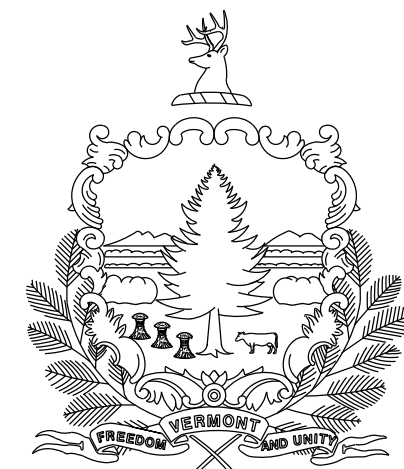


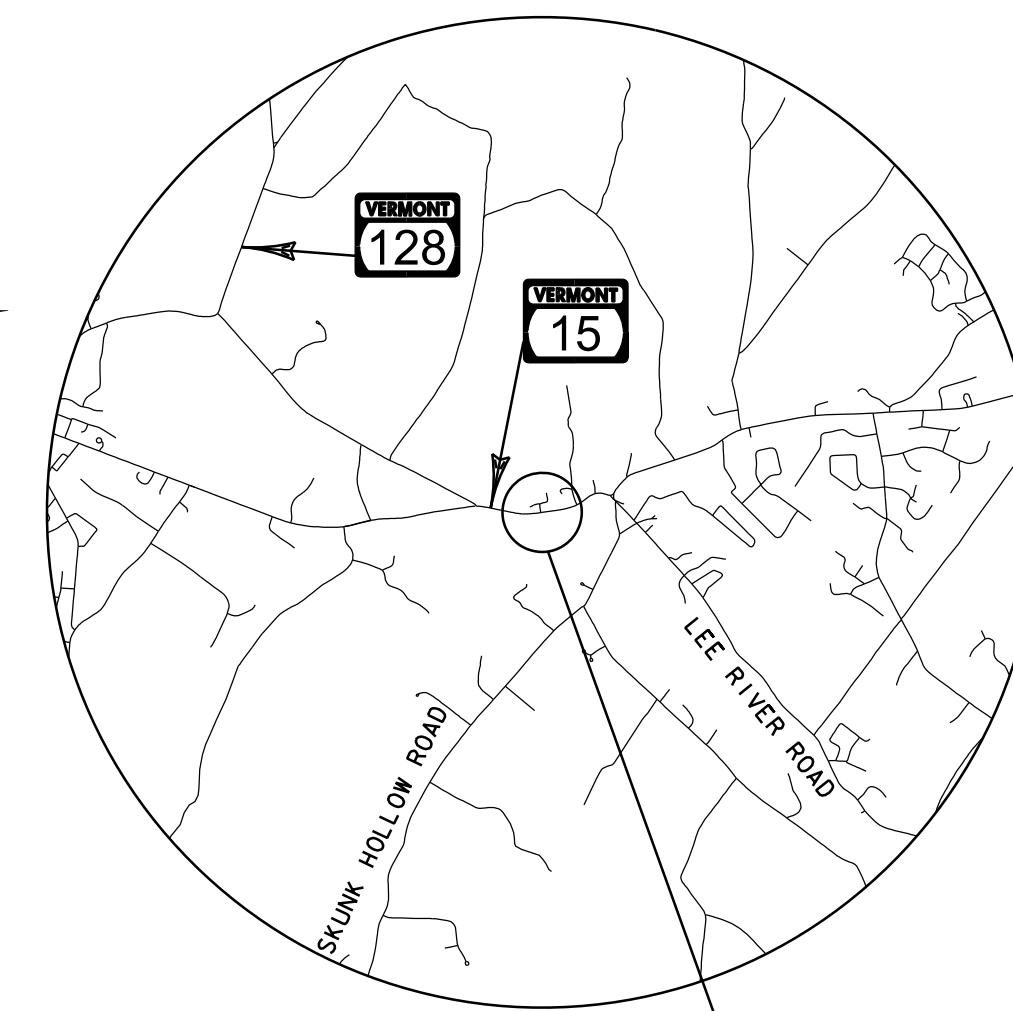
# STATE OF VERMONT AGENCY OF TRANSPORTATION



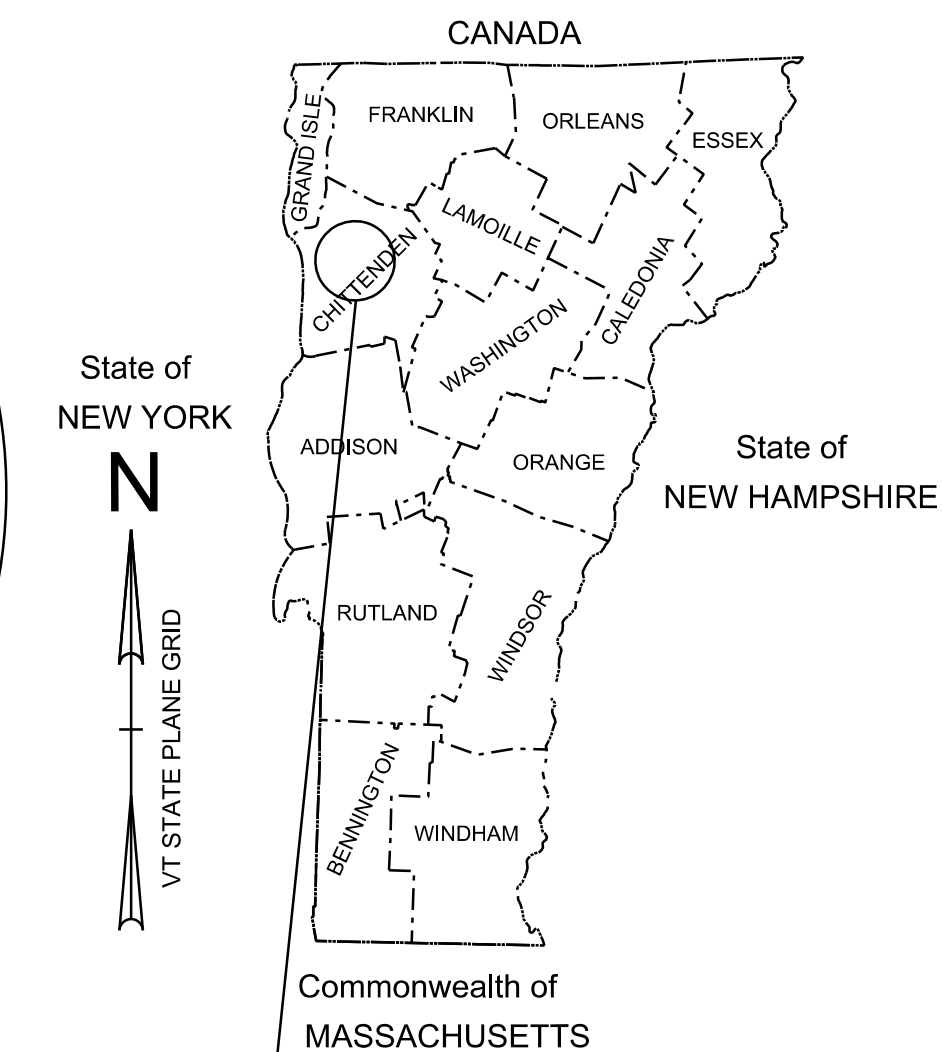
## PROPOSED IMPROVEMENT BRIDGE PROJECT TOWN OF JERICHO COUNTY OF CHITTENDEN VT ROUTE 15 BRIDGE 6A (PRINCIPAL ARTERIAL)

PROJECT LOCATION: IN THE TOWN OF JERICHO ON VT ROUTE 15 APPROXIMATELY 500 FT EAST OF THE ESSEX TOWN LINE ON VT ROUTE 15.

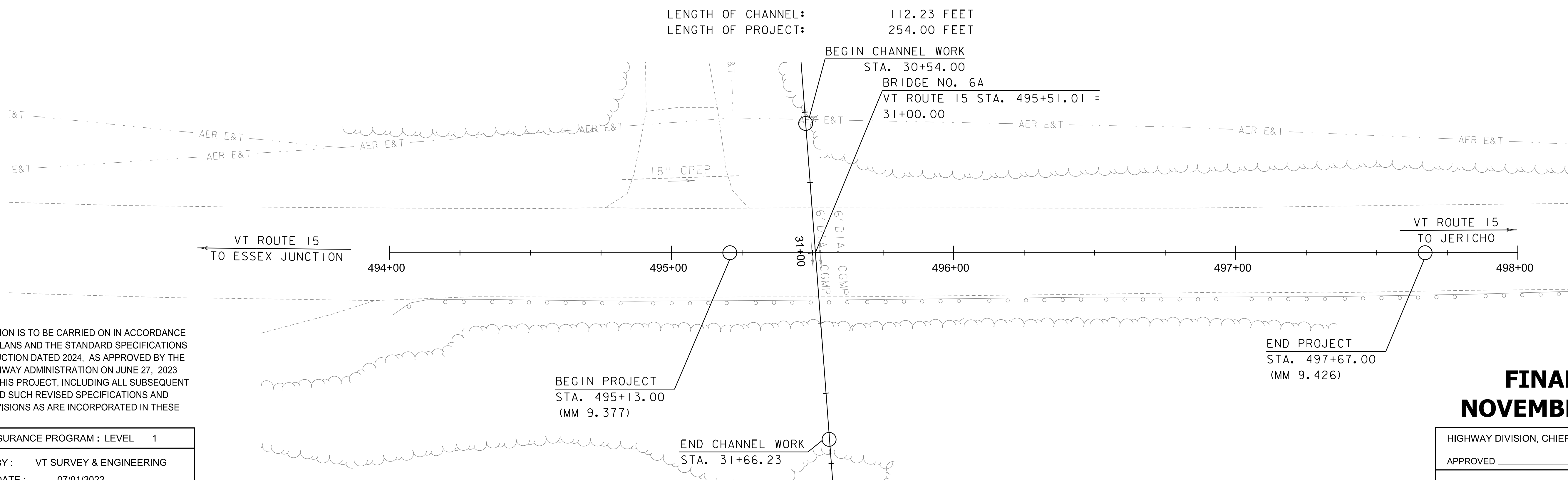
PROJECT DESCRIPTION: REHABILITATION OF EXISTING CULVERT AND RELATED CHANNEL WORK.



NOT TO SCALE

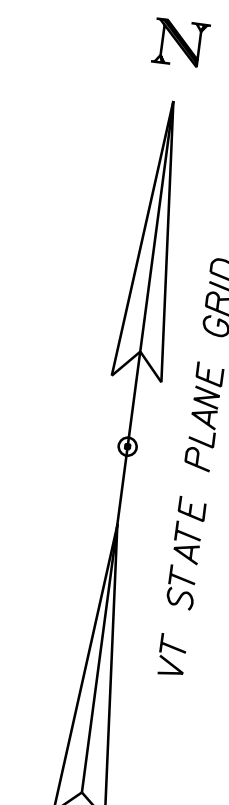


JERICHO  
STP CULV (150)  
VT-15 BRIDGE 6A



CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2024, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 27, 2023 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

QUALITY ASSURANCE PROGRAM : LEVEL 1	
SURVEYED BY :	VT SURVEY & ENGINEERING
SURVEYED DATE :	07/01/2022
DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD83(2011)



**FINAL PLANS  
NOVEMBER 20, 2025**

HIGHWAY DIVISION, CHIEF ENGINEER	
APPROVED _____	DATE _____
PROJECT MANAGER : MAHENDRA THILLIYAR, P.E.	
PROJECT NAME :	JERICHO
PROJECT NUMBER :	STP CULV(150)
SHEET 1 OF 27 SHEETS	



# PRELIMINARY INFORMATION SHEET (BRIDGE NO. 6A)

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FINAL HYDRAULIC REPORT

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6-7	QUANTITY SHEET
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HYDROLOGIC DATA

Date: 6/5/2025

DRAINAGE AREA : 0.01 SQ. MI.  
 CHARACTER OF TERRAIN : Steep and overgrown with brush  
 STREAM CHARACTERISTICS : Narrow  
 NATURE OF STREAMBED : Riprap stone and gravel

PEAK FLOW DATA - ANNUAL EXCEEDANCE PROBABILITY (AEP)

50% =	4 CFS	2% =	9 CFS
10% =	6 CFS	1% =	11 CFS
4% =	8 CFS	0.2% =	-

DATE OF FLOOD OF RECORD : -  
 ESTIMATED DISCHARGE : -  
 WATER SURFACE ELEV. : -  
 NATURAL STREAM VELOCITY : -  
 ICE CONDITIONS : -  
 DEBRIS : -  
 DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? -  
 IS ORDINARY RISE RAPID? -  
 IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? -  
 IF YES, DESCRIBE: -

WATERSHED STORAGE: - HEADWATERS: -  
 UNIFORM: -  
 IMMEDIATELY ABOVE SITE: -

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: ASPHALT COATED GALVANIZED PLATE CMP  
 YEAR BUILT: Unknown  
 CLEAR SPAN(NORMAL TO STREAM): 6'-0"  
 VERTICAL CLEARANCE ABOVE STREAMBED: 6'-0"  
 WATERWAY OF FULL OPENING: 28.3 SF  
 DISPOSITION OF STRUCTURE: Rehabilitation  
 TYPE OF MATERIAL UNDER SUBSTRUCTURE: -

WATER SURFACE ELEVATIONS AT:

50% AEP =	532.33 FT	VELOCITY =	9.5 FPS
10% AEP =	532.51 FT	"	10.2 FPS
4% AEP =	532.66 FT	"	11.1 FPS
2% AEP =	532.73 FT	"	12.1 FPS
1% AEP =	532.86 FT	"	12.7 FPS

LONG TERM STREAMBED CHANGES: Unknown

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: No  
 FREQUENCY: \*  
 RELIEF ELEVATION: \*  
 DISCHARGE OVER ROAD @ 1% AEP: \*

UPSTREAM STRUCTURE

TOWN: - DISTANCE: -  
 HIGHWAY #: - STRUCTURE #: -  
 CLEAR SPAN: - CLEAR HEIGHT: -  
 YEAR BUILT: - FULL WATERWAY: -  
 STRUCTURE TYPE: -

DOWNSTREAM STRUCTURE

TOWN: - DISTANCE: -  
 HIGHWAY #: - STRUCTURE #: -  
 CLEAR SPAN: - CLEAR HEIGHT: -  
 YEAR BUILT: - FULL WATERWAY: -  
 STRUCTURE TYPE: -

LRFR LOAD RATING FACTORS

LOADING LEVELS	TRUCK						
	H20	HL-93	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEM
TONNAGE							
INVENTORY							
POSTING							
OPERATING							
COMMENTS:							

PROPOSED STRUCTURE

STRUCTURE TYPE: \_\_\_\_\_  
 CLEAR SPAN(NORMAL TO STREAM): \_\_\_\_\_  
 VERTICAL CLEARANCE ABOVE STREAMBED: \_\_\_\_\_  
 WATERWAY OF FULL OPENING: \_\_\_\_\_

WATER SURFACE ELEVATIONS AT:  
 43% AEP = - VELOCITY= -  
 10% AEP = - " -  
 4% AEP = - " -  
 2% AEP = - " -  
 1% AEP = - " -

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: -  
 FREQUENCY: -  
 RELIEF ELEVATION: -  
 DISCHARGE OVER ROAD @ 1% AEP: -

BRIDGE LOW CHORD ELEVATION: -  
 FREEBOARD: -

SCOUR: -

REQUIRED CHANNEL PROTECTION: -

PERMIT INFORMATION

AVERAGE DAILY FLOW: - DEPTH OR ELEVATION: -  
 ORDINARY LOW WATER: -  
 ORDINARY HIGH WATER: -

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: \_\_\_\_\_  
 CLEAR SPAN (NORMAL TO STREAM): \_\_\_\_\_  
 VERTICAL CLEARANCE ABOVE STREAMBED: \_\_\_\_\_  
 WATERWAY AREA OF FULL OPENING: \_\_\_\_\_

ADDITIONAL INFORMATION

\_\_\_\_\_

TRAFFIC MAINTENANCE NOTES

1. MAINTAIN TWO-WAY TRAFFIC ON THE EXISTING STRUCTURE.
2. TRAFFIC SIGNALS ARE NOT NECESSARY.
3. SIDEWALKS ARE NOT NECESSARY.

DESIGN VALUES

1. DESIGN LIVE LOAD
2. FUTURE PAVEMENT  $d_p$ : \_\_\_\_\_
3. DESIGN SPAN  $L$ : \_\_\_\_\_
4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)  $\Delta$ : ---
5. PRESTRESSING STRAND  $f_y$ : ---
6. PRESTRESSED CONCRETE STRENGTH  $f'_c$ : ---
7. PRESTRESSED CONCRETE RELEASE STRENGTH  $f'_{cr}$ : ---
8. HIGH PERFORMANCE CONCRETE, CLASS PC4  $f'_c$ : ---
9. HIGH PERFORMANCE CONCRETE, CLASS PCS  $f'_c$ : ---
10. CONCRETE HIGH PERFORMANCE, CLASS SCC  $f'_c$ : ---
11. CONCRETE, CLASS C  $f'_c$ : ---
12. REINFORCING STEEL  $f_y$ : \_\_\_\_\_
13. STRUCTURAL STEEL AASHTO M270 (WEATHERING)  $f_y$ : \_\_\_\_\_
14. NOMINAL BEARING RESISTANCE OF SOIL  $q_n$ : ---
15. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)  $\phi$ : ---
16. NOMINAL BEARING RESISTANCE OF ROCK  $q_n$ : ---
17. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)  $\phi$ : ---
18. PILE RESISTANCE FACTOR  $\phi$ : ---
19. LATERAL PILE DEFLECTION  $\Delta$ : ---
20. BASIC WIND SPEED  $V_{3s}$ : ---
21. MINIMUM GROUND SNOW LOAD  $p_g$ : ---
22. SEISMIC DATA  $PGA$ : ---  $S_s$ : ---
23.  $S_f$ : ---

TRAFFIC DATA

YEAR	AADT	DHV	%D	%T	ADTT	20 year ESAL for flexible pavement from 2027 to 2047 : 4,243,000
2027	9,554	1,110	67	6.2	788	40 year ESAL for flexible pavement from 2027 to 2067 : 9,712,000
2047	10,482	1,200	67	8.7	1213	Design Speed: 30 MPH



PROJECT NAME: JERICHO  
 PROJECT NUMBER: STP CULV(I50)

FILE NAME: z23b690forms.dgn PLOT DATE: 11/20/2025  
 PROJECT LEADER: D. VERTIYEV DRAWN BY: C. WEBSTER  
 DESIGNED BY: E. NOONAN CHECKED BY: A. TSOUKALAS  
 PRELIMINARY INFORMATION SHEET SHEET 2 OF 27

**GENERAL INFORMATION**

**SYMBOLGY LEGEND NOTE**

THE SYMBOLGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLGY. THE SYMBOLGY IS USED FOR EXISTING & PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROJECT ANNOTATION, AS NOTED ON PROJECT PLAN SHEETS. THIS LEGEND SHEET COVERS THE BASICS. SYMBOLGY ON PLANS MAY VARY, PLAN ANNOTATIONS AND NOTES SHOULD BE USED TO CLARIFY AS NEEDED.

**R.O.W. ABBREVIATIONS (CODES) & SYMBOLS**

POINT CODE	DESCRIPTION
BF	BARRIER FENCE
CH	CHANNEL EASEMENT
CONST	CONSTRUCTION EASEMENT
CUL	CULVERT EASEMENT
D&C	DISCONNECT & CONNECT
DIT	DITCH EASEMENT
DR	DRAINAGE EASEMENT
DRIVE	DRIVEWAY EASEMENT
EC	EROSION CONTROL
HWY	HIGHWAY EASEMENT
I&M	INSTALL & MAINTAIN EASEMENT
LAND	LANDSCAPE EASEMENT
PDF	PROJECT DEMARCATION FENCE
R&RES	REMOVE & RESET
R&REP	REMOVE & REPLACE
R.T.& I.	RIGHT, TITLE, AND INTEREST
SR	SLOPE RIGHT
UE	UTILITY EASEMENT
(P)	PERMANENT EASEMENT
(T)	TEMPORARY EASEMENT
■	BNDNS BOUND SET
□	BNDNS BOUND TO BE SET
⊙	IPNF IRON PIN FOUND
●	IPNS IRON PIN TO BE SET
⊗	CALC EXISTING ROW POINT
○	PROW PROPOSED ROW POINT
[LENGTH]	LENGTH CARRIED ON NEXT SHEET

**COMMON TOPOGRAPHIC POINT SYMBOLS**

POINT CODE	DESCRIPTION
⊕	APL BOUND APPARENT LOCATION
□	BM BENCHMARK
▣	BND BOUND
⊠	CB CATCH BASIN
⊕	COMB COMBINATION POLE
⊠	DITHR DROP INLET THROATED DNC
⊕	EL ELECTRIC POWER POLE
⊙	FPOLE FLAGPOLE
○	GASFIL GAS FILLER
○	GP GUIDE POST
×	GSO GAS SHUT OFF
⊙	GUY GUY POLE
⊙	GUYW GUY WIRE
×	GV GATE VALVE
⊕	H TREE HARDWOOD
△	HCTRL CONTROL HORIZONTAL
▲	HVCTRL CONTROL HORIZ. & VERTICAL
◇	HYD HYDRANT
⊙	IP IRON PIN
⊙	IPIPE IRON PIPE
□	LI LIGHT - STREET OR YARD
⊕	MB MAILBOX
○	MH MANHOLE (MH)
⊕	MM MILE MARKER
⊕	PM PARKING METER
⊕	PMK PROJECT MARKER
⊕	POST POST STONE/WOOD
⊕	RRSIG RAILROAD SIGNAL
⊕	RRSL RAILROAD SWITCH LEVER
⊕	S TREE SOFTWOOD
⊕	SAT SATELLITE DISH
⊕	SHRUB SHRUB
⊕	SIGN SIGN
⊕	STUMP STUMP
⊕	TEL TELEPHONE POLE
⊕	TIE TIE
⊕	TSIGN SIGN W/DOUBLE POST
⊕	VCTRL CONTROL VERTICAL
⊕	WELL WELL
×	WSO WATER SHUT OFF

THESE ARE COMMON VAOT SURVEY POINT SYMBOLS FOR EXISTING FEATURES, ALSO USED FOR PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROPOSED ANNOTATION.

**PROPOSED GEOMETRY CODES**

CODE	DESCRIPTION
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
CC	CENTER OF CURVE
PT	POINT OF TANGENCY
PCC	POINT OF COMPOUND CURVE
PRC	POINT OF REVERSE CURVE
POB	POINT OF BEGINNING
POE	POINT OF ENDING
STA	STATION PREFIX
AH	AHEAD STATION SUFFIX
BK	BACK STATION SUFFIX
D	CURVE DEGREE OF (100FT)
R	CURVE RADIUS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE
CB	CHORD BEARING

**UTILITY SYMBOLGY**

**UNDERGROUND UTILITIES**

— UGU —	UTILITY (GENERIC-UNKNOWN)
— UT —	TELEPHONE
— UE —	ELECTRIC
— UC —	CABLE (TV)
— UEC —	ELECTRIC+CABLE
— UET —	ELECTRIC+TELEPHONE
— UCT —	CABLE+TELEPHONE
— UECT —	ELECTRIC+CABLE+TELEPHONE
— G —	GAS LINE
— W —	WATER LINE
— S —	SANITARY SEWER (SEPTIC)

**ABOVE GROUND UTILITIES (AERIAL)**

— AGU —	UTILITY (GENERIC-UNKNOWN)
— T —	TELEPHONE
— E —	ELECTRIC
— C —	CABLE (TV)
— EC —	ELECTRIC+CABLE
— ET —	ELECTRIC+TELEPHONE
— AER E&T —	ELECTRIC+TELEPHONE
— CT —	CABLE+TELEPHONE
— ECT —	ELECTRIC+CABLE+TELEPHONE
—	UTILITY POLE GUY WIRE

**PROJECT CONSTRUCTION SYMBOLGY**

**PROJECT DESIGN & LAYOUT SYMBOLGY**

— — — CZ — — —	CLEAR ZONE
—————	PLAN LAYOUT MATCHLINE

**PROJECT CONSTRUCTION FEATURES**

▲ —▲—▲—▲—▲	TOP OF CUT SLOPE
○ —○—○—○—○	TOE OF FILL SLOPE
⊗ ⊗ ⊗ ⊗ ⊗	STONE FILL
-----	BOTTOM OF DITCH
-----	CULVERT PROPOSED
-----	STRUCTURE SUBSURFACE
PDF ——— PDF ———	PROJECT DEMARCATION FENCE
BF × × × BF × × ×	BARRIER FENCE
XXXXXXXXXXXXXXXXXXXX	TREE PROTECTION ZONE (TPZ)
//// //// //// ////	STRIPING LINE REMOVAL
~~~~~	SHEET PILES

**CONVENTIONAL BOUNDARY SYMBOLGY**

**BOUNDARY LINES**

—————	TOWN BOUNDARY LINE
—————	COUNTY BOUNDARY LINE
—————	STATE BOUNDARY LINE
———	PROPOSED STATE R.O.W. (LIMITED ACCESS)
———	PROPOSED STATE R.O.W.
———	STATE ROW (LIMITED ACCESS)
———	STATE ROW
———	TOWN ROW
-----	PERMANENT EASEMENT LINE (P)
-----	TEMPORARY EASEMENT LINE (T)
-----	SURVEY LINE
— P — P —	PROPERTY LINE (P/L)
— L — L —	PROPERTY LINE (P/L)
▲ — SR — SR — SR —	SLOPE RIGHTS
6f ——— 6f ———	6F PROPERTY BOUNDARY
4f ——— 4f ———	4F PROPERTY BOUNDARY
HAZ ——— HAZ ———	HAZARDOUS WASTE

**EPSC LAYOUT PLAN SYMBOLGY**

**EPSC MEASURES**

ONNOONNOONNO	FILTER CURTAIN
— — — — —	SILT FENCE
— X — X — X — X —	SILT FENCE WOVEN WIRE
— — — — —	CHECK DAM
▭	DISTURBED AREAS REQUIRING RE-VEGETATION
⊗	EROSION MATTING

SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLGY

**ENVIRONMENTAL RESOURCES**

———	WETLAND BOUNDARY
-----	RIPARIAN BUFFER ZONE
-----	WETLAND BUFFER ZONE
-----	SOIL TYPE BOUNDARY
— T&E —	THREATENED & ENDANGERED SPECIES
HAZ — HAZ —	HAZARDOUS WASTE AREA
— AG —	AGRICULTURAL LAND
— HABITAT —	FISH & WILDLIFE HABITAT
— FLOOD PLAIN —	FLOOD PLAIN
— OHW —	ORDINARY HIGH WATER (OHW)
— — — — —	STORM WATER
— — — — —	USDA FOREST SERVICE LANDS
— — — — —	WILDLIFE HABITAT SUIT/CONN

**ARCHEOLOGICAL & HISTORIC**

— ARCH —	ARCHEOLOGICAL BOUNDARY
— HISTORIC DIST —	HISTORIC DISTRICT BOUNDARY
— HISTORIC —	HISTORIC AREA
(H)	HISTORIC STRUCTURE

**CONVENTIONAL TOPOGRAPHIC SYMBOLGY**

**EXISTING FEATURES**

-----	ROAD EDGE PAVEMENT
-----	ROAD EDGE GRAVEL
-----	DRIVEWAY EDGE
-----	DITCH
-----	FOUNDATION
× — × — × — × —	FENCE (EXISTING)
□ — □ — □ — □ —	FENCE WOOD POST
○ — ○ — ○ — ○ —	FENCE STEEL POST
~~~~~	GARDEN
○ — ○ — ○ — ○ —	ROAD GUARDRAIL
	RAILROAD TRACKS
-----	CULVERT (EXISTING)
-----	STONE WALL
-----	WALL
~~~~~	WOOD LINE
~~~~~	BRUSH LINE
~~~~~	HEDGE
-----	BODY OF WATER EDGE
-----	LEDGE EXPOSED

PROJECT NAME: JERICHO  
PROJECT NUMBER: STP CULV(I50)

FILE NAME: z23b690legend.dgn PLOT DATE: 11/20/2025  
PROJECT LEADER: D. VERTIYEV DRAWN BY: C. WEBSTER  
DESIGNED BY: E. NOONAN CHECKED BY: A. TSOUKALAS  
LEGEND SHEET SHEET 3 OF 27



**GENERAL:**

1. ITEM 201.1000, CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS, SHALL CONSIST OF CUTTING AND DISPOSING OF ALL TREES, STUMPS, DOWN TIMBER, BRUSH BUSHES, AND DEBRIS FROM ALL AREAS EXTENDING FROM THE ROADWAY CENTERLINE TO THE CONSTRUCTION LIMITS.
2. THE CONTRACTOR SHALL PROVIDE A SITE-SPECIFIC EROSION PREVENTION AND SEDIMENT CONTROL PLAN IN ACCORDANCE WITH SECTION 653 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION. ESTIMATED QUANTITIES FOR EPSC WORK HAVE BEEN INCLUDED IN THE CONTRACT FOR BIDDING PURPOSES. IF THE CONTRACTOR'S EPSC PLAN REQUIRES ITEMS OF WORK THAT ARE NOT INCLUDED IN THE PLANS IT SHALL BE PAID FOR AS PART OF ITEM 653.0300 MAINTENANCE OF EPSC PLAN (N.A.B.I.).
3. PRIOR TO PLACING MATERIALS IN CHANNELS, PREPARE SLOPE AND SUBGRADE AS FOLLOWS:
  - A. CUT OFF TREES AND EXISTING STUMPS TO GROUND LEVEL. LEAVE STUMPS & ROOTS BELOW GRADE IN PLACE WHEN POSSIBLE AND AS APPROVED BY THE ENGINEER.
  - B. EXCAVATE VEGETATION AND ORGANIC SOILS FROM SURFACE OF SLOPE.
  - C. COMPACT SURFACE OF SLOPE (COMPACTION WITH EXCAVATOR BUCKET ACCEPTABLE).
  - D. PLACE MATERIALS AS SHOWN ON THE DETAILS.
  - E. THE COST FOR SLOPE PREPARATION WILL BE CONSIDERED INCIDENTAL TO ITS RESPECTIVE EXCAVATION ITEM.

**UTILITIES:**

4. ALL EXISTING UTILITIES NOTED ON THE PLANS TO BE RETAINED SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

**TRAFFIC CONTROL:**

5. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE FULLY OPERATIONAL FOR A MINIMUM OF TWO WEEKS PRIOR TO ANY MODIFICATIONS TO NORMAL TRAFFIC OPERATIONS. WHEN IN OPERATING MODE, THE BOTTOM OF THE PCMS MESSAGE PANEL SHALL BE FULLY EXTENDED TO 7 FEET ABOVE THE ROADWAY.
6. PAYMENT FOR ALL TEMPORARY TRAFFIC DEVICES REQUIRED FOR IMPLEMENTING THE DETOUR, INCLUDING BUT NOT LIMITED TO SIGNS AND BARRICADES SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE. PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 641.1500 PORTABLE CHANGEABLE MESSAGE SIGN.
7. THE UPSTREAM LOCATION FOR THE PCMS FROM THE DECISION POINT DEPENDS ON WHAT TYPE OF ACTION IS REQUIRED OF THE MOTORIST. AN EXAMPLE OF A MINOR ACTION IS A LANE CHANGE BY THE MOTORIST. A MAJOR ACTION WOULD BE THE MOTORIST HAVING TO MAKE A DETOUR FROM THE CURRENT ROAD. FOR A MINOR ACTION, THE PCMS SHOULD BE PLACED FROM 500 FT TO 1,000 FT UPSTREAM OF THE DECISION POINT, REGARDLESS OF SPEED. FOR A MAJOR ACTION, IF THE SPEED IS LESS THAN OR EQUAL 40 MILES PER HOUR (MPH), THE PCMS SHOULD BE PLACED AT LEAST 1,000 FT UPSTREAM OF THE DECISION POINT. IF THE SPEED IS GREATER THAN OR EQUAL TO 45 MPH, THEN THE PCMS SHOULD BE PLACED AT LEAST 1 MILE UPSTREAM OF THE DECISION POINT. THERE SHOULD BE A MINIMUM SPACING OF AT LEAST 1,000 FT BETWEEN PCMS UNITS OR A PCMS AND AN ARROW PANEL. MULTIPLE PCMS UNITS SHOULD BE PLACED ON THE SAME SIDE OF THE ROADWAY.
8. PCMS MESSAGES SHALL BE REVISED AS NECESSARY AS CHANGES IN ACTIVITIES WARRANT. ANY CHANGES TO THE MESSAGE TO BE DISPLAYED, AND THEIR PROPOSED LOCATIONS, SHALL BE SUBMITTED TO THE RESIDENT ENGINEER IN ADVANCE FOR APPROVAL. TURN OFF OR REMOVE PCMS IF MESSAGES DO NOT CONVEY ANY MORE INFORMATION THAN STATIC SIGNS - COORDINATE WITH RESIDENT ENGINEER PRIOR TO TURNING OFF. AVOID DISPLAYING OVERLY SIMPLISTIC MESSAGES THAT ADD LITTLE VALUE TO OTHER SIGNS OR DEVICES USED IN THE WORK ZONE. "USE CAUTION", "SLOW", EVEN "ROAD WORK AHEAD" ON A PCMS QUICKLY BECOME IGNORED BY DRIVERS, FORCING PCMS TO LOSE THEIR EFFECTIVENESS IN CHANGING DRIVER BEHAVIOR. PROVIDE DRIVERS WITH CLEAR REASONS FOR FOCUSING THEIR ATTENTION AND CHANGING THEIR DRIVING BEHAVIORS AS THEY ENTER AND DRIVE THROUGH THE WORK ZONE - E.G., "WORKERS IN ROAD" OR "LANE NARROWS".

**CAST-IN-PLACE CONCRETE:**

9. ALL CAST-IN-PLACE CONCRETE HEADWALLS SHALL BE PERFORMANCE-BASED CONCRETE CLASS PCS UNLESS NOTED OTHERWISE.
10. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" X 1" UNLESS NOTED OTHERWISE.

11. WATER REPELLENT, SILANE SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 514 AND SHALL BE FIELD APPLIED TO ALL EXPOSED SURFACES OF THE CAST-IN-PLACE CONCRETE STRUCTURES. PAYMENT FOR WATER REPELLENT, SILANE APPLIED TO EXPOSED SURFACES OF THE PRECAST WINGWALLS WILL BE PAID UNDER ITEM 514.1000 WATER REPELLENT, SILANE.
12. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

**REINFORCING STEEL:**

13. MINIMUM COVER FOR REINFORCING STEEL CAST AGAINST EARTH SHALL BE 2 INCHES ALONG OUTSIDE FACES OF WALLS AGAINST EARTH, AND 3 INCHES ELSEWHERE.
14. ALL REINFORCING STEEL SHALL BE LEVEL II.

**LAYOUT NOTES:**

15. CHANNEL BASELINE SHALL BE ESTABLISHED AS INDICATED ON THE PLANS. OFFSETS TO THE CENTERLINE ARE MEASURED TO THE TOP OF THE SLAB AT EACH END.

**TEMPORARY RELOCATION OF STREAM:**

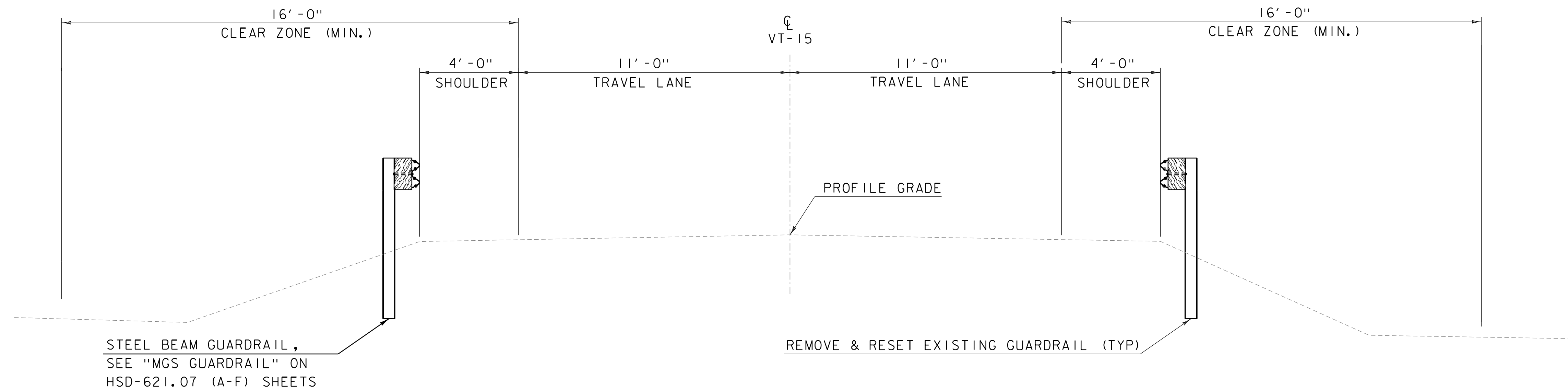
16. IT IS ANTICIPATED THAT THE MAJORITY OF THE CULVERT INSTALLATION WORK CAN BE PERFORMED WHILE MAINTAINING FLOWS THROUGH THE EXISTING CULVERT. WHEN WORK AT THE UPSTREAM END CONFLICTS WITH THE FLOWS, THE CONTRACTOR SHALL RELOCATE THE STREAM BY A METHOD APPROVED BY THE ENGINEER.
17. TEMPORARY RELOCATION OF STREAM DETAIL IS SCHEMATIC ONLY. ACTUAL LOCATIONS OF EQUIPMENT REQUIRED TO COMPLETE THE TEMPORARY STREAM RELOCATION SHALL BE ADJUSTED TO MATCH FIELD CONDITIONS AS DESIGNED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE DESIGN AND PLANS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF VERMONT AND SHALL BE APPROVED BY VTRANS. ALL WORK AND EQUIPMENT SHALL BE PERFORMED AND PLACED WITHIN THE PROJECT SLOPE LIMITS. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
18. THE WORK WITHIN THE STREAM SHALL BE PERFORMED DURING THE SEASONAL LOW FLOW PERIOD (JULY 1 TO OCTOBER 1). THE DESIGN OF THE SITE SPECIFIC PLANS SHALL BE CAPABLE OF HANDLING AT LEAST TWICE THE FLOWS ASSOCIATED WITH THE AVERAGE DAILY FLOW AS NOTED ON SHEET 2. THE WORK RELATED TO THE CONSTRUCTION OF THE CULVERT SHALL BE PLANNED ACCORDING TO THE WEATHER AND SHOULD NOT BE PERFORMED DURING A PERIOD IN WHICH THE ENGINEER DETERMINES THAT A BAD WEATHER EVENT IS FORECAST.
19. PAYMENT FOR ITEM 614.1000 TEMPORARY RELOCATION OF STREAM SHALL INCLUDE PREPARATION OF THE SITE SPECIFIC TEMPORARY RELOCATION PLANS, THE DAM FOR CONTROL OF WATER, TEMPORARY STONE CHECK DAM, TYPE 1, BY-PASS PUMP(S), BY-PASS PIPE, TEMPORARY CHANNEL WORK AND ALL OTHER INCIDENTAL ITEMS REQUIRED TO CONSTRUCT THE CULVERT AND RESTORE THE STREAM BED IN THE DRY.



PROJECT NAME: JERICHO  
PROJECT NUMBER: STP CULV(I50)

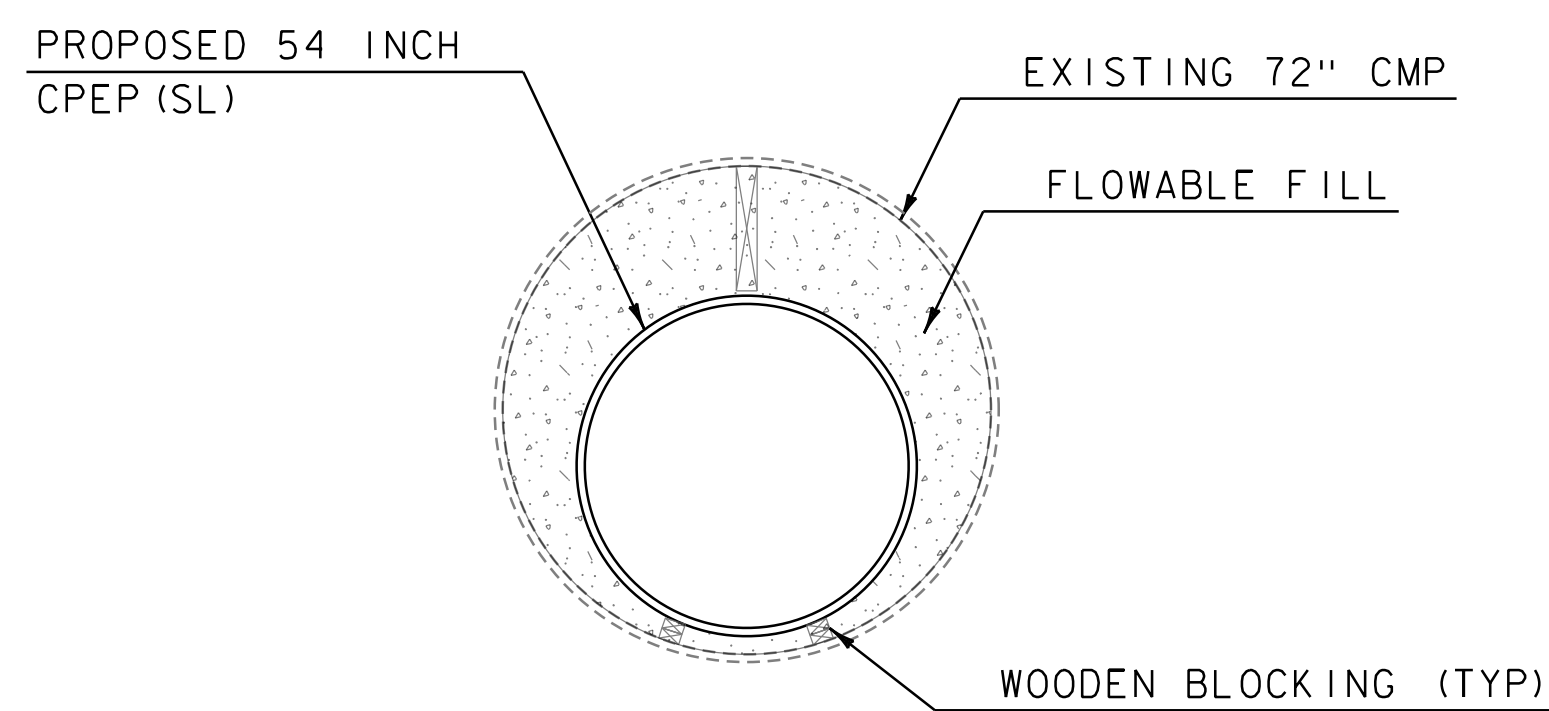
FILE NAME: z23b690notes.dgn	PLOT DATE: 11/20/2025
PROJECT LEADER: D. VERTIYEV	DRAWN BY: C. WEBSTER
DESIGNED BY: E. NOONAN	CHECKED BY: A. TSOUKALAS
GENERAL NOTES SHEET	SHEET 4 OF 27

MATERIAL TOLERANCES (IF USED ON PROJECT)	
SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
- AGGREGATE SURFACE COURSE	+/- 1/2"
SUBBASE	+/- 1"
SAND BORROWS	+/- 1"



VT ROUTE 15 BRIDGE 6A - TYPICAL APPROACH SECTION  
STA. 495+13.00 - 497+67.00

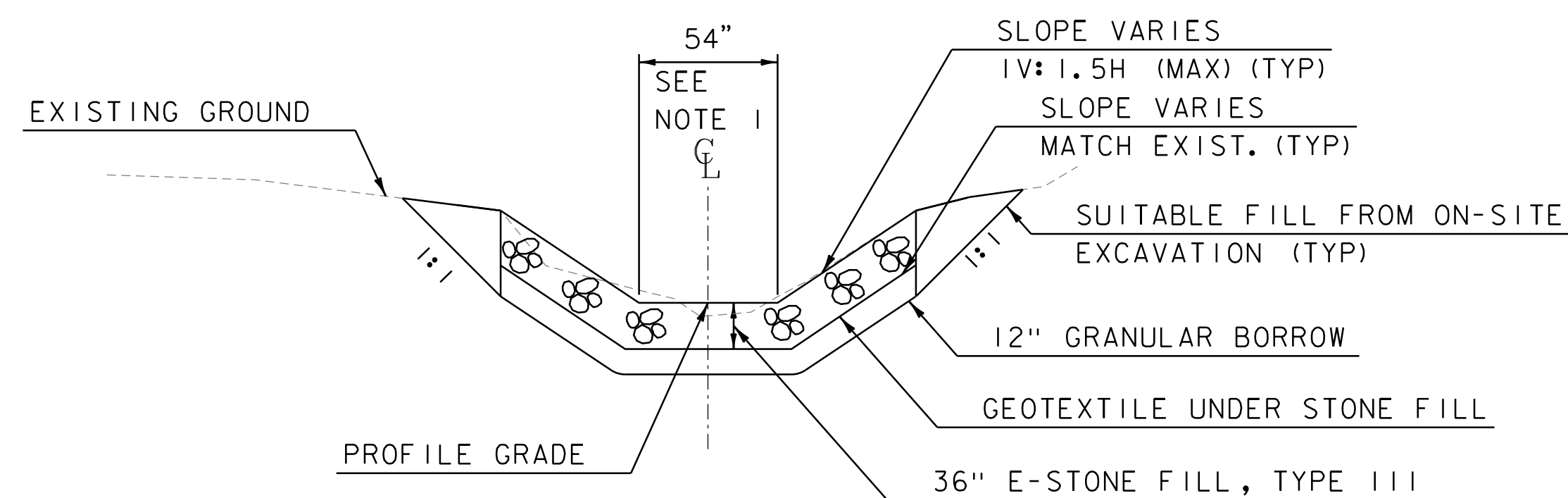
SCALE 3/8" = 1'-0"



BRIDGE 6A SLIP LINER TYPICAL SECTION

NOT TO SCALE

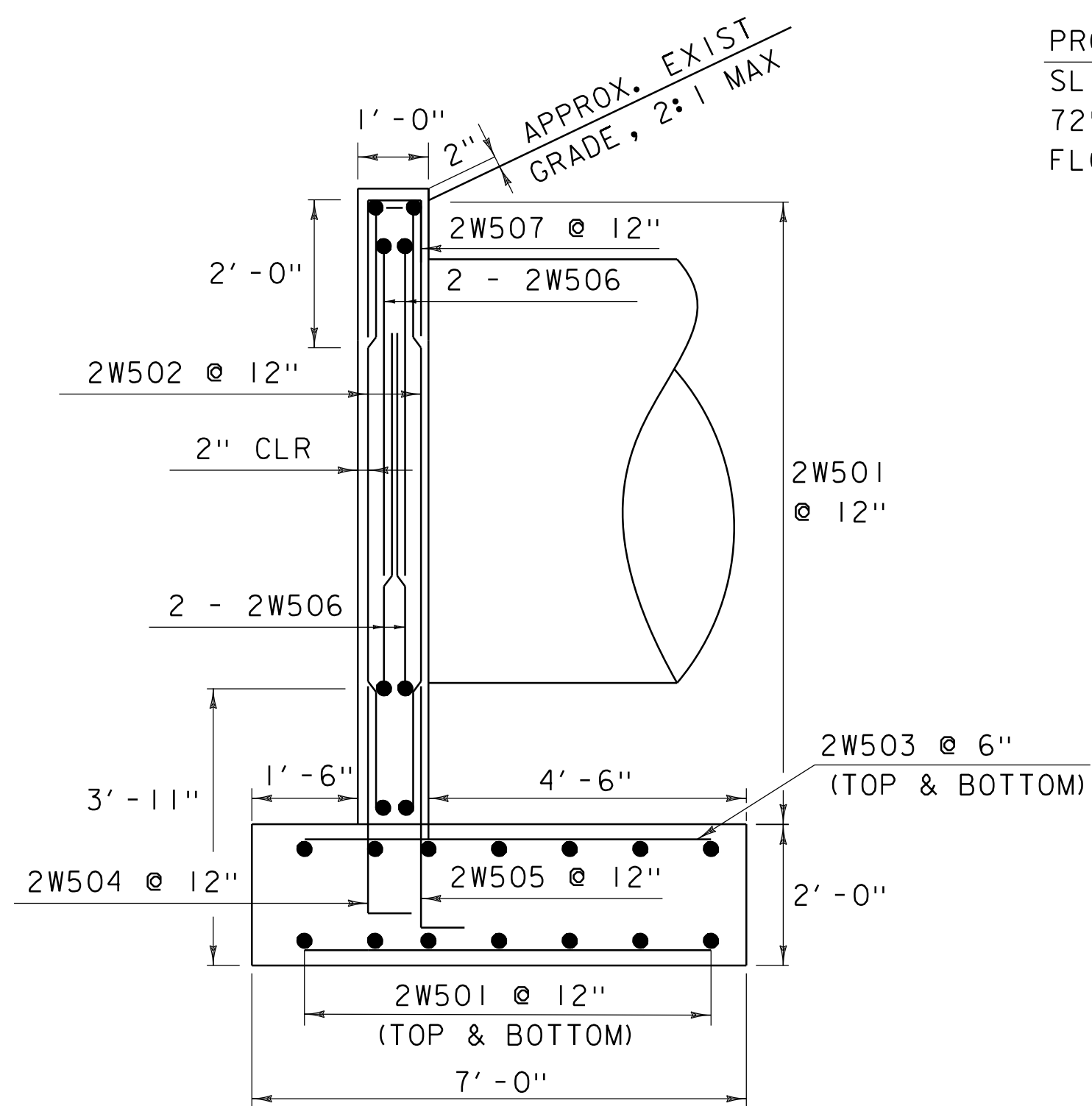
- NOTE:  
1. WOODEN BLOCKING SHALL BE CONSIDERED INCIDENTAL TO ITEM 601.2645, 54 INCH CPEP (SL).



TYPICAL STREAM SECTION

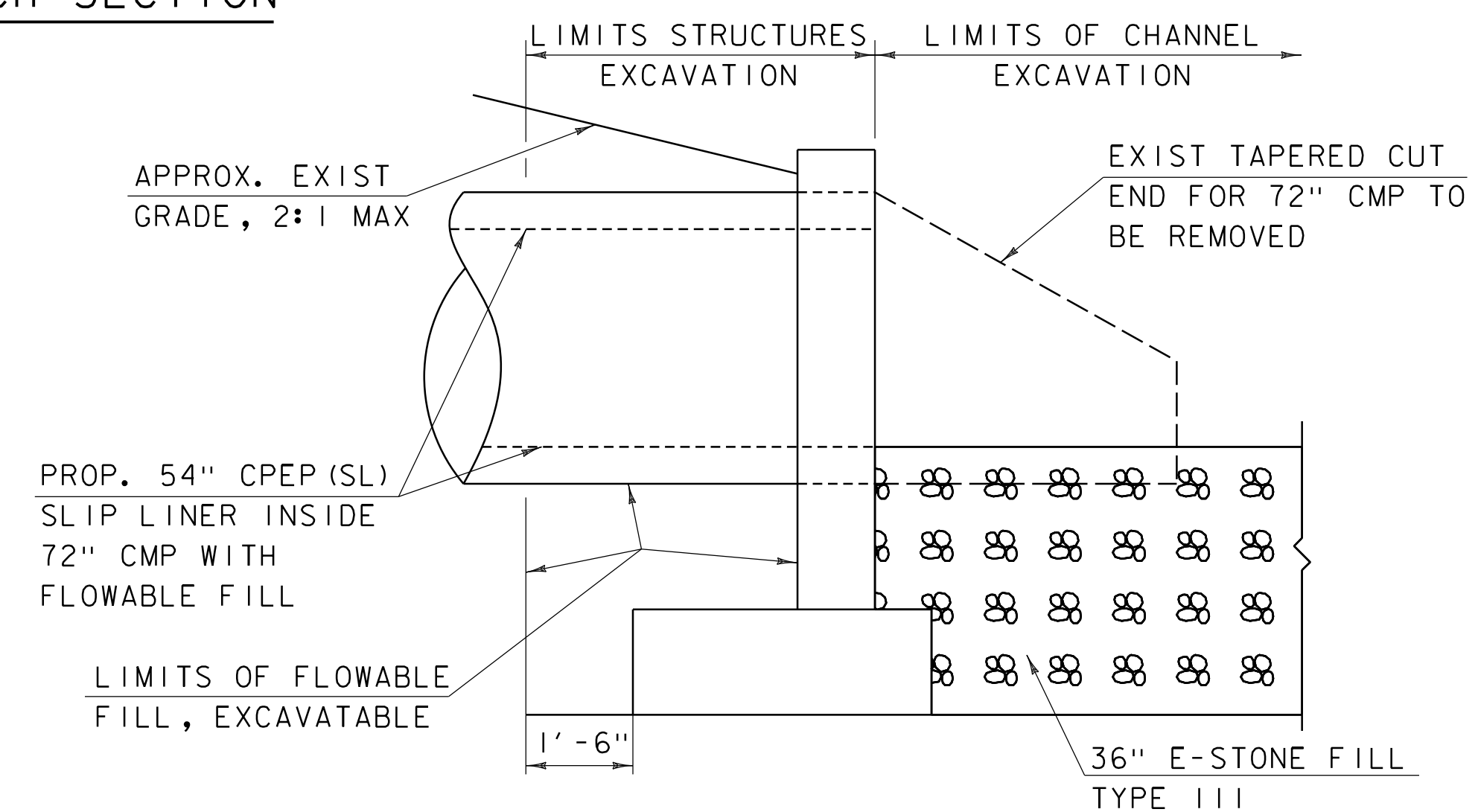
NOT TO SCALE

- NOTE:  
1. STREAM BOTTOM WIDTH SHALL MATCH CULVERT WIDTH. CHANNEL WIDTH CAN BE WIDER TO MATCH EXISTING TOPOGRAPHY.



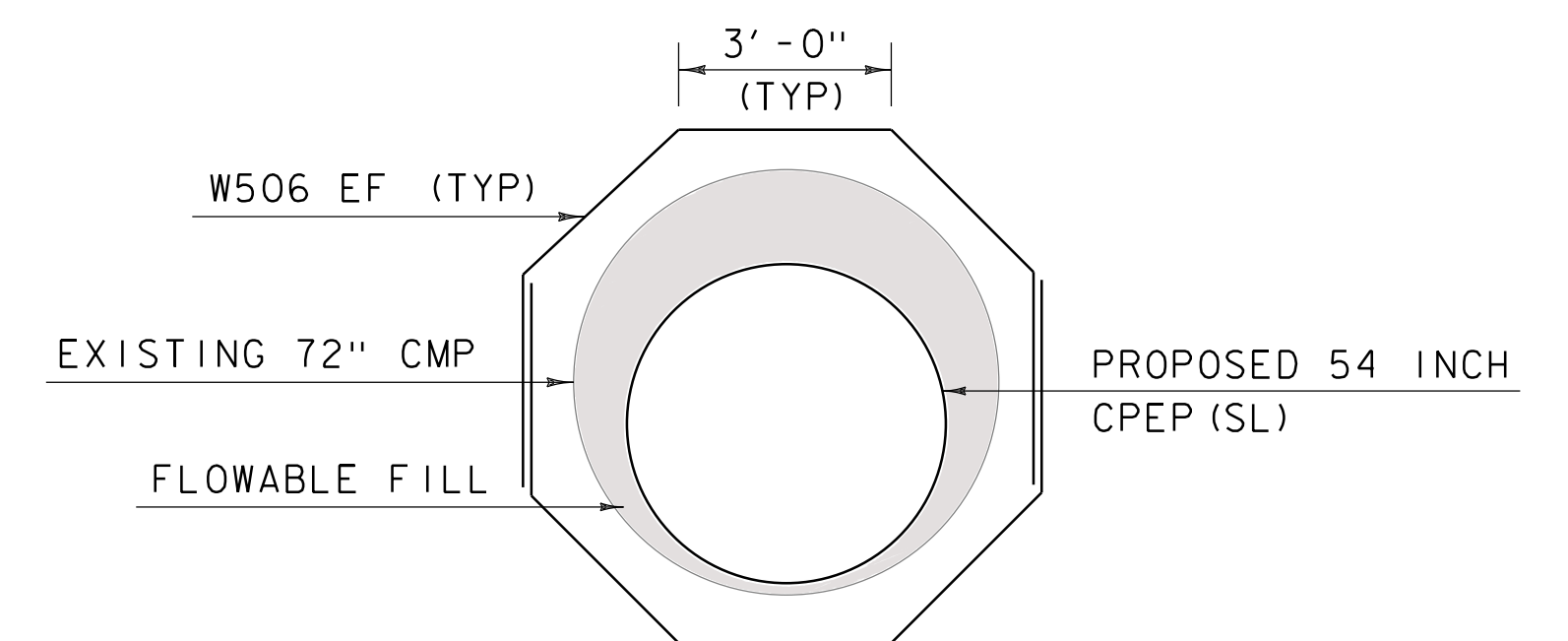
OUTLET HEADWALL SECTION

SCALE 1/2" = 1'-0"



TYPICAL EARTHWORK SECTION  
AT HEADWALLS

NOT TO SCALE



OUTLET HEADWALL  
REINFORCING AROUND PIPE

SCALE 3/8" = 1'-0"



PROJECT NAME: JERICO	PLOT DATE: 11/20/2025
PROJECT NUMBER: STP CULV(150)	DRAWN BY: C. WEBSTER
FILE NAME: z23b690+yp.dgn	DESIGNED BY: E. NOONAN
PROJECT LEADER: D. VERTIYEV	CHECKED BY: A. TSOUKALAS
TYPICAL SECTION SHEET	SHEET 5 OF 27

# QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
							1011 - ROADWAY	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
							1				1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.1000	-			
								100			100		CY	CHANNEL EXCAVATION OF EARTH	203.2500	6			
								10			10		CY	CHANNEL EXCAVATION OF ROCK	203.2600	1			
								40			40		CY	GRANULAR BORROW	203.3200	12			
							13				13		TON	AGGREGATE SHOULDERS, RAP	402.1300	1			
									1600		1600		LB	REINFORCING STEEL, LEVEL II	507.1200	45			
									14		14		CY	CONCRETE, CLASS B	541.2200	-			
									38		38		CY	FLOWABLE FILL	541.4500	2			
									20		20		CY	FLOWABLE FILL, EXCAVATABLE	541.4600	-			
									70		70		LF	54 INCH CPEP(SL)	601.2645	4			
							44				44		LF	CLEANING CULVERT PIPE, IN-PLACE (0 TO 24 INCHES, INCLUSIVE)	601.9950	3			
								80			80		CY	E-STONE FILL, TYPE III	613.0603	30			
								4			4		CY	STONE FILL, TYPE I	613.1001	1			
									1		1		EACH	TEMPORARY RELOCATION OF STREAM	614.1000	-			
								1			1		LS	IN-WATER SEDIMENT ISOLATION MEASURES	614.2000	-			
							57				57		LF	REMOVE AND RESET GUARDRAIL	621.0210	2			
							250				250		LF	STEEL BEAM GUARDRAIL	621.1060	13			
							27				27		LF	STEEL BEAM GUARDRAIL, NESTED	621.1160	1			
							1				1		EACH	MTS, MGS, FLARED, TL-2	621.3120	-			
							650				650		HR	UNIFORMED TRAFFIC OFFICERS	630.1000	EST.			
							3410				3410		HR	FLAGGERS	630.1500	EST.			
										1	1		LS	FIELD OFFICE, ENGINEER'S	631.1000	-			
										1	1		LS	TESTING EQUIPMENT, CONCRETE	631.1600	-			
										1	1		LS	TESTING EQUIPMENT, GROUT	631.1900	-			
										3000	3000		DL	FIELD OFFICE COMMUNICATIONS (N.A.B.I.)	631.2600	-			
							9				9		EACH	CPM SCHEDULE	633.1000	-			
							1				1		LS	MOBILIZATION/DEMobilIZATION	635.1100	-			
							1				1		LS	TRAFFIC CONTROL, ALL-INCLUSIVE	641.1100	-			
							2				2		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.1500	-			
								65			65		SY	GEOTEXTILE UNDER STONE FILL	649.3100	11			
								1170			1170		SY	TURF ESTABLISHMENT, GENERAL SEED	651.1500	44			
								98			98		CY	TOPSOIL	651.3500	4			
								1			1		LS	EPSC PLAN	653.0100	-			
								66			66		HR	MONITORING EPSC PLAN	653.0200	EST.			
								4000			4000		DL	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	653.0300	-			
								0.5			0.5		TON	HAY MULCH	653.1000	0.05			
								32			32		CY	STABILIZED CONSTRUCTION ENTRANCE	653.3500	2			
								1			1		EACH	FILTER BAG	653.4500	-			
								570			570		LF	SILT FENCE, TYPE I	653.4701	22			
								570			570		LF	BARRIER FENCE	653.5000	22			

PROJECT NAME: JERICHO  
PROJECT NUMBER: STP CULV(I50)

FILE NAME: z23b690qty.dgn  
PROJECT LEADER: D. VERTIYEV  
DESIGNED BY: E. NOONAN  
QUANTITY SHEET

PLOT DATE: 11/20/2025  
DRAWN BY: C. WEBSTER  
CHECKED BY: A. TSOUKALAS  
SHEET 6 OF 27









PRIMARY CONTROL

HVCTRL #1  
 NORTH = 730643.2040  
 EAST = 1507017.3930  
 ELEV. = 514.8900

TO REACH FROM THE INTERSECTION OF ROUTES 15 AND 128 IN ESSEX, GO EAST ALONG ROUTE 15 FOR 2.6 MI (4.2 KM) TO THE INTERSECTION OF WEED ROAD LEFT AND THE SITE OF THE MARK ON THE LEFT IN THE NORTHWEST QUADRANT OF THE INTERSECTION.

THE MARK IS A 3/4 INCH (19 MM) REBAR WITH RED CAP SET 9 CM (4 INCHES) BELOW GROUND SURFACE.

IT IS 19.0 M (62.3 FT) NORTHEAST OF AND ABOUT 1 M (3.3 FT) LOWER THAN THE CENTERLINE OF ROUTE 15, 6.5 M (21.3 FT) SOUTH-SOUTHWEST OF THE CENTERLINE OF WEED ROAD, 27.4 M (89.9 FT) SOUTHEAST OF POLE 096/3/180/098 AND 22.6 M (74.1 FT) NORTH OF POLE 3/179A.

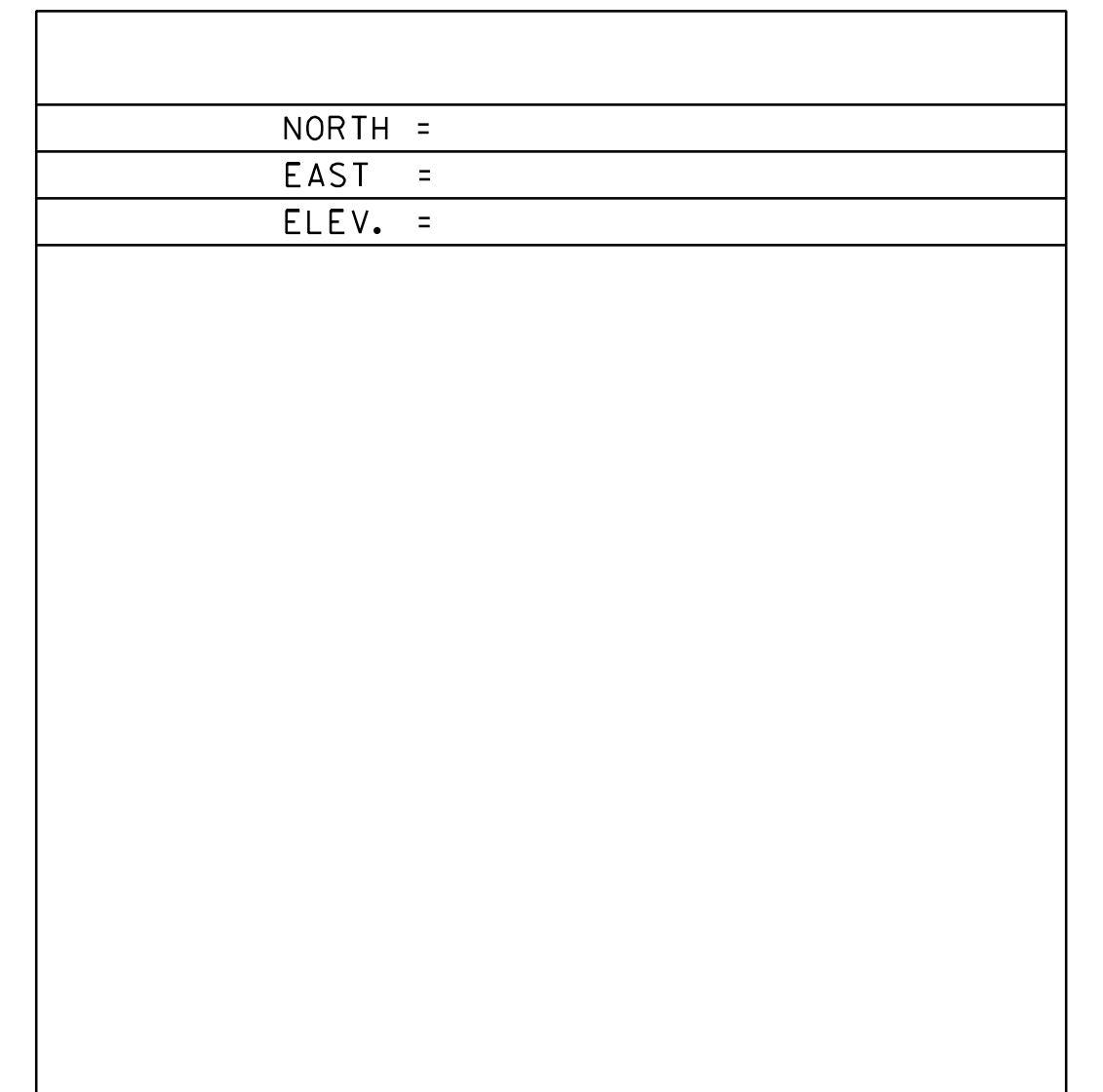
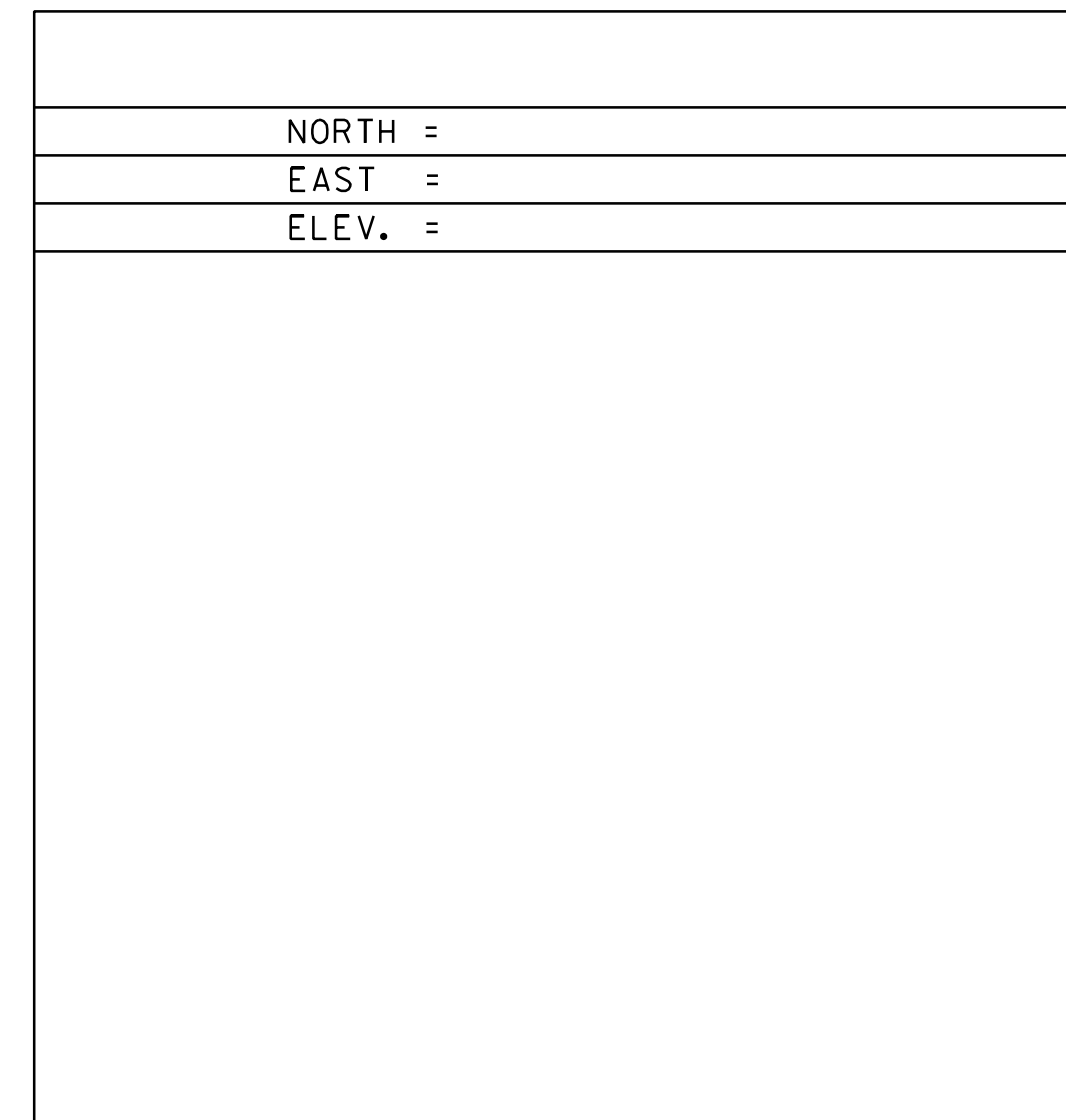
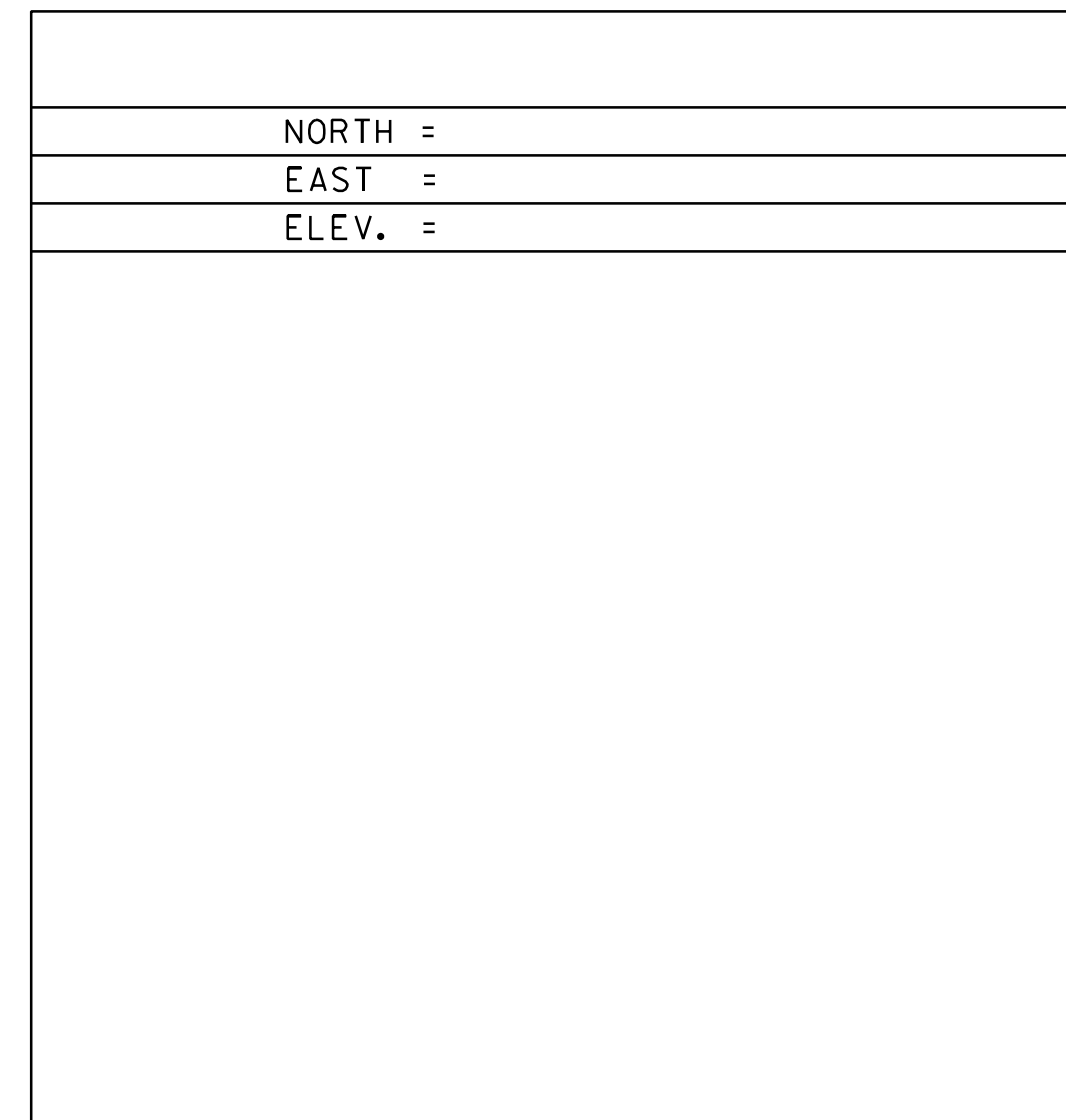
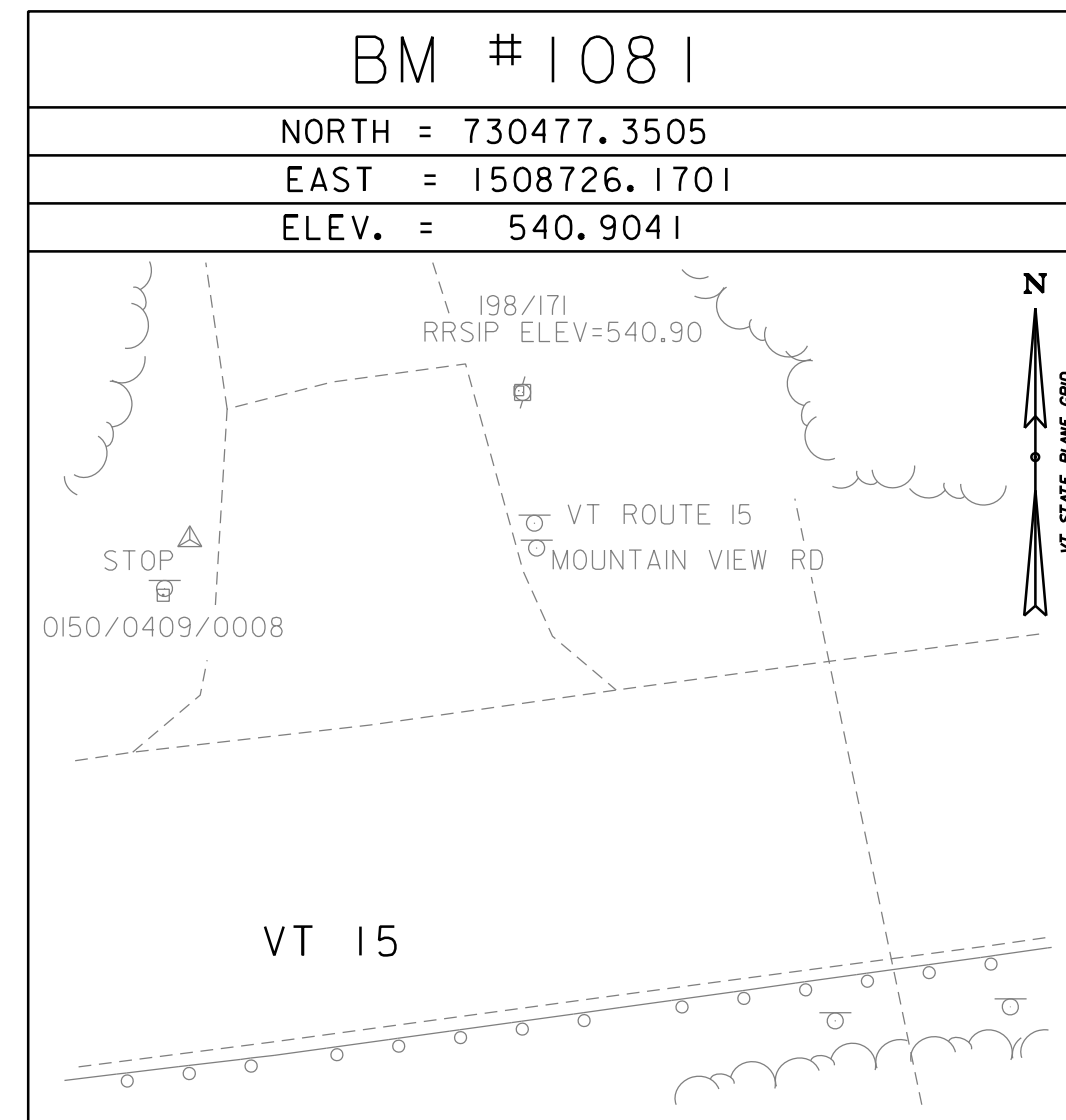
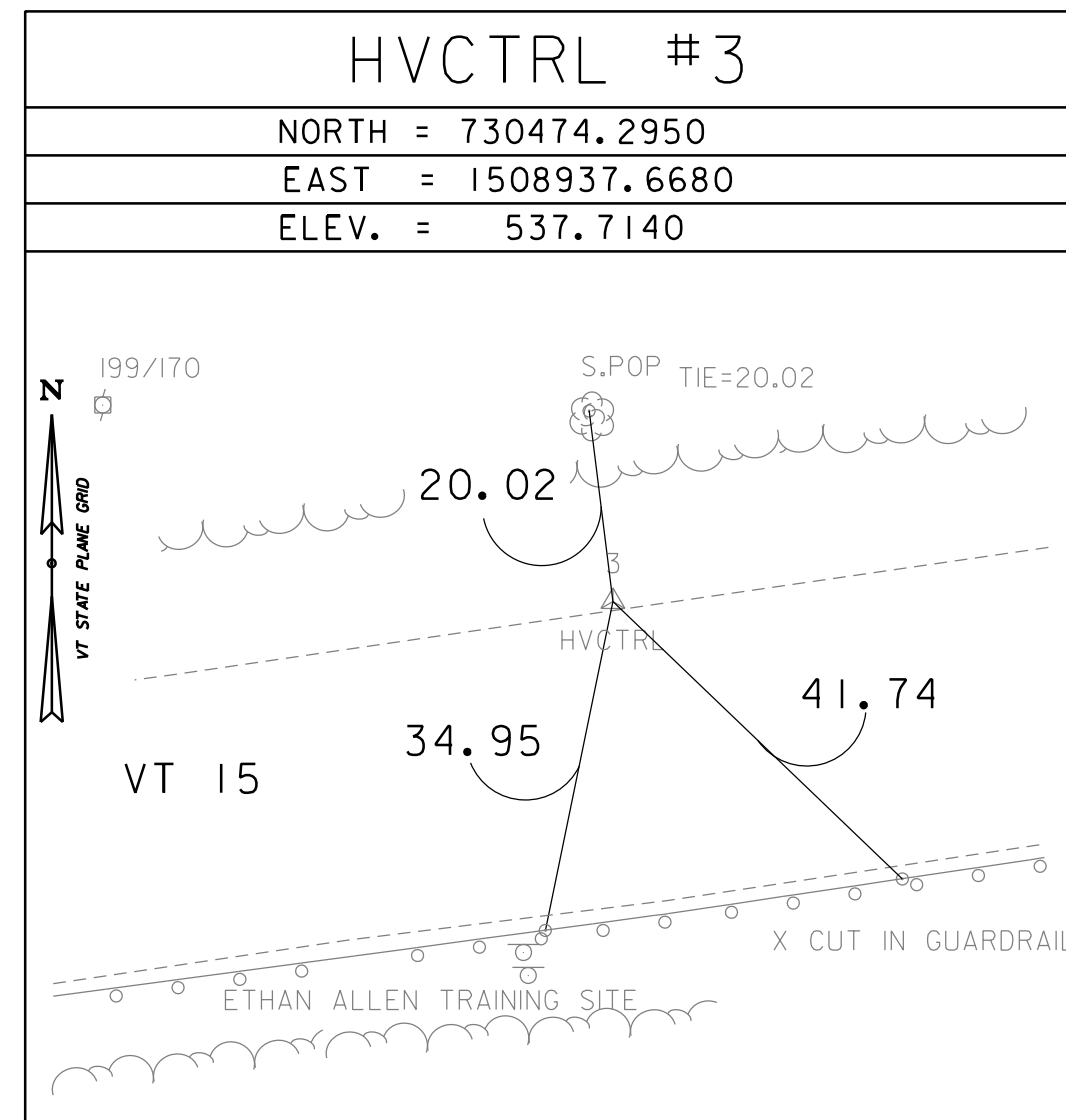
HVCTRL #2  
 NORTH = 730360.7140  
 EAST = 1508477.2520  
 ELEV. = 544.3400

TO REACH FROM THE INTERSECTION OF ROUTES 15 AND 128 IN ESSEX, GO EAST ALONG ROUTE 15 FOR 2.9 MI (4.7 KM) TO A PAVED PULL OFF ON THE RIGHT AND THE SITE OF THE MARK ON THE EDGE OF THE PULL OFF.

THE MARK IS A 3/4 INCH (19 MM) REBAR WITH RED CAP SET 6 CM (2 INCHES) BELOW GROUND SURFACE.

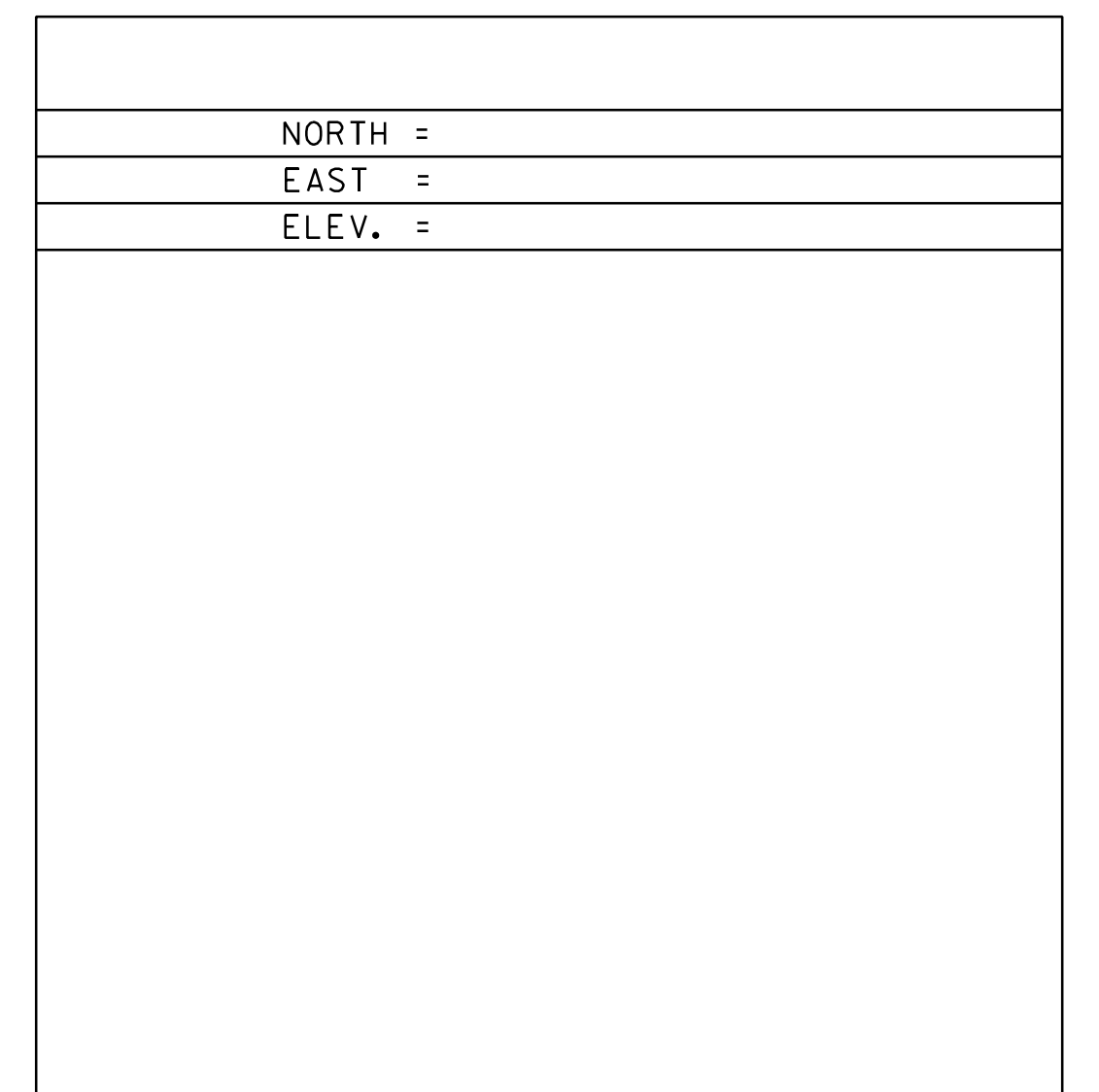
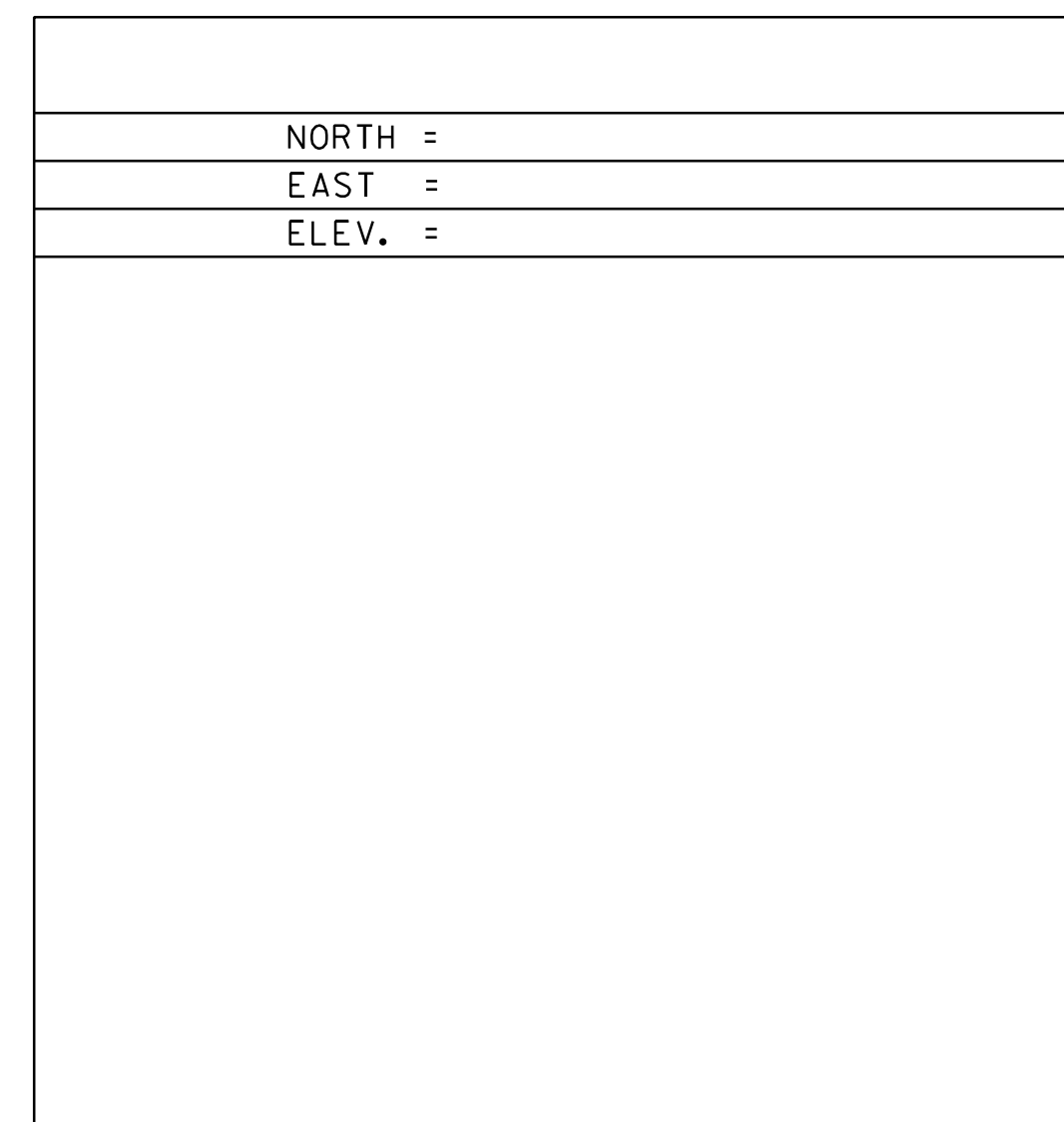
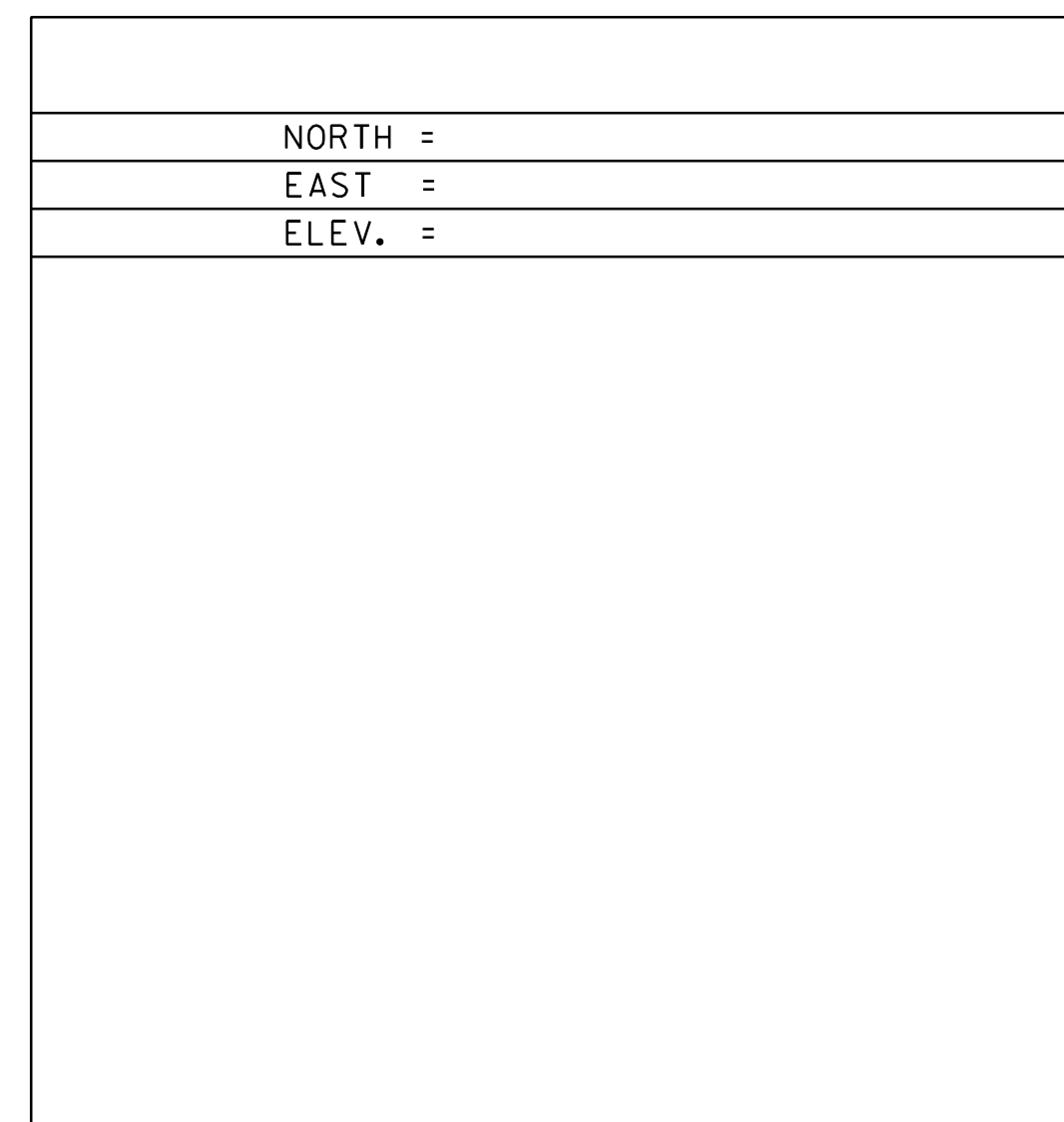
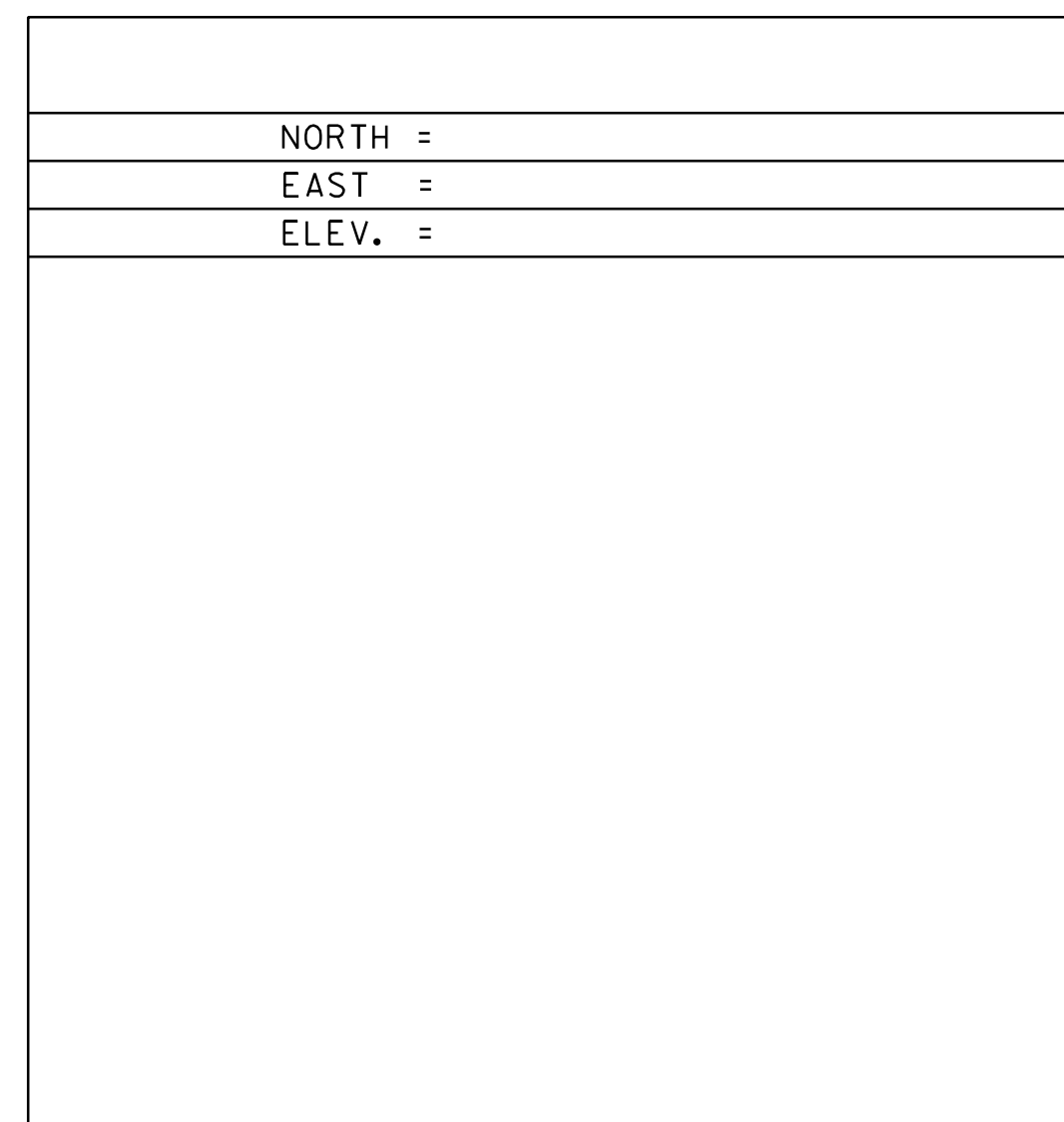
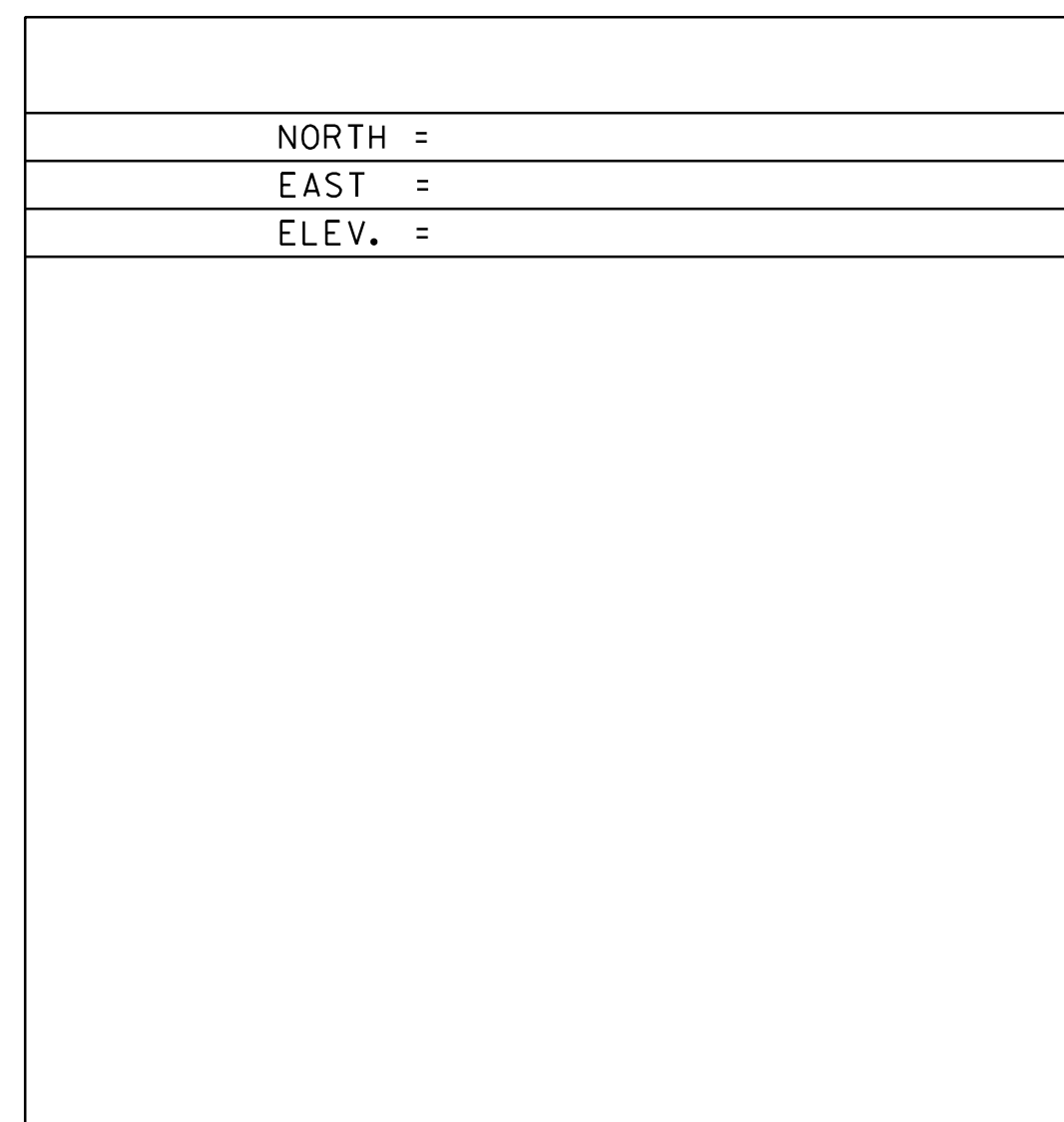
IT IS 11.4 M (37.4 FT) SOUTH OF AND ABOUT 30 CM (12 INCHES) LOWER THAN THE CENTERLINE OF ROUTE 15, 19.6 M (64.3 FT) SOUTH AND ACROSS ROUTE 15 FROM POLE 3/13, 30.6 M (100.4 FT) EAST-SOUTHEAST OF A 1 M (3.3 FT) ELM AND 0.4 M (1.3 FT) SOUTH OF THE SOUTH EDGE OF PAVEMENT OF THE PULL OFF.

SECONDARY CONTROL



\*TRAVERSE COMPLETED ON 6/27/2022 BY B.HERRING R.GAUVIN H.MCGOWAN

ALIGNMENT TIES



DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD83 (2011)
ADJUSTMENT	COMPASS



PROJECT NAME:	JERICO	PLOT DATE:	11/20/2025
PROJECT NUMBER:	STP CULV(150)	DRAWN BY:	H. MCGOWAN
FILE NAME:	x23b690t1.dgn	DESIGNED BY:	VTRANS
PROJECT LEADER:	L. STONE	CHECKED BY:	R. GILMAN
TIE SHEET		SHEET	10 OF 27

Element	Point Type	Station	Northing	Easting
<b>Mainline</b>				
Tangent	POB	494+00.00	730413.834	1508612.028
	BEGIN PROJECT	495+13.00	730428.628	1508724.055
	END PROJECT	497+67.00	730461.889	1508975.872
	PC	498+00.00	730466.202	1509008.585
<b>Channel</b>				
Tangent	POB	30+00.00	730531.468	1508741.230
	POE	32+00.00	730335.720	1508782.251



PROJECT NAME: JERICO  
PROJECT NUMBER: STP CULV(I50)

FILE NAME: z23b690horizalg.dgn  
PROJECT LEADER: D. VERTIYEV  
DESIGNED BY: E. NOONAN  
HORIZONTAL ALIGNMENT TABLE

PLOT DATE: 11/20/2025  
DRAWN BY: C. WEBSTER  
CHECKED BY: A. TSOUKALAS  
SHEET 11 OF 27

CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS  
 STA. 495+25 - STA. 495+92 LT/RT

AGGREGATE SHOULDERS, RAP  
 STA. 495+24 - STA. 495+80 RT  
 STA. 495+28 - STA. 497+50 LT

54 INCH CPEP (SL)  
 STA. 30+66.76 - STA. 31+33.06

STONE FILL, TYPE I  
 STA. 495+26 - STA. 495+41 LT

E-STONE FILL, TYPE III  
 STA. 30+54 - STA. 30+67 LT  
 STA. 31+33 - STA. 31+66 RT

REMOVE AND RESET GUARDRAIL  
 STA. 495+25 - STA. 495+40 RT  
 STA. 495+53 - STA. 495+80 RT

STEEL BEAM GUARDRAIL  
 STA. 495+28 - STA. 495+44 LT  
 STA. 495+57 - STA. 497+50 LT

STEEL BEAM GUARDRAIL, NESTED  
 STA. 495+44 - STA. 495+57 LT  
 STA. 495+40 - STA. 495+53 RT

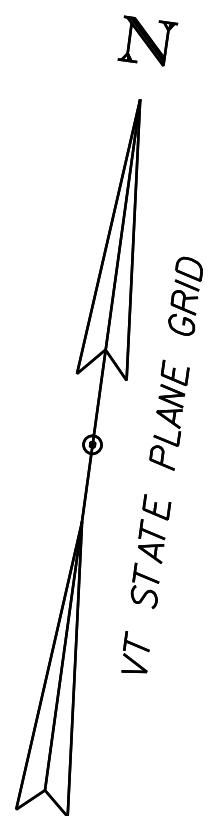
MTS, MGS, FLARED, TL-2  
 STA. 497+50 - STA. 497+62 LT

TURF ESTABLISHMENT, GENERAL SEED  
 STA. 495+13 - STA. 497+67 LT/RT

TOPSOIL  
 STA. 495+13 - STA. 497+67 LT/RT

SIGN REMOVAL, FLAT SHEET ALUMINUM  
 AS SHOWN - 4 EA

DELINEATOR WITH STEEL POST  
 STA. 495+28 LT  
 STA. 497+62 LT

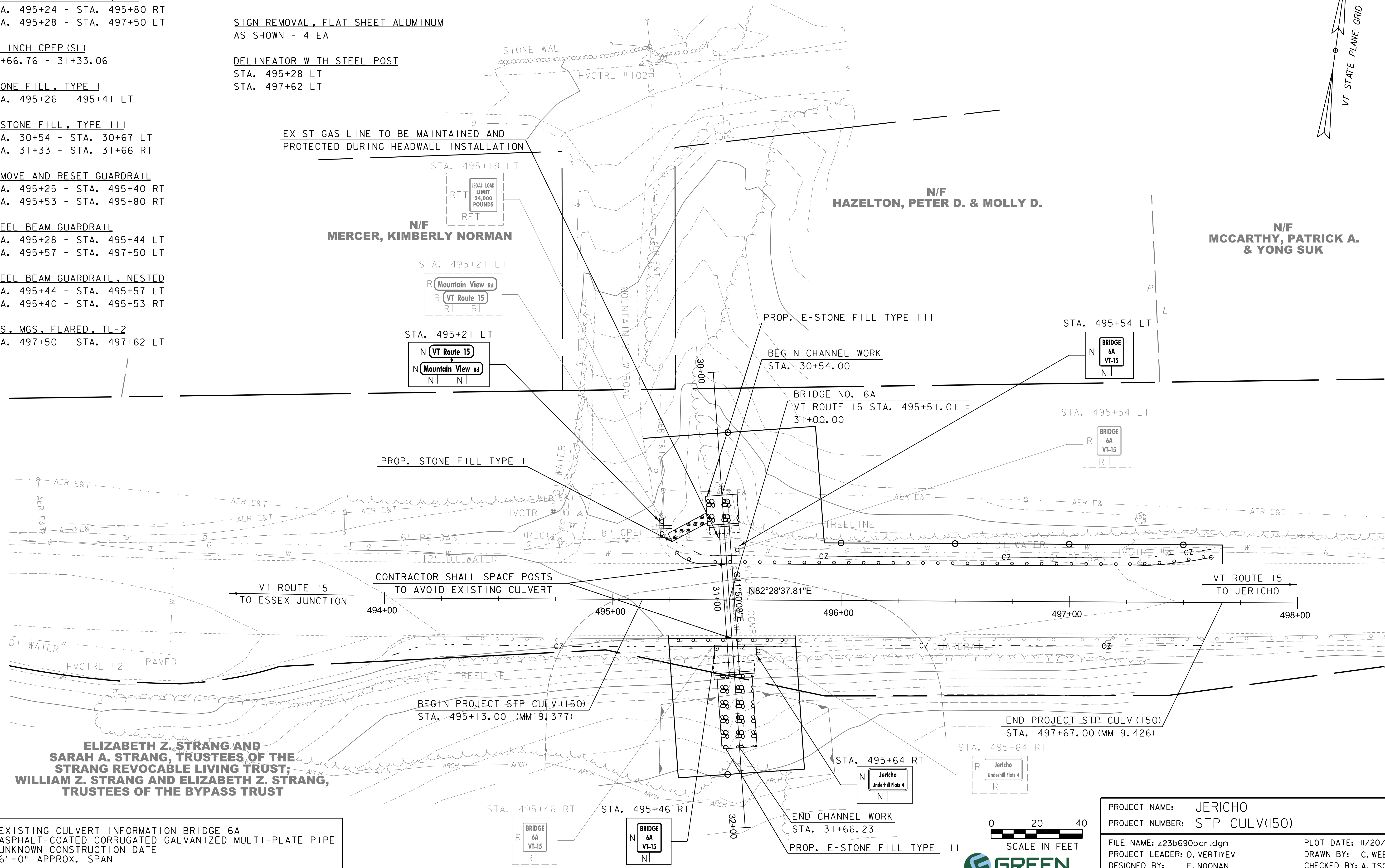


EXIST GAS LINE TO BE MAINTAINED AND PROTECTED DURING HEADWALL INSTALLATION

N/F  
**MERCER, KIMBERLY NORMAN**

N/F  
**HAZELTON, PETER D. & MOLLY D.**

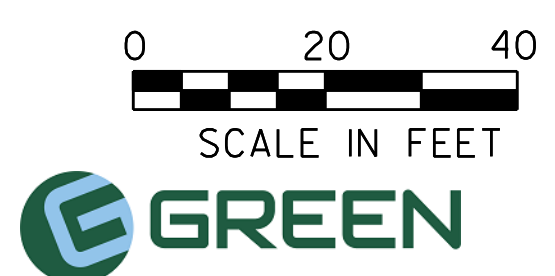
N/F  
**MCCARTHY, PATRICK A. & YONG SUK**



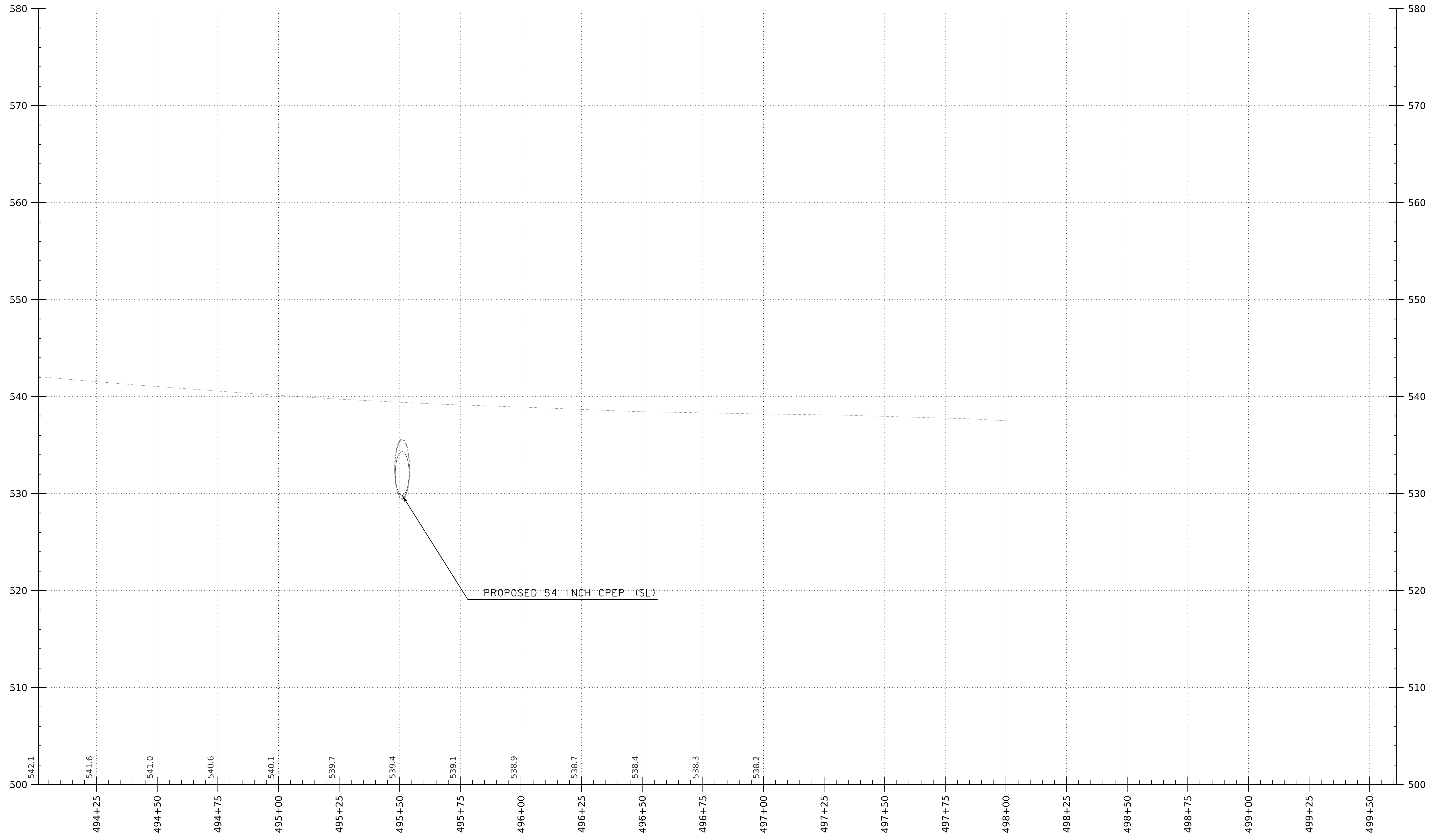
**ELIZABETH Z. STRANG AND SARAH A. STRANG, TRUSTEES OF THE STRANG REVOCABLE LIVING TRUST; WILLIAM Z. STRANG AND ELIZABETH Z. STRANG, TRUSTEES OF THE BYPASS TRUST**

EXISTING CULVERT INFORMATION BRIDGE 6A  
 ASPHALT-COATED CORRUGATED GALVANIZED MULTI-PLATE PIPE  
 UNKNOWN CONSTRUCTION DATE  
 6'-0" APPROX. SPAN

PROJECT NAME:	JERICO	PLOT DATE:	11/20/2025
PROJECT NUMBER:	STP CULV(150)	DRAWN BY:	C. WEBSTER
FILE NAME:	z23b690bdr.dgn	CHECKED BY:	A. TSOUKALAS
PROJECT LEADER:	D. VERTIYEV	SHEET	12 OF 27
DESIGNED BY:	E. NOONAN		
PLAN SHEET			



# VT-15



THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND APPROXIMATE ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

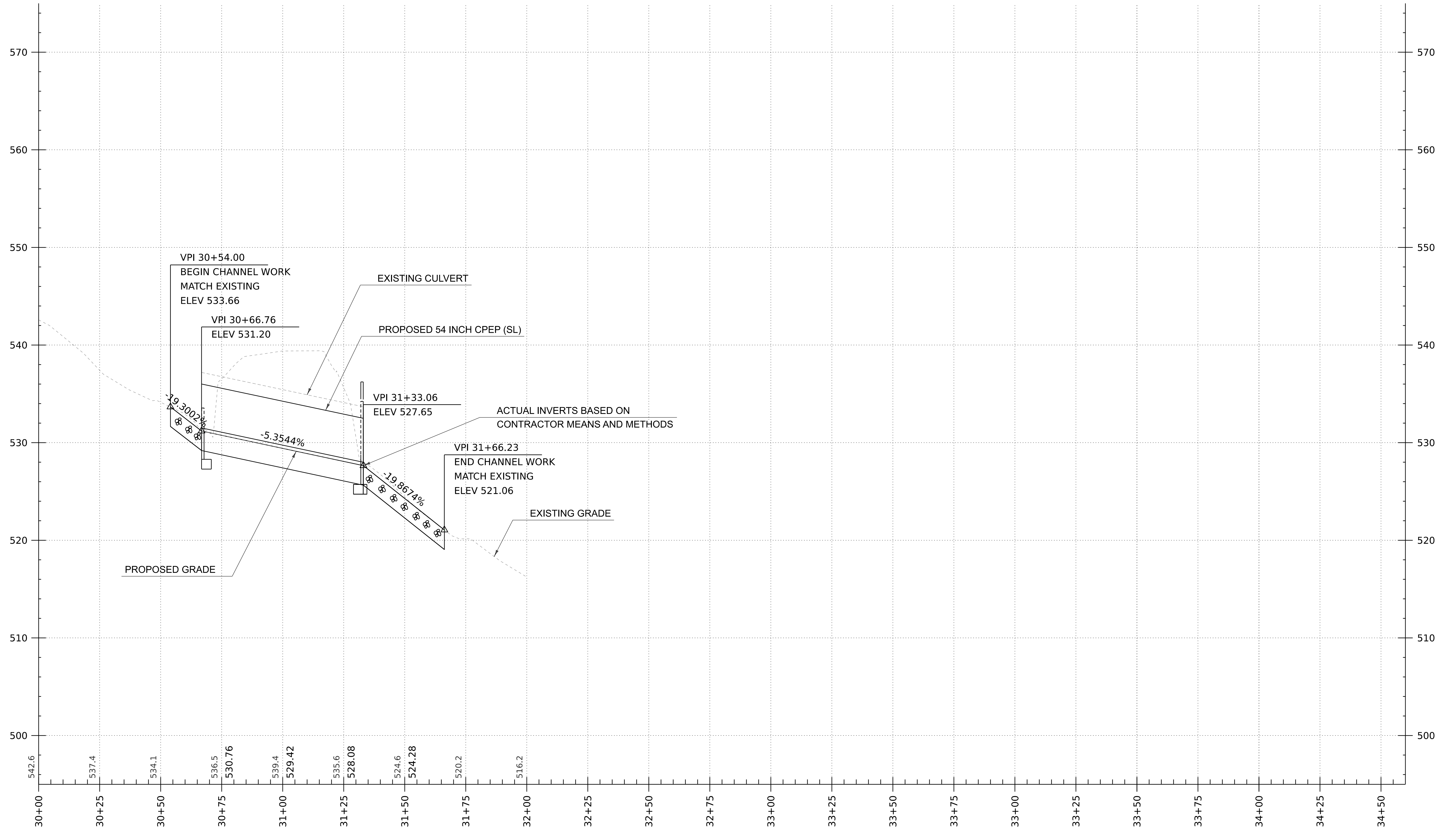
HORIZONTAL SCALE: 20 SCALE  
VERTICAL SCALE: 5 SCALE

NOTE:  
1. ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.

PROJECT NAME: JERICO	PLOT DATE: 11/20/2025
PROJECT NUMBER: STP CULV(I50)	DRAWN BY: C. WEBSTER
FILE NAME: z23b690prof.dgn	CHECKED BY: A. TSOUKALAS
PROJECT LEADER: D. VERTIYEV	SHEET 13 OF 27
DESIGNED BY: E. NOONAN	
PROFILE SHEET	



# BRIDGE 6A



THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND APPROXIMATE ELEVATIONS ALONG THE PROPOSED ALIGNMENT. THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE PROPOSED PROFILE GRADES FOR THE NEW ALIGNMENT.







HORIZONTAL SCALE: 20 SCALE  
VERTICAL SCALE: 5 SCALE

NOTE:  
1. ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.

PROJECT NAME: JERICHO	PLOT DATE: 11/20/2025
PROJECT NUMBER: STP CULV(I50)	DRAWN BY: C. WEBSTER
FILE NAME: z23b690prof.dgn	DESIGNED BY: E. NOONAN
PROJECT LEADER: D. VERTIYEV	CHECKED BY: A. TSOUKALAS
CHANNEL PROFILE SHEET	SHEET 14 OF 27

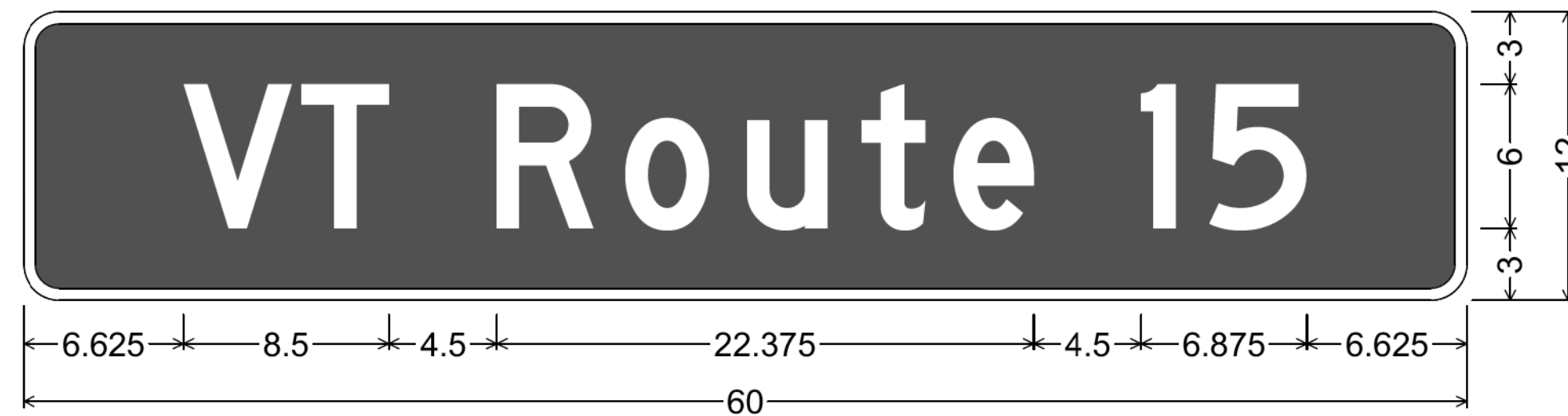


# TRAFFIC SIGN SUMMARY SHEET

MILE MARKER, STATION OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST NO.	NEW SIGN POSTS												REMARKS	SIGN DETAIL						
		EACH	WIDTH (in)	HEIGHT (in)	FLAT ALUM.	EXT. ALUM.	SALV SIGN	SALV TIS		RETAIN SALVAGE	SQUARE STEEL (in)			TUBULAR STEEL Ø (IN)				W-SHAPE STEEL					S.H.S.M.*	DETAIL ON SHEET	STANDARD SHEET NUMBER				
											1.75	2.00	2.50	ANCHOR	SLEEVE	FOUNDATION	3.00	3.50	4.00	5.00	FTG. SIZE					WEIGHT	POST SIZE	SIGN FRAME REQUIRED	
											(LB / FT)						(LB / FT)				24"								30"
<b>OPTION ITEMS</b>																													
<b>BRIDGE 6A</b>																													
STA. 495+19 LT			24.0	30.0					1															RETAIN EXISTING SIGN ON EXISTING POST VR-017 (24,000 LB)					
STA. 495+21 LT		1	60.0	12.0	5.00				2	2				X										INSTALL NEW SIGNS ON NEW POSTS (DOUBLE-SIDED)	D3-1	SIGN DETAIL SHEET			
		1	72.0	12.0	6.00																			INSTALL NEW SIGN (PERPENDICULAR WITH PREVIOUS SIGN)	D3-1	SIGN DETAIL SHEET			
STA. 495+46 RT		1	6.0	10.0	0.42				1	1				X										INSTALL NEW SIGN ON NEW POST VD-701			T-42		
STA. 495+54 LT		1	6.0	10.0	0.42				1	1				X										INSTALL NEW SIGN ON NEW POST VD-701			T-42		
STA. 495+64 RT		1	36.0	24.0	6.00				1	1				X										INSTALL NEW SIGN ON NEW POST VD-018A		SIGN DETAIL SHEET	T-95		
<p>THE TOTAL LENGTH OF EACH POST HAS BEEN ASSUMED TO BE 15 FEET, WITH THE EXCEPTION OF POSTS FOR OBJECT MARKERS AND POSTS FOR BRIDGE PLAQUES AND MILE MARKERS WHICH HAVE BEEN ASSUMED TO BE 8 FEET AND 10 FEET PER POST, RESPECTIVELY. FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE." * STANDARD HIGHWAY SIGNS AND MARKINGS</p>																													
TOTALS		SF	17.83		SF	EA.	SF			FT	20.	45.	65.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	

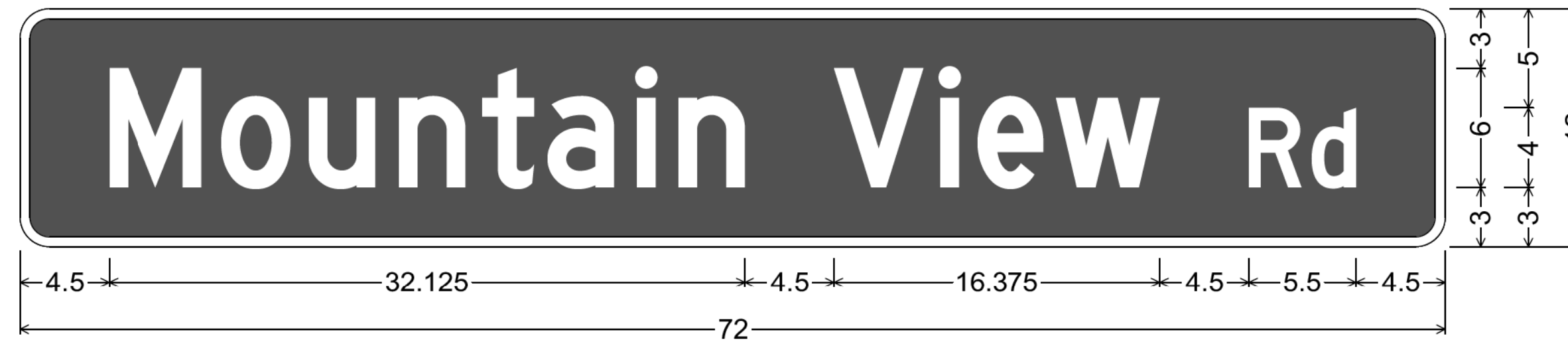
PROJECT NAME: JERICOHO  
 PROJECT NUMBER: STP CULV(I50)  
 FILE NAME: z23b690tss.dgn  
 PROJECT LEADER: D. VERTIYEV  
 DESIGNED BY: H. GAO  
 TRAFFIC SIGN SUMMARY SHEET  
 PLOT DATE: 11/20/2025  
 DRAWN BY: H. GAO  
 CHECKED BY: A. TSOUKALAS  
 SHEET 15 OF 27





1.500" Radius, 0.500" Border, White on Green;  
 "VT", D; "Route", D; "15", D;  
 Table of distances between letter and object lefts

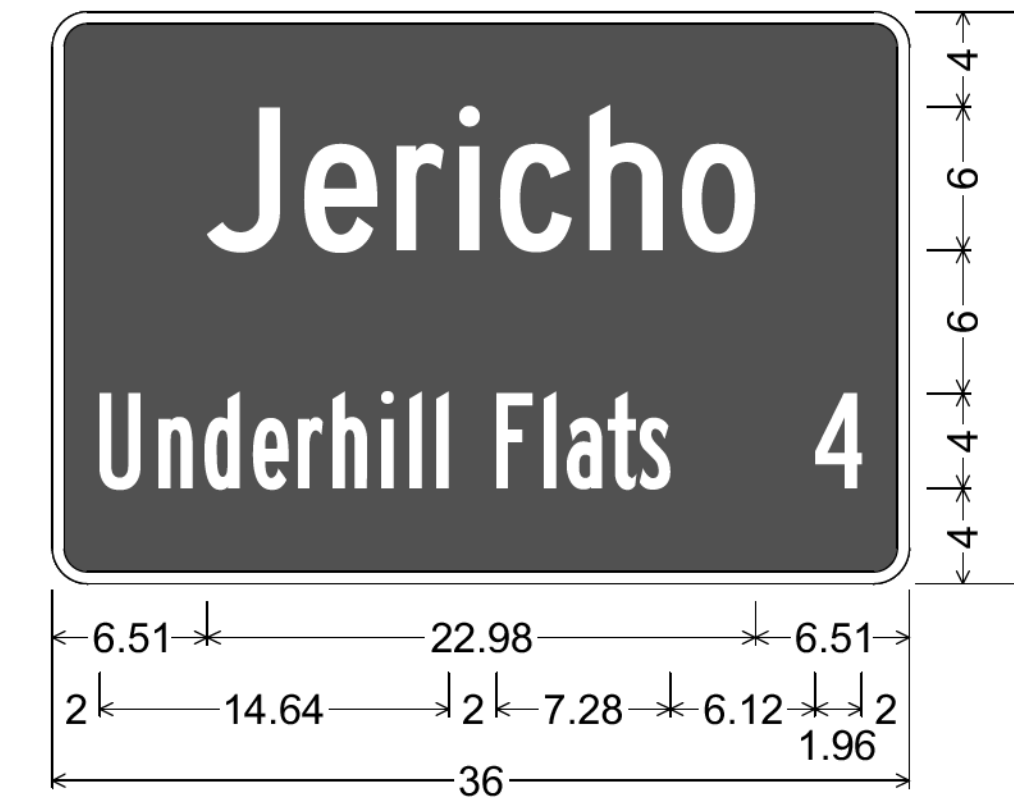
6.625	V	T	R	o	u	t	e	l	5	6.625
4.875	8.125	5.375	5.125	4.750	3.750	7.875	2.875	4.000		



1.500" Radius, 0.500" Border, White on Green;  
 "Mountain", D 60% spacing; "View", D 60% spacing; "Rd", D 60% spacing;  
 Table of distances between letter and object lefts

4.500	M	o	u	n	t	a	i	n	V	i	e	w	R	d	4.500
5.750	4.375	4.500	4.250	3.250	4.500	2.125	7.875	5.375	1.875	4.000	9.625	3.250	2.250	4.500	

STA. 495+21 LT



1.500" Radius, 0.500" Border, White on Green;  
 "Jericho", C 2K; "Underhill", B 2K;  
 "Flats", B 2K; "4", B 2K;  
 Table of letter and object lefts

J	e	r	i	c	h	o		
6.510	10.590	14.430	17.070	18.810	22.530	26.430		
U	n	d	e	r	h	i	l	l
2.000	4.480	6.400	8.400	10.320	11.760	13.800	14.960	16.120
F	l	a	t	s				
18.640	20.600	21.560	23.320	24.640				
4								
32.040								

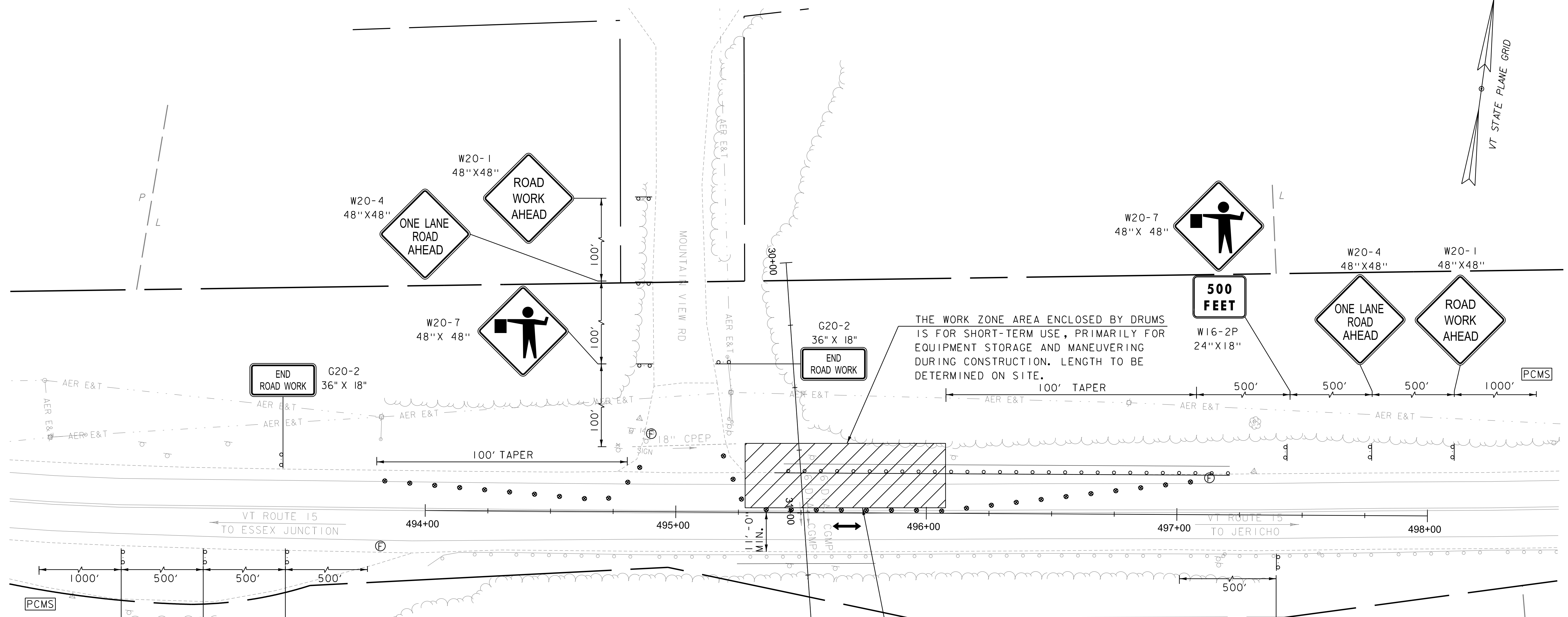
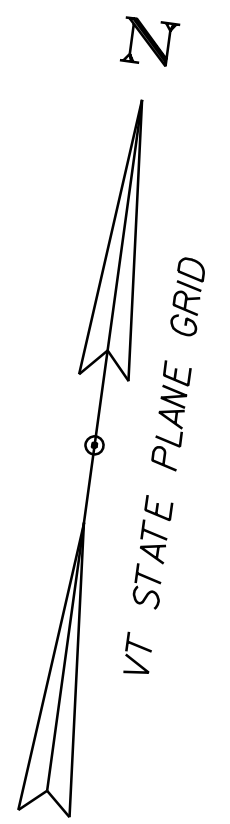
STA. 495+64 RT



PROJECT NAME: JERICHO  
 PROJECT NUMBER: STP CULV(I50)

FILE NAME: z23b690tss.dgn  
 PROJECT LEADER: D. VERTIYEV  
 DESIGNED BY: H. GAO  
 TRAFFIC SIGN DETAIL SHEET

PLOT DATE: 11/20/2025  
 DRAWN BY: H. GAO  
 CHECKED BY: A. TSOUKALAS  
 SHEET 16 OF 27



THE WORK ZONE AREA ENCLOSED BY DRUMS IS FOR SHORT-TERM USE, PRIMARILY FOR EQUIPMENT STORAGE AND MANEUVERING DURING CONSTRUCTION. LENGTH TO BE DETERMINED ON SITE.

DRUMS SHALL BE REMOVED TO RETAIN TWO-WAY TRAFFIC DURING PEAK HOURS AND AFTER WORK HOURS.

TRAFFIC CONTROL PLAN - STAGE I

MESSAGES FOR THE PCMS BOARD

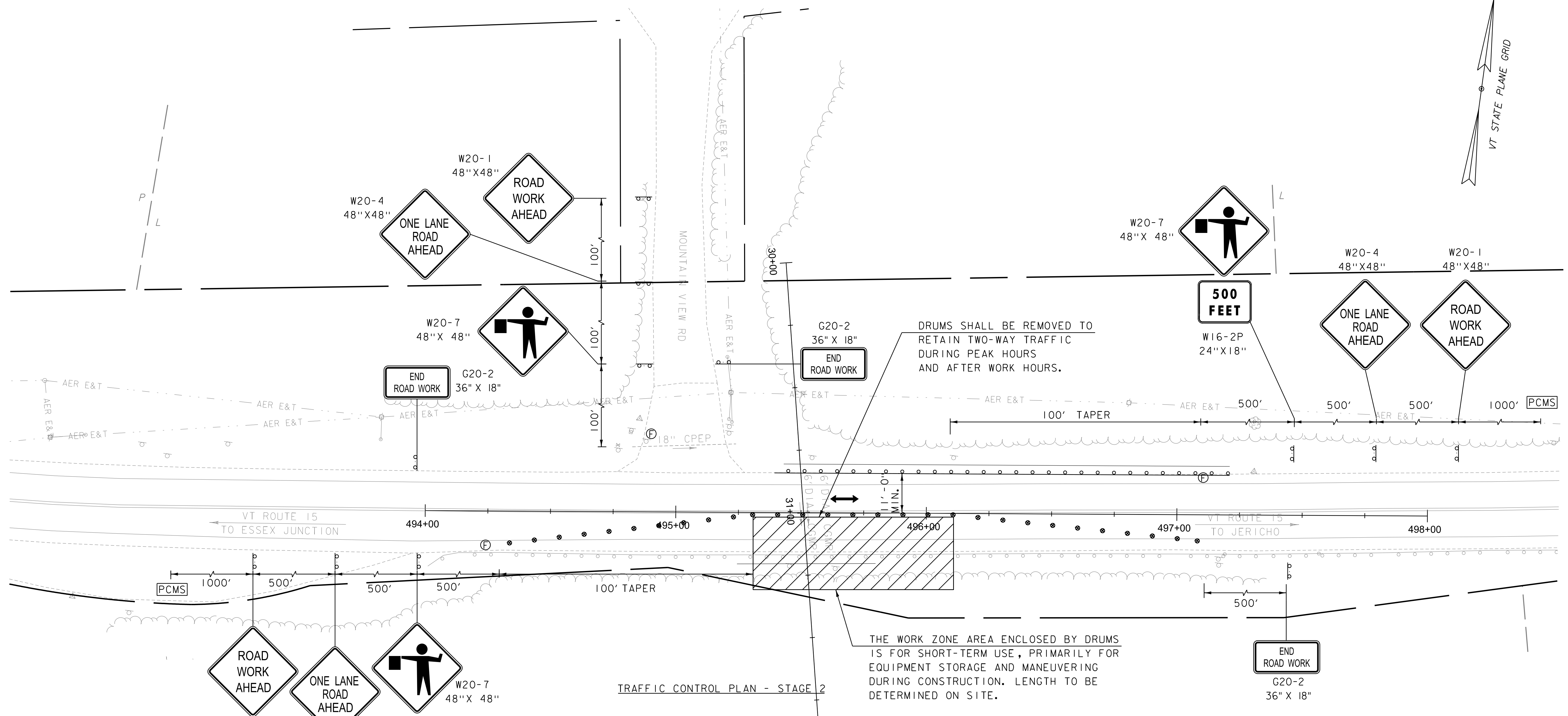
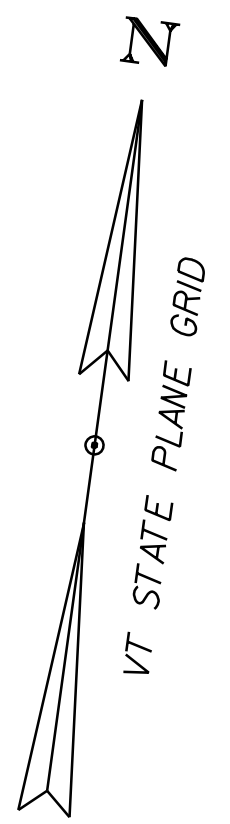
ADVANCE NOTIFICATION		DURING CONSTRUCTION	
MESSAGE 1	MESSAGE 2	MESSAGE 1	MESSAGE 2
VT 15	MM DD	ONE	PREPARE
LANE	TO	LANE	TO
CLOSURE	MM DD	ROAD	STOP

- LEGEND:**
- WORK AREA
  - SIGN
  - TRAFFIC FLOW DIRECTION
  - DRUMS
  - FLAGGER



PROJECT NAME: JERICO  
 PROJECT NUMBER: STP CULV(I50)  
 FILE NAME: z23b690+cp.dgn  
 PROJECT LEADER: D. VERTIYEV  
 DESIGNED BY: H. GAO  
 TRAFFIC CONTROL PLAN SHEET I

PLOT DATE: 11/20/2025  
 DRAWN BY: H. GAO  
 CHECKED BY: A. TSOUKALAS  
 SHEET 17 OF 27

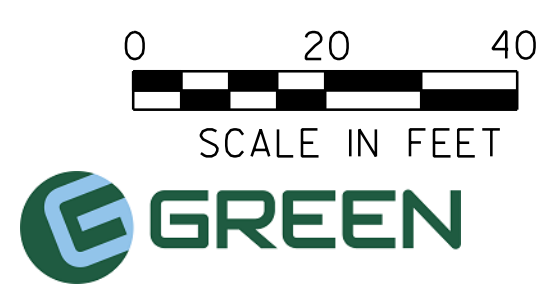


TRAFFIC CONTROL PLAN - STAGE 2

MESSAGES FOR THE PCMS BOARD

ADVANCE NOTIFICATION		DURING CONSTRUCTION	
MESSAGE 1	MESSAGE 2	MESSAGE 1	MESSAGE 2
VT 15	MM DD	ONE	PREPARE
LANE	TO	LANE	TO
CLOSURE	MM DD	ROAD	STOP

- LEGEND:**
- WORK AREA
  - SIGN
  - TRAFFIC FLOW DIRECTION
  - DRUMS
  - FLAGGER



PROJECT NAME: JERICO  
 PROJECT NUMBER: STP CULV(I50)  
 FILE NAME: z23b690+cp.dgn  
 PROJECT LEADER: D. VERTIYEV  
 DESIGNED BY: H. GAO  
 TRAFFIC CONTROL PLAN SHEET 2  
 PLOT DATE: 11/20/2025  
 DRAWN BY: H. GAO  
 CHECKED BY: A. TSOUKALAS  
 SHEET 18 OF 27

**GENERAL TRAFFIC MAINTENANCE NOTES:**

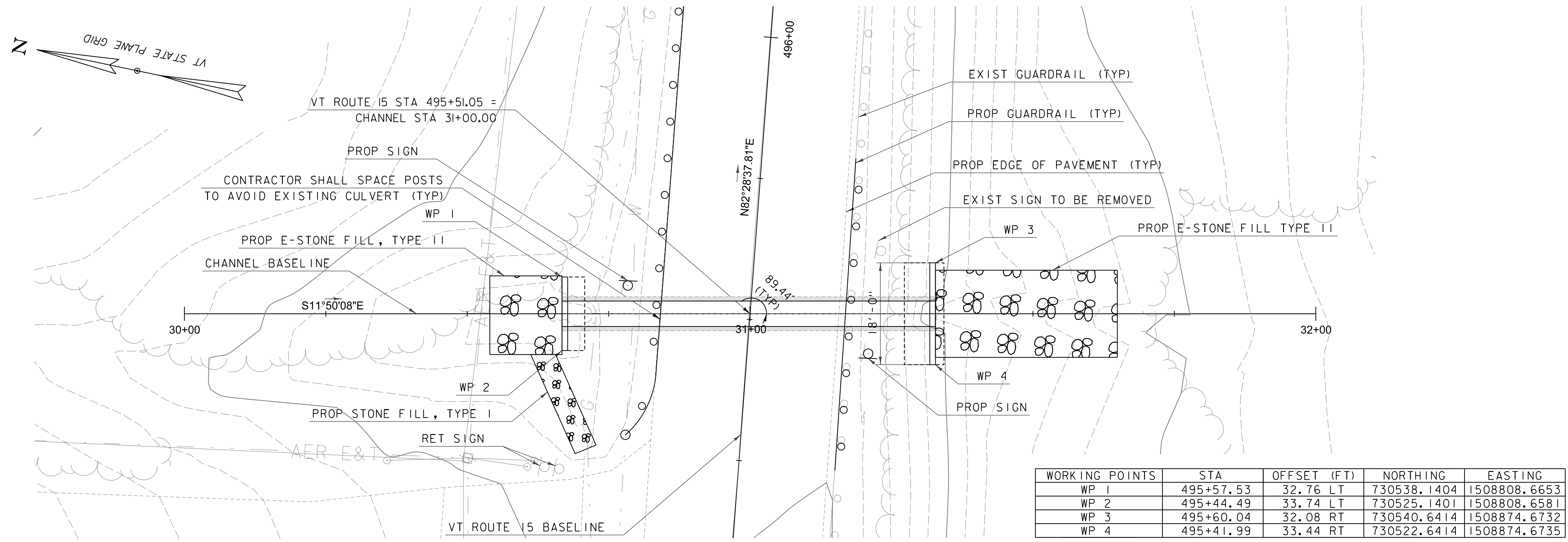
1. THE CONTRACTOR SHALL SUBMIT A SITE-SPECIFIC TRAFFIC CONTROL PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE TRAFFIC CONTROL PLAN SHALL BE IN COMPLIANCE WITH VTRANS STANDARDS AND THE 11<sup>TH</sup> EDITION OF MUTCD. WHERE CONFLICTS EXIST, THE 11<sup>TH</sup> EDITION OF MUTCD SHALL GOVERN. CONSTRUCTION ZONE SIGNS SHALL BE INSTALLED AS SPECIFIED IN THE SPECIAL PROVISIONS.
2. TRAFFIC OFFICERS SHALL PRIORITIZE HEAVY TRAFFIC MOVEMENT, IF/WHEN LONG BACKUPS OCCUR, BY STOPPING ALL CONFLICTING MOVEMENTS AND ALLOWING THE VEHICLE QUEUE TO CLEAR THE APPROACH. THEN ALLOWING FOR THE HEAVY TRAFFIC MOVEMENT TO CONTINUE FLOWING THROUGH THE INTERSECTION.
3. REFER TO THE T-SERIES VERMONT STATE CONSTRUCTION STANDARD DRAWINGS AND THE LATEST EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR DETAILED INFORMATION REGARDING CHANNELIZATION DEVICES, TAPER LENGTHS, BARRICADES, DETOURS, LONGITUDINAL DROP-OFFS AND MISCELLANEOUS TRAFFIC CONTROL DETAILS, IF APPLICABLE.
4. TRAFFIC PATTERNS SHALL NOT CHANGE UNTIL ALL TEMPORARY MARKINGS, SIGNING AND/OR SIGNAL WORK ARE COMPLETED FOR THE NEXT PATTERN. ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVED.
5. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN APPROACH PACKAGE FOR EXPECTED LANE CLOSURES IN COMPLIANCE WITH VTRANS STANDARDS AND THE 11<sup>TH</sup> EDITION OF THE MUTCD. PAYMENT FOR PROVIDING THIS PACKAGE WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE.
6. THE CONTRACTOR SHALL RELOCATE OR COVER ALL EXISTING SIGNS WHERE THEY WOULD CONFLICT WITH CONSTRUCTION SIGNAGE. SIGN COVERING SHALL NOT DAMAGE THE RETRO-REFLECTIVITY OF THE SIGN FACE AND THE SIGN COVER SHALL NOT DETERIORATE FOR THE DURATION THAT THE SIGN IS COVERED. THE COST SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID FOR ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE. CONSTRUCTION APPROACH SIGNING SHALL REMAIN IN PLACE DURING THE ENTIRE CONSTRUCTION PERIOD.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING CONSTRUCTION SIGNAGE SO AS NOT TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE AND CORNER SIGHT DISTANCE. EXISTING SIGNS SHALL BE COVERED OR REMOVED WHEN THEY CONFLICT WITH CONSTRUCTION TRAFFIC OPERATIONS.
8. PHASING WORK SHOWN HERE IS SCHEMATIC ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING APPROPRIATE CONSTRUCTION METHODS AND APPLICABLE TRAFFIC MAINTENANCE PLANS FOR ALL TRANSITION WORK BETWEEN PHASES. THE COST SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID FOR ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE.
9. THE CONTRACTOR SHALL PROVIDE AT LEAST 2 PORTABLE CHANGEABLE MESSAGE SIGNS FOR THE DURATION OF THE PROJECT. THE INITIAL LOCATION AND MESSAGE CONTENT SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. MESSAGES SHALL CONSIST OF A MAXIMUM OF TWO PHRASES OF 3 LINES WITH 8 CHARACTERS AND SHALL ONLY BE VISIBLE TO MOTORISTS AT TIMES WHEN THE MESSAGE IS PERTINENT. THE RELOCATION OF THE SIGNS MAY BE NECESSARY TO CONVEY WORK ZONE TRAVEL INFORMATION THAT IS OTHERWISE DIFFICULT TO CONVEY WITH STATIC SIGNS. THESE RELOCATIONS SHALL BE PAID FOR UNDER CONTRACT ITEM 641.1500 - PORTABLE CHANGEABLE MESSAGE SIGN.
10. ALL WORK AREA AND CONSTRUCTION ENTRANCES SHALL BE SECURED DURING OVERNIGHT AND NON-ACTIVE PERIODS. THE COST SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID FOR ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE.
11. FURNISHING, INSTALLING, MAINTENANCE OF, RELOCATING AND REMOVING REFLECTORIZED DRUMS, CONSTRUCTION SIGNING FOR TRAFFIC SHIFTS AND PEDESTRIAN BARRICADES AND SIGNAGE SHALL BE PAID FOR UNDER CONTRACT ITEM 641.1100 - TRAFFIC CONTROL, ALL-INCLUSIVE.
12. A MINIMUM EFFECTIVE TRAVEL WIDTH OF 11 FEET (INCLUDING SHOULDERS) SHALL BE MAINTAINED DURING CONSTRUCTION. WHERE THE TRAVEL LANE ALONE DOES NOT PROVIDE THE FULL 11-FOOT WIDTH, THE SHOULDER MAY BE USED TO MEET THE MINIMUM REQUIRED WIDTH. IF AT ANY POINT THE EFFECTIVE TRAVEL WIDTH (INCLUDING SHOULDERS) IS TO BE REDUCED UNDER 11 FEET, THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF MOTOR VEHICLES AT LEAST 24 HOURS PRIOR TO THE SCHEDULED REDUCTION.
13. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENTIAL DRIVEWAYS AND BUSINESS ACCESSES DURING CONSTRUCTION 24 HOURS A DAY. IF AN ACCESS REQUIRES CLOSURE FOR ANY PERIOD OF TIME, THE CONTRACTOR SHALL CONTACT THE RESIDENCE OR BUSINESS 48 HOURS PRIOR TO THE SCHEDULED CLOSURE AND PROVIDE AN ALTERNATIVE ACCESS FOR THE ENTIRE LENGTH OF THE CLOSURE PERIOD.
14. SPECIAL CARE SHALL BE TAKEN TO PROVIDE ACCESS THROUGH THE WORK ZONE FOR EMERGENCY VEHICLES. THE CONTRACTOR SHALL COORDINATE WITH BOTH TOWN OF JERICO AND ESSEX'S POLICE AND FIRE DEPARTMENTS TO DETERMINE THEIR MINIMUM ACCESS REQUIREMENTS BEFORE PROCEEDING TO THE NEXT PHASE OF CONSTRUCTION. THE CONTRACTOR SHALL ENSURE THAT ACCESS IS AVAILABLE TO ALL PROPERTIES AT ALL TIMES FOR EMERGENCY VEHICLES.
15. PEDESTRIAN AND BICYCLE ACCOMMODATIONS WILL BE REQUIRED FOR ALL PHASES OF CONSTRUCTIONS. THE CONTRACTOR SHALL REFER TO VTRANS BICYCLE AND PEDESTRIAN WORK ZONE GUIDE FOR MORE INFORMATION.
16. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE KEPT IN THEIR PROPER POSITION AT ALL TIMES AND SHALL BE REPAIRED, REPLACED, OR CLEANED AS NECESSARY TO PRESERVE THEIR APPEARANCE AND CONTINUITY.
17. BICYCLE ACCOMMODATIONS SHOULD BE TAKEN TO ENSURE THAT OBSTACLES, EQUIPMENT, CONSTRUCTION MATERIALS, TRAFFIC CONTROL DEVICES, ETC. DO NOT ENCROACH INTO THE BICYCLE PATH OF TRAVEL. IT IS IMPORTANT THAT CYCLIST'S ROUTES ARE FREE OF RUTS, SAND, AND MUD TO PREVENT CYCLIST'S CRASHES.
18. FLAGGERS AND/OR TRAFFIC CONTROL PERSONNEL SHALL DIRECT BICYCLISTS THROUGH THE CONSTRUCTION AREA IN THE SAME MANNER AS VEHICULAR TRAFFIC. TRAFFIC CONTROL PERSONNEL MAY ASK BICYCLE RIDERS TO GO LAST TO ENSURE THEIR SAFETY.
19. COMMUNICATIONS AND ACCOMMODATING FOR POSTAL DELIVERIES, NEWSPAPER ROUTES, TRASH SERVICES, AND/OR OTHER DELIVERY SERVICES INTERRUPTED BY THE PROJECT SHOULD BE COMMUNICATED WITH THE PROPER CONTACTS.
20. WHEN NO SIDEWALK EXISTS, PEDESTRIANS AND BICYCLISTS SHALL USE THE SHOULDER. IF THE SHOULDER IS CLOSED FOR CONSTRUCTION, A TEMPORARY CIRCULATION PATH WITH EQUIVALENT ACCESSIBILITY MUST BE PROVIDED. CONTRACTOR PERSONNEL MAY ESCORT PEDESTRIANS THROUGH THE WORK ZONE TO ENSURE SAFETY; FLAGGERS SHALL NOT PERFORM THIS DUTY.



PROJECT NAME: JERICO  
PROJECT NUMBER: STP CULV(I50)

FILE NAME: z23b690+cp.dgn  
PROJECT LEADER: D. VERTIYEV  
DESIGNED BY: H. GAO  
TRAFFIC CONTROL NOTES

PLOT DATE: 11/20/2025  
DRAWN BY: H. GAO  
CHECKED BY: A. TSOUKALAS  
SHEET 19 OF 27



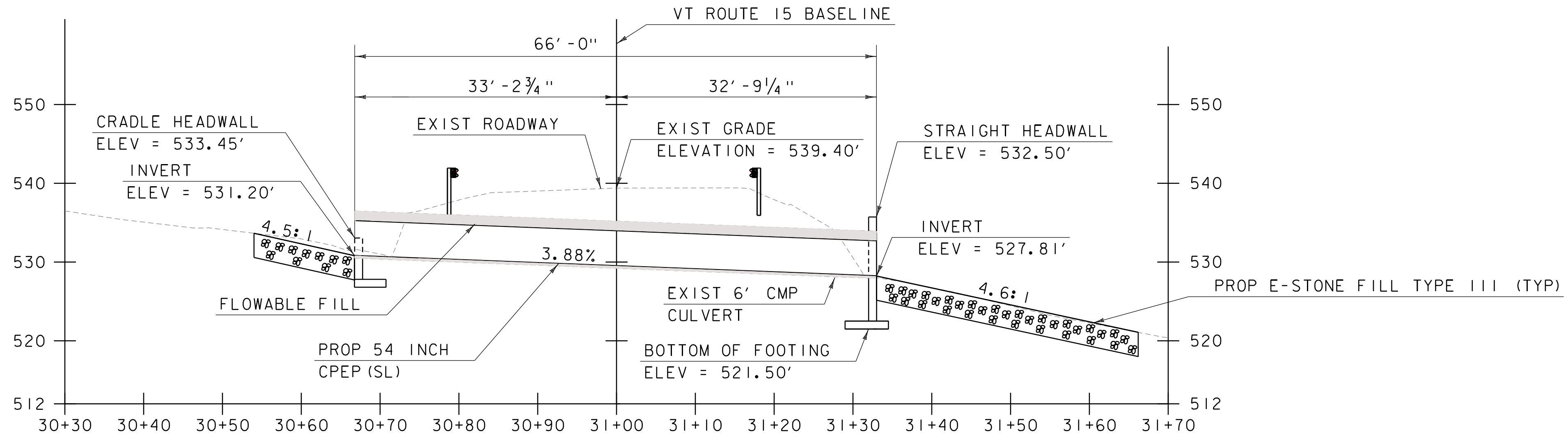
WORKING POINTS	STA	OFFSET (FT)	NORTHING	EASTING
WP 1	495+57.53	32.76 LT	730538.1404	1508808.6653
WP 2	495+44.49	33.74 LT	730525.1401	1508808.6581
WP 3	495+60.04	32.08 RT	730540.6414	1508874.6732
WP 4	495+41.99	33.44 RT	730522.6414	1508874.6735

NOTE: WORKING POINTS PROVIDED TO TOP OF HEADWALL AT EACH CORNER.

**CULVERT PLAN**  
SCALE 1" = 10'-0"

**NOTES:**

- EXISTING 6' DIAMETER CMP HAS CUT ENDS AT THE INLET AND OUTLET. THE CUT ENDS WILL BE REMOVED TO WHERE THE EXISTING PIPE REGAINS FULL SECTION, SO IT CAN CONTAIN THE FLOWABLE FILL FOR THE LIMITS OF THE PROPOSED SLIP LINING WITH THE 54 INCH CPEP (SL). THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CHANNEL EXCAVATION.
- THE PROPOSED INLET CRADLE HEADWALL SHALL FOLLOW VTRANS STD D-34 FOR 72" DIAMETER PIPE. THE PROPOSED OUTLET STRAIGHT HEADWALL SHALL BE BUILT AS SHOWN ON THE PLANS.



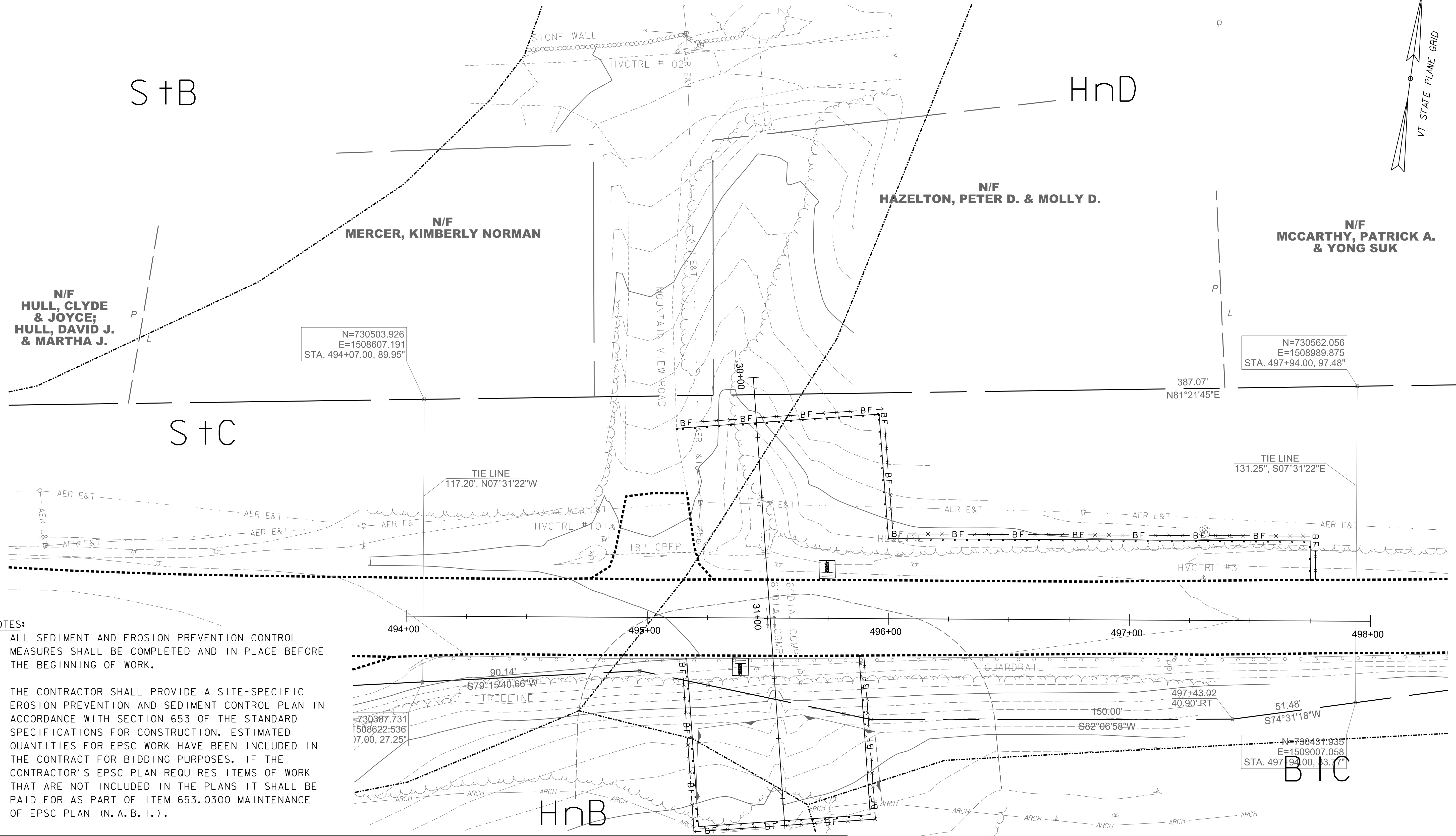
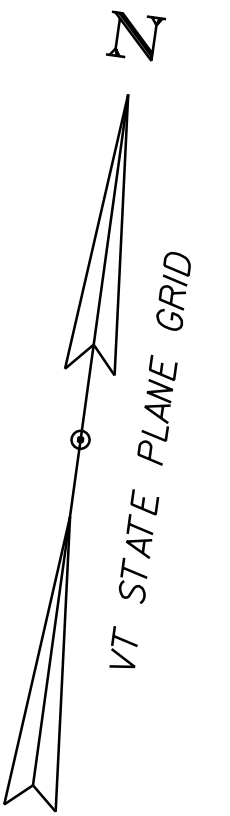
**SKEWED SECTION AT CULVERT CENTER LINE**  
SCALE 1" = 10'-0"



PROJECT NAME: JERICHO	PLOT DATE: 11/20/2025
PROJECT NUMBER: STP CULV(I50)	DRAWN BY: M. NOLAN
FILE NAME: z23b690pe.dgn	DESIGNED BY: T. CARD
PROJECT LEADER: D. VERTIYEV	CHECKED BY: T. CARD
DESIGNED BY: T. CARD	PLAN AND ELEVATION SHEET
	SHEET 20 OF 27



AREA OF DISTURBANCE = 0.21 ACRES



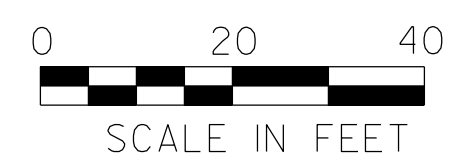
**NOTES:**

1. ALL SEDIMENT AND EROSION PREVENTION CONTROL MEASURES SHALL BE COMPLETED AND IN PLACE BEFORE THE BEGINNING OF WORK.
2. THE CONTRACTOR SHALL PROVIDE A SITE-SPECIFIC EROSION PREVENTION AND SEDIMENT CONTROL PLAN IN ACCORDANCE WITH SECTION 653 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION. ESTIMATED QUANTITIES FOR EPSC WORK HAVE BEEN INCLUDED IN THE CONTRACT FOR BIDDING PURPOSES. IF THE CONTRACTOR'S EPSC PLAN REQUIRES ITEMS OF WORK THAT ARE NOT INCLUDED IN THE PLANS IT SHALL BE PAID FOR AS PART OF ITEM 653.0300 MAINTENANCE OF EPSC PLAN (N. A. B. I.).

**SOIL LEGEND**

SOIL DESIGNATION	HYDROLOGIC SOIL GROUP CLASSIFICATION	SOIL ERODIBILITY COEFFICIENTS (K)
BIC = BELGRADE AND ELDRIDGE SOILS, 8 TO 15 PERCENT SLOPES	C/D	0.32
HnB = HINESBURG FINE SANDY LOAM, 3 TO 8 PERCENT SLOPES	A	0.17
HnD = HINESBURG FINE SANDY LOAM, 15 TO 25 PERCENT SLOPES	A	0.17
S+B = STETSON GRAVELLY FINE SANDY LOAM, 5 TO 12 PERCENT SLOPES	A	0.15
S+C = STETSON GRAVELLY FINE SANDY LOAM, 12 TO 20 PERCENT SLOPES	A	0.15

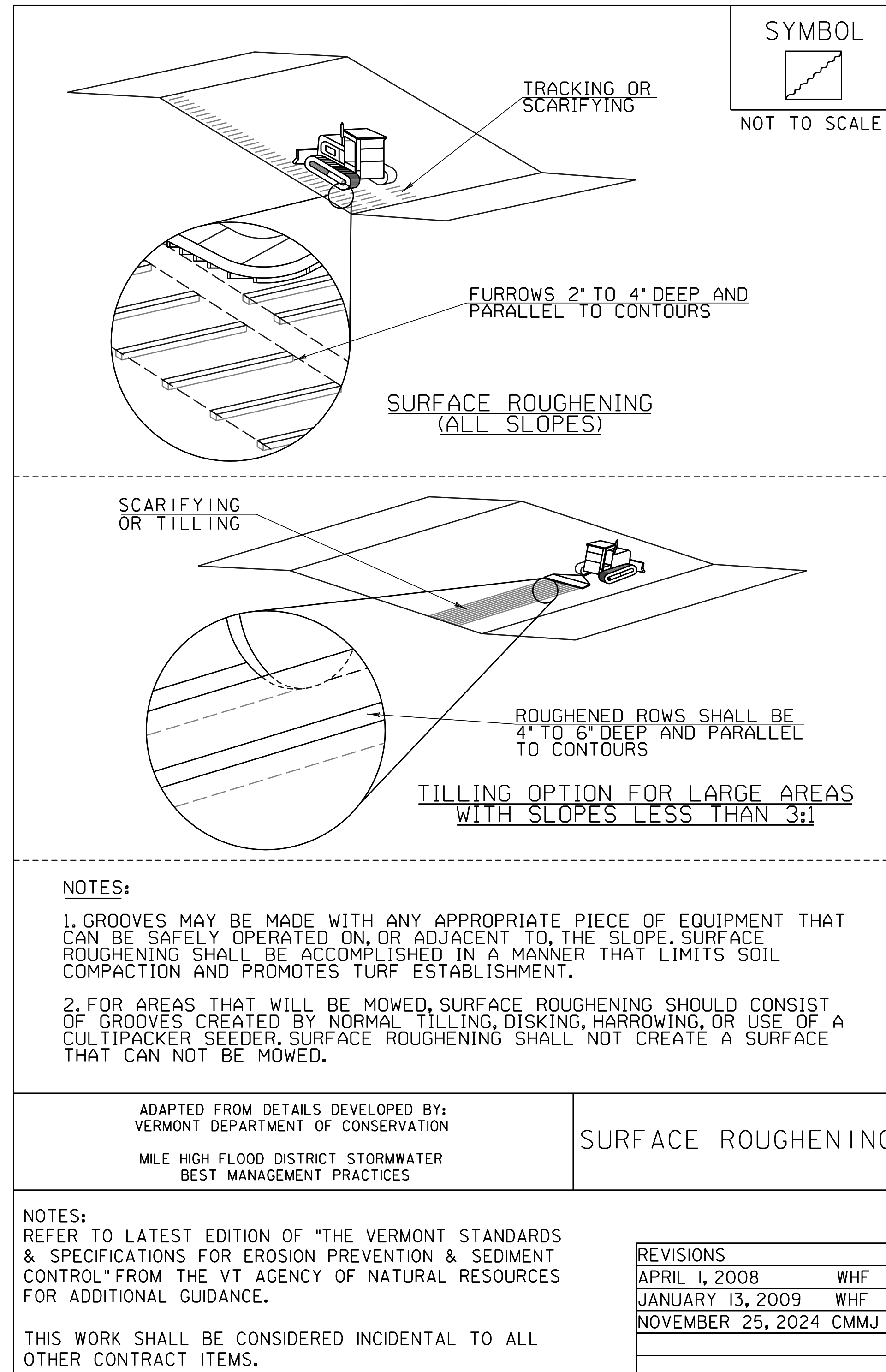
HYDROLOGIC SOIL GROUP CLASSIFICATION	SOIL ERODIBILITY COEFFICIENTS (K)
C/D	0.32
A	0.17
A	0.17
A	0.15
A	0.15



PROJECT NAME: JERICHO  
PROJECT NUMBER: STP CULV(I50)

FILE NAME: z23b690er.oex.dgn  
PROJECT LEADER: D. VERTIYEV  
DESIGNED BY: E. NOONAN  
EPSC EXISTING CONDITIONS SHEET

PLOT DATE: 11/20/2025  
DRAWN BY: C. WEBSTER  
CHECKED BY: A. TSOUKALAS  
SHEET 22 OF 27



VAOT NATURALIZED AREA TYPE I				
WEIGHT	NAME	LATIN NAME	GERM	PURITY
38%	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	90%	98%
29%	HARD FESCUE	FESTUCA LONGIFOLIA	85%	95%
15%	CHEWINGS FESCUE	FESTUCA RUBRA VAR. COMMUTATA	87%	95%
15%	ANNUAL RYEGRASS	LOLIUM MULTIFLORUM	90%	95%
3%	INERTS			
100%				

VAOT NATURALIZED AREA TYPE II				
WEIGHT	NAME	LATIN NAME	GERM	PURITY
37.5%	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	85%	98%
37.5%	TALL FESCUE	FESTUCA ARUNDINACEA	90%	95%
5.0%	RED TOP	AGROSTIS GIGANTEA	90%	95%
15.0%	WHITE FIELD CLOVER	TRIFOLIUM REPENS	85%	98%
5.0%	ANNUAL RYE GRASS	LOLIUM MULTIFLORUM	85%	95%
100%				

SEED RATE: BROADCAST: 75 LBS/ACRE  
HYDROSEED: PER MANUFACTURER'S RECOMMENDATIONS

**\*APPLY AMENDMENTS PER SOIL TEST RESULTS\***

**FERTILIZER (755.06):**  
IF NO SOIL TEST IS PERFORMED, A SLOW OR CONTROLLED RELEASE FERTILIZER SHALL BE APPLIED AT A RATIO OF 1:1:1 (N:P:K). NITROGEN AND PHOSPHORUS SHALL BE APPLIED AT NO MORE THAN 1 LB. PER 1,000 SQ.FT.

**LIMESTONE (755.08 & 755.09):**  
IF NO SOIL TEST IS PERFORMED, APPLY LIMESTONE PER MANUFACTURER'S RECOMMENDATIONS.

**COMPOST (755.05):**  
COMPOST MAY BE APPLIED PER SOIL TEST RESULTS.

**CONSTRUCTION GUIDANCE**

1. THESE SEED MIXES SHALL BE USED IN AREAS THAT WILL NATURALIZE, RECEIVING LIMITED ANNUAL MOWING THROUGH THE GROWING SEASON.
2. USE SEED MIX AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON-WETLAND) AREAS DISTURBED BY THE CONTRACTOR. IF THE PLANS DO NOT SPECIFY A SEED TYPE, NATURALIZED AREA TYPE I OR TYPE II SHALL BE USED.
3. SEED MIXES SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
4. HAY MULCH TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE. ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.
5. FERTILIZER SHOULD NOT BE APPLIED WITHIN 2 WEEKS OF APPLYING LIMESTONE.
6. FOR BEST ESTABLISHMENT, REAPPLY FERTILIZER 2-3 WEEKS AFTER GERMINATION.

**TURF ESTABLISHMENT**

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.1500 TURF ESTABLISHMENT, GENERAL SEED)

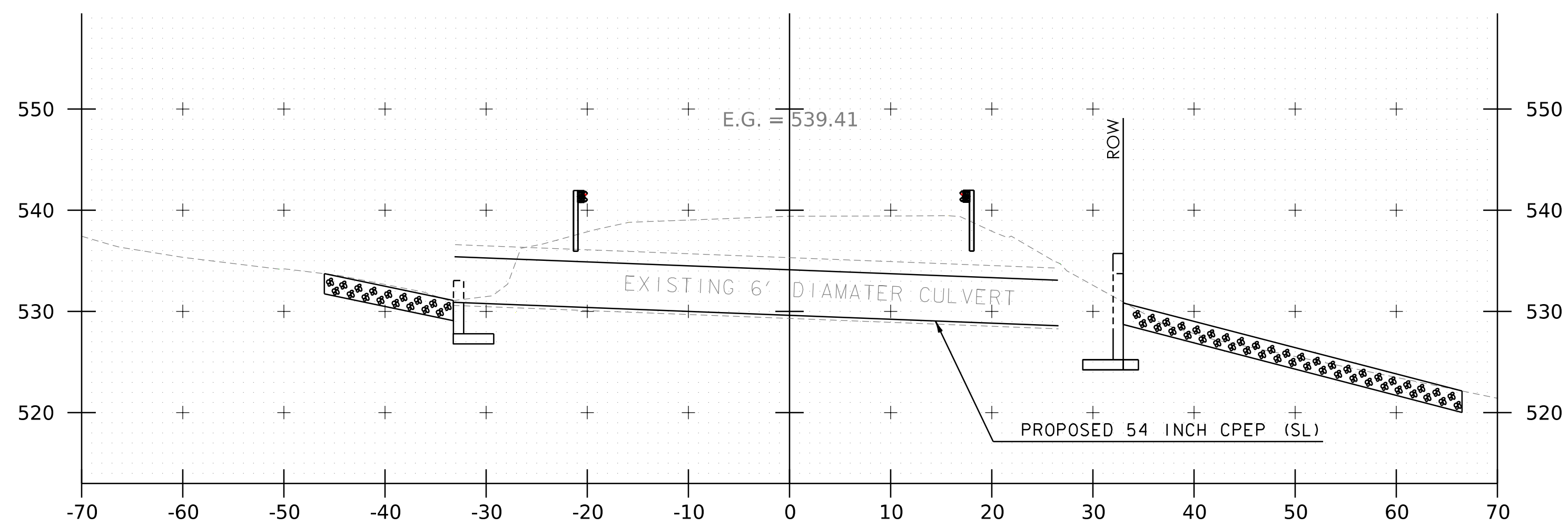
REVISIONS	
JANUARY 12, 2015	WHF
JUNE 15, 2023	BKD



PROJECT NAME: JERICHO  
PROJECT NUMBER: STP CULV(I50)

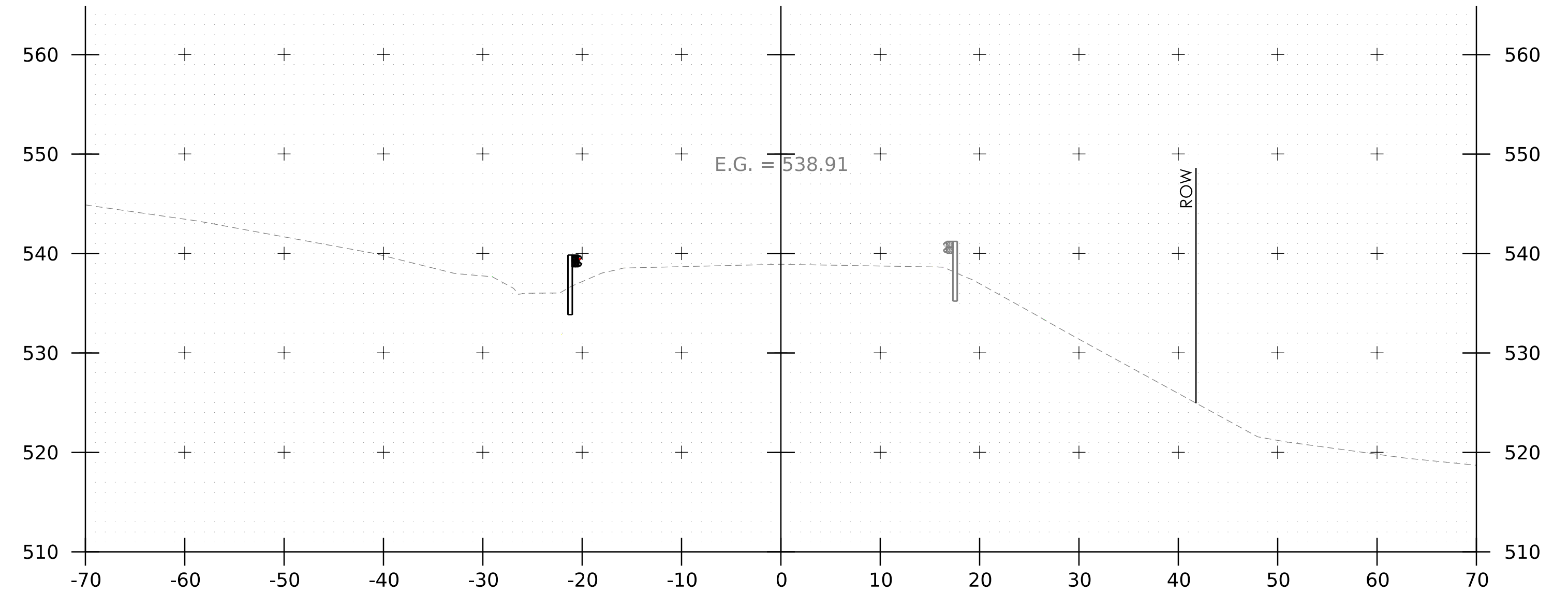
FILE NAME: z23b690erode.dgn  
PROJECT LEADER: D. VERTIYEV  
DESIGNED BY: E. NOONAN  
EPSC DETAILS SHEET

PLOT DATE: 11/20/2025  
DRAWN BY: C. WEBSTER  
CHECKED BY: A. TSOUKALAS  
SHEET 23 OF 27

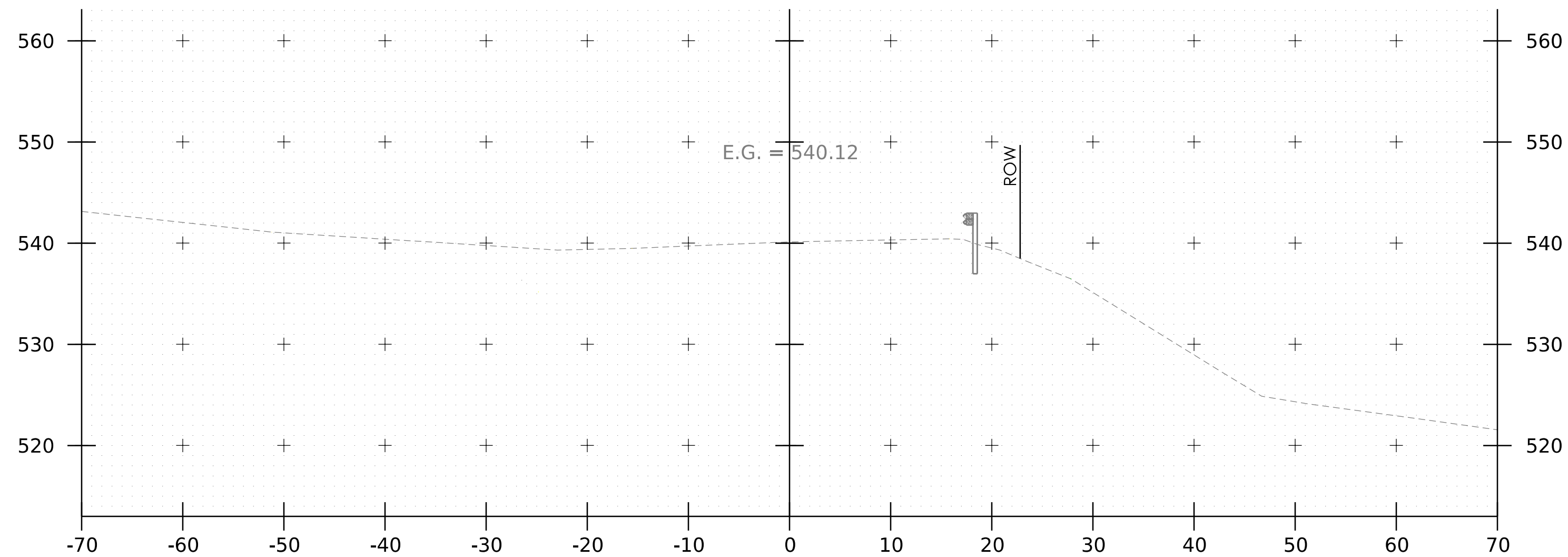


495+50

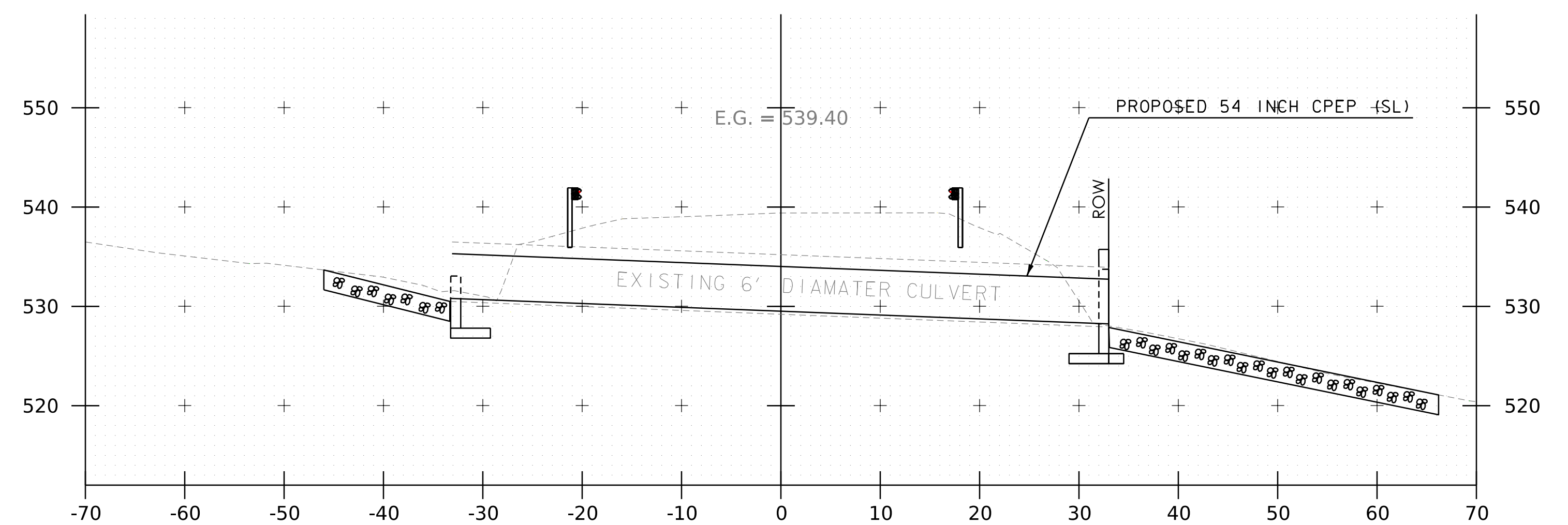
BEGIN STP CULV(150) STA. 495+13



496+00



495+00



495+51

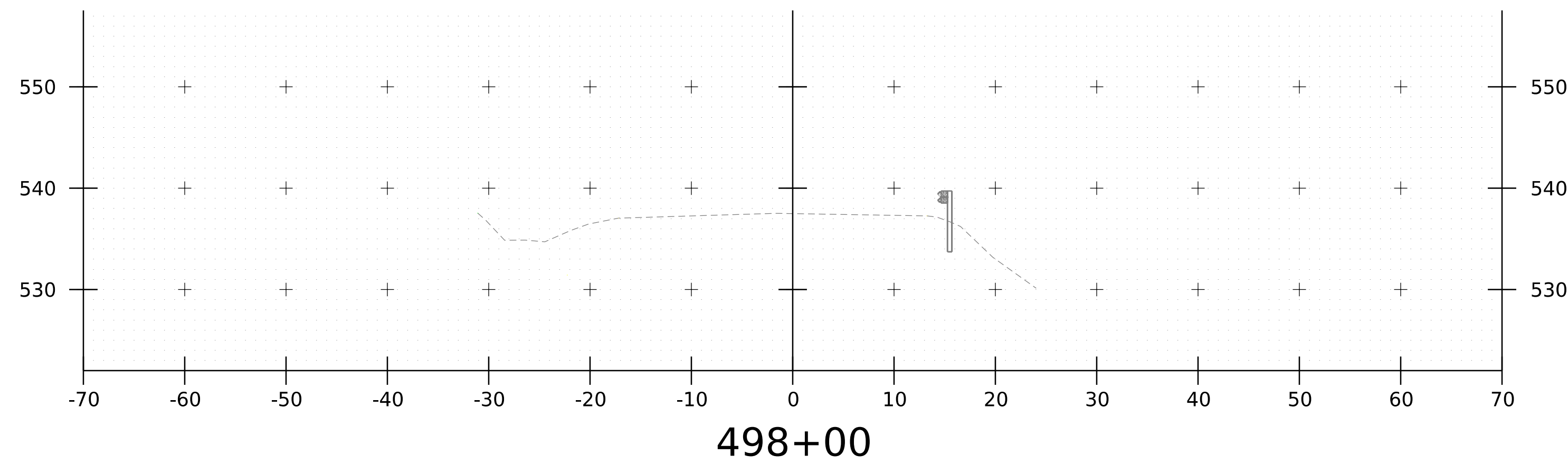
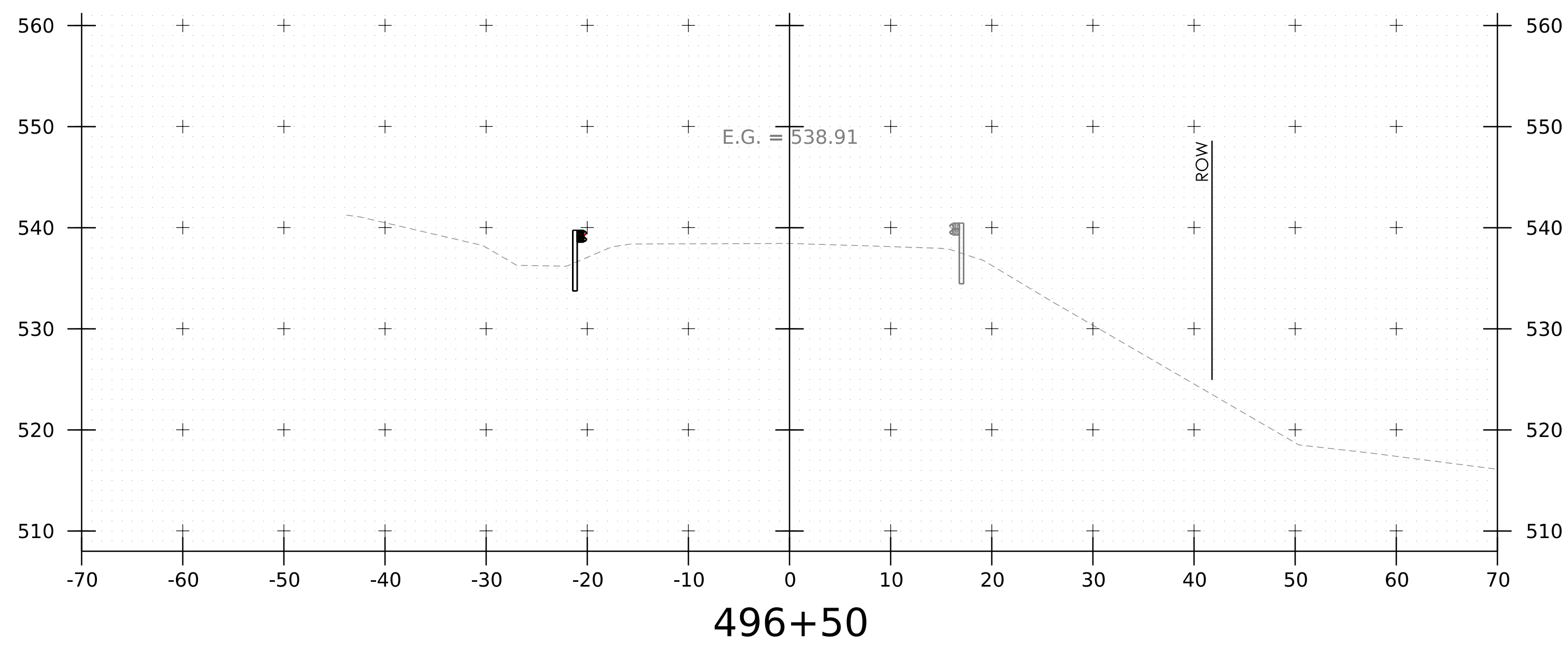
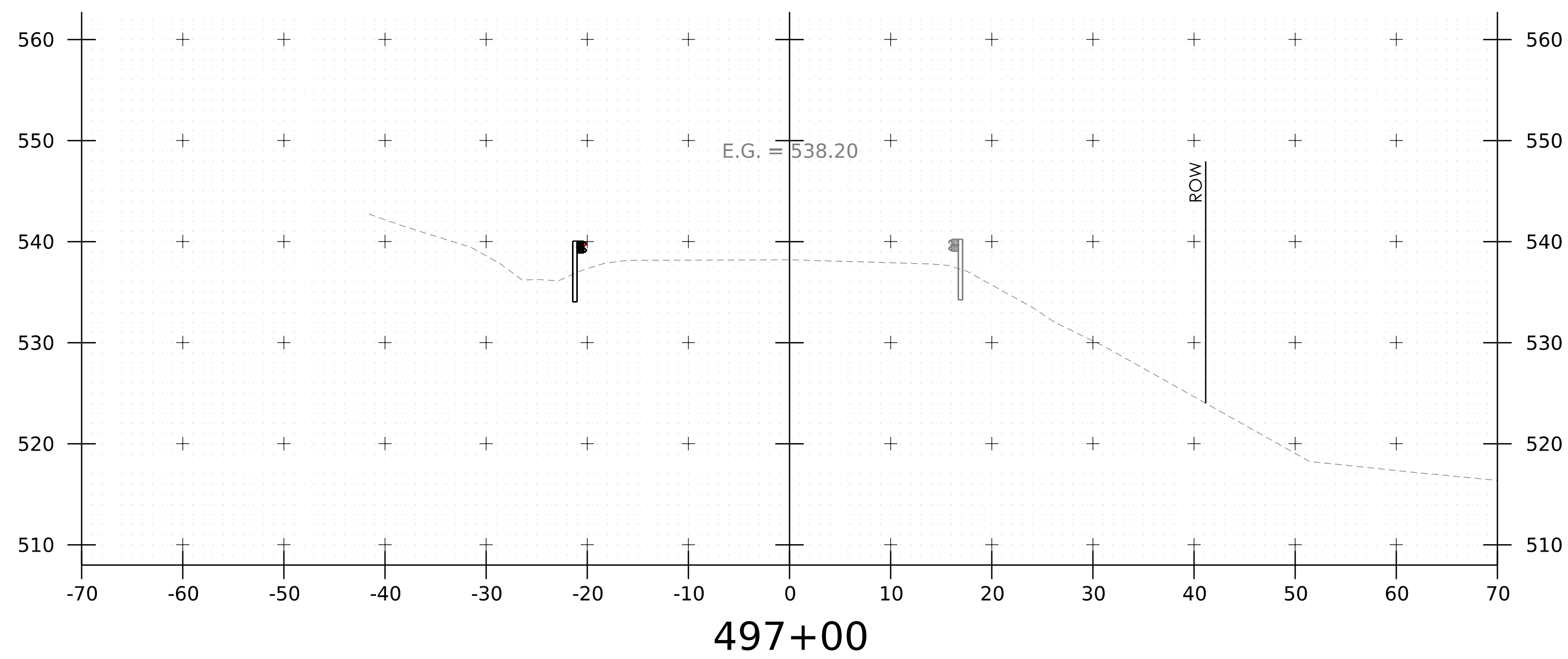
SKewed AT 4.32°

PROJECT NAME: JERICHO  
PROJECT NUMBER: STP CULV(150)

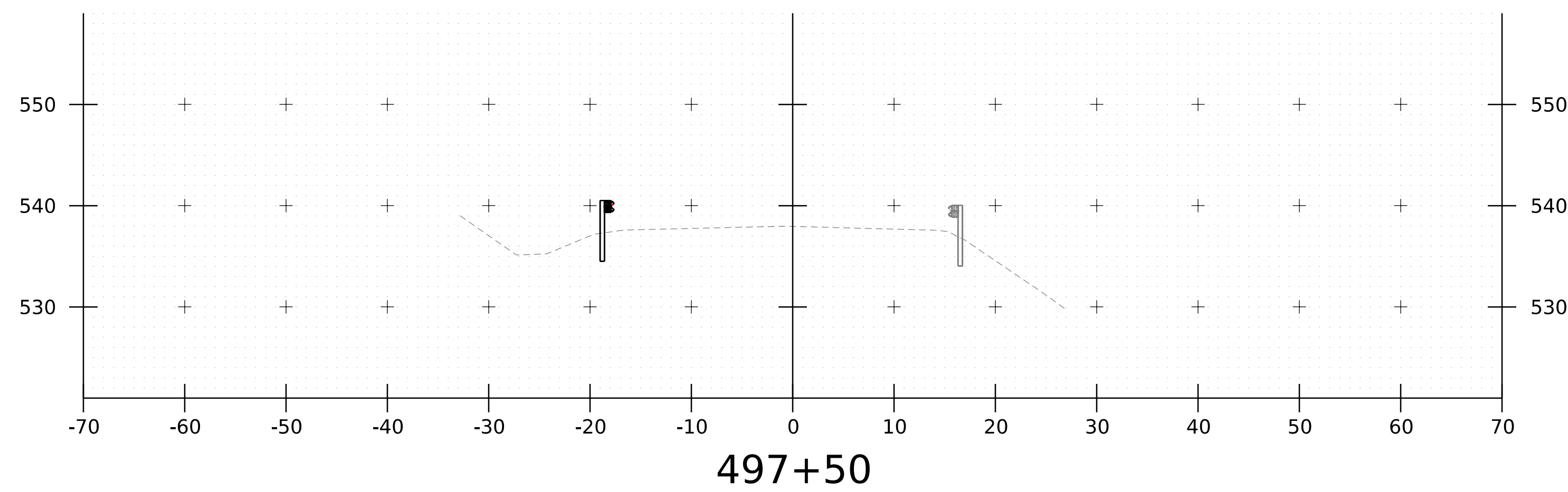
FILE NAME: z23b690xsl.dgn  
PROJECT LEADER: D. VERTIYEV  
DESIGNED BY: E. NOONAN  
ROADWAY CROSS SECTIONS SHEET 1

PLOT DATE: 11/20/2025  
DRAWN BY: C. WEBSTER  
CHECKED BY: A. TSOUKALAS  
SHEET 24 OF 27





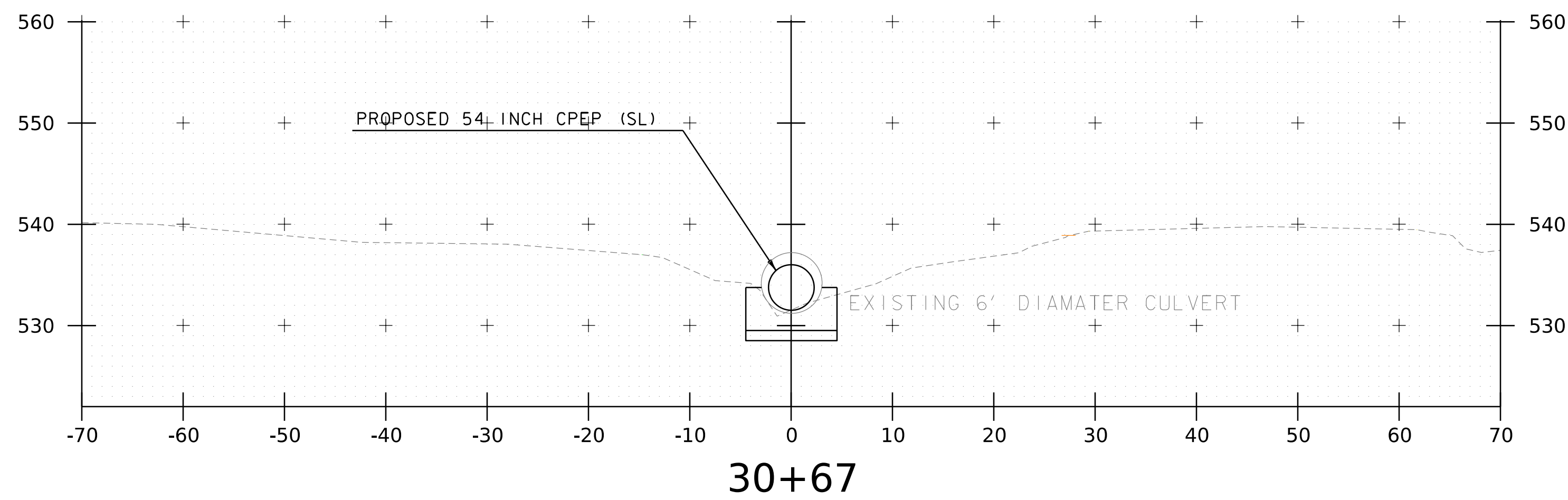
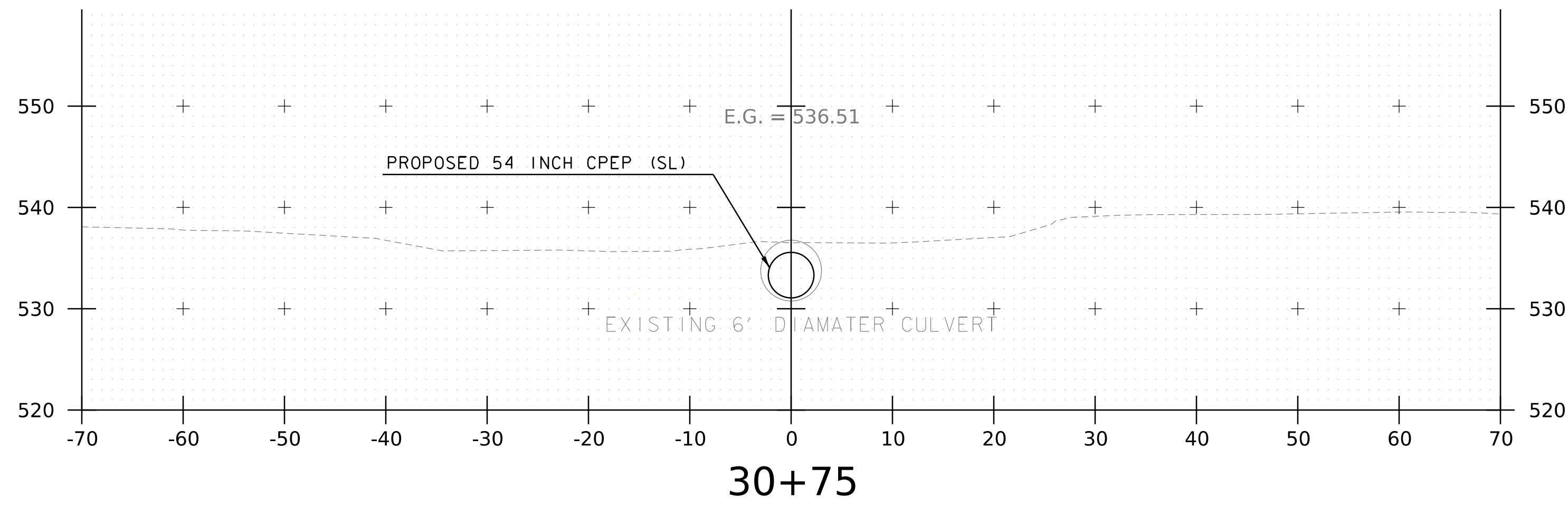
END STP CULV(150) STA. 497+67



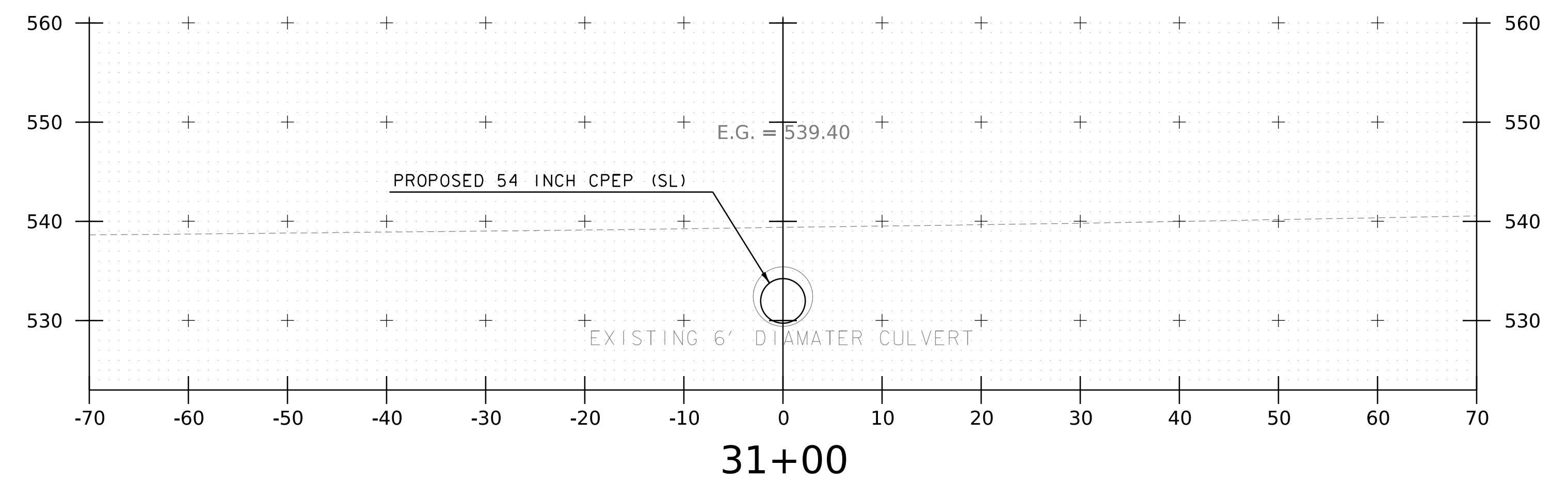
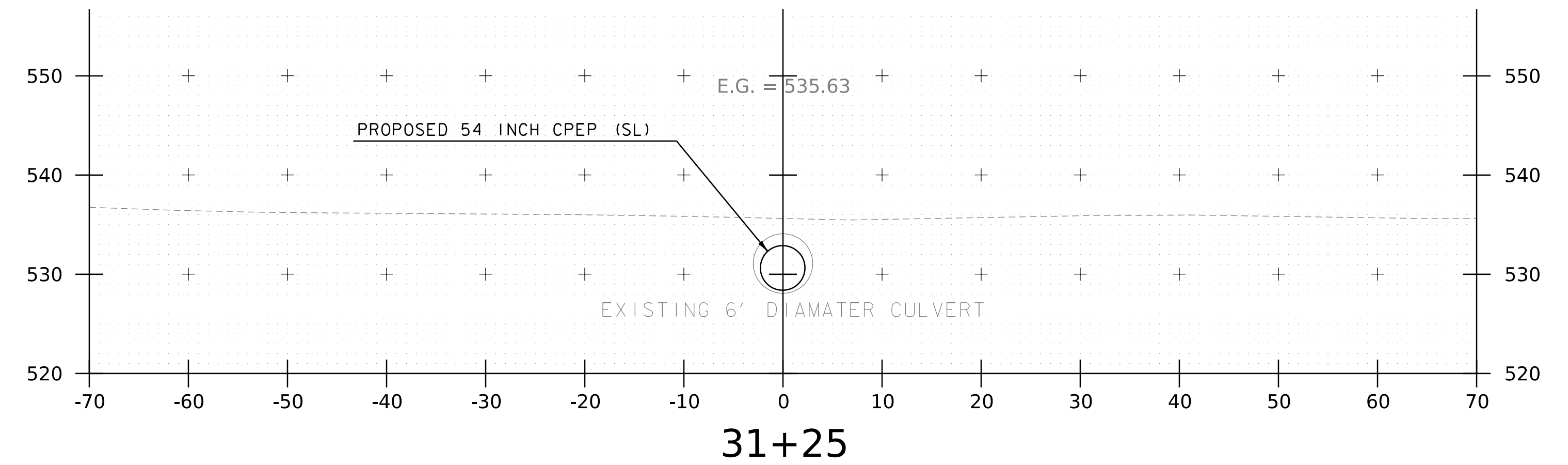
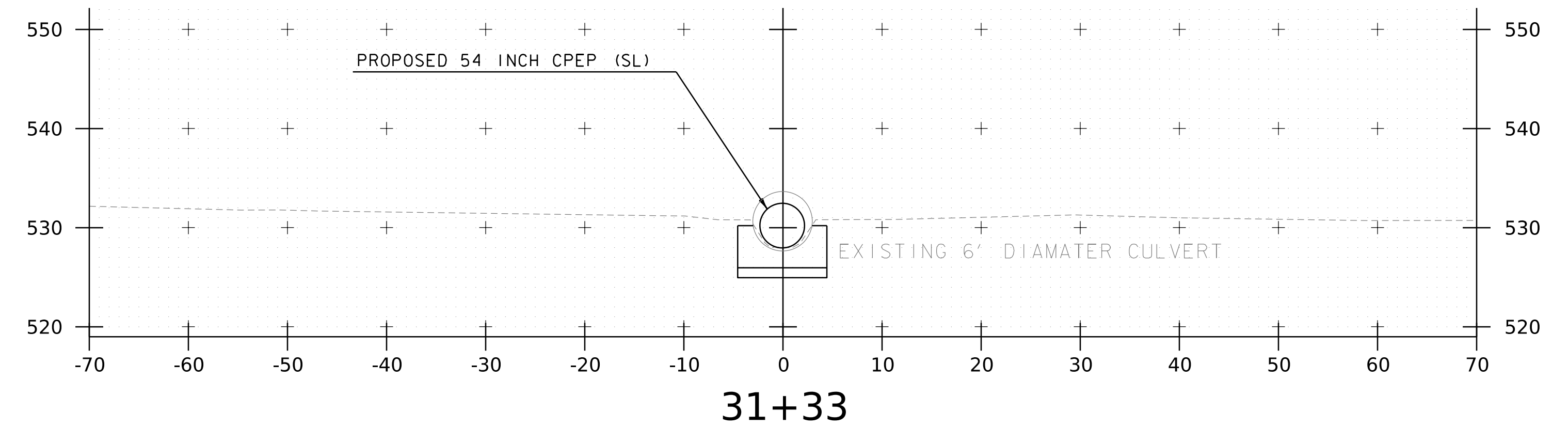
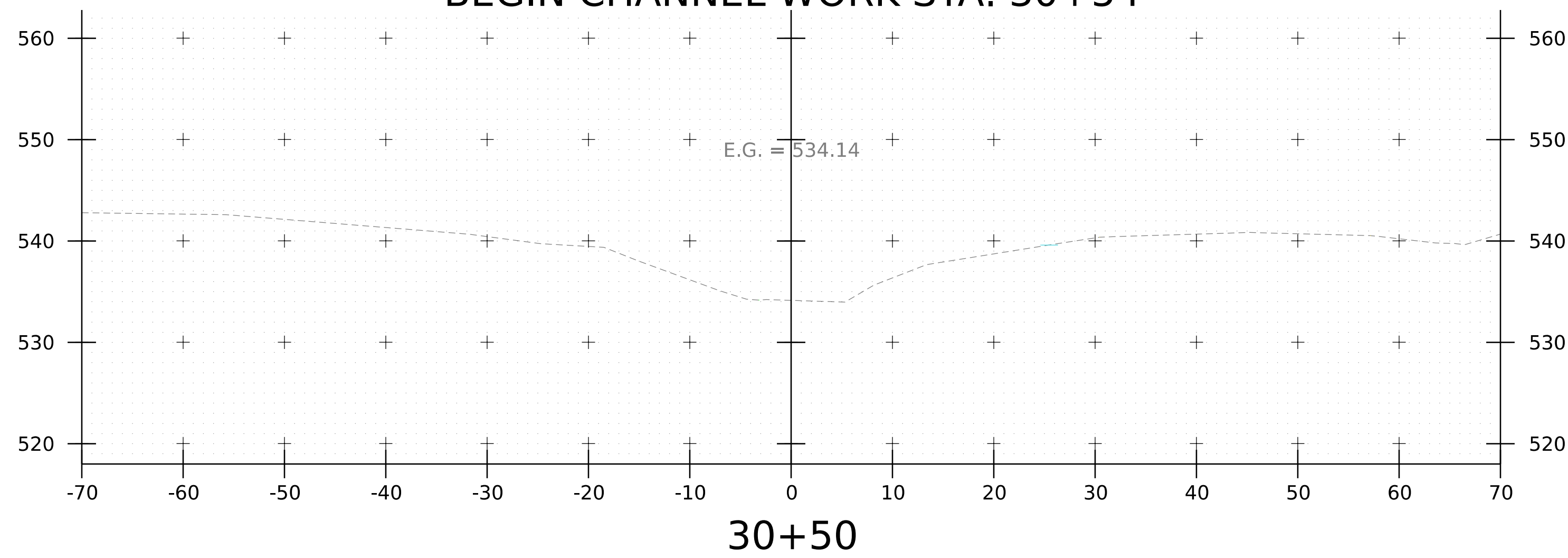
PROJECT NAME: JERICHO  
PROJECT NUMBER: STP CULV(150)

FILE NAME: z23b690xsl.dgn  
PROJECT LEADER: D. VERTIYEV  
DESIGNED BY: E. NOONAN  
ROADWAY CROSS SECTIONS SHEET 2

PLOT DATE: 11/20/2025  
DRAWN BY: C. WEBSTER  
CHECKED BY: A. TSOUKALAS  
SHEET 25 OF 27



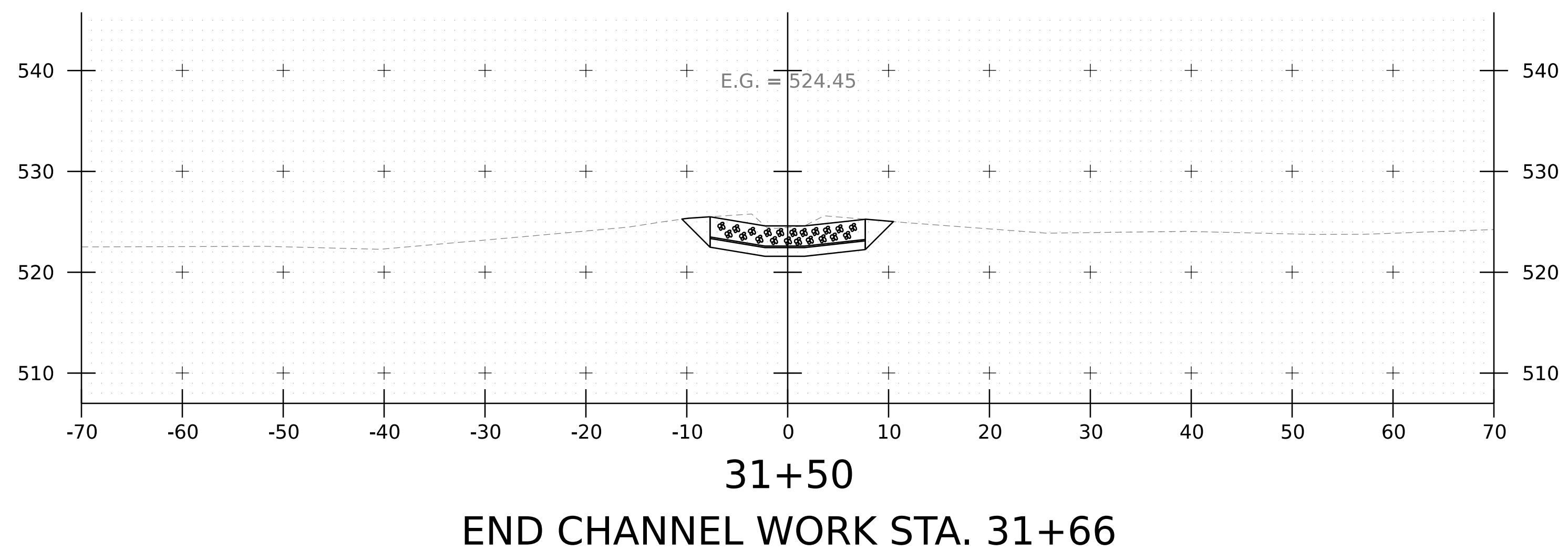
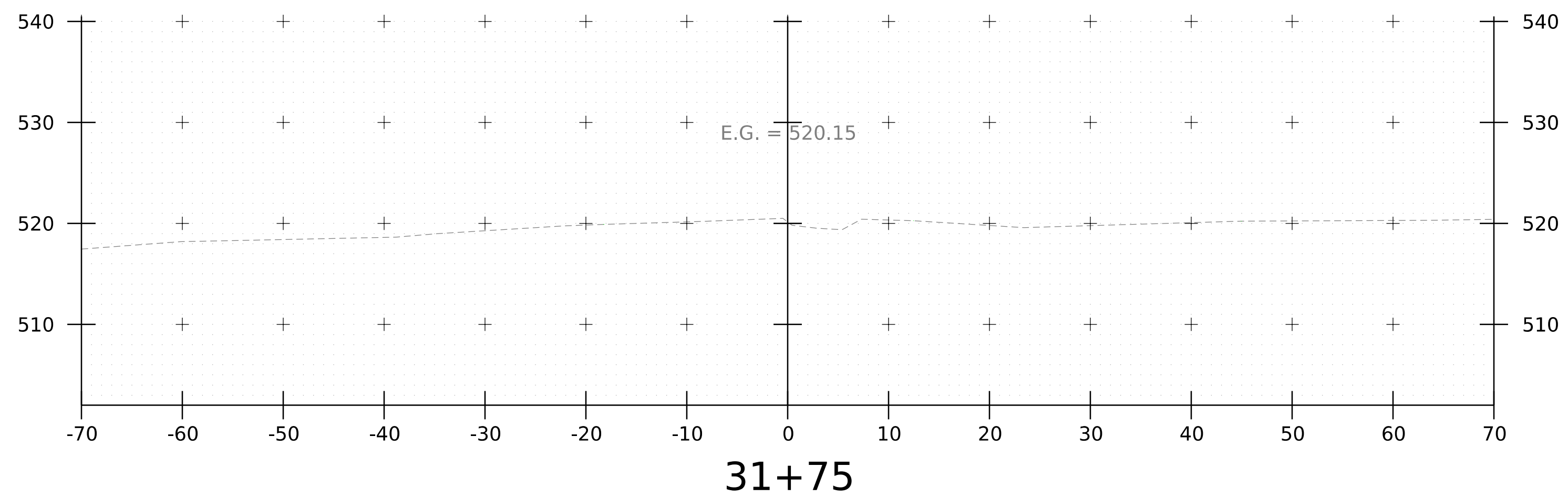
BEGIN CHANNEL WORK STA. 30+54



PROJECT NAME: JERICHO  
PROJECT NUMBER: STP CULV(I50)

FILE NAME: z23b690xsl.dgn  
PROJECT LEADER: D. VERTIYEV  
DESIGNED BY: E. NOONAN  
CHANNEL CROSS SECTIONS SHEET I

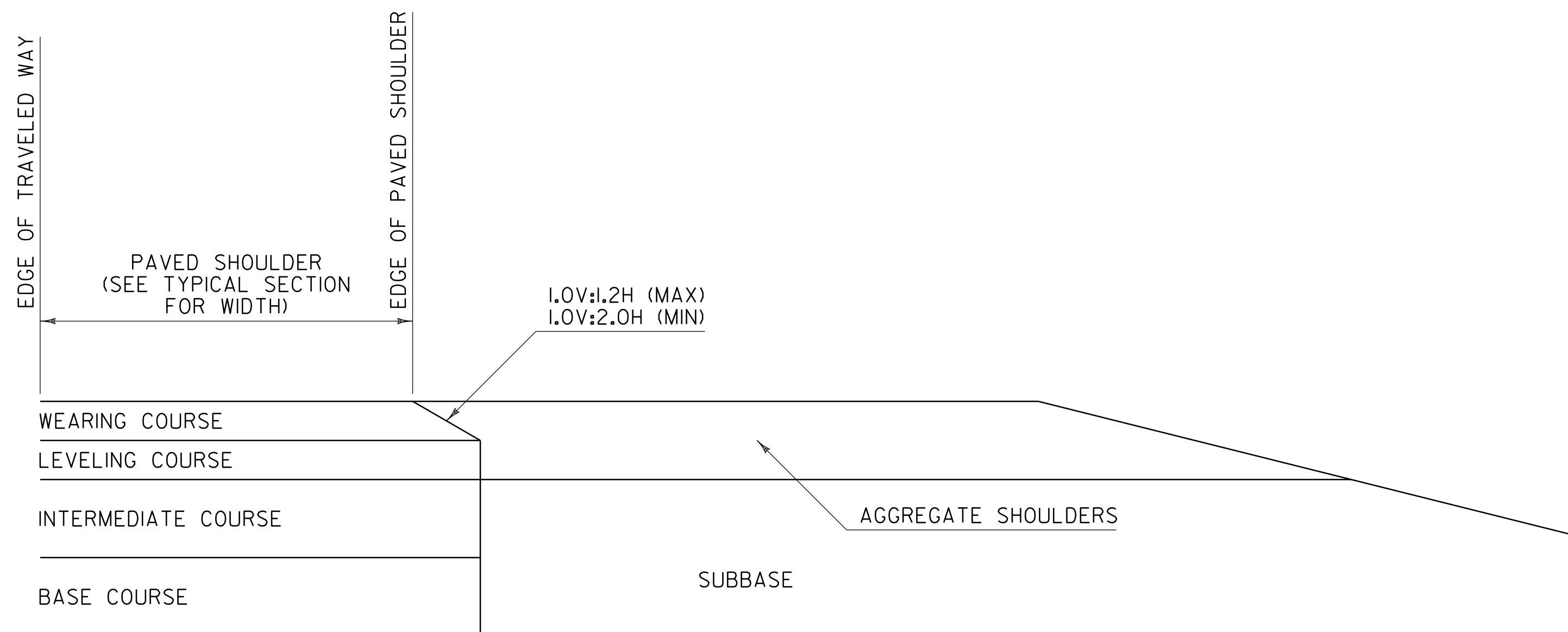
PLOT DATE: 11/20/2025  
DRAWN BY: C. WEBSTER  
CHECKED BY: A. TSOUKALAS  
SHEET 26 OF 27



PROJECT NAME: JERICO  
 PROJECT NUMBER: STP CULV(I50)

FILE NAME: z23b690xsl.dgn  
 PROJECT LEADER: D. VERTIYEV  
 DESIGNED BY: E. NOONAN  
 CHANNEL CROSS SECTIONS SHEET 2

PLOT DATE: 11/20/2025  
 DRAWN BY: C. WEBSTER  
 CHECKED BY: A. TSOUKALAS  
 SHEET 27 OF 27

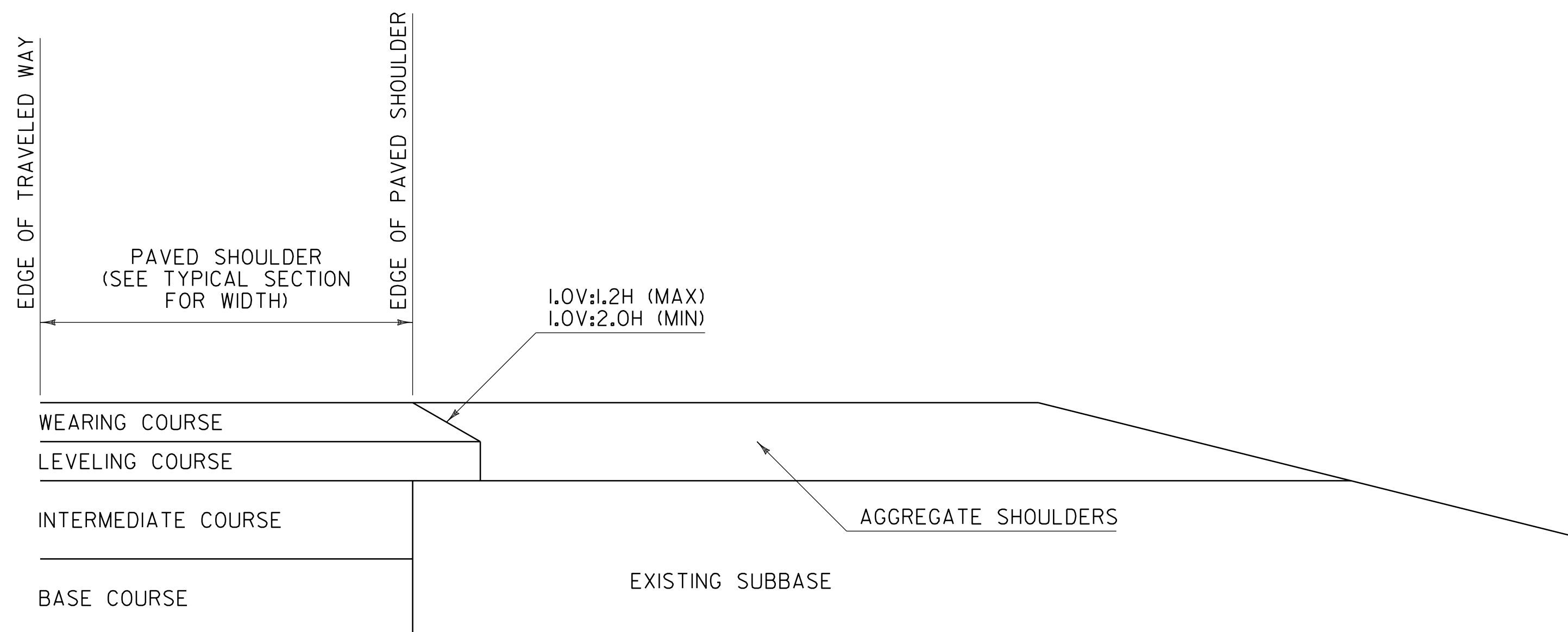


**SAFETY EDGE DETAIL  
FOR PAVING BELOW WEARING COURSE**

**NOTES:**

1. THIS DETAIL IS INTENDED FOR WHEN PAVING EXTENDS BELOW THE WEARING COURSE.
2. PRIOR TO PLACEMENT OF THE LEVELING AND/OR WEARING COURSE, THE SUBBASE LOCATED BENEATH THE AGGREGATE SHOULDERS SHALL BE PREPARED FLUSH WITH THE BOTTOM OF THE LEVELING COURSE.
3. BASE COURSE LIMITS MAY VARY, SEE TYPICAL SECTIONS FOR WIDTH.

SAFETY EDGE WIDTH BASED ON WEARING COURSE THICKNESS AND A 1V:1.6H SLOPE	
WEARING COURSE THICKNESS (INCHES)	NOMINAL SAFETY EDGE WIDTH (INCHES)
1.25	2.000
1.50	2.375
1.75	2.750
2.00	3.125
2.25	3.500
2.50	4.000



**SAFETY EDGE DETAIL  
FOR PAVING WEARING COURSE ONLY**

**NOTES:**

1. THIS DETAIL IS INTENDED FOR WHEN ONLY THE LEVELING AND/OR WEARING COURSE IS TO BE PLACED.
2. PAVEMENT COURSES MAY VARY, SEE TYPICAL SECTIONS FOR ACTUAL PAVEMENT COURSES REQUIRED.

**GENERAL NOTES:**

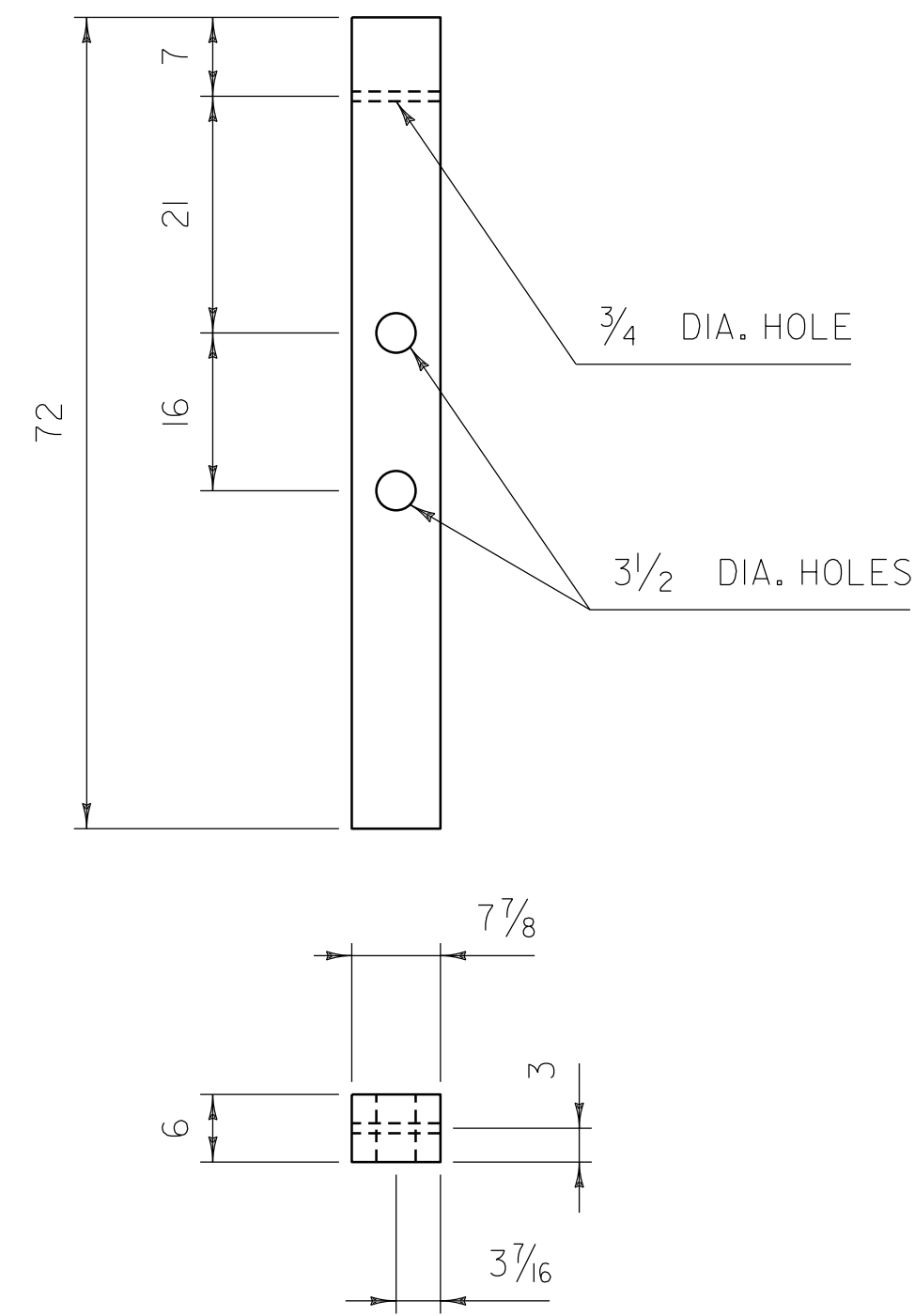
1. PLACEMENT OF THE WEARING COURSE SHALL INCLUDE THE SAFETY EDGE, UNLESS THE FOLLOWING APPLIES:
  - A. THE ADJACENT SLOPE IS STEEPER THAN THE SAFETY EDGE.
  - B. THE EDGE OF PAVEMENT BEING PLACED ABUTS BOUND MATERIAL.
  - C. VEHICLES ARE RESTRICTED FROM LEAVING THE PAVED SURFACE (EXAMPLE: GUARDRAIL).
2. THE SAFETY EDGE SHALL BE FORMED IN SUCH A WAY THAT THE BITUMINOUS CONCRETE PAVEMENT IS EXTRUDED OR COMPRESSED TO FORM THE SLOPE. DEVICES THAT SIMPLY STRIKE-OFF THE MIX WITHOUT PROVIDING ANY COMPACTIVE EFFORT WILL NOT BE ALLOWED.
3. THE SAFETY EDGE SHALL NOT BE CONSIDERED PART OF THE PAVED SHOULDER.
4. THIS WORK SHALL BE INCIDENTAL TO THE RESPECTIVE BITUMINOUS CONCRETE PAVEMENT ITEM.

**SAFETY EDGE DETAILS**

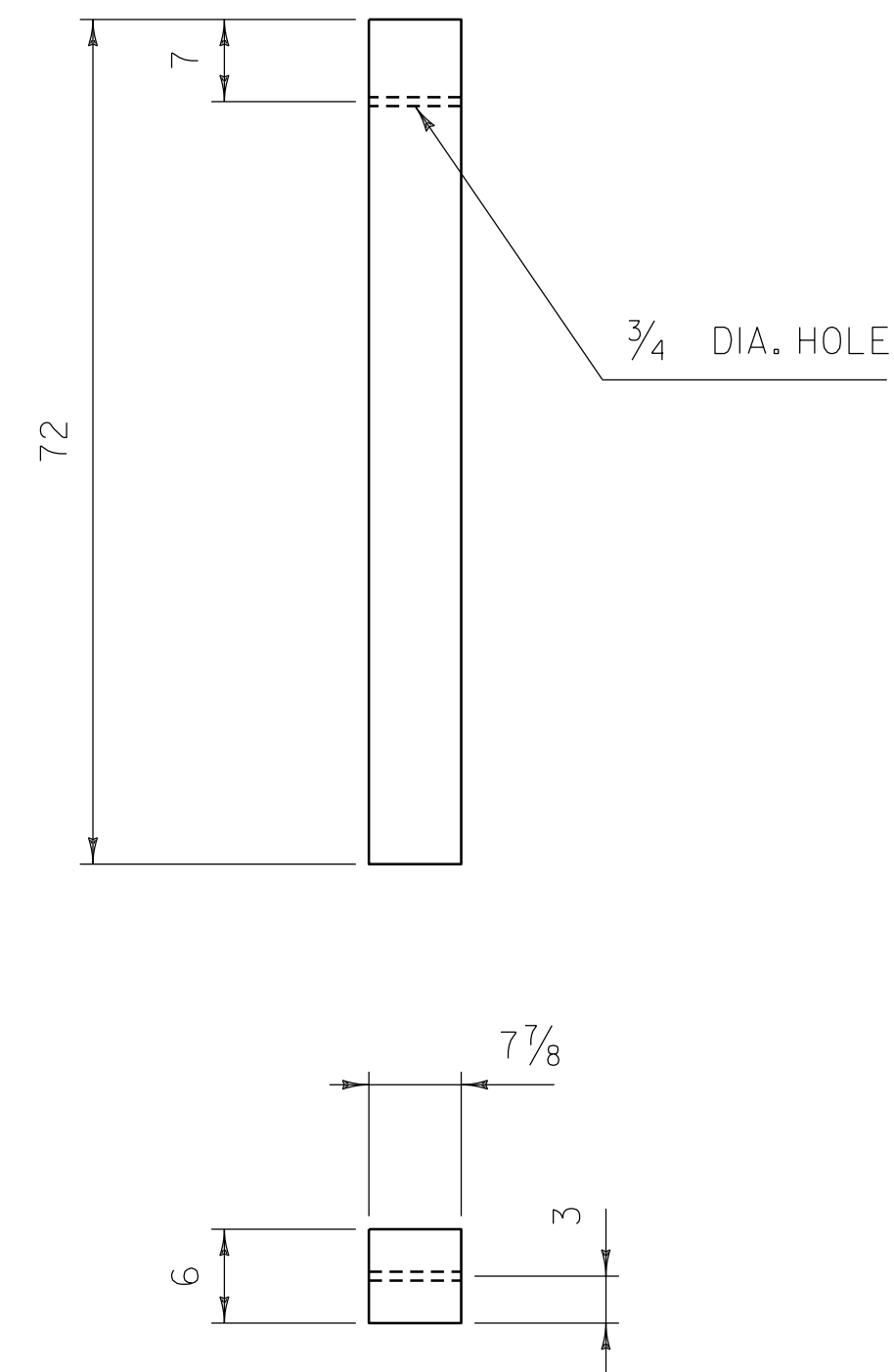
REV.	DATE	DESCRIPTION
0	MAR. 29, 2016	ORIGINAL APPROVAL
1	JAN. 5, 2018	ANNOTATION CORRECTIONS
OTHER DETAILS REQUIRED: NONE		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		



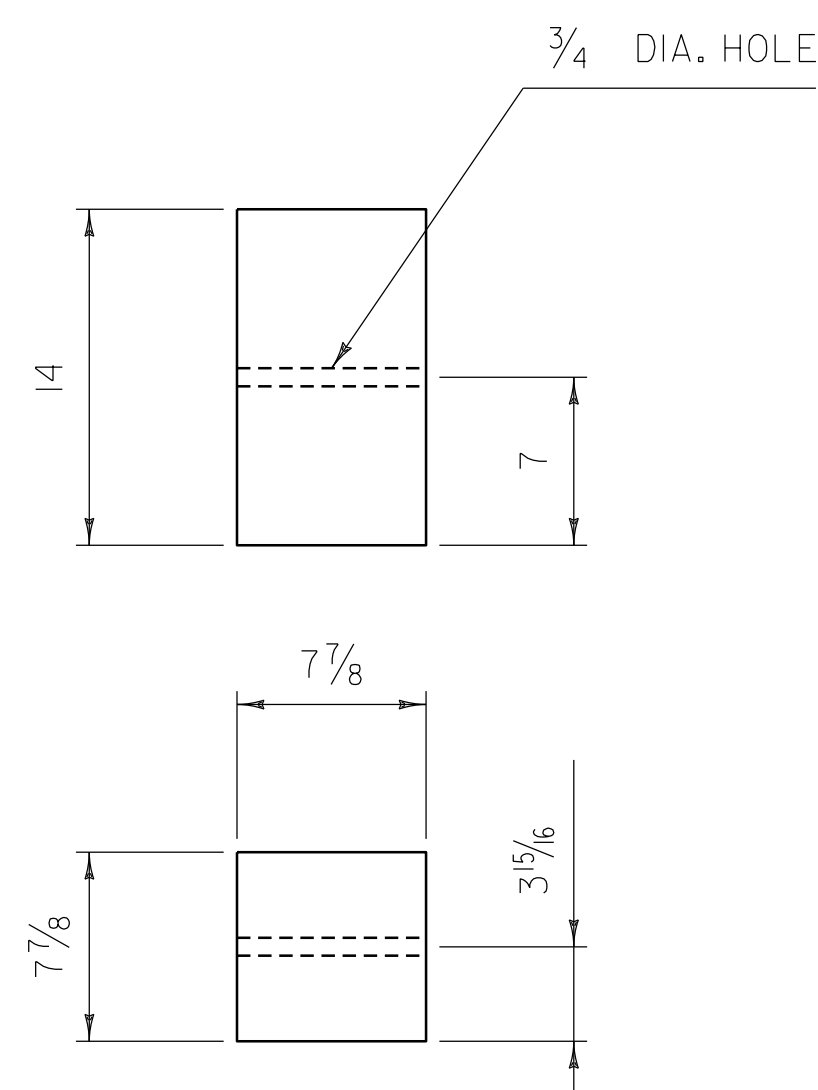
HIGHWAY SAFETY  
& DESIGN DETAIL  
HSD-400.01



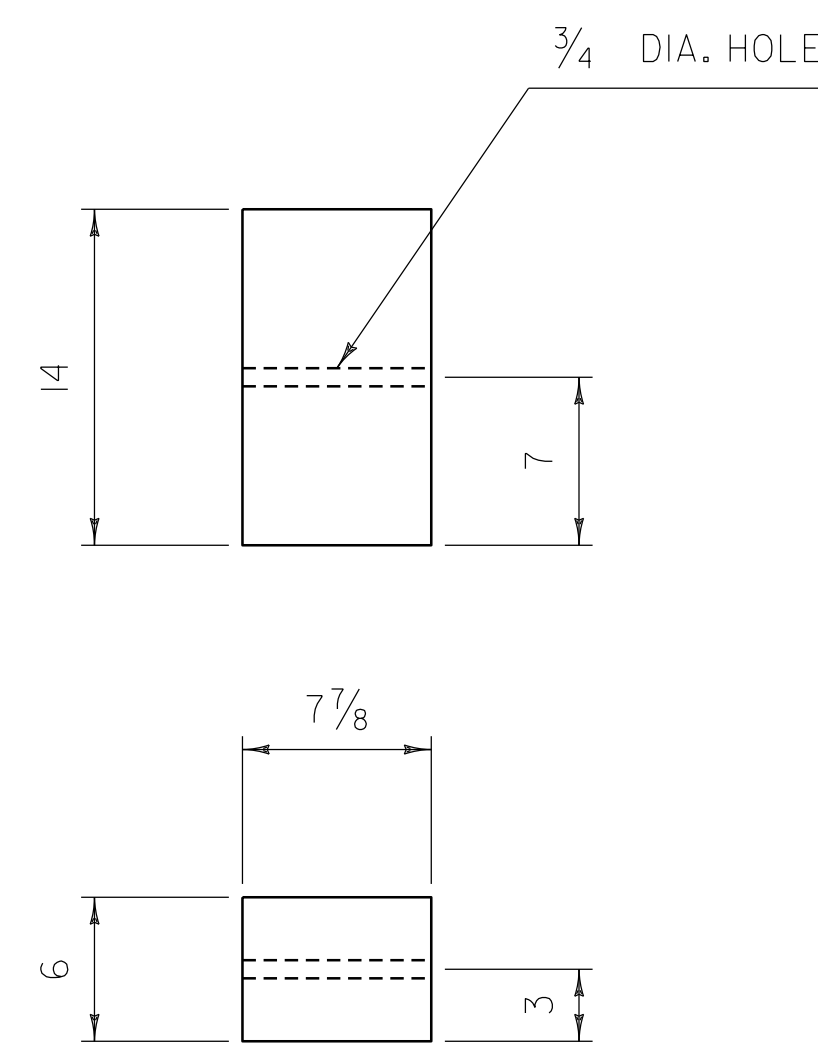
**CONTROLLED RELEASING TERMINAL  
(CRT) TIMBER POST (PDE09)**



**TIMBER GUARDRAIL POST (PDE07)**



**TRANSITION SPACER BLOCKOUTS (PDB07)**



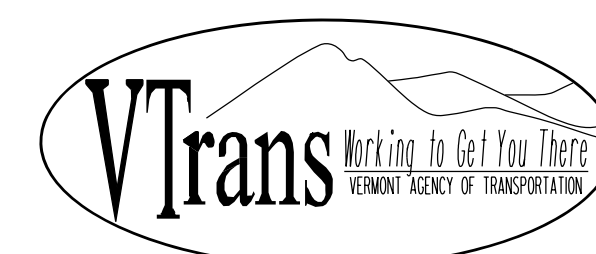
**W-BEAM TIMBER BLOCKOUT (PDB01)**

**GENERAL NOTES:**

1. ALL MATERIAL DESIGNATIONS ARE AS IDENTIFIED IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE" AS PUBLISHED BY THE "AMERICAN ASSOCIATION OF STATE AND HIGHWAY TRANSPORTATION OFFICIALS" (AASHTO), ASSOCIATED GENERAL CONTRACTORS OF AMERICA (AGC) AND THE AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION (ARTBA).
2. CRT TIMBER POSTS SHALL BE INSTALLED SO THAT THE CENTER OF THE TOP 3 1/2 INCH HOLE IS AT GROUND LEVEL.
3. ALL TIMBER SHALL RECEIVE A PRESERVATION TREATMENT IN ACCORDANCE WITH AASHTO M133 AFTER ALL HOLES ARE DRILLED AND END CUTS ARE MADE.
4. ALL DIMENSIONS IN INCHES.

REV.	DATE	DESCRIPTION
0	JUN. 9, 2015	ORIGINAL APPROVAL
OTHER DETAILS REQUIRED: NONE		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

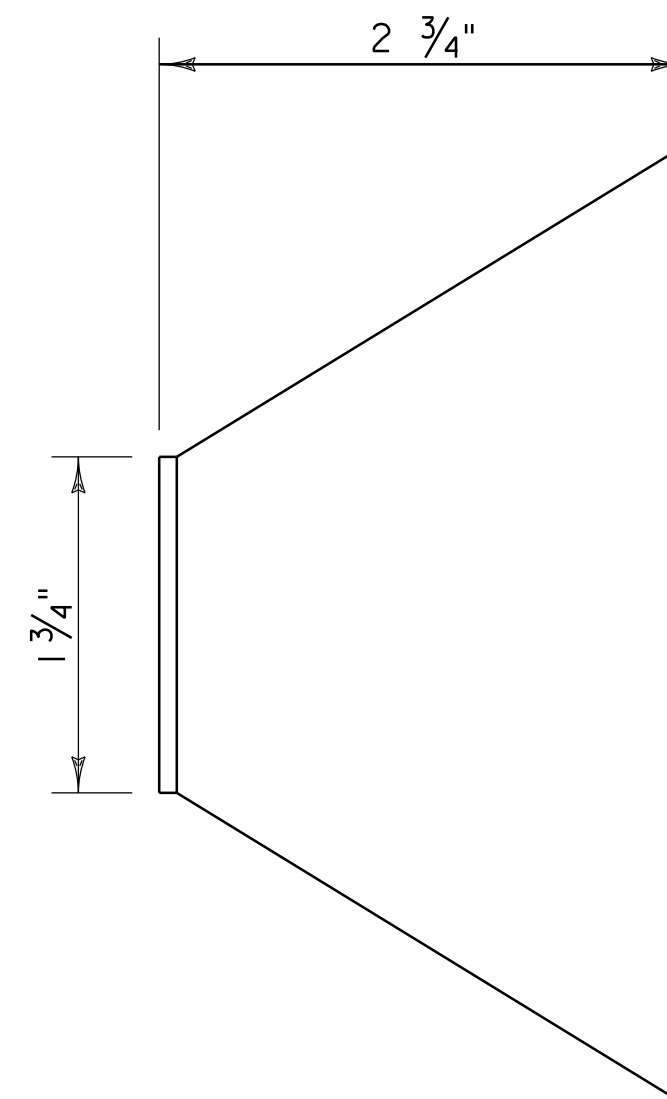
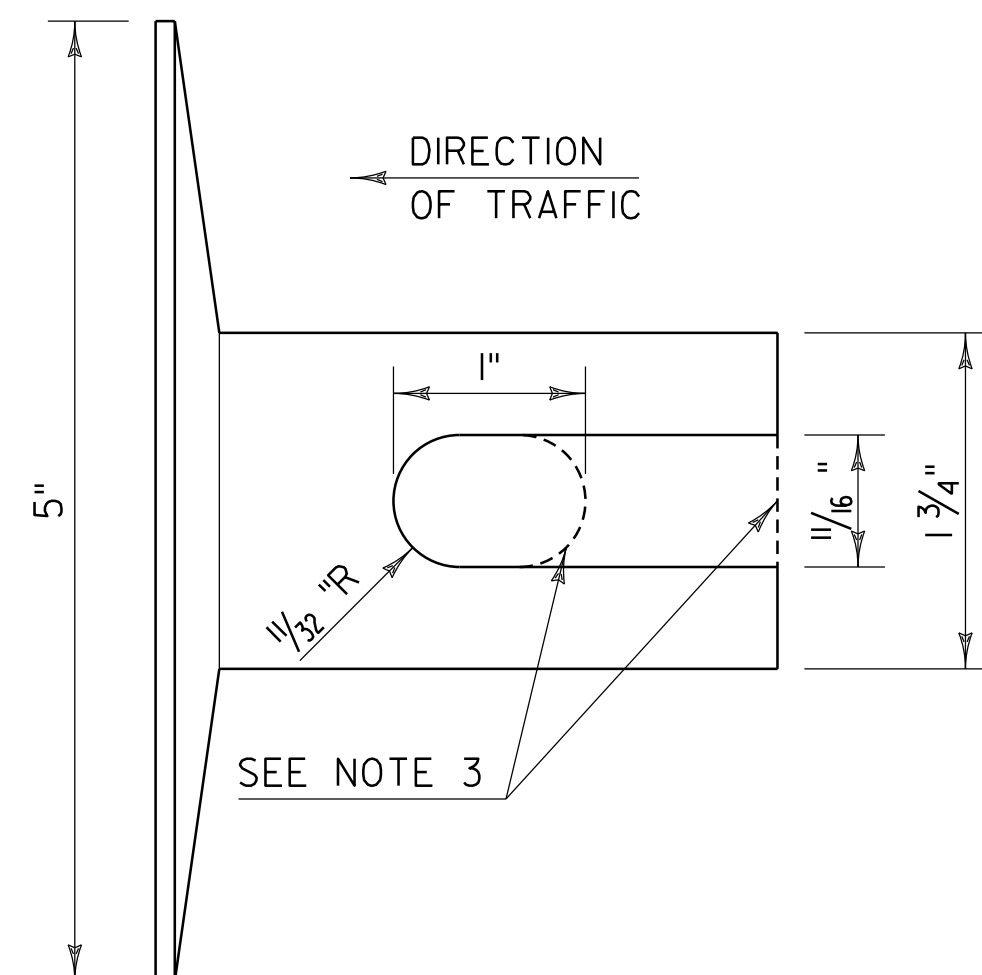
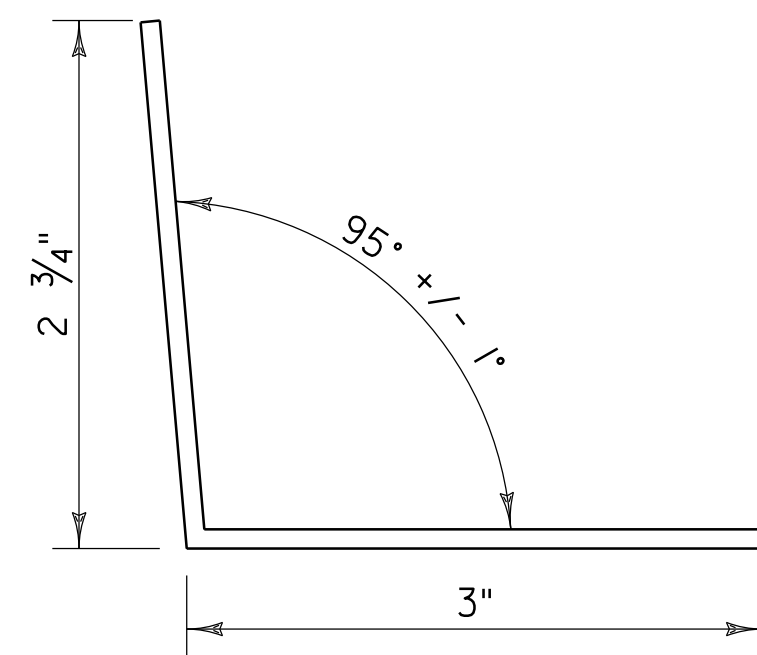
POST AND BLOCKOUT DETAILS  
FOR STEEL BEAM GUARDRAIL, GALVANIZED



HIGHWAY SAFETY  
& DESIGN DETAIL

HSD - 621.01

### GUARDRAIL DELINEATOR DETAIL



#### NOTES:

1. GUARDRAIL DELINEATOR BASE MATERIAL SHALL BE 0.10 INCH THICK ALUMINUM IN ACCORDANCE WITH SUBSECTION 728.04 DELINEATION DEVICES.
2. GUARDRAIL DELINEATORS SHALL HAVE WHITE RETROREFLECTIVE SHEETING, EQUAL TO OR EXCEEDING TYPE III IN ACCORDANCE WITH SUBSECTION 750.08(B)(3) ON THE RIGHT SIDE OF THE TRAVELED WAY AND YELLOW RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING TYPE VII IN ACCORDANCE WITH SUBSECTION 750.08(B)(7) ON THE LEFT SIDE OF THE TRAVELED WAY IN RESPECT TO APPROACHING TRAFFIC. ON ONE DIRECTIONAL ROADWAYS RETROREFLECTIVE SHEETING MAY BE OMITTED ON FACES WHERE THERE WILL BE NO APPROACHING TRAFFIC.
3. HOLE MAY BE USED IN PLACE OF SLOT.

REV.	DATE	DESCRIPTION
0	NOV. 3, 2015	ORIGINAL APPROVAL
1	FEB. 27, 2017	UPDATED NAME, MINOR CORRECTIONS AND ADDED GUARDRAIL DELINEATOR DETAIL
OTHER DETAILS REQUIRED: NONE		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

### GUARDRAIL TERMINAL LABEL DETAIL



#### NOTES:

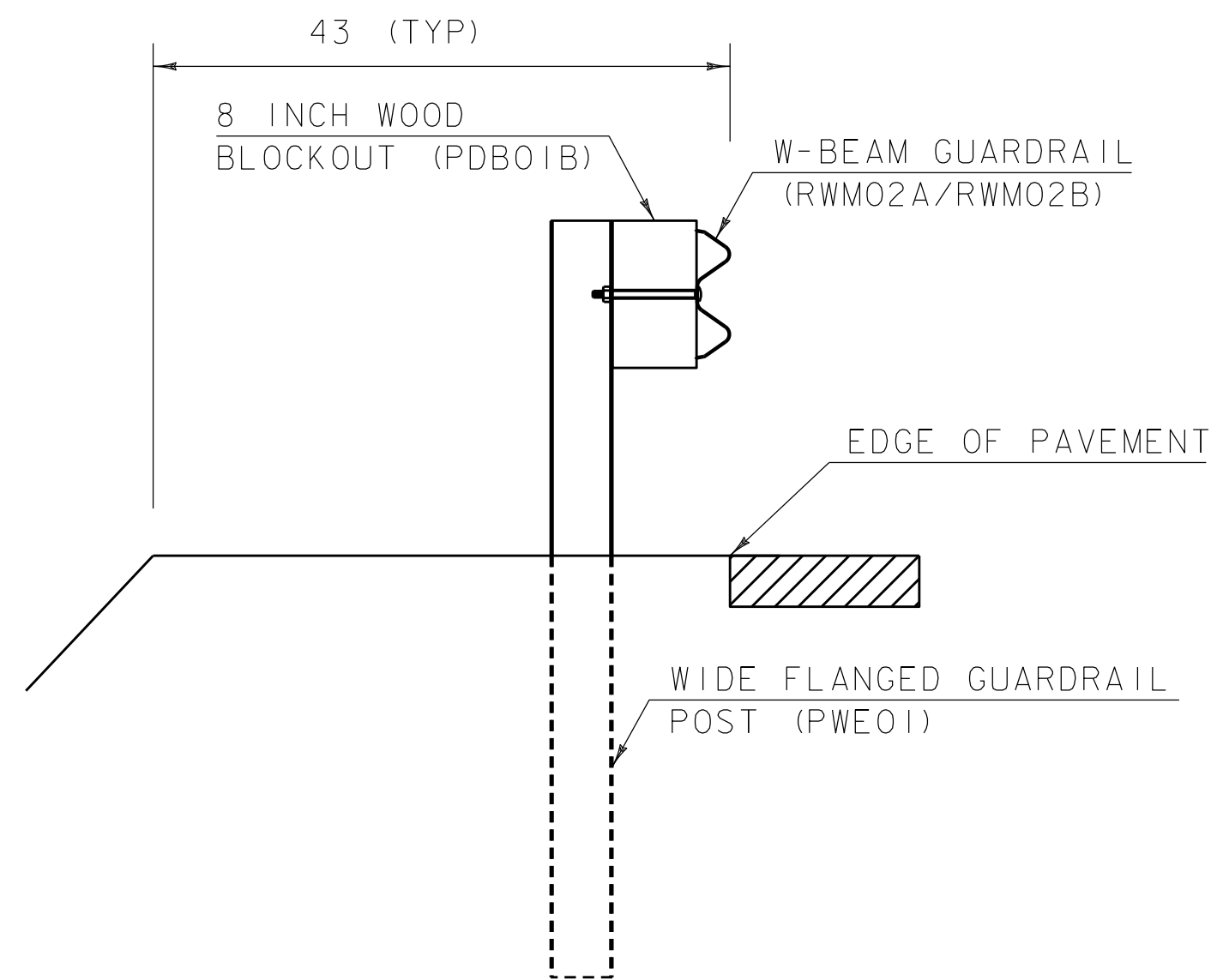
- I. LINE ONE SHALL INDICATE THE INSTALLATION YEAR (YYYY).
- II. LINE TWO SHALL INDICATE THE MODEL AS IDENTIFIED ON THE APPROVED PRODUCTS LIST. FOR GENERIC INSTALLATIONS THE STANDARD DRAWING DESIGNATION OR NAME AS IDENTIFIED IN THE FHWA ELIGIBILITY LETTER SHALL BE USED.
3. LINE THREE SHALL INDICATE ADDITIONAL MODEL INFORMATION IF NECESSARY.
4. LINE FOUR SHALL INDICATE FLARED (FLRD) OR TANGENT (TANG).
5. LEGEND SHALL BE SIZE 3/4 INCH ARIEL FONT.
6. LEGEND SHALL BE BLACK ON A WHITE BACKGROUND, LEGEND AND BACKGROUND SHALL NOT BE REFLECTIVE.
7. SUITABLE MATERIAL SHALL BE USED SO AS TO NOT DETERIORATE DURING EXPOSURE TO WEATHER.
8. LABELS SHALL BE APPLIED IN SUCH A WAY THAT THEY REMAIN INTACT DURING THE LIFE OF THE TERMINAL.
9. FOR W-BEAM GUARDRAIL, LABEL SHALL BE PLACED ON THE TOP OF POST ONE FACING AWAY FROM TRAFFIC.
10. FOR BOX BEAM GUARDRAIL, LABEL SHALL BE PLACED ON THE BOX BEAM ADJACENT TO POST ONE FACING AWAY FROM TRAFFIC.
- II. PAYMENT SHALL BE INCIDENTAL TO OTHER TRAFFIC BARRIER ITEMS.

## MISCELLANEOUS GUARDRAIL DETAILS

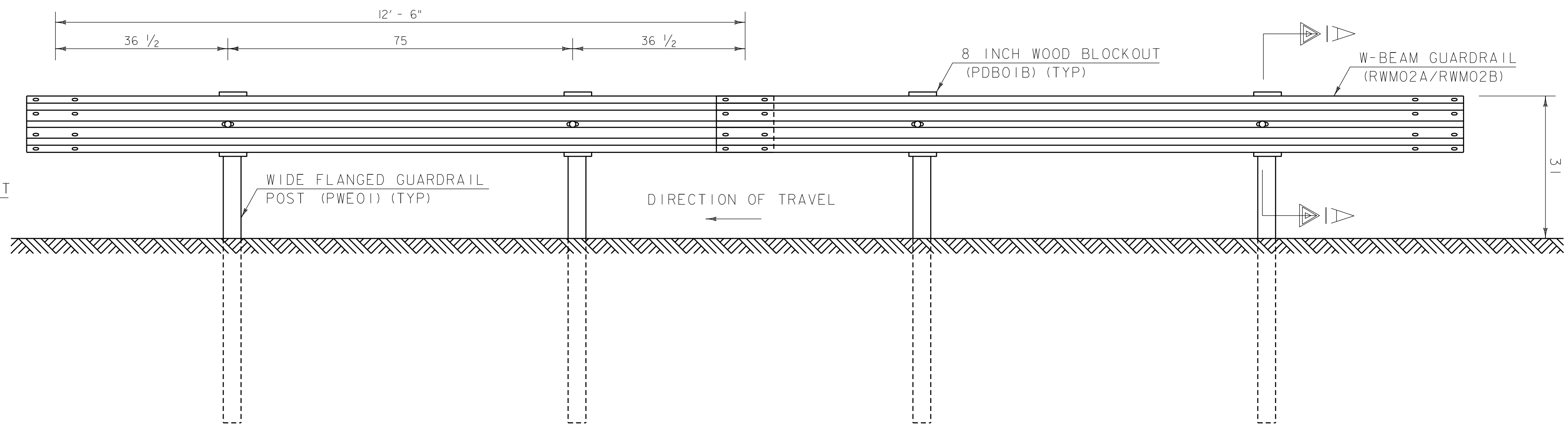


HIGHWAY SAFETY  
& DESIGN DETAIL

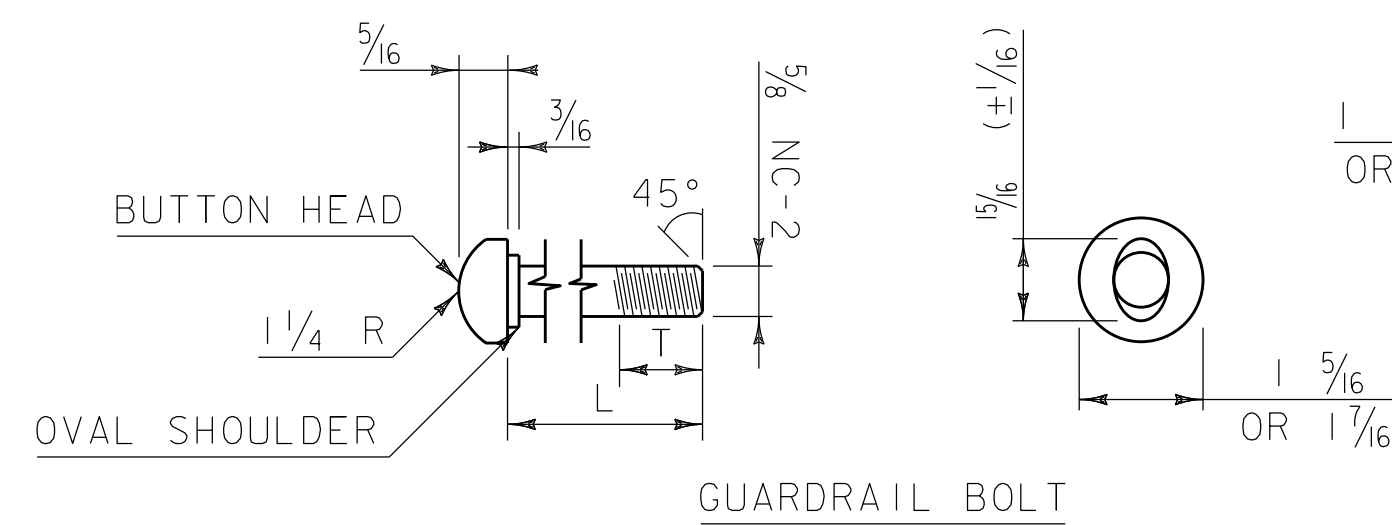
HSD-621.06



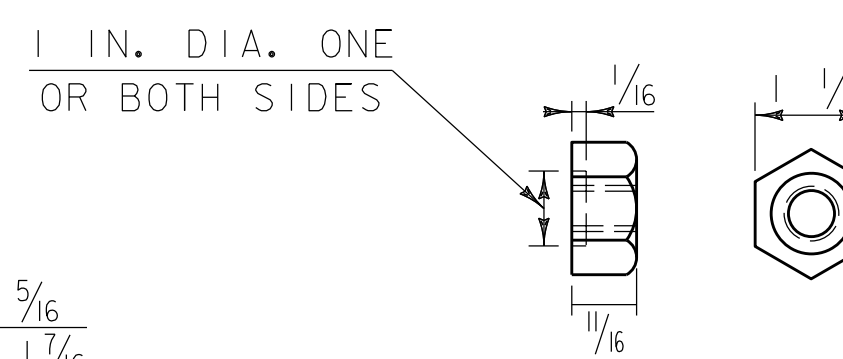
TYPICAL GUARDRAIL DETAIL  
SECTION A-A



GUARDRAIL ELEVATION

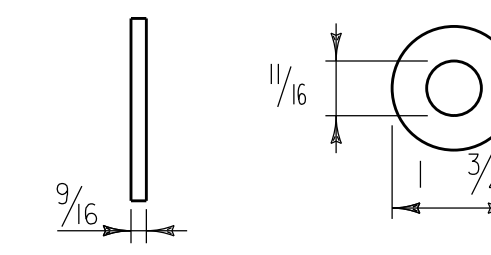


GUARDRAIL BOLT



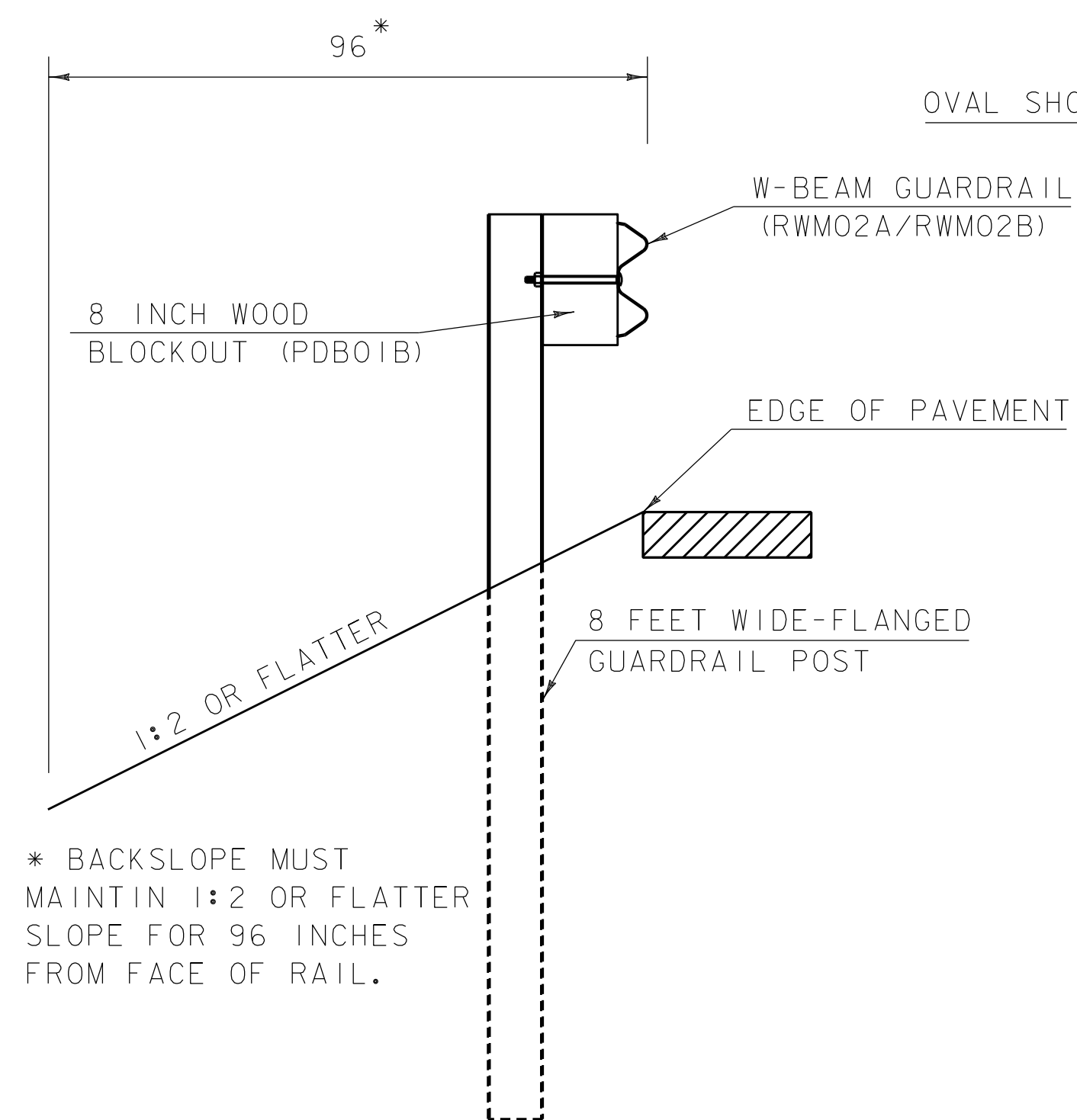
RECESSED NUT FOR GUARDRAIL BOLT

NOTE: WASHER IS USED UNDER RECESSED NUT WHERE GUARDRAIL BOLT IS USED WITH WOOD POSTS.



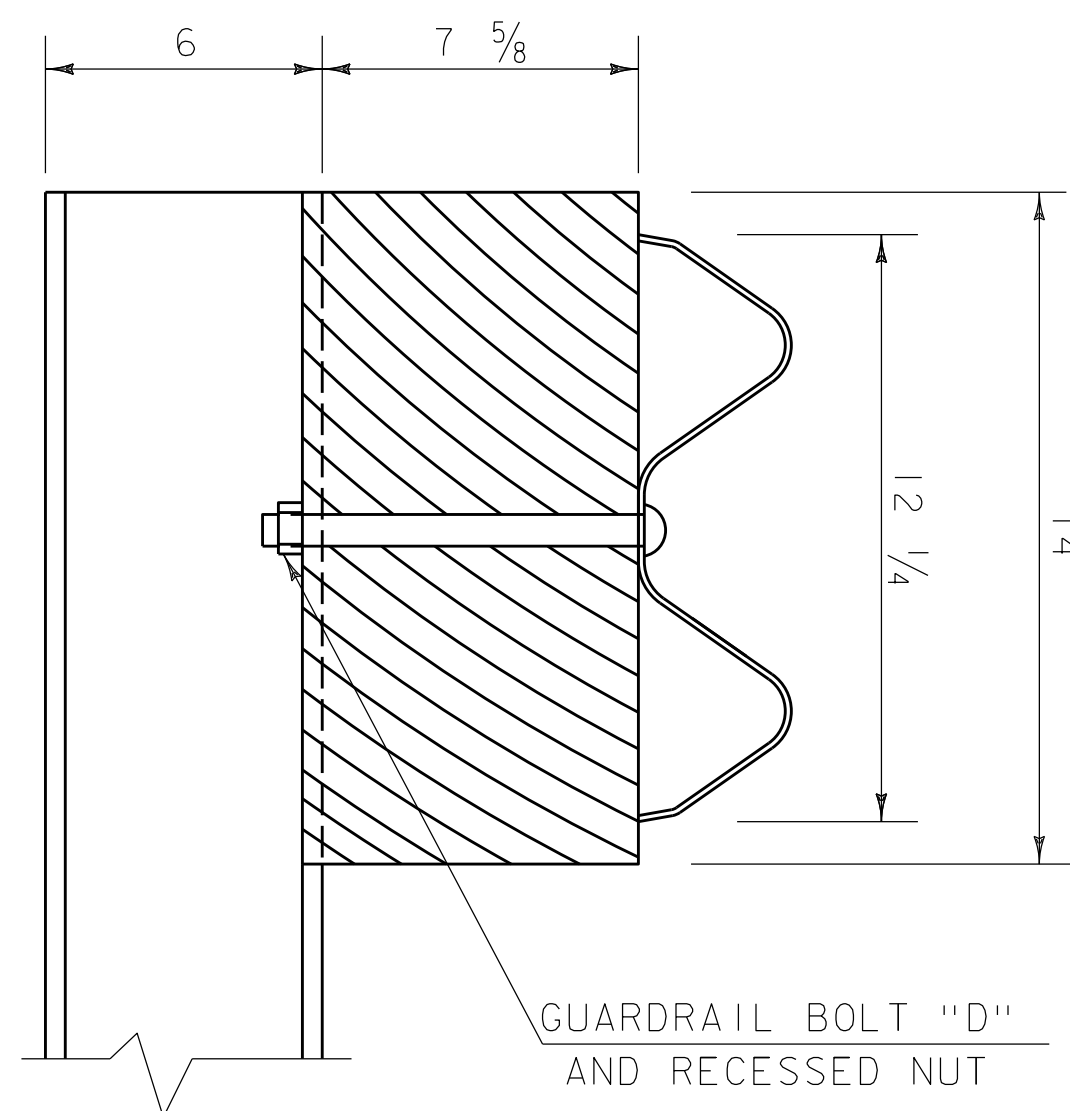
WASHER FOR 5/8" BOLTS  
ARTBA F-13-73

GUARDRAIL BOLTS				FASTENER USED IN	
BOLT DES.	ARTBA REF. NO.	L	T (MIN.)	STEEL POSTS	WOOD POSTS
"A"	F-3[1 1/4]-76	1 1/4"	1"	X	X
"C"	F-3[9 1/2]-76	9 1/2"	1 3/4"	X	
"D"	F-3[18]-76	18"	2 1/2"		X
"F"	F-3[25]-76	25"	2"		X

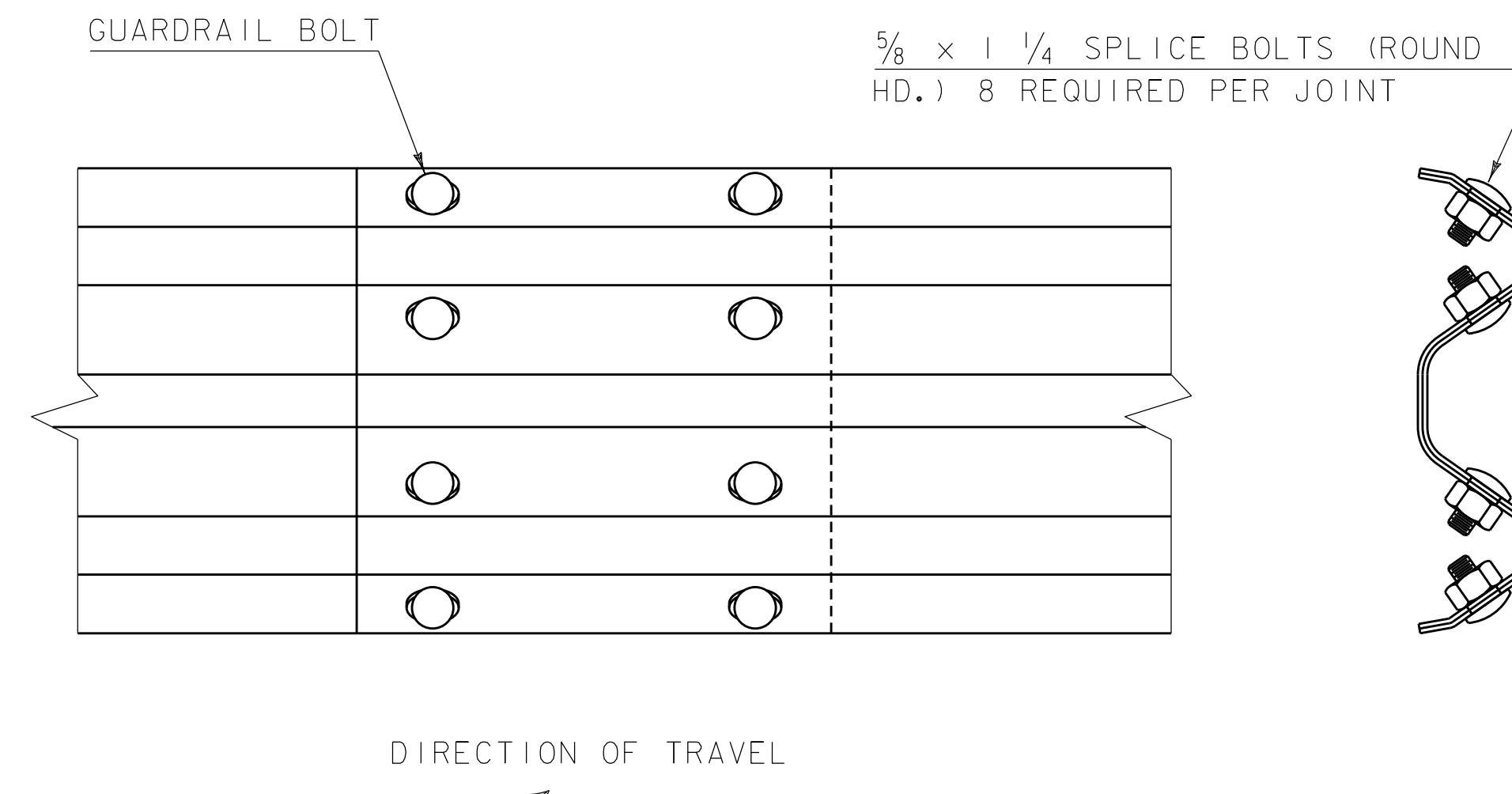


8 FEET POSTS GUARDRAIL DETAIL  
SECTION A-A

\* BACKSLOPE MUST MAINTAIN 1:2 OR FLATTER SLOPE FOR 96 INCHES FROM FACE OF RAIL.



POST ATTACHMENT DETAIL



SPLICE DETAIL

5/8 x 1 1/4 SPLICE BOLTS (ROUND HD.) 8 REQUIRED PER JOINT

GENERAL NOTES

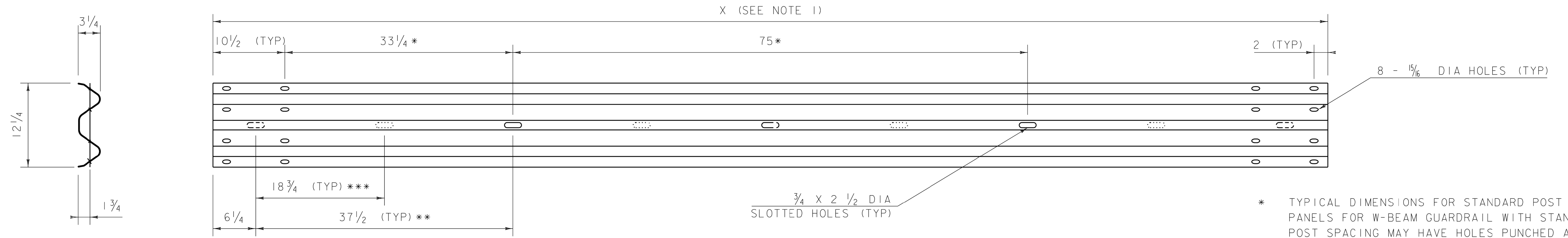
- DESIGNATIONS ARE AS IDENTIFIED IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE" AS PUBLISHED BY THE "AMERICAN ASSOCIATION OF STATE AND HIGHWAY TRANSPORTATION OFFICIALS" (AASHTO), "ASSOCIATED GENERAL CONTRACTORS OF AMERICA" (AGC) AND THE "AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION" (ARTBA).
- MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 728 OF THE CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AS APPLICABLE.
- WHEN W-BEAM GUARDRAIL, 8 FEET POSTS IS SPECIFIED ON THE PLANS, WIDE FLANGED GUARDRAIL POST (PWE01) SHALL BE INCREASED FROM 72 INCHES TO 96 INCHES, SEE DETAIL HSD-621.07B.
- THE DYNAMIC DEFLECTION DISTANCE OF 57 INCHES FOR W BEAM GUARDRAIL SHALL BE MAINTAINED CLEAR OF OBSTACLES, TO BE MEASURED FROM THE BACK OF POST.
- FOR TEST LEVEL 3 APPLICATIONS, AS APPROVED IN THE FEDERAL HIGHWAY ADMINISTRATION'S ELIGIBILITY LETTER, HSST/B-240, DATED NOVEMBER 8, 2012.
- ALL DIMENSION IN INCHES, UNLESS OTHERWISE NOTED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL
I	JAN. 4, 2021	CORRECTED REFERENCE IN NOTE 3
OTHER DETAILS REQUIRED:		621.07B
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

MIDWEST GUARDRAIL SYSTEM (MGS)



HIGHWAY SAFETY  
& DESIGN DETAIL  
HSD-621.07A



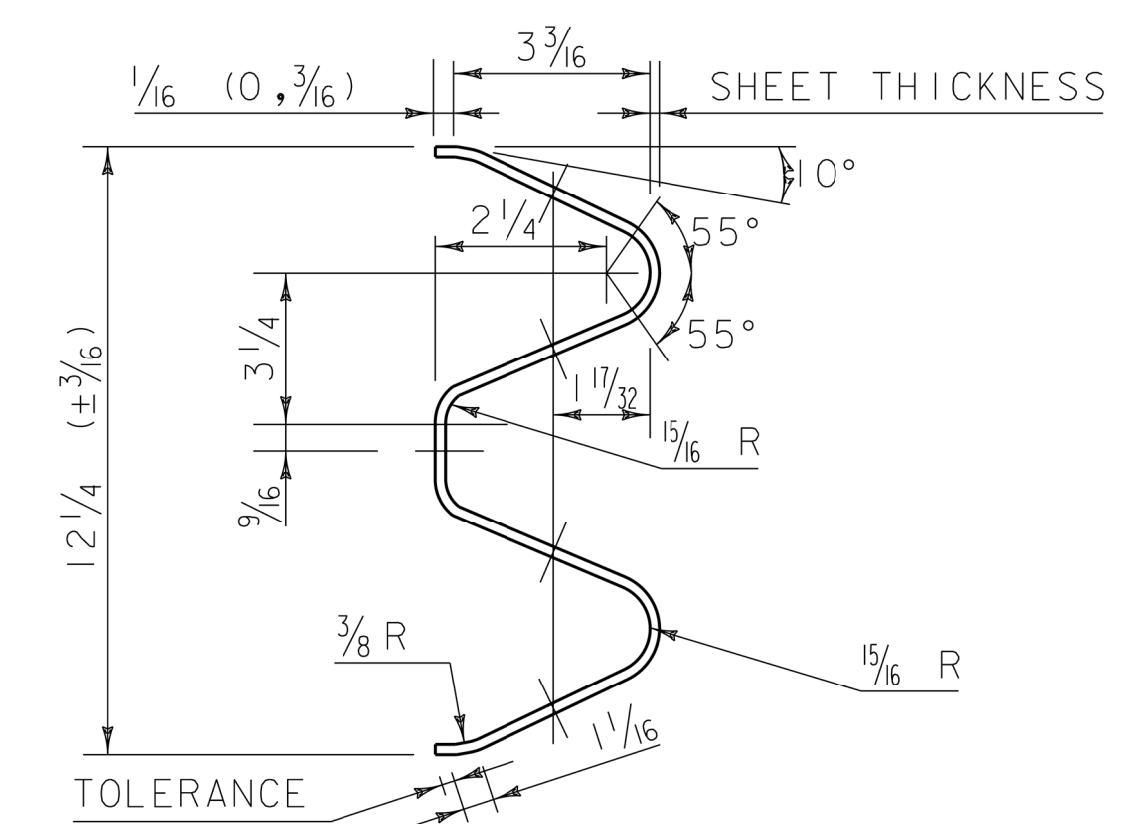
1. TANGENT W-BEAM RAIL LENGTHS SHALL BE 13' - 6 1/2" OR 26' - 1/2", UNLESS OTHERWISE SPECIFIED.
2. W-BEAM THICKNESS SHALL BE 1/8" FOR STANDARD W-BEAM GUARDRAIL (RWM02A) AND 3/4" FOR HEAVY DUTY GUARDRAIL (RWM02B).

**W-BEAM GUARDRAIL**  
(RWM02A/ RWM02B)

- \* TYPICAL DIMENSIONS FOR STANDARD POST SPACING. PANELS FOR W-BEAM GUARDRAIL WITH STANDARD POST SPACING MAY HAVE HOLES PUNCHED AT ONE-HALF POST SPACING FOR INVENTORY PURPOSES.
- \*\* TYPICAL DIMENSION FOR ONE-HALF POST SPACING.
- \*\*\* TYPICAL DIMENSION FOR ONE-QUARTER POST SPACING.

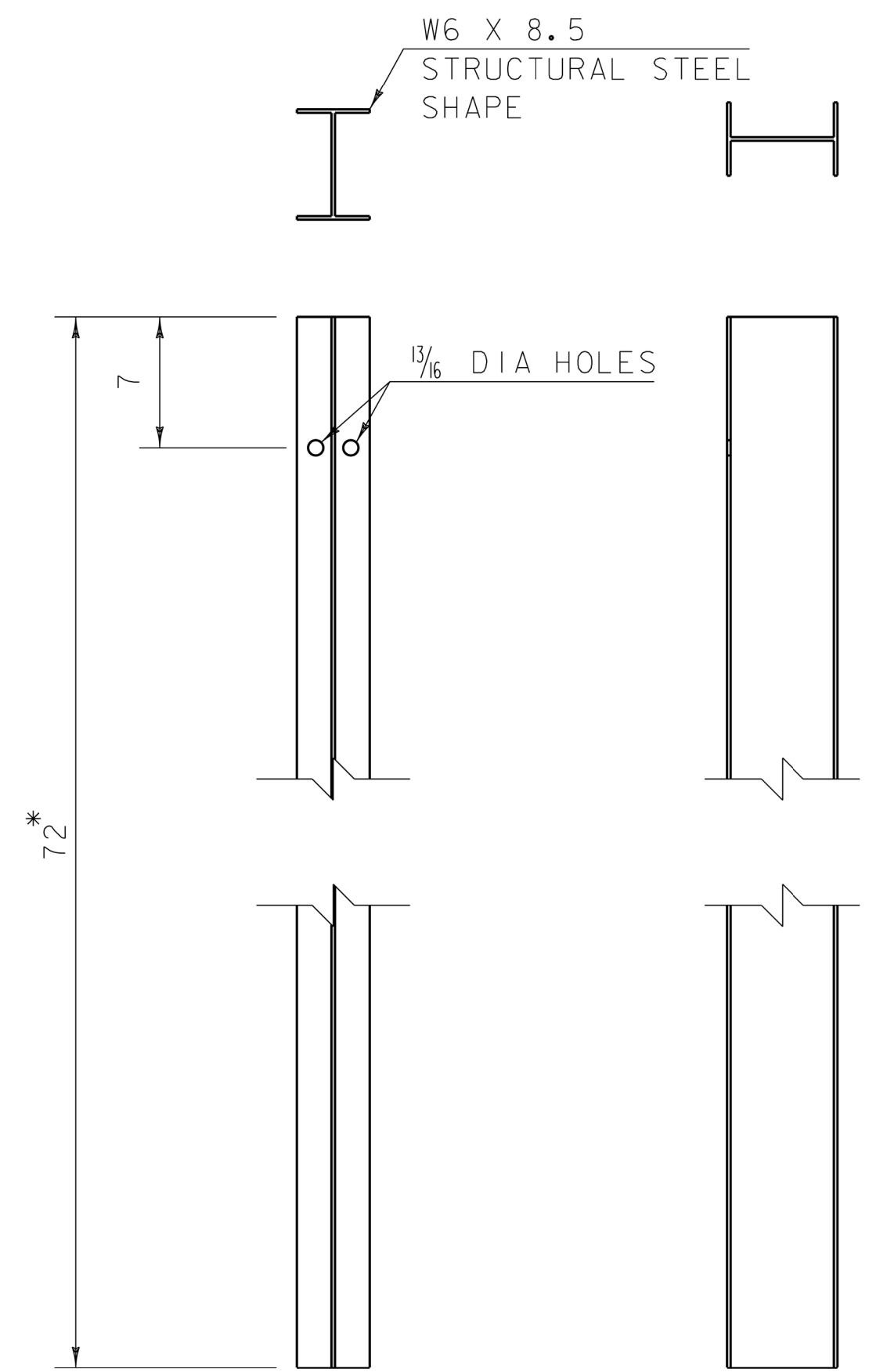
**NOTES:**

1. BLOCKS SHALL BE MADE OF TIMBER WITH A STRESS GRADE OF 1200 PSI OR MORE. TESTING SHALL BE IN ACCORDANCE WITH WEST COAST LUMBER INSPECTION BUREAU, SOUTHERN PINE INSPECTION BUREAU OR OTHER APPROPRIATE ASSOCIATION. TIMBER FOR BLOCKS SHALL BE ROUGH SAWN (UNPLANED) WITH DIMENSIONS INDICATED. THE SIZE TOLERANCE OF ROUGH SAWN BLOCKS IN THE DIRECTION OF THE BOLT HOLES SHALL BE NOT MORE THAN +/- 1/4".
2. SUPPLY WOOD BLOCKS PER AASHTO M 168.
3. TREAT WITH PRESERVATIVE PER AASHTO M 133.
4. BLOCKOUTS MAY ALSO BE MADE OF APPROVED ALTERNATIVE MATERIAL.

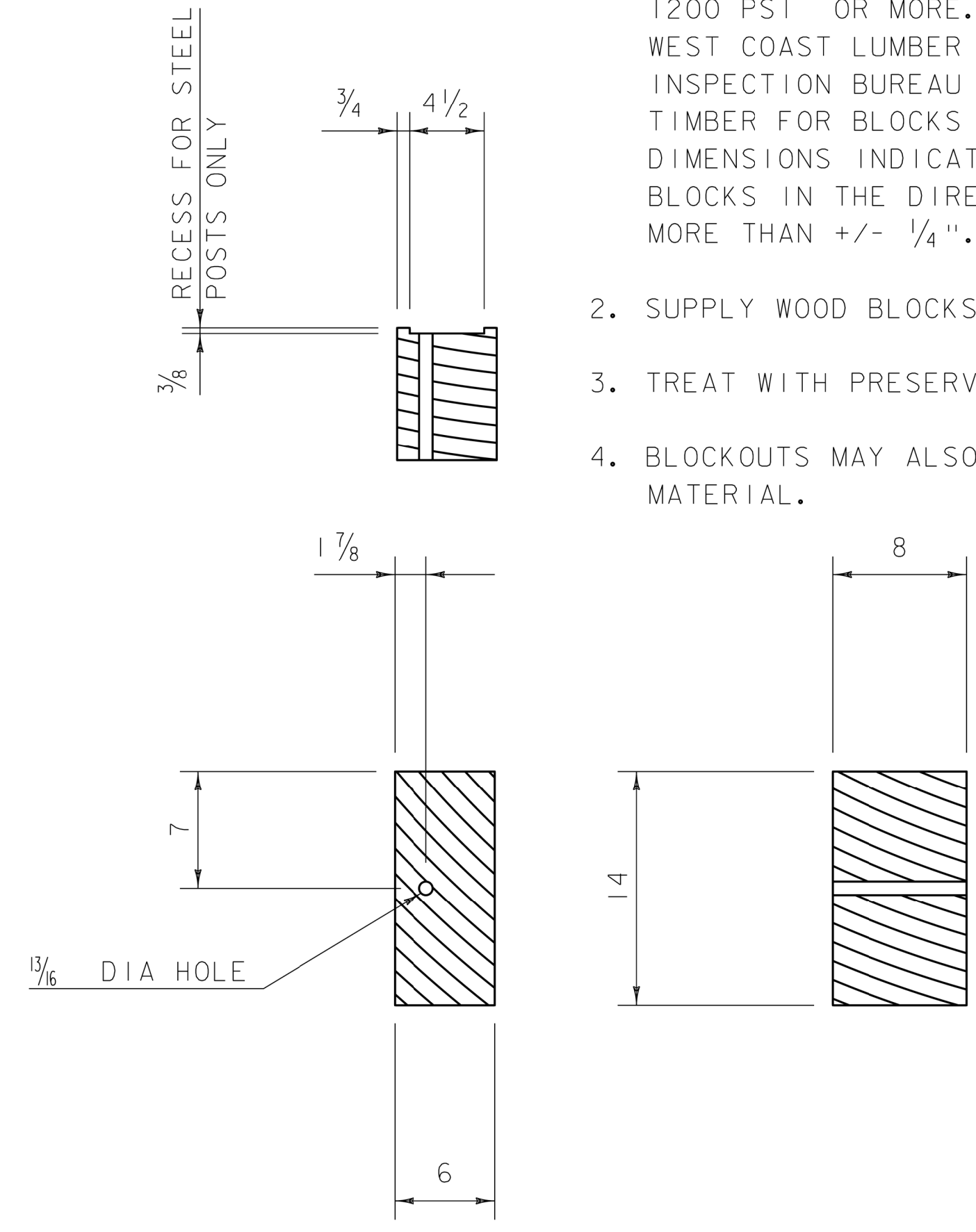


ARTBA RE-3 (2@6' - 3" = 12' - 6" CLASS A, TYPE 1) - 73

**TYPICAL GUARDRAIL SECTION**



**WIDE FLANGED GUARDRAIL POST**  
(PWE01)



**8 INCH WOOD BLOCKOUT**  
(PDB01B)

**GENERAL NOTES**

1. DESIGNATIONS ARE AS IDENTIFIED IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE" AS PUBLISHED BY THE "AMERICAN ASSOCIATION OF STATE AND HIGHWAY TRANSPORTATION OFFICIALS" (AASHTO), "ASSOCIATED GENERAL CONTRACTORS OF AMERICA" (AGC) AND THE "AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION" (ARTBA).
2. MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 728 OF THE CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AS APPLICABLE.
3. ALL DIMENSION IN INCHES, UNLESS OTHERWISE NOTED.

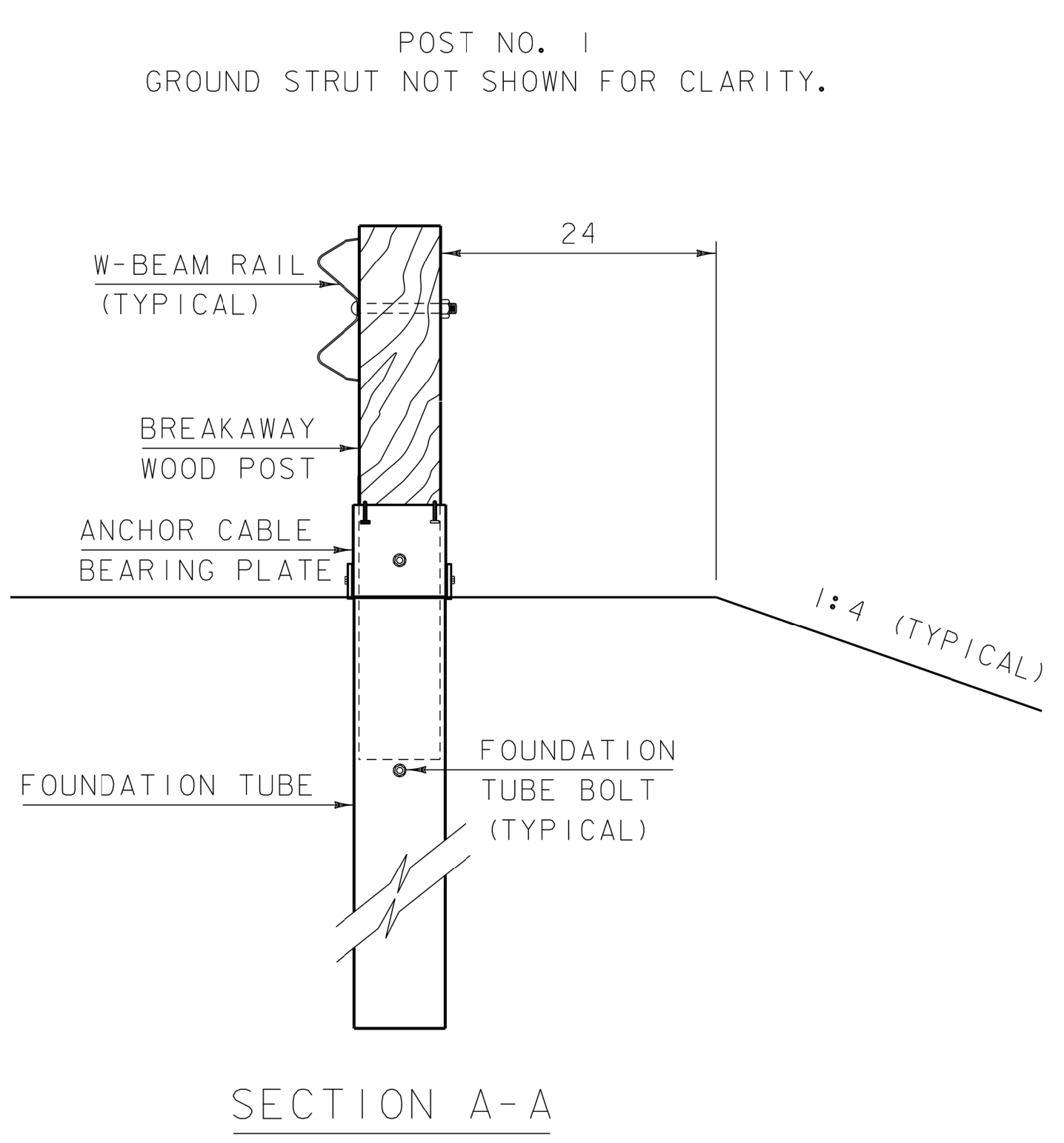
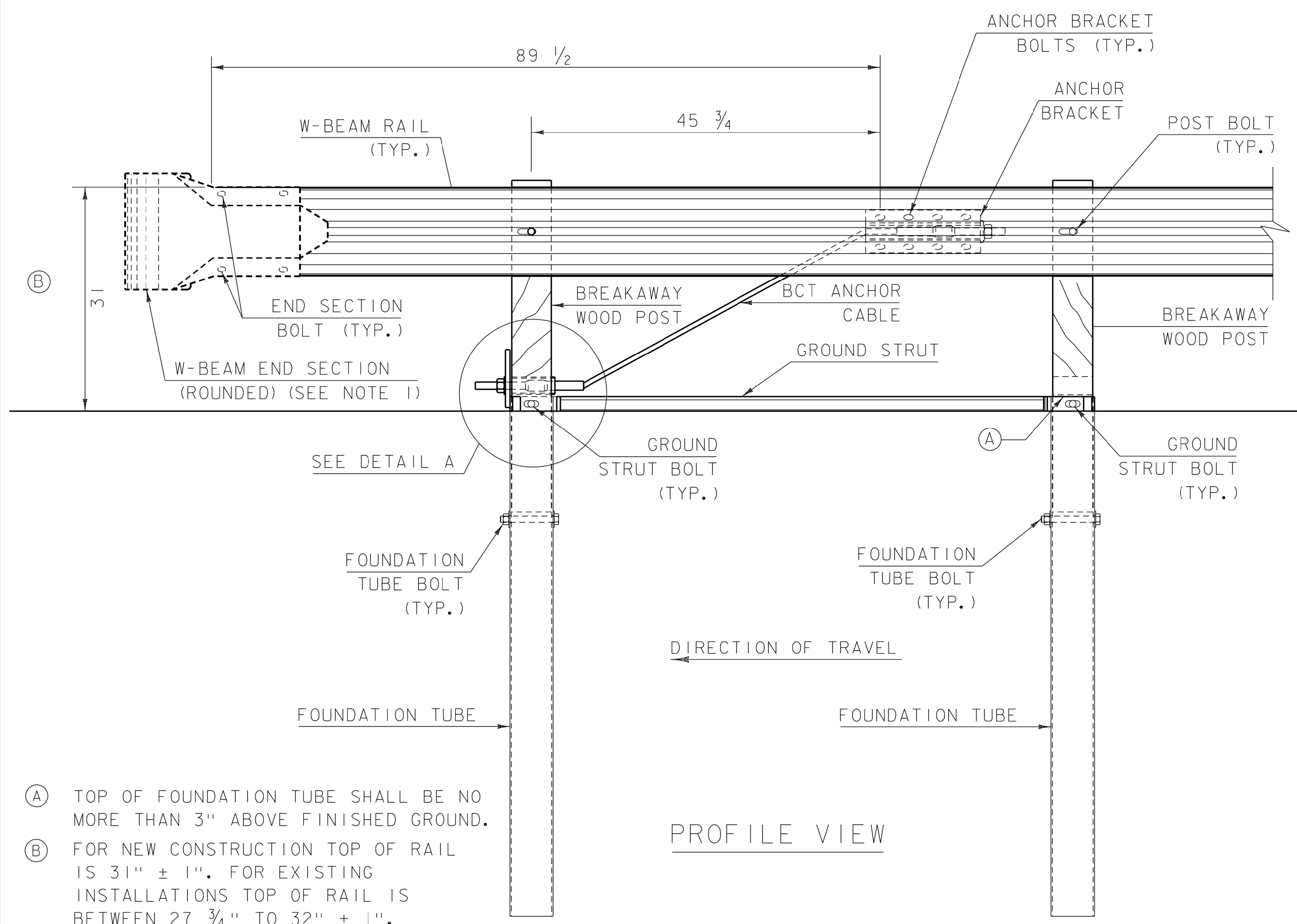
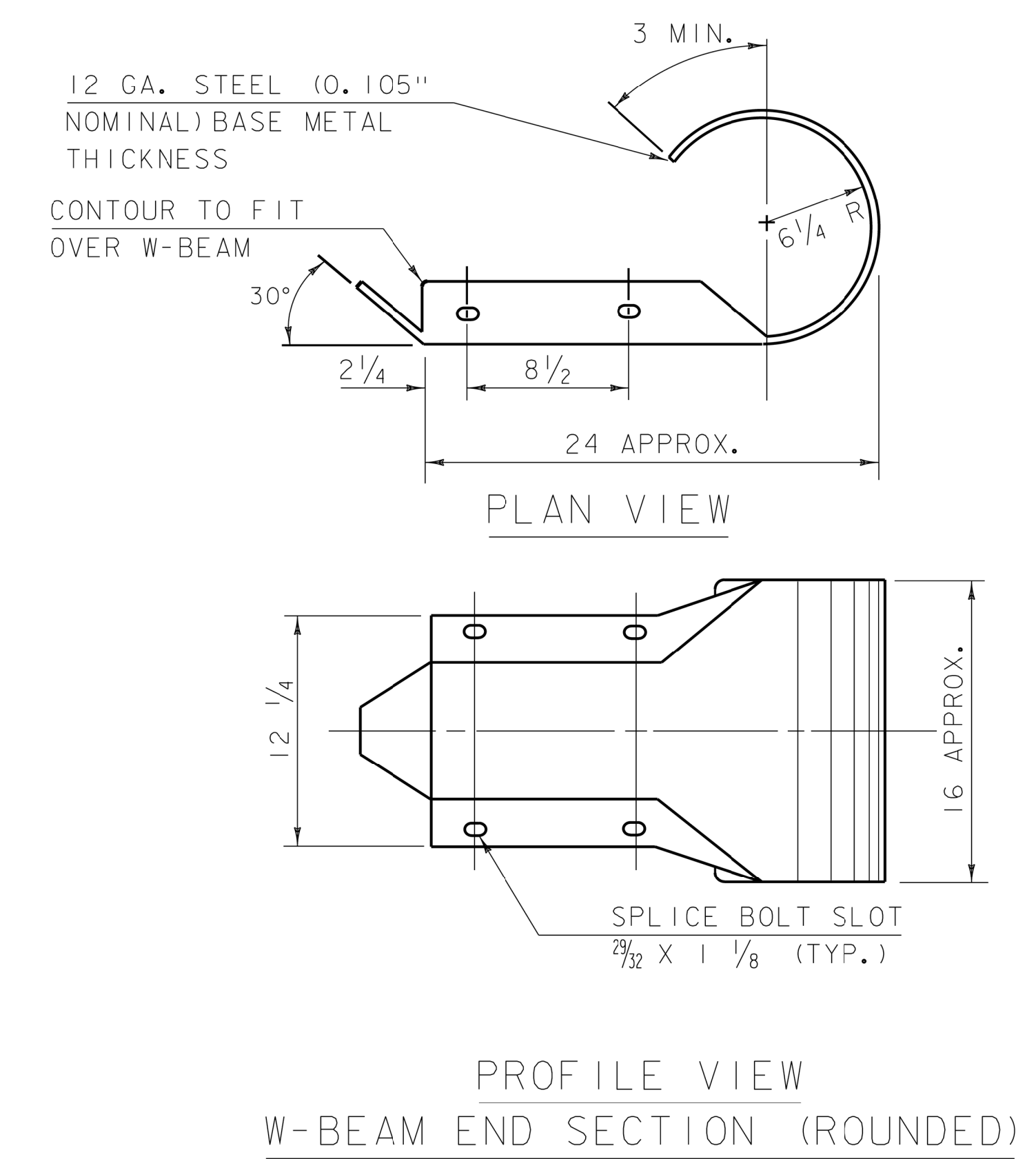
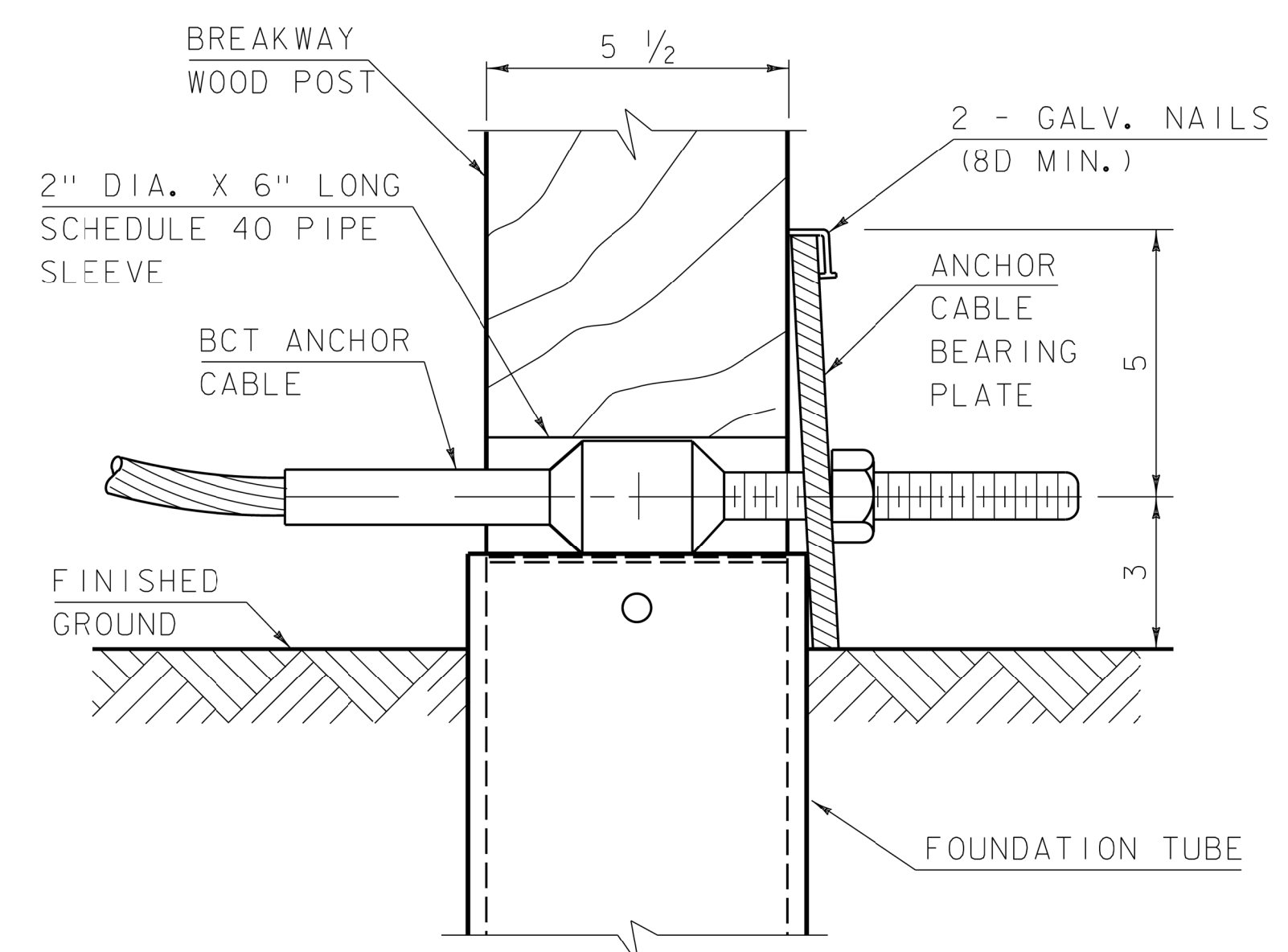
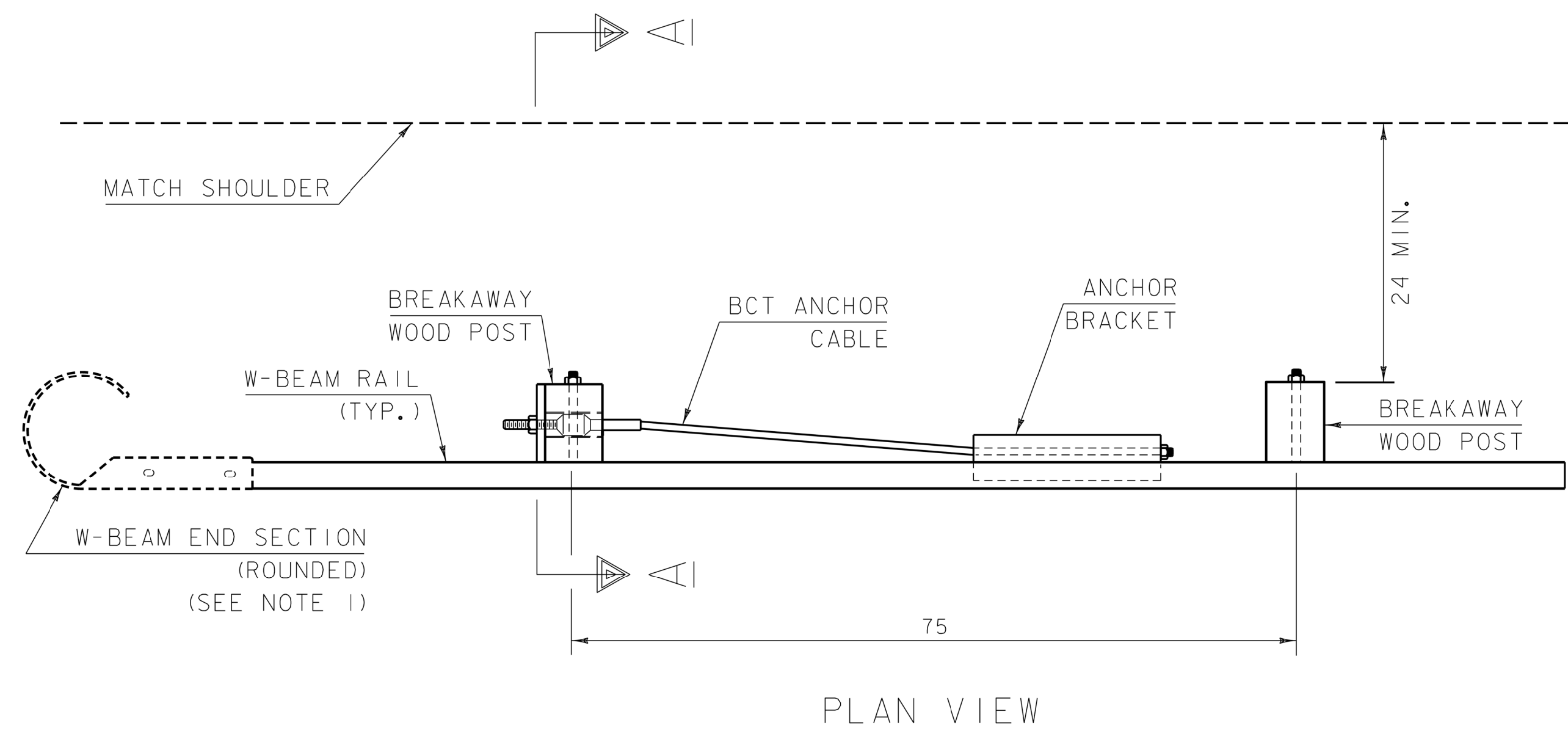
\* POST LENGTH SHALL BE INCREASED TO 96 INCHES WHEN W BEAM GUARDRAIL, 8 FEET POSTS IS SPECIFIED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL
OTHER DETAILS REQUIRED: NONE		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

**W-BEAM GUARDRAIL COMPONENTS**



**HIGHWAY SAFETY**  
**& DESIGN DETAIL**  
**HSD - 621.07B**



- (A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.
- (B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1". FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27 3/4" TO 32" ± 1".

POST NO. 1  
GROUND STRUT NOT SHOWN FOR CLARITY.

GENERAL NOTES

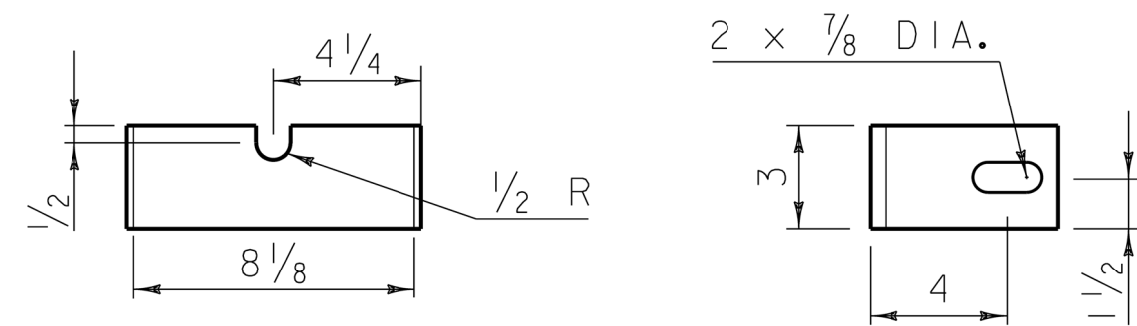
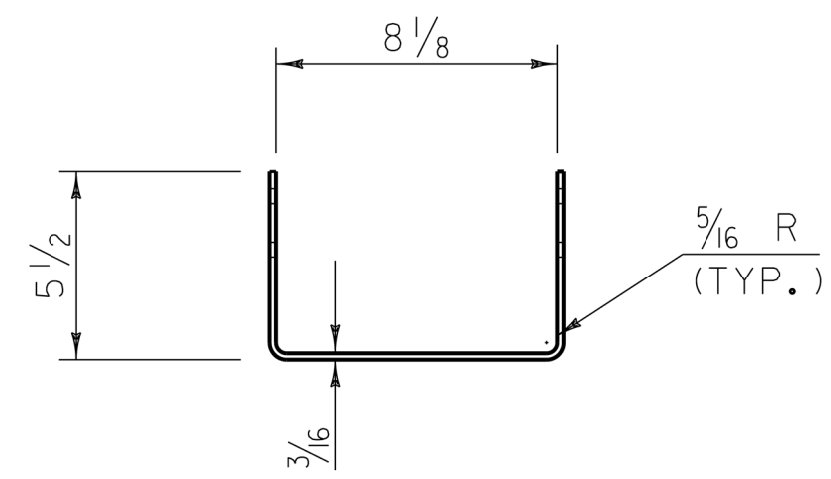
1. WHEN AN ANCHOR IS USED IN THE MIDDLE OF A GUARDRAIL RUN A STANDARD W-BEAM MID-SPLICE CONNECTION SHALL BE UTILIZED.
2. END SECTION SHALL ONLY BE INSTALLED AS TRAILING END ON ONE-WAY TRAFFIC ROADS.
3. W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.
4. END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.
5. FOUNDATION TUBE BOLTS ARE 7/8" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 7/8" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.
6. ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A 5/8" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 5/8" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.
7. W-BEAM END SECTION (ROUNDED) AND W-BEAM RAIL SHALL BE PAID FOR UNDER ITEM 621.20 STEEL BEAM GUARDRAIL GALVANIZED. ALL OTHER COMPONENTS SHALL BE PAID FOR UNDER ITEM 621.60 ANCHOR FOR STEEL BEAM RAIL.
8. ALL MEASUREMENTS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL
OTHER DETAILS REQUIRED: HSD-621.07D, HSD-621.07E		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

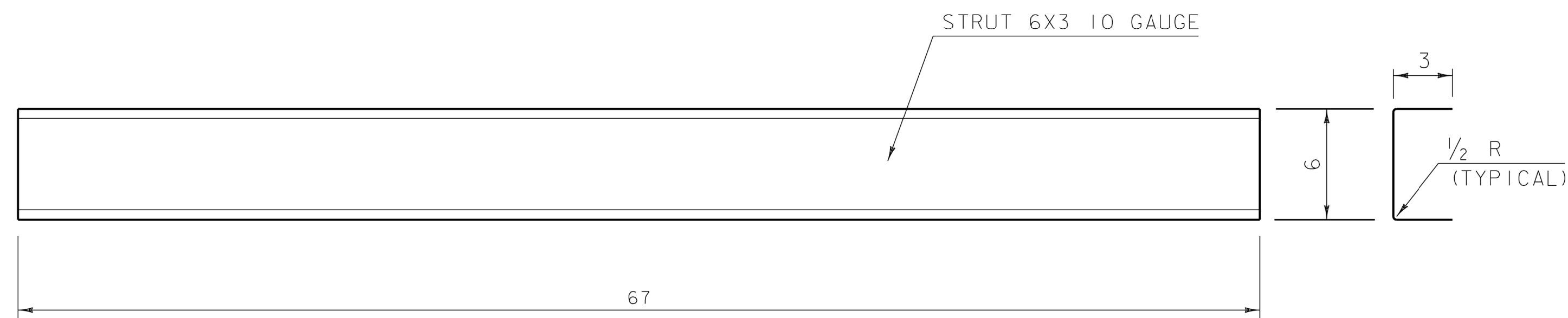
# MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR



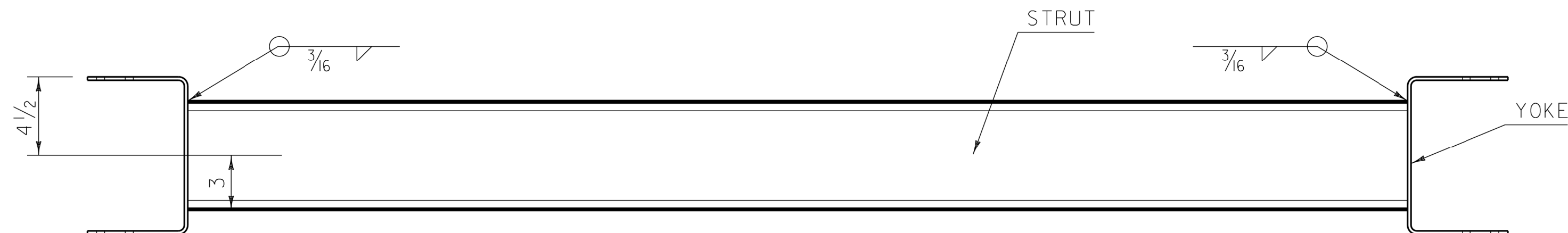
HIGHWAY SAFETY  
& DESIGN DETAIL  
HSD-621.07C



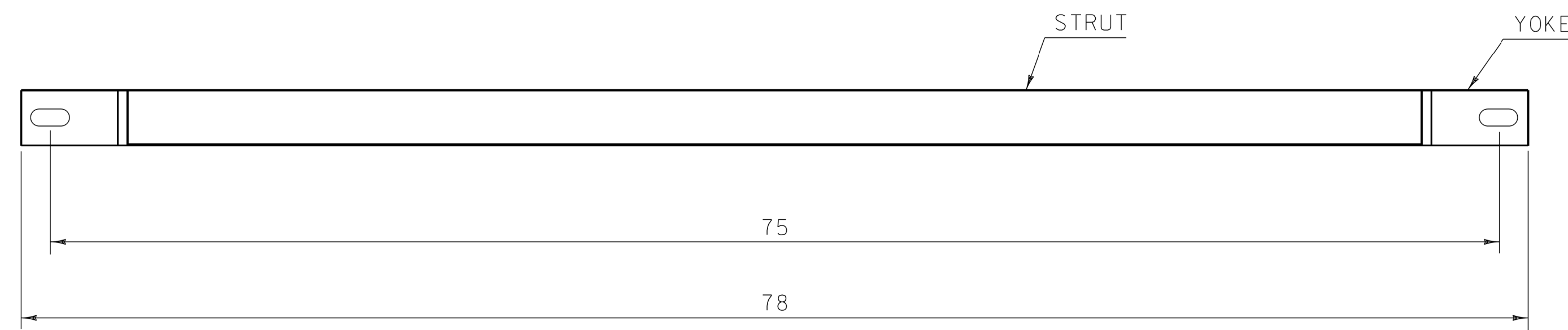
YOKE DETAIL



STRUT DETAIL

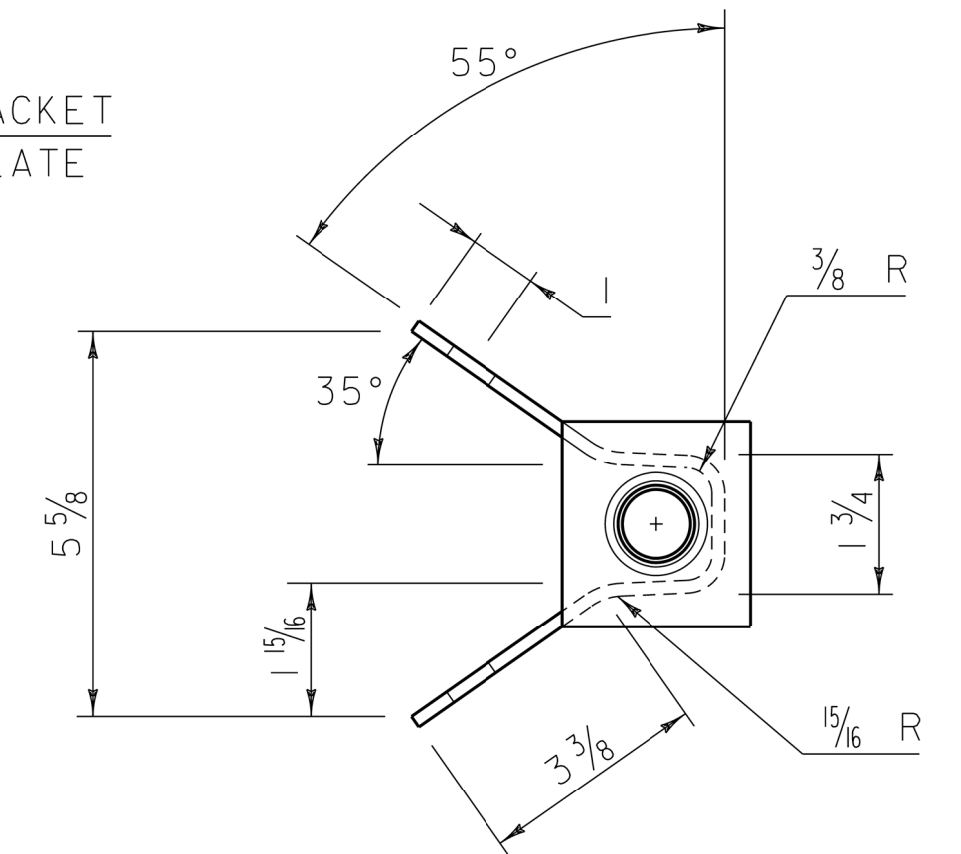
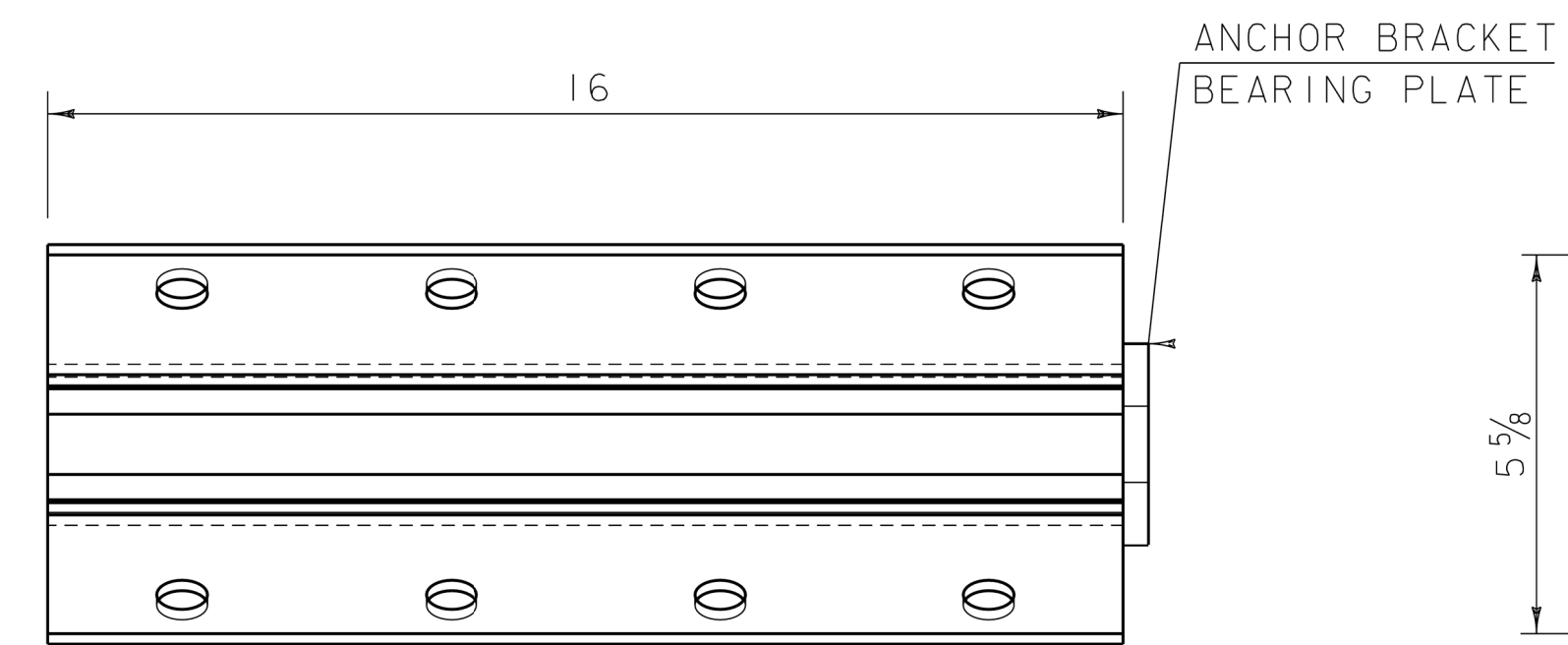
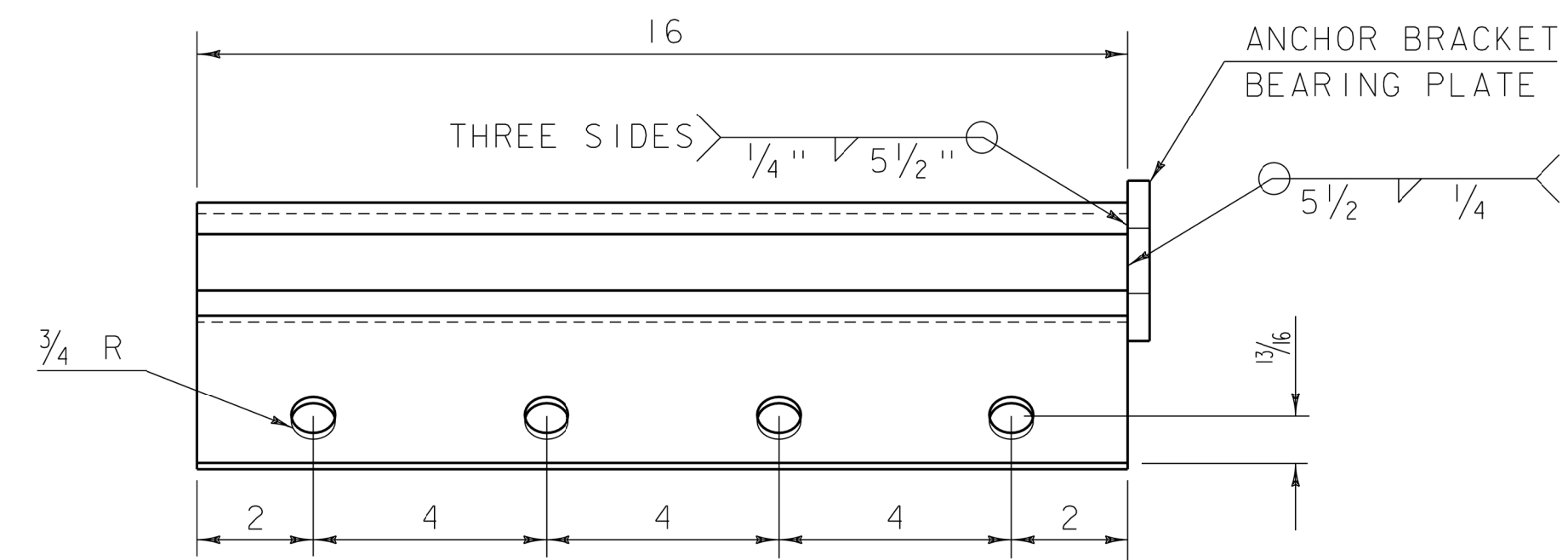


PLAN VIEW

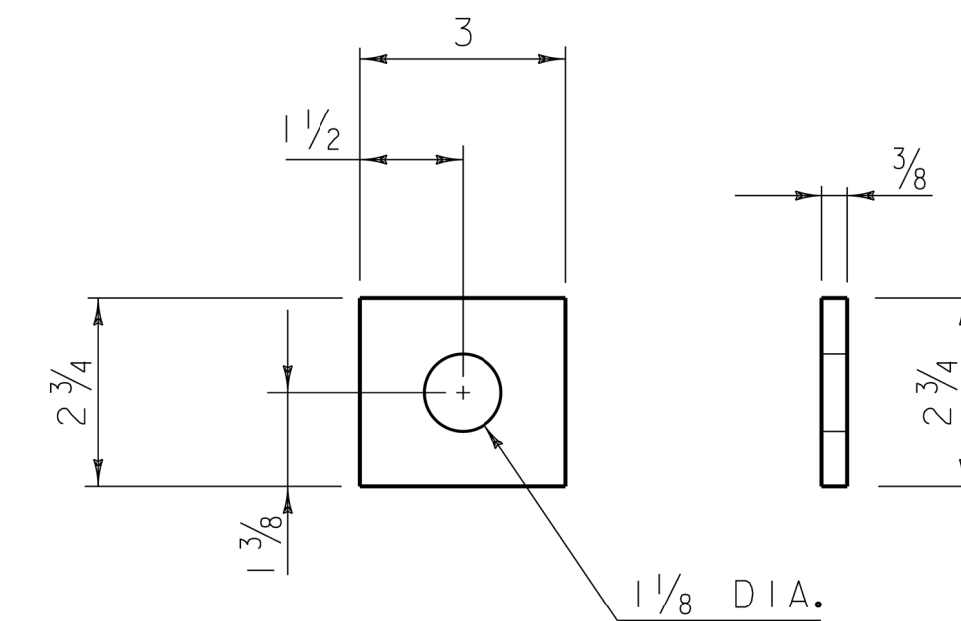


PROFILE VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET



ANCHOR BRACKET BEARING PLATE

GENERAL NOTES

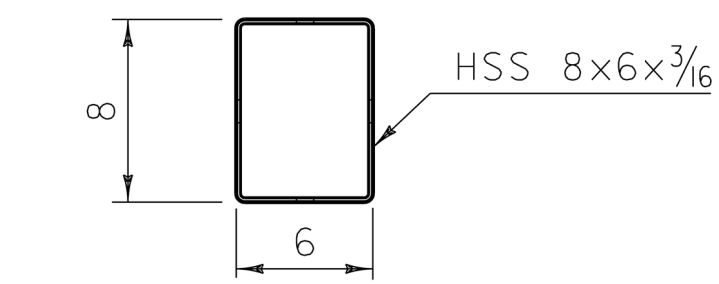
1. ALL MEASUREMENTS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL
OTHER DETAILS REQUIRED: HSD-621.07C, HSD-621.07E		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

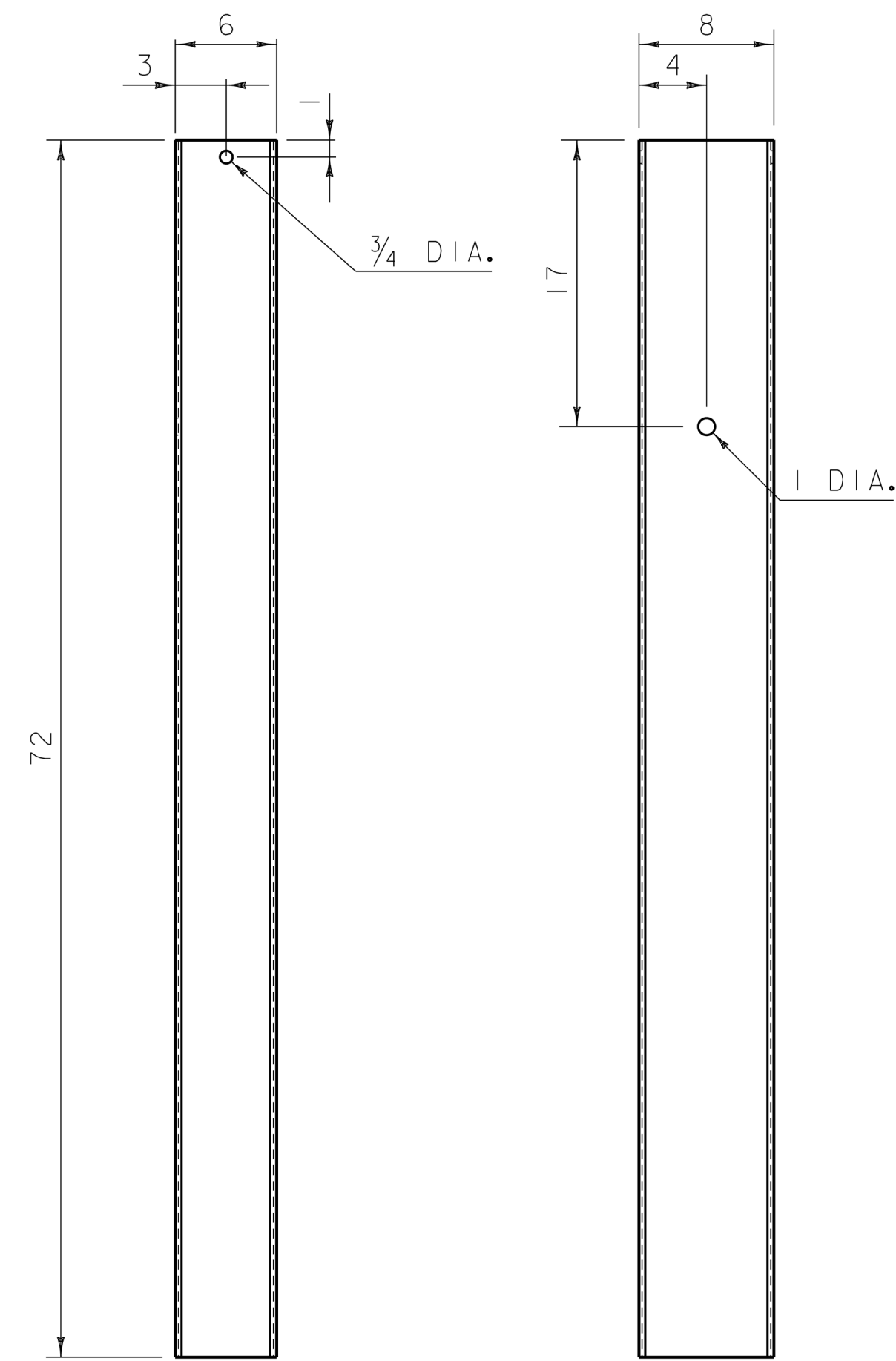
# MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR COMPONENTS



HIGHWAY SAFETY  
& DESIGN DETAIL  
HSD-621.07D



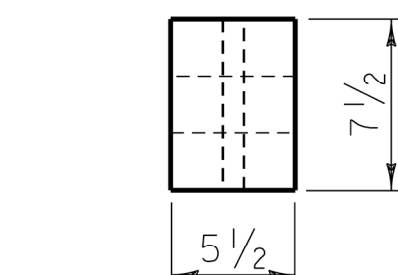
PLAN VIEW



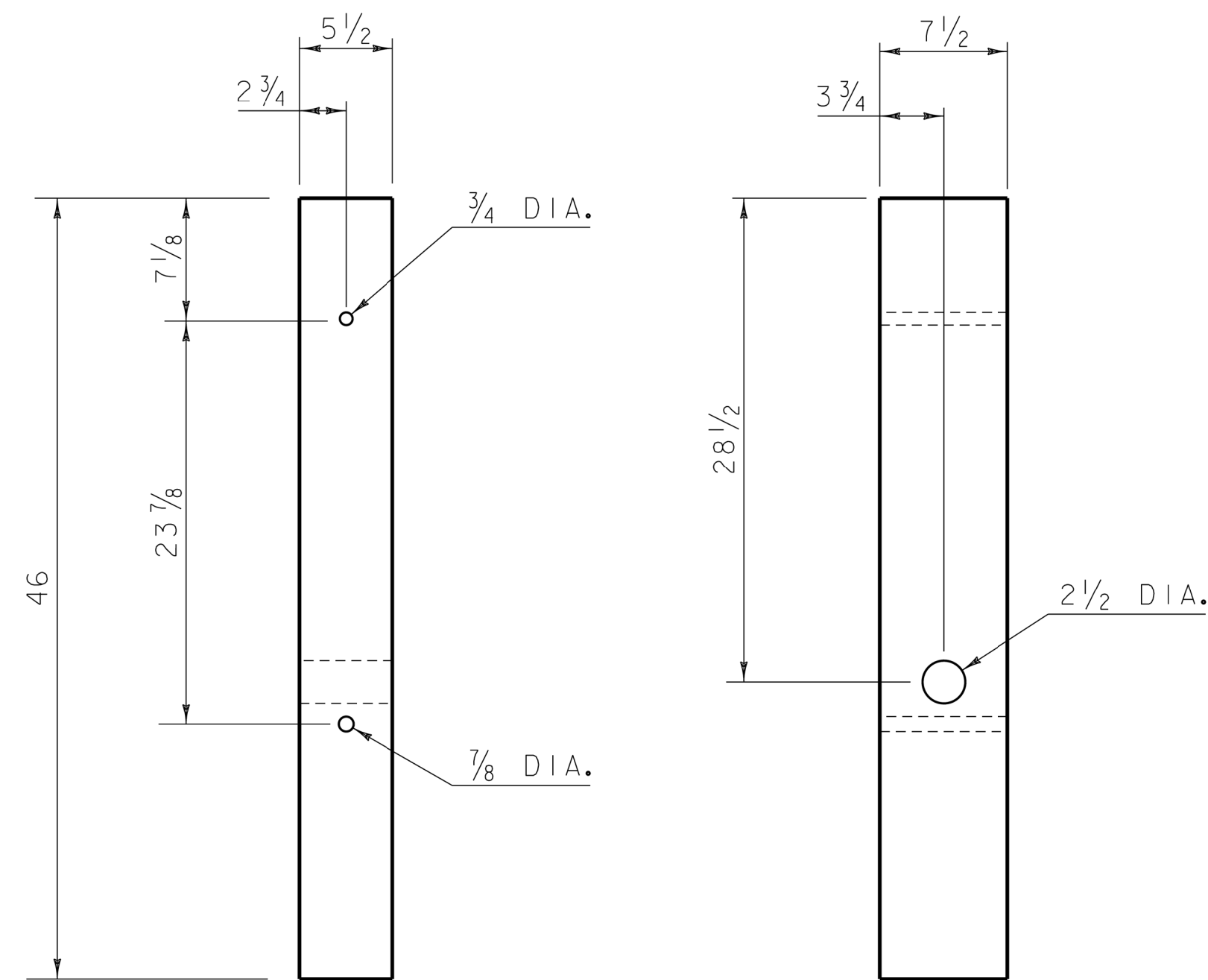
FRONT VIEW

SIDE VIEW

FOUNDATION TUBE



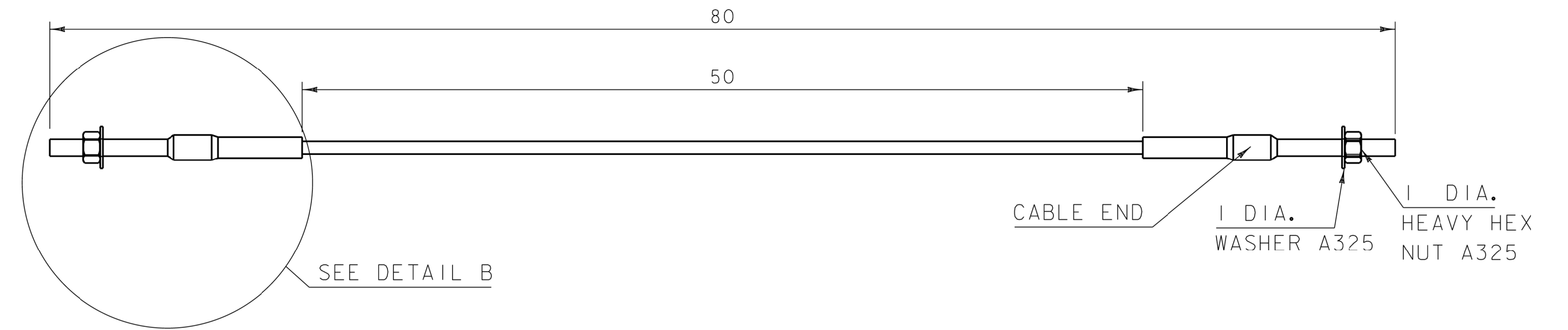
PLAN VIEW



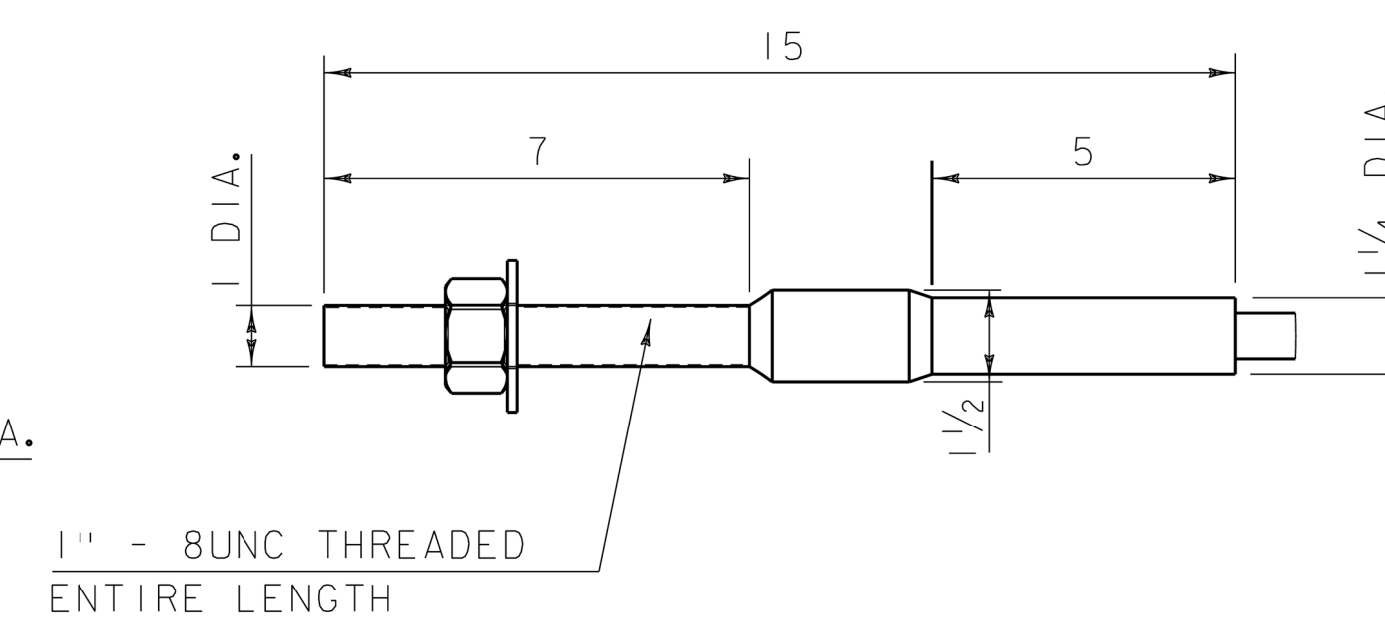
FRONT VIEW

SIDE VIEW

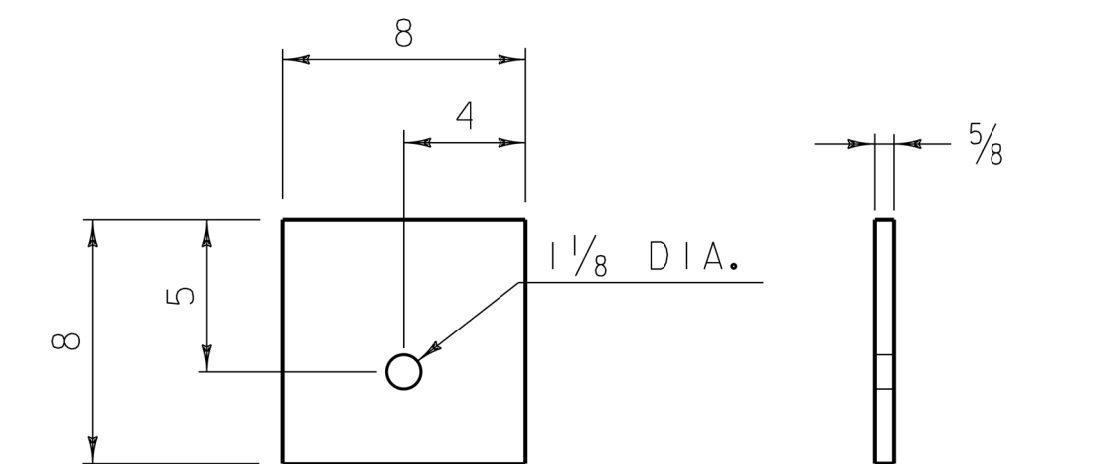
BREAKAWAY WOOD POST



BCT ANCHOR CABLE



DETAIL B



SIDE VIEW

FRONT VIEW

ANCHOR CABLE BEARING PLATE

GENERAL NOTES

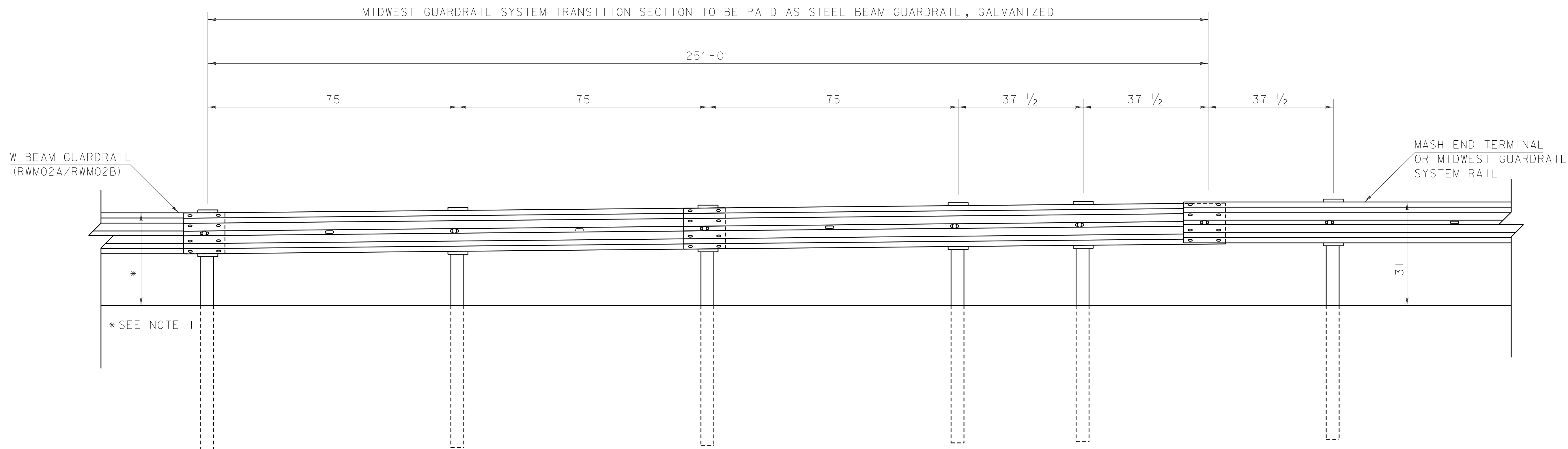
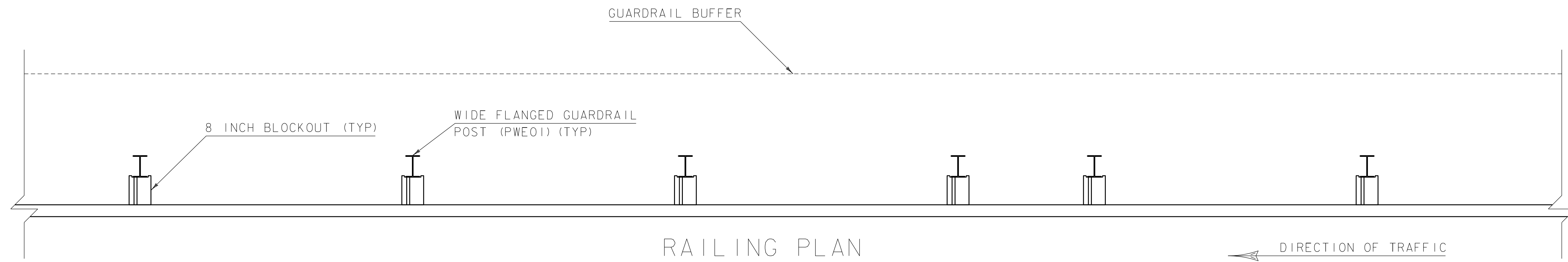
1. BCT ANCHOR CABLE IS A 3/4" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED.
2. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123.
3. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5.
4. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB.
5. WIRE ROPE IS TO BE TAUT.
6. ALL MEASUREMENTS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL
OTHER DETAILS REQUIRED: HSD-621.07C, HSD-621.07D		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

MIDWEST GUARDRAIL SYSTEM (MGS)  
ANCHOR COMPONENTS



HIGHWAY SAFETY  
& DESIGN DETAIL  
HSD-621.07E



RAILING ELEVATION

GENERAL NOTES

1. THE HEIGHT OF RAIL AT THE END OF THIS TRANSITION SHALL MATCH THE DESIGN FOR THE APPLICABLE GUARDRAIL SYSTEM.
2. TRANSITIONS FROM 31 INCH HIGH MIDWEST GUARDRAIL SYSTEM TO OTHER RAIL SYSTEMS SHALL BE ACCOMPLISHED WITH 2 STANDARD 12 1/2 FOOT SECTIONS OF W-BEAM RAIL.
3. POSTS, BLOCKOUTS AND SPLICES SHALL BE IN ACCORDANCE WITH DETAILS HSD-621.07A AND HSD-621.07B AND LOCATED AS SHOWN IN THE DETAILS ABOVE.
4. STANDARD 6 FOOT POSTS SHALL BE USED UNLESS OTHERWISE NOTED ON PLANS.
5. END TERMINAL SHALL BE A VTRANS APPROVED PRODUCT MEETING MASH TESTING CRITERIA. ANY TERMINAL USED SHALL BE FROM THE VTRANS APPROVED PRODUCTS LIST.
6. ALL MEASUREMENTS ARE IN INCHES UNLESS OTHERWISE NOTED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL
I	JAN. 4, 2021	CORRECTED NOTE 3 REFERENCES
OTHER DETAILS REQUIRED: HSD-621.07A, HSD-621.07B		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

## MIDWEST GUARDRAIL SYSTEM TRANSITION SECTION



HIGHWAY SAFETY  
& DESIGN DETAIL  
HSD-621.07F