

MUSCOGEE (CREEK) NATION

PLANS FOR

BRISTOW AIRPORT ROAD

NTTFI ROUTE NUMBER 1206 AND 1281 RECLAMATION, OVERLAY AND CROSS DRAIN IMPROVEMENTS CREEK COUNTY

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13, 14	CROSS DRAIN PLAN OVER SECTIONS
15	GUARDRAIL LAYOUT

SURVEY CONTROL DATA

- HORIZONTAL CONTROL FOR THIS SURVEY IS THE NGS OKLAHOMA STATE PLANE COORDINATE SYSTEM NAD 83, (2011) (NORTH ZONE).
- VERTICAL CONTROL IS LEVEL DATUM NAVD 88 - RTKNET.

DESIGN DATA

ADT 2021 = <169
ADT 2041 = 252
V = 35 mph

VERTICAL CURVATURE (K VALUES)
CREST = NA
SAG = NA

HORIZONTAL CURVATURE (RADIUS)
RADIUS = NA

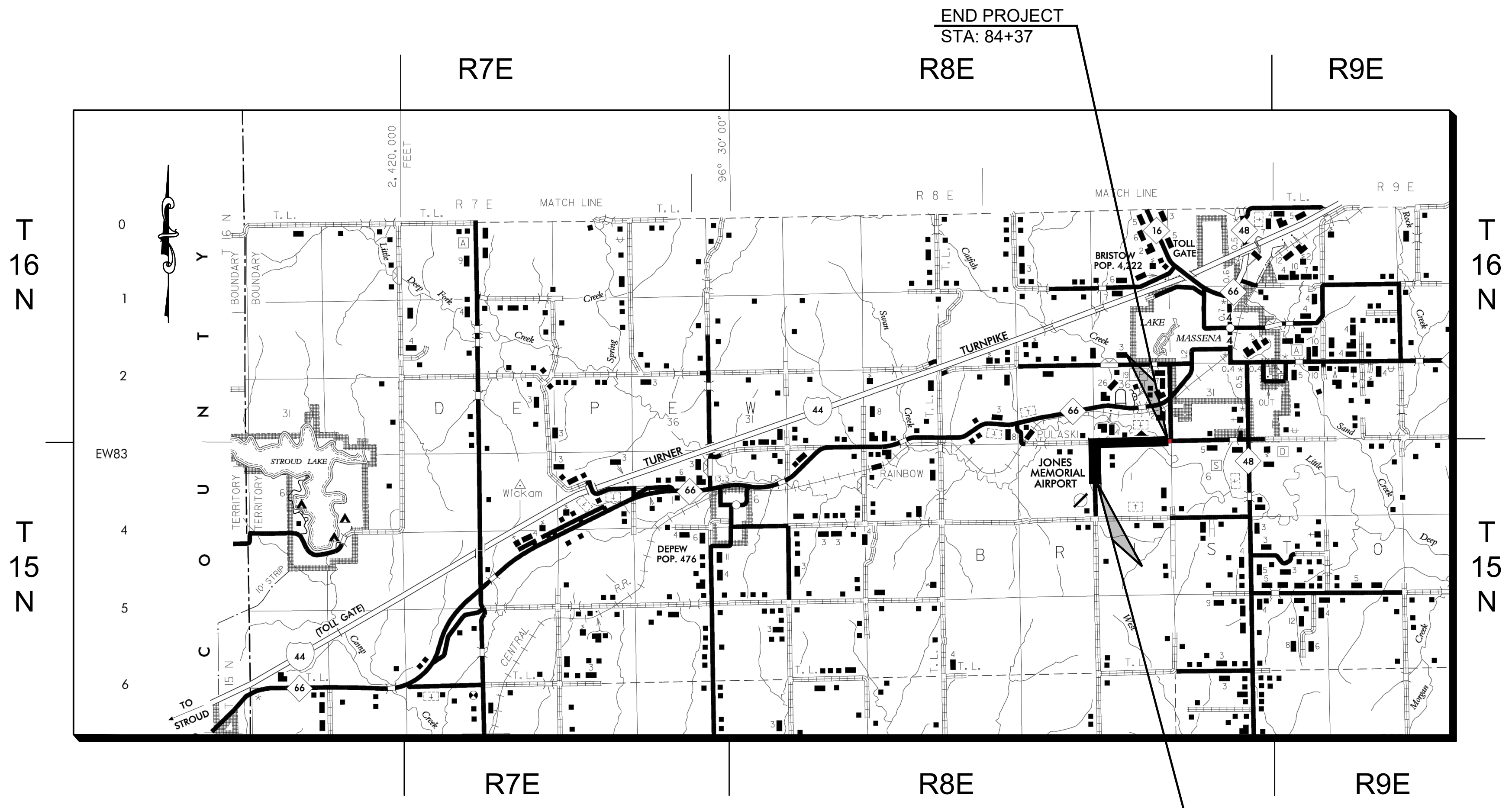
MAXIMUM GRADE
ROLLING TERRAIN = 4%

EXCEPTIONS
NONE

SCALES

PLAN 1"=50' OR "AS NOTED"
PROFILE HOR. 1"=20'
VER. 1"=2'
LOCATION MAP NTS

- CONVENTIONAL SYMBOLS**
- X — X — EXISTING FENCE
 - DHP — DHP — OVERHEAD POWER LINE
 - W — W — WATER LINE
 - — — — RIGHT OF WAY LINE (EXISTING)
 - R/W — — — RIGHT-OF-WAY LINE (NEW)
 - || — || — TOE SLOPE/TOP CUT LINE
 - ⊕ POWER POLE
 - ⊕* POWER POLE W/LIGHT
 - ⊕ TELEPHONE PEDESTAL
 - ⊕ WATER VALVE
 - ⊕ WATER METER
 - ⊕ MAILBOX
 - ⊕ ELECTRICAL BOX
 - ⊕ TELEPHONE UNDER GROUND
 - ⊕ TREE
 - ⊕ SIGN
 - ⊕ UTILITY MARKER



DESIGN INFORMATION

ROADWAY LENGTH 7,437 FT. 1.4 MI

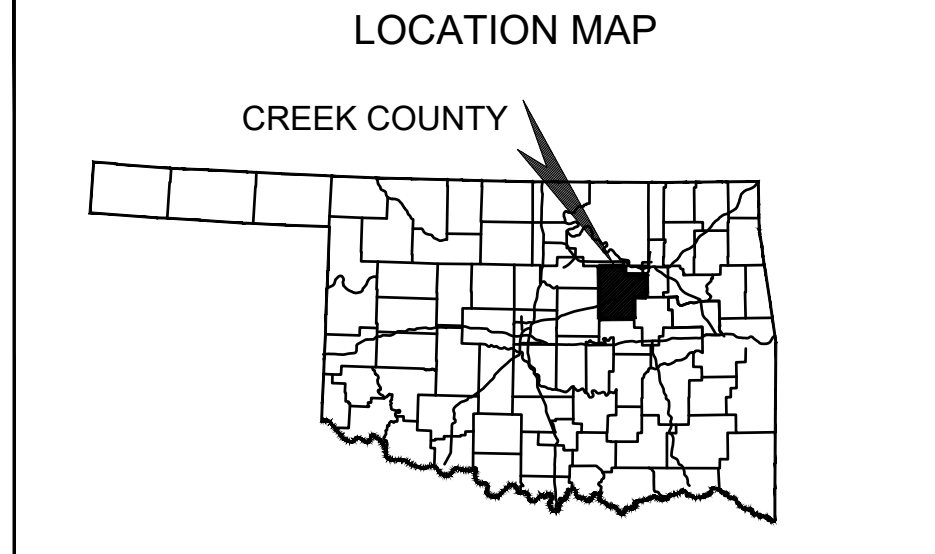
PROJECT IS BASED ON EXISTING PAVEMENT ☑

BEGIN PROJECT
STA: 10+00.00

END PROJECT
STA: 84+37

THE FOLLOWING OKLAHOMA DEPARTMENT OF TRANSPORTATION 2019 ROADWAY STANDARDS AND 2009 BRIDGE STANDARDS ARE REQUIRED TO CONSTRUCT THIS PROJECT:

- | | |
|-------------------------|-----------------|
| ROADWAY | BRIDGE |
| TSC2-4-0 | RCB-E1-H5-0-1 |
| TSD-0 | RCB-E1-H5-0-2 |
| RWF2-3-1 | RCB-C1-12(2-14) |
| PM3-1 02 | RCB-CW1-D4-0 |
| TCS1-1 01 | |
| TCS2-1 00 | |
| TCS4-1 01 | |
| TCS5-1 00 | |
| TCS6-1 02 | |
| TCS8-1 00 | |
| DU1-1 00 | |
| DU2-1 00 | |
| SPB-2-0 | |
| SPI-5-2 | |
| SBI-5-2 | |
| MI-4-2 | |
| ASCD-6-0 | |
| PSE-2-1 | |
| CET4S-4-2 | |
| CET4D-4-2 | |
| GPI-5-2 | |
| TCS29-1-01E (1999 SPEC) | |



UTILITY CONTACTS

ELECTRIC
CONTRACTOR TO VERIFY WITH: CITY OF BRISTOW
PH: 918-367-2252

PHONE, INTERNET, CABLE
AT&T
PH: 918-758-4311

WATER
CONTRACTOR TO VERIFY WITH: CITY OF BRISTOW
PH: 918-367-2252

GAS
OKLAHOMA NATURAL GAS
PH: 800-664-5463

2019 OKLAHOMA STANDARD SPECIFICATIONS AND ROADWAY DESIGN STANDARD DRAWINGS (ENGLISH UNITS) SHALL GOVERN.

BEFORE YOU DIG ...
1-800-522-6543
CALL OKIE

LOCATIONS OF UNDERGROUND UTILITIES WERE OBTAINED FROM THE UTILITY OWNERS. BEFORE DOING ANY WORK WITH HEAVY EQUIPMENT, THE CONTRACTOR SHALL NOTIFY THE UTILITY OWNERS OR "CALL OKIE (OKLAHOMA ONE-CALL)" NOT LESS THAN 48 HOURS IN ADVANCE AND SHALL ESTABLISH THE EXACT LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES.



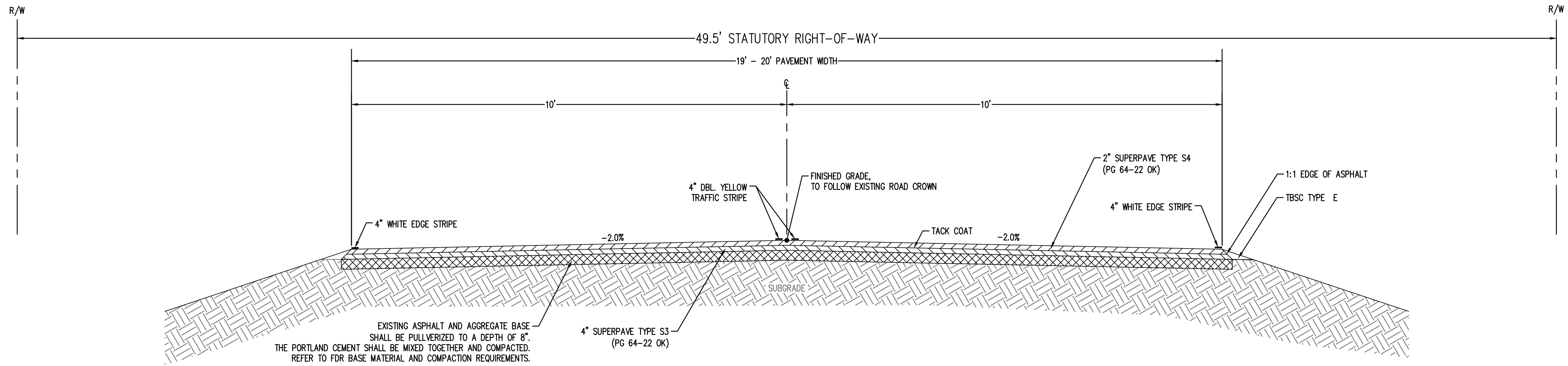
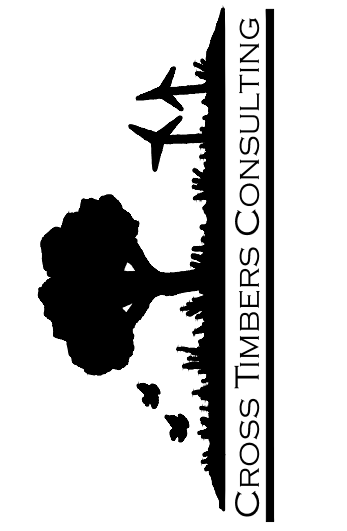
LEVEL 2 REVIEW BY:

Rachael Cooper
RACHAEL COOPER, P.E.
OKLAHOMA PE # 30920

ENGINEERING PROVIDED BY:

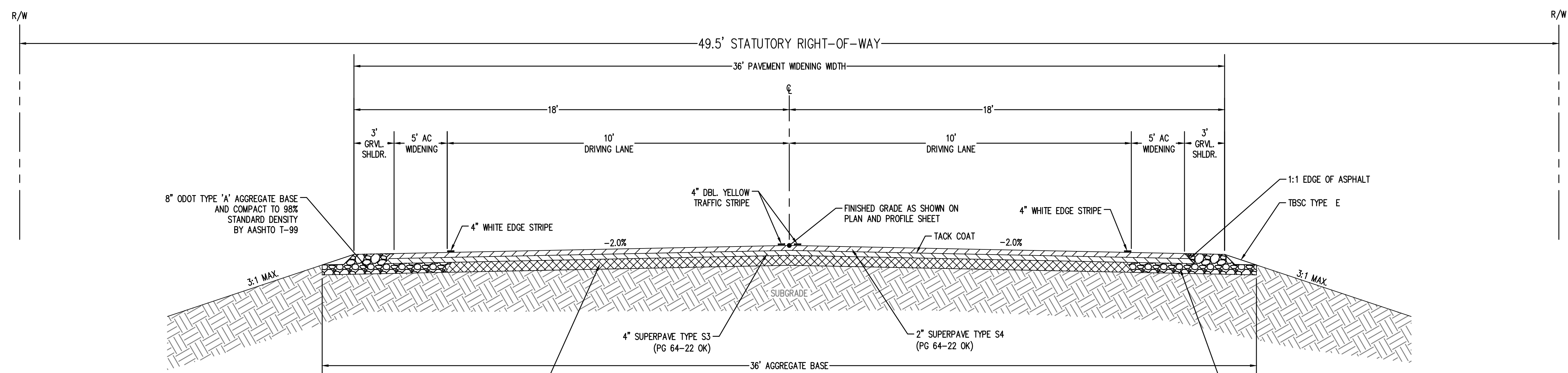
CROSS TIMBERS CONSULTING, LLC.
P.O. BOX 67
ALEX, OK 73002
CA#6859 EXPIRES JUNE 30, 2024

Randal K. Oberlag
RANDAL K. OBERLAG, P.E., S.E.
OKLAHOMA PE # 20798

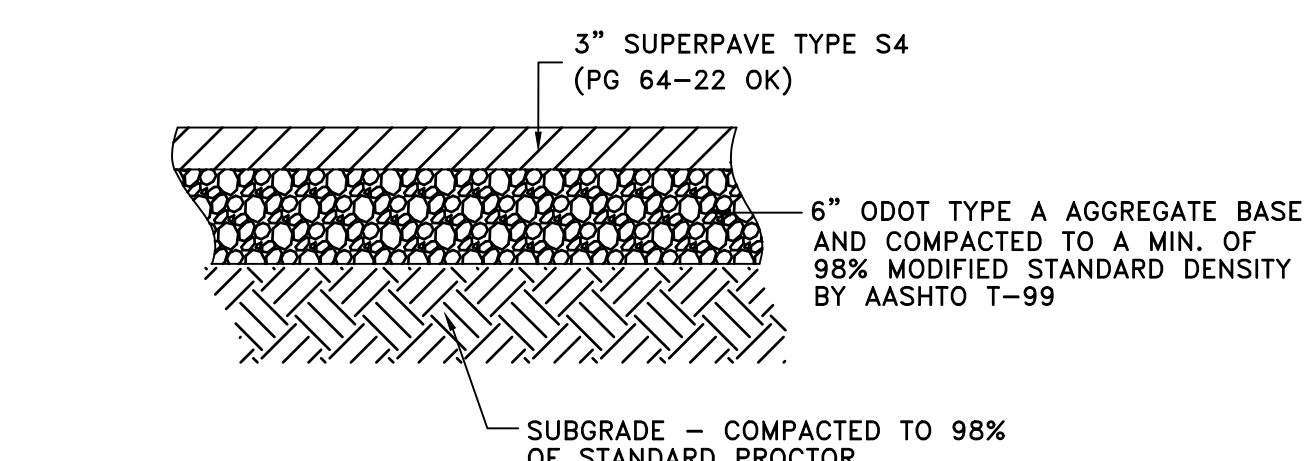


TYPICAL 1
 NOT TO SCALE
 STA: 10+00.00 TO STA: 35+16.04
 STA: 38+16.04 TO STA: 82+24.00

TRANSITIONS
 STA: 35+16.04 TO STA: 35+66.04
 STA: 37+66.04 TO STA: 38+16.04

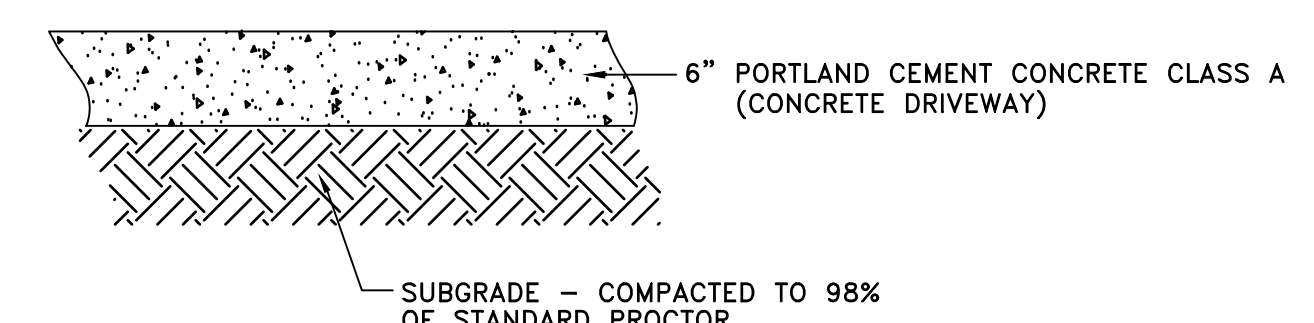


TYPICAL 2
 NOT TO SCALE
 STA: 35+66.04 TO STA: 37+66.04



1 DETAIL
 ASPHALT PAVING SECTION
 SCALE: NONE

(ASPHALT DRIVE ACCESS)
SECTION
 NOT TO SCALE



2 DETAIL
 CONCRETE SECTION
 SCALE: NONE

(CONCRETE DRIVE ACCESS)
SECTION
 NOT TO SCALE

- NOTES:
- THE CONTRACTOR SHALL STRIP ALL OF THE AVAILABLE TOPSOIL, STOCK PILE IT, AND PLACE 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 AREA LOCATED BY THE CONTRACTING OFFICERS TECHNICAL REPRESENTATIVE. ALL ADDITIONAL COST ASSOCIATED WITH OPERATIONS SHALL BE INCLUDED IN THE PAY ITEMS FOR SALVAGED TOPSOIL, LUMP SUM.
 - AS A PART OF FINISHING OPERATIONS THE CONTRACTOR SHALL PLACE AND COMPACT UNCLASSIFIED EXCAVATION AS NEEDED.
 - ALL MATERIAL TESTING WILL BE INCLUDED IN COST OF MATERIAL.

NO.	DATE	BY	REVISIONS
1	8/2/23	JTB	ISSUE FOR BIDDING
2			
3			
4			
5			
6			
7			
8			
9			
10			

Drawn By: DJM
 Date: MARCH 28, 2023

PROJECT MCN-105

CROSS TIMBERS DRAWING FILEMCH-105 CON GEN TYP SH1 01 2 3.dwg

SUMMARY OF ESTIMATED QUANTITIES					
SPEC. NO.	ITEM NO.	ITEM DESCRIPTION	NOTES	UNIT	QUANTITY
220	1100	SWPPP DOCUMENTATION AND MANAGEMENT	(R-41)	L.SUM	1
221(B)	2300	TEMPORARY SILT FENCE	6, (R-8)	LF	958
221(E)	2600	TEMPORARY SILT DIKE	6, (R-8)	EA	136
303(A)	1200	AGGREGATE BASE (TYPE A)	(R-16)	CY	269
307(C)	3400	PORTLAND CEMENT	12	TON	339
402(E)	2600	T.B.S.C. TYPE E	7, (R-20)	TON	460
407(B)	7300	TACK COAT	(R-25)	GAL	1,324
411(B)	1330	SUPERPAVE TYPE S3 (PG 64-22 OK)	(R-26)	TON	3,953.1
411(C)	1430	SUPERPAVE TYPE S4 (PG 64-22 OK)	(R-26)	TON	2,078.5
509(A)	210	CLASS AA CONCRETE		CY	118.8
509(B)	300	CLASS A CONCRETE		CY	14.0
511(A)	1332	REINFORCING STEEL		LBS	19,739.1
601(A)	1100	TYPE I PLAIN RIPRAP (12"-15")	10	TON	327.68
601(C)	1300	TYPE I-A FILTER BLANKET	10	TON	78.20
610(B)	5310	6" CONCRETE DRIVEWAY		SY	30.92
611(G)	7930	INLET GPI TYPE 1 (DES. 1)		EA	1
613(A)	5268	24" R.C. PIPE CLASS IV		LF	144.0
613(A)	5378	58" X 36" R.C. PIPE ARCH CLASS A-III		LF	225.5
613(M)	6964	TYPE B4 CULVERT END TREATMENT		EA	4
613(M)	6992	TYPE DD4 CULVERT END TREATMENT		EA	2
619(A)	6200	REMOVAL OF STRUCTURES & OBSTRUCTIONS	(R-39)	L.SUM	1
619(B)	6360	REMOVAL OF CONCRETE PAVEMENT	5, (R-40)	SY	55.6
619(B)	6380	REMOVAL OF CONCRETE DRIVEWAY	5, (R-40)	SY	30.92
619(B)	6384	REMOVAL OF ASPHALT DRIVEWAY	5, (R-40)	SY	166.0
619(C)	6600	SAWING PAVEMENT		LF	102.0
623(A)	1200	BEAM GUARDRAIL W-BEAM SINGLE (31" SYSTEM)	11	LF	350.0
623(G)	1820	GUARDRAIL END TREATMENT 31"	11	EA	4
623(I)	2050	GUARDRAIL BRIDGE CONN-THRIE BEAM 31"	11	EA	4
624(C)	3405	FENCE-STYLE SWF (5 STRAND BARBED WIRE)		LF	340
626(A)	5200	MONUMENTS	9	EA	3
641	2110	MOBILIZATION		L.SUM	1
642(B)	3300	CONSTRUCTION STAKING LEVEL II		L.SUM	1
853	5115	DELINEATORS (TYPE 2 CODE 1)		EA	8
855(A)	7200	TRAFFIC STRIPE (PLASTIC) 4" WIDE	(TS-19)	LF	29673
880(I)	7110	CONSTRUCTION TRAFFIC CONTROL	1,2,3,4(TC-25)	L.SUM	1
SP		CONTRACTOR QUALITY CONTROL		L.SUM	1
SP		FULL DEPTH RECLAMATION (8")	8	SY	17011

FULL DEPTH RECLAMATION (FDR)

FDR BASE MATERIAL AND COMPACTION REQUIREMENTS

THE FDR MATERIAL WILL BE PRODUCED BY PULVERIZING AND MIXING THE EXISTING ASPHALT PAVEMENT, AGGREGATE BASE AND SUBGRADE. THE FDR MATERIAL SHOULD BE REWORKED SUCH THAT IT MEETS THE FOLLOWING GRADATION: IN ACCORDANCE WITH ODOT 2019 SPECIFICATIONS.

SIEVE	MIN. PERCENTAGE BY WEIGHT PASSING
2 IN.	100
NO. 4	55
NO. 200	0 - 15

THE BLENDED MATERIAL MUST BE COMPACTED APPROPRIATELY TO BE UTILIZED AS A BASE LAYER BENEATH THE NEW ASPHALT CONCRETE SURFACE LAYER THAT WILL BE CONSTRUCTED AT THIS SITE. THE STABILITY AND STIFFNESS OF SOME OF THE SUBGRADE MATERIALS ENCOUNTERED AT THIS SITE ARE SENSITIVE TO THEIR MOISTURE CONTENTS. IT IS RECOMMENDED THAT CONSTRUCTION MEASURES REDUCE THE RISK OF SUBGRADE SATURATION BY COMPACTION AND SEALING MILL/PULVERIZED AREAS PRIOR TO MAJOR PRECIPITATION EVENTS.

FDR MATERIALS MIXED WITH PORTLAND CEMENT SHOULD BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DRY DENSITY PER ASTM D698 AND AT MOISTURE CONTENTS WITHIN 1% POINT OF THEIR OPTIMUM MOISTURE. THE STABILIZED ZONE SHOULD EXTEND AT LEAST 18 INCHES BEYOND THE EDGES OF THE ROADWAY. DRY PORTLAND CEMENT SHALL BE MIXED WITHIN 1 HOUR OF PLACEMENT, AND GRADING AND FINAL COMPACTION SHALL BE COMPLETED WITH 3 HOURS AFTER THOROUGHLY MIXING INTO THE FDR LAYER. MIXING SHOULD ONLY BE PERFORMED WHEN THE SOIL HAS A MINIMUM TEMPERATURE OF 45°F (AT A DEPTH 4 INCHES BELOW THE SURFACE) AND THE AIR TEMPERATURE IS RISING.

FDR RECOMMENDATIONS

IT IS RECOMMENDED THAT AT LEAST THE UPPER 8" OF THE PULVERIZING BASE MATERIAL (COMPRISED OF EXISTING HOT-MIX ASPHALT, BASE AND SUBGRADE) BE THOROUGHLY PULVERIZED AND REWORKED SO ITS GRADATION MEETS THE CRITERIA IN FDR BASE MATERIAL AND COMPACTION REQUIREMENTS SECTION IN EARTHWORK AND CHEMICALLY STABILIZED BY INCORPORATING PORTLAND CEMENT. APPLY THE PORTLAND CEMENT AT AN APPLICATION RATE SUFFICIENT TO ACHIEVE A MINIMUM 7-DAY UNCONFINED COMPRESSIVE STRENGTH ON THE ORDER OF 280 PSI.

FDR MATERIALS STABILIZED WITH PORTLAND CEMENT MAY NOT ACHIEVE THEIR DESIGN STRENGTH IF MIXED AT MOISTURE CONTENTS GREATER THAN 2% ABOVE THE OPTIMUM MOISTURE CONTENT, OR IF NOT ALLOWED TO PROPERLY CURE AFTER PLACEMENT DUE TO THE MOISTURE CONTENT BEING LESS THAN 4% POINTS BELOW THE OPTIMUM MOISTURE CONTENT. THEREFORE, IT IS IMPORTANT THAT THE RECOMMENDED MOISTURE CONTENT OF THE STABILIZED ZONE BE MAINTAINED WITHIN 1% POINT OF ITS OPTIMUM CONTENT BE EVALUATED THE DAY BEFORE THE MIXING OPERATIONS AND FOR AT LEAST 3 DAYS AFTER PLACEMENT TO CONFIRM ADEQUATE MOISTURE CONDITIONS.

CONSTRUCTION TRAFFIC SHOULD NOT BE ALLOWED ON STABILIZED MATERIALS DURING CURING EXCEPT AS REQUIRED FOR SPRINKLING IF STABILIZED WITH CEMENT. HEAVY LOADED VEHICLES OPERATION ON THE STABILIZED SURFACES OR PARTIALLY PAVED AREAS COULD CAUSE SIGNIFICANT DAMAGE RESULTING IN SEVERE DETERIORATION AND LIFE REDUCTION.

PAY QUANTITY NOTES

- (R-8) PRICE BID TO INCLUDE COST OF ALL NECESSARY MAINTENANCE, MAINTAINING DEVICE IN PROPER UPRIGHT POSITION, REMOVAL OF DEVICE, AND REMOVAL OF SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE DEVICE.
- (R-16) PAYMENT FOR THIS ITEM WILL BE THE THEORETICAL CROSS SECTION MULTIPLIED BY THE INSTALLED LENGTH.
- (R-20) ESTIMATED AT 120 LBS. PER CU. FT.
- (R-25) ESTIMATED AT 0.075 GALLONS PER SQUARE YARD OF ORIGINAL EMULSION OF TACK COAT (BEFORE DILUTION FOR APPLICATION) IN ACCORDANCE WITH SECTION 407 OF THE STANDARD SPECIFICATIONS.
- (R-26) ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK.
- (R-39) INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS, INLETS, FENCES, AND OTHER STRUCTURES WITHIN THE RIGHT OF WAY.
- (R-40) TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.
- (R-41) MATERIAL REMOVED SHALL NOT BE MEASURED FOR PAYMENT UNDER SECTION 202.06 UNCLASSIFIED EXCAVATION.

ROADWAY PAY ITEM NOTES

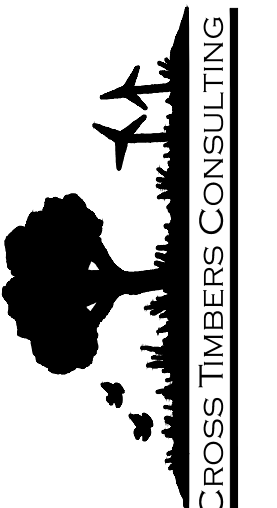
- (1) ALL TRAFFIC CONTROL DEVICES, CONSTRUCTION SIGNING, BARRICADES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITION.
- (2) ALL CHANNELIZING DEVICES, TYPE-III BARRICADES, ETC., SHALL BE WEIGHTED DOWN WITH A NON-HAZARDOUS MATERIAL.
- (3) ALL ADVANCE WARNING SIGNS AND CHANNELIZING DEVICES SHALL REQUIRE TYPE-A STEADY BURN LIGHTS.
- (4) ALL TYPE-III BARRICADES SHALL REQUIRE A MINIMUM OF TWO (2) TYPE-A LOW INTENSITY FLASHING LIGHTS.
- (5) PRIOR TO PAVEMENT REMOVAL ALL PAVEMENT SHALL BE SAW CUT TO FULL DEPTH. THE PRICE BID FOR REMOVAL OF ASPHALT WILL INCLUDE THE ENTIRE EXISTING ROADWAY AS SHOWN ON THE PLANS. TO WHATEVER DEPTH IS ENCOUNTERED.
- (6) CONTRACTOR SHALL REMOVE ALL SEDIMENTATION DEVICES FROM THE PROJECT LIMITS AFTER CONSTRUCTION IS ACCEPTED AS COMPLETE.
- (7) ESTIMATED AT (0.5' X 1.0') BOTH SIDES.
- (8) SEE TYPICAL SECTION SHEET FOR 8" FULL DEPTH RECLAMATION (FDR) CONSTRUCTION REQUIREMENTS.
- (9) "PROTECT SURVEY MONUMENTS" COORDINATE WITH REGISTERED PROFESSIONAL LAND SURVEYOR.
- (10) TYPE 1 PLAN RIPRAP ESTIMATED AT 110 LBS PER C.F. - (2' THICK)
TYPE 1-A FILTER BLANKET ESTIMATED AT 105 LBS PER C.F. - (6" THICK)
- (11) REMOVAL AND DISPOSAL OF EXISTING GUARDRAIL SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED SUBSIDIARY TO THIS ITEM OF WORK.
- (12) PORTLAND CEMENT ESTIMATED AT 30 LBS/SY MIXED 8" DEEP.

TRAFFIC PAY ITEM NOTES

- (TC-25) ALL CONSTRUCTION TRAFFIC CONTROL WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS, AND INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS. PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS REQUIRED FOR COMPLETION OF THE PROJECT.
- (TS-19) QUANTITY SHOWN INCLUDES 14,177 L.F. TRAFFIC STRIPE (PLASTIC)(WHITE) AND 14,177 L.F. TRAFFIC STRIPE (PLASTIC)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR INCH (4") WIDE TRAFFIC STRIPE.

PAY SUMMARY
 BRISTOW AIRPORT ROAD
 SECTION 1, T-15-N, R-8-E
 CREEK COUNTY, OKLAHOMA

CROSS TIMBERS CONSULTING, LLC
 P.O. BOX 87
 Alex, Oklahoma 75002
 Phone: (405) 222-8280



NO.	DATE	BY	REVISIONS
1	8/2/23	JTB	ISSUED FOR BIDDING
2			REVISED TO ADD CATTLE BARRIER

Drawn By: DJM
Date: MARCH 28, 2023

PROJECT MCN-105

SHEET 4

EXISTING STRUCTURE REMOVAL	
STATION LOCATIONS	DESCRIPTIONS
30+39.00 CL	35 LF - 48" CGMP
36+54.31 CL	BRIDGE, GUARDRAIL, ABUTMENTS
48+80.48 CL	56 LF - 24" CGMP
73+50 TO 77+50	GUARDRAIL, LT & RT

SUMMARY OF SURFACING								
STATION TO STATION (CRL)	SUPERPAVE, TYPE S3 (PG 64-22 OK) 411 (B)	SUPERPAVE, TYPE S4 (PG 64-22 OK) 411 (C)	AGG. BASE TYPE A 303 (A)	PORTLAND CEMENT 307 (C)	TACK COAT 407 (B)	T.B.S.C. TYPE E 402 (E)	TRAFFIC STRIPE (PLASTIC) (4" Wide) 855 (A)	FULL DEPTH RECLAMATION 8" (SP)
	TON	TON	CY	TON	GAL	TON	LF	SY
S. 385TH W. AVE. & W. 241ST STR. S.								
10+00.00 TO 35+16.04, 20' WIDE	1252.43	626.21		83.87	419.34	150.96	10064.16	5591.20
35+16.04 TO 38+16.04, 30' WIDE, 3' AGG, SHLDRS	224.00	112.00	152.40	15.00	75.00	18.00	1200.00	666.67
38+16.04 TO 74+74.09, 20' WIDE	1820.90	910.45		182.90	609.68	219.48	14632.20	8129.00
76+09.47 TO 82+23.97, 20' WIDE	305.88	152.94		30.73	102.42	36.87	2458.00	1365.56
82+23.97 TO 84+36.59, 20' WIDE	105.84	52.92		10.63	35.44	12.76	850.48	168.96
S. 369TH W. AVE. INTERSECTION	244.02	122.01		16.34	81.70	13.50	468.00	1089.37
TOTAL	3953.1	1976.5	152.4	339.5	1323.6	451.6	29673	17011

SUMMARY OF CROSS DRAINS																			
STR. NO.	STATION	DESCRIPTION	DESIGN	STRUCTURAL INSTALLATION (BARREL)		STRUCTURAL INSTALLATION (END SECTIONS)			STRUCTURAL INSTALL. (CURTAIN WALL)			TYPE DD4 CULVERT END TREATMENT	R.C. PIPE ARCH CLASS A-III	TYPE B4 CULVERT END TREATMENT	R.C. PIPE CLASS IV	INLET GPI TYPE 1 (DESIGN 1)	TYPE I PLAIN RIPRAP	TYPE I-A FILTER BLANKET	
				CLASS AA CONC. 509 (A)	REIN. STEEL 511 (A)	CLASS AA CONC. 509 (A)	REIN. STEEL 511 (A)	DESIGN	CLASS AA CONC. 509 (A)	REIN. STEEL (A) 511	DESIGN	613 (M) ARCH EA	613 (A) LF	613 (M) ROUND EA	613 (A) LF	611 (G) EA	601 (A) TON	601 (C) TON	
CD01	30+35.68	(2) 58" X 36" X 78.2' LG R.C. PIPE ARCH CLASS A-III	SPI-5-0					CET4D-4-0				2	225.5					252.07	60.15
CD02	30+94.76	24" x 68' LG RCP	SPI-4					CET4S-4-0						2	68	1	13.11	3.13	
CD03	36+66.04	SINGLE CELL 12'X5'X40' RCB	RCB-C1-12(2-14)	59.60	11448.00	48.00	6720.00	RCB-E1-H5-0-1&2	11.20	1460.00	RCB-CW1-D4-0						49.70	11.86	
CD04	48+80.48	24" X 76' LG RCP	SPI-4					CET4S-4-0						2	76		12.81	3.06	
TOTAL				59.60	11448.0	48.00	6720.0		11.2	1460.0		2	225.5	4	144.0	1.0	327.7	78.2	

RIGHT-OF-WAY FENCING				
BEGIN STATION		END STATION		STYLE SWF 624 (C) (LF)
29+79	LT	30+51	LT	72
35+43	LT	37+61	LT	218
48+53	LT	49+03	LT	50
TOTAL				340

SUMMARY OF SILT FENCE				
LOCATION	SIDE		SILT DIKE 221(F)	SILT FENCE 221(C)
	LT	RT	L.F.	L.F.
CD #01 & #02	X	X	64	336
CD #03	X	X	16	582
CD #04	X	X	56	40
TOTAL			136.0	957.6

SUMMARY OF DRIVE ACCESS									
STATION	SIDE		AGGR. BASE TYPE A 303 (A)	SUPERPAVE TYPE S4 (PG 64-22 OK) 411 (C)	6" CONCRETE DRIVEWAY 610 (B)	T.B.S.C. TYPE E 402 (E)	REMOVAL OF ASPHALT DRIVEWAY 619 (B)	REMOVAL OF CONCRETE DRIVEWAY 619 (B)	SAWING PAVEMENT 619 (C)
	LT	RT	CY	TON	SY	TON	SY	SY	LF
10+26.45		X	6.34	6.39		0.51	38.06		16
10+27.00	X		4.75	4.79		0.51			
13+80.00	X		3.38	3.41		0.51			
15+80.00	X		3.33	3.36		0.51			
18+06.37		X	5.15		30.92	0.51		30.92	20
20+11.20	X		9.40	9.48		0.51			
20+99.18		X	11.39	11.48		0.51	68.33		33
27+50.68		X	5.70	5.75		0.51			
29+56.81		X	2.98	3.01		0.51			
30+77.47	X		5.92	5.97		0.51			
31+27.20	X		11.81	11.91		0.51			
50+00.00		X	8.87	8.94		0.51			
57+69.42	X		9.08	9.15		0.51			
57+91.94		X	4.22	4.25		0.51			
72+41.01		X	4.91	4.95		0.51	29.49		16
77+62.49	X		5.03	5.07		0.51	30.16		17
84+03.42		X	4.02	4.05		0.51			
TOTAL			106.3	102.0	30.9	8.8	166.0	30.9	102.0

SUMMARY OF GUARDRAILS (31" SYSTEM)				
STATION TO STATION	W-BEAM (SINGLE) 623 (A)	G.R BRIDGE CONN THRIE BEAM (31") 623 (I)	G.R. END TREATMENT (31") 623 (G)	G.R. DELINEATORS 853
	L.F.	EA.	EA.	EA.
73+63 - 74+63, LT	87.5	1	1	2
73+63 - 74+63, RT	87.5	1	1	2
76+21 - 77+21, LT	87.5	1	1	2
76+21 - 77+21, RT	87.5	1	1	2
TOTAL	350	4	4	8

QUANTITY TABLES
 BRISTOW AIRPORT ROAD
 SECTION 1, T-15-N, R-8-E
 CREEK COUNTY, OKLAHOMA

CROSS TIMBERS CONSULTING, LLC
 P.O. BOX 87
 Alex, Oklahoma 73002
 Phone: (405) 222-8280

NO.	DATE	BY	DESCRIPTION

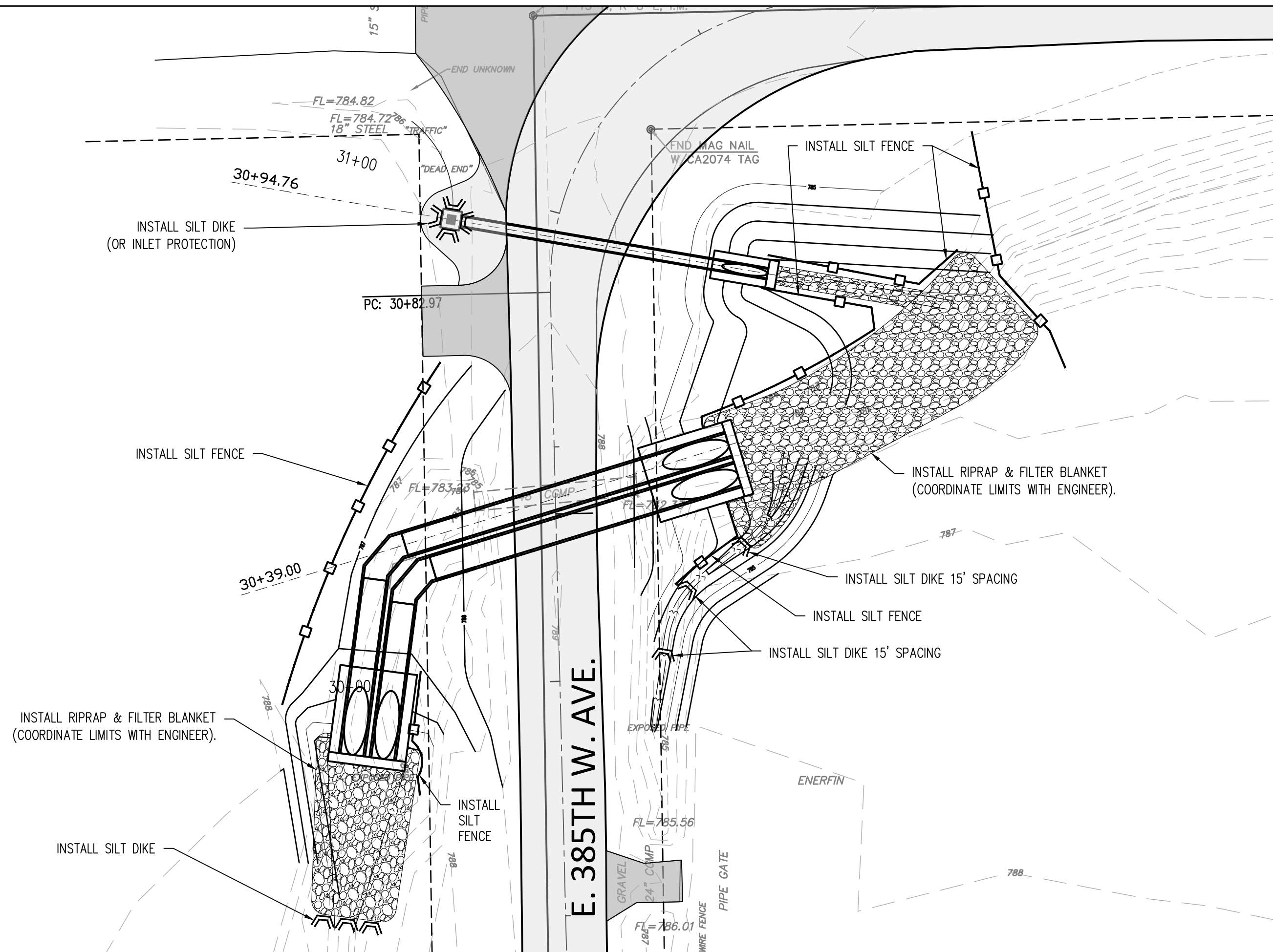
Drawn By: DJM
 Date: MARCH 28, 2023

PROJECT MCN-105

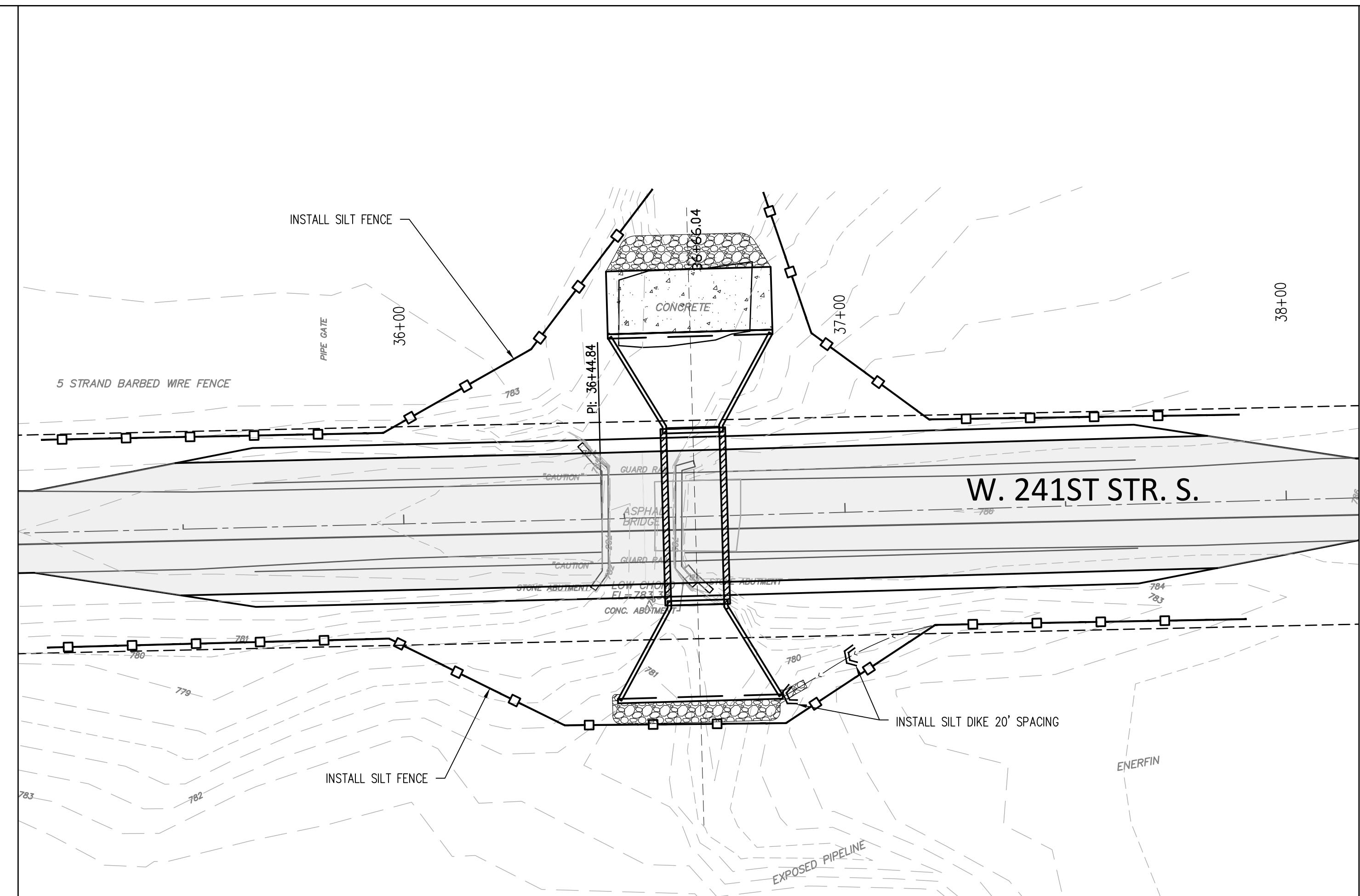
CROSS TIMBERS DRAWING FILEMCH-105 Bristow Airport Road EROSION CONTROL.dwg

WORK ROAD NOTE:
 ALL HEAVY EQUIPMENT USED IN THE PROJECT AREA SHOULD BE STEAM CLEANED BEFORE THE START OF THE PROJECT AND INSPECTED DAILY FOR LEAKS. NO LEAKING EQUIPMENT MAY BE USED IN OR NEAR SURFACE WATER OR IN THE WETLAND AREA. A WRITTEN INSPECTION LOG SHALL BE RECORDED DAILY AND MADE AVAILABLE TO THE TRIBES PROJECT INSPECTOR.

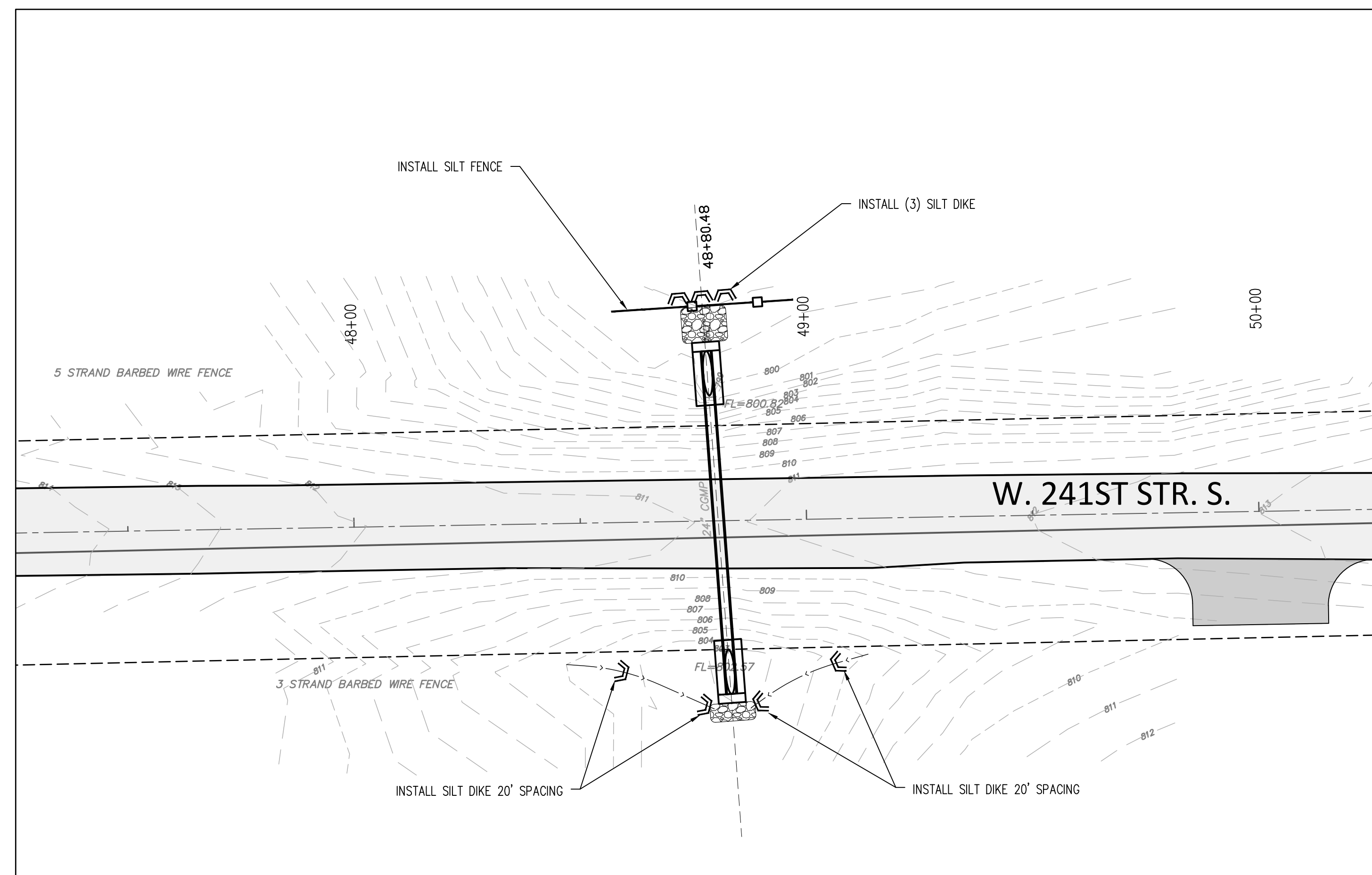
TEMPORARY EROSION CONTROL:
 EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO EXCAVATION AS REQUIRED BY THE EROSION CONTROL PLAN. WORK PERFORMED FOR INSTALLATION, MAINTENANCE, REMOVAL OR REPLACEMENT SHALL BE DOCUMENTED ON THE EROSION CONTROL PLAN FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL SUBMIT A COPY OF THE EROSION CONTROL PLAN SHEET WITH EACH PAY ESTIMATE, ANNOTATED/RED LINED TO SHOW THE EROSION CONTROL DEVICES THAT HAVE BEEN INSTALLED AND ARE BEING MAINTAINED. PRICE BID TO INCLUDE COST TO REPAIR, MAINTAIN, REMOVAL AND RESTORATION OF ERODED SLOPES AS NECESSARY.



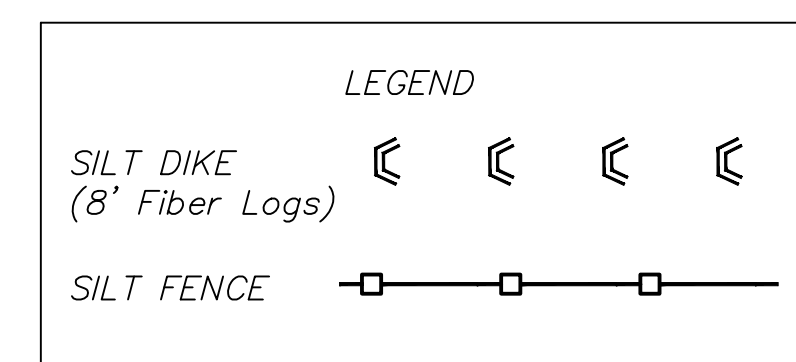
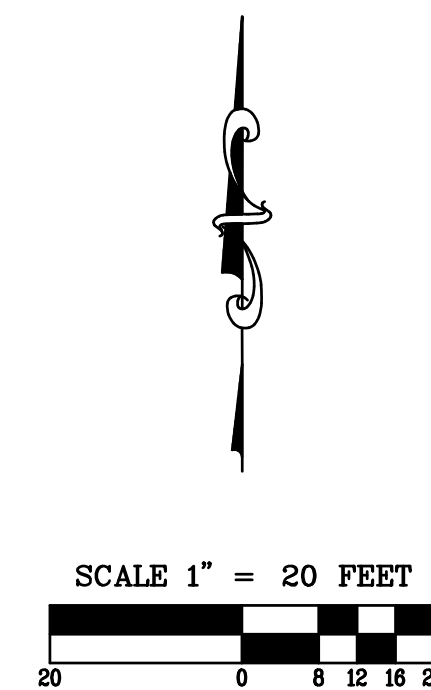
CROSS DRAIN #01 AND #02



CROSS DRAIN #03



CROSS DRAIN #04



NOTE:
 INSTALL SILT FENCE AND SILT DIKE'S AS INDICATED ON PLAN OR AS DIRECTED IN THE FIELD.

DITCH INSTALLATION TABLE	
0.5%	- 300 FT
1%	- 200 FT
2%	- 150 FT
3%	- 100 FT
4%	- 75 FT
5%	- 50 FT
8%	- 20 FT
12%	- 10 FT

REFER TO ODOT ROADWAY DRAINAGE MANUAL, FIGURE 13.7-B & C.

EROSION CONTROL PLAN
 BRISTOW AIRPORT ROAD
 SECTION 1, T-15-N, R-8-E
 CREEK COUNTY, OKLAHOMA

CROSS TIMBERS CONSULTING, LLC
 P.O. BOX 87
 Alex, Oklahoma 73002
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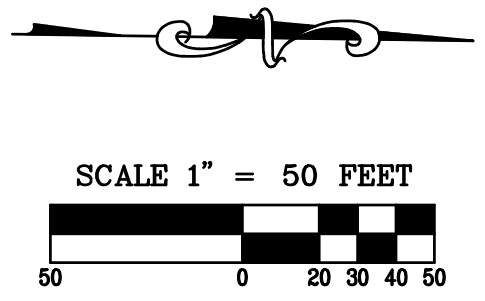
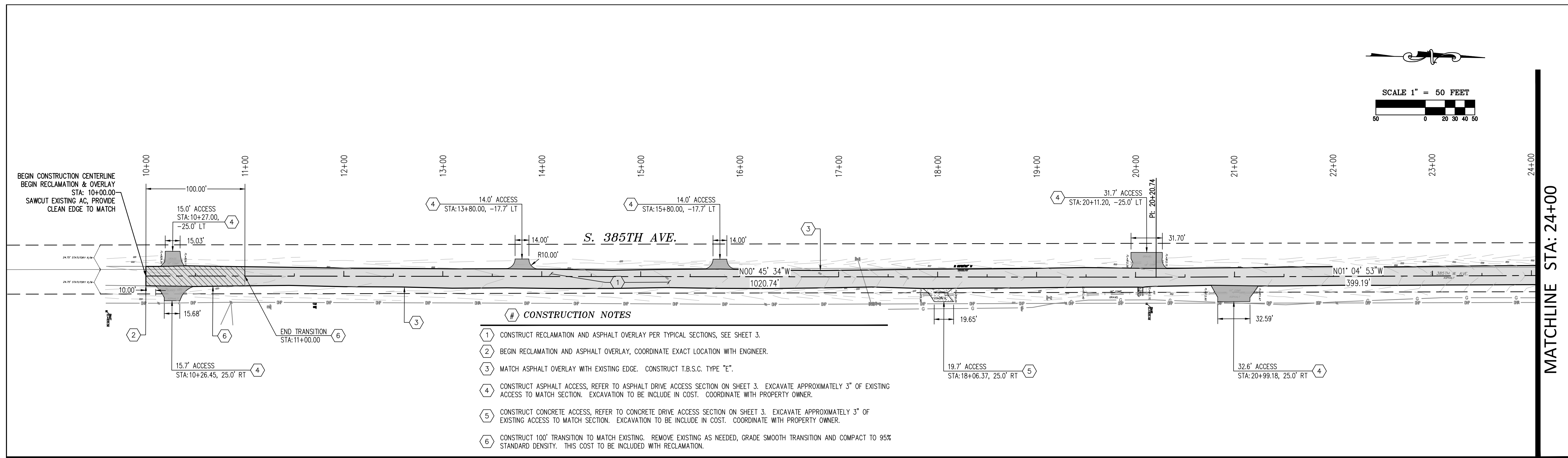
NO.	DATE	REVISIONS	BY
1	8/2/23	PROPOSED 5 STRAND BARBED WIRE FENCE	JAM

Drawn By: DJM
 Date: MARCH 28, 2023

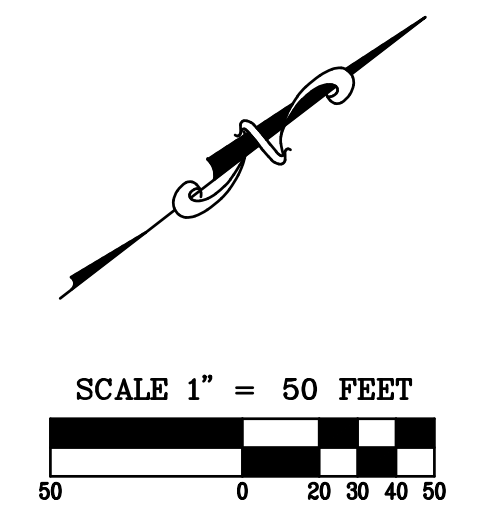
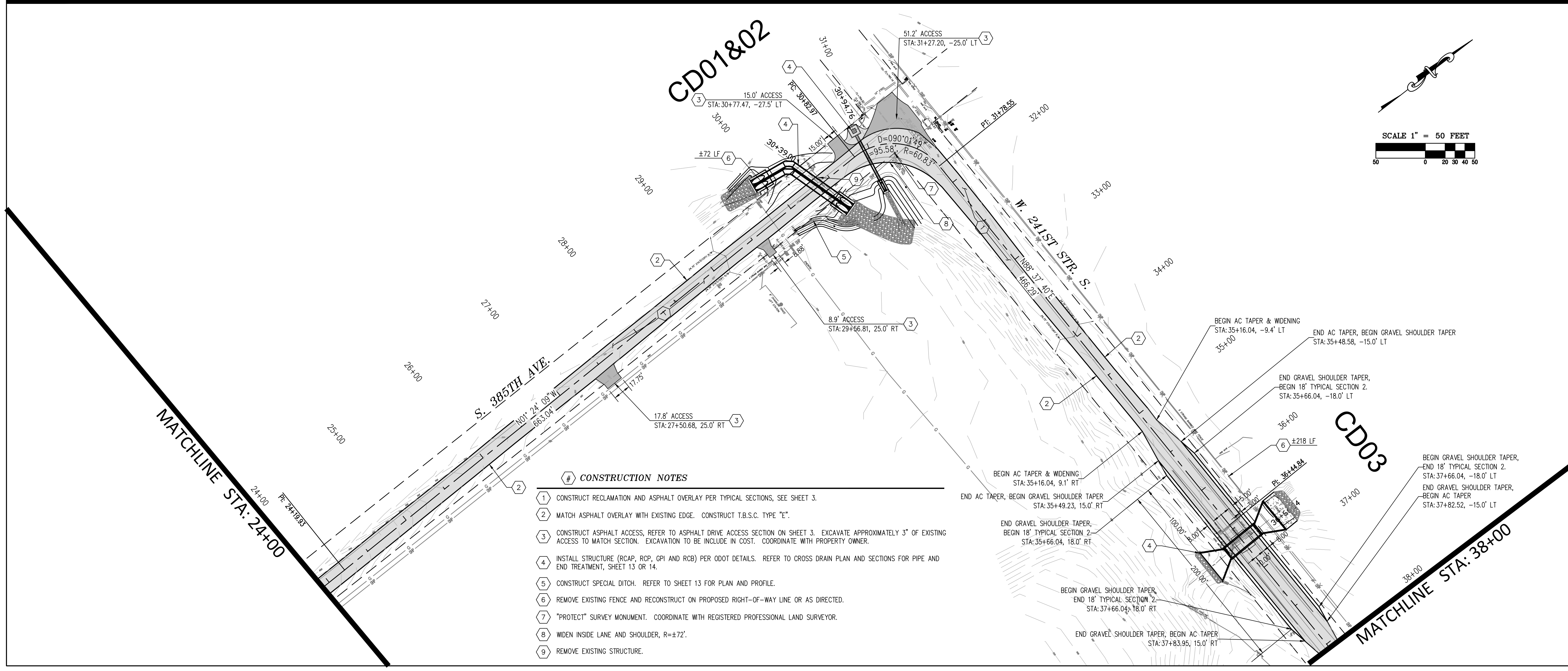
PROJECT MCN-105

SHEET 7

CROSS TIMBERS DRAWING FILE:VFG - Bristow Airport Road MCH-105 - (1) - (1).dwg



OVERLAY PLAN
 BRISTOW AIRPORT ROAD
 SECTION 1, T-15-N, R-8-E
 CREEK COUNTY, OKLAHOMA

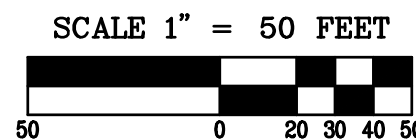
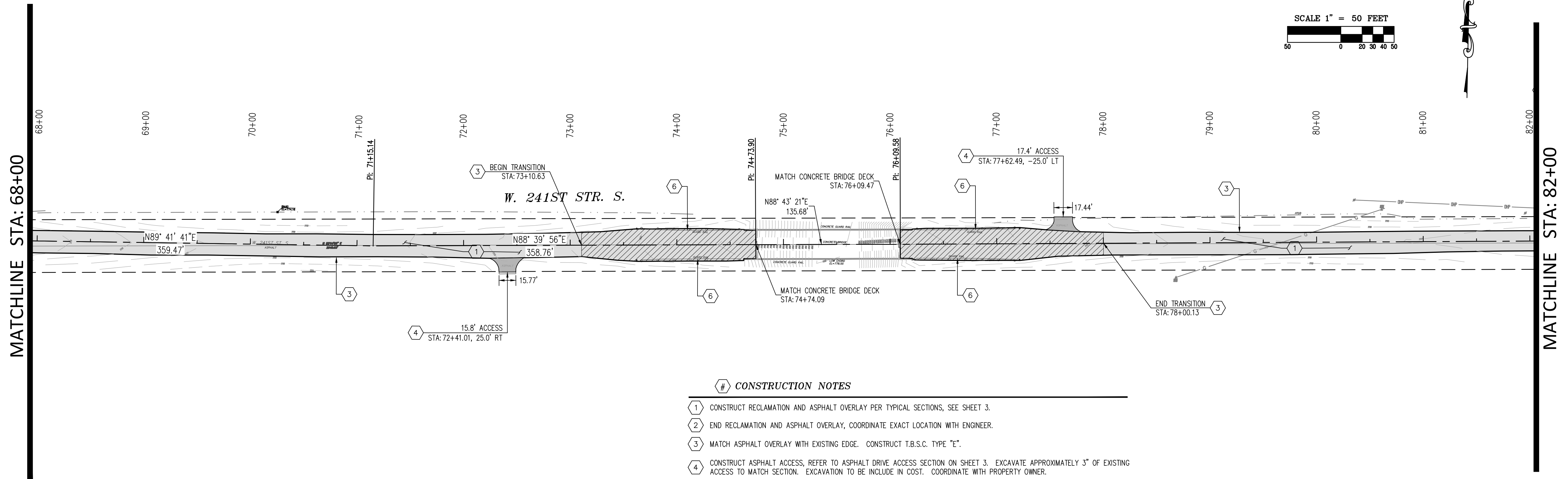


CROSS TIMBERS CONSULTING, LLC
 P.O. BOX 67
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 Phone: (405) 222-8280

NO.	DATE	REVISION	BY
1	02/23	PRO DPCS & GATLIE BARBER	DM

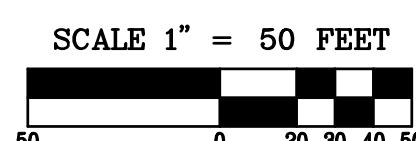
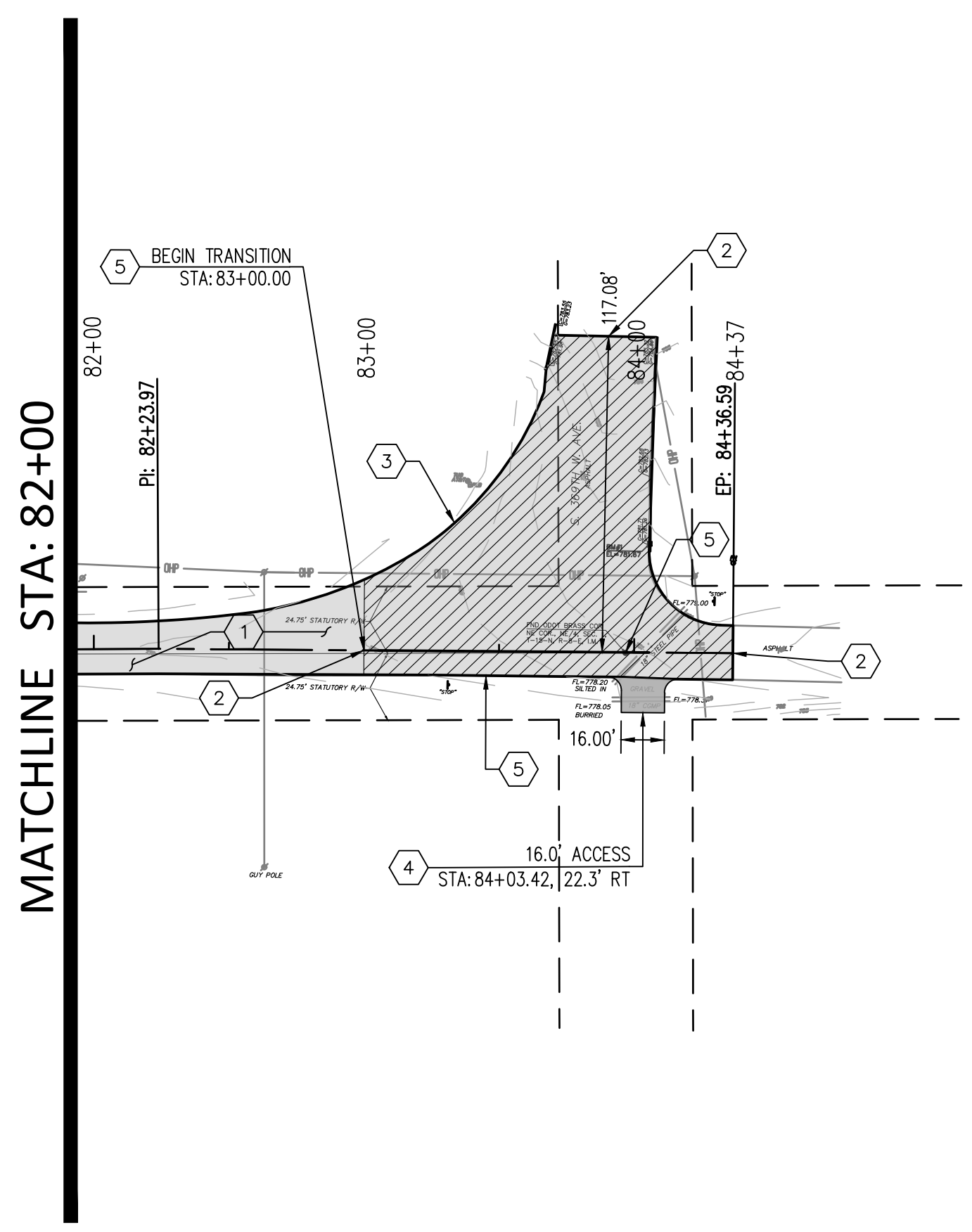
Drawn By: DJM
 Date: MARCH 28, 2023

PROJECT MCN-105
 SHEET 10



CONSTRUCTION NOTES

- 1 CONSTRUCT RECLAMATION AND ASPHALT OVERLAY PER TYPICAL SECTIONS, SEE SHEET 3.
- 2 END RECLAMATION AND ASPHALT OVERLAY, COORDINATE EXACT LOCATION WITH ENGINEER.
- 3 MATCH ASPHALT OVERLAY WITH EXISTING EDGE. CONSTRUCT T.B.S.C. TYPE "E".
- 4 CONSTRUCT ASPHALT ACCESS, REFER TO ASPHALT DRIVE ACCESS SECTION ON SHEET 3. EXCAVATE APPROXIMATELY 3" OF EXISTING ACCESS TO MATCH SECTION. EXCAVATION TO BE INCLUDE IN COST. COORDINATE WITH PROPERTY OWNER.
- 5 CONSTRUCT TRANSITION (AS INDICATED) TO MATCH EXISTING. REMOVE EXISTING AS NEEDED, GRADE SMOOTH TRANSITION AND COMPACT TO 95% STANDARD DENSITY.
- 6 REMOVE EXISTING GUARD RAIL AND INSTALL NEW 31" GUARD RAIL. REFER TO GUARD RAIL LAYOUT SHEET.

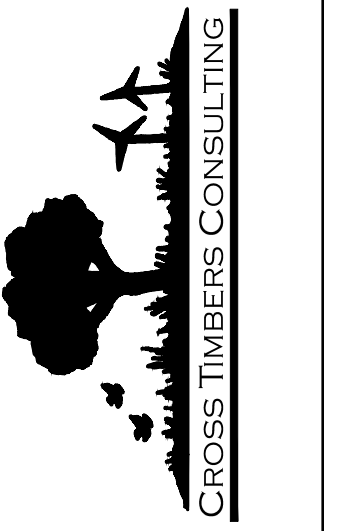


CONSTRUCTION NOTES

- 1 CONSTRUCT RECLAMATION AND ASPHALT OVERLAY PER TYPICAL SECTIONS, SEE SHEET 3.
- 2 END RECLAMATION AND ASPHALT OVERLAY, COORDINATE EXACT LOCATION WITH ENGINEER.
- 3 MATCH ASPHALT OVERLAY WITH EXISTING EDGE. CONSTRUCT T.B.S.C. TYPE "E".
- 4 CONSTRUCT ASPHALT ACCESS, REFER TO ASPHALT DRIVE ACCESS SECTION ON SHEET 3. EXCAVATE APPROXIMATELY 3" OF EXISTING ACCESS TO MATCH SECTION. EXCAVATION TO BE INCLUDE IN COST. COORDINATE WITH PROPERTY OWNER.
- 5 CONSTRUCT TRANSITION (AS INDICATED) TRANSITION TO MATCH EXISTING. REMOVE EXISTING AS NEEDED, GRADE SMOOTH TRANSITION AND COMPACT TO 95% STANDARD DENSITY.

OVERLAY PLAN
 BRISTOW AIRPORT ROAD
 SECTION 1, T-15-N, R-8-E
 CREEK COUNTY, OKLAHOMA

CROSS TIMBERS CONSULTING, LLC
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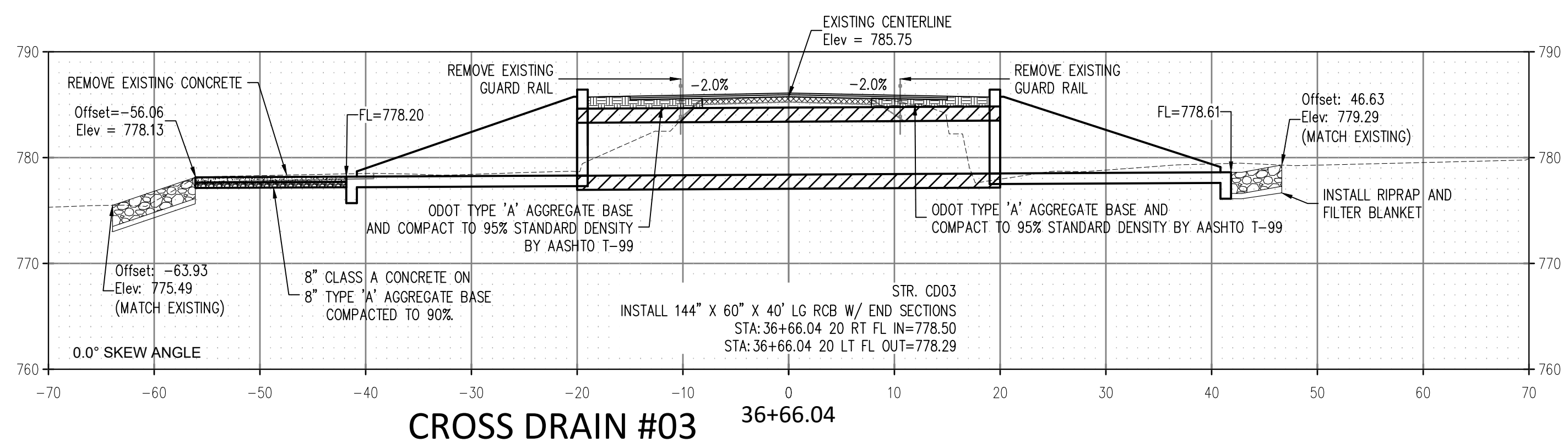
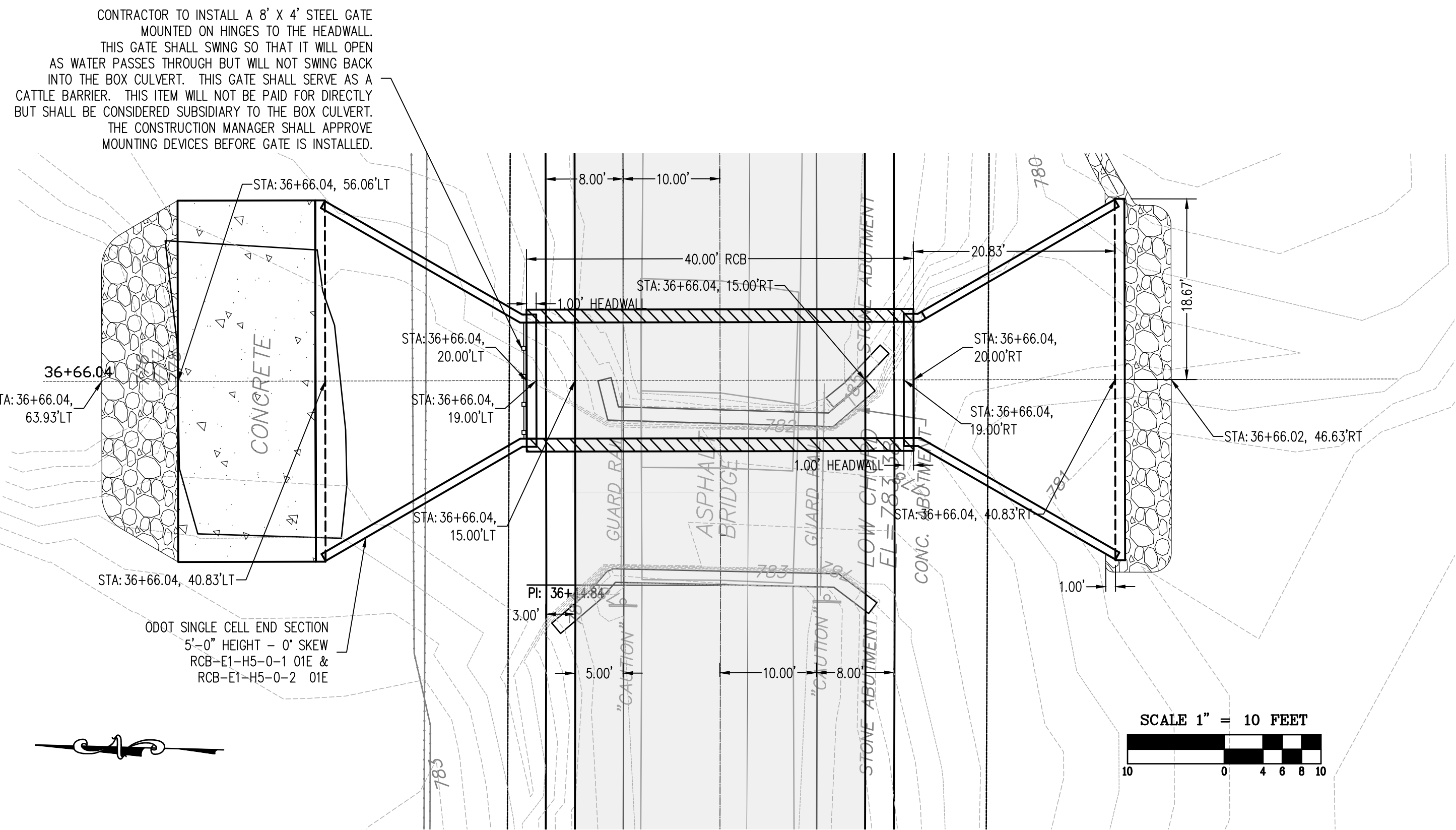


NO.	DATE	REVISIONS	BY
1	8/2/23	ISSUE FOR PERMITS & GATEWAY BARBERS DAM	DJM

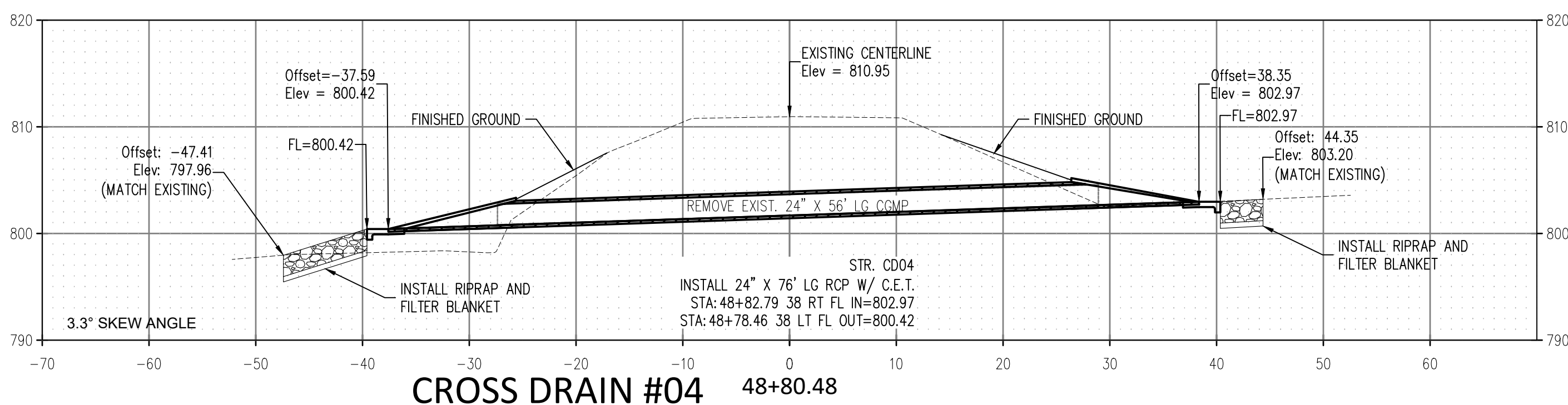
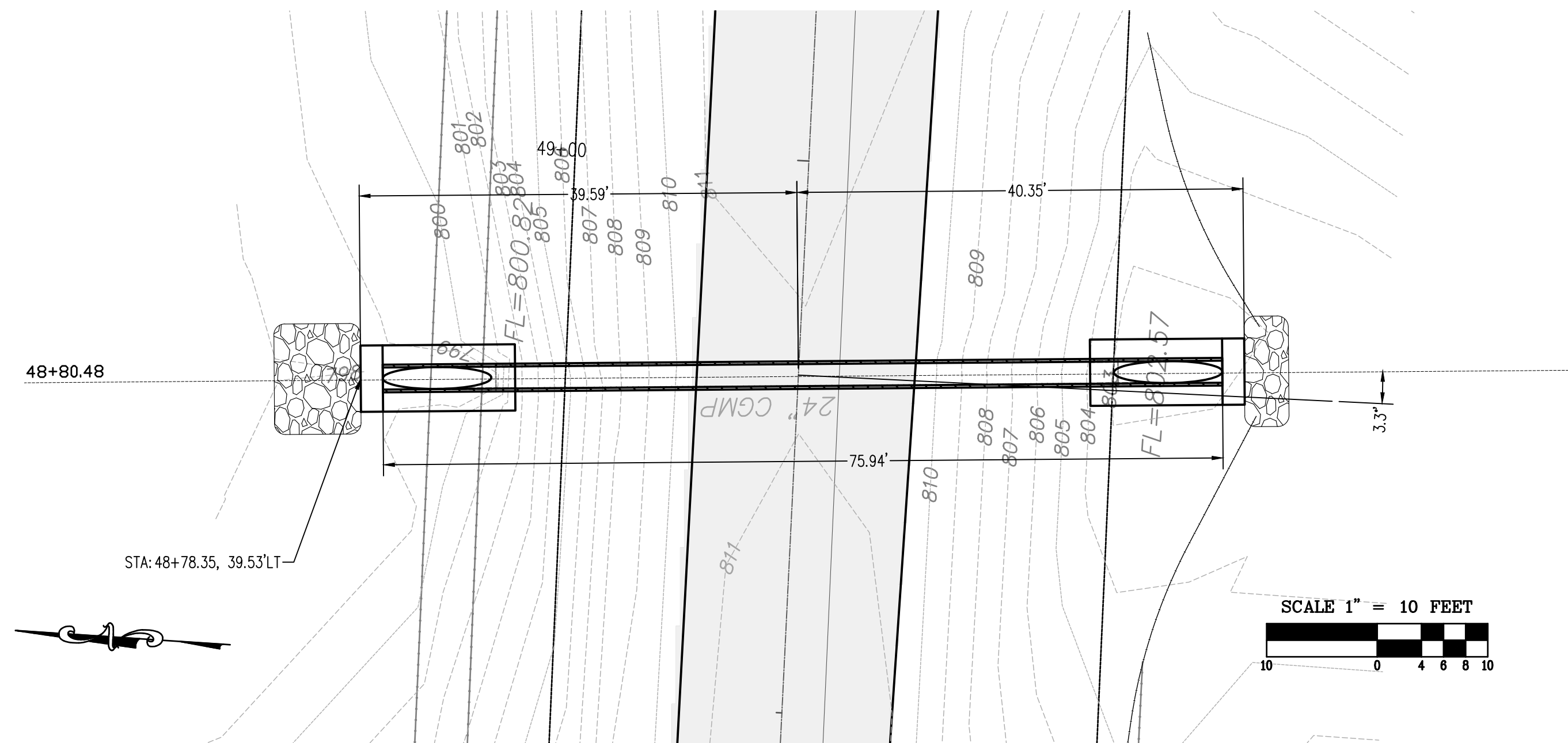
Drawn By: DJM
 Date: MARCH 28, 2023

PROJECT MCN-105

SHEET 12



CROSS DRAIN #03 36+66.04



CROSS DRAIN #04 48+80.48

CROSS DRAINS PLAN & SECTION
 BRISTOW AIRPORT ROAD
 SECTION 1, T-15-N, R-8-E
 CREEK COUNTY, OKLAHOMA

CROSS TIMBERS CONSULTING, LLC
 P.O. BOX 87
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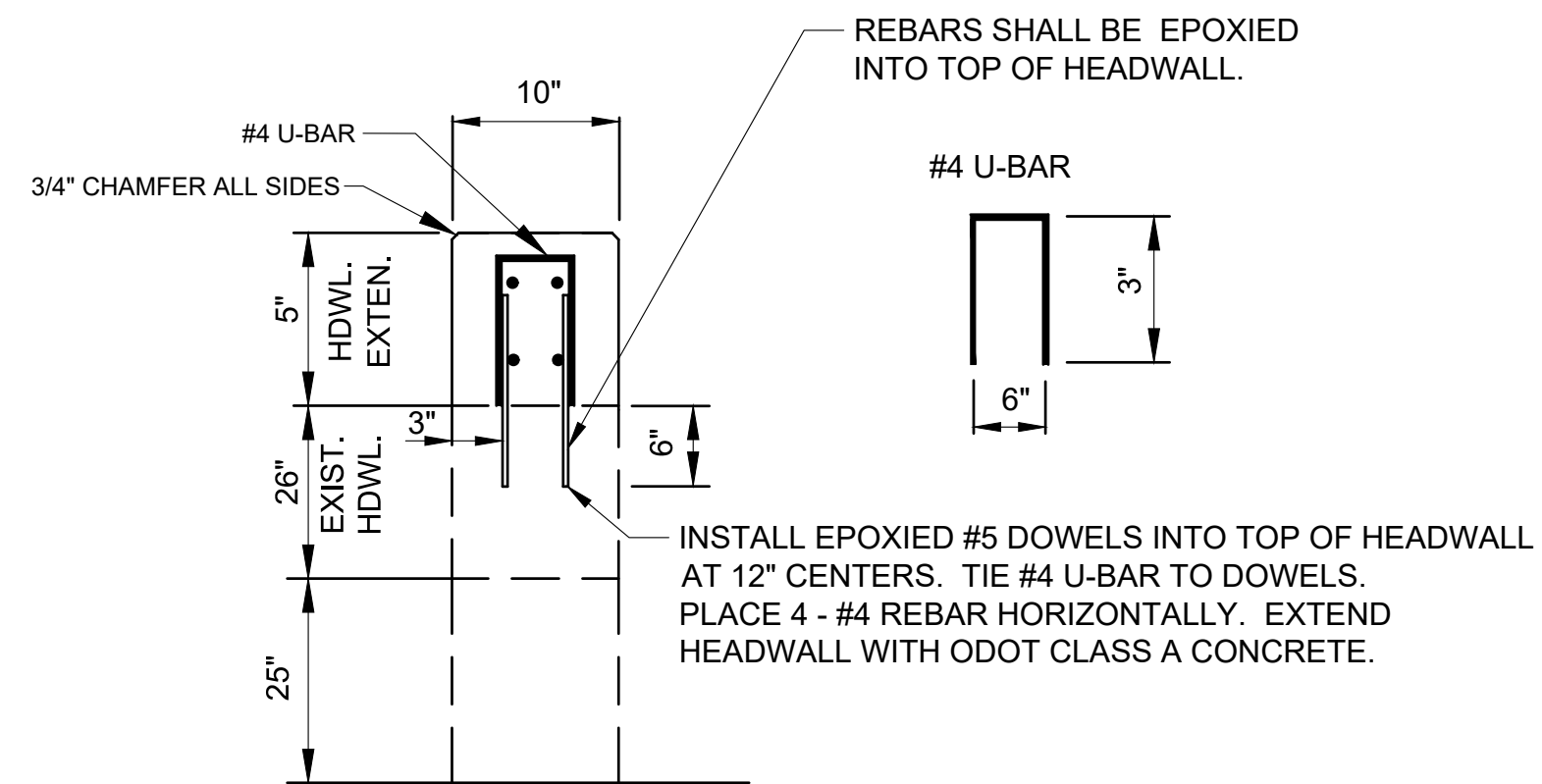
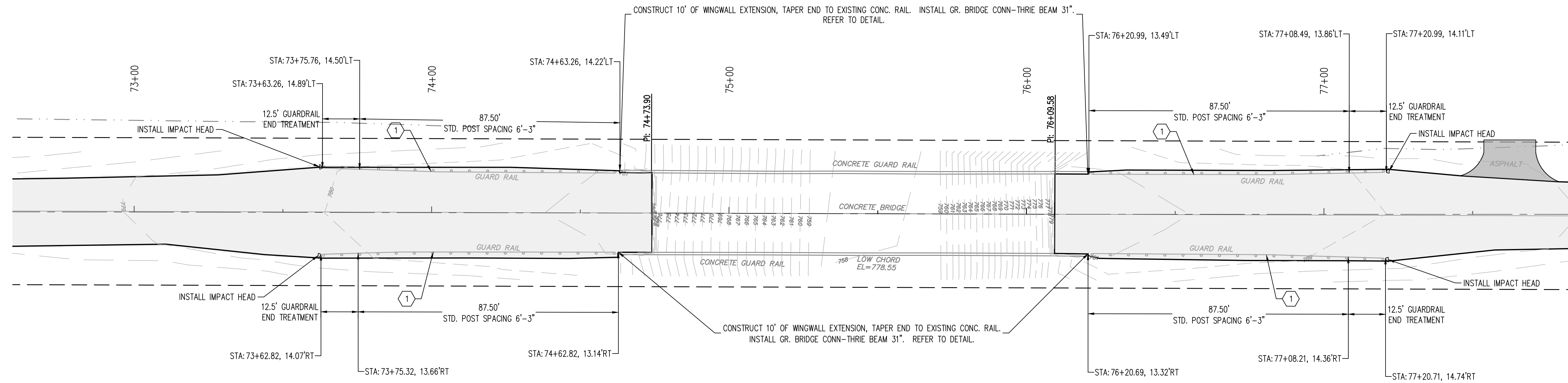
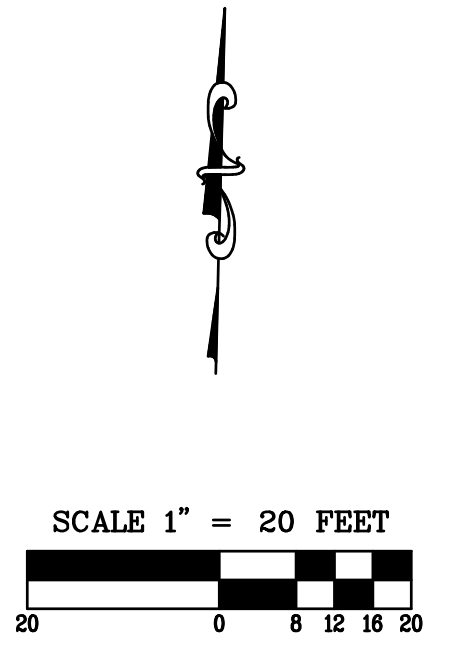
NO.	DATE	REVISIONS	BY

Drawn By: DJM
 Date: MARCH 28, 2023

PROJECT MCN-105

CROSS TIMBERS DRAWING FILE\MCN-105 Bristow Airport Road CIVIL BASE.dwg

GUARDRAIL LAYOUT
 BRISTOW AIRPORT ROAD
 SECTION 1, T-15-N, R-8-E
 CREEK COUNTY, OKLAHOMA



WINGWALL EXTENSION DETAIL
 N.T.S.

Summary of Quantities				
Description: Wingwall Height Extensions				
EXISTING BRIDGE ABUTMENTS				
ITEM	DESCRIPTION	UNITS	ABUTS.	TOTAL
509(A)	CLASS AA CONCRETE	CY	--	--
509(B)	CLASS A CONCRETE	CY	0.52	0.52
511(A)	REINFORCING STEEL	LB	111.1	111.1

- CONSTRUCTION NOTES**
- 1 REMOVE EXISTING GUARDRAIL AND INSTALL NEW GUARDRAIL (31" SYSTEM) W-BEAM SINGLE AND GUARDRAIL END TREATMENT (31" SYSTEM). IN SAME LOCATION, ADJUST LENGTH IF NEEDED.

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 Alex, Oklahoma 73002
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NO.	DATE	REVISIONS	BY
1	8/2/23	ISSUE FOR BIDDING	DJM
2		REVISED PER NOTES & CATTLE BARRIER LAYOUT	DJM

Drawn By: DJM
 Date: MARCH 28, 2023

PROJECT MCN-105