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

INDEX OF SHEETS

TITLE SHEET

0001

SURVEY CONTROL DATA

CREEK COUNTY

PROJECT NO STP-219D(

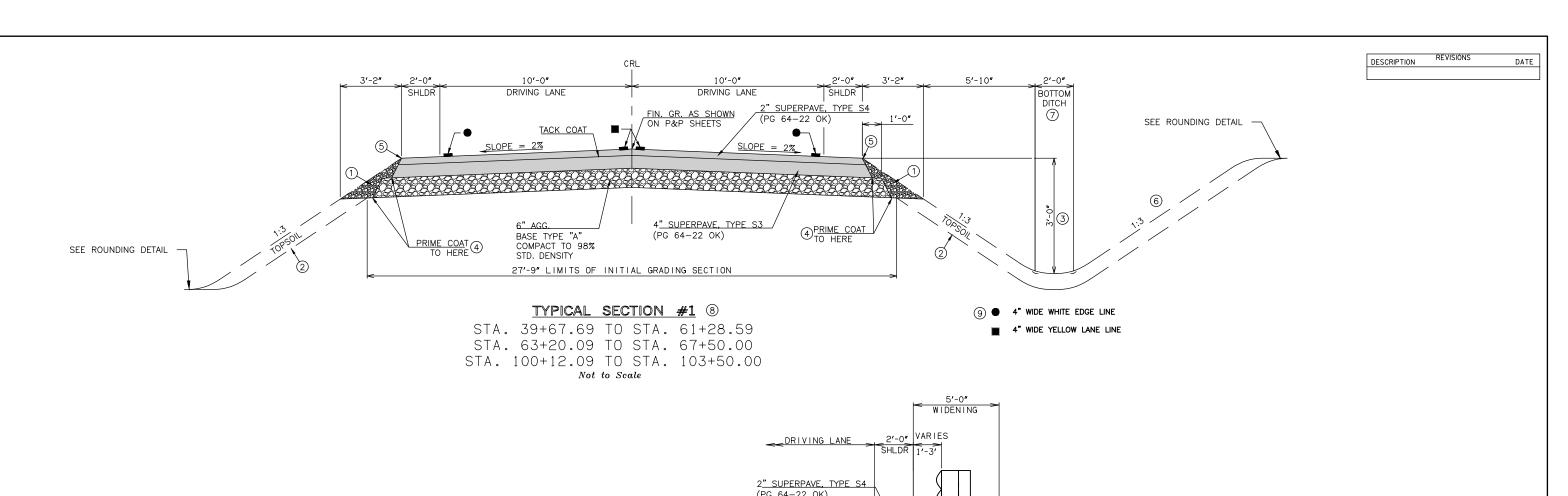
BR. 181A LITTLE DEEP FORK

SHEET NO. 0001

REVISIONS

DATE

DESCRIPTION



3'-0" 2'-0" 3'-0"

1'-0"

6" NOMINAL DIA.

TYPE 1-A RIP RAP

6" FILTER BLANKET

### TYPICAL RIP RAP LINED DITCH

Not To Scale

TOPSOIL

TOP OF CUT

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

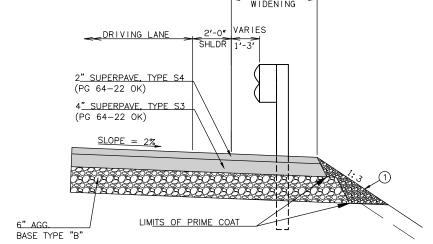
5' MIN.-15'MAX.
ROUNDED

TOE OF FILL

10:12:13 ittle Deep

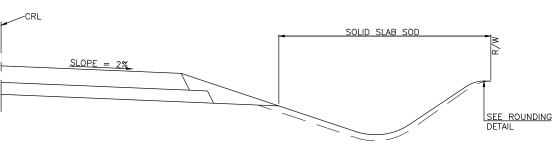
ROUNDING DETAIL

Not To Scale



# DETAIL OF SHOULDER WIDENING 8 FOR STANDARD GUARDRAIL

STA. 60+13.77 TO STA. 61+28.59 RT. STA. 60+51.25 TO STA. 61+28.59 LT. STA. 63+20.09 TO STA. 63+97.43 RT. STA. 63+20.09 TO STA. 64+33.55 LT. Not To Scale



TYPICAL SLAB SODDING

Not To Scale

BACKFILL NOTE:
 THIS AREA TO BE BACKFILLED AND COMPACTED AS PART OF THE FINISHING OPERATIONS. COST TO BE INCLUDED IN TBSC TYPE E. PAYMENT WILL BE PAID AT A RATE NOT TO EXCEED 0.13 TONS PER LINEAR FOOT OF ROADWAY TYPICAL.

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 STANDARDS
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 IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL QUANTITY IS INCLUDED IN THE EARTHWORK BALANCE.

- $\ensuremath{\mathfrak{J}}$  DISTANCE MEASURED VERTICALLY FROM EDGE OF FINISHED GRADE SHOULDER.
- PRIME COAT TO BE APPLIED TO THE SUBGRADE FOR FULL WIDTH OF STABILIZED SUBGRADE. 0.35 GAL/SY BELOW AGGREGATE BASE AND 0.25 GAL/SY ABOVE AGGREGATE BASE.
- (5) CONSTRUCT ASPHALT SAFETY EDGE AS SHOWN IN SPECIAL PROVISION 411-14.
- (6) BACKSLOPES ARE 1:2 FROM 100+40.00 TO 103+00.00
- 7 4' DITCH BOTTOM FROM STA. 51+50 TO STA. 61+28.59 LT.
- EXCEPTIONS:
  STA. 59+63.77 TO STA. 60+13.77 TRANSITION FROM TYP. TO GUARDRAIL WIDENING RT.
  STA. 60+01.25 TO STA. 60+51.25 TRANSITION FROM TYP. TO GUARDRAIL WIDENING LT.
  STA. 63+97.43 TO STA. 64+47.41 TRANSITION FROM GUARDRAIL WIDENING TO TYP. RT.
  STA. 64+33.55 TO STA. 64+83.64 TRANSITION FROM GUARDRAIL WIDENING TO TYP. LT.
  STA. 102+50.00 TO STA. 103+50.00 TRANSITION FROM TYP. TO EX. PAVT.
- TRAFFIC STRIPING SHALL BE AS FOLLOWS:

  4" WHITE TRAFFIC STRIPE SHALL BE CONTINUOUS ON THE OUTSIDE OF THE DRIVING LANES.
  - 4" DOUBLE YELLOW STRIPE ON THE CENTERLINE.

DESIGN	BSF	07/17	OKLAHOMA DEPARTMENT OF TRANSPORTATION GUY ENGINEERING SERVICES, INC.
DRAWN	BLP	07/17	GUI ENGINEERING SERVICES, INC.
CHECKED	PAE	07/17	TYPICAL SECTIONS
APPROVED	JRW	07/17	

CREEK COUNTY

SQUAD

STATE JOB NO. 29407(04) SHEET NO. 0002 NTY BR. 181A LITTLE DEEP FORK

#### PILE DRIVING EQUIPMENT:

USE A PILE DRIVING HAMMER OF THE SIZE AND TYPE CAPABLE OF CONSISTENTLY DELIVERING THE EFFECTIVE DYNAMIC ENERGY SUFFICIENT TO DRIVE THE PILES TO THE REQUIRED TIP ELEVATION AND TO ACHIEVE THE AXIAL LOAD RESISTANCE WITHOUT EXCEEDING THE LIMITATIONS SET ON THE ALLOWABLE DRIVING STRESSES IN ACCORDANCE WITH SECTION

THE CONTRACTOR SHALL PROVIDE 2 INCH DIAMETER VENT HOLES IN THE DECK, ONE HOLE BETWEEN EACH BEAM LINE NEAR THE HIGH END OF EACH SPAN.

#### **ABUTMENT PILING CAPACITY:**

THE FACTORED REACTION FOR EACH HP 10X42 PILE AT ABUTMENT NO. 1 IS 78.0 TONS PER PILE AND AT ABUTMENT NO. 2 IS 73.50 TONS PER PILE. DRIVE ALL PILING UNTIL THE AXIAL LOAD RESISTANCE IS GREATER THAN THE FACTORED REACTION OF EACH PILE. THE FOLLOWING FORMULA (GATES EQUATION) SHALL BE USED TO DETERMINE THE AXIAL LOAD RESISTANCE OF THE DRIVEN PILES:

AXIAL LOAD RESISTANCE =  $\phi$  [(0.875  $\sqrt{E}$  LOG10 (10N)) -50] (TONS)

#### WHERE:

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

#### THE ABOVE FORMULA IS ONLY APPLICABLE WHEN:

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

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.

#### **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.

#### **APPROACH SLAB:**

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

#### RIPRAP:

A 24" THICK LAYER OF TYPE I-A PLAIN RIPRAP WITH 6" THICK LAYER OF TYPE I-A FILTER BLANKET SHALL BE PLACED AT THE ABUTMENTS AS SHOWN IN THE PLANS. THE FILTER BLANKET SHALL BE PLACED IN ONE LAYER.

#### PERFORATED PIPE UNDERDRAIN:

ITEM "6" PERFORATED PIPE LINDERDRAIN - ROUND" INCLUDES 26 FFET OF PERFORATED PIPE AND 5 CURIC YARDS OF PIPE LINDERDRAIN COVER MATERIAL FOR EACH ABUTMENT. THE INSTALL ATION OF THE PERFORATED PIPE AND PIPE UNDERDRAIN MATERIAL SHALL BE AS SHOWN IN THE PLANS AND ON STANDARD PUD-3.

ALL COSTS OF THE PERFORATED PIPE UNDERDRAIN INSTALLATION INCLUDING BACKFILLING, MATERIAL, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF "6" PERFORATED PIPE

#### **NON-PERFORATED PIPE UNDERDRAIN:**

ITEM "6" NON-PERFORATED PIPE UNDERDRAIN - ROUND" INCLUDES 20 FEET OF NON-PERFORATED PIPE AND 10 CUBIC YARDS OF TRENCH EXCAVATION AND 10 CUBIC YARDS OF STANDARD BEDDING MATERIAL FOR EACH ABUTMENT. THE INSTALLATION OF THE PERFORATED PIPE AND PIPE UNDERDRAIN COVER MATERIAL SHALL BE AS SHOWN ON THE PLANS

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

#### **BRIDGE PAY QUANTITY NOTES**

- (R-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITIES ONLY. SEE SECTION 109.01B OF THE OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- CONSTRUCTION STAKING SHALL INCLUDE ESTABLISH AND RE-ESTABLISH STAKING OF CENTERLINE. 1) BENCHMARKS, AND RIGHT-OF-WAY, INCLUDES SLOPE STAKING, STRUCTURE AND BRIDGE STAKING, ROADWAY STAKING (DRIVEWAYS INCLUDED), BLUETOPPING, AND CHECKING ALIGNMENTS AND **ELEVATIONS AS REQUIRED.**
- ALL PILES SHALL BE EQUIPPED WITH CAST STEEL-DRIVING TIPS. ALL COSTS FOR FURNISHING AND 2) INSTALLING CAST STEEL-DRIVING TIPS TO BE INCLUDED IN OTHER ITEMS OF WORK.
- 501(G) CLSM BACKFILL SHALL REPLACE GRANULAR BACKFILL ON STANDARD 3) CB26-I-SK0-ABUT-PC3 AND CB26..32-C-SK0-ABUT-MISC.
- ITEM "REMOVAL OF EXISTING BRIDGE STRUCTURE" CONSISTS OF REMOVAL AND DISPOSAL OF AN 4) 72' PONY TRUSS SPANS, 13.7' CLEAR ROADWAY AT CL STA. 61+39.05 THE REMOVAL SHALL BE IN ACCORDANCE WITH SECTION 619.04.B(2) OF THE 2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND IN A MANNER APPROVED BY THE ENGINEER.
- 24" THICKNESS

DESCRIPTION	REVISIONS	DATE
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29407(04)					
		PAY QUANTITIES			
0200 BRIDG	E ITEMS -	BRIDGE A: 65'-85' TYPE III P.C. BEAM SPAN x 26'-0"CLR. R	DY., SK00, TR-	3 RAILS	
ITI	EM	DESCRIPTION	PAY NOTES	UNIT	QUANTITY
501(B)	1307	SUBSTRUCTURE EXCAVATION COMMON	R-1	C.Y.	100
501(G)	6309	CLSM BACKFILL	R-1,3	C.Y.	56
503(A)	1312	PRESTRESSED CONCRETE BEAMS (TYPE III)	R-1	L.F.	448
504(A)	1304	APPROACH SLAB	R-1	S.Y.	115
504(B)	1305	SAW-CUT GROOVING	R-1	S.Y.	452
504(D)	6239	CONCRETE RAIL (TR3)	R-1	L.F.	357
506(A)	1322	STRUCTURAL STEEL	R-1	LB.	380
507(A)	6172	WEATHERING STEEL FIXED BEARING ASSEMBLY	R-1	EA.	6
507(B)	6176	WEATHERING STEEL EXPANSION BEARING ASSEMBLY	R-1	EA.	6
507(C)	6282	ELASTOMERIC BEARING PADS	R-1	EA.	6
509(A)	1326	CLASS AA CONCRETE	R-1	C.Y.	135
509(B)	1328	CLASS A CONCRETE	R-1	C.Y.	60
511(A)	1332	REINFORCING STEEL	R-1	LB.	38,580
514(A)	6010	PILES, FURNISHED (HP 10x42)	2	L.F.	324
514(B)	6292	PILES, DRIVEN (HP 10x42)		L.F.	324
514(K)	6260	(PL) PILOT HOLES		L.F.	96
514(L)	6220	PILE SPLICE, H-PILE (NON-BIDDABLE)		EA.	1
516(A)	6094	DRILLED SHAFTS 48" DIAMETER		L.F.	108
601(B)	1353	TYPE I-A PLAIN RIPRAP	5	TON	1,163
601(C)	1355	TYPE I-A FILTER BLANKET		TON	124
613(H)	6204	6" PERFORATED PIPE UNDERDRAIN ROUND	R-1	L.F.	52
613(I)	6207	6" NON-PERF. PIPE UNDERDRAIN RND.		L.F.	40
619(D)	1397	REMOVAL OF EXISTING BRIDGE STRUCTURE	4	L. SUM	1
623(F)	5686	GUARDRAIL ANCHOR UNIT (TYPE D-BF)		EA.	4

29407(04)

29407(04)

0600 STAKING

641 1399 MOBILIZATION

ITI	EM	DESCRIPTION	PAY NOTES	UNIT	QUANTITY
642(B)	0096	CONSTRUCTION STAKING LEVEL II	1	L. SUM	1
29407(04)					
		PAY QUANTITIES			
0640 CONS	TRUCTION				
ITI	EM	DESCRIPTION	PAY NOTES	UNIT	QUANTITY
220	2800	SWPPP DOCUMENTATION AND MANAGEMENT		L. SUM	1

**PAY QUANTITIES** 

BR. 181A OVER LITTLE DEEP FORK BRIDGE "A"

CREEK COUNTY Design BSF 07/17

SUMMARY OF PAY QUANTITIES & NOTES (BRIDGE)

Check

Detail BLP 07/17

JRW 07/17

I SUM

STATE OF GUY ENGINEERING SERVICES, INC. OKLAHOMA JOB PIECE NO.

THE CONTRACTOR SHALL SUBMIT A DETAILED CONSTRUCTION PHASING AND TRAFFIC MANAGEMENT PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION OPERATIONS BEGIN. THE TRAFFIC MANAGEMENT PLAN SHALL CONFORM TO ALL APPLICABLE STATE STANDARDS AND MUTCD GUIDELINES (LATEST REVISIONS).

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

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

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

THE CONTRACTOR SHALL NOT WASTE ANY EXCESS EXCAVATION UNTIL ALL PLANNED EMBANKMENTS, BACKFILLS AND DRIVES ARE COMPLETED. 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

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.

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

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

SURFACING OF RETURNS, UNLESS OTHERWISE SHOWN ON THE PLANS, SHALL BE OF THE SAME MATERIAL (BASE AND SURFACE) AS THAT OF THE ABUTTING SHOULDER OF THE MAINLINE. BASE AND SURFACE THICKNESS SHALL BE THE THICKNESS SHOWN ON PLANS

T.B.S.C. SURFACES SHALL BE SPRINKLED WITH WATER AND ROLLED WITH A PNEUMATIC ROLLER IN A MANNER

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

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE HE MAY INFLICT TO THE EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT AREA AS A RESULT OF HIS DIGGING, TRENCHING, BORING, ETC .... PRIOR TO DIGGING NEAR THE UTILITIES, THE CONTRACTOR SHALL CALL FOR A LIST OF ALL UNDERGROUND FACILITIES REGISTERED IN THE AREA OF CONSTRUCTION LISTED WITH THE FOLLOWING AGENCIES

THE "OKIE" NOTIFICATION CENTER 811 OR 1-800-522-6543 OR WWW.CALLOKIE.COM OR THE LOCAL COUNTY

DEPTH OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

THE CONTRACTOR SHALL NOTIFY THE COUNTY AND ODOT 14 CALENDAR DAYS PRIOR TO BEGINNING OF

THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY RIGHT-OF-WAY FENCE AS REQUIRED. WHEN THE PORTION OF THE PROJECT THAT REQUIRED 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 OF TEMPORARY FENCING SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

## **ENVIRONMENTAL NOTES:** $\wedge$

#### AMERICAN BURYING BEETLE

THE AMERICAN BURYING BEETLE IS A LARGE CARRION BURYING BEETLE THAT OCCURS WITHIN THE ACTION AREA. NO ARTIFICIAL LIGHTING SHALL BE USED DURING CONSTRUCTION. CARCASSES AND ALL FOOD TRASH SHALL BE REMOVED FROM THE PERMANENT AND TEMPORARY RIGHT OF WAY THROUGHOUT PROJECT ACTIVITIES. FOLLOWING CONSTRUCTION, TOPSOIL SHALL BE PLACED ON TOP OF ALL AREAS OF GROUND DISTURBANCE, PRIOR TO RE-VEGETATION.

### MIGRATORY BIRD NOTE

2017

MIGRATORY BIRDS ARE PROTECTED BY THE FEDERAL MIGRATORY BIRD TREATY ACT. MANY BIRDS COMMONLY USE BRIDGES AND CULVERTS FOR NESTING. THE NESTING SEASON FOR MOST BIRD SPECIES EXTENDS FROM MARCH 1 TO AUGUST 31. THE PROJECT WAS SURVEYED FOR MIGRATORY BIRD NESTS IN 2015. AI THOUGH NO NESTS WERE OBSERVED, THE SURVEY IS VALID ONLY UNTIL THE 2016 NESTING SEASON. THE RESIDENT ENGINEER SHALL CONTACT THE ODOT BIOLOGIST AT 405-521-2515 IF ANY BIRD USE OF THE EXISTING STRUCTURES IS OBSERVED. IF BIRDS ARE OBSERVED THEN PAINTING. REPAIR, RETROFIT, REHABILITATION OR DEMOLITION OF THE EXISTING BRIDGE/STRUCTURES SHALL BE CONDUCTED BETWEEN SEPTEMBER 1, AND FEBRUARY 28, WHEN MIGRATORY BIRD NESTS ARE NOT OCCUPIED. THE BRIDGE MAY BE PROTECTED FROM NEW NEST ESTABLISHMENT PRIOR TO MARCH 1, BY MEANS THAT DO NOT RESULT IN BIRD DEATH OR INJURY. OPTIONS INCLUDE THE EXCLUSION OF ADULT BIRDS FROM SUITABLE NEST SITES ON OR WITHIN A STRUCTURE BY THE PLACEMENT OF WEATHER-RESISTANT POLYPROPYLENE NETTING WITH 0.25-INCH OR SMALLER OPENINGS, PRIOR TO MARCH 1. METHODS OTHER THAN NETTING MUST BE PRE-APPROVED BY THE ODOT BIOLOGIST.

#### **ROADWAY PAY QUANTITY NOTES**

- PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITIES ONLY. SEE SECTION 109.01B OF THE STANDARD SPECIFICATIONS.
- INCLUDES 100 CU YDS. FOR DRIVEWAYS, RETURNS, DIKES AND MISCELLANEOUS EARTHWORK.
- FOR 205(A) TYPE A-SALVAGED TOPSOIL PRICE BID TO INCLUDE COST OF 18-46-0 FERTILIZER, ESTIMATED
  - FOR 230(A) SOLID SLAB SOD PRICE BID TO INCLUDE COST OF 10-20-10 FERTILIZER, ESTIMATED AT 200
- FOR 230(A) SOLID SLAB SOD PRICE BID TO INCLUDE THE COST OF WATERING, ESTIMATED AT 80 GALLONS
- THE QUANTITY ESTIMATED FOR TEMPORARY EROSION AND SEDIMENT CONTROL IS 11.01 ACRES.
- PRICE BID TO INCLUDE COST OF 1,273 GALLONS OF TACK COAT, MEETING THE REQUIREMENTS OF SECTION 407 OF THE STANDARD SPECIFICATIONS
- PRICE BID TO INCLUDE COST OF 2,406 GALLONS OF PRIME COAT, MEETING THE REQUIREMENTS OF SECTION 408 OF THE STANDARD SPECIFICATIONS, AND ESTIMATED AT 0.35 GAL. PER SQ. YD. ON TOP OF COMPLETED SUBGRADE, AND 0.25 GAL. PER SQ. YD. ON TOP OF 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-41) QUANTITY INCLUDES AN ESTIMATED 10 C.Y. TO BE USED AS DIRECTED BY THE ENGINEER
- INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES. HEADWALLS (UNLESS OTHERWISE SPECIFIED), INLETS, FENCES, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.
- TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY
- INCLUDES 2% FOR GROUND MEASUREMENT.
- COST TO INCLUDE TEMPORARY SEDIMENT REMOVAL. REMOVE SEDIMENT WHEN 50% FULL
- ESTIMATED AT 140 LBS PER CU.FT.
- GATE SHALL BE 16' LONG TUBE GATE (PAINTED) WITH 2" STEEL TUBES SPREAD EVENLY TO PROVIDE 6 RAILS. PRICE BID TO INCLUDE HINGES, LATCHES, AND ALL OTHER HARDWARE NECESSARY FOR
- RECON RETAINING WALL SYSTEMS (SP-1) OR APPROVED EQUAL.
- RETAINING WALLS DEPICTED IN THESE PLANS ARE PRELIMINARY AND NOT FOR CONSTRUCTION. RETAINING WALL DESIGN SHALL BE PROVIDED BY A REGISTERED ENGINEER (STATE OF OKLAHOMA), COST TO BE INCLUDED IN THIS ITEM.

#### TRAFFIC SIGNING PAY QUANTITY NOTES

(TS-24) QUANTITY SHOWN INCLUDES 6,241 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND 6,241 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR INCH (4") WIDE TRAFFIC STRIPE.

## ENVIRONMENTAL NOTES CONT'D: //

# **CULTURAL RESOURCES NOTE**

LOCATIONS OUTSIDE THE PROJECT AREA IN THE FOLLOWING AREA MUST NOT BE UTILIZED FOR BORROW. EQUIPMENT STAGING, HAUL ROADS, SPOIL DUMPS OR ANY OFF-SITE PROJECT-RELATED ACTIVITY

SECTION 31: SW 1/4 SW 1/4 SW 1/4

T15N R8F

**SECTION 6: NW 1/4 NW 1/4 NW 1/4** 

# **RESPONSIBILITY OF COUNTY:**

ACQUIRING RIGHT-OF-WAY REMOVAL AND RELOCATION OF UTILITIES. DETOUR SIGNING OUTSIDE THE LIMITS OF CONSTRUCTION

	DESCRIPTION REVISIONS	DATE
$\triangle$	UPDATED NOTES	10/17/17

29407 (04)					
		PAY QUANTITIES			
0100 ROAD	WAY ITEMS				
ITI	EM	DESCRIPTION	PAY NOTES	UNIT	QUANTITY
201(A)	0102	CLEARING AND GRUBBING		L. SUM	
202(A)	0183	UNCLASSIFIED EXCAVATION	R-1	C.Y.	15,682
202(D)	0184	UNCLASSIFIED BORROW	R-1,R-4	C.Y.	2,67
205(A)	4229	TYPE A - SALVAGED TOP SOIL	R-7	L. SUM	
210	0121	OBLITERATING ABANDONED ROAD		L.F.	1,42
221(C)	2801	TEMPORARY SILT FENCE	1	L.F.	5,50
221(F)	0100	TEMPORARY SILT DIKE	1	L.F.	490
230(A)	2806	SOLID SLAB SODDING	R-7,R-8	S.Y.	38,966
233(A)	2817	VEGETATIVE MULCHING	R-11	AC.	11.01
303(A)	2100	AGGREGATE BASE TYPE A		C.Y.	1,493
402(E)	0225	TRAFFIC BOUND SURFACE COURSE TYPE E	2	TON	510
411(B)	5945	SUPERPAVE, TYPE \$3 (PG 64-22 OK)	R-30,R-31,R-32	TON	2,084
411(C)	5960	SUPERPAVE, TYPE S4 (PG 64-22 OK)	R-30,R-31,R-32	TON	1,010
509(D)	0325	CLASS C CONCRETE	R-41	C.Y.	10
510(A)	6333	RETAINING WALL	4,5	S.Y.	143
601(B)	0536	TYPE I-A PLAIN RIPRAP		TON	96
601(C)	0538	TYPE I-A FILTER BLANKET		TON	48
611(G)	5338	INLET GPI TYPE 2 (DES. 12)		EA.	1
613(A)	0491	18" R.C. PIPE CLASS III		L.F.	93
613(A)	0492	24" R.C. PIPE CLASS III		L.F.	60
613(A)	0493	30" R.C. PIPE CLASS III		L.F.	71
613(B)	0690	24" CORR. GALV. STEEL PIPE		L.F.	152
613(L)	5730	24" PREFAB. CULVERT END SECTION, ROUND		EA.	2
613(L)	5732	30" PREFAB. CULVERT END SECTION, ROUND		EA.	2
613(M)	7186	TYPE A4 CULVERT END TREATMENT		EA.	1
613(M)	7187	TYPE B4 CULVERT END TREATMENT		EA.	4
613(T)	1187	STANDARD BEDDING MATERIAL, CLASS C		C.Y.	62
613(V)	1180	TRENCH EXCAVATION		C.Y.	140
619(A)	0920	REMOVAL OF STRUCTURES & OBSTRUCTIONS	R-48,R-49	L. SUM	1
619(B)	4728	REMOVAL OF ASPHALT PAVEMENT	R-49	S.Y.	38,506
624(C)	4459	FENCE-STYLE SWF (5 BARBED WIRE)	R-52	L.F.	1,139

29407(04)					
		PAY QUANTITIES			
0300 TRAFF	IC ITEMS				
ITI	EM	DESCRIPTION	PAY NOTES	UNIT	QUANTITY
623(A)	0932	BEAM GUARDRAIL W-BEAM SINGLE		L.F.	75
623(G)	8571	GUARDRAIL END TREATMENT (GET)		EA.	4
850(A)	8110	SHEET ALUMINUM SIGNS		S.F.	16
851(C)	8324	2" SQUARE TUBE POST		L.F.	30
856(A)	8530	TRAFFIC STRIPE (MULTI-POLYMER) (4" WIDE)	TS-24	L.F.	12,482
880(J)	8905	CONSTRUCTION TRAFFIC CONTROL		L. SUM	1

### SUGGESTED CONSTRUCTION SEQUENCE

### PHASE I:

- 1. MAINTAIN TRAFFIC ON EXISTING ROADWAYS (BRIDGE).
- 2. CONSTRUCT S. 465TH W. AVE. AND PROP. BRIDGE, FROM STA. 54+50 TO STA. 65.00.

#### PHASE II:

- 1. CLOSE W. 241ST ST. SOUTH TO THROUGH TRAFFIC AT STA. 103+50.
- 2. CONSTRUCT W. 241ST ST. SOUTH, INTERSECTION WITH S. 465TH W. AVE., S. 465TH W. AVE. TO END OF PROJECT. (STA. 66+20 TO END OF PROJECT TO BE CONSTRUCTED UNDER TRAFFIC).

#### PHASE III:

- 1. OPEN W. 241ST ST. SOUTH AND S. 465TH W. AVE. TO TRAFFIC (PHASE II CONSTRUCTION ONLY). PHASE I CONSTRUCTION AND EXISTING ROAD (BRIDGE) SHALL BE CLOSED TO TRAFFIC.
- 2. COMPLETE CONSTRUCTION OF S. 465TH W. AVE., FROM BEGINNING OF PROJECT TO STA. 54+50.00
- 3. REMOVE EXISTING ROADWAY AND BRIDGE.
- 4. OPEN S. 465TH W. AVE. TO TRAFFIC.

_				
Γ	DESIGN	BSF	07/17	
Γ	DRAWN	BLP	07/17	GUY ENGINEERING SERVICES, INC.
	CHECKED	PAE	07/17	
7	APPROVED	JRW	07/17	
Г	SQUAD			STATE JOB NO. 29407(04) SHEET NO. ARO1

	SURFA	CINGS	I I A NA A I	DV					
	JUNIA	CING 3	DIVINA	X 1					
STATION EXTEN	o AGGREGATE BASE TYPE A 303(A)	TRAFFIC BOUND SURFACE COURSE TYPE E 402(E)	TACK COAT 407	PRIME COAT 408	SUPERPAVE, TYPE S3 (PG 64-22 OK) 411(B)	SUPERPAVE, TYPE S4 (PG 64-22 OK) 411(C)			
	C.Y.	TONS	GAL.	GAL.	TONS	TONS			
W 241ST									
100+12.09 TO 103+	-50.00 169	47	139	254	217	105			
NS 365	NS 365								
39+67.69 TO 61+	28.59 1,091	298	906	1,637	1,415	684			
63+20.09 TO 67+	50.00 233	59	194	349	302	146			
TOT	ALS = 1,493	404	1,238	2,239	1,934	935			

SUMMARY OF DRIVES								
STATION	RETURN RADIUS	DRIVE WIDTH	* TRAFFIC BOUND SURFACE COURSE TYPE E 402(E)	TACK COAT 407	PRIME COAT 408	SUPERPAVE, TYPE S3 (PG 64-22 OK) 411(B)	SUPERPAVE, TYPE S4 (PG 64-22 OK) 411(C)	
	FT.	FT.	TONS	GAL.	GAL.	TONS	TONS	
40+16.00 LT.	25	24	33	11	52	46	23	
54+50.00 RT.	25	20	27	9	42	38	19	
59+25.22 LT.	25	12	46	15	73	66	33	
TOTALS			106	35	167	150	75	

			W-1 May 8 of the 10 of the				
		EARTH	NORK S	UMMARY	•		
STATION EXTENTS			UNCLASSIFIED EXCAVATION 202(A)	EMBANKMENT +15%	UNCLASSIFIED BORROW 202(D)	REMOVAL OF ASPHALT	
			C.Y.	C.Y.	C.Y.	S.Y.	
39+67.69	TO	67+50.00	11,807	18,253	6,446	38,506	
100+12.11	TO	103+50.00	3,875	0	-3,875	0	
		TOTALS =	15,682	18,253	2,571	38,506	

SUMMARY OF EROSION CONTROL								
STAT	TONS	TEMPORARY SILT FENCE	TEMPORARY SILT DIKE	SOLID SLAB SODDING	VEGETATIVE MULCHING			
		221(C)	221(F)	230(A)	233(A)			
FROM	TO	L.F.	L.F.	S.Y.	AC.			
39+67.69	67+50.00	4,930	427	38,966	11.01			
100+12.11 103+50.00		576	63	0	0.00			
TO	OTALS =	5,506	490	38,966	11.01			

SC	SCHEDULE OF GUARDRAIL										
STATION	BEAM GUARDRAIL W-BEAM SINGLE 623(A)	GUARDRAIL END TREATMENT (GET) 623(G)	GUARDRAIL ANCHOR UNIT (TYPE D-BF) 623(F)								
			L.F.	EA.	EA.						
60+61.25 TO	61+36.25	LT.	0	1	1						
63+12.41 TO	64+24.91	LT.	37.50	1	1						
60+23.75 TO	61+36.25	RT.	37.50	1	1						
63+12.41 TO	63+87.41	RT.	0	1	1						
	TOTA	LS=	75	4	4						

SUMMARY OF PAVEMENT MARKINGS								
STATION EXTENTS	TRAFFIC STRIPE (MULTI-POLYMER) (4" WIDE) WHITE  856(A)	TRAFFIC STRIPE (MULTI-POLYMER) (4" WIDE) YELLOW 856(A)						
	L.F.	L.F.						
39+67.69 TO 67+50.00	5,565	5,565						
100+12.09 TO 103+50.00	676	676						
TOTALS =	6,241	6,241						

STATION EXTENTS				(5 BARBED WIRE) 624(C)
		L.F.		
45+13.71	TO	47+00.00	LT.	187
47+00.00	TO	53+00.00	LT.	619
102+25.31	TO	103+50.75	LT.	140
FENCE	ATE	BRIDGE		171
		TOTAL	S=	1,117

	SIDEDRAIN SUMMARY										
							R.C.P ROUND	C.G.S.P ROUND	P.C.E.S ROUND	C.E.T. TYPE	
STR. NO.	NO. STATION OFFSET DESCRIPTION DESIGN	FLOWLINE IN	OUT	24"	24"	24"	B4				
							613(A)	613(B)	613(L)	613(M)	
		FT.					L.F.	L.F.	EA.	EA.	
3	54+50.00	RT.	CONSTR. 24" x 77' CGSP-ROUND W/ CET		808.29	807.91		77		2	
4	59+25.22	LT.	CONSTR. 24" x 75' CGSP-ROUND W/ CET		805.87	805.50		75		2	
5	66+00.00	RT.	CONSTR. 24" x 60' RCP-ROUND W/ PCES		816.29	815.70	60		2		
						TOTAL =	60	152	2	4	

DITCH TREATMENT SUMMARY										
	STATION	N EXTENTS	TYPE	BOTTOM WIDTH	TYPE I-A PLAIN RIPRAP 601(B)	TYPE I-A FILTER BLANKET 601(C)				
					FT.	TON	TON			
100+15.00	TO	102+00.00	LT.	RIPRAP	2	96	48			
TOTALS = 96 48										

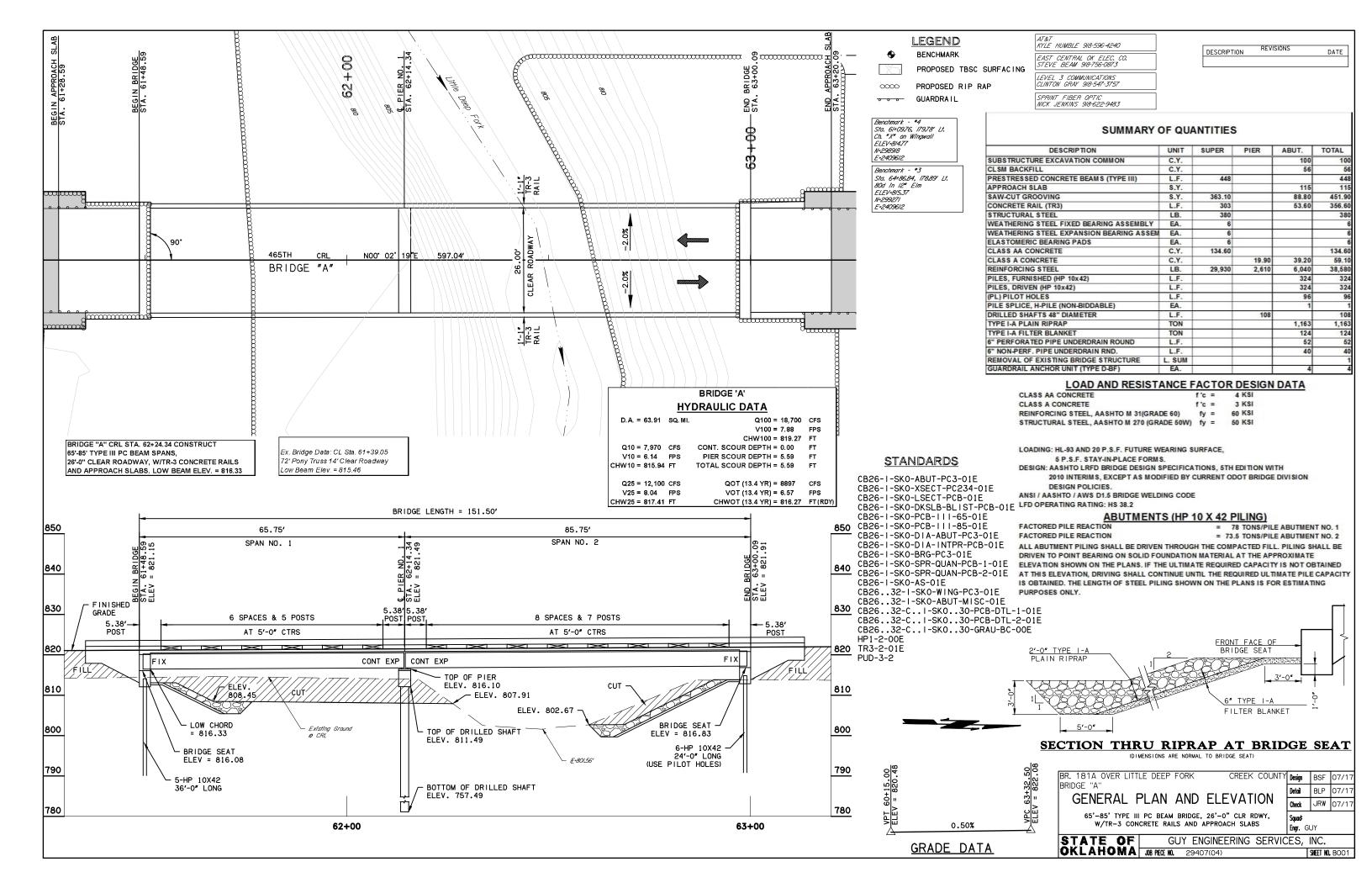
	SIGN SUMMARY									
SIGN NO.	APPROX STATION OFF SET LO	AND	)	DESCRIPTION	SIGN	SHEET ALUMINUM SIGNS	T a 2" SQUARE TUBE POST 851(C)			
1	41+00.00	12'	RT.	SPEED LIMIT (35)	R2-1(35)	5.00	10			
2	65+00.00	12'	LT.	SPEED LIMIT (35)	R2-1(35)	5.00	10			
3	100+20.00	12'	LT.	STOP SIGN	R1-1	6.25	10			
					TOTALS =	16.25	30			

DESCRIPTION REVISIONS

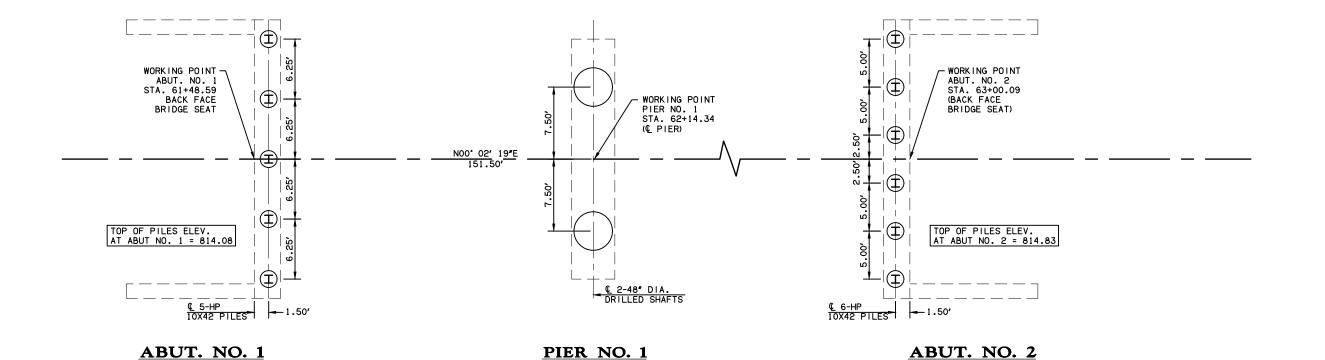
DATE

	CROSSDRAIN SUMMARY											
			DESIGN	FLOWLINE IN	FLOWLINE OUT	INLET GPI TYPE 2 (DES. 12)	R.C.P ROUND		P.C.E.S. ROUND	C.E.T.	STANDARD	
STR. NO.	STATION	DESCRIPTION					18"	30"	30"	TYPE A4	BEDDING MATERIAL, CLASS C	TRENCH EXCAVATION
						611(G)	613(A)		613(L)	613(M)		
						EA.	L.F.	L.F.	EA.	EA.	C.Y.	C.Y.
1	40+08.59	CONST. 18"X93' RCP W/GRATED DROP INLET DES. 12		814.34	814.00	1	93			1	26	85
2	44+50.00	CONST. 30"X71' RCP-ROUND W/PCES		813.43	813.20			71	2		36	56
				•	TOTALS =	1	93	71	2	1	62	140

DESIGN	BSF	07/17	OKLAHOMA DEPARTMENT OF TRANSPORTATION GUY ENGINEERING SERVICES, INC.							
DRAWN	BLP	07/17	GUI ENGINEERING SERVICES, INC.							
DIVATIN	DLI	01711								
CHECKED	PAE	07/17	SUMMARY SHEET							
	_	_	I SUMMAN SILLI							
APPROVED	JRW	07/17								
SQUAD			STATE JOB NO. 29407(04) SHEET NO.AXO1							

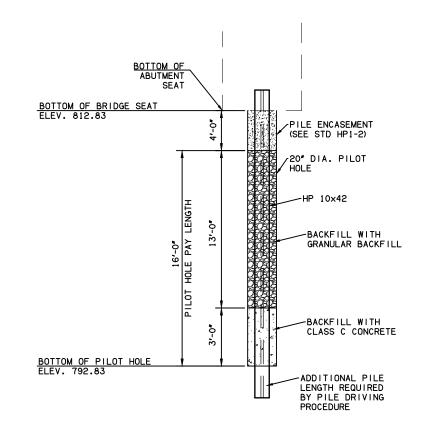






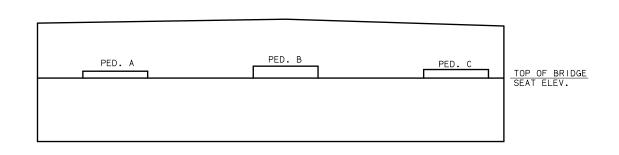


PIER NO. 1



# **DETAIL OF PILOT HOLE**

Not to Scale (ABUTMENT NO. 2 ONLY)



# **ABUTMENT ELEVATION**

Not to Scale
(LOOKING BACK ON STATION AT ABUTMENT NO. 1)
(LOOKING AHEAD ON STATION AT ABUTMENT NO. 2)

ABUTMENT ELEVATIONS											
	TOP OF BRIDGE SEAT ELEVATION	LOW		PEDESTAL A		PEDESTAL B		TAL C			
		CHORD ELEV.	ELEV. (ft)	HEIGHT (ft)	ELEV. (ft)	HEIGHT (ft)	ELEV. (ft)	HEIGHT (ft)			
ABUTMENT NO. 1	816.08	816.33	816.25	0.17	816.45	0.37	816.25	0.17			
ABUTMENT NO. 2	816.83		817.00	0.17	817.20	0.37	817.00	0.17			

BR.	18	31A	OVER	LITTLE	DEEP	FORK	
BRID	OGE	: "A			0.TD	LIOTI	יהר
				SUB	SIK	UCT	UKE

CREEK COUNTY Design BSF 07/17 STAKING DIAGRAM

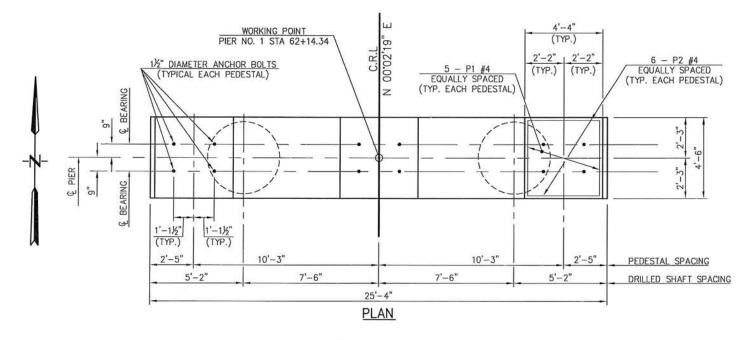
Check	JRW	07,
Squad:		
Engr. Gl	JY	

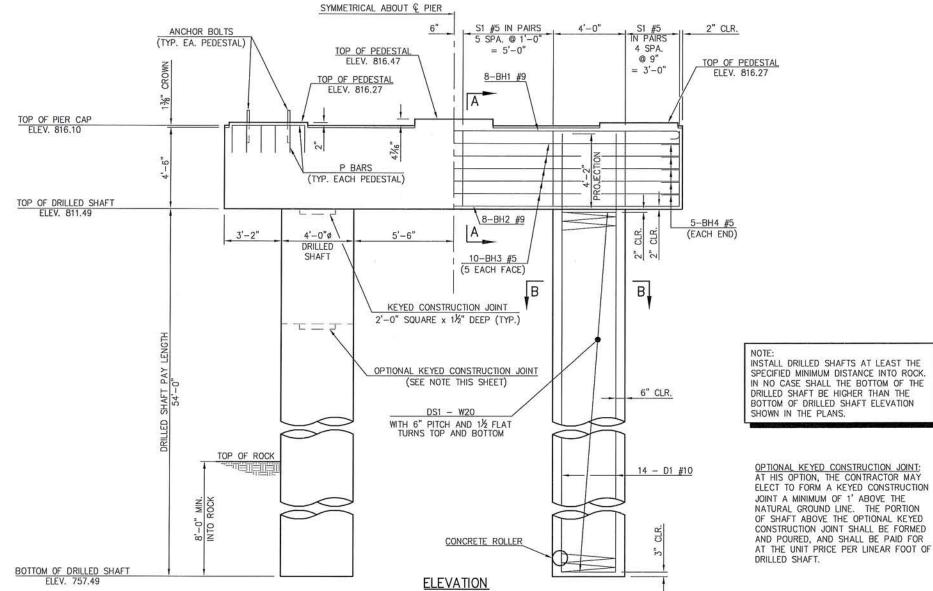
Detail BLP 07/17

			· ·	
STATE OF	GU'	Y ENGINEERING	SERVICES,	INC.
OKLAHOMA	JOB PIECE NO.	29407(04)		SHEET NO. BOO2

2017 Little







(LOOKING AHEAD ON STATIONING)

PIER QUANTITIES				
ITEM	UNIT	QUANTITY		
CLASS A CONCRETE	C.Y.	19.90		
REINFORCING STEEL	LB.	2,610.00		
DRILLED SHAFTS 48" DIAMETER	LF.	108.00		
CROSSHOLE SONIC LOGGING	EA.	1.00		

MICHAEL B. SIMMONS, P.E. NO. 24576

BR. 181A OVER LITTLE DEEP FORK BRIDGE "A"

CREEK COUNTY Design MZV 11/16 Detail MZV 11/16

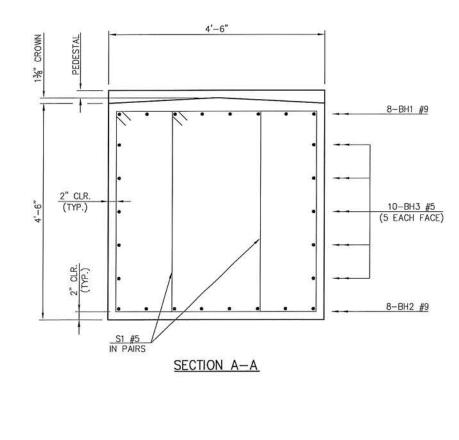
DETAILS OF PIER (SHEET NO. 1 OF 2)

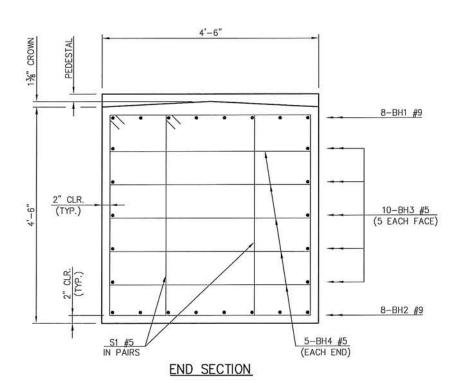
Check	MBS	11/16
Squod:	SUY	
CES.	INC.	

MICHAEL B

24576

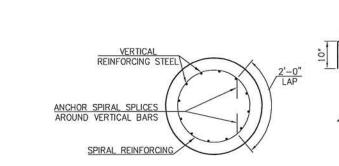
STATE OF GUY ENGINEERING SERVICES, OKLAHOMA JOS PECE NO. 29407(04)





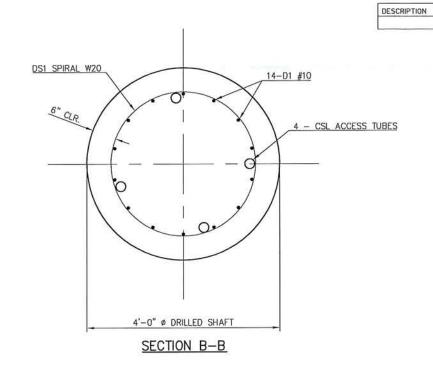
MARK	SIZE	NO.	FORM	LENGTH
BH1	#9	8	BNT.	27'-6"
BH2	#9	8	STR.	25'-0"
внз	#5	10	STR.	25'-0"
BH4	#5	10	BNT.	6'-2"
P1	#4	15	BNT.	7'-2"
P2	#4	18	BNT.	7'-0"
S1	#5	44	BNT.	15'-3"
	TWO I	DRILLE	D SHAF	TS ①
D1	#10	28	STR.	57'-11"
DS1	W20	2	SPIRAL	1039'-9'

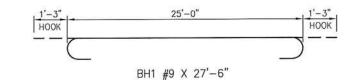
(1) INCLUDED IN PRICE BID PER LINEAR FOOT OF DRILLED SHAFT.

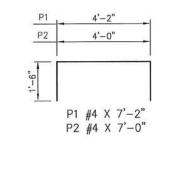


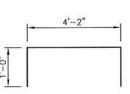
# DETAIL OF SPIRAL REINFORCING SPLICE

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

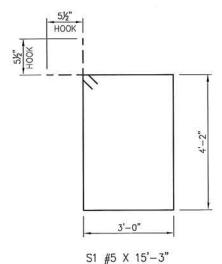








1½" DIAMETER 135' HOOK WITH 10" TAIL



REVISIONS

DATE

BH4 #5 X 6'-2"



MICHAEL B. SIMMONS, P.E. NO. 24576 BR. 181A OVER LITTLE DEEP FORK BRIDGE "A" CREEK COUNTY Design MZV 11/16 Detail MZV 11/16 DETAILS OF PIER Check MBS 11/16 (SHEET NO. 2 OF 2) Engr. GUY GUY ENGINEERING SERVICES, INC. STATE OF

OKLAHOMA JOB PECE NO. 29407(04) SHEET NO. BOO4

SPIRAL	VERTICAL REINFORCEMENT		
REINFORCEMENT			
	J		CONCRETE ROLLER LOCATED AT ONE—FIFTH POINTS ON
$n \mid / / / /$	CONCRETE ROLLER 10"ø X 2"	THICK	10'-0" CENTERS
	(SPREAD SPIRAL BAR TO ALLO	OW //	
	ROLLER CLEARANCE)	HE A	
	]]		SPIRAL REINFORCEMENT
1 16	/	\\ <i>!</i> \ <i>H</i>	
	#6 BAR TIED TO VERTICAL REINFORCING		
		DOLLED DI ACEM	ENT
п	1"ø PVC PIPE CAST INTO	ROLLER PLACEM	<u> LIN I</u>
	CENTER OF CONCRETE ROLLER		

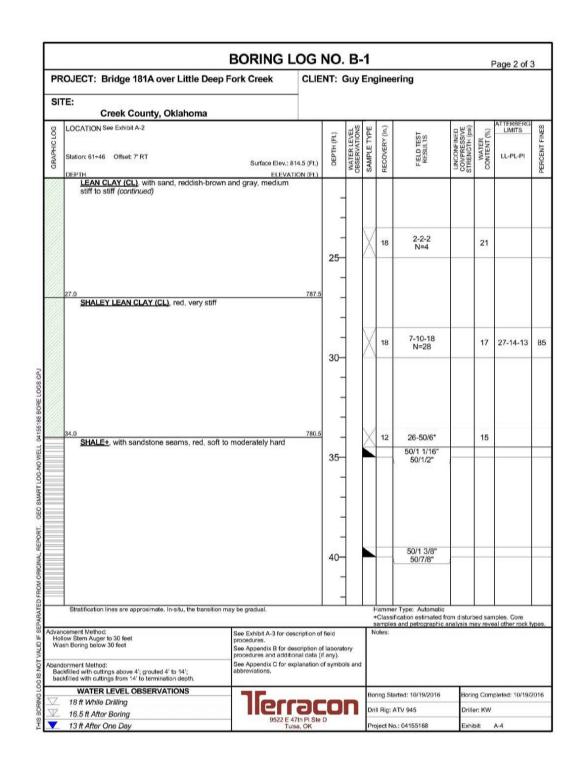
## **ROLLER INSTALLATION**

DETAIL OF CONCRETE ROLLER

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

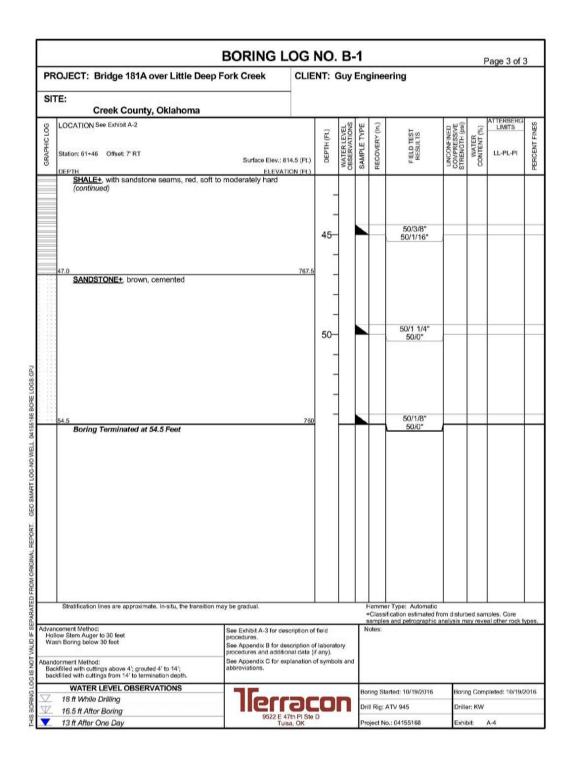
DESCRIPTION	REVISIONS	DATE

		BORING I	_OG	NO.	B-	1					Page 1 of	3
	ROJECT: Bridge 181A over Little Dee	p Fork Creek	CLIE	NT: (	Guy E	Ξης	ginee	ing				
51	TE: Creek County, Oklahoma											
GRAPHIC LOG	LOCATION See Exhibit A-2 Staton: 61+46 Offset: 7' RT	Surface Flores		DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FELD TEST RESULTS	UNCONFINED COMPRESSIVE STRENGTH (psi)	WATER CONTENT (%)	ATTERBERG LIMITS	
5	DEPTH	Surface Elev.: I	114.5 (Ft.) TION (Ft.)	٥	OBS	SA	REC	u	¥88	8	POLICE TO S	L
	3" Topsoil SILTY SAND (SM), brown, loose to mediu	ım dense	n=01	-		X	18	6-7-4 N=11		4		
						X	18	3-2-2 N=4		4	NP	
				- 5-								
				-		X	18	3-2-3 N=5		7		
	9.0  LEAN CLAY (CL): with sand, reddish-browstiff to stiff	wn and gray, medium	805.5	10-		X	15	3-4-6 N=10		17		
				- 15- -	V	X	18	3-2-4 N=6		20	32-15-17	
				20-		X	18	3-4-4 N=8		21		
11/2	Stratification lines are approximate, In-situ, the transitio	n may be gradual.		-		-	dammer	Type: Automatic	from disturb	ned sar	poles Core	
Ho! Wa	ncement Method: low Stem Auger to 30 feet sch Boring below 30 feet domment Method:	See Exhibit A-3 for de procedures. See Appendix B for de procedures and additi See Appendix C for e	escription o	f laborat f any).		. 8	amples oles:	and petrographic	analysis m	ay reve	eal other rock t	ly
Bac	ckfilled with cuttings above 4'; grouted 4' to 14'; ckfilled with cuttings from 14' to termination depth.	abbreviations,							3-			
7	WATER LEVEL OBSERVATIONS 18 ft While Drilling	7500				Bor	ring Star	ted: 10/19/2016	Borin	ng Com	pleted: 10/19/	20
Z	16.5 ft After Boring	IIEI	JL STEP	U		Dri	II Rig; A	√ 945	Drille	er: KW		
9522 E 47			sa, OK	th PI Ste D a, OK Project No.: 04155168 Exhibit: A-4					A-4			



Friday, July 28, 2017 10:14:29 AM V:\13-850 Br 181A Little Deep Fork Ck- Creek 3\CIV3D\PLANS\85G

DESCRIPTION	REVISIONS	DATE

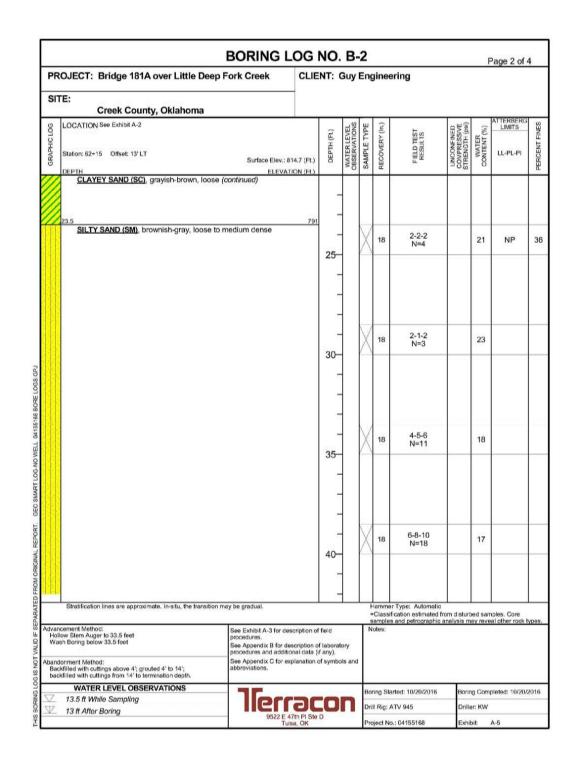


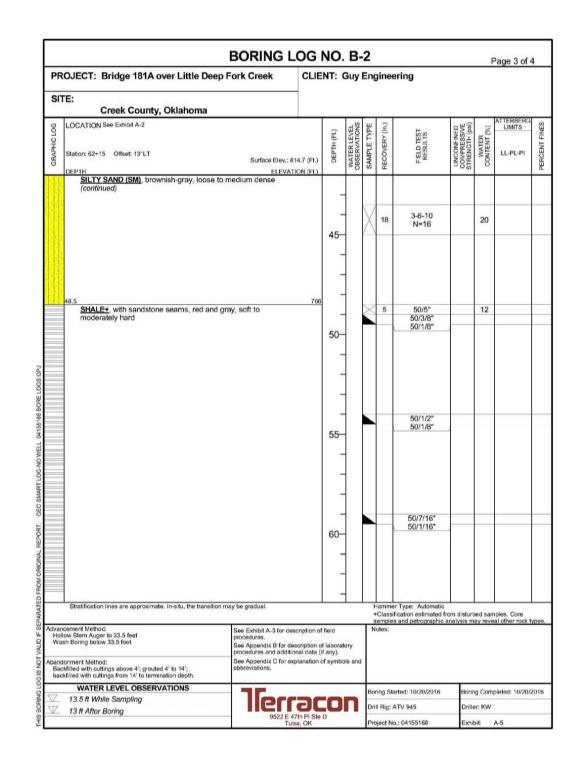
PR	OJECT: Bridge 181A over Little Deep	Fork Creek	CLIE	NT: 0	Guy I	Eng	gineer	ring				
SIT	E: Creek County, Oklahoma											
9070	LOCATION See Exhibit A-2			(Ft.)	EVEL	TYPE	(ln.)	EST	INED SSIVE H (psi)	R T (%)	ATTERBERG LIMITS	Γ
GRAPHIC LOG	Station: 62+15 Offset: 13" LT	Surface Elev.: 81	650 57500	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FELD TEST RESULTS	UNCOMFINED COMPRESSIVE STRENGTH (ps)	WATER CONTENT (%)	LL-PL-PI	
	3" topsoil SANDY SILT (ML), brown, loose to medium	dense	10.133	-		X	18	3-5-6 N=11		8		
				-		X	18	6-5-5 N=10		7		
				5-								
				-		X	18	4-5-4 N=9		5	NP	
				10-		X	18	4-3-3 N=6		4		
	14.0 CLAYEY SAND.(SC). grayish-brown, loose		800.5	- - 15-	¥	X	18	3-2-4 N=6		20	25-13-12	
				20-		X	18	2-2-3 N=5		18		
	Stratification lines are approximate. In-situ, the transition n	nay be gradual.		-		4	Classific	Type: Automatic cation estimated and petrographic	from disturt	oed san	nples. Core	tve
Hollo Was	cement Method: ow Stem Auger to 33.5 feet th Boring below 33.5 feet ownert Method: openert Method:	See Exhibit A-3 for des- procedures.  See Appendix B for des- procedures and additional see Appendix C for explain abbreviations.	cription of nal data (if	laborat	7070	N	otes:					
back	filled with cuttings above 4'; grouted 4' to 14'; filled with cuttings from 14' to termination depth.  WATER LEVEL OBSERVATIONS					-	ring Ot-	tod: 40/00 max-	la-	n 6	pleted: #689	rac.
$\nabla$	13.5 ft While Sampling 13 ft After Boring	Nerr	20	0			ring Start II Rig: A1	ted: 10/20/2016	000000	ng Com er: KW	pleted: 10/20/	20
	13 It Artar Boring	9522 E 47	th PI Ste I	D	Of the last			: 04155168	Exhi	bit:	A-5	

BR. 181A OVER LITTLE DEEP FORK BRIDGE "A" CREEK COUNTY Design BSF 07/17 Detail BLP 07/17 BORING LOGS Check JRW 07/17 Squad: Engr. GUY SHEET 2 OF 5

STATE OF GUY ENGINEERING SERVICES, INC. OKLAHOMA JOB PECE NO. 29407(04) SHEET NO.

DESCRIPTION	REVISIONS	DATE

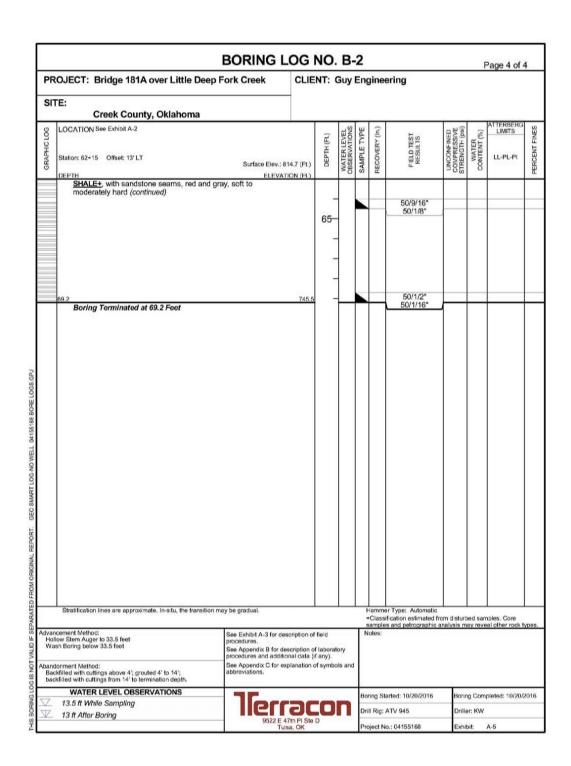


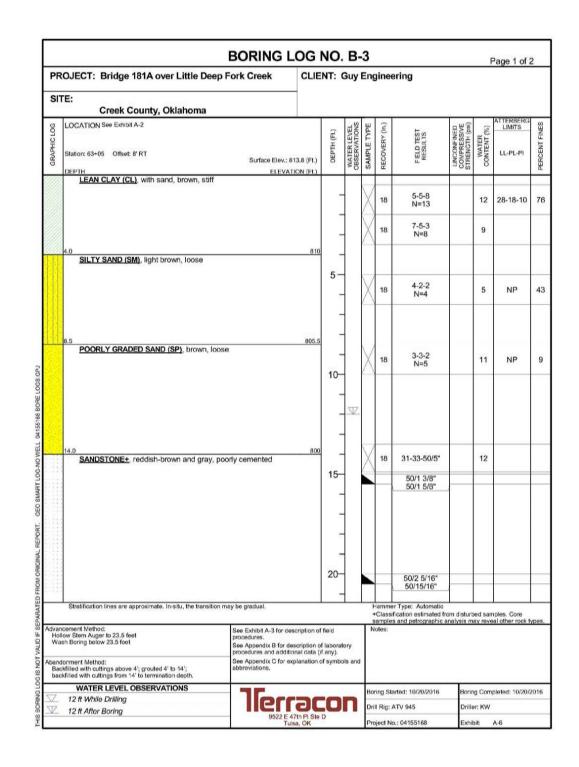


CREEK COUNTY Design BSF 07/17 BR. 181A OVER LITTLE DEEP FORK BRIDGE "A" Detail BLP 07/17 BORING LOGS Check JRW 07/17 Squad: Engr. GUY SHEET 3 OF 5 STATE OF GUY ENGINEERING SERVICES, INC. OKLAHOMA JOB PECE NO. 29407(04) SHEET NO.

28, 2017 10:14:46 AM Br 181A Little Deep Forl

DESCRIPTION	REVISIONS	DATE





CREEK COUNTY Design BSF 07/17 BR. 181A OVER LITTLE DEEP FORK BRIDGE "A" Detail BLP 07/17 BORING LOGS Check JRW 07/17 Squad: Engr. GUY SHEET 4 OF 5 STATE OF GUY ENGINEERING SERVICES, INC. OKLAHOMA JOB PECE NO. 29407(04) SHEET NO.

BR. 181A OVER LITTLE DEEP FORK BRIDGE "A"

BORING LOGS SHEET 5 OF 5

CREEK COUNTY Design BSF 07/17 Detail BLP 07/17 Check JRW 07/17 Squad: Engr. GUY

STATE OF GUY ENGINEERING SERVICES, INC. OKLAHOMA JOB PECE NO. 29407(04) SHEET NO.

# STORM WATER MANAGEMENT PLAN A

_	DESC	RIPTION		ISIONS	DATE
A	NEW	SHEET	FROM	ODOT	8/18/17
2	UPI	DATE L	AT-LO	N	9/7/17

# SITE DESCRIPTION

#### PROJECT LIMITS: S 465TH W AVE OVER LITTLE DEEP FORK CREEK EXTENDING FROM 0.25 SOIL STABILIZATION PRACTICES: MILES NORTH OF DEPEW, OKLAHOMA TO INTERSTATE 44. W 241ST ST S FROM INTERSECTION WITH S 465TH W AVE TO 350' EAST OF INTERSECTION. TEMPORARY SEEDING X PERMANENT SODDING, SPRIGGING OR SEEDING PROJECT DESCRIPTION: BRIDGE AND APPROACH ROADWAY PLANS FOR S 465TH W AVE X VEGETATIVE MULCHING OVER LITTLE DEEP FORK CREEK. PROJECT REPLACES A 72' PONY TRUSS SPAN WITH A TYPE III \_\_\_\_ SOIL RETENTION BLANKET PC BEAM 65'-85' BRIDGE, SKOO' WITH TR-3 RAILS. X PRESERVATION OF EXISTING VEGETATION SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES: NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON PRIOR TO INITIATING SOIL DISTURBING ACTIVITIES, THE CONTRACTOR WILL INSTALL ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS. ALL PERIMETER TEMPORARY SEDIMENT CONTROLS SPECIFIED. STRIP, STOCKPILE AND OR AS DIRECTED BY THE ENGINEER 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 STRUCTURAL PRACTICES: DIRECTED BY THE ENGINEER, PLANT TEMPORARY SEEDING. REPLACE SALVAGED TOPSOIL AND DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) \_\_\_\_ STABILIZED CONSTRUCTION EXIT HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY \_\_\_\_\_ TEMPORARY SILT FENCE CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO X TEMPORARY SILT DIKES IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER, THE CONTRACTOR X TEMPORARY FIBER LOG WILL MAINTAIN A LOG OF MAJOR SOIL DISTURBANCE ACTIVITIES. AND ALSO THE \_\_\_\_\_ DIVERSION, INTERCEPTOR OR PERIMETER DIKES DATES OF INSTALLATION OF EROSION CONTROL MEASURES. \_\_ DIVERSION, INTERCEPTOR OR PERIMETER SWALES PULASKI FINE SANDY LOAM ROCK FILTER DAMS \_ TEMPORARY SLOPE DRAIN TOTAL AREA OF THE CONSTRUCTION SITE: 11.01 ACRES (479,554 SF) PAVED DITCH W/ DITCH LINER PROTECTION TEMPORARY DIVERSION CHANNELS ESTIMATED AREA TO BE DISTURBED: 11.01 ACRES (479,554 SF) TEMPORARY SEDIMENT BASINS OFFSITE AREA TO BE DISTURBED: TEMPORARY SEDIMENT TRAPS (FOR CONTRACTOR USE) \_ TEMPORARY SEDIMENT FILTERS TOTAL IMPERVIOUS AREA X TEMPORARY SEDIMENT REMOVAL 85,181.09 SF PRE-CONSTRUCTION: X RIPRAP TOTAL IMPERVIOUS AREA \_ INLET SEDIMENT FILTER 79242.16 SF POST-CONSTRUCTION: \_\_\_\_\_ TEMPORARY BRUSH SEDIMENT BARRIERS POST-CONSTRUCTION RUNOFF SANDBAG BERMS 0.42 COEFFICIENT OF THE SITE: TEMPORARY STREAM CROSSINGS LATITUDE & LONGITUDE 35.811860°, −96.512221° ∕2\ PROJECT WILL DISCHARGE TO: OFFSITE VEHICLE TRACKING: NAME OF RECEIVING WATERS: LITTLE DEEP FORK CREEK X HAUL ROADS DAMPENED FOR DUST CONTROL X LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN SENSITIVE WATERS OR WATERSHEDS: NO X \_\_\_\_\_ EXCESS DIRT ON ROAD REMOVED DAILY YES X NO 303(D) IMPAIRED WATERS: IF YES, LIST IMPAIRMENT: TURBIDITY, ENTEROCOCC, E-COLI NOTES: LOCATED IN A TMDL: YES X NO X LAKE THUNDERBIRD TMDL: YES YES X MS4 ENTITY NO

# EROSION AND SEDIMENT CONTROLS

# THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

#### MAINTENANCE AND INSPECTION:

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

#### WASTE MATERIALS:

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

#### HAZARDOUS MATERIALS:

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

#### GENERAL NOTES:

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

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

103.05 BONDING REQUIREMENTS

104.10 FINAL CLEANING UP

104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK

104.13 ENVIRONMENTAL PROTECTION

106.08 STORAGE AND HANDLING OF MATERIAL

107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED

107.20 STORM WATER MANAGEMENT

220 MANAGEMENT OF EROSION, SEDIMENTATION AND STORM WATER POLLUTION PREVENTION AND CONTROL

221 TEMPORARY SEDIMENT CONTROL

#### IN ADDITION:

"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, SEPTEMBER 13, 2017.

DESIGN	BSF	09/17	ROADWAY DESIGN DIVISION					
DRAWN	BLP	09/17						
CHECKED	PAE	09/17	STORMWATER					
APPROVED	JRW	09/17	MANAGEMENT PLAN					
SQUAD								
COUNTY _	CREEK		HIGHWAY NS465 STATE JOB NO. 29407(04) SHEET NO. R001					

01/1 11/01/1 055 157 151 15 05 75 11/05 057 17/01

Thursday, September 07, 2017 1:10:43 PM V:\13-850 Br 181A Little Deep Fork Ck- Creek 3\CIV3D\PLANS\850-STDRMWATER MANAGEMENT PLA

NOTE: IF YES, LOCATION: CREEK COUNTY
THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP

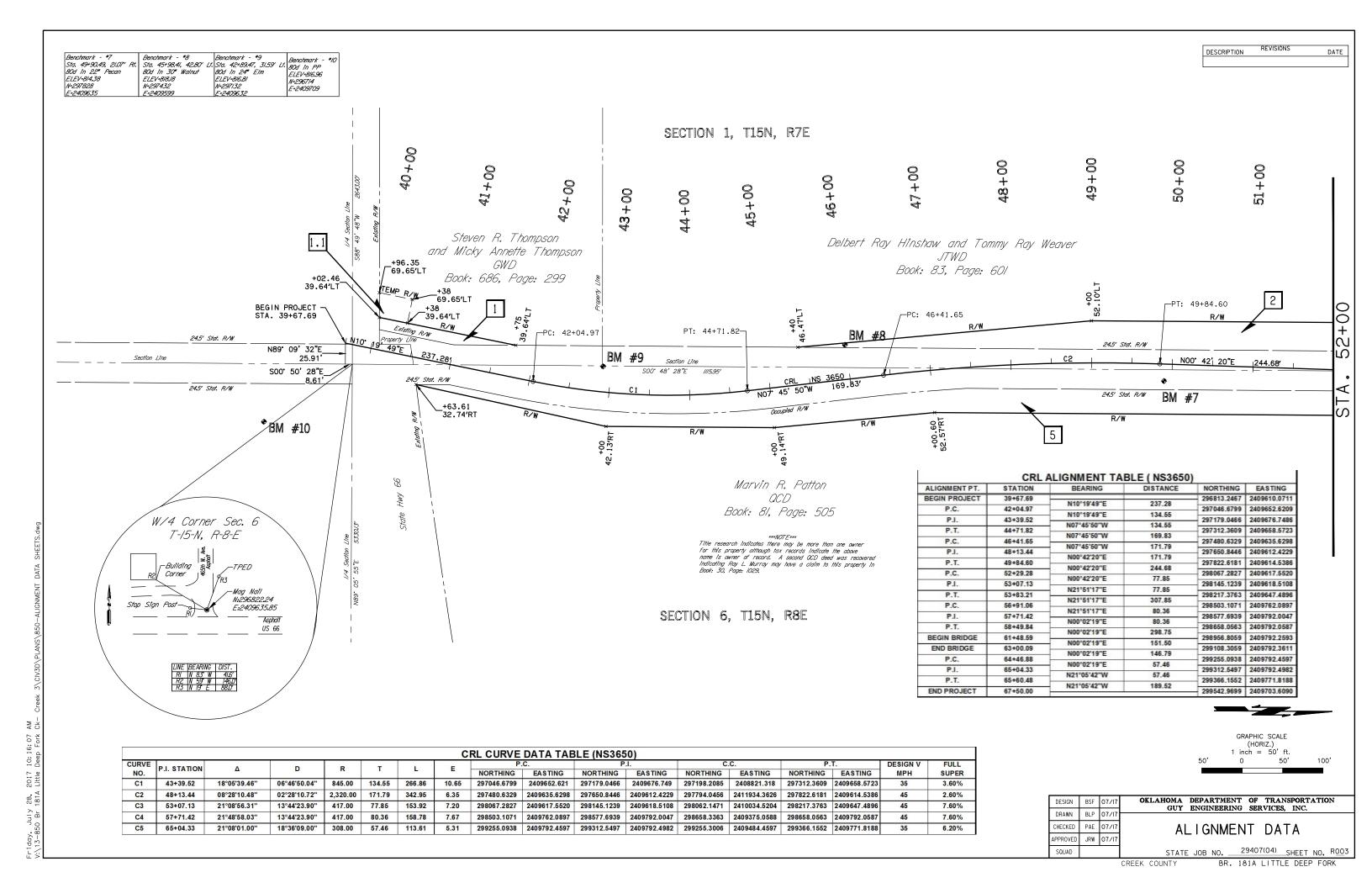
CONTROL SUMMARIES, PAY ITEMS, & NOTES.

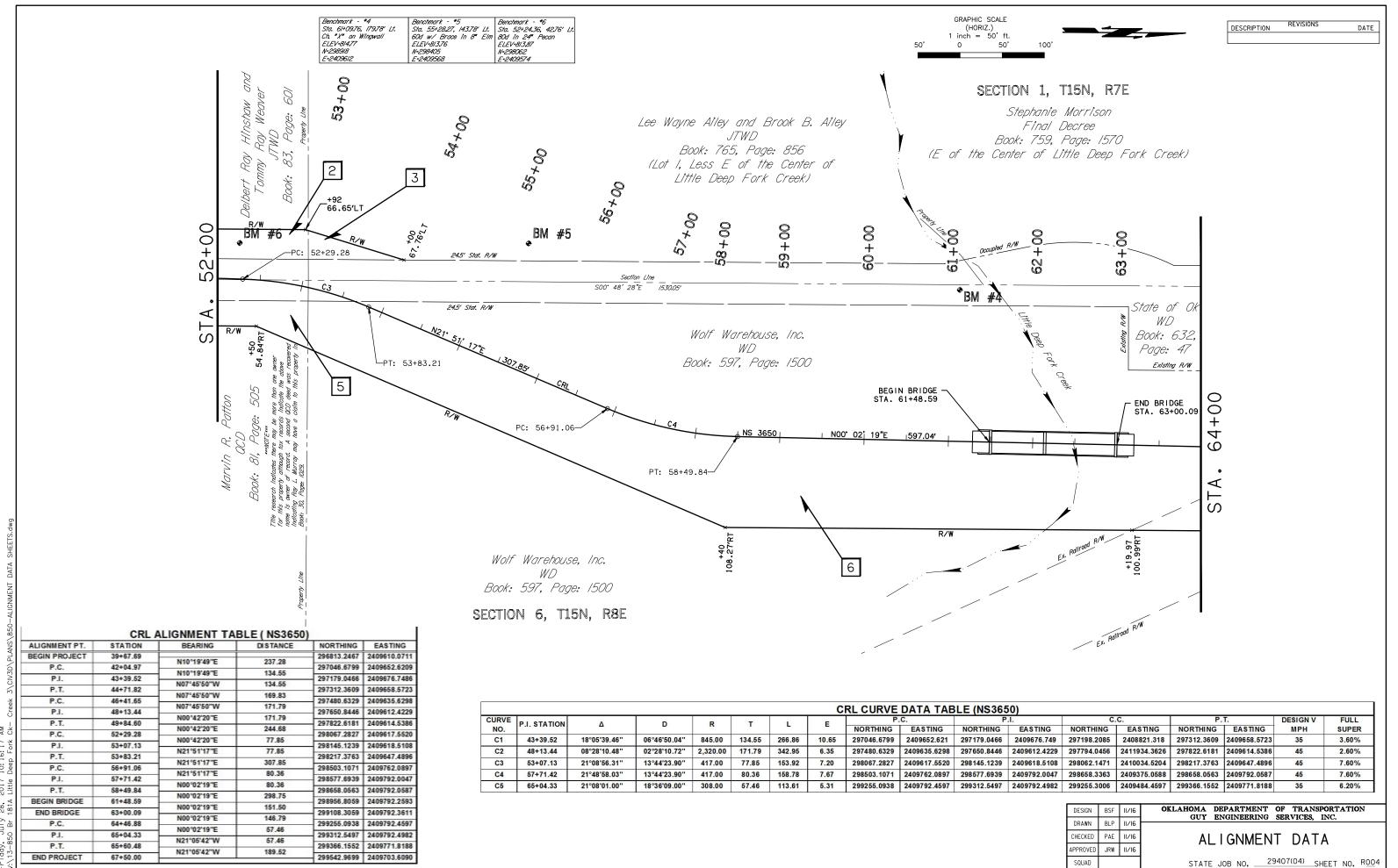
THAT ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION

# U.S. ARMY CORPS OF ENGINEERS SECTION 404 PERMIT CONDITIONS

DESCRIPTION	REVISIONS	DATE

404 PERMIT INFORMATION	PERMIT GENERAL CONDITIONS	PERMIT GENERAL CONDITIONS
NATIONWIDE PERMIT NO.	THE CONTRACTOR SHALL BE RESPONSIBLE BUT NOT LIMITED TO THE FOLLOWING HIGHLIGHTS OF THE 404 PERMIT (SEE CONTRACT FOR COMPLETE LIST):	FUELING: ALL FUELING AND SERVICING OF VEHICLES AND EQUIPMENT SHALL BE DONE ABOVE THE ORDINARY HIGH WATER MARK (OHWM).
TO BE PROVIDED AT A LATER DATE	TEMPORARY FILLS:	MATERIAL STORAGE:
SECTION 404 OF THE CLEAN WATER ACT REQUIRES PRIOR AUTHORIZATION FROM SECRETARY OF THE ARMY (CORPS) FOR THE DISCHARGE OF DREDGED OR FILL MATERIAL INTO WATERS OF THE UNITED STATES.  NO PRE-CONSTRUCTION NOTIFICATION REQUIRED: PROJECT DOES NOT REQUIRE NOTIFICATION	APPROPRIATE MEASURES MUST BE TAKEN TO MAINTAIN NORMAL DOWNSTREAM FLOWS AND MINIMIZE FLOODING TO THE MAXIMUM EXTENT PRACTICABLE, WHEN TEMPORARY STRUCTURES (WORK ROADS, WORKPADS, ETC) WORK, AND DISCHARGES, INCLUDING COFFERDAMS, ARE NECESSARY FOR CONSTRUCTION ACTIVITIES, ACCESS FILLS, OR DEWATERING OF CONSTRUCTION SITES. TEMPORARY FILLS MUST CONSIST OF MATERIALS, AND BE PLACED IN A MANNER, THAT WILL NOT BE ERODED BY EXPECTED HIGH FLOWS.TEMPORARY FILLS MUST BE REMOVED IN THEIR ENTIRETY AND THE AFFECTED AREAS RETURNED TO PRE-CONSTRUCTION ELEVATIONS. THE AREAS AFFECTED BY TEMPORARY FILLS	STORE MATERIAL AND FUEL OUTSIDE OF THE ORDINARY HIGH WATER MARK OR ANY AREA LIKELY TO FLOOD.  DEBRIS STORAGE:  THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY MATERIALS, DEBRIS, OR REFUSE WHICH HAS FALLEN INTO ANY STREAM OR RIVER CHANNELS RESULTING FROM THE EXECUTION OF THE PROJECT AS SOON AS POSSIBLE
TO THE US ARMY CORPS OF ENGINEERS (USACE) IN ORDER TO COMMENCE.	MUST BE RE VEGETATED, AS APPROPRIATE.	
PRE-CONSTRUCTION NOTIFICATION REQUIRED: RESIDENT ENGINEER MUST NOTIFY THE USACE WITHIN 30 DAYS OF THE START OF CONSTRUCTION AND 30 DAYS PRIOR TO COMPLETION OF CONSTRUCTION, FORMS LOCATED IN THE CONTRACT.	NAVIGATION:  NO ACTIVITY MAY CAUSE MORE THAN A MINIMAL ADVERSE EFFECT ON NAVIGATION WITHIN A NAVIGABLE WATER OF THE U.S. IF THIS PROJECT IS LOCATED WITHIN A NAVIGABLE WATER OF THE U.S., IT WILL BE IDENTIFIED IN THE SPECIAL CONDITIONS.	SEE NATIONWIDE PERMIT 14 IN THE CONTRACT
INDIVIDUAL PERMIT: WILL BE MONITORED CLOSELY BY THE USACE.	AQUATIC LIFE MOVEMENTS & ADVERSE EFFECTS FROM IMPOUNDMENTS:	
GENERAL PERMIT: PROJECT WITHIN A DESIGNATED CRITICAL RESOURCE WATER AND WILL REQUIRE PRE-CONSTRUCTION NOTIFICATION SEE ABOVE FOR EXPLANATION OF PRE-CONSTRUCTION NOTIFICATION.	NO ACTIVITY MAY LARGELY DISRUPT THE NECESSARY LIFE CYCLE MOVEMENTS OF THOSE SPECIES INDIGENOUS TO THE BODY OF WATER, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA. CULVERTS WILL BE DESIGNED TO PROVIDE SUFFICIENT PASSAGE FOR AQUATIC LIFE AND INSTALLED TO MAINTAIN LOW FLOW. RATE OF FLOW CANNOT BE MADE HIGHER THAN WHAT WAS PRIOR TO THE START OF CONSTRUCTION.	401 CERTIFICATION CONDITIONS
NO PERMIT REQUIRED SWT TRACKING NO.	EROSION CONTROL MEASURES SHOULD BE UTILIZED AROUND THE START OF CONSTRUCTION.  EROSION CONTROL MEASURES SHOULD BE UTILIZED AROUND THE PERIMETER OF NEW  STRUCTURES TO AVOID SILT BUILD UP. CAUTION SHOULD BE TAKEN TO MINIMIZE HARM  IF CONSTRUCTION ACTIVITIES TAKE PLACE WITHIN A STREAM OR RIVER CHANNEL AND CREATE A CONFINED BODY OF WATER, CAUSE ADVERSE EFFECTS TO THE AQUATIC SYSTEM IN ANY WAY, AND/OR RESTRICTING ITS FLOW.	THE CONTRACTOR SHALL BE RESPONSIBLE BUT NOT LIMITED TO THE FOLLOWING HIGHLIGHTS OF THE 401 CERTIFICATION (SEE CONTRACT FOR COMPLETE LIST):
SPECIAL CONDITIONS	MANAGEMENT OF WATER FLOWS:  CONSTRUCTION ACTIVITIES MAY NOT IMPEDE THE PASSAGE OF NORMAL OR HIGH FLOWS.  TO THE GREATEST EXTENT POSSIBLE, THE PRE- CONSTRUCTION COURSE, CONDITIONS,  CAPACITY AND LOCATION OF OPEN WATERS MUST BE MAINTAINED. THIS INCLUDES STREAM  CHANNELIZATION AND STORM WATER MANAGEMENT.	ALL SPILLS OF FUEL OR POLLUTANTS IN EXCESS OF FIVE GALLONS SHALL BE REPORTED TO ODEQ WITHIN 24 HRS AND REPORTED TO POLLUTION PREVENTION HOTLINE (1-800-522-0206)  ALL FUELING AND SERVICING OF VEHICLES AND EQUIPMENT SHALL BE DONE OUTSIDE THE ORDINARY HIGH WATER MARK
NAVIGABLE WATER OF THE U.S.	SUITABLE MATERIAL:  NO ACTIVITY MAY USE UNSUITABLE MATERIAL (E.G., TRASH, DEBRIS, CAR BODIES, ASPHALT, ETC.). MATERIALS USED FOR CONSTRUCTION OR DISCHARGED MUST BE FREE FROM TOXIC	THE PERMITTEE SHALL PROVIDE ACCESS TO THE PROPERTY TO ODEQ FOR INSPECTIONS.
ON-SITE MITIGATION	POLLUTANTS IN TOXIC AMOUNTS (SEE SECTION 307 OF CLEAN WATER ACT).	TON INGLECTIONS.
ON SITE WITHOUT ON	PROPER MAINTENANCE	ANY STOCKPILE SHALL BE ABOVE ORDINARY HIGH WATER MARK AND REMOVED FROM LIKELY FLOOD ZONE
ENDANGERED SPECIES PRESENT	ANY AUTHORIZED STRUCTURE OR FILL SHALL BE PROPERLY MAINTAINED, INCLUDING MAINTENANCE TO ENSURE PUBLIC SAFETY AND COMPLIANCE WITH APPLICABLE NATION WIDE PERMIT GENERAL CONDITIONS, AS WELL AS ANY ACTIVITY- SPECIFIC CONDITIONS ADDED BY THE DISTRICT ENGINEER TO AN NATIONWIDE PERMIT AUTHORIZATION	BEST MANAGEMENT PRACTICES SHOULD BE USED TO CONTROL SOIL EROSION AND MAINTAIN COMPLIANCE WITH WATER QUALITY STANDARDS.
HISTORIC PROPERTIES PRESENT		AND MAINTAIN COME EN NOT WITH WATER GOVERN CONTROL
DESIGNATED CRITICAL RESOURCE WATERS	HAZARDOUS MATERIALS: HAZARDOUS MATERIALS, CHEMICALS, FUELS, LUBRICATING OILS AND OTHER SUCH SUBSTANCES SHOULD BE STORED AWAY FROM ANY STREAM OR RIVER CHANNEL (SEE SECTION 307 OF CLEAN WATER ACT)	FOR ANY PROJECT THAT INVOLVES BANK STABILIZATION, THE PERMITTEE SHALL CONSIDER INSTALLING BIOENGINEERING PRACTICES IN PLACE OF STRUCTURAL PRACTICES (RIPRAP) TO MINIMIZE IMPACTS TO AQUATIC RESOURCES
	EQUIPMENT:	
	HEAVY EQUIPMENT WORKING IN WETLANDS OR MUDFLATS MUST BE PLACED ON MATS, OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE; FOR EXAMPLE IF WETLANDS ARE PRESENT WITHIN THE CONSTRUCTION, THE FOOTPRINT WILL BE SHOWN ON THE PLANS. MEASURES SHOULD BE TAKEN TO PREVENT DISCHARGE INTO ANY WATERS OF THE STATE (e.g. CONCRETE WASHOUT).	
	SOIL EROSION AND SEDIMENT CONTROLS:  APPROPRIATE SOIL EROSION AND SEDIMENT CONTROLS MUST BE USED AND MAINTAINED IN EFFECTIVE OPERATING CONDITION DURING CONSTRUCTION, AND ALL EXPOSED SOILS AND OTHER FILLS, AS WELL AS ANY WORK WITHIN STREAM OR RIVER CHANNELS OR BANKS, MUST BE PERMANENTLY STABILIZED AS SOON AS POSSIBLE.	
	404 COMPLIANCE: IN ORDER TO REMAIN COMPLIANT WITH THE 404 PERMIT, THE PROJECT MUST COMPLY WITH ALL FEDERAL ENVIRONMENTAL PROTECTION LAWS ASSOCIATED AND, THE ENVIRONMENTAL COMMITMENTS AS SHOWN ON THE PLANS. THIS INCLUDES BUT IS NOT LIMITED TO COMPLIANCE WITH ALL ENVIRONMENTAL NOTES IN THE PLANS, INCLUDING CULTURAL RESOURCES, HAZARDOUS WASTE, BIOLOGICAL FOR PROTECTED SPECIES, AND DEQ STORM WATER REGULATIONS AS THEY PERTAIN TO THE SWMP SHEET WITHIN THE PLANS. ALL OF THE 404 PERMIT GENERAL AND SPECIFIC CONDITIONS MUST BE ADHERED TO. A COPY OF THESE CONDITIONS CAN BE FOUND IN THE CONTRACT WITH THE 404 PERMIT.	DESIGN BSF 07/17 DRAWN BLP 07/17 CHECKED PAE 07/17 APPROVED JRW 07/17 SOUAD  DEPARTMENT OF TRANSPORTATION SERVICES, INC.  SECTION 404 PERMIT COMPLIANCE
DEVICED 04 / 01 / 2015	CHEET NI IMPEDC:	





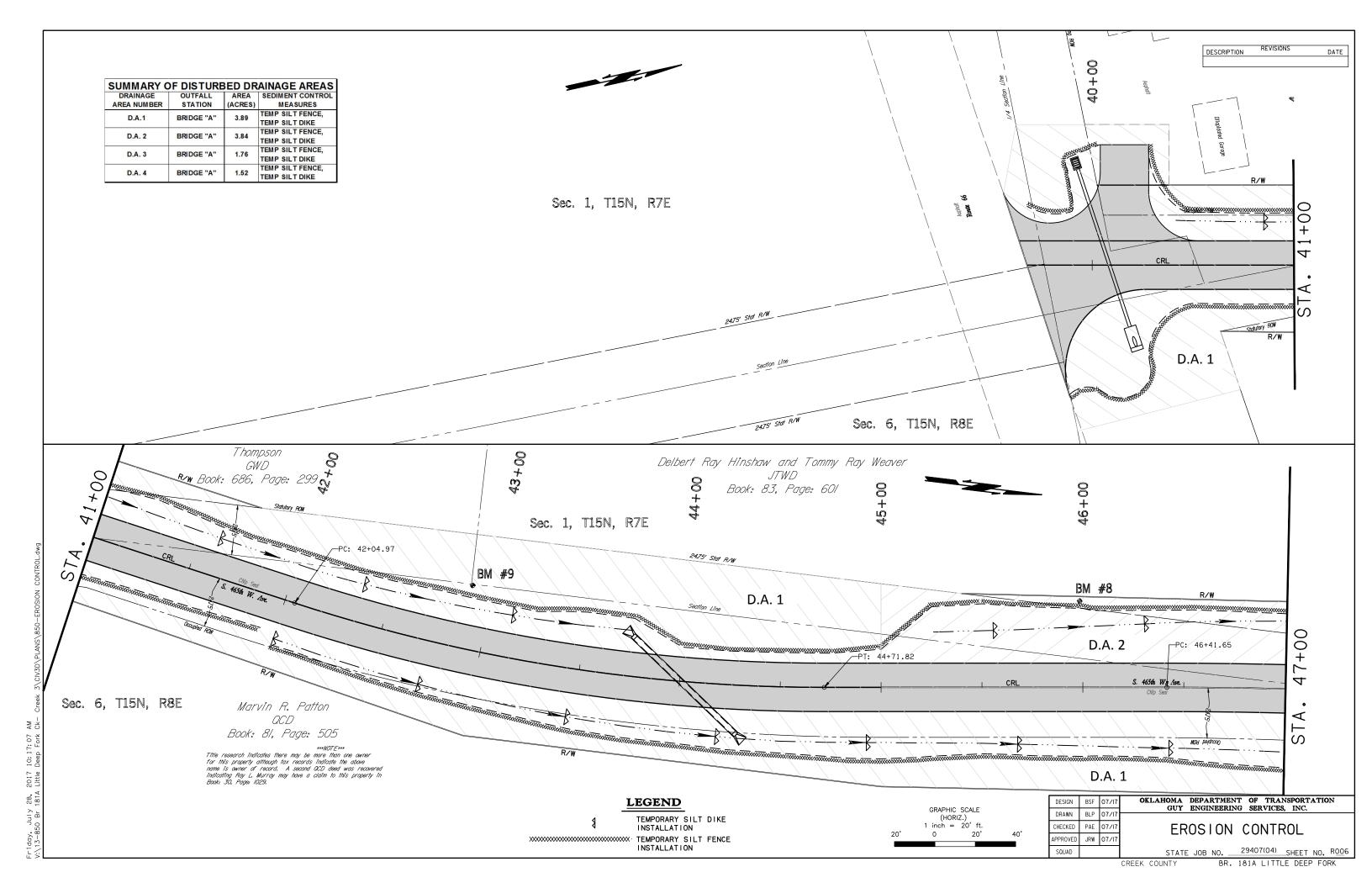
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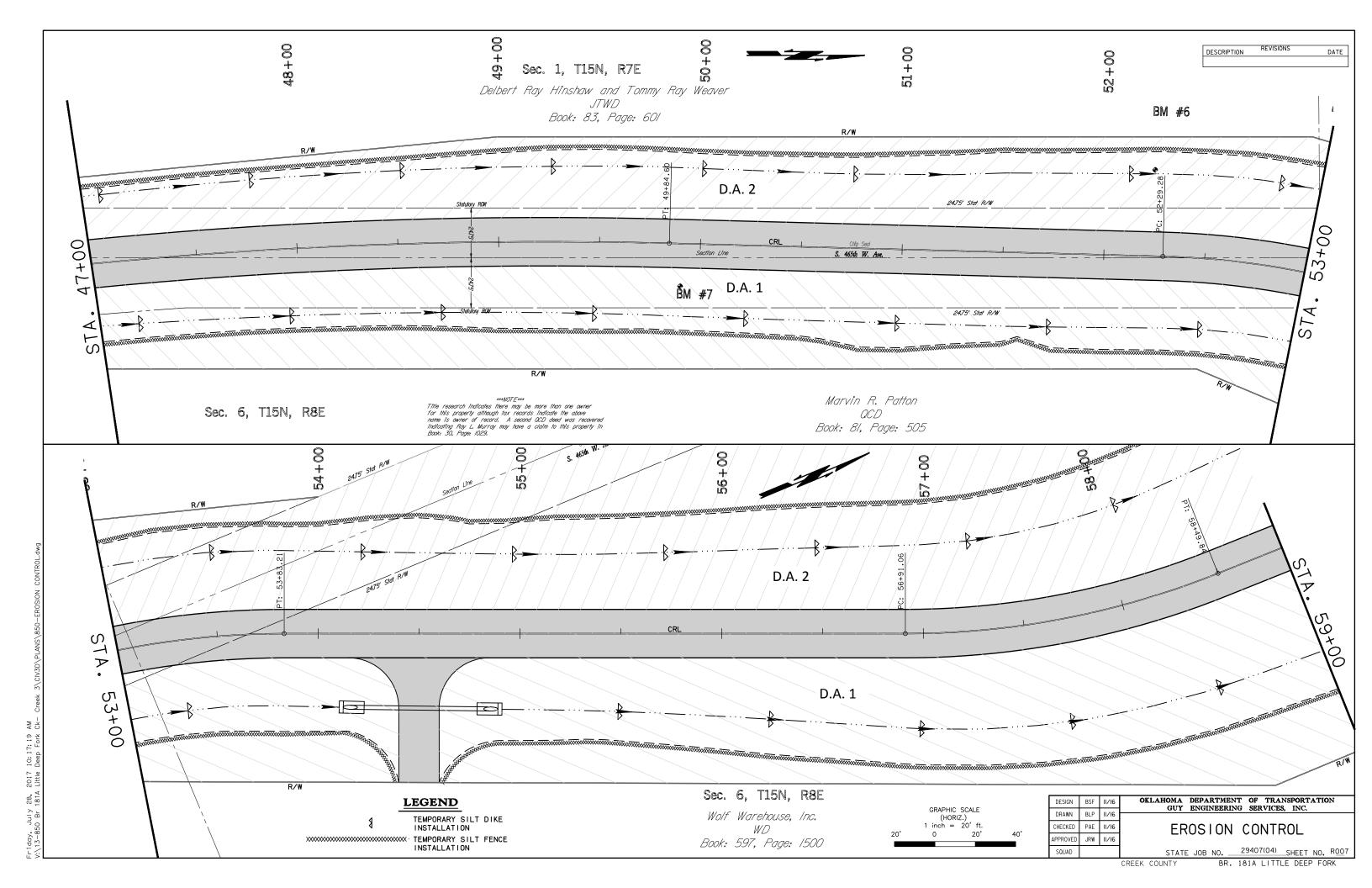
BR. 181A LITTLE DEEP FORK

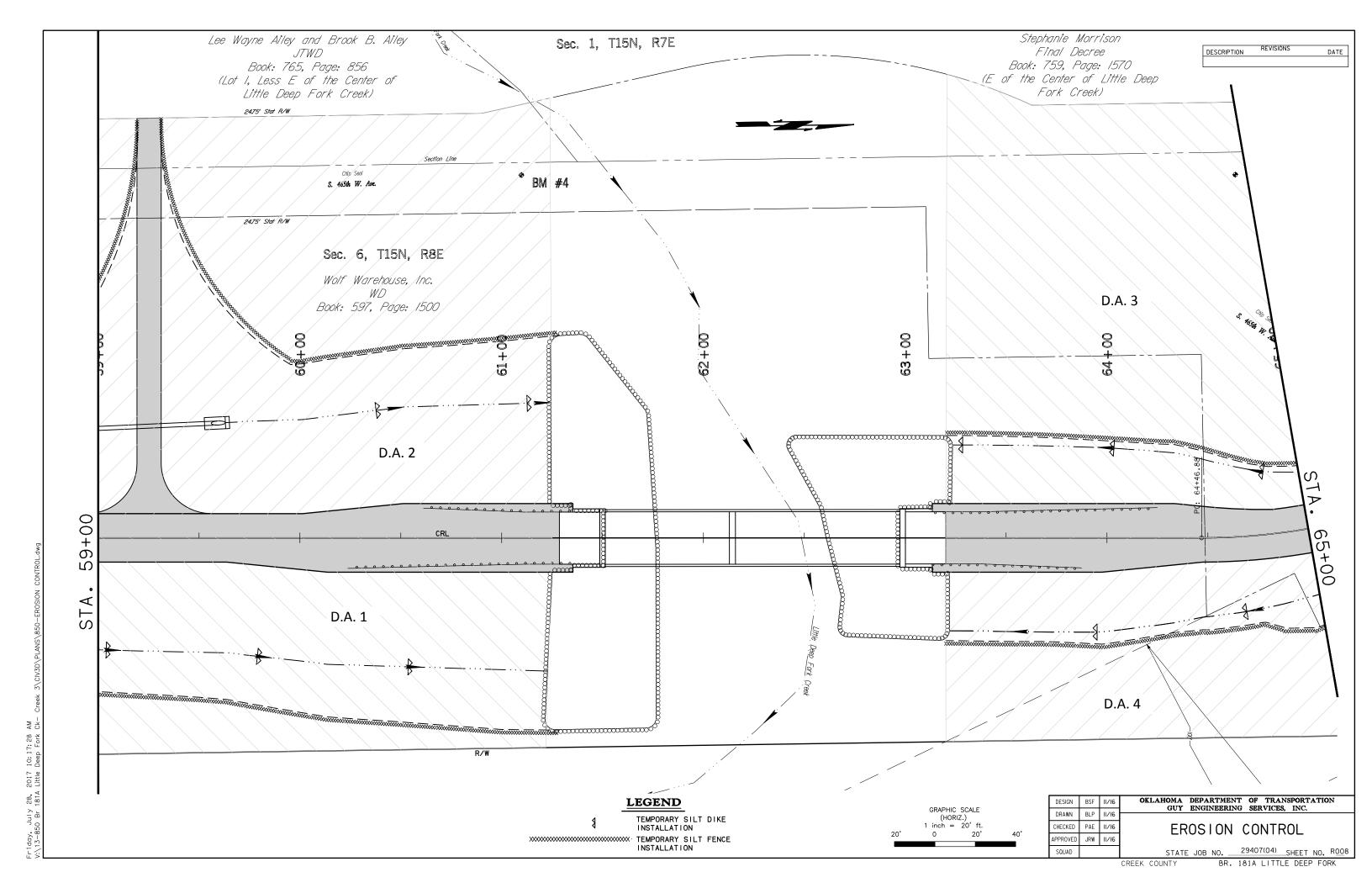
Stephanie Morrison Stephanie Morrison Transfer-on-Death Deed DESCRIPTION DATE Final Decree SECTION 36, T16N, R7E Book: 721, Page: 179 Book: 759, Page: 1570 (E/2 of the NE/4 and the SE/4 less approx. 1.5/ (E of the Center of Little acres owned by OTA, of the Section 36, T-16-N, R-7-E) Deep Fork Creek) CRL CURVE DATA TABLE (NS3650) CURVE P.I. STATION D NORTHING EASTING NORTHING EASTING NORTHING EASTING NORTHING EASTING SUPER ن و C5 65+04.33 21°08'01 00" 18°36′09.00" 308.00 57.46 113.61 5.31 299255.0938 2409792.4597 299312.5497 2409792.4982 299255.3006 2409484.4597 299366.1552 2409771.8188 6 20% S00° 48' 28"E S00° 55' 16"E 2645.34 ◆ State of Ok WD WD 24.5' Stat. R/W **§**632 Book: 632, Page: 47 X45 STA. 66+00 (NS3650)= STA. 100+00 (W 241ST ST S) NW Corner Sec. 6 T-15-N, R-8-E STA. 100+12.09 BEGIN CONSTR. Ō W 241ST ST S Turnoike -PC: 64+46.88 -60d in Twin 4 Timothy E. McCormick \_N21° 05' 42"W Ó END PROJECT 189.52 Correction JTWD N:299467.97 E:2409598.55 101+00 Book: 898, Page: 5/4 (Part of the NW/4 and SW/4, lying North  $\triangleleft$ 3 1/2" Fence Postof OTA ROW in Section 31. T-16-N. R-8-E) S PT: 65+60.48-/N70° 26' 42"E\_ 128.70 +28.89 652 112.29'RT Benchmark - #3 Benchmark - \*2 GRAPHIC SCALE Sta. 64+86.84, 178.89' Lt. Sta. 103+50.86, 43.16' Lt. 80d In 32" Sycamore PC: 101+28.70-(HORIZ.) 1 inch = 50' ft. 80d In 12" Elm ELEV=815.37 ELEV=831.74 102+00 N=299271 N=2995// 6 F=2409612 F=2410097 OTA Wolf Warehouse, Inc. SECTION 31, T16N, R8E WD CRL ALIGNMENT TABLE (NS3650) Book: 626 Page: 85 Book: 597, Page: 1500 ALIGNMENT PT. STATION NORTHING EASTING BEARING BEGIN PROJECT 296813.2467 2409610.0711 39+67 69 N10°19'49"E 297046.6799 2409652.6209 PT: 102+ N/4 Corner Sec. 6 P.C. 42+04.97 N10°19'49"E P.I. 43+39.52 297179.0466 2409676.7486 T-15-N, R-8-E 134.55 N07°45'50"W 103 + 00P.T. 44+71.82 297312.3609 2409658.5723 N07°45'50"W 169.83 46+41.65 297480.6329 2409635.6298 -2" Steel Post N07°45'50"W 171.79 297650.8446 2409612.4229 P.I. 48+13.44 N88° 46' 48"E 207.73 171.79 N00°42'20"E -40d in 18" Elm P.T. 49+84.60 297822.6181 2409614.5386 N00°42'20"E -40d in 20" Pecai END CONSTR P.C. 52+29.28 298067.2827 2409617.5520 N00°42'20"E 77.85 STA. 103+50.00 |BM #2 53+07 13 298145 1239 2409618 5108 PI N21°51'17"E 77.85 53+83.21 298217.3763 2409647.4896 P.T W. 241st St. S. 298503.1071 2409762.0897 P.C. 56+91.06 +93.90 Gravel N21°51'17"E 80.36 \_NO1: 11' 18"W 9.23'*Clyde and* \$ P.I. 57+71.42 298577.6939 2409792.0047 28.89'RT N00°02'19"E 80.36 P.T. 58+49.84 298658.0563 2409792.0587 -ODOT Brass Cap N00°02'19"E 298.75 15.59'RT BEGIN BRIDGE 298956 8059 2409792 2593 N:299520.35 61+48.59 Renee' Smith? 6" Steel Posi N00°02'19"E 151.50 E:24/227/.3/ END INCIDENTAL CONST. END BRIDGE 63+00.09 299108.3059 2409792.3611 N00°02'19"E Family Trust STA. 103+93.92 299255.0938 2409792.4597 P.C. 64+46.88 N00°02'19"E 57.46 QCDPI 65+04.33 299312.5497 2409792.4982 SECTION 6, T15N, R8E N21°05'42"W 57.46 65+60.48 299366.1552 2409771.8188 P.T. Book: 575, 299542.9699 2409703.6090 END PROJECT 67+50.00 Page: 588, CRL ALIGNMENT TABLE (W 241ST ST S) ALIGNMENT PT. STATION 299403.0143 2409757.5997 BEGIN CRL 100+00.00 N70°26'42F 101+28.70 299446.0915 2409878.8767 N70°26'42E 299464.9972 2409932.1027 101+85.18 N88°46'48E 55.52 299466.1997 2409988.5739 PT 102+40 70 N88°46'48E 109.30 1/4 Section Line 1/4 Section Line END PROJECT 103+50.00 299468.5266 2410097.8466 NO1° 05' 58"W 5292.20 N88°46'48E 43.92 S00\* 41' 49"E 5276.9/ END INCIDENTAL 299469.4616 2410141.7583 103+93.92 OKLAHOMA DEPARTMENT OF TRANSPORTATION DESIGN BSF 02/1 CRL CURVE DATA TABLE (W 241ST ST S) DRAWN BLP CURVE P.I. STATION CHECKED PAE 02/17 Δ D R Т L NORTHING EASTING NORTHING EASTING NORTHING EASTING NORTHING EASTING ALIGNMENT DATA SUPER APPROVED JRW 02/17 C6 101+85.18 18°20'06.07" 16°22'12.80" 350.00 56.48 112.00 4.53 299446.0915 2409878.8767 299464.9972 2409932.1027 299116.2790 2409996.0251 299466.1997 2409988.5739 6.00% STATE JOB NO. 29407(04) SHEET NO. ROO5 SQUAD

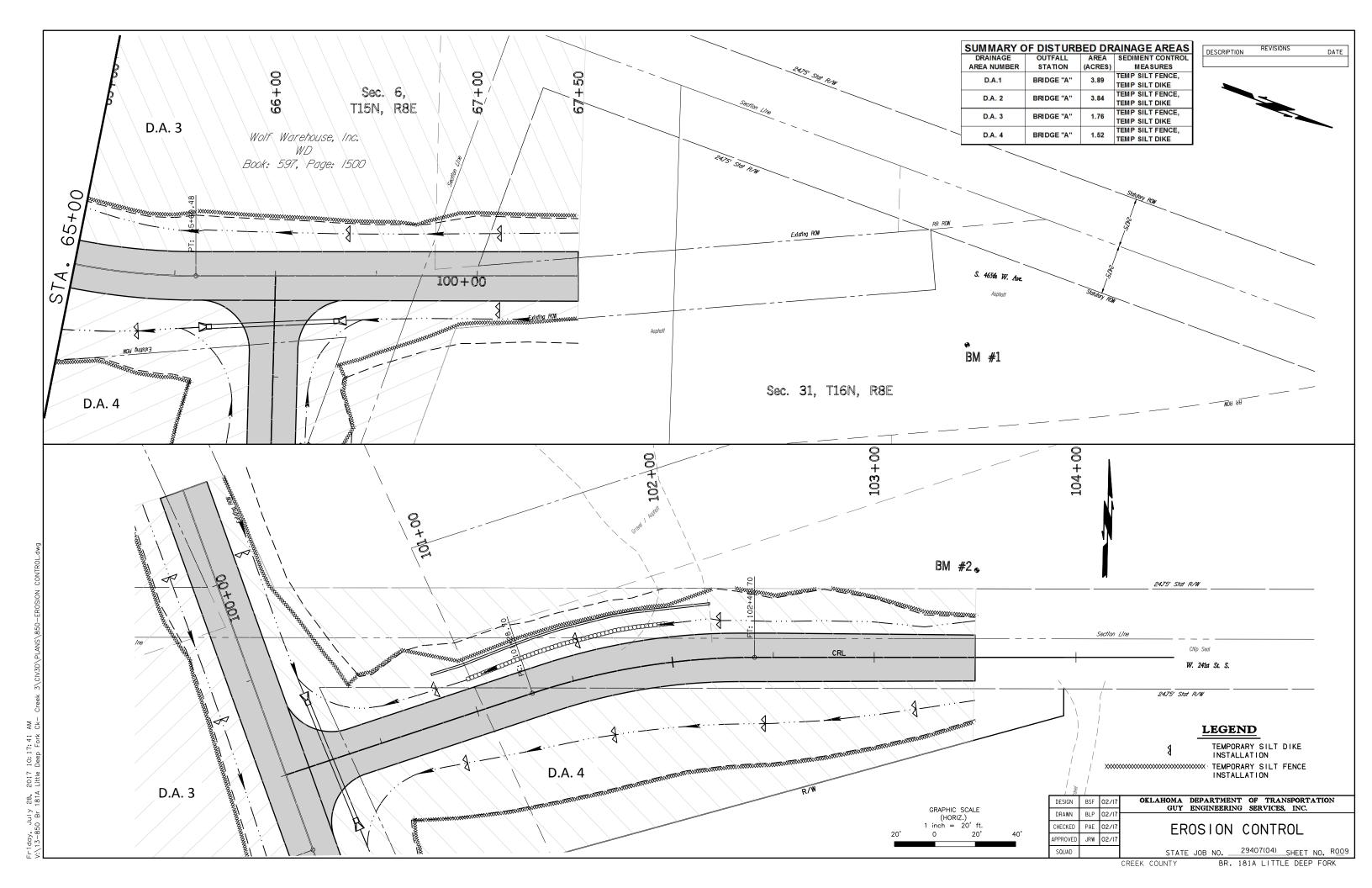
CREEK COUNTY

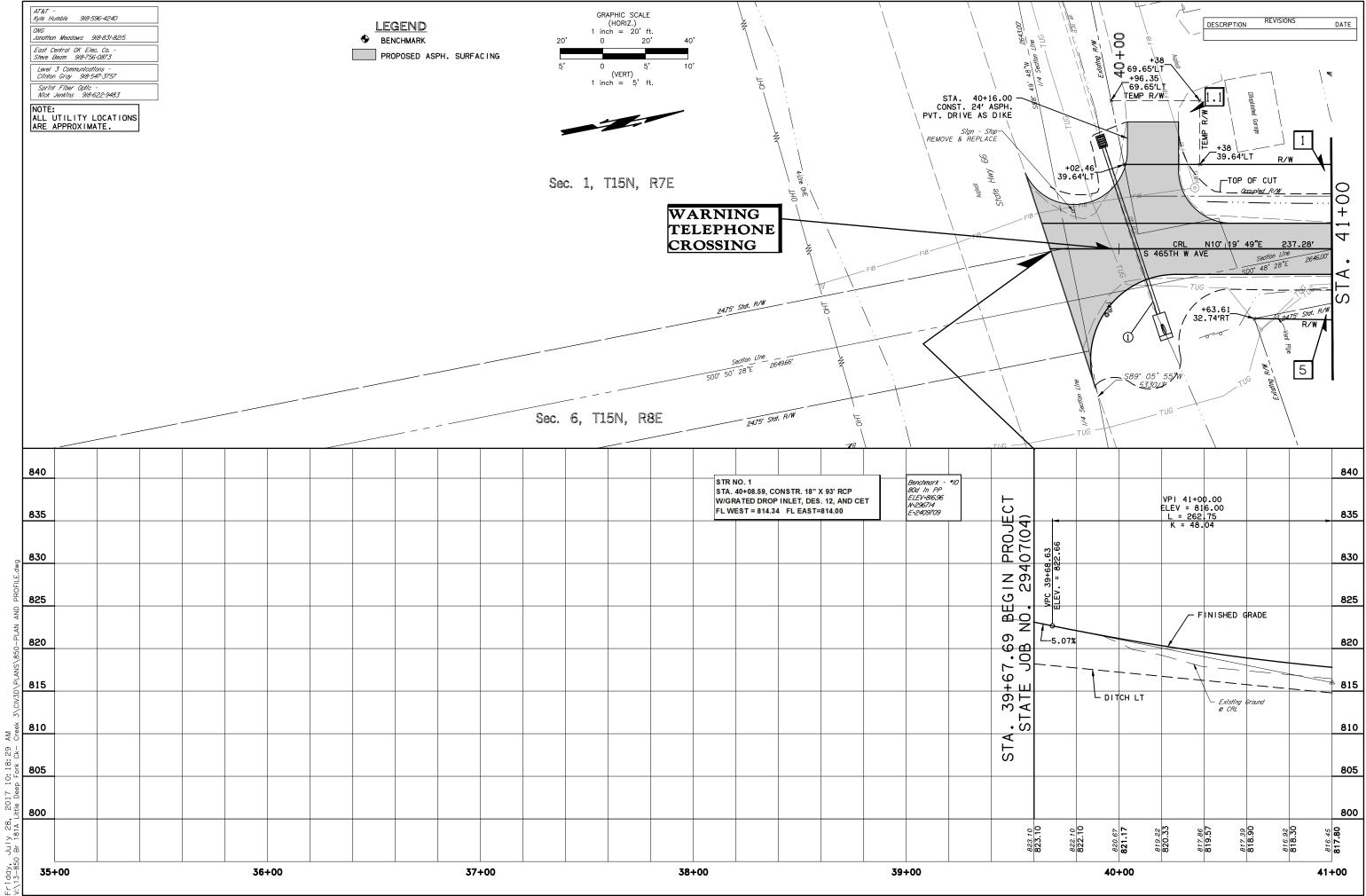
BR. 181A LITTLE DEEP FORK

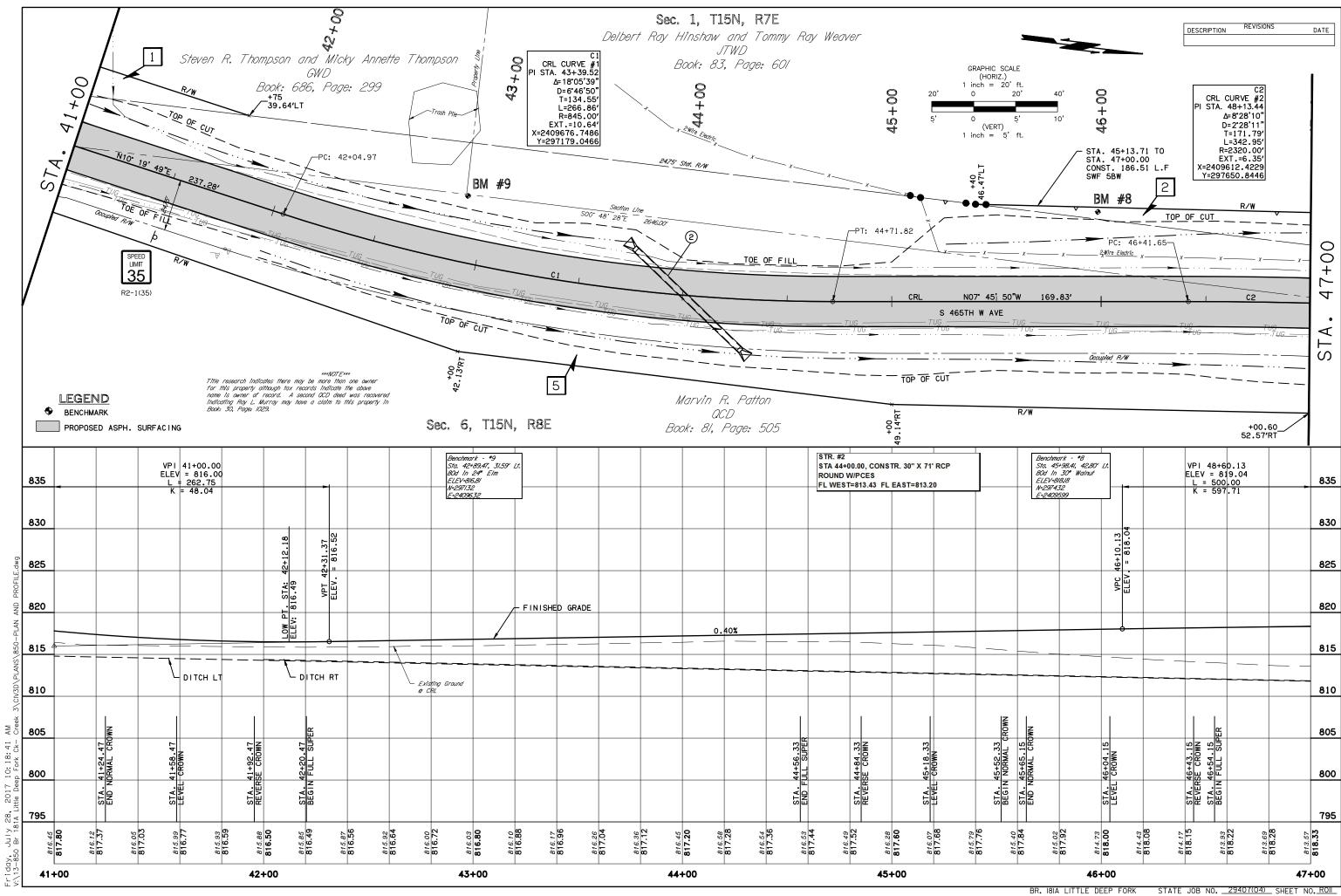


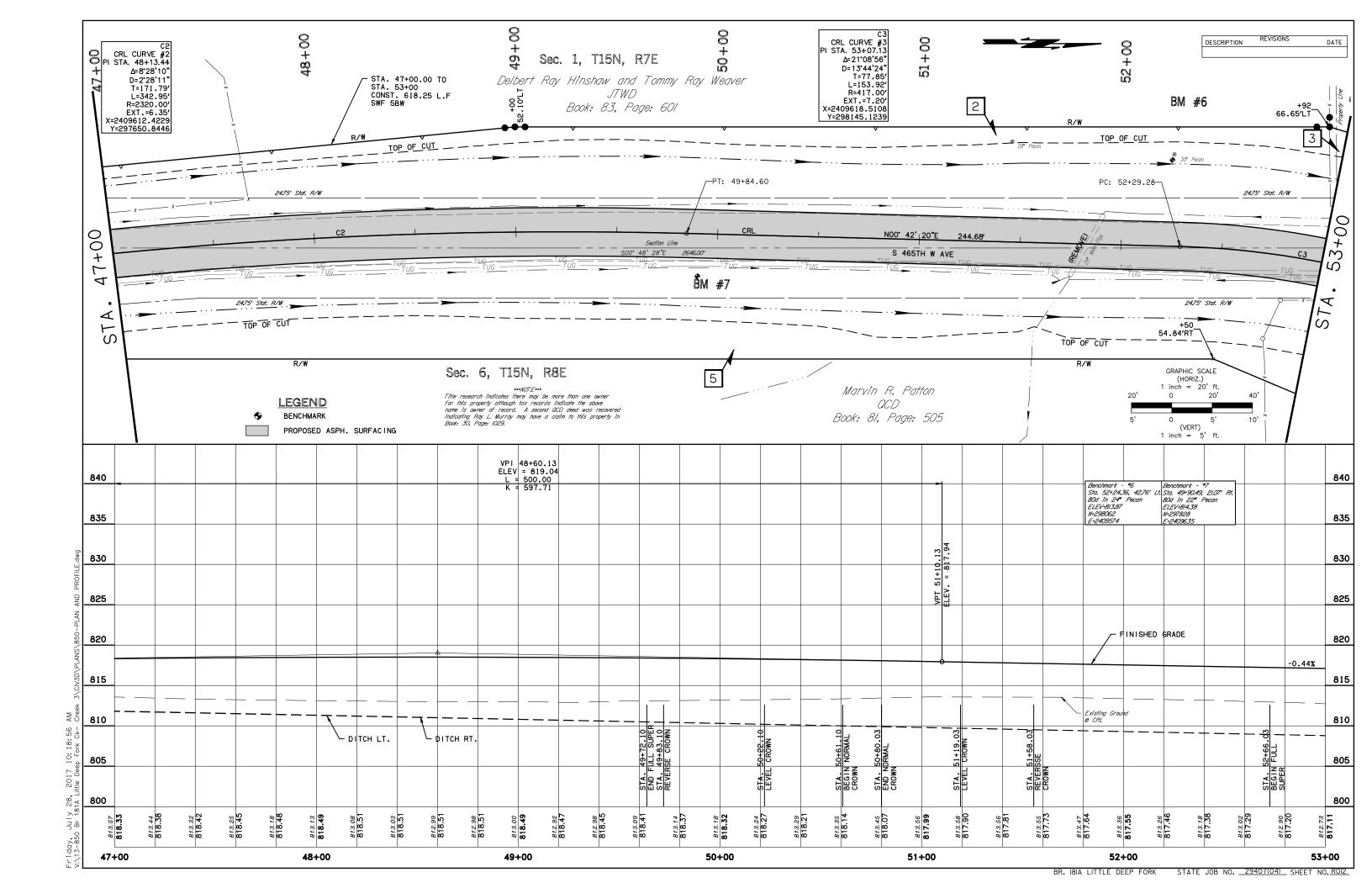


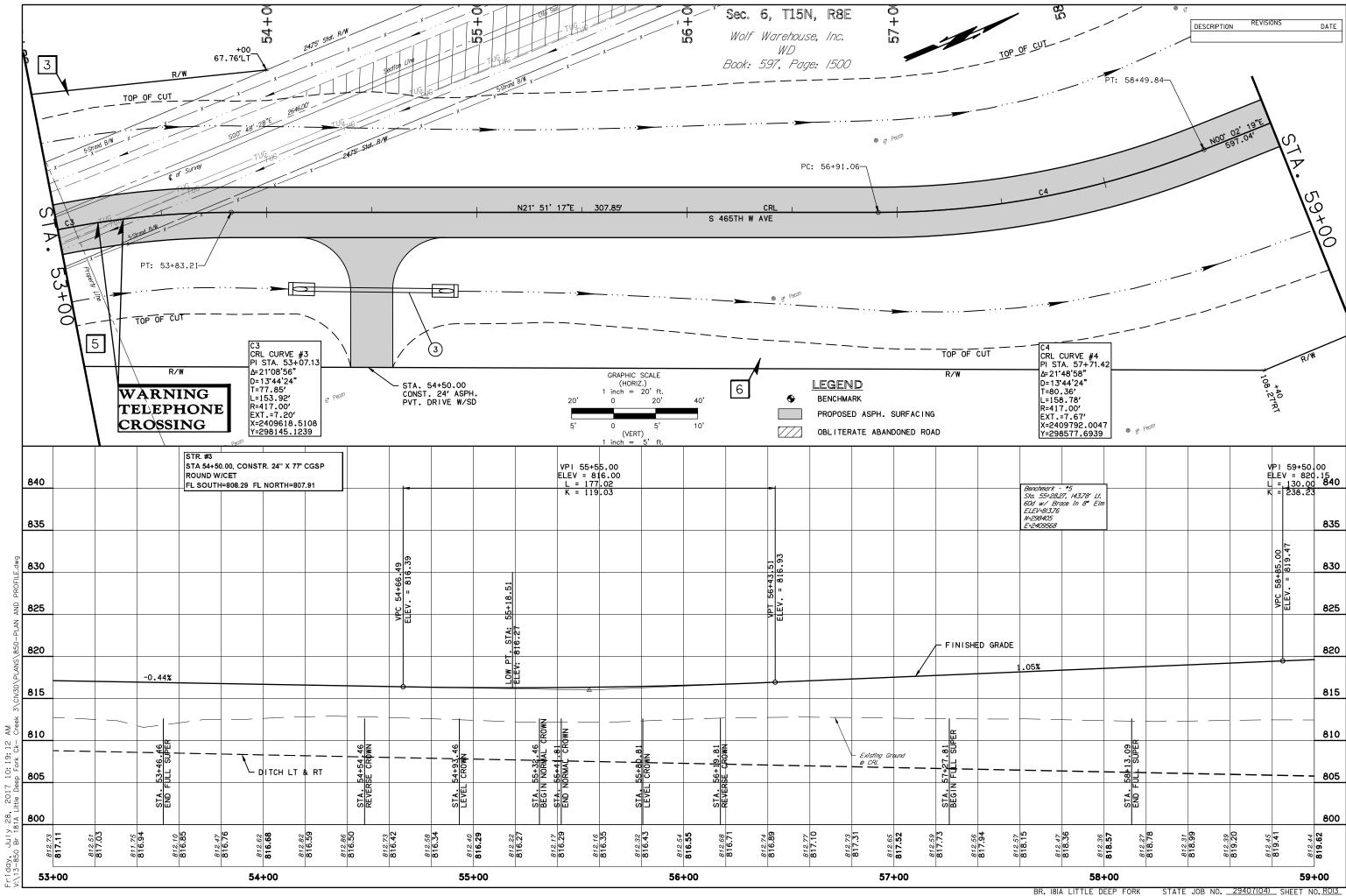


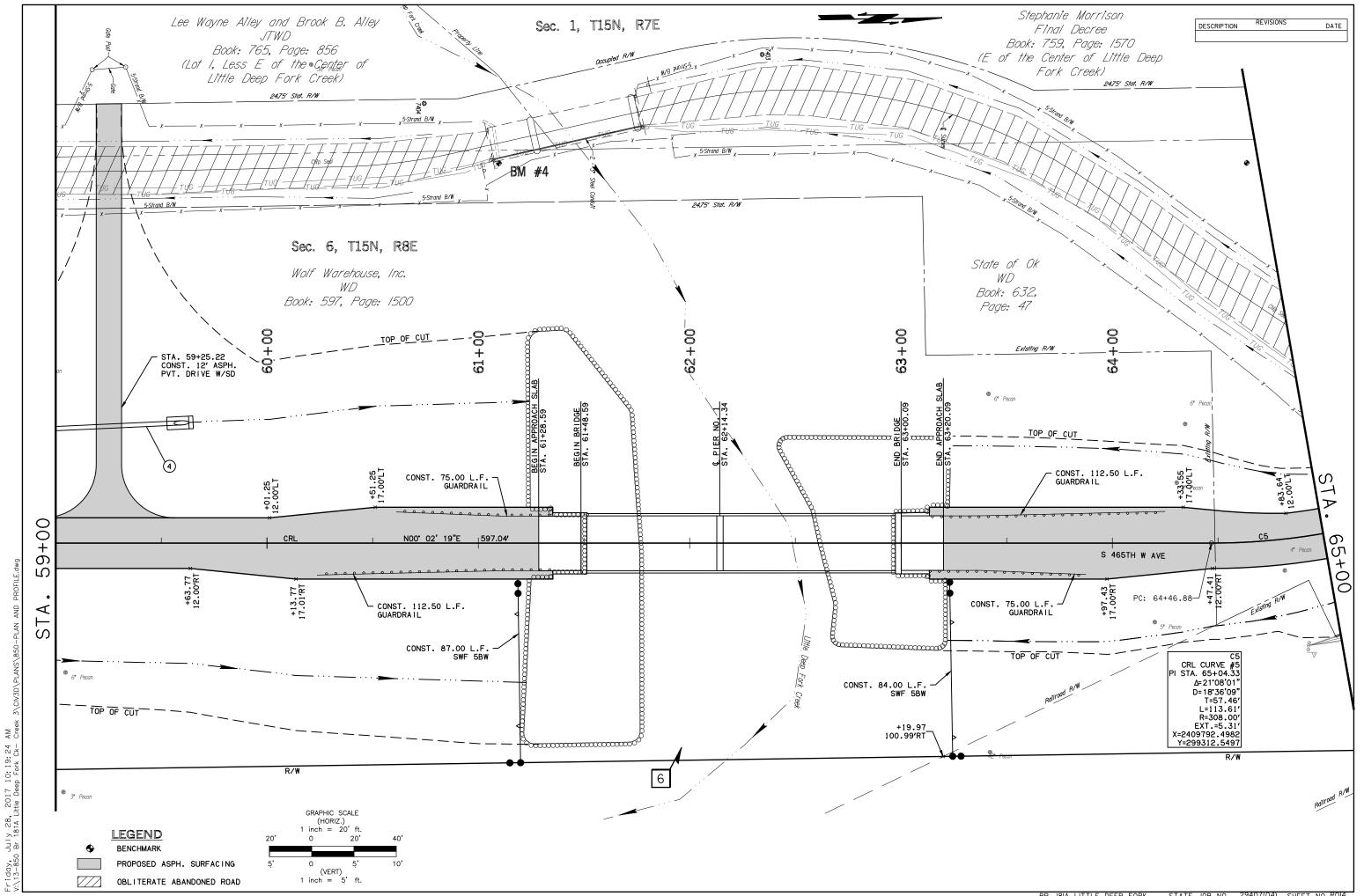




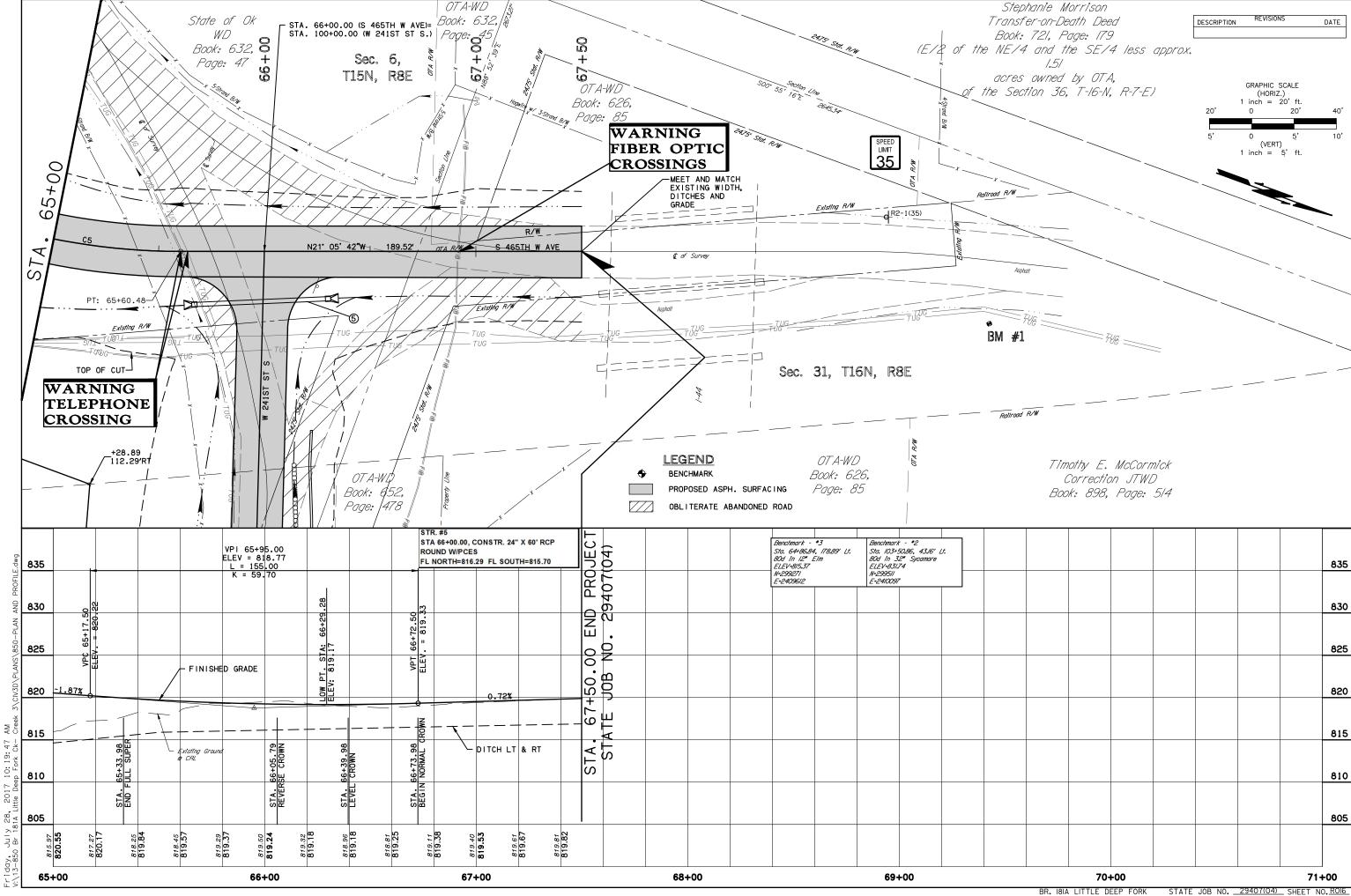


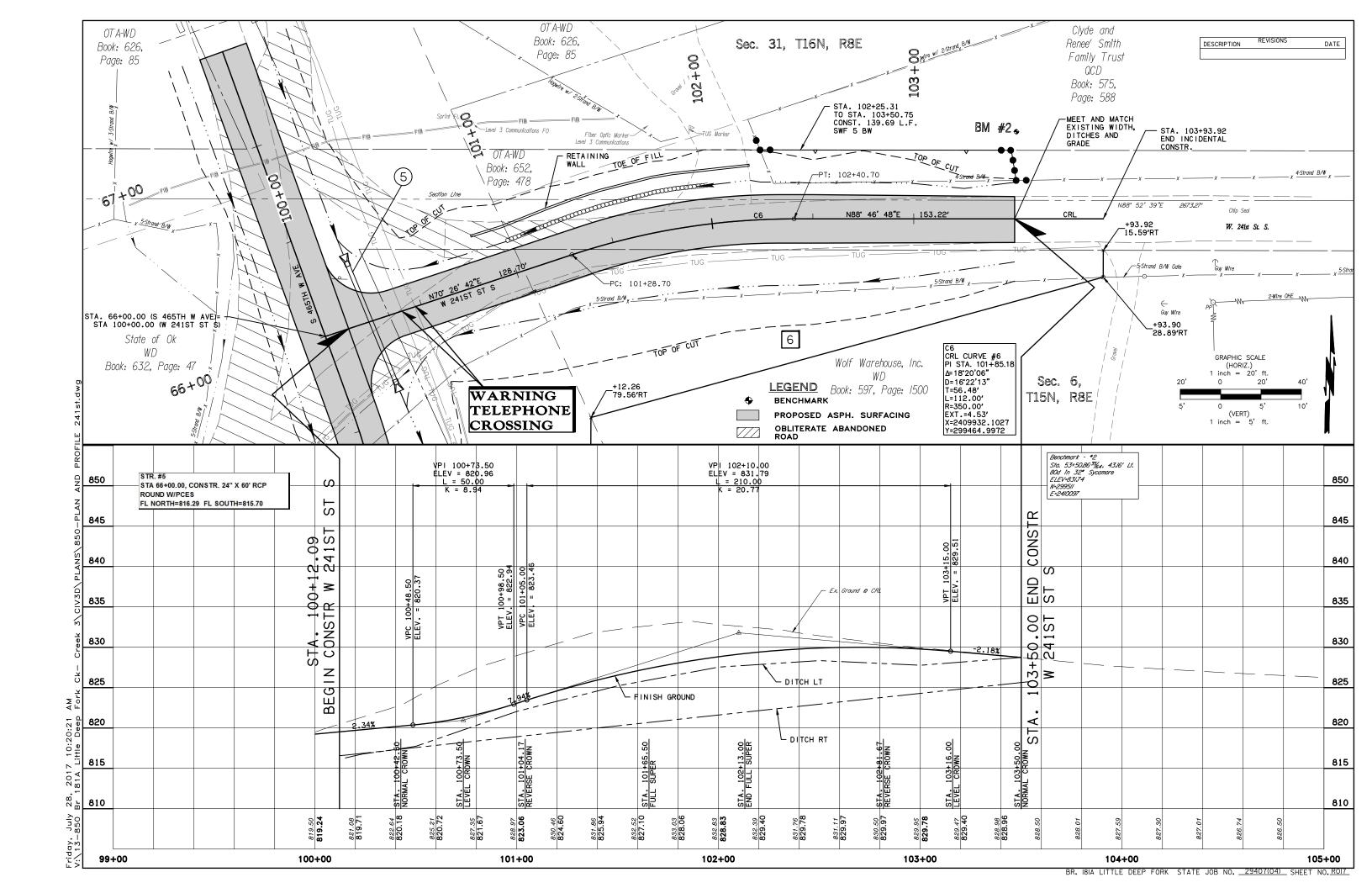


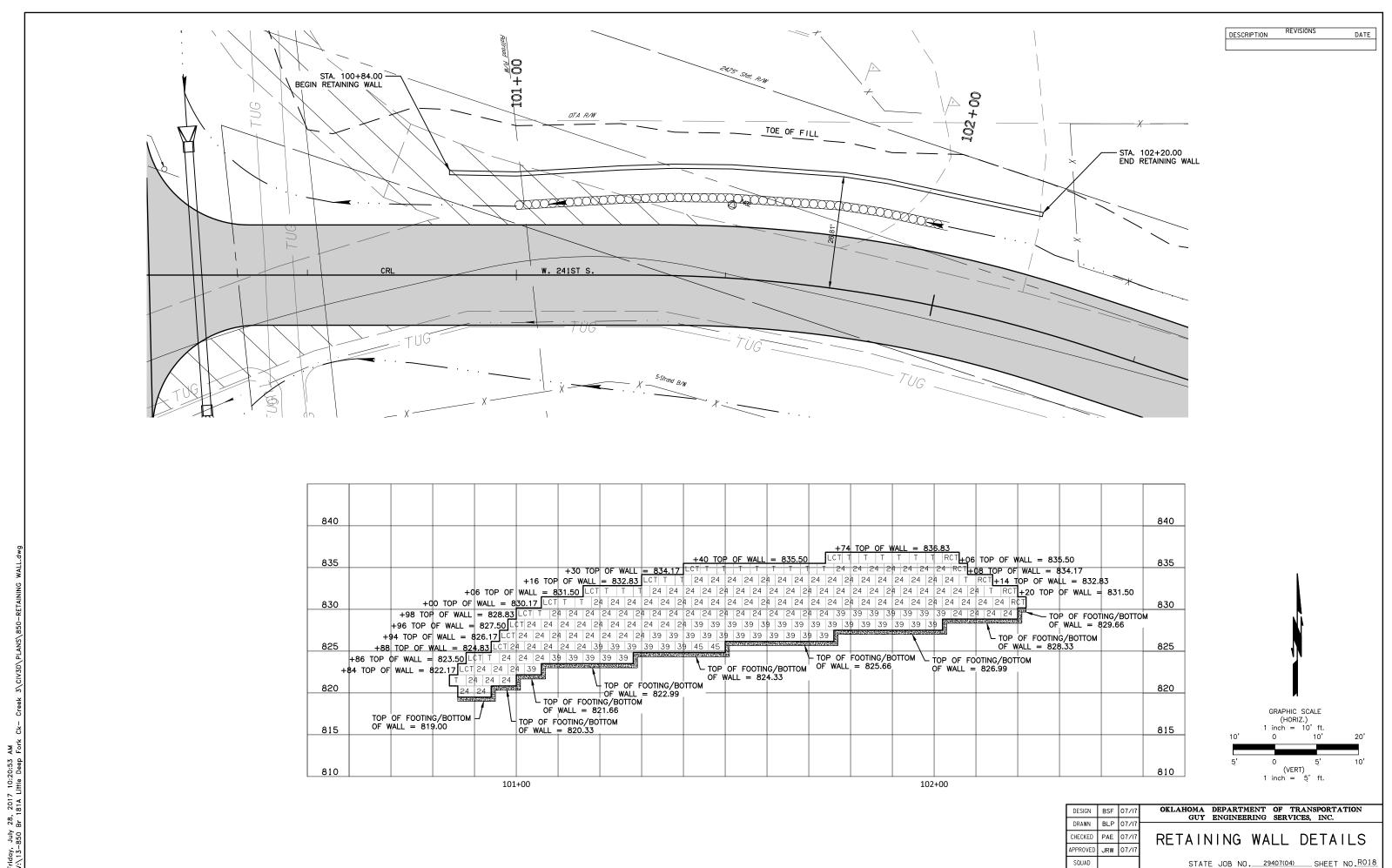




GRAPHIC SCALE (HORIZ.) 1 inch = 20' ft. REVISIONS DESCRIPTION DATE (VERT) 1 inch = 5 ft. 865 BRIDGE 'A' BRIDGE "A" CRL STA. 62+24.34 CONSTRUCT HYDRAULIC DATA 860 860 STA 59+25.22, CONSTR. 24" X 75' CGSP 65'-85' TYPE III PC BEAM SPANS, D.A. = 63.91 SQ. MI. Q100 = 18,700 CFS ROUND W/CET 26'-0" CLEAR ROADWAY, W/TR-3 CONCRETE RAILS V100 = 7.88 FPS FL SOUTH=805.87 FL NORTH=805.50 AND APPROACH SLABS. LOW BEAM ELEV. = 816.33 CHW100 = 819.27 FT Q10 = 7,970 CFS CONT. SCOUR DEPTH = 0.00 FT 855 855 V10 = 6.14 FPS PIER SCOUR DEPTH = 5.59 FT Ex. Bridge Data: CL Sta. 61+39.05 CHW10 = 815.94 FT TOTAL SCOUR DEPTH = 5.59 FT 72' Pony Truss 14' Clear Roadway Low Beam Elev. = 815.46 QOT (13.4 YR) = 8897 CFS Q25 = 12,100 CFS Benchmark - \*4 Sta. 61+09.76, 179.78' Lt. Ch. \*X\* on Wingwall ELEV-814.77 VOT (13.4 YR) = 6.57 FPS CHWOT (13.4 YR) = 816.27 FT (RDY) V25 = 8.04 FPS 850 850 CHW25 = 817.41 FT N=298918 E=2409612 BRIDGE LENGTH = 151.50' 845 845 BRIDGE "A" VPI 59+50.00 ELEV = 820.15 L = 130.00 K = 238.23 VPI 64+00.00 ELEV = 822.42 L = 135.00 K = \$6.80 840 840 835 835 VPT 60+15.00 ELEV. = 820.48 830 830 825 825 - FINISHED GRADE 0.50% -1.87% 820 820 815 815 - LOW CHORD= 810 810 Existing Ground
© CRL └ DITCH LT & RT 805 805 L DITCH LT & RT 800 800 F=801.56 795 795 AM S 790 790 10: 19: 34 STA. 59+99.09 BEGIN NORMAL CI STA. 63+33.38 END NORMAL CRO STA. 64+73.38 BEGIN FULL SUP STA. 59+60.09 LEVEL CROWN 785 785 2017 tle Dee iday, July 28, <sub>1</sub>13—850 Br 181A Li 780 813.53 822.15 813.08 820.13 815.19 820.92 813.52 820.50 813.59 820.60 813.79 814.01 820.80 814.15 **821.01** 814.30 814.53 821.21 812.33 821.51 802.08 821.61 802.66 **821.7**1 813.57 **822.11** 813.80 **822.02** 814.33 821.29 815.97 **820.55** 812.77 819.98 813.25 820.27 813.42 **820.4**0 814.11 814.46 814.20 **821.41** 821.81 813.74 **821.91** 814.00 **821.84** 814.11 59+00 60+00 61+00 62+00 63+00 64+00 65+00 BR. I8IA LITTLE DEEP FORK STATE JOB NO. 29407(04) SHEET NO. ROIS

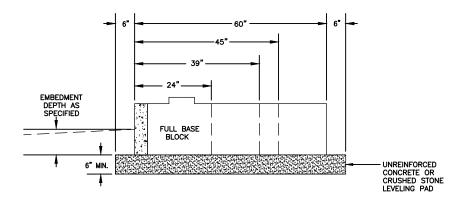






CREEK COUNTY

BR. 181A LITTLE DEEP FORK



- NOTES:

  1. LEVELING PAD SHOULD BE AS SPECIFIED BY THE DESIGN ENGINEER IN THE PROJECT PLAN SET.

  2. THE WIDTH OF THE LEVELING PAD MUST EXTEND 6" (MINIMUM) IN FRONT AND 6" (MINIMUM) IN BACK OF THE BASE BLOCK. AS A RESULT, THE TYPICAL WIDTH OF LEVELING PAD WOULD BE:

  24" DEEP BASE BLOCK...LEVELING PAD WIDTH IS 36" 39" DEEP BASE BLOCK...LEVELING PAD WIDTH IS 51" 45" DEEP BASE BLOCK...LEVELING PAD WIDTH IS 57"
- 45" DEEP BASE BLOCK...LEVELING PAD WIDTH IS 57"
  60" DEEP BASE BLOCK AND CHECK FOR LEVEL FROM FRONT TO BACK.

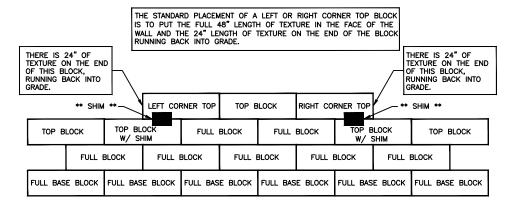
  3. SET THE BASE BLOCK AND CHECK FOR LEVEL FROM FRONT TO BACK.

  4. COMPACTION TO THE SPECIFIED EMBEDMENT DEPTH SHALL BE DONE IN FRONT OF THE BASE BLOCK BEFORE COMPACTION IS DONE BEHIND THE BASE BLOCK. THIS REDUCES THE CHANCE THAT COMPACTION BEHIND THE BASE BLOCK WILL ROLL THE BASE BLOCK FORWARD.

  5. SEE BLOCK SPECIFICATION & INSTALLATION INSTRUCTIONS FOR MORE DETAILS.

### TYPICAL BASE BLOCK PLACEMENT

Not To Scale

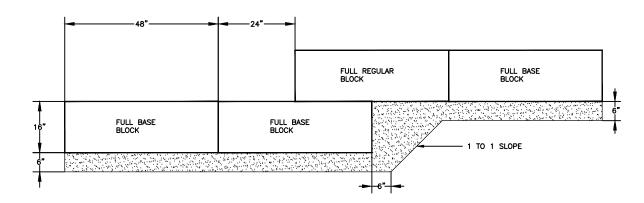


\*\* NOTE: A CONCRETE "SHIM" MUST BE PLACED BETWEEN THE TOP BLOCK AND A LEFT OR RIGHT CORNER TOP BLOCK AT EACH POINT IN THE WALL WHERE THE TOP OF THE WALL STEPS UP. USE A STANDARD CONCRETE MASONRY UNIT (CMU) FOR THE SHIM. THESE ARE GENERALLY AVAILABLE AT A LUMBER YARD, READY MIX PLANT OR MASONRY BLOCK PLANT. THE THICKNESS OF THE "SHIM" SHOULD BE 7 1/2" (YOU MAY NEED TO USE A CHOP SAW TO CUT 1/2" OFF AN 8" CMU). THE SHIM SHOULD BE GLUED TO BOTH THE TOP BLOCK ON WHICH IT IS PLACED AND ALSO TO THE LEFT OR RIGHT CORNER TOP BLOCK THAT IS PLACED ON TOP OF THE SHIM (PL PREMIUM IS THE RECOMMENDED CONCRETE ADHESIVE). ANY REMAINING VOID BETWEEN THE TOP BLOCK AND THE RIGHT CORNER TOP BLOCK SHOULD BE FILLED WITH CRUSHED STONE AND SILTS.

(FULL 48" TEXTURED FACE OF THE CORNER BLOCK (RIGHT OR LEFT) PLACED IN FACE OF THE WALL...STANDARD PLACEMENT)

### TOP OF WALL STEP UP STANDARD PLACEMENT

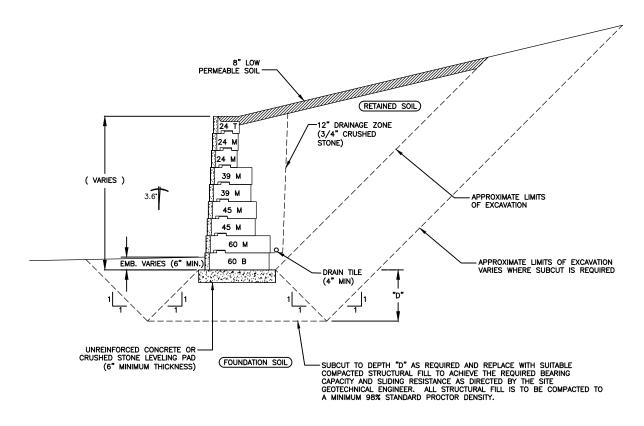
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NOTE: BLOCK MUST BE PLACED ON A MINIMUM OF 6" OF CRUSHED STONE (GENERALLY 3/4" DOWN OR CLASS 5) OR LEAN CONCRETE AS SPECIFIED IN THE SITE SPECIFIC WALL PLAN DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER. GENERALLY THE BASE MATERIAL MUST BE COMPACTED TO 95 PERCENT OF STANDARD PROCTOR.

### TYPCIAL BASE ROW STEP UP

Not To Scale



## TYPICAL GRAVITY WALL CROSS SECTION

Not To Scale

DESIGN	BSF	07/17	OKLAHOMA DEPARTMENT OF TRANSPORTATION GUY ENGINEERING SERVICES, INC.	
DRAWN	BLP	07/17		
CHECKED	PAE	07/17	RETAINING WALL DETAILS	
APPROVED	JRW	07/17	THE PROPERTY OF THE PROPERTY O	
SQUAD		·	STATE JOB NO. 29407(04) SHEET NO.R019	

2017 10:21:11 AM 81A Little Deep For July 850

DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 840 CONST 24' ASPH PVT DRIVE AS DIKE 830 830 TEMP R/W -2.00% 820 820 -5.27% 810 810 L<sub>160</sub> 800 -150 -120 -110 -100 -70 100 120 130 150 40+16.00 4.26 49.44 1.92 13.49 840 STR NO. 1 CAUTION STA. 40+08.59, CONSTR. 18" X 93' RCP 830 W/GRATED DROP INLET, DES. 12, AND CET TELEPHONE 830 FL WEST = 814.34 FL EAST=814.00 CROSSING TEMP R/W 820 820 810 810 (1) 800 800 -160 -150 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 40+08.59 48.85 2.19 9.72 11.03 840 840 830 830 28, 2017 10:22:00 AM 181A Little Deep Fork 820 -- 8<del>20</del> 810 810 BEGIN PROJECT 800 -160 -150 -140 -70 -50 -30 30 130 -130 -120 -110 -100 -90 -80 -60 -40 40 50 80 100 110 120 140 150 39+67.69 0.00 0.00 0.00 0.00 29407(04) State Job No. CREEK COUNTY Sheet No. X001

DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 830 830 820 820 2.00% 0.50% FL ELEV=814.54 810 810 E. . 800 -100 130 41+50.00 11.65 5.89 8.80 27.11 840 830 830 820 820 FL ELEV=814.79 810 810 800 -150 -130 -100 -80 -70 -60 -50 -40 -30 -20 20 30 50 100 110 120 130 140 41+00.00 6.69 20.48 10.94 39.68 840 840 830 830 28, 2017 10:22:11 AM 181A Little Deep Fork 820 820 FL ELEV=816.01 810 810 800 -130 -120 -110 -100 -80 -70 -50 -30 100 110 120 130 140 150 40+50.00 5.13 22.37 5.91 45.21 29407(04) State Job No. CREEK COUNTY Sheet No. X002

DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 830 830 820 820 3.60% 3.60% FL ELEV=813.79 FL ELEV=813.87 810 810 800 -100 130 43+00.00 11.43 14.86 25.54 20.43 840 830 830 820 820 FL ELEV=814.13 FL ELEV=814.04 810 810 800 -150 -100 -80 -70 -60 -50 -40 -30 -20 30 50 80 100 110 120 130 140 150 42+50.00 12.72 10.63 22.37 17.68 840 840 830 830 28, 2017 10:22:27 AM 181A Little Deep Fork 820 820 2.43% FL ELEV=814.38 FL ELEV=814.29 810 810 800 -130 -120 -110 -100 -70 -50 -30 100 110 120 130 140 150 -80 42+00.00 11.44 8.46 16.05 15.98 29407(04) State Job No. CREEK COUNTY Sheet No. X003

DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 840 830 830 820 820 3.60% 3.60% R/W FL ELEV=813.11 810 810 800 -150 -120 -110 -100 -70 -60 120 130 150 44+50.00 15.91 20.64 25.91 40.69 840 830 830 STA 44+00.00, CONSTR. 30" X 71' RCP ROUND W/PCES FL WEST=813.43 FL EAST=813.20 820 820 3.60% 3.60% FL ELEV=813.36 810 810 (2) 800 800 -160 -150 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 20 30 40 50 60 70 80 100 110 120 130 140 150 44+00.00 12.07 23.30 30.73 34.03 840 840 830 830 28, 2017 10:22:41 AM 181A Little Deep Fork 820 820 3.60% 3.60% FL ELEV=813.62 FL ELEV=813.54 810 810 Ex. 800 -140 -130 -120 -110 -100 -70 -60 -50 -40 -30 30 50 100 110 120 130 140 150 -80 43+50.00 21.12 13.45 33.31 23.04 29407(04) State Job No. CREEK COUNTY Sheet No. X004

DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 830 830 820 820 FL ELEV=812.29 FL ELEV=812.35 810 810 800 -100 130 46+00.00 58.94 24.72 115.78 170.19 840 830 830 R∕₩ 820 820 2.00% 9-1.86% FL ELEV=812.60 FL ELEV=812.54 810 810 800 -150 -130 -100 -80 -70 -60 -50 -30 -20 20 30 50 100 110 120 130 140 150 45+50.00 38.94 68.03 53.81 108.10 840 840 830 830 28, 2017 10:22:56 AM 181A Little Deep Fork 820 820 2.00% 1.08% FL ELEV=812.86 810 810 800 -130 -120 -110 -100 -70 -50 -30 100 110 120 130 140 150 -80 45+00.00 19.17 48.72 32.48 64.22 29407(04) State Job No. CREEK COUNTY Sheet No. X005

DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 830 830 820 820 R/W 810 810 FL ELEV=811.59 FL ELEV=811.54 F. F. 800 -100 130 47+50.00 34.32 377.31 16.04 216.53 840 830 830 -2.60% \% 2.60% 820 820 R/W R/W 810 810 FL ELEV=811.84 L ELEV-811.79 7060 Ex. 7 800 -150 -130 -100 -80 -70 -60 -50 -30 -20 20 30 50 80 100 110 120 130 140 150 47+00.00 21.03 190.96 35.80 330.04 840 840 830 830 28, 2017 10:23:11 AM 181A Little Deep Fork 820 820 R/W R/W FL ELEV=812.09 810 FL ELEV=812.04 810 800 -140 -130 -120 -110 -100 -70 -60 -50 -30 100 110 120 130 140 150 -80 46+50.00 17.63 165.48 39.21 260.43 29407(04) State Job No. CREEK COUNTY Sheet No. X006

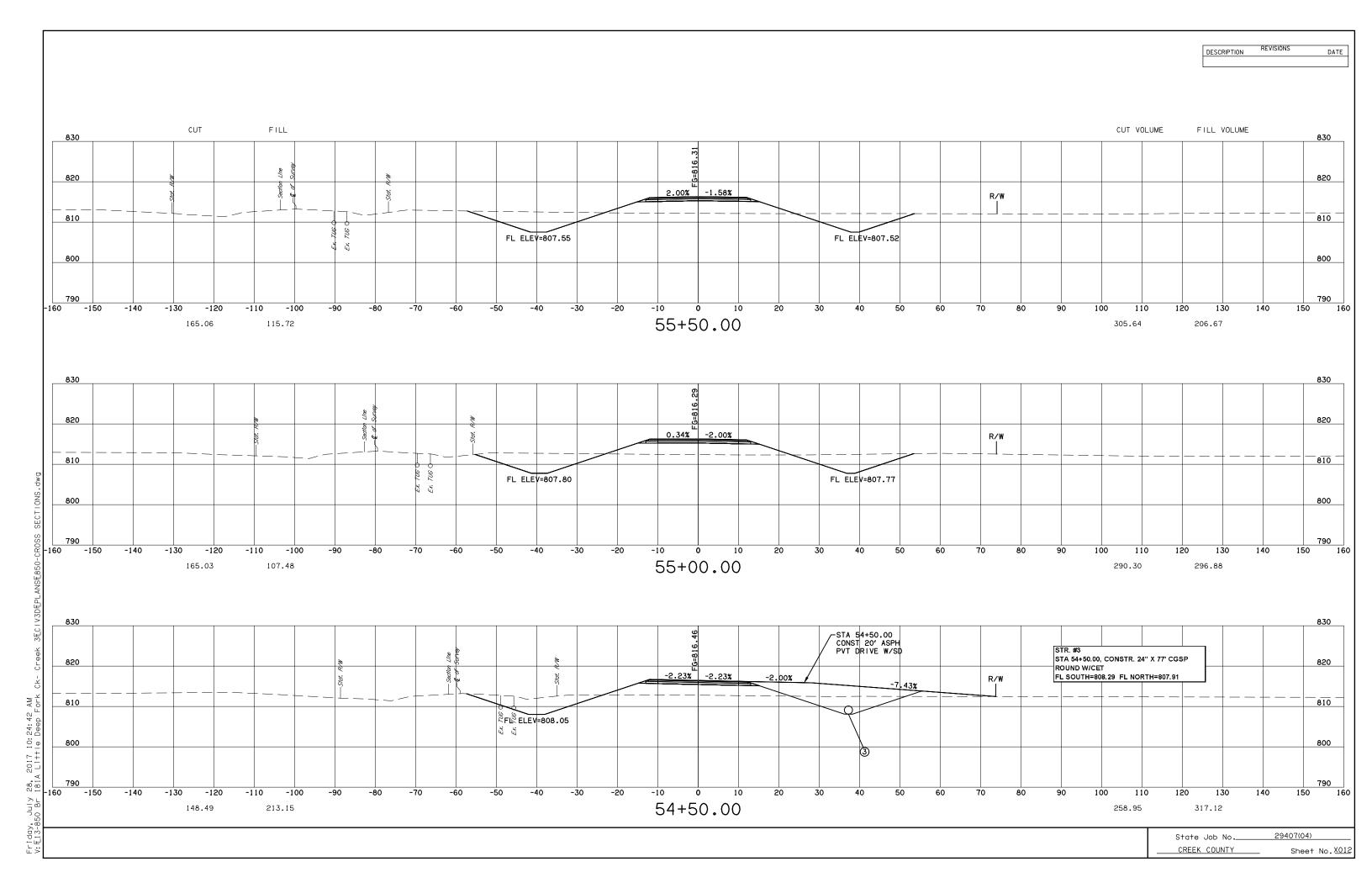
DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 830 830 820 820 R/W R/W 810 810 FL ELEV=810.82 FL ELEV=810.79 800 130 49+00.00 431.72 34.38 231.07 48.19 840 830 830 820 820 R/W 810 810 L ELEV=811.08 FL ELEV=811.04 800 -150 -100 -80 -70 -60 -50 -30 -20 20 30 50 80 100 110 120 130 140 150 48+50.00 17.67 235.19 29.69 431.43 840 840 830 830 28, 2017 10:23:27 AM 181A Little Deep Fork 820 820 810 810 FL ELEV=811.33 FL ELEV=811.29 800 -140 -130 -120 -110 -100 -70 -30 100 110 120 130 140 150 -80 48+00.00 14.39 230.75 28.18 414.15 29407(04) State Job No. CREEK COUNTY Sheet No. X007

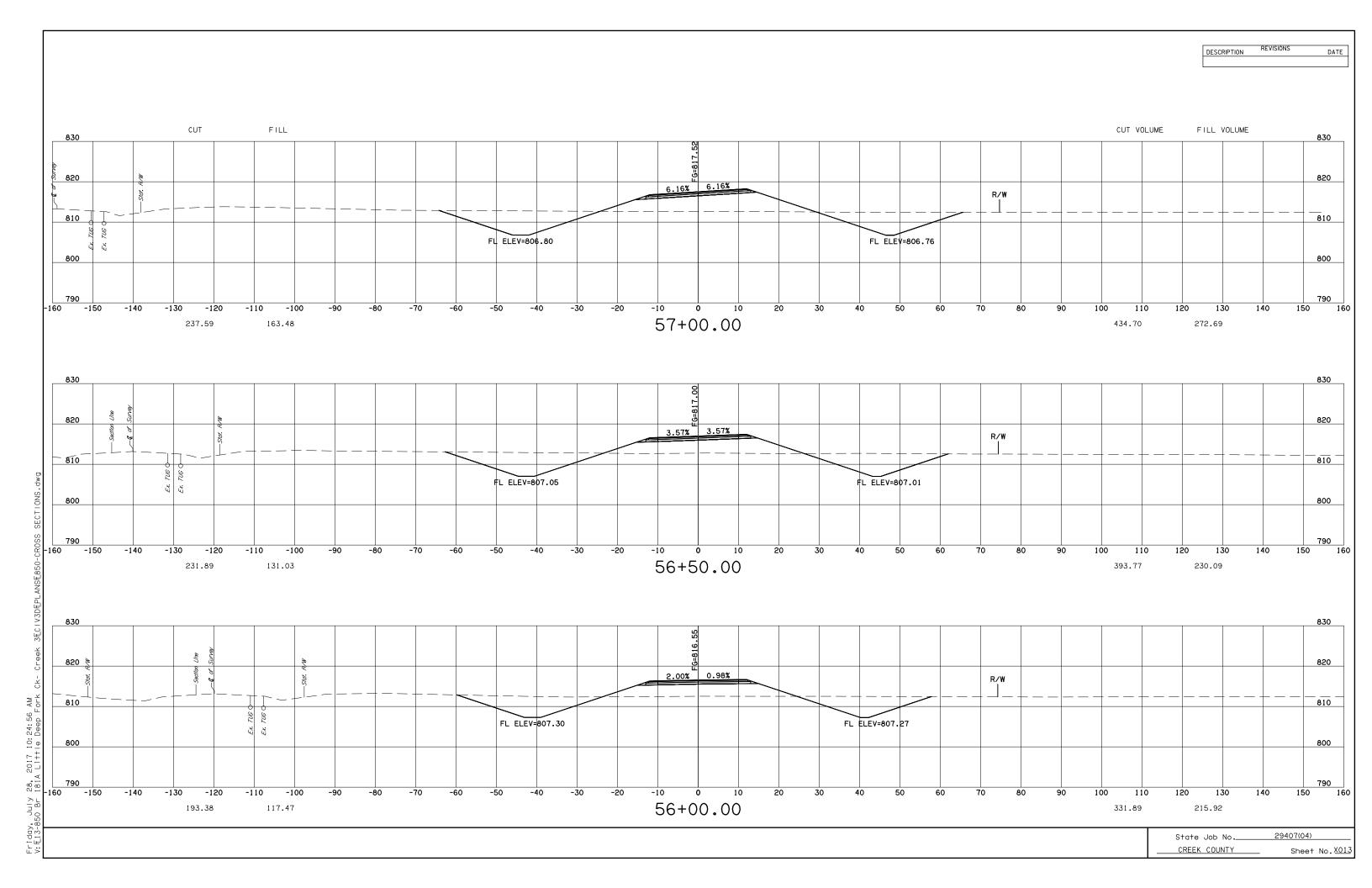
DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 830 830 820 820 810 810 FL ELEV=810.06 FL ELEV=810.05 800 130 50+50.00 66.69 38.99 201.48 391.25 840 830 830 820 820 -1.13% -2.00% R/W R/W 810 810 FL ELEV=810.32 FL ELEV=810.30 800 -150 -100 -80 -70 -60 -50 -30 -20 20 30 50 100 120 130 140 150 50+00.00 33.03 221.07 67.14 415.31 840 840 830 830 28, 2017 10:23:41 AM 181A Little Deep Fork 820 820 R/W R/W 810 810 FL ELEV=810.57 FL ELEV=810.54 800 -140 -130 -120 -110 -100 -70 -30 100 110 120 130 140 150 -80 49+50.00 39.48 227.46 68.39 424.56 29407(04) State Job No CREEK COUNTY Sheet No. X008

DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 830 830 820 820 R/W 810 810 FL ELEV=809.30 FL ELEV=809.30 800 -100 130 52+00.00 67.32 188.98 110.83 345.61 840 830 830 820 820 -1.59% \&-\&.00% R/W R/W 810 810 FL ELEV=809.55 FL ELEV=809.55 800 -150 -130 -80 -70 -60 -50 -30 -20 20 30 50 100 110 120 130 140 150 51+50.00 52.38 184.28 109.27 343.00 840 840 830 830 28, 2017 10:23:56 AM 181A Little Deep Fork 820 820 R/W 810 810 FL ELEV=809.81 FL ELEV=809.80 800 -130 -120 -110 -100 -70 100 110 120 130 140 150 -80 -30 51+00.00 65.63 186.16 96.87 358.93 29407(04) State Job No CREEK COUNTY Sheet No. X009

DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 830 830 820 820 -7.42% -7.42% 810 810 FL ELEV=808.55 FL ELEV=808.54 800 | -160 -150 800 -100 130 53+50.00 97.00 138.28 65.62 96.74 840 830 830 820 820 -7.60% -7.60% R/W R/W 810 810 FL ELEV=808.79 FL ELEV=808.80 706 ř. ř. 800 -150 -130 -100 -80 -70 -60 -50 -30 -20 20 30 50 60 80 100 110 120 130 140 150 53+00.00 83.95 162.64 150.26 315.09 840 840 830 830 28, 2017 10:24:11 AM 181A Little Deep Fork 820 820 -6.77% -6.77% R/W 810 810 FL ELEV=809.04 FL ELEV=809.05 800 -130 -120 -110 -100 -80 -70 -30 50 100 110 120 130 140 150 52+50.00 78.33 177.66 134.86 339.48 29407(04) State Job No CREEK COUNTY Sheet No. X010

DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 830 830 820 820 -4.82% -4.82% R/W 810 810 FL ELEV=808.30 FL ELEV=808.28 800 -100 -30 130 54+00.00 131.18 129.34 144.67 167.40 840 830 830 820 820 -6.59% -6.59% R/W R/W 810 810 FL ELEV=808.46 FL ELEV=808.47 800 800 53+65.90 -150 -130 -110 -100 -80 -70 -60 -30 -20 20 30 50 60 70 80 100 110 120 130 140 150 97.91 135.75 22.19 31.44 840 840 830 830 28, 2017 10:24:26 AM 181A Little Deep Fork 820 820 -6.92% ÷-6.92% R/W R/W 810 810 FL ELEV=808.49 FL ELEV=808.50 800 -140 -130 -120 -110 -100 -80 -70 -30 50 100 110 120 130 140 150 53+59.66 94.16 136.33 34.20 49.12 29407(04) State Job No CREEK COUNTY Sheet No. X011





DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 830 830 \$820 4.79% 4.79% 820 810 810 FL ELEV=806.05 FL ELEV=806.00 800 130 58+50.00 293.77 522.96 269.12 471.69 840 830 830 820 6.76% 6.76% 810 810 FL ELEV=806.25 FL ELEV=806.30 800 -150 -130 -110 -100 -80 -70 -60 -50 -30 -20 20 30 40 50 60 80 100 110 120 130 140 150 58+00.00 271.03 240.31 490.96 404.65 840 840 830 830 28, 2017 10:25:12 AM 181A Little Deep Fork 820 820 7.60% 7.60% R/W 810 810 FL ELEV=806.50 FL ELEV=806.55 800 -130 -120 -110 -100 -80 -70 -30 30 50 100 110 120 130 140 150 57+50.00 259.21 196.71 460.00 333.51 29407(04) State Job No CREEK COUNTY Sheet No. X014

DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 830 830 2.00% 0.52% \$ 820 820 R/W 810 810 FL ELEV=805.55 FL ELEV=805.49 L-160 800 -150 -120 -110 -100 -50 -30 120 130 150 59+50.00 372.95 291.03 328.60 556.28 840 STA 59+25.22, CONSTR. 24" X 75' CGSP 830 ROUND W/CET CONST. 12' ASPH PVT DRIVE W/SD 830 FL SOUTH=805.87 FL NORTH=805.50 \$ 820 2.00% 1.79% 820 -3.40% R/W 810 810 FL ELEV=805.61 4 800 800 160 -150 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 20 30 40 50 60 80 90 100 110 120 130 140 150 59+25.22 569.24 343.13 921.20 308.96 840 840 830 830 28, 2017 10:25:27 AM 181A Little Deep Fork \$ 820 820 2.83% R/W 810 810 FL ELEV=805.80 FL ELEV=805.74 800 -160 -150 -140 -120 -100 -70 -50 -40 -30 -20 30 50 100 120 130 150 -130 -110 -80 60 110 140 59+00.00 318.41 297.64 566.83 524.78 29407(04) State Job No. CREEK COUNTY Sheet No. X015

DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 830 830 820 820 R/W 810 810 FL ELEV=804.80 FL ELEV=804.73 \_<del>800</del> \_ 61+00.00 315.54 1012.15 576.04 591.60 840 830 830 820 820 810 810 FL ELEV=805.05 FL ELEV=804.98 800 -150 -100 -80 -50 -30 -20 20 30 40 50 70 100 110 120 130 140 60+50.00 517.08 324.39 894.68 571.04 840 830 830 28, 2017 10:25:42 AM 181A Little Deep Fork 820 820 810 810 FL ELEV=805.30 FL ELEV=805.23 800 -130 -120 -110 -100 30 100 110 120 130 140 150 60+00.00 449.17 292.33 761.22 540.15 29407(04) State Job No. CREEK COUNTY Sheet No. X016

DESCRIPTION CUT FILL CUT VOLUME FILL VOLUME 830 820 820 810 810 800 800 ZERO STATION 790 62+60.00 0.00 0.00 0.00 0.00 820 810 810 800 800 ZERO STATION 790 -130 -100 -70 -50 -40 -30 -20 20 30 50 130 140 62+26.26 0.00 1158.09 576.94 0.00 830 830 820 820 R/W 810 BRIDGE INTERCEPT STATION FL ELEV=804.65 FL ELEV=804.58 -70 -120 -110 -100 100 110 120 130 140 61+28.59 640.29 318.98 643.98 335.41 29407(04) State Job No CREEK COUNTY Sheet No. X017

DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 830 830 2.00% 1.92% 820 820 FL ELEV=812.79 FL ELEV=812.79 810 🐉 🖇 810 Ÿ. Ÿ. 800 | -160 -150 800 -100 130 64+00.00 14.39 438.62 25.81 828.01 840 830 830 2.00% -1.02% 820 820 FL ELEV=812.50 810 FL ELEV=812.50 810 800 -150 -130 -100 -80 -70 -50 -30 -20 30 50 100 110 120 130 140 150 63+50.00 13.48 455.63 15.41 492.61 840 840 830 830 28, 2017 10:26:11 AM 181A Little Deep Fork 820 820 FL ELEV=812.32 FL ELEV=812.32 810 810 BRIDGE INTERCEPT STATION 800 -140 -130 -120 -110 -100 -70 -50 100 110 120 130 140 150 63+20.09 14.34 433.74 15.96 482.66 29407(04) State Job No. CREEK COUNTY Sheet No. X018

DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 840 830 830 5.27% 5.27% 820 820 F2 ELEV-815.89 FL ELEV=815.89 810 810 800 -100 130 65+50.00 127.31 143.23 79.95 19.80 840 830 830 R/W 820 820 FL ELEV=814.63 FL ELEV=814.63 810 810 800 -150 -130 -120 -110 -100 -80 -70 -60 -50 -40 -30 -20 20 30 50 80 100 110 120 130 140 150 65+00.00 57.55 134.89 67.69 416.12 840 840 830 830 28, 2017 10:26:26 AM 181A Little Deep Fork 820 820 -FL ELEV=813.37 FL ELEV=813.37 810 810 800 -140 -130 -120 -110 -100 -80 -70 -50 100 110 120 130 140 150 64+50.00 15.56 314.52 27.73 697.35 29407(04) State Job No CREEK COUNTY Sheet No. X019

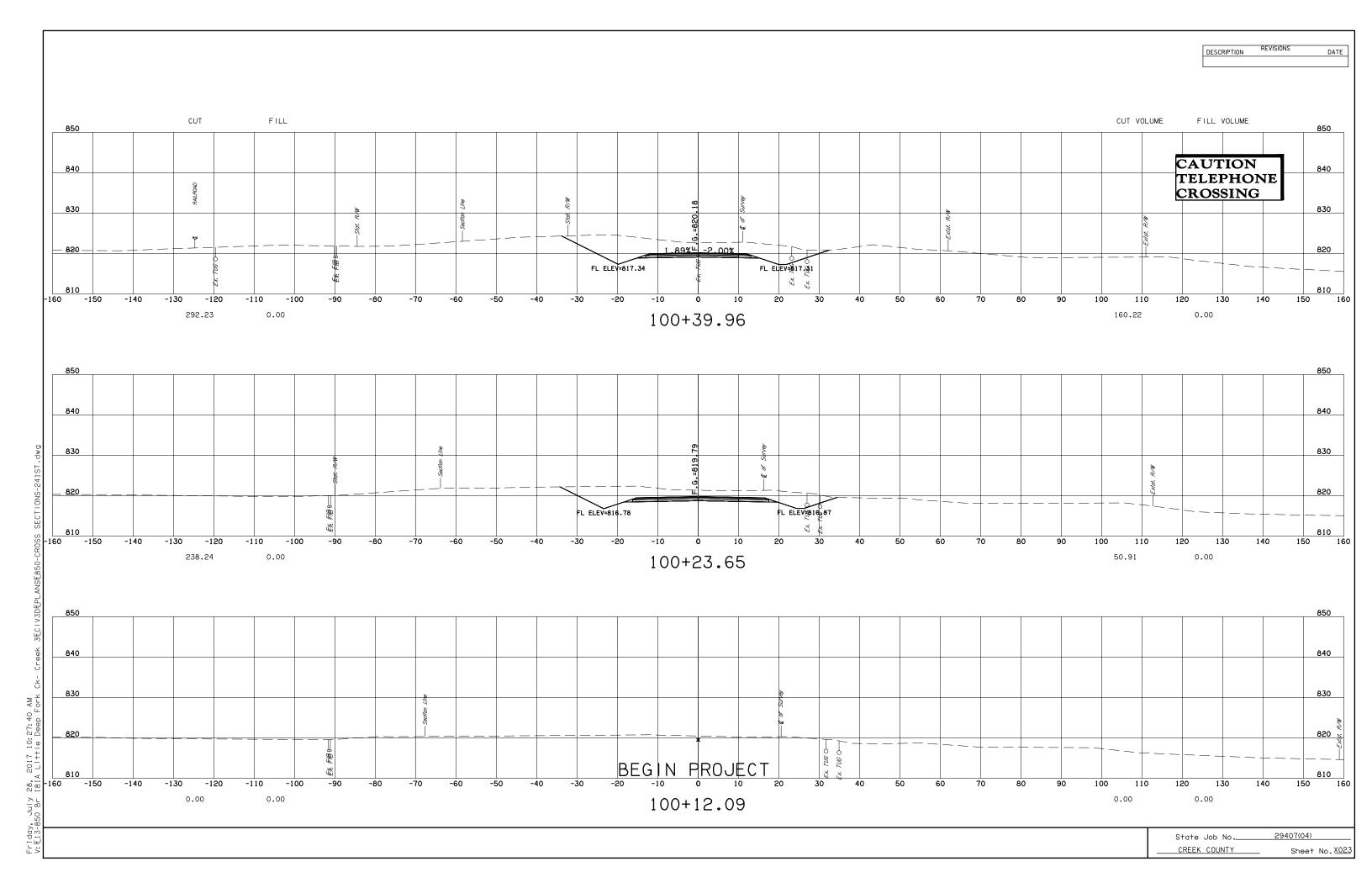
DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 850 STR. #5 STA 66+00.00, CONSTR. 24" X 60' RCP ROUND W/PCES 840 FL NORTH=816.29 FL SOUTH=815.70 840 830 830 W. 241ST STREET 820 820 FL ELEV=816.14 FL ELEV=816.14 <u>810</u> -160 810 -20 -150 -120 -110 -100 120 130 150 66+00.00 144.52 0.00 157.30 0.15 840 830 830 \_ 4.47% 820 820 FL ELEV=815.96 FL ELEV=815.96 CAUTION 810 810 TELEPHONE CROSSING 800 800 -160 -150 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 10 20 30 40 50 60 70 80 90 100 120 130 140 150 65+63.64 0.22 89.10 10.98 0.38 840 840 830 . 830 28, 2017 10:26:41 AM 181A Little Deep Fork 820 4.66% 820 4.66% CAUTION FL ELEV=815.94 FL ELEV=815.94 TELEPHONE 810 810 CROSSING 800 -150 -140 -130 -100 -70 -60 -50 -30 30 50 80 100 120 130 150 -120 -110 -80 -40 110 140 65+60.33 90.03 6.01 35.52 4.94 29407(04) State Job No CREEK COUNTY Sheet No. X020

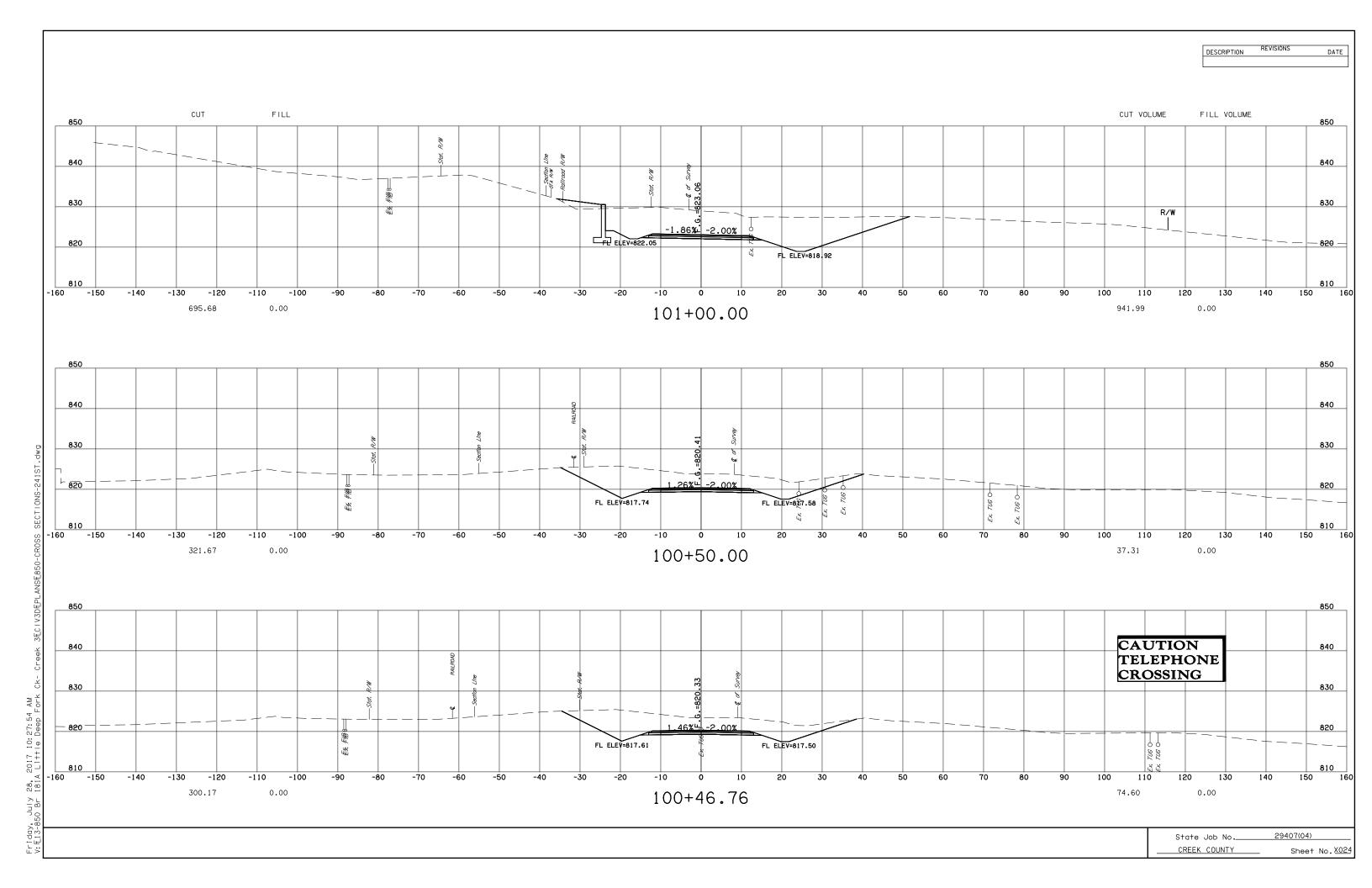
DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 850 840 840 830 830 CAUTION FIBER 820 820 CROSSING FL ELEV=816.60 FL ELEV=816.60 810 | -160 -150 810 -100 66+91.92 79.53 1.80 0.09 0.00 850 840 840 830 830 CAUTION FIBER 820 820 CROSSING FL ELEV=816.60 FL ELEV=816.60 810 -150 -130 -100 -70 -50 -40 -30 -20 20 30 40 50 80 100 120 130 140 150 66+91.31 79.65 0.11 164.11 0.08 850 850 840 840 28, 2017 10:26:56 AM 181A Little Deep Fork 830 830 820 FL ELEV=816.39 FL ELEV=816.39 810 -140 -130 -120 -100 -70 -50 100 110 120 130 140 150 -110 66+50.00 134.87 0.00 258.69 0.00 29407(04) State Job No. CREEK COUNTY Sheet No. X021

DESCRIPTION REVISIONS CUT FILL CUT VOLUME FILL VOLUME 850 840 840 R/W 830 830 820 820 END PROJECT 810 -130 -100 -80 -70 -50 -40 -30 -20 20 30 50 80 100 120 130 140 67+50.00 0.00 72.31 0.00 0.00 840 830 830 820 820 FL ELEV=816.64 FL ELEV=816.64 810 800 | j 30 -150 -140 800 -70 100 120 130 -130 -120 -110 -100 -80 -50 -30 110 140 67+00.00 78.09 0.00 23.58 0.01 29407(04) State Job No.

Friday, July 28, 2017 10:27:12 AM V:Æ13-850 Br 181A Little Deep Fork

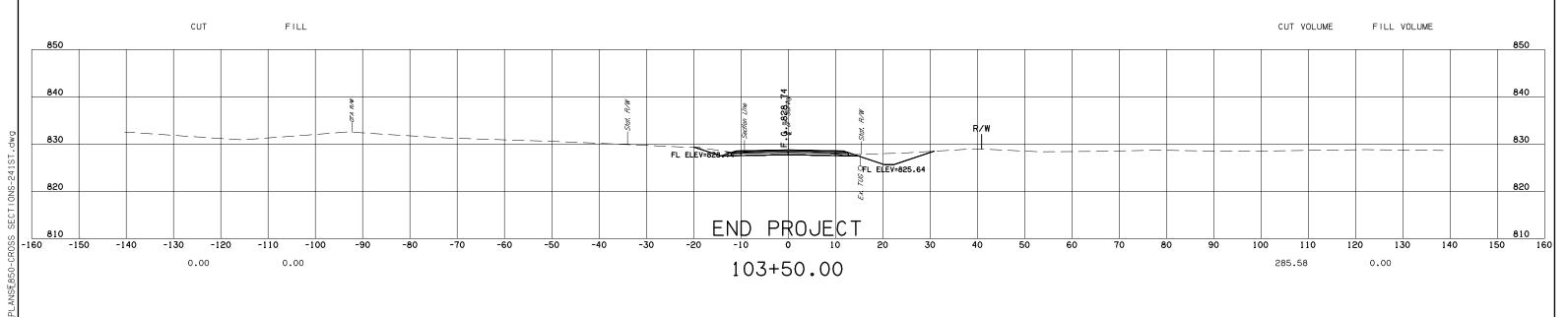
CREEK COUNTY Sheet No. X022

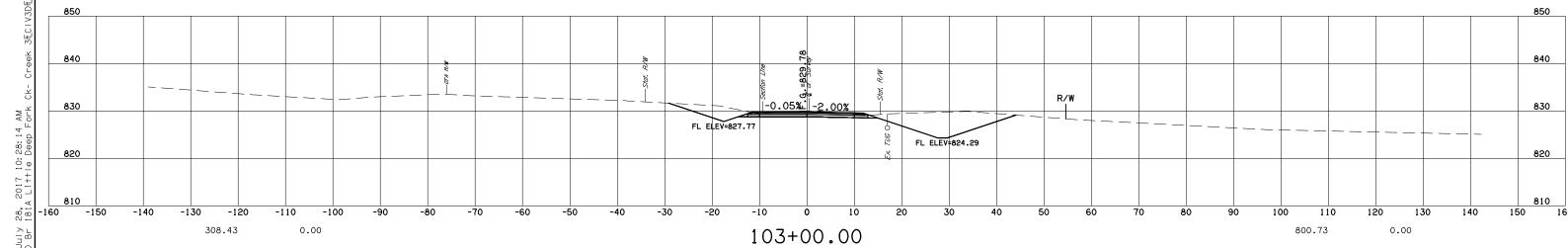




DESCRIPTION DATE CUT FILL CUT VOLUME FILL VOLUME 850 850 840 840 R/W 830 830 FL ELEV=828.35 FL ELEV=822.95 820 820 <u>| 810</u> | 150 -150 -130 -110 120 130 556.36 0.00 102+50.00 1367.31 0.00 850 850 840 840 830 830 FL ELEV=827.54 820 820 FL ELEV=821.61 810 -150 -130 -120 -110 -100 -30 40 70 120 130 140 920.34 0.00 102+00.00 1852.36 0.00 850 850 840 840 830 28, 2017 10:28:04 AM 181A Little Deep Fork -4.80% -4.80% FL ELEV=825.22 820 820 FL ELEV=820.27 810 -130 -120 -110 -100 -30 100 120 130 140 150 1080.21 0.00 101+50.00 1644.34 0.00 29407(04) State Job No. CREEK COUNTY Sheet No. X025

DESCRIPTION REVISIONS DATE





 State Job No.
 29407(04)

 CREEK COUNTY
 Sheet No. X026