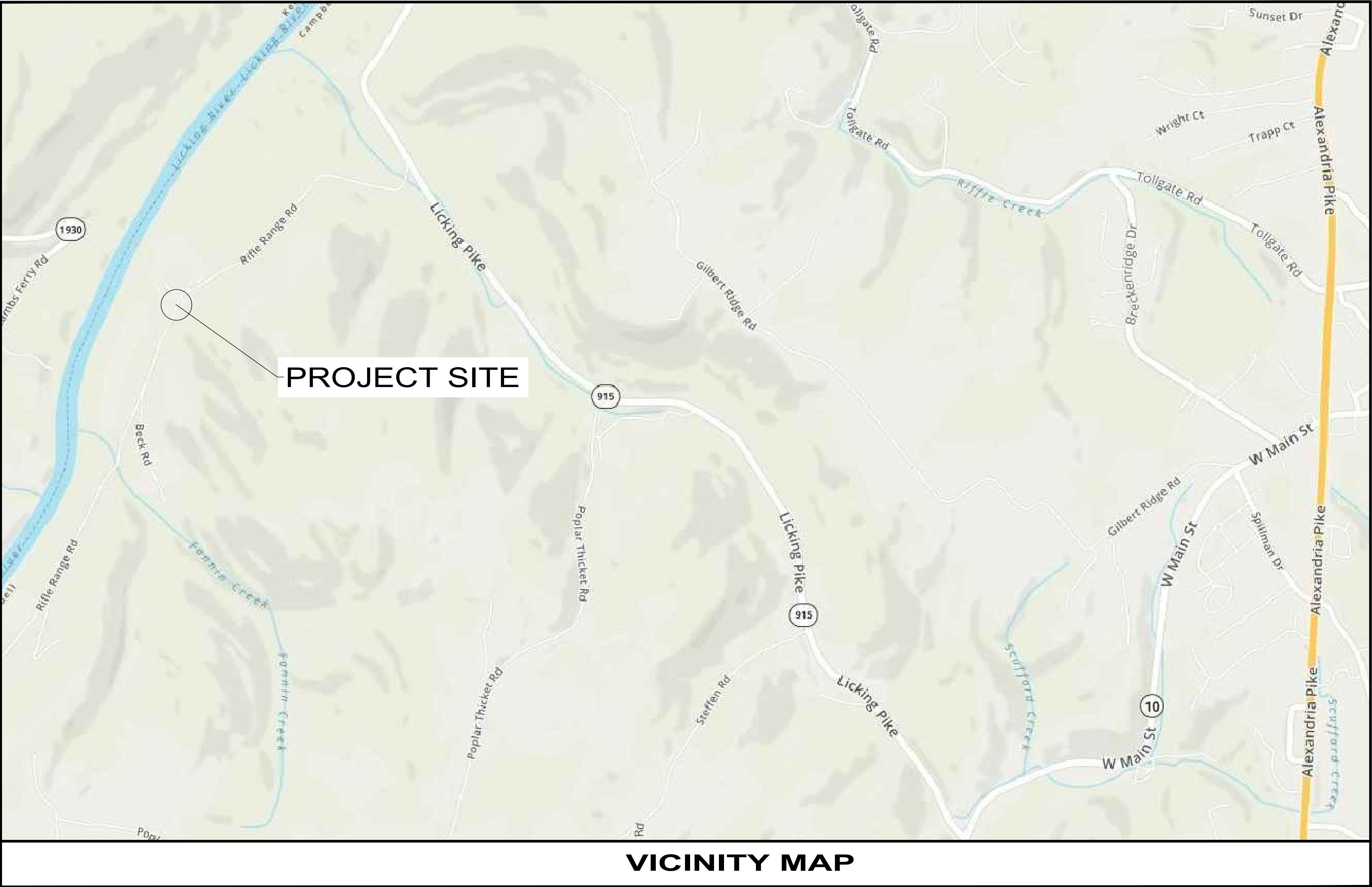


RIFLE RANGE ROAD CULVERT RECONSTRUCTION CAMPBELL COUNTY, KENTUCKY 19052301



VICINITY MAP

INDEX OF SHEETS

TITLE SHEET	1
PLAN	2
DETAILS	3 - 4
SCHEDULE	5
STRUCTURAL	6 - 8

KYTC STANDARD DRAWINGS

THE CURRENT EDITION OF THE KENTUCKY STANDARD DRAWINGS ARE HEREBY MADE PART OF THESE PLANS.

PROJECT SPECIFICATIONS

IN GENERAL, THE PROJECT SPECIFICATIONS CONFORM TO THE CURRENT EDITION OF THE KENTUCKY STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.



APPROVED FOR CONSTRUCTION BY:

LUKE MANTLE, ROAD SUPERVISOR

DATE



ROBERT F. DREYER, P.E. #20017

DATE

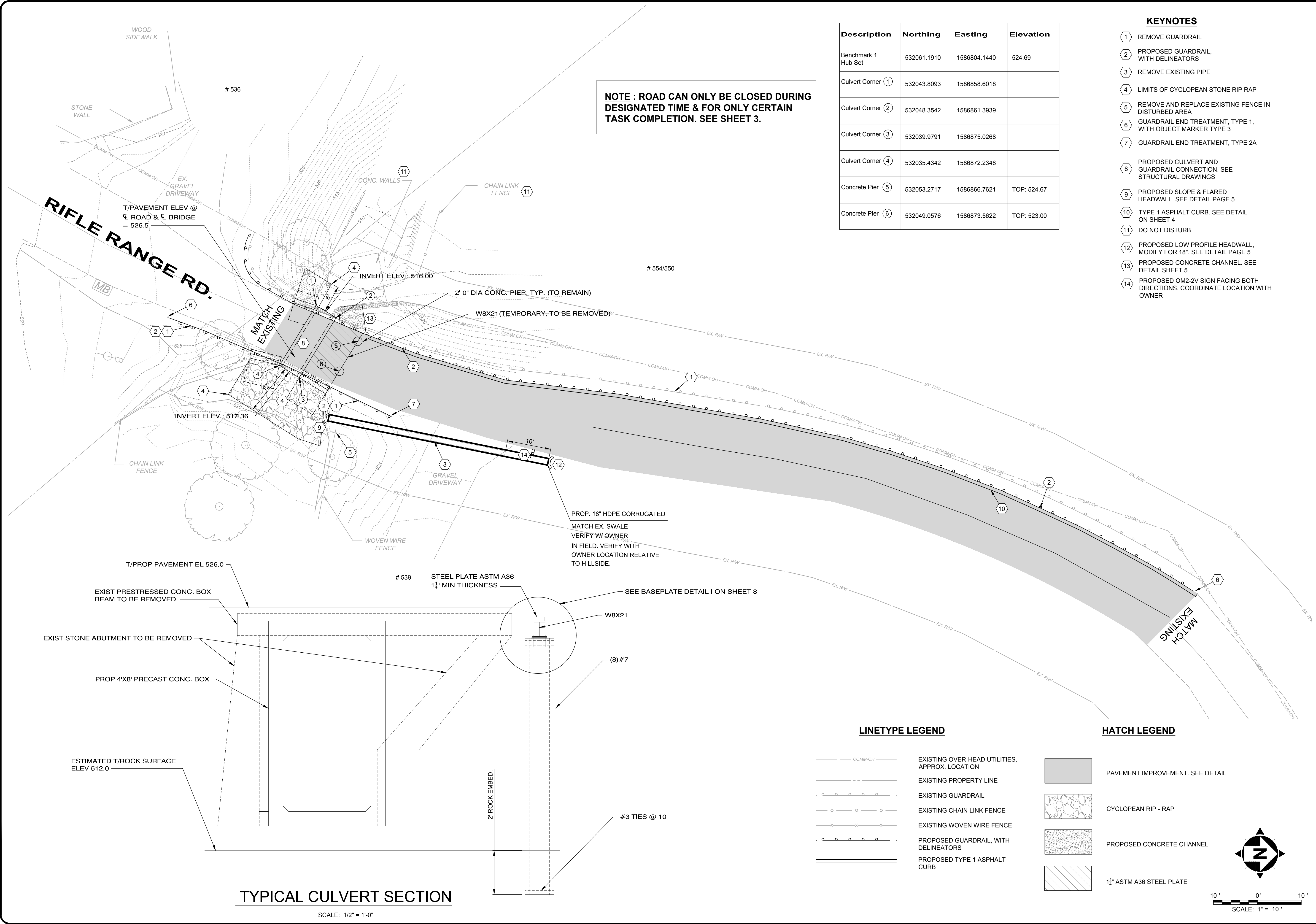
CAMPBELL COUNTY
BRIDGE REPAIR
CAMPBELL COUNTY, KY

TITLE SHEET

PROJECT NO. 19052301	
DISCIPLINE CIVIL	
SHEET NAME TITLE	
SHEET 1	OF 8

ISSUED FOR	REVIEW	NO	REVISION	DATE
ISSUE DATE: 5/23/2019	1"=10'			
DESIGNED BY: RDRE	RDRE			
DRAWN BY: KBOE	KBOE			
CHECKED BY: RDRE	RDRE			

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Description	Northing	Easting	Elevation
Benchmark 1 Hub Set	532061.1910	1586804.1440	524.69
Culvert Corner ①	532043.8093	1586858.6018	
Culvert Corner ②	532048.3542	1586861.3939	
Culvert Corner ③	532039.9791	1586875.0268	
Culvert Corner ④	532035.4342	1586872.2348	
Concrete Pier ⑤	532053.2717	1586866.7621	TOP: 524.67
Concrete Pier ⑥	532049.0576	1586873.5622	TOP: 523.00

- KEYNOTES**
- ① REMOVE GUARDRAIL
 - ② PROPOSED GUARDRAIL, WITH DELINEATORS
 - ③ REMOVE EXISTING PIPE
 - ④ LIMITS OF CYCLOPEAN STONE RIP RAP
 - ⑤ REMOVE AND REPLACE EXISTING FENCE IN DISTURBED AREA
 - ⑥ GUARDRAIL END TREATMENT, TYPE 1, WITH OBJECT MARKER TYPE 3
 - ⑦ GUARDRAIL END TREATMENT, TYPE 2A
 - ⑧ PROPOSED CULVERT AND GUARDRAIL CONNECTION. SEE STRUCTURAL DRAWINGS
 - ⑨ PROPOSED SLOPE & FLARED HEADWALL. SEE DETAIL PAGE 5
 - ⑩ TYPE 1 ASPHALT CURB. SEE DETAIL ON SHEET 4
 - ⑪ DO NOT DISTURB
 - ⑫ PROPOSED LOW PROFILE HEADWALL, MODIFY FOR 18". SEE DETAIL PAGE 5
 - ⑬ PROPOSED CONCRETE CHANNEL. SEE DETAIL SHEET 5
 - ⑭ PROPOSED OM2-2V SIGN FACING BOTH DIRECTIONS. COORDINATE LOCATION WITH OWNER

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DATE	
REVISION	
NO	
REVIEW	
ISSUED FOR:	
ISSUE DATE:	5/23/2019
SCALE:	1"=10'
DESIGNED BY:	RDR
DRAWN BY:	KBOE
CHECKED BY:	RDR

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CAMPBELL COUNTY, KY

RIFLE RIDGE ROAD

PROJECT NO. 19052301	
DISCIPLINE CIVIL	
SHEET NAME PLAN	
SHEET 2	OF 8

NOTE : ROAD CAN ONLY CLOSE BETWEEN 8:00 AM AND 5:00 PM ONLY FOR TASKS NOTED BELOW (THERE WILL BE A \$100/Hr PENALTY FOR CLOSURES BEFORE 8:00 AM AND AFTER 5:00 PM)		
WORK COMPLETED IN ONE DAY	ROAD CLOSED BETWEEN 8:00 AM AND 5:00 PM	WORK FOR THE DAY
YES	NO	SET UP SIGNALS FOR 2 WAY TRAFFIC IN ONE LANE
YES	YES	DIG TRENCH FOR TEMPORARY PIERS AND DRILL PIERS AND PLACE PIER CONCRETE - PLATE EXCAVATION FOR NIGHT (PIERS MUST CURE FOR 7 DAYS UNLESS SPECIAL CONCRETE MIX USED)
YES	YES	INSTALL BASE PLATES, QUICK SETTING GROUT (GROUT MUST CURE TO 70% OF STRENGTH IN 3 HOURS) AND STEEL BEAMS - PLATE FOR THE NIGHT & SET UP TEMP CONCRETE BARRIERS IF NEEDED
YES	NO	INSTALL WATERPROOFING ON SOUTH SIDE OF BOXES BEFORE INSTALLING
YES	YES	REMOVE ALL BOX BEAMS, NORTH ABUTMENT AND SET NEW CONCRETE BOXES - PLATE FOR THE NIGHT (SEE TYPICAL CULVERT SECTION ON SHEET 2 (PLAN))
YES	YES	WATERPROOF NORTH SIDE & TOP OF CULVERT - PLATE FOR THE NIGHT & SET UP TEMP CONCRETE BARRIERS
NO	NO	REMOVE AND INSTALL UPSTREAM WINGWALLS * (ONE LANE OF TWO WAY TRAFFIC MUST BE MAINTAINED AT ALL TIMES)
NO	NO	REMOVE AND INSTALL DOWNSTREAM WINGWALLS * (ONE LANE OF TWO WAY TRAFFIC MUST BE MAINTAINED AT ALL TIMES)
COMPLETE IN 2 DAYS MAXIMUM	YES	BACKFILL NEW BOX CULVERT & WINGWALLS - PLATE FOR THE NIGHT & SET UP TEMPORARY CONCRETE BARRIERS (ROADWAY MUST BE OPEN BETWEEN 5:00 PM & 8:00 AM)
YES	NO	PLACE ROADWAY BASE AND PAVEMENT ABOVE CULVERT - SET UP TEMPORARY CONCRETE BARRIERS (ROAD CAN BE CLOSED BETWEEN 8:00 AM & 5:00 PM)
		PLACE RIP RAP *
YES	NO	INSTALL GUARDRAIL AND END TREATMENTS
YES	NO	PAVE ENTIRE ROADWAY

* = ROAD MAY CLOSE 2 HOURS, WHILE CONCRETE OR STONE IS BEING DELIVERED. HOWEVER, RESIDENTS MUST BE NOTIFIED 24 HOURS IN ADVANCE.

** = COMPLETE ROAD CLOSURE BETWEEN 8:00 AM & 5:00 PM SHALL TAKE PLACE PRIOR TO THE START OF THE SCHOOL YEAR. UPON THE START OF THE SCHOOL YEAR, BUS TRAFFIC UP TO 4 TIMES PER DAY SHALL BE PERMITTED USE OF THE ROADWAY.

IN ADDITION TO THE REQUIREMENTS OF KYTC ITEM 112, MAINTAINING TRAFFIC, THE CONTRACTOR SHALL INSTALL A PORTABLE CHANGEABLE MESSAGE SIGN, PER KYTC SPECIAL NOTE FOR PORTABLE CHANGEABLE MESSAGE SIGNS. THE PORTABLE MESSAGE BOARD SHALL BE PLACED ALONG RIFLE RANGE ROAD, LOCATION VERIFIED IN THE FIELD WITH THE OWNER, TO INFORM THE RESIDENTS OF UPCOMING CONSTRUCTION. THE PORTABLE MESSAGE BOARD SHALL BE IN PLACE A MINIMUM OF 14 DAYS PRIOR TO THE FIRST DAYTIME ROAD CLOSURE BETWEEN 8:00 AM AND 5:00 PM AND THROUGH THE LAST DAYTIME ROAD CLOSURE OR TEMPORARY CLOSURE WHICHEVER IS LAST. THE PORTABLE MESSAGE BOARD SHALL COMMUNICATE ROAD CLOSURE DATES AND TIMES TO THE RESIDENTS.

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PROJECT NO.

19052301

DISCIPLINE

CIVIL

SHEET NAME

SCHEDULE

SHEET

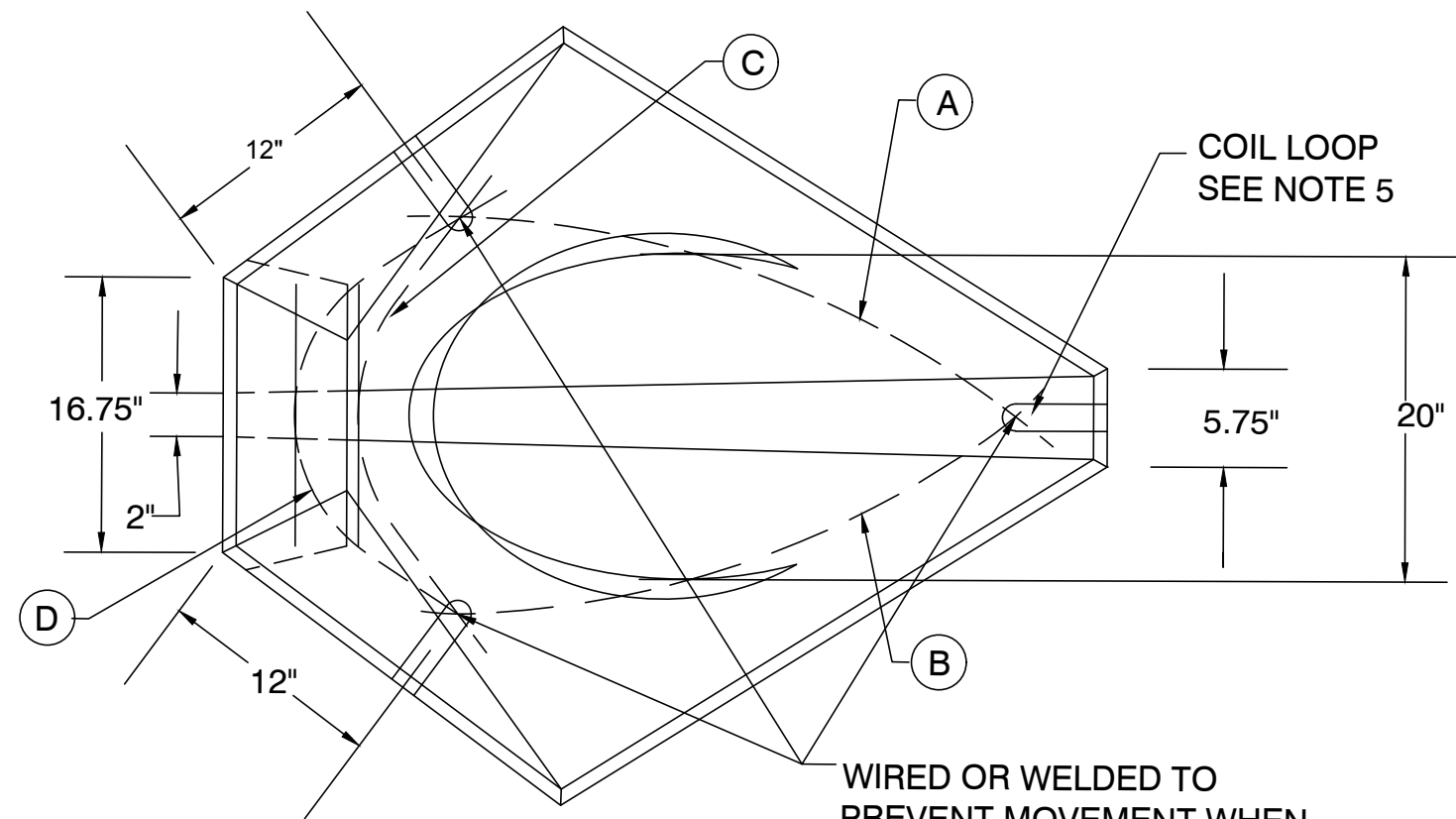
OF

3

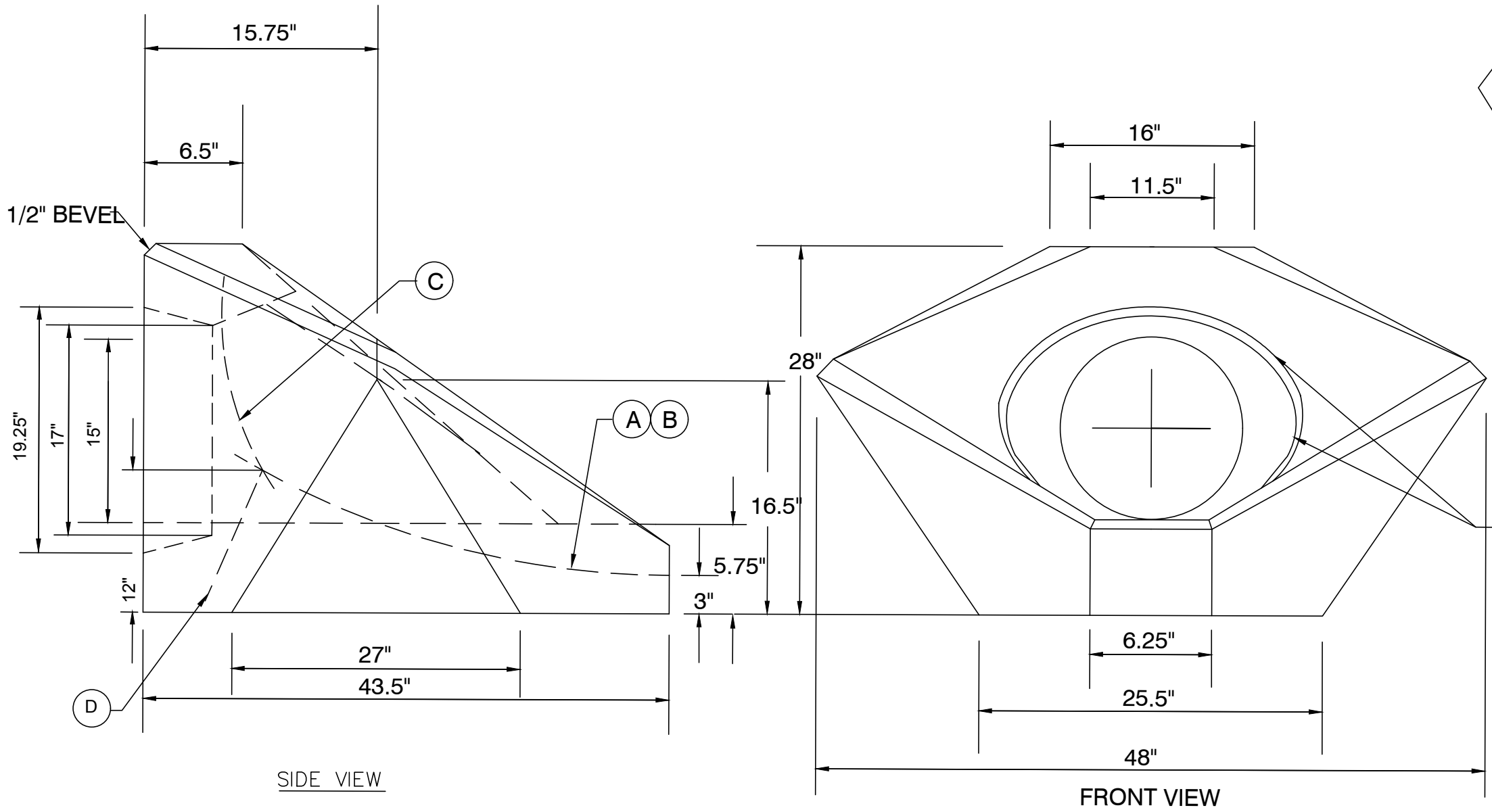
8

CAMPBELL COUNTY
BRIDGE REPAIR
CAMPBELL COUNTY, KY

SCHEDULE

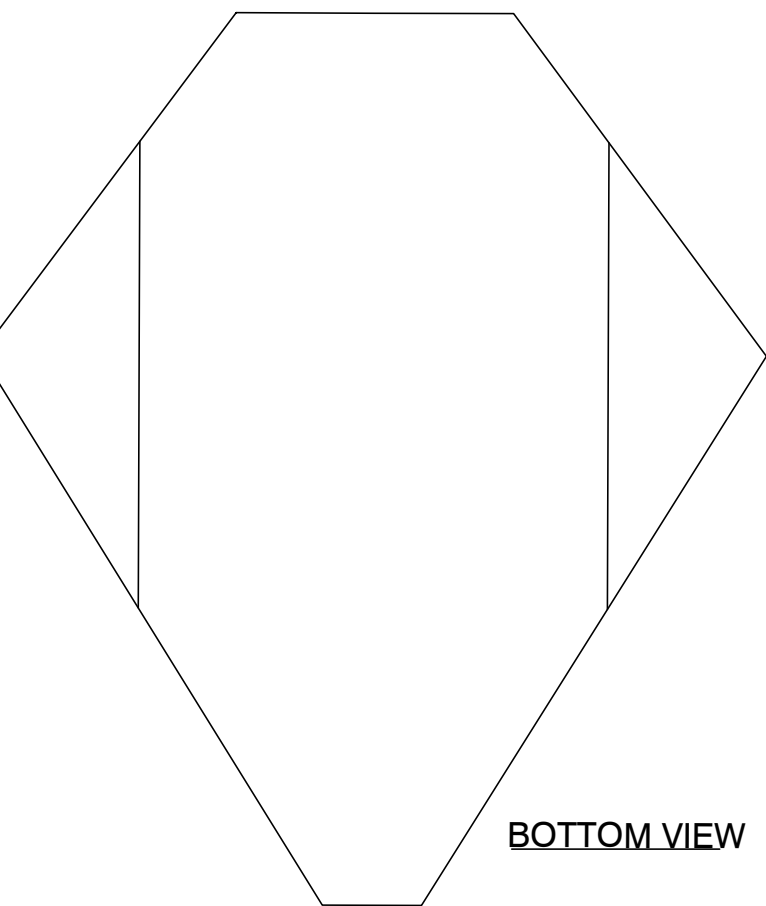


TOP VIEW



SIDE VIEW

FRONT VIEW



BOTTOM VIEW

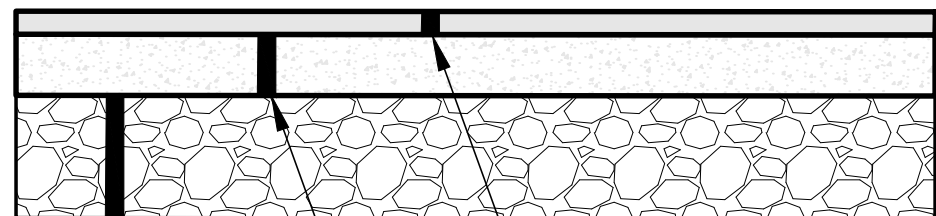
APPROX. 1.5" BEVEL
TAPERING & BLENDING AS
SHOWN

LOW PROFILE HEADWALL, MODIFY FOR 18"

*CONTRACTOR IS TO CONTACT SUPPLIER FOR MODIFIED SHOP
DRAWINGS FOR LOW PROFILE HEADWALL WITH 18" PIPE. SHOP
DRAWINGS ARE TO BE SENT TO OWNER AND ENGINEER TO BE
APPROVED FOR CONSTRUCTION.

N.T.S.

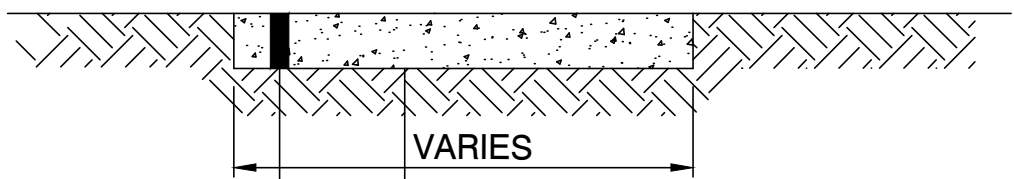
- 1 BOTTOM APRON SHALL BE SLOPED IN DIRECTION OF FLOW EQUAL TO SLOPE OF PIPE.
- 2 DIMENSIONS AND QUANTITIES ARE BASED ON STEEL PIPE AND WILL VARY SLIGHTLY FOR CONCRETE PIPE.
- 3 DIMENSIONS FROM FACE OF CONCRETE TO STEEL SHALL BE 2" CLEAR DISTANCE.
- 4 HEADWALL LOCATED AT EDGE OF SHOULDER SHALL BE PARALLEL TO CENTERLINE OF ROAD.
- 5 ENCIRCLED LETTERS, ○, INDICATE STEEL BAR LOCATIONS. EITHER WIRED OR WELDED AT 3-1"x6" COIL LOOPS AS SHOWN IN TOP & SIDE VIEWS. SEE NOTE 3.
- 6 USE CLASS "A" CONCRETE (KY)- APPROX. .35 CU. YD.
- 7 REINF. STEEL APPROX. 13' OR 4.9 LBS. MINIMUM GRADE 40.
- 8 APPROX. COMPLETE WEIGHT 1365 LBS.



PAVEMENT SECTION, FULL DEPTH

*OVER PROPOSED CULVERT

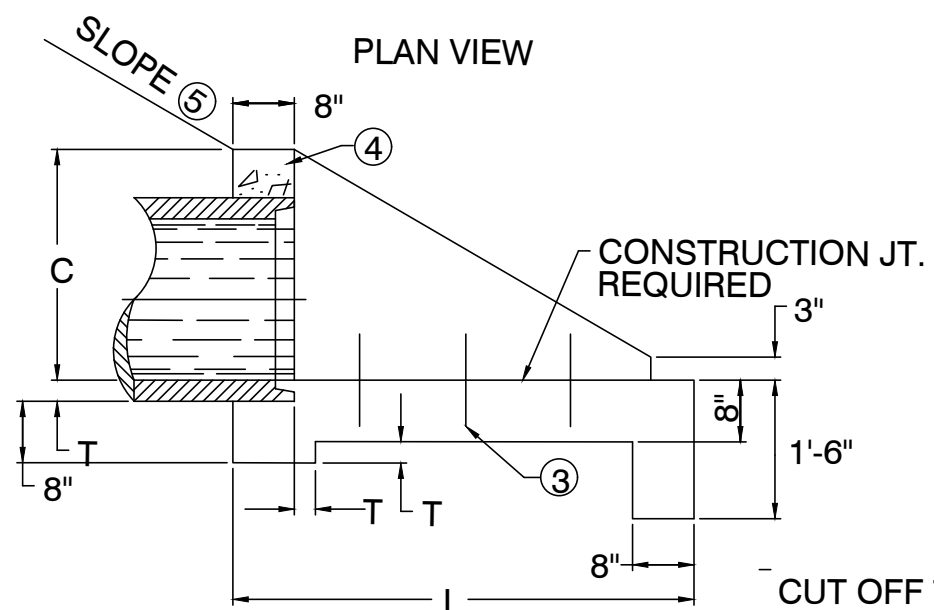
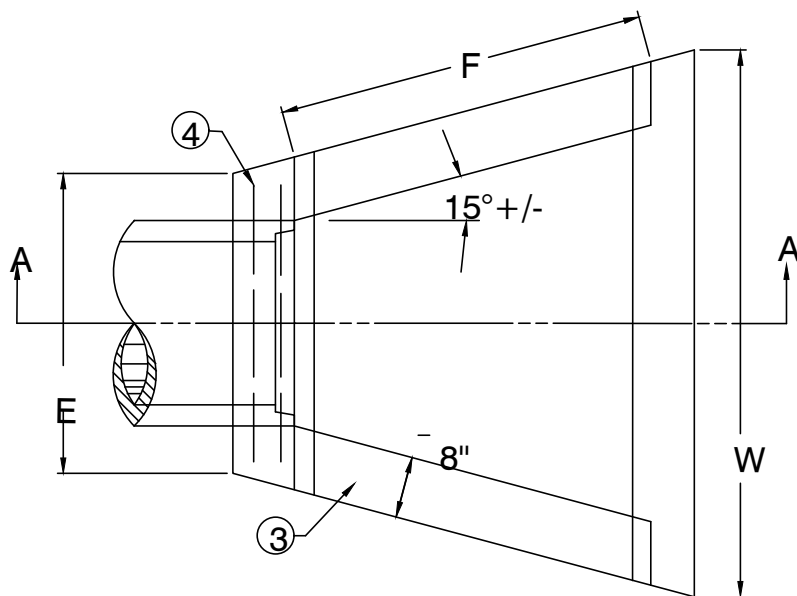
N.T.S.



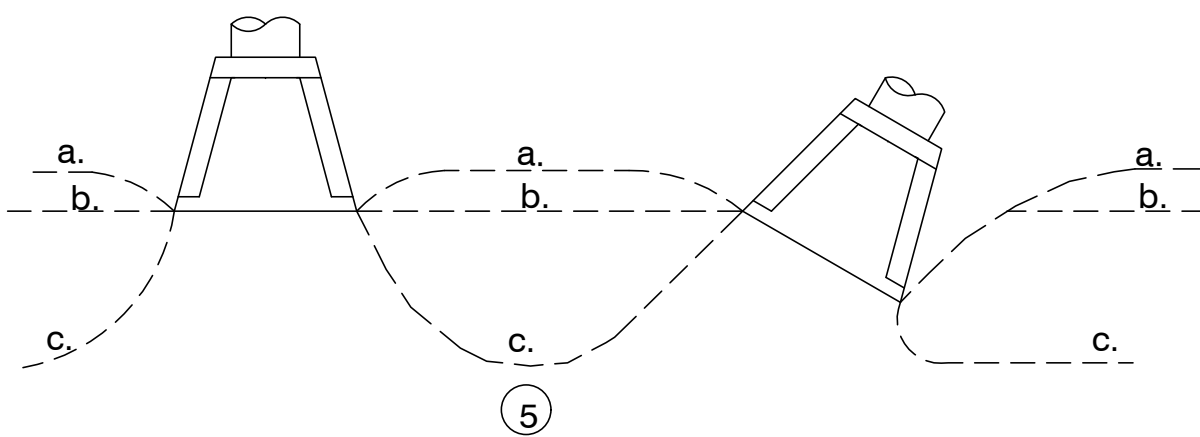
VARIES

CONCRETE CHANNEL DETAIL

N.T.S.



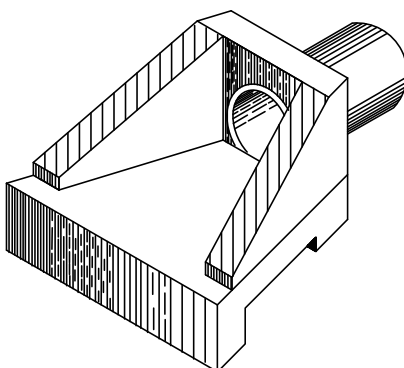
SECTION A-A



TOE OF SLOPES:
a. STEEPER THAN 2:1
b. 2:1
c. FLATTER THAN 2:1

SLOPED & FLARED HEADWALLS FOR 12"-27" PIPE

N.T.S.



ISOMETRIC VIEW

PIPE DIA. OR EQUIV. DIA.	SHAPE ⑨	DIMENSIONS						CLASS A CONC	REINF STEEL
		C	E	F	L	W	T	C. Y.	LBS.
12"	○	1'-9"	2'-6"	2'-3"	3'-6"	4'-0"	2"	0.58	7
	○	2'-0"	2'-9"	2'-9"	4'-0"	4'-9"	2"	0.75	
15"	○	1'-9"	3'-0"	2'-6"	3'-6"	4'-9"	2"	0.68	8
	○	2'-3"	3'-0"	3'-6"	4'-6"	5'-3"	2"	0.93	
18"	○	2'-0"	3'-6"	3'-0"	4'-0"	5'-6"	2"	0.89	9
	○	2'-6"	3'-3"	4'-0"	5'-0"	6'-0"	2"	1.14	
21"	○	2'-3"	3'-0"	3'-6"	4'-6"	6'-0"	3"	1.07	10
	○	2'-9"	3'-6"	4'-6"	5'-6"	6'-6"	3"	1.35	
24"	○	2'-6"	4'-0"	4'-0"	5'-0"	6'-9"	3"	1.30	9
	○	3'-0"	3'-9"	5'-0"	6'-0"	7'-0"	3"	1.57	
27"	○	2'-9"	4'-6"	4'-3"	5'-3"	7'-3"	3"	1.51	
	○	2'-9"	4'-6"	4'-3"	5'-3"	7'-3"	3"	1.51	

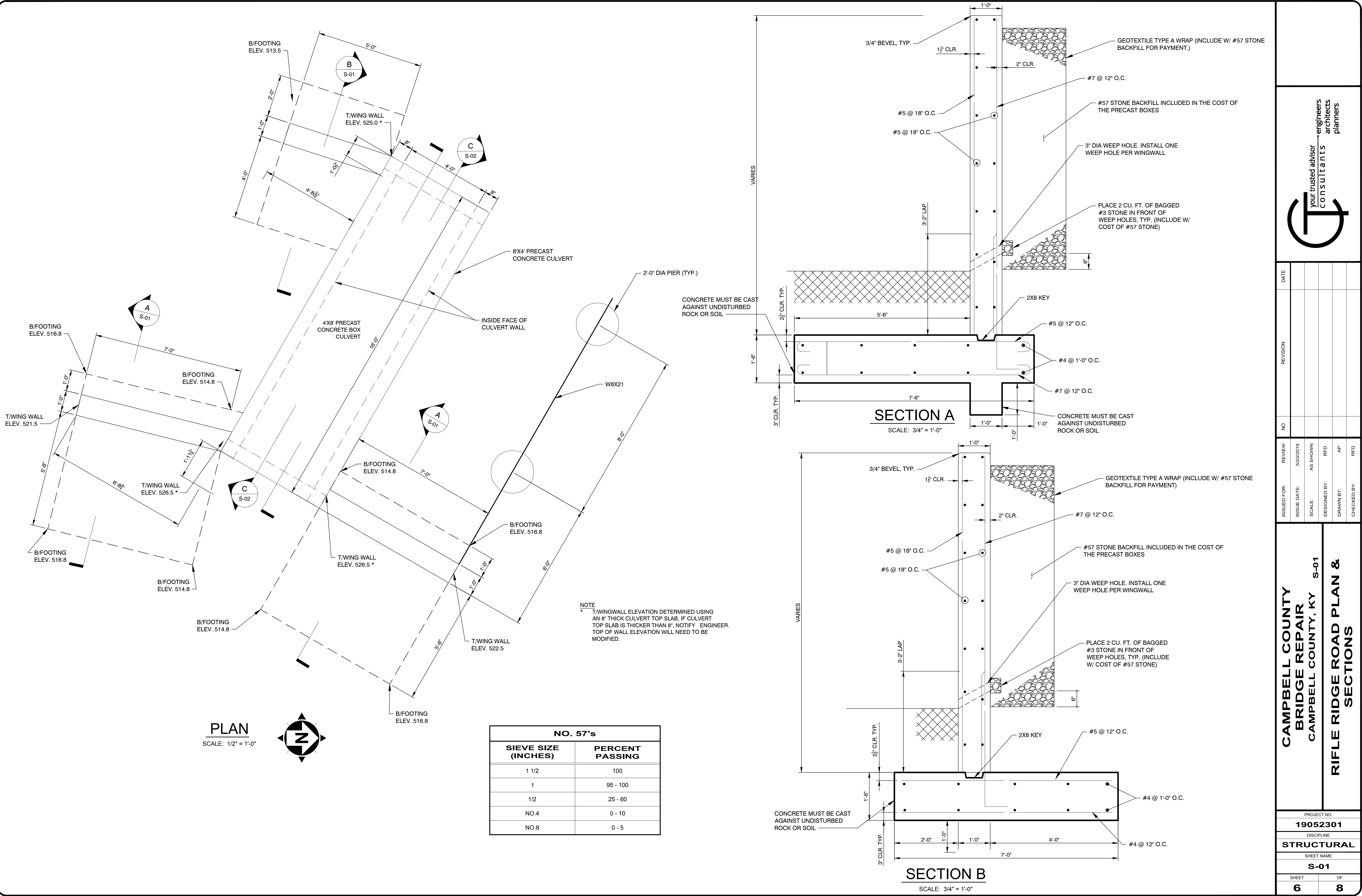
NOTES

1. DIMENSIONS AND QUANTITIES ARE BASED ON CONCRETE PIPE AND WILL VARY INSIGNIFICANTLY FOR CORRUGATED METAL PIPE.
2. REINFORCING STEEL : MINIMUM GRADE 40, BARS EVENLY SPACED.
3. 6 - NO. 4 x 1'-0" DOWEL BARS.
4. 2 - NO. 4 x (E DIMENSION MINUS 4").
5. SLOPES SHALL BE WARPED TO FIT HEADWALL WHEN PIPE IS SKEWED AND/OR NORMAL SLOPE VARIES FROM 2:1.
6. VOLUME DISPLACED BY PIPE COMPUTED USING INSIDE DIAMETER OF PIPE.
7. WING ANGLES AND/OR DIMENSIONS MAY BE ALTERED DURING CONSTRUCTION TO ACCOMMODATE FLOW OF WATER.
8. APRON BETWEEN WINGS SHALL BE SLOPED IN DIRECTION OF FLOW EQUAL TO SLOPE OF PIPE. FRONT FACE OF HEADWALL SHALL REMAIN VERTICAL.
9. HEADWALLS ARE FOR CIRCULAR, ARCH, AND HORIZONTAL ELLIPTICAL 12"-27" EQUIVALENT PIPE SIZES. SEE CURRENT STD. DWG. RDI-016, FOR NON-CIRCULAR PIPE EQUIVALENT SIZES.

CAMPBELL COUNTY
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CAMPBELL COUNTY, KY

DETAIL

PROJECT NO. 19052301	
DISCIPLINE CIVIL	
SHEET NAME DETAIL2	
SHEET 5	OF 8



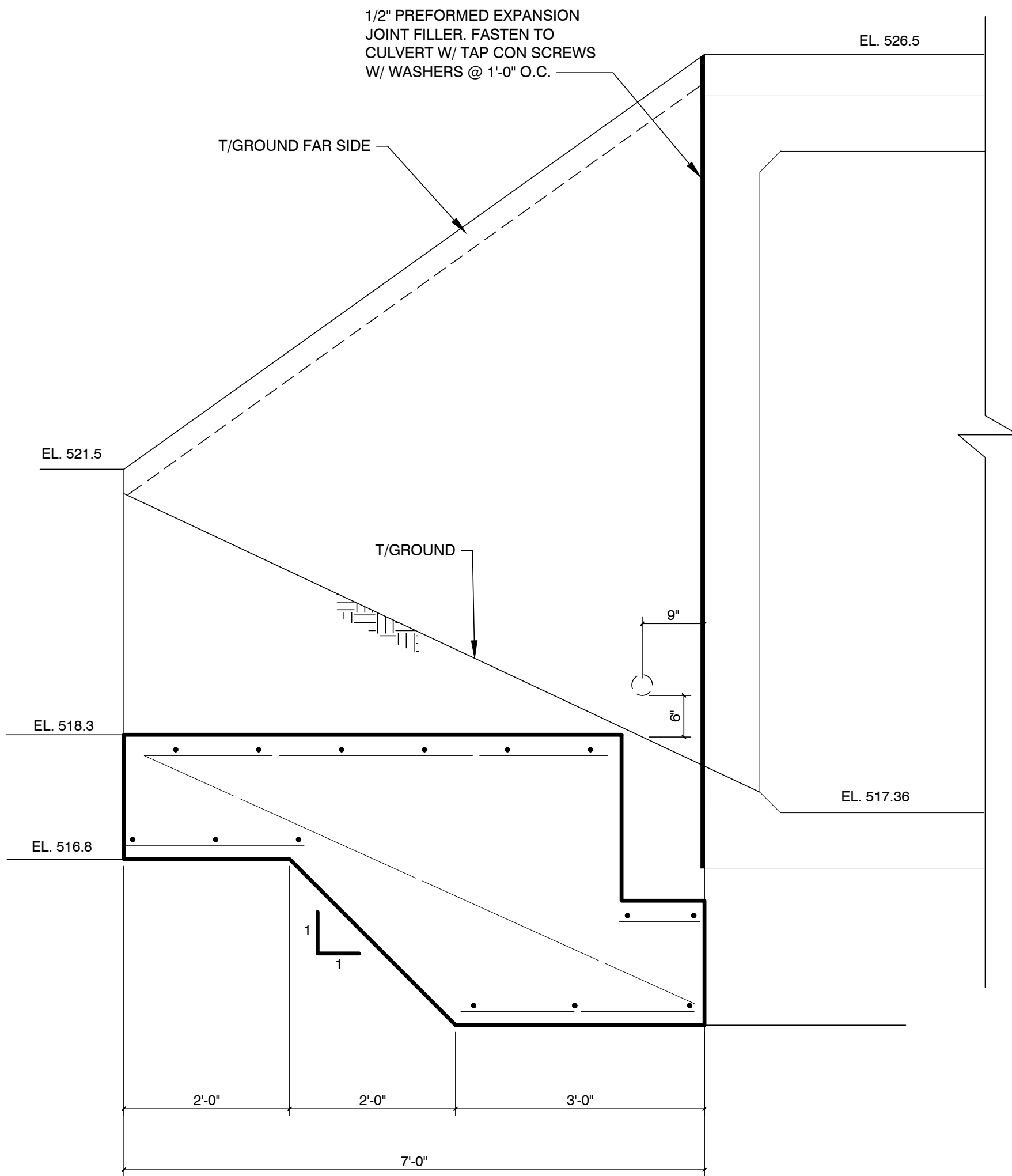
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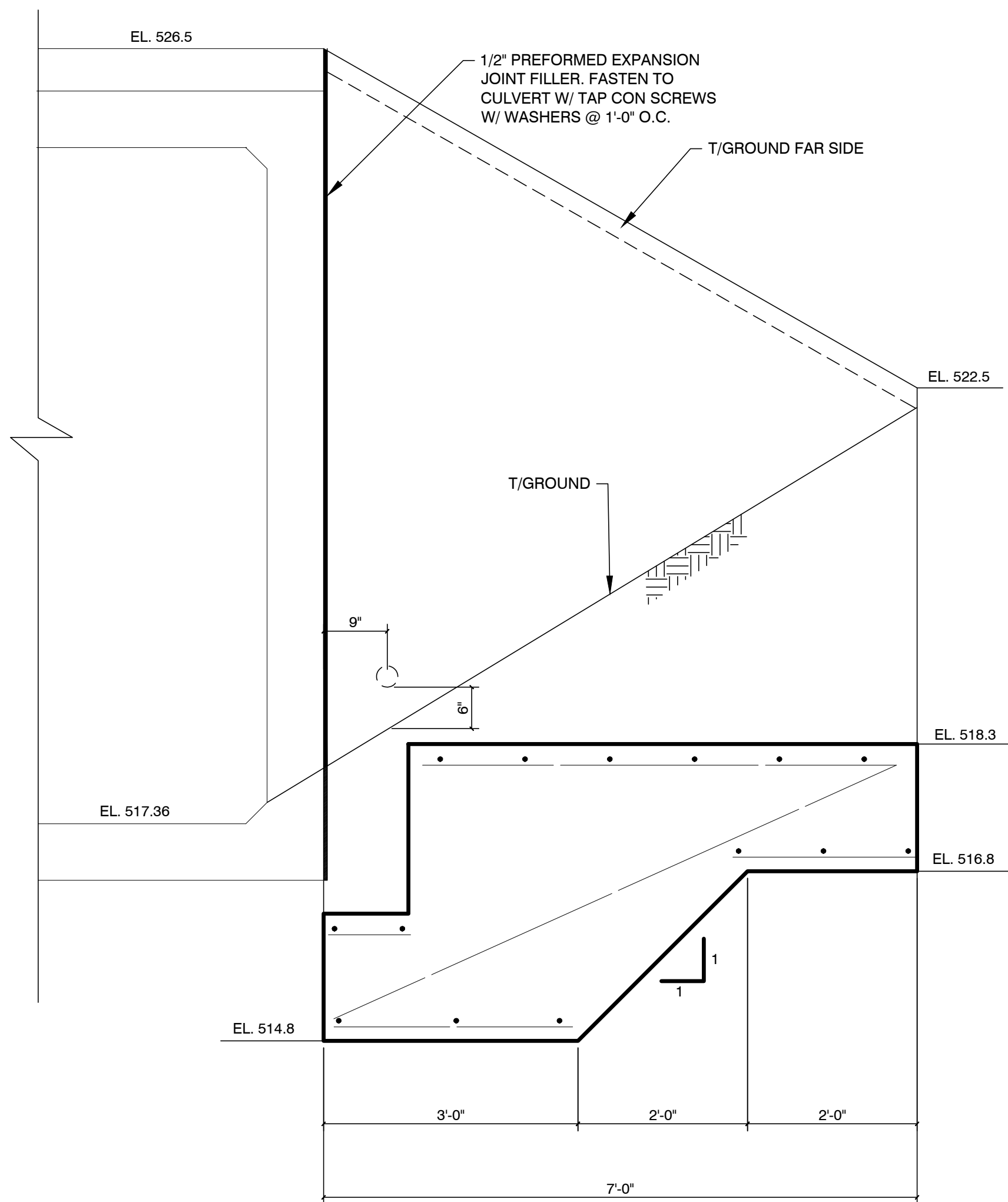
CONSULTANTS

DATE	REVISION	NO	ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
			5/23/2019	AS SHOWN	RFD	AP	RFD	



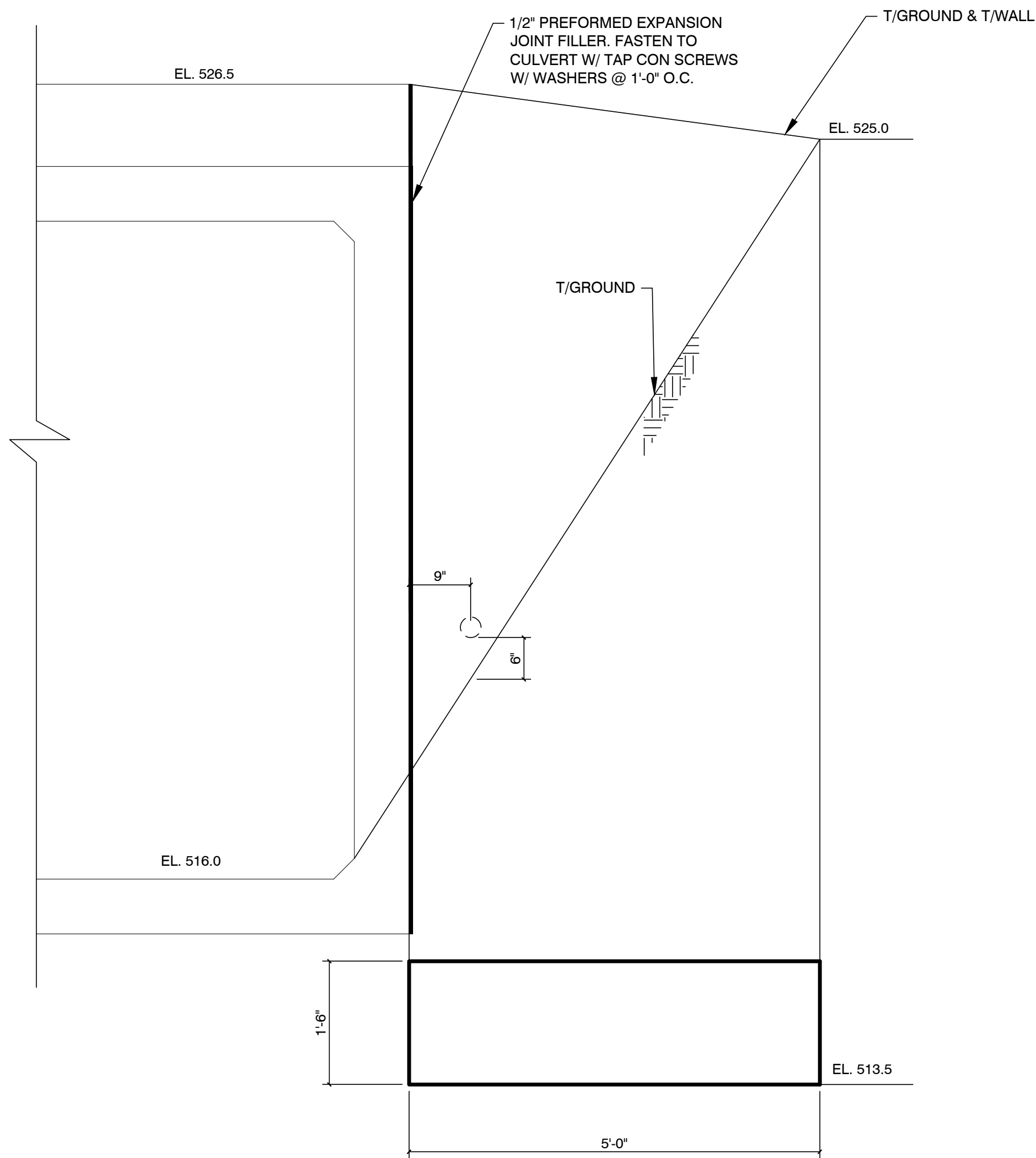
ELEVATION SOUTHEAST WINGWALL

SCALE: 3/8" = 1'-0"



ELEVATION NORTHEAST WINGWALL

SCALE: 3/8" = 1'-0"

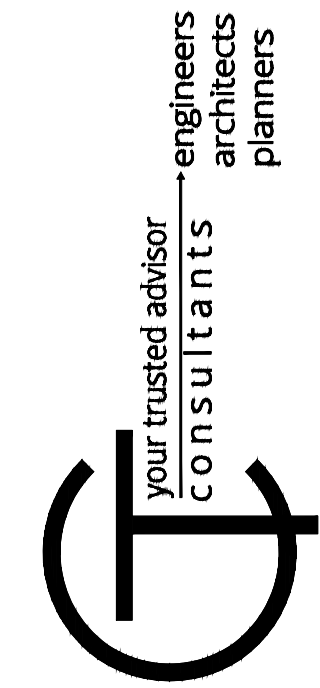


ELEVATION SOUTHWEST WINGWALL

SCALE: 3/8" = 1'-0"

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RIFLE RIDGE ROAD ELEVATIONS



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PROJECT NO. 19052301	
DISCIPLINE STRUCTURAL	
SHEET NAME S-02	
SHEET 7	OF 8

