REVISIONS		
DESCRIPTION		DATE

CITY OF NORMAN

PLAN OF PROPOSED

BRIDGE AND APPROACHES

PROJECT NO. K-2324-151

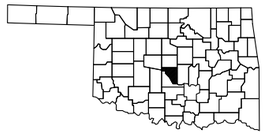
EXISTING NBI NO. 26914 NEW NBI NO. 33435

E. POST OAK ROAD OVER TRIB. TO JIM BLUE CREEK

SURVEY CONTROL DATA

1) THE PROJECT HORIZONTAL DATUM IS BASED ON THE NAD88, OKLAHOMA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, (US SURVEY FEET DEFINITION), WITH NO COMBINED ADJUSTMENT FACTOR (CAF). ALL COORDINATE AND DIMENSIONS SHOWN ON THESE PLANS ARE ON STATE PLANE.

2) THE VERTICAL DATUM USED IS NAVD88.



LOCATION MAP

DESIGN DATA

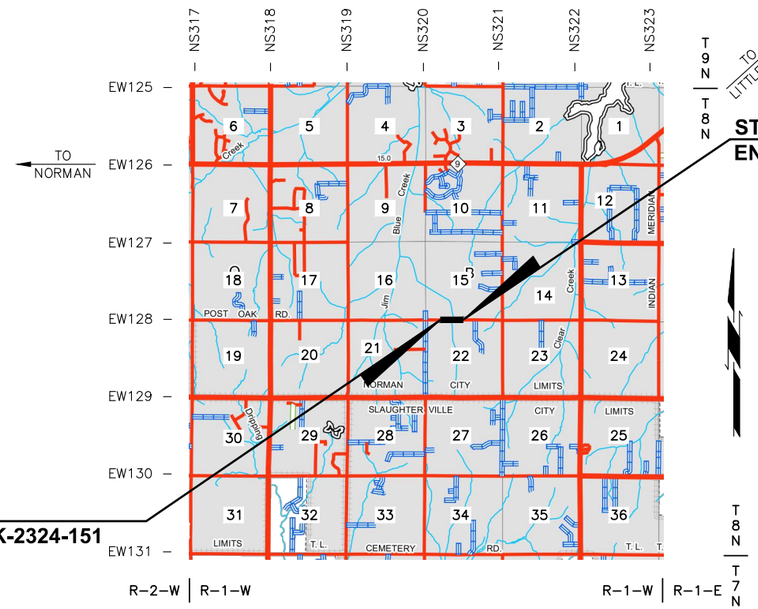
ADT 2025	– 220
ADT 2045	– 327
V	40 MPH
FLEX ESALS.	0.24 M

SCALES

PLAN	1:100
PROFILE HOR.	1:100
VER.	1:10
LAYOUT MAP	1"=2 MILES

BRIDGE 'A'

LOCATION NO. 14E1280N3200002
NBI NO. 33435
BEGIN BRIDGE STA. 112+80.00
BRIDGE LENGTH = 40.00
END BRIDGE STA. 113+20.00



CONVENTIONAL SYMBOLS

- PROPOSED ROADS
- SECTION LINES
- QUARTER SECTION LINES
- FENCES
- EXISTING GRADE
- EXISTING ROADS
- BASE LINE
- PROPOSED GRADE
- OVERHEAD TELEPHONE LINES (EXISTING) — OHT
- COMMUNICATION LINES (EXISTING) — TUG
- OVERHEAD POWER LINES (EXISTING) — OHE
- POWER UNDER GROUND LINES (EXISTING) — PUG
- GAS LINE (EXISTING) — G
- SANITARY SEWER LINES (EXISTING) — SS
- WATER LINES (EXISTING) — W
- COMMUNICATION LINES (PROPOSED) — TUG
- POWER LINES (PROPOSED) — OHE
- POWER LINES (PROPOSED) — PUG
- GAS LINE (PROPOSED) — G
- SANITARY SEWER LINES (PROPOSED) — SS
- WATER LINES (PROPOSED) — W
- BUILDINGS
- DRAINAGE STRUCTURES (EXISTING)
- DRAINAGE STRUCTURES (PROPOSED)
- RIGHT-OF-WAY LINES (EXISTING)
- RIGHT-OF-WAY LINES (PROPOSED)
- RIGHT-OF-WAY FENCE
- FLOWLINE (EXISTING)
- FLOWLINE (PROPOSED)
- TOE OF SLOPE (EXISTING)
- TOP OF CUT (EXISTING)
- TOE OF SLOPE/TOP OF CUT (PROPOSED)
- LANDSCAPE
- RAILROAD

2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION–ENGLISH GOVERN, APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION. DECEMBER 18TH, 2019.

ROADWAY LENGTH	337.00	FT	0.063 MI
BRIDGE LENGTH	40.00	FT	0.007 MI
TOTAL PROJECT LENGTH	377.00	FT	0.071 MI

EXCEPTIONS_____NONE

EQUATIONS_____NONE

PREPARED FOR:
THE CITY OF NORMAN

INDEX OF SHEETS

THE FOLLOWING ODOT STANDARDS ARE REQUIRED FOR THIS PROJECT:

2019 ROADWAY	2009 BRIDGE	2009 TRAFFIC
BMPR–0	TR4–2–00E	TCS1–1–01
TESCA–0	LECS–5–2	TCS9–1–01
RSF–0	SBI–5–2	TCS10–1–00
TSD–0		TCS14–1–00
SSS–2–1		THR1–1–02
PSE–2–1		SKT–1–00
SBI–5–2		

PREPARED BY:
MKEC ENGINEERING, INC.
CA#2958 06/30/25
OKLAHOMA CITY, OKLAHOMA

PROFESSIONAL STRUCTURAL ENGINEER — JONATHAN T. HISEY — 23127 — OKLAHOMA

Jonathan T. Hisey — 4/11/2025

JONATHAN T. HISEY, P.E. S.E.
OKLA. REG. NO. 23127
(SHEETS AB01, B001–B010)

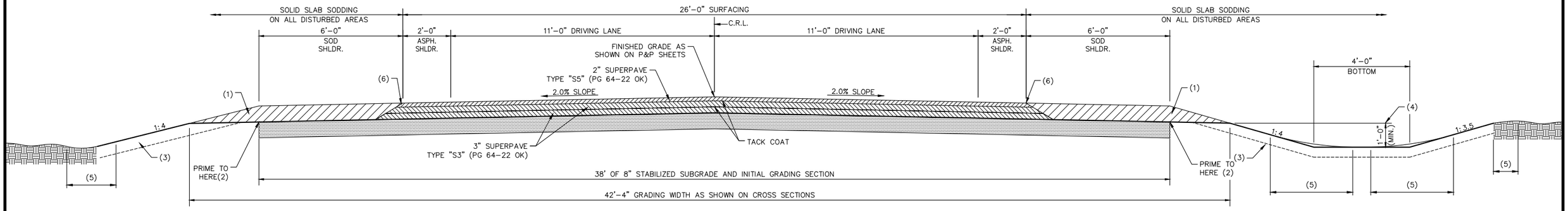
PREPARED BY:
MKEC ENGINEERING, INC.
CA#2958 06/30/25
OKLAHOMA CITY, OKLAHOMA

LICENSED PROFESSIONAL ENGINEER — CHASE R. COLE — 32407 — OKLAHOMA

4.11.25

CHASE R. COLE, P.E.
OKLA. REG. NO. 32407
(SHEETS 002, AR01–AT01, R001–R004, T001–X004)

REVISIONS		
DESCRIPTION		DATE



FILL SECTION

TYPICAL GRADING AND SURFACING SECTION

STATION 111+10.00 TO STATION 112+60.00
STATION 113+40.00 TO STATION 114+87.00

CUT SECTION

PAVEMENT REQUIREMENTS -TYPICAL SECTION			
PAVEMENT STRUCTURE	**DRIVING LANES**	**PAVED SHOULDER**	**SOD SHOULDER**
SURFACE	2" SUPERPAVE TYPE S5 (PG 64-22 OK)	2" SUPERPAVE TYPE S5 (PG 64-22 OK)	SOD
BASE	3" SUPERPAVE TYPE S3 (PG 64-22 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)	
	3" SUPERPAVE TYPE S3 (PG 64-22 OK)	3" SUPERPAVE TYPE S3 (PG 64-22 OK)	
	8" STABILIZED SUBGRADE	8" STABILIZED SUBGRADE	8" STABILIZED SUBGRADE

NOTES:

(1) SHOULDERS TO BE SHAPED OR FILLED AND COMPACTED AS PART OF FINISHING OPERATIONS. COST TO BE INCLUDED IN PRICE BID FOR UNCLASSIFIED BORROW.

(2) PRIME COAT IS TO BE APPLIED IMMEDIATELY AFTER SUBGRADE MODIFICATION.

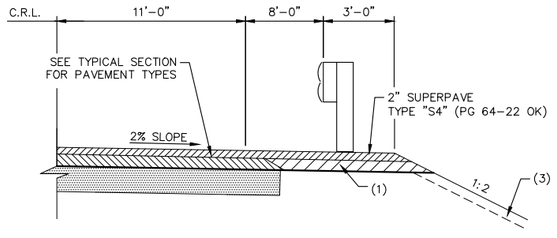
(3) TOPSOIL NOTE:
THE CONTRACTOR SHOULD STRIP ALL AVAILABLE TOPSOIL, STOCK PILE IT, AND PLACE IT BACK ON THE SECTION IN ACCORDANCE WITH SECTION 205 OF THE STANDARD SPECIFICATION. RESERVED TOPSOIL SHALL BE SPREAD FIRST ON THE COMPLETED SLOPES OF THE CUT SECTIONS AND THE REMAINDER ON COMPLETED FILL SLOPES OR OTHER PRIORITY AREAS LOCATED BY THE ENGINEER. ALL ADDITIONAL COSTS ASSOCIATED WITH OPERATION SHALL BE INCLUDED IN THE PAY ITEM FOR SALVAGE TOPSOIL, LUMP SUM.

THE GRADING LINE AS SHOWN ON THE TYPICAL AND CROSS SECTIONS IS TO THE TOP OF THE TOPSOIL. EARTHWORK QUANTITIES WERE NOT ADJUSTED FOR SALVAGE AND THE TOPSOIL. QUANTITY IS INCLUDED IN THE GRADING SUMMARY.

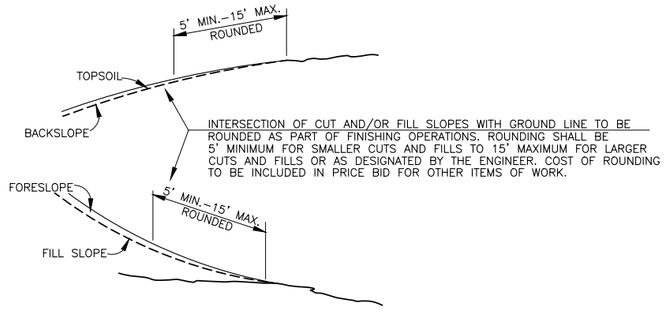
(4) VARIES AT SPECIAL DITCH LOCATIONS.

(5) SEE ROUNDING DETAIL, THIS SHEET

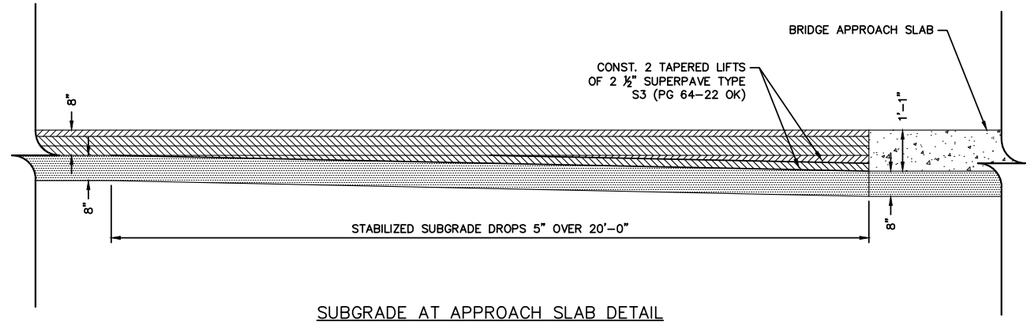
(6) SAFETY EDGE NOTE: CONSTRUCT ASPHALT SAFETY EDGE AS SHOWN IN SPECIAL PROVISION 411-14



TYPICAL SECTION AT GUARDRAIL WIDENING



ROUNDING DETAIL



SUBGRADE AT APPROACH SLAB DETAIL

DESIGN	DJG	E. POST OAK ROAD CLEVELAND COUNTY
DRAWN	KMH	**TYPICAL SECTION**
CHECKED	---	
MKEC		PROJECT NO. K-2324-151 SHEET NO. 0002

PLOTTED: Thursday, April 10, 2025 @ 04:29PM
G:\projects\2021\2463010081-City of Norman-Post Oak Bridge\100 CAD\SHTS\PaVe-2324-151-TYPICAL SECTIONS.dwg

GENERAL NOTES

SPECIFICATIONS –
COMPLY WITH THE REQUIREMENTS OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

CONCRETE –
ALL EXPOSED CONCRETE EDGES SHALL HAVE A 1½" CHAMFER UNLESS OTHERWISE SHOWN OR NOTED. ALL CHAMFER STRIPS SHALL BE SIZED LUMBER.

REINFORCING STEEL –
ALL REINFORCING STEEL 2" MINIMUM CLEAR COVER UNLESS OTHERWISE SHOWN.

PAY ITEM NOTES

B1 PAYMENT TO THE CONTRACTOR WILL BE BASED ON PLAN QUANTITIES

B2 THE APPROACH SLABS CONTAIN AN ESTIMATED TOTAL OF 65.70 C.Y. OF CLASS AA CONCRETE AND 12,550.00 LB. OF REINFORCING STEEL. INCLUDE ALL COSTS FOR CONSTRUCTING THE APPROACH SLABS, INCLUDING CONCRETE, REINFORCING STEEL (INCLUDING SLAB TO BRIDGE RAILING BARS), BACKER ROD, RAPID CURE JOINT SEALANT, POLYSTYRENE, LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK, IN THE CONTRACT UNIT PRICE OF "APPROACH SLAB".

B3 ITEM "REMOVAL OF EXISTING BRIDGE STRUCTURE" INCLUDES REMOVAL AND DISPOSAL OF SUPERSTRUCTURE AND SUBSTRUCTURE OF 32' LONG STEEL BEAM BRIDGE. ALL WORK SHALL BE DONE IN ACCORDANCE WITH SUBSECTION 619.04B(2) OF THE SPECIFICATIONS AND IN A MANNER APPROVED BY THE ENGINEER. ALL REMOVED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. INCLUDE ALL COSTS FOR LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK IN THE CONTRACT UNIT PRICE OF "REMOVAL OF EXISTING STRUCTURE".

MKEC // TRANSPORTATION

DESCRIPTION	REVISIONS	DATE

0200 BRIDGE
NBI NO. 33435

PAY QUANTITIES

3 – 12'x7'x40'–2" AT GRADE RCB 0° SKEW
W/ TR4 CONCRETE TRAFFIC RAILS, ℄ STA. 113+00.00

ITEM NO.		ITEM		UNIT	TOTAL
202 (A)	2210	UNCLASSIFIED EXCAVATION	B1	C.Y.	1,010.00
501 (A)	1210	STRUCTURAL EXCAVATION UNCLASSIFIED	B1	C.Y.	305.00
504 (A)	5200	APPROACH SLAB	B1,B2	S.Y.	178.60
504 (B)	5300	SAW–CUT GROOVING	B1	S.Y.	286.80
504 (D)	5420	CONCRETE RAIL (TR4)	B1	L.F.	160.00
509 (A)	0210	CLASS AA CONCRETE	B1	C.Y.	282.40
511 (A)	2210	REINFORCING STEEL	B1	LB.	50,380.00
619 (D)	6700	REMOVAL OF EXISTING BRIDGE STRUCTURE	B3	LSUM	1.00

DESIGN	J.T.H.	E. POST OAK RD. OVER TRIB. TO JIM BLUE CRK. CITY OF NORMAN
DRAWN	P.W.D.	**SUMMARY OF PAY QUANTITIES AND NOTES (BRIDGE)**
CHECKED	J.T.H.	
MKEC		PROJECT NO. K–2324–151 SHEET NO. AB01

PLOTTED: Friday, April 11, 2025 @ 08:49AM MKEC PROJECT NUMBER: 2403010281

ENVIRONMENTAL NOTES:

EARTHWORK NOTE:
THE CONTRACTOR MUST ENSURE THAT ANY MATERIAL INCORPORATED INTO THE PROJECT IS FREE OF ANY HAZARDOUS, INDUSTRIAL OR CONTAMINATED WASTE.

IMPORTED MATERIAL (E.G., BORROW) – IF MATERIAL IS IMPORTED TO THE PROJECT AND AT ANY POINT THE MATERIAL IS DETERMINED BY THE ENGINEER TO INCLUDE ANY TYPE OF UNACCEPTABLE CONTAMINATION, THE MATERIAL MAY REQUIRE REMOVAL, IN WHOLE, OR IN PART. IF REMOVAL IS REQUIRED, THEN THE INITIAL PLACEMENT, REMOVAL AND PROPER DISPOSAL OF THIS MATERIAL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE DISPOSAL OF THE UNACCEPTABLE MATERIAL SHALL BE APPROVED BY THE ENGINEER,

NON–COMPLIANCE NOTE:
FAILURE TO IMPLEMENT THE COMMITMENTS SPECIFIED IN THE PLAN NOTES CAN RESULT IN NON–COMPLIANCE ISSUES ON THE PROJECT. WORK ACTIVITIES MAY BE SUSPENDED ON THE PROJECT, FOR AN UNDETERMINED DURATION, WHILE WORKING WITH REGULATORS TO BRING THE PROJECT BACK INTO COMPLIANCE. THE CONTRACTOR WILL NOT BE COMPENSATED FOR TIME LOST.

WATER QUALITY CONSERVATION NOTE:
APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE IMPACTS FROM STORM WATER DISCHARGES AND SEDIMENTATION IN STREAMS, AS ESTABLISHED BY THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY, SHALL BE CONSCIENTIOUSLY IMPLEMENTED THROUGHOUT THE PROPOSED CONSTRUCTION PERIODS, IN ORDER TO MINIMIZE ANY POTENTIAL IMPACTS TO ANY LISTED SPECIES. THE EFFECTIVENESS OF EROSION CONTROLS SHALL BE MAINTAINED FOR THE DURATION OF CONSTRUCTION ACTIVITIES. HAZARDOUS MATERIALS, CHEMICALS, FUELS, LUBRICATING OILS, AND OTHER SUCH SUBSTANCES SHALL BE STORED AT LEAST 100 FEET FROM THE ORDINARY HIGH WATER MARK (OHWM). REFUELING OF CONSTRUCTION EQUIPMENT SHALL ALSO BE CONDUCTED AT LEAST 100 FEET FROM THE OHWMS. SEDIMENT AND EROSION CONTROLS SHALL BE INSTALLED AROUND STAGING AREAS TO PROHIBIT DISCHARGE OF MATERIALS FROM THESE SITES. CONSTRUCTION WASTE MATERIALS AND DEBRIS SHALL BE STOCKPILED AT LEAST 25 FEET OUTSIDE OF THE OHWMS, AND THESE MATERIALS SHALL BE REMOVED AND DISPOSED OF PROPERLY FOLLOWING COMPLETION OF THE PROJECT. PREVENTATIVE MEASURES MUST BE TAKEN TO PROHIBIT THE DISCHARGE OF CONTAMINANTS INTO ANY SURFACE WATERS.

OKR10 CONSTRUCTION STORM WATER NOTE:
THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AN OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY OKR10 CONSTRUCTION STORM WATER PERMIT AUTHORIZATION.

A STORM WATER POLLUTION PREVENTION PLAN (SWP3) 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 (DEQ). 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 SWP3 (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 THE 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.

MIGRATORY BIRD PLAN NOTE:
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 MIGRATORY BIRD SPECIES EXTENDS FROM MARCH 1 TO AUGUST 31. MIGRATORY BIRD NESTING USE OF THE BRIDGES AND STRUCTURES INVOLVED WITH THIS PROJECT IS POSSIBLE. DEMOLITION OF THE EXISTING BRIDGE/STRUCTURES SHALL BE CONDUCTED BETWEEN SEPTEMBER 1, AND FEBRUARY 28, WHEN MIGRATORY BIRD NESTS ARE NOT OCCUPIED. IF DEMOLITION CANNOT BE COMPLETED BETWEEN SEPTEMBER 1 AND FEBRUARY 28, THE BRIDGE SHALL 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. ALTERNATIVELY, A TRAINED BIOLOGIST/ENVIRONMENTAL PROFESSIONAL CAN PERFORM A SITE OR STRUCTURE–SPECIFIC REVIEW IMMEDIATELY BEFORE THE CONSTRUCTION BEGINS TO CONFIRM THE ABSENCE OF SWALLOWS. EACH STRUCTURE SHOULD BE ASSESSED FOR THE PRESENCE OF ADULTS AND ACTIVE NESTS. CARE SHOULD BE TAKEN TO AVOID ANY IMPACT TO NESTS, EGGS, OR YOUNG. IF THERE ARE NO ADULTS AND NO ACTIVE NESTS, THEN CONSTRUCTION ACTIVITY COULD PROCEED––THERE WOULD NOT BE ANY IMPACT TO SWALLOWS AND CONSEQUENTLY, NO VIOLATION OF THE MIGRATORY BIRD ACT. SUFFICIENT DOCUMENTATION SHOULD BE MAINTAINED TO SUPPORT ANY DECISION TO CONSTRUCT BETWEEN MARCH 1 AND SEPTEMBER 31.

BIRDS OF CONSERVATION CONCERN (BCC) PLAN NOTE:
BIRDS OF CONSERVATION CONCERN (BCC) REFER TO MIGRATORY, NONGAME BIRDS THAT, WITHOUT ADDITIONAL CONSERVATION ACTIONS, ARE LIKELY TO BECOME CANDIDATES FOR LISTING UNDER THE ENDANGERED SPECIES ACT. THE BCC LIST IS A PROACTIVE CONSERVATION MANDATE PRODUCED BY THE USFWS WHICH MUST BE CONSIDERED BY ALL FEDERAL AGENCIES. IN ORDER TO AVOID IMPACTS TO BOTH TREE NESTING AND GROUND NESTING SPECIES, THE GRUBBING AND REMOVAL OF TREES AND SHRUBS WILL BE RESTRICTED TO WITHIN THE ACTUAL LIMITS OF CONSTRUCTION. ANY IMPLEMENTED SEASONAL RESTRICTIONS FOR PROTECTION OF MIGRATORY BIRD NESTING ON THE BRIDGE STRUCTURE WILL PROVIDE ADDITIONAL PROTECTION FOR LISTED BCC.

CULTURAL RESOURCE NOTE:
NO HISTORIC OR PREHISTORIC RESOURCES WERE IDENTIFIED WITHIN THE CONSTRUCTION AREA. IF PREVIOUSLY UNIDENTIFIED CULTURAL RESOURCES ARE ENCOUNTERED DURING CONSTRUCTION, WORK SHALL STOP AND THE US ARMY CORPS OF ENGINEERS (USACE) AREA ARCHAEOLOGIST WILL BE NOTIFIED TO ENSURE PROPER PROTOCOLS ARE FOLLOWED INCLUDING TRIBAL COORDINATION AND COORDINATION WITH THE OKLAHOMA ARCHAEOLOGICAL SURVEY (OAS), AND THE OKLAHOMA STATE HISTORIC PRESERVATION OFFICE (SHPO). THE WORK STOPPAGE WILL ALLOW THE ENGINEER TO ENSURE PROPER PROTOCOLS ARE FOLLOWED INCLUDING TRIBAL COORDINATION, AND OAS AND SHPO TO DETERMINE AN APPROPRIATE COURSE OF ACTION TO HANDLE AN INADVERTENT DISCOVERY. IN ADDITION, THE NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT (NAGPRA) (25 U.S.C. 3001 ET SEQ.) WILL BE FOLLOWED WHEN APPLICABLE.

HUMAN REMAINS NOTE:
IF HUMAN REMAINS ARE ENCOUNTERED AS PART OF CONSTRUCTION OR OTHER GROUND DISTURBING ACTIVITIES ASSOCIATED WITH THIS PROJECT, WORK SHALL STOP IMMEDIATELY IN ACCORDANCE WITH THE OKLAHOMA BURIAL ACT (OSS TITLE 21, CHAPTER 47, SECTION 1168). IN ADDITION, THE NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT (NAGPRA) (25 U.S.C. 3001 ET SEQ.) WILL BE FOLLOWED WHEN APPLICABLE. THE SHERIFF AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

DESIGN	DJC	E. POST OAK ROAD — CLEVELAND COUNTY
DRAWN	KMH	**ENVIRONMENTAL NOTES**
CHECKED	---	
MKEC		PROJECT NO. K–2324–151 SHEET NO. AE01

SPECIFICATIONS:

COMPLY WITH THE REQUIREMENTS OF THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

GENERAL CONSTRUCTION NOTES:

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

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

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

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

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

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

PRIME COAT SHALL BE APPLIED TO THE SUBGRADE IMMEDIATELY AFTER FINAL COMPACTION AND SHAPING TO RETAIN MOISTURE FOR PROPER CHEMICAL REACTION OF THE SOIL ADDITIVE.

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

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

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

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

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

THE BRIDGE SITE WILL BE CLOSED TO ALL PUBLIC TRAFFIC DURING CONSTRUCTION. CONTRACTOR SHALL MAINTAIN ACCESS TO LOCAL TRAFFIC DURING CONSTRUCTION.

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

THE CITY OF NORMAN WILL BE RESPONSIBLE FOR:

- RELOCATION OF UTILITIES

CONTRACTOR SHALL GIVE NOTICE TO CITY OF NORMAN IN WRITING 14 DAYS BEFORE WORK BEGINS ON THE PROJECT.

ROADWAY PAY QUANTITY NOTES:

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

(R-4) AN ESTIMATED QUANTITY OF 123 C.Y. TOPSOIL TO BE RESERVED FOR REPLACEMENT OF APPROXIMATELY 5" ON COMPLETED FORESLOPES, DITCHES, AND BACKSLOPES. THIS QUANTITY IS INCLUDED IN THE EARTHWORK BALANCE. ANY ADDITIONAL EXCAVATION REQUIRED IN CUT SECTIONS TO ALLOW FOR PLACEMENT OF TOPSOIL TO FINAL GRADE, SHALL BE INCLUDED IN THE PRICE BID.

(R-6) FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF 10-20-10 FERTILIZER, ESTIMATED AT 200 POUNDS PER 1000 S.Y.

(R-7) FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF WATERING, ESTIMATED AT 40 GALLONS PER S.Y.

(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-11) THE QUANTITIES ESTIMATED FOR TEMPORARY EROSION AND SEDIMENT CONTROL IS 0.18 ACRES.

(R-15) QUANTITY BASED ON TWO APPLICATIONS.

(R-19) PRICE BID TO INCLUDE THE CHEMICAL ADDITIVE(S) TO ACHIEVE THE RATE SPECIFIED FOR THE APPROPRIATE SOIL CLASSIFICATION AS SPECIFIED IN THE MOST CURRENT ODOT MATERIALS DIVISION OHD L-50. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CLASSIFY THE SOIL AND DETERMINE THE APPROPRIATE ADDITIVE(S).

(R-23) PRIME COAT SHALL BE APPLIED AT AN ESTIMATED RATE OF 0.35 GAL. PER SQ. YD. WHEN APPLIED TO SUBGRADE, AND 0.25 GAL. PER SQ. YD. WHEN APPLIED TO AGGREGATE BASE. THE ACTUAL CUTBACK PRIME COAT REQUIRED FOR PLACEMENT OPERATIONS WILL BE DETERMINED BY THE CONTRACTOR, AND SHALL CONSIDER THE RESIDUE FROM DISTILLATION PERCENTAGE SHOWN IN SECTION 708.03 OF THE STANDARD SPECIFICATIONS.

(R-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-33) QUANTITY INCLUDES AN ESTIMATED 5 C.Y. TO BE USED AS DIRECTED BY THE ENGINEER.

(R-39) INCLUDES REMOVAL OF ALL EXISTING ROADWAY DRAINAGE STRUCTURES, HEADWALLS (UNLESS OTHERWISE SPECIFIED), 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) MATERIALS REMOVED SHALL NOT BE MEASURED FOR PAYMENT UNDER SECTION 202.06 UNCLASSIFIED EXCAVATION.

(1) SEE SUMMARY OF EARTHWORK (SHEET NO. AR02)

(2) ESTIMATED QUANTITY ONLY TO BE USED FOR EROSION AND SEDIMENT CONTROL IN A MANNER APPROVED BY THE ENGINEER. (SEE STDS. RSF-0 AND TSD-0)

(3) IN ADDITION TO THE RESPONSIBILITIES SHOWN IN THE SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND/OR RE-ESTABLISHING THE SURVEY CONTROL POINTS SHOWN ON THE PLANS, STAKING THE CENTERLINE OF CONSTRUCTION AND RE-ESTABLISHING RIGHT-OF-WAY STAKES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING BENCH MARKS SHOWN ON THE PLANS AND FOR ESTABLISHING NEW BENCH MARKS AS NEEDED TO CONSTRUCT THE PROJECT. THE CONTRACTOR SHALL PLACE STAKES AND HUBS EVERY 100' AND AT DRAINAGE STRUCTURES.

(4) INCLUDES 31 C.Y. OF EXCAVATION FOR DRAINAGE GRADING AT STA. 114+65.00 LT. ESTIMATED QUANTITY BASED ON 4' DITCH BOTTOM WITH 3.5:1 BACKSLOPE.

(5) PRICE BID TO INCLUDE COST OF PORTLAND CEMENT, FLEXAMAT UNDERLAYMENT MATERIALS, AND #3 REBAR U-ANCHORS (18") NECESSARY TO INSTALL ARTICULATING CONCRETE BLOCK (FLEXAMAT) AS SHOWN ON SHEET U001-U002 ANY EXCAVATION FOR ANCHOR TRENCHES SHALL ALSO BE INCLUDED IN THE PRICE BID. FLEXAMAT SHALL BE INSTALLED IN ACCORDANCE WITH THE PRODUCT TECHNICAL SPECIFICATIONS AND DETAILS DRAWINGS.

(6) DEBRIS FROM BRIDGE REMOVAL TO BE REMOVED FROM CHANNEL AT THE END OF EACH DAY.

(7) QUANTITY IS FOR BEDDING AND BACKFILL AT BRIDGE 'A'. SEE SHEET NO. B010 FOR MORE DETAIL.

(8) FLARED GUARDRAIL END TREATMENT TO BE INSTALLED AS DIRECTED BY THE FIELD ENGINEER, EACH LEG.

(9) QUANTITY INCLUDES 25 TONS OF SUPERPAVE TYPE S3 (PG 64-22 OK) TO BE USED AT THE TRANSITION FROM THE ASPHALT TO THE APPROACH SLAB EACH SIDE OF BRIDGE 'A'. SEE SHEET NO. 0002, SUBGRADE AT APPROACH SLAB DETAIL FOR MORE INFORMATION.

K-2324-151

PAY QUANTITIES

0100 ROADWAY

ITEM		DESCRIPTION		UNIT	QUANTITY
201(A)	1200	CLEARING AND GRUBBING		L.SUM	1.00
202(A)	2200	UNCLASSIFIED EXCAVATION	(1)(4)(R-1)	C.Y.	82.00
202(D)	2500	UNCLASSIFIED BORROW	(1)	C.Y.	270.00
205(A)	6200	TYPE A-SALVAGED TOPSOIL	(R-4)	L.SUM	1.00
221(B)	2300	TEMPORARY SILT FENCE	(2)(R-8)	L.F.	574.00
221(E)	2600	TEMPORARY SILT DIKE	(2)(R-8)	L.F.	21.00
230(A)	7200	SOLID SLAB SODDING	(R-6)(R-7)	S.Y.	882.00
233(A)	0200	VEGETATIVE MULCHING	(R-11)	AC.	0.18
241	3100	MOWING	(R-15)	AC.	0.36
303(A)	1200	AGGREGATE BASE TYPE A	(7)	C.Y.	300.00
307(K)	4200	STABILIZED SUBGRADE	(R-19)	S.Y.	1,255.00
407(B)	7300	TACK COAT	(R-25)	GAL.	135.00
408	8100	PRIME COAT	(R-23)	GAL.	440.00
411(B)	1330	SUPERPAVE, TYPE S3 (PG 64-22 OK)	(R-26)	TON	330.00
411(D)	1530	SUPERPAVE, TYPE S5 (PG 64-22 OK)	(R-26)	TON	147.00
509(D)	0500	CLASS C CONCRETE	(R-33)	C.Y.	5.00
602(B)	2300	ARTICULATING CONCRETE BLOCK	(5)	S.F.	483.00
619(A)	6200	REMOVAL OF STRUCTURES & OBSTRUCTIONS	(6)(R-39)(R-40)	L.SUM	1.00
619(B)	6364	REMOVAL OF ASPHALT PAVEMENT	(R-40)(R-41)	S.Y.	938.00
619(B)	6396	REMOVAL OF GUARDRAIL	(R-40)	L.F.	144.00
619(C)	6600	SAWING PAVEMENT		L.F.	48.00
623(A)	1200	BEAM GUARDRAIL W-BEAM SINGLE		L.F.	50.00
623(G)	1820	GUARDRAIL END TREATMENT (31")	(8)	EA.	4.00
623(I)	2050	GUARDRAIL BRIDGE CONN-THRIE BEAM (31")		EA.	4.00

K-2324-151

PAY QUANTITIES

0600 STAKING

ITEM		DESCRIPTION		UNIT	QUANTITY
642(B)	3300	CONSTRUCTION STAKING LEVEL II	(3)	L.SUM	1.00

K-2324-151

PAY QUANTITIES

0640 CONSTRUCTION

ITEM		DESCRIPTION	UNIT	QUANTITY
220	1100	SWPPP DOCUMENTATION AND MANAGEMENT	L.SUM	1.00
641	2100	MOBILIZATION	L.SUM	1.00

DESIGN	DJG
DRAWN	KMH
CHECKED	---

MKEC

E. POST OAK ROAD CLEVELAND COUNTY

SUMMARY OF PAY QUANTITIES AND NOTES (ROADWAY)

PROJECT NO. K-2324-151 SHEET NO. AR01

SCHEDULE OF EARTHWORK

SHEET NO.	STATION TO STATION	UNCLASSIFED EXCAVATION **202(A)**	EMBANKMENT +15%	UNCLASSIFIED BORROW **202(D)**
		C.Y.	C.Y.	C.Y.
R004	111+10.00 TO 114+87.00	51.00	352.00	301.00
R004	DRAINAGE GRADING	31.00	-	(31.00)
	TOTAL	82.00	352.00	270.00

SUMMARY OF SURFACING

SHEET NO.	STATION TO STATION	8" STABILIZED SUBGRADE **307(K)**	TACK COAT **407(B)**	PRIME COAT **408**	SUPERPAVE, TYPE S3 (PG 64-22 OK) **411(B)**	SUPERPAVE, TYPE S5 (PG 64-22 OK) **411(D)**
		S.Y.	GAL.	GAL.	TON	TON
R004	111+10.00 TO 112+60.00	634.00	68.00	222.00	154.00	50.00
R004	113+40.00 TO 114+87.00	621.00	67.00	218.00	151.00	49.00
	TOTAL	1,255.00	135.00	440.00	305.00	99.00

SUMMARY OF REMOVALS

SHEET NO.	STATION TO STATION	REMOVAL OF GUARDRAIL **619(B)**	REMOVAL OF ASPH. PVMT. **619(B)**	SAWING PAVEMENT **619(C)**
		L.F.	S.Y.	L.F.
R004	111+10.00 TO 114+87.00	144.00	938.00	48.00
	TOTAL	144.00	938.00	48.00

SUMMARY OF GUARDRAIL & WIDENING

SHEET NO.	STATION TO STATION	LANE		SUPERPAVE TYPE S5 (PG 64-22 OK) **411(D)**	BEAM GUARDRAIL (W-BEAM) SINGLE **623(A)**	GUARDRAIL CONNECTIONS	
						THRIE BEAM (31") **623(I)**	GUARDRAIL END TREATMENT (31") **623(G)**
		LT.	RT.	TON	L.F.	EA.	EA.
R004	111+50.75 TO 112+80.00	X	X	24.00	25.00	2.00	2.00
R004	113+20.00 TO 114+49.25	X	X	24.00	25.00	2.00	2.00
	TOTAL			48.00	50.00	4.00	4.00

SUMMARY OF DITCH TREATMENT

SHEET NO.	STATION TO STATION	LOCATION	LENGTH	BOTTOM WIDTH	ARTICULATING CONC. BLOCK **602(B)**
			FT.	FT.	S.F.
R004	114+07.25 TO 114+87.00	LT.	79.75	2.00	163.00
R004	114+07.25 TO 114+87.00	RT.	79.75	4.00	320.00
				TOTAL	483.00

SUMMARY OF EROSION CONTROL

SHEET NO.	STATION TO STATION	TEMPORARY SILT FENCE **221(B)**	TEMPORARY SILT DIKE **221(E)**	SOLID SLAB SODDING **230(A)**	VEGETATIVE MULCHING **233(A)**
		L.F.	L.F.	S.Y.	AC.
R003	111+10.00 TO 114+87.00	574.00	21.00	882.00	0.18
	TOTAL	574.00	21.00	882.00	0.18

DESIGN	DJG	E. POST OAK ROAD	CLEVELAND COUNTY
DRAWN	KMH	**SUMMARY SHEETS (ROADWAY)**	
CHECKED	---		
MKEC		PROJECT NO. K-2324-151	SHEET NO. AR02

REVISIONS		
REV. NO.	DESCRIPTION	DATE

GENERAL TRAFFIC NOTES:

CONTRACTOR SHALL MAINTAIN ACCESS TO LOCAL TRAFFIC DURING CONSTRUCTION.

CONTRACTOR SHALL GIVE NOTICE TO CITY OF NORMAN IN WRITING 14 DAYS BEFORE WORK BEGINS ON THE PROJECT.

TRAFFIC OPERATIONS GENERAL CONSTRUCTION NOTES

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

TRAFFIC SIGNING GENERAL CONSTRUCTION NOTES

ALL REGULATORY SIGNS SHALL HAVE HIGH INTENSITY SHEETING. THE HIGH INTENSITY SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956–(LATEST REVISION) FOR TYPE III SHEETING.

ALL WARNING SIGNS SHALL HAVE FLUORESCENT YELLOW SHEETING. THE FLUORESCENT YELLOW SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956–(LATEST REVISION) REQUIREMENTS FOR TYPE VIII SHEETING.

THE STATIONS AND LOCATIONS OF THE SIGN PLACEMENT, AS SHOWN ON THE PLAN SHEETS, ARE APPROXIMATE. EXACT STATIONS AND LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR SO THAT THE SIGN IS INSTALLED IN ACCORDANCE WITH DEPARTMENT STANDARDS AND THE MUTCD IN ORDER TO PROVIDE OPTIMUM VISIBILITY TO THE ONCOMING/APPROACHING MOTORIST. IF A PROPOSED LOCATION CONFLICTS WITH OTHER SIGNS, UTILITIES OR OTHER ROADWAY FEATURES, THE ENGINEER SHALL BE NOTIFIED.

TRAFFIC CONSTRUCTION PAY QUANTITY NOTES:

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

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

(TC–33) ALL CONSTRUCTION WORK ZONE SIGNS SHALL HAVE FLUORESCENT SHEETING. THE FLUORESCENT SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956 (LATEST REVISION).

THE MANUFACTURER SHALL FURNISH A TYPE 'D' CERTIFICATION IN ACCORDANCE WITH O.D.O.T. STANDARD SPECIFICATIONS (CURRENT EDITION) SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON MATERIAL SUBMITTED FOR APPROVAL.

(TC–84) 90 CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAY PAY THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY, BASED ON THE CURRENT O.D.O.T. STANDARDS AND SUGGESTED CONSTRUCTION SEQUENCE FOR THIS PROJECT THESE ESTIMATED SIGN DAY QUANTITIES MAY CHANGE AS THE PROJECTS CONSTRUCTION TRAFFIC CONTROL IS MODIFIED DURING CONSTRUCTION.

K-2324-151

PAY QUANTITIES

0300 TRAFFIC TEMPORARY

ITEM		DESCRIPTION		UNIT	QUANTITY
880(B)	6300	CONSTRUCTION SIGNS 0 TO 6.25 SF	(TC-26)(TC-33)(TC-84)	S.D.	900.00
880(B)	6310	CONSTRUCTION SIGNS 6.26 SF TO 15.99 SF	(TC-26)(TC-33)(TC-84)	S.D.	360.00
880(B)	6320	CONSTRUCTION SIGNS 16.0 SF TO 32.99 SF	(TC-26)(TC-33)(TC-84)	S.D.	360.00
880(C)	6410	CONSTRUCTION BARRICADES (TYPE III)	(TC-26)(TC-84)	S.D.	1,620.00
880(E)	6600	WARNING LIGHTS (TYPE A)	(TC-26)(TC-84)	S.D.	360.00

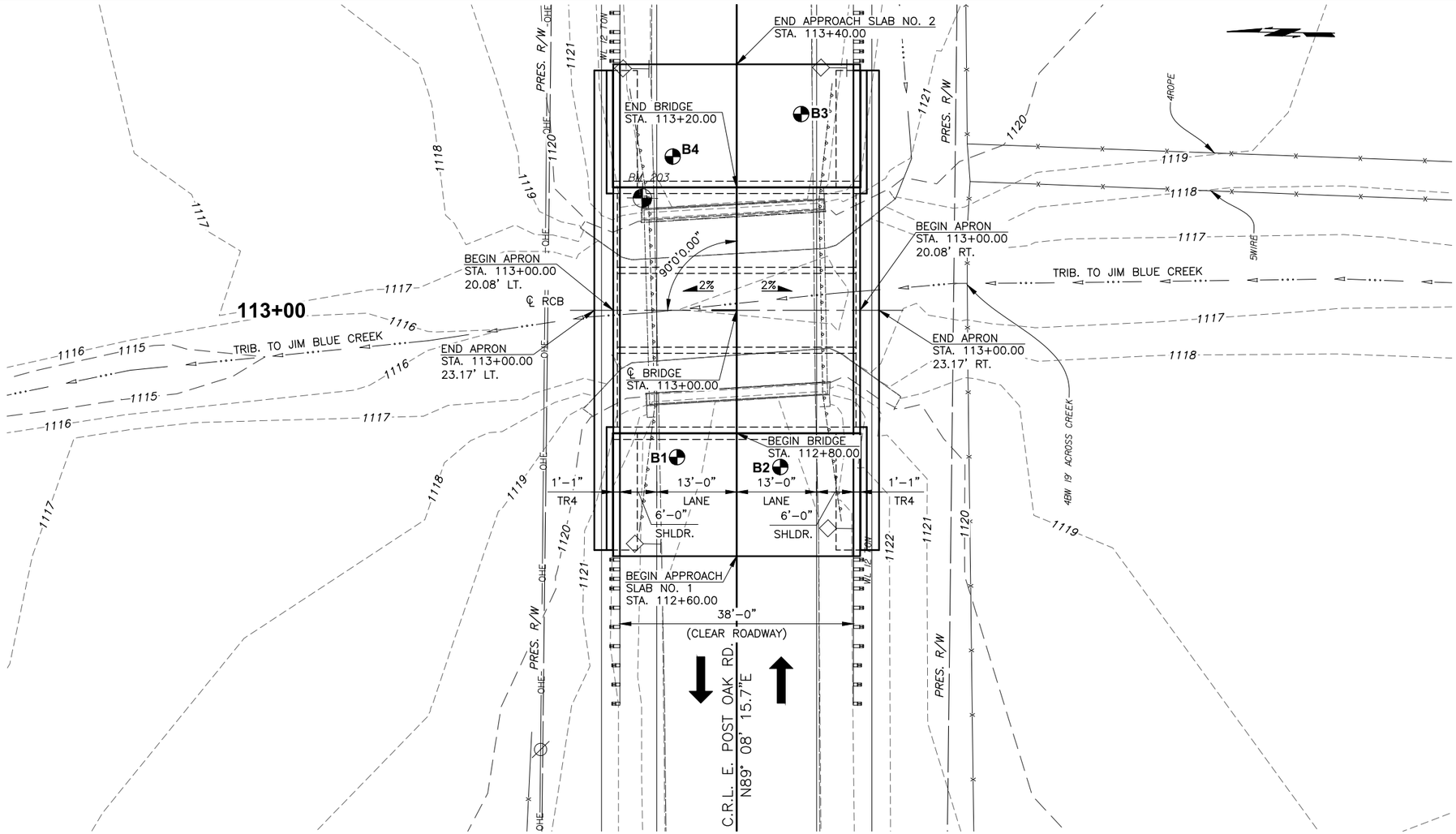
CONSTRUCTION SIGN SUMMARY

SHEET NO.	CONSTRUCTION SIGN									
	CONST. SIGNS 0 - 6.25 S.F. 880(B)		CONST. SIGNS 6.26 - 15.99 S.F. 880(B)		CONST. SIGNS 16.00 - 32.99 S.F. 880(B)		CONSTRUCTION BARRICADES (TYPE III) 880(C)		WARNING LIGHTS (TYPE A) 880(E)	
	EA.	S.D.	EA.	S.D.	EA.	S.D.	EA.	S.D.	EA.	S.D.
M4-9	8.00	90.00					8.00	90.00		
M4-10	2.00	90.00					2.00	90.00		
R11-2			2.00	90.00			2.00	90.00		
R11-3A			2.00	90.00			2.00	90.00		
W20-2					2.00	90.00	2.00	90.00	2.00	90.00
W20-3					2.00	90.00	2.00	90.00	2.00	90.00
PHASE TOTAL	10.00	90.00	4.00	90.00	4.00	90.00	18.00	90.00	4.00	90.00
TOTAL		900.00		360.00		360.00		1,620.00		360.00

SIGN DAY= 90 DAYS

DESIGN	DJG	E. POST OAK ROAD CLEVELAND COUNTY
DRAWN	KMH	**SUMMARY OF PAY QUANTITIES AND NOTES (TRAFFIC)**
CHECKED	---	PROJECT NO. K–2324–151 SHEET NO. AT01

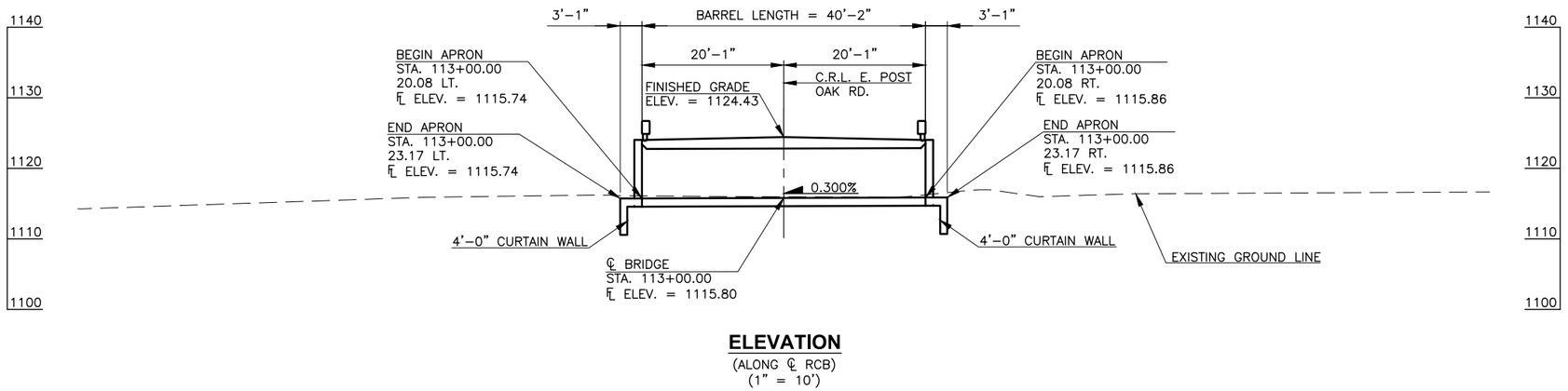
MKEC



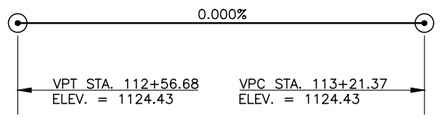
PLAN
(1" = 10')

BM 202 – BM / SET 3/4IN IP
STA. 108+51.02 37.96' RT.
N = 665617.7271 E = 2179047.2370
ELEV. = 1138.79

BM 204 – BM / SET CUT X ON CURB
STA. 116+92.99 13.90' RT.
N = 665652.2509 E = 2179888.5750
ELEV. = 1139.64



ELEVATION
(ALONG ℄ RCB)
(1" = 10')



PROFILE GRADE LINE DATA

MKEC // TRANSPORTATION

DESCRIPTION	REVISIONS	DATE

DESIGN DATA

CLASS AA CONCRETE f'c = 4 K.S.I.
REINFORCING STEEL, AASHTO M 31 (GRADE 60) Fy = 60 K.S.I.

LOADING:
HL-93

DESIGN:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION.

LRFR INVENTORY RATING FACTOR: 1.34
LRFR OPERATING RATING FACTOR: 1.74
EV3 LEGAL LOAD RATING FACTOR: 1.81
NRL LEGAL LOAD RATING FACTOR: 3.46

HYDRAULIC DATA

TOTAL DRAINAGE AREA = 0.63 SQ. MI.
CONTROLLED DRAINAGE AREA = 0.00 SQ. MI.
EFFECTIVE DRAINAGE AREA = 0.63 SQ. MI.

Q2 =	261 CFS	Q25 =	993 CFS
CHW =	1119.59	CHW =	1121.73
V2 =	2.74 FPS	V25 =	6.01 FPS
Q5 =	490 CFS	Q50 =	1330 CFS
CHW =	1120.46	CHW =	1122.39
V5 =	3.92 FPS	V50 =	7.19 FPS
Q10 =	688 CFS	Q100 =	1560 CFS
CHW =	1121.02	CHW =	1122.89
V10 =	4.81 FPS	V100 =	7.94 FPS
RDW OT > 412 YR		QOT =	2260 CFS
CHW OT = 1124.45		VOT =	10.05 FPS

ODOT STANDARDS

TR4-2-00E
LECS-5-2
SBI-5-2

NOTE:
FOR SHEET INDEX, SUMMARY OF BRIDGE PAY QUANTITIES, SEE SHEET B002.

DESIGN	J.T.H.
DRAWN	J.D.H.
CHECKED	J.T.H.

MKEC

CITY OF NORMAN

E. POST OAK RD. OVER
TRIB. TO JIM BLUE CRK.

GENERAL PLAN AND ELEVATION

3 – 12'x7'x40'-2" AT GRADE RCB 0° SKEW, W/
TR4 CONCRETE TRAFFIC RAILS, ℄ STA. 113+00.00

PROJECT NO. K-2324-151 SHEET NO. B001

PLOTTED: Friday, April 11, 2025 @ 08:50AM
MKEC PROJECT NUMBER: 2403010281

MKEC // TRANSPORTATION

DESCRIPTION	REVISIONS	DATE

SHEET INDEX

SUMMARY OF BRIDGE QUANTITIES

ITEM	UNIT	APPROACH SLABS	RCB BARREL	RCB END SECTIONS	TOTAL
UNCLASSIFIED EXCAVATION	C.Y.		100.00	910.00	1,010.00
STRUCTURAL EXCAVATION UNCLASSIFIED	C.Y.		190.00	115.00	305.00
APPROACH SLAB	S.Y.	178.60			178.60
SAW-CUT GROOVING	S.Y.	139.40	147.40		286.80
CONCRETE RAIL (TR4)	L.F.	80.00	80.00		160.00
CLASS AA CONCRETE	C.Y.		201.00	81.40	282.40
REINFORCING STEEL	LB.		40,000.00	10,380.00	50,380.00
REMOVAL OF EXISTING BRIDGE STRUCTURE	L.SUM				1.00

PLOTTED: Friday, April 11, 2025 @ 08:50AM MKEC PROJECT NUMBER: 2403010281

DESIGN	J.T.H.	E. POST OAK RD. OVER TRIB. TO JIM BLUE CRK. CITY OF NORMAN
DRAWN	P.W.D.	
CHECKED	J.T.H.	**BRIDGE PAY QUANTITIES SUMMARY**
MKEC		PROJECT NO. K-2324-151 SHEET NO. B002

BORING LOG

BORING NO. B-01

PAGE 1 OF 1

CLIENT: MKEC ENGINEERING

ENGINEER: JONATHAN HISEY, SE, PE

LOCATION: 0.35 MI. EAST OF 96TH AVENUE SE, NORMAN, OK

PROJECT: K-2324-151 - E. POST OAK ROAD OVER TRIBUTARY OF JIM BLUE CREEK

LAYER / MATERIAL DESCRIPTION

LOCATION = 112+76.1, 9.7' Left of CRL
SURFACE ELEV. = 1123.94 feet
VEG. THICK.: N/A - Asphalt

GRAPHICS LOG	LAYER / MATERIAL DESCRIPTION	DEPTH, FT.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, IN.	SAMPLES SPT- N BLOWS / FT.	TESTS MOISTURE, %	TESTS DRY DENSITY, PCF	TESTS UNCONFINED STRENGTH, TSF	TESTS LIMITS (LL) (PL) INDEXES (PI) #200 SIEVE
	9" ASPHALT PAVEMENT ELEV. = 1123.19				PA						
	MEDIUM STIFF, BROWN, SANDY LEAN CLAY		CL	1	SS	14	9	15.4			LL = 34 PL = 17 PI = 17 #200 = 55.4%
	ELEV. = 1119.94				PA						
	VERY LOOSE, RED-BROWN, SILTY SAND	5	SM	2	SS	18	3	11.0			LL = NP PL = NP PI = NP #200 = 25.9%
	ELEV. = 1114.94				PA						
	LOOSE, BROWN, SILTY, CLAYEY SAND	10	SC-SM	3	SS	18	8	15.2			LL = 24 PL = 17 PI = 7 #200 = 49.0%
	ELEV. = 1110.94 ▽				PA						
	SOFT TO MEDIUM STIFF, RED-BROWN, SANDY FAT CLAY	15		4	SS	18	4	21.5			
	ELEV. = 1102.44				PA						
	Bottom of Boring at 21.50 feet	20		5	SS	18	7	20.6			
		25									
		30									

REMARKS: SOIL AND ROCK CLASSIFICATIONS ARE FROM DISTURBED SAMPLES. CORE SAMPLES AND FURTHER LABORATORY TESTING MAY REVEAL OTHER ROCK AND/OR SOIL TYPES. THE STRATIFICATION SHOWN IN THE SOIL AND ROCK ABOVE IS AN ESTIMATION OF IN-SITU CONDITIONS. THEREFORE, THE NATURAL TRANSITION BETWEEN SOIL AND ROCK TYPES MAY BE GRADUAL.
* ESTIMATED FROM POCKET PENETROMETER

ARROWHEAD ENGINEERING
ARROWHEAD ENGINEERING COMPANY
5171 84TH AVE SE
NOBLE, OK 73068
OFFICE (405) 310-8467 FAX (405) 310-8468

WATER LEVEL OBSERVATIONS			DATE STARTED	10/25/24	
WL	▽ 13 ft - WD	▼	DATE COMPLETED	10/25/24	
WL	▼ 14 ft - 2 Hrs. AB		RIG CME-750X	FOREMAN C.K.	
WL			REVIEWED C.K.	JOB NO. 1941	

BORING LOG

BORING NO. B-02

PAGE 1 OF 1

CLIENT: MKEC ENGINEERING

ENGINEER: JONATHAN HISEY, SE, PE

LOCATION: 0.35 MI. EAST OF 96TH AVENUE SE, NORMAN, OK

PROJECT: K-2324-151 - E. POST OAK ROAD OVER TRIBUTARY OF JIM BLUE CREEK

LAYER / MATERIAL DESCRIPTION

LOCATION = 112+74.5, 7.1' Right of CRL
SURFACE ELEV. = 1124.02 feet
VEG. THICK.: N/A - Asphalt

GRAPHICS LOG	LAYER / MATERIAL DESCRIPTION	DEPTH, FT.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, IN.	SAMPLES SPT- N BLOWS / FT.	TESTS MOISTURE, %	TESTS DRY DENSITY, PCF	TESTS UNCONFINED STRENGTH, TSF	TESTS LIMITS (LL) (PL) INDEXES (PI) #200 SIEVE
	9" ASPHALT PAVEMENT ELEV. = 1123.27				PA						
	MEDIUM DENSE, BROWN, CLAYEY SAND ELEV. = 1121.52		SC	1	SS	16	14	9.6			LL = 39 PL = 4 PI = 35 #200 = 40.0%
	LOOSE, RED-BROWN, SILTY SAND				PA						
	ELEV. = 1118.27	5	SM	2A	SS	18	6	7.5			LL = NP PL = NP PI = NP #200 = 23.0%
	MEDIUM STIFF, DARK BROWN, SANDY SILT		ML	2B	SS	18		18.4			LL = NP PL = NP PI = NP #200 = 55.4%
	ELEV. = 1115.02				PA						
	LOOSE, BROWN, CLAYEY SAND ▼	10	SC	3	SS	18	9	14.7			LL = 24 PL = 15 PI = 9 #200 = 42.0%
	ELEV. = 1110.02 ▽				PA						
	STIFF, RED-BROWN, FAT CLAY ▼	15		3	SS	18	11	17.8			
	ELEV. = 1105.02				PA						
	SOFT TO MEDIUM STIFF, RED-BROWN, FAT CLAY	20		4	SS	18	7	20.9			
	ELEV. = 1097.52				PA						
	Bottom of Boring at 26.50 feet	25		5	SS	18	4	21.8			
		30									

REMARKS: SOIL AND ROCK CLASSIFICATIONS ARE FROM DISTURBED SAMPLES. CORE SAMPLES AND FURTHER LABORATORY TESTING MAY REVEAL OTHER ROCK AND/OR SOIL TYPES. THE STRATIFICATION SHOWN IN THE SOIL AND ROCK ABOVE IS AN ESTIMATION OF IN-SITU CONDITIONS. THEREFORE, THE NATURAL TRANSITION BETWEEN SOIL AND ROCK TYPES MAY BE GRADUAL.
* ESTIMATED FROM POCKET PENETROMETER

ARROWHEAD ENGINEERING
ARROWHEAD ENGINEERING COMPANY
5171 84TH AVE SE
NOBLE, OK 73068
OFFICE (405) 310-8467 FAX (405) 310-8468

WATER LEVEL OBSERVATIONS			DATE STARTED	10/25/24	
WL	▽ 14 ft - WD	▼ 18 ft - AB	DATE COMPLETED	10/25/24	
WL	▼ 12.75 ft - 4 Hrs. AB		RIG CME-750X	FOREMAN C.K.	
WL			REVIEWED C.K.	JOB NO. 1941	

DESIGN	J.T.H.	E. POST OAK RD. OVER TRIB. TO JIM BLUE CRK.	CITY OF NORMAN
DRAWN	P.W.D.	FOUNDATION REPORTS (SHEET 1 OF 2)	
CHECKED	J.T.H.		
MKEC		PROJECT NO. K-2324-151	SHEET NO. B003

BORING LOG

BORING NO. B-03

PAGE 1 OF 1

CLIENT: MKEC ENGINEERING

ENGINEER: JONATHAN HISEY, SE, PE

LOCATION: 0.35 MI. EAST OF 96TH AVENUE SE, NORMAN, OK

PROJECT: K-2324-151 - E. POST OAK ROAD OVER TRIBUTARY OF JIM BLUE CREEK

GRAPHICS LOG	LAYER / MATERIAL DESCRIPTION	DEPTH, FT.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, IN.	SAMPLES SPT- N BLOWS / FT.	TESTS MOISTURE, %	TESTS DRY DENSITY, PCF	TESTS UNCONFINED STRENGTH, TSF	TESTS LIMITS (LL) (PL) INDEXES (PI) #200 SIEVE
	LOCATION = 113+31.9, 10.5' Right of CRL SURFACE ELEV. = 1124.05 feet VEG. THICK.: N/A - Asphalt										
	9" ASPHALT PAVEMENT ELEV. = 1123.3				PA						
	SOFT, BROWN, SANDY LEAN CLAY		CL	1	SS	12	3	17.2			LL = 39 PL = 19 PI = 20 #200 = 69.2%
	ELEV. = 1120.05				PA						
	LOOSE, BROWN, SILTY SAND	5	SM	2	SS	18	6	12.9			LL = NP PL = NP PI = NP #200 = 43.0%
	ELEV. = 1115.05				PA						
	MEDIUM STIFF, BROWN, SANDY LEAN CLAY	10	CL	3	SS	18	8	14.8			LL = 24 PL = 15 PI = 9 #200 = 59.7%
	ELEV. = 1112.05				PA						
	MEDIUM STIFF, RED-BROWN, SANDY FAT CLAY	15		4	SS	18	9	17.6			
	ELEV. = 1105.05				PA						
	SOFT, RED-BROWN, SANDY FAT CLAY	20		5	SS	18	4	21.4			
	ELEV. = 1102.55										
	Bottom of Boring at 21.50 feet	25									
		30									

REMARKS: SOIL AND ROCK CLASSIFICATIONS ARE FROM DISTURBED SAMPLES. CORE SAMPLES AND FURTHER LABORATORY TESTING MAY REVEAL OTHER ROCK AND/OR SOIL TYPES. THE STRATIFICATION SHOWN IN THE SOIL AND ROCK ABOVE IS AN ESTIMATION OF IN-SITU CONDITIONS. THEREFORE, THE NATURAL TRANSITION BETWEEN SOIL AND ROCK TYPES MAY BE GRADUAL.
* ESTIMATED FROM POCKET PENETROMETER

ARROWHEAD ENGINEERING

ARROWHEAD ENGINEERING COMPANY
5171 84TH AVE SE
NOBLE, OK 73068
OFFICE (405) 310-8467 FAX (405) 310-8468

WATER LEVEL OBSERVATIONS				DATE STARTED	10/25/24	
WL	▽ 13 ft - WD	▼ 18 ft - AB		DATE COMPLETED	10/25/24	
WL	▼ 14 ft - 3 Hrs. AB			RIG	CME-750X	FOREMAN C.K.
WL				REVIEWED	C.K.	JOB NO. 1941

C:\USERS\BRYCEHANLON\ARROWHEAD ENG. CO. DROPBOX\AEC JOBS-2024\1_PROJECTS_2024\1941_MKEC_EPOSTOAKOVRTRIBJIMBLUECREEK_CLEVELANDCO_RCBBRIDGEREPLACEMENT\7_GINT FILE\1941_GINT.GPJ FIRE

BORING LOG

BORING NO. B-04

PAGE 1 OF 1

CLIENT: MKEC ENGINEERING

ENGINEER: JONATHAN HISEY, SE, PE

LOCATION: 0.35 MI. EAST OF 96TH AVENUE SE, NORMAN, OK

PROJECT: K-2324-151 - E. POST OAK ROAD OVER TRIBUTARY OF JIM BLUE CREEK

GRAPHICS LOG	LAYER / MATERIAL DESCRIPTION	DEPTH, FT.	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY, IN.	SAMPLES SPT- N BLOWS / FT.	TESTS MOISTURE, %	TESTS DRY DENSITY, PCF	TESTS UNCONFINED STRENGTH, TSF	TESTS LIMITS (LL) (PL) INDEXES (PI) #200 SIEVE
	LOCATION = 113+25.0, 10.4' Left of CRL SURFACE ELEV. = 1124.03 feet VEG. THICK.: N/A - Asphalt										
	9" ASPHALT PAVEMENT ELEV. = 1123.28				PA						
	LOOSE, BROWN, CLAYEY SAND		SC	1	SS	14	7	12.5			LL = 31 PL = 18 PI = 13 #200 = 42.4%
	ELEV. = 1120.03				PA						
	LOOSE, RED-BROWN, SILTY SAND	5	SM	2	SS	18	5	12.7			LL = NP PL = NP PI = NP #200 = 37.8%
	▼ ELEV. = 1110.03				PA						
	SOFT TO MEDIUM STIFF, RED-BROWN, SANDY FAT CLAY	10	SM	3	SS	4	8	15.3			LL = NP PL = NP PI = NP #200 = 48.3%
	ELEV. = 1102.53				PA						
	Bottom of Boring at 21.50 feet	15		4	SS	18	4	20.0			
		20			PA						
		25		5	SS	18	8	17.4			
		30									

REMARKS: SOIL AND ROCK CLASSIFICATIONS ARE FROM DISTURBED SAMPLES. CORE SAMPLES AND FURTHER LABORATORY TESTING MAY REVEAL OTHER ROCK AND/OR SOIL TYPES. THE STRATIFICATION SHOWN IN THE SOIL AND ROCK ABOVE IS AN ESTIMATION OF IN-SITU CONDITIONS. THEREFORE, THE NATURAL TRANSITION BETWEEN SOIL AND ROCK TYPES MAY BE GRADUAL.
* ESTIMATED FROM POCKET PENETROMETER

ARROWHEAD ENGINEERING

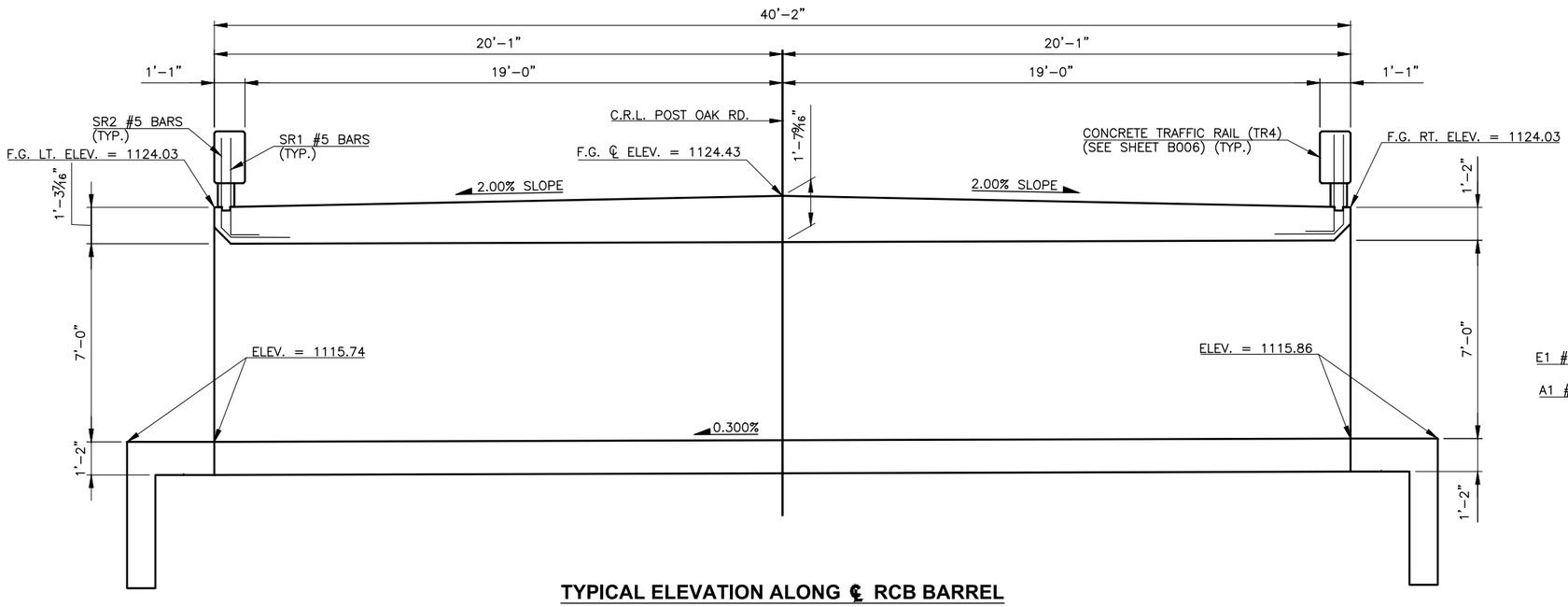
ARROWHEAD ENGINEERING COMPANY
5171 84TH AVE SE
NOBLE, OK 73068
OFFICE (405) 310-8467 FAX (405) 310-8468

WATER LEVEL OBSERVATIONS				DATE STARTED	10/25/24	
WL	▽ 14 ft - WD	▼ 16 ft - AB		DATE COMPLETED	10/25/24	
WL	▼ 12.58 ft - 2.25 Hrs. AB			RIG	CME-750X	FOREMAN C.K.
WL				REVIEWED	C.K.	JOB NO. 1941

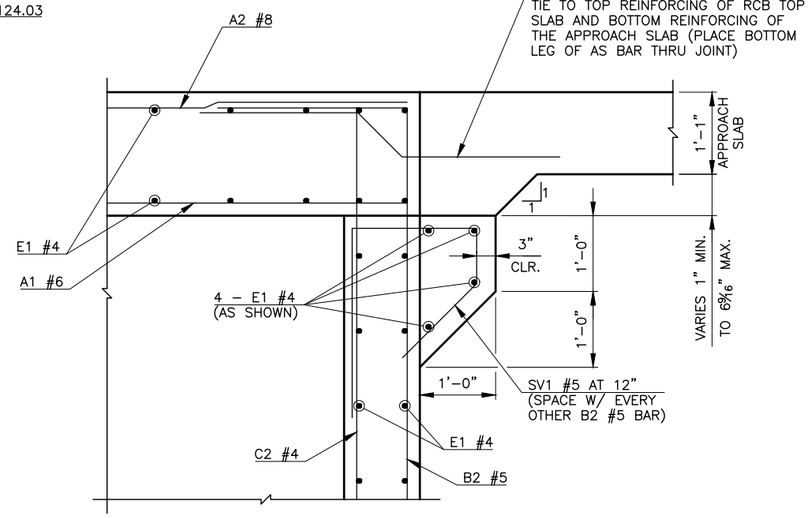
C:\USERS\BRYCEHANLON\ARROWHEAD ENG. CO. DROPBOX\AEC JOBS-2024\1_PROJECTS_2024\1941_MKEC_EPOSTOAKOVRTRIBJIMBLUECREEK_CLEVELANDCO_RCBBRIDGEREPLACEMENT\7_GINT FILE\1941_GINT.GPJ FIRE

PLOTTED: Friday, April 11, 2025 @ 08:50AM MKEC PROJECT NUMBER: 2403010281

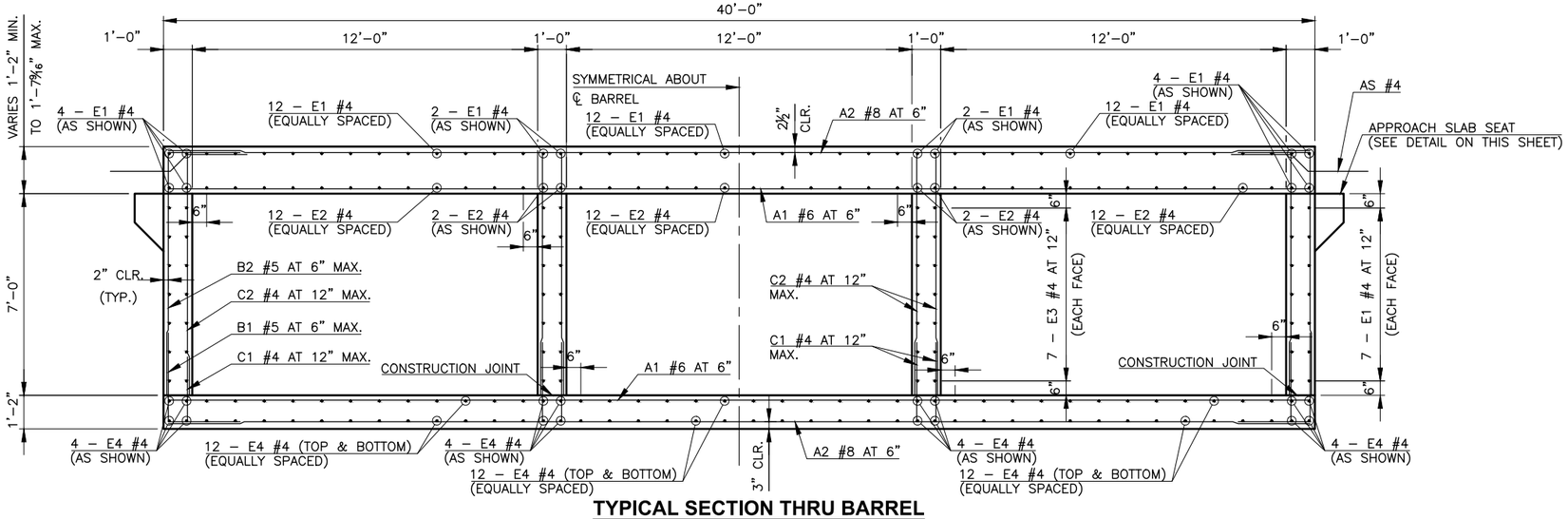
DESIGN	J.T.H.	E. POST OAK RD. OVER TRIB. TO JIM BLUE CRK.	CITY OF NORMAN
DRAWN	P.W.D.	**FOUNDATION REPORTS (SHEET 2 OF 2)**	
CHECKED	J.T.H.		
MKEC		PROJECT NO. K-2324-151	SHEET NO. B004



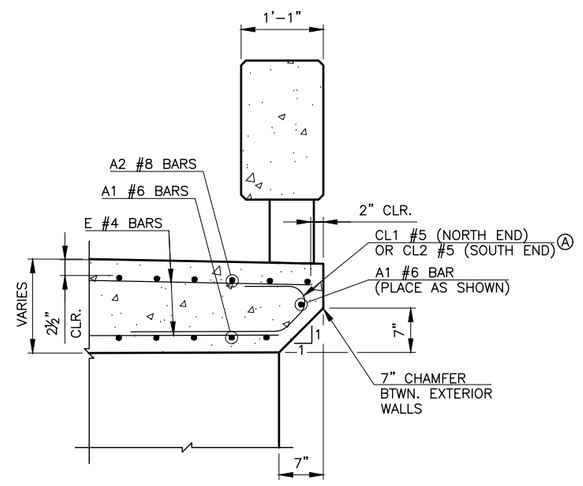
TYPICAL ELEVATION ALONG ℄ RCB BARREL



TYPICAL APPROACH SLAB SEAT DETAIL



TYPICAL SECTION THRU BARREL



REINFORCING DETAIL AT PARAPET OPENINGS

Ⓐ FOR ADDITIONAL CL1 OR CL2 #5 BAR DETAILS, SEE "SOUTH CONCRETE TRAFFIC RAIL (TR4) AND ADDITIONAL CHAMFER DETAIL" ON SHEET B006.

NOTES:
FOR CONCRETE TRAFFIC RAIL (TR4) AND ADDITIONAL END OF BARREL DETAILS, SEE SHEET B006.

FOR CURTAIN WALL DETALS, BAR BENDS AND BAR LIST, SEE SHEETS B006, B007, AND B008.

FOR WING WALL DETAILS AND WING WALL QUANTITIES, SEE SHEET B007 AND B008.

RCB BARREL QUANTITIES

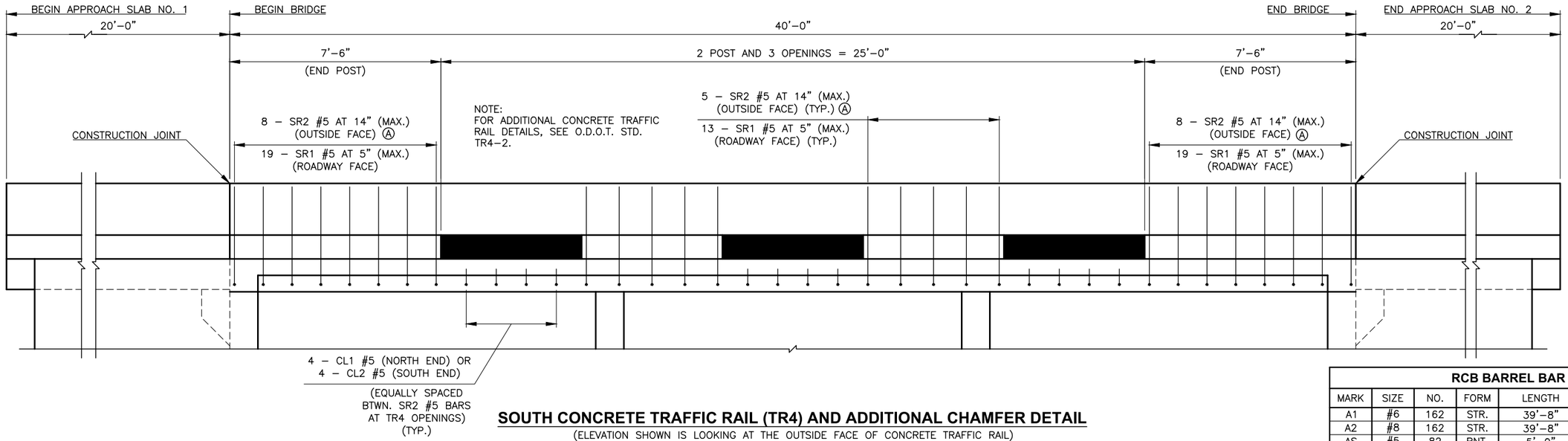
ITEM	UNIT	TOTAL
SAW–CUT GROOVING	S.Y.	147.40
CONCRETE RAIL (TR4)	L.F.	80.00
CONCRETE CLASS AA	C.Y.	201.00
REINFORCING STEEL	LB.	40,000.00

DESIGN	J.T.H.	E. POST OAK RD. OVER TRIB. TO JIM BLUE CRK. CITY OF NORMAN
DRAWN	J.D.H.	**BARREL DETAILS (SHEET 1 OF 2)**
CHECKED	J.T.H.	

MKEC

PROJECT NO. K–2324–151 SHEET NO. B005

PLOTTED: Friday, April 11, 2025 @ 08:50AM MKEC PROJECT NUMBER: 2403010281



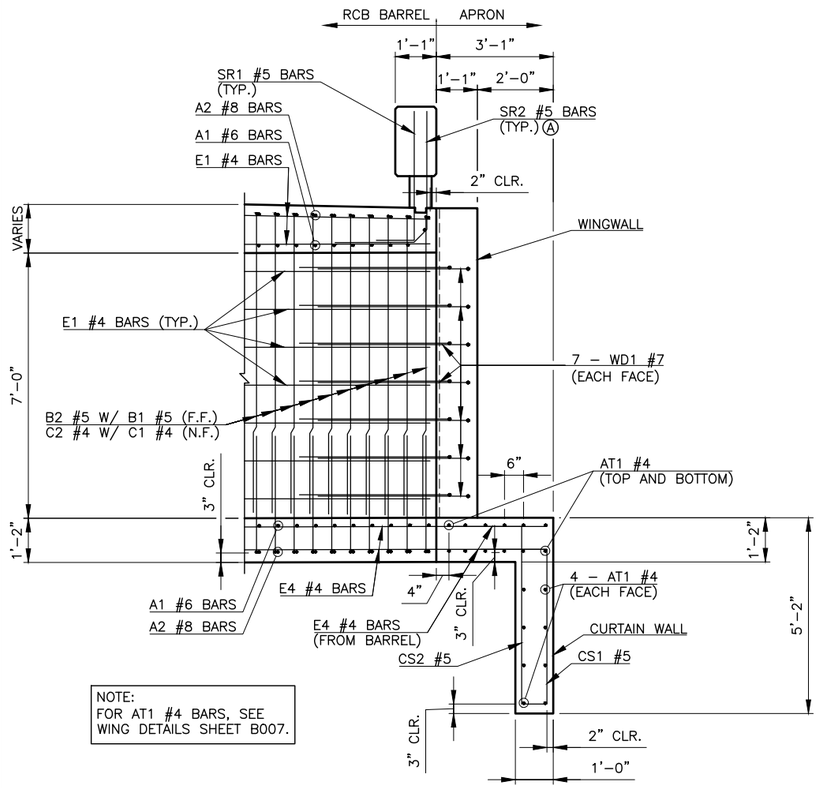
SOUTH CONCRETE TRAFFIC RAIL (TR4) AND ADDITIONAL CHAMFER DETAIL

(ELEVATION SHOWN IS LOOKING AT THE OUTSIDE FACE OF CONCRETE TRAFFIC RAIL)

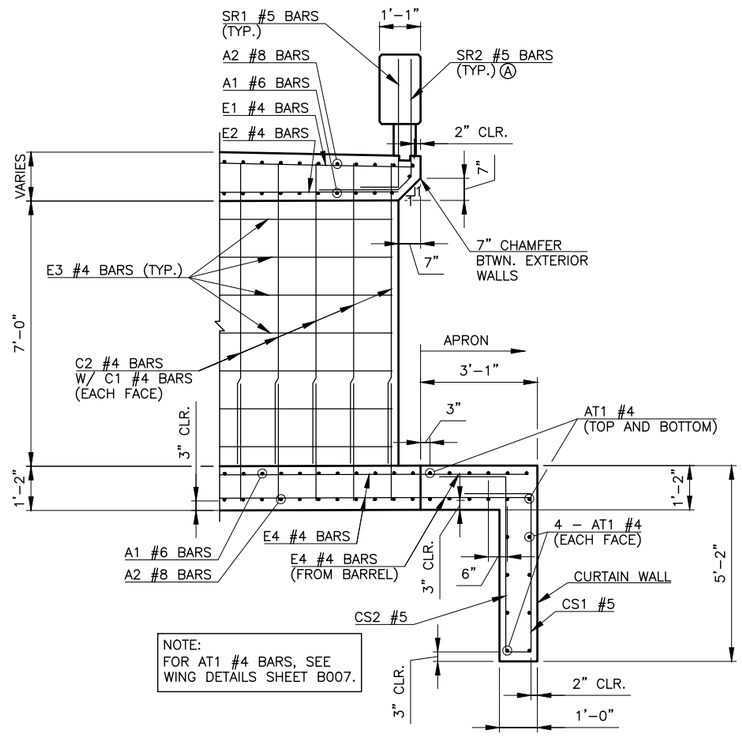
NOTES:
FOR RCB BARREL QUANTITIES, SEE SHEET B005.

FOR WING WALL DETAILS, SEE SHEET B007 AND B008.

Ⓐ USE SR2 #5 AT OUTSIDE FACE OF CONCRETE TRAFFIC RAIL ONLY ON TOP OF BARREL IN LIEU OF SR1 #5 BAR.

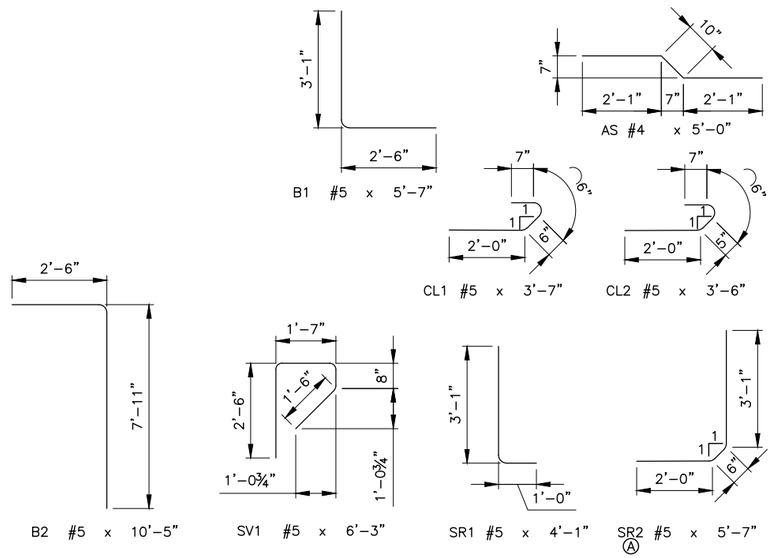


TYPICAL END OF BARREL DETAIL AT EXTERIOR WALL



TYPICAL END OF BARREL DETAIL AT INTERIOR WALL

RCB BARREL BAR LIST					
MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION
A1	#6	162	STR.	39'-8"	
A2	#8	162	STR.	39'-8"	
AS	#5	82	BNT.	5'-0"	
B1	#5	162	BNT.	5'-7"	
B2	#5	162	BNT.	10'-5"	
C1	#4	242	STR.	3'-1"	
C2	#4	242	STR.	7'-11"	
CL1	#5	12	BNT.	3'-7"	
CL2	#5	12	BNT.	3'-6"	
E1	#4	88	STR.	39'-10"	
E2	#4	40	STR.	38'-8"	
E3	#4	28	STR.	38'-8"	
E4	#4	88	STR.	46'-0"	
SR1	#5	128	BNT.	4'-1"	
Ⓐ SR2	#5	52	BNT.	5'-7"	
SV1	#5	82	BNT.	6'-3"	

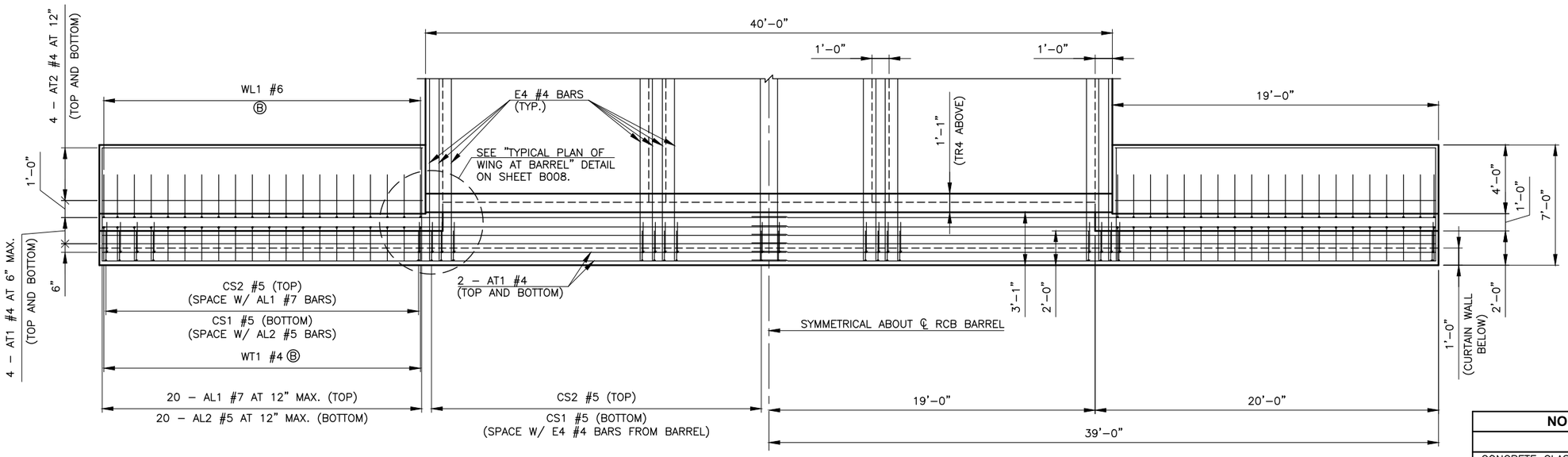


MKEC // TRANSPORTATION

DESCRIPTION	REVISIONS	DATE

DESIGN	J.T.H.	E. POST OAK RD. OVER TRIB. TO JIM BLUE CRK.	CITY OF NORMAN
DRAWN	J.D.H.	BARREL DETAILS (SHEET 2 OF 2)	
CHECKED	J.T.H.		
MKEC		PROJECT NO. K-2324-151	SHEET NO. B006

PLOTTED: Friday, April 11, 2025 @ 08:50AM
MKEC PROJECT NUMBER: 2403010281



HALF REINFORCING PLAN

HALF PLAN

F.F. = FAR FACE / ROADWAY FACE
N.F. = NEAR FACE / OUTSIDE FACE

WINGWALL AND APRON PLAN

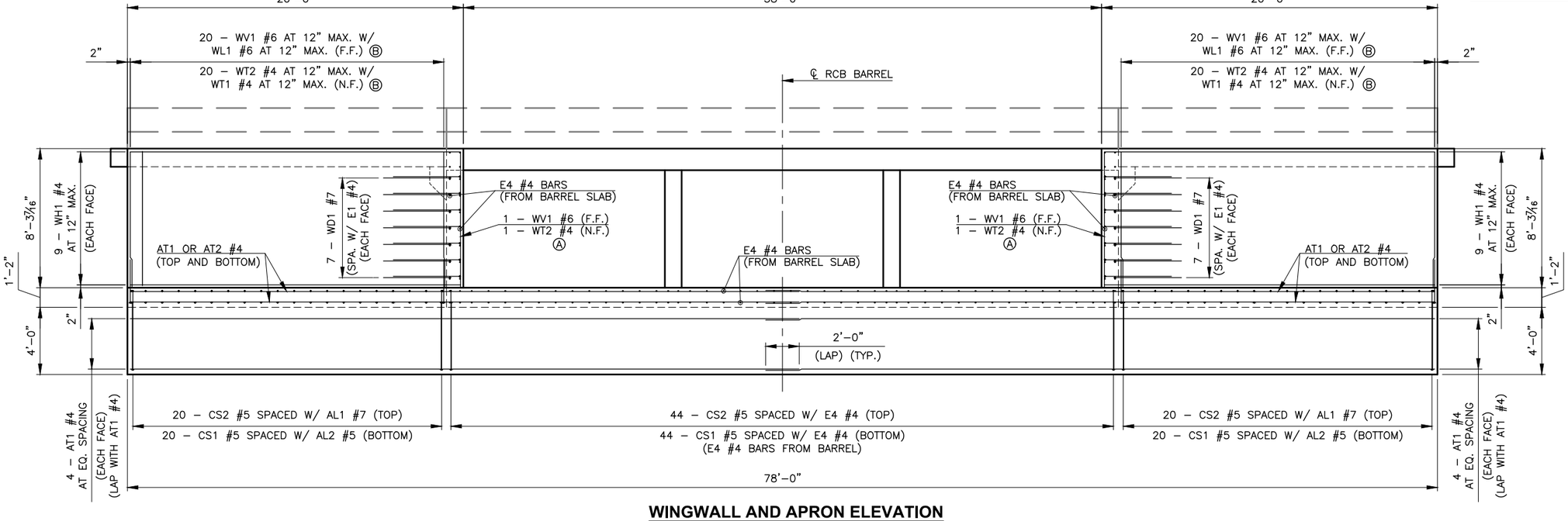
(NORTH END SECTION SHOWN, SOUTH END SECTION SIMILAR)

Ⓐ TIE WV1 #6 (F.F.) TO WD1 #7 BARS AND WT2 #4 (N.F.) TO WH1 #4 BARS.

Ⓑ TIE BOTTOM LEGS OF WL1 #6 (F.F.) AND WT1 #4 (N.F.) TO AL2 #5 BARS.

NORTH RCB END SECTION QUANTITIES		
ITEM	UNIT	TOTAL
CONCRETE CLASS AA	C.Y.	40.80
REINFORCING STEEL	LB.	5,190.00

SOUTH RCB END SECTION QUANTITIES		
ITEM	UNIT	TOTAL
CONCRETE CLASS AA	C.Y.	40.60
REINFORCING STEEL	LB.	5,190.00



WINGWALL AND APRON ELEVATION

(NORTH END SECTION SHOWN, SOUTH END SECTION SIMILAR)

NOTES:

FOR TYPICAL WINGWALL AND APRON SECTION, SEE SHEET B008.

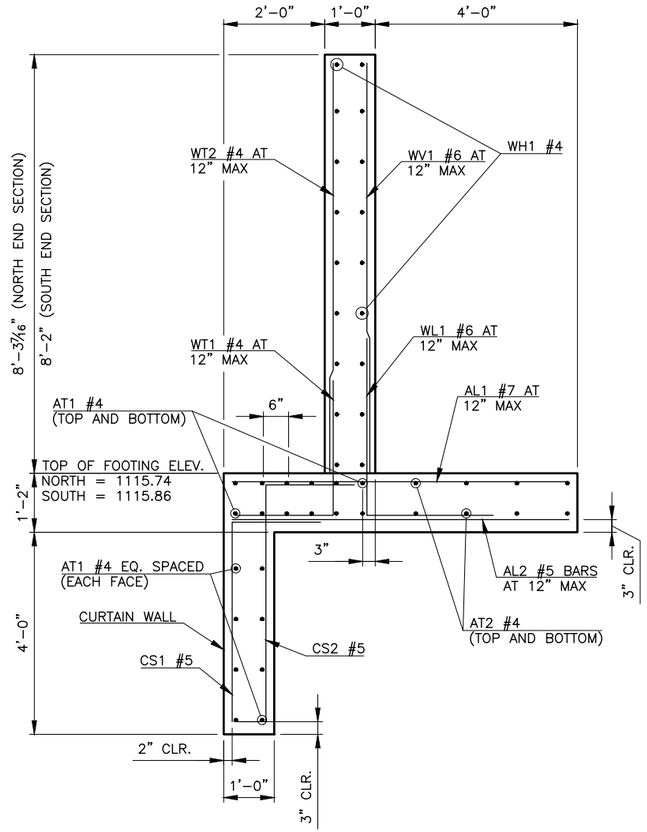
FOR BARREL DETAILS, SEE SHEETS B005 – B006.

DESIGN	P.W.D.	E. POST OAK RD. OVER TRIB. TO JIM BLUE CRK. CITY OF NORMAN
DRAWN	J.D.H.	
CHECKED	J.T.H.	**END SECTION DETAILS (SHEET 1 OF 2)**
MKEC		PROJECT NO. K-2324-151 SHEET NO. B007

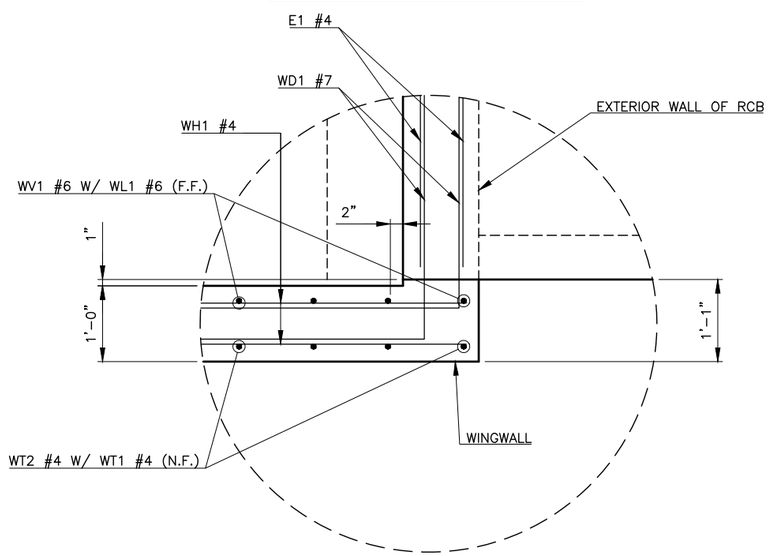
PLOTTED: Friday, April 11, 2025 @ 08:50AM MKEC PROJECT NUMBER: 2403010281

MKEC // TRANSPORTATION

DESCRIPTION	REVISIONS	DATE



TYPICAL WINGWALL SECTION



TYPICAL PLAN OF WING AT BARREL

WINGWALL BAR LIST

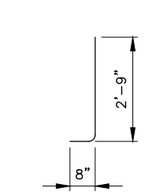
(ONE SHOWN, TWO REQUIRED)

MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION
AL1	#7	40	STR.	6'–8"	
AL2	#5	40	STR.	6'–8"	
AT1	#4	24	STR.	39'–10"	
AT2	#4	16	STR.	18'–8"	
WD1	#7	28	BNT.	8'–0"	
WH1	#4	36	STR.	18'–8"	
WL1	#6	40	BNT.	4'–7"	
WT1	#4	40	BNT.	3'–5"	
WT2	#4	40	STR.	8'–0"	
WV1	#6	40	STR	8'–0"	

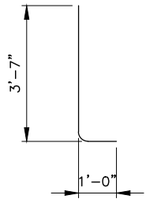
CURTAIN WALL BAR LIST

(ONE SHOWN, TWO REQUIRED)

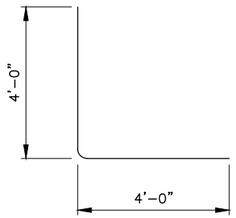
MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION
AT1	#4	16	STR.	39'–10"	
CS1	#5	84	BNT.	5'–10"	
CS2	#5	84	BNT.	7'–1"	



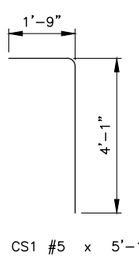
WT1 #4 x 3'–5"



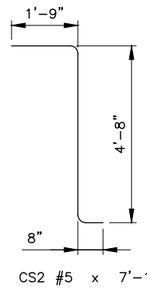
WL1 #6 x 4'–7"



WD1 #7 x 8'–0"



CS1 #5 x 5'–10"



CS2 #5 x 7'–1"

DESIGN	P.W.D.	E. POST OAK RD. OVER TRIB. TO JIM BLUE CRK. CITY OF NORMAN
DRAWN	J.D.H.	**END SECTION DETAILS (SHEET 2 OF 2)**
CHECKED	J.T.H.	

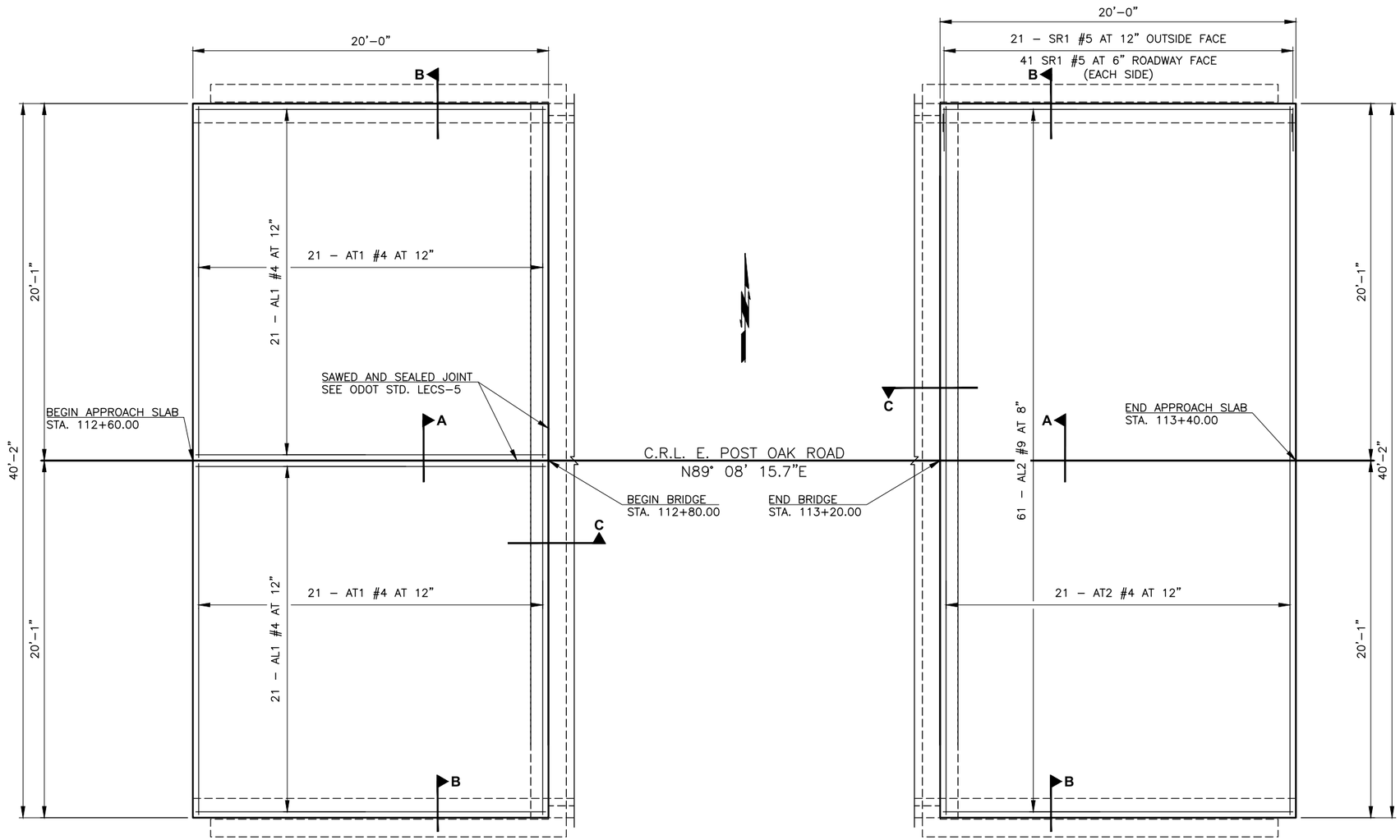
MKEC

PROJECT NO. K–2324–151 SHEET NO. B008

PLOTTED: Friday, April 11, 2025 @ 08:50AM MKEC PROJECT NUMBER: 2403010281

MKEC // TRANSPORTATION

DESCRIPTION	REVISIONS	DATE



APPROACH SLAB NO. 1

(TOP MAT REINFORCING)

APPROACH SLAB NO. 2

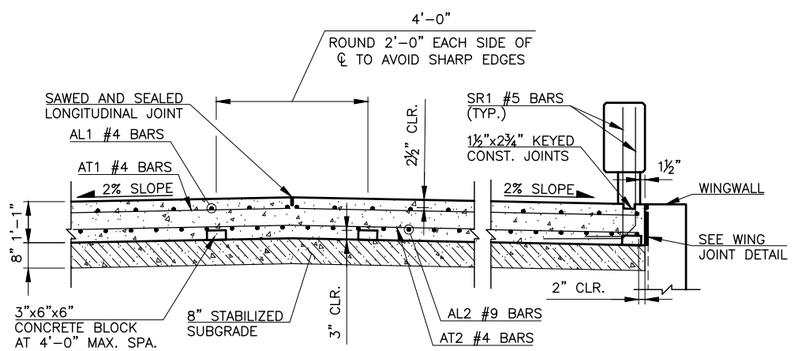
(BOTTOM MAT REINFORCING)

NOTES:

PLACE REINFORCING IN THE TOP OF THE APPROACH SLAB 2" FROM EITHER OF THE SAWED AND SEALED LONGITUDINAL JOINTS.

FOR ADDITIONAL DETAILS OF LONGITUDINAL JOINT, SEE O.D.O.T. STD. LECS–5.

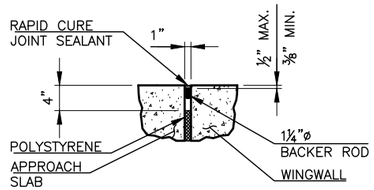
Ⓐ AS BARS SHALL BE TIED TO THE TOP LAYER OF REINFORCING STEEL IN THE RCB AND TO THE BOTTOM LAYER OF REINFORCING STEEL IN THE APPROACH SLAB. AS BARS SHALL BE INSTALLED BEFORE PLACING THE RCB CONCRETE.



SECTION A

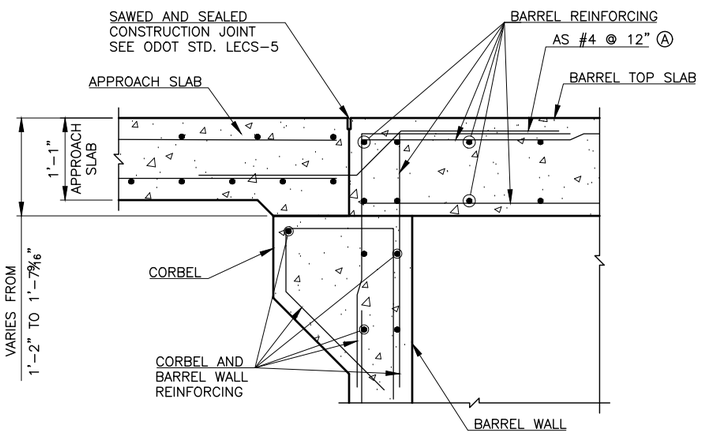
SECTION B

APPROACH SLAB QUANTITIES				
ITEM	UNIT	APPROACH SLAB NO. 1	APPROACH SLAB NO. 2	TOTAL
APPROACH SLAB	S.Y.	89.30	89.30	178.60
SAW–CUT GROOVING	S.Y.	69.70	69.70	139.40
CONCRETE RAIL (TR4)	LF.	40.00	40.00	80.00



WING JOINT DETAIL

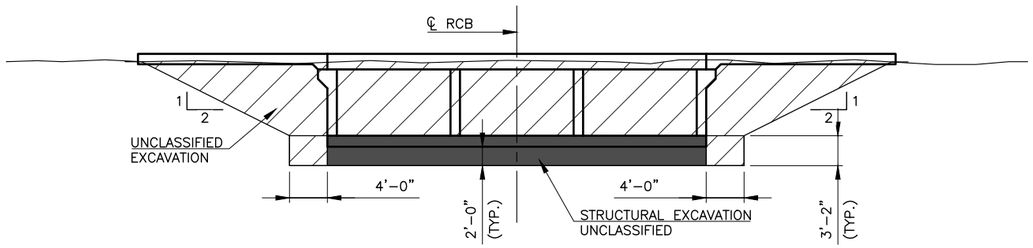
APPROACH SLAB BAR LIST					
(ONE SHOWN, TWO REQUIRED)					
MARK	SIZE	NO.	FORM	LENGTH	LENGTH VARIATION
AL1	#4	42	STR.	19'–8"	
AL2	#9	61	STR.	19'–8"	
AT1	#4	42	STR.	19'–9"	
AT2	#4	21	STR.	39'–10"	
SR1	#5	124	BNT.	4'–1"	



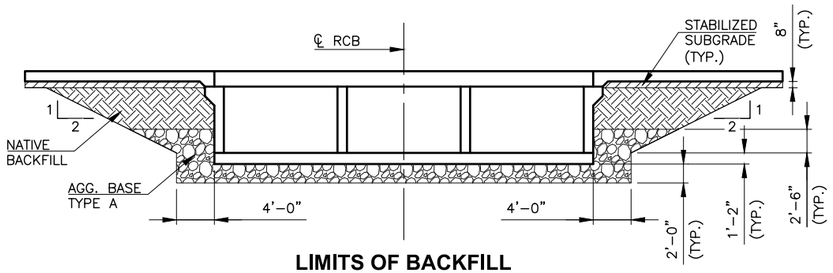
SECTION C

PLOTTED: Friday, April 11, 2025 @ 08:50AM
MKEC PROJECT NUMBER: 2403010281

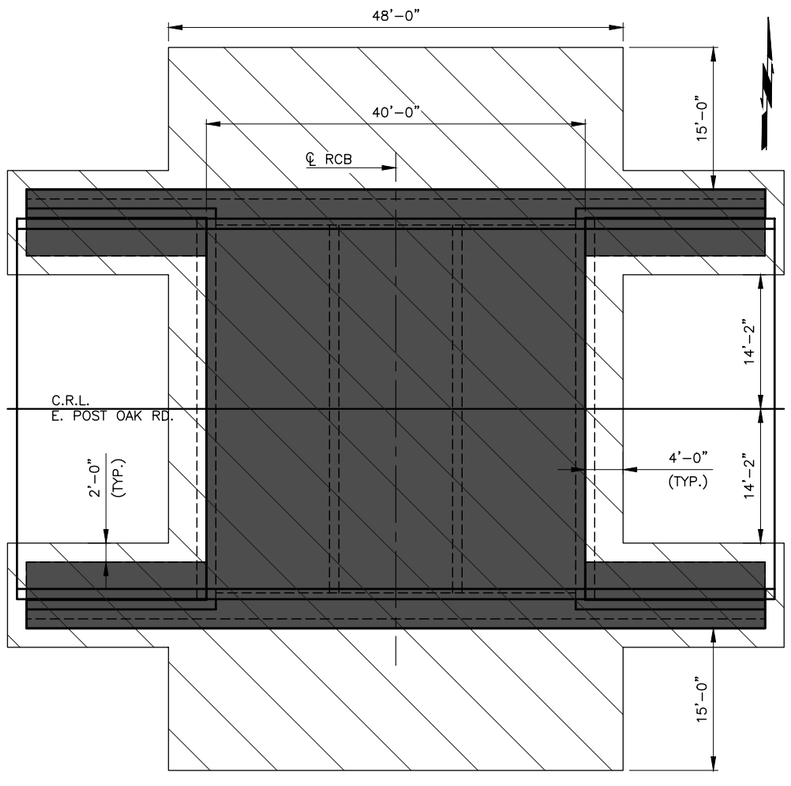
DESIGN	J.T.H.	E. POST OAK RD. OVER TRIB. TO JIM BLUE CRK. CITY OF NORMAN
DRAWN	P.W.D.	APPROACH SLAB DETAILS
CHECKED	J.T.H.	
MKEC		PROJECT NO. K–2324–151 SHEET NO. B009



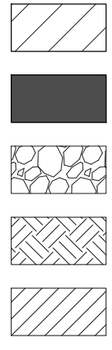
LIMITS OF UNCLASSIFIED AND STRUCTURAL EXCAVATION
TYPICAL SECTION



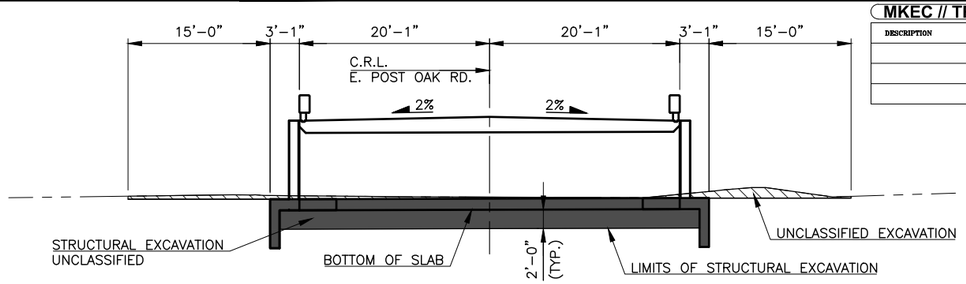
LIMITS OF BACKFILL
TYPICAL SECTION



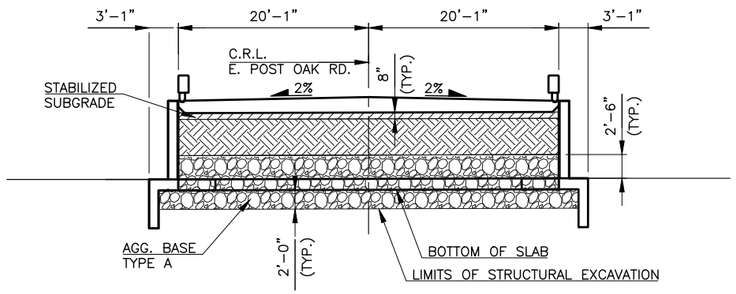
PLAN OF LIMITS OF UNCLASSIFIED AND STRUCTURAL EXCAVATION



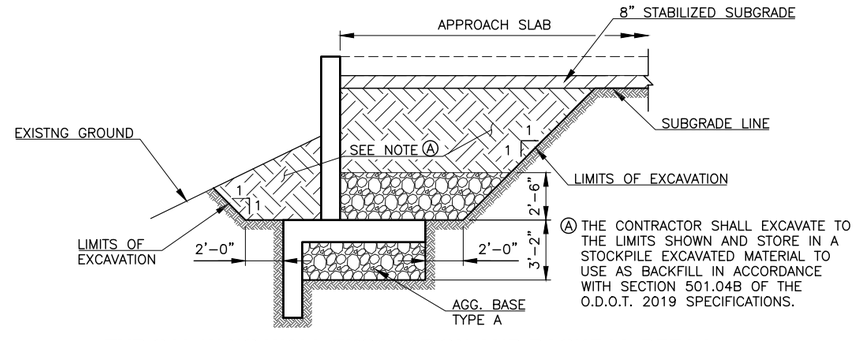
LEGEND



LIMITS OF UNCLASSIFIED AND STRUCTURAL EXCAVATION
ELEVATION



LIMITS OF BACKFILL
ELEVATION



Ⓐ THE CONTRACTOR SHALL EXCAVATE TO THE LIMITS SHOWN AND STORE IN A STOCKPILE EXCAVATED MATERIAL TO USE AS BACKFILL IN ACCORDANCE WITH SECTION 501.04B OF THE O.D.O.T. 2019 SPECIFICATIONS.

TYPICAL WING WALL EXCAVATION AND BACKFILL DETAIL

SUMMARY OF EXCAVATION QUANTITIES

ITEM	UNIT	BARREL	END SECTION	TOTAL
UNCLASSIFIED EXCAVATION	C.Y.	100.00	910.00	1,010.00
AGGREGATE BASE TYPE A	C.Y.	170.00	130.00	300.00
STRUCTURAL EXCAVATION UNCLASSIFIED	C.Y.	190.00	115.00	305.00

NOTE:
AGGREGATE BASE TYPE A BACKFILL TO BE PAID AS ROADWAY PAY ITEM.

MKEC // TRANSPORTATION

DESCRIPTION	REVISIONS	DATE

DESIGN	J.T.H.	E. POST OAK RD. OVER TRIB. TO JIM BLUE CRK. CITY OF NORMAN
DRAWN	P.W.D.	EXCAVATION DETAILS
CHECKED	J.T.H.	
MKEC		PROJECT NO. K–2324–151 SHEET NO. B010

PLOTTED: Friday, April 11, 2025 @ 08:50AM MKEC PROJECT NUMBER: 2403010281

STORM WATER MANAGEMENT PLAN

REVISIONS		
DESCRIPTION		DATE

SITE DESCRIPTION

PROJECT LIMITS: 200 FEET EAST AND 200 FEET WEST OF BRIDGE ON E. POST OAK RD.

PROJECT DESCRIPTION: BRIDGE AND APPROACHES ON E POST OAK RD. OVER TRIBUTARY TO JIM BLUE CREEK

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES:

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

SOIL TYPE: FINE SANDY LOAM

TOTAL AREA OF THE CONSTRUCTION SITE: 0.61 AC.

ESTIMATED AREA TO BE DISTURBED: 0.58 AC.

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE) 0.00 AC.

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.21 AC.

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.34 AC.

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.35

LATITUDE & LONGITUDE OF CENTER OF PROJECT: N= 35° 9'37.37"N E= 97°17'38.87"W

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: JIM BLUE CREEK

SENSITIVE WATERS OR WATERSHEDS:	YES [X]	NO [ ]
303(d) IMPAIRED WATERS:	YES [ ]	NO [X]
IF YES, LIST IMPAIRMENT:		
LOCATED IN A TMDL:	YES [X]	NO [ ]
LAKE THUNDERBIRD TMDL:	YES [X]	NO [ ]
MS4 ENTITY	YES [ ]	NO [X]
IF YES, LOCATION:		

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

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

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

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

STRUCTURAL PRACTICES:

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

OFFSITE VEHICLE TRACKING:

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

NOTES:

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 2019 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, OCTOBER 18, 2022.

ADDITIONAL PERMITS REQUIRED FROM OKLAHOMA WATER RESOURCES BOARD

DESIGN	DJG
DRAWN	KMH
CHECKED	---

MKEC

E. POST OAK ROAD CLEVELAND COUNTY

STORM WATER MANAGEMENT PLAN

PROJECT NO. K-2324-151 SHEET NO. R001

PLOTTED: Wednesday, April 09, 2025 @ 02:41PM
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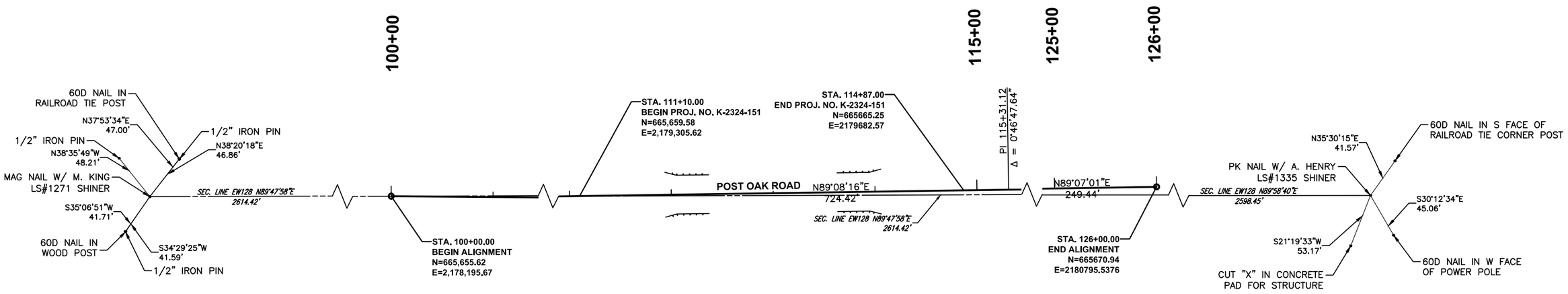
REVISIONS		
DESCRIPTION		DATE

SEC. 16, T8N, R1W

SEC. 15, T8N, R1W

SEC. 14, T8N, R1W



SEC. 21, T8N, R1W

SEC. 22, T8N, R1W

SEC. 23, T8N, R1W

DESIGN	---	E. POST OAK ROAD CLEVELAND COUNTY
DRAWN	---	**GEOMETRIC DATA**
CHECKED	---	
MKEC		JOB PIECE NO. K-2324-151 SHEET NO. R002

PLOTTED: Wednesday, April 09, 2025 @ 02:41PM
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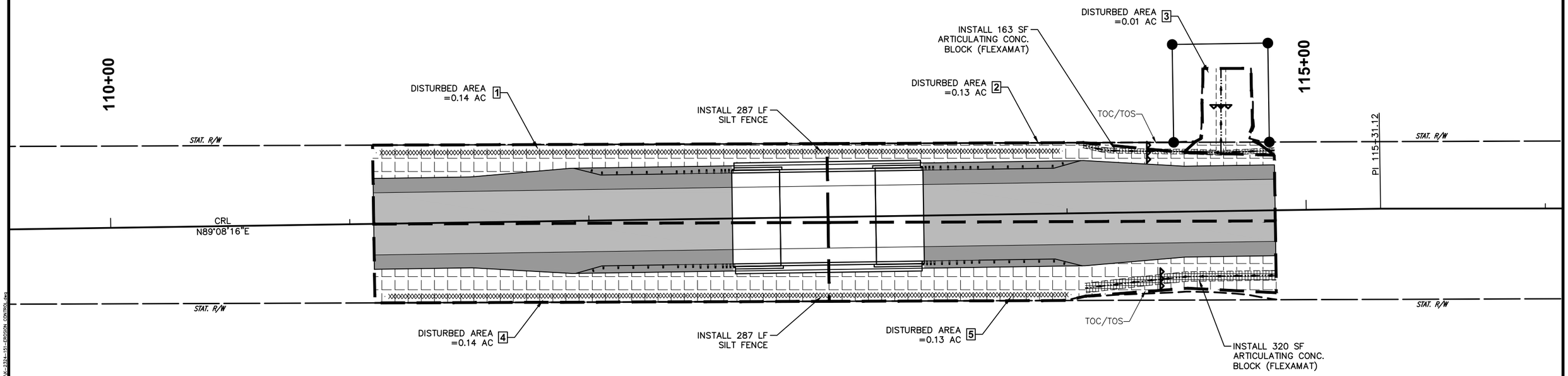
REVISIONS		
DESCRIPTION		DATE

DRAINAGE AREAS			
DA	DISTURBED AREA	TO	E.C. METHOD
1	0.14 AC.	BRIDGE A	SILT FENCE
2	0.13 AC.	BRIDGE A	SILT FENCE SILT DIKE
3	0.01 AC.	OFFSITE	SILT DIKE
4	0.14 AC.	BRIDGE A	SILT FENCE
5	0.13 AC.	BRIDGE A	SILT FENCE SILT DIKE

SEC. 15, T8N, R1W



SEC. 22, T8N, R1W

0 10 20 40

LEGEND

- TEMPORARY SILT DIKE
- TEMPORARY SILT FENCE XXXXXXXX
- SOLID SLAB SODDING
- ARTICULATING CONC. BLOCK

SOLID SLAB SODDING
THIS SHEET = 882 SY

DESIGN	---
DRAWN	---
CHECKED	---
MKEC	

E. POST OAK ROAD — CLEVELAND COUNTY

EROSION CONTROL PLAN

JOB PIECE NO. K-2324-151 SHEET NO. R003

PLOTTED: Wednesday, April 09, 2025 @ 02:41PM
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NOTE: ALL DISTANCES SHOWN TO RIGHT-OF-WAY, FENCES, UTILITIES, AND OTHER EXIST. OBJECTS ARE FROM CONSTRUCTION REFERENCE LINE.

SEC. 15, T8N, R1W

105+00 110+00 115+00 120+00

+46.79 P.P. 41.56' LT. +09.62 P.P. 39.60' LT. DOT STA. 108-50 SET MAG NAIL +92.50 P.P. 37.00' LT. +82.53 P.P. 33.61' LT. +28.56 P.P. 31.91' LT. +62.01 DELINEATOR 15.18' LT. +39.32 WEIGHT LIMIT 12 TON SIGN 17.10' LT. REMOVE +31.46 P.P. 29.97' LT. +57.23 P.P. 30.25' LT. +99.12 P.P. 31.43' LT. +03.20 P.P. 31.68' LT.

108+06.70
Δ = 0°24'58.98"

FLARED GUARDRAIL END TREATMENT (TYP.) TO BE INSTALLED AS DIRECTED BY THE FIELD ENGINEER

TEMP. DRAINAGE EASEMENT

+45.00 70.00' LT. +85.00 70.00' LT.

+45.00 +85.00

PI 115+31.12
Δ = (0°46'47.64"

OHE PRES. R/W 33' EW-128 SEC. LINE CRL N89°33'15"E 366.27' E POST OAK RD. TOC/TOS 6' 26' 9' CRL N89°08'16"E 724.42' CRL N89°55'03"E 819.44' EW-128 SEC. LINE PRES. R/W

BM 202 BM 204

EXISTING BRIDGE

TRIB. TO JAY BIRD CREEK

+64.90 GATE POST 43.97' RT. +77.84 GATE POST 43.64' RT. +64.52 WEIGHT LIMIT 12 TON SIGN 16.24' RT. REMOVE +39.46 DELINEATOR 15.10' RT. +15.83 MAILBOX 15.02' RT. +20.01 MAILBOX 15.06' RT. +54.22 GATE POST 92.01' RT. +70.50 GATE POST 92.07' RT.

0 25 50 100

LEGEND
- PAVED DITCH
- SPEC. DITCH
- ARTICULATING CONC. BLOCK
- PROPOSED DITCH FLOWLINE

UTILITY OWNERSHIPS

COMMUNICATIONS

AT&T DISTRIBUTION
JOE ANDERSON 539-444-1026

SEC. 22, T8N, R1W

BM # 202 STA. 108+51.02 @ 37.96' RT.
SET 3/4IN IP ELEV= 1,138.79'

BM # 203 STA. 113+18.24 @ 15.34' LT.
SET CUT X ON BRIDGE ELEV= 1,123.36'

BM # 204 STA. 116+92.99 @ 13.90' RT.
SET CUT X ON CURB ELEV= 1,139.64'

BRIDGE LENGTH =40'-0"

BEGIN BRIDGE STA. 112+80.00 F.G. ELEV. 1124.42

END BRIDGE STA. 113+20.00 F.G. ELEV. 1124.42

PVI: 114+87.00 EL: 1126.559

L=135.00' K=93.23

L=164.00' K=64.31

PVC 111+21.68 ELEV 1125.40

PVT 112+56.68 ELEV = 1124.43

PVC 113+21.37 ELEV = 1124.43

PVI 114+03.37 ELEV = 1124.43

PVT 114+85.37 ELEV = 1126.52

FINISH GRADE @ C.R.L.

EXIST. GROUND @ C.R.L.

0.688% 0.000% 5.919% 2.433% 2.679% 7.333% -3.400% 2.351% 1.000%

PVI 111+89.18 ELEV = 1124.43

PVC 111+10.00 ELEV 1125.572

PVI 111+10.00 ELEV 1125.572

STA. 111+10.00 BEGIN PROJ. NO. K-2324-151
(N=665,659.58, E=2,179,305.62)

STA. 114+87.00 END PROJ. NO. K-2324-151
(N=665,665.25, E=2,179,682.57)

IDENTICAL POINTS

IDENTICAL POINTS

BRIDGE 'A'
3-12'X7' AT GRADE RCB
0° SK, 38'-0" CLR. RDWY.

EXIST. BRIDGE
32' STEEL GIRDER

SP. DITCH LT. & RT. +00.00 1122.54

SP. DITCH LT. +50.00 1124.28

SP. DITCH LT. +50.00 1123.43

SP. DITCH RT. +50.00 1123.88

SP. DITCH LT. +60.00 1123.94

SP. DITCH LT. +75.00 1125.04

SP. DITCH RT. +87.00 1124.75

SP. DITCH LT. +87.00 1125.40

1124.60 1124.48 1124.43 1115.97 1124.91 1124.54 1126.99

1174.25 1163.02 1152.34 1142.74 1134.93 1129.20 1125.82 1132.50 1140.21 1149.75 1160.13

105+00 106+00 107+00 108+00 109+00 110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00 118+00 119+00

HYDRAULIC DATA - BRIDGE 'A'

DRAINAGE AREA	= 0.63 SQ. MI.		
CONTROLLED DRAINAGE AREA	= 0.00 SQ. MI.		
EFFECTIVE DRAINAGE AREA	= 0.63 SQ. MI.		
Q2	= 261 CFS	Q50	= 1330 CFS
V2	= 2.74 FPS	V50	= 7.19 FPS
Q2 CHW	= 1119.59 FT	Q50 CHW	= 1122.39 FT
Q5	= 490 CFS	Q100	= 1560 CFS
V5	= 3.92 FPS	V100	= 7.94 FPS
Q5 CHW	= 1120.46 FT	Q100 CHW	= 1122.89 FT
Q10	= 688 CFS	Q500	= 2460 CFS
V10	= 4.81 FPS	V500	= 9.96 FPS
Q10 CHW	= 1121.02 FT	Q500 CHW	= 1124.79 FT
Q25	= 993 CFS	QOT	= 2260 CFS
V25	= 6.01 FPS	VOT	= 10.05 FPS
Q25 CHW	= 1121.73 FT	QOT CHW	= 1124.45 FT

PLAN AND PROFILE

E. POST OAK ROAD
PROJECT NO. K-2324-151
CLEVELAND COUNTY
SHEET NO. R004

PLOTTED: Wednesday, April 09, 2025 @ 02:41PM BY: Kim Hensley
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POST OAK BRIDGE
NORMAN, OKLAHOMA

SURVEY CONTROL DATA

1. POSITIONAL CONTROL:

A. POSITIONAL CONTROL FOR THIS SURVEY IS THE NGS OKLAHOMA STATE PLANE COORDINATE SYSTEM, NAD88 (1993), LAMBERT PROJECTION (SOUTH ZONE).

B. ACCURACY – THE POSITIONAL CONTROLS FOR THIS SURVEY MEETS OR EXCEEDS THE FOLLOWING ACCURACY CRITERIA:
1. NETWORK ACCURACY: 0.10 FOOT
2. LOCAL ACCURACY: 0.05 FOOT

2. BEARINGS:

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

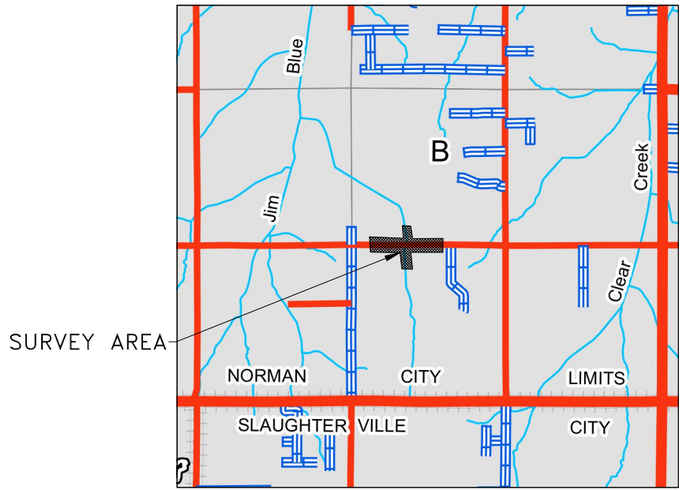
3. VERTICAL CONTROLS:

A. LEVEL DATUM IS NAVD 88 FROM Differential Leveling

B. ACCURACY – VERTICAL CONTROL FOR THIS SURVEY MEETS OR EXCEEDS THE FOLLOWING ACCURACY CRITERIA:
1. NETWORK ACCURACY (FROM GPS OR LEVELING): 0.10 FOOT
2. LOCAL ACCURACY (CONFIRMED BY LEVELING): 0.02 FOOT

Point Table

Point #	Description	Northing	Easting	Elevation
1	CP / SET 1/2IN IP W/ CP CAP	665,613.5710	2,178,204.4740	1,181.37
2	CP / SET 1/2IN IP W/ CP CAP	665,694.3894	2,180,928.6440	1,196.72
201	BM / SET 3/4IN IP	665,606.2776	2,178,592.7251	1,189.40
202	BM / SET 3/4IN IP	665,617.7271	2,179,047.2370	1,138.79
203	BM / SET CUT X ON BRIDGE	665,678.0427	2,179,513.5970	1,123.36
204	BM / SET CUT X ON CURB	665,652.2509	2,179,888.5750	1,139.64
205	BM / SET 3/4IN IP	665,640.1612	2,180,362.3020	1,175.98



UTILITY OWNER INFORMATION

CITY OF NORMAN	JARED MATTERN JARED.MATTERN@NORMANOK.GOV	405-329-0703
AT&T DISTRIBUTION	JOE ANDERSON JA492C@ATT.COM	539-444-1026
OEC FIBER	MORGAN EDERER MORGAN.EDERER@OKCOOP.ORG	405-217-6615
OG&E	MATT HILL HLLMC@OGE.COM	

LEGEND

BENCHMARK	GAS VALVE	SIGN
BOLLARD	GAS VENT PIPE	SPIGOT
BUSH	GATE POST	SPRINKLER
CONTROL POINT	GROUND ROD	SPRINKLER CONTROL VALVE
DOWNSPOUT	GUY WIRE	TANK FILLER
ELECTRIC MARKER	LIGHT	TELEPHONE MARKER
ELECTRIC METER	LIGHT POLE	TELEPHONE PEDESTAL
ELECTRIC PEDESTAL	MAILBOX	TELEPHONE VAULT
ELECTRIC VAULT	MISC. MANHOLE	TIE-DOWN
FIBER OPTIC MARKER	MONITORING WELL	TRANSFORMER
FIBER OPTIC PEDESTAL	PIPELINE MARKER	TREE CONIFEROUS
FIBER OPTIC VAULT	POWER POLE	TREE DECIDUOUS
FIRE HYDRANT	PULL BOX	WATER METER
GAS MARKER	SEWER CLEANOUT	WATER VALVE
GAS METER	SEWER MANHOLE	WATER VAULT

———— – ———— DEPICTED PROPERTY LINE

TOPOGRAPHY CERTIFICATION –
I, J. WYATT BISHOP, CERTIFY THAT THIS PROJECT WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT THIS GROUND TOPOGRAPHIC SURVEY WAS PERFORMED AT THE 95 PERCENT CONFIDENCE LEVEL TO MEET FEDERAL GEOGRAPHIC DATA COMMITTEE STANDARDS; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS FOR A TOPOGRAPHIC PLANIMETRIC SURVEY, ACCORDING TO THE OKLAHOMA MINIMUM TECHNICAL STANDARDS FOR THE PRACTICE OF LAND SURVEYING AS ADOPTED BY THE OKLAHOMA STATE BOARD OF LICENSURE FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS. THE ORIGINAL DATA WAS OBTAINED ON 2 MAY 2024 – 31 MAY 2024; THE SURVEY WAS COMPLETED ON 3 JUNE 2024; ALL COORDINATES ARE BASED ON NAD83 OKLAHOMA STATE PLANE, SOUTH ZONE AND ALL ELEVATIONS ARE BASED ON NAVD88.

**THIS IS A TOPOGRAPHIC SURVEY AND IS NOT A BOUNDARY SURVEY. ANY PROPERTY LINE OR RIGHT-OF-WAY INFORMATION SHOWN HEREON IS FOR REFERENCE IN DESIGNING IMPROVEMENTS AND WAS PLOTTED USING METHODS OF RELATING PROPERTY DESCRIPTIONS TO SECTION BOUNDARY LINES AND PHYSICAL EVIDENCE, HOWEVER, THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY PER OKPELS MINIMUM STANDARDS OF THE PROPERTY LINES OR RIGHT-OF-WAY BEING DEPICTED.

J. WYATT BISHOP P.L.S. #1649

LICENSED PROFESSIONAL LAND SURVEYOR
J. Wyatt Bishop
6.03.24
1649
OKLAHOMA

PERSONNEL: TITLE:

KELLY FARMER	PRESIDENT
JOE FARMER	PROFESSIONAL LAND SURVEYOR
ADAM HINDS	PROFESSIONAL LAND SURVEYOR
WYATT BISHOP	PROFESSIONAL LAND SURVEYOR
JESSICA BISHOP	SENIOR CAD TECHNICIAN
ALLYSON BRUEGGEN	SENIOR CAD TECHNICIAN
STEPHANIE VILLANELLA	CAD TECHNICIAN
CHASE KILE	CAD TECHNICIAN
JAMIL EHTISHAM	LiDAR SPECIALIST
ALBERT SMITH	SENIOR PARTY CHIEF
ALEC CENICEROS	SURVEY PARTY CHIEF
MATT DAFFERN	SURVEY PARTY CHIEF
LEVI WOOD	SURVEY PARTY CHIEF
DREW KNIGHT	SURVEY CREW MEMBER
JJ VALENTINE	SURVEY CREW MEMBER
COOPER VAUGHN	SURVEY CREW MEMBER
DAWSON HUDDLESTON	SURVEY CREW MEMBER
KADEN VANBUSKIRK	SURVEY CREW MEMBER
COOPER SMITH	SURVEY CREW MEMBER
BRADEN DAVENPORT	SURVEY CREW MEMBER

SURVEY NOTES:
1) UTILITY LINES ARE SHOWN BY MAPPING THE MARKINGS IN THE FIELD PRODUCED FROM THE OKIE 811 UTILITY LOCATE TICKET #'S 24041907580417, 24041908020435, 24041908080461, 24041908130487, 24041908150511.

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

REVISIONS

REV	DATE	DESCRIPTION	BY	APP'D
R1	06/03/24	TOPOGRAPHIC SURVEY - COMPLETE ADDED TIES & LINES	AB	JF
	05/21/24		AB	JWB

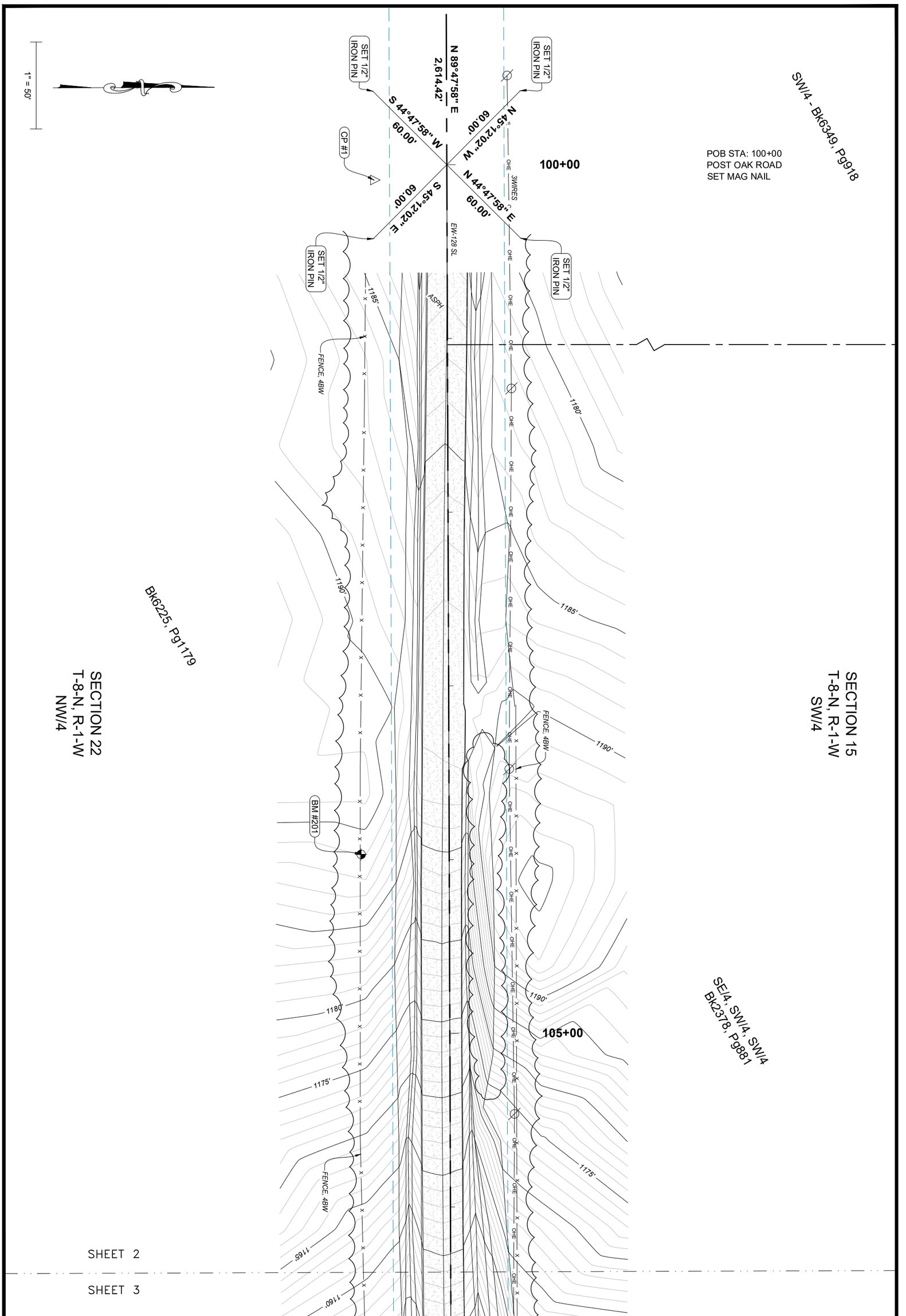
frontier LAND SURVEYING
P.O. BOX 7197
Edmond, OK 73083
405.285.0433
CA #7232

POST OAK BRIDGE OVER JIM BLUE CREEK

TOPOGRAPHIC SURVEY

DRAWN BY	DATE
ABB	06/03/2024
SCALE	JOB NO.
1"=50'	24-0049

SHEET S001



DRAWN BY	ABB
SCALE	1"=50'
DATE	06/03/2024
JOB NO.	24-0049
SHEET S002	

POST OAK BRIDGE OVER JIM BLUE CREEK

TOPOGRAPHIC SURVEY

frontier LAND SURVEYING

CA #7232

P.O. BOX 7197
Edmond, OK 73083

405.285.0433

REVISIONS

REV	DATE	DESCRIPTION	BY	APP'D
	05/21/2024	TOPOGRAPHIC SURVEY - COMPLETE	AB	JF
R1	06/03/24	ADDED TREES & TREE LINES	AB	JWB

SECTION 15
T-8-N, R-1-W
SW/4

POT STA: 108+50
SET MAG NAIL

SW/4 - Bk6349, Pg918

TITLE RESEARCH PROVIDES THAT AREA WAS SUBJECT TO "CONSTRUCTION AND IMPOUNDMENT" EASEMENT PER BK431 PG 466, FILED IN 1965, SINCE HAS BEEN PARTIALLY RELEASED PER BK 578 PG326 FILED IN 1974

1155'
1145'
1135'
110+00
1125'
1120'
FENCE, 4BW
DELINEATOR / WEIGHT LIMIT 12 TON
3WIRES
DELINEATOR
BM #203

E POST OAK RD

DELINEATOR / WEIGHT LIMIT 12 TON
DELINEATOR
FENCE, 4BW 19' ACROSS CREEK
FENCE, 4ROPE
FENCE, 5WIRE
1120'

FENCE, 4RAIL WOOD
100.00'
BM #202
1160'
1155'
FENCE, 5BW
1145'
13' GATE OPENING
1130'
FENCE, 4RAIL WOOD

SET 1/2" IRON PIN
50.00'
S 0°12'02" E
SET 1/2" IRON PIN
50.00'
SET 1/2" IRON PIN

SHEET 2
SHEET 3

SHEET 3
SHEET 4

Bk5406, Pg1079

SECTION 22
T-8-N, R-1-W
NW/4

TITLE RESEARCH PROVIDES THAT AREA WAS SUBJECT TO "CONSTRUCTION AND IMPOUNDMENT" EASEMENT PER BK431 PG 466, FILED IN 1965, SINCE HAS BEEN PARTIALLY RELEASED PER BK 578 PG326 FILED IN 1974

1" = 50'

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

REVISIONS

REV	DATE	DESCRIPTION	BY	APP'D
	05/27/2024	TOPOGRAPHIC SURVEY - COMPLETE	AB	JF
R1	06/03/24	ADDED TIES & R/W LINES	AB	JWB

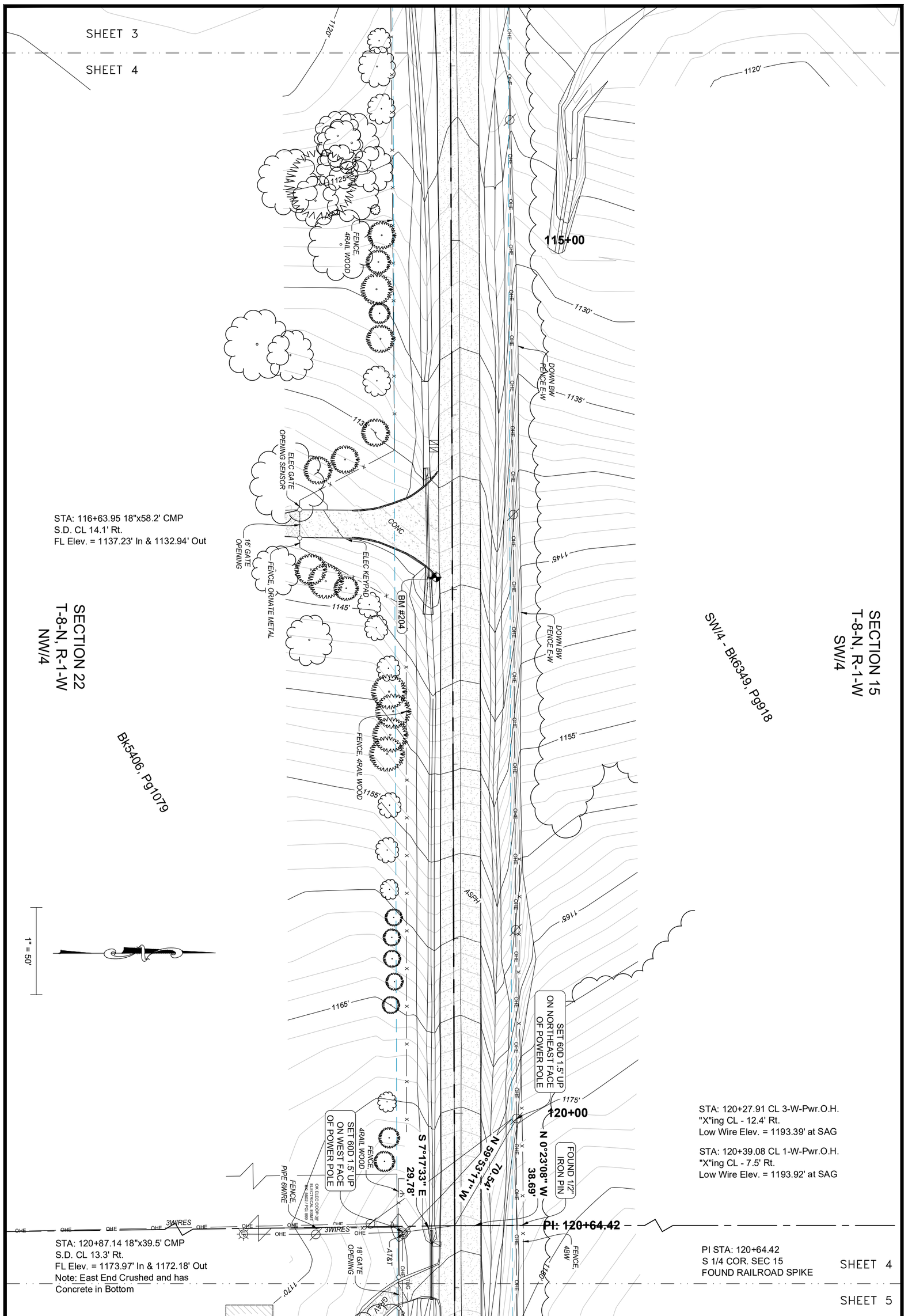
frontier LAND SURVEYING
P.O. BOX 7197
Edmond, OK 73083
405.285.0433
CA #7232

POST OAK BRIDGE OVER JIM BLUE CREEK

TOPOGRAPHIC SURVEY

DRAWN BY	DATE
ABB	06/03/2024
SCALE	JOB NO.
1"=50'	24-0049

SHEET S003



POST OAK BRIDGE OVER JIM BLUE CREEK

TOPOGRAPHIC SURVEY

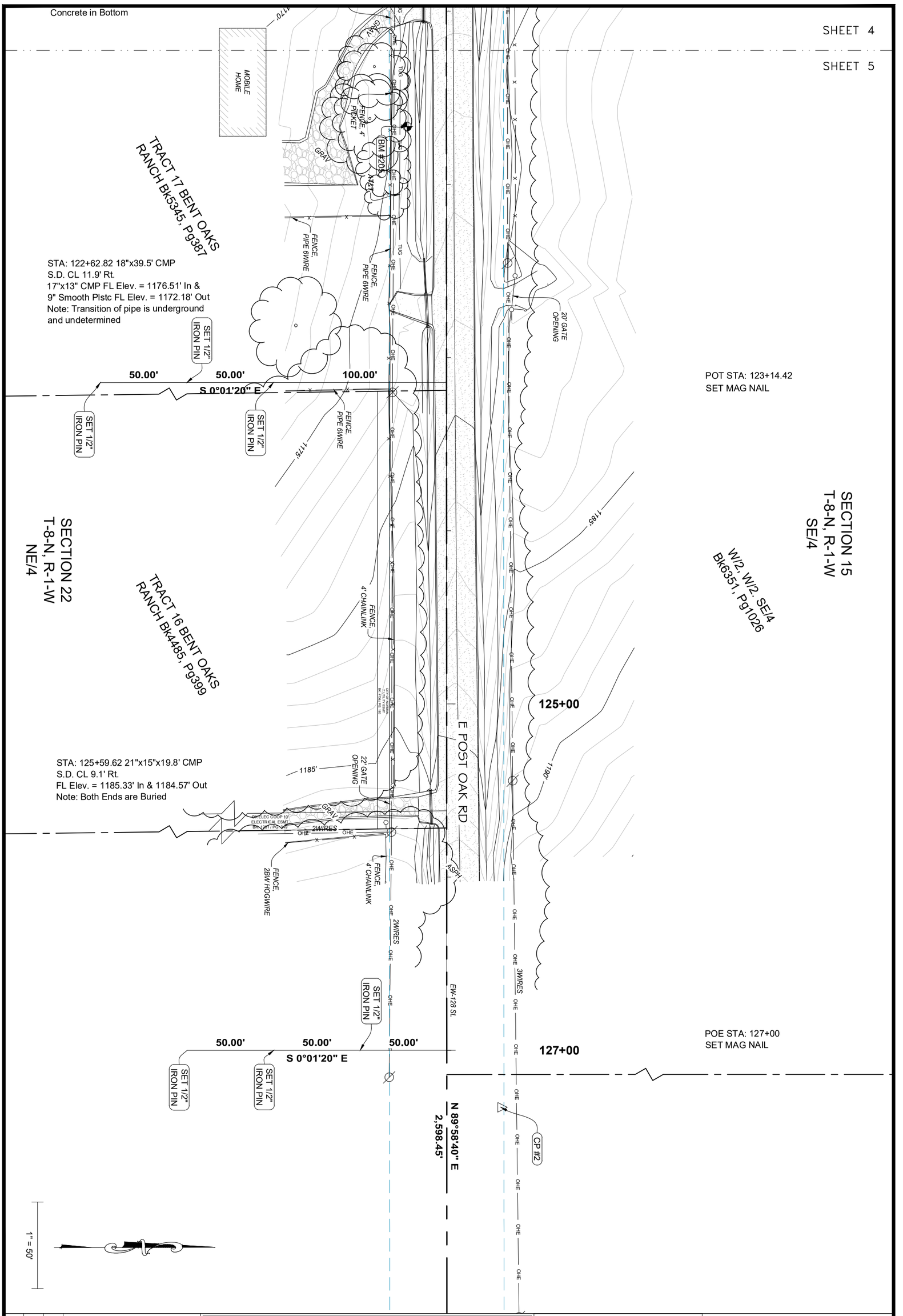
DRAWN BY: ABB
SCALE: 1"=50'
DATE: 06/03/2024
JOB NO.: 24-0049
SHEET S004

frontier LAND SURVEYING
CA #7232
P.O. BOX 7197
Edmond, OK 73083
405.285.0433

REVISIONS

REV	DATE	DESCRIPTION	BY	APPD
	05/21/2024	TOPOGRAPHIC SURVEY - COMPLETE	AB	JF
R1	06/03/24	ADDED TREES & TREE LINES	AB	JWB

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



SHEET 5005	
SCALE	1"=50'
DRAWN BY	ABB
DATE	06/03/2024
JOB NO.	24-0049

POST OAK BRIDGE OVER JIM BLUE CREEK

TOPOGRAPHIC SURVEY

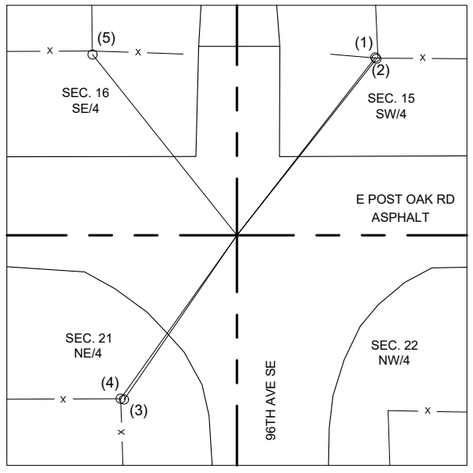
frontier LAND SURVEYING
CA #7232

P.O. BOX 7197
Edmond, OK 73083

405.285.0433

REVISIONS

REV	DATE	DESCRIPTION	BY	APP'D
	05/21/2024	TOPOGRAPHIC SURVEY - COMPLETE	AB	JF
R1	06/03/24	ADDED TREES & TREE LINES	AB	JWB



SW COR. SEC. 15,
T-8-N, R-1-W
FOUND MAG NAIL W/ M. KING
LS #1271 SHINER

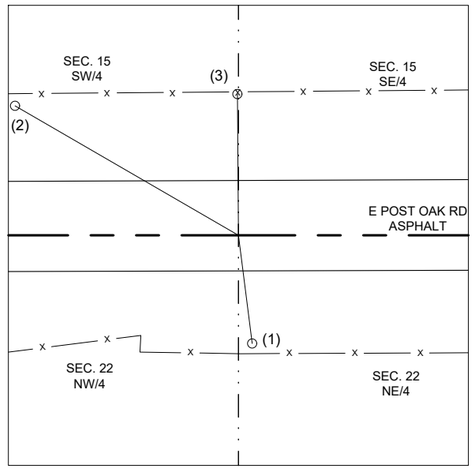
1) FOUND 60D NAIL IN RAILROAD TIE POST - 47.00' @ N 37°53'34" E

2) FOUND 1/2" IRON PIN - 46.86' @ N 38°20'18" E

3) FOUND 1/2" IRON PIN - 41.59' @ S 34°29'25" W

4) FOUND 60D NAIL IN WOOD POST - 41.71' @ S 35°06'51" W

5) FOUND 1/2" IRON PIN - 48.21' @ N 38°35'49" W

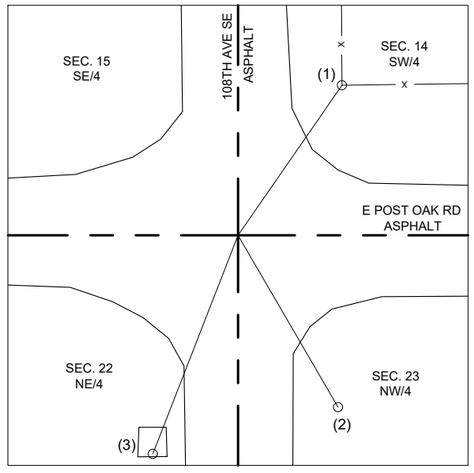


S. 1/4 COR. SEC. 15,
T-8-N, R-1-W
FOUND RAILROAD SPIKE
6" BELOW SURFACE

1) SET 60D NAIL IN W FACE OF POWER POLE 1.5' HIGH
29.78' @ S 07°17'33" E

2) SET 60D NAIL IN NE FACE OF POWER POLE 1.5' HIGH
70.54' @ N 59°53'11" W

3) FOUND 1/2" IRON PIN
38.69' @ N 00°23'08" W



SE COR. SEC. 15,
T-8-N, R-1-W
PK NAIL W/ A. HENRY LS
#1335 SHINER

1) FOUND 60D NAIL IN S FACE OF RAILROAD TIE CORNER POST
41.57' @ N 35°30'15" E

2) 60D NAIL IN W FACE OF POWER POLE
45.06' @ S 30°12'34" E

3) SET CUT "X" IN CONCRETE PAD FOR STRUCTURE
53.17' @ S 21°19'33" W

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

REVISIONS

REV	DATE	DESCRIPTION	BY	APP'D
		TOPOGRAPHIC SURVEY - COMPLETE	AB	JF
R1	06/03/24	ADDED TIES E & TIED LINES	AB	JWB

P.O. BOX 7197
Edmond, OK 73083
405.285.0433

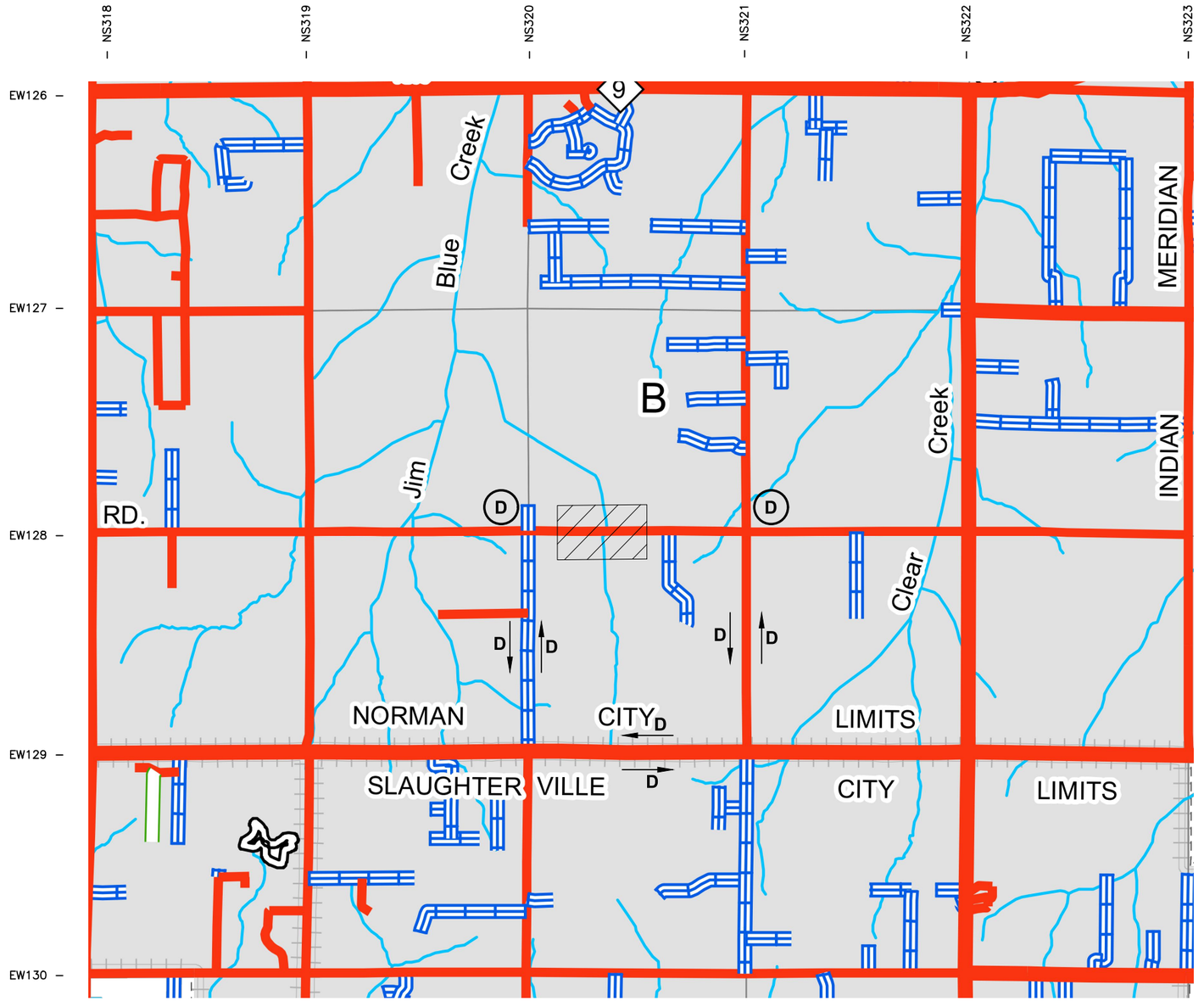
frontier LAND SURVEYING
CA #7232

POST OAK BRIDGE OVER JIM BLUE CREEK

TOPOGRAPHIC SURVEY

DRAWN BY	DATE
ABB	06/03/2024
SCALE	JOB NO.
1"=50'	24-0049

SHEET S006



LEGEND

- (D) DETOUR AHEAD
- D → DETOUR DIRECTION SIGN
- WORK AREA

NOTE:
SEE COUNTY ROAD CLOSURE DETAIL FOR SIGN DETAILS AND PLACEMENT, SHEET T002

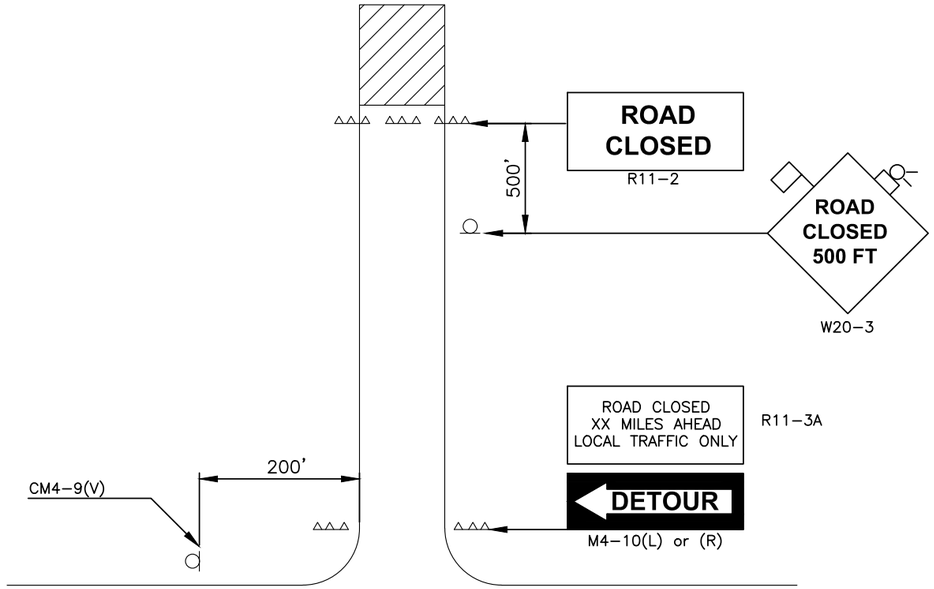
DESIGN	DJG
DRAWN	KMH
CHECKED	---

MKEC

E. POST OAK ROAD — CLEVELAND COUNTY

DETOUR PLAN

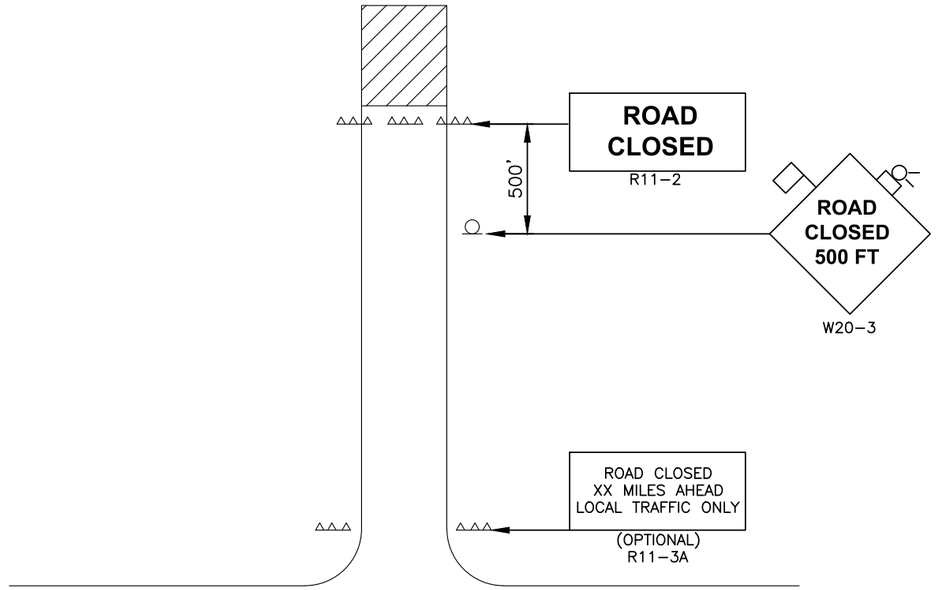
PROJECT NO. K-2324-151 SHEET NO. T001



TYPICAL APPLICATION
COUNTY ROAD (DETOUR IS ESTABLISHED)

NOTES:
WHEN A DETOUR ROUTE IS ESTABLISHED IN CONJUNCTION WITH THE CONSTRUCTION THE DETOUR ROUTE SHALL BE SHOWN IN THE PLANS. EITHER THE CONTRACTOR OR THE COUNTY WILL BE RESPONSIBLE FOR THE DETOUR SIGNING AND THIS RESPONSIBILITY SHALL BE STATED IN THE PLANS.

THE CONSTRUCTION SIGNING SHOWN ON THIS PLAN SHEET AND FROM THE OPPOSITE DIRECTION (NOT SHOWN) SHALL ALWAYS BE THE RESPONSIBILITY OF THE CONTRACTOR.



TYPICAL APPLICATION
COUNTY ROAD (NO DETOUR ESTABLISHED)

DESIGN	DJG
DRAWN	KMH
CHECKED	---

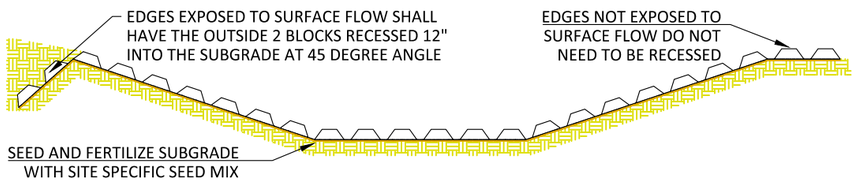
E. POST OAK ROAD CLEVELAND COUNTY

COUNTY ROAD CLOSURE DETAIL

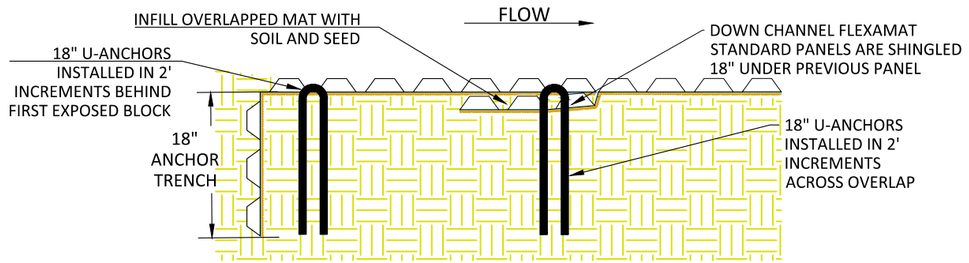
PROJECT NO. K-2324-151 SHEET NO. T002

REVISIONS		
DESCRIPTION		DATE

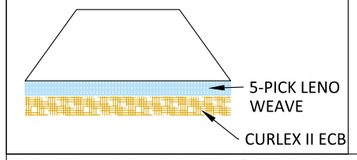
METHOD FOR TREATING EDGES EXPOSED TO SURFACE SHEET FLOW



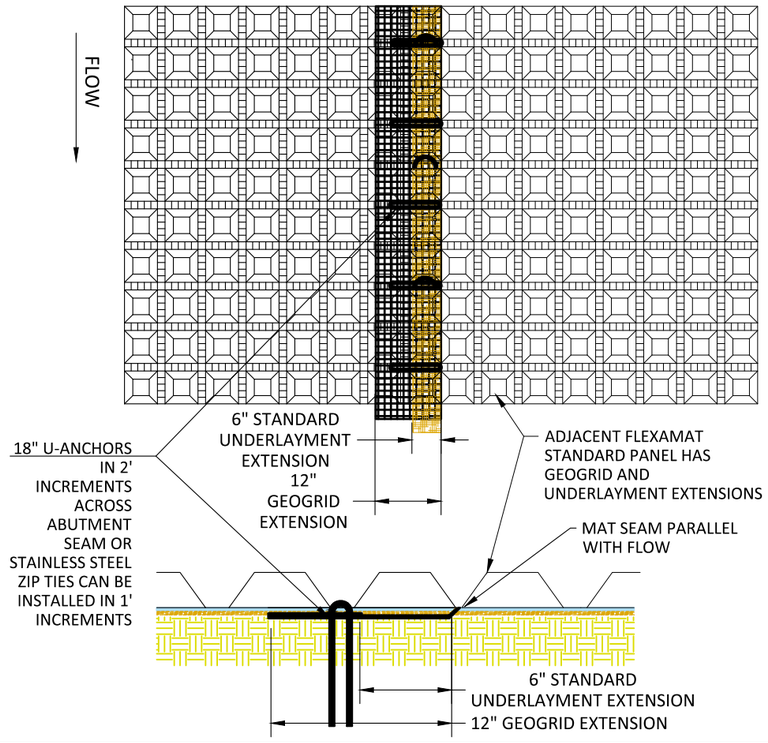
LEADING EDGE ANCHOR TRENCH AND OVERLAP SEAMS PERPENDICULAR TO FLOW



FLEXAMAT STANDARD UNDERLAYMENT



ABUTMENT METHOD FOR WIDER THAN 16'



FLEXAMAT STANDARD CHANNEL - LAYOUT PARALLEL TO FLOW

CONSTRUCTION NOTES:

1. AN ENGINEER OR MANUFACTURES REPRESENTATIVE SHALL BE ONSITE FOR THE START OF THE INSTALLATION.
2. GRADE CHANNEL SO THAT WATER WILL FLOW DOWN CENTER OF THE CHANNEL AND BE CONTAINED TO THE CHANNEL. ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND.
3. PRIOR TO FLEXAMAT STANDARD INSTALLATION SEED AND FERTILIZE THE PREPARED SUBGRADE WITH SITE SPECIFIC SEED MIX AND IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
4. INSTALL FLEXAMAT STANDARD ROLLS, USING THE WIDEST ROLLS POSSIBLE TO AVOID SEAMS.
   - 4.1. FOR CHANNELS THAT ARE WIDER THAN 16', INSTALL 15.5' WIDE FLEXAMAT STANDARD ROLLS THAT INCLUDE 12" GEOGRID EXTENSIONS WITH A 6" STANDARD UNDERLAYMENT EXTENSIONS. THESE SEAMS ARE PARALLEL WITH FLOW, THE ADJACENT MAT INSTALLED OVER THE EXTENSIONS. ENSURE GEOGRID AND STANDARD UNDERLAYMENT EXTENSIONS ARE LAYING FLAT ON SUBGRADE PRIOR TO INSTALLING ADJACENT MAT.
   - 4.2. SECURE THE ABUTMENT PARALLEL WITH FLOW BY INSTALLING 18" U-ANCHORS IN 2' INCREMENTS OR 20" STAINLESS STEEL ZIP TIES IN 1' INCREMENTS THROUGH THE EXTENSION OVERLAP. U ANCHORS OR ZIP TIES TO BE INSTALLED PERPENDICULAR TO FLOW. ZIP TIES SHALL ENCOMPASS 3 CORDS OF GEOGRID FROM EACH MAT.
5. FOR ADDITIONAL SECTIONS OF MAT, SECURE SEAM PERPENDICULAR WITH FLOW BY OVERLAPPING THE DOWNSTREAM SECTION 18" WITH UPSTREAM SECTION OF MAT. PRIOR TO INSTALLING OVERLAP, FLIP UPSTREAM MAT BACK 24". EXCAVATE 2.25'" OF SOIL 18" FROM END OF UPSTREAM MAT. DOWNSTREAM SECTION IS LAID IN THE SHALLOW TRENCH. RETURN AND TAMP SOIL OVER INITIAL EDGE AND SEED. FLIP END OF UPSTREAM MAT OVER THE SOIL COVERED AND SEEDED INITIAL LEADING EDGE OF DOWNSTREAM MAT.
   - 5.1. SECURE OVERLAPS PERPENDICULAR TO FLOW BY INSTALLING 18" U-ANCHORS IN 2' INCREMENTS OR 20" STAINLESS STEEL ZIP TIES IN 1' INCREMENTS THROUGH THE OVERLAP. ZIP TIES SHALL ENCOMPASS 3 CORDS OF GEOGRID FROM EACH MAT.
6. AT THE INITIAL LEADING EDGE OF THE FLEXAMAT STANDARD ARMORED CHANNEL, EMBED THE MAT 18" IN A VERTICAL ANCHOR TRENCH. FILL AND COMPACT ANCHOR TRENCH WITH SUITABLE FILL. AT ENDING EDGE OF PROTECTION, EMBED THE MAT 18" IN A TERMINATION TRENCH. THE TRENCH SHALL BE FILLED AND COMPACTED WITH SUITABLE FILL, AS DETERMINED BY THE ENGINEER OF RECORD.

MOTZ ENTERPRISES, INC.

Flexamat

(513)772-6689

Info@Flexamat.com

Flexamat.com

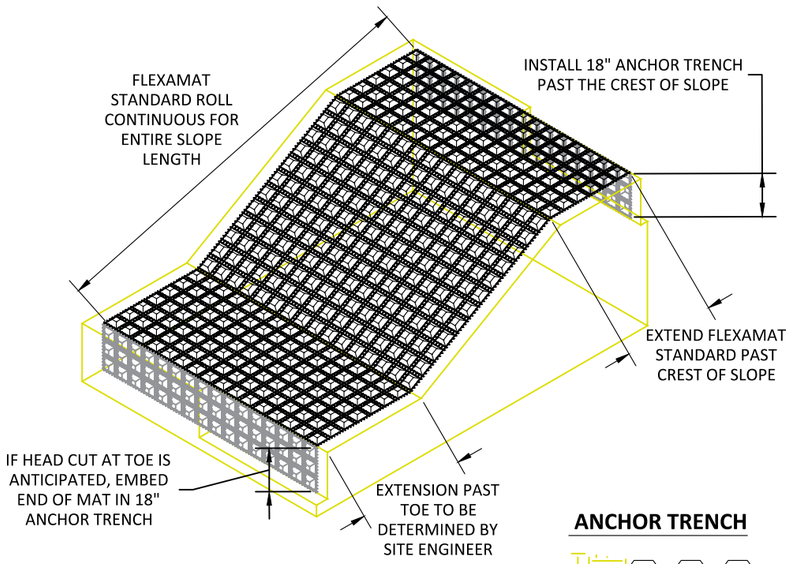
Flexamat® PERMANENT EROSION CONTROL

REV - 2

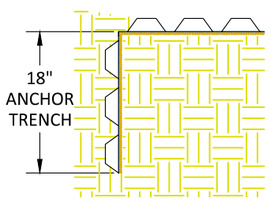
DESIGN	DJG	E. POST OAK ROAD CLEVELAND COUNTY
DRAWN	KMH	**FLEXAMAT STANDARD DETAIL**
CHECKED	---	**(SHEET 1 OF 2)**
MKEC		PROJECT NO. K-2324-151 SHEET NO. U001

REVISIONS		
DESCRIPTION		DATE

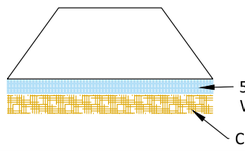
ISOMETRIC VIEW OF SLOPE AND ANCHOR TRENCHES



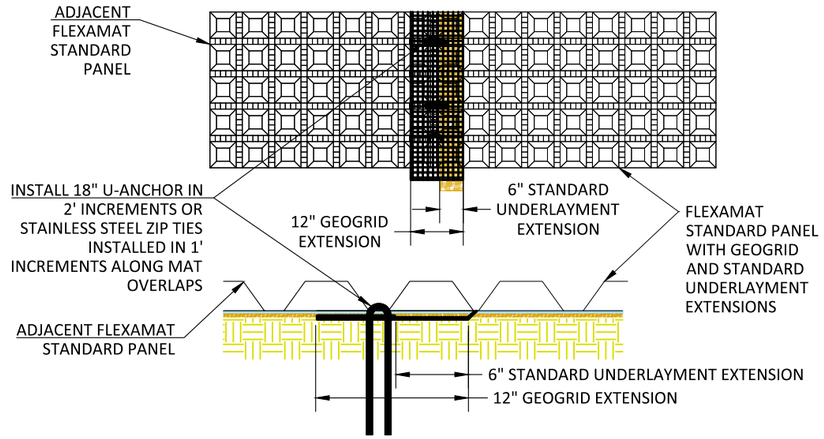
ANCHOR TRENCH



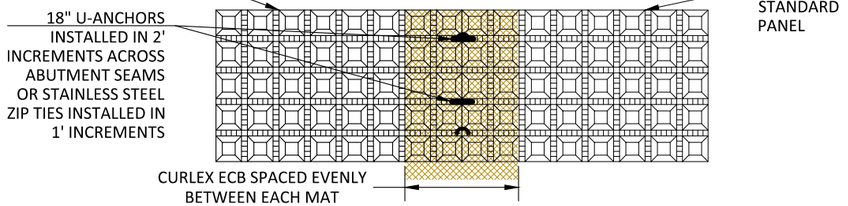
FLEXAMAT STANDARD UNDERLAYMENT



ABUTMENT METHOD FOR SEAMS WITH EXTENSIONS



ABUTMENT METHOD FOR SEAMS WITHOUT EXTENSIONS



FLEXAMAT STANDARD - SLOPE ARMORING

CONSTRUCTION NOTES:

1. AN ENGINEER OR MANUFACTURERS REPRESENTATIVE SHALL BE ONSITE FOR THE START OF THE INSTALLATION.
2. ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND.
3. PRIOR TO FLEXAMAT STANDARD INSTALLATION SEED AND FERTILIZE SUBGRADE WITH SITE SPECIFIC SEED MIX IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
4. INSTALL FLEXAMAT STANDARD ROLLS THAT ARE CONTINUOUS FOR ENTIRE SLOPE LENGTH. FOR SLOPES LONGER THAN 16', USE MATS WITH EXTENSIONS CUT TO THE LENGTH OF THE SLOPE. INSTALL MATS TO THAT THE MATTING EXTENDS PAST THE CREST OF SLOPE AND INTO AN 18" ANCHOR TRENCH.
   - 4.1. FOR ARMORED SLOPE LENGTHS 16' OR LESS, INSTALL CURLEX ECB EQUALLY UNDER ADJACENT MATS. SECURE SEAM WITH #3 REBAR 18" U-ANCHORS IN 2' INCREMENTS THE LENGTH OF THE ABUTMENT.
   - 4.2. ARMORED SLOPE LENGTHS LONGER THAN 16', INSTALL NEXT MAT OVER EXTENSIONS.
5. INSTALL SUBSEQUENT MATS OVER THE GEOGRID EXTENSION AND STANDARD UNDERLAYMENT EXTENSION OF THE PREVIOUSLY INSTALLED MAT. ENSURE THE GEOGRID AND STANDARD UNDERLAYMENT EXTENSIONS ARE LAYING FLAT ON THE SUBGRADE BEFORE INSTALLING ADJACENT MAT OVER THE EXTENSIONS.
6. INSTALL #3 REBAR 18" U-ANCHORS IN 2' INCREMENTS ACROSS THE GEOGRID AND STANDARD EXTENSION ABUTMENT. INSTALL ANCHORS PERPENDICULAR TO THE SLOPE DIRECTLY BEHIND FIRST ROW OF BLOCKS ON THE ADJACENT MAT.
7. AT THE END OF THE ARMORED SLOPE, IF HEAD CUT IS ANTICIPATED, EMBED THE MAT 18" IN A TERMINATION TRENCH. FILL AND COMPACT TERMINATION TRENCH WITH SUITABLE FILL.

MOTZ ENTERPRISES, INC.
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Info@Flexamat.com
Flexamat.com

Flexamat® PERMANENT EROSION CONTROL

REV - 2

DESIGN	DJG	E. POST OAK ROAD CLEVELAND COUNTY
DRAWN	KMH	**FLEXAMAT STANDARD DETAIL**
CHECKED	---	**(SHEET 2 OF 2)**
MKEC		PROJECT NO. K-2324-151 SHEET NO. U002

AREA S.F.
EXC. EMB.

VOLUME C.Y.
EXC. EMB.

112 + 00

STAT. R/W

-3.31:1

F.G.=1124.60

-5.30:1

STAT. R/W

E.G. = 1124.48

1 29

5 32

111 + 50

STAT. R/W

-11.27%

F.G.=1125.04

-5.57%

STAT. R/W

E.G. = 1124.94

4 6

22 5

STA. 111+10.00 BEGIN PROJECT NO. K-2324-151

111 + 10

STAT. R/W

-1.54%

F.G.=1125.57

-1.39%

STAT. R/W

E.G. = 1125.57

25 1

0 0

CROSS SECTION

0 5' 10' 20'

FACILITY E. POST OAK ROAD CLEVELAND COUNTY

PROJECT. NO. K-2324-151 SHEET NO. X001

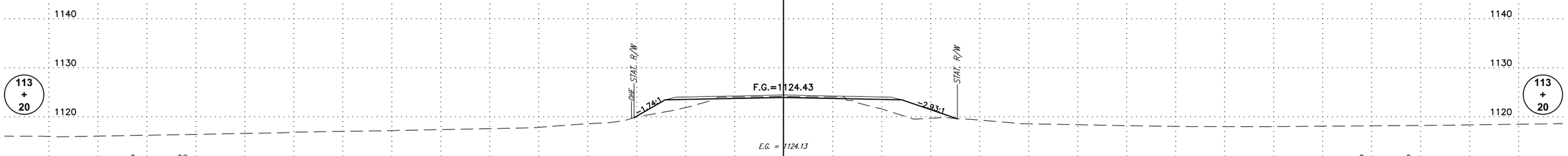
PLOTTED: Wednesday, April 09, 2025 @ 02:42PM G:\projects\2024\24030102\81-City of Norman_Post Oak Bridge\100 CAD\VREF\Models\K-2324-151-DESIGN.dwg

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 CRL 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

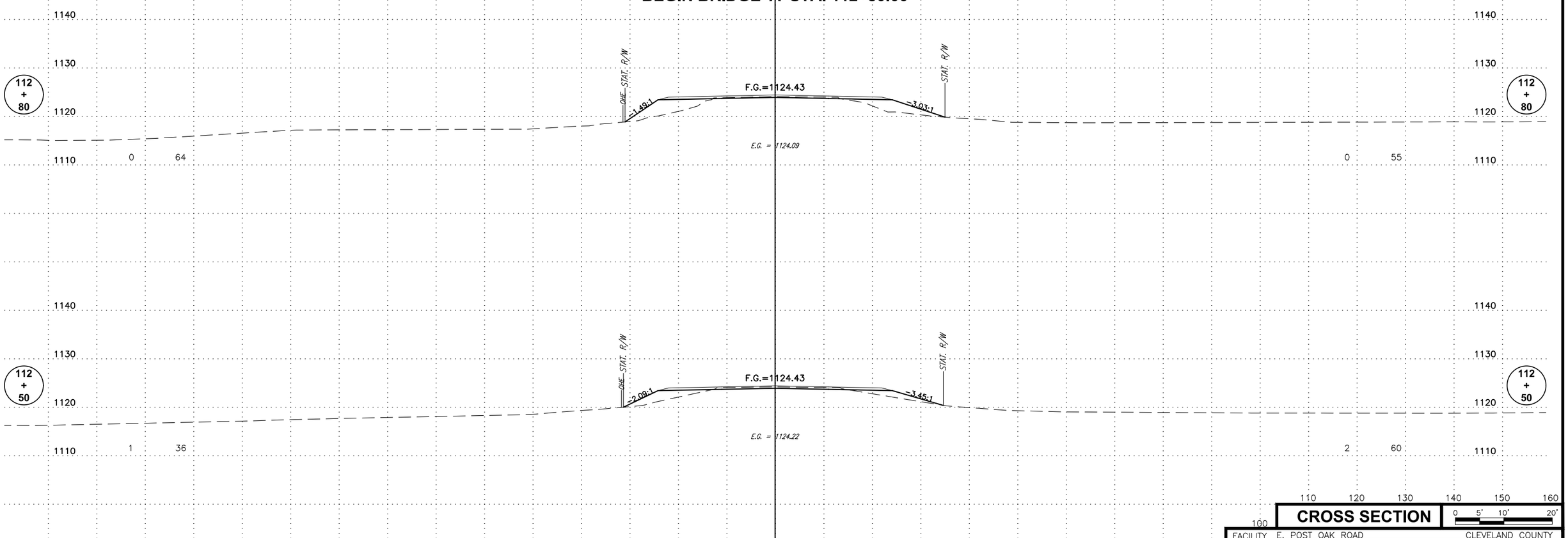
AREA S.F. EXC. EMB.

VOLUME C.Y. EXC. EMB.

END BRIDGE 'A' STA. 113+20.00



BEGIN BRIDGE 'A' STA. 112+80.00



CROSS SECTION

0 5' 10' 20'

FACILITY E. POST OAK ROAD — CLEVELAND COUNTY

PROJECT. NO. K-2324-151 — SHEET NO. X002

PLOTTED: Wednesday, April 09, 2025 @ 02:42PM G:\projects\2024\24030102\8_City of Norman_Post Oak Bridge\00 CAD\XREF\Models\K-2324-151-DESIGN.dwg

AREA S.F. EXC. EMB.

VOLUME C.Y. EXC. EMB.

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 CRL 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

1140 1130 1120 1110

114 + 50

TEMP. R/W

STAT. R/W

2.73:1

FL=1123.79

F.G.=1125.71

1.00'

FL=1123.79

STAT. R/W

E.G. = 1125.46

9 12

9 36

114 + 00

OHE STAT. R/W

3.69:1

F.G.=1124.91

8.73%

STAT. R/W

E.G. = 1124.54

0 26

1 54

113 + 50

OHE STAT. R/W

1.91:1

F.G.=1124.49

4.76:1

STAT. R/W

E.G. = 1124.31

1 32

1 52

CROSS SECTION

0 5' 10' 20'

FACILITY E. POST OAK ROAD — CLEVELAND COUNTY

PROJECT. NO. K-2324-151 — SHEET NO. X003

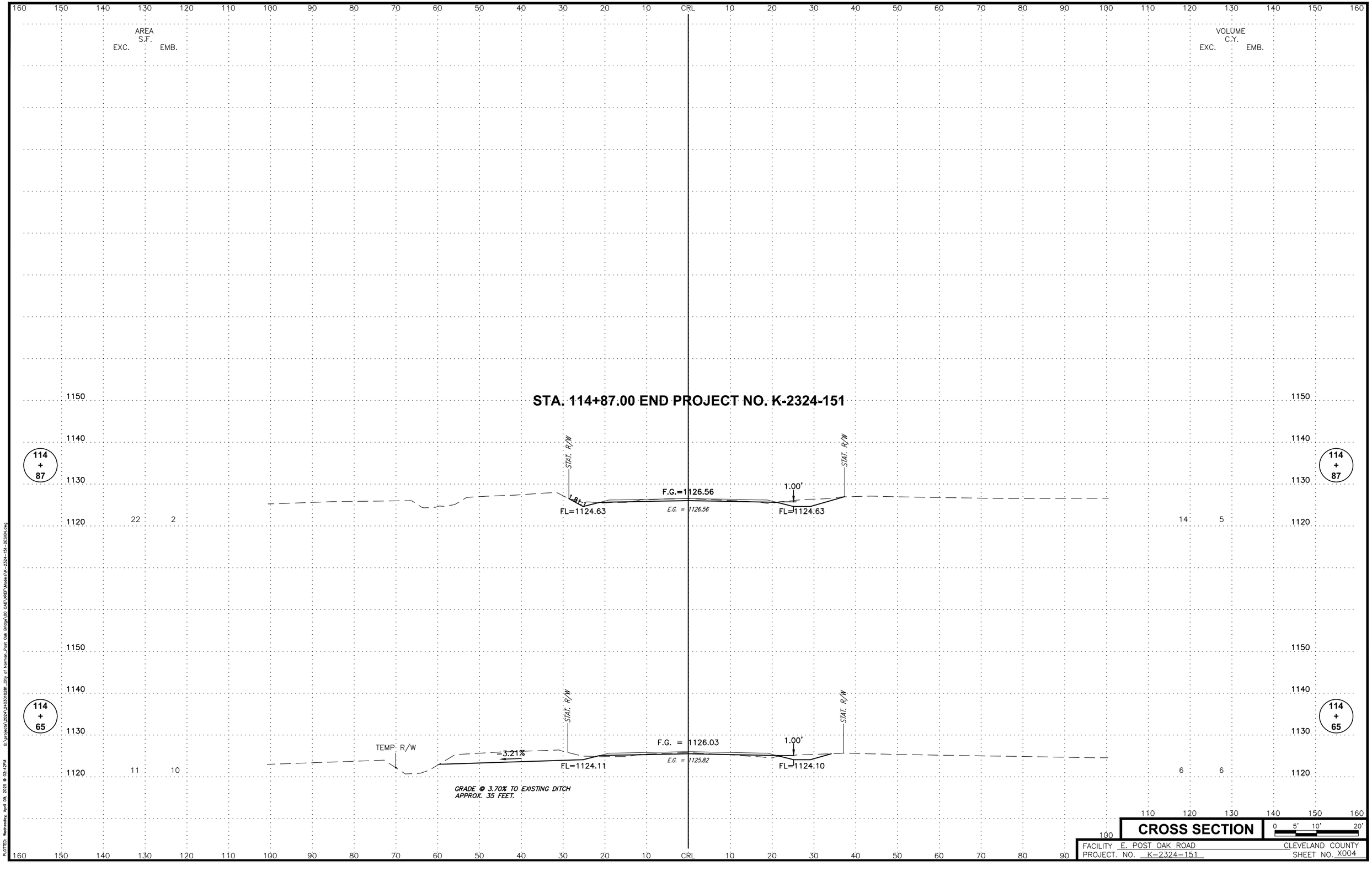
PLOTTED: Wednesday, April 09, 2025 @ 02:42PM

G:\projects\2024\240301028_City of Norman_Post Oak Bridge\00 CAD\XREF\Models\K-2324-151-DESIGN.dwg

AREA S.F. EXC. EMB.

VOLUME C.Y. EXC. EMB.

STA. 114+87.00 END PROJECT NO. K-2324-151



CROSS SECTION

0 5' 10' 20'

FACILITY E. POST OAK ROAD — CLEVELAND COUNTY

PROJECT. NO. K-2324-151 — SHEET NO. X004

PLOTTED: Wednesday, April 09, 2025 @ 02:42PM G:\projects\2024\240301028\...City of Norman_Post Oak Bridge\00 CAD\VREF\Models\K-2324-151-DESIGN.dwg