SURVEY CONTROL DATA

THE VERTICAL DATUM FOR THIS SURVEY IS NAVD88, AND THE HORIZONTAL DATUM IS NAD83(2011) OKLAHOMA STATE PLANES, NORTH ZONE, US SURVEY FEET.

DESIGN DATA

AADT 2017	= 36,800
AADT 2037	= 56,500
K	= 11%
D	= 58%
T (% AADT)	= 11%
T (% DHV)	= 8%
T_3	= 6%
V	= 65MPH
20yr.Flex ESALS	= 21.8 M

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED

U.S. HIGHWAY

FEDERAL AID PROJECT NO. ACNHPP-272N(200)SS 1

BRIDGE REHABILITATION

US 64 OVER 97TH W. AVENUE (ADAMS RD.)

TULSA COUNTY

CONTROL SECTION NO. 64-72-86

STATE JOB NO. 28884(04)

BRIDGE "A" LOCATION NO. 7286 0895 NX, EXISTING NBI NO. 17224

BRIDGE "B" LOCATION NO. 7286 0895 SX, EXISTING NBI NO. 17225

C.R.L. STA. 208+70.00
END INCIDENTAL CONSTRUCTION

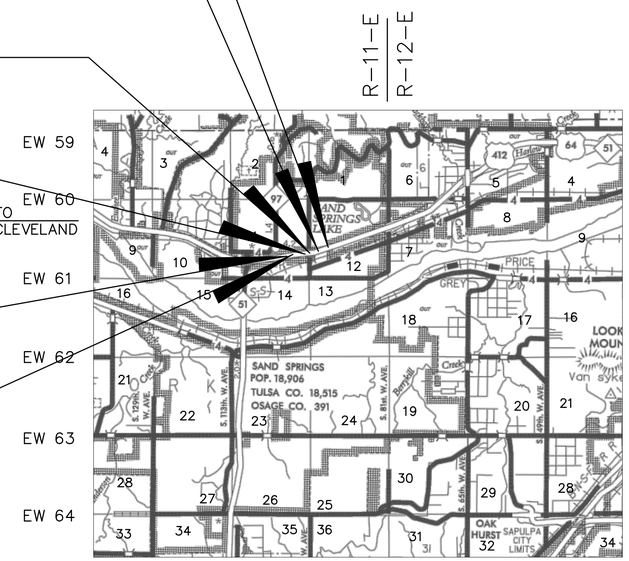
C.R.L. STA. 200+24.00 END CONSTRUCTION
BEGIN INCIDENTAL CONSTRUCTION

C.R.L. STA. 197+56.97 BEGIN BRIDGE "A" & "B"
BRIDGE LENGTH – 130.50'
C.R.L. STA. 198+87.47 BEGIN BRIDGE "A" & "B"

C.R.L. STA. 195+83.00 BEGIN CONSTRUCTION
END INCIDENTAL CONSTRUCTION

CONTROL SUBSECTION NO. 8.78

C.R.L. STA. 188+50.00 BEGIN
INCIDENTAL CONSTRUCTION

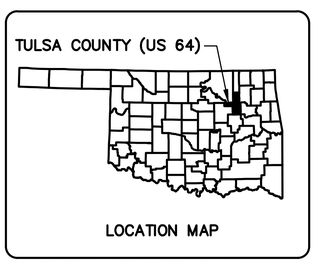


SCALES 1"

PLAN	1" = 20' & 50'
PROFILE HOR.	1" = 20' & 50'
VER.	1" = 5'
LAYOUT MAP	1" = 1 MILE

CONVENTIONAL SYMBOLS

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



LOCATION MAP

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

PROJECT LENGTH BASED ON CRL STATIONING

ROADWAY LENGTH	310.50 FT.	0.058 MI.
BRIDGE LENGTH	130.50 FT.	0.024 MI.
PROJECT LENGTH		0.082 MI.

EQUATIONS : NONE
EXCEPTIONS : NONE

INDEX OF SHEETS

THE FOLLOWING STANDARD DRAWINGS WILL BE REQUIRED:

ROADWAY	TRAFFIC			BRIDGE
SSS-1-1	TCS1-1-01	TCS11-1-01	PM4-1-01	FSHP-42-2-00E
TSC2-3-2	TCS2-1-00	TCS14-1-00	PMBD1-1-00	EJ-SK-04E
TSD-2-0	TCS3-1-01	TCS15-1-00	THRI-1-02	EJ-DTL-02E
TFL-1-1	TCS4-1-01	TCS18-1-01	SKT1-1-00	HP1-2-01E
LECS-4-1	TCS5-1-00	TCS19-1-01	GA31-1-00	B40-STL-BM-BRACING-00E
PSE-1-0	TCS6-1-02	TCS20-1-00	GHW1-1-00	B40-C-BRG-RB-01E
PCES-4-1	TCS7-1-02	TCS21-1-02	GHW2-1-00	
SMD-3-1	TCS8-1-00	TCS22-1-00		
MFC-4-1	TCS9-1-01	TCS24-1-02		
MJB-3-1	TCS10-1-00	TCS25-1-00		
SPI-4-1				
SPB-1-4				
FHTCP-3-1				
PDT-1-3				

OKLAHOMA DEPARTMENT OF TRANSPORTATION

DESCRIPTION	REVISIONS	DATE
1	PROJECT NUMBER	7/7/2017

PREPARED BY:
WALTER P. MOORE AND ASSOCIATES, INC.
TULSA, OKLAHOMA

WALTER P MOORE

WALTER P. MOORE AND ASSOCIATES, INC.
7666 EAST 61ST STREET
SUITE 251
TULSA, OKLAHOMA 74133
PHONE: 918.806.7200 FAX: 918.806.7250

REGISTERED PROFESSIONAL ENGINEER
DANIEL L ASHBAUGH
27745
OKLAHOMA

01/18/2017

RESPONSIBLE FOR SHEETS: 1–5, 7–30
OKLA. REG. NO. 27745

PREPARED BY:
WALTER P. MOORE AND ASSOCIATES, INC.
TULSA, OKLAHOMA

WALTER P MOORE

WALTER P. MOORE AND ASSOCIATES, INC.
7666 EAST 61ST STREET
SUITE 251
TULSA, OKLAHOMA 74133
PHONE: 918.806.7200 FAX: 918.806.7250

REGISTERED PROFESSIONAL ENGINEER
MARK ERIK WILLIAMS
23752
OKLAHOMA

01/18/2017

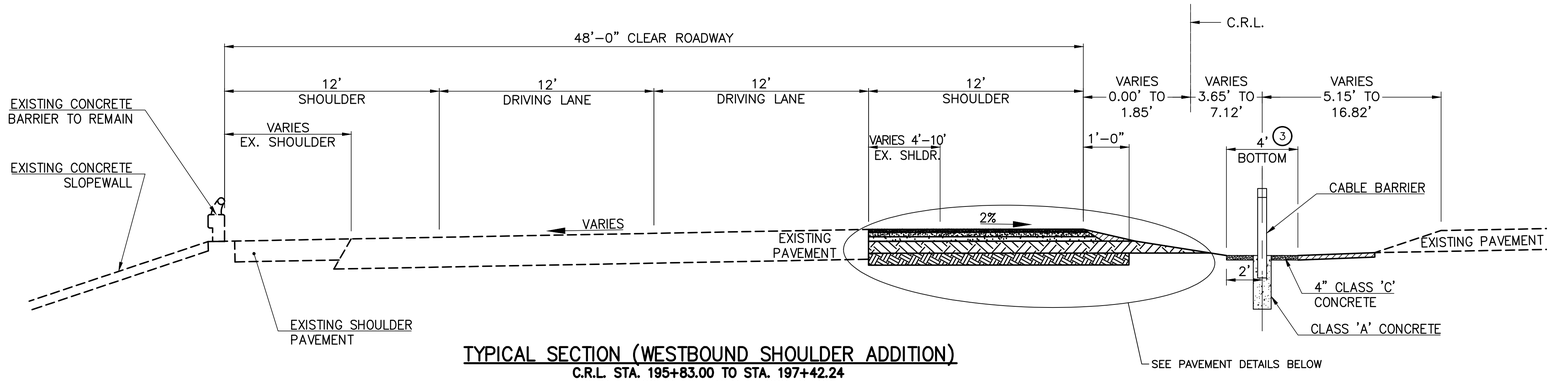
RESPONSIBLE FOR SHEETS: 6, 31–56
OKLA. REG. NO. 23752

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

ACNHPP–272N(200)SS PROJECT NO. 28884(04) SHEET NO. 1

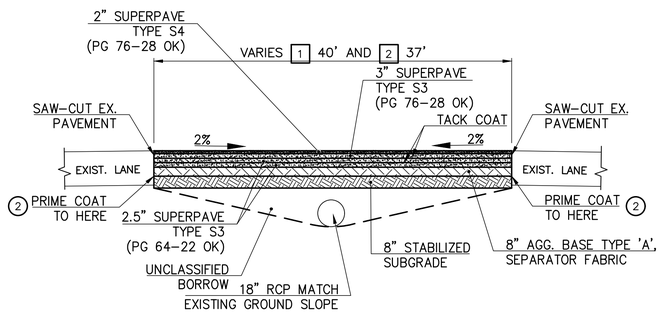
TULSA COUNTY US 64 OVER 97TH W. AVE

REVISIONS		
REV. NO.	DESCRIPTION	DATE



TYPICAL SECTION (WESTBOUND SHOULDER ADDITION)

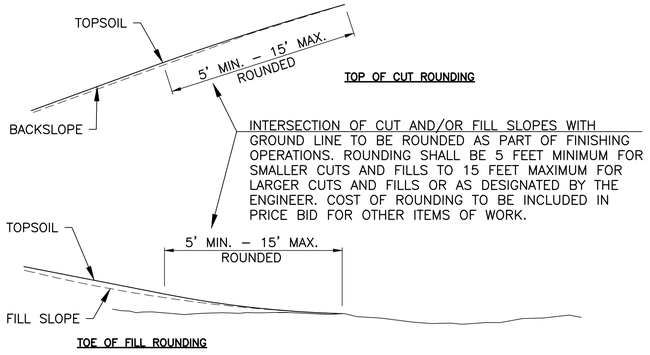
C.R.L. STA. 195+83.00 TO STA. 197+42.24
& STA. 199+07.43 TO STA. 200+24.00



CROSSOVER TYPICAL SECTION

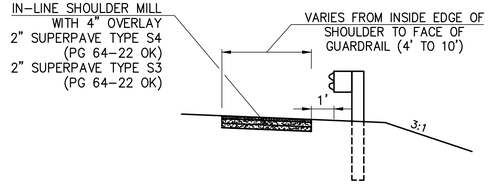
1 C.R.L. STA. 189+83.00 TO 195+83.00

2 C.R.L. STA. 200+24.00 TO 206+23.00



ROUNDING DETAIL

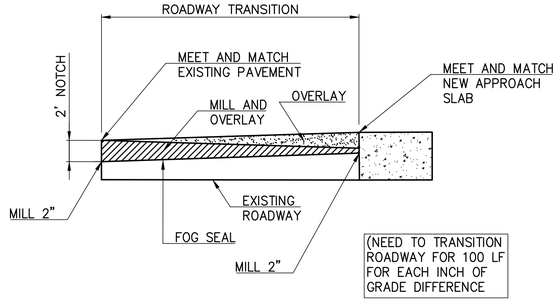
N.T.S.



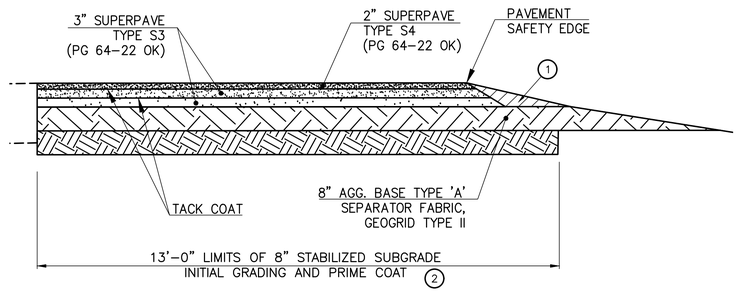
MILL AND OVERLAY DETAIL

C.R.L. STA. 188+50.00 LT. TO 197+42.24 LT. (PHASE 1A)
C.R.L. STA. 199+07.43 LT. TO 208+70.00 LT. (PHASE 1A)
C.R.L. STA. 194+20.00 RT. TO 197+36.01 RT. (PHASE 1A)
C.R.L. STA. 199+01.99 RT. TO 202+87.00 RT. (PHASE 1A)

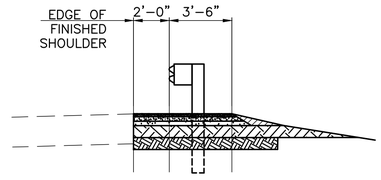
C.R.L. STA. 195+83.00 RT. TO 197+36.01 RT. (PHASE 1B)
C.R.L. STA. 199+01.99 RT. TO 200+24.00 RT. (PHASE 1B)



ROADWAY TRANSITION DETAIL



PAVEMENT DETAILS



GUARDRAIL WIDENING

STA. 195+83.00 LT TO STA. 197+36.01 LT (BRIDGE "B")
STA. 199+07.43 RT TO STA. 200+24.00 RT (BRIDGE "A")

GENERAL NOTES

1. TO BE BACKFILLED AS PART OF THE FINISHING OPERATIONS. QUANTITY IS MEASURED IN T.B.S.C. TYPE E.
2. PRIME COAT ON TOP OF AGGREGATE BASE.
3. SEE ROUNDING DETAIL THIS SHEET.

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

STATE JOB NO. 28884(04) SHEET NO. 2

ROADWAY PAY QUANTITY NOTES

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

(R–7) FOR 205(A) TYPE A SALVAGED TOPSOIL PRICE BID TO INCLUDE COST OF 18–46–0 FERTILIZER, ESTIMATED AT 200 POUNDS PER SQUARE YARD. FOR 230(A) SOLID SLAB SODDING, PRICE BID TO INCLUDE THE COST OF 10–20–10 FERTILIZER AT THE SAME RATE.

(R–8) PRICE BID TO INCLUDE COST OF WATERING, ESTIMATED AT 40 GALLONS PER SQUARE YARD.

(R–25) ESTIMATED AT 120 LBS. PER CU. FT.

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

(R–34) PRICE BID TO INCLUDE COST OF FOG SEAL, MEETING THE REQUIREMENTS OF SECTION 407 OF THE STANDARD SPECIFICATIONS.

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

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

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

(1) THIS ITEM SHALL BE TYPE 2 GEOGRID.

(2) PRIOR TO PAVEMENT REMOVAL, ALL PAVEMENT SHALL BE SAW CUT, FULL DEPTH.

(3) NOT USED

(4) PRICE BID FOR THIS ITEM TO INCLUDE THE COST OF TEMPORARY SEDIMENT REMOVAL WHEN 50% FULL.

(5) TO INCLUDE THE COST OF STUBBING PIPE INTO EXISTING MEDIAN DRAINS.

(6) PRICE BID FOR THIS ITEM TO INCLUDE TRENCH EXCAVATION, BACKFILLING AND STANDARD BEDDING MATERIAL PER ODOT STANDARD SPI–4–1.

(7) PRICE BID SHALL INCLUDE ALL COST TO RE–LAP GUARDRAIL FOR TRAFFIC SEQUENCING PURPOSES (SEE CONSTRUCTION PHASE).

(8) PAY ITEM CONTAINS 299 TONS OF SUPERPAVE, TYPE S4 (PG76–28 OK) FOR 200' ROADWAY TRANSITION EACH SIDE OF BRIDGE 'A' AND BRIDGE 'B' AT APPROVAL OF ENGINEER. FOR USE IN OVERLAY OF THE DRIVING LANES.

(9) PAY ITEM CONTAINS 130 TONS OF SUPERPAVE, TYPE S4 (PG64–22 OK) FOR 200' ROADWAY TRANSITION EACH SIDE OF BRIDGE 'A' AND BRIDGE 'B' AT APPROVAL OF ENGINEER. FOR USE IN OVERLAY OF THE EXISTING SHOULDERS.

(10) PAY ITEM CONTAINS 4,356 SY OF COLD MILLING PAVEMENT FOR 200' ROADWAY TRANSITION EACH SIDE OF BRIDGE 'A' AND BRIDGE 'B' AT APPROVAL OF ENGINEER.

(11) PRICE BID TO INCLUDE THE CHEMICAL ADDITIVE(S) TO ACHIEVE THE RATE SPECIFIED FOR THE APPROPRIATE SOIL CLASSIFICATION AS SPECIFIED IN THE MOST CURRENT ODOT MATERIALS DIVISION OHD L–50. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CORRECTLY CLASSIFY THE SOIL AND DETERMINE THE APPROPRIATE ADDITIVE(S).

(12) THE SKT–350 OR APPROVED EQUAL SHALL BE UTILIZED ON THIS PROJECT. THE ET–PLUS WILL NOT BE ALLOWED.

(13) THIS ITEM TO BE USED AT THE DISCRETION OF THE ENGINEER TO MAINTAIN TRAFFIC DURING CONSTRUCTION.

(14) TO INCLUDE COST OF RE–LAPPING EXISTING AND PROPOSED GUARDRAIL WHEN DETOUR TRAFFIC IS PLACED IN THE OPPOSING DIRECTION.

(15) NOT USED

(16) 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 EMULSIFIED 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.

GENERAL 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.

FOR PROJECTS THAT INCLUDE WIDENING AND/OR RESURFACING, THE CONTRACTOR SHALL SCHEDULE OPERATIONS TO MINIMIZE POTENTIAL DROPOFF 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 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.

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.

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

EXCESS ASPHALT AT JOINTS AND CRACKS IN EXISTING PAVEMENT SHALL BE REMOVED FLUSH TO TOP OF PAVING IN A MANNER APPROVED BY THE ENGINEER.

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 ONECALL SYSTEM, INC. "CALL OKIE" 1–800–522–6543 OR 811.

ENVIRONMENTAL MITIGATION NOTES

AMERICAN BURYING BEETLE (ABB) NOTE

THE AMERICAN BURYING BEETLE IS A LARGE CARRION BURYING BEETLE THAT IS LISTED AS ENDANGERED UNDER THE ENDANGERED SPECIES ACT. IN ORDER TO AVOID ADVERSE IMPACTS, NO ARTIFICIAL LIGHTING SHALL BE USED DURING CONSTRUCTION. CARCASSES AND ALL FOOD TRASH SHALL BE REMOVED FROM THE PERMANENT AND TEMPORARY RIGHT–OF–WAY THROUGHOUT PROJECT ACTIVITIES.

MIGRATORY BIRD 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 BRIDGES NBI NO. 17224 & 17225 WAS OBSERVED DURING THE INITIAL SURVEY CONDUCTED AS PART OF THE BIOLOGICAL STUDIES IN 2016. 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.

IF THE CONTRACTOR ELECTS TO BUILD A WORK ROAD(S) TO PERFORM WORK, THE CONTRACTOR WILL BE RESPONSIBLE FOR EFFECTIVE EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH THE DEQ OKR10 GENERAL CONSTRUCTION REGULATIONS. IF THE AREA OF DISTURBANCE IS ONE (1) OR MORE ACRES AND IS NOT ALREADY COVERED BY A DEQ PERMIT, THE CONTRACTOR WILL BE REQUIRED TO OBTAIN A DEQ STORM WATER CONSTRUCTION PERMIT WHICH WILL INCLUDE AN APPLICATION (NOTICE OF INTENT) TO DEQ PRIOR TO EARTH DISTURBING ACTIVITIES, A STORM WATER POLLUTION PREVENTION PLAN AND THE INSTALLATION AND MAINTENANCE OR EROSION AND SEDIMENT CONTROLS. IN ADDITION, THE CONTRACTOR WILL BE RESPONSIBLE FOR PERMANENT STABILIZATION MEASURES AFTER REMOVAL OF THE WORK ROAD(S). ALL COSTS ASSOCIATED WITH THE CONTRACTORS' WORK ROAD INCLUDING A DEQ PERMIT, EROSION AND SEDIMENT CONTROLS AND PERMANENT STABILIZATION, ETC. WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE FOLLOWING AIRPORT/AIRFIELD LOCATED WITHIN 4 MILES OF THIS PROJECT. THIS ACTION MAY REQUIRE NOTIFYING THE FEDERAL AVIATION ADMINISTRATION (FAA) OF PROPOSED CONSTRUCTION VIA FAA FORM 7460–1 PRIOR TO CONSTRUCTION. WILLIAM R. POGUE MUNICIPAL AIRPORT.

REVISIONS		
REV. NO.	DESCRIPTION	DATE
1	QUANTITIES	9/14/17

JP28884(04)
ROADWAY 0100

PAY QUANTITIES

ITEM		DESCRIPTION		UNIT	QTY	
202(A)	0183	UNCLASSIFIED EXCAVATION	(R-1)	CY	628.10	
202(D)	0184	UNCLASSIFIED BORROW	(R-1)	CY	126.80	
221(C)	2801	TEMPORARY SILT FENCE	(4)	LF	1,020.00	
221(F)	0100	TEMPORARY SILT DIKE	(4)	LF	120.00	
221(K)	0600	TEMPORARY FIBER LOG	(4)	LF	350.00	
230(A)	2806	SOLID SLAB SODDING	(R-7)(R-8)	SY	1,020.00	
303(A)	2100	AGGREGATE BASE TYPE A		CY	1,704.62	
307(K)	4300	STABILIZED SUBGRADE	(R-1)(11)	SY	6,020.00	
325	5271	SEPARATOR FABRIC	(R-1)	SY	6,371.00	
326 (B)	0100	GEOGRID REINFORCEMENT	(R-1)(1)	SY	640.00	
402(E)	0225	TRAFFIC BOUND SURFACE COURSE TYPE E	(R-25)	TON	14.00	
407(B)	0250	TACK COAT		GAL	1,912.00	
408	5774	PRIME COAT	(16)	GAL	1,593.00	
411(B)	5935	SUPERPAVE, TYPE S3 (PG 76-28 OK)	(R-32)	TON	904.00	
411(B)	5945	SUPERPAVE, TYPE S3 (PG 64-22 OK)	(R-32)	TON	2,170.00	
411(C)	5950	SUPERPAVE, TYPE S4 (PG 76-28 OK)	(R-32)(8)	TON	902.00	
411(C)	5960	SUPERPAVE, TYPE S4 (PG 64-22 OK)	(R-32)(9)	TON	959.00	1
411(I)	6310	SUPERPAVE, TYPE S4 (PATCH)(PG 64-22 OK)	(13)	TON	50.00	
412	5267	COLD MILLING PAVEMENT	(R-34)(10)	SY	7,739.00	1
610(A)	0604	5" CONCRETE SIDEWALK		SY	227.00	
611(G)	6002	INLET (SMD-TYPE 2)		EA	2.00	
611 (L)	0487	JUNCTION BOXES		CF	151.58	
612(B)	0750	CONNECT TO EXISTING MANHOLE		EA	2.00	
613(A)	0491	18" R.C. PIPE CLASS III	(5)(6)	LF	1,338.00	
619(A)	0920	REMOVAL OF STRUCTURES & OBSTRUCTIONS	(R-48)(R-49)	LSUM	1.00	
619(B)	4728	REMOVAL OF ASPHALT PAVEMENT	(R-49)(R-50)(2)	SY	1,299.00	
619(B)	4780	REMOVAL OF GUARDRAIL	(R-49)	LF	1,196.00	
619(C)	0924	SAWING PAVEMENT	(2)	LF	2,629.00	
623(A)	0932	BEAM GUARDRAIL W-BEAM SINGLE	(7)(14)	LF	762.50	
623(G)	8590	GUARDRAIL END TREATMENT (31")	(12)(14)	EA	3.00	
623(I)	8700	GUARDRAIL BRIDGE CONN-THRIE BEAM (31")	(14)	EA	3.00	

TULSA COUNTY — US–64 OVER 97TH W. AVE.

DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PAY QUANTITIES AND NOTES (ROADWAY)

STATE JOB NO. 28884(04) SHEET NO. 3

TRAFFIC CONTROL PAY QUANTITY NOTES:

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

(TC–2) QUANTITY INCLUDES SUFFICIENT LENGTH OF PORTABLE LONGITUDINAL BARRIER TO PROVIDE FOR THE LONGEST SECTION SHOWN ON THE PLANS. 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–16) PAINT SHALL CONFORM TO SECTION 711 "TRAFFIC STRIPE", OF THE O.D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (CURRENT EDITION). IF CONSTRUCTION TRAFFIC STRIPE PAINT IS INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND FAILS DURING THE FIRST SIX MONTHS OF SERVICE, REPLACEMENT WILL BE MADE AT THE CONTRACTOR'S EXPENSE AND SHALL BE ACCOMPLISHED IN A TIMELY MANNER UPON NOTIFICATION BY THE ENGINEER OF SUCH FAILURE.

(TC–17) INCLUDES AN ESTIMATED 26,139 L.F. (PAINT) (4" WIDE) WHITE 16,708 L.F. (PAINT)(4" WIDE) YELLOW STRIPE.

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

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

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

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

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

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

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

(TC–33) ALL CONSTRUCTION WORK ZONE SIGNS SHALL HAVE FLUORESCENT SHEETING. THE FLUORESCENT SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956 (LATEST REVISION) THE MANUFACTURER SHALL FURNISH A TYPE 'D' CERTIFICATION IN ACCORDANCE WITH O.D.O.T. STANDARD SPECIFICATIONS (CURRENT EDITION) SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON MATERIAL SUBMITTED FOR APPROVAL.

(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–65) THE PRICE BID FOR THIS ITEM SHALL INCLUDE THE FOLLOWING:

A. ONE OFFICIALLY MARKED OKLAHOMA HIGHWAY PATROL CAR (WHEN PROJECT INVOLVES A STATE OR FEDERAL HIGHWAY). IF AN OKLAHOMA HIGHWAY PATROL CAR IS NOT AVAILABLE, THEN A LOCAL CITY OR COUNTY LAW ENFORCEMENT VEHICLE IS TO BE USED. PRICE BID FOR THIS ITEM SHALL BE PAID ON A PER UNIT PER HOUR BASIS.

B. ONE OKLAHOMA HIGHWAY LAW ENFORCEMENT OFFICER WITH JURISDICTIONAL AUTHORITY TO WRITE AND ISSUE TRAFFIC CITATIONS. IF AN OKLAHOMA HIGHWAY PATROL LAW OFFICER IS NOT AVAILABLE, THEN A LOCAL CITY OR COUNTY LAW ENFORCEMENT OFFICER IS TO BE USED. THE LAW ENFORCEMENT OFFICER SHALL BE INSURED, LICENSED AND BONDED, IF REQUIRED, BY THE CONTRACTOR. THIS OFFICER SHALL BE SPECIFICALLY APPROVED AND ASSIGNED TO THIS WORK ACTIVITY.

C. THE CONTRACTOR SHALL MAKE ALL THE NECESSARY ARRANGEMENTS WITH THE OKLAHOMA HIGHWAY PATROL OR THE LAW ENFORCEMENT AGENCY TO PROVIDE THE REQUIRED LAW ENFORCEMENT ON THIS PROJECT.

D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HIS ANTICIPATED WEEKLY SCHEDULE TO THE OKLAHOMA HIGHWAY PATROL OR THE LOCAL LAW AGENCY TWO WEEKS IN ADVANCE OF THE WORK. THE WORK SCHEDULE WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

E. THE OKLAHOMA HIGHWAY PATROL OR THE LOCAL LAW ENFORCEMENT AGENCY WILL BE PAID FOR A MAXIMUM OF ONE (1) HOUR, PER WORK PERIOD, TO ALLOW FOR TRAVEL TO AND FROM THE OFFICER'S PERMANENT DUTY STATION AND THE WORK SITE. THIS WILL BE PAID ONE (1) TIME PER WORK PERIOD AS DEFINED BY THE CONTRACTOR IN AGREEMENT WITH THE ENGINEER.

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

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

(TC–84) 3 00 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.

(1) THIS ITEM IS FOR 1,730 LF OF MODULAR GLARE SCREEN AT THE CROSSOVERS

(2) PRICE BID TO INCLUDE TYPE 'C' WARNING LIGHTS ON EVERY OTHER 880(F) DRUMS

(3) QUANTITY SHOWN INCLUDES 6,343 L.F. TRAFFIC STRIPE (MULTI–POLYMER)(WHITE) AND 4,850 L.F. TRAFFIC STRIPE (MULTI–POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF SIX INCH (6") WIDE TRAFFIC STRIPE.

TRAFFIC STRIPING PAY QUANTITY NOTES

(TS–26) QUANTITY SHOWN INCLUDES 4,000 L.F. TRAFFIC STRIPE (MULTI–POLYMER)(WHITE) AND 0 L.F. TRAFFIC STRIPE(PLASTIC)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF EIGHT INCH (8") WIDE TRAFFIC STRIPE.

GENERAL TRAFFIC PAY ITEM NOTES

(C–208) LOCATIONS OF GUARDRAIL WIDENING GIVEN ON SUMMARY SHEETS ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY THESE AREAS. THE FINAL LOCATION OF GUARDRAIL WIDENING TO BE DETERMINED BY THE ENGINEER. GUARDRAIL WIDENING SHALL NOT BE DONE IN AREAS WHERE CURB EXISTS OR WHERE WIDENING WILL CAUSE SLOPE FAILURE.

(C–216) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE TRAFFIC BENEATH THE BRIDGES DURING THE REMOVAL AND RECONSTRUCTION OF BRIDGE PARAPET BEFORE ANY REMOVAL IS BEGUN, A PROPOSED METHOD OF PREVENTING DEBRIS FROM FALLING ON THE TRAFFIC BELOW THE BRIDGE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. ALL MATERIAL REMOVED FROM THE EXISTING BRIDGE SHALL BE REMOVED FROM THE WORK AREA PROMPTLY. THE AREA SHALL BE CLEARED AT THE CLOSE OF ANY WORK PERIOD.

(C–221) THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE AREAS UNDER THE BRIDGES FROM FALLING DEBRIS AND BE SOLELY RESPONSIBLE FOR SAFEGUARDING THESE AREAS.

(C–222) LANE WIDTHS AND OTHER LINE DIMENSIONS SHALL REMAIN AS MARKED PREVIOUSLY.

REVISIONS		
REV. NO.	DESCRIPTION	DATE

JP28884(04)
TRAFFIC 0301

PAY QUANTITIES

ITEM		DESCRIPTION		UNIT	QTY
805(D)	8744	(PL) REMOVE & RESET LIGHT POLE		EA	1.00
808	3107	PIER MOUNTED POLE BRACKET		EA	1.00
856(A)	8535	TRAFFIC STRIPE (MULTI-POLY.) (6" WIDE)	(3)(TC-13, 14)	LF	11,193.00
856(A)	8540	TRAFFIC STRIPE (MULTI-POLY.) (8" WIDE)	(TC-13, 14 ,TS-26)	LF	4,000.00
857(C)	8851	REMOVABLE PAVEMENT MARKING TAPE (4" WIDE)	(TC-16, 17, 20, 70, 75)	LF	31,070.00
857 (F)	8006	PAVEMENT MARKING REMOVAL (TRAFFIC STRIPE)	(TC-22)	LF	15,193.00
877(B)	8484	DELIVER PORTABLE LONGITUDINAL BARRIER	(1)(TC-1,2)	LF	3,400.00
877(C)	8486	RELOCATION OF PORTABLE LONGITUDINAL BARRIER	(TC-1)	LF	3,400.00
878(B)	8487	MODULAR GLARE SCREEN (TEMPORARY)	(1)(TC-84)	SD	33,100.00
880(A)	8812	ARROW DISPLAY (TYPE C)	(TC-84)	SD	600.00
880(B)	8818	CONSTRUCTION SIGNS 0 TO 6.25 SF	(TC-26, 28, 33, 70,84)	SD	4,800.00
880(B)	8821	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	(TC-26, 29, 33, 70,84)	SD	23,260.00
880(B)	8824	CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF	(TC-26, 30, 33, 70,84)	SD	5,800.00
880(C)	8842	CONSTRUCTION BARRICADES (TYPE III)	(TC-26, 70, 84)	SD	2,100.00
880(C)	8848	WING BARRICADES	(2)(TC-26, 70, 84)	SD	600.00
880(E)	8860	WARNING LIGHTS (TYPE A)	(TC-26, 70, 84)	SD	14,060.00
880(F)	8878	DRUMS	(2)(TC-26, 61, 70, 84)	SD	22,710.00
880(G)	8884	TUBE CHANNELIZERS	(TC-26, 61, 70, 84)	SD	1,790.00
880(L)	8911	TRAFFIC SURVEILLANCE, POLICE	(TC-65, 70)	HOUR	300.00
882 (A)	8306	PORT. CHANGEABLE MESSAGE SIGN		SD	1,200.00

TULSA COUNTY — US–64 OVER 97TH W. AVE.

DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PAY QUANTITIES AND NOTES (TRAFFIC)

STATE JOB NO. 28884(04) SHEET NO. 4

V:\M25\2012\12003-07 0007 EC-1414 US-64 Tank 5\Civil\Cad\Site\03-06-w12-12003-07-PAY ITEMS.dwg Jan 12, 2017 - 8:14am aaronk

PAY ITEM NOTES (CABLE BARRIER)

(TP–51) THE TENSION METER SHALL BE OF THE TYPE RECOMMENDED BY THE MANUFACTURER OF THE CABLE BARRIER SYSTEM PROVIDED, AND SHALL BE APPROVED BY THE ODOT TRAFFIC ENGINEERING DIVISION. IT SHALL ALSO BE NEW, CALIBRATED, FUNCTIONAL, AND CAPABLE OF READING THE TENSION ON THE CABLE BARRIER SYSTEM TO WITHIN THE MANUFACTURER'S RECOMMENDED TOLERANCES. THE DEVICE SHALL ALSO BE DEMONSTRATED BY THE INSTRUCTOR(S) ON HOW TO OPERATE THEM AND PROVIDE OTHER HELPFUL INFORMATION TO THE PARTICIPANTS. IT SHALL BE DELIVERED TO THE ODOT DIVISION 8 HEADQUARTERS IN TULSA, OK.

(TP–57) PRICE BID FOR THIS ITEM CONSISTS OF INSTALLATION OF CABLE BARRIER SYSTEM AND ITS HARDWARE (CAPS, POST, TURN BUCKLE, ETC.). CONTRACTOR SHALL USE THE MATERIAL REMOVED FROM THE EXISTING CABLE BARRIER SYSTEM WITH THE EXCEPTION OF CONCRETE FOOTINGS. COST TO INCLUDE ANY ADDITIONAL HARDWARE NEEDED TO COMPLETE THE INSTALLATION. CONTRACTOR SHALL SWAGE NEW FITTINGS FOR THE INSTALLATION OF NEW SECTION IF DEEMED NECESSARY BY THE ENGINEER. PRICE BID FOR THIS ITEM ALSO INCLUDES COST OF NEW SWAGING FOR CABLE BARRIER SYSTEM.

(TP–58) COST TO INCLUDE ANY ADDITIONAL HARDWARE NEEDED TO COMPLETE THE INSTALLATION. CONTRACTOR SHALL SWAGE NEW FITTINGS FOR THE INSTALLATION OF EXISTING SECTION IF NECESSARY BY THE ENGINEER. PRICE BID FOR THIS ITEM ALSO INCLUDES COST OF NEW SWAGING FOR CABLE BARRIER SYSTEM.

(TP–59) TURNBUCKLES SHALL BE NO CLOSER THAN 1' TO A CABLE POST, IF IT INTERFERES WITH THE TENSIONING OPERATION OF THE SYSTEM. THE HEIGHTS FOR ALL ROWS OF CABLES SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDED SPECIFICATIONS. THE BOTTOM CABLE MUST BE WITHIN THE TOLERANCE LIMITS RECOMMENDED BY THE MANUFACTURER.

(TP–60) PRICE BID FOR THIS ITEM INCLUDES THE REMOVAL OR RELOCATION / RESET OF ANY EXISTING SIGNS OR DELINEATORS WITHIN THE MEDIAN WITH THE APPROVAL OF THE ENGINEER, AS WELL AS, RESHAPING THE DITCHES AS DIRECTED BY THE ENGINEER WITHIN THIS AREA PRIOR TO INSTALLATION OF THE CABLE BARRIER SYSTEM. RELOCATION OF ANY EXISTING SIGN OR DELINEATOR SHALL BE DETERMINED BY THE ENGINEER.

(TP–62) INCLUDED IN THIS PAY ITEM WILL BE TWO (2) DAYS OF TRAINING FROM THE MANUFACTURER'S REPRESENTATIVE FOR MAINTAINING WIRE ROPE SAFETY FENCE SYSTEM. THE TRAINING SESSION(S) SHALL INCLUDE TRAINING TO PERTINENT ODOT AND LOCAL EMERGENCY PERSONNEL. PARTICIPANT SELECTION AND TRAINING LOCATION SHALL BE APPROVED BY THE ENGINEER.

(TP–63) CABLE WILL BE MEASURED FROM BEGINNING OF WIRE ROPE CABLE TO END OF WIRE ROPE CABLE.

(TP–64) ALL POSTS SHALL HAVE CAPS WHICH SHALL BE AFFIXED TO THE POST WITH A DURABLE LIQUID ADHESIVE, SUCH AS LIQUID NAILS. EVERY FIFTH POST SHALL BE DELINEATED IN EACH DIRECTION WITH RETROFLECTIVE SHEETING MEETING SPECIFICATION ASTM D–4956 TYPE VII, VIII, OR IX (MIN. 7 SQ. IN. YELLOW).

(TP–65) IF THE SYSTEM POSTS FALL ON THE TOP OF A CROSS DRAIN BOX OR OTHER CONFLICTING UNDERGROUND STRUCTURE, SPECIAL POST DESIGN WILL BE REQUIRED. CABLE MANUFACTURER SHALL PROVIDE THE POST DESIGN TO THE ENGINEER FOR APPROVAL. ALL INSTALLATIONS MUST BE IN ACCORDANCE TO THE MANUFACTURER'S SPECIFICATIONS AND/OR RECOMMENDATION.

(TP–66) INCLUDED IN THIS PAY ITEM IS ALL MISCELLANEOUS HARDWARE REQUIRED BY THE MANUFACTURER TO BE USED FOR INSTALLATION OF SOCKETED CABLE BARRIER SYSTEM. ALSO INCLUDED SHALL BE CABLE BARRIER POSTS, CAPS, PLASTIC HARDWARE, GROUND COVER, ETC.

(TP–67) THE EXISTING CABLE BARRIER SYSTEM IS SAFENCE. CONTRACTOR SHALL CONTACT THE ENGINEER FOR EXISTING END ANCHOR AND FOOTINGS DESIGN AND CONSTRUCT THE CABLE BARRIER SYSTEM ACCORDING TO THE MANUFACTURER RECOMMENDED INSTALLATION. ALL INSTALLATION OF CABLE BARRIERS ON THIS SECTION SHALL BE SAFENCE.

(TP–68) PRICE BID FOR THIS ITEM CONSISTS OF REMOVAL OF EXISTING CABLE BARRIER SYSTEM, ITS CONCRETE FOOTINGS, AND/OR ANCHOR UNITS. CONTRACTOR SHALL REMOVE, SPOOL, COLLECT, AND STORE ALL CABLE BARRIER HARDWARE. THE MATERIALS SHALL BE STORED AT A LOCATION DETERMINED BY THE ENGINEER TO BE USED ON THIS PROJECT. ALL CONCRETE FOOTINGS ARE TO BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

(TP–69) PRICE BID FOR THIS ITEM SHALL INCLUDE THE FILLING AND TAMPING OF HOLES LEFT AFTER THE REMOVAL OF POST FOOTINGS DURING CABLE BARRIER REMOVAL OPERATION. WORK SHALL BE PERFORMED IN A MANNER APPROVED BY THE ENGINEER.

(TP–73) THIS IS AN ESTIMATED QUANTITY TO BE USED FOR POST FOOTINGS AND ANCHOR UNITS FOR THIS PROJECT. THIS ITEM SHALL ALSO INCLUDE REINFORCING STEEL BARS REQUIRED FOR POST FOOTINGS AND ANCHOR UNITS AS SHOWN BY THE MANUFACTURER'S DESIGN.

(TP–74) THIS ITEM INCLUDES AN ESTIMATED QUANTITY OF CLASS AA CONCRETE BASED ON 12'' DIAMETER AND 36'' DEPTH MINIMUM FOOTING DESIGN. THIS ITEM INCLUDES A SOIL REPORT TO BE PROVIDED BY THE CONTRACTOR FROM THE EXISTING PROJECT NO. NHHP–272N(200)SS TO THE CABLE MANUFACTURER INDICATING ALL NECESSARY SOIL INFORMATION REQUIRED FOR THE MANUFACTURER TO DESIGN POST FOOTINGS AND ANCHOR UNITS FOR THIS PROJECT. THE FOUNDATION FOOTING DESIGN SHALL BE COMPLETED AND APPROVED BY THE ENGINEER, PRIOR TO EXCAVATION OF END ANCHOR AND POST FOOTINGS. ALL POSTS AND ANCHOR UNIT FOUNDATION DESIGNS RECOMMENDED BY THE MANUFACTURER FOR THIS PROJECT SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER. THE POST FOOTINGS SHALL NOT BE LESS THAN 12'' DIAMETER BY 36'' DEEP. FOOTINGS SHALL NOT EXTEND ABOVE GROUND MORE THAN 1''.

(SP–1) INCLUDED IN THIS PAY ITEM IS THE COST OF EXCAVATION AND SCORING PAVED CONCRETE DITCH LINER

1 (SP–2) THIS PAY ITEM IS FOR CONSTRUCTION OF A 4 FOOT WIDE BY 4 INCHES THICK PAVED DITCH LINER SURFACE FOR PROPOSED CABLE BARRIER OUTSIDE THE LIMITS OF CROSSOVER PAYMENT

1 (SP–3) THIS QUANTITY IS ONLY FOR POST FOOTINGS INSTALLED OUTSIDE THE LIMITS OF CROSSOVER PAVEMENT

CABLE BARRIER GENERAL CONSTRUCTION NOTES

THE STATIONS AND LOCATIONS OF THE CABLE BARRIER SYSTEM AND END ANCHOR UNITS PLACEMENT, SHOWN ON THE PLAN AND DETAIL SHEETS, ARE APPROXIMATE. THE ENGINEER SHALL DETERMINE THE EXACT LOCATION OF THE CABLE BARRIER SYSTEM AND/OR END ANCHOR UNITS. THE CONTRACTOR SHALL VERIFY THESE LOCATIONS. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SURFACE DRAINAGE, SHALL VISUALLY INSPECT AND/OR MONITOR IT DURING RAINY OR WET WEATHER, AND TAKE NECESSARY STEPS TO ENSURE ALL AREAS IN THE MEDIAN ADEQUATELY DRAINS TO THE SATISFACTION OF THE ENGINEER.

REVISIONS		
REV. NO.	DESCRIPTION	DATE
1	NOTE & QUANTITIES	9/14/17

JP28884(04)
CABLE BARRIER
0302

PAY QUANTITIES

ITEM		DESCRIPTION		UNIT	QTY	
509(A)	0319	CLASS AA CONCRETE	(TP-73,74, SP-3)	CY	2.00	1
509(D)	0325	CLASS C CONCRETE	(SP-1,2)	CY	12.00	1
619(B)	5190	REMOVAL OF CABLE BARRIER	(TP-63,68,69)	LF	1,426.00	
628	5180	INSTALLATION OF CABLE BARRIER SYSTEM	(TP-57,58,59,60,63,67)	LF	1,426.00	
628(B)	5125	HIGH-TENSION CABLE BARRIER (TL-4)	(TP-59,60,62,63,64,65,66,67)	LF	1,426.00	
628(C)	5110	END ANCHORS	(TP-62,66,67)	EA	4.00	
628(E)	5175	CABLE BARRIER TENSION METER	(TP-51)	EA	1.00	

TULSA COUNTY — US–64 OVER 97TH W. AVE.

DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PAY QUANTITIES AND NOTES (CABLE)

STATE JOB NO. 28884(04) SHEET NO. 5

GENERAL NOTES (BRIDGE)

SPECIFICATIONS

ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH 2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

DESCRIPTION OF WORK

WORK CONSISTS OF REMOVAL OF EXISTING BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE WHILE KEEPING EXISTING H–PILES INTACT PER CONSTRUCTION PHASING PLAN. CONTRACTOR IS RESPONSIBLE FOR STABILITY OF EXISTING RETAINING WALLS AND SOIL BEHIND THE ABUTMENT DURING DEMOLITION. EROSION CONTROL PLAN AND TRAFFIC PHASING PLAN TO BE FOLLOWED DURING CONSTRUCTION.

ADDITIONAL H–PILES TO BE INSTALLED PER FOUNDATION LAYOUT PLAN FOLLOWED BY CONSTRUCTION OF BRIDGE SUBSTRUCTURE AND SUPERSTRUCTURE PER PROJECT DOCUMENTS.

CONTRACTOR TO CONTACT ENGINEER IF THE CONDITION ENCOUNTERED IN THE FIELD DIFFERS FROM THE PROJECT DOCUMENTS.

VERIFICATION EXISTING CONDITIONS

ALL DIMENSIONS OF THE EXISTING BRIDGE COMPONENTS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS NECESSARY TO CONNECT THE NEW MATERIALS 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 ATTACHMENTS. ANY DAMAGE TO EXISTING BRIDGE STRUCTURE OR ROADWAY DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.

CONSTRUCTION PLANS FOR THE EXISTING BRIDGE STRUCTURE MAY BE OBTAINED FROM THE REPRODUCTION BRANCH OF THE OKLAHOMA DEPARTMENT OF TRANSPORTATION.

PILING CAPACITY

SEE GENERAL PLAN & ELEVATION SHEETS FOR CAPACITY OF ABUTMENT AND PIER PILES. ALL PILES SHALL BE AASHTO M270 GRADE 50.

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

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

WHERE:

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

THE ABOVE FORMULA IS ONLY APPLICABLE WHEN:

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

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

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

STAINLESS STEEL FIXED BEARING ASSEMBLY

PROVIDE AND INSTALL FIXED BEARING ASSEMBLIES OF THE SIZE, SHAPE, AND LOCATION AS DETAILED IN THE PLANS. THERE IS AN ESTIMATED TOTAL OF 175 POUNDS OF STAINLESS STRUCTURAL STEEL FOR EACH FIXED BEARING ASSEMBLY LOCATION AT THE ABUTMENTS.

ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE FIXED BEARING ASSEMBLIES AS SHOWN IN THE PLANS, INCLUDING ELASTOMERIC PADS, ANCHOR PLATES, CONTACT PLATES, ANCHOR BOLTS, NUTS, WASHERS, LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER EACH OF "STAINLESS STEEL FIXED BEARING ASSEMBLY".

STAINLESS STEEL EXPANSION BEARING ASSEMBLY

PROVIDE AND INSTALL EXPANSION BEARING ASSEMBLIES OF THE SIZE, SHAPE, AND LOCATION AS DETAILED IN THE PLANS. THERE IS AN ESTIMATED TOTAL OF 175 POUNDS OF STAINLESS STRUCTURAL STEEL FOR EACH EXPANSION BEARING ASSEMBLY LOCATION AT THE PIERS.

ALL COSTS ASSOCIATED WITH PROVIDING AND INSTALLING THE EXPANSION BEARING ASSEMBLIES AS SHOWN IN THE PLANS, INCLUDING ELASTOMERIC PADS, ANCHOR PLATES, CONTACT PLATES, ANCHOR BOLTS, NUTS, WASHERS, LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER EACH OF "STAINLESS STEEL EXPANSION BEARING ASSEMBLY".

SEALED EXPANSION JOINT

THE SEALED EXPANSION JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARDS EJ–SK AND EJ–DTL AND IN A MANNER APPROVED BY THE ENGINEER. ALL COSTS NECESSARY TO COMPLETE THE WORK AS SPECIFIED OR AS SHOWN IN THE PLANS INCLUDING THE COST OF MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "SEALED EXPANSION JOINT".

STRUCTURAL STEEL M270 GRADE 50W

THE ITEM "STRUCTURAL STEEL" SHALL INCLUDE THE INSTALLATION OF THE FOLLOWING ITEMS AS SPECIFIED OR AS SHOWN IN THE PLANS:

1. STEEL BEAMS
2. INTERMEDIATE AND END DIAPHRAGMS
3. STIFFENERS AND CONNECTION PLATES
4. SHEAR STUDS, BOLTS, NUTS, AND WASHERS

ALL NEW STRUCTURAL STEEL SHALL CONFORM TO THE AASHTO M270 GRADE 50W (WEATHERING STEEL, CHARPY V–NOTCH TESTING NOT REQUIRED). USE SHEAR CONNECTORS CONFORMING TO AASHTO M169 (ASTM A108) GRADE 1015, 1018, OR 1020. PROVIDE WELDING WITH WEATHERING CHARACTERISTICS. PROVIDE BOLTS, NUTS, AND WASHERS THAT CONFORM TO AASHTO M164 (ASTM A325). ALL COSTS FOR REPLACING THE EXISTING BOLTS, NUTS, AND WASHER FOR THE END DIAPHRAGMS INCLUDING MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER POUND OF "STRUCTURAL STEEL M270 GRADE 50W".

APPROACH SLAB

CLASS AA CONCRETE SHALL BE USED IN THE APPROACH SLABS. THE QUANTITY GIVEN IS BASED ON THE ACTUAL SQUARE YARDS OF THE APPROACH SLABS. ALL COSTS OF CONCRETE, EPOXY COATED REINFORCING STEEL EXCAVATION, LABOR, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "APPROACH SLAB".

EXISTING H–PILE TREATMENT

EXISTING H–PILE HEADS SHOULD BE EXPOSED A MINIMUM OF THREE FEET IN DEPTH AND CLEANED FREE OF RUST AND OTHER CONTAMINANTS TO SSPC SP3. IF SECTION LOSS GREATER THAN 5% OF THE SECTION AREA IS OBSERVED WITHIN THE THREE FOOT SECTION THEN THE PROCESS DESCRIBED ABOVE SHALL BE REPEATED IN ONE FOOT INCREMENTS UNTIL A SECTION LOSS LESS THAN 5% IS OBSERVED OVER A TWO FOOT REGION. COORDINATE WITH ENGINEER PRIOR TO PROCEEDING TO NEXT STEP.

PORTION OF H–PILE WITH SECTION LOSS AS INDICATED ABOVE SHALL BE REMOVED AND REPLACED WITH A NEW H–PILE SECTION TO MATCH THE EXISTING H–PILE SECTION. FIELD WELD PER WELDED SPLICE DETAIL SHOWN IN ODOT STANDARD DRAWING HP1–2.

WATER REPELLENT (VISUALLY INSPECTED)

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

(A) EDGES AND UNDERSIDE CANTILEVER PORTION OF THE BRIDGE DECK

(B) THE ROADWAY FACE, AND TOP OF THE CONCRETE TRAFFIC RAILS

(C) EXPOSED PORTIONS OF ABUTMENTS

(D) THE TOPS AND VERTICAL FACES OF THE PIER CAPS AND PEDESTALS

REMOVAL OF EXISTING BRIDGE STRUCTURE

ITEM "REMOVAL OF EXISTING BRIDGE STRUCTURE" CONSISTS OF REMOVAL AND DISPOSAL OF THE EXISTING ELEMENTS OF BRIDGES "A" & "B" AS SHOWN IN THE PLANS. WITH EXCEPTION TO THE EXISTING STEEL PILES WHICH SHALL REMAIN AND BECOME PART OF THE NEW FOUNDATION.

BRIDGE "A" CONTAINS APPROXIMATELY 98,200 LBS OF STRUCTURAL STEEL AND BRIDGE "B" CONTAINS APPROXIMATELY 133,200 LBS OF STRUCTURAL STEEL, UNLESS OTHERWISE NOTED. THE STRUCTURE AND MATERIALS WILL BECOME PROPERTY OF THE CONTRACTOR AND WILL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER. THE EXISTING FIXED AND EXPANSION BEARING ARE TO REMAIN THE PROPERTY OF ODOT.

UPON COMPLETION OF REMOVAL OF THE EXISTING BEAMS ON BRIDGES "A" AND "B", THE ENGINEER WILL DETERMINE THE FINAL AVAILABILITY OF THE BEAMS FOR REUSE BY THE TULSA COUNTY COMMISSIONERS OR CIRCUIT ENGINEERING DISTRICTS (CED'S). BEAMS THAT ARE DETERMINED TO BE AVAILABLE FOR REUSE SHALL BE PICKED UP BY THE COUNTY OR CED WITHIN 30 DAYS FROM THE DATE OF DEMOLITION. BEAMS THAT ARE DETERMINED TO BE NOT AVAILABLE FOR REUSE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER. BRIDGE "A" CONTAINS 10–WF27x83#x31.7' LONG BEAMS AND 5–WF36x135#x64.8' LONG BEAMS. BRIDGE "B" CONTAINS 14–WF27x84#x31.7' LONG BEAMS AND 7–WF36x135#x64.8' LONG BEAMS. THE CONTRACTOR SHALL USE CARE IN HANDLING ALL BEAMS PRIOR TO INSPECTION BY THE ENGINEER.

REMOVED MATERIAL

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.

DECK HAUNCHES

PLAN QUANTITY FOR CLASS AA CONCRETE INCLUDES 5.6 CUBIC YARDS FOR HAUNCHES OVER THE STEEL BEAMS. NO PAYMENT WILL BE MADE FOR DIFFERENCES BETWEEN PLAN QUANTITY AND THE ACTUAL QUANTITY OF HAUNCH CONCRETE.

(BR–1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITIES ONLY. SEE SECTION 109.01(B) OF THE 2009 STANDARD SPECIFICATIONS.

(1) QUANTITY SHOWN FOR SEALER RESIN ESTIMATED AT 0.011 GALLONS PER FOOT OF CONSTRUCTION JOINT.

(2) THIS ITEM TO BE USED AT THE DISCRETION OF THE ENGINEER TO MAINTAIN TRAFFIC DURING CONSTRUCTION.

(3) SLOPE WALLS TO BE FORMED WITH FORM LINER SIMILAR TO CFL FF008 STANDARD SERIES: ASHLAR STONE, OR EQUIVALENT, AS APPROVED AND DIRECTED BY THE ENGINEER AND AS SHOWN ON THE PLANS. COLOR SHALL BE FEDERAL STANDARD 595 COLOR 30450, OR EQUIVALENT, AS APPROVED AND DIRECTED BY THE ENGINEER.

STAY–IN–PLACE FORMS

STAY–IN–PLACE STEEL DECK FORMS WILL NOT BE USED.

JP28884(04) CONSTRUCTION 0640		PAY QUANTITIES		
ITEM		DESCRIPTION	UNIT	QTY
220	2800	SWPPP DOCUMENTATION AND MANAGEMENT	LSUM	1.00
641	1399	MOBILIZATION	LSUM	1.00

REVISIONS		
REV. NO.	DESCRIPTION	DATE
1	REMOVE PAY ITEM 535	08/04/2017

JP28884(04)
0200 BRIDGE A

PAY QUANTITIES

NBI NO. 17224
US-64 WESTBOUND OVER 97TH W. AVENUE
30'-65'-30' STEEL I-BEAM SPANS
49'-0" CL. RDWY. W/F-SHAPED TRAFFIC RAILS,
SKEWED 5^ LEFT FORWARD

ITEM		DESCRIPTION		UNIT	QUANTITY
501(G)	6309	CLSM BACKFILL	(BR-1)	CY	20.00
504(A)	1304	APPROACH SLAB	(BR-1)	SY	199.30
504(B)	1305	SAW-CUT GROOVING	(BR-1)	SY	899.50
504(C)	6250	SEALED EXPANSION JOINT	(BR-1)	LF	50.20
504(E)	6190	42" F-SHAPED PARAPET	(BR-1)	LF	320.10
506(A)	4050	STRUCTURAL STEEL M270 GRADE 50W	(BR-1)	LB	138,920.00
507(A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY		EA	14.00
507(B)	6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY		EA	28.00
509(A)	1326	CLASS AA CONCRETE	(BR-1)	CY	206.80
509(B)	1328	CLASS A CONCRETE	(BR-1)	CY	254.90
510(C)	6138	SLOPE WALL (5")	(3)	SY	445.70
511(B)	6010	EPOXY COATED REINFORCING STEEL	(BR-1)	LB	87,850.00
513(B)	6019	CLASS B BRIDGE DECK REPAIR	(2)	SY	100.00
514(A)	6010	PILES, FURNISHED (HP 10X42)		LF	1,501.00
514(B)	6292	PILES, DRIVEN (HP 10X42)		LF	1,501.00
514(L)	6220	PILE SPLICE, H-PILE (NON-BIDDABLE)		EA	1.00
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	SY	595.00
523(A)	6550	SEALER CRACK PREPARATION	(BR-1)	LF	52.20
523(B)	6560	SEALER RESIN	(BR-1)(1)	GAL	0.60
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE		LSUM	1.00

JP28884(04)
0201 BRIDGE B

PAY QUANTITIES

NBI NO. 17225
US-64 EASTBOUND OVER 97TH W. AVENUE
30'-65'-30' STEEL I-BEAM SPANS
49'-0" CL. RDWY. W/F-SHAPED TRAFFIC RAILS,
SKEWED 5^ LEFT FORWARD

ITEM		DESCRIPTION		UNIT	QUANTITY
501(G)	6309	CLSM BACKFILL	(BR-1)	CY	20.00
504(A)	1304	APPROACH SLAB	(BR-1)	SY	195.60
504(B)	1305	SAW-CUT GROOVING	(BR-1)	SY	900.40
504(C)	6250	SEALED EXPANSION JOINT	(BR-1)	LF	50.20
504(E)	6190	42" F-SHAPED PARAPET	(BR-1)	LF	330.20
506(A)	4050	STRUCTURAL STEEL M270 GRADE 50W	(BR-1)	LB	138,920.00
507(A)	6170	STAINLESS STEEL FIXED BEARING ASSEMBLY		EA	14.00
507(B)	6174	STAINLESS STEEL EXPANSION BEARING ASSEMBLY		EA	28.00
509(A)	1326	CLASS AA CONCRETE	(BR-1)	CY	206.80
509(B)	1328	CLASS A CONCRETE	(BR-1)	CY	244.90
510(C)	6138	SLOPE WALL (5")	(3)	SY	445.70
511(B)	6010	EPOXY COATED REINFORCING STEEL	(BR-1)	LB	86,112.00
513(B)	6019	CLASS B BRIDGE DECK REPAIR	(2)	SY	100.00
514(A)	6010	PILES, FURNISHED (HP 10X42)		LF	1,076.00
514(B)	6292	PILES, DRIVEN (HP 10X42)		LF	1,076.00
514(L)	6220	PILE SPLICE, H-PILE (NON-BIDDABLE)		EA	1.00
515(A)	6013	WATER REPELLENT (VISUALLY INSPECTED)	(BR-1)	SY	596.80
523(A)	6550	SEALER CRACK PREPARATION	(BR-1)	LF	52.20
523(B)	6560	SEALER RESIN	(BR-1)(1)	GAL	0.60
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE		LSUM	1.00

JP28884(04) STAKING 0600		PAY QUANTITIES		
ITEM		DESCRIPTION	UNIT	QTY
642(B)	0096	CONSTRUCTION STAKING LEVEL II	LSUM	1.00

TULSA COUNTY — US–64 OVER 97TH W. AVE.

DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PAY QUANTITIES AND NOTES (BRIDGE)

STATE JOB NO. 28884(04) SHEET NO. 6

REVISIONS		
REV. NO.	DESCRIPTION	DATE
1	QUANTITIES	9/14/17

SUMMARY OF REMOVALS

LOCATION	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	REMOVAL OF ASPHALT PAVEMENT	REMOVAL OF GUARDRAIL	SAWING PAVEMENT	REMOVAL OF EXISTING BRIDGE STRUCTURE
	619(A)	619(B)	619(B)	619(C)	619(D)
	LSUM	SY	LF	LF	LSUM
WEST CROSSOVER (STA. 189+83 to 195+83)	1	603	316	1200	
EAST CROSSOVER (STA. 200+24 to 206+23)		585	280	1200	
WESTBOUND OUTSIDE SHOULDER MILL AND OVERLAY (STA. 188+50 TO 197+45 AND 199+07 TO 208+70)			600		
WESTBOUND SHOULDER RECONSTRUCTION (STA 195+83 to 197+14 AND 199+26 TO 200+24)		112		229	
TOTALS	**1**	**1300**	**1196**	**2629**	**2**

SUMMARY OF EROSION CONTROL

STATION	TEMPORARY SILT FENCE	TEMPORARY SILT DIKE	TEMPORARY FIBER LOG	SOLID SLAB SOD	APPROX. AREA TO BE DISTURBED
	221(C)	221(F)	221(K)	230(A)	
	LF	LF	LF	SY	AC
189+83 to 198+00	400	90	150	550	0.70
198+00 to 206+23	620	30	200	470	0.70
TOTAL	**1020**	**120**	**350**	**1020**	**1.40**

SUMMARY OF EARTHWORK

LOCATION, STATION	UNCLASSIFED EXCAVATION	UNCLASSIFIED BORROW
	202(A)	202(D)
	CY	CY
WEST CROSSOVER (STA. 189+83 to 195+83)	283.4	0.0
EAST CROSSOVER (STA. 200+24 to 206+23)	283.4	0.0
WESTBOUND ADDITIONAL LANE (STA 195+83 to 200+24)	61.3	126.8
TOTAL	**628.1**	**126.8**

SUMMARY OF DRAINAGE STRUCTURES

STATION	OFFSET	AGGREGATE BASE TYPE A	18" R.C. PIPE CLASS III	INLET (SMD-TYPE 2)	JUNCTION BOX	CONNECT TO EXISTING MANHOLE	REMARKS
		303(A)	613(A)	611(G)	611(L)	612(B)	
	FT	CY	LF	EA	CF	EA	
188+79.88	2.02' LT					1	EX. SMD
188+79.88 TO 192+25.00		94.53	345				UNDER WEST CROSSOVER
192+25.00	3.00' RT				60.73		PR. JUNCTION BOX
192+25.00 TO 195+92.21		100.56	367				UNDER WEST CROSSOVER
195+92.21	6.69' RT			1			PR. SMD TYPE-2
200+14.68	8.02' RT			1			PR. SMD TYPE-2
200+14.68 TO 204+00.15		106.59	389				UNDER EAST CROSSOVER
204+00.15	0.10' LT				90.85		PR. JUNCTION BOX
204+00.15 TO 206+36.89		64.94	237				UNDER EAST CROSSOVER
206+36.89	0.27' RT					1	EX. TYPE 'B' INLET
TOTAL		**366.62**	**1338**	**2**	**151.58**	**2**	

SIDEWALK SUMMARY

STATION	OFFSET	LF	WIDTH (FT)	AREA (SY)
9+25 TO 10+54	25' LT	129	8	113
9+29 TO 10+66	31' RT	137	8	114
			TOTAL	**227**

SUMMARY OF GUARDRAIL

STATION	DESCRIPTION	BEAM GUARDRAIL W-BEAM	GUARDRAIL END TREATMENT (31")	GUARDRAIL BRIDGE CONN-THRIE BEAM (31")
		623(A)	623(G)	623(I)
193+92 TO 197+36	INSIDE EB	337.5	1	1
198+89 TO 201+78	INSIDE WB	175.0	1	1
199+00 TO 205+00	OUTSIDE WB	250.0	1	1
		762.5	**3**	**3**

SUMMARY OF SURFACING

LOCATION	AGGREGATE BASE TYPE A	STABILIZED SUBGRADE	SEPARATOR FABRIC	GEOGRID REINFORCEMENT	TRAFFIC BOUND SURFACE COURSE	TACK COAT	PRIME COAT	SUPERPAVE, TYPE S3 (PG 76-28 OK)	SUPERPAVE, TYPE S3 (PG 64-22 OK)	SUPERPAVE, TYPE S4 (PG 76-28 OK)	SUPERPAVE, TYPE S4 (PG 64-22 OK)	COLD MILLING PAVEMENT	REMARKS
	303(A)	307(H)	325	326(B)	402(E)	407(B)	408	411(B)	411(B)	411(C)	411(C)	412	
APPROXIMATE STATION TO STATION	CY	SY	SY	SY	TON	GAL	GAL	TON	TON	TON	TON	SY	
STA. 188+50 to 197+45, 199+07 to 208+70											550	2457	OUTSIDE WESTBOUND SHOULDER MILL AND OVERLAY
STA. 189+83 to 195+83	601	2703	2846			854	711	454	757	303			WEST CROSSOVER
STA. 194+20 to 197+37, 198+99 to 202+87											176	785	OUTSIDE EASTBOUND SHOULDER MILL AND OVERLAY
STA 195+83 to 197+58, 198+89 to 200+24											31	141	INSIDE EASTBOUND SHOULDER MILL AND OVERLAY
STA 195+83 to 200+24	142	640	706	640	14	212	177		214		71		WB SHOULDER RECONSTRUCTION
STA. 200+24 to 206+23	595	2676	2818			845	705	450	1199	300			EAST CROSSOVER
TOTALS	**1338.0**	**6020.0**	**6371.0**	**640.0**	**14.0**	**1912.0**	**1593.0**	**904.0**	**2170.0**	**603.0**	**829.0** 1	**3383.0** 1	

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

SUMMARY TABLES

STATE JOB NO. 28884(04) SHEET NO. 7

REVISIONS		
REV. NO.	DESCRIPTION	DATE

T-19-N, R-11-E
SECTION 11

T-19-N, R-11-E
SECTION 12

185+00
190+00
195+00
200+00
205+00
210+00
215+00

+19 110.40'
160.00'-N88°40'38"E
+76 86.40'
+04 107.59'
35.36'
N43°40'38"E
25.00'
N01°19'22"W
881.48'-N81°30'31"E
PRES. R/W
+80 122.26'
E. 2nd STREET
410.98'-N88°40'38"E
+89 85.92'
N83°19'25"E 1798.04'
1755.39'-N79°38'44"E
PRES. R/W
U.S. 64/HWY 51 ON RAMP
C1
CURVE DATA C1
CURVE 1
P.I. Sta. 201+21.58
X= 2529676.133
Y= 408310.480
I = 06°00'00" Rt.
D= 00°50'00"
T= 600.55'
L= 1200.00'
R= 11459.16'
E= 15.73'
C= N80°19'25"E
© US 64 STA. 198+21.73
© 97TH W. AVE STA. 10+00.00
1/4 SECTION LINE
N01°29'54"W
97TH W. AVE.
(ADAMS ROAD)
U.S. 64/HWY 51 OFF RAMP
U.S. 64/HWY 51 (WEST BOUND)
U.S. 64/HWY 51 (EAST BOUND)
C2
+61 280.53'
471.14'-S85°17'43"W
+70 190.00'
182.48'-S60°21'41"W
+50 220.00'
250.00'-S69°49'25"W
PRES. R/W
220.00'
532.66'-S79°33'38"W
+25 194.60'
194.60'-S43°53'46"W
N69°49'25"E A001
R/W CURVE 2
PRES. R/W
CURVE DATA C2
CURVE 2
P.I. Sta. 201+21.58
X= 2528870.078
Y= 422061.003
I = 13°30'00" Lt.
D= 02°50'00"
T= 211.26'
L= 540.00'
R= 2291.83'
E= 16.00'
C= N76°34'25"E
R/W CURVE 2
X= 2528713.972
Y= 425420.823
I = 07°08.53' Lt.
D= 01°00'00"
T= 354.745'
L= 708.57'
R= 5679.65'
E= 11.068'
C= N72°02'16"E
+30 151.37'
25.00'
N14°23'21"W
+27 176.26'
PRES. R/W
R/W CURVE 1
588.75'-N79°38'44"E
PRES. CHANNEL R/W
PRES. CHANNEL R/W
R/W CURVE 1
X= 2529713.972
Y= 425420.823
I = 04°02.07" Lt.
D= 01°00'00"
T= 200.96'
L= 401.76'
R= 5704.65'
E= 3.54'
C= N77°37'45"E
+63 90.15'
PRES. R/W
97TH W. AVE.
(ADAMS ROAD)
1/4 SECTION LINE
N01°29'54"W
+64 83.70'
PRES. R/W

BEARING COMPARISON
N83°19'25"E ALONG THIS SURVEY =
N83°21'15"E FAP NO. F.U.-85(16)

0 100 200
GRAPHIC SCALE: 1" = 100'

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

RIGHT-OF-WAY

STATE JOB NO. 28884(04) SHEET NO. 8

V:\M12\2012\12003-07 0007 EC-1414 US-64 Tasks 3\Civil\Cad\Site\08-M12-12003-07-ROW.dwg Jan 12, 2017 - 9:15am sarahk

REVISIONS		
REV. NO.	DESCRIPTION	DATE

BEARING COMPARISON
N83°19'25"E ALONG THIS SURVEY =
N83°21'15"E FAP NO. F.U.-85(16)

SECTION 11
T-19-N, R-11-E

℄ US 64 STA. 198+21.73
℄ 97TH W. AVE. STA. 10+00.00

SECTION 12
T-19-N, R-11-E

CURVE DATA C2
CURVE 2
P.I. STA. 201+21.58
X= 2528870.078
Y= 422061.003
I= 13°30'00" LT.
D= 02°50'00"
T= 271.26'
L= 540.00'
R= 2291.83'
E=16.00'
C=N76°34'25"E

190+00
195+00
200+00

E. 2nd STREET
N. ADAMS ROAD/ 97TH W. AVE.
S. ADAMS ROAD/ 97TH W. AVE.
U.S. 64/HWY 51 OFF RAMP
PROP. SMD-TYPE 2
TG = 677.25
FL = 674.69
PRES. R/W
BEGIN CROSSOVER CONSTRUCTION STA. 189+83.00 (TO REMAIN AFTER CONSTRUCTION)
PROP. 4'x4' JUNCTION BOX
TC=669.27
FL$_{IN}$=664.39
FL$_{OUT}$=664.50
C.R.L. U.S. 64
N83°19'25"E A001
U.S. 64/HWY 51 (WEST BOUND)
U.S. 64/HWY 51 (EAST BOUND)
GUARDRAIL WIDENING
CONNECT TO EX. MEDIAN DRAIN.
TG=664.00
FL(E)=660.94
FL(S)=660.94
END CROSSOVER BEGIN INSIDE WB LANE STA. 195+83.00 (TO REMAIN AFTER CONSTRUCTION)
WARNING: OVERHEAD ELECTRIC
CHANNEL R/W
END INSIDE WB LANE BEGIN CROSSOVER STA. 200+24.00 (TO REMAIN AFTER CONSTRUCTION)
MATCHLINE STA. 202+00

0 50 100
GRAPHIC SCALE: 1" = 50'

LEGEND
CROSSOVER AREA
SHOULDER ADDITION AREA

C.R.L. STA. 188+50.00
BEGIN INCIDENTAL CONSTRUCTION

C.R.L. STA. 195+83.00
END INCIDENTAL CONSTRUCTION
BEGIN CONSTRUCTION

C.R.L. STA. 200+24.00
END CONSTRUCTION
BEGIN INCIDENTAL CONSTRUCTION

PROP STM JUNCTION BOX
STA 192+25.00, 3.00' RT.
LID669.27
FL 18"(W)664.39
FL 18"(E)664.50

PROP TYPE 'B' INLET
STA 195+92.21, 6.69' RT.
TG=677.25
TP=676.75
FL 18"(W)668.17

PROP TYPE 'B' INLET
STA 200+14.68, 8.02' RT.
TG=677.25
TP=676.75
FL 18"(E)669.56

PROP 345LF~18" RCP
STM SWR @ 1.00%

PROP 367LF~18" RCP
STM SWR @ 1.00%

PROP 389LF~18" RCP
STM SWR @ 2.00%

EX. GROUND AT C.R.L.

NOTE:
EXISTING BRIDGES AND VERTICAL CLEARANCES DEPICTED IN PROFILE. SEE GENERAL PLAN & ELEVATION SHEETS FOR PROPOSED BRIDGES & VERTICAL CLEARANCES.

15'-7" BRIDGE "A"
17'-5" BRIDGE "B"

695 690 685 680 675 670 665 660 655 650

665.14 666.07 667.81 670.04 672.78 675.25 676.99 678.55 658.48 677.95 677.17

189+00 190+00 191+00 192+00 193+00 194+00 195+00 196+00 197+00 198+00 199+00 200+00

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE US 64
(SHEET 1 OF 2)

STATE JOB NO. 28884(04) SHEET NO. 9

REVISIONS		
REV. NO.	DESCRIPTION	DATE

CURVE DATA C2
CURVE 2
P.I. STA. 201+21.58
X= 2528870.078
Y= 422061.003
I= 13°30'00" LT.
D= 02°50'00"
T= 271.26'
L= 540.00'
R= 2291.83'
E=16.00'
C=N76°34'25"E

SECTION 12
T-19-N, R-11-E

PRES. R/W

205+00

210+00

MATCHLINE STA. 202+00

PT STA. 203+90.32

C2

END CROSSOVER
STA. 206+23.00
(TO REMAIN AFTER CONSTRUCTION)

U.S. 64/HWY 51 OFF RAMP

EXIST. GRATED DROP INLET
TG=663.72
FL (NW)=660.47

EXIST. GRATED DROP INLET
TG=664.26
FL (SE)=657.11

EXIST. DROP INLET
TG=663.83
FL (SW)=658.33
FL (NW)=658.33
FL (SE)=658.13

30" RCP

18" RCP

21" RCP

FL=648.57

"EXIT 40 MPH" SIGN

"WEST 51 & 97 JUNCTION SAPULPA EXIT 1 MILE" & "ADAMS ROAD EXIT ONLY" ROADWAY OVERHEAD SIGN ON STEEL FRAME

U.S. 64/HWY 51 (WEST BOUND)

U.S. 64/HWY 51 (EAST BOUND)

C.R.L. U.S. 64

N69°49'25"E A001

SAND BARRELS

CABLE BARRIER UNLESS NOTED OTHERWISE

CONNECT TO EX. MEDIAN DRAIN.
TG=664.26
FL(W)=657.11
FL(S)=657.11

PROP. 4'x4' JUNCTION BOX
TC=669.15
FL_{IN}=661.85
FL_{OUT}=661.85

CHANNEL R/W

R/W CURVE 1

R/W CURVE 2

R/W CURVE 1
X= 2528713.972
Y= 425420.823
| = 04°02'07" Lt.
D= 01°00'00"
T= 200.96'
L= 401.76'
R= 5704.65'
E= 3.54'
C= N77°37'45"E

R/W CURVE 2
X= 2528713.972
Y= 425420.823
| = 07°08'53" Lt.
D= 01°00'00"
T= 354.745'
L= 708.57'
R= 5679.65'
E= 11.068'
C= N72°02'16"E

BEARING COMPARISON
N83°19'25"E ALONG THIS SURVEY =
N83°21'15"E FAP NO. F.U.-85(16)

0 50 100
GRAPHIC SCALE: 1" = 50'

LEGEND

CROSSOVER AREA

SHOULDER ADDITION AREA

PROP STM JUNCTION BOX
STA 204+00.15, 0.10' LT.
LID669.15
FL18"(W)661.85
FL18"(E)661.85

EXIST TYPE 'S' INLET
STA 204+36.89, 142' RT.
TG 664.26
FL18"(W)657.11

PROP 386LF~18" RCP
STM SWR @ 2.00%

PROP 237LF~18" RCP
STM SWR @ 2.00%

EX. GROUND AT C.R.L.

C.R.L. STA. 208+70.00
END INCIDENTAL CONSTRUCTION

695 690 685 680 675 670 665 660 655 650

202+00 203+00 204+00 205+00 206+00 207+00 208+00 209+00 210+00 211+00 212+00 213+00 214

670.38 668.36 666.60 665.28 665.25 666.51 667.79 669.39 670.56 672.10 673.25 674.18

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

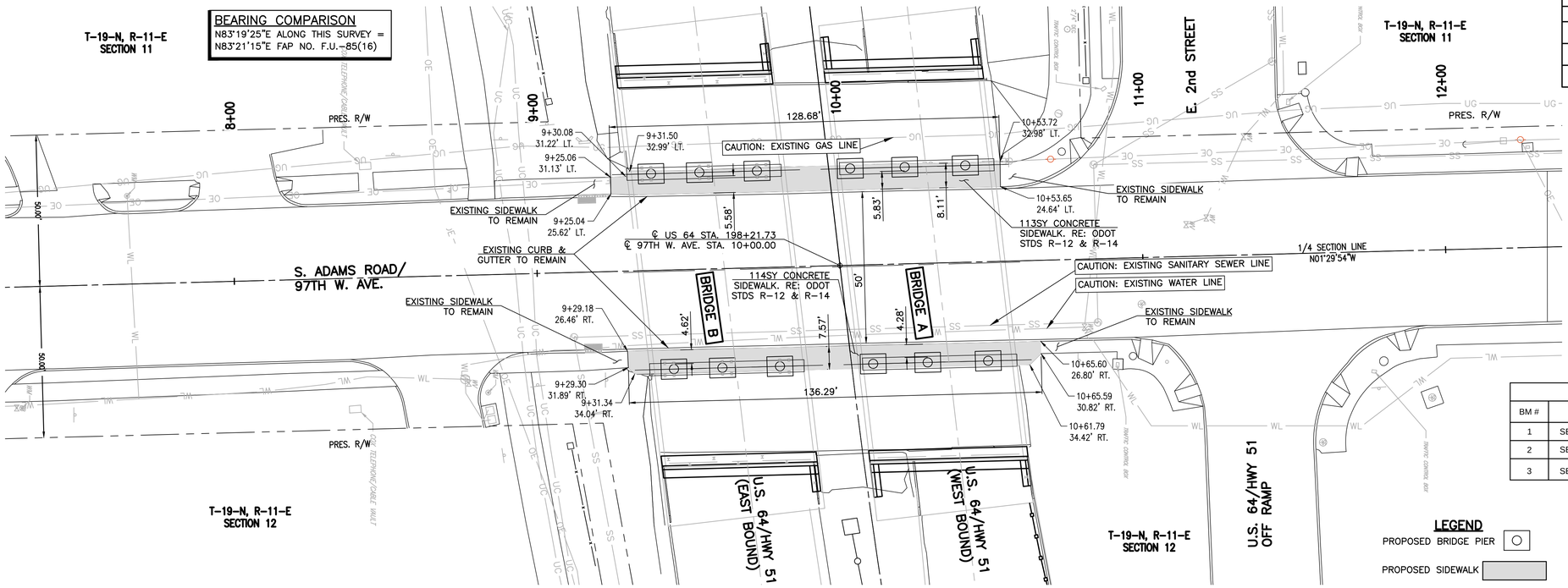
PLAN & PROFILE US 64
(SHEET 2 OF 2)

STATE JOB NO. 28884(04) SHEET NO. 10

V:\M12\2012\12003-07 0007 EC-1414 US-64 Task 5\Civil\Cad\Prof\09-10-M12-12003-07-PNP.dwg Jan 12, 2017 - 9:16am sorok

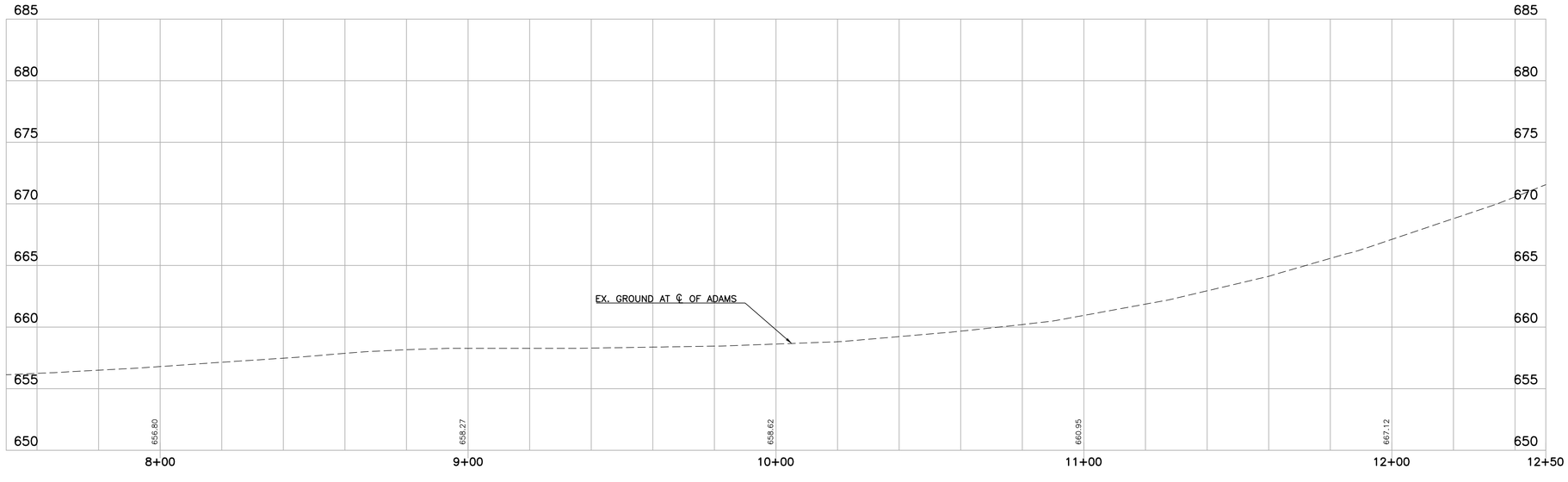
REVISIONS		
REV. NO.	DESCRIPTION	DATE

BEARING COMPARISON
N83°19'25"E ALONG THIS SURVEY =
N83°21'15"E FAP NO. F.U.-85(16)



BENCHMARK TABLE				
BM #	Description	Elevation	Northing	Easting
1	SET ½" IRON PIN	672.698	420462.3270	2530776.2763
2	SET ½" IRON PIN	677.915	419762.3588	2528945.3894
3	SET ½" IRON PIN	673.783	419563.1008	2527484.0381

LEGEND
PROPOSED BRIDGE PIER
PROPOSED SIDEWALK



TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

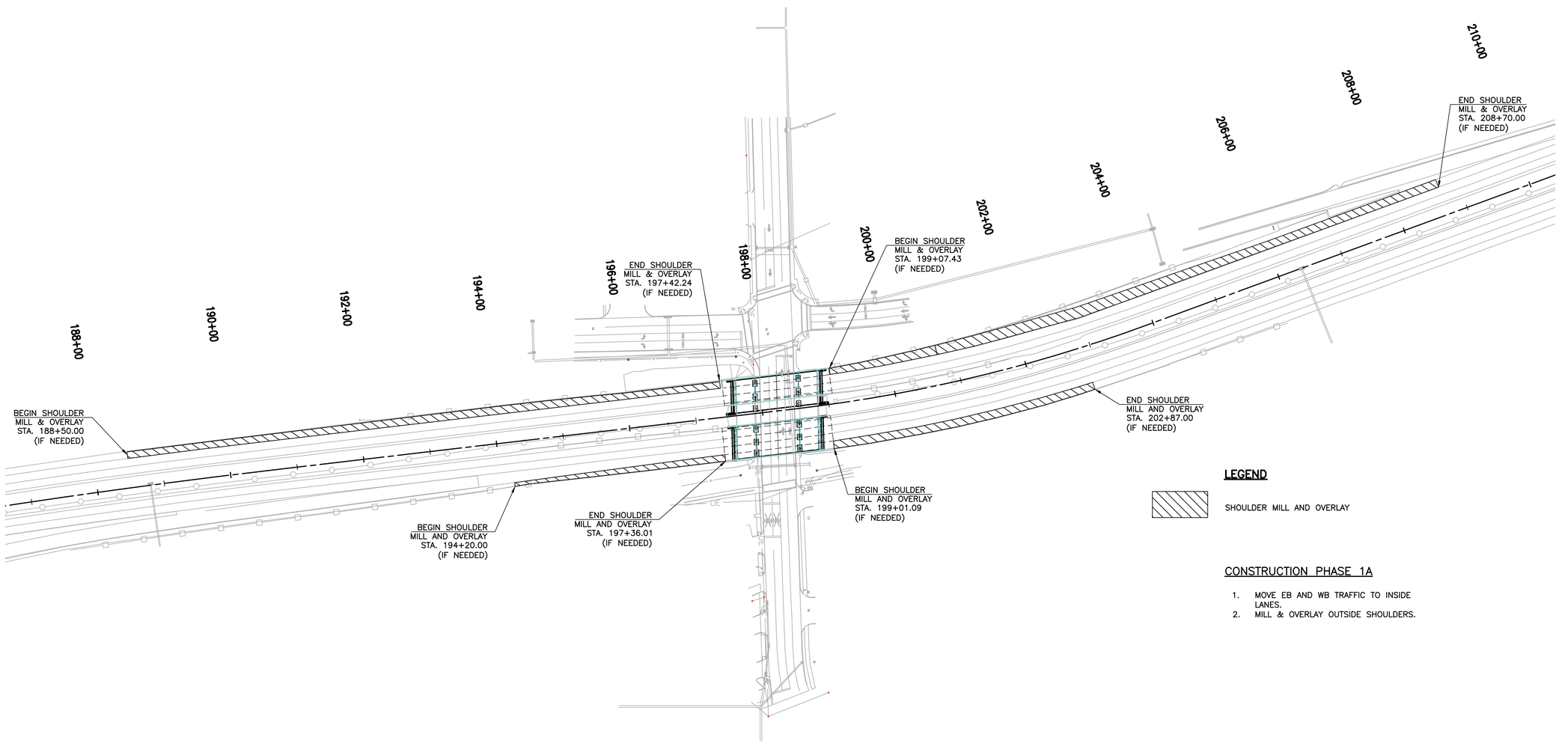
OKLAHOMA DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
ADAMS ROAD SIDEWALK

STATE JOB NO. 28884(04) SHEET NO. 11

V:\M12\2012\12003-07 0007 EC-1414 US-64 Task 5\Civil\Cad\PnP\11-M12-12003-07-PNP - ADAMS.dwg Jan 12, 2017 - 9:17am sarahk

REVISIONS		
REV. NO.	DESCRIPTION	DATE



LEGEND

SHOULDER MILL AND OVERLAY

CONSTRUCTION PHASE 1A

1. MOVE EB AND WB TRAFFIC TO INSIDE LANES.
2. MILL & OVERLAY OUTSIDE SHOULDERS.

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	DGS	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

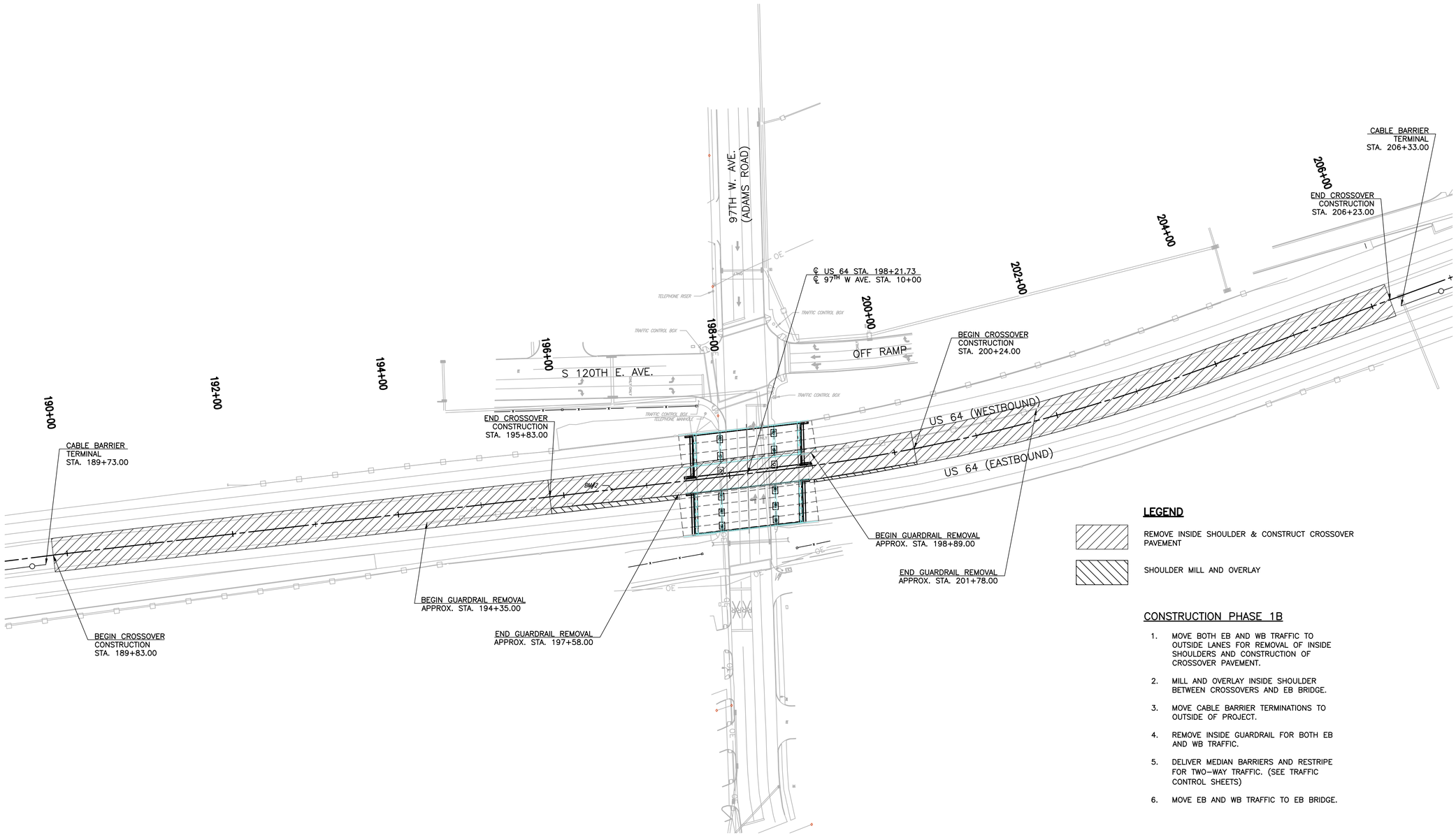
OKLAHOMA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PHASING (PHASE 1A)

STATE JOB NO. 28884(04) SHEET NO. 12

V:\M12\20121\12003-07 0007 EC-1414 US-64 Task 3\Civil\Cad\Site\12-16-M12-12003-07-CONST SEQ.dwg Jan 12, 2017 - 9:17am sarahk

REVISIONS		
REV. NO.	DESCRIPTION	DATE



LEGEND

REMOVE INSIDE SHOULDER & CONSTRUCT CROSSOVER PAVEMENT

SHOULDER MILL AND OVERLAY

CONSTRUCTION PHASE 1B

1. MOVE BOTH EB AND WB TRAFFIC TO OUTSIDE LANES FOR REMOVAL OF INSIDE SHOULDERS AND CONSTRUCTION OF CROSSOVER PAVEMENT.
2. MILL AND OVERLAY INSIDE SHOULDER BETWEEN CROSSOVERS AND EB BRIDGE.
3. MOVE CABLE BARRIER TERMINATIONS TO OUTSIDE OF PROJECT.
4. REMOVE INSIDE GUARDRAIL FOR BOTH EB AND WB TRAFFIC.
5. DELIVER MEDIAN BARRIERS AND RESTRIPE FOR TWO-WAY TRAFFIC. (SEE TRAFFIC CONTROL SHEETS)
6. MOVE EB AND WB TRAFFIC TO EB BRIDGE.

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	DGS	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

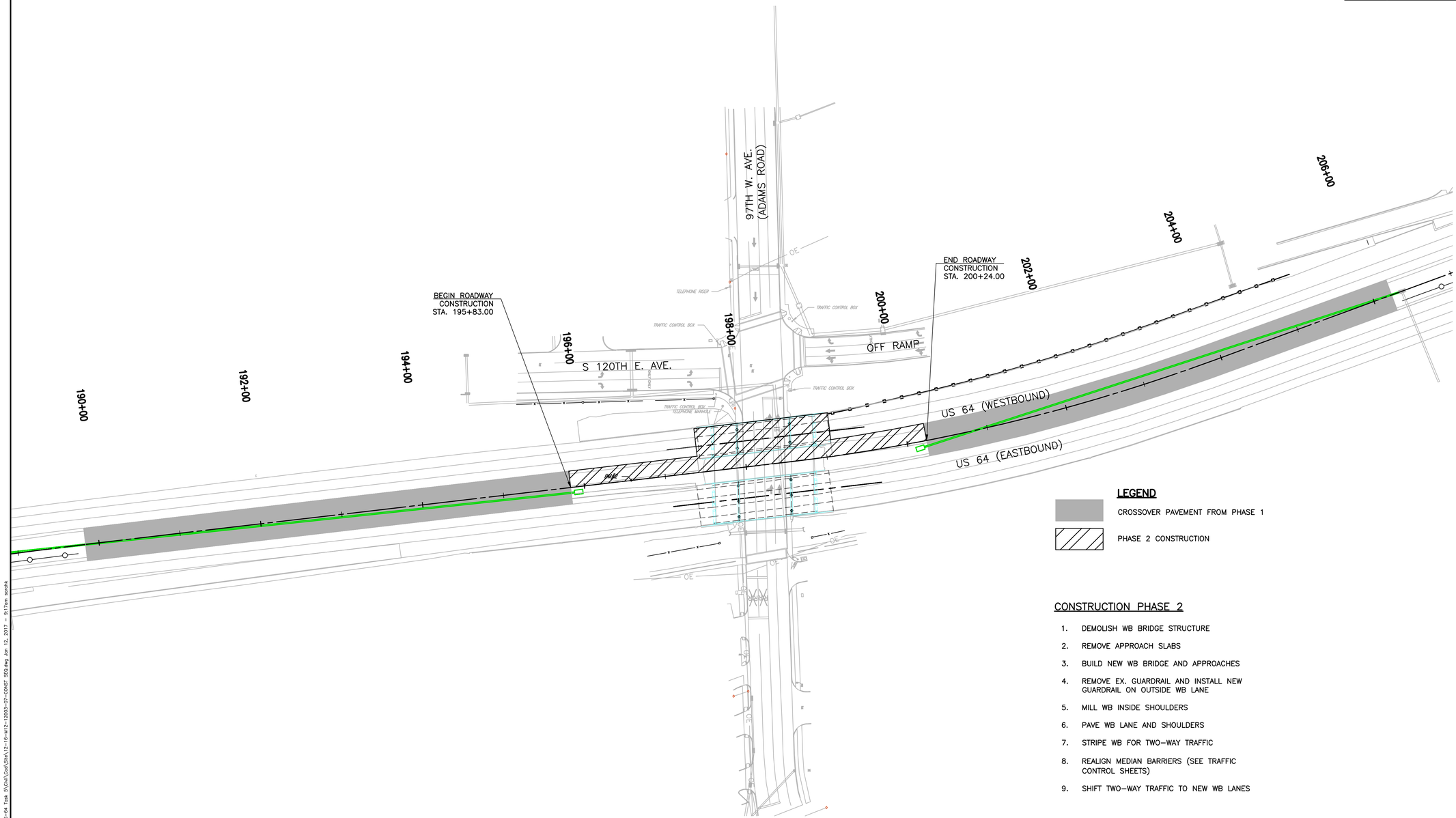
OKLAHOMA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PHASING (PHASE 1B)

STATE JOB NO. 28884(04) SHEET NO. 13

V:\M12\20121\12003-07 0007 EC-1414 US-64 Task 3\Civil\Cad\Site\12-16-M12-12003-07-CONST SEQ.dwg Jan 12, 2017 - 9:17am sanahk

REVISIONS		
REV. NO.	DESCRIPTION	DATE



LEGEND

CROSSOVER PAVEMENT FROM PHASE 1

PHASE 2 CONSTRUCTION

CONSTRUCTION PHASE 2

1. DEMOLISH WB BRIDGE STRUCTURE
2. REMOVE APPROACH SLABS
3. BUILD NEW WB BRIDGE AND APPROACHES
4. REMOVE EX. GUARDRAIL AND INSTALL NEW GUARDRAIL ON OUTSIDE WB LANE
5. MILL WB INSIDE SHOULDERS
6. PAVE WB LANE AND SHOULDERS
7. STRIPE WB FOR TWO-WAY TRAFFIC
8. REALIGN MEDIAN BARRIERS (SEE TRAFFIC CONTROL SHEETS)
9. SHIFT TWO-WAY TRAFFIC TO NEW WB LANES

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	DGS	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PHASING (PHASE 2)

STATE JOB NO. 28884(04) SHEET NO. 14

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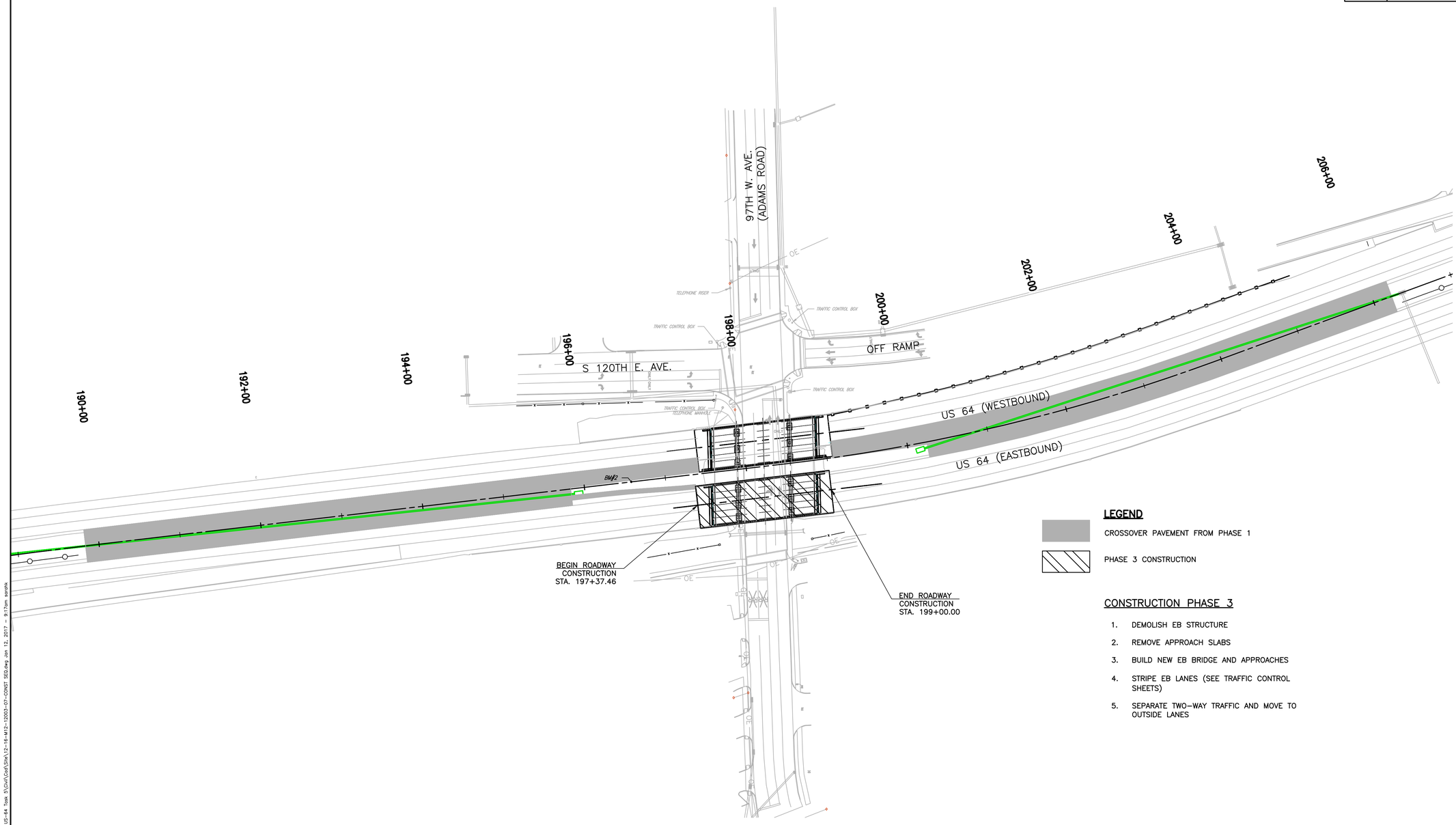
REVISIONS		
REV. NO.	DESCRIPTION	DATE



N

0 60 120

GRAPHIC SCALE: 1" = 60'

LEGEND

CROSSOVER PAVEMENT FROM PHASE 1

PHASE 3 CONSTRUCTION

CONSTRUCTION PHASE 3

1. DEMOLISH EB STRUCTURE
2. REMOVE APPROACH SLABS
3. BUILD NEW EB BRIDGE AND APPROACHES
4. STRIPE EB LANES (SEE TRAFFIC CONTROL SHEETS)
5. SEPARATE TWO-WAY TRAFFIC AND MOVE TO OUTSIDE LANES

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TULSA COUNTY — US-64 OVER 97TH W. AVE.

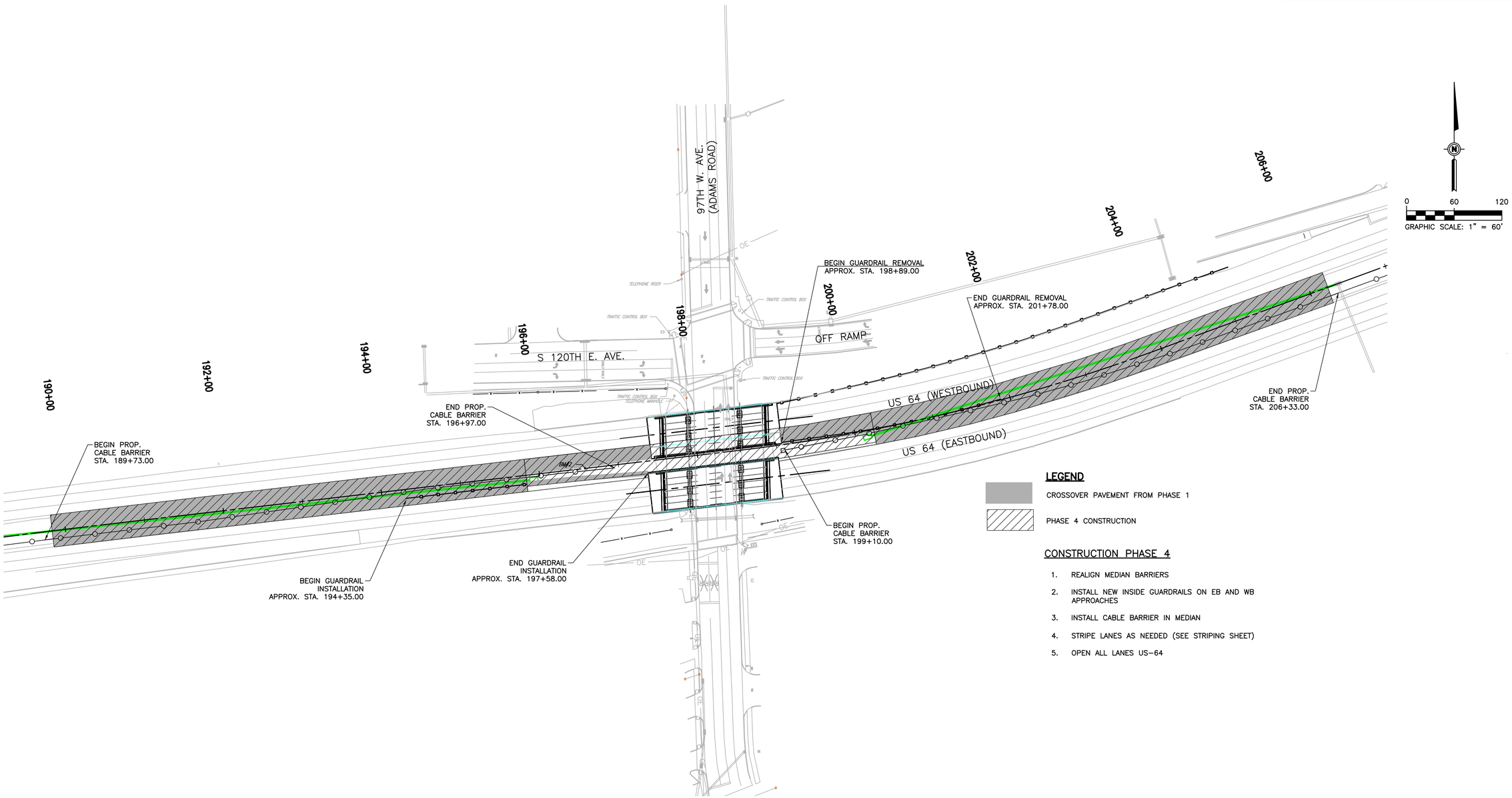
DESIGN	DGS	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PHASING (PHASE 3)

STATE JOB NO. 28884(04) SHEET NO. 15

REVISIONS		
REV. NO.	DESCRIPTION	DATE



LEGEND

CROSSOVER PAVEMENT FROM PHASE 1

PHASE 4 CONSTRUCTION

CONSTRUCTION PHASE 4

1. REALIGN MEDIAN BARRIERS
2. INSTALL NEW INSIDE GUARDRAILS ON EB AND WB APPROACHES
3. INSTALL CABLE BARRIER IN MEDIAN
4. STRIPE LANES AS NEEDED (SEE STRIPING SHEET)
5. OPEN ALL LANES US-64

TULSA COUNTY — US-64 OVER 97TH W. AVE.

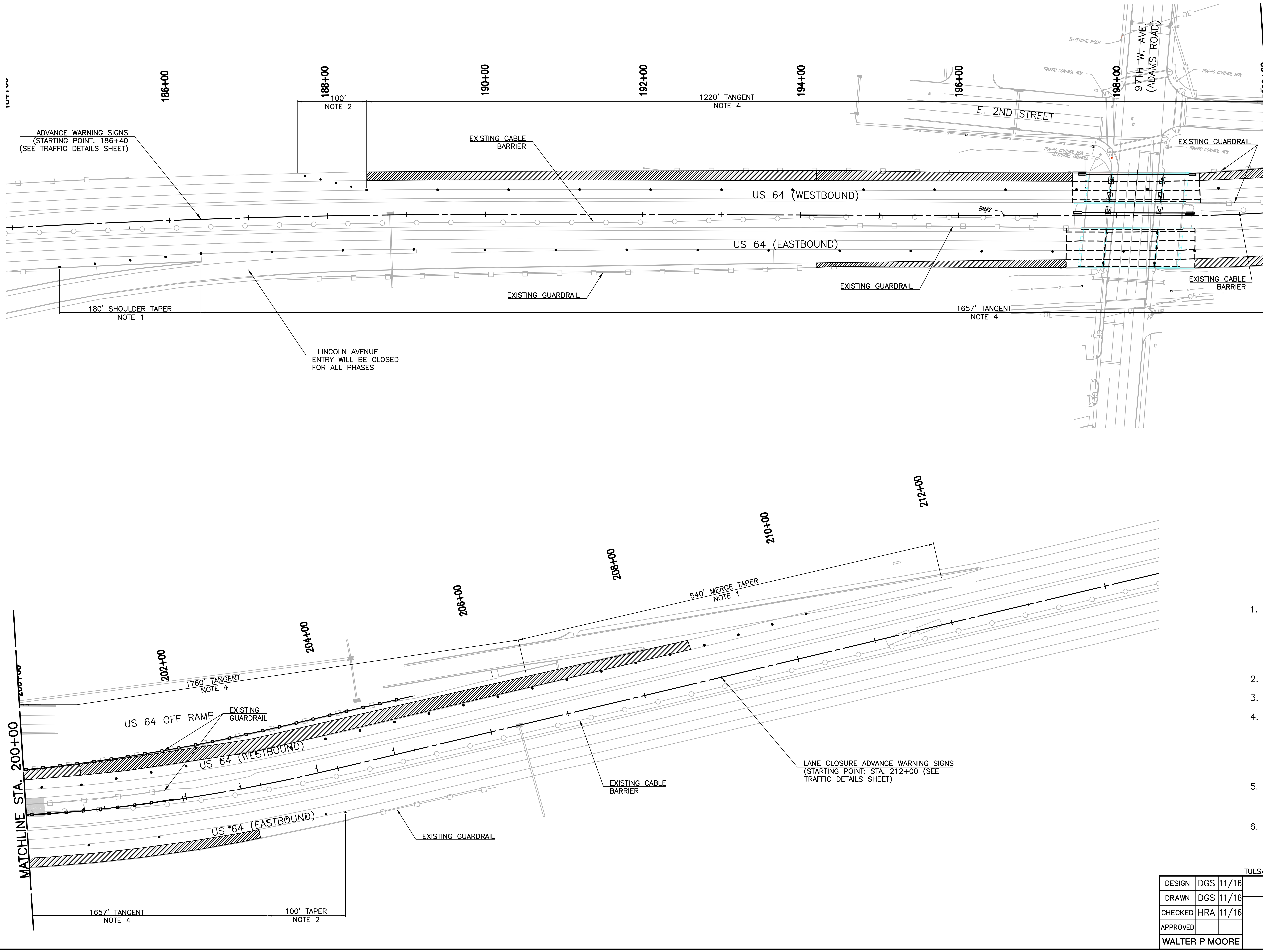
DESIGN	DGS	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PHASING (PHASE 4)

STATE JOB NO. 28884(04) SHEET NO. 16

REVISIONS		
REV. NO.	DESCRIPTION	DATE



LEGEND

- CHANNELIZING DEVICE W/ TEMPORARY STRIPING
- TYPE III BARRICADE
- ARROW DISPLAY
- SIGNS
- PORTABLE LONGITUDINAL BARRIER (W/ GLARE SCREENS)
- PORTABLE LONGITUDINAL BARRIER
- WORK AREA

NOTES

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
2. A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED IN THIS AREA.
3. CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.
4. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
5. CW1-8 (CHEVRONS) TO BE USED THRU LANE TAPER ON EVERY OTHER DRUM AND R4-7A(R) OR (L) (KEEP RIGHT OF LEFT) TO BE USED THRU TANGENT LANES ON EVERY OTHER DRUM PER TCS2-1
6. FOR INFORMATION REGARDING THE LENGTHS OF TAPERS, TANGENTS, AND CROSSOVERS, AS WELL AS THE SPACING OF CHANNELIZING DEVICES, SEE STANDARDS DRAWING TCS2-1-(LATEST REVISION).

TULSA COUNTY — US-64 OVER 97TH W. AVE.

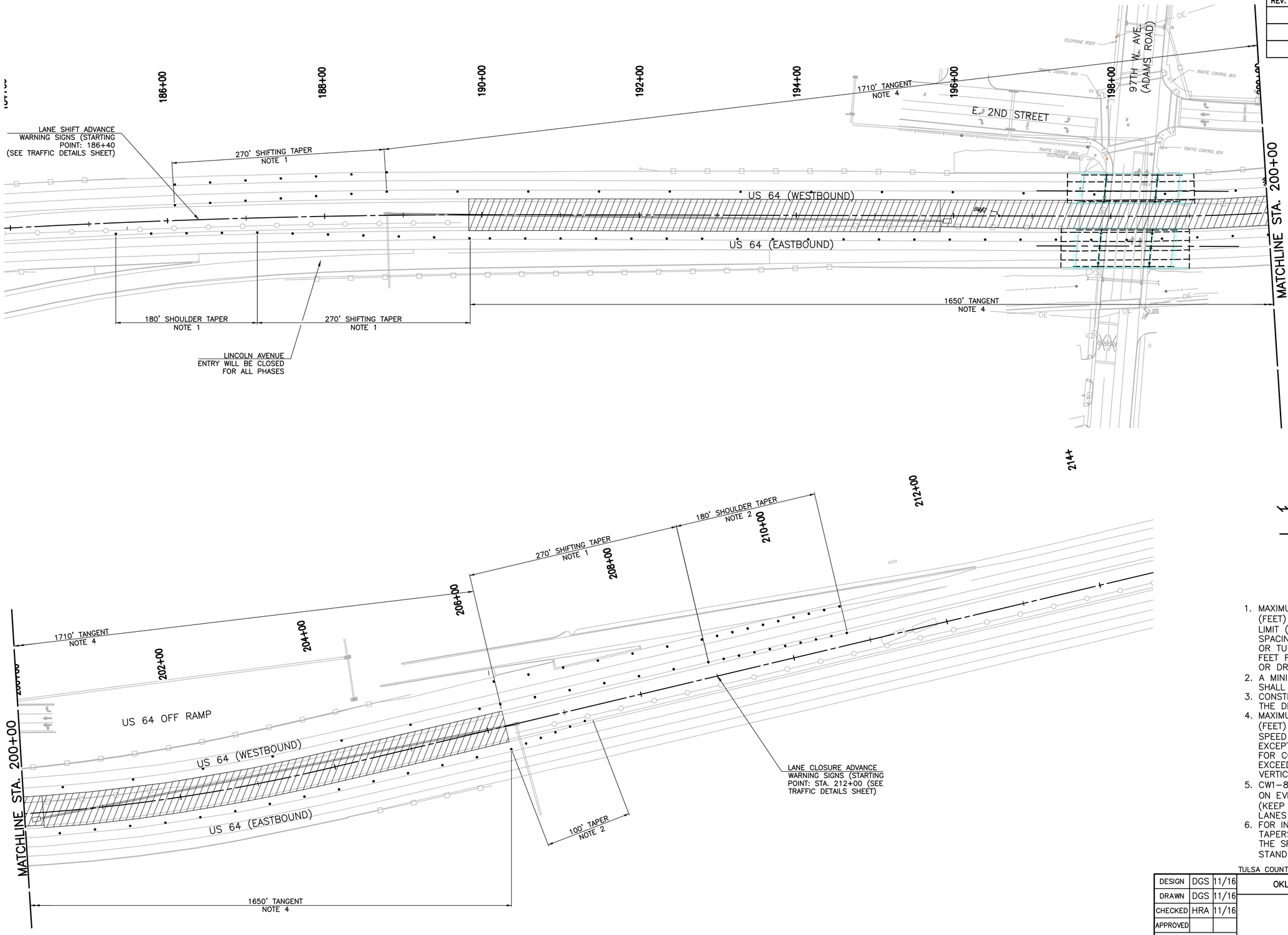
DESIGN	DGS	11/16
DRAWN	DGS	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

TRAFFIC PHASING US 64 (PHASE 1A)

STATE JOB NO. 28884(04) SHEET NO. 17

REVISIONS		
REV. NO.	DESCRIPTION	DATE



LEGEND

- CHANNELIZING DEVICE W/ TEMPORARY STRIPING
- TYPE III BARRICADE
- ARROW DISPLAY
- SIGNS
- PORTABLE LONGITUDINAL BARRIER (W/ GLARE SCREENS)
- PORTABLE LONGITUDINAL BARRIER
- WORK AREA

NOTES

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
2. A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED IN THIS AREA.
3. CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.
4. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
5. CW1-8 (CHEVRONS) TO BE USED THRU LANE TAPER ON EVERY OTHER DRUM AND R4-7A(R) OR (L) (KEEP RIGHT OF LEFT) TO BE USED THRU TANGENT LANES ON EVERY OTHER DRUM PER TCS2-1
6. FOR INFORMATION REGARDING THE LENGTHS OF TAPERS, TANGENTS, AND CROSSOVERS, AS WELL AS THE SPACING OF CHANNELIZING DEVICES, SEE STANDARDS DRAWING TCS2-1-(LATEST REVISION).

TULSA COUNTY — US-64 OVER 97TH W. AVE.

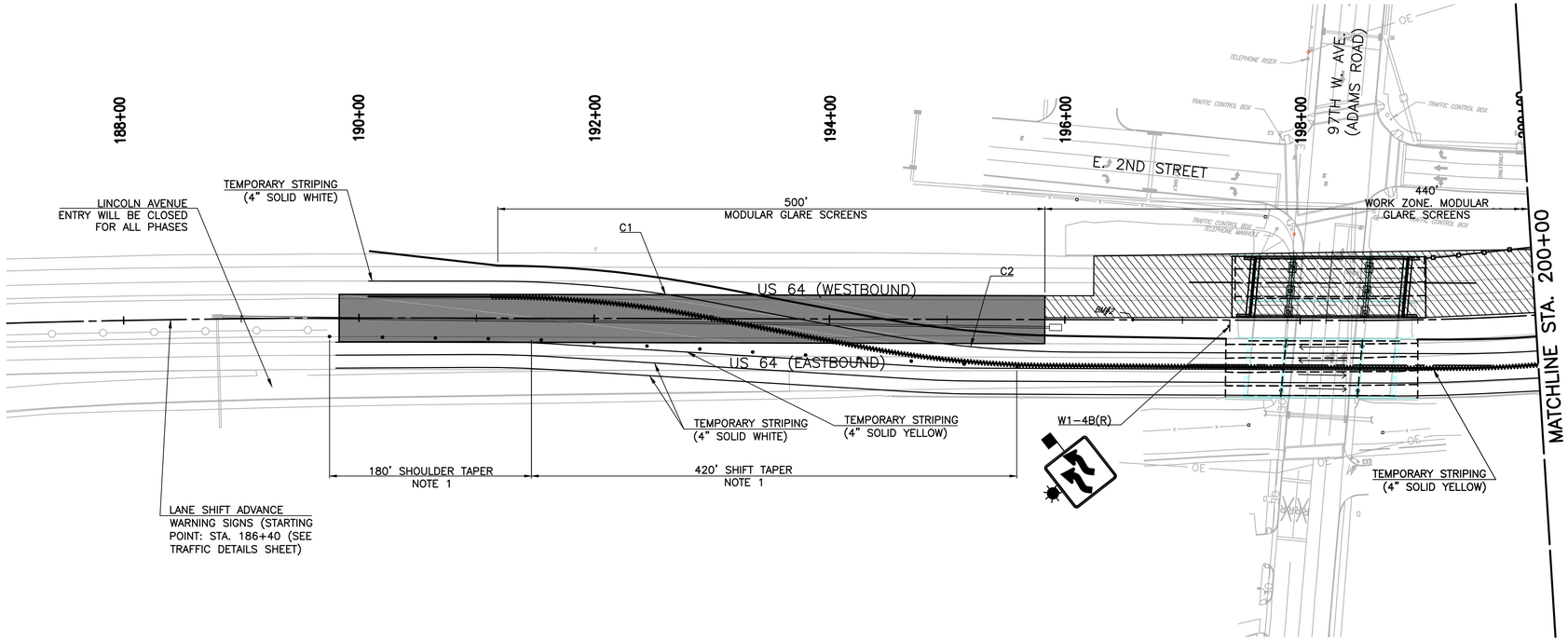
DESIGN	DGS	11/16
DRAWN	DGS	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

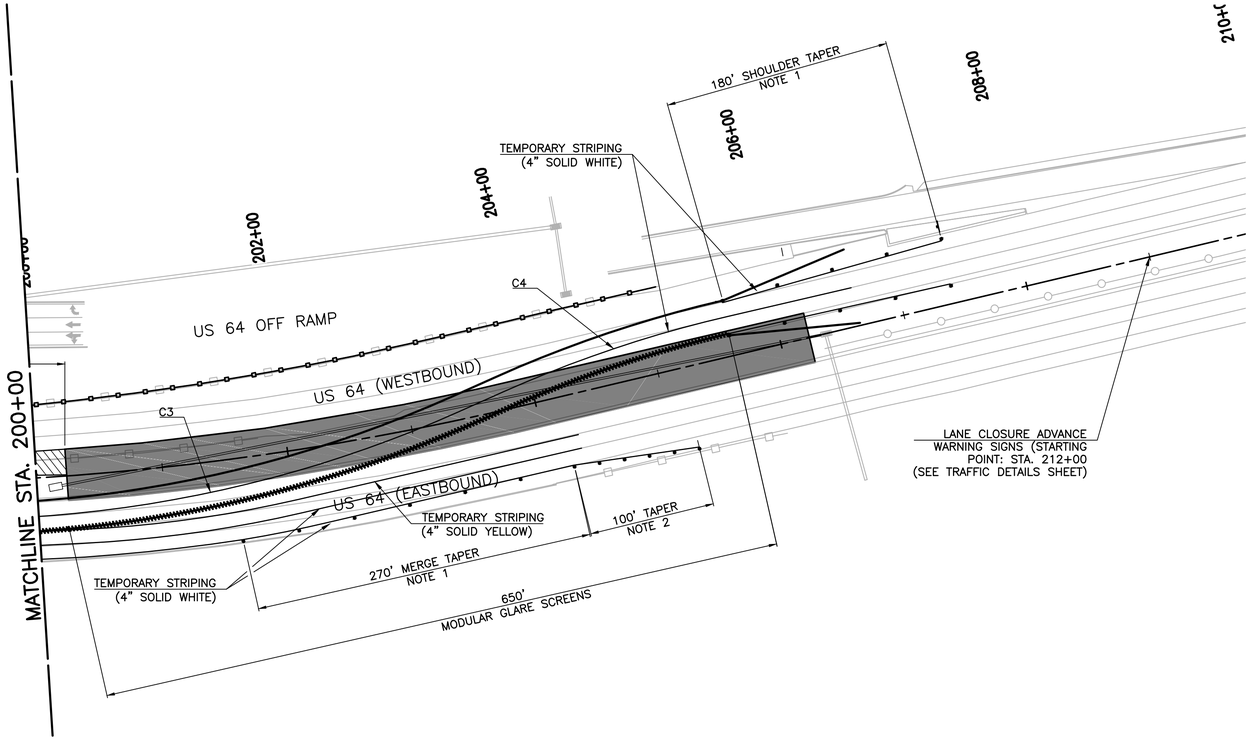
OKLAHOMA DEPARTMENT OF TRANSPORTATION

TRAFFIC PHASING US 64 (PHASE 1B)

STATE JOB NO. 28884(04) SHEET NO. 18

REVISIONS		
REV. NO.	DESCRIPTION	DATE





CROSSOVER HORIZONTAL CURVE DATA			
CURVE	LENGTH (FT)	RADIUS (FT)	LATERAL OFFSET (FT)
C1	184	980	62
C2	180	980	
C3	416	980	62
C4	189	980	
C5	135	980	62
C6	134	980	
C7	50	980	62
C8	423	2350	

LEGEND

- CHANNELIZING DEVICE W/ TEMPORARY STRIPING
- TYPE III BARRICADE
- ARROW DISPLAY
- SIGNS
- PORTABLE LONGITUDINAL BARRIER (W/ GLARE SCREENS)
- PORTABLE LONGITUDINAL BARRIER
- WORK AREA

NOTES

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
2. A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED IN THIS AREA.
3. CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.
4. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
5. CW1-8 (CHEVRONS) TO BE USED THRU LANE TAPER ON EVERY OTHER DRUM AND R4-7A(R) OR (L) (KEEP RIGHT OF LEFT) TO BE USED THRU TANGENT LANES ON EVERY OTHER DRUM PER TCS2-1
6. FOR INFORMATION REGARDING THE LENGTHS OF TAPERS, TANGENTS, AND CROSSOVERS, AS WELL AS THE SPACING OF CHANNELIZING DEVICES, SEE STANDARDS DRAWING TCS2-1-(LATEST REVISION).

TULSA COUNTY — US-64 OVER 97TH W. AVE.

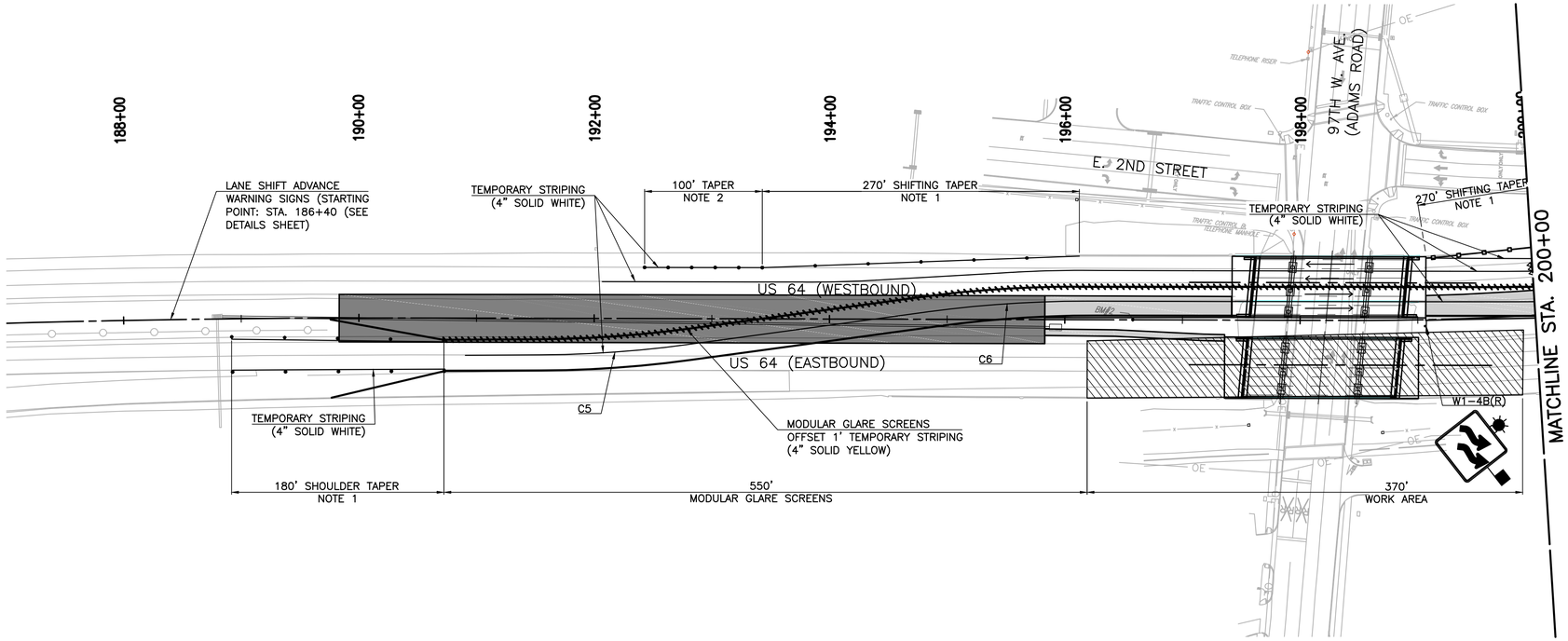
DESIGN	DGS	05/16
DRAWN	DGS	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

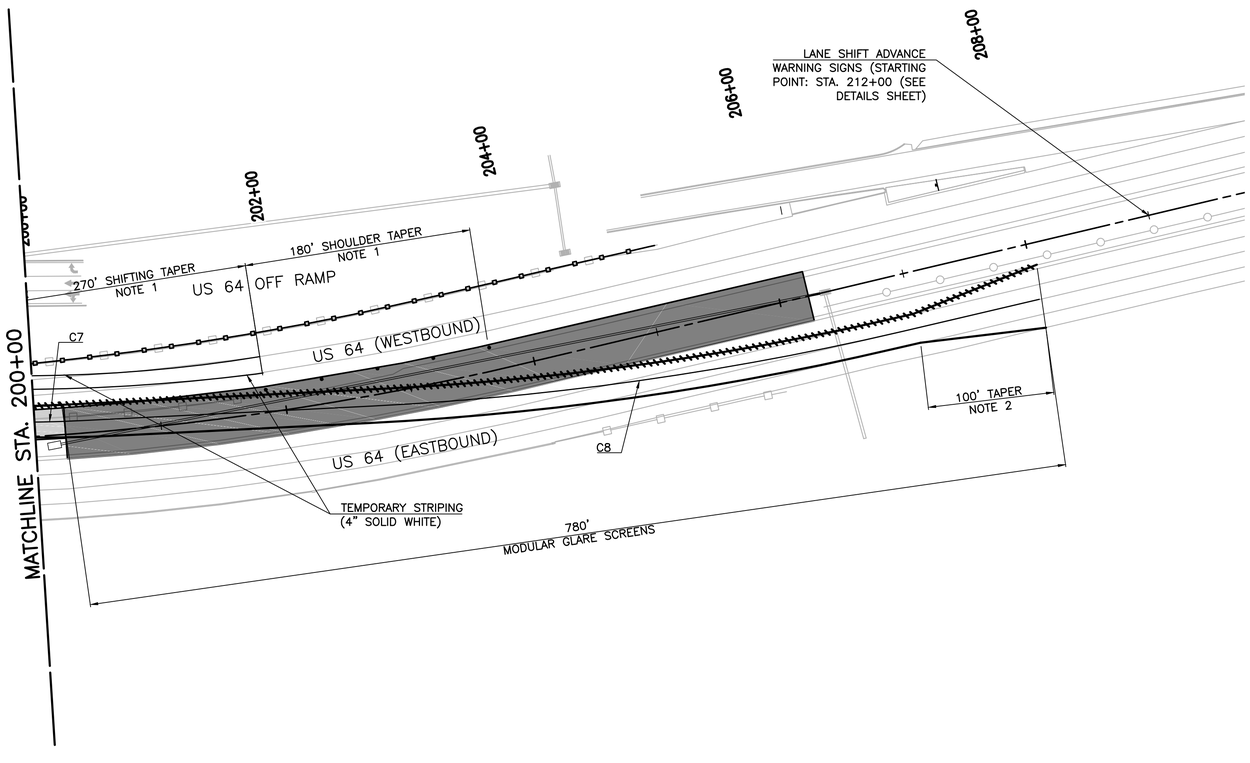
OKLAHOMA DEPARTMENT OF TRANSPORTATION

TRAFFIC PHASING US 64 (PHASE 2)

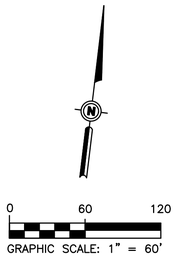
STATE JOB NO. 28884(04) SHEET NO. 19

REVISIONS		
REV. NO.	DESCRIPTION	DATE





CROSSOVER HORIZONTAL CURVE DATA			
CURVE	LENGTH (FT)	RADIUS (FT)	LATERAL OFFSET (FT)
C1	184	980	62
C2	180	980	
C3	416	980	62
C4	189	980	
C5	135	980	62
C6	134	980	
C7	50	980	62
C8	423	2350	



LEGEND

- CHANNELIZING DEVICE W/ TEMPORARY STRIPING
- TYPE III BARRICADE
- ARROW DISPLAY
- SIGNS
- PORTABLE LONGITUDINAL BARRIER (W/ GLARE SCREENS)
- PORTABLE LONGITUDINAL BARRIER
- WORK AREA

NOTES

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
2. A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED IN THIS AREA.
3. CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.
4. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
5. CW1-8 (CHEVRONS) TO BE USED THRU LANE TAPER ON EVERY OTHER DRUM AND R4-7A(R) OR (L) (KEEP RIGHT OF LEFT) TO BE USED THRU TANGENT LANES ON EVERY OTHER DRUM PER TCS2-1
6. FOR INFORMATION REGARDING THE LENGTHS OF TAPERS, TANGENTS, AND CROSSOVERS, AS WELL AS THE SPACING OF CHANNELIZING DEVICES, SEE STANDARDS DRAWING TCS2-1-(LATEST REVISION).

TULSA COUNTY — US-64 OVER 97TH W. AVE.

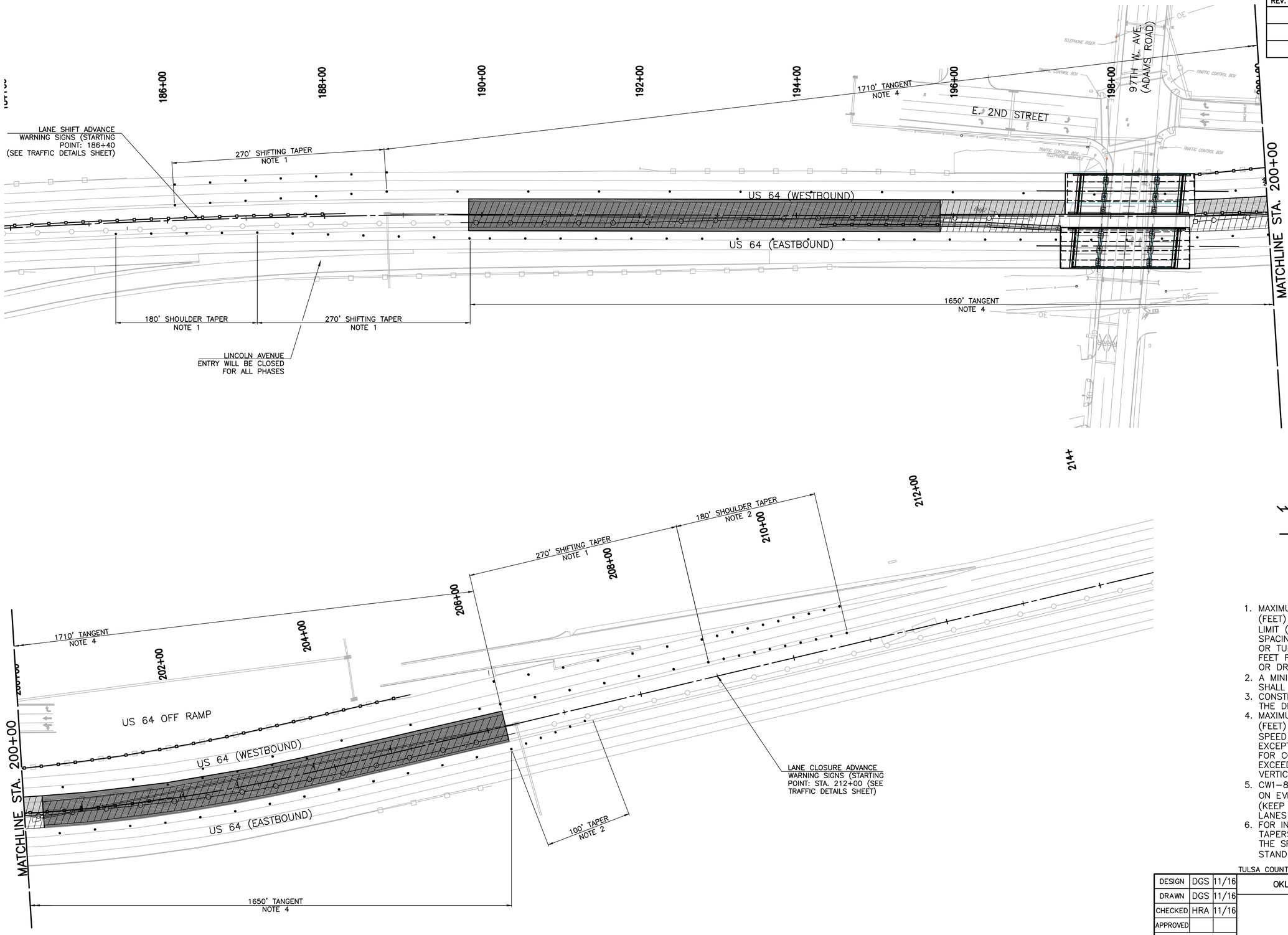
DESIGN	DGS	11/16
DRAWN	DGS	05/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

TRAFFIC PHASING US 64 (PHASE 3)

STATE JOB NO. 28884(04) SHEET NO. 20

REVISIONS		
REV. NO.	DESCRIPTION	DATE



N

0 60 120

GRAPHIC SCALE: 1" = 60'

LEGEND

- CHANNELIZING DEVICE W/ TEMPORARY STRIPING
- TYPE III BARRICADE
- ARROW DISPLAY
- SIGNS
- PORTABLE LONGITUDINAL BARRIER (W/ GLARE SCREENS)
- PORTABLE LONGITUDINAL BARRIER
- WORK AREA

NOTES

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
2. A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED IN THIS AREA.
3. CONSTRUCTION SPEED LIMIT TO BE DETERMINED BY THE DIVISION ENGINEER.
4. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
5. CW1-8 (CHEVRONS) TO BE USED THRU LANE TAPER ON EVERY OTHER DRUM AND R4-7A(R) OR (L) (KEEP RIGHT OF LEFT) TO BE USED THRU TANGENT LANES ON EVERY OTHER DRUM PER TCS2-1
6. FOR INFORMATION REGARDING THE LENGTHS OF TAPERS, TANGENTS, AND CROSSOVERS, AS WELL AS THE SPACING OF CHANNELIZING DEVICES, SEE STANDARDS DRAWING TCS2-1-(LATEST REVISION).

TULSA COUNTY — US-64 OVER 97TH W. AVE.

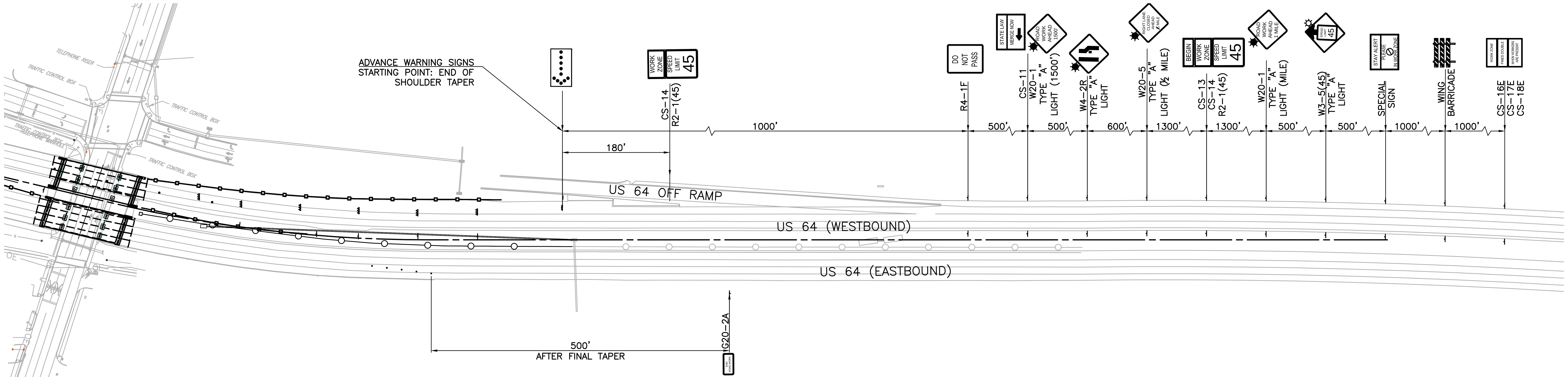
DESIGN	DGS	11/16
DRAWN	DGS	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

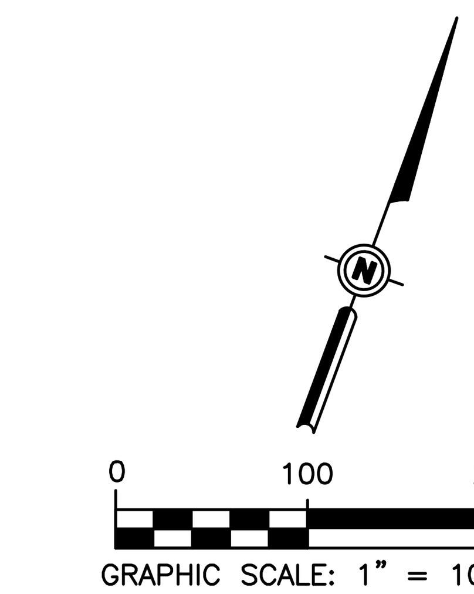
TRAFFIC PHASING US 64 (PHASE 4)

STATE JOB NO. 28884(04) SHEET NO. 21

REVISIONS		
REV. NO.	DESCRIPTION	DATE

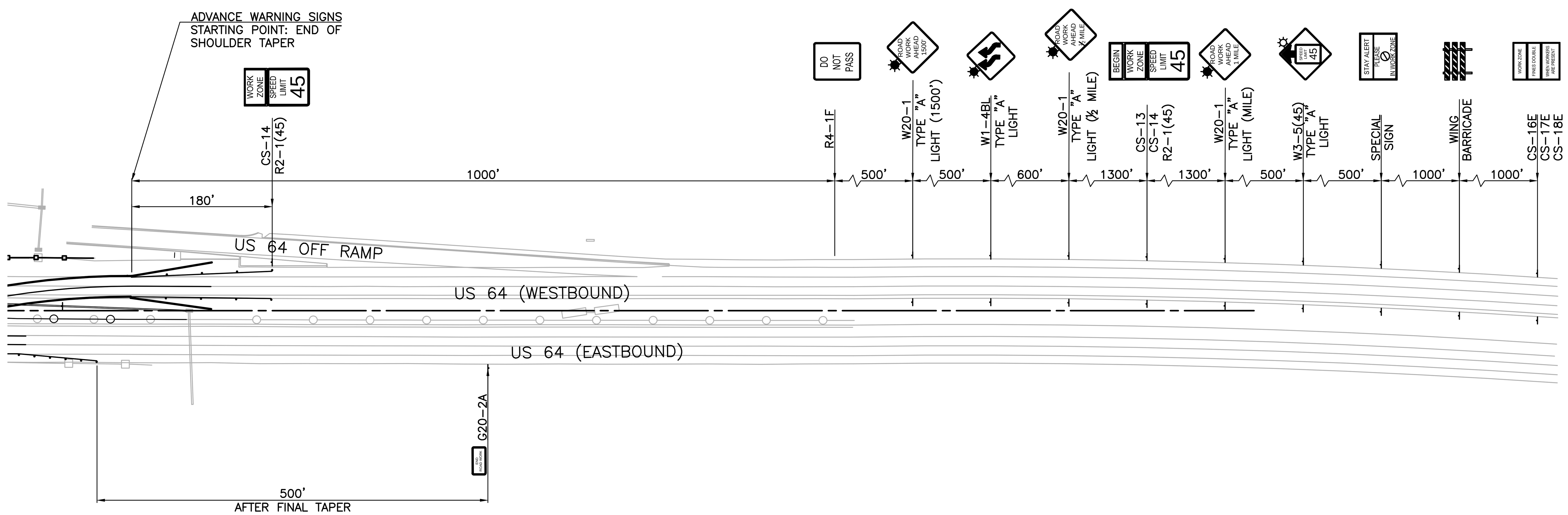


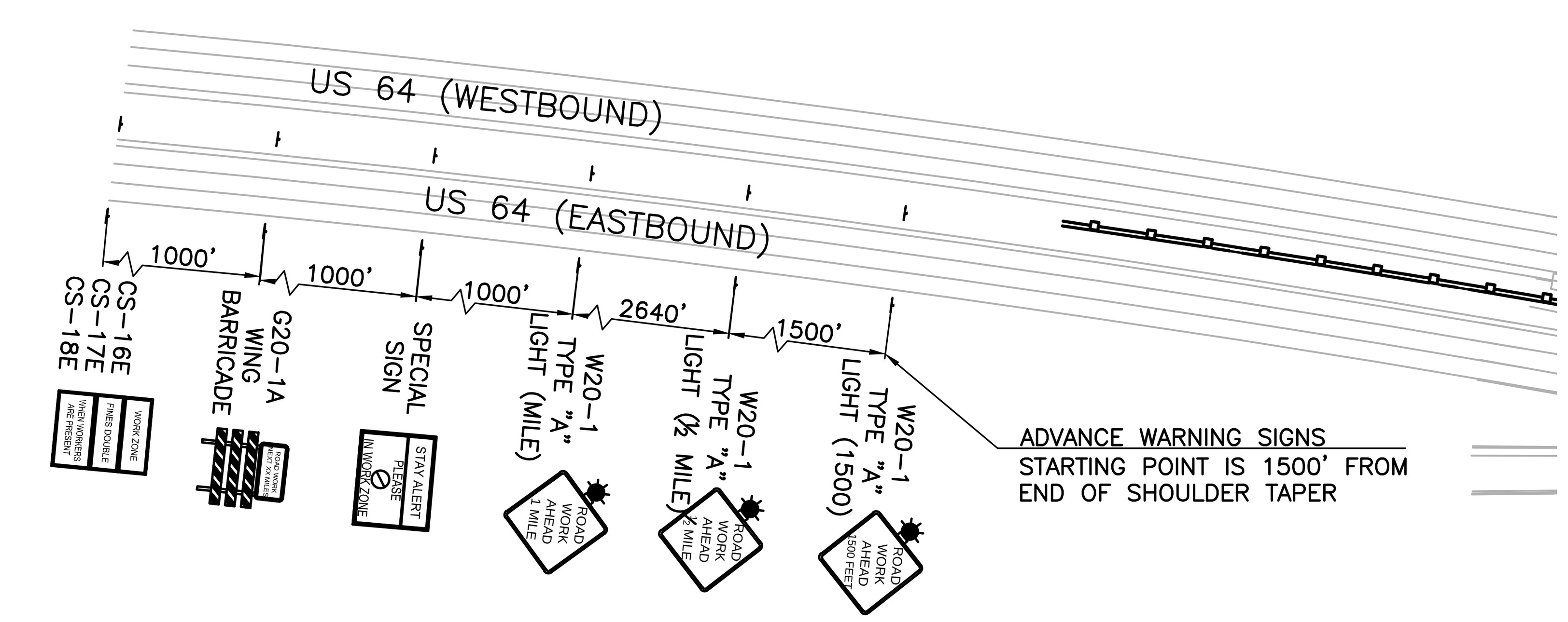
LANE CLOSURE ADVANCE WARNING SIGNS
(INSIDE LANE CLOSURE SHALL MIRROR THE OUTSIDE LANE CLOSURE SHOWN)
(EB STARTING POINT: STA. 186+40
WB STARTING POINT: STA. 209+00)



LEGEND

- CHANNELIZING DEVICE W/ TEMPORARY STRIPING
- TYPE III BARRICADE
- ARROW DISPLAY
- SIGNS
- PORTABLE LONGITUDINAL BARRIER (W/ GLARE SCREENS)
- PORTABLE LONGITUDINAL BARRIER





TYPICAL APPLICATION ADVANCE WARNING SIGNS

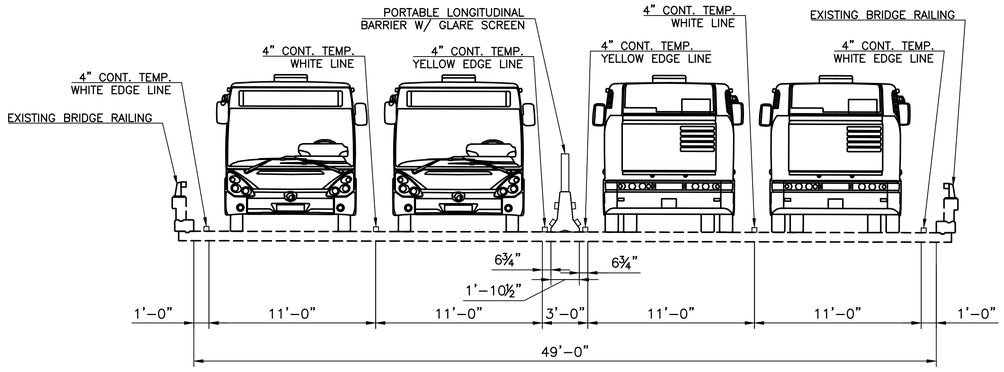
LANE SHIFT ADVANCE WARNING SIGNS
(LEFT-TO-RIGHT LANE SHIFT SHALL MIRROR THE RIGHT-TO-LEFT LANE SHIFT SHOWN)
(EB STARTING POINT: STA. 186+40
WB STARTING POINT: STA. 209+00)

TULSA COUNTY US-64 OVER 97TH W. AVE.

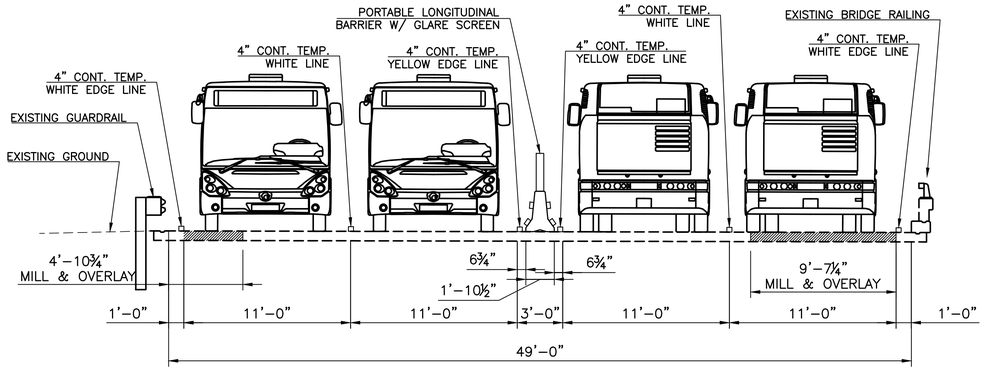
DESIGN	DGS	11/16	OKLAHOMA DEPARTMENT OF TRANSPORTATION
DRAWN	SDK	11/16	TRAFFIC PHASING US 64 DETAILS (SHEET 1 OF 2)
CHECKED	HRA	11/16	
APPROVED			
WALTER P MOORE			STATE JOB NO. 28884(04) SHEET NO. 22

V:\M12\2012\12003-07 ODOT EC-1414 US-64 Task 5\Civil\Site\17-23-M12-12003-07-TRAFFIC CONTROL.dwg Jan 12, 2017 - 9:19am sorahs

REVISIONS		
REV. NO.	DESCRIPTION	DATE



TYPICAL SECTION ON BRIDGE
(EXISTING EB BRIDGE SHOWN, PROP. WB BRIDGE SIMILAR)



BRIDGE APPROACH SECTION
(EXISTING EB BRIDGE SHOWN, PROP. WB BRIDGE SIMILAR)

TYPICAL SECTION ON CROSSOVER

(1) TO BE BACKFILLED AS PART OF THE FINISHING OPERATIONS. QUANTITY IS MEASURED IN T.B.S.C. TYPE 'E'.

CROSSOVER TERMINATION DETAIL

TULSA COUNTY — US–64 OVER 97TH W. AVE.

DESIGN	DGS	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
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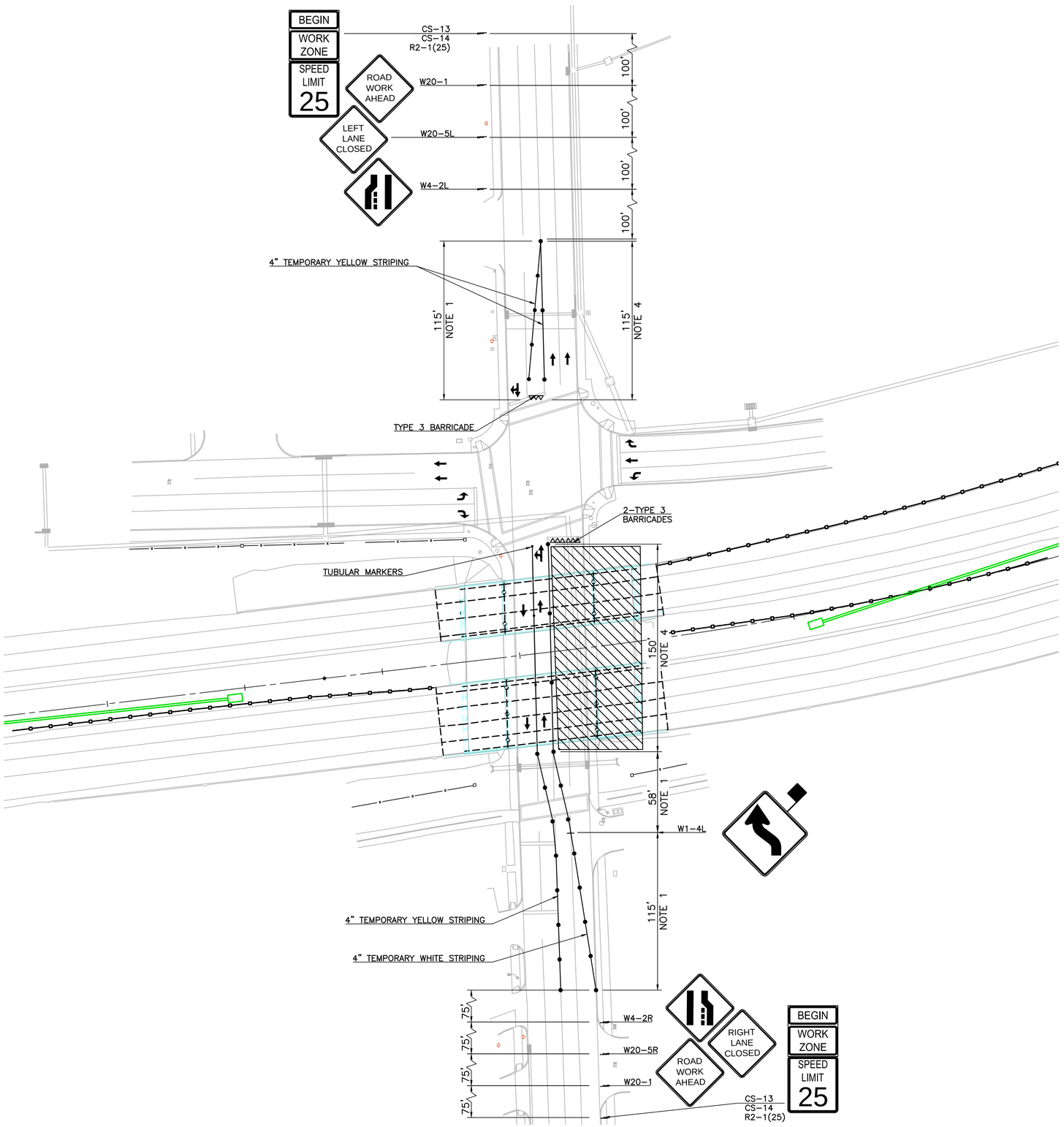
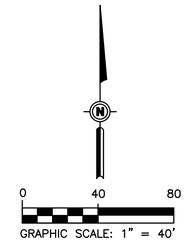
OKLAHOMA DEPARTMENT OF TRANSPORTATION

TRAFFIC PHASING
US 64
DETAILS (SHEET 2 OF 2)

STATE JOB NO. 28884(04) SHEET NO. 23



REVISIONS		
REV. NO.	DESCRIPTION	DATE



LEGEND

- CHANNELIZING DEVICE
- TYPE III BARRICADE
- TUBULAR MARKER
- SIGNS
- WORK AREA

NOTES

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
2. CONSTRUCTION SPEED LIMIT TO BE SET AT 25 MILES PER HOUR
3. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO TWICE THE POSTED SPEED LIMIT (M.P.H) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 50 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
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TULSA COUNTY — US–64 OVER 97TH W. AVE.

DESIGN	DGS	11/16
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CHECKED	HRA	11/16
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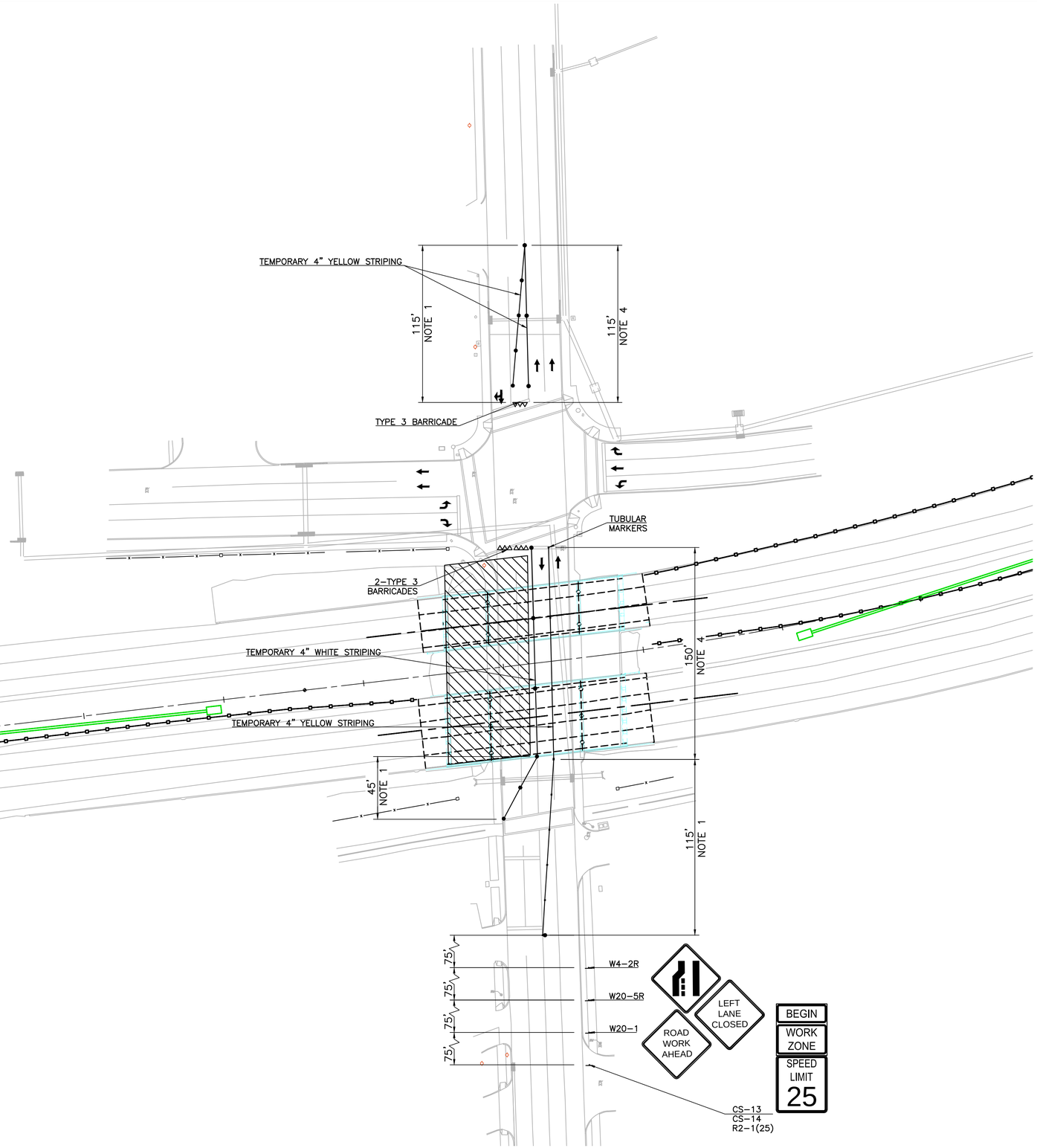
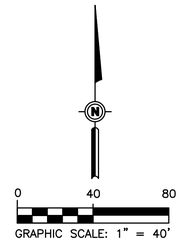
OKLAHOMA DEPARTMENT OF TRANSPORTATION

TRAFFIC PHASING
ADAMS ROAD
(PHASE 1)

STATE JOB NO. 28884(04) SHEET NO. 24

REVISIONS		
REV. NO.	DESCRIPTION	DATE





LEGEND

- CHANNELIZING DEVICE
- TYPE III BARRICADE
- TUBULAR MARKER
- SIGNS
- WORK AREA

NOTES

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
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TULSA COUNTY — US-64 OVER 97TH W. AVE.

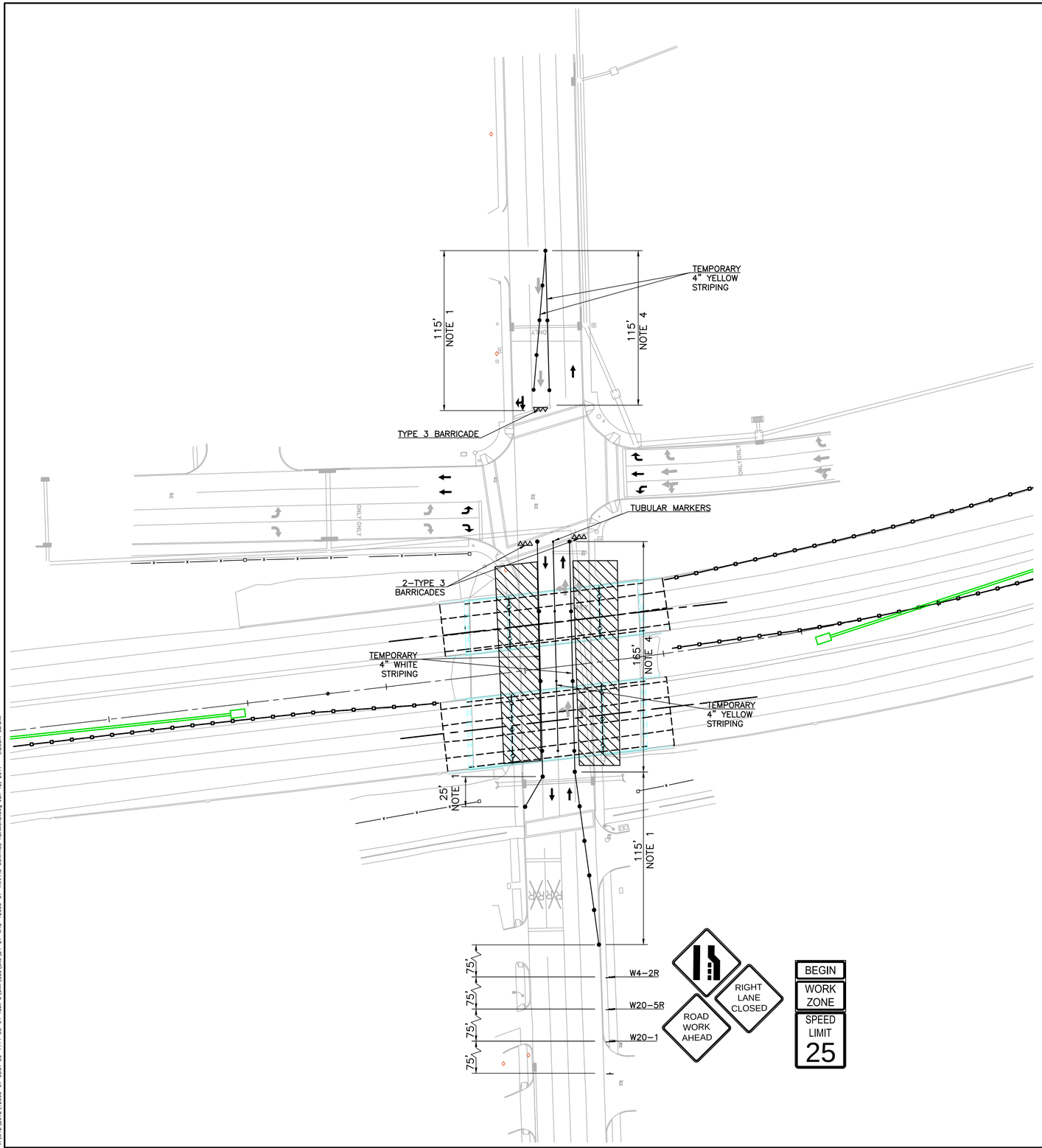
DESIGN	DGS	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

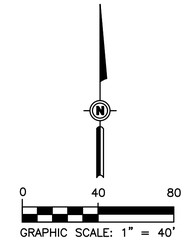
OKLAHOMA DEPARTMENT OF TRANSPORTATION

TRAFFIC PHASING
ADAMS ROAD
(PHASE 2)

STATE JOB NO. 28884(04) SHEET NO. 25

REVISIONS		
REV. NO.	DESCRIPTION	DATE





LEGEND

- CHANNELIZING DEVICE
- TYPE III BARRICADE
- TUBULAR MARKER
- SIGNS
- WORK AREA

NOTES

1. MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES (FEET) SHALL BE EQUAL TO THE POSTED SPEED LIMIT (M.P.H.) WITH THE FOLLOWING EXCEPTIONS. SPACING SHALL NOT EXCEED 25 FEET FOR CONES OR TUBE CHANNELIZERS; IT SHALL NOT EXCEED 50 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.
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TULSA COUNTY — US-64 OVER 97TH W. AVE.

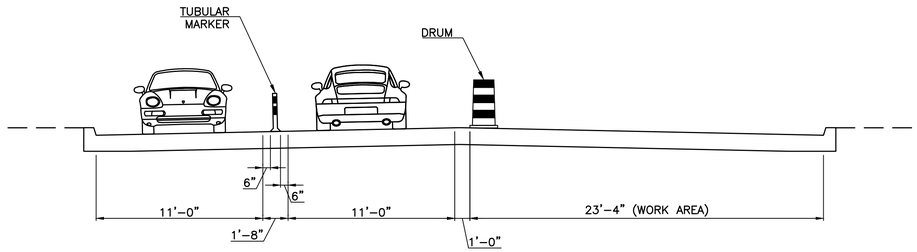
DESIGN	DGS	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

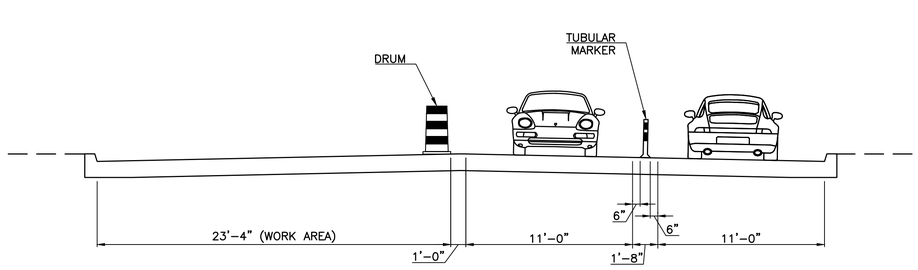
TRAFFIC PHASING
ADAMS ROAD
(PHASE 3)

STATE JOB NO. 28884(04) SHEET NO. 26

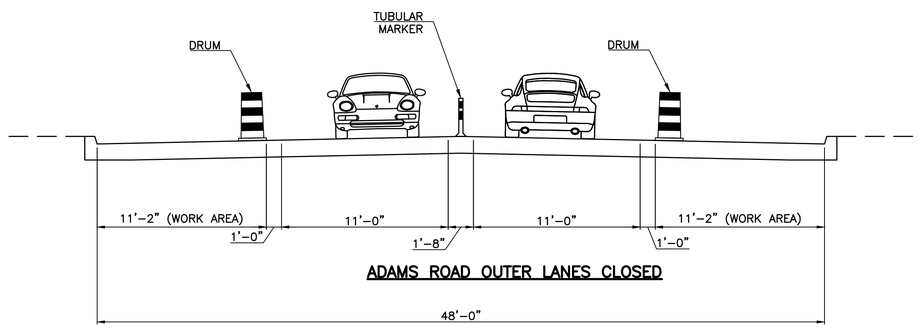
REVISIONS		
REV. NO.	DESCRIPTION	DATE



ADAMS ROAD EAST SIDE CLOSED



ADAMS ROAD WEST SIDE CLOSED



ADAMS ROAD OUTER LANES CLOSED

TULSA COUNTY — US–64 OVER 97TH W. AVE.

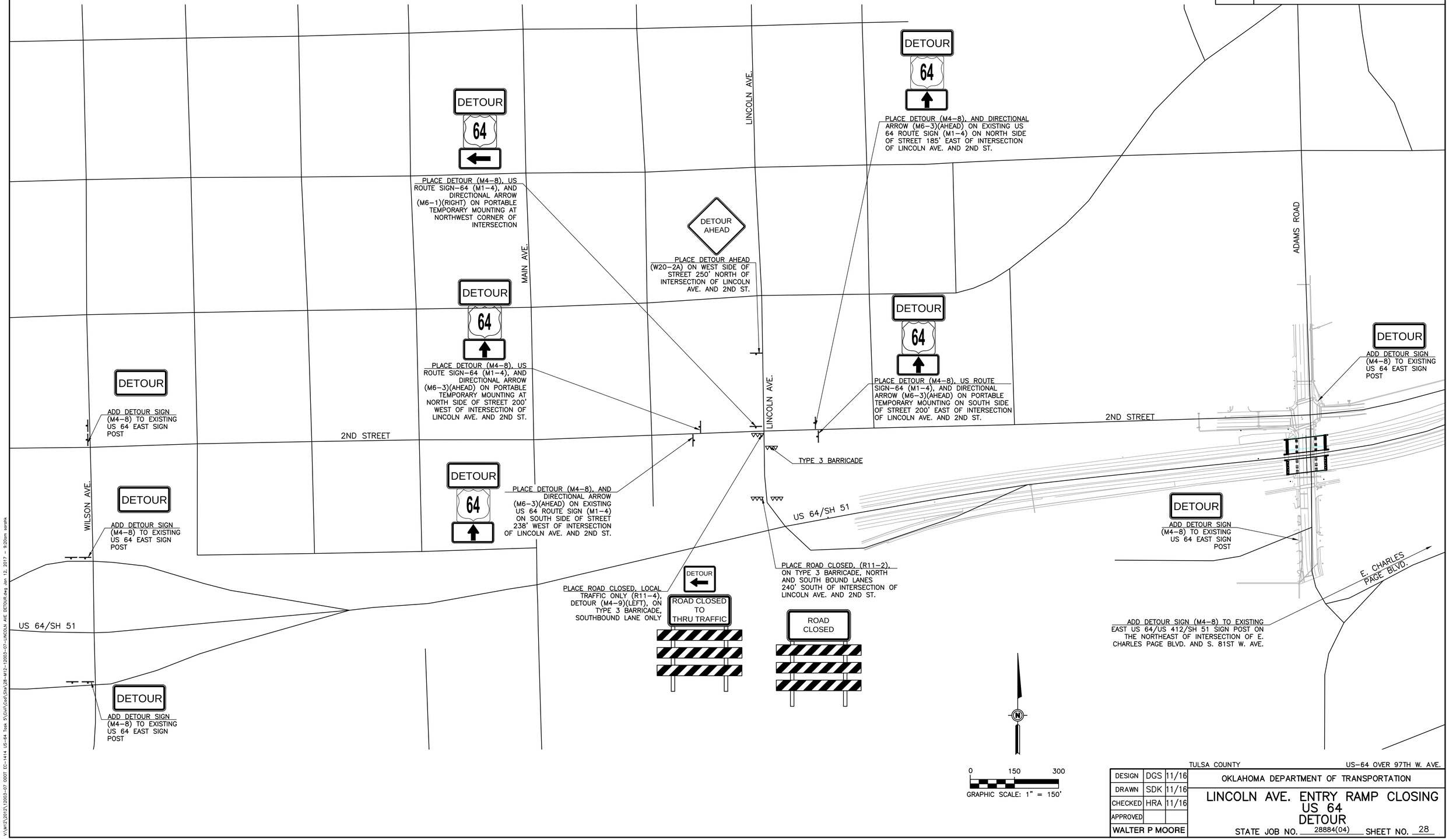
DESIGN	DGS	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

TRAFFIC PHASING ADAMS ROAD DETAILS

STATE JOB NO. 28884(04) SHEET NO. 27

REVISIONS		
REV. NO.	DESCRIPTION	DATE



TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	DGS	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

LINCOLN AVE. ENTRY RAMP CLOSING US 64 DETOUR

STATE JOB NO. 28884(04) SHEET NO. 28

REVISIONS		
REV. NO.	DESCRIPTION	DATE

STORM WATER MANAGEMENT PLAN

SITE DESCRIPTION

PROJECT LIMITS: US-64 IN TULSA COUNTY, OKLAHOMA. CL SURVEY STA 189+63 TO CL SURVEY STA 206+43

PROJECT DESCRIPTION: BRIDGE REHABILITATION, CROSSOVER CONSTRUCTION, AND EROSION CONTROL FOR US-64 OVER ADAMS ROAD IN SAND SPRINGS, OK.

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

SOIL TYPE: SILTY SAND AND SILTY CLAYS

AREA TO BE DISTURBED: APPROX. 1.4 ACRES

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

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

LATITUDE & LONGITUDE OF CENTER OF PROJECT: N 36°08'17" W 96°06'05"

NAME OF RECEIVING WATERS: _____

SENSITIVE WATERS OR WATERSHEDS: YES ☐ NO ☒

303(D) IMPAIRED WATERS: YES ☐ NO ☒

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

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

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

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

STRUCTURAL PRACTICES:

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

OFFSITE VEHICLE TRACKING:

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

NOTES:

LOCATIONS OF EROSION CONTROL MEASURES ARE SHOWN ON EROSION CONTROL SHEET.

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:

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

WASTE MATERIALS:

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

HAZARDOUS MATERIALS:

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

GENERAL NOTES:

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

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

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

IN ADDITION:

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

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	DLA	11/16
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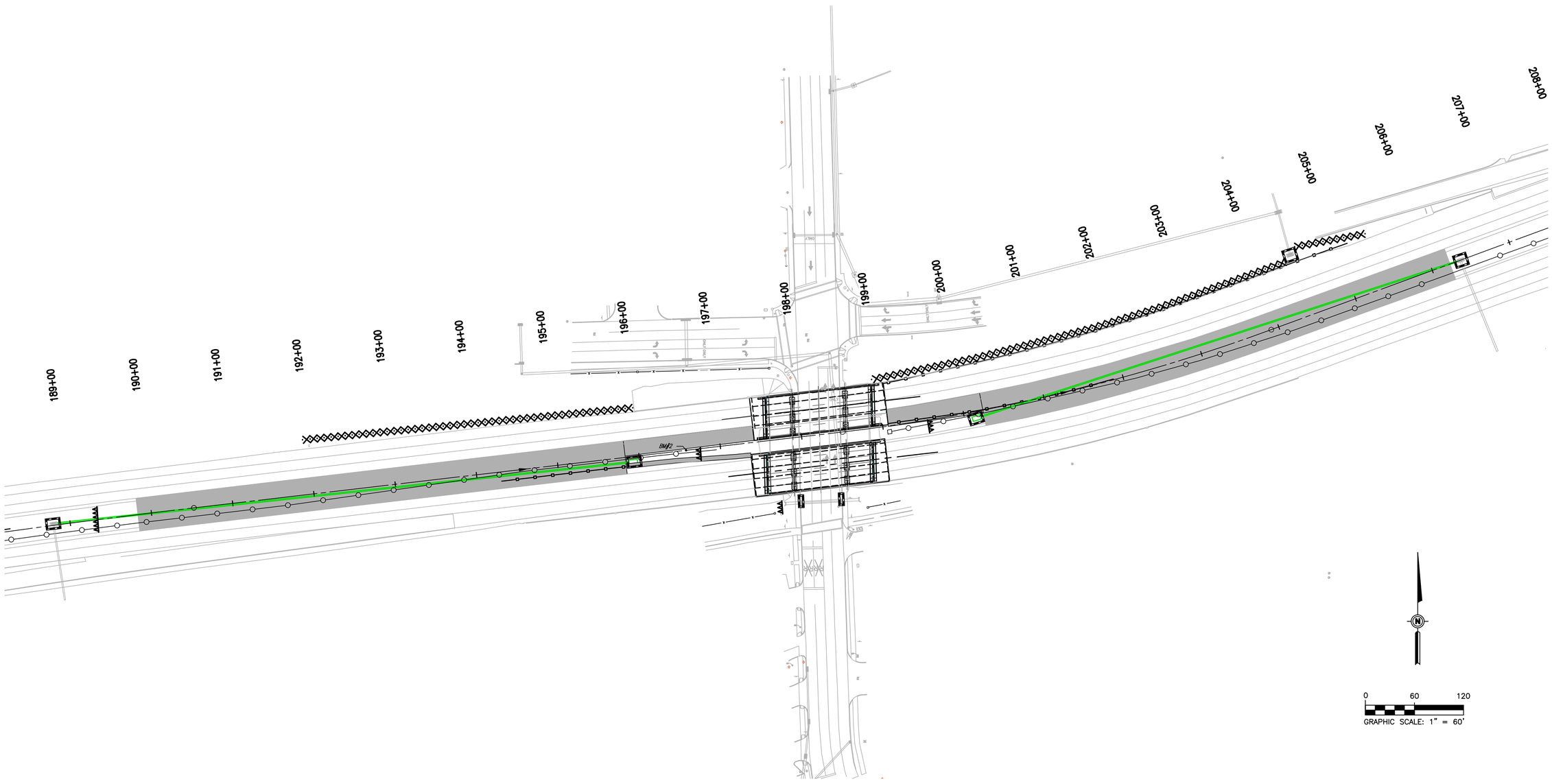
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

STORM WATER MANAGEMENT PLAN

STATE JOB NO. 28884(04) SHEET NO. 29

REVISIONS		
REV. NO.	DESCRIPTION	DATE



LEGEND

TEMPORARY SILT FENCE

TEMPORARY SILT DIKE

TEMPORARY FIBER LOG

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
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WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

STATE JOB NO. 28884(04) SHEET NO. 30

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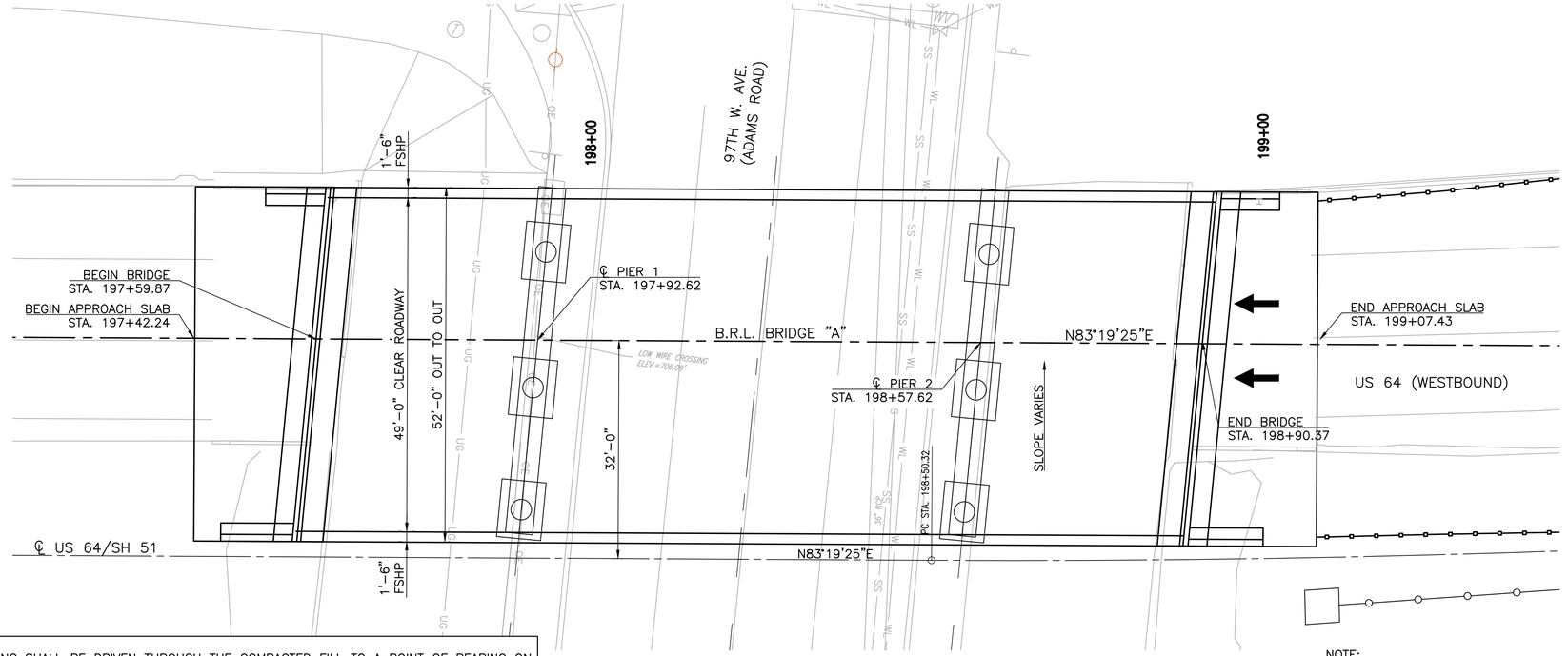
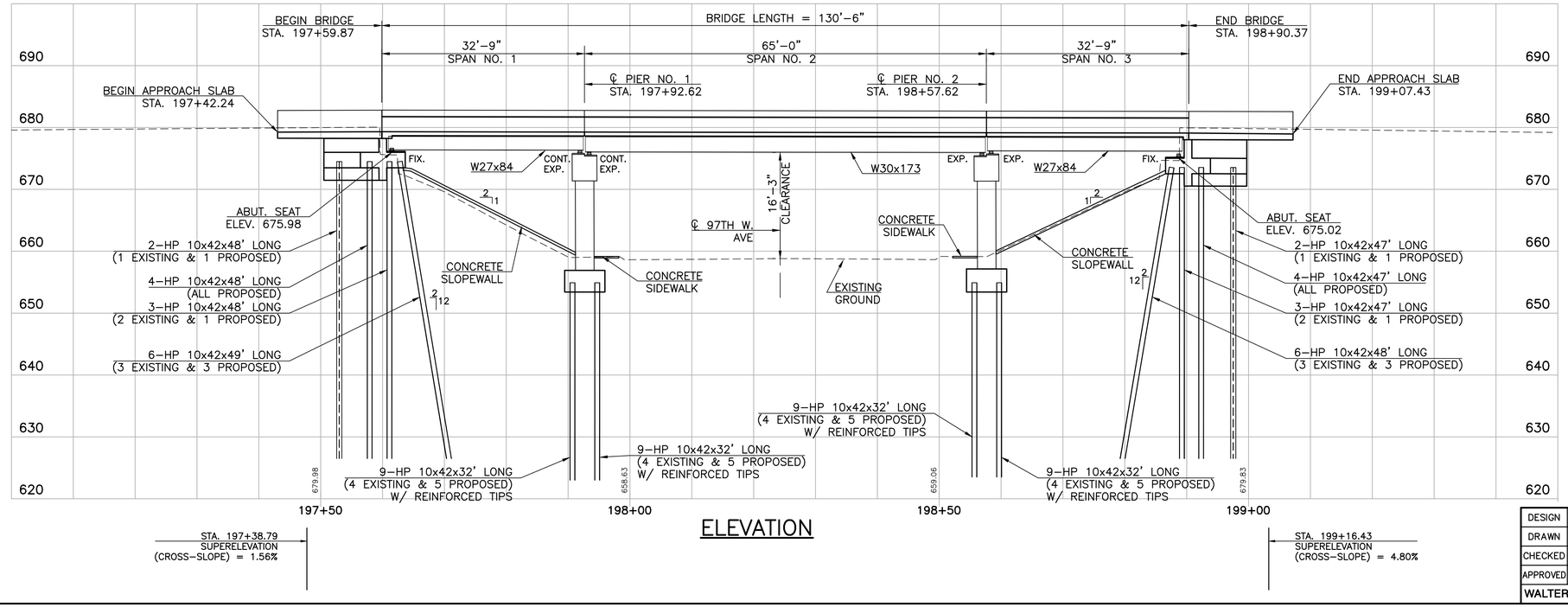
REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN

NOTE:
ALL PILING SHALL BE DRIVEN THROUGH THE COMPACTED FILL TO A POINT OF BEARING ON A SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE REQUIRED AXIAL LOAD RESISTANCE IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE REQUIRED AXIAL LOAD RESISTANCE IS OBTAINED. THE LENGTH OF THE STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

NOTE:
ELEVATIONS SHOWN ARE FROM THE PROFILE GRADE LINE (P.G.L.) WHICH IS OFFSET 20' LEFT OF C.R.L. FOR BRIDGE "A" AND 20' RIGHT OF C.R.L. FOR BRIDGE "B".



ELEVATION

STA. 197+38.79
SUPERELEVATION
(CROSS-SLOPE) = 1.56%

STA. 199+16.43
SUPERELEVATION
(CROSS-SLOPE) = 4.80%

0 10 20
GRAPHIC SCALE: 1" = 10'
VERT. SCALE: 1" = 1'

INDEX OF SHEETS

DESIGN DATA:

CONCRETE CLASS A (SUBSTRUCTURE) f'_c 3000 PSI
CONCRETE CLASS AA (SUPERSTRUCTURE) f'_c 4000 PSI
STRUCTURAL STEEL ASSHTO M270 (GRADE 50W) (ASTM A709)
BOLTS AASHTO M164 (ASTM A325)
CONCRETE REINFORCMENT AASHTO M31 (GRADE 60) (ASTM A775)

LIVE LOAD:

AASHTO HL-93; OR OKLAHOMA OVERLOAD TRUCK; ADTT 4000

LFD OPERATING RATING: HS 104.0 (HL-93)

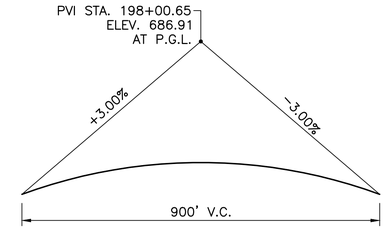
ABUTMENTS (HP 10x42):

FACTORED PILE REACTION (TONS/PILE)

ABUT 1	PIER 1	PIER 2	ABUT 2
29.7	44.2	44.2	29.7

BRIDGE STANDARDS

FSHP-42-2-00E
EJ-SK-04E
EJ-DTL-02E
HP1-2-01E
B40-STL-BM-BRACING-00E
B40-C-DIA-RB-1-01E
B40-C-DIA-RB-2-02E
B40-C-BRG-RB-01E



VERTICAL CURVE DATE

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

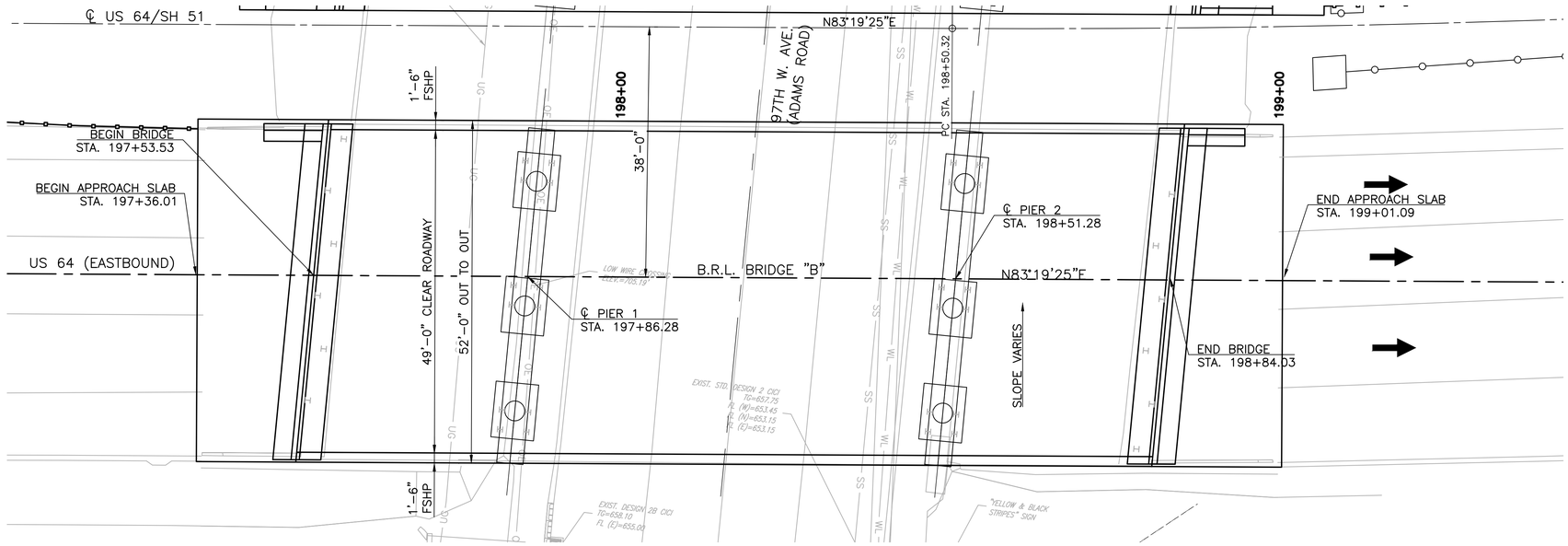
OKLAHOMA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION BRIDGE "A"

STATE JOB NO. 28884(04) SHEET NO. 31

V:\M12\2013\12003-07 0007 EC-1414 US-64 Tosk 5\Civil\Cad\Sht\31-32-M12-12003-07-GPE.dwg Jan 12, 2017 - 9:22am sdonk

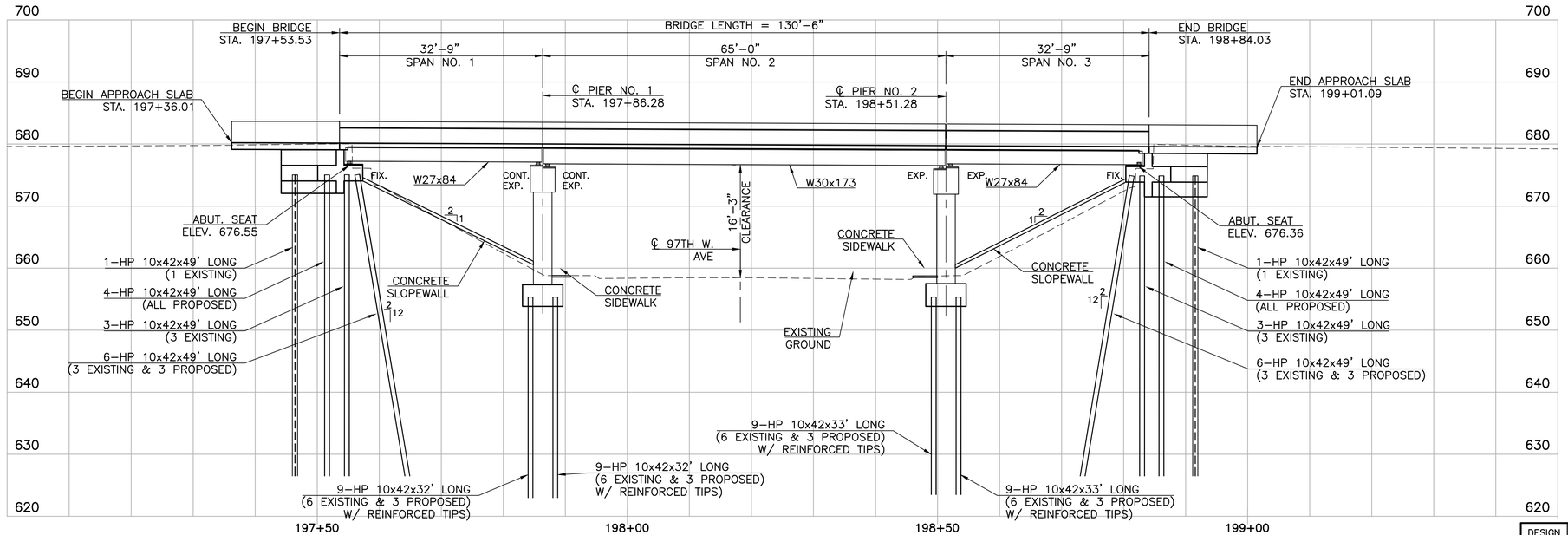
REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN

NOTE:
ALL PILING SHALL BE DRIVEN THROUGH THE COMPACTED FILL TO A POINT OF BEARING ON A SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE REQUIRED AXIAL LOAD RESISTANCE IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE REQUIRED AXIAL LOAD RESISTANCE IS OBTAINED. THE LENGTH OF THE STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

NOTE:
ELEVATIONS SHOWN ARE FROM THE PROFILE GRADE LINE (P.G.L.) WHICH IS OFFSET 20' LEFT OF C.R.L. FOR BRIDGE "A" AND 20' RIGHT OF C.R.L. FOR BRIDGE "B".



STA. 195+56.39
SUPERELEVATION
(CROSS-SLOPE) = 0.00%

ELEVATION

STA. 199+49.15
SUPERELEVATION
(CROSS-SLOPE) = 4.80%

DESIGN DATA:

CONCRETE CLASS A (SUBSTRUCTURE) f'_c 3000 PSI
CONCRETE CLASS AA (SUPERSTRUCTURE) f'_c 4000 PSI
STRUCTURAL STEEL ASSHTO M270 (GRADE 50W) (ASTM A709)
BOLTS AASHTO M164 (ASTM A325)
CONCRETE REINFORCMENT AASHTO M31 (GRADE 60) (ASTM A775)

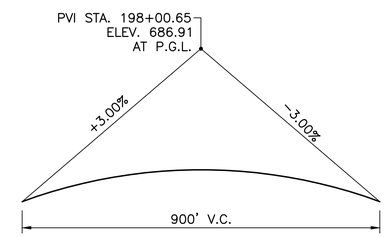
LIVE LOAD:

AASHTO HL-93; OR OKLAHOMA OVERLOAD TRUCK; ADTT 4000

LFD OPERATING RATING: HS 104.0 (HL-93)

ABUTMENTS (HP 10x42):

FACTORED PILE REACTION (TONS/PILE)			
ABUT 1	PIER 1	PIER 2	ABUT 2
27.8	42.5	42.5	27.8



VERTICAL CURVE DATE

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

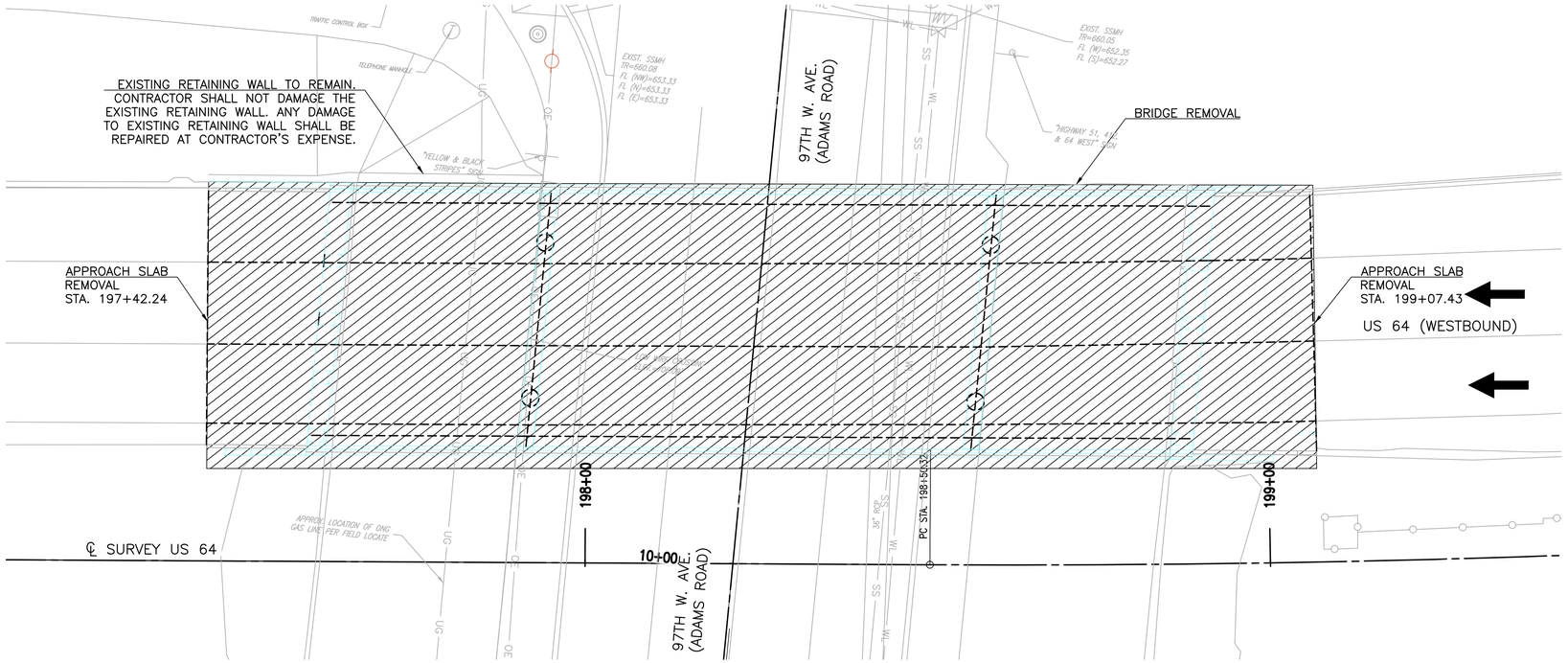
OKLAHOMA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
BRIDGE "B"

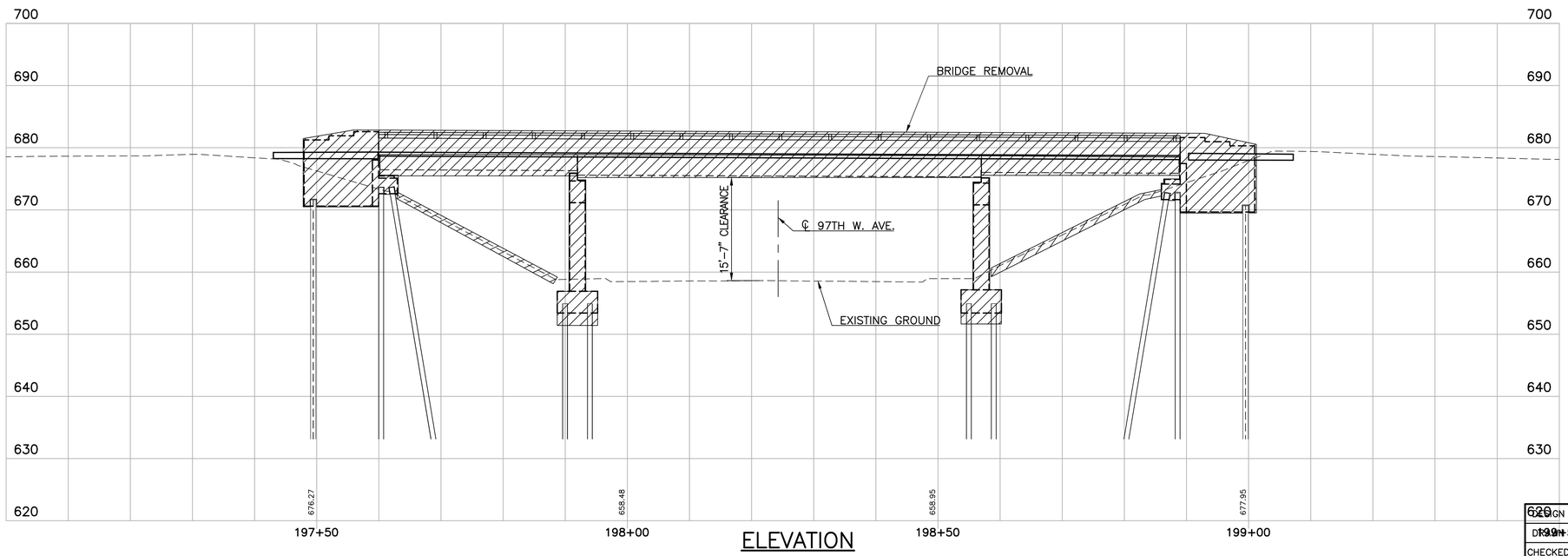
STATE JOB NO. 28884(04) SHEET NO. 32

V:\M12\2013\12003-07 0007 EC-1414 US-64 Tank SV\Civil\Cad\Shts\31-32-M12-12003-07-GPE.dwg Jan 12, 2017 - 9:22am sdonk

REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN



ELEVATION

LEGEND:

LIMITS OF REMOVAL

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

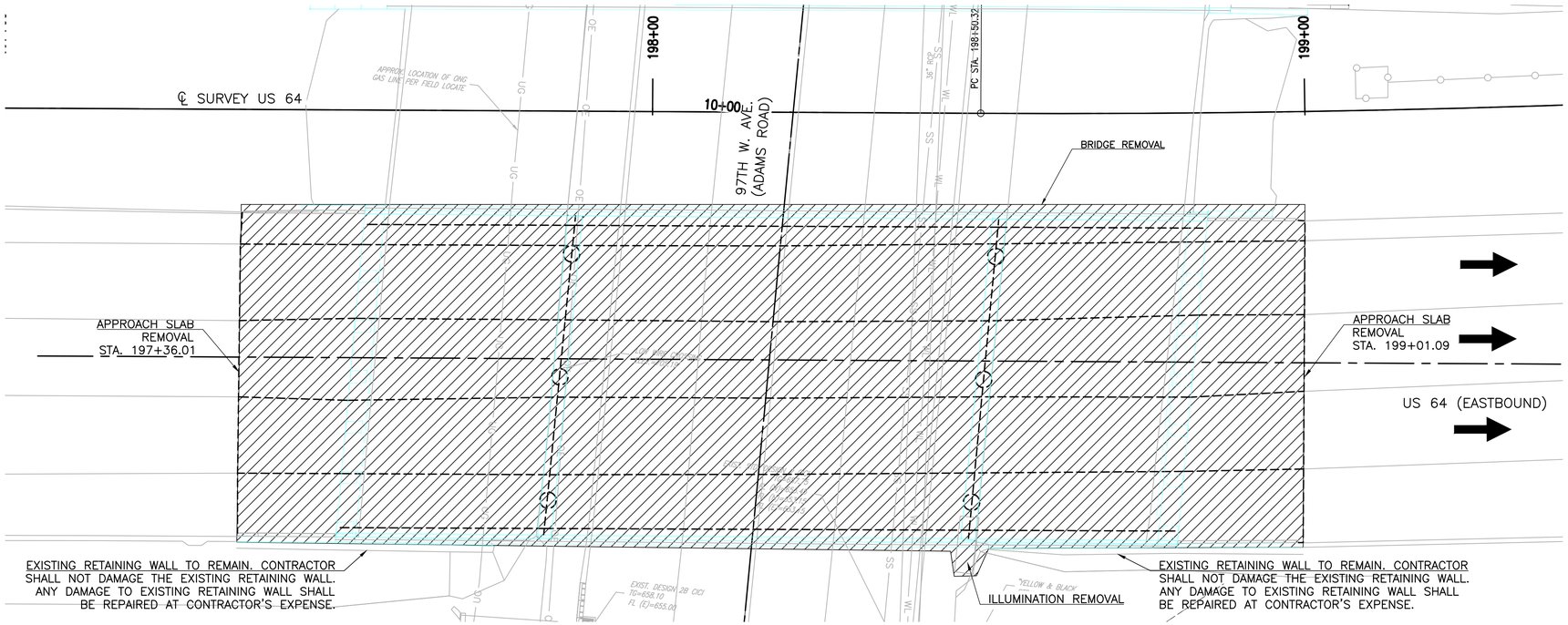
OKLAHOMA DEPARTMENT OF TRANSPORTATION

REMOVAL DETAILS BRIDGE "A"

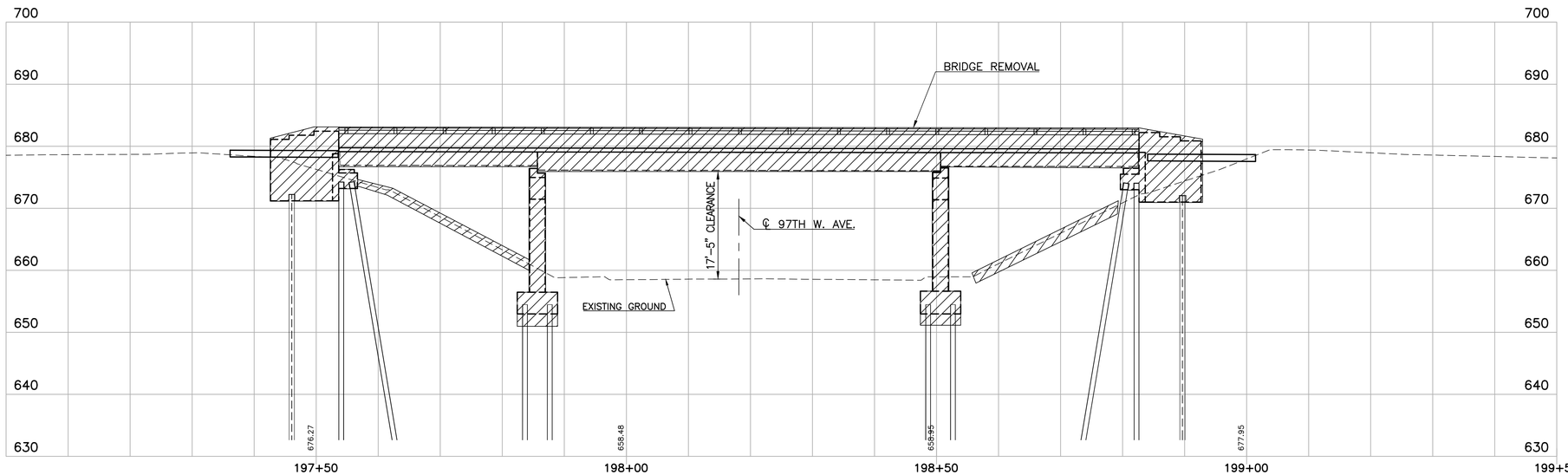
STATE JOB NO. 28884(04) SHEET NO. 33

V:\M12\2013\12003-07 0007 EC-1414 US-64 Task 5\Civil\Cad\Sht\33-34-M12-12003-07-REMOVAL.dwg Jan 12, 2017 - 9:23am sonshk

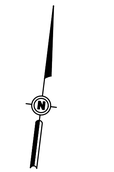
REVISIONS		
REV. NO.	DESCRIPTION	DATE



PLAN



ELEVATION



LEGEND:

LIMITS OF REMOVAL

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

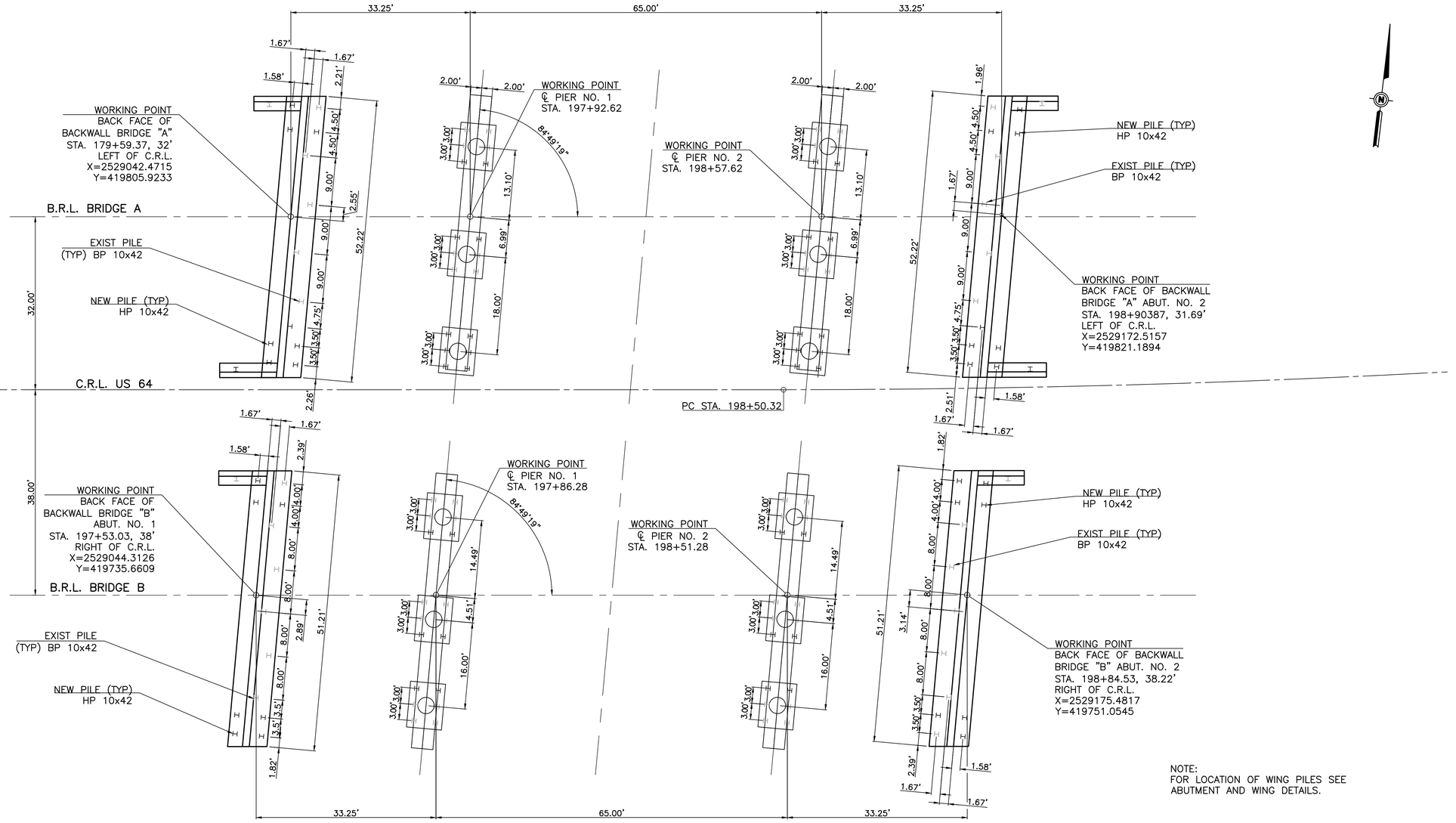
OKLAHOMA DEPARTMENT OF TRANSPORTATION

REMOVAL DETAILS
BRIDGE "B"

STATE JOB NO. 28884(04) SHEET NO. 34

V:\W12\2012\12003-07 ODOT EC-1414 US-64 Task 5\Civil\Cad\Sht\33-34-W12-12003-07-REMOVAL.dwg Jan 12, 2017 - 9:23am sarahk

REVISIONS		
REV. NO.	DESCRIPTION	DATE



NOTE:
FOR LOCATION OF WING PILES SEE
ABUTMENT AND WING DETAILS.

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

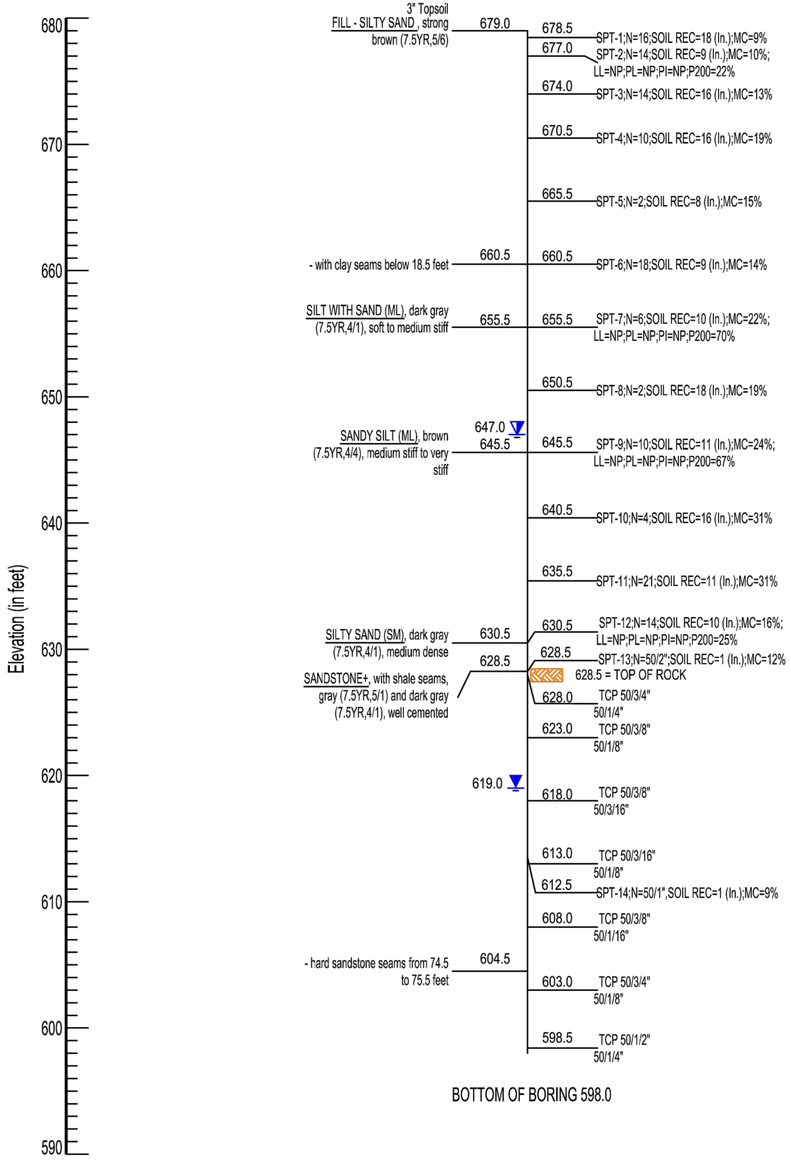
SUBSTRUCTURE STAKING DIAGRAM

STATE JOB NO. 28884(04) SHEET NO. 35

REVISIONS		
REV. NO.	DESCRIPTION	DATE

Boring No. B-1

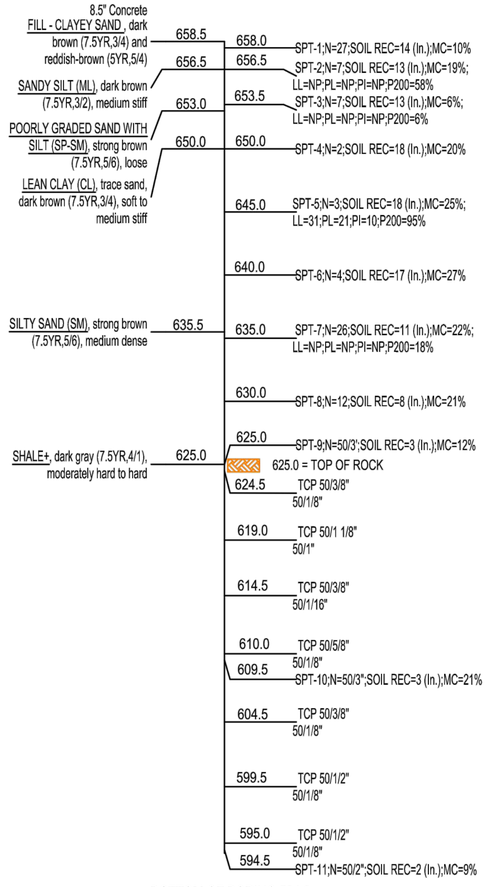
Surface Elev. (Ft.): 679.0
Station:197+33 ; Offset: 4' LT
(May 3rd, 2016)



BOTTOM OF BORING 598.0

Boring No. B-2

Surface Elev. (Ft.): 658.5
Station:197+98 ; Offset: 10' LT
(May 10th, 2016)



BOTTOM OF BORING 594.0

LEGEND

DCD = DIAMOND CORE DRILLING, ASTM D2113-83
SPT = STANDARD PENETRATION TEST, ASTM D1586
SS = SPLIT SPOON SAMPLER
N = NUMBER OF BLOWS PER 12 INCHES
MC = MOISTURE CONTENT
LL = LIQUID LIMIT (NV=NO VALUE)
PI = PLASTICITY INDEX (NP=NO PLASTICITY)
#200 = PERCENT PASSING #200 SIEVE
UCS = UNCONFINED COMPRESSIVE STRENGTH (psi)
TCP = TEXAS CONE PENTROMETER
WCI = WET CAVE IN
= WATER LEVEL WHILE DRILLING OR SAMPLING
= WATER LEVEL AFTER DRILLING
= WATER LEVEL 24 HOURS AFTER DRILLING
= TOP OF ROCK

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

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

* NOTE: TOP OF ROCK LINE SHOWN FOR ESTIMATING PURPOSED ONLY

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

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

SITE GEOLOGY

Based on the results of our borings and information published in the Oklahoma Department of Transportation manual, *"Engineering Classification of Geologic Materials: Division 8"*, the project is underlain by Terrace Deposits (Qts). These materials consist of sand, silt, clay, gravel, and/or combinations of these. Terrace materials occur adjacent to or near streams at higher elevations than the flood plain (bottom land). The terrace deposits are underlain by the Nellie Bly unit (Pnb).

The Nellie Bly Unit consists predominantly of yellowish-brown shale and sandy shale with interbedded sandstone and siltstone. The shale ranges from clay shale in the lower portion grading upward to silty and sandy shale. The sandstones are present as massive beds up to 40 feet thick along the Arkansas River near Sand Springs. The total thickness of this unit ranges from about 80 to 280 feet in Tulsa County.

GEOTECHNICAL REPORT

ALL GEOTECHNICAL INFORMATION CONTAINED ON THIS SHEET IS COVERED BY THE ENGINEERING SEAL AFFIXED TO AN ORIGINAL GEOTECHNICAL ENGINEERING REPORT THAT HAS BEEN STAMPED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN OKLAHOMA. TO OBTAIN A COPY OF THE COMPLETE REPORT, CONTACT THE ODOT OFFICE ENGINEER AT (405) 521-2625. THE CONTRACTOR SHOULD BE FULLY AWARE OF THE SITE CONDITIONS PRIOR TO BEGINNING WORK. ANY ADDITIONAL GEOTECNICAL INFORMATION WHICH MAY BE DESIRED IS THE RESPONSIBILITY OF THE CONTRACTOR.

TULSA COUNTY — US–64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

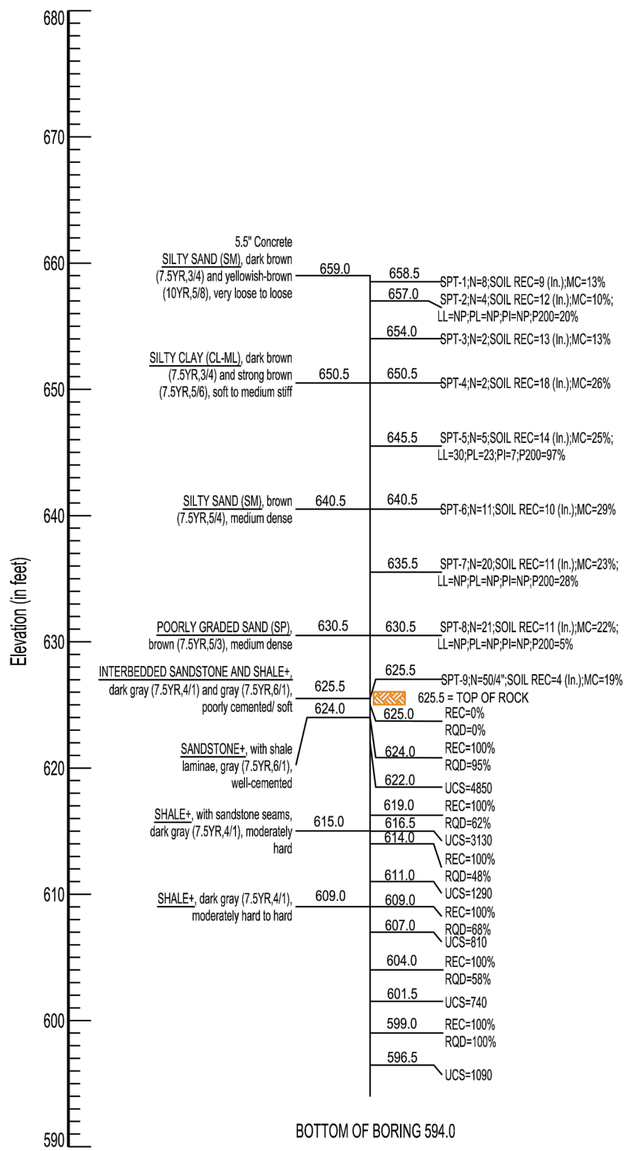
OKLAHOMA DEPARTMENT OF TRANSPORTATION

FOUNDATION REPORT (1 OF 2)

STATE JOB NO. 28884(04) SHEET NO. 36

Boring No. B-3

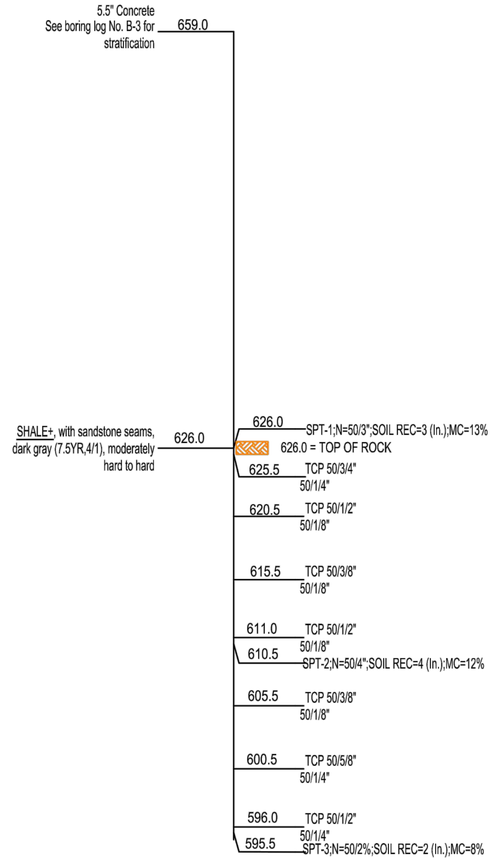
Surface Elev. (Ft.): 659.0
Station:198+51 ; Offset: 11' LT
(May 5th, 2016)



BOTTOM OF BORING 594.0

Boring No. B-3A

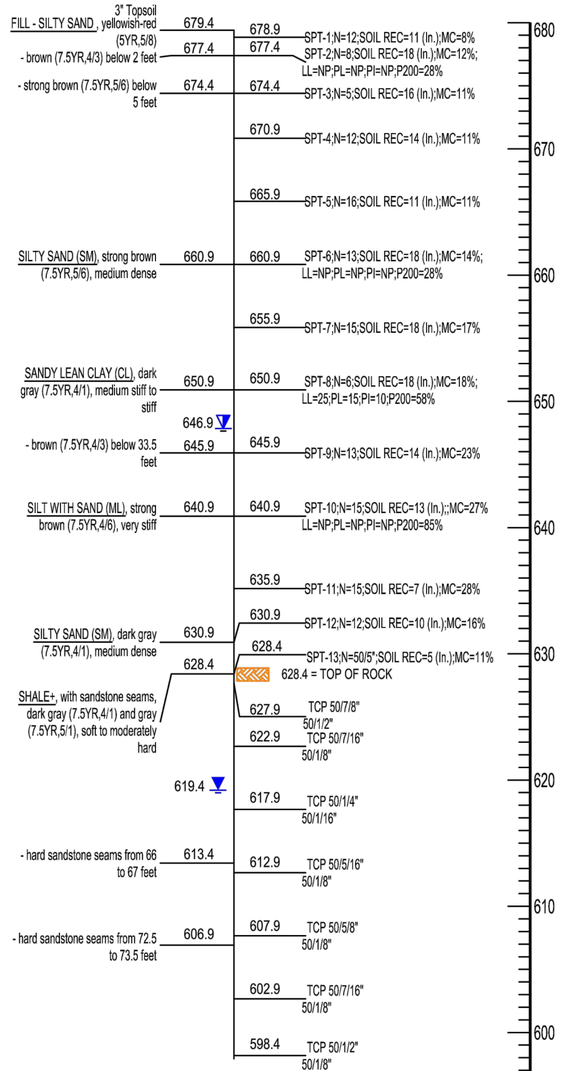
Surface Elev. (Ft.): 659.0
Station:198+51 ; Offset: 6' LT
(May 5th, 2016)



BOTTOM OF BORING 595.0

Boring No. B-4

Surface Elev. (Ft.): 679.4
Station:199+02 ; Offset: 11' LT
(May 4th, 2016)



BOTTOM OF BORING 597.9

REVISIONS		
REV. NO.	DESCRIPTION	DATE

LEGEND

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SPT = STANDARD PENETRATION TEST, ASTM D1586
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N = NUMBER OF BLOWS PER 12 INCHES
MC = MOISTURE CONTENT
LL = LIQUID LIMIT (NV=NO VALUE)
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* NOTE: TOP OF ROCK LINE SHOWN FOR ESTIMATING PURPOSED ONLY

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TULSA COUNTY — US–64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	05/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

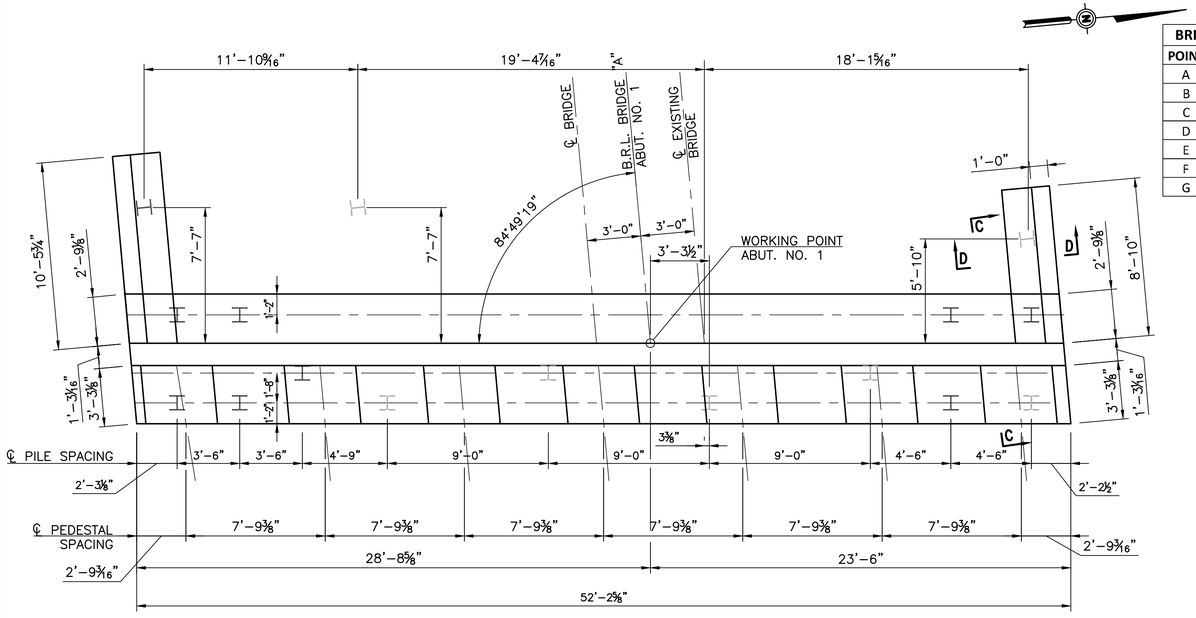
OKLAHOMA DEPARTMENT OF TRANSPORTATION

FOUNDATION REPORT (2 OF 2)

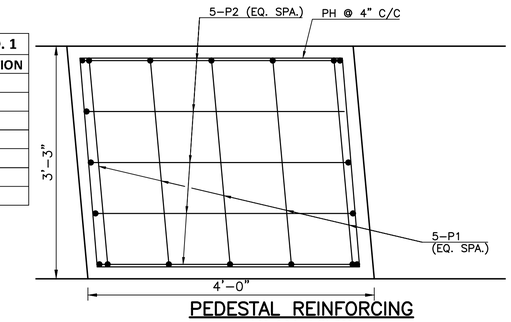
STATE JOB NO. 28884(04) SHEET NO. 37

BRIDGE "A" ABUT. NO. 1	
POINT	PEDESTAL ELEVATION
A	676.15
B	676.30
C	676.46
D	676.61
E	676.76
F	676.91
G	677.06

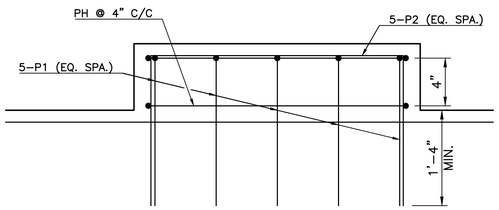
REVISIONS		
REV. NO.	DESCRIPTION	DATE



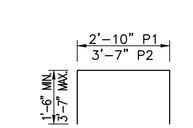
PLAN



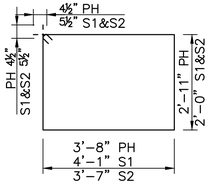
PEDESTAL REINFORCING PLAN VIEW



PEDESTAL REINFORCING ELEVATION VIEW

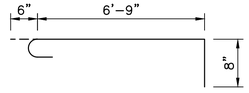


P1 #4 x 5'–10" MIN.
10'–0" MAX
P2 #4 x 6'–7" MIN.
10'–9" MAX.

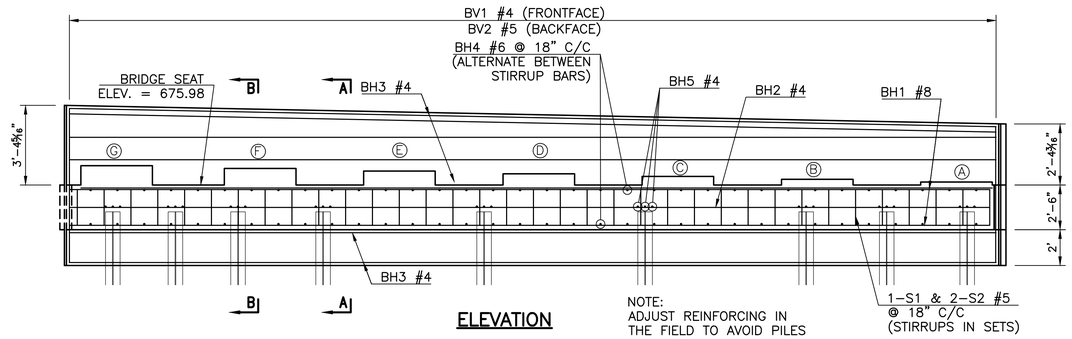


PH #4 x 13'–11"
S1 #5 x 13'–1"
S2 #5 x 12'–1"

BV1 #4 x 7'–10" AVG.

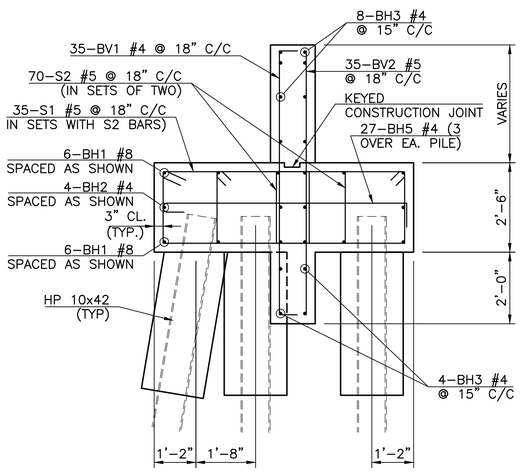


BH5 #4 x 7'–11"

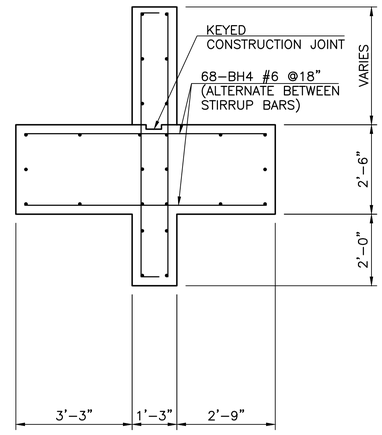


ELEVATION

NOTE:
ADJUST REINFORCING IN THE FIELD TO AVOID PILES



SECTION A–A



SECTION B–B
(OTHER BARS SAME AS SECTION A–A)

BRIDGE "A" ABUTMENT 1 QUANTITIES		
ITEM	UNIT	TOTAL
CLSM BACKFILL	C.Y.	10.0
CLASS A CONCRETE	C.Y.	56.3
EPOXY COATED REINFORCING STEEL	LB.	6,894.0
PILES, FURNISHED (HP10X42)	L.F.	435.0
PILES, DRIVEN (HP10X42)	L.F.	435.0
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	68.5

BRIDGE "A" ABUTMENT 1 BAR LIST					
MARK	SIZE	FORM	NUMBER	LENGTH	LENGTH VARIATION
EPOXY COATED					
BH1	#8	STR.	12	51'-9"	
BH2	#4	STR.	4	51'-9"	
BH3	#4	STR.	12	51'-9"	
BH4	#6	STR.	68	6'-9"	
BH5	#4	BNT.	27	7'-11"	
S1	#5	BNT.	35	13'-1"	
S2	#5	BNT.	70	12'-1"	
BV1	#4	BNT.	35	7'-10" AVG	7'-4" TO 8'-4"
BV2	#5	STR.	35	6'-10" AVG	6'-4" TO 7'-4"
P1	#4	BNT.	30	7'-11" AVG	5'-10" TO 10'-0"
P2	#4	BNT.	30	8'-8" AVG	6'-7" TO 10'-9"
PH	#4	BNT.	6	13'-11"	

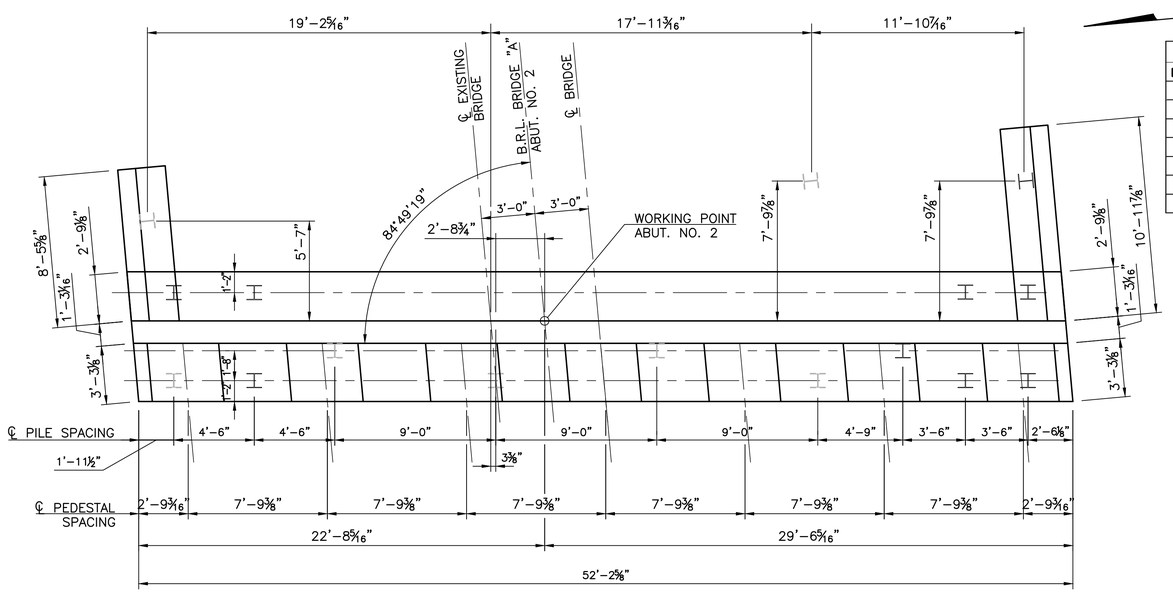
TULSA COUNTY — US–64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

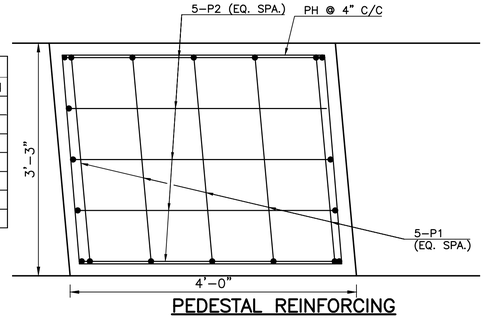
DETAILS OF BRIDGE "A" ABUTMENTS (ABUT. NO. 1)

STATE JOB NO. 28884(04) SHEET NO. 38

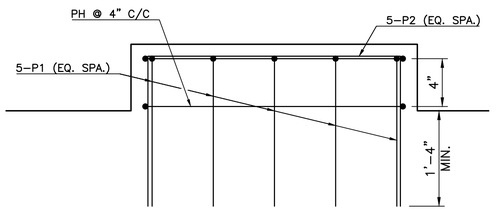


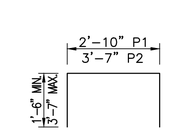
PLAN

BRIDGE "A" ABUT. NO. 2	
POINT	PEDESTAL ELEVATION
A	675.19
B	675.53
C	675.87
D	676.21
E	676.55
F	676.88
G	677.22

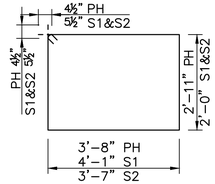


PEDESTAL REINFORCING PLAN VIEW



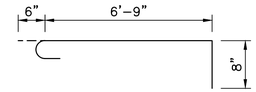


P1 #4 x 5'-10" MIN.
10'-0" MAX
P2 #4 x 6'-7" MIN.
10'-9" MAX.

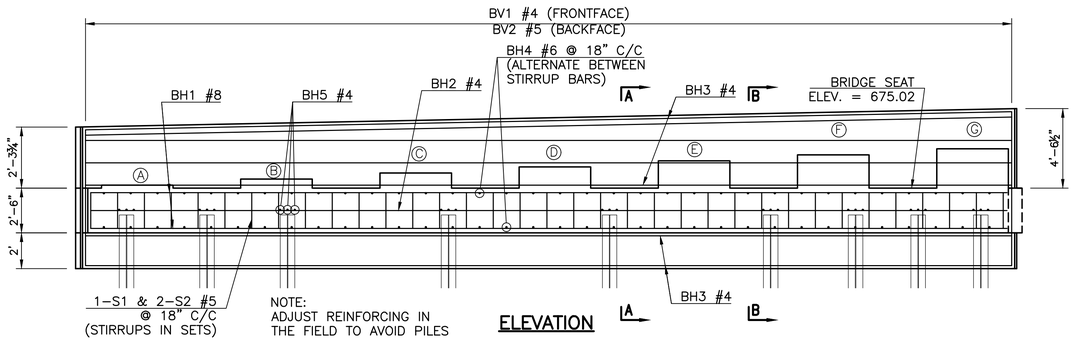


PH #4 x 13'-11"
S1 #5 x 13'-1"
S2 #5 x 12'-1"

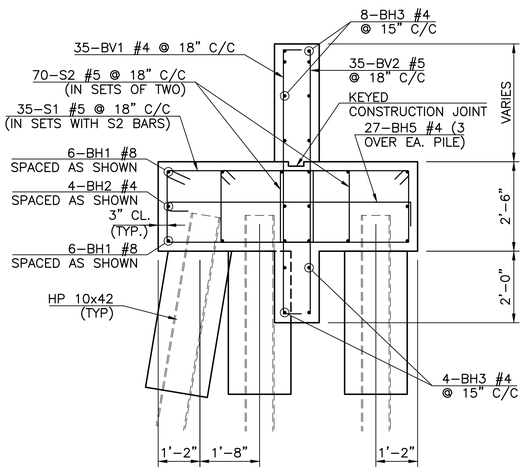
BV1 #4 x 8'-4" AVG.



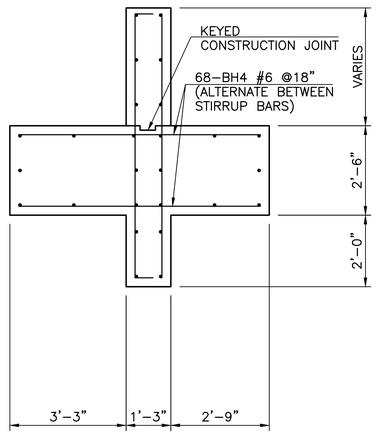
BH5 #4 x 7'-11"



ELEVATION



SECTION A-A



SECTION B-B
(OTHER BARS SAME AS SECTION A-A)

BRIDGE "A" ABUTMENT 2 QUANTITIES		
ITEM	UNIT	TOTAL
CLSM BACKFILL	C.Y.	10.0
CLASS A CONCRETE	C.Y.	60.9
EPOXY COATED REINFORCING STEEL	LB.	7,116.4
PILES, FURNISHED (HP10X42)	L.F.	426.0
PILES, DRIVEN (HP10X42)	L.F.	426.0
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	74.1

BRIDGE "A" ABUTMENT 2 BAR LIST					
MARK	SIZE	FORM	NUMBER	LENGTH	LENGTH VARIATION
EPOXY COATED					
BH1	#8	STR.	12	51'-9"	
BH2	#4	STR.	4	51'-9"	
BH3	#4	STR.	12	51'-9"	
BH4	#6	STR.	68	6'-9"	
BH5	#4	BNT.	27	7'-11"	
S1	#5	BNT.	35	13'-1"	
S2	#5	BNT.	70	12'-1"	
BV1	#4	BNT.	35	8'-4" AVG	7'-1" TO 9'-7"
BV2	#5	STR.	35	7'-4" AVG	6'-1" TO 8'-7"
P1	#4	BNT.	30	7'-11" AVG	5'-10" TO 10'-0"
P2	#4	BNT.	30	8'-8" AVG	6'-7" TO 10'-9"
PH	#4	BNT.	15	13'-11"	

REVISIONS		
REV. NO.	DESCRIPTION	DATE

TULSA COUNTY — US-64 OVER 97TH W. AVE.

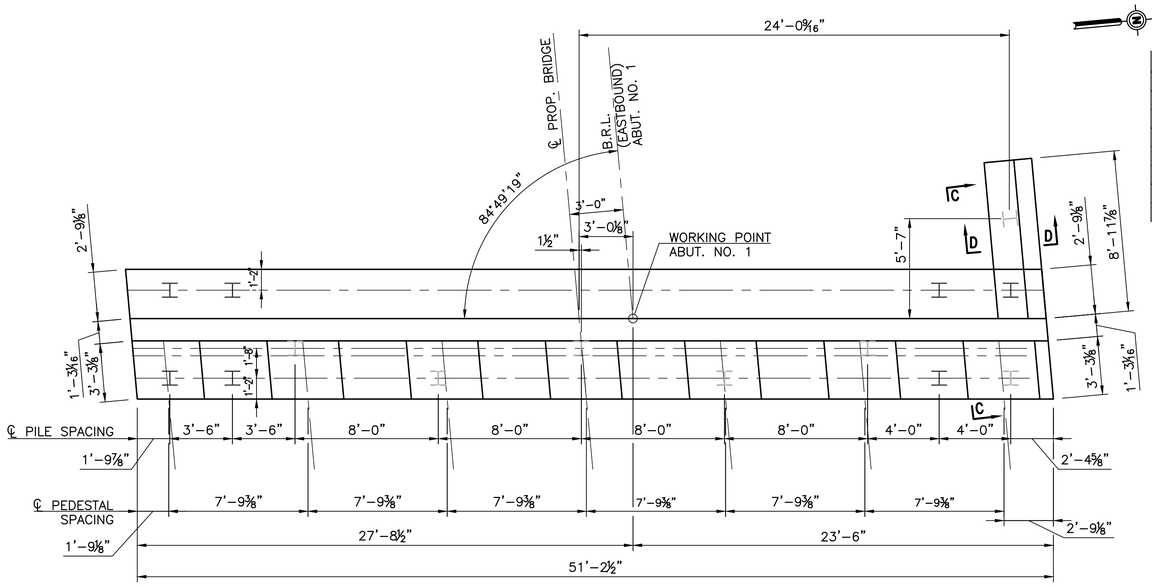
DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

DETAILS OF BRIDGE "A" ABUTMENTS (ABUT. NO. 2)

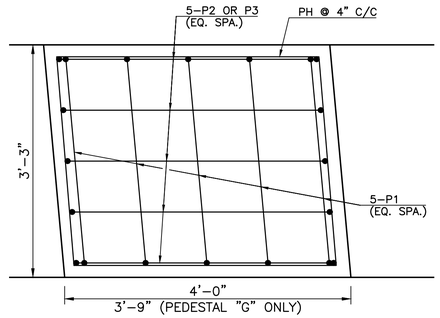
STATE JOB NO. 28884(04) SHEET NO. 39

REVISIONS		
REV. NO.	DESCRIPTION	DATE

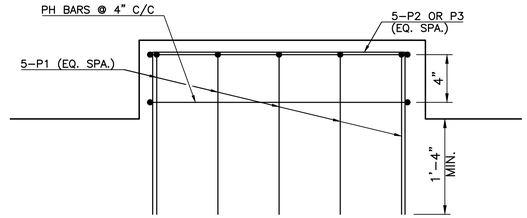


PLAN

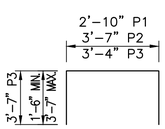
BRIDGE "B" ABUT. NO. 1	
POINT	PEDESTAL HEIGHT
A	676.72
B	676.91
C	677.10
D	677.28
E	677.46
F	677.65
G	677.83



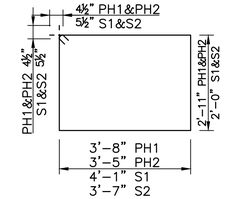
PEDESTAL REINFORCING PLAN VIEW



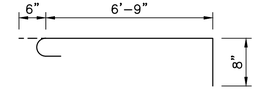
PEDESTAL REINFORCING ELEVATION VIEW



P1 #4 x 5'-10" MIN.
10'-0" MAX
P2 #4 x 6'-7" MIN.
10'-9" MAX.
P3 #4 x 10'-6"

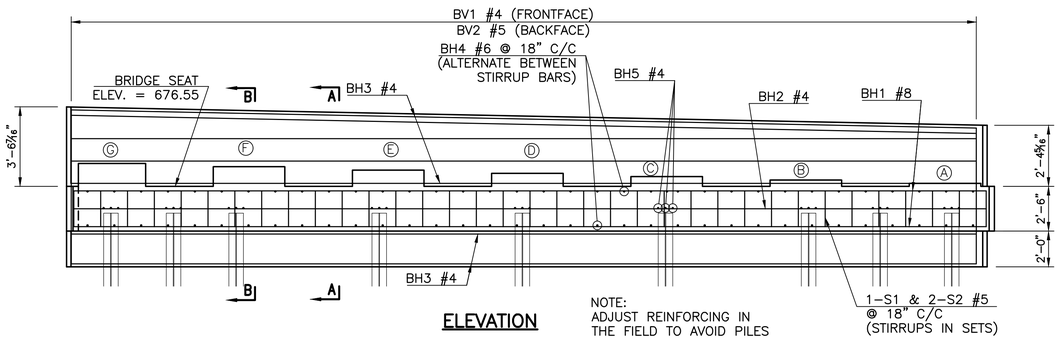


PH1 #4 x 13'-11"
PH2 #4 x 13'-5"
S1 #5 x 13'-1"
S2 #5 x 12'-1"



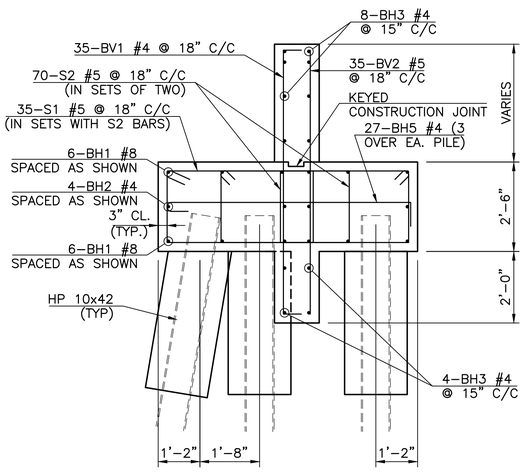
BH5 #4 x 7'-11"

BV1 #4 x 8'-3" AVG.

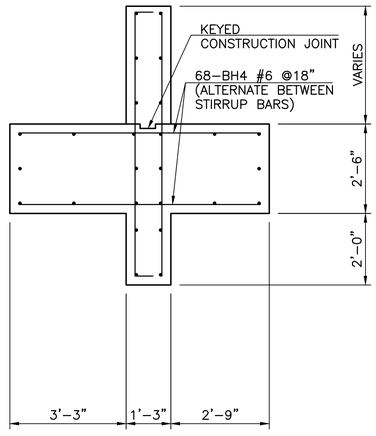


ELEVATION

NOTE:
ADJUST REINFORCING IN THE FIELD TO AVOID PILES



SECTION A-A



SECTION B-B
(OTHER BARS SAME AS SECTION A-A)

BRIDGE "B" ABUTMENT 1 QUANTITIES		
ITEM	UNIT	TOTAL
CLSM BACKFILL	C.Y.	10.0
CLASS A CONCRETE	C.Y.	51.8
EPOXY COATED REINFORCING STEEL	LB.	5,922.0
PILES, FURNISHED (HP10X42)	L.F.	343.0
PILES, DRIVEN (HP10X42)	L.F.	343.0
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	67.1

BRIDGE "B" ABUTMENT 1 BAR LIST					
MARK	SIZE	FORM	NUMBER	LENGTH	LENGTH VARIATION
EPOXY COATED					
BH1	#8	STR.	12	50'-9"	
BH2	#4	STR.	4	50'-9"	
BH3	#4	STR.	12	50'-9"	
BH4	#6	STR.	68	6'-9"	
BH5	#4	BNT.	27	7'-11"	
S1	#5	BNT.	35	13"-1"	
S2	#5	BNT.	70	12'-1"	
BV1	#4	BNT.	35	8'-3" AVG	7'-4" TO 8'-6"
BV2	#5	STR.	35	6'-11" AVG	6'-4" TO 7'-6"
P1	#4	BNT.	30	7'-11" AVG	5'-10" TO 10'-0"
P2	#4	BNT.	25	8'-8" AVG	6'-7" TO 10'-9"
P3	#4	BNT.	5	10'-6"	
PH1	#4	BNT.	4	13'-11"	
PH2	#4	BNT.	3	13'-5"	

TULSA COUNTY — US-64 OVER 97TH W. AVE.

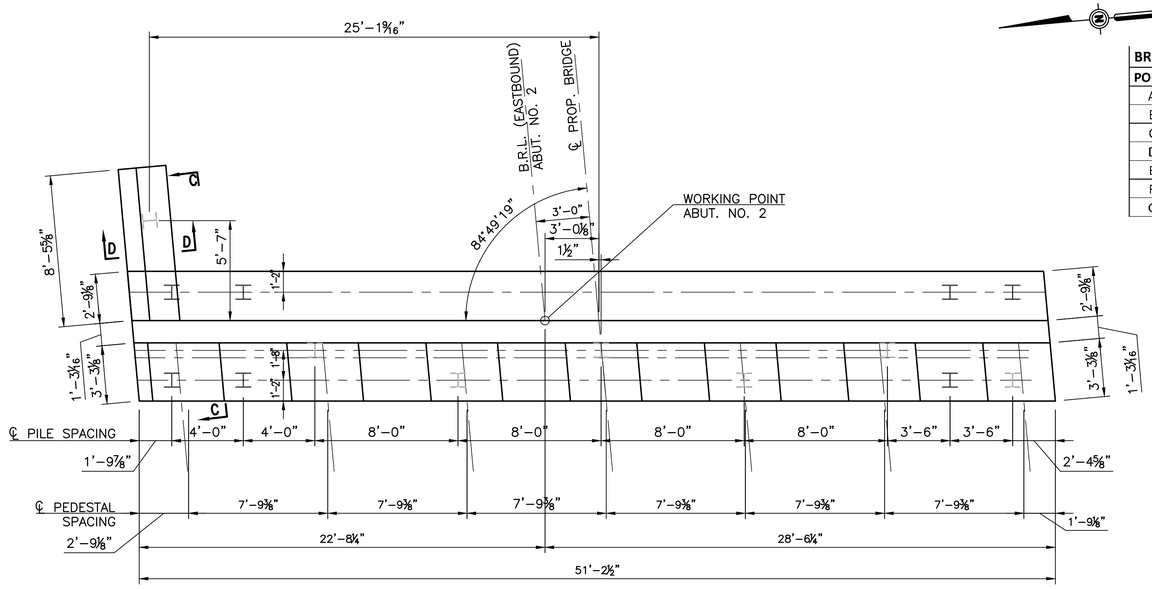
DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

DETAILS OF BRIDGE "B" ABUTMENTS (ABUT. NO. 1)

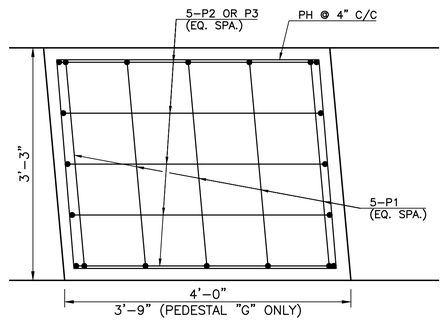
STATE JOB NO. 28884(04) SHEET NO. 40

REVISIONS		
REV. NO.	DESCRIPTION	DATE

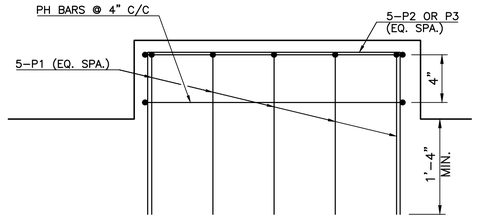


PLAN

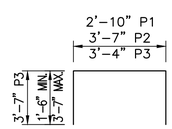
BRIDGE "B" ABUT. NO. 2	
POINT	PEDESTAL HEIGHT
A	676.53
B	676.84
C	677.15
D	677.46
E	677.77
F	678.09
G	678.39



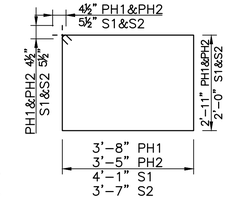
PEDESTAL REINFORCING PLAN VIEW



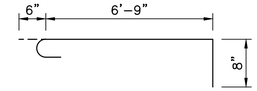
PEDESTAL REINFORCING ELEVATION VIEW



P1 #4 x 5'–10" MIN.
10'–0" MAX
P2 #4 x 6'–7" MIN.
10'–9" MAX.
P3 #4 x 10'–6"

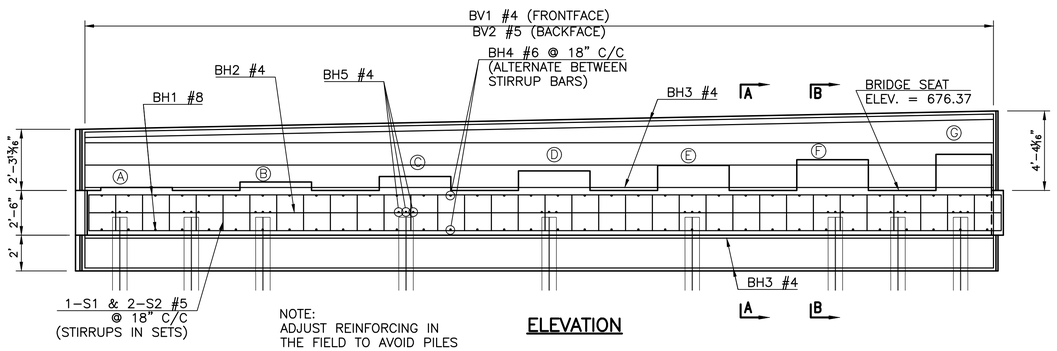


PH1 #4 x 13'–11"
PH2 #4 x 13'–5"
S1 #5 x 13'–1"
S2 #5 x 12'–1"



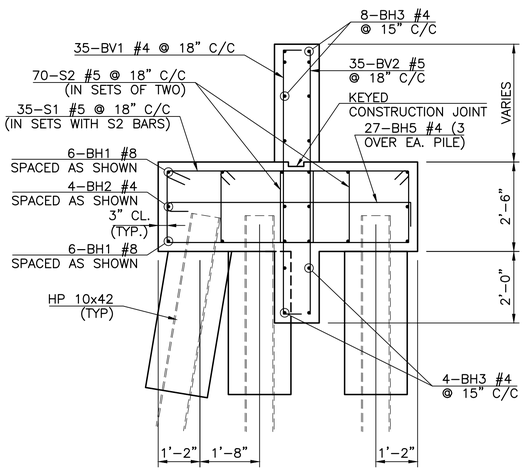
BH5 #4 x 7'–11"

BV1 #4 x 8'–4" AVG.

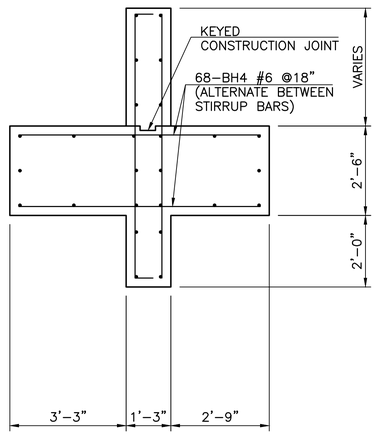


NOTE:
ADJUST REINFORCING IN THE FIELD TO AVOID PILES

ELEVATION



SECTION A–A



SECTION B–B
(OTHER BARS SAME AS SECTION A–A)

BRIDGE "B" ABUTMENT 2 QUANTITIES		
ITEM	UNIT	TOTAL
CLSM BACKFILL	C.Y.	10.0
CLASS A CONCRETE	C.Y.	54.0
EPOXY COATED REINFORCING STEEL	LB.	6,025.9
PILES, FURNISHED (HP10X42)	L.F.	343.0
PILES, DRIVEN (HP10X42)	L.F.	343.0
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	72.4

BRIDGE "B" ABUTMENT 2 BAR LIST					
MARK	SIZE	FORM	NUMBER	LENGTH	LENGTH VARIATION
EPOXY COATED					
BH1	#8	STR.	12	50'-9"	
BH2	#4	STR.	4	50'-9"	
BH3	#4	STR.	12	50'-9"	
BH4	#6	STR.	68	6'-9"	
BH5	#4	BNT.	27	7'-11"	
S1	#5	BNT.	35	13'-1"	
S2	#5	BNT.	70	12'-1"	
BV1	#4	BNT.	35	8'-4" AVG	7'-4" TO 9'-4"
BV2	#5	STR.	35	7'-4" AVG	6'-4" TO 8'-4"
P1	#4	BNT.	30	7'-11" AVG	5'-10" TO 10'-0"
P2	#4	BNT.	25	8'-8" AVG	6'-7" TO 10'-9"
P3	#4	BNT.	5	10'-6"	
PH1	#4	BNT.	10	13'-11"	
PH2	#4	BNT.	5	13'-5"	

TULSA COUNTY — US–64 OVER 97TH W. AVE.

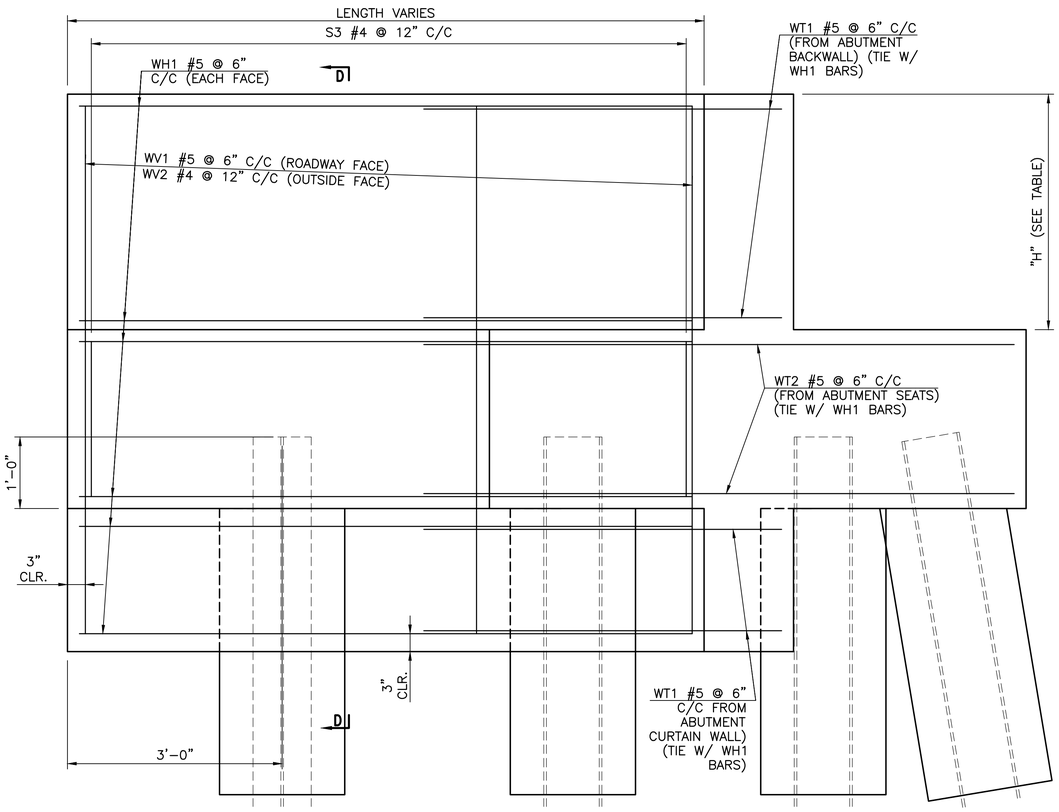
DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

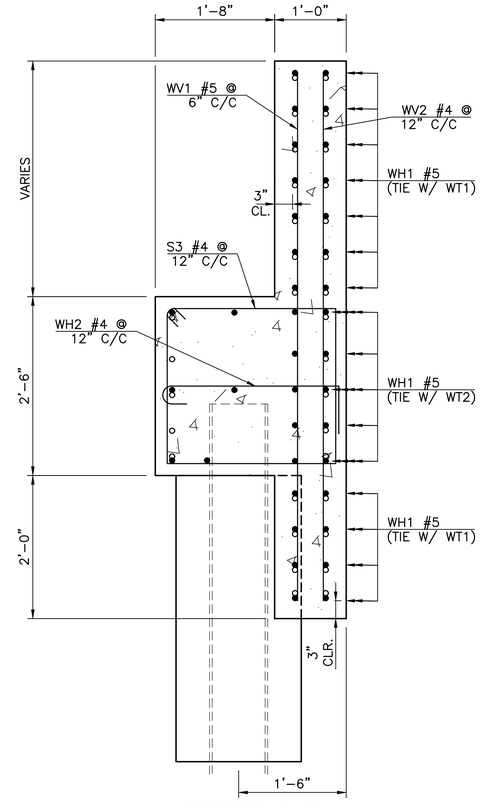
DETAILS OF BRIDGE "B" ABUTMENTS (ABUT. NO. 2)

STATE JOB NO. 28884(04) SHEET NO. 41

REVISIONS		
REV. NO.	DESCRIPTION	DATE



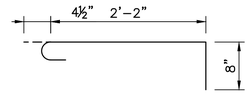
SECTION C–C



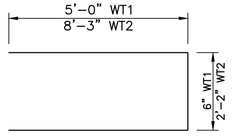
SECTION D–D

WING WALL	"H" HEIGHT
BRIDGE "A" ABUTMENT 1 NORTH	2'-4 3/16"
BRIDGE "A" ABUTMENT 2 NORTH	2'-3 3/4"
BRIDGE "A" ABUTMENT 1 SOUTH	3'-4 5/16"
BRIDGE "A" ABUTMENT 2 SOUTH	4'-6 1/2"
BRIDGE "B" ABUTMENT 1 NORTH	2'-4 5/16"
BRIDGE "B" ABUTMENT 2 NORTH	2'-3 13/16"

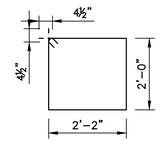
WING WALL BAR LIST													
MARK	SIZE	FORM	BRIDGE "A"								BRIDGE "B"			
			ABUTMENT 1 - NORTH		ABUTMENT 1 - SOUTH		ABUTMENT 2 - NORTH		ABUTMENT 2 - SOUTH		ABUTMENT 1 - NORTH		ABUTMENT 2 - NORTH	
			NUMBER	LENGTH	NUMBER	LENGTH	NUMBER	LENGTH	NUMBER	LENGTH	NUMBER	LENGTH	NUMBER	LENGTH
EPOXY COATED														
S3	#4	BNT.	10	9'-1"	11	9'-1"	9	9'-1"	12	9'-1"	9	9'-1"	10	9'-1"
WH1	#5	STR.	34	8'-4"	38	10'-1"	34	8'-1"	42	10'-5"	34	8'-4"	34	8'-1"
WH2	#4	BNT.	10	3'-3"	11	3'-3"	9	3'-3"	12	3'-3"	9	3'-3"	10	3'-3"
WT1	#5	BNT.	9	10'-6"	11	10'-6"	9	10'-6"	13	10'-6"	9	10'-6"	9	10'-6"
WT2	#5	BNT.	5	18'-8"	5	18'-8"	5	18'-8"	5	18'-8"	5	18'-8"	5	18'-8"
WV1	#5	STR.	18	6'-4"	22	7'-4"	18	6'-4"	22	8'-7"	16	6'-4"	17	6'-4"
WV2	#4	STR.	10	6'-4"	12	7'-4"	10	6'-4"	12	8'-7"	10	6'-4"	9	6'-4"



WH2 #4 x 3'–3"



WT1 #5 x 10'–6"
WT2 #5 x 18'–8"



S3 #4 x 9'–1"

TULSA COUNTY — US–64 OVER 97TH W. AVE.

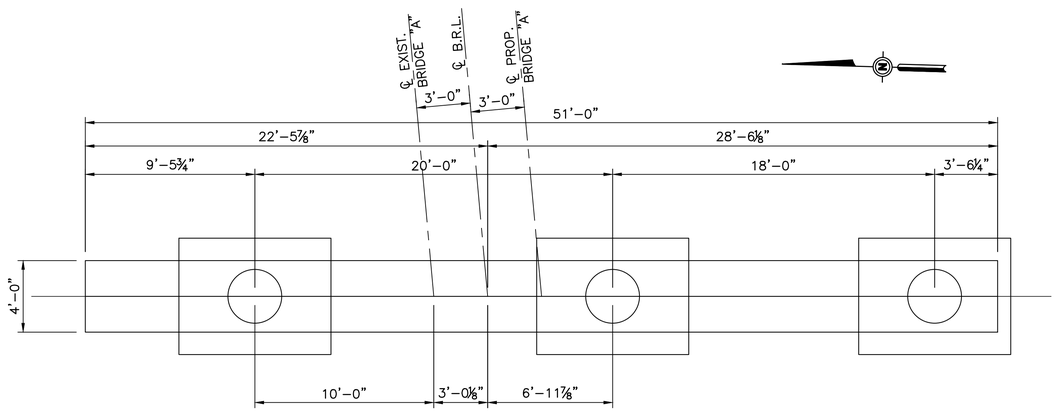
DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

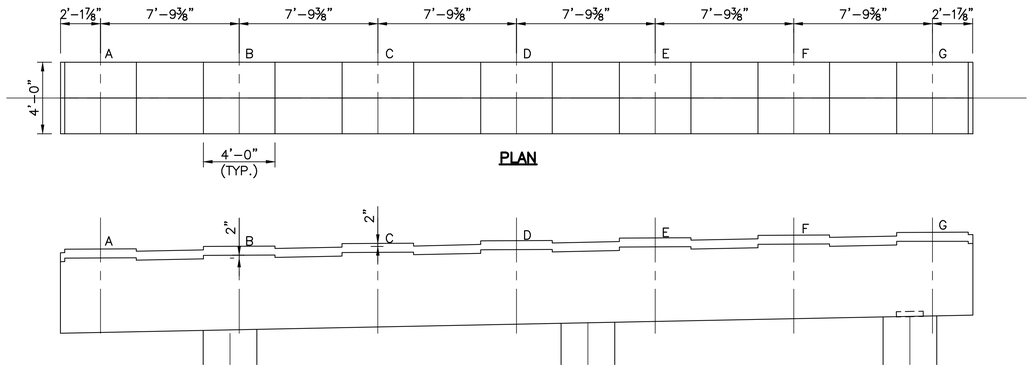
DETAILS OF WINGS BRIDGE "A" & "B"

STATE JOB NO. 28884(04) SHEET NO. 42

REVISIONS		
REV. NO.	DESCRIPTION	DATE
1	TABLE NAME	9/14/17



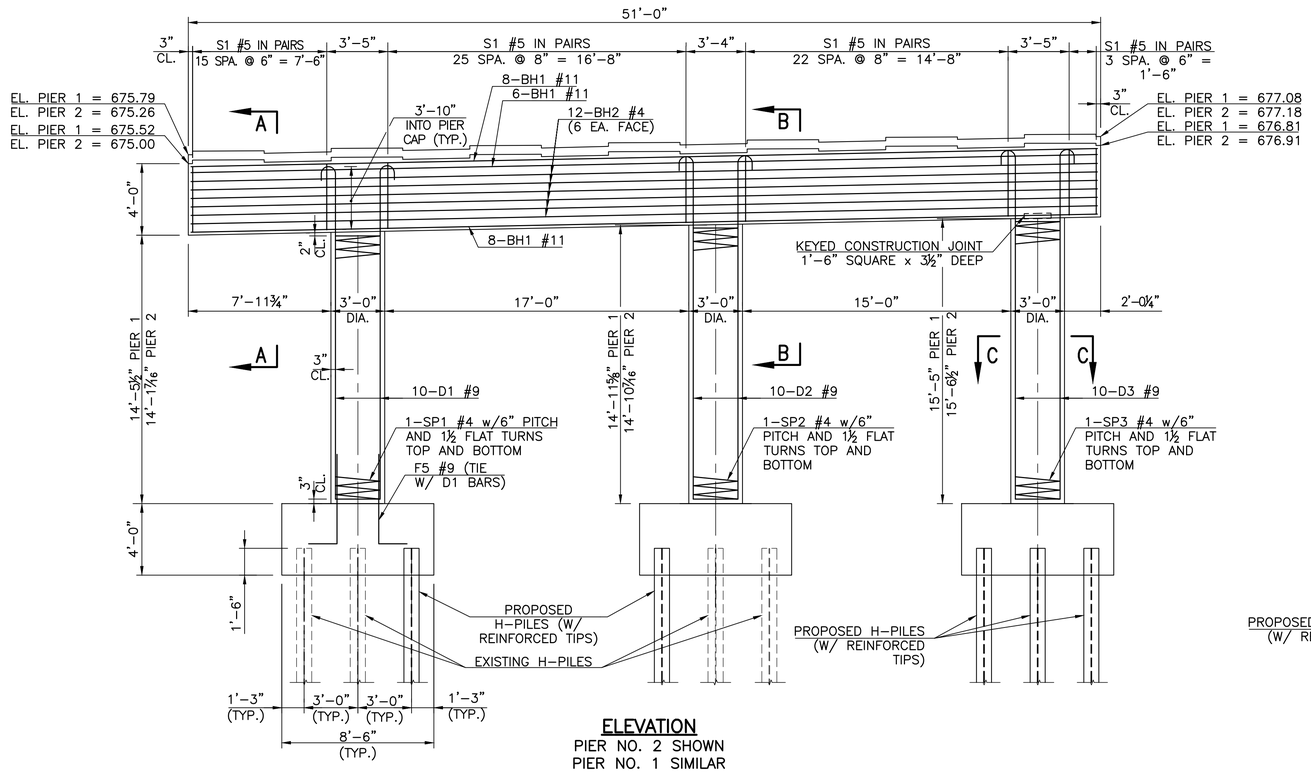
PLAN



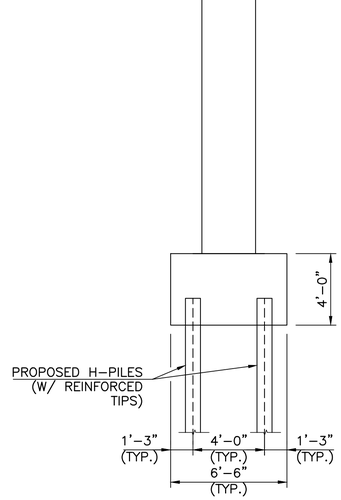
PLAN

ELEVATION

PEDESTAL LAYOUT
PIER NO. 2 SHOWN
PIER NO. 1 SIMILAR



ELEVATION
PIER NO. 2 SHOWN
PIER NO. 1 SIMILAR



SIDE VIEW
PIER NO. 2 SHOWN
PIER NO. 1 SIMILAR

ELEVATION AT BEARING SEAT-BRIDGE "A"							
Description	A	B	C	D	E	F	G
ABUT 1	676.15	676.30	676.46	676.61	676.76	676.91	677.06
PIER 1 - SPAN 1	676.01	676.21	676.41	676.61	676.81	677.00	677.19
PIER 1 - SPAN 2	675.74	675.94	676.14	676.34	676.54	676.73	676.92
PIER 2 - SPAN 2	675.25	675.54	675.84	676.13	676.42	676.71	677.00
PIER 2 - SPAN 3	675.51	675.81	676.11	676.40	676.69	676.98	677.27
ABUT 2	675.19	675.53	675.87	676.21	676.55	676.88	677.22

BRIDGE "A" PIER 1 BAR LIST				
MARK	SIZE	FORM	NUMBER	LENGTH
EPOXY COATED				
BH1	#11	STR.	22	50'-6"
BH2	#4	STR.	15	50'-6"
BH3	#4	BNT.	12	5'-8"
D1	#9	BNT.	10	19'-7"
D2	#9	BNT.	10	20'-1"
D3	#9	BNT.	10	20'-7"
S1	#5	BNT.	138	13'-3"
SP1	#4	SPR.	1	251'-2"
SP2	#4	SPR.	1	259'-2"
SP3	#4	SPR.	1	266'-3"
U1	#4	BNT.	52	5'-8"
F1	#6	BNT.	21	10'-0"
F2	#9	BNT.	30	11'-2"
F3	#6	BNT.	27	8'-0"
F4	#6	BNT.	39	8'-0"
F5	#9	BNT.	30	6'-7"

BRIDGE "A" PIER 2 BAR LIST				
MARK	SIZE	FORM	NUMBER	LENGTH
EPOXY COATED				
BH1	#11	STR.	22	50'-6"
BH2	#4	STR.	15	50'-6"
BH3	#4	BNT.	12	5'-8"
D1	#9	BNT.	10	19'-3"
D2	#9	BNT.	10	20'-0"
D3	#9	BNT.	10	20'-8"
S1	#5	BNT.	138	13'-3"
SP1	#4	SPR.	1	245'-10"
SP2	#4	SPR.	1	257'-8"
SP3	#4	SPR.	1	268'-3"
U1	#4	BNT.	52	5'-8"
F1	#6	BNT.	21	10'-0"
F2	#9	BNT.	30	11'-2"
F3	#6	BNT.	27	8'-0"
F4	#6	BNT.	39	8'-0"
F5	#9	BNT.	30	6'-7"

NOTE:
CONTRACTOR SHALL COMPACT BACKFILL TO 95% STANDARD DENSITY WHEN BACKFILLING PIER FOOTINGS.

1

BRIDGE "A" PIER QUANTITIES			
ITEM	UNIT	PIER 1	PIER 2
CLASS A CONCRETE	C.Y.	68.9	68.8
EPOXY COATED REINFORCING STEEL	LB.	15,015.0	15,000.0
PILES, DRIVEN (HP10X42)	L.F.	320.0	320.0
PILES, FURNISHED (HP10X42)	L.F.	320.0	320.0
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	84.0	84.0

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

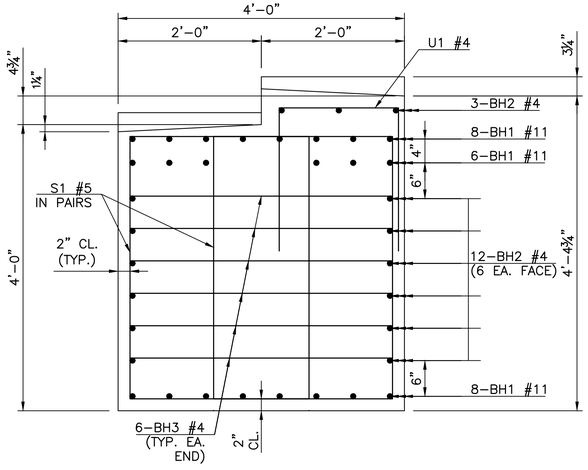
OKLAHOMA DEPARTMENT OF TRANSPORTATION

DETAILS OF PIERS BRIDGE "A" (SHEET 1 OF 2)

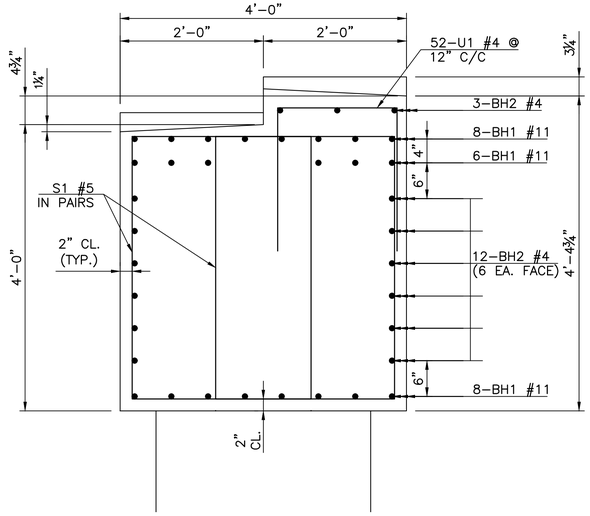
STATE JOB NO. 28884(04) SHEET NO. 43

V:\M72\2012\12003-07 0007 EC-1414 US-64 Tank 5\Civil\Cad\Site\43-46-W12-12003-07-PIERS.dwg Sep 14, 2017 - 1:01pm SandK

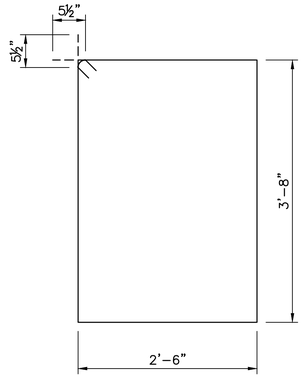
REVISIONS		
REV. NO.	DESCRIPTION	DATE



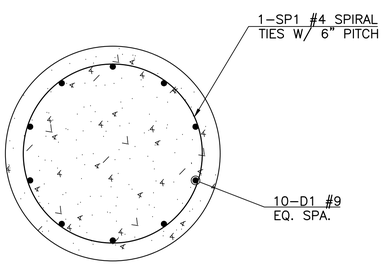
SECTION A–A



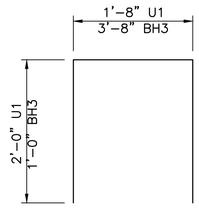
SECTION B–B



S1 #5 x 13'-3"



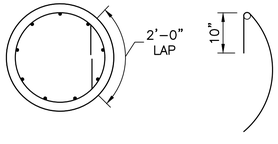
SECTION C–C



U1 #4 x 5'-8"
BH3 #4 x 5'-8"

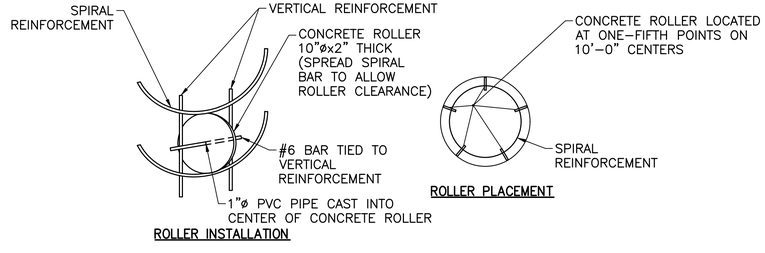
1'-7"	18'-0" PIER 1 D1
1'-7"	18'-6" PIER 1 D2
1'-7"	19'-0" PIER 1 D3
1'-7"	17'-8" PIER 2 D1
1'-7"	18'-5" PIER 2 D2
1'-7"	19'-1" PIER 2 D3

PIER 1 D1 #9 x 19'-7"
PIER 1 D2 #9 x 20'-1"
PIER 1 D3 #9 x 20'-7"
PIER 2 D1 #9 x 19'-3"
PIER 2 D2 #9 x 20'-0"
PIER 2 D3 #9 x 20'-8"



DETAIL OF SPIRAL REINFORCING SPLICE

SPIRAL BARS SHALL CONFORM TO AASHTO M-32. SPIRAL BAR LENGTH DOES NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.



DETAIL OF CONCRETE ROLLER

NOTE: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. SLAB BOLSTERS, HIGH CHAIRS AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.

TULSA COUNTY — US-64 OVER 97TH W. AVE.

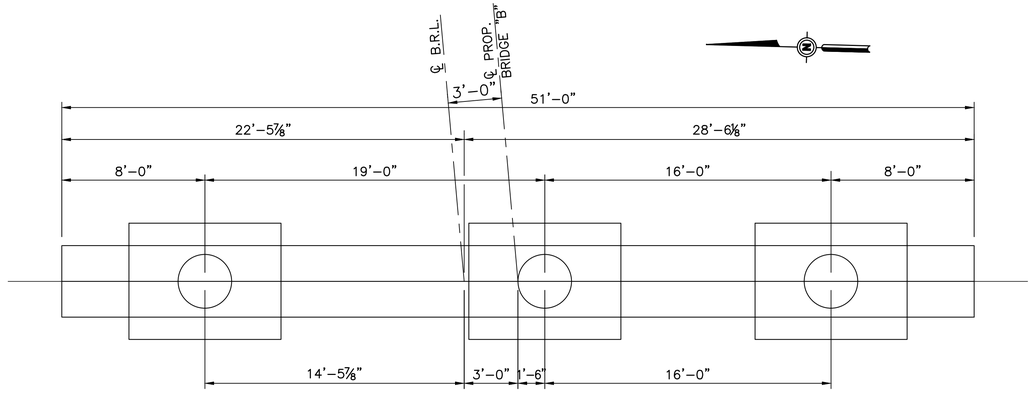
DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

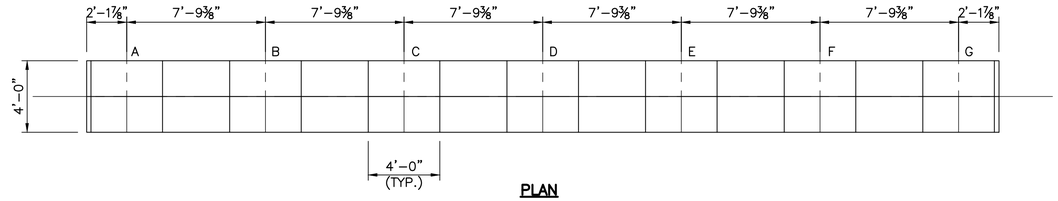
DETAILS OF PIERS BRIDGE "A" (SHEET 2 OF 2)

STATE JOB NO. 28884(04) SHEET NO. 44

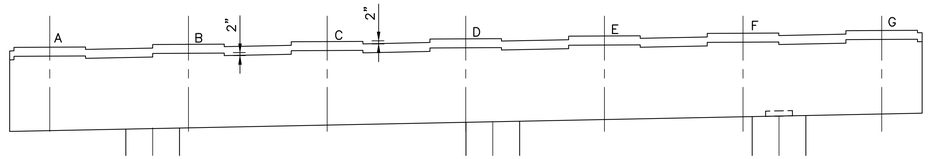
REVISIONS		
REV. NO.	DESCRIPTION	DATE
1	TABLE NAME	9/14/17



PLAN



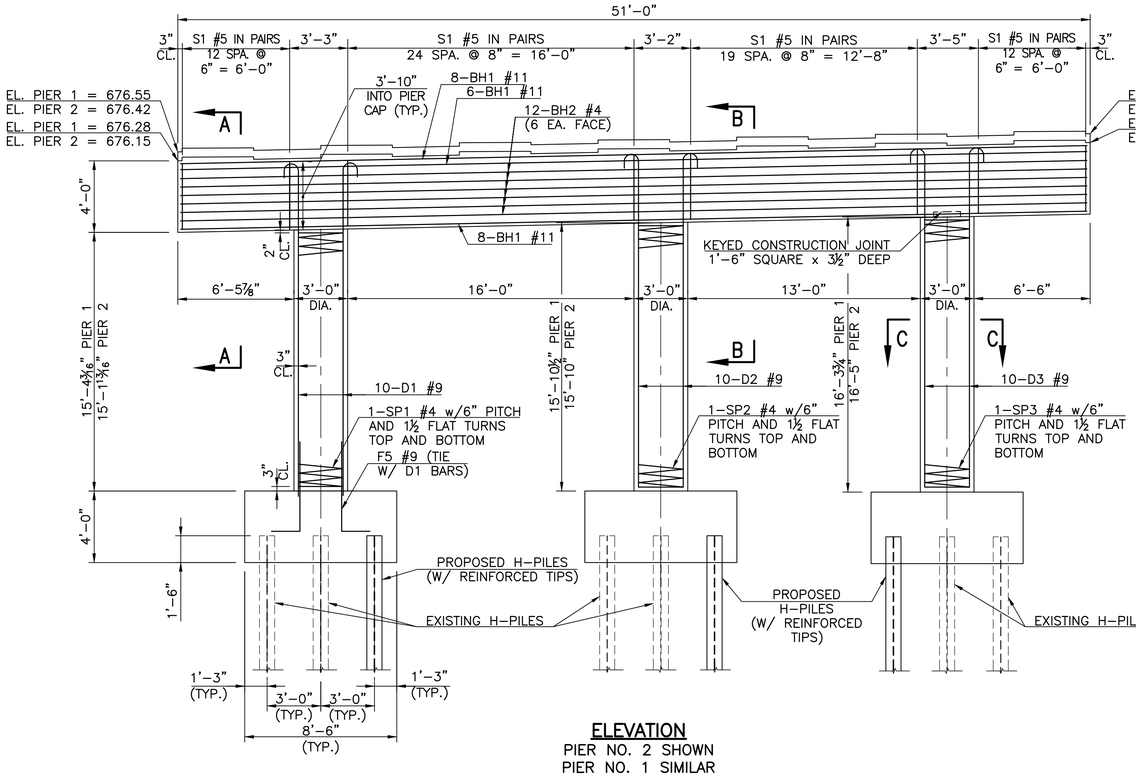
PLAN



ELEVATION

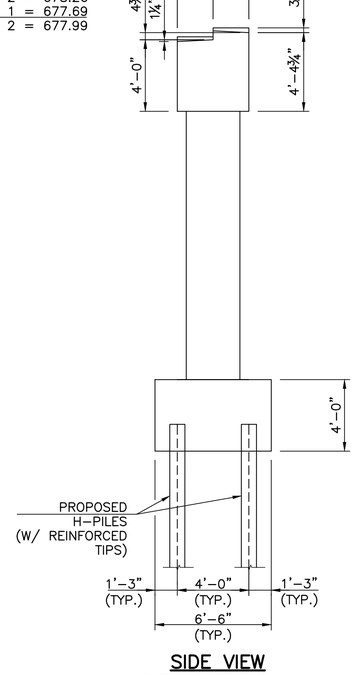
PEDESTAL LAYOUT

PIER NO. 2 SHOWN
PIER NO. 1 SIMILAR



ELEVATION

PIER NO. 2 SHOWN
PIER NO. 1 SIMILAR



SIDE VIEW

PIER NO. 2 SHOWN
PIER NO. 1 SIMILAR

ELEVATION AT BEARING SEAT-BRIDGE "B"							
Description	A	B	C	D	E	F	G
ABUT 1	676.72	676.91	677.10	677.28	677.46	677.65	677.83
PIER 1 - W27	676.77	676.99	677.21	677.42	677.64	677.85	678.06
PIER 1 - W30	676.50	676.72	676.94	677.15	677.37	677.58	677.79
PIER 2 - W30	676.40	676.68	676.96	677.24	677.52	677.80	678.08
PIER 2 - W27	676.67	676.95	677.23	677.51	677.79	678.07	678.35
ABUT 2	676.53	676.84	677.15	677.46	677.77	678.08	678.39

BRIDGE "B" PIER 1 BAR LIST				
MARK	SIZE	FORM	NUMBER	LENGTH
EPOXY COATED				
BH1	#11	STR.	22	50'-6"
BH2	#4	STR.	15	50'-6"
BH3	#4	BNT.	12	5'-8"
D1	#9	BNT.	10	20'-6"
D2	#9	BNT.	10	21'-0"
D3	#9	BNT.	10	21'-5"
S1	#5	BNT.	142	13'-3"
SP1	#4	SPR.	1	265'-2"
SP2	#4	SPR.	1	273'-6"
SP3	#4	SPR.	1	280'-4"
U1	#4	BNT.	52	5'-8"
F1	#6	BNT.	21	10'-0"
F2	#9	BNT.	30	11'-2"
F3	#6	BNT.	27	8'-0"
F4	#6	BNT.	39	8'-0"
F5	#9	BNT.	30	6'-7"

BRIDGE "B" PIER 2 BAR LIST				
MARK	SIZE	FORM	NUMBER	LENGTH
EPOXY COATED				
BH1	#11	STR.	22	50'-6"
BH2	#4	STR.	15	50'-6"
BH3	#4	BNT.	12	5'-8"
D1	#9	BNT.	10	20'-3"
D2	#9	BNT.	10	20'-0"
D3	#9	BNT.	10	21'-7"
S1	#5	BNT.	142	13'-3"
SP1	#4	SPR.	1	262'-1"
SP2	#4	SPR.	1	272'-10"
SP3	#4	SPR.	1	282'-0"
U1	#4	BNT.	52	5'-8"
F1	#6	BNT.	21	10'-0"
F2	#9	BNT.	30	11'-2"
F3	#6	BNT.	27	8'-0"
F4	#6	BNT.	39	8'-0"
F5	#9	BNT.	30	6'-7"

NOTES:
EXISTING LIGHT POLE IS TO BE REMOVED AND REPLACED AT SOUTH END OF PIER NO. 2. POLE IS TO BE REATTACHED TO PROPOSED PIER CAP USING THE STANDARD BRACKET (SEE STD. PMBD1–1–00).

CONTRACTOR SHALL COMPACT BACKFILL TO 95% STANDARD DENSITY WHEN BACKFILLING PIER FOOTINGS.

1

BRIDGE "B" PIER QUANTITIES			
ITEM	UNIT	PIER 1	PIER 2
CLASS A CONCRETE	C.Y.	69.6	69.5
EPOXY COATED REINFORCING STEEL	LB.	15,189.0	15,151.0
PILES, DRIVEN (HP10X42)	L.F.	192.0	198.0
PILES, FURNISHED (HP10X42)	L.F.	192.0	198.0
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	84.0	84.0

TULSA COUNTY — US–64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

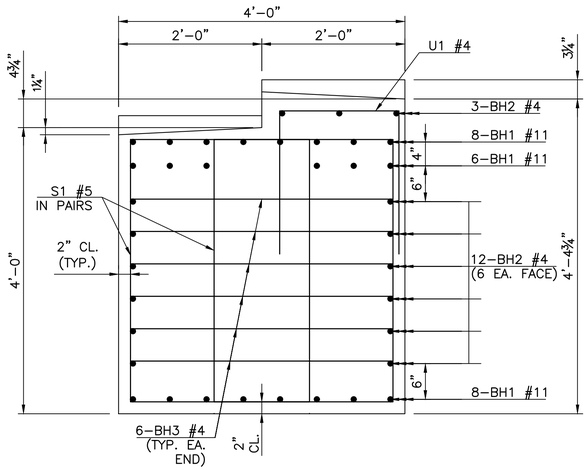
OKLAHOMA DEPARTMENT OF TRANSPORTATION

DETAILS OF PIERS BRIDGE "B" (SHEET 1 OF 2)

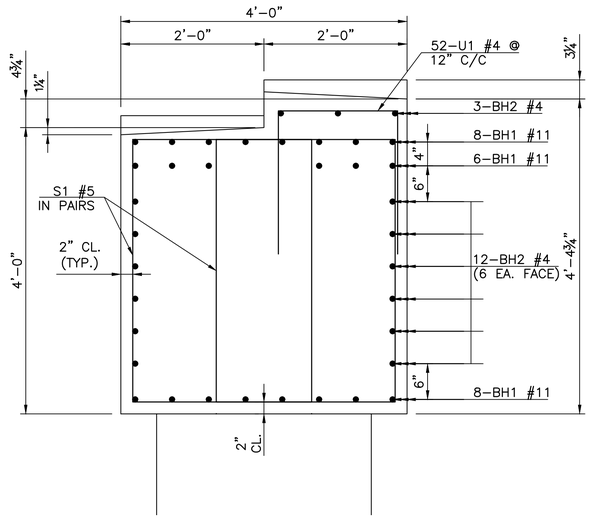
STATE JOB NO. 28884(04) SHEET NO. 45

V:\LM\25\2012\12003-07 0007 EC-1414 US-64 Tonk 5\Civil\Cad\Site\A3-46-M12-12003-07-PIERS.dwg Sep 14, 2017 - 12:59pm SarahK

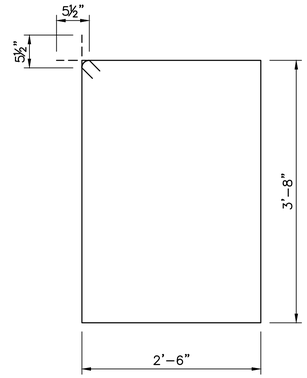
REVISIONS		
REV. NO.	DESCRIPTION	DATE



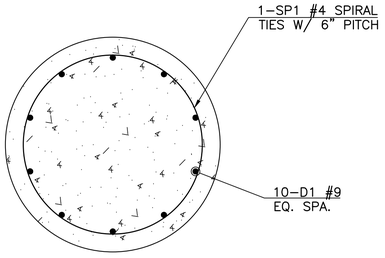
SECTION A–A



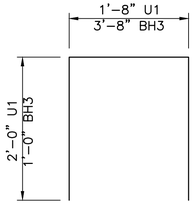
SECTION B–B



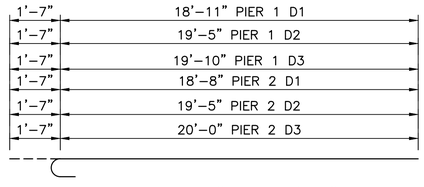
S1 #5 x 13'-3"



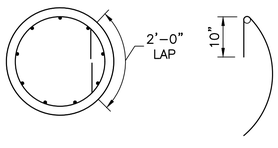
SECTION C–C



U1 #4 x 5'-8"
BH3 #4 x 5'-8"

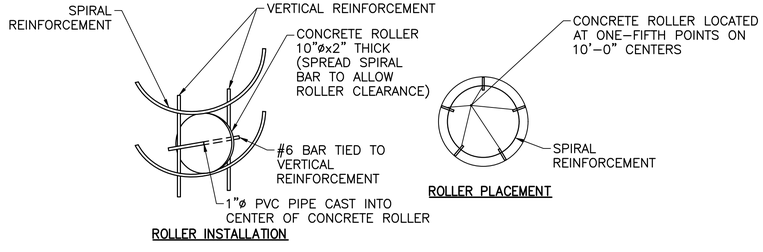


PIER 1 D1 #9 x 20'-6"
PIER 1 D2 #9 x 21'-0"
PIER 1 D3 #9 x 21'-5"
PIER 2 D1 #9 x 20'-3"
PIER 2 D2 #9 x 20'-0"
PIER 2 D3 #9 x 21'-7"



DETAIL OF SPIRAL REINFORCING SPLICE

SPIRAL BARS SHALL CONFORM TO AASHTO M–32. SPIRAL BAR LENGTH DOES NOT INCLUDE LAP. IF LAP IS REQUIRED, THE LENGTH OF THE LAP SHALL BE AS SHOWN.



DETAIL OF CONCRETE ROLLER

NOTE: CONCRETE USED IN THE CONCRETE ROLLERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. SLAB BOLSTERS, HIGH CHAIRS AND PLASTIC ROLLERS SHALL NOT BE SUBSTITUTED FOR THE CONCRETE ROLLERS.

TULSA COUNTY — US–64 OVER 97TH W. AVE.

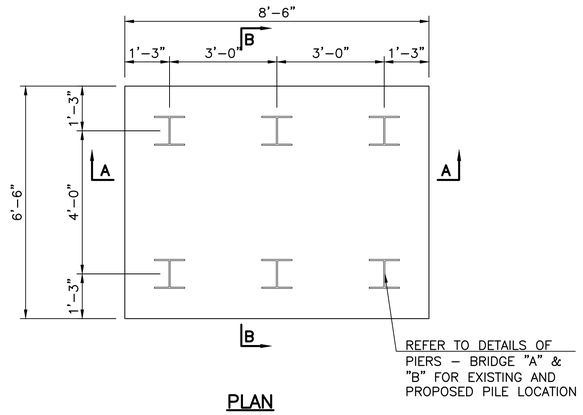
DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

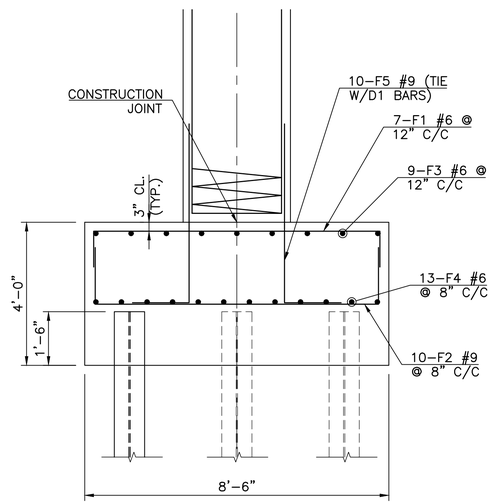
DETAILS OF PIERS BRIDGE "B" (SHEET 2 OF 2)

STATE JOB NO. 28884(04) SHEET NO. 46

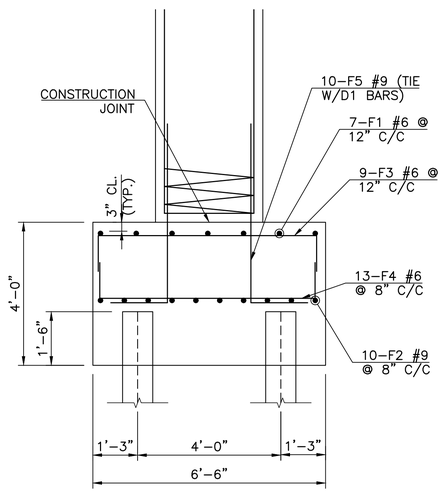
REVISIONS		
REV. NO.	DESCRIPTION	DATE



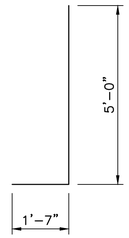
PLAN



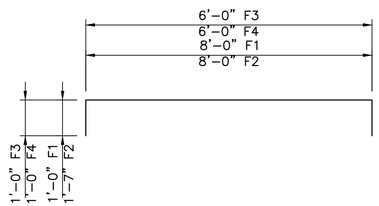
SECTION A-A



SECTION B-B



F5 #9 = 6'-7"



F1 #6 = 10'-0"
F2 #9 = 11'-2"
F3 #6 = 8'-0"
F4 #6 = 8'-0"

NOTE:
CONTRACTOR SHALL COMPACT BACKFILL TO 95% STANDARD DENSITY WHEN BACKFILLING PIER FOOTINGS.

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

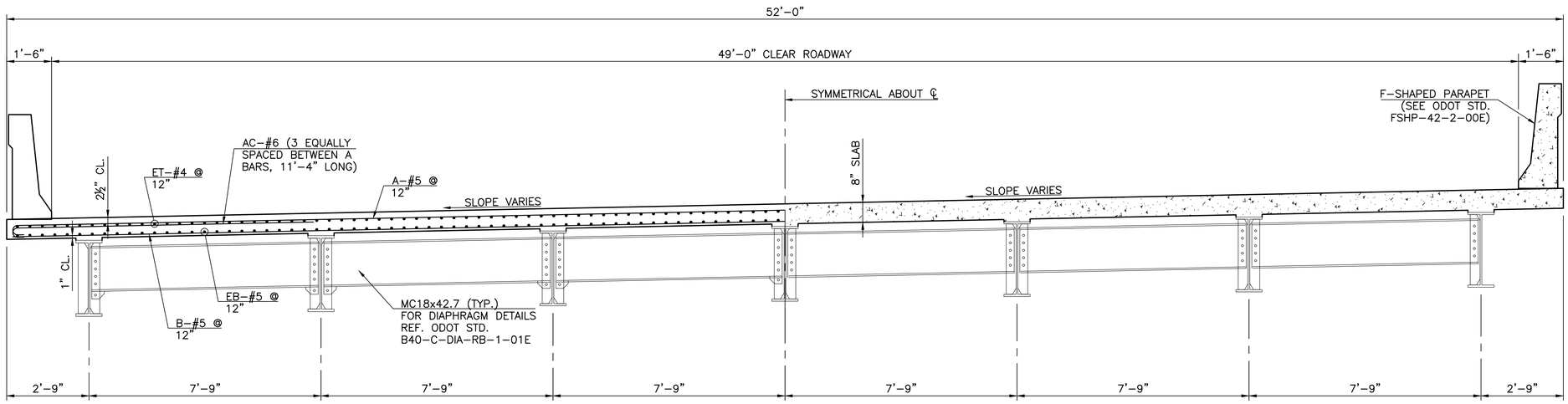
OKLAHOMA DEPARTMENT OF TRANSPORTATION

DETAILS OF PIER FOUNDATIONS

STATE JOB NO. 28884(04) SHEET NO. 47

V:\M12\2012\12003-07 ODOT EC-1414 US-64 Task 3\Civil\Cad\Sht\47-M12-12003-07-PIER FOUNDATIONS.dwg Jan 12, 2017 - 9:28am ssorvik

REVISIONS		
REV. NO.	DESCRIPTION	DATE

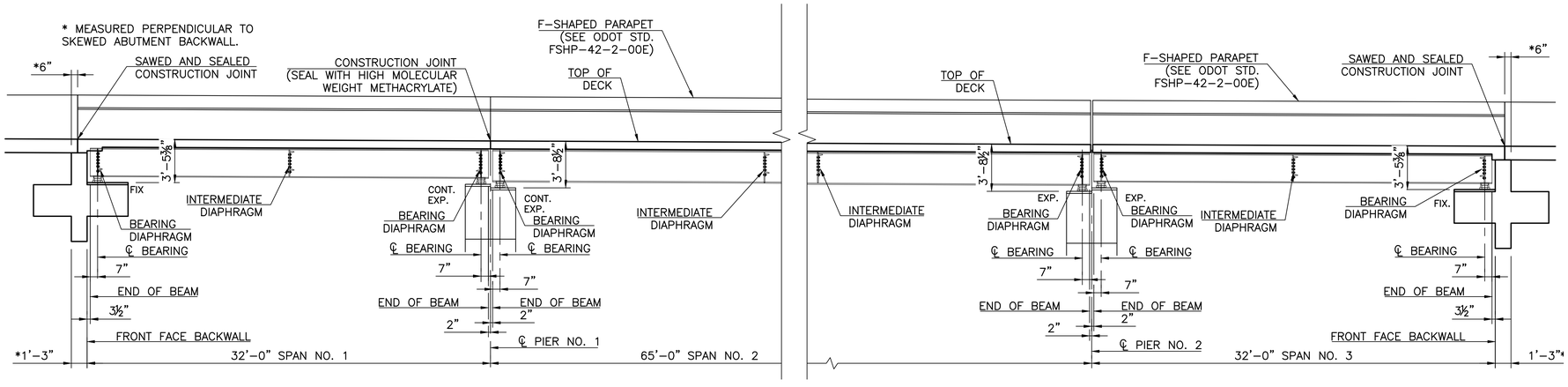


HALF SECTION AT END DIAPHRAGM

HALF SECTION AT INTERMEDIATE DIAPHRAGM

TYPICAL SECTION
(BRIDGES "A" & "B")

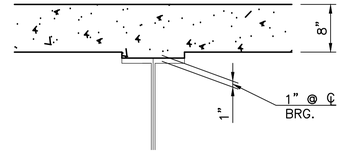
EXPANSION JOINT OPENING PIER NO. 2	
JOINT OPENING	AMBIENT AIR TEMP (DEG F)
1 1/2"	120
1 1/2"	115
1 5/8"	101
1 3/4"	87
1 7/8"	74
2"	60
2 1/8"	46
2 1/4"	33
2 3/8"	19
2 1/2"	5
2 1/2"	0



LONGITUDINAL SECTION
(BRIDGES "A" & "B")

QUANTITIES - SUPERSTUCTURE		
ITEM	UNIT	TOTAL
CLASS AA CONCRETE	CY	206.8
CONCRETE RAIL (FSHP)	LF	261.0
EPOXY COATED REINFORCING STEEL	LB	43,824.0
EXPANSION BEARING ASSEMBLY	EA	28.0
FIXED BEARING ASSEMBLY	EA	14.0
SAW-CUT GROOVING	SY	710.5
SEALED EXPANSION JOINT	LF	50.2
STRUCTURAL STEEL	LB	138,920.0
WATER REPELLENT (VISUALLY INSPECTED)	SY	255.5

QUANTITIES SHOWN ARE FOR ONE BRIDGE, TWO REQUIRED.



BEAM HAUNCH DETAIL

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

TULSA COUNTY — US-64 OVER 97TH W. AVE.

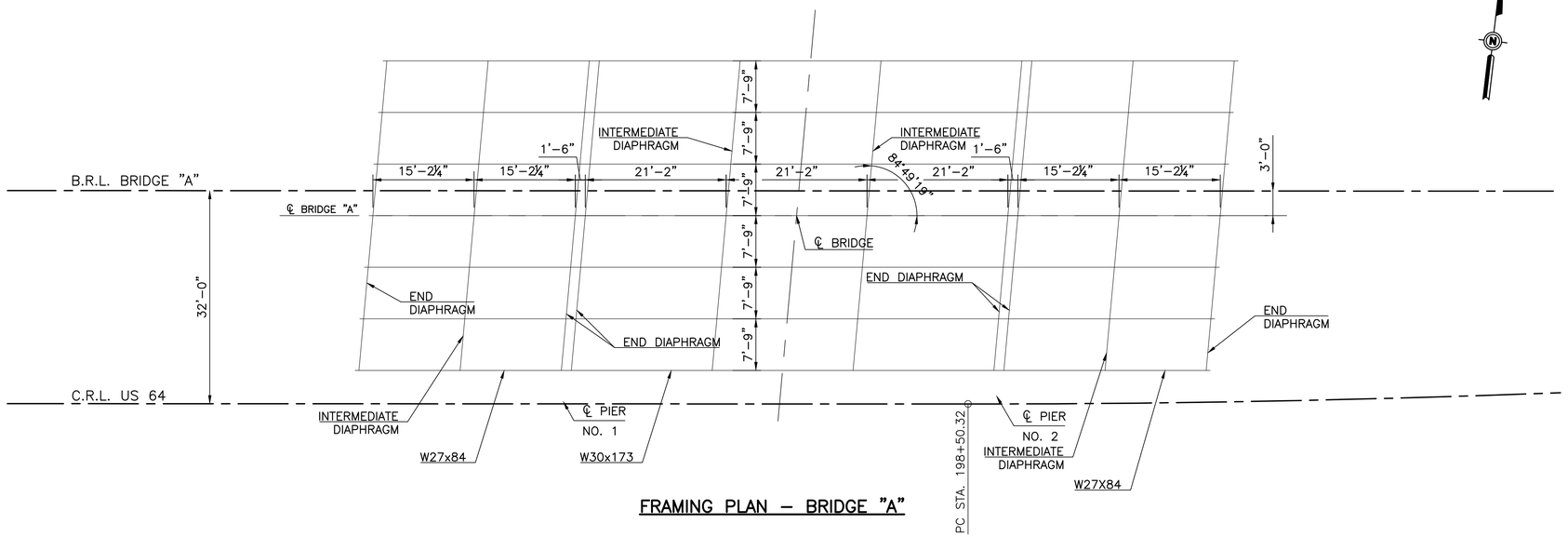
DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

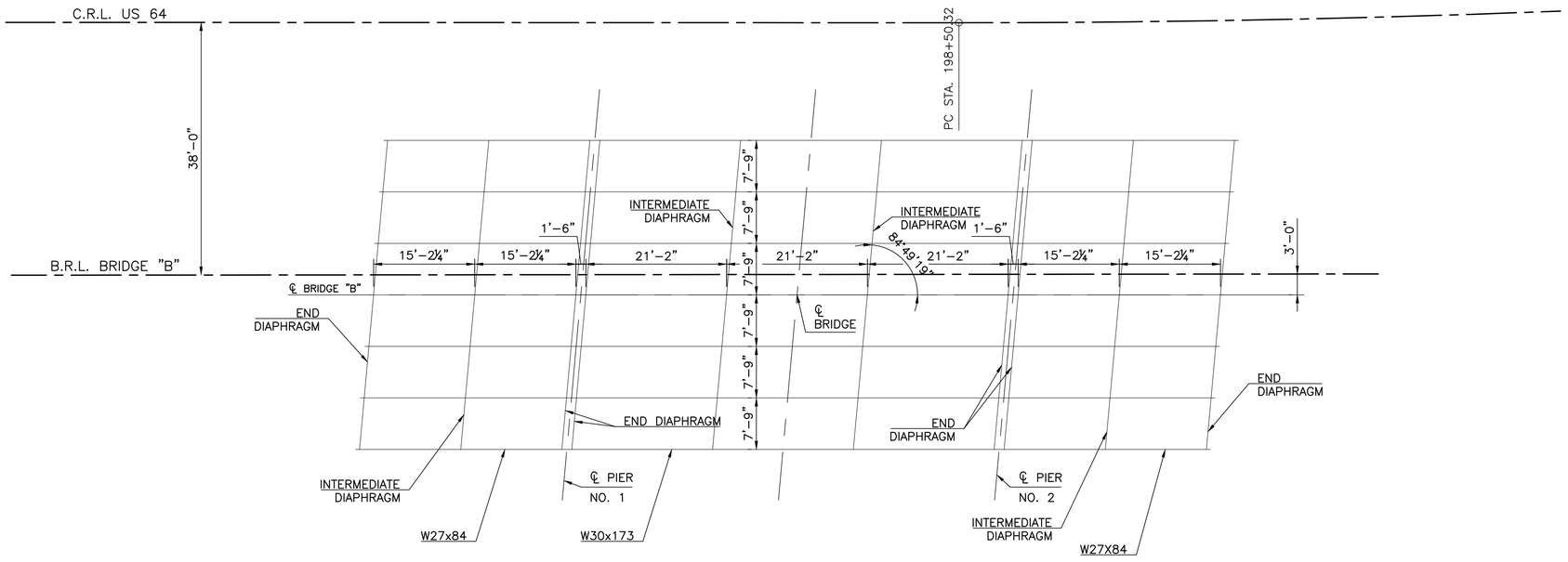
DETAILS OF SUPERSTRUCTURE (SHEET 1 OF 4)

STATE JOB NO. 28884(04) SHEET NO. 48

REVISIONS		
REV. NO.	DESCRIPTION	DATE



FRAMING PLAN – BRIDGE "A"



FRAMING PLAN – BRIDGE "B"

V:\M12\2012\12003-07 0007 EC-1414 US-64 Task 5\Civil\Cad\Sta\48-51-M12-12003-07-SUPERSTRUCTURE.dwg Jan 12, 2017 - 9:27am sarak

TULSA COUNTY — US–64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
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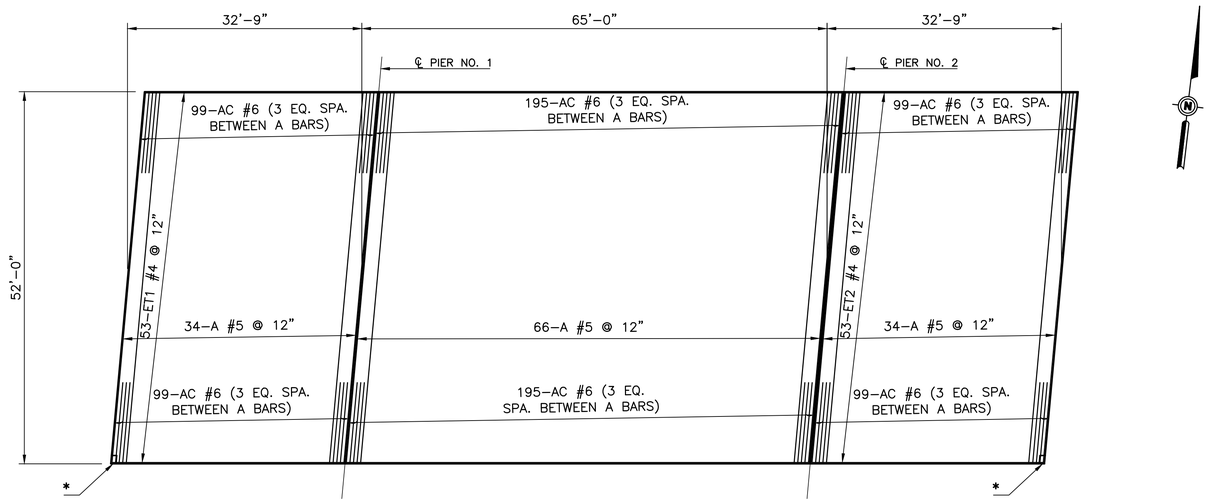
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

DETAILS OF SUPERSTRUCTURE (SHEET 2 OF 4)

STATE JOB NO. 28884(04) SHEET NO. 49

REVISIONS		
REV. NO.	DESCRIPTION	DATE



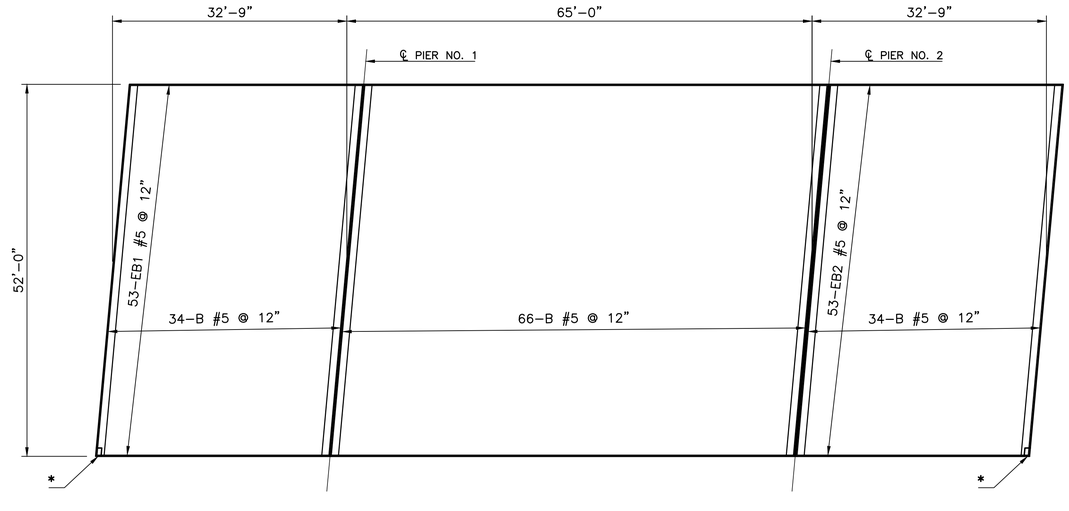
TOP OF DECK SLAB REINFORCING LAYOUT
(BRIDGE "A" & "B")

*** FOR BRIDGE "B" ONLY:**
THE CONTRACTOR MUST PROVIDE A NOTCH IN THE SOUTH CORNERS OF THE DECK AND PARAPETS IN ORDER FOR DECK TO MEET APPROACH SLABS ON THE PROPOSED ABUTMENT BACKWALLS WITHOUT INTERFERING WITH THE ADJACENT EXISTING RETAINING WALLS. THE NOTCH SHALL BE 9" IN THE LONGITUDINAL DIRECTION AND 1'–2" IN THE TRANSVERSE DIRECTION. REINFORCING STEEL SHALL BE ADJUSTED ACCORDINGLY.

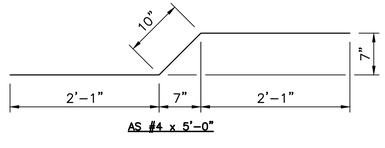
SUPERSTRUCTURE BAR LIST

MARK	SIZE	FORM	NUMBER	LENGTH
EPOXY COATED				
A	#5	BNT.	134	52'-10"
AC	#6	BNT.	786	11'-10"
AH1	#4	BNT.	22	3'-1"
AH2	#4	BNT.	96	4'-0"
AS	#4	BNT.	106	5'-0"
AT1	#4	STR.	4	51'-10"
AT2	#4	STR.	12	6'-3"
B	#5	STR.	134	51'-10"
EB1	#5	STR.	53	32'-5"
EB2	#5	STR.	53	97'-5"
EPH	#4	BNT.	108	4'-0"
ET1	#4	STR.	53	32'-5"
ET2	#4	STR.	53	97'-5"
FPH	#4	BNT.	48	4'-5"
PT1	#4	STR.	48	6'-3"
PT2	#4	STR.	8	1'-10"
FS2	#5	BNT.	262	7'-4"

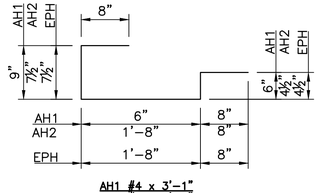
ADD LENGTH FOR ANY LAPS REQUIRED. MINIMUM LAP LENGTH FOR #4 BARS IS 1'–8". MINIMUM LAP LENGTH FOR #5 BARS IS 2'–6". QUANTITIES SHOWN ARE FOR ONE BRIDGE, TWO REQUIRED.



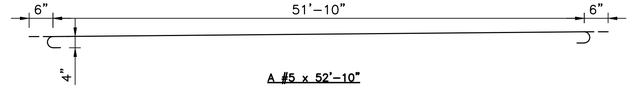
BOTTOM OF DECK SLAB REINFORCING LAYOUT
(BRIDGE "A" & "B")



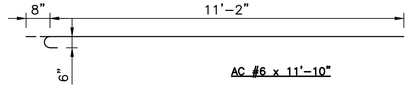
AS #4 x 5'–0"



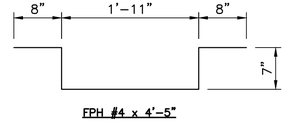
AH1 #4 x 3'–1"
AH2 #4 x 4'–0"
EPH #4 x 4'–0"



A #5 x 52'–10"



AC #6 x 11'–10"



FPH #4 x 4'–5"

TULSA COUNTY — US–64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
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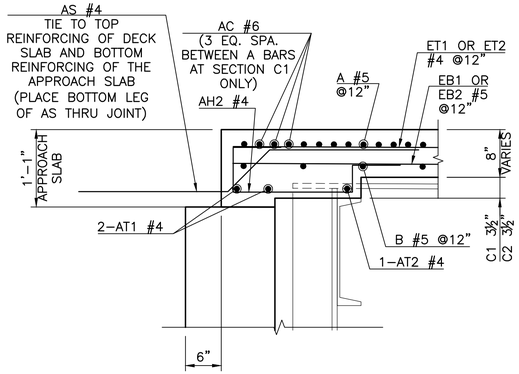
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

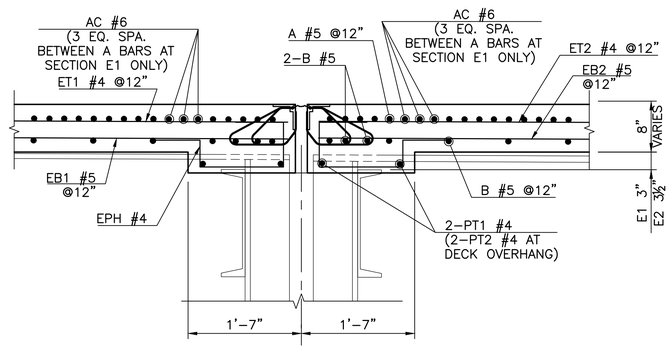
DETAILS OF SUPERSTRUCTURE (SHEET 3 OF 4)

STATE JOB NO. 28884(04) SHEET NO. 50

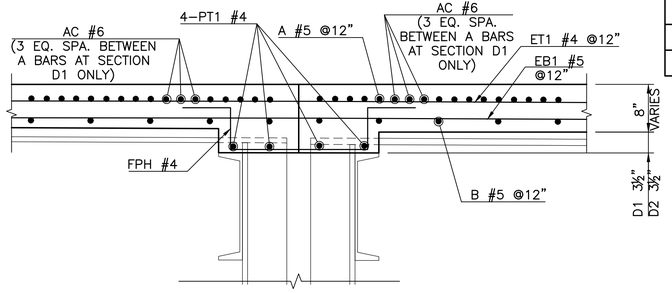
REVISIONS		
REV. NO.	DESCRIPTION	DATE



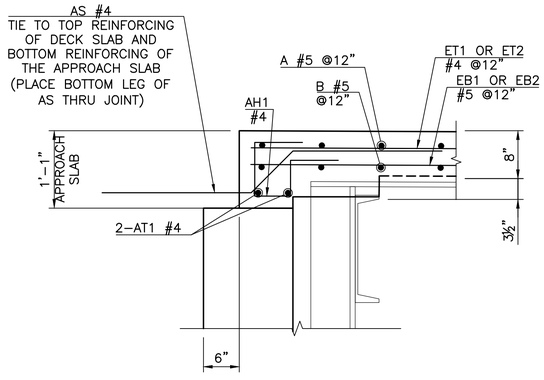
SECTION C1 AND C2



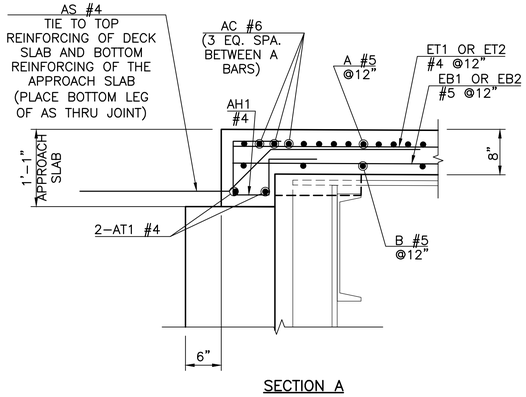
SECTION E1 AND E2



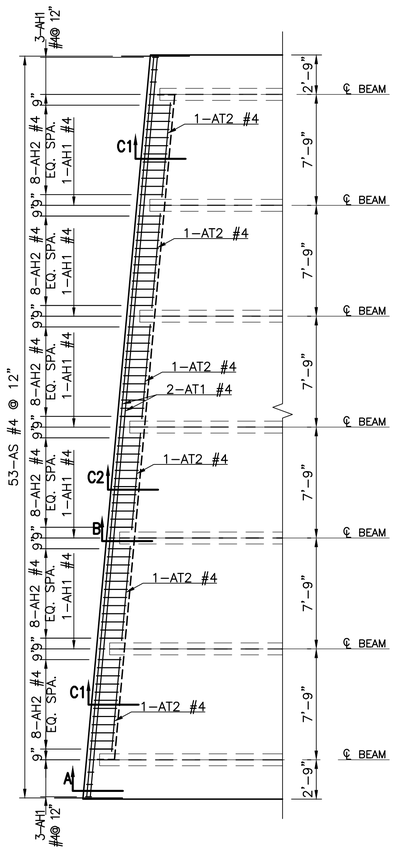
SECTION D1 AND D2



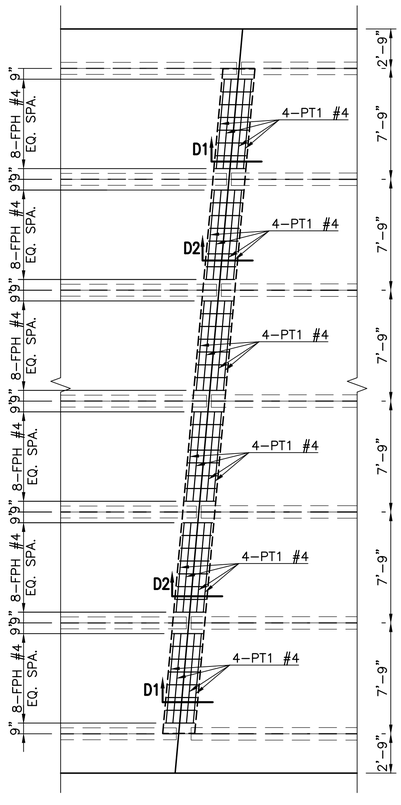
SECTION B



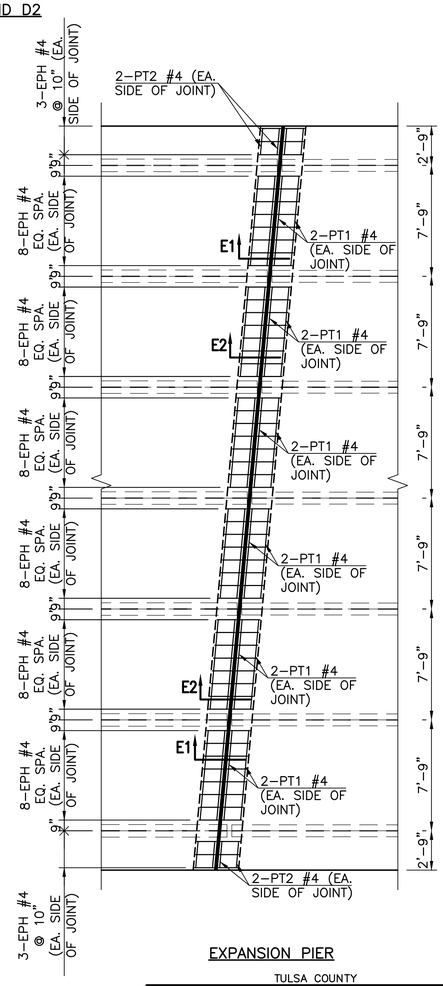
SECTION A



ABUTMENT



CONTINUOUS EXPANSION PIER



EXPANSION PIER

NOTE:
DECK REINFORCING NOT SHOWN FOR CLARITY.

DIAPHRAGM REINFORCING PLANS
(BRIDGE "A" & "B")

TULSA COUNTY — US-64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

DETAILS OF SUPERSTRUCTURE (SHEET 4 OF 4)

STATE JOB NO. 28884(04) SHEET NO. 51

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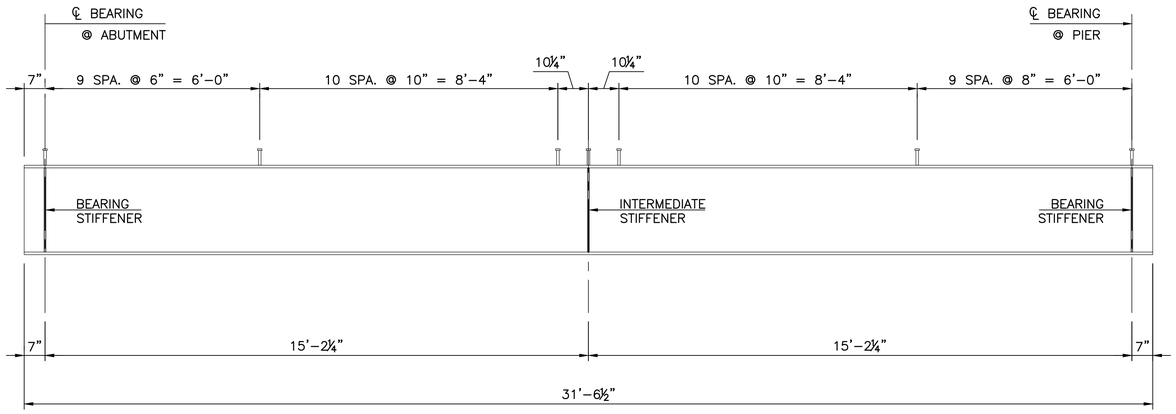
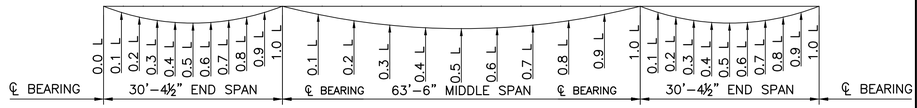
REVISIONS		
REV. NO.	DESCRIPTION	DATE

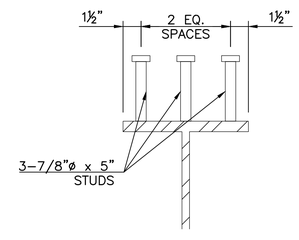


ELEVATION W27x84 (SPAN NO. 1 & 3)
(NOT TO SCALE)

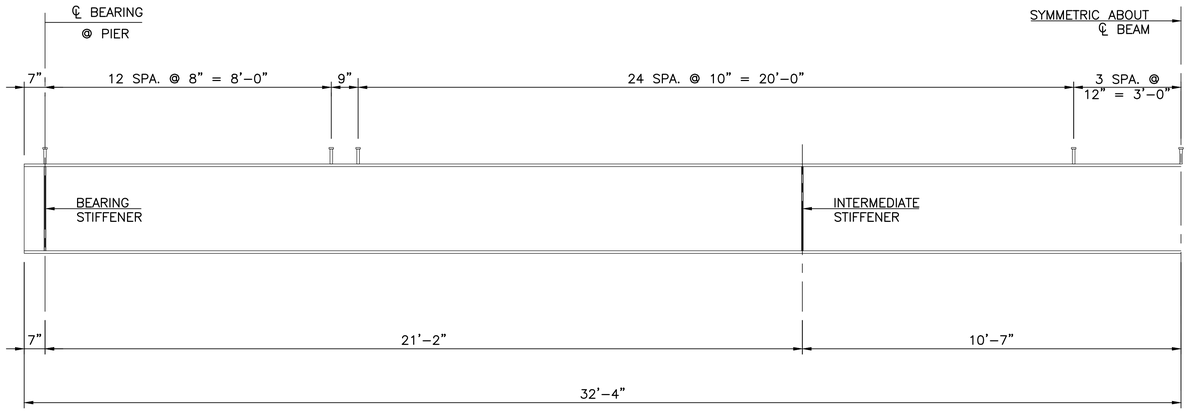


DEFLECTION SCHEDULE												
SPAN	BEAM AND DIAPHRAGM DEFLECTION (in.)						DECK SLAB, HAUNCH, TRAFFIC RAIL DEFLECTION (2) (in.)					
	CL BRG	.1 & .9	.2 & .8	.3 & .7	.4 & .6	.5	CL BRG	.1 & .9	.2 & .8	.3 & .7	.4 & .6	.5
END SPAN	0	0.007	0.014	0.019	0.022	0.023	0	0.061	0.116	0.158	0.184	0.194
MIDDLE SPAN	0	0.091	0.172	0.235	0.276	0.289	0	0.414	0.783	1.073	1.256	1.32

(2) The Dead Load Deflection shown at the tenth points are the deflections due to the Deck Slab + Haunch + Concrete Traffic Rail. It does not include the Beam weight, Diaphragms or Future Wearing Surface.



SHEAR CONNECTOR DETAIL



ELEVATION W30x173 (SPAN NO. 2)
(NOT TO SCALE)

TULSA COUNTY — US–64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
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WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

DETAILS OF STRUCTURAL STEEL (SHEET 1 OF 2)

STATE JOB NO. 28884(04) SHEET NO. 52

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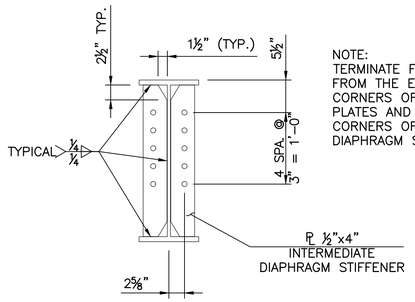
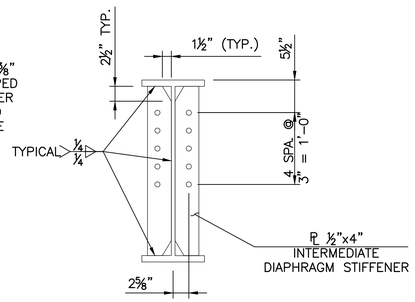
REVISIONS		
REV. NO.	DESCRIPTION	DATE



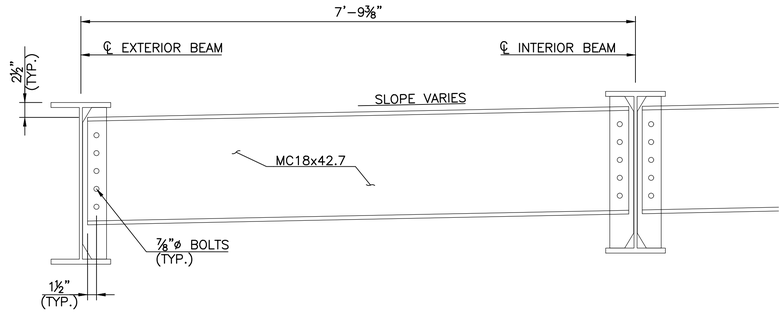
W27 BEAM

NOTE:
TERMINATE FILLET WELDS ⅜" FROM THE EDGE OF CLIPPED CORNERS OF ALL STIFFENER PLATES AND NON-CLIPPED CORNERS OF INTERMEDIATE DIAPHRAGM STIFFENERS.



W30 BEAM

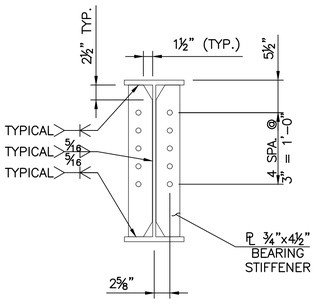
INTERMEDIATE DIAPHRAGM STIFFENER DETAILS



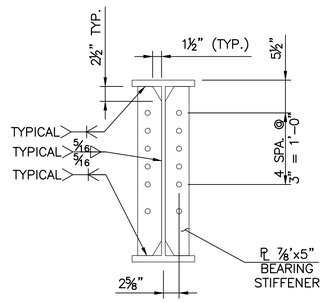
INTERMEDIATE DIAPHRAGM ELEVATION

NOTES:
PROVIDE STRUCTURAL STEEL FOR CHANNEL DIAPHRAGMS AND GUSSET PLATES IN ACCORDANCE WITH AASHTO MS70 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). USE BOLTS CONFORMING TO AASHTO M164 (ASTM A325). PROVIDE ALL BOLTS, NUTS, WASHER AND WELDING WITH WEATHERING CHARACTERISTICS.

THE CONTRACTOR MAY SUBSTITUTE A BENT PLATE DIAPHRAGM IN LIEU OF CHANNEL AND GUSSET PLATE SHOWN AT NO ADDITIONAL COST TO THE DEPARTMENT. PROVIDE ½" MINIMUM PLATE THICKNESS FORMED IN THE SHAPE OF THE CHANNEL WITH 4" MINIMUM FLANGES. FABRICATE BENT PLATE DIAPHRAGM TO A DEPTH EQUAL OR GREATER THAN THAT SHOWN FOR THE COMBINED CHANNEL AND GUSSET PLATE.



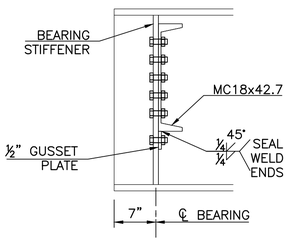
W27 BEAM



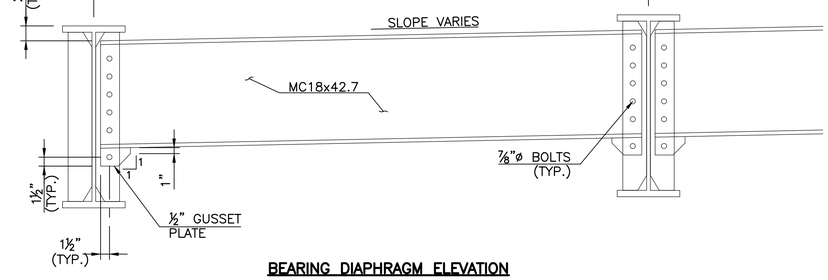
W30 BEAM

BEARING DIAPHRAGM STIFFENER DETAILS

NOTE:
CONTRACTOR SHALL SKEW THE STIFFENERS ACCORDINGLY PRIOR TO WELDING TO GIRDER.



END DIAPHRAGM SECTION



BEARING DIAPHRAGM ELEVATION

NOTE:
GUSSET PLATE WITH ONE BOLT CONNECTION ON W30 BEAMS SHOWN. NO GUSSET PLATE REQUIRED ON W27 BEAMS.

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TULSA COUNTY — US-64 OVER 97TH W. AVE.

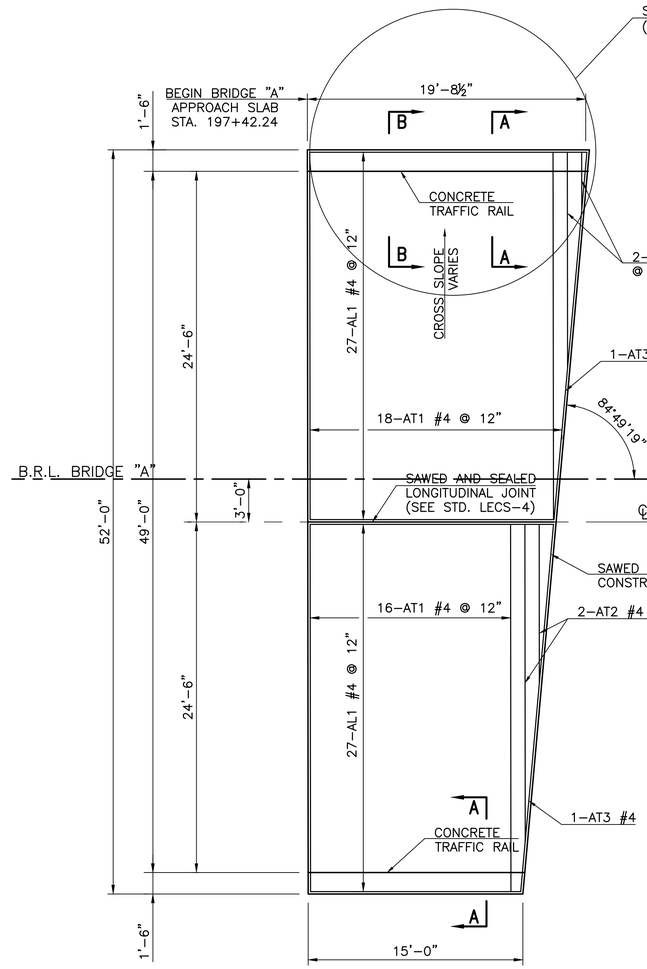
DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

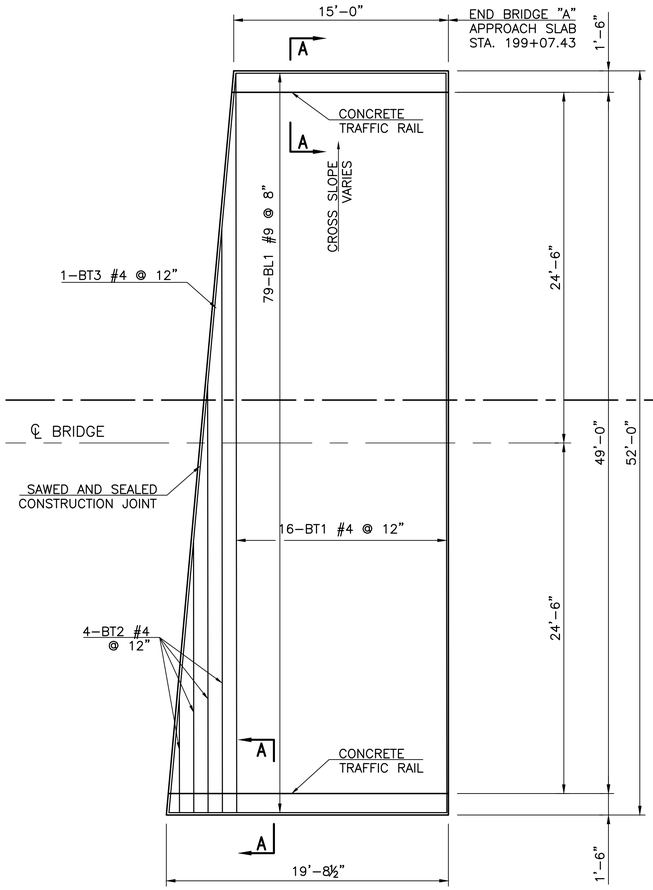
DETAILS OF STRUCTURAL STEEL (SHEET 2 OF 2)

STATE JOB NO. 28884(04) SHEET NO. 53

REVISIONS		
REV. NO.	DESCRIPTION	DATE



APPROACH SLAB NO. 1
(TOP REINFORCING SHOWN)

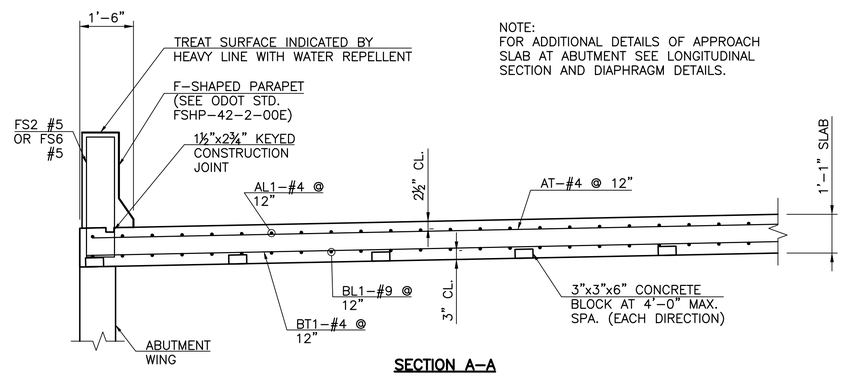


APPROACH SLAB NO. 2
(BOTTOM REINFORCING SHOWN)

APPROACH SLAB BAR LIST - BRIDGE A (ONE SHOWN, TWO REQUIRED)					
MARK	SIZE	NO.	FORM	LENGTH	VARIES
EPOXY COATED REINFORCING					
AL1	#4	54	STR.	17'-0" AVG.	14'-8" TO 19'-4"
AT1	#4	34	STR.	25'-8"	
① AT2	#4	4	STR.	9'-3" AVG.	3'-9" TO 14'-9"
AT3	#4	2	STR.	25'-9"	
BL1	#9	79	STR.	17'-0" AVG.	14'-8" TO 19'-4"
BT1	#4	16	STR.	51-8"	
BT2	#4	4	STR.	24'-2 1/2" AVG.	7'-8" TO 40'-9"
BT3	#4	1	STR.	51'-10"	
FS2	#5	31 (REF ODOT STD. FSHP-42-2)	BNT.	7'-4"	
FS6	#5	10	BNT.	7'-6 1/2"	

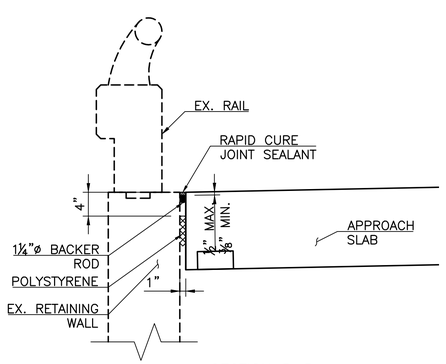
① 2 SETS OF 2

QUANTITIES-APPROACH SLABS - BRIDGE A				
ITEM	UNIT	ABUT. NO. 1	ABUT. NO. 2	TOTAL
APPROACH SLAB	S.Y.	99.0	100.3	199.3
SAW-CUT GROOVING	S.Y.	94.5	94.5	189.0
CONCRETE RAIL (STD. FSHP-42-2)	L.F.	24.4	34.7	59.1
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	11.9	17.0	28.9

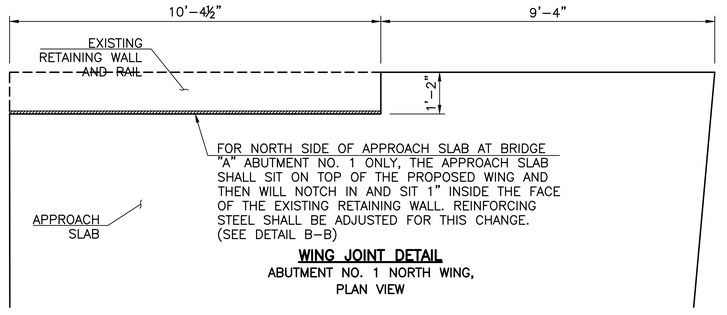


SECTION A–A

NOTE:
FOR ADDITIONAL DETAILS OF APPROACH SLAB AT ABUTMENT SEE LONGITUDINAL SECTION AND DIAPHRAGM DETAILS.



SECTION B–B



WING JOINT DETAIL
ABUTMENT NO. 1 NORTH WING,
PLAN VIEW

TULSA COUNTY — US–64 OVER 97TH W. AVE.

DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

DETAILS OF APPROACH SLABS (BRIDGE "A")

STATE JOB NO. 28884(04) SHEET NO. 54

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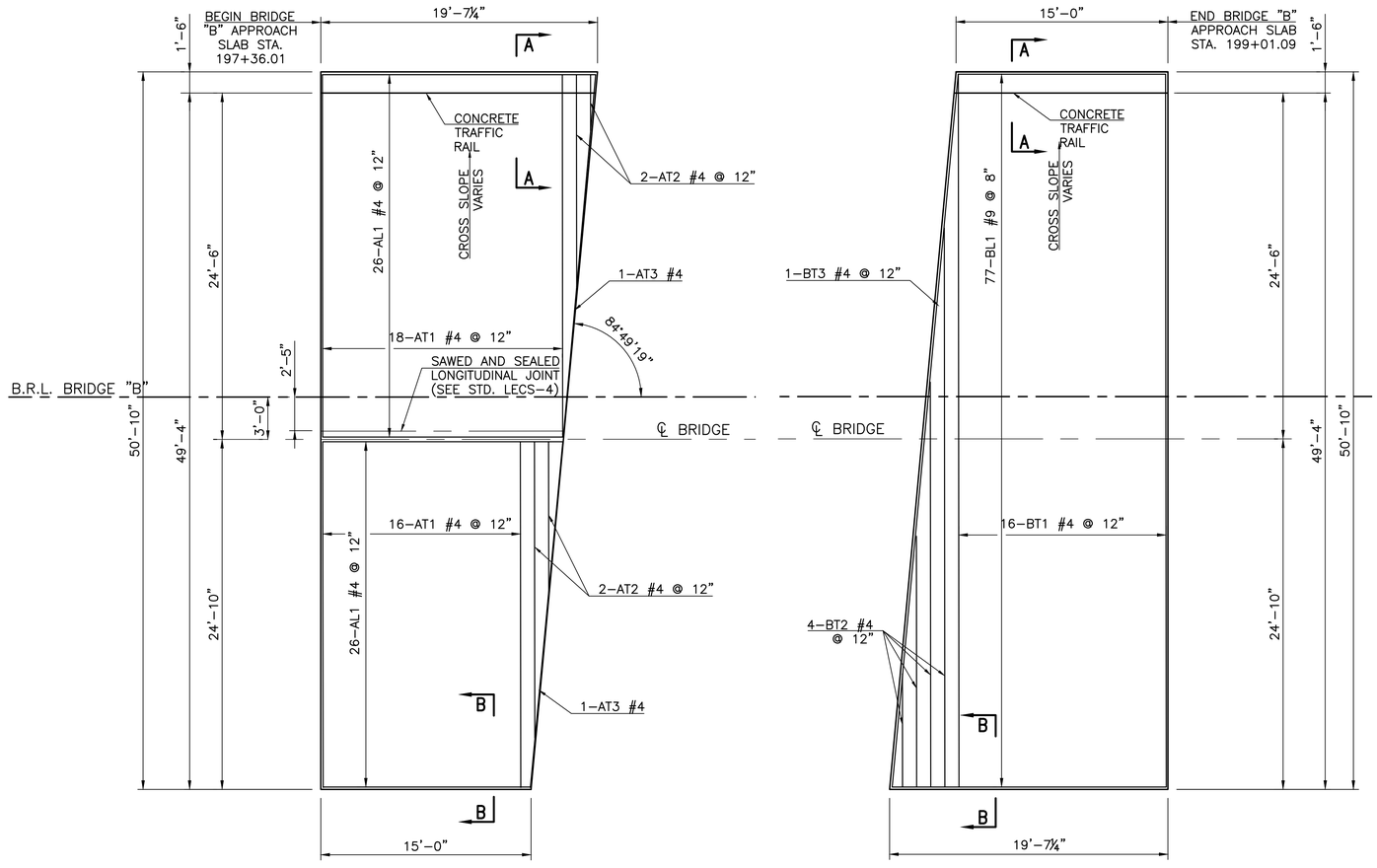
REVISIONS		
REV. NO.	DESCRIPTION	DATE



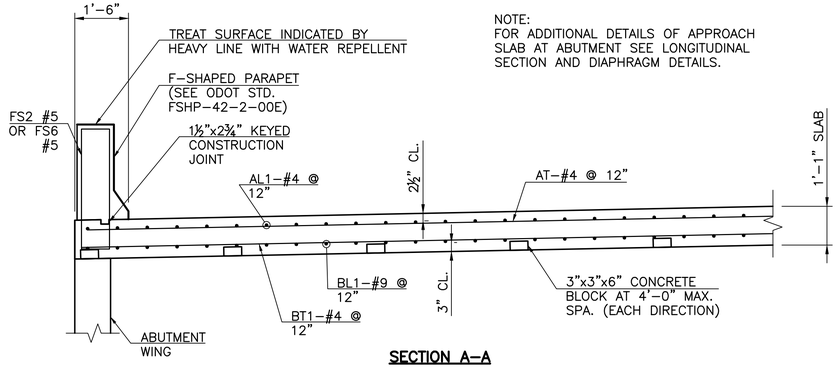
APPROACH SLAB NO. 1
(TOP REINFORCING SHOWN)

APPROACH SLAB NO. 2
(BOTTOM REINFORCING SHOWN)

APPROACH SLAB BAR LIST - BRIDGE B (ONE SHOWN, TWO REQUIRED)					
MARK	SIZE	NO.	FORM	LENGTH	VARIES
EPOXY COATED REINFORCING					
AL1	#4	52	STR.	16'-11 1/2" AVG.	14'-8" TO 19'-3"
AT1	#4	34	STR.	25'-1"	
① AT2	#4	4	STR.	8'-8" AVG.	3'-2" TO 14'-2"
AT3	#4	2	STR.	25'-2"	
BL1	#9	77	STR.	16'-11 1/2" AVG.	14'-8" TO 19'-3"
BT1	#4	16	STR.	50'-6"	
BT2	#4	4	STR.	23'-1" AVG.	6'-6" TO 39'-7"
BT3	#4	1	STR.	50'-8"	
FS2	#5	31 (REF ODOT STD. FSHP-42-2)	BNT.	7'-4"	
FS6	#5	10	BNT.	7'-6 1/2"	

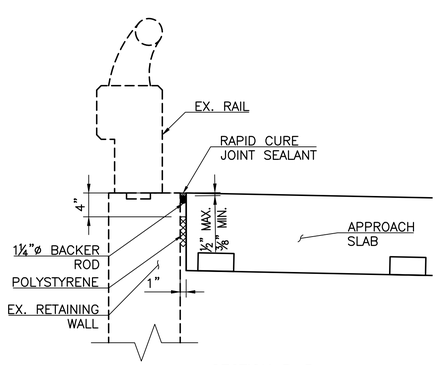
① 2 SETS OF 2

QUANTITIES-APPROACH SLABS - BRIDGE B				
ITEM	UNIT	ABUT. NO. 1	ABUT. NO. 2	TOTAL
APPROACH SLAB	S.Y.	97.8	97.8	195.6
SAW-CUT GROOVING	S.Y.	94.6	95.3	189.9
CONCRETE RAIL (STD. FSHP-42-2)	L.F.	34.6	34.6	69.2
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	16.9	16.9	33.8



NOTE:
FOR ADDITIONAL DETAILS OF APPROACH SLAB AT ABUTMENT SEE LONGITUDINAL SECTION AND DIAPHRAGM DETAILS.

SECTION A-A



SECTION B-B

			TULSA COUNTY	US-64 OVER 97TH W. AVE.
DESIGN	MW	11/16	OKLAHOMA DEPARTMENT OF TRANSPORTATION	
DRAWN	SDK	11/16	DETAILS OF APPROACH SLABS (BRIDGE "B")	
CHECKED	HRA	11/16		
APPROVED			STATE JOB NO. 28884(04) SHEET NO. 55	
WALTER P MOORE				

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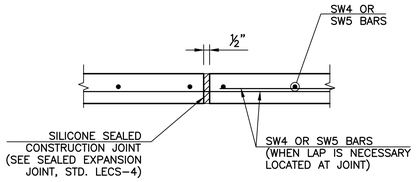
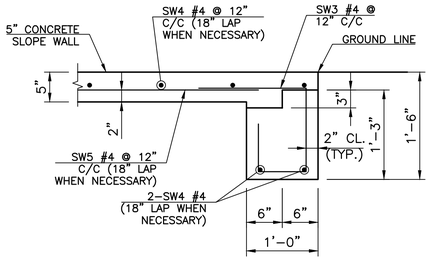
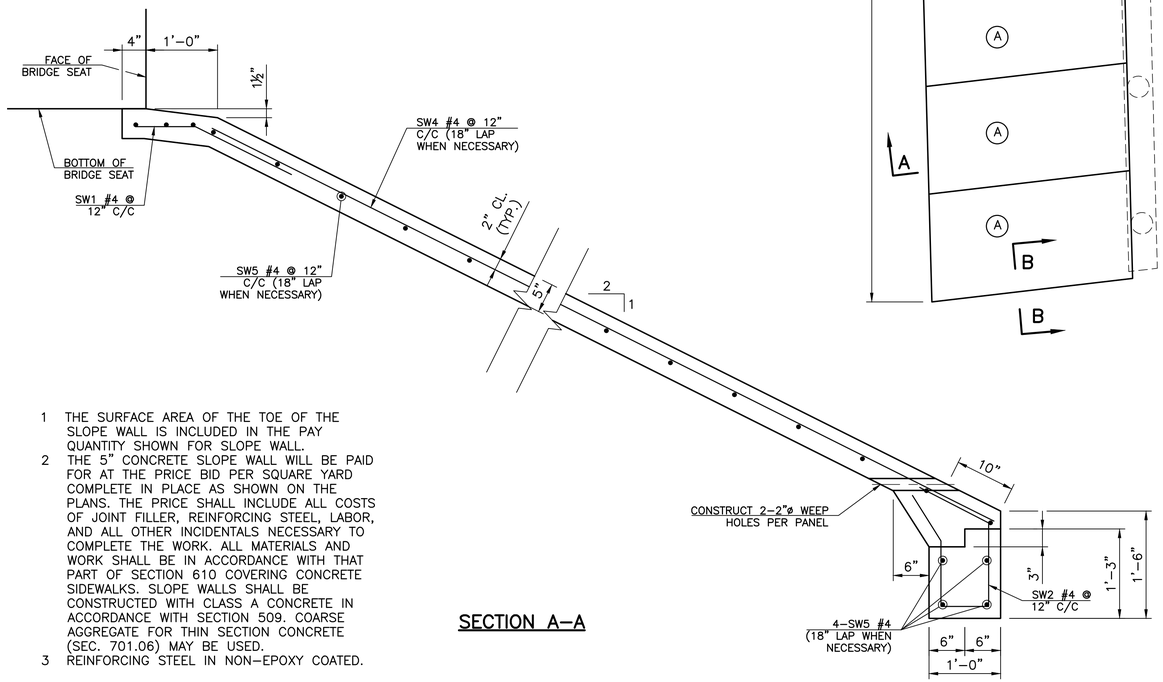
REVISIONS		
REV. NO.	DESCRIPTION	DATE



DETAIL OF VERTICAL CONSTRUCTION JOINT

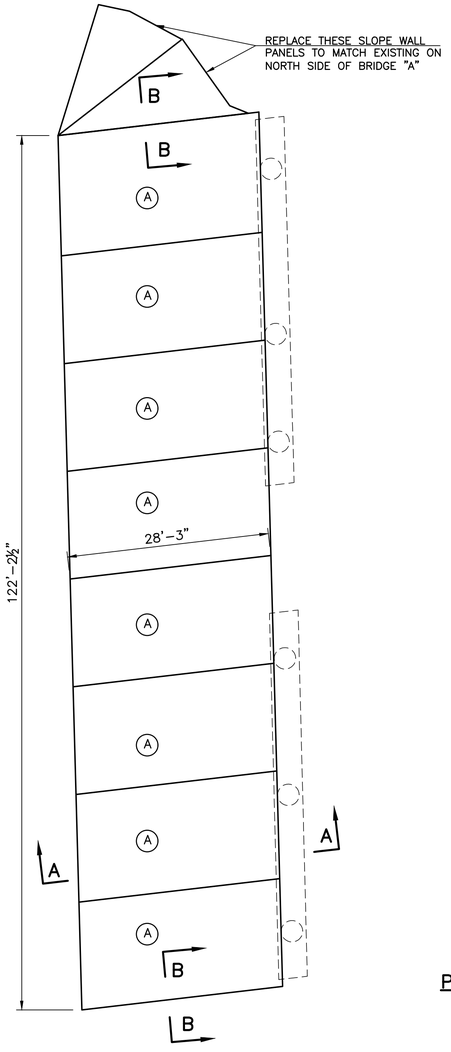


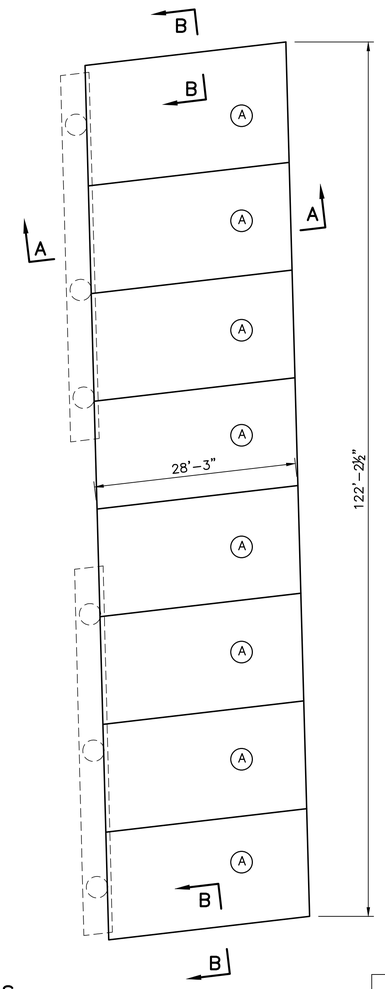
SECTION B-B



SECTION A-A

1 THE SURFACE AREA OF THE TOE OF THE SLOPE WALL IS INCLUDED IN THE PAY QUANTITY SHOWN FOR SLOPE WALL.
2 THE 5" CONCRETE SLOPE WALL WILL BE PAID FOR AT THE PRICE BID PER SQUARE YARD COMPLETE IN PLACE AS SHOWN ON THE PLANS. THE PRICE SHALL INCLUDE ALL COSTS OF JOINT FILLER, REINFORCING STEEL, LABOR, AND ALL OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK. ALL MATERIALS AND WORK SHALL BE IN ACCORDANCE WITH THAT PART OF SECTION 610 COVERING CONCRETE SIDEWALKS. SLOPE WALLS SHALL BE CONSTRUCTED WITH CLASS A CONCRETE IN ACCORDANCE WITH SECTION 509. COARSE AGGREGATE FOR THIN SECTION CONCRETE (SEC. 701.06) MAY BE USED.
3 REINFORCING STEEL IN NON-EPOXY COATED.

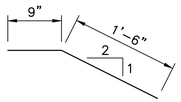




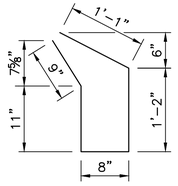
PLAN OF SLOPE WALLS

Ⓐ SLOPE WALLS TO BE FORMED WITH ASHLAR STONE LINE. COLOR SHALL BE FEDERAL STANDARD COLOR 30450.

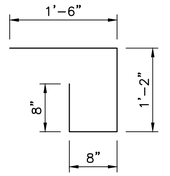
SLOPE WALL QUANTITIES			
ITEM	UNIT	WEST ABUTMENTS	EAST ABUTMENTS
SLOPE WALL (5")	SY	462.4	428.9



SW1 #4 2'-3"



SW2 #4 4'-7"



SW3 #4 4'-0"

TULSA COUNTY — US-64 OVER 97TH W. AVE.

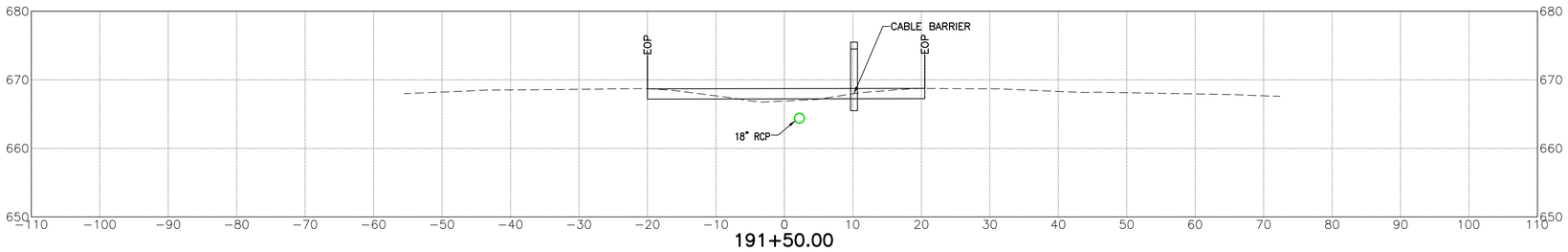
DESIGN	MW	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

DETAIL OF SLOPE WALLS

STATE JOB NO. 28884(04) SHEET NO. 56

REVISIONS		
REV. NO.	DESCRIPTION	DATE



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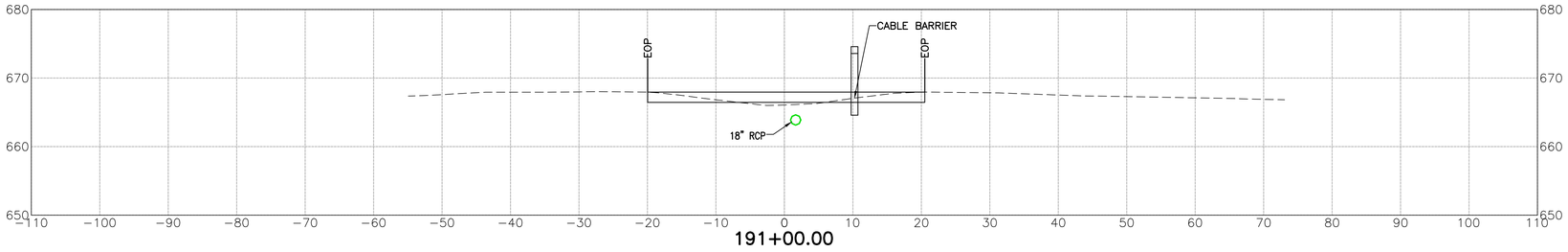

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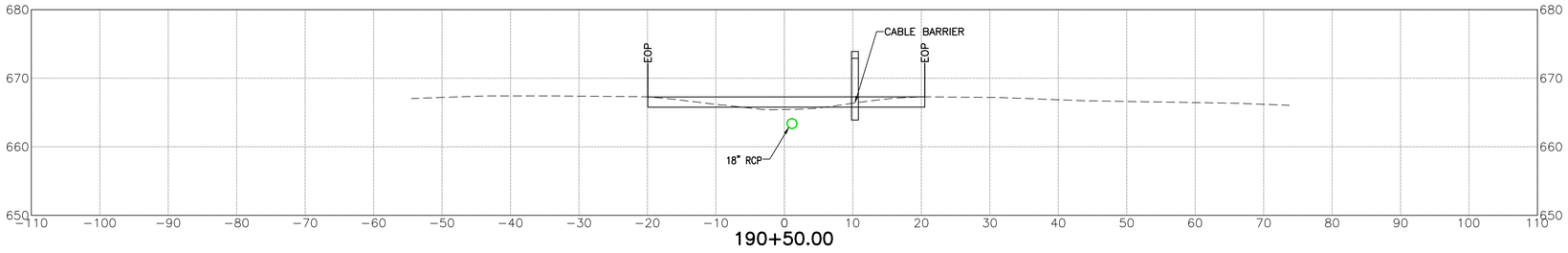

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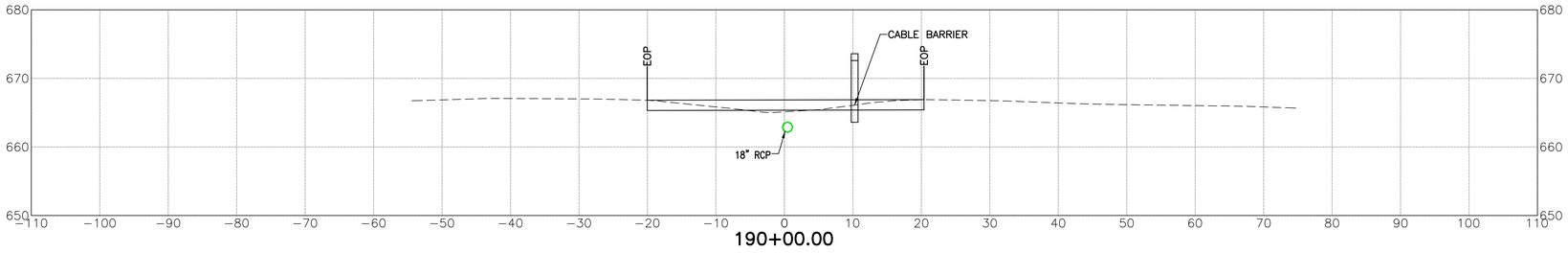

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TULSA COUNTY — US-64 OVER 97TH W. AVE.

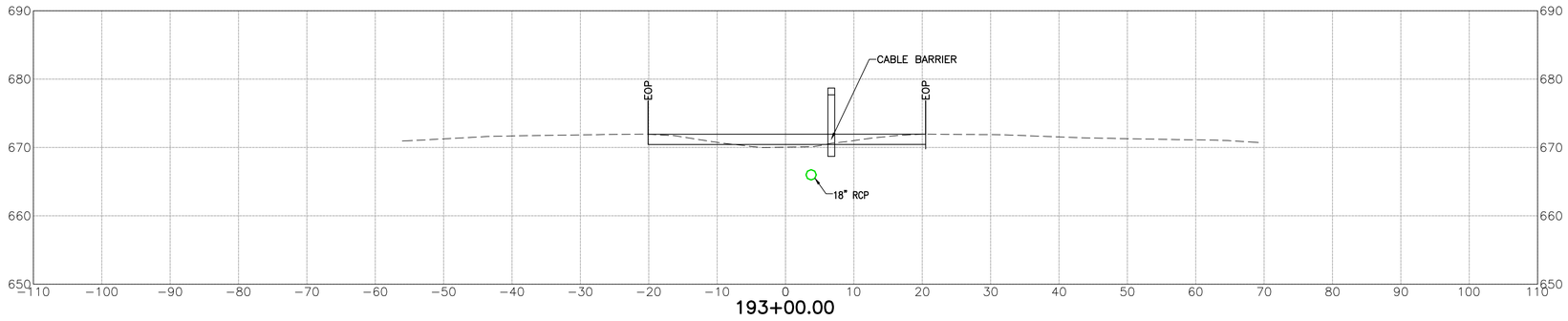
DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
STA. 190+00 TO STA. 191+50

STATE JOB NO. 28884(04) SHEET NO. XS01

REVISIONS		
REV. NO.	DESCRIPTION	DATE



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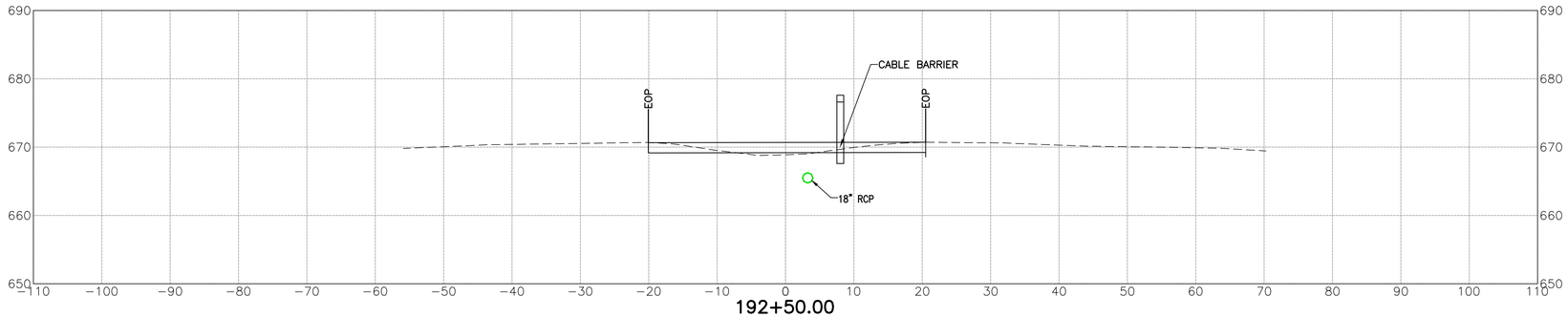

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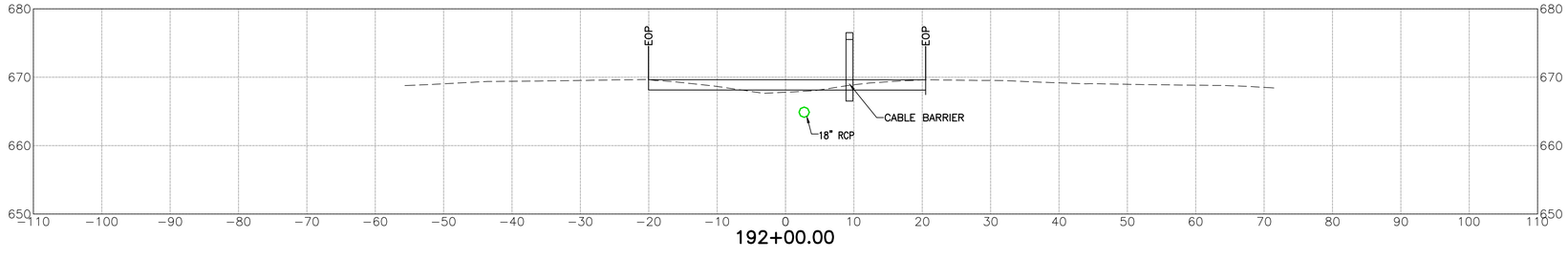

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TULSA COUNTY — US-64 OVER 97TH W. AVE.

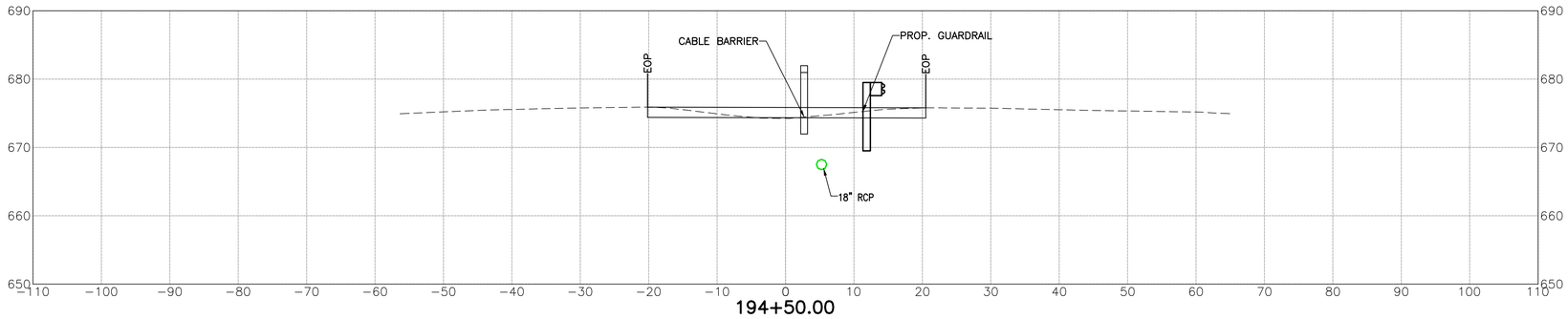
DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
STA. 192+00 TO STA. 193+00

STATE JOB NO. 28884(04) SHEET NO. XS02

REVISIONS		
REV. NO.	DESCRIPTION	DATE



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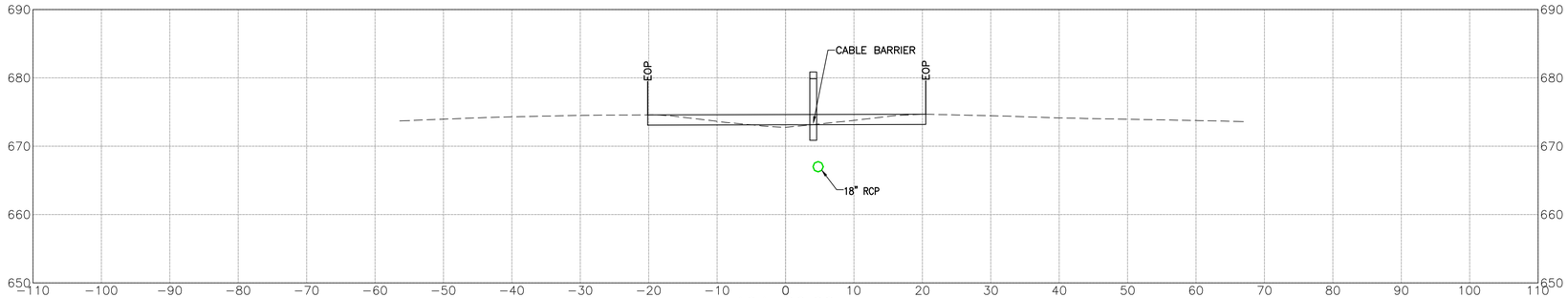

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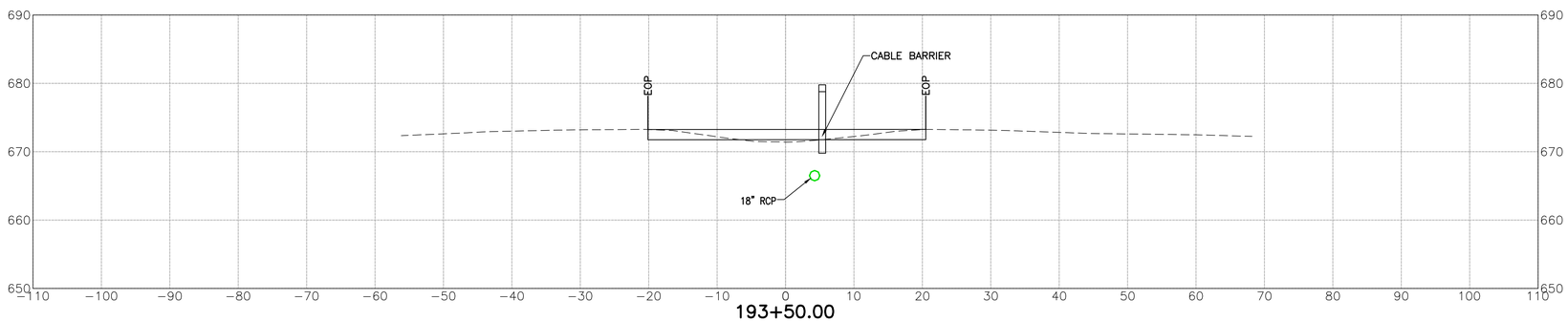

193+50.00

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TULSA COUNTY — US-64 OVER 97TH W. AVE.

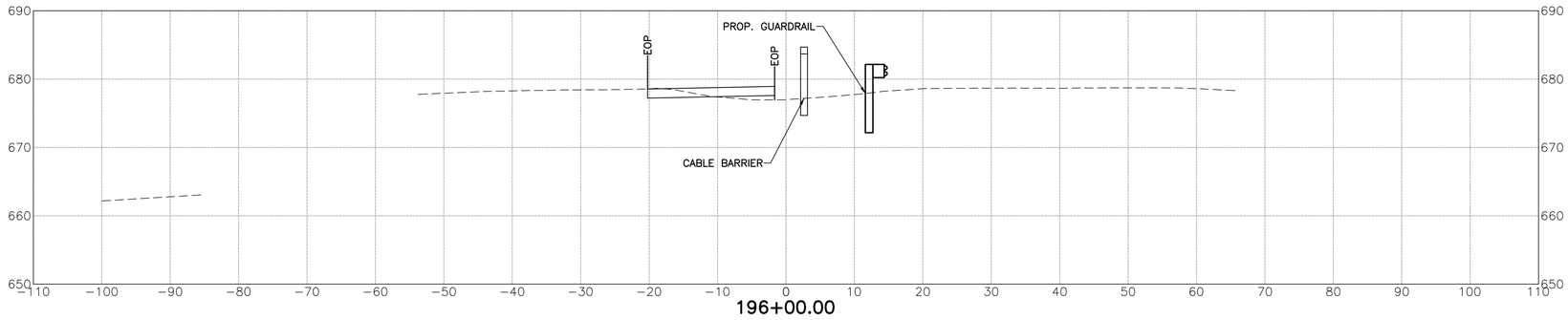
DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
STA. 193+50 TO STA. 194+50

STATE JOB NO. 28884(04) SHEET NO. XS03

REVISIONS		
REV. NO.	DESCRIPTION	DATE



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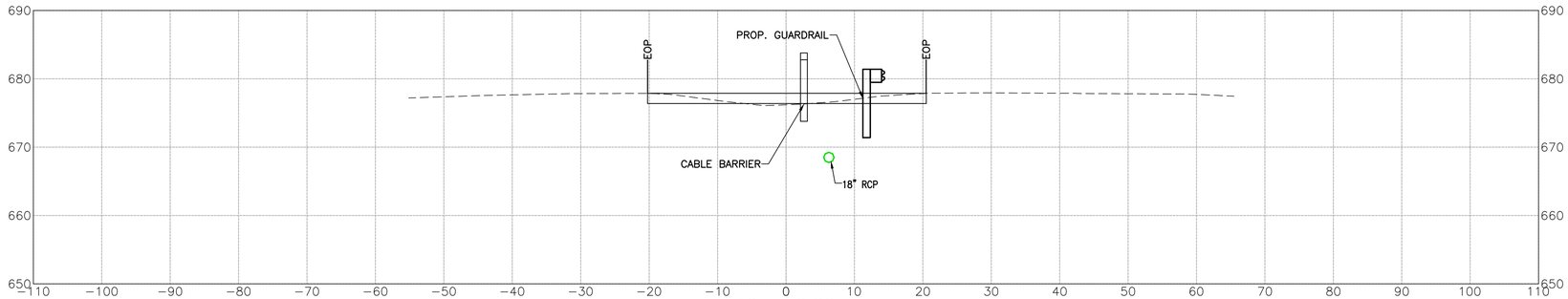

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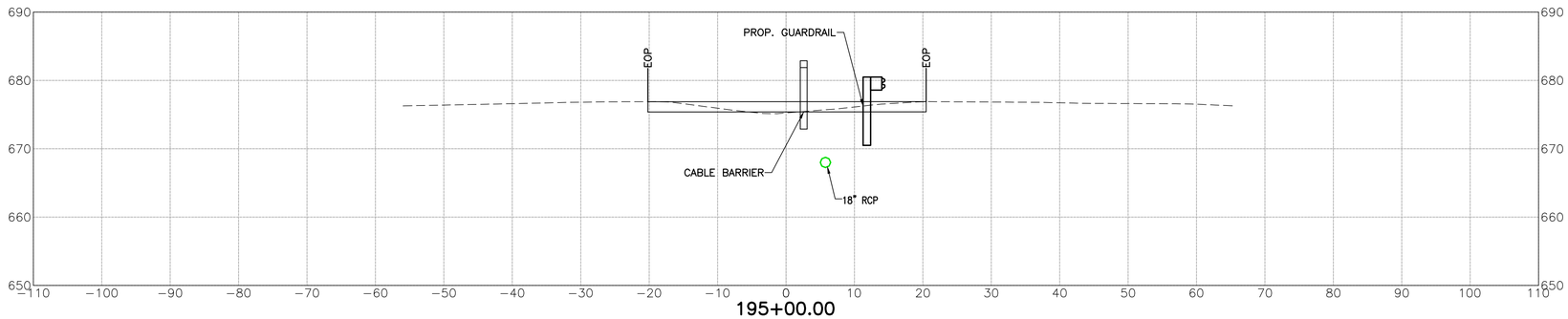

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TULSA COUNTY — US-64 OVER 97TH W. AVE.

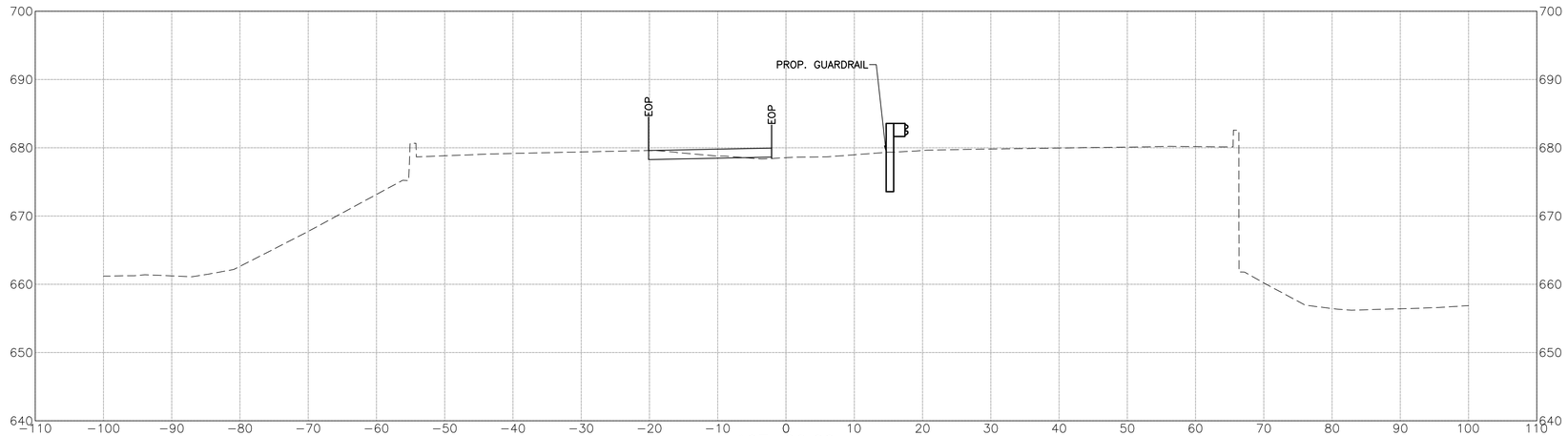
DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
STA. 195+00 TO STA. 196+00

STATE JOB NO. 28884(04) SHEET NO. XS04

REVISIONS		
REV. NO.	DESCRIPTION	DATE



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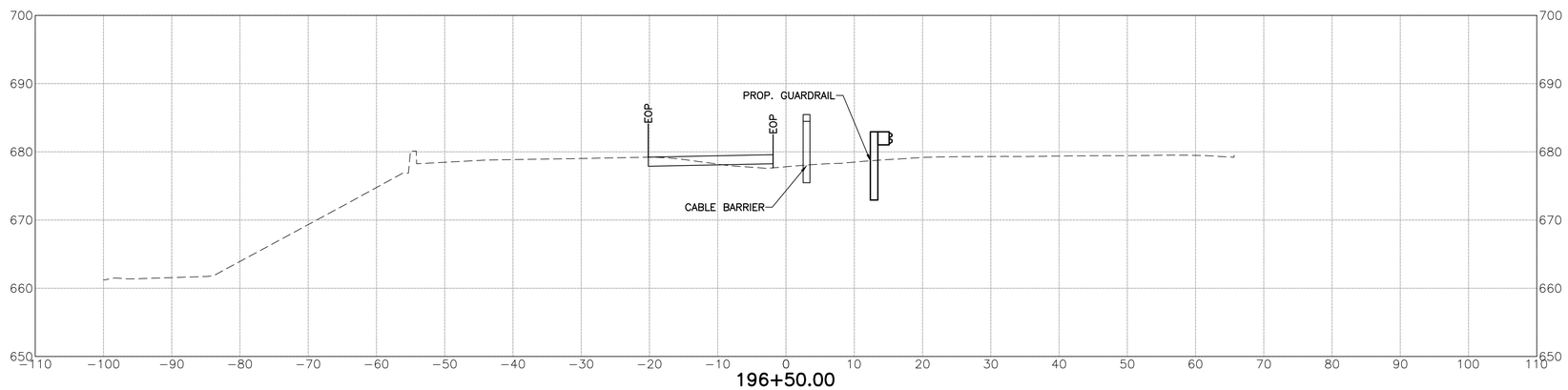


196+50.00

TULSA COUNTY — US−64 OVER 97TH W. AVE.

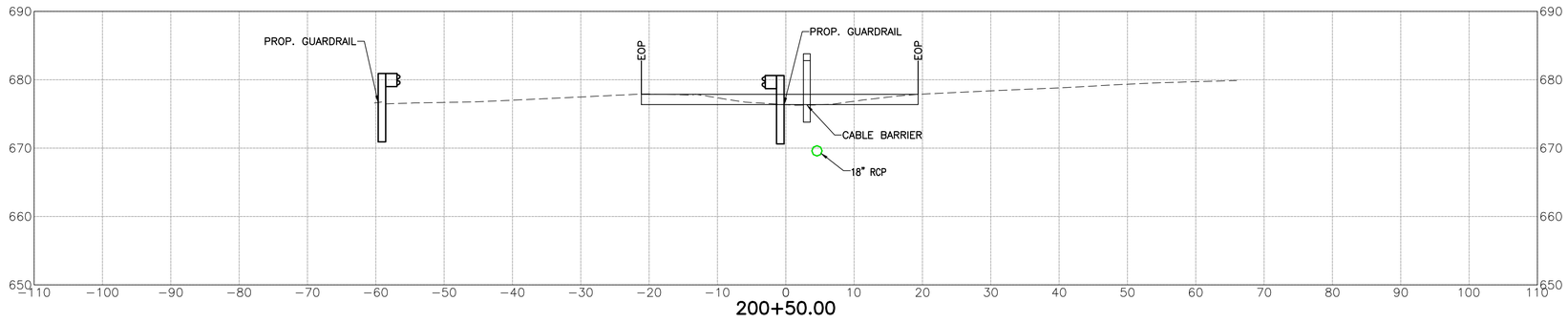
DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
STA. 196+50 TO STA. 197+00

STATE JOB NO. 28884(04) SHEET NO. XS05

REVISIONS		
REV. NO.	DESCRIPTION	DATE



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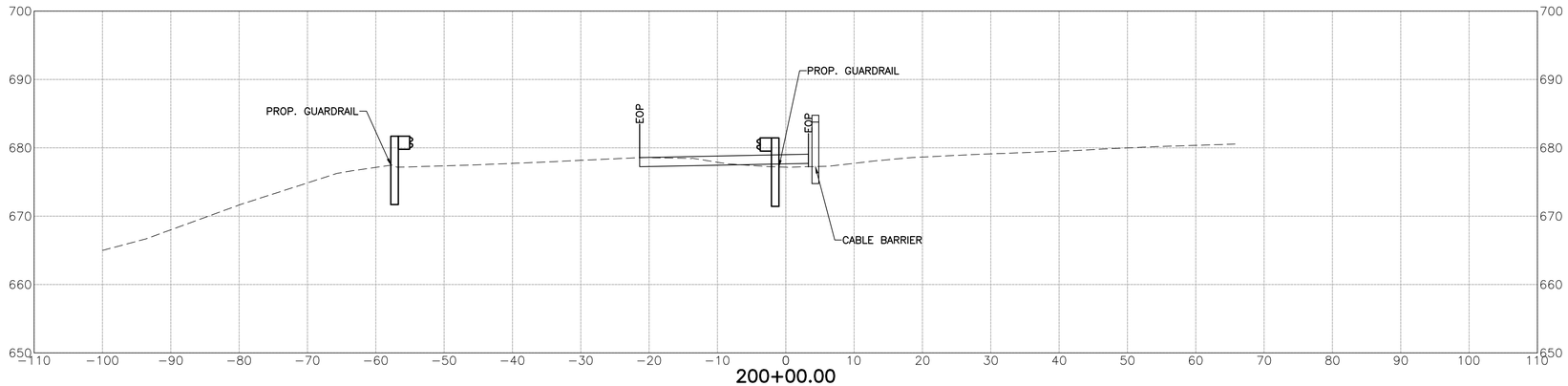

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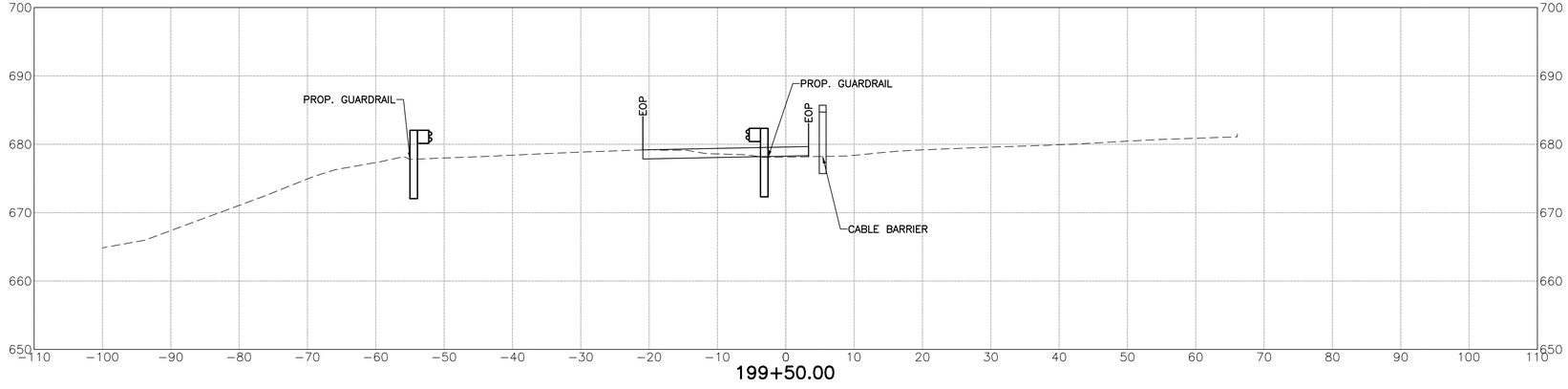

199+50.00

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TULSA COUNTY — US-64 OVER 97TH W. AVE.

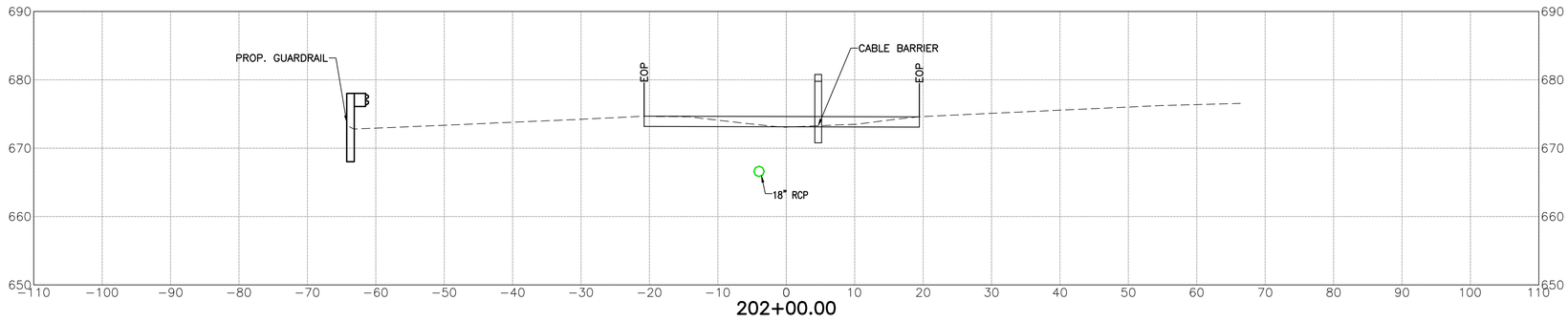
DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
STA. 199+50 TO STA. 200+50

STATE JOB NO. 28884(04) SHEET NO. XS06

REVISIONS		
REV. NO.	DESCRIPTION	DATE



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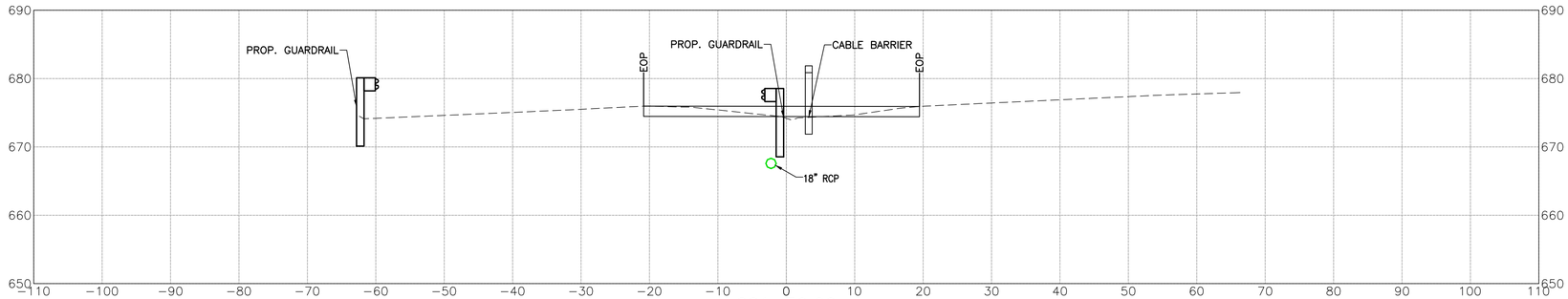

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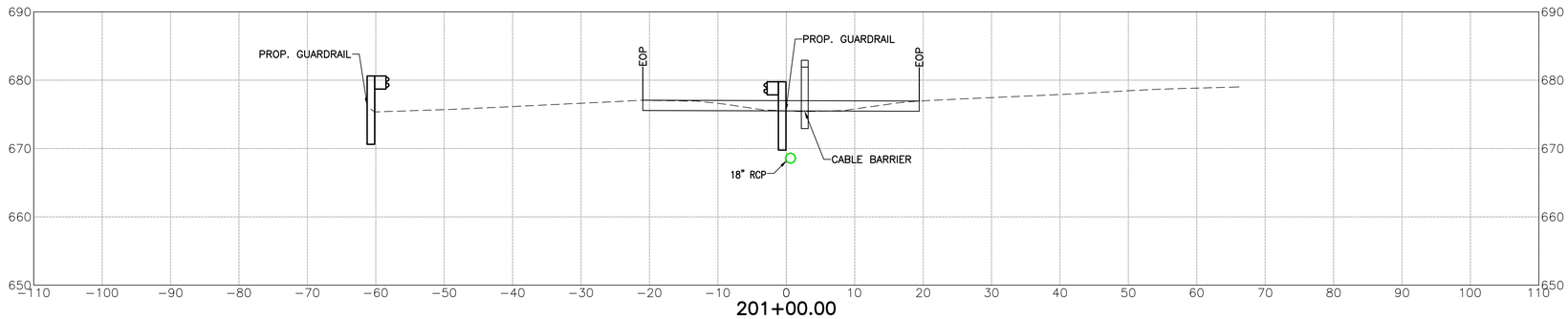

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TULSA COUNTY — US-64 OVER 97TH W. AVE.

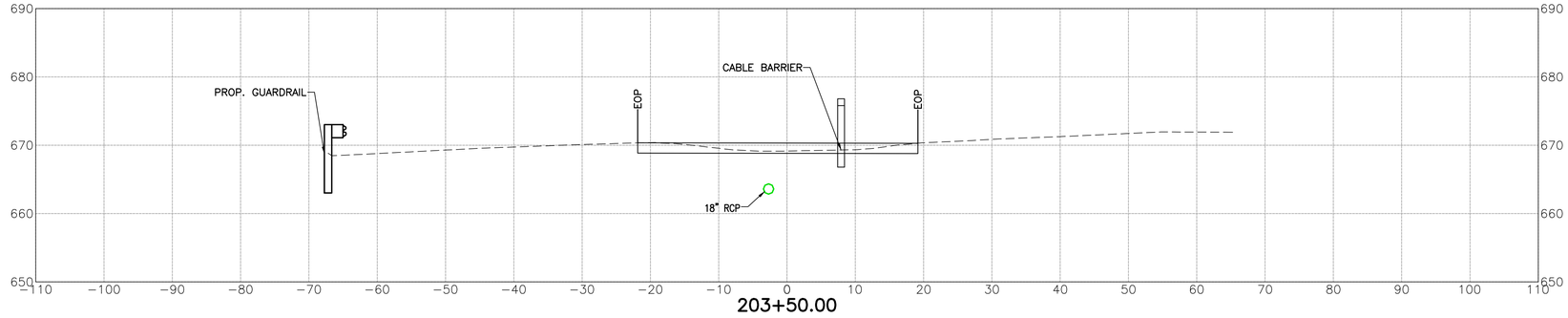
DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS STA. 201+00 TO STA. 202+00

STATE JOB NO. 28884(04) SHEET NO. XS07

REVISIONS		
REV. NO.	DESCRIPTION	DATE



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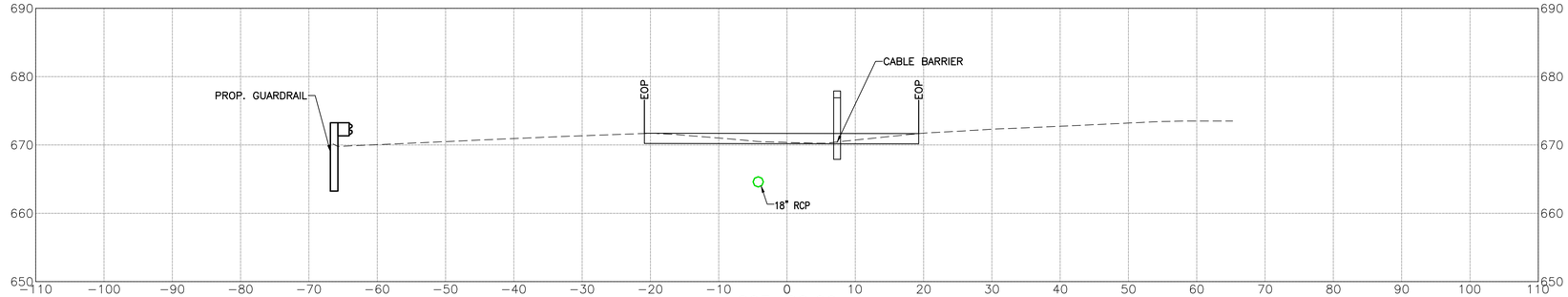

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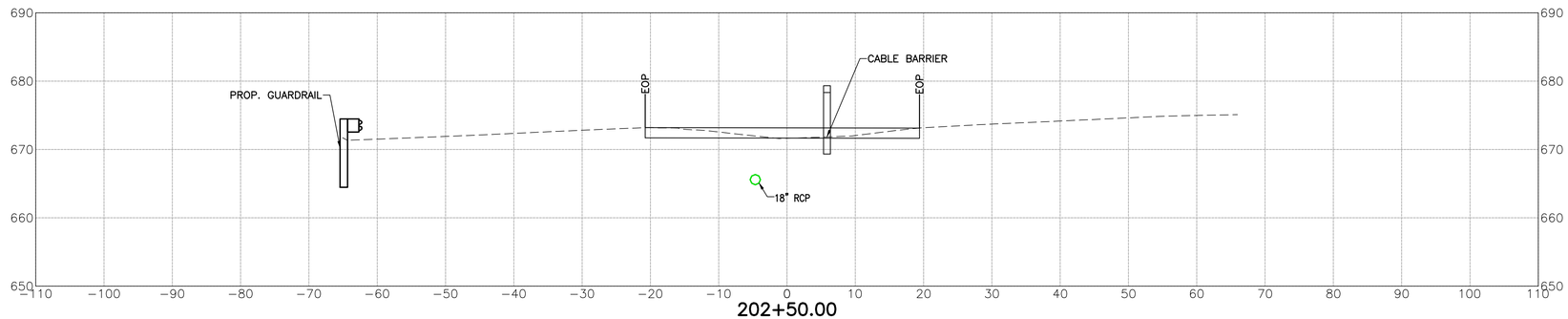


202+50.00

TULSA COUNTY — US−64 OVER 97TH W. AVE.

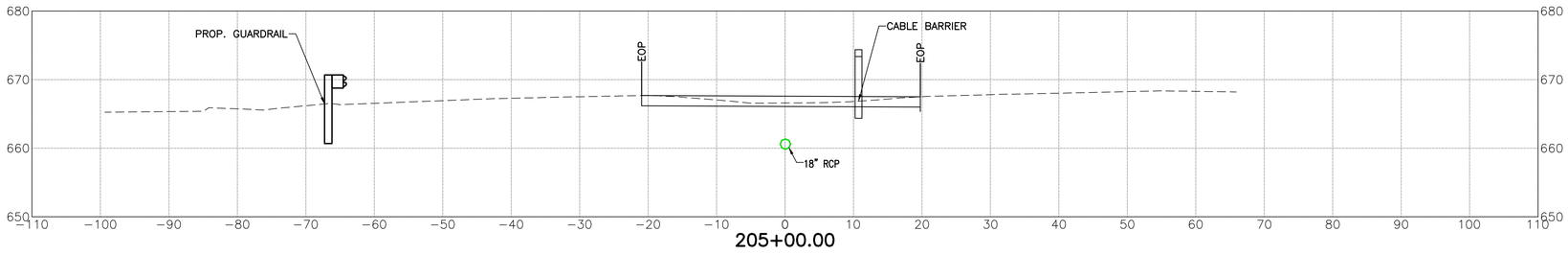
DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
STA. 202+50 TO STA. 203+50

STATE JOB NO. 28884(04) SHEET NO. XS08

REVISIONS		
REV. NO.	DESCRIPTION	DATE



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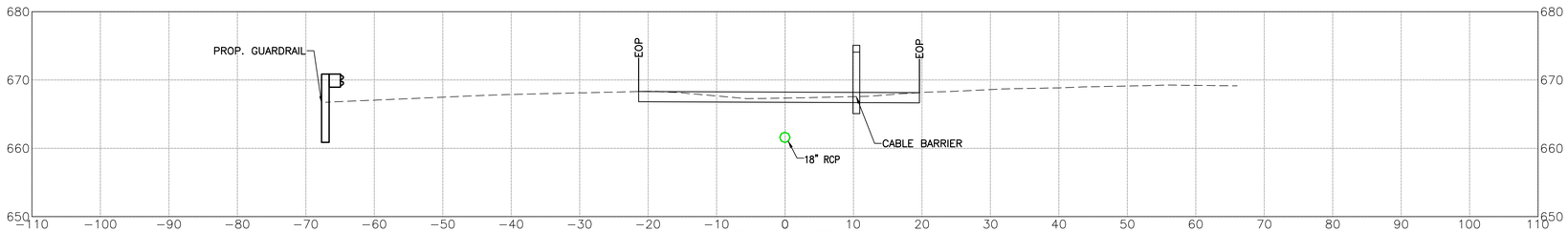

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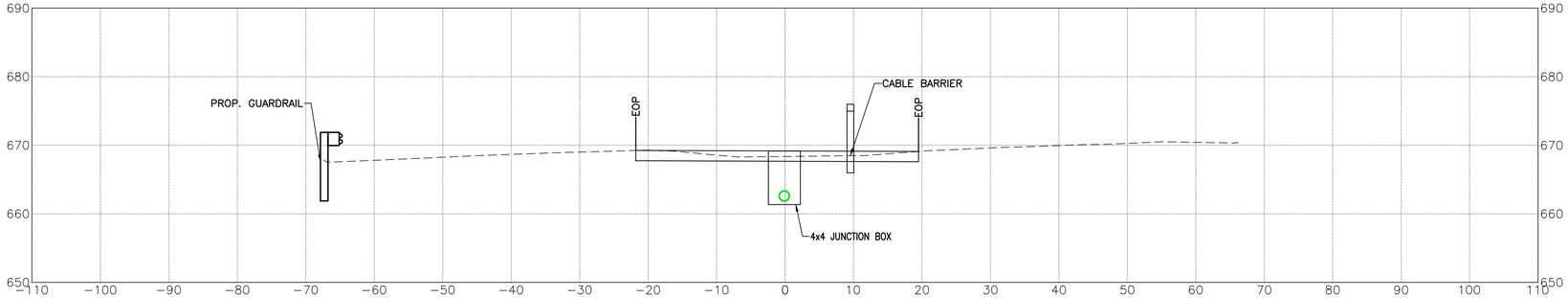


204+00.00

TULSA COUNTY — US−64 OVER 97TH W. AVE.

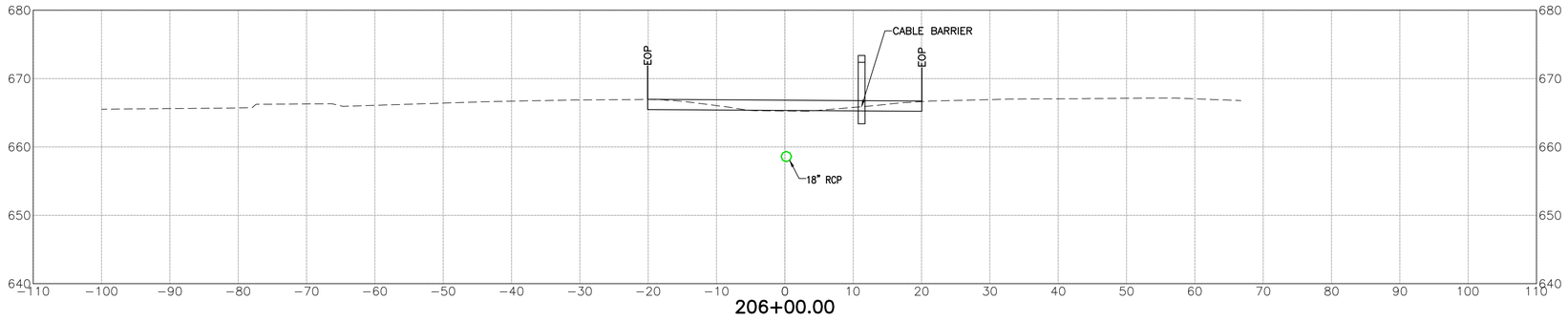
DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS STA. 204+00 TO STA. 205+00

STATE JOB NO. 28884(04) SHEET NO. XS09

REVISIONS		
REV. NO.	DESCRIPTION	DATE



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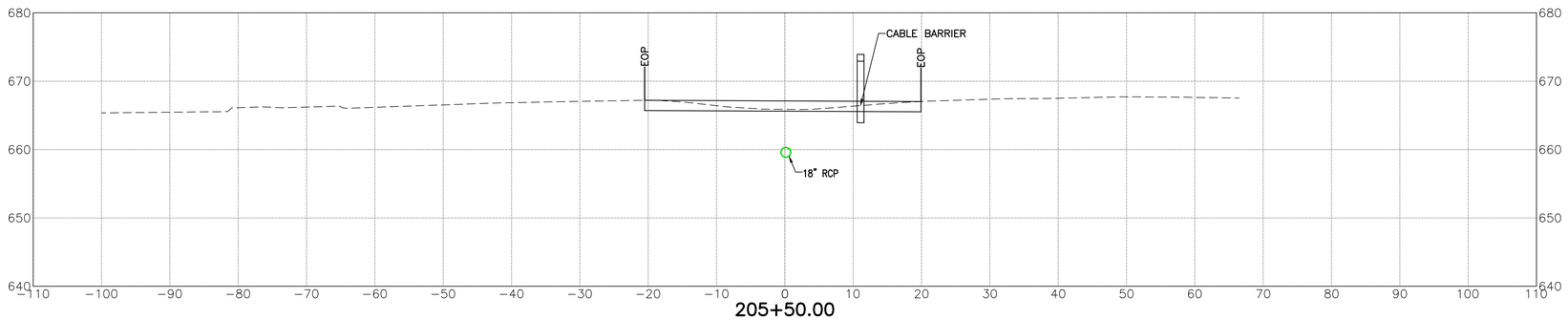

205+50.00

TULSA COUNTY US−64 OVER 97TH W. AVE.

DESIGN	DLA	11/16
DRAWN	SDK	11/16
CHECKED	HRA	11/16
APPROVED		
WALTER P MOORE		

OKLAHOMA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS STA. 205+50 TO STA. 206+00

STATE JOB NO. 28884(04) SHEET NO. XS10