OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

FOR SURVEY CONTROL DATA,
SEE SURVEY DATA SHEETS

MANDATORY TIE:
THIS PROJECT IS MANDITORILY
TIED TO JP 29773(04)

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED

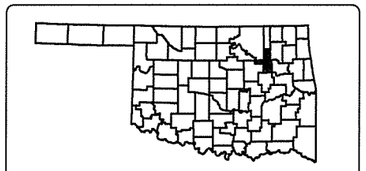
INTERSTATE HIGHWAY

FEDERAL AID PROJECT NO. ACNHPPI-4400-(015)SS
BRIDGE REHABILITATION
INTERSTATE 44

TULSA COUNTY

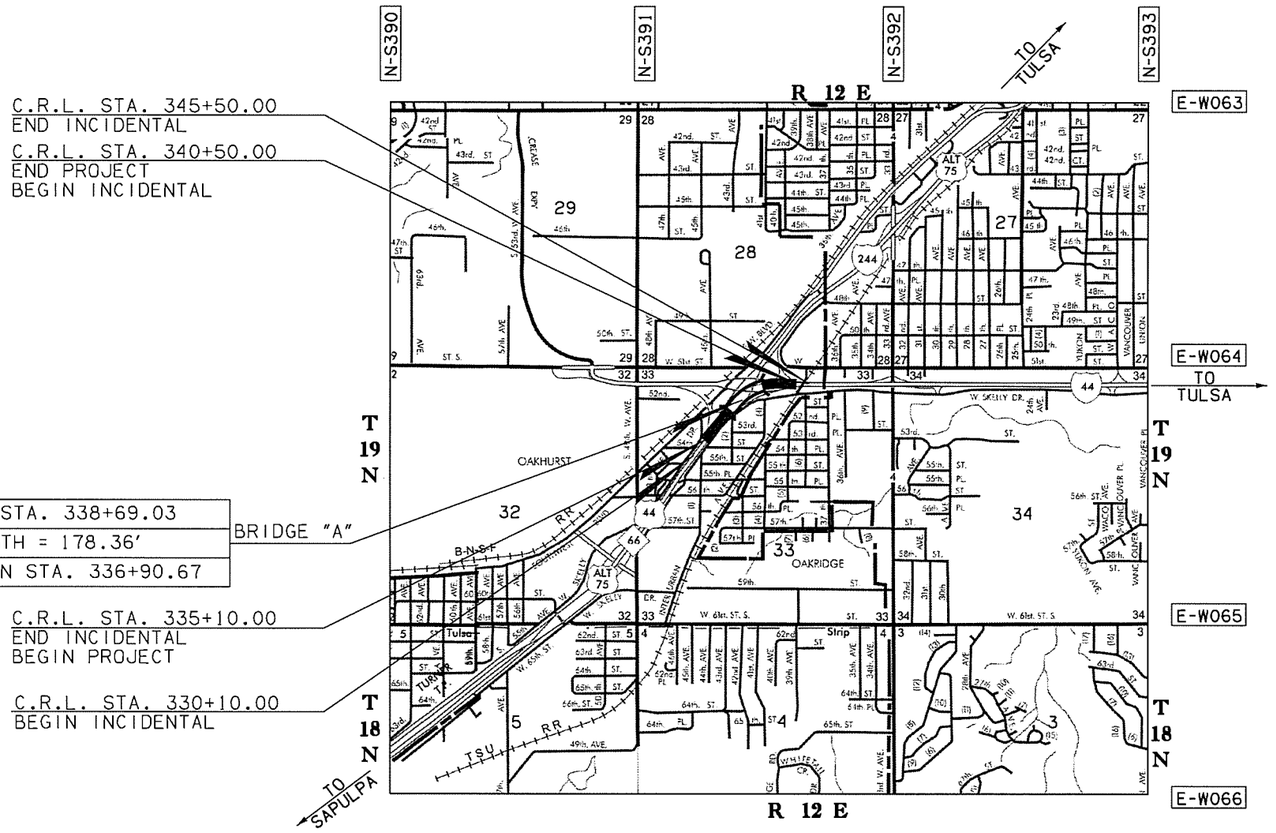
CONTROL SECTION NO. 44-72-78
STATE JOB NO. 29775(04)
BRIDGE "A" LOCATION NO. 7278-0005NX NBI NO. 19470 (TO REMAIN)

INDEX OF SHEETS



LOCATION MAP

DESIGN DATA	
ADT 2016	= 18,200
ADT 2036	= 22,600
K (DHV/ADT)	= 11%
T (% DHV)	= 18%
T (% ADT)	= 20%
T²(% ADT)	= 16%
V	= 60MPH
20 YR RIGID ESALS	= 17.4M



C.R.L. STA. 345+50.00
END INCIDENTAL
C.R.L. STA. 340+50.00
END PROJECT
BEGIN INCIDENTAL

END STA. 338+69.03	BRIDGE "A"
LENGTH = 178.36'	
BEGIN STA. 336+90.67	

C.R.L. STA. 335+10.00
END INCIDENTAL
BEGIN PROJECT

C.R.L. STA. 330+10.00
BEGIN INCIDENTAL

THE FOLLOWING STANDARDS WILL BE REQUIRED:
ODOT STANDARDS

ROADWAY	TRAFFIC		BRIDGE
TSC2-3-2	TCS1-1-01	TCS20-1-00	FSHP-42-2-00E
LECS-4-1	TCS2-1-00	TCS23-1-00	EJ-SK-03E
CRCP2-3-0	TCS3-1-01	TCS24-1-02	EJ-DTL-01E
C1-1-2	TCS4-1-01	PM4-1-01	
SSIF-4-0	TCS5-1-00	PM5-1-00	
SUEL1-3-2	TCS6-1-02	PM6-1-00	
SUEL4-3-2	TCS7-1-02	PM7-1-00	
	TCS9-1-01	PM8-1-00	
	TCS10-1-00	DUI-1-00	
	TCS11-1-01	WSD2-1-00	
	TCS13-1-00	SIS4-1-00	
	TCS14-1-00	GMS2-1-00	
	TCS15-1-00	SSP1-1-02	
	TCS18-1-01		
	TCS19-1-01		

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

CONVENTIONAL SYMBOLS

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

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

NOTE: LENGTH BASED ON C.R.L. STATIONS.

ROADWAY LENGTH	361.64	FT.	0.068	MI.
BRIDGE LENGTH	178.36	FT.	0.033	MI.
PROJECT LENGTH			0.101	MI.

EQUATIONS : NONE
EXCEPTIONS : NONE

PREPARED BY:
CARVER
6450 SOUTH LEWIS AVE.,
SUITE 300
TULSA, OKLAHOMA 74136
(918) 250-5922 (VOICE)
(918) 858-0107 (FAX)

LICENSED PROFESSIONAL ENGINEER
Kevin M. Moore
22545
OKLAHOMA
Digitally Signed
2016.07.12 10:23:53-05'00'
KEVIN M. MOORE, P.E.
OKLA. REG. NO. 22545
RESPONSIBLE FOR SHEETS:
1-2, 6-12, 42-61

LICENSED PROFESSIONAL ENGINEER
Bradley Randall Thompson
22868
OKLAHOMA
Digitally Signed
2016.07.12 10:21:18-05'00'
BRADLEY R. THOMPSON, P.E.
OKLA. REG. NO. 22868
RESPONSIBLE FOR SHEETS:
3-5, 13-41

CERTIFICATE OF AUTHORIZATION NO. 4193 P.E., L.S. RENEWAL DATE: 6-30-2018

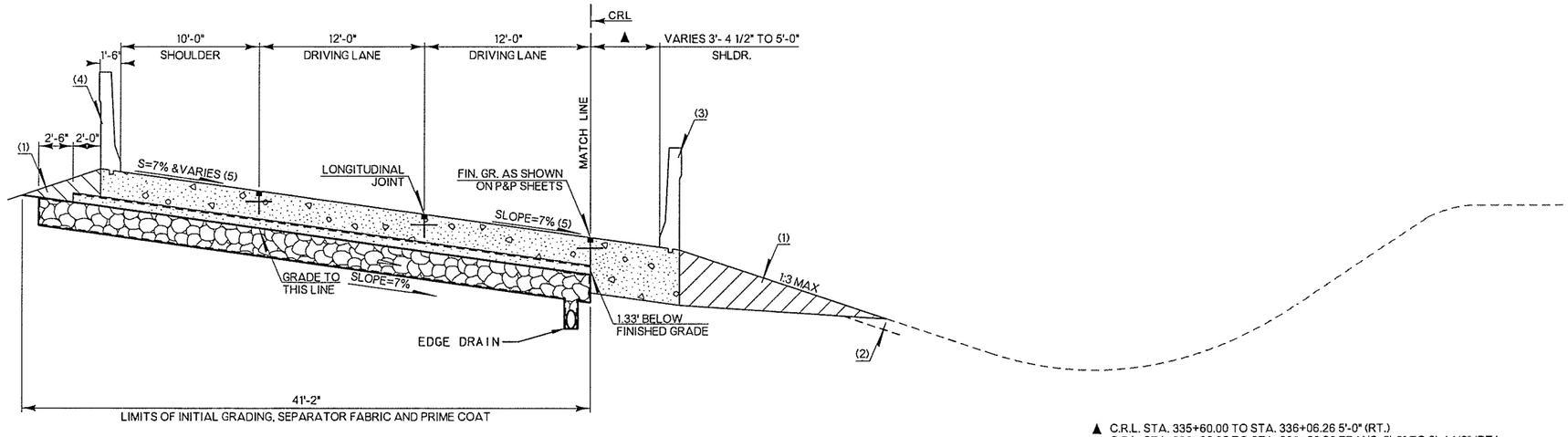
OKLAHOMA DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
DATE APPROVED	DATE APPROVED
BY	BY
CHIEF ENGINEER	DIVISION ADMINISTRATOR

SWO _____ PROJECT NO. ACNHPPI-4400-(015)SS
COUNTY TULSA HIGHWAY I-44 SHEET NO. 1

P.E. NO.: 29775(01)

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

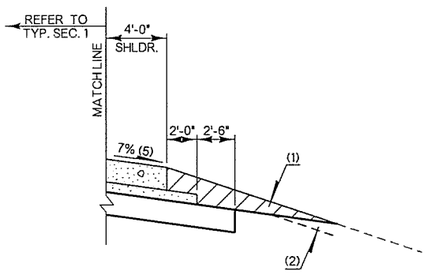
REVISIONS	
DESCRIPTION	DATE



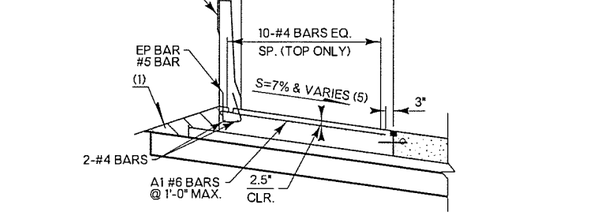
TYPICAL SECTION NO. 1
NOT TO SCALE
STA. 335+10.00 TO STA. 336+56.26
STA. 339+27.15 TO STA. 340+50.00

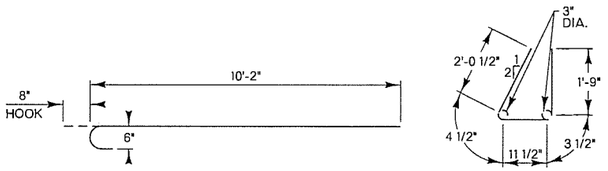
PAVEMENT REQUIREMENT			
12" PAVT. STRUCTURE	12'-0" DRIVING LANES	LEFT SHOULDER	RIGHT SHOULDER
SURFACE COURSE	12" DOWEL JOINTED P.C. CONCRETE	12" PLAIN JOINTED P.C. CONCRETE	24" REINFORCED P.C. CONCRETE
BASE COURSE	4" CEMENT TREATED BASE	4" CEMENT TREATED BASE	
	12" AGGREGATE BASE TYPE A	12" AGGREGATE BASE TYPE A	

▲ C.R.L. STA. 335+60.00 TO STA. 336+06.26 5'-0" (RT.)
C.R.L. STA. 336+06.25 TO STA. 336+56.26 TRANS. 5'-0" TO 3'-4 1/2" (RT.)
C.R.L. STA. 339+27.15 TO STA. 339+77.15 TRANS. 3'-4 1/2" TO 5'-0" (RT.)
C.R.L. STA. 339+77.15 TO STA. 340+50.00 5'-0" (RT.)



■ EDGE TREATMENT 1-1
NOT TO SCALE
STA. 335+10.00 TO STA. 335+60.00 RT.
STA. 335+10.00 TO STA. 335+60.00 LT. (OPPOSITE HAND)

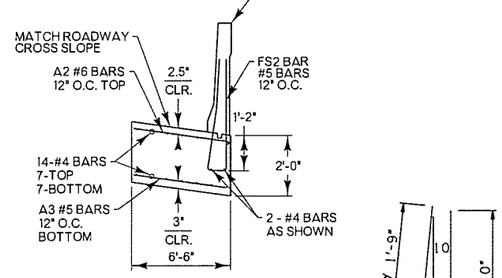


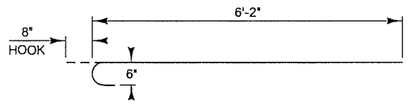


A1 #6 x 10'-10"

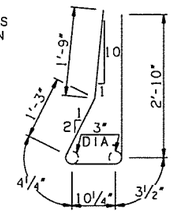
EP #5 X 5'-5"

REINFORCED PAVED SECTION FOR
42" F-SHAPED PARAPET AT SHOULDER LEFT
NOT TO SCALE





A2 #6 x 6'-10"



FS2 #5 x 7'-4"

REINFORCED PAVED SECTION FOR
42" F-SHAPED PARAPET AT SHOULDER (RIGHT)
NOT TO SCALE

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

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

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

(3) CONSTRUCT F-SHAPED PARAPET. SEE DETAIL FOR REINFORCEMENT RIGHT

(4) CONSTRUCT F-SHAPED PARAPET. SEE DETAIL FOR REINFORCEMENT LEFT

(5) PROPOSED SUPERELEVATION RATE AND TRANSITIONS SHALL MATCH EXISTING.

DESIGN	MDF	3/16	I-44 OVER I-244 NB
DRAWN	TML	3/16	TYPICAL SECTIONS
CHECKED	KMM	5/16	
APPROVED			
SQUAD	GARVER		STATE JOB NO. 29775(04) SHEET NO. 2

GENERAL NOTES FOR BRIDGE "A"

SPECIFICATIONS:

Comply with the requirements of the 2009 Oklahoma Standard Specifications for Highway Construction, except as modified by the Plans and Special Provisions.

SUGGESTED SEQUENCE OF CONSTRUCTION:

A suggested sequence of construction has been included in the plans. Any changes to the suggested sequence of construction must be submitted to the Engineer for approval. No work shall begin until the Engineer has approved the changes to the suggested sequence of construction.

VERIFICATION OF EXISTING CONDITIONS:

All dimensions of the existing components shown on the plans are approximate. The Contractor shall verify all data necessary to connect the new material and shall be solely responsible for the accuracy thereof.

Bidders shall fully inform themselves of the nature of the work and conditions under which it will be performed. The Contractor shall adopt methods consistent with good construction practice and shall take all necessary precautions to prevent damage to the existing bridges or attachments. Any damage to the existing bridge structures or roadway due to the Contractor's negligence shall be repaired at the Contractor's expense, to the satisfaction of the Engineer.

Contractor shall be aware of existing conditions and potential hazards during construction. Contractor shall take precautions to maintain the integrity of any existing utilities and structures. Any damage to these items during construction shall be repaired and/or replaced at the Contractor's expense to the Engineer's satisfaction.

PLANS:

The original project plans are available from:
Reproduction Branch
Oklahoma Department of Transportation
200 N.E. 21st Street
Oklahoma City, Oklahoma 73105

The bridge was constructed under the following Project No.
Bridge "A" (Str. 6) F.A.P. No. I-44-2(168)087

SURVEYING AND CONSTRUCTION STAKING:

The Contractor will be required to conduct all surveying and construction staking necessary for the completion of the project as directed by the Engineer. The surveying and construction staking required for completion of the project may include, but is not limited to, the following:

1. Establishing horizontal control including the staking of the C.R.L. on the bridge and approach roadway and assigning stationing as directed by the Engineer.
2. Establishing vertical control including the setting of benchmarks.
3. Measuring the elevations along the existing bridge deck slab at centerline, edges of driving lanes and edges of shoulders.
4. Measuring the elevations along the existing approach roadway at centerline, edges of driving lanes and edges of shoulders.
5. Measuring the existing top of beam elevations for determining deck slab haunch and forming data.
6. Measuring and setting construction stakes as necessary for conducting the grading and surfacing work on the approach roadway.
7. Measuring the existing top of pier and abutment elevations, and adjusting beam seat elevations as required.

All survey data, proposed adjustments in the new finish grades from original, forming data and haunch calculations shall be provided to the Engineer for approval before constructing the new deck slab, new approach slabs and new approach roadway pavement.

All cost of the surveying and construction staking necessary for completion of the project as directed by the Engineer including the cost of materials, labor, equipment, and incidentals shall be included in the price bid per Lump Sum of "CONSTRUCTION STAKING LEVEL II".

ESTABLISHMENT OF VERTICAL GEOMETRY:

The new bridge deck surface shall closely match the elevation of the existing due to the following:

1. Replacement of the existing bridge deck slab.
2. Addition of Haunch. (1½" at Span Nos. 1 & 3 and 2½" at Span No. 2)
3. Replacement of the existing bearings.
4. Reconstruction of the pedestals at the Abutments.
5. Reconstruction of Pier Caps and pedestals.

The finished bridge deck surface elevations shall account for this increase while matching the proposed profile geometry. If the actual finish surface elevations differ from what is shown in the plans, the Contractor shall notify the Engineer prior to deck placement for adjustment to maintain acceptable approach transitions.

HORIZONTAL GEOMETRY & VERTICAL CURVE DATA:

The information shown on the "GENERAL PLAN AND ELEVATION" drawing regarding vertical profile was determined by establishing a best fit vertical curve from "as-surveyed" information to provide a minimum haunch of 1½" at ℄ of beam at Span Nos. 1 & 3 and 2½" at ℄ of beam at Span No. 2 and a minimum pedestal height of approximately 2" at Abutment No. 1, Beam 5. This information is included for informational purposes only. The Contractor shall field verify the proposed vertical geometry. The reconstruction of the bridge deck is intended to match the profile of the existing bridge deck with the modification in the bridge deck surface as described.

REMOVAL OF BRIDGE ITEMS:

The pay item "REMOVAL OF BRIDGE ITEMS" shall include the removal and disposal of all items to be removed from the existing bridge as specified or shown in the plans including the following:

1. Deck slab, including parapets, handrails, and expansion joint hardware.
2. All Fixed and Expansion Bearing Assemblies located at the abutments and piers, including cutting the existing Anchor Bolts flush with the top surface of the abutments and piers, respectively.
3. Portions of the abutments as shown on the plans.
4. Portions of the piers as shown on the plans.
5. Existing drain pipes attached to the South end of Pier No. 1.
6. Approach slabs.
7. Any approach roadway pavement necessary for the installation of the new approach slabs.
8. Existing storm drain inlet, frame, grate & attached 18" RCP located at the southwest corner of the bridge as necessary for the work as shown in the plans.

When removing the existing deck slab, the Contractor shall take every precaution necessary to prevent damaging the existing steel I- beams, existing diaphragms or other superstructure members, unless otherwise specified on the plans. Any damages caused by the Contractor to existing steel I- beams, diaphragms or other superstructure members shall be repaired or completely replaced at the Contractor's expense to the satisfaction of the Engineer. The Engineer will determine if the damaged component can be satisfactorily repaired or if the component shall be completely replaced.

The existing structural steel may contain lead-based paint. The Contractor must take all necessary precautions and follow all follow all specifications and regulations in handling and transporting lead-based paint. The removal shall be in accordance with Section 619.04.B.2 of the Standard Specifications and in a manner approved by the Engineer.

When removing portions of the existing abutments and piers as shown on the plans, the Contractor shall take every precaution necessary to prevent damaging the remaining components of the existing bridge or any new construction attached to the bridge. Only hand tools or hand operated power tools will be allowed to make the removals. No vehicle mounted tools or equipment will be allowed to make removals. Before making any removals with impact tools, all concrete components shall be uniformly saw cut along the removal lines or cut lines shown on the plans. Any damages caused by the Contractor to the existing abutments or piers shall be repaired or completely replaced at the Contractor's expense to the satisfaction of the Engineer. The Engineer will determine if the damaged components can be repaired or if not the component shall be completely replaced.

Before making any removals, the Contractor shall submit to the Engineer a plan for removing each item or portions of items to be removed from the existing bridge. The Contractor shall not make any removals until the plan has been approved by the Engineer. The plan shall include a list of all the equipment that will be used to make the removals, a description of how the equipment will be used to make the removals and a sequential list of steps that will be followed by the Contractor to make removals.

The bearings shall remain property of ODOT and will be stockpiled within the R/W as directed by the Engineer. After 30 days, any bearings not removed from the project will become the property of the Contractor.

Items damaged by the Contractor shall be replaced by the Contractor at no additional cost to ODOT. All other materials other than the bearings shall become the property of the Contractor and be disposed of in a manner approved by the Engineer.

All costs necessary to complete the work as specified or as shown in the plans including the cost of safety platforms, sawing, cutting, demolition, cleaning and straightening reinforcing steel, containment and removal of debris, materials, labor, equipment and incidentals shall be included in the price bid per Lump Sum of "REMOVAL OF BRIDGE ITEMS".

SUBSTRUCTURE REPAIR:

The existing Abutments and Piers, and any other concrete structure associated with the bridge, shall be repaired with Pneumatically Placed Mortar in a manner approved by the Engineer and in accordance with Section 521 of the Standard Specifications for Highway Construction. The removal of loose concrete shall be done using hand tools only, no power tools will be allowed. Power tools will be allowed only if hand tools prove to be incapable of removing all unsound concrete and if their use is approved by the Engineer. Any damage done to the existing reinforcing steel during the removal process shall be repaired at the Contractor's expense to the satisfaction of the Engineer. Any deteriorated reinforcing steel with a section loss greater than 25%, as determined by the Engineer, shall be reported to the Bridge Engineer for remedial action. Prior to mortar application, blast clean the concrete surface and reinforcing steel free of debris and corrosion. Apply Pneumatically Placed Mortar to replace deteriorated concrete. Build up mortar to patch the original lines and grades of the member being repaired. All mortar repairs shall be sealed with a water repellent substance.

The Contractor may propose and use as an alternate one of the following repair methods:

1. Cast-in-place concrete
2. Pre-placed aggregate concrete
3. Formed and pumped concrete and mortar
4. Troweling and dry-packing of repair mortar
5. Class A Concrete (to be used under the existing beams)

The actual location and extent of the repairs shall be determined in the field by the Engineer. The repairs shall only be made in the areas selected by the Engineer. Payment will be made only for the actual repairs performed.

If the Contractor elects to use a method other than Pneumatically Placed Mortar, they shall submit to the Engineer, for their approval, a proposed work plan. The work plan should include surface preparation methods, patching material, bonding agents, material placing methods, compatibility with Corrosion Inhibitors and finishing methods. The Contractor shall repair a test area to verify the effectiveness of their proposed repair methods prior to commencement of the work on the entire structure. Faulty repairs shall be replaced by the Contractor at no expense to the State. The cost for all patching methods will be included in the price bid per Square Yard of "PNEUMATICALLY PLACED MORTAR".

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
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DESCRIPTION					DATE

REPAIR OF CRACKS IN SUBSTRUCTURE:

The existing Abutments and Piers contain cracks that shall be repaired. The cracks shall be repaired by cleaning and injecting with epoxy. The crack repairs shall be performed in accordance with Section 520 of the Standard specifications. The actual location and extents of the crack repairs shall be determined in the field by the Engineer. Payment will only be made for the actual crack repairs performed.

All cost to complete the crack repairs as specified or as shown in the plans including the cost of materials, labor, equipment and incidentals shall be included in the price bid per Linear Foot of "PREPARATION OF CRACKS, ABOVE WATER" and the price bid per Gallon of "EPOXY RESIN, ABOVE WATER".

PAINT REMOVAL AND PAINTING EXISTING STRUCTURAL STEEL:

All exposed tops and sides of top flanges and diaphragms on the bridge shall be cleaned and painted in accordance with Section 512 of the Standard Specifications using Category "E" Application. The Contractor may use SSPC-SP 11, power tool cleaning to bare metal on top flange.

The existing structural steel may contain lead-based paint. The Contractor must take all necessary precautions and follow all specifications and regulations in handling and transporting lead-based paint. SSPC QP-2 certification is not required.

The Contractor need only apply the first coat or prime coat to the top flange of all beams. In addition, the Contractor, at his option, may use a Category "O" primer, but all loose material and rust must first be removed from the top flange and the primer coat must meet OSHA slip requirements.

The color of paint shall match the color of the paint on the existing bridge.

All costs necessary to complete the work as specified or as shown in the plans including the cost of materials, labor, equipment and incidentals shall be included in the price bid per Lump Sum of "PAINTING EXISTING STRUCTURES" and the price bid per Lump Sum of "COLLECTION AND HANDLING OF WASTE".

EXPOSURE OF DETERIORATED STRUCTURAL STEEL:

If any deteriorated structural steel (including but not limited to flanges, webs, connection plates, stiffeners, bearings and diaphragms) is exposed during any construction activity, the Contractor shall be responsible for notifying the Engineer who in turn shall notify the Bridge Engineer as to the extent of the damage. The Bridge Engineer shall determine if any repairs are necessary; and if so, what method of repair shall be used.

CLEANING BRIDGE SEATS:

All Bridge Seats shall be power washed & cleaned of all debris and allowed to dry before application of water repellent.

All cost of Cleaning the Bridge Seats including the cost of materials, labor, equipment and incidentals shall be included in other items of work.

CONCRETE:

All concrete shall be placed in the dry. All exposed edges shall have a ¾" chamfer unless noted or shown on plans. All chamfer strips shall be sized lumber. All Class "A" and Class "AA" Concrete shall be air-entrained.

All concrete in the Superstructure, Approach Slabs & 42" F-Shaped Parapets shall be Class "AA" Concrete, f'c = 4,000 p.s.i. minimum strength at 28 days. All concrete in the Substructure shall be Class "A" Concrete, f'c = 3,000 p.s.i. minimum strength at 28 days.

If the Contractor elects to use High Early Strength Concrete to perform substructure repairs, the existing beams cannot be reset until the concrete has reached a compressive strength of 3,000 p.s.i.

Concrete surfaces under all beam supports (bearing assemblies) shall be ground with a carborundum brick before placement of bearing assembly to secure full bearing of assembly on concrete. Before bearing assemblies are set, the Contractor will check bearing surfaces with regard to leveliness. The maximum permissible slope shall be 0.5%, which should be checked along an axis perpendicular and parallel to the beam line. Slopes exceeding 0.5% shall be corrected in a manner approved by the Engineer.

When vibrating concrete containing epoxy coated reinforcing steel, the vibrator shall be equipped with a plastic tip designed to prevent damage to the epoxy coating.

REINFORCING:

All reinforcing steel shall have 2" clearance unless shown or noted otherwise. All reinforcing steel shall be deformed bars, cold bent with no welds. Bar bend dimensions are out to out, unless noted otherwise. Unless otherwise specified in the contract documents, all reinforcing steel shall conform to AASHTO M31 (ASTM A615), GRADE 60.

Field welding of crossing reinforcing bars shall not be permitted. Tack welding of reinforcing bars shall be prohibited in all cases.

All longitudinal top reinforcing in the bridge slab shall be supported on approved continuous metal high chairs spaced at 4'-0" maximum on centers and the bottom layer of reinforcing steel shall be supported on approved metal slab bolsters spaced at 4'-0" maximum on centers.

I-44 OVER I-244 NB BRIDGE "A"	TULSA COUNTY	DESIGN	JTR	5/16
		DETAIL	JTR	5/16
SUMMARY OF PAY QUANTITIES AND NOTES (BRIDGE) (SHEET 1 OF 3)		CHECK	BRT	5/16
		GARVER		
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION			
	JOB PIECE NO. 29775(04)	SHEET NO. 3		

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
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GENERAL NOTES FOR BRIDGE "A" (CONTINUED)

DECK HAUNCHES:
Plan quantity for Class AA Concrete includes 6.40 cubic yards for the haunches over the beams. The haunch heights will be calculated by the Contractor for approval by the Engineer to provide for dead load deflection and beam camber. No payment will be made for differences between plan quantity and the actual quantity of haunch concrete.

STAY-IN-PLACE FORMS:
Stay-in-place deck forms may not be used.

ENGINEERED FALSEWORK
For the design and construction of temporary structures, comply with Section 502 of the 2009 Standard Specifications for Highway Construction and the requirements noted below.

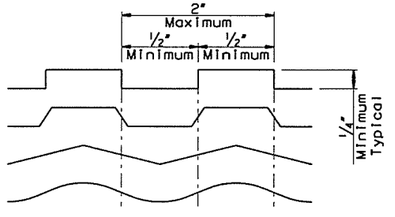
The contractor is responsible for all layout and design of the temporary structures. The contractor shall prepare preliminary and final submittals for working drawings and calculations. The preliminary submittal shall show the type of system to be used and preliminary member sizes. Once the preliminary submittal is approved, the contractor shall prepare the final working drawings and calculations as specified in Section 502.04 of the Standard Specifications. The temporary support working drawings shall include descriptions and values of all loads, including construction equipment loads, descriptions of equipment to be used, complete details and calculations for jacking and supporting the existing structure, descriptions of the displacement monitoring system, and the top of blocking elevation. The final submittal package, including the design calculations and working drawings, shall be signed and sealed by a professional engineer licensed in the State of Oklahoma.

Design temporary supports for the replacement of pier caps, replacement/repairs to columns, and bearing replacement, as shown in the plans. Design temporary supports in accordance with the AASHTO Guide Design Specifications for Bridge Temporary Works. Design temporary foundations for a maximum total settlement equal to the lesser of 0.1 percent of the adjacent span length in feet or 1 inch, and for a maximum differential settlement of 0.5 inches within an individual foundation. Use a minimum of a two-year time period for settlement calculations.

All costs associated with the construction of the temporary support structures including design, elevation control surveys, removal, equipment, labor, materials, and other incidentals shall be included in the price bid of "ENGINEERED FALSEWORK".

INTENTIONALLY ROUGHENED SURFACE EXAMPLES:
The indicated surfaces shall be intentionally roughened to a minimum height of ¼" over a maximum pitch of 2" measured longitudinally along the length of the surface. The crest and trough associated with the height shall not be less than ½" and shall extend the full width of new pedestals at Abutment Nos. 1 & 2.

Roughened surface may be obtained by a special trowel as shown in the examples, by cleaning the concrete surface with a stiff wire brush (or blasting) to the extent that aggregate is exposed to a height of ¼", or by another approved method. The method used shall be submitted for approval by the Engineer. Repair any damage to reinforcement epoxy coating before placement of deck concrete.



BRIDGE DECK FORMWORK BRACING:
The Contractor is to use formwork bracing as shown on Sheet No. 36 . Bracing and tension ties shall not be spaced at intervals greater than 4 feet. All cantilever forming brackets shall be adjusted during placement of the floor concrete in order to maintain proper grades of overhang. If the Contractor uses shims to adjust the forming brackets, he must provide the Engineer a method to predict crush and settlement of the shims.

The bars shall be placed perpendicular to the beams. The tie bars shall have a minimum of 1 inch cover and shall be no higher than the top layer of reinforcing steel. No welding to the top flange of the beams or the shear connectors will be permitted. The steel ty-bar clip connection devices shall be epoxy coated. After assembly, all exposed threads shall be coated with epoxy paint.

The Contractor shall submit to the Engineer for approval, working drawings for the formwork bracing systems. Drawings of the proposed formwork bracing shall be approved by the Bridge Engineer before any concrete is placed.

The bridge deck formwork bracing will not be measured for payment. All cost of the Bridge deck formwork bracing including the cost of ty-bar clip connection devices, epoxy coated all-threaded tension ties, wood struts, epoxy coatings or paint, professional services, materials, labor, equipment and incidentals shall be included in the unit price bid per Cubic Yard of "CLASS AA CONCRETE".

SEALED EXPANSION JOINT:
The Sealed Expansion Joints located on Sheet No. 13 shall be constructed as shown on the plans and in accordance with Standards EJ-SK-03E & EJ-DTL-01E & in a manner approved by the Engineer except that Bars W1 & W2 on Standard EJ-DTL-01E shall be modified to fit within the limits of the slab with appropriate clearances.

All cost necessary to complete the work as specified or as shown in the plans including the cost of materials, labor, equipment and incidentals shall be included in the price bid per Linear Foot of "SEALED EXPANSION JOINT".

SAWED AND SEALED JOINTS:
New Longitudinal Construction Joints and the new Sawed & Sealed Construction Joints at the Abutments in the Bridge Deck shall be sealed with Rapid Cure Joint Sealant in accordance with Subsection 701.08.G and as shown on the plans.

All costs including materials, labor, equipment and incidentals necessary to complete the work as shown in the plans shall be included in the price bid per Cubic Yard of "CLASS AA CONCRETE".

SPECIAL CONCRETE FINISH
The Special Concrete Finish shall be a liquid applied urethane coating such as CIM 1000 as manufactured by CIM Industries, Inc., IM-129 as manufactured by Custom Linings, or an approved equal. Product information for CIM 1000 can be obtained from Laster Castor Corp. of Tulsa, Oklahoma, phone number 918-234-7777. Product information for IM129 can be obtained from Custom Linings, phone number 719-395-4414.

The Special Concrete Finish shall be applied to the following concrete surfaces of the bridge:

(a) Front, sides and exposed areas of the Abutment Seats and Backwalls.
(b) Top, sides and ends of Pier Caps.
(c) Inside faces of Approach Slab No. 1 within the opening of the new inlet as shown on Sheet No. 41.

The equipment and methods of applying the urethane coating shall be in accordance with the product coating profile and instruction guides for application to concrete. Precautionary measures shall be in accordance with the Material Safety Data Sheets as provided by the manufacturer.

The coating shall be 60 mils dry thickness and 68 mils wet thickness. In addition to applying the coating to the concrete substructure units as shown in the plans, the coating shall return up the vertical surfaces of the pier and abutment bearing pads to provide a water tight seal with the concrete pedestals. Surface preparations and product mixing shall be per the manufacturer's recommendations and all new concrete shall have a minimum strength of 3000 psi at the time of application. Primer shall be applied to the concrete surfaces prior to applying the coating. All concrete work shall be completed prior to the application of the Special Concrete Finish.

Water repellent will not be required on surfaces that are coated with Special Concrete Finish.

Payment will be made at the Contract unit price bid per Square Yard of "SPECIAL CONCRETE FINISH", which price shall be full compensation for all materials, labor, tools, equipment and incidentals necessary to complete the work as specified.

PENETRATING WATER REPELLENT SURFACE TREATMENT:
A penetrating water repellent surface treatment shall be applied to the following concrete surfaces of the bridge:

(a) Edges and underside cantilever portion of the bridge deck.
(b) Roadway face, top, and outside of the new 42" F-Shaped Parapets.
(c) Front, sides and exposed areas of the Abutment Seat, Backwall and Wingwalls not covered with Special Concrete Finish.
(d) Top, bottom, sides and ends of the Pier Cap not covered with Special Concrete Finish.

All costs associated with the use of Penetrating Water Repellent Surface Treatment including the cost of materials, labor, equipment and incidentals shall be included in the price bid per Square Yard of "WATER REPELLENT (VISUALLY INSPECTED)".

MECHANICAL SPLICES:
Mechanical Splices shall be used to connect the transverse reinforcing steel in the superstructure and approach slabs as specified or as shown in the plans. The Mechanical Splices shall satisfy the requirements of Section 511.04.C of the Standard Specifications and shall be installed in accordance with the Manufacturer's Specifications.

All cost of installing the Mechanical Splices including the cost of materials, labor, equipment and incidentals shall be included in the price bid per Each of "MECHANICAL SPLICES".

The lengths of reinforcing steel bars with Mechanical Splices shown in the Phase I Construction bar lists include the length of the Mechanical Splice. The lengths of reinforcing steel bars to be engaged into Mechanical Splices shown in the Phase I Construction bar lists do not include any additional length for engagement into the Mechanical Splices. The actual Mechanical Splice engagement lengths shall be determined by the Mechanical Splice manufacturer, and the lengths of the reinforcing steel bars to be engaged into Mechanical Splices shall be adjusted accordingly. The cost to adjust the length of any reinforcing steel shown in the plans to accommodate the Mechanical Splices will not be measured for payment and shall be included in the price bid per Each of "MECHANICAL SPLICES".

ANCHORAGE INTO EXISTING CONCRETE (ANCHOR BOLTS):
The Contractor shall have the option of the methods by which the new anchor bolts shown in the plans are to be anchored into the concrete of the existing bridge. Anchorage into the concrete of the existing bridge shall be accomplished by one of the following methods:

1. Self-Mixing injection type anchorage systems such as "Hilti Fastening Systems", "Unitex Pro-Proxy 300 Fast" or an approved equal. Anchorages shall be installed in accordance with the Manufacturer's specifications for the system used.
2. Encapsulated non-expanding chemical type anchorage systems such as "Rawlplug Company Chem-Stud", "Hilti Encapsulated" or an approved equal. Anchorages shall be installed in accordance with the manufacturer's specifications for the system used.

Drilling into the existing concrete to install the anchorage shall be accomplished without cutting existing concrete reinforcing steel bars. Prior to drilling, the Contractor shall locate and mark the existing concrete reinforcing steel bars with nondestructive tools, equipment and methods approved by the Engineer. If existing reinforcing steel bars are encountered during drilling, the drilling shall cease and the hole shall be grouted. The hole shall then be relocated to clear the existing reinforcing steel bars. Any adjustment in the locations of the new anchor bolts from the plan locations shown shall be the minimum amount necessary to avoid cutting the existing concrete reinforcing steel bars and shall be approved by the Engineer.

All cost to anchor the new anchor bolts into the existing bridge as specified or as shown in the plans including the cost of locating existing concrete reinforcing steel bars, drilling, repairing flawed drill holes, anchoring into the existing concrete, materials, labor, equipment and incidentals shall be included in other items of work.

FIXED BEARING ASSEMBLIES:
Provide and install Fixed Bearing Assemblies of the size, shape and location as specified or as shown in the plans. See Sheet Nos. 37 & 38 for the total estimated amount of Structural Steel per each of Fixed Bearing Assembly.

All cost of providing and installing the Fixed Bearing Assemblies as specified or as shown in the plans including the cost of steel reinforced elastomeric bearing pads, anchor plates, contact plates, anchor bolts, nuts, washers, materials, labor, equipment and incidentals shall be included in the price bid per Each of "STAINLESS STEEL FIXED BEARING ASSEMBLY".

EXPANSION BEARING ASSEMBLIES:
Provide and install Expansion Bearing Assemblies of the size, shape and location as specified or as shown in the plans. See Sheet Nos. 37 & 38 for the total estimated amount of Structural Steel per each of Expansion Bearing Assembly.

All cost of providing and installing the Expansion Bearing Assemblies as specified or as shown in the plans including the cost of steel reinforced elastomeric bearing pads, anchor plates, contact plates, anchor bolts, nuts, washers, materials, labor, equipment and incidentals shall be included in the price bid per Each of "STAINLESS STEEL EXPANSION BEARING ASSEMBLY".

CONCRETE DECK FINISHING:
Overhanging slab forms will be required to be of sufficient strength to support the weight of the concrete, forms, finishing machine and other construction loads. Prior to finishing operations, a proposal stipulating the type of finishing machine and the finishing procedure will be submitted to the Engineer. This proposal shall set forth any areas in which a mechanical finisher cannot be used and the methods for finishing these areas. Concrete shall not be placed until this proposal is approved by the Engineer.

APPROACH SLAB:
Class AA concrete shall be used in the Approach Slabs with epoxy coated reinforcing. The quantity given is based on the actual Square Yards of the Approach Slabs. All costs of concrete, reinforcing steel, longitudinal construction joint sealant, sawed and sealed construction joint between new deck and approach slab, sawing of joints, excavation, labor, equipment, and incidentals necessary to complete the work as specified shall be included in the price bid per Square Yard of "APPROACH SLAB".

CONCRETE SLOPE WALL:
Item "Slope Wall (4")" shall be used to repair interior panel sections of existing Slope Walls along the front slopes at Abutment Nos. 1 & 2. See Sheet No. 13 for additional information.

All costs of the "SLOPE WALL (4")" installation including Class A Concrete, reinforcing steel, lap splices, backer rod, rapid cure joint sealant, preformed joint filler, polystyrene, excavation, labor, equipment and other incidentals shall be included in the price bid per Square Yard of "SLOPE WALL (4")".

I-44 OVER I-244 NB BRIDGE "A"	TULSA COUNTY	DESIGN	JTR 5/16
		DETAIL	JTR 5/16
SUMMARY OF PAY QUANTITIES AND NOTES (BRIDGE) (SHEET 2 OF 3)		CHECK	BRT 5/16
		GARVER	
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION		
	JOB PIECE NO. 29775(04)	SHEET NO. 4	

GENERAL NOTES FOR BRIDGE "A" (CONTINUED)

(PL) REPAIR BRIDGE ITEMS:

Unsound concrete in the piers and abutments of the existing bridge shall be repaired as described here. Prior to repairing an area, ensure that all unsound concrete has been removed from the area and the newly exposed surface has been prepared in accordance with Section 521.04.C of the Standard Specifications. Repair any deteriorated reinforcing steel bars with section loss greater then 25%, and apply corrosion inhibitor to the repair areas in accordance with Special Provision 535-1.

The removed concrete shall be replaced with one of the following materials as specified in Section 701 of the Standard Specifications:

1. High Density Concrete (HDC)
2. Latex Modified Concrete (LMC)
3. Very Early Strength Type I Concrete (VES I)
4. Very Early Strength Type III Concrete (VES III)
5. Rapid Setting Latex Modified Concrete (RSLMC)

The concrete temperature shall not exceed 85°F. Cold weather practices shall be implemented under any of the following conditions:

The air temperature was less than 55°F within 24 hours before placement of concrete, or the substrate temperature is less than 55°F during placement of concrete, or the air temperature will be less than 55°F within 6 hours after placement of concrete.

Cold weather practices shall be as follows:

Maintain a concrete mix temperature of 75°F during placement, and ensure the air temperature is rising during placement, and complete placement during the warmest part of the day.

Air temperatures shall be greater than 45°F when placing early strength concrete.

Alternatively, the removed concrete may be replaced with one of the following commercially available shotcrete products used in accordance with the Manufacturer's recommendations and as approved by the Engineer:

6. QUIKRETE SHOTCRETE MS with polypropylene fibers
7. SIKACEM 103F
8. SIKACEM 133
9. SIKACRETE 211 SCC PLUS
10. BASF MASTEREMACO S 210SP
11. BASF MASTEREMACO S 211SP
12. PROSPEC SHOTCRETE 300V
13. EUCOSHOT F

The new concrete shall be placed to the original neat lines of the structural component under repair and finished to provide a surface texture matching that of the adjacent existing concrete.

All costs to complete the repairs including all costs of removals, cleaning, surface preparation, corrosion inhibitor, new concrete, proportioning, mixing, formwork, placing concrete, finishing concrete, material, labor, equipment and incidentals shall be included in the unit price bid per Square Yard of "(PL) REPAIR BRIDGE ITEMS".

(PL) INSTALLATION OF BRIDGE ITEMS:

Install new Inlet Frame, Inlet Grate, Inlet & 18" RCP (to connect to existing 18" RCP).

All costs including materials, labor, equipment and incidentals shall be included in the price bid per Lump Sum of "(PL) INSTALLATION OF BRIDGE ITEMS". See Sheet Nos. 39, 41, and Stds. SSIF-4-0 & CI-1-2 for details.

JP 29775(04) — PAY QUANTITIES — I-44 OVER I-244 NB
0200 BRIDGE "A" (NBI 19470)

ITEM	DESCRIPTION		UNIT	QUANTITY
501(G) 6309	CLSM BACKFILL	(BR-5)	C.Y.	20.000
502(A) 6173	ENGINEERED FALSEWORK		LSUM	1.000
504(A) 1304	APPROACH SLAB	(BR-1)	S.Y.	444.800
504(B) 1305	SAW-CUT GROOVING	(BR-1)	S.Y.	1,119.600
504(C) 6250	SEALED EXPANSION JOINT	(BR-1)	L.F.	113.900
504(E) 6190	42" F-SHAPED PARAPET	(BR-1)	L.F.	549.500
504(G) 6390	RAPID CURE JOINT SEALANT	(BR-4)	L.F.	840.800
506(A) 1322	STRUCTURAL STEEL	(BR-3)	LB.	5,000.000
507(A) 6170	STAINLESS STEEL FIXED BEARING ASSEMBLY	(BR-1)	EA.	17.000
507(B) 6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY	(BR-1)	EA.	17.000
509 6152	SPECIAL CONCRETE FINISH	(BR-1)(BR-2)	S.Y.	174.000
509(A) 1326	CLASS AA CONCRETE	(BR-1)	C.Y.	178.600
509(B) 1328	CLASS A CONCRETE	(BR-1)	C.Y.	56.000
510(C) 6137	SLOPE WALL (4")		S.Y.	196.700
511 6306	MECHANICAL SPLICES	(BR-1)	EA.	752.000
511(A) 1332	REINFORCING STEEL		LB.	181.000
511(B) 6010	EPOXY COATED REINFORCING STEEL	(BR-1)	LB.	82,773.000
512(A) 1323	PAINTING EXISTING STRUCTURES		LSUM	1.000
512(B) 6303	COLLECTION AND HANDLING OF WASTE		LSUM	1.000
515(A) 6013	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	S.Y.	696.900
520(A) 6058	PREPARATION OF CRACKS, ABOVE WATER		L.F.	264.000
520(C) 6060	EPOXY RESIN, ABOVE WATER		GAL.	8.800
521(A) 6210	PNEUMATICALLY PLACED MORTAR		S.Y.	9.400
540 4501	(PL) REPAIR BRIDGE ITEMS	(BR-6)	S.Y.	4.800
542 4600	(PL) INSTALLATION OF BRIDGE ITEMS	(BR-7)	LSUM	1.000
619(B) 2500	REMOVAL OF BRIDGE ITEMS		LSUM	1.000

JP 29775(04) — PAY QUANTITIES — I-44 OVER I-244 NB
0600 STAKING

ITEM	DESCRIPTION		UNIT	QUANTITY
642(B) 0096	CONSTRUCTION STAKING LEVEL II	(BR-8)	LSUM	1.000

JP 29775(04) — PAY QUANTITIES — I-44 OVER I-244 NB
0640 CONSTRUCTION

ITEM	DESCRIPTION		UNIT	QUANTITY
641 1399	MOBILIZATION	(BR-8)	LSUM	1.000

BR-1:
Payment for this item will be based on the plan quantities only. See Section 109.01.B of the 2009 Standard Specifications.

BR-2:
To be used at the Abutments, Piers, and Approach Slab No. 1 drain inlet after all other repairs have been completed. See General Note "SPECIAL CONCRETE FINISH" for more information.

BR-3:
Quantity shown includes token quantity to be used at the discretion of the Engineer for the purpose explained in the General Note "EXPOSURE OF DETERIORATED STRUCTURAL STEEL" on Sheet No. 3.

BR-4:
Quantity shown is for resealing of the existing slope wall joints within 10'-0" of the bridge footprint.

BR-5:
To be used at the discretion of the Engineer for filling voids under the Approach Slabs.

BR-6:
Quantity shown is for repair to the abutment and pier concrete.

To be used at the discretion of the Engineer in locations where substructure concrete deterioration is severe. This pay item may be used in lieu of or in conjunction with Pneumatically Placed Mortar. For additional information, see the General Note "(PL) REPAIR BRIDGE ITEMS" on this sheet.

BR-7:
Install new Inlet Frame, Inlet Grate, Inlet & 18" RCP (to connect to existing 18" RCP). All costs including materials, labor, equipment and incidentals shall be included in the price bid per Lump Sum of "(PL) INSTALLATION OF BRIDGE ITEMS". See Sheet Nos. 39, 41, and Stds. SSIF-4-0 & CI-1-2 for details.

BR-8:
This project is mandatorily tied with JP 29773(04). The price bid for this item shall include all Mobilization or Construction Staking required for JP 29773(04) and JP 29775(04).

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

I-44 OVER I-244 NB — TULSA COUNTY
BRIDGE "A"

SUMMARY OF PAY QUANTITIES AND NOTES (BRIDGE) (SHEET 3 OF 3)

DESIGN	JTR	5/16
DETAIL	JTR	5/16
CHECK	BRT	5/16

GARVER

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 29775(04) SHEET NO. 5

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE
⚠ Revised General Construction Notes	07-20-2016

⚠ GENERAL CONSTRUCTION NOTES

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

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

THE CONTRACTOR SHALL KEEP OPEN TRENCH DRAINED. COST INCLUDED IN OTHER ITEMS OF WORK.

PRIOR TO FINAL ACCEPTANCE, ALL EXPOSED CURB SURFACES SHALL BE CLEANED OF ALL DISCOLORATION SUCH AS ASPHALT STAIN, TIRE MARKS, OR OTHER DISFIGUREMENT.

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

DEBRIS SHALL NOT BE BURIED WITHIN LIMITS OF RIGHT-OF-WAY.

CONTRACTOR TO MAKE EVERY EFFORT TO LOCATE AND PROTECT ALL UTILITIES AND STRUCTURES, WHETHER SHOWN OR NOT, PRIOR TO ANY CONSTRUCTION OPERATIONS. CONTRACTOR SHALL CARRY ON CONSTRUCTION SUCH THAT NO DAMAGE WILL OCCUR TO ANY UTILITIES OR STRUCTURES REMAINING IN PLACE.

PAY ITEM NOTES

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

(R-28) PRIME COAT SHALL BE APPLIED AT AN ESTIMATED RATE OF 0.35 GAL. PER SQ.YD. WHEN APPLIED TO SUBGRADE, AND 0.25 GAL. PER SQ.YD. WHEN APPLIED TO AGGREGATE BASE. THE ACTUAL CUTBACK PRIME COAT REQUIRED FOR PLACEMEMNT OPERATIONS WILL BE DETERMINED BY THE CONTRACTOR, AND SHALL CONSIDER RESIDUE FROM DISTILLATION PERCENTAGE SHOWN IN SECTION 708.03 OF THE STANDARD SPECIFICATIONS.

(R-48) INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS (UNLESS OTHERWISE SPECIFIED), INLETS, FENCES, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.

(R-49) TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.

(R-50) MATERIALS REMOVED SHALL NOT BE MEASURED FOR PAYMENT UNDER SECTION 202.06 UNCLASSIFIED EXCAVATION.

(1) PRICE BID SHALL INCLUDE COST OF MAINTENANCE AND REMOVAL OF SILT DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER.

(2) APPROXIMATE LOCATIONS FOR ITEMS TO BE REMOVED BY THE CONTRACTOR INCLUDE, BUT NOT LIMITED TO, THE ITEMS LISTED ON SHEET. ITEMS TO BE REMOVED MAY OR MAY NOT BE PRESENT IN ANY SPECIFIED CONDITION. CONDITION AND LOCATION OF THESE ITEMS CANNOT BE GUARANTEED. REMOVAL ALSO INCLUDES ALL ITEMS DEEMED BY THE ENGINEER TO CLEAR THE RIGHT OF WAY.

(3) ATTENUATORS SHALL BE QUADGUARD ELITE, SCI-100 GM (SMART CUSHION) OR APPROVED EQUAL WITHIN THE SAME CATEGORY. ATTENUATOR SHALL BE REDIRECTIVE, NON-GATING, AND MEET ALL NCHRP-350 TL-3 REQUIREMENTS AND OKLAHOMA DEPARTMENT OF TRANSPORTATION'S IMPACT ATTENUATORS GUIDELINES MATRIX. FOR A COPY OF THIS TABLE VISIT THE OKLAHOMA DEPARTMENT OF TRANSPORTATION TRAFFIC DIVISION WEBSITE AT WWW.OKLADOT.STATE.OK.US/TRAFFIC/PDFS/ATTENUATORGUIDELINE.PDF PRICE BID TO INCLUDE MATERIAL, LABOR, AND INCIDENTALS REQUIRED TO CONSTRUCT FOOTING PAD PER MANUFACTURER'S SPECIFICATION.

(4) PRICE BID TO INCLUDE COST OF REINFORCING STEEL AS SHOWN IN DETAILS ON SHEET 2.

(5) ESTIMATED QUANTITY TO BE USED IN AREAS AS DIRECTED BY THE ENGINEER.

(6) PRICE BID TO INCLUDE TRENCHING AND BACKFILL MATERIAL PER PED-3 AND CONNECTION TO STORM SEWER WHERE DIRECTED.

JP29775(04) — PAY QUANTITIES — I-44 Over 244

ROADWAY 0100

ITEM NO.	CODE NO.	DESCRIPTION		UNIT	QUANTITY
202(A)	0183	UNCLASSIFIED EXCAVATION	(R-1)	CY	598
221(C)	2801	TEMPORARY SILT FENCE	(1)	LF	712
303(A)	2100	AGGREGATE BASE TYPE A	(R-1)	CY	403
317	4270	CEMENT TREATED BASE	(R-1)	SY	1132
325	5271	SEPARATOR FABRIC	(R-1)	SY	1515
408	5774	PRIME COAT	(R-28)	GAL	423
414(A)	0210	P.C.CONCRETE PAVEMENT(PLACEMENT)	(R-1)	SY	472
414(B)	5725	DOWEL JOINTED P.C. CONCRETE PAVEMENT(PLACEMENT)	(R-1)	SY	785
414(G)	5275	P.C. CONCRETE FOR PAVEMENT	(R-1)	CY	481
504(E)	6190	42" F-SHAPED PARAPET	(4)(R-1)	LF	440
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	(R-1)	SY	215
613(H)	0450	6" PERFORATED PIPE UNDERDRAIN ROUND	(6)	LF	350
613(I)	1096	6" NON-PERF.PIPE UNDERDRAIN RND.	(6)	LF	50
613(Q)	5946	OUTLET LATERAL HEADWALL	(5)	EA	2
619(A)	0920	REMOVAL OF STRUCTURES & OBSTRUCTIONS	(R-48)(R-49)(R-50)	LSUM	1
619(B)	4727	REMOVAL OF CONCRETE PAVEMENT	(R-49)(R-50)	SY	1173
619(B)	4780	REMOVAL OF GUARDRAIL	(R-49)	LF	178
619(B)	4915	REMOVAL OF CONCRETE MEDIAN BARRIER	(R-49)	LF	277
871(A)	8330	(PL) IMPACT ATTENUATOR	(3)	EA	1

DESIGN	NDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUMMARY OF PAY QUANTITIES AND NOTES (ROADWAY)

STATE JOB NO. 29775(04) SHEET NO. 6

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE

TRAFFIC GENERAL CONSTRUCTION NOTES

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

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

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

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

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

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

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

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

ALL ANCHOR BOLTS SHALL BE GRADE A-36 STEEL.

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

ALL REMOVED SIGNS, SIGN POSTS, BOLTS, MISCELLANEOUS HARDWARE, AND DELINEATORS SHALL REMAIN THE PROPERTY OF THE STATE. THE CONTRACTOR SHALL NEATLY STACK SUCH REMOVED MATERIAL AT A LOCATION ON THE JOB SITE AS DESIGNATED BY THE ENGINEER UNTIL SUCH TIME AS DIVISION PERSONNEL CAN REMOVE THE MATERIAL FROM THE JOB SITE.
THE REMOVAL OF SIGN FOOTINGS IN CONCRETE ISLANDS SHALL BE REMOVED IN A MANNER APPROVED BY THE ENGINEER. AFTER REMOVAL, THE HOLES SHALL BE PATCHED WITH CONCRETE. THE NEW LOCATION OF SIGN FOOTINGS IN CONCRETE ISLANDS SHALL BE SAWED IN A MANNER APPROVED BY THE ENGINEER. CONCRETE PATCHING, SAWING, LABOR, AND ALL OTHER ASSOCIATED COSTS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

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

CONTRACTOR SHALL VERIFY THE TYPE AND ALL DIMENSIONS OF EXISTING SIGNS NECESSARY TO REFURBISH THE SIGNS PRIOR TO ORDERING THE MATERIAL FOR FABRICATION AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.

CONSTRUCTION TRAFFIC CONTROL WILL BE INSTALLED IN SUCH A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION", AND APPLICABLE ODOT STANDARD DRAWING. THE CONTRACTOR SHALL PROVIDE A PROPOSED TRAFFIC CONTROL PLAN FOR APPROVAL BY THE ENGINEER PRIOR TO BEGINNING WORK IF A CHANGE TO THE TRAFFIC CONTROL PLAN IS PROPOSED.

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

TRAFFIC CONTROL PAY QUANTITY NOTES

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

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

(TC-19) THIS ITEM INCLUDES AN ESTIMATED 1,113 L.F. (4"WIDE) WHITE AND 766 L.F.(4" WIDE) YELLOW STRIPE. THE CONTRACTOR SHALL PROVIDE AND INSTALL AN O.D.O.T. APPROVED REMOVABLE PAVEMENT MARKING TAPE. COST FOR REMOVAL OF THIS TAPE SHALL BE INCLUDED IN THE PRICE BID FOR THIS ITEM. NON-REMOVABLE MARKING TAPE (FOIL BACK) SHALL NOT BE CONSIDERED AN APPROVED EQUAL FOR THIS ITEM.

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

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

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

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

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

(TC-29) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 6.25 S.F. AND 15.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

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

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

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

(TC-52) ANY USED CHANGEABLE MESSAGE SIGN TO BE PLACED ON THIS PROJECT SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OKLAHOMA DEPARTMENT OF TRANSPORTATION TO ASSURE THAT THEY ARE IN GOOD WORKING CONDITION, PRIOR TO PLACEMENT ON THE PROJECT.

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

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

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

(TC-84) 120 CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAY PAY ITEMS. THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY, BASED ON THE CURRENT O.D.O.T. STANDARDS AND SUGGESTED CONSTRUCTION SEQUENCE FOR THIS PROJECT. THESE ESTIMATED SIGN DAY QUANTITIES MAY CHANGE AS THE PROJECT'S CONSTRUCTION TRAFFIC CONTROL IS MODIFIED DURING CONSTRUCTION.

JP 29775(04) — PAY QUANTITIES — I-44 Over 244

TRAFFIC 300 PERMANENT

ITEM NO.	CODE NO.	DESCRIPTION		UNIT	QUANTITY
805(A)	8724	(PL)REMOVAL OF EXISTING SIGNS	(TS-41)	EA	1.0
805(D)	8756	(PL)REMOVE & RESET EXISTING SIGNS	(TS-41)	EA	2.0
851(C)	8324	2" SQUARE TUBE POST	(TS-34)	LF	41.0
853	9063	BARRIER DELINEATORS (TYPE 2. CODE 1)		EA	24.0
856(A)	8535	TRAFFIC STRIPE(MULTI-POLY.)(6" WIDE)	(SP-2)	LF	4252
856(A)	8540	TRAFFIC STRIPE(MULTI-POLY.)(8" WIDE)	(TS-26)	LF	1600
856(A)	8548	TRAFFIC STRIPE(MULTI-POLY.)(12" WIDE)	(TS-27)	LF	1390

JP 29775(04) — PAY QUANTITIES — I-44 Over 244

TRAFFIC 301 TEMPORARY

ITEM NO.	CODE NO.	DESCRIPTION		UNIT	QUANTITY
857(C)	8851	REMOVABLE PAVEMENT MARKING TAPE(4" WIDE)	(TC-19,21,61,70,75)	LF	1879
857(F)	8006	PAVEMENT MARKING REMOVAL(TRAFFIC STRIPE)	(TC-22,70)	LF	9389
877(B)	8484	DELIVER PORTABLE LONGITUDINAL BARRIER	(TC-1,2)	LF	1062.5
877(C)	8486	RELOCATION OF PORTABLE LONGITUDINAL BARRIER	(TC-1,2)	LF	3112.5
880(A)	8812	ARROW DISPLAY (TYPE C)	(TC-26,84)	SD	300
880(B)	8818	CONSTRUCTION SIGNS 0 TO 6.25 SF	(SP-3)(TC-26,28,33,84)	SD	5475
880(B)	8821	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	(SP-3)(TC-26,29,33,84)	SD	3525
880(B)	8824	CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF	(SP-3)(TC-26,30,33,84)	SD	3188
880(C)	8842	CONSTRUCTION BARRICADES(TYPE III)	(SP-3)(TC-26,84)	SD	2025
880(C)	8848	WING BARRICADES	(TC-26,84)	SD	1200
880(E)	8860	WARNING LIGHTS(TYPE A)	(TC-26,84)	SD	5963
880(F)	8878	DRUMS	(SP-3)(TC-26,33,84)	SD	17100
882(A)	8306	PORT.CHANGEABLE MESSAGE SIGN	(SP-1)(SP-3)(TC-26,52,70,84)	SD	689

TRAFFIC SINGNING & STRIPING PAY QUANTITY NOTES

(TS-26) QUANTITY SHOWN INCLUDES 1,600 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND WILL BE MEASURED BY THE LINEAR FOOT (8") WIDE TRAFFIC STRIPE.

(TS-27) QUANTITY SHOWN INCLUDES 1,390 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND WILL BE MEASURED BY THE LINEAR FOOT (12") WIDE TRAFFIC STRIPE.

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

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

(SP-1) MESSAGE SIGN TO BE IN PLACE 14 DAYS IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TO BE USED AT THE DIRECTION OF THE ENGINEER.

(SP-2) QUANTITY SHOWN INCLUDES 1,254 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE), 672 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(BLACK), AND 2,326 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT (6") WIDE TRAFFIC STRIPE.

(SP-3) TOTAL INCLUDES QUANTITIES FROM MANDITORILY TIED PROJECT JP 29773(04).

DESIGN	MDF	3/16	I-44 OVER I-244 NB
DRAWN	TML	3/16	SUMMARY OF PAY QUANTITIES AND NOTES (TRAFFIC)
CHECKED	KMM	5/16	
APPROVED			
SQUAD	GARVER		STATE JOB NO. 29775(04) SHEET NO. 7

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE

SUMMARY OF SURFACING QUANTITIES

C.R.L. STATION TO STATION	AGGREGATE BASE 303(A)	CEMENT TREATED BASE 317	15 oz. PER SY * SEPARATOR FABRIC	SEPARATOR FABRIC 325	PRIME COAT 408	P.C. CONCRETE PAVEMENT (PLACEMENT) 414(A)	DOWEL JOINTED P.C.C. PAVT. (PLACEMENT) 414(B)	P.C. CONCRETE FOR PAVEMENT 414(G)
	CY	SY	SY	SY	GAL	SY	SY	CY
MAINLINE								
335+10.00 TO 336+56.26	220	617	685	824	231	259	426	262
339+27.15 TO 340+50.00	184	515	572	692	193	213	359	219
TOTALS:	**403**	**1132**	**1257**	**1515**	**423**	**472**	**785**	**481**

* FOR CONTRACTOR INFORMATION ONLY. TO BE INCLUDED IN PRICE BID FOR CEMENT TREATED BASE.

SUMMARY OF REMOVALS

C.R.L. STATION TO STATION	REMOVAL OF CONCRETE PAVEMENT 619(B)	REMOVAL OF CONCRETE MEDIAN BARRIER 619(B)	REMOVAL OF GUARDRAIL 619(B)
MAINLINE	SY	LF	LF
335+10.00 TO 336+56.26	654	151	38
339+27.15 TO 340+50.00	519	126	141
TOTALS:	**1173**	**277**	**178**

SUMMARY OF BARRIER QUANTITIES

C.R.L. *STATION TO STATION*	STANDARD	LENGTH	42" F-SHAPED PARAPET 504(E)	WATER REPELLENT (VISUALLY INSPECTED) 515(A)	(SP) IMPACT ATTENUATOR 871(A)
MAINLINE		LF	L.F.	SY	EA.
335+60.00 TO 336+56.26 LT	FSHP-42-2	97	97	47.4	0
335+60.00 TO 336+56.26 RT	FSHP-42-2	97	97	47.4	0
339+27.15 TO 340+50.00 LT	FSHP-42-2	123	123	60.1	0
339+27.15 TO 340+50.00 RT	FSHP-42-2	123	123	60.1	1
TOTALS:			**440**	**215**	1

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	**GARVER**	

I-44 OVER I-244 NB

SUMMARY SHEET
(ROADWAY)

STATE JOB NO. 29775(04) SHEET NO. 8

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE

SIGN SUMMARY

ALIGNMENT	APPROXIMATE C.R.L. STATION LOCATION				SIGN TYPE	POSTS 12 GA. 2" SQUARE TUBE POST 851(C) POST A (L.F.)	POSTS 12 GA. 2" SQUARE TUBE POST 851(C) POST B (L.F.)	(PL) REMOVAL OF EXISTING SIGNS 805(A) (EA.)	(PL) REMOVE & RESET EXISTING SIGNS 805(D) (EA.)	BARRIER DELINEATORS (TYPE2, CODE1) 853 (EA.)	REMARKS
					(STD.)						
C.R.L. I-44	338+92.16			R	OM3-L			1			REMOVE
C.R.L. I-44	339+41.86			L	W4-3	13			1		REMOVE/RESET
C.R.L. I-44	340+62.07			L	E5-1a	14	14		1		REMOVE/RESET
C.R.L. I-44	335+11	TO	340+50	R	TYPE 2, CODE 1					12	INSTALL BARRIER DELINEATOR
C.R.L. I-44	335+12	TO	340+51	L	TYPE 2, CODE 1					12	INSTALL BARRIER DELINEATOR
					SUB TOTALS:	27	14	1	2	24	
					TOTALS:	**41.00**		**1**	**2**	**24**	

SUMMARY OF STRIPING

TYPE	L.F.
YELLOW(MULTI-POLYMER)	
6" SOLID	2,326
BLACK (MULTI-POLYMER)	
6" SOLID	672
WHITE (MULTI-POLYMER)	
6" SOLID	1,254
8" SOLID	1,600
12" SOLID	1,390
856(A) TRAFFIC STRIPE(MULTI-POLYMER)(6" WIDE)	**4,252**
856(A) TRAFFIC STRIPE(MULTI-POLYMER)(8" WIDE)	**1,600**
856(A) TRAFFIC STRIPE(MULTI-POLYMER)(12" WIDE)	**1,390**

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUMMARY SHEET
(TRAFFIC)

STATE JOB NO. 29775(04) SHEET NO. 9

STORM WATER MANAGEMENT PLAN

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

SITE DESCRIPTION

PROJECT LIMITS: I-44 OVER 244 IN TULSA COUNTY.

PROJECT DESCRIPTION: REHAB OF WESTBOUND I-44 BRIDGE AND APPROACHES OVER NORTHBOUND I-244.

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES:
PRIOR TO INITIATING SOIL DISTURBING ACTIVITIES, THE CONTRACTOR WILL INSTALL ALL PERIMETER TEMPORARY SEDIMENT CONTROLS SPECIFIED. STRIP, STOCKPILE AND STABILIZE TOPSOIL. CLEAR AND GRUB ONLY IN NECESSARY AREAS, PRESERVING AS MUCH NATIVE VEGETATION AS POSSIBLE. INSTALL, MAINTAIN AND/OR MOVE TEMPORARY SEDIMENT ITEMS WITH CONSTRUCTION OPERATIONS AS PRACTICAL. IF DIRECTED BY THE ENGINEER, PLANT TEMPORARY SEEDING. REPLACE SALVAGED TOPSOIL AND DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF THE DATES OF MAJOR SOIL DISTURBANCE ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: SILT LOAM

AREA TO BE DISTURBED: 0.17 ACRES

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE) _____

MAXIMUM ACRES TO BE DISTURBED AT ANY ONE TIME: (FOR CONTRACTOR USE) _____

LATITUDE & LONGITUDE OF CENTER OF PROJECT: 36°05'20" N , 96°02'20" W

NAME OF RECEIVING WATERS: UNNAMED TRIBUTARY TO MOOSER CREEK

SENSITIVE WATERS OR WATERSHEDS: YES ☐ NO ☒

303(d) IMPAIRED WATERS: YES ☒ NO ☐

NOTE:
THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

_____ TEMPORARY SEEDING
_____ PERMANENT SODDING, SPRIGGING OR SEEDING
_____ VEGETATIVE MULCHING
_____ SOIL RETENTION BLANKET
_____ PRESERVATION OF EXISTING VEGETATION

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

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

OFFSITE VEHICLE TRACKING:

_____ HAUL ROADS DAMPENED FOR DUST CONTROL
__X__ LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
_____ EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

SILT SHALL BE REMOVED FROM TEMPORARY EROSION CONTROL DEVICES WHEN HALF FULL. COST TO BE INCLUDED IN THE PRICE BID FOR EROSION CONTROL DEVICE. NO ONE OUTFALL RECIEVES DISCHARGE FROM 10 ACRES OR MORE.

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCH AS RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT NEED TO BE INSPECTED.

WASTE MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING, SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

HAZARDOUS MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIALS IS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, STATE AND FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS, CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

GENERAL NOTES:

A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO COMPLY WITH THE OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (OPDES) REGULATIONS. THIS PLAN IS INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORM AND PERMIT CERTIFICATE THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING THE PROGRESSION OF THE PROJECT. ALL CONTRACTOR OFF-SITE OPERATIONS ASSOCIATED WITH THE PROJECT MUST BE DOCUMENTED IN THE SWPPP, I.E., BORROW PITS, WORK ROADS, DISPOSAL SITES, ASPHALT/CONCRETE PLANTS, ETC. THE BASIC GOAL OF STORM WATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUTION DUE TO EXPOSED SOILS AND THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORM WATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2009 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

103.05 BONDING REQUIREMENTS
104.10 FINAL CLEANING UP
104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK
104.13 ENVIRONMENTAL PROTECTION
106.08 STORAGE AND HANDLING OF MATERIAL
107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED
107.20 STORM WATER MANAGEMENT
220 MANAGEMENT OF EROSION, SEDIMENTATION AND STORM WATER POLLUTION PREVENTION AND CONTROL
221 TEMPORARY SEDIMENT CONTROL

IN ADDITION:

"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, SEPTEMBER 13, 2012.

DESIGN	MDF	3/16
DRAWN	TJH	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

STORM WATER MANAGEMENT PLAN

STATE JOB NO. 29775(04) SHEET NO. 10

REVISED 04/01/2015

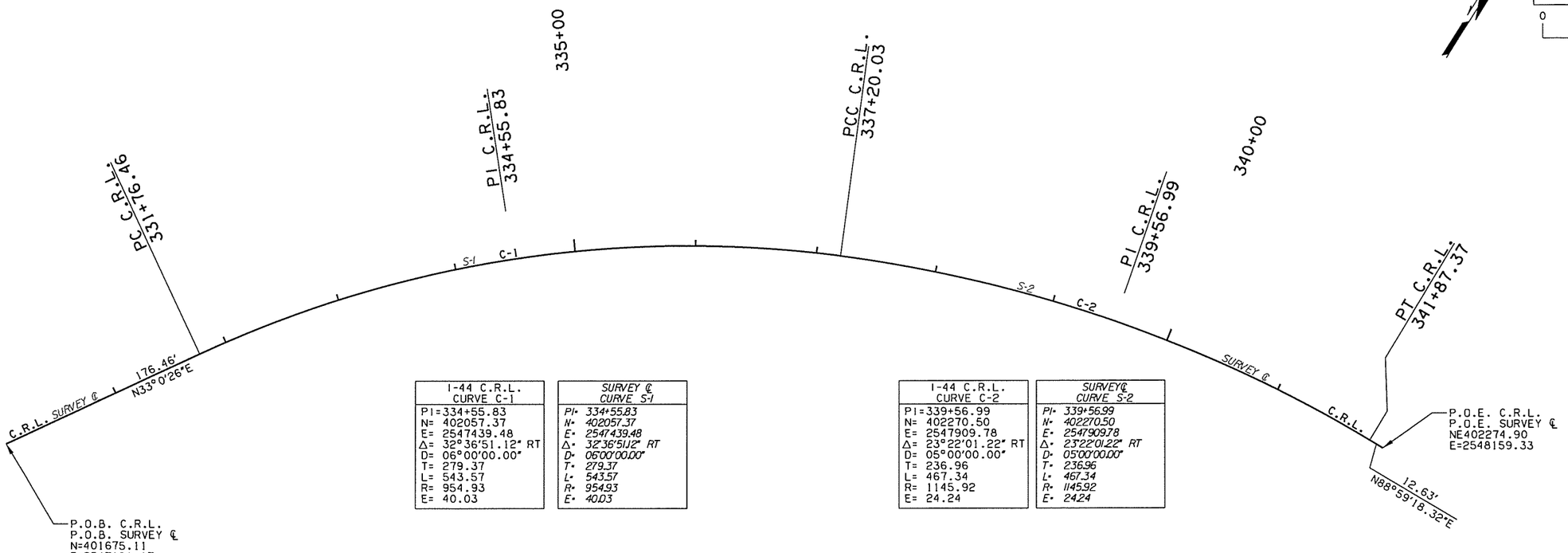
OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

0 50 100 150
SCALE



I-44 C.R.L. CURVE C-1
PI=334+55.83
N= 402057.37
E= 2547439.48
Δ= 32°36'51.12" RT
D= 06°00'00.00"
T= 279.37
L= 543.57
R= 954.93
E= 40.03

SURVEY ℄ CURVE S-1
PI= 334+55.83
N= 402057.37
E= 2547439.48
Δ= 32°36'51.12" RT
D= 06°00'00.00"
T= 279.37
L= 543.57
R= 954.93
E= 40.03

I-44 C.R.L. CURVE C-2
PI=339+56.99
N= 402270.50
E= 2547909.78
Δ= 23°22'01.22" RT
D= 05°00'00.00"
T= 236.96
L= 467.34
R= 1145.92
E= 24.24

SURVEY℄ CURVE S-2
PI= 339+56.99
N= 402270.50
E= 2547909.78
Δ= 23°22'01.22" RT
D= 05°00'00.00"
T= 236.96
L= 467.34
R= 1145.92
E= 24.24

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

GEOMETRIC LAYOUT

STATE JOB NO. 29775(04) SHEET NO. 11

16:10:34 L:\2014\14037190 - ODOT FC 1591 Bridge Rehab Tulsa Co\Drawings\29775(04) I-44\29775(04) GEO 001.dgn 7/7/2016 TULSA COUNTY

LEGEND

PROPOSED PAVEMENT

I-44 C.R.L. CURVE C-1
PI= 334+55.83
N= 402057.37
E= 2547439.48
Δ= 32°36'51.12" RT
D= 06°00'00.00"
T= 279.37
L= 543.57
R= 954.93
E= 40.03
S= MATCH EXISTING
V= 60 MPH

SURVEY ℄ CURVE S-1
PI= 334+55.83
N= 402057.37
E= 2547439.48
Δ= 32°36'51.12" RT
D= 06°00'00.00"
T= 279.37
L= 543.57
R= 954.93
E= 40.03

SEC 13 T19N R12E

GILCREASE EXPRESSWAY

I-244

I-44

335+00

340+00

P.O.B. C.R.L. STA. 330+00.00 N=401675.11 E=2547191.17

POB C.R.L. 330+00.00

PC C.R.L. 331+76.46

PI C.R.L. 334+55.83

PCC C.R.L. 337+20.03

PI C.R.L. 339+56.99

PT C.R.L. 341+87.37

POE C.R.L. 342+00.00

176.46'
N33°00'26.00"E

C.R.L. SURVEY ℄

237 L.F. SILT FENCE

STA. 335+60.00 TO STA. 336+56.26 CONST. F-SHAPED PARAPET

145 L.F. SILT FENCE

STA. 335+60.00 TO STA. 336+56.26 CONST. F-SHAPED PARAPET

ADJUST INLET TO GRADE

210 L.F. SILT FENCE

STA. 339+27.15 TO STA. 340+50.00 CONST. F-SHAPED PARAPET

120 L.F. SILT FENCE

STA. 339+27.15 TO STA. 340+50.00 CONST. F-SHAPED PARAPET

IMPACT ATTENUATOR

P.O.E. C.R.L. STA. 342+00.00 N=402274.90 E=2548159.33

12.63'
N88°59'18.32"E

18" RCP

24" RCP

30" RCP

SD

S-1

C-1

S-2

C-2

BM 102

BM 103

I-44 C.R.L. CURVE C-2
PI= 339+56.99
N= 402270.50
E= 2547909.78
Δ= 23°22'01.22" RT
D= 05°00'00.00"
T= 236.96
L= 467.34
R= 1145.92
E= 24.24
S= MATCH EXISTING
V= 60 MPH

SURVEY ℄ CURVE S-2
PI= 339+56.99
N= 402270.50
E= 2547909.78
Δ= 23°22'01.22" RT
D= 05°00'00.00"
T= 236.96
L= 467.34
R= 1145.92
E= 24.24

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE

0 50 100 150

SCALE

BM#101 #4 SET PK NAIL
2.48' RT. STA.335+31.28 EL.722.23'

BM#102 SET PK NAIL
28.87' RT. STA.337+78.10 EL.706.70'

BM#103 SET PK NAIL
1.36' RT. STA.341+70.42 EL.731.92'

C.R.L. STA. 330+10.00 BEGIN INCIDENTAL

C.R.L. STA. 335+10.00 END INCIDENTAL BEGIN PROJECT

C.R.L. STA. 340+50.00 END PROJECT BEGIN INCIDENTAL

C.R.L. STA. 345+50.00 END INCIDENTAL

SCALE: HORIZ.: 1"=50' VERT.: 1"=5'

PVI STA 335+10.00 EL 721.72

PVC STA 336+15.98 EL 724.58

PVI STA 337+65.98 EL 728.63

PVT STA 339+15.98 EL 729.86

PVI STA 340+50.00 EL 730.96

2.70%

0.82%

L= 300.00'
K= 159.57

	719.4	721.5	724.3	724.15	718.6	726.63	706.7	728.49	729.8	729.72	730.7	730.55	731.5
			EXIST.	PROP.									

UTILITY CONTACTS:

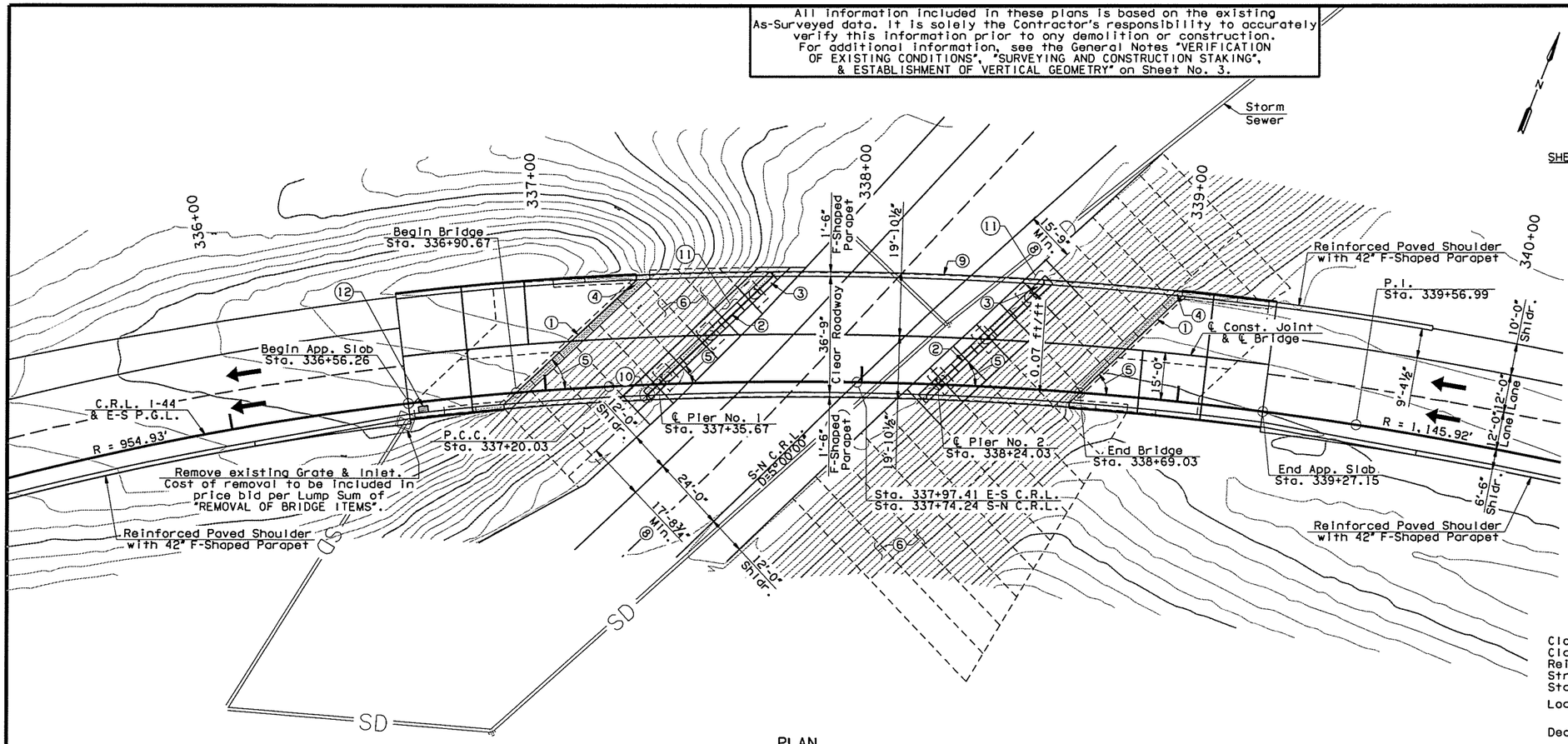
O.D.O.T. HIGHWAY ELECTRIC VAULT
Traffic Engineering Division
405-522-2584

NOTE: PROPOSED PROFILE FROM BEST FIT FROM SURVEYED INFORMATION. SEE NOTES SHEET 3.

STATE JOB NO. 29775(04) SHEET NO. 12

16:10:43 I:\2014\14037190 - ODOT FC 1591 Bridge Rehab Tulsa Co\Drawings\29775(04) I-44\29775(04) PnP 001.dgn 7/7/2016 TULSA COUNTY

All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.



PLAN

① New Construction Joint. See Sheet No. 28.

② New Sealed Expansion Joint. See Sheet No. 28.

③ Remove and Reconstruct portions of the Piers. See Sheet Nos. 19 - 25 for details.

④ Remove & Reconstruct Abutment Pedestals as shown on Sheet Nos. 15 - 18.

⑤ Measured between front face of backwall (at abutments) or ℄ pier (at piers) and tangent line at Working Point:

Abutment No. 1 - 38°38'45"
Pier No. 1 - 41°11'23"
Pier No. 2 - 45°36'27"
Abutment No. 2 - 47°51'27"

⑥ Clean and Reseal Slope Wall Joints.

⑦ Vertical clearances shown are taken from As-Built plans.

⑧ Proposed horizontal clearances measured perpendicular from Edge of Travel Lane to Edge of new Pier Cap.

⑨ Existing 2" Diameter Conduit Embedded in Parapet to remain.

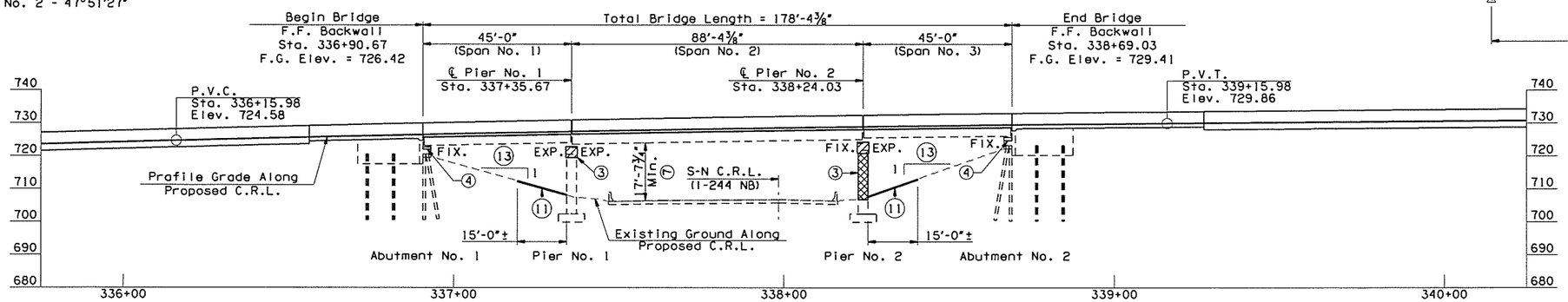
⑩ Existing drainage pipes attached to South end of Pier No. 1 shall be removed. Cost of removal to be included in price bid per Lump Sum of "REMOVAL OF BRIDGE ITEMS".

⑪ Replace six (6) slope wall panels in the vicinity of columns to the dimensions shown in order for placement of temporary shoring. Match Slope Wall section as shown in the As-Built plans.

⑫ Install new Inlet Frame, Inlet Grate, Inlet & 18" RCP (to connect to existing 18" RCP). All costs including materials, labor, equipment and incidentals shall be included in the price bid per Lump Sum of "(PL) INSTALLATION OF BRIDGE ITEMS". See Sheet Nos. 39, 41, Stds. SSIF-4-0 & C1-1-2 for details.

⑬ Match Existing Slope.

NOTE:
Stations and elevations shown are along C.R.L.



ELEVATION

INDEX OF SHEETS

STANDARDS

FSHP-42-2-00E
EJ-SK-03E
EJ-DTL-01E

LOAD AND RESISTANCE FACTOR DESIGN DATA

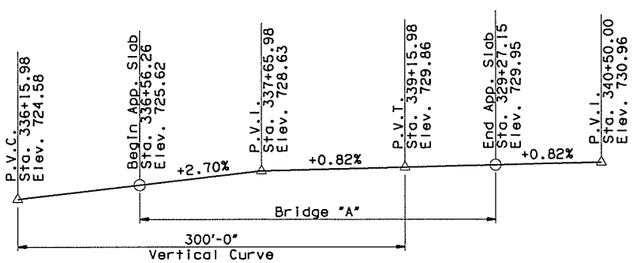
Class AA Concrete	f'c = 4,000 p.s.i.
Class A Concrete	f'c = 3,000 p.s.i.
Reinforcing Steel (Grade 60)	fy = 60,000 p.s.i.
Structural Steel (M270, Gr. 50W)	fy = 50,000 p.s.i.
Stainless Steel A240 (Type 316)	fy = 30,000 p.s.i.

Loading: HL93 or Oklahoma Overload Truck and 20 p.s.f. Future Wearing Surface.

Deck Design: AASHTO LRFD Bridge Design Specifications, 7th Edition with Interims through 2015.

ANSI/AASHTO/AWS: D1.5 Bridge Welding Code
ANSI/AASHTO/AWS: D1.6 Structural Welding Code - Stainless Steel

LFD Operating Rating: HS 103.4



VERTICAL GRADE DATA ⑭

⑭ The vertical grade data shown was determined by establishing a best fit vertical curve from "As-Surveyed" information. For additional information see the Generol Note "ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

0 20 40 60
SCALE 1" = 20'

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

GENERAL PLAN AND ELEVATION

DESIGN	BRT	3/16
DETAIL	JTR	4/16
CHECK	BRT	5/16

GARVER

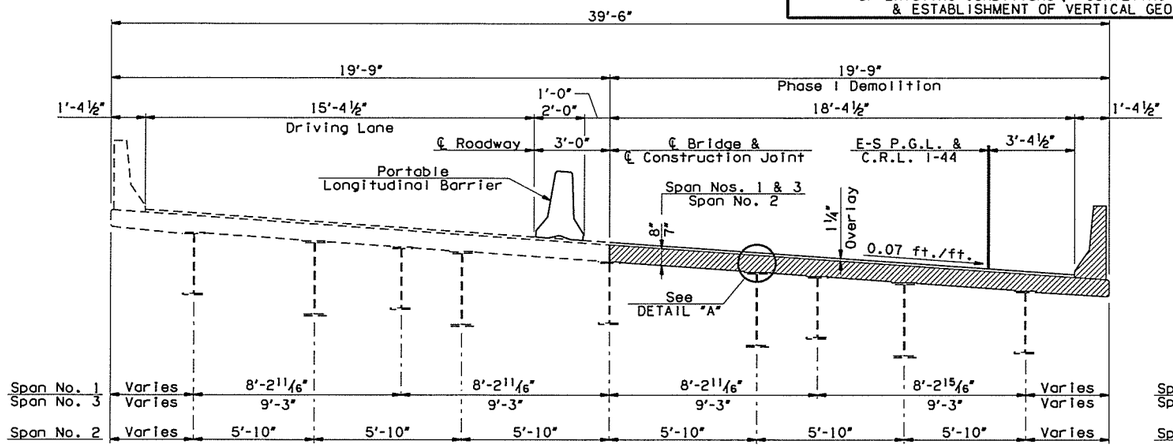
STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 29775(04) SHEET NO. 13

All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

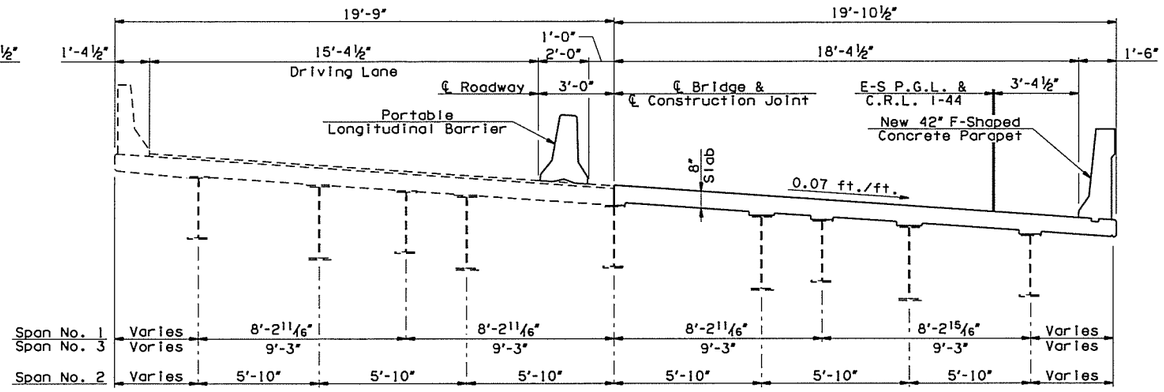
OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

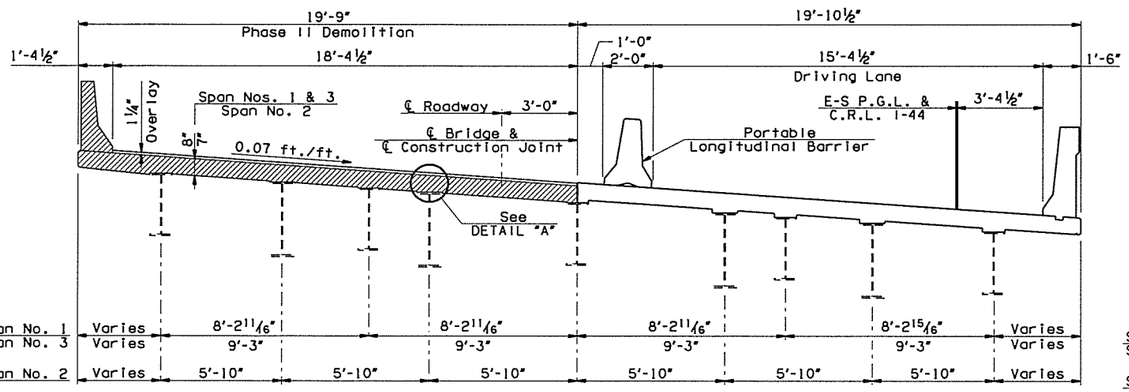
DESCRIPTION	DATE



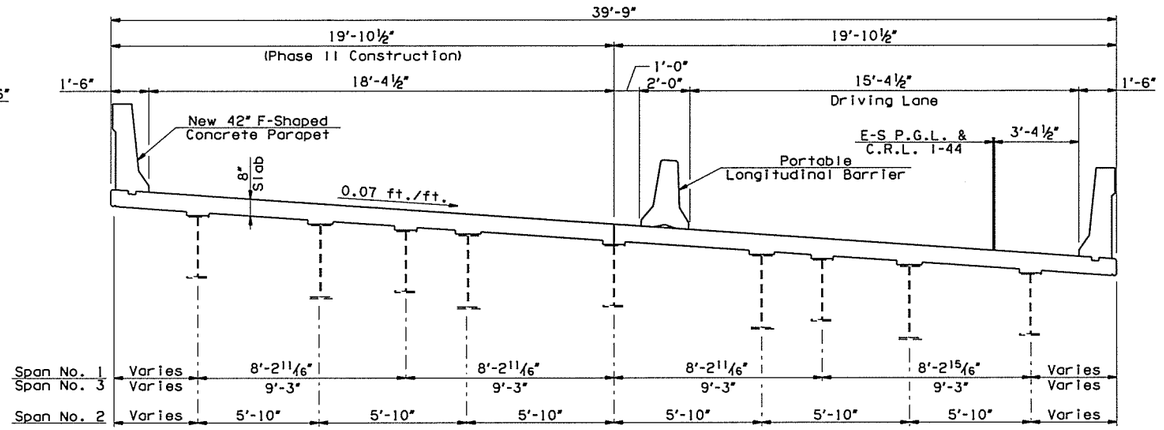
TYPICAL SECTION - PHASE I DEMOLITION



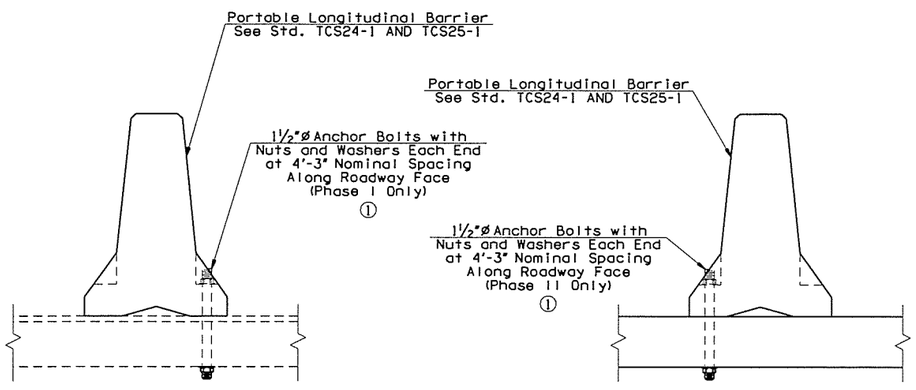
TYPICAL SECTION - PHASE I CONSTRUCTION



TYPICAL SECTION - PHASE II DEMOLITION

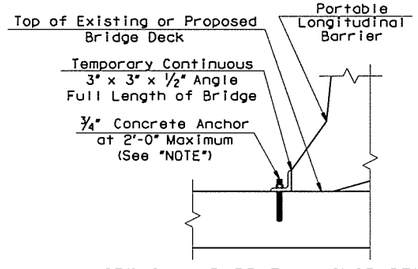


TYPICAL SECTION - PHASE II CONSTRUCTION



PORTABLE LONGITUDINAL BARRIER DETAIL
(Showing Anchorage into existing Deck)

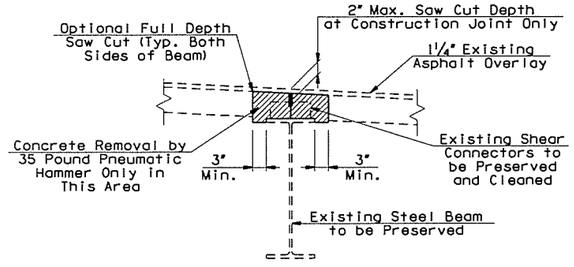
PORTABLE LONGITUDINAL BARRIER DETAIL
(Showing Anchorage into proposed Deck)



OPTIONAL BARRIER ANCHOR DETAIL

NOTE:
The Contractor shall submit the type of Concrete Anchor to the Bridge Engineer for approval prior to installation of Anchors. Anchors shall have a Minimum Ultimate Pullout Capacity of 10,000 lbs. and a Minimum Ultimate Shear Capacity of 13,000 lbs.

When the Temporary Angle is removed from the new concrete deck, the remaining holes shall be filled in a manner approved by the Engineer. All costs of Angles, ¾" Dia. Concrete Anchors with Washers, shall be paid for in Other Items of Work.



DETAIL "A"

NOTES:
Detail is shown for beam location at Longitudinal Construction Joint. Typical at all locations where saw cutting occurs over beams.

Concrete removal over beams shall be restricted to 35 Pound Pneumatic Hammer. The concrete removal in this area shall be performed after the slab has been cut.

① Provide Anchor Bolts having a minimum yield strength of 55 K.S.I. and a minimum tensile strength of 75 K.S.I. Submit the type of Anchor Bolt to the Engineer for approval prior to installation. Fill the remaining holes in the new Deck Slab after removing Anchors in a manner approved by the Engineer. Include all costs for the Anchor Bolts, hole repair, labor, and incidentals necessary in the contract unit price of "PORTABLE LONGITUDINAL BARRIER" per roadway plans.

LEGEND

- Existing Structure
- Existing Structure Demolition
- Proposed Structure
- Portable Longitudinal Barrier

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

SEQUENCE OF CONSTRUCTION

DESIGN	JTR	4/15
DETAIL	JTR	4/15
CHECK	BRT	4/15

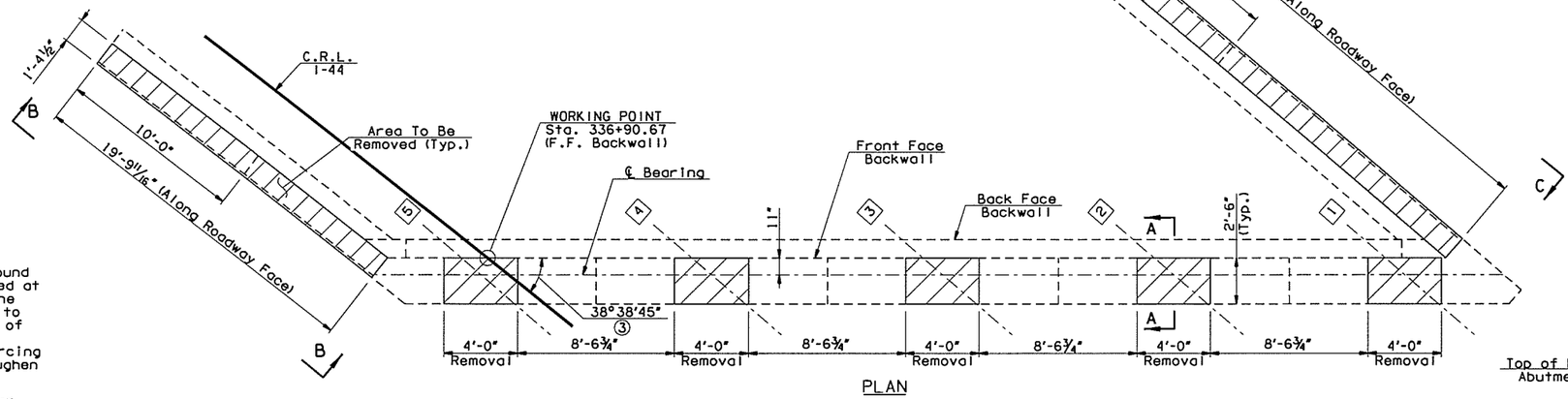
GARVER

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 29775(04) SHEET NO. 14

All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

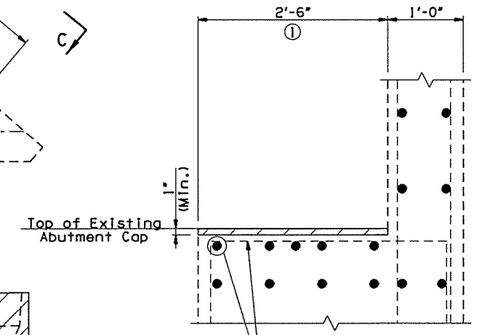
REVISIONS	
DESCRIPTION	DATE



① The Contractor shall score around the edges of area to be removed at a depth of 1" maximum below the top of the existing cap prior to removal of concrete. The area of concrete removal shall extend below the top layer of reinforcing steel to the depths shown. Roughen the bottom surface to ¼" amplitude. See General Note "INTENTIONALLY ROUGHENED SURFACE EXAMPLES" for additional details.

② Based on As-Surveyed information.

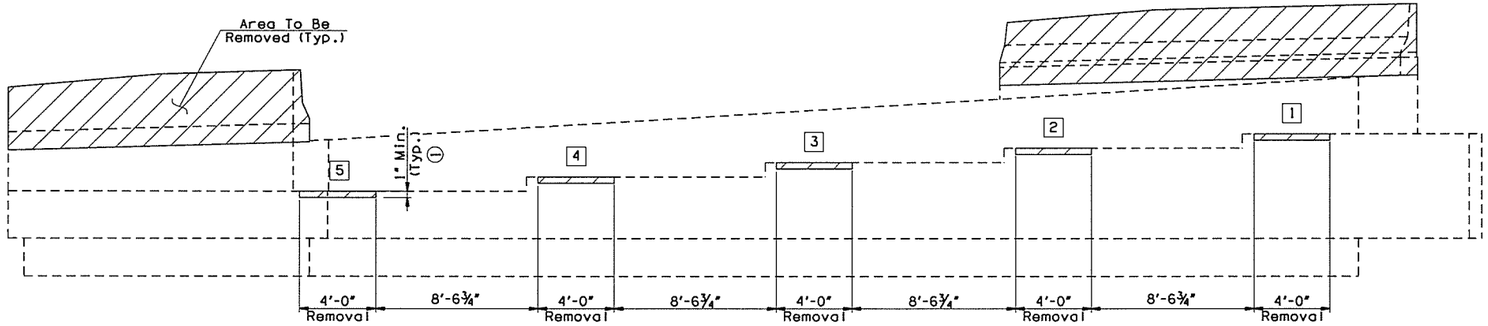
③ Measured between front face of backwall & tangent line at Working Point.



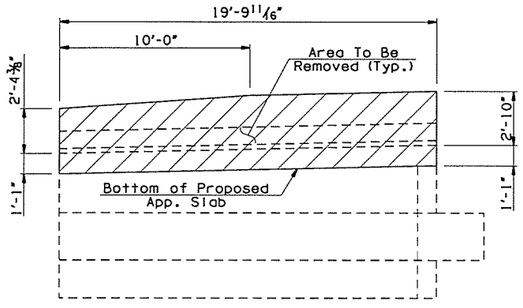
The Contractor shall locate existing reinforcing steel prior to concrete scoring and removal. Existing reinforcing steel shall not be cut or damaged.

SECTION A-A

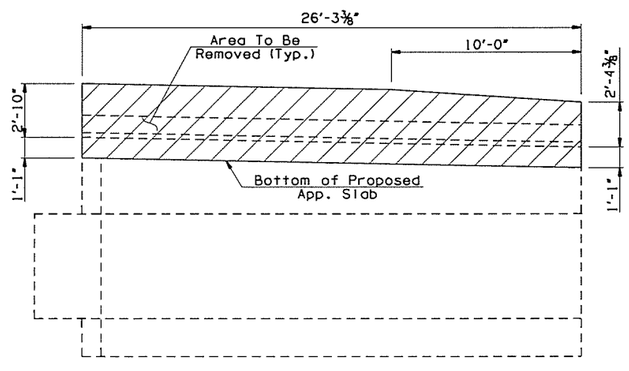
TOP OF CAP STEP ELEVATIONS ②	
BEAM NO.	ELEVATION
1	725.40
2	724.69
3	723.95
4	723.21
5	722.45



ELEVATION
(Looking Back Station)



SECTION B-B



SECTION C-C

ABUTMENT NO. 1 DEMOLITION

NOTES:
All dimensions of the existing components shown on the plans are approximate. The Contractor shall verify all data necessary to remove portions of the existing abutments and shall be solely reponsible for the accuracy thereof. See "VERIFICATION OF EXISTING CONDITIONS" requirements on Sheet No. 3.

All incidental construction required for the partial removal of the existing pedestals, abutment cap and wingwalls including concrete removal, saw cutting, pedestal reinforcement removal, labor and equipment shall be included in the price bid per Lump Sum of "REMOVAL OF BRIDGE ITEMS".

See Sheet Nos. 17 - 18 for construction details of Abutment No. 2.

LEGEND

Existing Structure Demolition

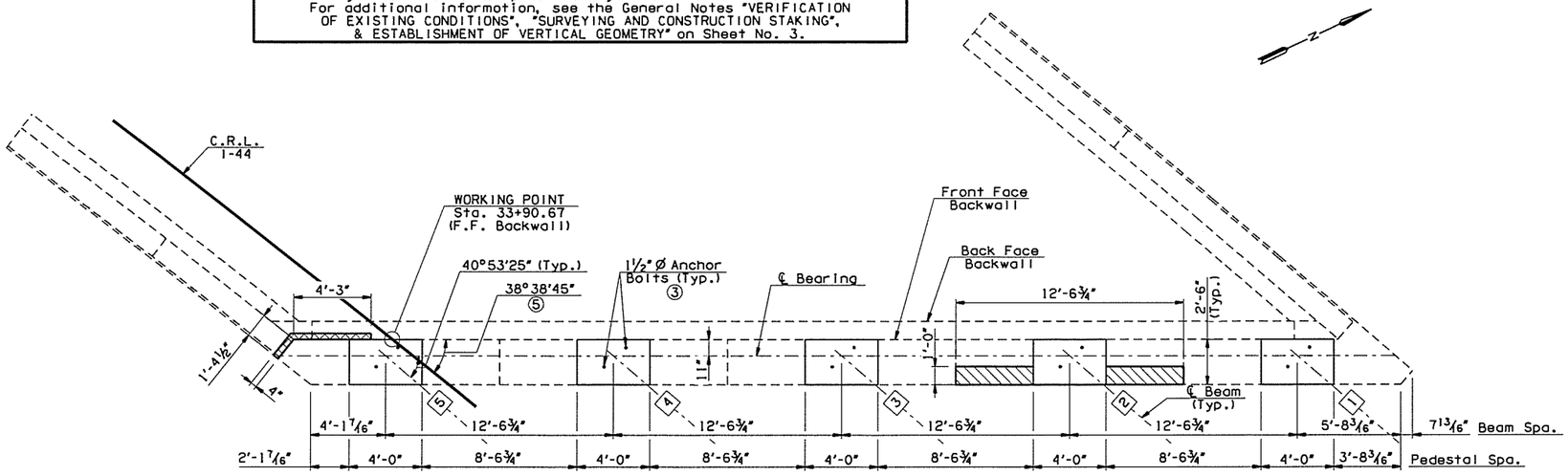
---- Existing Structure

I-44 OVER I-244 NB BRIDGE "A"	TULSA COUNTY	DESIGN	JTR	5/16
		DETAIL	JTR	5/16
ABUTMENT NO. 1 DETAILS (SHEET 1 OF 2)		CHECK	BRT	5/16
		GARVER		
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION			
	JOB PIECE NO. 29775(04)	SHEET NO. 15		

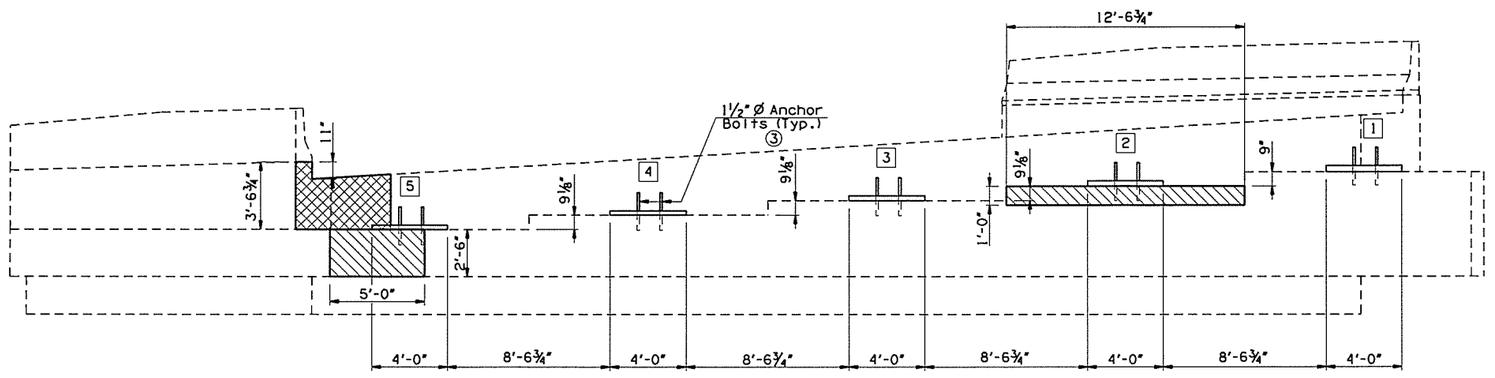
All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE



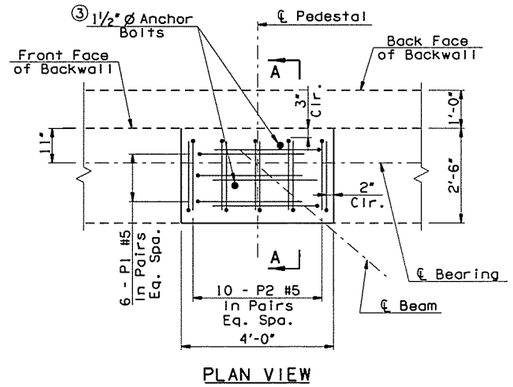
PLAN



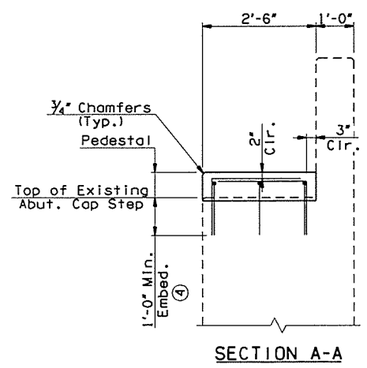
ELEVATION

NOTES:
All Pedestals shall be constructed using Class A concrete.

For Abutment No. 1 Anchor Bolt layout, see Sheet No. 26.



PLAN VIEW

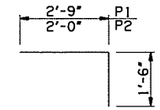


SECTION A-A

PEDESTAL REINFORCING DETAILS

SUMMARY OF QUANTITIES - ABUTMENT NO. 1		
ITEM	UNIT	TOTAL
SPECIAL CONCRETE FINISH	S.Y.	44.00
CLASS A CONCRETE	C.Y.	0.70
EPOXY COATED REINFORCING STEEL	LB.	316.00
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	11.30
PREPARATION OF CRACKS, ABOVE WATER	L.F.	96.00
EPOXY RESIN, ABOVE WATER	GAL.	3.20
PNEUMATICALLY PLACED MORTAR	S.Y.	3.30
(PL)REPAIR BRIDGE ITEMS	S.Y.	1.70

BAR LIST - ABUTMENT NO. 1				
MARK	SIZE	NO.	FORM	LENGTH
EPOXY COATED REINFORCING STEEL				
P1	#5	30	BENT	4'-3"
P2	#5	50	BENT	3'-6"



P1 #5 x 4'-3"
P2 #5 x 3'-6"

ANCHORAGE SYSTEM:
The Contractor shall use an Anchorage System that has been approved by ODOT's materials division. The Anchorage System shall be capable of developing the full strength of the reinforcing steel that is to be anchored. The embedment depth shown is to be adjusted to meet the Manufacturer's requirements. Anchorages shall be installed in accordance with the Manufacturer's specifications for the system used.

Drilling into the existing concrete to install the anchorage shall be accomplished without cutting existing concrete reinforcing steel bars. Prior to drilling, the Contractor shall locate and mark the existing concrete reinforcing steel bars with non-destructive tools, equipment and methods approved by the Engineer. If existing reinforcing steel bars are encountered during drilling, the drilling shall cease and the hole shall be grouted. The hole shall then be relocated to clear the existing reinforcing steel bars. Any adjustment in the locations of the new reinforcing bars from the plan locations shown shall be the minimum amount necessary to avoid cutting the existing concrete reinforcing steel bars and shall be approved by the Engineer.

All costs of the Anchorage Assemblies including labor, materials, tools, drilling, and incidentals necessary to complete the work shown in the plans shall be included in the price bid per Pound of "EPOXY COATED REINFORCING STEEL".

PEDESTAL & CAP STEP ELEVATIONS		
BEAM NO.	PEDESTAL ELEVATION ②	CAP STEP ELEVATION ①
1	725.72	725.40
2	724.96	724.69
3	724.20	723.95
4	723.44	723.21
5	722.67	722.45

LEGEND
- Pneumatically Placed Mortar
- Class A Concrete
- Existing Structure
- Proposed Structure

① Based on As-Surveyed information.

② Pedestal elevations shown are based on Vertical Grade Data shown on Sheet No. 13. For additional information see the General Note "ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

③ Anchor bolts for new pedestals on existing abutment shall be drilled and epoxy anchor bolts. Drill & epoxy anchor bolts after pedestal concrete has been placed.

④ See "ANCHORAGE SYSTEM" note on this sheet for details regarding the drilling and epoxying of the proposed P1 & P2 #5 bars.

⑤ Measured between front face of backwall and tangent line at Working Point.

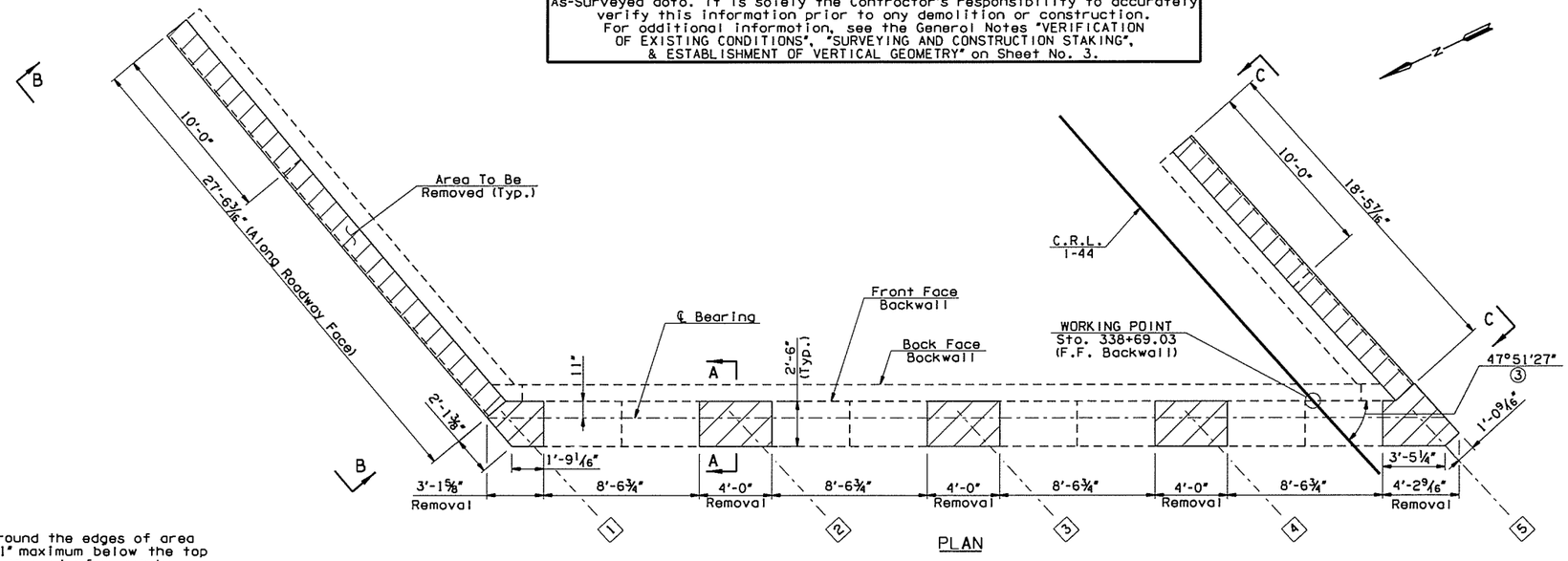
I-44 OVER I-244 NB BRIDGE "A"	TULSA COUNTY	DESIGN	JTR 5/16
		DETAIL	JTR 5/16
		CHECK	BRT 5/16
ABUTMENT NO. 1 DETAILS (SHEET 2 OF 2)		GARVER	
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION		
	JOB PIECE NO. 29775(04)	SHEET NO. 16	

All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & "ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

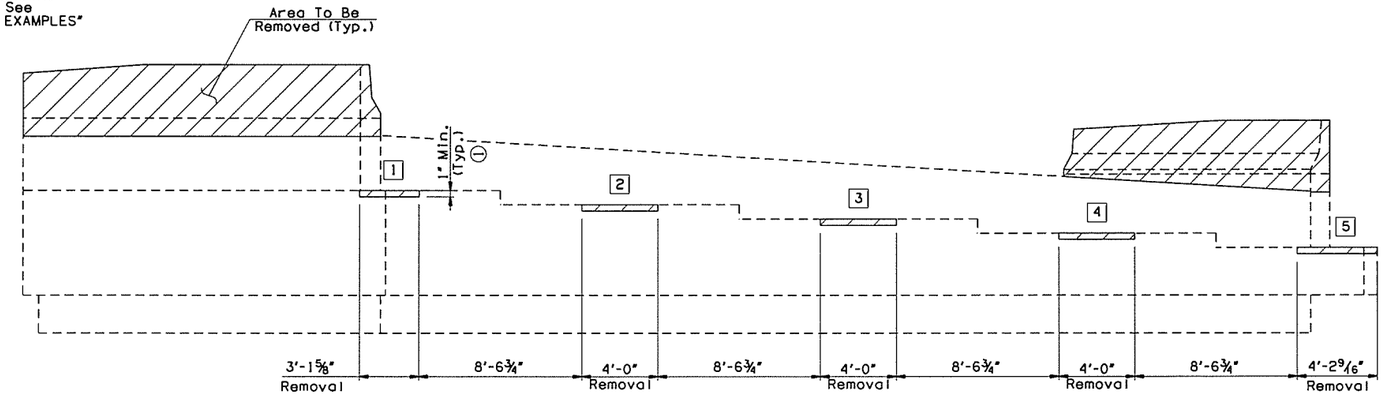


PLAN

① The Contractor shall score around the edges of area to be removed at a depth of 1" maximum below the top of the existing cap prior to removal of concrete. The area of concrete removal shall extend below the top layer of reinforcing steel to the depths shown. Roughen the bottom surface to 1/4" amplitude. See General Note "INTENTIONALLY ROUGHENED SURFACE EXAMPLES" for additional details.

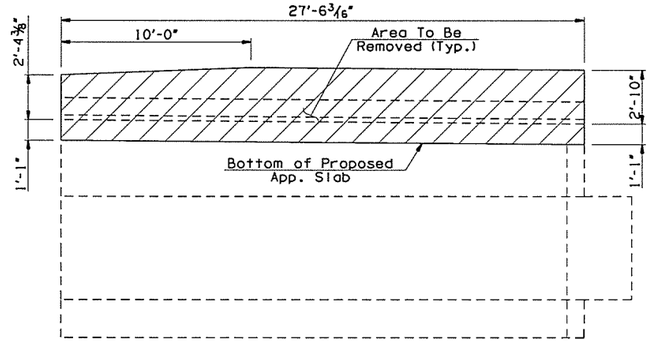
② Based on As-Surveyed Information.

③ Measured between front face of backwall & tangent line at Working Point.

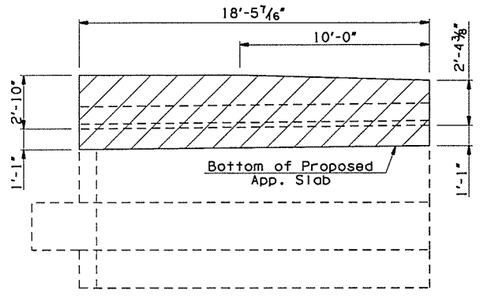


ELEVATION
(Looking Forward Station)

TOP OF CAP STEP ELEVATIONS ②	
BEAM NO.	ELEVATION
1	728.00
2	727.28
3	726.54
4	725.78
5	725.07



SECTION B-B



SECTION C-C

NOTES:

All dimensions of the existing components shown on the plans are approximate. The Contractor shall verify all data necessary to remove portions of the existing abutments and shall be solely reponsible for the accuracy thereof. See "VERIFICATION OF EXISTING CONDITIONS" requirements on Sheet No. 3.

All incidental construction required for the partial removal of the existing pedestals, abutment cap and wingwalls including concrete removal, saw cutting, pedestal reinforcement removal, labor and equipment shall be included in the price bid per Lump Sum of "REMOVAL OF BRIDGE ITEMS".

See Sheet Nos. 15 - 16 for construction details of Abutment No. 1.

See Sheet No. 15 for SECTION A-A.

LEGEND

Existing Structure Demolition

---- Existing Structure

ABUTMENT NO. 2 DEMOLITION

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

ABUTMENT NO. 2 DETAILS (SHEET 1 OF 2)

DESIGN	JTR	5/16
DETAIL	JTR	5/16
CHECK	BRT	5/16

GARVER

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 29775(04) SHEET NO. 17

All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			
REVISIONS					
DESCRIPTION					DATE

① Based on As-Surveyed Information.

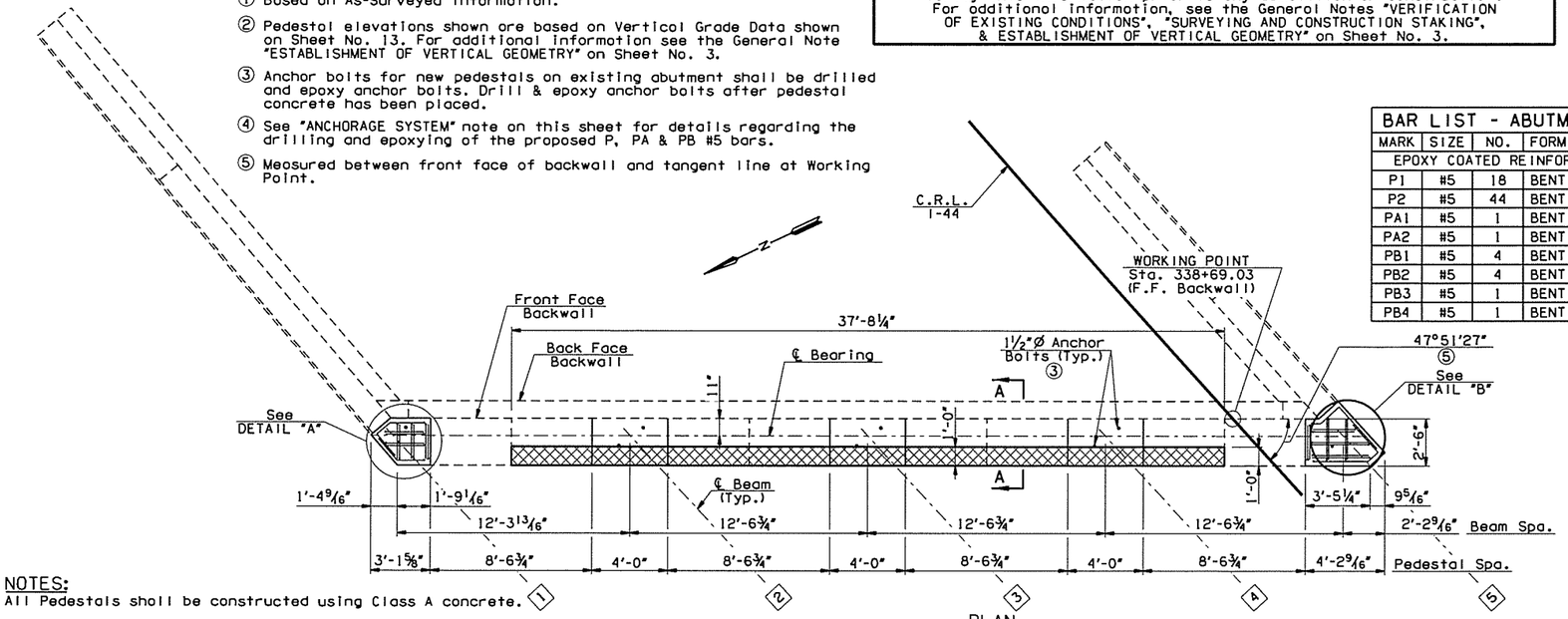
② Pedestal elevations shown are based on Vertical Grade Data shown on Sheet No. 13. For additional information see the General Note "ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

③ Anchor bolts for new pedestals on existing abutment shall be drilled and epoxy anchor bolts. Drill & epoxy anchor bolts after pedestal concrete has been placed.

④ See "ANCHORAGE SYSTEM" note on this sheet for details regarding the drilling and epoxying of the proposed P, PA & PB #5 bars.

⑤ Measured between front face of backwall and tangent line at Working Point.

BAR LIST - ABUTMENT NO. 2				
MARK	SIZE	NO.	FORM	LENGTH
EPOXY COATED REINFORCING STEEL				
P1	#5	18	BENT	4'-3"
P2	#5	44	BENT	3'-6"
PA1	#5	1	BENT	4'-5"
PA2	#5	1	BENT	5'-8"
PB1	#5	4	BENT	3'-8"
PB2	#5	4	BENT	4'-6"
PB3	#5	1	BENT	6'-3"
PB4	#5	1	BENT	7'-4"



PLAN

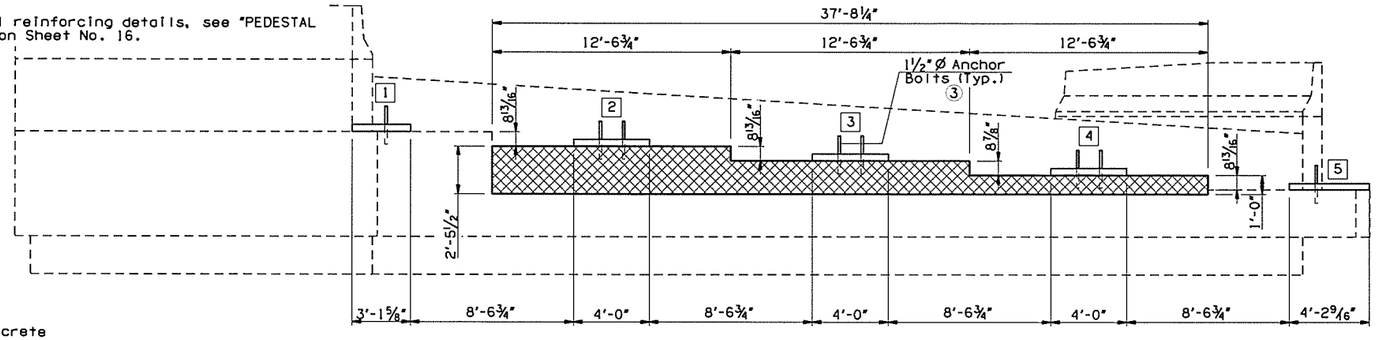
NOTES:

All Pedestals shall be constructed using Class A concrete.

For Abutment No. 2 Anchor Bolt layout, see Sheet No. 26.

All costs for the AH #4 bars including labor, materials, drilling, and incidentals necessary to complete the work shown in the plans shall be included in the price bid per Cubic Yard of "CLASS A CONCRETE".

For Interior Pedestal reinforcing details, see "PEDESTAL REINFORCING DETAILS" on Sheet No. 16.



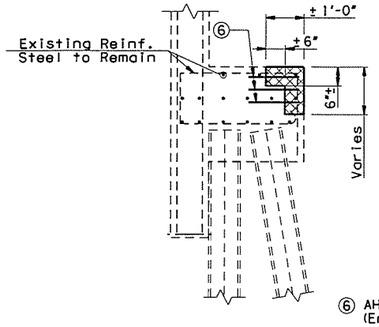
ELEVATION

LEGEND

Class A Concrete

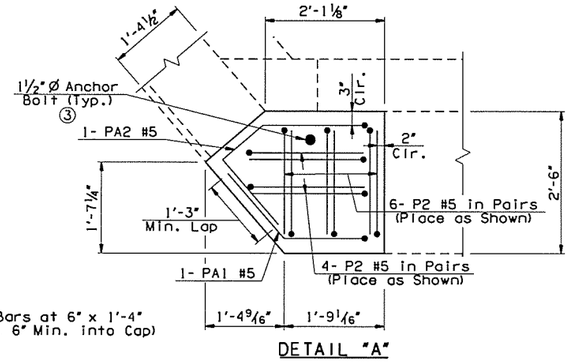
Existing Structure

Proposed Structure

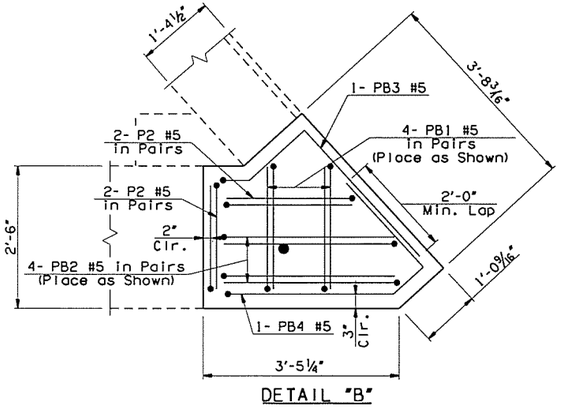


SECTION A-A

⑥ AH #4 Bars at 6" x 1'-4" (Embed. 6" Min. into Cap)



DETAIL "A"



DETAIL "B"

SUMMARY OF QUANTITIES - ABUTMENT NO. 2		
ITEM	UNIT	TOTAL
SPECIAL CONCRETE FINISH	S.Y.	38.00
CLASS A CONCRETE	C.Y.	2.50
EPOXY COATED REINFORCING STEEL	LB.	300.00
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	9.90
PREPARATION OF CRACKS, ABOVE WATER	L.F.	120.00
EPOXY RESIN, ABOVE WATER	GAL.	4.00
PNEUMATICALLY PLACED MORTAR	S.Y.	3.30
(PL) REPAIR BRIDGE ITEMS	S.Y.	1.70

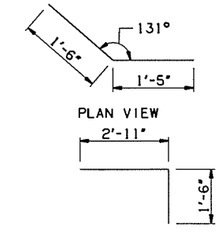
ANCHORAGE SYSTEM:

The Contractor shall use an Anchorage System that has been approved by ODOT's materials division. The Anchorage System shall be capable of developing the full strength of the reinforcing steel that is to be anchored. The embedment depth shown is to be adjusted to meet the Manufacturer's requirements. Anchorages shall be installed in accordance with the Manufacturer's specifications for the system used.

Drilling into the existing concrete to install the anchorage shall be accomplished without cutting existing concrete reinforcing steel bars. Prior to drilling, the Contractor shall locate and mark the existing concrete reinforcing steel bars with non-destructive tools, equipment and methods approved by the Engineer. If existing reinforcing steel bars are encountered during drilling, the drilling shall cease and the hole shall be grouted. The hole shall then be relocated to clear the existing reinforcing steel bars. Any adjustment in the locations of the new reinforcing bars from the plan locations shown shall be the minimum amount necessary to avoid cutting the existing concrete reinforcing steel bars and shall be approved by the Engineer.

All costs of the Anchorage Assemblies including labor, materials, tools, drilling, and incidentals necessary to complete the work shown in the plans shall be included in the price bid per Pound of "EPOXY COATED REINFORCING STEEL".

PEDESTAL & CAP STEP ELEVATIONS		
BEAM NO.	PEDESTAL ELEVATION ②	CAP STEP ELEVATION ①
1	728.38	728.00
2	727.63	727.28
3	726.89	726.54
4	726.15	725.78
5	725.40	725.07



I-44 OVER I-244 NB BRIDGE "A"	TULSA COUNTY	DESIGN	JTR	5/16
ABUTMENT NO. 2 DETAILS (SHEET 2 OF 2)		DETAIL	JTR	5/16
		CHECK	BRT	5/16
		GARVER		
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION			
	JOB PIECE NO. 29775(04)	SHEET NO. 18		

All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

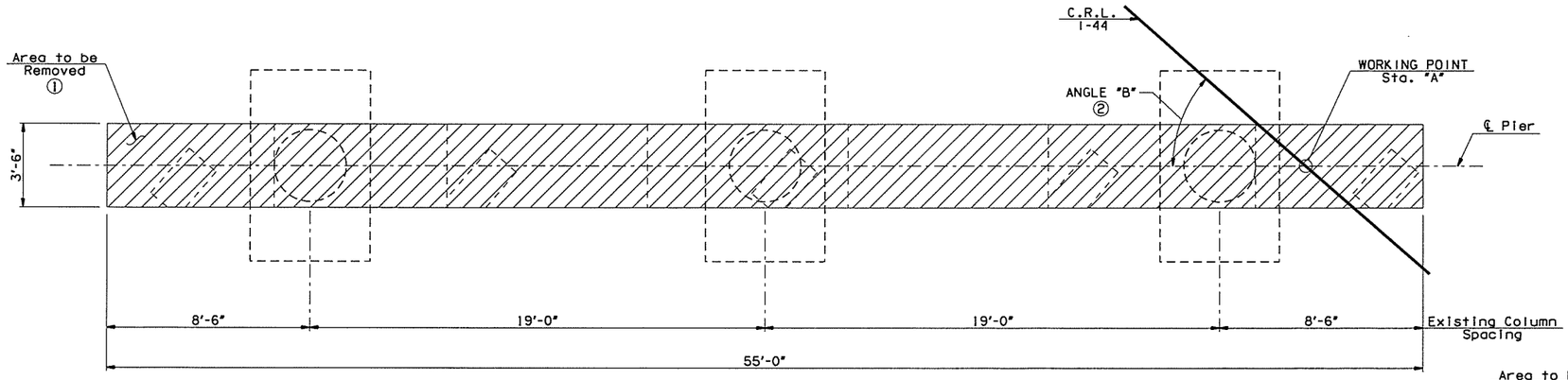
① The Contractor shall score around the edges of area to be removed. Remove all concrete to the limits shown on the plans. All stirrups and longitudinal reinforcement within the removal area shall be replaced as shown in the plans.

② Measured between ℄ Piers and Tangent Line at Working Point.

③ Based on As-Surveyed information.

④ Only applicable at Column No. 3 of Pier No. 2.

⑤ The Contractor shall remove all concrete to the limits shown on the plans. All longitudinal reinforcement within the removal area shall be cleaned, straightened, & preserved. All Stirrups shall be replaced as shown in the plans.



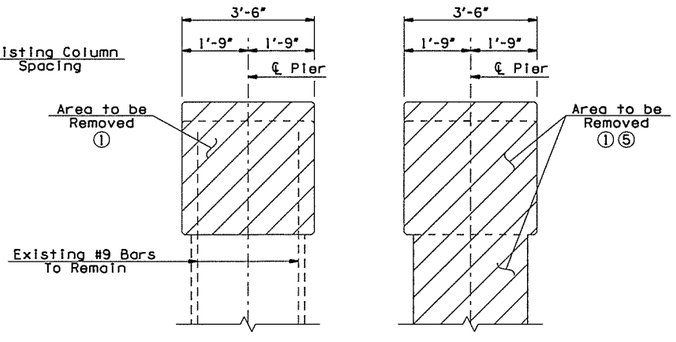
PLAN

LEGEND

Existing Structure

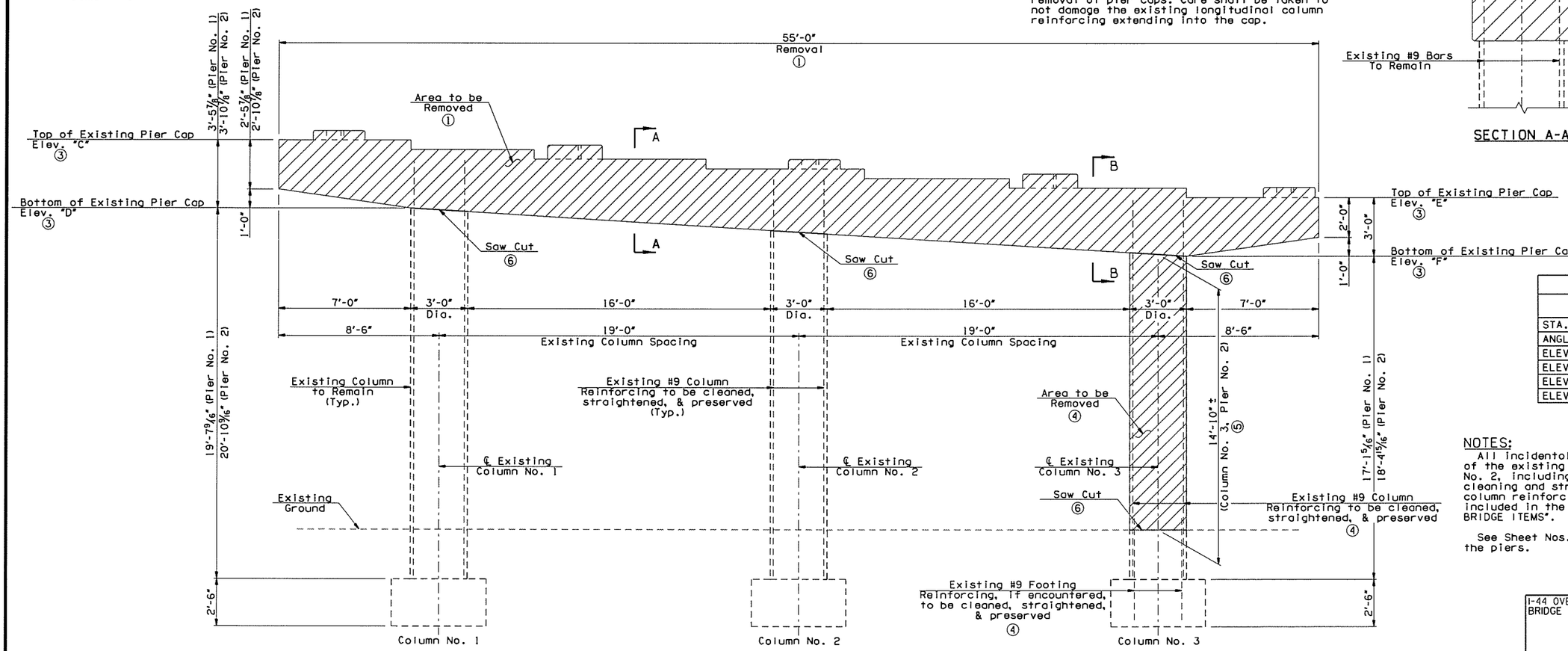
Existing Structure Demolition

⑥ The Contractor shall score around the top of existing columns at a depth of 1" maximum below the face of existing column prior to removal of pier caps. Care shall be taken to not damage the existing longitudinal column reinforcing extending into the cap.



SECTION A-A

SECTION B-B ④



ELEVATION

(Looking Forword Station at Pier No. 1; similar for Pier No. 2)

DEMOLITION

TABLE OF VARIABLES		
	PIER NO. 1	PIER NO. 2
STA. "A"	337+35.67	338+24.03
ANGLE "B"	41°11'23"	45°36'27"
ELEV. "C"	725.83	727.12
ELEV. "D"	722.34	723.21
ELEV. "E"	722.82	724.17
ELEV. "F"	719.82	721.17

NOTES:

All incidental construction required for the removal of the existing pier caps and Column No. 3 at Pier No. 2, including concrete removal, saw cutting, cleaning and straightening of existing longitudinal column reinforcing steel, labor and equipment shall be included in the price bid per Lump Sum of "REMOVAL OF BRIDGE ITEMS".

See Sheet Nos. 20 - 25 for construction details of the piers.

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

PIER DETAILS (SHEET 1 OF 7)

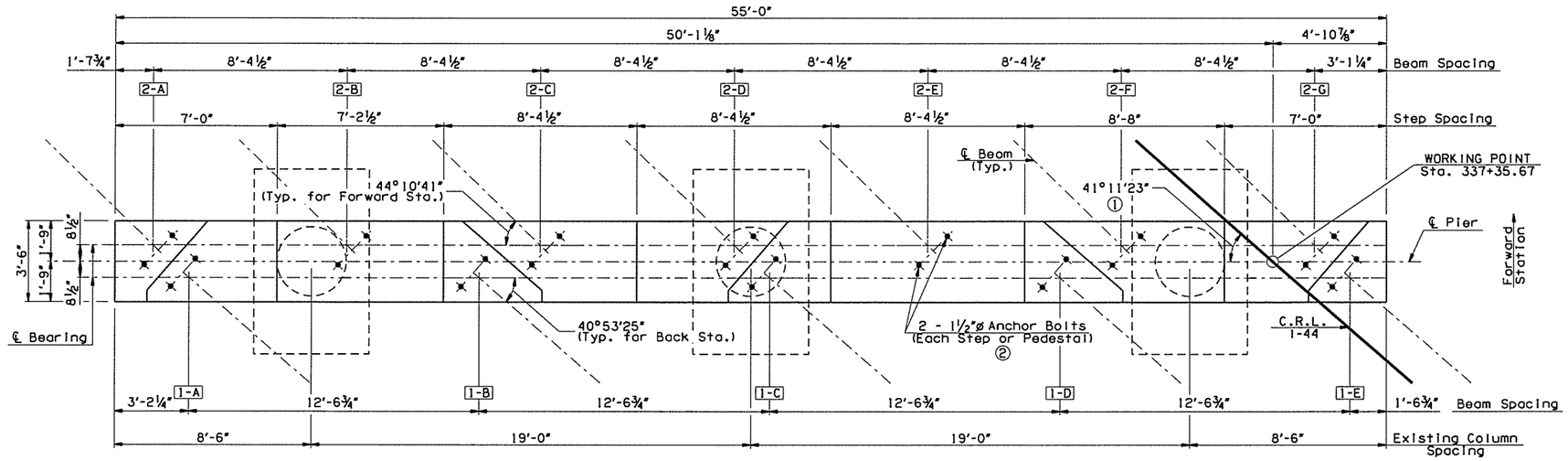
DESIGN	JGS	5/16
DETAIL	JGS	5/16
CHECK	BRT	5/16

GARVER

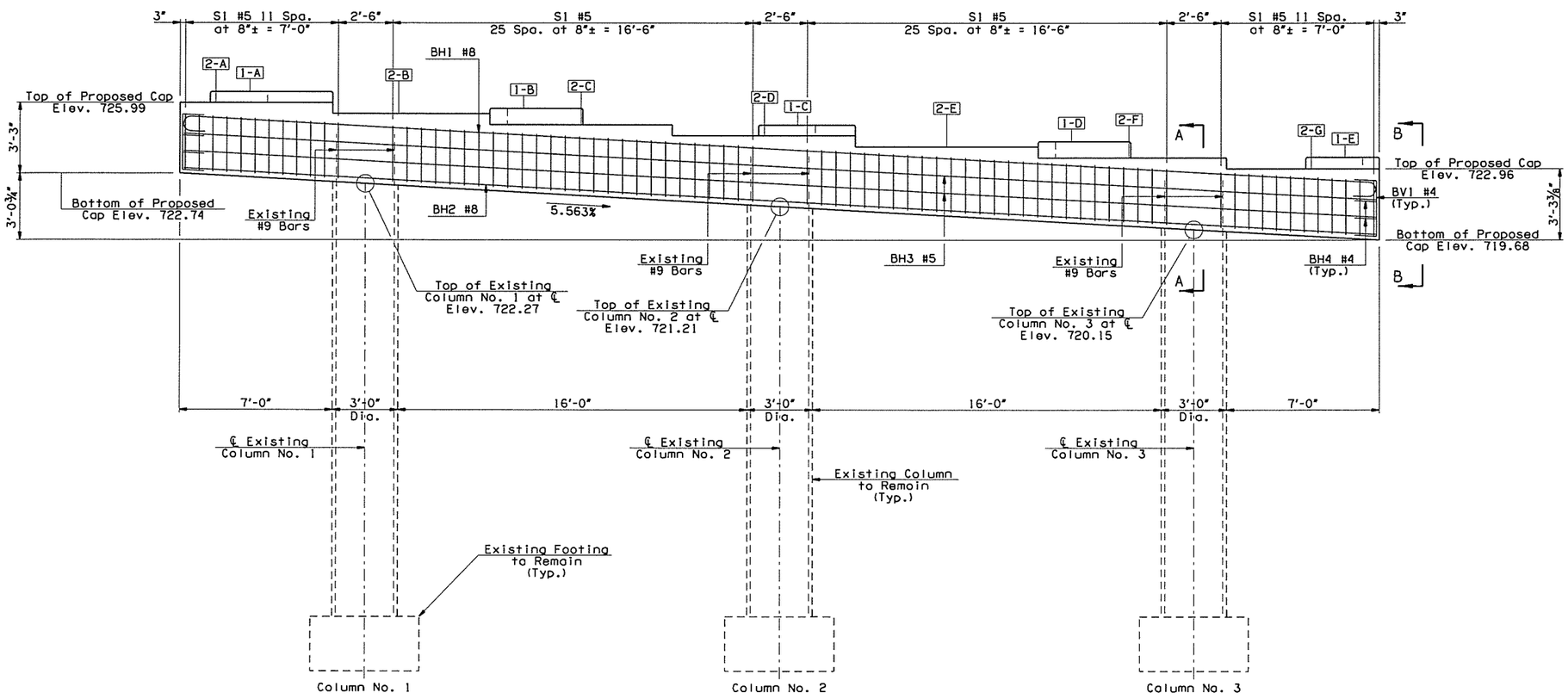
STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 29775(04) SHEET NO. 19

All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

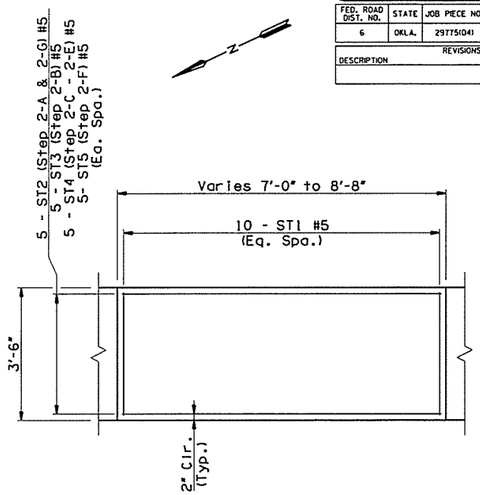


PLAN



ELEVATION
(Looking Forward Station)

PIER NO. 1 CONSTRUCTION



STEP REINFORCING DETAIL

PEDESTAL/STEP ELEVATIONS	
ELEV. 1-A	726.53
ELEV. 1-B	725.78
ELEV. 1-C	725.02
ELEV. 1-D	724.26
ELEV. 1-E	723.54
ELEV. 2-A	725.99
ELEV. 2-B	725.49
ELEV. 2-C	724.98
ELEV. 2-D	724.48
ELEV. 2-E	723.97
ELEV. 2-F	723.47
ELEV. 2-G	722.96

① Measured between ℄ Pier and Tangent Line at Working Point.

② Anchor Bolts for New Pier Cap shall be Cast-in-Place. See Sheet Nos. 26, 37 & 38 for additional details.

NOTES:
See Sheet No. 21 for Pier No. 2 Construction details.

See Sheet No. 22 for Pedestal Reinforcement details.

See Sheet No. 24 for Sections A-A & B-B, and Concrete Treatment details.

See Sheet No. 25 for bar lists, bor bends, and Summary of Quantities.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

PIER DETAILS (SHEET 2 OF 7)

DESIGN	JCS	5/16
DETAIL	JCS	5/16
CHECK	BRT	5/16

GARVER

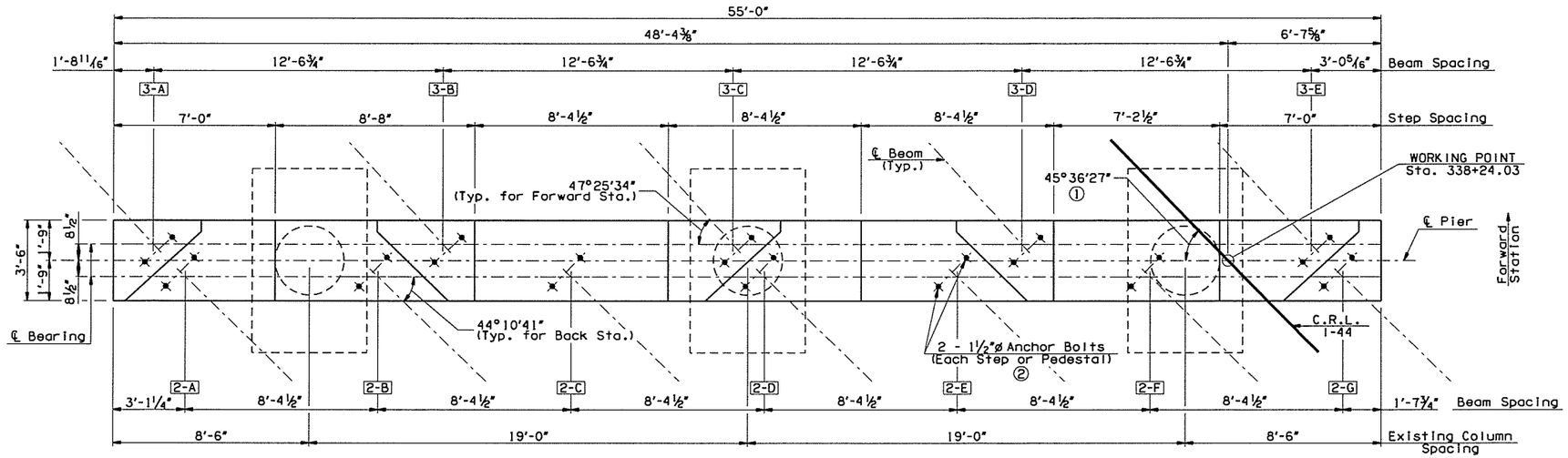
STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 29775(04) SHEET NO. 20

All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

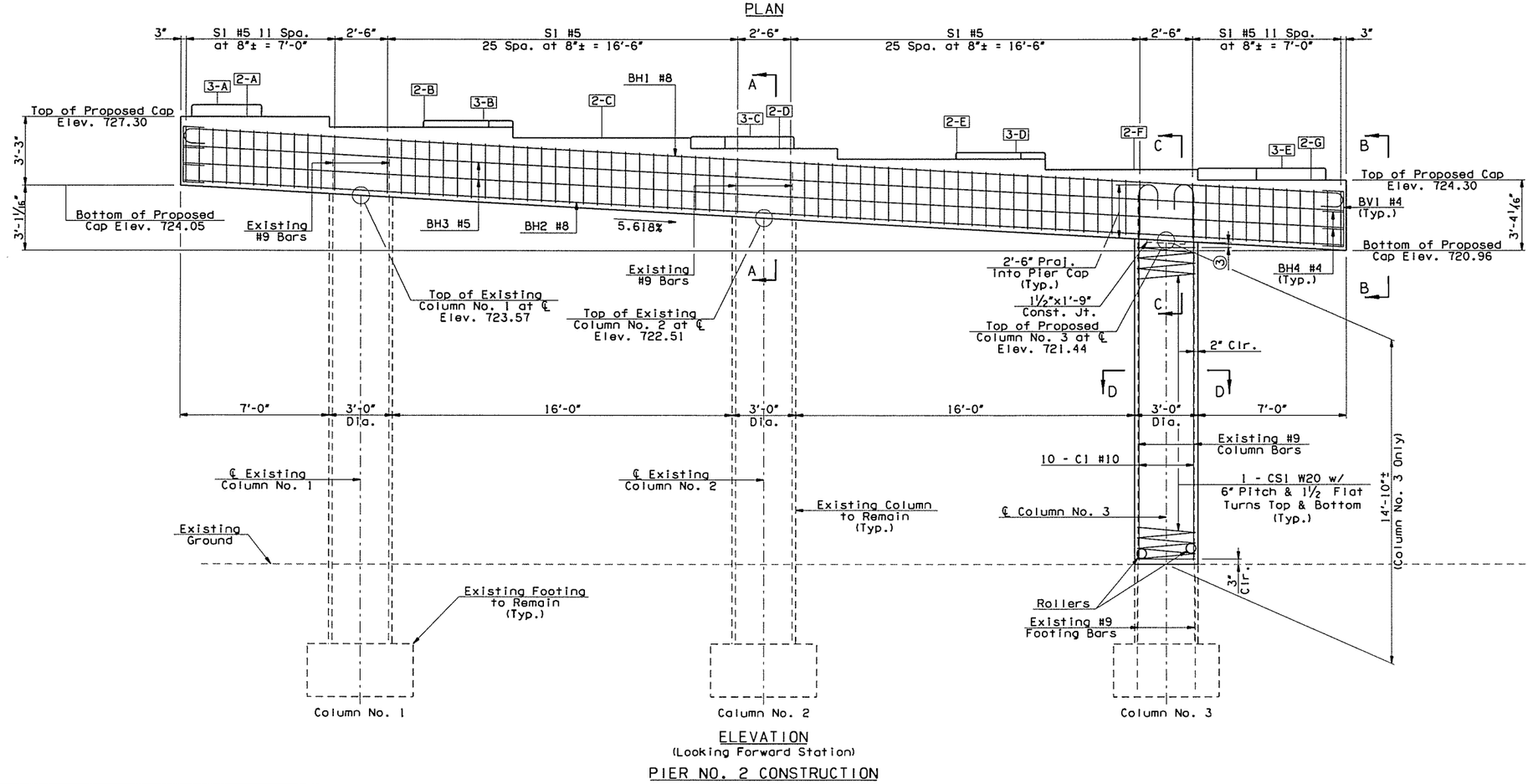
OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

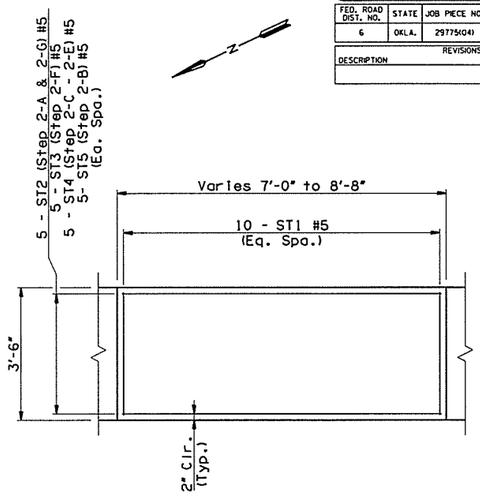


PLAN



ELEVATION
(Looking Forward Station)

PIER NO. 2 CONSTRUCTION



STEP REINFORCING DETAIL

PEDESTAL/STEP ELEVATIONS	
ELEV. 2-A	727.30
ELEV. 2-B	726.80
ELEV. 2-C	726.30
ELEV. 2-D	725.80
ELEV. 2-E	725.30
ELEV. 2-F	724.80
ELEV. 2-G	724.30
ELEV. 3-A	727.90
ELEV. 3-B	727.15
ELEV. 3-C	726.40
ELEV. 3-D	725.66
ELEV. 3-E	724.90

① Measured between ℄ Pier and Tangent Line at Working Point.

② Anchor Bolts for New Pier Cap shall be Cast-in-Place. See Sheet Nos. 26, 37 & 38 for additional details.

③ 3" Clr. at Low Side of Column.

NOTES:

See Sheet No. 20 for Pier No. 1 Construction details.

See Sheet No. 23 for Pedestal Reinforcement details.

See Sheet No. 24 for Sections A-A, B-B, C-C, & D-D, column construction details, and Concrete Treatment details.

See Sheet No. 25 for bar lists, bar bends, and Summary of Quantities.

I-44 OVER I-244 NB — TULSA COUNTY
BRIDGE "A"

PIER DETAILS
(SHEET 3 OF 7)

DESIGN	JCS	5/16
DETAIL	JCS	5/16
CHECK	BRT	5/16

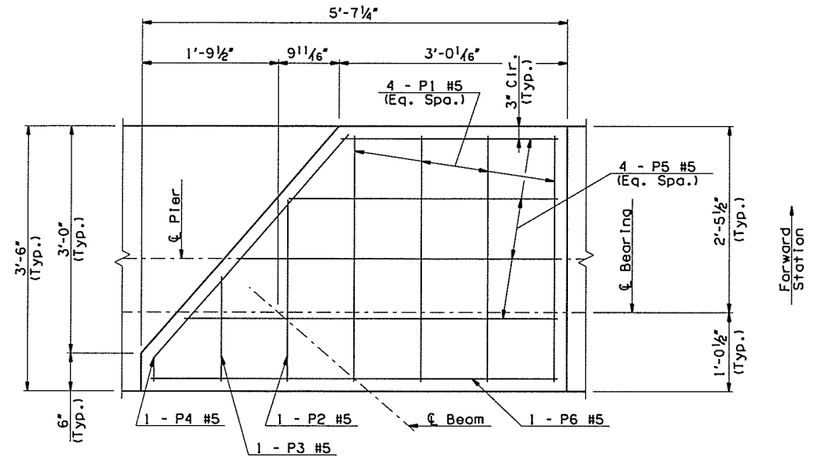
GARVER

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 29775(04) — SHEET NO. 21

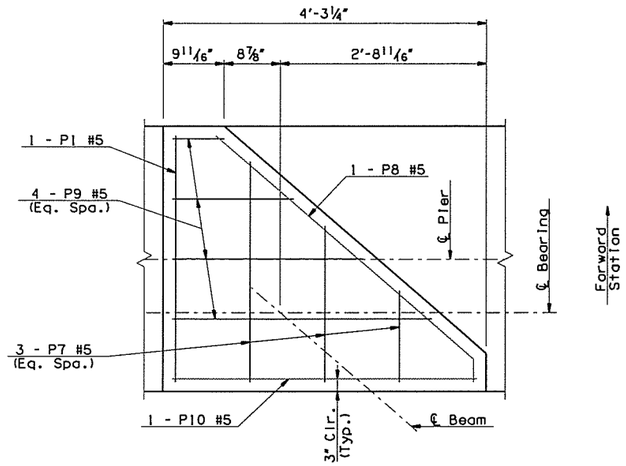
All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

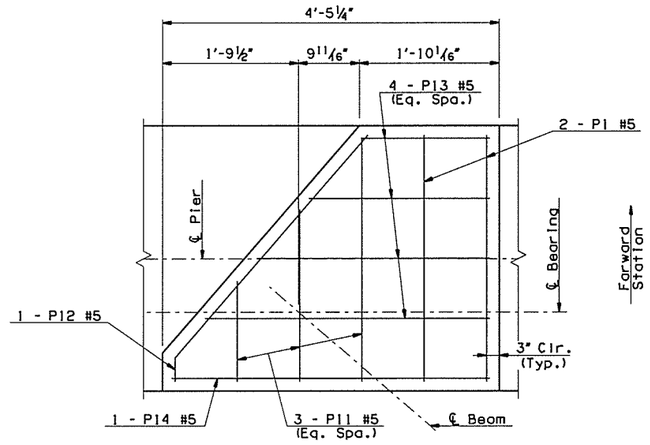
REVISIONS	
DESCRIPTION	DATE



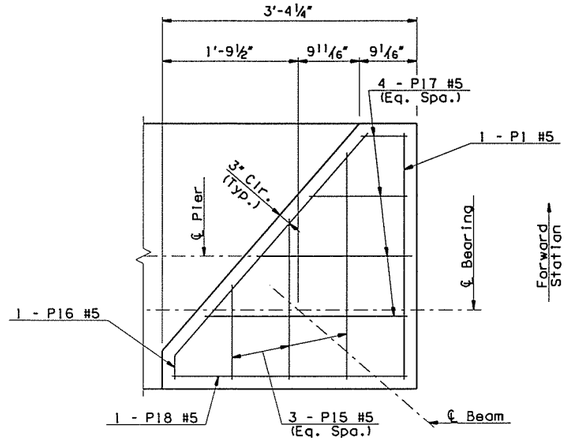
1-A



1-B & 1-D



1-C



1-E

PEDESTAL LAYOUT - PIER NO. 1

NOTES:
See Sheet No. 25 for bar lists, bar bends, and Summary of Quantities.

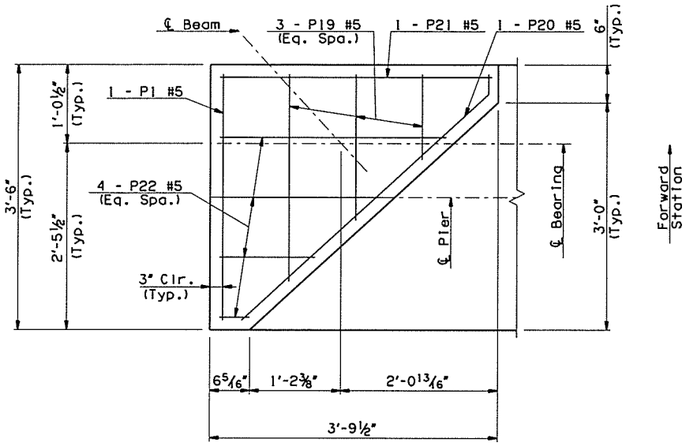
Adjust spacing of pedestal reinforcing around proposed step & cap reinforcing.

I-44 OVER I-244 NB BRIDGE "A"	TULSA COUNTY	DESIGN	JCS 5/16
		DETAIL	JCS 5/16
		CHECK	BRT 5/16
PIER DETAILS (SHEET 4 OF 7)		GARVER	
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION		
	JOB PIECE NO. 29775(04)	SHEET NO. 22	

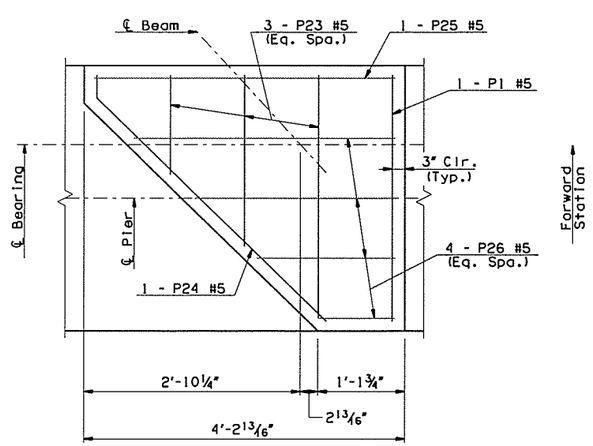
All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

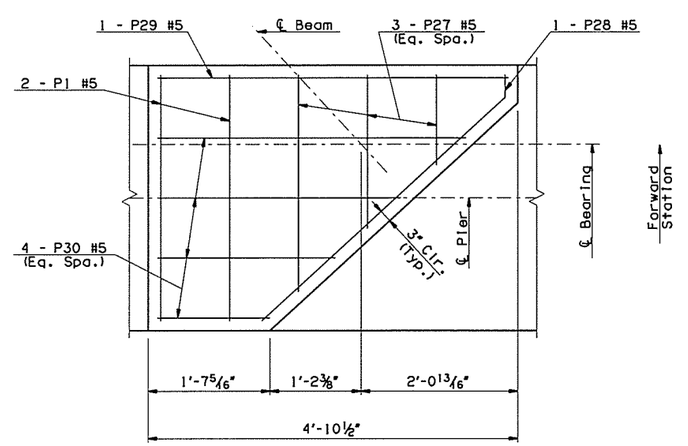
REVISIONS	
DESCRIPTION	DATE



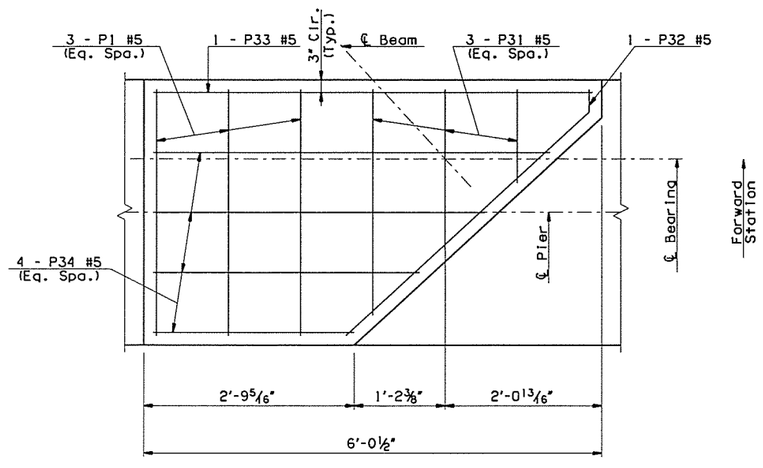
3-A



3-B & 3-D



3-C



3-E

PEDESTAL LAYOUT - PIER NO. 2

NOTES:
See Sheet No. 25 for bar lists, bar bends, and Summary of Quantities.

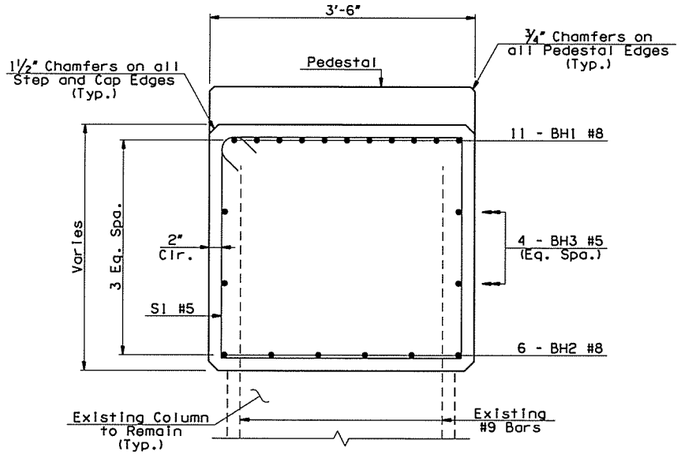
Adjust spacing of pedestal reinforcing around proposed step & cap reinforcing.

I-44 OVER I-244 NB BRIDGE "A"	TULSA COUNTY	DESIGN	JGS 5/16
		DETAIL	JGS 5/16
PIER DETAILS (SHEET 5 OF 7)		CHECK	BRT 5/16
		GARVER	
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION		
	JOB PIECE NO. 29775(04) SHEET NO. 23		

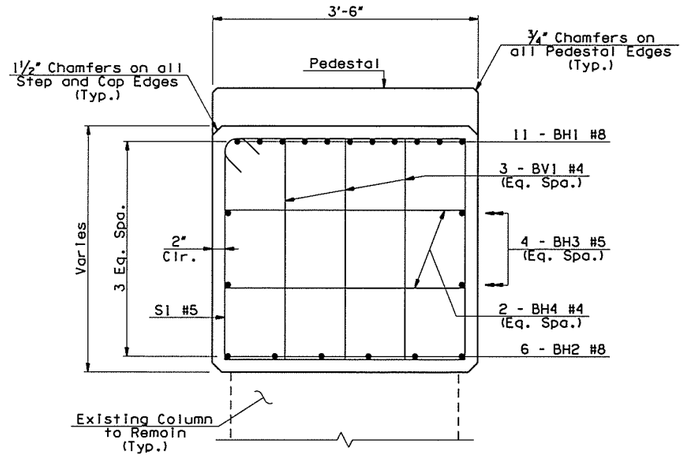
All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

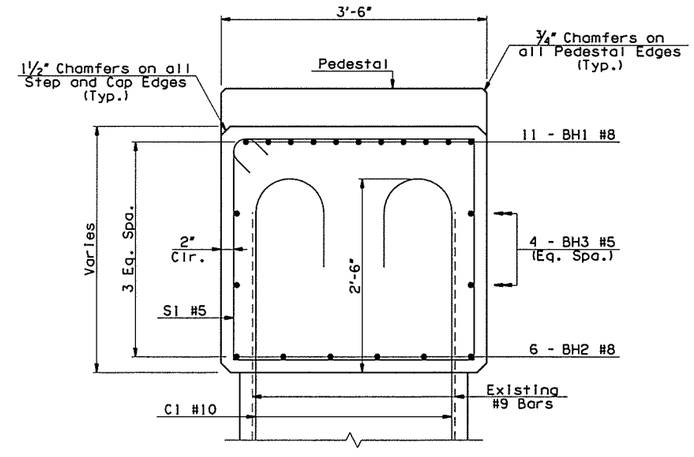
REVISIONS	
DESCRIPTION	DATE



SECTION A-A

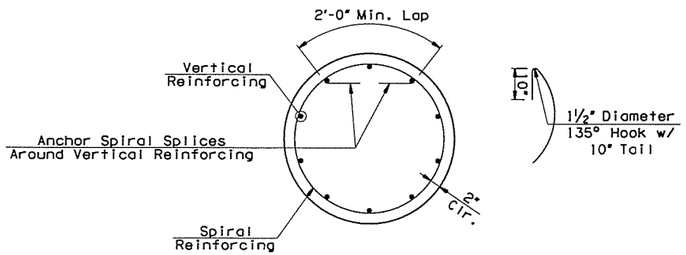


SECTION B-B



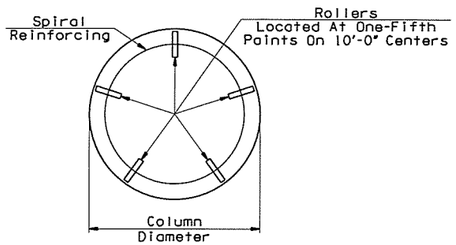
SECTION C-C

DETAILS OF ROLLER INSTALLATION



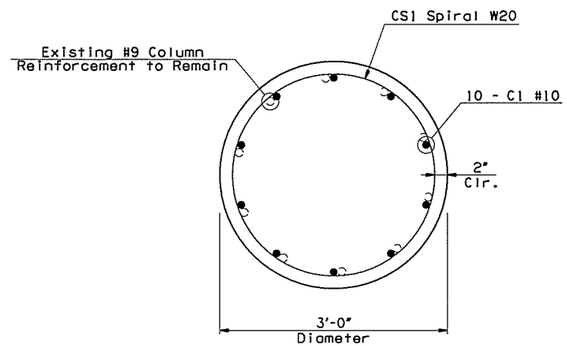
DETAIL OF SPIRAL REINFORCING STEEL

NOTE:
Spiral bars shall confarm to AASHTO M32. Spiral bar length does not include lap. If lap is required, the length of the lap shall be as shown.

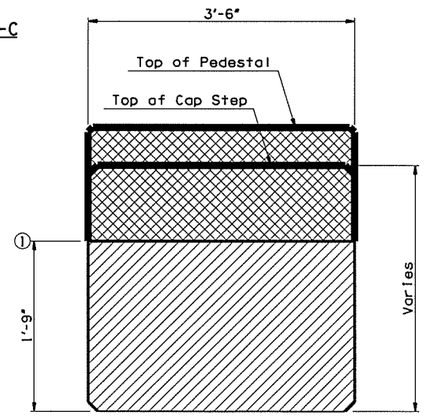


ROLLER PLACEMENT

NOTES:
See Sheet No. 25 for bar lists, bar bends, and Summary of Quantities.



SECTION D-D



② Special Concrete Finish (Crosshatching and Heavy Line)

Water Repellent (Hatching and Heavy Line)

CONCRETE TREATMENT DETAILS

(To be applied after construction is complete)

① Mask sides and ends of Pier Cap, matching the slope of the bottom of the cap, along line ① to provide a clean straight finish. See "GENERAL NOTE" on Sheet No. 4 for Special Concrete Finish Specificotions.

② Apply CIM-100 (Special Concrete Finish), or approved equal, to the indicated surfaces, including pedestals, cap steps, & ends of cap. Included in Pier Quantities.

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

PIER DETAILS (SHEET 6 OF 7)

DESIGN	JGS	5/16
DETAIL	JGS	5/16
CHECK	BRT	5/16

GARVER

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 29775(04) SHEET NO. 24

All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

SUMMARY OF QUANTITIES - PIERS

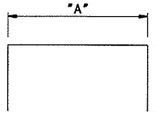
ITEM	UNIT	PIER NO. 1	PIER NO. 2	TOTAL
SPECIAL CONCRETE FINISH	S.Y.	45.00	46.00	91.00
CLASS A CONCRETE	C.Y.	24.30	28.50	52.80
REINFORCING STEEL	LB.		181.00	181.00
EPOXY COATED REINFORCING STEEL	LB.	4,906.00	5,702.00	10,608.00
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	22.90	22.90	45.80
PREPARATION OF CRACKS, ABOVE WATER	L.F.	24.00	24.00	48.00
EPOXY RESIN, ABOVE WATER	GAL.	0.80	0.80	1.60
PNEUMATICALLY PLACED MORTAR	S.Y.	1.40	1.40	2.80
(PL) REPAIR BRIDGE ITEMS	S.Y.	0.70	0.70	1.40

BAR LIST - PIER NO. 1

MARK	SIZE	NO.	FORM	A	B	C	LENGTH	LENGTH VARIATION
EPOXY COATED REINFORCING STEEL								
BH1	#8	11	BENT				56'-7"	
BH2	#8	6	STR.				54'-9"	
BH3	#5	4	STR.				54'-9"	
BH4	#4	4	BENT	3'-0"	1'-0"		5'-0"	
BV1	#4	6	BENT	2'-7"	1'-0"		4'-7"	
P1	#5	9	BENT	3'-0"	1'-8"		6'-4"	
P2	#5	1	BENT	2'-2"	1'-8"		5'-6"	
P3	#5	1	BENT	1'-2"	1'-8"		4'-6"	
P4	#5	1	BENT	3"	3'-10"	1'-6"	7'-1"	
P5	#5	4	BENT	2'-8" TO 4'-8"	1'-8"		7'-0" AVG.	6'-0" TO 8'-0"
P6	#5	1	BENT	5'-1"	1'-8"		8'-5"	
P7	#5	6	BENT	1'-0" TO 2'-8"	1'-8"		5'-2" AVG.	4'-4" TO 6'-0"
P8	#5	2	BENT	3"	4'-5"	1'-6"	7'-8"	
P9	#5	8	BENT	6" TO 3'-3"	1'-8"		5'-2½" AVG.	3'-10" TO 6'-7"
P10	#5	2	BENT	3'-9"	1'-8"		7'-1"	
P11	#5	3	BENT	1'-2" TO 3'-0"	1'-8"		5'-5" AVG.	4'-6" TO 6'-4"
P12	#5	1	BENT	3"	3'-10"	1'-6"	7'-1"	
P13	#5	4	BENT	1'-6" TO 3'-6"	1'-8"		5'-10" AVG.	4'-10" TO 6'-10"
P14	#5	1	BENT	3'-11'	1'-8"		7'-3"	
P15	#5	3	BENT	1'-1" TO 2'-9"	1'-8"		5'-3" AVG.	4'-5" TO 6'-1"
P16	#5	1	BENT	3"	3'-10"	1'-6"	7'-1"	
P17	#5	4	BENT	6" TO 2'-5"	1'-8"		4'-9½" AVG.	3'-10" TO 5'-9"
P18	#5	1	BENT	2'-10"	1'-8"		6'-2"	
S1	#5	76	BENT				11'-11"	
ST1	#5	70	BENT	3'-2"	1'-6"		6'-2"	
ST2	#5	10	BENT	6'-8"	1'-6"		9'-8"	
ST3	#5	5	BENT	6'-10"	1'-6"		9'-10"	
ST4	#5	15	BENT	8'-0"	1'-6"		11'-0"	
ST5	#5	5	BENT	8'-4"	1'-6"		11'-4"	

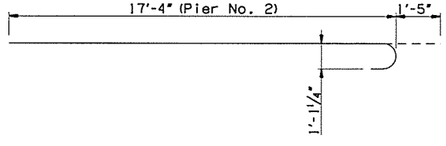
BAR LIST - PIER NO. 2

MARK	SIZE	NO.	FORM	A	B	C	LENGTH	LENGTH VARIATION
EPOXY COATED REINFORCING STEEL								
BH1	#8	11	BENT				56'-7"	
BH2	#8	6	STR.				54'-9"	
BH3	#5	4	STR.				54'-9"	
BH4	#4	4	BENT	3'-0"	1'-0"		5'-0"	
BV1	#4	6	BENT	2'-7"	1'-0"		4'-7"	
C1	#10	10	BENT				18'-9"	
P1	#5	8	BENT	3'-0"	1'-8"		6'-4"	
P19	#5	3	BENT	11" TO 2'-6"	1'-6"		4'-8½" AVG.	3'-11" TO 5'-6"
P20	#5	1	BENT	3"	4'-4"	1'-6"	7'-7"	
P21	#5	1	BENT	3'-3"	1'-6"		6'-3"	
P22	#5	4	BENT	6" TO 2'-9"	1'-6"		4'-7½" AVG.	3'-6" TO 5'-9"
P23	#5	6	BENT	1'-1" TO 3'-0"	1'-6"		5'-0½" AVG.	4'-1" TO 6'-0"
P24	#5	2	BENT	3"	4'-2"	1'-6"	7'-5"	
P25	#5	2	BENT	3'-9"	1'-6"		6'-9"	
P26	#5	8	BENT	9" TO 3'-3"	1'-6"		5'-0" AVG.	3'-9" TO 6'-3"
P27	#5	3	BENT	1'-0" TO 2'-8"	1'-6"		4'-10" AVG.	4'-0" TO 5'-8"
P28	#5	1	BENT	3"	4'-4"	1'-6"	7'-7"	
P29	#5	1	BENT	4'-4"	1'-6"		7'-4"	
P30	#5	4	BENT	1'-3" TO 3'-10"	1'-6"		5'-6½" AVG.	4'-3" TO 6'-10"
P31	#5	3	BENT	1'-0" TO 2'-9"	1'-6"		4'-10½" AVG.	4'-0" TO 5'-9"
P32	#5	1	BENT	3"	4'-4"	1'-6"	7'-7"	
P33	#5	1	BENT	5'-6"	1'-6"		8'-6"	
P34	#5	4	BENT	2'-5" TO 5'-0"	1'-6"		6'-8½" AVG.	5'-5" TO 8'-0"
S1	#5	76	BENT				11'-11"	
ST1	#5	70	BENT	3'-2"	1'-6"		6'-2"	
ST2	#5	10	BENT	6'-8"	1'-6"		9'-8"	
ST3	#5	5	BENT	6'-10"	1'-6"		9'-10"	
ST4	#5	15	BENT	8'-0"	1'-6"		11'-0"	
ST5	#5	5	BENT	8'-4"	1'-6"		11'-4"	
REINFORCING STEEL								
CS1	W20	1	SPIRAL				265'-9"	

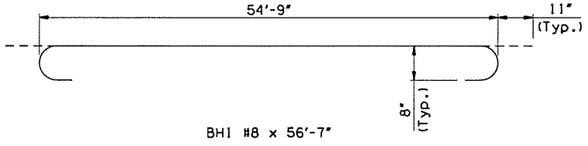


BH4, BV1, P1 - P3, P5 - P7, P9 - P11, P13 - P15, P17, P18, ST1 - ST5 #5 Bars (Pier No. 1)

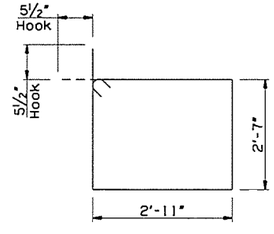
BH4, BV1, P1, P19, P21 - P23, P25 - P27, P29 - P31, P33, P34, ST1 - ST5 #5 Bars (Pier No. 2)



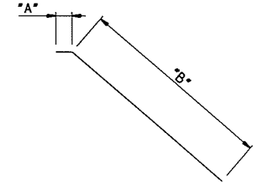
C1 #10 x 18'-9" (Pier No. 2)



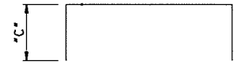
BH1 #8 x 56'-7"



S1 #5 x 11'-11"



PLAN



ELEVATION

P4, P8, P12, P16 #5 (Pier No. 1)

P20, P24, P28, P32 #5 (Pier No. 2)

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

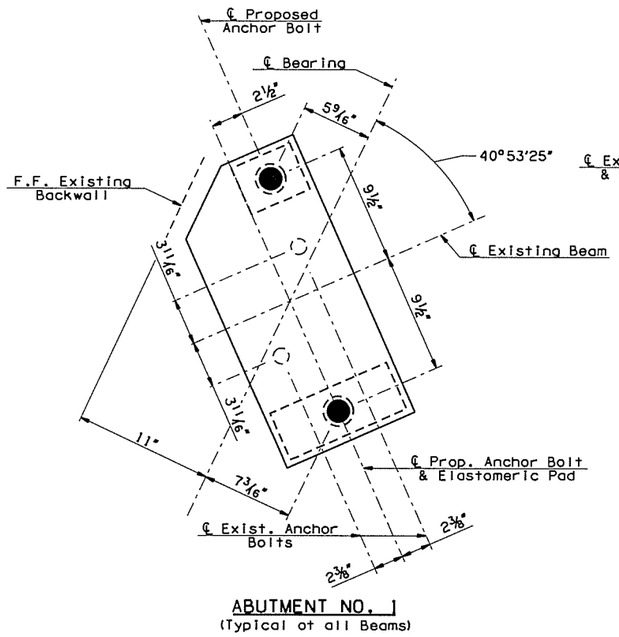
PIER DETAILS (SHEET 7 OF 7)

DESIGN	JGS	5/16
DETAIL	JGS	5/16
CHECK	BRT	5/16

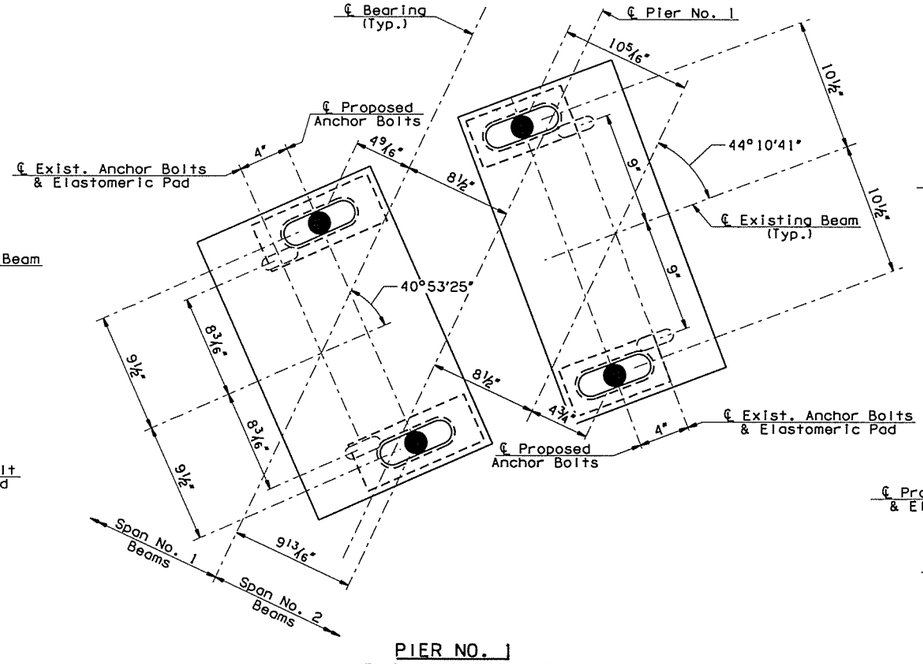
GARVER

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

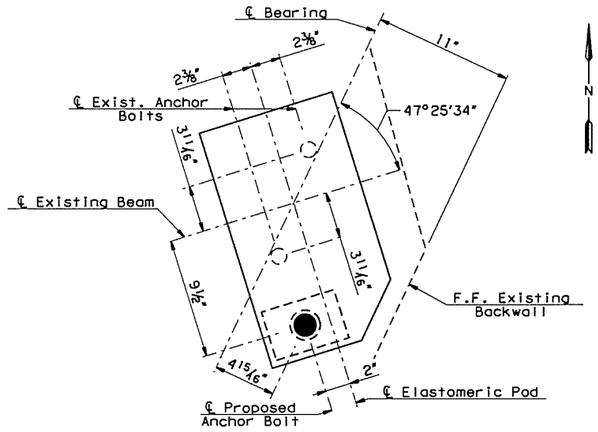
JOB PIECE NO. 29775(04) SHEET NO. 25



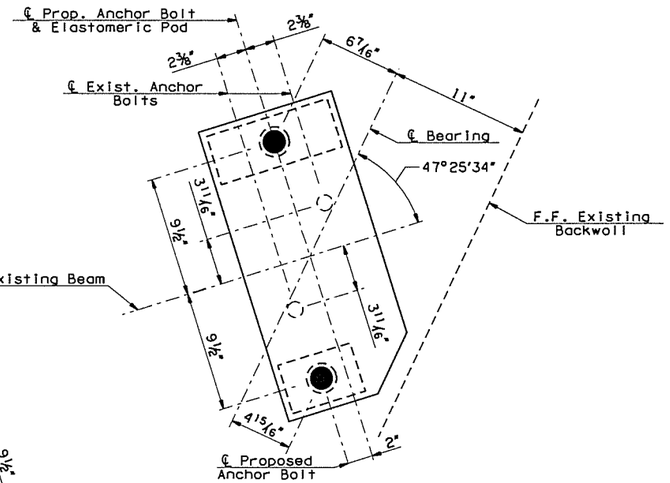
ABUTMENT NO. 1
(Typical at all Beams)



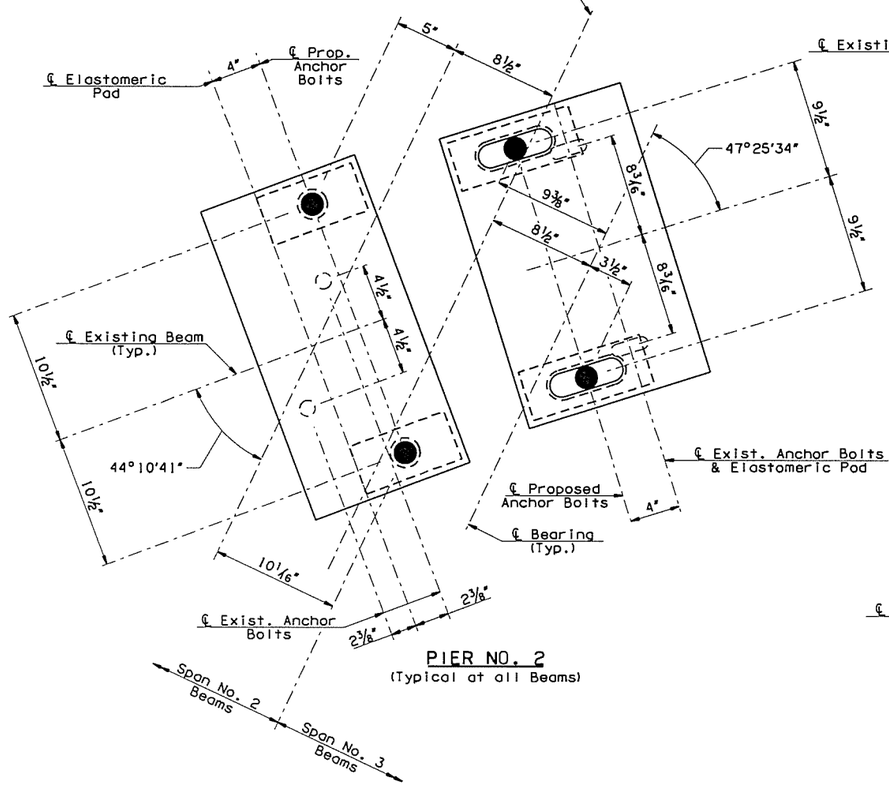
PIER NO. 1
(Typical at all Beams)



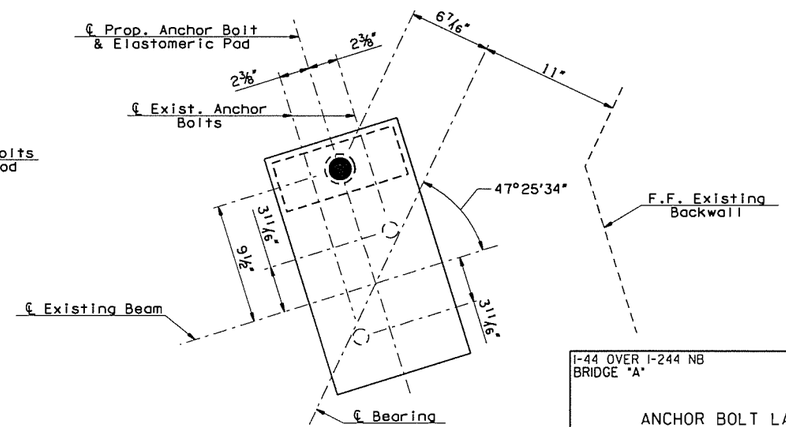
NORTH EXTERIOR BEAM NO. 1



INTERIOR BEAM NOS. 2 - 4



PIER NO. 2
(Typical at all Beams)



SOUTH EXTERIOR BEAM NO. 5
ABUTMENT NO. 2

N

Forword Station

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			
REVISIONS					
DESCRIPTION				DATE	

I-44 OVER I-244 NB — TULSA COUNTY
BRIDGE "A"

ANCHOR BOLT LAYOUT

DESIGN	JTR	4/15
DETAIL	SJL	5/16
CHECK	BRT	5/16

GARVER

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 29775(04) — SHEET NO. 26

① See Sheet No. 34 for additional details.

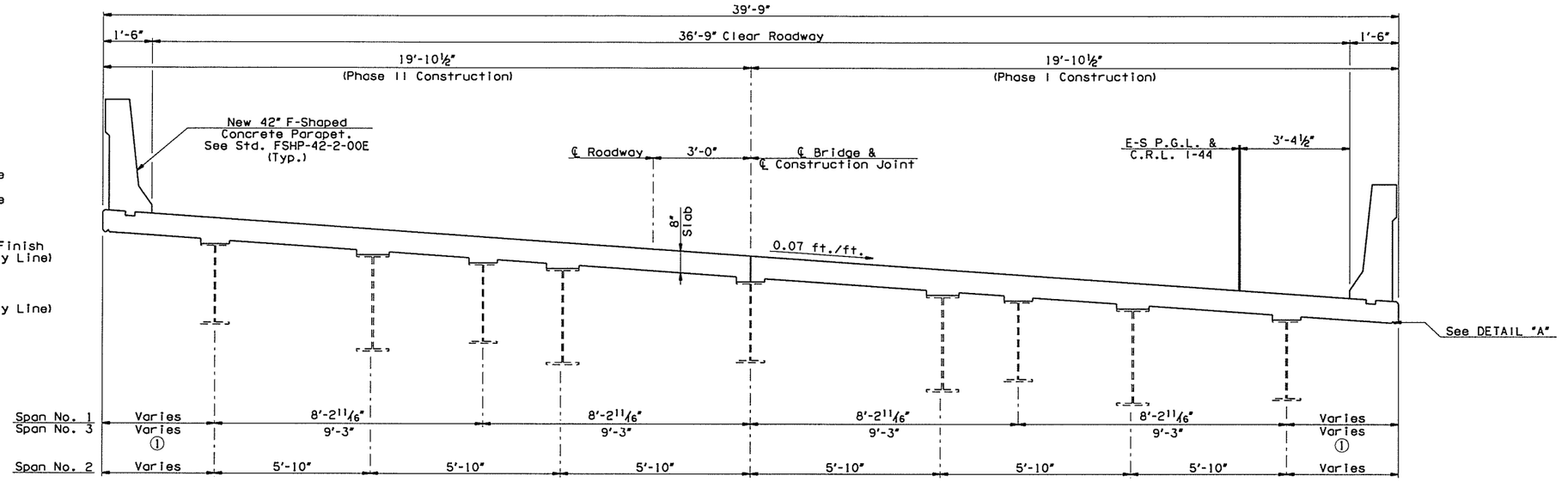
OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

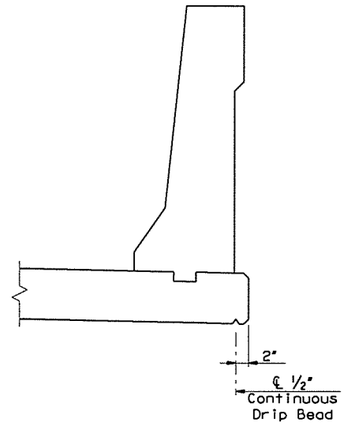
DESCRIPTION	DATE

LEGEND

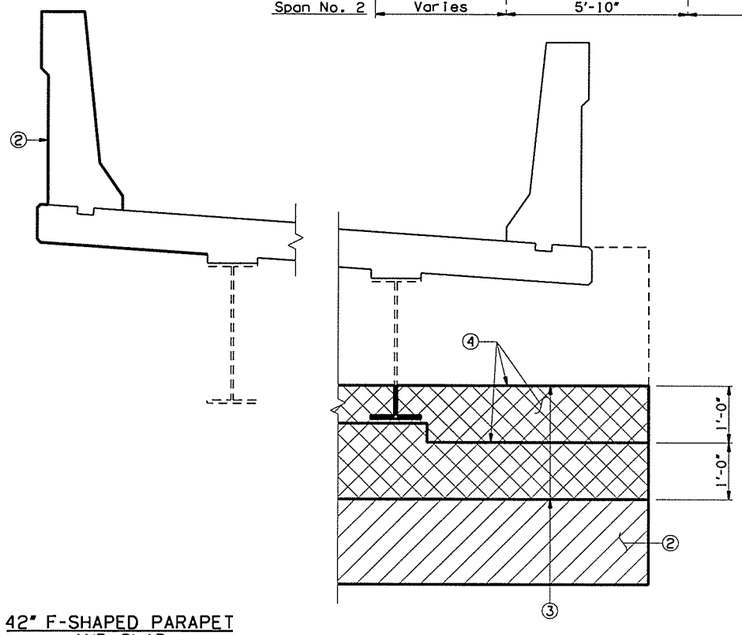
- Existing Structure
- Proposed Structure
- Special Concrete Finish (Hatching and Heavy Line)
- Water Repellent (Hatching and Heavy Line)



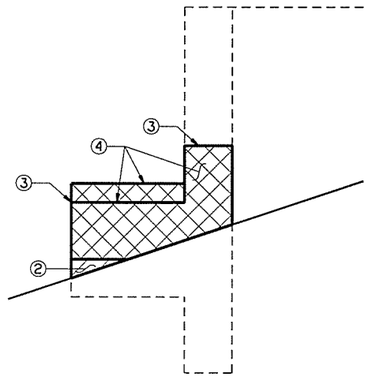
TYPICAL SECTION - PROPOSED



DETAIL "A"



42" F-SHAPED PARAPET AND SLAB



ABUTMENT

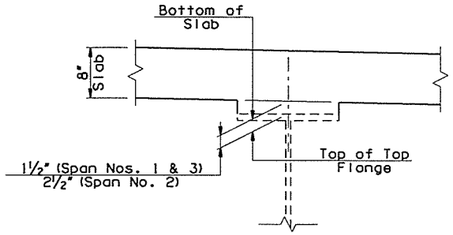
WATER REPELLENT TREATMENT DETAILS

② Water Repellent on the 42" F-Shaped Parapets & Cantilever to be paid for in Superstructure quantities. Water Repellent on the Abutment faces to be paid for in Abutment Quantities.

③ Mask sides and ends of Abutment Cap along this line to provide a clean straight finish at top and bottom of Special Concrete Finish application. See "GENERAL NOTE" on Sheet No.4 for Special Concrete Finish Specifications.

④ Apply CIM-100 (Special Concrete Finish), or approved equal, to the surfaces indicated by crosshatch and heavy lines, including pedestals, cap steps, backwall, & ends of cap. Included in Abutment Quantities.

SUMMARY OF QUANTITIES - SUPERSTRUCTURE				
ITEM	UNIT	PHASE I CONSTRUCTION	PHASE II CONSTRUCTION	TOTAL
SAW-CUT GROOVING	S.Y.	361.30	355.10	716.40
SEALED EXPANSION JOINT	L.F.	57.40	56.50	113.90
42" F-SHAPED PARAPET	L.F.	179.00	172.90	351.90
STRUCTURAL STEEL	LB.			5,000.00
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.			17.00
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA.			17.00
CLASS AA CONCRETE	C.Y.	90.10	88.50	178.60
MECHANICAL SPLICES	EA.	651.00		651.00
EPOXY COATED REINFORCING STEEL	LB.	37,298.00	34,251.00	71,549.00
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	220.80	220.20	441.00

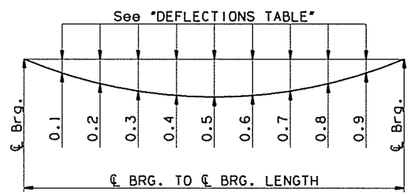


BEAM HAUNCH DETAIL

NOTE:
Plan quantities for CLASS AA CONCRETE include Beam Haunches. The Haunch height shown is the theoretical Haunch height at the centerline bearing only, measured from bottom of Deck Slab to Top of Top Flange, and varies across the span. Determine the actual Haunch height (accounting for dead load deflection and roadway grade) after erection of the beams and submit to the Engineer for approval. The Engineer will not measure differences between the theoretical and the actual Haunch heights for payment.

⑤ The Dead Load Deflections shown at the tenth points are the deflections due to Rolled Beams and Diaphragms (inches).

⑥ The Dead Load Deflections shown at the tenth points are the deflections due to Deck Slab + Haunch + 42" F-Shaped Parapet.



DEAD LOAD DEFLECTION DIAGRAM

DEFLECTIONS TABLE

SPAN NO.	℄ BEARING		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9	
	⑤	⑥	⑤	⑥	⑤	⑥	⑤	⑥	⑤	⑥	⑤	⑥	⑤	⑥	⑤	⑥	⑤	⑥	⑤	⑥
1	0.000"	0.000"	0.021"	0.143"	0.039"	0.257"	0.051"	0.341"	0.060"	0.397"	0.063"	0.423"	0.061"	0.407"	0.054"	0.355"	0.041"	0.270"	0.022"	0.150"
2	0.000"	0.000"	0.244"	0.788"	0.449"	1.446"	0.611"	1.965"	0.714"	2.293"	0.751"	2.408"	0.719"	2.305"	0.620"	1.989"	0.460"	1.478"	0.250"	0.803"
3	0.000"	0.000"	0.023"	0.160"	0.042"	0.288"	0.056"	0.382"	0.065"	0.443"	0.069"	0.471"	0.066"	0.455"	0.058"	0.398	0.044	0.301"	0.024"	0.166"

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

TYPCIAL SECTION

DESIGN	JTR	4/15
DETAIL	JTR	4/15
CHECK	BRT	5/16

GARVER

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 29775(04) — SHEET NO. 27

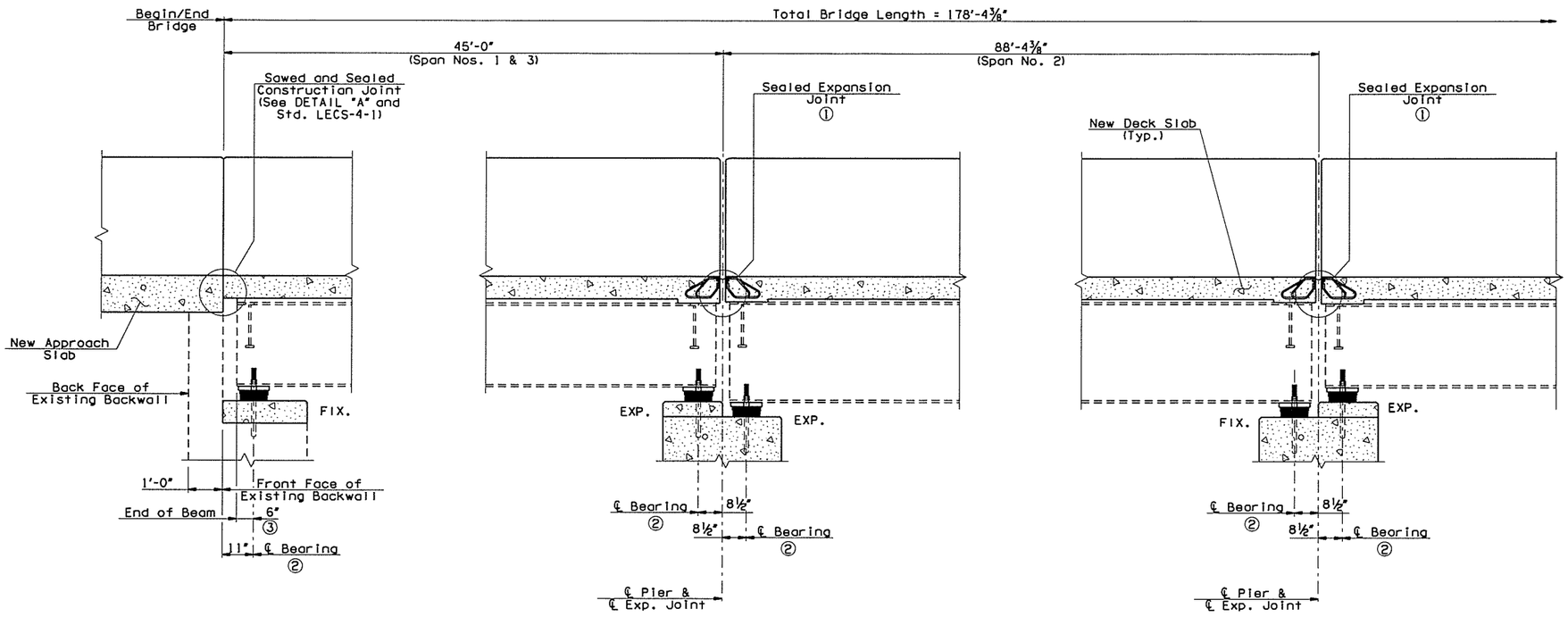
16:12:08 L:\2014\14037190 - ODOT EC 1591 Bridge Rehab Tulsa Co\Drawings\29775(04) I-44\BRIDGE\jp29775(04)-a_typ.dgn

7/7/2016 TULSA COUNTY

All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE

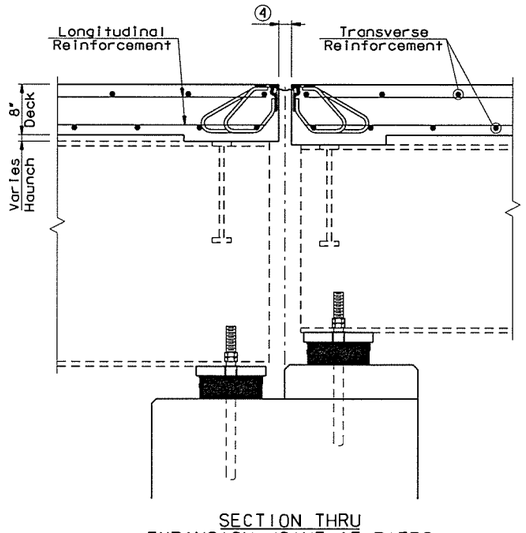


ABUTMENT NOS. 1 & 2
(Abutment No. 1 shown, Abutment No. 2 similar but opposite hand)

PIER NO. 1

PIER NO. 2

LONGITUDINAL SECTION
(Do not groove within 6" of any construction joints)



SECTION THRU EXPANSION JOINT AT PIERS

① Sealed Expansion Joints shall be constructed as shown in the plans and in accordance with Standards EJ-SK-03E and EJ-DTL-01E.

② Measured Perpendicular to Front Face of Backwall (Abutments) or ℄ Pier Cap (Piers).

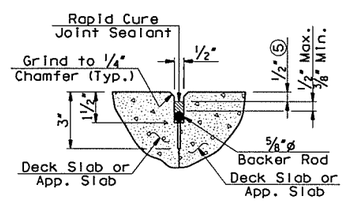
③ Measured Along ℄ Beam.

④ The Expansion Joint Openings shall be set at the time the Deck Slab Concrete is poured. The width of the opening, calculated in inches, shall be as follows:

At Pier No. 1 = 2.4535 - (0.00756 x T)
At Pier No. 2 = 2.1530 - (0.00255 x T)

Where "T" equals the Ambient Air Temperature in degrees Fahrenheit at the time the Deck Slab Concrete is poured. (10°F<T<120°F).

Note that the Expansion Joint Opening shall be measured perpendicular to the centerline of the joint.



DETAIL "A"

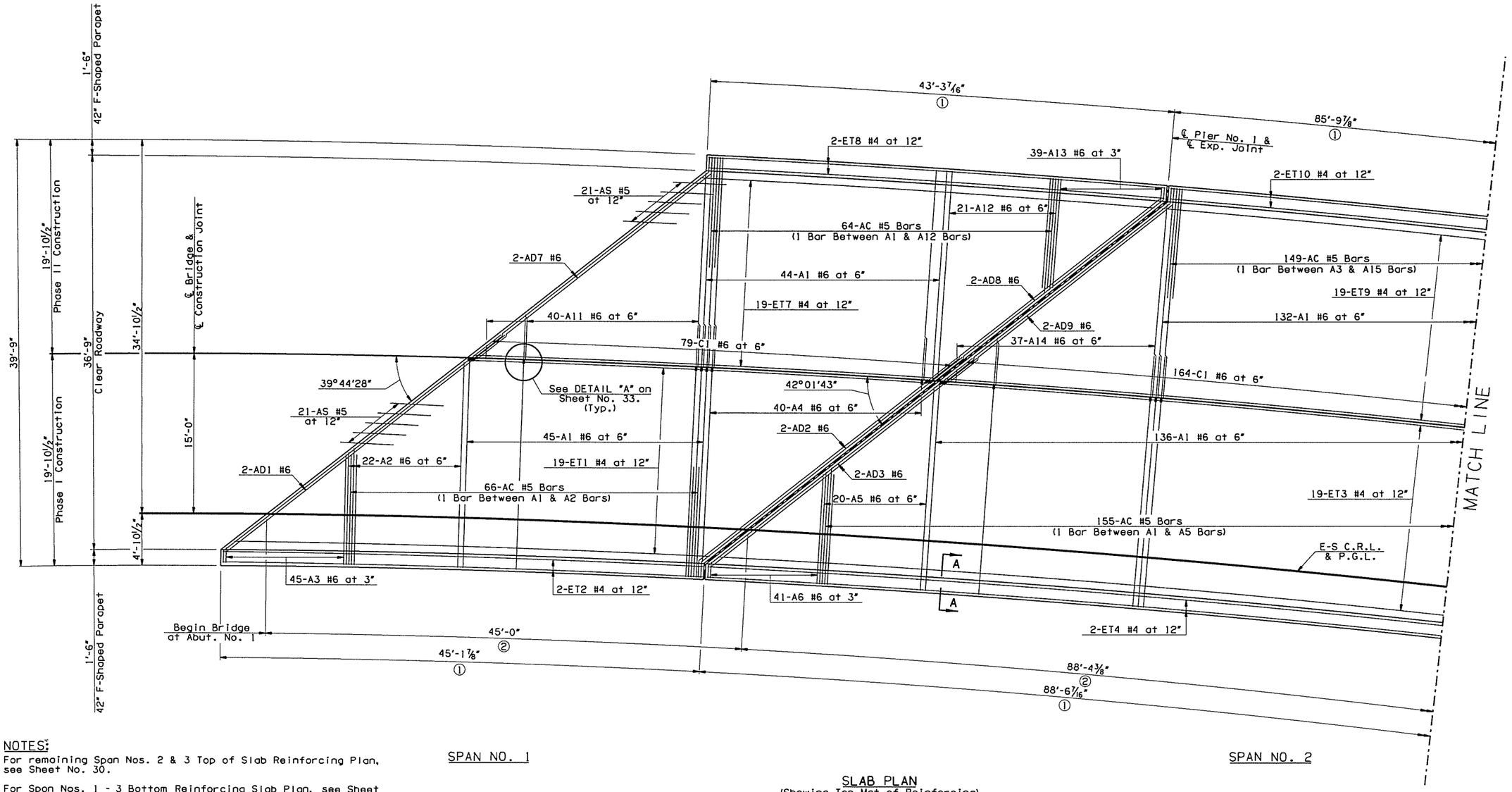
⑤ This dimension shall taper from ½" at edge of driving lane/shoulder to ⅛" at rail for Transverse Joints only.

I-44 OVER I-244 NB BRIDGE "A"	TULSA COUNTY	DESIGN	JTR	5/16
		DETAIL	JTR	5/16
		CHECK	BRT	5/16
LONGITUDINAL SECTION		GARVER		
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION			
	JOB PIECE NO. 29775(04)	SHEET NO. 28		

① Measured Along Outside Edge of Slab
② Measured along C.R.L.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE



SPAN NO. 1

SPAN NO. 2

SLAB PLAN
(Showing Top Mat of Reinforcing)

NOTES:

For remaining Span Nos. 2 & 3 Top of Slab Reinforcing Plan, see Sheet No. 30.

For Span Nos. 1 - 3 Bottom Reinforcing Slab Plan, see Sheet Nos. 31 & 32 .

See Sheet No. 28 for details and Expansion Joint Opening Equation.

All transverse reinforcement shall be placed along radial lines to C.R.L. and are measured along edge of slab.

All longitudinal reinforcement shall be oriented along a curve concentric with C.R.L.

42" F-Shaped Parapet reinforcement not shown for clarity. See Std. FSHP-42-2-00E and Sheet No. 35 for details.

Rotate hooks on A and AC Bars to maintain minimum clearance.

All lap lengths shall be staggered.

For bar lists, bar bends and SECTION A-A, see Sheet No. 33.

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

SUPERSTRUCTURE DETAILS (SHEET 1 OF 7)

DESIGN	JTR	4/15
DETAIL	SJL	5/16
CHECK	BRT	5/16

GARVER

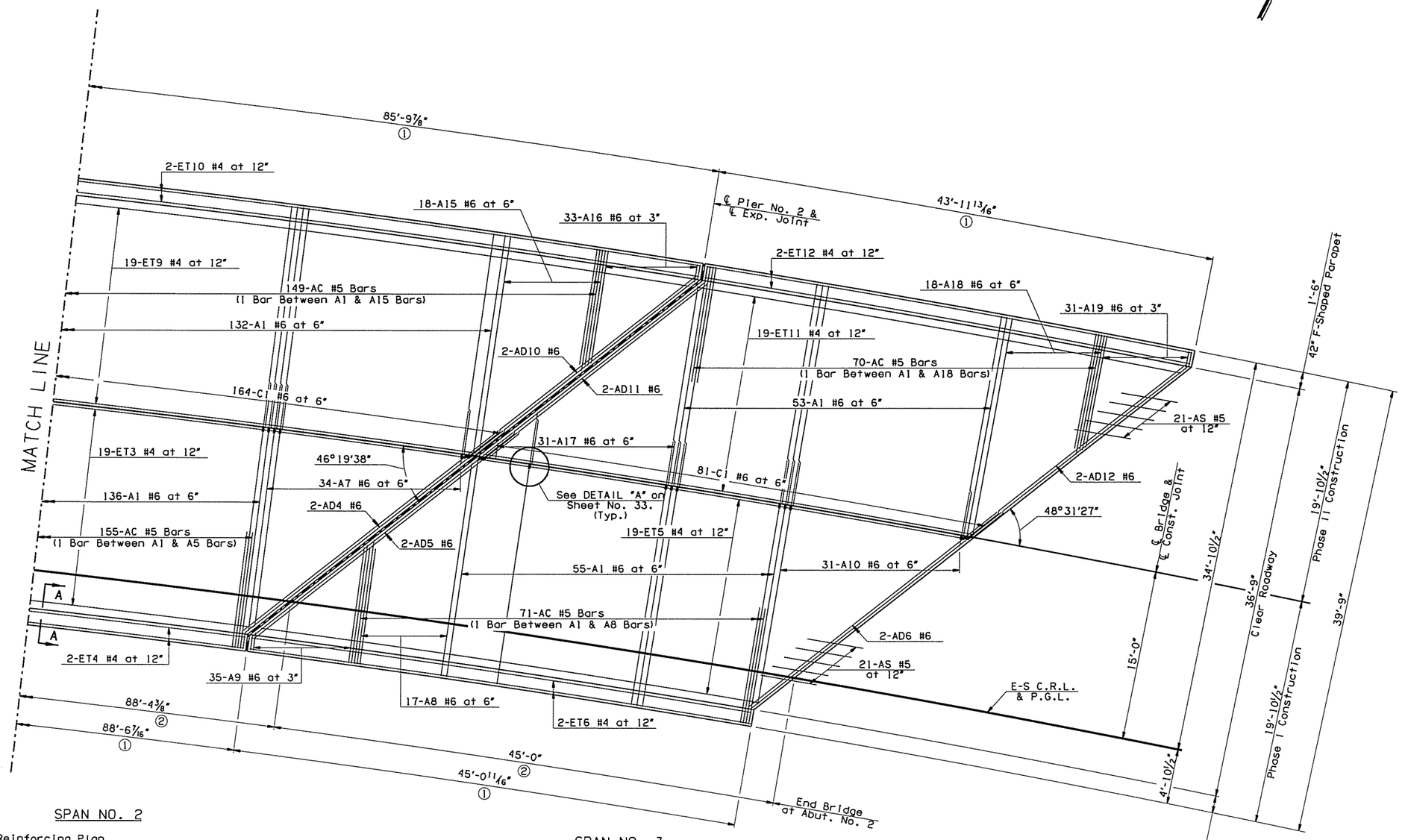
STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 29775(04) SHEET NO. 29

① Measured Along Outside Edge of Slab
② Measured along C.R.L.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE



SPAN NO. 2

SPAN NO. 3

SLAB PLAN
(Showing Top Mat of Reinforcing)

NOTES:

For remaining Span Nos. 1 & 2 Top of Slab Reinforcing Plan, see Sheet No. 29.

For Span Nos. 1-3 Bottom Reinforcing Slab Plan, see Sheet Nos. 31 & 32 .

See Sheet No. 28 for details and Expansion Joint Opening Equation.

All transverse reinforcement shall be placed along radial lines to C.R.L. and are measured along edge of slab.

All longitudinal reinforcement shall be oriented along a curve concentric with C.R.L.

42" F-Shaped Parapet reinforcement not shown for clarity. See Std. FSHP-42-2-00E and Sheet No. 35 for details.

Rotate hooks on A and AC Bars to maintain minimum clearance.

All lap lengths shall be staggered.

For bar lists, bar bends and SECTION A-A, see Sheet No. 33.

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

SUPERSTRUCTURE DETAILS (SHEET 2 OF 7)

DESIGN	JTR	4/15
DETAIL	SJL	5/16
CHECK	BRT	5/16

GARVER

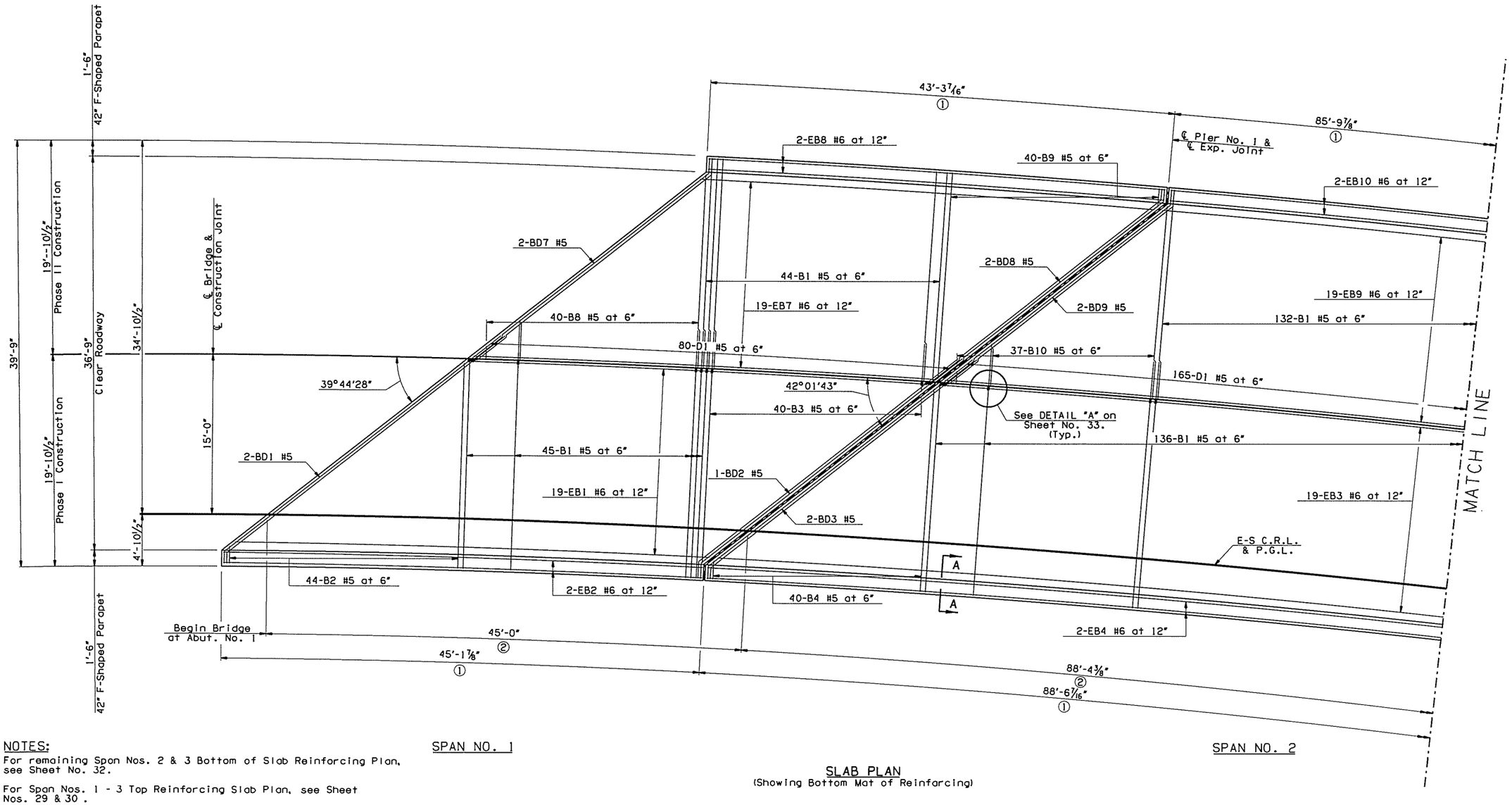
STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 29775(04) — SHEET NO. 30

① Measured Along Outside Edge of Slab
② Measured along C.R.L.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE



SPAN NO. 1

SPAN NO. 2

SLAB PLAN
(Showing Bottom Mat of Reinforcing)

NOTES:

For remaining Span Nos. 2 & 3 Bottom of Slab Reinforcing Plan, see Sheet No. 32.

For Span Nos. 1 - 3 Top Reinforcing Slab Plan, see Sheet Nos. 29 & 30 .

See Sheet No. 28 for details and Expansion Joint Opening Equation.

All transverse reinforcement shall be placed along radial lines to C.R.L. and are measured along edge of slab.

All longitudinal reinforcement shall be oriented along a curve concentric with C.R.L.

42" F-Shaped Parapet reinforcement not shown for clarity. See Std. FSHP-42-2-00E and Sheet No. 35 for details.

Rotate hooks on A and AC Bars to maintain minimum clearance.

All lap lengths shall be staggered.

For bar lists, bar bends and SECTION A-A, see Sheet No. 33.

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

SUPERSTRUCTURE DETAILS (SHEET 3 OF 7)

DESIGN	JTR	4/15
DETAIL	SJL	5/16
CHECK	BRT	5/16

GARVER

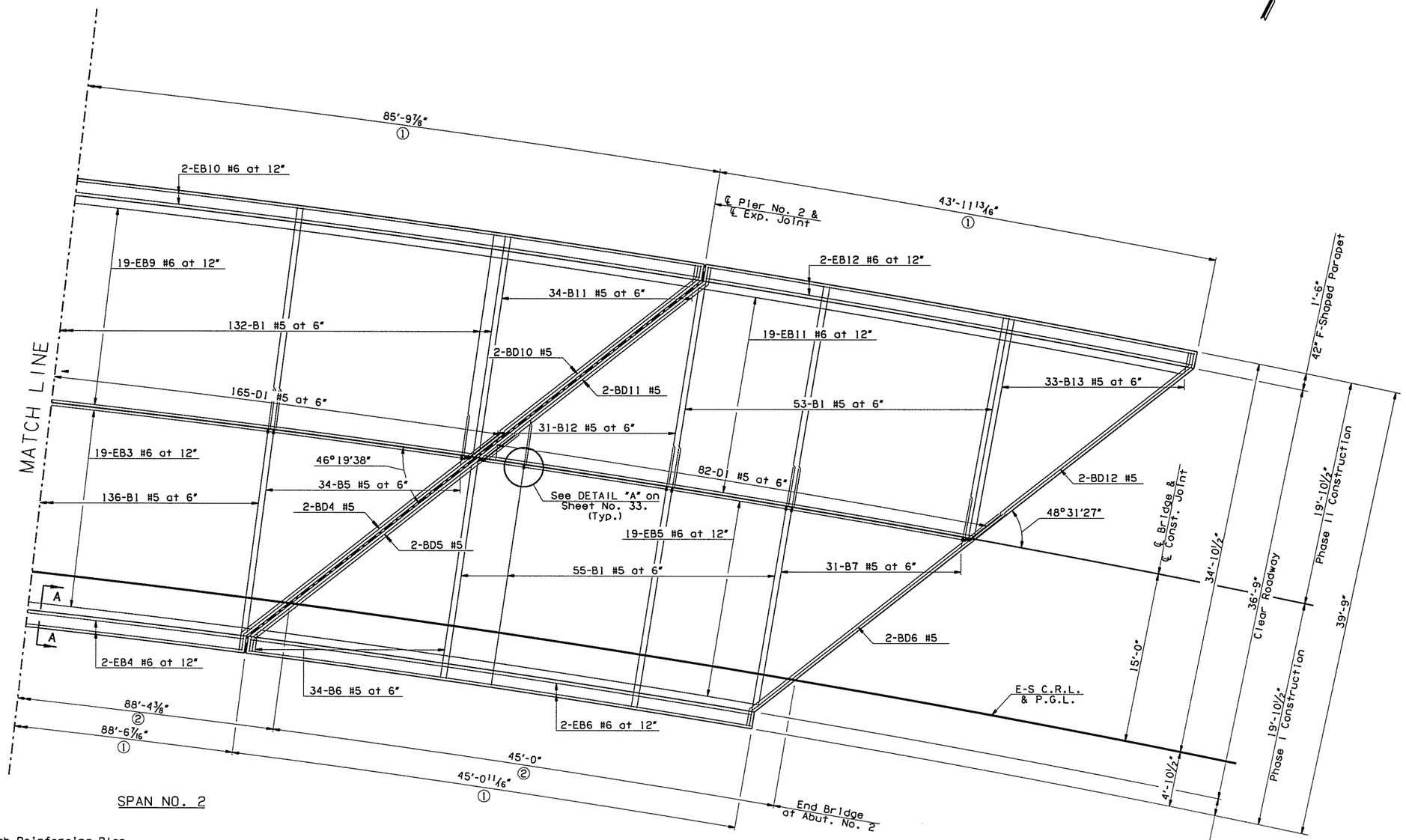
STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 29775(04) SHEET NO. 31

① Measured Along Outside Edge of Slab
② Measured along C.R.L.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE



SLAB PLAN
(Showing Bottom Mat of Reinforcing)

NOTES:

For remaining Span Nos. 1 & 2 Bottom of Slab Reinforcing Plan, see Sheet No. 31.

For Span Nos. 1-3 Top Reinforcing Slab Plan, see Sheet Nos. 29 & 30 .

See Sheet No. 28 for details and Expansion Joint Opening Equation.

All transverse reinforcement shall be placed along radial lines to C.R.L. and are measured along edge of slab.

All longitudinal reinforcement shall be oriented along a curve concentric with C.R.L.

42" F-Shaped Parapet reinforcement not shown for clarity. See Std. FSHP-42-2-00E and Sheet No. 35 for details.

Rotate hooks on A and AC Bars to maintain minimum clearance.

All lap lengths shall be staggered.

For bar lists, bar bends and SECTION A-A, see Sheet No. 33.

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

SUPERSTRUCTURE DETAILS (SHEET 4 OF 7)

DESIGN	JTR	4/15
DETAIL	SJL	5/16
CHECK	BRT	5/16

GARVER

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 29775(04) SHEET NO. 32

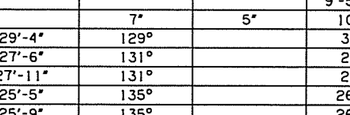
BAR LIST - SUPERSTRUCTURE PHASE I CONSTRUCTION

MARK	SIZE	NO.	FORM	"A"	"B"	"C"	"D"	LENGTH	LENGTH VARIATION
EPOXY COATED REINFORCING STEEL									
A1	#6	236	BENT	19'-8"		8"	6"	20'-4"	-
A2	#6	22	BENT	10'-6"	19'-3"	8"	6"	15'-6½" AVG.	11'-2" TO 19'-11"
A3	#6	45	BENT	1'-5"	10'-4"	8"	6"	6'-6½" AVG.	2'-1" TO 11'-0"
A4	#6	40	STR.					9'-7½" AVG.	1'-0" TO 18'-3"
A5	#6	20	BENT	10'-6"	19'-1"	8"	6"	15'-5½" AVG.	11'-2" TO 19'-9"
A6	#6	41	BENT	1'-6"	10'-3"	8"	6"	6'-6½" AVG.	2'-2" TO 10'-11"
A7	#6	34	STR.					9'-6½" AVG.	1'-0" TO 18'-1"
A8	#6	17	BENT	10'-7"	19'-0"	8"	6"	15'-5½" AVG.	11'-3" TO 19'-8"
A9	#6	35	BENT			8"	6"	6'-7½" AVG.	2'-3" TO 11'-0"
A10	#6	31	STR.					9'-5" AVG.	1'-0" TO 17'-10"
AC	#5	292	BENT	10'-4"		7"	5"	10'-11"	-
AD1	#6	2	BENT	1'-1"	29'-4"	129°		30'-5"	-
AD2	#6	2	BENT	1'-6"	27'-6"	131°		29'-0"	-
AD3	#6	2	BENT	1'-2"	27'-11"	131°		29'-1"	-
AD4	#6	2	BENT	1'-6"	25'-5"	135°		26'-11"	-
AD5	#6	2	BENT	1'-2"	25'-9"	135°		26'-11"	-
AD6	#6	2	BENT	1'-5"	24'-7"	137°		26'-0"	-
AS	#5	42	BENT					5'-0"	-
B1	#5	236	STR.					19'-8"	-
B2	#5	44	STR.					10'-5½" AVG.	1'-8" TO 19'-3"
B3	#5	40	STR.					9'-7½" AVG.	1'-0" TO 18'-3"
B4	#5	40	STR.					10'-5" AVG.	1'-9" TO 19'-1"
B5	#5	34	STR.					9'-6½" AVG.	1'-0" TO 18'-1"
B6	#5	34	STR.					10'-5" AVG.	1'-10" TO 19'-0"
B7	#5	31	STR.					9'-5" AVG.	1'-0" TO 17'-10"
BD1	#5	2	BENT	1'-1"	29'-4"	129°		30'-5"	-
BD2	#5	2	BENT	1'-6"	27'-6"	131°		29'-0"	-
BD3	#5	2	BENT	1'-2"	27'-11"	131°		29'-1"	-
BD4	#5	2	BENT	1'-6"	25'-5"	135°		26'-11"	-
BD5	#4	2	BENT	1'-2"	25'-9"	135°		26'-11"	-
BD6	#5	2	BENT	1'-5"	24'-7"	137°		26'-0"	-
EB1	#6	19	STR.					43'-11" AVG.	43'-5" TO 44'-5"
EB2	#6	2	STR.					44'-10"	-
③ EB3	#6	19	STR.					91'-1½" AVG.	90'-5" TO 91'-10"
③ EB4	#6	2	STR.					92'-1"	-
EB5	#6	19	STR.					44'-2" AVG.	43'-10" TO 44'-6"
EB6	#6	2	STR.					44'-8"	-
ET1	#4	19	STR.					43'-11" AVG.	43'-5" TO 44'-5"
ET2	#4	2	STR.					44'-10"	-
④ ET3	#4	19	STR.					89'-7½" AVG.	88'-11" TO 90'-4"
④ ET4	#4	2	STR.					90'-7"	-
ET5	#4	19	STR.					44'-2" AVG.	43'-10" TO 44'-6"
ET6	#4	2	STR.					44'-8"	-
FS2	#5	182	BENT					7'-4"	-

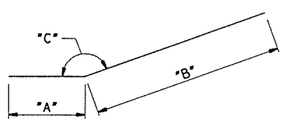
③ Includes One 4'-0" Lap Length.
④ Includes One 2'-6" Lap Length.

BAR LIST - SUPERSTRUCTURE PHASE II CONSTRUCTION

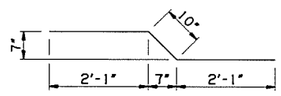
MARK	SIZE	NO.	FORM	"A"	"B"	"C"	"D"	LENGTH	LENGTH VARIATION
EPOXY COATED REINFORCING STEEL									
A1	#6	229	BENT	19'-8"		8"	6"	20'-4"	-
A11	#6	40	STR.					9'-8½" AVG.	1'-3" TO 18'-2"
A12	#6	21	BENT	10'-6"	19'-4"	8"	6"	15'-7" AVG.	11'-2" TO 20'-0"
A13	#6	39	BENT	1'-6"	10'-3"	8"	6"	6'-6½" AVG.	2'-2" TO 10'-11"
A14	#6	37	STR.					9'-7½" AVG.	1'-2" TO 18'-1"
A15	#6	18	BENT	10'-4"	19'-2"	8"	6"	15'-5" AVG.	11'-0" TO 19'-10"
A16	#6	33	BENT	1'-7"	10'-1"	8"	6"	6'-6" AVG.	2'-3" TO 10'-9"
A17	#6	31	STR.					9'-7" AVG.	1'-5" TO 17'-9"
A18	#6	18	BENT	10'-4"	19'-7"	8"	6"	15'-7½" AVG.	11'-0" TO 20'-3"
A19	#6	31	BENT	1'-8"	10'-0"	8"	6"	6'-6" AVG.	2'-4" TO 10'-8"
AC	#5	283	BENT	10'-4"		7"	5"	10'-11"	-
AD7	#6	2	BENT	1'-6"	28'-2"	131°		29'-8"	-
AD8	#6	2	BENT	1'-2"	27'-5"	133°		28'-7"	-
AD9	#6	2	BENT	1'-6"	26'-11"	133°		28'-5"	-
AD10	#6	2	BENT	1'-2"	25'-5"	137°		26'-7"	-
AD11	#6	2	BENT	1'-6"	25-0"	137°		26'-6"	-
AD12	#6	2	BENT	1'-3"	24'-6"	139°		25'-9"	-
AS	#4	42	BENT					5'-0"	-
B1	#5	229	STR.					19'-8"	-
B8	#5	40	STR.					9'-8½" AVG.	1'-3" TO 18'-2"
B9	#5	40	STR.					10'-6½" AVG.	1'-9" TO 19'-4"
B10	#5	37	STR.					9'-7½" AVG.	1'-2" TO 18'-1"
B11	#5	34	STR.					10'-6" AVG.	1'-10" TO 19'-2"
B12	#5	31	STR.					9'-7" AVG.	1'-5" TO 17'-9"
B13	#5	33	STR.					10'-9½" AVG.	1'-11" TO 19'-8"
BD7	#5	2	BENT	1'-6"	28'-2"	131°		29'-8"	-
BD8	#5	2	BENT	1'-2"	27'-5"	133°		28'-7"	-
BD9	#5	2	BENT	1'-6"	26'-11"	133°		28'-5"	-
BD10	#5	2	BENT	1'-2"	25'-5"	137°		26'-7"	-
BD11	#5	2	BENT	1'-6"	25-0"	137°		26'-6"	-
BD12	#5	2	BENT	1'-3"	24'-6"	139°		25'-9"	-
C1	#6	324	STR.					4'-0"	-
D1	#5	327	STR.					2'-6"	-
EB7	#6	19	STR.					43'-0½" AVG.	42'-8" TO 43'-5"
EB8	#6	2	STR.					42'-10"	-
③ EB9	#6	19	STR.					89'-8½" AVG.	89'-1" TO 90'-4"
③ EB10	#6	2	STR.					89'-3"	-
EB11	#6	19	STR.					43'-7½" AVG.	43'-4" TO 43'-11"
EB12	#6	2	STR.					43'-6"	-
ET7	#4	19	STR.					43'-0½" AVG.	42'-8" TO 43'-5"
ET8	#4	2	STR.					42'-10"	-
④ ET9	#4	19	STR.					88'-2½" AVG.	87'-7" TO 88'-10"
④ ET10	#4	2	STR.					87'-9"	-
ET11	#4	19	STR.					43'-7½" AVG.	43'-4" TO 43'-11"
ET12	#4	2	STR.					43'-6"	-
FS2	#5	179	BENT					7'-4"	-



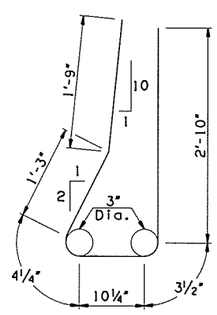
A #6 and AC #5 Bars



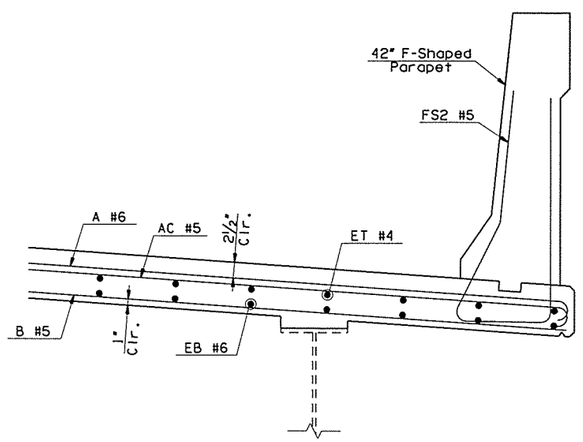
AD #6 and BD #5 Bars



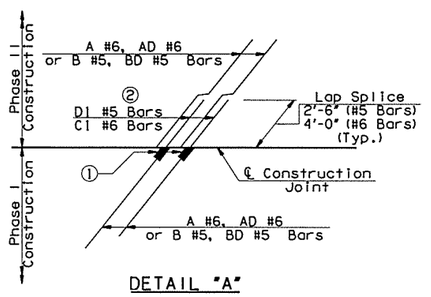
AS #4 x 5'-0"



FS2 #5 x 7'-4"



SECTION A-A



DETAIL "A"

① Install Mechanical Reinforcing Bar Coupler (Epoxy Coated) in accordance with Section 511.04.C.3. Installation shall follow the Manufacturer's recommendations. Couplers shall be attached to:

A #6, AD #6, B #5, and BD #5 Bars in Phase I Const.

② Splice A #6, AD #6, B #5 and BD #5 Bars in Phase II Const. with C1 #6 or D1 #5 Bars.

Lap C1 #6 or D1 #5 Bars with A #6, AD #6, B #5 and BD #5 Bars in Phase II Const.

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

I-44 OVER I-244 NB — TULSA COUNTY
BRIDGE "A"

SUPERSTRUCTURE DETAILS
(SHEET 5 OF 7)

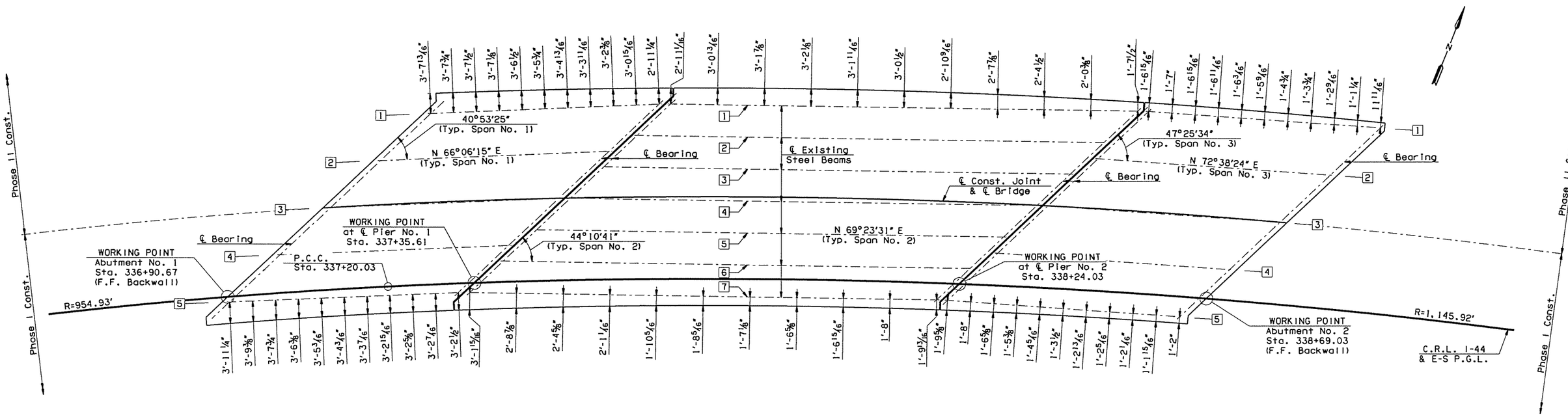
DESIGN	JTR	4/15
DETAIL	SJL	5/16
CHECK	BRT	5/16

GARVER

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 29775(04) | SHEET NO. 33

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE



SPAN NO. 1 SPAN NO. 2 SPAN NO. 3

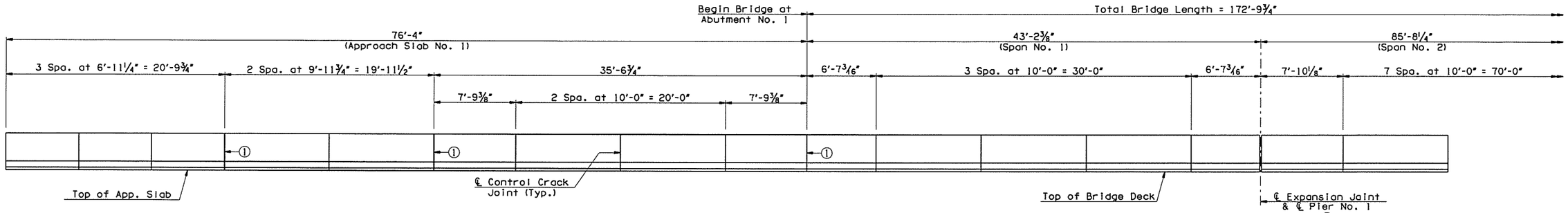
BRIDGE DECK LAYOUT

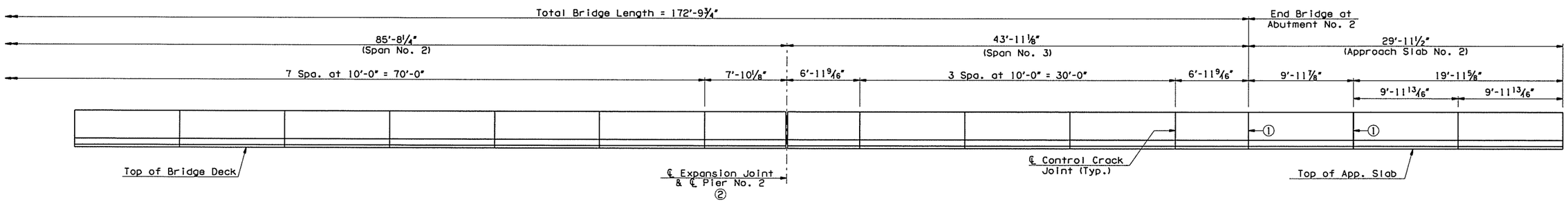
NOTE:
Dimensions shown are taken along tenth points perpendicular to centerline of beam.

I-44 OVER I-244 NB BRIDGE "A"	TULSA COUNTY	DESIGN	JTR	4/15
		DETAIL	SJL	5/16
SUPERSTRUCTURE DETAILS (SHEET 6 OF 7)		CHECK	BRT	5/16
		GARVER		
STATE OF OKLAHOMA	DEPARTMENT OF TRANSPORTATION			
	JOB PIECE NO. 29775(04)	SHEET NO. 34		

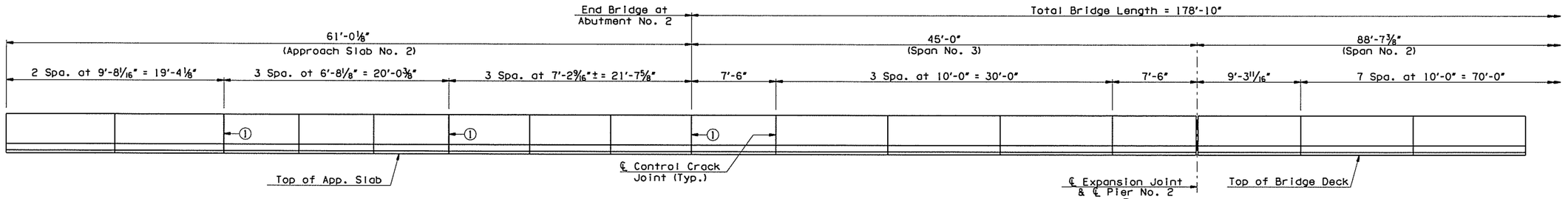
OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

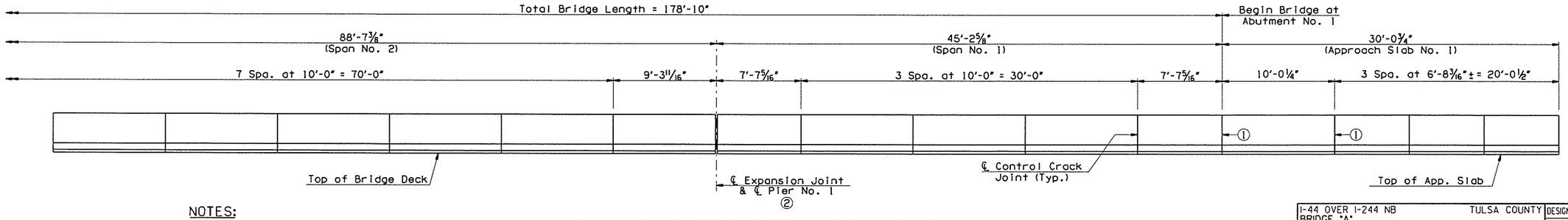
REVISIONS	
DESCRIPTION	DATE





NORTH 42" F-SHAPED PARAPET LAYOUT - WITHOUT OPENINGS





SOUTH 42" F-SHAPED PARAPET LAYOUT - WITHOUT OPENINGS

① ℄ Construction Joint. Horizontol Reinforcing shall end 2" either side of this joint.

② Expansion Joint Opening to match Deck Opening.

NOTES:

For details showing the reinforcement layout and bar bend details for 42" F-Shaped Traffic Rails, see Std. FSHP-42-2-00E

Provide blockouts for Sealed Expansion Joints.

All dimensions shown are measured along the inside face of the traffic rail.

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

SUPERSTRUCTURE DETAILS (SHEET 7 OF 7)

DESIGN	JTR	4/15
DETAIL	SJL	5/16
CHECK	BRT	5/16

GARVER

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 29775(04) — SHEET NO. 35

7/7/2016 — TULSA COUNTY

16:12:41 L:\2014\14037190 - ODOT EC 1591 Bridge Rehab Tulsa Co\Drawings\29775(04) I-44\BRIDGE\jp29775(04)-a_supers7.dgn

① Bracing and tension ties shall not be spaced at intervals greater than 4'-0".

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
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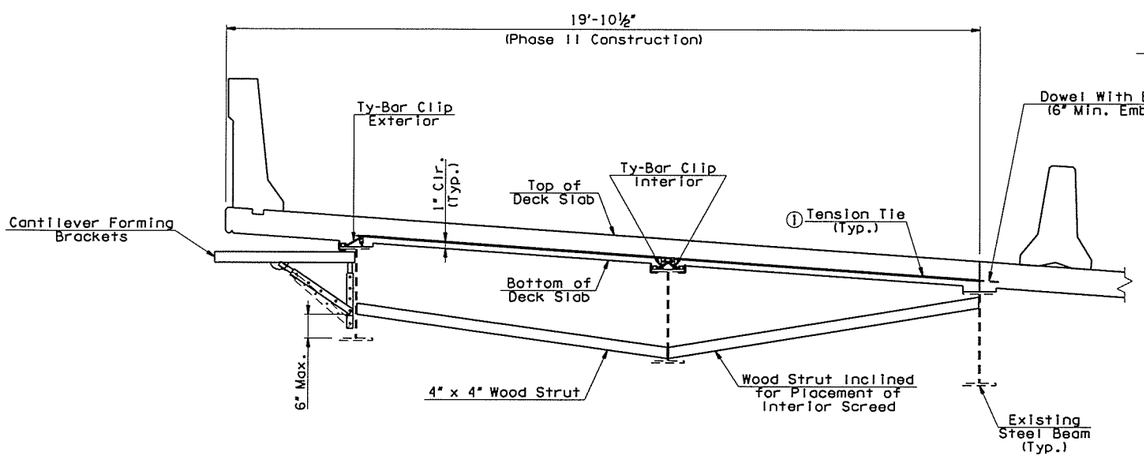
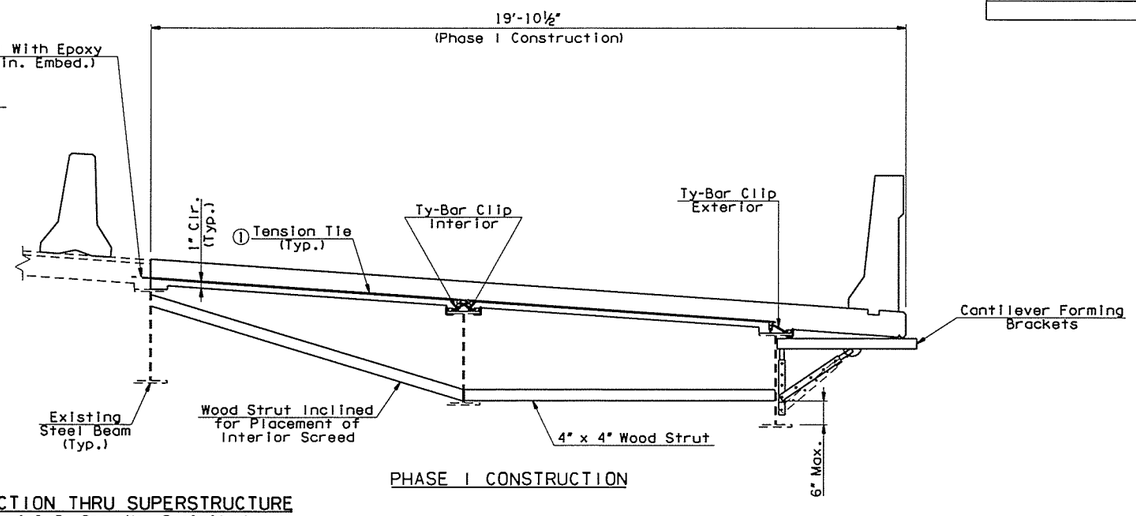
REVISIONS

DESCRIPTION	DATE

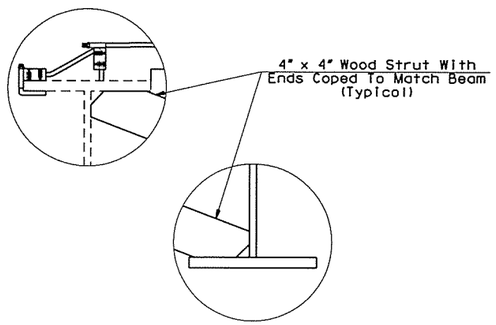


PHASE II CONSTRUCTION

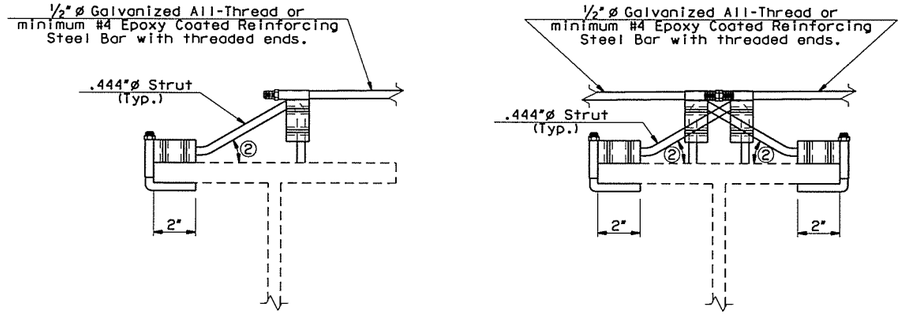


PHASE I CONSTRUCTION

TYPICAL SECTION THRU SUPERSTRUCTURE
(Span Nos. 1 & 3, Span No. 2 similar)



4" x 4" WOOD STRUT COPING DETAIL



TY-BAR CLIPS EXTERIOR
(Epoxy-Coated Connection Devices)

TY-BAR CLIPS INTERIOR
(Epoxy-Coated Connection Devices)

② Set angle to accommodate cross-slope of deck.

EXTERIOR BRACING MAXIMUM SETTING DETAIL

NOTES:
Submit drawings of the bracing system to the Bridge Engineer for approval. Bracing systems other than that shown may be used if design calculations and drawings of the proposed bracing system are submitted to and approved by the Bridge Engineer. Drawings and calculations of the proposed system shall be signed and sealed by a Professional Engineer licensed in the State of Oklahoma. Do not place Deck Slab concrete until bracing system is approved. The Department considers all cost for bracing to be included in other items of work.

Use adjustable Cantilever Forming Brackets at exterior Beams capable of being adjusted during the placement of Deck Slab concrete in order to maintain proposed grades at the Deck Slab overhang. If shims are to be used to adjust the Forming Brackets, provide the Bridge Engineer a method to predict crush and settlement of shims. Bear the leg brace of the Brackets on the Beam within 6" of the bottom flange.

Use #4 epoxy coated reinforcing steel with threaded ends or galvanized all thread for Tension Ties. Place Tension Ties perpendicular to the Beams. Attach Tension Ties to the top flange of the Beams with Ty-Bar Clips as shown. Do not weld Ty-Bar Clips to the top flange of the Beams.

Wedge Hardwood Struts, or another material of an equivalent strength, between Beam webs within 6" of the bottom flange at each Tension Tie location.

ANCHORAGE SYSTEM:
The Contractor shall use an Anchorage System that has been approved by ODOT's materials division. The Anchorage System shall be capable of developing the full strength of the tension tie that is to be anchored. The embedment depth shown is to be adjusted to meet the Manufacturer's requirements. Anchorages shall be installed in accordance with the Manufacturer's specifications for the system used.

Drilling into the existing concrete to install the anchorage shall be accomplished without cutting existing concrete reinforcing steel bars. Prior to drilling, the Contractor shall locate and mark the existing concrete reinforcing steel bars with non-destructive tools, equipment and methods approved by the Engineer. If existing reinforcing steel bars are encountered during drilling, the drilling shall cease and the hole shall be grouted. The hole shall then be relocated to clear the existing reinforcing steel bars.

All costs of the Anchorage Assemblies including labor, materials, tools, drilling, and incidentals necessary to complete the work shown in the plans shall be included in the price bid per Cubic Yard of "CLASS AA CONCRETE".

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

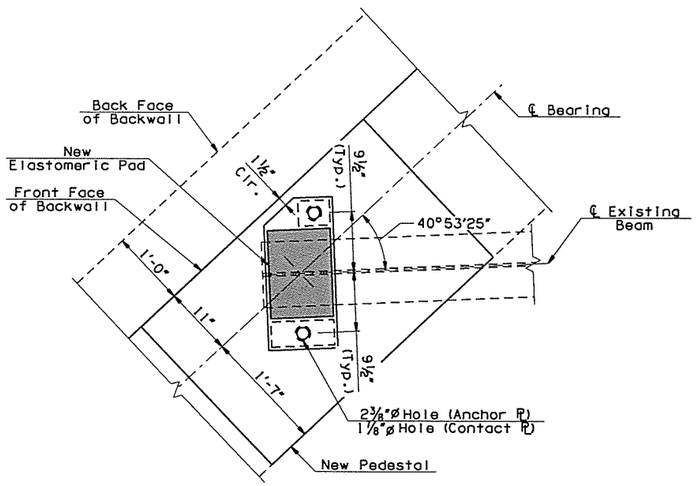
BRIDGE DECK FORMWORK BRACING DETAILS

DESIGN	JTR	5/16
DETAIL	JTR	5/16
CHECK	BRT	5/16

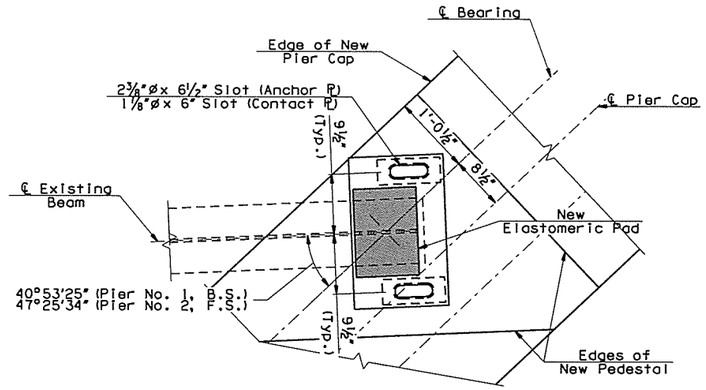
GARVER

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

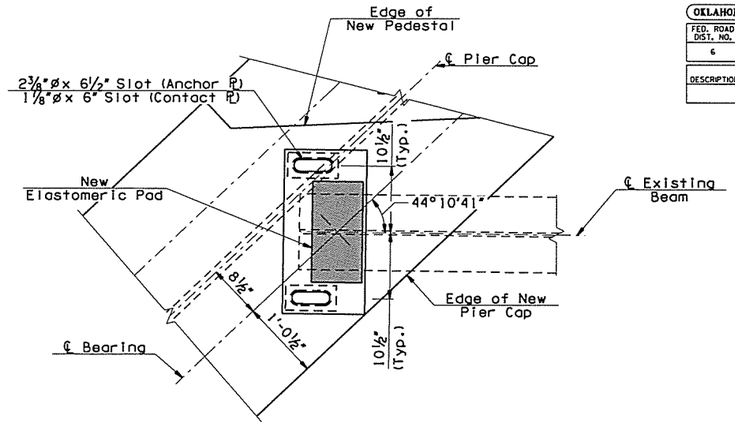
JOB PIECE NO. 29775(04) SHEET NO. 36



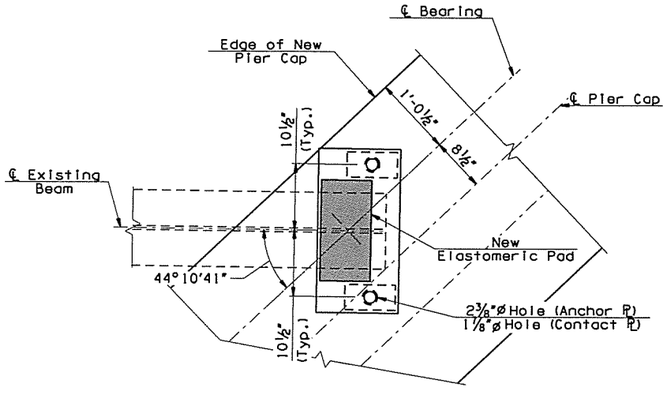
ABUTMENT NO. 1 - FIXED BEARING PLAN
(Type 1-F)



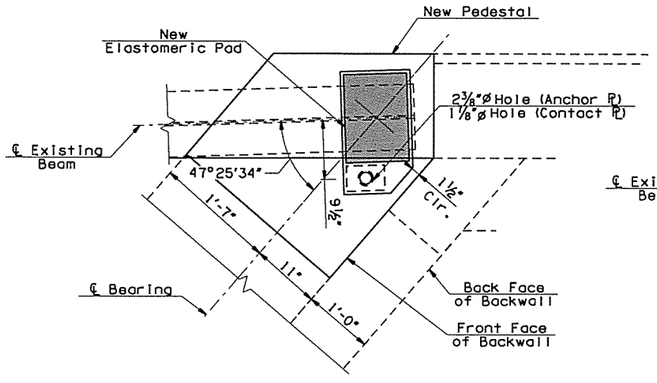
PIER NO. 1 (B.S) & PIER NO. 2 (F.S.) - EXPANSION BEARING PLAN
(Type 1-E)



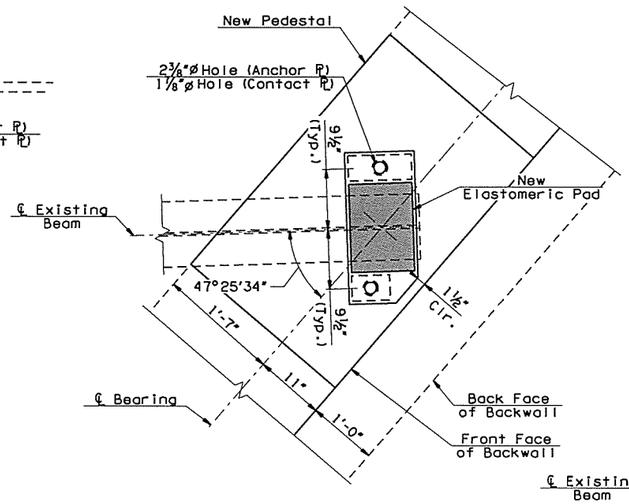
PIER NO. 1 (F.S.) - EXPANSION BEARING PLAN
(Type 2-E)



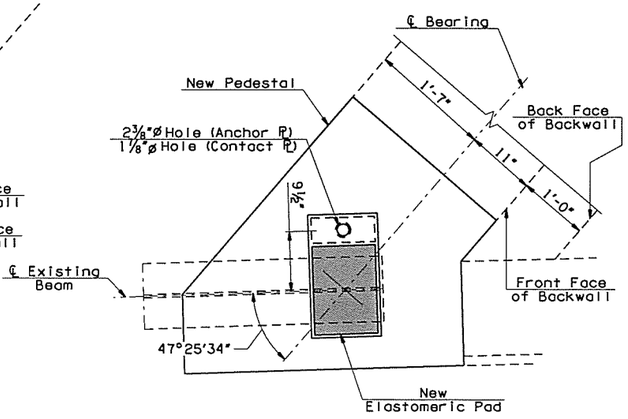
PIER NO. 2 (B.S.) - FIXED BEARING PLAN
(Type 2-F)



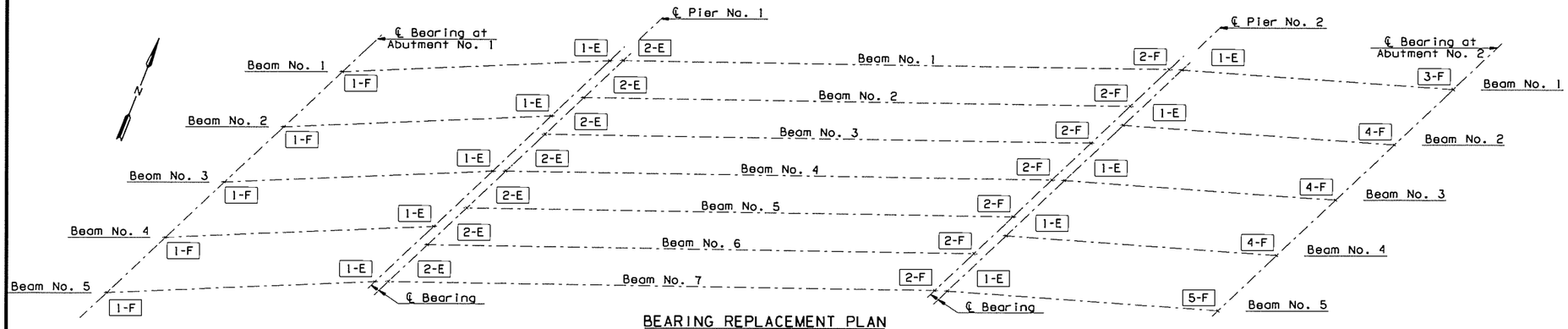
ABUTMENT NO. 2 - FIXED BEARING PLAN
(Type 3-F)



ABUTMENT NO. 2 - FIXED BEARING PLAN
(Type 4-F)



ABUTMENT NO. 2 - FIXED BEARING PLAN
(Type 5-F)



BEARING REPLACEMENT PLAN

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

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DESCRIPTION	DATE

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

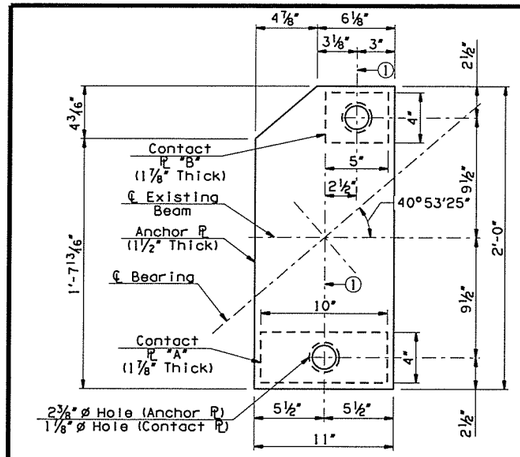
BEARING DETAILS (SHEET 1 OF 2)

DESIGN	JTR	5/16
DETAIL	JTR	5/16
CHECK	BRT	5/16

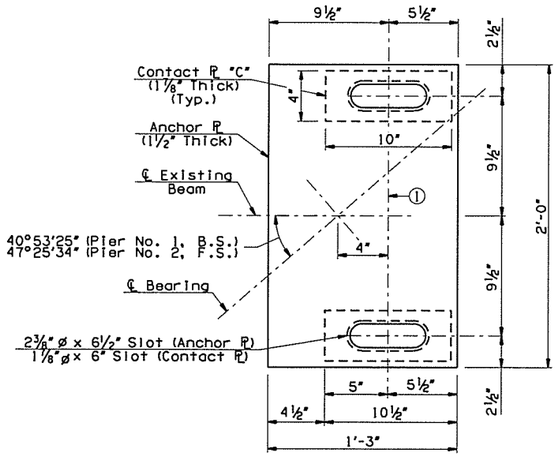
GARVER

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION

JOB PIECE NO. 29775(04) SHEET NO. 37



TYPE 1-F



TYPE 1-E

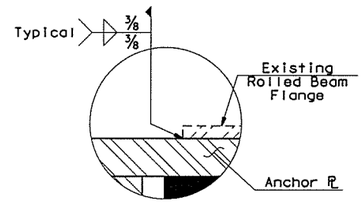
(Pier No. 1 Back Station Bearings shown, Pier No. 2 Forward Station Bearings similar)

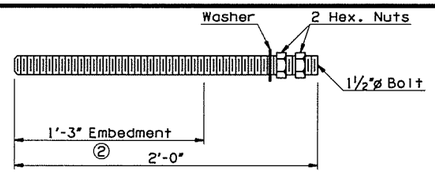
① No existing reinforcing bars in the existing Abutment Cops or Pier Cap supporting the bearing shall be cut during the installation of the Anchor Bolts. The location of the Anchor Bolts may be adjusted to accommodate this requirement. However, the Anchor Bolts shall be set as close to the ℄ Anchor Bolts as possible.

② Actual embedment length for drilled and epoxy anchors shall be determined by the Anchorage Assembly Manufacturer and approved by the Engineer. See Sheet No. 4 for additional requirements.

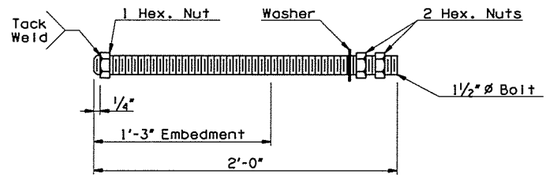
③ Bond Anchor Plate to the Elastomeric Bearing Pad per Section 733.06B of the Standard Specifications.

④ Total estimated weight of Structural Steel per Bearing.





DRILLED AND EPOXIED ANCHOR BOLT DETAIL



CAST-IN-PLACE ANCHOR BOLT DETAIL

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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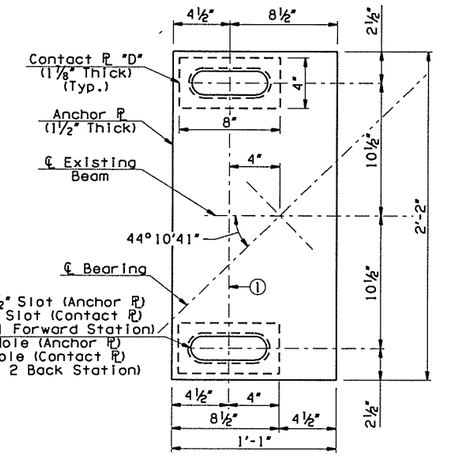
REVISIONS

DESCRIPTION	DATE

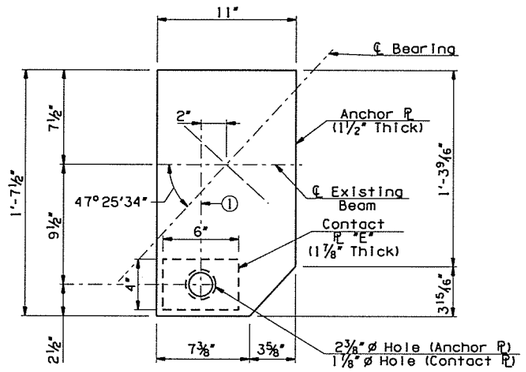
BEARING ASSEMBLY WEIGHT TABLE

BEARING ASSEMBLY	WEIGHT ④
1-E	225.40 LB.
1-F	173.90 LB.
2-E	207.50 LB.
2-F	210.10 LB.
3-F	118.90 LB.
4-F	176.10 LB.
5-F	127.40 LB.



TYPE 2-E or TYPE 2-F

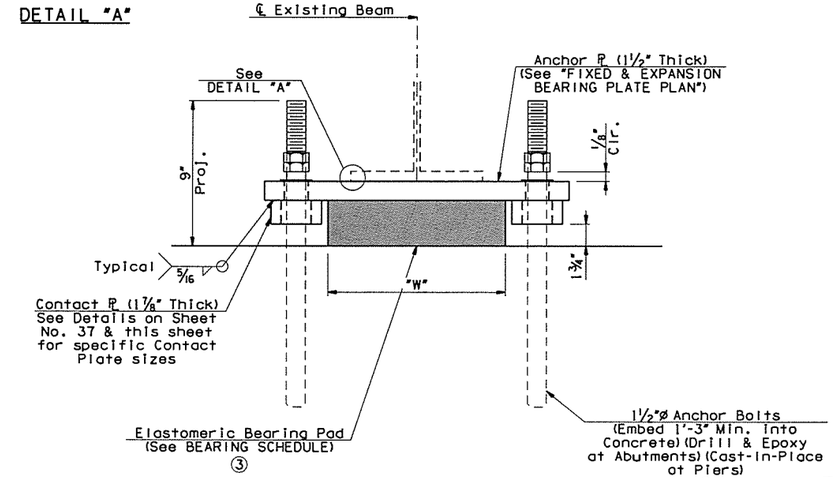
(Pier No. 1 Forward Station Bearings shown, Pier No. 2 Back Station Bearings similar)



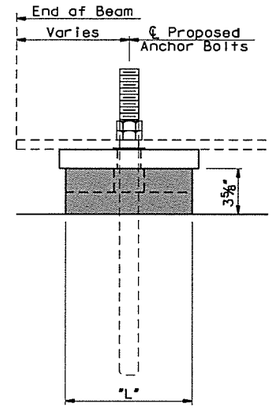
TYPE 3-F

(Abut. No. 2, Beam No. 1 Only)

DETAIL "A"



END VIEW



SIDE VIEW

DETAILS OF NEW BEARING ASSEMBLIES

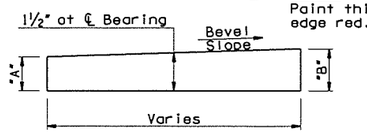
(Completely Remove Existing Bearing Assemblies (34 Total) & Cut Existing Anchor Bolts Flush with Tops of Pedestals

BEARING SCHEDULE

LOCATION		60 DUROMETER ELASTOMERIC BEARING PAD SIZE (T x L x W)	COVER LAYER	INNER LAYER	LAMINATE PLATE
ABUTMENT NO. 1		3⅝" x 10" x 1'-2"	2 - ¼"	6 - ⅜"	7 - ⅛"
PIER NO. 1	BACK STA.	3⅝" x 10" x 1'-2"	2 - ¼"	6 - ⅜"	7 - ⅛"
	UP STA.	3⅝" x 8" x 1'-4"	2 - ¼"	6 - ⅜"	7 - ⅛"
PIER NO. 2	BACK STA.	3⅝" x 8" x 1'-4"	2 - ¼"	6 - ⅜"	7 - ⅛"
	UP STA.	3⅝" x 10" x 1'-2"	2 - ¼"	6 - ⅜"	7 - ⅛"
ABUTMENT NO. 2		3⅝" x 10" x 1'-2"	2 - ¼"	6 - ⅜"	7 - ⅛"

BEVELED ANCHOR PLATE VARIABLES

LOCATION		"A"	"B"
ABUTMENT NO. 1		1.39"	1.61"
PIER NO. 1	BACK STATION	1.35"	1.65"
	FORWARD STATION	1.40"	1.60"
PIER NO. 2	BACK STATION	1.40"	1.60"
	FORWARD STATION	1.41"	1.59"
ABUTMENT NO. 2		1.44"	1.56"



NOTE: Paint thickest edge red.

BEVELED ANCHOR PLATE DETAIL

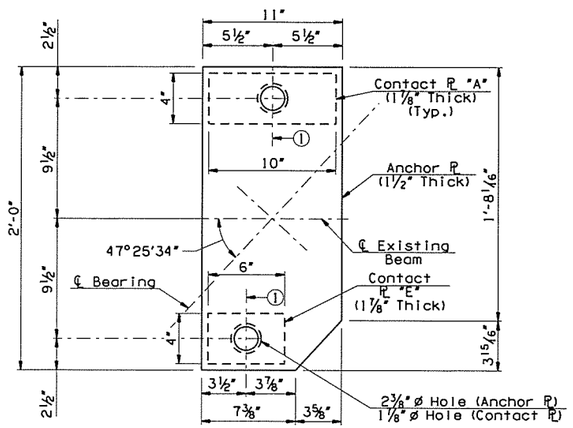
NOTES:

The existing Anchor Bolts shall be cut flush with the tops of the existing Abutment Pedestal.

Slots in the Expansion Bearing Anchor Plates shall be parallel with the existing beam.

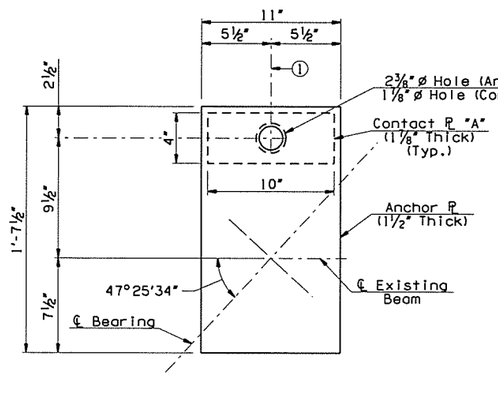
All costs of the removal of existing Bearing Assemblies including the cutting of the existing Anchor Bolts, materials, labor, equipment and incidentals shall be included in the price bid per Lump Sum of "REMOVAL OF BRIDGE ITEMS".

Provide structural steel for Anchor Plates and Contact Plates in accordance with ASTM A240 (Austenitic Stainless Steel, Type 316, Charpy V-Notch testing not required). For Anchor Bolts, provide continuously threaded bars in accordance with ASTM A320, Class 2, Grade B8M (Austenitic Stainless Steel, Type 316, Charpy V-Notch testing not required). Use Austenitic Stainless Steel Nuts and Washers conforming to ASTM A194, Grade 8M and ASTM A320, respectively. Perform all welding consistent with procedures for Stainless Steel.



TYPE 4-F

(Abut. No. 2, Beam Nos. 2 - 4 Only)



TYPE 5-F

(Abut. No. 2, Beam No. 5 Only)

FIXED & EXPANSION BEARING PLATE PLAN

I-44 OVER I-244 NB BRIDGE "A"	TULSA COUNTY	DESIGN	JTR	5/16
BEARING DETAILS (SHEET 2 OF 2)		DETAIL	JTR	5/16
		CHECK	BRT	5/16
		GARVER		

STATE OF OKLAHOMA | DEPARTMENT OF TRANSPORTATION | JOB PIECE NO. 29775(04) | SHEET NO. 38

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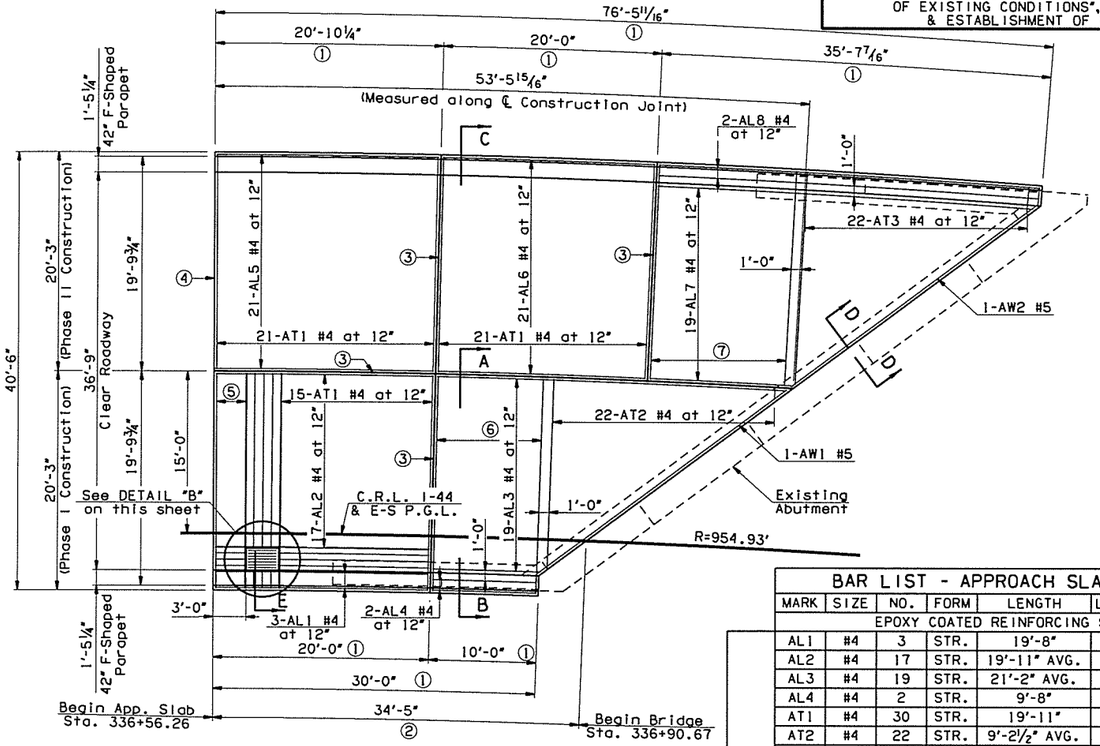
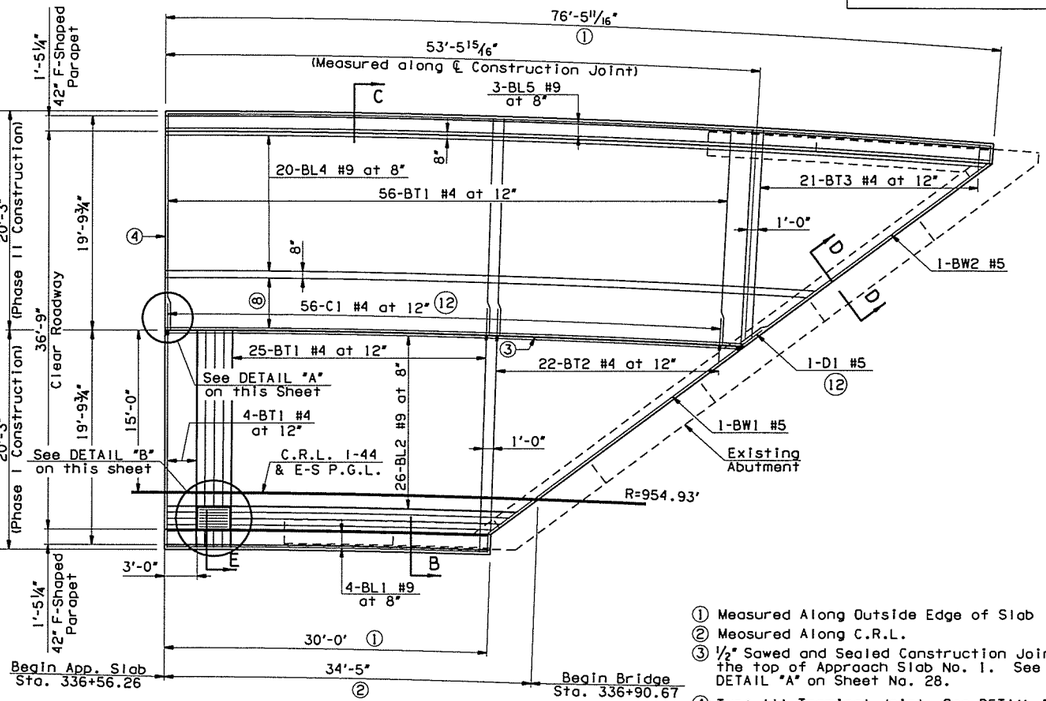
7/7/2016 TULSA COUNTY

All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			
REVISIONS					
DESCRIPTION					DATE

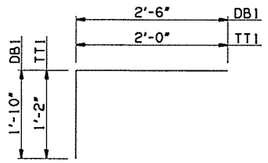


APPROACH SLAB AT ABUTMENT NO. 1
(Showing Top Mat of Reinforcing Steel)

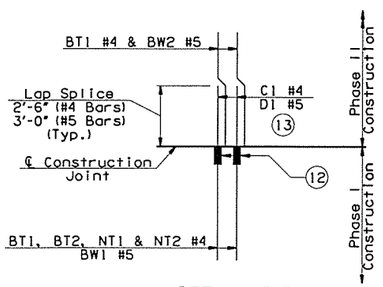


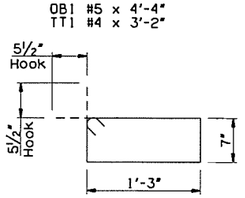
APPROACH SLAB AT ABUTMENT NO. 1
(Showing Bottom Mat of Reinforcing Steel)

BAR LIST - APPROACH SLAB NO. 1					
MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION
EPOXY COATED REINFORCING STEEL					
AL1	#4	3	STR.	19'-8"	-
AL2	#4	17	STR.	19'-11" AVG.	19'-9" TO 20'-1"
AL3	#4	19	STR.	21'-2" AVG.	10'-0" TO 32'-4"
AL4	#4	2	STR.	9'-8"	-
AT1	#4	30	STR.	19'-11"	-
AT2	#4	22	STR.	9'-2 1/2" AVG.	1'-0" TO 17'-5"
AW1	#5	1	BENT	30'-6"	-
BL1	#9	4	STR.	29'-8"	-
BL2	#9	26	STR.	42'-7" AVG.	32'-5" TO 52'-9"
BT1	#4	29	STR.	20'-1"	-
BT2	#4	22	STR.	9'-11" AVG.	1'-8" TO 18'-2"
BW1	#5	1	BENT	30'-10"	-
DB1	#5	21	BENT	4'-4"	-
FS2	#5	32	BENT	7'-4"	-
ML1	#4	3	STR.	2'-5"	-
ML2	#4	3	STR.	13'-5"	-
(11) ML3	#4	2	STR.	31'-0" AVG.	29'-8" TO 32'-4"
MT1	#4	3	STR.	15'-8"	-
MT2	#4	5	BENT	4'-7"	-
MT3	#4	2	STR.	19'-11"	-
NL1	#9	3	STR.	2'-5"	-
NL2	#9	3	STR.	24'-8" AVG.	23'-11" TO 25'-5"
NT1	#4	3	STR.	15'-10"	-
NT2	#4	2	STR.	20'-1"	-
TT1	#4	33	BENT	3'-2"	-
TT2	#4	1	STR.	29'-8"	-
PHASE I CONST.					
AL5	#4	21	STR.	20'-4 1/2" AVG.	20'-3" TO 20'-6"
AL6	#4	21	STR.	19'-5 1/2" AVG.	19'-3" TO 19'-8"
AL7	#4	19	STR.	25'-6" AVG.	13'-4" TO 37'-8"
AL8	#4	2	STR.	35'-3"	-
AT1	#4	56	STR.	19'-11"	-
AT3	#4	22	STR.	11'-1 1/2" AVG.	19'-9" TO 2'-6"
AW2	#5	1	BENT	29'-10"	-
BL3	#9	8	STR.	56'-5" AVG.	53'-6" TO 59'-4"
(9) BL4	#9	20	STR.	75'-11" AVG.	68'-2" TO 83'-8"
(9) BL5	#9	3	STR.	84'-2"	-
BT1	#4	56	STR.	20'-1"	-
BT3	#4	21	STR.	10'-11" AVG.	2'-6" TO 19'-4"
BW2	#5	1	BENT	30'-2"	-
C1	#4	56	STR.	2'-6"	-
D1	#5	1	STR.	3'-0"	-
DB1	#5	21	BENT	4'-4"	-
FS2	#5	78	BENT	7'-4"	-
TT1	#4	78	BENT	3'-2"	-
(10) TT3	#4	1	STR.	78'-8"	-

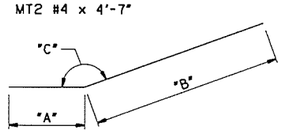


OB1 #5 x 4'-4"
TT1 #4 x 3'-2"





MT2 #4 x 4'-7"



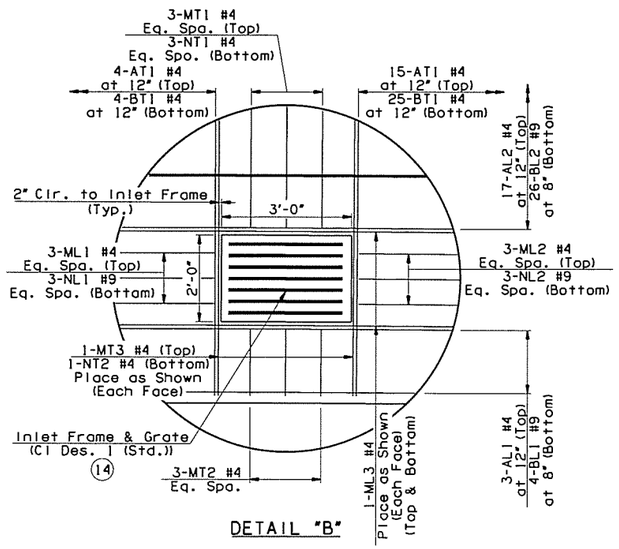
AW & BW #5 Bars

DETAIL "A"

TABLE OF VARIABLES				
MARK	"A"	"B"	"C"	TOTAL
AW1	1'-10"	28'-8"	129°	30'-6"
AW2	1'-7"	28'-3"	131°	29'-10"
BW1	1'-10"	29'-0"	129°	30'-10"
BW2	1'-7"	28'-7"	131°	30'-2"

(12) Install Mechanical Reinforcing Bar Coupler (Epoxy Coated) in accordance with Section 511.04.C.3. Installation shall follow the Manufacturer's recommendations. Couplers shall be attached to:
BT1, BT2, NT1, NT2 #4 & BW1 #5.

(13) Splice the following bars:
BT1, BT2, NT1 & NT2 Bars with C1 Bars
BW1 Bars with D1 Bars
Lap the following bars:
C1 Bars with BT1 Bars
D1 Bars with BW2 Bars



DETAIL "B"

① Measured Along Outside Edge of Slab
② Measured Along C.R.L.
③ ½" Sawed and Sealed Construction Joint in the top of Approach Slab No. 1. See DETAIL "A" on Sheet No. 28.
④ Type III Terminal Joint. See DETAIL "A" on Sheet No. 41.
⑤ 4-AT1 #4 at 12"
⑥ 11-AT1 #4 at 12"
⑦ 14-AT1 #4 at 12"
⑧ 8-BL3 #9 at 8"
⑨ Includes One 8'-0" Lap Length.
⑩ Includes One 2'-6" Lap Length.
⑪ 2 Sets of 2 bars.
⑭ Install new Inlet Frame, Inlet Grate, Inlet & 18" RCP (to connect to existing 18" RCP). All costs including materials, labor, equipment and incidentals shall be included in the price bid per Lump Sum of "(PL) INSTALLATION OF BRIDGE ITEMS". See Stds. SSIF-4-0 & C1-1-2 for details.

NOTES:
Do not groove within 6" of any Langitudinal Joint ar Construction Joint between the Approach Slab and the Deck Slab.

All transverse reinforcement shall be placed along radial lines to C.R.L. and are measured along edge of slab.

All longitudinal reinforcement shall be oriented along a curve concentric with C.R.L.

Parapet reinforcement not shown for clarity. See Sheet No. 35 for details.

See Sheet No. 41 for SECTIONS A, B, C, D-D & E and Summary of Quantities.

For Approach Slab No. 2 details, see Sheet No. 40.

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

APPROACH SLAB DETAILS (SHEET 1 OF 3)

DESIGN	JTR	4/15
DETAIL	SJL	5/16
CHECK	BRT	5/16

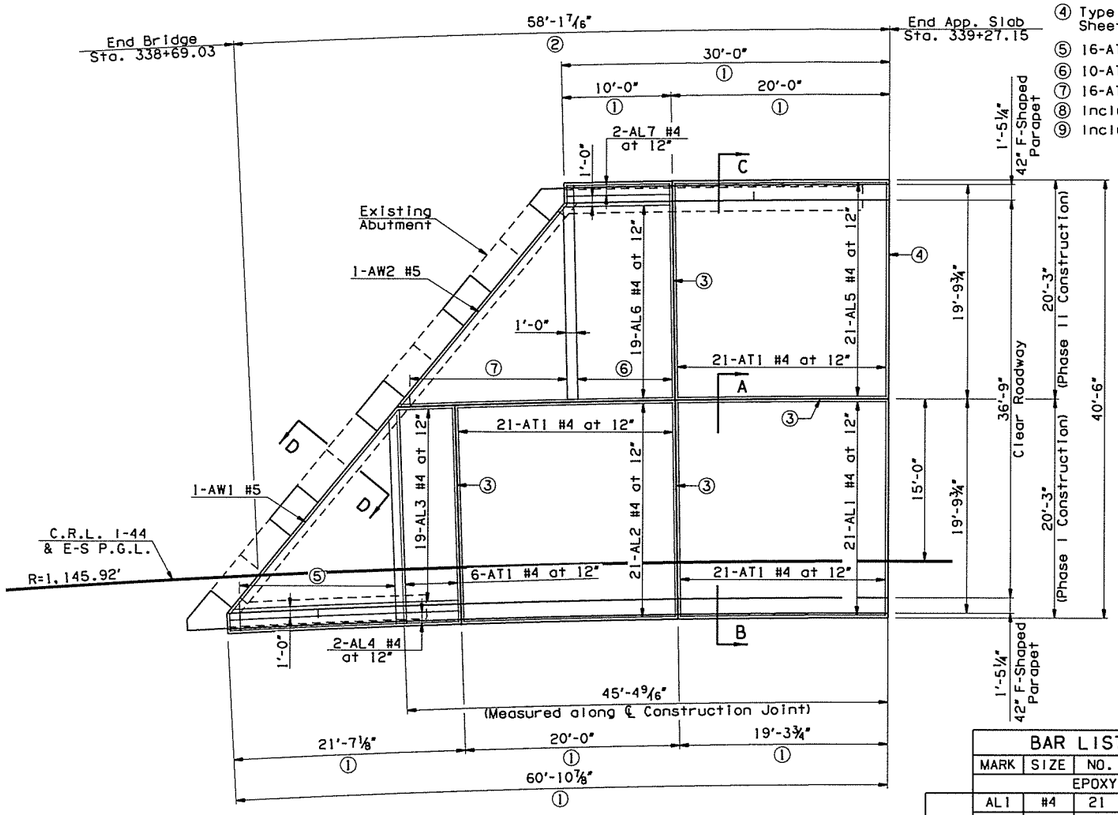
GARVER

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 29775(04) SHEET NO. 39

All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

① Measured Along Outside Edge of Slab
② Measured Along C.R.L.
③ ½" Sawed and Sealed Construction Joint in the top of Approach Slab No. 2. See DETAIL "A" on Sheet No. 28.
④ Type III Terminal Joint. See DETAIL "A" on Sheet No. 41.
⑤ 16-AT2 #4 at 12"
⑥ 10-AT1 #4 at 12"
⑦ 16-AT3 #4 at 12"
⑧ Includes One 8'-0" Lap Length.
⑨ Includes One 2'-6" Lap Length.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			
REVISIONS					
DESCRIPTION					DATE



APPROACH SLAB AT ABUTMENT NO. 2
(Showing Top Mat of Reinforcing Steel)

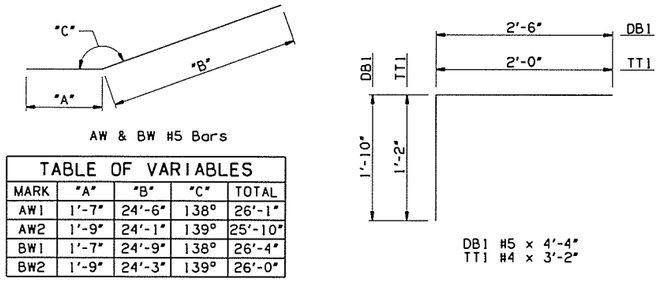
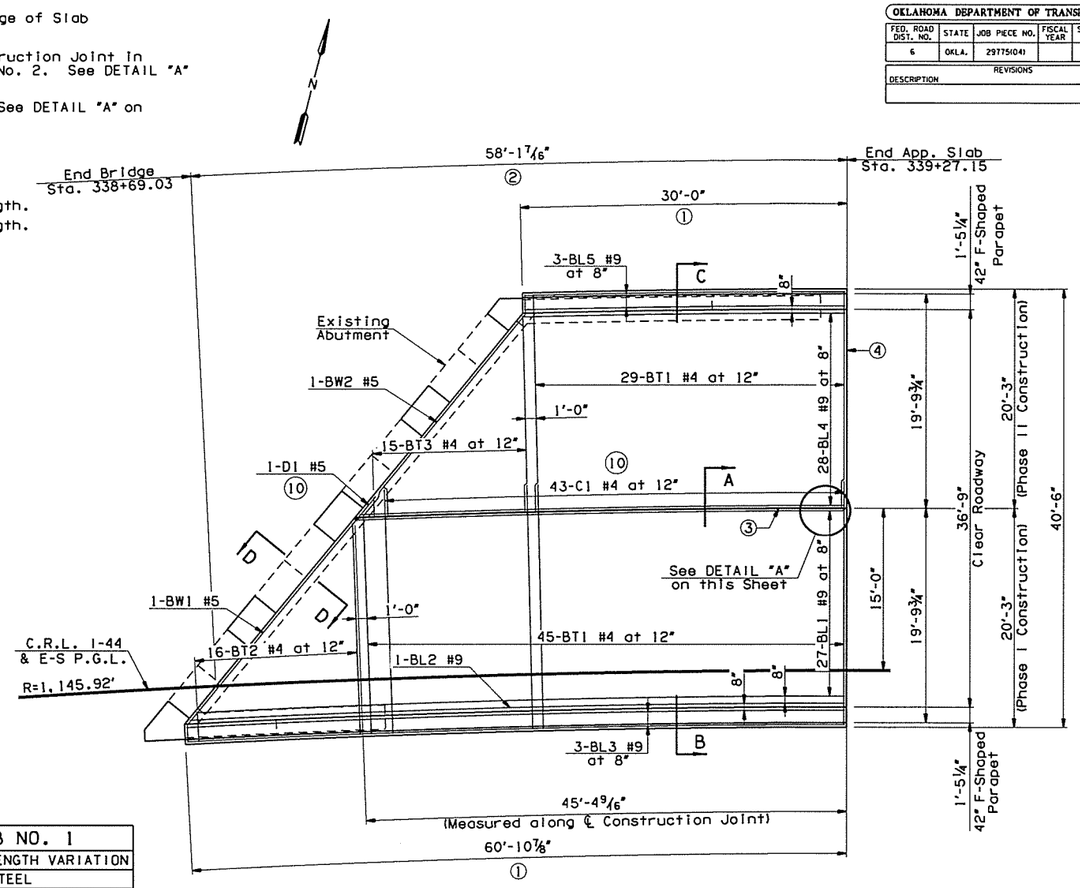


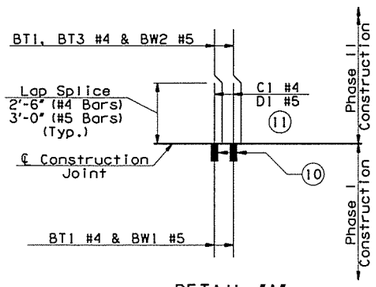
TABLE OF VARIABLES				
MARK	"A"	"B"	"C"	TOTAL
AW1	1'-7"	24'-6"	138°	26'-1"
AW2	1'-9"	24'-1"	139°	25'-10"
BW1	1'-7"	24'-9"	138°	26'-4"
BW2	1'-9"	24'-3"	139°	26'-0"

BAR LIST - APPROACH SLAB NO. 1

	MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION
	EPOXY COATED REINFORCING STEEL					
PHASE I CONST.	AL1	#4	21	STR.	19'-2" AVG.	19'-0" TO 19'-4"
	AL2	#4	21	STR.	19'-0" AVG.	19'-8" TO 20'-0"
	AL3	#4	19	STR.	13'-0" AVG.	5'-1" TO 20'-11"
	AL4	#4	2	STR.	21'-3"	-
	AT1	#4	48	STR.	19'-11"	-
	AT2	#4	16	STR.	10'-10½" AVG.	2'-9" TO 19'-0"
	AW1	#5	1	BENT	26'-1"	-
	BL1	#9	27	STR.	52'-5½"	45'-2" TO 59'-9"
⑧	BL2	#9	1	STR.	68'-4"	-
⑧	BL3	#9	3	STR.	68'-8"	-
	BT1	#4	45	STR.	20'-1"	-
	BT2	#4	16	STR.	11'-2½" AVG.	19'-7" TO 2'-10"
	BW1	#5	1	BENT	26'-4"	-
	DB1	#5	21	BENT	4'-4"	-
	FS2	#5	64	BENT	7'-4"	-
	TT1	#4	64	BENT	3'-2"	-
⑨	TT2	#4	1	STR.	63'-0"	-
PHASE II CONST.	AL5	#4	21	STR.	19'-6" AVG.	19'-4" TO 19'-8"
	AL6	#4	21	STR.	17'-6" AVG.	9'-10" TO 25'-2"
	AL7	#4	2	STR.	9'-8"	-
	AT1	#4	31	STR.	19'-11"	-
	AT3	#4	16	STR.	9'-5" AVG.	1'-0" TO 17'-10"
	AW2	#5	1	BENT	25'-10"	-
	BL4	#9	28	STR.	37'-3½" AVG.	29'-10" TO 44'-9"
	BL5	#9	3	STR.	29'-8"	-
	BT1	#4	29	STR.	21'-1"	-
	BT3	#4	15	STR.	9'-11" AVG.	1'-9" TO 18'-1"
	BW2	#5	1	BENT	26'-0"	-
	C1	#4	43	STR.	2'-6"	-
	D1	#5	1	STR.	3'-0"	-
	DB1	#5	21	BENT	4'-4"	-
	FS2	#5	31	BENT	7'-4"	-
	TT1	#4	31	BENT	3'-2"	-
	TT3	#4	1	STR.	29'-8"	-



APPROACH SLAB AT ABUTMENT NO. 2
(Showing Bottom Mat of Reinforcing Steel)



DETAIL "A"

NOTES:
Do not groove within 6" of any Longitudinal Joint or Construction Joint between the Approach Slab and the Deck Slab.

All transverse reinforcement shall be placed along radial lines to C.R.L. and are measured along edge of slab.

All longitudinal reinforcement shall be oriented along a curve concentric with C.R.L.

Parapet reinforcement not shown for clarity. See Sheet No. 35 for details.

See Sheet No. 41 for SECTIONS A, B, C & D-D and Summary of Quantities.

For Approach Slab No. 1 details, see Sheet No. 39.

⑩ Install Mechanical Reinforcing Bar Coupler (Epoxy Coated) in accordance with Section 511.04.C.3. Installation shall follow the Manufacturer's recommendations. Couplers shall be attached to: BT1 #4 & BW1 #5.

⑪ Splice the following bars:
BT1 Bars with C1 Bars
BW1 Bars with D1 Bars
Lap the following bars:
C1 Bars with BT1 Bars
D1 Bars with BW2 Bars

I-44 OVER I-244 NB BRIDGE "A" — TULSA COUNTY

APPROACH SLAB DETAILS (SHEET 2 OF 3)

DESIGN	JTR	4/15
DETAIL	SJL	5/16
CHECK	BRT	5/16

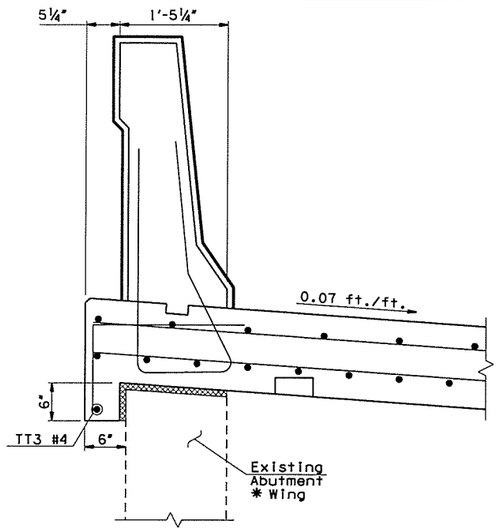
GARVER

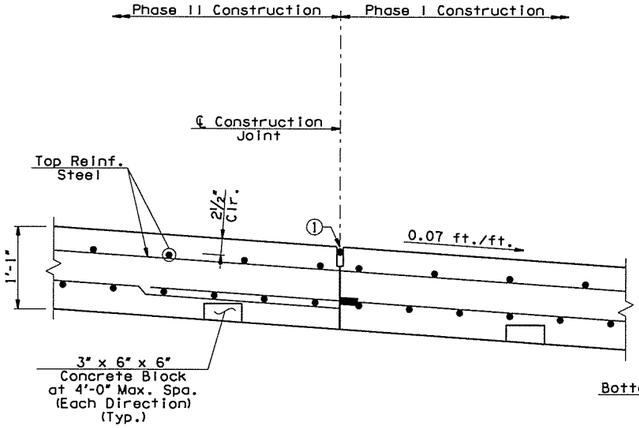
STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 29775(04) — SHEET NO. 40

All information included in these plans is based on the existing As-Surveyed data. It is solely the Contractor's responsibility to accurately verify this information prior to any demolition or construction. For additional information, see the General Notes "VERIFICATION OF EXISTING CONDITIONS", "SURVEYING AND CONSTRUCTION STAKING", & ESTABLISHMENT OF VERTICAL GEOMETRY" on Sheet No. 3.

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE

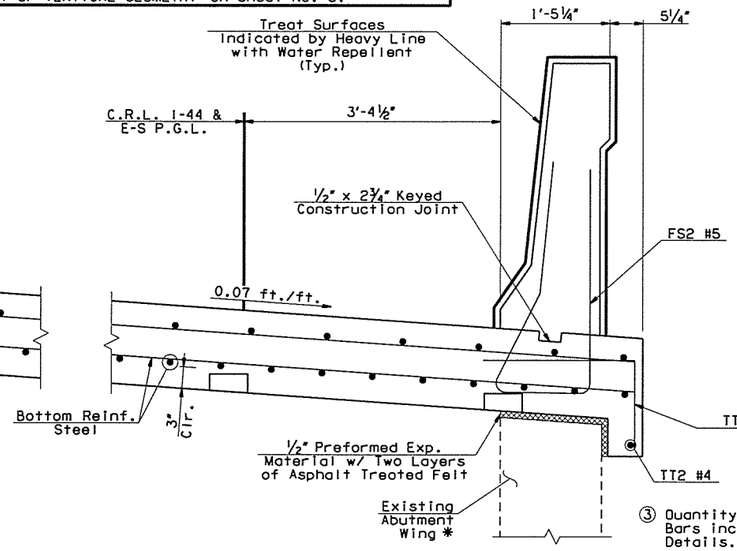




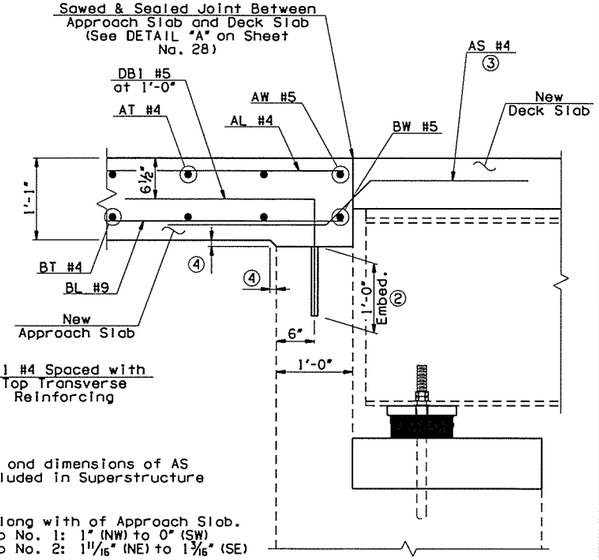
① ½" Sawed and Sealed Construction Joint in the top of each Approach Slab. See DETAIL "A" on Sheet No. 28.

* Top of Wingwall shall be ½" below bottom of new Approach Slab.

SECTION A THRU APPROACH SLAB



SECTION B

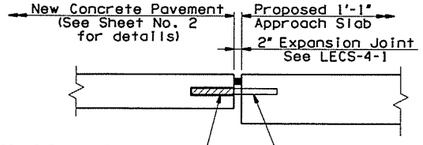


③ Quantity and dimensions of AS Bars included in Superstructure Details.

④ Varies along with of Approach Slab.
App. Slab No. 1: 1" (NW) to 0" (SW)
App. Slab No. 2: 1 11/16" (NE) to 1 3/16" (SE)

SECTION D-D

SECTION C

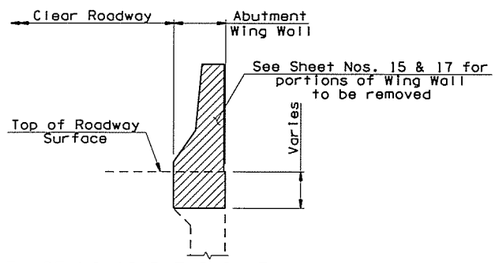


DETAIL "A"

NOTES:

All costs of installation of Terminal Joint, including dowel bars, epoxy, expansion joint, materials, labor, equipment, and any incidentals necessary to complete the work as shown shall be included in "APPROACH SLAB".

For details of dowel bars, see Std. CRCP2-3-0.



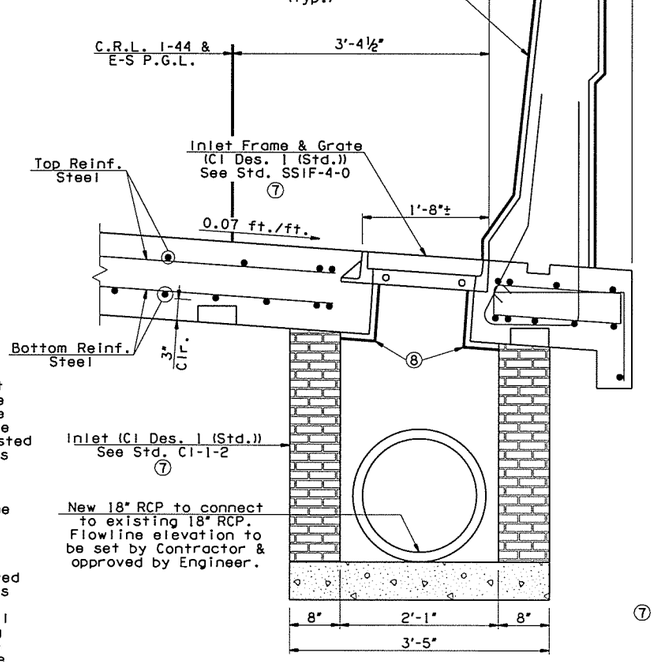
EXISTING CONDITIONS AT WINGWALL

② ANCHORAGE SYSTEM:

The Contractor shall use an Anchorage System that has been approved by ODOT's materials division. The Anchorage System shall be capable of developing the full strength of the reinforcing steel that is to be anchored. The embedment depth shown is to be adjusted to meet the Manufacturer's requirements. Anchorages shall be installed in accordance with the Manufacturer's specifications for the system used.

Drilling into the existing concrete to install the anchorage shall be accomplished without cutting existing concrete reinforcing steel bars. Prior to drilling, the Contractor shall locate and mark the existing concrete reinforcing steel bars with non-destructive tools, equipment and methods approved by the Engineer. If existing reinforcing steel bars are encountered during drilling, the drilling shall cease and the hole shall be grouted. The hole shall then be relocated to clear the existing reinforcing steel bars. Any adjustment in the locations of the new DB1 Bars from the plan locations shown shall be the minimum amount necessary to avoid cutting the existing concrete reinforcing steel bars and shall be approved by the Engineer.

All costs of the Anchorage Assemblies including labor, materials, tools, drilling, and incidentals necessary to complete the work shown in the plans shall be included in the price bid per Square Yard of "APPROACH SLAB".



SECTION E

(Only applicable at Approach Slab No. 1)

SUMMARY OF QUANTITIES - APPROACH SLAB NO. 1

	ITEM	UNIT	PHASE I CONSTRUCTION	PHASE II CONSTRUCTION	TOTAL
⑤	CLSM BACKFILL	C.Y.	5.00	5.00	10.00
⑥	APPROACH SLAB	S.Y.	91.70	148.60	240.30
	SAW-CUT GROOVING	S.Y.	85.00	132.70	217.70
	42" F-SHAPED PARAPET	L.F.	30.10	76.40	106.50
⑧	SPECIAL CONCRETE FINISH	S.Y.	1.00		1.00
⑥	CLASS AA CONCRETE	C.Y.	33.00	53.70	86.70
	MECHANICAL SPLICES	EA.	57.00		57.00
⑥	EPOXY COATED REINFORCING STEEL	LB.	6,801.00	11,367.00	18,167.00
	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	28.80	73.00	101.80
	(PL) INSTALLATION OF BRIDGE ITEMS	LSUM	1.00		1.00

SUMMARY OF QUANTITIES - APPROACH SLAB NO. 2

	ITEM	UNIT	PHASE I CONSTRUCTION	PHASE II CONSTRUCTION	TOTAL
⑤	CLSM BACKFILL	C.Y.	5.00	5.00	10.00
⑥	APPROACH SLAB	S.Y.	121.30	83.20	204.50
	SAW-CUT GROOVING	S.Y.	108.60	76.90	185.50
	42" F-SHAPED PARAPET	L.F.	61.10	30.00	91.10
⑥	CLASS AA CONCRETE	C.Y.	43.80	30.10	73.90
	MECHANICAL SPLICES	EA.	44.00		44.00
⑥	EPOXY COATED REINFORCING STEEL	LB.	8,784.00	5,953.00	14,736.00
	WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	58.40	28.70	87.10

⑤ CLSM Backfill shall be used at the discretion of the Engineer, to fill any voids prior to placement of the new Approach Slabs.

⑥ The contract unit price for "APPROACH SLAB" shall be full compensation for Concrete, Epoxy Coated Reinforcing Steel (including FS2 bars), Backer Rod, Rapid Cure Joint Sealant, Type III Terminal Joints, labor, equipment and other incidentals necessary to complete the work as specified on the plans.

⑦ All costs necessary to complete the work as specified in the plans including the cost of installation of Inlet Frame, Inlet Grate, Inlet, 18" RCP Pipe (to connect to existing 18" RCP), materials, labor, equipment and incidentals shall be included in the price bid per Lump Sum of "(PL) INSTALLATION OF BRIDGE ITEMS".

⑧ Apply Special Concrete Finish to inside faces of approach slab (indicated by heavy line) within inlet. See General Note for more information.

I-44 OVER I-244 NB — TULSA COUNTY
BRIDGE "A"

APPROACH SLAB DETAILS
(SHEET 3 OF 3)

DESIGN	JTR	4/15
DETAIL	SJL	5/16
CHECK	BRT	5/16

GARVER

STATE OF OKLAHOMA — DEPARTMENT OF TRANSPORTATION
JOB PIECE NO. 29775(04) — SHEET NO. 41

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

0 50 100 150

SCALE

GILCREASE EXPRESSWAY EB

GILCREASE EXPRESSWAY WB

I-244 SB

I-244-NB

335+00

340+00

SD

12" SOLID WHITE GORE STRIPE @ 10' C/C

8" SOLID WHITE GORE STRIPE

6" SOLID WHITE EDGE STRIPE

STA. 339+41.86 REMOVE AND RESET W4-3

6" DASHED WHITE LANE STRIPE WITH BLACK SHADOW STRIPING

STA. 340+62.07 REMOVE AND RESET E5-1a (233 B)

6" SOLID YELLOW EDGE STRIPE

12" SOLID WHITE GORE STRIPE @ 10' C/C

6" DASHED WHITE LANE STRIPE WITH BLACK SHADOW STRIPING

8" SOLID WHITE GORE STRIPE

IMPACT ATTENUATOR

I-44 WB

C.R.L. SURVEY ℄

I-44 EB

I-44

SCALE: HORIZ.: 1"=50' VERT.: 1"=5'

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

PAVEMENT MARKING AND SIGNING

STATE JOB NO. 29775(04) SHEET NO. 42

16:13:24 I:\2014\14037190 - ODOT FC 1591 Bridge Rehab Tulsa Co\Drawings\29775(04) I-44\29775(04) PM_001.dgn

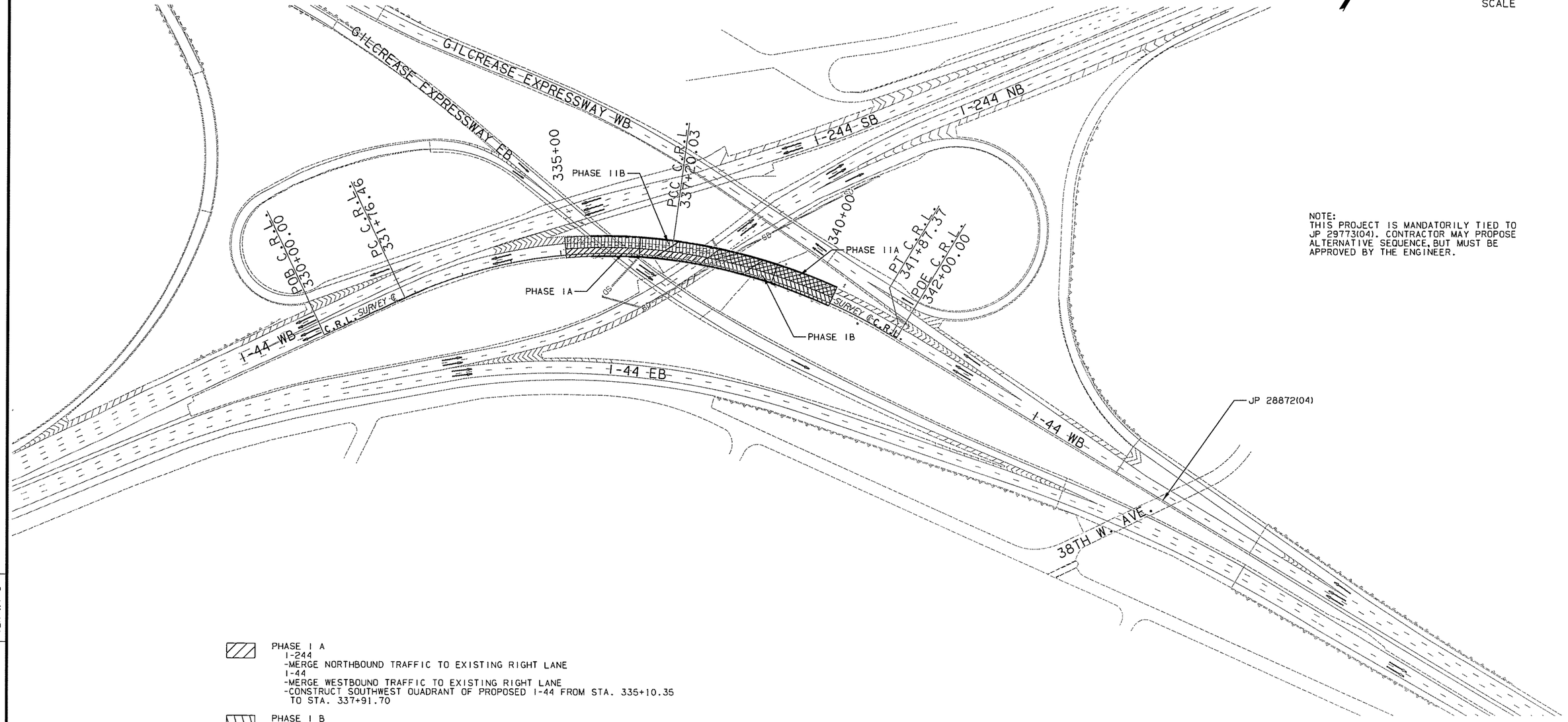
7/7/2016 TULSA COUNTY

SEC 13 T19N R12E

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE

0 100 200 300
SCALE



NOTE:
THIS PROJECT IS MANDATORILY TIED TO JP 29773(04). CONTRACTOR MAY PROPOSE ALTERNATIVE SEQUENCE, BUT MUST BE APPROVED BY THE ENGINEER.

SCALE:
HORIZ.: 1"=50'
VERT.: 1"=5'

PHASE I A
I-244
-MERGE NORTHBOUND TRAFFIC TO EXISTING RIGHT LANE
I-44
-MERGE WESTBOUND TRAFFIC TO EXISTING RIGHT LANE
-CONSTRUCT SOUTHWEST QUADRANT OF PROPOSED I-44 FROM STA. 335+10.35 TO STA. 337+91.70

PHASE I B
I-244
-MERGE NORTHBOUND TRAFFIC TO EXISTING LEFT LANE
I-44
-MAINTAIN WESTBOUND TRAFFIC IN EXISTING RIGHT LANE
-CONSTRUCT SOUTHEAST QUADRANT AND APPROACH SLAB OF PROPOSED I-44 FROM STA. 337+91.70 TO STA. 340+50.00

PHASE II A
I-244
-MAINTAIN NORTHBOUND TRAFIC TO EXISTING LEFT LANE
I-44
-MERGE WESTBOUND TRAFFIC TO EXISTING LEFT LANE
-CONSTRUCT NORTHEAST QUADRANT AND APPROACH SLAB OF PROPOSED I-44 FROM STA. 337+91.70 TO STA. 340+50.00

PHASE II B
I-244
-MERGE NORTHBOUND TRAFFIC TO EXISTING LEFT LANE
I-44
-MAINTAIN WESTBOUND TRAFFIC TO EXISTING INSIDE LANE
-CONSTRUCT NORTHWEST QUADRANT OF PROPOSED I-44 FROM STA. 335+10.35 TO STA. 337+91.70

SEC 13 T19N R12E

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMW	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

CONSTRUCTION SEQUENCE OVERVIEW

STATE JOB NO. 29775(04) SHEET NO. 43

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

0 100 200 300

SCALE

LEGEND

- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)

CS-18 WHEN WORKERS ARE PRESENT

CS-17 FINES DOUBLE

CS-16 WORK ZONE

WING BARRICADE

STAY ALERT PLEASE IN WORK ZONE

I-44

SH-66

I-44 WB

SH-66 WB

SH-66 EB

I-44 EB

MATCH LINE A

1000′

1000′

1000′

2640′

1 MILE

LEFT LANE CLOSED

M20-5(L)

ADVANCED WARNING

DESIGN	MDF	3/16
DRAWN	TWL	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 1 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 44

16:13:35 I:\2014\14037190 - ODOT FC 1591 Bridge Rehab Tulsa Co\Drawings\29775(04) I-44\JP29775(04) MOT 001.dgn 7/7/2016 TULSA COUNTY

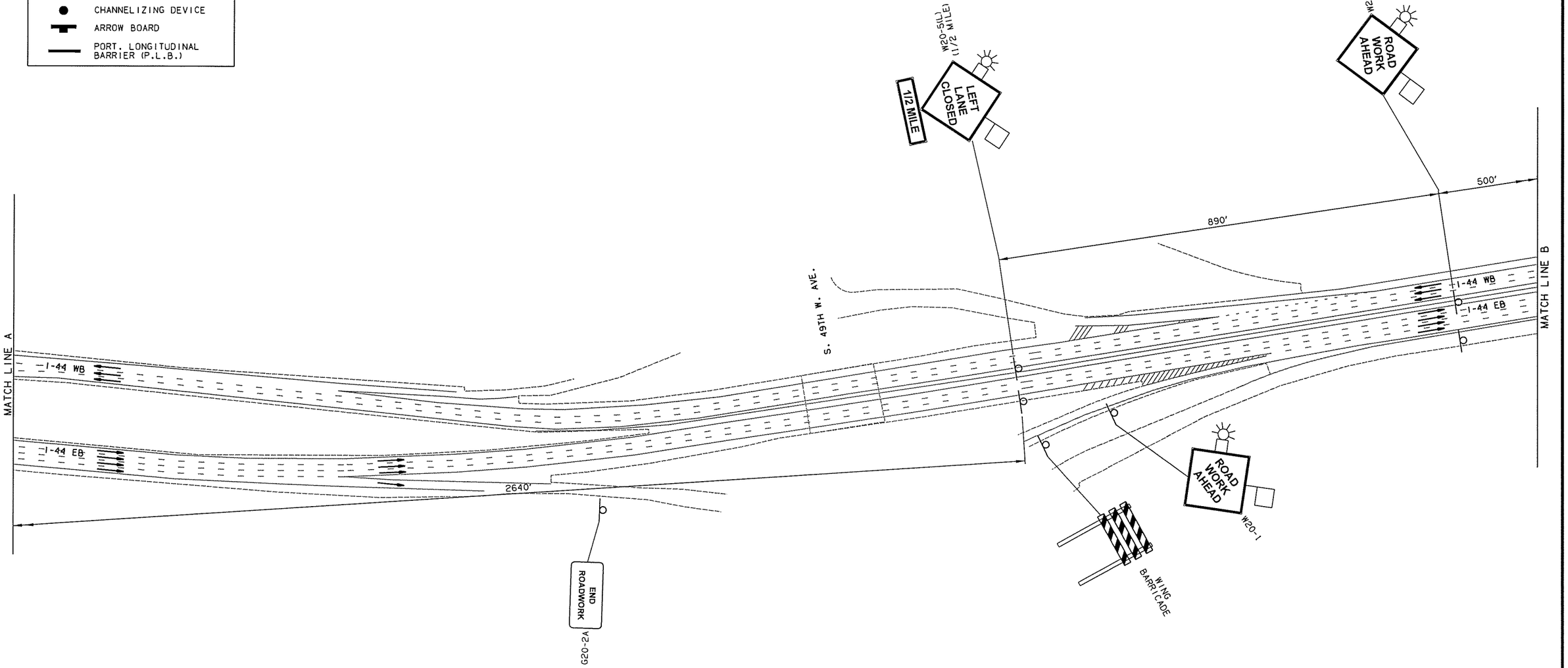
OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE

0 100 200 300
SCALE

LEGEND

- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)



ADVANCED WARNING

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 2 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 45

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

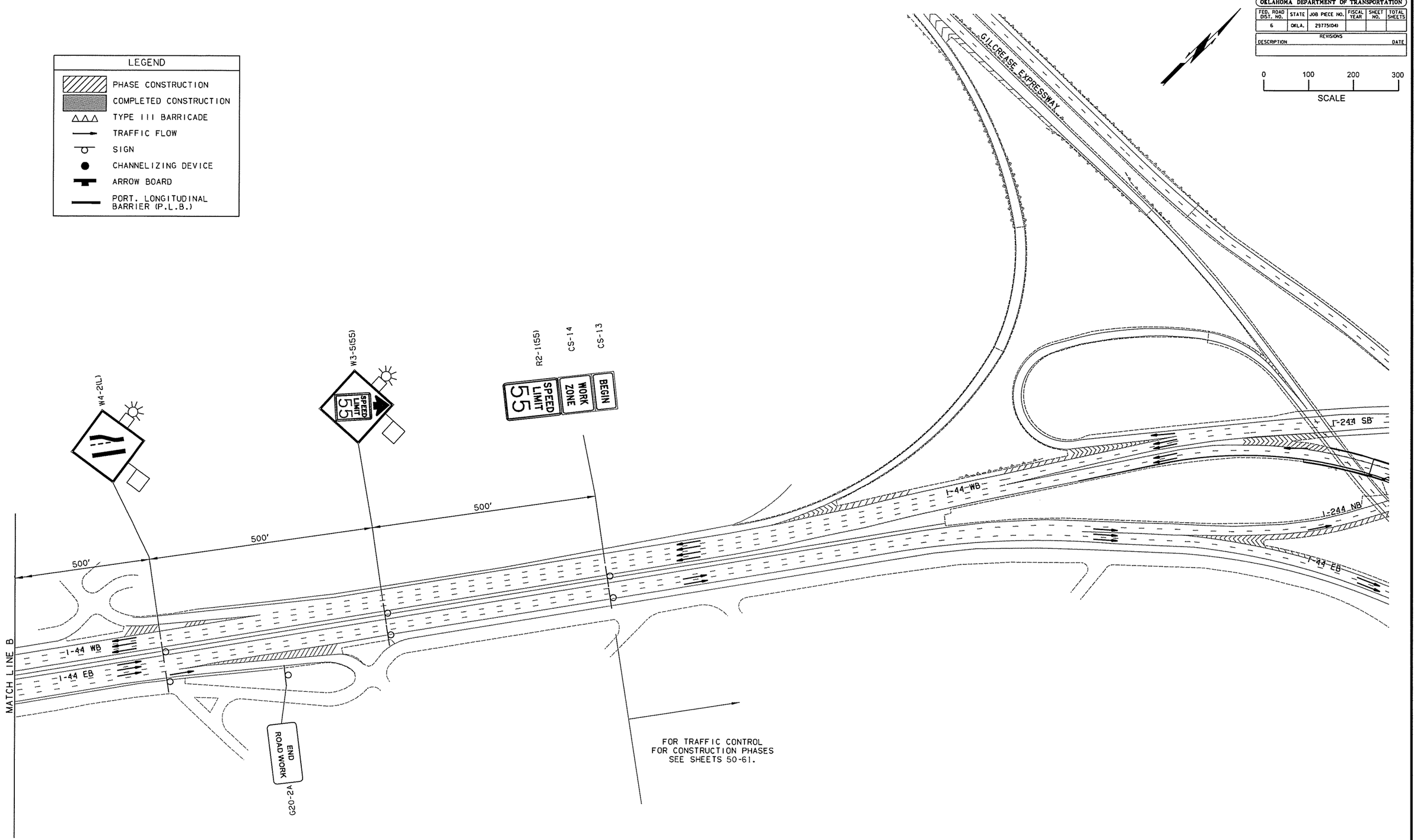
DESCRIPTION	DATE

0 100 200 300

SCALE

LEGEND

- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)



ADVANCED WARNING

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 3 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 46

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

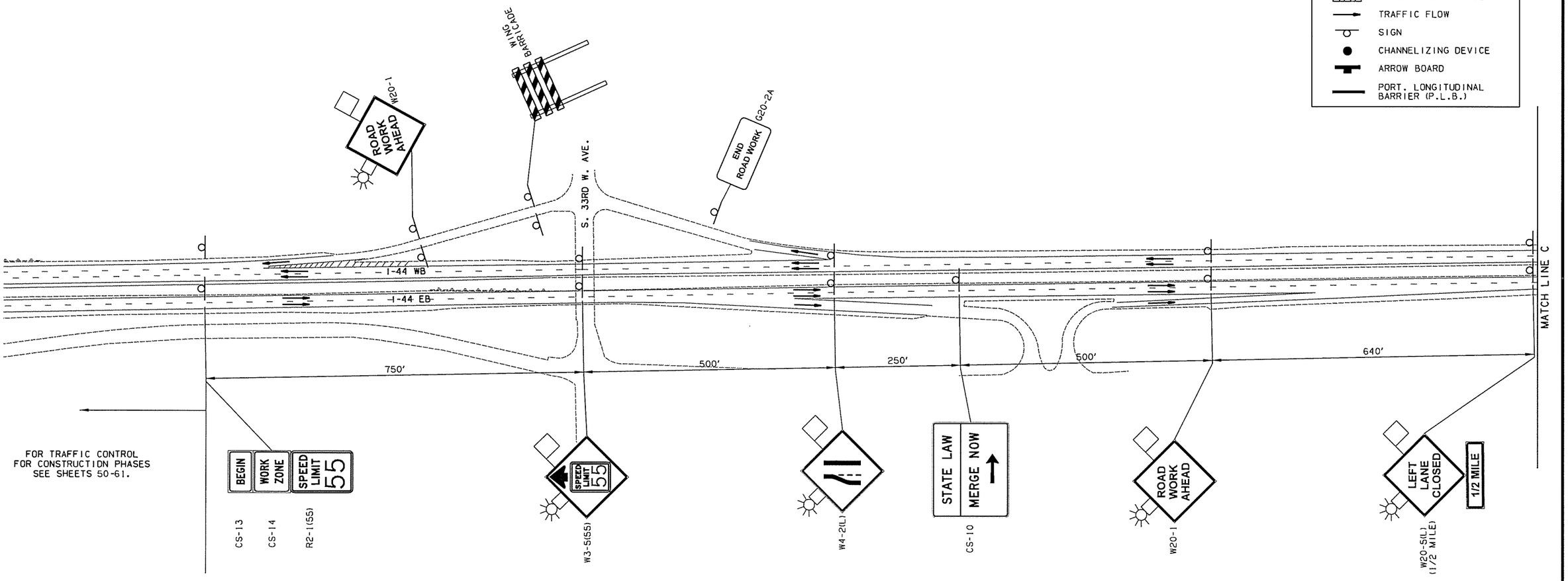
DESCRIPTION	DATE

0 100 200 300

SCALE

LEGEND

- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)



ADVANCED WARNING

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 4 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 47

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

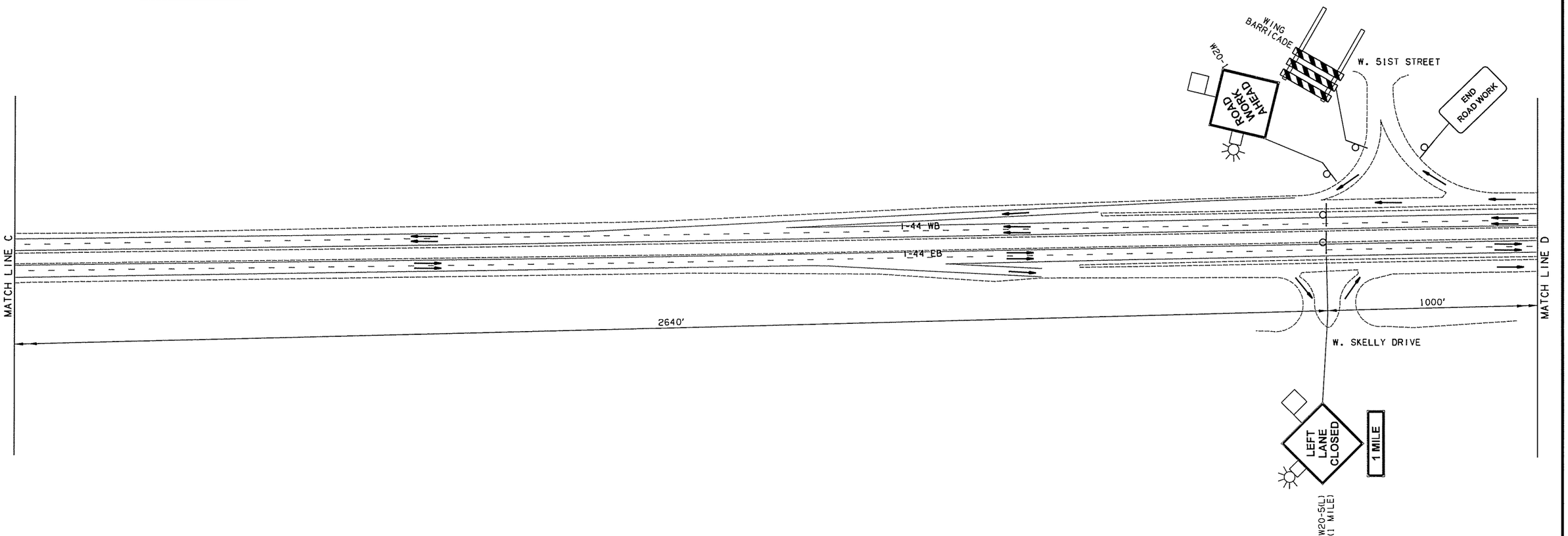
DESCRIPTION	DATE

0 100 200 300

SCALE

LEGEND

- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)



ADVANCED WARNING

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 5 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 48

16:13:58 I:\2014\14037190 - ODOT FC 1591 Bridge Rehab Tulsa Co\Drawings\29775(04) I-44\JP29775(04)_MOT_005.dgn

7/7/2016 TULSA COUNTY

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

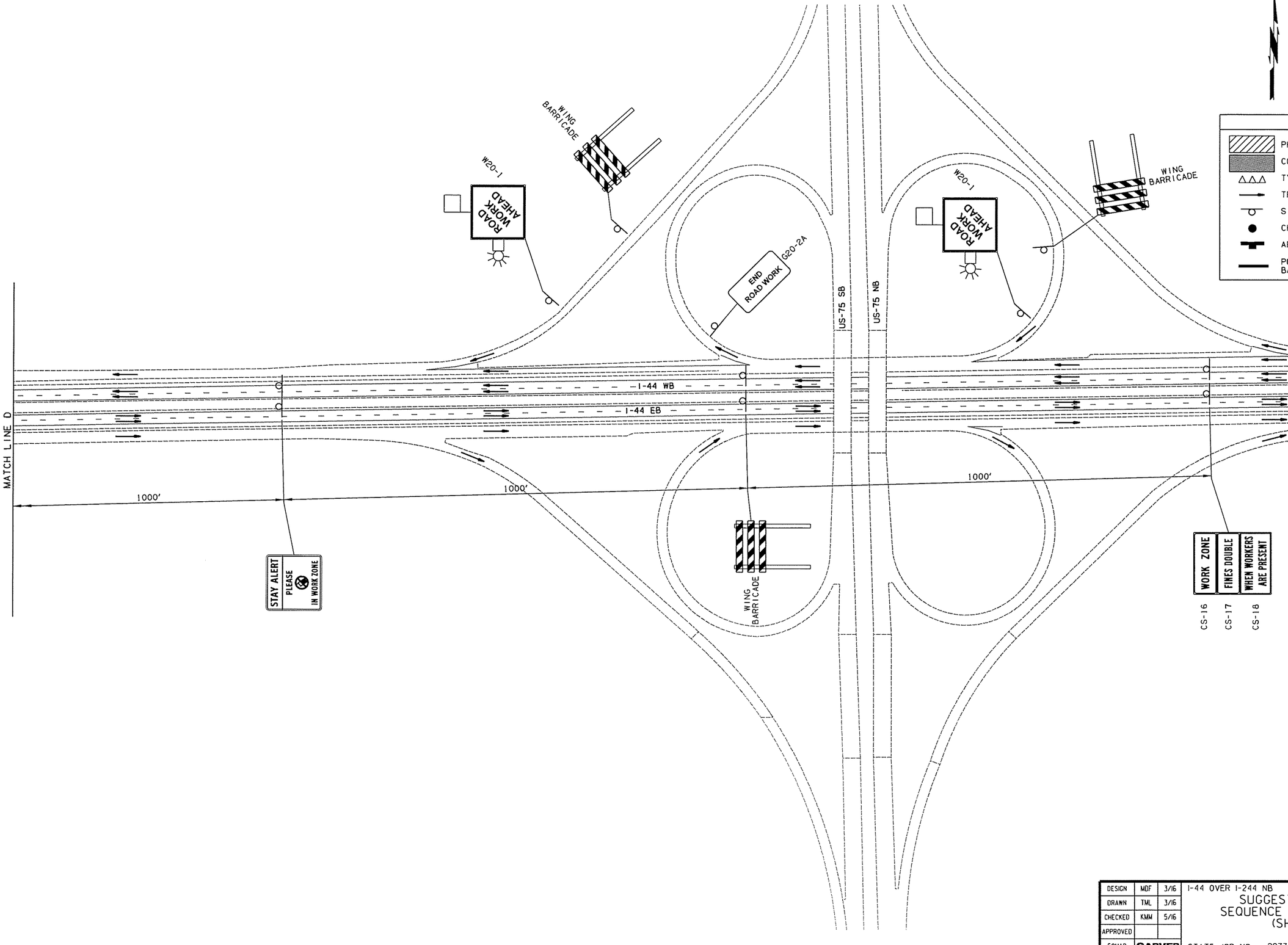
DESCRIPTION	DATE

0 100 200 300

SCALE

LEGEND

- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)



ADVANCED WARNING

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 6 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 49

16:14:02 I:\2014\14037190 - ODOT FC 1591 Bridge Rehab Tulsa Co\Drawings\29775(04) I-44\JP29775(04) MOT 006.dgn

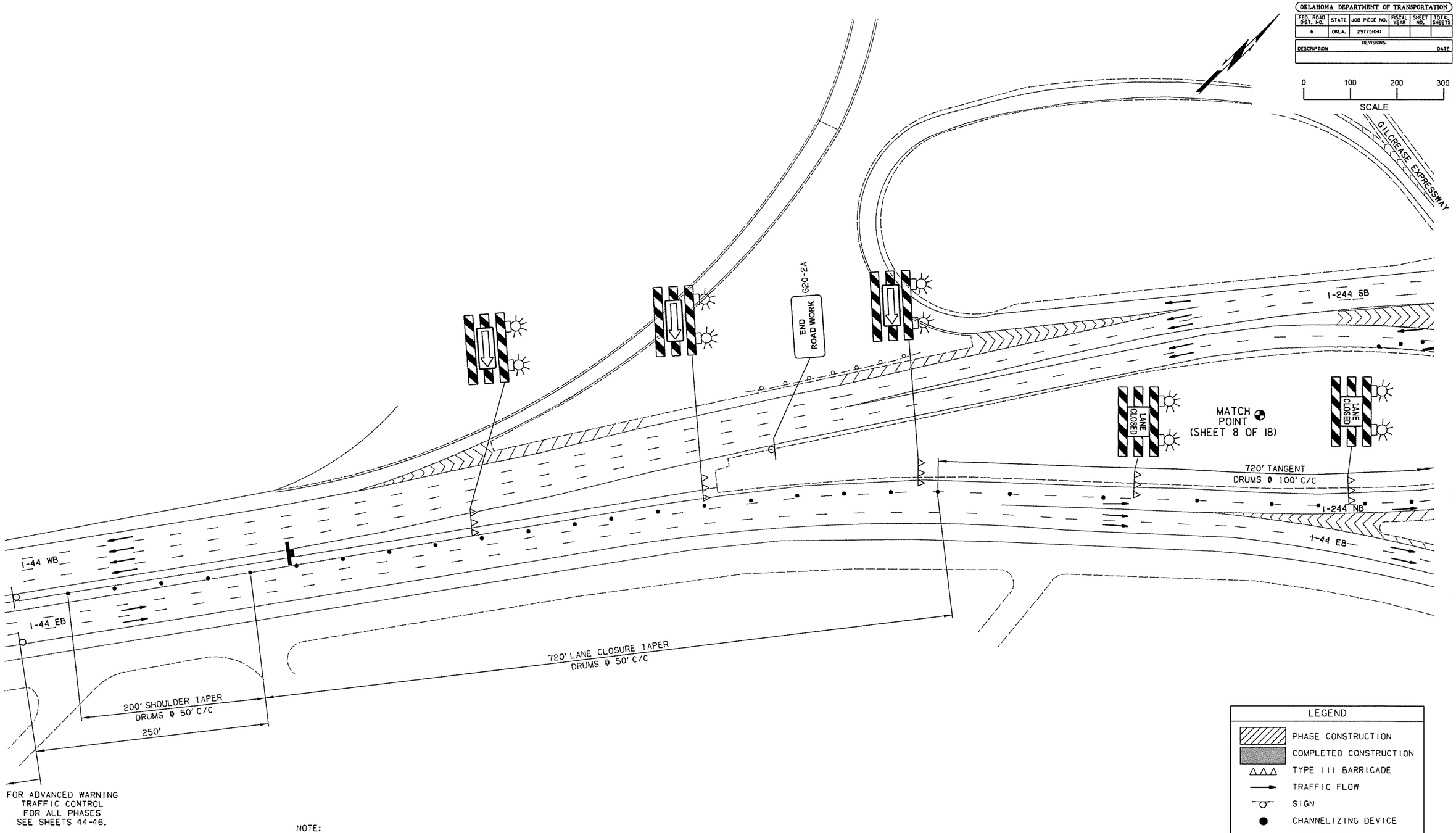
7/7/2016 TULSA COUNTY

OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE



LEGEND

- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)

NOTE:
1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
3. ANY EXISTING CONFLICTING STRIPING SHALL BE REMOVED PRIOR TO SHIFTING TRAFFIC.
4. DIRECTIVES FROM STANDARD PDT-1 "PAVEMENT DROP-OFF TREATMENTS" SHALL BE FOLLOWED AT ALL TIMES.
5. (1) W1-8 SHALL BE PLACED ON EVERY OTHER DRUM THRU LANE TAPERS. (1) R4-7A(R) OR (1) R4-7A(L) (AS APPLIES) SHALL BE PLACED ON EVERY OTHER DRUM THRU TANGENT LANES.
6. THE ENDS OF THE PORTABLE CONCRETE MEDIAN BARRIER MUST EITHER BE FLARED TO OUTSIDE OF CLEAR ZONE (PER AASHTO ROADSIDE DESIGN GUIDE LATEST EDITION) OR PROTECTED BY A ODOT APPROVED ATTENUATOR AT ALL TIMES.
7. GUIDELINES FROM THE 2009 MUTCD SHALL GOVERN.
8. BARRIER LENGTH NOTES ARE FOR CONTINUOUS RUN AND NOT SPLIT PER SHEET.

PHASE 1A

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 7 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 50

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE

0 50 100 150
SCALE

SPEED LIMIT 65 R2-1(65)
250'
END ROAD WORK G20-2A
500'
I-244 NB
I-244 SB
GILCREASE EXP. WB
GILCREASE EXP. EB
W24-1(R)
LANE CLOSED
END ROAD WORK G20-2A
100' DOWNSTREAM TAPER
DRUMS @ 25' C/C
787.5 L.F.
P.L.B.
165' LANE SHIFTING TAPER
DRUMS @ 50' C/C
990' TANGENT
DRUMS @ 100' C/C
MATCH LINE
300 L.F.
P.L.B.
165' LANE SHIFTING TAPER
DRUMS @ 50' C/C
100' DOWNSTREAM TAPER
DRUMS @ 25' C/C
LANE CLOSED
MATCH POINT
(SHEET 7 OF 18)
720' TANGENT
DRUMS @ 100' C/C
I-244 NB
I-44 EB
END ROAD WORK G20-2A

NOTE:
1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
3. ANY EXISTING CONFLICTING STRIPING SHALL BE REMOVED PRIOR TO SHIFTING TRAFFIC.
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6. THE ENDS OF THE PORTABLE CONCRETE MEDIAN BARRIER MUST EITHER BE FLARED TO OUTSIDE OF CLEAR ZONE (PER AASHTO ROADSIDE DESIGN GUIDE LATEST EDITION) OR PROTECTED BY A ODOT APPROVED ATTENUATOR AT ALL TIMES.
7. GUIDELINES FROM THE 2009 MUTCD SHALL GOVERN.
8. BARRIER LENGTH NOTES ARE FOR CONTINUOUS RUN AND NOT SPLIT PER SHEET.

LEGEND
- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)

PHASE 1A

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 8 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 51

16:14:14 I:\2014\14037190 - ODOT FC 1591 Bridge Rehab Tulsa Co\Drawings\29775(04) I-44\JP29775(04) MOT 102.dgn 7/7/2016 TULSA COUNTY

OKLAHOMA DEPARTMENT OF TRANSPORTATION

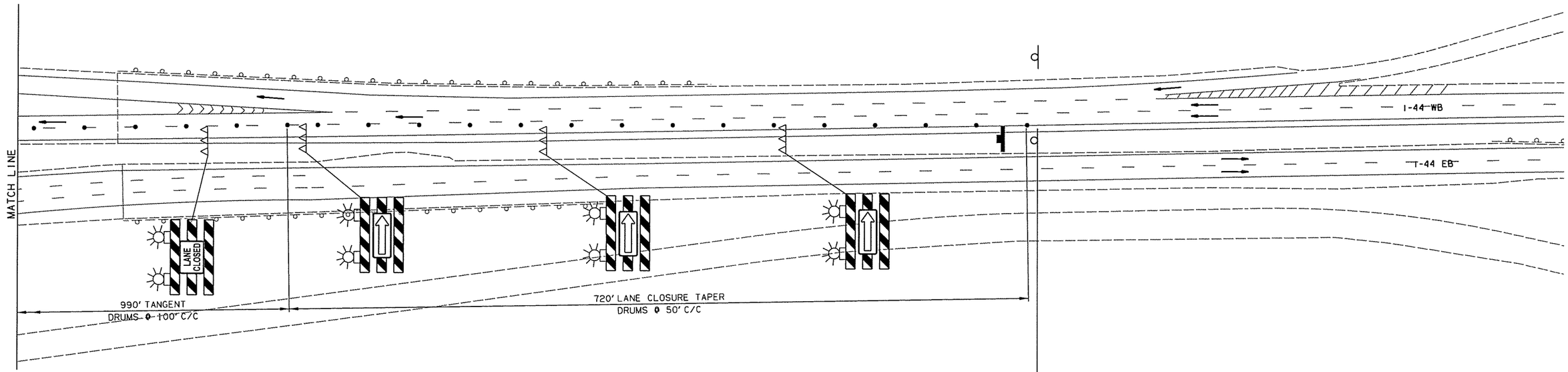
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

0 50 100 150

SCALE



FOR ADVANCED WARNING
TRAFFIC CONTROL
FOR ALL PHASES
SEE SHEETS 47-49.

LEGEND

- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)

NOTE:
1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
3. ANY EXISTING CONFLICTING STRIPING SHALL BE REMOVED PRIOR TO SHIFTING TRAFFIC.
4. DIRECTIVES FROM STANDARD PDT-1 "PAVEMENT DROP-OFF TREATMENTS" SHALL BE FOLLOWED AT ALL TIMES.
5. (1) W1-8 SHALL BE PLACED ON EVERY OTHER DRUM THRU LANE TAPERS. (1) R4-7A(R) OR (1) R4-7A(L) (AS APPLIES) SHALL BE PLACED ON EVERY OTHER DRUM THRU TANGENT LANES.
6. THE ENDS OF THE PORTABLE CONCRETE MEDIAN BARRIER MUST EITHER BE FLARED TO OUTSIDE OF CLEAR ZONE (PER AASHTO ROADSIDE DESIGN GUIDE LATEST EDITION) OR PROTECTED BY A ODOT APPROVED ATTENUATOR AT ALL TIMES.
7. GUIDELINES FROM THE 2009 MUTCD SHALL GOVERN.
8. BARRIER LENGTH NOTES ARE FOR CONTINUOUS RUN AND NOT SPLIT PER SHEET.

PHASE 1A

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 9 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 52

OKLAHOMA DEPARTMENT OF TRANSPORTATION

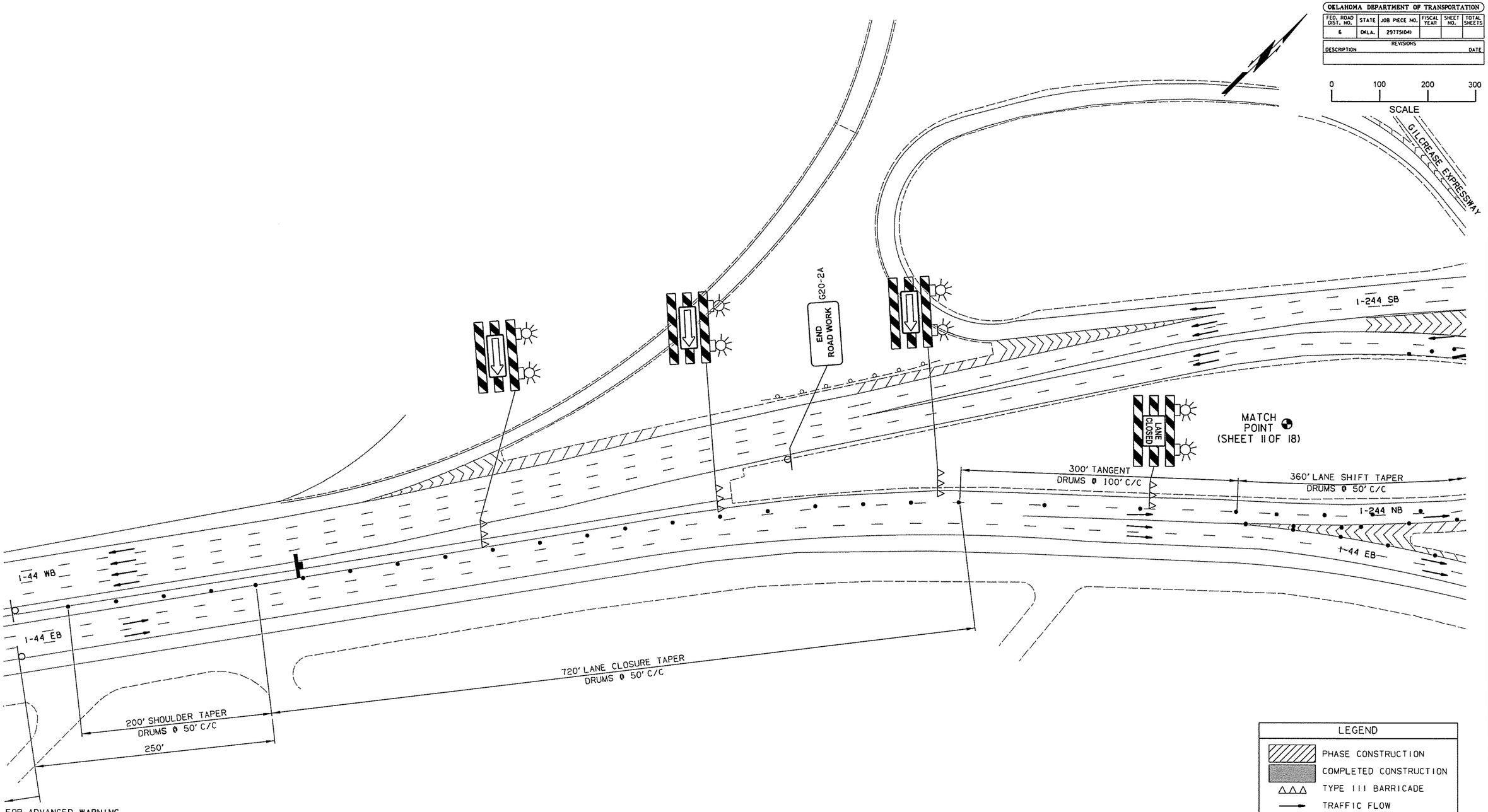
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

0 100 200 300

SCALE



FOR ADVANCED WARNING TRAFFIC CONTROL FOR ALL PHASES SEE SHEETS 44-46.

LEGEND

- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)

NOTE:
1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
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4. DIRECTIVES FROM STANDARD PDT-1 "PAVEMENT DROP-OFF TREATMENTS" SHALL BE FOLLOWED AT ALL TIMES.
5. (1) W1-8 SHALL BE PLACED ON EVERY OTHER DRUM THRU LANE TAPERS. (1) R4-7A(R) OR (1) R4-7A(L) (AS APPLIES) SHALL BE PLACED ON EVERY OTHER DRUM THRU TANGENT LANES.
6. THE ENDS OF THE PORTABLE CONCRETE MEDIAN BARRIER MUST EITHER BE FLARED TO OUTSIDE OF CLEAR ZONE (PER AASHTO ROADSIDE DESIGN GUIDE LATEST EDITION) OR PROTECTED BY A ODOT APPROVED ATTENUATOR AT ALL TIMES.
7. GUIDELINES FROM THE 2009 MUTCD SHALL GOVERN.
8. BARRIER LENGTH NOTES ARE FOR CONTINUOUS RUN AND NOT SPLIT PER SHEET.

PHASE 1B

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 10 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 53

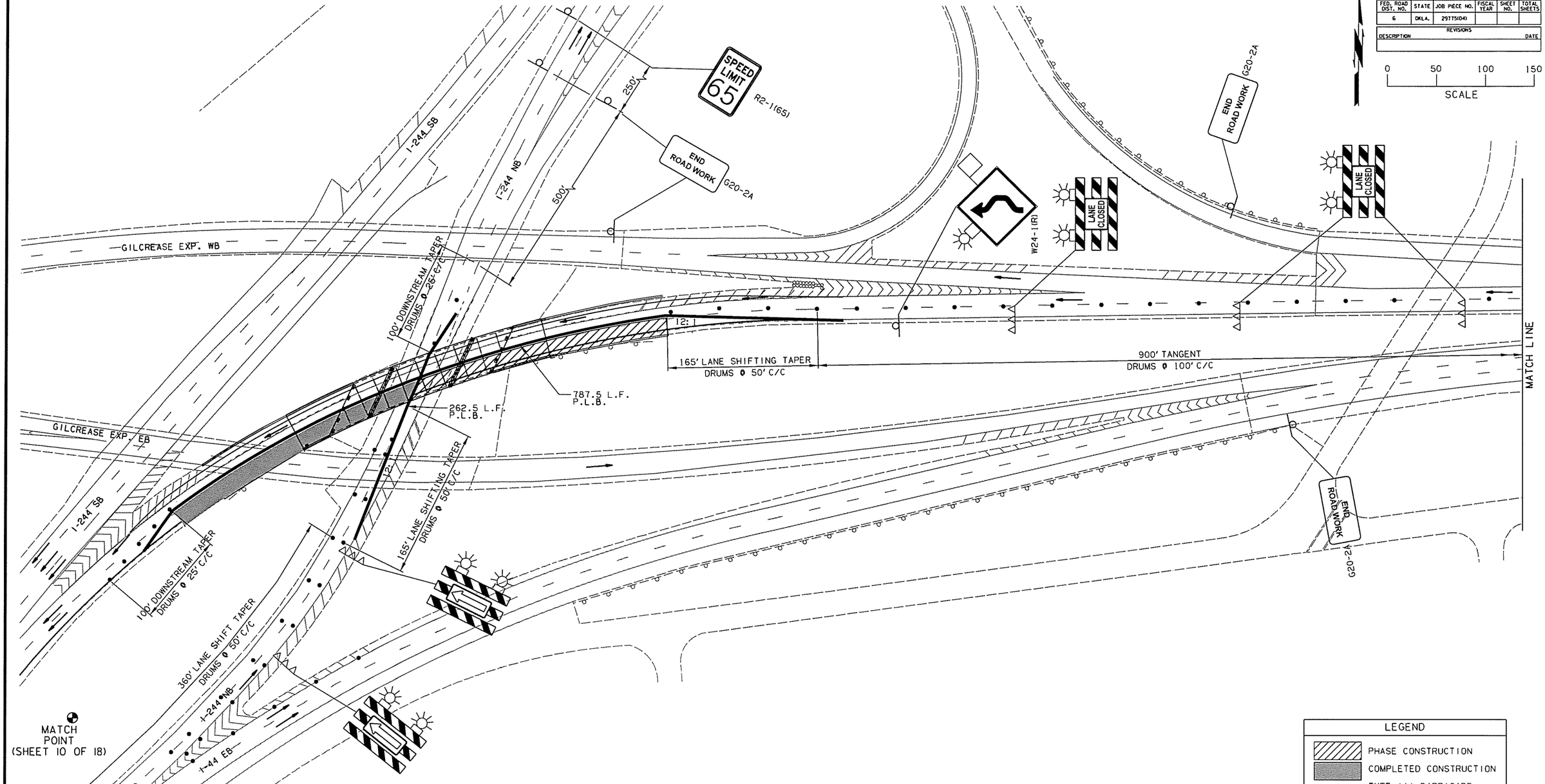
OKLAHOMA DEPARTMENT OF TRANSPORTATION

FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

0 50 100 150
SCALE



LEGEND

- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)

NOTE:
1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
3. ANY EXISTING CONFLICTING STRIPING SHALL BE REMOVED PRIOR TO SHIFTING TRAFFIC.
4. DIRECTIVES FROM STANDARD PDT-1 "PAVEMENT DROP-OFF TREATMENTS" SHALL BE FOLLOWED AT ALL TIMES.
5. (1) W1-8 SHALL BE PLACED ON EVERY OTHER DRUM THRU LANE TAPERS. (1) R4-7A(R) OR (1) R4-7A(L) (AS APPLIES) SHALL BE PLACED ON EVERY OTHER DRUM THRU TANGENT LANES.
6. THE ENDS OF THE PORTABLE CONCRETE MEDIAN BARRIER MUST EITHER BE FLARED TO OUTSIDE OF CLEAR ZONE (PER AASHTO ROADSIDE DESIGN GUIDE LATEST EDITION) OR PROTECTED BY A ODOT APPROVED ATTENUATOR AT ALL TIMES.
7. GUIDELINES FROM THE 2009 MUTCD SHALL GOVERN.
8. BARRIER LENGTH NOTES ARE FOR CONTINUOUS RUN AND NOT SPLIT PER SHEET.

PHASE 1B

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 11 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 54

16:14:30 I:\2014\14037190 - ODOT FC 1591 Bridge Rehab Tulsa Co\Drawings\29775(04) I-44\JP29775(04) MOT 202.dgn 7/7/2016 TULSA COUNTY

OKLAHOMA DEPARTMENT OF TRANSPORTATION

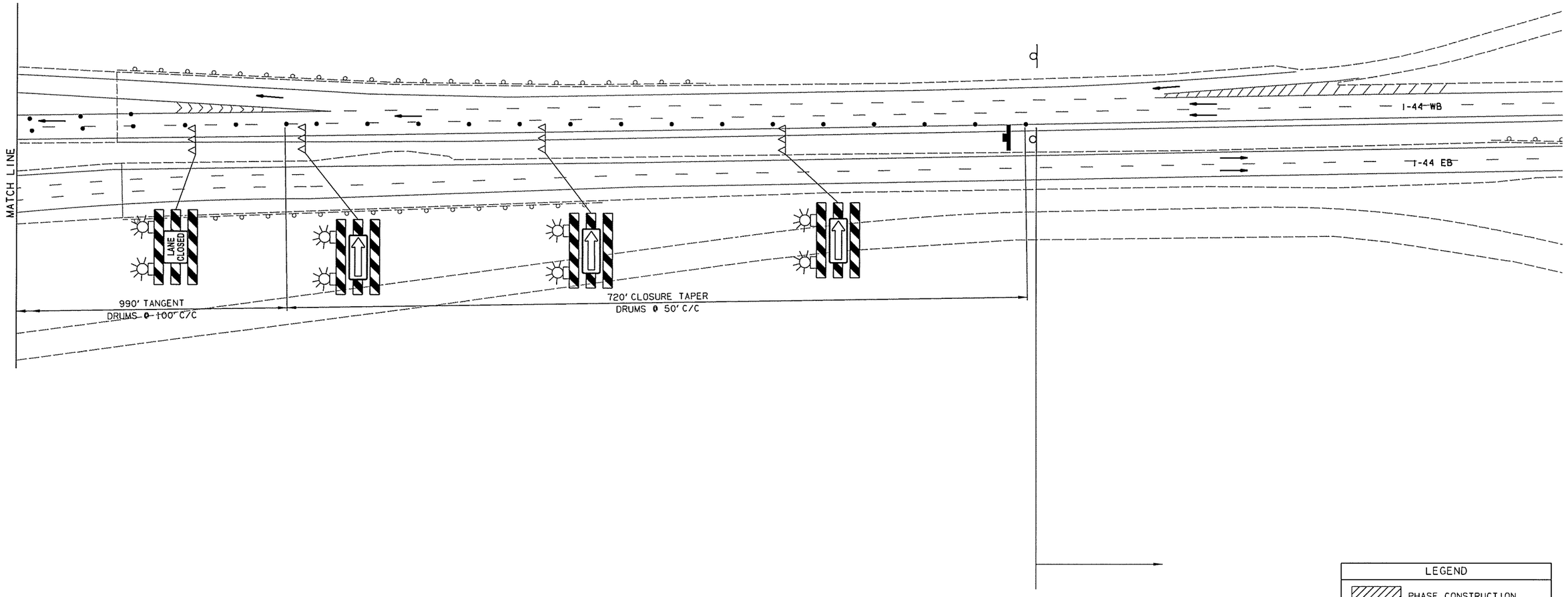
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

0 50 100 150

SCALE



FOR ADVANCED WARNING TRAFFIC CONTROL FOR ALL PHASES SEE SHEETS 47-49.

LEGEND

- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)

NOTE:
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7. GUIDELINES FROM THE 2009 MUTCD SHALL GOVERN.
8. BARRIER LENGTH NOTES ARE FOR CONTINUOUS RUN AND NOT SPLIT PER SHEET.

PHASE 1B

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 12 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 55

OKLAHOMA DEPARTMENT OF TRANSPORTATION

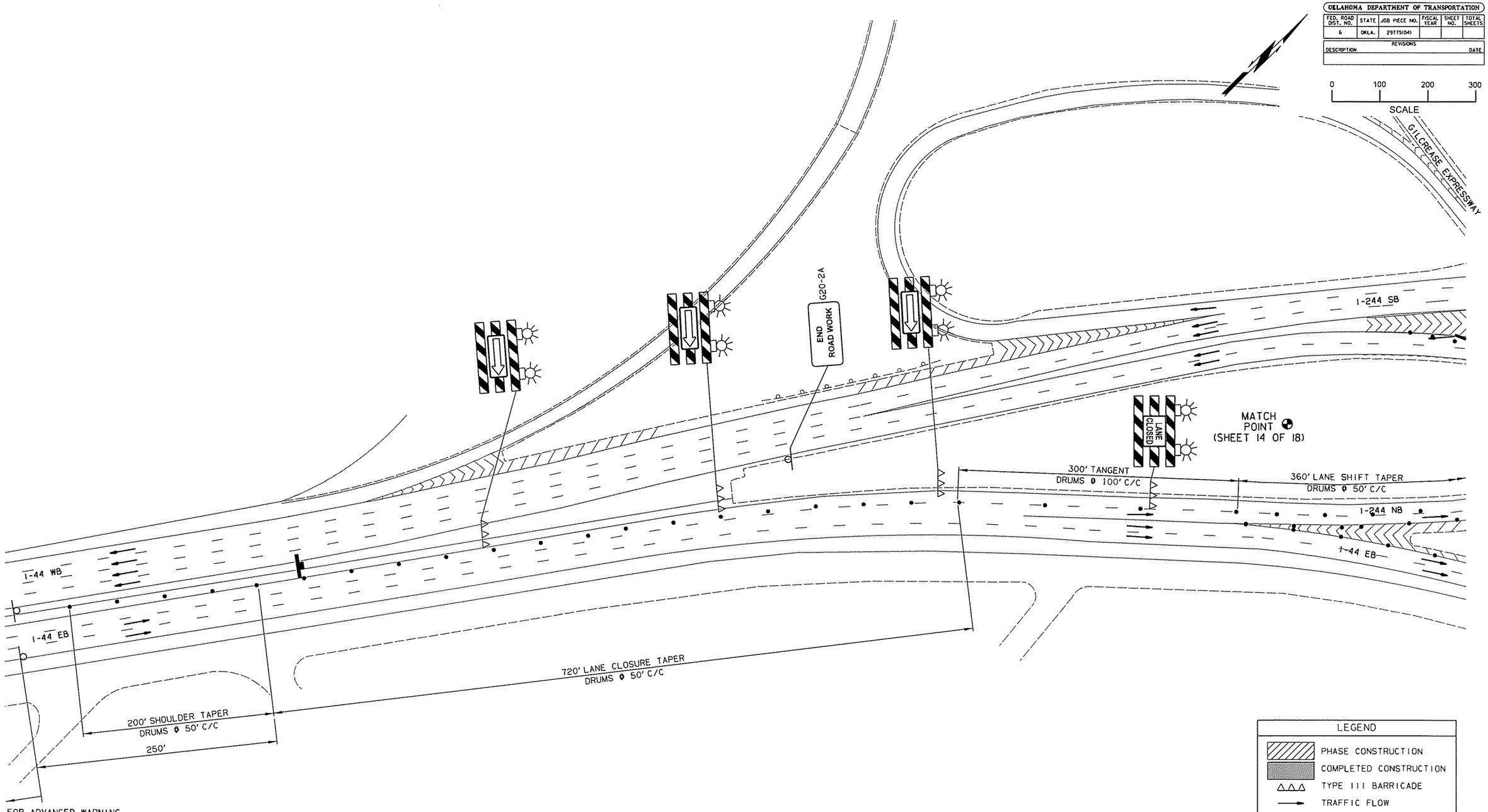
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

0 100 200 300

SCALE



FOR ADVANCED WARNING TRAFFIC CONTROL FOR ALL PHASES SEE SHEETS 44-46.

LEGEND

- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)

NOTE:
1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
3. ANY EXISTING CONFLICTING STRIPING SHALL BE REMOVED PRIOR TO SHIFTING TRAFFIC.
4. DIRECTIVES FROM STANDARD PDT-1 "PAVEMENT DROP-OFF TREATMENTS" SHALL BE FOLLOWED AT ALL TIMES.
5. (1) W1-8 SHALL BE PLACED ON EVERY OTHER DRUM THRU LANE TAPERS. (1) R4-7A(R) OR (1) R4-7A(L) (AS APPLIES) SHALL BE PLACED ON EVERY OTHER DRUM THRU TANGENT LANES.
6. THE ENDS OF THE PORTABLE CONCRETE MEDIAN BARRIER MUST EITHER BE FLARED TO OUTSIDE OF CLEAR ZONE (PER AASHTO ROADSIDE DESIGN GUIDE LATEST EDITION) OR PROTECTED BY A ODOT APPROVED ATTENUATOR AT ALL TIMES.
7. GUIDELINES FROM THE 2009 MUTCD SHALL GOVERN.
8. BARRIER LENGTH NOTES ARE FOR CONTINUOUS RUN AND NOT SPLIT PER SHEET.

PHASE II A

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KWM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 13 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 56

16:14:38 I:\2014\14037190 - ODOT FC 1591 Bridge Rehab Tulsa Co\Drawings\29775(04) I-44\JP29775(04)_MOT_301.dgn

7/7/2016 TULSA COUNTY

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE

0 50 100 150
SCALE

SPEED LIMIT 65 R2-1(65)
250'
END ROAD WORK G20-2A
500'
I-244 NB
I-244 SB
LANE CLOSED
CS-6
EXIT
END ROAD WORK G20-2A
GILCREASE EXP. WB
180' EXIT TAPER
DRUMS @ 50' C/C
100' DOWNSTREAM TAPER
DRUMS @ 25' C/C
100' DOWNSTREAM TAPER
DRUMS @ 25' C/C
12'
440' TANGENT
DRUMS @ 50' C/C
360' LANE SHIFT TAPER
DRUMS @ 50' C/C
762.5 L.F.
P.L.B.
262.5 L.F.
P.L.B.
GILCREASE EXP. EB
I-244 SB
12'
165' LANE SHIFTING TAPER
DRUMS @ 50' C/C
100' DOWNSTREAM TAPER
DRUMS @ 25' C/C
END ROAD WORK G20-2A
MATCH LINE
360' LANE SHIFT TAPER
DRUMS @ 50' C/C
I-244 NB
I-44 EB
MATCH POINT
(SHEET 13 OF 18)
300' TANGENT
DRUMS @ 100' C/C
W24-1(L)

NOTE:
1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
2. EXISTING SIGNS THAT WOULD INTERFERE WITH CONSTRUCTION ZONE SIGNING SHALL BE REMOVED OR COVERED.
3. ANY EXISTING CONFLICTING STRIPING SHALL BE REMOVED PRIOR TO SHIFTING TRAFFIC.
4. DIRECTIVES FROM STANDARD PDT-1 "PAVEMENT DROP-OFF TREATMENTS" SHALL BE FOLLOWED AT ALL TIMES.
5. (1) W1-8 SHALL BE PLACED ON EVERY OTHER DRUM THRU LANE TAPERS. (1) R4-7A(R) OR (1) R4-7A(L) (AS APPLIES) SHALL BE PLACED ON EVERY OTHER DRUM THRU TANGENT LANES.
6. THE ENDS OF THE PORTABLE CONCRETE MEDIAN BARRIER MUST EITHER BE FLARED TO OUTSIDE OF CLEAR ZONE (PER AASHTO ROADSIDE DESIGN GUIDE LATEST EDITION) OR PROTECTED BY A ODOT APPROVED ATTENUATOR AT ALL TIMES.
7. GUIDELINES FROM THE 2009 MUTCD SHALL GOVERN.
8. BARRIER LENGTH NOTES ARE FOR CONTINUOUS RUN AND NOT SPLIT PER SHEET.

LEGEND
- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)

PHASE II A

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 14 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 57

16:14:45 I:\2014\14037190 - ODOT FC 1591 Bridge Rehab Tulsa Co\Drawings\29775(04) I-44\JP29775(04) MOT 302.dgn

7/7/2016

TULSA COUNTY

OKLAHOMA DEPARTMENT OF TRANSPORTATION

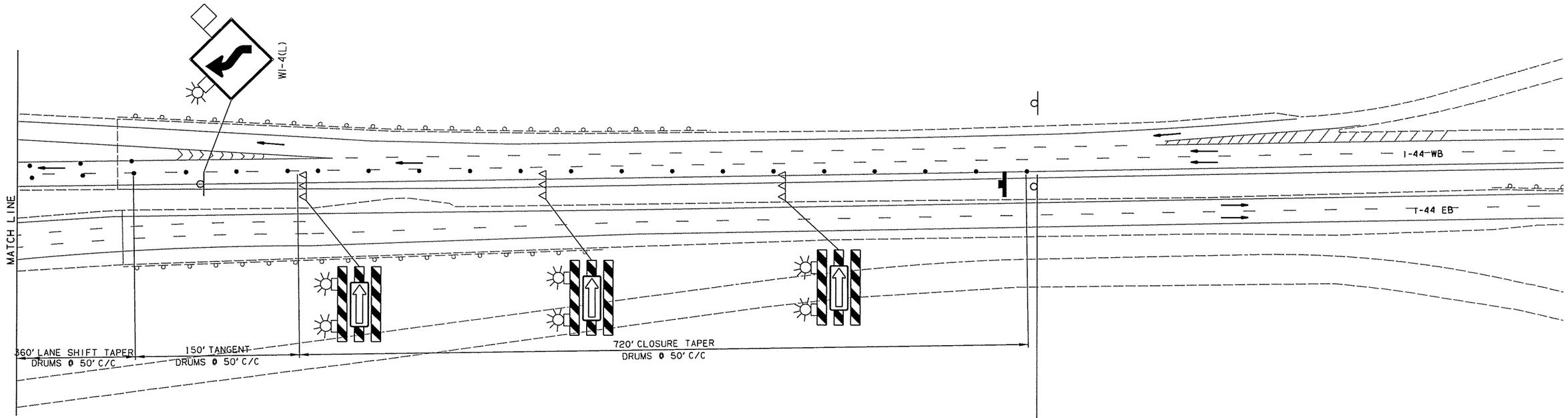
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

0 50 100 150

SCALE



FOR ADVANCED WARNING
TRAFFIC CONTROL
FOR ALL PHASES
SEE SHEETS 47-49.

NOTE:
1. CONSTRUCTION SIGNS SHALL BE VISIBLE ONLY WHEN ACTIVITIES WARRANT. TO BE COVERED OR REMOVED WHEN NOT IN USE.
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8. BARRIER LENGTH NOTES ARE FOR CONTINUOUS RUN AND NOT SPLIT PER SHEET.

PHASE II A

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 15 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 58

OKLAHOMA DEPARTMENT OF TRANSPORTATION

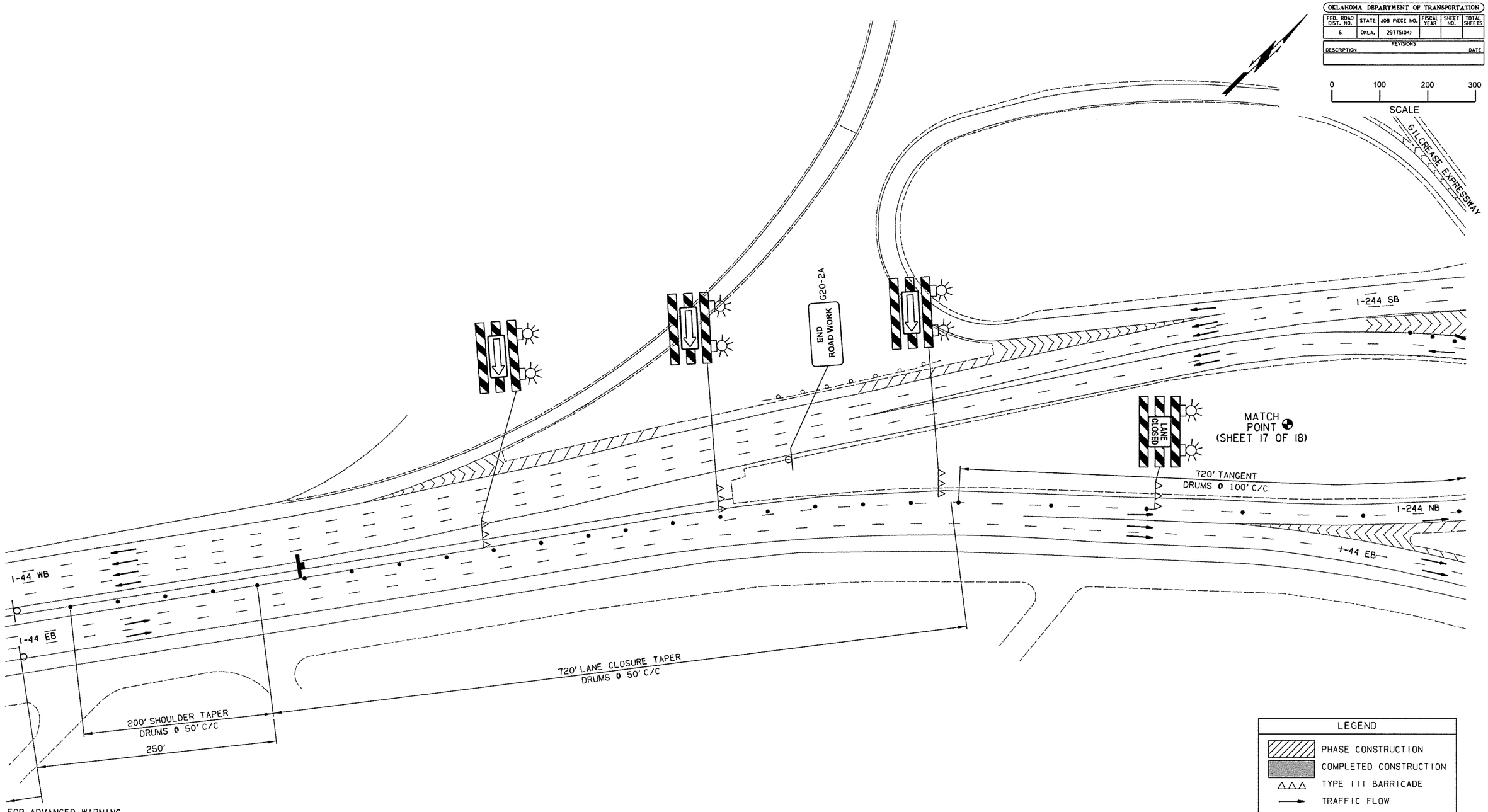
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

0 100 200 300

SCALE



FOR ADVANCED WARNING TRAFFIC CONTROL FOR ALL PHASES SEE SHEETS 44-46.

LEGEND

- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)

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7. GUIDELINES FROM THE 2009 MUTCD SHALL GOVERN.
8. BARRIER LENGTH NOTES ARE FOR CONTINUOUS RUN AND NOT SPLIT PER SHEET.

PHASE II B

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMW	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

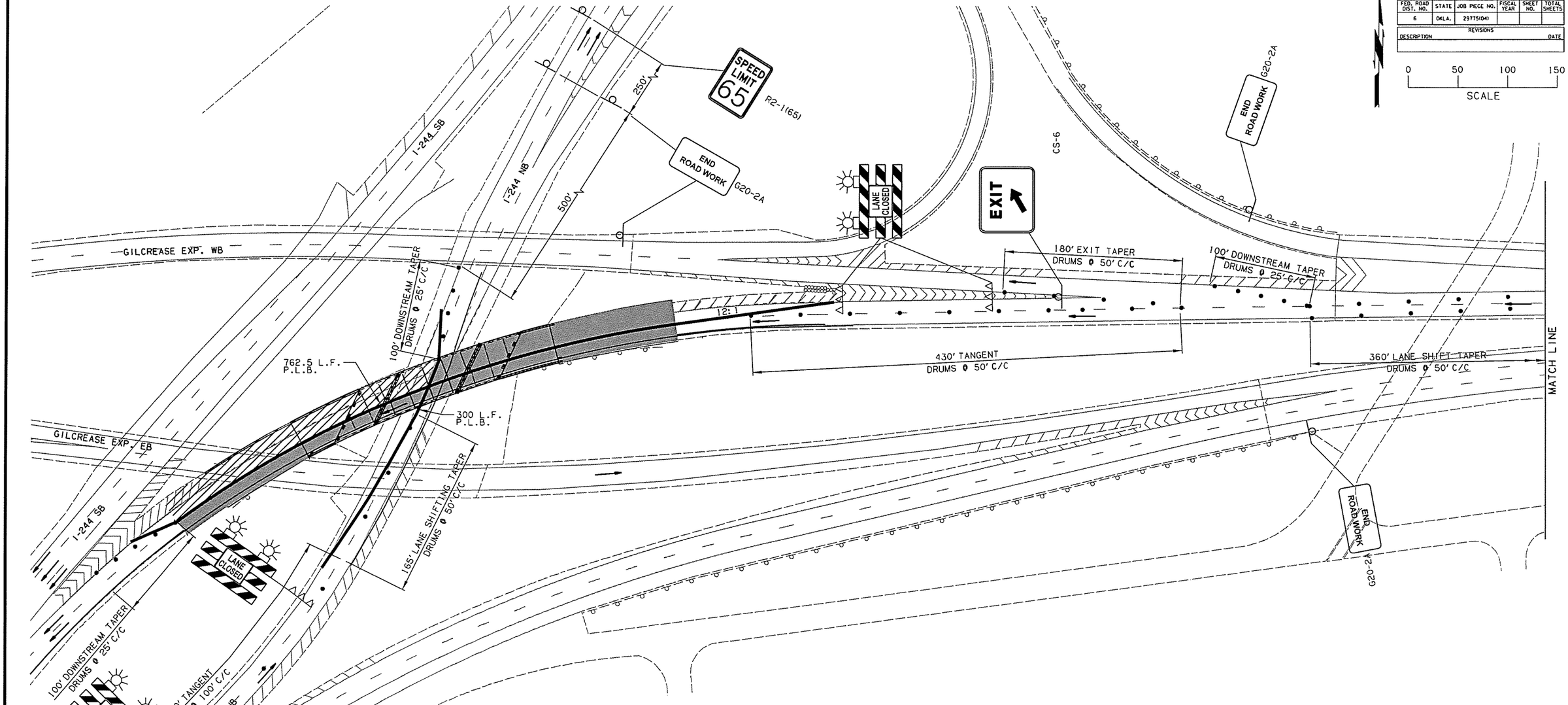
SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 16 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 59

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE

0 50 100 150
SCALE



LEGEND	
	PHASE CONSTRUCTION
	COMPLETED CONSTRUCTION
△△△	TYPE III BARRICADE
→	TRAFFIC FLOW
	SIGN
●	CHANNELIZING DEVICE
	ARROW BOARD
	PORT. LONGITUDINAL BARRIER (P.L.B.)

NOTE:
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7. GUIDELINES FROM THE 2009 MUTCD SHALL GOVERN.
8. BARRIER LENGTH NOTES ARE FOR CONTINUOUS RUN AND NOT SPLIT PER SHEET.

PHASE II B

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	KMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 17 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 60

OKLAHOMA DEPARTMENT OF TRANSPORTATION

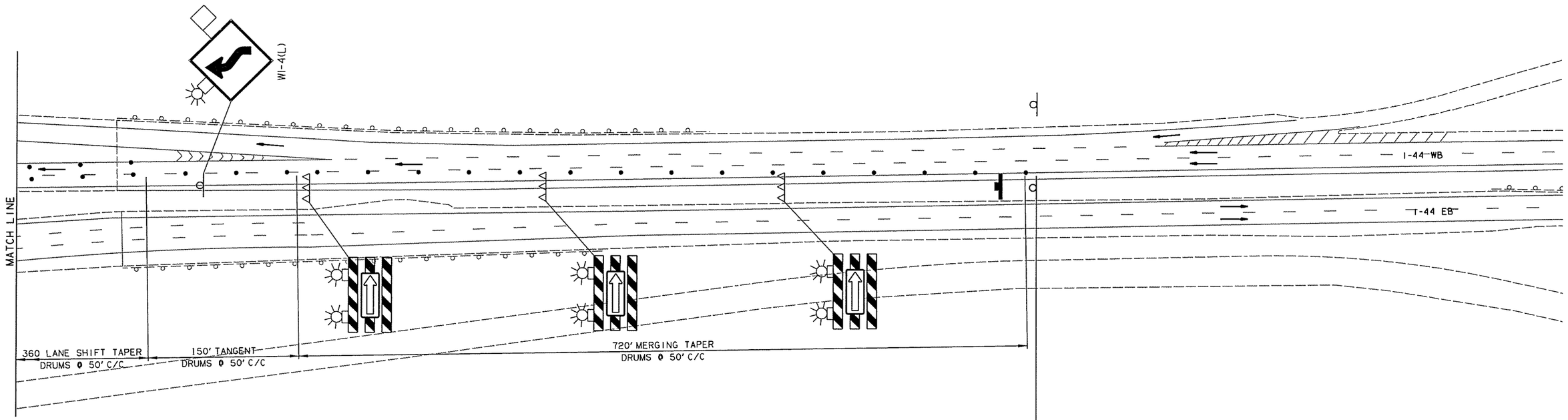
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

0 50 100 150

SCALE



FOR ADVANCED WARNING TRAFFIC CONTROL FOR ALL PHASES SEE SHEETS 47-49.

LEGEND

- PHASE CONSTRUCTION
- COMPLETED CONSTRUCTION
- TYPE III BARRICADE
- TRAFFIC FLOW
- SIGN
- CHANNELIZING DEVICE
- ARROW BOARD
- PORT. LONGITUDINAL BARRIER (P.L.B.)

NOTE:
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7. GUIDELINES FROM THE 2009 MUTCD SHALL GOVERN.
8. BARRIER LENGTH NOTES ARE FOR CONTINUOUS RUN AND NOT SPLIT PER SHEET.

PHASE IIB

DESIGN	MDF	3/16
DRAWN	TML	3/16
CHECKED	XMM	5/16
APPROVED		
SQUAD	GARVER	

I-44 OVER I-244 NB

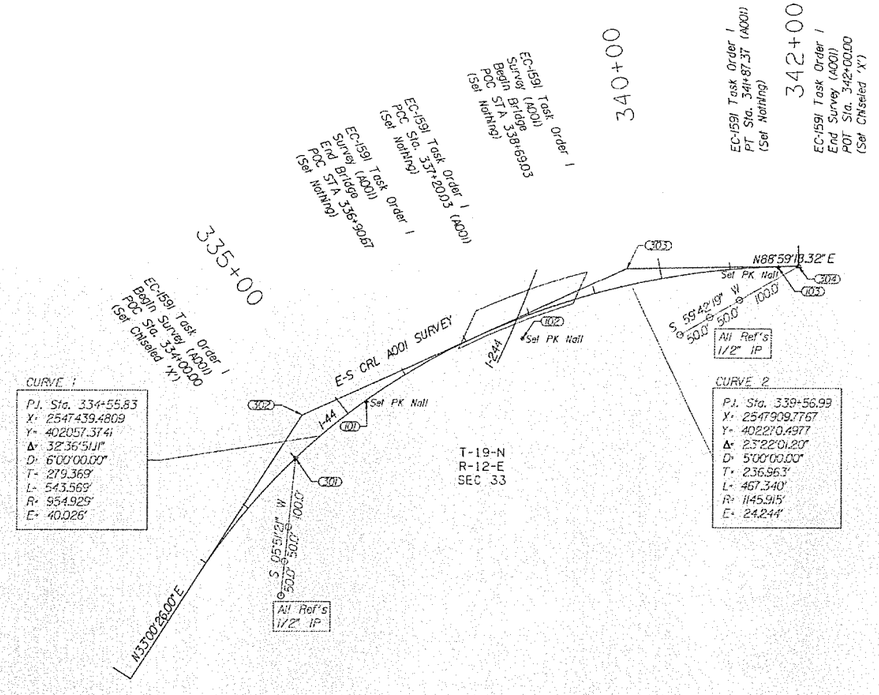
SUGGESTED CONSTRUCTION SEQUENCE AND TRAFIC CONTROL (SHEET 18 OF 18)

STATE JOB NO. 29775(04) SHEET NO. 61

OKLAHOMA DEPARTMENT OF TRANSPORTATION

ROUTE SYST. NO.	STATE	FED. NO.	PROJECT NO.	SHEET NO.	TOTAL SHEETS
	OKLA.				

DESCRIPTION | REVISIONS | DATE



BENCHMARK DATA

BM# 101 335+31.38 2.48'Rt
SET PK NAIL
X: 2547532.3410 Y: 402076.3910
ELEV: 722.2340'

BM# 102 337+78.10 28.87'Rt
SET PK NAIL
X: 2547757.9890 Y: 402168.4400
ELEV: 706.6980'

BM# 103 341+70.42 1.36'Rt
SET PK NAIL
X: 2548129.8070 Y: 402272.8940
ELEV: 731.9240'

NOTES

1. THE VERTICAL DATUM FOR THIS SURVEY IS BASED ON GPS DATA (NAVD88).
2. THE HORIZONTAL DATUM FOR THIS SURVEY IS BASED ON THE OKLAHOMA STATE PLANE NORTH ZONE COORDINATE SYSTEM (NAD83).
3. THE BASIS OF BEARING FOR THIS SURVEY USES THE ESTABLISHED CENTERLINE OF I-44 E-S CRL BEARING BEING N 33°00'26.00" E.

SURVEY BEGAN: DECEMBER 07, 2015.
SURVEY COMPLETED: FEBRUARY 18, 2016.

Bearing Equation

Bearing N 33°00'26.00" E this survey =
N 33°00'26.00" W on FAP I-44-2(151)087 Plans

Station Equation

Sta. 334+00.00 this survey =
Sta. 334+00.00 on FAP I-44-2(151)087 Plans

SOS 1 OF 1

TOPOGRAPHIC AND SURVEY INFORMATION OBTAINED BY:

BENNETT SURVEYING, INC.
AARON BURNS, R.P.L.S. NO.1923

REGISTERED PROFESSIONAL LAND SURVEYOR — AARON BURNS 1923 — OKLAHOMA

UTILITY CONTACTS:

O.D.O.T. HIGHWAY ELECTRIC VAULT
Traffic Engineering Division
Tarek Magrouf, PE 405-522-2584

POINT DATA

Name	Northing (Y)	Easting (X)
101	402076.3910	2547532.3410
102	402168.4400	2547757.9890
103	402272.8940	2548129.8070
301	401894.6601	2547429.8005
302	402057.3741	2547439.4809
303	402270.4977	2547909.7767
304	402274.9042	2548159.3314

Scale: 1" = 100'

P.L.S.	AKB	
DRAWN	GAA	
CHECKED	GAA	
APPROVED	AKB	
CREW	BENNETT	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
SURVEY DIVISION

SURVEY DATA SHEET

State Job No. EC 1591 TASK ORDER 1 SHEET NO. S-1

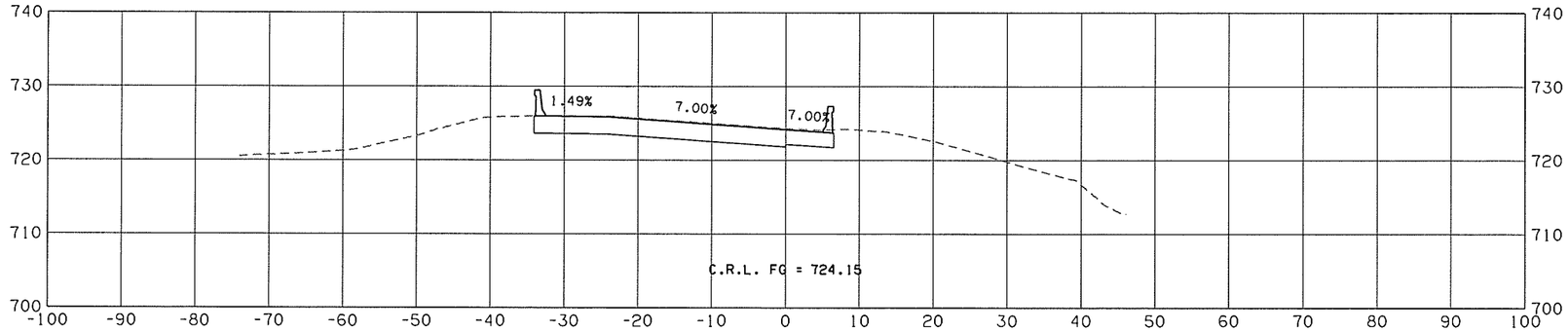
29775(04)

OKLAHOMA DEPARTMENT OF TRANSPORTATION

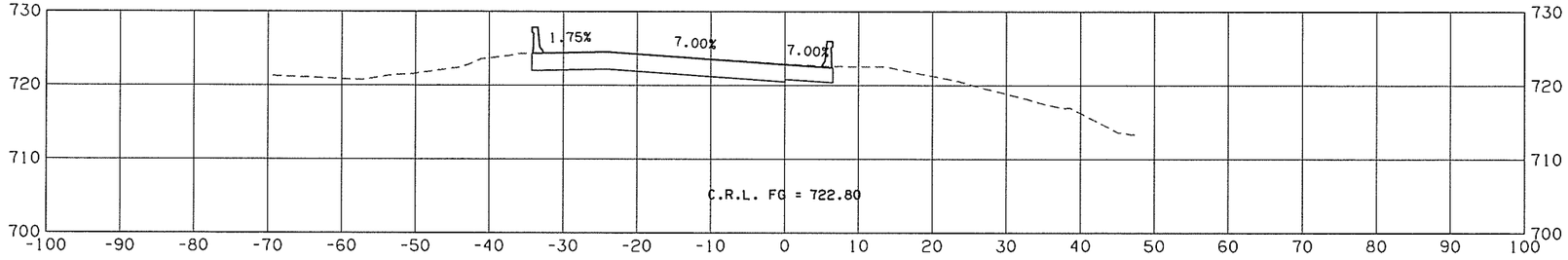
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE

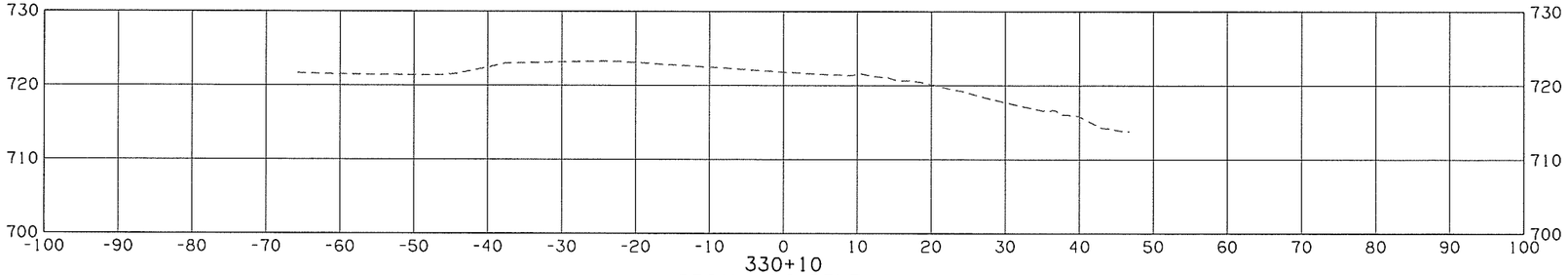


336+00



335+50

335+10
END INCIDENTAL/BEGIN PROJECT



330+10
BEGIN INCIDENTAL

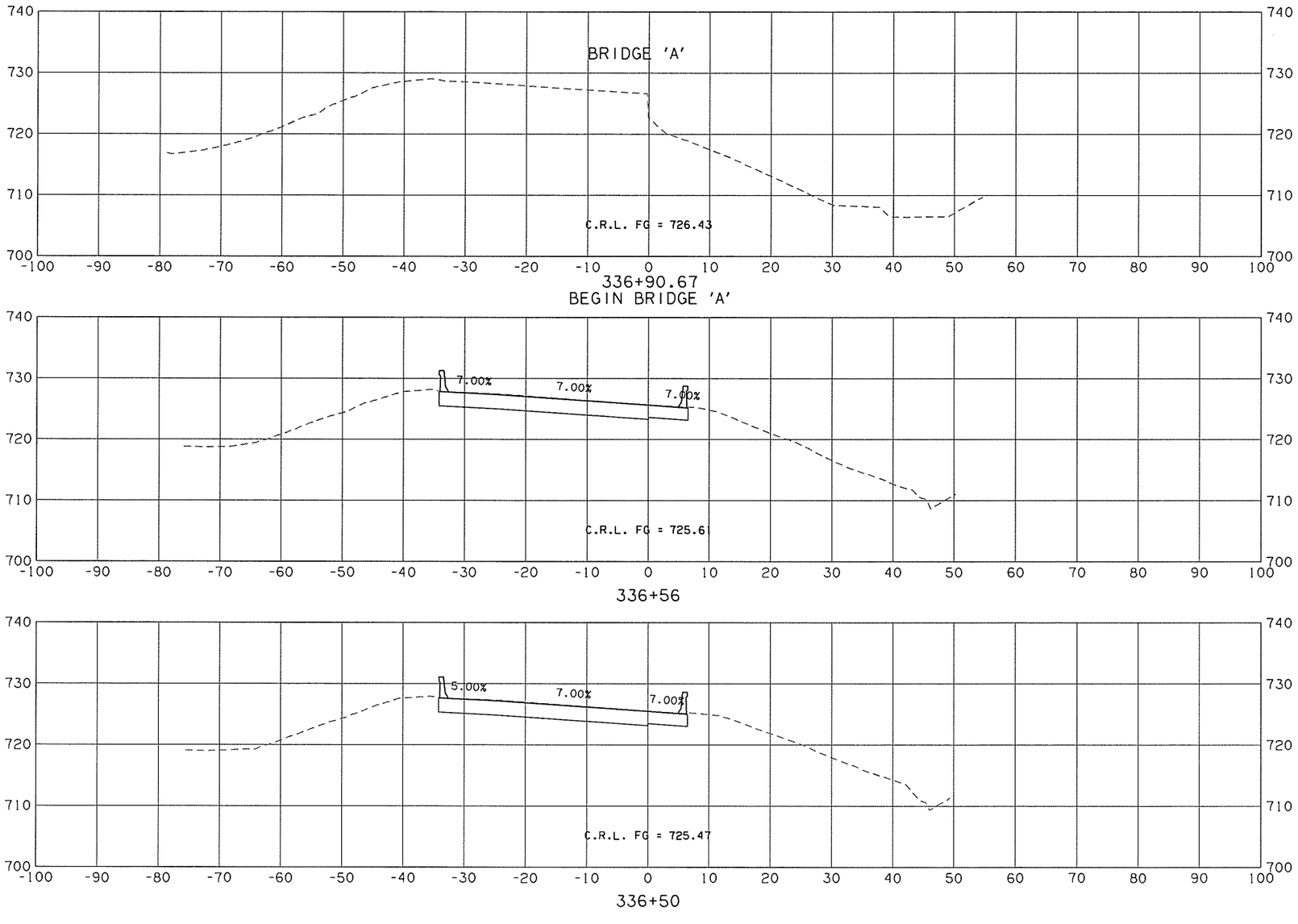
SCALE:
HORIZ.: 1"=50'
VERT.: 1"=5'

STATE JOB NO. 29775(04) SHEET NO. X1

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

DESCRIPTION	DATE



SCALE:
HORIZ.: 1"=50'
VERT.: 1"=5'

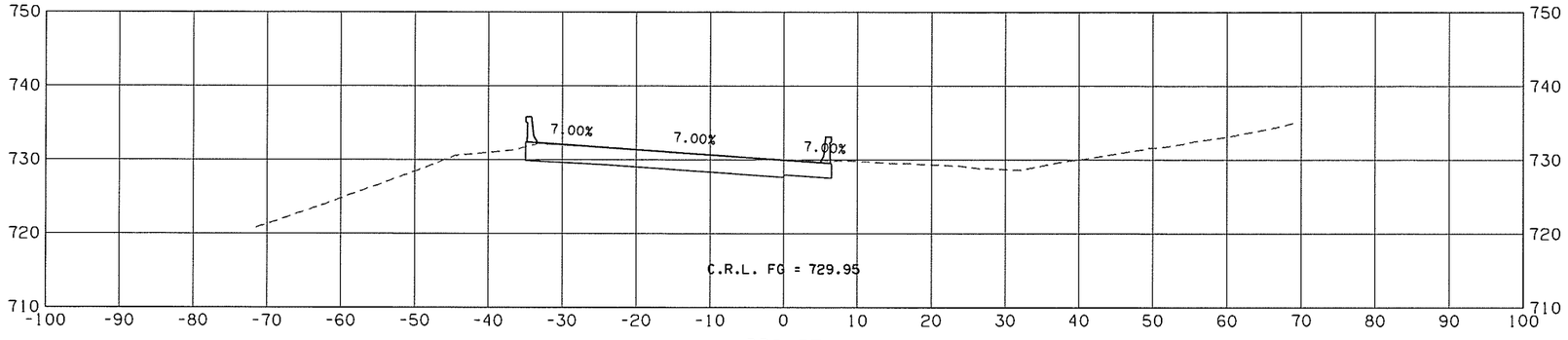
STATE JOB NO. 29775(04) SHEET NO. X2

OKLAHOMA DEPARTMENT OF TRANSPORTATION

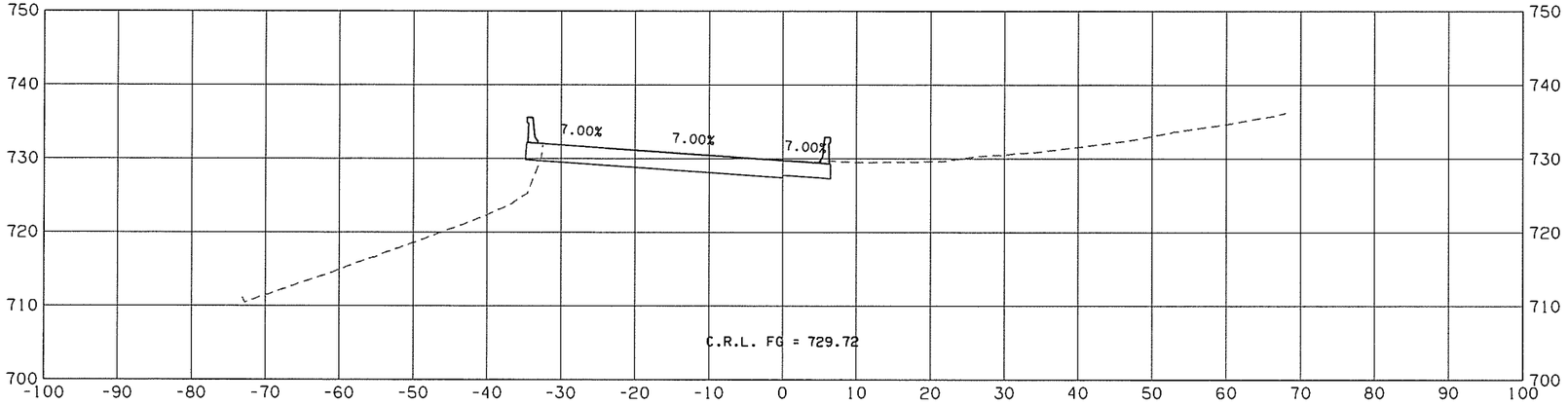
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS

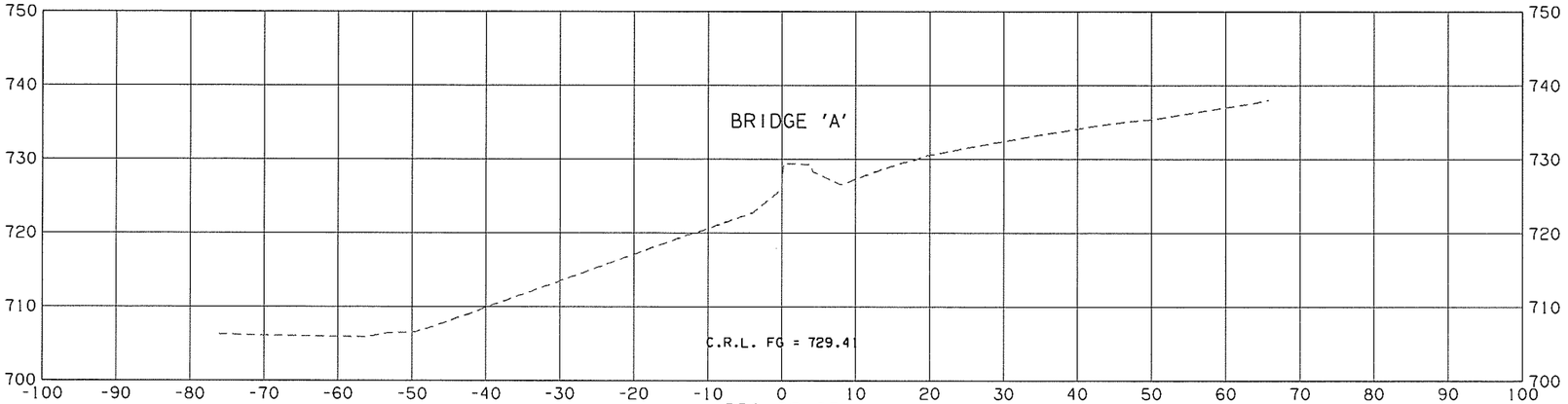
DESCRIPTION	DATE



339+27



339+00



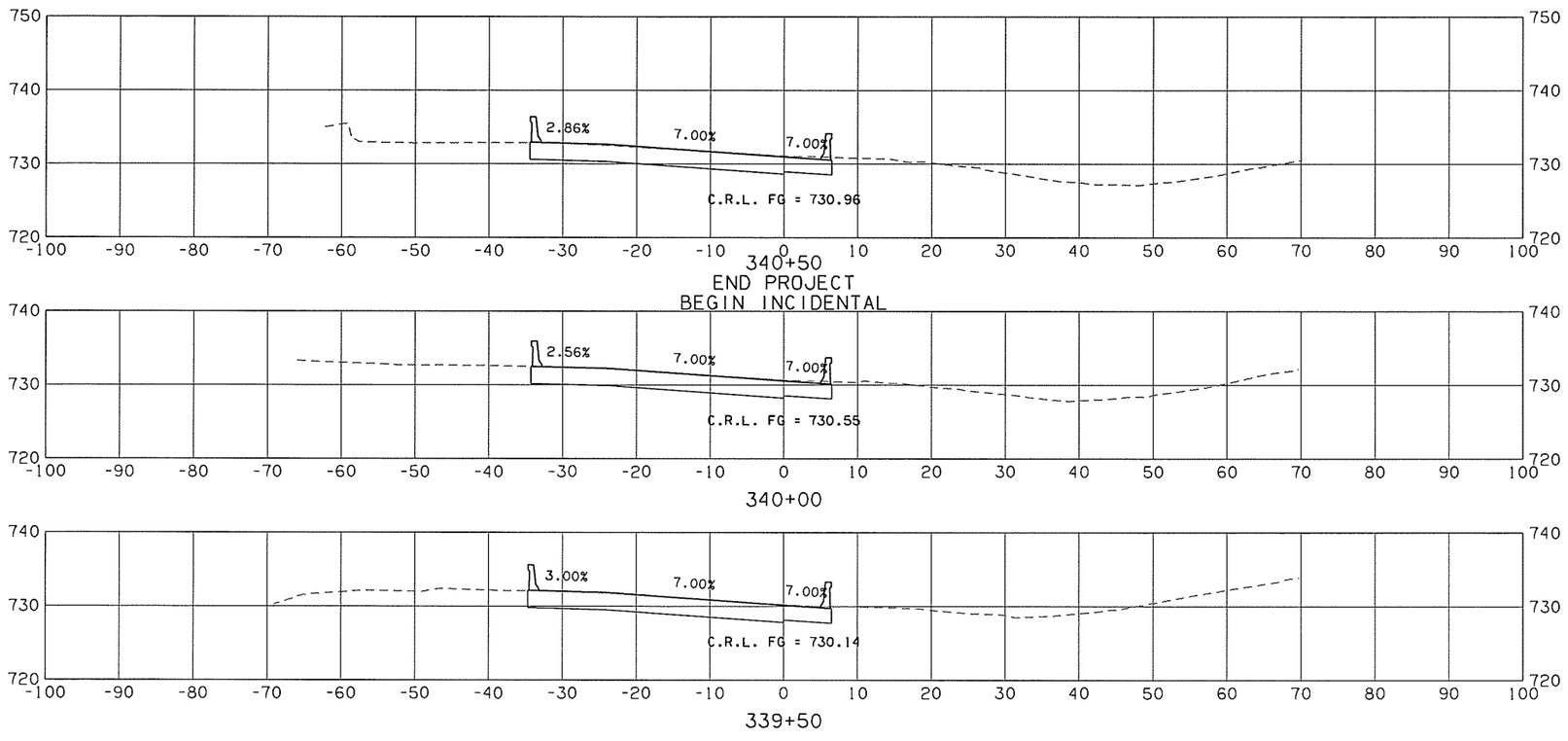
338+69.03
END BRIDGE 'A'

SCALE:
HORIZ.: 1"=50'
VERT.: 1"=5'

STATE JOB NO. 29775(04) SHEET NO. X3

OKLAHOMA DEPARTMENT OF TRANSPORTATION					
FED. ROAD DIST. NO.	STATE	JOB PIECE NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	OKLA.	29775(04)			

REVISIONS	
DESCRIPTION	DATE



SCALE:
HORIZ.: 1"=50'
VERT.: 1"=5'

STATE JOB NO. 29775(04)	SHEET NO. X4