ste. 221  
Tinker AFB, OK  
73145-9100

(405) 734-4574  
Fax: (405) 734-4210

[albert.aguilar@us.af.mil](mailto:albert.aguilar@us.af.mil)

If you have any questions or need clarification, please contact me.

Regards,

---

*Jon A. Roberts*, Senior Manager  
Office of External Affairs  
Oklahoma Department of Environmental Quality  
P. O. Box 1677  
707 N. Robinson Ave.  
Oklahoma City, OK 73101-1677  
Ph: (405) 702-7111; Fax: (405) 702-7101  
<http://www.deq.state.ok.us/OEA/index.html>

# AIR, LAND & WATER

## Recommendations for General Construction/Improvement Projects

During the environmental review process for general construction/improvement projects, the following recommendations are offered to assist in ensuring environmental compliance throughout the project.

- Any project which includes the removal or installation of water and/or sewer lines shall conform to all relevant local and/or state plumbing codes.
- Any project which includes the removal of paint shall conform to all relevant lead-based paint regulations.
- Any project which includes the handling and/or removal of asbestos shall conform to all relevant asbestos regulations.
- During any construction, demolition, and/or rehabilitation reasonable precautions should be taken to protect air quality by minimizing fugitive dust emissions.
- If construction, demolition, and/or rehabilitation will disturb more than one acre of land, a determination should be made as to whether an Oklahoma Pollutant Discharge Elimination System (OPDES) permit for storm water is required during the construction phase.
- Any solid or hazardous waste from the site shall be recycled and/or disposed of in accordance with all relevant solid waste and/or RCRA regulations.



**From:** Eve Atkinson  
**To:** [Diane Abernathy](#)  
**Cc:** [Susan Henry](#)  
**Subject:** Oklahoma county: I-40 and Douglas Boulevard Bridge and interchange Improvement  
**Date:** Monday, January 09, 2017 4:54:50 PM

---

Dear Diane,

The proposed alternatives will have no adverse impact on any federally funded park or recreation area or state park

Eve L. Atkinson, Planner II  
Oklahoma State Parks  
Oklahoma Tourism and Recreation Department  
900 North Stiles, Suite 200  
Oklahoma City, OK 73104-3234

405.522.9516.  
Eve.Atkinson@travelok.com





STATE OF OKLAHOMA  
WATER RESOURCES BOARD

www.owrb.ok.gov

OKLAHOMA WATER RESOURCES BOARD

Planning & Management Division  
Oklahoma City, OK

**PUBLIC NOTICE REVIEW**

We have no comments to offer.  We offer the following comments.

**WE RECOMMEND THAT YOU CONTACT THE LOCAL FLOODPLAIN ADMINISTRATOR FOR POSSIBLE PERMIT REQUIREMENTS FOR THIS PROJECT.** THE OWRB WEB SITE, [www.owrb.ok.gov](http://www.owrb.ok.gov), contains a directory of floodplain administrators and is located under forms/floodplain management/floodplain administrators, listed alphabetically by name of community. **If this development would fall on STATE OWNED or operated property, a floodplain development permit is required from OWRB.** The Chapter 55 Rules and permit application for this requirement can be found on the OWRB web site listed above. If this project is proposed in a non-participating community, try to ensure that this project is completed so that it is reasonably safe from flooding and so that it does not flood adjacent property if at all possible.

Reviewer: Cathy Poage, CFM Date: 01/12/2017

**Project Name:** Proposed Bridge & Roadway Improvements JP #28992(04), Project #J2-8992(004), Located at I-40 and Douglas Blvd, in Oklahoma County, OK

**FIRM Name:** ODOT, Siv Sundaram, P.E., Environmental Prog. Div. Engineer  
**CC:** Erik Brandt CFM, FPA Oklahoma County

\* Oklahoma County participates in the NFIP and has a floodplain development permitting system. Please see above paragraph.



STATE OF OKLAHOMA  
WATER RESOURCES BOARD  
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Planning & Management Division  
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## PUBLIC NOTICE REVIEW

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Reviewer: Cathy L. Poage, CFM

DATE 06/9/2017

**Project Name:** Proposed Improvements to I-40 from Douglas Blvd to I-240 (4.8 Miles) JP 31011 (05) (06) (07), Located in Oklahoma County, OK

**FIRM Name:** ODOT, Siv Sundaram, P.E., Environmental Programs Division Eng. CC: Erik Brandt CFM, Oklahoma County FPA

\* Oklahoma County participates in the NFIP and has a floodplain development permitting system. See paragraph above.

JULIE CUNNINGHAM  
EXECUTIVE DIRECTOR



MARY FALLIN  
GOVERNOR

**STATE OF OKLAHOMA  
WATER RESOURCES BOARD**  
www.owrb.ok.gov

**OKLAHOMA WATER RESOURCES BOARD**  
Planning & Management Division  
Oklahoma City, OK

## **PUBLIC NOTICE REVIEW**

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JULIE CUNNINGHAM  
EXECUTIVE DIRECTOR



MARY FALLIN  
GOVERNOR

**STATE OF OKLAHOMA  
WATER RESOURCES BOARD**

[www.owrb.ok.gov](http://www.owrb.ok.gov)

**Reviewer:** Cathy L. Poage, CFM

**DATE** 06/12/2017

**Project Name:** Proposed Improvement to I-40 & Douglas Blvd Bridge & Interchange JP 28992(04), Located in Oklahoma County, OK

**FIRM Name:** ODOT, Siv Sundaram, PE, Environmental Programs Div. Eng.  
**CC:** Eric Wenger, Oklahoma County FPA & Erik Brandt CFM, Oklahoma City FPA

\* Oklahoma County and Oklahoma City both participate in the NFIP and have a floodplain development permitting system. See paragraph above.

**APPENDIX H**  
**PUBLIC RESPONSE LETTERS**



# COMMENT FORM

HTTP://WWW.ODOT.ORG/PUBLICMEETINGS

## I-40/Douglas Boulevard Bridge Replacement and Interchange Reconstruction

JP: 28992(04)

01/17/2017

Oklahoma County, OK

Thank you for your interest in this project and taking the time to provide us with your written comments. Putting your comments in writing is one of the most effective ways to have your concerns addressed.

**PLEASE SUBMIT YOUR COMMENTS BY: 02/14/2017**

Name: Nicholas Ajimine		Business / Organization: Tinker AFB	
Address: 1970 Potter Ct.		City: Midwest City	State: OK
Phone Number: (580) 284-1638		Zip Code: 73130	
		Email Address: nicajimine@hotmail.com	

"I have the following comment(s) and/or question(s) about the proposed project to improve the I-40/Douglas Blvd. Interchange, in Oklahoma County, OK."

I recommend Alternative 2 "Tight Urban Diamond Interchange (TUDI) with Flyover. I work on Tinker AFB and alternative 2 seems to best address the traffic leaving base and heading west with no interruption to traffic flow. Pedestrian walkability is also important and this one seems to accommodate pedestrians better than the others.

Second choice would be Alternative 1 (SPUI) but this option doesn't handle west bound traffic leaving Tinker as well as Alternative 2 (TUDI).

Least favorite option is Alternative 3. DO NOT redo the cloverleaf. Ramp loops are horrible with dramatic changes in speeds and lanes, and confusing/dangerous CD roads. These Interchanges are accidents waiting to happen. It's also not pedestrian friendly. Worst option of the 3 choices!

Comments on this project can be submitted in several ways, including but not limited to:

**By US Mail or Dropoff:**

ENVIRONMENTAL PROGRAMS DIVISION  
OKLAHOMA DEPARTMENT OF TRANSPORTATION  
200 N.E. 21<sup>ST</sup> ST.  
Oklahoma City, OK 73105-3204

**By Fax:**

Fax: (405) 522-5193

**On the Web:**

www.odot.org/publicmeetings

**By Email:**

odot-environment@odot.org



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# COMMENT FORM

HTTP://WWW.ODOT.ORG/PUBLICMEETINGS

## I-40/Douglas Boulevard Bridge Replacement and Interchange Reconstruction

JP: 28992(04)

01/17/2017

Oklahoma County, OK

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**PLEASE SUBMIT YOUR COMMENTS BY: 02/14/2017**

Name: GEORGE BENARD		Business / Organization: ST Anthony Hospital	
Address: 3400 S. Douglas Blvd		City: Oklahoma	State: OK
Phone Number: 405-272-6701		Zip Code: 73150	
		Email Address: GEORGE.BENARD@SSMHEALTH.COM	

"I have the following comment(s) and/or question(s) about the proposed project to improve the I-40/Douglas Blvd. Interchange, in Oklahoma County, OK."

Alternative 1 SINGLE POINT URBAN Interchange (SPUI) appears to be the best choice for future traffic growth and safety.

Question: A yielding question related to entrance ramps from Douglas South bound and Douglas North bound entry I-40 westbound. who at this ramp yields to which lane please see map circled indicate specific location. The current design ~~seems~~ appears similar to new design which has motor vehicles accidents daily related to failure of yielding. Is it possible to add a signal light on the entrance ramp to stop traffic to avoid the yielding issue. *for use*

Comments on this project can be submitted in several ways, including but not limited to:

**By US Mail or Dropoff:**

ENVIRONMENTAL PROGRAMS DIVISION  
OKLAHOMA DEPARTMENT OF TRANSPORTATION  
200 N.E. 21<sup>ST</sup> ST.  
Oklahoma City, OK 73105-3204

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Image courtesy of ImagePatch.com © 2017 Microsoft Corporation

**I-40 & DOUGLAS BOULEVARD  
OKLAHOMA COUNTY**

DATE: 01-17-17  
SCALE: AS SHOWN  
DRWN BY: XXX



J/P 28992(04)

**ALTERNATIVE 1  
SINGLE POINT URBAN INTERCHANGE (SPUI)**





# COMMENT FORM

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## I-40/Douglas Boulevard Bridge Replacement and Interchange Reconstruction

JP: 28992(04)

01/17/2017

Oklahoma County, OK

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**PLEASE SUBMIT YOUR COMMENTS BY: 02/14/2017**

Name: <b>Patrick Coleman</b>		Business / Organization: <b>N/A</b>	
Address: <b>21320 SE 99TH Street</b>		City: <b>Newalla</b>	State: <b>OK</b>
Phone Number: <b>+1 (330) 402-3686</b>		Email Address: <b>Nautica7686@aol.com</b>	

"I have the following comment(s) and/or question(s) about the proposed project to improve the I-40/Douglas Blvd. Interchange, in Oklahoma County, OK."

I choose Alternative plan 3. The I-40 / Douglas Blvd interchange is one of the best designed exits for the traffic it handles that I use in Oklahoma. Many of the interchanges in OKC feel very dangerous with short ramps, high speed exits or almost nonexistent merging lanes. I frequently use the Douglas Northbound Exit, approaching from either the West or East. It is never congested, it feels very safe entering and exiting from all directions and best of all there are no traffic signals. The current configuration always gets you on and off the highway quickly. I don't understand Alternative plan 2 at all. A2 is overly expensive, will add 2 unnecessary traffic signals and includes a flyover bridge that only benefits one direction of travel. I don't know who this flyover bridge is benefitting, but the south part of Douglas is not as busy as the North where all of the businesses are located. I also don't understand the thinking that speeding 50 mph off of an exit (Plans A1 and A2) to end up at a stoplight is helpful for anyone, especially at the additional expense. A3 is the best choice as it keeps the speeds down (SAFE) and eliminates stopping traffic with signals.

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OKLAHOMA DEPARTMENT OF TRANSPORTATION  
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# COMMENT FORM

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## I-40/Douglas Boulevard Bridge Replacement and Interchange Reconstruction

JP: 28992(04)

01/17/2017

Oklahoma County, OK

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**PLEASE SUBMIT YOUR COMMENTS BY: 02/14/2017**

Name: <i>Charlie &amp; Laurie Effinger</i>		Business / Organization:	
Address: <i>19250 Ranchwood</i>		City: <i>Narrach</i>	State: <i>OK</i>
Phone Number: <i>306-4213</i>		Zip Code: <i>73045</i>	
Email Address:			

"I have the following comment(s) and/or question(s) about the proposed project to improve the I-40/Douglas Blvd. Interchange, in Oklahoma County, OK."

*Please don't build a new interchange that has "weave" merging. As traffic builds over the years it will become more & more hazardous. Either of the other two would be better - Alt. 1 or 2*

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**By US Mail or Dropoff:**  
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 OKLAHOMA DEPARTMENT OF TRANSPORTATION  
 200 N.E. 21<sup>ST</sup> ST.  
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**By Email:**  
[odot-environment@odot.org](mailto:odot-environment@odot.org)



Please be aware that all information that you submit on this form is subject to public disclosure under the Oklahoma Public Information Act.

**From:** Tim Vermillion  
**To:** [Diane Abernathy](mailto:Diane.Abernathy)  
**Subject:** FW: I-40 / Dougas Bouvard Bridge Replacement  
**Date:** Friday, February 10, 2017 11:32:00 AM

---

**From:** Daniel Nguyen  
**Sent:** Wednesday, January 18, 2017 4:48 PM  
**To:** Tim Vermillion  
**Subject:** FW: I-40 / Dougas Bouvard Bridge Replacement

Please include in comments for the meeting.

---

**From:** [GGoldschla@aol.com](mailto:GGoldschla@aol.com) [<mailto:GGoldschla@aol.com>]  
**Sent:** Wednesday, January 18, 2017 1:02 PM  
**To:** Daniel Nguyen  
**Subject:** I-40 / Dougas Bouvard Bridge Replacement

I like Alternative 1 the ( SPU1 ) . But I drive a small truck and can use any of the configurations you presented . But what about big trucks . Whenever I see numbers for today and the future for this road or that , I never see a big truck count . ( WHY ? ) Trucks are tall so are far more likely to turn over in a turn, so large swiping turns are better for large trucks . Because of their weight they take longer to stop but more importantly they take longer to start . A cloverleaf may be OK for cars and small trucks but they are a nightmare for big trucks that don't have the ability to accelerate in short distances . For both of these reasons controlled intersections make more sense for big trucks . Additionally big trucks are harder on the roadway . If a project expects a lot of big trucks ,you might think of using a harder surface material or making the surface thicker as a way of extending the useable life of the roadway .

I see vehicle counters all over our state as a way to predict future projects it might be time to use electronic eyes mounted on poles above the height of small vehicles as a way of determining the number of trucks that will be using a given intersection . Having truck drivers ether as staff or consultants may also be a good way of designing roads for these big rigs .

Thank You for your very informative meeting last night and please don't forget to keep in mind my suggestion to put the part of your road in front of Tinker under ground .

Have a GREAT day

Glenn Goldschlager  
1409 Everygreen Cr.  
Midwest City Okla. 73110  
405 737 8236  
[ggoldschla@aol.com](mailto:ggoldschla@aol.com)



# COMMENT FORM

HTTP://WWW.ODOT.ORG/PUBLICMEETINGS

## I-40/Douglas Boulevard Bridge Replacement and Interchange Reconstruction

JP: 28992(04)

01/17/2017

Oklahoma County, OK

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PLEASE SUBMIT YOUR COMMENTS BY: 02/14/2017

Name: <i>Fred Hawk</i>		Business / Organization:	
Address: <i>1302 S. Caldwell DR.</i>		City: <i>MWC</i>	State: <i>OK</i>
Phone Number: <i>405-737-7052</i>		Email Address: <i>f.hawk@cox.net</i>	

"I have the following comment(s) and/or question(s) about the proposed project to improve the I-40/Douglas Blvd. Interchange, in Oklahoma County, OK."

*I would go/vote for Alt 1 (.SP11) because of the flyover. Another bridge to take care of and winter weather problems it would bring. Thank you  
FH Hawk*

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**By US Mail or Dropoff:**  
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 OKLAHOMA DEPARTMENT OF TRANSPORTATION  
 200 N.E. 21<sup>ST</sup> ST.  
 Oklahoma City, OK 73105-3204

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 Fax: (405) 522-5193

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 odot-environment@odot.org

**On the Web:**  
[www.odot.org/publicmeetings](http://www.odot.org/publicmeetings)



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JP: 28992(04)

01/17/2017

Oklahoma County, OK

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PLEASE SUBMIT YOUR COMMENTS BY: 02/14/2017

Name: <i>Albert Mallette Jr.</i>		Business / Organization: <i>Bare Roots Homes, LLC</i>	
Address: <i>9489 Rhythm Road</i>		City: <i>Midwest</i>	State: <i>OK</i>
Phone Number: <i>(405) 288-7732</i>		Zip Code: <i>73138</i>	
		Email Address: <i>amallette95@gmail.com</i>	

"I have the following comment(s) and/or question(s) about the proposed project to improve the I-40/Douglas Blvd. Interchange, in Oklahoma County, OK."

*For me, I would like to see alternative #1 and add a pedestrian walkway.*

*I am in favor of removing the clover leaf.*

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[odot-environment@odot.org](mailto:odot-environment@odot.org)



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JP: 28992(04)

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**PLEASE SUBMIT YOUR COMMENTS BY: 02/14/2017**

<i>Name:</i> Ellen Mallette		<i>Business / Organization:</i>	
<i>Address:</i> 512 E Lockheed Dr	<i>City:</i> Midwest City	<i>State:</i> OK	<i>Zip Code:</i> 73110
<i>Phone Number:</i> +1 (405) 517-3298		<i>Email Address:</i> ellymae73@gmail.com	

*"I have the following comment(s) and/or question(s) about the proposed project to improve the I-40/Douglas Blvd. Interchange, in Oklahoma County, OK."*

I appreciate that the meeting was for informing the public about the project and asking for feedback. I feel alternative 1 - SPUI would be the best option for this area. I have lived in the area for over 40 years and have experienced the traffic during rush hour. The traffic lights will be very helpful since people get in a hurry and do not want to let others merge into traffic. I do have a request that once the project is finished the lane lines be painted clearly, especially the turn lanes.

Again, thank you for allowing the public to put in an opinion. In the future please announce the meetings on the nightly news so that others will have more notice and can plan to attend.

Thank you,  
Ellen Mallette  
A concerned citizen

**Comments on this project can be submitted in several ways, including but not limited to:**

**By US Mail or Dropoff:**  
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OKLAHOMA DEPARTMENT OF TRANSPORTATION  
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I-40/Douglas Project

Phone Call Record

12/1/16

David Neff, Owner of St. Anthony Healthplex, 405-659-3644

Issues:

1. Full Service ER, access must be maintained throughout construction
2. Would like opportunity to review/comment on designs under consideration
3. Existing traffic hazard: EB I-40 traffic destined to the Healthplex exits I-40 and merges onto SB Douglas, then makes a left-turn into the Healthplex. SB Douglas traffic comes over the bridge at a high speed, and encounters the left-turning traffic, resulting in numerous accidents.

Notes:

I thanked Mr. Neff for his input, assured him his comment would be noted, explained he would be invited to a January 2017 public meeting to review the design options, and assured him his traffic hazard concern would be forwarded to the designers. I encouraged him to also submit written comments, which he agreed he would do.



# COMMENT FORM

HTTP://WWW.ODOT.ORG/PUBLICMEETINGS

## I-40/Douglas Boulevard Bridge Replacement and Interchange Reconstruction

JP: 28992(04)

01/17/2017

Oklahoma County, OK

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**PLEASE SUBMIT YOUR COMMENTS BY: 02/14/2017**

<i>Name:</i> <b>Steve Reynolds</b>		<i>Business / Organization:</i>	
<i>Address:</i> <b>11644 Zandra Ave</b>	<i>City:</i> <b>Midwest City</b>	<i>State:</i> <b>OK</b>	<i>Zip Code:</i> <b>73130</b>
<i>Phone Number:</i> <b>+1 (405) 769-5870</b>		<i>Email Address:</i> <b>screynold@aol.com</b>	

*"I have the following comment(s) and/or question(s) about the proposed project to improve the I-40/Douglas Blvd. Interchange, in Oklahoma County, OK."*

Alternative 1 or 2 are acceptable in relieving weaving on Douglas and the C/D roads.

Could the SE29th/Douglas intersection be improved as part of this? A second left turn lane was added several years ago without widening. The resulting lanes are too narrow, especially the inner left turn lanes. You are often squeezed when a long vehicle makes a left from the outer left turn lane.

**Comments on this project can be submitted in several ways, including but not limited to:**

*By US Mail or Dropoff:*

**ENVIRONMENTAL PROGRAMS DIVISION**  
OKLAHOMA DEPARTMENT OF TRANSPORTATION  
200 N.E. 21<sup>ST</sup> ST.  
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*By Email:*

[odot-environment@odot.org](mailto:odot-environment@odot.org)

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**From:** Siv Sundaram  
**To:** [Tim Vermillion](#); [Diane Abernathy](#); [Daniel Nguyen](#); [Brian Taylor](#)  
**Subject:** FW: I-40/Douglas Interchange  
**Date:** Monday, January 23, 2017 4:19:43 PM

---

**From:** Campbell Sadeghy [mailto:[plutonicpanda@gmail.com](mailto:plutonicpanda@gmail.com)]  
**Sent:** Wednesday, January 18, 2017 6:33 PM  
**To:** ODOTWeb-environment  
**Subject:** I-40/Douglas Interchange

I think alternative 2 seems like the best bet for moving traffic more efficiently.



# COMMENT FORM

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JP: 28992(04)

01/17/2017

Oklahoma County, OK

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PLEASE SUBMIT YOUR COMMENTS BY: 02/14/2017

Name: <b>DAVID SAULSBERRY</b>		Business / Organization:	
Address: <b>2326 BERRY LANE</b>		City: <b>MIDWEST CITY</b>	State: <b>OK</b>
Phone Number: <b>405-821-2249</b>		Zip Code: <b>73130</b>	
Email Address: <b>DAVIDSAULSBERRY75@GMAIL.COM</b>			

"I have the following comment(s) and/or question(s) about the proposed project to improve the I-40/Douglas Blvd. Interchange, in Oklahoma County, OK."

**I PREFER ALT. NO. 1 OR 2. I USE THIS INTERCHANGE EVERYDAY AND THE CLOVERLEAF CONFIGURATION WITH THE CD ROADS DOES NOT WORK WELL. I WOULD LIKE TO HAVE AN INTERCHANGE THAT IS PEDESTRIAN FRIENDLY.**

**IF I HAD A CHOICE I WOULD PICK ALT. NO. 1. I BELIEVE IT IS THE BEST SOLUTION TO IMPROVING SAFETY WHILE ACCOMMODATING FUTURE TRAFFIC, VEHICLE AND PEDESTRIAN.**

Comments on this project can be submitted in several ways, including but not limited to:

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 OKLAHOMA DEPARTMENT OF TRANSPORTATION  
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01/17/2017

Oklahoma County, OK

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**PLEASE SUBMIT YOUR COMMENTS BY: 02/14/2017**

Name: <b>Jeffrey Witte</b>		Business / Organization:	
Address: <b>9916 Railroad</b>		City: <b>Midwest City</b>	State: <b>OK</b>
Phone Number: <b>480-326-5719</b>		Email Address: <b>jeff.witte82@gmail.com</b>	

*"I have the following comment(s) and/or question(s) about the proposed project to improve the I-40/Douglas Blvd. Interchange, in Oklahoma County, OK."*

Living nearby I use this interchange on a daily basis. The biggest problem I encounter is using the ramp from eastbound I-40 to northbound Douglas Blvd. Many times during the day, and especially during rush hour, traffic on northbound Douglas will back up onto the bridge in the right lane. There is a lot of traffic that turns right onto eastbound SE 29th St to get to neighborhoods along Post Rd and Westminster Rd. This area is also growing and without access to I-40 from Post Rd and Westminster Rd, traffic will just increase on Douglas Blvd. If you're going to build Douglas Blvd as a 6 lane road over I-40, with whichever alternative is selected, please consider continuing the right lane of northbound Douglas Rd and make it a right turn only lane at SE 29 St. This will prevent backups onto the bridge and will help traffic move more smoothly, especially if the right turn is signaled so people do not have to stop when traffic is turning from westbound SE 29th St to southbound Douglas Blvd.

Thank you.

Jeffrey Witte  
A concerned citizen

**Comments on this project can be submitted in several ways, including but not limited to:**

**By US Mail or Dropoff:**  
**ENVIRONMENTAL PROGRAMS DIVISION**  
OKLAHOMA DEPARTMENT OF TRANSPORTATION  
200 N.E. 21<sup>ST</sup> ST.  
Oklahoma City, OK 73105-3204

**By Fax:**  
Fax: (405) 522-5193

**By Email:**  
odot-environment@odot.org

**On the Web:**  
www.odot.org/publicmeetings



**Please be aware that all information that you submit on this form is subject to public disclosure under the Oklahoma Public Information Act.**

Reset Form	Print Form	Submit by Email
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April 11, 2017

Mr. John Ledbetter  
Realty Specialist – Oklahoma Field Office  
Bureau of Land Management  
201 Stephenson parkway, Suite 1200  
Norman, OK 73072-2037

**Subject: I-40 and Douglas Boulevard Bridge and Interchange Improvement, Oklahoma County, Oklahoma,  
State Job Piece: JP 28992(04), Project No.: J2-8992(004)**

Dear Mr. Ledbetter:

The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA), is proposing to improve the I-40 and Douglas Boulevard bridge and interchange, Oklahoma County, Oklahoma. A Public Meeting was held to present the project information on January 17, 2017, in the Raider Room of the Bill Atkinson Student Center at Rose State College, Midwest City, Oklahoma. At that meeting, three alternatives were presented, based on the results of an engineering design study. These alternatives were:

- Alternative 1 – Single Point Urban Interchange (SPUI)
- Alternative 2 – Tight Urban Diamond Interchange (TUDI) with Future Flyover Ramp
- Alternative 3 – Cloverleaf Interchange

ODOT received comments from the public, as well as state and federal agencies. More than half of the written public comments received which expressed support for an alternative supported Alternative 1. Alternative 2 received the next most support. Other public comments addressed traffic operations at the nearby S.E. 29<sup>th</sup> Street/Douglas Boulevard intersection, pedestrian accommodations, and other miscellaneous issues. Based on these comments and the completed engineering design study, ODOT has selected Alternative 1 as the Preferred Alternative (see enclosed graphic). Alternative 1 improves safety, accommodates large volumes of traffic, and provides greater mobility for both cars and large trucks due to long, gradual turns. Alternative 2 was eliminated due to higher construction costs and less efficient traffic operations and turning traffic mobility. Alternative 3 was eliminated due to less than desirable interchange geometry, fewer safety improvements, and difficulty in providing pedestrian facilities.

For more information about this project, including ODOT responses to public comments, please visit ODOT's webpage: [https://www.ok.gov/odot/Programs\\_and\\_Projects/Public\\_Meetings\\_and\\_Hearings/20170117.html](https://www.ok.gov/odot/Programs_and_Projects/Public_Meetings_and_Hearings/20170117.html)

ODOT will move forward with preliminary design and environmental studies for Alternative 1. Currently, ODOT has this project scheduled for right-of-way and utility relocation in 2017 with projected construction in 2020.

Should you have any questions or specific concerns, please contact our authorized agent, Diane Abernathy with Triad Design Group at (405) 919-0481 or [dabernathy@triaddesigngroup.com](mailto:dabernathy@triaddesigngroup.com). As always, your cooperation is greatly appreciated.

Respectfully,

Siv Sundaram, P.E.  
Environmental Programs Division Engineer

SS/Triad

Enclosures: Preferred Alternative Graphic, Location Map

Mr. John Ledbetter  
Realty Specialist - Oklahoma Field Office  
Bureau of Land Management  
201 Stephenson Parkway, Suite 1200  
Norman, Oklahoma 73019

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Division Administrator  
Federal Highway Administration  
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Health & Human Services Region 6  
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Dallas, Texas 75202

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Regulatory Branch Chief  
Tulsa District Corps of Engineers  
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Tulsa, Oklahoma 74128-4629

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District Engineer  
Tulsa District Corps of Engineers  
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Planning & Environmental (PER) Division  
Tulsa District Corps of Engineers  
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Chief - Hydraulics & Hydrology Branch  
Tulsa District Corps of Engineers  
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Chief - Water Management  
Tulsa District Corps of Engineers  
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Tulsa, Oklahoma 74128-4629

Ms. Michelle Lay  
Chief - Civil Design Section  
Tulsa District Corps of Engineers  
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Tulsa, Oklahoma 74128-4629

Mr. David Blackmore  
Engineering Branch, Infrastructure Section  
Tulsa District Corps of Engineers  
1645 S. 101 E. Avenue  
Tulsa, Oklahoma 74128-4629

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Regional Director, Eastern Oklahoma Region  
Bureau of Indian Affairs  
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Muskogee, Oklahoma 74402-8002

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District Conservationist  
Natural Resources Conservation Service  
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Tulsa Field Office Director  
U.S. Housing & Urban Development  
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Tulsa, Oklahoma 74103

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Regional Director - Intermountain Region Office,  
Planning & Environmental Quality  
National Park Service  
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Denver, Colorado 80225

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Regional Environmental Officer  
U.S. Department of the Interior  
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Albuquerque, New Mexico 87104

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Director  
Oklahoma Aeronautics Commission  
120 N. Robinson, Suite 1244W  
Oklahoma City, Oklahoma 73102

Mr. Tim Baker  
Director - Oil & Gas Division  
Oklahoma Corporation Commission  
Jim Thorpe Building, 2101 N. Lincoln Blvd.  
Oklahoma City, Oklahoma 73105

Environmental Review Coordinator  
DEQ Customer Assistance Program  
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Oklahoma City, Oklahoma 73101-1677

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Deputy Historic Preservation Officer  
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Oklahoma City, Oklahoma 73105-7917

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Secretary of Commerce and Tourism,  
Executive Director of Commerce  
Oklahoma Department of Commerce  
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Oklahoma City, Oklahoma 73104

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Director  
Department of Wildlife Conservation  
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Executive Director  
Oklahoma Conservation Commission  
2800 North Lincoln Blvd., Ste. 160  
Oklahoma City, Oklahoma 73105

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Commissioner of Agriculture  
Department of Agriculture  
2800 N. Lincoln Blvd., P.O. Box 54298  
Oklahoma City, Oklahoma 73105-4298

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Interim Executive Director  
Oklahoma Water Resources Board  
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Oklahoma City, Oklahoma 73118

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Director  
Oklahoma Geological Survey  
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Oklahoma State Archeologist  
111 East Chesapeake, Building 134  
Norman, Oklahoma 73019-5111

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State Superintendent  
State Department of Education  
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Director, State Parks  
Oklahoma Tourism & Recreation Department  
900 North Stiles  
Oklahoma City, Oklahoma 73104

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Citizen Pottawatomie Nation  
1601 S. Gordon Cooper Drive  
Shawnee, Oklahoma 74801

Chairman Bobby Walkup  
Iowa Tribe Of Oklahoma  
Rte 1, Box 721  
Perkins, Oklahoma 74059

Chairperson David Pacheco, Jr.  
Kickapoo Tribe Of Oklahoma  
P.O. Box 70  
McLoud, Oklahoma 74851

Principal Chief Geoffrey Standing Bear  
Osage Nation  
627 Grandview  
Pawhuska, Oklahoma 74056

President Terri Parton  
Wichita And Affiliated Tribes  
P.O. Box 729  
Anadarko, Oklahoma 73005

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Executive Director  
Association of Central Oklahoma Governments  
21 E. Main Street, Suite 100  
Oklahoma City, OK 73104-2405

Mr. Greg Love  
Commissioner District IV  
Oklahoma Transportation Commission  
10601 N. Pennsylvania Avenue  
Oklahoma City, OK 73120

April 11, 2017

Mr. Cody Inman  
Office of the Governor  
2300 N. Lincoln Blvd., Ste. 212  
Oklahoma City, OK 73105

**Subject: I-40 and Douglas Boulevard Bridge and Interchange Improvement, Oklahoma County, Oklahoma, State Job Piece: JP 28992(04), Project No.: J2-8992(004)**

Dear Mr. Inman:

The Oklahoma Department of Transportation (ODOT), in cooperation with the Federal Highway Administration (FHWA), is proposing to improve the I-40 and Douglas Boulevard bridge and interchange, Oklahoma County, Oklahoma. A Public Meeting was held to present the project information on January 17, 2017, in the Raider Room of the Bill Atkinson Student Center at Rose State College, Midwest City, Oklahoma. At that meeting, three alternatives were presented, based on the results of an engineering design study. These alternatives were:

- Alternative 1 – Single Point Urban Interchange (SPUI)
- Alternative 2 – Tight Urban Diamond Interchange (TUDI) with Future Flyover Ramp
- Alternative 3 – Cloverleaf Interchange

ODOT received comments from the public, as well as state and federal agencies. More than half of the written public comments received which expressed support for an alternative supported Alternative 1. Alternative 2 received the next most support. Other public comments addressed traffic operations at the nearby S.E. 29<sup>th</sup> Street/Douglas Boulevard intersection, pedestrian accommodations, and other miscellaneous issues. Based on these comments and the completed engineering design study, ODOT has selected Alternative 1 as the Preferred Alternative (see enclosed graphic). Alternative 1 improves safety, accommodates large volumes of traffic, and provides greater mobility for both cars and large trucks due to long, gradual turns. Alternative 2 was eliminated due to higher construction costs and less efficient traffic operations and turning traffic mobility. Alternative 3 was eliminated due to less than desirable interchange geometry, fewer safety improvements, and difficulty in providing pedestrian facilities.

For more information about this project, including ODOT responses to public comments, please visit ODOT's webpage: [https://www.ok.gov/odot/Programs\\_and\\_Projects/Public\\_Meetings\\_and\\_Hearings/20170117.html](https://www.ok.gov/odot/Programs_and_Projects/Public_Meetings_and_Hearings/20170117.html)

ODOT will move forward with preliminary design and environmental studies for Alternative 1. Currently, ODOT has this project scheduled for right-of-way and utility relocation in 2017 with projected construction in 2020.

Should you have any questions or specific concerns, please contact our authorized agent, Diane Abernathy with Triad Design Group at (405) 919-0481 or [dabernathy@triaddesigngroup.com](mailto:dabernathy@triaddesigngroup.com). As always, your cooperation is greatly appreciated.

Respectfully,

Siv Sundaram, P.E.  
Environmental Programs Division Engineer

SS/Triad

Enclosures: Preferred Alternative Graphic, Location Map

Mr. Basharat Siddiqi  
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District IV  
Oklahoma Transportation Commissioner  
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Deputy Historic Preservation Officer  
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Dr. Kary Stackelbeck  
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The Honorable Matt Dukes  
Mayor  
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100 N Midwest Boulevard  
Midwest City, OK 73110

Mr. J. Guy Henson  
Midwest City, City Manager  
City of Midwest City  
100 N Midwest Boulevard  
Midwest City, OK 73110

Mr. Daniel McClure, Jr.  
Midwest City, Ward 1  
City of Midwest City  
100 N Midwest Boulevard  
Midwest City, OK 73110

Mr. Pat Byrne  
Midwest City, Ward 2  
City of Midwest City  
100 N Midwest Boulevard  
Midwest City, OK 73110

Mr. Rick Dawkins  
Midwest City, Ward 3  
City of Midwest City  
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Midwest City, OK 73110

Mr. Sean Reed  
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City of Midwest City  
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Midwest City, OK 73110

Mr. Christine Allen  
Midwest City, Ward 5  
City of Midwest City  
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Midwest City, OK 73110



Mr. Jeff Moore  
Midwest City, Ward 6  
City of Midwest City  
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Midwest City, OK 73110

The Honorable Mick Cornett  
Mayor  
City of Oklahoma City  
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Oklahoma City, OK 73102

Mr. James D. Couch  
Oklahoma City, City Manager  
City of Oklahoma City  
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Mr. Larry McAtee  
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2467 Rayburn House Office Building  
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The Honorable Steve Russell  
U.S. House of Representatives  
128 Cannon House Office Building  
Washington, DC 20515

The Honorable Steve Russell  
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The Honorable James Inhofe  
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Mid-Del School District  
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Midwest City, OK 73110

Rose State College  
6420 SE 15th Street  
Midwest City, OK 73110

Chief Bert Norton  
Midwest City Fire Department  
8201 E Reno Ave  
Midwest City, OK 73110

Chief Brandon Clabes  
Midwest City Police Department  
100 N Midwest Boulevard  
Midwest City, OK 73110

Administrator  
AllianceHealth Midwest  
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Midwest City, OK 73110

Administrator  
St. Anthony Healthplex East  
3400 S Douglas Blvd  
Oklahoma City, OK 73150

Mr. Brad Beam  
Tinker Air Force Base  
72 ABW/CE  
Attn. Beam 7535 5th Street, Building 400  
Tinker AFB, OK 73145

Mr. Michael Daly  
Tinker Air Force Base  
72 ABW/CE  
Attn. Daly 7535 5th Street, Building 400  
Tinker AFB, OK 73145

Colonel Stephanie Wilson  
Tinker Air Force Base  
72 ABW/CC  
7460 Arnold St., Suite 234  
Tinker AFB, OK 73145

April 11, 2017

**Subject: I-40 and Douglas Boulevard Bridge and Interchange Improvement, Oklahoma County, Oklahoma, State Job Piece: JP 28992(04), Project No.: J2-8992(004)**

Dear Property Owner/Utility Company/Stakeholder:

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Respectfully,

Siv Sundaram, P.E.  
Environmental Programs Division Engineer

SS/Triad

Enclosures: Preferred Alternative Graphic, Location Map

Mr. George Benard  
St. Anthony Hospital  
3400 S. Douglas Blvd  
Oklahoma City, OK 73150

Mr. Patrick Coleman  
21320 SE 99th Street  
Newalla, OK 74857

Mr. & Mrs. Charlie Effinger  
19250 Ranchwood  
Harrah, OK 73045

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1409 Everygreen Circle  
Midwest City, OK 73110

Mr. Fred Hawk  
1302 South Caldwell Drive  
Midwest City, OK 73130

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Bare Roots Homes  
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Campbell Sadeghy  
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9916 Railroad  
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Mr. Kyle Nondorf  
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Newalla, OK 74857

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Tony's Tree Plantation  
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Midwest City, OK 73130

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Midwest City, OK 73110

Mr. Jeffrey Harrison  
EMAIL

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PO BOX 50471  
MIDWEST CITY, OK 73140-5471

TWODSVENTURE1, LLC  
252 NW 70TH ST  
OKLAHOMA CITY, OK 73116-7807

N R FARD INC  
405 WALTHAM ST #189  
LEXINGTON, MA 02421-7934

STANLEY, INC  
6508 S COUNTRY CLUB DRIVE  
OKLAHOMA CITY, OK 73159-2942

AMPLE STORAGE LLC  
4117 S POST RD  
OKLAHOMA CITY, OK 73150

VIERSEN OIL & GAS CO  
PO BOX 702708  
TULSA, OK 74170-2708

PINKERTON, SUE CARMEL  
1701 E FAIRLAWN  
CUSHING, OK 74023-5755

MIDWEST CITY MEMORIAL HOSPITAL  
100 N MIDWEST BLVD  
MIDWEST CITY, OK 73110-4319

CITY OF MIDWEST CITY  
ATTENTION: COUNTY CLERK  
100 N MIDWEST BLVD  
MIDWEST CITY, OK 73110-4327

JOHNSON, DONNIE B & JOANN  
14050 HUMMINGBIRD DRIVE  
CHOCTAW, OK 73020-7018

GRIFFIN PROPERTIES OKC LLC  
MCDONALDS CORP  
PO BOX 182571  
COLUMBUS, OH 43218

LEX LLC  
PO BOX 10537  
MIDWEST CITY, OK 73140-1537

GRIFFIN PROPERTIES OKC, LLC  
3025 GRIFFIN CENTER  
OKLAHOMA CITY, OK 73150-1000

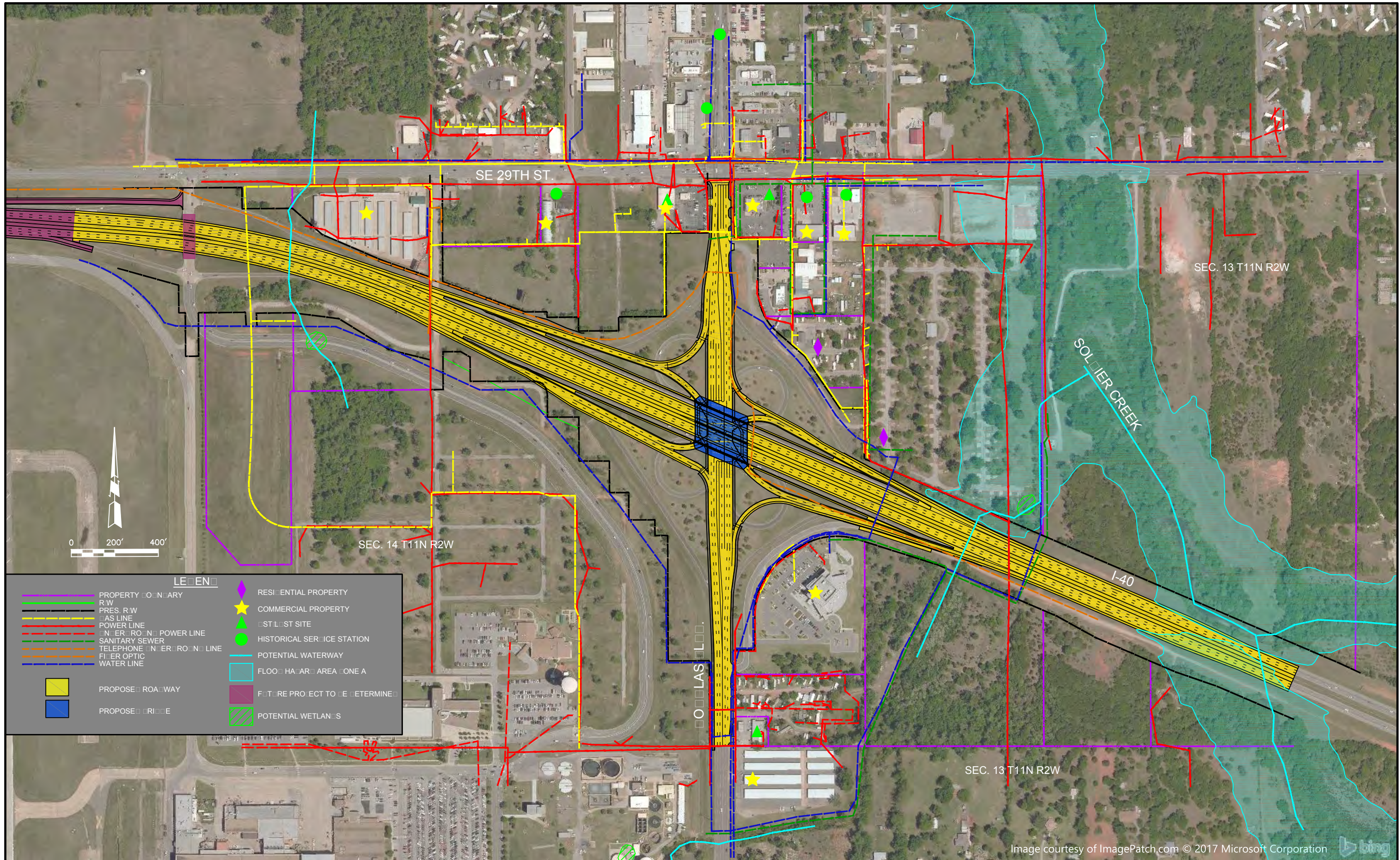
GRIFFIN PROPERTIES OKC, LLC  
C/O LJS #24034  
1024 SERPENTINE LN , STE 101  
PLEASANTON, C , 94566

2917 S DOUGLAS LLC  
C/O SAVAGE SAVAGE AND BROWN  
PO BOX 22845  
OKLAHOMA CITY, OK 73123

SHAW INVESTMENT PROPERTIES, LLC  
C/O SAVAGE SAVAGE AND BROWN  
PO BOX 22845  
OKLAHOMA CITY, OK 73123

WATERMARKED KH LLC  
PO BOX 300125  
MIDWEST CITY, OK 73140-0125

GRIFFIN JACK L & RUTH M  
3025 GRIFFIN CTR  
OKLAHOMA CITY, OK 73150-1000



LEGEND			
	PROPERTY BOUNDARY		RESIDENTIAL PROPERTY
	PRES. R.W.		COMMERCIAL PROPERTY
	GAS LINE		EXISTING SITE
	POWER LINE		HISTORICAL SERVICE STATION
	UNDERGROUND POWER LINE		POTENTIAL WATERWAY
	SANITARY SEWER		FLOOD HAZARD AREA (ZONE A)
	TELEPHONE UNDERGROUND LINE		FUTURE PROJECT TO BE DETERMINED
	FIBER OPTIC		POTENTIAL WETLANDS
	PROPOSED ROADWAY		
	PROPOSED BRIDGE		

I-40 & DOUGLAS BOULEVARD  
OKLAHOMA COUNTY & JP 28992(04)

DATE: 04-11-10  
SCALE: AS SHOWN  
DRWN BY: ME



PREferred ALTERNATIVE  
ALTERNATIVE 1 - SINGLE POINT URBAN INTERCHANGE (SPUI)

Image courtesy of ImagePatch.com © 2017 Microsoft Corporation

# **ENVIRONMENTAL JUSTICE**



Racial Distribution

Geographic Unit Analyzed	Total	White alone	Black or African American alone	American Indian and Alaska Native alone	Asian alone	Native Hawaiian and Other Pacific Islander alone	Some Other Race alone	Two or More Races	Percent Minority
State of Oklahoma	3,751,351	2,706,845	277,644	321,687	65,076	4,369	154,409	221,321	27.84%
Oklahoma County, Oklahoma	718,633	464,387	110,890	25,119	21,454	780	57,946	38,057	35.38%
City of Midwest City	54,371	35,113	11,888	2,029	913	62	813	3,553	35.42%
City of Oklahoma City	579,999	363,646	87,354	20,533	23,310	586	54,593	29,977	37.30%
Block 3000, Block Group 3, Census Tract 1074.03, Oklahoma County	63	47	0	10	0	0	0	6	25.40%
Block 3014, Block Group 3, Census Tract 1074.03, Oklahoma County	22	18	4	0	0	0	0	0	18.18%
Block 3023, Block Group 3, Census Tract 1074.03, Oklahoma County	8	8	0	0	0	0	0	0	0.00%
Block 3024, Block Group 3, Census Tract 1074.03, Oklahoma County	94	70	16	2	2	0	3	1	25.53%
Block 1004, Block Group 1, Census Tract 1076.06, Oklahoma County	79	62	2	3	1	0	5	6	21.52%
Block 1022, Block Group 1, Census Tract 1076.06, Oklahoma County	4	4	0	0	0	0	0	0	0.00%
Block 2002, Block Group 2, Census Tract 1076.07, Oklahoma County	40	33	1	0	3	0	0	3	17.50%
Block 2018, Block Group 2, Census Tract 1076.07, Oklahoma County	5	5	0	0	0	0	0	0	0.00%

Source: U.S. Census Bureau 2010, Summary File, Table P1.

### Median Household Income

<b>Geographic Unit Analyzed</b>	<b>Total Households</b>	<b>Median household income in the past 12 months (in 2016 inflation-adjusted dollars)</b>
State of Oklahoma	1,461,500	\$48,038
Oklahoma County	294,672	\$48,987
City of Midwest City	23,429	\$45,695
City of Oklahoma City	235,510	\$50,070
Block Group 3, Census Tract 1074.03, Oklahoma County	74	\$195,441
Block Group 1, Census Tract 1075, Oklahoma County	537	\$60,114
Block Group 1, Census Tract 1076.06, Oklahoma County	133	\$32,813
Block Group 2, Census Tract 1076.07, Oklahoma County	639	\$47,228

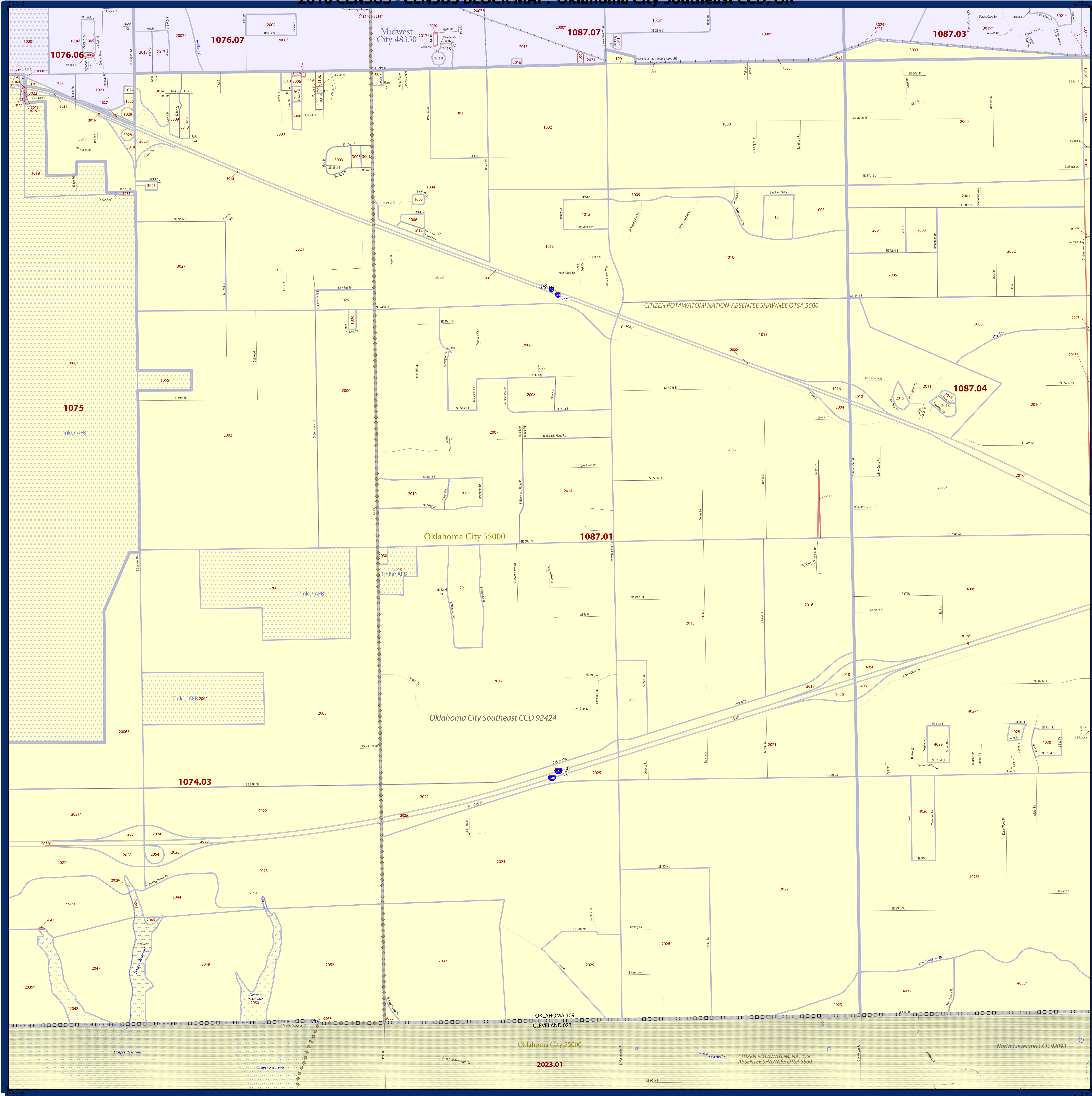
Source: U.S. Census Bureau 2016, American Community Survey 2012-2016 5-Year Estimates, Tables B17017 and B19013.

Limited English Proficiency (LEP) Analysis

Geographic Unit Analyzed	Estimated Total Population	Spanish Speaking			Chinese Speaking			Korean Speaking			Vietnamese Speaking		
		Estimated Total Population	Estimated Total LEP Population	Percent LEP	Estimated Total Population	Estimated Total LEP Population	Percent LEP	Estimated Total Population	Estimated Total LEP Population	Percent LEP	Estimated Total Population	Estimated Total LEP Population	Percent LEP
Census Tract 1074.03, Oklahoma County, Oklahoma	5515	160	58	1.1%	0	0	0.0%	127	71	1.3%	110	55	1.0%
Census Tract 1076.06, Oklahoma County, Oklahoma	206	5	5	2.4%	0	0	0.0%	0	0	0.0%	0	0	0.0%
Census Tract 1076.07, Oklahoma County, Oklahoma	3372	39	9	0.3%	4	4	0.1%	0	0	0.0%	0	0	0.0%

Source: U.S. Census Bureau 2016, American Community Survey 2011-2015 5-Year Estimates, Table B16001.

# 2010 CENSUS - CENSUS BLOCK MAP: Oklahoma City Southeast CCD, OK



### LEGEND

SYMBOL DESCRIPTION	SYMBOL	LABEL STYLE
International	☆☆☆☆☆	CANADA
Federal American Indian Reservation	★ ★ ★ ★ ★	L'ANSE RESV N 1880
Off-Reservation Trust Land, Hawaiian Home Land	+ + + + +	T1880
Oklahoma Tribal Statistical Area, Alaska Native Village Statistical Area, Tribal Designated Statistical Area	◆ ◆ ◆ ◆ ◆	KAW OTSA 5690
American Indian Tribal Subdivision	● ● ● ● ●	EAGLE NEST DIST 200
State American Indian Reservation	////	Tama Resvn 9400
State Designated Tribal Statistical Area	◆ ◆ ◆ ◆ ◆	Lumbee SDTSA 9815
Alaska Native Regional Corporation	▼ ▼ ▼ ▼ ▼	NANA ANRC 52120
State (or statistically equivalent entity)		NEW YORK 36
County (or statistically equivalent entity)	□ □ □ □ □	MONTGOMERY 031
Minor Civil Division (MCD)	○ ○ ○ ○ ○	Bristol town 07485
Census County Division (CCD), Census Subarea (CSA), Unincorporated Territory (UT)	○ ○ ○ ○ ○	Hanna CCD 91650
Consolidated City	○ ○ ○ ○ ○	MILFORD 47500
Incorporated Place <sup>1,2</sup>	Color Swatches	Davis 18100
Census Designated Place (CDP) <sup>2</sup>	Color Swatches	Incline Village 35100
Census Tract	Color Swatches	<b>33.07</b>
Census Block <sup>3</sup>	Color Swatches	3012

DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
Interstate	Blue line with red shield	Geographic Offset or Corridor	Red line
U.S. Highway	Blue line with shield	Water Body	Blue area
State Highway	Blue line with shield	Swamp, Marsh, or Gravel Pit/Quarry	Blue area with pattern
Other Road	Blue line with shield	Glacier	Blue area with pattern
Cul-de-sac	Blue line with T-junction	Military	Blue area with pattern
Circle	Blue line with circle	National or State Park, Forest, or Recreation Area	Blue area with pattern
RDW Trunk Station, Alley, Walkway, or Ferry	Blue line with T-junction	Airport	Blue area with pattern
Railroad	Blue line with cross-ticks	Selected Mountain Peaks	Blue area with pattern
Pipeline or Power Line	Blue line with cross-ticks	Island Name	Blue area with pattern
Ridge or Fence	Blue line with cross-ticks	Inset Area	Blue area with pattern
Property Line	Blue line with cross-ticks	Outside Subject Area	Blue area with pattern
Perennial Stream	Blue line with cross-ticks		
Intermittent Stream or Feature Not Elsewhere Classified	Blue line with cross-ticks		

Where state, county, and/or MCD/CCD boundaries coincide, the map shows the boundary symbol for only the highest-ranking of these boundaries. Where American Indian reservation and American Indian tribal subdivision boundaries coincide, the map shows only the American Indian reservation boundaries. Where Oklahoma tribal statistical area boundaries and American Indian tribal subdivision boundaries coincide, the map shows only the Oklahoma tribal statistical area boundaries.

1 A \* following an MCD name denotes a false MCD. A ' ' following a place name indicates that a false MCD exists with the same name and FIPS code as the place; the false MCD label is not shown.

2 Place label color correlates to the place fill color.

3 A \* following a block number indicates that the block number is repeated elsewhere in the block. Blocks are symbolized and labeled only in the subject area of the map.

All legal boundaries and names are as of January 1, 2010. The boundaries shown on this map are for Census Bureau statistical data collection and tabulation purposes only; their depiction and designation for statistical purposes does not constitute a determination of jurisdictional authority or rights of ownership or entitlement.

Geographic Vintage: 2010 Census (reference date: January 1, 2010)  
 Data Source: U.S. Census Bureau's MAINTIGR database (TAB100140)  
 Map Created by Geography Division: April 24, 2011

U.S. DEPARTMENT OF COMMERCE Economics and Statistics Administration U.S. Census Bureau

Projection: Albers Equal Area Conic  
 Datum: NAD 83  
 Spheroid: GRS 80  
 1st Standard Parallel: 34 10 47  
 2nd Standard Parallel: 36 26 11  
 Central Meridian: -98 43 53  
 Latitude of Projection's Origin: 33 36 56  
 False Easting: 0  
 False Northing: 0

Scale: 1:100,000

Key to Sheets

6	7	8
10	11	12

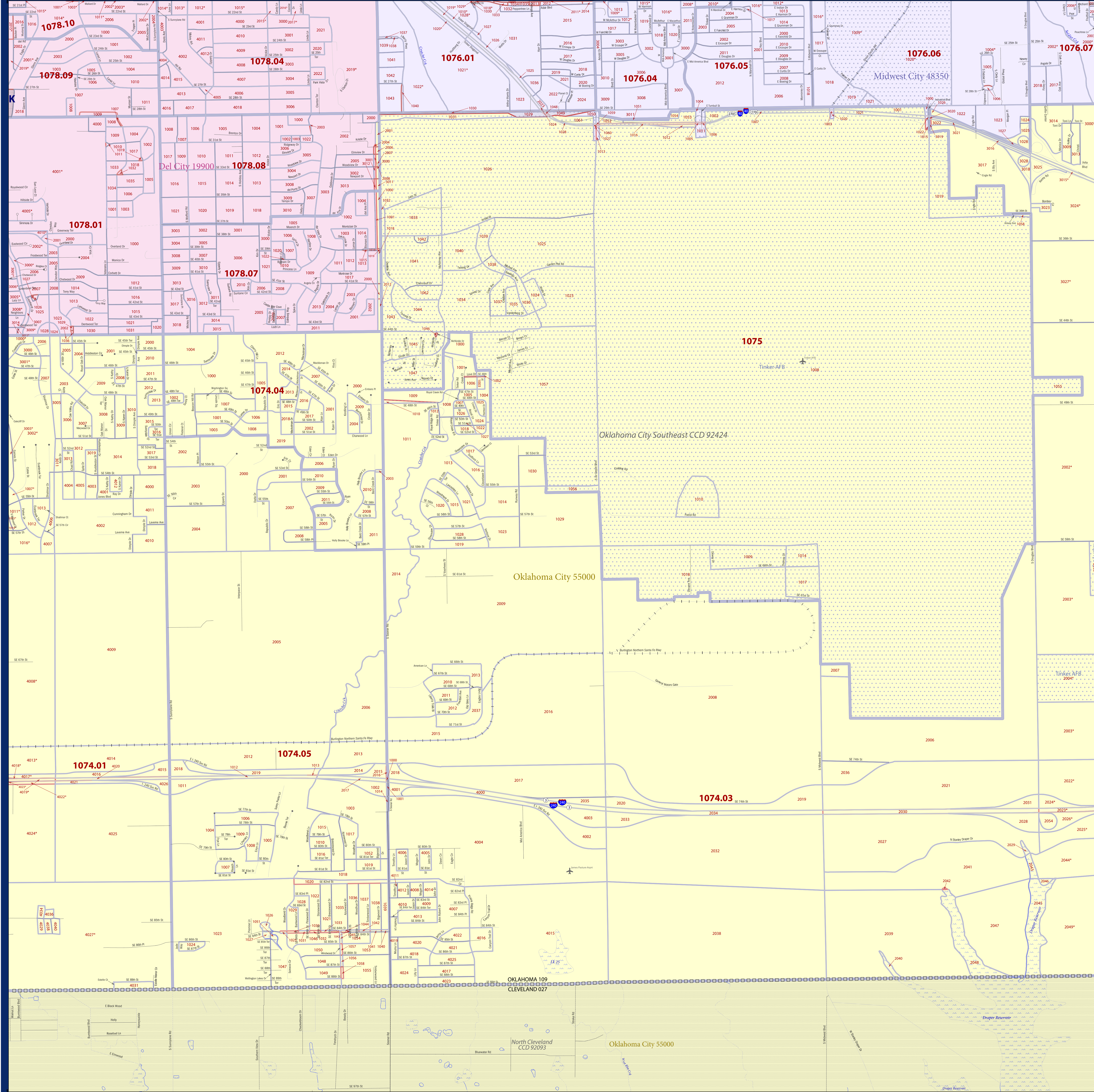
PARENT SHEET 11  
 Total Sheets: 14  
 Index Sheets: 1  
 Parent Sheets: 13  
 Inset Sheets: 0

Sheet Location within Entity

NAME: Oklahoma City Southeast CCD (92424)  
 ENTITY TYPE: Census County Division or statistically equivalent entity  
 ST: Oklahoma (40)  
 CO: Oklahoma (109)

Geographic VIN: (IGI) Block Map Series  
 2010 CENSUS BLOCK MAP (PARENT) - GCSUB  
 215-40109024001

# 2010 CENSUS - CENSUS BLOCK MAP: Oklahoma County, OK



### LEGEND

SYMBOL DESCRIPTION	SYMBOL	SYMBOL	SYMBOL	LABEL STYLE
International	☆☆☆☆☆	Geographic Offset or Corridor	—	CANADA
Federal American Indian Reservation	★ ★ ★ ★ ★	Water Body	—	L'ANSE RESV N 1880
Off Reservation Trust Land, Hawaiian Home Land	+ + + + +	Swamp, Marsh, or Gravel Pit/Quarry	—	T1880
Oklahoma Tribal Statistical Area, Alaska Native Village Statistical Area, Tribal Designated Statistical Area	◆ ◆ ◆ ◆ ◆	Glacier	—	KAW OTSA 5690
American Indian Tribal Subdivision	● ● ● ● ●	Military	—	EAGLE NEST DIST 200
State American Indian Reservation	▨ ▨ ▨ ▨ ▨	National or State Park, Forest, or Recreation Area	—	Tama Resvn 9400
State Designated Tribal Statistical Area	◆ ◆ ◆ ◆ ◆	Airport	—	Lumbee SDTSA 9815
Alaska Native Regional Corporation	▼ ▼ ▼ ▼ ▼	Selected Mountain Peaks	▲	NANA ANRC 52120
State (or statistically equivalent entity)	▨ ▨ ▨ ▨ ▨	Inland Name	DEER IS	NEW YORK 36
County (or statistically equivalent entity)	▨ ▨ ▨ ▨ ▨	Inset Area	A	MONTGOMERY 031
Minor Civil Division (MCD)	○ ○ ○ ○ ○	Outside Subject Area	—	Bristol town 07485
Consolidated City	○ ○ ○ ○ ○			Hanna CCD 91650
Incorporated Place <sup>1,2</sup>	■ ■ ■ ■ ■			MILFORD 47500
Census Designated Place (CDP) <sup>2</sup>	■ ■ ■ ■ ■			Davis 18100
Census Tract	■ ■ ■ ■ ■			Incline Village 35100
Census Block <sup>3</sup>	■ ■ ■ ■ ■			<b>33.07</b>

DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
Interstate	—	Geographic Offset or Corridor	—
U.S. Highway	—	Water Body	—
State Highway	—	Swamp, Marsh, or Gravel Pit/Quarry	—
Other Road	—	Glacier	—
Cul-de-sac	—	Military	—
Circle	—	National or State Park, Forest, or Recreation Area	—
4WD Trail, Stamen, Alley, Walkway, or Ferry	—	Airport	—
Railroad	—	Selected Mountain Peaks	▲
Pipeline or Power Line	—	Inland Name	DEER IS
Ridge or Fence	—	Inset Area	A
Perennial Stream	—	Outside Subject Area	—
Intermittent Stream or Feature Not Elsewhere Classified	—		

Where state, county, and/or MCD/CCD boundaries coincide, the map shows the boundary symbol for only the highest-ranking of these boundaries. Where American Indian reservation and American Indian tribal subdivision boundaries coincide, the map shows only the American Indian reservation boundaries. Where Oklahoma tribal statistical area boundaries and American Indian tribal subdivision boundaries coincide, the map shows only the Oklahoma tribal statistical area boundaries.

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3 A \* following a block number indicates that the block number is repeated elsewhere in the block.

All legal boundaries and names are as of January 1, 2010. The boundaries shown on this map are for Census Bureau statistical data collection and tabulation purposes only; their depiction and designation for statistical purposes does not constitute a determination of jurisdictional authority or rights of ownership or entitlement.

Geographic: Vintage: 2010 Census (reference date: January 1, 2010)  
 Data Source: U.S. Census Bureau's MAI/TIGER database (TAB100140)  
 Map Created by Geography Division: April 13, 2011

U.S. DEPARTMENT OF COMMERCE Economics and Statistics Administration U.S. Census Bureau

Projection: Albers Equal Area Conic  
 Datum: NAD 83  
 Spheroid: GRS 80  
 1st Standard Parallel: 34 10 47  
 2nd Standard Parallel: 36 26 11  
 Central Meridian: -98 43 53  
 Latitude of Projection's Origin: 33 36 56  
 False Easting: 0  
 False Northing: 0

Scale: 1:100,000  
 The plotted map scale is 1:100,000

USCENSUSBUREAU

Key to Sheets

24	25	26
31	32	33

PARENT SHEET 32  
 Total Sheets: 57  
 Index Sheets: 1  
 Parent Sheets: 35  
 Inset Sheets: 21

Location of County within State

Sheet Location within Entity

NAME: Oklahoma County (109)  
 ENTITY TYPE: County or statistically equivalent entity  
 ST: Oklahoma (40)

Geographic: UH: (IG) Block Map Series  
 2010 CENSUS BLOCK MAP (PARENT) - County  
 210-6109632

# **CULTURAL RESOURCES STUDIES**



## Oklahoma Historical Society

Founded May 27, 1893

### State Historic Preservation Office

Oklahoma History Center • 800 Nazih Zuhdi Drive • Oklahoma City, OK 73105-7917  
(405) 521-6249 • Fax (405) 522-0816 • [www.okhistory.org/shpo/shpom.htm](http://www.okhistory.org/shpo/shpom.htm)

February 9, 2017

Mr. Scott Sundermeyer, Director  
ODOT Cultural Resources Program  
111 East Chesapeake, Rm. 102, OU  
Norman, OK 73019

RE: File #0670-17; Douglas Boulevard Bridge Replacement over I-40 in Midwest City (Including Bldg. #1)

Dear Mr. Sundermeyer:

We have received and reviewed the documentation submitted on the referenced project in Oklahoma County. Additionally, we have examined the information contained in the Oklahoma Landmarks Inventory (OLI) files and other materials on historic resources available in our office. We find that there are no known historic properties affected within the referenced project's area of potential effect.

In addition to our review, you must contact the Oklahoma Archeological Survey (OAS), 111 E. Chesapeake, #102, Norman OK 73019-5111 (#405/325-7211, FAX #405/325-7604), to obtain a determination about the presence of prehistoric resources that may be eligible for the National Register of Historic Places. Should the OAS conclude that there are no prehistoric archaeological sites or other types of "historic properties," as defined in 36 CFR Part 800.16(l), which are eligible for inclusion in the National Register of Historic Places within the project area and that such sites are unlikely to occur, we concur with that opinion.

The OAS may conclude that an on-site investigation of all or part of the project impact area is necessary to determine the presence of archaeological resources. In the event that such an investigation reveals the presence of prehistoric archaeological sites, we will defer to the judgment of the OAS concerning whether or not any of the resources should be considered "historic properties" under the Section 106 review process. If sites dating from the historic period are identified during the survey or are encountered during implementation of the project, additional assessments by the State Historic Preservation Office will be necessary.

Should further correspondence pertaining to this project be necessary, please reference the above underlined file number. If you have any questions, please contact Catharine M. Wood, Historical Archaeologist, at 405/521-6381. Thank you.

Sincerely,

Melvena Heisch  
Deputy State Historic  
Preservation Officer

MH;jr



## Oklahoma Archeological Survey

THE UNIVERSITY OF OKLAHOMA

February 22, 2017

Scott Sundermeyer  
Director, ODOT Cultural Resources Program  
Oklahoma Department of Transportation  
111 E Chesapeake, Room 102, University of Oklahoma  
Norman, OK 73019-5111

Re: *Oklahoma Department of Transportation Cultural Resources Survey Report of the Proposed JP 28992(04) Improvements to the I-40/ Douglas Boulevard Interchange in Midwest City, Oklahoma County, Oklahoma.* Report by Kristina Wyckoff and Ana Eddings (ODOT).  
Legal Description: Portions of Section 11, 12, 13, 14, T11N, R2W, Oklahoma County, Oklahoma.

Dear Mr. Sundermeyer,

This agency received the above-referenced cultural resources survey report of investigations for review and comment. The survey was conducted on January 10, 2017 by ODOT. The survey involved the field inspection of approximately 103.81 acres constituting the project's direct Area of Potential Effect. During this survey, the archaeologist recorded one historic site, Building 1. This agency confirms the recommendations contained in this report as they pertain to prehistoric archaeological resources. **However; we defer opinion on historic site, Building 1, and project effects to the Historic Archaeologist with the Oklahoma State Historic Preservation Office (SHPO), Oklahoma Historical Society.** This review has been conducted in cooperation with the Oklahoma SHPO. You must also have a letter from that office to document your consultation pursuant to Section 106 of the National Historic Preservation Act

Sincerely,

Kary L. Stackelbeck  
State Archaeologist

:brb

cc: SHPO







**OKLAHOMA DEPARTMENT OF TRANSPORTATION  
CULTURAL RESOURCES PROGRAM**

111 E. Chesapeake, Room 102, University of Oklahoma  
Norman, OK 73019-5111  
Phone: 405-325-7201/325-8665; FAX: 405-325-7604

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January 24, 2017

Ms. Melvena Heisch  
Deputy State Historic Preservation Officer  
State Historic Preservation Office  
Oklahoma Historical Society  
800 Nazih Zuhdi Drive  
Oklahoma City, Oklahoma 73105-7917

Dear Ms. Heisch:

Re: Oklahoma County FHWA Project JP 28992(04); Proposed improvements to the I-40/  
Douglas Boulevard interchange in Midwest City.

Attached is a cultural resources survey report for the referenced project prepared by the ODOT Cultural Resources Program. No archaeological sites were identified during this investigation; however, one mid-20<sup>th</sup> century building was documented on an Historic Preservation Resource Identification (HPRI) form. Building 1 is a ca. 1963 concrete block commercial building of no distinctive style. Our assessment is that it lacks sufficient design distinction and is therefore not eligible for listing on the National Register of Historic Places (NRHP).

Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, it is our opinion that the project, as proposed, will have no effect on historic properties. We respectfully request your concurrence or comments to our opinion.

If you have any questions regarding this project, please contact me at 325-7201.

Sincerely,

Scott Sundermeyer  
Director, ODOT Cultural Resources Program

cc: State Archaeologist

# OKLAHOMA DEPARTMENT OF TRANSPORTATION CULTURAL RESOURCES SURVEY REPORT

Prepared by: ODOT Cultural Resources Program

County: Oklahoma

J/P Number: 28992(04)

Surveyed By: Kristina Wyckoff

Survey Date: January 10, 2017

Prepared By:

Report Date:

Kristina Wyckoff and Anna  
Eddings

January 17, 2017

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## 1. PROJECT DESCRIPTION:

This report documents a cultural resources survey for proposed replacement of the Douglas Boulevard bridge over I-40 in Midwest City, and reconstruction of the I-40/Douglas Boulevard interchange, including the removal of the Engle Road bridge.

The project study area, as defined, consists of an 8,020-foot (approximately 1.5 mile) corridor of I-40, beginning at Arnold Boulevard and extending east. The study area is an irregularly-shaped polygon centered along I-40, which also encompasses portions along Douglas Boulevard and 29<sup>th</sup> Street. At the eastern and western ends, the study area extends 200 feet north and south from the existing interstate center, which includes an additional 50 feet beyond the existing I-40 right-of-way throughout the majority of the study area. The study area includes bump-outs at existing bridges and roadways along the I-40 corridor, bump-outs along a drainage at the eastern end of the project, a north-south corridor of Douglas Boulevard, and the Douglas Boulevard/29<sup>th</sup> Street intersection. In total, the project study area encompasses 103.81 acres.

Five bridges (listed below) are present within the project study area boundaries; these bridges were constructed in 1961-1962, and are included in the March 2005 FHWA Interstate Highway System exemption that relieves Federal agencies from taking into account the effects of their actions on the Interstate Highway System, and are not subject to review. As such, these structures were not documented.

The existing A Avenue bridge over I-40 (Structure 5568 0540 X; NBI 15330) is an I-beam spans constructed in 1961.

The existing Industrial Boulevard bridge over I-40 (Structure 5568 0585 X; NBI 15559) is a continuous concrete slab constructed in 1962.

The existing Engle Road bridge over I-40 (Structure 5568R0608 X; NBI 15560) is a continuous concrete slab constructed in 1962.

The existing Douglas Boulevard bridge over I-40 (Structure 5568 0634 X; NBI 15573) is a continuous concrete slab constructed in 1962.

The existing I-40 bridge over Soldier Creek (Structure 5568 0686 X; NBI 15468) is a reinforced concrete box (skewed 60 degrees) constructed in 1962.

**Legal Location:** T11N R2W Sections 11-14

**U.S.G.S. Quadrangle:** Midwest City (1986) and Choctaw (1956 PR 1969, 1975)

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## 2. ENVIRONMENTAL SETTING:

### Geomorphic/Physiographic Region:

The study area is mapped within the Central Red-Bed Plains geomorphic province, where Permian red shales and

sandstones form gently-rolling hills and broad, flat plains (Geomorphie Provinces of Oklahoma 2008).

**Geology and Soils:**

The study area is mapped across Garber Sandstone geology dating to the Permian period and comprised of fine-grained sandstone irregularly-bedded with shale, chert, and/or mudstone conglomerate. Soils mapped across the study area belong to the Stephenville-Darnell and Zaneis-Renfrow-Grainola-Coyle associations. The setting is a dissected upland, which has been heavily disturbed by modern urban development; silty clay soils are mapped across undissected uplands in the study area and sandy clay soils are mapped along the minor dissections (Soldier Creek and an unnamed creek, which bisect the study area east and west of the Douglas Boulevard interchange). The Tribbey soil series is mapped along Soldier Creek at the easternmost edge of the study area; this series consists of red fine sandy loam with a dark grayish-brown fine sandy loam buried Ab horizon (127-165 centimeters below the surface [cmbs]). Shovel testing in the study area will be employed to determine the extent of disturbance from interstate and highway construction and development; along the drainages, and especially along Soldier Creek, exposed cut banks will be examined and shovel and auger tests will be excavated to determine whether buried soils and/or buried archaeological materials are present in the study area.

**Vegetation:**

The vegetation of the study area is mapped within Post Oak-Blackjack forest, known locally as Cross Timbers. This vegetation type is found throughout central and eastern Oklahoma and consists of forest, woodland, and grassland vegetation with post oak and blackjack oak representing the most important trees.

According to the USGS Land Cover map, the study area is comprised almost entirely of developed land and developed open space relating to the interstate, Tinker Air Force Base, Saint Anthony Healthplex East, and additional commercial and residential development. At the eastern end of the study area the Land Cover map indicates forested land and herbaceous land, which generally represents open pastures but in this case appears to indicate a more thinly-wooded area between the two dissections east of the I-40/Douglas Boulevard interchange. Review of Google Earth imagery dating to 2016 indicates the majority of the study area consists of sodded right-of-way with scattered hardwoods west of the interchange and forest vegetation extending into the right-of-way east of the interchange.

**Vegetation Coverage:**

<u>XXX</u>	0-25%	Eroded areas
	25-50%	
<u>XXX</u>	50-75%	Wooded areas
<u>XXX</u>	75-100%	Sodded right-of-way and commercial lawns

---

**3. CULTURAL BACKGROUND:**

**A. Background Research:**

- XXX State Site Files at Oklahoma Archeological Survey (OAS)
- XXX SHPO NRHP and DOE Files
- XXX Native American Tribes and Nations Consulted by Procedures Established with FHWA and ODOT: Citizen Potawatomi Nation, Iowa Tribe, Kickapoo Tribe, Osage Nation, and Wichita and Affiliated Tribes.
- XXX Other sources: General Land Office (GLO) Original Survey Map (1873)  
USDA Soil Survey Map of Oklahoma County (1906)  
USGS Moore 15' Quadrangle (1892, 1934, 1938)  
USGS Crutcho Creek 7.5' Quadrangle (1934)

USGS Choctaw 7.5' Quadrangle (1956, 1969, 1975)  
USGS Midwest City 7.5' Quadrangle (1986)  
Oklahoma County aerial imagery (1951, 1957)  
Oklahoma County General Highway and Transportation Maps (GHM)  
(1940, 1948, 1954, 1963, 1970, 1985)

Brooks, Robert L.  
2005 Oklahoma Atlas of Archaeological Sites and Management Activities.  
<http://www.ou.edu/cas/archsur/Atlas.htm> accessed online January 13, 2017.  
1985 Resource Protection Planning Process Manuscript Region 5. Report  
submitted to the State Historic Preservation Office Oklahoma Historical  
Society. Unpublished manuscript on file at the Oklahoma Archeological  
Survey, Norman.

US Geological Survey, 20140331, NLCD 2011 Land Cover (2011 Edition)  
US Geological Survey, Sioux Falls, SD.

1969 *Soil Survey Oklahoma County, Oklahoma*. United States Department  
of Agriculture, Soil Conservation Service, and Oklahoma Experiment  
Station. U.S. Government Printing Office, Washington, D.C.

2008 *Geomorphic Provinces of Oklahoma*, Earth Sciences and Mineral  
Resources of Oklahoma, edited by Kenneth S. Johnson and Kenneth V. Luza.  
University of Oklahoma Printing Services, Oklahoma Geological Survey,  
Norman.

#### ***RESULTS OF BACKGROUND RESEARCH/SUMMARY OF CULTURAL BACKGROUND:***

A review of the Oklahoma Archeological Survey (OAS) maps indicates no previously-recorded archaeological sites are mapped in the project study area; however, two previously-recorded prehistoric archaeological sites are mapped within the study area's one-mile vicinity (34OK28 and 34OK33).

Site 34OK28 is located on a north-south ridge overlooking the west bank of Soldier Creek, approximately 5,000 feet north of the project study area. The site is bisected by 15<sup>th</sup> Street in Midwest City; the northern half is located in a golf course and the southern half has been completely disturbed and developed over. The site was recorded by Jim Cox as a small prehistoric campsite and was identified by a surface scatter of lithic tools and debris, including four Ellis dart points, one Ellis-like dart point, two dart point tips, one dart point midsection, one squared knife base, four side scrapers, one possible shell scraper, 12 flakes of Kay County chert, 35 flakes of Ogallala chert, five flakes of quartzite, and five flakes of unknown material. This site was not previously assessed for NRHP eligibility.

Site 34OK33 is located mid-way between Crutch Creek and Soldier Creek in a developed area of Midwest City north of Tinker Air Force Base and approximately 3,650 feet west of the project study area. The site was buried beneath 3-4 feet (approximately 90-120 centimeters) of sediments and was exposed during infrastructure improvements, specifically laying of pipe in a five-foot square pit, and was recorded as an Archaic period camp by David Sanches and Roger Saunders in 1973. Artifacts documented from this site include Archaic points, large corner-notched points, large knife fragments, large arrow points of the Young and Fresno variety, and one corner-notched arrow point. Richard Drass provided updates to the site form in 1977, and stated the site was located "in a residential area" and "probably badly disturbed." This site was not previously assessed for NRHP eligibility.

Robert Brooks included Oklahoma County in Region 5 of his Resource Protection Planning Process Management manuscript (1985). Region 5, the largest management region defined by Brooks, consists of southern tall grass prairie and cross-timbers. Much of the archaeological work in this region has focused on surveys and excavations of sites threatened by major reservoir construction (Brooks 1985:5). Paleoindian

period through Late Prehistoric period occupations and 19<sup>th</sup> and 20<sup>th</sup> century occupations have been recorded in this region (Brooks 1985).

According to the Oklahoma Atlas of Archaeological Sites and Management Activities, in 2004, 192 archaeological sites had been recorded in Oklahoma County (Brooks 2005). At that time, the recorded sites included two with Paleoindian period components, 25 with Archaic period components, 14 with Woodland period components, 19 with Late Prehistoric period components, and 48 with 19<sup>th</sup> and 20<sup>th</sup> century components. There are currently 252 archaeological sites recorded in Oklahoma County as a whole.

The reviewed maps and aerials indicate the western two-thirds of the study area experienced considerable residential and commercial development since the mid-1950s. A residential neighborhood is depicted in the northeast quarter of Section 14 (T11N R2W) on the 1956 Midwest City and Choctaw quadrangles and the 1957 aerial; however, portions of this development were razed when I-40 and the associated bridges were constructed through the study area in 1961-1962, and the remaining homes were demolished 2003-2005 (Google Earth imagery). Two portions of deteriorating streets are the only visible remnants of this development in the study area (2016 Google Earth imagery). A trailer park first indicated in the northwest quarter of Section 13 (T11N R2W) on the 1969 Choctaw quadrangle was abandoned 2012-2013 (Google Earth imagery), the deteriorating street that formed the southwestern edge of the trailer park falls within the study area boundary.

---

#### 4. METHODOLOGY:

##### Field Investigation Methodology:

- 100% Windshield Survey
- XXX   Windshield survey with sample pedestrian survey
- XXX   12.5 % pedestrian survey
- XXX   Subsurface Testing. Describe methodology of testing under comments, below:

##### *DISCUSSION OF METHODOLOGY:*

The majority of the study area, which largely conforms to the existing right-of-way, has been considerably disturbed by construction of the existing interstate roadways, bridges, and drainages, and by commercial and residential development. These disturbed areas were subjected to windshield survey and disturbances in these areas were confirmed with intermittent shovel testing (See Figure 2). Portions of the study area disturbed by residential development, but not by interstate highway construction, specifically the razed neighborhoods immediately southwest and northeast of the I-40/Douglas Boulevard interchange, were subjected to pedestrian archaeological survey with excavation of intermittent shovel and auger tests. The 50-foot strip of study area north and south of the existing I-40 right-of-way in the wooded portion at the eastern end of the project was also subjected to pedestrian survey with shovel testing, and auger tests were excavated within the base of shovel tests in areas along the dissecting drainages. Additionally, creek banks and eroded areas were examined for evidence of surface and/or buried archaeological materials and/or buried soils.

---

#### 5. RESULTS OF INVESTIGATION:

- No archeological sites or buildings recorded in study area.
- XXX   Resources recorded in study area assessed as **not eligible** for the NRHP. Forms being submitted for agency review.
- Oklahoma Archeological Site Survey Form(s) for State Archeologist files.

XXX Historic Preservation Resource Identification Form(s) for SHPO files.

         Oklahoma Bridge Survey and Inventory Form.

         **NRHP-eligible properties** recorded in study area.

**Forms being submitted for agency review.**

         Oklahoma Archeological Site Survey Form(s) for State Archeologist files.

         Historic Preservation Resource Identification Form(s) for SHPO files.

         Oklahoma Bridge Survey and Inventory Form.

         Archeological sites requiring further assessment (i.e. evaluative testing)

***COMMENTS AND DESCRIPTION OF FINDINGS:***

No archaeological sites were identified or recorded during this investigation; however, one building was documented on a Historic Preservation Resource Identification (HPRI) form for SHPO review.

Building 1 is a ca. 1963 concrete block commercial building of no distinctive style. Our assessment is that this building lacks sufficient architectural distinction and is not eligible for inclusion in the NRHP.

Soils observed in the existing highway and interstate right-of-way were heavily compacted reddish-brown silty and sandy clay. In addition to disturbances related to highway and interstate construction, the western two-thirds of the project study area have been disturbed by modern residential and commercial development. The portion of the study area immediately southwest of the interchange, along the eastern side of Taxpayers Boulevard, was been disturbed by residential development and subsequent razing; shovel and auger tests in this area revealed soils comprised of reddish-brown silty clay loam (0-20 cmbs) which overlay mottled red and reddish-brown silty clay loam (20-40 cmbs), which overlay reddish-brown clay (40-60 cmbs) which overlay red clay (60-100 cmbs). Disturbances in the eastern third of the project study area are limited to interstate construction; the portion of the study area beyond the existing right-of-way consists of woods and pasture land. Soils in this area were comprised of loamy sands and sandy clay. Because the Tribbey soil series, mapped along the path of Soldier Creek at the eastern end of the project study area, can contain a buried soil, auger tests were excavated in the base of shovel tests in this portion of the study area. Soils in this area were comprised of reddish-brown fine sandy loam (0-3 cmbs) which overlay reddish-brown clayey sand (3-10 cmbs), which graded into reddened sandy clay loam (between 10-90 cmbs), this in turn overlay red sand beginning at 90 cmbs, and the sand was inundated by 150 cmbs. The buried Ab horizon described in the Tribbey soil series profile is documented between 127-165 cmbs; auger tests in this portion of the study area were excavated to 170 cmbs, but no evidence of a buried soil was observed. Additionally, creek banks were examined at each of the drainages and no archaeological materials or buried soils were observed.

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**6. RECOMMENDATIONS:**

         **Plan Notes** requiring avoidance of cultural resources in off-project areas

    XXX **Approval to proceed** with the proposed project as planned with no additional research. If subsurface archaeological materials are exposed during construction, the Contractor and Resident Engineer shall notify the Department Archaeologist in accordance with Section 202.04(a), Standard Specifications for Highway Construction.

         **Approval NOT Recommended**, until one or more of the following measures are completed.

\_\_\_\_\_ **Additional consultation with SHPO** regarding NRHP-eligible Properties

\_\_\_\_\_ **Revise design** to avoid/protect resources

\_\_\_\_\_ **NRHP Eligibility Archaeological Test Excavations**

\_\_\_\_\_ **Implementation of MOA** with SHPO regarding Mitigation of Adverse Effects to Historic Properties

***SUMMARY AND COMMENTS REGARDING RECOMMENDATIONS:***

Pursuant to 36 CFR 60.4, Building 1 lacks sufficient architectural distinction and is not eligible for inclusion in the NRHP.

Pursuant to 36 CFR 800.4(d)(1), it is our opinion there are no historic properties affected. We recommend the project proceed as planned.

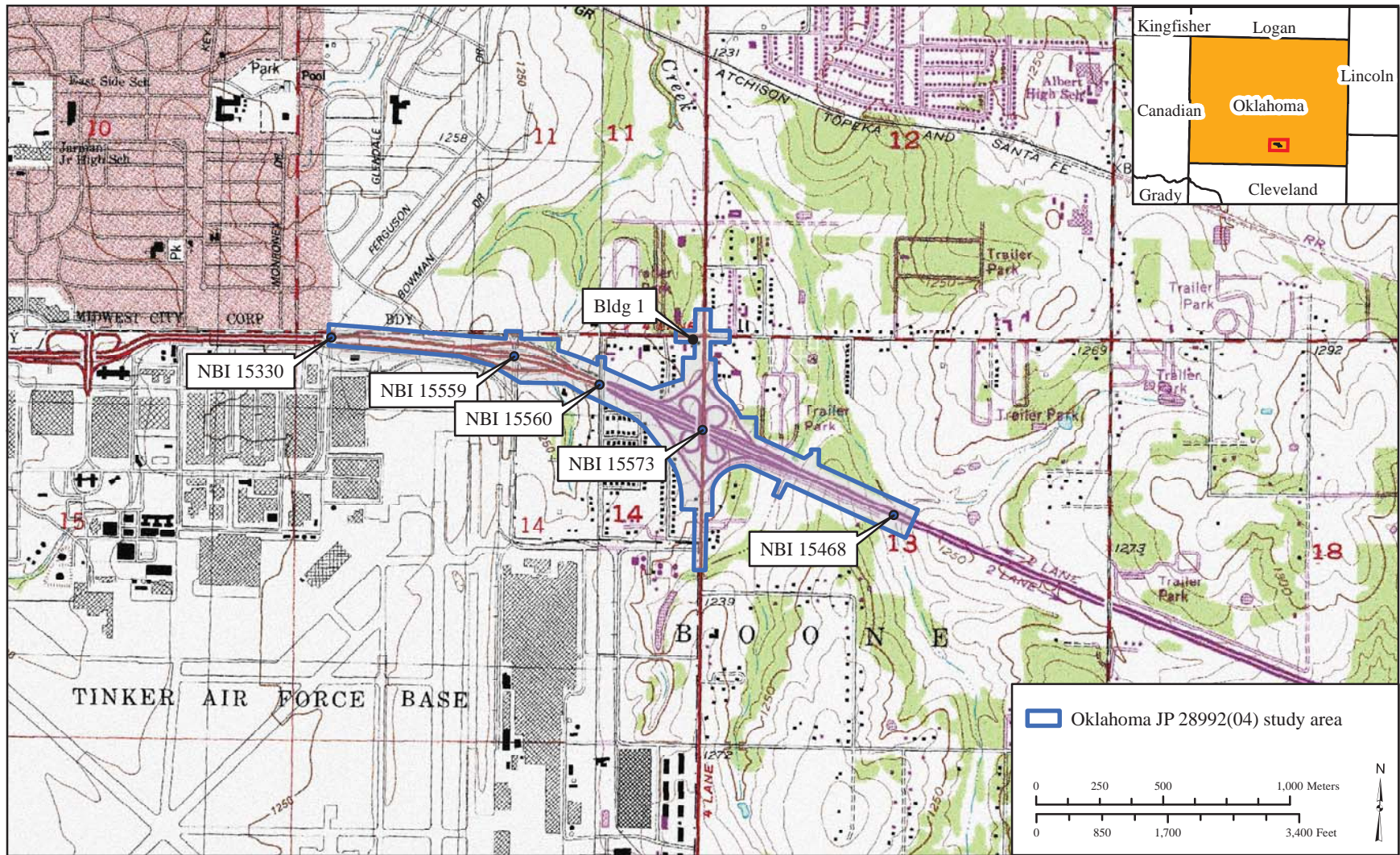
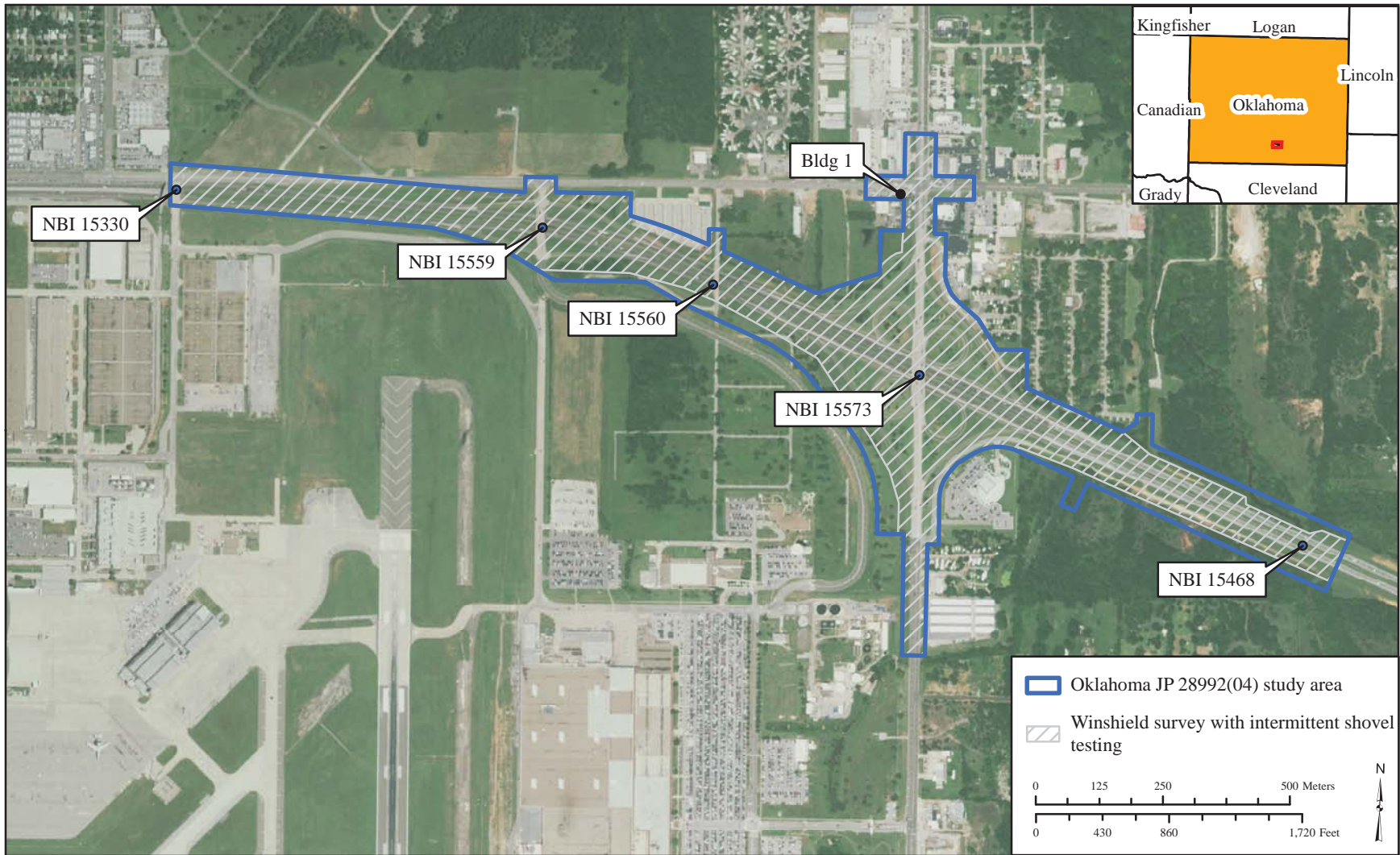


Figure 1. Oklahoma County JP 28992(04): I-40 and Douglas Boulevard bridge replacement and interchange reconstruction.

Basemap: National Agriculture Imagery Program (NAIP) 2015; Midwest City (1986) and Choctaw (1956 PR 1969, 1975) 7.5' USGS Quadrangles.  
 Legal location: T11N R2W; scale 1:24,000.







**Figure 2. Oklahoma County JP 28992(04): I-40 and Douglas Boulevard bridge replacement and interchange reconstruction. Map indicates areas subjected to windshield survey with intermittent shovel testing; all remaining areas were subjected to pedestrian archaeological survey and shovel testing.**

Basemap: National Agriculture Imagery Program (NAIP) 2015; Midwest City (1986) and Choctaw (1956 PR 1969, 1975) 7.5' USGS Quadrangles.  
 Legal location: T11N R2W; scale 1:12,000.



November 28, 2016

Citizen Potawatomi Nation  
 Attn: Chairman John A. Barrett  
 1601 S Gordon Cooper Drive  
 Shawnee, OK 74801

Dear Chairman Barrett:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Oklahoma County, Oklahoma; JP# 28992(04)

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following project.

<b>County</b>	Oklahoma	<b>Job Piece #</b>	28992(04)	<b>Anticipated Let Date</b>	2020
<b>Project description</b>	Bridge replacement and interchange reconstruction at I-40 and Douglas Boulevard, 6.5 miles east of I-35, including removal of Engle Road bridge				
<b>Location</b>	Sections 11, 12, 13, & 14 T11N R2W. See enclosed map.				
<b>Additional information</b>	This project is on a new alignment: <input type="checkbox"/> yes <input checked="" type="checkbox"/> no This project will require new or temporary right of way: <input checked="" type="checkbox"/> yes <input type="checkbox"/> no This project involves ground disturbance: <input checked="" type="checkbox"/> yes <input type="checkbox"/> no				

If this undertaking may affect properties of religious and cultural significance to your tribe, please notify me as soon as possible. Likewise, if this undertaking occurs on land held in trust for the tribe and the tribe has 101(d)(2) status from the National Park Service, please make this office aware of the location of the trust property. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.521.3632 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.  
 Director  
 ODOT Tribal Coordination

cc: Kelli Mosteller, THPO

*"The mission of the Oklahoma Department of Transportation is to provide a safe, economical, and effective transportation network for the people, commerce and communities of Oklahoma."*

January 25, 2017

Citizen Potawatomi Nation  
Attn: Chairman John A. Barrett  
1601 S Gordon Cooper Drive  
Shawnee, OK 74801

Dear Chairman Barrett:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Oklahoma County, Oklahoma; JP# 28992(04)

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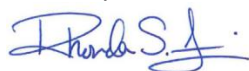
In accordance with 36 CFR Part 800.4, the proposed project area was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

No archaeological sites were identified during this investigation; however, one mid-20th century building was documented. Building 1 is a ca. 1963 concrete block commercial building of no distinctive style. Our assessment is that it lacks sufficient design distinction and is therefore not eligible for listing on the National Register of Historic Places (NRHP). Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

If this undertaking may affect properties of religious and cultural significance to your tribe or tribal trust land, please notify me as soon as possible. In order to provide the most thorough consideration of these properties in the planning process, we appreciate receiving your response to this request within 30 days. Please rest assured that we will respect your wishes regarding the confidentiality of any information that you provide.

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Sincerely,



Rhonda S. Fair, Ph.D.  
Director  
ODOT Tribal Coordination

cc: Kelli Mosteller, THPO

November 28, 2016

Iowa Tribe of Oklahoma  
 Attn: Chairman Bobby Walkup  
 335588 East 750 Road  
 Perkins, OK 74059

Dear Chairman Walkup:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Oklahoma County, Oklahoma; JP# 28992(04)

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following project.

<b>County</b>	Oklahoma	<b>Job Piece #</b>	28992(04)	<b>Anticipated Let Date</b>	2020
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Sincerely,



Rhonda S. Fair, Ph.D.  
 Director  
 ODOT Tribal Coordination

cc: Historic Preservation Office



January 25, 2017

Iowa Tribe of Oklahoma
Attn: Chairman Bobby Walkup
335588 East 750 Road
Perkins, OK 74059

Dear Chairman Walkup:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Oklahoma County, Oklahoma; JP# 28992(04)

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is consulting on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following project.

Table with 2 rows and 2 columns: County (Oklahoma), Job Piece # (28992(04)), Anticipated Let Date (2020), Project description (Bridge replacement and interchange reconstruction at I-40 and Douglas Boulevard, 6.5 miles east of I-35, including removal of Engle Road bridge)

In accordance with 36 CFR Part 800.4, the proposed project area was surveyed for cultural resources in order to identify historic properties that may be affected by the undertaking. A copy of this report is enclosed.

No archaeological sites were identified during this investigation; however, one mid-20th century building was documented. Building 1 is a ca. 1963 concrete block commercial building of no distinctive style. Our assessment is that it lacks sufficient design distinction and is therefore not eligible for listing on the National Register of Historic Places (NRHP). Pursuant to 36 CFR 800.4(d)(1), and based upon the results of this study, our opinion is that the project, as proposed, will have no effect on historic properties.

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If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.521.3632 or by email at rfair@odot.org.

Sincerely,

[Handwritten signature]

Rhonda S. Fair, Ph.D.
Director
ODOT Tribal Coordination

cc: Historic Preservation Office

November 28, 2016

Kickapoo Tribe of Oklahoma  
 Attn: Chairman David Pacheco, Jr.  
 Post Office Box 70  
 McLoud, OK 74851

Dear Chairman Pacheco:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Oklahoma County, Oklahoma; JP# 28992(04)

Pursuant to 36 CFR Part 800.2(c)(2), the Oklahoma Department of Transportation is initiating consultation on behalf of the Federal Highway Administration regarding historic properties that may be affected by the following project.

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The proposed project area will be subject to a cultural resources survey. The goal of this survey is to make a reasonable and good faith effort to identify historic properties within the area of potential effect, in accordance with 36 CFR Part 800.4. The survey will be performed in consultation with the Oklahoma State Historic Preservation Office and other consulting parties as appropriate. You will be provided a copy of the cultural resources report upon its completion.

If you have any questions or would like to meet regarding this project, please contact me by telephone at 405.521.3632 or email at rfair@odot.org.

Sincerely,



Rhonda S. Fair, Ph.D.  
 Director  
 ODOT Tribal Coordination

cc: Historic Preservation Office

January 25, 2017

Kickapoo Tribe of Oklahoma  
Attn: Chairman David Pacheco, Jr.  
Post Office Box 70  
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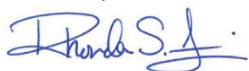
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Sincerely,



Rhonda S. Fair, Ph.D.  
Director  
ODOT Tribal Coordination

cc: Kent Collier

November 28, 2016

Osage Nation  
 Attn: Principal Chief Geoffrey Standing Bear  
 627 Grandview  
 Pawhuska, OK 74056

Dear Principal Chief Standing Bear:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Oklahoma County, Oklahoma; JP# 28992(04)

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Sincerely,



Rhonda S. Fair, Ph.D.  
 Director  
 ODOT Tribal Coordination

cc: Tribal Historic Preservation Office





## TRIBAL HISTORIC PRESERVATION OFFICE

Date: December 16, 2016

File: 1617-1552OK-12

RE: ODOT JP# 28992(04) Bridge Replacement and Interchange Reconstruction at I-40 and Douglas Boulevard Including Removal of Engle Road Bridge in Oklahoma County, Oklahoma

Oklahoma Department of Transportation  
Rhonda Fair  
200 NE 21<sup>st</sup> Street, Room 3A8  
Oklahoma City, OK 73105-3204

Dear Dr. Fair,

The Osage Nation Historic Preservation Office has received notification and accompanying information for the proposed project ODOT JP# 28992(04) Bridge Replacement and Interchange Reconstruction at I-40 and Douglas Boulevard Including Removal of Engle Road Bridge in Oklahoma County, Oklahoma. There are no known Osage resources within the project area. This office looks forward to reviewing the final report.

Should you have any questions or need any additional information, please feel free to contact me at the number listed below. Thank you for consulting with the Osage Nation on this matter.

Sincerely,

  
James Munkres  
Archaeologist



## TRIBAL HISTORIC PRESERVATION OFFICE

Date: January 27, 2017

File: 1617-1552OK-12

RE: ODOT JP# 28992(04) Bridge Replacement and Interchange Reconstruction at I-40 and Douglas Boulevard Including Removal of Engle Road Bridge in Oklahoma County, Oklahoma

Oklahoma Department of Transportation  
Rhonda Fair  
200 NE 21<sup>st</sup> Street, Room 3A8  
Oklahoma City, OK 73105-3204

Dear Dr. Fair,

The Osage Nation Historic Preservation Office has received notification of the Public Meeting conducted on January 17, 2017 and accompanying information presenting the three proposed alternatives for the proposed project ODOT JP# 31807(04) Intersection Modifications at U.S. 81 and State Highway 66 in El Reno in Canadian County, Oklahoma. The Osage Nation does not have a preferred alternative at this time. This office looks forward to reviewing the final report.

Should you have any questions or need any additional information, please feel free to contact me at the number listed below. Thank you for consulting with the Osage Nation on this matter.

Sincerely,

  
James Munkres  
Archaeologist

January 25, 2017

Osage Nation  
Attn: Principal Chief Geoffrey Standing Bear  
627 Grandview  
Pawhuska, OK 74056

Dear Principal Chief Standing Bear:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Oklahoma County, Oklahoma; JP# 28992(04)

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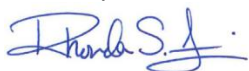
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Sincerely,



Rhonda S. Fair, Ph.D.  
Director  
ODOT Tribal Coordination

cc: Tribal Historic Preservation Office

November 28, 2016

Wichita and Affiliated Tribes  
 Attn: President Terri Parton  
 Post Office Box 729  
 Anadarko, OK 73005

Dear President Parton:

Re: Section 106 consultation for proposed Federal-Aid undertaking in Oklahoma County, Oklahoma; JP# 28992(04)

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 Director  
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cc: Historic Preservation Office



January 25, 2017

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Sincerely,

[Handwritten signature]

Rhonda S. Fair, Ph.D.
Director
ODOT Tribal Coordination

cc: Historic Preservation Office

# **BIOLOGICAL STUDIES**

STATUS: Cleared for 404 2/6/2017  
 Cleared for Utilities 2/6/2017  
 Cleared for Construction 2/6/2017

**BIOLOGICAL STUDIES TRACKING FORM  
 For**

County	Oklahoma
JP Number	28992(04)
USFWS TAILS #	02EKOK00-2017-SLI-0562
Original IPaC List	12/12/2016
Email used to request IpaC official species list	rellis@triaddesigngroup.com
Last Updated Species List Date	Click here to enter a date.
ROW	Click here to enter a date.
Let Date	Click here to enter a date.
90 Day Prior to Let IpaC List	Click here to enter a date.
Duration expected	Click here to enter text.
Original Biological Assessment and Waters and Wetlands Report Prepared By:	Triad
Most Recent Field Date:	1/11/2017
Original Report Date:	2/6/2017
USFWS Consultation Submittal:	No Effect All Species
USFWS Concurrence:	None required
Original Tracking Form Prepared by :	Elizabeth Nichols
Original Tracking Form date:	2/6/2017
Update Reason	Click here to enter text.
Updated By Whom:	Click here to enter text.
Amended USFWS Consultation Submittal:	Click here to enter a date.
Amended USFWS Concurrence:	Click here to enter a date.
Tracking Form Updated By Whom:	Click here to enter text.
Tracking Form Updated Date:	Click here to enter a date.
<b><i>ADD MORE LINES AS NEEDED FOR EACH TIME PROJECT IS UPDATED</i></b>	

Form Date: January 24, 2017

**Project Name from Oracle**

I-40 and Douglas Boulevard bridge and interchange (including removal of Engle Rd. bridge)

**Project Description**

Other - Interchange & Bridge

Check if any of the following is expected s part of the proposed action

- Work within the OHWM is expected
- Project is OFF-SET alignment  or NEW alignment
- Project involves **NO OFF EXISTING PAVEMENT** work
- Project requires new ROW (permanent &/or temporary)
- Tree removal is expected <100' from edge of existing pavement
- 100' -300' from edge of existing pavement
- >300' from edge of existing pavement

STATUS: Cleared for 404  
 Cleared for Utilities  
 Cleared for Construction

2/6/2017  
 2/6/2017  
 2/6/2017

**2. FEDERALLY LISTED SPECIES AND DESIGNATED CRITICAL HABITAT**

Species	Listing Status	IPaC	Effect Determination for IPaC listed species
		Check if Yes	
Black-capped Vireo	Endangered	<input type="checkbox"/>	Choose an item.
Interior Least Tern	Endangered	<input checked="" type="checkbox"/>	No Effect
Red-cockaded Woodpecker	Endangered	<input type="checkbox"/>	Choose an item.
Whooping Crane	Endangered	<input checked="" type="checkbox"/>	No Effect
Gray Bat	Endangered	<input type="checkbox"/>	Choose an item.
Indiana Bat	Endangered	<input type="checkbox"/>	Choose an item.
Ozark Big-eared Bat	Endangered	<input type="checkbox"/>	Choose an item.
Neosho Mucket	Endangered	<input type="checkbox"/>	Choose an item.
Ouachita Rock Pocketbook	Endangered	<input type="checkbox"/>	Choose an item.
Scaleshell Mussel	Endangered	<input type="checkbox"/>	Choose an item.
Winged Mapleleaf	Endangered	<input type="checkbox"/>	Choose an item.
American Burying Beetle	Endangered	<input type="checkbox"/>	Choose an item.
Harperella	Endangered	<input type="checkbox"/>	Choose an item.
Piping Plover	Threatened	<input checked="" type="checkbox"/>	No Effect
Red Knot	Threatened	<input checked="" type="checkbox"/>	No Effect
Northern Long-eared Bat	Threatened	<input type="checkbox"/>	Choose an item
Arkansas River Shiner	Threatened	<input type="checkbox"/>	Choose an item.
Leopard Darter	Threatened	<input type="checkbox"/>	Choose an item.
Neosho Madtom	Threatened	<input type="checkbox"/>	Choose an item.
Ozark Cavefish	Threatened	<input type="checkbox"/>	Choose an item.
American Alligator	Threatened	<input type="checkbox"/>	Choose an item.
Rabbitsfoot Mussel	Threatened	<input type="checkbox"/>	Choose an item.
Rattlesnake-master Borer Moth	Candidate	<input type="checkbox"/>	Choose an item.
Whooping Crane Critical Habitat	Designated	<input type="checkbox"/>	Choose an item.
Arkansas River Shiner Critical Habitat	Designated	<input type="checkbox"/>	Choose an item.
Leopard Darter Critical Habitat	Designated	<input type="checkbox"/>	Choose an item.
Neosho Mucket Critical Habitat	Designated	<input type="checkbox"/>	Choose an item.
Rabbitsfoot Critical Habitat	Designated	<input type="checkbox"/>	Choose an item.

	NEPA Footprint	Construction Footprint
Number of acres within the NEPA Study Footprint & Construction Footprint (if known)	112	<a href="#">Click here to enter text.</a>
Number of acres of perennial plant vegetation (ABB habitat) within the NEPA Footprint & Construction Footprint (if known)	<a href="#">Click here to enter text.</a>	<a href="#">Click here to enter text.</a>
Number of acres of forested/wooded area (Ibat and NLEB habitat) within the NEPA Footprint & Construction Footprint (if known)	<a href="#">Click here to enter text.</a>	<a href="#">Click here to enter text.</a>



<u>STATUS:</u>	Cleared for 404	2/6/2017
	Cleared for Utilities	2/6/2017
	Cleared for Construction	2/6/2017

Bald Eagle Assessment	Not expected to impact
Migratory Bird Assessment of Transportation Structures	no migratory birds observed nesting on transportation structures
Migratory bird habitat assessment	nesting habitat for migratory birds will be impacted

### Species Plan Notes

**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 April 1 to August 31. The project was surveyed for migratory bird nests in January 2017. Although no nests were observed, the survey is valid only until the start of the 2017 nesting season (beginning April 1). The Resident Engineer shall contact the ODOT Biologist at 405-521-2515 if any bird use of the existing structures is observed. If birds are observed then extension or demolition of the existing bridges and culverts shall be conducted between September 1, and March 3 (when migratory bird nests are not occupied).

### Waters and Wetlands Delineation Status

Original delineation

### Wetlands and Ponds

Total Number of Sites	Water Body Type	Potential Jurisdiction Status	Acres within the NEPA Footprint
1	Scrub Shrub Wetland	Likely Jurisdictional	0.03
Click here to enter text.	Choose an item.	Choose an item.	Click here to enter text.
Click here to enter text.	Choose an item.	Choose an item.	Click here to enter text.

### Streams and Drainages

Total Number of sites	Water body name	USGS Designation	Potential Jurisdictional Status	Acres within the NEPA Footprint	Liner Feet within the NEPA Footprint
4	Tributary to Soldier Creek	mapped intermittent	Likely Jurisdictional	0.95	2,720
1	Tributary to Soldier Creek	unmapped ephemeral drainages	Likely Jurisdictional	0.05	485
<b>Total Likely Jurisdictional</b>				<b>1</b>	<b>3,205</b>
Click here to enter text.	Click here to enter text.	Choose an item.	Choose an item.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Choose an item.	Choose an item.	Click here to enter text.	Click here to enter text.

**ENDANGERED, THREATENED AND CANADATE SPECIES, DESIGNATED  
CRITICAL HABITAT, BALD EAGLE AND SWALLOW ASSESSMENT**

**For I-40 & Douglas Boulevard Interchange**

<b>USFWS TAILS #</b>		<b>02EKOK00-2017-SLI-0562</b>			
Email used to request IPaC official species list			rellis@triaddesigngroup.com		
County	Oklahoma	JP Number	28992(04)	Project Number	J2-8992(004)
Road Number	I-40	Water Body Name		Unnamed tributaries to Soldier Creek	
ROW Date		Let Date		Project Length	Apx. 1.5 miles along I-40; Apx. 0.6 miles along Douglas Blvd
Project General Location		I-40 and Douglas Boulevard interchange in Midwest City, 6.5 miles east of I-35			
Project Statement From Oracle		I-40 and Douglas Boulevard bridge and interchange (including removal of Engle Rd. bridge)			

Prepared for:  
Oklahoma Department of Transportation  
Environmental Programs Division  
200 NE 21<sup>st</sup> Street  
Oklahoma City, OK 73105

Prepared by:

Biologist Name	Renee' Ellis
Company/Agency Name	Triad Design Group
Address	3020 Northwest 149 <sup>th</sup> Street
City, State Zip	Oklahoma City, OK 73134

Report Date	February 6, 2017
Field Survey Date	January 11, 2017
Field Survey Biologist(s)	Renee' Ellis

## 1. PROJECT OVERVIEW

### 1.1 Federal Nexus

This biological assessment, prepared by the above named Company/Agency for the Oklahoma Department of Transportation (ODOT), addresses the above named project in compliance with Section 7(c) of the Endangered Species Act (ESA) of 1973, as amended. Section 7 of the ESA requires that, through consultation with the U.S. Fish and Wildlife Service (Service), federal actions do not jeopardize the continued existence of any threatened, endangered, or proposed species or result in the destruction or adverse modification of critical habitat. This assessment evaluates the potential effects of the proposed transportation project on species that are federally listed under the ESA. Specific project design elements are identified that avoid or minimize adverse effects of the proposed project on listed species and designated critical habitat.

### 1.2. Project Description

Other - Interchange & Bridge

#### Description of the **existing** bridge/roadway facility and reason for proposed project

The Douglas Boulevard bridge (NBI # 15573) over I-40 is six lanes wide including four through lanes, two loop ramp weaving lanes, curb and gutter, and 3-ft sidewalks on each side of the bridge. The bridge is a six-span, 80-ft wide concrete continuous slab bridge, with a sufficiency rating of 77.0. The vertical clearance for I-40 is posted as 16-ft-9-in (eastbound) and 16-ft-4-in (westbound). The current annual average daily traffic (AADT) on Douglas Boulevard is 26,100 vehicles per day (vpd), and is projected to increase to 47,980 vpd by the year 2045.

I-40 underneath Douglas Boulevard is a four-lane divided urban interstate with a 40-ft wide grass median, 12-ft wide driving lanes, 3-ft wide inside shoulders, and 10-ft wide outside shoulders. The current AADT on I-40 is 54,574 vpd, and is projected to increase to 84,580 vpd by the year 2045. The existing I-40 and Douglas Boulevard interchange is a full cloverleaf interchange with collector-distributor roads along I-40.

The existing Engle Road bridge (NBI # 15560) over I-40 formerly provided access to a residential neighborhood south of I-40. However, the neighborhood no longer exists and the property is now owned by Tinker Air Force Base. Therefore, Engle Road bridge is closed to traffic and not in use.

The purpose of this project is to correct the functionally obsolete Douglas Boulevard bridge and improve safety while accommodating future traffic volumes, which indicate I-40 should be widened from four lanes to six lanes.

#### Description of **proposed** improvements

Three (3) interchange alternatives have been identified for consideration:

- Alternative 1 - Single Point Urban Interchange (SPUI). A Single Point Urban Interchange is a basic diamond interchange with a single signalized central intersection in the center of the bridge. The Douglas Boulevard traffic along with the I-40 ramp traffic will converge to a single point utilizing the single set of traffic signals. The SPUI interchange

accommodates large traffic volumes efficiently with minimal right-of-way impacts. I-40 will be improved to a six-lane facility. Through the interchange, Douglas Boulevard will consist of six through lanes, dual left-turn lanes, and right-turn lanes where needed. Entrance and exit ramp lanes will also be constructed along I-40. Collector-distributor roads will be removed and will not be re-constructed.

- Alternative 2 - Tight Urban Diamond Interchange (TUDI) with Ramp Flyover. A Tight Urban Diamond Interchange is an interchange that compresses a standard diamond interchange. This design includes all four interchange ramps, as well as the option of adding a future flyover ramp for northbound Douglas Boulevard traffic destined for westbound I-40. I-40 will be improved to a six-lane facility. Through the interchange, Douglas Boulevard will consist of six through lanes, dual left-turn lanes, and right-turn lanes where needed. Upon construction of the northbound to westbound ramp flyover, the northbound to westbound left-turn lanes on Douglas will be removed. Entrance and exit ramp lanes will also be constructed along I-40. Collector-distributor roads will be removed and will not be re-constructed.

- Alternative 3 - Cloverleaf Interchange. The existing cloverleaf will be completely reconstructed to accommodate widening I-40 to a six-lane facility. All ramps and both collector-distributor roads will be reconstructed. Through the interchange, Douglas Boulevard will consist of four through lanes, two lanes for loop ramp weaving, two additional lanes located in the median which can be used in the future for left turning traffic, and entrance and exit lanes where needed. Entrance and exit ramp lanes will also be constructed along I-40.

Regardless of the interchange alternative selected, the Engle Road bridge over I-40, which is no longer in service, will be removed as a part of this project. Permanent new right-of-way is proposed in the SW quadrant of the interchange. The road will remain open to traffic during construction.

Current design plans depict fill line work extending into the water of an unnamed intermittent tributary to Soldier Creek (near NBI #15468). Additionally, mapped blue-line streams and ephemeral drainages revealing ordinary high water marks (OHWM) are present throughout the project extents of which the USACE may take jurisdiction. Therefore, in-water work is assumed.

Check if any of the following is expected as part of the proposed action

- |  |                                     |
|--|-------------------------------------|
| Work within OHWM is expected   | <input checked="" type="checkbox"/> |
| Project is OFF-SET alignment <input type="checkbox"/> or NEW alignment | <input type="checkbox"/>            |
| Project involves <b>NO OFF EXISTING PAVEMENT</b> work                  | <input type="checkbox"/>            |
| Project requires new ROW (permanent &/or temporary)                    | <input checked="" type="checkbox"/> |
| Tree removal is expected <100' from edge of existing pavement          | <input checked="" type="checkbox"/> |
| 100'-300' from edge of existing pavement                               | <input type="checkbox"/>            |
| >300' from edge of existing pavement                                   | <input type="checkbox"/>            |

**1.3. Project Area and Setting**

Project Location		Environmental Study Footprint		Ecoregion & Game Type	
<u>Section Range &amp; Township</u>	<u>Lat/Long NAD 83)</u>	<u>Dimensions</u>	<u>Acreage</u>	<u>Level IV Ecoregion (Woods et al. 2005)</u>	<u>Game Type (Duck and Fletcher 1943)</u>
S11, T11N, R2W; S12, T11N, R2W; S13, T11N, R2W; S14, T11N, R2W	Start: 35.4286158744419 N, -97.3616455893943 W  End: 35.4349897230952 N, -97.3870720036987 W	75' east and west of Douglas Blvd south of I-40; 100' east and west of Douglas Blvd north of I-40; 200' north and south of I-40 mainline; dimensions widen in the interchange vicinity. Project length along Douglas Blvd is approximately 0.6 miles; project length along I-40 is approximately 1.5 miles.	112 Ac	Northern Cross Timbers	Post Oak - Blackjack Oak Forest

**Action Area:**

The Project's Action Area includes a 0.25 mile buffer of the NEPA Environmental Study Footprint to accommodate for potential species impacts.

**2. FEDERALLY LISTED SPECIES AND DESIGNATED CRITICAL HABITAT**

**Species Range and Occurrence Evaluation (Check  all that apply)**

Species	IPaC <sup>1</sup>	Watershed <sup>2</sup>	Water Body <sup>3</sup>	Records <sup>4</sup>
	Check if Yes	Check if YES	Check if Yes	Check if Yes
Whooping Crane	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Interior Least Tern	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Piping Plover	<input checked="" type="checkbox"/>			<input type="checkbox"/>
Red Knot	<input checked="" type="checkbox"/>			<input type="checkbox"/>

<sup>1</sup>Species is on the Proposed Project's IPaC List

<sup>2</sup>Action Area is within a watershed associated with occupied water bodies

<sup>3</sup>Action Area includes an occupied water body

<sup>4</sup>Project site within 5 miles of known records

Designated or Proposed Critical Habitat	Action Area includes Designated Critical Habitat (Check <input checked="" type="checkbox"/> if Yes)
Whooping Crane	<input type="checkbox"/>

IPaC Special Conditions Identified (wind energy projects or cell towers) for **Interior Least Terns**

IPaC Special Conditions Identified (wind energy projects or cell towers) for **Piping Plovers**

Action area is within which **Whooping Crane** migratory corridor percentage zone  
**10%**

Action area is within 15 miles of Salt Plains NWR, Hackberry Flat, or Foss Reservoir.

### 3. ENVIRONMENTAL BASELINE

#### 3.1. Ecological Processes and Conditions

Soils (Use Soil Map of Oklahoma by Carter and Gregory 2008)

##### FAR WESTERN PORTION OF STUDY AREA

Soil Class	Central Rolling Red Prairies
Soil Name	Renfrow-Kirkland-Grainola-Bethany
Soil Type	Mollisols; Alfisols
Soil Characteristics	Clayey and humus-rich soils on very gentle slopes (4%)

##### MAJORITY OF STUDY AREA

Soil Class	Northern Cross Timbers
Soil Name	Stephenville-Darnell-Niotaze
Soil Type	Alfisols; Inceptisols
Soil Characteristics	Shallow, sandy and loamy, moderately acid, and humus-poor soils on steep slopes (up to 18%)

Climate (Use Woods et al. 2005)

Precipitation	Mean annual inches	32-40
Growing Season	Number of days	190 - 220 days
Mean Temperatures	Summer min/max	68-94
	Winter min/max	29-55

River System

Unnamed tributaries to Soldier Creek
--------------------------------------

Land Use and Land Ownership

From Woods et al. 2005	Livestock farming is the main land use; cropland is less extensive than in the Central Great Plains and Central Irregular Plains, but rangeland is less widespread than in the Flint Hills.
From Field investigation	Upon site investigations, the current land use was characterized as predominantly urban with upland and riparian forest present in the eastern portion of the study area.

Terrestrial and Aquatic Community Descriptions (based on field site visit)

The majority of the study area was considered urban with forest dominating the eastern portion of the study area. Identification of the vegetation present within the project limits was limited due to the season in which the survey was conducted. Areas of right-of-way and urban areas consisted of mowed grasses. The intermittent tributaries to Soldier Creek exhibited normal hydrologic conditions for the time of year in which the survey was conducted. Midwest City has had approximately 26 inches of rainfall accumulation over the past 365 days, which is considered normal. All of the mapped intermittent streams had water present in the channel at the time of field survey. Common riparian zone species included the following vegetation: eastern cottonwood (*Populus deltoides*), black willow (*Salix nigra*), sugarberry (*Celtis laevigata*), American elm (*Ulmus americana*), post oak (*Quercus stellata*), blackjack oak (*Q. marilandica*), black oak (*Q. velutina*), Osage orange (*Maclura pomifera*), sycamore (*Platanus occidentalis*), red cedar (*Juniperus virginiana*), privet (*Ligustrum* spp.), buttonbush (*Cephalanthus occidentalis*), poison ivy (*Rhus radicans*), greenbrier (*Smilax rotundifolia*), Canada wildrye (*Elymus canadensis*), brushy bluestem (*Andropogon glomeratus*), smartweed (*Polygonum* spp.), and horsetail (*Equisetum* sp.). Woody species such as post oak (*Quercus stellata*), blackjack oak (*Q. marilandica*), and red cedar (*Juniperus virginiana*) were present in the upland portions of forest. One shrub wetland was present within the study area along an intermittent stream channel. The dominant vegetation present was black willow (*Salix nigra*), buttonbush (*Cephalanthus occidentalis*), and horsetail (*Equisetum* sp.).

3.2 Species Habitat Analysis

Pedestrian survey of entire NEPA study footprint (including 300-foot work zone buffer in karst areas)

SPECIES	HABITAT	
Whooping Crane	Shallowly-submerged sandbars in large river channels occur within the <b>0.25 miles of the NEPA Environmental Study Footprint.</b>	<input type="checkbox"/>
	If within the 75% migration corridor, provide the number of acres of emergent wetlands that occur within the <b>NEPA Environmental Study Footprint.</b>	enter acres.
	Croplands suitable for foraging occur within the <b>0.25 miles of the NEPA Environmental Study Footprint</b> and are within 15 miles of Salt Plains National Wildlife Refuge, Hackberry Flat, or Foss Reservoir.	<input type="checkbox"/>

SPECIES	HABITAT	
Interior Least Tern	Sparsely vegetated islands or sandbars along large rivers, with nearby areas of shallow water, occur within the <b>0.25 miles of the NEPA Environmental Study Footprint.</b>	<input type="checkbox"/>
Piping Plover	Sparsely vegetated sandy or gravelly shorelines and islands associated with the major river systems occur within the <b>0.25 miles of the NEPA Environmental Study Footprint.</b>	<input type="checkbox"/>
	Salt flats and mudflats associated with reservoirs occur within the <b>0.25 miles of the NEPA Environmental Study Footprint.</b>	<input type="checkbox"/>
Red Knot	Mudflats associated with reservoirs occur within the <b>0.25 miles of the NEPA Environmental Study Footprint.</b>	<input type="checkbox"/>

**4. ANALYSIS OF EFFECTS**

**4.1 Direct Effects**

Species/ Resource	Habitat impacts expected from project activities	<u>Describe specific ACTIONS of the project and the results of those actions on species habitats, including indirect impacts to prey or improvements to habitat as a result of specific actions. If habitat within the action area identified above will not be impacted, describe why.</u>
None	<input type="checkbox"/>	

**4.2 Indirect Effects**

Long-term habitat alterations

Species/ Resource	<u>Identify long-term, permanent changes in habitat</u>
None	

Indirect land use impacts

No indirect changes in land use are anticipated as a result of this project.

**4.3 Interrelated and Interdependent Actions and Activities**

This project involves the replacement of an existing state highway bridge, reconstruction of interchange ramps and access roads, and widening of I-40 to accommodate traffic. Existing utilities will need to be relocated as a result of the proposed project.



<b>USFWS TAILS Number:</b>	<b>02EKOK00-2017-SLI-0562</b>
<b>ODOT Project JP Number:</b>	<b>28992(04)</b>

**Species Conclusion Table (Check  which apply)**

<b>SPECIES / DESIGNATED CRITICAL HABIT</b>	<b>CONCLUSION</b>		<b>ESA SECTION 7</b>			<b>NOTES AND DOCUMENTATION Check <input checked="" type="checkbox"/> all that apply</b>			
	Species Habitat present within the action area	Project Activities expected to impact habitat	No Effect	May affect, unlikely to adversely affect	May affect, Likely to adversely affect	Field Studies	database review <sup>1</sup>	USFWS Review <sup>2</sup>	Other <sup>3</sup>
Interior Least Tern	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Whooping Crane	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Piping Plover	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Red Knot	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<sup>1</sup>ONHI rare species / ABB

<sup>2</sup>USFWS occupied water bodies and associate watershed maps

<sup>3</sup>Whooping Crane Migration Corridor Map; LPC Habitat Model

**CONCLUSIONS**

No Effect	Interior Least Tern, Whooping Crane, Piping Plover, and Red Knot
May affect, unlikely to adversely affect	
May affect, likely to adversely affect	
Not likely to jeopardize the continued existence of the species – Candidate species only	

**RECOMMENDED AVOIDANCE AND MINIMIZATION MEASURES**

None required

**5. BALD EAGLE AND SWALLOW ASSESSMENT**

**5.1. Bald Eagle Assessment**

The Bald Eagle (*Haliaeetus leucocephalus*) is a large predatory bird protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Activities that would disturb eagles are prohibited under the Bald and Golden Eagle Protection Act. “Disturb” means to agitate an eagle to the degree that causes or is likely to (1) cause injury, (2) interfere with breeding, feeding or sheltering behavior, or (3) nest abandonment.

Bald Eagle Habitat Present	<input type="checkbox"/>	None
Bald Eagle Nests Observed	<input type="checkbox"/>	If box is checked, describe.
Bald Eagles Observed	<input type="checkbox"/>	If box is checked, describe.

**5.2 Migratory Bird Assessment**

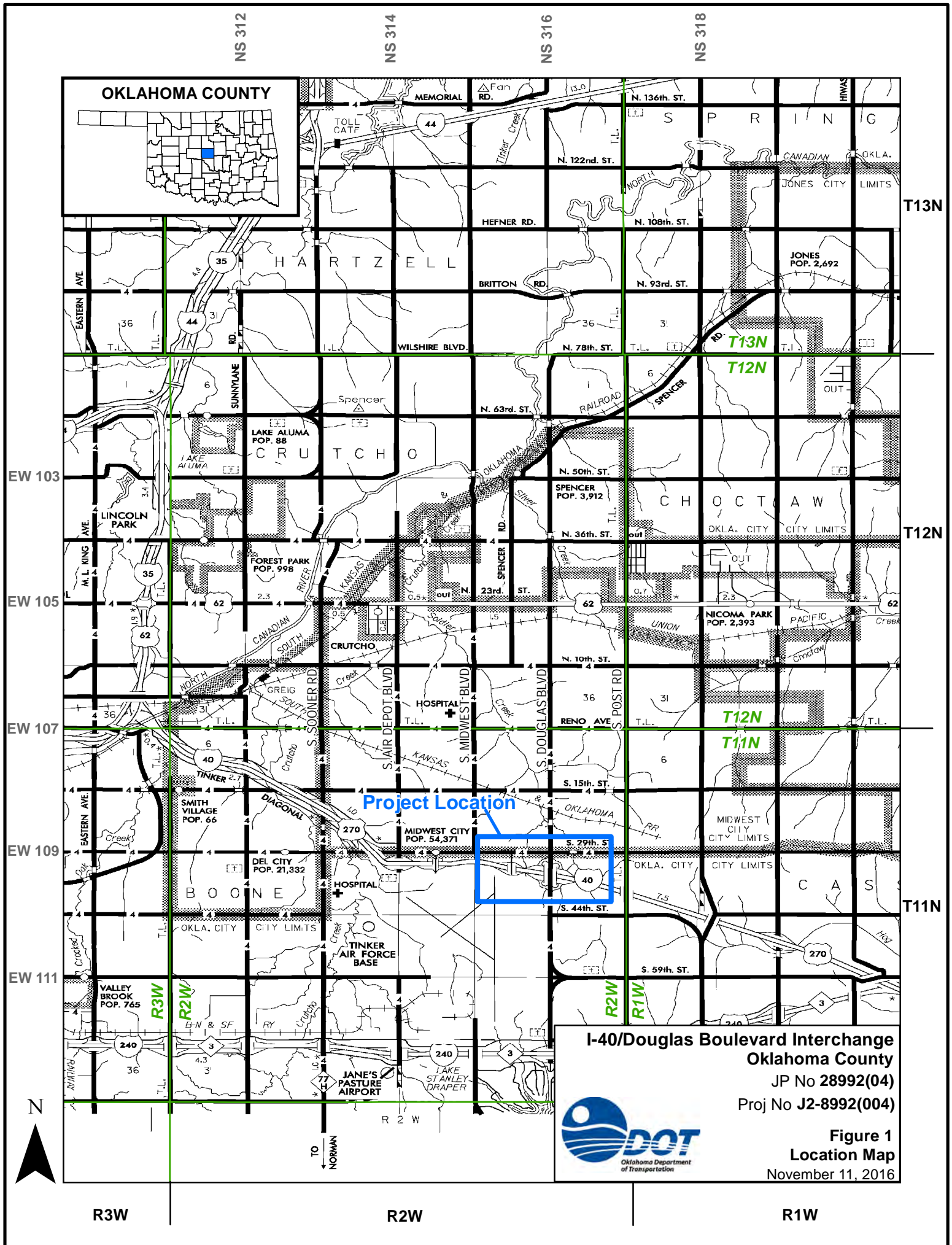
Cliff Swallows (*Petrochelidon pyrrhonota*) and Barn Swallows (*Hirundo rustica*) are small colonial and semi-colonial nesting birds protected by the federal Migratory Bird Treaty Act. Barn Swallows use man-made structures for nesting and live in close association with humans. Both species commonly use bridges and culverts in Oklahoma for nesting. Other migratory birds can also nest on transportation structures.

Structure Number or Location of <u>ALL</u> structures suitable for nesting within the NEPA footprint – regardless of whether being used by migratory birds or not.	Approximate Number of Cliff Swallow Nests	Approximate Number of Barn Swallow Nests
I-40 bridge (NBI #15468) associated with unnamed intermittent drainage (FS-1) east of Douglas Boulevard. (35.428924 N, -97.362476 W)	0	0
I-40 culvert associated with unnamed intermittent drainage (FS-4) east of Douglas Boulevard. (35.430521 N, -97.366963 W)	0	0
Douglas Boulevard bridge (NBI #15573). (35.431902 N, -97.370826 W)	0	0

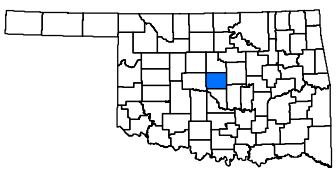
Structure Number or Location of <u>ALL</u> structures suitable for nesting within the NEPA footprint – regardless of whether being used by migratory birds or not.	Approximate Number of Cliff Swallow Nests	Approximate Number of Barn Swallow Nests
Engle Road bridge (NBI #15560). (35.433511 N, -97.375221 W)	0	0
I-40 culvert associated with unnamed intermittent drainage (FS-6) west of Douglas Boulevard. (35.434222 N, -97.377473 W)	0	0
Industrial Boulevard bridge (NBI #15559). ( 35.434448 N, -97.37905 W)	0	0
“A” Avenue bridge (NBI #15330). (35.435007 N, -97.386962 W)	0	0
Other MB Nests Observed on Transportation Structures	n/a	
<p>In order to avoid impacts to migratory birds, if structures are being used by these birds, any activities that may destroy active nests, eggs or birds shall be completed between September 1, and March 31, when nests are not occupied. If seasonal avoidance cannot be accomplished, structures shall be protected from new nest establishment prior to April 1, by means that do not result in death or injury to these birds.</p>		

## 6. REFERENCES:

- Carter, Brian J. and Mark S. Gregory. 2008. "Soil Map of Oklahoma"  
Oklahoma State University. Department of Plant and Soil Sciences.
- Duck, L. G. and Jack B. Fletcher. 1943. The Game Types of Oklahoma. A Report to the Oklahoma Game and Fish Commission. <http://www.biosurvey.ou.edu/duckflt/dfhome.html>
- Harrington, B. A. 2001. Red Knot (*Calidris canutus*). The Birds of North America, No. 563 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.
- Mesonet. 365-day Rainfall Accumulation.  
[https://www.mesonet.org/index.php/weather/map/365\\_day\\_rainfall\\_accumulation/rainfall#](https://www.mesonet.org/index.php/weather/map/365_day_rainfall_accumulation/rainfall#)
- Oklahoma Climatological Survey. Rainfall summaries by climate division (tables & maps) - Last 30 Days  
[http://climate.ok.gov/index.php/drought/last\\_30\\_days/drought\\_wildfire](http://climate.ok.gov/index.php/drought/last_30_days/drought_wildfire)
- U.S. Climate Data. Climate, Oklahoma City, OK -  
<http://www.usclimatedata.com/climate/oklahoma-city/oklahoma/united-states/usok0400>
- U.S. Department of Transportation. Federal Highway Administration. "Migratory Bird Treaty Act and Executive Order 13186". February 2, 2001. <http://www.fhwa.dot.gov/environment/migbird.htm>
- U.S. Fish and Wildlife Service. "Interior Least Tern." April 1992.  
<http://www.fws.gov/southeast/es/Oklahoma/leastern.htm>
- U.S. Fish and Wildlife Service. "Piping Plover." April 1992.  
<http://www.fws.gov/southeast/es/Oklahoma/plover.htm>
- U.S. Fish and Wildlife Service. "Rufa Red Knot." May 14, 2014. <http://www.fws.gov/northeast/redknot/>
- U.S. Fish and Wildlife Service. December 2007. "Federally-Listed Aquatic Dependent Species Watersheds of Oklahoma". <http://www.fws.gov/southwest/es/oklahoma/sect7.htm>
- U.S. Fish and Wildlife Service. "Federal Laws that Protect Bald Eagles." May 20, 2008.  
<http://www.fws.gov/midwest/eagle/protect/laws.html>
- U.S. Fish and Wildlife Service. "Information, Planning, and Conservation System"  
<http://ecos.fws.gov/ipac/> Accessed December 12, 2016
- U.S. Fish and Wildlife Service. "Whooping Crane Fact Sheet" August 2011.  
[http://www.fws.gov/southwest/es/oklahoma/Documents/TE\\_Species/Species%20Profiles/Whooping%20Crane.pdf](http://www.fws.gov/southwest/es/oklahoma/Documents/TE_Species/Species%20Profiles/Whooping%20Crane.pdf)
- U.S. Fish and Wildlife Service. "Whooping Crane Corridor Map GIS shapefiles" 2014
- Woods, A.J., Omernik, et al. 2005. Ecoregions of Oklahoma. Reston, Virginia, U.S. Geological Survey.



**OKLAHOMA COUNTY**



**Project Location**

**I-40/Douglas Boulevard Interchange**  
**Oklahoma County**  
 JP No 28992(04)  
 Proj No J2-8992(004)



**Figure 1**  
**Location Map**  
 November 11, 2016

R3W

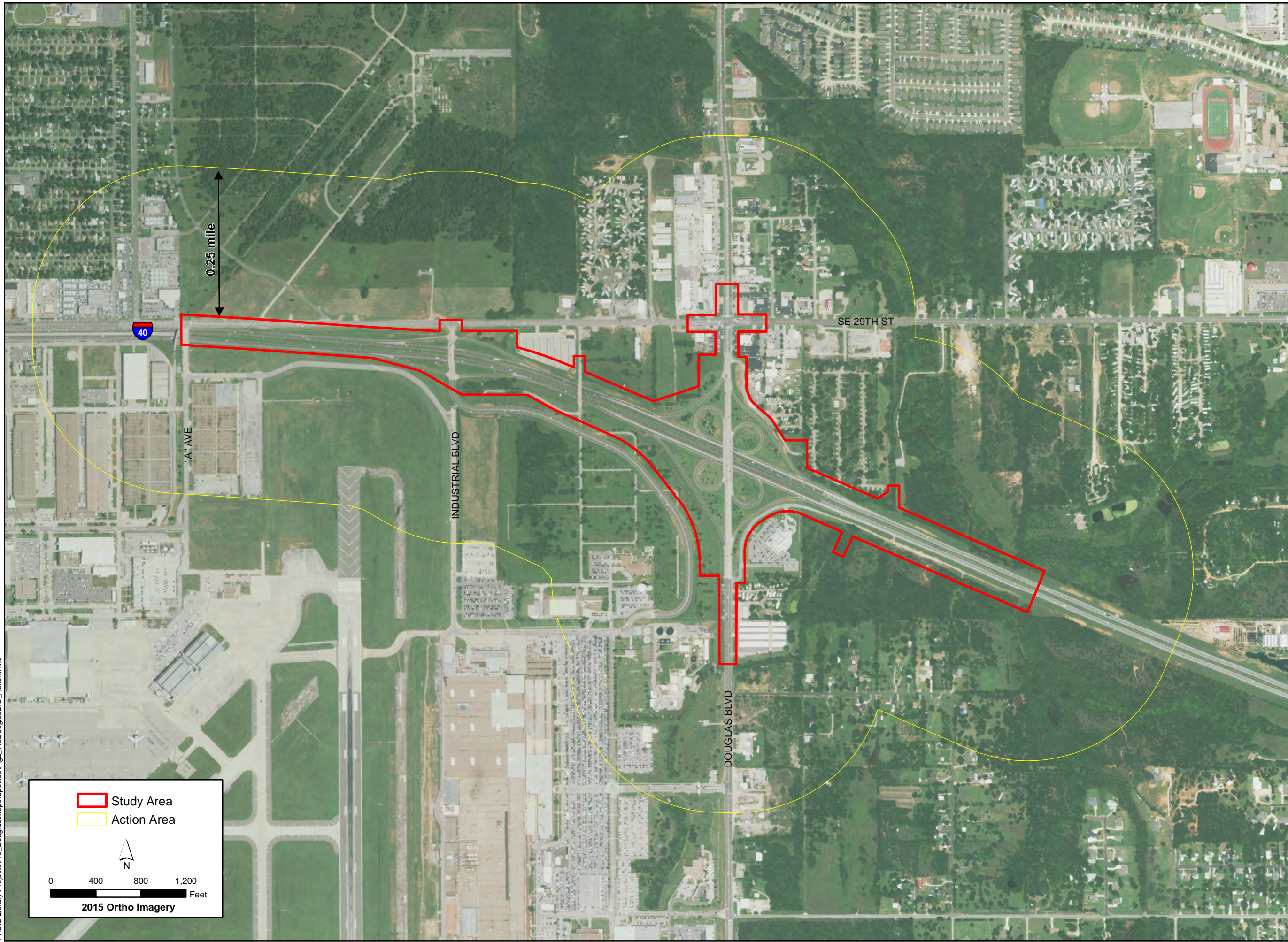
R2W

R1W



**Triad Design Group**

3020 N.W. 149th Street  
 Oklahoma City, Oklahoma 73134  
 Ph. (405) 752-1122  
 Fax (405) 752-8855



Study Area  
 Action Area

N

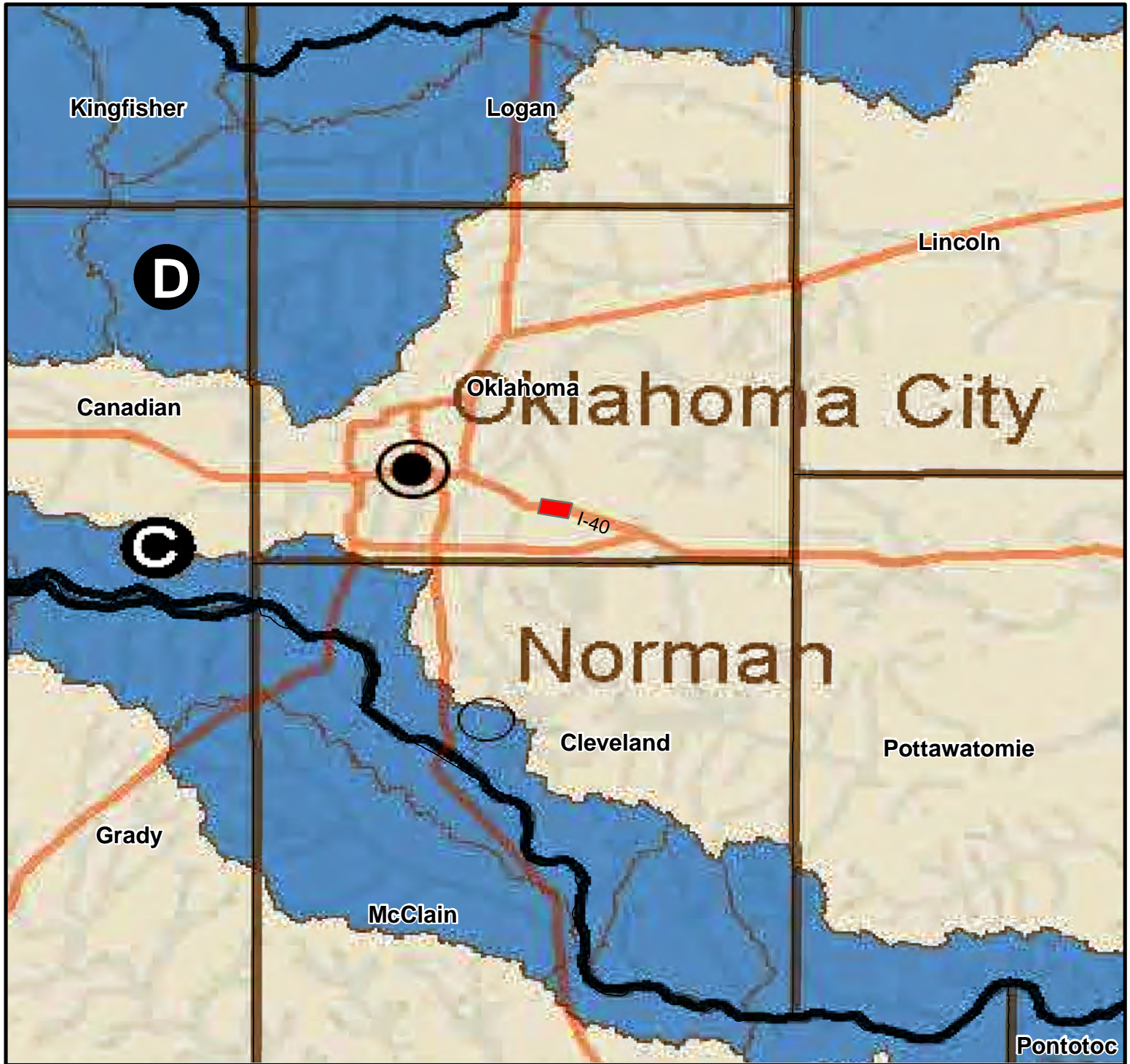
0      400      800      1,200  
 Feet

**2015 Ortho Imagery**

FIGURE TITLE	<b>STUDY AREA AND ACTION AREA MAP FOR JP 28992 (04)</b>
DOCUMENT TITLE	BIOLOGICAL ASSESSMENT - I-40 & DOUGLAS BOULEVARD INTERCHANGE
CLIENT	OKLAHOMA DEPARTMENT OF TRANSPORTATION
LOCATION	OKLAHOMA COUNTY, OKLAHOMA

DATE	2/1/2017
SCALE	AS SHOWN
DESIGNED BY	TS
APPROVED BY	RE
DRAWN BY	RE

FIGURE NUMBER
<b>2</b>



StudyArea



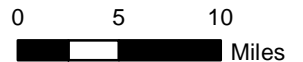
Interior Least Tern (Canadian River Watershed)



Interior Least Tern (Cimarron River Watershed)



N



UFSWS Federally-Listed Aquatic Dependent Species Watersheds of Oklahoma - April 2011

## Triad Design Group

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FIGURE TITLE

**FEDERALLY-LISTED WATERSHEDS FOR JP 28992(04)**

DOCUMENT TITLE

BIOLOGICAL ASSESSMENT - I-40 & DOUGLAS BLVD INTERCHANGE

CLIENT

OKLAHOMA DEPARTMENT OF TRANSPORTATION

LOCATION

OKLAHOMA COUNTY, OKLAHOMA

DATE 1/3/2017

SCALE AS SHOWN

DESIGNED BY TS

APPROVED BY RE

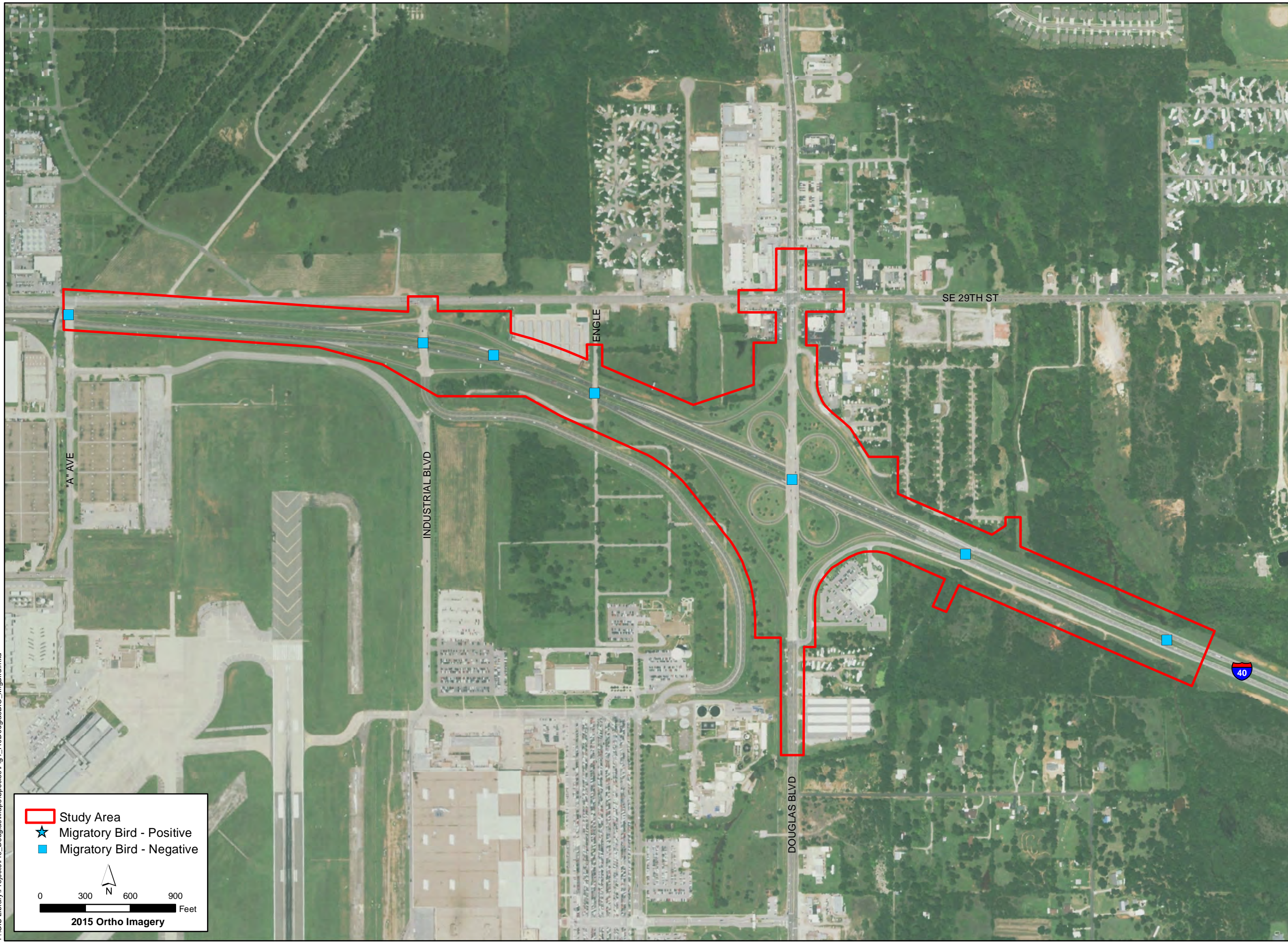
DRAWN BY RE

FIGURE NUMBER

3

# Triad Design Group

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 Ph. (405) 752-1122  
 Fax (405) 752-8855



Study Area  
★ Migratory Bird - Positive  
■ Migratory Bird - Negative

0 300 600 900  
 Feet  
 2015 Ortho Imagery

FIGURE TITLE	<b>MIGRATORY BIRD LOCATIONS FOR JP 28992 (04)</b>
DOCUMENT TITLE	BIOLOGICAL ASSESSMENT - I-40 & DOUGLAS BOULEVARD INTERCHANGE
CLIENT	OKLAHOMA DEPARTMENT OF TRANSPORTATION
LOCATION	OKLAHOMA COUNTY, OKLAHOMA

DATE	2/1/2017
SCALE	AS SHOWN
DESIGNED BY	TS
APPROVED BY	RE
DRAWN BY	RE

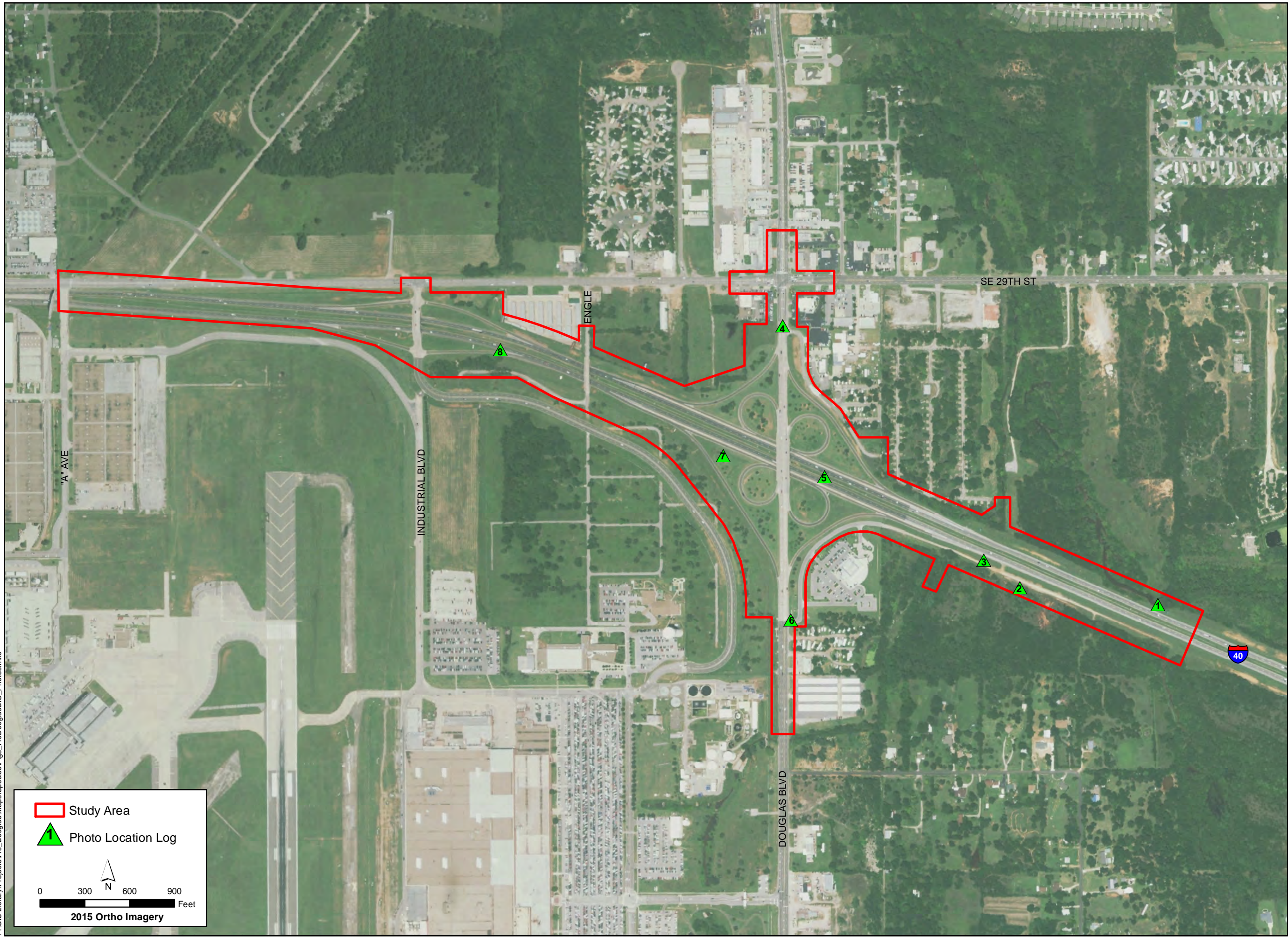
FIGURE NUMBER	<b>4</b>
---------------	----------

F:\GIS Library\Projects\I40\_Douglas\Maps\Species\Fig4\_I40DouglasBIO\_MigBird.mxd



# Triad Design Group

3020 N.W. 149th Street  
 Oklahoma City, Oklahoma 73134  
 Ph. (405) 752-1122  
 Fax (405) 752-8855



Study Area  
▲ Photo Location Log

0      300      600      900  

 Feet  
 2015 Ortho Imagery

FIGURE TITLE	<b>PHOTO LOG FOR JP 28992 (04)</b>
DOCUMENT TITLE	BIOLOGICAL ASSESSMENT - I-40 & DOUGLAS BOULEVARD INTERCHANGE
CLIENT	OKLAHOMA DEPARTMENT OF TRANSPORTATION
LOCATION	OKLAHOMA COUNTY, OKLAHOMA

DATE	2/1/2017
SCALE	AS SHOWN
DESIGNED BY	TS
APPROVED BY	RE
DRAWN BY	RE

FIGURE NUMBER
5

F:\GIS Library\Projects\I40\_Douglas\Maps\Species\Fig5\_I40DouglasBIO\_Photos.mxd



Photo 1: Typical drainage (FS-1) found in project area.  
View from north of I-40 facing northwest.



Photo 2: Upland Area. View facing southeast.



Photo 3: View from south of I-40 facing northwest.



Photo 4: View from Douglas Blvd facing north towards SE 29<sup>th</sup> St.



Photo 5: View from I-40 facing westward towards Douglas Blvd Bridge.



Photo 6: View from Douglas Blvd facing southward.



Photo 7: View facing eastward towards Douglas Blvd Bridge.



Photo 8: View of Engle St. bridge from I-40 facing eastward.



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Oklahoma Ecological Services Field Office  
9014 EAST 21ST STREET  
TULSA, OK 74129  
PHONE: (918)581-7458 FAX: (918)581-7467  
URL: [www.fws.gov/southwest/es/Oklahoma/](http://www.fws.gov/southwest/es/Oklahoma/)

Consultation Code: 02EKOK00-2017-SLI-0562

December 12, 2016

Event Code: 02EKOK00-2017-E-00729

Project Name: I-40 & Douglas Interchange - JP 28992

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Non-federal entities conducting activities that may result in take of listed species should consider seeking coverage under section 10 of the ESA, either through development of a Habitat Conservation Plan (HCP) or, by becoming a signatory to the General Conservation Plan (GCP) currently under development for the American burying beetle. Each of these mechanisms provides the means for obtaining a permit and coverage for incidental take of listed species during otherwise lawful activities.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit through our Project Review step-wise process <http://www.fws.gov/southwest/es/oklahoma/OKESFO%20Permit%20Home.htm>.

Attachment



United States Department of Interior  
Fish and Wildlife Service

Project name: I-40 & Douglas Interchange - JP 28992

## Official Species List

### Provided by:

Oklahoma Ecological Services Field Office

9014 EAST 21ST STREET

TULSA, OK 74129

(918) 581-7458

<http://www.fws.gov/southwest/es/Oklahoma/>

**Consultation Code:** 02EKOK00-2017-SLI-0562

**Event Code:** 02EKOK00-2017-E-00729

**Project Type:** TRANSPORTATION

**Project Name:** I-40 & Douglas Interchange - JP 28992

**Project Description:** I-40 & Douglas Interchange

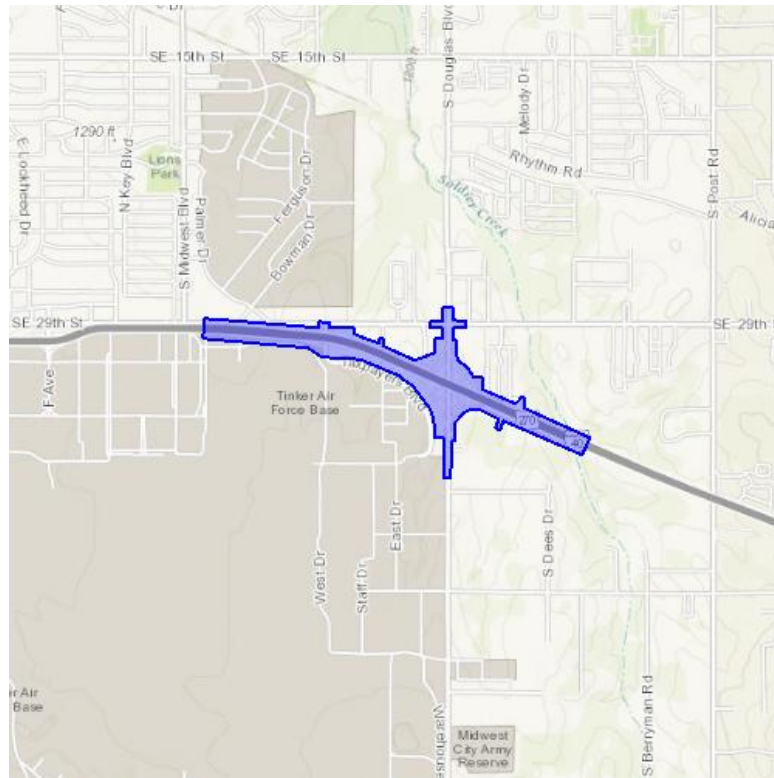
**Please Note:** The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior  
Fish and Wildlife Service

Project name: I-40 & Douglas Interchange - JP 28992

### Project Location Map:



**Project Coordinates:** The coordinates are too numerous to display here.

**Project Counties:** Oklahoma, OK



United States Department of Interior  
Fish and Wildlife Service

Project name: I-40 & Douglas Interchange - JP 28992

## Endangered Species Act Species List

There are a total of 4 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

<b>Birds</b>	<b>Status</b>	<b>Has Critical Habitat</b>	<b>Condition(s)</b>
Least tern ( <i>Sterna antillarum</i> ) Population: interior pop.	Endangered		Towers (i.e. radio, television, cellular, microwave, meteorological) Wind Turbines and Wind Farms
Piping Plover ( <i>Charadrius melodus</i> ) Population: except Great Lakes watershed	Threatened	Final designated	
Red Knot ( <i>Calidris canutus rufa</i> ) Population: Wherever found	Threatened		
Whooping crane ( <i>Grus americana</i> ) Population: Wherever found, except where listed as an experimental population	Endangered	Final designated	





United States Department of Interior  
Fish and Wildlife Service

Project name: I-40 & Douglas Interchange - JP 28992

## **Critical habitats that lie within your project area**

There are no critical habitats within your project area.



United States Department of Interior  
Fish and Wildlife Service

Project name: I-40 & Douglas Interchange - JP 28992

## **Appendix A: FWS National Wildlife Refuges and Fish Hatcheries**

There are no refuges or fish hatcheries within your project area.



United States Department of Interior  
Fish and Wildlife Service

Project name: I-40 & Douglas Interchange - JP 28992

## Appendix B: FWS Migratory Birds

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The MBTA has no otherwise lawful activities. For more information regarding these Acts see: <http://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php>  
<http://www.fws.gov/birds/policies-and-regulations/laws-legislations/bald-and-golden-eagle-protection-act.php>

All project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. To meet these conservation obligations, proponents should identify potential or existing project-related impacts to migratory birds and their habitat and develop and implement conservation measures that avoid, minimize, or compensate for these impacts. The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

For information about Birds of Conservation Concern, go to:

<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>

For information about conservation measures that help avoid or minimize impacts to birds, please visit:

<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>

To search and view summaries of year-round bird occurrence data within your project area, go to the Avian Knowledge Network Histogram Tools at:

<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/akn-histogram-tools.php>



United States Department of Interior  
Fish and Wildlife Service

Project name: I-40 & Douglas Interchange - JP 28992

**Migratory birds that may be affected by your project:**

There are 24 birds on your migratory bird list. The list may include birds occurring outside this FWS office jurisdiction.

Species Name	Bird of Conservation Concern (BCC)	Seasonal Occurrence in Project Area
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	Yes	Wintering
Bell's Vireo ( <i>Vireo bellii</i> )	Yes	Breeding
Chestnut-collared Longspur ( <i>Calcarius ornatus</i> )	Yes	Wintering
Dickcissel ( <i>Spiza americana</i> )	Yes	Breeding
Fox Sparrow ( <i>Passerella iliaca</i> )	Yes	Wintering
Golden eagle ( <i>Aquila chrysaetos</i> )	Yes	Wintering
Harris's Sparrow ( <i>Zonotrichia querula</i> )	Yes	Wintering
Hudsonian Godwit ( <i>Limosa haemastica</i> )	Yes	Migrating
Lark Bunting ( <i>Calamospiza melanocorys</i> )	Yes	Breeding
Lewis's Woodpecker ( <i>Melanerpes lewis</i> )	Yes	Wintering
Little Blue Heron ( <i>Egretta caerulea</i> )	Yes	Breeding
Loggerhead Shrike ( <i>Lanius ludovicianus</i> )	Yes	Year-round
Long-Billed curlew ( <i>Numenius americanus</i> )	Yes	Breeding
Mississippi Kite ( <i>Ictinia mississippiensis</i> )	Yes	Breeding
Orchard Oriole ( <i>Icterus spurius</i> )	Yes	Breeding



United States Department of Interior  
Fish and Wildlife Service

Project name: I-40 & Douglas Interchange - JP 28992

Painted Bunting ( <i>Passerina ciris</i> )	Yes	Breeding
Prothonotary Warbler ( <i>Protonotaria citrea</i> )	Yes	Breeding
Red-headed Woodpecker ( <i>Melanerpes erythrocephalus</i> )	Yes	Year-round
Rufous-crowned Sparrow ( <i>Aimophila ruficeps</i> )	Yes	Year-round
Rusty Blackbird ( <i>Euphagus carolinus</i> )	Yes	Wintering
Scissor-tailed Flycatcher ( <i>Tyrannus forficatus</i> )	Yes	Breeding
Short-eared Owl ( <i>Asio flammeus</i> )	Yes	Wintering
Sprague's Pipit ( <i>Anthus spragueii</i> )	Yes	Wintering
Swainson's hawk ( <i>Buteo swainsoni</i> )	Yes	Breeding



United States Department of Interior  
Fish and Wildlife Service

Project name: I-40 & Douglas Interchange - JP 28992

## Appendix C: NWI Wetlands

Wetlands data for your project area was not available at the time of this species list request.

# WATERS AND WETLANDS EVALUATION REPORT

## For I-40 & Douglas Boulevard Interchange

County	Oklahoma	JP Number	28992(04)	Project Number	J2-8992(004)
Road Number	I-40	Water Body Name		Unnamed tributaries to Soldier Creek	
ROW Date		Let Date		Project Length	Apx. 1.5 miles along I-40; Apx. 0.6 miles along Douglas Blvd
Project General Location		I-40 and Douglas Boulevard interchange in Midwest City, 6.5 miles east of I-35			
Project Statement		I-40 and Douglas Boulevard bridge and interchange (including removal of Engle Rd. bridge)			

Prepared for:  
Oklahoma Department of Transportation  
Environmental Programs Division  
200 NE 21<sup>st</sup> Street  
Oklahoma City, OK 73105

Prepared by:

Biologist Name	Renee' Ellis
Company/Agency Name	Triad Design Group
Address	3020 Northwest 149 <sup>th</sup> Street
City, State Zip	Oklahoma City, OK 73134

Report Date:	February 2017
Field Date:	January 11, 2017

**PROJECT OVERVIEW**

<b>Project Type (Choose one)</b>	<b>Check <input checked="" type="checkbox"/></b>
Bridge and Approaches or bridge widening/structure extension	<input type="checkbox"/>
Grade, Drain, Surface and Bridge	<input type="checkbox"/>
Grade, Drain and Surface	<input type="checkbox"/>
Asphalt Overlay Resurfacing	<input type="checkbox"/>
Widen and Resurface existing lanes	<input type="checkbox"/>
Pavement Reconstruction or rehabilitation	<input type="checkbox"/>
Bridge Rehabilitation	<input type="checkbox"/>
Safety Improvements (Cable Barrier, Guardrail, signage)	<input type="checkbox"/>
Intersection Modifications	<input type="checkbox"/>
Safe Routes to School (Describe)	<input type="checkbox"/>
Enhancements (Describe)	<input type="checkbox"/>
Other (Describe) Interchange & Bridge	<input checked="" type="checkbox"/>

Description of the **existing** bridge/roadway

The Douglas Boulevard bridge (NBI # 15573) over I-40 is six lanes wide including four through lanes, two loop ramp weaving lanes, curb and gutter, and 3-ft sidewalks on each side of the bridge. The bridge is a six-span, 80-ft wide concrete continuous slab bridge, with a sufficiency rating of 77.0. The vertical clearance for I-40 is posted as 16-ft-9-in (eastbound) and 16-ft-4-in (westbound). The current annual average daily traffic (AADT) on Douglas Boulevard is 26,100 vehicles per day (vpd), and is projected to increase to 47,980 vpd by the year 2045.

I-40 underneath Douglas Boulevard is a four-lane divided urban interstate with a 40-ft wide grass median, 12-ft wide driving lanes, 3-ft wide inside shoulders, and 10-ft wide outside shoulders. The current AADT on I-40 is 54,574 vpd, and is projected to increase to 84,580 vpd by the year 2045. The existing I-40 and Douglas Boulevard interchange is a full cloverleaf interchange with collector-distributor roads along I-40.

The existing Engle Road bridge (NBI # 15560) over I-40 formerly provided access to a residential neighborhood south of I-40. However, the neighborhood no longer exists and the property is now owned by Tinker Air Force Base. Therefore, Engle Road bridge is closed to traffic and not in use.

The purpose of this project is to correct the functionally obsolete Douglas Boulevard bridge and improve safety while accommodating future traffic volumes, which indicate I-40 should be widened from four lanes to six lanes.



**Description of proposed improvements SPECIFIC TO THIS PROJECT**

Three (3) interchange alternatives have been identified for consideration:

- Alternative 1 - Single Point Urban Interchange (SPUI). A Single Point Urban Interchange is a basic diamond interchange with a single signalized central intersection in the center of the bridge. The Douglas Boulevard traffic along with the I-40 ramp traffic will converge to a single point utilizing the single set of traffic signals. The SPUI interchange accommodates large traffic volumes efficiently with minimal right-of-way impacts. I-40 will be improved to a six-lane facility. Through the interchange, Douglas Boulevard will consist of six through lanes, dual left-turn lanes, and right-turn lanes where needed. Entrance and exit ramp lanes will also be constructed along I-40. Collector-distributor roads will be removed and will not be re-constructed.
- Alternative 2 - Tight Urban Diamond Interchange (TUDI) with Ramp Flyover. A Tight Urban Diamond Interchange is an interchange that compresses a standard diamond interchange. This design includes all four interchange ramps, as well as the option of adding a future flyover ramp for northbound Douglas Boulevard traffic destined for westbound I-40. I-40 will be improved to a six-lane facility. Through the interchange, Douglas Boulevard will consist of six through lanes, dual left-turn lanes, and right-turn lanes where needed. Upon construction of the northbound to westbound ramp flyover, the northbound to westbound left-turn lanes on Douglas will be removed. Entrance and exit ramp lanes will also be constructed along I-40. Collector-distributor roads will be removed and will not be re-constructed.
- Alternative 3 - Cloverleaf Interchange. The existing cloverleaf will be completely reconstructed to accommodate widening I-40 to a six-lane facility. All ramps and both collector-distributor roads will be reconstructed. Through the interchange, Douglas Boulevard will consist of four through lanes, two lanes for loop ramp weaving, two additional lanes located in the median which can be used in the future for left turning traffic, and entrance and exit lanes where needed. Entrance and exit ramp lanes will also be constructed along I-40.

Regardless of the interchange alternative selected, the Engle Road bridge over I-40, which is no longer in service, will be removed as a part of this project. Permanent new right-of-way is proposed in the SW quadrant of the interchange. The road will remain open to traffic during construction.

Current design plans depict fill line work extending into the water of an unnamed intermittent tributary to Soldier Creek (near NBI #15468). Additionally, mapped blue-line streams and ephemeral drainages revealing ordinary high water marks (OHWM) are present throughout the project extents of which the USACE may take jurisdiction. Therefore, in-water work is assumed.

**Project Environmental Study Footprint**

<b>Project Location</b>		<b>Environmental Study Footprint</b>	
<u>Section Range &amp; Township</u>	<u>Lat/Long (NAD 83)</u>	<u>Dimensions</u>	<u>Acreage</u>
S11, T11N, R2W S12, T11N, R2W S13, T11N, R2W S14, T11N, R2W	Start: 35.4286158744419 N, -97.3616455893943 W  End: 35.4349897230952 N, -97.3870720036987 W	75' east and west of Douglas Blvd south of I-40; 100' east and west of Douglas Blvd north of I-40; 200' north and south of I-40 mainline; dimensions widen in the interchange vicinity. Project length along Douglas Blvd is approximately 0.6 miles; project length along I-40 is approximately 1.5 miles.	112 Ac

**Environmental Study Footprint Soils (NRCS Soil Survey Map)**

<b>Map Unit Name</b>	<b>Percent Slope</b>	<b>Drainage Class</b>	<b>Hydric Rating</b>		<b>Description</b>
			<b>YES</b>	<b>NO</b>	
Ashport silt loam (AstA)	0-1%	Well drained		X	Frequently flooded
Harrah fine sandy loam (HarC)	3-5%	Well drained		X	
Harrah fine sandy loam (HarG)	3-45%	Well drained		X	
Harrah-Urban land (HaUC)	3-5%	Well drained		X	
Latrass loam (LatG)	1-45%	Well drained		X	
Littleaxe-Urban land Complex (LtUC)	1-5%	Well drained		X	
Renthin-Urban land Complex (RnUC)	1-5%	Well drained		X	
Stephenville-Darsil-Gullied land complex (SDGD4)	3-8%	Well drained		X	
Stephenville-Darsil-Newalla complex (SDND)	3-8%	Well drained		X	
Stephenville-Urban land-Newalla complex (SUND)	1-8%	Well drained		X	
Tribbey fine sandy loam (TriA)	0-1%	Somewhat poorly drained		X	Frequently flooded
Urban land (URB)	-	-		X	

**Environmental Study Footprint General Description and Vegetation Present**

The field survey was conducted by Triad personnel on January 11, 2017. The majority of the study area was considered urban with forest dominating the eastern portion of the study area. Identification of the vegetation present within the project limits was limited due to the season in which the survey was conducted. Areas of right-of-way and urban areas consisted of mowed grasses. The intermittent tributaries to Soldier Creek exhibited normal hydrologic conditions for the time of year in which the survey was conducted. Midwest City has had approximately 26 inches of rainfall accumulation over the past 365 days, which is considered normal. All of the mapped intermittent streams had water present in the channel at the time of field survey. Common riparian zone species included the following vegetation: eastern cottonwood (*Populus deltoides*), black willow (*Salix nigra*), sugarberry (*Celtis laevigata*), American elm (*Ulmus americana*), post oak (*Quercus stellata*), blackjack oak (*Q. marilandica*), black oak (*Q. velutina*), Osage orange (*Maclura pomifera*), sycamore (*Platanus occidentalis*), red cedar (*Juniperus virginiana*), privet (*Ligustrum* spp.), buttonbush (*Cephalanthus occidentalis*), poison ivy (*Rhus radicans*), greenbrier (*Smilax rotundifolia*), Canada wildrye (*Elymus canadensis*), brushy bluestem (*Andropogon glomeratus*), smartweed (*Polygonum* spp.), and horsetail (*Equisetum* sp.). Woody species such as post oak (*Quercus stellata*), blackjack oak (*Q. marilandica*), and red cedar (*Juniperus virginiana*) were present in the upland portions of forest. One shrub wetland was present within the study area along an intermittent stream channel. The dominant vegetation present was black willow (*Salix nigra*), buttonbush (*Cephalanthus occidentalis*), and horsetail (*Equisetum* sp.).

**WATERS AND WETLANDS EVALUATION**

**Data Sources Reviewed (list)**

USGS 7.5 minute Quad	NWI Map	USACE Wetland Regional Supplement	Additional Resources Reviewed
Midwest City & Choctaw, OK	US Fish & Wildlife Service: "CONUS_wet_poly" vector digital data	Great Plains Region - Southwestern Prairies subregion (LRR J)	National List of Plant Species that Occur in Wetlands: - Region 6: South Plains

**Wetlands and Ponds Summary Table**

Field Sites	Type of Wetland or Pond	Cowardin Classification	Potential Jurisdictional Status	Acres within Environmental Study Footprint
FS-3	Shrub Wetland	PSS1E	Likely	0.03

**Streams and Drainages Summary Table**

Field Sites	Stream Name	USGS Mapped Status	Potential Jurisdictional Status	Acres within Environmental Study Footprint	Linear Feet within Environmental Study Footprint
FS-1	Intermittent Drainage to Soldier Creek	Mapped Intermittent	Likely	0.45	790

Field Sites	Stream Name	USGS Mapped Status	Potential Jurisdictional Status	Acres within Environmental Study Footprint	Linear Feet within Environmental Study Footprint
FS-2	Intermittent Drainage to Soldier Creek	Mapped Intermittent	Likely	0.02	113
FS-4	Intermittent Drainage to Soldier Creek	Mapped Intermittent	Likely	0.37	913
FS-5	Ephemeral Drainage to Soldier Creek	Not Mapped	Likely	0.05	485
FS-6	Intermittent Drainage to Soldier Creek	Mapped Intermittent	Likely	0.11	904

*Streams and other linear aquatic features*

**Field Site 1:** Intermittent Drainage to Soldier Creek (NBI #15468)

This unnamed intermittent drainage is located at the eastern boundary of the study area. The drainage enters the study area south of I-40 and flows northwest, crossing I-40 until it exits the study area north of I-40. Hydrology appears to be obtained from groundwater. The riparian canopy surrounding the area consisted of American elm, sycamore, and sugarberry trees and saplings. The estimated ordinary high water marks ranged from approximately 20 to 30 feet wide. Approximately 790 linear feet of the channel is located within the environmental study limits. The estimated total area of disturbance associated with this drainage is approximately 0.45 acre. Site photographs are included in **Appendix A**. The drainage is mapped as an intermittent drainage on the US Geological Survey (USGS) 7.5-Minute Topographic Map and Site Map (**Figures 2 and 5-A**). This drainage is likely to be considered jurisdictional because it meets the definition of a) a stream and b) “waters of the state, tribe or the United States.”

**Field Site 2:** Intermittent Drainage to Soldier Creek

This unnamed intermittent drainage is located at the eastern boundary of the study area, north of I-40. The drainage flows westward into the drainage noted as FS-1. Hydrology appears to be obtained from groundwater. The riparian canopy surrounding the area consisted of sycamore, American elm, and sugarberry trees and saplings. The estimated ordinary high water marks ranged from approximately 4 to 8 feet wide. Approximately 113 linear feet of the channel is located within the environmental study limits. The estimated total area of disturbance associated with this drainage is approximately 0.02 acre. Site photographs are included in **Appendix A**. The drainage is mapped as an intermittent drainage on the US Geological Survey (USGS) 7.5-Minute Topographic Map and Site Map (**Figures 2 and 5-A**). This drainage is likely to be considered jurisdictional because it meets the definition of a) a stream and b) “waters of the state, tribe or the United States.”

**Field Site 4:** Intermittent Drainage to Soldier Creek

This unnamed intermittent drainage is located east of Douglas Boulevard and west of the drainage noted as FS-1. The drainage enters the study area south of I-40 and flows northeast, crossing I-40 until it exits the study area north of I-40. Hydrology appears to be obtained from groundwater. The riparian canopy surrounding the area consisted of American elm, sycamore, and sugarberry trees and saplings. The

estimated ordinary high water marks ranged from approximately 15 to 20 feet wide. Approximately 913 linear feet of the channel is located within the environmental study limits. The estimated total area of disturbance associated with this drainage is approximately 0.37 acre. Site photographs are included in **Appendix A**. The drainage is mapped as an intermittent drainage on the US Geological Survey (USGS) 7.5-Minute Topographic Map and Site Map (**Figures 2 and 5-A**). This drainage is likely to be considered jurisdictional because it meets the definition of a) a stream and b) “waters of the state, tribe or the United States.”

**Field Site 5: Ephemeral Drainage to Soldier Creek**

This unnamed drainage is located east of Douglas Boulevard and north of I-40. The drainage flows eastward until its confluence with FS-4. No water was present in the channel at the time of survey; hydrology is likely obtained from sheet-flow and roadway run-off. This site is displayed in the site photographs and identified on the site map as FS-5 (**Appendix A and Figure 5-A**). The canopy surrounding the area consisted of American elm, Osage-orange, post oak, blackjack oak, and red cedar trees and saplings. The estimated ordinary high water marks ranged from approximately 3 to 5 feet wide. Approximately 485 linear feet of the channel is located within the environmental study limits. The estimated total area of disturbance associated with this drainage is approximately 0.05 acre. The drainage was not mapped on the US Geological Survey (USGS) 7.5-Minute Topographic Map (**Figure 2**). This drainage is likely to be considered jurisdictional because it meets the definition of a) a stream and b) “waters of the state, tribe or the United States.” Non-Relatively Permanent Waters (RPW) are jurisdictional under the Clean Water Act (CWA) where there is a “significant nexus” with a Traditional Navigable Water (TNW). For each specific request for non-RPWs, USACE field staff will need to perform significant nexus evaluation to determine if tributary is jurisdictional under the CWA.

**Field Site 6: Intermittent Drainage to Soldier Creek**

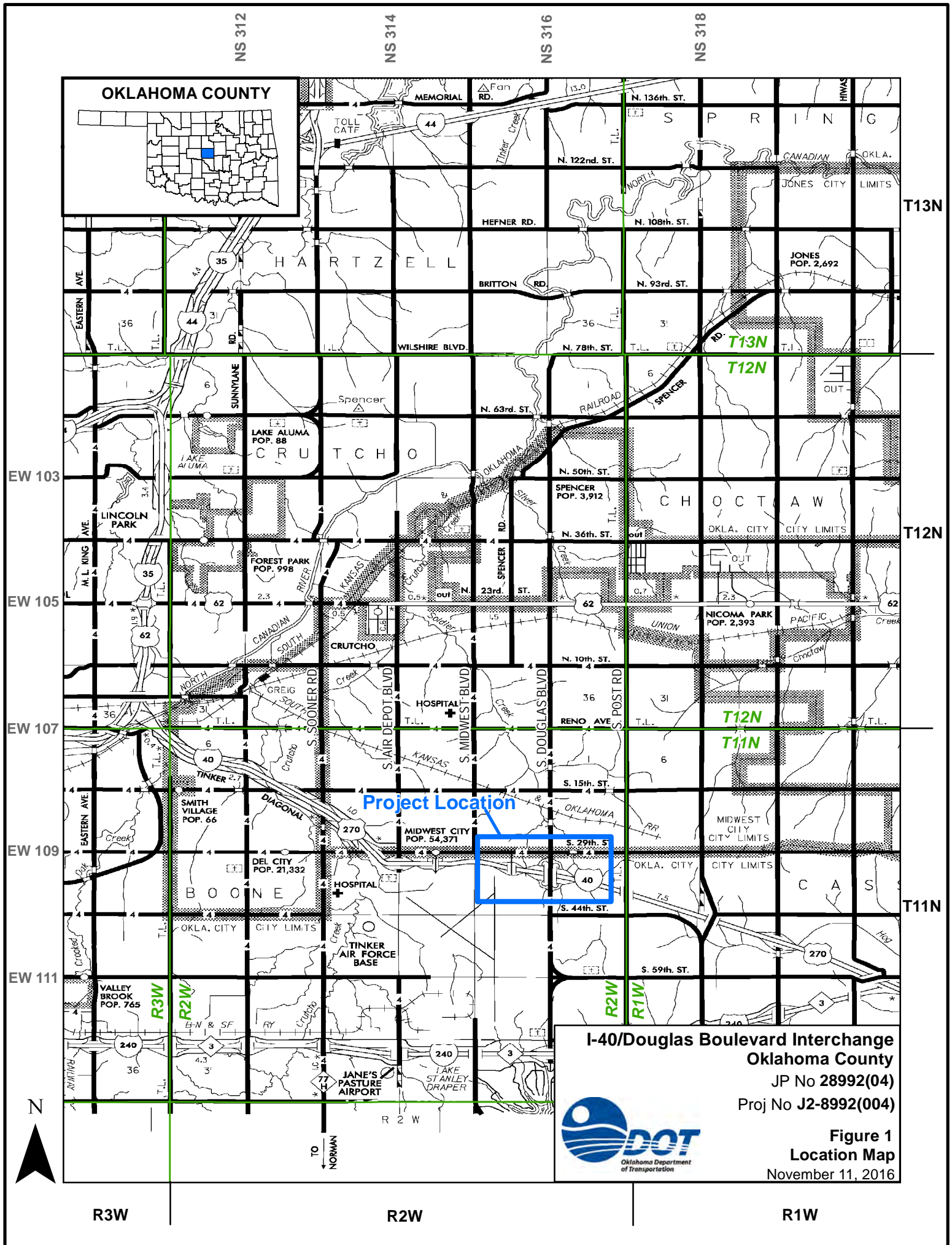
This unnamed intermittent drainage is located west of Douglas Boulevard adjacent to Tinker Air Force Base (AFB). It appears that a portion of this drainage south of I-40 has been previously altered from its historical pattern due to development of the AFB. The drainage enters the study area south of I-40 and flows northeast, crossing I-40 until it exits the study area north of I-40. Hydrology appears to be obtained from groundwater. The riparian canopy surrounding the area consisted of American elm, cottonwood, black willow, and red cedar trees and privet shrubs. The estimated ordinary high water marks ranged from approximately 4 to 7 feet wide. Approximately 904 linear feet of the channel is located within the environmental study limits. The estimated total area of disturbance associated with this drainage is approximately 0.11 acre. Site photographs are included in **Appendix A**. The drainage is mapped as an intermittent drainage on the US Geological Survey (USGS) 7.5-Minute Topographic Map and Site Map (**Figures 2 and 5-B**). This drainage is likely to be considered jurisdictional because it meets the definition of a) a stream and b) “waters of the state, tribe or the United States.”

*Wetlands and ponds*

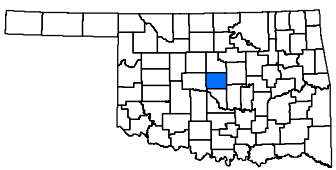
**Field Site 3: Shrub Wetland**

**(0.03 acre)** This wetland is located south of I-40 adjacent to the drainage noted as FS-1. This site is displayed in the site photographs and identified on the site map as FS-3 (**Appendix A and Figure 5-A**). This area is not recorded on the NWI mapping (**Figure 4**). The observed dominant species were buttonbush, black willow, and horsetail. The soil was mapped as Tribbey fine sandy loam (TriA). Hydric soils were confirmed by the matrix coloration of 5YR 3/2 with redox concentrations of 5YR 4/3 from 2-8+ inches. The soils were classified as loamy clay. Hydric soil indicator F6 – Redox Dark Surface is met. Wetland hydrology is evidenced by oxidized rhizospheres living on roots and drainage patterns. This wetland is classified as PSS1E (palustrine, scrub-shrub, broad-leaved deciduous, seasonally flooded/saturated),

following the Cowardin classification system. This site is likely jurisdictional because it meets the definition of a wetland pursuant to the USACE and Section 404 of the Clean Water Act and exhibits a continuous surface connection to a relatively permanent 'waters of the United States'.



**OKLAHOMA COUNTY**



**Project Location**

**I-40/Douglas Boulevard Interchange**  
**Oklahoma County**  
 JP No 28992(04)  
 Proj No J2-8992(004)



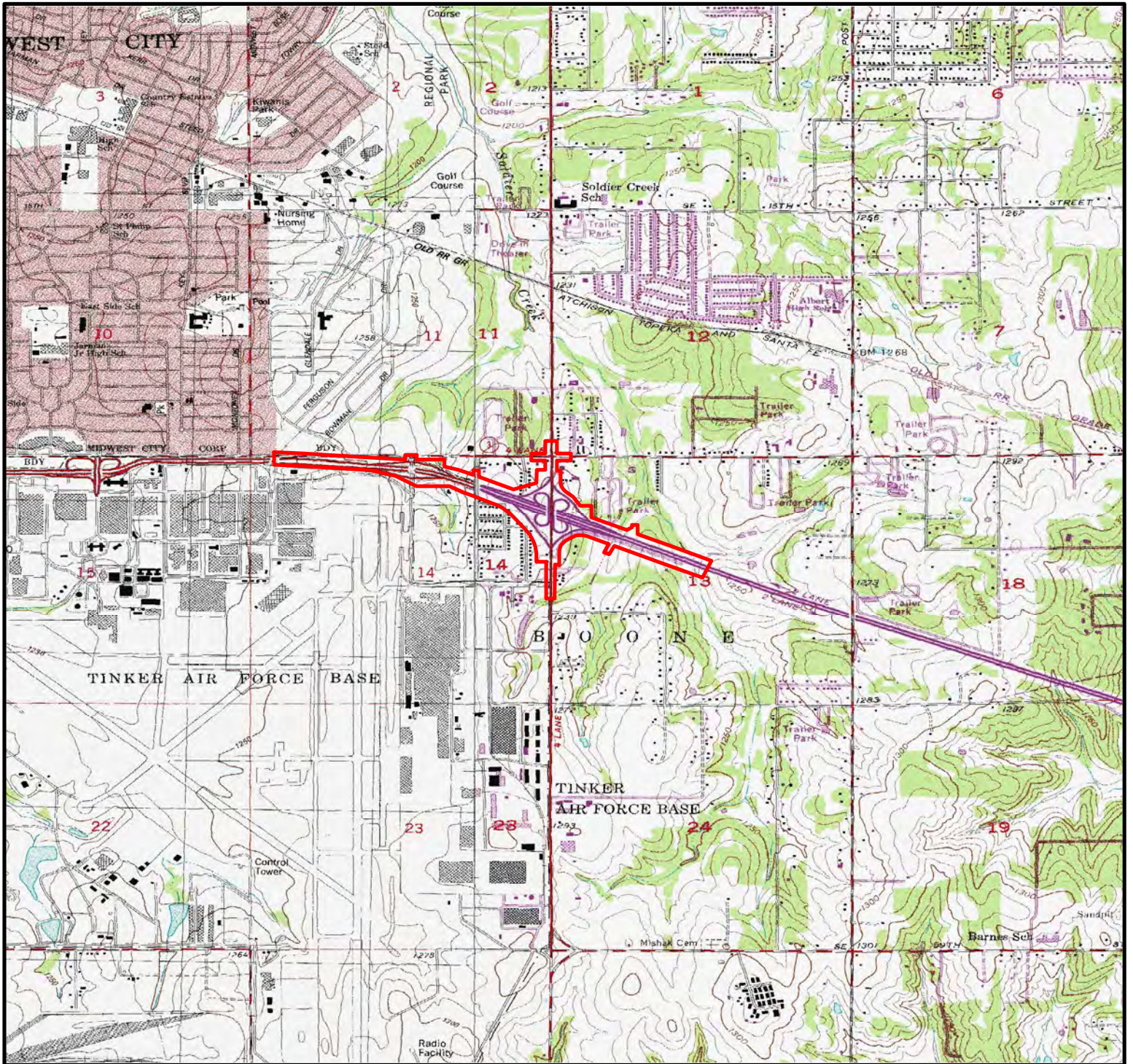
**Figure 1**  
**Location Map**  
 November 11, 2016


R3W

R2W

R1W






 Study Area

USGS 7.5 Minute Quadrangles at 1:24,000 scale  
Midwest City & Choctaw, Oklahoma



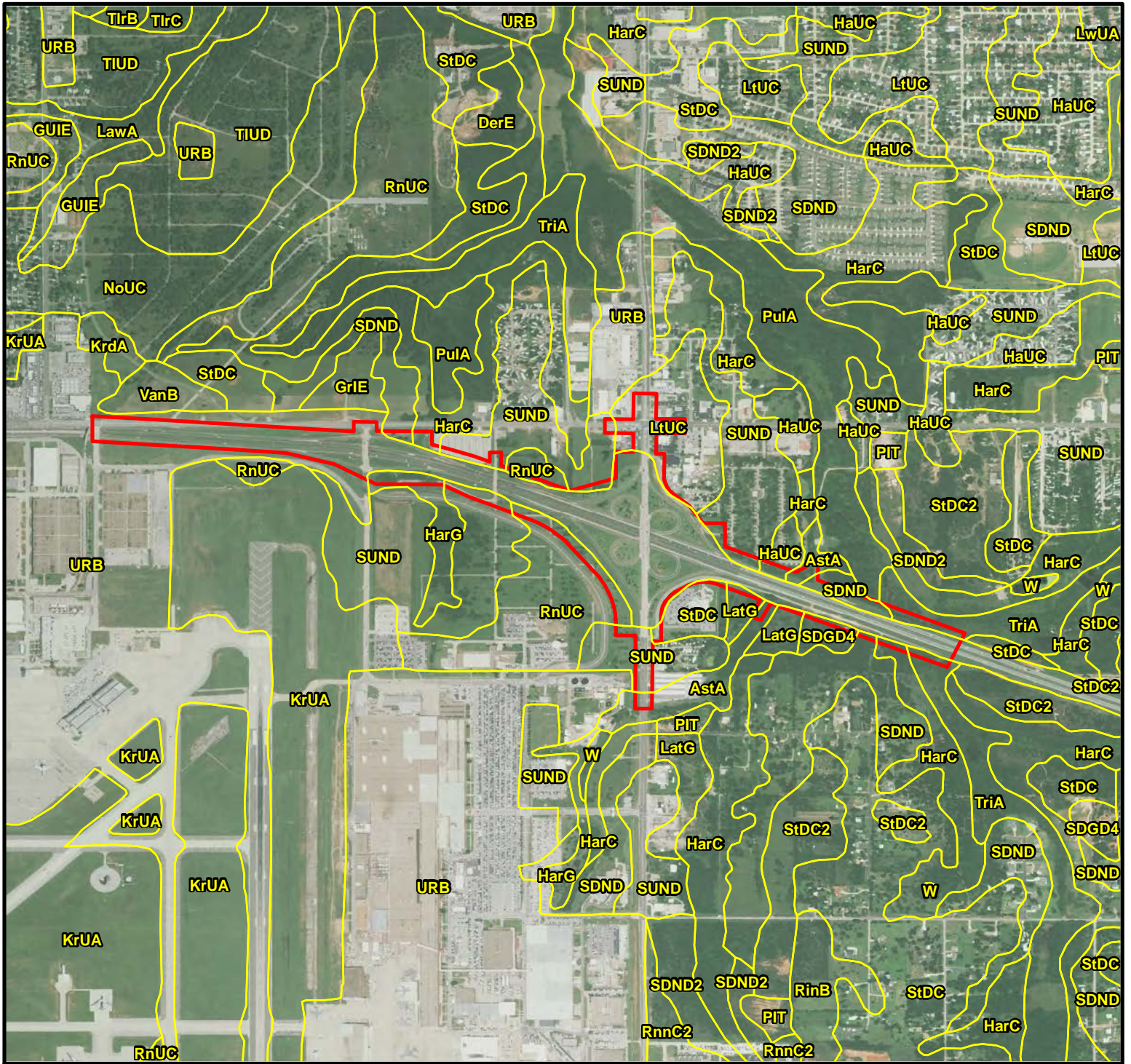
0 2,000 4,000  
 Feet

## Triad Design Group

3020 N.W. 149th Street  
Oklahoma City, Oklahoma 73134  
Ph. (405) 752-1122  
Fax (405) 752-8855

FIGURE TITLE	DATE	1/5/2017
<b>TOPOGRAPHIC MAP FOR JP 28992(04)</b>	SCALE	AS SHOWN
DOCUMENT TITLE	DESIGNED BY	TS
<b>WATERS AND WETLANDS EVALUATION, I-40/DOUGLAS INTERCHANGE</b>	APPROVED BY	RE
CLIENT	DRAWN BY	RE
<b>OKLAHOMA DEPARTMENT OF TRANSPORTATION</b>	TRIAD PROJECT NUMBER	
LOCATION	E211.06	
<b>OKLAHOMA COUNTY, OKLAHOMA</b>	FIGURE NUMBER	
	<b>2</b>	





- NRCS Soils
- Study Area

2015 SSURGO 2.2  
2015 Ortho Imagery

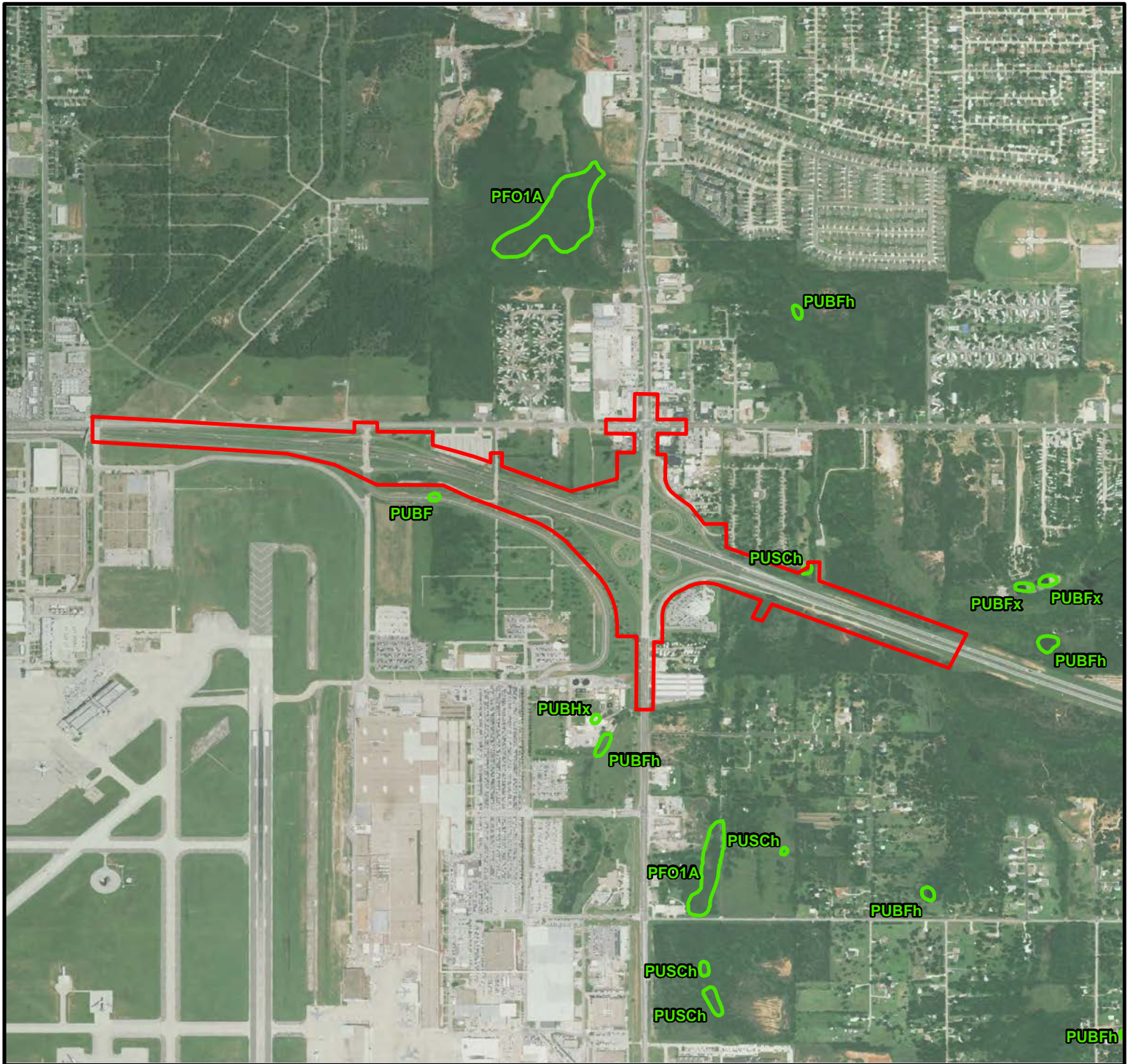


0 500 1,000 1,500  
Feet

## Triad Design Group

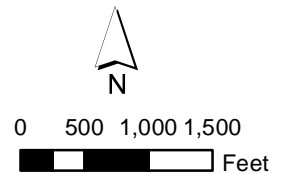
3020 N.W. 149th Street  
Oklahoma City, Oklahoma 73134  
Ph. (405) 752-1122  
Fax (405) 752-8855

FIGURE TITLE	DATE	1/5/2017
<b>NRCS SOILS MAP FOR JP 28992(04)</b>	SCALE	AS SHOWN
DOCUMENT TITLE	DESIGNED BY	TS
WATERS AND WETLANDS EVALUATION, I-40/DOUGLAS INTERCHANGE	APPROVED BY	RE
CLIENT	DRAWN BY	RE
OKLAHOMA DEPARTMENT OF TRANSPORTATION	TRIAD PROJECT NUMBER	E211.06
LOCATION	FIGURE NUMBER	3
OKLAHOMA COUNTY, OKLAHOMA		



- Study Area
- NWI Wetlands

USFWS CONUS Wetland Polygons  
2015 Ortho Imagery



## Triad Design Group

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Oklahoma City, Oklahoma 73134  
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FIGURE TITLE	NATIONAL WETLANDS INVENTORY MAP FOR JP 28992(04)
DOCUMENT TITLE	WATERS AND WETLANDS EVALUATION, I-40/DOUGLAS INTERCHANGE
CLIENT	OKLAHOMA DEPARTMENT OF TRANSPORTATION
LOCATION	OKLAHOMA COUNTY, OKLAHOMA

DATE	1/5/2017
SCALE	AS SHOWN
DESIGNED BY	TS
APPROVED BY	RE
DRAWN BY	RE
TRIAD PROJECT NUMBER	E211.06
FIGURE NUMBER	4

**Triad Design Group**

3020 N.W. 149th Street  
 Oklahoma City, Oklahoma 73134  
 Ph. (405) 752-1122  
 Fax (405) 752-8855

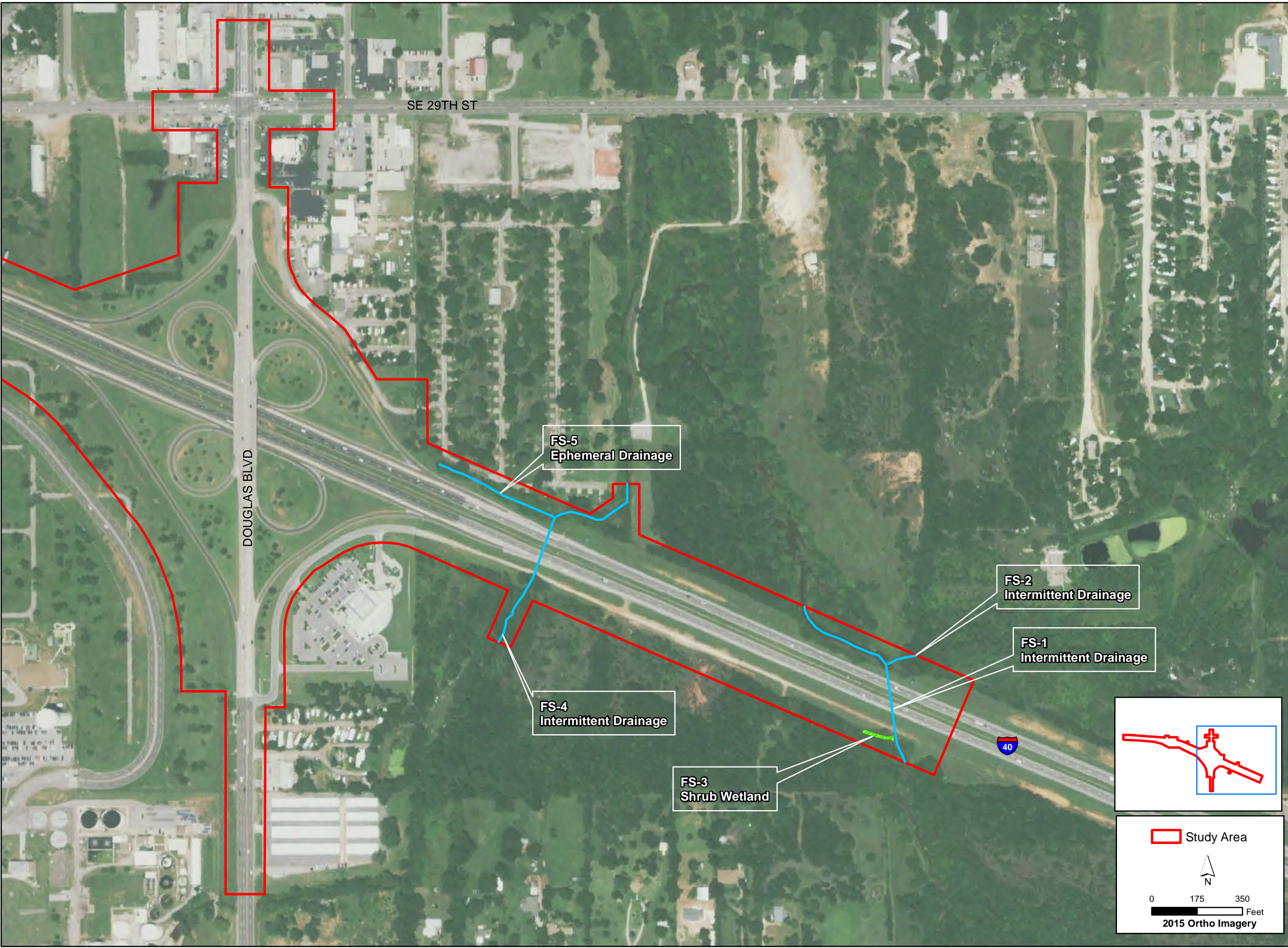


FIGURE TITLE	<b>SITE MAP FOR JP 28992 (04)</b>
DOCUMENT TITLE	WATERS & WETLANDS EVALUATION - I-40 & DOUGLAS BLVD INTERCHANGE
CLIENT	OKLAHOMA DEPARTMENT OF TRANSPORTATION
LOCATION	OKLAHOMA COUNTY, OKLAHOMA

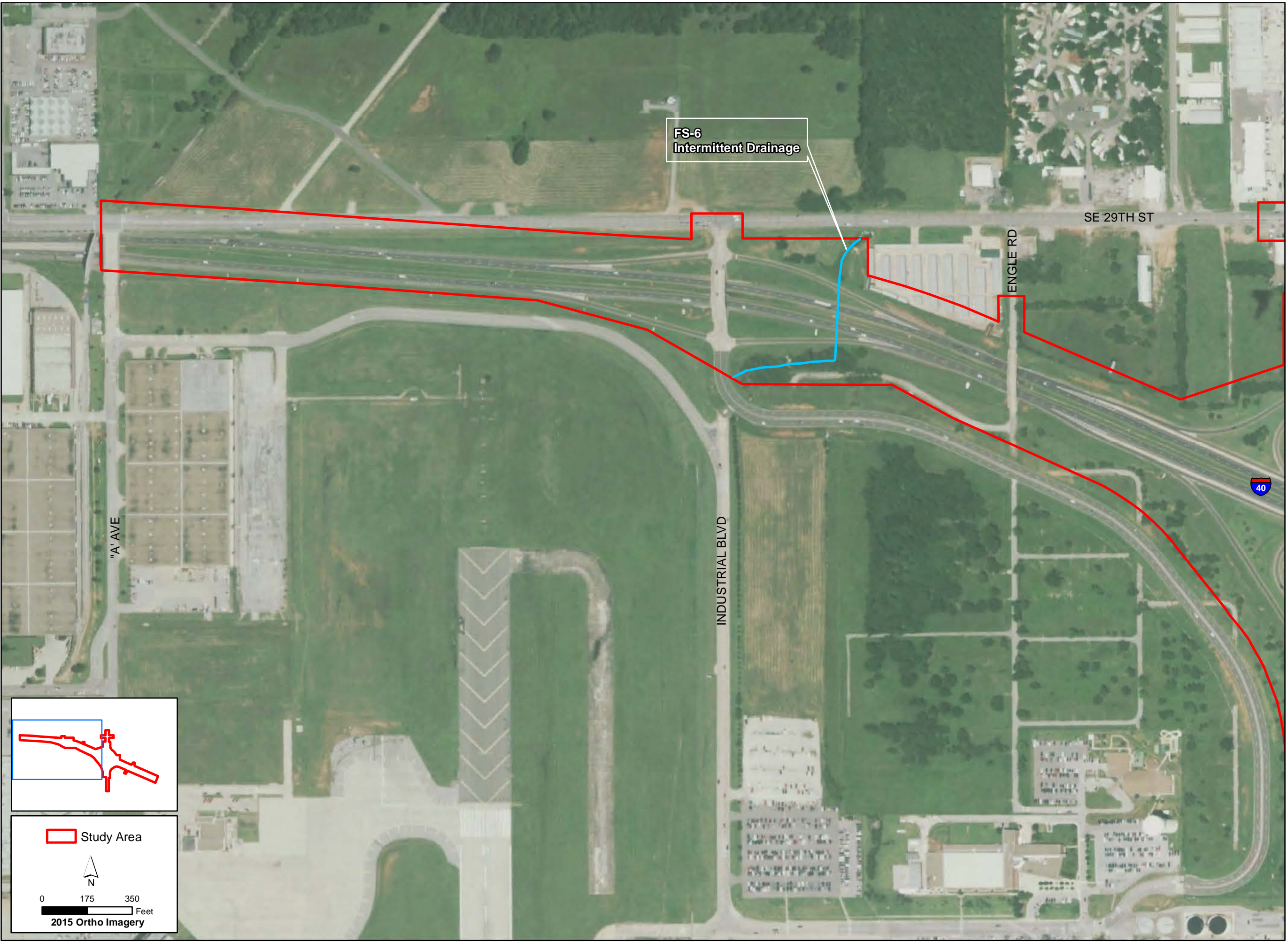
DATE	1/31/2017
SCALE	AS SHOWN
DESIGNED BY	TS
APPROVED BY	RE
DRAWN BY	RE

FIGURE NUMBER	<b>5-A</b>
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F:\GIS Library\Projects\140\_DouglasMaps\Waters\Fig5A\_140Douglas\_Site.mxd

**Triad Design Group**

3020 N.W. 149th Street  
 Oklahoma City, Oklahoma 73134  
 Ph. (405) 752-1122  
 Fax (405) 752-8855



FS-6  
 Intermittent Drainage

SE 29TH ST

ENGLE RD

"A" AVE

INDUSTRIAL BLVD

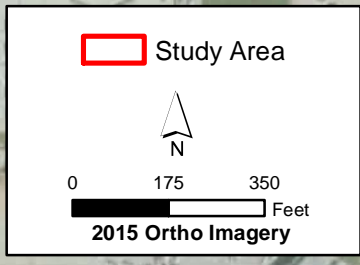
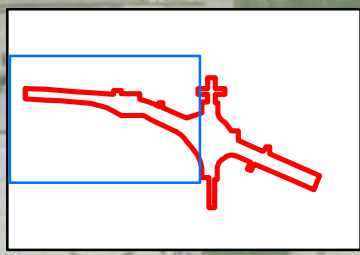


FIGURE TITLE	<b>SITE MAP FOR JP 28992 (04)</b>
DOCUMENT TITLE	WATERS & WETLANDS EVALUATION - I-40 & DOUGLAS BLVD INTERCHANGE
CLIENT	OKLAHOMA DEPARTMENT OF TRANSPORTATION
LOCATION	OKLAHOMA COUNTY, OKLAHOMA

DATE	1/31/2017
SCALE	AS SHOWN
DESIGNED BY	TS
APPROVED BY	RE
DRAWN BY	RE

FIGURE NUMBER	<b>5-B</b>
---------------	------------



FS-1: Intermittent Drainage. View from south of I-40 facing southeast.



FS-2: Intermittent Drainage. View from confluence with FS-1 facing northeast.



FS-3: Shrub Wetland. View facing east.



FS-4: Intermittent Drainage. View from south of I-40 facing southwest.



FS-5: Ephemeral Drainage. View facing east.



FS-6: Intermittent Drainage. View from SE 29<sup>th</sup> St facing southwest.

## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: \_\_\_\_\_ City/County: \_\_\_\_\_ Sampling Date: \_\_\_\_\_  
 Applicant/Owner: \_\_\_\_\_ State: \_\_\_\_\_ Sampling Point: \_\_\_\_\_  
 Investigator(s): \_\_\_\_\_ Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No _____ Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No _____	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No _____
Remarks: _____ _____ _____	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is $\leq 3.0^1$ ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes _____ No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____				
Remarks: _____ _____ _____				

**SOIL**

Sampling Point: \_\_\_\_\_

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR F)**
- 1 cm Muck (A9) **(LRR F, G, H)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) **(LRR I, J)**
- Coast Prairie Redox (A16) **(LRR F, G, H)**
- Dark Surface (S7) **(LRR G)**
- High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes \_\_\_\_\_ No \_\_\_\_\_**

Remarks:

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) **(LRR F)**

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

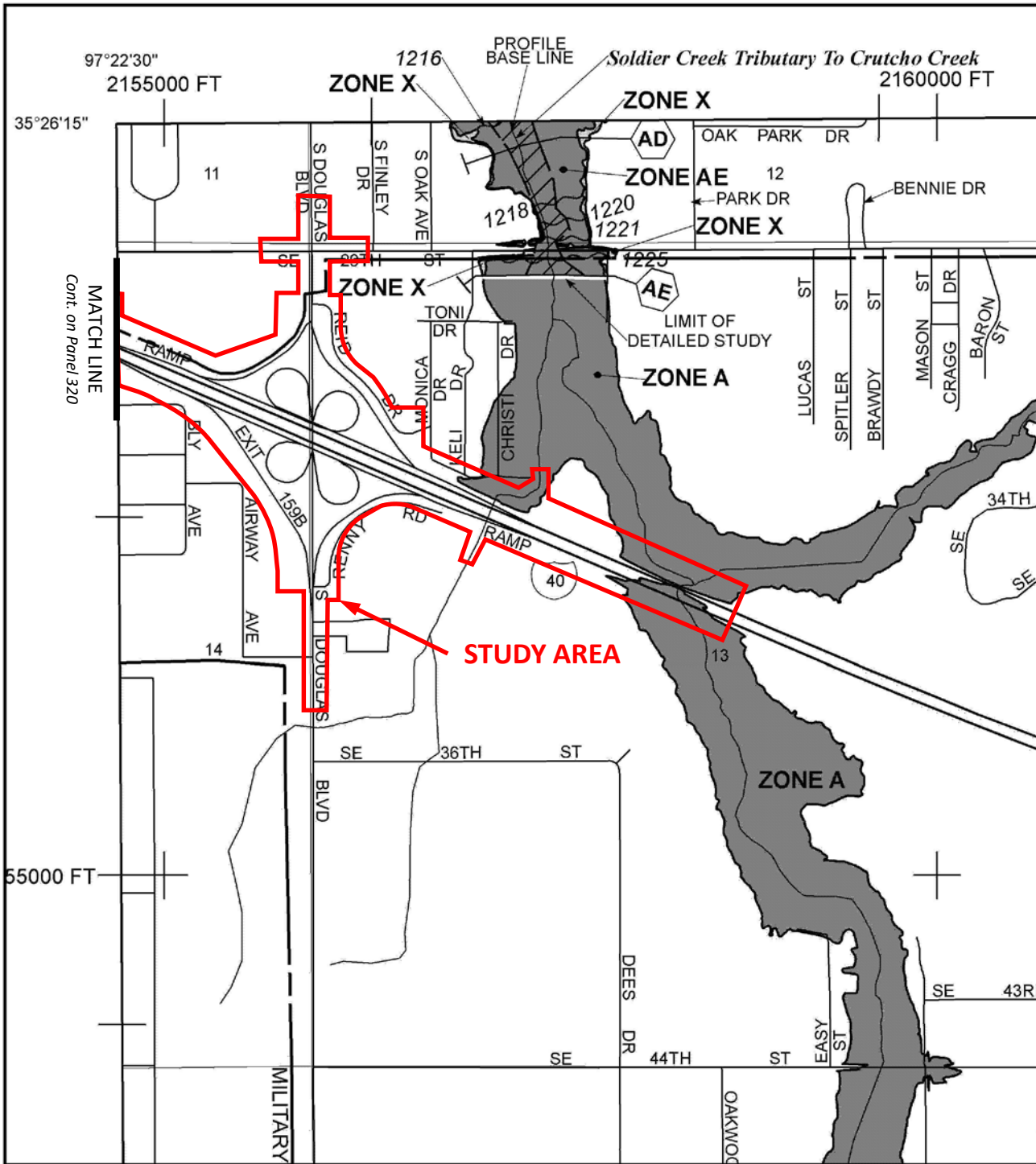
**Wetland Hydrology Present? Yes \_\_\_\_\_ No \_\_\_\_\_**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

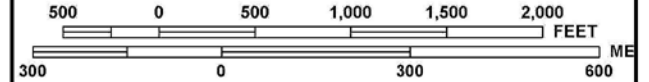
Remarks:



# **FLOOD PLAIN INFORMATION**



MAP SCALE 1" = 1000'



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0340H

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**OKLAHOMA COUNTY,**  
**OKLAHOMA**  
**AND INCORPORATED AREAS**

**PANEL 340 OF 370**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MIDWEST CITY, CITY OF	400405	0340	H
OKLAHOMA CITY, CITY OF	405378	0340	H

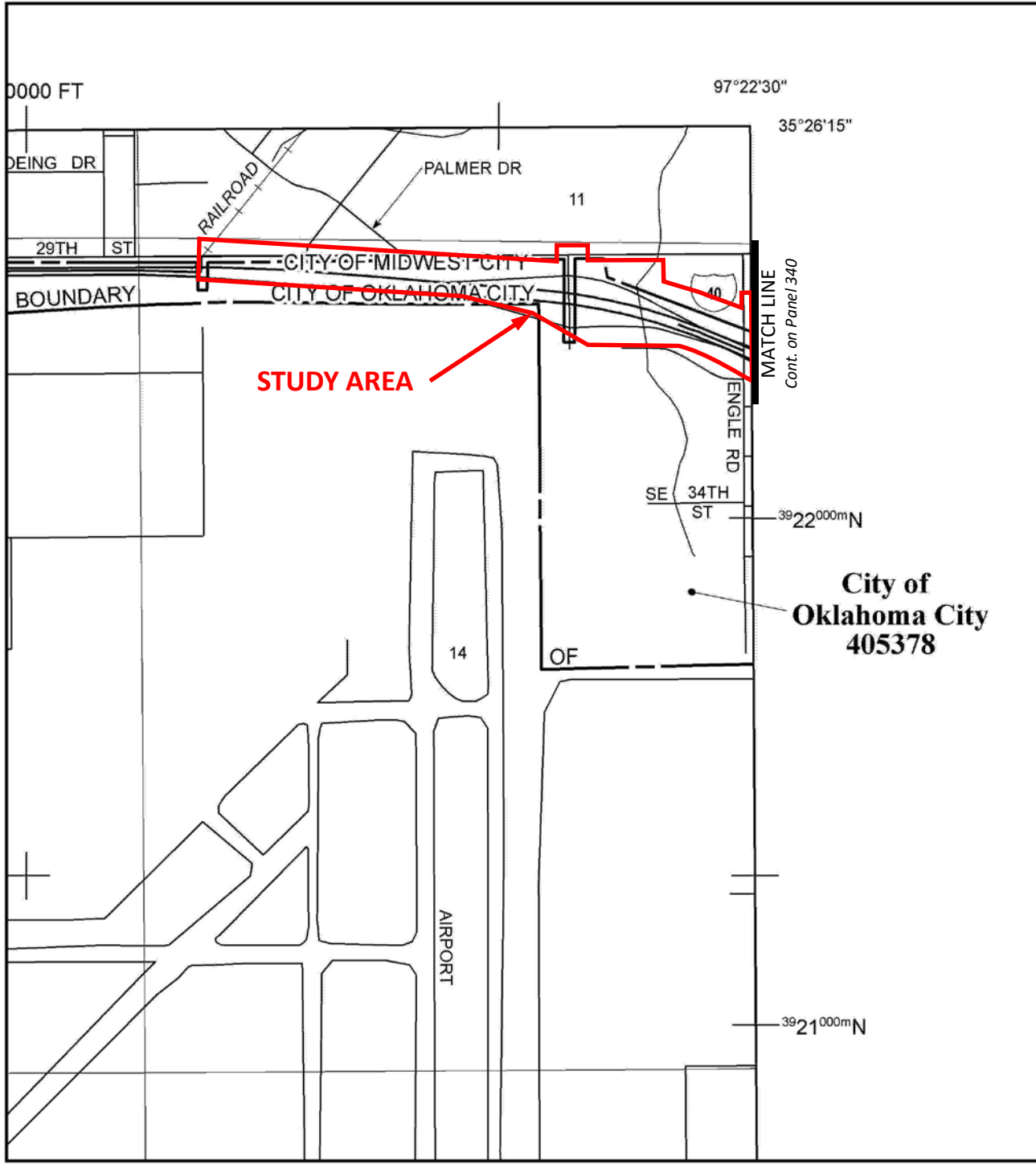
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



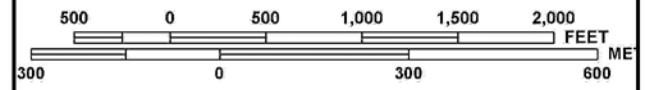
**MAP NUMBER**  
**40109C0340H**

**REVISED DATE**  
**DECEMBER 18, 2009**  
**Federal Emergency Management Agency**

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



MAP SCALE 1" = 1000'



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0320H

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**OKLAHOMA COUNTY**  
**OKLAHOMA**  
**AND INCORPORATED AREAS**

**PANEL 320 OF 370**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
DEL CITY, CITY OF	400233	0320	H
MIDWEST CITY, CITY OF	400405	0320	H
OKLAHOMA CITY, CITY OF	405378	0320	H

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
**40109C0320H**

**REVISED DATE**  
**DECEMBER 18, 2009**  
 Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# **HAZARDOUS WASTE STUDIES**

**OKLAHOMA DEPARTMENT OF TRANSPORTATION  
CONSULTANT REPORT REVIEW – HAZARDOUS WASTE**

**Reviewed By:** David Edwards  
**Review Date:** 04/05/2017  
**Consultant:** Triad

**County:** Oklahoma  
**Project No.:** J2-8992(004)SS  
**J/P Number:** 28992(04)

---

**1. PROJECT DESCRIPTION:** Interchange: I-40 Douglas Blvd. Bridge Replacement & Interchange Reconstruction 6.5 miles east of I-35 (included removal of Eagle Rd. bridge)

**2. LEVEL OF INVESTIGATION:**  Assessment  Sampling

**3. SUMMARY OF INVESTIGATION**

- A. Relative risk of contamination in study footprint:  Low  Moderate  High  
B. Potential for contamination, if present, to affect project:  Low  Moderate  High  
C. Did Consultant recommend additional work?  No  Yes (describe below):

**4. RECOMMENDATIONS\*:**

- Approval to Proceed (No Further Action)  
 Approval to Proceed, Pending:  
     Avoidance of described site(s)  
     Plan Notes regarding described site(s) (See Section 5)  
     Additional investigation by ODOT  
 Approval NOT Recommended

\* - If different from Consultant, explain in Section 6 General Comments

**5. PLAN NOTES:** None needed.

**6. GENERAL COMMENTS:** No environmental concerns noted.

**ATTACH EXCERPTS FROM REPORT, AS APPROPRIATE.\***

\*The full document is on file with ODOT's Environmental Programs Division. Please contact David Edwards at (405) 521-2673 or [daedwards@odot.org](mailto:daedwards@odot.org) for more information.

# **INITIAL SITE ASSESSMENT**

**I-40/Douglas Bridge and  
Interchange Improvements  
Oklahoma County, Oklahoma  
JP #28992(04)**

**Prepared for:  
Oklahoma Department of Transportation  
200 N.E. 21<sup>st</sup> Street  
Oklahoma City, Oklahoma 73105-3204**

**Prepared by:  
Triad Design Group  
3020 Northwest 149th Street  
Oklahoma City, OK 73134  
405-752-1122  
405-752-8855 (fax)**

**February 2017**

**INITIAL SITE ASSESSMENT  
I-40/Douglas Bridge and  
Interchange Improvements  
Oklahoma County, Oklahoma  
JP #28992(04)  
February 2017**

---

**1.0 INVESTIGATIVE SUMMARY**

**1.1 OVERVIEW**

Triad Design Group (Triad) has performed an Initial Site Assessment (ISA) for a bridge improvement project. The purpose of the ISA was to identify hazardous and potentially hazardous waste related problems within and adjacent to existing and proposed right-of-way for the project. The ISA was performed in accordance with ODOT's *Hazardous Waste Scope of Services, 09/18/2014*.

**1.2 PROJECT DESCRIPTION**

ODOT is proposing to improve the I-40 and Douglas Boulevard bridge and interchange, located in Oklahoma City, Oklahoma. The project area is located in Sections 11, 12, 13, and 14, Township 11 North, Range 2 West, Oklahoma County, Oklahoma. **Figure 1** provides a location map of the project.

**1.3 SUMMARY OF FINDINGS**

- Land use within and near the Study Area includes Tinker Air Force Base, located in the southwest quadrant of the interchange, and St. Anthony HealthPlex, located in the southeast quadrant. Further south of the interchange and east of Douglas Boulevard is an RV park and some commercial development. North of I-40 and east of Douglas Boulevard is a second RV park. The area north of I-40 near the Douglas Boulevard and S.E. 29<sup>th</sup> Street intersection is heavily commercial.
- Multiple groundwater monitoring wells are located at three unique locations within the Study Area.
- Based upon conversations with Tinker Air Force Base personnel, impacted sediment, surface water, and groundwater associated with the Soldier Creek National Priorities List site do not pose a hazard to construction personnel who may conduct excavation and other earth-moving activities.
- Utilities noted include stretches of overhead electric transmission lines running parallel to Douglas Boulevard south of I-40, and parallel to S.E. 29<sup>th</sup> Street across Douglas Boulevard.

#### **1.4 RECOGNIZED ENVIRONMENTAL CONDITIONS**

Based on the Study Area observations and review of information gathered for this ISA, no recognized environmental conditions were noted within the Study Area that may require further investigation.

#### **1.5 ENVIRONMENTAL PROFESSIONAL STATEMENT**

*I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §31.10 of 40 CFR 312.*



---

**Diane Abernathy, P. E**



Three gas stations are located within or in close proximity to the Study Area. The OnCue station, located in the northwest quadrant of the Douglas Boulevard/S.E. 29<sup>th</sup> Street intersection, has 20 gasoline pumps. The EDR report for this facility indicates several confirmed cases of leaking underground storage tanks (LUSTs), all recorded as “closed,” with the most recent in 2003. The Shell/Circle K station, located in the northeast quadrant of the Douglas Boulevard/S.E. 29<sup>th</sup> Street intersection, has 8 gasoline pumps. The EDR report for this facility indicates a confirmed LUST, with the case recorded as “closed” in 2007. The facility is reported to have two 12,000-gallon and one 10,000-gallon gasoline USTs currently in service. The Tank n’ Tummy, located south of I-40 and east of Douglas Boulevard, has 4 gasoline pumps. The EDR report for this facility indicates a confirmed LUST, with the case recorded as “closed” in 2016. The facility is reported to have three 10,000-gallon gasoline USTs currently in service. See **Appendix D, Photos 1, 2, and 3**.

Utilities noted during site reconnaissance include stretches of overhead electric transmission lines running parallel to Douglas Boulevard south of I-40, and parallel to S.E. 29<sup>th</sup> Street across Douglas Boulevard.

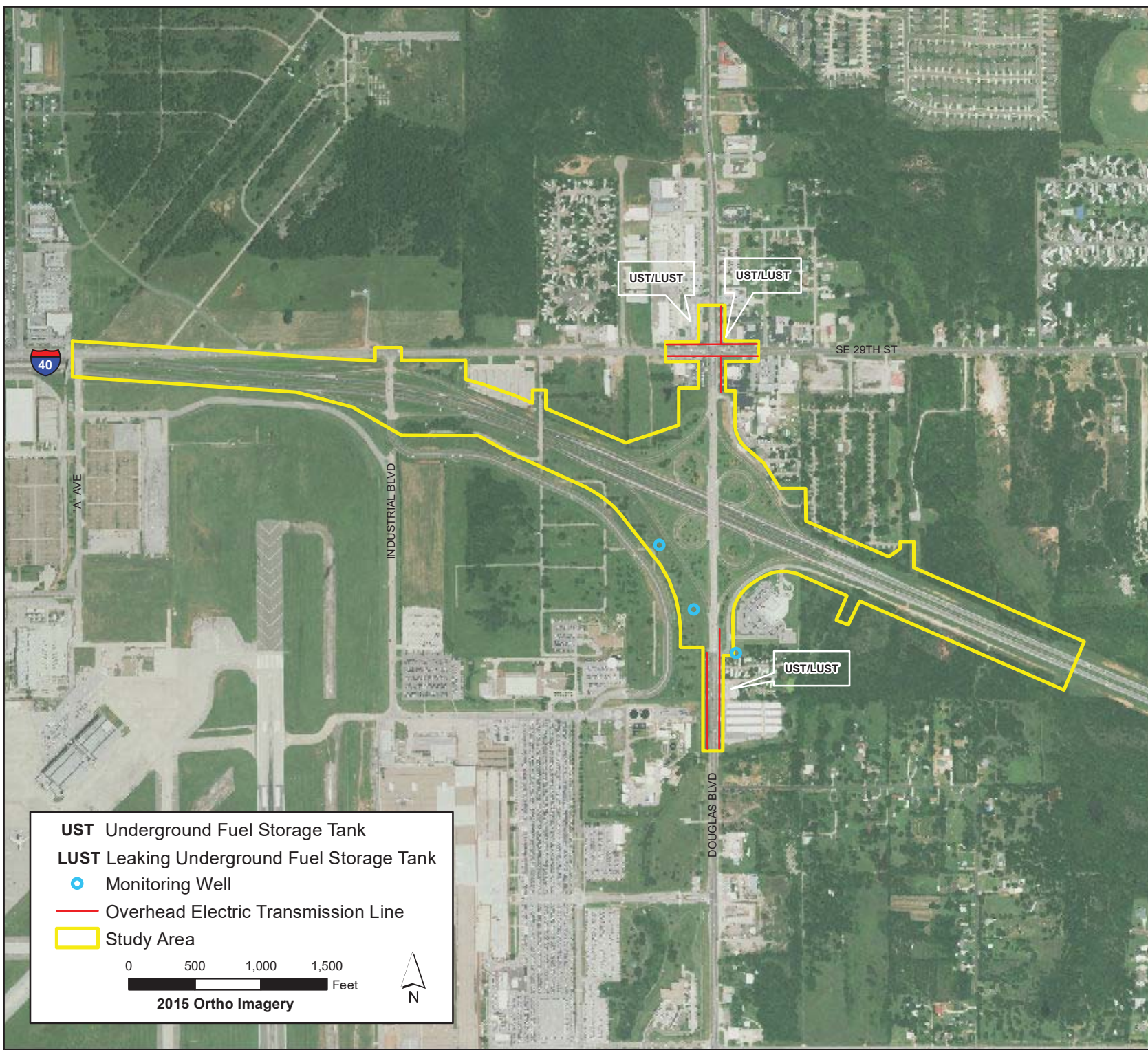
**Figure 2** presents the site reconnaissance observations.

### **3.4 RECOGNIZED ENVIRONMENTAL CONDITIONS**

Based upon the site visit and a review of available environmental records, no recognized environmental conditions were noted within the Study Area.

# Triad Design Group

3020 N.W. 149th Street  
 Oklahoma City, Oklahoma 73134  
 Ph. (405) 752-1122  
 Fax (405) 752-8855



**UST** Underground Fuel Storage Tank  
**LUST** Leaking Underground Fuel Storage Tank  
 Monitoring Well  
 Overhead Electric Transmission Line  
 Study Area

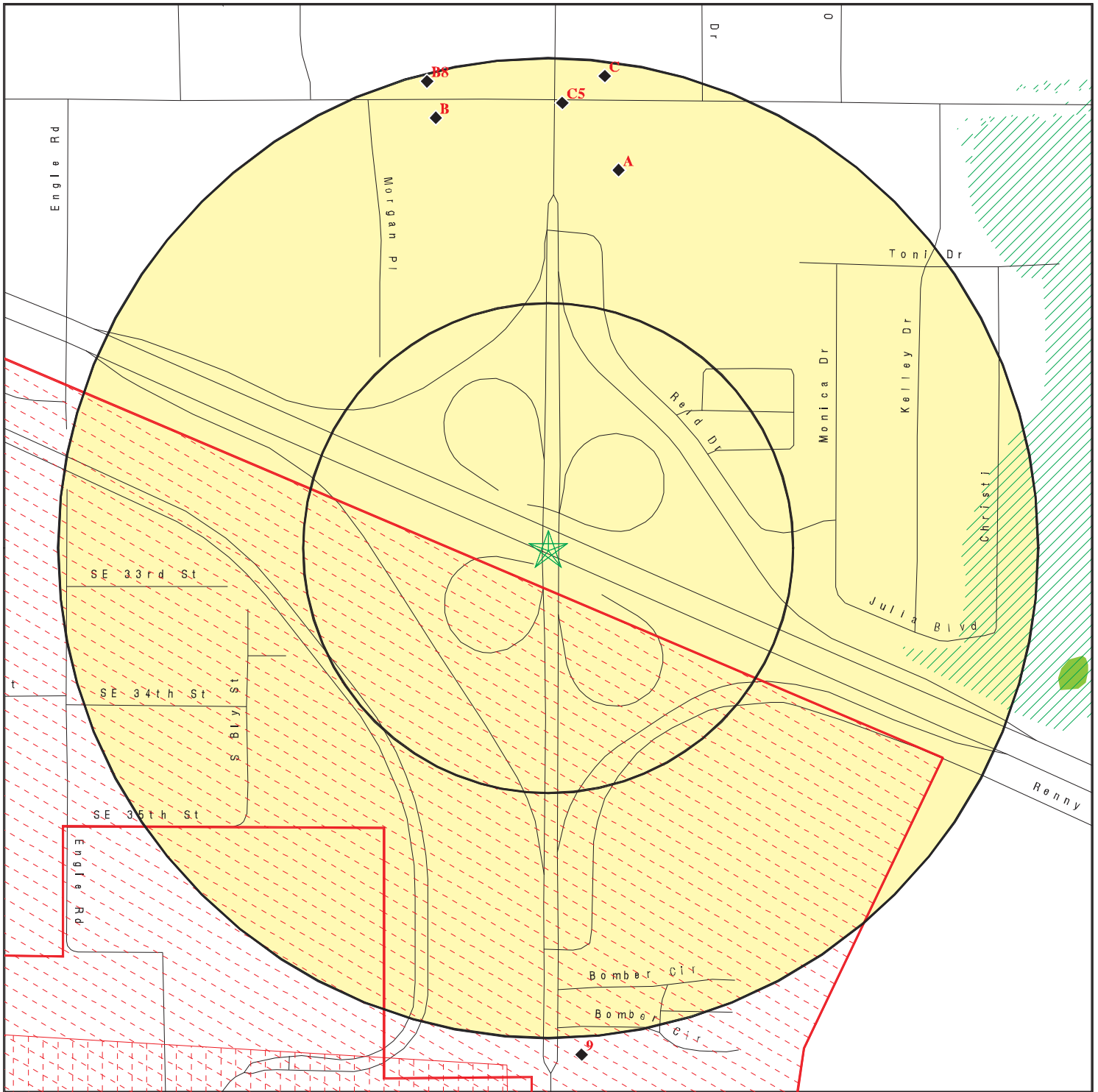
0 500 1,000 1,500 Feet  
 2015 Ortho Imagery

FIGURE TITLE	<b>STUDY AREA AND SITE RECONNAISSANCE OBSERVATIONS, JP 28992(04)</b>
DOCUMENT TITLE	INITIAL SITE ASSESSMENT - I-40 & DOUGLAS BOULEVARD INTERCHANGE
CLIENT	OKLAHOMA DEPARTMENT OF TRANSPORTATION
LOCATION	OKLAHOMA COUNTY, OKLAHOMA

DATE	2/6/2017
SCALE	AS SHOWN
DESIGNED BY	TS
APPROVED BY	DA
DRAWN BY	ME

FIGURE NUMBER	<b>2</b>
---------------	----------

# DETAIL MAP - 4811111.2S



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ⚡ Manufactured Gas Plants
- ⚠ Sensitive Receptors
- ▨ National Priority List Sites
- ▨ Dept. Defense Sites

- ▨ Indian Reservations BIA
- ▨ 100-year flood zone
- ▨ 500-year flood zone
- National Wetland Inventory

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: I-40 and Douglas Interchange  
 ADDRESS: I-40/Douglas  
 Oklahoma City OK 73150  
 LAT/LONG: 35.431906 / 97.370842

CLIENT: Triad Design Group  
 CONTACT: Diane Abernathy  
 INQUIRY #: 4811111.2s  
 DATE: December 20, 2016 11:52 am

# **NOISE STUDIES**



## Oklahoma Department of Transportation

Environmental Programs Division, 200 N.E. 21<sup>st</sup> Street, Oklahoma City, OK 73105  
Main Office 405.521.3050 / Fax 405.522.5193

DATE: **June 12, 2017**

TO: Diane Abernathy – Triad Design Group

FROM: Kevin Larios – Noise Specialist *KML*

SUBJECT: **Approved Traffic Noise Assessment prepared for I-40 & Douglas Boulevard Bridge Replacement and Interchange Reconstruction, Oklahoma County, JP 28992(04) (EC-1394W).**

---

Attached is the approved Traffic Noise Assessment completed for the subject project. The results of the noise study are summarized as follows:

The analysis had utilized the FHWA Traffic Noise Model version 2.5 in accordance with FHWA 23 CFR 772 and complies with the ODOT Noise Policy dated July 13, 2011. For the purposes of validating the noise model, a precision sound level meter was utilized in conducting field measurements along the existing I-40 which proved successful. The land use within the project limits consists primarily of commercial and industrial mix; however, two medical facilities, one Recreational Vehicle (RV) Park, one mobile home park and scattered residences exist. Thirty-one (31) model receptor locations representing a total of 67 receptors were analyzed. For the existing (2014) condition, three (3) residential and twenty-one (21) RV Park receptors approach, meet or exceed the 67 dB(A)  $L_{EQ}(h)$  for NAC Activity Categories B and C, respectively. For the future condition (design year 2045), seven (7) residential and two (2) RV Park receptors approach, meet or exceed the 67 dB(A)  $L_{EQ}(h)$  for NAC Activity Categories B and C. No commercial receptors approach the 72 dB(A)  $L_{EQ}(h)$  for NAC Activity Category E. An interior analysis was conducted for the St. Anthony's HealthPlex and Animal Medical facility; these receptors were evaluated as NAC Activity Category D in which no existing or future noise impacts occur. In addition, the affected receptors are anticipated to experience an increase in future noise levels ranging from -2.0 to 4.0 dB, and thus, no substantial increase (15 dB) over the current condition when considering noise impact determination.

Noise mitigation in the form of a free-standing noise wall was considered for the impacted receptors. Seven (7) of the residential receptors located at the south end of the project limits have direct driveway access onto Douglas Boulevard. Without access control, the gap that would be required for the driveway connections would make noise abatement measures ineffective and, therefore, noise mitigation would not prove feasible. The other two (2) impacted receptors are located within the Eastland Hills RV Park. A noise barrier was modeled inside the highway right-of-way line along the access road to the RV Park at various heights. Based on the barrier analysis of a noise wall consisting of 608 feet in length at a maximum height of 22-feet was not able to achieve the desired 5.0 to 7.0 dB(A) noise reduction; therefore, noise mitigation is not feasible. Based on the inability of this noise wall not able to attain the acceptable reduction of future noise levels for these receptors, no noise barrier is recommended for design.

KML

Attachment

Copy: Jared Schwennesen, ODOT EPD  
Reneé Ellis, Noise Specialist - Triad Design Group

# TRAFFIC NOISE ASSESSMENT

I-40 & Douglas Boulevard Bridge Replacement  
and Interchange Reconstruction  
Oklahoma County, Oklahoma  
J/P 28992(04)

Prepared for:



Oklahoma Department of Transportation  
200 N.E. 21<sup>st</sup> Street  
Oklahoma City, OK 73105

Prepared by:

Triad Design Group  
3020 Northwest 149<sup>th</sup> Street  
Oklahoma City, OK 73134  
405-752-1122

Prepared by:

Renee Ellis  
Noise Specialist

Revised – June 9, 2017



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## EXECUTIVE SUMMARY

This traffic noise assessment report examines the potential noise impacts associated with the proposed I-40 & Douglas Boulevard bridge replacement and interchange reconstruction in Oklahoma City, 6.5 miles east of I-35 in Oklahoma County.

The noise analysis was performed using the FHWA's computer model Traffic Noise Model version 2.5 in accordance with the FHWA 23 CFR 772, Procedures for Noise Abatement of Highway Traffic Noise and Construction, and complies with the ODOT Policy Directive Highway Noise Abatement C-201-3 dated July 13, 2011.

The land use within the project limits consists primarily of commercial and industrial mix; however, two medical facilities, one Recreational Vehicle (RV) Park, one mobile home park, and scattered residences exist. The noise analysis for the proposed action predicts the greatest exterior noise impacts to occur at noise sensitive sites near the project during the highest traffic volume and vehicle speeds for an hour combined considered as the "worst hour for traffic noise." The existing and future condition analyses included 31 model receiver locations representing a total of 67 receivers. For the existing (2014) condition, 3 residential receivers, 20 RV Park receivers and the RV Park office approach, meet or exceed the 67 dB(A) Leq(h) for NAC Activity Categories B and C, respectively. For the future condition (design year 2045), 7 residential dwellings and 2 RV Park receivers approach, meet or exceed the 67 dB(A) Leq (h) for NAC Activity Categories B and C. No commercial establishments meet or exceed the 72 dB(A) Leq (h) for NAC Activity Category E. An interior analysis was conducted for the St. Anthony's HealthPlex and Animal Medical facility; these receivers were evaluated as NAC Activity Category D in which no existing or future noise impacts occur. The future noise levels for those receivers evaluated are expected to increase on average 2.0 dB ranging from -2.0 to 4.0 dB over the existing condition. No receivers will experience a substantial increase (15 dB) noise levels over the current condition, which is considered to be a substantial increase for noise impact determination.

Noise mitigation in the form of a free-standing noise wall was considered for the impacted receivers. Seven (7) of the residential receivers (represented by model receivers R-1 and R-5) have direct driveway access onto Douglas Boulevard. Without access control, the gap that would be required for the driveway connections would make noise abatement measures ineffective and, therefore, noise mitigation would not prove feasible. The other two (2) impacted model receivers located within the Eastland Hills RV Park represented by model receiver R-6. A noise barrier was modeled inside the highway right-of-way line along the access road to the RV Park at various heights. Based on the barrier analysis of a noise wall consisting of 608 feet in length at a maximum height of 22-feet was not able to achieve the desired 5.0 to 7.0 dB(A) noise reduction; therefore, noise mitigation is not feasible. Based on the inability of this wall to acoustically reduce noise for these receivers, no noise barrier is recommended for design.

## 1 INTRODUCTION

This Traffic Noise Assessment investigates the noise impacts that could result from the I-40 and Douglas Boulevard bridge replacement and interchange reconstruction in Oklahoma City, 6.5 miles east of I-35 in Oklahoma County. A Single Point Urban Interchange (SPUI) will replace the existing clover-leaf interchange at this location. A SPUI is a basic diamond interchange with a single signalized central intersection in the center of the bridge. The Douglas Boulevard traffic along with the I-40 ramp traffic will converge to a single point utilizing the single set of traffic signals. The SPUI interchange accommodates large traffic volumes efficiently with minimal right-of-way impacts. I-40 will be improved from a four-lane to a six-lane facility in the project vicinity. Through the interchange, Douglas Boulevard will consist of six through lanes, dual left-turn lanes, and right-turn lanes where needed. Entrance and exit ramp lanes will also be constructed along I-40. Collector-distributor roads will be removed and will not be reconstructed. **Figure 1** in the Appendix depicts the project location.

The analysis of this project relies on aerial maps, preliminary design plans, a field survey, and traffic data as provided to the Environmental Programs Division of the Oklahoma Department of Transportation (ODOT). The noise analysis was completed in accordance with the FHWA 23 CFR 772, *Procedures for Noise Abatement of Highway Traffic Noise and Construction*, and complies with the ODOT Policy Directive *Highway Noise Abatement C-201-3* (ODOT Noise Policy) dated July 13, 2011.

## 2 FUNDAMENTALS OF NOISE AND SOUND THEORY

Noise, defined as unwanted or excessive sound, is an undesirable by-product of our modern way of life. From these known effects of noise, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. This criterion is based on such known impacts of noise on people as speech interference, sleep interference, physiological responses, hearing loss and annoyance. Highway traffic noise is a major contributor to overall transportation noise and is considered to be a line source of energy from which the energy levels dissipate vertically and laterally from the roadway. Traffic noise is not constant. It varies as each vehicle passes a point. The time-varying characteristics of environmental noise are analyzed statistically to determine the duration and intensity of noise exposure. In an urban environment, noise is made up of two distinct parts. One is ambient or background noise. Wind noise and distant traffic noise make up the acoustical environment surrounding the project. These sounds are not readily recognized, but combine to produce a nonirritating ambient sound level. This background sound level varies throughout the day, being lowest at night and highest during the day. The other component of urban noise is intermittent and louder than the background noise. Transportation noise and local industrial noise are examples of this type of noise. It is for these reasons that environmental noise is analyzed statistically.

Sound from highway traffic is generated primarily from a vehicle's tires, engine and exhaust. It is commonly measured in decibels (dB) and is a logarithmic unit and not added arithmetically as with more common linear units such as temperature. Sound is composed of many frequencies

measured in Hertz (Hz). The healthy young adult ear generally responds to sound in the range of 20 to 20,000 Hz. For highway traffic noise, since humans are not equally sensitive to all frequencies, noise is adjusted or weighted using an A-weighted scale. The A weighting scale is widely used in environmental analysis because it closely resembles the nonlinearity of human hearing. The unit of A-weighted noise is dB(A). Because highway traffic sounds fluctuate over time, an equivalent sound level is used to represent a single number to describe varying traffic sound levels. The term  $L_{eq}$  (h) refers to the steady-state sound level which in a stated period of time contains the same acoustic energy as the time-varying sound level during the same period. All traffic sound levels in this analysis will be expressed in dB(A)  $L_{eq}$  (h).

### **3 ANALYSIS METHODS**

Traffic noise analysis consists of a comparison of physically measured or modeled noise levels for existing condition with projected noise levels for future condition. FHWA's software, TNM 2.5, utilized traffic volume, vehicle mix, vehicle speed, geometry of the roadway(s) and receiver site locations to compute the noise levels being that of the "hourly equivalent noise level". Preliminary alignment and roadway elevation characteristics were available for use in this noise analysis. A receiver is a location, usually representing a dwelling unit where frequent exterior human activity occurs. The chosen receiver is modeled for noise levels and evaluated for noise impacts. In some instances, a model receiver may represent several dwelling units and the receiver site location placed approximately 5-10 feet from the building leading towards the roadway. For this analysis, the peak hour volumes and corresponding speeds for automobiles, medium trucks and heavy trucks result in the noisiest conditions. During all other periods, the noise levels are expected to be less than indicated in this report.

The FHWA has seven noise activity categories based on land use and sound levels, each of which has its own Noise Abatement Criteria (NAC). The NAC categories are listed in Table 1 on the preceding page. If a project would result in higher  $L_{eq}$  (h) values than the NAC values for a given location, then noise abatement or mitigation measures must be evaluated. This noise study does include an interior analysis of 2 medical facilities where no frequent outside activity area exists. Both the structures are of building type described as Masonry with at least single glazed windows. No interior sound level meter measurements were conducted; however, in accordance with the ODOT Noise Policy the interior sound level predictions were computed by subtracting a 25 dB noise reduction factor from the predicted exterior levels for the building in question. For either exterior or interior evaluations, an impact occurs when, at a given receiver, future noise levels approach by one dB(A), meet or exceed the FHWA NAC for its activity category. An impact also occurs when the future sound levels exceed existing sound levels by 15 dB at a given receiver. Once an impact is identified, then noise abatement is considered for the impacted area. Only those areas for which mitigation is determined to be feasible and reasonable as defined by ODOT Noise Policy will be recommended.

<b>TABLE 1</b> <b>FHWA Noise Abatement Criteria (NAC)</b> <i>Hourly A-Weighted Sound Level, decibels dB(A)</i>		
<b>Activity Category</b>	<b>Activity Criteria<sup>1</sup> Leq (h)<sup>2</sup></b>	<b>Activity Description</b>
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B <sup>3</sup>	67 (Exterior)	Residential.
C <sup>3</sup>	67 (Exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E <sup>3</sup>	72 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	--	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	--	Undeveloped lands that are not permitted.

Notes:

1. The Leq(h) Activity Criteria values are for impact determination only, and are not design standards for noise abatement measures.
2. The equivalent steady-state sound level which in a stated period of time contains the same acoustic energy as the time-varying sound level during the same time period, with Leq(h) being the hourly value of Leq.
3. Includes undeveloped lands permitted for this activity category.

## 4 TRAFFIC NOISE ANALYSIS

### 4.1 TRAFFIC DATA

The traffic data used to model noise levels in this analysis is based on traffic data and projections provided in the preliminary project plans. Traffic noise levels for the existing year 2014 and future design year 2045 traffic volumes were calculated using the FHWA TNM 2.5 model. The unit of measure for roadway traffic is the average annual daily traffic (AADT), which is defined as the estimate of traffic volumes in vehicles per day on a roadway, averaged from the seven annual average days of the week, for a calendar year. TNM utilizes the design hourly traffic (DHV) to determine the existing traffic noise levels and calculates the predicted noise levels which occur when the highest volume for an hour is combined with the highest speeds and considered as the “worst hour for noise.” DHV data is based on the percentage of hourly vehicular traffic present on the facility at the design capacity consisting of cars, medium trucks and heavy trucks. **Table 2** depicts the DHV values utilized in the modeling. The modeling assumed all vehicles were traveling at various speeds ranging from 20-70 mph for the existing condition and 50-70 mph for the future condition.

TABLE 2 Noise Model Traffic Volumes JP 28992 (04), I-40 & Douglas Interchange					
Location	AADT	DHV	Cars	Medium Trucks	Heavy Trucks
Existing (2014) I-40, West of Interchange	54,600	5,460	4,805	131	524
Future (2045) I-40, West of Interchange	84,600	8,460	7,445	203	812
Existing (2014) I-40, East of Interchange	43,000	4,300	3,784	103	413
Future (2045) I-40, East of Interchange	66,640	6,664	5,864	160	640
Existing (2014) Douglas Boulevard, North of Interchange	26,100	2,610	2,480	44	87
Future (2045) Douglas Boulevard, North of Interchange	49,540	4,954	4,706	83	165
Existing (2014) Douglas Boulevard, South of Interchange	16,900	1,690	1,606	28	56
Future (2045) Douglas Boulevard, South of Interchange	32,880	3,288	3,124	55	110
Existing (2014) Ramp Traffic Douglas SB to I-40 WB	6,100	610	598	6	6

<b>TABLE 2 Noise Model Traffic Volumes JP 28992 (04), I-40 &amp; Douglas Interchange</b>					
<b>Location</b>	<b>AADT</b>	<b>DHV</b>	<b>Cars</b>	<b>Medium Trucks</b>	<b>Heavy Trucks</b>
Future (2045) Ramp Traffic Douglas SB to I-40 WB	11,225	1,122	1,100	11	11
Existing (2014) Ramp Traffic I-40 EB to Douglas SB	2,800	280	274	3	3
Future (2045) Ramp Traffic I-40 EB to Douglas SB	5,150	515	505	5	5
Existing (2014) Ramp Traffic Douglas NB to I-40 EB	900	90	88	1	1
Future (2045) Ramp Traffic Douglas NB to I-40 EB	2,575	257	252	3	3
Existing (2014) Ramp Traffic I-40 WB to Douglas NB	2,200	220	216	2	2
Future (2045) Ramp Traffic I-40 WB to Douglas NB	4,830	483	473	5	5
Existing (2014) Loop Ramp Traffic I-40 WB to Douglas SB	900	90	88	1	1
Future (2045) Ramp Traffic I-40 WB to Douglas SB	2,575	257	252	3	3
Existing (2014) Loop Ramp Traffic Douglas SB to I-40 EB	2,200	220	216	2	2
Future (2045) Ramp Traffic Douglas SB to I-40 EB	4,830	483	473	5	5
Existing (2014) Loop Ramp Traffic I-40 EB to Douglas NB	6,100	610	598	6	6
Future (2045) Ramp Traffic I-40 EB to Douglas NB	11,225	1,122	1,100	11	11
Existing (2014) Loop Ramp Traffic Douglas NB to I-40 WB	2,800	280	274	3	3
Future (2045) Ramp Traffic Douglas NB to I-40 WB	5,150	515	505	5	5

## 4.2 EXISTING CONDITION AND LAND USE

The Douglas Boulevard bridge (NBI # 15573) over I-40 is six lanes wide including four through lanes, two loop ramp weaving lanes, curb and gutter, and 3-ft wide sidewalks on each side of the bridge. I-40 underneath Douglas Boulevard is a four-lane divided urban interstate with a 40-ft wide grass median, 12-ft wide driving lanes, 3-ft wide inside shoulders, and 10-ft wide outside shoulders. The existing I-40 and Douglas Boulevard interchange is a full cloverleaf interchange with collector-distributor roads along I-40. The project area was surveyed on January 11, 2017 to identify noise sensitive areas that may be affected by traffic noise. Based on aerial maps and the field investigation, the areas adjacent to the project are predominately commercial and industrial mix; however, two medical facilities, one Recreational Vehicle (RV) park, one mobile home park, and scattered single-family residential residential exist.

## 4.3 MODEL VALIDATION

For purposes of validating the noise model, field measurements were conducted using a Casella Model CEL-246 Type 2 Sound Level Meter. Three measurements were collected at two separate locations on January 11, 2017 and consisted of traffic counts, by vehicle type, collected simultaneously for a 15-minute duration at each measurement location. **Figure 2** in the Appendix depicts the location of the model validation sites. The existing roadway, collected traffic data and receiver locations were entered into TNM 2.5. Traffic volumes counted during the 15-minute measurement period were scaled up to one hour and entered into the model. The modeled sound levels were then compared with the field recorded sound levels to determine the accuracy of the model. **Table 3** includes a summary of measured and modeled sound levels used for model validation purposes. The modeled levels in TNM 2.5 were within  $\pm 3$  dB of the measured sound levels, so the model is considered valid for predicting sound levels in both the existing and future conditions. The field data, sound meter calibration certificate and the modeling results are on file with the ODOT Environmental Programs Division and available upon request.

TABLE 3 Model Validation				
Field Measurement	Location / Station*	Field Record Noise Level dB(A) Leq (h)	TNM Predicted Noise Level dB(A) Leq (h)	Difference (field-model)
1	I-40 – Station 369+00	80.7	78.9	1.8
2	I-40 – Station 360+00	80.4	79.0	1.4
3	I-40 – Station 360+00	81.5	78.8	2.7

\*Station number is approximated to measurement location.

#### 4.4 EXISTING NOISE LEVELS

Based on aerial maps and the field investigation, the areas adjacent to the project are predominately commercial and industrial mix; however, two medical facilities, one RV park, one mobile home park, and scattered residences exist. The residential dwellings were evaluated as NAC Activity Category B, the RV Park as NAC Activity Category C, the medical facilities as NAC Activity Category D, and all commercial as NAC Activity E. Thirty-one (31) receiver locations were selected for modeling purposes to identify noise levels for the existing and future conditions. **Figures 3-1** and **3-2** in the Appendix depict the location of the modeled receivers. Using the 2014 traffic data and existing roadway features, the existing sound levels were modeled for each receiver and summarized in **Table 4**. The TNM 2.5 input/output data for the existing condition is on file with the ODOT Environmental Programs Division and available upon request.

#### 4.5 FUTURE NOISE LEVELS

Using the preliminary project plans and 2045 projected traffic data, the future noise levels expected from the proposed reconfiguration of the I-40 & Douglas Boulevard interchange were determined for the modeled receivers and are summarized in **Table 4**. The complete TNM 2.5 input/output data for the future condition are on file with the ODOT Environmental Programs Division and available upon request.

<b>TABLE 4</b> <b>Traffic Noise Levels Comparison, <math>dB(A) L_{eq}(h)</math></b> <b>JP 28992 (04), I-40 &amp; Douglas Interchange</b>							
Modeled Receiver	Receiver Type	NAC Activity Category	Dwelling Units	Existing (2014)	Future (2045)	Change (+/-)	Noise Impact
<b>R-1</b>	<b>Residence</b>	<b>B</b>	<b>4</b>	<b>65.9</b>	<b>69.3</b>	<b>3.4</b>	<b>Yes</b>
R-2	Residence	B	4	62.1	64.9	2.8	No
R-3	Residence	B	5	60.9	61.2	0.3	No
R-4	Residence	B	3	61.3	61.1	-0.2	No
<b>R-5</b>	<b>Residence</b>	<b>B</b>	<b>3</b>	<b>66</b>	<b>69.4</b>	<b>3.4</b>	<b>Yes</b>
<b>R-6</b>	<b>RV Park Lot</b>	<b>C</b>	<b>2</b>	<b>68.4</b>	<b>66.4</b>	<b>-2</b>	<b>Yes</b>
R-7	RV Park Lot	C	2	67.8	65.9	-1.9	No
R-8	RV Park Lot	C	2	67.1	65.1	-2	No
R-9	RV Park Lot	C	1	66.7	64.7	-2	No
R-10	RV Park Lot	C	3	66.8	65.4	-1.4	No
R-11	RV Park Lot	C	4	66.6	65.1	-1.5	No
R-12	RV Park Lot	C	3	66.3	64.3	-2	No
R-13	RV Park Lot	C	3	66	64	-2	No
R-14	RV Park Lot	C	3	65.8	64.1	-1.7	No
R-15	RV Park Lot	C	3	65.4	64.6	-0.8	No



<b>TABLE 4</b> <b>Traffic Noise Levels Comparison, dB(A) <math>L_{eq}(h)</math></b> <b>JP 28992 (04), I-40 &amp; Douglas Interchange</b>							
Modeled Receiver	Receiver Type	NAC Activity Category	Dwelling Units	Existing (2014)	Future (2045)	Change (+/-)	Noise Impact
R-16	RV Park Lot	C	3	65.1	64.1	-1	No
R-17	RV Park Lot	C	3	64.8	63.6	-1.2	No
R-18	RV Park Lot	C	3	64.6	63.3	-1.3	No
R-19	RV Park Lot	C	1	65.2	65.2	0	No
R-20	RV Park Lot	C	1	64.9	64.8	-0.1	No
R-21	Residence	B	1	58.9	59.7	0.8	No
C-1	Denny's	E	1	65.6	68	2.4	No
C-2	McDonald's	E	1	67.1	70.8	3.7	No
C-3	Midwest City Auto	E	1	64.9	68.9	4	No
C-4	Tank & Tummy	E	1	63.7	67	3.3	No
H-1*	St. Anthony's HealthPlex	D	1	41.7	41.2	-0.5	No
V-1*	Animal Medical	D	1	38.8	41.8	3	No
O-1	RV Park Office	C	1	66.4	65.9	-0.5	No

\*Interior analysis method.

#### 4.6 TRAFFIC NOISE IMPACTS

The traffic noise analysis for the proposed action predicts the greatest noise impacts to occur at noise sensitive sites near the proposed interchange project. As depicted in **Table 4**, for the future condition, 7 residential dwellings and 2 RV Park receivers meet or exceed the 67 dB(A)  $L_{eq}(h)$  for NAC Activity Categories B and C. Interior analysis conducted for the medical facilities (evaluated as NAC Activity Category D) predicted no future noise impacts. The future noise levels for those receivers evaluated are expected to increase on average 2.0 dB ranging from -2.0 to 4.0 dB over the existing condition. No receivers will experience a substantial increase (15-dB) noise levels over the current condition which is considered to be a substantial increase for noise impact determination.

### 5 CONSIDERATION FOR ABATEMENT

The ODOT Noise Policy was used as the traffic-noise impact guideline for this analysis. This policy states that predicted noise levels attributed to roadway modifications resulting in increased traffic levels require an evaluation of measured noise impact and possible mitigation measures. Results of the analysis indicated that 7 residential dwellings and 2 RV Park receivers will have future noise impacts. Noise mitigation in the form of a free-standing noise wall is considered the most appropriate form of noise abatement measure for these impacted receivers.

### Douglas Boulevard

Noise mitigation in the form of a free-standing noise wall was considered for 7 of the impacted residential receivers along Douglas Boulevard. These receivers have direct driveway access onto Douglas Boulevard. Without access control, the gap that would be required for the driveway connections would make noise abatement measures ineffective, and therefore, noise mitigation would not prove feasible.

### Eastland Hills RV Park

A total of two (2) receivers within the Eastland Hills RV Park are predicted to be impacted by future noise levels. This recreational area is open year-round and the manager of the RV Park stated that most of his customers are permanent residents. A noise barrier was modeled inside the highway right-of-way line along the access road to the RV Park at various heights (see **Figure 4**). Based on the barrier analysis of a noise wall consisting of 608 feet in length at a maximum height of 22-feet was not able to achieve the desired 5.0 to 7.0 dB(A) noise reduction; therefore, noise mitigation is not feasible. Based on the inability of this wall to acoustically reduce noise for these receptors, no noise barrier is recommended for design. Noise levels with the noise barrier, as well as reduction of noise levels due to the noise barrier, are summarized in **Table 5**. The TNM 2.5 results and other related computations are on file with the ODOT Environmental Programs Division.

<b>TABLE 5: Future Noise Levels with Mitigation Abatement Consideration for Eastland Hills RV Park</b>			
<b>Modeled Receptor</b>	<b>Future Level, Leq(h) With Noise Barrier</b>	<b>Reduction of Noise Levels due to Barrier (Insertion Loss)</b>	<b>Number of Benefited Receptors</b>
R-6 (1 <sup>st</sup> Row) (2-lots)	64.1	2.3	0
R-7 (2-lots)	64.4	1.5	0
R-8 (2-lots)	64.4	0.7	0
R-9 (1-lot)	64.3	0.4	0
R-10 (1 <sup>st</sup> Row) (3-lots)	62.2	3.2	0
R-11 (4-lots)	62.5	2.6	0
R-12 (3-lots)	62.5	1.8	0
R-13 (3-lots)	62.6	1.4	0
R-14 (3-lots)	62.8	1.3	0
R-15 (1 <sup>st</sup> Row) (3-lots)	61.1	3.5	0
R-16 (3-lots)	61.1	3	0
R-17 (3-lots)	61	2.7	0
R-18 (3-lots)	61.1	2.2	0
R-19 (1 <sup>st</sup> Row) (1-lot)	61.6	3.6	0
R-20 (1-lot)	61.4	3.4	0
O-1 (RV Park Office)	61.4	4.6	0

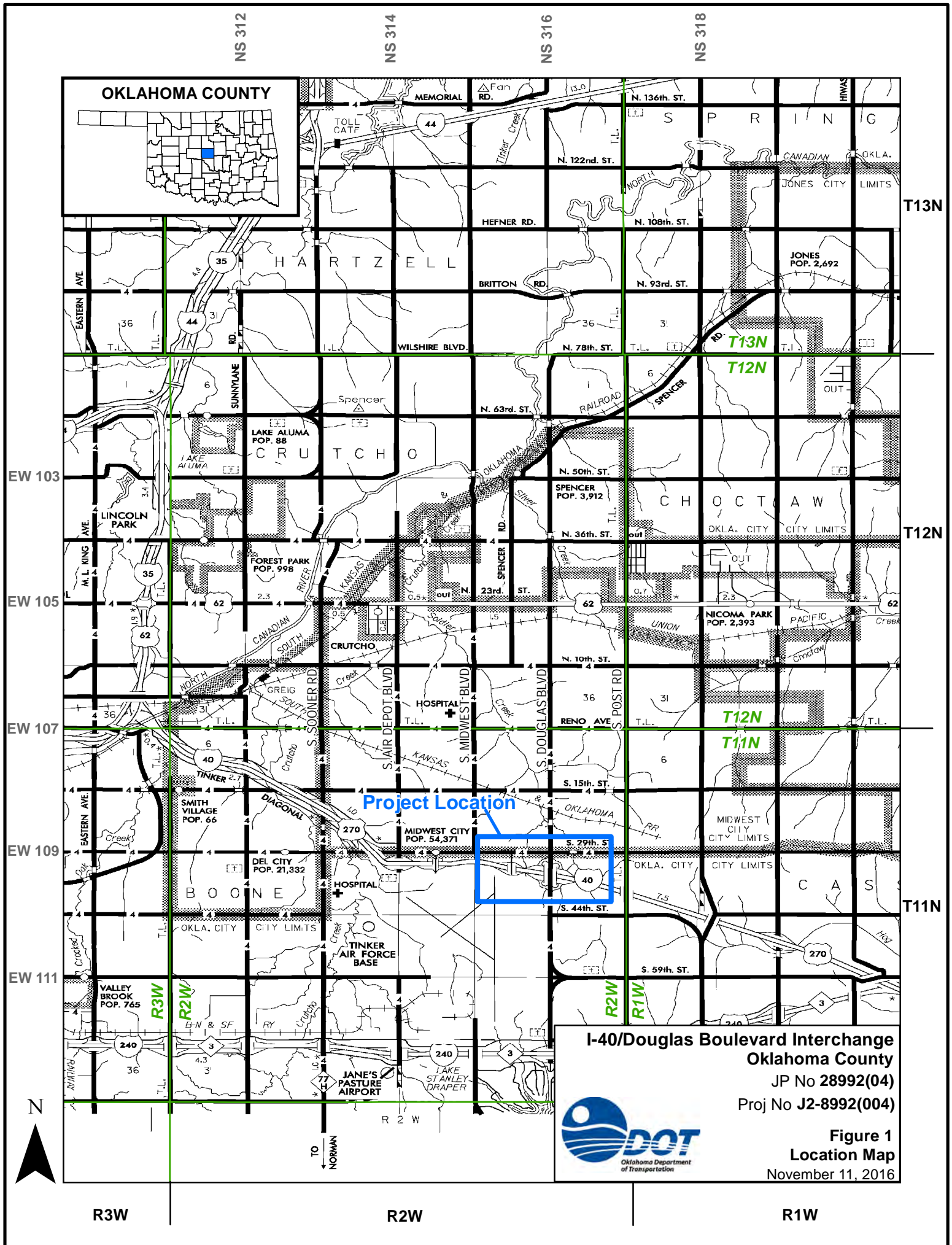
## 6 CONSTRUCTION NOISE

In general, construction noise related to highway projects is not a major issue. Sources of noise include heavy machinery like backhoes and scrapers, cranes, pile drivers, and trucks transporting materials. Typically, construction noise can be minimized by implementing time of day restrictions for construction operations adjacent to noise sensitive areas. ODOT is concerned of any special noise-sensitive land uses or activities which may be affected by construction noise from the proposed project, and any special measures which are feasible and reasonable will be added to the project plans and specifications. No special noise sensitive land uses or activities that may be affected by construction noise are in proximity to the project.

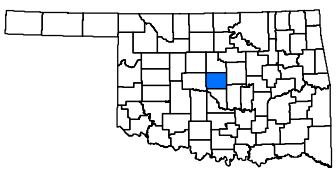
## 7 COORDINATION WITH LOCAL OFFICIALS

Traffic noise approaching and exceeding the sound levels specified in the ODOT Noise Policy resulting from the proposed I-40 and Douglas Boulevard interchange have been identified. Although land-use is somewhat fully developed, some undeveloped lands exist in the project vicinity as well as a vacant mobile home park in the northeast quadrant of the interchange. To aid in noise compatible land use planning, using the TNM 2.5 model, the distance from the center of the new roadway was used to determine the 66 dB(A) Leq (h) and 71 dB(A) Leq (h) future contour lines, referred as impact zones. Along I-40, the 66 dBA and 71 dBA impact zones were modeled to be approximately 425 feet and 285 feet, respectively, from the proposed center of the nearest three lanes of I-40. Along Douglas Boulevard, the 66 dBA and 71 dBA impact zones were modeled to be approximately 200 feet and 95 feet, respectively, from the centerline of Douglas Boulevard. **Figures 5-1 and 5-2** depict the future impact zone contour lines. Development within the future impact zone of the proposed project should be compatible with elevated traffic noise levels. Residential (NAC Activity Category B) and all NAC Activity Category C uses are discouraged within this impact zone due to anticipated future noise levels.

# APPENDIX



**OKLAHOMA COUNTY**



**Project Location**

**I-40/Douglas Boulevard Interchange**  
**Oklahoma County**  
 JP No 28992(04)  
 Proj No J2-8992(004)



**Figure 1**  
**Location Map**  
 November 11, 2016



R3W

R2W

R1W





 NEPA Study Area  
 Model Validation Point



3020 N.W. 149th Street  
 Oklahoma City, Oklahoma 73134  
 Ph. (405) 752-1122  
 Fax (405) 752-8855

FIGURE TITLE	DATE	2/17/2017
<b>MODEL VALIDATION LOCATION MAP FOR JP 28992 (04)</b>	SCALE	AS SHOWN
DOCUMENT TITLE	DESIGNED BY	TS
<b>NOISE ASSESSMENT FOR I-40 &amp; DOUGLAS INTERCHANGE</b>	APPROVED BY	RE
CLIENT	DRAWN BY	RE
<b>OKLAHOMA DEPARTMENT OF TRANSPORTATION</b>	TRIAD PROJECT NUMBER	E211.06
LOCATION	FIGURE NUMBER	2
<b>OKLAHOMA COUNTY, OKLAHOMA</b>		



● Modeled Receivers



0 150 300  
 Feet



3020 N.W. 149th Street  
 Oklahoma City, Oklahoma 73134  
 Ph. (405) 752-1122  
 Fax (405) 752-8855

FIGURE TITLE	DATE	3/2/2017
<b>MODELED RECEIVERS FOR JP 28992 (04)</b>	SCALE	AS SHOWN
DOCUMENT TITLE	DESIGNED BY	TS
NOISE ASSESSMENT FOR I-40 & DOUGLAS INTERCHANGE	APPROVED BY	RE
CLIENT	DRAWN BY	RE
OKLAHOMA DEPARTMENT OF TRANSPORTATION	TRIAD PROJECT NUMBER	E211.06
LOCATION	FIGURE NUMBER	3-1
OKLAHOMA COUNTY, OKLAHOMA		



● Modeled Receivers



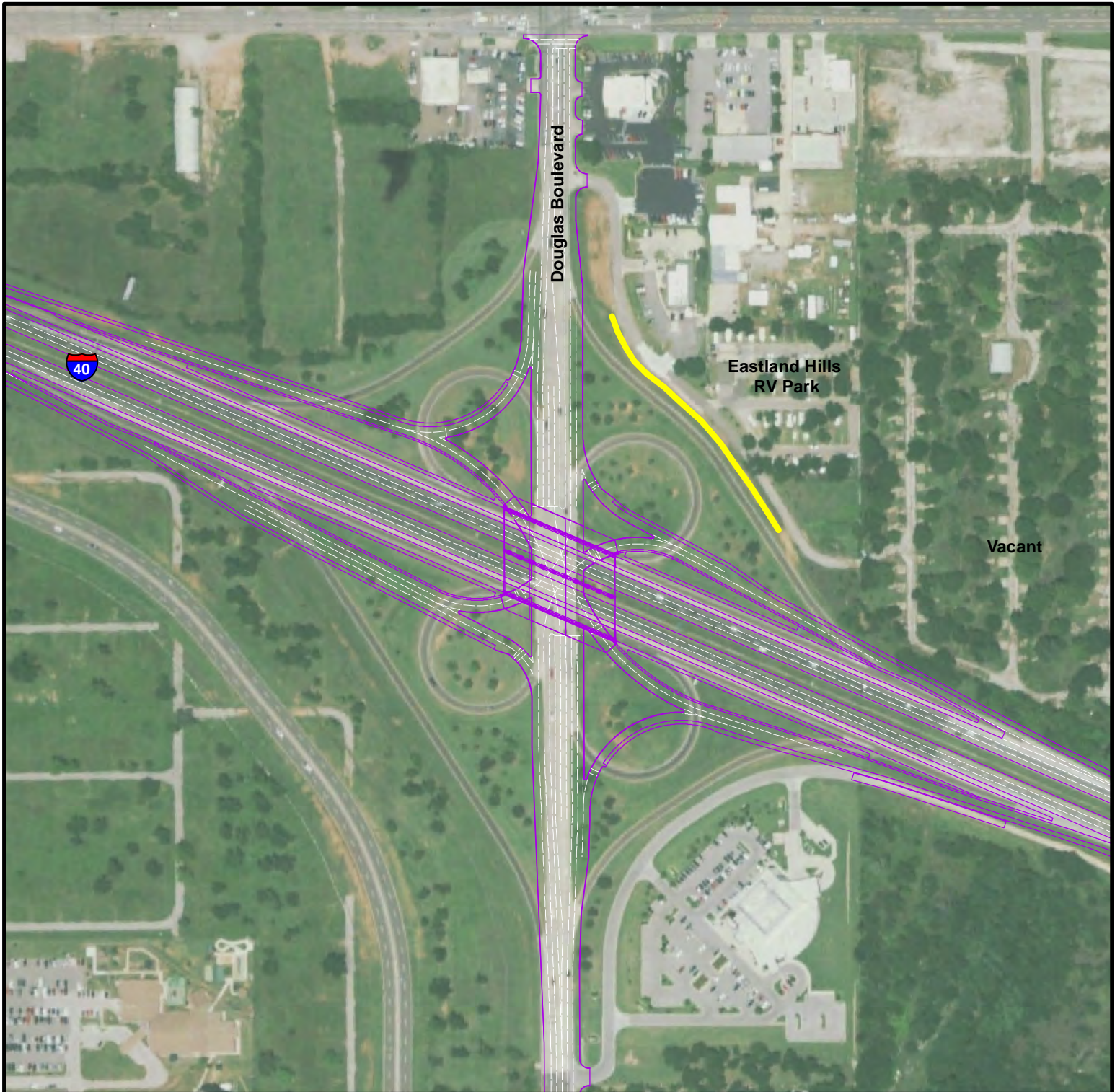
0 150 300  
 Feet



3020 N.W. 149th Street  
 Oklahoma City, Oklahoma 73134  
 Ph. (405) 752-1122  
 Fax (405) 752-8855

FIGURE TITLE	DATE	3/2/2017
<b>MODELED RECEIVERS FOR JP 28992 (04)</b>	SCALE	AS SHOWN
DOCUMENT TITLE	DESIGNED BY	TS
NOISE ASSESSMENT FOR I-40 & DOUGLAS INTERCHANGE	APPROVED BY	RE
CLIENT	DRAWN BY	RE
OKLAHOMA DEPARTMENT OF TRANSPORTATION	TRIAD PROJECT NUMBER	E211.06
LOCATION	FIGURE NUMBER	3-2
OKLAHOMA COUNTY, OKLAHOMA		





— Proposed New Alignment  
— Barrier Analysis Location



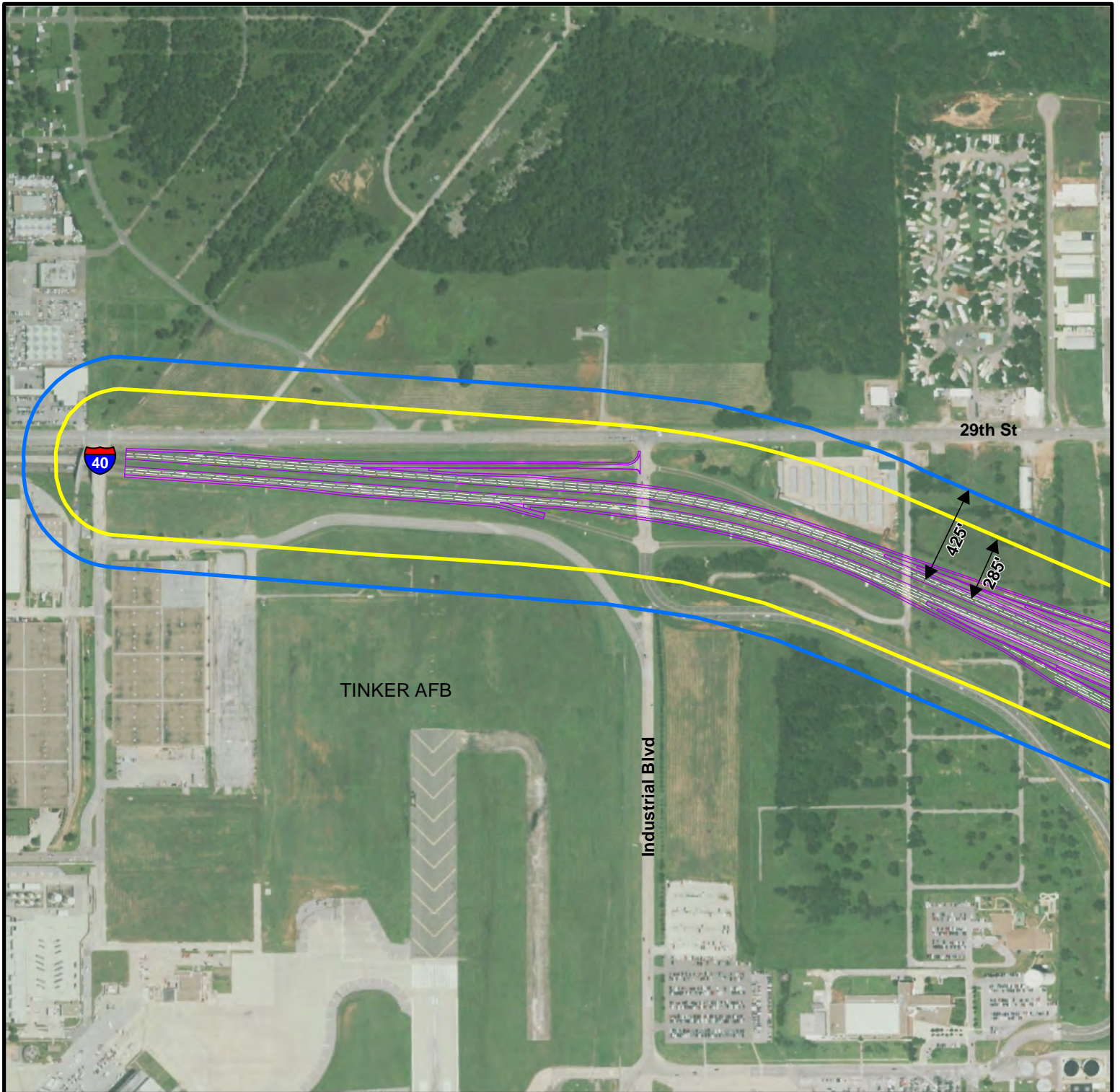
0      150      300  

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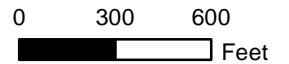


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 Oklahoma City, Oklahoma 73134  
 Ph. (405) 752-1122  
 Fax (405) 752-8855

FIGURE TITLE	DATE	3/2/2017
<b>BARRIER ANALYSIS LOCATION FOR JP 28992 (04)</b>	SCALE	AS SHOWN
DOCUMENT TITLE	DESIGNED BY	TS
NOISE ASSESSMENT FOR I-40 & DOUGLAS INTERCHANGE	APPROVED BY	RE
CLIENT	DRAWN BY	RE
OKLAHOMA DEPARTMENT OF TRANSPORTATION	TRIAD PROJECT NUMBER	E211.06
LOCATION	FIGURE NUMBER	4
OKLAHOMA COUNTY, OKLAHOMA		

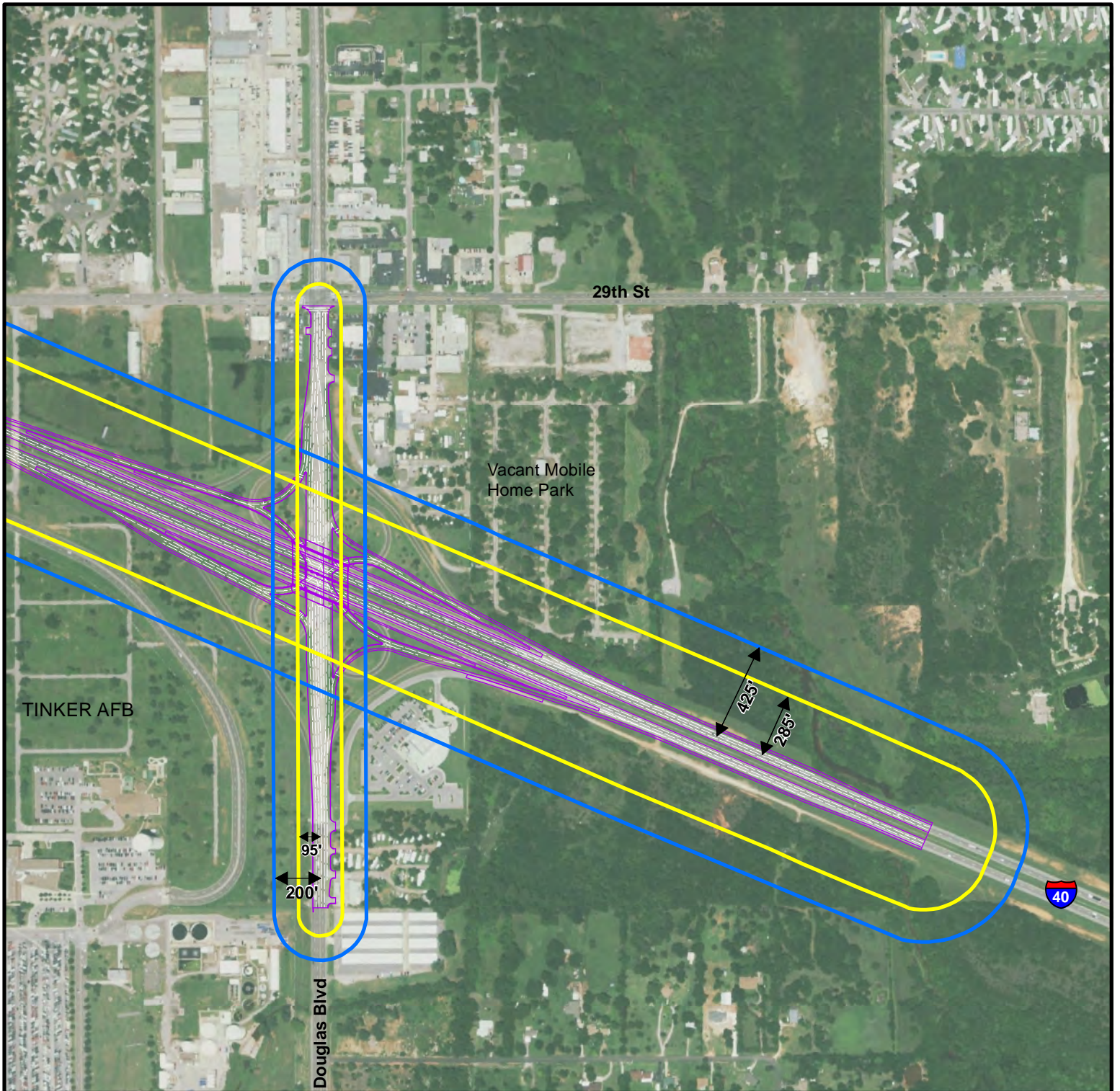


- Proposed New Alignment
- Future 66 dB(A) Contour
- Future 71 dB(A) Contour

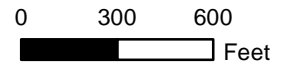


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 Oklahoma City, Oklahoma 73134  
 Ph. (405) 752-1122  
 Fax (405) 752-8855

<b>FIGURE TITLE</b>	DATE	3/2/2017
<b>FUTURE NOISE CONTOUR MAP FOR JP 28992 (04)</b>	SCALE	AS SHOWN
<b>DOCUMENT TITLE</b>	DESIGNED BY	TS
<b>NOISE ASSESSMENT FOR I-40 &amp; DOUGLAS INTERCHANGE</b>	APPROVED BY	RE
<b>CLIENT</b>	DRAWN BY	RE
<b>OKLAHOMA DEPARTMENT OF TRANSPORTATION</b>	<b>TRIAD PROJECT NUMBER</b>	
<b>LOCATION</b>	E211.06	
<b>OKLAHOMA COUNTY, OKLAHOMA</b>	<b>FIGURE NUMBER</b>	
	<b>5-1</b>	



- Proposed New Alignment
- Future 66 dB(A) Contour
- Future 71 dB(A) Contour



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 Oklahoma City, Oklahoma 73134  
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 Fax (405) 752-8855

FIGURE TITLE	DATE	3/2/2017
<b>FUTURE NOISE CONTOUR MAP FOR JP 28992 (04)</b>	SCALE	AS SHOWN
DOCUMENT TITLE	DESIGNED BY	TS
NOISE ASSESSMENT FOR I-40 & DOUGLAS INTERCHANGE	APPROVED BY	RE
CLIENT	DRAWN BY	RE
OKLAHOMA DEPARTMENT OF TRANSPORTATION	TRIAD PROJECT NUMBER	E211.06
LOCATION	FIGURE NUMBER	5-2
OKLAHOMA COUNTY, OKLAHOMA		

**OTHER**

## Documented Categorical Exclusion Justification Request

Date	12/06/17	Project No.	J2-8992(004)
County	Oklahoma	State Job Piece No.	JP#28992(04)
NEPA Project Manager	Siv Sundaram / Jared Schwennesen	Phone Number	405-521-2676
ODOT Field Division	4	Bridge NBI No. (County & State Projects) & Location No. (County Projects Only)	15560 and 15573
Project Description from JPINFO	<i>Douglas Boulevard Bridge Replacement and Interchange Reconstruction 6.5 Miles East of I-35 (includes removal of Engle Road bridge)</i>		

### Existing Conditions

The Douglas Boulevard bridge over I-40 (NBI #15573) is six lanes wide including four through lanes, two loop ramp weaving lanes, curb and gutter, and 3-ft wide sidewalks on each side of the bridge. The existing Douglas Boulevard bridge is an 80-ft wide roadway width concrete continuous slab bridge, with a sufficiency rating of 77.0. The vertical clearance for I-40 is posted as 16-ft-9-in (eastbound) and 16-ft-4-in (westbound). The current annual average daily traffic (AADT) on Douglas Boulevard is 26,100 vehicles per day (vpd), and is projected to increase to 48,000 vpd by the year 2045.

I-40 underneath Douglas Blvd is a four-lane divided urban interstate with a 40-ft wide grass median, 12-ft wide driving lanes, 3-ft wide inside shoulders, and 10-ft wide outside shoulders. The current AADT on I-40 is 54,600 vpd, and is projected to increase to 84,600 vpd by the year 2045. The existing I-40 and Douglas Boulevard interchange is a full cloverleaf interchange with collector-distributor roads along I-40. The number of collisions at this location is higher than the state average at similar locations.

The existing Engle Road bridge (NBI #15560) over I-40 formerly provided access to a residential neighborhood south of I-40. However, the neighborhood no longer exists and the property is now owned by Tinker Air Force Base. Therefore, Engle Road bridge is closed to traffic and not in use.

This project will tie to an adjacent project east for I-40 improvements eastward to the I-40/Choctaw Road interchange.

### Purpose & Need

The purpose of this project is to correct the functionally obsolete Douglas Boulevard bridge and improve safety while accommodating future traffic volumes, which indicate I-40 should be widened from four lanes to six lanes.

### Alternatives considered, Logical Termini, & Proposed Improvement

Three (3) interchange alternatives were identified for consideration:

- Alternative 1 - Single Point Urban Interchange (SPUI). A Single Point Urban Interchange is a basic diamond interchange with a single signalized central intersection in the center of the bridge. The Douglas Boulevard traffic along with the I-40 ramp traffic will converge to a single point utilizing a single set of traffic signals. The SPUI accommodates large traffic volumes efficiently with minimal right-of-way impacts. I-40 will be improved to a six-lane facility. Through the interchange, Douglas Boulevard will consist of six through lanes, dual left-turn lanes, and right-turn lanes where needed. Entrance and exit ramp lanes will also be constructed along I-40. Collector-distributor roads will be

removed and will not be re-constructed. Alternative 1 would require less than one acre of right-of-way to be acquired from Oklahoma County in the southwest quadrant.

- Alternative 2 - Tight Urban Diamond Interchange (TUDI) with Ramp Flyover. A Tight Urban Diamond Interchange is an interchange that compresses a standard diamond interchange. This design includes all four interchange ramps, as well as the option of adding a future flyover ramp for northbound Douglas Boulevard traffic destined for westbound I-40. I-40 will be improved to a six-lane facility. Through the interchange, Douglas Boulevard will consist of six through lanes, dual left-turn lanes, and right-turn lanes where needed. Upon construction of the northbound to westbound ramp flyover, the northbound to westbound left-turn lanes on Douglas will be removed. Entrance and exit ramp lanes will also be constructed along I-40. Collector-distributor roads will be removed and will not be re-constructed. Alternative 2 would require less than one acre of right-of-way to be acquired from Oklahoma County in the southwest quadrant.
- Alternative 3 - Cloverleaf Interchange. The existing cloverleaf will be completely reconstructed to accommodate widening I-40 to a six-lane facility. All ramps and both collector-distributor roads will be reconstructed. Through the interchange, Douglas Boulevard will consist of four through lanes, two lanes for loop ramp weaving, two additional lanes located in the median which can be used in the future for left turning traffic, and entrance and exit lanes where needed. Entrance and exit ramp lanes will also be constructed along I-40. Alternative 3 would require less than one acre of right-of-way to be acquired from Oklahoma County in the southwest quadrant.

All three alternatives included the removal of Engle Road Bridge.

A Public Meeting was held to present the project information on January 17, 2017. At that meeting, the three alternatives described previously were presented, based on the results of an engineering design study.

ODOT received comments from the public, as well as state and federal agencies. More than half of the written public comments received which expressed support for an alternative supported Alternative 1. Alternative 2 received the next most support. Other public comments addressed traffic operations at the nearby S.E. 29th Street/Douglas Boulevard intersection, pedestrian accommodations, and other miscellaneous issues. Based on these comments and the completed engineering design study, ODOT has selected Alternative 1, the Single Point Urban Interchange, as the Preferred Alternative. Alternative 1 improves safety, accommodates large volumes of traffic, and provides greater mobility for both cars and large trucks due to long, gradual turns. Alternative 2 was eliminated due to higher construction costs and less efficient traffic operations and turning traffic mobility. Alternative 3 was eliminated due to less than desirable interchange geometry, fewer safety improvements, and difficulty in providing pedestrian facilities.

An Access Justification Report is being prepared for the proposed modification, with an anticipated submittal date of January 2018.

**Did the project have public involvement** *(Check the applicable items and include public involvement summary and supporting documents in the appendix)*

<b>X</b>	Property Owner Notification		Road Closure Letter		<b>X</b>	Public/Stakeholder Meeting
	Legal Notice/Website Posting		Small City Letter			None

**IMPORTANT: ATTACH THE FOLLOWING:**

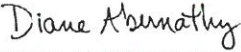
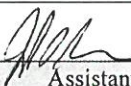
1. STUDY FOOTPRINT OR PLANS
2. THE PROJECT INITIATION REPORT, LOCAL GOVERNMENT NEPA CHECKLIST OR OTHER DOCUMENTS OUTLINING THE PROJECT SCOPE

**ATTACHMENTS (Check all that apply):**

- NEPA Study Footprint and Plans
- Location Map
- Other: Project Initiation Report, Public Involvement Summary

Reasons DCE format is being proposed rather than EA.		
Description/Question	Yes	No
1. Based on prior planning studies and public involvement – this project has no or little substantive controversy	X	
2. This project has no new R/W or minor R/W adjacent to the existing facility and no or few residential/commercial relocations.	X	
3. The project has no potentially significant social, economic, environmental impacts identified by studies or agency solicitation	X	

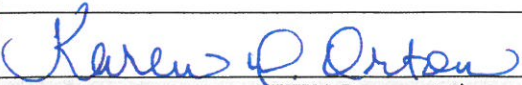
**Requester's Signatures**

 Diane Abernathy, Triad Design Group	12/06/17
Environmental Consultant Project Manager & Firm Name (If Applicable)	Date
 Rachel Hamigan	12/6/2017
ODOT Environmental Project Manager	Date
	12-8-17
Assistant Environmental Programs Division Engineer	Date

**CONCLUSION:**

Based on the 2011 ODOT/FHWA Programmatic Agreement for Categorical Exclusion processing and information provided, FHWA concurs that this project may be processed as a Documented CE (DCE). Upon completion of all studies and coordination, a draft DCE document will be submitted to FHWA for review and approval.	X	YES
		NO

**Special Requirements from FHWA**

 Karen P. Orton	1-9-2018
FHWA Representative	Date

Attachments: Project Information listed above

# ACCESS JUSTIFICATION REPORT

## I-40 AND DOUGLAS BOULEVARD INTERCHANGE Oklahoma County, Oklahoma

J/P 28992(04)

Prepared for:



Oklahoma Department of Transportation  
200 Northeast 21<sup>st</sup> Street  
Oklahoma City, OK 73105

Prepared by:



Oklahoma Certificate of Authority No. 1759  
3020 Northwest 149<sup>th</sup> Street  
Oklahoma City, OK 73134  
405-752-1122

May 2018



# ACCESS JUSTIFICATION REPORT

## I-40 AND DOUGLAS BOULEVARD INTERCHANGE Oklahoma County, Oklahoma

J/P 28992(04)

**Prepared by:**

Triad Design Group

Cassandra Pinta, P.E.

Date: \_\_\_\_\_

**Submitted by:**

Oklahoma Department of Transportation (ODOT)

Caleb Austin, P.E.

ODOT Roadway Design Engineer:

Date: \_\_\_\_\_

**Concur:**

Federal Highway Administration (FHWA)

Division Administrator:

Date: \_\_\_\_\_

**Comments:**

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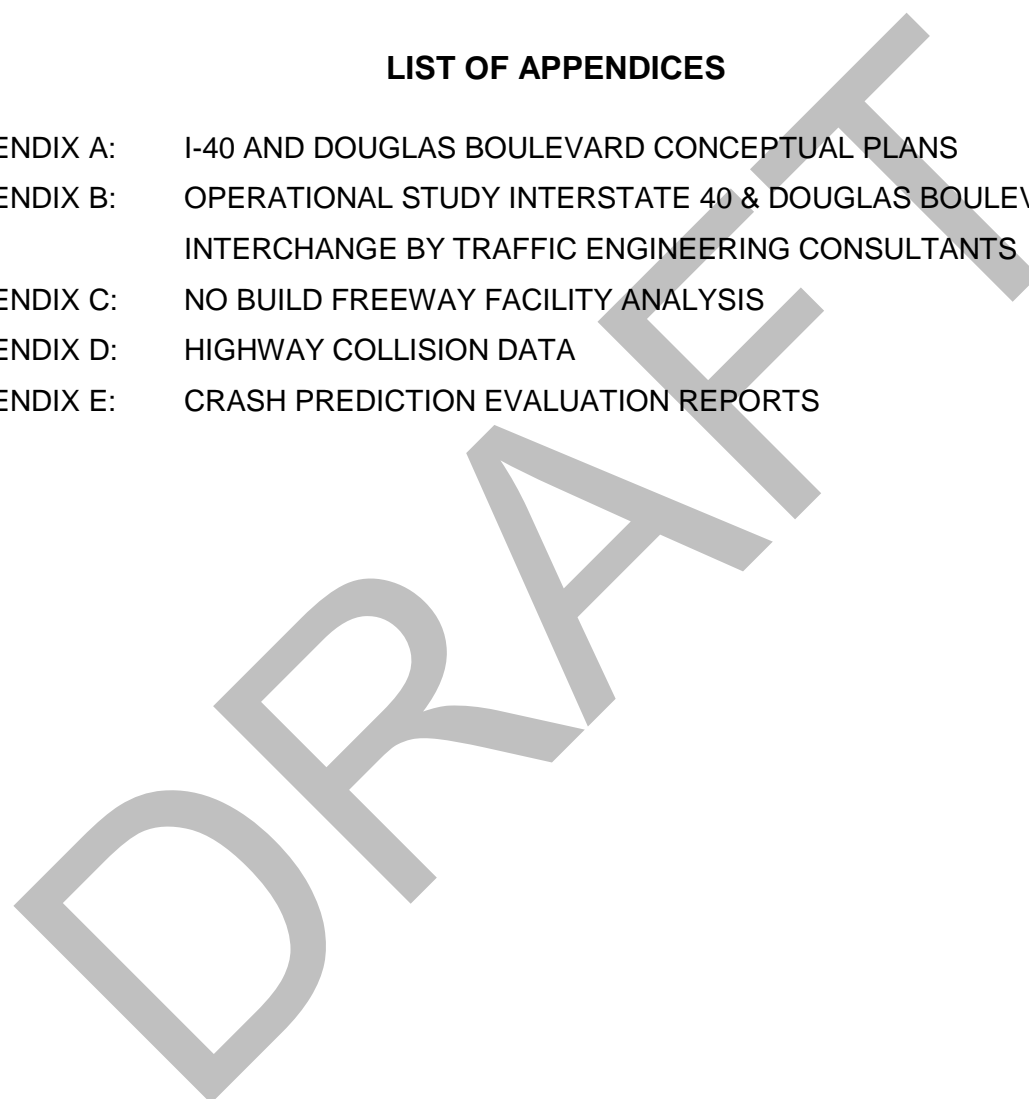
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- APPENDIX B: OPERATIONAL STUDY INTERSTATE 40 & DOUGLAS BOULEVARD  
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- APPENDIX C: NO BUILD FREEWAY FACILITY ANALYSIS
- APPENDIX D: HIGHWAY COLLISION DATA
- APPENDIX E: CRASH PREDICTION EVALUATION REPORTS



## EXECUTIVE SUMMARY

A bridge replacement and interchange reconstruction is proposed on I-40 at Douglas Boulevard in Oklahoma City, Oklahoma in Oklahoma County. The purpose of the project is to correct the functionally obsolete Douglas Boulevard bridge and to configure an interchange that will accommodate future traffic volumes in a safe and efficient manner within the existing right-of-way constraints.

I-40 is a four-lane divided open section urban interstate with asphalt pavement in fair to poor condition. Town Center Drive, located 1.5 miles west of Douglas Boulevard, is a six-lane curbed local roadway. The I-40 and Town Center Drive Interchange is a full tight-diamond interchange utilizing taper ramps on the I-40 exit and entrance ramps. Industrial Boulevard, located 0.5 miles west of Douglas Boulevard, is a four-lane curbed local roadway. The I-40 and Industrial Boulevard Interchange is a full tight-diamond interchange utilizing taper ramps on the I-40 exit and entrance ramps. Douglas Boulevard is a four-lane curbed urban principal arterial. The I-40 and Douglas Boulevard Interchange is a full cloverleaf interchange with collector-distributor roads. Anderson Road, located 3.2 miles east of Douglas Boulevard, is a three-lane curbed urban major collector. The I-40 and Anderson Road Interchange is a full diamond interchange utilizing taper ramps on the I-40 exit and entrance ramps.

The existing interchange, at Douglas Boulevard, is a full cloverleaf interchange with collector-distributor roads. Transportation system management, such as the addition of HOV facilities, mass transit, or ramp metering, will not improve traffic operations on I-40 in this area. The replacement of the twin bridges at Douglas Boulevard overpassing I-40 and widening I-40 from four to six lanes will impact the collector-distributor roads, requiring an interchange reconstruction. Reconstructing the existing cloverleaf interchange was considered; however, the right-of-way restrictions compromised the geometry and offered few safety improvements. The loop ramps design speed would have been reduced to 20 mph and the weaving segments would have remained on Douglas Boulevard and the collector-distributor roads. Several new designs which remained within the existing right-of-way limits, improved safety, and managed traffic operations were considered. The proposed Single Point Urban Interchange (SPUI) was determined to best improve safety by eliminating the weaving segments that are prone to collisions, while managing traffic efficiently and remaining within the existing right-of-way limits.

I-40 will be reconstructed for a design speed of 60 mph. The vertical alignment will be lowered near the Douglas Boulevard Interchange to provide a minimum clearance of 16'-9". I-40 will be widened to six lanes with outside shoulders. A Single Point Urban Interchange (SPUI) will be constructed in place of a cloverleaf interchange. Douglas Boulevard will transition within project extents from four to six through lanes with additional turn lanes. The design speed on Douglas Boulevard will be 45 mph. A parallel sided bridge will be utilized to accommodate the SPUI intersection. Vertical abutments will be placed at the 30' clear zone, and one pier on the centerline of I-40. The bridge will consist of two spans with an overall nominal length of approximately 190' and an overall bridge deck width of approximately 240'. The SPUI configuration will provide all

ramp movements. On I-40, the design includes parallel entrance and exit ramps to the proposed Douglas Boulevard SPUI.

Additional improvements include removing the Engle Road Bridge over I-40 and removing the eastern ramps at the I-40 and Industrial Boulevard Interchange. The existing ramp configuration between the Industrial Boulevard and Douglas Boulevard Interchanges contains inadequate merge and diverge spacing between the interchanges. Due to the close proximity of the two interchanges, traffic that once utilized the eastern ramps on the Industrial Boulevard Interchange can utilize the Douglas Boulevard Interchange (approximately 0.5 miles east) or the Town Center Drive Interchange (approximately 1 mile west).

General project extents for I-40 run from a transition beginning just west of Industrial Boulevard extending east to approximately 2,800' east of Douglas Boulevard. Douglas Boulevard project extents run from 1,400' south of I-40 extending north to the south edge of S.E. 29<sup>th</sup> Street.

A traffic study was performed on the existing cloverleaf configuration and the proposed SPUI for the design years 2017 and 2045. The future SPUI configuration generates improvement to the intersection delay along Industrial Boulevard for both signalized and unsignalized intersections. The total signalized delay in 2045 is an average 40% greater with the future SPUI configuration in comparison to the existing cloverleaf configuration. The 2017 freeway facilities comparison results display several modest improvements to the I-40 freeway and the I-40 ramp merge and diverge locations with the future SPUI configuration in comparison to the existing cloverleaf interchange configuration with I-40 widening. The 2045 freeway facilities comparison results display improvements in delay at the weaving segment between Industrial Boulevard and Douglas Boulevard.

A collision analysis was performed to assess the crash history from 01/01/2011 to 12/31/2015 for I-40, Douglas Boulevard, and the surrounding facilities. Throughout the study period there have been 640 collisions along I-40 between Town Center Drive and Anderson Road. The overall collision rate for this section is 135.11 collisions per 100 million vehicle miles, compared to the statewide rate of 66.82 for similar facilities. There have been 103 collisions related to the I-40 and Douglas Boulevard Interchange. Most of the collisions occur on ramp or collector-distributor road merge locations.

Utilizing the Interactive Highway Safety Design Model (IHSDM) Predictive Method, a safety analysis has been performed on the existing cloverleaf interchange and the future SPUI. The expected crash totals and crash rates from 2020 to 2045, a total of 25 years, were analyzed. Along I-40 the proposed future conditions reduce the annual crashes by 18.7%. The eastbound ramps combined reduce the annual crashes by 50.0%, and the westbound ramps combined reduce the annual crashes by 19.6%.

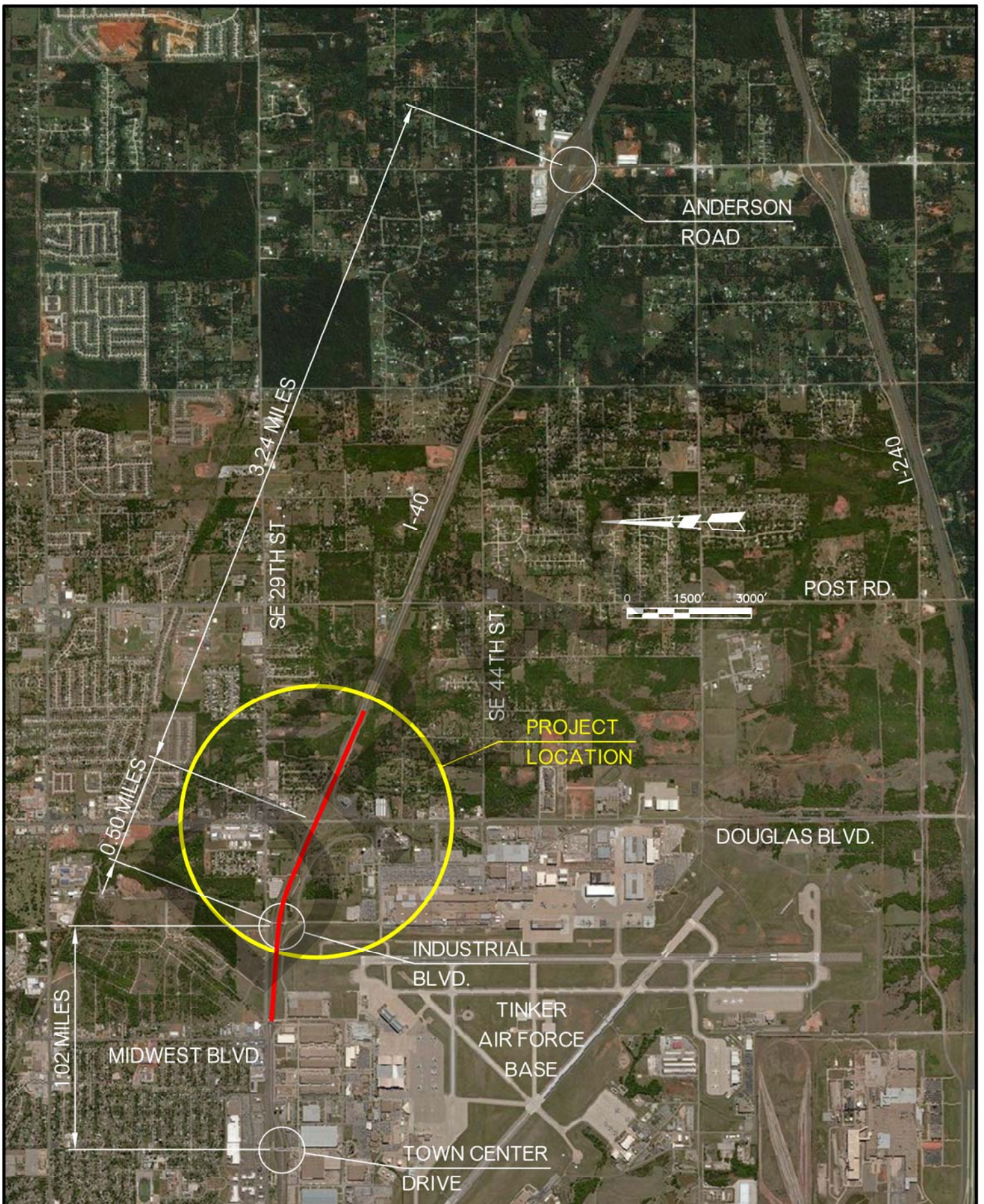
## 1 OPERATIONAL ANALYSIS

*“An operational and safety analysis has concluded that the proposed change in access does not have a significant adverse impact on the safety and operation of the Interstate facility (which includes mainline lanes, existing, new, or modified ramps, and ramp intersections with crossroad) or on the local street network based on both the current and the planned future traffic projections. The analysis should, particularly in urbanized areas, include at least the first adjacent existing or proposed interchange on either side of the proposed change in access (Title 23, Code of Federal Regulations (CFR), paragraphs 625.2(a), 655.603(d) and 771.111(f)). The crossroads and local street network, to at least the first major intersection on either side of the proposed change in access, should be included in this analysis to the extent necessary to fully evaluate the safety and operational impacts that the proposed change in access and other transportation improvements may have on the local street network (23 CFR 625.2(a) and 655.603(d)). Requests for a proposed change in access should include a description and assessment of the impacts and ability of the proposed changes to safely and efficiently collect, distribute, and accommodate traffic on the Interstate facility, ramps, intersection of ramps with crossroad, and local street network (23 CFR 625.2(a) and 655.603(d)). Each request should also include a conceptual plan of the type and location of the signs proposed to support each design alternative (23 U.S.C. 109(d) and 23 CFR 655.603(d)).”*

### 1.1 PROPOSED INTERCHANGE IMPROVEMENTS AT I-40 AND DOUGLAS BOULEVARD

The existing I-40 and Douglas Boulevard Interchange is located in Oklahoma City, Oklahoma in Oklahoma County. The project location map is shown in Exhibit 1. The interchange currently services Oklahoma City (population 579,999), Midwest City (population 54,371), Tinker Air Force Base (AFB), Saint Anthony Healthplex, a car dealership, assorted restaurants, and retail. Adjacent interchanges along I-40 are shown in Exhibit 1 and include Town Center Drive 1.5 miles west, Industrial Boulevard 0.5 miles west, and Anderson Road 3.2 miles east.

A bridge replacement and interchange reconstruction is proposed on I-40 at Douglas Boulevard. Exhibit 2 displays the proposed improvements at the I-40 and Douglas Boulevard Interchange. Exhibit 3 displays the ultimate design at the I-40 and Douglas Interchange after the Industrial Boulevard Bridge replacement and I-40 widening to six lanes at the western project extents is completed. All of the interchange improvements meet all design criteria and guidelines as presented in Exhibit 4 and in accordance with the current editions of AASHTO's *A Policy on Geometric Design of Highways and Streets* and AASHTO's *A Policy on Design Standards—Interstate System*. Conceptual Plans are located in Appendix A.

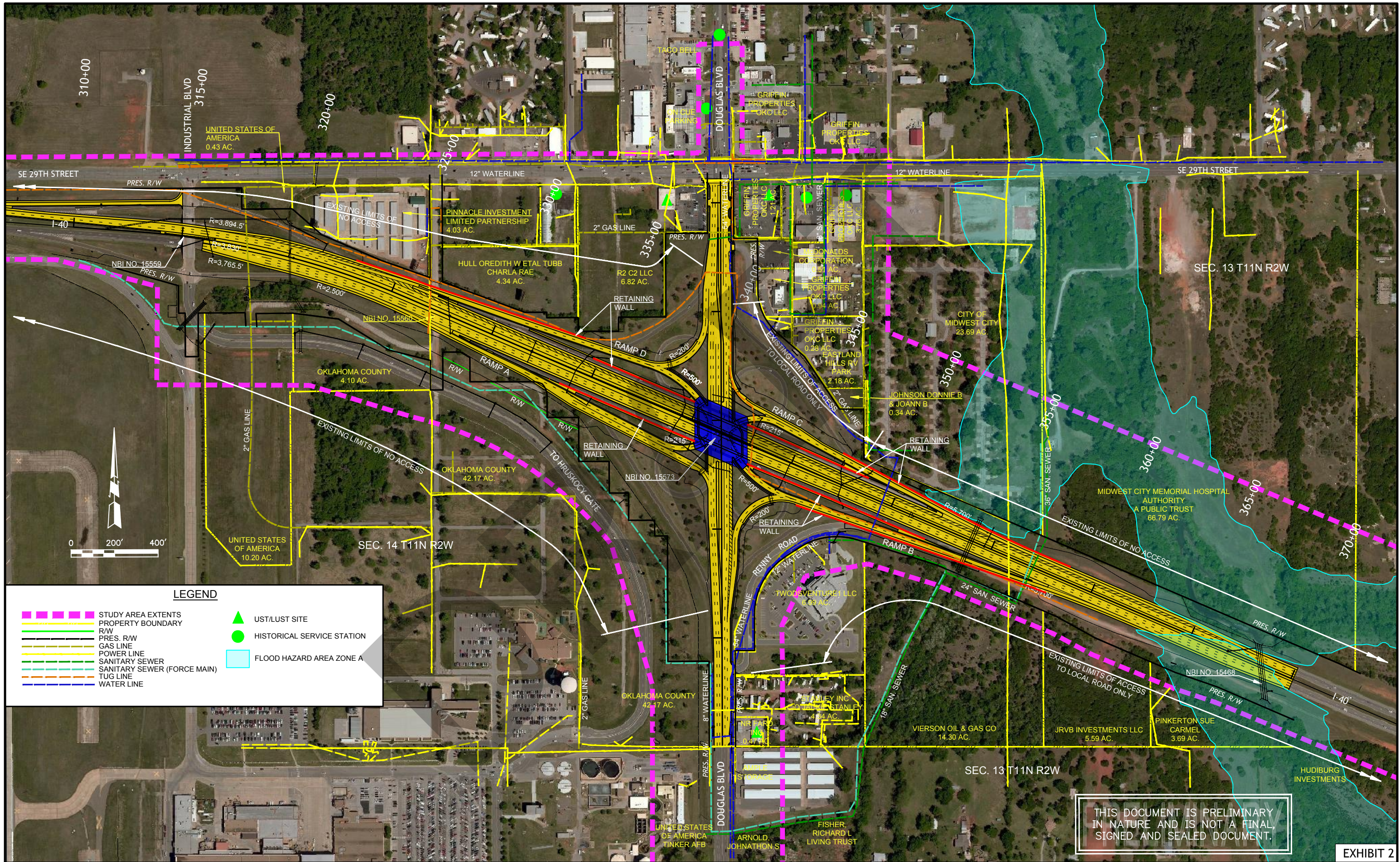


AJR



I-40 AND DOUGLAS BLVD.  
INTERCHANGE  
J/P 28992(04)

LOCATION MAP



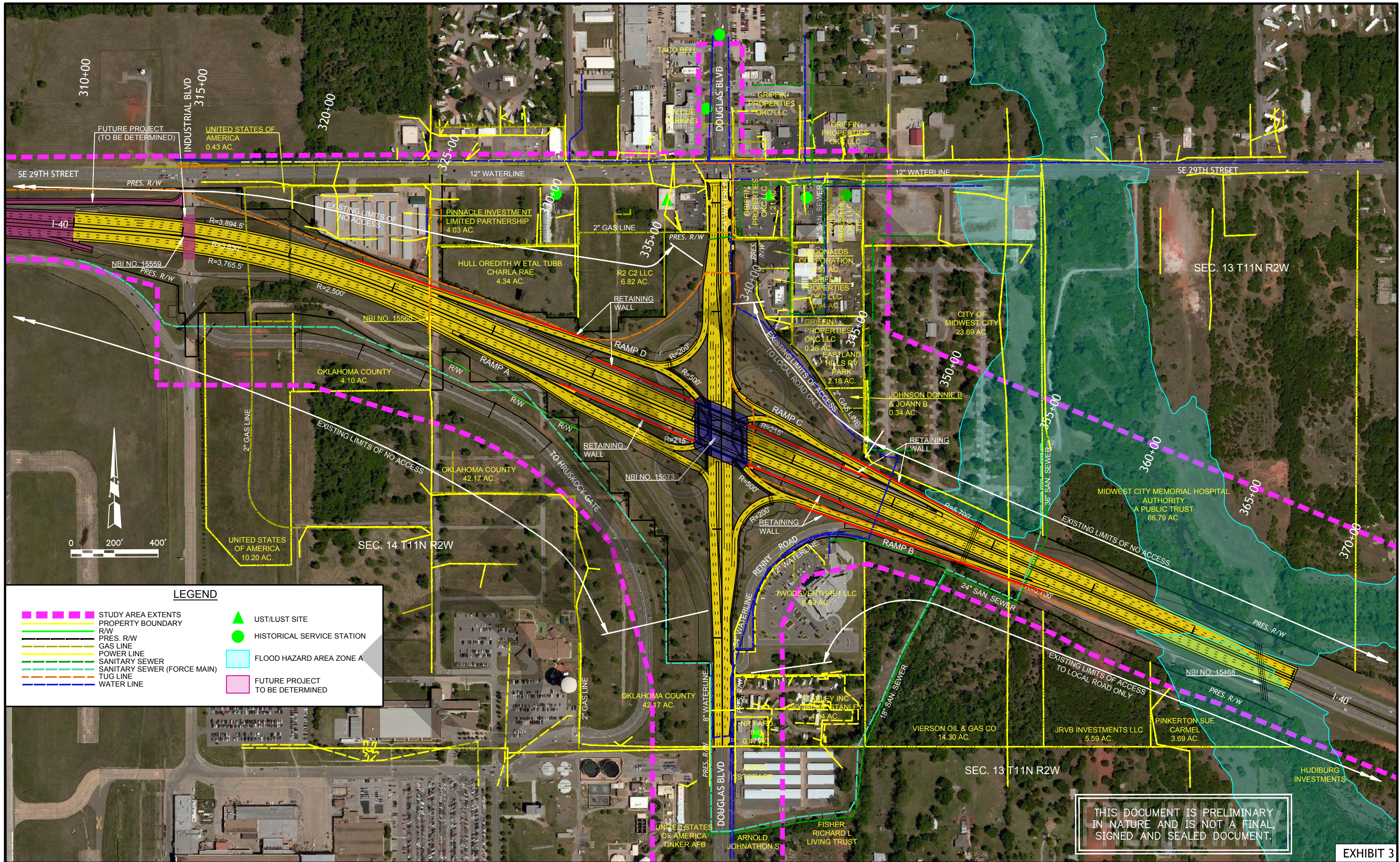
**LEGEND**

	STUDY AREA EXTENTS		UST/LUST SITE
	PROPERTY BOUNDARY		HISTORICAL SERVICE STATION
	R/W		FLOOD HAZARD AREA ZONE A
	PRES. R/W		
	GAS LINE		
	POWER LINE		
	SANITARY SEWER		
	SANITARY SEWER (FORCE MAIN)		
	TUG LINE		
	WATER LINE		

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

EXHIBIT 2





Design Feature	I-40		Douglas Blvd.		Ramps	
<u>Functional Classification</u>	Interstate Highway		Urban Principal Arterial		Diamond	
<u>Design Speed (mph)</u>	60		45		50	
<u>ADT</u>						
Existing (2017)	58,500		28,100		9,600	
Future (2045)	84,600		48,000		16,400	
% Trucks (AADT)	15%		5%		4%	
	ODOT/ AASHTO	PROJECT SPECIFIC	ODOT/ AASHTO	PROJECT SPECIFIC	ODOT/ AASHTO	PROJECT SPECIFIC
<u>Stopping Sight Distance (K factor)</u>						
Crest	151	200	61	167	84	105
Sag	136	139	79	80	96	98
<u>Grades</u>						
Desirable Maximum-Level Terrain	3.00%	3.00%	6.00%	4.50%	5.00%	4.68%
Desirable Minimum-Level Terrain (Des/Min)	0.5/0.0%	0.50%	0.5/0.4%	0.40%	0.5/0.0%	0.97%
<u>Horizontal Curves</u>						
Min Radius	1,330'	3,830'	643'	N/A	833'	2,500'
Min Radius w/o Super	11,100'	N/A	6,480'	N/A	7,870'	N/A
<u>Pavement Cross-Slope</u>						
Mainline	2%	2%	2%	2%	2%	2%
Shoulders	4%	4%	2%	2%	2%	2%
<u>Maximum Superelevation Rate</u>	E <sub>MAX</sub> = 6%	E <sub>MAX</sub> = 6%	LOW SPEED URBAN	LOW SPEED URBAN	E <sub>MAX</sub> = 6%	E <sub>MAX</sub> = 6%
<u>Superelevation (E<sub>s</sub>)</u>	3.8%	3.8%	NC	NC	3.8%	3.8%
<u>Lane Widths</u>	12'	12'	12'	12'	15'	15'
<u>Shoulder Widths</u>	10'	10'	2'	2'	8'	8'
<u>Horizontal Clearance (Clear Zone)</u>						
Desirable Minimum W/ 6:1	30'-32'	30'	20'-22'	20'	20'-22'	20'
Desirable Minimum W/ 4:1 to 5:1	36'-44'	N/A	24'-28'	N/A	24'-28'	N/A
<u>Approach Taper Rate (Intersection)</u>	V:1	N/A	V:1	45:1	V:1	N/A
<u>Bay Taper Length (Intersection)</u>	15:1	N/A	10:1	10:1	10:1	10:1
<u>Departure Taper Rate (Intersection)</u>	V:1	N/A	V:1	45:1	V:1	N/A
<u>Intersection Sight Distances</u>	N/A	N/A	430'	430'	N/A	N/A
<u>Decision Sight Distance</u>						
Desirable Avoidance Maneuver A	610'	627'	395'	675'	465'	750'
Desirable Avoidance Maneuver C	990'		675'		750'	
<u>Horizontal Sight Offset</u>	11'	21.5'	N/A	N/A	4'	15'
<u>Acceleration Length</u>						
V=50 mph to V=60 mph	180'	507'	N/A	N/A	180'	507'
<u>Deceleration Length</u>						
V=60 mph to V=50 mph	240'	400'	N/A	N/A	240'	400'

**EXHIBIT 4: DESIGN CRITERIA FOR I-40 AND DOUGLAS BOULEVARD INTERCHANGE**

I-40 will be reconstructed for a design speed of 60 mph. The vertical alignment will be lowered near the Douglas Boulevard Interchange to provide a minimum clearance of 16'-9". I-40 will be widened to six lanes with outside shoulders. A Single Point Urban Interchange (SPUI) will be constructed in place of a cloverleaf interchange.

Douglas Boulevard will transition within project extents from four to six through lanes with additional turn lanes. The design speed on Douglas Boulevard will be 45 mph. A parallel sided bridge will be utilized to accommodate the SPUI intersection. Vertical abutments will be placed at the 30' clear zone, and one pier on the centerline of I-40. The bridge will consist of two spans with an overall nominal length of approximately 190' and an overall bridge deck width of approximately 240'. F-shaped parapets will follow the outside edges of the bridge deck and TR3 rails will be placed along the roadway limits. Sidewalks will be accommodated across the bridge within the regions between the TR3 rails and the F-shaped parapets on both sides, with the sidewalks on the roadway portion only constructed on the east side.

The SPUI configuration will provide all ramp movements. On I-40, the design includes parallel entrance and exit ramps to the proposed Douglas Boulevard SPUI. The proposed eastbound exit ramp is 400' long interim (with an 800' ultimate design) with a 300' taper. The proposed westbound exit ramp is 778' long with a 300' taper. The proposed eastbound entrance ramp is 507' long with a 300' taper. The proposed westbound entrance ramp is 805' long interim (with a 1,280' ultimate design) with a 300' taper. The Industrial Boulevard Bridge, on the western limits of I-40, restricts a full build of the western ramp limits. After the completion of a bridge replacement on Industrial Boulevard, the ramps will be constructed to the ultimate design lengths. There are no changes to the "Existing Limits of No Access," which provide 450' or more beyond the ramp terminals on Douglas Boulevard. The access points and driveways on Douglas Boulevard will be spaced and designed to accommodate large trucks and equipment.

Additional improvements include removing the Engle Road Bridge over I-40 and removing the eastern ramps at the I-40 and Industrial Boulevard Interchange. The Engle Road Bridge is no longer in service and will be removed to accommodate the proposed Douglas Boulevard SPUI. The removal of the eastern ramps on the Industrial Boulevard Interchange reduces the access to and from I-40. The existing ramp configuration between the Industrial Boulevard and Douglas Boulevard Interchanges contains inadequate merge and diverge spacing between the interchanges. Due to the close proximity of the two interchanges, traffic that once utilized the eastern ramps on the Industrial Boulevard Interchange can utilize the Douglas Boulevard Interchange (approximately 0.5 miles east) or the Town Center Drive Interchange (approximately 1 mile west). Advance warning of the I-40 access changes will be reflected in the proposed signage for the interchange as shown on Exhibit 5.

General project extents for I-40 run from a transition beginning just west of Industrial Boulevard extending east to approximately 2,800' east of Douglas Boulevard. The existing lane configuration consists of two lanes in each direction near Douglas Boulevard. The proposed improvements will add an additional lane in each direction that lines up with other future lane

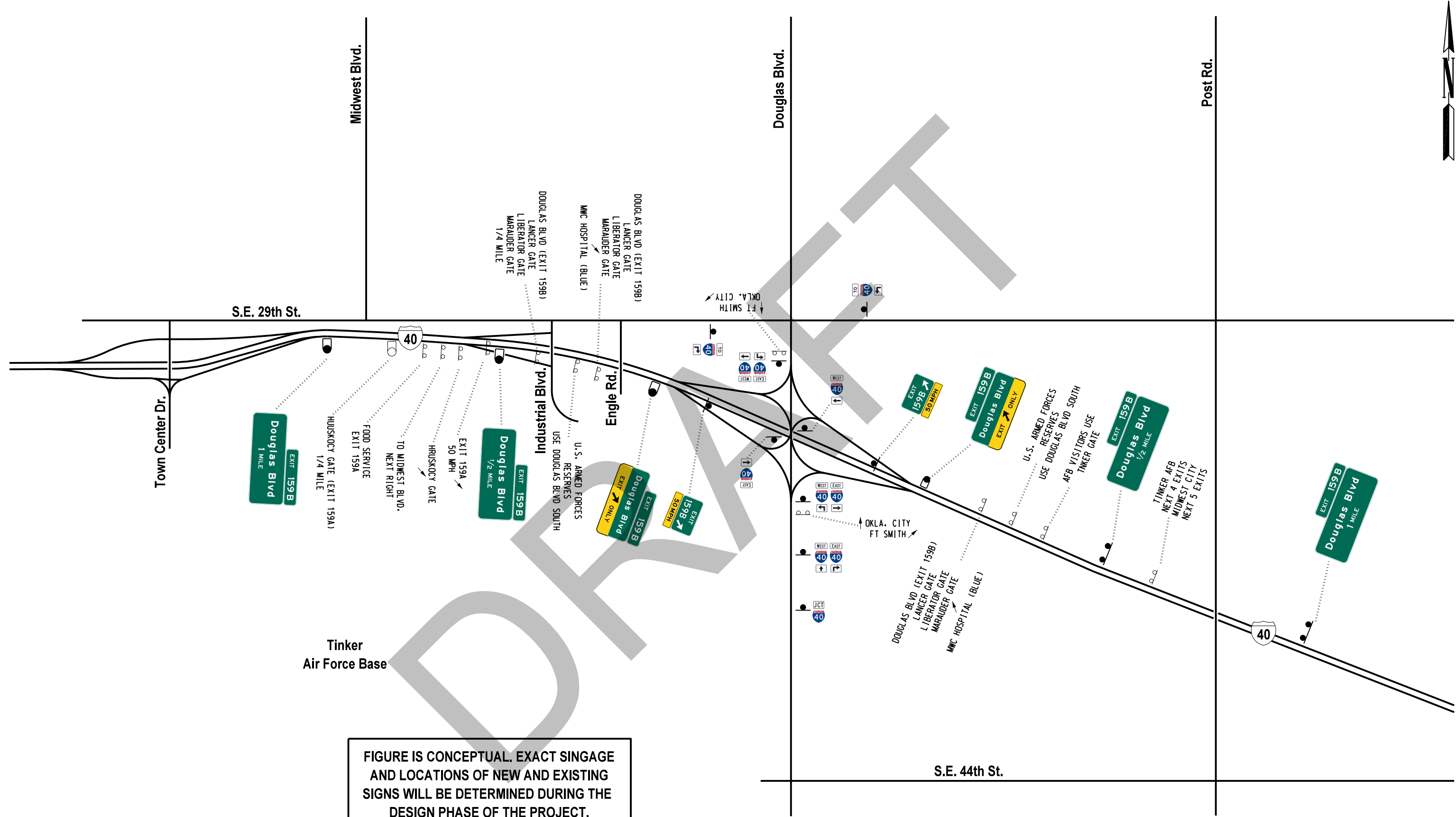


FIGURE IS CONCEPTUAL. EXACT SINGAGE AND LOCATIONS OF NEW AND EXISTING SIGNS WILL BE DETERMINED DURING THE DESIGN PHASE OF THE PROJECT.



widening projects along I-40. Douglas Boulevard project extents run from 1,400' south of I-40 extending north to the south edge of S.E. 29<sup>th</sup> Street. The lane configuration will widen to six driving lanes with additional turn lanes near the interchange. The improvements are within compliance of the coordination of lane balance and with basic number of lanes, see Exhibit 6.

## 1.2 TRAFFIC STUDY

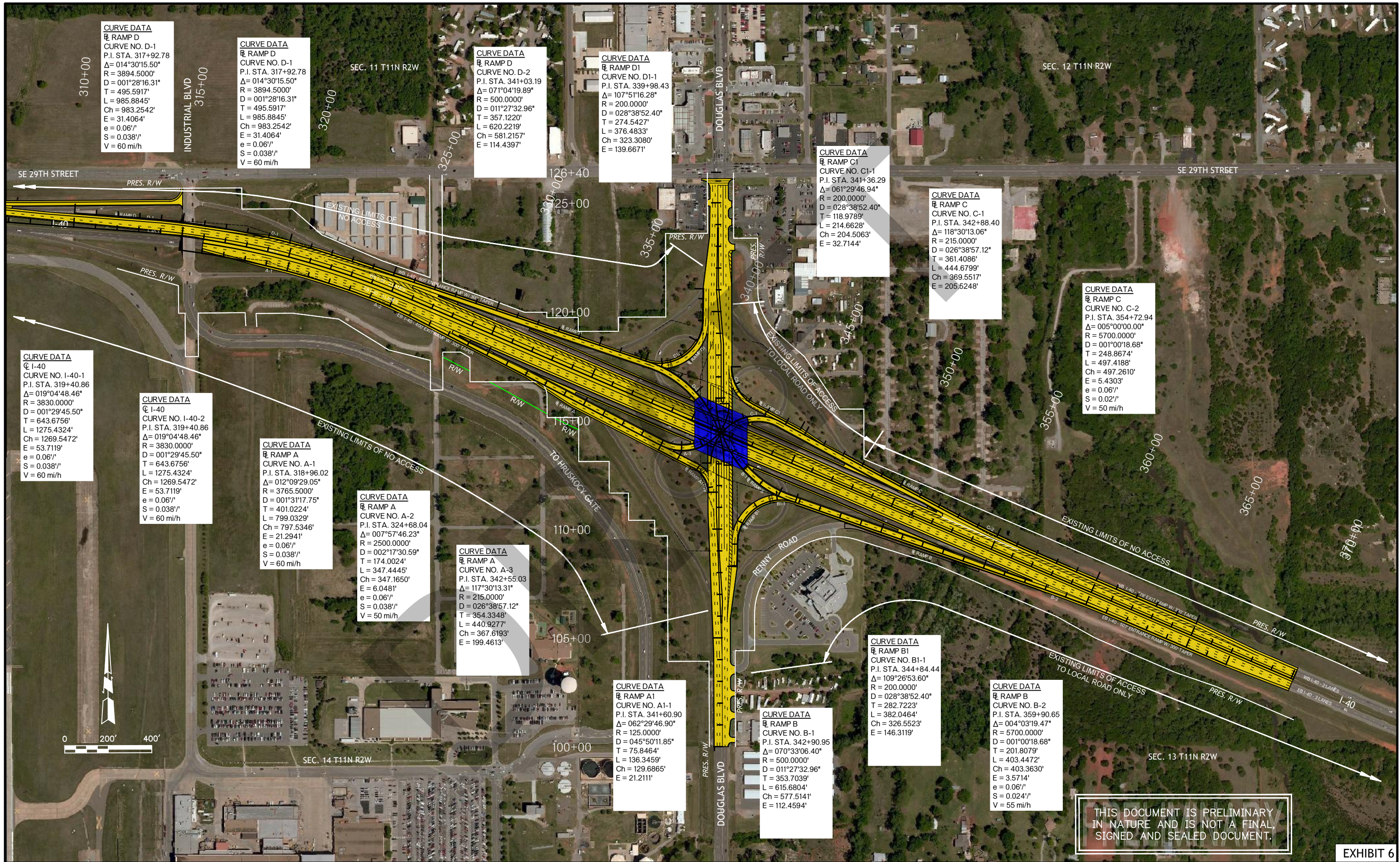
Triad Design Group hired Traffic Engineering Consultants, Inc. (TEC) to conduct a traffic study in the vicinity of I-40 and Douglas Boulevard. TEC worked closely with the Oklahoma Department of Transportation (ODOT) in collecting the necessary traffic counts and developing the 2017 and 2045 traffic data for both the existing cloverleaf configuration and the proposed SPUI. TEC also conducted an operational analysis for intersections within the study area for 2017 and 2045 traffic conditions for both the existing configuration and the proposed interchange improvements. The *Operational Study Report*, including the intersection operational analyses and freeway capacity analyses, is located in Appendix B.

## 1.3 OPERATIONAL ANALYSIS – EXISTING CONFIGURATION (CLOVERLEAF INTERCHANGE)

Capacity analyses were conducted to determine what the effects of increased traffic from expanding development will be on the existing transportation network within the study area. The study area is shown in Exhibit 1. Capacity analyses were conducted for the 2017 and 2045 Design Traffic Data with the Douglas Boulevard cloverleaf interchange to determine the level-of-service for I-40, Town Center Drive, Industrial Boulevard, Douglas Boulevard, and Anderson Road. The design traffic data with the Douglas Boulevard cloverleaf interchange utilized for the capacity analysis is shown in Exhibits 7 and 9. The overall capacity analysis results for the existing transportation network conditions with I-40 widening for 2017 and 2045 traffic volumes are shown in Exhibits 8 and 10. Widening I-40 from four lanes to six lanes allows the existing transportation network to be compared to the proposed interchange improvements solely in regard to the change in access. Printouts for all capacity analyses are located in Appendix B.

The latest edition of the *Highway Capacity Manual* was used for all freeway, ramp merge/diverge, and street traffic capacity analyses. The intersections were analyzed using *Synchro 10.0* and evaluated with the methodology of the latest edition of the *Highway Capacity Manual*.

Analyses of the existing transportation network with I-40 widening for 2017 traffic data, as shown in Exhibit 8, indicate the intersections operating at a level-of-service E or better, with the I-40 freeway and the I-40 ramp merge and diverge locations operating at a level-of-service C or better in 2017. Analyses of the existing transportation network with I-40 widening for 2045 traffic data, as shown in Exhibit 10, indicate the intersections operating at a level-of-service F or better, with the I-40 freeway and the I-40 ramp merge and diverge locations operating at a level-of-service F in 2045.



**CURVE DATA**  
 RAMP D  
 CURVE NO. D-1  
 P.I. STA. 317+92.78  
 $\Delta = 014^{\circ}30'15.50''$   
 $R = 3894.5000'$   
 $D = 001^{\circ}28'16.31''$   
 $T = 495.5917'$   
 $L = 985.8845'$   
 $Ch = 983.2542'$   
 $E = 31.4064'$   
 $e = 0.06''$   
 $S = 0.038''$   
 $V = 60 \text{ mi/h}$

**CURVE DATA**  
 RAMP D  
 CURVE NO. D-1  
 P.I. STA. 317+92.78  
 $\Delta = 014^{\circ}30'15.50''$   
 $R = 3894.5000'$   
 $D = 001^{\circ}28'16.31''$   
 $T = 495.5917'$   
 $L = 985.8845'$   
 $Ch = 983.2542'$   
 $E = 31.4064'$   
 $e = 0.06''$   
 $S = 0.038''$   
 $V = 60 \text{ mi/h}$

**CURVE DATA**  
 RAMP D  
 CURVE NO. D-2  
 P.I. STA. 341+03.19  
 $\Delta = 071^{\circ}04'19.89''$   
 $R = 500.0000'$   
 $D = 011^{\circ}27'32.96''$   
 $T = 357.1220'$   
 $L = 620.2219'$   
 $Ch = 581.2157'$   
 $E = 114.4397'$

**CURVE DATA**  
 RAMP D1  
 CURVE NO. D1-1  
 P.I. STA. 339+98.43  
 $\Delta = 107^{\circ}51'16.28''$   
 $R = 200.0000'$   
 $D = 028^{\circ}38'52.40''$   
 $T = 274.5427'$   
 $L = 376.4833'$   
 $Ch = 323.3080'$   
 $E = 139.6671'$

**CURVE DATA**  
 RAMP C1  
 CURVE NO. C1-1  
 P.I. STA. 341+36.29  
 $\Delta = 061^{\circ}29'46.94''$   
 $R = 200.0000'$   
 $D = 028^{\circ}38'52.40''$   
 $T = 118.9789'$   
 $L = 214.6628'$   
 $Ch = 204.5063'$   
 $E = 32.7144'$

**CURVE DATA**  
 RAMP C  
 CURVE NO. C-1  
 P.I. STA. 342+88.40  
 $\Delta = 118^{\circ}30'13.06''$   
 $R = 215.0000'$   
 $D = 026^{\circ}38'57.12''$   
 $T = 361.4086'$   
 $L = 444.6799'$   
 $Ch = 369.5517'$   
 $E = 205.5248'$

**CURVE DATA**  
 RAMP C  
 CURVE NO. C-2  
 P.I. STA. 354+72.94  
 $\Delta = 005^{\circ}00'00.00''$   
 $R = 5700.0000'$   
 $D = 001^{\circ}00'18.68''$   
 $T = 248.8674'$   
 $L = 497.4188'$   
 $Ch = 497.2610'$   
 $E = 5.4303'$   
 $e = 0.06''$   
 $S = 0.02''$   
 $V = 50 \text{ mi/h}$

**CURVE DATA**  
 I-40  
 CURVE NO. I-40-1  
 P.I. STA. 319+40.86  
 $\Delta = 019^{\circ}04'48.46''$   
 $R = 3830.0000'$   
 $D = 001^{\circ}29'45.50''$   
 $T = 643.6756'$   
 $L = 1275.4324'$   
 $Ch = 1269.5472'$   
 $E = 53.7119'$   
 $e = 0.06''$   
 $S = 0.038''$   
 $V = 60 \text{ mi/h}$

**CURVE DATA**  
 I-40  
 CURVE NO. I-40-2  
 P.I. STA. 319+40.86  
 $\Delta = 019^{\circ}04'48.46''$   
 $R = 3830.0000'$   
 $D = 001^{\circ}29'45.50''$   
 $T = 643.6756'$   
 $L = 1275.4324'$   
 $Ch = 1269.5472'$   
 $E = 53.7119'$   
 $e = 0.06''$   
 $S = 0.038''$   
 $V = 60 \text{ mi/h}$

**CURVE DATA**  
 RAMP A  
 CURVE NO. A-1  
 P.I. STA. 318+96.02  
 $\Delta = 012^{\circ}09'29.05''$   
 $R = 3765.5000'$   
 $D = 001^{\circ}31'17.75''$   
 $T = 401.0224'$   
 $L = 799.0329'$   
 $Ch = 797.5346'$   
 $E = 21.2941'$   
 $e = 0.06''$   
 $S = 0.038''$   
 $V = 60 \text{ mi/h}$

**CURVE DATA**  
 RAMP A  
 CURVE NO. A-2  
 P.I. STA. 324+68.04  
 $\Delta = 007^{\circ}57'46.23''$   
 $R = 2500.0000'$   
 $D = 002^{\circ}17'30.59''$   
 $T = 174.0024'$   
 $L = 347.4445'$   
 $Ch = 347.1650'$   
 $E = 6.0481'$   
 $e = 0.06''$   
 $S = 0.038''$   
 $V = 50 \text{ mi/h}$

**CURVE DATA**  
 RAMP A  
 CURVE NO. A-3  
 P.I. STA. 342+55.03  
 $\Delta = 117^{\circ}30'13.31''$   
 $R = 215.0000'$   
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 $T = 354.3348'$   
 $L = 440.9277'$   
 $Ch = 367.6193'$   
 $E = 199.4613'$

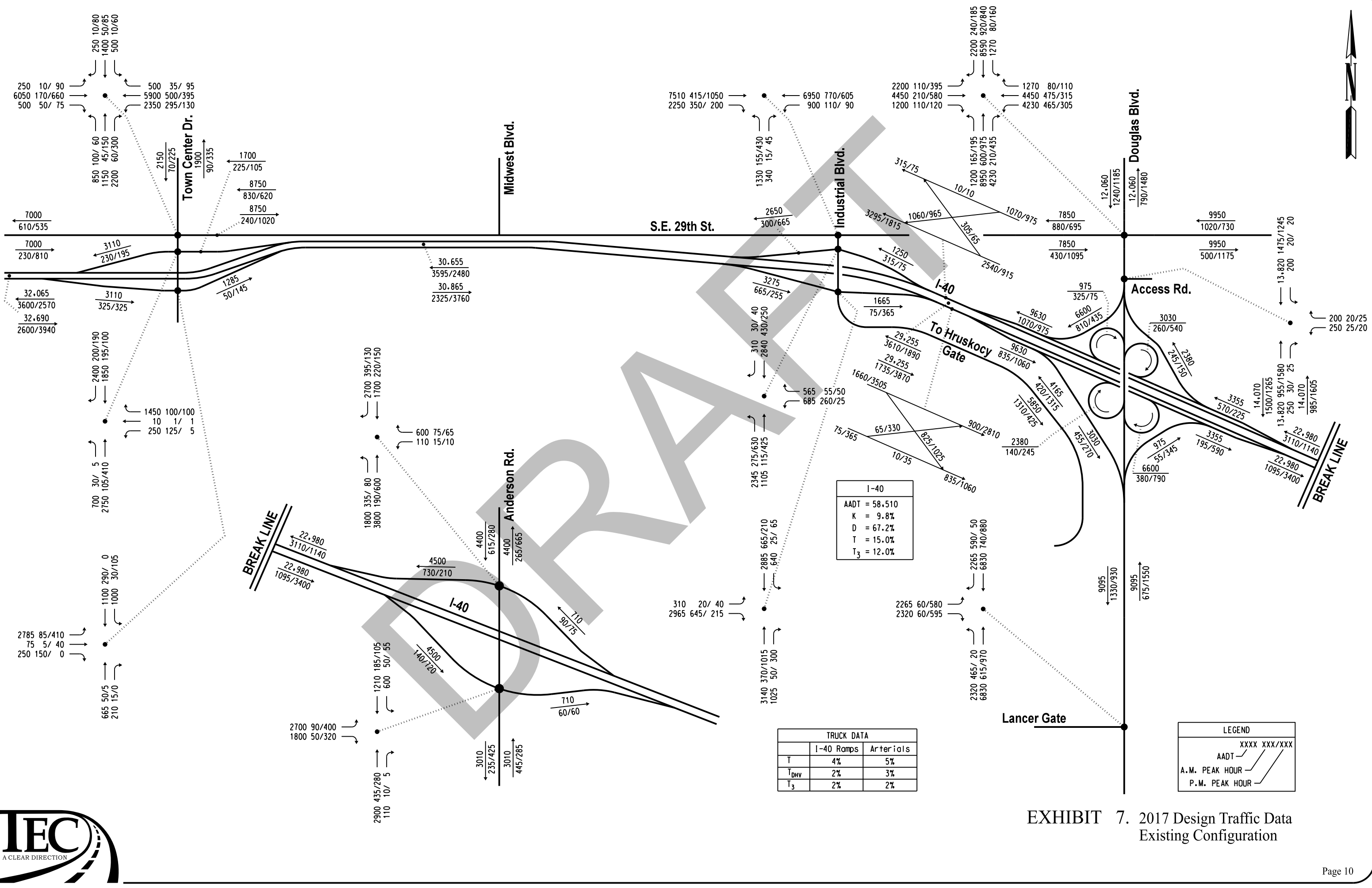
**CURVE DATA**  
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 CURVE NO. A1-1  
 P.I. STA. 341+60.90  
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 $R = 125.0000'$   
 $D = 045^{\circ}50'11.85''$   
 $T = 75.8464'$   
 $L = 136.3459'$   
 $Ch = 129.6865'$   
 $E = 21.2111'$

**CURVE DATA**  
 RAMP B  
 CURVE NO. B-1  
 P.I. STA. 342+90.95  
 $\Delta = 070^{\circ}33'06.40''$   
 $R = 500.0000'$   
 $D = 011^{\circ}27'32.96''$   
 $T = 353.7039'$   
 $L = 615.6804'$   
 $Ch = 577.5141'$   
 $E = 112.4594'$

**CURVE DATA**  
 RAMP B1  
 CURVE NO. B1-1  
 P.I. STA. 344+84.44  
 $\Delta = 109^{\circ}26'53.60''$   
 $R = 200.0000'$   
 $D = 028^{\circ}38'52.40''$   
 $T = 282.7223'$   
 $L = 382.0464'$   
 $Ch = 326.5523'$   
 $E = 146.3119'$

**CURVE DATA**  
 RAMP B  
 CURVE NO. B-2  
 P.I. STA. 359+90.65  
 $\Delta = 004^{\circ}03'19.47''$   
 $R = 5700.0000'$   
 $D = 001^{\circ}00'18.68''$   
 $T = 201.8079'$   
 $L = 403.4472'$   
 $Ch = 403.3630'$   
 $E = 3.5714'$   
 $e = 0.06''$   
 $S = 0.024''$   
 $V = 55 \text{ mi/h}$

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



I-40	
AADT	= 58,510
K	= 9.8%
D	= 67.2%
T	= 15.0%
T <sub>3</sub>	= 12.0%

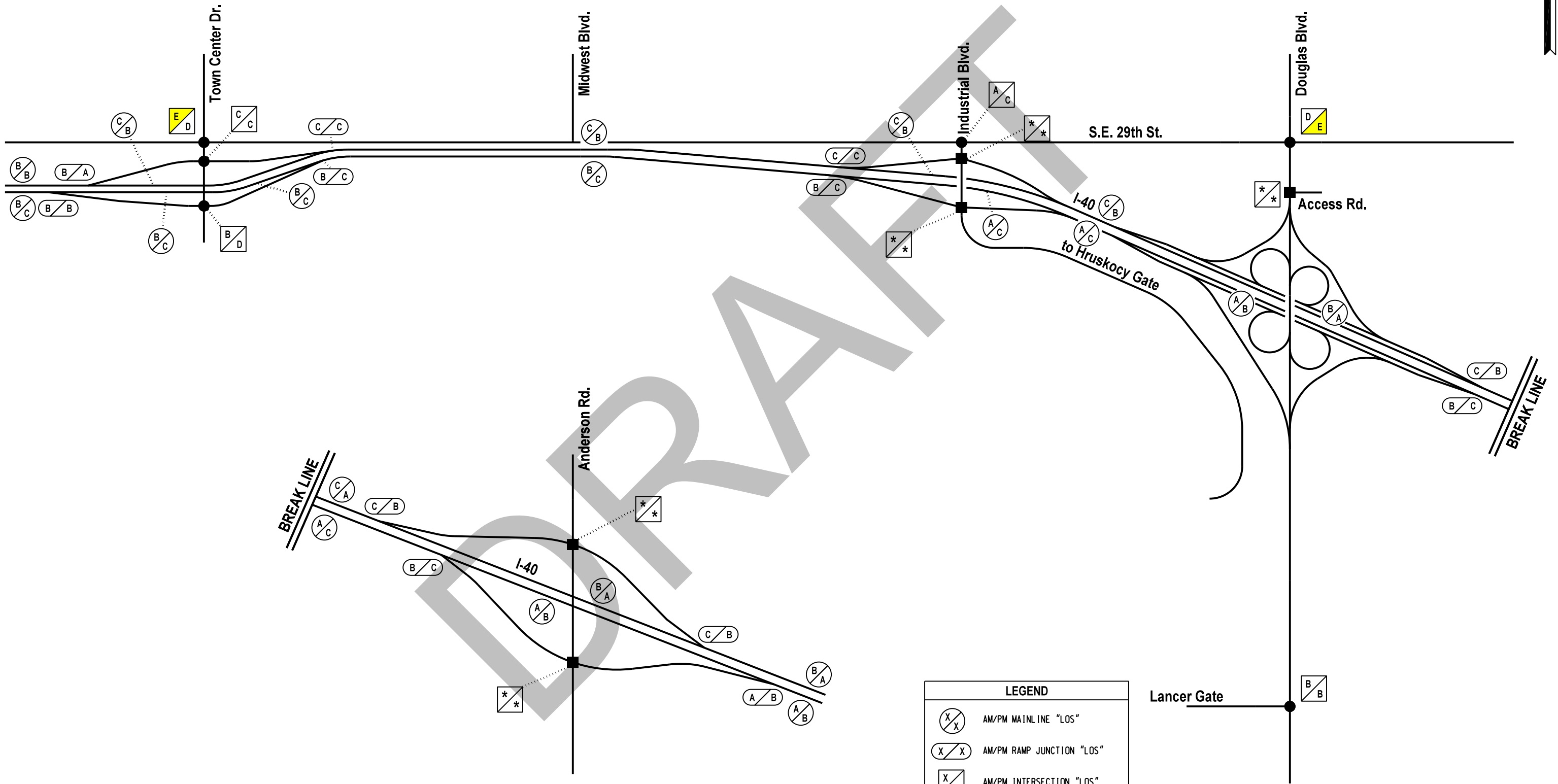
TRUCK DATA		
	I-40 Ramps	Arterials
T	4%	5%
T <sub>DHV</sub>	2%	3%
T <sub>3</sub>	2%	2%

LEGEND	
XXXX XXX/XXX	AADT
—	A.M. PEAK HOUR
—	P.M. PEAK HOUR

EXHIBIT 7. 2017 Design Traffic Data Existing Configuration



04/03/18 G:\OP\Projects\17-228\B2-05 I-40 & Douglas. Task 10\CAD\EXHIBIT 8 2017 EXIST.dgn



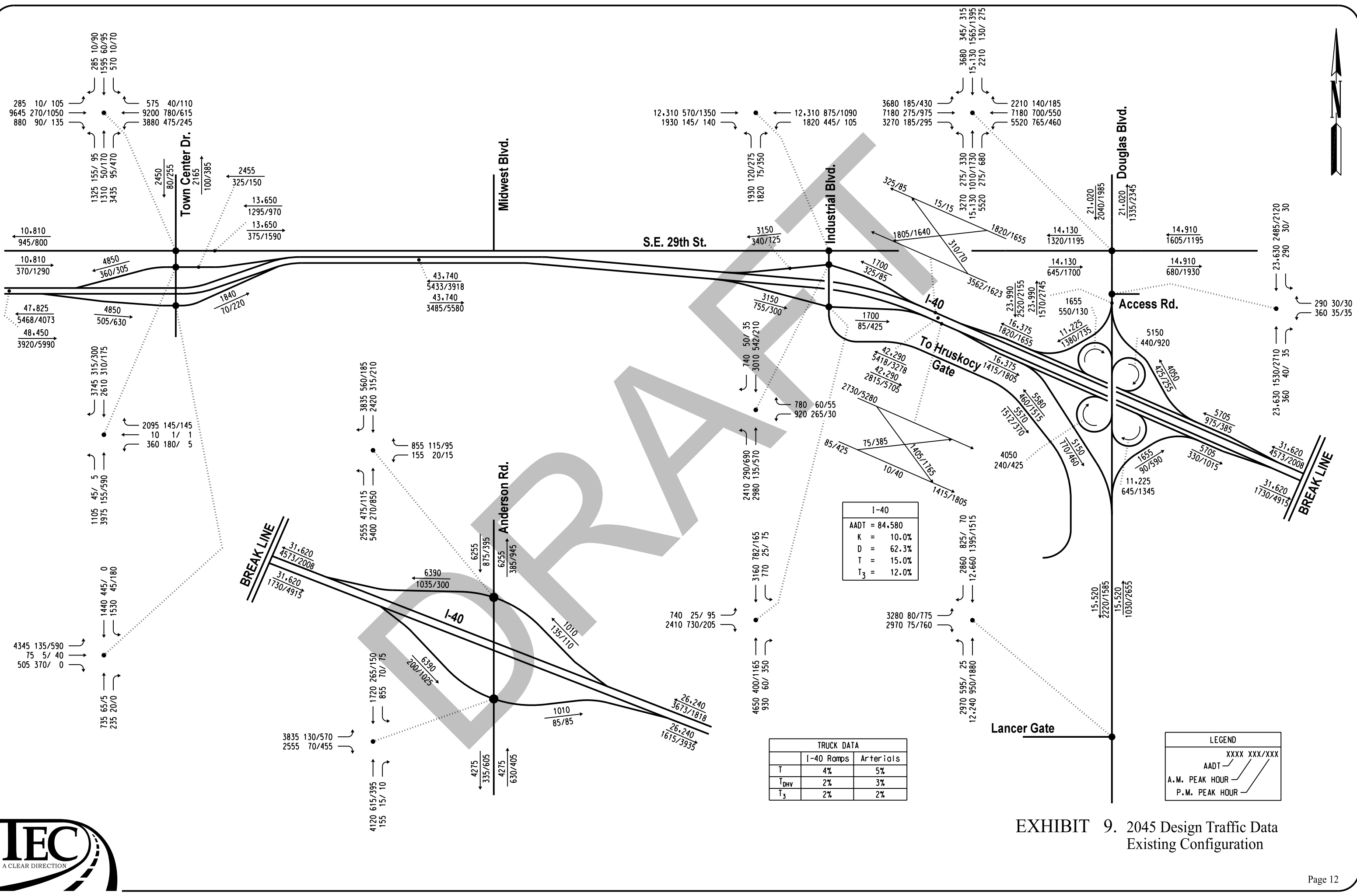
LEGEND	
	AM/PM MAINLINE "LOS"
	AM/PM RAMP JUNCTION "LOS"
	AM/PM INTERSECTION "LOS"
	SIGNALIZED INTERSECTION
	UN-SIGNALIZED INTERSECTION
	"LOS" NOT AVAILABLE FOR UNSIGNALIZED INTERSECTION

Lancer Gate

EXHIBIT 8. 2017 Levels - of - Service Existing Configuration with 6-Lanes on I-40







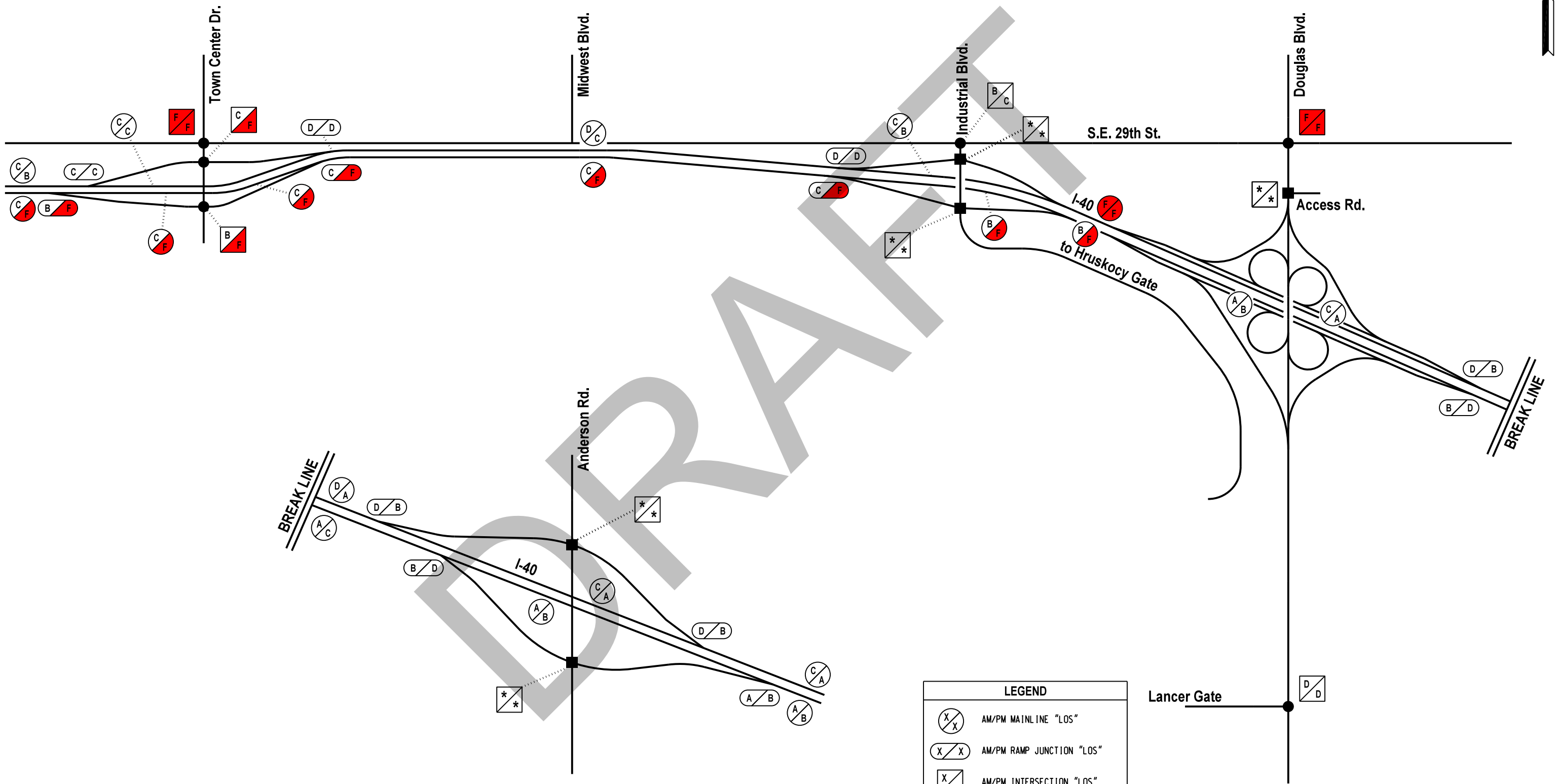
I-40	
AADT	= 84,580
K	= 10.0%
D	= 62.3%
T	= 15.0%
T <sub>3</sub>	= 12.0%

TRUCK DATA		
	I-40 Ramps	Arterials
T	4%	5%
T <sub>DHV</sub>	2%	3%
T <sub>3</sub>	2%	2%

LEGEND	
XXXX XXX/XXX	AADT
—	A.M. PEAK HOUR
—	P.M. PEAK HOUR

EXHIBIT 9. 2045 Design Traffic Data Existing Configuration





LEGEND	
	AM/PM MAINLINE "LOS"
	AM/PM RAMP JUNCTION "LOS"
	AM/PM INTERSECTION "LOS"
	SIGNALIZED INTERSECTION
	UN-SIGNALIZED INTERSECTION
	"LOS" NOT AVAILABLE FOR UNSIGNALIZED INTERSECTION

EXHIBIT 10. 2045 Levels - of - Service Existing Configuration with 6-lanes on I-40



#### **1.4 OPERATIONAL ANALYSIS – FUTURE CONFIGURATION (SPUI)**

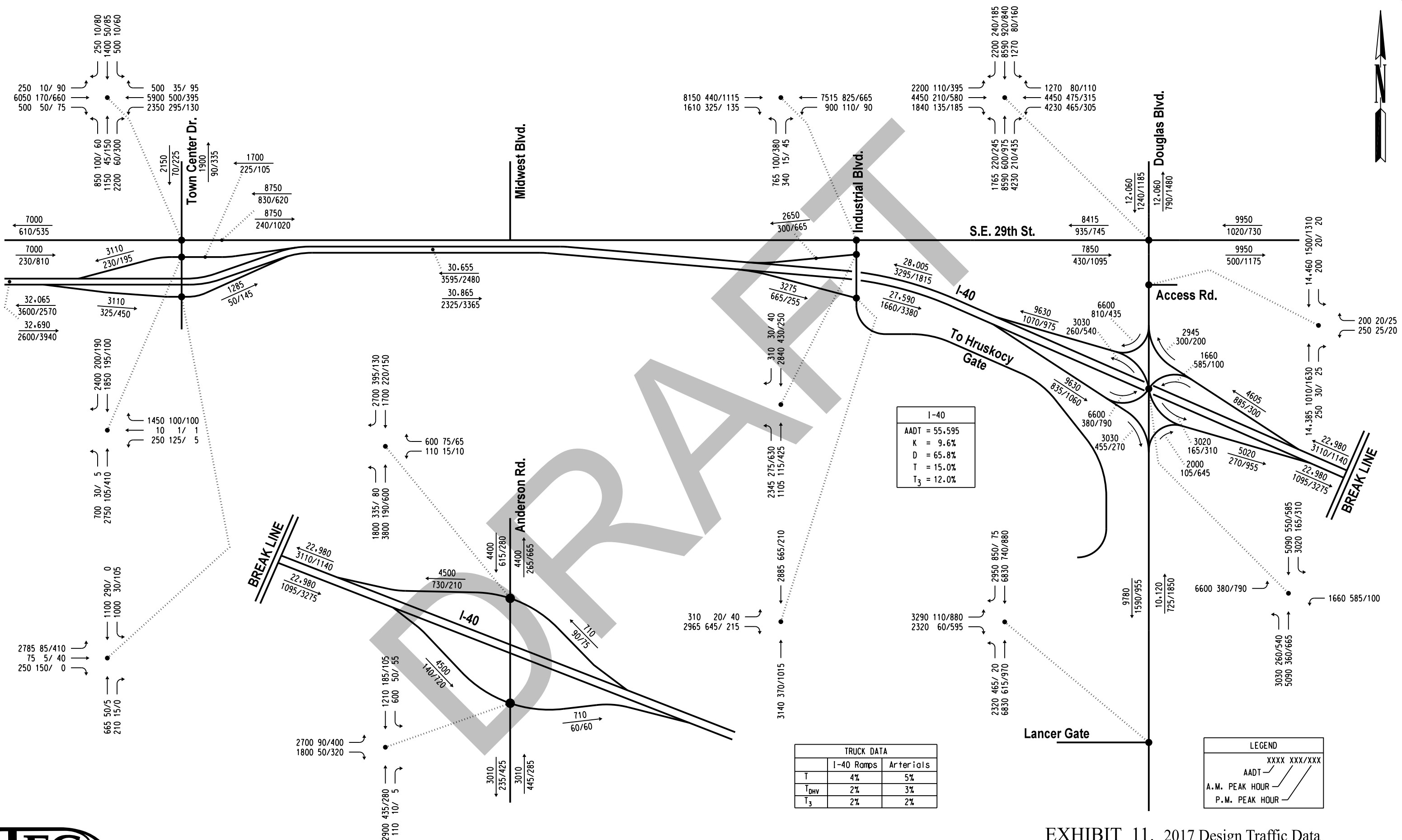
Capacity analyses were conducted for the 2017 and 2045 Design Traffic Data with the Douglas Boulevard SPUI to determine the level-of-service for I-40, Town Center Drive, Industrial Boulevard, Douglas Boulevard, and Anderson Road. The design traffic data with the Douglas Boulevard SPUI utilized for the capacity analysis is shown in Exhibits 11 and 13. The overall capacity analysis results for future transportation network conditions for 2017 and 2045 traffic volumes are shown in Exhibits 12 and 14. Printouts for all capacity analyses are located in Appendix B.

Analyses of the future transportation network for 2017 traffic data, as shown in Exhibit 12, indicate the intersections operating at a level-of-service E or better, with the I-40 freeway and the I-40 ramp merge and diverge locations operating at a level-of-service C or better in 2017. Analyses of the future transportation network for 2045 traffic data, as shown in Exhibit 14, indicate the intersections operating at a level-of-service F or better, with the I-40 freeway and the I-40 ramp merge and diverge locations operating at a level-of-service F or better in 2045.

An intersection delay comparison between the existing cloverleaf interchange configuration with I-40 widening and the future SPUI configuration is located in Exhibit 15 for the design year 2017 and Exhibit 16 for the design year 2045. A freeway segment comparison between the existing cloverleaf interchange configuration with I-40 widening and the future SPUI configuration is located in Exhibit 17 for the design year 2017 and Exhibit 18 for the design year 2045. A freeway segment comparison between the existing cloverleaf interchange configuration without I-40 widening and the future SPUI configuration for the design years 2017 and 2045 is located in Appendix C.

Overall the intersection delay comparison results, displayed in Exhibits 15 and 16, reveal two generalities. First, the future SPUI configuration generates improvement to the intersection delay along Industrial Boulevard for both signalized and unsignalized intersections. Second, the total signalized delay is an average 40% greater with the future SPUI configuration. The increase may be attributed to the addition of four signals and the additional traffic from the removed Industrial Boulevard ramps displaced onto Douglas Boulevard.

The 2017 freeway facilities comparison results, summarized in Exhibit 17, display several modest improvements to the I-40 freeway and the I-40 ramp merge and diverge locations with the future SPUI configuration in comparison to the existing cloverleaf interchange configuration with I-40 widening. The 2045 freeway facilities comparison results, summarized in Exhibit 18, display improvements in delay at the weaving segment between Industrial Boulevard and Douglas Boulevard.



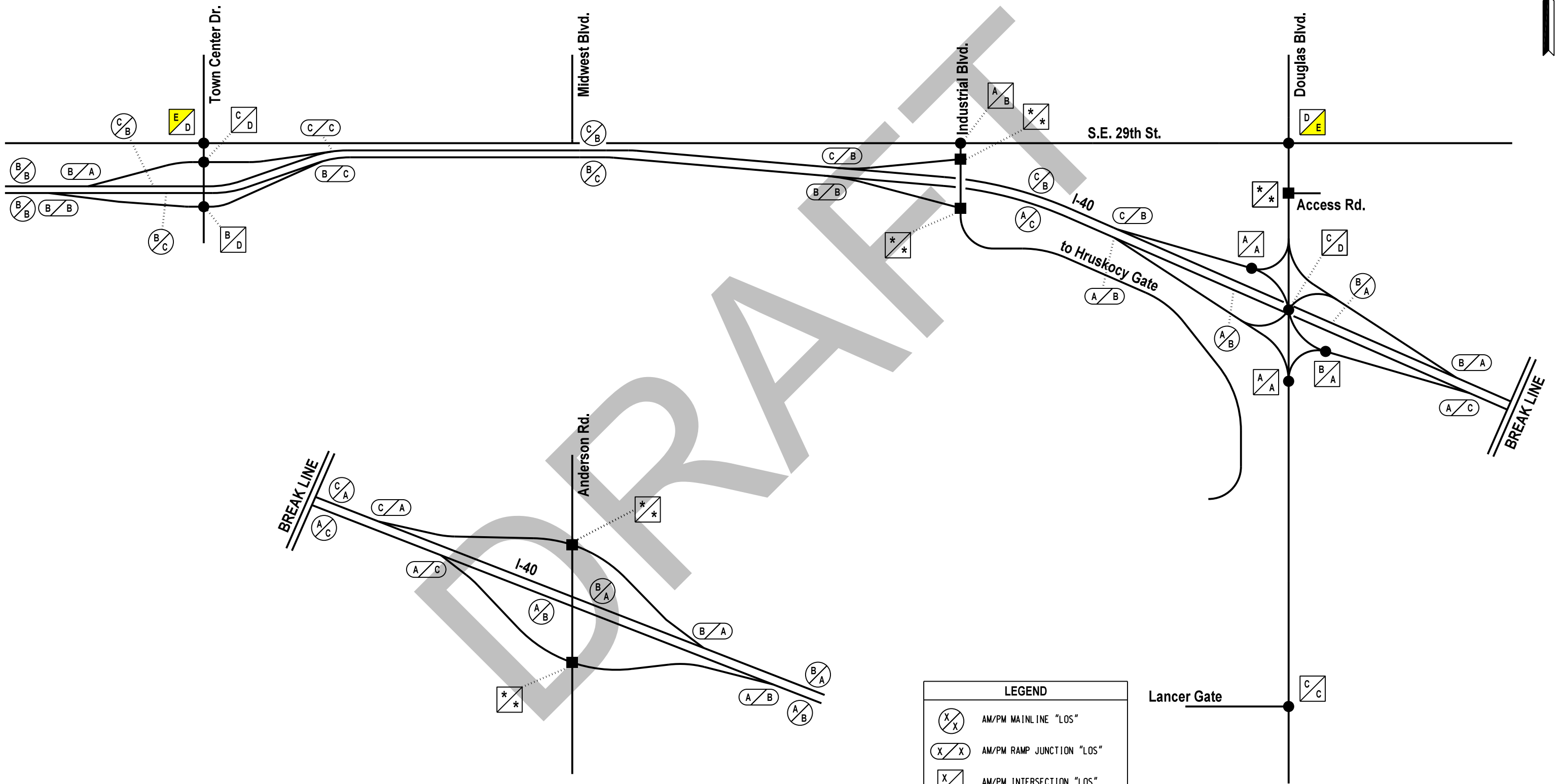
I-40	
AADT	= 55,595
K	= 9.6%
D	= 65.8%
T	= 15.0%
T <sub>3</sub>	= 12.0%

TRUCK DATA		
	I-40 Ramps	Arterials
T	4%	5%
T <sub>DHV</sub>	2%	3%
T <sub>3</sub>	2%	2%

LEGEND	
XXXX XXX/XXX	AADT
—	A.M. PEAK HOUR
—	P.M. PEAK HOUR



EXHIBIT 11. 2017 Design Traffic Data Future Configuration



LEGEND	
	AM/PM MAINLINE "LOS"
	AM/PM RAMP JUNCTION "LOS"
	AM/PM INTERSECTION "LOS"
	SIGNALIZED INTERSECTION
	UN-SIGNALIZED INTERSECTION
	"LOS" NOT AVAILABLE FOR UNSIGNALIZED INTERSECTION

EXHIBIT 12. 2017 Levels - of - Service Future Configuration

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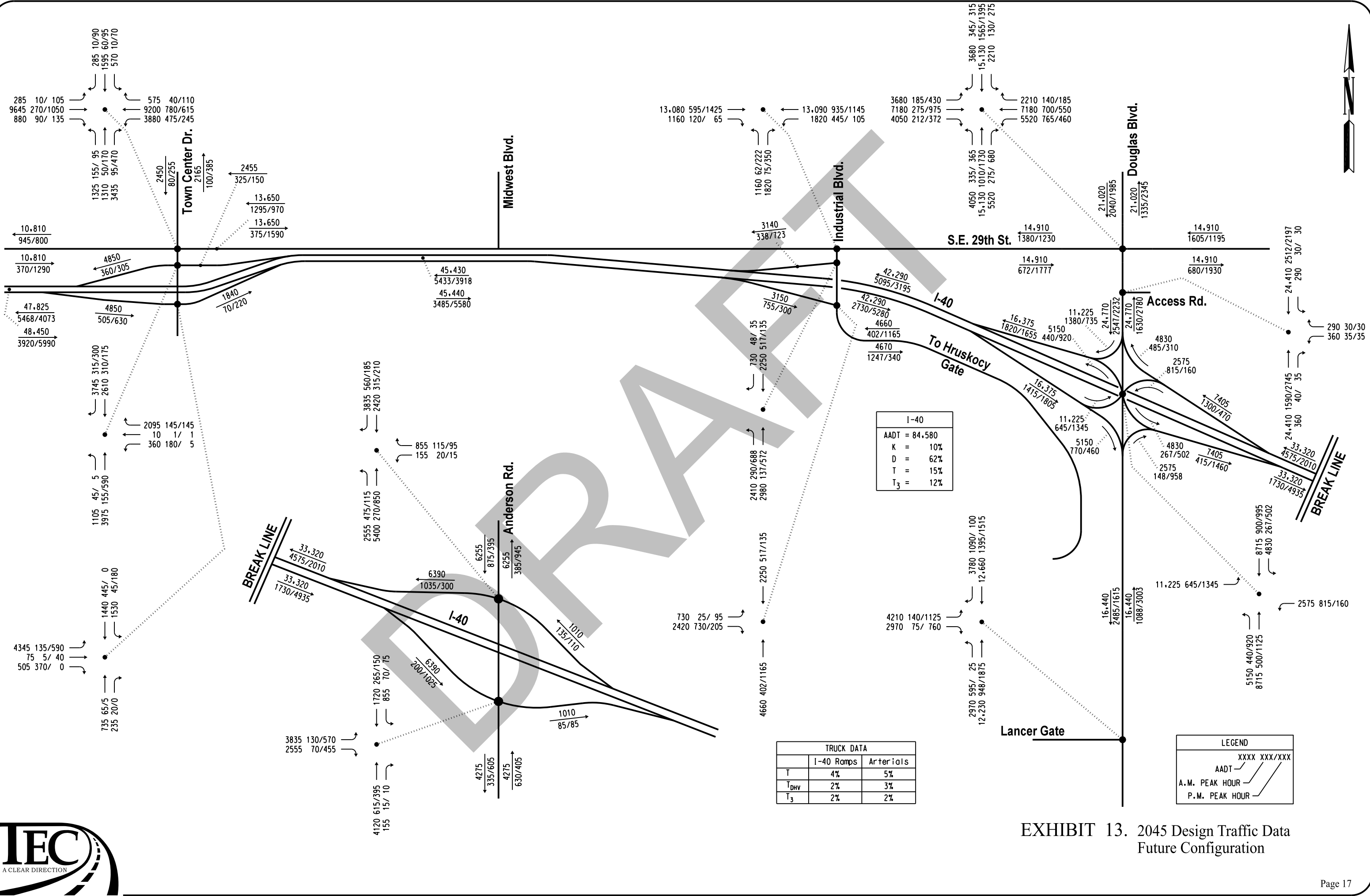
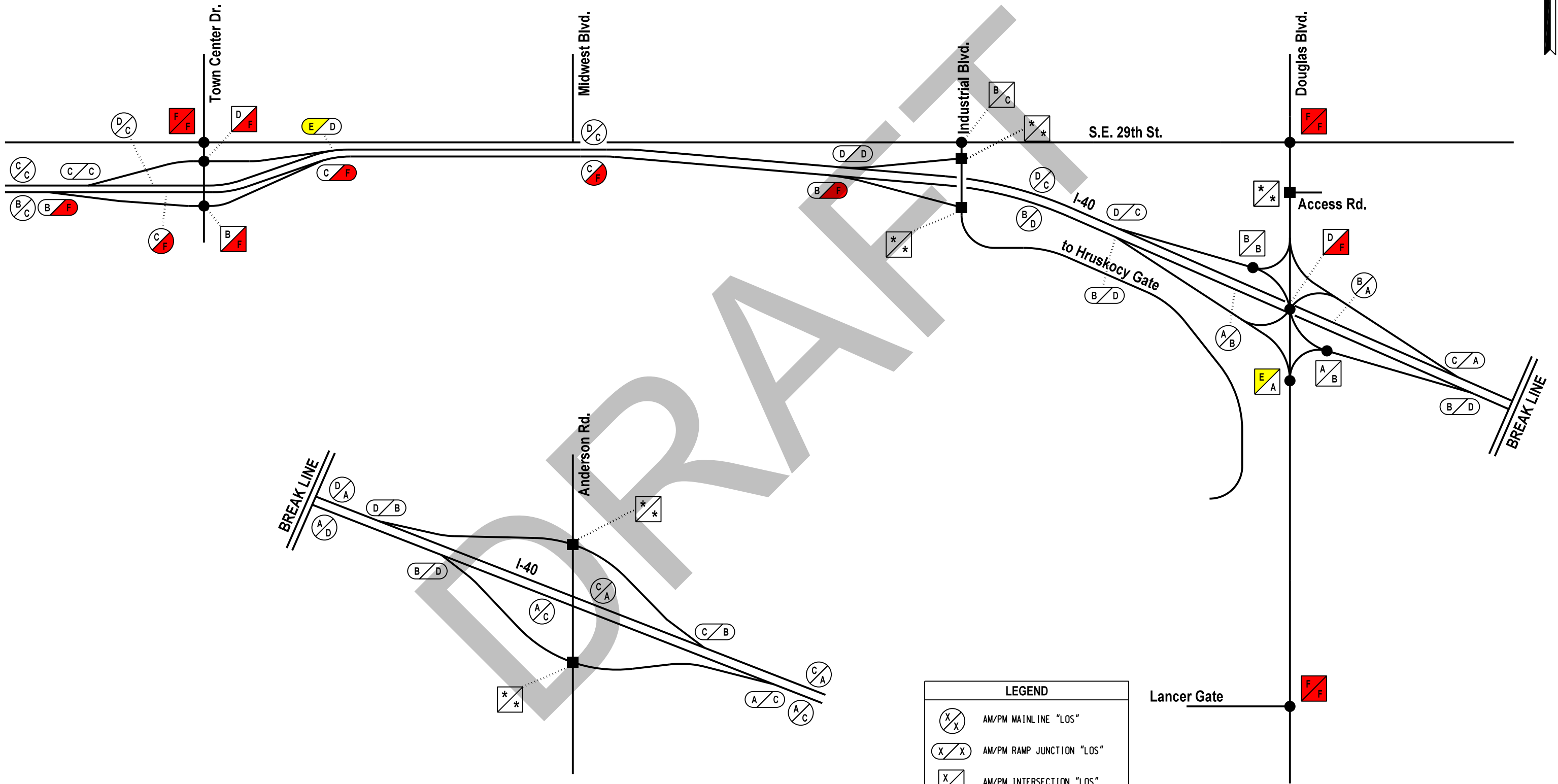


EXHIBIT 13. 2045 Design Traffic Data Future Configuration

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LEGEND	
	AM/PM MAINLINE "LOS"
	AM/PM RAMP JUNCTION "LOS"
	AM/PM INTERSECTION "LOS"
	SIGNALIZED INTERSECTION
	UN-SIGNALIZED INTERSECTION
	"LOS" NOT AVAILABLE FOR UNSIGNALIZED INTERSECTION

EXHIBIT 14. 2045 Levels - of - Service Future Configuration



Intersection Delay: 2017 AM Peak										
Intersections	Existing Geometry				Future Geometry					
	Delay (sec/veh)	LOS	Delay (veh-hr)	Delay (veh-hr)	Delay (sec/veh)	LOS	Delay (veh-hr)	Delay (veh-hr)		
<b>Signalized Intersections</b>										
Town Center Dr. & S. E. 29th St.	64	E	23.6	62	E	22.9				
Town Center Dr. & I-40 WB Ramps	21	C	4.4	27	C	5.7				
Town Center Dr. & I-40 EB Ramps	15	B	2.5	15	B	2.5				
Industrial Blvd. & S.E. 29th St.	7	A	3.6	6	A	2.9				
Douglas Blvd. & S.E. 29th St.	44	D	44.6	45	D	46.9				
Douglas Blvd. & SPUJ Intersection				28	C	18.1				
Douglas Blvd. SBR to I-40 WB Ramp				7	A	2.1				
Douglas Blvd. NBR to I-40 EB Ramp				14	B	1.1				
Douglas Blvd. & I-40 Off Ramp EBR				9	A	5.7				
Douglas Blvd. & Lancer Gate	19	B	13.1	34	C	27.0				
<b>Total Signalized Delay (veh-hr)</b>				<b>92</b>				<b>135</b>		
<b>Unsignalized Intersections</b>										
<b>(Critical Approach (sec/veh) &amp; Overall Intersection (veh-hr))</b>										
Industrial Blvd. & I-40 WB Ramps	ERROR	F	ERROR	7	A	0.8				
Industrial Blvd. & I-40 EB Ramps	ERROR	F	ERROR	ERROR	F	ERROR				
Douglas Blvd. & Access Rd.	39	E	0.6	17	C	0.4				
Anderson Rd. & I-40 WB Ramps	17	C	1.5	17	C	1.5				
Anderson Rd. & I-40 EB Ramps	20	C	0.9	20	C	0.9				
<b>Total Unsignalized Delay (veh-hr)</b>				<b>3 *</b>				<b>4 *</b>		
<b>Intersection Delay: 2017 PM Peak</b>										
Intersections	Existing Geometry				Future Geometry					
	Delay (sec/veh)	LOS	Delay (veh-hr)	Delay (veh-hr)	Delay (sec/veh)	LOS	Delay (veh-hr)	Delay (veh-hr)		
<b>Signalized Intersections</b>										
Town Center Dr. & S. E. 29th St.	42	D	25.2	41	D	25.1				
Town Center Dr. & I-40 WB Ramps	35	C	7.8	36	D	8.1				
Town Center Dr. & I-40 EB Ramps	50	D	7.7	50	D	7.7				
Industrial Blvd. & S.E. 29th St.	22	C	14.6	19	B	12.8				
Douglas Blvd. & S.E. 29th St.	64	E	82.4	68	E	89.6				
Douglas Blvd. & SPUJ Intersection				43	D	35.7				
Douglas Blvd. SBR to I-40 WB Ramp				6	A	1.6				
Douglas Blvd. NBR to I-40 EB Ramp				8	A	2.0				
Douglas Blvd. & I-40 Off Ramp EBR				3	A	2.4				
Douglas Blvd. & Lancer Gate	16	B	13.5	20	C	19.3				
<b>Total Signalized Delay (veh-hr)</b>				<b>151</b>				<b>204</b>		
<b>Unsignalized Intersections</b>										
<b>(Critical Approach (sec/veh) &amp; Overall Intersection (veh-hr))</b>										
Industrial Blvd. & I-40 WB Ramps	ERROR	F	ERROR	7	A	2.1				
Industrial Blvd. & I-40 EB Ramps	14	B	1.4	13	B	0.9				
Douglas Blvd. & Access Rd.	193	F	2.7	15	C	0.4				
Anderson Rd. & I-40 WB Ramps	16	C	0.5	16	C	0.5				
Anderson Rd. & I-40 EB Ramps	203	F	40.7	203	F	40.7				
<b>Total Unsignalized Delay (veh-hr)</b>				<b>45 *</b>				<b>45</b>		

**EXHIBIT 15: INTERSECTION DELAY - 2017**

\*Delays for some intersections not able to be calculated. Total delay likely to be higher.



Intersection Delay: 2045 AM Peak									
Intersections	Existing Geometry			Future Geometry					
	Delay (sec/veh)	LOS	Delay (veh-hr)	Delay (sec/veh)	LOS	Delay (veh-hr)			
Signalized Intersections									
Town Center Dr. & S. E. 29th St.	108	F	61.1	95	F	54.0			
Town Center Dr. & I-40 WB Ramps	28	C	8.9	52	D	16.8			
Town Center Dr. & I-40 EB Ramps	17	B	5.0	17	B	5.0			
Industrial Blvd. & S.E. 29th St.	16	B	10.0	12	B	7.6			
Douglas Blvd. & S.E. 29th St.	140	F	226.7	149	F	244.9			
Douglas Blvd. & SPUJ Intersection				45	D	44.6			
Douglas Blvd. SBR to I-40 WB Ramp		Does Not Exist		13	B	6.7			
Douglas Blvd. NBR to I-40 EB Ramp				3	A	0.4			
Douglas Blvd. & I-40 Off Ramp EBR				67	E	66.0			
Douglas Blvd. & Lancer Gate	51	D	55.8	85	F	100.3			
<b>Total Signalized Delay (veh-hr)</b>				<b>367</b>					
Unsignalized Intersections									
(Critical Approach (sec/veh) & Overall Intersection (veh-hr))									
Industrial Blvd. & I-40 WB Ramps	ERROR	F	ERROR	7	A	0.9			
Industrial Blvd. & I-40 EB Ramps	ERROR	F	ERROR	ERROR	F	ERROR			
Douglas Blvd. & Access Rd.	ERROR	F	ERROR	47	E	1.6			
Anderson Rd. & I-40 WB Ramps	97	F	6.6	97	F	6.6			
Anderson Rd. & I-40 EB Ramps	83	F	4.8	83	F	4.8			
<b>Total Unsignalized Delay (veh-hr)</b>				<b>11 *</b>					
Signalized Intersections									
Town Center Dr. & S. E. 29th St.	151	F	136.0	139	F	125.5			
Town Center Dr. & I-40 WB Ramps	81	F	27.4	100	F	34.0			
Town Center Dr. & I-40 EB Ramps	137	F	31.1	137	F	31.1			
Industrial Blvd. & S.E. 29th St.	22	C	20.6	21	C	19.1			
Douglas Blvd. & S.E. 29th St.	276	F	584.6	289	F	620.1			
Douglas Blvd. & SPUJ Intersection				121	F	170.1			
Douglas Blvd. SBR to I-40 WB Ramp		Does Not Exist		13	B	6.0			
Douglas Blvd. NBR to I-40 EB Ramp				10	B	4.2			
Douglas Blvd. & I-40 Off Ramp EBR				7	A	8.3			
Douglas Blvd. & Lancer Gate	53	D	74.1	80	F	120.2			
<b>Total Signalized Delay (veh-hr)</b>				<b>874</b>					
Unsignalized Intersections									
(Critical Approach (sec/veh) & Overall Intersection (veh-hr))									
Industrial Blvd. & I-40 WB Ramps	ERROR	F	ERROR	6	A	2.1			
Industrial Blvd. & I-40 EB Ramps	25	D	2.6	14	B	1.2			
Douglas Blvd. & Access Rd.	ERROR	F	ERROR	ERROR	F	ERROR			
Anderson Rd. & I-40 WB Ramps	31	D	1.2	31	D	1.2			
Anderson Rd. & I-40 EB Ramps	ERROR	F	ERROR	ERROR	F	ERROR			
<b>Total Unsignalized Delay (veh-hr)</b>				<b>4 *</b>					

**EXHIBIT 16: INTERSECTION DELAY - 2045**

\*Delays for some intersections not able to be calculated. Total delay likely to be higher.

Freeway Facilities: 2017 AM Peak - Westbound			
Existing Configuration - Extra L40 Lane		Future Configuration	
Segment	Type	LOS	Type
Study Limit to Anderson Off	Basic	B	Study Limit to Anderson Off
Anderson Off	Diverge	C	Anderson Off
Anderson Off to Anderson On	Basic	B	Anderson Off to Anderson On
Anderson On	Merge	C	Anderson On
Anderson On to Douglas Off	Basic	C	Anderson On to Douglas Off
Douglas Off	Diverge	C	Douglas Off
Douglas Off to Douglas On	Basic	B	Douglas Off to Douglas On
Douglas On to Industrial Off	Weaving	C	Douglas On
Industrial Off to Industrial On	Basic	C	Douglas On to Industrial On
Industrial On	Merge	C	Industrial On
Industrial On to Town Center Off	Basic	C	Industrial On to Town Center Off
Town Center Off	Diverge	C	Town Center Off
Town Center Off to Town Center On	Basic	C	Town Center Off to Town Center On
Town Center On	Merge	B	Town Center On
Town Center On to Study Limit	Basic	B	Town Center On to Study Limit

Freeway Facilities: 2017 PM Peak - Westbound			
Existing Configuration - Extra L40 Lane		Future Configuration	
Segment	Type	LOS	Type
Study Limit to Anderson Off	Basic	A	Study Limit to Anderson Off
Anderson Off	Diverge	B	Anderson Off
Anderson Off to Anderson On	Basic	A	Anderson Off to Anderson On
Anderson On	Merge	B	Anderson On
Anderson On to Douglas Off	Basic	A	Anderson On to Douglas Off
Douglas Off	Diverge	B	Douglas Off
Douglas Off to Douglas On	Basic	A	Douglas Off to Douglas On
Douglas On to Industrial Off	Weaving	B	Douglas On
Industrial Off to Industrial On	Basic	B	Douglas On to Industrial On
Industrial On	Merge	C	Industrial On
Industrial On to Town Center Off	Basic	B	Industrial On to Town Center Off
Town Center Off	Diverge	C	Town Center Off
Town Center Off to Town Center On	Basic	B	Town Center Off to Town Center On
Town Center On	Merge	A	Town Center On
Town Center On to Study Limit	Basic	B	Town Center On to Study Limit

Freeway Facilities: 2017 AM Peak - Eastbound			
Existing Configuration - Extra L40 Lane		Future Configuration	
Segment	Type	LOS	Type
Study Limit to Town Center Off	Basic	B	Study Limit to Town Center Off
Town Center Off	Diverge	B	Town Center Off
Town Center Off to Lane Drop	Basic	B	Town Center Off to Town Center On
Lane Drop to Town Center On	Basic	B	
Town Center On	Merge	B	Town Center On
Town Center On to Industrial Off	Basic	B	Town Center On to Industrial Off
Industrial Off	Diverge	B	Industrial Off
Industrial Off to Douglas Off	Basic	A	Industrial Off to Douglas Off
Industrial On to Douglas Off	Weave	A	Douglas Off
Douglas Off to Douglas On	Basic	A	Douglas Off to Douglas On
Douglas On	Merge	B	Douglas On
Douglas On to Anderson Off	Basic	A	Douglas On to Anderson Off
Anderson Off	Diverge	B	Anderson Off
Anderson Off to Anderson On	Basic	A	Anderson Off to Anderson On
Anderson On	Merge	A	Anderson On
Anderson On to Study Limit	Basic	A	Anderson On to Study Limit

Freeway Facilities: 2017 PM Peak - Eastbound			
Existing Configuration - Extra L40 Lane		Future Configuration	
Segment	Type	LOS	Type
Study Limit to Town Center Off	Basic	C	Study Limit to Town Center Off
Town Center Off	Diverge	B	Town Center Off
Town Center Off to Lane Drop	Basic	C	Town Center Off to Town Center On
Lane Drop to Town Center On	Basic	C	
Town Center On	Merge	C	Town Center On
Town Center On to Industrial Off	Basic	C	Town Center On to Industrial Off
Industrial Off	Diverge	C	Industrial Off
Industrial Off to Industrial On	Basic	C	Industrial Off to Douglas Off
Industrial On to Douglas Off	Weave	C	Douglas Off
Douglas Off to Douglas On	Basic	B	Douglas Off to Douglas On
Douglas On	Merge	C	Douglas On
Douglas On to Anderson Off	Basic	C	Douglas On to Anderson Off
Anderson Off	Diverge	C	Anderson Off
Anderson Off to Anderson On	Basic	B	Anderson Off to Anderson On
Anderson On	Merge	B	Anderson On
Anderson On to Study Limit	Basic	B	Anderson On to Study Limit

EXHIBIT 17: FREEWAY FACILITIES - 2017

Freeway Facilities: 2045 AM Peak - Westbound			
Existing Configuration - Extra 1-40 Lane		Future Configuration	
Segment	Type	LOS	Type
Study Limit to Anderson Off	Basic	C	Study Limit to Anderson Off
Anderson Off	Diverge	D	Anderson Off
Anderson Off to Anderson On	Basic	C	Anderson Off to Anderson On
Anderson On	Merge	D	Anderson On
Anderson On to Douglas Off	Basic	D	Anderson On to Douglas Off
Douglas Off	Diverge	D	Douglas Off
Douglas Off to Douglas On	Basic	C	Douglas Off to Douglas On
Douglas On to Industrial Off	Weaving	F	Douglas On
Industrial Off to Industrial On	Basic	C	Douglas On to Industrial On
Industrial On	Merge	D	Industrial On
Industrial On to Town Center Off	Basic	D	Industrial On to Town Center Off
Town Center Off	Diverge	D	Town Center Off
Town Center Off to Town Center On	Basic	C	Town Center Off to Town Center On
Town Center On	Merge	C	Town Center On
Town Center On to Study Limit	Basic	C	Town Center On to Study Limit

Freeway Facilities: 2045 PM Peak - Westbound			
Existing Configuration - Extra 1-40 Lane		Future Configuration	
Segment	Type	LOS	Type
Study Limit to Anderson Off	Basic	A	Study Limit to Anderson Off
Anderson Off	Diverge	B	Anderson Off
Anderson Off to Anderson On	Basic	A	Anderson Off to Anderson On
Anderson On	Merge	B	Anderson On
Anderson On to Douglas Off	Basic	A	Anderson On to Douglas Off
Douglas Off	Diverge	B	Douglas Off
Douglas Off to Douglas On	Basic	A	Douglas Off to Douglas On
Douglas On to Industrial Off	Weaving	F	Douglas On
Industrial Off to Industrial On	Basic	B	Douglas On to Industrial On
Industrial On	Merge	D	Industrial On
Industrial On to Town Center Off	Basic	C	Industrial On to Town Center Off
Town Center Off	Diverge	D	Town Center Off
Town Center Off to Town Center On	Basic	C	Town Center Off to Town Center On
Town Center On	Merge	C	Town Center On
Town Center On to Study Limit	Basic	B	Town Center On to Study Limit

Freeway Facilities: 2045 AM Peak - Eastbound			
Existing Configuration - Extra 1-40 Lane		Future Configuration	
Segment	Type	LOS	Type
Study Limit to Town Center Off	Basic	C	Study Limit to Town Center Off
Town Center Off	Diverge	B	Town Center Off
Town Center Off to Lane Drop	Basic	C	Town Center Off to Town Center On
Lane Drop to Town Center On	Basic	C	
Town Center On	Merge	C	Town Center On
Town Center On to Industrial Off	Basic	C	Town Center On to Industrial Off
Industrial Off	Diverge	C	Industrial Off
Industrial Off to Industrial On	Basic	B	Industrial Off to Douglas Off
Industrial On to Douglas Off	Weave	B	Douglas Off
Douglas Off to Douglas On	Basic	A	Douglas Off to Douglas On
Douglas On	Merge	B	Douglas On
Douglas On to Anderson Off	Basic	A	Douglas On to Anderson Off
Anderson Off	Diverge	B	Anderson Off
Anderson Off to Anderson On	Basic	A	Anderson Off to Anderson On
Anderson On	Merge	A	Anderson On
Anderson On to Study Limit	Basic	A	Anderson On to Study Limit

Freeway Facilities: 2045 PM Peak - Eastbound			
Existing Configuration - Extra 1-40 Lane		Future Configuration	
Segment	Type	LOS	Type
Study Limit to Town Center Off	Basic	F	Study Limit to Town Center Off
Town Center Off	Diverge	F	Town Center Off
Town Center Off to Lane Drop	Basic	F	Town Center Off to Town Center On
Lane Drop to Town Center On	Basic	F	
Town Center On	Merge	F	Town Center On
Town Center On to Industrial Off	Basic	F	Town Center On to Industrial Off
Industrial Off	Diverge	F	Industrial Off
Industrial Off to Industrial On	Basic	F	Industrial Off to Douglas Off
Industrial On to Douglas Off	Weave	F	Douglas Off
Douglas Off to Douglas On	Basic	B	Douglas Off to Douglas On
Douglas On	Merge	D	Douglas On
Douglas On to Anderson Off	Basic	C	Douglas On to Anderson Off
Anderson Off	Diverge	D	Anderson Off
Anderson Off to Anderson On	Basic	B	Anderson Off to Anderson On
Anderson On	Merge	B	Anderson On
Anderson On to Study Limit	Basic	B	Anderson On to Study Limit

EXHIBIT 18: FREEWAY FACILITIES - 2045

## 1.5 COLLISION ANALYSIS

A collision analysis was performed to assess the crash history from 01/01/2011 to 12/31/2015 for I-40, Douglas Boulevard, and the surrounding facilities. The collision analysis reports are located in Appendix D and are summarized in the following text.

### **I-40 (Between Town Center Drive and Anderson Road)**

Throughout the study period there have been 640 collisions along I-40 between Town Center Drive and Anderson Road. Four collisions resulted in a fatality, 169 resulted in injuries, and 467 resulted in property damage. The most common types of collisions in this study group is rear-end and fixed object collisions. Three of the fatalities occurred from rear-end collisions and the remaining from a fixed object collision. The overall collision rate for this section is 135.11 collisions per 100 million vehicle miles, compared to the statewide rate of 66.82 for similar facilities.

### **I-40 and Town Center Drive Interchange**

There have been 20 collisions related to the I-40 and Town Center Drive Interchange, mostly angle turning collisions. Roughly 55% of the collisions at the interchange are at the ramp terminals along Town Center Drive. Zero collisions resulted in a fatality, three resulted in injury, and 17 resulted in property damage.

### **I-40 and Industrial Boulevard Interchange**

There have been 14 collisions related to the I-40 and Industrial Boulevard Interchange, mostly right angle and angle turning collisions. Roughly 86% of the collisions at the interchange are at the ramp terminals along Industrial Boulevard. Zero collisions resulted in a fatality, three resulted in injury, and 11 resulted in property damage.

### **I-40 and Douglas Boulevard Interchange**

There have been 103 collisions related to the I-40 and Douglas Boulevard Interchange, and about 70% of these were rear-end collisions. Most of the collisions occur on ramp or collector-distributor road merge locations. Zero collisions resulted in a fatality, 27 resulted in injury, and 76 resulted in property damage.

### **I-40 and Anderson Road Interchange**

There have been 29 collisions related to the I-40 and Anderson Road Interchange, the most common of which are fixed object, rear-end, and angle turning collisions. Roughly 45% of the collisions at the interchange are at the ramp terminals along Anderson Road. Zero collisions resulted in a fatality, ten resulted in injury, and 19 resulted in property damage.

### **Douglas Boulevard (Between S.E. 29<sup>th</sup> Street and S.E. 44<sup>th</sup> Street)**

Over the course of the study period along Douglas Boulevard between S.E. 29<sup>th</sup> Street and S.E. 44<sup>th</sup> Street, there have been 70 collisions. One collision resulted in a fatality, 26 resulted in injuries, and 43 resulted in property damage. The fatality was a rear-end collision which occurred

near the drive for the Lancer Gate to Tinker Air Force Base. The most common types of collisions are rear-end and angle turning collisions.

The collision analysis report conducted over the course of the study period along Douglas Boulevard between S.E. 29<sup>th</sup> Street and S.E. 44<sup>th</sup> Street has some apparent inaccuracies. Although each collision listed is labeled as being along Douglas Blvd. (3300), on the study map there are a number of collisions being shown on Douglas Ave. (1375), which is 9.3 miles farther to the west. After exporting the collision data and going through each listed collision, 11 collisions can reasonably be determined to have been mislabeled based on the names of the intersecting streets and the latitude and longitude of the collisions; however, there is one collision that cannot be determined whether it was mislabeled or not. Additionally, there is no way to determine if these are the only inaccurate collisions or if there are additional errors; perhaps Douglas Boulevard collisions were mislabeled as Douglas Avenue and were not returned in the data search. Therefore, a second analysis was performed in which the 11 collisions that can be reasonably determined to have been mislabeled were removed from the data set in an effort to gain a more accurate analysis.

When the collision data was re-examined and the 11 collisions which can be reasonably be determined to have been mislabeled were removed from the collision data, there have been 59 collisions over the course of the study period along Douglas Boulevard between S.E. 29<sup>th</sup> Street and S.E. 44<sup>th</sup> Street. One collision resulted in a fatality, 24 resulted in injuries, and 34 resulted in property damage. The fatality is the same rear-end collision mentioned before at the drive for the Lancer Gate to Tinker Air Force Base. Even though six of the rear-end collisions and two of the angle turning collisions were removed from the data set, the most common types of collisions are still rear-end and angle turning collisions.

## **1.6 SAFETY ANALYSIS**

A safety analysis has been performed using the American Association of State & Highway Transportation Officials Highway Safety Manual (HSM) Predictive Method. Expected crash totals were estimated using the Interactive Highway Safety Design Model (IHSDM) to evaluate safety implications for replacing the cloverleaf interchange with a SPUI and removing two Industrial Boulevard ramps.

The expected crash totals and crash rates from 2020 to 2045, a total of 25 years, for the existing conditions are summarized in Exhibit 19. The IHSDM Predictive Method results are further summarized in Appendix E.

Existing Conditions	Expected No. Crashes for Evaluation Period	Expected Crash Rate (crashes/mi/yr)	Expected No. Crashes/Year (crashes/million veh-mi)
I-40	571	14.84	0.67
I-40 (with additional lane widening)	514	13.36	0.60
Industrial Blvd. EB Exit	7	1.23	1.05
Industrial Blvd. EB Entrance	4	0.79	1.29
Douglas Blvd. EB Collector-Distributor	27	2.23	0.73
Douglas Blvd. EB Exit (Diamond)	17	2.24	1.46
Douglas Blvd. EB Entrance (Loop)	37	9.87	8.18
Douglas Blvd. EB Exit (Loop)	80	23.23	6.95
Douglas Blvd. EB Entrance (Diamond)	8	1.48	2.99
Douglas Blvd. WB Collector-Distributor	25	2.02	0.69
Douglas Blvd. WB Exit (Diamond)	15	2.27	1.88
Douglas Blvd. WB Entrance (Loop)	44	11.75	7.66
Douglas Blvd. WB Exit (Loop)	21	6.04	12.25
Douglas Blvd. WB Entrance (Diamond)	33	5.99	1.79
Industrial Blvd. WB Exit	4	0.81	1.48
Industrial Blvd. WB Entrance	6	1.13	1.06

**EXHIBIT 19: EXISTING CONDITIONS EXPECTED CRASH TOTALS**

The expected crash totals and crash rates from 2020 to 2045, a total of 25 years, for the future conditions of removed eastern ramps on Industrial Boulevard and a SPUI at Douglas Boulevard are summarized in Exhibit 20. The IHSDM Predictive Method results are further summarized in Appendix E.

Future Conditions	Expected No. Crashes for Evaluation Period	Expected Crash Rate (crashes/mi/yr)	Expected No. Crashes/Year (crashes/million veh-mi)
I-40	464	12.07	0.56
Industrial Blvd. EB Exit	7	1.23	1.05
Douglas Blvd. EB Exit	52	3.68	0.75
Douglas Blvd. EB Entrance	31	2.27	0.98
Douglas Blvd. WB Exit	35	2.78	1.24
Douglas Blvd. WB Entrance	78	4.70	0.96
Industrial Blvd. WB Entrance	6	1.13	1.06

**EXHIBIT 20: FUTURE CONDITIONS EXPECTED CRASH TOTALS**

Along I-40 the proposed future conditions reduce the overall crashes by 18.7%. The eastbound ramps combined reduce the overall crashes by 50.0%, and the westbound ramps combined reduce the overall crashes by 19.6%. The crash reduction is shown in Exhibit 21.

	I-40	I-40 (widening)	EB Ramps	WB Ramps
Expected # Crushes, Existing	571	514	180	148
Expected # Crushes, Future	464	464	90	119
Total Crash Reduction from Existing	107	50	.90	29
Crash Reduction Factor (CRF)	18.7%	9.7%	50.0%	19.6%

**EXHIBIT 21: SUMMARY OF CRASH REDUCTION**

The safety analysis utilizing the IHSDM Predictive Method displays improvement with the future configuration of removed eastern ramps on Industrial Boulevard and a SPUI at Douglas Boulevard.

Highways should be designed to minimize driver decisions and to reduce unexpected situations. The number of crashes increases with an increase in the number of decisions required of the driver. The reconstruction of the Douglas Boulevard Interchange along I-40 retains full access control. The proposed exit ramps maintain a consistent exit arrangement in regard to the other nearby interchanges, i.e., exiting to the right and prior to the bridge. The proposed ramps entering and exiting I-40 are parallel ramps designed to have adequate acceleration and deceleration lengths, allowing the drivers on I-40 to maintain the existing speed limit. The existing cable barrier in the I-40 median will be replaced with longitudinal barrier, which will continue to avert head-on collisions.

In urban settings, a maximum of one interchange per one mile is recommended. The existing configuration has two full interchanges within half a mile from each other, which creates weaving segments on I-40. The proposed design does not adhere to a maximum one interchange per mile; however, it does eliminate weaving segments between the interchanges by removing the eastern ramps on the Industrial Boulevard Interchange. The traffic that previously utilized the removed ramps will be redirected to either the Douglas Boulevard Interchange or the Town Center Drive Interchange and may utilize S.E. 29<sup>th</sup> Street, which will act as a frontage road.

The proposed design will improve the clear zone along I-40, through the removal of the Engle Road Bridge and the relocating of the Douglas Boulevard Bridge. The Engle Road Bridge overpassing I-40 along with the longitudinal barrier protecting the existing piers will be removed. The removal of these obstacles will provide a safer roadside for I-40. The Douglas Boulevard Bridge overpassing I-40 will be replaced with a SPUI bridge that will be constructed with the outer piers adhering to the clear zone and the center pier providing a minimum 12' of horizontal clearance. The center pier is further protected by longitudinal barrier within the median extending throughout the entire project limits. Relocating the outer piers to the limits of the clear zone will cause the piers to be less likely to be struck.

On Douglas Boulevard, the median is designed as a 12' wide non-traversable median, which has a reduced estimated crash rate in comparison to a Two-Way Left-Turn Lane or an undivided roadway, according to the AASHTO's *A Policy on Geometric Design of Highways and Streets*.

## 2 ACCESS CONNECTIONS AND DESIGN

*"The proposed access connects to a public road only and will provide for all traffic movements. Less than "full interchanges" may be considered on a case-by-case basis for applications requiring special access, such as managed lanes (e.g., transit or high occupancy vehicle and high occupancy toll lanes) or park and ride lots. The proposed access will be designed to meet or exceed current standards (23 CFR 625.2(a), 625.4(a)(2), and 655.603(d)). In rare instances where all basic movements are not provided by the proposed design, the report should include a full-interchange option with a comparison of the operational and safety analyses to the partial-interchange option. The report should also include the mitigation proposed to compensate for the missing movements, including wayfinding signage, impacts on local intersections, mitigation of driver expectation leading to wrong-way movements on ramps, etc. The report should describe whether future provision of a full interchange is precluded by the proposed design."*

Currently Douglas Boulevard is a 4-lane, section line, public road that connects with S.E. 29<sup>th</sup> Street to the north of I-40 and S.E. 44<sup>th</sup> Street to the south of I-40. S.E. 44<sup>th</sup> Street connects to S. Post Road to the east and has no through street to the west. S.E. 29<sup>th</sup> Street connects with S. Post Road to the east, Midwest Boulevard to the west, and other local streets, see Exhibit 1.

The proposed single point urban interchange at I-40 and Douglas Boulevard will provide a full interchange connecting Douglas Boulevard to I-40, as shown in Exhibit 2. Conceptual Plans are located in Appendix A. The design of the interchange meets or exceeds all design criteria as specified in AASHTO's *A Policy on Geometric Design of Highways and Streets* and in AASHTO's *A Policy on Design Standards—Interstate System*. Exhibit 4 displays the design criteria for the I-40 and Douglas Boulevard Interchange project.

The eastern ramps on the Industrial Boulevard Interchange will be removed, reducing the full interchange to half of the traffic movements to and from I-40. The existing ramp configuration between the Industrial Boulevard and Douglas Boulevard Interchanges contains inadequate merge and diverge spacing between the interchanges. Due to the close proximity of the two interchanges, traffic that once utilized the eastern ramps on the Industrial Boulevard Interchange can utilize the Douglas Boulevard Interchange (approximately 0.5 miles east) or the Town Center Drive Interchange (approximately 1 mile west). Advance warning of the I-40 access changes will be reflected in the proposed signage for the interchange as shown on Exhibit 5.

The existing interchange spacing exceeds the design guidelines maximum of one interchange per mile, and the proposed interchange likewise does not adhere to design guidelines for interchange spacing. However, the eastern ramps on the Industrial Boulevard Interchange are being removed to mitigate the issue. The proposed interchange does meet design guidelines for basic number of lanes, lane balance, and route continuity. The proposed interchange also meets



design guidelines for design speed, acceleration and deceleration lane requirements, lane widths, shoulder widths, cross slopes, horizontal curvature, superelevation, cross slope break over requirements, horizontal and vertical stopping sight distance requirements, decision sight distance requirements, intersection sight distance requirements, horizontal clearance, vertical clearance, and clear zone requirements as shown on Exhibit 4.

Design Exceptions are not anticipated at this time; however, during the design phase of the project, if the design criteria are not met, a Design Exception will be prepared.

The estimated cost for construction for the proposed interchange is \$43,200,000.

DRAFT

CE Document Checklist

Should be included in the Other Section of all projects

JP No:	28992(04)	Prepared by	D. Abernathy
County:	Oklahoma	Checked by	M. Evans
Date Checked:	1/18/2018		
No	Description		Checked?
<b>1</b>	<b>Project Information</b>		
1.1	Project No (Check against Oracle info)		Correct
1.2	NBI No. - Check against initiation report, oracle, and plans		Correct
1.3	Location No. for County projects only		NA
1.4	Correct Division		Correct
1.5	Project Description (Check against Oracle info and make sure it matches project extent on the plans. If it doesn't match, get the PM to fix the Oracle )		Correct
1.6	Construction Program/STIP/TIP Checked?		Both 8-Year and STIP
<b>2</b>	<b>Existing Conditions</b>		
2.1	If it is a roadway project, is the roadway described first, then any bridges mentioned within the extent		NA
2.2	Is the existing bridge type (box or span), width (or length), conditions for each bridge correct		Yes
2.3	Correct approach roadway width?		Yes
2.4	Any roadway geometric deficiencies?		No
2.5	Traffic data from plans		Yes
<b>3</b>	<b>Purpose &amp; Need</b>		
3.1	Why is the project needed (NEVER what is proposed – REPLACE BRIDGE or WIDEN ROADWAY or ADD SHOUDERS is NOT the Purpose & Need)		Yes
<b>4</b>	<b>Alternatives &amp; Proposed improvement</b>		
4.1	Proposed roadway and bridge width		Yes
4.2	Existing or offset alignment – reason for offset		New interchange configuration

4.3	Replacement, Rehab, Removal or new bridge where there was none	Replacement of Doulgas Blvd. Bridge Removal of Engle Rd. Bridge
4.4	Road open to traffic during construction (If there is a shoofly, it is considered open to traffic. Closed to traffic is only if there is a posted detour on a different route)	Ramps will be detoured to Industrial Blvd. ramps, but there will be no road closures.
4.5	Mention if everthing is w ithin existing R/W	Need less than 1 Ac. R/W
<b>4</b>	<b>Public Involvement</b>	
4.1	Check appropriate public involvement box. Include Road Closure letters in the "Public Involvement" section and Property Owner letters in the "Other Section".	Yes
<b>5</b>	<b>CE Questions &amp; Studies</b>	
5.1	Are the R/W submittal or Final Plans with date stamp included in the Plans & Footprint Section?	Preliminary R/W plans are attached and are acceptable for DCE documentation, per ODOT Enviro email dated 9/26/17
5.2	Did the preparer verify that the plans were within study limits?	Yes
5.3	Are the studies arranged in the same order as the CE Questions?	Yes
5.4	Is the NEPA on Hold Memo included?	???
5.5	Is the offset alignment far enough away so that R/W not immediately adjacent to existing R/W is needed?	NA
5.6	Are the federal properties identified (from plans and recon data)	Yes, Tinker Air Force Base (no ROW needed from TAFB)
5.7	CR Report complete & arranged in the chrolnological order from latest to oldest- includes letter to and from SHPO & OAS, CR report, Initial letters to and responses from Tribes, Final letters to and responses from Tribes? Do the CR Notes match the report? Are the notes checked in commitment and included at the end of the CE	Yes.
5.8	Have the 4(f) properties been identified (from Recon, county map, and plans)? If there are 4(f) properties, is the complete Section 4(f) coordination included in the Section 4(f) section?	No 4(f)
5.9	Was Section 6(f) properties verified with Dept. of Tourism for any parks?	No 6(f)
5.10	Is a noise study needed (offset alignments, capacity increase, or major vertical grade change)? If yes, is it included in the Noise Section and any commitments listed in the CE	Yes
5.11	Is the biological studies included and any notes for species included in the commitments & at the end of the CE (Exception is swallows where we include the note itself in the CE under commitments)?	Yes
5.12	Was there a 404 permit type determination done by the 404 permit coordinator for any projects which had > 0.5 AC o wetlands in the initial study? Is the 404 permit box checked (should be yes for all projects involving a bridge crossing a blue line)	No determination done. Standard commitment language.

5.13	Does the project involve navigable waters (check USACE Section 10 waters and then verify with Coastguard) and requires Coastguard coordination? If so, is it listed in the Commitment?	No
5.14	Does the project involve one of the scenic rivers or streams (Check Oklahoma Scenic Rivers website)? If so, include coordination with Scenic Rivers in the "Other Section"	No
5.15	Was there coordination done with NRCS for projects involving new R/W and not in an urban area? Letter to NRCS, AD-1066 Form completed partially (if no response from NRCS) or completely (if NRCS completed their portion), and statement of no response from NRCS if applicable	No
5.16	Is the project location circled on the FEMA map or printout from FEMA site saying no map is available included? If the project is in zone A-E, is the coordination with the Designer to determine the need for map revision included?	Yes. It's located only in Zone A.
5.17	Is the haz waste note mentioned and included at the end of the CE if applicable? If the haz waste specialist required plans to complete studies, were the plans provided and a revised memo obtained?	NA
5.18	Were the plans checked for road closure? Include sheets which say road will not be closed for bridge joint, paint, etc. projects. If there is road closure, were letters sent out and all the comments addressed by Field Division?	Ramps will be detoured to Industrial Blvd. ramps, but there will be no road closures.
5.19	Does the "Other Section" include initiation report, property owner letters or letter from County Commissioner, additional project coordination, local govt. checklist (County), oracle information sheet with federal funding info for County projects, bridge info from GRIP.	Yes

EC 1394W Status Report

NEPA Consultant:

Triad

Report Date:

5/15/2018

Project: I-40: DOUGLAS BLVD. BRIDGE REPLACEMENT & INTERCHANGE RECONSTRUCTION 6.5 MIS. E. OF I-35 (INCLUDES REMOVAL OF ENGLE RD. BR.) – JP 28992(04) Oklahoma Co  
 (Schedule revised 9/26/17 to reflect updated plan delivery dates)

Step ID		Duration in Calendar days	Target Start from Task Order	Target Completion Date from Task Order:	Actual Start Date:	Actual Completion Date:	Responsible Party	Comments
1	Task Order Request	15	7/10/2016	7/25/2016		7/17/2016	Director of Eng	Completed
2	Consultant Cost Proposal + Negotiations	60	7/25/2016	9/23/2016	8/28/2016	9/6/2016	Director of Eng	Completed
3	Notice to Proceed Date	0	9/23/2016	9/23/2016	9/6/2016	9/20/2016	PMD	NTP received ~4 weeks later than Target Date.
4.1	Plot Study Footprint/Approval of Study Footprint	10	9/23/2016	10/3/2016	10/18/2016	11/23/2016	ODOT NEPA PM/ Consultant	Footprint prepared based upon outcome of 10/18/16 Design Meeting; submitted to ODOT 11/22/16; approved 11/23/16 (~12 weeks later than target date).
4.2	Property Owner Notification	30	10/3/2016	11/2/2016	11/23/2016	11/28/2016	Consultant	Completed
4.3	Cultural Resources & Tribal Coordination Initiation	15	10/3/2016	10/18/2016	11/23/2016	11/28/2016	Consultant	Completed
4.4	Tribal Coordination 30 Day Waiting Period prior to Start of Specialist Studies	45	10/18/2016	12/2/2016	11/28/2016	12/28/2016	Consultant	Completed
5.1	Cultural Resources Study & SHPO Coordination by ODOT	140	11/2/2016	3/22/2017	12/28/2016	1/17/2017	Consultant	Completed
5.2	T&E & Wetland Studies	30	12/2/2016	1/1/2017	1/10/2017	2/6/2017	Consultant	Completed
5.3	Hazardous Waste Studies	30	12/2/2016	1/1/2017	1/10/2017	2/6/2017	Consultant	Completed
5.4	NRCS coordination	60	10/3/2016	12/2/2016	NA	NA	Consultant	Not needed - no farmland ROW needed
5.5	Noise Studies	30	1/30/2018	3/1/2018	1/10/2017	3/3/2017	Consultant	Completed
5.5.1	ODOT Review of Cultural Resources Studies	0	3/22/2017	3/22/2017	1/17/2017	1/24/2017	ODOT Specialists	Completed
5.5.2	ODOT Review of T&E and Wetland Studies	60	1/1/2017	3/2/2017	2/6/2017	2/6/2017	ODOT Specialists	Completed
5.5.3	ODOT Review of Hazardous Waste Studies	60	1/1/2017	3/2/2017	2/6/2017	4/5/2017	ODOT Specialists	Completed
5.5.4	ODOT Review of Noise Studies	60	3/1/2018	4/30/2018	3/3/2017	6/13/2017	ODOT Specialists	Completed
5.6	USFWS Coordination	45	3/22/2017	5/6/2017	2/6/2017	2/6/2017	ODOT Specialists	Completed
5.7	SHPO Coordination	0	3/22/2017	3/22/2017	1/24/2017	2/22/2017	ODOT Specialists	Completed
6.1	Interchange Alternatives by Designer	0	6/1/2016	6/1/2016			From Project Control status sheet 5/2016	
6.2	Pre Public Meeting	30	10/1/2016	10/31/2016		12/6/2016		Completed
6.3	Public Meeting	30	10/31/2016	11/30/2016	1/17/2017	1/17/2017	From Project Control status sheet 5/2016	Completed
6.4	Selection of Preferred Alternative	30	11/30/2016	12/30/2016	2/17/2017	2/17/2017		Pref Alt Letters mailed 4/19/17
6.5	Receive Preliminary Plan in Hand Plans	0	1/15/2018	1/15/2018			REVISED	
6.6	Review Preliminary Plan in Hand Plans with Footprint	15	1/15/2018	1/30/2018				
6.7	Receive R/W and Utility Meeting Plans	0	1/15/2018	1/15/2018			REVISED	
6.8	Review R/W and Utility Meeting with Footprint	15	1/15/2018	1/30/2018				
7.1	Receive R/W Submittal Plans	0	4/15/2018	4/15/2018			REVISED	
7.2	Review R/W Submittal Footprint	15	4/15/2018	4/30/2018				
7.3.1	DCE Justification	30	1/15/2018	2/14/2018	8/28/2017	1/9/2018	NEED PRELIMINARY PLANS	Completed
7.3	Draft DCE Preparation	15	4/30/2018	5/15/2018	1/9/2018		From NEPA Task Order	Submitted 1/19; ODOT comments 2/12; revised DCE to be submitted upon AJR approval; AJR submitted 4/6/18
7.4	Receive R/W Submittal Plans	0	3/15/2018	3/15/2018			NEEDS TO BE SUBMITTED WITH DRAFT DCE TO FHWA	
7.5	ODOT Review	15	5/15/2018	5/30/2018			ODOT NEPA PM	
7.6	Final CE Preparation	5	5/30/2018	6/4/2018			ODOT NEPA PM	
7.6	FHWA Review of CE/Completion of Document	15	6/4/2018	6/19/2018			FHWA	



**OKLAHOMA DEPARTMENT OF TRANSPORTATION  
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[DOCUMENT VAULT](#)
[Local Government](#)
[FHWA Project Status Justification](#)
[Survey](#)

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Job Piece: 2899204  
Calculated Status: Preliminary Field Review

Production Targets	Planned Finish	Actual Finish	Status	Cond	Consultant Evaluations
Reconnaissance Data	03/06/2013		N/A	<span style="color: green;">●</span>	
Project Initiation	11/03/2015	05/31/2012	Completed	<span style="color: green;">●</span>	
Design Resource	Triad Design Group Inc.				
EC Solicitation	12/09/2013				
EC Contract	07/09/2014				EC No 1394W
Survey	02/02/2016	05/14/2013	Completed	<span style="color: green;">●</span>	SWO 4834(1)
Hydraulics	02/02/2016		N/A	<span style="color: green;">●</span>	
Preliminary Field Review	01/17/2017		Behind	<span style="color: red;">●</span>	
RW & Utility Meeting	02/14/2017		Behind	<span style="color: red;">●</span>	
Plans Submitted to R/W	09/15/2017		Behind	<span style="color: red;">●</span>	
NEPA Document	11/13/2017		Behind	<span style="color: red;">●</span>	
R/W Phase	10/20/2017	Acquisition			
Legal Entry	03/21/2019		On-Time	<span style="color: red;">●</span>	
Prepare Traffic Plans	06/15/2018		On-Time	<span style="color: gray;">●</span>	
Final Field Review	09/21/2018		On-Time	<span style="color: gray;">●</span>	
Utility Out	07/08/2019		On-Time	<span style="color: red;">●</span>	
404 Permit	04/29/2019		On-Time	<span style="color: red;">●</span>	
Plans Complete	07/16/2019		On-Time	<span style="color: gray;">●</span>	
Ready to Let	08/17/2021		On-Time	<span style="color: gray;">●</span>	

[Edit Resource and Comments](#)

**Utility Information**

Latest Utility Out Date
-

**Project Information**

JP No.	Proj. ID	County	Div.	Maint.	HWY	Work Desc
2899204	J2-8992(004)SS	55 OKLAHOMA	4	4	IS040	06 INTERCHANGE

**Project Legislative Districts**

Ctrl.	Start	End	Lgth	Cong	Senate	House
068	6.250	6.350	0.100	4	42	095

**Project Location**

Location
I-40: DOUGLAS BLVD. BRIDGE REPLACEMENT & INTERCHANGE RECONSTRUCTION 6.5 MI S. E. OF I-35 (INCLUDES REMOVAL OF ENGLE RD. BR.)

**Project Status**

Status	8Year CWP	NHS Sys.	FHWA Oversight	Comm Appr.	Fhwa Auth	Auth FFY	Let Date	FFY	Award Date	RW JP No.	RW Let
Programmed	Yes	Yes		10/2011	-		NoDate	2025	NoDate	-	-

**STIP & NEPA Information**

STIP FY	STIP Page	Pub Date	ODOT Appr.	TIP FY	TIP Page	MPO Appr.	NEPA Type	NEPA Appr	NEPA Re-Eval
									//

**Project Budget & Plan Resource**

Advanced	Federal	State	Other	Total	Design Consultant	NEPA Consultant
\$0	\$29,931,055	\$7,495,264	\$0	\$37,426,319	Triad Design Group Inc.	Triad Design Group Inc.

**ODOT/FHWA Resources Assigned**

PMD	Field	FHWA	NEPA	Survey	Materials	Roadway	Bridge	Traffic	RW	Rail
Nguyen	Taylor	Bahavar	Guerrero	Reser	-	Sharkness	Thomas	-	-	-

**Comments**  
no data found

**Bridge Information**

NBI#	Status	Co	Ctl	Milept	Sd
15560	Deleted Bridge	55	068	06080	
15573	State Bridge	55	068	06340	

**1-2**



# OKLAHOMA DEPARTMENT OF TRANSPORTATION PROJECT STATUS SYSTEM

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### NEPA Document Preparation

NEPA On Hold Memo Sent Date	<input type="text"/>	
R/W Submittal Plans Recd	<input type="text"/>	
Draft Document Target Date	04/30/2018	
Draft Document Actual Date	<input type="text"/>	

### CE Review

Draft CE Review by ODOT	<input type="text"/>	
Comments To Consultant	<input type="text"/>	
Revised CE from Consultant	<input type="text"/>	
CE to FHWA ( if applicable )	<input type="text"/>	
Date of FHWA / ODOT Approval of CE	<input type="text"/>	
CE Distribution	<input type="text"/>	

### EA Review

Draft EA Review by ODOT	<input type="text"/>	
Draft EA Review by FHWA	<input type="text"/>	
Comments to Consultant	<input type="text"/>	
Revised EA from Consultant	<input type="text"/>	
Draft EA to FHWA	<input type="text"/>	
Draft EA Approval by FHWA	<input type="text"/>	
Final EA from Consultant	<input type="text"/>	
Final EA Reviewed	<input type="text"/>	
Final EA to FHWA	<input type="text"/>	
FONSI from FHWA	<input type="text"/>	
FONSI Distribution	<input type="text"/>	

### NEPA Document Navigation

- Recon
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- Public Involvement
- Re-Evaluation

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Job Piece 2899204

**Initial**

Initiation Report from PMD	<input type="text"/>	
Footprint Review Prior to Start of Studies	<input type="text"/>	
Consultant Notice To Proceed	<input type="text"/>	
Property Owner Notification	11/28/2016	
BLM Notification	11/28/2016	
BIA Notification	11/28/2016	
Consultant CR/Tribal Initiation	12/28/2016	

**Studies**

Farmland NRCS Requested	<input type="text"/>	
Farmland NRCS Complete	<input type="text"/>	
CR Studies Requested	11/02/2016	
CR Studies Due	03/22/2017	
CR Studies Recd	02/22/2017	
Biological Studies Requested	12/02/2016	
Biological Studies Due	05/06/2017	
Biological Studies Recd	02/06/2017	
Meeting with 404 Permit Coordinator for Delineation	<input type="text"/>	
Haz Waste Studies Requested	12/02/2016	
Haz Waste Studies Due	03/02/2017	
Haz Waste Studies Recd	04/05/2017	
Noise Studies Requested	<input type="text"/>	
Noise Studies Due	<input type="text"/>	
Noise Studies Recd	06/12/2017	
Relo Studies Requested	<input type="text"/>	
Relo Studies Due	<input type="text"/>	
Relo Studies Recd	<input type="text"/>	



# OKLAHOMA DEPARTMENT OF TRANSPORTATION - Bridge Inspection Report

Suff. Rating: 67.8

Health Index :

NBI No.: **15559**

Structure No.: 5568 0585 X

Local ID:-1

FO

59.6

**IDENTIFICATION**  
 Description: 37'-59'-59'-43' CONT. CONC. SLAB SPANS WITH 2-1.5' SAFETY CURBS  
 1. State: Oklahoma 2. SHD District: Division 4  
 3. County Code: OKLAHOMA 4. Place Code: OKLA. CITY  
 Admin. Area: Unknown  
 5. Inventory Route (Route On Structure) : 1 - 5 - 1 - 00000 - 0  
 6. Feature Intersected: I-40 UNDER  
 7. Facility Carried: INDUSTRIAL BLVD. INDUSTRIAL BLVD.  
 9. Location: 6 MI E OF JCT I35 11. Mile Post: 5.849 mi  
 13. LRS Inv. Route./ Subroute.: -1 -1  
 16. Latitude: 35 26 02.94 17. Longitude: 097 22 44.05  
 98. Border Br. Code: Inknown (P) % Resp. : 0 99. Border Br. #: Unknown

**STRUCTURE TYPE AND MATERIALS**  
 43. Main Span Material and Design Type  
     Concrete Continuous Slab  
 44. Approach Span Material and Design Type  
     Not Applicable (P) Not Applicable (P)  
 45. No. of Spans Main Unit: 4 46. No. of Approach Spans: 0  
 107. Deck Type: 1 Concrete-Cast-in-Place  
 108A. Wearing Surface: 0 None  
 108B. Membrane: 0 None  
 108C. Deck Protection: None

**AGE AND SERVICE**  
 27. Year Built: 1962 106. Year Reconstructed: -4  
 28A. Lanes on: 4 28B. Lanes Under: 4 19. Detour Length: 2.0 mi  
 29. ADT: 1000 30. Year of ADT: 2011 109. Truck ADT %: 5  
 42A. Type of Service on: 1 Highway  
 42B. Type of Service under: 1 Highway

**GEOMETRIC DATA**  
 10. Inv. Rte. Min. Vert. Clr.: 328.1 ft  
 32. Approach Roadway Width (W/ Shoulders): 48.0 ft  
     Deck Area: 10,527.1 sq. ft 33. Median: 0 No median  
 34. Skew: 8 35. Structure Flared: 0 No flare  
 47. Inv. Rte. Total Horiz. Clr.: 48.0 ft  
 48. Length Maximum Span: 59.0 ft 49. Structure Length: 199.0 ft  
 50A. Curb/Sdwk Wth L: 1.5 ft 50B. Curb/Sidewalk Width R: 1.5 ft  
 51. Width Curb to Curb: 48.0 ft 52. Width Out to Out: 52.9 ft  
 53. Minimum Vertical Clearance Over Bridge: 328.1 ft  
 54A/54B. Min. Vert. Underclearance : H Hwy beneath struct 16.5 ft  
     N/E S/W  
 Meas. E1802 E1804 -1 W1607 W1801 -1  
 Post. DO NOT U DO NOT U DO NOT U DO NOT U DO NOT U DO NOT U  
 55A/55B. Minimum Lateral Underclearance R: H Hwy beneath struct 9.4 ft  
 56. Minimum Lateral Underclearance L: 21.5 ft

<u>INSPECTION</u>					
Type	Insp Req.	Insp Done	Freq:	Insp. Date:	Next Insp.:
NBI:		Y	24	10/22/2012	10/22/2014
Element:		Y	24	10/22/2012	10/22/2014
FC Freq.:	N	N	NA	NA	NA
UW Freq.:	N	N	NA	NA	NA
OS Freq.:	N	N	NA	NA	NA

**CLASSIFICATION**  
 12. Base Hwy Network : Not on Base Network 20. Toll Facility: 3 On free road  
 21. Custodian: 01State Highway Agency 22. Owner: 01 State Highway Agency  
 26. Functional Class: 16 Urban Minor Arter 37. Historical Sig.: 5 Not eligible for NRHP  
 100. Defense Highway: 0 Not a STRAHNET h 101. Parallel Structure: No || bridge exists  
 102. Dir. of Traffic: 2 2-way traffic 103. Temp. Structure: Not Applicable (P)  
 104. Highway System: 0 Not on NHS 105. Fed. Land Hwy 0 N/A (NBI)  
 110. National Truck Network: 0 Not part of na 112. NBIS Length: Long Enough

**CONDITION**  
 58. Deck: 5 Fair 59. Super.: 7 Good 60. Sub.: 5 Fair  
 62. Culvert: N N/A (NBI) 61. Channel/Channel Protection: N N/A (NBI)  
 Flowline Notes:

**LOAD RATING AND POSTING**  
 31. Design Load: 5 MS 18 (HS 20) 41. Posting status: A Open, no restriction  
 63. Op. Rating Method: 2 AS Allow. Stress-7 Alt. Op. Rating Meth.: 2 AS Allow. Stress-7  
 64. Operating Rating (H / HS / 3-3): 48.6 49.0 -1.1  
 66. Inventory Rating (H / HS / 3-3): 35.7 36.0 -1.1  
 65. Inv. Rating Method: 2 AS Allow. Stress Alt. Inv. Rating Meth.: 2 AS Allow. Stress-7  
 70. Posting: 5 At/Above Legal Loads Date Rated : 1/1/1901

**PROPOSED IMPROVEMENTS**  
 94. Bridge Cost: \$1,585,569 75. Type of Work: 31 Repl-Load Capacit  
 95. Roadway Cost: \$2,616,189 76. Lgth. of Improvement: 238.5 ft  
 96. Total Cost: \$4,439,593 114. Future ADT: 1600  
 97. Year of Cost Est.: 2007 115. Year of Future ADT: 2031

**NAVIGATION DATA**  
 38. Navigation Control: NA-no waterway  
 39. Vertical Clearance: 0.0 ft 40. Horizontal Clearance: 0.0 ft  
 111. Pier Protection: Not Applicable (P) 116. Lift Bridge Vert. Clear.: 0.0 ft

**APPRAISAL**  
 36A. Bridge Rail: 0 Substandard 36C. Approach Rail: 0 Substandard  
 36B. Transition: 0 Substandard 36D. Approach Rail Ends: 0 Substandard  
 67. Str. Evaluation: 5 Above Min Tolerable 68. Deck Geometry: 2 Intolerable - Replace  
 69. Underclearance, Vertical and Horizontal: 2 Intolerable - Replace  
 71. Waterway Adequacy: N Not applicable  
 72. Approach Alignment: 6 Equal Min Criteria  
 113. Scour Critical: N Not Over Waterway

200c. Temperature: 72  
 200d. Weather: CLOUDY  
 201. Structural Steel ASTM Desig.: -1 -1  
 202. Waterproof Membrane : -1  
     Date Installed: 1/1/1901  
 203. Type Exp. Dev. : Pourable  
     -  
 204. Type of Handrail: Concrete Post and Steel Rails  
 205. Material and Quantity : -1  
 208. Type of Abutment : Skeleton  
     Type of Foundation : Natural Foundation Matl.  
 209. Type of Pier / Found.: 5 No  
     No Piling or Drilled Shaft  
 210. Foundation Elev. -3 -3  
     -1 -1 -1  
 211. Wear. Surf. Prot. System : None  
     Date Installed : 1/1/1901  
 213. Utilities Attached : -1  
     -1 -1 -1  
     -1 -1 -1

**STATE OF OKLAHOMA BRIDGE ITEMS**  
 214a. Posted Weight Limit: NR  
 b. Posted Speed Limit : NR  
 c. Narrow/One Lane Bridge sign : N  
 d. Vertical Clearance Sign: YES  
     Advanced Warning Sign : NO  
     Existing/Recommended Posting : 1711 1604  
     Min./ Max Vert. Clearance : 1607 1806  
 e. Navigation Lights : -  
     Working/Not Working : -  
 215. Overpass : A - Interstate  
 221. Substructure Cond. (U/W) : -  
 222. Fill over RCB: -1  
 223. Appr. Slab/Rdwy Cond.: Poor  
 224. Critical Feature Type: -1  
 225. Paint Type : Not Applicable  
     Overcoat : 0  
 226. Date Painted: -1  
 227. Paint Coloring: -1  
 233. Deck Forming: Conventional Forming  
 236. Deck Cleaning : -1

238. School Bus Rte: Current and Desired Route  
 240. Appr. Roadway Type: Concrete  
 243. Girder Spacing : -1  
 244. Span Lengths :  
     -1 -1 -1  
     -1 -1 -1  
     -1 -1  
 245. Girder Depth : -1  
 246. Type of Overlay : -  
 246. Overlay Thickness : 0  
 246. Overlay Date : 1/1/1901  
 246. Overlay Depth Changed > 1"? No  
 247. Protective Systems : 1: -  
     2: - 3: -  
     4: - 5: -  
 248. No. of Field Splices w/ Corrosion : -1  
 249. Scour Crit. POA exists?: -  
 250. Culvert Headwall Dist.: -1  
 254. Thru Truss Type :  
 256. Chan. Profile Up/Down Stream?: -

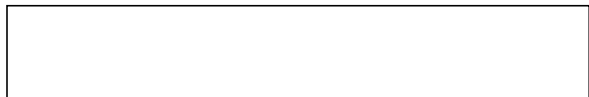
# OKLAHOMA DEPARTMENT OF TRANSPORTATION - Bridge Inspection Report

Suff. Rating: 67.8  
FO

Health Index :  
59.6

NBI No.: 15559      Structure No.: 5568 0585 X      Local ID:-1

Inspection Date: 10/22/2012      Reported By: GHINES  
 Invoice No.: -1      Inspected With: Gary Richardson  
 Agency : ODOT, Div. 4



### Structure / Inspection Notes

G Hines inspection comments - 10/22/2012

PX - erosion along the SW & NW sloped walls is causing cavities to develop under them \* PX - The approach railings should be updated to meet current standards \* PX - Fair to poor concrete approach roadway (top) - the North approach is 2-3 inches low with a sharp transition of asphalt & a large spall at the deck edge is settled \*

Elm.	Env.	Description	Un.	Qty.	Qty.St. 1	% 1	Qty.St. 2	% 2	Qty.St. 3	% 3	Qty.St. 4	% 4	Qty.St. 5	% 5
205	4	Reinforced Concrete Slab	(SF)	9,504	0	0 %	9,504	100 %	0	0 %	0	0 %	0	0 %
215	4	Reinforced Conc Column or Pile Extension	(EA)	15	4	27 %	1	7 %	10	67 %	0	0 %	0	0 %
234	4	Reinforced Conc Abutment	(LF)	107	31	29 %	59	55 %	17	16 %	0	0 %	0	0 %
311	4	Reinforced Conc Cap	(LF)	157	154	98 %	3	2 %	0	0 %	0	0 %	0	0 %
321	4	Moveable Bearing (roller, sliding, etc.)	(EA)	80	40	50 %	40	50 %	0	0 %	0	0 %	0	0 %
321	4	Reinforced Conc Approach Slab w/ or w/o AC O	(EA)	2	0	0 %	1	50 %	0	0 %	1	50 %	0	0 %
330	4	Metal Bridge Railing	(LF)	347	0	0 %	347	100 %	0	0 %	0	0 %	0	0 %
331	4	Reinforced Conc Bridge Railing	(LF)	50	48	96 %	0	0 %	2	4 %	0	0 %	0	0 %
358	4	Concrete Cracking	(EA)	1	0	0 %	0	0 %	0	0 %	1	100 %	0	0 %
659	4	Soffit of Concrete Decks and Slabs	(SF)	9,504	9,504	100 %	0	0 %	0	0 %	0	0 %	0	0 %
909	4	Pourable Fixed Joint Seal	(LF)	107	0	0 %	107	100 %	0	0 %	0	0 %	0	0 %
968	4	Erosion	(EA)	1	1	100 %	0	0 %	0	0 %	0	0 %	0	0 %
970	4	Wing	(EA)	3	3	100 %	0	0 %	0	0 %	0	0 %	0	0 %

Additional Elements

Elem.	Element Notes (Include Size and Location of Deterioration)
38	PX - LOTS of scaling & spalling along the East curb. One moderate spall along the North edge near the centerline. Approximately 15% of the total area is affected. Numerous popouts noted. Needs an overlay in the near future. Also see SF #358.
205	PX - The 3rd, 4th, & 5th columns in bent #1 are spalled with rebar exposed. The 5th column in bent #3 is cracked & deeply spalled (2008 photos). On bent #2 there is a moderate spall on the 5th column & a small spall present on the 4th column. Minor cracking noted on the 1st & 2nd columns in bent #1. Minor spalls on #1 thru #4 columns all in bent #3. Needs repair in the near future.
215	FX - Some light vertical cracking noted on each abutment. Moderate spalling above the South abutment seat behind the 5th & 6th beams (2010 photo). Moderate to heavy horizontal cracking on the South with delaminations below 5-6, 7-8, 10-12, & the 15th pedestals. Heavy cracking on the NE behind the 20th roller into & above the seat. Still stable at this time.
234	Tiny delamination noted on the SW end of the 3rd cap. One light crack on SW corner of the 2nd cap. Minor defects noted at the East end of the 1st cap.
311	FX - All of the rollers on the North abutment are rotated back @ 20 degrees & need re-positioned (2006 photo). Light to moderate exfoliation noted on most on the North as well. Surface rust is present on the lower areas of most of the South abutment bearings with rust under the mortar plates stressing the anchors.
321	PX - The South slab is broken & buckled from curb to curb about 3' from the deck; there is a moderate crack in the North slab. Some leveling has been attempted but needs more. The North slab also has a large spall that needs repair soon.
330	Light freckle rust is developing in all areas.
331	One post each on the East & West has a minor spall. Minor weathering overall.
358	PX - Lots of light to moderate cracks of moderate to heavy density are present in each span. Every square foot in the traffic lanes has some degree of cracking present.
659	Less than 2% of the total area has minor discoloration - mainly the fascia areas. Some light cracks noted without staining or efflorescence.
909	FX - Moderate deterioration of the sealant over the abutments with some seepage evident below.
968	PX - erosion along the SW & NW sloped walls is causing cavities to develop under them
970	The SE, SW, & NE wing are cracked at the junction point up to 1/4" - no loose of fill yet.

Roadway Name : I-40 UNDER	NBI Information Applicable To The Route Under The Structure	
5. Inventory Route (Route Under Structure : 2 - 1 - 1 - 00040 - 0	102. Traffic Dir.:	2 2-way traffic
10. Min. Vert. Clr.(ft.): 16.5	104. Highway System :	1 On the NHS
12. Base Hwy Network : On Base Network	105. Fed Land Hwy :	0 N/A (NBI)
13. LRS Inv. Rt./ Subroute : 5568HP0000 / 06	109. Truck ADT% :	12
19. Detour Len.(Mi.): 0.0	110. Natl. Truck Network :	1 Part of natl network
20. Toll Facility : 3 On free road	114. Future ADT :	81440
26. Function Class.: 11 Urban Interstate	28b. Lanes Und.: 4	
	29. ADT : 50900	
	32. Appr. Roadway Width (ft.) : 76.0	
	47. Total Horiz. Clr.(ft.): 52.0	
	51. Roadway Width (ft.) : 48.0	
	100. Defense Highway : 1 On Interstate STRAHNET	

# OKLAHOMA DEPARTMENT OF TRANSPORTATION - Bridge Inspection Report

Suff. Rating: 79.6

Health Index :

NBI No.: **15560**

Structure No.: 5568 0608 X

Local ID:-1

FO

78.7

IDENTIFICATION	INSPECTION																																				
<p>Description: 41'-62'-62'-41' CONT. CONC. SLAB SPANS WITH 2-3' SIDEWALKS</p> <p>1. State: Oklahoma      2. SHD District: Division 4 3. County Code: OKLAHOMA      4. Place Code: OKLA. CITY Admin. Area: Unknown</p> <p>5. Inventory Route (Route On Structure) : 1 - 5 - 1 - 00000 - 0 6. Feature Intersected: I-40 UNDER</p> <p>7. Facility Carried: ENGLE RD.      ENGLE ROAD 9. Location: 6.2 MI E OF JCT I35      11. Mile Post: 6.079 mi 13. LRS Inv. Route./ Subroute.: -1      -1 16. Latitude: 35 25 59.50      17. Longitude: 097 22 30.49 98. Border Br. Code: Not Applicab % Resp. : 0      99. Border Br. #: Unknown</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Type</th> <th style="text-align: left;">Insp Req.</th> <th style="text-align: left;">Insp Done</th> <th style="text-align: left;">Freq:</th> <th style="text-align: left;">Insp. Date:</th> <th style="text-align: left;">Next Insp.:</th> </tr> </thead> <tbody> <tr> <td>NBI:</td> <td></td> <td>Y</td> <td>24</td> <td>10/19/2012</td> <td>10/19/2014</td> </tr> <tr> <td>Element:</td> <td></td> <td>Y</td> <td>24</td> <td>10/19/2012</td> <td>10/19/2014</td> </tr> <tr> <td>FC Freq.:</td> <td>N</td> <td>N</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> <tr> <td>UW Freq.:</td> <td>N</td> <td>N</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> <tr> <td>OS Freq.:</td> <td>N</td> <td>N</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> </tbody> </table>	Type	Insp Req.	Insp Done	Freq:	Insp. Date:	Next Insp.:	NBI:		Y	24	10/19/2012	10/19/2014	Element:		Y	24	10/19/2012	10/19/2014	FC Freq.:	N	N	NA	NA	NA	UW Freq.:	N	N	NA	NA	NA	OS Freq.:	N	N	NA	NA	NA
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UW Freq.:	N	N	NA	NA	NA																																
OS Freq.:	N	N	NA	NA	NA																																
<p style="text-align: center;"><u>STRUCTURE TYPE AND MATERIALS</u></p> <p>43. Main Span Material and Design Type Concrete Continuous      Slab</p> <p>44. Approach Span Material and Design Type Not Applicable (P)      Not Applicable (P)</p> <p>45. No. of Spans Main Unit: 4      46. No. of Approach Spans: 0</p> <p>107. Deck Type: 1 Concrete-Cast-in-Place 108A. Wearing Surface: 0 None 108B. Membrane: 0 None 108C. Deck Protection: None</p>	<p style="text-align: center;"><u>CLASSIFICATION</u></p> <p>12. Base Hwy Network : Not on Base Network      20. Toll Facility: 3 On free road 21. Custodian: 01State Highway Agency      22. Owner: 01 State Highway Agency 26. Functional Class: 16 Urban Minor Arter      37. Historical Sig.: 5 Not eligible for NRHP 100. Defense Highway: 0 Not a STRAHNET h      101. Parallel Structure: No    bridge exists 102. Dir. of Traffic: 2 2-way traffic      103. Temp. Structure: Not Applicable (P) 104. Highway System: 0 Not on NHS      105. Fed. Land Hwy 0 N/A (NBI) 110. National Truck Network: 0 Not part of na      112. NBIS Length: Long Enough</p> <p style="text-align: center;"><u>CONDITION</u></p> <p>58. Deck: 5 Fair      59. Super.: 6 Satisfactory      60. Sub.: 6 Satisfactory 62. Culvert: N N/A (NBI)      61. Channel/Channel Protection: N N/A (NBI) Flowline Notes:</p>																																				
<p style="text-align: center;"><u>AGE AND SERVICE</u></p> <p>27. Year Built: 1962      106. Year Reconstructed: -4 28A. Lanes on: 2      28B. Lanes Under: 4      19. Detour Length: 2.0 mi 29. ADT: 1000      30. Year of ADT: 2011      109. Truck ADT %: 5 42A. Type of Service on: 5 Highway-pedestrian 42B. Type of Service under: 1 Highway</p>	<p style="text-align: center;"><u>LOAD RATING AND POSTING</u></p> <p>31. Design Load: 5 MS 18 (HS 20)      41. Posting status: A Open, no restriction 63. Op. Rating Method: 2 AS Allow. Stress-7      Alt. Op. Rating Meth.: 2 AS Allow. Stress-7 64. Operating Rating (H / HS / 3-3):      48.6      49.0      -1.1 66. Inventory Rating (H / HS / 3-3):      35.7      36.0      -1.1 65. Inv. Rating Method: 2 AS Allow. Stress      Alt. Inv. Rating Meth.: 2 AS Allow. Stress-7 70. Posting: 5 At/Above Legal Loads      Date Rated : 1/1/1901</p>																																				
<p style="text-align: center;"><u>GEOMETRIC DATA</u></p> <p>10. Inv. Rte. Min. Vert. Clr.: 328.1 ft 32. Approach Roadway Width (W/ Shoulders): 26.0 ft Deck Area: 6,985.8 sq. ft      33. Median: 0 No median 34. Skew: 24      35. Structure Flared: 0 No flare 47. Inv. Rte. Total Horiz. Clr.: 26.0 ft 48. Length Maximum Span: 62.0 ft      49. Structure Length: 206.0 ft 50A. Curb/Sdwk Wdth L: 3.0 ft      50B. Curb/Sidewalk Width R: 3.0 ft 51. Width Curb to Curb: 26.0 ft      52. Width Out to Out: 33.9 ft 53. Minimum Vertical Clearance Over Bridge: 328.1 ft 54A/54B. Min. Vert. Underclearance : H Hwy beneath struct      15.6 ft</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">N/E</th> <th style="text-align: center;">S/W</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Meas. E1608      E1700      EP1509      W1608      W1610      WP1508</td> <td></td> </tr> <tr> <td style="text-align: center;">Post. DO NOT U      DO NOT U      DO NOT U      DO NOT U      DO NOT U      DO NOT U</td> <td></td> </tr> </tbody> </table> <p>55A/55B. Minimum Lateral Underclearance R: H Hwy beneath struct      2.0 ft 56. Minimum Lateral Underclearance L: 18.5 ft</p>	N/E	S/W	Meas. E1608      E1700      EP1509      W1608      W1610      WP1508		Post. DO NOT U      DO NOT U      DO NOT U      DO NOT U      DO NOT U      DO NOT U		<p style="text-align: center;"><u>PROPOSED IMPROVEMENTS</u></p> <p>94. Bridge Cost: \$1,011,018      75. Type of Work: 31 Repl-Load Capacit 95. Roadway Cost: \$1,668,180      76. Lgth. of Improvement: 258.6 ft 96. Total Cost: \$2,830,851      114. Future ADT: 1600 97. Year of Cost Est.: 2007      115. Year of Future ADT: 2031</p> <p style="text-align: center;"><u>NAVIGATION DATA</u></p> <p>38. Navigation Control: NA-no waterway 39. Vertical Clearance: 0.0 ft      40. Horizontal Clearance: 0.0 ft 111. Pier Protection: Not Applicable (P)      116. Lift Bridge Vert. Clear.: 0.0 ft</p> <p style="text-align: center;"><u>APPRAISAL</u></p> <p>36A. Bridge Rail: 0 Substandard      36C. Approach Rail: 0 Substandard 36B. Transition: 0 Substandard      36D. Approach Rail Ends: 0 Substandard 67. Str. Evaluation: 6 Equal Min Criteria      68. Deck Geometry: 5 Above Tolerable 69. Underclearance, Vertical and Horizontal: 2 Intolerable - Replace 71. Waterway Adequacy: N Not applicable 72. Approach Alignment: 8 Equal Desirable Crit 113. Scour Critical: N Not Over Waterway</p>																														
N/E	S/W																																				
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Post. DO NOT U      DO NOT U      DO NOT U      DO NOT U      DO NOT U      DO NOT U																																					
<p>200c. Temperature: 73 200d. Weather: CLEAR 201. Structural Steel ASTM Desig.: -1      -1 202. Waterproof Membrane : -1 Date Installed : 1/1/1901 203. Type Exp. Dev. : Pourable 204. Type of Handrail: Concrete Post and Steel Rails 205. Material and Quantity : -1 208. Type of Abutment : Skeleton Type of Foundation : Natural Foundation Matl. 209. Type of Pier / Found.: 3 Piers No No Piling or Drilled Shaft 210. Foundation Elev.      -3      -3    -1      -1      -1 211. Wear. Surf. Prot. System : None Date Installed : 1/1/1901 213. Utilities Attached : -1 -1      -1      -1 -1      -1      -1</p>	<p style="text-align: center;"><u>STATE OF OKLAHOMA BRIDGE ITEMS</u></p> <p>214a. Posted Weight Limit: NR b. Posted Speed Limit : NR c. Narrow/One Lane Bridge sign : N d. Vertical Clearance Sign: YES Advanced Warning Sign : NO Existing/Recommended Posting : 1506      1505 Min./ Max Vert. Clearance : 1508      1700 e. Navigation Lights : - Working/Not Working : - 215. Overpass : A - Interstate 221. Substructure Cond. (U/W) : - 222. Fill over RCB: -1 223. Appr. Slab/Rdwy Cond.: Good 224. Critical Feature Type: -1 225. Paint Type : Not Applicable Overcoat : 0 226. Date Painted: -1 227. Paint Coloring: -1 233. Deck Forming: Conventional Forming 236. Deck Cleaning : -1</p> <p>238. School Bus Rte: Current and Desired Route 240. Appr. Roadway Type: Asphalt/Bituminous 243. Girder Spacing : -1 244. Span Lengths :    -1      -1      -1    -1      -1      -1 245. Girder Depth : -1 246. Type of Overlay : - 246. Overlay Thickness : 0 246. Overlay Date : 1/1/1901 246. Overlay Depth Changed &gt; 1"? No 247. Protective Systems : 1: - 2: -      3: - 4: -      5: - 248. No. of Field Splices w/ Corrosion : -1 249. Scour Crit. POA exists?: - 250. Culvert Headwall Dist.: -1 254. Thru Truss Type : 256. Chan. Profile Up/Down Stream?: -</p>																																				

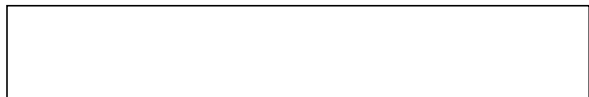
# OKLAHOMA DEPARTMENT OF TRANSPORTATION - Bridge Inspection Report

Suff. Rating: 79.6  
FO

Health Index :  
78.7

NBI No.: **15560**      Structure No.: 5568 0608 X      Local ID:-1

Inspection Date: 10/19/2012      Reported By: GHINES  
 Invoice No.: -1      Inspected With: Gary Richardson  
 Agency : ODOT, Div. 4



### Structure / Inspection Notes

- \* THE W.B. CLEARANCE SIGN IS OK OVER THE THRU ROUTE BUT THE CLEARANCE ABOVE THE ON-RAMP LANE IS 1' LESS! (ANNEX NOTIFIED).
- \* (THE E.B. SIGNS HAVE BEEN CHANGED).
- \* MAXIMUM HORIZONTAL UNDERCLEARANCE: EB = 43', WB = 46'.

G Hines inspection comments - 10/19/2012

The roadway above is gated off due to security changes at Tinker AFB - the ADT is basically zero (the South gate is open at this time but the roadway on the South 100' away is a dead end) \*  
 PX - There is heavy erosion on the SE & SW slopes near the slopewalls \* Safety below = 1111 \* Satisfactory side drains

Elm.	Env.	Description	Un.	Qty.	Qty.St. 1	% 1	Qty.St. 2	% 2	Qty.St. 3	% 3	Qty.St. 4	% 4	Qty.St. 5	% 5
38	4	Reinforced Concrete Slab	(SF)	5,500	0	0 %	5,500	100 %	0	0 %	0	0 %	0	0 %
205	4	Reinforced Conc Column or Pile Extension	(EA)	9	5	56 %	1	11 %	3	33 %	0	0 %	0	0 %
215	4	Reinforced Conc Abutment	(LF)	74	62	84 %	12	16 %	0	0 %	0	0 %	0	0 %
234	4	Reinforced Conc Cap	(LF)	105	99	94 %	5	5 %	1	1 %	0	0 %	0	0 %
301	4	Pourable Joint Seal	(EA)	22	0	0 %	0	0 %	0	0 %	22	100 %	0	0 %
310	4	Elastomeric Bearing	(EA)	1	1	100 %	0	0 %	0	0 %	0	0 %	0	0 %
311	4	Moveable Bearing (roller, sliding, etc.)	(EA)	32	24	75 %	8	25 %	0	0 %	0	0 %	0	0 %
321	4	Reinforced Conc Approach Slab w/ or w/o AC O	(EA)	2	0	0 %	2	100 %	0	0 %	0	0 %	0	0 %
330	4	Metal Bridge Railing	(LF)	373	0	0 %	367	98 %	6	2 %	0	0 %	0	0 %
331	4	Reinforced Conc Bridge Railing	(LF)	50	46	92 %	2	4 %	1	2 %	1	2 %	0	0 %
358	4	Concrete Cracking	(EA)	1	0	0 %	0	0 %	0	0 %	1	100 %	0	0 %
659	4	Soffit of Concrete Decks and Slabs	(EA)	1	1	100 %	0	0 %	0	0 %	0	0 %	0	0 %

Additional  
Elements

Elem.	Element Notes (Include Size and Location of Deterioration)
38	Lots of small popouts overall - some scaling along the East curb. Also see SF #358.
205	FX - One moderate spall noted on the 3rd column in bent #3 & #2 in bent #1(both near the ground). Minor delamination present on #3 in bent #1 with cracking. Still solid overall.
215	Several light vertical cracks with efflorescence are present on the North abutment with a few on the South. Some discoloration noted.
234	The NE end of the 3rd cap has an small impending spall. Light cracking present on the 2nd cap near the 2nd column. Small crack noted on each end of the 1st cap with a small delamination at the NE area. Two cracks visible on the North face of bent #2.
301	PX - The sealant in each joint is deteriorated & failing and allowing water to pass through to the abutments. There is up to a 3 inch gap at some areas.
310	There is a single full-width pad on bent #2.
311	Some moderate surface rust is present on all rollers on the South abutment. Some lateral movement noted - ears on a few ears are partially sheared off.
321	North slab has moderate cracking & the South slab has minor cracking.
330	FX - One section in span #4 is weakened due to spalling on the posts. Minor to moderate surface rust is present otherwise on the steel portion of the railing.
331	The concrete portion (posts) of the railing has superficial weathering overall. One post on the west side of span #3 is chipped at the top, another in span #4 is spalled at the top weakening the steel portion. There are 2 other posts with light cracking at the curb junction.
358	PX - The deck has pattern cracking in all areas approximately every 4 to 8 inches (2010 photo). The cracks are light to heavy in size. The deck needs a high density overlay or epoxy flood coat soon.
659	Some minor deterioration noted mainly on the fascia areas. Less than 2% of the total area is affected.

Roadway Name : I-40 UNDER		NBI Information Applicable To The Route Under The Structure	
5. Inventory Route (Route Under Structure : 2 - 1 - 1 - 00040 - 0		102. Traffic Dir.:	2 2-way traffic
10. Min. Vert. Clr.(ft.): 15.6	28b. Lanes Und.: 4	104. Highway System :	1 On the NHS
12. Base Hwy Network : On Base Network	29. ADT : 50900	105. Fed Land Hwy :	0 N/A (NBI)
13. LRS Inv. Rt./ Subroute : 5568HP0000 / 06	32. Appr. Roadway Width (ft.) : 74.0	109. Truck ADT% :	12
19. Detour Len.(Mi.): 0.0	47. Total Horiz. Clr.(ft.): 46.0	110. Natl. Truck Network :	1 Part of natl network
20. Toll Facility : 3 On free road	51. Roadway Width (ft.) : 74.0	114. Future ADT :	81440
26. Function Class.: 11 Urban Interstate	100. Defense Highway : 1 On Interstate STRAHNET		



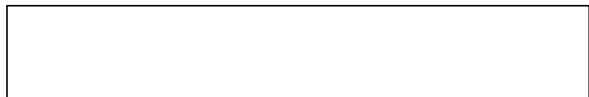
# OKLAHOMA DEPARTMENT OF TRANSPORTATION - Bridge Inspection Report

Suff. Rating: 77  
FO

Health Index :  
67.6

NBI No.: 15573      Structure No.: 5568 0634 X      Local ID:-1

Inspection Date: 1/27/2012      Reported By: GHINES  
 Invoice No.: -1      Inspected With: Gary Richardson  
 Agency : ODOT, Div. 4



### Structure / Inspection Notes

G Hines inspection comments - 1/27/2012

FX - The North slopewall is breaking up near the top \* The deck has a 4' wide mountable median \* Satisfactory side drains \* PX - Erosion is developing at the SW wing gap \* Replacement bearings now in place at the abutments \*

Elm.	Env.	Description	Un.	Qty.	Qty.St. 1	% 1	Qty.St. 2	% 2	Qty.St. 3	% 3	Qty.St. 4	% 4	Qty.St. 5	% 5
38	4	Reinforced Concrete Slab	(SF)	24,240	21,816	90 %	2,424	10 %	0	0 %	0	0 %	0	0 %
205	4	Reinforced Conc Column or Pile Extension	(EA)	40	21	53 %	8	20 %	11	28 %	0	0 %	0	0 %
215	4	Reinforced Conc Abutment	(LF)	191	118	62 %	47	25 %	26	14 %	0	0 %	0	0 %
234	4	Reinforced Conc Cap	(LF)	460	446	97 %	8	2 %	6	1 %	0	0 %	0	0 %
301	4	Pourable Joint Seal	(LF)	501	0	0 %	40	8 %	0	0 %	461	92 %	0	0 %
310	4	Elastomeric Bearing	(EA)	1	1	100 %	0	0 %	0	0 %	0	0 %	0	0 %
311	4	Moveable Bearing (roller, sliding, etc.)	(EA)	144	144	100 %	0	0 %	0	0 %	0	0 %	0	0 %
321	4	Reinforced Conc Approach Slab w/ or w/o AC O	(EA)	4	0	0 %	3	75 %	1	25 %	0	0 %	0	0 %
330	4	Metal Bridge Railing	(LF)	547	0	0 %	535	98 %	12	2 %	0	0 %	0	0 %
331	4	Reinforced Conc Bridge Railing	(LF)	60	58	97 %	0	0 %	0	0 %	2	3 %	0	0 %
358	4	Concrete Cracking	(EA)	1	0	0 %	0	0 %	0	0 %	1	100 %	0	0 %
659	4	Soffit of Concrete Decks and Slabs	(SF)	24,240	0	0 %	24,240	100 %	0	0 %	0	0 %	0	0 %
970	4	Wing	(EA)	4	0	0 %	0	0 %	4	100 %	0	0 %	0	0 %

Additional Elements

Elem.	Element Notes (Include Size and Location of Deterioration)
38	PX - The deck has some minor patches with some scaling and spalling is present - mainly along the outer curb areas (2006 photo). One newer asphalt patch noted in the SB lane of span #3. Lots of minor popouts noted as well. Approximately 25% of the total area is affected.
205	PX - At bent #1 the 1st column is spalled with rebar exposed (2006 photo). The 6th & 7th columns in bent #1 have smaller spalls mainly near the bottom with cracking present on #2 & 3. Some minor scaling is also present on the 6th & 7th columns. *At bent #2 there is a tiny spall on the 1st & 4th columns with small delaminations noted on the 2nd & 6th columns. *At bent #3 there is a spall on the 5th column. *Moderate spalls noted on the 3rd & 4th columns in bent #4 with delamination at the bottom of #5. *The 5th column in bent #5 has moderate spalling (2010 photo). Still solid overall.
215	PX - Large spall is present at the NW corner. Lots of small spalls on the East third of the North abutment. Light to moderate horizontal cracking with scaling are present on both abutments. Stable at this time.
234	FX - One moderate spall on the South face of the 3rd cap above the 7th column. Small spall present at the SW corner of the 4th cap & the North face below the 4th beam. Rebar chair stains noted on the 2nd cap between the 6th & 7th columns. Small delaminations present on the 1st cap; one at the South face above the 4th column & at the NE area. On the 2nd cap there are delaminations at the East & North areas of bent #2. Minor cracking noted on the NE area of 4th cap, SE area of 3rd cap, & both ends of 2nd cap. Satisfactory condition overall.
301	PX - The sealant over the abutments has lost most of its adhesion and is allowing debris and water to pass through. There is some minor chipping of the deck present along the abutment joints. Each joint needs completely redone. There is a full-length joint down the median that needs to be sealed also.
310	There is one solid pad end to end on bent #3 (w/o steel element). Supplement bearings have been removed at the abutments.
311	FX - ALL ABUTMENT ROLLERS HAVE BEEN REPLACED BY THE PERRY BRIDGE CREW (PHOTOS). THE SOUTH ABUTMENT BEARING STILL NEED TO BE PAINTED. ALSO, THE UPPER 'EARS' DON'T LINE UP WITH THE ORIGINAL HOLES DUE TO DECK ROTATION.
321	PX - The NW approach slab is badly broken with areas of upheaval (2006 photo). The NW & NE slabs also have deep spalling along the bridge deck (5/2011 photo @ NE). The SE & SW slabs have minor to moderate cracking - all 4 have minor wear. PX - The SW slab has shoved about 4 inches from the bridge deck causing erosion to develop under the slab *
330	FX - The steel portion of the railing has moderate freckle rust overall. Two sections on the East are weakened due to post condition (see element #331).
331	FX - The 8th post from the NE is cracked loose at the sidewalk level. Still attached well by the rebar system. The remaining concrete portions have minor weathering overall.
358	PX - The deck is entirely covered with pattern cracking - the cracks are of minor to severe in size & density. There is not a 6" X 6" area that does not have a crack of some size. The deck really needs a high-density overlay or epoxy flood coat soon.
659	There are 5 longitudinal construction joints in each span. Most have some minor seepage with stains & light efflorescence started. The fascia areas have some discoloration & light cracking. Less than 10% of the total area is affected.
970	PX - The SW wing is completely broken away from the abutment & leaning badly (2008 photo). It is no longer being held up by the exposed rebar. Some loss of fill is causing settlement along the grassy shoulder area. The NE wing leans badly as well but is still attached via the rebar. The SE & NW wings are cracked (CS 2) but still functioning as intended. The SW & NE needs attention soon.

Roadway Name :	NBI Information Applicable To The Route Under The Structure	
5. Inventory Route (Route Under Structure : A - 1 - 1 - 00040 - 0	28b. Lanes Und.: 6	102. Traffic Dir.: 2 2-way traffic
10. Min. Vert. Clr.(ft.): 16.4	29. ADT : 50900	104. Highway System : 1 On the NHS
12. Base Hwy Network : On Base Network	32. Appr. Roadway Width (ft.) : 92.0	105. Fed Land Hwy : 0 N/A (NBI)
13. LRS Inv. Rt./ Subroute : 5568HP0000 / 07	47. Total Horiz. Clr.(ft.): 52.0	109. Truck ADT% : 12
19. Detour Len.(Mi.): 0.0	51. Roadway Width (ft.) : 92.0	110. Natl. Truck Network : 1 Part of natl network
20. Toll Facility : 3 On free road	100. Defense Highway : 1 On Interstate STRAHNET	114. Future ADT : 81440
26. Function Class.: 11 Urban Interstate		

**OKLAHOMA DEPARTMENT OF TRANSPORTATION - Bridge Inspection Report**

Suff. Rating: 77  
FO

Health Index :  
67.6

NBI No.: 15573      Structure No.: 5568 0634 X      Local ID:-1

Roadway Name : DOUGLAS W RAMP TO EB I			<b>NBI Information Applicable To The Route Under The Structure</b>		
5. Inventory Route (Route Under Structure : B - 3 - 7 - 00040 - 0	28b. Lanes Und.: 2	102. Traffic Dir.: 1 1-way traffic	104. Highway System : 0 Not on NHS	105. Fed Land Hwy : 0 N/A (NBI)	109. Truck ADT% : 7
10. Min. Vert. Clr.(ft.): 16.8	29. ADT : 5000	110. Natl. Truck Network : 0 Not part of natl netwo	114. Future ADT : 8000		
12. Base Hwy Network : Not on Base Network	32. Appr. Roadway Width (ft.) : 46.0				
13. LRS Inv. Rt./ Subroute : -1 / -1	47. Total Horiz. Clr.(ft.): 46.0				
19. Detour Len.(Mi.): 0.0	51. Roadway Width (ft.) : 46.0				
20. Toll Facility : 3 On free road	100. Defense Highway : 0 Not a STRAHNET hwy				
26. Function Class.: 17 Urban Collector					

Roadway Name : DOUGLAS E RAMP TO WB I			<b>NBI Information Applicable To The Route Under The Structure</b>		
5. Inventory Route (Route Under Structure : C - 3 - 7 - 00040 - 0	28b. Lanes Und.: 2	102. Traffic Dir.: 1 1-way traffic	104. Highway System : 0 Not on NHS	105. Fed Land Hwy : 0 N/A (NBI)	109. Truck ADT% : 7
10. Min. Vert. Clr.(ft.): 17.1	29. ADT : 5000	110. Natl. Truck Network : 0 Not part of natl netwo	114. Future ADT : 8000		
12. Base Hwy Network : Not on Base Network	32. Appr. Roadway Width (ft.) : 46.0				
13. LRS Inv. Rt./ Subroute : -1 / -1	47. Total Horiz. Clr.(ft.): 46.0				
19. Detour Len.(Mi.): 0.0	51. Roadway Width (ft.) : 80.0				
20. Toll Facility : 3 On free road	100. Defense Highway : 0 Not a STRAHNET hwy				
26. Function Class.: 17 Urban Collector					



# Oklahoma Department of Transportation

Project Management Division (405)522-7601 Fax (405) 522-7612 Room 3C9

**DATE:** May 5, 2012  
**TO:** Distribution List  
**FROM:** Project Management Division  
**SUBJECT:** Draft - Project Initiation

J/P Number: 28992(04) County: Oklahoma Highway: I-40 Division: 4  
PS&E Date: 05/2017 R/W Date : N/A Drive-out Date:  
Programmed Estimate: \$ 18,000,000.00  
Project Description: Douglas Blvd. Bridge Replacement & Interchange Reconstruction 6.5 Miles East of I-35 (Includes removal of Engle Rd. bridge).

Drive-out Attendees:  
Kyle McKinley – Project Management Division

### FUNCTIONAL CLASSIFICATION

Area Type:  Urban  Suburban  Rural  
Terrain Type:  Flat  Rolling  Mountainous  
Access Control:  Full  Partial  None  
Highway Type:  Freeway  Principal Arterial  Minor Arterial  Collector  
 NHS  Non-NHS  STRAHNET  Scenic Hwy

### EXISTING INFORMATION

Current ADT: 51,200 % Trucks: Number of Lanes: 4 Lane Width: 12'  
Outside Shoulder Width: 10' Inside Shoulder Width: 4'  
 Open Section  Curb & Gutter  Divided, median width: 40', Cable Barrier  
 Other (describe):  
Pavement Type: Asphalt Pavement Condition:  Good  Fair  Poor  
Shoulder Type: Paved Shoulder Condition:  Good  Fair  Poor  
Storm Sewer  No  Yes Storm Sewer Condition:  Good  Fair  Poor  
Sidewalks  No  Yes Sidewalk Width:  
Bridge One Description: 41'-55'-60'-60'-50'-41' Cont. Concrete Slab Spans with 2-3' Sidewalks  
Bridge Two Description: 41'-62'-62'-41' Cont. Concrete Slab Spans with 2-3' Sidewalks  
Bridge Three Description:

	Bridge One	Bridge Two	Bridge Three
Feature Intersected:	I-40	I-40	
NBI Number(s):	15573	15560	
Location Number(s):	5568 0634X	5568 0608X	
Sufficiency Rating(s):	77.0	79.6	
Year(s) Built:	1962	1962	
Bridge Width(s):	88'	33.9'	
Bridge Length(s):	303'	206'	



Posted Clearance(s): 17'00" 15'06"  
Posted: Open, no restrictions Open, no restrictions  
Health Index: 67.61 79.31

### ENVIRONMENTAL CONSIDERATIONS

- Historic Properties, list:
- Archeological Sites, list:
- Cemeteries, list:
- Hazardous Waste / LUST Sites, list:
- Endangered Species, list:
- Section 4F or 6F Properties, list:
- Farmland  Wetlands  Scenic and Protected Aquifers  100 Year Flood Plain

### ALTERNATIVE IMPACTS

- Other Agencies List:
- Turnpike Involvement
- Metropolitan Planning Organizations List:

### PERMIT INFORMATION

Design Exception Anticipated:  No  As required by design  Yes, type:  
Maintenance Agreements (Lighting, Signals, etc.):  No  Yes, type:  
Permits required:  FAA  USACE  OWRB  Railroad  Other, type:  
Additional:

### PROPOSED IMPROVEMENT

Project Intent: Replace 2 functionally obsolete bridges.

Special Considerations: None

Description of Proposed Improvements:

Design Speed:

#### Project Termini

Beginning of Project:

End of Project:

Limits of Survey:

Limits of NEPA Survey Area:

#### Typical Section

- Open Section  Curb & Gutter  Divided, median width:
- Other (describe):
- Number of Lanes: Lane Width: 12'
- Outside Shoulder Width: 10' Inside Shoulder Width: 4'
- Storm Sewer  No  Yes Sidewalks  No  Yes, width:
- Overlay  No  Yes, thickness:
- Coldmill  No  Yes, thickness:
- Add Shoulders  No  Yes, width:

Bridge Width:

Alignment

- Existing
- New, located                       North or       South or       East or       West of existing
- Parallel Lanes, located       North or       South or       East or       West of existing
- Spot Improvements
- Horizontal, Description:
- Vertical, Description:

Detour

- Shoo-fly, located                       North or       South or       East or       West of existing
- Widening, located                       North or       South or       East or       West of existing
- Crossovers
- Close Road
- Signed Detour, Route Description:
- Phased Construction, Description:

Traffic Items

- Traffic Management Plan       No                       Yes
- Median Barrier                       No                       Yes
- New Guardrail                       No                       Yes
- End Treatment                       No                       Type:
- Highway Lighting                       No                       Outside or                       Median
- Traffic Signals                       No                       Location(s):

Right-of-Way

- Additional RW Required       No                       Yes, describe:
- Utility Conflicts                       No                       Yes, describe:

Miscellaneous

- Channel Re-Alignment                       No                       Yes, describe:

**INITIATION ESTIMATE**

Roadway:	\$	Total Construction:	\$
Bridge:	\$		
Traffic Control:	\$	Right-of-Way:	\$
Signing and Striping:	\$	Utility:	\$
Highway Lighting:	\$		
Traffic Signals:	\$	Total Estimate:	\$
Mobilization:	\$		
Staking:	\$		
E & C:	\$		

**PROGRAM REVISIONS**

Estimate: \$  
Work Type:  
Description:

Letting Date:

Project Length:

Attachments (Aerial with Preliminary RW & County Map)

Distribution List:

- Director of Engineering
- Director of Capital Projects and Information Management
- Bridge Division
- Environmental Programs Division
- FHWA
- Field Division
- Project Management Division
- Right-of-Way Division
- Roadway Design
- Survey Division
- Traffic Engineering

# Transportation Improvement Program for the OCARTS Transportation Management Area

*FFY 2017 - FFY 2020  
(October 1, 2016 - September 30, 2020)*



**Association of Central Oklahoma Governments**  
21 East Main Street, Suite 100  
Oklahoma City, OK 73104-2405  
Telephone: (405) 234-ACOG (2264)  
Fax: (405) 234-2200  
www.acogok.org

*Adopted by the Intermodal Transportation Policy Committee  
and Endorsed by the ACOG Board of Directors  
on June 30, 2016*

*Approved by the Oklahoma Department of Transportation  
on July 14, 2016*

Preparation of this report was financially aided through funds provided by the U.S. Department of Transportation (Federal Highway Administration and Federal Transit Administration), the Oklahoma Department of Transportation and local contributions.

FFY 2017-FFY 2020 TIP for the OCARTS TMA

Updated by the MPO 11/17/16

### Highway Element Oklahoma Department of Transportation Projects FFY 2020

County	Project Description	Job Number	Length (miles)	Funding Source	Estimated Federal Share	Estimated State Share	Other	Total
Canadian County	I-40: Interchange at Frisco Road, 4.5 mi. W of the Kilpatrick Turnpike Junction (Interchange)	30715(04)	0.330	TBD	9,068,800	2,267,200	6,104,000	17,440,000
Cleveland County	SH-9: From 108th Ave. E, E to 156th Ave. E (South) in Norman (RW for 20266(14)) (Right of Way)	20266(15)	4.600	TBD	0	2,452,500	0	2,452,500
Cleveland County	SH-9: From 108th Ave. E, E to 156th Ave. E (South) in Norman (UT for 20266(14)) (Utilities)	20266(16)	4.600	TBD	654,000	163,500	0	817,500
Grady County	SH-39 From East Side of East Winter Creek, Extend East 1.79 Miles to SH-76 in McClain County (Grade, Drain & Surface) (Partially in OCARTS)	20302(07)	5.440	NHY	3,522,358	880,590	0	4,402,948
McClain County	SH-24 begin 3.48 mi. N of Jct. SH-59, Extend N 2.62 mi. (RW for 31058(04)) (Right of Way)	31058(05)	2.620	TBD	0	327,000	0	327,000
McClain County	SH-24 begin 3.48 mi. N of Jct. SH-59, Extend N 2.62 mi. (UT for 31058(04)) (Utilities)	31058(06)	2.620	TBD	130,800	32,700	0	163,500
Oklahoma County	I-35: Over the I-240 Jct. Reconstruct Interchange (Phase IB) (Interchange)	09032(05)	1.000	NHPP	12,772,000	3,193,000	0	15,965,000
Oklahoma County	I-44: Westbound to Northbound Ramps at I-44/I-235 Interchange (Segment 3A) (Grade, Draining, Bridge & Surface)	09033(28)	0.350	TBD	19,200,000	4,800,000	0	24,000,000
Oklahoma County	I-40: Douglas Blvd. Bridge Replacement & Interchange Reconstruction 6.5 mi. E of I-35 (Includes removal of Engle Rd. Br.) (Interchange)	28992(04)	0.100	TBD	12,360,000	3,090,000	0	15,450,000

November 28, 2016

Subject: I-40/Douglas Boulevard Bridge Replacement and Interchange Reconstruction, Oklahoma County, Oklahoma, JP 28992(04), Project Number J2-8992(004)

Dear Property Owner:

We are pleased to inform you the Oklahoma Department of Transportation (ODOT) is considering improvements to the subject highway. The exact project scope and requirements will be clarified through the planning, environmental review, and design process. In accordance with the National Environmental Policy Act, the National Historic Preservation Act, and Federal Highway Administration policy, the Department is requesting any information or specific concerns you may have regarding this project's potential impact on the human environment, the natural environment, and historic properties.

Additionally, in the near future, employees or authorized agents of ODOT may be entering your property for the purposes of surveying environmental considerations, such as cultural resources, biological resources, or hazardous materials. Results from these studies will be incorporated into the environmental report being prepared for the project. It may be necessary to do minor hand digging in your property as part of the survey. Any test holes will be filled in and cleaned up afterwards.

Oklahoma Statute 69-702 provides for the Department of Transportation, through its agents and employees, to enter the property and make the necessary surveys and other examinations related to the proposed highway project. A copy of Oklahoma Statute 69-702 is provided with this letter.

If you are currently leasing this property, please notify your lessee of our planned work.

Should you have any information or specific concerns, please contact our authorized agent Diane Abernathy, Triad Design Group at 405-919-0481 or [dabernathy@triaddesigngroup.com](mailto:dabernathy@triaddesigngroup.com). As always, your cooperation is greatly appreciated.

Respectfully,

Siv Sundaram, P.E.  
Environmental Programs Division Engineer

SS/TV/DA

Enclosures: Location Map, Copy of OK Statute 69-702

Copy to: Project Management  
Brian Taylor, Division 4 Engineer  
Survey Division  
Materials Division  
Right-of-Way Division  
ODOT Cultural Resources Specialist  
Specialists



**Environmental Programs Division**

200 N.E. 21<sup>st</sup> Street  
Oklahoma City, OK 73105-3204  
[www.odot.org](http://www.odot.org)

November 28, 2016

Mr. Dan Deerinwater  
Regional Director  
Southern Plains Regional Office  
Bureau of Indian Affairs  
P.O. Box 368  
Anadarko, Oklahoma 73005

Subject: I-40/Douglas Boulevard Bridge Replacement and Interchange Reconstruction, Oklahoma County, Oklahoma, JP 28992(04), Project Number J2-8992(004)

Dear Mr. Deerinwater:

We are pleased to inform you the Oklahoma Department of Transportation (ODOT) is considering improvements to the subject bridge and interchange. The exact project scope and requirements will be clarified through the planning, environmental review, and design process. We have enclosed a location map and the environmental study area.

This project is in the early developmental stages and any comments relative to the social, economic, or environmental effects of this proposal will be appreciated. To allow adequate time for evaluation of your comments, we would appreciate receiving a response within fifteen days from the date of this letter. Your written comments should be directed to the Environmental Programs Division Engineer, Oklahoma Department of Transportation, 200 N. E. 21st Street, Oklahoma City, Oklahoma 73105.

We sincerely appreciate your cooperation in this matter. For further information or if you have any questions, please contact Tim Vermillion, Environmental Project Manager at 405-521-2676 or [tvermillion@odot.org](mailto:tvermillion@odot.org), or our authorized agent Diane Abernathy, Triad Design Group at 405-919-0481 or [dabernathy@triaddesigngroup.com](mailto:dabernathy@triaddesigngroup.com). As always, your cooperation is greatly appreciated.

Respectfully,

Siv Sundaram, P.E.  
Environmental Programs Division Engineer

SS/TV/DA

Enclosures: Location Map, Study Area Map

Copy to: Project Management Division  
Field Division Engineer  
Right-of-Way Division  
ODOT Cultural Resources

*"The mission of the Oklahoma Department of Transportation is to provide a safe, economical, and effective transportation network for the people, commerce and communities of Oklahoma."*

AN EQUAL OPPORTUNITY EMPLOYER

November 28, 2016

Mr. John Ledbetter  
Realty Specialist – Oklahoma Field Office  
Bureau of Land Management  
201 Stephenson Parkway, Suite 1200  
Norman, Oklahoma 73072-2037

Subject: I-40/Douglas Boulevard Bridge Replacement and Interchange Reconstruction, Oklahoma County, Oklahoma, JP 28992(04), Project Number J2-8992(004)

Dear Mr. Ledbetter:

We are pleased to inform you the Oklahoma Department of Transportation (ODOT) is considering improvements to the subject bridge and interchange. The exact project scope and requirements will be clarified through the planning, environmental review, and design process. We have enclosed a location map and the environmental study area.

This project is in the early developmental stages and any comments relative to the social, economic, or environmental effects of this proposal will be appreciated. To allow adequate time for evaluation of your comments, we would appreciate receiving a response within fifteen days from the date of this letter. Your written comments should be directed to the Environmental Programs Division Engineer, Oklahoma Department of Transportation, 200 N. E. 21st Street, Oklahoma City, Oklahoma 73105.

We sincerely appreciate your cooperation in this matter. For further information or if you have any questions, please contact Tim Vermillion, Environmental Project Manager at 405-521-2676 or [tvermillion@odot.org](mailto:tvermillion@odot.org), or our authorized agent Diane Abernathy, Triad Design Group at 405-919-0481 or [dabernathy@triaddesigngroup.com](mailto:dabernathy@triaddesigngroup.com). As always, your cooperation is greatly appreciated.

Respectfully,

Siv Sundaram, P.E.  
Environmental Programs Division Engineer

SS/TV/DA

Enclosures: Location Map, Study Area Map

Copy to: Project Management Division  
Field Division Engineer  
Right-of-Way Division  
ODOT Cultural Resources

## Oklahoma §69-702

The Department, through its authorized agents and employees, may enter upon any lands, waters, and premises in the state for the purpose of making surveys, soundings and drillings, and examinations as may be determined necessary or convenient for the purpose of establishing, locating, relocating, constructing, and maintaining state highways or relocations thereof and facilities necessary and incidental thereto. Such entry shall not be deemed a trespass, nor shall an entry for such purpose be deemed an entry under any condemnation proceedings which may be then pending; but notice shall be given to the owner of or person residing on the premises, personally or by registered mail, at least ten (10) days prior to such entry.



NEWAY FAMILY PARTNERS  
PO BOX 50471  
MIDWEST CITY, OK 73140-5471

TWODSVENTURE1, LLC  
252 NW 70TH ST  
OKLAHOMA CITY, OK 73116-7807

N R FARD INC  
405 WALTHAM ST #189  
LEXINGTON, MA 02421-7934

STANLEY, INC  
6508 S COUNTRY CLUB DRIVE  
OKLAHOMA CITY, OK 73159-2942

AMPLE STORAGE LLC  
4117 S POST RD  
OKLAHOMA CITY, OK 73150

VIERSEN OIL & GAS CO  
PO BOX 702708  
TULSA, OK 74170-2708

PINKERTON, SUE CARMEL  
1701 E FAIRLAWN  
CUSHING, OK 74023-5755

MIDWEST CITY MEMORIAL HOSPITAL  
100 N MIDWEST BLVD  
MIDWEST CITY, OK 73110-4319

CITY OF MIDWEST CITY  
ATTENTION: COUNTY CLERK  
100 N MIDWEST BLVD  
MIDWEST CITY, OK 73110-4327

JOHNSON, DONNIE B & JOANN  
14050 HUMMINGBIRD DRIVE  
CHOCTAW, OK 73020-7018

GRIFFIN PROPERTIES OKC LLC  
MCDONALDS CORP  
PO BOX 182571  
COLUMBUS, OH 43218

LEX LLC  
PO BOX 10537  
MIDWEST CITY, OK 73140-1537

GRIFFIN PROPERTIES OKC, LLC  
3025 GRIFFIN CENTER  
OKLAHOMA CITY, OK 73150-1000

GRIFFIN PROPERTIES OKC, LLC  
C/O LJS #24034  
1024 SERPENTINE LN , STE 101  
PLEASANTON, C , 94566

2917 S DOUGLAS LLC  
C/O SAVAGE SAVAGE AND BROWN  
PO BOX 22845  
OKLAHOMA CITY, OK 73123

SHAW INVESTMENT PROPERTIES, LLC  
C/O SAVAGE SAVAGE AND BROWN  
PO BOX 22845  
OKLAHOMA CITY, OK 73123

WATERMARKED KH LLC  
PO BOX 300125  
MIDWEST CITY, OK 73140-0125

GRIFFIN JACK L & RUTH M  
3025 GRIFFIN CTR  
OKLAHOMA CITY, OK 73150-1000

Mr. John Ledbetter  
Realty Specialist – Oklahoma Field Office  
Bureau of Land Management  
201 Stephenson Parkway, Suite 1200  
Norman, Oklahoma 73072-2037

Mr. Dan Deerinwater, Regional Director  
Southern Plains Regional Office  
Bureau of Indian Affairs  
P.O. Box 368  
Anadarko, Oklahoma 73005



November 28, 2016

Mr. Tim Vermillion  
Oklahoma Department of Transportation  
200 N. E. 21<sup>st</sup> Street  
Oklahoma City, OK 73105-3204

Re: Landowner Notice Letters, I-40/Douglas, Oklahoma County, JP 28992(04)

Dear Tim:

This letter is to document that Triad Design Group mailed 18 landowner notice letters, as well as letters to the Bureau of Land Management and Bureau of Indian Affairs, for the above-referenced project on November 28, 2016. All letters were sent via USPS.

I personally checked the contents of all the envelopes, and checked that the name on the letter matched the envelope address. If you have any comments or questions, please feel free to call me at 405-919-0481.

Sincerely,

A handwritten signature in cursive script that reads "Diane Abernathy". The signature is written in black ink and is positioned below the word "Sincerely,".

Diane Abernathy, P. E.  
Senior Project Manager

*Triad Project E211-06*



December 23, 2016

Mr. Tim Vermillion  
Oklahoma Department of Transportation  
200 N. E. 21<sup>st</sup> Street  
Oklahoma City, OK 73105-3204

Re: Public Meeting Letters, I-40 and Douglas, JP 28992(04)

Dear Tim:

This letter is to document that Triad Design Group mailed 20 solicitation letters, 50 officials letters, and 26 landowner/utility letters for the above-referenced project on December 23, 2016. All letters were sent via USPS.

I personally checked the contents of all the envelopes, and checked that the letter inside address matched the envelope address. If you have any comments or questions, please feel free to call me at 405-919-0481.

Sincerely,

A handwritten signature in cursive script that reads "Diane Abernathy".

Diane Abernathy, P. E.  
Senior Project Manager

*Triad Project E211-06*

Airports Near I-40/Douglas

Type	Location ID	Facility Name	Ownership	Use	Owner	Owner Address	Latitude	Longitude
AIRPORT	KTIK	Tinker Air Force Base	Public	Military	U. S. Air Force	2854th Air Base GP (AFLC) Tinker AFB, Oklahoma City, OK 73145	35-25.74 N	097-22.93 W