

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED
STATE HIGHWAY
BRIDGE REHABILITATION PLANS
STATE HIGHWAY 74 OVER INTERSTATE 35

McCLAIN COUNTY

CONTROL SECTION NO. 74-44-34
STATE AID PROJECT NO. NHPPI-244N(029)SS
JOB PIECE NO. 29572(04)

BRIDGE "A" (WESTBOUND): NBI NO. 17338, STRUCTURE NO. 4405 0928 X
BRIDGE "B" (EASTBOUND): NBI NO. 17337, STRUCTURE NO. 4405 0927 X

STANDARDS

THE FOLLOWING STANDARDS WILL BE REQUIRED FOR THIS PROJECT:

ROADWAY	TRAFFIC	BRIDGE
SSS-1-1	MSD3-1-01	TCS19-1-01
TSC2-3-2	TCS1-1-01	TCS20-1-00
ASCD-5-2	TCS2-1-00	TCS21-1-02
PSE-1-0	TCS4-1-01	TCS24-1-02
SMD-3-1	TCS5-1-00	PM1-1-02
FPI-3-3	TCS6-1-02	PM3-1-02
SPB-1-4	TCS7-1-02	PM5-1-00
FHTMPP-1-0	TCS8-1-00	PM6-1-00
PDT-1-3	TCS9-1-01	CPP-1-00
	TCS11-1-01	THRI-1-02
	TCS13-1-00	SKT-1-00
	TCS14-1-00	GHW1-1-00
	TCS18-1-01	GHW2-1-00
		EJ-SK-03E
		EJ-DTL-01E
		TR4-2-00E
		FSHP-42-2-00E

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DESIGN DATA

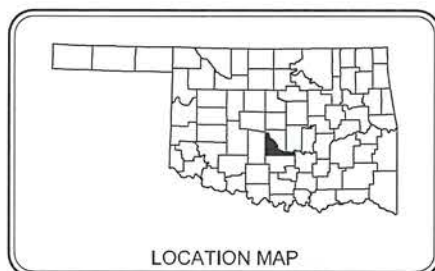
AADT 2016	=	5,540
AADT 2036	=	9,720
T3(% ADT)	=	5
V	=	50 MPH
20YR FLEX ESALS	=	2.7 M

SCALE

PLAN	1" = 20'
PROFILE HOR.	1" = 20'
PROFILE VER.	1" = 2'
LAYOUT MAP:	1" = 5,280'

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
	OIL WELL
	DRAINAGE STRUCTURES - IN PLACE
	DRAINAGE STRUCTURES - NEW
	RIGHT-OF-WAY LINES - EXISTING
	RIGHT-OF-WAY LINES - NEW
	CONTROLLED ACCESS
	RIGHT-OF-WAY FENCE



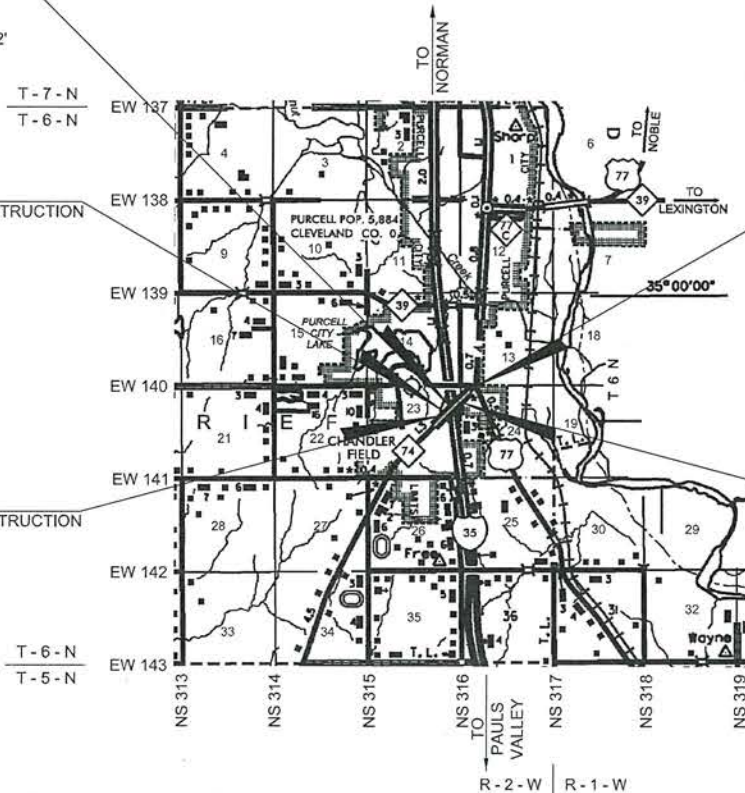
BRIDGE "A" (WESTBOUND)
BEGIN STA. 629+66.28
END STA. 631+97.00
BRIDGE LENGTH = 230.72'
BRIDGE "B" (EASTBOUND)
BEGIN STA. 629+17.98
END STA. 631+48.70
BRIDGE LENGTH = 230.72'

STA. 626+90.00
END INCIDENTAL CONSTRUCTION
AND BEGIN PROJECT

STA. 624+87.60
BEGIN INCIDENTAL CONSTRUCTION

STA. 644+05.00
END INCIDENTAL CONSTRUCTION

STA. 634+00.00
END PROJECT AND BEGIN
INCIDENTAL CONSTRUCTION



PROJECT LENGTH BASED ON C.R.L. STATIONING

ROADWAY LENGTH	.....	479.28 FT.	.....	0.090 MI.
BRIDGE LENGTH	.....	230.72 FT.	.....	0.043 MI.
PROJECT LENGTH	.....		.....	0.133 MI.

MacArthur Associated Consultants
25 N.W. 146th Street - Edmond, OK 73013-405, 848, 2471
C.E.N. No. 539 Renewal Date: 06-30-17

BRIDGE "A" AND "B"
SHEETS 1-3, 9-29

Greg D. Delano 7/20/16
GREG D. DELANO, P.E. OKLA. REG. NO. 26547 DATE

MacArthur Associated Consultants
25 N.W. 146th Street - Edmond, OK 73013-405, 848, 2471
C.E.N. No. 539 Renewal Date: 06-30-17

ROADWAY
SHEETS 4, 6-8

John M. Stovall 7/20/16
JOHN M. STOVALL, P.E. OKLA. REG. NO. 24026 DATE

RED PLAINS PROFESSIONAL INC.

TRAFFIC
SHEETS 5, 30-36

Sean P. McGraw 7/20/16
SEAN P. MCGRAW, P.E. OKLA. REG. NO. 26495 DATE

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

PROJECT NO. NHPPI-244N(029)SS

SHEET NO. 1

BRIDGE GENERAL NOTES

SPECIFICATIONS

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

DESCRIPTION OF WORK

THE WORK TO BE PERFORMED UNDER THIS PROJECT, FOR BRIDGE "A" AND BRIDGE "B" CONSISTS OF REMOVING THE EXISTING 38 FOOT CLEAR ROADWAY BRIDGE DECK, AND REPLACING WITH A 38 FOOT CLEAR ROADWAY BRIDGE DECK, APPROACH SLABS, INCLUDING CONCRETE RAILS (TR4 WITHOUT OPENINGS) AND SIDE DRAINS. OTHER SUPERSTRUCTURE REPAIRS INCLUDE ADDITION OF SHEAR CONNECTORS TO THE BEAMS, REPLACING DIAPHRAGMS AT VARIOUS LOCATIONS, AND RESETTING VARIOUS ROLLER BEARINGS. PEDESTALS WILL BE REPAIRED WITH CLASS AA CONCRETE. PIERS AND ABUTMENTS WILL BE REPAIRED WITH EPOXY INJECTION AND PNEUMATICALLY PLACED MORTAR. PIER COLUMNS AND PIER CAPS WILL BE ENCAPSULATED WITH 6" OF CLASS AA CONCRETE. PIER PROTECTION ON I-35 WILL BE REPLACED TO FACILITATE ENCAPSULATION OF EXISTING PIERS. VOID UNDER ABUTMENT SEATS WILL BE BACKFILLED WITH CLSM AND AREAS OF SLOPE WALL WILL BE REPLACED.

UTILITY LOCATE

CONTRACTOR TO MAKE EVERY EFFORT TO LOCATE AND PROTECT ALL UTILITIES AND STRUCTURES, WHETHER SHOWN OR NOT, PRIOR TO ANY CONSTRUCTION OPERATIONS. HE SHALL SO CARRY ON HIS CONSTRUCTION SUCH THAT HE WILL NOT DAMAGE ANY UTILITIES OR STRUCTURES REMAINING IN PLACE. THE CONTRACTOR SHALL CONTACT OKIE BEFORE PERFORMING ANY EXCAVATIONS.

EXISTING UTILITIES MUST BE LOCATED AND PROPERLY FLAGGED BY CONTACTING "CALL OKIE" 1(800)-522-6543 OR 811 BEFORE ANY CONSTRUCTION BEGINS.

IF EXISTING UTILITIES ARE IDENTIFIED DURING CONSTRUCTION, A FIELD CHANGE MAY BE REQUIRED TO INSURE CLEARANCE OF THESE FACILITIES.

VERIFICATION OF EXISTING CONDITIONS

ALL DIMENSIONS AND ELEVATIONS OF THE EXISTING BRIDGES AND APPROACH ROADWAYS SHOWN IN THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS NECESSARY TO CONNECT THE NEW MATERIAL TO THE EXISTING BRIDGES AND APPROACH ROADWAYS AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF.

BIDDERS SHALL FULLY INFORM THEMSELVES OF THE NATURE OF THE WORK AND CONDITION 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 BRIDGE OR APPROACH ROADWAY. ANY DAMAGES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.

THE ORIGINAL CONSTRUCTION PLANS FOR THE EXISTING BRIDGES MAY BE OBTAINED FROM THE PRINTING SERVICES BRANCH OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION BY REFERENCING THE ORIGINAL PROJECT NUMBER. THE EXISTING BRIDGES WERE ORIGINALLY CONSTRUCTED UNDER THE FOLLOWING: FEDERAL AID PROJECT I-35-2-(12)

SUGGESTED SEQUENCE OF CONSTRUCTION

A SUGGESTED SEQUENCE OF CONSTRUCTION IS INCLUDED IN THE PLANS. CONTRACTOR MAY SUBMIT AN ALTERNATE SEQUENCE OF CONSTRUCTION TO THE ENGINEER FOR APPROVAL BEFORE BEGINNING WORK.

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 THE FOLLOWING:

1. ESTABLISHING HORIZONTAL CONTROL INCLUDING THE STAKING OF CENTERLINE BRIDGE AND APPROACH.
2. ESTABLISHING VERTICAL CONTROL INCLUDING THE SETTING OF BENCHMARKS.
3. MEASURING THE ELEVATIONS ALONG THE EXISTING BRIDGE DECK AT CENTERLINE AND EDGES OF DECK SLAB AND AT EACH BEAM LINE.
4. MEASURING THE ELEVATIONS ALONG THE EXISTING APPROACH ROADWAY AT CENTERLINE & EDGES.
5. MEASURING THE EXISTING TOP OF PEDESTAL ELEVATIONS FOR DETERMINING NEW PEDESTAL ELEVATIONS, DECK HAUNCH AND FORMING DATA.
6. MEASURING AND SETTING CONSTRUCTION STAKES AS NECESSARY FOR CONDUCTING THE GRADING AND SURFACING WORK ON THE APPROACH ROADWAY.

ALL SURVEY DATA, ANY 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 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 UNIT PRICE BID PER LUMP SUM OF "CONSTRUCTION STAKING LEVEL II".

CONCRETE PLACEMENT

ALL CONCRETE SHALL BE PLACED IN THE DRY.

CONCRETE

CONCRETE FOR SUPERSTRUCTURE, PIER ENCAPSULATION, PIER PROTECTION AND APPROACH SLABS SHALL BE CLASS AA, $f_c = 4,000$ psi MINIMUM STRENGTH AT 28 DAYS. WHEN VIBRATING CONCRETE CONTAINING EPOXY COATED REINFORCING STEEL, THE VIBRATOR SHALL BE EQUIPPED WITH A SHEATH DESIGNED TO PREVENT DAMAGE TO THE EPOXY COATING. PROVIDE ALL EXPOSED CONCRETE EDGES OF THE SUBSTRUCTURE (EXCLUDING PEDESTAL EDGES WHICH SHALL HAVE 3/4" CHAMFER) WITH A 1 1/2" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS. PROVIDE ALL EXPOSED CONCRETE EDGES OF THE SUPERSTRUCTURE WITH A 3/4" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS. USED SIZED LUMBER FOR ALL CHAMFER STRIPS.

REINFORCING STEEL

UNLESS OTHERWISE SPECIFIED THE CONTRACT DOCUMENTS, ALL REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM A615), GRADE 60. NO WELDING OR TACK WELDING OF REINFORCING BARS WILL BE PERMITTED.

STRUCTURAL STEEL

PROVIDE STRUCTURAL STEEL FOR BEAM FLANGE REPAIR AND DIAPHRAGM MEMBERS IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, NON-FRACTURE CRITICAL CHARPY V-NOTCH TESTED FOR ZONE 2). USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108), GRADE 1015, 1018, OR 1020. PROVIDE WELDING WITH WEATHERING CHARACTERISTICS.

REPORT ANY DETERIORATED STRUCTURAL STEEL EXPOSED DURING OPERATIONS TO THE BRIDGE ENGINEER FOR REMEDIAL ACTION, IF NECESSARY.

MAKE ALL WELDS TO SOUND STEEL. ADJUST WELD LOCATIONS AND EXTENTS OF NEW STRUCTURAL STEEL IF SOUND STEEL IS NOT FOUND AT LOCATIONS SHOWN IN THE PLANS. PERFORM ALL WELDING OPERATIONS IN ACCORDANCE WITH SECTION 724.03 OF THE SPECIFICATIONS AND THE CURRENT ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE. ALL FIELD WELDS SHALL BE INSPECTED BY THE ODOT MATERIALS DIVISION OR THEIR REPRESENTATIVE. CONTACT THE ODOT MATERIALS DIVISION AT (405) 522-4999 AT LEAST SEVENTY - TWO (72) HOURS PRIOR TO THE ANTICIPATED COMPLETION OF FIELD WELDS.

CLEANING BRIDGE SEATS

ALL BRIDGE SEATS SHALL BE SWEEPED CLEAN OF ALL DEBRIS. ALL COST OF CLEANING THE BRIDGE SEATS INCLUDING THE COST OF MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

WATER REPELLENT TREATMENT

WATER REPELLENT TREATMENT SHALL BE APPLIED TO THE BRIDGE IN A MANNER CONSISTENT WITH PLAN NOTES AND THE WATER REPELLENT TREATMENT DETAILS.

DECK SLAB

ANY STEEL USED BY CONTRACTORS TO FACILITATE DECK CONSTRUCTION, SUCH AS INSERT WELD ANCHORS, TY-BAR CLIPS, FORM HANGARS OR OTHER APPURTENANCES, THAT REMAIN IN PLACE IN THE BRIDGE DECK MUST BE EPOXY COATED OR GALVANIZED. EPOXY COAT IN ACCORDANCE WITH AASHTO M 284 AND/OR GALVANIZE IN ACCORDANCE WITH AASHTO M 111.

PLACE THE DECK SLAB CONCRETE CONSISTENT WITH THE SLAB POURING SEQUENCE AS DETAILED ON SHEET 21. IN THE EVENT OF AN EMERGENCY, HALT THE PLACEMENT OF CONCRETE BY FORMING A CONSTRUCTION JOINT MADE PERPENDICULAR TO THE DIRECTION OF TRAFFIC. DO NOT PLACE ANY HEAVY EQUIPMENT ON THE FINISHED DECK SLAB WITHIN 5 FEET OF ANY CONSTRUCTION JOINT UNTIL THE CONCRETE IS IN PLACE ON BOTH SIDES OF THE RESPECTIVE JOINT AND AT LEAST 48 HOURS HAS ELAPSED SINCE CONCRETE PLACEMENT.

PREPARE ALL DECK SLAB CONSTRUCTION JOINTS AND SEAL WITH HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS. THE DEPARTMENT WILL NOT MEASURE THE PREPARATION AND SEALER OF EMERGENCY CONSTRUCTION JOINTS FOR PAYMENT

REMOVAL OF BRIDGE ITEMS

UNLESS OTHERWISE NOTED IN THE PLANS, ALL MATERIAL REMOVED DURING THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT DEBRIS FROM DECK AND PARAPET REMOVAL FROM FALLING ON THE HIGHWAY BELOW. BEFORE MAKING ANY REMOVALS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A PLAN FOR REMOVING EACH ITEM OR PORTIONS OF ITEMS TO BE REMOVED FROM THE EXISTING BRIDGE. THE CONTRACTOR SHALL NOT MAKE ANY REMOVALS UNTIL THE PLAN HAS BEEN APPROVED BY THE ENGINEER. THE PLAN SHALL INCLUDE A LIST OF ALL EQUIPMENT THAT WILL BE USED TO MAKE THE REMOVALS WITH A DESCRIPTION OF HOW THE EQUIPMENT WILL BE USED TO MAKE THE REMOVALS AND A SEQUENTIAL LIST OF STEPS THAT WILL BE FOLLOWED BY THE CONTRACTOR TO MAKE THE REMOVALS.

THE CONTRACTOR SHALL TAKE EVERY PRECAUTION NECESSARY TO PREVENT DAMAGING THE EXISTING SUBSTRUCTURES. ANY DAMAGE CAUSED BY THE CONTRACTOR TO THESE COMPONENTS WITH A SAW OR OTHER EQUIPMENT 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.

ALL COSTS NECESSARY TO COMPLETE THE WORK AS SPECIFIED OR AS SHOWN IN THE PLANS INCLUDING THE COST OF SAWING, CUTTING, DEMOLITION, CLEANING, CONTAINMENT AND REMOVAL OF DEBRIS, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LUMP SUM OF "REMOVAL OF BRIDGE ITEMS".

STAY-IN-PLACE FORMS

STAY-IN-PLACE STEEL DECK FORMS SHALL PROVIDE A MINIMUM DECK SLAB THICKNESS OF 8" BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. PREFORMED CORRUGATION FILLER, COMPOSED OF POLYSTYRENE OR OTHER MATERIAL, MAY BE USED IF BONDED TO THE DECK FORMS. NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. THE TOTAL ADDITIONAL WEIGHT OF THE DECK FORM AND FILLER SHALL NOT EXCEED 5 PSF. THE DEPARTMENT CONSIDERS ALL COSTS OF STAY-IN-PLACE STEEL DECK FORMS TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF "CLASS AA CONCRETE."

ANCHORAGE INTO EXISTING CONCRETE

PERFORM WORK SO THAT NO DAMAGE IS CAUSED TO TRAFFIC DURING CLEANING AND PAINTING OPERATIONS. USE TARPS AND OTHER NECESSARY EQUIPMENT AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SECURING THE PAINT APPLICATION.

THE CONTRACTOR SHALL HAVE THE OPTION OF THE METHODS BY WHICH THE NEW CONCRETE REINFORCING STEEL BARS AND/OR 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-HIT-HY150" OR AN APPROVED EQUAL. ANCHORAGES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS FOR THE SYSTEM USED.
2. ENCAPSULATED NON-EXPANDING CHEMICAL TYPE ANCHORAGE SYSTEMS SUCH AS "RAWPLUG 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 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 FROM THE PLAN LOCATIONS SHOWN AND 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 CONCRETE REINFORCING STEEL BARS 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, ADJUSTING THE LENGTH OF THE NEW REINFORCING STEEL ANCHOR BAR AS PER THE ANCHORAGE ASSEMBLY MANUFACTURER, ANCHORING INTO THE EXISTING CONCRETE, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

SUBSTRUCTURE REPAIRS

THE EXISTING PIER CAPS AND ABUTMENT SEATS SHALL BE REPAIRED WITH PNEUMATICALLY PLACED MORTAR IN THE LOCATIONS DETERMINED BY AND IN A MANNER APPROVED BY THE ENGINEER AND IN ACCORDANCE WITH SECTION 521 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. LOOSE CONCRETE SHALL BE REMOVED USING HAND TOOLS ONLY. POWER TOOLS WILL NOT BE ALLOWED UNLESS HAND TOOLS PROVE INCAPABLE OF EXCAVATING ALL DETERIORATED CONCRETE TO SOUND CONCRETE. SHOULD POWER TOOLS BE NECESSARY, THEY SHALL BE OF SUCH SIZE THAT THEIR USE DOES NOT CAUSE DAMAGE TO THE SOUND CONCRETE. ANY DAMAGE DONE TO THE EXISTING REINFORCING STEEL DURING REMOVAL PROCESS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE ENGINEER. ANY DETERIORATED REINFORCING STEEL SHALL BE REPORTED TO THE ENGINEER FOR DETERMINATION OF REMEDIAL ACTION. PRIOR TO MORTAR PLACEMENT, BLAST CLEAN THE CONCRETE SURFACE AND REINFORCING STEEL. APPLY PNEUMATICALLY PLACED MORTAR TO REPLACE DETERIORATED CONCRETE. BUILD UP MORTAR TO MATCH THE ORIGINAL LINES AND GRADES OF THE REPAIRED SURFACE.

THE CONTRACTOR MAY PROPOSE AND USE AS AN ALTERNATIVE, ONE OF THE FOLLOWING REPAIR METHODS:

1. CAST-IN-PLACE CONCRETE.
2. FORMED AND PUMPED CONCRETE MORTAR.

THE CONTRACTOR SHALL SUBMIT A PROPOSED WORK PLAN OF THE REPAIR METHOD TO BE USED TO THE ENGINEER FOR APPROVAL. THE WORK PLAN SHALL INCLUDE SURFACE PREPARATION METHODS, PATCHING MATERIAL SPECIFICATIONS, BONDING AGENTS, MATERIAL PLACEMENT METHODS, AND FINISHING METHODS. THE CONTRACTOR SHALL TEST REPAIR AN AREA TO VERIFY THE EFFECTIVENESS OF THE PROPOSED REPAIR METHOD PRIOR TO COMMENCEMENT OF THE WORK. FAULTY REPAIRS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ALL COSTS, INCLUDING LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "PNEUMATICALLY PLACED MORTAR."

S.H. 74 OVER I-35

McCLAIN CO.

DESIGN	GDD		OKLAHOMA DEPARTMENT OF TRANSPORTATION BRIDGE GENERAL NOTES STATE JOB NO. <u>29572(04)</u> SHEET NO. <u>2</u>
DRAWN	ZTF		
CHECKED	JTK		
APPROVED			
SQUAD	MacArthur		

REV. NO.	DESCRIPTION	DATE
A	REMOVED PAY ITEM	07-25-2016

SUMMARY OF PAY QUANTITIES - BRIDGE "A"

0200 BRIDGE "A": WESTBOUND S.H. 74 OVER I-35 J/P NO. 29572(04)

ITEM NO.	DESCRIPTION	NOTES	UNIT	QUANTITY	
202(A)	1301	UNCLASSIFIED EXCAVATION	(BR-1, 2)	CY	310.00
501(G)	6309	CLSM BACKFILL	(BR-3)	CY	105.00
504(A)	1304	APPROACH SLAB	(BR-1, 4)	SY	306.60
504(B)	1305	SAW-CUT GROOVING	(BR-1)	SY	1,265.00
504(C)	6250	SEALED EXPANSION JOINT	(BR-1)	LF	98.60
504(D)	6245	CONCRETE RAIL (TR4)	(BR-1)	LF	598.90
504(E)	6190	42" F-SHAPED PARAPET	(BR-1, 5)	LF	162.50
506(A)	1322	STRUCTURAL STEEL	(BR-6)	LB	5,310.00
509	6152	SPECIAL CONCRETE FINISH	(BR-1, 7)	SY	91.00
509(A)	1326	CLASS AA CONCRETE	(BR-1, 8)	CY	370.00
509(D)	1331	CLASS C CONCRETE		CY	10.00
510(C)	6137	SLOPE WALL (4")	(BR-9)	SY	120.00
511(B)	6010	EPOXY COATED REINFORCING STEEL	(BR-1, 8)	LB	88,990.00
512(A)	1323	PAINTING EXISTING STRUCTURES	(BR-10)	LSUM	1.00
512(B)	6303	COLLECTION AND HANDLING OF WASTE		LSUM	1.00
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	SY	399.00
520(A)	6058	PREPARATION OF CRACKS, ABOVE WATER	(BR-11)	LF	50.00
520(C)	6060	EPOXY RESIN, ABOVE WATER	(BR-12)	GAL	5.00
521(A)	6210	PNEUMATICALLY PLACED MORTAR	(BR-13)	SY	15.00
523(A)	6550	SEALER CRACK PREPARATION	(BR-1)	LF	99.60
523(B)	6560	SEALER RESIN	(BR-1, 14)	GAL	2.00
525(A)	0400	(SD) NEST PREVENTION NETTING		LSUM	1.00
540	4515	(PL) REPAIR BRIDGE ITEM (TYPE A)	(BR-15)	EA	10.00
540	4525	(PL) REPAIR BRIDGE ITEM (TYPE B)	(BR-16)	EA	20.00
545	4815	(PL) REPLACE BRIDGE ITEM (TYPE A)	(BR-17)	EA	7.00
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE	(BR-18)	LSUM	1.00

SUMMARY OF PAY QUANTITIES - BRIDGE "B"

0201 BRIDGE "B": EASTBOUND S.H. 74 OVER I-35 J/P NO. 29572(04)

ITEM NO.	DESCRIPTION	NOTES	UNIT	QUANTITY	
202(A)	1301	UNCLASSIFIED EXCAVATION	(BR-1, 2)	CY	320.00
501(G)	6309	CLSM BACKFILL	(BR-3)	CY	105.00
504(A)	1304	APPROACH SLAB	(BR-1, 4)	SY	306.60
504(B)	1305	SAW-CUT GROOVING	(BR-1)	SY	1,265.00
504(C)	6250	SEALED EXPANSION JOINT	(BR-1)	LF	98.60
504(D)	6245	CONCRETE RAIL (TR4)	(BR-1)	LF	598.90
504(E)	6190	42" F-SHAPED PARAPET	(BR-1, 5)	LF	162.50
506(A)	1322	STRUCTURAL STEEL	(BR-6)	LB	5,310.00
509	6152	SPECIAL CONCRETE FINISH	(BR-1, 7)	SY	91.00
509(A)	1326	CLASS AA CONCRETE	(BR-1, 8)	CY	372.40
509(D)	1331	CLASS C CONCRETE		CY	10.00
510(C)	6137	SLOPE WALL (4")	(BR-9)	SY	120.00
511(B)	6010	EPOXY COATED REINFORCING STEEL	(BR-1, 8)	LB	89,120.00
512(A)	1323	PAINTING EXISTING STRUCTURES	(BR-10)	LSUM	1.00
512(B)	6303	COLLECTION AND HANDLING OF WASTE		LSUM	1.00
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	SY	399.00
520(A)	6058	PREPARATION OF CRACKS, ABOVE WATER	(BR-11)	LF	50.00
520(C)	6060	EPOXY RESIN, ABOVE WATER	(BR-12)	GAL	5.00
521(A)	6210	PNEUMATICALLY PLACED MORTAR	(BR-13)	SY	15.00
523(A)	6550	SEALER CRACK PREPARATION	(BR-1)	LF	99.60
523(B)	6560	SEALER RESIN	(BR-1, 14)	GAL	2.00
525(A)	0400	(SD) NEST PREVENTION NETTING		LSUM	1.00
540	4515	(PL) REPAIR BRIDGE ITEM (TYPE A)	(BR-15)	EA	10.00
540	4525	(PL) REPAIR BRIDGE ITEM (TYPE B)	(BR-16)	EA	20.00
545	4815	(PL) REPLACE BRIDGE ITEM (TYPE A)	(BR-17)	EA	11.00
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE	(BR-18)	LSUM	1.00

STAKING 0600 **SUMMARY OF PAY QUANTITIES** J/P NO. 29572(04)

ITEM NO.	DESCRIPTION	NOTES	UNIT	QUANTITY	
642(B)	0096	CONSTRUCTION STAKING LEVEL II		LSUM	1.00

CONSTRUCTION 0640 **SUMMARY OF PAY QUANTITIES** J/P NO. 29572(04)

ITEM NO.	DESCRIPTION	NOTES	UNIT	QUANTITY	
641	1399	MOBILIZATION		LSUM	1.00

PAY QUANTITY NOTES

- (BR-1) PAYMENT TO THE CONTRACTOR SHALL BE BASED ON PLAN QUANTITIES. REFER TO THE 2009 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (PLAN QUANTITIES 109.01B).
- (BR-2) ITEM "UNCLASSIFIED EXCAVATION" INCLUDES EXCAVATION FOR THE CONSTRUCTION OF THE CONCRETE PIER PROTECTION SYSTEM AT LOCATIONS SHOWN ON SHEETS 9-10 AND 28, AND DETAILED IN STD. CPP-1-00.
- (BR-3) CLSM BACKFILL SHALL BE PLACED UNDERNEATH THE APPROACH SLABS AS DETAILED IN THE PLANS. 5 C.Y. OF CLSM TO BE USED TO BACKFILL UNDER ABUTMENTS AT EACH BRIDGE AS DIRECTED BY THE ENGINEER.
- (BR-4) BRIDGE "A" APPROACH SLABS CONTAIN AN ESTIMATED TOTAL OF 111.0 C.Y. OF CLASS AA CONCRETE AND 22,310 LBS OF EPOXY COATED REINFORCING STEEL. BRIDGE "B" APPROACH SLABS CONTAIN AN ESTIMATED TOTAL OF 111.0 C.Y. OF CLASS AA CONCRETE AND 22,310 LBS OF EPOXY COATED REINFORCING STEEL. THE DEPARTMENT INCLUDES THE COST OF CLASS AA CONCRETE, EPOXY COATED REINFORCING STEEL (INCLUDING SR1 BARS), SAW-CUTTING PAVEMENT AT END OF APPROACH SLAB, SUBGRADE REMOVAL AND PREPARATION AS DIRECTED BY THE ENGINEER, SAW-CUTTING, BACKER ROD, POLYSTYRENE, RAPID CURE JOINT SEALANT, LABOR, EQUIPMENT AND INCIDENTALS INCLUDED IN THE CONTRACT UNIT PRICE PER S.Y. OF "APPROACH SLAB".
- (BR-5) ITEM "42" F-SHAPED PARAPET" IS INCLUDED FOR THE CONSTRUCTION OF THE CONCRETE PIER PROTECTION SYSTEM AT LOCATIONS SHOWN ON SHEETS 9-10 AND 28, AND DETAILED IN STD. CPP-1-00.
- (BR-6) ITEM "STRUCTURAL STEEL" INCLUDES THE SHEAR CONNECTORS PLACED ON TOP OF THE EXISTING BEAMS, STRUCTURAL STEEL QUANTITY ESTIMATED AT 1.14 LB AND 1.31 LB FOR EACH 6" AND 7" LENGTH STUD, RESPECTIVELY. ITEM ALSO INCLUDES 300 LBS. QUANTITY FOR MISCELLANEOUS REPAIRS TO THE TOP FLANGE OF BEAMS, TO BE USED AT THE DISCRETION OF THE ENGINEER.
- (BR-7) ITEM "SPECIAL CONCRETE FINISH" CONSISTS OF PROVIDING A CLASS C MORTAR FINISH ON ALL EXPOSED SURFACES OF ABUTMENTS, FRONT FACE OF ABUTMENT SEATS AND OUTSIDE FACE OF ABUTMENT SEATS.
- (BR-8) ITEM "CLASS AA CONCRETE" INCLUDES 81 C.Y. EACH FOR BRIDGE "A" AND BRIDGE "B" AND ITEM "EPOXY COATED REINFORCING STEEL" INCLUDES 5,260 LBS. EACH FOR BRIDGE "A" AND BRIDGE "B", FOR THE CONSTRUCTION OF THE CONCRETE PIER PROTECTION SYSTEM AT LOCATIONS SHOWN ON SHEETS 9-10 AND 28 AND DETAILED IN STD. CPP-1-00.
- (BR-9) ITEM "SLOPE WALL (4") CONSISTS OF REPLACEMENT OF DEFICIENT EXISTING SLOPE WALL AT LOCATIONS AND TO THE EXTENT DETERMINED BY THE ENGINEER. QUANTITY IS DETERMINED FROM FIELD INSPECTION. ALL COSTS TO REMOVE AND REPLACE SLOPE WALL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER SQUARE YARD OF "SLOPE WALL (4)". ALL REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
- (BR-10) ITEM "PAINTING EXISTING STRUCTURES" INCLUDES CLEANING AND PAINTING PORTIONS OF THE EXISTING GIRDERS AND DIAPHRAGMS PREVIOUSLY IN CONTACT WITH THE DECK SLAB AND AS DESIGNATED ON SHEET 20. CATEGORY "N" AND "E" SHALL BE USED FOR THE NEW STEEL AND TOP FLANGE OF EXISTING BEAMS, RESPECTIVELY. ALL REPLACEMENT AND NEW STRUCTURAL STEEL WILL BE PAINTED PER SPECIFICATIONS AND WILL BE INCLUDED IN OTHER ITEMS OF WORK.
- (BR-11) PREPARE SURFACE AND REBOND CRACKS AND DELAMINATIONS WITH EPOXY RESIN AS DIRECTED BY THE ENGINEER. THE ACTUAL LOCATIONS AND EXTENTS OF REPAIRS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER. INCLUDE COSTS FOR LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN THE CONTRACT UNIT PRICE OF "PREPARATION OF CRACKS ABOVE WATER".
- (BR-12) EPOXY RESIN QUANTITY IS ESTIMATED AT 0.08 GALLONS PER FOOT.

- (BR-13) REPAIR BRIDGE SUBSTRUCTURE COMPONENTS WITH PNEUMATICALLY PLACED MORTAR IN ACCORDANCE WITH SECTION 521 OF THE STANDARD SPECIFICATIONS. THE EXTENT OF THE REPAIRS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER. ALL COST OF REPAIR, INCLUDING REMOVAL OF UNSOUND CONCRETE, LABOR, MATERIALS, TOOLS, REINFORCEMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR "PNEUMATICALLY PLACED MORTAR". ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER.
- (BR-14) SEALER RESIN QUANTITY ESTIMATED AT 0.011 GALLONS PER FOOT OF CONSTRUCTION JOINT.
- (BR-15) ITEM "(PL) REPAIR BRIDGE ITEM (TYPE A)" INCLUDES THE REPAIR TO EACH PEDESTAL AS NOTED AND DETAILED ON SHEET 12, AND AS DIRECTED BY THE ENGINEER. THE ACTUAL LOCATIONS AND EXTENTS OF REPAIRS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER. THE REPAIR ITEM REQUIRES AN ESTIMATED TOTAL OF 50 POUNDS OF EPOXY COATED REINFORCING STEEL AND 0.1 C.Y. OF CLASS AA CONCRETE PER EACH PEDESTAL. THE DEPARTMENT CONSIDERS THE COST OF MATERIALS, LABOR AND INCIDENTALS NECESSARY FOR THE COMPLETE REPAIR IN THE CONTRACT UNIT PRICE PER EACH "(PL) REPAIR BRIDGE ITEM (TYPE A)".
- (BR-16) ITEM "(PL) REPAIR BRIDGE ITEM (TYPE B)" INCLUDES THE RESETTING OF EACH EXPANSION ROLLER BEARING TO A VERTICAL POSITION. THE DEPARTMENT CONSIDERS THE COST OF MATERIALS, LABOR, AND INCIDENTALS NECESSARY FOR THE COMPLETED REPAIR IN THE CONTRACT UNIT PRICE PER EACH "(PL) REPAIR BRIDGE ITEM (TYPE B)".

THE CONTRACTOR SHALL BE REQUIRED TO JACK THE SUPERSTRUCTURE AND INSTALL FALSEWORK TO SUPPORT THE SUPERSTRUCTURE DURING THE CONSTRUCTION ACTIVITIES ASSOCIATED WITH RESETTING EXISTING EXPANSION ROLLER BEARINGS AS DETAILED AND LOCATED IN THE PLANS. THE CONTRACTOR SHALL SUBMIT TO THE BRIDGE ENGINEER A PLAN FOR JACKING AND SUPPORTING THE SUPERSTRUCTURE. THE PLAN SHALL INCLUDE A LAYOUT OF JACKING AND FALSEWORK, JACKING SEQUENCE, JACK CAPABILITIES, AND STRUCTURAL CALCULATIONS FOR THE DESIGN OF THE FALSEWORK AND JACKING SCHEME. THE SUBMITTED PLAN SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF OKLAHOMA. THE PLAN SHALL BE IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, LATEST EDITION AND SECTION 502 OF THE CONSTRUCTION SPECIFICATIONS. JACKING SHALL NOT BEGIN UNTIL THE CONTRACTOR HAS RECEIVED APPROVAL OF THE SUBMITTED PLAN FROM THE BRIDGE ENGINEER. ALL COST OF FALSEWORK, JACKS, ENGINEERING SERVICES, LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE IN THE CONTRACT UNIT PRICE PER EACH "(PL) REPAIR BRIDGE ITEM (TYPE B)".
- (BR-17) ITEM "(PL) REPLACE BRIDGE ITEM (TYPE A)" INCLUDES THE REPAIR TO THE DIAPHRAGMS AS NOTED AND DETAILED ON SHEET 19 AND 20. THE QUANTITY INCLUDES AN ADDITIONAL 3 EACH PER BRIDGE TO BE USED AS DIRECTED BY THE ENGINEER. EACH REPLACEMENT ITEM REQUIRES AN ESTIMATED TOTAL OF 280 LBS. OF STRUCTURAL STEEL. THE DEPARTMENT CONSIDERS THE COST OF MATERIALS, LABOR, AND INCIDENTALS NECESSARY FOR THE COMPLETED REPAIR IN THE CONTRACT UNIT PRICE PER EACH "(PL) REPLACE BRIDGE ITEM (TYPE A)".
- (BR-18) ITEM "REMOVAL OF EXISTING BRIDGE STRUCTURE" CONSISTS OF THE REMOVAL AND DISPOSAL OF PARAPETS, RAILING, BRIDGE DECK AND APPROACH SLABS WITH 38' CLEAR ROADWAY. THIS ITEM ALSO CONSISTS OF THE SAWING, REMOVAL AND DISPOSAL OF PORTIONS OF THE WINGWALLS, AND REMOVAL AND DISPOSAL OF ITEMS REMOVED WHEN MAKING REPAIR ITEMS NOTED IN THE PLANS. THIS ITEM ALSO INCLUDES REMOVAL OF EXISTING PIER PROTECTION SYSTEM.

SWALLOW NOTE

MIGRATORY BIRDS ARE PROTECTED BY THE FEDERAL MIGRATORY BIRD TREATY ACT. THESE BIRDS COMMONLY USE BRIDGES AND CULVERTS FOR NESTING. THE NESTING SEASON FOR THE BIRDS RUNS FROM APRIL 1 TO AUGUST 31. ANY ACTIVITIES WHICH WOULD DESTROY ACTIVE NESTS OR HARM EGGS OR BIRDS WOULD VIOLATE THE MIGRATORY BIRD TREATY ACT. MIGRATORY BIRD USE OF BRIDGE NBI NO. 17337 AND 17338 WAS NOT OBSERVED DURING THE INITIAL SURVEY CONDUCTED AS PART OF THE BIOLOGICAL STUDIES IN 2016. MIGRATORY BIRD USE OF THE REMAINING BRIDGES AND CULVERTS WAS NOT OBSERVED DURING THE INITIAL SURVEY. MIGRATORY BIRDS MAY OCCUPY THESE STRUCTURES IN THE FUTURE NESTING SEASONS. THE RESIDENT ENGINEER WILL EVALUATE THE CONTRACTOR'S PROPOSED WORK METHODS AND CONCLUDE WHETHER THE PROPOSED WORK WOULD POSE DISRUPTION TO ANY NESTING BIRDS BEFORE WORK NEAR THE STRUCTURE IS AUTHORIZED. IF THE PROPOSED WORK WILL HARM ANY NESTING BIRDS, THE BRIDGE MAY BE NETTED PRIOR TO APRIL 1 OR THE WORK DELAYED UNTIL THE NESTING SEASON IS COMPLETE. METHODS OTHER THAN NETTING MUST BE PRE-APPROVED BY THE ODOT BIOLOGIST.

S.H. 74 OVER I-35 McCLAIN CO.

DESIGN	GDD		OKLAHOMA DEPARTMENT OF TRANSPORTATION SUMMARY OF PAY QUANTITIES (BRIDGE) STATE JOB NO. 29572(04) SHEET NO. 3
DRAWN	ZTF		
CHECKED	JTK		
APPROVED			
SQUAD	MacArthur		

PRINT DATE: 7/26/2016 T:\1420\Drawings\1420-sum01.dgn

GENERAL CONSTRUCTION NOTES

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

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

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

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

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

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

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

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

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

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

THE PLANTING OF TEMPORARY SEEDS SHALL BE RESTRICTED TO THE PERIOD FROM MARCH 1 TO APRIL 15 AND FROM SEPTEMBER 1 TO NOVEMBER 1.

AREAS ON WHICH SALVAGED TOPSOIL IS TO BE REPLACED SHALL HAVE 18-46-0 FERTILIZER APPLIED AT THE RATE OF 150 POUNDS PER ACRE JUST PRIOR TO THE REPLACEMENT OF SALVAGED TOPSOIL.

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

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.

PAY QUANTITY NOTES

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

(R-5) AN ESTIMATED QUANTITY OF 265 C.Y. TOPSOIL TO BE RESERVED FOR REPLACEMENT OF APPROXIMATELY 5" ON COMPLETED FORESLOPES, DITCHES, AND BACKSLOPES. THIS QUANTITY IS INCLUDED IN THE EARTHWORK BALANCE. ANY ADDITIONAL EXCAVATION REQUIRED IN CUT SECTIONS TO ALLOW FOR PLACEMENT OF TOPSOIL TO FINAL GRADE, SHALL BE INCLUDED IN THE PRICE BID.

(R-7) FOR SOLID SLAB SODDING, PRICE BID TO INCLUDE COST OF 10-20-10 FERTILIZER, ESTIMATED AT 200 POUNDS PER 1,000 SQ. YDS.

(R-8) FOR SOLID SLAB SODDING, PRICE BID TO INCLUDE COST OF WATERING, ESTIMATED AT 40 GALLONS PER SQ. YD.

(R-11) THE QUANTITIES ESTIMATED FOR TEMPORARY EROSION AND SEDIMENT CONTROL IS 1.0 ACRES.

(R-16) QUANTITY BASED ON TWO APPLICATIONS.

(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 PLACEMENT OPERATIONS WILL BE DETERMINED BY THE CONTRACTOR, AND SHALL CONSIDER THE RESIDUE FROM DISTILLATION PERCENTAGE SHOWN IN SECTION 708.03 OF THE STANDARD SPECIFICATIONS.

(R-32) ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK.

(R-46) ANY DRAINAGE STRUCTURE DESCRIBED AS TEMPORARY, SHALL AFTER COMPLETION OF THE PROJECT, BE REMOVED BY AND BECOME THE PROPERTY OF THE CONTRACTOR.

(R-48) INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, INLETS, 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) NO STUMPS OR OTHER DEBRIS SHALL BE BURIED OR DISPOSED OF ON THE RIGHT-OF-WAY UNLESS APPROVED BY THE ENGINEER. DO NOT DISTURB VEGETATION BEYOND BACKSLOPE.

(2) ESTIMATED QUANTITY TO BE USED IN A MANNER AND LOCATION AS DETERMINED BY THE ENGINEER.

(3) SHALL INCLUDE COST OF 18-46-0 FERTILIZER AS WELL AS REDISTRIBUTION OF TOPSOIL AND STOCKPILING OF WASTE TOPSOIL AT A LOCATION TO BE DETERMINED BY THE ENGINEER.

(4) REMOVE SILT FROM EROSION CONTROL DEVICES WHEN THE SILT REACHES HALF THE HEIGHT OF THE DEVICE.

(5) TO BE USED FOR FIELD ENTRANCES AND TEMPORARY DRIVES AS DIRECTED BY THE ENGINEER. 10 TONS INCLUDED FOR TEMPORARY DRIVES.

(6) TACK COAT ESTIMATED AT 0.075 GAL. PER SQ. YD.

(7) TO BECOME PROPERTY OF THE COUNTY.

(8) OMIT CONCRETE APRON.

ROADWAY 0100		PAY QUANTITIES			JP# 29572(04)
ITEM NO.		DESCRIPTION	NOTES	UNIT	QUANTITY
201(A)	0102	CLEARING AND GRUBBING	(1)	LSUM	1
202(A)	0183	UNCLASSIFIED EXCAVATION	(R-1)	CY	123
202(D)	0184	UNCLASSIFIED BORROW	(R-1)	CY	37
205(A)	4229	TYPE A-SALVAGED TOPSOIL	(R-5)(3)	LSUM	1
221(C)	2801	TEMPORARY SILT FENCE	(2,4)	LF	900
221(D)	2803	TEMPORARY SEDIMENT FILTER	(2,4)	EA	4
230(A)	2806	SOLID SLAB SODDING	(R-7,8)	SY	2,300
233(A)	2817	VEGETATIVE MULCHING	(R-11)(2)	AC	1
241	2832	MOWING	(R-16)	AC	1
307(K)	4300	STABILIZED SUBGRADE		SY	1,121
407(B)	0250	TACK COAT	(6)	GAL	597
408	5774	PRIME COAT	(R-28)	GAL	494
411(B)	5945	SUPERPAVE, TYPE S3 (PG 64-22 OK)	(R-32)	TON	567
411(C)	5955	SUPERPAVE, TYPE S4 (PG 70-28 OK)	(R-32)	TON	662
412	5267	COLD MILLING PAVEMENT		SY	3,711
414(A)	0210	P.C. CONCRETE PAVEMENT (PLACEMENT)		SY	223
414(G)	5275	P.C. CONCRETE FOR PAVEMENT		CY	56
609(B)	1500	1'-8" COMB. CURB & GUTTER (4" MNTBLE)		LF	969
611(G)	6000	INLET (SMD-TYPE 1)	(8)	EA	1
613(B)	0689	18" CORR. GALV. STEEL PIPE	(R-46)	LF	207
619(A)	0920	REMOVAL OF STRUCTURES & OBSTRUCTIONS	(R-48,49)	LSUM	1
619(B)	4726	REMOVAL OF CURB AND GUTTER		LF	1,144
619(B)	4728	REMOVAL OF ASPHALT PAVEMENT	(R-49,50)	SY	1,295
619(B)	4780	REMOVAL OF GUARDRAIL	(7)	LF	929
619(C)	0924	SAWING PAVEMENT		LF	1,902
623(A)	0932	BEAM GUARDRAIL-W-BEAM-SINGLE		LF	362.5
623(G)	8590	GUARDRAIL END TREATMENT (31")		EA	4
623(I)	8700	GUARDRAIL BRIDGE CONN-THRIE BEAM (31")		EA	6
805(A)	8724	(PL) REMOVAL OF EXISTING SIGNS		EA	8
850(A)	8110	SHEET ALUMINUM SIGNS		SF	42.1
851(C)	8324	2" SQUARE TUBE POST		LF	88.0

SUMMARY OF SIGNS							
Plan Sht. No.	Approx. Station	Type	Description	ODOT Std.	Sign Blank Std.	Area	Square Tube Post
						S.F.	2" L.F.
6	633+78	W8-13	BRIDGE ICES BEFORE ROAD	WSD3-1	B-30(D)	6.25	11.0
8	625+27	R4-7	KEEP RIGHT TURN	RSD2-1	B-2430	5.00	11.0
8	625+27	R6-1(R)	ONE WAY	RSD2-1	B-3612	3.00	
8	625+30	R1-2	YIELD	RSD1-1	B-36(T)	3.90	11.0
8	634+71	R1-2	YIELD	RSD1-1	B-36(T)	3.90	11.0
8	634+75	R4-7	KEEP RIGHT TURN	RSD2-1	B-2430	5.00	11.0
8	634+75	R6-1(R)	ONE WAY	RSD2-1	B-3612	3.00	
8	641+07	R6-1(R)	ONE WAY	RSD2-1	B-3612	3.00	11.0
8	641+91	R5-1a	WRONG WAY	RSD2-1	B-3624	6.00	11.0
8	642+30	R6-1(R)	ONE WAY	RSD2-1	B-3612	3.00	11.0
		TOTAL		n/a	n/a	42.1	88.0

S.H. 74 OVER I-35

McCLAIN CO.

DESIGN	JMS		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN	ISFM		
CHECKED			
APPROVED			
SQUAD	MacArthur		
SUMMARY OF PAY QUANTITIES (ROADWAY)			
STATE JOB NO. 29572(04)			SHEET NO. 4

TRAFFIC CONSTRUCTION PAY QUANTITY NOTES

- (TC-1) THE CONTRACTOR SHALL FURNISH AND INSTALL SUCH LIGHTS, SIGNS, BARRICADES, AND PROVIDE FLAGGERS NECESSARY FOR THE CONTROL, SAFETY, AND MAINTENANCE OF TRAFFIC WHEN INSTALLING, RELOCATING OR DELIVERING PORTABLE LONGITUDINAL BARRIER.
 - (TC-2) QUANTITY INCLUDES SUFFICIENT LENGTH OF PORTABLE LONGITUDINAL BARRIER TO PROVIDE FOR THE LONGEST SECTION SHOWN ON THE PLANS. THIS SAME BARRIER WILL BE USED ON OTHER DETOUR PHASES.
 - (TC-13) A PART, OR ALL, OF THIS ITEM IS INTENDED FOR REPLACEMENT OF REMOVED EXISTING CONFLICTING STRIPING.
 - (TC-14) SEE STANDARD DRAWING PM1-1, PM2-1, PM3-1, PM4-1, PM5-1, PM6-1, PM7-1, PM8-1 (LATEST REVISION). A PART, OR ALL, OF THE QUANTITY SHOWN IS TO BE USED AS FINAL PAVEMENT MARKING.
 - (TC-19) THIS ITEM INCLUDES AN ESTIMATED 1,682 L.F. (4" WIDE) WHITE AND 1,846 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-30) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 16.00 S.F. AND 32.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.
 - (TC-33) ALL CONSTRUCTION WORK ZONE SIGNS SHALL HAVE FLUORESCENT SHEETING. THE FLUORESCENT SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956 (LATEST REVISION).
- THE MANUFACTURER SHALL FURNISH A TYPE 'D' CERTIFICATION IN ACCORDANCE WITH O.D.O.T. STANDARD SPECIFICATIONS (CURRENT EDITION) SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON MATERIAL SUBMITTED FOR APPROVAL.
- (TC-52) ANY USED CONSTRUCTION ZONE IMPACT ATTENUATOR AND 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-80) INCLUDED IN THIS ITEM SHALL BE ONE (1) ADDITIONAL UNIT TO BE USED AS A STAND-BY OR REPLACEMENT. THIS STAND-BY UNIT SHALL BE IMMEDIATELY ACCESSIBLE TO REPLACE A DAMAGED, STOLEN OR MALFUNCTIONING UNIT. THE AMOUNT OF TIME BETWEEN THE REMOVAL OF THE DAMAGED UNIT AND THE INSTALLATION OF THE STAND-BY UNIT SHALL BE NO MORE THAN TWENTY-FOUR (24) HOURS.

(TC-84) 240 CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAY PAY ITEMS. THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY, BASED ON THE CURRENT O.D.O.T. STANDARDS AND SUGGESTED CONSTRUCTION SEQUENCE FOR THIS PROJECT. THESE ESTIMATED SIGN DAY QUANTITIES MAY CHANGE AS THE PROJECT'S CONSTRUCTION TRAFFIC CONTROL IS MODIFIED DURING CONSTRUCTION.

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

TRAFFIC SIGNING PAY QUANTITY NOTES

(TS-25) QUANTITY SHOWN INCLUDES 2,850 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND 1,464 L.F. TRAFFIC STRIPE(MULTI-POLYMER)(BLACK) AND WILL BE MEASURED BY THE LINEAR FOOT OF SIX INCH (6") WIDE TRAFFIC STRIPE.

TRAFFIC LIGHTING PAY QUANTITY NOTES

(TL-43) ALL REMOVED SERVICE POLES, LIGHT POLES, MAST ARMS, LUMINAIRES, BREAKAWAY BASES AND PERTINENT EQUIPMENT SHALL BECOME THE PROPERTY OF THE CITY OF PURCELL. THE CONTRACTOR SHALL NEATLY STACK THE REMOVED ITEMS IN AN AREA DESIGNATED BY THE ENGINEER WITHIN THE PROJECT THE ITEMS THAT ARE TO BE REMOVED SHALL BE HANDLED WITH CARE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OCCURRING DURING THESE OPERATIONS.

(TL-44) INCLUDED IN THE COST OF THIS ITEM, THE CONTRACTOR SHALL EITHER COMPLETELY REMOVE THE EXISTING CONCRETE LIGHT POLE FOOTING(S) OR CUT OFF THE TOP PORTION OF THE FOOTING(S) TO A MINIMUM OF ONE FOOT BELOW GRADE. THE RESULTING HOLE(S) SHALL BE BACKFILLED, COMPACTED AND ALL DEBRIS DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

TRAFFIC OPERATIONS GENERAL CONSTRUCTION NOTES

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

ANY SIGNS AND/OR DELINEATORS WHICH ARE TO BE REMOVED DURING THIS PROJECT WILL BE STORED IN A PROTECTED AREA DESIGNATED BY THE ENGINEER, UNTIL SUCH A TIME THAT THEY ARE TO BE RESET BY THE CONTRACTOR. COST OF THIS WORK TO BE INCLUDED IN OTHER ITEMS OF WORK.

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

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

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

TRAFFIC SIGNING GENERAL CONSTRUCTION NOTES

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

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING TRAFFIC ON CROSS STREETS. A MINIMUM OF ONE LANE IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES. SEE O.D.O.T. STANDARDS AND DETAIL DRAWINGS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

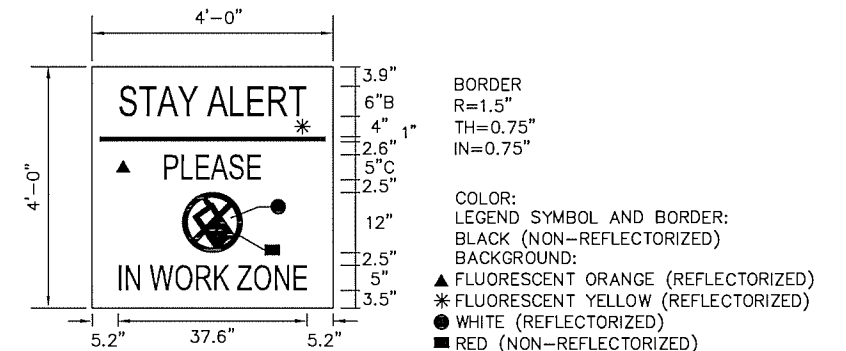
ANY DAMAGE CAUSED BY THE CONTRACTOR TO ANY STRUCTURES, ROADWAY SURFACES, STRIPING, RAISED PAVEMENT MARKERS, GUARDRAIL, SLOPES, AND SIGNS SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.

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

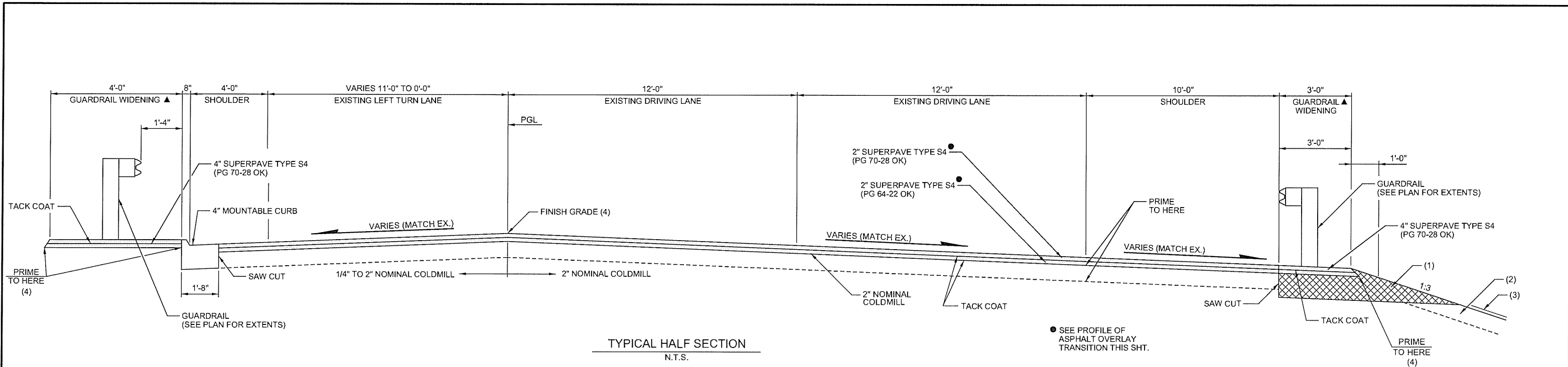
TRAFFIC ITEM PAY QUANTITY NOTES

- (1) QUANTITY INCLUDES PERMANENT TRAFFIC STRIPING REQUIRED FOR THE BRIDGE AND PERMANENT TRAFFIC STRIPING REQUIRED TO REPLACE ROADWAY STRIPING REMOVED FOR CONSTRUCTION TRAFFIC PHASES.
- (SP-1) WARNING LIGHTS TYPE "C" ARE NOT REQUIRED.
- (SP-2) SIGN PLACEMENT LOCATIONS SHALL BE DETERMINED BY THE ENGINEER.
- (SP-3) QUANTITY SHOWN INCLUDES 1,614 LF TRAFFIC STRIPE (MULTI-POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF A SIX INCH (6") WIDE TRAFFIC STRIPE.
- (SP-4) COST OF NIGHTLY RELOCATION TO BE INCLUDED IN DELIVERY PORTABLE LONGITUDINAL BARRIER.
- (SP-5) TEMPORARY SIGNS FOR ADJACENT BUSINESSES TO BE USED AS DIRECTED BY RESIDENT ENGINEER FOR LOCAL BUSINESS'S.

0300 TRAFFIC		PAY QUANTITIES			
ITEM		DESCRIPTION	UNIT	QUANTITY	
805(D)	8744	(PL)REMOVE & RESET LIGHT POLE	(TL-43,44)	EA.	2.00
856(A)	8535	TRAFFIC STRIPE (MULTI-POLY.) (6" WIDE)	(1) (SP-3) (TC-13,14) (TS-25)	L.F.	6,038.00
856(B)	8860	TRAFFIC STRIPE (MULTI-POLY.) (ARROWS)	(TC-13,14)	EA.	8.00
857(C)	8851	REMOVABLE PAVEMENT MARKING TAPE (4" WIDE)	(TC-19,21,70)	L.F.	10,584.00
857(F)	8006	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	(TC-22,70,75)	L.F.	1,464.00
871(B)	8705	(SP) CONST. ZONE IMPACT ATTEN.	(TC-52,80,84)	S.D.	480.00
877(B)	8484	DELIVER PORTABLE METAL LONGITUDINAL BARRIER	(SP-4) (TC-1,2)	L.F.	700.00
880(A)	8812	ARROW DISPLAY(TYPE C)	(TC-84)	S.D.	480.00
880(B)	8818	CONSTRUCTION SIGNS 0 TO 6.25 SF	(TC-26,33,84)	S.D.	9,600.00
880(B)	8821	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	(TC-26,33,84)	S.D.	9,600.00
880(B)	8824	CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF	(SP-5)(TC-26,30,33,84)	S.D.	15,840.00
880(C)	8842	CONSTRUCTION BARRICADES (TYPE III)	(TC-26,84)	S.D.	6,720.00
880(C)	8848	WING BARRICADES	(TC-26,84)	S.D.	1,920.00
880(E)	8860	WARNING LIGHTS (TYPE A)	(TC-26,84)	S.D.	22,320.00
880(F)	8878	DRUMS	(SP-1) (TC-26,84)	S.D.	49,440.00
882(A)	8306	PORT.CHANGEABLE MESSAGE SIGN	(SP-2) (TC-52,84,85)	S.D.	1,440.00



REV. #1	DATE: 7/25/2016	DESC. REMOVED A+B FROM NOTE (TC-84)
DESIGN	OKLAHOMA DEPARTMENT OF TRANSPORTATION DESIGN DIVISION	
DRAWN TS 5/16	SUMMARY OF PAY QUANTITIES (TRAFFIC)	
CHECKED SM 5/16	STATE JOB NO. 29572(04) SHEET NO. 5	
APPROVED	MCCAIN COUNTY	
SQUAD RED PLAINS PROFESSIONAL		

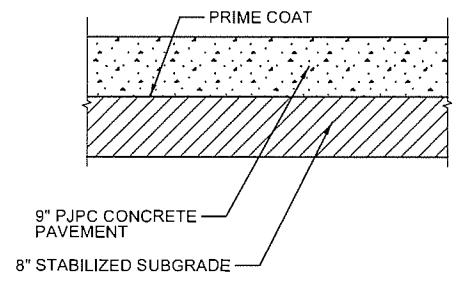


▲ GUARDRAIL WIDENING:
 STA. 627+15.00 TO STA. 628+81.38, EB RT
 STA. 626+90.00 TO STA. 628+81.38, EB LT
 STA. 632+33.61 TO STA. 634+00.00, WB RT
 STA. 632+33.61 TO STA. 633+87.00, WB LT

TYPICAL HALF SECTION
N.T.S.

STA. 626+90.00 TO STA. 628+81.38, EB
 STA. 631+80.77 TO STA. 634+00.00, EB
 STA. 626+90.00 TO STA. 629+34.21, WB
 STA. 632+33.61 TO STA. 634+00.00, WB

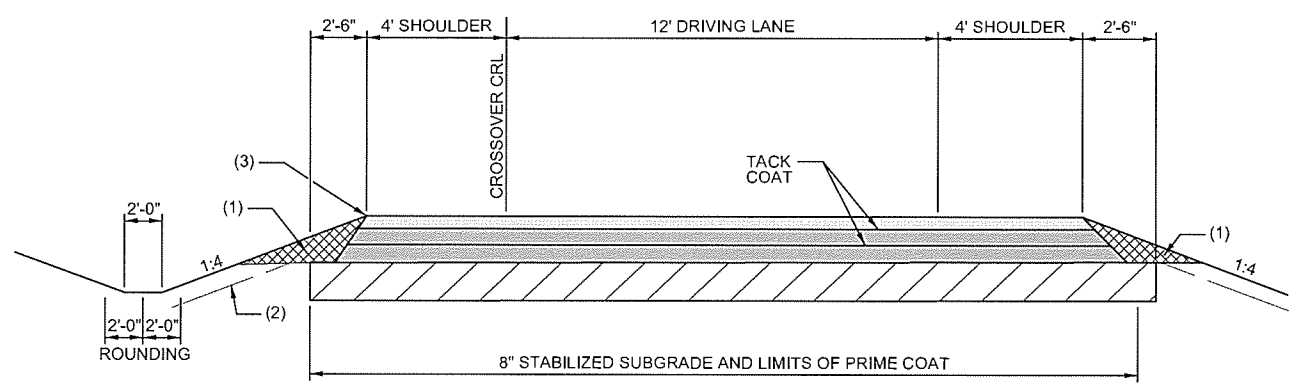
● SEE PROFILE OF ASPHALT OVERLAY TRANSITION THIS SHT.



MEDIAN SECTION
N.T.S.

- (1) TO BE BACKFILLED AND COMPACTED AS PART OF THE FINISHING OPERATIONS. QUANTITY TO BE INCLUDED IN OTHER ITEMS OF WORK.
- (2) TOPSOIL NOTE: THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATION. RESERVED TOPSOIL SHALL BE SPREAD APPROX. 5" THICK 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 OPERATION SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.

ROUNDING SHALL BE 5" MIN. TO 15" MAX. AT THE INTERSECTION OF CUT SLOPES WITH GROUND LINES, OR AS DESIGNATED BY THE ENGINEER, COST OF ROUNDING TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK.
- (3) APPLY SAFETY EDGE.
- (4) PRIME COAT AT A RATE OF 0.35 GAL/SY OVER SUBGRADE UPON COMPLETION OF MODIFICATION.



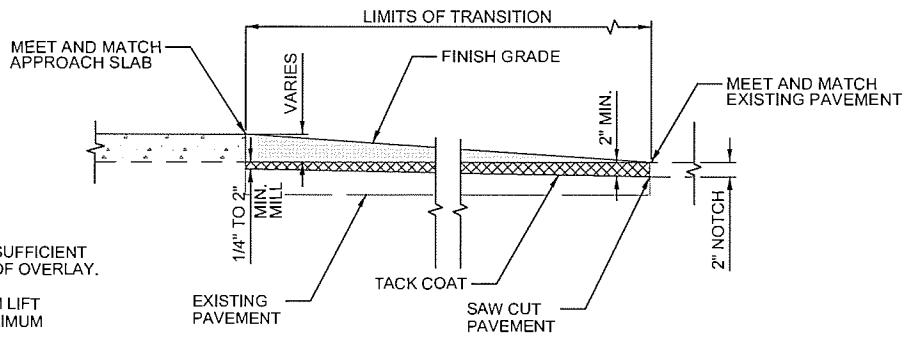
CROSSOVER SECTION
N.T.S.

STA. 640+30.00 TO STA. 644+05.00

PAVT. STRUCTURE	CROSSOVER
SURFACE COURSE	2" SUPERPAVE TYPE S4 (PG 70-28 OK)
BASE COURSE	3" SUPERPAVE TYPE S3 (PG 64-22 OK)
	3" SUPERPAVE TYPE S3 (PG 64-22 OK)

■ CROSSOVER PAVEMENT WIDTH VARIES. SEE CROSSOVER DETAIL AND TRAFFIC CONTROL FOR DETAILS

NOTE:
 DEPTH OF MILLING SHALL BE SUFFICIENT TO PROVIDE A 2" MIN. DEPTH OF OVERLAY.
 APPLY ASPHALT AT A MINIMUM LIFT THICKNESS OF 1.5" AND A MAXIMUM THICKNESS OF 3"



PROFILE OF ASPHALT OVERLAY TRANSITION
N.T.S.

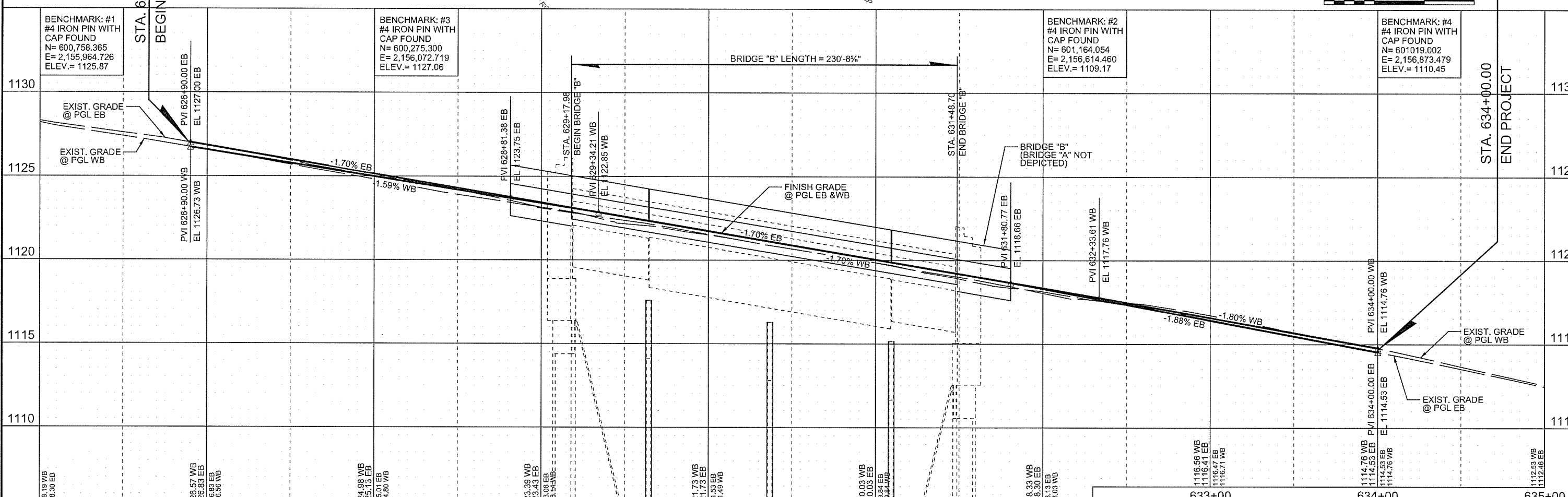
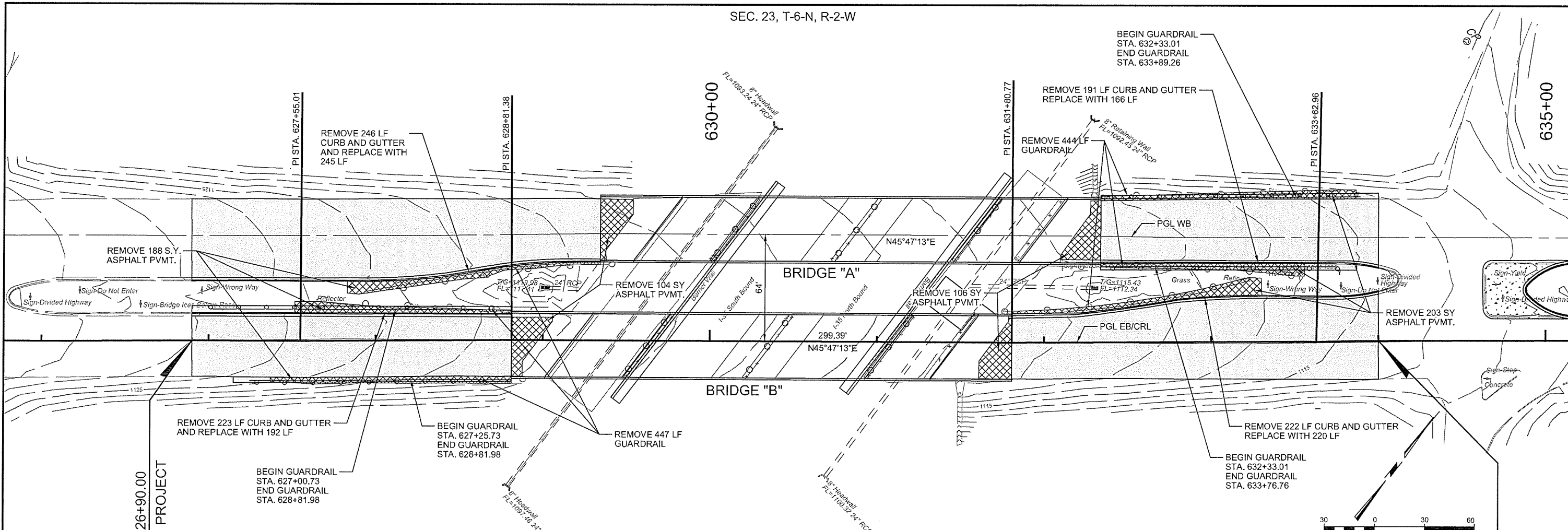
S.H. 74 OVER I-35

McCLAIN CO.

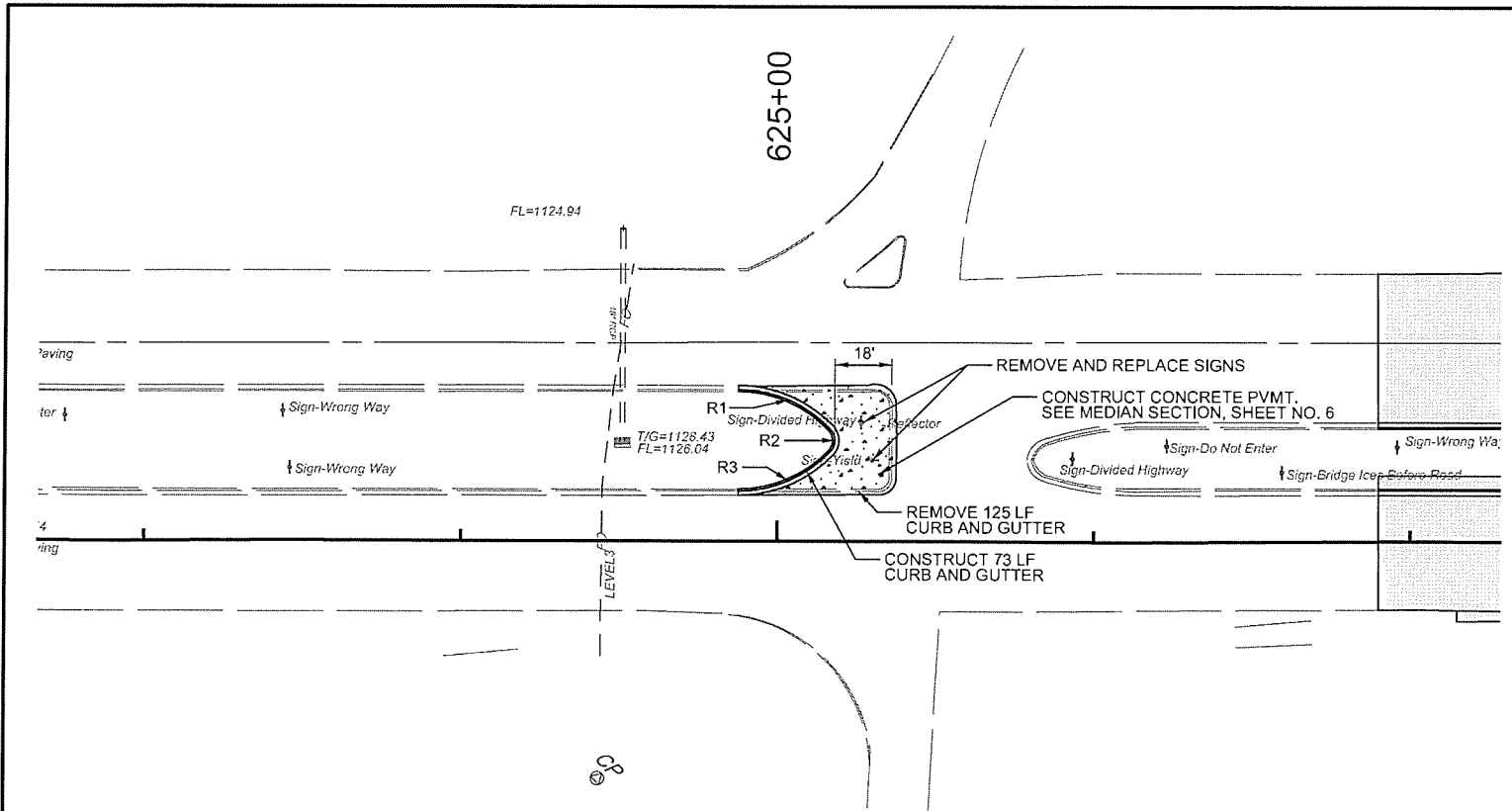
DESIGN	JMS		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN	ISFM		
CHECKED			
APPROVED			
SQUAD	MacArthur		
TYPICAL ROADWAY SECTION			
			STATE JOB NO. 29572(04) SHEET NO. 6

PRINT DATE: 7/15/2016 T:\1420\Drawings\Roadway\1420-Typ-01.dgn

SEC. 23, T-6-N, R-2-W

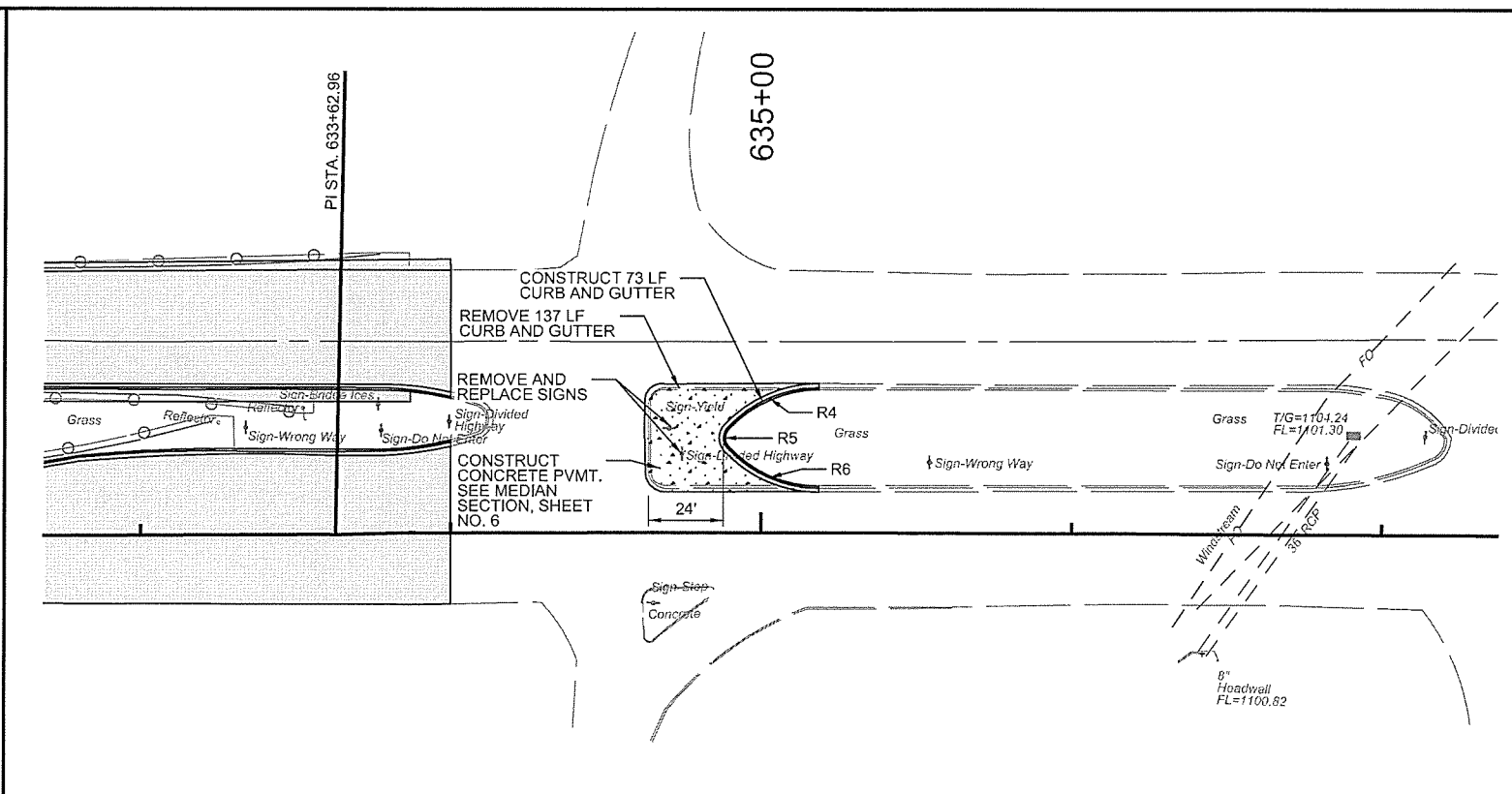


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CURVE #	RADIUS	RADIUS PT. COORDINATE
R1	40'	N= 600402.79 E= 2156031.83
R2	5'	N= 600403.92 E= 2156051.21
R3	40'	N= 600384.52 E= 2156049.66

MEDIAN 1

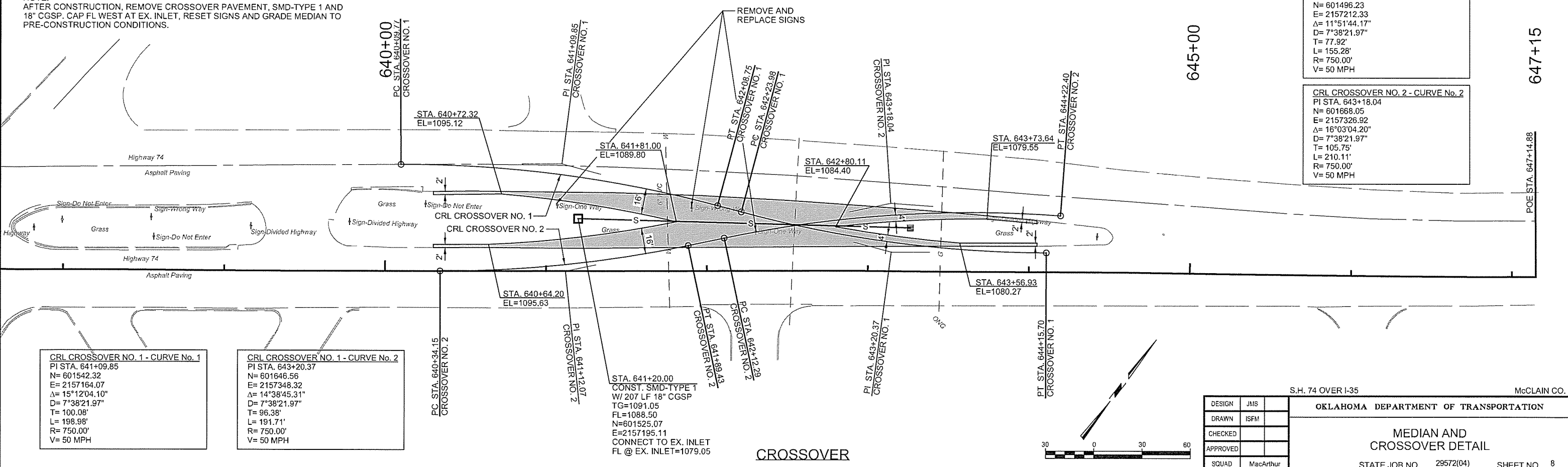


CURVE #	RADIUS	RADIUS PT. COORDINATE
R4	40'	N= 601101.98 E= 2156745.29
R5	5'	N= 601082.52 E= 2156743.83
R6	40'	N= 601083.60 E= 2156763.36

MEDIAN 2

SEC. 23, T-6-N, R-2-W

NOTE:
AFTER CONSTRUCTION, REMOVE CROSSOVER PAVEMENT, SMD-TYPE 1 AND 18" CGSP. CAP FL WEST AT EX. INLET, RESET SIGNS AND GRADE MEDIAN TO PRE-CONSTRUCTION CONDITIONS.



CRL CROSSOVER NO. 2 - CURVE No. 1
 PI STA. 641+12.07
 N= 601496.23
 E= 2157212.33
 Δ= 11°51'44.17"
 D= 7°38'21.97"
 T= 77.92'
 L= 155.28'
 R= 750.00'
 V= 50 MPH

CRL CROSSOVER NO. 2 - CURVE No. 2
 PI STA. 643+18.04
 N= 601668.05
 E= 2157326.92
 Δ= 16°03'04.20"
 D= 7°38'21.97"
 T= 105.75'
 L= 210.11'
 R= 750.00'
 V= 50 MPH

CRL CROSSOVER NO. 1 - CURVE No. 1
 PI STA. 641+09.85
 N= 601542.32
 E= 2157164.07
 Δ= 15°12'04.10"
 D= 7°38'21.97"
 T= 100.08'
 L= 198.98'
 R= 750.00'
 V= 50 MPH

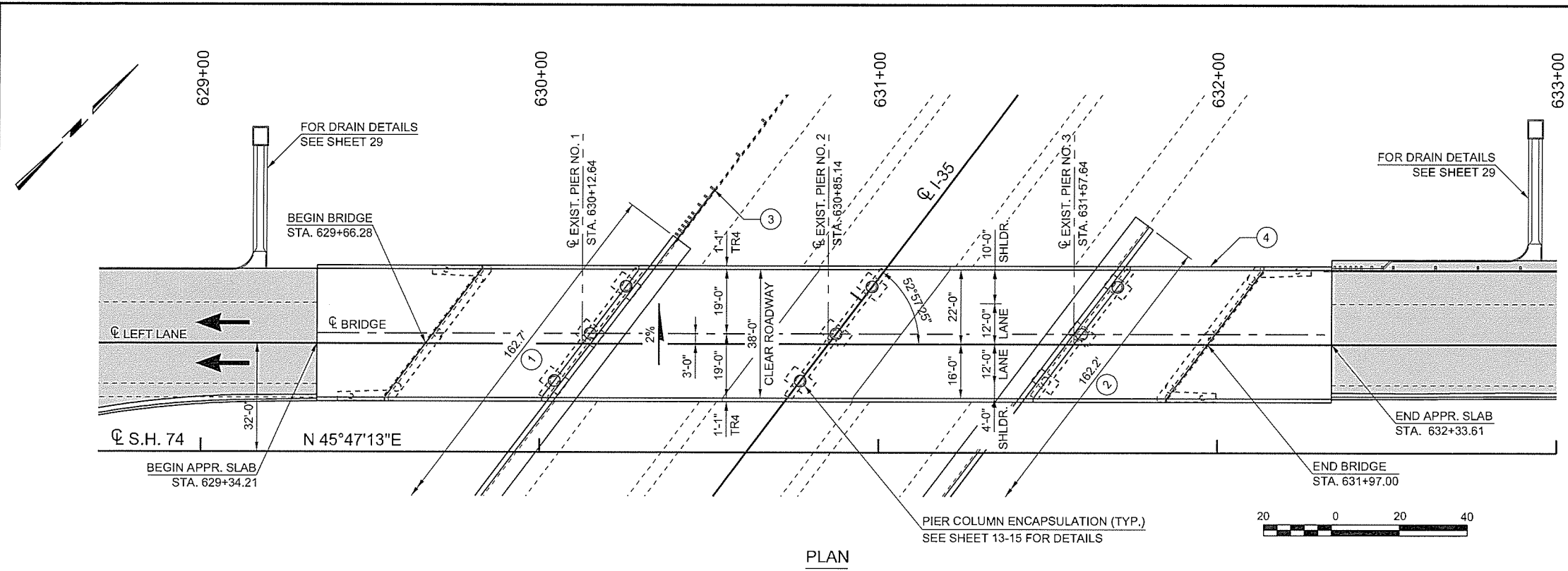
CRL CROSSOVER NO. 1 - CURVE No. 2
 PI STA. 643+20.37
 N= 601646.56
 E= 2157348.32
 Δ= 14°38'45.31"
 D= 7°38'21.97"
 T= 96.38'
 L= 191.71'
 R= 750.00'
 V= 50 MPH

STA. 641+20.00
 CONST. SMD-TYPE 1
 W/ 207 LF 18" CGSP
 TG=1091.05
 FL=1088.50
 N=601525.07
 E=2157195.11
 CONNECT TO EX. INLET
 FL @ EX. INLET=1079.05

DESIGN	JMS
DRAWN	ISFM
CHECKED	
APPROVED	
SQUAD	MacArthur

S.H. 74 OVER I-35
 OKLAHOMA DEPARTMENT OF TRANSPORTATION
 MEDIAN AND CROSSOVER DETAIL
 STATE JOB NO. 29572(04) SHEET NO. 8

PRINT DATE: 7/15/2016 T:\1420\Drawings\Roadway\1420-CrossOver\01.dgn



NOTE
STATIONING IS ALONG "CL LEFT LANE"
UNLESS NOTED OTHERWISE.

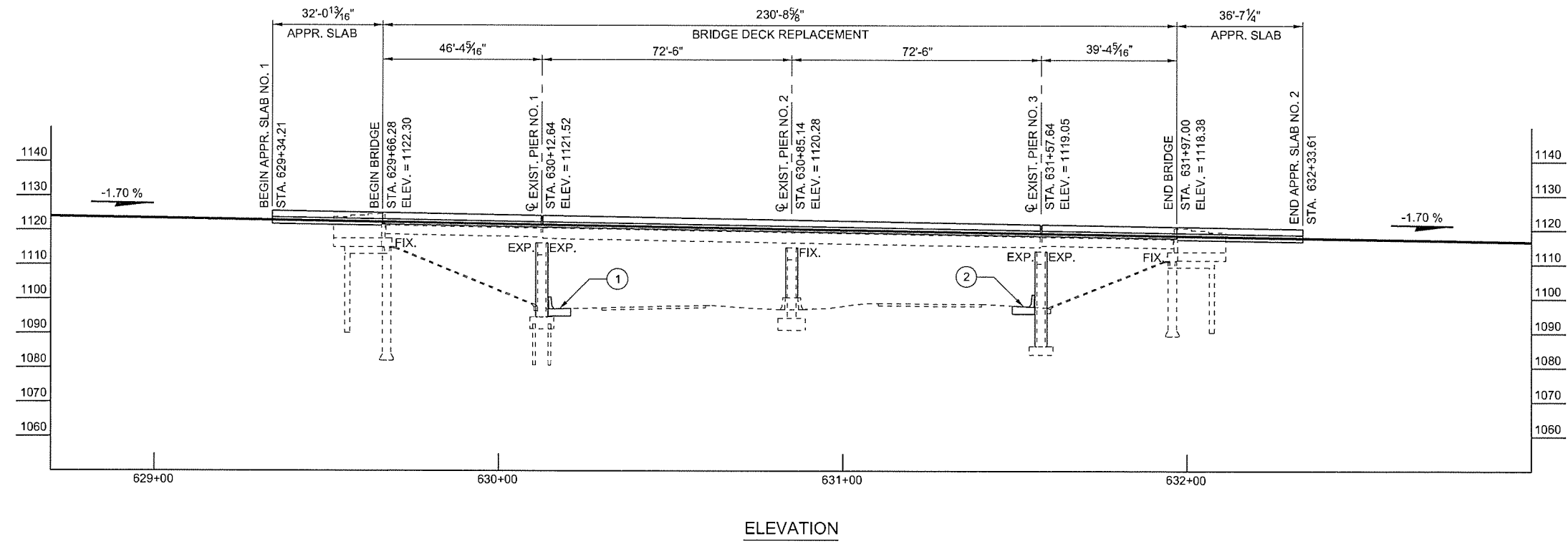
DESIGN DATA
(NEW CONSTRUCTION ONLY)

MATERIALS
 CLASS A CONCRETE $f_c = 3,000$ psi
 CLASS AA CONCRETE $f_c = 4,000$ psi
 REINFORCING STEEL (GRADE 60) $f_y = 60,000$ psi
 STRUCTURAL STEEL (GRADE 50W) $f_y = 50,000$ psi
 STRUCTURAL STEEL (A36) $f_y = 36,600$ psi

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

DESIGN
 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR
 HIGHWAY BRIDGES, 7TH EDITION (WITH 2015 INTERMS)
 ANSI/AASHTO 1.5 BRIDGE WELDING CODE
 LFD OPERATING RATING: HS 49.6

- ① REMOVE EXISTING PIER PROTECTION AND CONSTRUCT 162.7 L.F. OF CONCRETE PIER PROTECTION UNDER BRIDGE "A" AND BRIDGE "B". SEE STD. CPP-1-00 FOR DETAILS.
- ② REMOVE EXISTING PIER PROTECTION AND CONSTRUCT 162.2 L.F. OF CONCRETE PIER PROTECTION UNDER BRIDGE "A" AND BRIDGE "B". SEE STD. CPP-1-00 FOR DETAILS.
- ③ INSTALL THRIE BEAM CONNECTION AND TIE TO EXISTING GUARDRAIL.
- ④ ELECTRIC UTILITY ATTACHED TO EXISTING DECK OVERHANG IS OWNED BY THE CITY OF PURCELL. CONTACT ELECTRIC UTILITY SUPERVISOR (405-315-6426) FOR MORE INFORMATION. CONTRACTOR SHALL PROTECT UTILITY DURING CONSTRUCTION, MAINTAIN ELECTRICAL SERVICE OUTSIDE OF THE LIGHTING SYSTEM ON THE BRIDGE, AND RE-ATTACH TO NEW DECK OVERHANG AS DIRECTED BY THE ENGINEER. ALL COSTS TO BE PAID FOR UNDER OTHER ITEMS OF WORK.

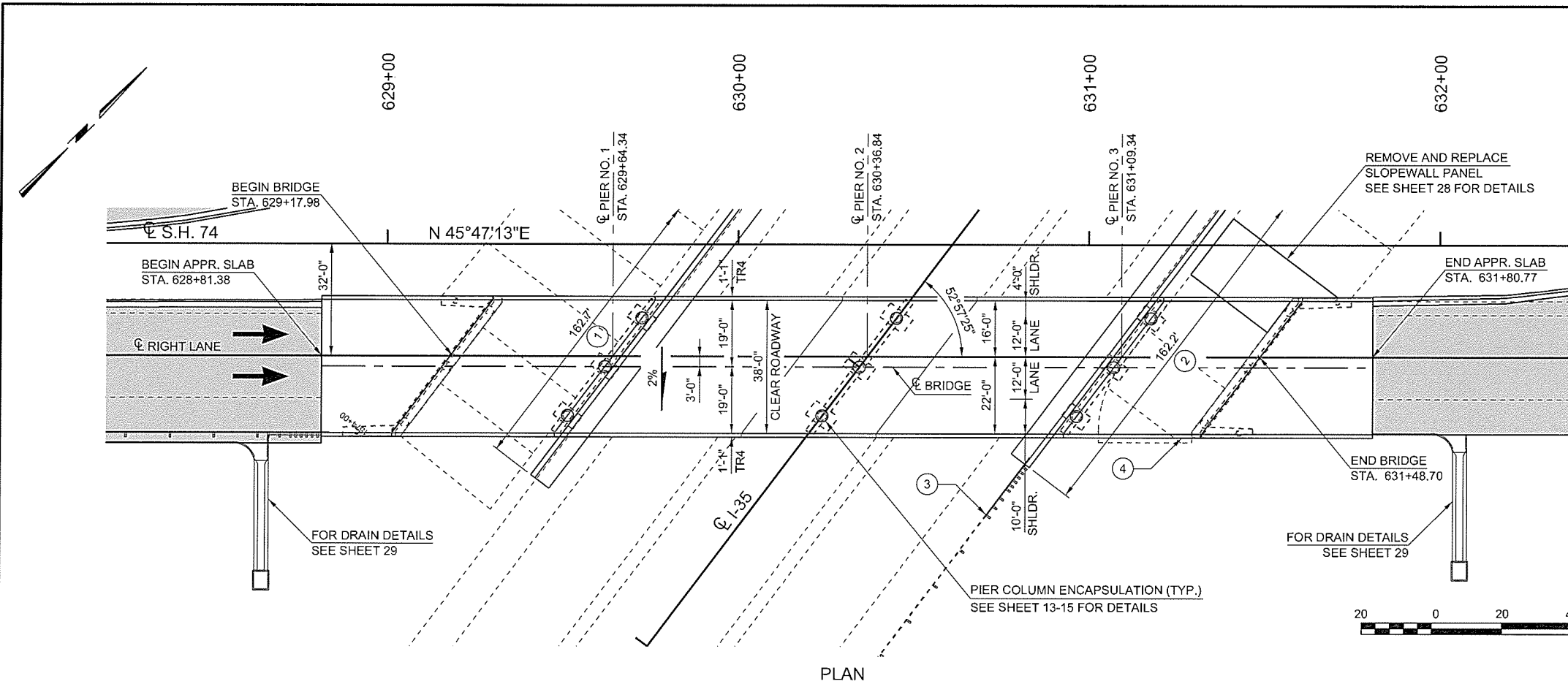


BENCHMARK DATA				
BENCHMARK	DESCRIPTION	NORTHING	EASTING	ELEV
BM-1	#4 IRON PIN WITH CAP	600758.365	2155964.726	1125.87
BM-2	#4 IRON PIN WITH CAP	601164.054	2156614.460	1109.17
BM-3	#4 IRON PIN WITH CAP	600275.300	2156072.719	1127.06
BM-4	#4 IRON PIN WITH CAP	601019.002	2156873.479	1110.45

S.H. 74 OVER I-35 McCLAIN CO.

DESIGN	GDD	OKLAHOMA DEPARTMENT OF TRANSPORTATION GENERAL PLAN AND ELEVATION BRIDGE "A" STATE JOB NO. 29572(04) SHEET NO. 9
DRAWN	ZTF	
CHECKED	JTK	
APPROVED		
SQUAD	MacArthur	

PRINT DATE: 7/15/2016 T:\1420\Drawings\Bridges\1420-sps01.dgn



NOTE
STATIONING IS ALONG "CL RIGHT LANE"
UNLESS NOTED OTHERWISE.

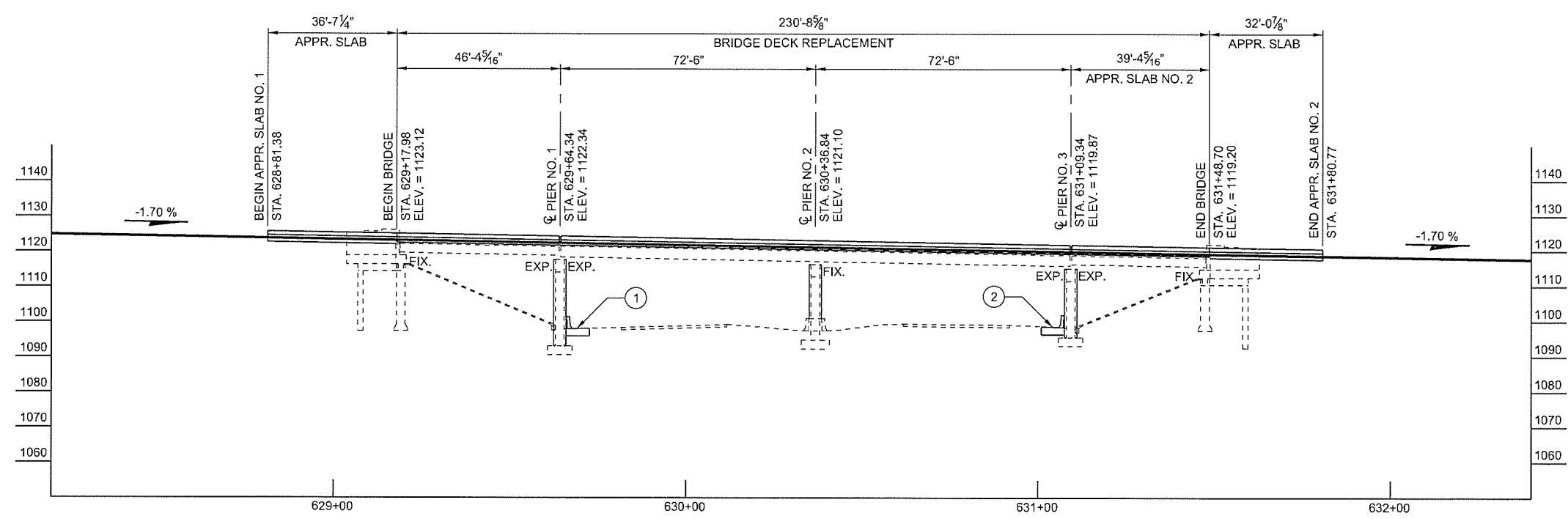
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(NEW CONSTRUCTION ONLY)

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 CLASS AA CONCRETE $f_c = 4,000$ psi
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LOADING
 HL-93 OR OKLAHOMA OVERLOAD TRUCK
 20 PSF FUTURE WEARING SURFACE
 5 PSF STAY-IN-PLACE FORMS

DESIGN
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 HIGHWAY BRIDGES, 7TH EDITION (WITH 2015 INTERMS)
 ANSI/AASHTO 1.5 BRIDGE WELDING CODE
 LFD OPERATING RATING: HS 49.6

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- ② REMOVE EXISTING PIER PROTECTION AND CONSTRUCT 162.2 L.F. OF CONCRETE PIER PROTECTION UNDER BRIDGE "A" AND BRIDGE "B". SEE STD. CPP-1-00 FOR DETAILS.
- ③ INSTALL THREE BEAM CONNECTION AND TIE TO EXISTING GUARDRAIL.
- ④ ELECTRIC UTILITY ATTACHED TO EXISTING DECK OVERHANG IS OWNED BY THE CITY OF PURCELL. CONTACT ELECTRIC UTILITY SUPERVISOR (405-315-6426) FOR MORE INFORMATION. CONTRACTOR SHALL PROTECT UTILITY DURING CONSTRUCTION, MAINTAIN ELECTRICAL SERVICE OUTSIDE OF THE LIGHTING SYSTEM ON THE BRIDGE, AND RE-ATTACH TO NEW DECK OVERHANG AS DIRECTED BY THE ENGINEER. ALL COSTS TO BE PAID FOR UNDER OTHER ITEMS OF WORK.



BENCHMARK DATA				
BENCHMARK	DESCRIPTION	NORTHING	EASTING	ELEV
BM-1	#4 IRON PIN WITH CAP	600758.365	2155964.726	1125.87
BM-2	#4 IRON PIN WITH CAP	601164.054	2156614.460	1109.17
BM-3	#4 IRON PIN WITH CAP	600275.300	2156072.719	1127.06
BM-4	#4 IRON PIN WITH CAP	601019.002	2156873.479	1110.45

S.H. 74 OVER I-35 McCLAIN CO.

DESIGN	GDD	OKLAHOMA DEPARTMENT OF TRANSPORTATION GENERAL PLAN AND ELEVATION BRIDGE "B" STATE JOB NO. 29572(04) SHEET NO. 10
DRAWN	ZTF	
CHECKED	JTK	
APPROVED		
SQUAD	MacArthur	

PRINT DATE: 7/15/2016 T:\11420\Drawings\Bridges\1420-spe02.dgn

REVISIONS		
REV. NO.	DESCRIPTION	DATE
△	REMOVED PAY ITEM	07-25-2016

SUMMARY OF BRIDGE QUANTITIES - BRIDGE "A"						
DESCRIPTION	UNIT	ABUTMENTS	PIERS	SUPERSTR.	APPR. SLABS	TOTAL
UNCLASSIFIED EXCAVATION	CY		210.00		100.00	310.00
CLSM BACKFILL	CY	5.00			100.00	105.00
APPROACH SLAB	SY				306.60	306.60
SAW-CUT GROOVING	SY			975.00	290.00	1,265.00
SEALED EXPANSION JOINT	LF			98.60		98.60
CONCRETE RAIL (TR4)	LF			461.50	137.40	598.90
42" F-SHAPED PARAPET	LF		162.50			162.50
STRUCTURAL STEEL	LB			5,310.00		5,310.00
SPECIAL CONCRETE FINISH	SY	91.00				91.00
CLASS AA CONCRETE	CY		124.00	246.00		370.00
CLASS C CONCRETE	CY	10.00				10.00
SLOPE WALL (4")	SY	120.00				120.00
EPOXY COATED REINFORCING STEEL	LB		8,170.00	80,820.00		88,990.00
PAINTING EXISTING STRUCTURES	LSUM					1.00
COLLECTION AND HANDLING OF WASTE	LSUM					1.00
WATER REPELLENT (VISUALLY INSPECTED)	SY		120.00	215.00	64.00	399.00
PREPARATION OF CRACKS, ABOVE WATER	LF	20.00	30.00			50.00
EPOXY RESIN, ABOVE WATER	GAL	2.00	3.00			5.00
PNEUMATICALLY PLACED MORTAR	SY	15.00				15.00
SEALER CRACK PREPARATION	LF			99.60		99.60
SEALER RESIN	GAL			2.00		2.00
△ (CP) NEST PREVENTION - NETTING	LSUM					1.00
(PL) REPAIR BRIDGE ITEM (TYPE A)	EA	5.00	5.00			10.00
(PL) REPAIR BRIDGE ITEM (TYPE B)	EA			20.00		20.00
(PL) REPLACE BRIDGE ITEM (TYPE A)	EA			4.00		4.00
REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM					1.00

SUMMARY OF BRIDGE QUANTITIES - BRIDGE "B"						
DESCRIPTION	UNIT	ABUTMENTS	PIERS	SUPERSTR.	APPR. SLABS	TOTAL
UNCLASSIFIED EXCAVATION	CY		220.00		100.00	320.00
CLSM BACKFILL	CY	5.00			100.00	105.00
APPROACH SLAB	SY				306.60	306.60
SAW-CUT GROOVING	SY			975.00	290.00	1,265.00
SEALED EXPANSION JOINT	LF			98.60		98.60
CONCRETE RAIL (TR4)	LF			461.50	137.40	598.90
42" F-SHAPED PARAPET	LF		162.50			162.50
STRUCTURAL STEEL	LB			5,310.00		5,310.00
SPECIAL CONCRETE FINISH	SY	91.00				91.00
CLASS AA CONCRETE	CY		125.80	246.60		372.40
CLASS C CONCRETE	CY	10.00				10.00
SLOPE WALL (4")	SY	120.00				120.00
EPOXY COATED REINFORCING STEEL	LB		8,300.00	80,820.00		89,120.00
PAINTING EXISTING STRUCTURES	LSUM					1.00
COLLECTION AND HANDLING OF WASTE	LSUM					1.00
WATER REPELLENT (VISUALLY INSPECTED)	SY		120.00	215.00	64.00	399.00
PREPARATION OF CRACKS, ABOVE WATER	LF	20.00	30.00			50.00
EPOXY RESIN, ABOVE WATER	GAL	2.00	3.00			5.00
PNEUMATICALLY PLACED MORTAR	SY	15.00				15.00
SEALER CRACK PREPARATION	LF			99.60		99.60
SEALER RESIN	GAL			2.00		2.00
△ (CP) NEST PREVENTION - NETTING	LSUM					1.00
(PL) REPAIR BRIDGE ITEM (TYPE A)	EA	5.00	5.00			10.00
(PL) REPAIR BRIDGE ITEM (TYPE B)	EA			20.00		20.00
(PL) REPLACE BRIDGE ITEM (TYPE A)	EA			8.00		8.00
REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM					1.00

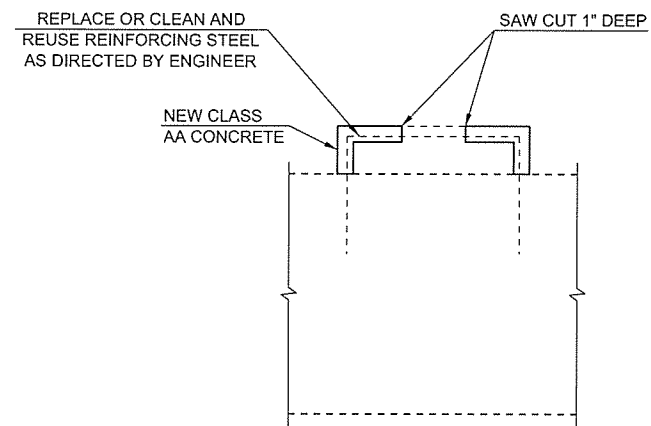
PRINT DATE: 7/26/2016 T:\1420\Drawings\Bridges\1420-sum02.dgn

S.H. 74 OVER I-35

McCLAIN CO.

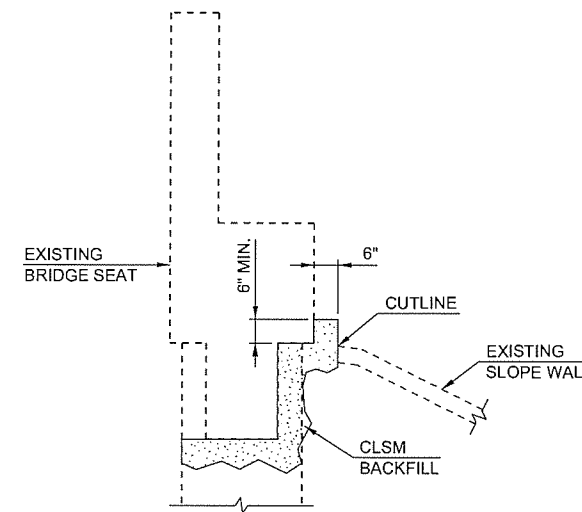
DESIGN	GDD		OKLAHOMA DEPARTMENT OF TRANSPORTATION SUMMARY OF BRIDGE QUANTITIES STATE JOB NO. 29572(04) SHEET NO. 11
DRAWN	ZTF		
CHECKED	JTK		
APPROVED			
SQUAD	MacArthur		

PRINT DATE: 7/20/2016 T:\1420\Drawings\Bridges\1420-abut01.dgn



REPAIR BRIDGE ITEM (TYPE A)
(PEDESTAL)

NOTE
SPLICE EXISTING REINFORCING WITH NEW REINFORCING ACCORDING TO SECTION 511 OF THE STANDARD SPECIFICATIONS. SHOULD SECTION IS PRESENT.



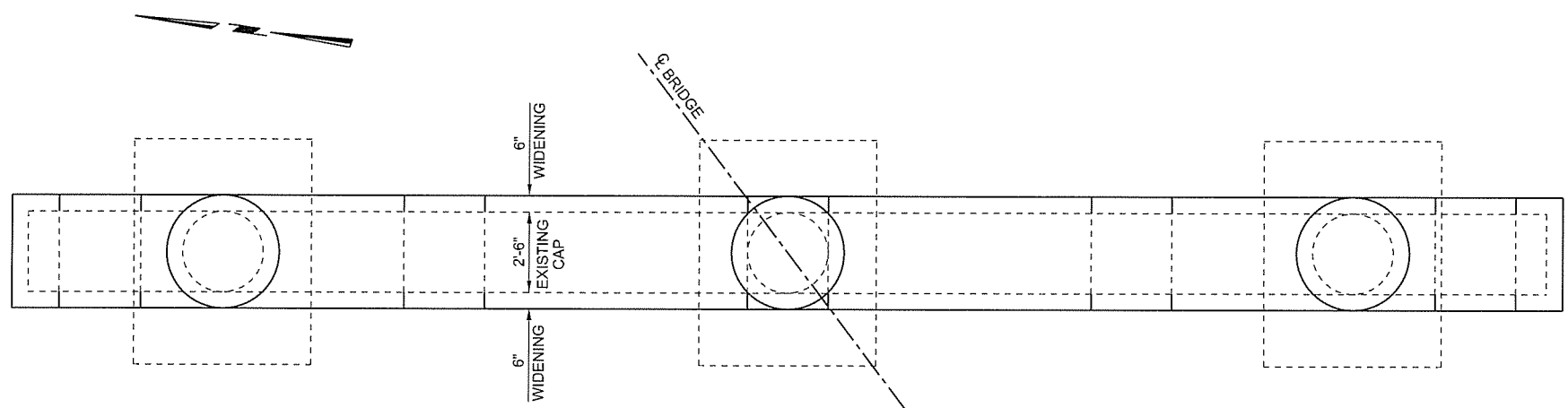
CLSM BACKFILL DETAIL

ABUTMENT MODIFICATION QUANTITIES - BRIDGE "A"		
DESCRIPTION	UNIT	TOTAL
CLSM BACKFILL	CY	5.00
SPECIAL CONCRETE FINISH	SY	91.00
CLASS C CONCRETE	CY	10.00
SLOPE WALL (4")	SY	120.00
PREPARATION OF CRACKS, ABOVE WATER	LF	20.00
EPOXY RESIN, ABOVE WATER	GAL	2.00
PNEUMATICALLY PLACED MORTAR	SY	15.00
(PL) REPAIR BRIDGE ITEM (TYPE A)	EA	5.00

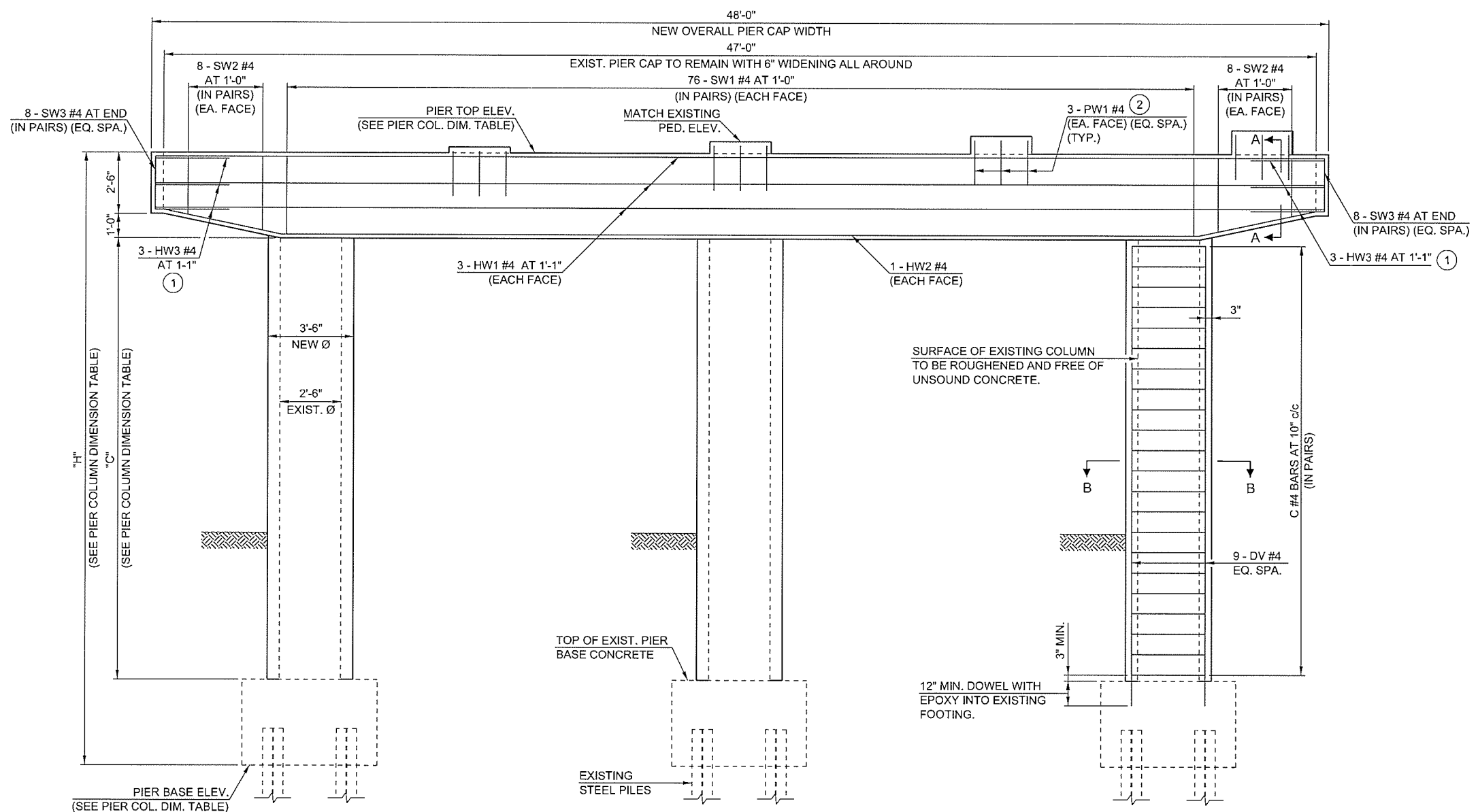
ABUTMENT MODIFICATION QUANTITIES - BRIDGE "B"		
DESCRIPTION	UNIT	TOTAL
CLSM BACKFILL	CY	5.00
SPECIAL CONCRETE FINISH	SY	91.00
CLASS C CONCRETE	CY	10.00
SLOPE WALL (4")	SY	120.00
PREPARATION OF CRACKS, ABOVE WATER	LF	20.00
EPOXY RESIN, ABOVE WATER	GAL	2.00
PNEUMATICALLY PLACED MORTAR	SY	15.00
(PL) REPAIR BRIDGE ITEM (TYPE A)	EA	5.00

DESIGN	GDD		S.H. 74 OVER I-35 OKLAHOMA DEPARTMENT OF TRANSPORTATION ABUTMENT MODIFICATION DETAILS STATE JOB NO. 29572(04) SHEET NO. 12
DRAWN	EMH		
CHECKED	JTK		
APPROVED			
SQUAD	MacArthur		

McCLAIN CO.



PLAN



ELEVATION

- ① SPACED WITH HW1 #4 BARS
- ② PEDESTAL REINFORCING APPLIES TO BRIDGE "A" ONLY.

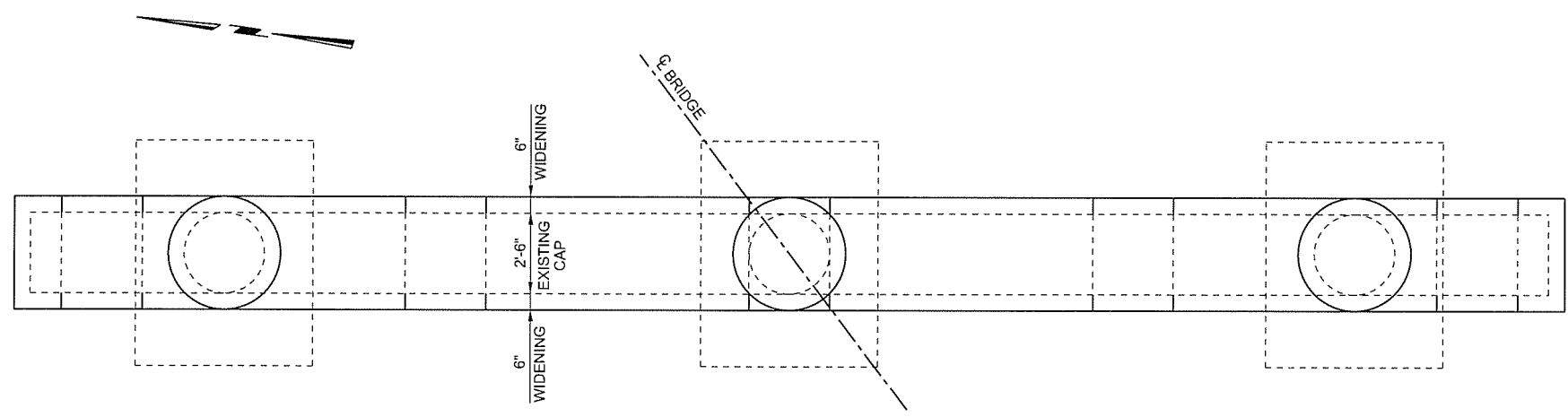
PIER COLUMN DIMENSION TABLE					
PIER	COL.	"H"	"C"	PR. TOP	PR. BASE
PIER NO. 1 - BRIDGE "A"	LT.	25'-0"	18'-0"	1116.24	1091.24
	CTR.	25'-0"	18'-0"	1116.24	1091.24
	RT.	25'-0"	18'-0"	1116.24	1091.24
PIER NO. 1 - BRIDGE "B"	LT.	29'-0"	23'-0"	1117.59	1088.59
	RT.	27'-0"	21'-0"	1117.59	1090.59
PIER NO. 3 - BRIDGE "A"	LT.	30'-0"	24'-0"	1113.84	1083.84
	CTR.	30'-0"	24'-0"	1113.84	1083.84
	RT.	-	-	-	-
PIER NO. 3 - BRIDGE "B"	LT.	22'-0"	16'-0"	1115.15	1093.15
	CTR.	22'-0"	16'-0"	1115.15	1093.15
	RT.	22'-0"	16'-0"	1115.15	1093.15

NOTES
 PIER COLUMN ENCAPSULATION DETAILS ON THIS SHEET SHALL BE APPLIED TO ALL COLUMNS OF PIER NO. 1 AND PIER NO. 3, WITH EXCEPTION TO THE RIGHT COLUMN OF PIER NO. 3 ON BRIDGE "A".
 APPLY WATER REPELLENT TO NEW CONCRETE SURFACES ON PIER CAPS. FOR WATER REPELLENT DETAILS, SEE SHEET 15.
 FOR SECTION A-A, SECTION B-B, BAR BENDS AND BAR LISTS, SEE SHEET 15.

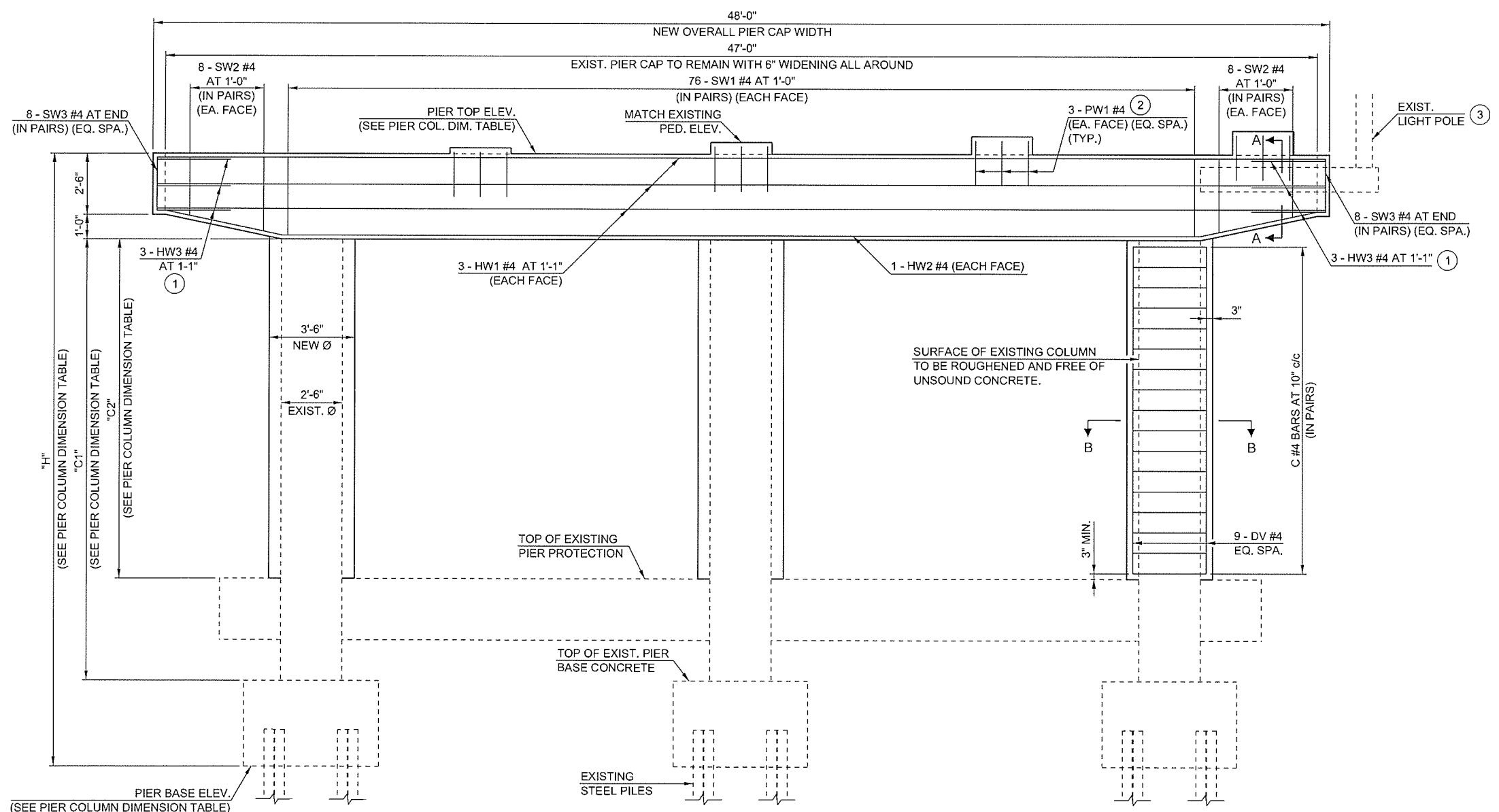
S.H. 74 OVER I-35 McCLAIN CO.

DESIGN	GDD	OKLAHOMA DEPARTMENT OF TRANSPORTATION PIER MODIFICATION DETAILS PIER NO. 1 AND PIER NO. 3 STATE JOB NO. 29572(04) SHEET NO. 13
DRAWN	ZTF	
CHECKED	JTK	
APPROVED		
SQUAD	MacArthur	

PRINT DATE: 7/15/2016 T:\1420\Drawings\Bridges\1420-pier01.dgn



PLAN



ELEVATION

- ① SPACED WITH HW1 #4 BARS
- ② PEDESTAL REINFORCING APPLIES TO BRIDGE "A" ONLY.
- ③ EXISTING LIGHTPOLE ON EACH BRIDGE SHALL BE REMOVED DURING ENCAPSULATION CONSTRUCTION AND REATTACHED UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR MODIFYING BRACKET FOR WIDENED PIER AS APPROVED BY THE ENGINEER. COST TO BE INCLUDED IN TRAFFIC PAY ITEM "(PL) REMOVE & RESET LIGHT POLE".

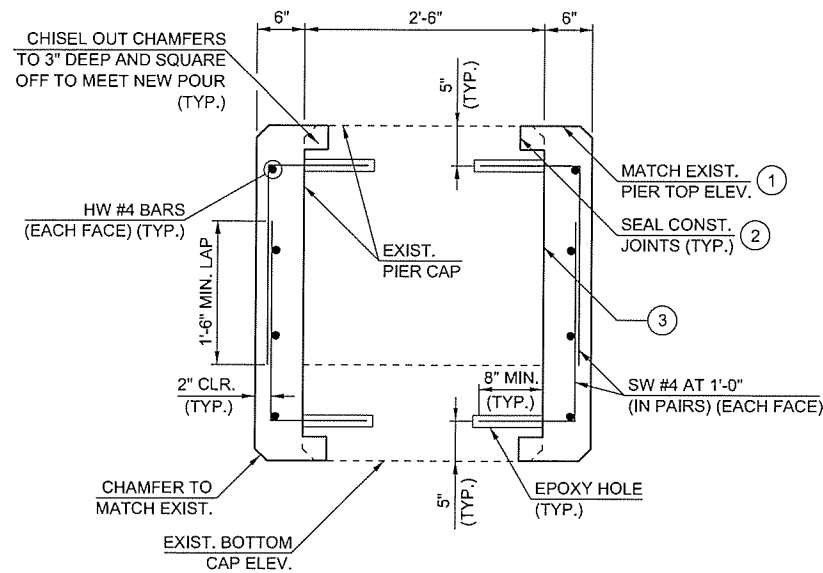
PIER COLUMN DIMENSION TABLE						
PIER	COL.	"H"	"C1"	"C2"	PR. TOP	PR. BASE
PIER NO. 2 - BRIDGE "A"	LT.	24'-0"	17'-0"	11'-0"	1114.98	1090.98
	CTR.	30'-0"	24'-0"	11'-0"	1114.98	1084.98
	RT.	26'-0"	20'-0"	11'-0"	1114.98	1088.98
PIER NO. 2 - BRIDGE "B"	LT.	24'-0"	18'-0"	12'-0"	1116.29	1092.29
	CTR.	24'-0"	18'-0"	12'-0"	1116.29	1092.29
	RT.	24'-0"	18'-0"	12'-0"	1116.29	1092.29

NOTE
 APPLY WATER REPELLENT TO NEW CONCRETE SURFACES ON PIER CAPS. FOR WATER REPELLENT DETAILS, SEE SHEET 15.
 FOR SECTION A-A, SECTION B-B, BAR BENDS AND BAR LISTS, SEE SHEET 15.

S.H. 74 OVER I-35 McCLAIN CO.

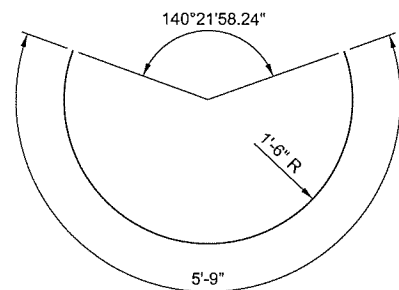
DESIGN	GDD	OKLAHOMA DEPARTMENT OF TRANSPORTATION PIER MODIFICATION DETAILS PIER NO. 2 STATE JOB NO. 29572(04) SHEET NO. 14
DRAWN	ZTF	
CHECKED	JTK	
APPROVED		
SQUAD	MacArthur	

PRINT DATE: 7/15/2016 T:\1420\Drawings\Bridges\1420-pier02.dgn

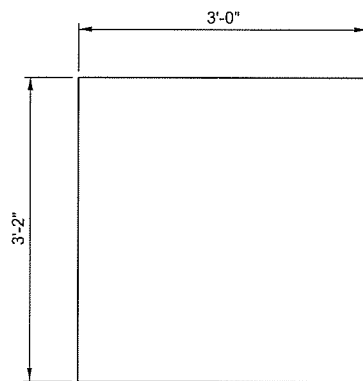


SECTION A-A

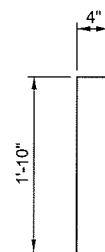
- ① AT PEDESTAL LOCATIONS, EXTEND ENCAPSULATION TO MATCH TOP OF EXISTING PEDESTAL
- ② SEAL CONSTRUCTION JOINT WITH HIGH MOLECULAR WEIGHT METHACRYLATE
- ③ PERFORM SUBSTRUCTURE REPAIRS BY SEALING CRACKS, REMOVE UNSOUND CONCRETE, THEN CHISEL OR SCARIFY FACE TO ROUGHEN EXISTING SURFACE



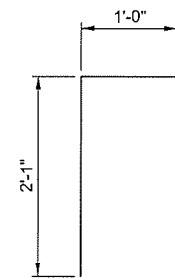
C #4 BARS x 5'-9"



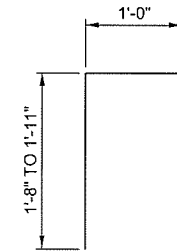
HW3 #4 X 9'-2"



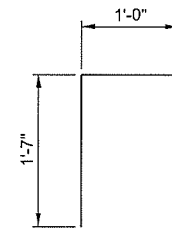
PW1 #4 X 4'-0"



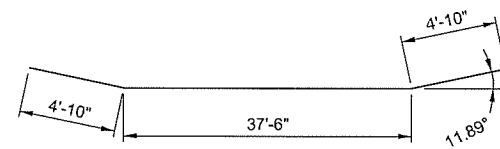
SW1 #4 X 3'-1"



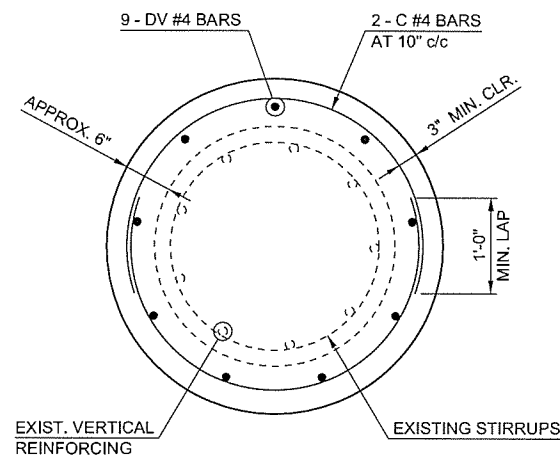
SW2 #4 X 2'-10" AVG.



SW3 #4 X 2'-7"



HW2 #4 X 47'-2"



SECTION B-B

PIER CAP ENCAPSULATION BAR LIST - BRIDGE "A"
(ONE SHOWN, 3 REQUIRED)

MARK	SIZE	FORM	NO.	LENGTH	LENTGH VARIATION
HW1	#4	STR.	6	47'-8"	
HW2	#4	BNT.	2	47'-2"	
HW3	#4	BNT.	6	9'-2"	
PW1	#4	BNT.	24	4'-0"	
SW1	#4	BNT.	152	3'-1"	
[1] SW2	#4	BNT.	32	2'-10" AVG.	2'-8" TO 2'-11"
SW3	#4	BNT.	32	2'-7"	

[1] INCLUDES 4 SETS OF 8 BARS

PIER COLUMN ENCAPSULATION BAR LIST - BRIDGE "A"

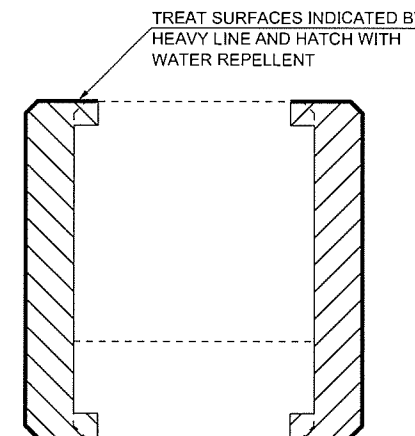
MARK	SIZE	FORM	NO.	LENGTH	LENTGH VARIATION
PIER NO. 1: LT., CTR., AND RT. COLUMNS (ONE SHOWN, THREE REQUIRED)					
C	#4	BNT.	44	5'-9"	
DV1	#4	STR.	9	18'-10"	
PIER NO. 2: LT., CTR., AND RT. COLUMNS (ONE SHOWN, THREE REQUIRED)					
C	#4	BNT.	28	5'-9"	
DV2	#4	STR.	9	10'-7"	
PIER NO. 3: LT. AND CTR. COLUMNS (ONE SHOWN, TWO REQUIRED)					
C	#4	BNT.	60	5'-9"	
DV3	#4	STR.	9	24'-10"	

PIER ENCAPSULATION QUANTITIES - BRIDGE "A"

DESCRIPTION	UNIT	TOTAL
UNCLASSIFIED EXCAVATION	CY	90.00
CLASS AA CONCRETE	CY	43.00
EPOXY COATED REINFORCING STEEL	LB	2,910.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	120.00
PREPARATION OF CRACKS, ABOVE WATER	LF	30.00
EPOXY RESIN, ABOVE WATER	GAL	3.00
[2] (PL) REPAIR BRIDGE ITEM (TYPE A)	EA	5.00

[2] FOR REPAIR DETAILS, SEE SHEET 12

NOTE
PAY QUANTITY ITEMS FOR PIER PROTECTION SYSTEM NOT INCLUDED.



WATER REPELLENT TREATMENT DETAIL

PIER CAP ENCAPSULATION BAR LIST - BRIDGE "B"
(ONE SHOWN, 3 REQUIRED)

MARK	SIZE	FORM	NO.	LENGTH	LENTGH VARIATION
HW1	#4	STR.	6	47'-8"	
HW2	#4	BNT.	2	47'-2"	
HW3	#4	BNT.	6	9'-2"	
SW1	#4	BNT.	152	3'-1"	
[1] SW2	#4	BNT.	32	2'-10" AVG.	2'-8" TO 2'-11"
SW3	#4	BNT.	32	2'-7"	

[1] INCLUDES 4 SETS OF 8 BARS

PIER COLUMN ENCAPSULATION BAR LIST - BRIDGE "B"

MARK	SIZE	FORM	NO.	LENGTH	LENTGH VARIATION
PIER NO. 1: LT. COLUMN (ONE SHOWN, ONE REQUIRED)					
C	#4	BNT.	56	5'-9"	
DV4	#4	STR.	9	23'-10"	
PIER NO. 1: CTR. AND RT. COLUMNS (ONE SHOWN, TWO REQUIRED)					
C	#4	BNT.	52	5'-9"	
DV5	#4	STR.	9	21'-10"	
PIER NO. 2: LT., CTR. AND RT. COLUMNS (ONE SHOWN, THREE REQUIRED)					
C	#4	BNT.	30	5'-9"	
DV6	#4	STR.	9	11'-7"	
PIER NO. 3: LT., CTR. AND RT. COLUMNS (ONE SHOWN, THREE REQUIRED)					
C	#4	BNT.	38	5'-9"	
DV7	#4	STR.	9	16'-10"	

PIER ENCAPSULATION QUANTITIES - BRIDGE "B"

DESCRIPTION	UNIT	TOTAL
UNCLASSIFIED EXCAVATION	CY	100.00
CLASS AA CONCRETE	CY	44.80
EPOXY COATED REINFORCING STEEL	LB	3,040.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	120.00
PREPARATION OF CRACKS, ABOVE WATER	LF	30.00
EPOXY RESIN, ABOVE WATER	GAL	3.00
[2] (PL) REPAIR BRIDGE ITEM (TYPE A)	EA	5.00

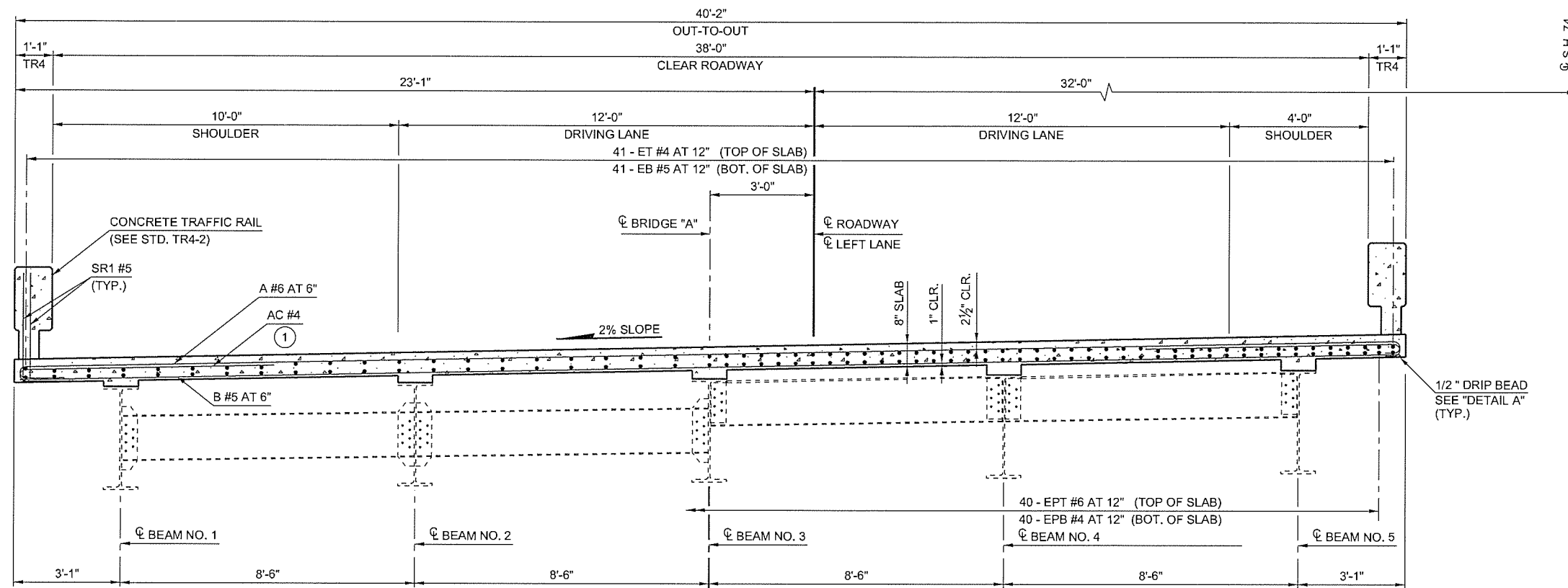
[2] FOR REPAIR DETAILS, SEE SHEET 12

NOTE
PAY QUANTITY ITEMS FOR PIER PROTECTION SYSTEM NOT INCLUDED.

S.H. 74 OVER I-35

McCLAIN CO.

DESIGN	GDD		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN	ZTF		
CHECKED	JTK		
APPROVED			
SQUAD	MacArthur		
PIER MODIFICATION DETAILS			
STATE JOB NO. 29572(04)			SHEET NO. 15

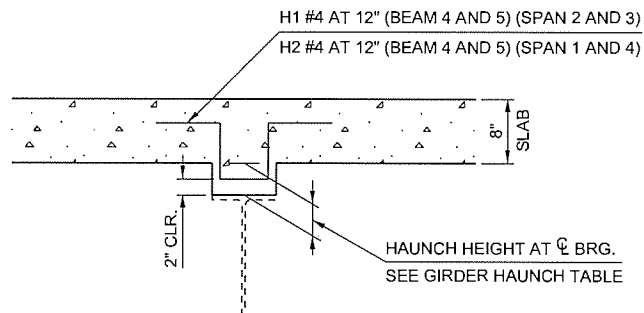


HALF SECTION AT MIDSPAN

HALF SECTION AT PIER NO. 2

TYPICAL CROSS SECTION

① ONE EQUALLY SPACED BETWEEN A #6 BARS

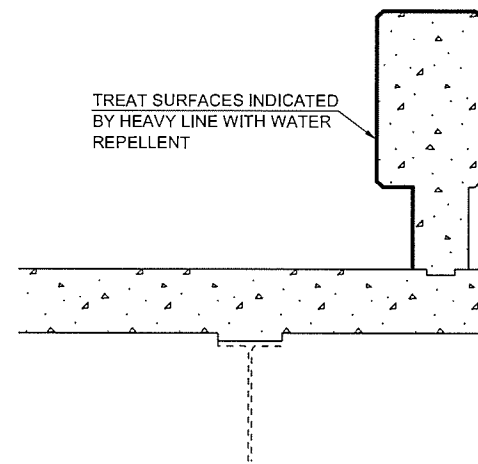


GIRDER HAUNCH DETAIL

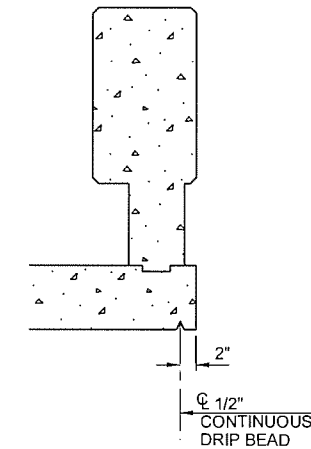
NOTE
 HAUNCH HEIGHT SHOWN IS AT CENTERLINE BEARING ONLY AND VARIES ACROSS THE SPAN. HAUNCH HEIGHT TO BE DETERMINED AFTER REMOVAL OF EXISTING SLAB TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT, BUT THE PAY QUANTITY WILL BE AS SHOWN ON THE PLANS.

COVER PLATE AT PIER NO. 3 EMBEDDED IN HAUNCH.

GIRDER HAUNCH TABLE - BRIDGE "A"					
LOCATION	BEAM LINE NUMBER				
	1	2	3	4	5
ABUTMENT NO. 1	2 1/8"	2 9/16"	3"	3 1/2"	3 11/16"
PIER NO. 1 (BACK)	2 7/8"	3 5/16"	3 3/4"	4 1/4"	4 5/16"
PIER NO. 1 (FORWARD)	2 3/4"	3 1/4"	3 5/8"	4 1/8"	4 9/16"
PIER NO. 2	2"	2 7/16"	2 13/16"	3 5/16"	3 3/4"
PIER NO. 3 (BACK)	2 1/4"	2 11/16"	3 1/8"	3 5/8"	4"
PIER NO. 3 (FORWARD)	2 1/4"	2 3/4"	3 1/8"	3 5/8"	4"
ABUTMENT NO. 2	2"	2 7/16"	2 7/8"	3 3/8"	3 3/4"



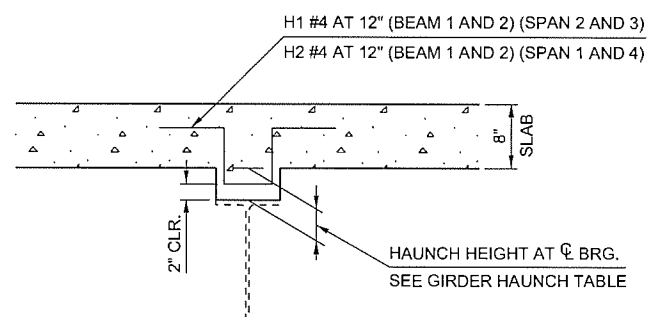
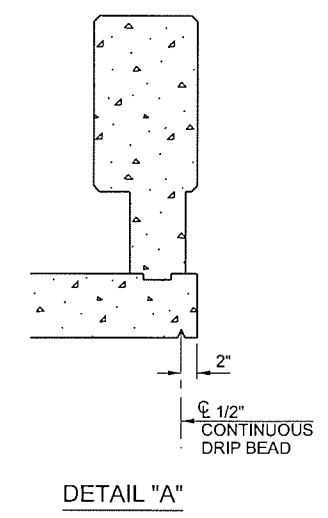
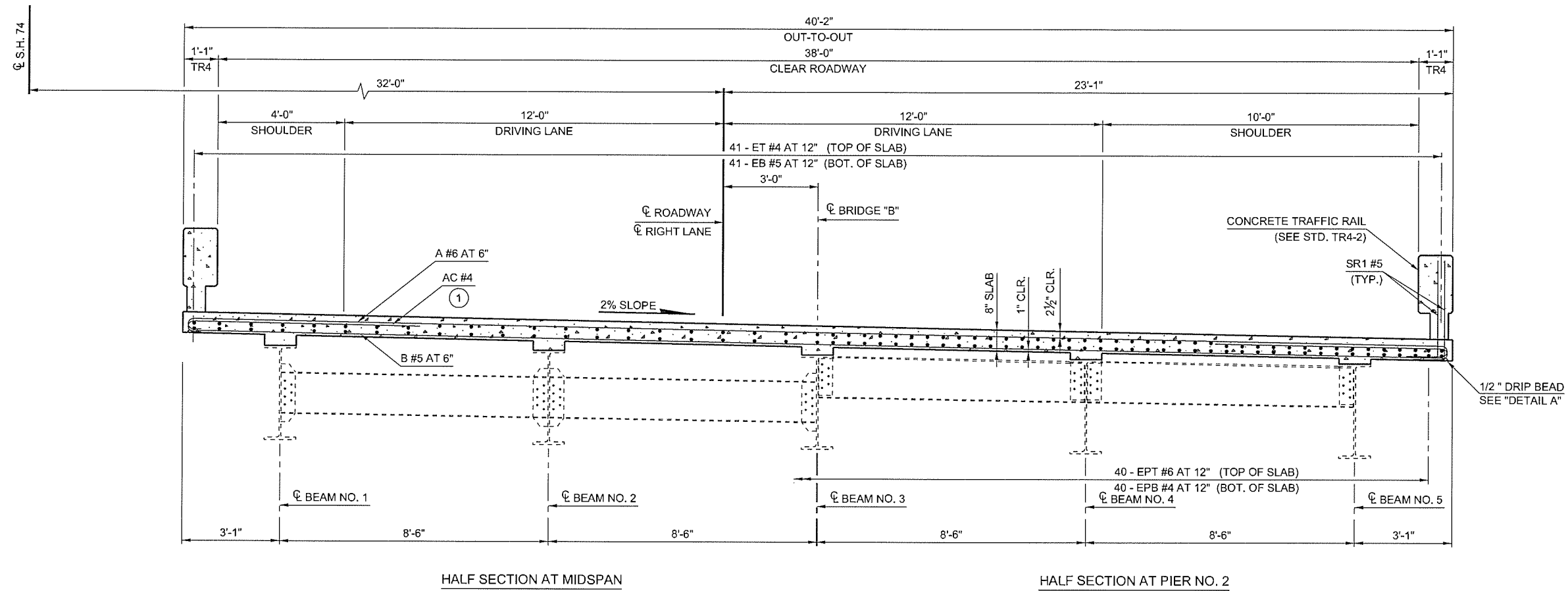
WATER REPELLENT SURFACE TREATMENT



DETAIL "A"

SUPERSTRUCTURE QUANTITIES - BRIDGE "A"		
DESCRIPTION	UNIT	TOTAL
SAW-CUT GROOVING	SY	975.00
SEALED EXPANSION JOINT	LF	98.60
CONCRETE RAIL (TR4)	LF	461.50
STRUCTURAL STEEL	LB	5,310.00
CLASS AA CONCRETE	CY	246.00
EPOXY COATED REINFORCING STEEL	LB	80,820.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	215.00
SEALER CRACK PREPARATION	LF	99.60
SEALER RESIN	GAL	2.00
(PL) REPAIR BRIDGE ITEM (TYPE B)	EA	20.00
(PL) REPLACE BRIDGE ITEM (TYPE A)	EA	4.00

DESIGN	GDD	OKLAHOMA DEPARTMENT OF TRANSPORTATION TYPICAL CROSS SECTION - BRIDGE "A" STATE JOB NO. 29572(04) SHEET NO. 16
DRAWN	ZTF	
CHECKED	JTK	
APPROVED		
SQUAD	MacArthur	

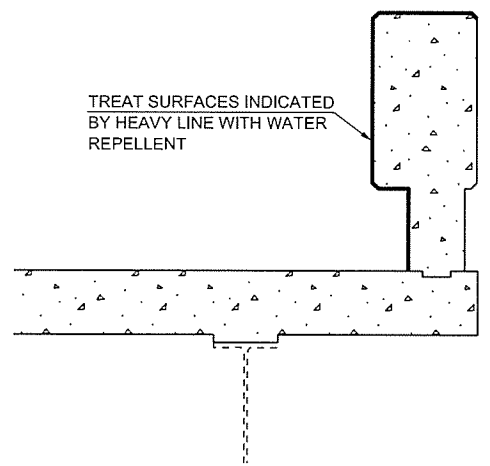


GIRDER HAUNCH DETAIL

NOTE
 HAUNCH HEIGHT SHOWN IS AT CENTERLINE BEARING ONLY AND VARIES ACROSS THE SPAN. HAUNCH HEIGHT TO BE DETERMINED AFTER REMOVAL OF EXISTING SLAB TO PROVIDE FOR DEAD LOAD DEFLECTION AND GRADE ADJUSTMENT, BUT THE PAY QUANTITY WILL BE AS SHOWN ON THE PLANS.

COVER PLATE AT PIER NO. 3 EMBEDDED IN HAUNCH.

GIRDER HAUNCH TABLE - BRIDGE "B"					
LOCATION	BEAM LINE NUMBER				
	1	2	3	4	5
ABUTMENT NO. 1	4 3/16"	3 3/4"	3 5/16"	2 13/16"	2 3/16"
PIER NO. 1 (BACK)	4 1/2"	4"	3 9/16"	3 1/8"	2 5/8"
PIER NO. 1 (FORWARD)	4 3/8"	3 13/16"	3 1/2"	3"	2 9/16"
PIER NO. 2	4 1/16"	3 9/16"	3 3/16"	2 11/16"	2 1/4"
PIER NO. 3 (BACK)	4 5/16"	3 13/16"	3 7/16"	2 15/16"	2 1/2"
PIER NO. 3 (FORWARD)	4 3/8"	3 7/8"	3 7/16"	3"	2 9/16"
ABUTMENT NO. 2	4 1/16"	3 5/8"	3 3/16"	2 11/16"	2 1/4"



WATER REPELLENT SURFACE TREATMENT

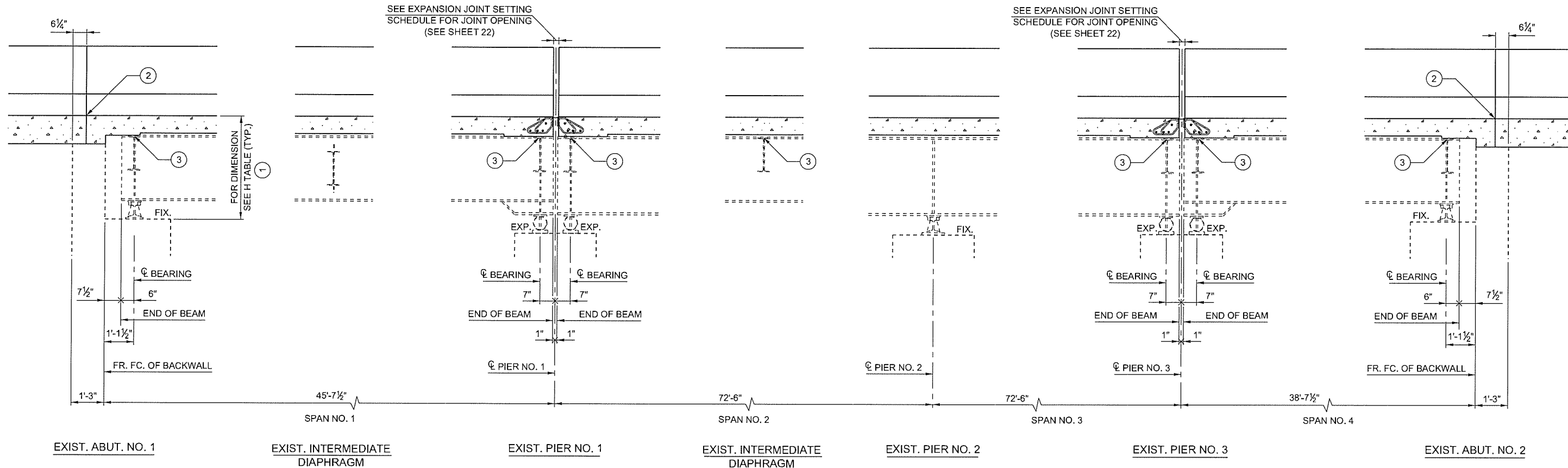
① ONE EQUALLY SPACED BETWEEN A #6 BARS

SUPERSTRUCTURE QUANTITIES - BRIDGE "B"		
DESCRIPTION	UNIT	TOTAL
SAW-CUT GROOVING	SY	975.00
SEALED EXPANSION JOINT	LF	98.60
CONCRETE RAIL (TR4)	LF	461.50
STRUCTURAL STEEL	LB	5,310.00
CLASS AA CONCRETE	CY	246.60
EPOXY COATED REINFORCING STEEL	LB	80,820.00
WATER REPELLENT (VISUALLY INSPECTED)	SY	215.00
SEALER CRACK PREPARATION	LF	99.60
SEALER RESIN	GAL	2.00
(PL) REPAIR BRIDGE ITEM (TYPE B)	EA	20.00
(PL) REPLACE BRIDGE ITEM (TYPE A)	EA	8.00

S.H. 74 OVER I-35 McCLAIN CO.

DESIGN	GDD	OKLAHOMA DEPARTMENT OF TRANSPORTATION TYPICAL CROSS SECTION - BRIDGE "B"
DRAWN	ZTF	
CHECKED	JTK	
APPROVED		
SQUAD	MacArthur	STATE JOB NO. 29572(04) SHEET NO. 17

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LONGITUDINAL SECTION

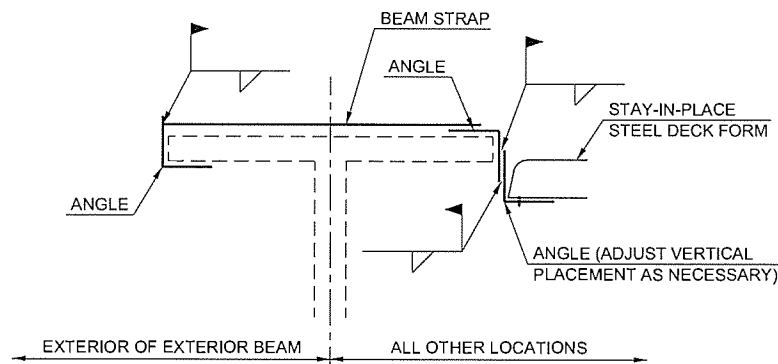
- ① DIMENSION IS FROM TOP OF DECK SLAB TO BOTTOM OF BEARING ASSEMBLY AT ϕ BEARING AT ABUTMENTS AND PIERS.
- ② SAWED AND SEALED CONSTRUCTION JOINT.
- ③ CLEAN AND PAINT THE TOP AND SIDES OF THE TOP FLANGE OF ALL DIAPHRAGMS IN CONTACT WITH THE EXISTING DECK. SEE SHEET 20 FOR ADDITIONAL DETAILS.

STAY-IN-PLACE DECK FORM NOTES

THE CONTRACTOR MAY USE STAY-IN-PLACE STEEL DECK FORMS IF THE MINIMUM DECK SLAB THICKNESS OF 8" IS OBTAINED BY MEASURING FROM THE TOP OF THE DECK SLAB TO THE TOP PORTION OF THE STEEL CORRUGATION. PERFORMED CORRUGATION FILLER, COMPOSED OF POLYSTYRENE OR OTHER MATERIAL, MAY BE USED IF BONDED TO THE DECK FORMS. NO ADDITIONAL CONCRETE WEIGHT OF THE DECK SLAB IS PERMITTED. THE TOTAL ADDITIONAL WEIGHT OF THE DECK FORM AND FILLER SHALL NOT EXCEED 5 P.S.F. THE DEPARTMENT CONSIDERS ALL COSTS OF STAY-IN-PLACE STEEL DECK FORMS TO BE INCLUDED IN THE UNIT PRICE OF CLASS AA CONCRETE.

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

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



STAY-IN-PLACE STEEL DECK FORM FLANGE CONNECTION DETAIL

DO NOT WELD TO THE TOP FLANGE OR STUDS. REPORT ANY ARC STRIKE, WELD SPLATTER OR WELDING ON TOP FLANGE TO BRIDGE ENGINEER IMMEDIATELY.

H-DIMENSION - BRIDGE "A"

LOCATION	BEAM LINE NUMBER				
	1	2	3	4	5
ABUTMENT NO. 1	4'-0 9/16"	4'-1"	4'-17/16"	4'-17/8"	4'-2 5/16"
PIER NO. 1	4'-7 7/16"	4'-7 7/8"	4'-8 5/16"	4'-8 3/4"	4'-9 3/16"
PIER NO. 2	4'-7 3/4"	4'-8 1/4"	4'-8 5/8"	4'-9 1/8"	4'-9 9/16"
PIER NO. 3	4'-6 5/8"	4'-7 1/8"	4'-7 1/2"	4'-8"	4'-8 7/16"
ABUTMENT NO. 2	4'-0 5/16"	4'-0 13/16"	4'-13/16"	4'-1 11/16"	4'-2 1/16"

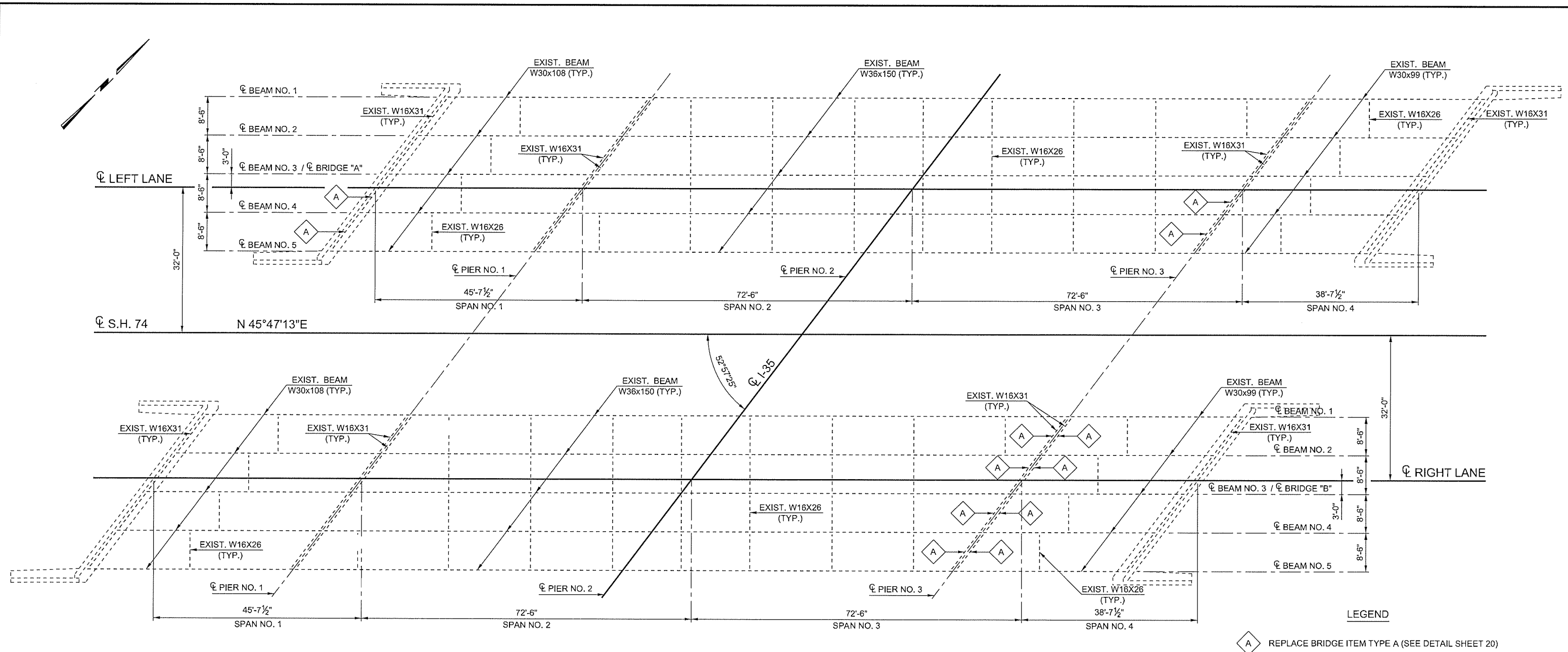
H-DIMENSION - BRIDGE "B"

LOCATION	BEAM LINE NUMBER				
	1	2	3	4	5
ABUTMENT NO. 1	4'-2 5/8"	4'-2 1/8"	4'-13/4"	4'-1 1/4"	4'-0 13/16"
PIER NO. 1	4'-9 1/16"	4'-8 9/16"	4'-8 1/8"	4'-7 5/8"	4'-7 1/4"
PIER NO. 2	4'-9 13/16"	4'-9 3/8"	4'-8 15/16"	4'-8 7/16"	4'-8 1/16"
PIER NO. 3	4'-8 3/4"	4'-8 1/4"	4'-7 13/16"	4'-7 3/8"	4'-6 15/16"
ABUTMENT NO. 2	4'-2 3/8"	4'-1 15/16"	4'-1 1/2"	4'-1"	4'-0 5/8"

S.H. 74 OVER I-35

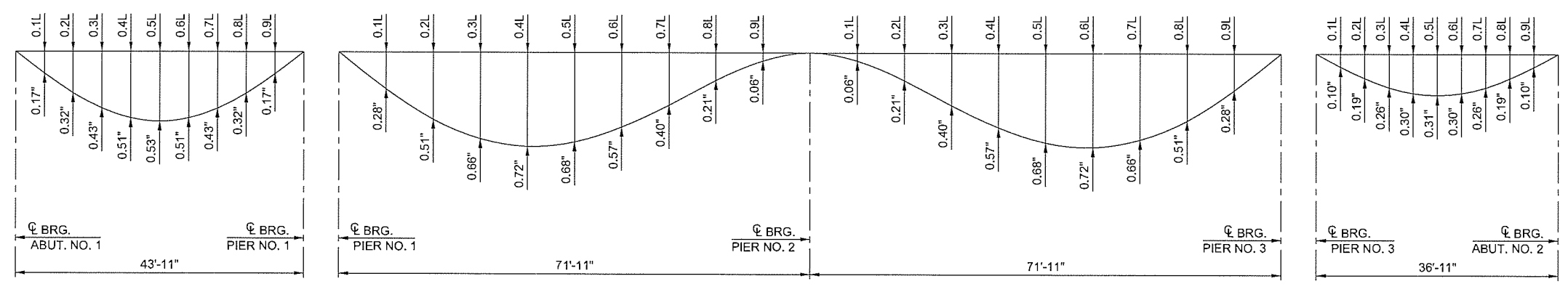
McCLAIN CO.

DESIGN	GDD		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN	ZTF		
CHECKED	JTK		
APPROVED			
SQUAD	MacArthur		
LONGITUDINAL SECTION			
STATE JOB NO. 29572(04)			SHEET NO. 18



LEGEND
 A REPLACE BRIDGE ITEM TYPE A (SEE DETAIL SHEET 20)

BEAM FRAMING REPAIR PLAN



DEAD LOAD DEFLECTION DIAGRAM

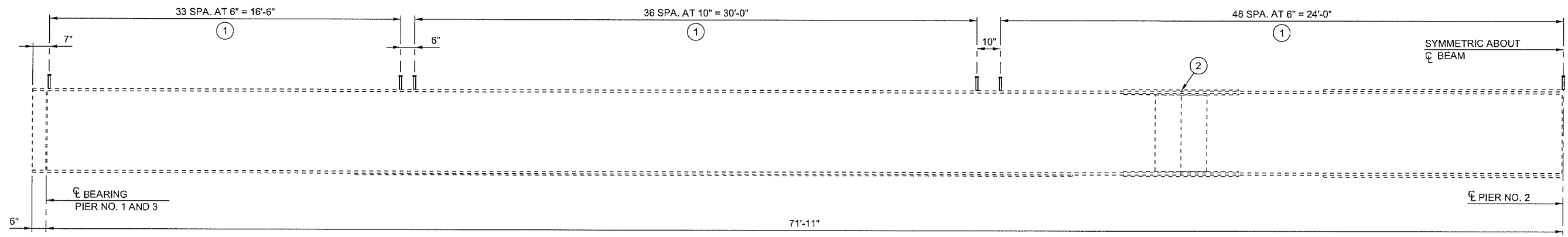
THE DEAD LOAD DEFLECTION SHOWN AT THE TENTH POINTS ARE DEFLECTIONS DUE TO DECK SLAB + HAUNCH + CONCRETE TRAFFIC RAIL. DOES NOT INCLUDE THE GIRDER WEIGHT OR WEIGHT OF THE DIAPHRAGMS.

S.H. 74 OVER I-35

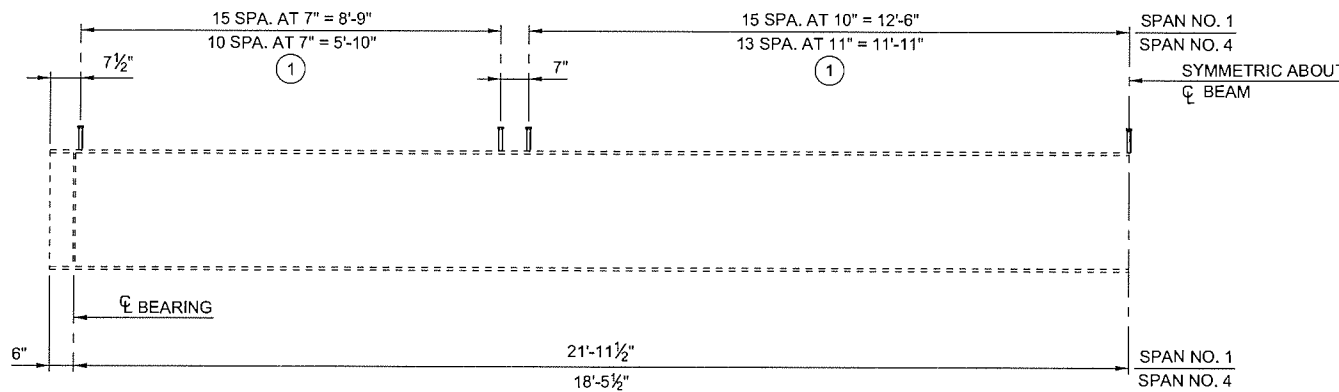
McCLAIN CO.

DESIGN	GDD		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN	ZTF		
CHECKED	JTK		
APPROVED			
SQUAD	MacArthur		
BEAM FRAMING REPAIR PLAN			
			STATE JOB NO. 29572(04) SHEET NO. 19

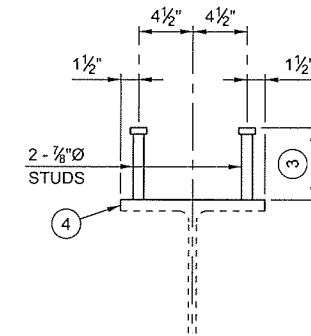
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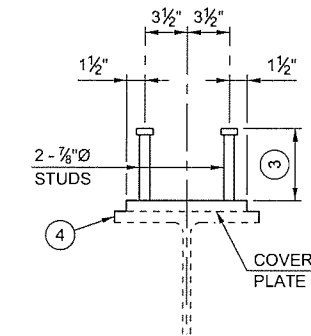
SHEAR STUD LAYOUT - W36X150
(SPAN NO. 2 AND 3)



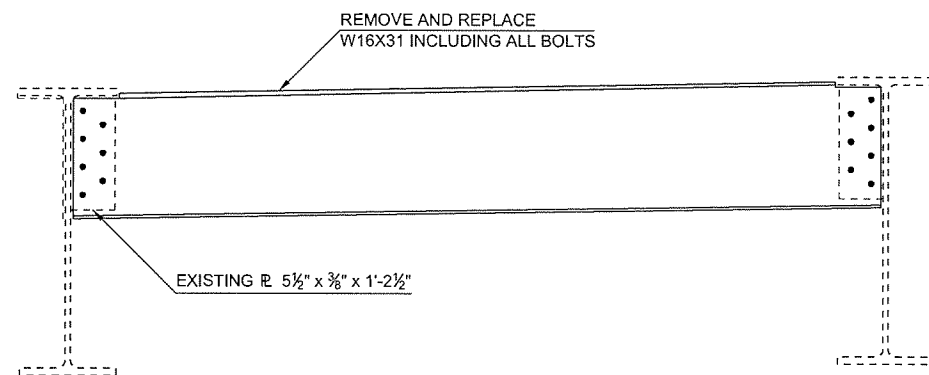
SHEAR STUD LAYOUT - W30X108 AND W30X99



SHEAR CONNECTOR DETAILS
(W36X150)



SHEAR CONNECTOR DETAILS
(W30X108 AND W30X99)



END DIAPHRAGM REPLACEMENT DETAIL
REPLACE BRIDGE ITEM, TYPE A

BRIDGE REPAIR NOTES

GENERAL NOTES

ALL SUPERSTRUCTURE REPAIRS, AS NOTED BELOW, SHALL BE MADE AFTER REMOVAL OF EXISTING BRIDGE DECK AND PRIOR TO PLACEMENT OF NEW BRIDGE DECK.

REPLACE BRIDGE ITEM (TYPE A): END DIAPHRAGM

REMOVE AND REPLACE PORTION OF END DIAPHRAGM AS DETAILED ON THIS SHEET. REMOVE AND REPLACE BOLTS, WASHERS AND NUTS IN-KIND TO ATTACH NEW W16X31. BOLT SPACING DETAILED IS ESTIMATED, CONTRACTOR SHALL FIELD VERIFY. EXISTING SURFACE IN CONTACT WITH THE DIAPHRAGM SHALL BE CLEANED OF RUST AND PAINT.

REPLACE BRIDGE ITEM (TYPE B): EXPANSION ROLLER BEARING RESETTING

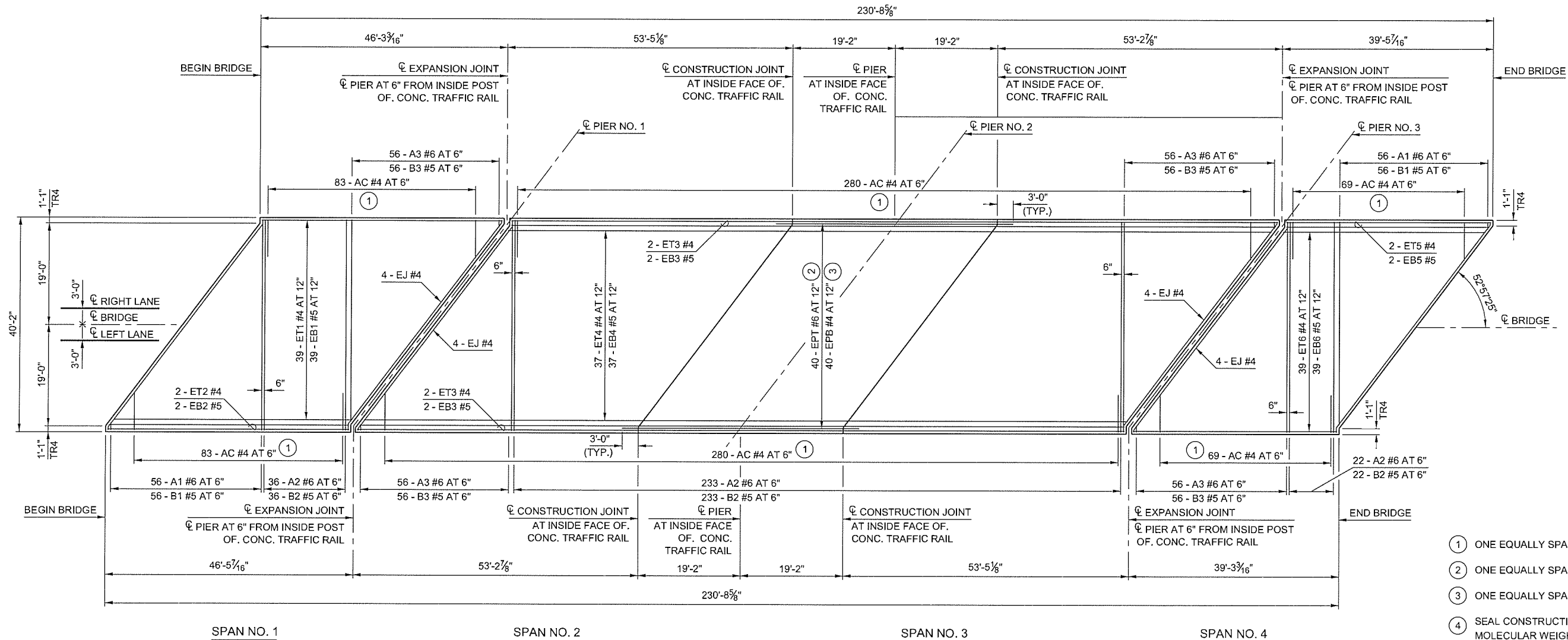
RESET EXPANSION ROLLER BEARINGS TO A VERTICAL POSITION. USE FALSEWORK AS REQUIRED, AND IF GIRDER BEARING STIFFENER IS MORE THAN 2" OUT OF ALIGNMENT WITH VERTICAL PLATE IN ROLLER, AN ADDITIONAL BEARING STIFFENER OF LIKE SIZE SHALL BE WELDED TO THE GIRDER. EXPANSION ROLLER RESETTING TO BE PAID FOR UNDER "REPAIR BRIDGE ITEM (TYPE B)".

- ① ALL BEAMS SHALL HAVE CONNECTORS ADDED AS SHOWN. ADJUST SPACING AS REQUIRED TO CLEAR EXISTING SHEAR CONNECTORS IF PRESENT. STUD WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1, AND COST TO BE INCLUDED IN PAY ITEM "STRUCTURAL STEEL."
- ② ADJUST SPACING OF STUDS EITHER SIDE OF SPLICE PLATE LOCATIONS. MINIMUM LONGITUDINAL SPACING OF SHEAR CONNECTORS IS 6".
- ③ 6 5/8" (BRIDGE "A": BEAM 1, 2, AND 3. BRIDGE "B": BEAM 3, 4, AND 5.)
7 7/8" (BRIDGE "A": BEAM 4 AND 5. BRIDGE "B": BEAM 1 AND 2.)
- ④ THE TOP AND SIDES OF THE TOP FLANGE OF ALL BEAMS SHALL BE CLEANED AND PAINTED IN ACCORDANCE WITH SECTION 512 OF THE STANDARD SPECIFICATIONS WITH A CATEGORY "E" APPLICATION. SSPC-QP-2 CERTIFICATION WILL NOT BE REQUIRED. THE CONTRACTOR NEED ONLY APPLY THE FIRST COAT OR PRIME COAT TO THE TOP FLANGE OF ALL BEAMS. CLEANING OF THE BEAMS SHALL TAKE PLACE PRIOR TO THE WELDING OF THE NEW SHEAR CONNECTORS; PAINTING SHALL TAKE PLACE AFTER THE WELDING OF THE NEW SHEAR CONNECTORS. THE COLOR OF PAINT MUST MATCH THE COLOR OF PAINT ON THE EXISTING BEAMS. COST INCLUDED IN PAY ITEM "PAINTING EXISTING STRUCTURE."

S.H. 74 OVER I-35

McCLAIN CO.

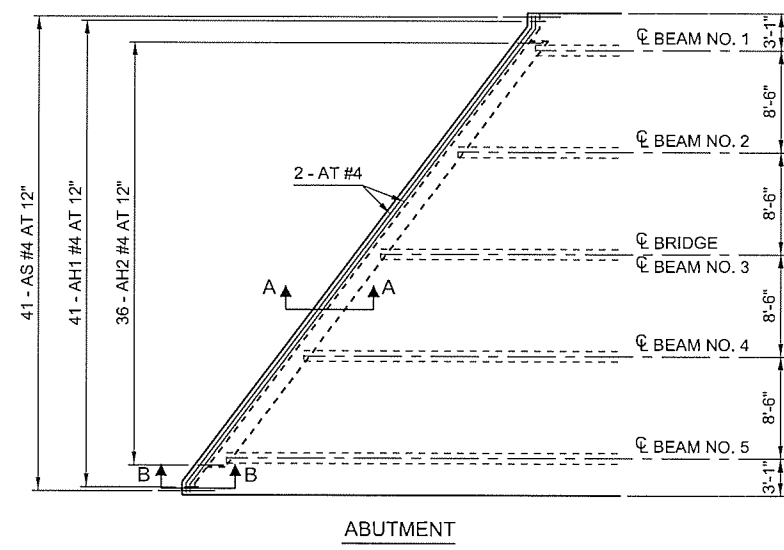
DESIGN	GDD		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN	EMH		
CHECKED	JTK		
APPROVED			
SQUAD	MacArthur		
BEAM REPAIR DETAILS			
			STATE JOB NO. 29572(04) SHEET NO. 20



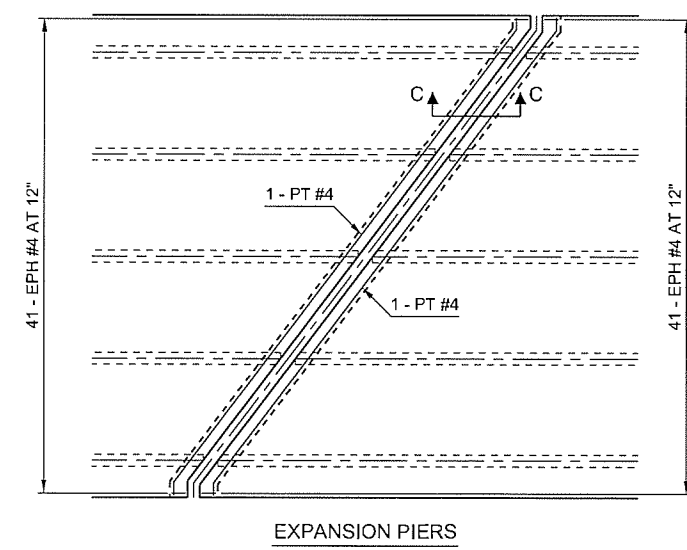
- ① ONE EQUALLY SPACED BETWEEN A #6 BARS
- ② ONE EQUALLY SPACED BETWEEN ET #4 BARS
- ③ ONE EQUALLY SPACED BETWEEN EB #5 BARS
- ④ SEAL CONSTRUCTION JOINT WITH HIGH MOLECULAR WEIGHT METHACRYLATE

SLAB REINFORCING PLAN

TRAFFIC RAIL IS NOT SHOWN FOR CLARITY. FOR TRAFFIC RAIL REINFORCING IN SLAB SEE STD. TR4-2-00E

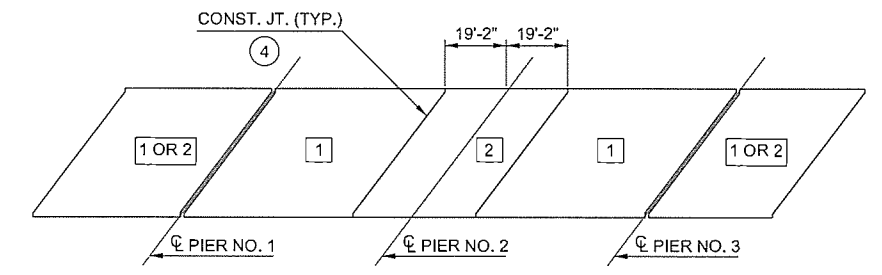


ABUTMENT



EXPANSION PIERS

DIAPHRAGM REINFORCING PLAN
FOR SECTIONS A-A, B-B AND C-C, SEE SHEET 22.



DECK SLAB POURING SEQUENCE DIAGRAM

NOTE

THE DECK SLAB IS DIVIDED INTO SECTIONS BETWEEN CONSTRUCTION JOINTS AS SHOWN. THE CONCRETE SHALL BE POURED IN EACH SECTION OF THE DECK SLAB IN THE NUMERICAL SEQUENCE INDICATED. SECTIONS OF THE DECK SLAB WITH THE SAME NUMBER MAY BE POURED IN ANY ORDER. UNDER NO CIRCUMSTANCES WILL SECTION IN SEQUENCE 2 BE POURED BEFORE THE ADJACENT SECTIONS HAVE BEEN IN PLACE FOR AT LEAST 48 HOURS.

PRINT DATE: 7/15/2016 T:\1420\Drawings\Bridges\1420-slab01.dgn

S.H. 74 OVER I-35

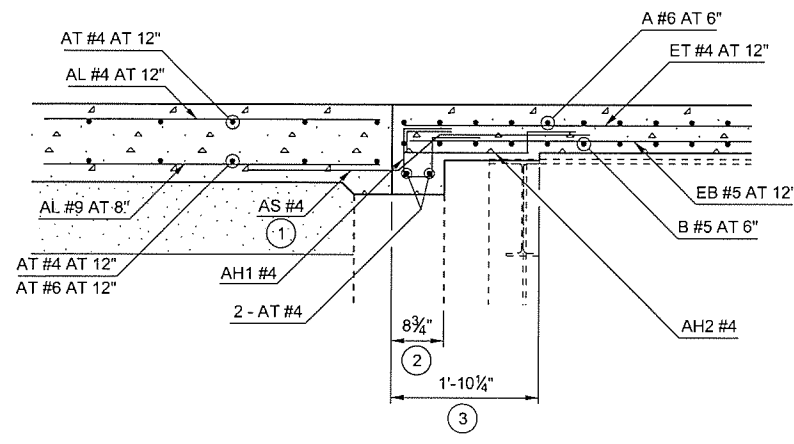
McCLAIN CO.

DESIGN	GDD
DRAWN	ZTF
CHECKED	JTK
APPROVED	
SQUAD	MacArthur

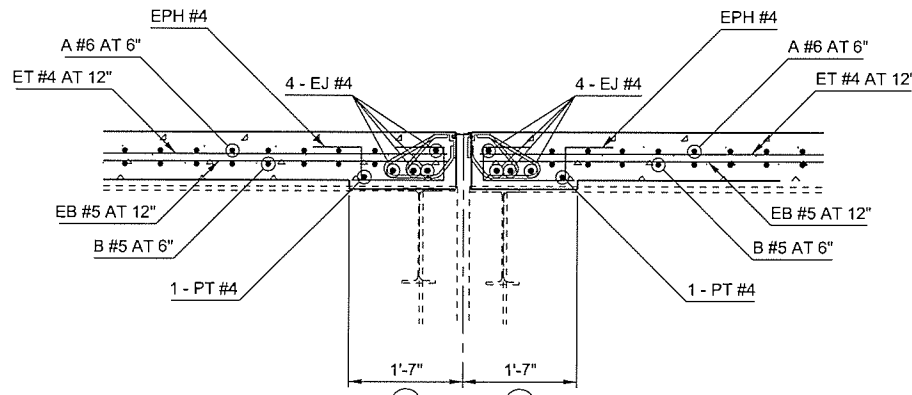
OKLAHOMA DEPARTMENT OF TRANSPORTATION

SLAB REINFORCING PLAN

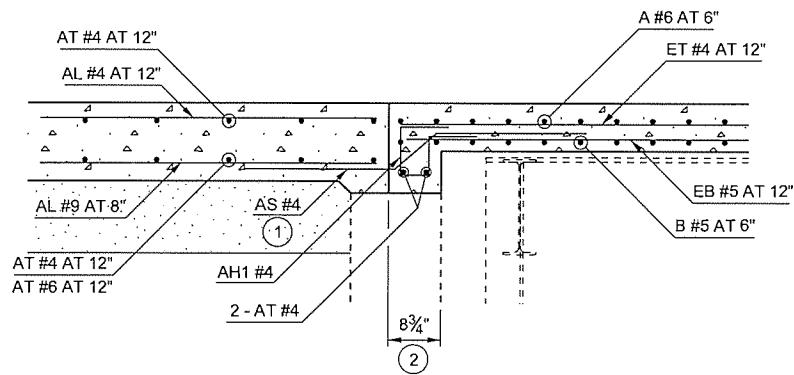
STATE JOB NO. 29572(04) SHEET NO. 21



SECTION A-A

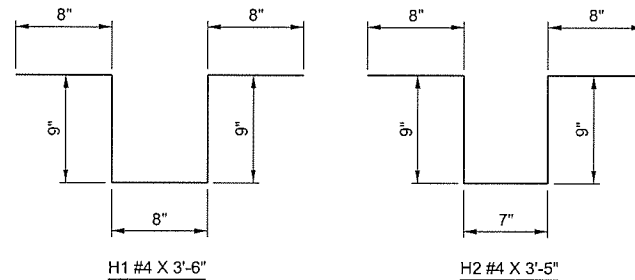


SECTION C-C



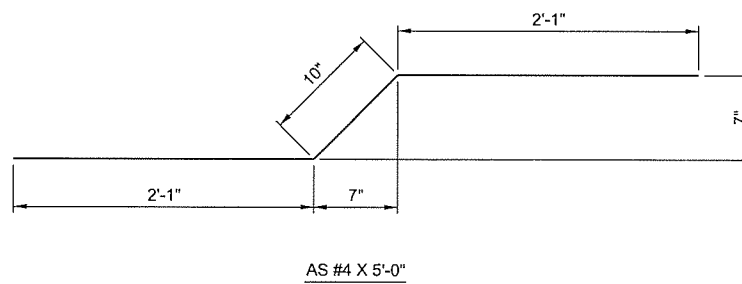
SECTION B-B

- ① AS BARS SHALL BE TIED TO THE TOP LAYER OF REINFORCING STEEL IN THE DECK SLAB AND TO THE BOTTOM LAYER REINFORCING STEEL IN THE APPROACH SLAB.
- ② DIMENSION IS 7" PERPEDICULAR TO FR. FC. OF BACKWALL
- ③ DIMENSION IS 1'-5 3/4" PERPEDICULAR TO FR. FC. OF BACKWALL
- ④ DIMENSION IS 1'-3 3/8" PERPEDICULAR TO C OF PIER

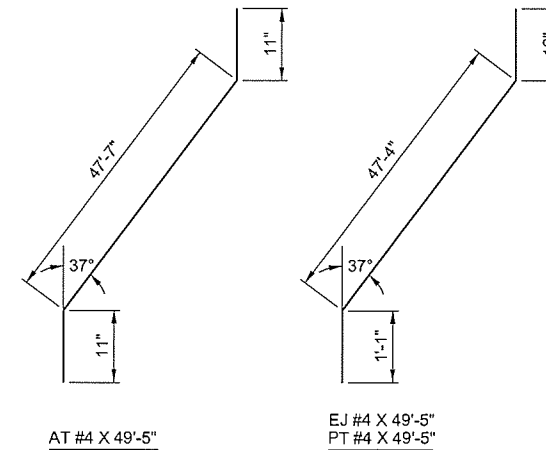


H1 #4 X 3'-6"

H2 #4 X 3'-5"

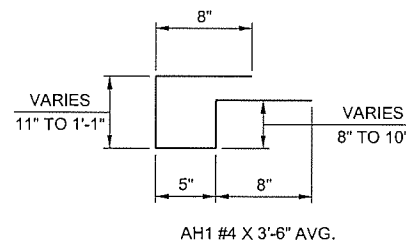


AS #4 X 5'-0"

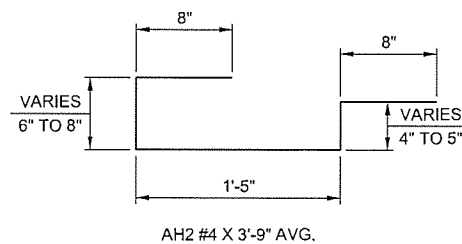


AT #4 X 49'-5"

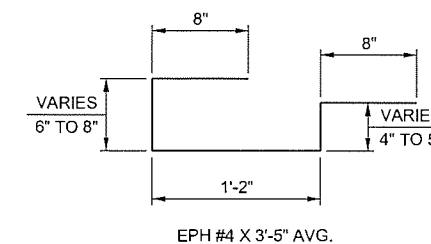
EJ #4 X 49'-5"
PT #4 X 49'-5"



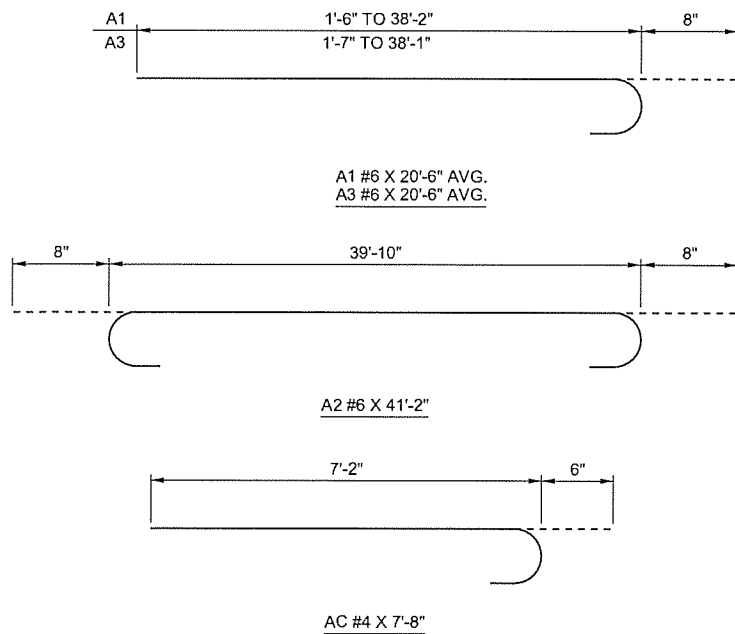
AH1 #4 X 3'-6" AVG.



AH2 #4 X 3'-9" AVG.



EPH #4 X 3'-5" AVG.



A1 #6 X 20'-6" AVG.
A3 #6 X 20'-6" AVG.

A2 #6 X 41'-2"

AC #4 X 7'-8"

SUPERSTRUCTURE BAR LIST - BRIDGE "A"						
BRIDGE "B" IDENTICAL						
(EPOXY COATED REINFORCED BARS)						
MARK	SIZE	FORM	NO.	LENGTH	LENTGH VARIATION	
[1]	A1	#6	BNT.	112	20'-6" AVG.	2'-2" TO 38'-10"
	A2	#6	BNT.	291	41'-2"	
[2]	A3	#6	BNT.	224	20'-6" AVG.	2'-3" TO 38'-9"
	AC	#4	BNT.	864	7'-8"	
[3]	AH1	#4	BNT.	82	3'-6" AVG.	3'-4" TO 3'-8"
[4]	AH2	#4	BNT.	72	3'-9" AVG.	3'-7" TO 3'-10"
	AS	#4	BNT.	82	5'-0"	
	AT	#4	BNT.	4	49'-5"	
[1]	B1	#5	STR.	112	19'-10" AVG.	1'-6" TO 38'-2"
	B2	#5	STR.	291	39'-10"	
[2]	B3	#5	STR.	224	19'-10" AVG.	1'-7" TO 38'-1"
	EB1	#5	STR.	39	45'-10"	
	EB2	#5	STR.	2	46'-0"	
[6]	EB3	#5	STR.	4	149'-8"	
[6]	EB4	#5	STR.	37	149'-7"	
	EB5	#5	STR.	2	39'-0"	
	EB6	#5	STR.	39	38'-10"	
	EPB	#4	STR.	40	44'-4"	
	EJ	#4	BNT.	16	49'-5"	
[5]	EPH	#4	BNT.	164	3'-5" AVG.	3'-4" TO 3'-7"
	EPT	#6	STR.	40	44'-4"	
	ET1	#4	STR.	39	45'-10"	
	ET2	#4	STR.	2	46'-0"	
[7]	ET3	#4	STR.	4	147'-10"	
[7]	ET4	#4	STR.	37	147'-9"	
	ET5	#4	STR.	2	39'-0"	
	ET6	#4	STR.	39	38'-10"	
	H1	#4	BNT.	292	3'-6"	
	H2	#4	BNT.	164	3'-5"	
	PT	#4	BNT.	4	49'-5"	
[8]	SR1	#5	BNT.	1,388	4'-1"	

- [1] INCLUDES 2 SETS OF 56 BARS
- [2] INCLUDES 4 SETS OF 56 BARS
- [3] INCLUDES 2 SETS OF 41 BARS
- [4] INCLUDES 2 SETS OF 36 BARS

- [5] INCLUDES 4 SETS OF 41 BARS
- [6] INCLUDES 2 - 2'-7" MINIMUM LAP
- [7] INCLUDES 2 - 1'-8" MINIMUM LAP
- [8] FOR BAR BEND, SEE STD. TR4-2

EXPANSION JOINT SETTING SCHEDULE - BRIDGE "A"		
BRIDGE "B" IDENTICAL		
EXP. JOINT OPENING	TEMPERATURE °F	
	PIER NO. 1	PIER NO. 3
15/8"	111	115
13/4"	94	96
17/8"	77	78
2"	60	60
2 1/8"	43	42
2 1/4"	26	24
2 3/8"	9	5

S.H. 74 OVER I-35

McCLAIN CO.

DESIGN	GDD
DRAWN	ZTF
CHECKED	JTK
APPROVED	
SQUAD	MacArthur

OKLAHOMA DEPARTMENT OF TRANSPORTATION

SLAB REINFORCING DETAILS

STATE JOB NO. 29572(04) SHEET NO. 22

BRACING NOTES

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, DRAWINGS OF THE BRACING SYSTEM TO BE USED. BRACING SYSTEM SHALL BE APPROVED BY THE ENGINEER BEFORE ANY FLOOR CONCRETE IS PLACED.

CANTILEVER FORMING BRACKETS SHALL BE USED AT EXTERIOR GIRDERS TO PREVENT GIRDER TWIST. ALL CANTILEVER FORMING BRACKETS SHALL BE ADJUSTABLE AND CAPABLE OF BEING ADJUSTED DURING THE PLACEMENT OF 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 THE CRUSH AND SETTLEMENT OF THE SHIMS. THE RESULTING FORCE OF THE LEG BRACE OF THE CANTILEVER BRACKETS SHALL BEAR ON THE WEB AND WITHIN 6 INCHES OF THE BOTTOM FLANGE OF THE GIRDERS. THE GIRDERS SHALL BE TIED TOGETHER AT 4'-0" INTERVALS AS SHOWN IN THE DETAILS.

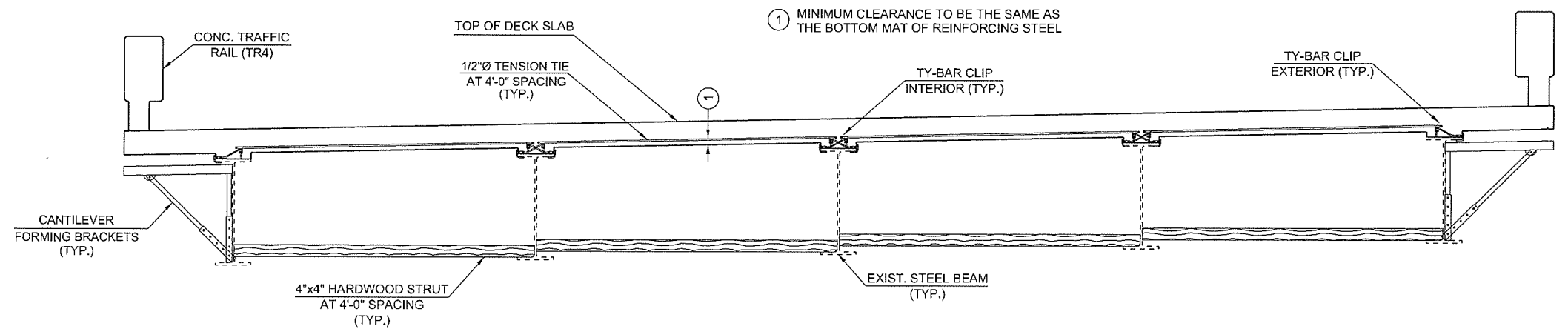
HARDWOOD 4"x4" STRUTS OR MATERIAL OF AN EQUIVALENT STRENGTH SHALL BE WEDGED BETWEEN WEBS OF GIRDERS WITHIN 6" OF THE BOTTOM FLANGE OF EACH GIRDER AT EACH LOCATION WHERE THE TOP OF THE GIRDERS ARE TIED TOGETHER WITH TENSION TIES.

TENSION TIES SHALL BE A MINIMUM #4 EPOXY-COATED REINFORCING STEEL BARS WITH THREADED ENDS OR 0.5 INCH GALVANIZED ALL-THREAD, FURNISHED BY THE CONTRACTOR. THE TENSION TIES SHALL BE PLACED PERPENDICULAR TO THE GIRDERS AND SHALL HAVE A MINIMUM CLEARANCE FROM THE DECK FORMWORK AS THE BOTTOM MAT OF TRANSVERSE REINFORCING BARS.

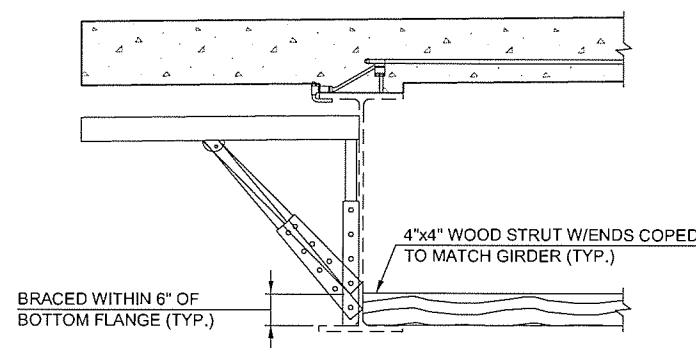
TENSION TIES SHALL BE ATTACHED TO THE TOP FLANGE OF GIRDERS BY MEANS OF TY-BAR CLIPS AS SHOWN ON DETAILS, WELDING CLIPS TO THE TOP FLANGE OF GIRDERS SHALL NOT BE PERMITTED.

IF THE CONTRACTOR ELECTS TO USE A FORMWORK BRACING SYSTEM OTHER THAN IS SHOWN IN THE PLANS, THE CONTRACTOR SHALL SUBMIT WORKING DRAWINGS AND CALCULATIONS OF THE BRACING SYSTEM TO THE ENGINEER FOR APPROVAL. DRAWINGS AND CALCULATIONS OF THE PROPOSED BRACINGS SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OKLAHOMA.

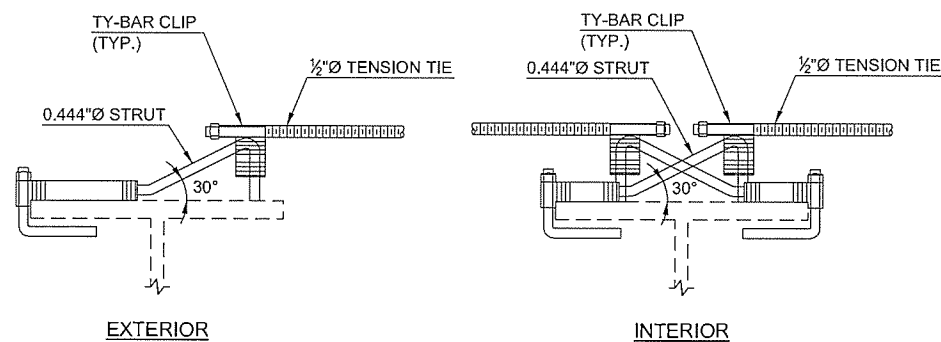
ALL COST FOR BRACING AND FORMWORK SHALL BE INCLUDED IN OTHER ITEMS OF WORK.



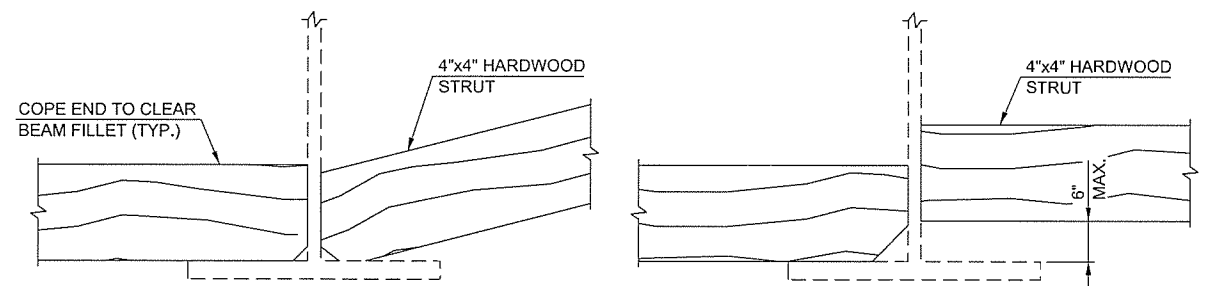
BRIDGE DECK FORMWORK



CANTILEVER FORMING BRACKETS SETTING



TY-BAR CLIP DETAIL (EPOXY COATED)



HARDWOOD STRUT COPING DETAIL

PRINT DATE: 7/15/2016 T:\1420\Drawings\Bridges\1420-formwork01.dgn

S.H. 74 OVER I-35

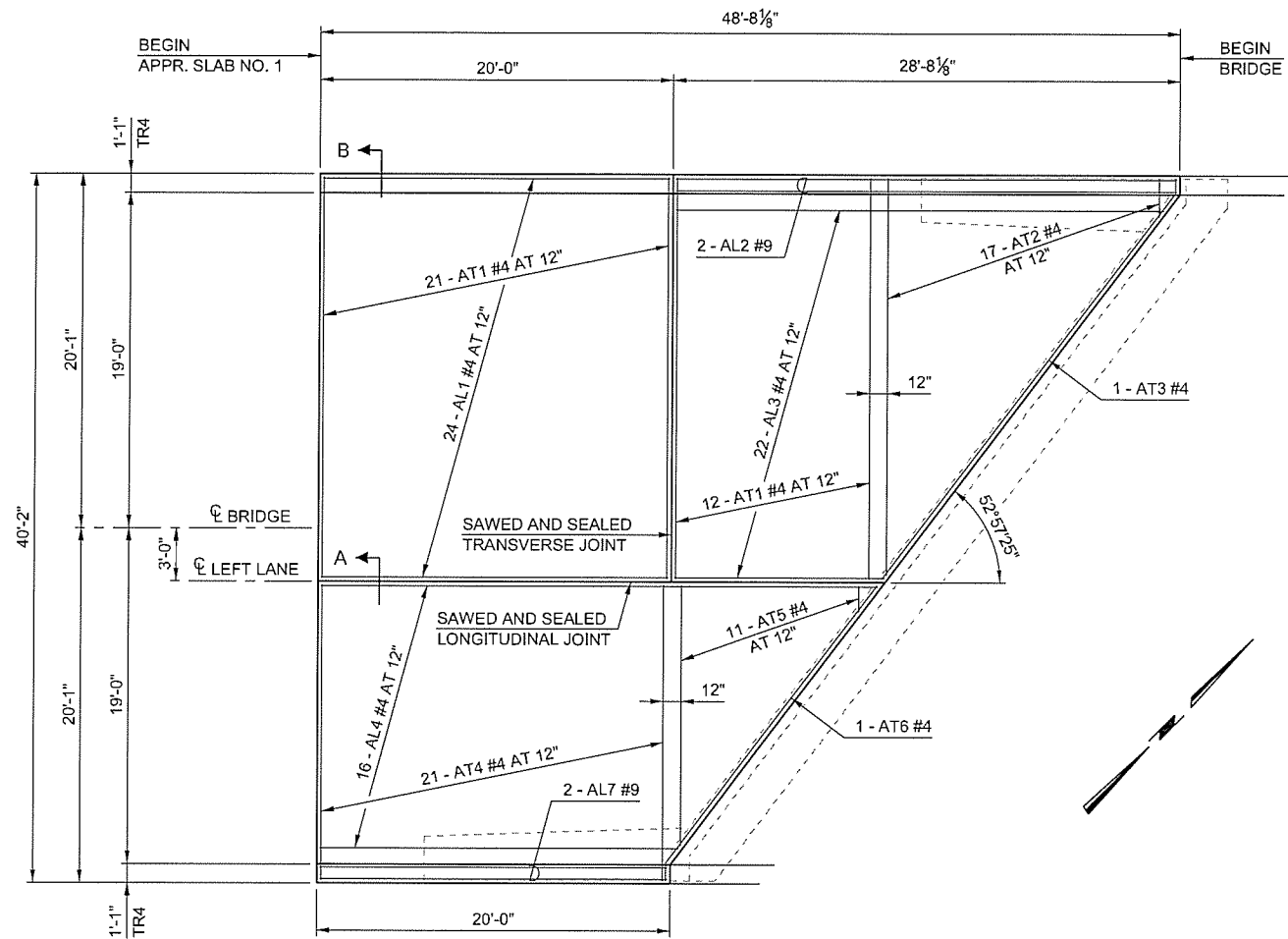
McCLAIN CO.

DESIGN	GDD
DRAWN	ZTF
CHECKED	JTK
APPROVED	
SQUAD	MacArthur

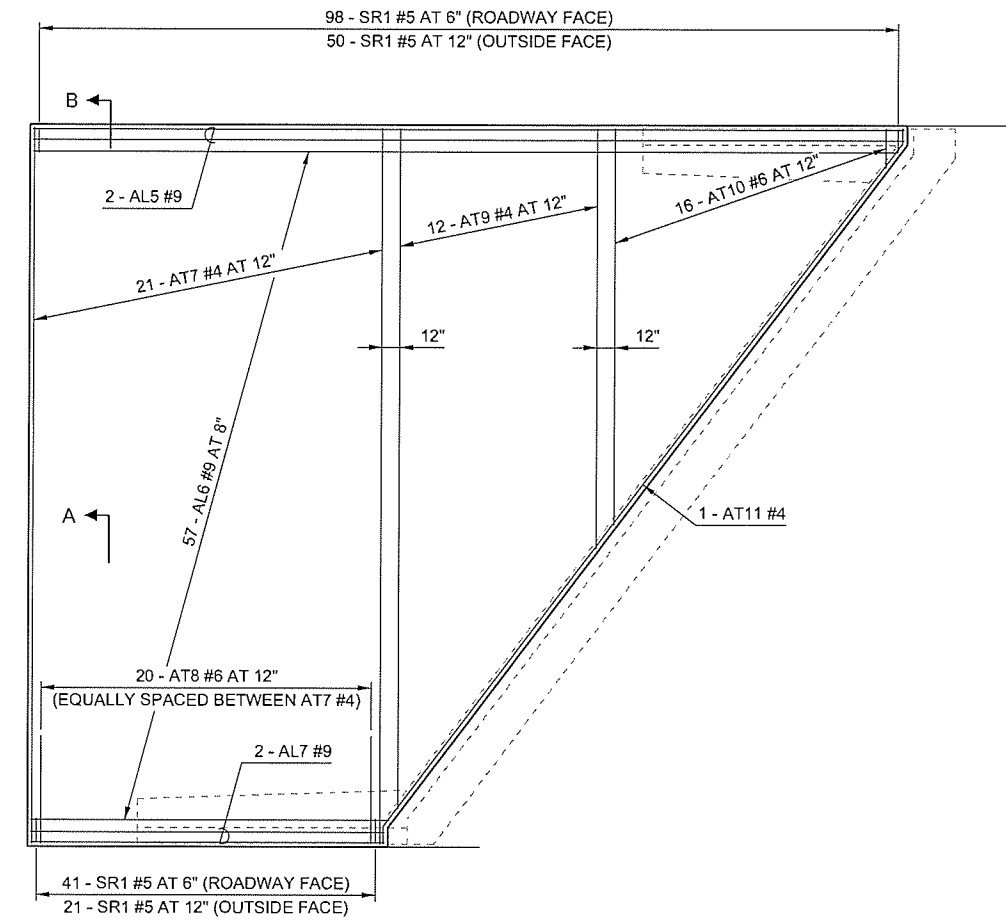
OKLAHOMA DEPARTMENT OF TRANSPORTATION

DETAILS OF BRIDGE DECK FORMWORK BRACING

STATE JOB NO. 29572(04) SHEET NO. 23



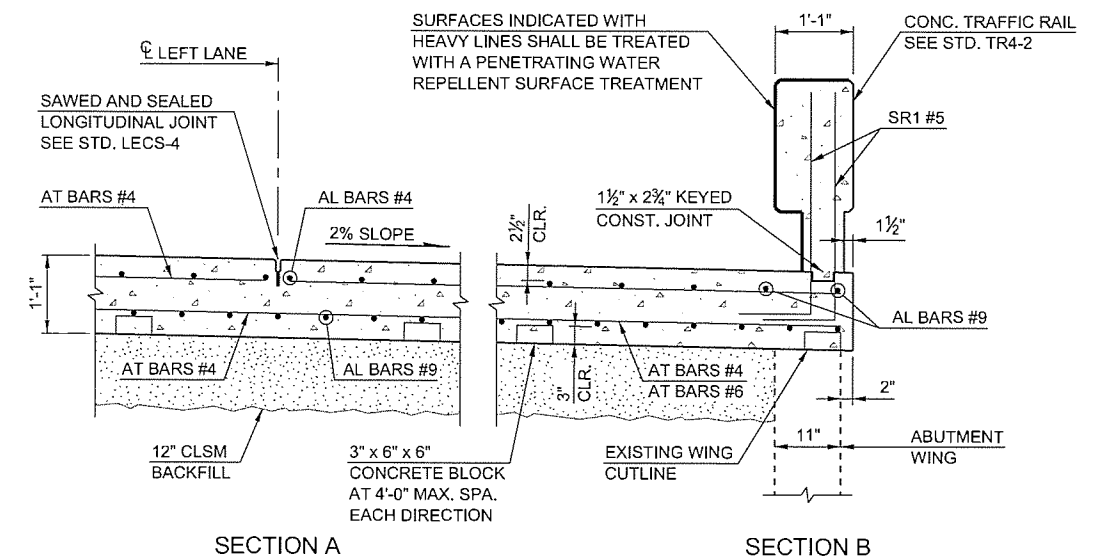
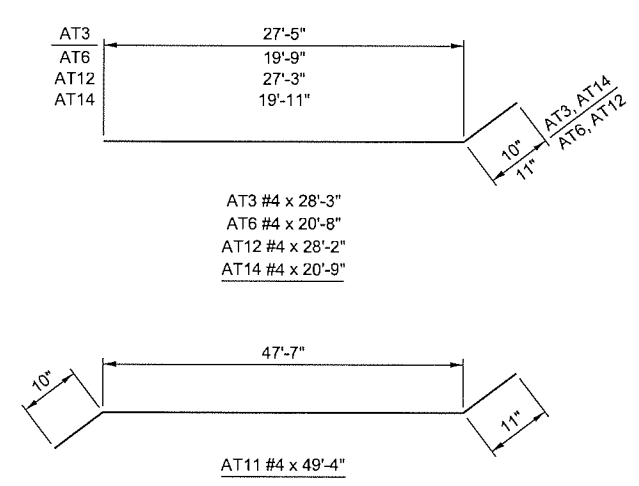
APPROACH SLAB NO. 1
TOP MAT REINFORCING STEEL SHOWN



APPROACH SLAB NO. 1
BOTTOM MAT REINFORCING STEEL SHOWN

APPROACH SLAB NO. 1 BAR LIST - BRIDGE "A" (EPOXY COATED REINFORCED BARS)					
MARK	SIZE	FORM	NO.	LENGTH	LENGTH VARIATION
AL1	#4	STR.	24	19'-8"	
AL2	#9	STR.	2	28'-4"	
AL3	#4	STR.	22	19'-8" AVG.	11'-9" TO 27'-7"
AL4	#4	STR.	16	25'-11" AVG.	20'-4" TO 31'-6"
AL5	#9	STR.	2	48'-4"	
AL6	#9	STR.	57	33'-11" AVG.	19'-11" TO 47'-11"
AL7	#9	STR.	4	19'-8"	
AT1	#4	STR.	33	22'-9"	
AT2	#4	STR.	17	12'-4" AVG.	2'-2" TO 22'-6"
AT3	#4	BNT.	1	28'-3"	
AT4	#4	STR.	21	16'-9"	
AT5	#4	STR.	11	8'-0" AVG.	1'-6" TO 14'-6"
AT6	#4	BNT.	1	20'-8"	
AT7	#4	STR.	21	39'-10"	
AT8	#6	STR.	20	6'-0"	
AT9	#4	STR.	12	30'-5" AVG.	23'-4" TO 37'-6"
AT10	#6	STR.	16	12'-2" AVG.	2'-2" TO 22'-1"
AT11	#4	BNT.	1	49'-4"	
SR1	#5	BNT.	210	4'-1"	

[1] FOR BAR BEND, SEE STD. TR4-2

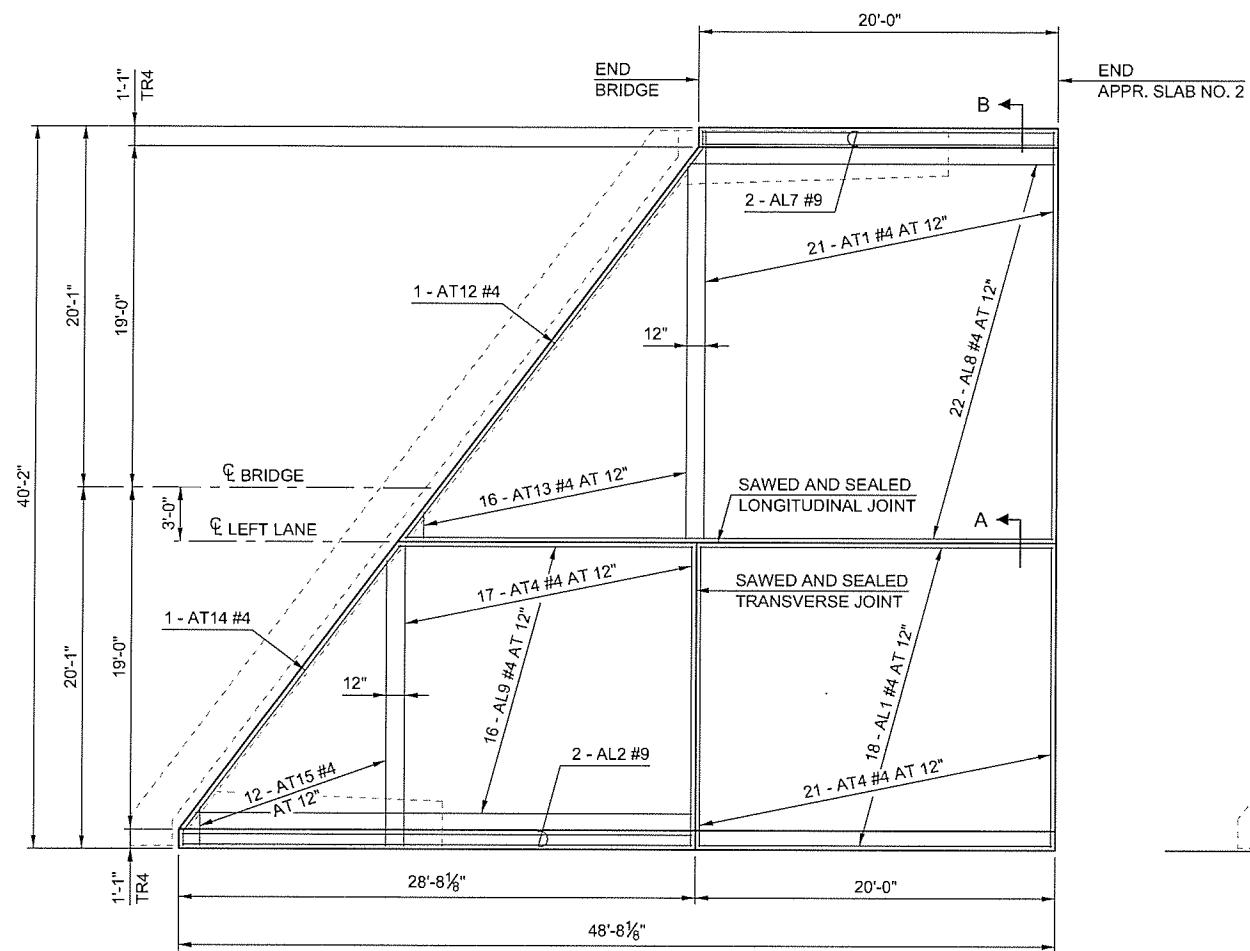


SECTION A

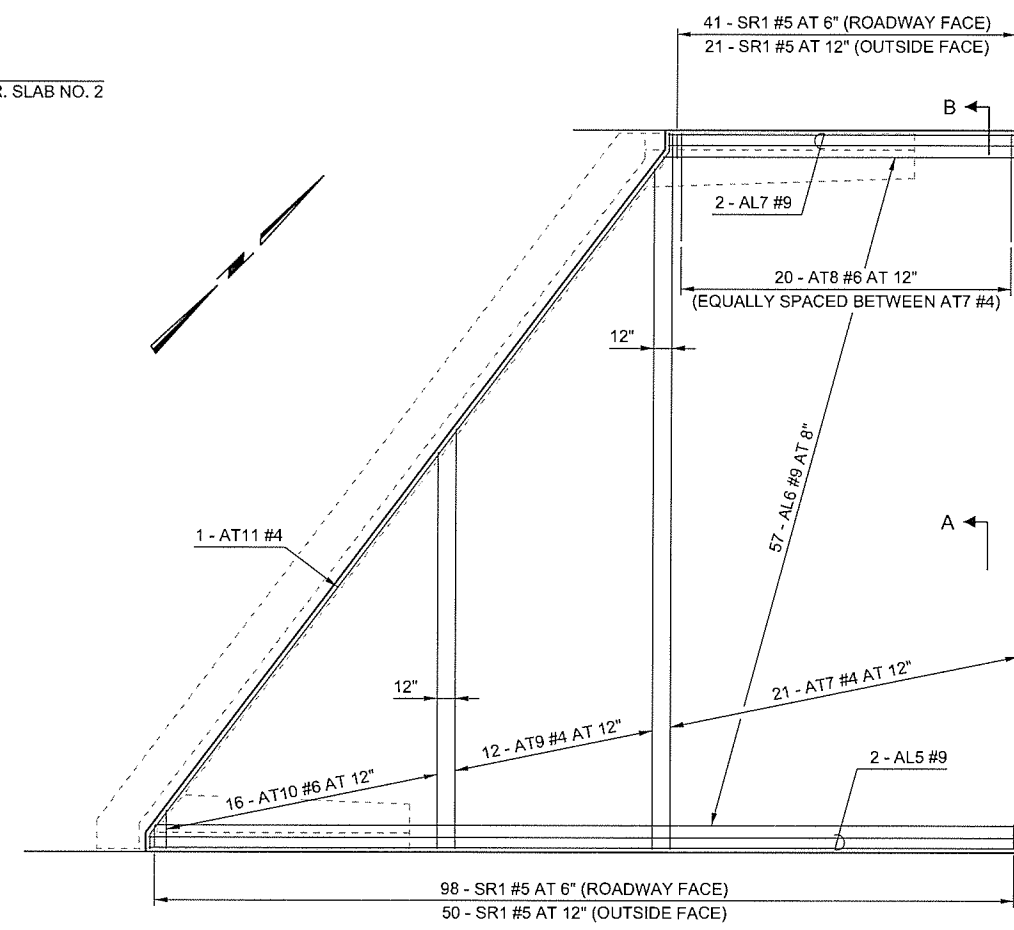
SECTION B

DESIGN	GDD	OKLAHOMA DEPARTMENT OF TRANSPORTATION APPROACH SLAB NO. 1 DETAILS BRIDGE "A" STATE JOB NO. 29572(04) SHEET NO. 24
DRAWN	EMH	
CHECKED	JTK	
APPROVED		
SQUAD	MacArthur	

PRINT DATE: 7/15/2016 T:\1420\Drawings\Bldg\1420-appro01.dgn



APPROACH SLAB NO. 2
TOP MAT REINFORCING STEEL SHOWN



APPROACH SLAB NO. 2
BOTTOM MAT REINFORCING STEEL SHOWN

APPROACH SLAB QUANTITIES - BRIDGE "A"				
DESCRIPTION	UNIT	APPROACH SLAB NO. 1	APPROACH SLAB NO. 2	TOTAL
UNCLASSIFIED EXCAVATION	CY	50.00	50.00	100.00
CLSM BACKFILL	CY	50.00	50.00	100.00
APPROACH SLAB	SY	153.30	153.30	306.60
SAW-CUT GROOVING	SY	145.00	145.00	290.00
CONCRETE RAIL (TR4)	LF	68.70	68.70	137.40
WATER REPELLENT (VISUALLY INSPECTED)	SY	32.00	32.00	64.00

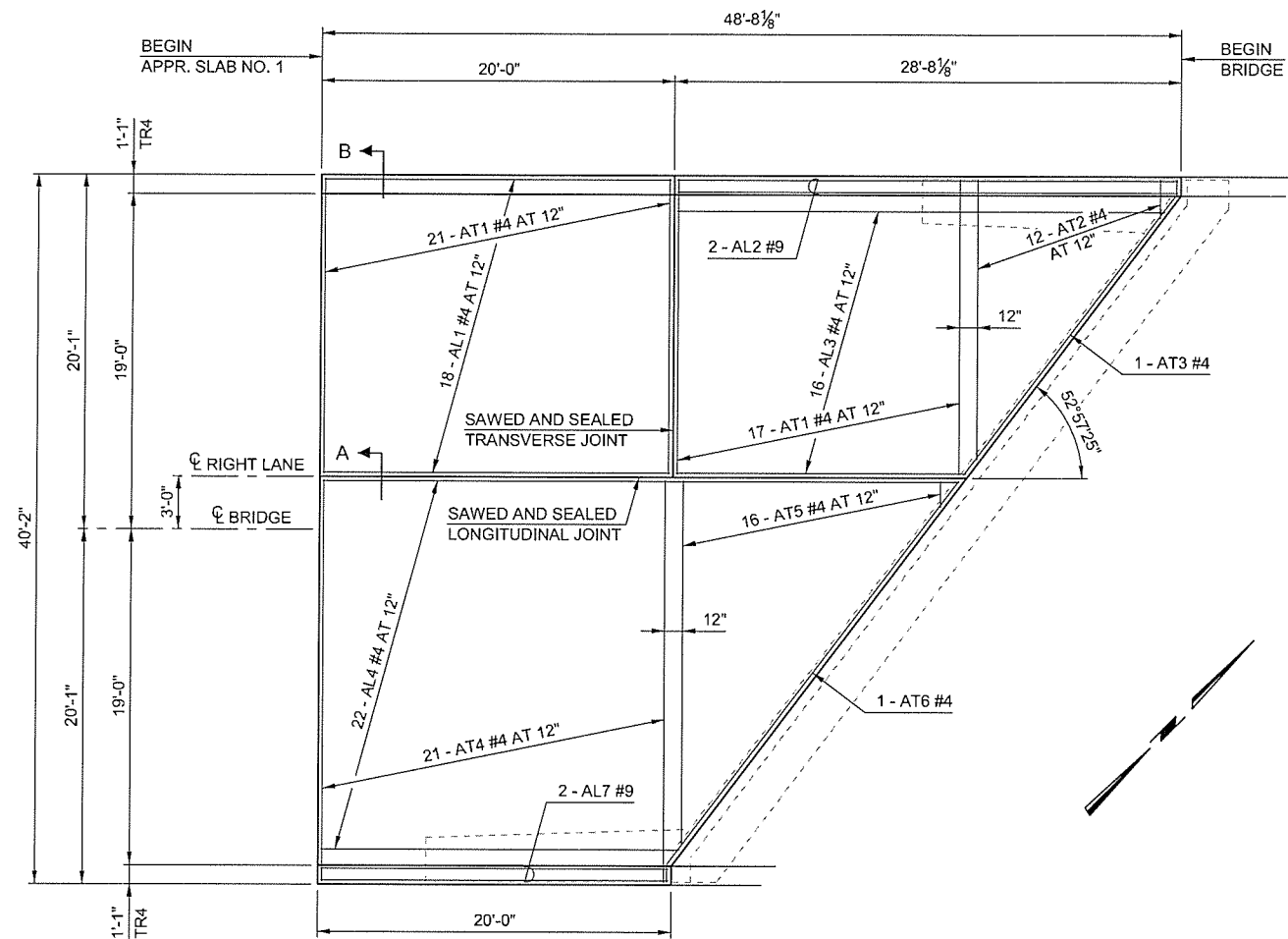
APPROACH SLAB NO. 2 BAR LIST - BRIDGE "A" (EPOXY COATED REINFORCED BARS)					
MARK	SIZE	FORM	NO.	LENGTH	LENGTH VARIATION
AL1	#4	STR.	18	19'-8"	
AL2	#9	STR.	2	28'-4"	
AL5	#9	STR.	2	48'-4"	
AL6	#9	STR.	57	33'-11" AVG.	19'-11" TO 47'-11"
AL7	#9	STR.	4	19'-8"	
AL8	#4	STR.	22	28'-2" AVG.	20'-3" TO 36'-1"
AL9	#4	STR.	16	21'-11" AVG.	16'-3" TO 27'-7"
AT1	#4	STR.	21	22'-9"	
AT4	#4	STR.	38	16'-9"	
AT7	#4	STR.	21	39'-10"	
AT8	#6	STR.	20	6'-0"	
AT9	#4	STR.	12	30'-5" AVG.	23'-4" TO 37'-6"
AT10	#6	STR.	16	12'-2" AVG.	2'-2" TO 22'-1"
[1] AT11	#4	BNT.	1	49'-4"	
[1] AT12	#4	BNT.	1	28'-2"	
AT13	#4	STR.	16	11'-0" AVG.	1'-6" TO 20'-6"
[1] AT14	#4	BNT.	1	20'-9"	
AT15	#4	STR.	12	9'-0" AVG.	2'-2" TO 15'-10"
[2] SR1	#5	BNT.	210	4'-1"	

[1] FOR BAR BEND, SEE SHEET 24
[2] FOR BAR BEND, SEE STD. TR4-2

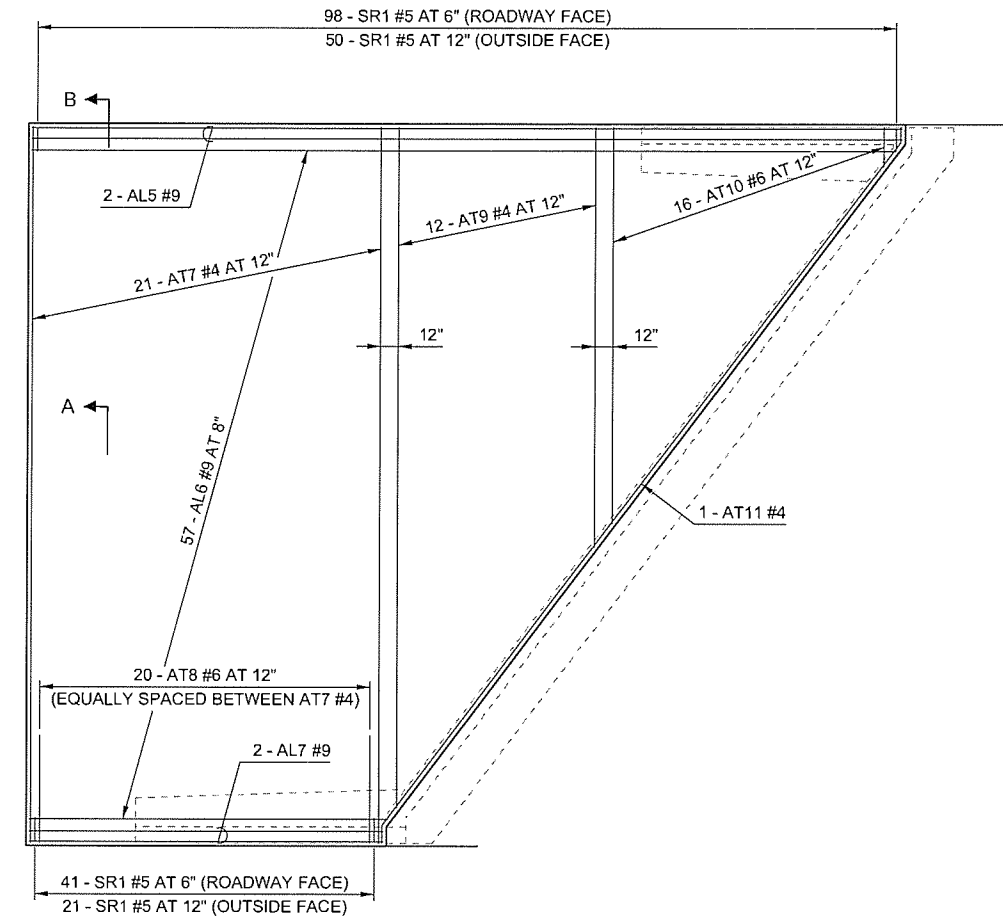
PRINT DATE: 7/15/2016 T:\1420\Drawings\Bridg\1420-appro2.dgn

S.H. 74 OVER I-35 McCLAIN CO.

DESIGN	GDD	OKLAHOMA DEPARTMENT OF TRANSPORTATION APPROACH SLAB NO. 2 DETAILS BRIDGE "A" STATE JOB NO. 29572(04) SHEET NO. 25
DRAWN	EMH	
CHECKED	JTK	
APPROVED		
SQUAD	MacArthur	



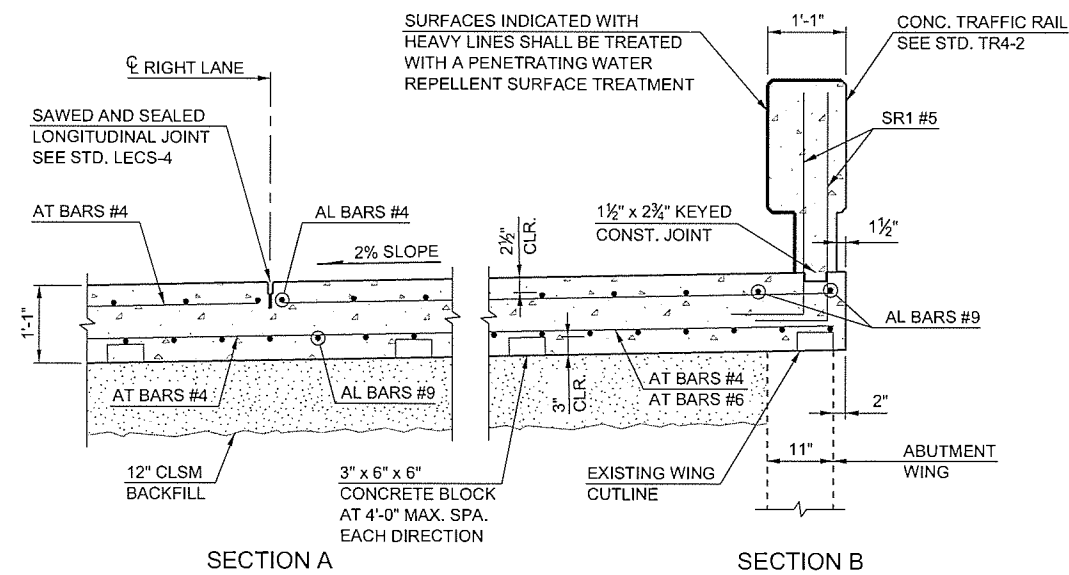
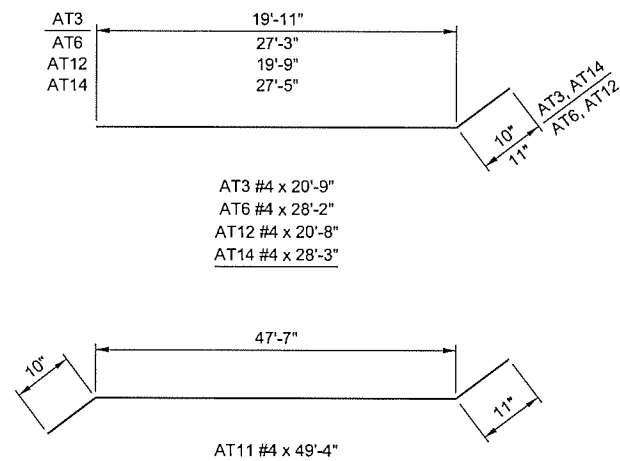
APPROACH SLAB NO. 1
TOP MAT REINFORCING STEEL SHOWN

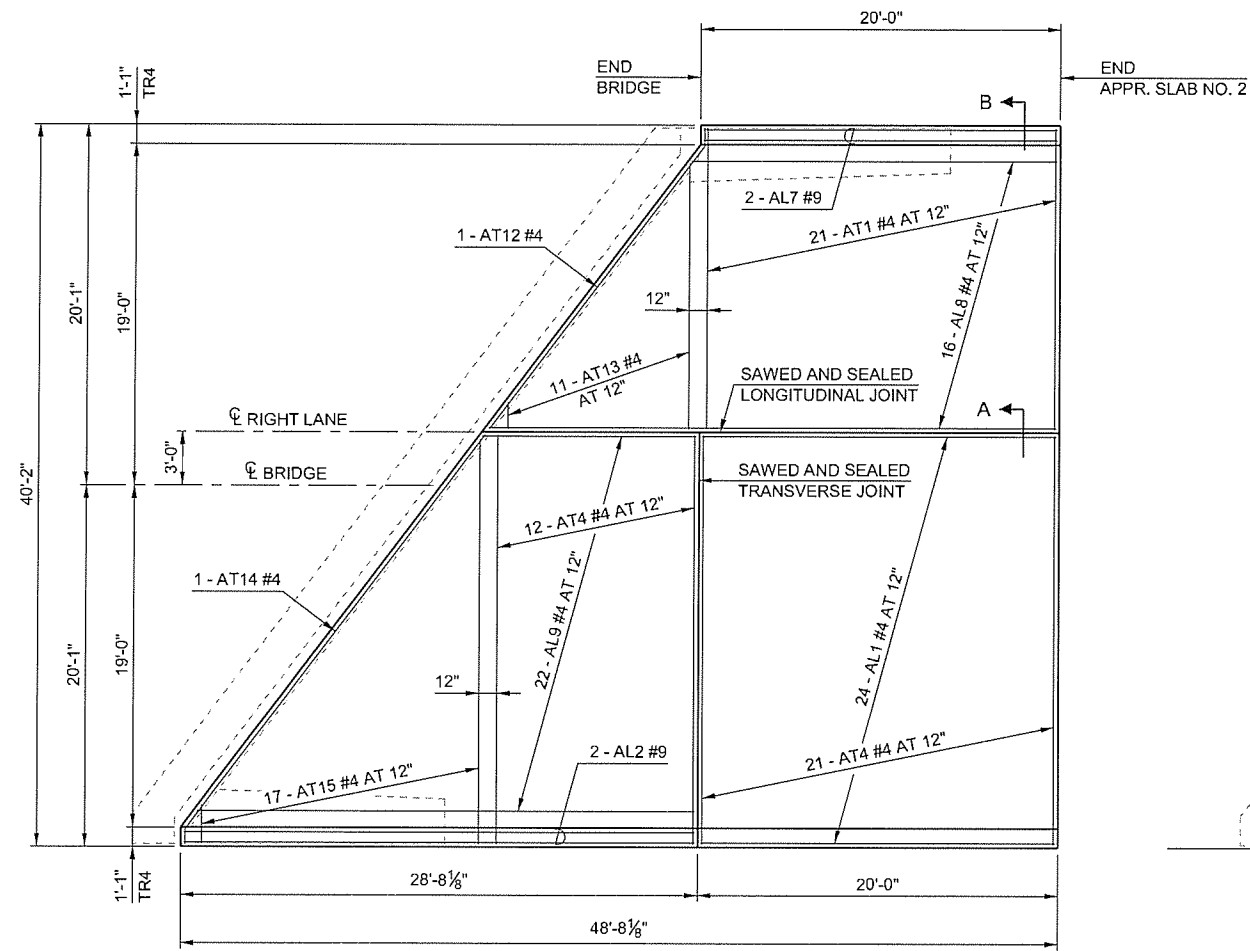


APPROACH SLAB NO. 1
BOTTOM MAT REINFORCING STEEL SHOWN

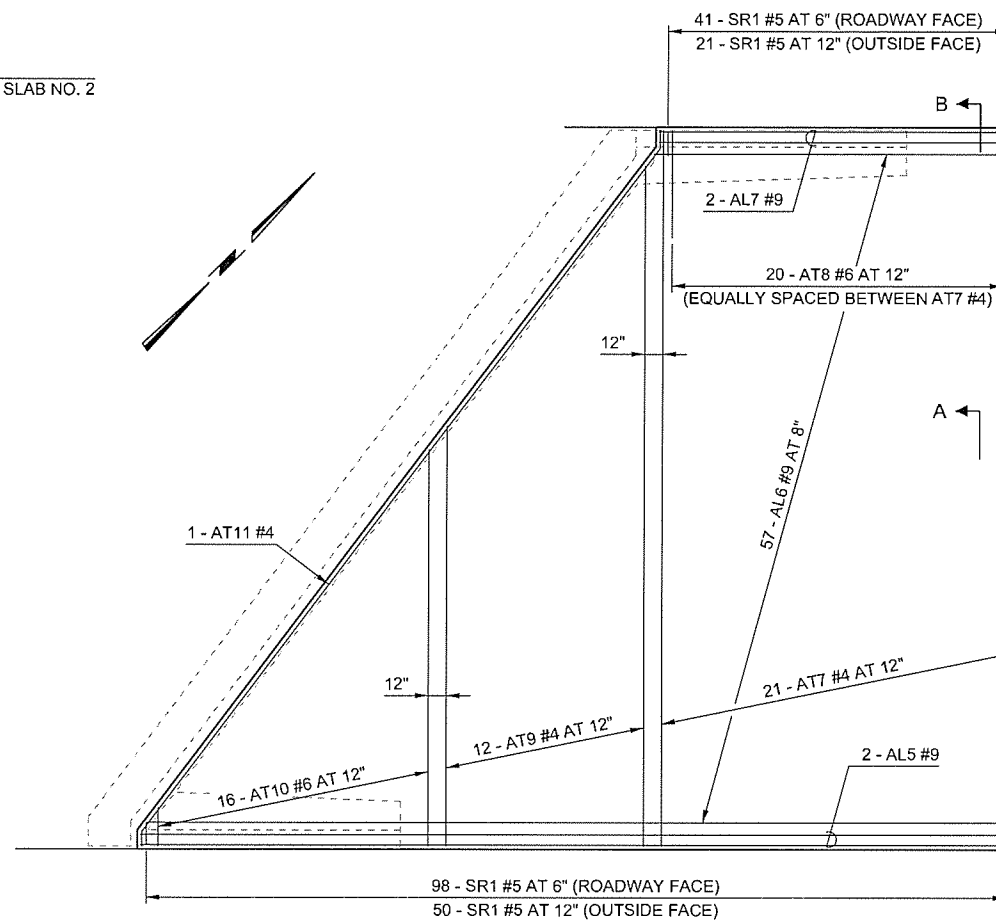
APPROACH SLAB NO. 1 BAR LIST - BRIDGE "B" (EPOXY COATED REINFORCED BARS)					
MARK	SIZE	FORM	NO.	LENGTH	LENGTH VARIATION
AL1	#4	STR.	18	19'-8"	
AL2	#9	STR.	2	28'-4"	
AL3	#4	STR.	16	21'-11" AVG.	16'-3" TO 27'-7"
AL4	#4	STR.	22	28'-2" AVG.	20'-3" TO 36'-1"
AL5	#9	STR.	2	48'-4"	
AL6	#9	STR.	57	33'-11" AVG.	19'-11" TO 47'-11"
AL7	#9	STR.	4	19'-8"	
AT1	#4	STR.	38	16'-9"	
AT2	#4	STR.	12	9'-0" AVG.	2'-2" TO 15'-10"
AT3	#4	BNT.	1	20'-9"	
AT4	#4	STR.	21	22'-9"	
AT5	#4	STR.	16	11'-0" AVG.	1'-6" TO 20'-6"
AT6	#4	BNT.	1	28'-2"	
AT7	#4	STR.	21	39'-10"	
AT8	#6	STR.	20	6'-0"	
AT9	#4	STR.	12	30'-5" AVG.	23'-4" TO 37'-6"
AT10	#6	STR.	16	12'-2" AVG.	2'-2" TO 22'-1"
AT11	#4	BNT.	1	49'-4"	
SR1	#5	BNT.	210	4'-1"	

[1] FOR BAR BEND, SEE STD. TR4-2





APPROACH SLAB NO. 2
TOP MAT REINFORCING STEEL SHOWN



APPROACH SLAB NO. 2
BOTTOM MAT REINFORCING STEEL SHOWN

APPROACH SLAB QUANTITIES - BRIDGE "B"				
DESCRIPTION	UNIT	APPROACH SLAB NO. 1	APPROACH SLAB NO. 2	TOTAL
UNCLASSIFIED EXCAVATION	CY	50.00	50.00	100.00
CLSM BACKFILL	CY	50.00	50.00	100.00
APPROACH SLAB	SY	153.30	153.30	306.60
SAW-CUT GROOVING	SY	145.00	145.00	290.00
CONCRETE RAIL (TR4)	LF	68.70	68.70	137.40
WATER REPELLENT (VISUALLY INSPECTED)	SY	32.00	32.00	64.00

APPROACH SLAB NO. 2 BAR LIST - BRIDGE "B" (EPOXY COATED REINFORCED BARS)					
MARK	SIZE	FORM	NO.	LENGTH	LENGTH VARIATION
AL1	#4	STR.	24	19'-8"	
AL2	#9	STR.	2	28'-4"	
AL5	#9	STR.	2	48'-4"	
AL6	#9	STR.	57	33'-11" AVG.	19'-11" TO 47'-11"
AL7	#9	STR.	4	19'-8"	
AL8	#4	STR.	16	25'-11" AVG.	20'-3" TO 31'-7"
AL9	#4	STR.	22	19'-8" AVG.	11'-9" TO 27'-7"
AT1	#4	STR.	21	16'-9"	
AT4	#4	STR.	33	22'-9"	
AT7	#4	STR.	21	39'-10"	
AT8	#6	STR.	20	6'-0"	
AT9	#4	STR.	12	30'-5" AVG.	23'-4" TO 37'-6"
AT10	#6	STR.	16	12'-2" AVG.	2'-2" TO 22'-1"
[1] AT11	#4	BNT.	1	49'-4"	
[1] AT12	#4	BNT.	1	20'-8"	
AT13	#4	STR.	11	8'-0" AVG.	1'-6" TO 14'-6"
[1] AT14	#4	BNT.	1	28'-3"	
AT15	#4	STR.	17	12'-4" AVG.	2'-2" TO 22'-6"
[2] SR1	#5	BNT.	210	4'-1"	

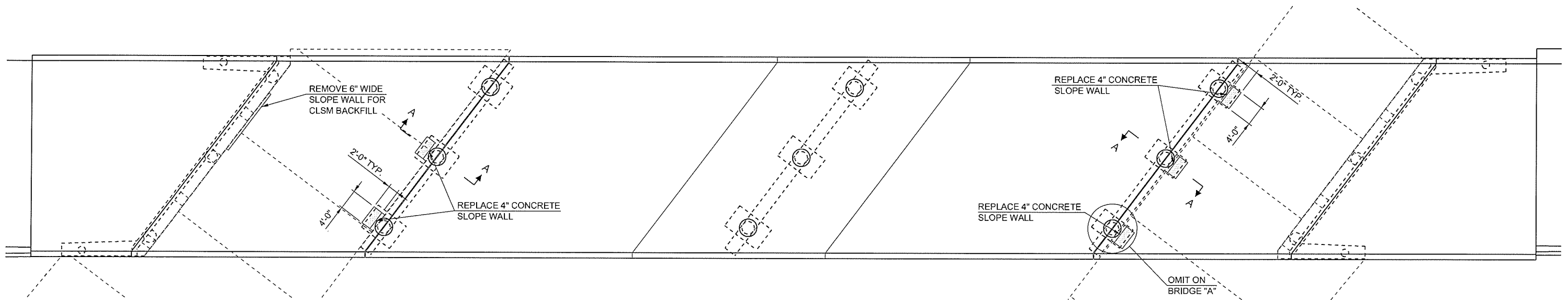
[1] FOR BAR BEND, SEE SHEET 26
[2] FOR BAR BEND, SEE STD. TR4-2

PRINT DATE: 7/15/2016 T:\1420\Drawings\Bridges\1420-approach.dgn

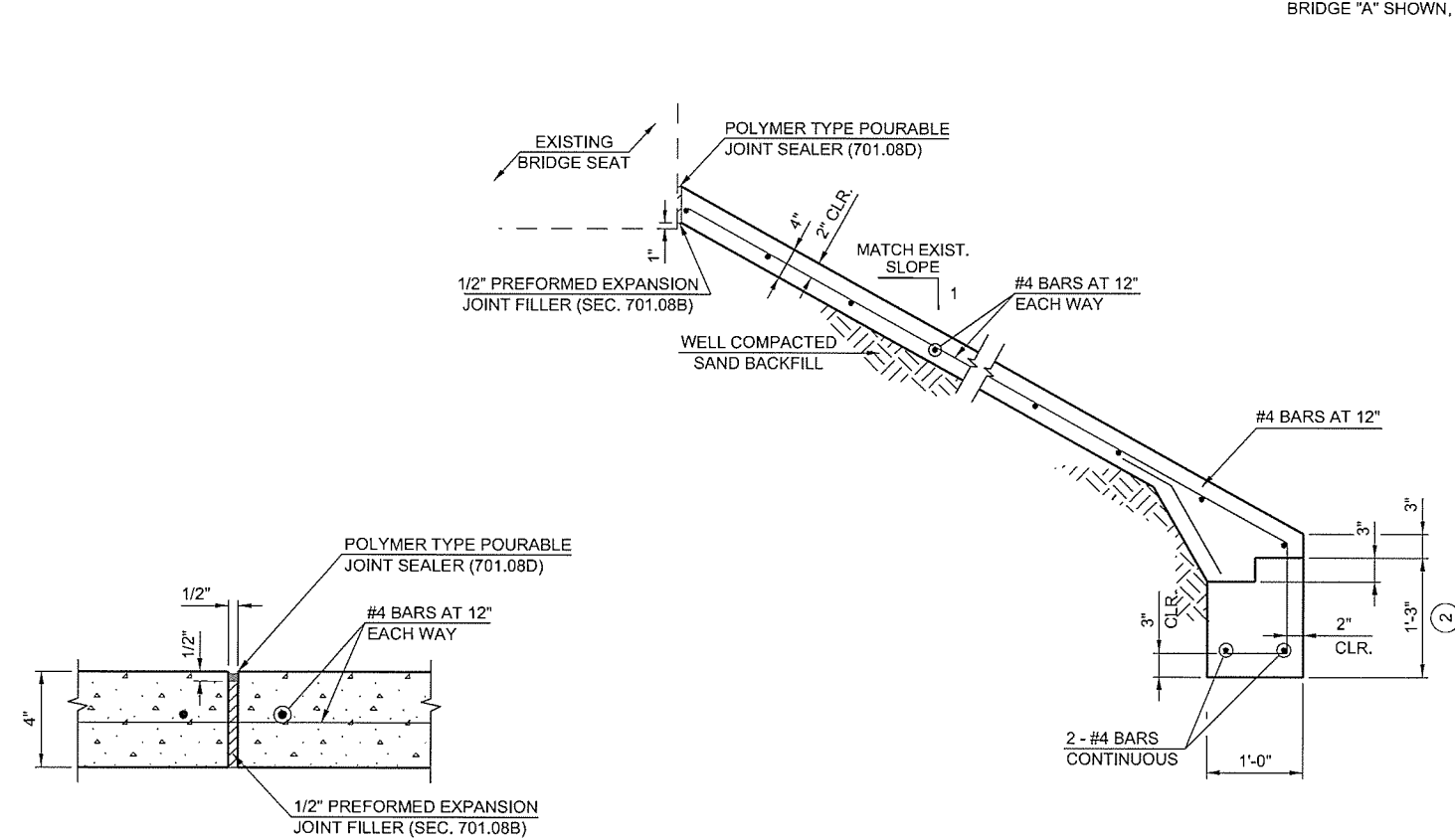
S.H. 74 OVER I-35

McCCLAIN CO.

DESIGN	GDD		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN	ZIF		
CHECKED	JTK		
APPROVED			
SQUAD	MacArthur		
APPROACH SLAB NO. 2 DETAILS BRIDGE "B"			
STATE JOB NO. 29572(04)			SHEET NO. 27

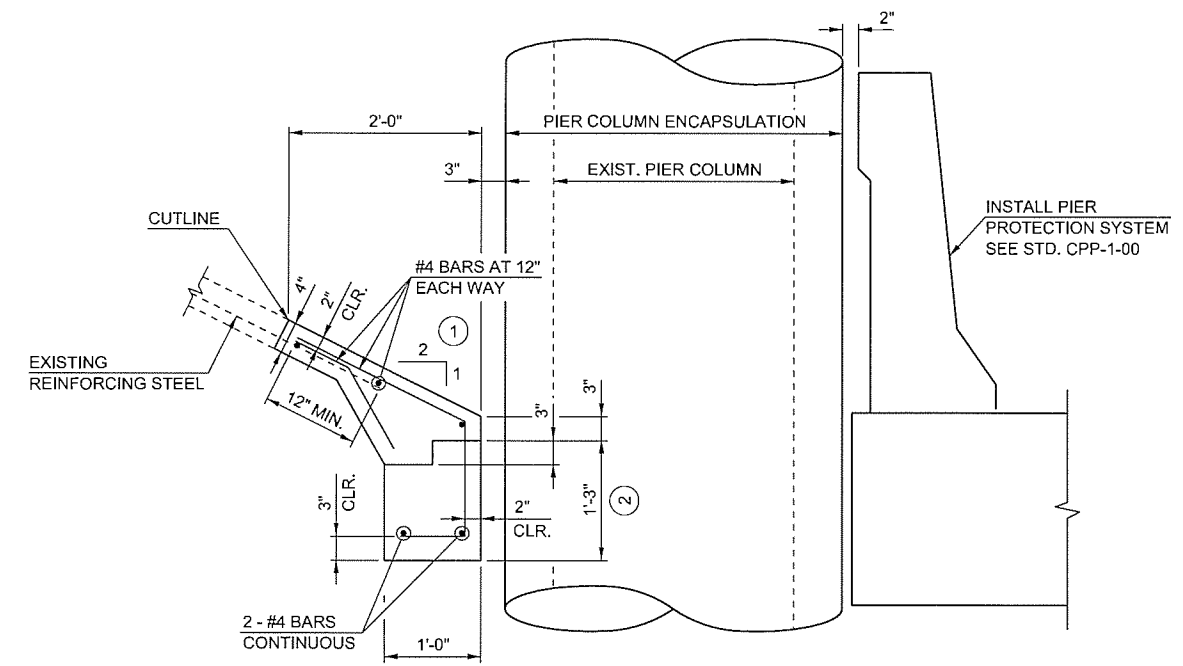


PLAN
BRIDGE "A" SHOWN, BRIDGE "B" OPPOSITE HAND



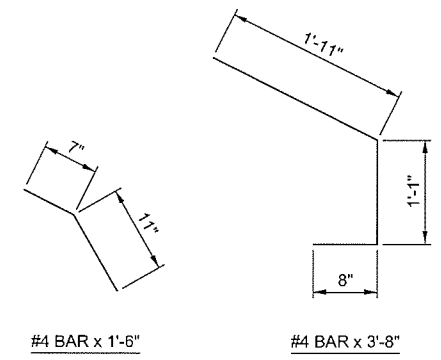
DETAIL OF CONSTRUCTION JOINT

SLOPE WALL REPLACEMENT ③
4" CONC. SLOPE WALL



SECTION A-A

- ① MATCH EXISTING SLOPE
- ② SURFACE AREA OF TOE OF SLOPE WALL IS INCLUDED IN PAY QUANTITY SHOWN FOR SLOPE WALL
- ③ ALL COST NEEDED TO CONSTRUCT THE CONCRETE SLOPE WALL INCLUDING THE COST OF THE JOINT, BACKFILL, CONCRETE AND REINFORCING STEEL TO BE INCLUDED IN THE UNIT PRICE OF SLOPE WALL (4")



#4 BAR x 1'-6"

#4 BAR x 3'-8"

PRINT DATE: 7/15/2016 T:\1420\Drawings\Bridges\1420-slope01.dgn

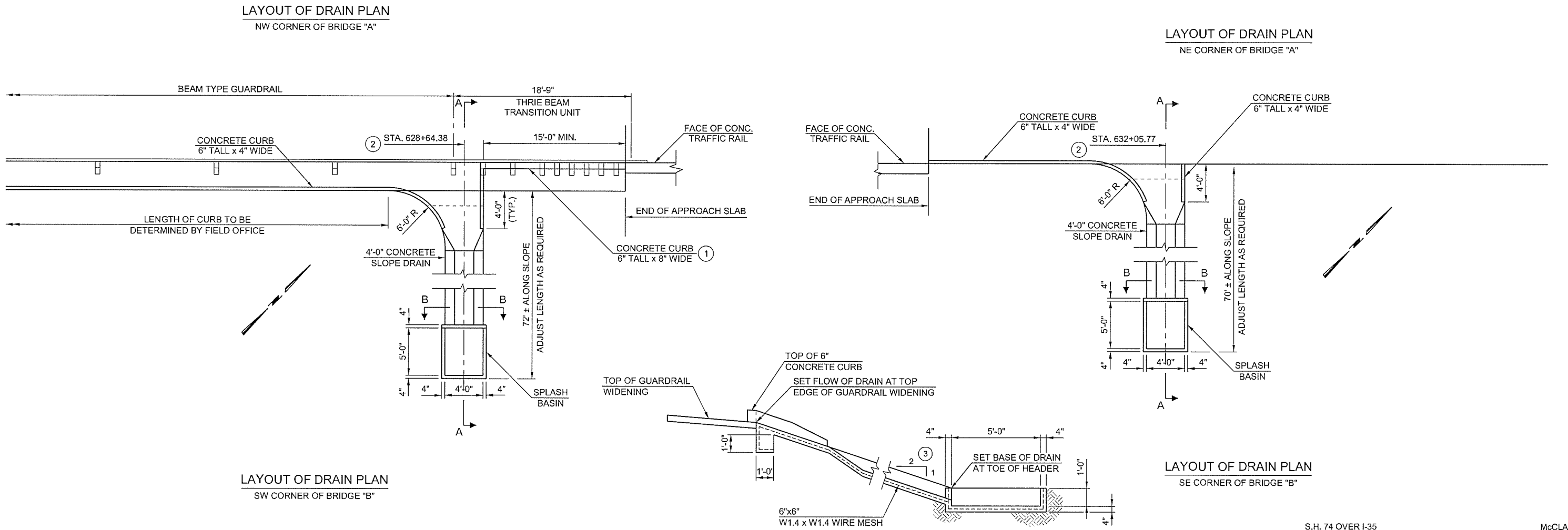
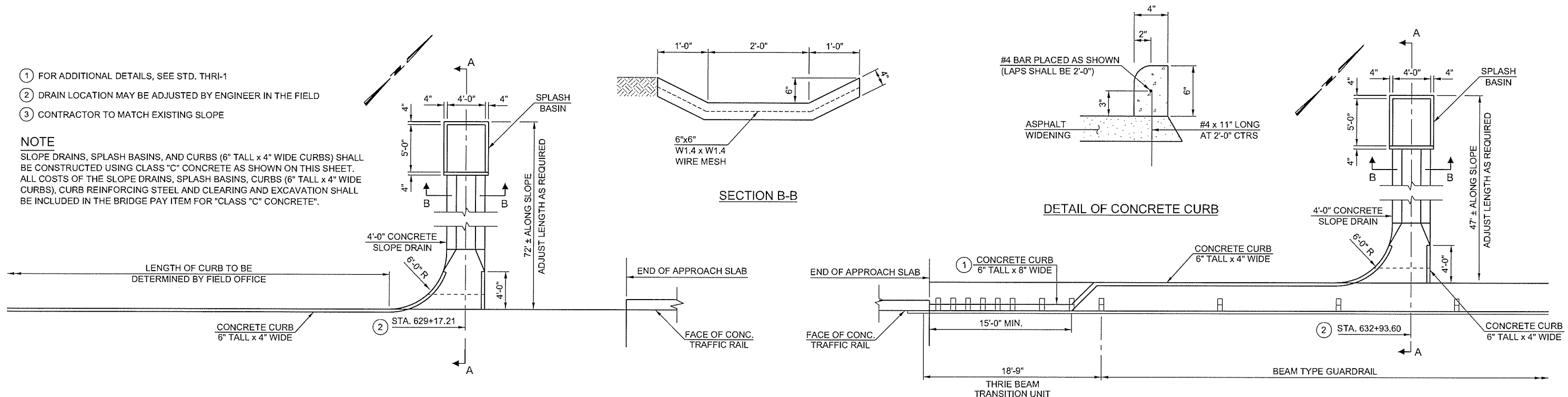
S.H. 74 OVER I-35

McCLAIN CO.

DESIGN	GDD		OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN	EMH		
CHECKED	JTK		
APPROVED			
SQUAD	MacArthur		SLOPE WALL DETAILS
			STATE JOB NO. 29572(04) SHEET NO. 28

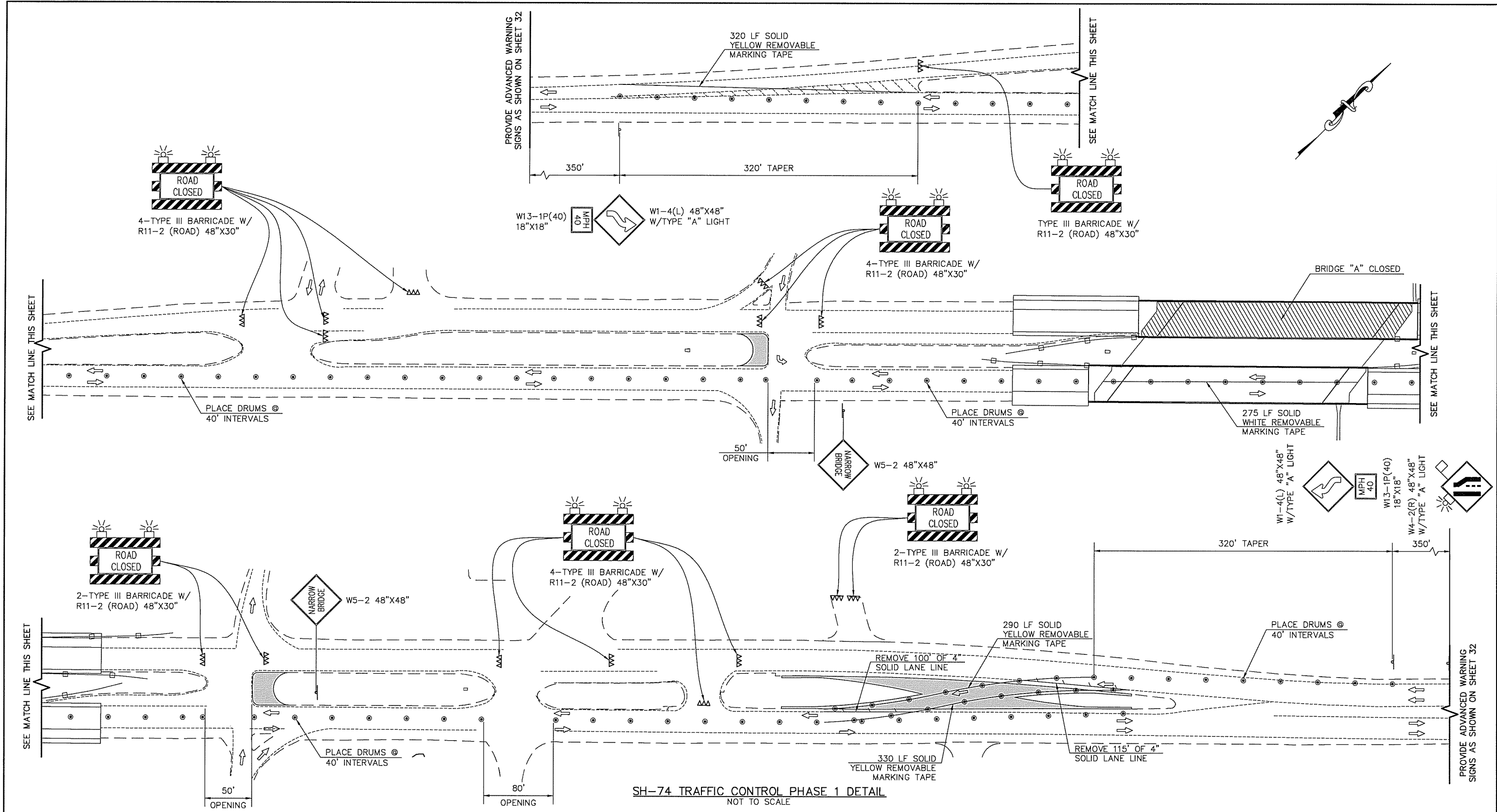
- ① FOR ADDITIONAL DETAILS, SEE STD. THRI-1
- ② DRAIN LOCATION MAY BE ADJUSTED BY ENGINEER IN THE FIELD
- ③ CONTRACTOR TO MATCH EXISTING SLOPE

NOTE
 SLOPE DRAINS, SPLASH BASINS, AND CURBS (6" TALL x 4" WIDE CURBS) SHALL BE CONSTRUCTED USING CLASS "C" CONCRETE AS SHOWN ON THIS SHEET. ALL COSTS OF THE SLOPE DRAINS, SPLASH BASINS, CURBS (6" TALL x 4" WIDE CURBS), CURB REINFORCING STEEL AND CLEARING AND EXCAVATION SHALL BE INCLUDED IN THE BRIDGE PAY ITEM FOR "CLASS "C" CONCRETE".



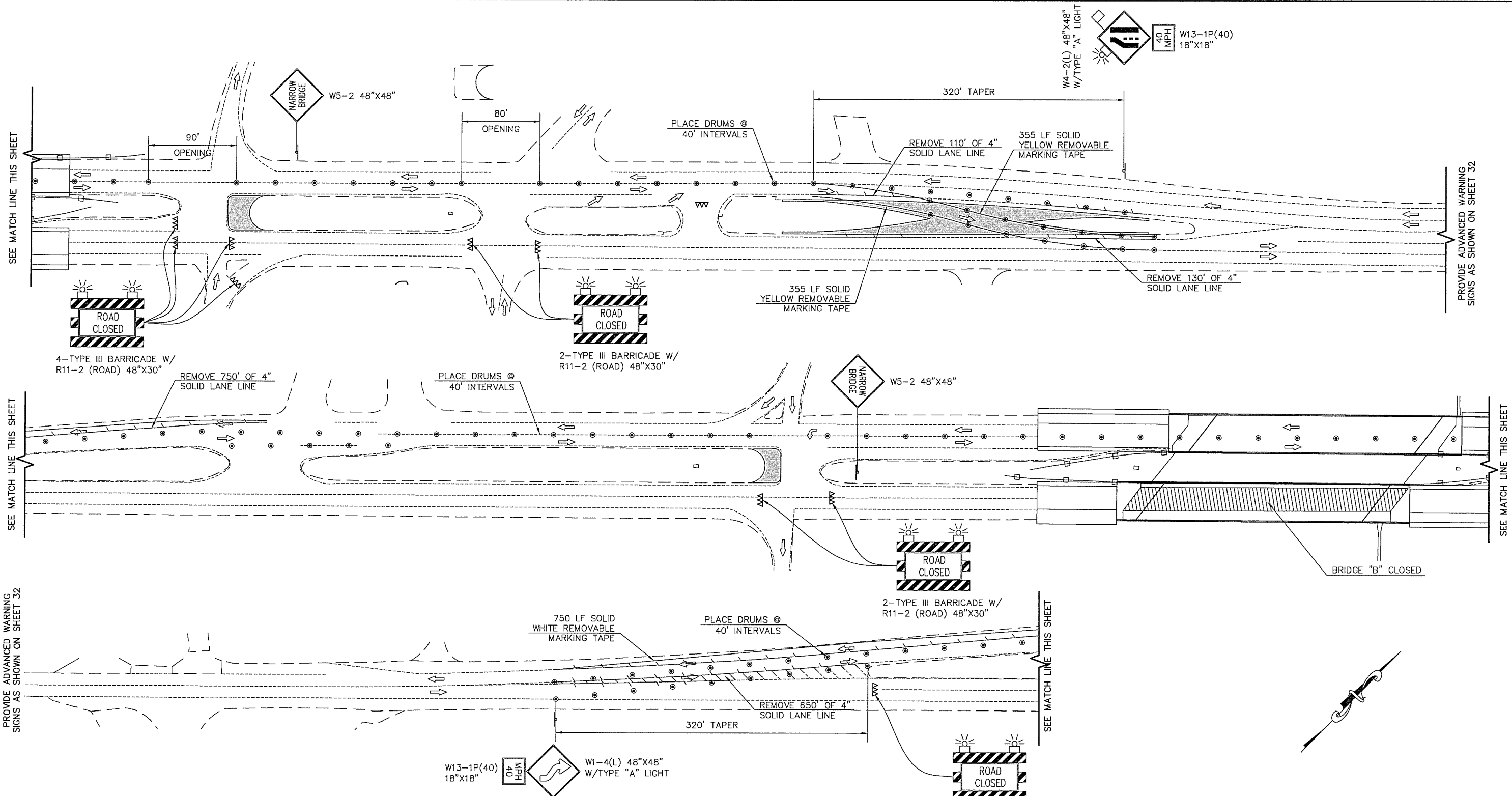
DESIGN	GDD	OKLAHOMA DEPARTMENT OF TRANSPORTATION DETAILS OF DRAINS AT END OF BRIDGE STATE JOB NO. 29572(04) SHEET NO. 29
DRAWN	ZTF	
CHECKED	JTK	
APPROVED		
SQUAD	MacArthur	

PRINT DATE: 7/15/2016 T:\1420\Drawings\Bridges\1420-drain01.dgn



DESIGN			
DRAWN	TS	5/16	
CHECKED	SM	5/16	
APPROVED			
SQUAD	RED PLAINS PROFESSIONAL		

OKLAHOMA DEPARTMENT OF TRANSPORTATION
DESIGN DIVISION
TRAFFIC CONTROL PLAN
(1 OF 7)
STATE JOB NO. 29572(04) SHEET NO. 30
MCLAIN COUNTY



SH-74 TRAFFIC CONTROL PHASE 2 DETAIL
NOT TO SCALE

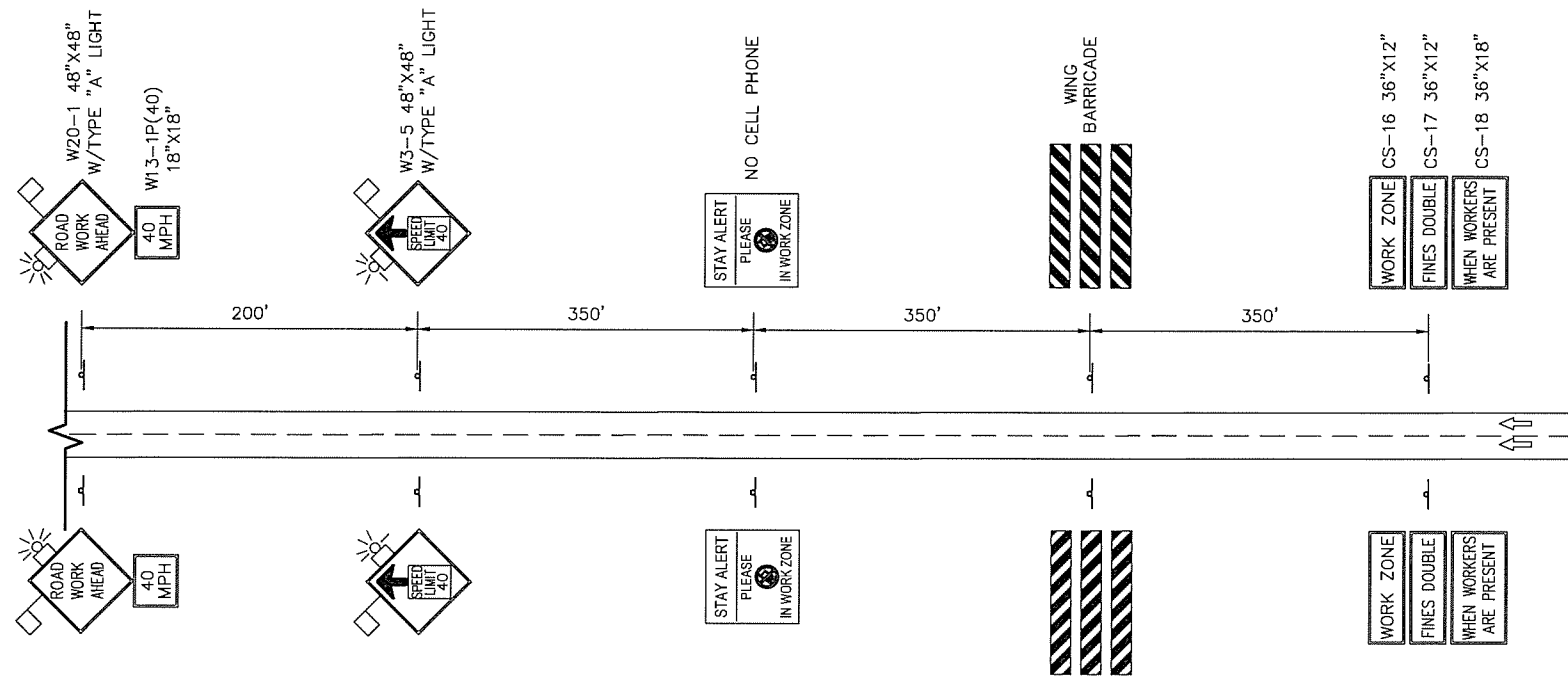
KEY

	METAL PORTABLE LONGITUDINAL BARRIER
	DRUM
	SIGN
	TRAFFIC DIRECTION
	TYPE III BARRICADE
	REMOVE EXISTING LANE LINE

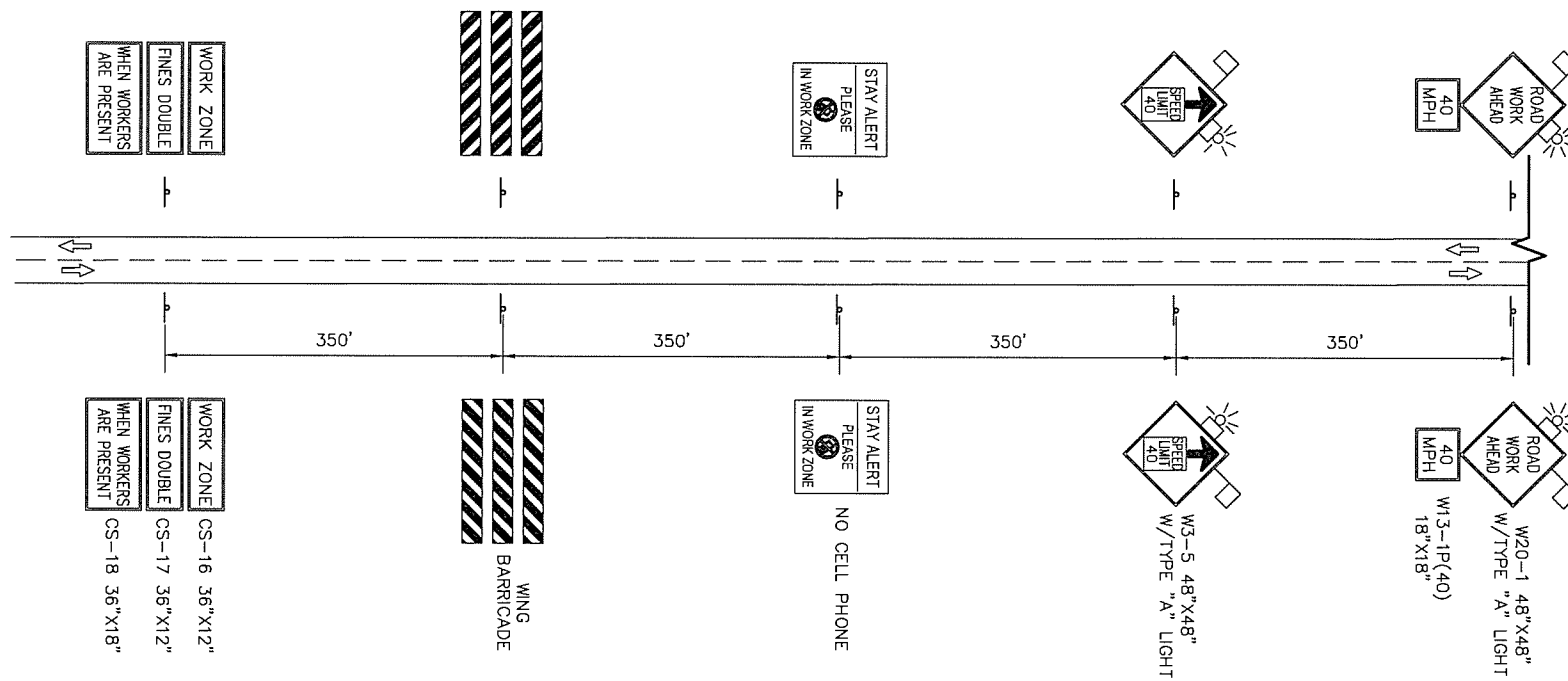
- NOTES
1. CONTRACTOR TO REMOVE ANY EXISTING STRIPING THAT CONFLICTS WITH PHASE 1 TRAFFIC CONTROL PLAN.
 2. REFLECTORS TO BE INSTALLED ON THE EXISTING BRIDGE RAIL SHALL BE CONSIDERED SUBSIDIARY TO THE PORTABLE LONGITUDINAL BARRIER AND SHALL BE INSTALLED, MAINTAINED, AND REMOVED IN ACCORDANCE TO NOTE 4 ON DRAWING TCS24-1.
 3. TYPE III BARRICADES TO BE PLACE IN A MANNER APPROVED BY THE ENGINEER.

DESIGN		
DRAWN	TS	5/16
CHECKED	SM	5/16
APPROVED		
SQUAD	RED PLAINS PROFESSIONAL	

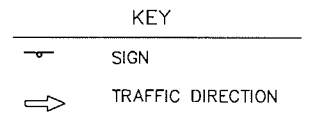
OKLAHOMA DEPARTMENT OF TRANSPORTATION
DESIGN DIVISION
TRAFFIC CONTROL PLAN
(2 OF 7)
STATE JOB NO. 29572(04) SHEET NO. 31
MCLAIN COUNTY



PLACEMENT OF ADVANCED WARNING SIGNS (WEST BOUND)
NOT TO SCALE



PLACEMENT OF ADVANCED WARNING SIGNS (EAST BOUND)
NOT TO SCALE

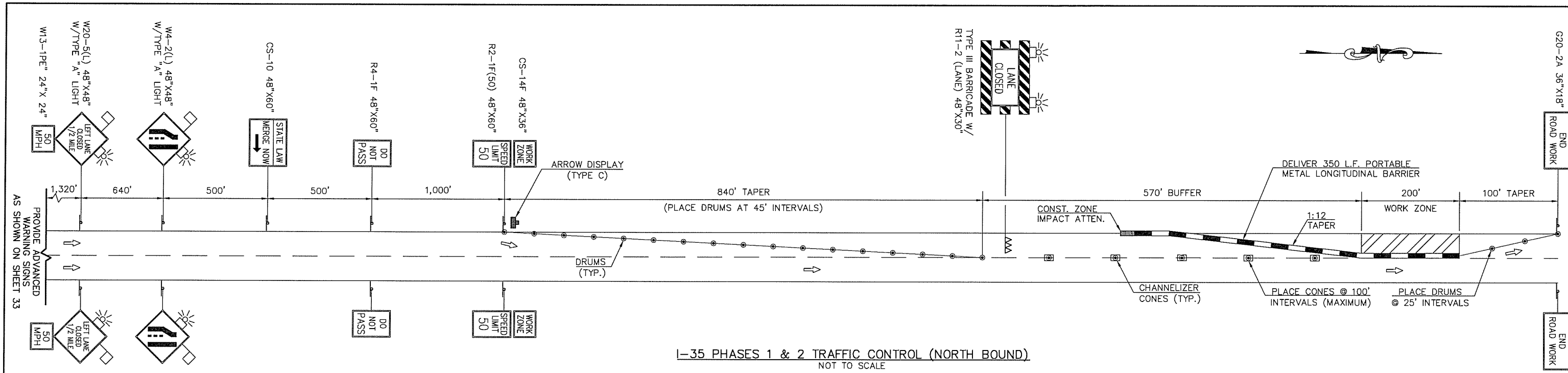


DESIGN		
DRAWN	TS	5/16
CHECKED	SM	5/16
APPROVED		
SQUAD	RED PLAINS PROFESSIONAL	

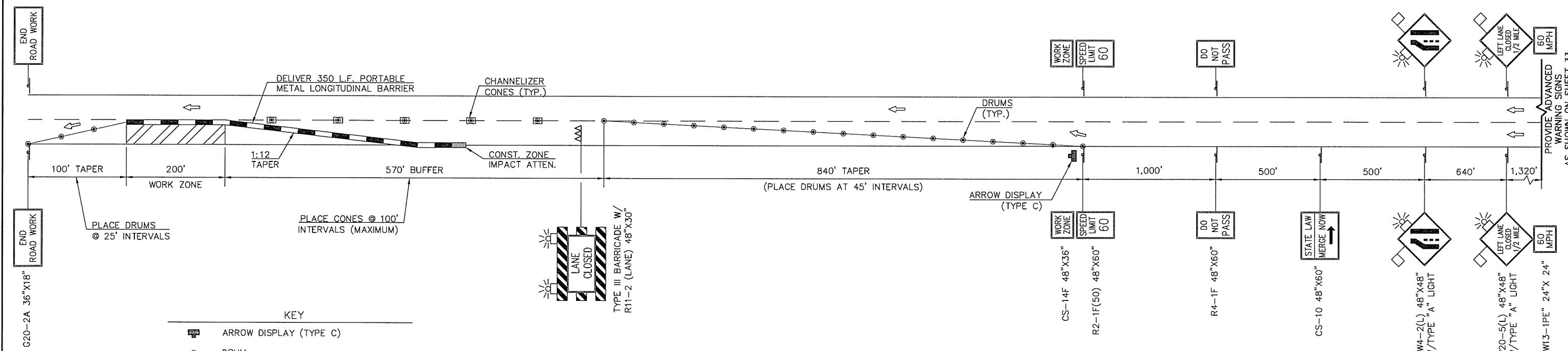
OKLAHOMA DEPARTMENT OF TRANSPORTATION
DESIGN DIVISION

TRAFFIC CONTROL PLAN
(3 OF 7)

STATE JOB NO. 29572(04) SHEET NO. 32



I-35 PHASES 1 & 2 TRAFFIC CONTROL (NORTH BOUND)
NOT TO SCALE

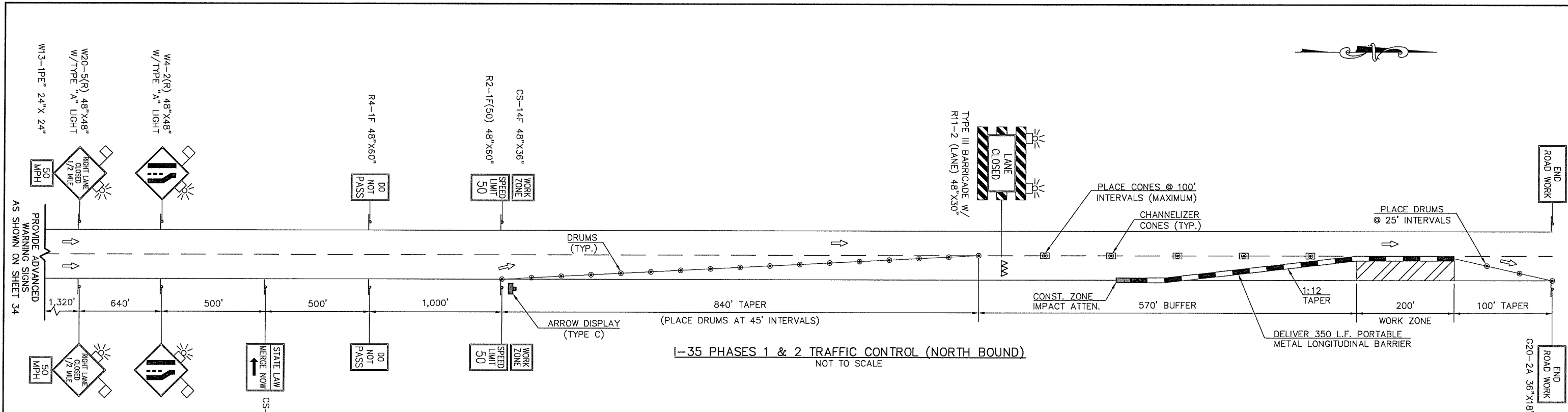


I-35 PHASES 1 & 2 TRAFFIC CONTROL (SOUTH BOUND)
NOT TO SCALE

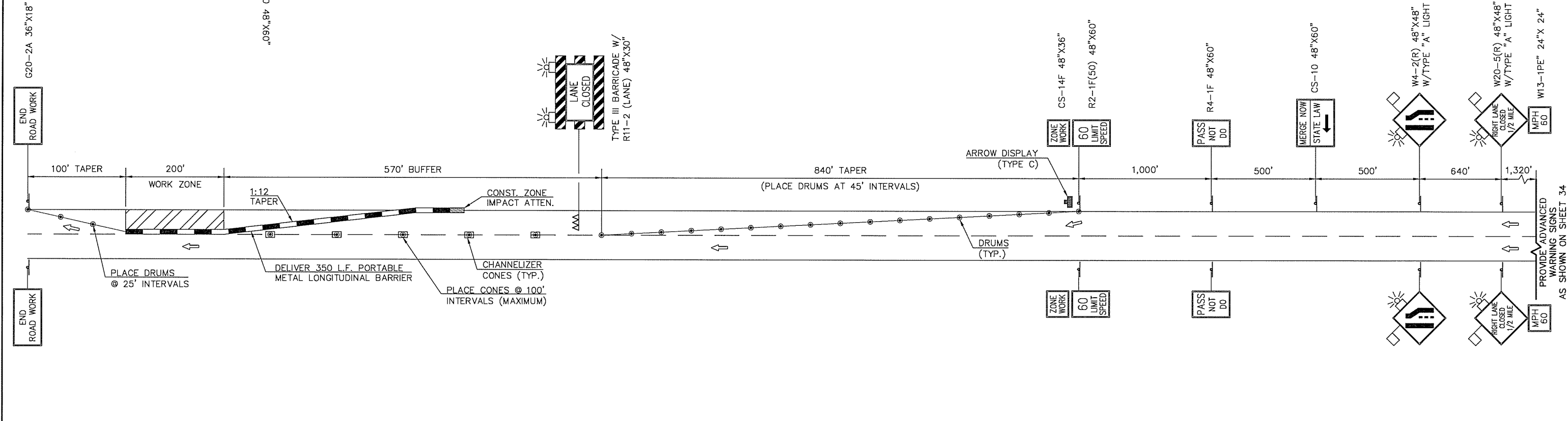
KEY

	ARROW DISPLAY (TYPE C)
	DRUM
	SIGN
	TRAFFIC DIRECTION
	TYPE III BARRICADE
	CHANNELIZER CONE
	METAL PORTABLE LONGITUDINAL BARRIER

DESIGN			OKLAHOMA DEPARTMENT OF TRANSPORTATION DESIGN DIVISION TRAFFIC CONTROL PLAN (4 OF 7) STATE JOB NO. 29572(04) SHEET NO. 33 MCCLAIN COUNTY
DRAWN	TS	5/16	
CHECKED	SM	5/16	
APPROVED			
SQUAD	RED PLAINS PROFESSIONAL		



I-35 PHASES 1 & 2 TRAFFIC CONTROL (NORTH BOUND)
NOT TO SCALE

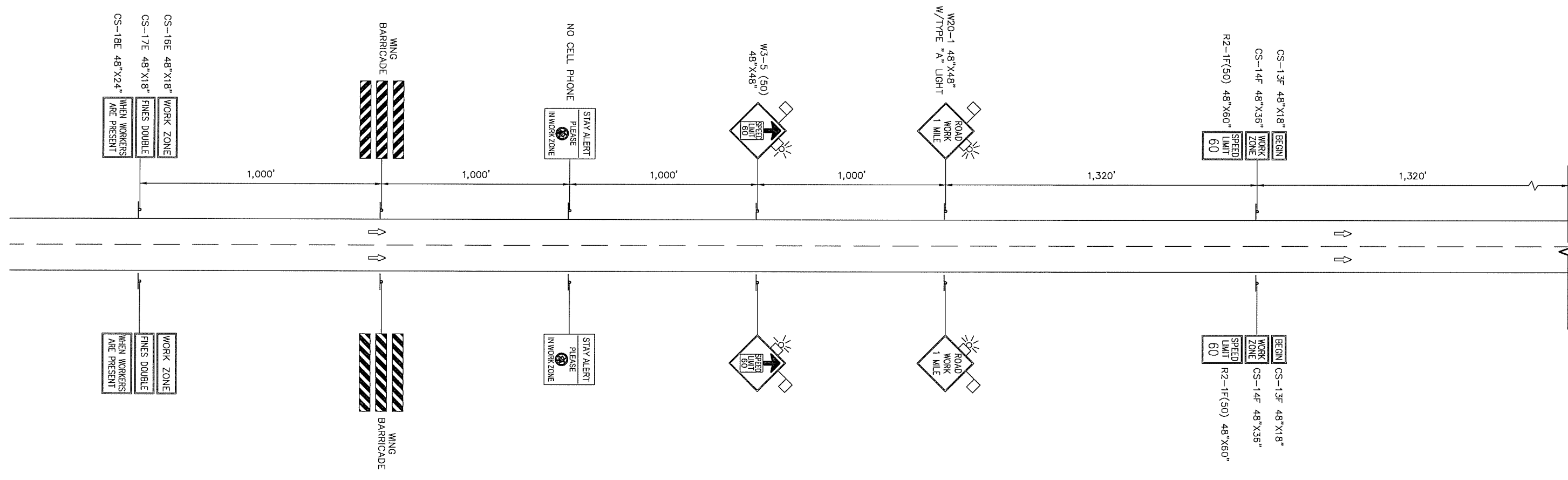


I-35 PHASES 1 & 2 TRAFFIC CONTROL (SOUTH BOUND)
NOT TO SCALE

KEY

	ARROW DISPLAY (TYPE C)
	DRUM
	SIGN
	TRAFFIC DIRECTION
	TYPE III BARRICADE
	CHANNELIZER CONE
	METAL PORTABLE LONGITUDINAL BARRIER

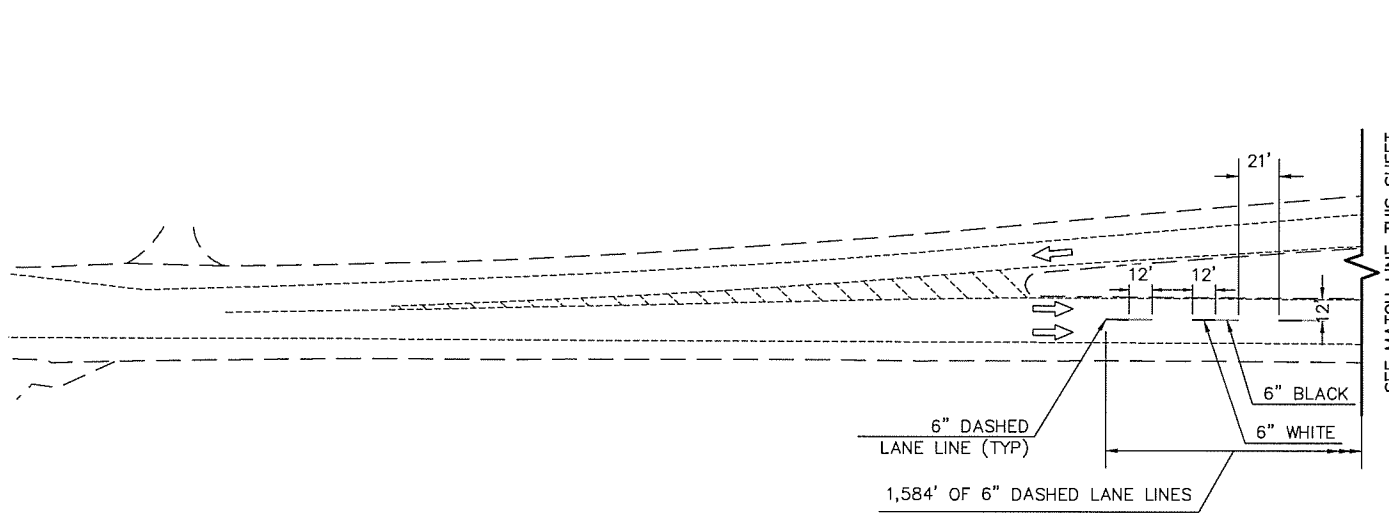
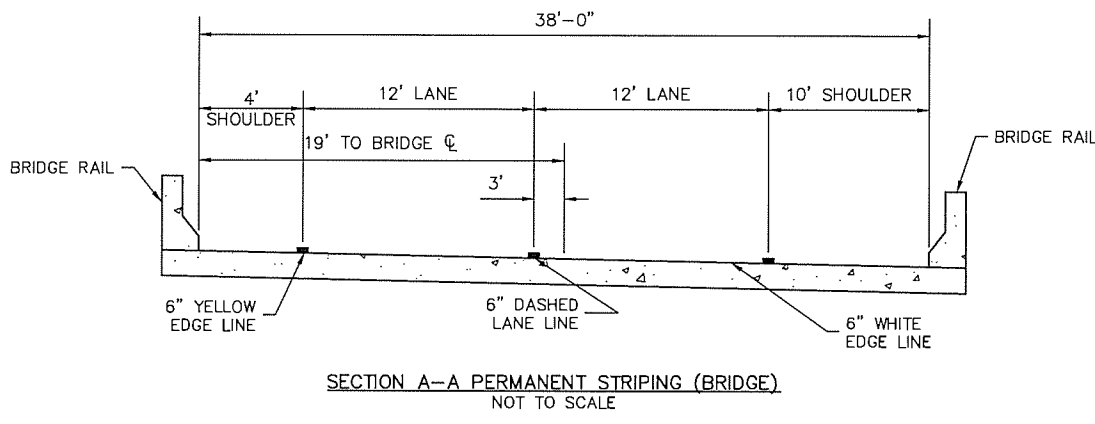
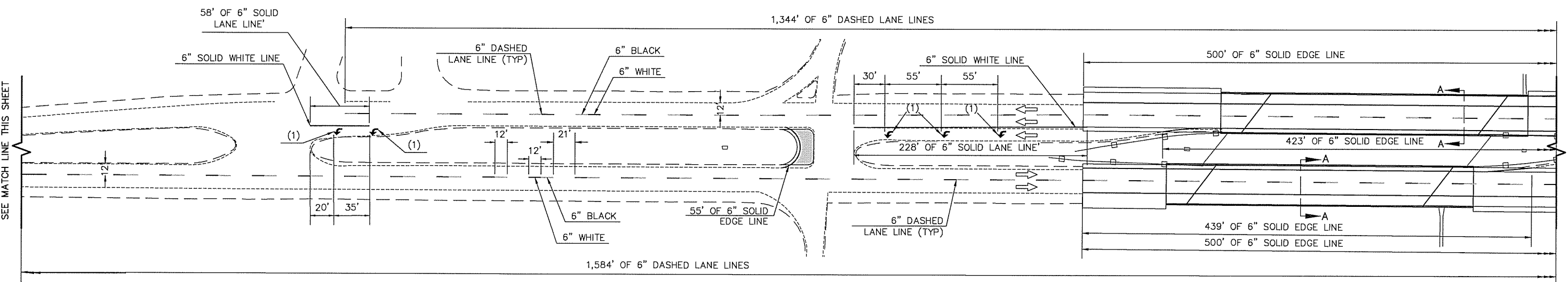
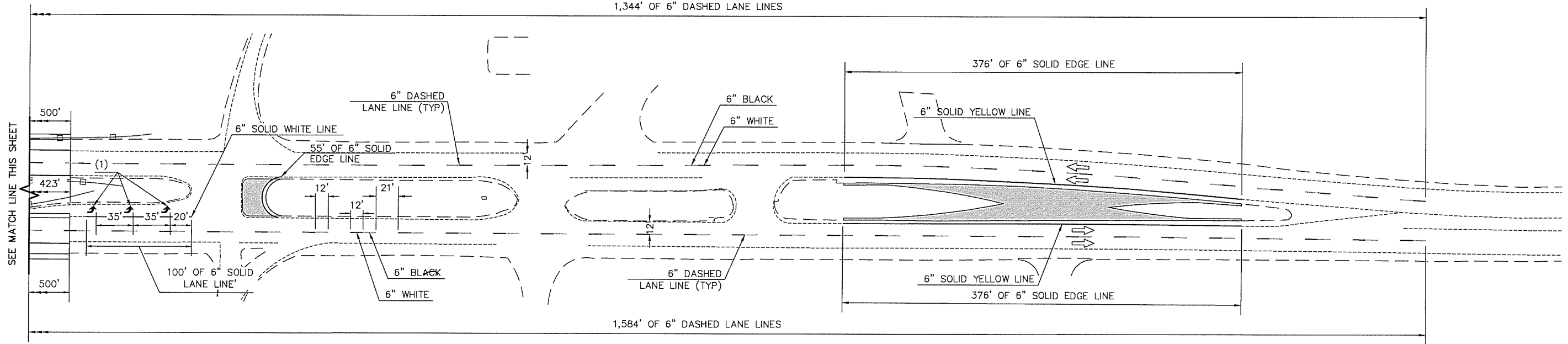
DESIGN			OKLAHOMA DEPARTMENT OF TRANSPORTATION DESIGN DIVISION TRAFFIC CONTROL PLAN (5 OF 7) STATE JOB NO. 29572(04) SHEET NO. 34 MCCLAIN COUNTY
DRAWN	TS	5/16	
CHECKED	SM	5/16	
APPROVED			
SQUAD	RED PLAINS PROFESSIONAL		



I-35 PLACEMENT OF ADVANCED WARNING SIGNS
NOT TO SCALE

DESIGN		
DRAWN	TS	5/16
CHECKED	SM	5/16
APPROVED		
SQUAD	RED PLAINS PROFESSIONAL	

OKLAHOMA DEPARTMENT OF TRANSPORTATION
DESIGN DIVISION
TRAFFIC CONTROL PLAN
(6 OF 7)
STATE JOB NO. 29572(04) SHEET NO. 35
MCCLELLIN COUNTY



- KEY
- TRAFFIC DIRECTION
 - TURN ARROW
 - 6" HIGH CONTRAST LANE LINE
- NOTES
- (1) INSTALL TURN ARROW.

DESIGN		
DRAWN	TS	5/16
CHECKED	SM	5/16
APPROVED		
SQUAD	RED PLAINS	PROFESSIONAL

OKLAHOMA DEPARTMENT OF TRANSPORTATION
 DESIGN DIVISION
TRAFFIC CONTROL PLAN
 (7 OF 7)
 STATE JOB NO. 29572(04) SHEET NO. 36
 MCCLAIN COUNTY