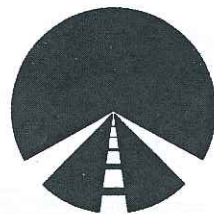




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# OKLAHOMA TURNPIKE AUTHORITY

## CONTRACT NO. HEB-MC-54

### BRIDGE REPLACEMENT

TPU BRIDGE NO. 16.45B

PROJECT NO. SSP-217C(014)SS

STATE JOB NO. 29525(04)

LOCATION NO. 1737 0850X - NBI NO. 16078 (OLD)

NBI NO. 31210 (NEW)

MILEPOST 14 - COTTON COUNTY

#### INDEX OF SHEETS

SECTION	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
ENGINEER	HEB	HEB-MC-54	1	71
REVISIONS				
DESCRIPTION	DATE			
1	TITLE SHEET			
2	TYPICAL SECTION			
3	PAY ITEMS & GENERAL CONSTRUCTION NOTES (ROADWAY)			
4	PAY ITEMS & GENERAL CONSTRUCTION NOTES (TRAFFIC)			
5	BRIDGE GENERAL NOTES			
6	SUMMARY OF BRIDGE PAY QUANTITIES			
7	SUMMARY SHEET (ROADWAY)			
8	RCB WING DETAIL			
9	STORMWATER MANAGEMENT PLAN			
10-11	EROSION CONTROL PLAN			
12-13	GEOMETRIC LAYOUT			
14-15	REMOVAL SHEETS			
16-18	PLAN AND PROFILE SHEETS			
19	GENERAL PLAN AND ELEVATION			
20	FOUNDATION REPORT			
21	SUBSTRUCTURE LAYOUT AND SUMMARY OF BRIDGE QUANTITIES			
22	SUBSTRUCTURE EXCAVATION AND PIPE UNDERDRAIN DETAILS			
23-25	ABUTMENT DETAILS			
26-27	PIER DETAILS			
28-33	SUPERSTRUCTURE DETAILS			
34	APPROACH SLAB DETAILS			
35-36	SLOPE WALL DETAILS			
37	DRAINAGE DETAILS AT END OF BRIDGE			
38-39	SUGGESTED CONSTRUCTION SEQUENCE			
40	DETOUR PLAN			
41-48	TRAFFIC CONTROL			
49-62	CROSS SECTIONS			
63-71	SURVEY DATA SHEETS			

#### 2009 ODOT REQUIRED STANDARDS

BRIDGE	SPI-4-0	TCS7-1-02	TCS24-1-02
FSHP-42-2-00E	SPB-1-3	TCS8-1-00	TCS25-1-00
EJ-SK-03E	FHTMP-5-0	TCS9-1-01	PM1-1-02
EJ-DTL-01E	SBI-4-2	TCS10-1-00	PM3-1-02
HP1-2-00E	RDI-3-1	TCS11-1-01	PM4-1-01
RCB-C1-3&4&5(2-20)-01E	DC-3-2	TCS13-1-00	WSD3-1-00
RCB-E1-H3-0-1-01E	RWF1-2-2	TCS14-1-00	SBS1-1-00
RCB-E1-H3-0-2-01E	RWF2-2-1	TCS15-1-00	GMS1-1-00
RCB-CW1-D4-0-01E		TCS18-1-01	SSP1-1-02
		TCS19-1-01	SSA1-1-00
		TCS20-1-00	IA-1-1-00
		TCS21-1-02	MPP1-1-00
		TCS22-1-00	
ROADWAY	THRI-1-02		
LECS-4-1	SKT-1-00		
PUD-3-2	TCS1-1-01		
PED-3-2	TCS2-1-00		
SSS-1-1	TCS3-1-01		
TSC2-3-2	TCS4-1-01		
TSD-2-0	TCS5-1-00		
CET6S-3-1	TCS6-1-02		
PDT-1-2			

#### 1999 ODOT REQUIRED STANDARDS

ROADWAY	RCB1-1-00E
RCB2H-1-02E	RCB2-1-00E
	RCB3-1-00E

PREPARED BY:

WHITE ENGINEERING ASSOCIATES, INC.  
BRIDGE

RONALD R. WHITE, P.E.

2/13/2015  
DATE

SMITH ROBERTS BALDISCHWILER, LLC  
ROADWAY AND TRAFFIC

JOHN K. BALDISCHWILER, P.E.

2/16/2015  
DATE

REVIEWED BY:

OLSSON ASSOCIATES

CONSULTING ENGINEER

2/13/2015  
DATE

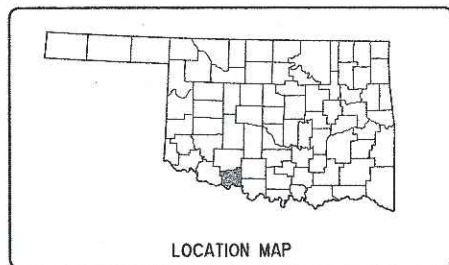
ACCEPTED BY:

OKLAHOMA TURNPIKE AUTHORITY

TROY TRAVIS, P.E.  
DIRECTOR OF ENGINEERING

2/13/15  
DATE

THIS DESIGN IS SPECIFICALLY PREPARED FOR USE AT THE LOCATION SHOWN. USE IN ANY OTHER MANNER EXCEEDS THE INTENDED PURPOSE OF THESE DRAWINGS AND ANY ACCOMPANYING SPECIFICATIONS.

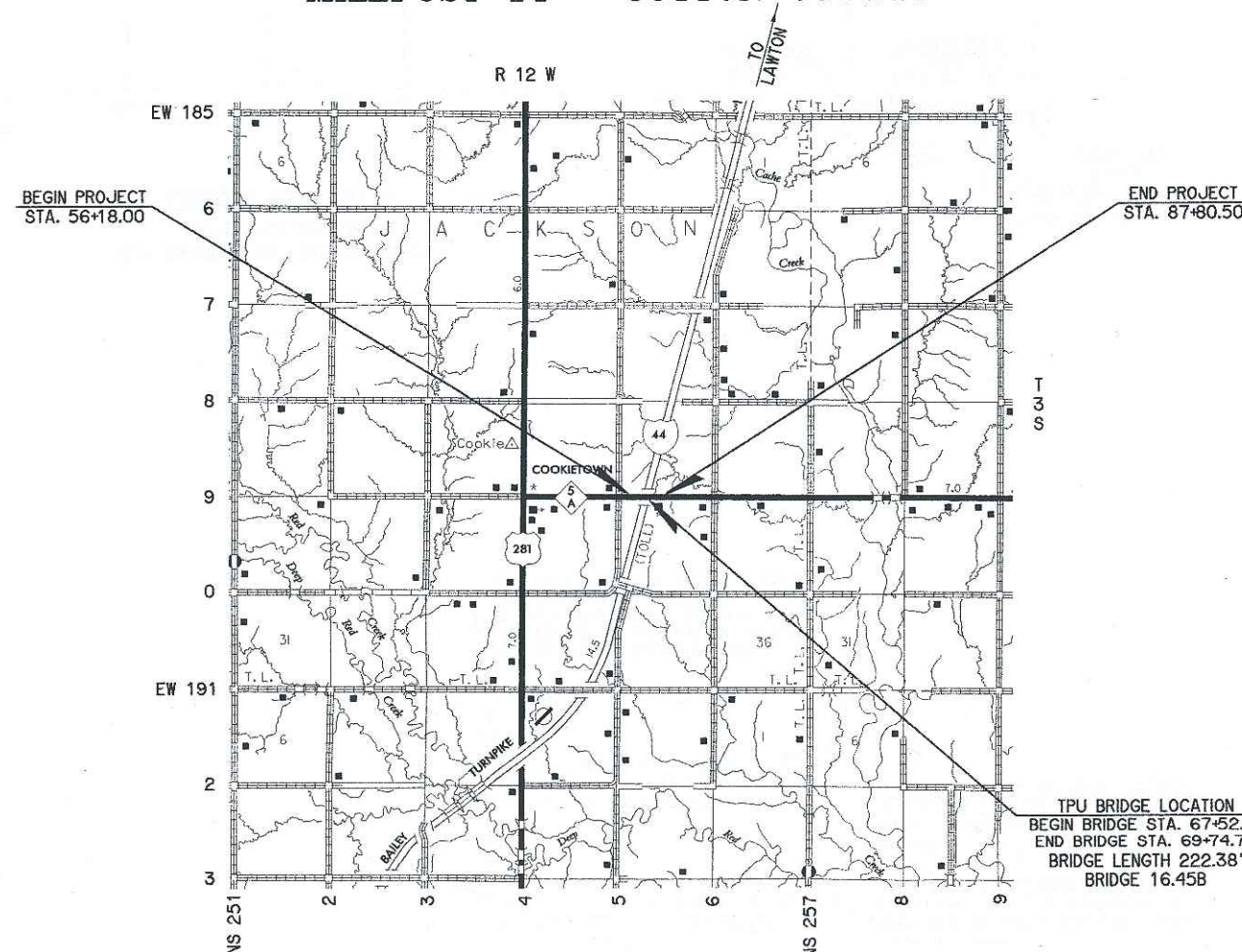
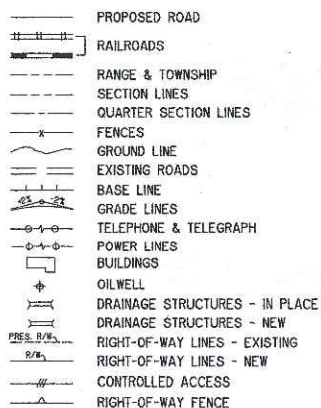


#### DESIGN DATA

AADT (2015) = 350 VPD  
AADT (2035) = 500 VPD  
V = 65 MPH  
T3 (% DHV) = 13%  
20 YR. FLEX ESALS = 0.53 M

SCALES  
PLAN 1" = 50'  
PROFILE HOR. 1" = 50'  
VER. 1" = 5'  
LAYOUT MAP 1" = 5280'

#### CONVENTIONAL SYMBOLS



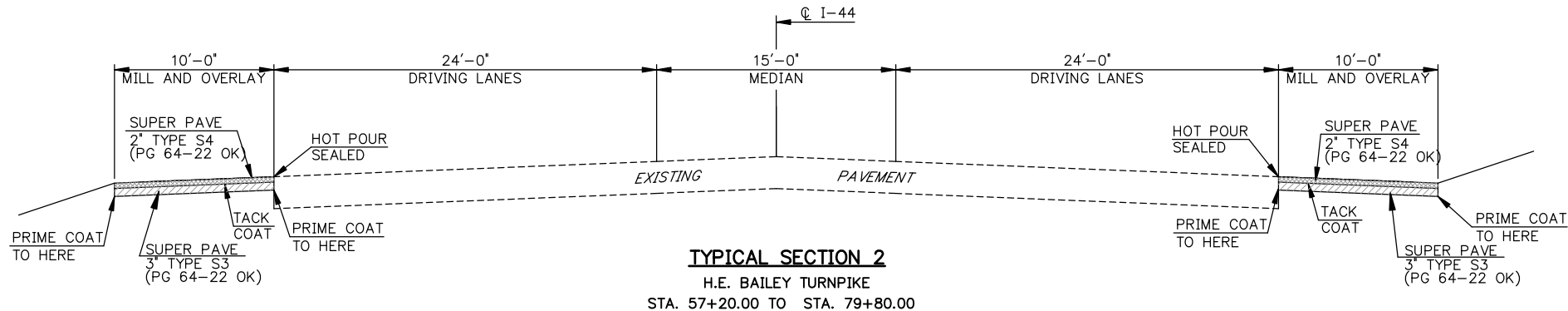
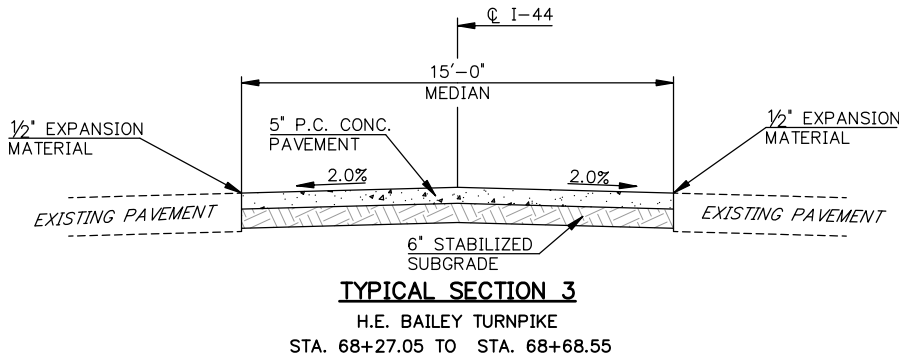
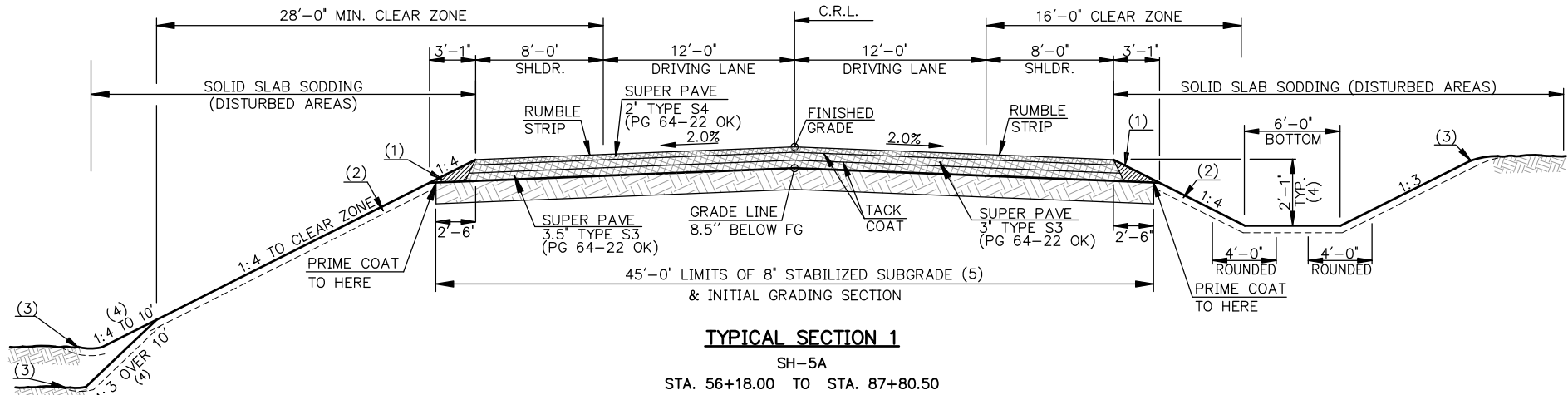
ROADWAY LENGTH ..... 2940.12 FT. .... 0.556 MI.  
BRIDGE LENGTH ..... 222.38 FT. .... 0.042 MI.  
PROJECT LENGTH ..... 0.598 MI.  
EQUATIONS ..... NONE  
EXCEPTIONS ..... NONE

THE 2010 STANDARD SPECIFICATIONS FOR TURNPIKE CONSTRUCTION GOVERN THE CONSTRUCTION OF THIS PROJECT. WHEN IN CONFLICT, SPECIAL PROVISIONS GOVERN OVER STANDARD SPECIFICATIONS.

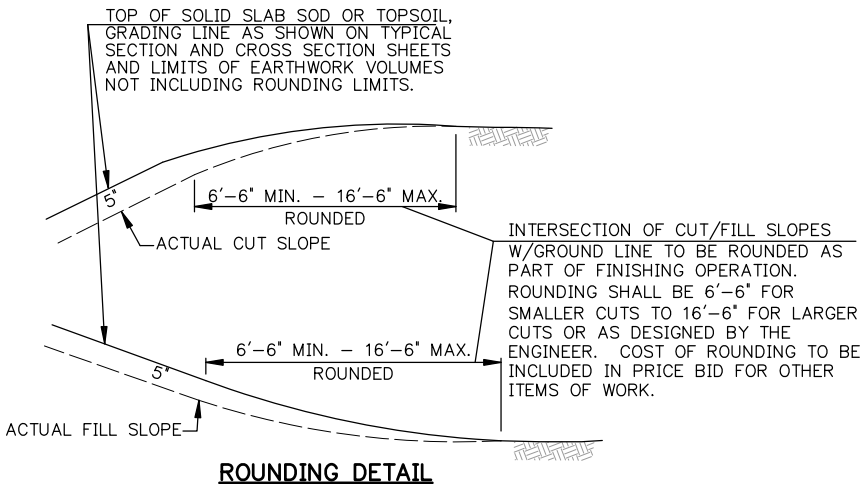
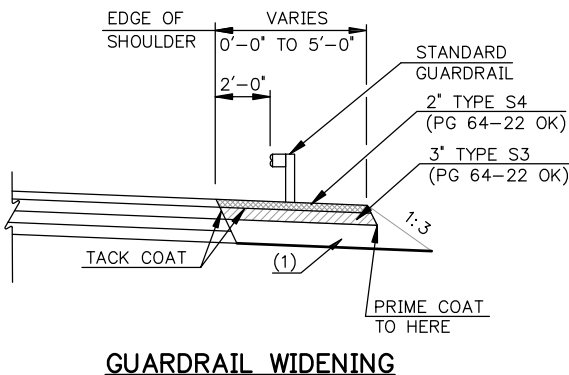


R: \\114105\Drawings\02-Typical Sections\Dustin.Heldrich 2-09-15 07:43pm

OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	02	71
NO.	REVISION			DATE



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- BACKFILL NOTE:**  
THIS AREA TO BE BACKFILLED AND COMPACTED AS A PART OF THE FINISHING OPERATIONS. COST TO BE INCLUDED IN OTHER ITEMS OF WORK..
- TOPSOIL NOTE:**  
THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCKPILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATION. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATION SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGED TOPSOIL, LUMP SUM.  
  
THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED THE MASSLINE BALANCE.
- SEE ROUNDING DETAIL THIS SHEET.
- DISTANCES ARE MEASURED VERTICALLY FROM THE EDGE OF THE FINISHED SHOULDER.
- BORROW MATERIAL HAVING SULFATE CONCENTRATIONS HIGHER THAN 500PPM SHALL NOT BE USED IN THE TOP 24" OF THE GRADING SECTION

OKLAHOMA TURNPIKE AUTHORITY			
H.E. BAILEY TURNPIKE			
PLAN SCALE	TYPICAL SECTIONS SHEET 1 OF 1		
PROFILE SCALE			
HORIZONTAL			
VERTICAL	Smith Roberts Baldischwiler, LLC		
DESIGNED: DH	CONTRACT NO. HEB-MC-54		
DRAWN: DH	DATE: 12-10-2014		
CHECKED: DH	SHEET NO. 02		

R: 1/14105\Drawings\Pay Quantities and General Notes (ROADWAY) Dustin.Heidrich 2-17-15 09:44am

H.E. BAILEY TURNPIKE BRIDGE #16.45B REPLACEMENT			HEB-MC-54	
PAY QUANTITIES				
PART A-ROADWAY				
ITEM NUMBER	DESCRIPTION		UNIT	QUANTITY
201(A)	CLEARING AND GRUBBING		LSUM	1
202(A)	UNCLASSIFIED EXCAVATION	(SP-3)	C.Y.	5,768
202(D)	UNCLASSIFIED BORROW	(SP-2) (O-1)	C.Y.	42,489
205(A)	TYPE A-SALVAGED TOPSOIL	(R-5) (R-7)	LSUM	1
221(C)	TEMPORARY SILT FENCE	(O-2)	L.F.	4,489
221(F)	TEMPORARY SILT DIKE	(O-2)	L.F.	182
229	DITCH LINER PROTECTION		L.F.	361
230(A)	SOLID SLAB SODDING	(R-7)	S.Y.	33,089
230(F)	WATERING	(R-9)	KGAL.	1,324
233(A)	VEGETATIVE MULCHING	(R-11)	AC	7
241	MOWING	(O-14)	AC	21
307(K)	STABILIZED SUBGRADE		S.Y.	14,490
402(E)	TRAFFIC BOUND SURFACE COURSE TYPE E	(R-25)	TON	70
407(B)	TACK COAT	(O-12)	GAL.	4,856
408	PRIME COAT	(R-28)	GAL.	6,831
411(B)	SUPERPAVE, TYPE S3 (PG 64-22 OK)	(R-32)	TON	5,939
411(C)	SUPERPAVE, TYPE S4 (PG 64-22 OK)	(R-32)	TON	2,188
412	COLD MILLING PAVEMENT		S.Y.	5,023
413(A)	RUMBLE STRIP-METHOD HMA-CON		L.F.	5,779
414(A)	P.C. CONCRETE PAVEMENT (PLACEMENT)		S.Y.	62
414(G)	P.C. CONCRETE FOR PAVEMENT		C.Y.	9
430	PAVEMENT SMOOTHNESS (NON-BIDDABLE)		LSUM	1
501(A)	STRUCTURAL EXCAVATION UNCLASSIFIED		C.Y.	38
509(A)	CLASS AA CONCRETE		C.Y.	62
509(B)	CLASS A CONCRETE		C.Y.	22
509(D)	CLASS C CONCRETE		C.Y.	49
511(A)	REINFORCING STEEL		LB.	13,484
613(B)	18" CORR GALV. STEEL PIPE		L.F.	70
613(M)	TYPE A6 CULVERT END TREATMENT		EA	2
619(A)	REMOVAL OF STRUCTURES & OBSTRUCTIONS	(R-48,49)	LSUM	1
619(B)	REMOVAL OF HEADWALL	(R-49)	EA	4
619(B)	REMOVAL OF FENCE	(R-49)	L.F.	3,403
619(B)	REMOVAL OF ASPHALT PAVEMENT	(R-49,50)	S.Y.	9,676
619(B)	REMOVAL OF GUARDRAIL	(R-49)	L.F.	2,737
619(B)	REMOVAL OF CONCRETE PAVEMENT	(R-49)	S.Y.	70
619(C)	SAWING PAVEMENT		L.F.	59
623(A)	BEAM GUARDRAIL W-BEAM SINGLE	(O-7)	L.F.	2,459
623(G)	GUARDRAIL END TREATMENT (31')	(O-8)	EA	4
623(I)	GUARDRAIL BRIDGE CONN-TRAIL END (31')		EA	4
624(A)	FENCE STYLE WWF	(R-52)	L.F.	557
624(C)	FENCE STYLE SWF 5BW	(R-52, 53)	L.F.	1,300
624(C)	FENCE STYLE SWF 6BW	(R-52, 53)	L.F.	1,366

H.E. BAILEY TURNPIKE BRIDGE #16.45B REPLACEMENT			HEB-MC-54	
PAY QUANTITIES				
PART A – CONSTRUCTION				
ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY	
106	QUALITY CONTROL AND ACCEPTANCE	LSUM	1	
220	SWPPP DOCUMENTATION AND MANAGEMENT	LSUM	1	
641	MOBILIZATION	LSUM	1	
642	CONSTRUCTION STAKING	LSUM	1	

H.E. BAILEY TURNPIKE BRIDGE #16.45B REPLACEMENT			HEB-MC-54	
PAY QUANTITIES				
PART B – PROJECT SITE RENTAL				
ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY	
645(A)	PROJECT SITE RENTAL	\$/PSRD	3,000	

GENERAL CONSTRUCTION NOTES

Grading & Site Work

- (G-4) FOR PROJECTS THAT INCLUDE WIDENING AND/OR RESURFACING WORK, THE CONTRACTOR SHALL SCHEDULE OPERATIONS TO MINIMIZE POTENTIAL DROP-OFF HAZARDS AND SHALL SUBMIT A SEQUENCE OF CONSTRUCTION OPERATIONS TO THE 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-1-2 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.

GENERAL CONSTRUCTION NOTES (CONTD.)

- (G-6) ALL TREES, BRUSH, AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER IS TO BE CLEANED OUT TO THE RIGHT-OF-WAY LINE, AT EACH STRUCTURE AND BRIDGE, IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK.
- (G-8) 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.
- (G-9) 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.
- (G-11) 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.
- (G-12) PRIME COAT SHALL BE APPLIED TO THE SUBGRADE IMMEDIATELY AFTER FINAL COMPACTION AND SHAPING TO RETAIN MOISTURE FOR PROPER CHEMICAL REACTION OF THE SOIL ADDITIVE.
- (G-13) THE CONTRACTOR SHALL KEEP THE OPEN TRENCH DRAINED. COST TO BE INCLUDED IN OTHER ITEMS OF WORK.
- Erosion Control**
- (G-22) VEGETATIVE MULCHING: THE VEGETATIVE MULCH SHALL BE ANCHORED IN ACCORDANCE WITH THE 'MULCHING-TILLER METHOD', AS SPECIFIED IN 233.04B(I) OF THE STANDARD SPECIFICATIONS.
- (G-28) 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.
- Surfacing**
- (G-37) T.B.S.C. SURFACES SHALL BE SPRINKLED WITH WATER AND ROLLED WITH A PNEUMATIC ROLLER IN A MANNER APPROVED BY THE ENGINEER.
- Traffic Control**
- (G-48) CONTRACTOR SHALL NOT UTILIZE EMERGENCY VEHICLE TURNAROUNDS ON THE TURNPIKE
- (G-49) TRUCK MOUNTED ATTENUATORS WILL BE USED TO PROTECT AREAS EXPOSED TO TRAFFIC WHEN SAND FILLED IMPACT ATTENUATORS OR GUARDRAIL ARE REMOVED UNLESS BARRIER IS ALREADY IN PLACE. COST TO BE INCLUDED IN OTHER ITEMS OF WORK. THE CONTRACTOR SHALL NOT LEAVE ANY EXPOSED ENDS OF STRUCTURES. FAILURE TO ADEQUATELY PROTECT THESE TRAFFIC HAZARDS WILL RESULT IN SHUTDOWN NOTICE BEING ISSUED.
- (G-51) CONTRACTOR SHALL SUBMIT A FINAL TRAFFIC CONTROL AND CONSTRUCTION PHASING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION DESCRIBING ALL WORK PHASES FOR THE CONSTRUCTION OF THE BRIDGES AND ROADWAYS AFFECTED
- Miscellaneous**
- (G-53) CONTRACTOR SHALL DOCUMENT PRE-CONSTRUCTION SITE CONDITIONS BY MEANS OF PHOTOGRAPHS AND VIDEO WITH A DESIGNATED OTA REPRESENTATIVE, BEFORE THE START OF CONSTRUCTION, COST SHALL BE CONSIDERED AS INCIDENTAL AND NO SEPARATE PAYMENT SHALL BE MADE. CONTRACTOR SHALL PROVIDE THE ENGINEER A DIGITAL COPY OF THE PHOTOGRAPHS AND VIDEO AT THE PRE-WORK MEETING.
- (G-55) CONTRACTOR SHALL PAY ALL TURNPIKE FEES. TOLL COST SHALL BE INCLUDED IN OTHER ITEMS OF WORK.
- (G-56) ALL WORK AND/OR MATERIALS NOT CLASSIFIED AS A 'CONTRACT PAY ITEM' SHALL BE CONSIDERED INCIDENTAL AND THE COST THEREOF SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS WHICH ARE CLASSIFIED FOR PAYMENT.
- (G-58D) CONSTRUCTION ACTIVITIES WILL BE PERMITTED ON SUNDAYS. WORK WILL BE ALLOWED DURING THE NIGHTTIME HOURS. REQUESTS FOR NIGHTTIME WORK MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL TWO (2) WEEKS PRIOR TO THE NIGHTTIME WORK.
- (G-59) GEOTECHNICAL SUBSURFACE INVESTIGATION REPORTS ARE AVAILABLE FOR REVIEW AT THE OFFICE OF WHITE ENGINEERING AND THE OFFICE OF THE OKLAHOMA TURNPIKE AUTHORITY IN OKLAHOMA CITY. THE REPORTS ARE FOR INFORMATIONAL PURPOSES ONLY. OTA CANNOT GUARANTEE THE ACCURACY OF THE SOIL CONDITIONS.
- (G-60) THE PRIME CONTRACTOR SHALL BE REPRESENTED ON SITE AT ALL TIMES. HE MUST BE PRESENT WHEN WORK IS BEING PERFORMED BY HIS SUBCONTRACTORS.
- (G-61) ALL FIELD MEASUREMENTS SHALL PREVAIL ON INSTALLATION AND RECORDING.

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OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY TURNPIKE				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NUMBER	TOTAL SHEETS
	HEB	HEB-MC-54	03	71
PAY ITEM NOTES				
(G-62) CONTRACTOR SHALL BE ALLOWED TO USE OTA RIGHT-OF-WAY APPROVED LOCATIONS FOR STORAGE ONE WEEK PRIOR TO BEGINNING OF WORK UNTIL THE ISSUANCE OF THE FINAL ACCEPTANCE OF ALL PUNCH LIST ITEMS. THE SITE MUST BE RESTORED TO ITS ORIGINAL CONDITION INCLUDING ALL DISASSEMBLY, REMOVAL AND SIET CLEAN UP, OF OFFICES, BUILDINGS AND OTHER FACILITIES ASSEMBLED IN THE SITE SPECIFICALLY FOR THIS CONTRACT. FAILURE TO COMPLY SHALL RESULT IN TIME CHARGES BEING RESTARTED AND ASSESSED.				
(G-63) IF THE CONTRACTOR ELECTS TO OPEN A GATE IN THE RIGHT-OF-WAY FENCE, THE GATE SHALL EITHER BE LOCKED OR MANNED AT ALL TIMES. IF THE GATE IS FOUND UNLOCKED OR UNMANNED THREE TIMES, THE GATE WILL BE PERMANENTLY LOCKED.				
(G-64) OTA RETAINS THE RIGHT TO KEEP ANY ROADS FROM THE TURNPIKE TO THE COUNTY ROADS CONSTRUCTED BY THE CONTRACTOR. ALL ACCESS ROADS SHALL BE APPROVED BY THE OTA PRIOR TO CONSTRUCTION.				
(G-65) THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY RIGHT-OF-WAY FENCE AS REQUIRED. WHEN THE PORTION OF THE PROJECT THAT REQUIRED THIS FENCE IS COMPLETED, THE TEMPORARY FENCE SHALL BE REMOVED, AND PERMANENT RIGHT-OF-WAY FENCING SHALL BE RESTORED OR INSTALLED IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.				
<b>Roadway</b>				
(G-66) ALL COLD MILLED SURFACES AND TACK COAT APPLICATIONS SHALL BE OVERLAID WITH HOT MIX ASPHALT WITHIN THE SAME WORKING PERIOD, SUCH THAT THE MAXIMUM ELEVATION DIFFERENTIAL AT THE CLOSE OF DAILY OPERATIONS IS NO MORE THAN TWO (2) INCHES				
<b>Bridge</b>				
(G-71) ALL DIMENSIONS OF THE EXISTING BRIDGE AND ROADWAYS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, BOTH SURVEYED AND AS-BUILT, NECESSARY TO CONNECT THE NEW MATERIAL AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF. REFER TO THE AS-BUILT PLANS FOR DIMENSIONS AND DETAILS NOT SHOWN IN THE PLANS.				
<b>Lane Closure/ Ramp Closure Notes</b>				
(G-72) THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR TWO (2) WEEKS PRIOR TO ALL CONSTRUCTION ACTIVITIES THAT REQUIRES A LANE/RAMP/TOLL FACILITY CLOSURE. FAILURE TO ADEQUATELY NOTIFY THE ENGINEER WILL RESULT IN A SHUTDOWN NOTICE BEING ISSUED FOR THE WORK REQUIRING THE LANE /RAMP/TOLL FACILITY CLOSURE. IF THE CONTRACTOR FAILS TO GIVE THE PRIOR NOTIFICATION, A LANE PENALTY OF \$10,000 PER HOUR PER LANE PER MILE WILL BE APPLIED UNTIL SUCH TIME AS THE CAPACITY IS RESTORED.				
(G-73) ANY DEVIATION FROM THE PLANS WITHOUT PRIOR WRITTEN NOTICE WILL RESULT IN A SHUTDOWN NOTICE.				
(G-74) MATERIAL TRANSFER VEHICLES AND TRUCKS SHALL USE INSIDE (OUTSIDE) LANES DURING CONSTRUCTION. ONLY ROLLERS AND PAVERS SHALL OPERATE IN AREAS ON PREPARED SUBGRADE (SHOULDER).				
(G-75) ALL TRASH, DEBRIS, SPOILS, ETC. SHALL BE REMOVED DAILY. CONSTRUCTION SITE SHALL BE KEPT IN A CLEAN, WORKMANLIKE MANNER DAILY AS DIRECTED BY THE ENGINEER.				
<b>TRAFFIC SURVEILLANCE POLICE</b>				
TRAFFIC SURVEILLANCE, POLICE WILL NOT BE A PART OF THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HIS ANTICIPATED WEEKLY SCHEDULE TO THE OTA ON-SITE REPRESENTATIVE ONE (1) WEEK IN ADVANCE OF THE WORK. THE WORK SCHEDULE WILL INCLUDE THE DAYS IN WHICH TRAFFIC SURVEILLANCE, POLICE IS REQUESTED AND WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. THE OTA WILL COORDINATE WITH THE OKLAHOMA HIGHWAY PATROL TO DETERMINE THE NUMBER OF OFFICERS AND SCHEDULE REQUIRED FOR THE PROJECT.				
PAY ITEM NOTES				
(O-1) INCLUDES AN ESTIMATED 558 CY TO BE USED FOR UNDERCUTTING AND BACKFILLING AREAS OF UNSUITABLE MATERIAL AS DIRECTED BY THE ENGINEER.				
(O-2) ESTIMATED QUANTITY ONLY. TO BE USED AS DIRECTED BY THE ENGINEER. PRICE BID TOR THIS ITEM SHALL INCLUDE THE COST OF SEDIMENT REMOVAL WHEN THE DEVICE IS HALF FULL, OR AS DIRECTED BY THE ENGINEER.				
(O-7) GUARDRAIL DELINEATORS SHALL BE PLACED AT 50' SPACING. GUARDRAIL DELINEATORS SHALL BE 'PEXCO I-FLEX (WHITE)' DELINEATORS OR APPROVED EQUAL.				
(O-8) THE G.E.T. GUARDRAIL END SECTIONS SHALL BE IN ACCORDANCE WITH THE STD. SKT-1-00 (LATEST REVISION). G.E.T. SYSTEM LENGTH IS 46'-10 ½'.				
(O-12) THIS ITEM INCLUDES COST TO FURNISH AND APPLY TACK COAT IN ACCORDANCE WITH STANDARD SPECIFICATION 407 BETWEEN ASPHALT LIFTS. OBTAIN APPROVAL FROM THE OSR OF THE CLEANLINESS OF ALL MILLED SURFACES BEFORE APPLYING THE TACK COAT.				
(O-14) MOWING SHALL BE IN TWO CYCLES, APPROXIMATELY MIDWAY THROUGH THE PROJECT AND AT LEAST WITHIN ONE WEEK PRIOR TO FINAL INSPECTION OR UPON DISCRETION OF THE ENGINEER.				
(R-5) AN ESTIMATED QUANTITY OF 522 C.Y. TOPSOIL TO BE RESERVED FOR REPLACEMENT OF APPROXIMATELY 5' ON COMPLETED FORESLOPES, DITCHES, AND BACKSLOPES. THIS QUANTITY IS INCLUDED IN THE EARTHWORK BALANCE. ANY ADDITIONAL EXCAVATION REQUIRED IN CUT SECTIONS TO ALLOW FOR PLACEMENT OF TOPSOIL TO FINAL GRADE, SHALL BE INCLUDED IN THE PRICE BID.				
(R-7) FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF 10-20-10 FERTILIZER, ESTIMATED AT 200 POUNDS PER 1000 SQ. YDS. FOR TYPE A SALVAGED TOPSOIL, PRICE BID TO INCLUDE COST OF 18-46-0 FERTILIZER, ESTIMATED AT 150 POUNDS PER ACRE.				
(R-9) ESTIMATED AT 40 GALLONS PER SQ. YD. OF SODDING AND/OR SPRIGGING.				
(R-11) THE QUANTITIES ESTIMATED FOR TEMPORARY EROSION AND SEDIMENT CONTROL IS 7 ACRES.				
(R-25) ESTIMATED AT 120 LBS. PER CU. FT.				
(R-28) PRIME COAT SHALL BE APPLIED AT AN ESTIMATED RATE OF 0.35 GAL. PER SQ. YD. WHEN APPLIED TO SUBGRADE, AND 0.25 GAL. PER SQ. YD. WHEN APPLIED TO AGGREGATE BASE. THE ACTUAL CUTBACK PRIME COAT REQUIRED FOR PLACEMENT OPERATIONS WILL BE DETERMINED BY THE CONTRACTOR, AND SHALL CONSIDER THE RESIDUE FROM DISTILLATION PERCENTAGE SHOWN IN SECTION 708.03 OF THE STANDARD SPECIFICATIONS.				
(R-32) ESTIMATED AT 112 LBS. PER SQ. YD. PER 1' THICK.				
(R-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.				
(R-52) INCLUDE 2% FOR GROUND MEASURMENT.				
(R-53) ALL GATES AND GATE END POSTS FOR STRANDED WIRE FENCE (SWF) SHALL BE CONSTRUCTED AT THE SAME WIDTH AS THE EXISTING, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.				
SPECIAL NOTES				
(SP-1) 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 FACILITIES. ANY DAMAGE TO THE EXISTING REMAINING IN PLACE DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER.				
(SP-2) BORROW SOILS SHALL BE FREE OF ORGANIC AND OTHER DELETERIOUS MATERIALS. THE SOILS MAPPED WITHIN CLOSE PROXIMITY TO THE PROJECT TYPICALLY HAVE ORGANIC SURFACE LAYERS EXTENDING TO DEPTHS DOWN TO 9 INCHES. THESE LAYERS MUST NOT BE INCLUDED IN THE BORROW SOILS FOR THE ROADWAY EMBANKMENT. THEY MUST BE REMOVED AND STOCKPILED SEPARATELY FROM THE APPROVED BORROW. ALL BORROW SOURCES MUST BE APPROVED BY THE ENGINEER PRIOR TO USE ON THE PROJECT.				
(SP-3) THE SOILS MAPPED WITHIN CLOSE PROXIMITY TO THE PROJECT TYPICALLY HAVE ORGANIC SURFACE LAYERS EXTENDING TO DEPTHS DOWN TO 9 INCHES. THESE LAYERS MUST NOT BE INCLUDED IN THE UNCLASSIFIED EXCAVATION FOR USE IN THE ROADWAY GRADING AREA.				
OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY TURNPIKE				
PLAN SCALE N/A	PAY ITEMS AND GENERAL NOTES (ROADWAY)			
PROFILE SCALE HORIZONTAL				
VERTICAL	Smith Roberts Baldischwiler, LLC			SECTION
DESIGNED: DH	CONTRACT NO. HEB-MC-54			
DRAWN: DH	DATE: 02-09-2015			
CHECKED: DH	SHEET NO. 03			







GENERAL BRIDGE NOTES

SPECIFICATIONS -

COMPLY WITH THE REQUIREMENTS OF THE 2010 OKLAHOMA STANDARD SPECIFICATIONS FOR TURNPIKE CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

ALL DIMENSIONS OF THE EXISTING BRIDGE AND ROADWAYS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, BOTH SURVEYED AND AS-BUILT, NECESSARY TO CONNECT THE NEW MATERIAL AND SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY THEREOF. REFER TO THE AS-BUILT PLANS FOR DIMENSIONS AND DETAILS NOT SHOWN IN THE PLANS.

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 FACILITIES. ANY DAMAGE TO THE EXISTING REMAINING IN PLACE DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER. AS-BUILT PLANS FOR THE BRIDGE CAN BE REFERENCED FROM OTA'S FTP SITE: [FTP://FTP.PIKEPASS.COM/ORIGINALCONSTRUCTION CONTRACTS/HEBAILEY/CONT18\(3\)BRIDGES-TPU16.45B](ftp://ftp.pikepass.com/originalconstruction/contracts/hebailey/CONT18(3)BRIDGES-TPU16.45B)

REMOVAL OF EXISTING BRIDGE NO. 16.45B -

ITEM "REMOVAL OF EXISTING BRIDGE STRUCTURE" CONSISTS OF REMOVAL AND DISPOSAL OF A 37.5'-44'-44'-37.75' STEEL I-BEAM STRUCTURE x 28'-0" CLEAR ROADWAY WIDTH.

THE REMOVAL OF THE EXISTING STRUCTURE SHALL BE IN ACCORDANCE WITH SECTION 619.04.B.2 OF THE STANDARD SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER. THE SALVAGED SUPERSTRUCTURE BEAMS FROM THE EXISTING BRIDGE WILL BECOME THE PROPERTY OF THE CONTRACTOR.

THE EXISTING STRUCTURAL STEEL MAY CONTAIN LEAD-BASED PAINT. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS AND FOLLOW ALL SPECIFICATIONS AND REGULATIONS IN HANDLING AND TRANSPORTING LEAD-BASE PAINT.

THE CONTRACTOR SHALL REMOVE THE EXISTING BARRIER WALL, ABUTMENTS, SLOPE WALLS, PIER CAPS AND COLUMNS TO THE TOP OF THE SPREAD FOOTINGS.

PRIOR TO REMOVAL OF EXISTING BRIDGE, THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER THAT ALL UTILITIES HAVE BEEN REMOVED FROM EXISTING BRIDGE.

PILE DRIVING EQUIPMENT-

USE A PILE DRIVING HAMMER OF THE SIZE AND TYPE CAPABLE OF CONSISTENTLY DELIVERING THE EFFECTIVE DYNAMIC ENERGY TO DRIVE THE PILES TO THE REQUIRED TIP ELEVATION AND TO ACHIEVE AN AXIAL LOAD RESISTANCE EQUAL TO OR GREATER THAN THE FACTORED PILE REACTION WITHOUT EXCEEDING THE LIMITATIONS SET ON THE ALLOWABLE DRIVING STRESSES IN ACCORDANCE WITH SUBSECTION 514.03.A.(2) OF THE SPECIFICATIONS.

ABUTMENT PILING -

PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M270 (GRADE 50) FOR STEEL PILING.

ABUTMENT PILE CAPACITY -

THE FACTORED REACTION FOR EACH HP 12x53 PILE AT THE ABUTMENTS IS 113.0 TONS. THE FOLLOWING FORMULA (GATES EQUATION) SHALL BE USED TO DETERMINE THE AXIAL LOAD RESISTANCE OF THE DRIVEN FOUNDATION PILES:

AXIAL LOAD RESISTANCE = PHI \* [SQRT (E) \* 0.875 \* LG (10 \* N) - 50] (TONS)  
WHERE: PHI = 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.  
SQRT = SQUARE ROOT  
LG = LOGARITHM TO THE BASE 10

THE ABOVE FORMULA IS ONLY APPLICABLE WHEN CERTAIN CONDITIONS APPLY: 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.

DRILLED SHAFTS -

THE CASING METHODS, OUTLINED IN SECTION 516.04.C.1.C OF THE STANDARD SPECIFICATIONS, MAY BE REQUIRED TO ADVANCE THE DRILLED SHAFT TO THE FINAL BEARING ELEVATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SELECT THE PROPER METHODS REQUIRED TO INSTALL THE DRILLED SHAFTS.

CONCRETE -

ALL CONCRETE SHALL BE PLACED IN THE DRY. ALL EXPOSED EDGES SHALL HAVE A ¾" CHAMFER UNLESS NOTED OR SHOWN ON THE PLANS. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER. ALL CLASS A AND CLASS AA CONCRETE SHALL BE AIR-ENTRAINED.

ALL CONCRETE IN THE SUPERSTRUCTURE, APPROACH SLABS & CONCRETE PARAPET SHALL BE CLASS "AA" CONCRETE, F'C = 4,000 P.S.I. MINIMUM STRENGTH AT 28 DAYS. ALL CONCRETE IN THE SUBSTRUCTURE SHALL BE CLASS "A" CONCRETE, F'C = 3,000 P.S.I. MINIMUM STRENGTH AT 28 DAYS. ALL CONCRETE IN THE DRILLED SHAFTS SHALL BE CLASS "AA" CONCRETE, F'C = 4,000 P.S.I. MINIMUM STRENGTH AT 28 DAYS.

CONCRETE SURFACES UNDER ALL BEAM SUPPORT (BEARING ASSEMBLIES) SHALL BE GROUND WITH A CARBORUNDUM BRICK BEFORE PLACEMENT OF BEARING ASSEMBLY TO SECURE FULL BEARING OF ASSEMBLY ON CONCRETE. BEFORE BEARING ASSEMBLIES ARE SET, THE CONTRACTOR WILL CHECK BEARING SURFACES WITH REGARD TO LEVELNESS. THE MAXIMUM PERMISSIBLE SLOPE SHALL BE 0.5%, WHICH SHOULD BE CHECKED ALONG AN AXIS PERPENDICULAR AND PARALLEL TO THE BEAM LINE. SLOPES EXCEEDING 0.5% SHALL BE CORRECTED IN A MANNER APPROVED BY THE ENGINEER.

WHEN VIBRATING CONCRETE CONTAINING EPOXY COATED REINFORCING STEEL, THE VIBRATOR SHALL BE DESIGNED FOR USE WITH EPOXY COATED REINFORCING STEEL.

STRUCTURAL STEEL -

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

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

PROVIDE STRUCTURAL STEEL FOR ANCHOR PLATES, CONTACT PLATES, AND BUILT-UP CONTACT ANGLES IN ACCORDANCE WITH ASTM A240 (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). FOR ANCHOR BOLTS, PROVIDE CONTINUOUSLY THREADED BARS IN ACCORDANCE WITH ASTM A320, CLASS 2, GRADE 88M (AUSTENITIC STAINLESS STEEL, TYPE 316, CHARPY V-NOTCH TESTING NOT REQUIRED). USE AUSTENITIC STAINLESS STEEL NUTS AND WASHERS CONFORMING TO ASTM A194, GRADE 8M AND ASTM A320, RESPECTIVELY. PERFORM ALL WELDING CONSISTENT WITH PROCEDURES FOR STAINLESS STEEL.

REINFORCING -

ALL REINFORCING STEEL SHALL HAVE 2" CLEARANCE UNLESS SHOWN OR NOTED OTHERWISE. ALL REINFORCING STEEL SHALL BE DEFORMED BARS, COLD BENT WITH NO WELDS. BAR BEND DIMENSIONS ARE OUT TO OUT, UNLESS NOTED OTHERWISE. UNLESS OTHERWISE SPECIFIED IN THE CONCRETE DOCUMENTS, ALL REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM A615), GRADE 60.

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

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

(SP) FIXED BEARING ASSEMBLIES -

PROVIDE AND INSTALL FIXED BEARING ASSEMBLIES OF THE SIZE, SHAPE AND LOCATION AS SPECIFIED OR AS SHOWN IN THE PLANS.

ALL COST OF PROVIDING AND INSTALLING THE FIXED BEARING ASSEMBLIES AS SPECIFIED OR AS SHOWN IN THE PLANS INCLUDING THE COST OF STEEL REINFORCED ELASTOMERIC BEARING PADS, ANCHOR PLATES, BUILT-UP CONTACT ANGLES, ANCHOR BOLTS, NUTS, WASHERS, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER EACH OF "STAINLESS STEEL FIXED BEARING ASSEMBLY".

(SP) EXPANSION BEARING ASSEMBLIES -

PROVIDE AND INSTALL EXPANSION BEARING ASSEMBLIES OF THE SIZE, SHAPE AND LOCATION AS SPECIFIED OR AS SHOWN IN THE PLANS.

ALL COST OF PROVIDING AND INSTALLING THE EXPANSION BEARING ASSEMBLIES AS SPECIFIED OR AS SHOWN IN THE PLANS INCLUDING THE COST OF STEEL REINFORCED ELASTOMERIC BEARING PADS, ANCHOR PLATES, BUILT-UP CONTACT ANGLES, ANCHOR BOLTS, NUTS, WASHERS, MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER EACH OF "STAINLESS STEEL EXPANSION BEARING ASSEMBLY".

CONCRETE INTERMEDIATE DIAPHRAGMS -

ONCE THE CONCRETE HAS BEEN PLACED FOR THE CONCRETE INTERMEDIATE DIAPHRAGMS, WAIT A MINIMUM OF 24 HOURS BEFORE REMOVING THE SIDE FORMS. DO NOT REMOVE THE BOTTOM FORM FOR A MINIMUM OF 3 DAYS, OR AT THE DISCRETION OF THE ENGINEER. THIS TIME CAN BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH. DO NOT PLACE THE CONCRETE FOR THE DECK SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE CONCRETE IN THE DIAPHRAGMS HAS BEEN IN PLACE FOR A MINIMUM OF 10 DAYS, OR AT THE DISCRETION OF THE ENGINEER. THIS TIME MAY BE SHORTENED IF THE CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH.

EXPANSION JOINTS -

THE EXPANSION JOINT LOCATED AT THE PIER SHALL BE CONSTRUCTED AS SHOWN IN THE PLANS AND IN A MANNER APPROVED BY THE ENGINEER.

ALL COSTS INCLUDING THE COST OF MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED OR SHOWN IN THE PLANS SHALL BE INCLUDED IN THE PRICE BID PER LINER FOOT OF "SEALED EXPANSION JOINTS".

CONCRETE DECK SLAB PLACEMENT -

EPOXY-COAT OR GALVANIZE STEEL ITEMS USED TO FACILITATE CONSTRUCTION, SUCH AS DECK FORM HANGERS, TY-BAR CLIPS, INSERT WELD ANCHORS, OR OTHER APPURTENANCES, THAT WILL REMAIN IN PLACE IN THE DECK SLAB. EPOXY-COAT IN ACCORDANCE WITH AASHTO M284 OR GALVANIZE IN ACCORDANCE WITH AASHTO M111.

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

SEAL ALL DECK SLAB CONSTRUCTION JOINTS WITH HIGH MOLECULAR WEIGHT METHACRYLATE IN ACCORDANCE WITH SECTION 523 OF THE SPECIFICATIONS. INCLUDE ALL COST OF EQUIPMENT AND LABOR FOR THE INSTALLATION OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER IN THE CONTRACT UNIT PRICE OF "SEALER CRACK PREPARATION". INCLUDE ALL COST OF THE HIGH MOLECULAR WEIGHT METHACRYLATE SEALER IN THE CONTRACT UNIT PRICE OF "SEALER RESIN". THE AUTHORITY WILL NOT MEASURE THE PREPARATION AND SEALER OF EMERGENCY CONSTRUCTION JOINTS FOR PAYMENT.

CONCRETE DECK FINISHING -

THE BRIDGE DECK FOR THIS PROJECT IS TO BE FINISHED WITH A MECHANICAL TYPE FINISHING MACHINE. OVERHANGING SLAB FORMS WILL BE REQUIRED TO BE OF SUFFICIENT STRENGTH TO SUPPORT THE WEIGHT OF THE CONCRETE, FORMS, FINISHING MACHINE AND OTHER CONSTRUCTION LOADS. PRIOR TO FINISHING OPERATIONS, A PROPOSAL STIPULATING THE TYPE OF FINISHING MACHINE AND THE FINISHING PROCEDURE WILL BE SUBMITTED TO THE ENGINEER. THIS PROPOSAL SHALL SET FORTH ANY AREAS IN WHICH A MECHANICAL FINISHER CANNOT BE USED AND THE METHODS FOR FINISHING THESE AREAS. CONCRETE SHALL NOT BE PLACED UNTIL THIS PROPOSAL IS APPROVED BY THE ENGINEER.

DO NOT SAW-CUT GROOVE THE DECK SLAB WITHIN 6" OF ANY CONSTRUCTION JOINT.

STAY-IN-PLACE DECK FORMS -

STAY-IN-PLACE DECK FORMS ARE NOT PERMITTED ON THIS PROJECT.

DECK HAUNCHES -

PLAN QUANTITY FOR CLASS AA CONCRETE INCLUDES 16.9 CUBIC YARDS FOR THE HAUNCHES OVER THE BEAMS AND DIAPHRAGMS. THE HAUNCH HEIGHTS WILL BE CALCULATED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER TO PROVIDE FOR DEAD LOAD DEFLECTION AND BEAM CAMBER.

APPROACH SLAB -

ALL COSTS OF CONCRETE, REINFORCING STEEL, LONGITUDINAL CONSTRUCTION JOINT SEALANT, SAWED AND SEALED CONSTRUCTION JOINT BETWEEN NEW DECK AND APPROACH SLAB, SAWING OF JOINTS, EXCAVATION, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "APPROACH SLAB".

CONCRETE SLOPE WALL -

ITEM "SLOPE WALL (5'")" SHALL BE COMPLETED IN PLACE AS SHOWN IN THE PLANS.

ALL COSTS OF THE "SLOPE WALL (5'")" INSTALLATION INCLUDING CLASS A CONCRETE, REINFORCING STEEL, LAP SPLICES, TRENCH EXCAVATION, BACKER ROD, RAPID CURE JOINT SEALANT, POLYSTYRENE, LABOR, EQUIPMENT AND OTHER INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "SLOPE WALL (5'")".

NOT FOR CONSTRUCTION

Preliminary plan sheets are for information purposes only. The preliminary plans should not be used as a basis for bid. The Contractor should order the official plans from the Engineer of Record to ensure that any Addendums are properly distributed.

PENETRATING WATER REPELLENT SURFACE TREATMENT -

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

- (A) EDGES AND UNDERSIDE CANTILEVER PORTION OF THE BRIDGE DECK
  - (B) THE OUTER FACE AND BOTTOM OF THE EXTERIOR P.C. BEAMS
  - (C) THE ROADWAY FACE AND TOP OF THE CONCRETE PARAPET
  - (D) SIDES AND ENDS OF PIER CAP NOT TREATED WITH SPECIAL CONCRETE FINISH
  - (E) FRONT, SIDES AND EXPOSED AREAS OF ABUTMENT BACKWALL NOT TREATED WITH SPECIAL CONCRETE FINISH
- ALL COSTS ASSOCIATED WITH USE OF PENETRATING WATER REPELLENT SURFACE TREATMENT INCLUDING THE COST OF MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER SQUARE YARD OF "WATER REPELLENT (VISUALLY INSPECTED)".

NON-PERFORATED PIPE UNDERDRAIN -

ITEM "6" NON-PERFORATED PIPE UNDERDRAIN - ROUND" INCLUDES 22 FEET OF NON-PERF. PIPE, 6.2 C.Y. OF TRENCH EXCAVATION AND 0.6 C.Y. OF STANDARD BEDDING MATERIAL FOR ABUTMENT NO. 1 AND 25 FEET OF NON-PERF. PIPE, 6.9 C.Y. OF TRENCH EXCAVATION AND 0.6 C.Y. OF STANDARD BEDDING MATERIAL FOR ABUTMENT NO. 2. THE INSTALLATION OF THE NON-PERFORATED PIPE SHALL BE AS SHOWN ON SHEET NO. 22.

ITEM "6" NON-PERFORATED PIPE UNDERDRAIN - ROUND" INCLUDES 30 FEET OF NON-PERF. PIPE AT SLOPE WALL NO. 1 AND 30 FEET OF NON-PERF. PIPE AT SLOPE WALL NO. 2. THE INSTALLATION OF THE NON-PERFORATED PIPE SHALL BE AS SHOWN ON SHEET NO. 35 & 36.

ALL COSTS OF THE NON-PERFORATED PIPE UNDERDRAIN INSTALLATION INCLUDING BACKFILLING, MATERIAL, LABOR, EQUIPMENT AND INCIDENTS SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "6" NON-PERF. PIPE UNDERDRAIN - RND".

PERFORATED PIPE UNDERDRAIN -

ITEM "6" PERFORATED PIPE UNDERDRAIN - ROUND" INCLUDES 43 FEET OF PERFORATED PIPE, 5.0 C.Y. OF FILTER SAND AND 1.3 C.Y. OF COARSE MATERIAL, AND 24.8 S.Y. OF FILTER FABRIC FOR EACH ABUTMENT. THE INSTALLATION OF THE PERFORATED PIPE AND PIPE UNDERDRAIN COVER MATERIAL SHALL BE AS SHOWN ON SHEET NO. 22.

ALL COSTS OF TRENCH EXCAVATION, INCLUDING FILTER SAND, COARSE MATERIAL, BEDDING MATERIAL AND FILTER FABRIC, SHALL BE INCLUDED IN THE PRICE BID PER C.Y. OF "SUBSTRUCTURE EXCAVATION COMMON".

ITEM "6" PERFORATED PIPE UNDERDRAIN - ROUND" INCLUDES 69 FEET OF PERFORATED PIPE AT EACH SLOPE WALL. THE INSTALLATION OF THE PERFORATED PIPE SHALL BE AS SHOWN ON SHEET NO. 35 & 36.

ALL COSTS OF THE PERFORATED PIPE UNDERDRAIN INSTALLATION INCLUDING LABOR, EQUIPMENT AND INCIDENTS SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "6" PERFORATED PIPE UNDERDRAIN - RND".

DRAINS AT END OF BRIDGE -

THERE ARE 25.8 C.Y. OF CLASS C CONCRETE REQUIRED TO CONSTRUCT THE SLOPE DRAINS AND SPLASH BASINS AT THE ENDS OF THE BRIDGE. ALL COSTS OF THE SLOPE DRAINS AND SPLASH BASINS INCLUDING MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN IN THE PLANS SHALL BE INCLUDED IN THE PRICE BID PER C.Y. OF "CLASS C CONCRETE".

(SP) SPECIAL CONCRETE FINISH -

THE SPECIAL CONCRETE FINISH SHALL BE A LIQUID APPLIED URETHANE COATING SUCH AS CIM 1000 AS MANUFACTURED BY CIM INDUSTRIES, INC., IM-129 AS MANUFACTURED BY CUSTOM LININGS, OR AN APPROVED EQUAL. PRODUCT INFORMATION FOR CIM 1000 CAN BE OBTAINED FROM LASTER CASTOR CORP. OF TULSA, OKLAHOMA, PHONE NUMBER 918-234-7777. PRODUCT INFORMATION FOR IM-129 AN BE OBTAINED FROM CUSTOM LININGS, PHONE NUMBER 719-395-4414.

THE EQUIPMENT AND METHODS OF APPLYING THE URETHANE COATING SHALL BE IN ACCORDANCE WITH THE PRODUCT COATING PROFILE AND INSTRUCTION GUIDES FOR APPLICATION TO CONCRETE. PRECAUTIONARY MEASURES SHALL BE IN ACCORDANCE WITH THE MATERIAL SAFETY DATA SHEETS AS PROVIDED BY THE MANUFACTURER.

THE COATING SHALL BE 60 MILS DRY THICKNESS AND 68 MILS WET THICKNESS. IN ADDITION TO APPLYING THE COATING TO THE CONCRETE SUBSTRUCTURE UNITS AS SHOWN IN THE PLANS, THE COATING SHALL RETURN UP THE VERTICAL SURFACES OF THE PIER AND ABUTMENT BEARING PADS TO PROVIDE A WATER TIGHT SEAL WITH THE CONCRETE PEDESTALS. SURFACE PREPARATION AND PRODUCT MIXING SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS AND ALL NEW CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3,000 P.S.I. AT THE TIME OF APPLICATION. PRIMER SHALL BE APPLIED TO THE CONCRETE SURFACES PRIOR TO APPLYING THE COATING. ALL CONCRETE WORK SHALL BE COMPLETED PRIOR TO THE APPLICATION OF THE SPECIAL CONCRETE FINISH.

WATER REPELLENT WILL NOT BE REQUIRED ON SURFACES THAT ARE COATED WITH SPECIAL CONCRETE FINISH. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID PER S.Y. OF "(SP) SPECIAL CONCRETE FINISH", WHICH PRICE SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED.

SPECIAL ENVIRONMENTAL NOTES FOR BRIDGE NO. 16.45B -

SWALLOW PLAN NOTE FOR BRIDGE REPLACEMENT PROJECTS: CLIFF SWALLOWS AND BARN SWALLOWS ARE SMALL COLONIAL NESTING BIRDS PROTECTED BY THE FEDERAL MIGRATORY BIRD TREATY ACT. THESE SPECIES COMMONLY USE BRIDGES AND CULVERTS FOR NESTING. THE NESTING SEASON FOR THE SWALLOWS 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. SWALLOW USE OF BRIDGE B16.45 WAS NOT OBSERVED DURING THE INITIAL SURVEYS. SWALLOWS MAY OCCUPY THE BRIDGE IN THE FUTURE NESTING SEASONS. THE 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.

OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	5	71
DESCRIPTION			REVISIONS	DATE

NO.	REVISION			BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE					
PLAN SCALE		S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.45B			
PROFILE SCALE HORIZONTAL		BRIDGE GENERAL NOTES			
VERTICAL		WHITE ENGINEERING ASSOCIATES, INC.			SECTION
		5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702			
DESIGNED		CONTRACT NO.		HEB-MC-54	
DRAWN	DRB	DATE		SHEET 5 OF 71	
CHECKED	ADT				



OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	6	71
DESCRIPTION			REVISIONS	
			DATE	

PAY ITEM NOTES

- (BR-1) PAYMENT FOR THIS ITEM WILL BE BASED ON THE PLAN QUANTITIES ONLY. SEE SECTION 109.01.B OF THE 2010 STANDARD SPECIFICATIONS.
- (BR-2) THE CONTRACTOR MAY PLACE CONCRETE AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE SUBSTRUCTURE AND APPROVED BY THE ENGINEER. IF NECESSARY, USE FORMS AT VERTICAL FACES AND REMOVE THE FORMS AFTER CONCRETE HARDENS. THE MEASUREMENT AND PAYMENT FOR SUBSTRUCTURE EXCAVATION COMMON IS IN ACCORDANCE WITH THE DIAGRAMS SHOWN IN THE PLANS.
- (BR-3) THE APPROACH SLABS CONTAIN AN ESTIMATED TOTAL OF 103.6 C.Y. OF CLASS AA CONCRETE AND 20,240 LB. OF EPOXY COATED REINFORCING STEEL. INCLUDED IN THE PRICE BID FOR PAY ITEM "APPROACH SLAB" IS ALSO THE COSTS OF CONSTRUCTION JOINT SEALANT, SAWED AND SEALED CONSTRUCTION JOINT BETWEEN NEW DECK AND APPROACH SLAB, SAWING OF JOINTS, EXCAVATION, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE CONSTRUCTION OF THE APPROACH SLABS.
- (BR-4) THE FIXED BEARING ASSEMBLIES CONTAIN AN ESTIMATED TOTAL OF 1,940 LB. OF STAINLESS STEEL.
- (BR-5) THE EXPANSION BEARING ASSEMBLIES CONTAIN AN ESTIMATED TOTAL OF 1.940 LB. OF STAINLESS STEEL.
- (BR-6) INCLUDED IN THE QUANTITY FOR "CLASS AA CONCRETE" ARE 8.5 C.Y. FOR BEAM HAUNCHES.
- (BR-7) PAYMENT TO THE CONTRACTOR WILL BE BASED ON PLAN QUANTITIES UNLESS ADDITIONAL PILING LENGTH IS REQUIRED. ADDITIONAL PILES, FURNISHED, AS AUTHORIZED BY THE ENGINEER, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE.
- (BR-8) STEEL PILES SHALL BE ENCASED IN REINFORCED CONCRETE 4'-0" BELOW THE BOTTOM OF THE ABUTMENT SEAT AND WINGS AS SHOWN ON HP1-2. ENCASEMENT CONSTRUCTION WILL REQUIRE SUBSTRUCTURE EXCAVATION COMMON, CLASS A CONCRETE AND REINFORCING STEEL.
- (BR-9) PAYMENT FOR THIS ITEM INCLUDES THE RODENT SCREENS AS SHOWN ON STANDARD DRAWING PED-3-2.
- (O-4) SPECIAL CONCRETE FINISH SHALL BE CIM 1000, OR APPROVED EQUAL. THIS ITEM SHALL BE APPLIED TO ALL ABUTMENTS AND PIER AS DIRECTED IN THE PLANS. EDGES OF THE SPECIAL CONCRETE FINISH SHALL BE MASKED WITH TAPE PRIOR TO APPLICATION TO ENSURE CLEAN STRAIGHT LINES ARE OBTAINED. ANY AREAS CONTAINING SPECIAL CONCRETE FINISH OUTSIDE OF THE AREAS AS INDICATED IN THE PLANS SHALL BE CLEANED TO THE SATISFACTION OF THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
- (O-5) LINEAR FOOT BID PRICE TO INCLUDE COST OF TRENCH EXCAVATION, BEDDING MATERIALS, AND SEPARATOR FABRIC.

PART A - BRIDGE			
PAY QUANTITIES			
S.H. 5A OVER H.E. BAILEY TURNPIKE, BRIDGE NO. 16.45B 110' - 110' TYPE IV P.C.B. SPANS 40' CLEAR ROADWAY WITH 42" F-SHAPED PARAPETS 14° 34' 48.67" SKEW LT. FORWARD, @ STA. 68+63.60			
ITEM NO.	ITEM	UNIT	TOTAL
501(B)	SUBSTRUCTURE EXCAVATION COMMON (BR-1, 2)	C.Y.	210
501(G)	CLSM BACKFILL (BR-1)	C.Y.	290
503(A)	PRESTRESSED CONCRETE BEAMS (TYPE IV) (BR-1)	L.F.	1,097
504(A)	APPROACH SLAB (BR-1, 3)	S.Y.	286.6
504(B)	SAW-CUT GROOVING (BR-1)	S.Y.	1,255.0
504(C)	SEALED EXPANSION JOINT (BR-1)	L.F.	42.3
504(E)	42" F-SHAPED PARAPET (BR-1)	L.F.	564.4
506(A)	STRUCTURAL STEEL (BR-1)	LB.	1,030
507(A)	(SP) STAINLESS STEEL FIXED BEARING ASSEMBLY (BR-1, 4)	EA.	10
507(B)	(SP) STAINLESS STEEL EXPANSION BEARING ASSEMBLY (BR-1, 5)	EA.	10
509	(SP) SPECIAL CONCRETE FINISH (BR-1)(O-4)	S.Y.	83.0
509(A)	CLASS AA CONCRETE (BR-1, 6)	C.Y.	259.5
509(B)	CLASS A CONCRETE (BR-1)	C.Y.	192.6
509(D)	CLASS C CONCRETE	C.Y.	25.8
510(C)	SLOPE WALL (5") (BR-1)	S.Y.	1,121
511(B)	EPOXY COATED REINFORCING STEEL (BR-1)	LB.	91,900
514(A)	PILES, FURNISHED (HP12x53) (BR-7)	L.F.	924
514(B)	PILES, DRIVEN (HP12x53) (BR-8)	L.F.	924
514(L)	PILE SPLICE, H-PILE (NON-BIDDABLE)	EA.	1
515(A)	WATER REPELLENT (VISUALLY INSPECTED) (BR-1)	S.Y.	920
516(A)	DRILLED SHAFTS 60" DIAMETER	L.F.	104
516(C)	CROSSHOLE SONIC LOGGING (BR-1)	EA.	1
613(H)	6" PERFORATED PIPE UNDERDRAIN ROUND (BR-1)(O-5)	L.F.	224
613(I)	6" NON-PERF. PIPE UNDERDRAIN ROUND (O-5)(BR-9)	L.F.	107
613(Q)	OUTLET LATERAL HEADWALL	EA.	2
619(D)	REMOVAL OF EXISTING BRIDGE STRUCTURE	L.SUM	1

NOT FOR CONSTRUCTION  
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NO.	REVISION				BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE						
PLAN SCALE		S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.45B				
PROFILE SCALE		SUMMARY OF BRIDGE PAY QUANTITIES				
HORIZONTAL						
VERTICAL		WHITE ENGINEERING ASSOCIATES, INC. 5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702			SECTION	
DESIGNED		CONTRACT NO. HEB-MC-54				
DRAWN	DRB	DATE				
CHECKED	ADT	SHEET 6 OF 71				



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SUMMARY OF SURFACING QUANTITIES												
SHEET NO.	STATION EXTENTS	STABILIZED SUBGRADE 307(K)	TACK COAT 407(B)	PRIME COAT 408	SUPERPAVE, TYPE S3 (PG 64-22 OK) 411(B)	SUPERPAVE, TYPE S4 (PG 64-22 OK) 411(C)	RUMBLE STRIP 413(A)	P.C. CONCRETE PAVEMENT (PLACEMENT) 414(A)	P.C. CONCRETE FOR PAVEMENT 414(G)	BEAM GUARDRAIL W-BEAM SINGLE 623(A)	GUARDRAIL END TREATMENT (31') 623(G)	GUARDRAIL BRIDGE CONN-THRIE BEAM (31') 623(I)
				GAL.	TON	TON	L.F.	S.Y.	C.Y.	L.F.	EA	EA
	SH-5A											
16	STA. 56+18.00 TO STA. 64+00.00	3,932.17	1,109.90	1,376.53	1,378.88	438.59	1,564.00					
17	STA. 64+00.00 TO STA. 79+00.00	6,155.78	1,821.26	2,153.55	2,252.01	748.84	2,454.00			2,458.18	4.00	4.00
18	STA. 79+00.00 TO STA. 87+80.50	4,405.23	1,171.39	1,542.14	1,464.01	437.41	1,761.00					
	H.E. BAILEY (I-44)											
17	STA. 57+20.00 TO STA. 79+80.00		753.33	1,758.13	843.90	562.60		62	8.61			
	TOTALS	14,489.17	4,855.88	6,830.35	5,938.80	2,187.44	5,779.00	62	8.61	2,458.18	4.00	4.00

OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	07	71
NO.	REVISION			DATE

SUMMARY OF TEMPORARY EROSION CONTROL				
SHEET NO	STATION EXTENTS	LOCATION AND DESCRIPTION	TEMPORARY SILT FENCE 221 (C)	TEMPORARY SILT DIKE 221(F)
			L.F.	L.F.
	SH-5A			
16	STA. 56+18.00 TO STA. 64+00.00	LEFT AND RIGHT	1,361.27	28.00
17	STA. 64+00.00 TO STA. 79+00.00	LEFT AND RIGHT	2,210.93	70.00
18	STA. 79+00.00 TO STA. 87+80.50	LEFT AND RIGHT	916.11	84.00
	TOTALS		4,488.31	182.00

SUMMARY OF DRAINAGE STRUCTURES													
STRUCTURE NO.	SHEET NO.	STATION	DESCRIPTION	DESIGN	UNCLASSIFIED EXCAVATION 202(A)	STRUCTURAL EXCAVATION UNCLASSIFIED 501(A)	CLASS AA CONCRETE 509(A)	CLASS A CONCRETE 509(B)	REINFORCING STEEL 511(A)	SIDE DRAINS AND CROSS DRAINS FLOW		CORR. GALV. STEEL PIPE 613(B)	TYPE A6 CULVERT END TREATMENT 613(M)
					C.Y.	C.Y.	C.Y.	C.Y.	LBS.	FL IN	FL OUT	L.F.	
1	17	71+13.27 RT& LT	EXTEND EXISTING 5'X3' RCB 39' RT. @ 0.30% & 41' LT. @ 0.78%	RCB-C1-5(2-14)-01E, RCB-E1-H3-0-1-01E, RCB-CW1-D4-0-01E, SBI-4-1	72.33	20.28	61.20		10,740.00	1003.50	1004.26		
2	17	78+90.00 LT	CONST. 70 LF 18' CGMP SD 73.43' LT. @ 1.86% W. TYPE A6 CET	RCB-C1-5(2-14)-01E, RCB-E1-H3-0-1-01E, RCB-CW1-D4-0-01E, SBI-4-1								70.00	2.0
3	18	82+80.04 RT& LT	EXTEND EXISTING 4'X3' RCB 15' RT. & 14.50' LT. @ 0.5% W/STD. HDWL & WINGS LT. & SPECIAL HDLW. & WINGS RT.	RCB2H-1-02E, RCB1-1-00E, RCB2-1-01E, RCB3-1-01E, SBI-4-1	68.03	17.46		21.49	2,715.44	996.48	996.03		
TOTALS					140.36	37.74	61.20	21.49	13,455.44			70.00	2.0

SUMMARY OF EARTHWORK QUANTITIES				
DESCRIPTION	UNCLASSIFIED EXCAVATION 202(A)	EMBANKMENTS 15% COMP. 202(F)	EXCESS EXCAVATION	UNCLASSIFIED BORROW 202(D)
	C.Y.	C.Y.	C.Y.	C.Y.
SH-5A				
WEST OF BRIDGE	2,085	25,986		23,901
EAST OF BRIDGE	3,542	21,572		18,030
	5,627	47,558		41,931

SUMMARY OF FENCES				
SHEET NO.	STATION EXTENTS	FENCE-STYLE SMF 5 BARBED WIRE 624(C)	FENCE-STYLE SMF 6 BARBED WIRE 624(C)	FENCE-STYLE WWF 624(A)
		LF	LF	LF
	SH-5A			
16	STA. 59+25.00 TO STA. 64+00.00 LT & RT	482.00	482.00	
17	STA. 64+00.00 TO STA. 79+00.00 LT & RT	792.00	856.67	
	H.E. BAILEY (I-44)			
17	STA. 66+64.13 TO STA. 69+59.95 LT			243.00
17	STA. 67+00.83 TO STA. 70+55.97 RT			303.00
	TOTALS	1,274.00	1,338.67	546.00

\* STEEL LINE AND CORNER POSTS SHALL BE USED THROUGHOUT PROJECT.

SUMMARY OF REMOVAL QUANTITIES								
SHEET NO.	STATION EXTENTS	REMOVAL OF HEADWALL 619 (B)	REMOVAL OF FENCE 619(A)	REMOVAL OF ASPHALT PAVEMENT 619(B)	REMOVAL OF GUARD RAIL 619(B)	REMOVAL OF CONCRETE PAVEMENT 619(B)	SAWING PAVEMENT 619(C)	COLD MILLING PAVEMENT 412
		E.A.	L.F.	S.Y.	L.F.	S.Y.	L.F.	S.Y.
	SH-5A							
16	STA. 56+18.00 TO STA. 64+00.00		1,041.98	2,556.33			30.17	
17	STA. 64+00.00 TO STA. 79+00.00	2.0	1,808.81	4,328.17	2,347.88			
18	STA. 79+00.00 TO STA. 87+80.50	2.0		2,790.54			28.62	
	H.E. BAILEY (I-44)							
17	STA. 57+20.00 TO STA. 79+80.00		551.52		388.45	69.17		5,022.22
	TOTALS	4.0	3,402.31	9,675.04	2,736.33	69.17	58.79	5,022.22

SUMMARY OF DRIVES & SECTION LINE RETURNS			
SHEET NO.	STATION AND LOCATION	WIDTH X LENGTH	T.B.S.C. TYPE 'E' 402(E)
			TON
	SH-5A		
17	STA. 78+90.00 LT	16.00 X 100.00	36.50
17	STA. 79+00.00 RT	16.00 X 40.00	22.10
18	STA. 86+72.90 RT	16.00 X 40.00	11.05
	TOTALS		69.65

UNLESS OTHERWISE NOTED STD. DRIVES CALLED FOR ON P&P SHEETS ARE BASED ON ODOT STANDARD RDI-3-0 WITH 15' RADIUS.

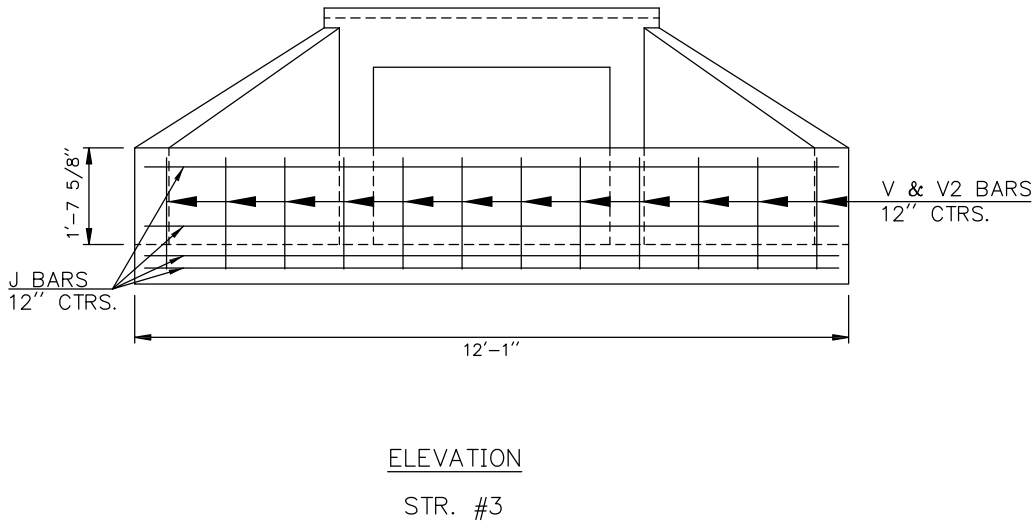
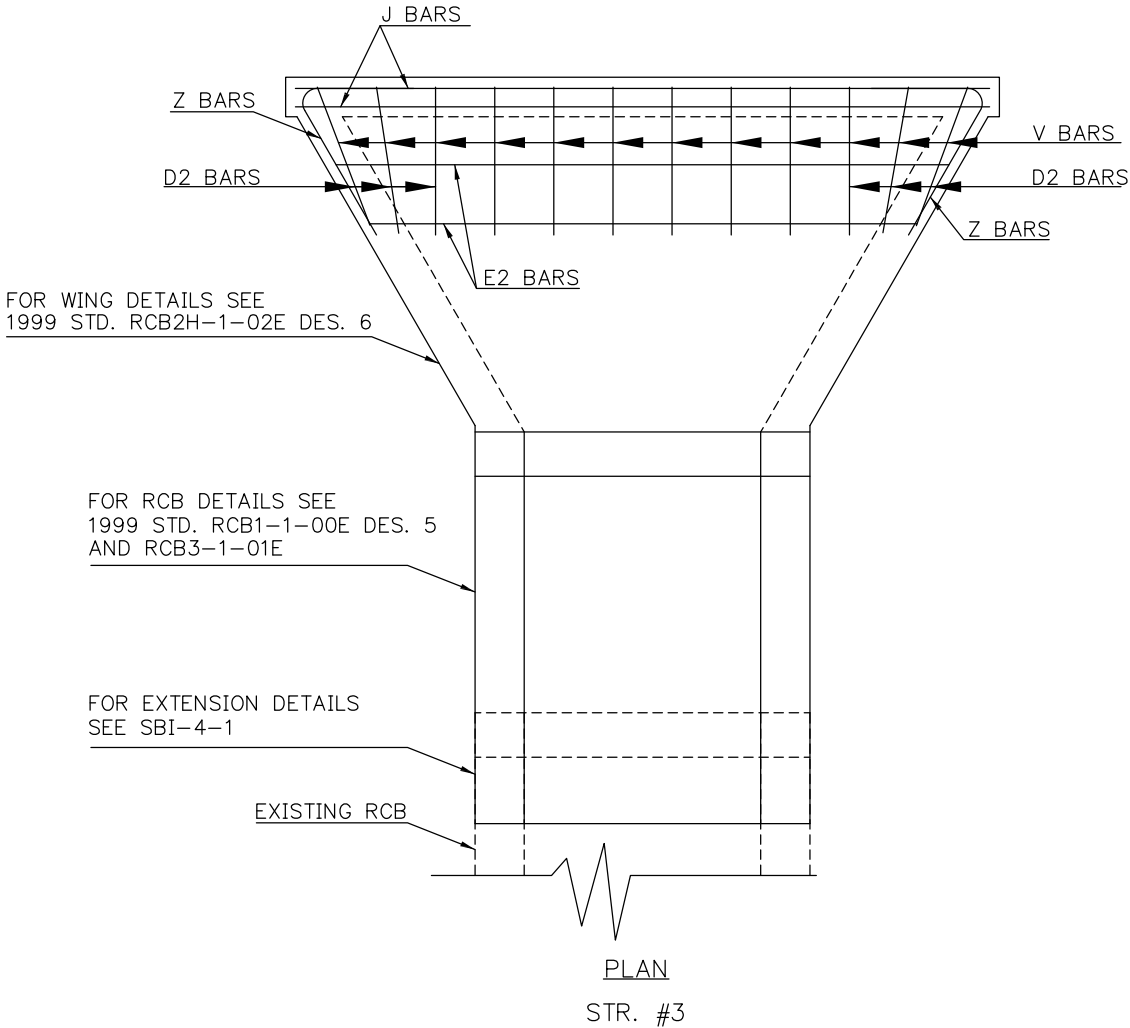
SUMMARY OF DITCH TREATMENT							
SHEET NO.	STATION EXTENTS	LOCATION	DESIGN NO.	BOTTOM WIDTH	CURTAIN WALL	DITCH LINER PROTECTION 229	CLASS C CONCRETE 509(D)
				LF	EA		
17	STA. 69+00.00 TO STA. 71+20.00 LT	RIGHT	2A	6	3	167.90	22.79
17	STA. 71+20.00 TO STA. 73+00.00 RT	LEFT	2A	6	3	192.50	26.04
	TOTALS					360.40	48.83

SUMMARY OF PERMANENT EROSION CONTROL						
SHEET NO.	STATION EXTENTS	LOCATION AND DESCRIPTION	SOLID SLAB SODDING 230(A)	WATERING 230(F)	VEGETATIVE MULCHING 233(A)	MOWING 241
			S.Y.	K.GAL.	AC.	AC.
	SH-5A					
16	STA. 56+18.00 TO STA. 64+00.00	LEFT AND RIGHT	4,934.2	197.37	1.02	2.23
17	STA. 64+00.00 TO STA. 79+00.00	LEFT AND RIGHT	24,043.68	961.75	4.98	6.27
18	STA. 79+00.00 TO STA. 87+80.50	LEFT AND RIGHT	4,111.02	164.44	0.85	1.64
	TOTALS		33,088.9	1,323.56	6.85	10.14

OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY TURNPIKE			
PLAN SCALE N/A	SUMMARY SHEET (1 OF 1)		
PROFILE SCALE HORIZONTAL			
VERTICAL			
DESIGNED: DH	CONTRACT NO. HEB-MC-54		
DRAWN: DH	DATE: 02-09-2015		
CHECKED: DH	SHEET NO. 07		



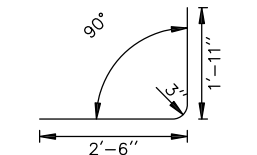
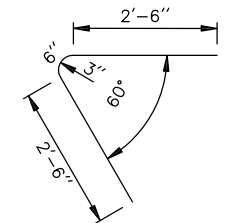
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- \* ALL REBAR CLEARANCE IS 2" UNLESS NOTED OTHERWISE
- \* FOR DETAILS NOT SHOWN SEE SBI-4-1, AND 1999 STANDARDS RCB2H-1-02E DES. 6, RCB1-1-00E DES. 5, AND RCB3-1-01E
- \* ALL DETAILS ARE NOT TO SCALE

## NOT FOR CONSTRUCTION

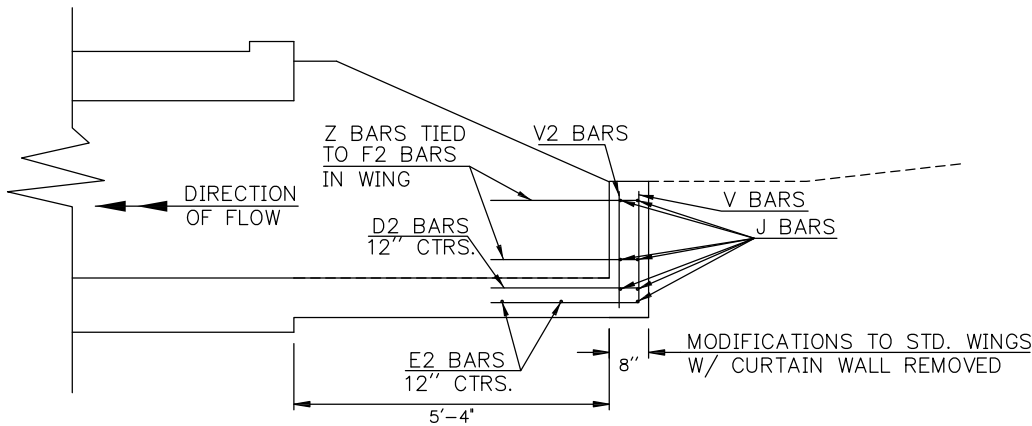
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ADDITIONAL REINFORCING STEEL REQUIRED IN ADDITION TO STANDARD RCB2H-1-02E																	
D2 BARS			E2 BARS			J BARS			V BARS			V2 BARS			Z BARS		
SIZE	NO.	LENGTH	SIZE	NO.	AVG. LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH	SIZE	NO.	LENGTH
4	6	2'-6"	4	2	9'-9"	4	7	11'-9"	4	12	4'-5"	4	12	1'-11"	4	4	5'-6"

### STR. #3 UPSTREAM WING MODIFICATIONS

- \* SHORTEN STD. WING 'M' DIMENSION TO 6' 1 7/8"
- \* LEAVE CURTAIN WALL OFF AND CONSTRUCT SPECIAL WALL
- \* ELIMINATE CURTAIN WALL REBAR
- \* WHERE APPLICABLE POSITION REBAR TO TIE TO STANDARD WING REBAR



OKLAHOMA TURNPIKE AUTHORITY			
H.E. BAILEY TURNPIKE			
PLAN SCALE N/A	RCB WING DETAIL SHEET 1 OF 1		
PROFILE SCALE HORIZONTAL			
VERTICAL			
Smith Roberts Baldischwiler, LLC			SECTION
DESIGNED: DH	CONTRACT NO. HEB—MC—54		
DRAWN: DH			
CHECKED: DH	DATE: 12—10—2014	SHEET NO. 08	



# STORMWATER MANAGEMENT PLAN

OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	09	71
NO.	REVISION			DATE

## SITE DESCRIPTION

**PROJECT LIMITS:** \_\_\_\_\_  
BEGINNING APPROX. 1.0 MILES EAST OF INTERSECTION OF HWY 277 & SH-5A AND APPROX.  
\_\_\_\_\_ .60 MILES ALONG SH-5A.

**PROJECT DESCRIPTION:** \_\_\_\_\_  
REPLACEMENT OF BRIDGE AND APPROACHES ON SH-5A OVER H.E. BAILEY TURNPIKE, INCLUDING  
CROSSOVERS AND SHOULDER REHABILITATION ON H.E. BAILEY.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

**SOIL TYPE:** \_\_\_\_\_ TILLMAN-FOARD COMPLEX

**AREA TO BE DISTURBED:** \_\_\_\_\_ 7 ACRES

**OFFSITE AREA TO BE DISTURBED:** \_\_\_\_\_  
(FOR CONTRACTOR USE)

**MAXIMUM ACRES TO BE  
DISTURBED AT ONE TIME:** \_\_\_\_\_  
(FOR CONTRACTOR USE)

**LATITUDE & LONGITUDE  
OF CENTER OF PROJECT:** \_\_\_\_\_ 34°16'31.49" N      98°25'44.57"W

**NAME OF RECEIVING WATERS:** \_\_\_\_\_ TRIBUTARY OF WEST CACHE CREEK

**SENSITIVE WATERS OR WATERSHEDS:**      YES ☐      NO ☒

**303 (d) IMPAIRED WATERS:**      YES ☐      NO ☒

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

## EROSION AND SEDIMENT CONTROLS

### SOIL STABILIZATION PRACTICES:

- \_\_\_\_\_ TEMPORARY SEEDING
- ☒ PERMANENT SODDING, SPRIGGING OR SEEDING
- ☒ VEGETATIVE MULCHING
- \_\_\_\_\_ SOIL RETENTION BLANKET
- ☒ PRESERVATION OF EXISTING VEGETATION

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

### STRUCTURAL PRACTICES:

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

### OFFSITE VEHICLE TRACKING:

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

### NOTES:

- \_\_\_\_\_ SEE SHEETS NO. 10 & 11 FOR EROSION CONTROL
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

### 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, DRAINAGE WAYS, 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) FORMS 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 2010 OTA 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:

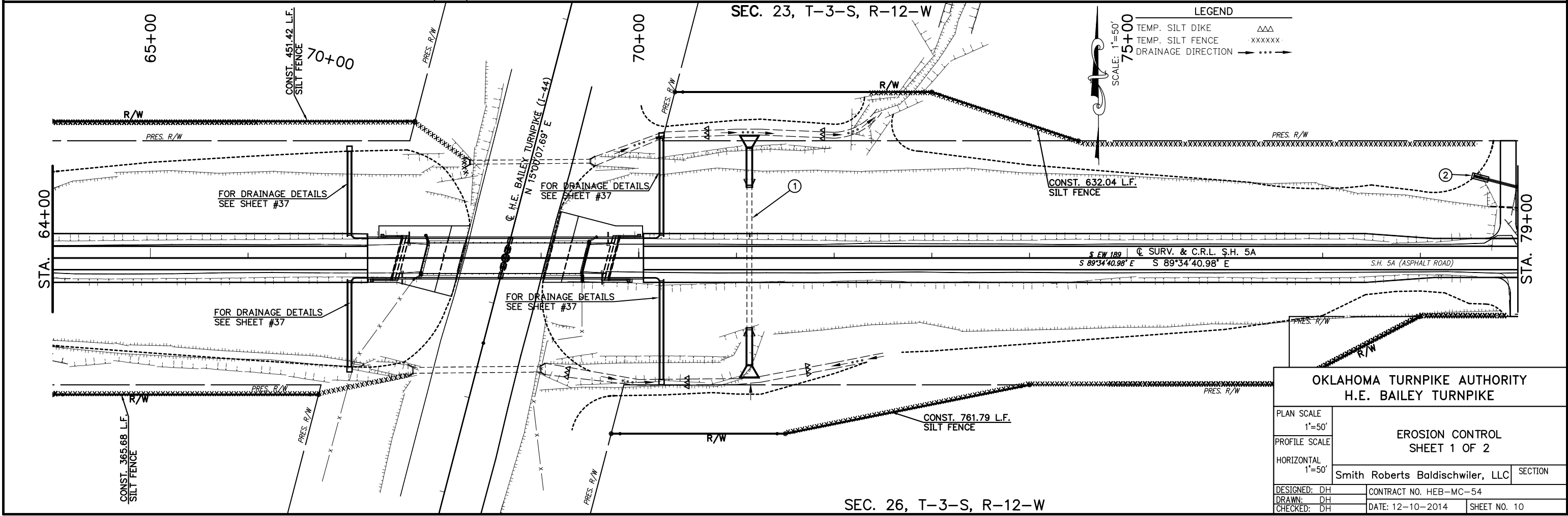
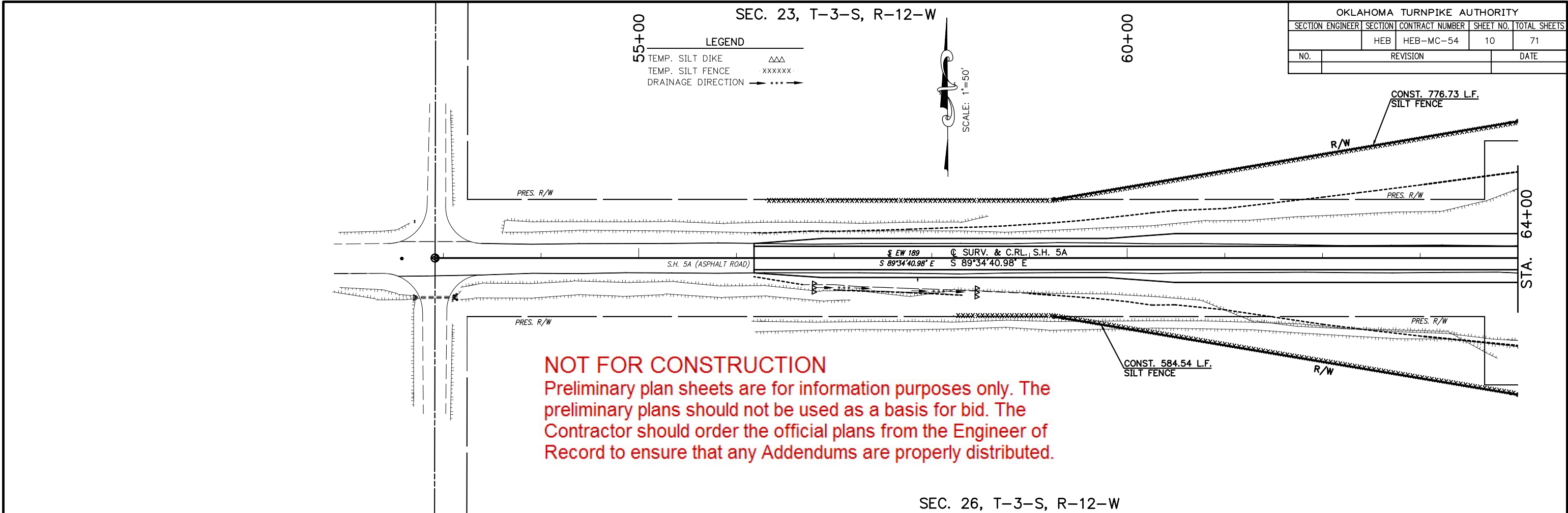
\*ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE  
STATE OF OKLAHOMA.\* ODEQ, WATER QUALITY DIVISION, SEPTEMBER 13, 2012.

## NOT FOR CONSTRUCTION

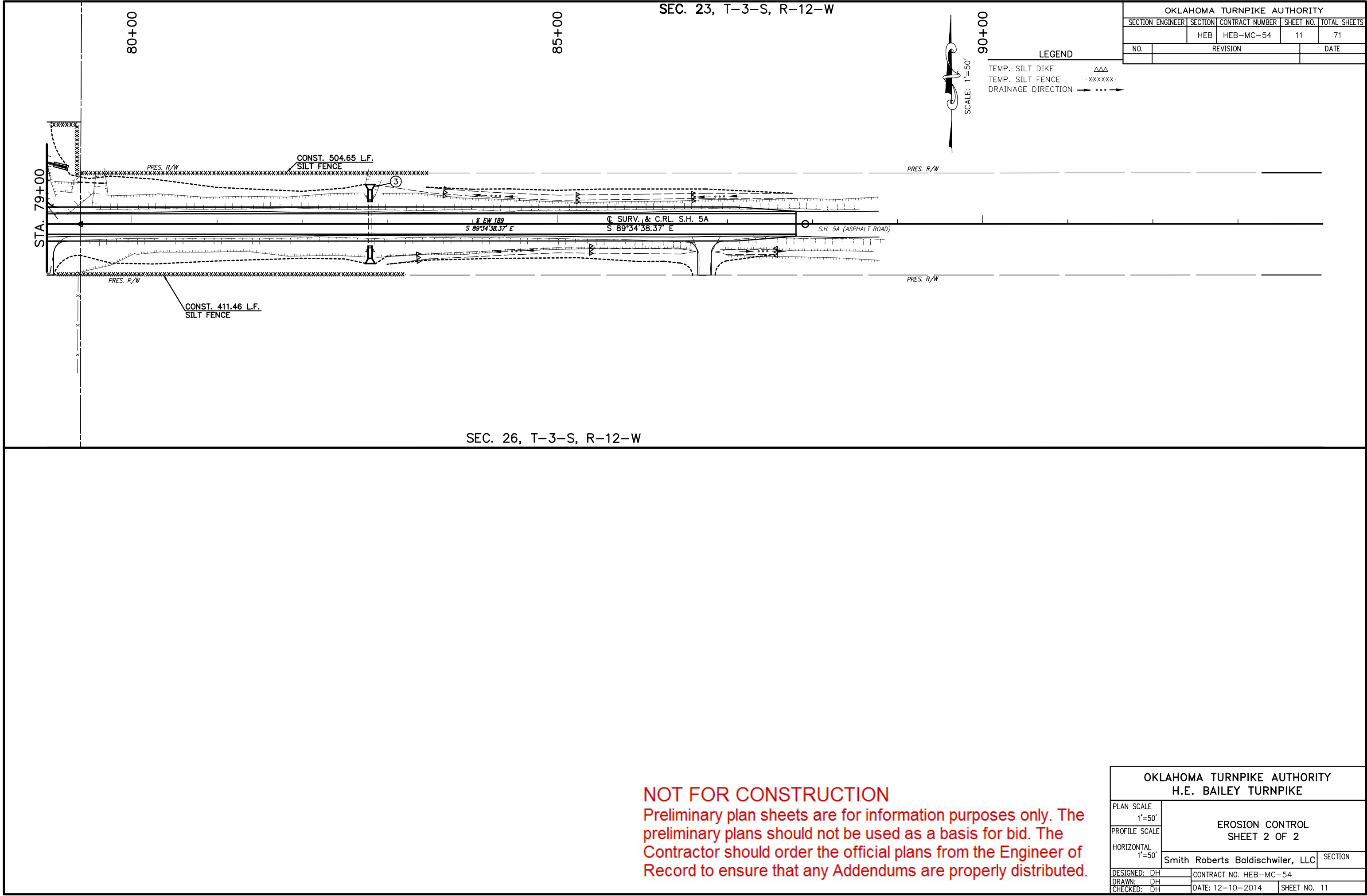
Preliminary plan sheets are for information purposes only. The preliminary plans should not be used as a basis for bid. The Contractor should order the official plans from the Engineer of Record to ensure that any Addendums are properly distributed.

OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY TURNPIKE			
PLAN SCALE N/A	STORM WATER POLLUTION PLAN		
PROFILE SCALE HORIZONTAL			
VERTICAL	Smith Roberts Baldischwiler, LLC		SECTION
DESIGNED: DH	CONTRACT NO. HEB-MC-54		
DRAWN: DH	DATE: 01-09-2015		
CHECKED: DH	SHEET NO. 09		



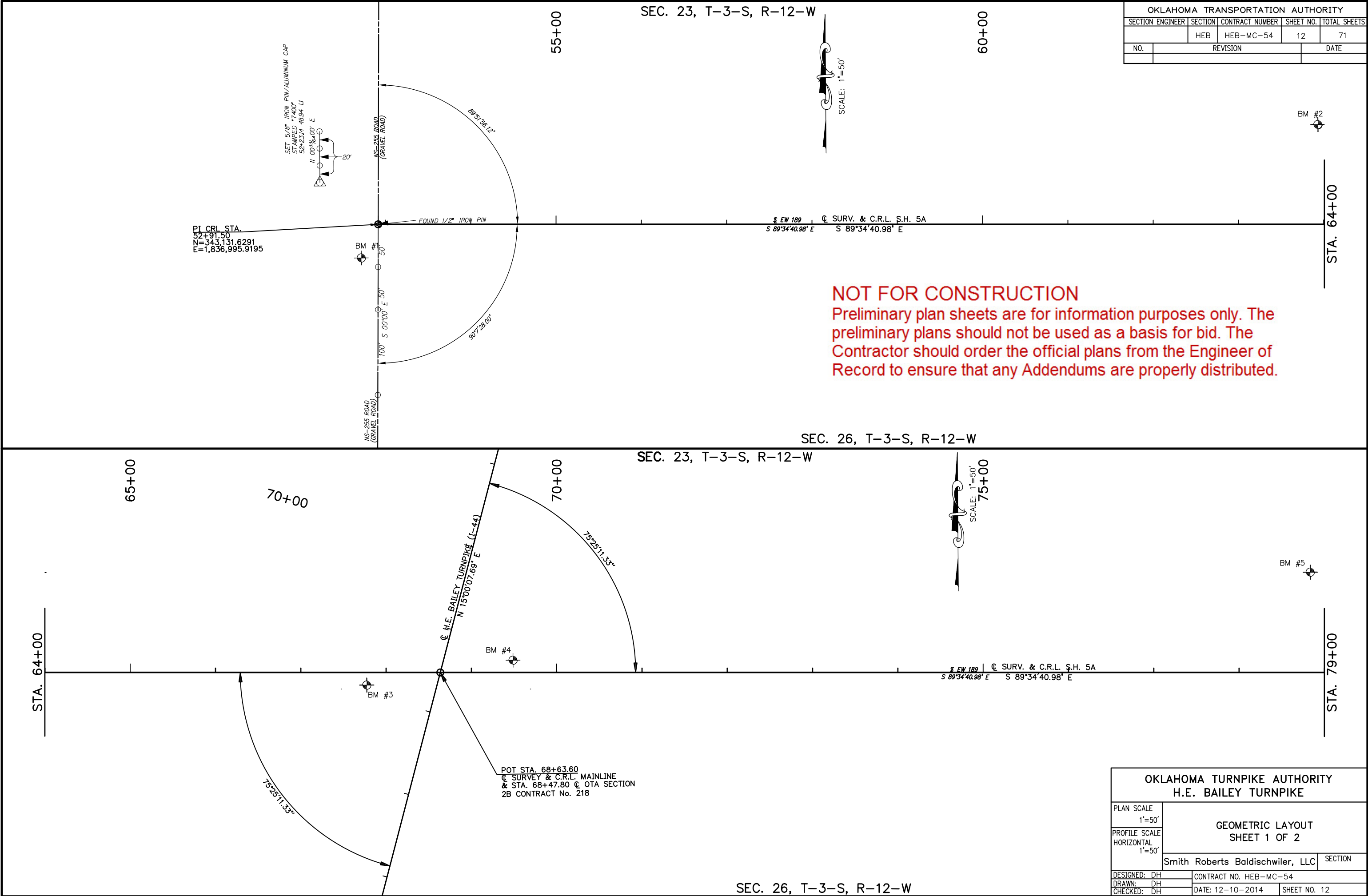


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R:\114105\Drawings\GEOMETRIC Dustin.Heidrich 12-04-14 04:55pm



OKLAHOMA TRANSPORTATION AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	12	71
NO.	REVISION			DATE

OKLAHOMA TURNPIKE AUTHORITY			
H.E. BAILEY TURNPIKE			
PLAN SCALE 1"=50'	GEOMETRIC LAYOUT SHEET 1 OF 2		
PROFILE SCALE HORIZONTAL 1"=50'			
Smith Roberts Baldischwiler, LLC			SECTION
DESIGNED: DH	CONTRACT NO. HEB-MC-54		
DRAWN: DH			
CHECKED: DH	DATE: 12-10-2014	SHEET NO. 12	








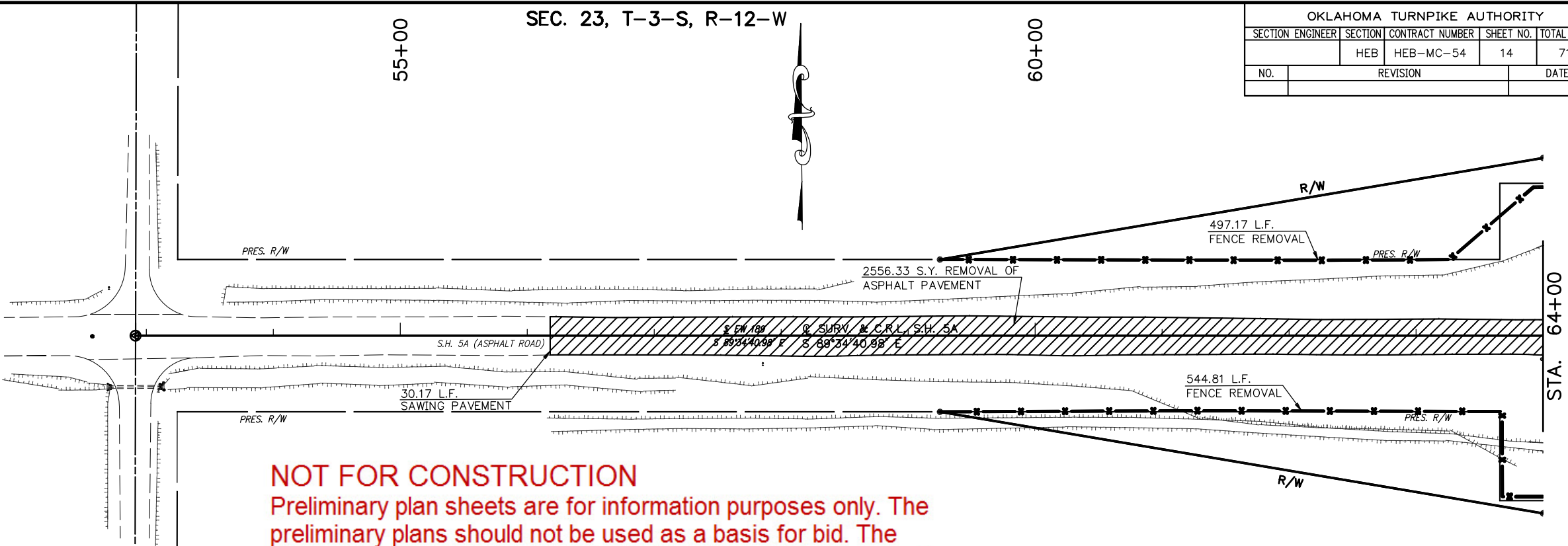


REMOVAL QUANTITIES	
REMOVAL OF FENCE	L.F. 1041.98
ASPH. PAVEMENT REMOVAL	S.Y. 2,556.33
SAW PAVEMENT	L.F. 30.17

LEGEND

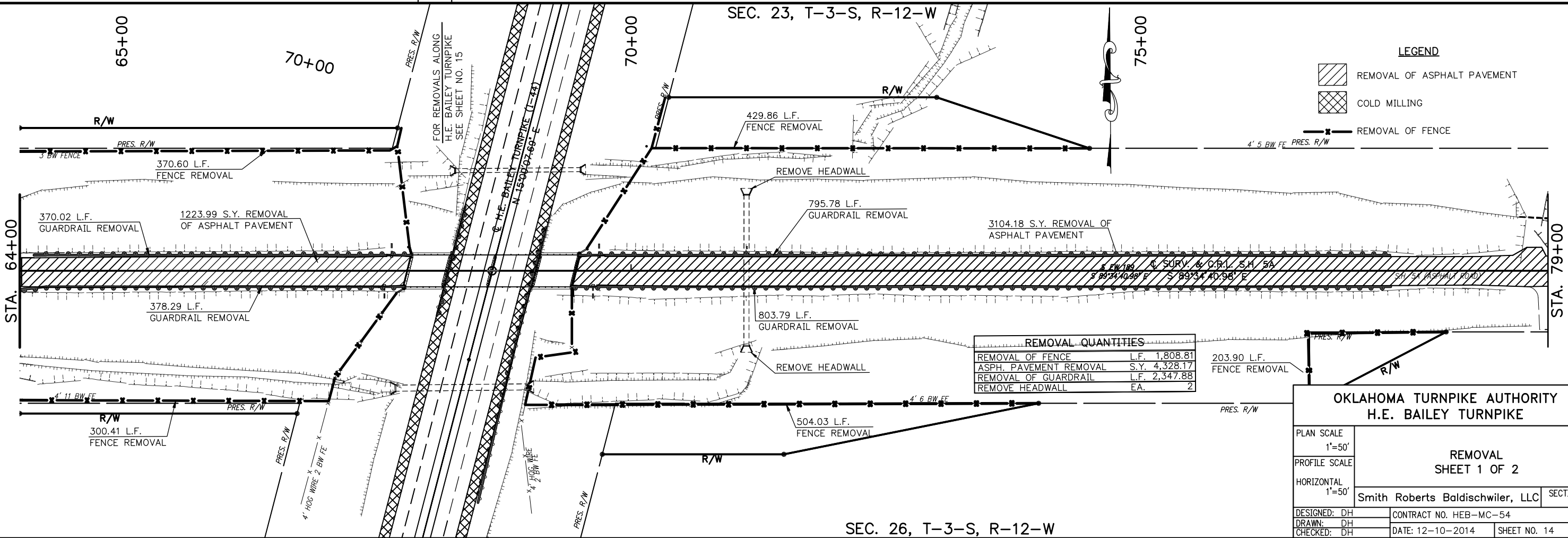
-  REMOVAL OF ASPHALT PAVEMENT
-  COLD MILLING
-  REMOVAL OF FENCE

OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	14	71
NO.	REVISION			DATE



**NOT FOR CONSTRUCTION**  
Preliminary plan sheets are for information purposes only. The preliminary plans should not be used as a basis for bid. The Contractor should order the official plans from the Engineer of Record to ensure that any Addendums are properly distributed.

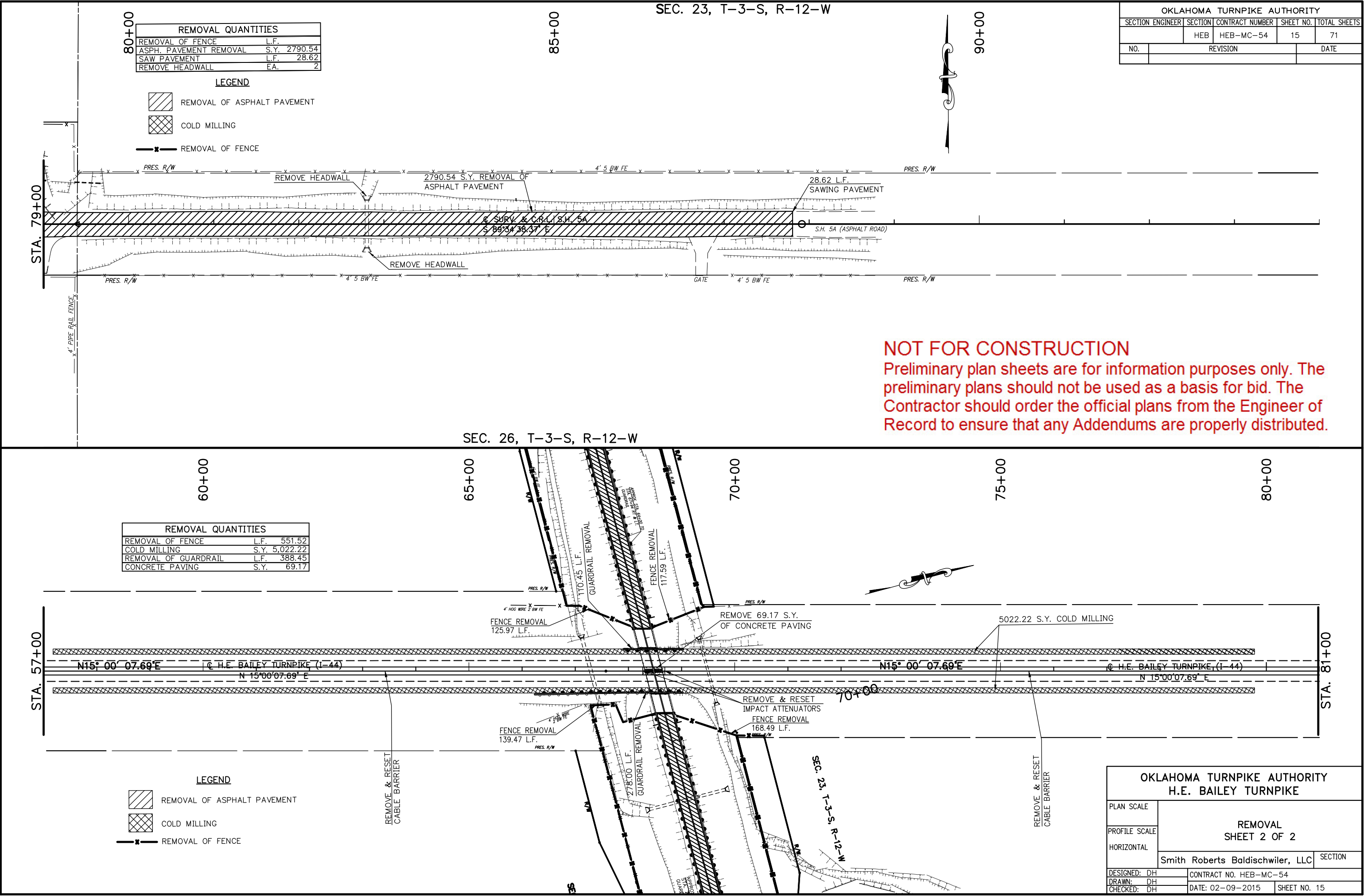
SEC. 26, T-3-S, R-12-W



REMOVAL QUANTITIES	
REMOVAL OF FENCE	L.F. 1,808.81
ASPH. PAVEMENT REMOVAL	S.Y. 4,328.17
REMOVAL OF GUARDRAIL	L.F. 2,347.88
REMOVE HEADWALL	E.A. 2

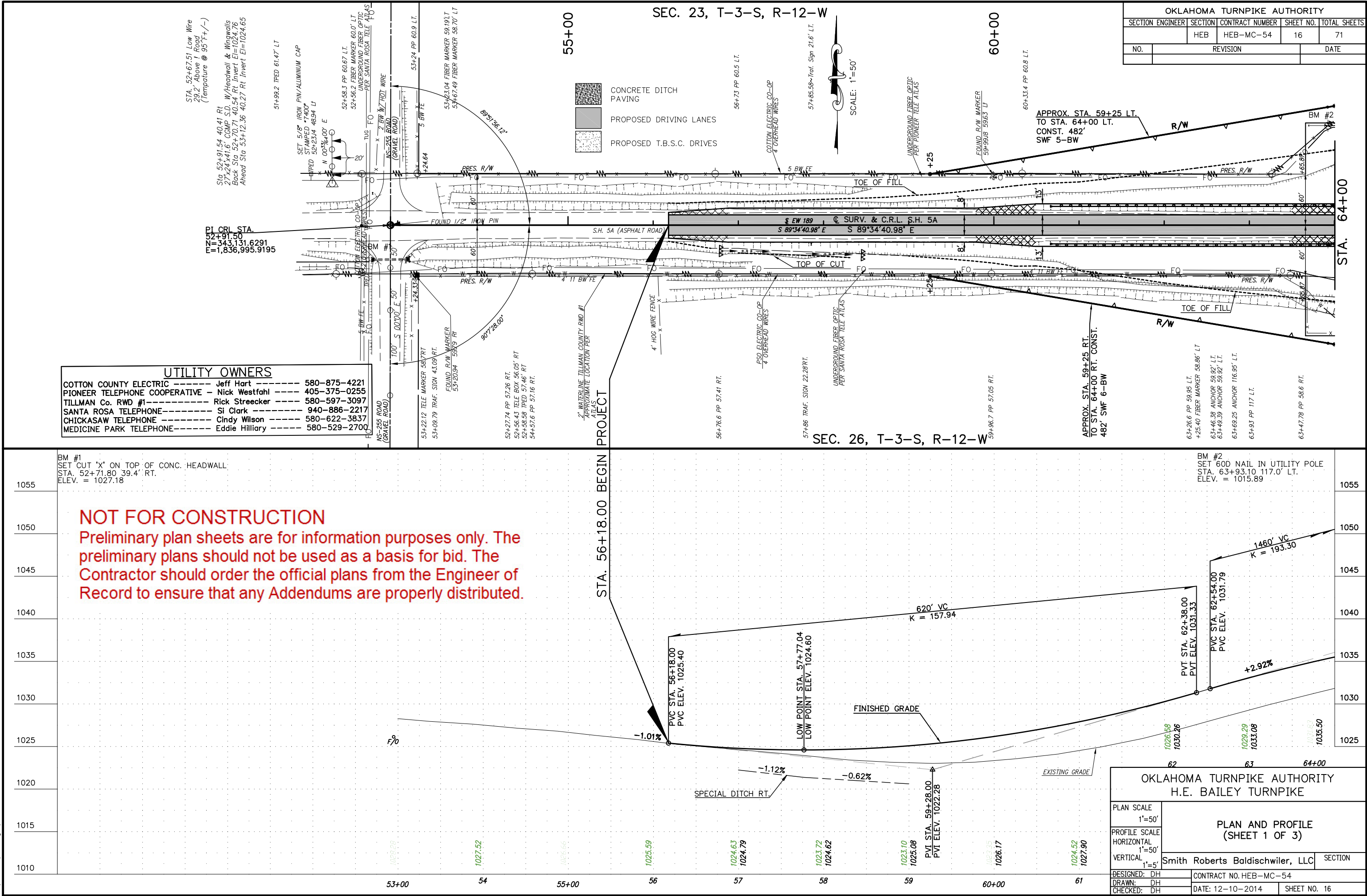
OKLAHOMA TURNPIKE AUTHORITY			
H.E. BAILEY TURNPIKE			
PLAN SCALE	REMOVAL SHEET 1 OF 2		
1"=50'			
PROFILE SCALE			
HORIZONTAL	Smith Roberts Baldischwiler, LLC		
1"=50'			
DESIGNED: DH	CONTRACT NO. HEB-MC-54		
DRAWN: DH			
CHECKED: DH	DATE: 12-10-2014		
	SHEET NO. 14		

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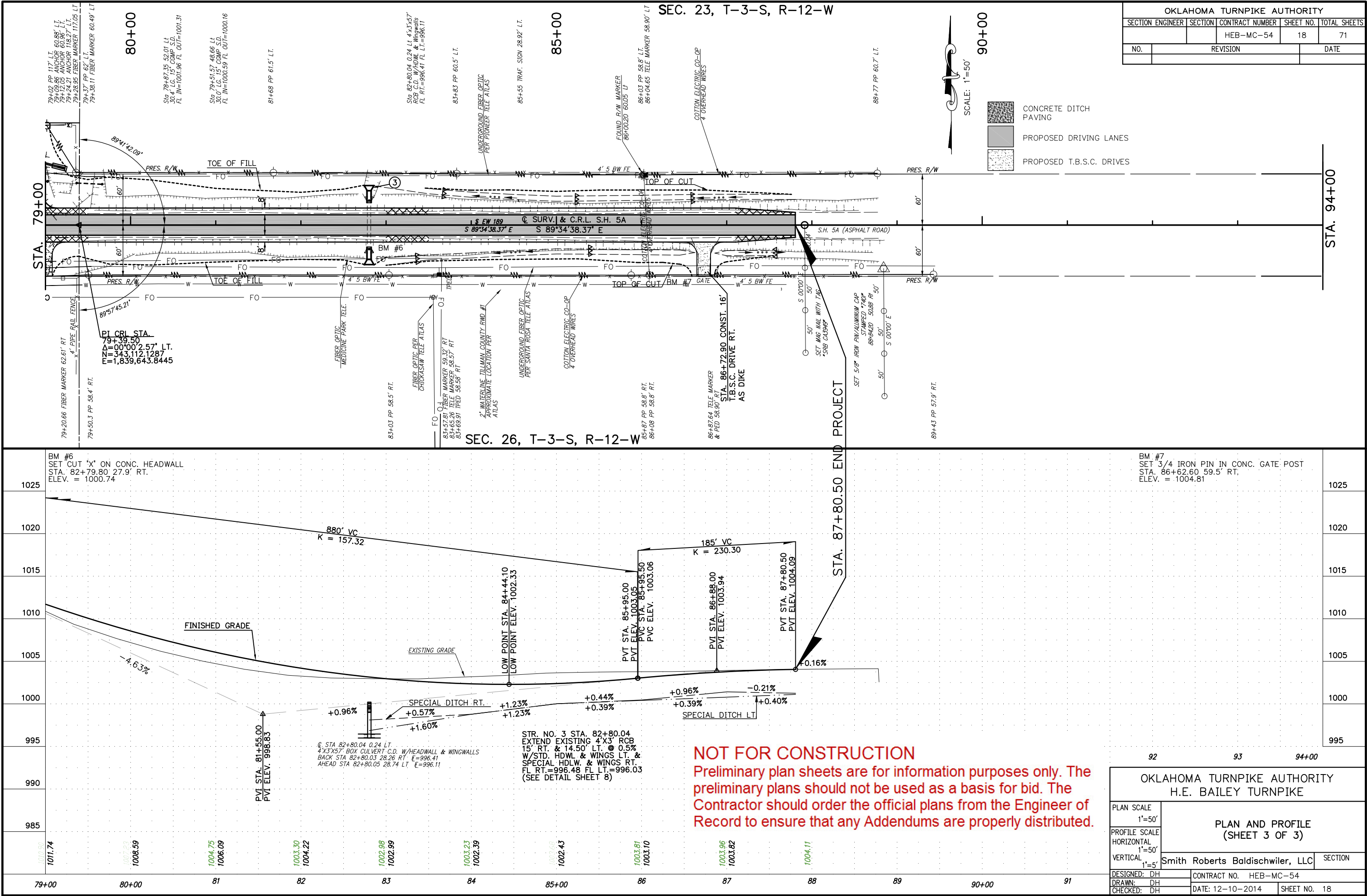
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OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
HEB	HEB-MC-54	19	71	
DESCRIPTION			REVISIONS	DATE

DESIGN DATA

CONCRETE CLASS AA  
CONCRETE CLASS A  
REINFORCING STEEL (GRADE 60)  
STRUCTURAL STEEL M270 (GRADE 50W)  
STAINLESS STEEL A240 (TYPE 316)

f'c = 4 K.S.I.  
f'c = 3 K.S.I.  
fy = 60 K.S.I.  
Fy = 50 K.S.I.  
Fy = 30 K.S.I.

LOADING:  
HL-93 OR OKLAHOMA OVERLOAD TRUCK  
20 PSF FUTURE WEARING SURFACE

DESIGN:  
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6th EDITION  
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE  
ANSI/AWS D1.6 STRUCTURAL WELDING CODE - STAINLESS STEEL

HL-93 INVENTORY RATING FACTOR: 1.00  
HL-93 OPERATING RATING FACTOR: 1.30

INDEX OF SHEETS

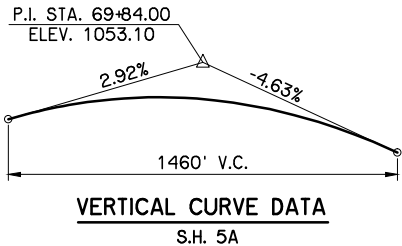
- 5 BRIDGE GENERAL NOTES
- 6 SUMMARY OF BRIDGE PAY QUANTITIES
- 19 GENERAL PLAN AND ELEVATION
- 20 FOUNDATION REPORT
- 21 SUBSTRUCTURE LAYOUT AND SUMMARY OF BRIDGE QUANTITIES
- 22 SUBSTRUCTURE EXCAVATION AND PIPE UNDERDRAIN DETAILS
- 23-25 ABUTMENT DETAILS
- 26-27 PIER DETAILS
- 28-33 SUPERSTRUCTURE DETAILS
- 34 APPROACH SLAB DETAILS
- 35-36 SLOPE WALL DETAILS
- 37 DRAINAGE DETAILS AT END OF BRIDGE

GEOTECHNICAL SUBSURFACE INVESTIGATION REPORTS ARE TAKEN FROM GEOTECHNICAL REPORT PREPARED BY TERRACON DATED SEPT. 25, 2013 AND ARE AVAILABLE FOR REVIEW AT THE OFFICE OF WHITE ENGINEERING ASSOC. AND THE OFFICE OF THE OKLAHOMA TURNPIKE AUTHORITY IN OKLAHOMA CITY. THE REPORTS ARE FOR INFORMATIONAL PURPOSES ONLY. OTA CANNOT GUARANTEE THE ACCURACY OF THE SOIL CONDITIONS.

2009 ODOT REQUIRED STANDARDS

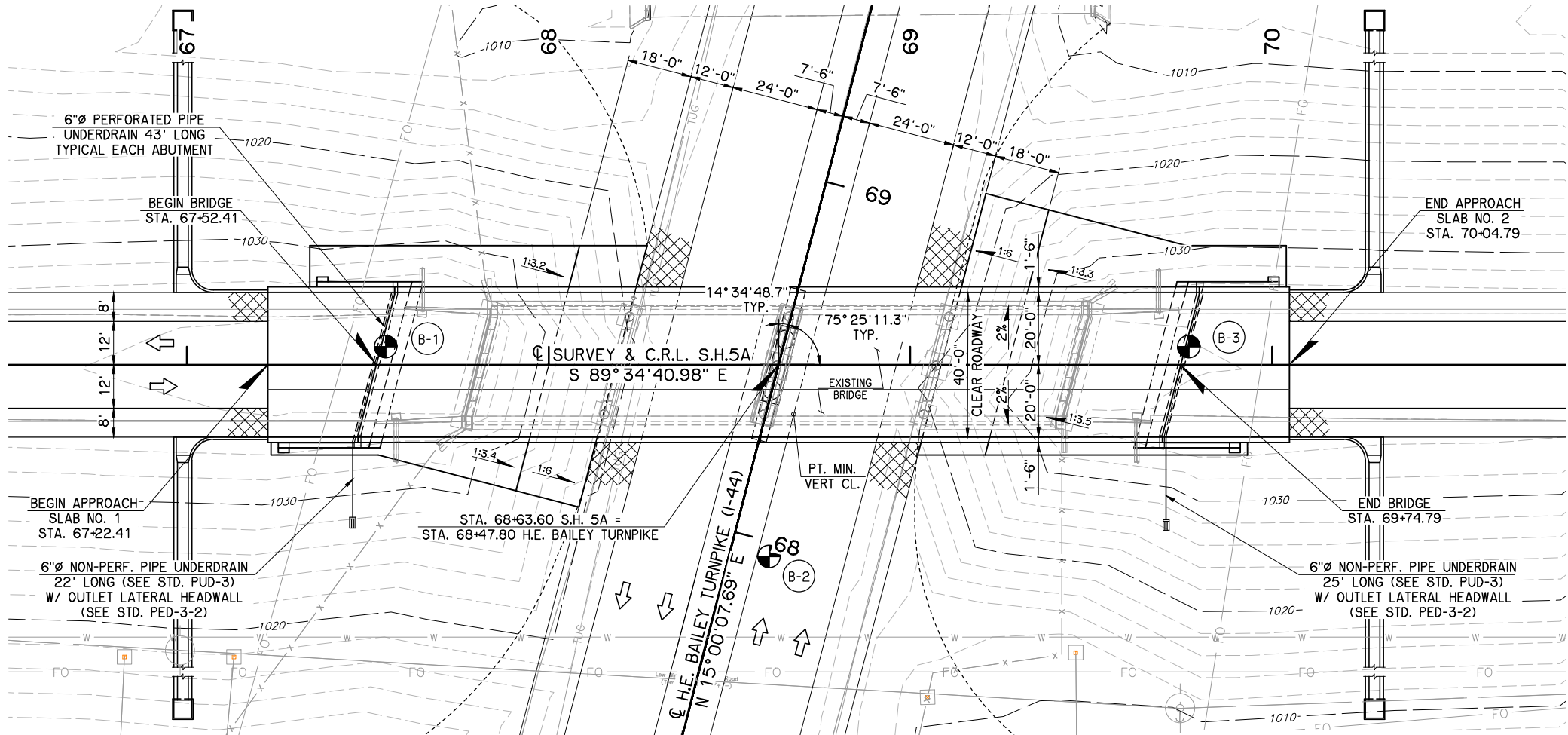
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HP1-2-00E  
EJ-SK-03E  
EJ-DTL-01E

LECS-4-1  
PUD-3-2  
PED-3-2



NOTES:  
FOR FOUNDATION DATA AND SUMMARY OF QUANTITIES, SEE SHEET 21.  
FOR PARAPET DRAIN OPENING LOCATIONS, SEE SHEET 32.

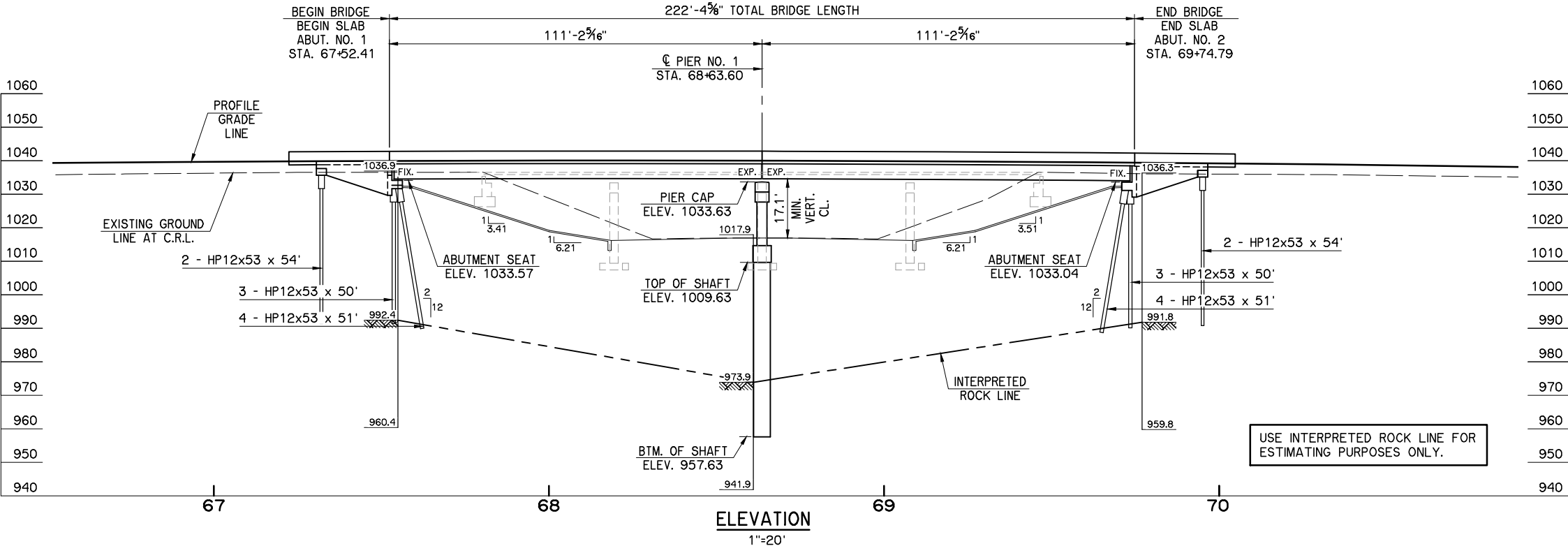
NO.	REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE			
PLAN SCALE	S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.458		
PROFILE SCALE	GENERAL PLAN AND ELEVATION 111' - 111' TYPE II P.C.B. SPANS 40' CLEAR ROADWAY WITH 42" F-SHAPED PARAPETS 14°34'48.7" SKEW, C STA. 68+63.60		
HORIZONTAL	WHITE ENGINEERING ASSOCIATES, INC. 5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702		
VERTICAL	SECTION		
DESIGNED	DRB	CONTRACT NO.	HEB-MC-54
CHECKED	ADT	DATE	SHEET 19 OF 71



BM 2 SET 2-6DD NAIL IN WOOD UTILITY POLE NORTH SIDE OF S.H.5A AND 500'± WEST OF THE C OF THE HE BAILEY TURNPIKE (I-44) LOCATED AT STA. 63+93.1 OFFSET 117.0'± LT. SAME BEING 104.5'± NORTH OF THE NORTH EDGE OF PAVEMENT FOR S.H.5A ELEV. 1015.89

BM 5 SET CUT "X" ON CONCRETE GATE POST (WEST SIDE OF GATE) NORTH SIDE OF S.H.5A AND 990'± EAST OF THE C OF THE HE BAILEY TURNPIKE (I-44) LOCATED AT STA. 76+63.4 OFFSET 117.6'± LT. SAME BEING 102'± NORTH OF THE NORTH EDGE OF PAVEMENT FOR S.H.5A AND 18'± WEST OF A WOOD UTILITY POLE ELEV. 1003.08

NOT FOR CONSTRUCTION  
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USE INTERPRETED ROCK LINE FOR ESTIMATING PURPOSES ONLY.

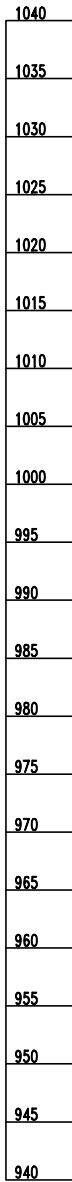
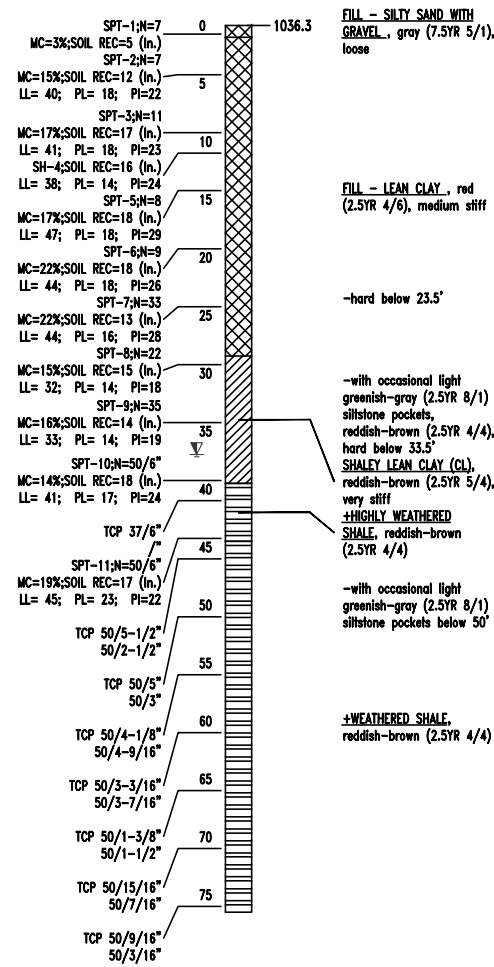
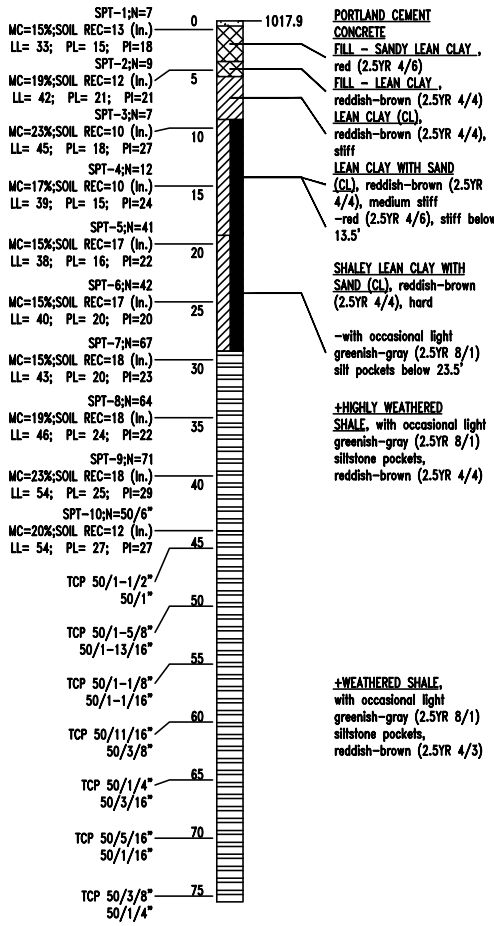
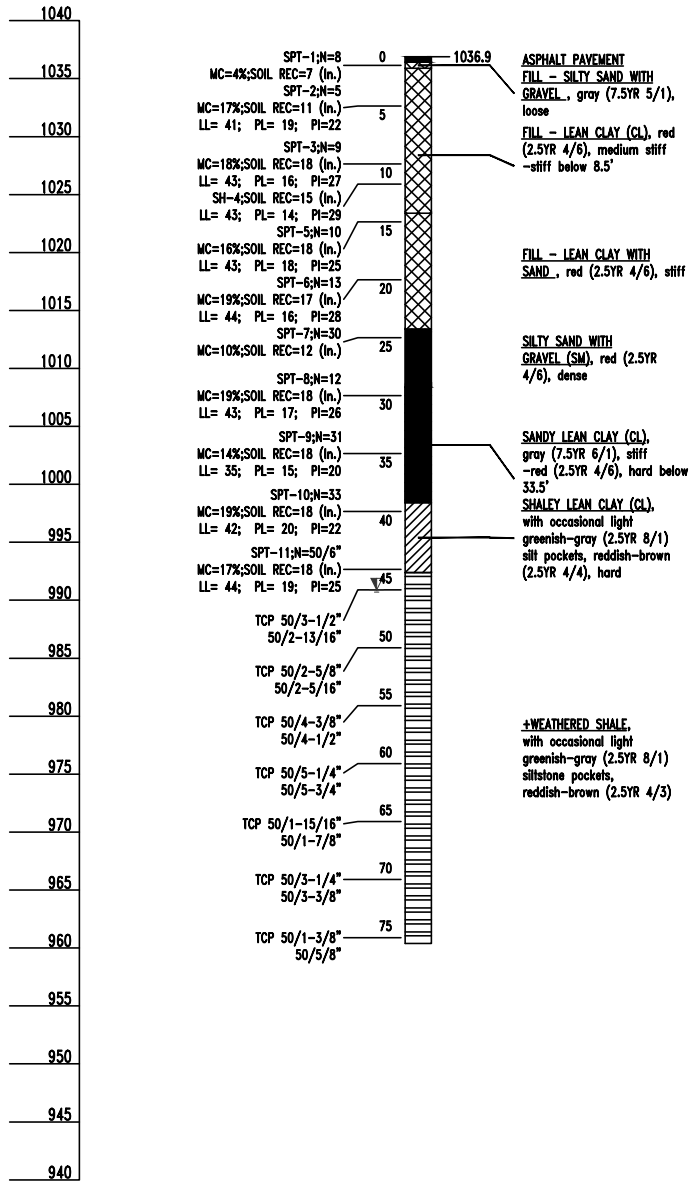


OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	20	71
DESCRIPTION			REVISIONS	DATE

Boring No. B-1  
See Exhibit A-1  
Water Level Check: 46 Ft.  
(8/24/2013)  
Approximate Surface Elev (Ft.): 1036.9 +/-

Boring No. B-2  
See Exhibit A-1  
Approximate Surface Elev (Ft.): 1017.9 +/-

Boring No. B-3  
See Exhibit A-1  
Water Level Check: 37 Ft.  
(8/23/2013)  
Approximate Surface Elev (Ft.): 1036.3 +/-



## NOT FOR CONSTRUCTION

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Groundwater levels were obtained during the drilling operations, and may fluctuate throughout the year.



Water level +24 hours after drilling

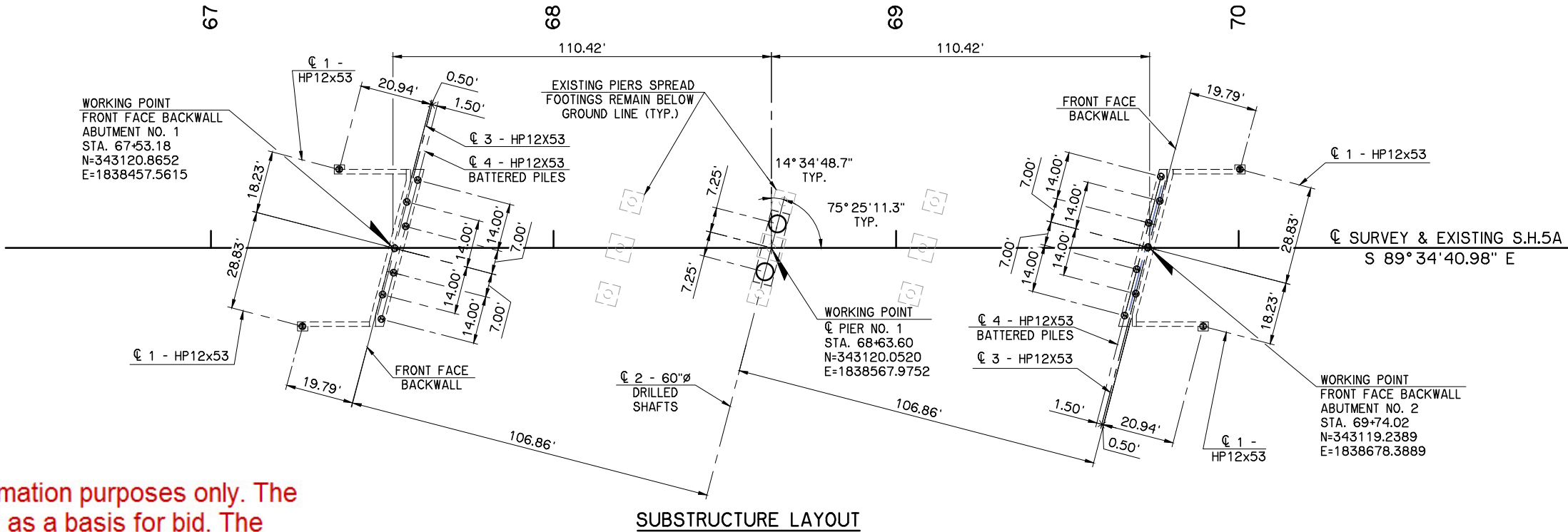
+Classification estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.

LEGEND			
DB =	Diamond Drilling Bit	MC =	Moisture Content
SPT =	Split Spoon Sampler	LL =	Liquid Limit
N =	Number of Blows for 12 inches	PL =	Plastic Limit
TCP =	Texas Cone Penetrometer	PI =	Plasticity Index
REC =	Recovery	P200 =	Passing #200 Sieve Size
RQD =	Rock Quality Designation	UCS =	Unconfined Compressive Strength

NO.	REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE			
PLAN SCALE		S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.458	
PROFILE SCALE		FOUNDATION REPORT	
HORIZONTAL		WHITE ENGINEERING ASSOCIATES, INC.	
VERTICAL		5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702	
DESIGNED		CONTRACT NO. HEB-MC-54	
DRAWN		DATE	
CHECKED		SHEET 20 OF 71	

NOT FOR CONSTRUCTION

Preliminary plan sheets are for information purposes only. The preliminary plans should not be used as a basis for bid. The Contractor should order the official plans from the Engineer of Record to ensure that any Addendums are properly distributed.



OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	21	71
DESCRIPTION			REVISIONS	DATE



FOUNDATION DATA

PIERS (60" DIAMETER DRILLED SHAFTS)

MAXIMUM FACTORED DRILLED SHAFT REACTION = 1028.0 TON / SHAFT

NOMINAL UNIT BEARING RESISTANCE = 60.0 T.S.F.  
BEARING RESISTANCE FACTOR = 0.7  
FACTORED BEARING RESISTANCE = 824.7 TON / SHAFT

NOMINAL UNIT FRICTION RESISTANCE = 5.6 T.S.F.  
FRICTION RESISTANCE FACTOR = 0.45  
FACTORED FRICTION RESISTANCE = 514.6 TON / SHAFT  
DEPTH OF ROCK NEGLECTED FOR FRICTION = 3.0 FT.

TOTAL FACTORED DRILLED SHAFT RESISTANCE = 1339.3 TON / SHAFT

ABUTMENTS (HP12x53 PILING)

MAXIMUM FACTORED PILE REACTION = 112.8 TON / PILE

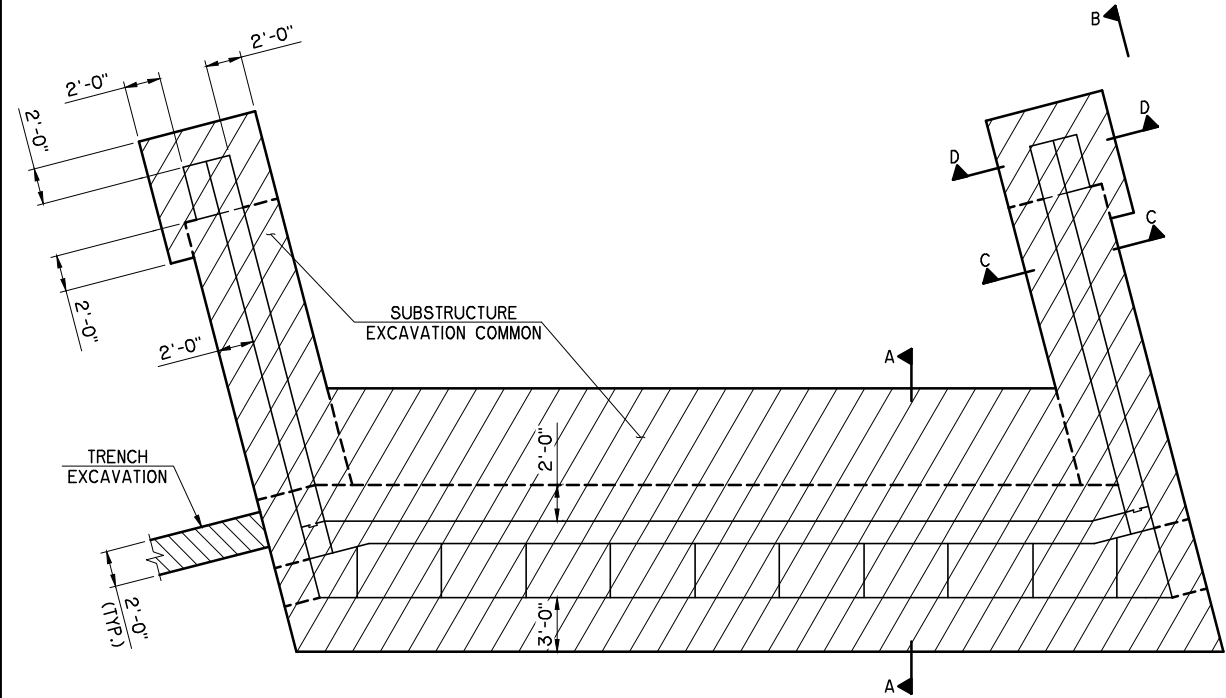
FACTORED PILE RESISTANCE:  
DRIVE PILING THROUGH THE COMPACTED FILL AND TO A POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF A FACTORED AXIAL LOAD RESISTANCE EQUAL TO OR GREATER THAN THE FACTORED PILE REACTION IS NOT OBTAINED AT THIS ELEVATION, CONTINUE DRIVING UNTIL SUCH IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

SUMMARY OF BRIDGE QUANTITIES							
ITEM	UNIT	ABUTMENTS	PIERS	SUPERSTR.	APP. SLABS	SLOPE WALL	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	210					210
CLSM BACKFILL	C.Y.	290					290
PRESTRESSED CONCRETE BEAMS (TYPE IV)	L.F.			1,097			1,097
APPROACH SLAB	S.Y.				286.6		286.6
SAW-CUT GROOVING	S.Y.			988.4	266.6		1,255.0
SEALED EXPANSION JOINT	L.F.			42.3			42.3
42" F-SHAPED PARAPET	L.F.			444.4	120.0		564.4
STRUCTURAL STEEL	LB.			1,030			1,030
(SP) STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.			10			10
(SP) STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA.			10			10
(SP) SPECIAL CONCRETE FINISH	S.Y.	53.0	30.0				83.0
CLASS AA CONCRETE	C.Y.			259.5			259.5
CLASS A CONCRETE	C.Y.	103.6	89.0				192.6
CLASS C CONCRETE	C.Y.						25.8
SLOPE WALL (5")	S.Y.					1,121	1,121
EPOXY COATED REINFORCING STEEL	LB.	12,640	13,300	65,960			91,900
PILES, FURNISHED (HP12x53)	L.F.	924					924
PILES, DRIVEN (HP12x53)	L.F.	924					924
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA.	1					1
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	62	25	777	56		920
DRILLED SHAFTS 60" DIAMETER	L.F.		104				104
CROSSHOLE SONIC LOGGING	EA.		1				1
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	86				138	224
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	47				60	107
OUTLET LATERAL HEADWALL	EA.	2					2
REMOVAL OF EXISTING BRIDGE STRUCTURE	L.SUM						1

NO.	REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE			
PLAN SCALE	S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.458		
PROFILE SCALE	SUBSTRUCTURE LAYOUT AND SUMMARY OF BRIDGE QUANTITIES		
HORIZONTAL	WHITE ENGINEERING ASSOCIATES, INC. 5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702		
VERTICAL	SECTION		
DESIGNED	DRB	CONTRACT NO. HEB-MC-54	
DRAWN	ADT	DATE	
CHECKED	ADT	SHEET 21 OF 71	

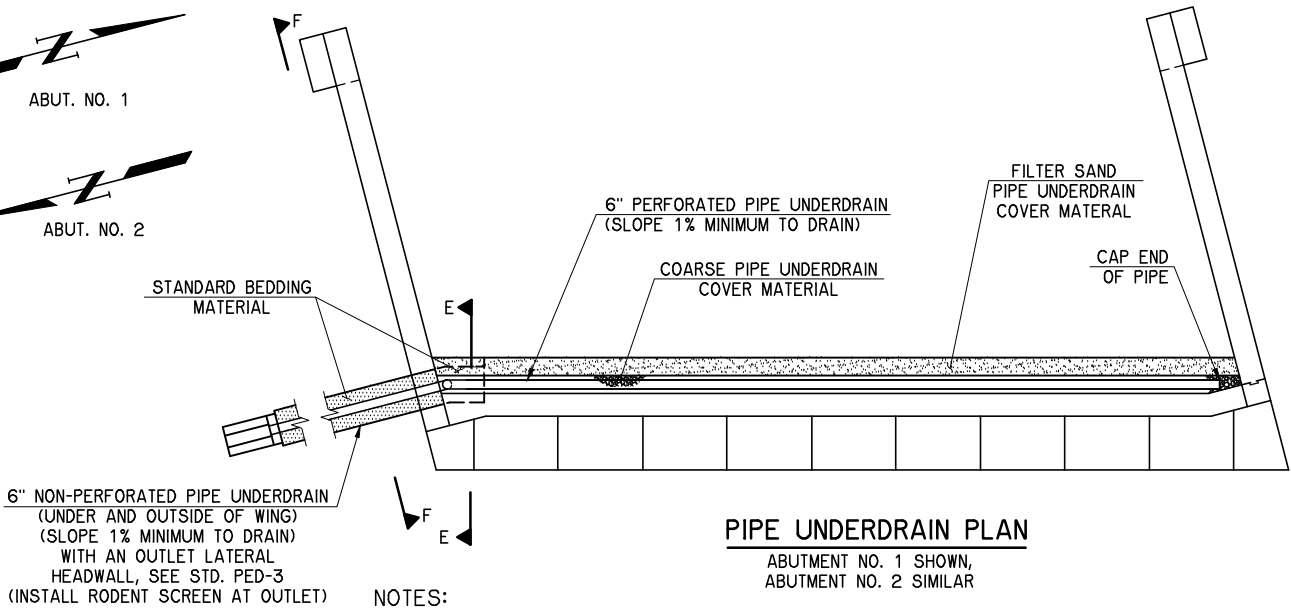


OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
HEB	HEB-MC-54	22	71	
DESCRIPTION			REVISIONS	DATE



EXCAVATION PLAN

ABUTMENT NO. 1 SHOWN,  
ABUTMENT NO. 2 SIMILAR

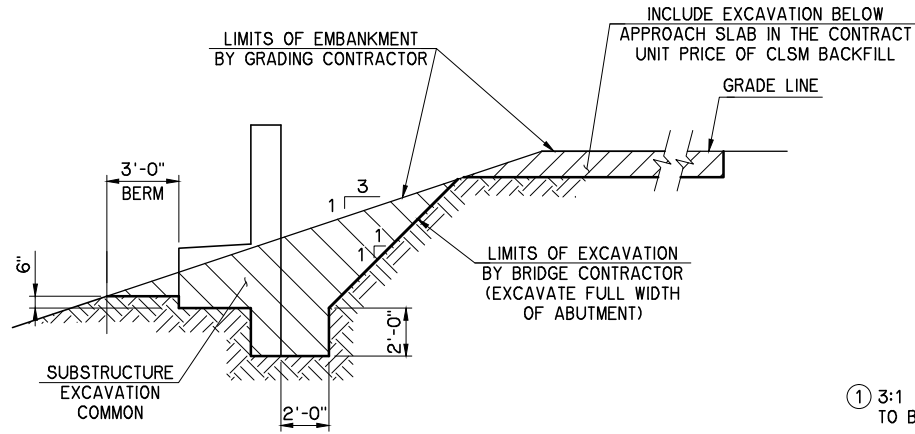


PIPE UNDERDRAIN PLAN

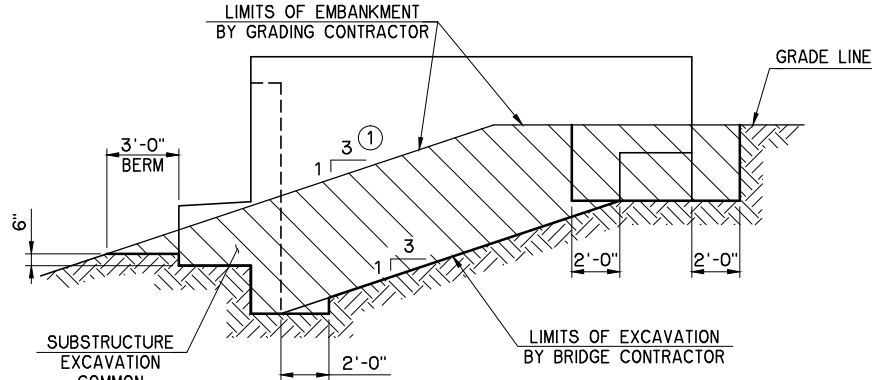
ABUTMENT NO. 1 SHOWN,  
ABUTMENT NO. 2 SIMILAR

NOTES:  
CONCRETE MAY BE PLACED AGAINST THE LIMITS OF EXCAVATION IF THE MATERIAL IS EXCAVATED TO THE NEAT LINES OF THE ABUTMENT AND APPROVED BY THE ENGINEER. IF NECESSARY, FORMS SHALL BE USED ON THE BACK VERTICAL FACE OF THE ABUTMENT AND REMOVED AFTER THE CONCRETE HAS SET. THE MEASUREMENT AND PAYMENT "SUBSTRUCTURE EXCAVATION COMMON" AT THE ABUTMENTS SHALL BE IN ACCORDANCE WITH THE DETAILS SHOWN IN THE PLANS.

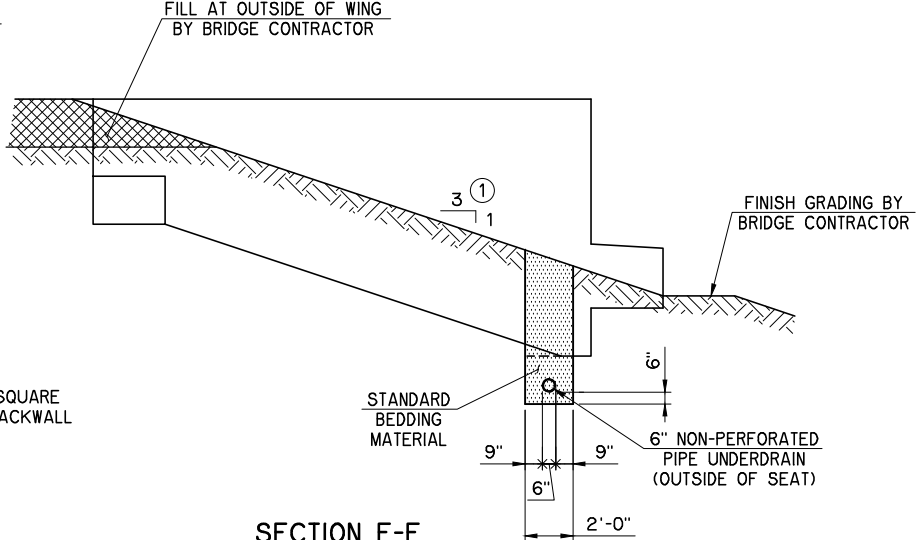
INSTALLATION OF THE PIPE UNDERDRAIN SHALL BE AS SHOWN IN THE PLANS AND ON THE ROADWAY STANDARD DRAWING PUD-3. THE EXTENT, LOCATION AND DEPTH OF THE 6" NON-PERFORATED PIPE UNDERDRAIN MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION. ALL COST OF THE PERFORATED AND NON-PERFORATED PIPE UNDERDRAIN MAY BE ADJUSTED BY THE ENGINEER DURING CONSTRUCTION. ALL COST OF THE PERFORATED AND NON-PERFORATED PIPE, PIPE UNDERDRAIN COVER MATERIAL, FILTER FABRIC, TRENCH EXCAVATION, STANDARD BEDDING MATERIAL, PIPE CAPS, RODENT SCREENS, BACKFILLING OF TRENCH EXCAVATION, MATERIAL, LABOR, EQUIPMENT AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF 6" PERFORATED PIPE UNDERDRAIN ROUND AND "6" NON-PERFORATED PIPE UNDERDRAIN ROUND.



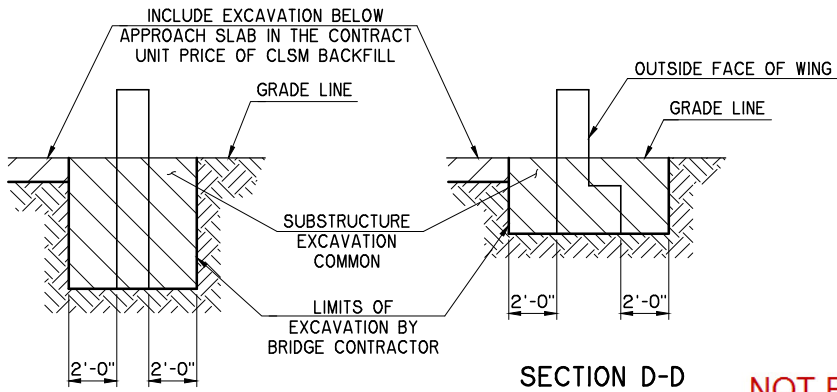
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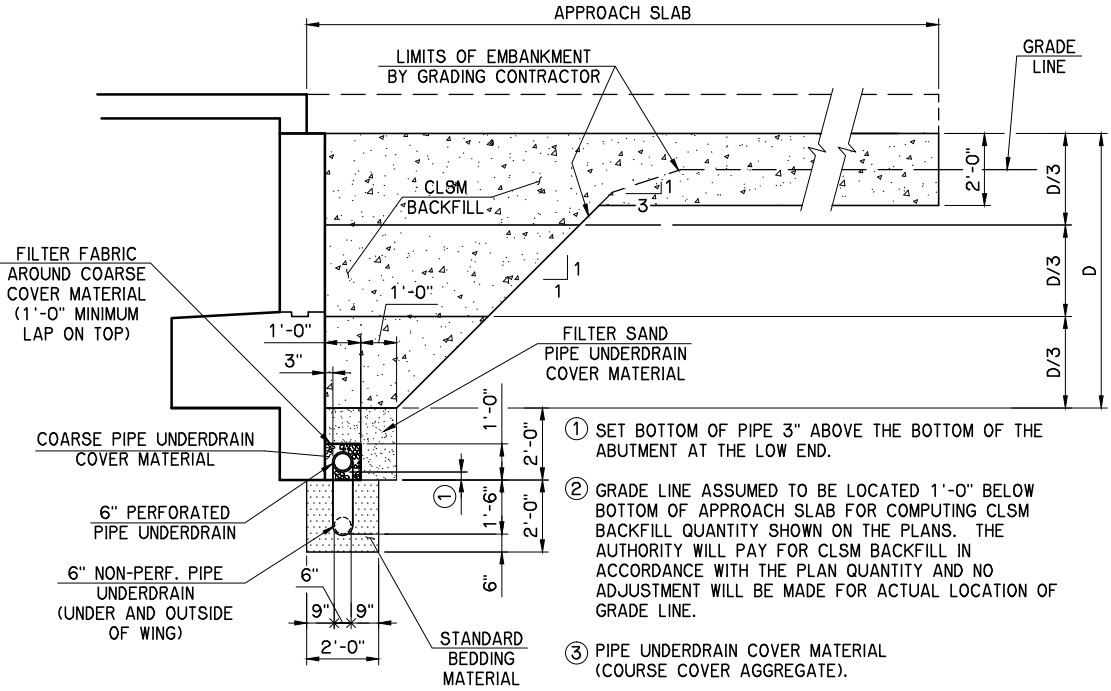
SECTION B-B



SECTION F-F



SECTION C-C



SECTION E-E

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

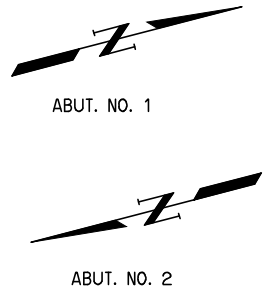
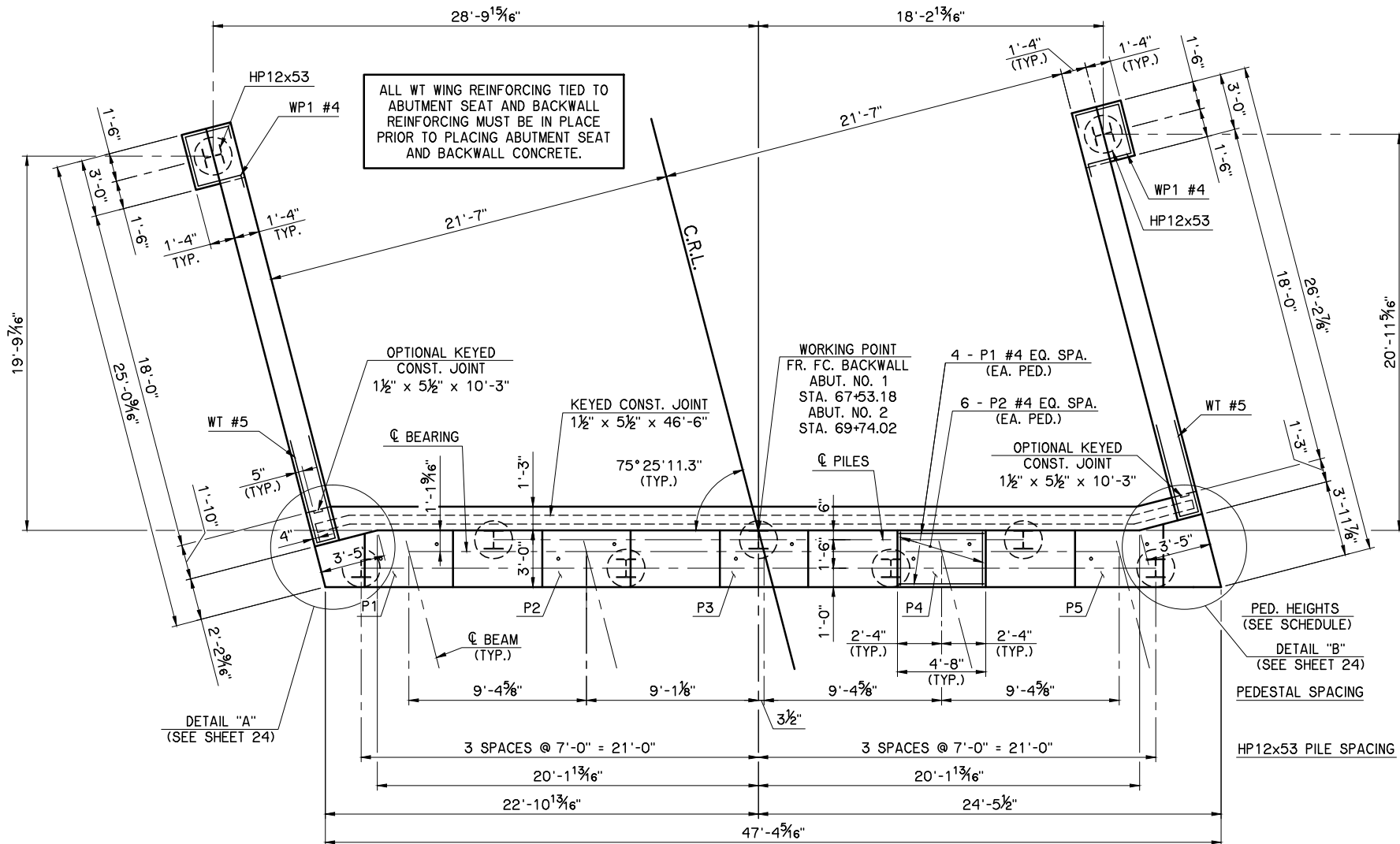
- SET BOTTOM OF PIPE 3" ABOVE THE BOTTOM OF THE ABUTMENT AT THE LOW END.
- GRADE LINE ASSUMED TO BE LOCATED 1'-0" BELOW BOTTOM OF APPROACH SLAB FOR COMPUTING CLSM BACKFILL QUANTITY SHOWN ON THE PLANS. THE AUTHORITY WILL PAY FOR CLSM BACKFILL IN ACCORDANCE WITH THE PLAN QUANTITY AND NO ADJUSTMENT WILL BE MADE FOR ACTUAL LOCATION OF GRADE LINE.
- PIPE UNDERDRAIN COVER MATERIAL (COARSE COVER AGGREGATE).
- CLSM BACKFILL TO BE PLACED IN 3 LIFTS OF APPROXIMATELY EQUAL DEPTHS. THE NEXT LIFT SHALL NOT BE POURED UNTIL THE PREVIOUS LIFT HAS ATTAINED A STRENGTH OF 100 P.S.I.

NO.	REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE			
PLAN SCALE	S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.458		
PROFILE SCALE	SUBSTRUCTURE EXCAVATION AND PIPE UNDERDRAIN DETAILS		
HORIZONTAL	WHITE ENGINEERING ASSOCIATES, INC.		
VERTICAL	5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702		
DESIGNED	DRB	CONTRACT NO.	HEB-MC-54
DRAWN	ADT	DATE	SHEET 22 OF 71
CHECKED			

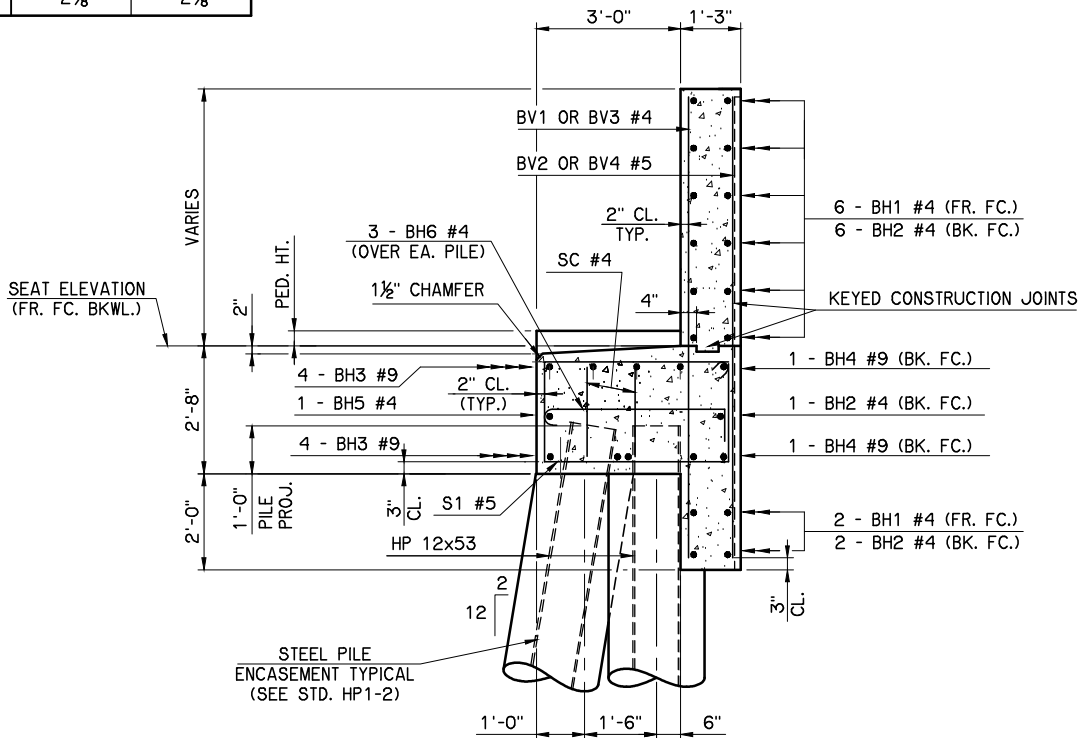
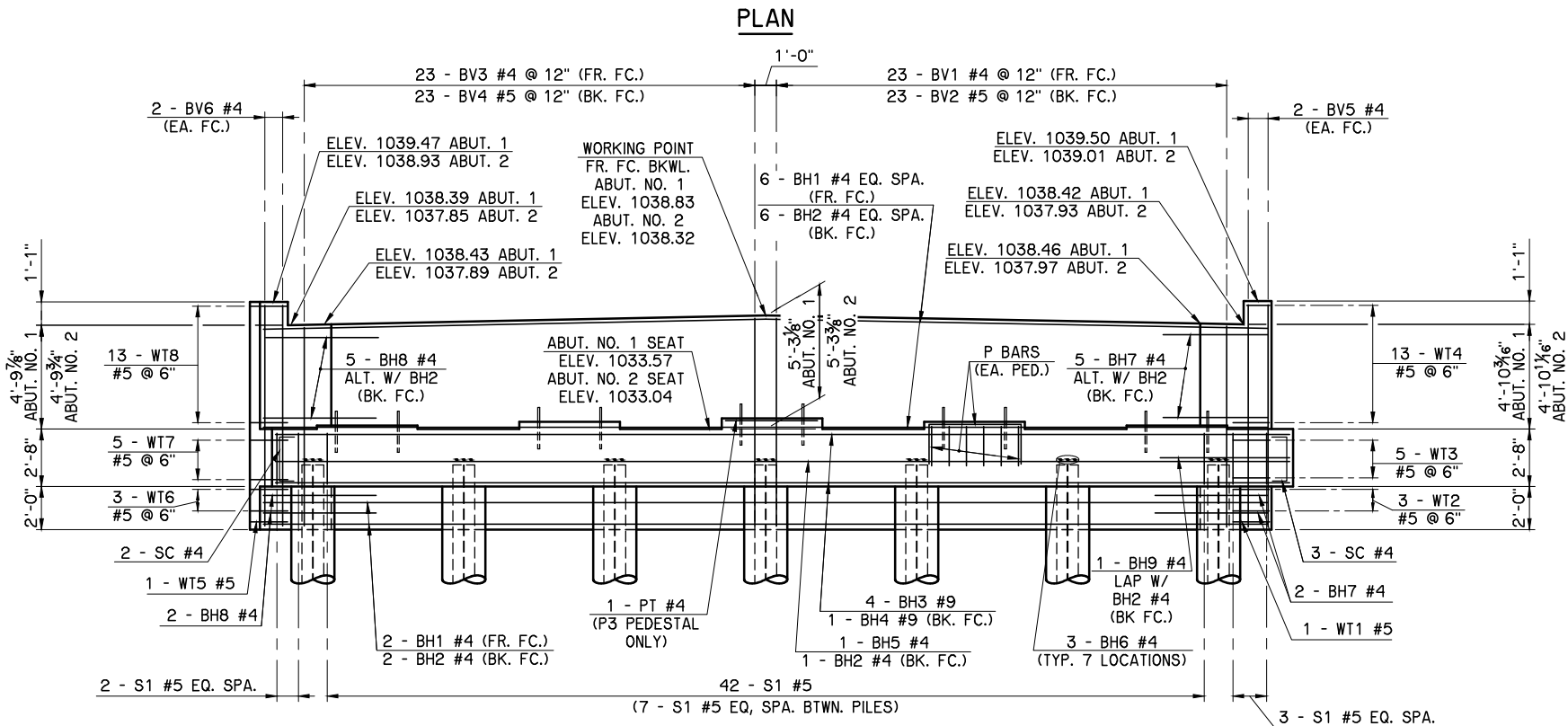
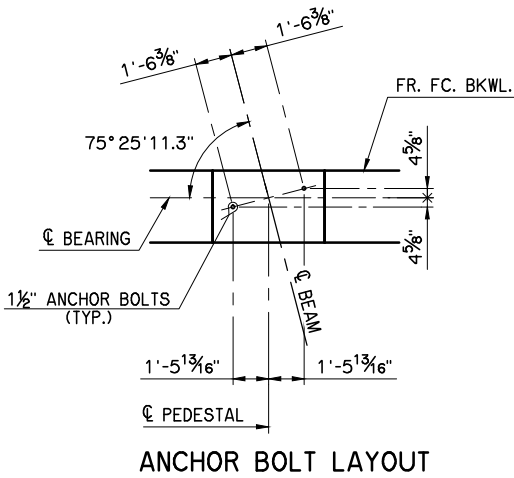
**NOT FOR CONSTRUCTION**  
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OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
HEB	HEB-MC-54	23	71	
DESCRIPTION			REVISIONS	DATE



PEDESTAL HEIGHTS		
LOCATION	ABUT. NO. 1	ABUT. NO. 2
P1	2"	2"
P2	4 1/4"	4 3/8"
P3	6 1/2"	6 7/8"
P4	4 1/2"	4 7/8"
P5	2 3/8"	2 7/8"



NOTES:  
FOR WING ELEVATIONS, SEE SHEET 24.  
FOR ABUTMENT WATER REPELLENT AND SPECIAL CONCRETE FINISH TREATMENT DETAIL, ABUTMENT QUANTITIES, BAR LIST AND BAR BENDS, SEE SHEET 25.

NO.		REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE				
PLAN SCALE		S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.458		
PROFILE SCALE		ABUTMENT DETAILS SHEET 1 OF 3		
HORIZONTAL		WHITE ENGINEERING ASSOCIATES, INC.		
VERTICAL		5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702		
DESIGNED	ADT	CONTRACT NO. HEB-MC-54		
DRAWN	DRB	DATE		
CHECKED	ADT	SHEET 23 OF 71		





NOT FOR CONSTRUCTION  
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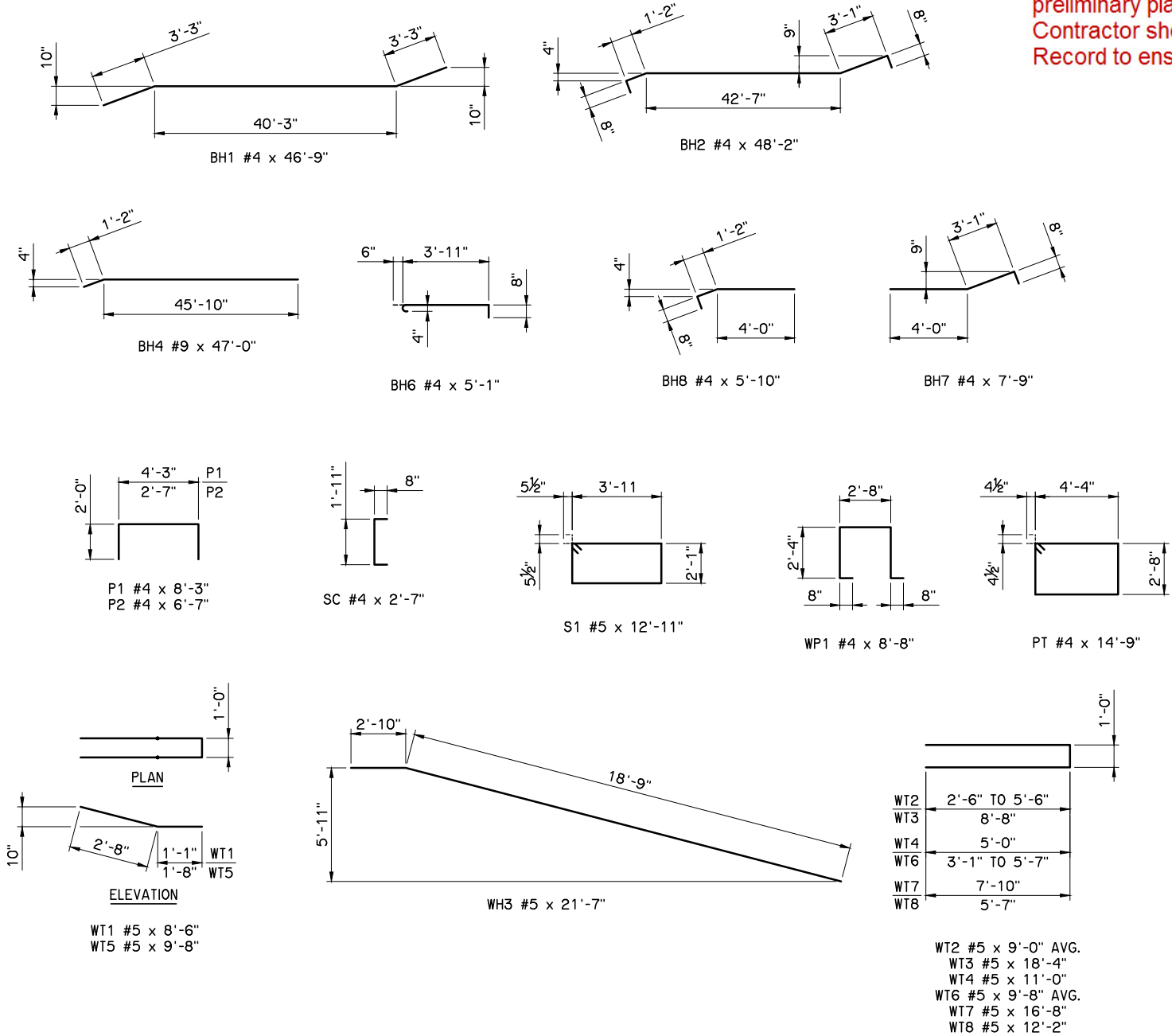
OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	25	71
DESCRIPTION			REVISIONS	DATE

ABUTMENT BAR LIST  
ONE SHOWN, TWO REQUIRED

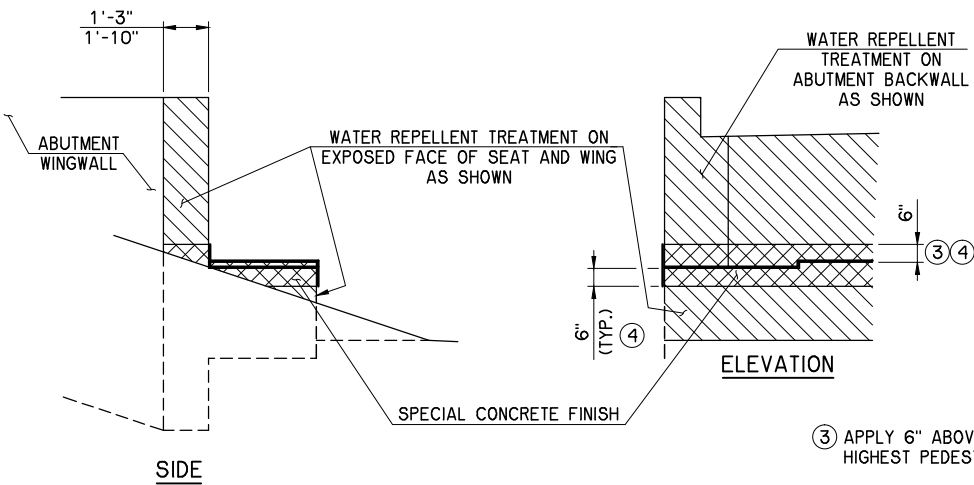
MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION
EPOXY COATED REINFORCING BARS					
BH1	#4	8	BNT.	46'-9"	
BH2	#4	9	BNT.	48'-2"	
BH3	#9	8	STR.	47'-0"	
BH4	#9	2	BNT.	47'-0"	
BH5	#4	1	STR.	47'-0"	
BH6	#4	21	BNT.	5'-1"	
BH7	#4	7	BNT.	7'-9"	
BH8	#4	7	BNT.	5'-10"	
BH9	#4	1	STR.	6'-0"	
BV1	#4	23	STR.	9'-4" AVG.	9'-2" TO 9'-6"
BV2	#5	23	STR.	9'-4" AVG.	9'-2" TO 9'-6"
BV3	#4	23	STR.	9'-3" AVG.	9'-0" TO 9'-6"
BV4	#5	23	STR.	9'-3" AVG.	9'-0" TO 9'-6"
BV5	#4	4	STR.	10'-2"	
BV6	#4	4	STR.	10'-1"	
P1	#4	20	BNT.	8'-3"	
P2	#4	30	BNT.	6'-7"	
PT	#4	1	BNT.	14'-9"	
SC	#4	5	BNT.	2'-7"	
S1	#5	47	BNT.	12'-11"	
WH1	#5	40	STR.	20'-8"	
① WH2	#5	32	STR.	11'-1" AVG.	5'-10" TO 16'-4"
WH3	#5	4	BNT.	21'-7"	
WT1	#5	1	BNT.	8'-6"	
WT2	#5	3	BNT.	9'-0" AVG.	6'-0" TO 12'-0"
WT3	#5	5	BNT.	18'-4"	
WT4	#5	13	BNT.	11'-0"	
WT5	#5	1	BNT.	9'-8"	
WT6	#5	3	BNT.	9'-8" AVG.	7'-2" TO 12'-2"
WT7	#5	5	BNT.	16'-8"	
WT8	#5	13	BNT.	12'-2"	
WV1	#4	16	STR.	4'-0"	
② WV2	#4	72	STR.	7'-3" AVG.	4'-5" TO 10'-1"
WP1	#4	6	BNT.	8'-8"	
WP2	#4	8	STR.	1'-7"	

- ① 4 SETS OF 8  
② 4 SETS OF 18

NO.	REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE			
PLAN SCALE		S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.458	
PROFILE SCALE HORIZONTAL		ABUTMENT DETAILS SHEET 3 OF 3	
VERTICAL		WHITE ENGINEERING ASSOCIATES, INC. 5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702	
DESIGNED	ADT	CONTRACT NO. HEB-MC-54	
DRAWN	DRB	DATE	
CHECKED	ADT	SHEET 25 OF 71	



- LEGEND
- WATER REPELLENT
  - SPECIAL CONCRETE FINISH
  - SPECIAL CONCRETE FINISH



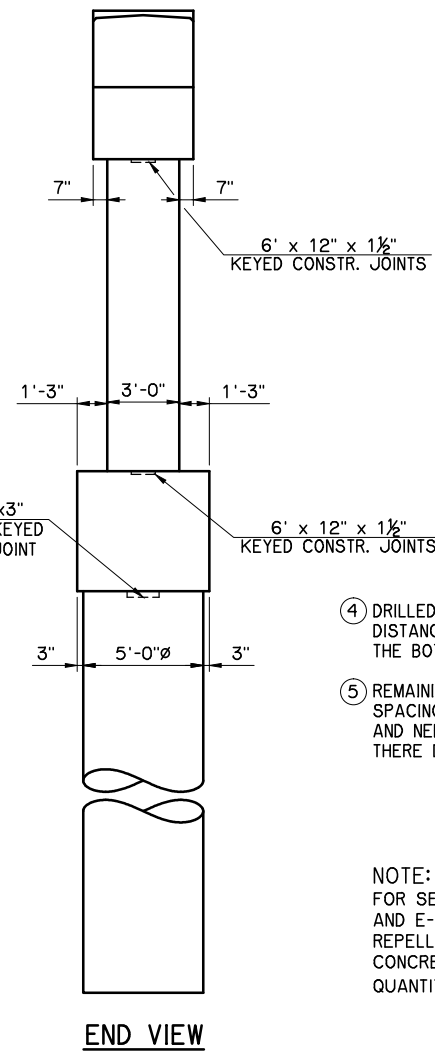
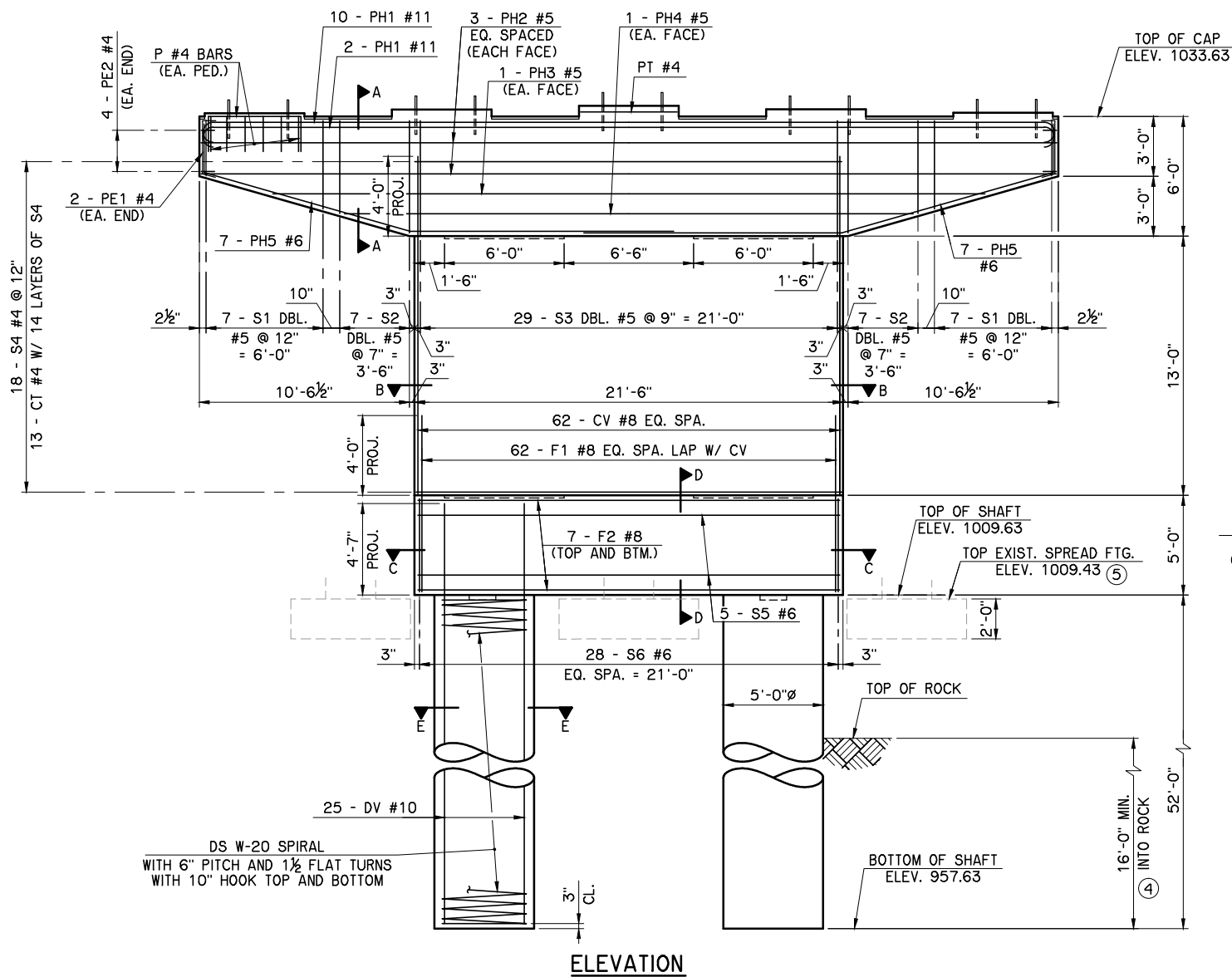
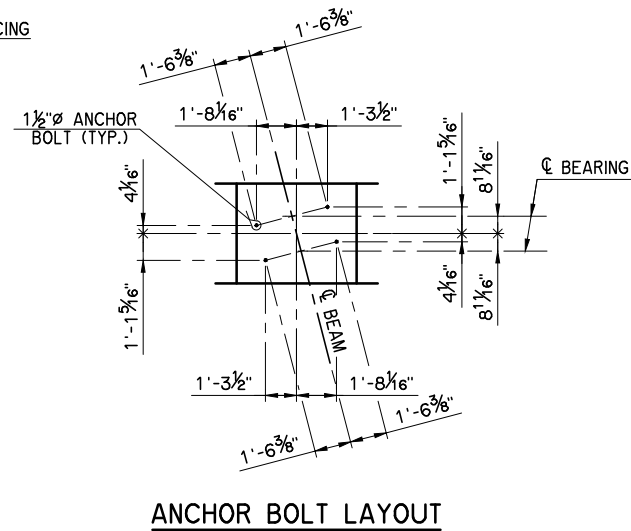
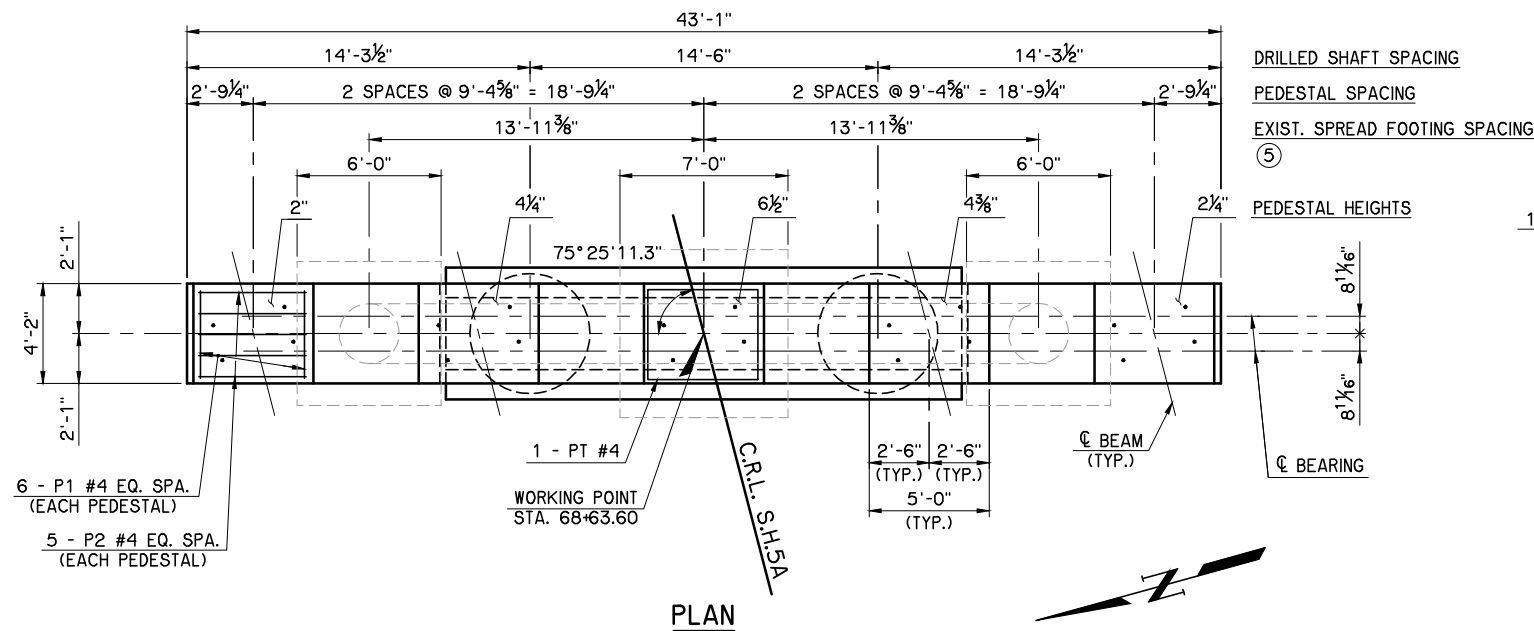
- ③ APPLY 6" ABOVE HIGHEST PEDESTAL  
④ MASK TO PROVIDE A CLEAN, STRAIGHT EDGE AT TOP AND BOTTOM OF SPECIAL CONCRETE FINISH APPLICATION.

ABUTMENT WATER REPELLENT AND  
SPECIAL CONCRETE FINISH TREATMENT DETAILS

ABUTMENT QUANTITIES

ITEM	UNIT	ABUT. NO. 1	ABUT. NO. 2	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	105	105	210
CLSM BACKFILL	C.Y.	145	145	290
(SP) SPECIAL CONCRETE FINISH	S.Y.	26	27	53
CLASS A CONCRETE	C.Y.	51.8	51.8	103.6
EPOXY COATED REINFORCING STEEL	LB.	6,320	6,320	12,640
PILES, FURNISHED (HP 12x53)	L.F.	462	462	924
PILES, DRIVEN (HP 12x53)	L.F.	462	462	924
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA.			1
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	31	31	62
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	43	43	86
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	22	25	47
OUTLET LATERAL HEADWALL	EA.	1	1	2





PIER CAP, COLUMN AND DRILLED SHAFT BAR LIST					
MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION
EPOXY COATED REINFORCING					
CT	#4	182	BNT.	3'-10"	
CV	#8	62	STR.	16'-10"	
F1	#8	62	STR.	8'-9"	
F2	#8	14	STR.	21'-0"	
P1	#4	30	BNT.	7'-2"	
P2	#4	25	BNT.	8'-0"	
PE1	#4	4	BNT.	3'-10"	
PE2	#4	8	BNT.	4'-11"	
PH1	#11	12	BNT.	45'-11"	
PH2	#5	6	STR.	42'-9"	
PH3	#5	2	STR.	35'-6"	
PH4	#5	2	STR.	28'-4"	
PH5	#6	14	BNT.	26'-2"	
PT	#4	1	BNT.	17'-5"	
S1	#5	28	BNT.	13'-9" AVG.	11'-11" TO 15'-7"
S2	#5	28	BNT.	17'-1" AVG.	16'-1" TO 18'-1"
S3	#5	46	BNT.	18'-3"	
S4	#4	18	BNT.	48'-5"	
S5	#6	5	BNT.	53'-0"	
S6	#6	28	BNT.	20'-4"	
PLAIN REINFORCING					
DS	W20	2	BNT.	1322'-4"	
DV	#10	50	STR.	56'-4"	

- ① LENGTH SHOWN DOES NOT ACCOUNT FOR SPLICES. CONTRACTOR MAY ADD SPLICES AS NECESSARY, BUT PAYMENT WILL NOT BE MADE FOR EXTRA LENGTH REQUIRED FOR SPLICES.
- ② INCLUDED IN CONTRACT UNIT PRICE OF DRILLED SHAFT.
- ③ 2 SETS OF 7

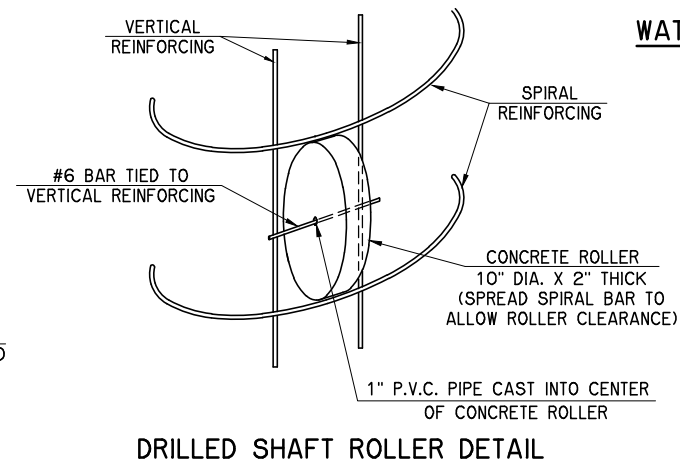
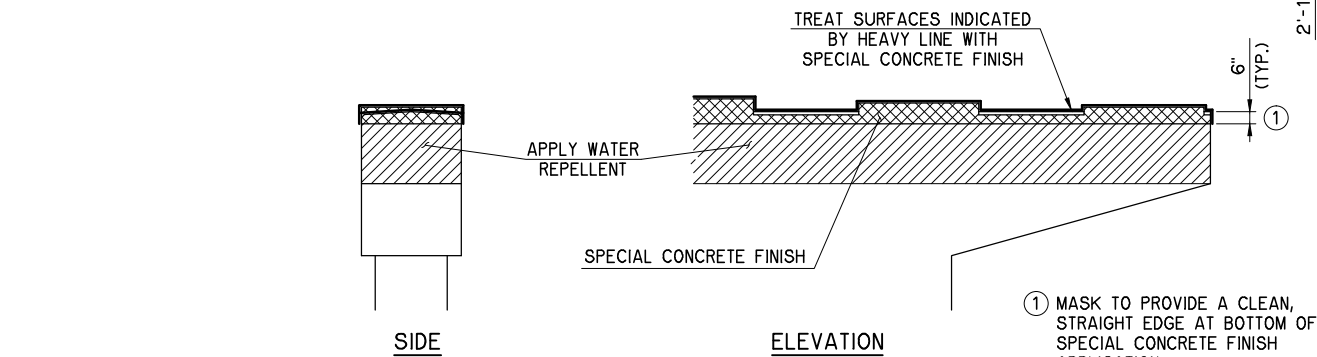
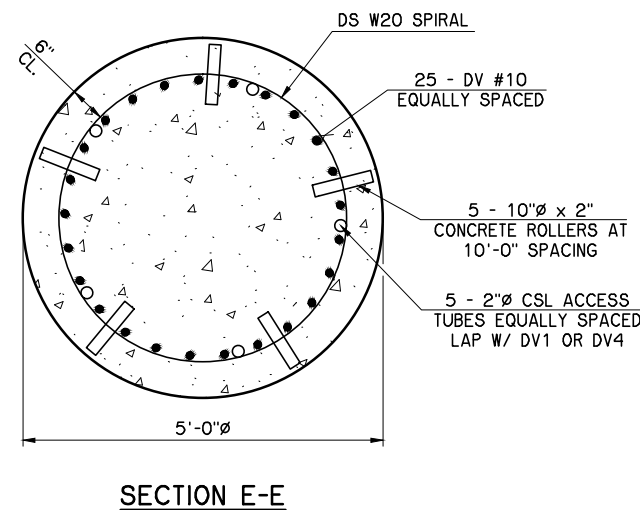
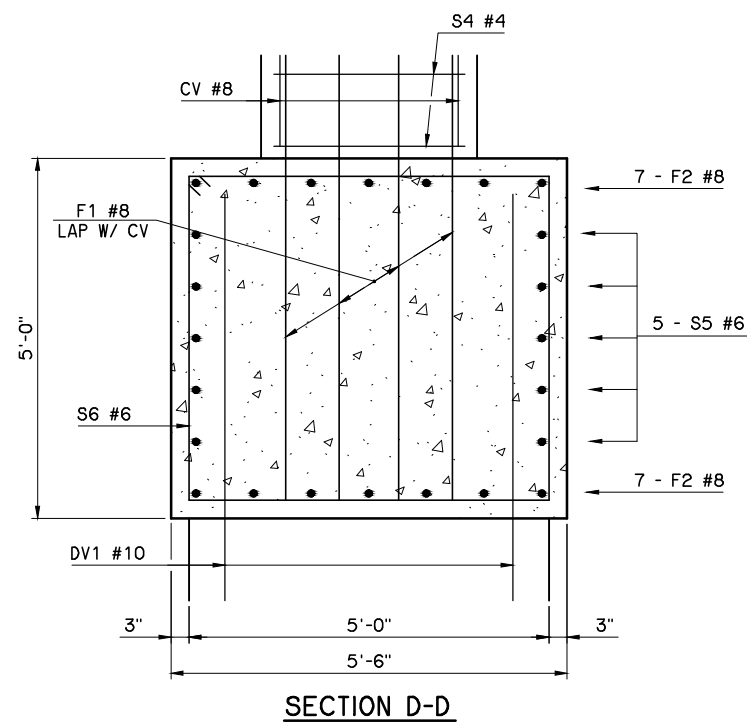
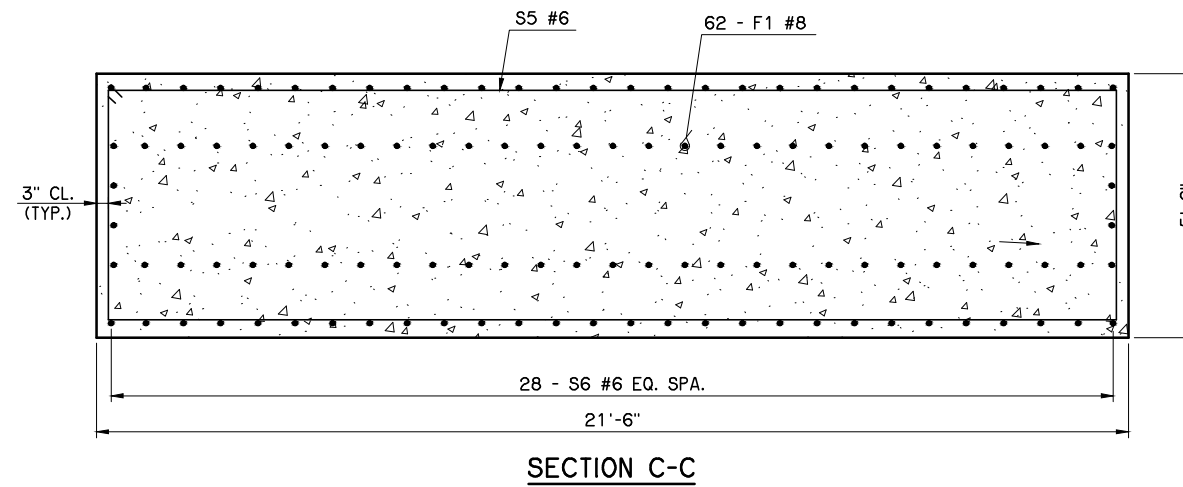
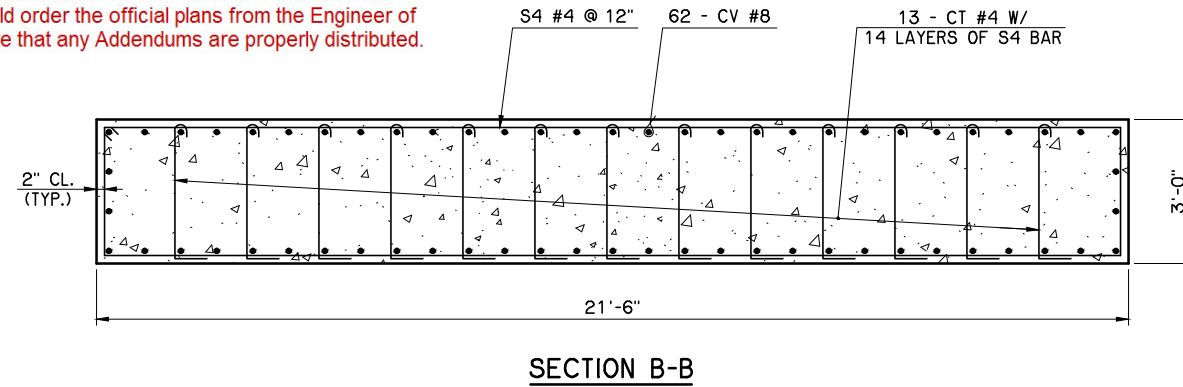
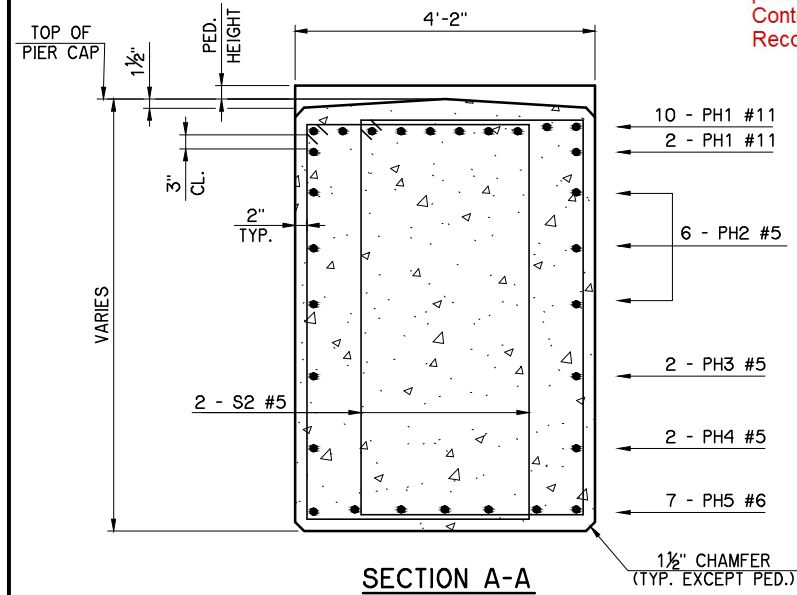
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- ④ DRILLED SHAFT SHALL BE INSTALLED THE SPECIFIED MINIMUM DISTANCE INTO ROCK, BUT IN NO CASE SHALL BE HIGHER THAN THE BOTTOM OF DRILLED SHAFT ELEV. SHOWN ON PLANS.
- ⑤ REMAINING IN PLACE EXISTING SPREAD FOOTING DIMENSION, SPACING AND ELEVATIONS ARE TAKEN FROM RECORD DRAWINGS, AND NEED TO BE FIELD VERIFIED. INFORM THE ENGINEER IF THERE IS A CONFLICT WITH THE NEW DRILLED SHAFTS.

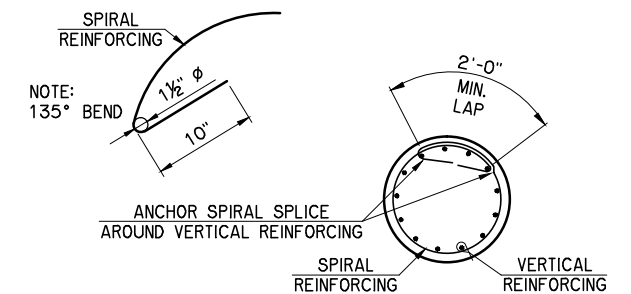
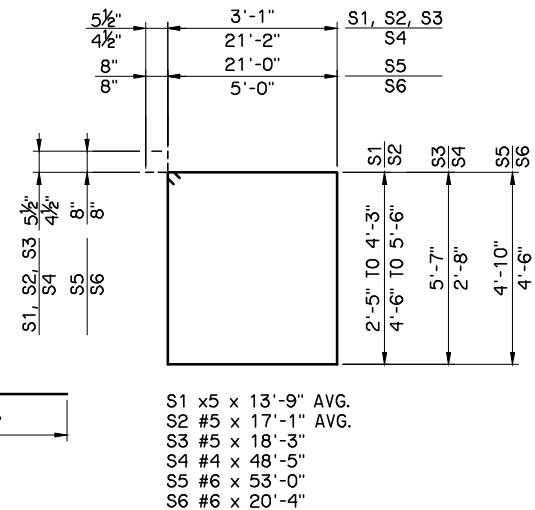
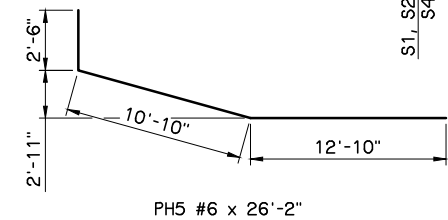
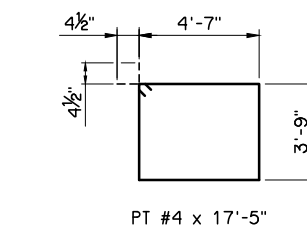
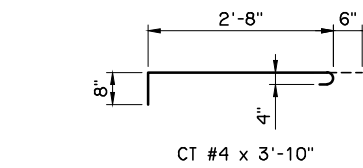
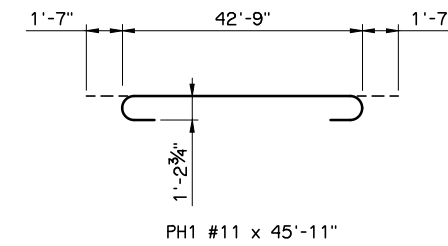
NOTE:  
FOR SECTIONS A-A, B-B, C-C, D-D AND E-E, BAR BENDS, WATER REPELLENT TREATMENT AND SPECIAL CONCRETE FINISH DETAIL AND QUANTITY BLOCK, SEE SHEET 27.

NO.	REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE			
PLAN SCALE	S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.458		
PROFILE SCALE	PIER DETAILS SHEET 1 OF 2		
HORIZONTAL	WHITE ENGINEERING ASSOCIATES, INC.		
VERTICAL	5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702		
DESIGNED	ADT	CONTRACT NO.	HEB-MC-54
DRAWN	DRB	DATE	
CHECKED	ADT		SHEET 26 OF 71

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

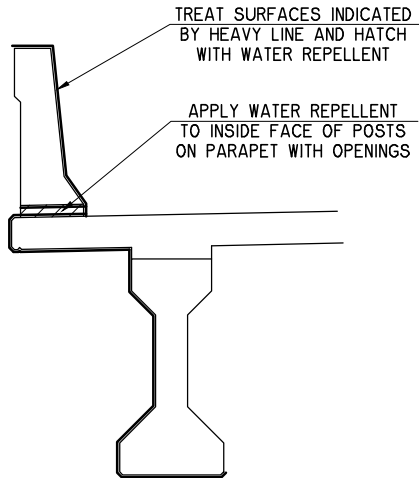
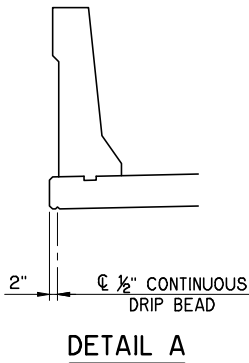


PIER QUANTITIES		
ITEM	UNIT	TOTAL
(SP) SPECIAL CONCRETE FINISH	S.Y.	30.
CLASS A CONCRETE	C.Y.	89.
EPOXY COATED REINFORCING STEEL	LB.	13,300
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	25
DRILLED SHAFTS 60" DIAMETER	L.F.	104
CROSSHOLE SONIC LOGGING	EA.	1

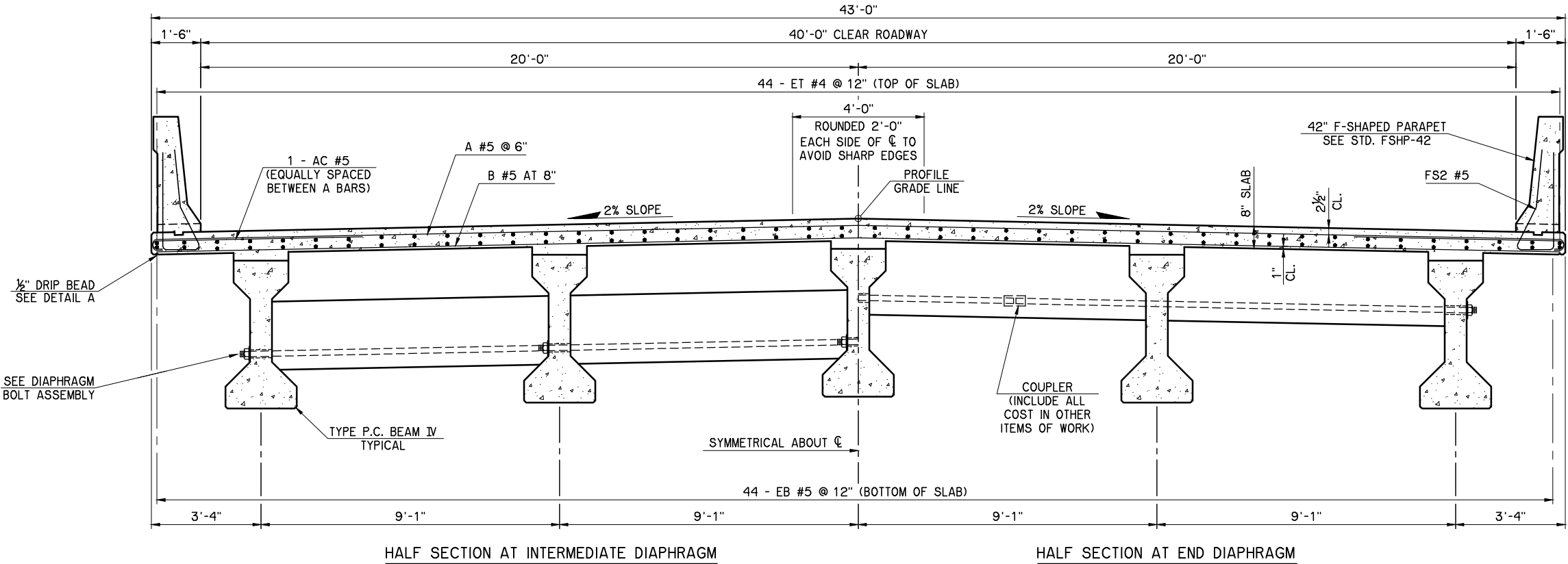
NO.	REVISION	BY	DATE
<p align="center"><b>OKLAHOMA TURNPIKE AUTHORITY</b>  <b>HE BAILEY TURNPIKE</b></p>			
PLAN SCALE	<p align="center"><b>S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY</b>  <b>BRIDGE NO. 16.458</b></p>		
PROFILE SCALE	<p align="center"><b>PIER DETAILS</b></p>		
HORIZONTAL	<p align="center"><b>SHEET 2 OF 2</b></p>		
VERTICAL	<p><b>WHITE ENGINEERING ASSOCIATES, INC.</b></p>		<p align="center">5104 N. FRANCIS AVENUE, SUITE 102            OKLAHOMA CITY, OKLAHOMA 73118            TELEPHONE (405) 208-8700            FAX (405) 208-8702</p>
DESIGNED	ADT	SECTION	
DRAWN	DRB	5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702	
CHECKED	ADT	HEB-MC-54	
		DATE	SHEET 27 OF 71



OKLAHOMA TURNPIKE AUTHORITY				
SECTION	ENGINEER	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	28	71
DESCRIPTION		REVISIONS		DATE

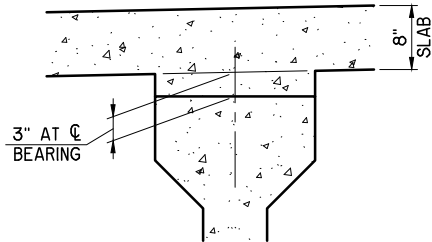


WATER REPELLENT TREATMENT DETAILS

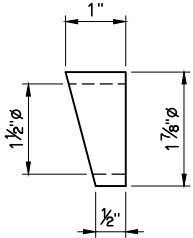
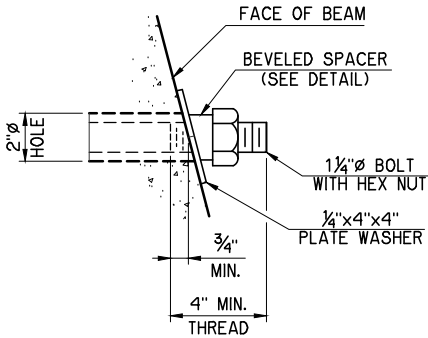
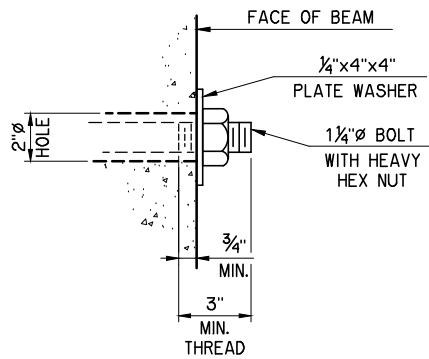


NOTES:  
FOR BAR BENDS AND BAR LIST, SEE SHEET 33.  
  
ROTATE HOOKS ON AC AND A BARS TO MAINTAIN MINIMUM CLEARANCE.

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BEAM HAUNCH DETAIL



INTERMEDIATE DIAPHRAGM

END DIAPHRAGM

DIAPHRAGM BOLT ASSEMBLY DETAILS

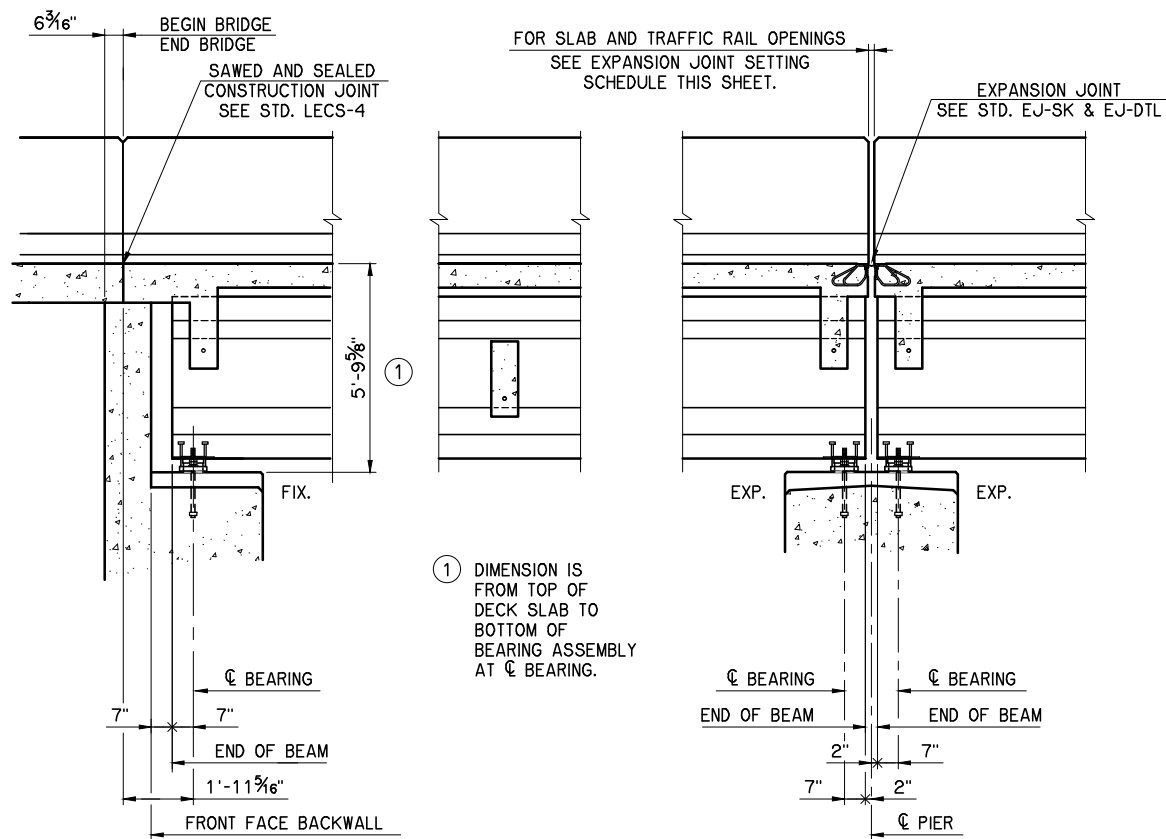
DIAPHRAGM BOLT NOTES

PROVIDE STRUCTURAL STEEL FOR DIAPHRAGM BOLTS AND PLATE WASHERS IN ACCORDANCE WITH AASHTO M270 (ASTM A709), GRADE 50W (WEATHERING STEEL, CHARPY V-NOTCH TESTING NOT REQUIRED). THE CONTRACTOR MAY SUBSTITUTE A #10 REINFORCING BAR IN ACCORDANCE WITH AASHTO M31, GRADE 60, AND THREADED AT THE ENDS AS SHOWN FOR THE DIAPHRAGM BOLT AT NO ADDITIONAL COST TO THE AUTHORITY. PROVIDE HEX NUTS IN ACCORDANCE WITH AASHTO M291 (ASTM A563).  
PAINT EXPOSED DIAPHRAGM BOLT, PLATE WASHER, BEVELED SPACER AND HEX NUT WITH TWO (2) COATS OF ZINC-RICH PAINT (6 MIL MINIMUM THICKNESS) AFTER ASSEMBLY. INCLUDE ALL COST OF DIAPHRAGM BOLT, PLATE WASHER, BEVELED SPACER AND HEX NUT IN THE CONTRACT UNIT PRICE FOR STRUCTURAL STEEL. USE STRUCTURAL STEEL FOR BEVELED SPACER CONFORMING TO AASHTO 53, GRADE B.

SUPERSTRUCTURE QUANTITIES		
ITEM	UNIT	TOTAL
PRESTRESSED CONCRETE BEAMS (TYPE IV)	L.F.	1,097
SAW-CUT GROOVING	S.Y.	988.4
SEALED EXPANSION JOINT	L.F.	42.3
42" F-SHAPED CONCRETE PARAPET	L.F.	444.4
STRUCTURAL STEEL	LB.	1,030
(SP) STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	10
(SP) STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA.	10
CLASS AA CONCRETE	C.Y.	259.5
EPOXY COATED REINFORCING STEEL	LB.	65,960
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	777

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 THE ACTUAL HAUNCH HEIGHTS FOR PAYMENT.

NO.	REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE			
PLAN SCALE	S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.45B		
PROFILE SCALE	SUPERSTRUCTURE DETAILS		
HORIZONTAL	SHEET 1 OF 6		
VERTICAL	TYPICAL CROSS SECTION		
DESIGNED	ADT	CONTRACT NO.	HEB-MC-54
DRAWN	DRB	DATE	SHEET 28 OF 71
CHECKED	ADT		



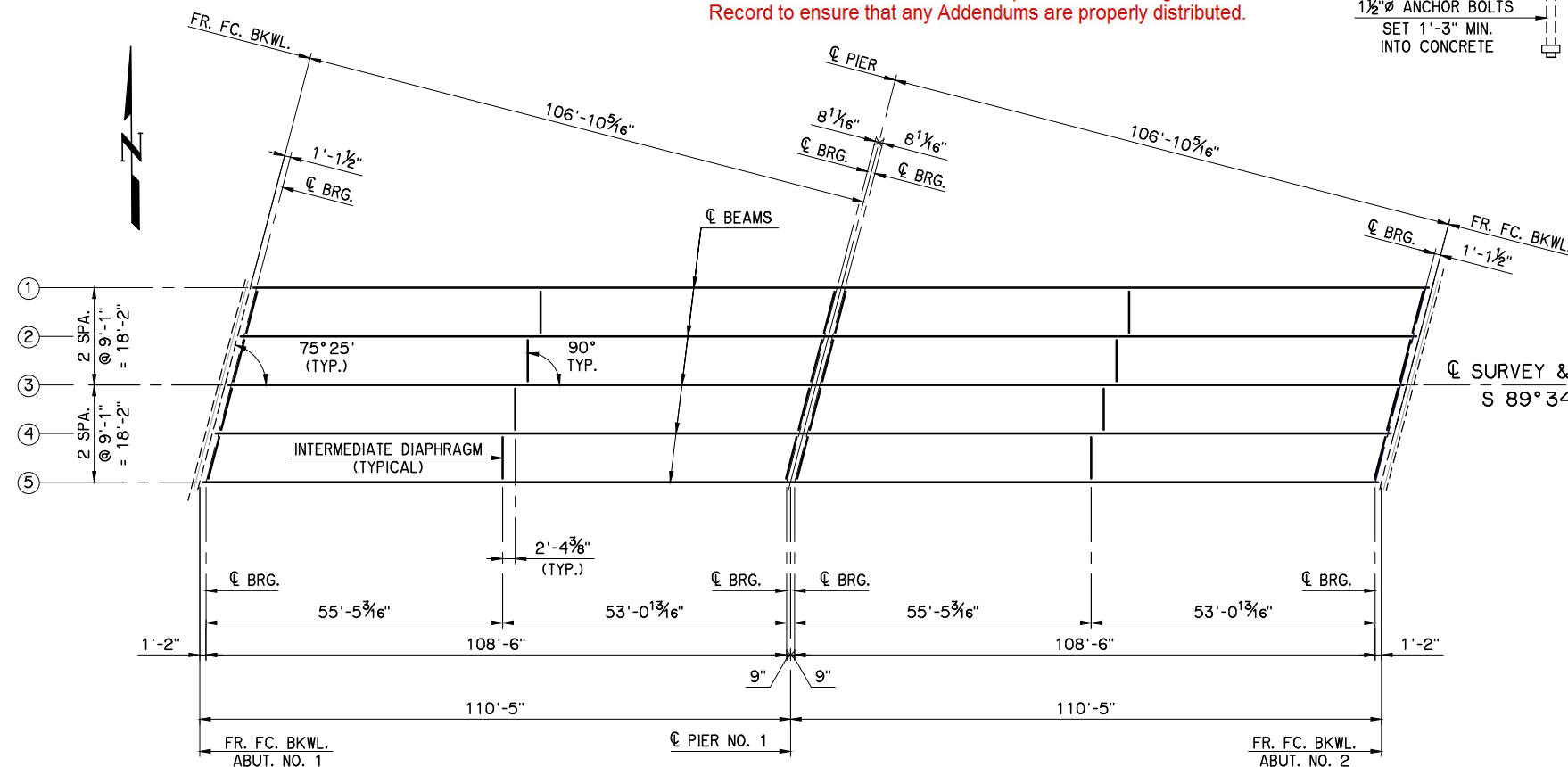
ABUTMENT NO. 1  
ABUTMENT NO. 2

INTERMEDIATE  
DIAPHRAGM

PIER NO. 1

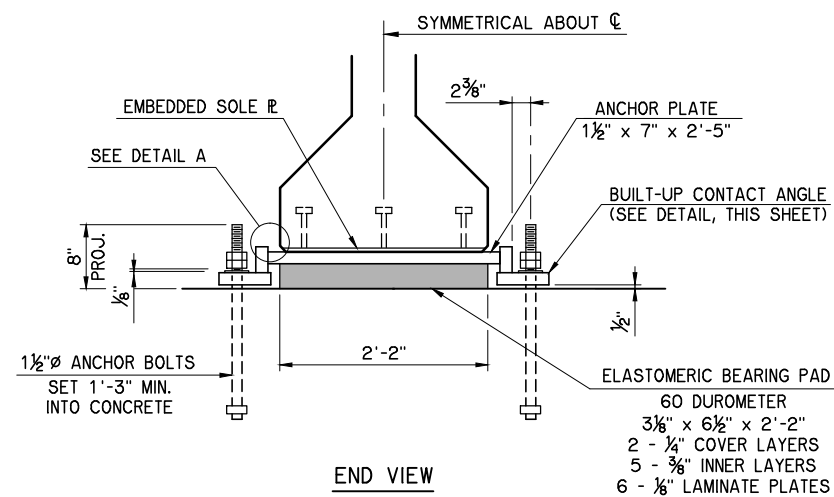
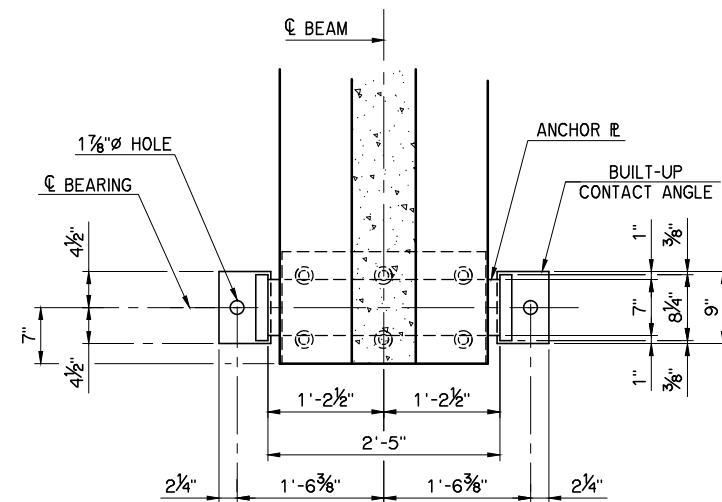
LONGITUDINAL SECTION  
DIMENSIONS ALONG  $\text{CL}$  OF BEAM

**NOT FOR CONSTRUCTION**  
Preliminary plan sheets are for information purposes only. The preliminary plans should not be used as a basis for bid. The Contractor should order the official plans from the Engineer of Record to ensure that any Addendums are properly distributed.

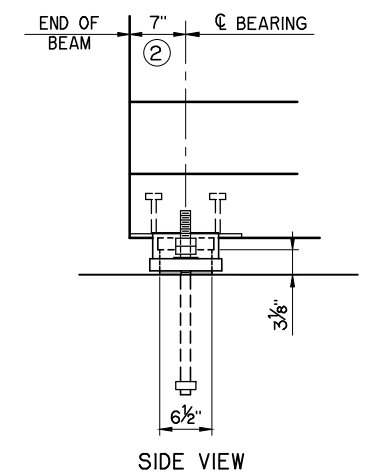
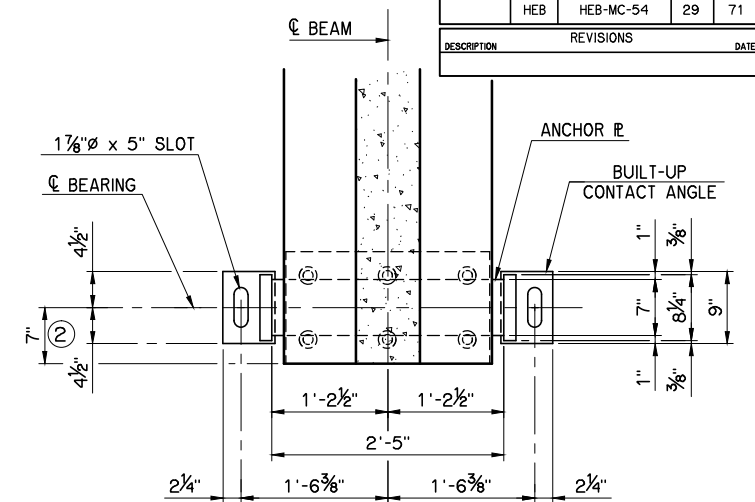
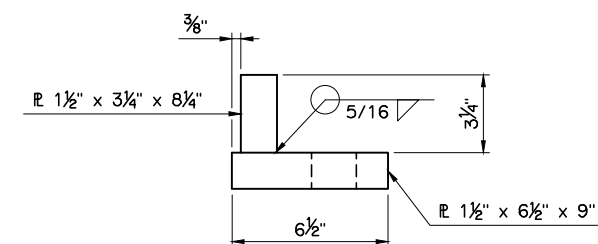
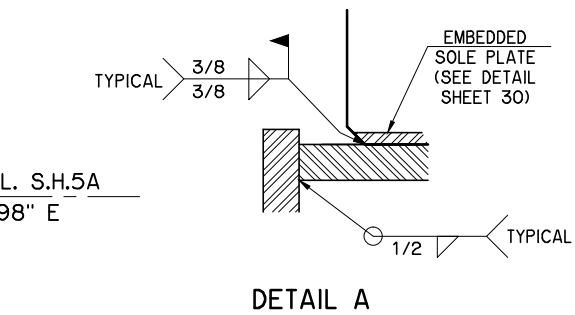


BEAM FRAMING PLAN  
DIMENSIONS ARE SHOWN ALONG  $\text{CL}$  BEAM

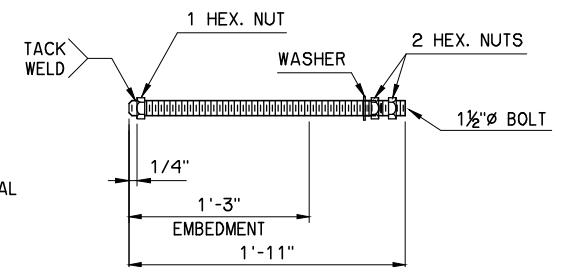
EXPANSION JOINT SETTING SCHEDULE	
EXP. JOINT OPENING	TEMPERATURE
3"	-22
2 7/8"	-13
2 3/4"	-5
2 5/8"	3
2 1/2"	11
2 3/8"	19
2 1/4"	27
2 1/8"	35
2"	43
1 7/8"	51
1 3/4"	59
1 5/8"	67
1 1/2"	75
1 3/8"	83
1 1/4"	91
1 1/8"	99
1"	108



BEARING DETAILS



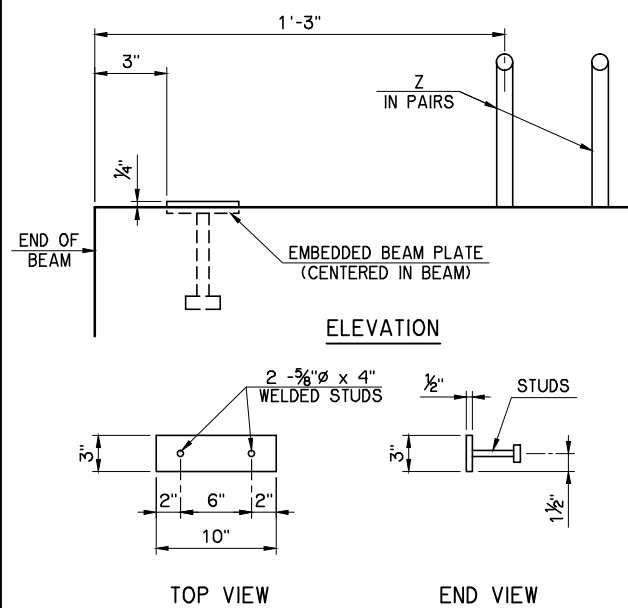
2 CENTER ANCHOR BOLTS IN SLOTS DURING SETTING OF BEAMS. DIMENSION MAY VARY DEPENDING ON TEMPERATURE AT THE TIME OF BEAM SETTING.



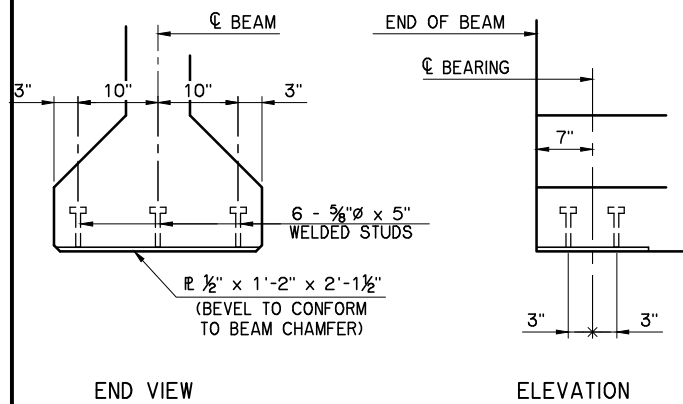
NO.	REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE			
PLAN SCALE	S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.458		
PROFILE SCALE	SUPERSTRUCTURE DETAILS SHEET 2 OF 6		
HORIZONTAL	LONGITUDINAL SECTION, BEAM FRAMING PLAN AND BEARING DETAILS		
VERTICAL	WHITE ENGINEERING ASSOCIATES, INC. 5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702		
DESIGNED	ADT	CONTRACT NO.	HEB-MC-54
DRAWN	DRB	DATE	
CHECKED	ADT		



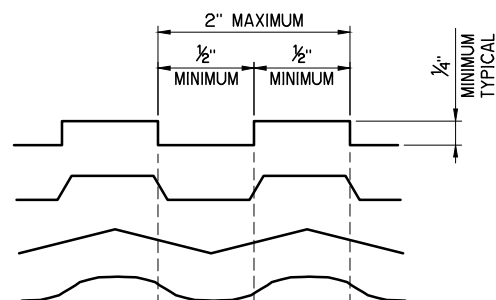
OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	30	71
REVISIONS				
DESCRIPTION				DATE



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

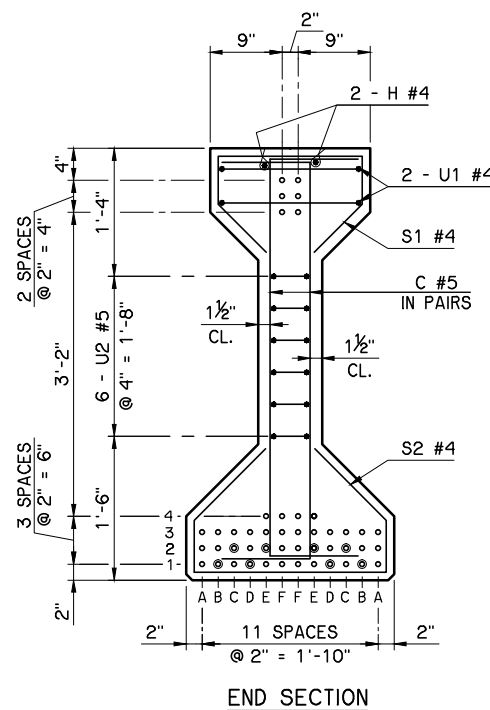
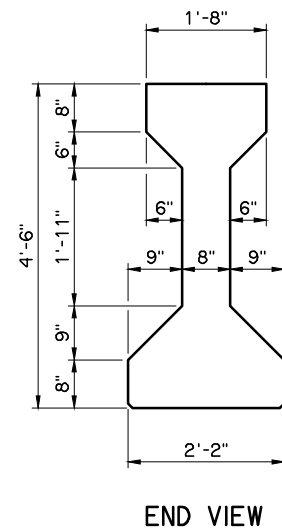
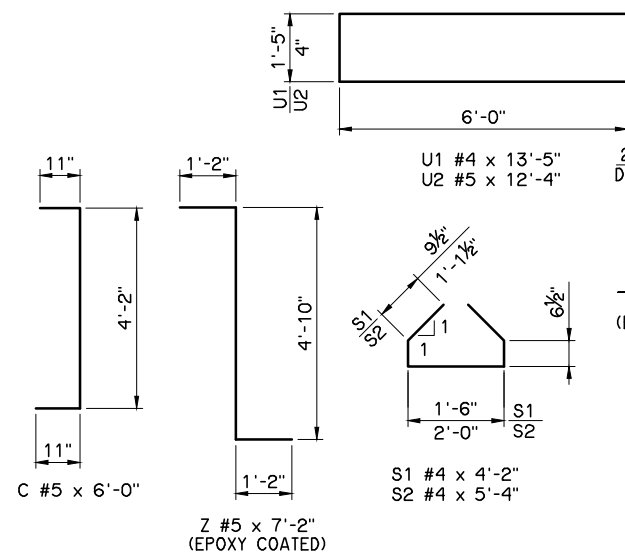


NOTE:  
PROVIDE AN EMBEDDED SOLE PLATE AT EACH END OF THE BEAM.

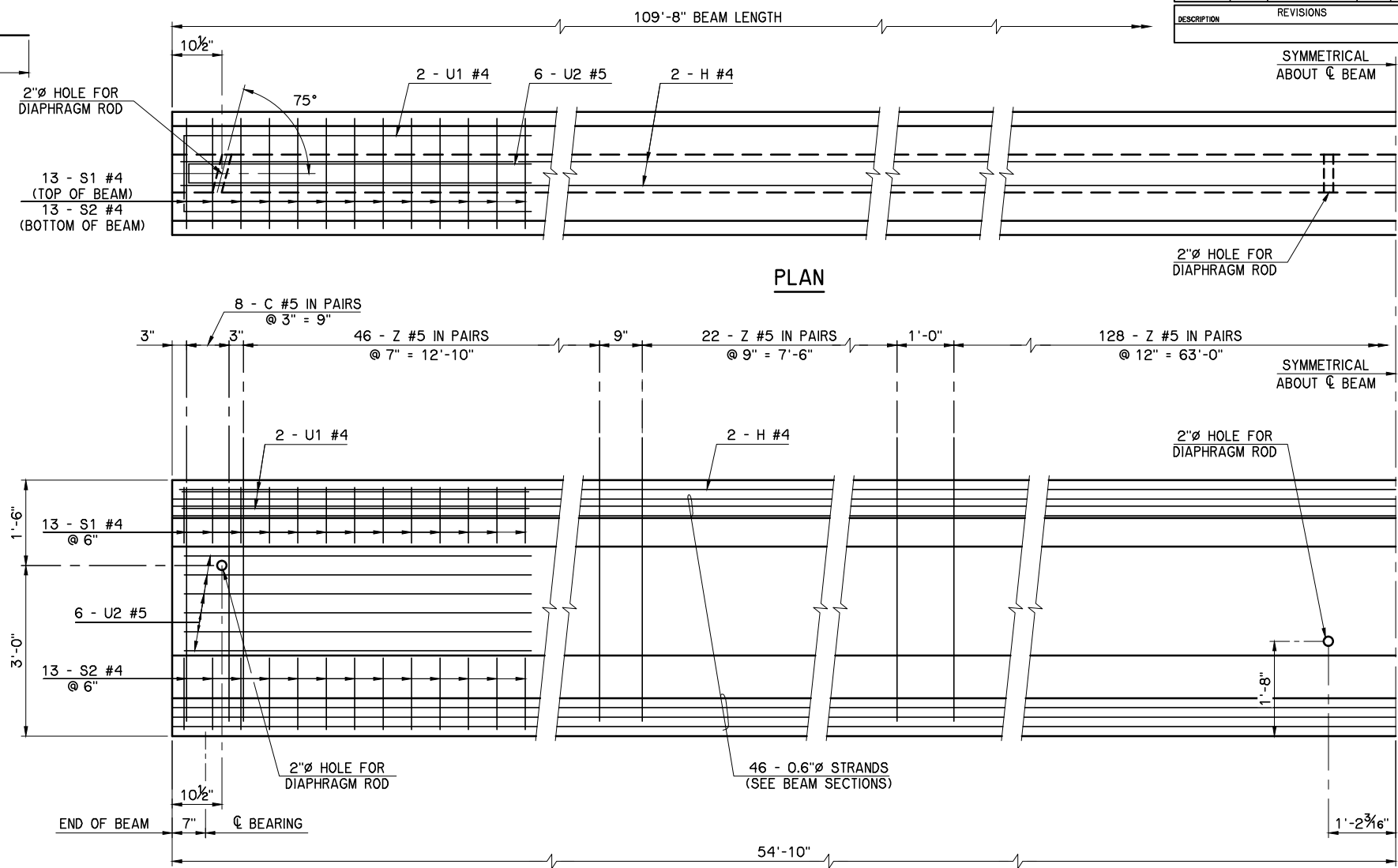
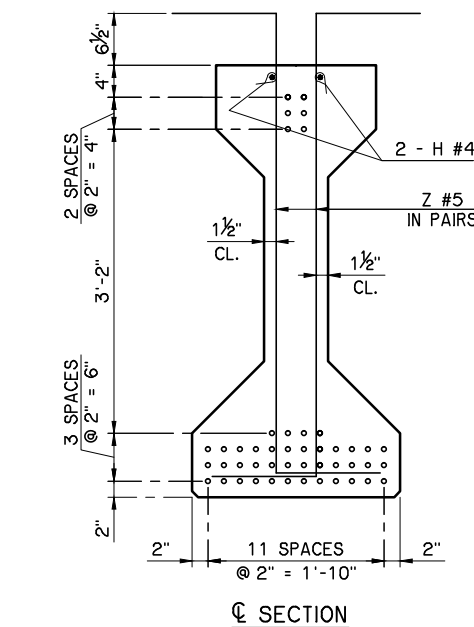


## INTENTIONALLY ROUGHENED SURFACE DETAILS

INTENTIONALLY ROUGHEN THE ENTIRE TOP SURFACE OF P.C. BEAM TO A MINIMUM HEIGHT OF 1/4" OVER A MAXIMUM PITCH OF 2" MEASURED LONGITUDINALLY ALONG THE LENGTH OF THE BEAM. PROVIDE A CREST AND TROUGH ASSOCIATED WITH THE HEIGHT OF NOT LESS THAN 1/2". PRODUCE THE ROUGHENED SURFACE BY USING A SPECIAL TROWEL TO FORM ONE OF THE SURFACES SHOWN IN THE DETAILS, BY CLEANING THE CONCRETE SURFACE WITH A STIFF WIRE BRUSH (OR BLASTING) TO EXPOSE THE AGGREGATE TO A HEIGHT OF 1/4", OR BY USING ANOTHER APPROVED METHOD. SUBMIT THE METHOD TO BE USED FOR APPROVAL BY THE ENGINEER. REPAIR ANY DAMAGE TO REINFORCEMENT'S EPOXY COATING BEFORE PLACEMENT OF DECK CONCRETE.



**BEAM SECTIONS**  
(46 - 0.6"Ø STRANDS)



DEBOND SCHEDULE	
DEBOND PAIR	DEBOND LENGTH FROM END OF BEAM
B1	12'-0"
D1	8'-0"
C2	4'-0"
E2	10'-0"

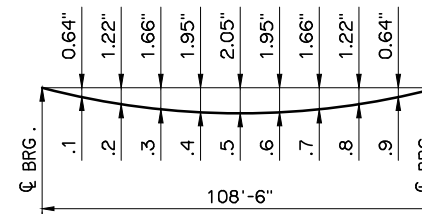
NOT FOR CONSTRUCTION

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## PRESTRESSED CONCRETE BEAM NOTES

COMPRESSIVE STRENGTH:  
PROVIDE CONCRETE WITH A COMPRESSIVE STRENGTH OF  
7,000 P.S.I. AT TRANSFER OF PRESTRESS AND 10,000  
P.S.I. AT 28 DAYS.

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

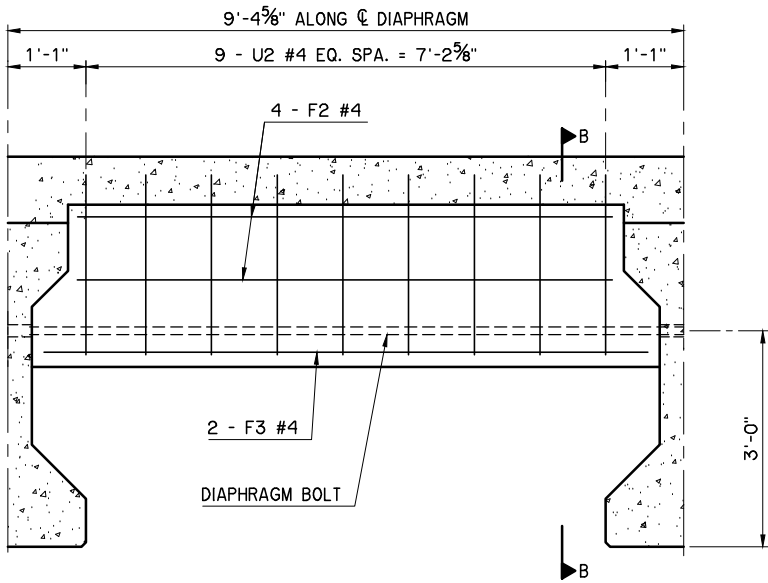


DEAD LOAD DEFLECTION DIAGRAM

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

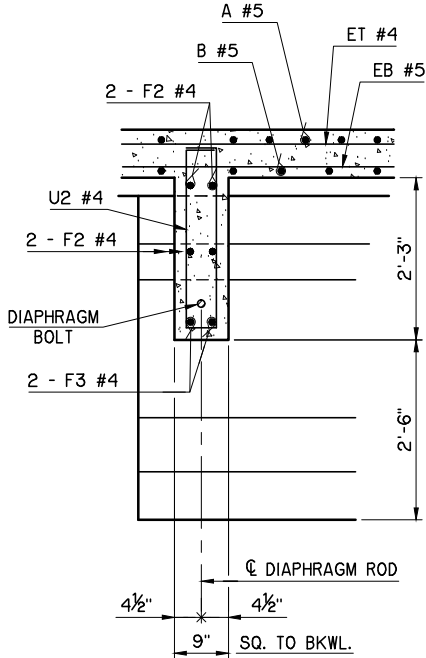
NO.	REVISION	BY	DATE
<p align="center"><b>OKLAHOMA TURNPIKE AUTHORITY</b>  <b>HE BAILEY TURNPIKE</b></p>			
PLAN SCALE	<p align="center">S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY  BRIDGE NO. 16.45B</p> <p align="center"><b>SUPERSTRUCTURE DETAILS</b></p> <p align="center">SHEET 3 OF 6</p> <p align="center">TYPE IV P.C. BEAM DETAILS</p>		
PROFILE SCALE			
HORIZONTAL			
VERTICAL	<p align="center"><b>WHITE</b>  <b>E ENGINEERING</b>  <b>ASSOCIATES, INC.</b></p>	<p align="center">5104 N. FRANCIS AVENUE, SUITE 102  OKLAHOMA CITY, OKLAHOMA 73118  TELEPHONE (405) 208-8700  FAX (405) 208-8702</p>	
DESIGNED	ADT	SECTION	
DRAWN	DRB	CONTRACT NO.      HEB-MC-54	
CHECKED	DATE	SHEET      30      OF      71	

OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	31	71
DESCRIPTION			REVISIONS	DATE



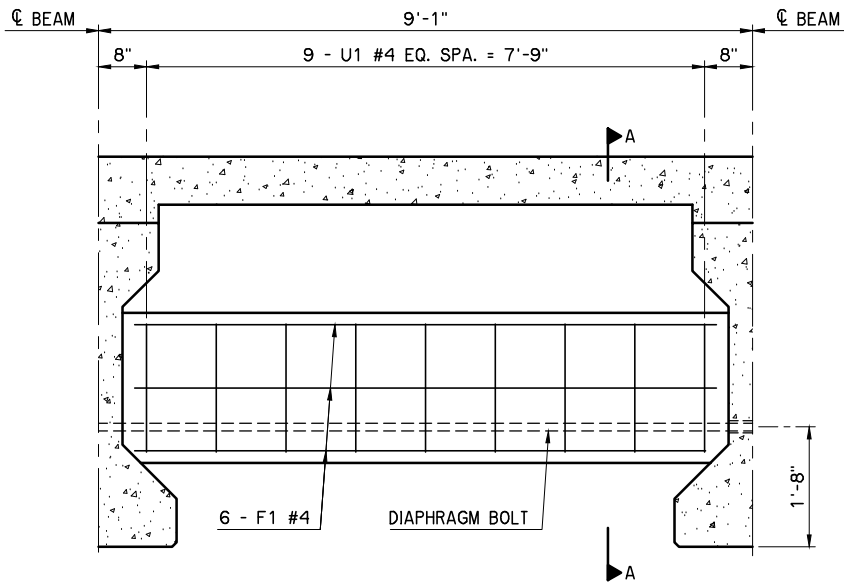
ELEVATION

END DIAPHRAGM DETAILS



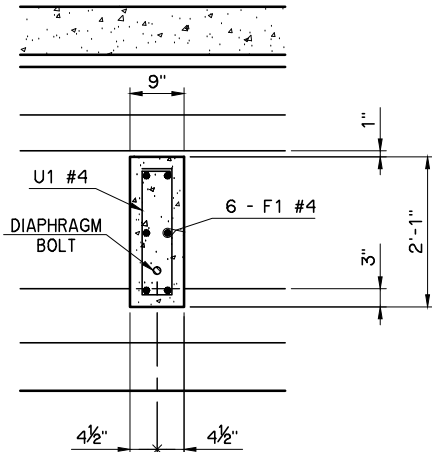
SECTION B-B

DIAPHRAGM DETAILS

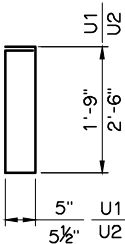


ELEVATION

INTERMEDIATE DIAPHRAGM DETAILS



SECTION A-A



U1 #4 x 4'-9"  
U2 #4 x 6'-4 1/2"

NOTE:  
FOR ADDITIONAL DETAILS AND  
BAR LIST, SEE SHEET 33.

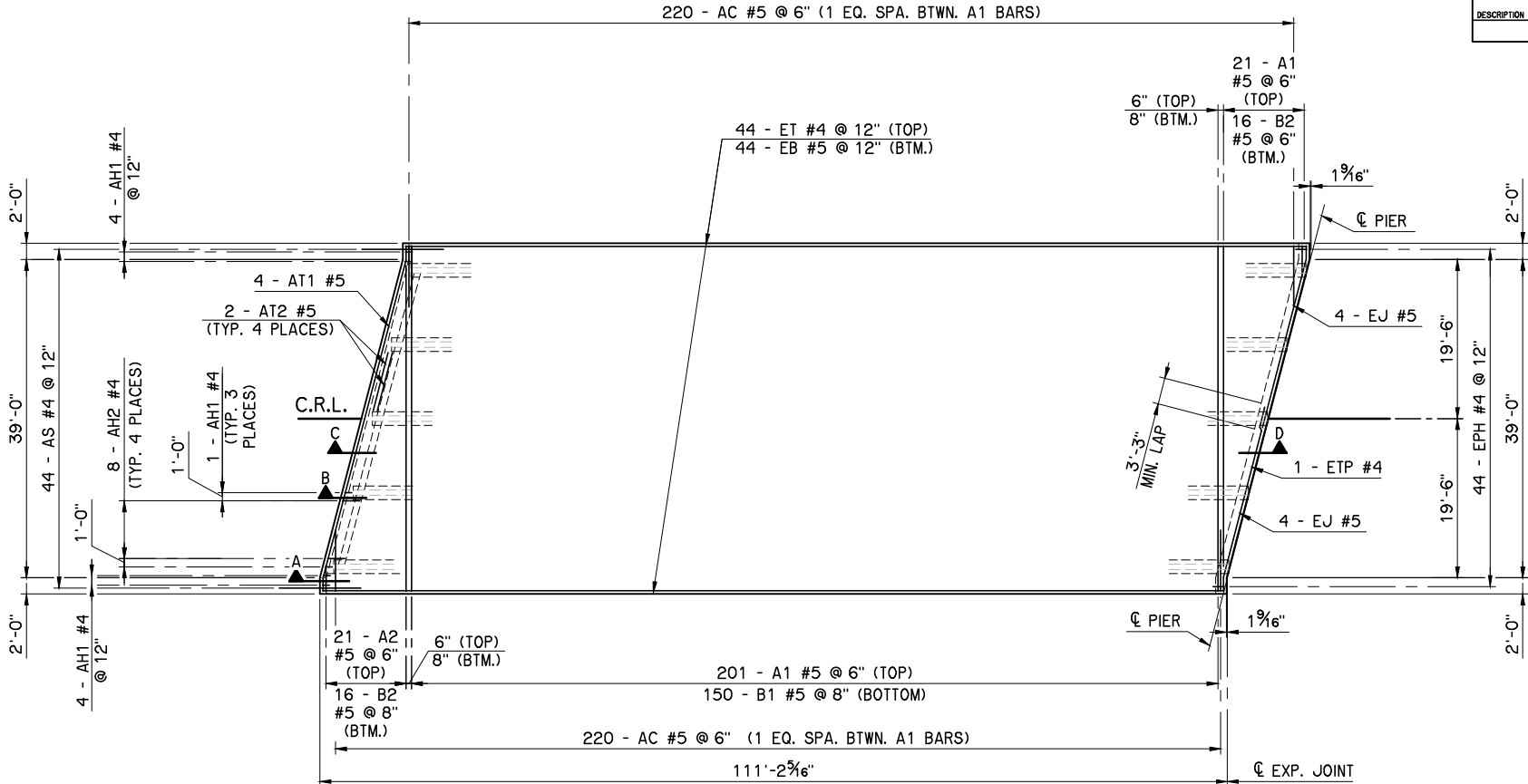
NOT FOR CONSTRUCTION

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NO.	REVISION		BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE				
PLAN SCALE	S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.45B  SUPERSTRUCTURE DETAILS  SHEET 4 OF 6  DIAPHRAGM DETAILS			
PROFILE SCALE				
HORIZONTAL				
VERTICAL				
WHITE ENGINEERING ASSOCIATES, INC.		5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702		SECTION
DESIGNED	ADT	CONTRACT NO. HEB-MC-54		
DRAWN	DRB	DATE		
CHECKED	ADT	SHEET 31 OF 71		



OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	32	71
DESCRIPTION			REVISIONS	DATE



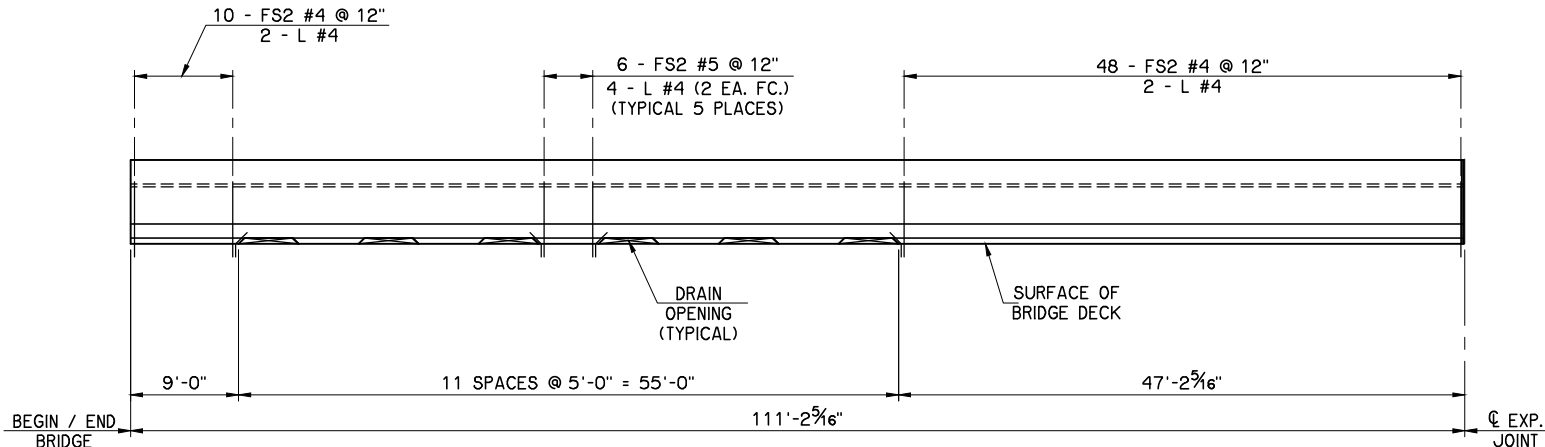
SPAN NO. 1

SLAB REINFORCING PLAN

SPAN 1 SHOWN, SPAN 2 ROTATE 180°

NOTES:  
SEE SHEET 33 FOR BAR LIST, BAR BENDS AND SECTIONS A THRU D.  
  
FOR EXPANSION JOINT SETTING SCHEDULE, SEE SHEET 29.  
  
ALL LONGITUDINAL DIMENSIONS ARE ALONG INSIDE FACE OF RAIL.

DO NOT PLACE THE CONCRETE FOR THE DECK SLAB OR APPLY OTHER MASSIVE LOADS TO THE BEAMS OR DIAPHRAGMS UNTIL THE CONCRETE IN THE DIAPHRAGMS HAS BEEN IN PLACE A MINIMUM OF 10 DAYS OR AT THE DISCRETION OF THE ENGINEER. THE ENGINEER MAY APPROVE SHORTENED TIME IF THE BEAM AND DIAPHRAGM CONCRETE HAS ATTAINED 80% OF THE SPECIFIED COMPRESSIVE STRENGTH.



PARAPET ELEVATION

SPAN 1 SHOWN, SPAN 2 MIRRORED

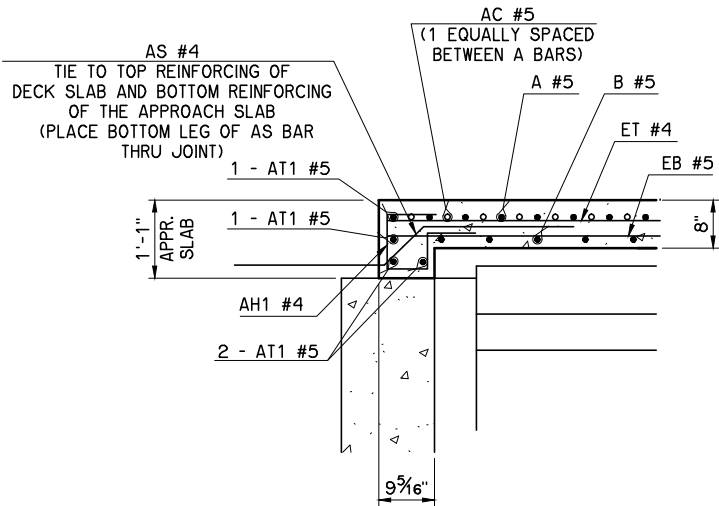
NOTES:  
ALL DIMENSIONS ARE ALONG INSIDE FACE OF PARAPET.  
  
FOR ADDITIONAL DETAIL, SEE STD. FSHP-42.  
  
FOR BAR LIST, SEE SHEET 33.

NOT FOR CONSTRUCTION  
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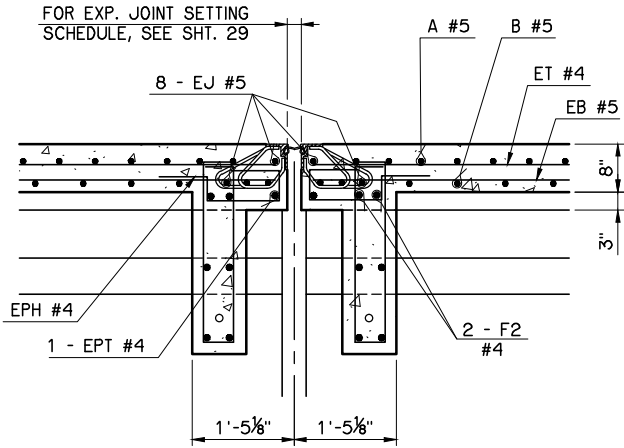
NO.	REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE			
PLAN SCALE	S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.458		
PROFILE SCALE	SUPERSTRUCTURE DETAILS		
HORIZONTAL	SHEET 5 OF 6		
VERTICAL	SLAB REINFORCING PLAN AND PARAPET ELEVATION		
DESIGNED	ADT	CONTRACT NO.	HEB-MC-54
DRAWN	DRB	DATE	SHEET 32 OF 71
CHECKED	ADT		

NOT FOR CONSTRUCTION  
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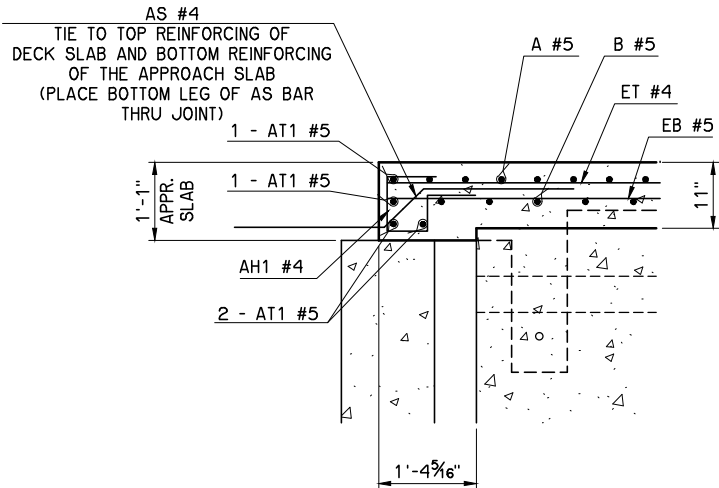
OKLAHOMA TURNPIKE AUTHORITY				
SECTION	ENGINEER	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
HEB	HEB-MC-54	33	71	
DESCRIPTION		REVISIONS		DATE



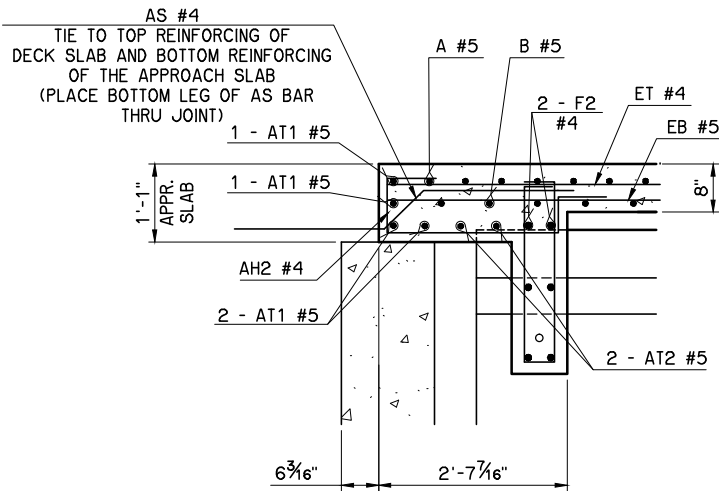
SECTION A



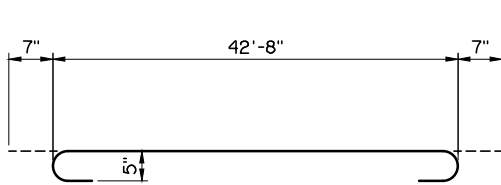
SECTION D



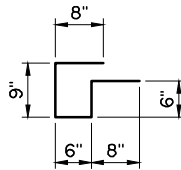
SECTION B



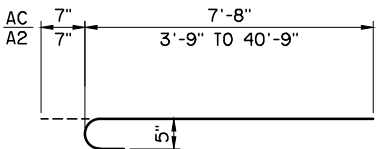
SECTION C



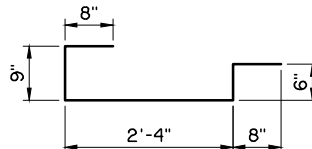
A1 #5 x 43'-10"



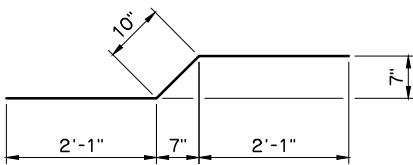
AH1 #4 x 3'-1"



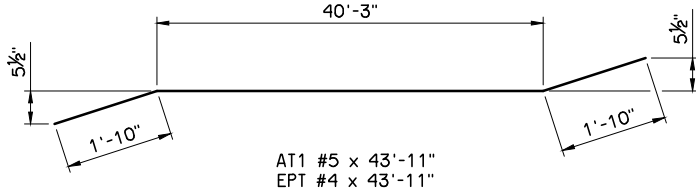
AC #5 x 8'-3"  
A2 #5 x 22'-10" AVG.



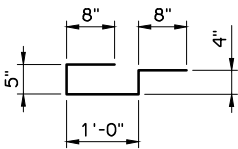
AH2 #4 x 4'-11"



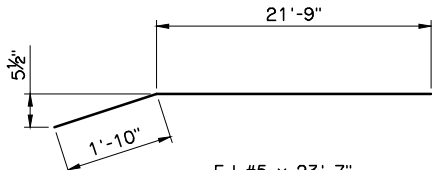
AS #4 x 5'-0"



AT1 #5 x 43'-11"  
EPT #4 x 43'-11"



EPH #4 x 3'-1"



EJ #5 x 23'-7"

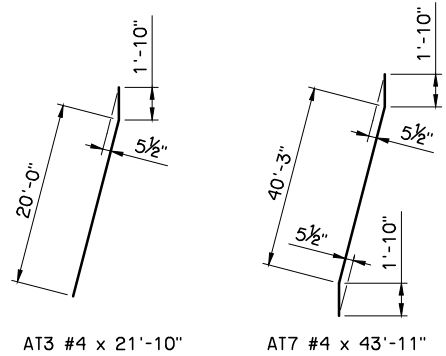
SUPERSTRUCTURE BAR LIST					
MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION
EPOXY COATED REINFORCING BARS					
① A1	#5	402	BNT.	43'-10"	
A2	#5	84	BNT.	22'-10" AVG.	4'-4" TO 41'-4"
AH1	#4	22	BNT.	3'-1"	
AH2	#4	64	BNT.	4'-11"	
AC	#5	880	BNT.	8'-3"	
AS	#4	88	BNT.	5'-0"	
AT1	#5	8	BNT.	43'-11"	
AT2	#5	16	STR.	7'-4"	
B1	#5	300	STR.	42'-8"	
② B2	#5	64	STR.	22'-7" AVG.	4'-4" TO 40'-10"
③ ET	#4	88	STR.	112'-11"	
④ EB	#5	88	STR.	114'-2"	
EPH	#4	88	BNT.	3'-1"	
EPT	#4	2	BNT.	43'-11"	
EJ	#5	16	BNT.	23'-7"	
F1	#4	48	STR.	8'-1"	
F2	#4	64	STR.	7'-4"	
F3	#4	32	STR.	8'-4"	
⑥ L	#4	96	BNT.	1'-3"	
⑥ FS2	#5	352	BNT.	7'-4"	
⑤ U1	#4	72	BNT.	4'-9"	
⑤ U2	#4	144	BNT.	6'-4 1/2"	

- ① 4 SETS OF 21 BARS
- ② 4 SETS OF 16 BARS
- ③ INCLUDES 1 - 2'-0" MINIMUM LAP LENGTH
- ④ INCLUDES 1 - 3'-3" MINIMUM LAP LENGTH
- ⑤ SEE SHEET NO. 31 FOR BAR BENDS.
- ⑥ REFER TO STD. FSHP-42 FOR BAR BENDS.

NO.	REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE			
PLAN SCALE	S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.45B		
PROFILE SCALE	SUPERSTRUCTURE DETAILS		
HORIZONTAL	SHEET 6 OF 6		
VERTICAL	SLAB REINFORCING DETAILS		
DESIGNED	ADT	CONTRACT NO.	HEB-MC-54
DRAWN	DRB	DATE	
CHECKED	ADT		
		SHEET	33 OF 71



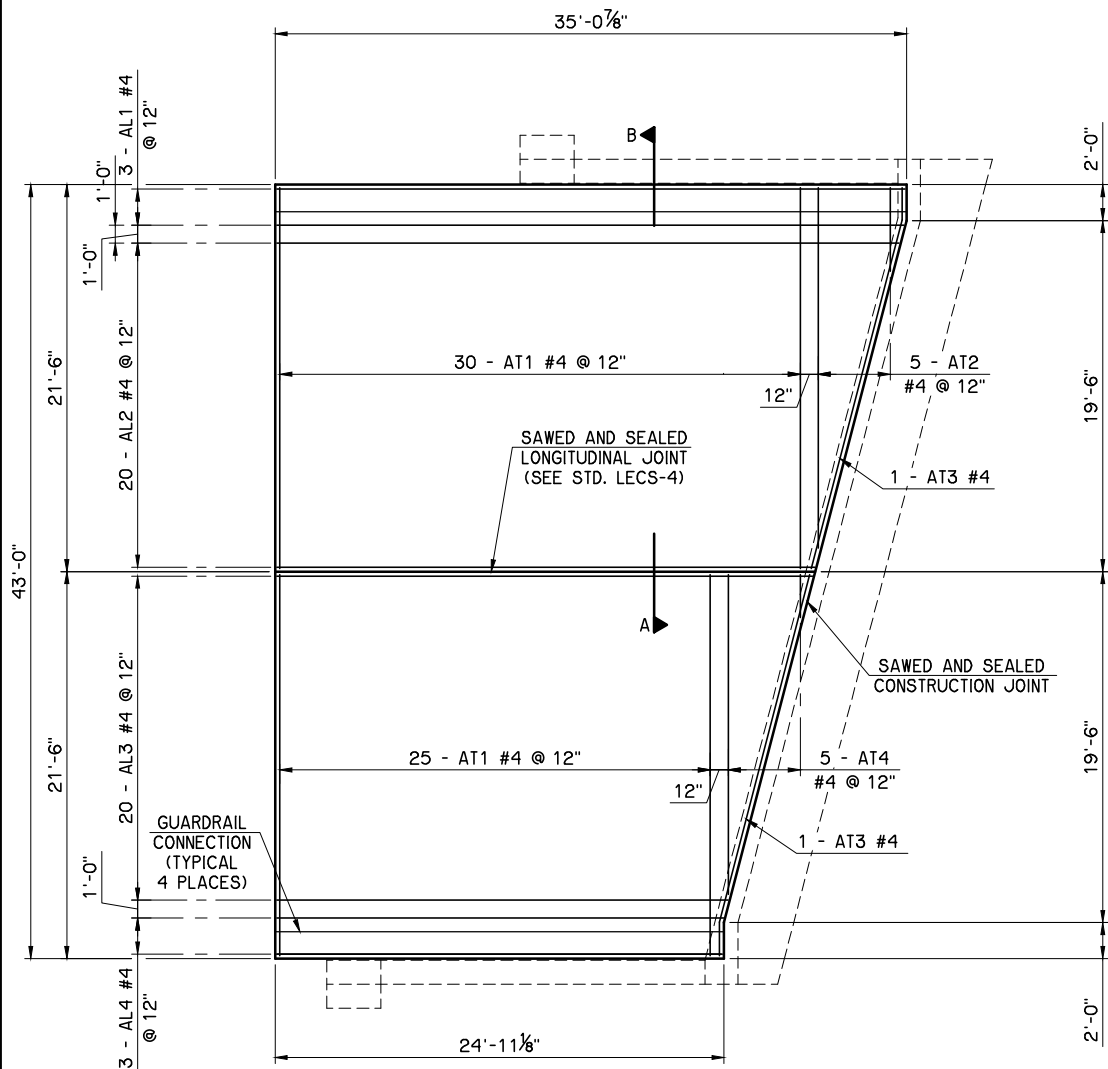
OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
HEB	HEB-MC-54	34	71	
DESCRIPTION			REVISIONS	DATE



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APPROACH SLAB BAR LIST ONE SHOWN, TWO REQUIRED					
MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION
EPOXY COATED REINFORCING BARS					
AT1	#4	55	STR.	21'-2"	
AT2	#4	5	STR.	12'-4" AVG.	4'-8" TO 20'-0"
AT3	#4	2	BNT.	21'-10"	
AT4	#4	5	STR.	10'-1" AVG.	2'-5" TO 17'-9"
AT5	#4	25	STR.	42'-8"	
AT6	#4	10	STR.	22'-0" AVG.	4'-9" TO 39'-3"
AT7	#4	1	BNT.	43'-11"	
AL1	#4	3	STR.	34'-10"	
AL2	#4	20	STR.	32'-3" AVG.	29'-10" TO 34'-8"
AL3	#4	20	STR.	27'-5" AVG.	25'-1" TO 29'-9"
AL4	#4	3	STR.	24'-9"	
AL5	#8	5	STR.	34'-10"	
AL6	#8	77	STR.	29'-10" AVG.	24'-11" TO 34'-9"
AL7	#8	5	STR.	24'-9"	
FS2	#5	56	BNT.	7'-4"	
FS6	#5	10	BNT.	7'-6 1/2"	

① FOR BAR BEND, SEE STD. FSHP-42.



TOP REINFORCING MAT DETAIL

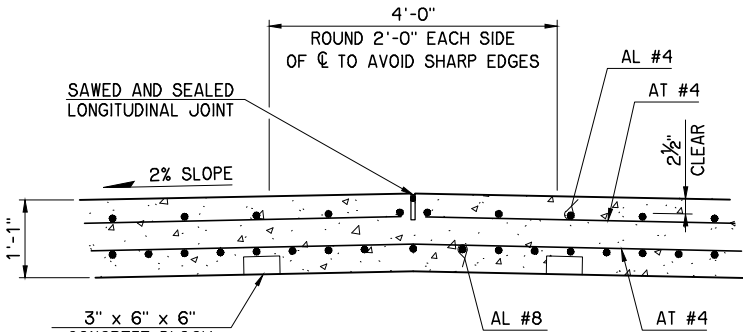
NOTE:  
APPROACH SLAB NO. 1 SHOWN,  
APPROACH SLAB NO. 2 ROTATE 180°.

NOTES:  
FOR ADDITIONAL DETAIL OF CONCRETE PARAPET, SEE STD. FSHP-42.

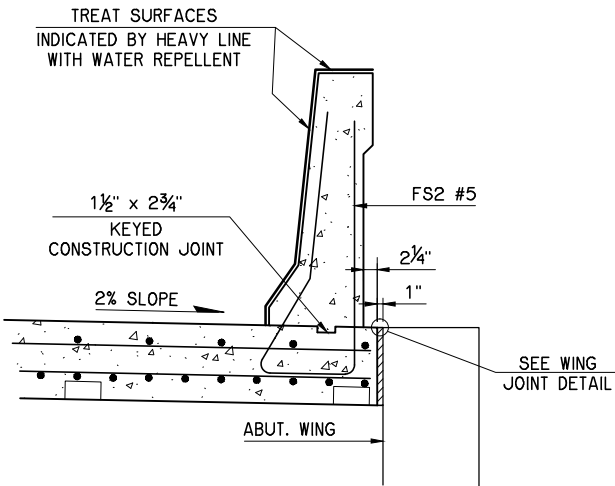
FOR ADDITIONAL DETAIL OF APPROACH SLAB AT ABUTMENT, SEE SHEET 33.

PLACE REINFORCING IN THE TOP OF THE APPROACH SLAB 2" FROM EITHER SIDE OF THE SAWED AND SEALED JOINT. FOR ADDITIONAL DETAILS OF JOINT, SEE STD. LECS-4.

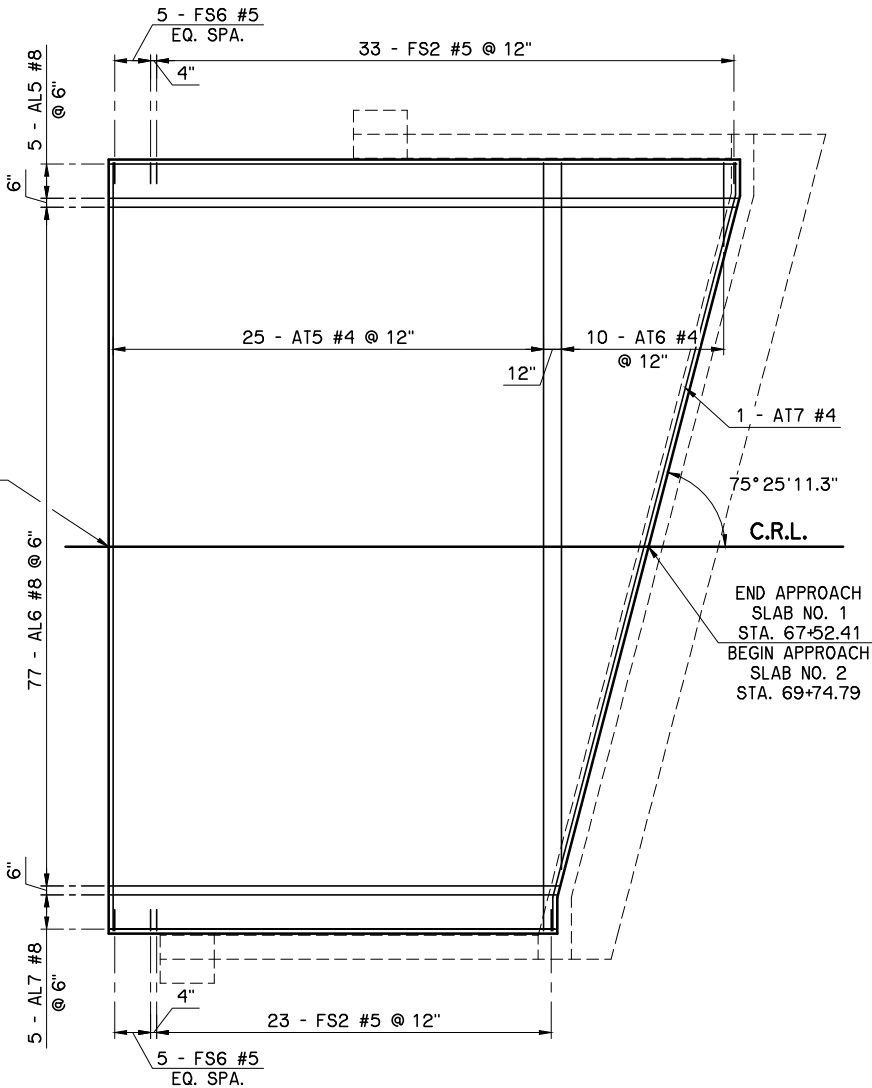
ALL COST OF SAWED AND SEALED JOINT AND WING JOINT INCLUDED IN OTHER ITEMS OF WORK.



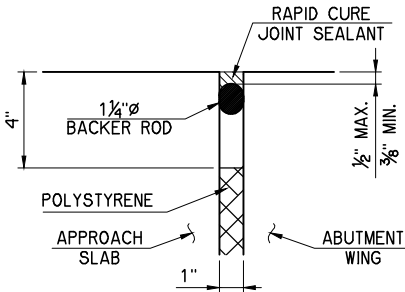
SECTION A



SECTION B



BOTTOM REINFORCING MAT DETAIL



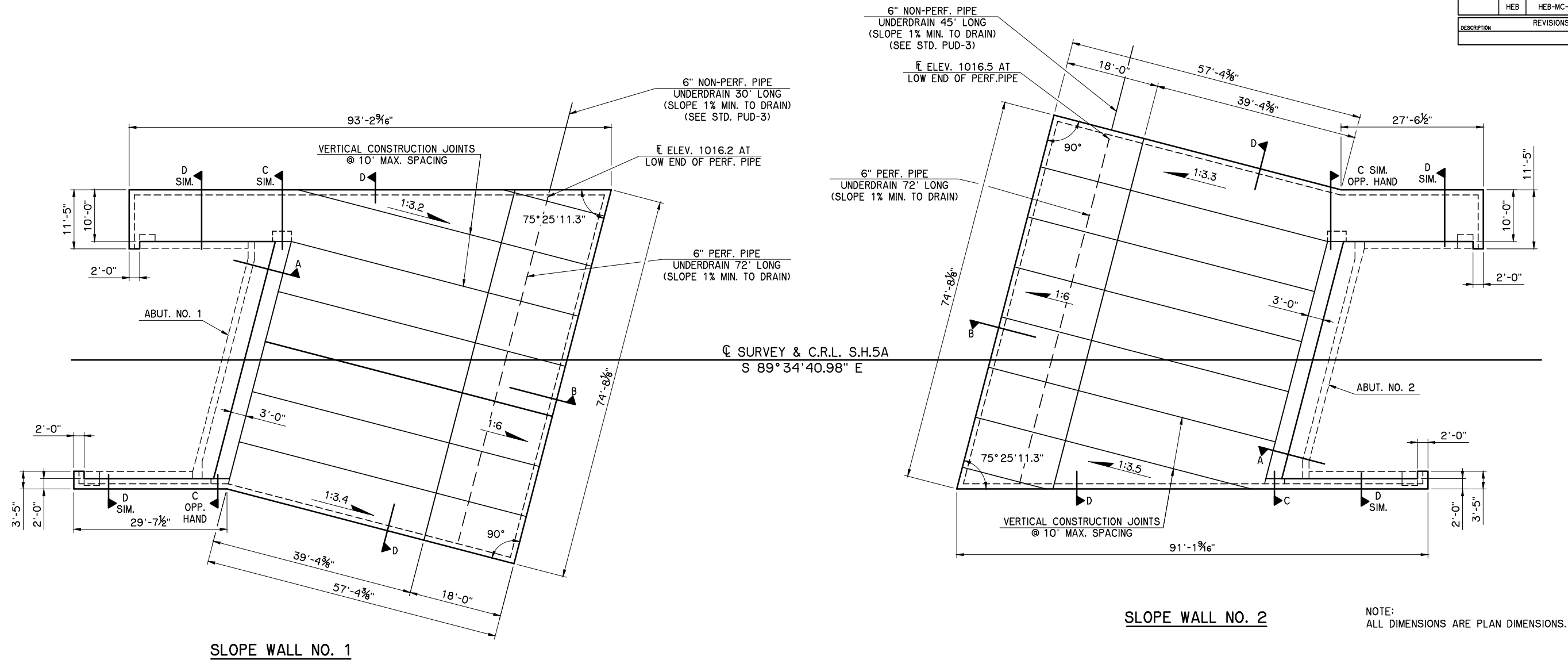
WING JOINT DETAIL

APPROACH SLAB QUANTITIES				
ITEM	UNIT	APP. SLAB NO. 1	APP. SLAB NO. 2	TOTAL
② APPROACH SLAB	S.Y.	143.3	143.3	286.6
SAW-CUT GROOVING	S.Y.	133.3	133.3	266.6
42" F-SHAPED PARAPET	L.F.	60.0	60.0	120.0
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	28	28	56

② THE CONTRACT UNIT PRICE FOR "APPROACH SLAB" INCLUDES THE PRICE FOR CONCRETE, EPOXY COATED REINFORCING STEEL (INCLUDING FS2 BARS), LAP SPLICES, BACKER ROD, RAPID CURE JOINT SEALANT, POLYSTYRENE, LABOR AND EQUIPMENT, FILL AND/OR EXCAVATION.

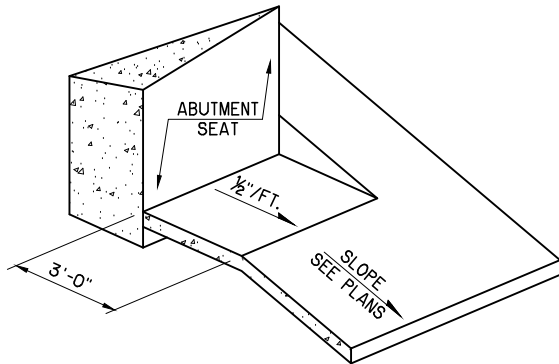
NO.	REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE			
PLAN SCALE	S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.458		
PROFILE SCALE	<div> <div> APPROACH SLAB DETAILS </div> <div> WHITE ENGINEERING ASSOCIATES, INC. 5104 N. FRANCIS AVENUE, SUITE 102  OKLAHOMA CITY, OKLAHOMA 73118  TELEPHONE (405) 208-8700  FAX (405) 208-8702 </div> </div>		
HORIZONTAL			
VERTICAL	SECTION		
DESIGNED	KGL	CONTRACT NO.	HEB-MC-54
DRAWN	DRB	DATE	
CHECKED	ADT		

OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	35	71
DESCRIPTION			REVISIONS	DATE



① ALL COST OF THE "SLOPE WALL (5'") INSTALLATION INCLUDING CLASS "A" CONCRETE, REINFORCING STEEL, LAP SPLICES, BACKER ROD, SILICONE JOINT SEALANT, PREFORMED JOINT FILLER, POLYSTYRENE, EXCAVATION, AGGREGATE BASE (TYPE A), UNCLASSIFIED BACKFILL, LABOR, EQUIPMENT AND OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SPECIFIED ON THE PLANS SHALL BE INCLUDED IN THE PRICE BID PER S.Y. OF "SLOPE WALL (5'")".

**NOT FOR CONSTRUCTION**  
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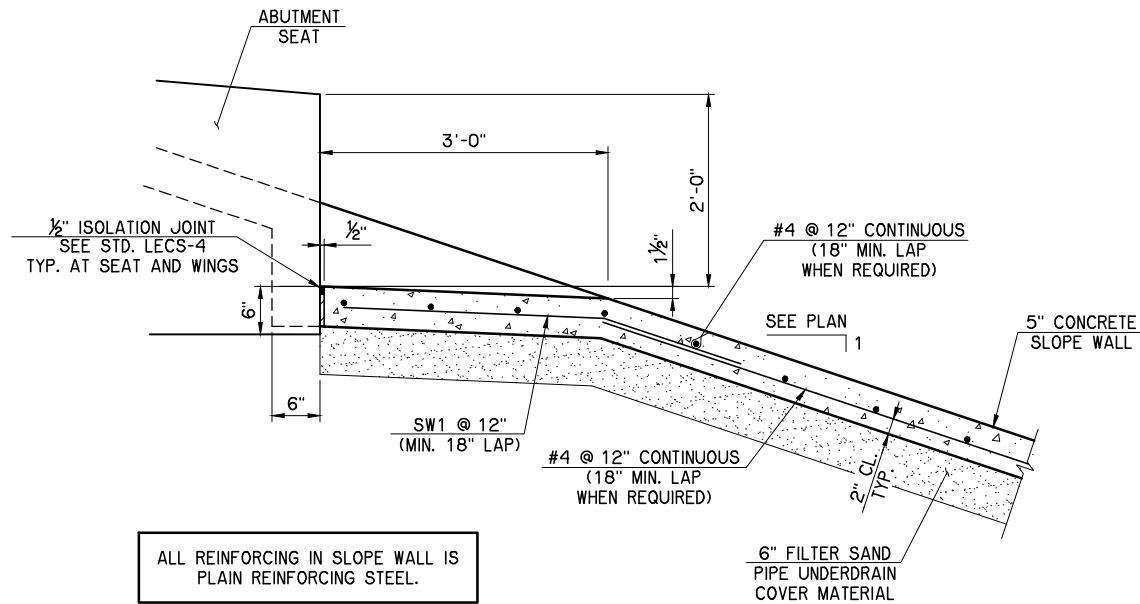
ISOMETRIC VIEW  
AT END OF ABUTMENTS

SLOPE WALL QUANTITIES				
ITEM	UNIT	SLOPE WALL NO. 1	SLOPE WALL NO. 2	TOTAL
① SLOPE WALL (5'')	S.Y.	563	558	1,121
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	69	69	138
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	30	30	60

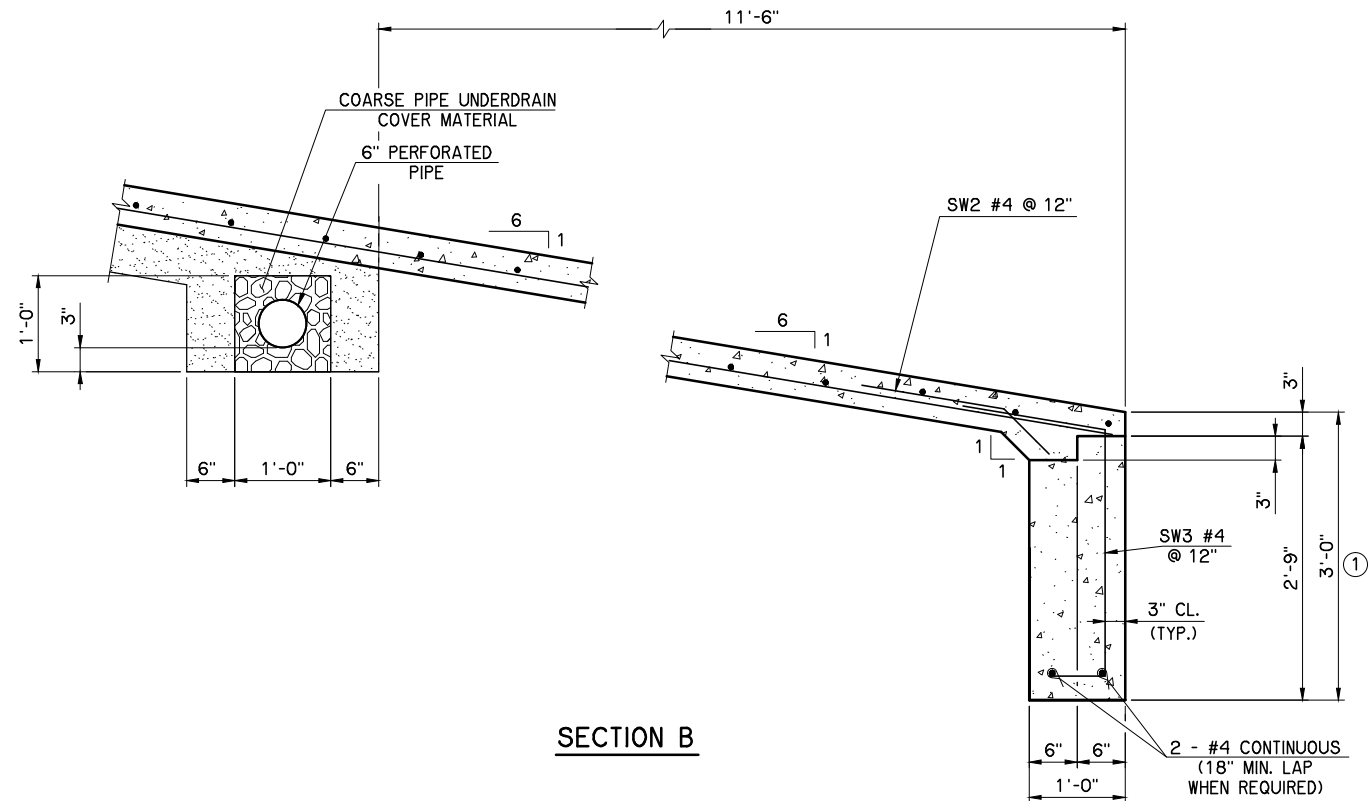
NO.	REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE			
PLAN SCALE		S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.458	
PROFILE SCALE		SLOPE WALL DETAILS	
HORIZONTAL		SHEET 1 OF 2	
VERTICAL		WHITE ENGINEERING ASSOCIATES, INC. 5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702	
DESIGNED	KGL	CONTRACT NO.	HEB-MC-54
DRAWN	DRB	DATE	
CHECKED	ADT		
		SHEET	35 OF 71



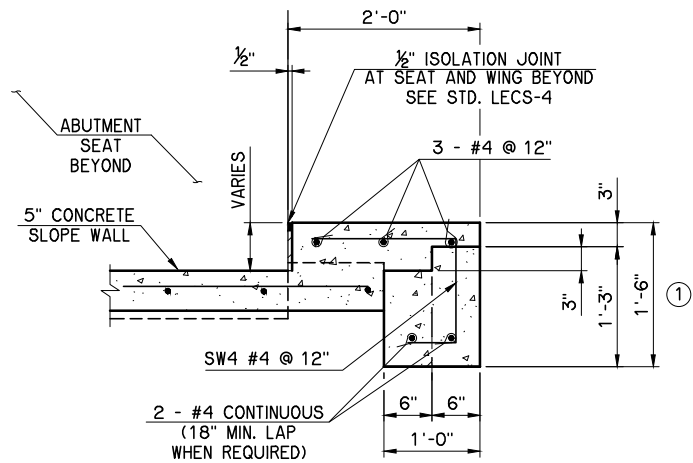
OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	36	71
DESCRIPTION			REVISIONS	DATE



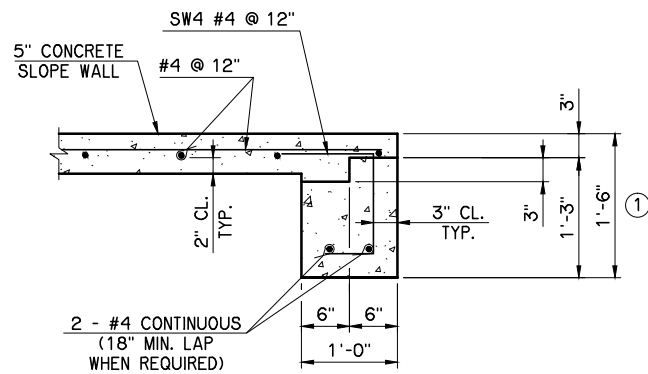
SECTION A



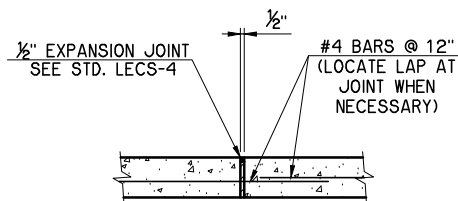
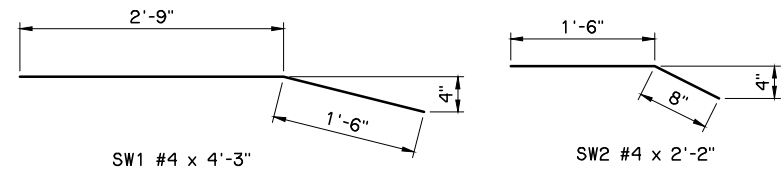
SECTION B



SECTION C



SECTION D



DETAIL OF VERTICAL CONSTRUCTION JOINT

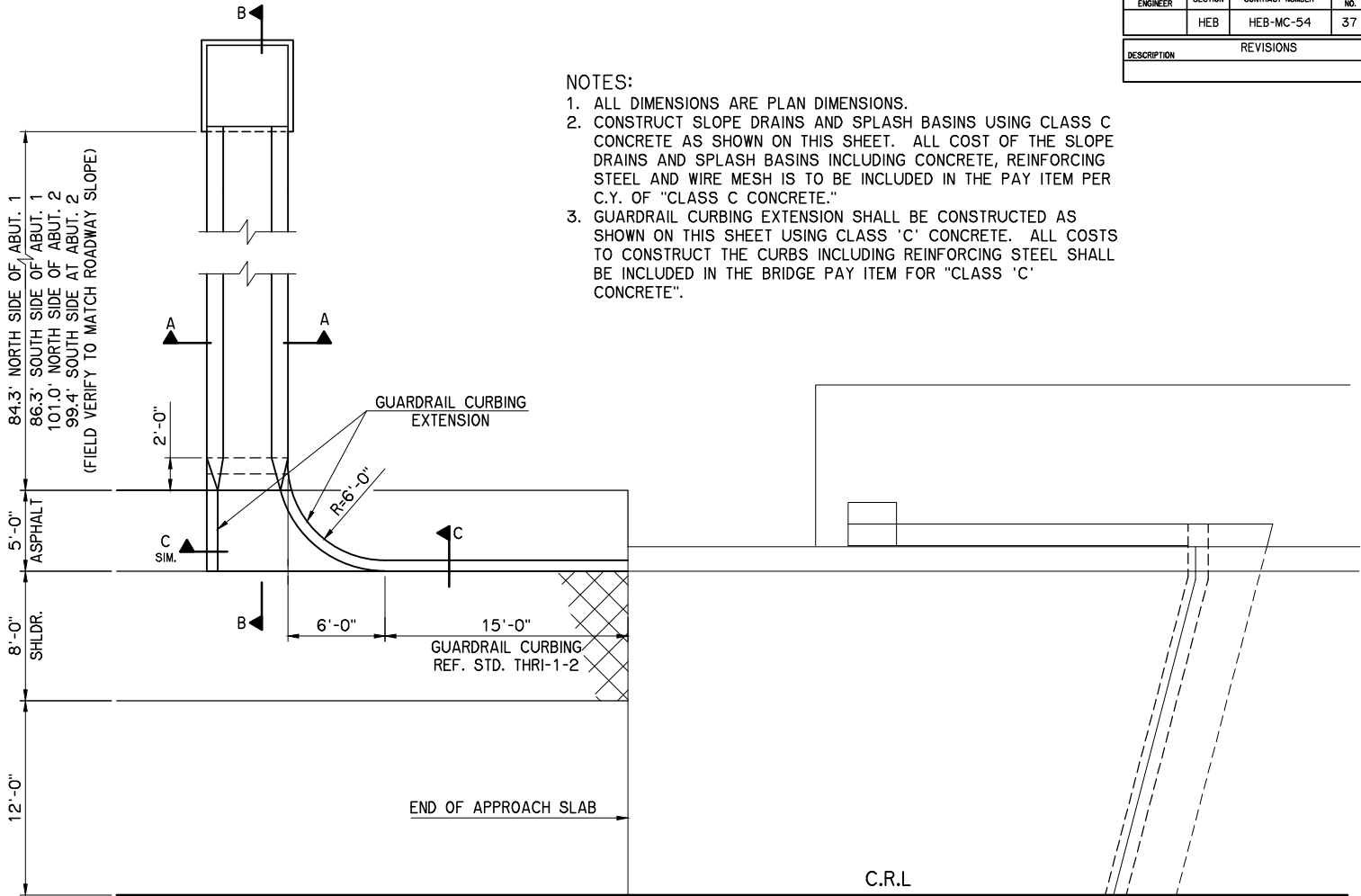
## NOT FOR CONSTRUCTION

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NO.	REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE			
PLAN SCALE	S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.458		
PROFILE SCALE	SLOPE WALL DETAILS		
HORIZONTAL	SHEET 2 OF 2		
VERTICAL	WHITE ENGINEERING ASSOCIATES, INC. 5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702		
DESIGNED	KGL	CONTRACT NO.	HEB-MC-54
DRAWN	DRB	DATE	
CHECKED	ADT		
		SHEET	36 OF 71

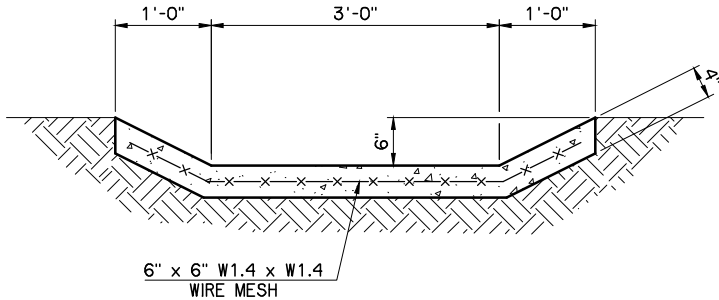
OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	37	71
DESCRIPTION			REVISIONS	DATE

- NOTES:
1. ALL DIMENSIONS ARE PLAN DIMENSIONS.
  2. CONSTRUCT SLOPE DRAINS AND SPLASH BASINS USING CLASS C CONCRETE AS SHOWN ON THIS SHEET. ALL COST OF THE SLOPE DRAINS AND SPLASH BASINS INCLUDING CONCRETE, REINFORCING STEEL AND WIRE MESH IS TO BE INCLUDED IN THE PAY ITEM PER C.Y. OF "CLASS C CONCRETE."
  3. GUARDRAIL CURBING EXTENSION SHALL BE CONSTRUCTED AS SHOWN ON THIS SHEET USING CLASS 'C' CONCRETE. ALL COSTS TO CONSTRUCT THE CURBS INCLUDING REINFORCING STEEL SHALL BE INCLUDED IN THE BRIDGE PAY ITEM FOR "CLASS 'C' CONCRETE".

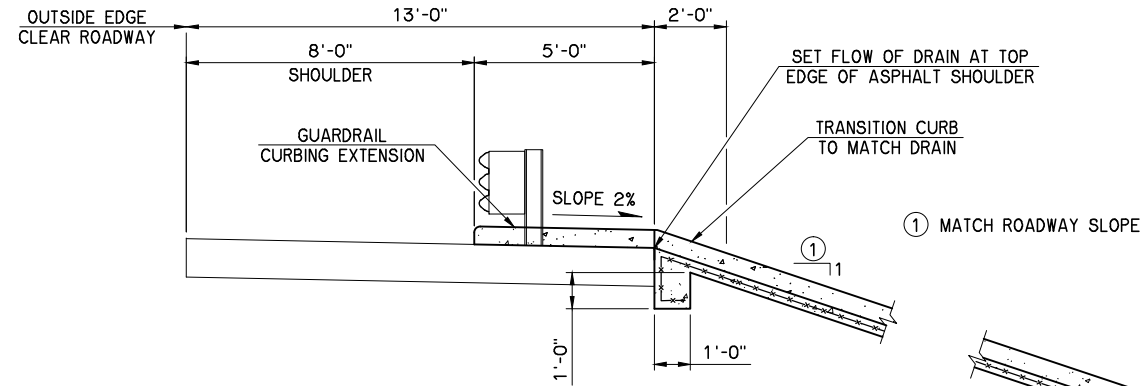


DRAINAGE DETAIL  
ONE SHOWN, FOUR REQUIRED

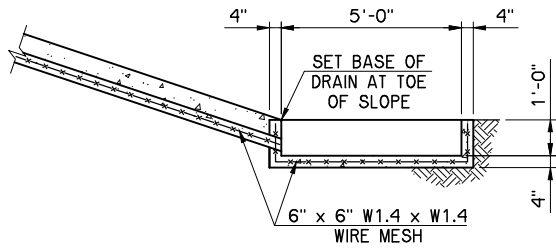
DRAINAGE QUANTITIES						
ITEM	UNIT	ABUT. NO. 1 NORTH SIDE	ABUT. NO. 1 SOUTH SIDE	ABUT. NO. 2 NORTH SIDE	ABUT. NO. 2 SOUTH SIDE	TOTAL
CLASS C CONCRETE	C.Y.	5.9	6.0	7.0	6.9	25.8



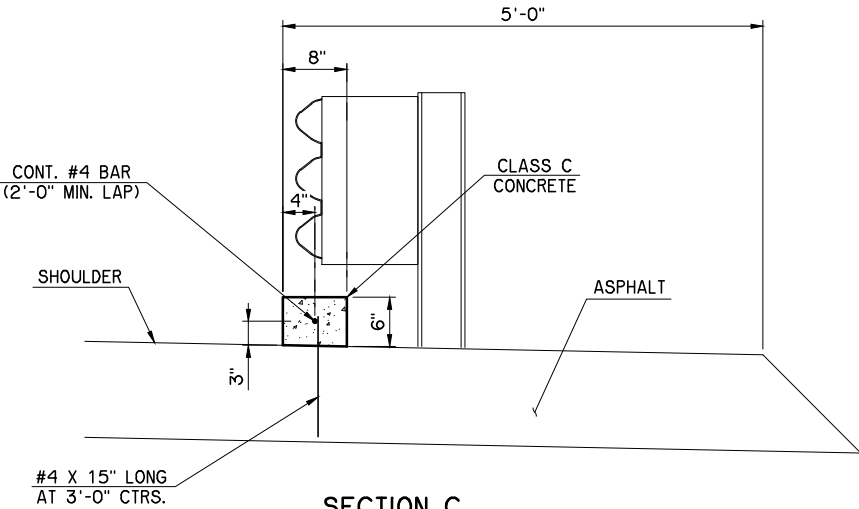
SECTION A-A



SECTION B-B



SECTION C

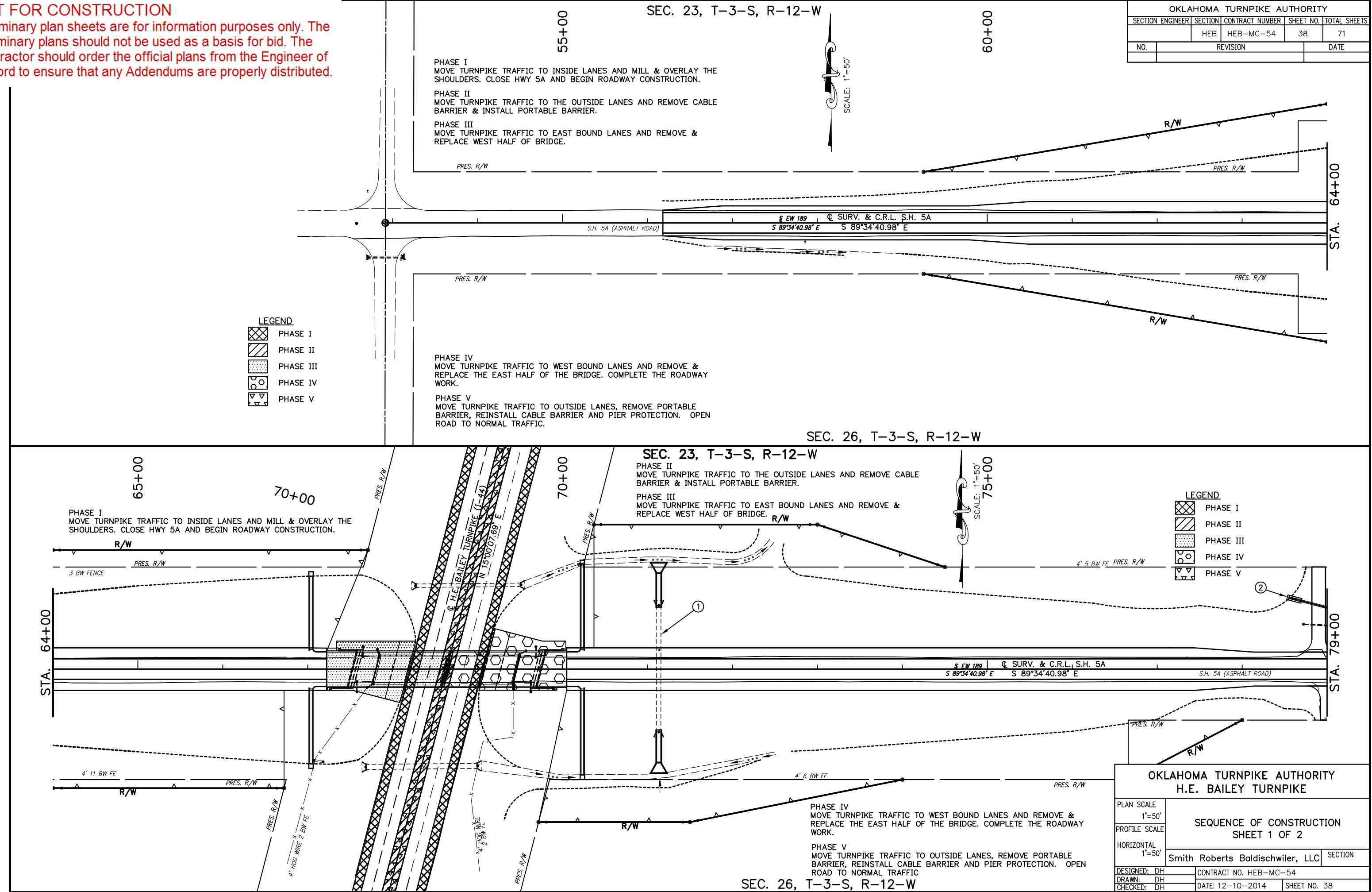


NO.	REVISION	BY	DATE
OKLAHOMA TURNPIKE AUTHORITY HE BAILEY TURNPIKE			
PLAN SCALE	S.H. 5A OVER HE BAILEY TURNPIKE - COTTON COUNTY BRIDGE NO. 16.458		
PROFILE SCALE	DRAINAGE DETAILS AT ENDS OF BRIDGE		
HORIZONTAL	WHITE ENGINEERING ASSOCIATES, INC.		
VERTICAL	5104 N. FRANCIS AVENUE, SUITE 102 OKLAHOMA CITY, OKLAHOMA 73118 TELEPHONE (405) 208-8700 FAX (405) 208-8702		
DESIGNED	KGL	CONTRACT NO.	HEB-MC-54
DRAWN	DRB	DATE	
CHECKED	ADT		
		SHEET	37 OF 71

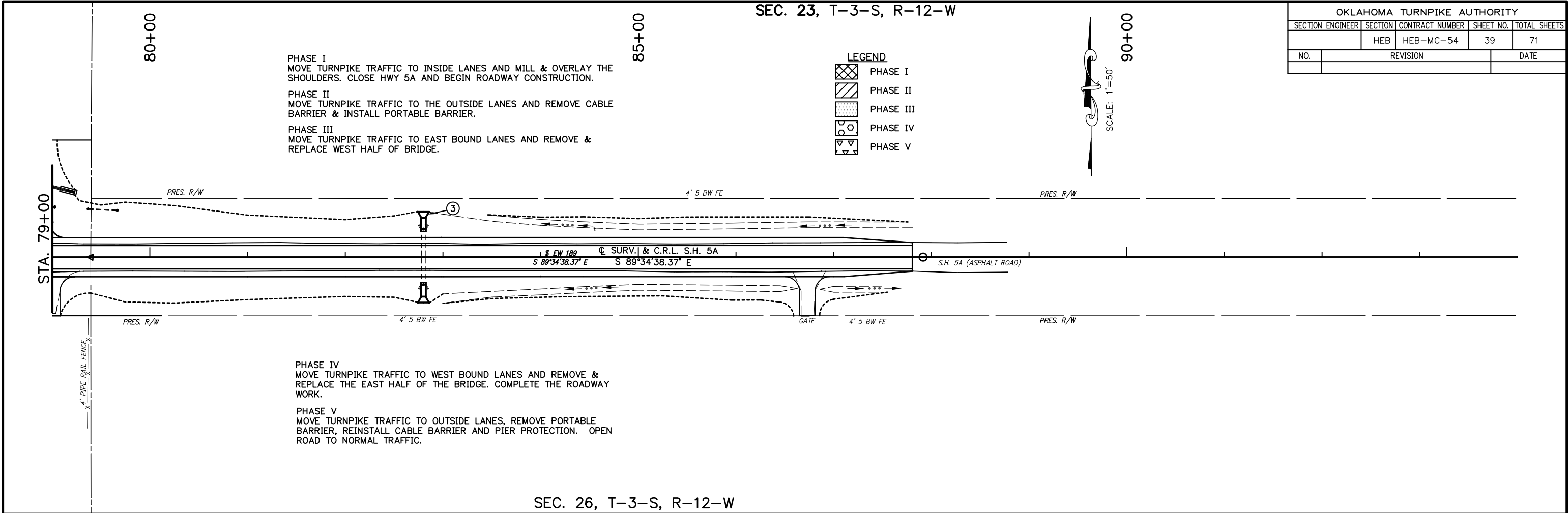
**NOT FOR CONSTRUCTION**  
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R: 114105\Drawings\Sequence of Const.Dustin.Heidrich 12-04-14 05:00pm



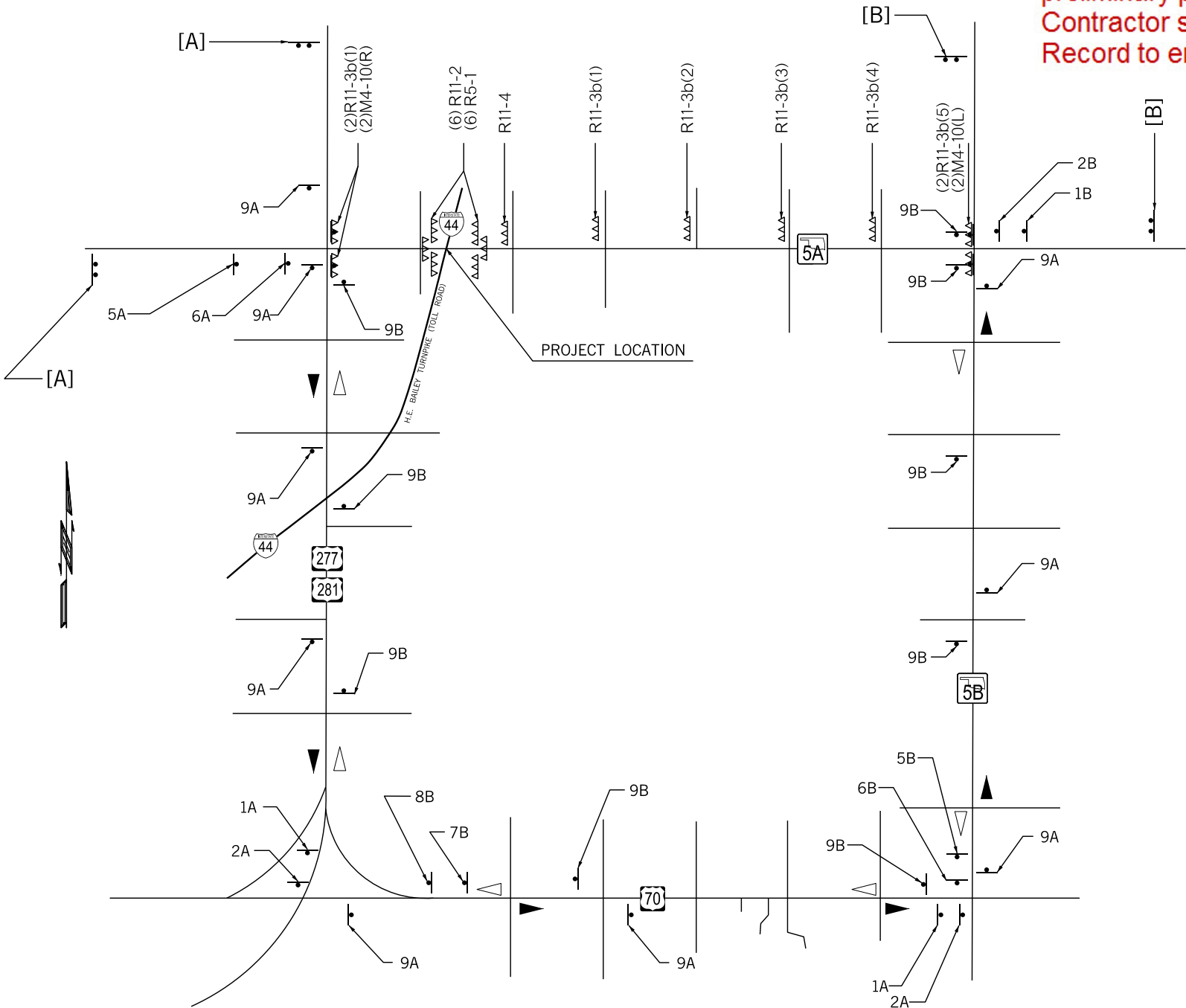
OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB	HEB-MC-54	39	71
NO.	REVISION			DATE

SEC. 26, T-3-S, R-12-W

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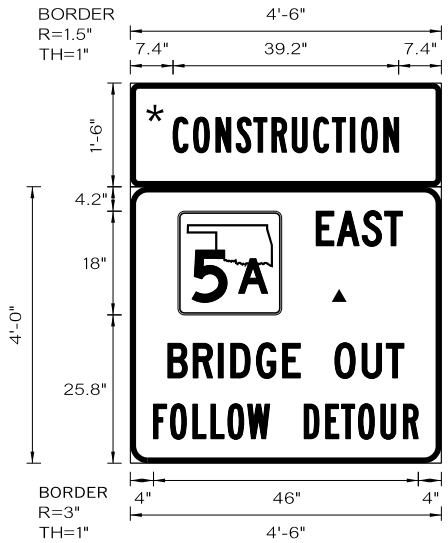
OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY TURNPIKE				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NUMBER	TOTAL SHEETS
	HEB	HEB-MC-54	40	71



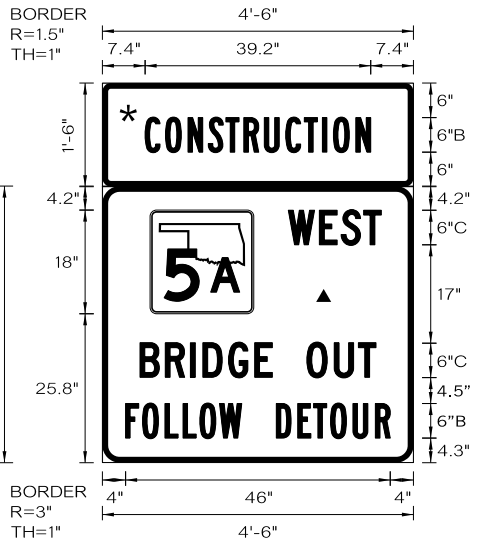
KEY:

- △△△ TYPE III BARRICADE
- SIGN
- ▷ WESTBOUND TRAFFIC
- ◀ EASTBOUND TRAFFIC

	A		B	
	DETOUR EAST 5A	CM4-9 M3-2 M1-6(2)	DETOUR WEST 5A	CM4-9 M3-4 M1-6(2)
1	◀	M5-1(L)	◀	M5-1(L)
2	←	M6-1(L)	←	M6-1(L)
3	↖	M5-2(L)	↖	M5-2(L)
4	↗	M6-2(L)	↗	M6-2(L)
5	▶	M5-1(R)	▶	M5-1(R)
6	→	M6-1(R)	→	M6-1(R)
7	↘	M5-2(R)	↘	M5-2(R)
8	↙	M6-2(R)	↙	M6-2(R)
9	↑	M6-3	↑	M6-3



[A]



[B]

COLOR:  
LEGEND AND BORDER:  
BLACK (NON-REFLECTORIZED)  
BACKGROUND:  
★ FLUORESCENT ORANGE  
▲ WHITE (REFLECTORIZED)

CLOSURE NOTES

THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR TWO (2) WEEKS PRIOR TO ALL CONSTRUCTION ACTIVITIES THAT REQUIRES A LANE/RAMP/TOLL FACILITY CLOSURE. FAILURE TO ADEQUATELY NOTIFY THE ENGINEER WILL RESULT IN A SHUTDOWN NOTICE BEING ISSUED FOR THE WORK REQUIRING THE LANE/RAMP/TOLL FACILITY CLOSURE. IF THE CONTRACTOR FAILS TO GIVE THE PROPER NOTIFICATION, A LANE RENTAL PENALTY OF \$10,000 PER HOUR PER LANE PER MILE WILL BE APPLIED UNTIL SUCH TIME AS THE CAPACITY IS RESTORED.

ANY DEVIATION FROM THE PLANS WITHOUT PRIOR WRITTEN NOTICE WILL RESULT IN A SHUTDOWN NOTICE.

NOT TO SCALE

OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY TURNPIKE				
PLAN SCALE NOT TO SCALE	CONSTRUCTION TRAFFIC CONTROL (DETOUR)			
PROFILE SCALE HORIZONTAL				
VERTICAL	Smith Roberts Baldischwiler, LLC			SECTION
DESIGNED: SNG	CONTRACT NO. HEB-MC-54			
DRAWN: SNG	DATE: 12/10/2014			
CHECKED: SNG	SHEET NO. 40			



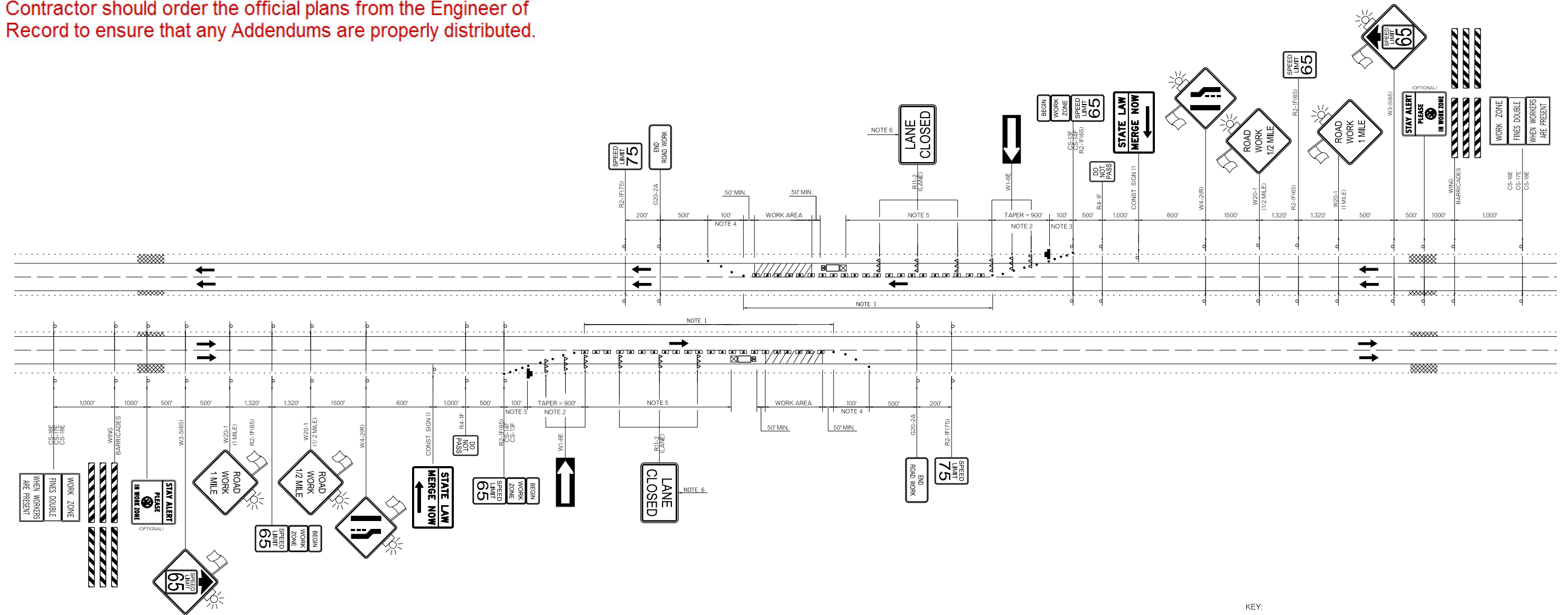
NOT FOR CONSTRUCTION

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OKLAHOMA TURNPIKE AUTHORITY

H.E. BAILEY TURNPIKE

SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NUMBER	TOTAL SHEETS
	HEB	HEB-MC-54	41	71



KEY:



- SIGN
- DRUM
- ◻ CHANNELIZER CONE
- ▨ WORK AREA

- ◻ SHADOW VEHICLE
- ◻ TRUCK MOUNTED ATTENUATOR
- ▴ TYPE III BARRICADES
- ▬ ARROW DISPLAY

NOTE 1  
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 75 FEET FOR CHANNELIZER CONES; AND IT SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 2  
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.

NOTE 3  
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 4  
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 5  
A LONGITUDINAL BUFFER AREA, TO ALLOW WORKERS TIME TO EVACUATE THE WORK AREA, SHOULD BE PROVIDED. FOR GUIDELINES ON SETTING THE LENGTH OF THIS BUFFER, SEE STANDARD DRAWING TCS2-1-(LATEST REVISION). ACTUAL LENGTH SHALL BE DETERMINED BY FIELD CONDITIONS AND THE JUDGEMENT OF THE ENGINEER.

NOTE 6  
TYPE III BARRICADES WITH SIGNS READING "LANE CLOSED" (R11-2) SHALL BE PLACED EVERY 2,000 FEET THROUGH ACTIVITY AREA. THESE TYPE III BARRICADES AND SIGNS MAY BE OMITTED ON MOVING OPERATIONS AND SHORT DURATION PROJECTS.

DRAWING NOT TO SCALE

(PHASE 1B)

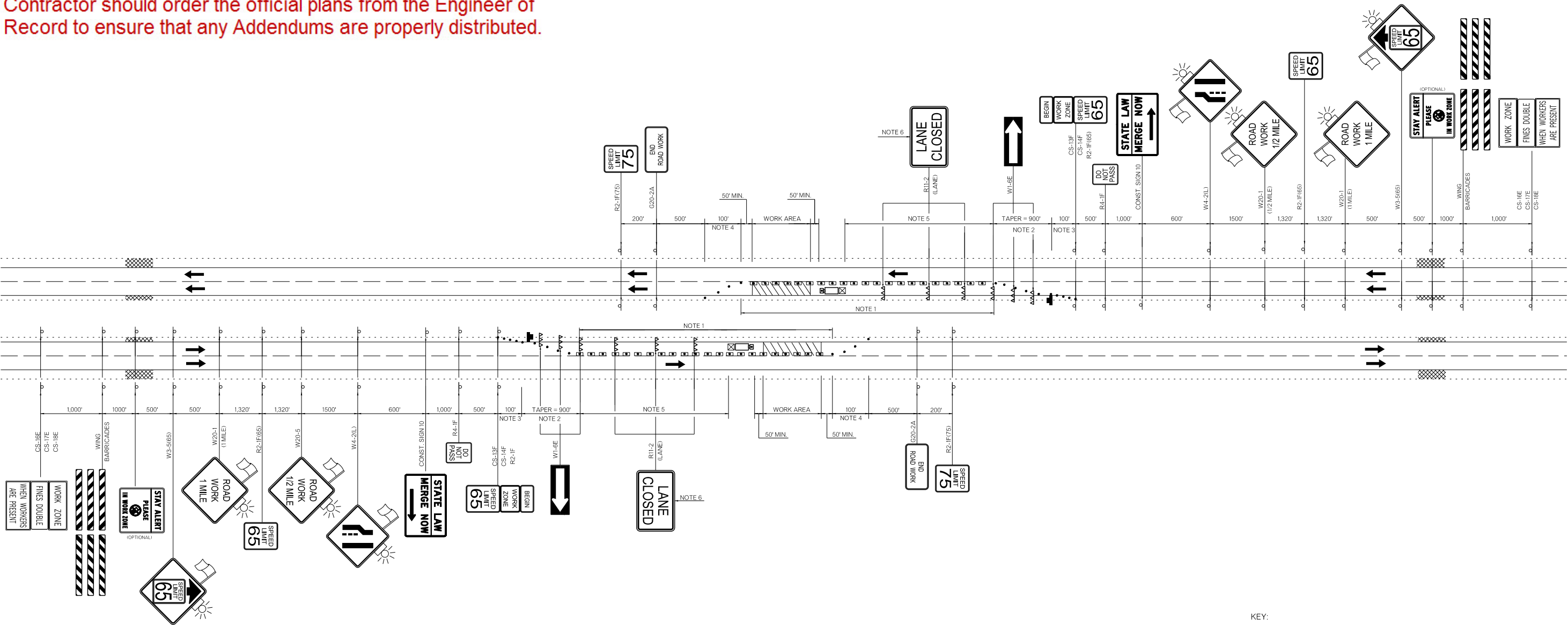
OKLAHOMA TURNPIKE AUTHORITY  
H.E. BAILEY TURNPIKE

PLAN SCALE NOT TO SCALE	CONSTRUCTION TRAFFIC CONTROL (OUTSIDE LANE CLOSURE)		
PROFILE SCALE HORIZONTAL			
VERTICAL	Smith Roberts Baldischwiler, LLC		SECTION
DESIGNED: SNG	CONTRACT NO. HEB-MC-54		
DRAWN: SNG	DATE: 12/10/2014		
CHECKED: SNG	SHEET NO. 41		

NOT FOR CONSTRUCTION

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OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY TURNPIKE				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NUMBER	TOTAL SHEETS
	HEB	HEB-MC-54	42	71



KEY:



- SIGN
- DRUM
- CHANNELIZER CONE
- WORK AREA

- SHADOW VEHICLE
- TRUCK MOUNTED ATTENUATOR
- TYPE III BARRICADES
- ARROW DISPLAY

NOTE 1  
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 75 FEET FOR CHANNELIZER CONES; AND IT SHALL NOT EXCEED 100 FEET FOR TYPE II BARRICADES, VERTICAL PANELS OR DRUMS.

NOTE 2  
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.

NOTE 3  
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL BE PLACED THROUGH THIS TAPER.

NOTE 4  
DOWNSTREAM TAPERS SHALL CONTAIN A MINIMUM OF FOUR (4) CHANNELIZING DEVICES.

NOTE 5  
A LONGITUDINAL BUFFER AREA, TO ALLOW WORKERS TIME TO EVACUATE THE WORK AREA, SHOULD BE PROVIDED. FOR GUIDELINES ON SETTING THE LENGTH OF THIS BUFFER, SEE STANDARD DRAWING TCS2-1 (LATEST REVISION). ACTUAL LENGTH SHALL BE DETERMINED BY FIELD CONDITIONS AND THE JUDGEMENT OF THE ENGINEER.

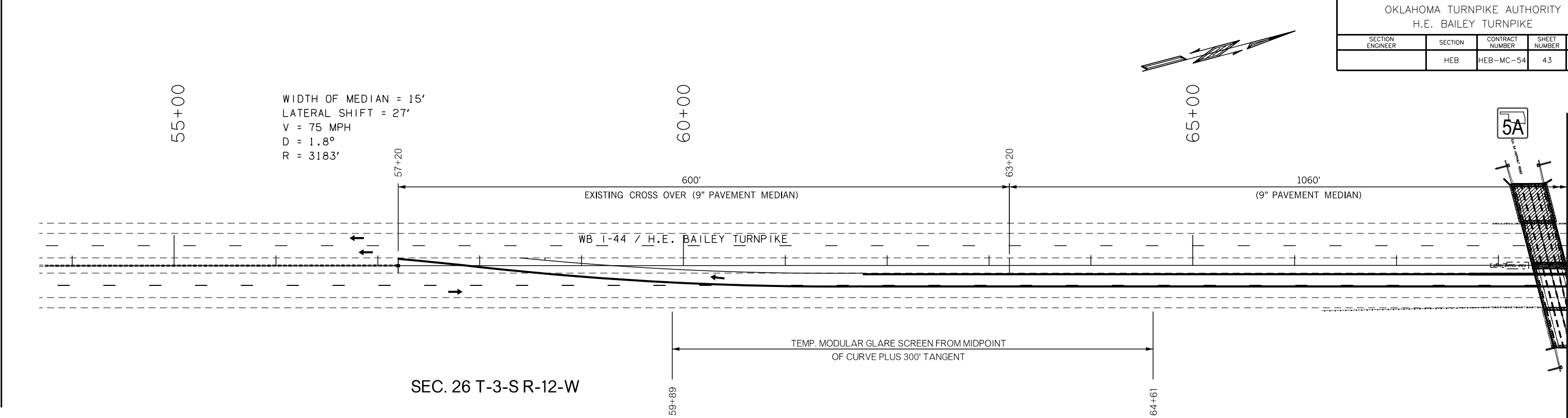
NOTE 6  
TYPE III BARRICADES WITH SIGNS READING "LANE CLOSED" (R11-2) SHALL BE PLACED EVERY 2,000 FEET THROUGH ACTIVITY AREA. THESE TYPE III BARRICADES AND SIGNS MAY BE OMITTED ON MOVING OPERATIONS AND SHORT DURATION PROJECTS.

DRAWING NOT TO SCALE

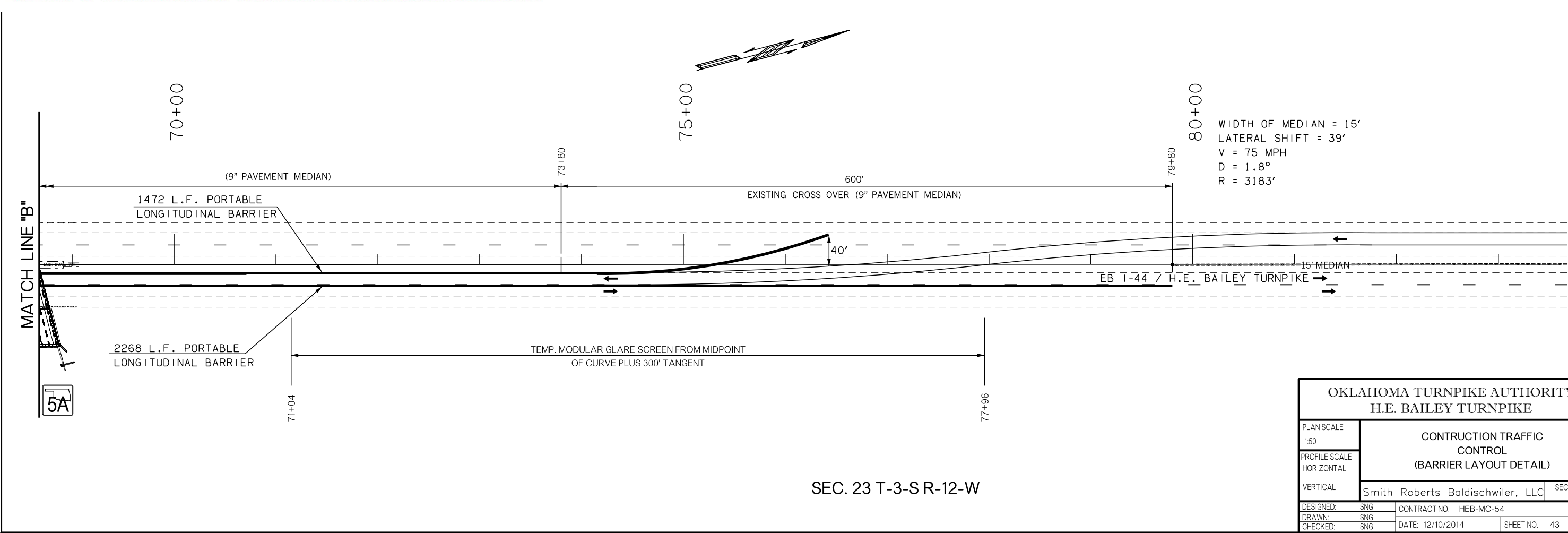
(PHASE 1B & 5A)

OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY TURNPIKE			
PLAN SCALE NOT TO SCALE	CONSTRUCTION TRAFFIC CONTROL (INSIDE LANE CLOSURE)		
PROFILE SCALE HORIZONTAL			
VERTICAL	Smith Roberts Baldischwiler, LLC		SECTION
DESIGNED: SNG	CONTRACT NO. HEB-MC-54		
DRAWN: SNG	DATE: 12/10/2014		
CHECKED: SNG	SHEET NO. 42		

OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY TURNPIKE				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NUMBER	TOTAL SHEETS
	HEB	HEB-MC-54	43	71



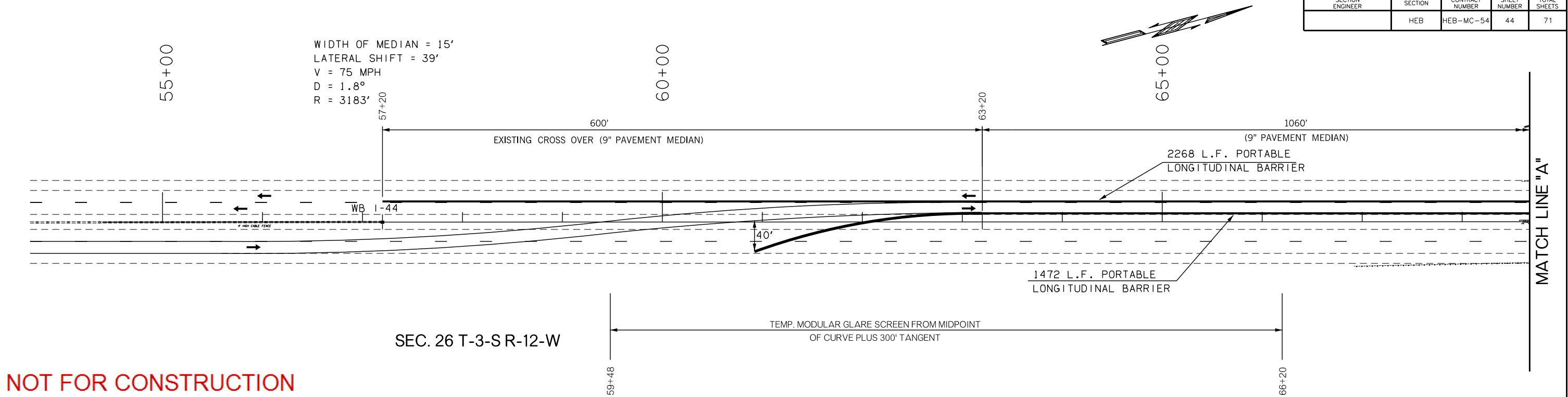
**NOT FOR CONSTRUCTION**  
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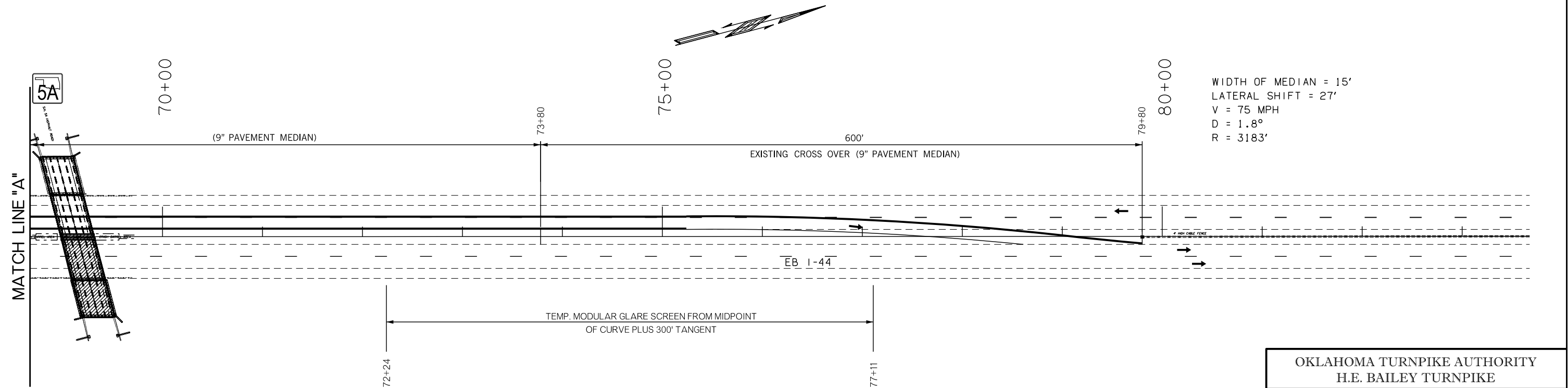
OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY TURNPIKE				
PLAN SCALE 1:50	CONSTRUCTION TRAFFIC CONTROL (BARRIER LAYOUT DETAIL)			
PROFILE SCALE HORIZONTAL				
VERTICAL	Smith Roberts Baldischwiler, LLC			SECTION
DESIGNED: SNG	CONTRACT NO. HEB-MC-54			
DRAWN: SNG	DATE: 12/10/2014			
CHECKED: SNG	SHEET NO. 43			



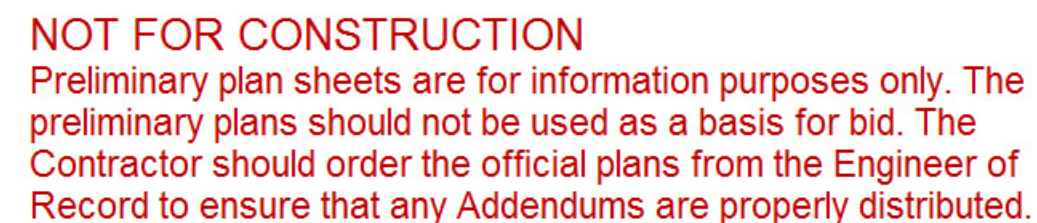
OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY TURNPIKE				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NUMBER	TOTAL SHEETS
	HEB	HEB-MC-54	44	71









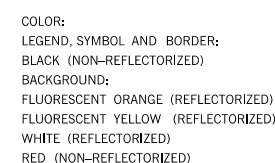
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OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY TURNPIKE			
PLAN SCALE 1:50	CONSTRUCTION TRAFFIC CONTROL (BARRIER LAYOUT DETAIL)		
PROFILE SCALE HORIZONTAL			
VERTICAL	Smith Roberts Baldischwiler, LLC		SECTION
DESIGNED: SNG	CONTRACT NO. HEB-MC-54		
DRAWN: SNG	DATE: 12/10/2014		
CHECKED: SNG	SHEET NO. 44		



	SIGN		PORTABLE MEDIAN BARRIER
	DRUM		TYPE III BARRICADES
	WORK AREA		
	ARROW DISPLAY		



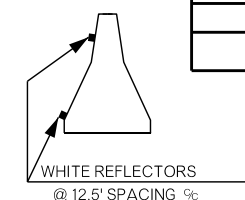
NOT TO SCALE

PLAN SCALE	CONSTRUCTION TRAFFIC CONTROL (CROSSOVER)		
PROFILE SCALE			
HORIZONTAL	Smith Roberts Baldischwiler, LLC		
VERTICAL			
		SECTION	
DESIGNED:	CONTRACT NO. HEB-MC-54		
DRAWN:			
CHECKED:	DATE: 12/10/2014	SHEET NO. 45	

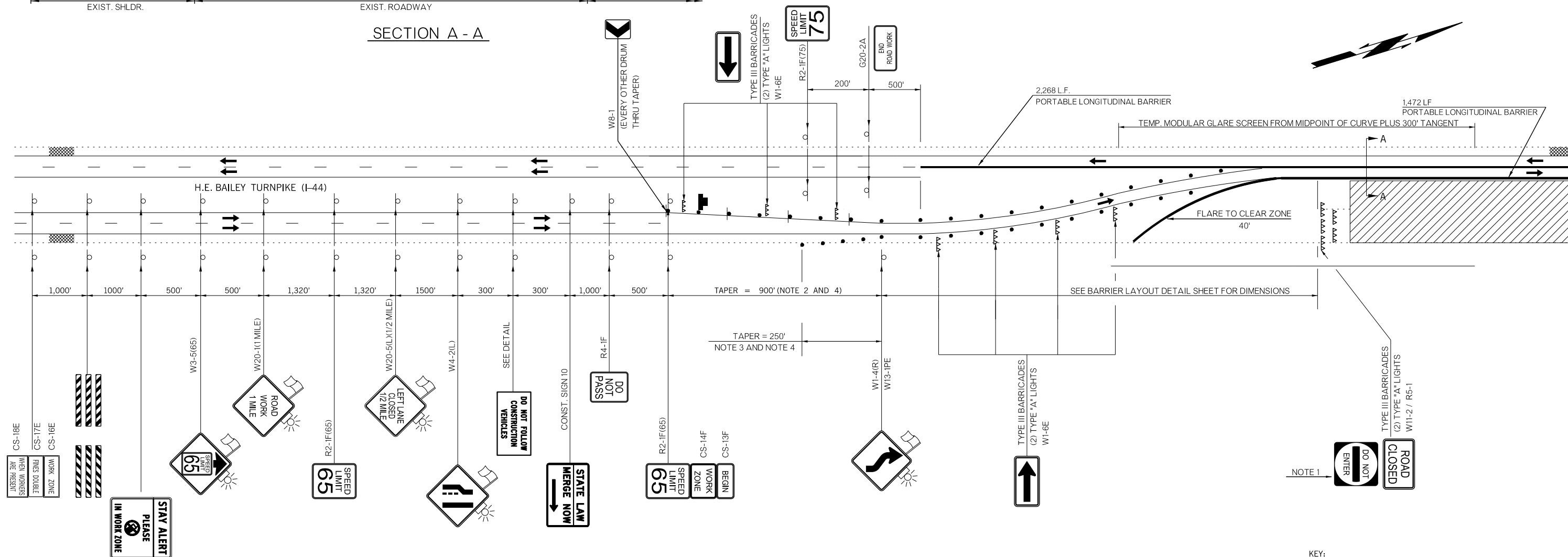
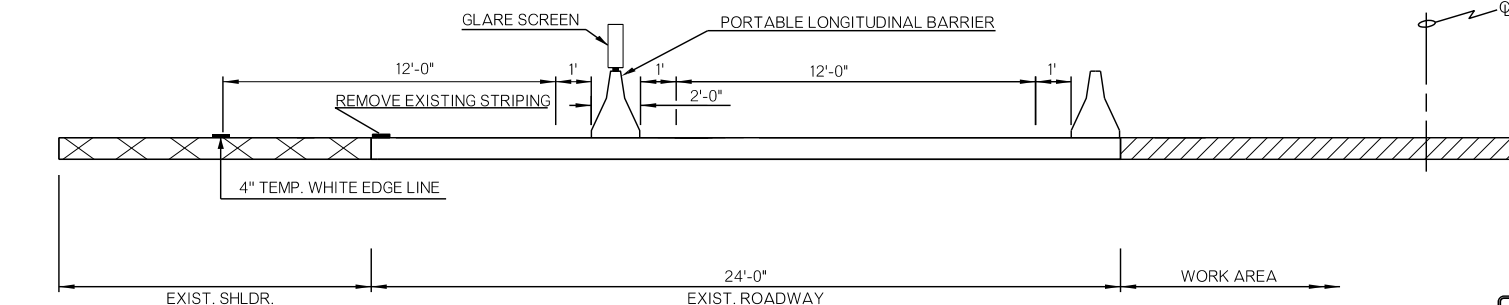
NOTE 3  
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL  
BE PLACED THRU THIS AREA.

NOTE 4  
FOR INFORMATION REGARDING THE LENGTHS OF TAPERS,  
TANGENTS, AND CROSSOVERS, AS WELL AS THE SPACING OF  
CHANNELIZING DEVICES, SEE STANDARD DRAWING  
TCS2-1 (LATEST REVISION).

BORDER  
R=1.5"  
TH=0.75"  
IN=0.75"



SECTION A - A

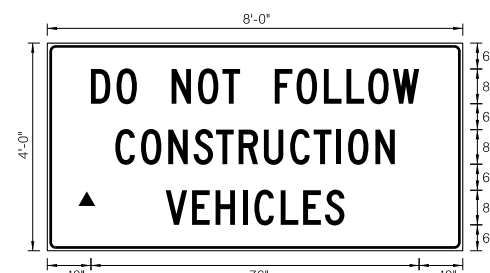


NOTE 1  
A SUFFICIENT NUMBER OF TYPE III BARRICADES, WITH  
SIGNS AS SHOWN, SHALL BE USED TO COMPLETELY  
CLOSE THE ROADWAY TO TRAFFIC FROM THE EDGE OF  
PAVEMENT TO THE EDGE OF PAVEMENT.

NOTE 2  
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.

NOTE 3  
A MINIMUM OF FIVE (5) CHANNELIZING DEVICES SHALL  
BE PLACED THRU THIS AREA.

NOTE 4  
FOR INFORMATION REGARDING THE LENGTHS OF TAPERS,  
TANGENTS, AND CROSSOVERS, AS WELL AS THE SPACING OF  
CHANNELIZING DEVICES, SEE STANDARD DRAWING  
TCS2-1-1 (LATEST REVISION)



COLOR:  
LEGEND, SYMBOL AND BORDER:  
BLACK (NON-REFLECTORIZED)  
BACKGROUND:  
FLUORESCENT ORANGE (REFLECTORIZED)  
FLUORESCENT YELLOW (REFLECTORIZED)  
WHITE (REFLECTORIZED)  
RED (NON-REFLECTORIZED)

**NOT FOR CONSTRUCTION**  
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NOT TO SCALE

KEY:

	SIGN
	DRUM
	WORK AREA
	ARROW DISPLAY
	PORTABLE MEDIAN BARRIER
	TYPE III BARRICADES

(PHASE 2 & 4)

OKLAHOMA TURNPIKE AUTHORITY  
H.E. BAILEY TURNPIKE

PLAN SCALE
NOT TO SCALE
PROFILE SCALE
HORIZONTAL
VERTICAL

CONSTRUCTION TRAFFIC  
CONTROL  
(CROSSOVER)

Smith Roberts Baldischwiler LLC	SECTION
---------------------------------	---------

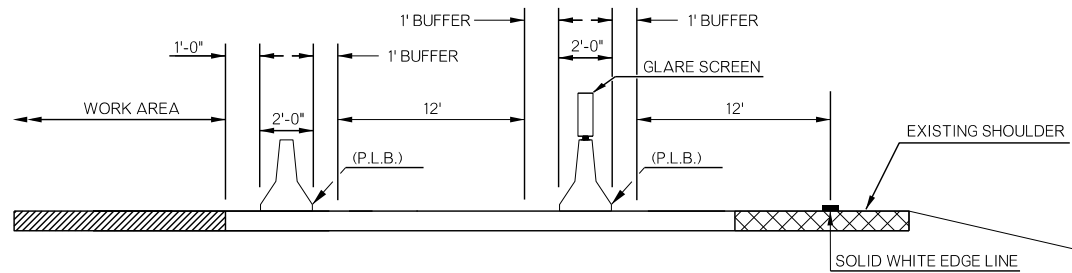
DESIGNED:	SNG	CONTRACT NO. HEB-MC-54
DRAWN:	SNG	
CHECKED:	SNG	

DATE: 12/10/2014
------------------

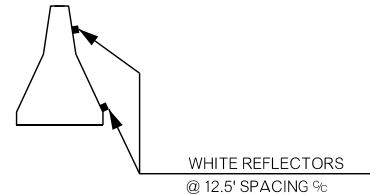
SHEET NO.	46
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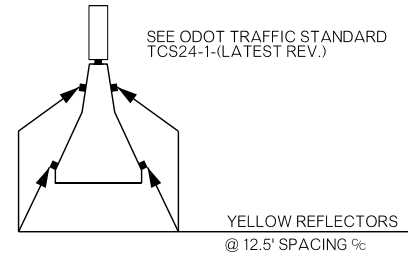
(P.L.B.)=PORTABLE LONGITUDINAL BARRIER



SECTION A - A



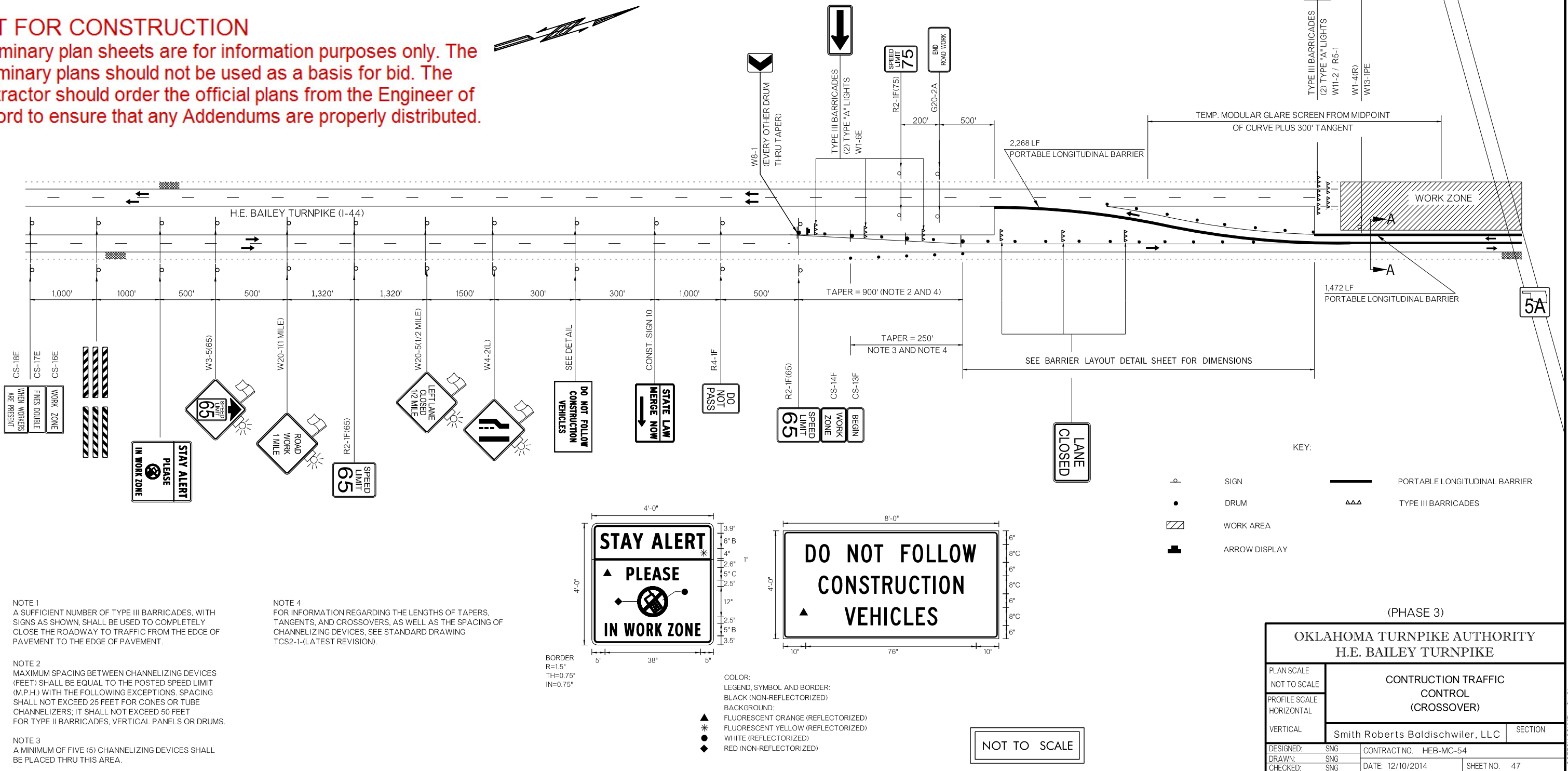
PORTABLE LONGITUDINAL BARRIER  
TRAFFIC ON ONE SIDE



PORTABLE LONGITUDINAL BARRIER  
TRAFFIC ON BOTH SIDES

## NOT FOR CONSTRUCTION

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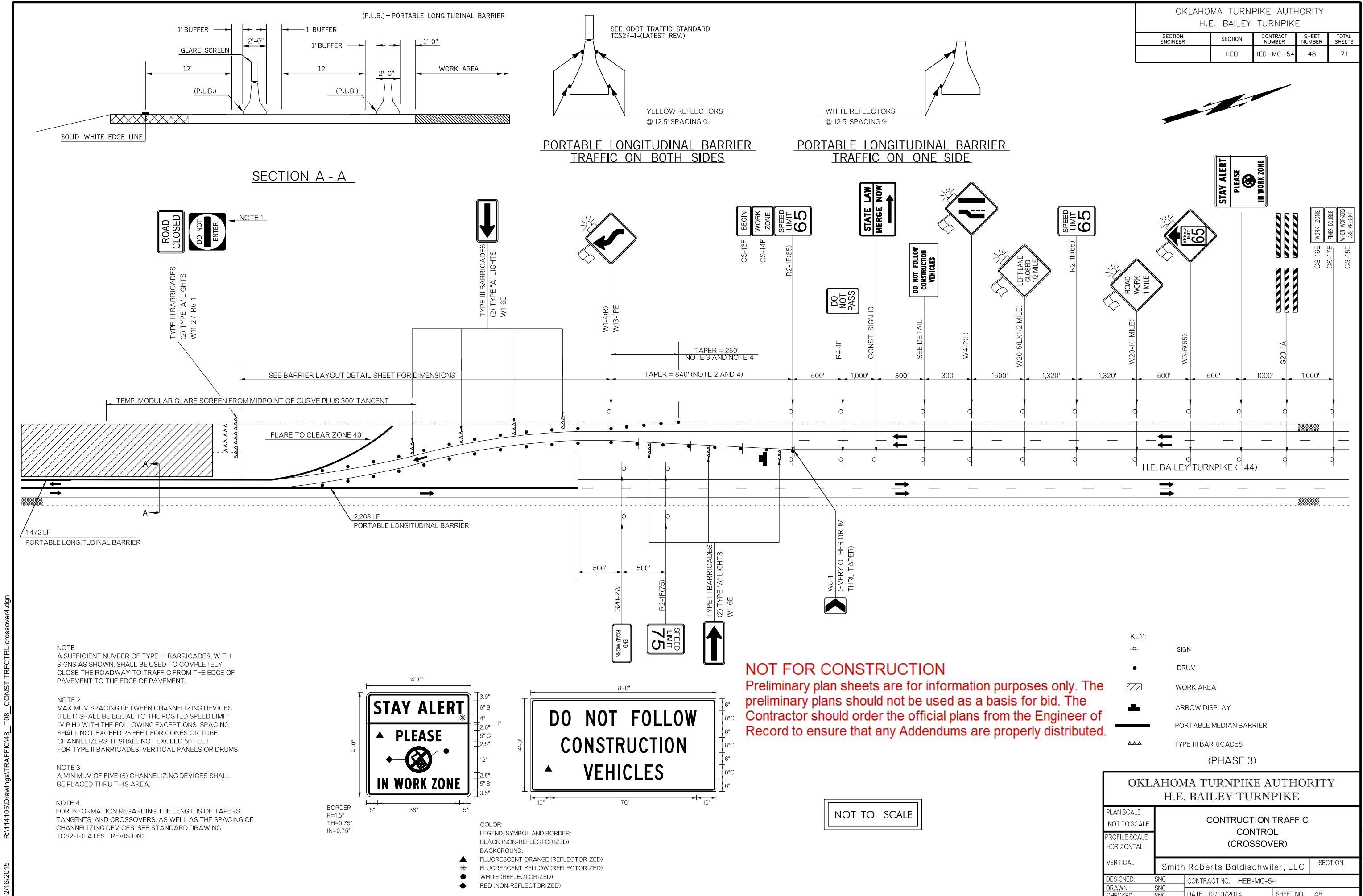
OKLAHOMA TURNPIKE AUTHORITY  
H.E. BAILEY TURNPIKE

SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NUMBER	TOTAL SHEETS
	HEB	HEB-MC-54	47	71

(PHASE 3)

OKLAHOMA TURNPIKE AUTHORITY  
H.E. BAILEY TURNPIKE

PLAN SCALE NOT TO SCALE	CONSTRUCTION TRAFFIC CONTROL (CROSSOVER)		
PROFILE SCALE HORIZONTAL	Smith Roberts Baldischwiler, LLC		
VERTICAL	SECTION		
DESIGNED: SNG	CONTRACT NO.	HEB-MC-54	
DRAWN: SNG	DATE: 12/10/2014	SHEET NO.	47
CHECKED: SNG			



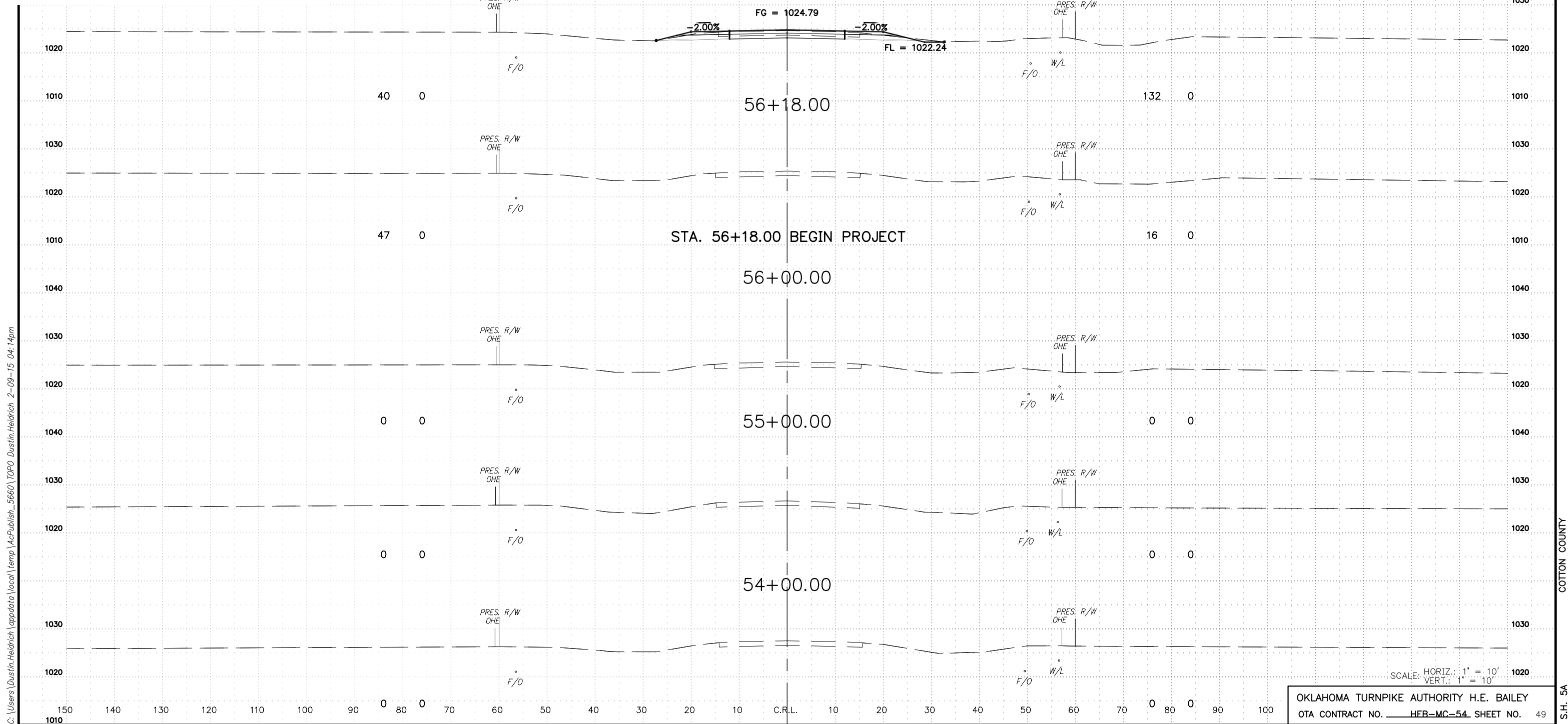
END AREA	
SQUARE FEET	
EXC.	EMB.

VOLUME	
CUBIC YARDS	
EXC.	EMB.

OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB		49	71
NO.	REVISION			DATE

NOT FOR CONSTRUCTION

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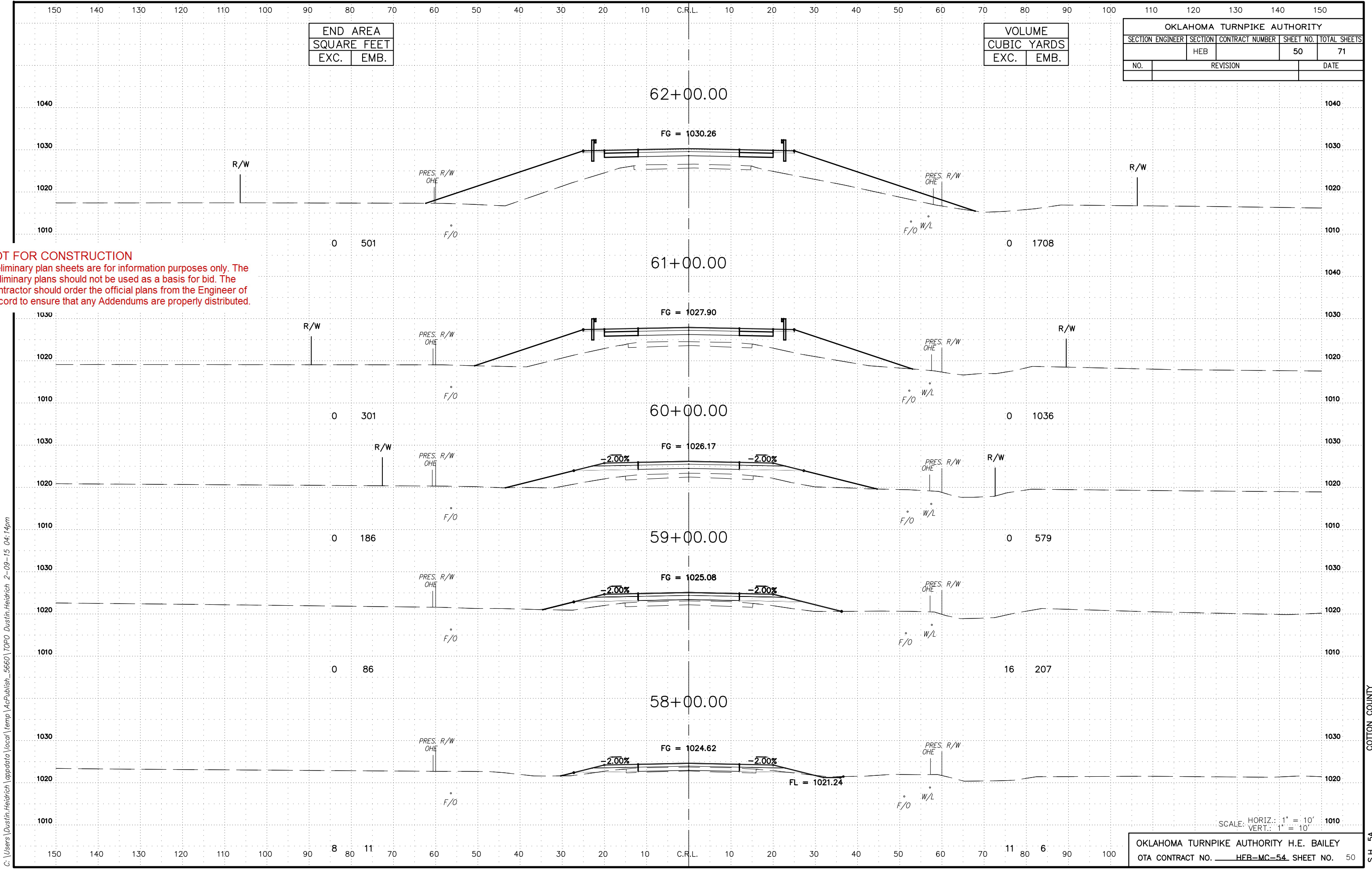


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COTTON COUNTY

S.H. 5A





END AREA	
SQUARE FEET	
EXC.	EMB.

VOLUME	
CUBIC YARDS	
EXC.	EMB.

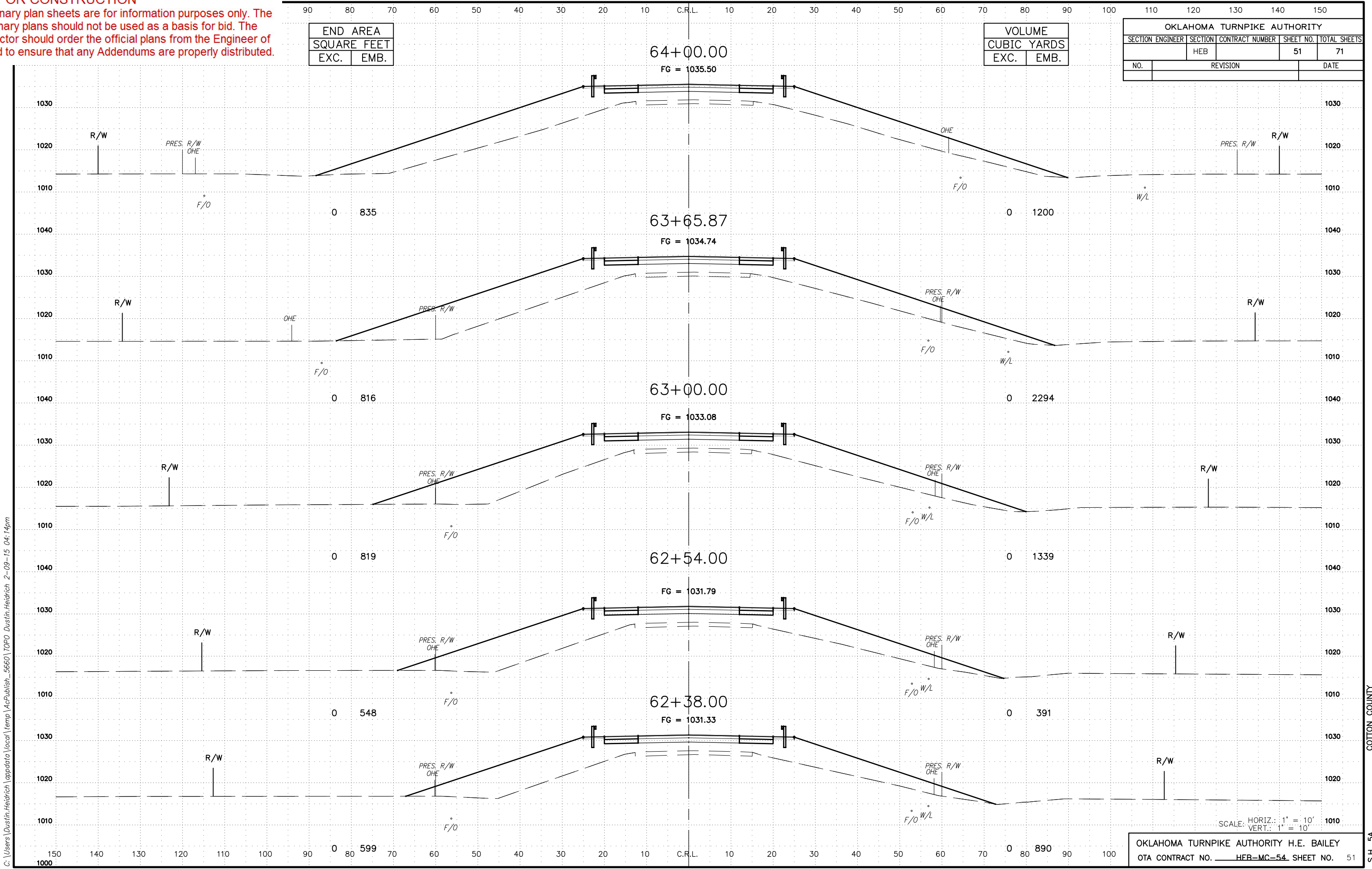
OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB		50	71
NO.	REVISION			DATE

NOT FOR CONSTRUCTION  
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SCALE: HORIZ.: 1" = 10'  
VERT.: 1" = 10'

NOT FOR CONSTRUCTION  
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END AREA	
SQUARE FEET	
EXC.	EMB.

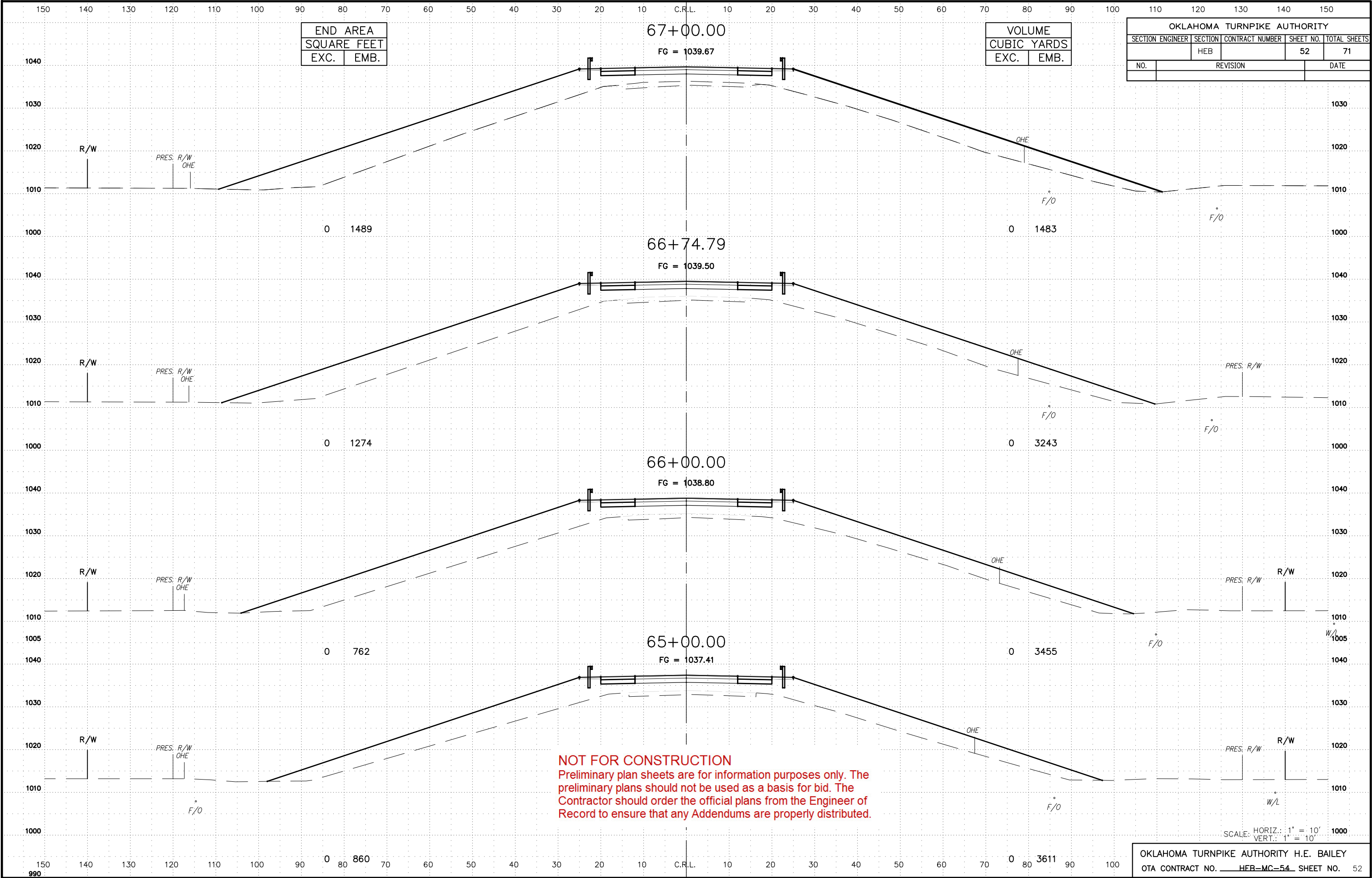
VOLUME	
CUBIC YARDS	
EXC.	EMB.

OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB		51	71
NO.	REVISION			DATE

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SCALE: HORIZ.: 1" = 10'  
VERT.: 1" = 10'

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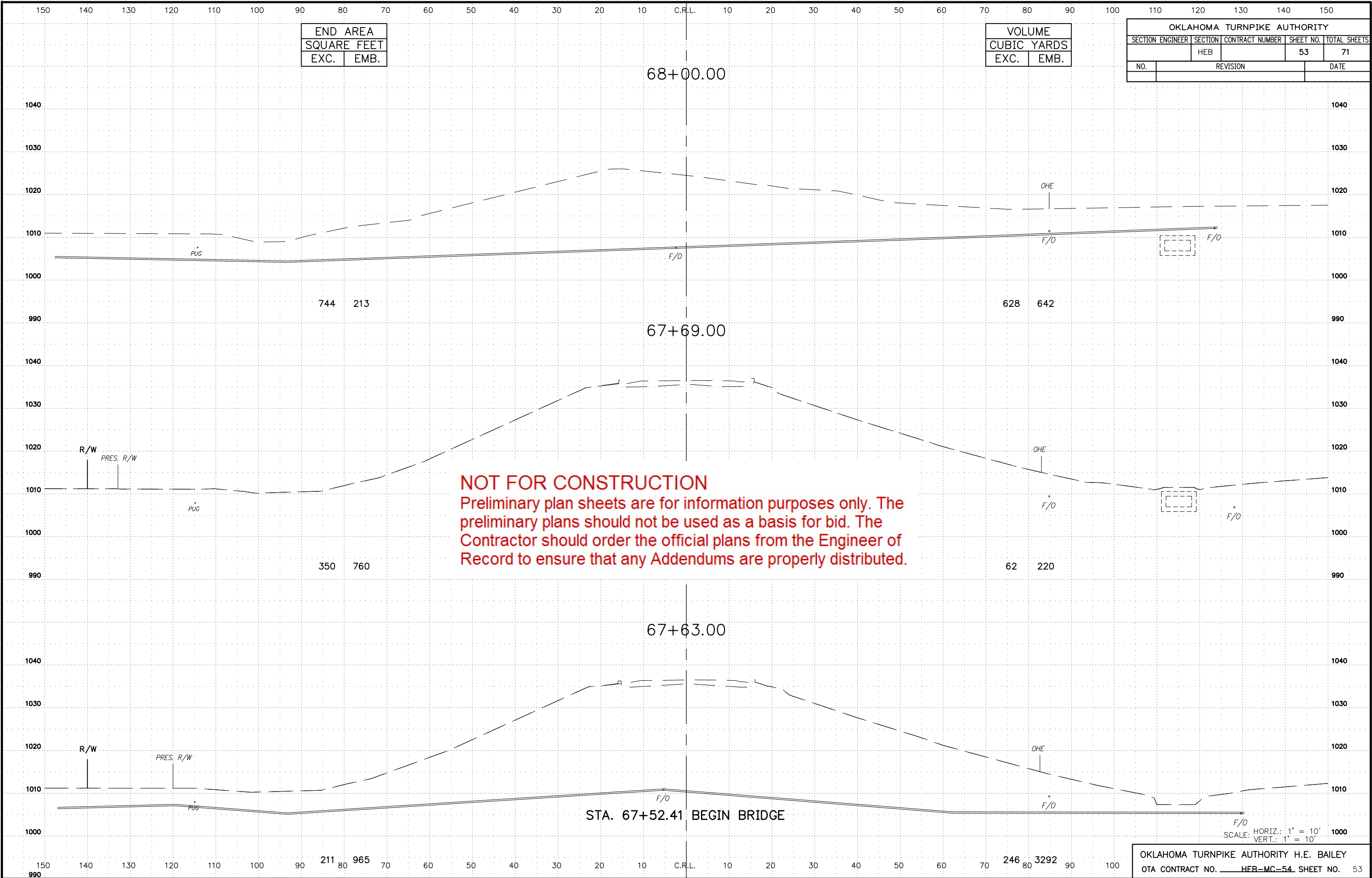


COTTON COUNTY

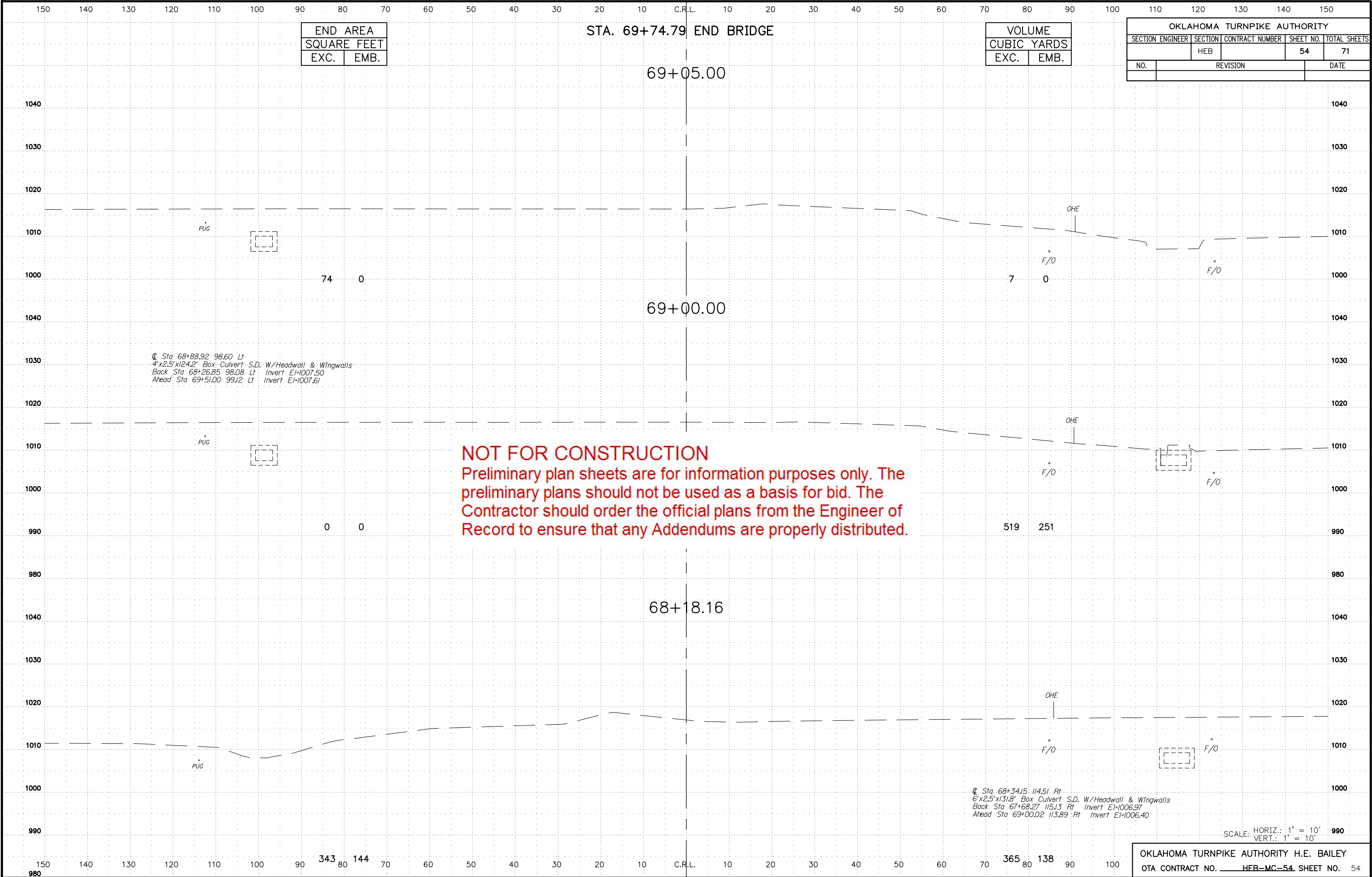
S.H. 5A



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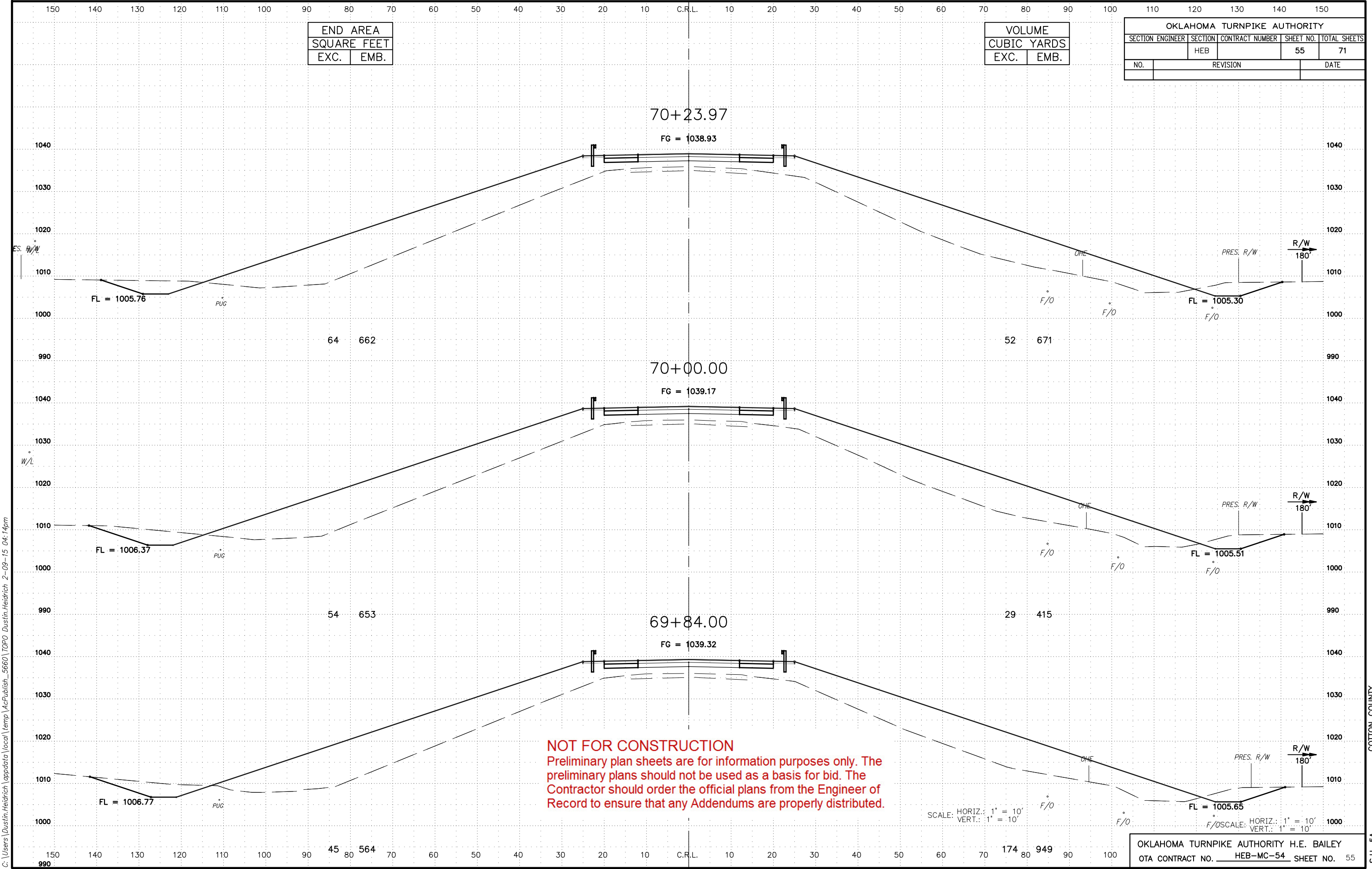


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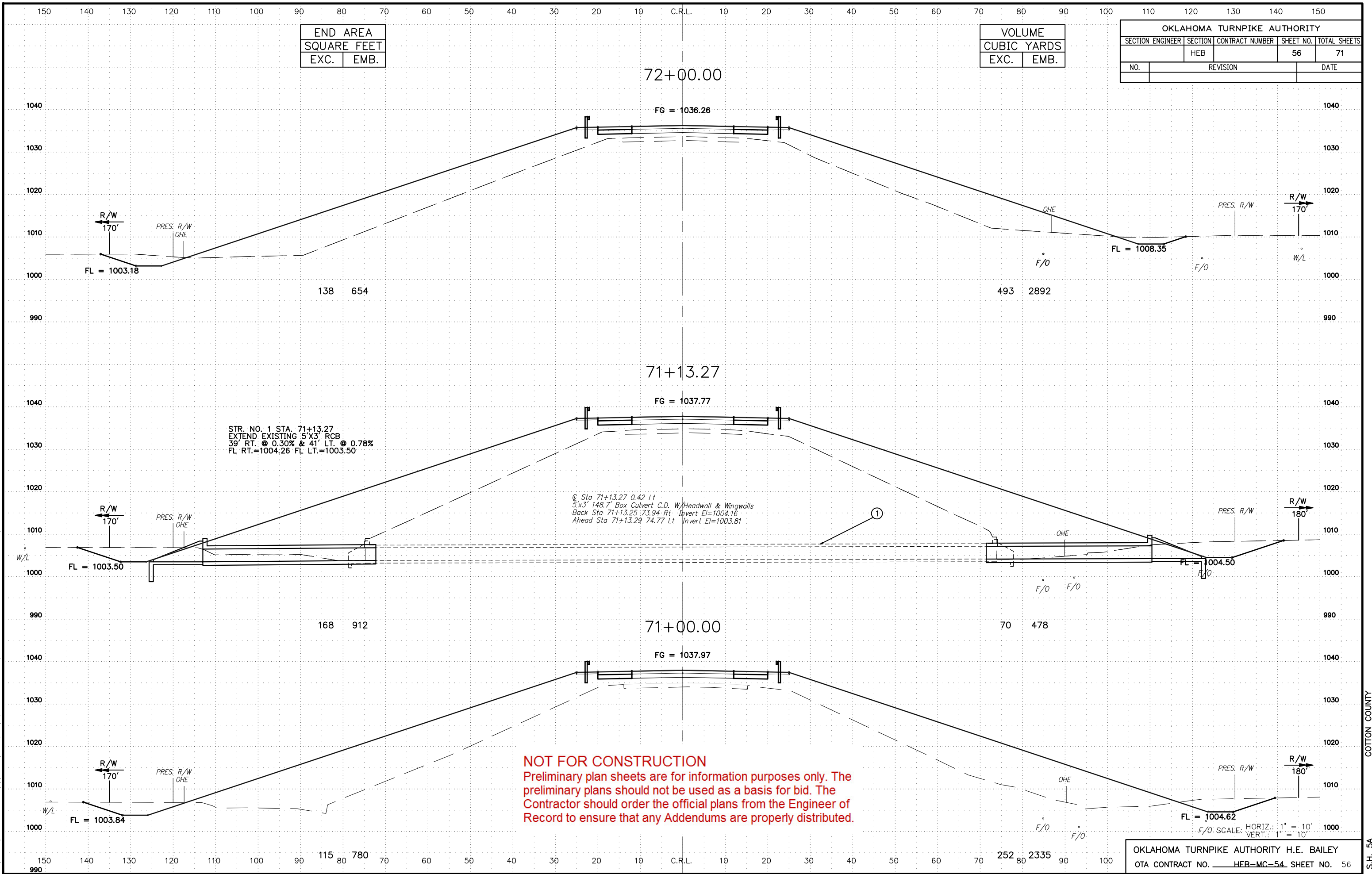
COTTON COUNTY

S.H. 5A





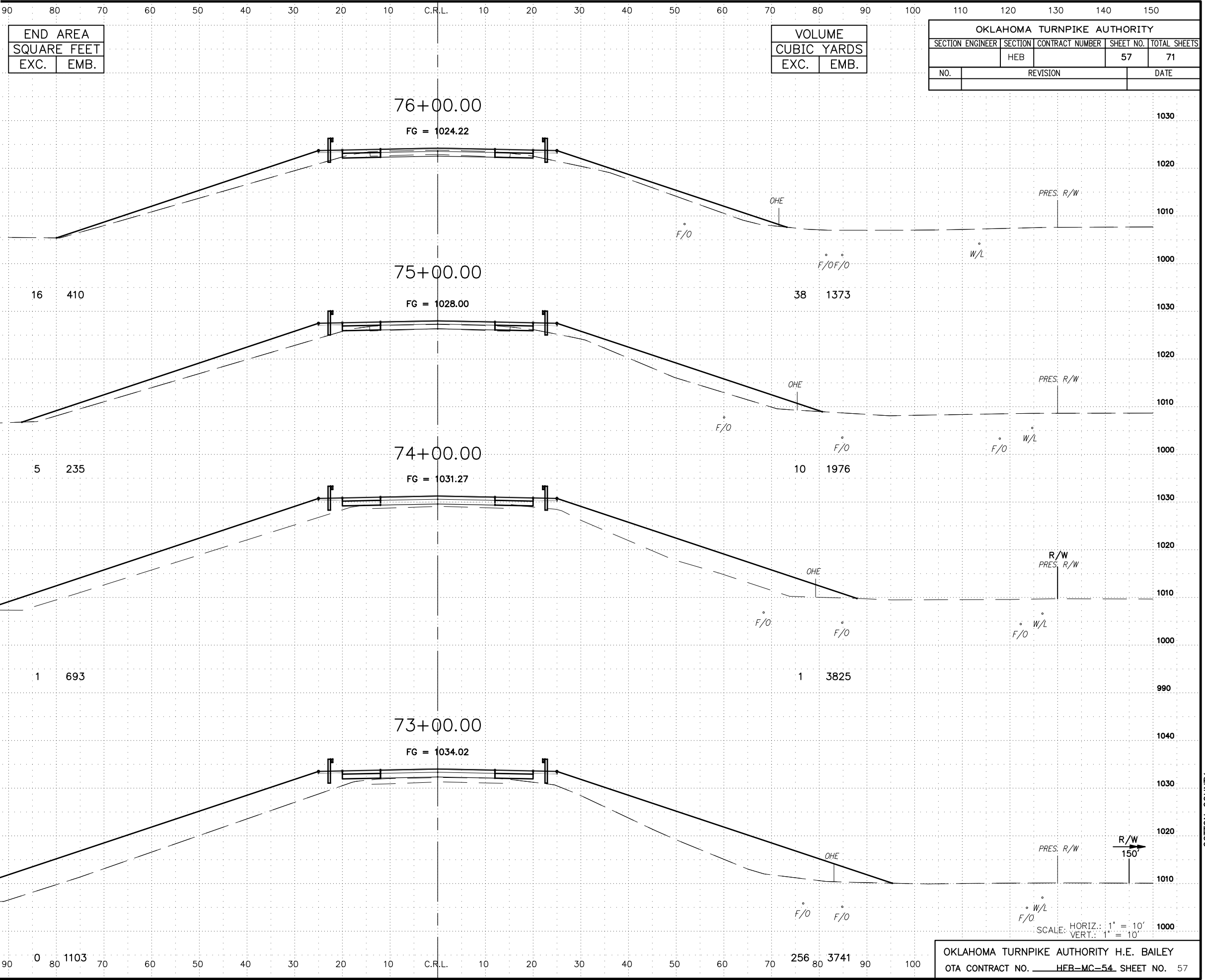
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COTTON COUNTY

S.H. 5A

NOT FOR CONSTRUCTION  
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COTTON COUNTY

S.H. 5A

OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB		57	71
NO.	REVISION			DATE

OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY				
OTA CONTRACT NO. HEB-MC-54 SHEET NO. 57				

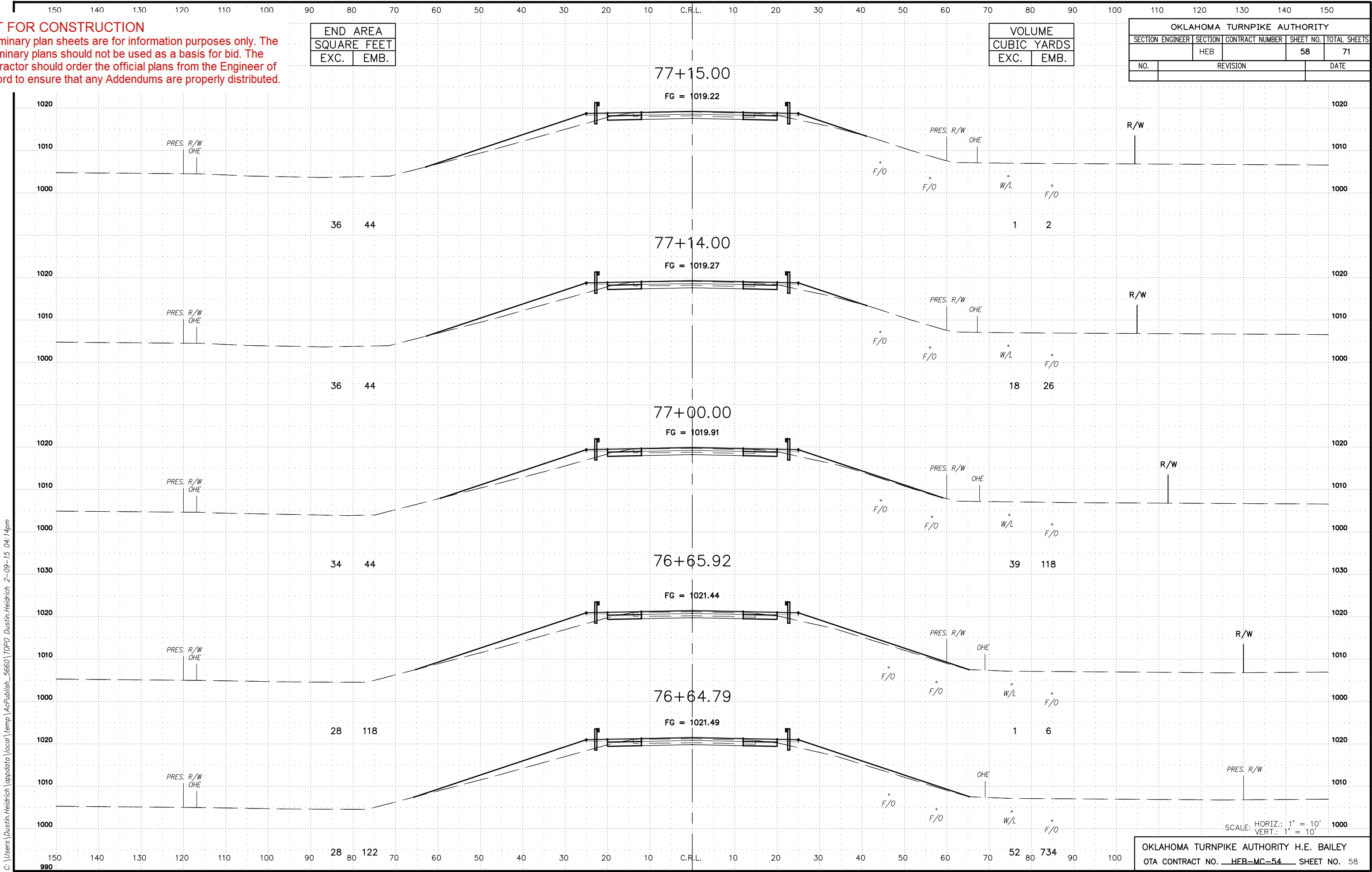
NOT FOR CONSTRUCTION

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END AREA	
SQUARE FEET	
EXC.	EMB.

VOLUME	
CUBIC YARDS	
EXC.	EMB.

OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB		58	71
NO.	REVISION			DATE



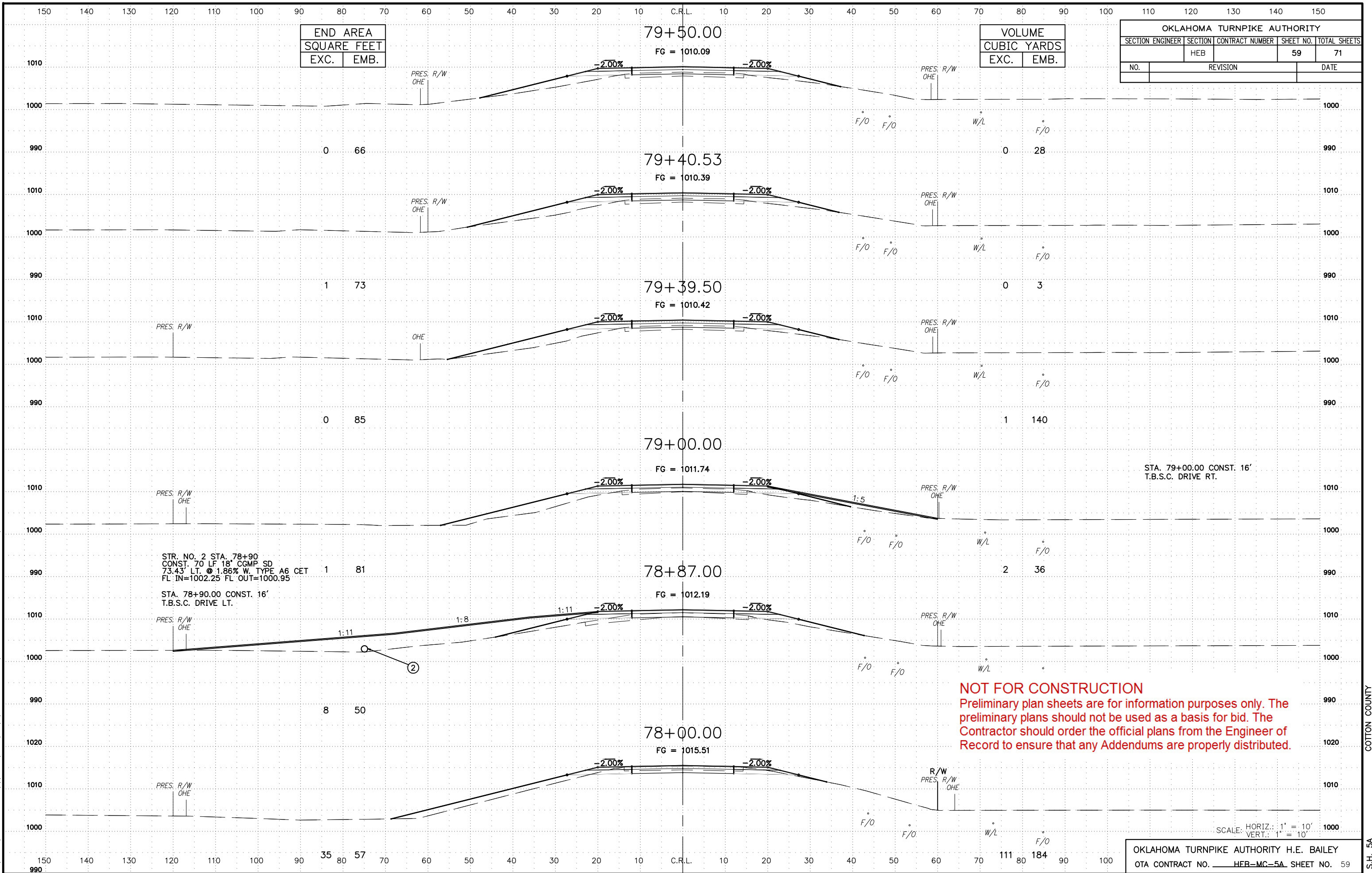
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COTTON COUNTY

S.H. 5A



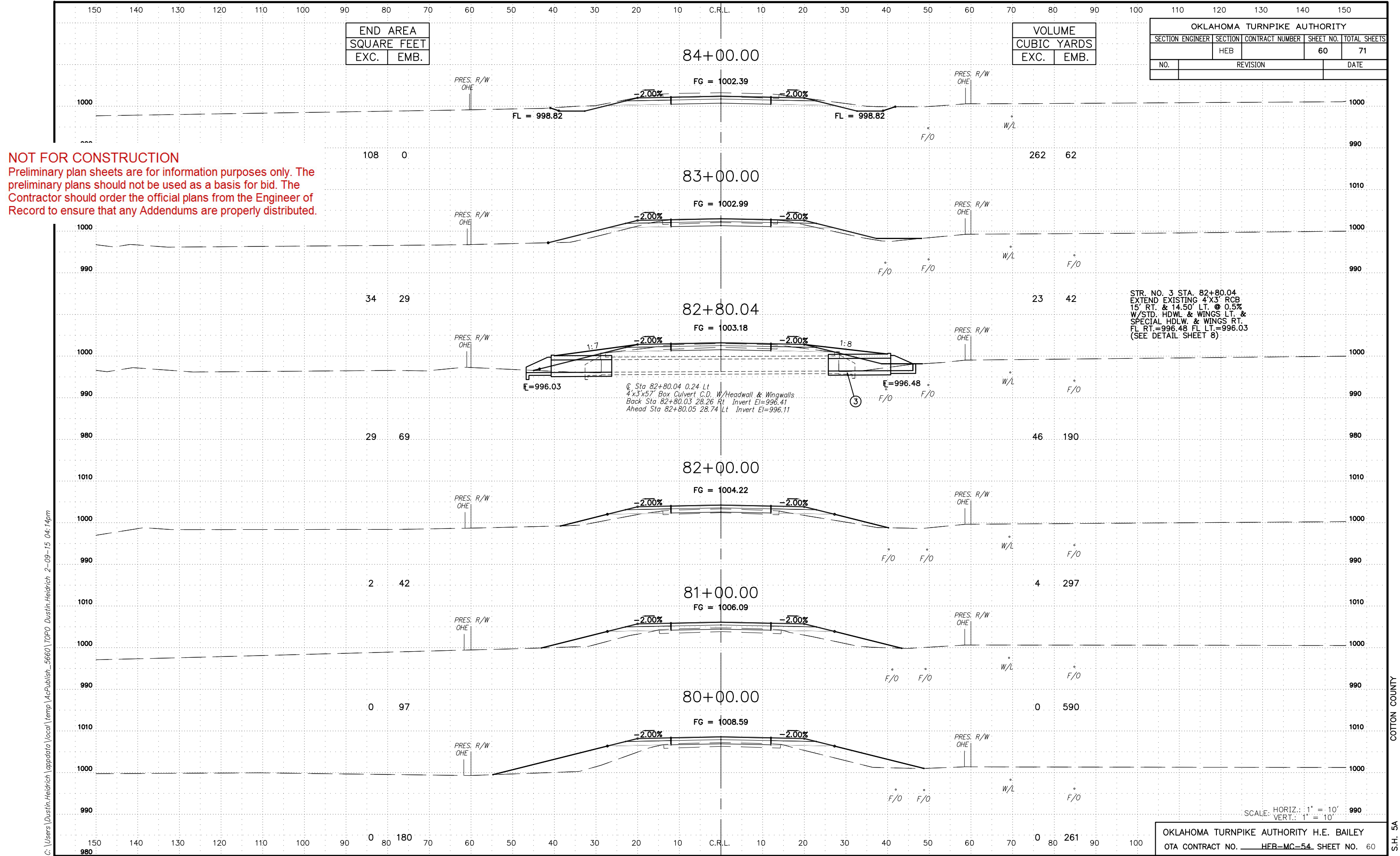
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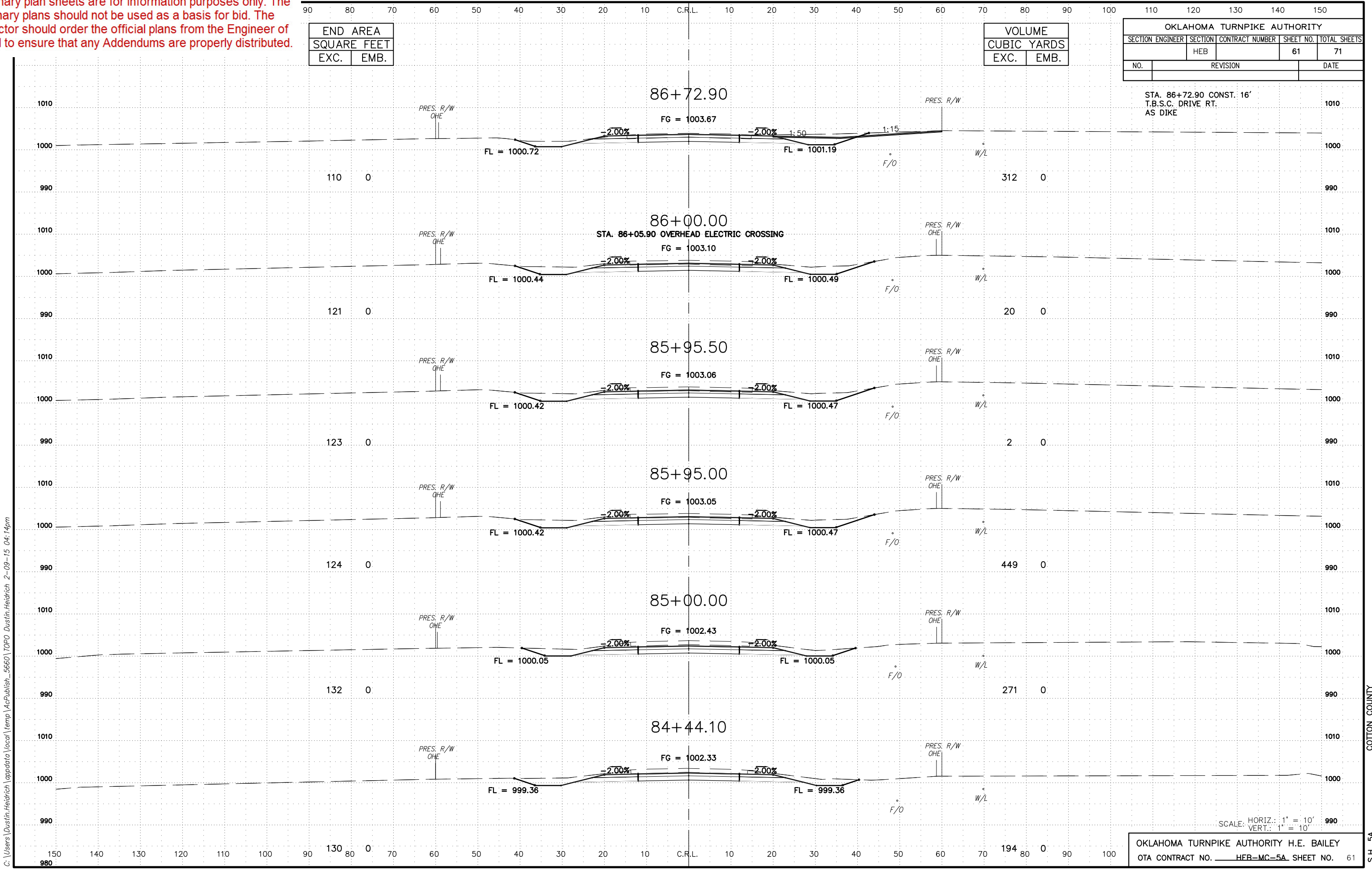
COTTON COUNTY

S.H. 5A

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END AREA	
SQUARE FEET	
EXC.	EMB.

VOLUME	
CUBIC YARDS	
EXC.	EMB.

OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB		61	71
NO.	REVISION			DATE

STA. 86+72.90 CONST. 16'  
T.B.S.C. DRIVE RT.  
AS DIKE

SCALE: HORIZ.: 1" = 10'  
VERT.: 1" = 10'

OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY	
OTA CONTRACT NO. <u>HEB-MC-5A</u>	SHEET NO. 61

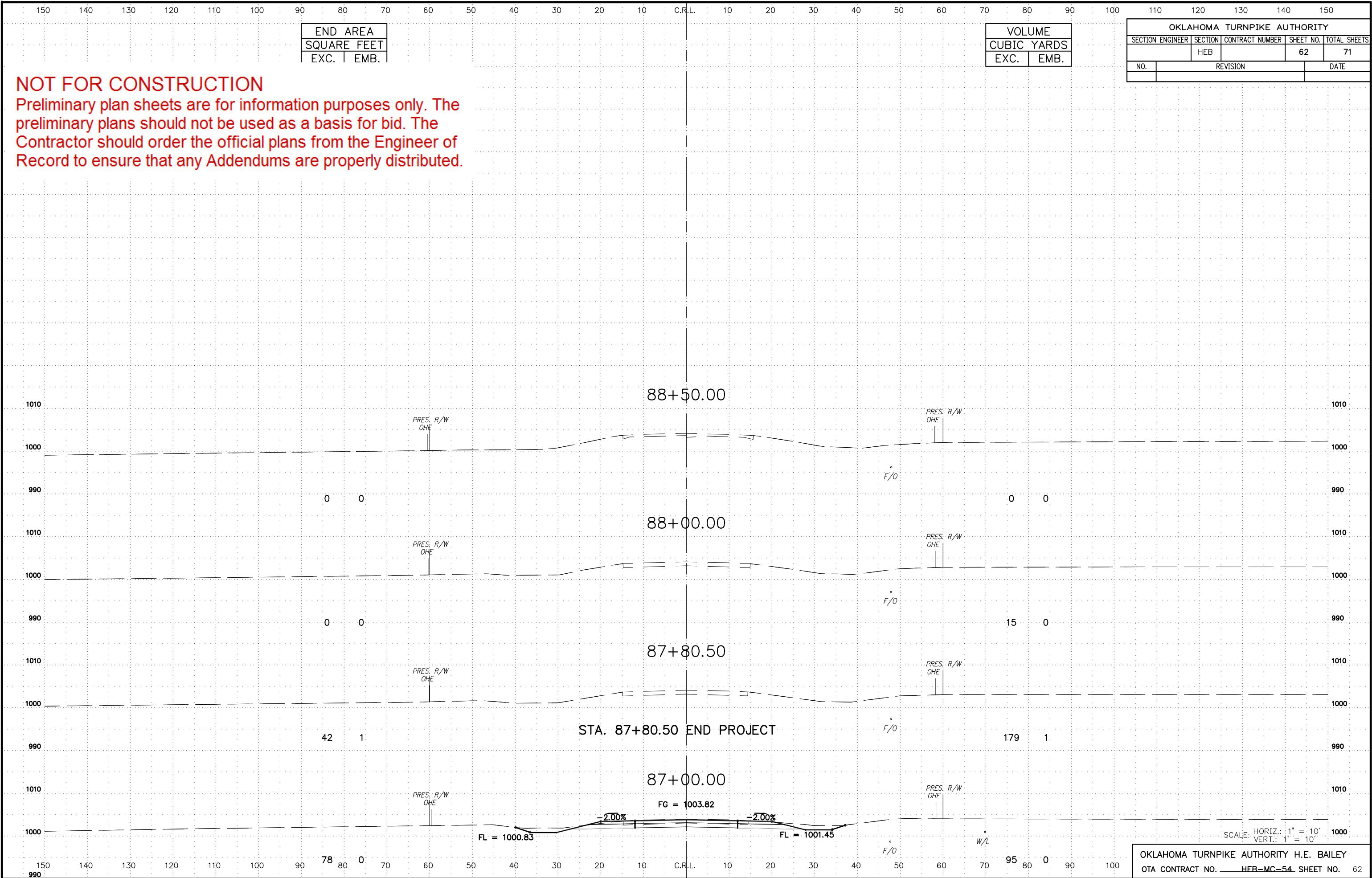
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COTTON COUNTY

S.H. 5A



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END AREA	
SQUARE FEET	
EXC.	EMB.

VOLUME	
CUBIC YARDS	
EXC.	EMB.

OKLAHOMA TURNPIKE AUTHORITY				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NO.	TOTAL SHEETS
	HEB		62	71
NO.	REVISION			DATE

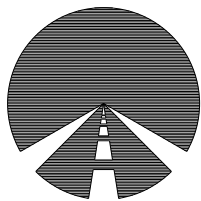
SCALE: HORIZ.: 1" = 10'  
VERT.: 1" = 10'

OKLAHOMA TURNPIKE AUTHORITY H.E. BAILEY	
OTA CONTRACT NO. <u>HEB-MC-54</u>	SHEET NO. 62

COTTON COUNTY

S.H. 5A

# OKLAHOMA TURNPIKE AUTHORITY



## H.E. BAILEY TURNPIKE (I-44)

*S.H. 5A, Bridge 16.45B over H.E. Bailey Turnpike  
From NS-255 Section Line 3500' East,  
1.3 Miles East of Cookietown,  
COTTON COUNTY*

### SURVEY CONTROL DATA

#### 1. HORIZONTAL CONTROL:

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

B: ACCURACY -THE PRIMARY CONTROL NETWORK, THE SECONDARY CONTROL NETWORK AND SECTION BOUNDARIES FOR THIS SURVEY ARE IN GENERAL COMPLIANCE WITH THE NGS SECOND ORDER, CLASS 11 STANDARDS FOR HORIZONTAL CONTROL (1:20,000).

#### 2. BEARINGS:

THE BEARINGS SHOWN HEREIN OR HEREON ARE GRID BEARINGS DERIVED FROM THE NGS OKLAHOMA STATE PLANE COORDINATE SYSTEM AND ARE NOT ASTRONOMICAL.

#### 3. VERTICAL CONTROL:

A: LEVEL DATUM IS NAVD 88.

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



Utilities		
Utility		Phone Number
<b>Telephone Lines:</b>		
Chickasaw Telephone Co/Sulphur, Ok		(580) 622-3837
Santa Rosa Telephone Coop Inc		(940) 886-2217
USIC/Pioneer Telephone/Foreign		(580) 335-1170
<b>Electric Lines:</b>		
Cotton Electric Co-op		(580) 575-4221
Public Services of Oklahoma/AEP		(918) 599-2646
<b>Water Lines:</b>		
Tilman County RWD#1		(580) 597-3097

### CONVENTIONAL SYMBOLS

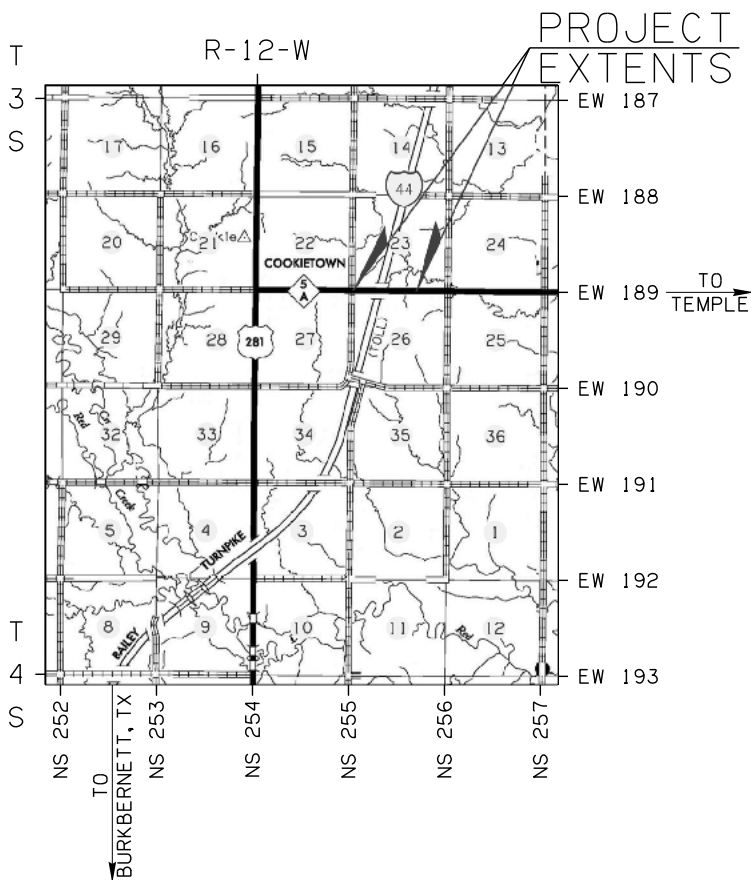
	PROPOSED ROAD
	RAILROADS
	RANGE & TOWNSHIP
	SECTION LINES
	QUARTER SECTION LINES
	FENCES
	GROUND LINES
	EXISTING ROADS
	BASE LINE
	GRADE LINES
	TELEPHONE & TELEGRAPH
	POWER LINES
	OIL WELLS
	BUILDINGS
	DRAINAGE STRUCTURES - IN PLACE
	DRAINAGE STRUCTURES - NEW
	RIGHT-OF-WAY LINES - EXISTING
	RIGHT-OF-WAY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

OKLAHOMA TURNPIKE AUTHORITY, 1999 STANDARD SPECIFICATIONS FOR TURNPIKE CONSTRUCTION GOVERN. SPECIAL PROVISIONS GOVERN OVER THE STANDARD SPECIFICATIONS.

OKLAHOMA TURNPIKE AUTHORITY Smith Roberts Baldischwiler, LLC				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NUMBER	TOTAL SHEETS
REVISION: Miscellaneous revisions per comments				DATE: 8-20-14

### NOT FOR CONSTRUCTION

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OTA CONTRACT NO. HEB-MC-54  
ODOT J/P NO. 29525(04)

Index of Sheets:			
1. Title Sheet		Survey Began: 7-17-13	
2-3. Historical Letter and Written Report		Survey End: 9-13-13	
4. Check Levels, Alignment Report and COGO Report			
5. Horizontal Control			
6-7. Survey Data Sheets			
8-9. Land Tie Data Sheet			
Personal:	Title:	Equipment:	Serial#
Cliff R. Stout Jr.	Professional Land Surveyor	Sokkia 130R3 Total Station	D22819
Thomas D. Lee	Professional Land Surveyor	Ranger/TSC3BW	RG1F023851
Tim Endsley	Senior CADD Technician	Ranger/TSC3BW	RG1F023837
Mandy Palmatary	Administrative Support	Sokkia Total Station Set 3 130r3	141740
Carissa Palmer	Utility Technician	Topcon FC-2200 Data Collector	TPS100191
Brad Cypert	Senior Party Chief	Topcon GPS GR3 Receiver	444-0405
Sam Gibson	Party Chief	Topcon GPS GR3 Receiver	444-0402
Matt Herndon	Party Chief	Topcon GPS GR3 Receiver	444-0456
Parker Cox	Instrument Man	Topcon GPS GR3 Receiver	444-458
Justin Magdellini	Instrument Man	Topcon FC-2500 Data Collector	558-2012
D'andre Blackney	Instrument Man	Trimble Digital Level DiNi	707885



PREPARED BY: Cliff R. Stout Jr. DATE: 9-13-13  
CLIFF R. STOUT JR.  
PROFESSIONAL LAND SURVEYOR

PROJECT NO.	114105	DATE:	9-13-13	SHEET NO.	63
SMITH ROBERTS BALDISCHWILER, LLC					
OKLAHOMA CITY OFFICE:			CHICKASHA OFFICE:		
100 N.E. 5th Street Oklahoma City, OK 73104 Telephone: (405) 840-7084 Fax: (405) 840-9116			104 S. 2nd Street Chickasha, OK 73018 Telephone: (405) 224-1444 Fax: (405) 224-1485		
ENGINEERS			SURVEYORS		
CERTIFICATE OF AUTHORIZATION NO. 3949 EXPIRES JUNE 30, 2015			PLANNERS		



OKLAHOMA TURNPIKE AUTHORITY Smith Roberts Baldischwiler, LLC				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NUMBER	TOTAL SHEETS
REVISION: Miscellaneous revisions per comments				DATE: 8-20-14

Oklahoma Turnpike Authority

Date: September 13, 2013

To:

Mr. David Murdock, Assistant Director Maintenance, Engineering & Construction

From:

Cliff R. Stout Jr., Professional Land Surveyor

Subject:

HEB-MC-54  
S.H. 5A, Bridge 16.45B over H.E. Bailey Turnpike  
From NS-255 Section Line 3500' East,  
1.3 Miles East of Cookietown

HISTORICAL LETTER AND WRITTEN REPORT

1. ASSIGNMENT OF SURVEY:

This Survey was assigned by White Engineering & Associates on behalf of David Murdoch of the Oklahoma Turnpike Authority.

2. GENERAL:

Method of Survey: This survey was performed using the Break Line Method, applying a combination of field conventional methods to obtain topography in the main project area, and real-time kinematic GPS (RTK) to obtain information on existing land tie evidence.  
  
Units of measurement: U.S. Survey Foot  
  
Reference material relevant to this project:  
  
OTA Southwestern Turnpike Section II-B Three Bridges Contract No. 218 As-built  
OTA Southwestern Turnpike Section II-B Paving Contract No. 248 As-built  
SWO 2212(1) survey – S.H. 5A

3. SURVEY LIMITS:

This survey will begin at NS-255 Section Line P.I. Sta. 52+91.50 and will extend easterly to P.O.T. Sta. 87+91.50 (approximate centerline length = 0.663 mile).

4. ALIGNMENT:

The Centerline of Survey will be along and identical to the centerline of present S.H. 5A as established under SWO 2212(1) survey,.

5. STATIONING:

Stationing for this survey will be as established under SWO 2212(1). Stationing will increase east from this point, field measured distance, to the End of Survey without equation, except with other surveys and plans.

6. PURPOSE OF SURVEY

The purpose of this survey is to furnish sufficient data to develop plans to construct a new roadway and bridge for S.H. 5A over the H.E. Bailey Turnpike. The survey will include the Alignment, Topographic/Planimetric data, Surface Features/DTM data, Land Ties, Utilities, Drainage and all other pertinent information needed to aid in the design.

7. TOPOGRAPHY / DTM INFORMATION:

The Break Line Method, applying conventional field methods to obtain topography to create a Digital Terrain Model (DTM) and has been archived within the MicroStation Design File (See: SUBMITTED DATA).

8. HORIZONTAL CONTROL:

Horizontal control for this survey was established by static and real time kinematic GPS (RTK) Survey Methods. Coordinates on this survey are NGS Oklahoma State Plane Coordinate system NAD 83(HPGN) Lambert Projection South Zone. The distances, coordinates, and elevations shown on this survey are in U.S. Survey Feet. All angles and bearings shown are in degrees, minutes, and seconds.

9. VERTICAL CONTROL:

Vertical Control for this survey is NGS, NAVD'88. Total length of run = 0.716 mile. A benchmark list depicting existing and newly established benchmarks, as well as results of the control leveling has been placed and archived within the MicroStation Design File (See: SUBMITTED DATA).

10. UTILITIES:

CALL OKIE was contacted on July 25, 2013, and utilities were located by July 27, 2013. All utility information has been shown and archived within the MicroStation Design File See: SUBMITTED DATA).

UTILITIES OWNERSHIPS:

1. Chickasaw Telephone Co/Sulphur, Ok  
Cindy Wilson  
124 W Vinita Avenue  
Sulphur, Ok, 73086

(580) 622-3837

2. Santa Rosa Telephone Cooperative Inc.  
Brad Laxson  
7110 US Highway 287 E  
Vernon Tx, 76384

(940) 886-2217

3. USIC/Pioneer Telephone/Foreign  
Michael Garza  
PO Box 758  
Frederick, Ok, 73542

(580) 335-8032

4. Cotton Electric Cooperative  
Jeff Hart  
226 N Broadway Street  
Walters, Ok, 73572

(580) 575-4221

5. Public services of Oklahoma/AEP  
Regional Office  
212 East 6th Street  
Tulsa, Ok, 74119  
(No response or atlas supplied, regional office contact information shown)

(918) 599-2646

6. Tillman County RWD#1  
Ricky Strecker  
PO Box 160  
304 2nd Street  
Chattanooga, Ok, 73528  
(No response, Cotton County RWD Atlas information shown)

(580) 597-3097

11. SECTION BOUNDARY SURVEYS:

Land Ties are to include establishing/re-establishing all section corners and ¼ section comers, including the center section corner, of each section through which the main line passes and any other quarter (1/4) section from which right-of-way may need to be acquired. All section corners and 1/4 section corner so established are to be monumented and referenced in accordance with the Survey Specifications. As a minimum, the following sections or partial sections are to be set up in:

T-3-S, R-12-W, I.M; SECTIONS 23 and 26.

SECTION 23;

NW CORNER - SET 1/2" IRON PIN WITH CAP "SRB CA3949" IN AGREEMENT WITH LOCAL EVIDENCE AND THE OKLAHOMA TURNPIKE AUTHORITY "SOUTHWESTERN TURNPIKE PLANS (H.E. BAILEY TURNPIKE)".


NORTH 1/4 CORNER - SET 1/2" IRON PIN WITH CAP "SRB CA3949" AT EQUIDISTANT AND ON LINE BETWEEN THE NW CORNER AND THE NE CORNER OF SECTION WHICH IS IN AGREEMENT WITH THE OKLAHOMA TURNPIKE AUTHORITY "SOUTHWESTERN TURNPIKE PLANS (H.E. BAILEY TURNPIKE)".

NE CORNER - ODOT Sta. No. C-17-329 - FOUND 1/2" IRON PIN AND REFERENCES 1, 2 AND 3 AS SHOWN ON OCCR PREPARED BY SHAWN SMITH FOR LEMKE LAND SURVEYING FILED ON MAY 8, 2012.

WEST 1/4 CORNER - FOUND 1/2" IRON PIN IN AGREEMENT WITH LOCAL EVIDENCE.

EAST 1/4 CORNER - ODOT Sta. No. C-17-336 - FOUND 1/2" IRON PIN WITH CAP "CA 2054" AND REFERENCES 1, 2 AND 3 AS SHOWN ON OCCR PREPARED BY SHAWN SMITH FOR LEMKE LAND SURVEYING FILED ON MAY 8, 2012.

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PROJECT NO. 114105 DATE: 9-13-13 SHEET NO. 64

SMITH ROBERTS BALDISCHWILER, LLC

OKLAHOMA CITY OFFICE:  
100 N.E. 5th Street  
Oklahoma City, OK 73104  
Telephone: (405) 840-7094  
Fax: (405) 840-9116

CHICKASHA OFFICE:  
104 S. 2nd Street  
Chickasha, OK 73018  
Telephone: (405) 224-1444  
FAX: (405) 224-1485

ENGINEERS o SURVEYORS o PLANNERS

CERTIFICATE OF AUTHORIZATION NO. 3949 EXPIRES JUNE 30, 2015

S.H. 5A, BRIDGE 16.45B  
OVER H.E. BAILEY TURNPIKE

HISTORICAL LETTER AND  
WRITTEN REPORT



OKLAHOMA TURNPIKE AUTHORITY Smith Roberts Baldischwiler, LLC				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NUMBER	TOTAL SHEETS
REVISION: Miscellaneous revision per comments			DATE: 8-20-14	

SW CORNER - FOUND 1/2" IRON PIN AND REFERENCES 1, 2, 3 AND 4 AS SHOWN ON OCCR PREPARED BY BILLY JACK WILLINGHAM FOR WILLINGHAM'S SURVEYING COMPANY FILED JULY 25, 2001.

SOUTH 1/4 CORNER - FOUND 60d NAIL AND REFERENCES 2 AND 3 AS SHOWN ON OCCR PREPARED BY BILLY WAYNE MOSLEY FOR NORTH FORK SURVEYING AND DRAFTING FILED ON FEBRUARY 2, 1990.

SE CORNER - ODOT Sta. No. C-17-340 - FOUND 1/2" IRON PIN AND REFERENCES 1, 2 AND 3 AS SHOWN ON OCCR PREPARED BY SHAWN SMITH FOR LEMKE LAND SURVEYING FILED ON MAY 8, 2012.

SECTION 26;

NW CORNER - FOUND 1/2" IRON PIN AND REFERENCES 1, 2, 3 AND 4 AS SHOWN ON OCCR PREPARED BY BILLY JACK WILLINGHAM FOR WILLINGHAM'S SURVEYING COMPANY FILED JULY 25, 2001.

NORTH 1/4 CORNER - FOUND 60d NAIL AND REFERENCES 2 AND 3 AS SHOWN ON OCCR PREPARED BY BILLY WAYNE MOSLEY FOR NORTH FORK SURVEYING AND DRAFTING FILED ON FEBRUARY 2, 1990.

NE CORNER - ODOT Sta. No. C-17-340 - FOUND 1/2" IRON PIN AND REFERENCES 1, 2 AND 3 AS SHOWN ON OCCR PREPARED BY SHAWN SMITH FOR LEMKE LAND SURVEYING FILED ON MAY 8, 2012.

WEST 1/4 CORNER - FOUND 1/2" IRON PIN AND REFERENCES 1, 2, 3 AND 4 AS SHOWN ON OCCR PREPARED BY DENNIE J. HIGHTOWER FOR HIGHTOWER & ASSOCIATES, INC. FILED ON SEPTEMBER 21, 2001.

EAST 1/4 CORNER - ODOT Sta. No. C-17-347 - FOUND 1/2" IRON PIN AND REFERENCES 1, 2 AND 3 AS SHOWN ON OCCR PREPARED BY SHAWN SMITH FOR LEMKE LAND SURVEYING FILED ON MAY 8, 2012.

SW CORNER - FOUND 1/2" IRON PIN WITH NO CAP AND REFERENCES 1, 2 AND 3 AS SHOWN ON OCCR PREPARED BY JACOB ROYCE CARROLL FOR CARROLL SURVEYING SERVICE FILED ON APRIL 11, 2003.

SOUTH 1/4 CORNER - FOUND 1/2" IRON PIN AND REFERENCES 1 AND 3 AS SHOWN ON OCCR PREPARED BY RANDY WAYNE MOSLEY FOR NORTH FORK SURVEYING AND DRAFTING FILED ON FEBRUARY 2, 1990.

SE CORNER - ODOT Sta. No. C-17-351- FOUND 1/2" IRON PIN AND REFERENCES 1, 2 AND 3 AS SHOWN ON OCCR PREPARED BY SHAWN SMITH FOR LEMKE LAND SURVEYING FILED ON MAY 8, 2012.

12 SUBMITTED DATA:

CIVIL:

- HEB-MC-54\CIVIL\HEB-MC-54\_1\_V1.alg – InRoads Alignment
- HEB-MC-54\CIVIL\HEB-MC-54\_1\_V1.dtm – InRoads Digital Terrain Model
- HEB-MC-54\CIVIL\HEB-MC-54\_1\_V1\_ALIGN.pdf – InRoads Alignment Report
- HEB-MC-54\CIVIL\HEB-MC-54\_1\_V1\_SURF.pdf – InRoads Surface Report

DGN

- HEB-MC-54\DGN\HEB-MC-54\_1\_V1.dgn - All Survey Drawings
- HEB-MC-54\DGN\HEB-MC-54\_1\_V1\_Full\_Size.pdf - All Survey Drawings
- HEB-MC-54\DGN\HEB-MC-54\_1\_V1\_Half\_Size.pdf - All Survey Drawings
- HEB-MC-54\DGN\HEB-MC-54\_1\_V1\_SFF.dgn - Surface Feature File
- HEB-MC-54\DGN\HEB-MC-54\_1\_V1\_TOPO.dgn - Topography Identification File
- HEB-MC-54\DGN\HEB-MC-54\_1\_V1\_TRI.dgn -Triangle File


Reports:

- HEB-MC-54\REPOPRTS\HEB-MC-54\_1\_V1\_Check\_Levels.pdf
- HEB-MC-54\REPOPRTS\HEB-MC-54\_1\_V1\_COGO\_Points.pdf
- HEB-MC-54\REPOPRTS\HEB-MC-54\_1\_V1\_COGO\_Points.txt
- HEB-MC-54\REPOPRTS\HEB-MC-54\_1\_V1\_Historical Letter and Written Report.pdf
- HEB-MC-54\REPOPRTS\HEB-MC-54\_1\_V1\_Index.pdf
- HEB-MC-54\REPOPRTS\HEB-MC-54\_1\_V1\_OCCR.pdf
- HEB-MC-54\REPOPRTS\HEB-MC-54\_1\_V1\_Utility Atlases.pdf

13. SIGNIFICANT OBSERVATIONS:

This survey was prepared without the aid of any title policy and this office did not perform any search of the public records for any deeds of ownership or easements that may have an affect on this survey.

NOT FOR CONSTRUCTION  
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PROJECT NO. 114105    DATE: 9-13-13    SHEET NO. 65

**SMITH ROBERTS BALDISCHWILER, LLC**

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100 N.E. 5th Street  
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CHICKASHA OFFICE:  
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Chickasha, OK 73018  
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FAX: (405) 224-1485

ENGINEERS    SURVEYORS    PLANNERS

CERTIFICATE OF AUTHORIZATION NO. 3949    EXPIRES JUNE 30, 2015

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OVER H.E. BAILEY TURNPIKE

HISTORICAL LETTER AND  
WRITTEN REPORT

CHECK LEVELS					BENCH MARK LIST		NAVD 88 DATUM
HEB-MC-54							
BM NO.	RUN 1	RUN 2	MEAN DIFF.	UNADJ. ELEV.	ADJ. ELEV.	PUBLISHED ELEV.	BM DESCRIPTION
							Page 1 of 2
CP 7400						1026.734	SET 5/8" IRON PIN WITH ALUMINUM CAP NORTH SIDE OF S.H. 5A AND 70'+/-WEST OF THE CENTERLINE OF NS-255 ROAD LOCATED AT STA 52+23.1 OFFSET 48.9' LT SAME BEING 34'+/- NORTH OF THE NORTH EDGE OF S.H. 5A AND 30'+/- WEST OF A WOOD UTILITY POLE (ELEVATION BASED ON GPS OBSERVATION RELATIVE TO FOUND R/W MARKER LOCATED AT STA 60+00 OFFSET 60' LT AS SHOWN ON PLANS BY ODOT "COTTON COUNTY SH-5A AS-BUILT.PDF SHEET 8 OF 23" ELEVATION 1021.702 NAVD88).
	0.444	0.445	0.445				
BM 1				1027.178	1027.179		SET CUT "X" ON THE CENTER OF THE NORTH END OF A CONCRETE HEADWALL AT THE SW CORNER OF S.H. 5A AND NS-255 ROAD LOCATED AT STA 52+71.8 OFFSET 39.4 RT SAME BEING 24'+/- SOUTH OF THE SOUTH EDGE OF S.H. 5A AND 8'+/- WEST OF THE WEST EDGE OF NS-255 ROAD.
	-11.286	-11.286	-11.286				
BM 2				1015.893	1015.893		SET 2-60d NAIL IN WOOD UTILITY POLE NORTH SIDE OF S.H. 5A AND 500'+/- WEST OF THE CENTERLINE OF THE H.E. BAILEY TURNPIKE (I-44) LOCATED AT STA 63+93.1 OFFSET 117.0'+/- LT SAME BEING 104.5'+/- NORTH OF THE NORTH EDGE OF PAVEMENT FOR S.H. 5A.
	21.537	21.536	21.536				
BM 3				1037.430	1037.429		SET CUT "X" IN CONCRETE WALKWAY AT THE SW CORNER OF THE BRIDGE FOR S.H. 5A OVER THE H.E. BAILEY TURNPIKE (I-44) LOCATED AT STATION 67+77.4 OFFSET 14.9' RT.
	-0.029	-0.029	-0.029				
BM 4				1037.401	1037.400		SET CUT "X" IN CONCRETE WALKWAY AT THE NE CORNER OF THE BRIDGE FOR S.H. 5A OVER THE H.E. BAILEY TURNPIKE (I-44) LOCATED AT STATION 69+48.9 OFFSET 14.3' LT.
	-34.319	-34.320	-34.320				

CHECK LEVELS							BENCH MARK LIST		NAVD 88 DATUM
HEB-MC-54									
BM NO.	RUN 1	RUN 2	MEAN DIFF.	UNADJ. ELEV.	ADJ. ELEV.	PUBLISHED ELEV.	BM DESCRIPTION		Page 2 of 2
BM 5				1003.081	1003.080		SET CUT "X" ON CONCRETE GATE POST (WEST SIDE OF GATE) NORTH SIDE OF S.H. 5A AND 990'+/- EAST OF THE CENTERLINE OF THE H.E. BAILEY TURNPIKE (I-44) LOCATED AT STA 78+83.4 OFFSET 117.8'+/- LT SAME BEING 102'+/- NORTH OF THE NORTH EDGE OF PAVEMENT FOR S.H. 5A AND 18'+/- WEST OF A WOOD UTILITY POLE.		
	-2.336	-2.336	-2.336						
BM 6				1000.745	1000.744		SET CUT "X" ON THE CENTER OF A CONCRETE HEADWALL SOUTH SIDE OF S.H. 5A AND 1423'+/- EAST OF THE CENTERLINE OF THE H.E. BAILEY TURNPIKE (I-44) LOCATED AT STA 82+79.8 OFFSET 27.9 RT SAME BEING 14'+/- SOUTH OF THE SOUTH EDGE OF S.H. 5A AND 24'+/- WEST OF A WOOD UTILITY POLE.		
	4.062	4.063	4.062						
BM 7				1004.806	1004.806		SET 3/4" IRON PIN IN CONCRETE AT THE WEST GATE POST FOR ENTRANCE TO A COMMUNICATIONS TOWER SOUTH SIDE OF S.H. 5A AND 1820'+/- EAST OF THE CENTERLINE OF THE H.E. BAILEY TURNPIKE LOCATED AT STA 86+82.6 OFFSET 56.5 RT SAME BEING 44.5'+/- SOUTH OF THE SOUTH EDGE OF S.H. 5A AND 53'+/- EAST OF A WOOD UTILITY POLE.		
	-3.943	-3.944	-3.943						
CP 7401				1000.864	1000.863	1000.863	SET 5/8" IRON PIN WITH ALUMINUM CAP SOUTH SIDE OF S.H. 5A AND 2035'+/- EAST OF THE CENTERLINE OF THE H.E. BAILEY LOCATED AT STA 88+84.2 OFFSET 50.9' RT SAME BEING 35.5'+/- SOUTH OF THE SOUTH EDGE OF S.H. 5A AND 58.5'+/- WEST OF A WOOD UTILITY POLE (ELEVATION BASED ON GPS OBSERVATION RELATIVE TO FOUND R/W MARKER LOCATED AT STA 80+00 OFFSET 80' LT AS SHOWN ON PLANS BY ODOT "COTTON COUNTY SH-5A AS-BUILT.PDF" SHEET 8 OF 23 ELEVATION 1021.702 NAVD88).		

Project Name: HEB-MC-54 I\_V1  
Description: Existing Condition  
Horizontal Alignment Name: A001  
Description: Centerline SH 5A  
Style: Centerline

	STATION	NORTHING	EASTING
Element: Linear			
POB ( 9006)	52+91.5000	249181.6295	1836995.9195
PE ( 9007)	79+39.4968	249112.1287	1839649.8445
Tangent Direction: S 89°34'40.9822" E			
Tangent Length: 2647.9968			
Element: Linear			
PE ( 9007)	79+39.4968	249112.1287	1839649.8445
POE ( 9008)	105+88.1014	249092.5900	1842232.2770
Tangent Direction: S 89°34'38.9713" E			
Tangent Length: 2648.6046			

COORDINATE POINT LIST			
PT NO.	EASTING	NORTHING	
1	343062.3620000	1836975.9040000	
2	343240.4800000	1838098.3550000	
3	343105.8310000	1838481.6720000	
4	343133.7560000	1838653.3330000	
5	343230.0980000	1839586.6500000	
6	343081.7570000	1839683.9560000	
7	343047.2370000	1840366.4660000	
300	343120.0520303	1838567.9751558	
301	343105.8435231	1840495.8245055	
302	340481.2158269	1837800.7657414	
303	345763.2755785	1839276.3303309	
7400	343181.0680000	1836827.9200000	
7401	343054.2330000	1840588.1340000	
7600	343071.6290000	1837024.9140000	
7601	343186.0480000	1837704.0240000	
7602	343236.6880000	1839470.7270000	
7603	343238.9430000	1838729.1660000	
7604	343167.2700000	1840304.9780000	
7605	345781.0150098	1837054.6482422	
7606	343191.3838087	1837029.5013026	
7607	343183.7158743	1838070.6680424	
7608	343243.7142473	1838071.1369028	
7609	343240.7700844	1838470.9154672	
7610	345764.3066767	1839147.1958393	
7611	345762.2444802	1839405.4648224	
7612	343238.8677368	1838729.2272881	
7613	343232.1207791	1839645.3684614	
7614	343172.1247636	1839644.6064777	
7615	343152.8294446	1842280.1409181	
7616	345736.1879892	1842293.0541811	
7617	340489.0229149	1837003.7193784	
7618	343071.3890561	1837028.3465035	
7619	343063.7161263	1838066.8143216	
7620	342963.7210285	1838066.2988178	
7621	342961.4459853	1838378.2171562	
7622	340482.6269422	1837705.8809273	
7623	340479.8047115	1838015.7105554	
7624	342989.1631682	1838988.1913413	
7625	342984.1473788	1839396.2644052	
7626	343054.1454806	1839399.7799090	
7627	343052.1300921	1839643.4410816	
7628	343032.8346184	1842258.9669091	
7629	340441.3025849	1842242.5442433	
9000	348429.7034677	1837902.4670008	
9001	348407.4812469	1839711.0865004	
9002	348385.2500000	1842359.7300000	
9003	345781.2784964	1837021.5462450	
9004	345760.0725655	1839677.4748954	
9005	345738.6245000	1842326.0535000	
9006	343131.6264961	1839695.9164949	
9007	343112.1287482	1839643.8444939	
9008	343062.5900000	1842292.3770000	
9009	340489.3234987	1836970.7207443	
9010	340465.1361061	1839626.0469369	
9011	340441.0020000	1842275.5430000	
9012	337830.4984955	1838950.5959972	
9013	337801.4297449	1839808.1370008	
9014	337789.2740000	1842258.3950000	

PAGE 1 OF 1

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PROJECT NO. 114105 DATE: 9-13-13 SHEET NO. 66

SMITH ROBERTS BALDISCHWILER, LLC

OKLAHOMA CITY OFFICE:  
100 N.E. 5th Street  
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CHICKASHA OFFICE:  
104 S. 2nd Street  
Chickasha, OK 73018  
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FAX: (405) 224-1485

ENGINEERS o SURVEYORS o PLANNERS

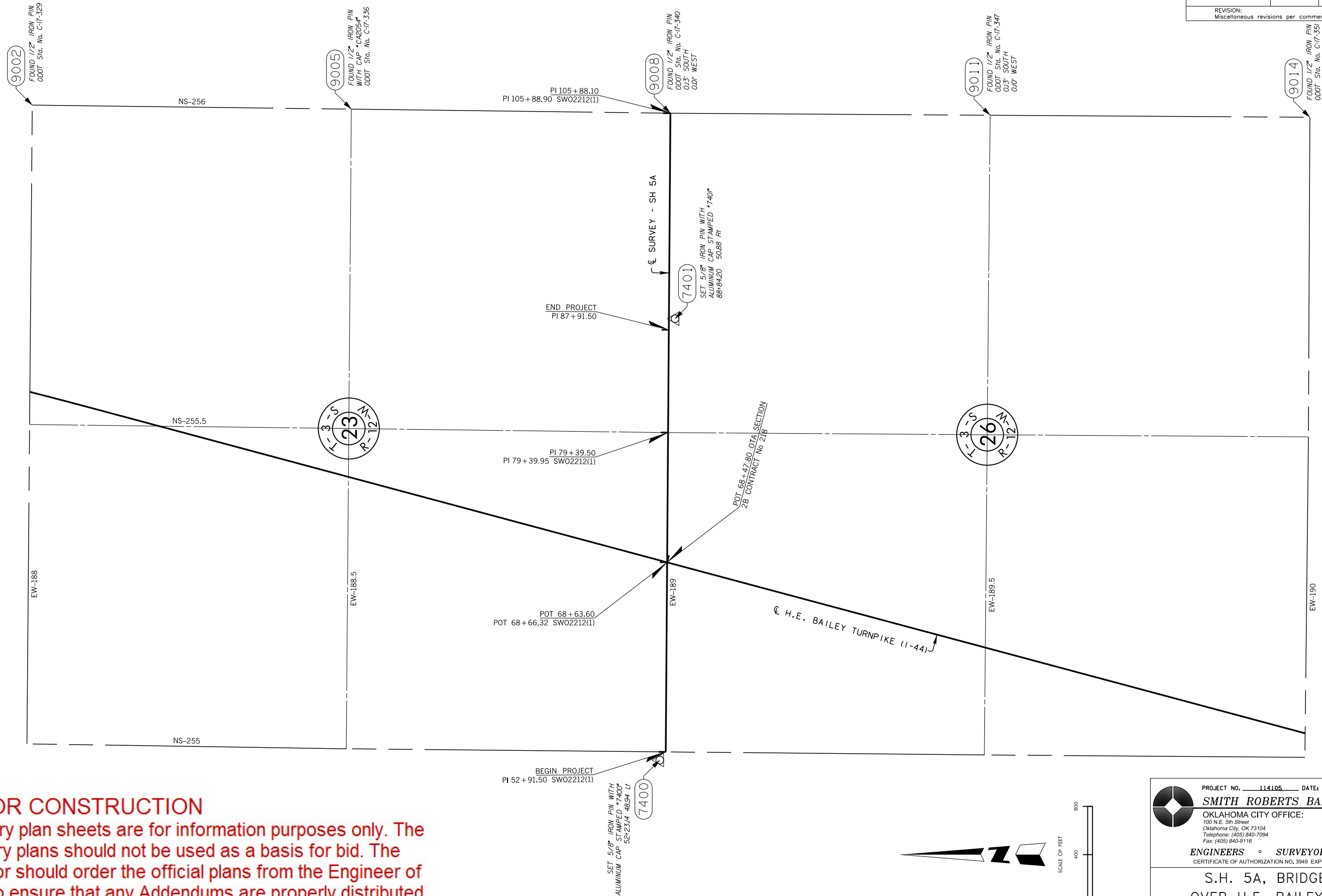
CERTIFICATE OF AUTHORIZATION NO. 3949 EXPIRES JUNE 30, 2015

S.H. 5A, BRIDGE 16.45B  
OVER H.E. BAILEY TURNPIKE

CHECK LEVELS AND  
ALIGNMENT REPORT  
COGO REPORT




OKLAHOMA TURNPIKE AUTHORITY Smith Roberts Baldischwiler, LLC				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NUMBER	TOTAL SHEETS
REVISION: Miscellaneous revisions per comments				DATE: 8-20-14



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PROJECT NO. 114105 DATE: 9-13-13 SHEET NO. 67

**SMITH ROBERTS BALDISCHWILER, LLC**

OKLAHOMA CITY OFFICE: 100 N.E. 5th Street  
Oklahoma City, OK 73104  
Telephone: (405) 840-7094  
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CHICKASHA OFFICE: 104 S. 2nd Street  
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**ENGINEERS • SURVEYORS • PLANNERS**

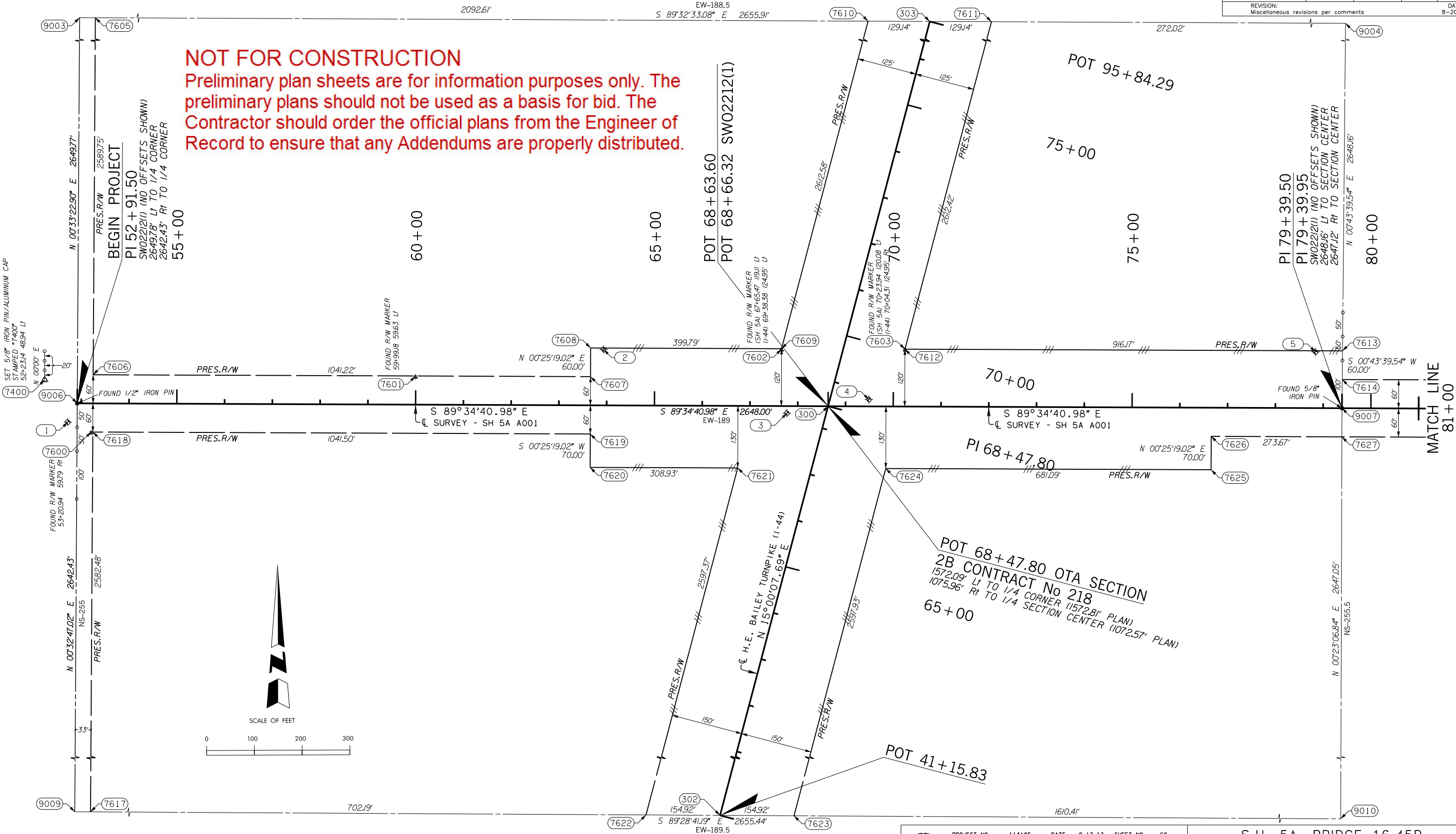
CERTIFICATE OF AUTHORIZATION NO. 3949 EXPIRES JUNE 30, 2015

S.H. 5A, BRIDGE 16.45B  
OVER H.E. BAILEY TURNPIKE  
HORIZONTAL CONTROL SHEET

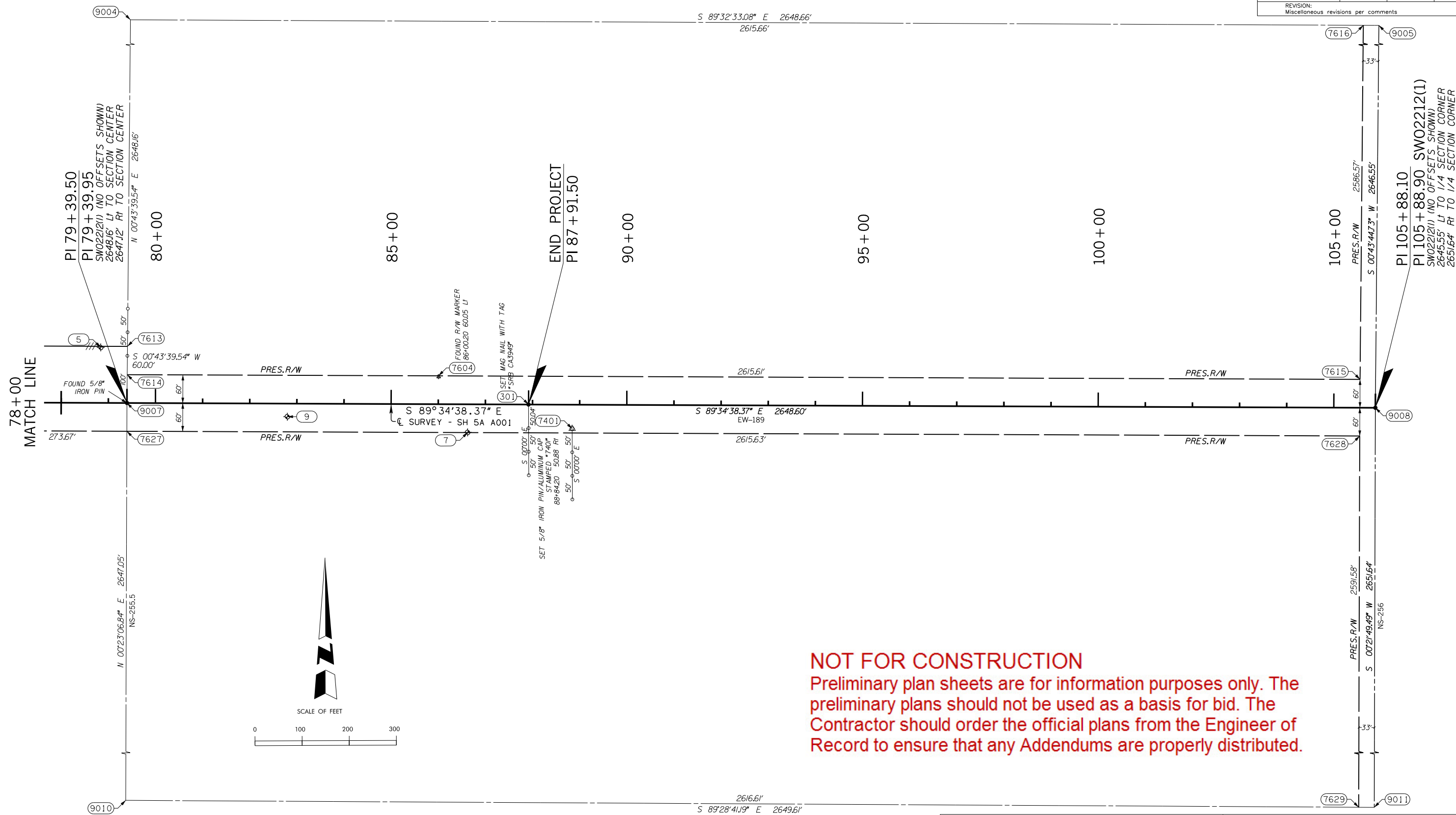


OKLAHOMA TURNPIKE AUTHORITY Smith Roberts Baldischwiler, LLC				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NUMBER	TOTAL SHEETS
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


<p align="center"><b>OKLAHOMA TURNPIKE AUTHORITY</b>  <b>Smith Roberts Baldischwiler, LLC</b></p>				
<b>SECTION ENGINEER</b>	<b>SECTION</b>	<b>CONTRACT NUMBER</b>	<b>SHEET NUMBER</b>	<b>TOTAL SHEETS</b>
<b>REVISION:</b> Miscellaneous revisions per comments				<b>DATE:</b> 8-20-14



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NOTE:  
ALL REFERENCE POINTS ARE 1/2" IRON  
PINS UNLESS OTHERWISE NOTED ON  
SURVEY.

	PROJECT NO. <u>114105</u> DATE: <u>9-13-13</u> SHEET NO. <u>69</u>	S.H. 5A, BRIDGE 16.45B OVER H.E. BAILEY TURNPIKE
	<b><i>SMITH ROBERTS BALDISCHWILER, LLC</i></b>	
OKLAHOMA CITY OFFICE: 100 W.E. 5th Street Oklahoma City, OK 73104 Telephone: (405) 840-7094 Fax: (405) 840-9116	CHICKASHA OFFICE: 104 S. 2nd Street Chickasha, OK 73018 Telephone: (405) 224-1444 FAX: (405) 224-1485	SURVEY DATA SHEET
<b>ENGINEERS   °   SURVEYORS   °   PLANNERS</b>		
CERTIFICATE OF AUTHORIZATION NO. 3949 EXPIRES JUNE 30, 2015		

NOT FOR CONSTRUCTION

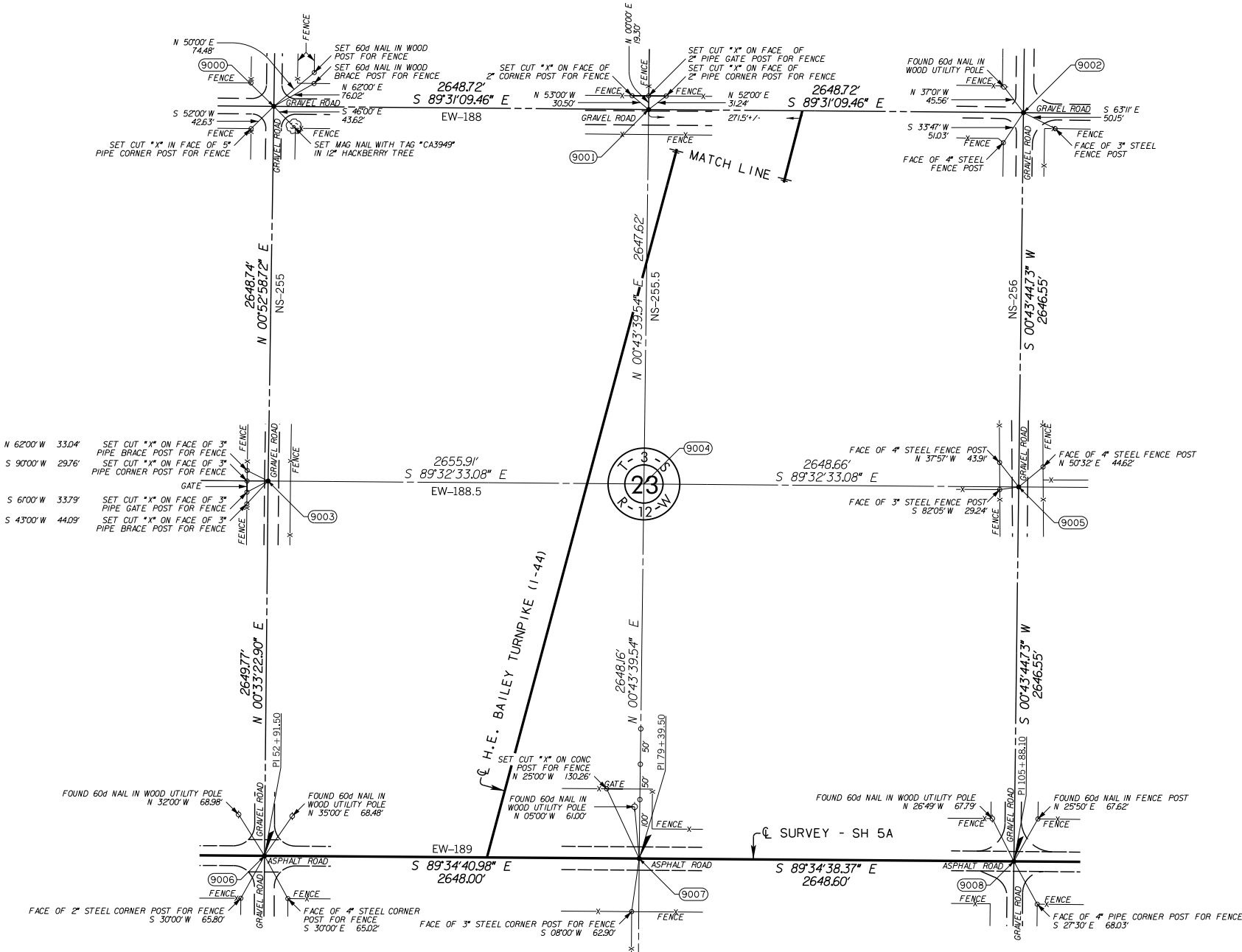
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NW CORNER - SET 1/2" IRON PIN WITH CAP "SRB CA3949" IN AGREEMENT WITH LOCAL EVIDENCE AND THE OKLAHOMA TURNPIKE AUTHORITY "SOUTHWESTERN TURNPIKE PLANS (H.E.BAILEY TURNPIKE)".

NORTH 1/2 CORNER - SET 1/2" IRON PIN WITH CAP "SRB CA3949" AT EQUIDISTANT AND ON LINE BETWEEN THE NW CORNER AND THE NE CORNER OF SECTION WHICH IS IN AGREEMENT WITH THE OKLAHOMA TURNPIKE AUTHORITY "SOUTHWESTERN TURNPIKE PLANS (H.E. BAILEY TURNPIKE)".

OKLAHOMA TURNPIKE AUTHORITY Smith Roberts Baldischwiler, LLC				
SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NUMBER	TOTAL SHEETS
REVISION: Miscellaneous revisions per comments			DATE: 8-20-14	

NE CORNER - ODOT Sta. No. C-17-329 - FOUND 1/2" IRON PIN AND REFERENCES 1, 2 AND 3 AS SHOWN ON OCCR PREPARED BY SHAWN SMITH FOR LEMKE LAND SURVEYING FILED ON MAY 8, 2012.




WEST 1/4 CORNER - FOUND 1/2" IRON PIN IN AGREEMENT WITH LOCAL EVIDENCE.

EAST 1/4 CORNER - ODOT Sta. No. C-17-336 - FOUND 1/2" IRON PIN WITH CAP "CA 2054" AND REFERENCES 1, 2 AND 3 AS SHOWN ON OCCR PREPARED BY SHAWN SMITH FOR LEMKE LAND SURVEYING FILED ON MAY 8, 2012.

SW CORNER - FOUND 1/2" IRON PIN AND REFERENCES 1, 2, 3 AND 4 AS SHOWN ON OCCR PREPARED BY BILLY JACK WILLINGHAM FOR WILLINGHAM'S SURVEYING COMPANY FILED JULY 25, 2001.

SOUTH 1/4 CORNER - FOUND 5/8" IRON PIN AND REFERENCES 2 AND 3 AS SHOWN ON OCCR PREPARED BY BILLY WAYNE MOSLEY FOR NORTH FORK SURVEYING AND DRAFTING FILED ON FEBRUARY 2, 1990.

NOTE:  
ALL REFERENCE POINTS ARE 1/2" IRON PINS UNLESS OTHERWISE NOTED ON SURVEY.



PROJECT NO. 114105 DATE: 9-13-13 SHEET NO. 70

**SMITH ROBERTS BALDISCHWILER, LLC**

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OVER H.E. BAILEY TURNPIKE

SECTION DATA SHEET



NW CORNER - FOUND 1/2" IRON PIN AND REFERENCES 1, 2, 3 AND 4 AS SHOWN ON OCCR PREPARED BY BILLY JACK WILLINGHAM FOR WILLINGHAM'S SURVEYING COMPANY FILED JULY 25, 2001.

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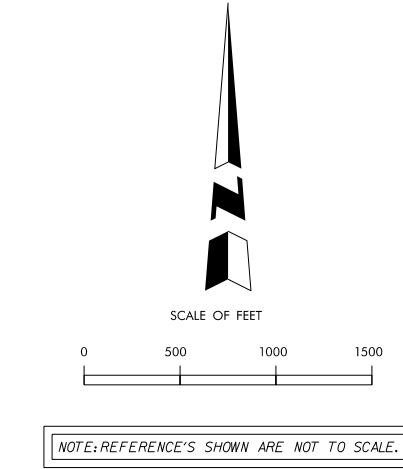
OKLAHOMA TURNPIKE AUTHORITY  
Smith Roberts Baldischwiler, LLC

SECTION ENGINEER	SECTION	CONTRACT NUMBER	SHEET NUMBER	TOTAL SHEETS
REVISION: Miscellaneous revisions per comments			DATE: 8-20-14	

NE CORNER - ODOT Sta. No. C-17-340 - FOUND 1/2" IRON PIN AND REFERENCES 1, 2 AND 3 AS SHOWN ON OCCR PREPARED BY SHAWN SMITH FOR LEMKE LAND SURVEYING FILED ON MAY 8, 2012.

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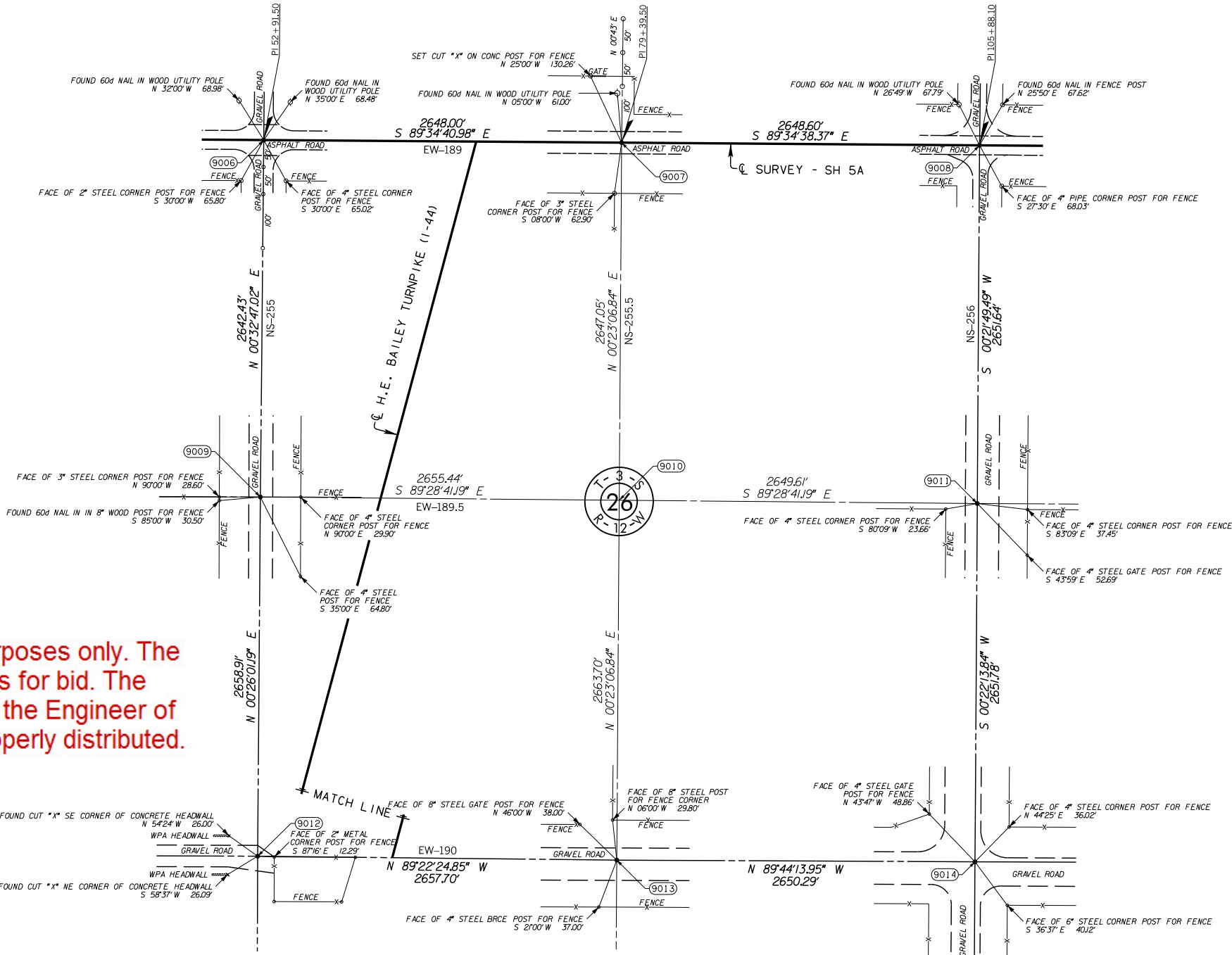


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SE CORNER - ODOT Sta. No. C-17-351- FOUND 1/2" IRON PIN AND REFERENCES 1, 2 AND 3 AS SHOWN ON OCCR PREPARED BY SHAWN SMITH FOR LEMKE LAND SURVEYING FILED ON MAY 8, 2012.



NOTE:  
ALL REFERENCE POINTS ARE 1/2" IRON PINS UNLESS OTHERWISE NOTED ON SURVEY.

PROJECT NO. 114105 DATE: 9-13-13 SHEET NO. 71

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ENGINEERS • SURVEYORS • PLANNERS

CERTIFICATE OF AUTHORIZATION NO. 3949 EXPIRES JUNE 30, 2015

S.H. 5A, BRIDGE 16.45B  
OVER H.E. BAILEY TURNPIKE  
SECTION DATA SHEET