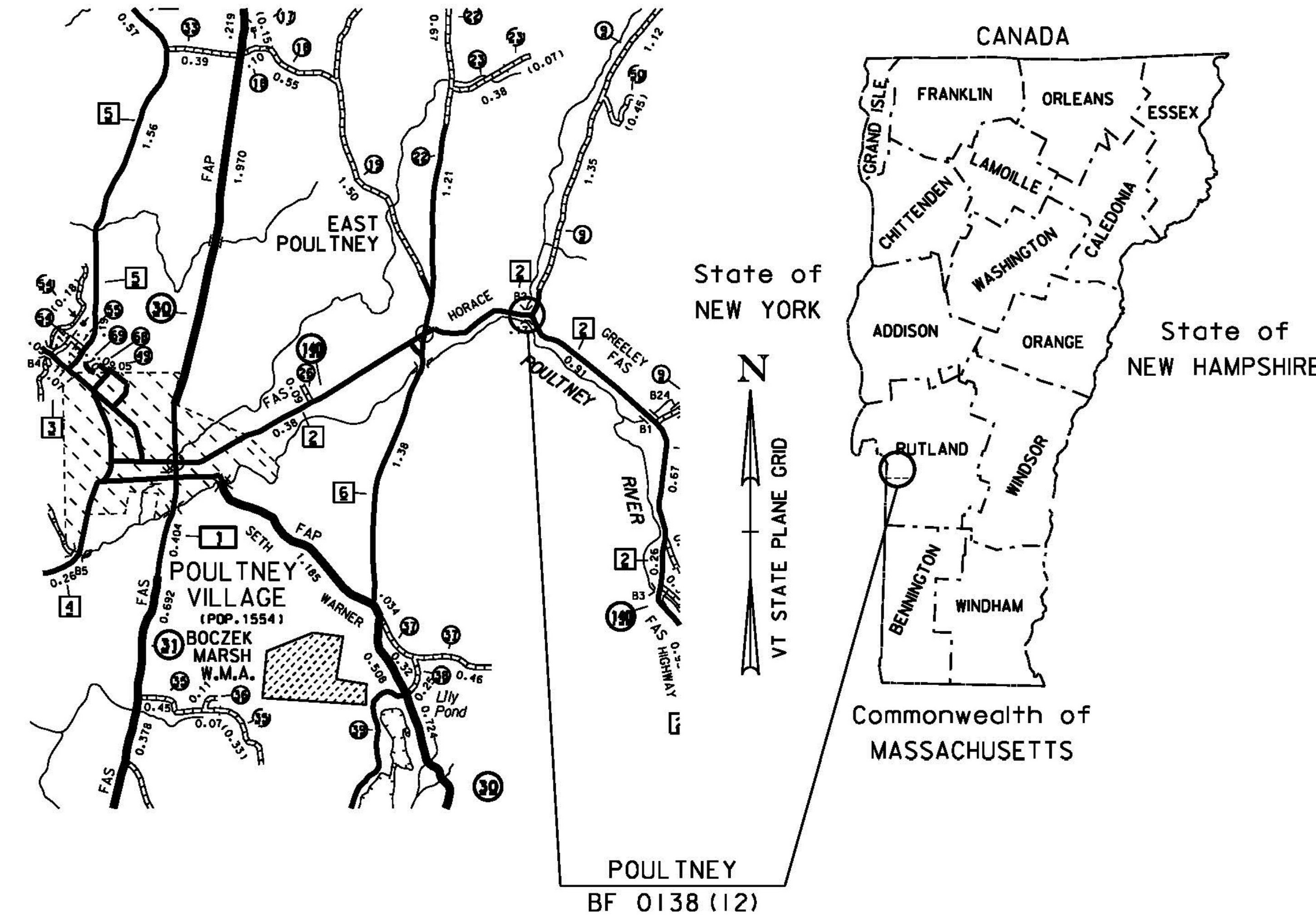
STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

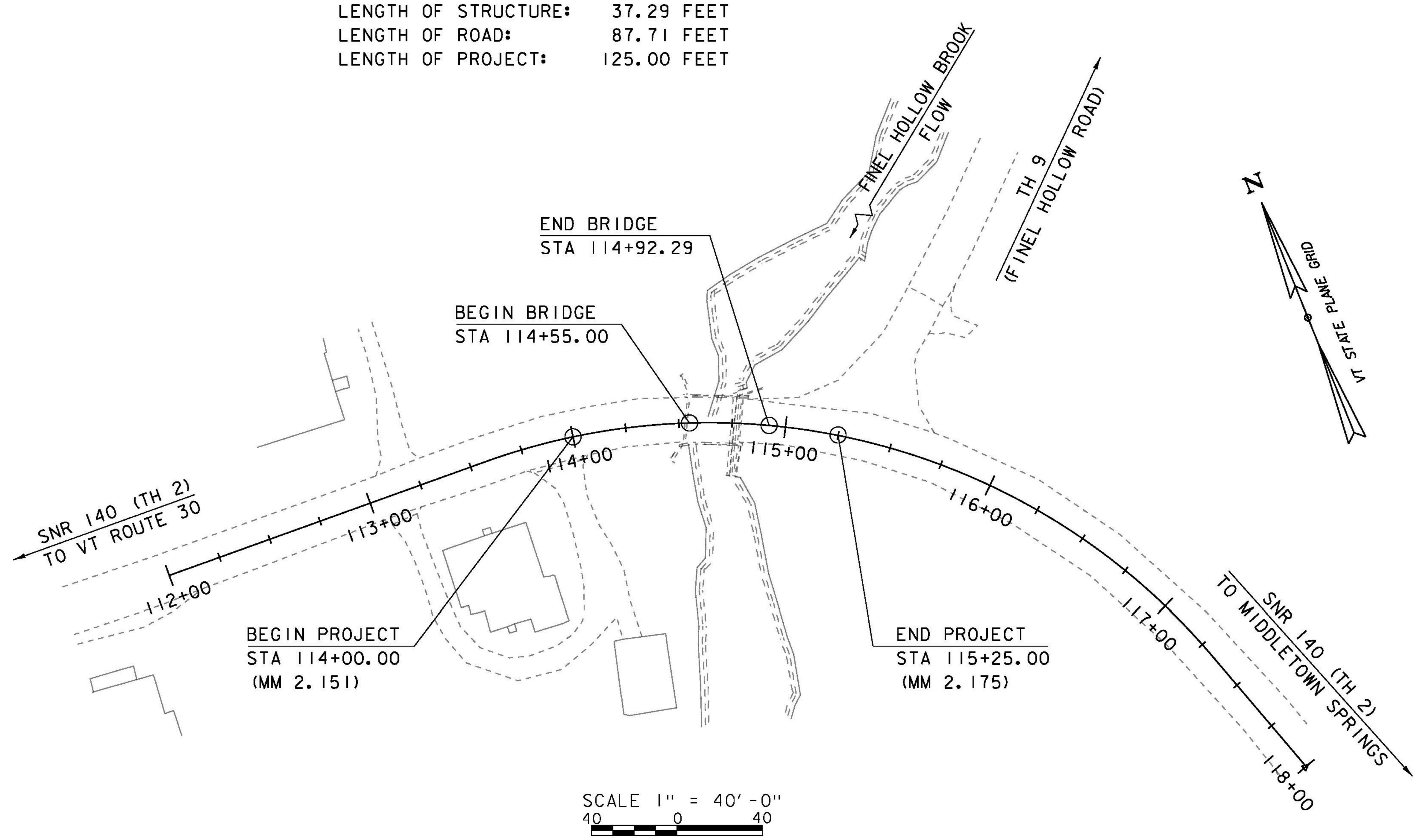
TOWN OF POULTNEY
COUNTY OF RUTLAND

ROUTE NO : SNR 140/TH 2 (CLASS 2), MAJOR COLLECTOR   BRIDGE NO : BR 2

PROJECT LOCATION: ON SNR 140 APPROXIMATELY 2.2 MILES EAST OF THE JUNCTION WITH VT ROUTE 30 (OVER FINEL HOLLOW BROOK).

PROJECT DESCRIPTION: REPLACEMENT OF EXISTING BRIDGE WITH A NEW PRECAST CONCRETE RIGID FRAME WITH RELATED APPROACH AND CHANNEL WORK.

LENGTH OF STRUCTURE: 37.29 FEET
LENGTH OF ROAD: 87.71 FEET
LENGTH OF PROJECT: 125.00 FEET



CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 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 2

SURVEYED BY :	L. ORVIS
SURVEYED DATE :	5-19-2014

DATUM

VERTICAL	NAVD 88
HORIZONTAL	NAD 1983 (2011)

Record Plans
Contractor: B.U.R. CONSTRUCTION, LLC
Resident Engineer: JACE CURTIS
Construction Began: JUNE 13, 2019
Construction Complete: NOVEMBER 8, 2019
Record Plans By: JUDY GILMORE

I hereby certify that all construction required by this set of drawings has been accomplished as indicated herein.

BY: E-SIGNED by Jace Curtis on 2020-01-03 17:45:55 GMT Resident Engineer

Date: January 03, 2020

NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.

DIRECTOR OF PROJECT DELIVERY
APPROVED *Wayne Symonds* DATE Jul 24, 2018

PROJECT MANAGER : ROB YOUNG, P.E.

PROJECT NAME : POULTNEY
PROJECT NUMBER : BF 0138(12)

SHEET 1 OF 46 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PRELIMINARY INFORMATION SHEET (BRIDGE)

Version

LRFD

INDEX OF SHEETS

PLAN SHEETS

STRUCTURES DETAIL SHEETS

STANDARDS LIST

AS BUILT "REBAR" DETAIL

LEVEL I	LEVEL II	LEVEL III
TYPE:	TYPE:	TYPE:
GRADE:	GRADE:	GRADE:

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT	
2017	1400	160	56	3.7	85	20 year ESAL for flexible pavement from 2017 to 2037 : 421000
2037	1400	160	56	5.1	120	40 year ESAL for flexible pavement from 2017 to 2057 : 908000
						Design Speed : 35 mph

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date: February 2018

DRAINAGE AREA : 6.5 sq. mi.
CHARACTER OF TERRAIN : Mostly forested, rural
STREAM CHARACTERISTICS : Sinuous and alluvial
NATURE OF STREAMBED : Ledge, cobbles, gravel

PEAK FLOW DATA - ANNUAL EXCEEDANCE PROBABILITY (AEP)

43% =	300 cfs	2% =	1,000 cfs
10% =	600 cfs	1% =	1,200 cfs
4% =	800 cfs	0.2% =	1,680 cfs

DATE OF FLOOD OF RECORD : Unknown
ESTIMATED DISCHARGE: Unknown
WATER SURFACE ELEV.: Unknown
NATURAL STREAM VELOCITY : @ 2% AEP = 11.0 fps
ICE CONDITIONS : Moderate
DEBRIS: Light
DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? No
IS ORDINARY RISE RAPID? No
IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No
IF YES, DESCRIBE:

WATERSHED STORAGE: <1%
HEADWATERS:
UNIFORM: X
IMMEDIATELY ABOVE SITE:

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Single span concrete T-beam
YEAR BUILT: 1900
CLEAR SPAN(NORMAL TO STREAM): 23'
VERTICAL CLEARANCE ABOVE STREAMBED: 15'
WATERWAY OF FULL OPENING: 300 sq. ft.
DISPOSITION OF STRUCTURE: Remove and replace
TYPE OF MATERIAL UNDER SUBSTRUCTURE: See borings

WATER SURFACE ELEVATIONS AT:

43% AEP =	522.1'	VELOCITY =	5.6 fps
10% AEP =	524.0'	"	11.8 fps
4% AEP =	524.9'	"	13.5 fps
2% AEP =	525.7'	"	14.8 fps
1% AEP =	526.5'	"	15.9 fps *

LONG TERM STREAMBED CHANGES: None noted

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: No
FREQUENCY: N/A
RELIEF ELEVATION: 535.2'
DISCHARGE OVER ROAD @ 1% AEP: N/A

UPSTREAM STRUCTURE

TOWN: Poultney — DISTANCE: 11,730'
HIGHWAY # : TH 9 — STRUCTURE #: 84
CLEAR SPAN: — CLEAR HEIGHT:
YEAR BUILT: — FULL WATERWAY:
STRUCTURE TYPE: Culvert

DOWNSTREAM STRUCTURE

TOWN: Poultney — DISTANCE: 250'
HIGHWAY # : — STRUCTURE #:
CLEAR SPAN: — CLEAR HEIGHT:
YEAR BUILT: — FULL WATERWAY:
STRUCTURE TYPE: Confluence with Poultney River

LRFR LOAD RATING FACTORS

LOADING LEVELS	TRUCK						
	H-20	HL-93	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
TONNAGE	20	36	36	66	30	34.5	38
INVENTORY							
POSTING							
OPERATING							
COMMENTS:	TABLE TO BE COMPLETED BY CONTRACTOR'S DESIGNER.						

FRAME DESIGN CRITERIA

1. See Project Notes Sheets.

PROPOSED STRUCTURE

STRUCTURE TYPE: Precast concrete rigid frame

CLEAR SPAN(NORMAL TO STREAM): 33'
VERTICAL CLEARANCE ABOVE STREAMBED: 12'
WATERWAY OF FULL OPENING: 370 sq. ft.

WATER SURFACE ELEVATIONS AT:

43% AEP =	522.0'	VELOCITY=	5.6 fps
10% AEP =	523.1'	"	7.9 fps
4% AEP =	523.7'	"	9.2 fps
2% AEP =	524.3'	"	9.9 fps
1% AEP =	524.8'	"	10.5 fps *

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: No
FREQUENCY: N/A
RELIEF ELEVATION: 535.2'
DISCHARGE OVER ROAD @ 1% AEP: N/A

BRIDGE LOW CHORD ELEVATION: 529.1'
FREEBOARD: @ 2% AEP = 4.8'

SCOUR: N/A, foundations on ledge

REQUIRED CHANNEL PROTECTION: Stone Fill Type E4

PERMIT INFORMATION

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

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: None required
CLEAR SPAN (NORMAL TO STREAM):
VERTICAL CLEARANCE ABOVE STREAMBED:
WATERWAY AREA OF FULL OPENING:

ADDITIONAL INFORMATION

* - Velocities are taken 65' downstream of the structure, approximate STA 50+25

TRAFFIC MAINTENANCE NOTES

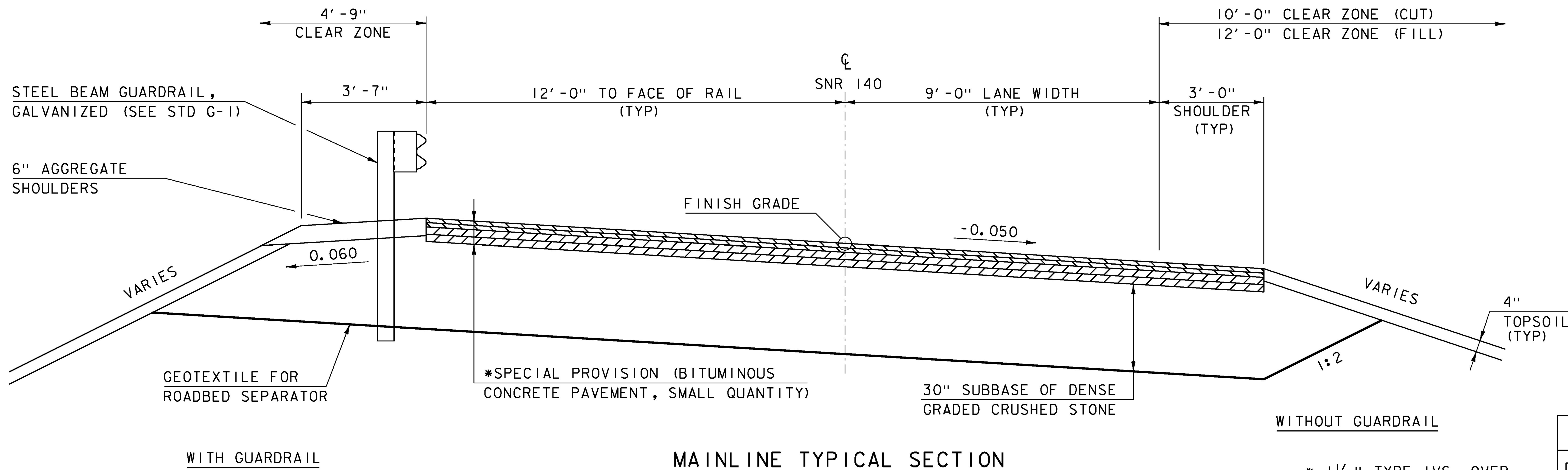
1. MAINTAIN TRAFFIC ON AN OFF SITE DETOUR.
2. TRAFFIC SIGNALS ARE NOT NECESSARY.
3. SIDEWALKS ARE NOT NECESSARY

DESIGN VALUES

1.	DESIGN LIVE LOAD		HL-93
2.	FUTURE PAVEMENT	d_p:	3.0 INCH
3.	DESIGN SPAN	L:	33.00 FT
4.	MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)	Δ:	---
5.	PRESTRESSING STRAND	f_y:	---
6.	PRESTRESSED CONCRETE STRENGTH	f'_c:	---
7.	PRESTRESSED CONCRETE RELEASE STRENGTH	f'_{ci}:	---
8.	CONCRETE, HIGH PERFORMANCE CLASS AA	f'_c:	---
9.	CONCRETE, HIGH PERFORMANCE CLASS A	f'_c:	4.0 KSI
10.	CONCRETE, HIGH PERFORMANCE CLASS B	f'_c:	3.5 KSI
11.	CONCRETE, CLASS C	f'_c:	3.0 KSI
12.	REINFORCING STEEL	f_y:	60 KSI
13.	STRUCTURAL STEEL AASHTO M270	f_y:	---
14.	NOMINAL BEARING RESISTANCE OF SOIL	q_n:	8.9 KSF
15.	SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	0.45
16.	NOMINAL BEARING RESISTANCE OF ROCK	q_n:	70 KSF
17.	ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	0.45
18.	PILE RESISTANCE FACTOR	ϕ:	---
19.	LATERAL PILE DEFLECTION	Δ:	---
20.	BASIC WIND SPEED	V_{3s}:	---
21.	MINIMUM GROUND SNOW LOAD	p_g:	---
22.	SEISMIC DATA — PGA : 0	S_s:	---
		S_1:	---
23.			
24.			---
25.			---
26.			---

PROJECT NAME: **POULTNEY**
PROJECT NUMBER: **BF 0138(12)**

FILE NAME:	s13j276pi.dgn	PLOT DATE:	8/23/2018
PROJECT LEADER:	R. YOUNG	DRAWN BY:	G. DARGAN
DESIGNED BY:	G. DARGAN	CHECKED BY:	G. LAROCHE
PRELIMINARY INFORMATION SHEET		SHEET 2 OF 46	

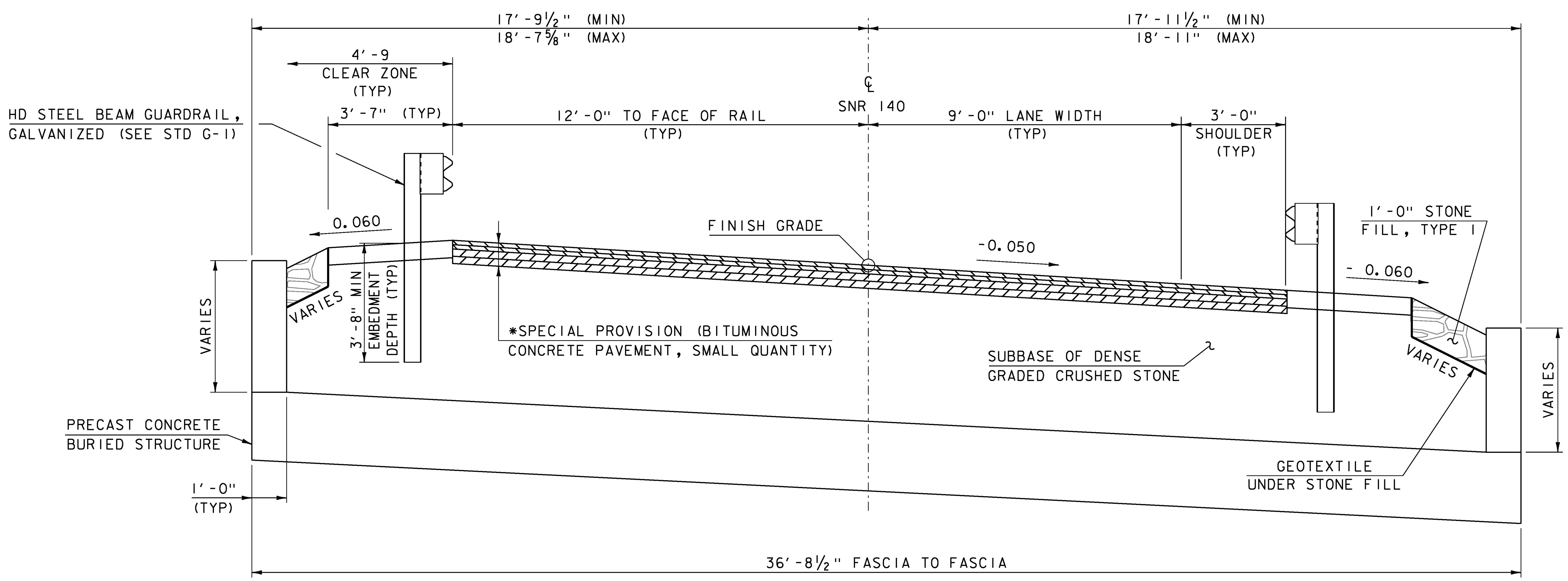


MAINLINE TYPICAL SECTION

SCALE 1/2" = 1'-0"

* 1 1/2" TYPE IVS, OVER
1 1/2" TYPE IVS, OVER
2 1/2" TYPE IIS, OVER
2 1/2" TYPE IIS

BITUMINOUS CONCRETE SUPERPAVE MIXTURE DESIGN CRITERIA	
DESIGN LANE/DESIGN LIFE ESALS	421,000
DESIGN NUMBER OF GYRATIONS	65
PERFORMANCE GRADE ASPHALT BINDER	70-25



BRIDGE TYPICAL SECTION

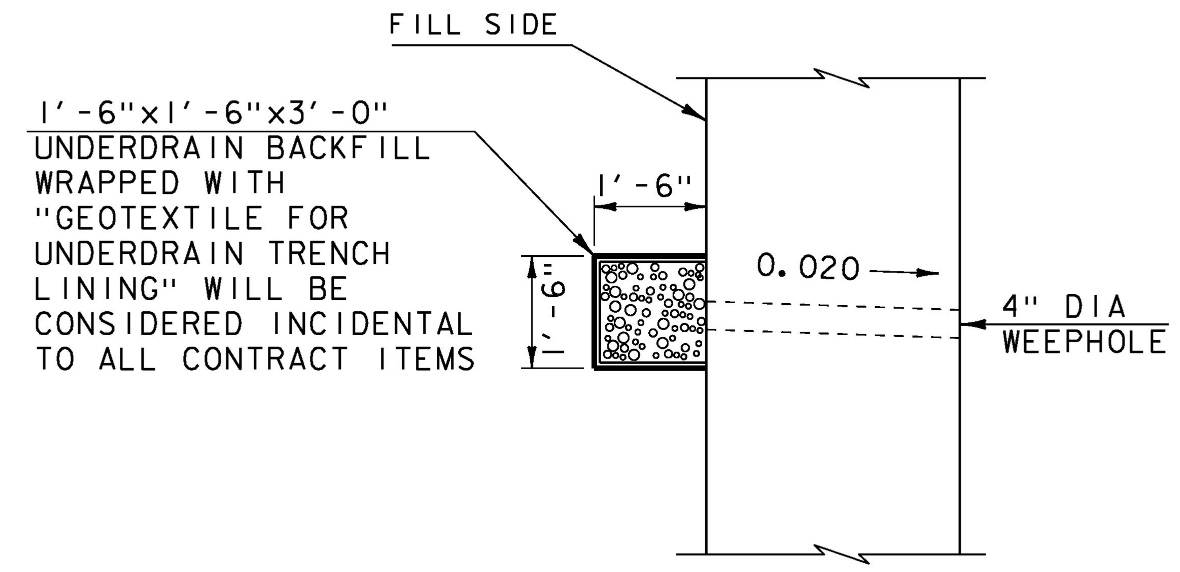
SCALE 1/2" = 1'-0"

NOTES:

1. BITUMINOUS CONCRETE PAVEMENT WILL BE PAID FOR UNDER ITEM 900.680 "SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)".
2. TACK COAT: EMULSIFIED ASPHALT IS TO BE APPLIED AT A RATE OF 0.025 GAL/SY BETWEEN SUCCESSIVE COURSES OF PAVEMENT AND 0.080 GAL/SY ON COLD PLANED SURFACES AS DIRECTED BY THE ENGINEER.

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

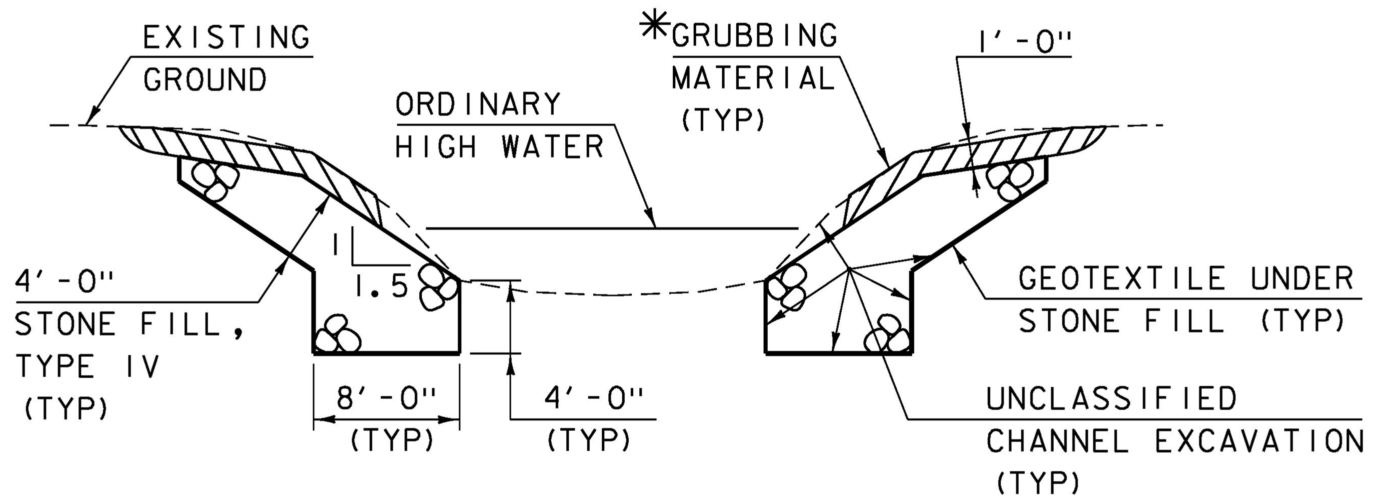
PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: s13j276typ.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
TYPICAL SECTIONS (1)	SHEET 3 OF 46



TYPICAL WEEPHOLE DETAIL

NOT TO SCALE

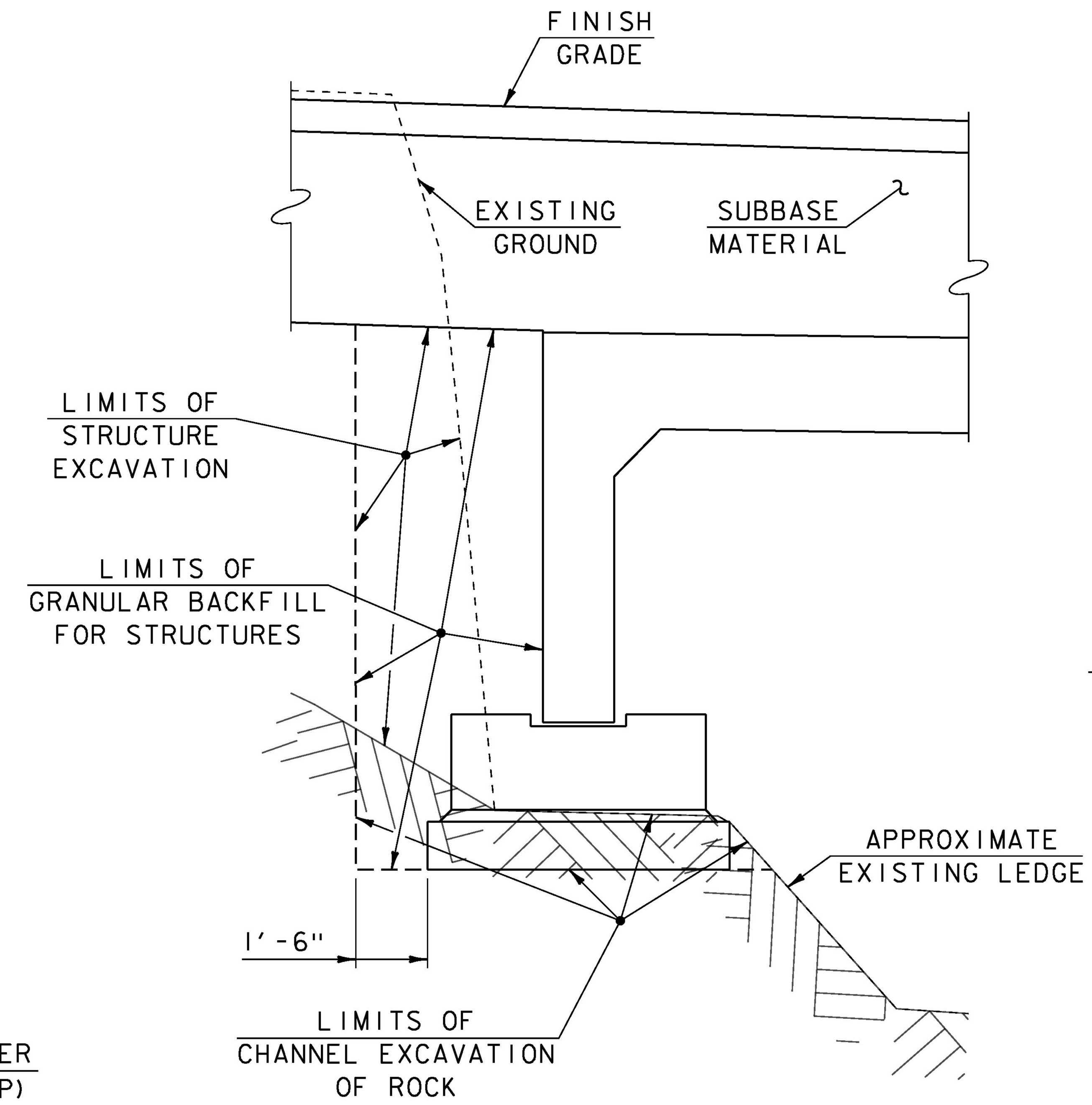
PLACE WEEPHOLES IN FRAME LEG ON ABUTMENT NO. 1 SIDE. SPACE 1'-0" FROM BOTTOM OF FRAME LEG AND AT A FREQUENCY OF ONE PER 10' (MIN).



TYPICAL CHANNEL SECTION

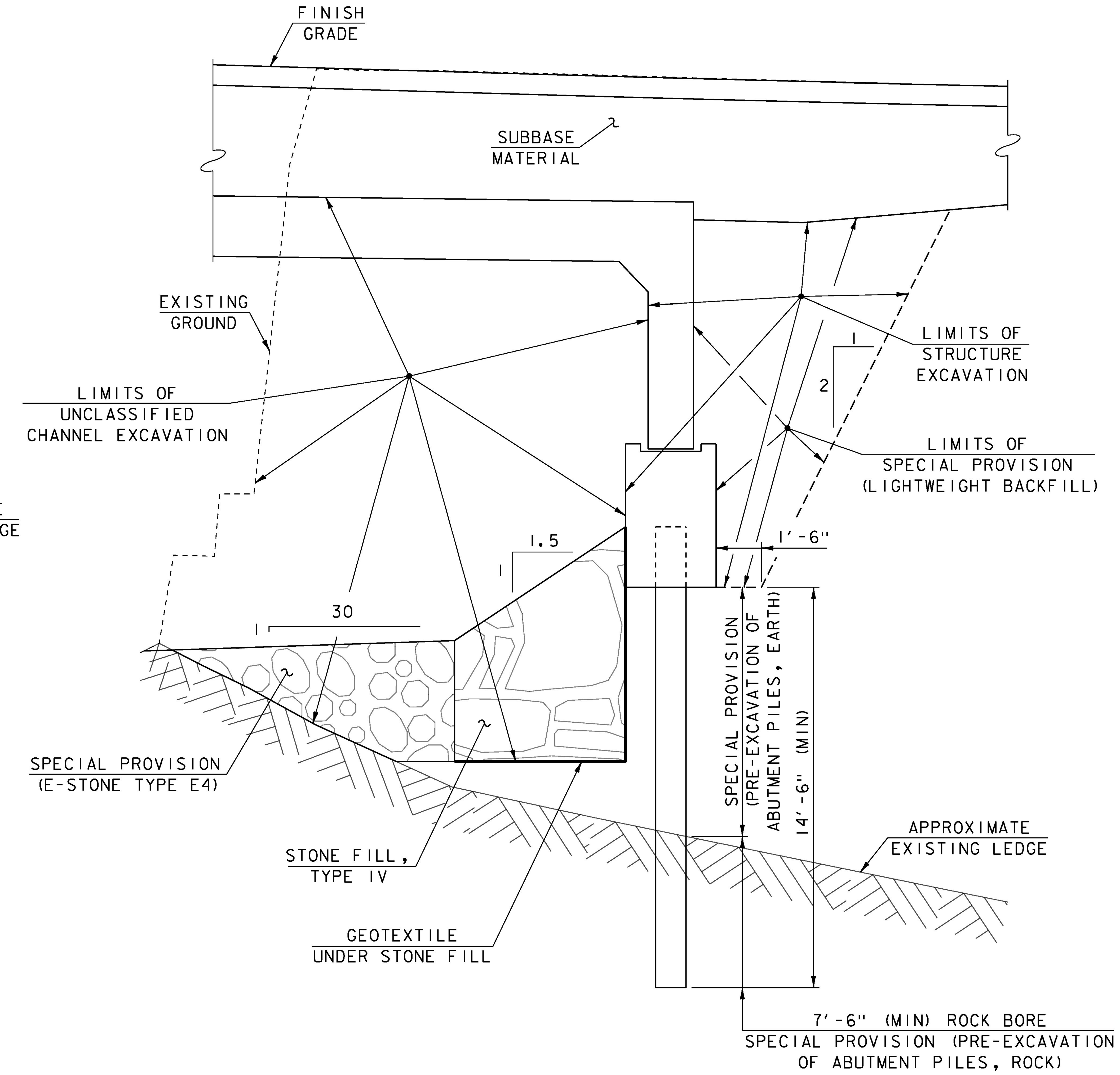
(NOT TO SCALE)

*WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.



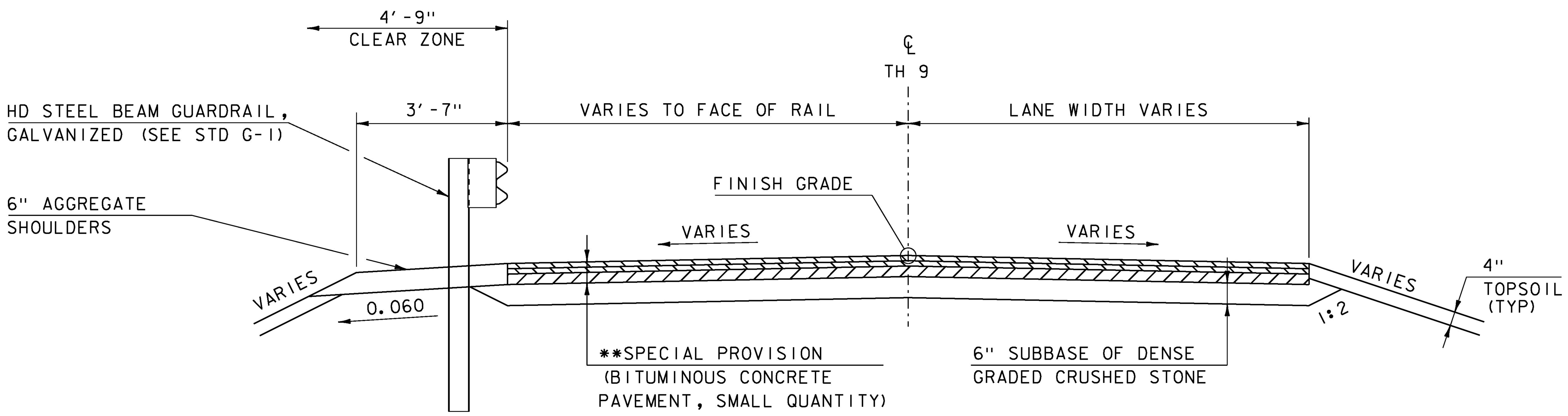
ABUTMENT NO. 1 EARTHWORK SECTION

NOT TO SCALE



ABUTMENT NO. 2 EARTHWORK SECTION

NOT TO SCALE



TH 9 TYPICAL SECTION

NOT TO SCALE

** 1½" TYPE IVS, OVER
1½" TYPE IVS, OVER
3" TYPE IIS

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276typ.dgn	PLOT DATE: 23-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
TYPICAL SECTIONS (2)	SHEET 4 OF 46

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE VERMONT AGENCY OF TRANSPORTATION 2011 STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE 2014 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, AND THEIR LATEST REVISIONS.

2. ALL PRECAST ELEMENTS TO BE FABRICATED TO THE SPECIFIED DIMENSIONS WITHIN THE TOLERANCES DICTATED IN THE PRECAST/PRESTRESSED CONCRETE INSTITUTE TOLERANCE MANUAL, FOR PRECAST AND PRESTRESSED CONCRETE CONSTRUCTION, MNL135-00 SECTION 10.25 – BOX CULVERT, AND ITS LATEST REVISIONS.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING CONSISTENCY BETWEEN THE FABRICATOR'S SHOP DRAWINGS AND ENSURING THAT ALL PRECAST COMPONENTS FIT TOGETHER.

4. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL, AND ARE GIVEN AT 68 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE.

EARTHWORK

5. THE REMOVAL OF EXISTING STRUCTURE WILL BE PAID UNDER ITEM 529.15 "REMOVAL OF STRUCTURE". THIS WORK SHALL INCLUDE REMOVAL OF THE ENTIRE SUPERSTRUCTURE AND ANY PORTIONS OF THE EXISTING ABUTMENTS THAT FALL OUTSIDE THE LIMITS OF STRUCTURE EXCAVATION OR UNCLASSIFIED CHANNEL EXCAVATION.

6. "STONE FILL, TYPE IV" AND "SPECIAL PROVISION (E-STONE TYPE E4)" SHALL BE PLACED TO A DEPTH OF 3 FT. UNDER THE BRIDGE, AS SHOWN IN THE PLANS, BEFORE NEW FRAME SECTIONS ARE SET.

TRAFFIC CONTROL

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF A SITE-SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION. THE PLAN SHALL CLEARLY DETAIL HOW TRAFFIC WILL BE MAINTAINED. THE PLAN SHALL SPECIFY ALL CONSTRUCTION ACTIVITIES REQUIRING ALTERNATING ONE-WAY TRAFFIC, RELATE THOSE ACTIVITIES TO THE CONSTRUCTION SCHEDULE, AND SHOW APPROPRIATE TEMPORARY TRAFFIC CONTROL. ALL COSTS WILL BE INCLUDED IN ITEM 900.645 "SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE)".

8. TH 9 (FINEL HOLLOW ROAD) IS IN PROXIMITY OF THE PROJECT AND WILL REMAIN OPEN DURING THE BRIDGE CLOSURE PERIOD. TRAFFIC WILL BE MAINTAINED FROM SNR 140 ONTO TH 9 DURING THE BRIDGE CLOSURE PERIOD. IF THE TOWN ELECTS TO SIGN A LOCAL DETOUR NO SIGNS WILL BE PERMITTED IN A STATE HIGHWAY RIGHT OF WAY WITHOUT ACQUIRING A VSA, TITLE 19, SECTION 1111 PERMIT. ANY DETOUR SIGNING IS THE SOLE RESPONSIBILITY OF THE TOWN OF POULTNEY. TH 9 MAY BE LIMITED TO ONE-WAY TRAFFIC FOR SHORT DURATIONS IF CONSTRUCTION ACTIVITIES WARRANT A LANE CLOSURE.

SUBSTRUCTURE ON BEDROCK

9. FOOTINGS AND SUBFOOTINGS SHALL BE FOUNDED UPON BEDROCK CLEANED OF ALL LOOSE ROCK AND DEBRIS.

10. UPON COMPLETION OF EXCAVATION FOR SUBSTRUCTURES FOUNDED ON BEDROCK AND PRIOR TO PLACING FORMWORK, THE ENGINEER SHALL NOTIFY THE PROJECT MANAGER AND THE VTRANS STATE GEOLOGIST. THE GEOLOGIST WILL DETERMINE IF THE BEDROCK IS COMPETENT TO OBTAIN THE REQUIRED NOMINAL BEARING RESISTANCE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 72 HOURS PRIOR TO WHEN THE ANALYSIS WILL BE NEEDED.

11. BEDROCK THAT IS EXCAVATED FOR PLACEMENT OF FOOTINGS SHALL BE EXCAVATED TO PROVIDE A LEVEL SURFACE, AS INDICATED IN THE PLANS, OR AS DIRECTED BY THE ENGINEER.

12. A MAXIMUM OF 6" OVERBREAKAGE SHALL BE REPLACED WITH ITEM 541.30 "CONCRETE, CLASS C". OVERBREAKAGE BEYOND 6" SHALL BE REPLACED WITH "CONCRETE, CLASS C" AT THE EXPENSE OF THE CONTRACTOR.

13. THE HORIZONTAL LIMITS OF THE SUBFOOTING SHALL BE A MINIMUM OF 0'-6" OUTSIDE THE LIMITS OF THE FOOTING.

14. BEDROCK SHALL BE EXCAVATED DOWN (IF NECESSARY) TO ALLOW FOR THE INDICATED SUBFOOTING TO BE POURED USING ITEM 541.30 "CONCRETE, CLASS C" TO A MINIMUM THICKNESS OF 1'-0".

15. DOWELS SHALL BE DRILLED AND GROUTED INTO THE BEDROCK AS SHOWN ON THE PLANS. THE DOWELS SHALL HAVE A 2'-0" MINIMUM EMBEDMENT INTO BEDROCK AND SHALL EXTEND THROUGH THE SUBFOOTING INTO THE SPREAD FOOTING TO 3" BELOW THE TOP OF FOOTING. DRILLING AND GROUTING OF DOWELS SHALL BE PAID UNDER ITEM 507.16 "DRILLING AND GROUTING DOWELS".

H-PILES

16. PILE SOCKETS SHALL BE PRE-DRILLED PER THE REQUIREMENTS OF ITEM 900.640 "SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES, EARTH) AND ITEM 900.640 "SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES, ROCK). PILES SHALL BE SEATED ON OR WITHIN THE BEDROCK WITH A PILE DRIVING IMPACT HAMMER TO A NOMINAL RESISTANCE OF 305 KIPS AND MEET ALL MINIMUM DEPTH REQUIREMENTS SHOWN ON THE PLANS. ANY WORK REQUIRED FOR DRIVING SHALL BE PAID FOR UNDER ITEM 504.10 "FURNISHING EQUIPMENT FOR DRIVING PILE".

17. PAYMENT FOR PRE-EXCAVATION OF PILES WILL BE PAID FOR UNDER ITEM 900.640 "SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENTS PILES, EARTH)" AND ITEM 900.640 "SPECIAL PROVISION (PRE-EXCAVATION OF INTEGRAL ABUTMENTS PILES, ROCK)" AS APPROPRIATE.

18. ALL PRE-EXCAVATED HOLES SHALL BE A MINIMUM OF 27 INCHES IN DIAMETER. THE ENTIRE PRE-EXCAVATED HOLE SHALL BE BACKFILLED WITH SAND PRIOR TO DRIVING PILES. SAND SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 703.03. REFER TO THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

19. FOR ESTIMATING PURPOSES, THE PILE TIP ELEVATIONS WERE ASSUMED AS SHOWN ON THE BORING LOGS. THE ACTUAL IN-PLACE LENGTHS MAY VARY BASED ON BEDROCK LOCATION.

20. THE TOPS OF THE PILES SHALL NOT VARY FROM THE POSITION SHOWN ON THE PLANS BY MORE THAN 3 INCHES. THE PILE ORIENTATION SHALL NOT VARY BY MORE THAN 5 DEGREES. THE CONTRACTOR SHALL DEMONSTRATE TO THE SATISFACTION OF THE ENGINEER HOW THE TOLERANCES WILL BE MET. THESE MEASURES SHALL BE DEMONSTRATED IN A SUBMITTAL TO BE ACCEPTED BEFORE PILE PLACEMENT COMMENCES.

CONCRETE

21. ALL LIFTING POINTS SHALL BE REMOVABLE OR COVERABLE TO THE MINIMUM CLEAR COVER FOR REINFORCING STEEL SPECIFIED IN THE PLANS. THE LIFTING POINTS SHALL BE DETAILED IN THE APPROPRIATE FABRICATION DRAWING. PAYMENT FOR THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE PRECAST ITEM.

22. ALL RECESSED LIFTING POINTS AND BLOCK OUTS SHALL BE FILLED WITH A TYPE IV MORTAR PER SUBSECTION 540.11 AND 707.03. PAYMENT WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE PRECAST ITEM. NO MEMBRANE IS PERMITTED TO BE PLACED OVER CURING GROUT UNTIL THE GROUT HAS REACHED A MOISTURE CONTENT OF 6% OR LESS.

23. THE CONTRACTOR SHALL DETERMINE THE METHOD OF FORMING FOR SUBSEQUENT POURS AFTER PLACING ANY PRECAST UNIT. THE CONTRACTOR IS ENCOURAGED TO WORK WITH THE FABRICATOR IF ADDITIONAL SUPPORTS ARE REQUIRED. IN NO CASE SHALL THE CONTRACTOR ATTACH ADDITIONAL FORM OR SCREED SUPPORTS BY DRILLING OR SIMILAR MEANS INTO ANY PRECAST UNIT.

24. WATER REPELLENT, SILANE SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 514 AND SHALL BE FIELD APPLIED TO ALL EXPOSED EXTERIOR SURFACES OF THE PRECAST CONCRETE STRUCTURE. SILANE WILL BE PAID UNDER 514.10 "WATER REPELLENT, SILANE".

25. HIGH PERFORMANCE CONCRETE, RAPID-SET SHALL BE CURED ACCORDING TO THE FOLLOWING REQUIREMENTS:

    A. WET CURING SHALL OCCUR FOR A MINIMUM OF 24 HOURS.
    B. CONSTRUCTION OF FRAME UNITS AND BACKFILLING OR PLACING ANY MATERIAL MAY COMMENCE WHEN FIELD-CURED TEST CYLINDERS REACH A COMPRESSIVE STRENGTH OF AT LEAST 2500 PSI. DYNAMIC COMPACTION METHODS UTILIZING FULL-SIZE COMPACTION EQUIPMENT ARE PERMITTED. THE STRUCTURE MAY BE BACKFILLED OVER THE TOP OF FRAME UNITS AND LOADED WITH CONSTRUCTION AND TRAFFIC LOADS WHEN FIELD-CURED CYLINDERS REACH A COMPRESSIVE STRENGTH OF AT LEAST 4000 PSI.

REINFORCING STEEL

26. CUTTING AND REPAIRING DAMAGED AREAS OF COATED REINFORCING STEEL SHALL BE PERFORMED IN ACCORDANCE WITH SUBSECTION 507.04.

27. REINFORCING STEEL CLEAR COVER REQUIREMENTS ARE STATED ACCORDING TO THE FOLLOWING, UNLESS OTHERWISE NOTED IN THE PLANS:

A. UNDERSIDE OF FRAME ROOF	1.5 INCHES
B. EXPOSED TO EARTH OR WEATHER	2.0 INCHES
C. TOP OF FRAME	2.5 INCHES
D. DIRECT EXPOSURE TO DEICING SALTS (FRAME FASCIA OR CURB)	3.0 INCHES
E. CAST AGAINST EARTH	3.0 INCHES

28. TEST BARS SHALL BE PROVIDED IN ACCORDANCE WITH THE "VERMONT AGENCY OF TRANSPORTATION MATERIAL SAMPLING MANUAL" AVAILABLE ON THE AGENCY WEBSITE. A MINIMUM OF TWO TEST SECTIONS ARE REQUIRED FOR EACH SIZE, BRAND, AND GRADE OR TYPE OF REINFORCING. SEE THE MANUAL FOR ACCEPTABLE DIMENSIONS OF TEST SECTIONS. ALL COSTS ASSOCIATED WITH PROVIDING BARS FOR TESTING WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE PRECAST ITEM.

PRECAST ABUTMENTS

29. GALVANIZE ANCHOR ASSEMBLIES AFTER FABRICATION ACCORDING TO AASHTO M232M/M 232.

30. CORRUGATED STEEL PIPE SHALL MEET THE REQUIREMENTS OF SUBSECTION 711.01 AND SHALL BE GALVANIZED PER SUBSECTION 726.08 OF THE STANDARD SPECIFICATIONS. ALL COSTS ASSOCIATED WITH PLACING THE CORRUGATED STEEL PIPE WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROPRIATE PRECAST ABUTMENT ITEM.

STRUCTURAL ELEMENT	CONCRETE		REINFORCING STEEL	
	TO MEET THE REQUIREMENTS FOR:	PAYMENT TO BE INCLUDED IN:	TO MEET THE REQUIREMENTS FOR:	PAYMENT TO BE INCLUDED IN:
ABUTMENT NO. 1 SUBFOOTING (INCLUDES DOWEL REINFORCING STEEL LABELED A5)	SUBFOOTING - 541.30 "CONCRETE, CLASS C" GROUTING DOWELS - 507.16 "DRILLING AND GROUTING DOWELS"	ITEM 541.30 "CONCRETE, CLASS C" ITEM 507.16 "DRILLING AND GROUTING DOWELS"	DOWELS - 507.13 "REINFORCING STEEL, LEVEL III (STAINLESS STEEL)" SUBFOOTING REINFORCEMENT (IF NEEDED) – 507.11 "REINFORCING STEEL, LEVEL I (EPOXY COATED)"	ITEM 507.13 "REINFORCING STEEL, LEVEL III (STAINLESS STEEL)" ITEM 507.11 "REINFORCING STEEL, LEVEL I (EPOXY COATED)"
RIGID FRAME OR ARCH TYPE PRECAST CONCRETE STRUCTURE (INCLUDES REINFORCING STEEL DESIGNED BY FABRICATOR)	540.10 "PRECAST CONCRETE STRUCTURE (33' X 6.25' FRAME)"	ITEM 540.10 "PRECAST CONCRETE STRUCTURE (33' X 6.25' FRAME)"	507.11 "REINFORCING STEEL, LEVEL I (EPOXY COATED)"	ITEM 540.10 "PRECAST CONCRETE STRUCTURE (33' X 6.25' FRAME)"
ABUTMENT NO. 1 (INCLUDES REINFORCING STEEL LABELED A1-A4)	540.10 "PRECAST CONCRETE STRUCTURE (ABUTMENT NO. 1)" OR 900.645 "SPECIAL PROVISION (CONTRACTOR FABRICATED PRECAST CONCRETE STRUCTURE) (ABUTMENT NO. 1)"	ITEM 540.10 "PRECAST CONCRETE STRUCTURE (ABUTMENT NO. 1)" OR ITEM 900.645 "SPECIAL PROVISION (CONTRACTOR FABRICATED PRECAST CONCRETE STRUCTURE) (ABUTMENT NO. 1)"	507.11 "REINFORCING STEEL, LEVEL I (EPOXY COATED)"	ITEM 540.10 "PRECAST CONCRETE STRUCTURE (ABUTMENT NO. 1)" OR ITEM 900.645 "SPECIAL PROVISION (CONTRACTOR FABRICATED PRECAST CONCRETE STRUCTURE) (ABUTMENT NO. 1)"
ABUTMENT NO. 2 (INCLUDES REINFORCING STEEL LABELED A6-A10)	540.10 "PRECAST CONCRETE STRUCTURE (ABUTMENT NO. 2)" OR 900.645 "SPECIAL PROVISION (CONTRACTOR FABRICATED PRECAST CONCRETE STRUCTURE) (ABUTMENT NO. 2)"	ITEM 540.10 "PRECAST CONCRETE STRUCTURE (ABUTMENT NO. 2)" OR ITEM 900.645 "SPECIAL PROVISION (CONTRACTOR FABRICATED PRECAST CONCRETE STRUCTURE) (ABUTMENT NO. 2)"	507.11 "REINFORCING STEEL, LEVEL I (EPOXY COATED)"	ITEM 540.10 "PRECAST CONCRETE STRUCTURE (ABUTMENT NO. 2)" OR ITEM 900.645 "SPECIAL PROVISION (CONTRACTOR FABRICATED PRECAST CONCRETE STRUCTURE) (ABUTMENT NO. 2)"
ABUTMENT NO. 1 AND NO. 2 GROUTING	541.58 "MORTAR, TYPE IV"	RESPECTIVE PRECAST CONCRETE ITEM	N/A	N/A
ABUTMENT NO. 2 PILE CAVITIES	900.608 "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET)"	ITEM 900.608 "SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ)"	N/A	N/A

PRECAST RIGID FRAME/RETAINING WALL - DESIGN CRITERIA

31. THE RIGID FRAME, RIGID FRAME HEADWALLS, AND RETAINING WALLS SHALL BE DESIGNED BY THE FABRICATOR, INCLUDING THE ANCHORAGE AND CONNECTIONS BETWEEN ELEMENTS. THE RIGID FRAME SHALL BE DESIGNED FIRST, FOLLOWED BY THE RETAINING WALLS AND ANY CONNECTIONS TO THE FRAME AND/OR ABUTMENTS THAT MAY BE REQUIRED. THE CONTRACTOR SHALL SUBMIT FABRICATION DRAWINGS AND CALCULATIONS TO THE ENGINEER IN ACCORDANCE WITH SECTION 105. SHOP DRAWINGS MUST DEMONSTRATE COMPATIBILITY BETWEEN THE FRAME AND WINGWALL SYSTEM CHOSEN BY THE CONTRACTOR.

32. THE SOIL PROPERTIES AND DESIGN PARAMETERS USED FOR THIS PROJECT ARE AS INDICATED BELOW.

A. SOIL UNIT WEIGHT = 140 PCF
B. DESIGN LIVE LOAD = HL-93
C. NOMINAL BEARING RESISTANCE (BEDROCK) = 70 KSF
D. NOMINAL BEARING RESISTANCE (IN-SITU) = 4 KSF
E. BEARING RESISTANCE FACTOR = 0.45
F. DESIGN FILL OVER FRAME = 4 - 5 FEET
G. AT-REST EARTH PRESSURE (KO) = 0.44
H. CONCRETE COMPRESSIVE STRENGTH = SEE SUBSECTION 540.05(E)
I. REQUIRED DESIGN LIFE = 75 YEARS
J. VEHICULAR SURCHARGE = PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

PRECAST RIGID FRAME

33. THE LUMP SUM COST FOR ITEM 540.10 "PRECAST CONCRETE STRUCTURE (33' X 6.25')" SHALL INCLUDE THE PRECAST RIGID FRAME, HEADWALLS, AND ALL CONNECTIONS BETWEEN ADJACENT UNITS, INCLUDING RETAINING WALLS.

34. THE ABUTMENTS ARE DESIGNED FOR THE REACTIONS AND BEHAVIOR SUMMARIZED BELOW. IF THE PROPOSED FRAME REACTIONS AND GEOMETRY VARY BEYOND THE LIMITS DEFINED BELOW, THE FABRICATOR SHALL ASSUME DESIGN RESPONSIBILITY OF THE FOUNDATION, DESIGN THE NECESSARY REVISIONS TO THE FOUNDATION, AND SUBMIT STRUCTURAL CALCULATIONS FOR THE REVISED DESIGN IN ACCORDANCE WITH SUBSECTION 540.04.

A. FRAME STIFFNESS: WHEN MODELING THE STIFFNESS OF THE FRAME FOR PURPOSES OF DESIGNING THE PILES AND PILE CAPS, THE FRAME LEG WAS ASSUMED TO HAVE A MINIMUM THICKNESS OF 12 INCHES. IF THE FABRICATOR'S PROPOSED LEG THICKNESS IS LESS THAN 12 INCHES, THE FABRICATOR SHALL ASSUME DESIGN RESPONSIBILITY OF THE PILES AND PILE CAP.

B. FRAME REACTIONS AT TOP OF PEDESTAL: FOUNDATIONS WERE DESIGNED FOR MAXIMUM UN-FACTORED REACTIONS OF:

I.	STRUCTURE DEAD LOAD (DC):	9.4 KIPS PER FOOT
II.	LIVE LOAD (LL):	3.4 KIPS PER FOOT
III.	WEARING SURFACES (DW):	1.3 KIPS PER FOOT
IV.	EARTH PRESSURE (EV):	9.5 KIPS PER FOOT
V.	EARTH PRESSURE & LIVE LOAD (EH+LS) ON FRAME (AB #1):	5.8 KIPS PER FOOT
VI.	EARTH PRESSURE & LIVE LOAD (EH+LS) ON FRAME (AB #2):	2.9 KIPS PER FOOT
VII.	EARTH PRESSURE & LIVE LOAD (EH+LS) ON FOOTING:	2.1 KIPS PER FOOT
VIII.	EARTH PRESSURE & LIVE LOAD (EH+LS) ON PILE CAP:	4.2 KIPS PER FOOT

C. PEDESTAL HEIGHT: THE PILE CAP AND SPREAD FOOTING ARE DESIGNED FOR THE DIMENSIONS SHOWN IN THE PLANS. IF THE PROPOSED FABRICATOR'S DESIGN REQUIRES A HIGHER PEDESTAL ELEVATION, THE FABRICATOR SHALL ASSUME DESIGN RESPONSIBILITY OF THE PILE CAP AND SPREAD FOOTING.

35. THE FABRICATOR SHALL SUPPLY THE STATE WITH THE LRFD LOAD RATING FACTORS FOR THE FRAME TO COMPLETE THE LOAD RATING TABLE ON THE PRELIMINARY INFORMATION SHEET.

36. THE PRECAST STRUCTURE DETAILS ARE SHOWN FOR REFERENCE ONLY. THE ACTUAL DIMENSIONS AND CONFIGURATION WILL BE DEPENDENT ON THE FABRICATOR. THE INSIDE CLEAR DIMENSION OF THE FRAME SHALL BE A MINIMUM OF 33 FEET AND THE THICKNESS OF THE ROOF SLAB SHALL BE NO MORE THAN 24 INCHES.

37. THE USE OF EQUIPMENT AND THE METHOD OF BACKFILLING AROUND THE BURIED STRUCTURE SHALL BE IN ACCORDANCE WITH THE FABRICATOR'S RECOMMENDATIONS. CARE SHALL BE TAKEN WHEN BACKFILLING AGAINST JOINT SEALING MATERIALS.

RETAINING WALL

38. THE DESIGN, CONSTRUCTION, HANDLING, AND ASSEMBLY OF THE RETAINING WALL SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS. HANDLING AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AS APPLICABLE.

39. THE RETAINING WALL SHALL BE SELECTED FROM THE LIST OF WALLS ON THE APPROVED RETAINING WALL DOCUMENT AVAILABLE FROM VAOT GEOTECHNICAL SECTION WEBSITE: (HTTPS://OUTSIDE.VERMONT.GOV/AGENCY/VTRANS/EXTERNAL/DOCS/CONSTRUCTION/03GEOTECHENG/ENGINEERING/MANDRSOILAPPROVED_RETAINING_WALLS_8-2012_FINAL%20ENGINEERING.PDF)

40. THE FABRICATOR, IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS REFERENCED IN PROJECT NOTE 1, SHALL DESIGN THE PRECAST CONCRETE RETAINING WALL. THE DESIGN SHALL INCLUDE THE EFFECTS OF ALL APPLICABLE LOADS INCLUDING VEHICULAR SURCHARGE. DESIGN CALCULATIONS SHALL BE SUBMITTED WITH FABRICATION DRAWINGS STAMPED BY AN ENGINEER REGISTERED IN THE STATE OF VERMONT.

41. THE DESIGN OF THE WALLS SHALL INCORPORATE PROVISIONS FOR ADJACENT OBSTRUCTIONS SUCH AS DRAINAGE FEATURES AND GUARDRAIL POSTS IF NECESSARY. ANY CHANGES TO THE WALL SYSTEM SHALL BE DETAILED IN THE FABRICATION DRAWINGS.

42. WALL DESIGN SHALL INCLUDE DRAINAGE PROVISIONS TO PREVENT HYDROSTATIC PRESSURE BEHIND WALL.

43. A BRIDGE PLAQUE FURNISHED BY THE AGENCY SHALL BE CAST INTO RETAINING WALL NO. 2. SEE SD-502.00 FOR FURTHER DETAILS.

44. ANY ADDITIONAL LEDGE REMOVAL REQUIRED TO ACCOMMODATE RETAINING WALLS AND/OR ADDITIONAL RELATED ELEMENTS WILL BE INCLUDED IN PAYMENT FOR ITEM 900.670 "SPECIAL PROVISION (RETAINING WALLS)".

MISCELLANEOUS

45. EPSC EXISTING CONDITIONS SHEET AND EPSC PLAN SHEET HAVE BEEN INCLUDED AS A REFERENCE FOR SUBMITTALS.

46. ITEM 519.20 "SHEET MEMBRANE WATERPROOFING, TORCH APPLIED" SHALL BE APPLIED TO THE ENTIRE BURIED SURFACE OF THE RIGID FRAME AS PER THE MANUFACTURER'S INSTRUCTIONS. THE SIDES OF THE RIGID FRAME SHALL BE COVERED PRIOR TO THE TOP. ANY OVERLAPPING OF MEMBRANE SHALL BE DONE IN A SHINGLE TYPE STYLE AND SHALL OVERLAP A MINIMUM OF ONE FOOT.

47. IF ANY TREES FOUR INCHES (4") OR GREATER IN DIAMETER ARE CUT ON AN ADJACENT PROPERTY OWNER'S PROPERTY, THE CONTRACTOR SHALL CUT THE TIMBER INTO 12 FOOT TO 14 FOOT LOG LENGTHS AND PLACE ON THE PROPERTY OWNER'S PROPERTY AT A LOCATION MUTUALLY AGREEABLE TO THE PROPERTY OWNER, RESIDENT ENGINEER AND CONTRACTOR.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES / TOTALS / DESCRIPTIONS

ROADWAY	EROSION CONTROL	BRIDGE	FULL C. E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND
1				1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	-
650				650		CY	COMMON EXCAVATION	203.15	3.17
		30		30		CY	CHANNEL EXCAVATION OF ROCK	203.26	2.01
		540		540		CY	UNCLASSIFIED CHANNEL EXCAVATION	203.27	2.05
1				1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-
		170		170		CY	STRUCTURE EXCAVATION	204.25	6.41
		70		70		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30	9.46
260				260		SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	4.98
620				620		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	4.39
52				52		TON	AGGREGATE SHOULDERS	402.12	8.26
13				13		CWT	EMULSIFIED ASPHALT	404.65	0.59
1				1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-
		1		1		LS	FURNISHING EQUIPMENT FOR DRIVING PILING	504.10	-
		100		100		LF	STEEL PILING, HP 14 X 102	505.19	
		50		50		LB	REINFORCING STEEL, LEVEL I (EPOXY COATED)	507.11	EST.
		480		480		LB	REINFORCING STEEL, LEVEL III	507.13	2.73
		40		40		LF	DRILLING AND GROUTING DOWELS	507.16	4
		15		15		GAL	WATER REPELLENT, SILANE	514.10	EST.
		240		240		SY	SHEET MEMBRANE WATERPROOFING, TORCH APPLIED	519.20	2.08
		1		1		EACH	REMOVAL OF STRUCTURE (616 SF - EST.)	529.15	-
		1		1		LS	PRECAST CONCRETE STRUCTURE (33' X 6.25' FRAME)	540.10	-
							BEGIN OPTION AA		
		1		1		LS	PRECAST CONCRETE STRUCTURE (ABUTMENT NO. 1)	540.10	
		1		1		LS	SPECIAL PROVISION (CONTRACTOR FABRICATED PRECAST CONCRETE STRUCTURE) (ABUTMENT NO. 1)	900.645	
							END OPTION AA		
							BEGIN OPTION BB		
		1		1		LS	PRECAST CONCRETE STRUCTURE (ABUTMENT NO. 2)	540.10	
		1		1		LS	SPECIAL PROVISION (CONTRACTOR FABRICATED PRECAST CONCRETE STRUCTURE) (ABUTMENT NO. 2)	900.645	
							END OPTION BB		
		10		10		CY	CONCRETE, CLASS C	541.30	1.01
		20		20		CY	STONE FILL, TYPE I	613.10	4.66
		330		330		CY	STONE FILL, TYPE IV	613.13	5.93
254				254		LF	HD STEEL BEAM GUARDRAIL, GALVANIZED	621.21	-
1				1		EACH	MANUFACTURED TERMINAL SECTION, TANGENT	621.51	-
2				2		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	-
25				25		LF	REMOVE AND RESET GUARDRAIL	621.75	-
175				175		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	0.79
100				100		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST
400				400		HR	FLAGGERS	630.15	EST

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		EARTHWORK SUMMARY
		FILL AVAILABLE
650	CY	COMMON EXCAVATION (650 x 1.0)
9	CY	CHANNEL EXCAVATION OF ROCK (30 x 0.3)
162	CY	UNCLASSIFIED CHANNEL EXCAVATION (540 x 0.3)
51	CY	STRUCTURE EXCAVATION (170 x 0.3)
8	CY	ROUNDING
880	**CY**	**TOTAL FILL AVAILABLE**
		FILL REQUIRED
0	CY	FACTORED FILL (0 x 1.15)
0	CY	ROUNDING
0	**CY**	**TOTAL FILL REQUIRED**
880	**CY**	**TOTAL WASTE**
		COMMON EXCAVATION
610	CY	MANILINE (SNR 140)
40	CY	TH 9
		SUBBASE OF DENSE GRADED CRUSHED STONE
590	CY	MANILINE (SNR 140)
30	CY	TH 9
		GEOTEXTILE FOR ROADBED SEPARATOR
590	SY	MANILINE (SNR 140)
190	SY	TH 9

KEY	DATE	BY	REVISION
⚠	09/17/2018	VAOT	REVISED PAY ITEM.

PROJECT NAME: POULTNEY
PROJECT NUMBER: BF 0138(12)

FILE NAME: sl3j276qs.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: G. DARGAN
QUANTITY SHEET (1)

PLOT DATE: 13-SEP-2018
DRAWN BY: G. ROY
CHECKED BY: G. DARGAN

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES				TOTALS		DESCRIPTIONS			
ROADWAY	EROSION CONTROL	BRIDGE	FULL C. E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND
			1	1		LS	FIELD OFFICE, ENGINEERS	631.10	-
			1	1		LS	TESTING EQUIPMENT, CONCRETE	631.16	-
			1	1		LS	TESTING EQUIPMENT, BITUMINOUS	631.17	-
			3000	3000		DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26	-
1				1		LS	MOBILIZATION/DEMOBILIZATION	635.11	-
2				2		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-
490				490		LF	4 INCH YELLOW LINE	646.21	-
780				780		SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11	3.5
		300		300		SY	GEOTEXTILE UNDER STONE FILL	649.31	5.88
	175			175		SY	GEOTEXTILE FOR SILT FENCE	649.51	4.42
	20			20		LB	SEED	651.15	EST.
	20			20		LB	SEED, WINTER RYE	651.17	EST.
	20			20		LB	FERTILIZER	651.18	7.27
	0.1			0.1		TON	AGRICULTURAL LIMESTONE	651.20	0.05
	0.1			0.1		TON	HAY MULCH	651.25	0.05
	20			20		CY	TOPSOIL	651.35	3.57
		140		140		SY	GRUBBING MATERIAL	651.40	2.31
	1			1		LS	EPSC PLAN	652.10	-
	40			40		HR	MONITORING EPSC PLAN	652.20	EST
	1			1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30	-
	130			130		SY	TEMPORARY EROSION MATTING	653.20	6.78
	36			36		CY	VEHICLE TRACKING PAD	653.35	EST.
	610			610		LF	PROJECT DEMARCATION FENCE	653.55	0.1
25				25		SF	TRAFFIC SIGNS, TYPE A	675.20	-
104				104		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341	EST.
8				8		EACH	REMOVING SIGNS	675.50	-
2				2		EACH	ERECTING SALVAGED SIGNS	675.60	-
3				3		EACH	DELINEATOR WITH STEEL POST	676.10	-
		100		100		CY	SPECIAL PROVISION (E-STONE, TYPE E4)	900.608	7.18
		4		4		CY	SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ)	900.608	0.72
		100		100		CY	SPECIAL PROVISION (LIGHTWEIGHT BACKFILL)	900.608	7.74
36940				36940		DL	SPECIAL PROVISION (INCENTIVE/DISINCENTIVE) (N.A.B.I.)	900.615	-
5				5		EACH	SPECIAL PROVISION (CPM SCHEDULE)	900.620	-
1				1		EACH	SPECIAL PROVISION (HD STEEL BEAM GUARDRAIL, GALVANIZED)(35 FOOT RADIUS)	900.620	-
		50		50		LF	SPECIAL PROVISION (PRE-EXCAVATION OF ABUTMENT PILES, EARTH)	900.640	0.2
		30		30		LF	SPECIAL PROVISION (PRE-EXCAVATION OF ABUTMENT PILES, ROCK)	900.640	-
		1		1		LS	SPECIAL PROVISION (TEMPORARY RELOCATION OF STREAM)	900.645	-
1				1		LS	SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE)	900.645	-
1				1		LU	SPECIAL PROVISION (MAT DENSITY PAY ADJUSTMENT, SMALL QUANTITY) (N.A.B.I.)	900.650	-

DETAILED SUMMARY OF QUANTITIES		
QUANTITIES	UNIT	ITEMS

PROJECT NAME: POULTNEY
PROJECT NUMBER: BF 0138(12)

FILE NAME: s13j276qs.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: G. DARGAN
QUANTITY SHEET (2)

PLOT DATE: 15-AUG-2018
DRAWN BY: G. ROY
CHECKED BY: G. DARGAN

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS			
						ROADWAY	EROSION CONTROL	BRIDGE	FULL C. E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND
						1				1		LU	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT)(N.A.B.I.)	900.650	-
								505		505		SF	SPECIAL PROVISION (CONCRETE RETAINING WALL)	900.670	-
						351				351		TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)	900.680	0.16

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

PROJECT NAME: POULTNEY
PROJECT NUMBER: BF 0138(12)

FILE NAME: sl3j276qs.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: G. DARGAN
QUANTITY SHEET (3)
PLOT DATE: 15-AUG-2018
DRAWN BY: G. ROY
CHECKED BY: G. DARGAN
SHEET 9 OF 46

GENERAL INFORMATION

SYMBOLOGY LEGEND NOTE

THE SYMBOLOGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLOGY. THE SYMBOLOGY 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. SYMBOLOGY ON PLANS MAY VARY, PLAN ANNOTATIONS AND NOTES SHOULD BE USED TO CLARIFY AS NEEDED.

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

POINT CODE	DESCRIPTION
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
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

UTILITY SYMBOLOGY

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+TELEP.
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+TELEP.
	UTILITY POLE GUY WIRE

PROJECT CONSTRUCTION SYMBOLOGY

PROJECT DESIGN & LAYOUT SYMBOLOGY

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	PROJECT DEMARCATION FENCE
BF	BARRIER FENCE
	TREE PROTECTION ZONE (TPZ)
	STRIPING LINE REMOVAL
	SHEET PILES

CONVENTIONAL BOUNDARY SYMBOLOGY

BOUNDARY LINES

TOWN LINE	TOWN BOUNDARY LINE
COUNTY LINE	COUNTY BOUNDARY LINE
STATE 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/L	PROPERTY LINE (P/L)
SR	SLOPE RIGHTS
6f	6F PROPERTY BOUNDARY
4f	4F PROPERTY BOUNDARY
HAZ	HAZARDOUS WASTE

EPSC LAYOUT PLAN SYMBOLOGY

EPSC MEASURES

- FILTER CURTAIN
- SILT FENCE
- SILT FENCE WOVEN WIRE
- CHECK DAM
- DISTURBED AREAS REQUIRING RE-VEGETATION
- EROSION MATTING

SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLOGY

ENVIRONMENTAL RESOURCES

	WETLAND BOUNDARY
	RIPARIAN BUFFER ZONE
	WETLAND BUFFER ZONE
	SOIL TYPE BOUNDARY
T&E	THREATENED & ENDANGERED SPECIES
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 SYMBOLOGY

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: POULTNEY
PROJECT NUMBER: BF 0138(12)

FILE NAME: s13j276leg.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: G. DARGAN
LEGEND
PLOT DATE: 15-AUG-2018
DRAWN BY: G. DARGAN
CHECKED BY: G. LAROCHE
SHEET 10 OF 46

GPS CONTROL POINTS

HVCTRL #1
ON THE GREEN 2014
NORTH = 373371.7102
EAST = 1450418.8047
ELEV. = 479.690

THE MARK IS SET 5 CM BELOW GROUND SURFACE IN THE TOP OF A FENO STYLE MONUMENT IN A SMALL GRASS TRIANGLE NORTH OF THE EAST POULTNEY GREEN. IT IS 6.4 M SOUTHWEST OF THE CENTERLINE OF VT ROUTE 140, 2.3 M NORTH OF THE NORTH EDGE OF PAVEMENT OF THE ROAD PASSING SOUTH OF THE TRIANGLE, 18.0 M SOUTH OF AND ACROSS THE ROAD FROM POLE NO 7/78/78 WITH TRANSFORMER, 5.7 M EAST OF A STOP SIGN AND 15.0 M SOUTHWEST OF AND ACROSS THE ROAD FROM A WELCOME TO POULTNEY (ESTABLISHED 1761) SIGN.

HVCTRL #2
RIVERSIDE GAR 2014
NORTH = 374841.5724
EAST = 1453392.4792
ELEV. = 510.020

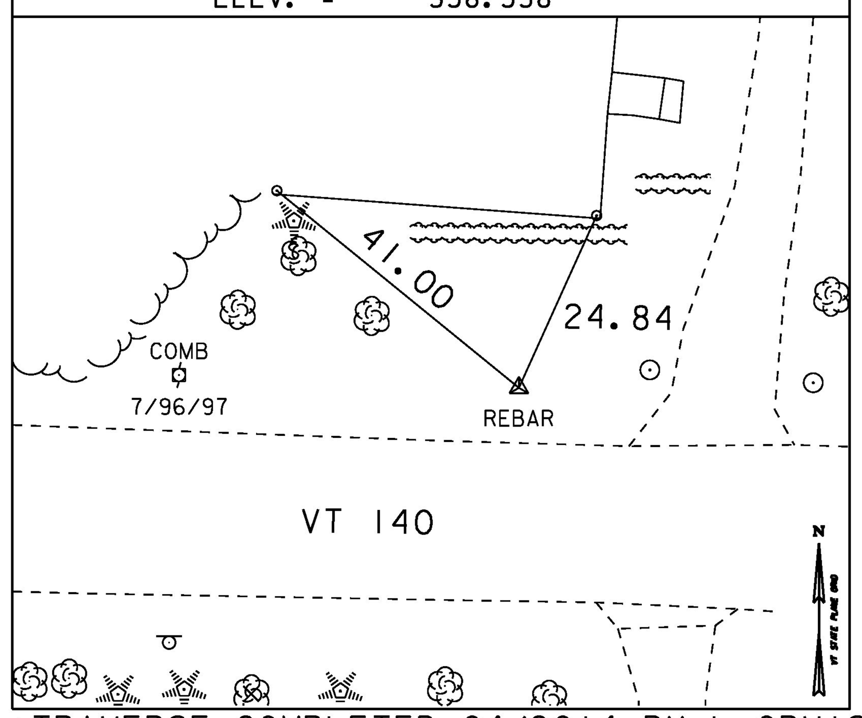
THE MARK IS SET 5 CM BELOW GROUND SURFACE IN THE TOP OF A FENO STYLE MONUMENT. IT IS 7.5 M NORTH OF AND 0.1 M LOWER THAN THE CENTERLINE OF VT ROUTE 140, 0.5 M NORTH OF THE NORTH EDGE OF A CONCRETE SIDEWALK, 5.9 M SOUTH-SOUTHWEST OF THE SECOND MOST EASTERLY SAPLING IN A ROW, 7.2 M SOUTH-SOUTHEAST OF THE THIRD MOST EASTERLY SAPLING IN THE ROW, 15.2 M NORTHWEST OF AND ACROSS THE ROAD FROM POLE NO 30 WITH LUMEN AND TRANSFORMER AND 25.5 M EAST OF THE EAST END OF A WOODEN FENCE.

*GPS CONTROL PROVIDED BY VT GSU 2014

TRAVERSE TIES

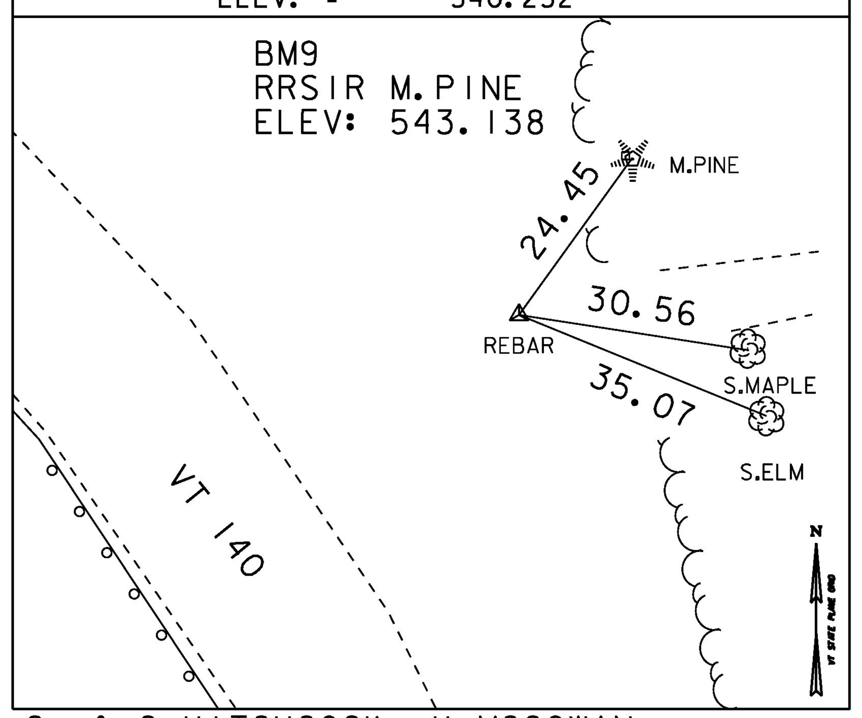
HVCTRL #10

NORTH =	375649.6875
EAST =	1456350.0267
ELEV. =	538.338



HVCTRL #11

NORTH =	375525.5573
EAST =	1456694.7058
ELEV. =	540.252



HVCRTL #

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

*TRAVERSE COMPLETED 04/2014 BY L.ORVIS P.C. & G.HITCHCOCK, H.MCGOWAN

ALIGNMENT TIES

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

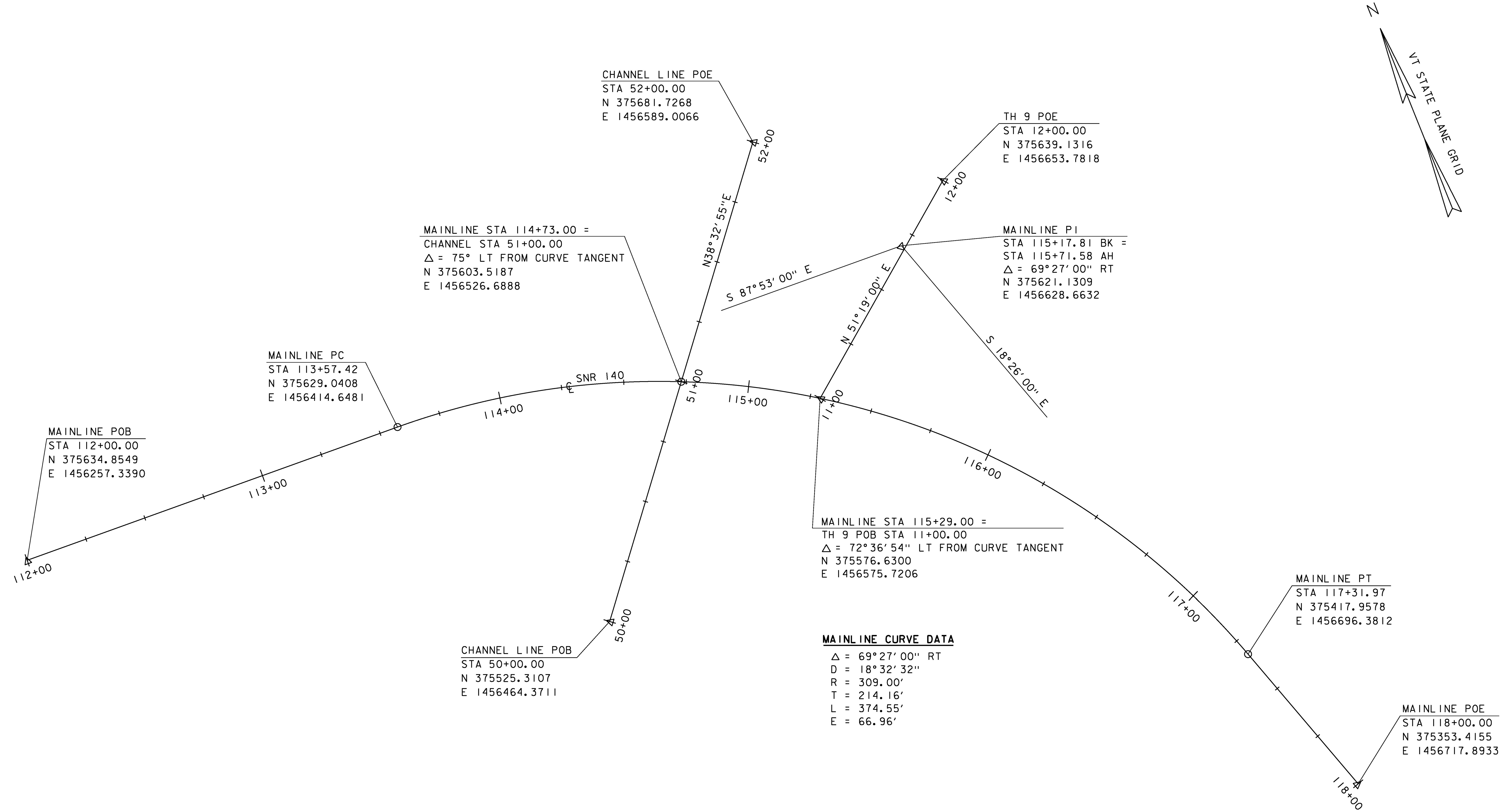
NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83 (2011)
ADJUSTMENT	COMPASS

PROJECT NAME: POULTNEY
PROJECT NUMBER: BF 0138 (12)

FILE NAME: sl3j276tie.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: VTRANS
TIES
PLOT DATE: 15-AUG-2018
DRAWN BY: G. HITCHCOCK
CHECKED BY: P. BEYOR
SHEET 11 OF 46

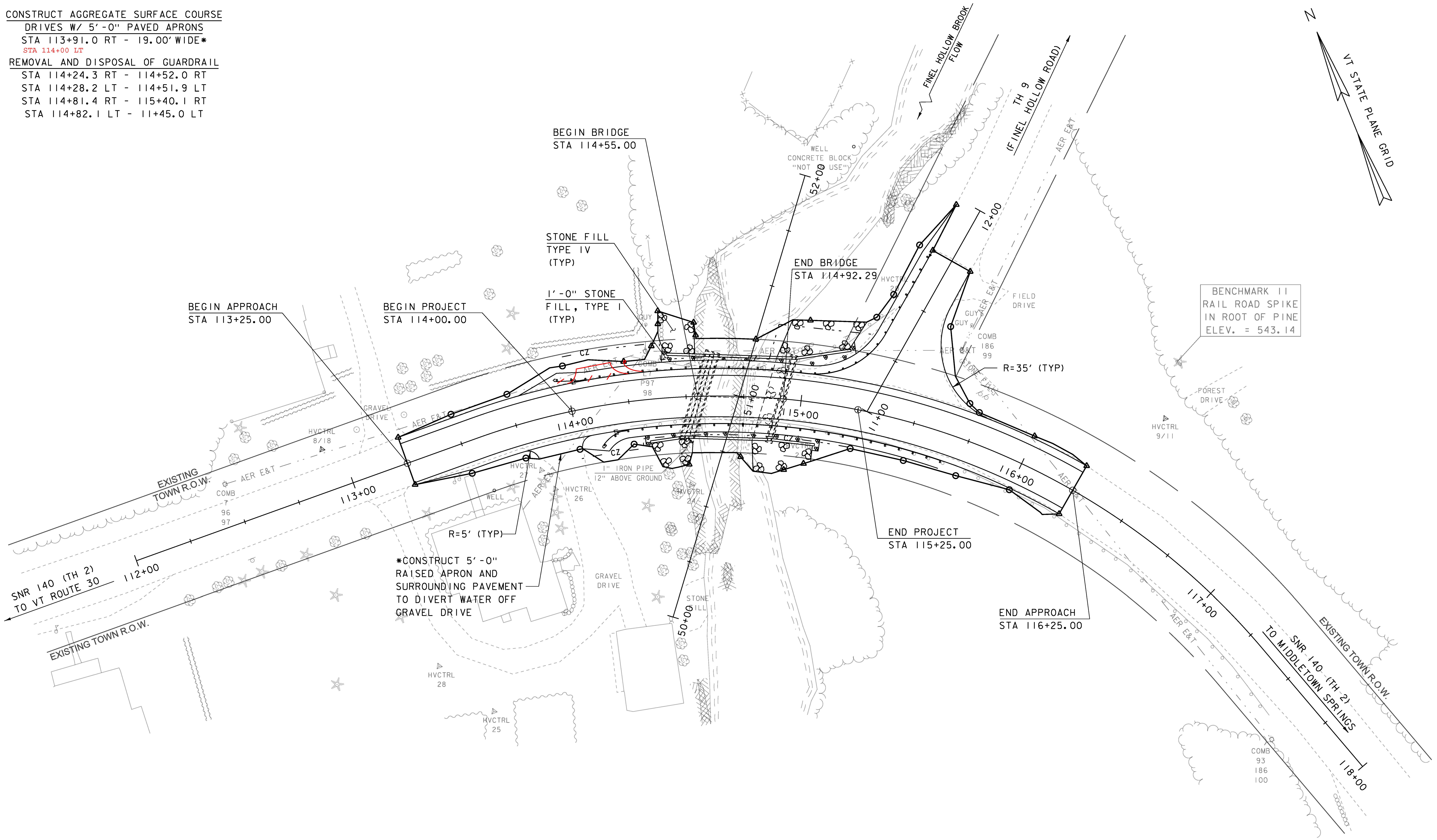


SCALE 1" = 20'-0"
20 0 20

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276bdr_align.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
ALIGNMENT	SHEET 12 OF 46

CONSTRUCT AGGREGATE SURFACE COURSE DRIVES W/ 5'-0" PAVED APRONS
STA 113+91.0 RT - 19.00' WIDE*
STA 114+00 LT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA 114+24.3 RT - 114+52.0 RT
STA 114+28.2 LT - 114+51.9 LT
STA 114+81.4 RT - 115+40.1 RT
STA 114+82.1 LT - 11+45.0 LT



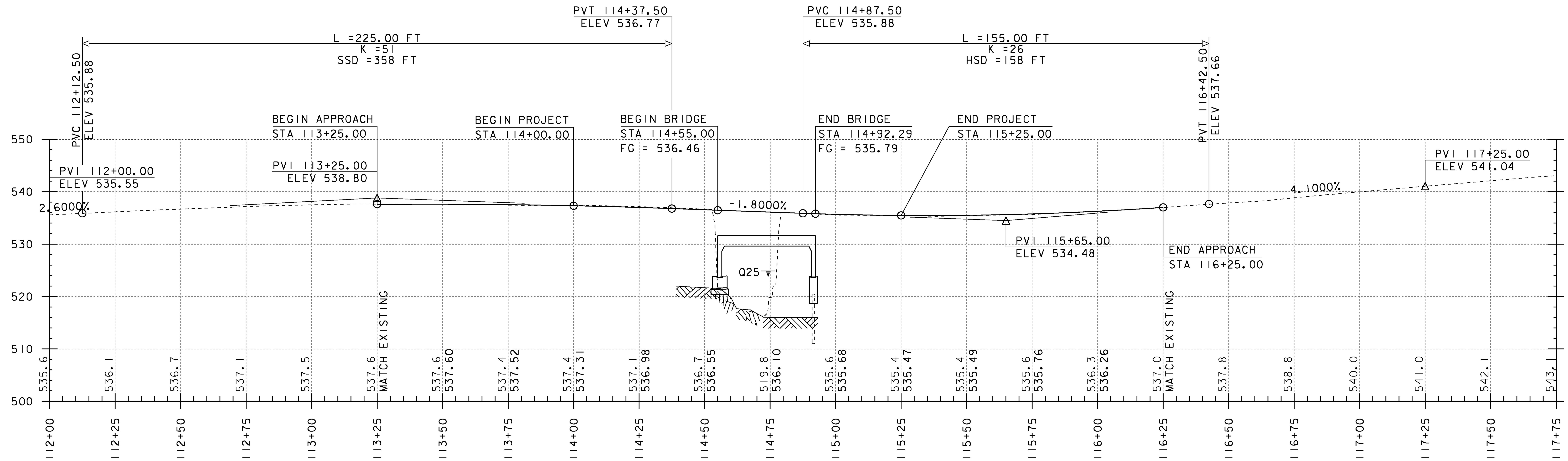
EXISTING BRIDGE INFORMATION
31' LONG CONCRETE T-BEAM
BUILT 1900
23'-4" FASCIA TO FASCIA
7° SKEW

SCALE 1" = 20'-0"
20 0 20

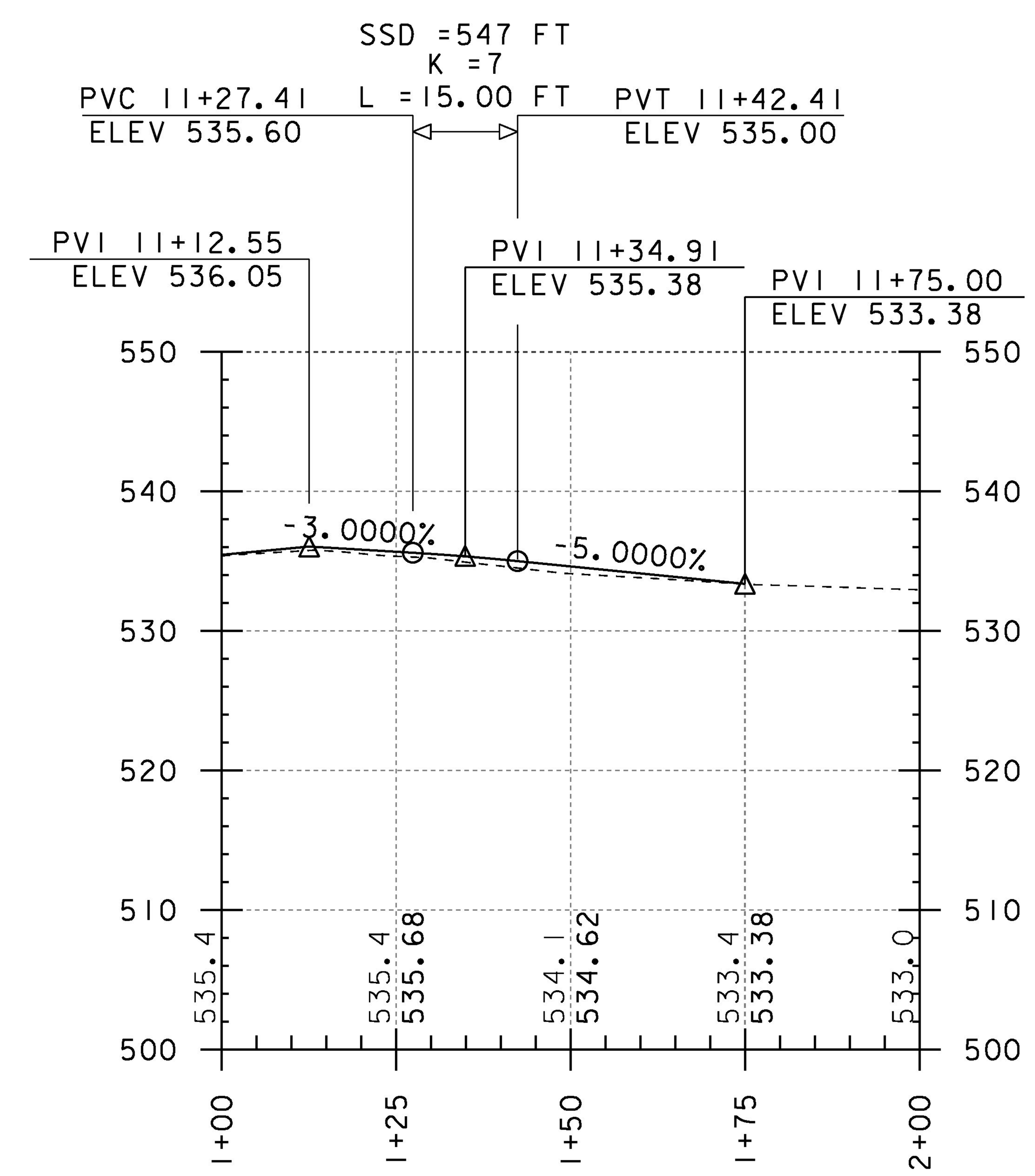
PROJECT NAME: POULTNEY
PROJECT NUMBER: BF 0138(12)

FILE NAME: s13j276bdr.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: G. DARGAN
LAYOUT

PLOT DATE: 15-AUG-2018
DRAWN BY: G. DARGAN
CHECKED BY: G. LAROCHE
SHEET 13 OF 46



MAINLINE PROFILE
HOR. SCALE 1" = 20'-0"
VER. SCALE 1" = 10'-0"

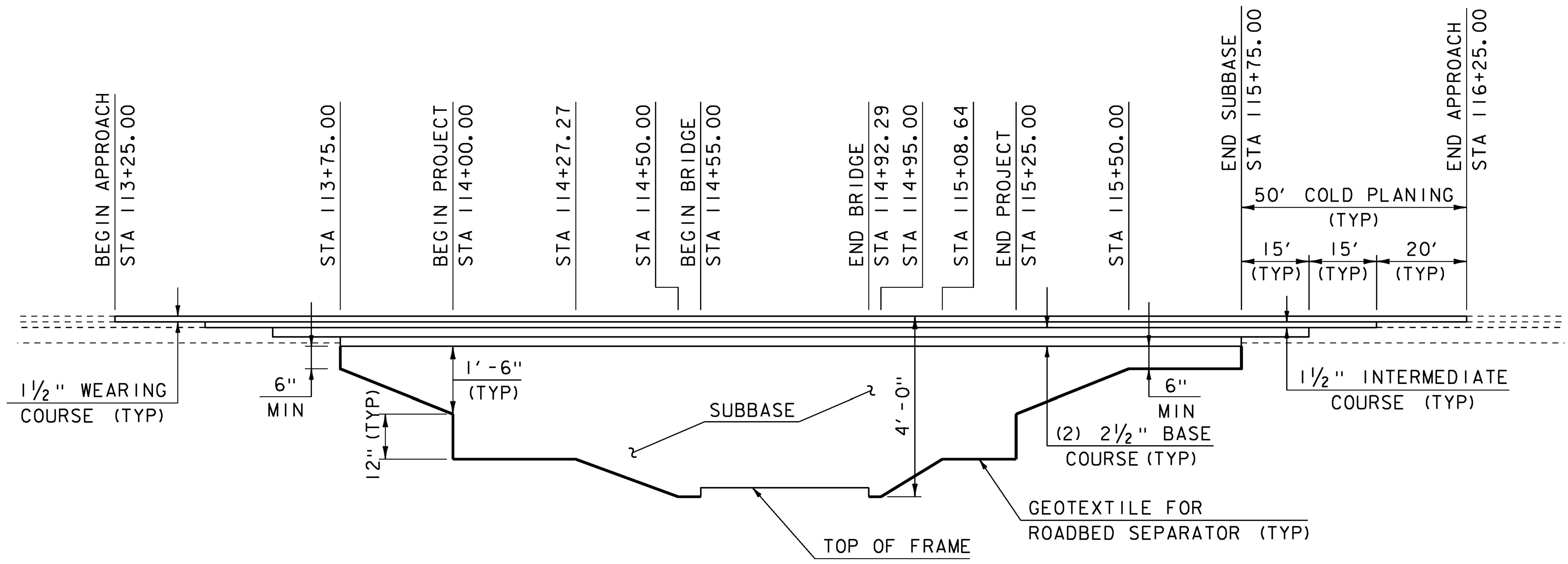


TH9 PROFILE
HOR. SCALE 1" = 20'-0"
VER. SCALE 1" = 10'-0"

THE GRADES SHOWN TO THE TENTH ARE THE EXISTING GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

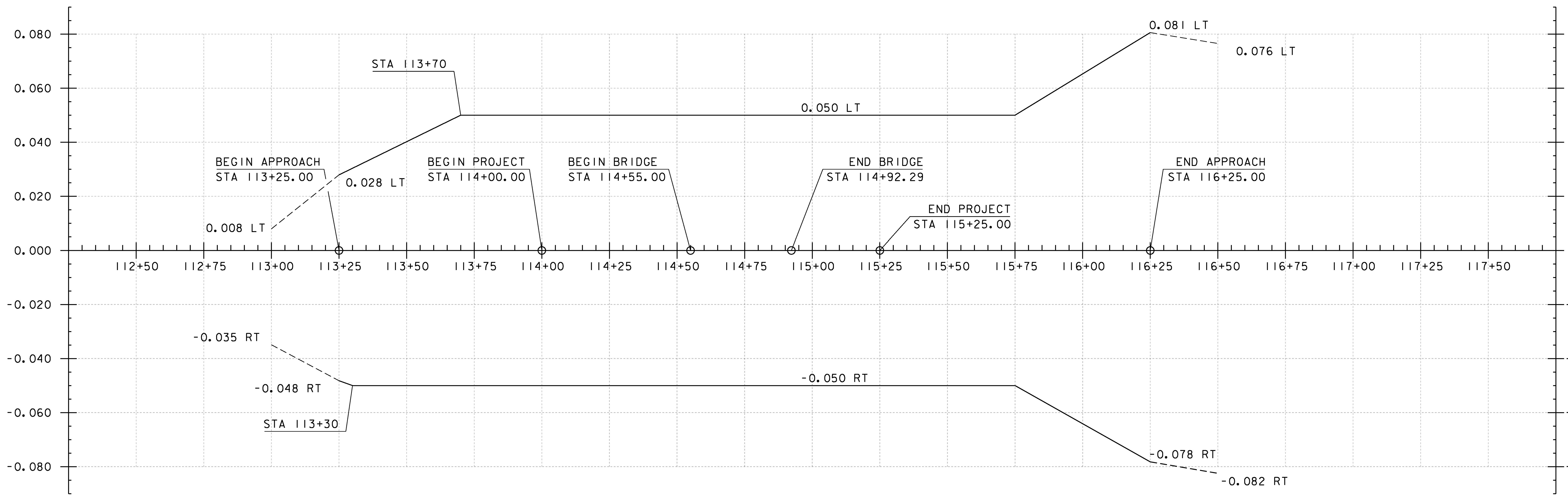
THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276pro.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
PROFILE	SHEET 14 OF 46



MATERIAL TRANSITION

HOR. SCALE 1" = 20'-0"
VER. SCALE 1" = 2'-0"



BANKING DIAGRAM

HOR. SCALE 1" = 20'-0"
NO VER. SCALE

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: s13j276pro.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
BANKING DIAGRAM AND MATERIAL TRANSITION	SHEET 15 OF 46

HD STEEL BEAM GUARDRAIL, GALVANIZED
STA 11+46.4 LT - STA 11+58.9 LT
114+20.2 STA ~~113+95.2~~ LT - STA 115+04.5 LT
STA 114+10.5 RT - STA 115+40.1 RT

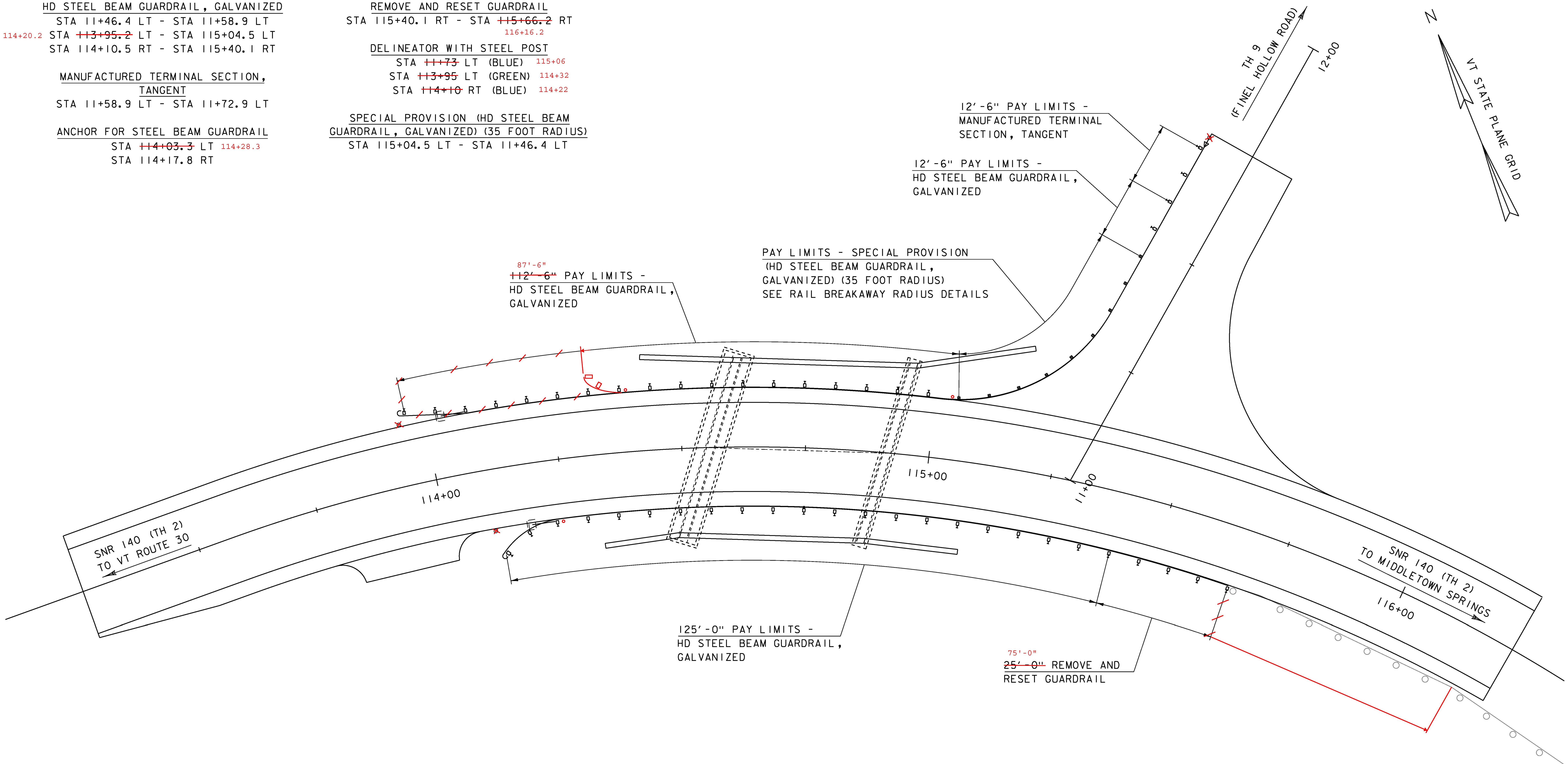
MANUFACTURED TERMINAL SECTION, TANGENT
STA 11+58.9 LT - STA 11+72.9 LT

ANCHOR FOR STEEL BEAM GUARDRAIL
STA ~~114+03.3~~ LT 114+28.3
STA 114+17.8 RT

REMOVE AND RESET GUARDRAIL
STA 115+40.1 RT - STA ~~115+66.2~~ RT
116+16.2

DELINEATOR WITH STEEL POST
STA ~~11+73~~ LT (BLUE) 115+06
STA ~~113+95~~ LT (GREEN) 114+32
STA ~~114+10~~ RT (BLUE) 114+22

SPECIAL PROVISION (HD STEEL BEAM GUARDRAIL, GALVANIZED) (35 FOOT RADIUS)
STA 115+04.5 LT - STA 11+46.4 LT



END TREATMENTS:

WW1: ~~FLARED~~ G1-D
WW2: G1-D
WW3: MANUFACTURED TERMINAL SECTION (TANGENT)
WW4: TIE-IN TO EXISTING RAIL

NOTES:

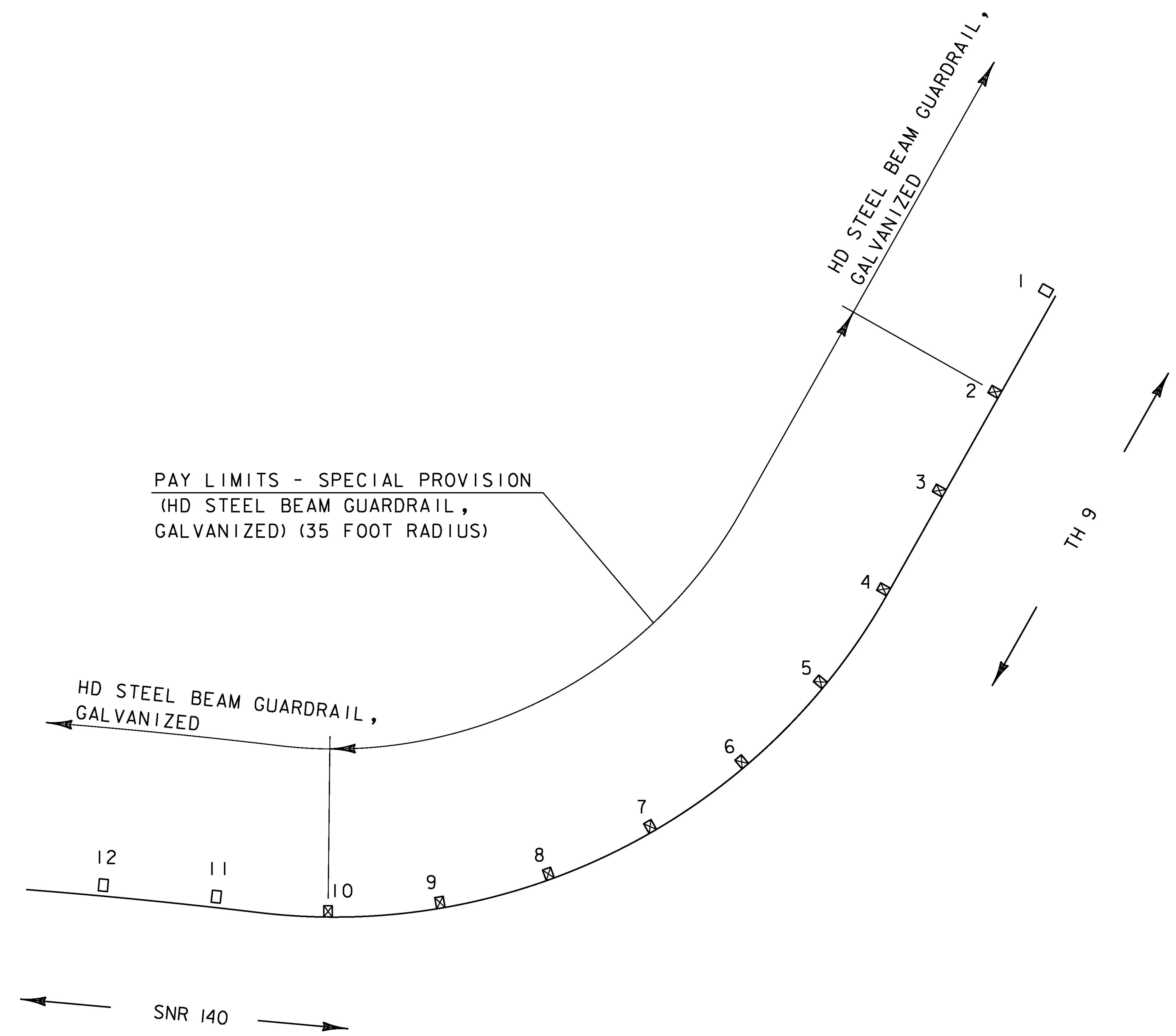
1. SEE STANDARDS G-1, G-1D, G-19 FOR FURTHER DETAILS.

SCALE 1" = 10'-0"
10 0 10

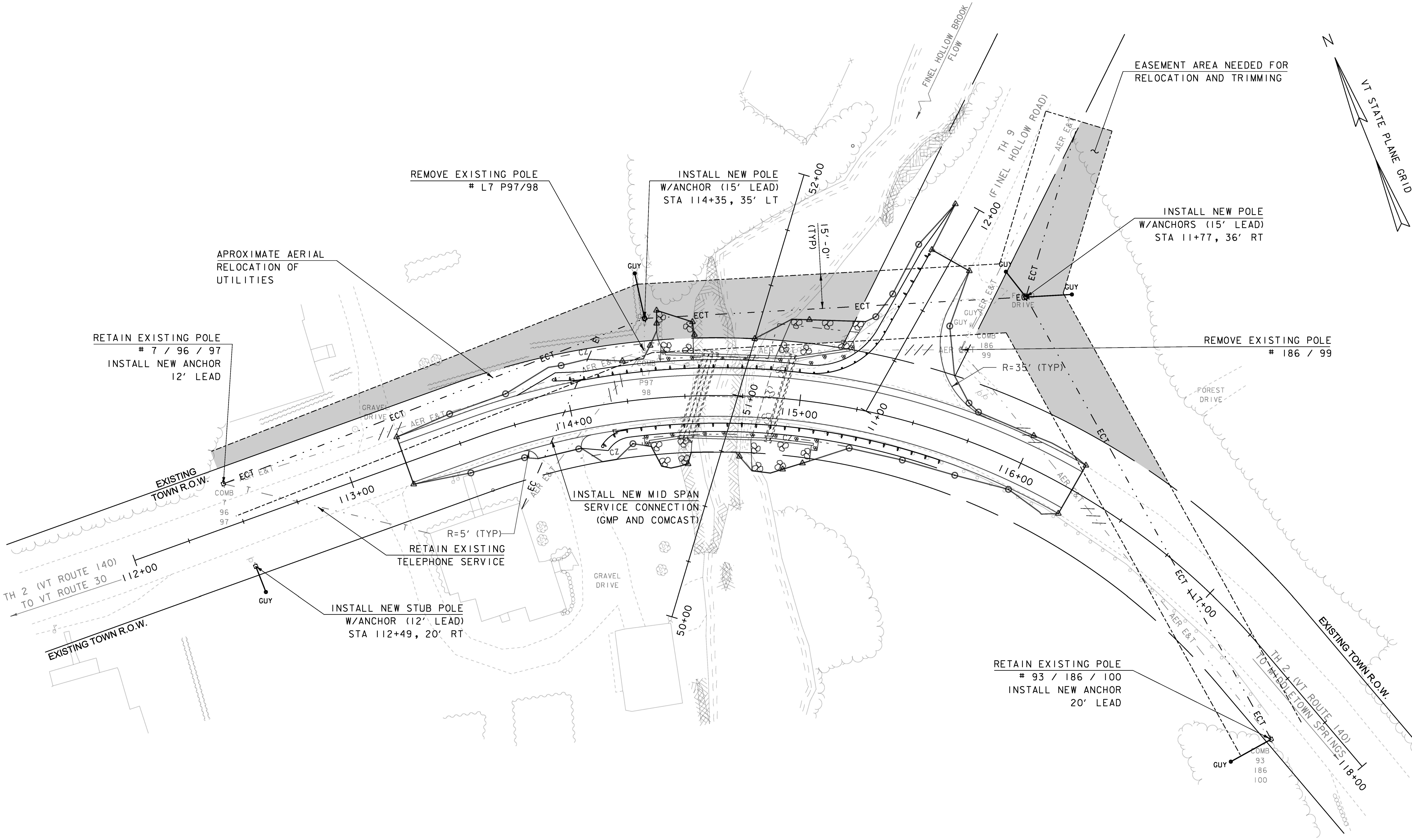
PROJECT NAME:	POULTNEY		
PROJECT NUMBER:	BF 0138(12)		
FILE NAME:	sl3j276bdr_rail.dgn	PLOT DATE:	15-AUG-2018
PROJECT LEADER:	R. YOUNG	DRAWN BY:	G. DARGAN
DESIGNED BY:	G. DARGAN	CHECKED BY:	G. LAROCHE
RAIL LAYOUT		SHEET	16 OF 46

NOTES:

1. MATERIAL DESIGNATIONS ARE IDENTIFIED IN 'A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE' AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE AND HIGHWAY TRANSPORTATION OFFICALS (AASHTO), ASSOCIATED GENERAL CONTRACTORS OF AMERICA (AGC) AND THE AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION (ARTBA).
2. BREAKAWAY RAIL SHALL BE INSTALLED AT A HEIGHT OF 27 INCHES TO THE TOP OF RAIL.
3. POSTS 2 THROUGH 10 SHALL BE CRT TIMBER POSTS, ARTBA PDE09.
4. POSTS 2 THROUGH 10 SHALL HAVE GUARDRAIL BOLTS AND RECESSED NUTS, ARTBA FBB03.
5. ALL GUARDRAIL PANELS WITHIN THE PAY LIMITS FOR SPECIAL PROVISION (HD STEEL BEAM GUARDRAIL, GALVANIZED) (35 FOOT RADIUS) SHALL BE HD W-BEAM GUARDRAIL, ARTBA RWM02A AND SHALL BE SHOP BENT, WHERE APPLICABLE.
6. BASED ON DETAILS IN VTRAN'S STANDARD HSD-621.05, JUN 9, 2015 (FOR REFERENCE ONLY).
7. PAYMENT SHALL BE MADE UNDER ITEM 900.620 "SPECIAL PROVISION (HD STEEL BEAM GUARDRAIL, GALVANIZED) (35 FOOT RADIUS)".
8. GUARDRAIL SHALL BE LAPPED IN THE DIRECTION OF THE NEAREST TRAVEL LANE.



PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: s13j276bdr_rail.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
RAIL BREAKAWAY RADIUS DETAILS	SHEET 17 OF 46



NOTE:

1. WORK TO BE PERFORMED BY OTHERS.

SCALE 1" = 20'-0"
20 0 20

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276bdr_utl.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
UTILITY LAYOUT	SHEET 18 OF 46

BRIDGE CLOSED
E POULTNEY
RTE 140 EAST

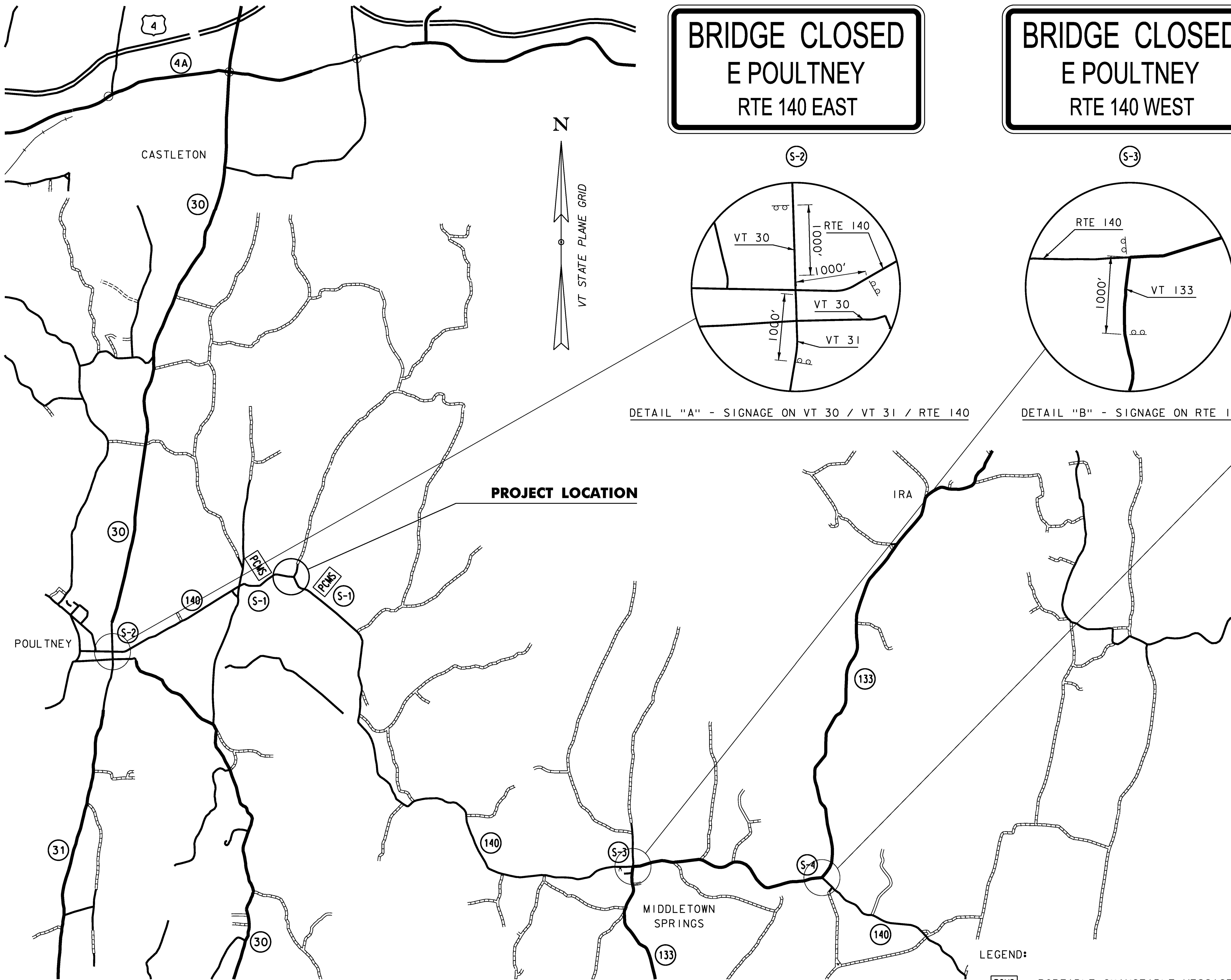
(S-2)

BRIDGE CLOSED
E POULTNEY
RTE 140 WEST

(S-3)

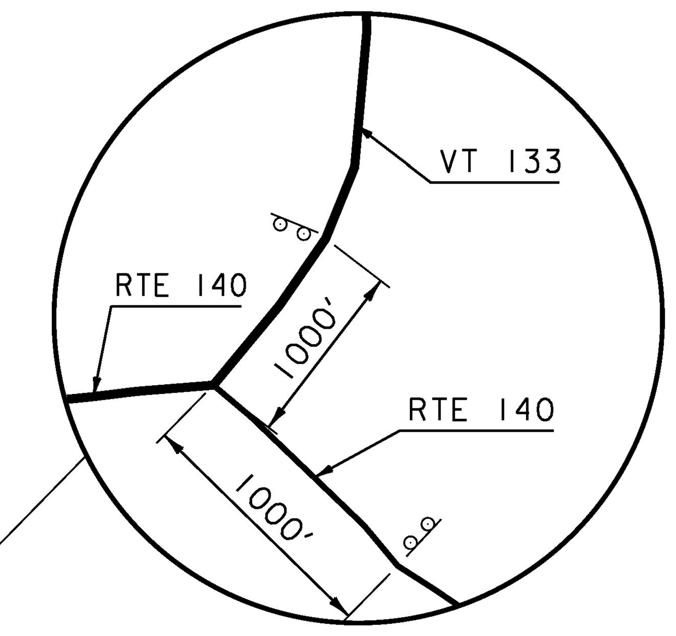
BRIDGE CLOSED
8 MILES AHEAD
RTE 140 WEST

(S-4)



DETAIL "A" - SIGNAGE ON VT 30 / VT 31 / RTE 140

DETAIL "B" - SIGNAGE ON RTE 140



DETAIL "C" - SIGNAGE ON VT 133 / RTE 140

REGIONAL TRAFFIC PLAN - ADVANCED SIGN LOCATIONS

NOT TO SCALE

LEGEND:

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

BRIDGE
CLOSED

PHASE 1

DAY M/DD*
TO
DAY M/DD

PHASE 2

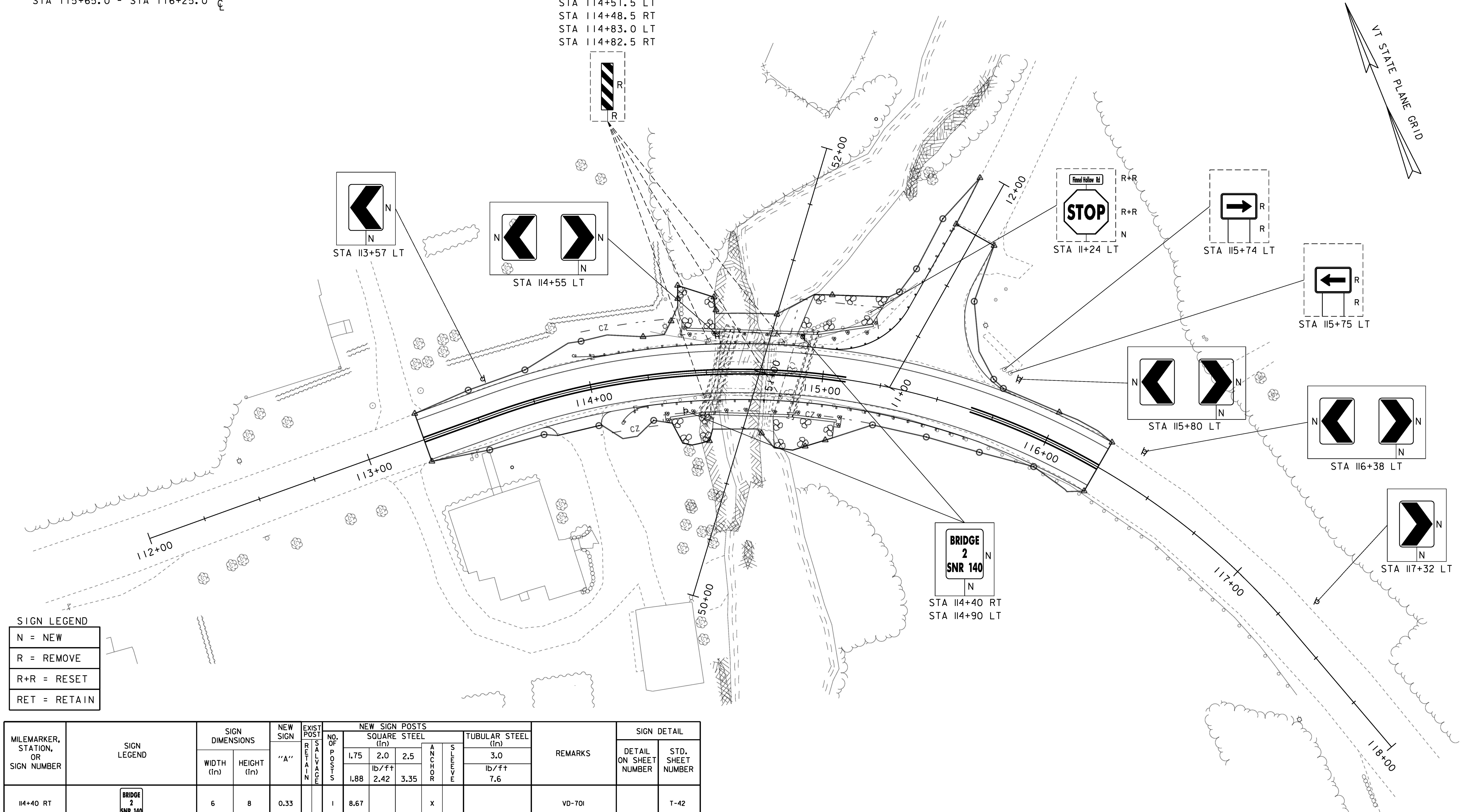
(S-1) * DAY=DAY OF THE WEEK
M=MONTH
DD=DAY

NOTES:

1. THE PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE OPERATIONAL A MINIMUM OF TWO WEEKS PRIOR TO THE BRIDGE CLOSURE.
2. THE TOWN OF POULTNEY IS RESPONSIBLE FOR SIGNING A DETOUR.
3. ALL MATERIALS AND LABOR ASSOCIATED WITH FABRICATING AND PLACING TRAFFIC CONTROL ELEMENTS SHALL BE PAID FOR UNDER ITEM 900.645 "SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE)".

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276detour.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: D.D.BEARD
DESIGNED BY: G. DARGAN	CHECKED BY: G.DARGAN
REGIONAL SIGN PLAN	SHEET 19 OF 46

4 INCH YELLOW LINE (DOUBLE)
STA 113+25.0 - STA 115+10.0 ℄
STA 115+65.0 - STA 116+25.0 ℄



SIGN LEGEND

N = NEW
R = REMOVE
R+R = RESET
RET = RETAIN

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS		NEW SIGN	EXIST POST		NEW SIGN POSTS							REMARKS	SIGN DETAIL	
		WIDTH (in)	HEIGHT (in)	"A"	RETAIN	SALVAGE	NO. OF POSTS	SQUARE STEEL (in) 1.75 lb/ft 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR STEEL (in) 3.0 lb/ft 7.6		DETAIL ON SHEET NUMBER	STD. SHEET NUMBER
114+40 RT	BRIDGE 2 SNR 140	6	8	0.33			1	8.67			X			VD-701		T-42
114+90 LT	BRIDGE 2 SNR 140	6	8	0.33			1	8.67			X			VD-701		T-42
SEE CALLOUTS		18	24	3.00			4		26.01		X			W1-8		
SEE CALLOUTS		18	24	3.00			1		8.67		X			W1-8		

SCALE 1" = 20'-0"
20 0 20

NOTE:
ADJUST NEW CENTERLINE
TO MATCH EXISTING
LINES AT BEGIN/END APPROACH

PROJECT NAME: POULTNEY
PROJECT NUMBER: BF 0138(12)

FILE NAME: s13j276sign.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: G. DARGAN
SIGNS AND PAVEMENT MARKINGS

PLOT DATE: 23-AUG-2018
DRAWN BY: T. MATTHEWS
CHECKED BY: G. LAROCHE
SHEET 20 OF 46

SOIL CLASSIFICATION

AASHTO	
A1	Gravel and Sand
A3	Fine Sand
A2	Silty or Clayey Gravel and Sand
A4	Silty Soil - Low Compressibility
A5	Silty Soil - Highly Compressible
A6	Clayey Soil - Low Compressibility
A7	Clayey Soil - Highly Compressible

ROCK QUALITY DESIGNATION

R.Q.D. (%)	ROCK DESCRIPTION
<25	Very Poor
25 to 50	Poor
51 to 75	Fair
76 to 90	Good
>90	Excellent

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
250-500	Soft
500-1000	Med. Stiff
1000-2000	Stiff
2000-4000	Very Stiff
>4000	Hard

CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

DENSITY (GRANULAR SOILS)

N	DESCRIPTIVE TERM
<5	Very Loose
5-10	Loose
11-24	Med. Dense
25-50	Dense
>50	Very Dense

CONSISTENCY (COHESIVE SOILS)

N	DESCRIPTIVE TERM
<2	Very Soft
2-4	Soft
5-8	Med. Stiff
9-15	Stiff
16-30	Very Stiff
31-60	Hard
>60	Very Hard

COMMONLY USED SYMBOLS

▼	Water Elevation
⊗	Standard Penetration Boring
⊕	Auger Boring
⊙	Rod Sounding
S	Sample
N	Standard Penetration Test Blow Count Per Foot For: 2" O.D. Sampler 1 3/8" I.D. Sampler Hammer Weight Of 140 Lbs. Hammer Fall Of 30"
VS	Field Vane Shear Test
US	Undisturbed Soil Sample
B	Blast
DC	Diamond Core
MD	Mud Drill
WA	Wash Ahead
HSA	Hollow Stem Auger
AX	Core Size 1 1/8"
BX	Core Size 1 5/8"
NX	Core Size 2 1/8"
M	Double Tube Core Barrel Used
LL	Liquid Limit
PL	Plastic Limit
PI	Plasticity Index
NP	Non Plastic
w	Moisture Content (Dry Wgt. Basis)
D	Dry
M	Moist
MTW	Moist To Wet
W	Wet
Sat	Saturated
Bo	Boulder
Gr	Gravel
Sa	Sand
Si	Silt
Cl	Clay
HP	Hardpan
Le	Ledge
NLTD	No Ledge To Depth
CNPF	Can Not Penetrate Further
TLOB	Top of Ledge Or Boulder
NR	No Recovery
Rec.	Recovery
%Rec.	Percent Recovery
RQD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than
R	Refusal (N > 100)
VTSPG	NAD83 - See Note 7

COLOR

blk	Black	pnk	Pink
bl	Blue	pu	Purple
brn	Brown	rd	Red
dk	Dark	tn	Tan
gry	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		

DEFINITIONS (AASHTO)

BEDROCK (LEDGE) - Rock in its native location of indefinite thickness.

BOULDER - A rock fragment with an average dimension > 12 inches.

COBBLE - Rock fragments with an average dimension between 3 and 12 inches.

GRAVEL - Rounded particles of rock < 3" and > 0.0787" (#10 sieve).

SAND - Particles of rock < 0.0787" (#10 sieve) and > 0.0029" (#200 sieve).

SILT - Soil < 0.0029" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.

CLAY - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.

VARVED - Alternate layers of silt and clay.

HARDPAN - Extremely dense soil, cemented layer, not softened when wet.

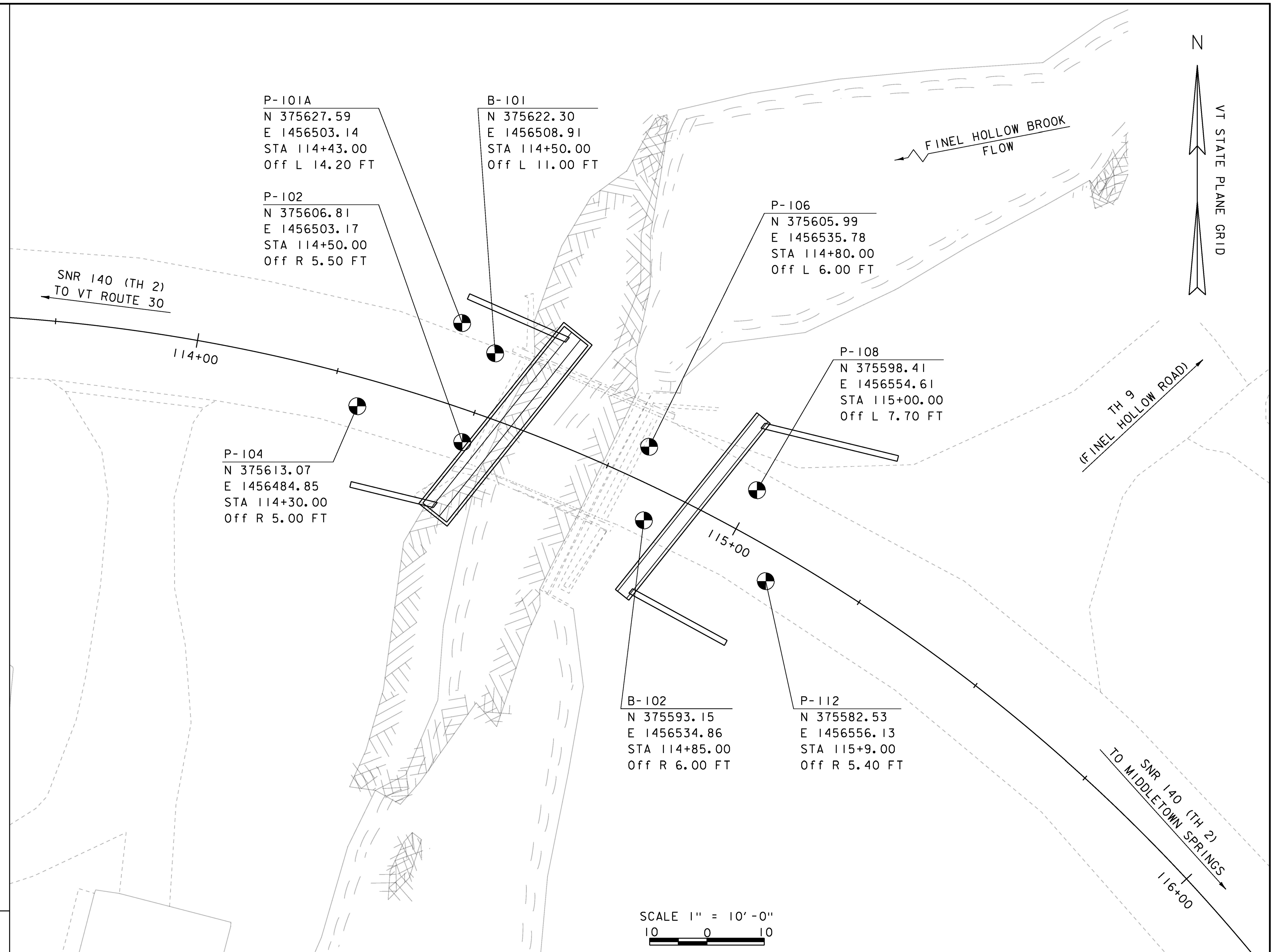
MUCK - Soft organic soil (containing > 10% organic material.

MOISTURE CONTENT - Weight of water divided by dry weight of soil.

FLOWING SAND - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.

STRIKE - Angle from magnetic north to line of intersection of bed with a horizontal plane.

DIP - Inclination of bed with a horizontal plane.



GENERAL NOTES

1. The subsurface explorations shown herein were made between 5/19/2016 and 6/14/2016 by the Agency.

2. Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.

3. Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.

4. Engineering judgment was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgment by the Contractor.

5. Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.

6. Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.

7. Northing and Easting coordinates are shown in Vermont State Plane Grid North American Datum 1983 in meters and survey feet.

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: s13j276bor.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: T. MATTHEWS
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
BORING LAYOUT	SHEET 21 OF 46

BORING LOG B-101

VTrans Working to Get You There

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Poultney
BF0138(12)
SNR140 (TH-2) Br. #2

Boring No.: **B-101**
Page No.: 1 of 1
Pin No.: 13j276
Checked By: MLM

Boring Crew: Whitlock, Judkins, Coletti
Date Started: 5/19/16 Date Finished: 5/19/16
VTSPG NAD83: N 375622.30 ft E 1456508.91 ft
Station: 114+50 Offset: -11.00
Ground Elevation: 537.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.

Hammer/Rod Type: Auto/AWJ
Rig: CME 45C SKID C_E = 1.42

Groundwater Observations

Date	Depth (ft)	Notes
05/19/16	9.8	W.T. after drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-1-b, GrSa, brn, Moist, Rec. = 0.7 ft				1-2-3-4 (5)	9.0	37.4	46.6	16.0
2.5		A-1-a, SaGr, brn-gry, Moist, Rec. = 0.9 ft, Lab Note: Broken rock was within sample.				5-5-9-7 (14)	7.8	60.4	29.6	10.0
5.0		A-1-a, SaGr, brn-gry, Moist, Rec. = 0.7 ft, Lab Note: A lot of broken rock was within sample. Field Note:, Rollercone, Cleaned out casing				3-7-5-2 (12)	6.3	66.0	25.7	8.3
7.5		A-1-a, SaGr, gry-brn, Moist, Rec. = 1.2 ft, Lab Note: A lot of broken rock was within sample. Field Note:, Rollercone, Cleaned out casing				3-5-5-16 (10)	11.3	61.4	26.7	11.9
		A-1-b, SaGr, brn-gry, Moist, Rec. = 1.0 ft, Lab Note: Broken rock was within sample. Field Note:, Rollercone, Cleaned out casing				25-26-30-R@3.5" (56)	9.6	48.9	34.7	16.4
10.0		A-1-b, SaGr, gry-brn, Moist, Rec. = 0.8 ft, Lab Note: Broken rock was within sample. Field Note:, Rollercone, Cleaned out casing				17-50-R@0" (R)	10.5	56.3	27.6	16.1
12.5 15.0		11.5 ft - 16.5 ft, Light gray/green, PHYLLITE, with calcite and quartz veins. Slightly vuggy around calcite veins. Brown and light orange staining along joints and broken surfaces. Massive quartz vein at 16.2 to 16.5 feet. Quarts vein is very hard, very slightly weathered. Soft, Moderately weathered, Poor rock, NX, RMR=31	1 (55)	54 (15)	2 4 5 3 6	Top of Bedrock @ 11.5 ft				
17.5		16.5 ft - 19.5 ft, Gray to light green, PHYLLITE, with quartz veins and rare vugs. Minor brown staining along joints. Moderately hard, Slightly weathered, Fair rock, NX, RMR=41	2 (55)	48 (17)	6 8 17					
20.0		19.5 ft - 19.7 ft, Light green, Vuggy PHYLLITE, with brown coating on vugs. Very hard, Slightly weathered, Fair rock, NX, RMR=49 19.7 ft - 21.5 ft, Pearly white, Massive vitreous QUARTZ, with plagioclase feldspar along joints. Orange and faint brown staining along joints. Very hard, Slightly weathered, Fair rock, RMR=49	3 (N/A)	34 (24)	8 11					
22.5		Hole stopped @ 21.5 ft								

Remarks:
Hole collapsed at 11.6 feet.

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 POULTNEY BF0138(12).GPJ VERMONT AOT.GDT 6/24/16

ABUTMENT 1 LT/RT
TOP OF
SUBFOOTING
EL 522.46
EL 520.51

BORING LOG B-102

VTrans Working to Get You There

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Poultney
BF0138(12)
SNR140 (TH-2) Br. #2

Boring No.: **B-102**
Page No.: 1 of 1
Pin No.: 13j276
Checked By: MLM

Boring Crew: Whitlock, Judkins, Coletti
Date Started: 5/20/16 Date Finished: 5/23/16
VTSPG NAD83: N 375593.15 ft E 1456534.86 ft
Station: 114+85 Offset: 6.00
Ground Elevation: 535.7 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.

Hammer/Rod Type: Auto/AWJ
Rig: CME 45C SKID C_E = 1.42

Groundwater Observations

Date	Depth (ft)	Notes
05/23/16	17.7	W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 1.23 ft								
		A-1-b, SiGrSa, brn, Moist, Rec. = 0.9 ft, Lab Note: Broken rock was within sample				7-7-7-7 (14)	10.3	34.9	44.7	20.4
		A-1-a, Gr, brn-gry, Moist, Rec. = 0.9 ft, Lab Note: A lot of broken rock was within sample				5-2-3-12 (5)	1.8	77.9	17.5	4.6
5		A-1-a, SaGr, brn, Moist, Rec. = 1.0 ft, Lab Note: Broken rock and small metal pieces were within sample Field Note:, Rollercone, Cleaned out casing				5-17-15-7 (32)	6.5	56.5	31.7	11.8
		Field Note:, No Recovery				3-2-1-1 (3)				
10		A-1-a, SaGr, brn, Moist, Rec. = 0.6 ft, Lab Note: Broken rock was within sample Field Note:, Rollercone, Cleaned out casing				4-4-9-7 (13)	9.5	66.0	22.1	11.9
		A-1-b, SiSaGr, brn-gry, Moist, Rec. = 0.7 ft, Lab Note: Broken rock was within sample Field Note:, Rollercone, Cleaned out casing				11-3-4-9 (7)	16.2	46.0	29.0	25.0
		A-1-b, GrSa, brn-gry, Moist, Rec. = 0.8 ft Field Note:, Rollercone, Cleaned out casing				9-9-5-6 (14)	10.9	44.2	44.3	11.5
15		A-1-a, SaGr, brn-gry, Moist, Rec. = 0.8 ft Field Note:, Rollercone, Cleaned out casing				6-4-6-8 (10)	10.0	51.3	37.4	11.3
		Field Note:, No Recovery				2-1-1-1 (2)				
20		A-4, SiSa, brn, Moist, Rec. = 0.6 ft, Lab Note: A lot of sticks, twigs, and wood fibers were within sample				1-1-1-1 (2)	77.9	3.3	50.2	46.5
		Field Note:, Rollercone, Cleaned out casing								
25		24.0 ft - 29.0 ft, Light gray/green, PHYLLITE, with few quartz veins. Moderately hard, Unweathered, Fair rock, NX, RMR=49 Low RQD could be due to mechanical breakage	1 (70)	100 (36)	10 10 10 25 15	Top of Bedrock @ 24.0 ft				
30		29.0 ft - 34.0 ft, Light gray/green, PHYLLITE, with rare quartz veins. Moderately hard, Unweathered, Fair rock, NX, RMR=41 Low RQD could be due to mechanical breakage	2 (60-70)	100 (14)	9 6 7 7 10					
35		Hole stopped @ 34.0 ft								

Remarks:
Hole collapsed at 15.6 feet.

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 POULTNEY BF0138(12).GPJ VERMONT AOT.GDT 6/24/16

ABUTMENT 2
BOTTOM OF
PILE CAP
EL 518.76

ABUTMENT 2
BOTTOM OF
PILES
EL 505.6

NOTE: PILE TIP ELEVATIONS ARE ESTIMATED (TYP). SEE NOTES FOR MINIMUM PILE LENGTH SPECIFICATIONS.

PROJECT NAME: POULTNEY
PROJECT NUMBER: BF 0138(12)

FILE NAME: sl3j276borlog.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: G. DARGAN
BORING LOGS (1)

PLOT DATE: 15-AUG-2018
DRAWN BY: G. DARGAN
CHECKED BY: G. LAROCHE
SHEET 22 OF 46

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Poultney
BF0138(12)
SNR140 (TH-2) Br. #2

Boring No.: **P-101A**
Page No.: 1 of 1
Pin No.: 13j276
Checked By: MLM

Boring Crew: Judkins, Garrow, Coletti
Date Started: 6/14/16 Date Finished: 6/14/16
VTSPG NAD83: N 375627.59 ft E 1456503.14 ft
Station: 114+43 Offset: -14.20
Ground Elevation: 537.1 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.

Hammer/Rod Type: Auto/AWJ
Rig: CME 45C SKID $C_E = 1.42$

Groundwater Observations

Date	Depth (ft)	Notes
06/14/16		No W.T. to depth

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
2.5							
5.0							
7.5		Field Note:, NXDC, Cleaned out casing, Cobbles					
		Field Note:, NXDC, Cleaned out casing, Cobbles and Boulder					
10.0							
12.5		Hole stopped @ 11.3 ft					

Remarks:
1.) Washbore refusal at TLOB at 11.3 feet.
2.) Hole collapsed at 4.9 feet.

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 POULTNEY BF0138(12).GPJ VERMONT AOT.GDT 6/24/16

ABUTMENT 1 LT/RT
TOP OF
SUBFOOTING
EL 522.46
EL 520.51

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Poultney
BF0138(12)
SNR140 (TH-2) Br. #2

Boring No.: **P-102**
Page No.: 1 of 1
Pin No.: 13j276
Checked By: MLM

Boring Crew: Judkins, Nieto, Garrow
Date Started: 5/31/16 Date Finished: 5/31/16
VTSPG NAD83: N 375606.81 ft E 1456503.17 ft
Station: 114+50 Offset: 5.50
Ground Elevation: 536.1 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.

Hammer/Rod Type: Auto/AWJ
Rig: CME 45C SKID $C_E = 1.42$

Groundwater Observations

Date	Depth (ft)	Notes
05/31/16	7.4	W.T. after drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 1.3 ft					
2.5							
5.0							
7.5		Field Note:, Cleaned out casing					
10.0		Field Note:, Cleaned out casing					
		Field Note:, Cobble Rock					
12.5		Hole stopped @ 11.3 ft					

Remarks:
1.) Washbore refusal at TLOB at 11.3 feet.
2.) Hole collapsed at 9.1 feet.

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 POULTNEY BF0138(12).GPJ VERMONT AOT.GDT 6/24/16

ABUTMENT 1 LT/RT
TOP OF
SUBFOOTING
EL 522.46
EL 520.51

NOTE: PILE TIP ELEVATIONS ARE ESTIMATED (TYP). SEE NOTES FOR MINIMUM PILE LENGTH SPECIFICATIONS.

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: s13j276borlog.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
BORING LOGS (2)	SHEET 23 OF 46

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Poultney
BF0138(12)
SNR140 (TH-2) Br. #2

Boring No.: **P-104**
Page No.: 1 of 1
Pin No.: 13j276
Checked By: MLM

Boring Crew: Nieto, Judkins, Coletti
Date Started: 6/01/16 Date Finished: 6/01/16
VTSPG NAD83: N 375613.07 ft E 1456484.85 ft
Station: 114+30 Offset: 5.00
Ground Elevation: 536.8 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	C_E = 1.42

Groundwater Observations

Date	Depth (ft)	Notes

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0		Asphalt Pavement, 0.0 ft - 0.8 ft					
2.5							
5.0							
7.5							
		Hole stopped @ 7.9 ft					

Remarks:
1.) Washbore refusal at TLOB at 7.9 feet.
2.) Hole collapsed at 5.8 feet.

10.0
12.5

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 POULTNEY BF0138(12).GPJ VERMONT AOT.GDT 6/24/16

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Poultney
BF0138(12)
SNR140 (TH-2) Br. #2

Boring No.: **P-106**
Page No.: 1 of 1
Pin No.: 13j276
Checked By: MLM

Boring Crew: Judkins, Nieto, Coletti
Date Started: 5/31/16 Date Finished: 6/01/16
VTSPG NAD83: N 375605.99 ft E 1456535.78 ft
Station: 114+80 Offset: -6.00
Ground Elevation: 536.4 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	C_E = 1.42

Groundwater Observations

Date	Depth (ft)	Notes
06/01/16		No W.T. to depth

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0		Asphalt Pavement, 0.0 ft - 0.62 ft					
5							
10		Field Note:, Boulder					
15		Field Note:, Cobbles and Boulder					
20							
		Hole stopped @ 23.1 ft					

25

Remarks:
1.) Washbore refusal at TLOB at 23.1 feet.
2.) Hole collapsed at 9.2 feet.

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 POULTNEY BF0138(12).GPJ VERMONT AOT.GDT 6/24/16

ABUTMENT 2
BOTTOM OF
PILE CAP
EL 518.76

ABUTMENT 1 LT/RT
TOP OF
SUBFOOTING
EL 522.46
EL 520.51

NOTE: PILE TIP ELEVATIONS ARE ESTIMATED (TYP). SEE NOTES FOR MINIMUM PILE LENGTH SPECIFICATIONS.

ABUTMENT 2
BOTTOM OF
PILES
EL 505.6

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: s13j276borlog.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
BORING LOGS (3)	SHEET 24 OF 46

STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY	BORING LOG Poultney BF0138(12) SNR140 (TH-2) Br. #2	Boring No.: P-108 Page No.: 1 of 1 Pin No.: 13j276 Checked By: MLM

Boring Crew: Nieto, Judkins, Coletti
Date Started: 6/01/16 Date Finished: 6/01/16
VTSPG NAD83: N 375598.41 ft E 1456554.61 ft
Station: 115+00 Offset: -7.70
Ground Elevation: 535.7 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.

Hammer/Rod Type: Auto/AWJ
Rig: CME 45C SKID C_E = 1.42

Groundwater Observations

Date	Depth (ft)	Notes
06/01/16	15.7	W.T. after drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0 – 0.65		Asphalt Pavement, 0.0 ft - 0.65 ft					

Hole stopped @ 26.8 ft

Remarks:
1.) Washbore refusal at TLOB at 26.8 feet.
2.) Hole collapsed at 18.2 feet.

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 POULTNEY BF0138(12).GPJ VERMONT AOT.GDT 6/24/16

ABUTMENT 2
BOTTOM OF
PILE CAP
EL 518.76

ABUTMENT 2
BOTTOM OF
PILES
EL 505.6

STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY	BORING LOG Poultney BF0138(12) SNR140 (TH-2) Br. #2	Boring No.: P-112 Page No.: 1 of 1 Pin No.: 13j276 Checked By: MLM

Boring Crew: Garrow, Judkins, Coletti
Date Started: 6/14/16 Date Finished: 6/14/16
VTSPG NAD83: N 375582.53 ft E 1456556.13 ft
Station: 115+09 Offset: 5.40
Ground Elevation: 535.4 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.

Hammer/Rod Type: Auto/AWJ
Rig: CME 45C SKID C_E = 1.42

Groundwater Observations

Date	Depth (ft)	Notes
06/14/16	8.8	W.T. after drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0 – 1.2		Asphalt Pavement, 0.0 ft - 1.2 ft					
~21		Field Note:, NXDC, Cleaned out casing, Cobbles and Boulder					

Hole stopped @ 28.5 ft

Remarks:
1.) Washbore refusal at TLOB at 28.5 feet.
2.) Hole collapsed at 18.8 feet.

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

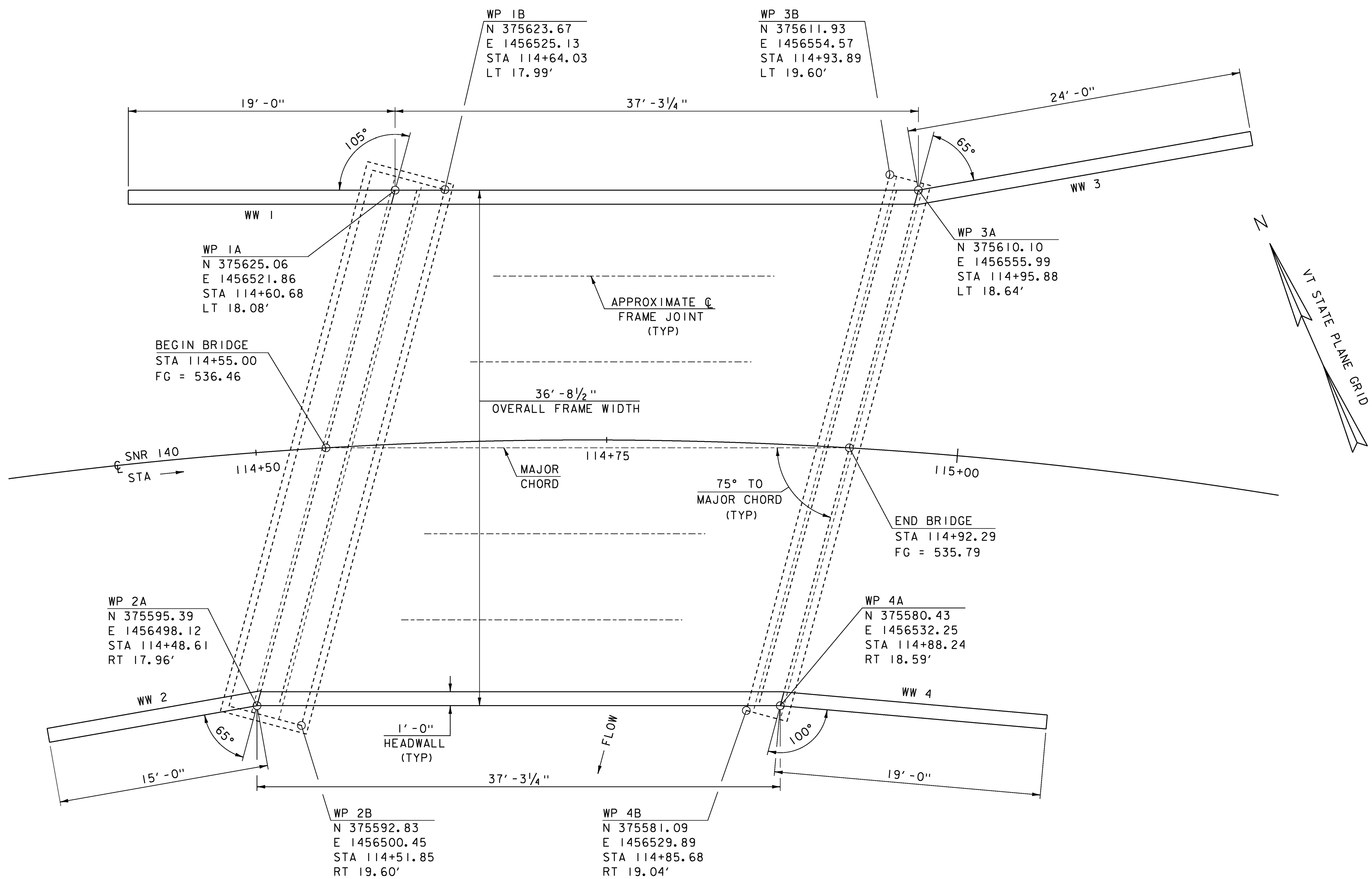
BORING LOG 2 POULTNEY BF0138(12).GPJ VERMONT AOT.GDT 6/24/16

ABUTMENT 2
BOTTOM OF
PILE CAP
EL 518.76

ABUTMENT 2
BOTTOM OF
PILES
EL 505.6

NOTE: PILE TIP ELEVATIONS ARE ESTIMATED (TYP). SEE NOTES FOR MINIMUM PILE LENGTH SPECIFICATIONS.

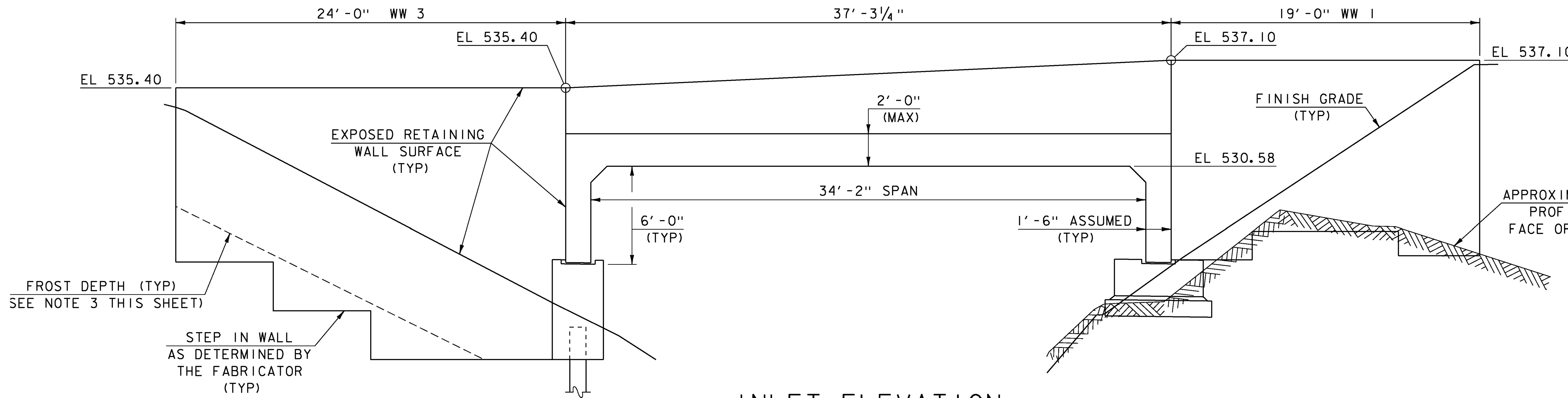
PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: s13j276borlog.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
BORING LOGS (4)	SHEET 25 OF 46



FRAME LAYOUT

SCALE: 1/4" = 1'-0"

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: s13j276frame.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R.YOUNG	DRAWN BY: G.ROY
DESIGNED BY: G.DARGAN	CHECKED BY: G.DARGAN
FRAME LAYOUT	SHEET 26 OF 46

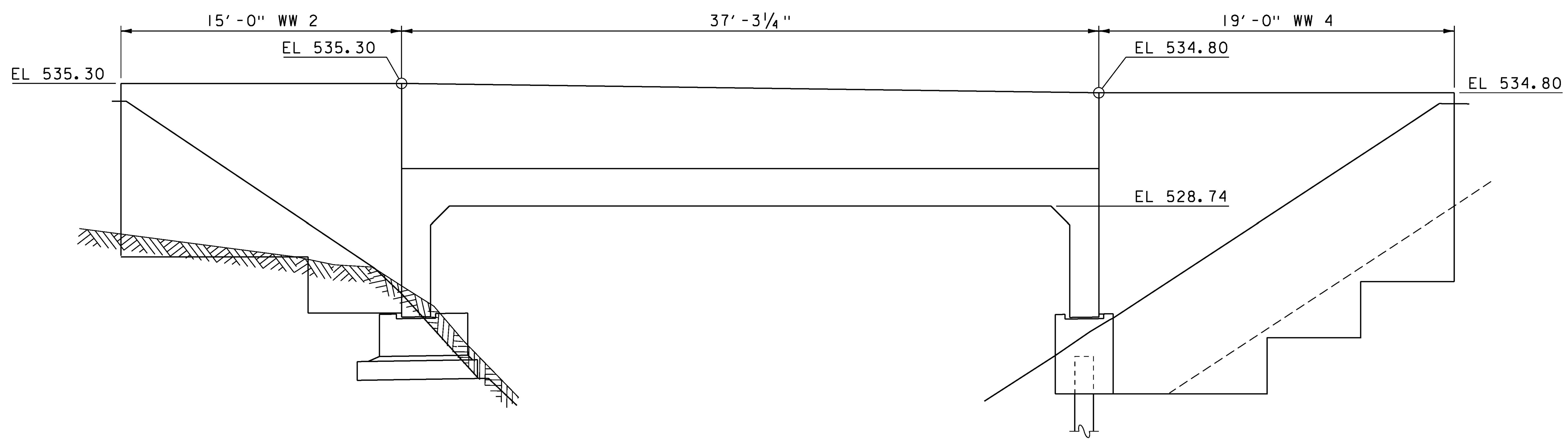


CONCEPTUAL RETAINING WALL ON SOIL

INLET ELEVATION

SCALE: ¼" = 1'-0"

CONCEPTUAL RETAINING WALL ON BEDROCK



CONCEPTUAL RETAINING WALL ON BEDROCK

OUTLET ELEVATION

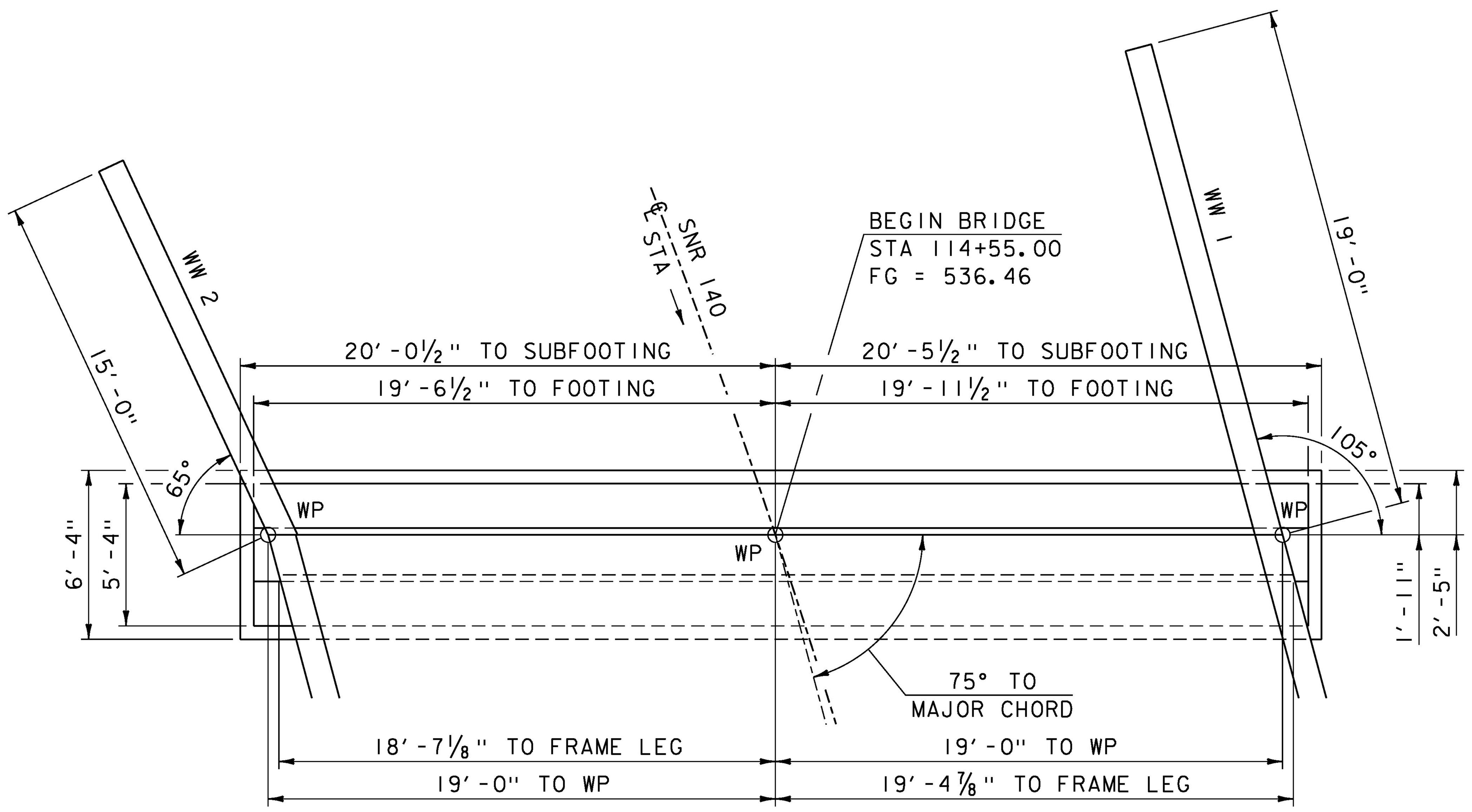
SCALE: ¼" = 1'-0"

CONCEPTUAL RETAINING WALL ON SOIL

NOTES:

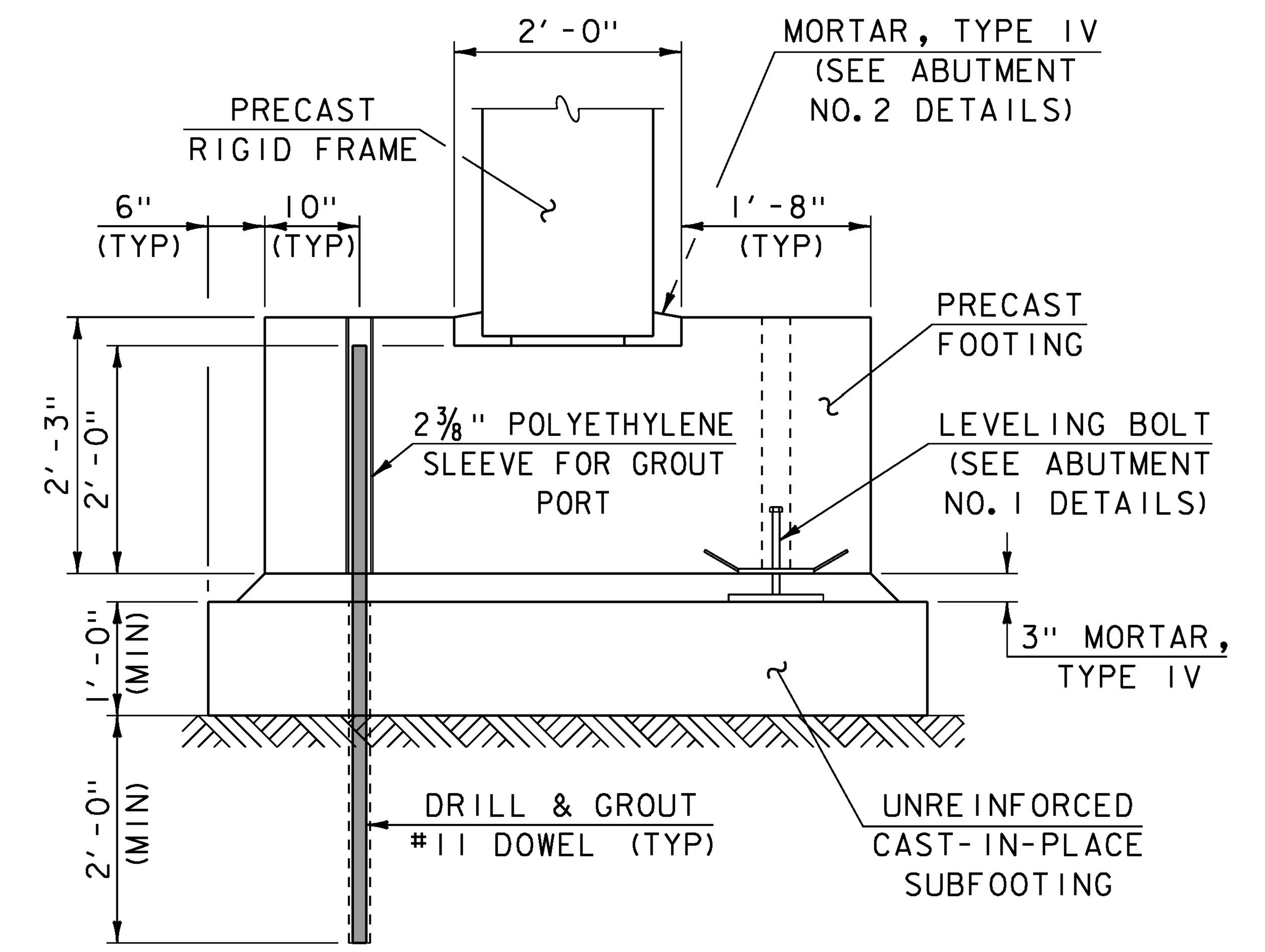
1. DIMENSIONS MEASURED ALONG EXPOSED FACE OF RETAINING WALLS.
2. CONNECTIONS BETWEEN FRAME AND RETAINING WALLS SHALL MATCH HORIZONTALLY AND VERTICALLY.
3. RETAINING WALL FOUNDATIONS MUST BE PLACED AT A MINIMUM DEPTH OF 5'-0" BELOW FINISH GRADE, MEASURED PERPENDICULAR TO FINISH GRADE SURFACE, IF FOUNDED UPON SOIL.
4. BEDROCK SHOWN IS NOT REPRESENTATIVE OF ACTUAL CONDITIONS, BUT AN EXAMPLE TO HOW A RETAINING WALL CAN BE CONSTRUCTED UPON BEDROCK. CONTRACTOR WILL BE RESPONSIBLE FOR ESTABLISHING ACTUAL ELEVATIONS.

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276sub.dgn	PLOT DATE: 23-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. ROY
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
FRAME ELEVATIONS	SHEET 27 OF 46



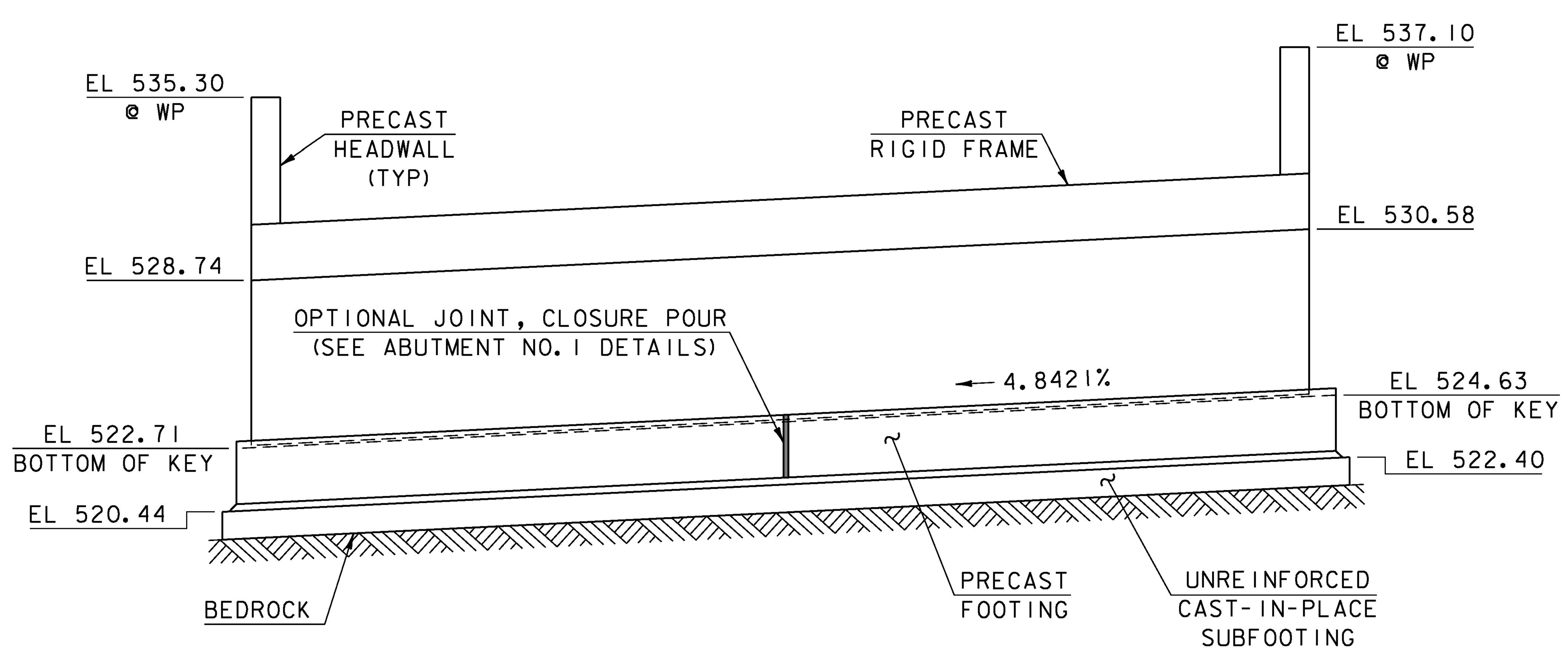
ABUTMENT NO. 1 PLAN

SCALE: ¼" = 1'-0"



ABUTMENT NO. 1 TYPICAL SECTION

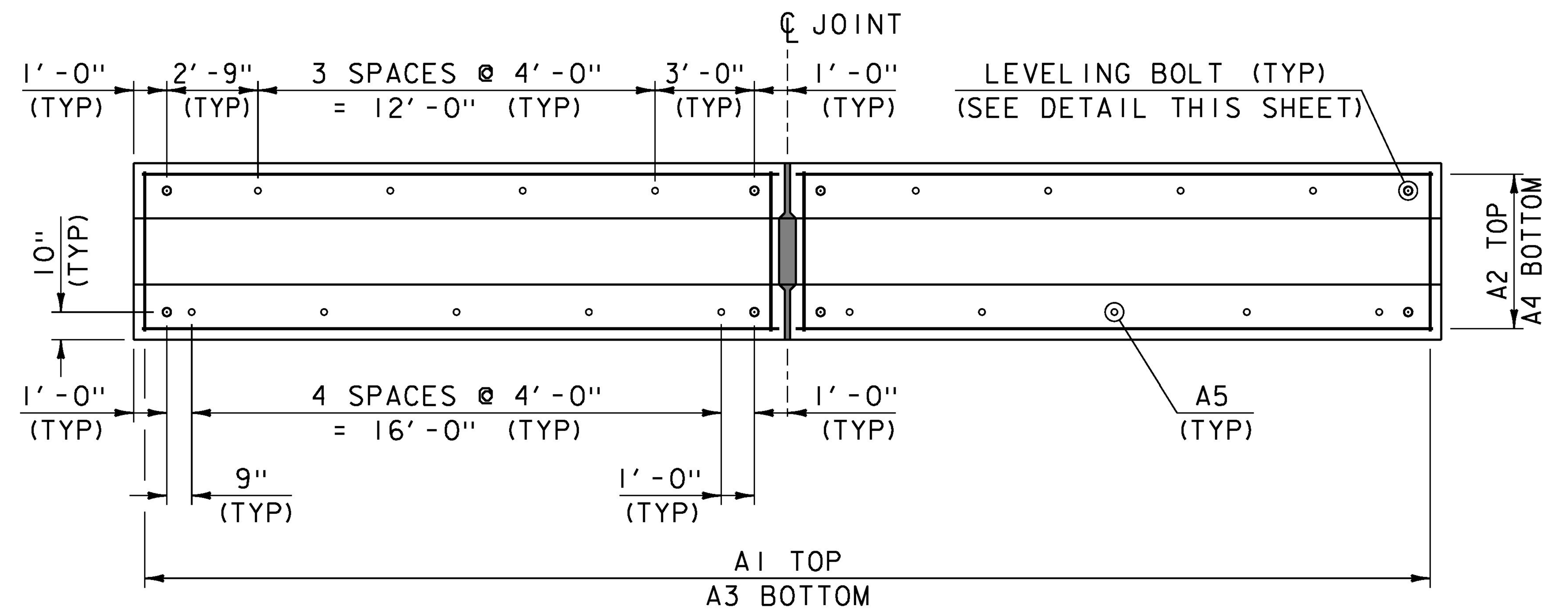
SCALE: ¾" = 1'-0"



ABUTMENT NO. 1 ELEVATION

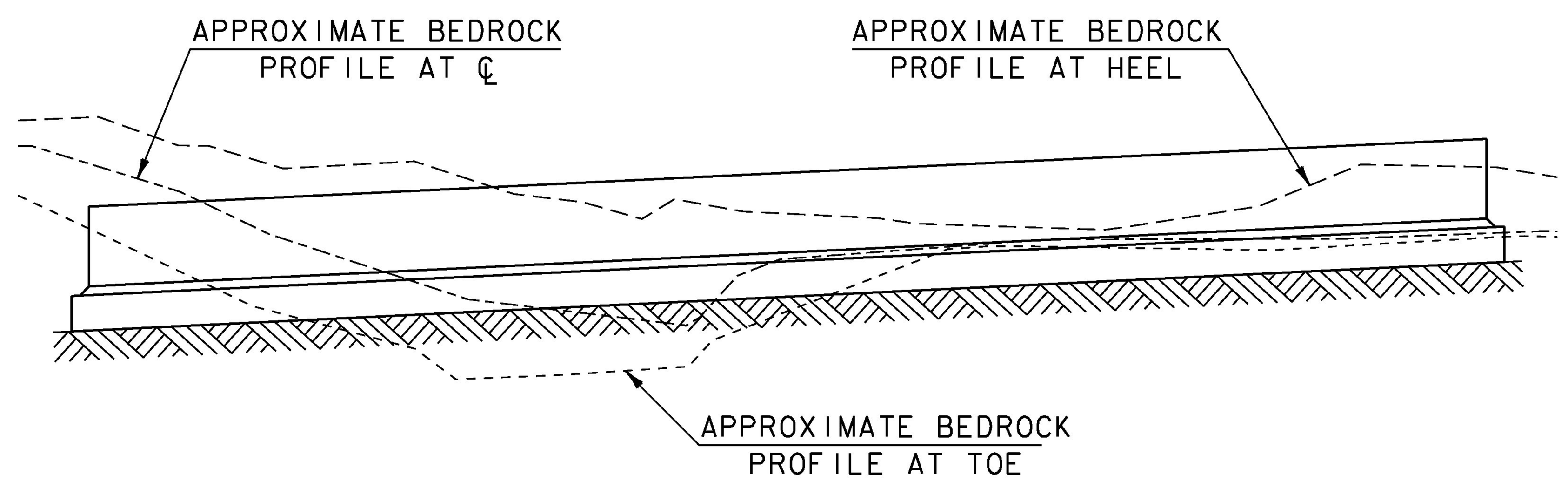
SCALE: ¼" = 1'-0"

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276sub.dgn	PLOT DATE: 23-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. ROY
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
ABUTMENT NO. 1 PLAN AND ELEVATION	SHEET 28 OF 46



ABUTMENT NO. 1 REINFORCING AND DOWELING PLAN

SCALE: ¼" = 1'-0"

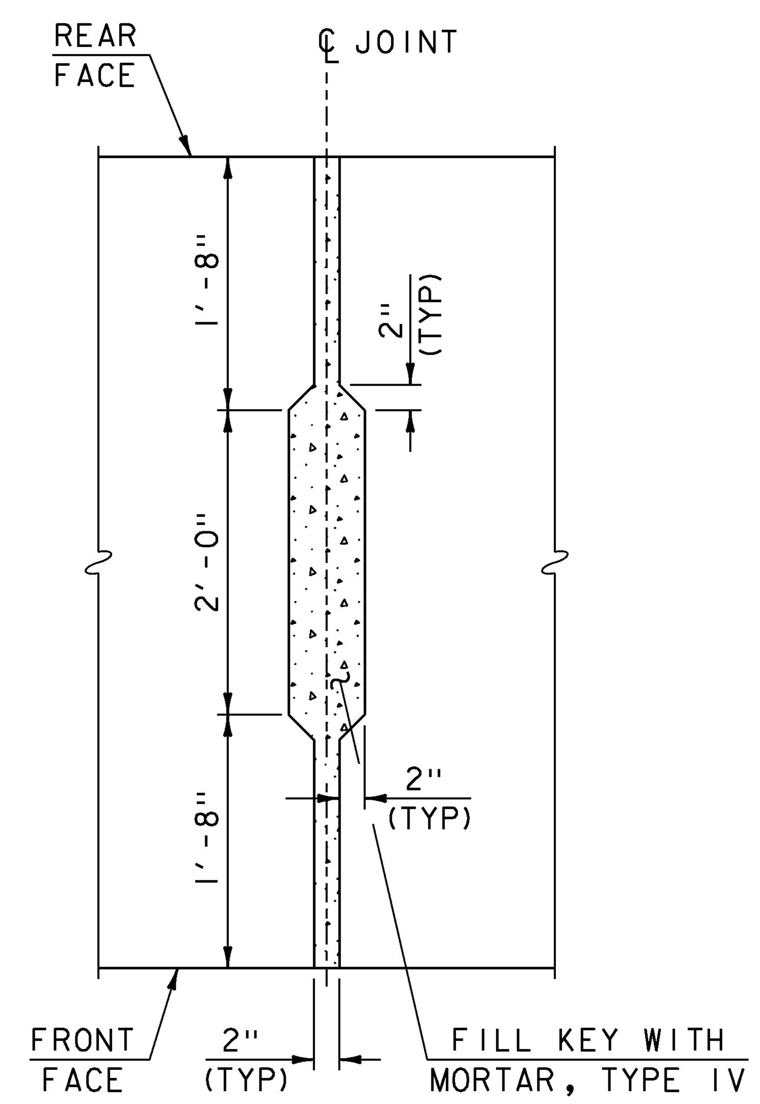


ABUTMENT NO. 1 BEDROCK PROFILE

SCALE: ¼" = 1'-0"

(SHOWN FOR PURPOSES OF QUANTITY ESTIMATION AND COMMUNICATION OF SCOPE OF WORK.)

	BAR	SIZE	SPACING	TYPE
	A1	4	12"	STR
	A2	4	12"	STR
⚠	A3	6	7"	STR
⚠	A4	5	12"	STR
	A5	11	48"	STR



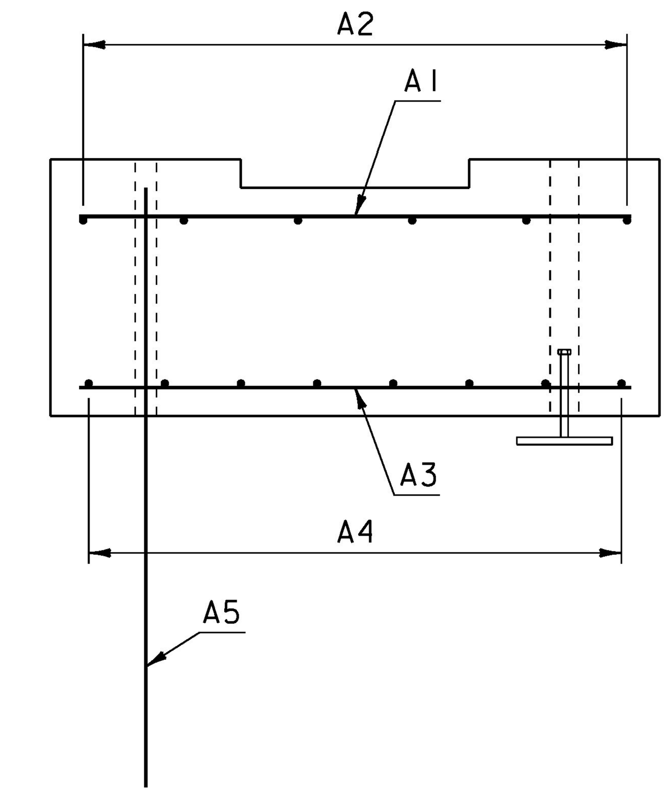
NOTE:

CONTRACTOR TO FORM JOINT TO SUPPORT WET GROUT.

ABUTMENT NO. 1 SHEAR KEY PLAN VIEW

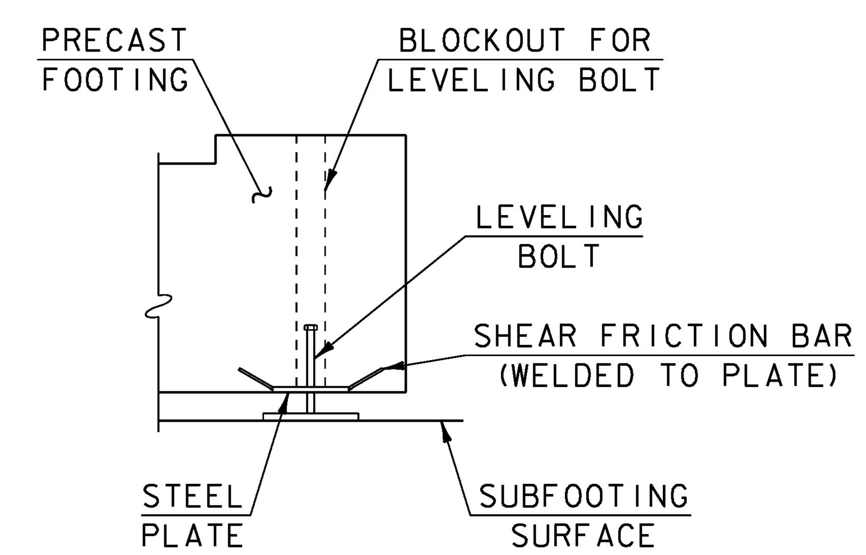
NOT TO SCALE

LOCATIONS AND NUMBER OF ABUTMENT NO. 1 VERTICAL JOINTS MA BE MODIFIED BY THE CONTRACTOR TO SUIT THEIR MEANS AND METHODS. DOWEL LOCATION MAY BE MODIFIED BUT MUST PRESERVE MINMUM EDGE AND LEVELING BOLT CLEARANCE DIMENSIONS.



ABUTMENT NO. 1 TYPICAL REINFORCING

SCALE: ¾" = 1'-0"



ABUTMENT NO. 1 LEVELING BOLT DETAIL

NOT TO SCALE

THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF THE LEVELING DEVICE BASED ON THE WEIGHT OF THE PRECAST UNIT AND THE NUMBER OF DEVICES.

NOTE:

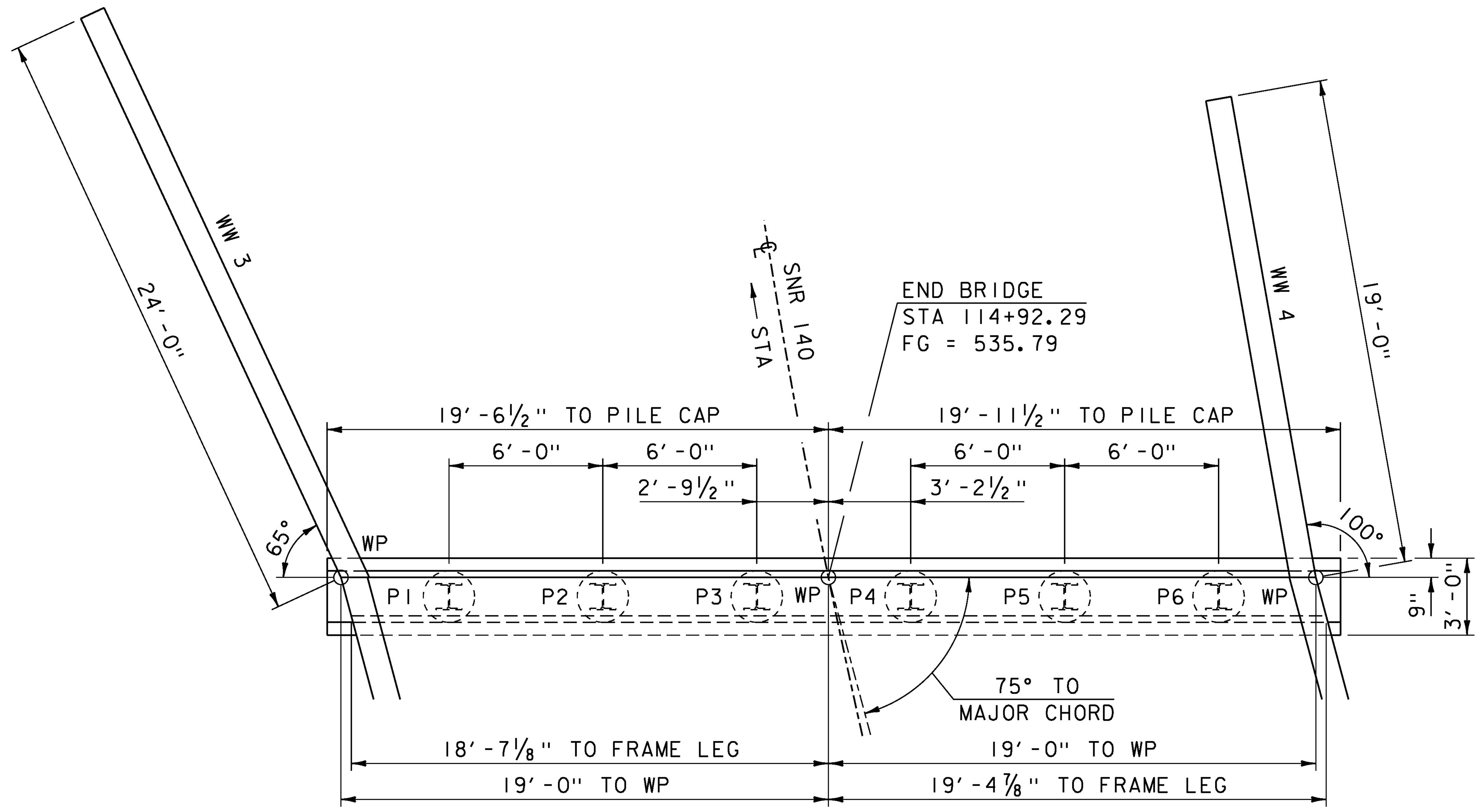
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR UNLESS OTHERWISE NOTED
2'-2" BAR LAP UNLESS OTHERWISE NOTED

KEY	DATE	BY	REVISION
⚠	12/17/2018	VAOT	REVISED REINFORCING STEEL SPACING.

PROJECT NAME: POULTNEY
PROJECT NUMBER: BF 0138(12)

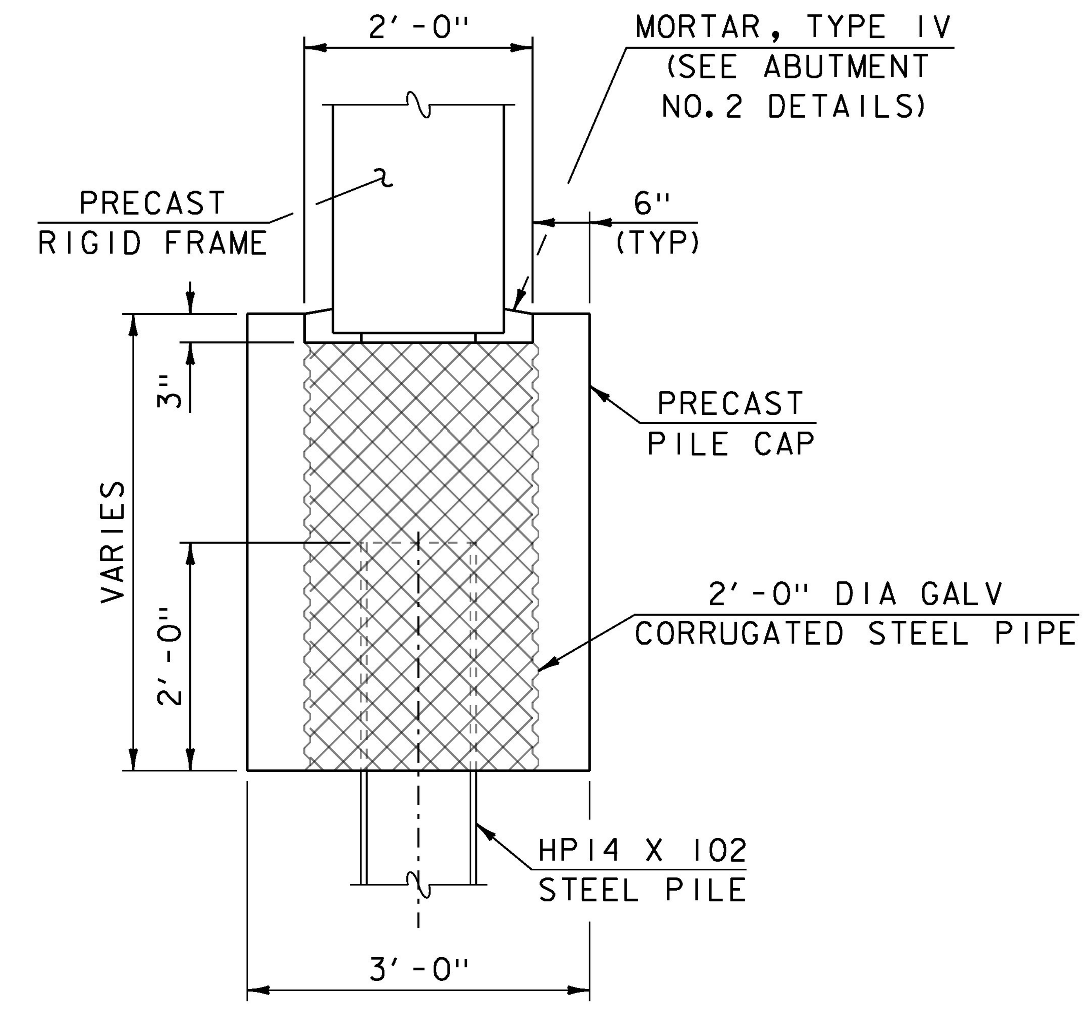
FILE NAME: sl3j276sub.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: G. DARGAN
ABUTMENT NO. 1 DETAILS

PLOT DATE: 17-DEC-2018
DRAWN BY: G. ROY
CHECKED BY: G. LAROCHE
SHEET 29 OF 46



ABUTMENT NO. 2 PLAN

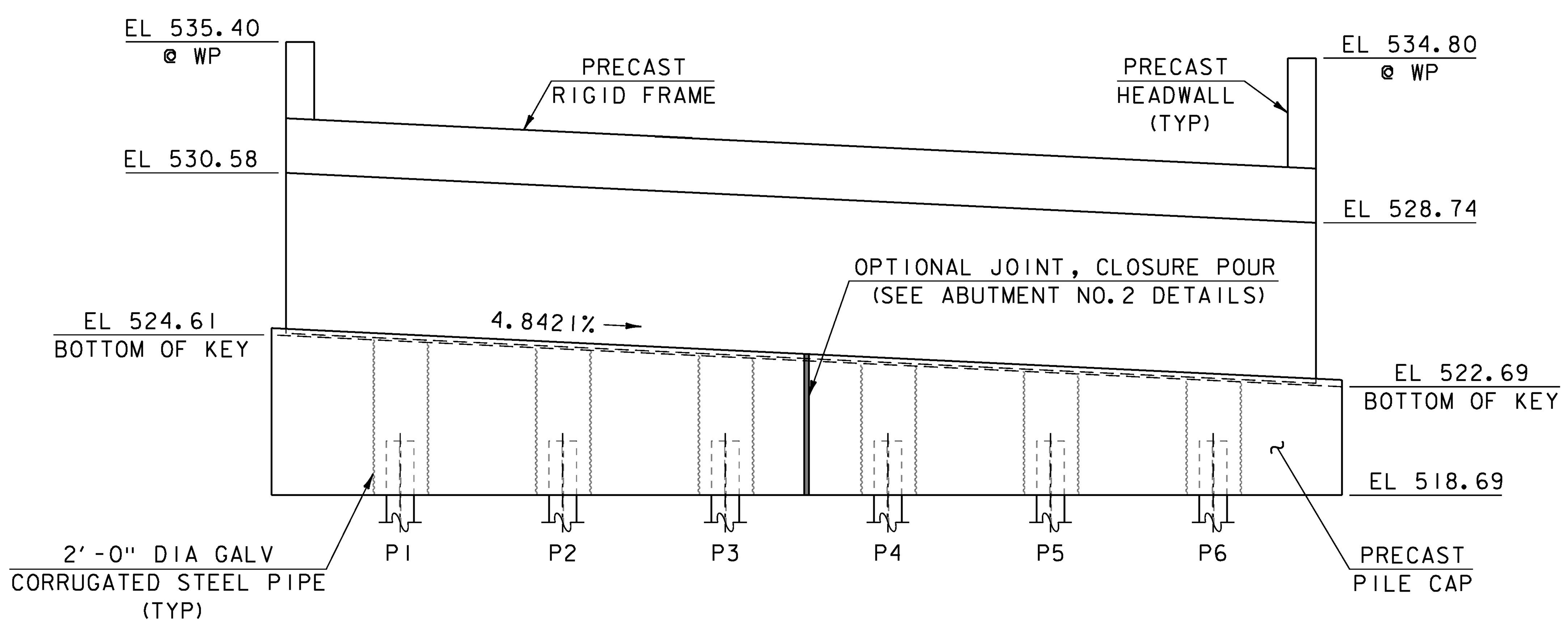
SCALE: ¼" = 1'-0"



ABUTMENT NO. 2 TYPICAL SECTION

SCALE: ¾" = 1'-0"

LIMITS OF SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, RAPID SET) (FPQ)



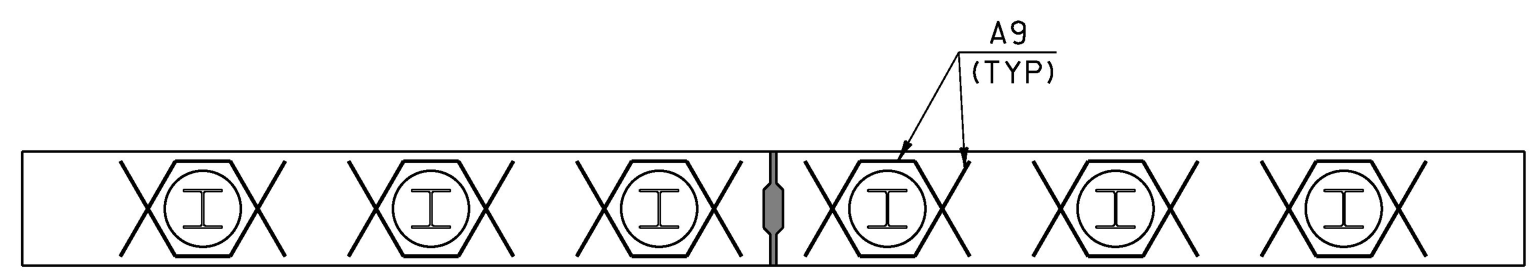
ABUTMENT NO. 2 ELEVATION

SCALE: ¼" = 1'-0"

NOTES:

1. A FRAME LEG THICKNESS OF 1'-6" WAS ASSUMED FOR THE GENERATION OF PLANS.
2. USE GALVANIZED STEEL PIPE THAT CONFORMS TO SUBSECTION 711.01 FOR PILE VOIDS.

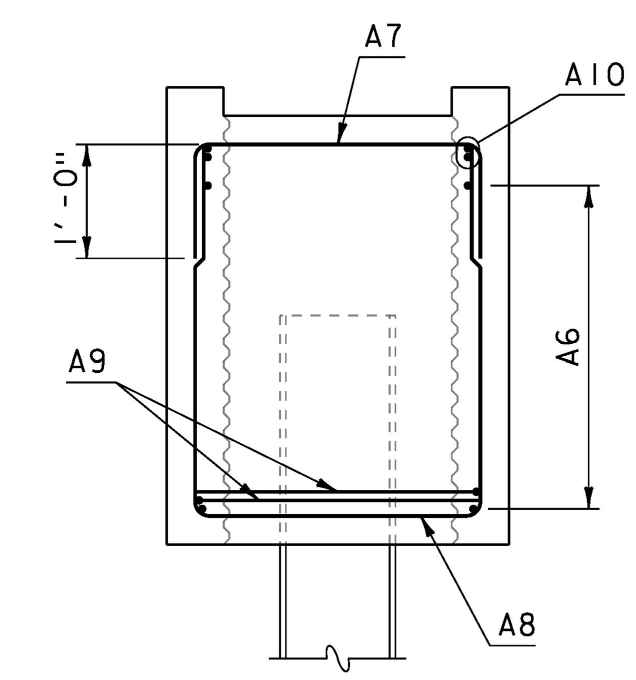
PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276sub.dgn	PLOT DATE: 23-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. ROY
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
ABUTMENT NO. 2 PLAN AND ELEVATION	SHEET 30 OF 46



ABUTMENT NO. 2 REINFORCING PLAN

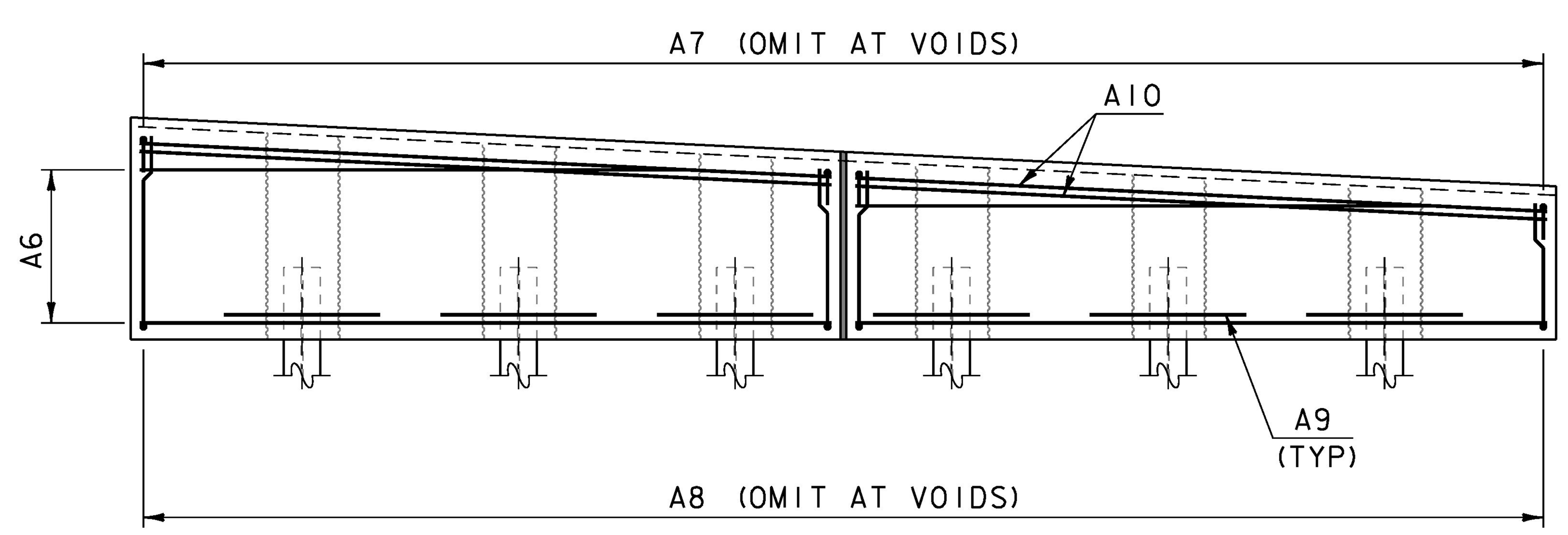
SCALE: ¼" = 1'-0"

	BAR	SIZE	SPACING	TYPE
⚠	A6	5	12"	STR
⚠	A7	4	9"	S10
⚠	A8	5	9"	S10
	A9	5	AS SHOWN	14
	A10	7	AS SHOWN	STR



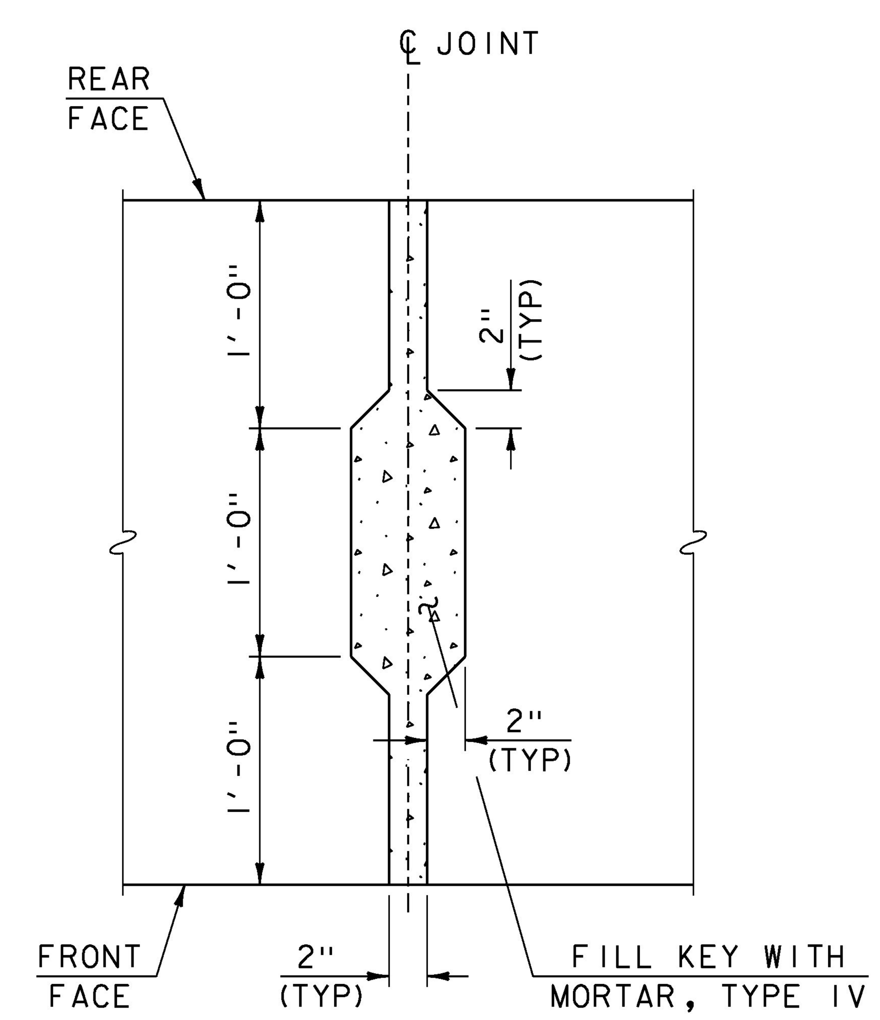
ABUTMENT NO. 2 TYPICAL REINFORCING

SCALE: ¾" = 1'-0"



ABUTMENT NO. 2 REINFORCING ELEVATION

SCALE: ¼" = 1'-0"



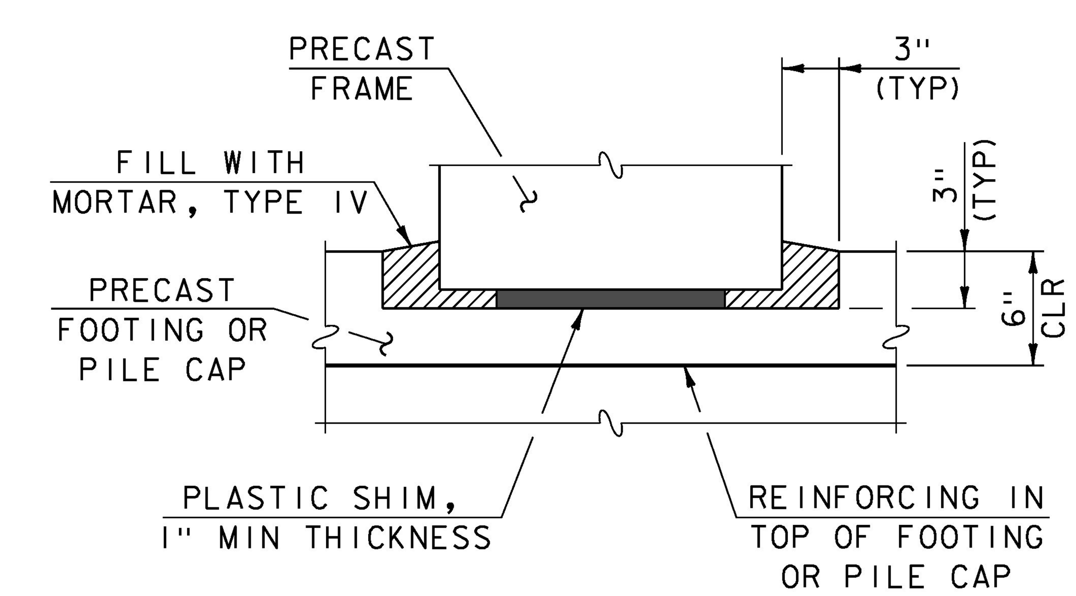
NOTE:

CONTRACTOR TO FORM JOINT TO SUPPORT WET GROUT.

ABUTMENT NO. 2 SHEAR KEY PLAN VIEW

NOT TO SCALE

LOCATIONS AND NUMBER OF ABUTMENT NO. 2 VERTICAL JOINTS MAY BE MODIFIED BY THE CONTRACTOR TO SUIT THEIR MEANS AND METHODS. EACH INDIVIDUAL UNIT SHALL BE PLACED ON A MINIMUM OF TWO PILES.



FOOTING TO STEM CONNECTION DETAIL

NOT TO SCALE

PLASTIC SHIMS SHALL BE CAPABLE OF SUPPORTING THE WEIGHT OF THE PRECAST UNITS AND SPACED AS REQUIRED TO PROVIDE A 1" MINIMUM GAP TO ALLOW FOR THE PLACEMENT OF 1" OF MORTAR, TYPE IV. SHIMS SHALL ALSO ALLOW FOR FINAL GRADE ADJUSTMENTS AS NECESSARY.

NOTE:

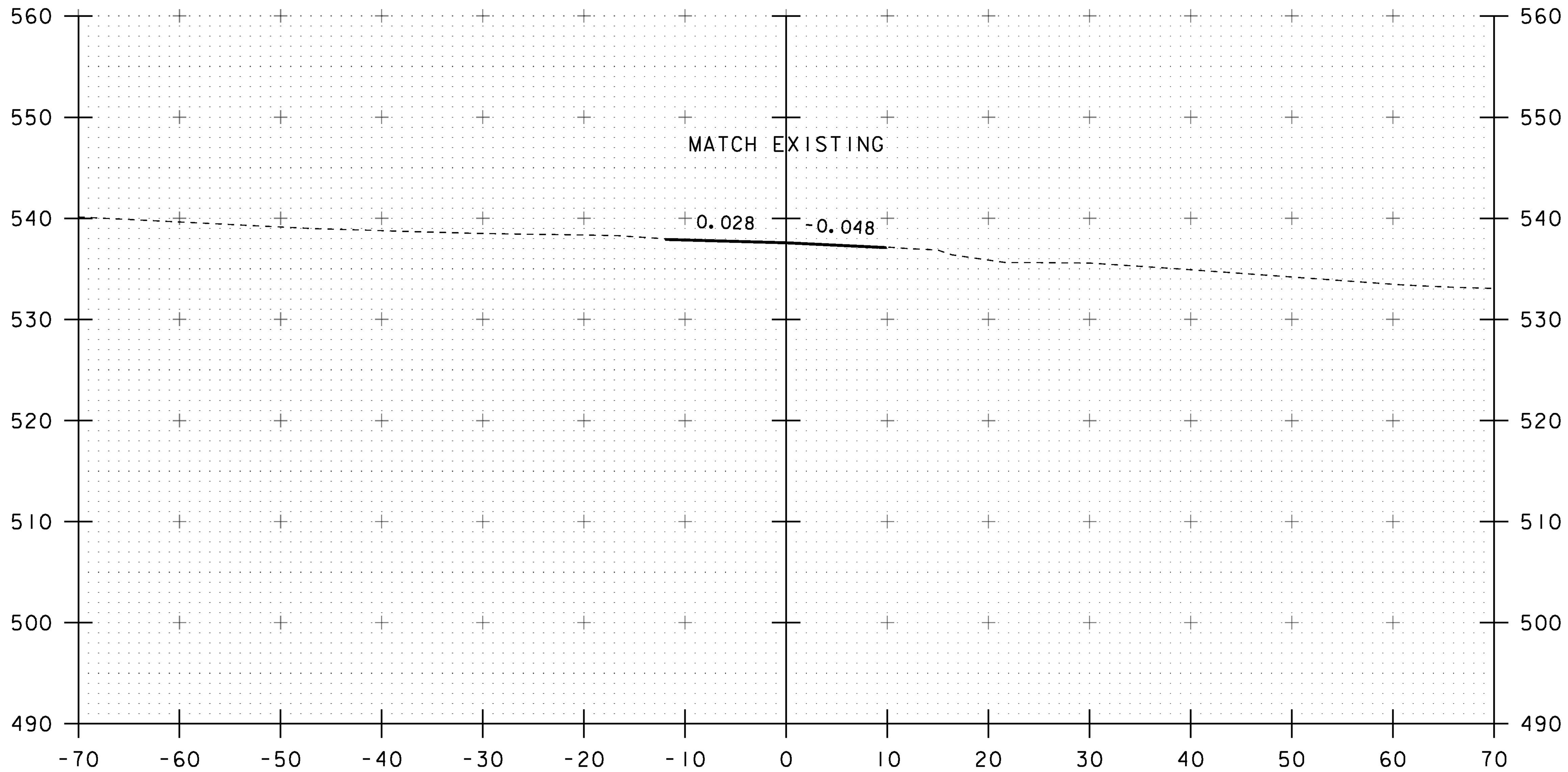
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR UNLESS OTHERWISE NOTED
2'-2" BAR LAP UNLESS OTHERWISE NOTED

KEY	DATE	BY	REVISION
⚠	12/11/2018	VAOT	REVISED REINFORCING STEEL SPACING.

PROJECT NAME: POULTNEY
PROJECT NUMBER: BF 0138(12)

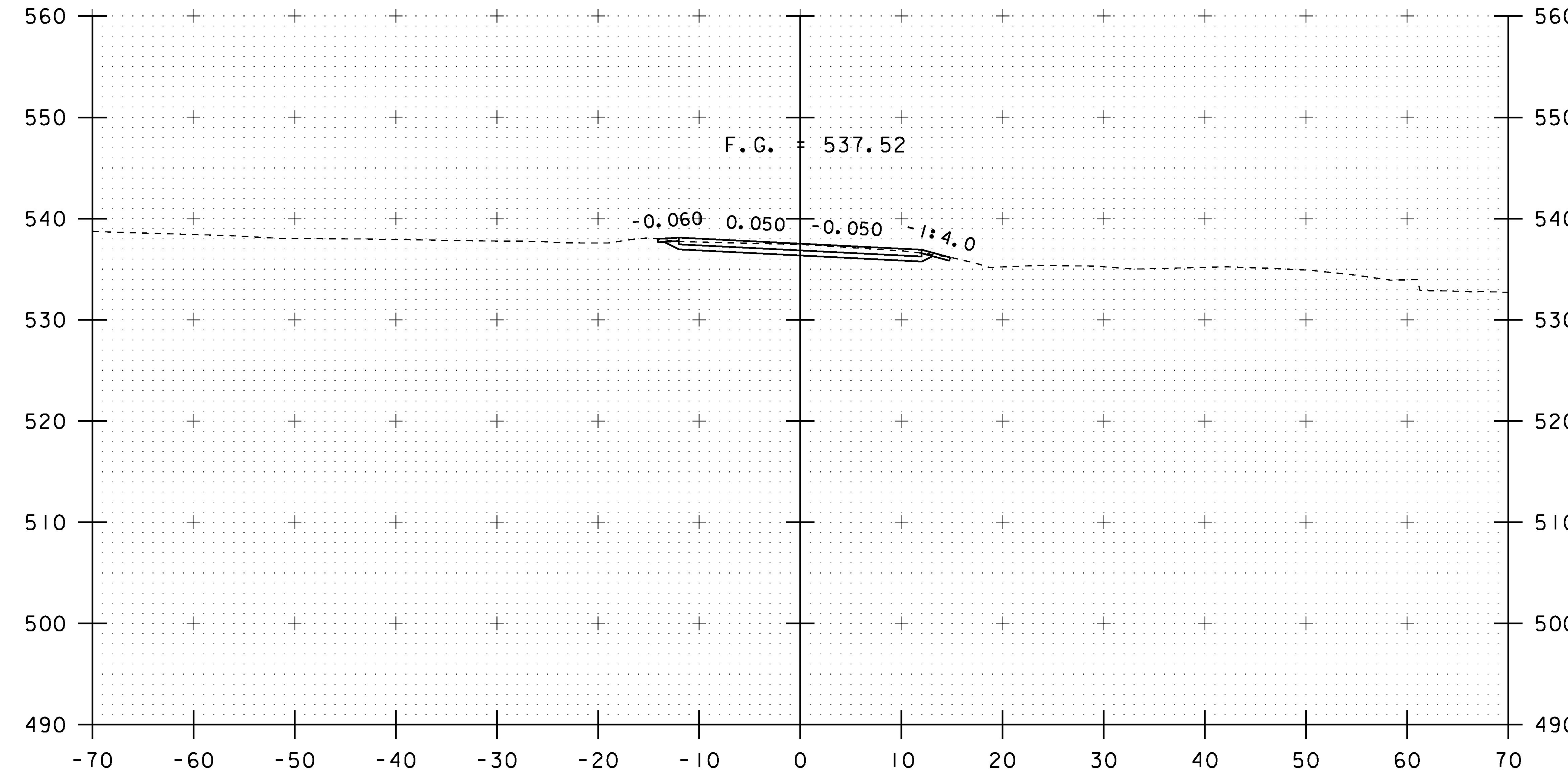
FILE NAME: s13j276sub.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: G. DARGAN
ABUTMENT NO. 2 DETAILS

PLOT DATE: 11-DEC-2018
DRAWN BY: G. ROY
CHECKED BY: G. LAROCHE

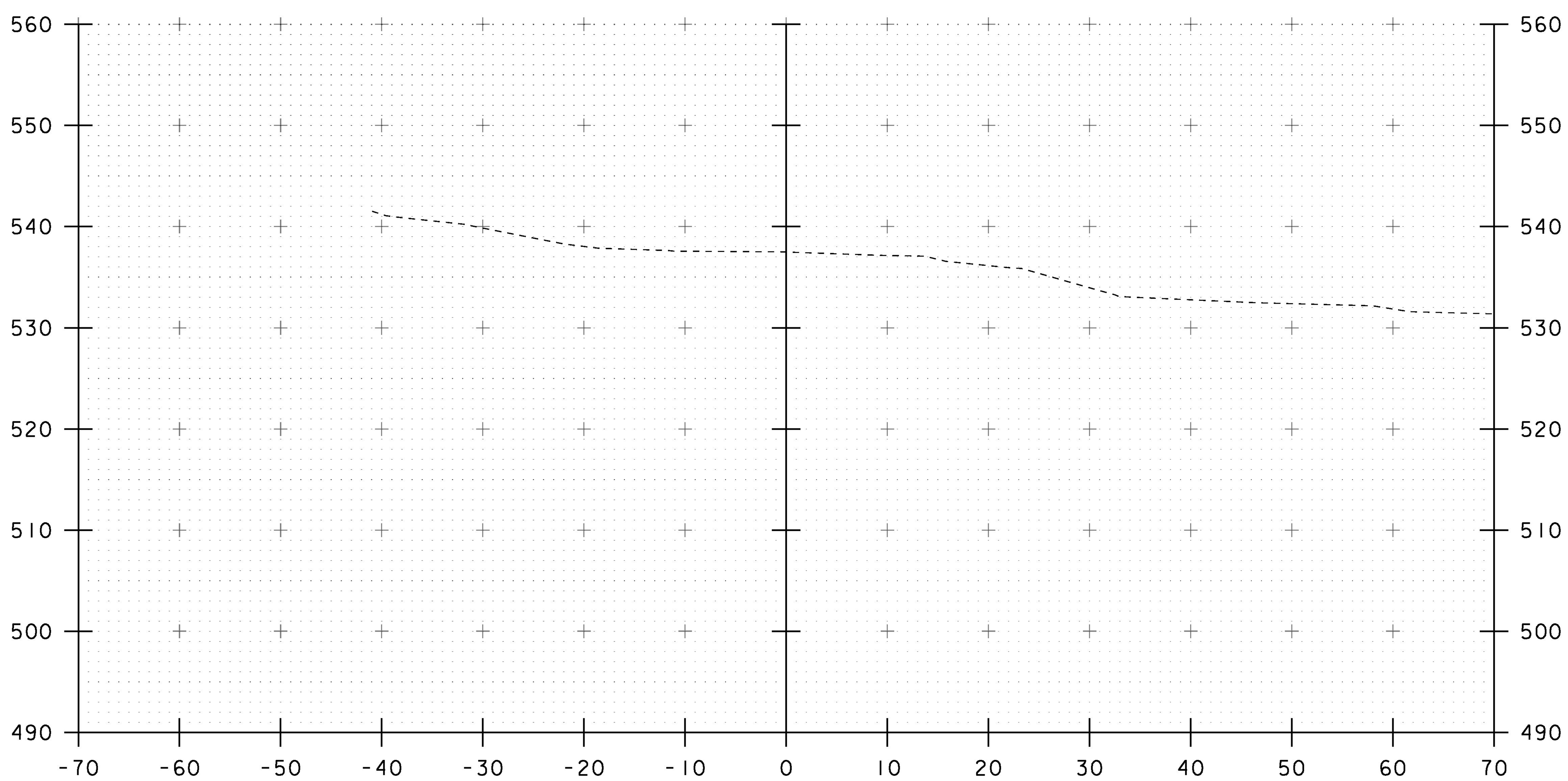


STA 113+25.00
BEGIN APPROACH
MATCH EXISTING

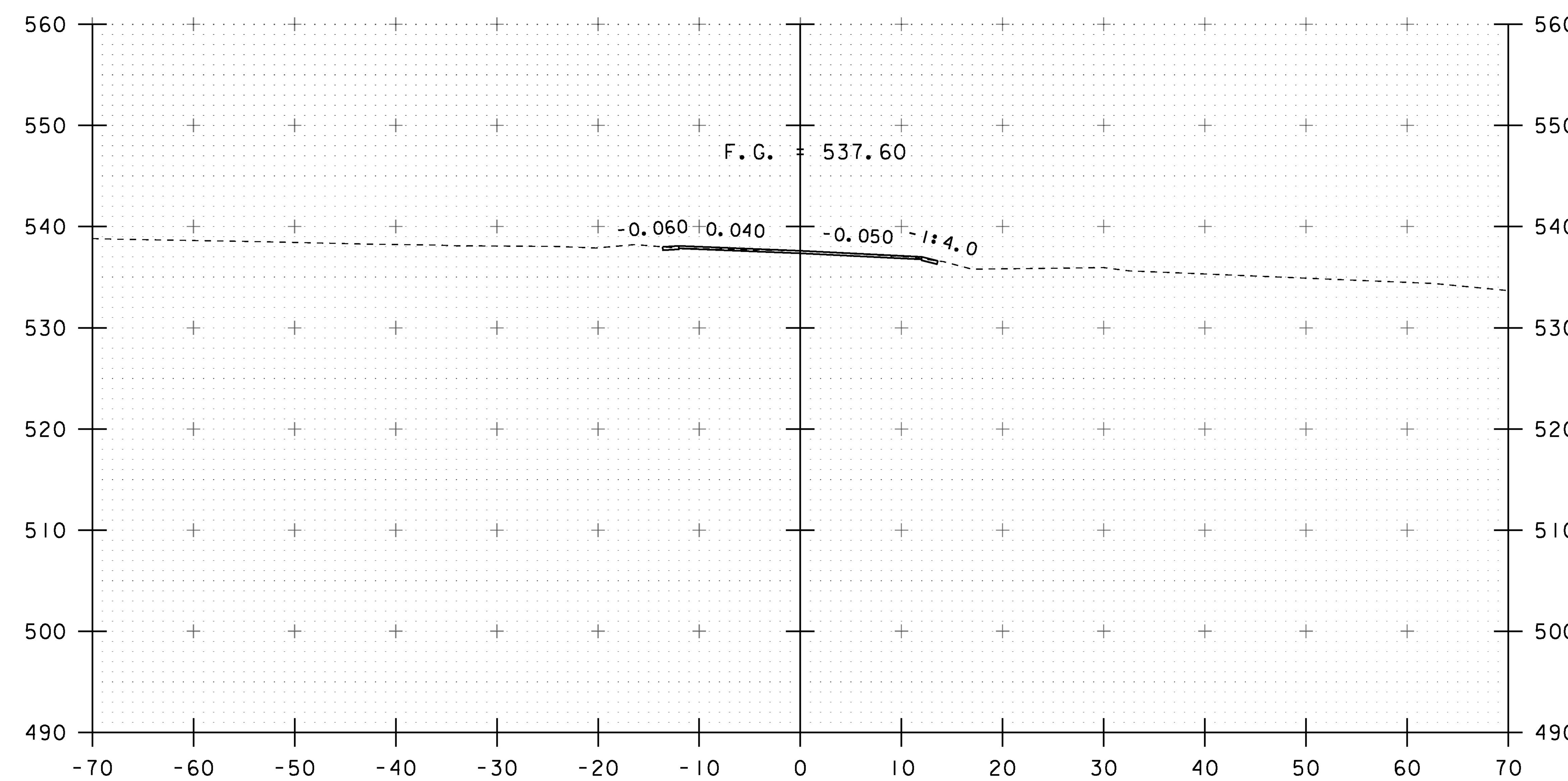
113+25



113+75



113+00

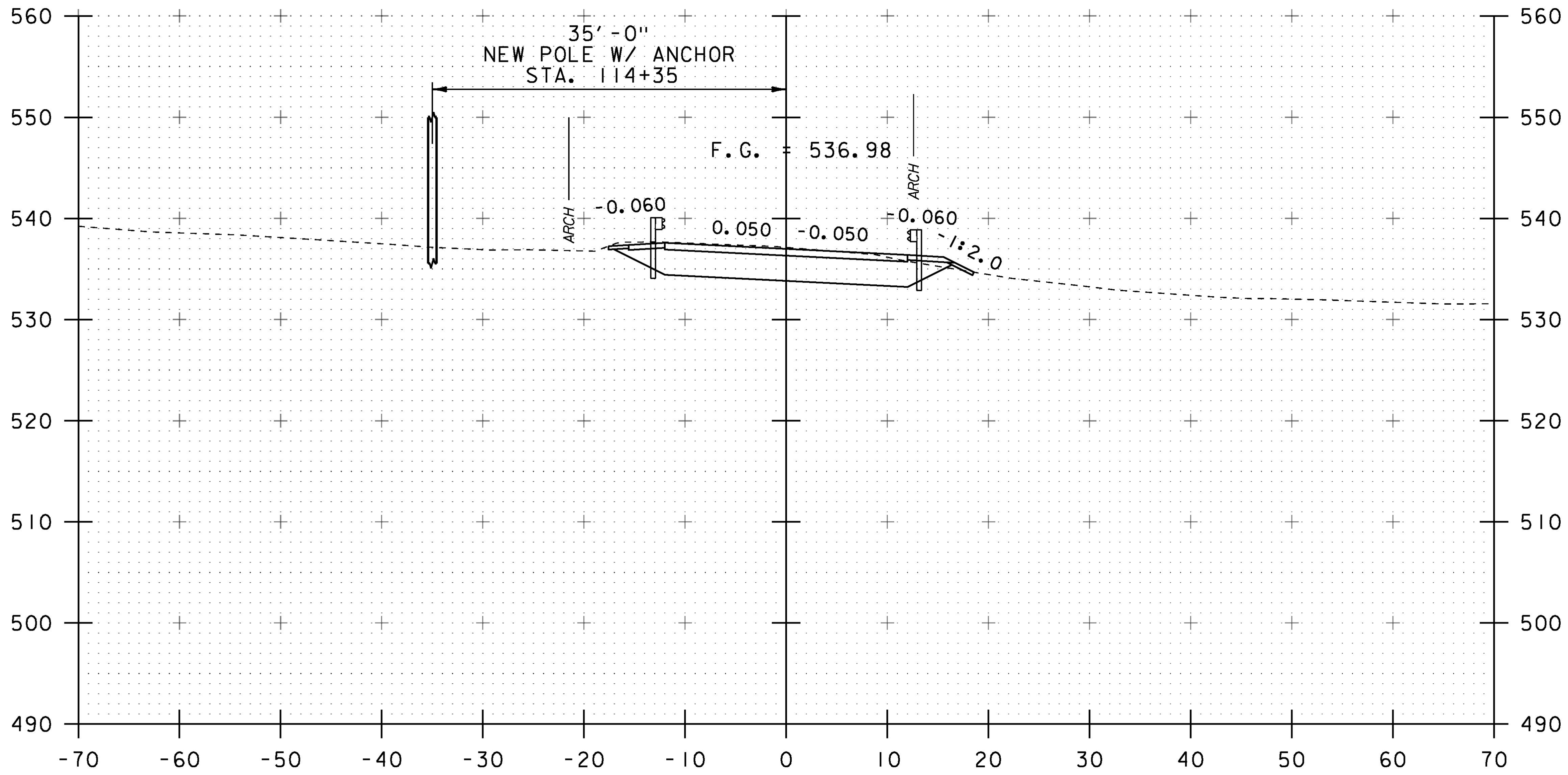


113+50

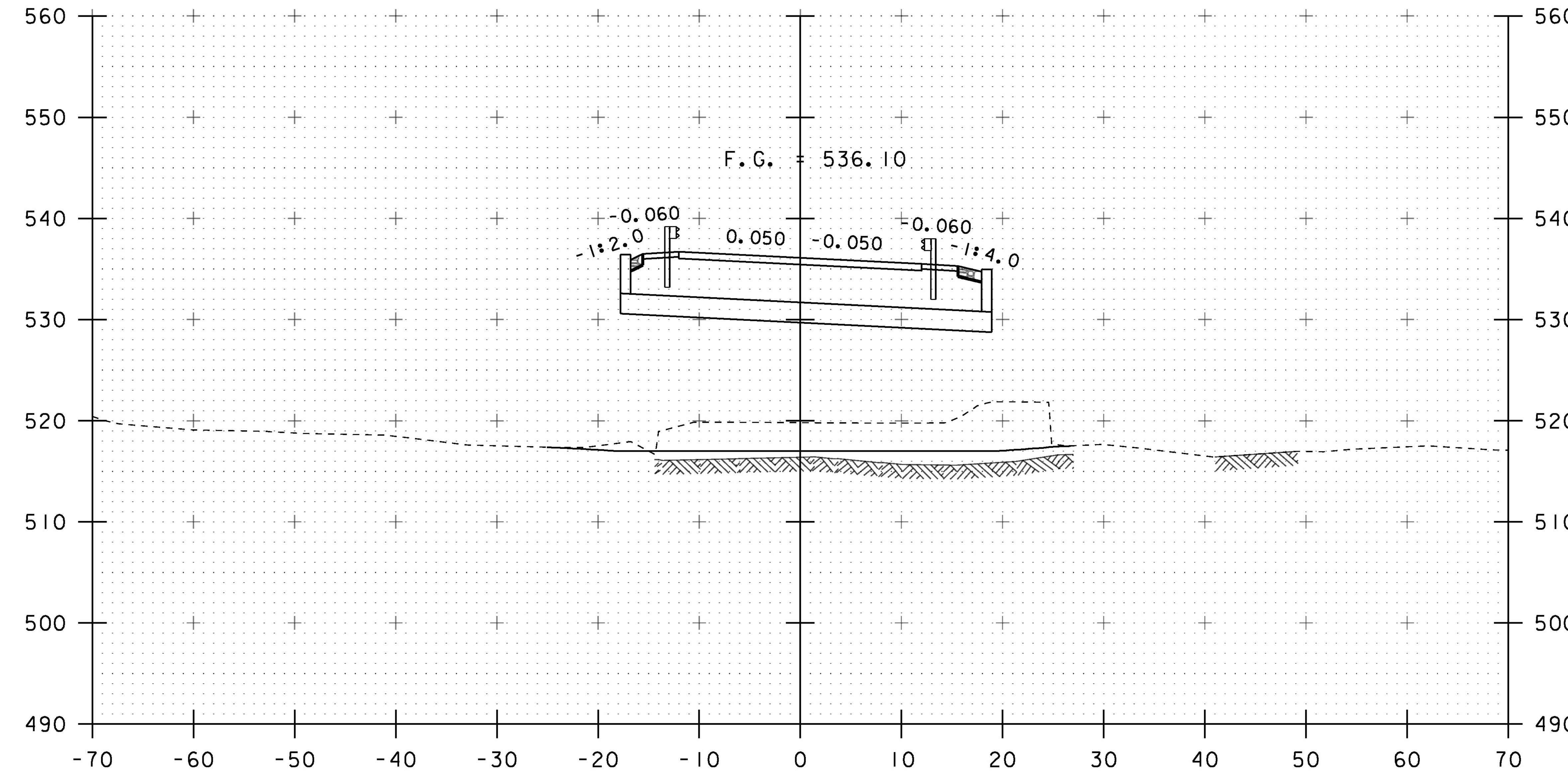
SCALE: 1" = 10'-0"

STA. 113+00 TO STA. 113+75

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276xs.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
MAINLINE CROSS SECTIONS (1)	SHEET 32 OF 46

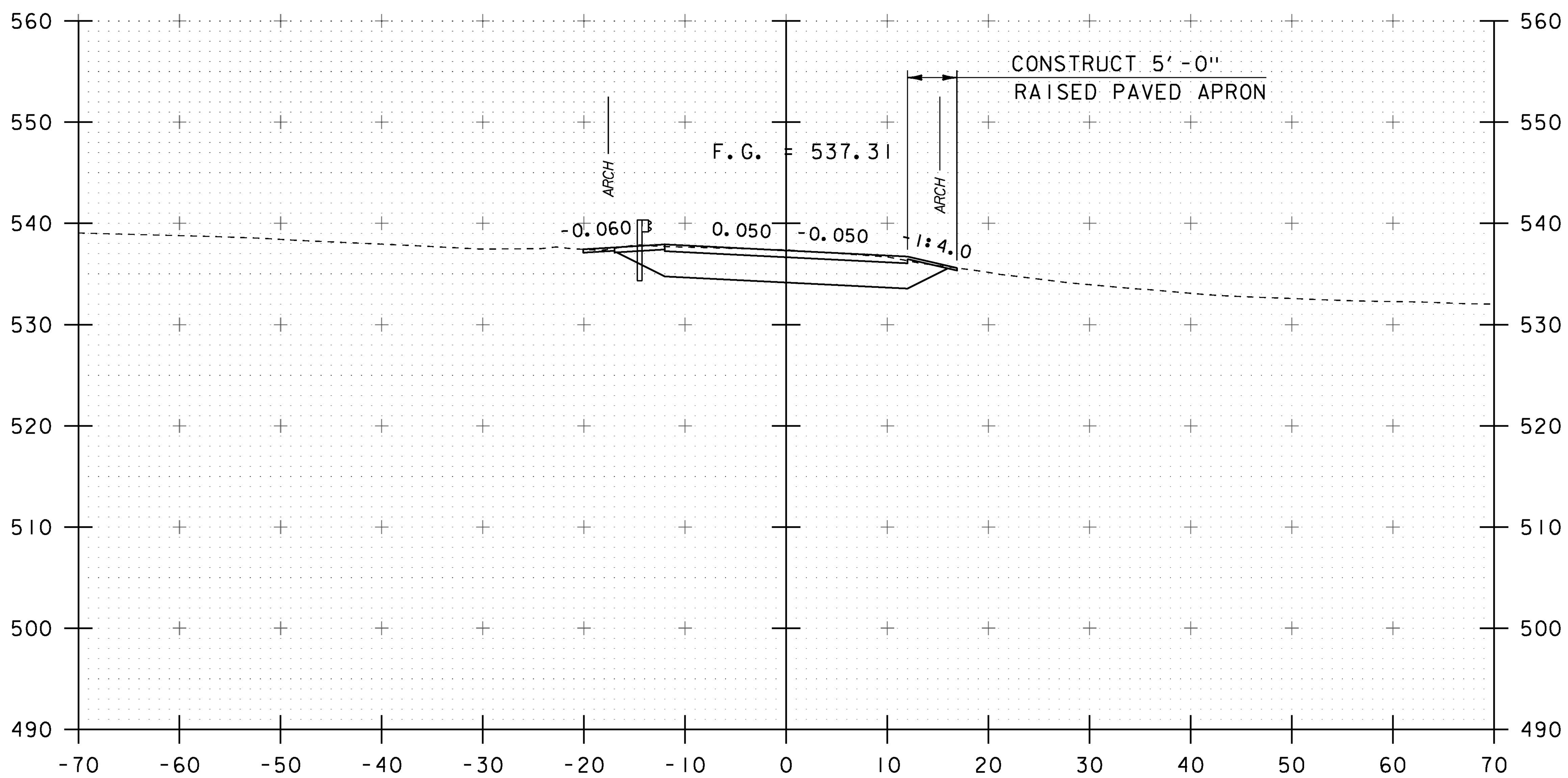


114+25



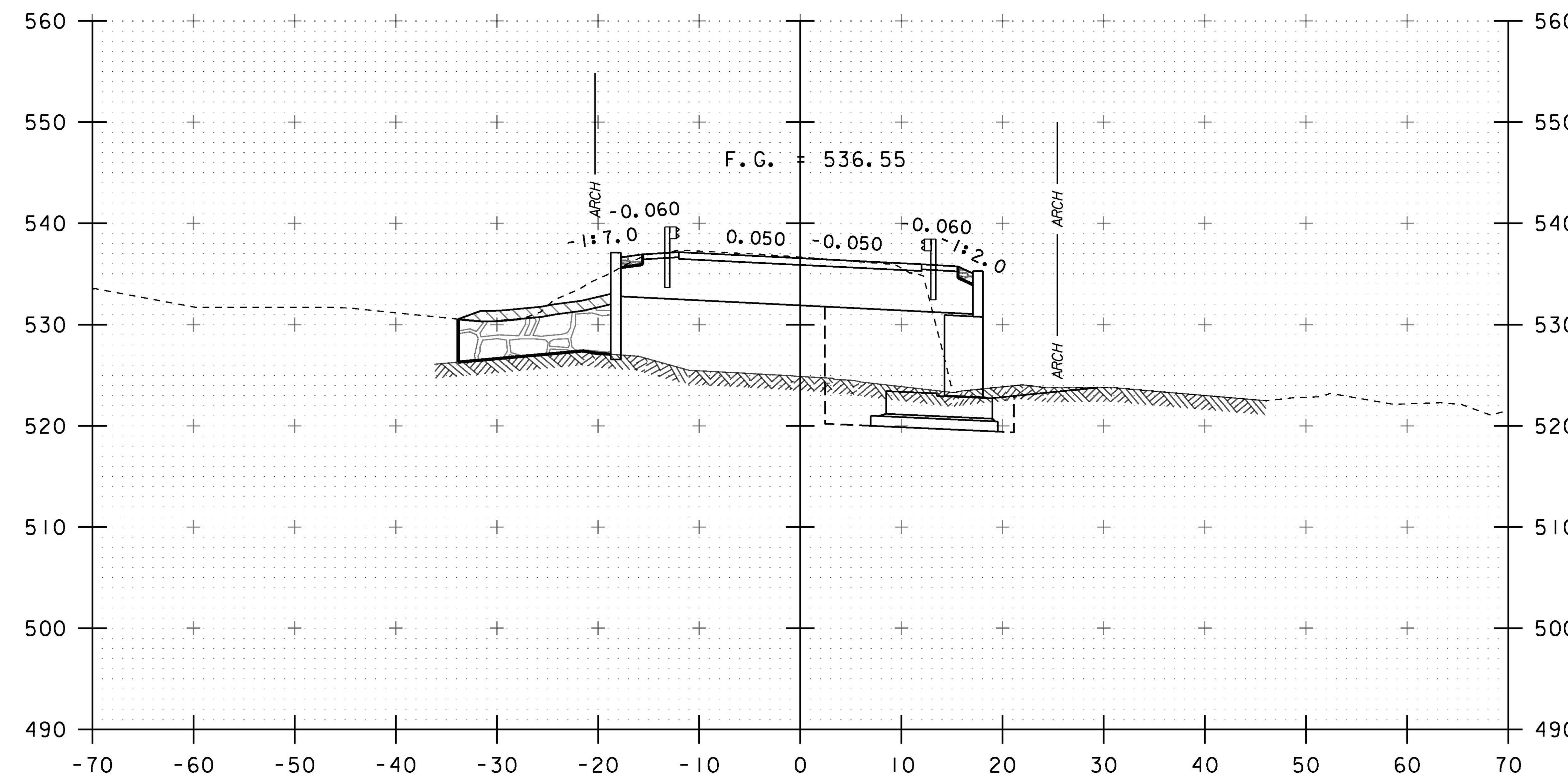
STA 114+55.00
BEGIN BRIDGE

114+75



STA 114+00.00
BEGIN PROJECT

114+00

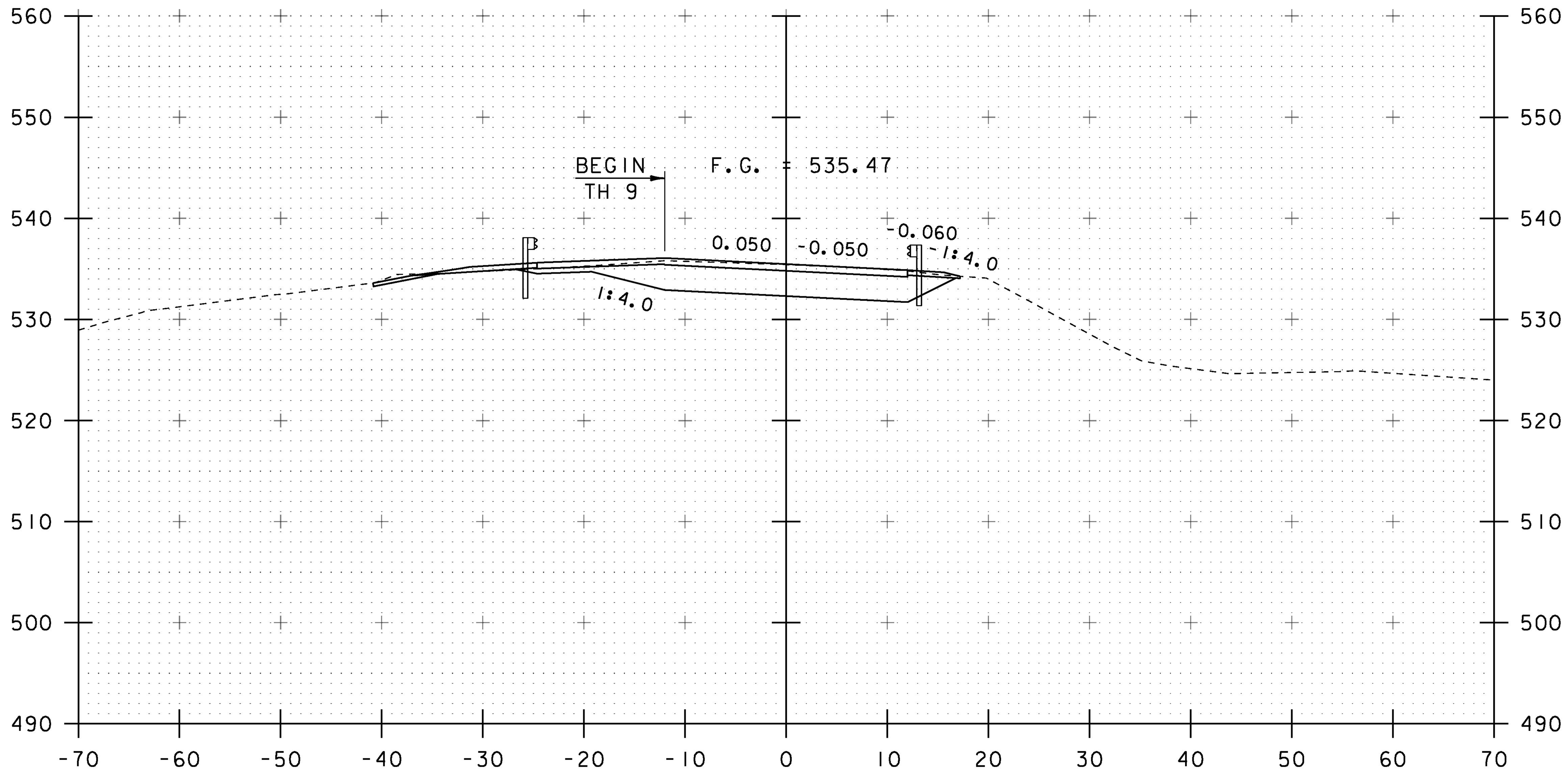


114+50

SCALE: 1" = 10'-0"

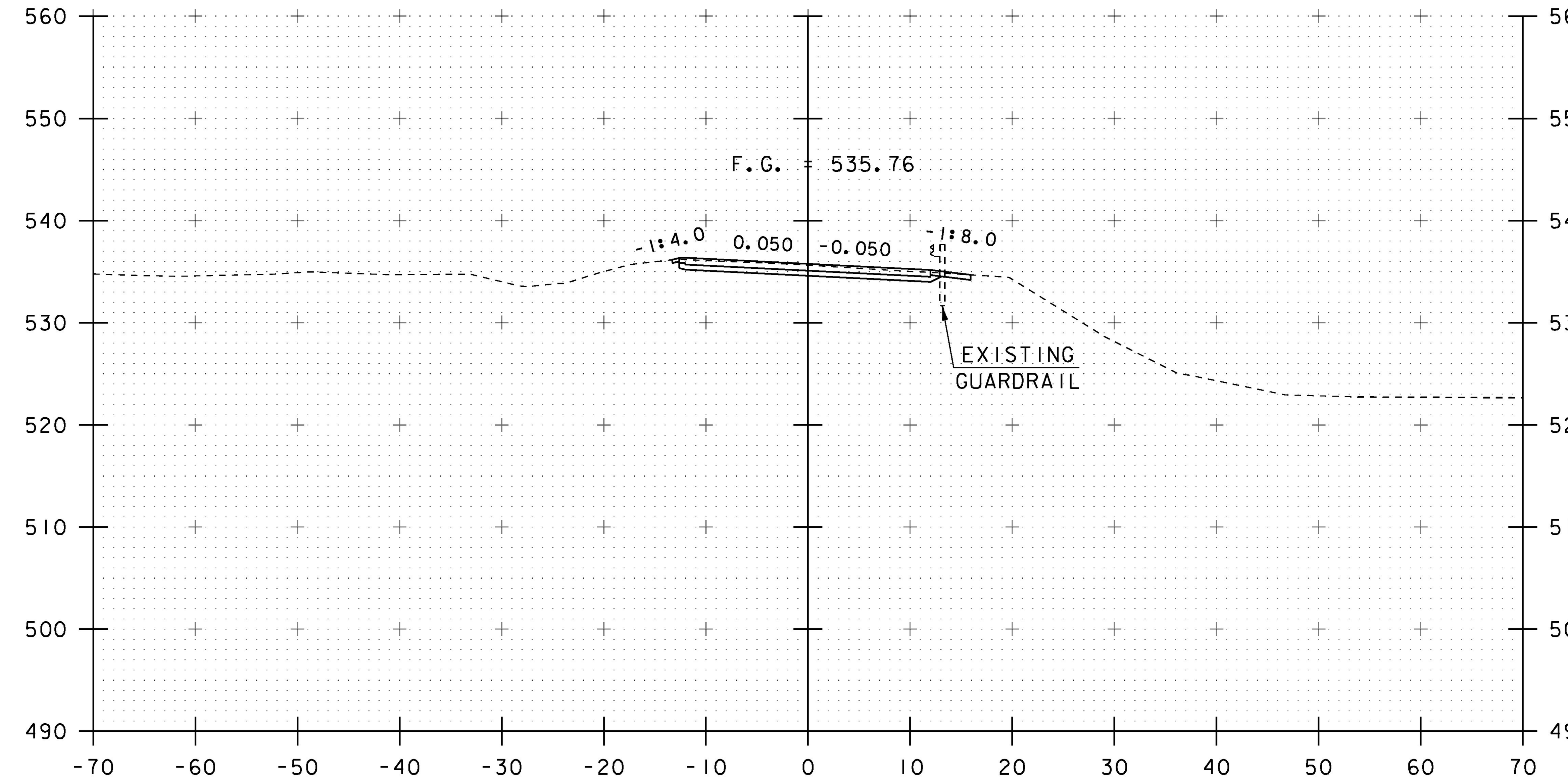
STA. 114+00 TO STA. 114+75

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276xs.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
MAINLINE CROSS SECTIONS (2)	SHEET 33 OF 46

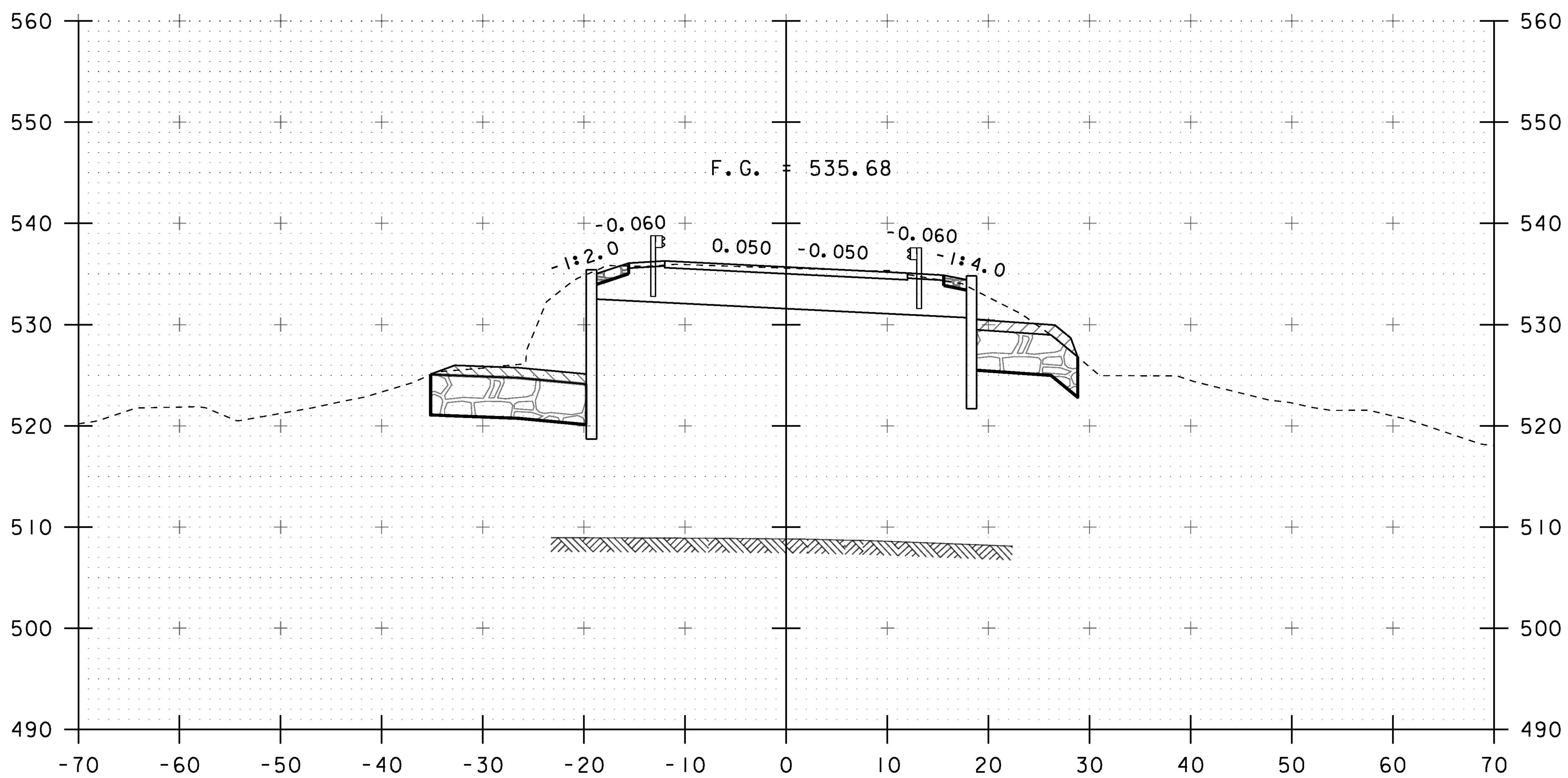


STA 115+25.00
END PROJECT

115+25

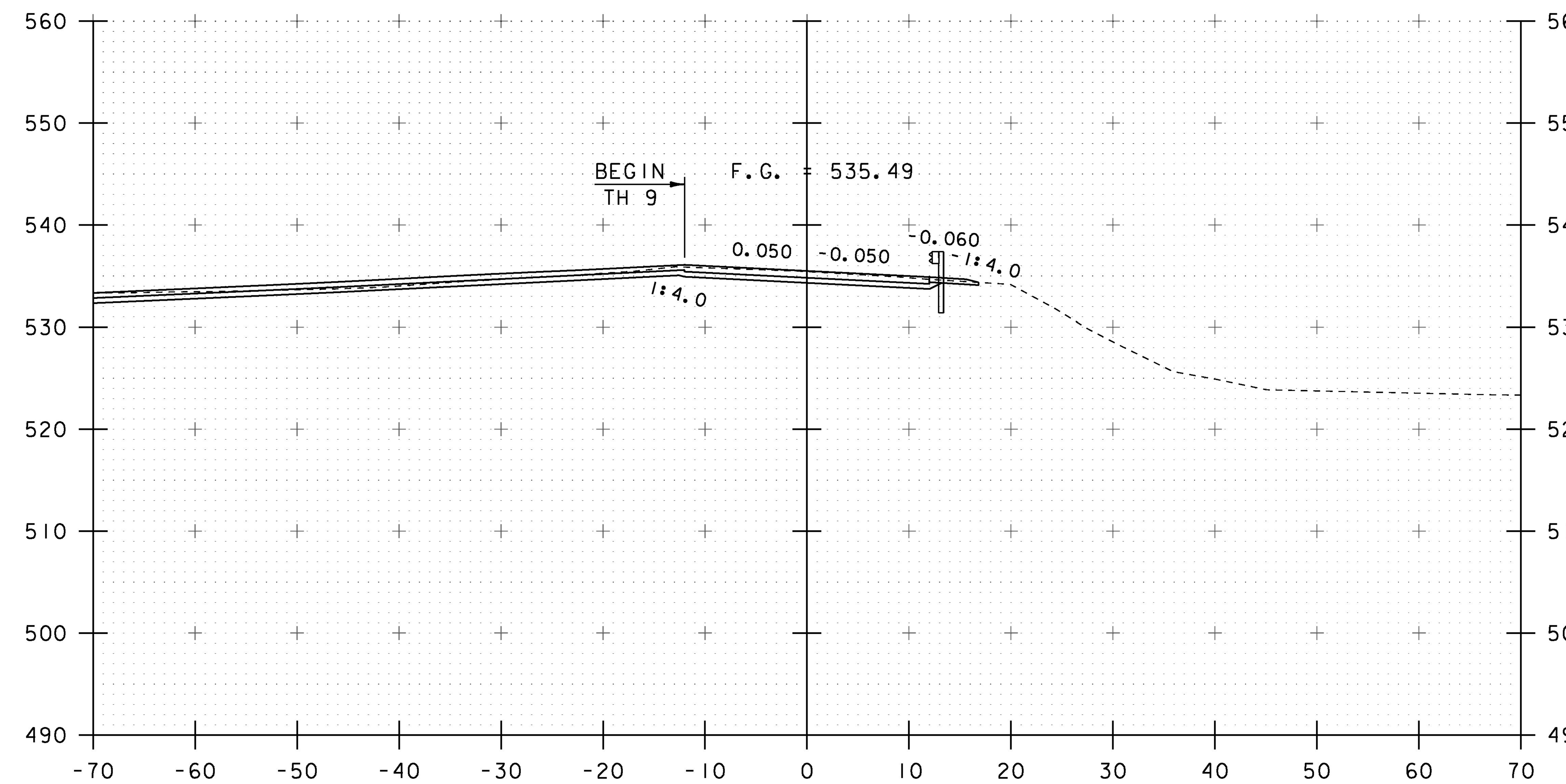


115+75



STA 114+92.29
END BRIDGE

115+00



115+50

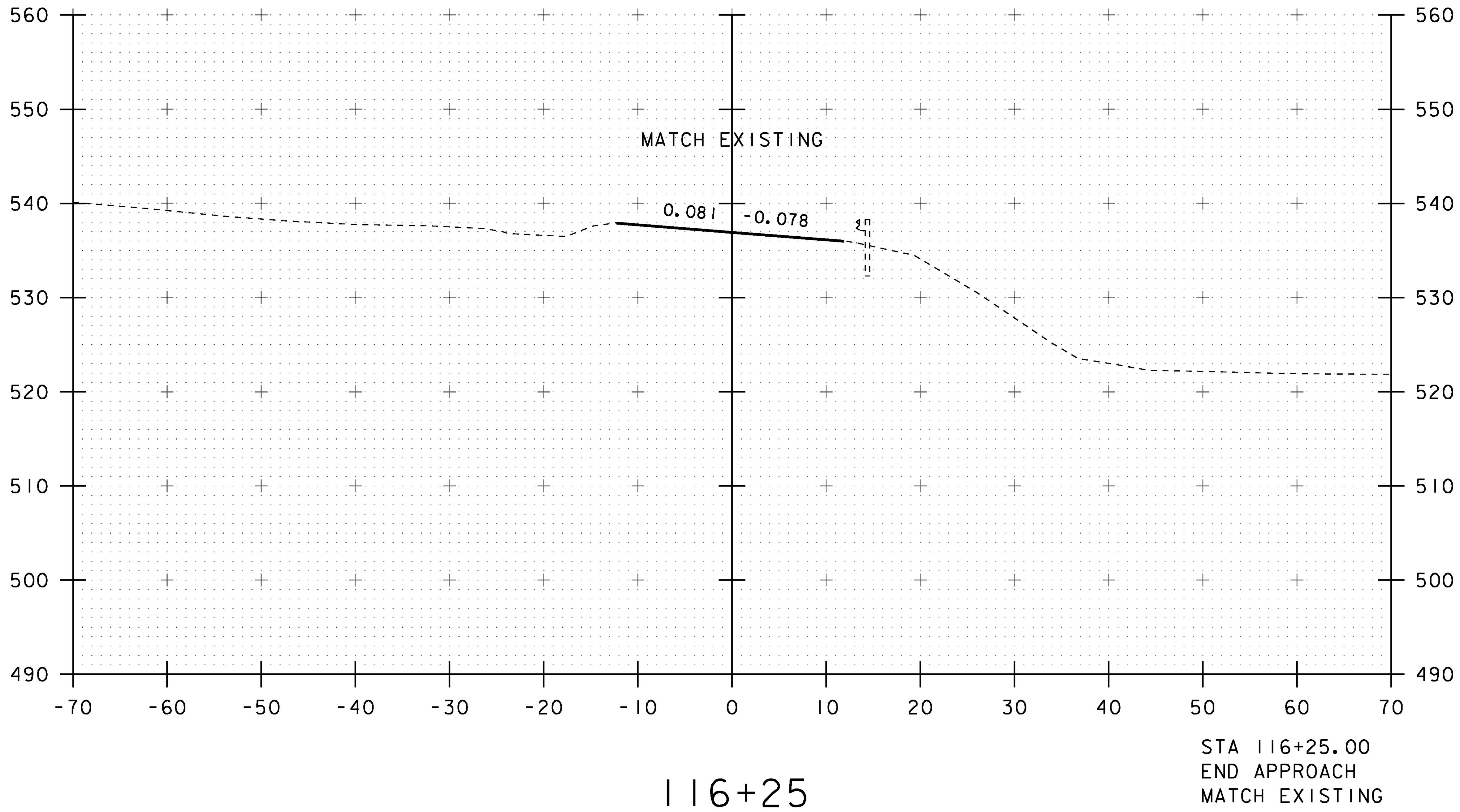
10 0 10
SCALE: 1" = 10'-0"

STA. 115+00 TO STA. 115+75

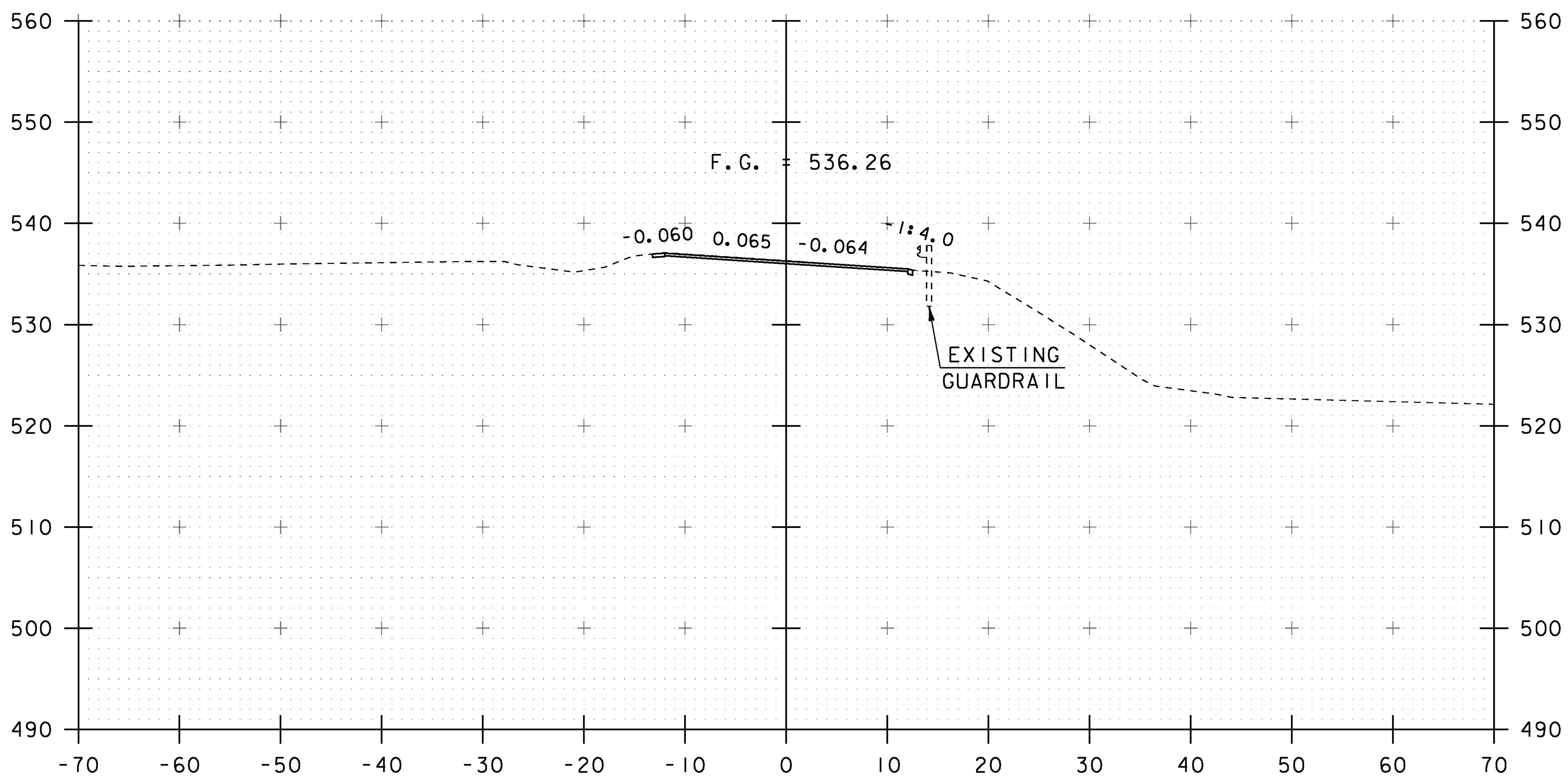
PROJECT NAME: POULTNEY
PROJECT NUMBER: BF 0138(12)

FILE NAME: s13j276xs.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: G. DARGAN
MAINLINE CROSS SECTIONS (3)

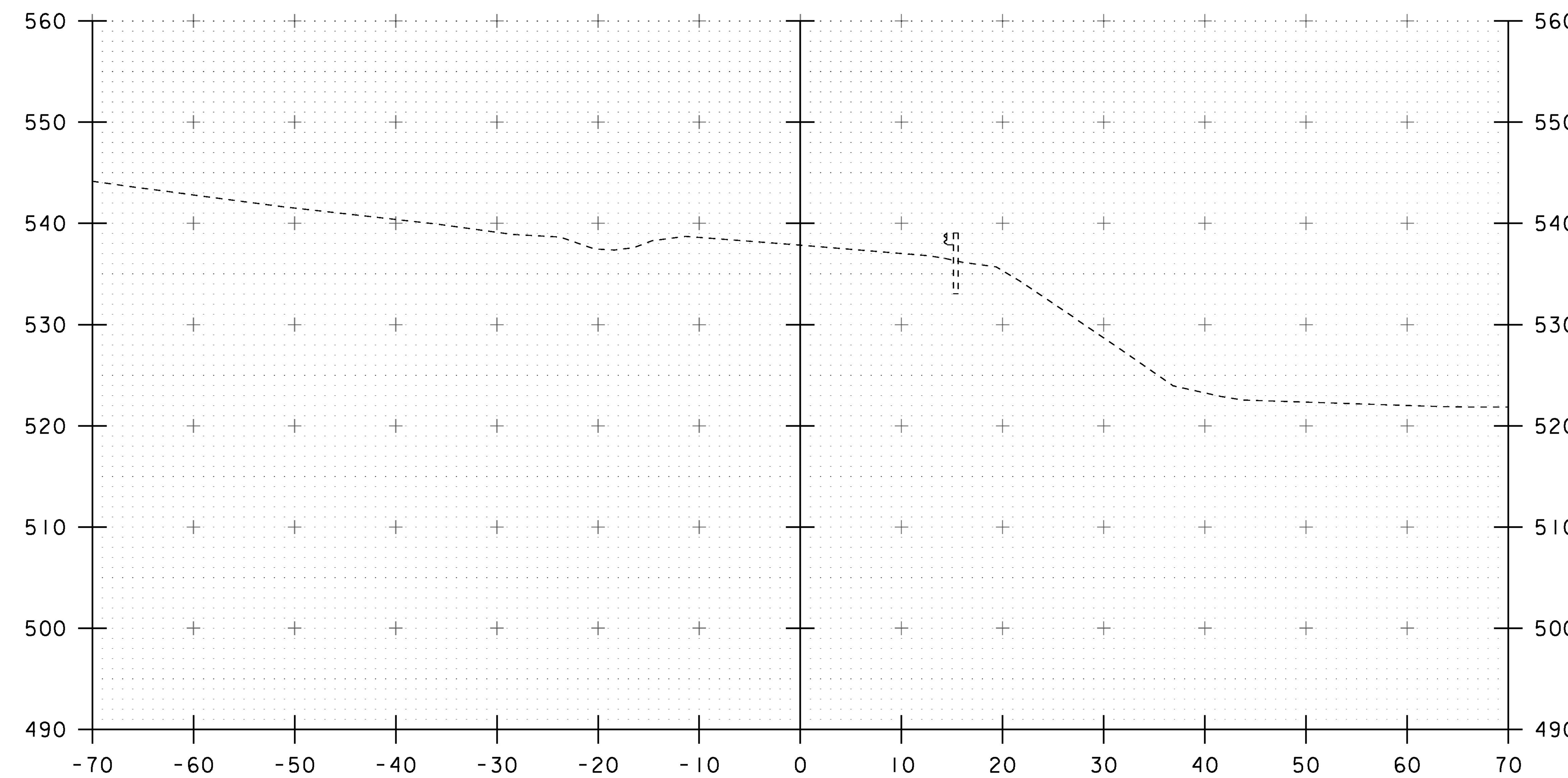
PLOT DATE: 15-AUG-2018
DRAWN BY: G. DARGAN
CHECKED BY: G. LAROCHE
SHEET 34 OF 46



116+25



116+00



116+50

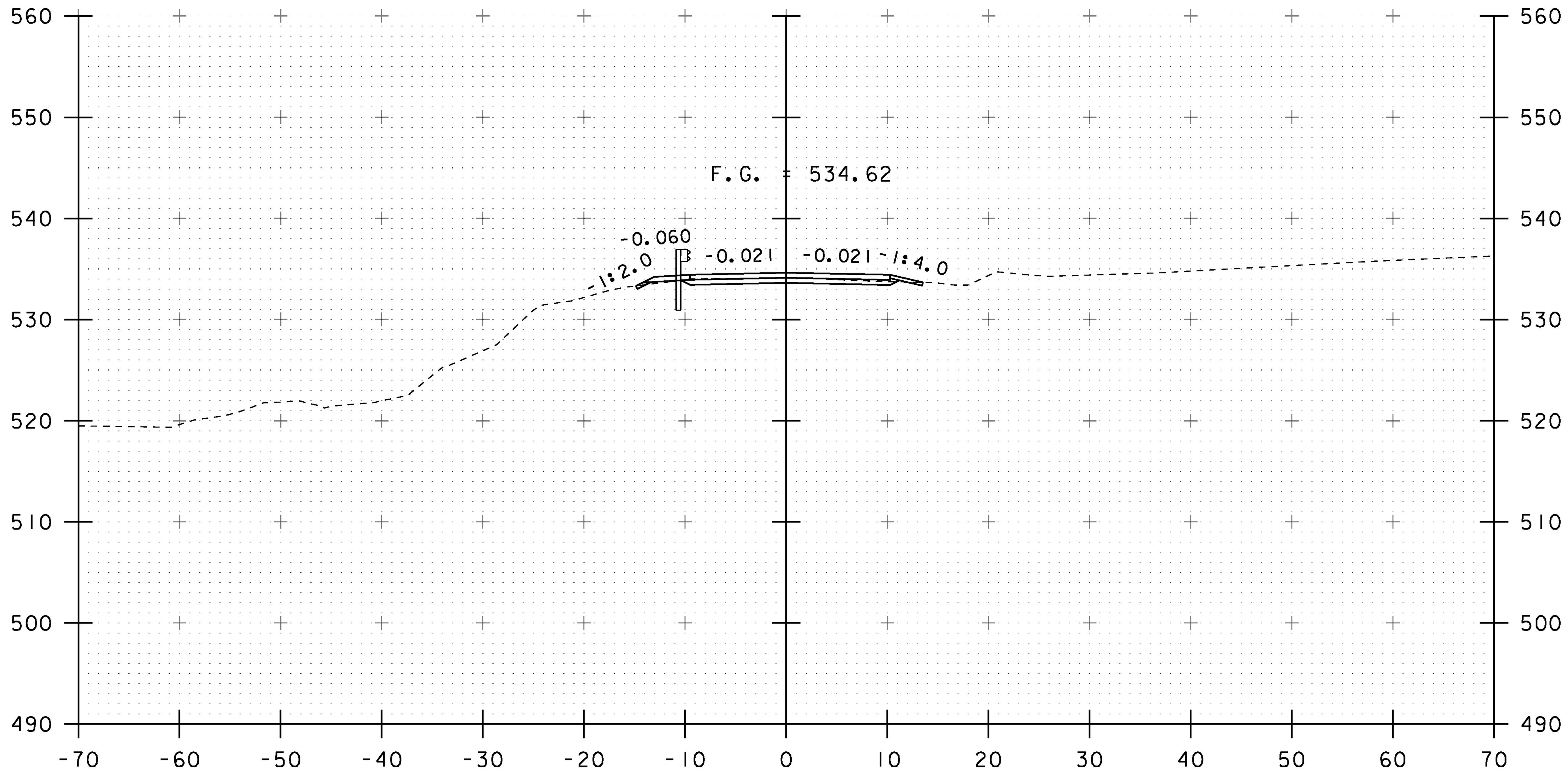
SCALE: 1" = 10'-0"

STA. 116+00 TO STA. 116+50

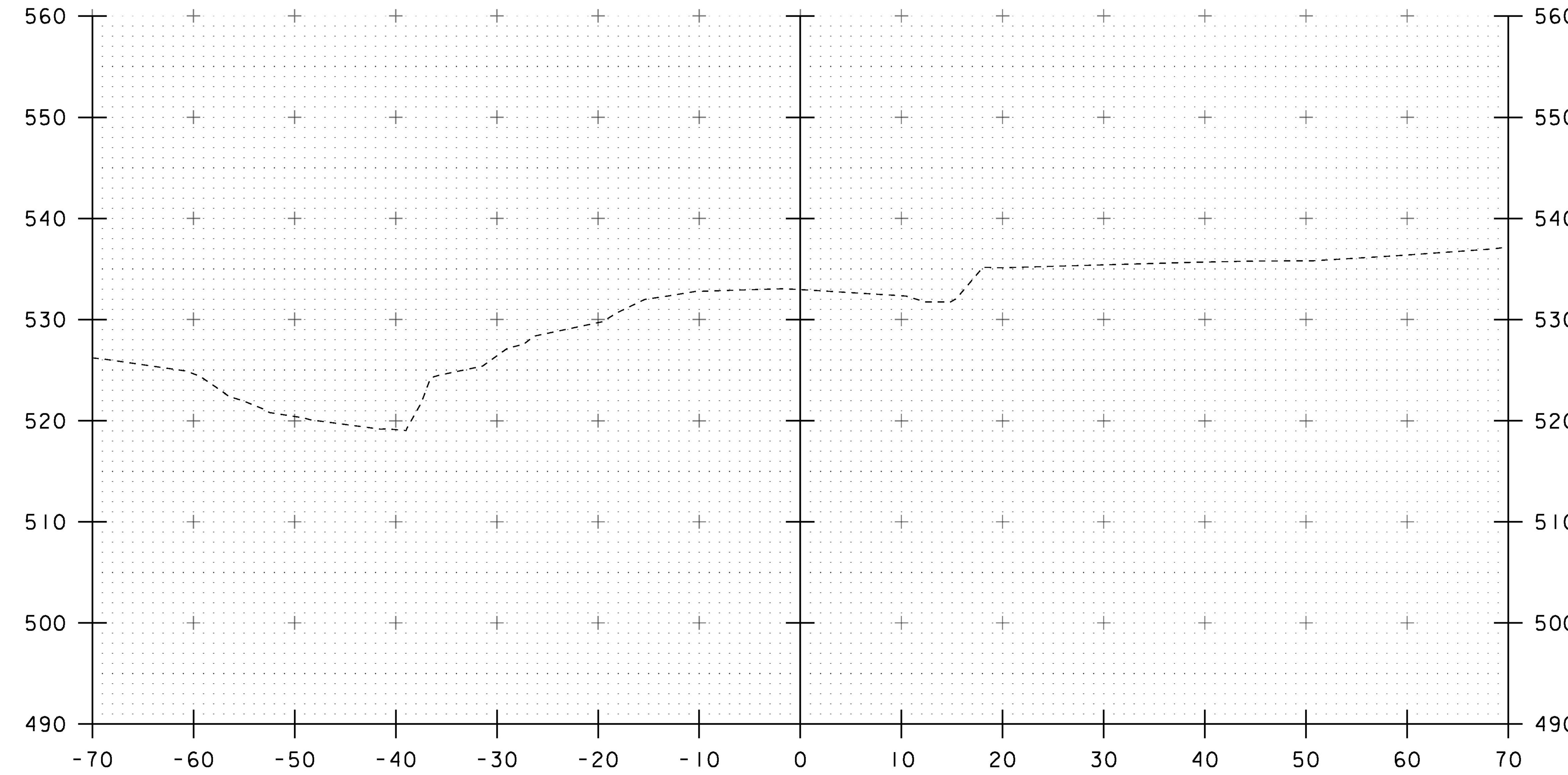
PROJECT NAME: POULTNEY
PROJECT NUMBER: BF 0138(12)

FILE NAME: sl3j276xs.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: G. DARGAN
MAINLINE CROSS SECTIONS (4)

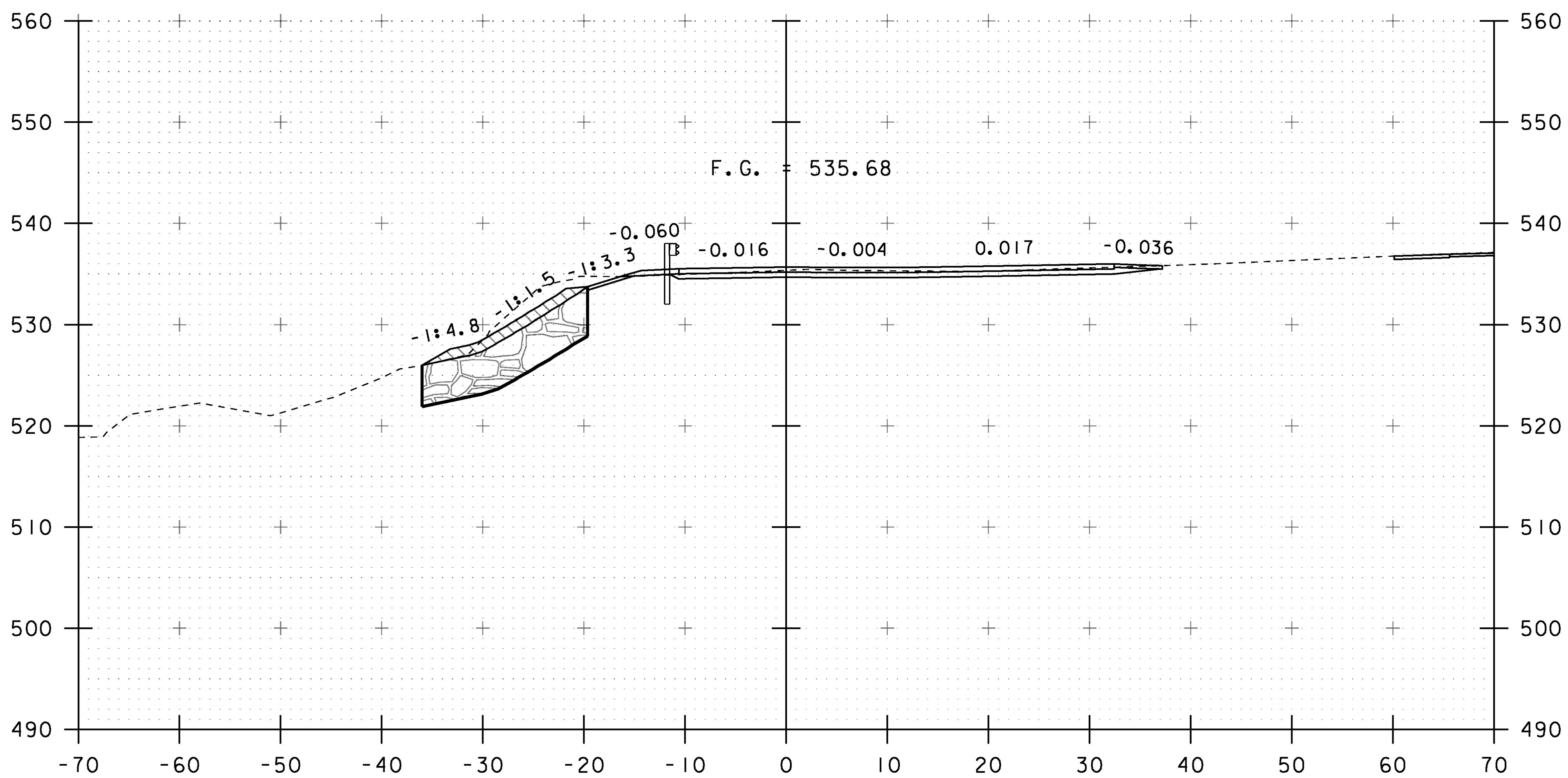
PLOT DATE: 15-AUG-2018
DRAWN BY: G. DARGAN
CHECKED BY: G. LAROCHE
SHEET 35 OF 46



11+50

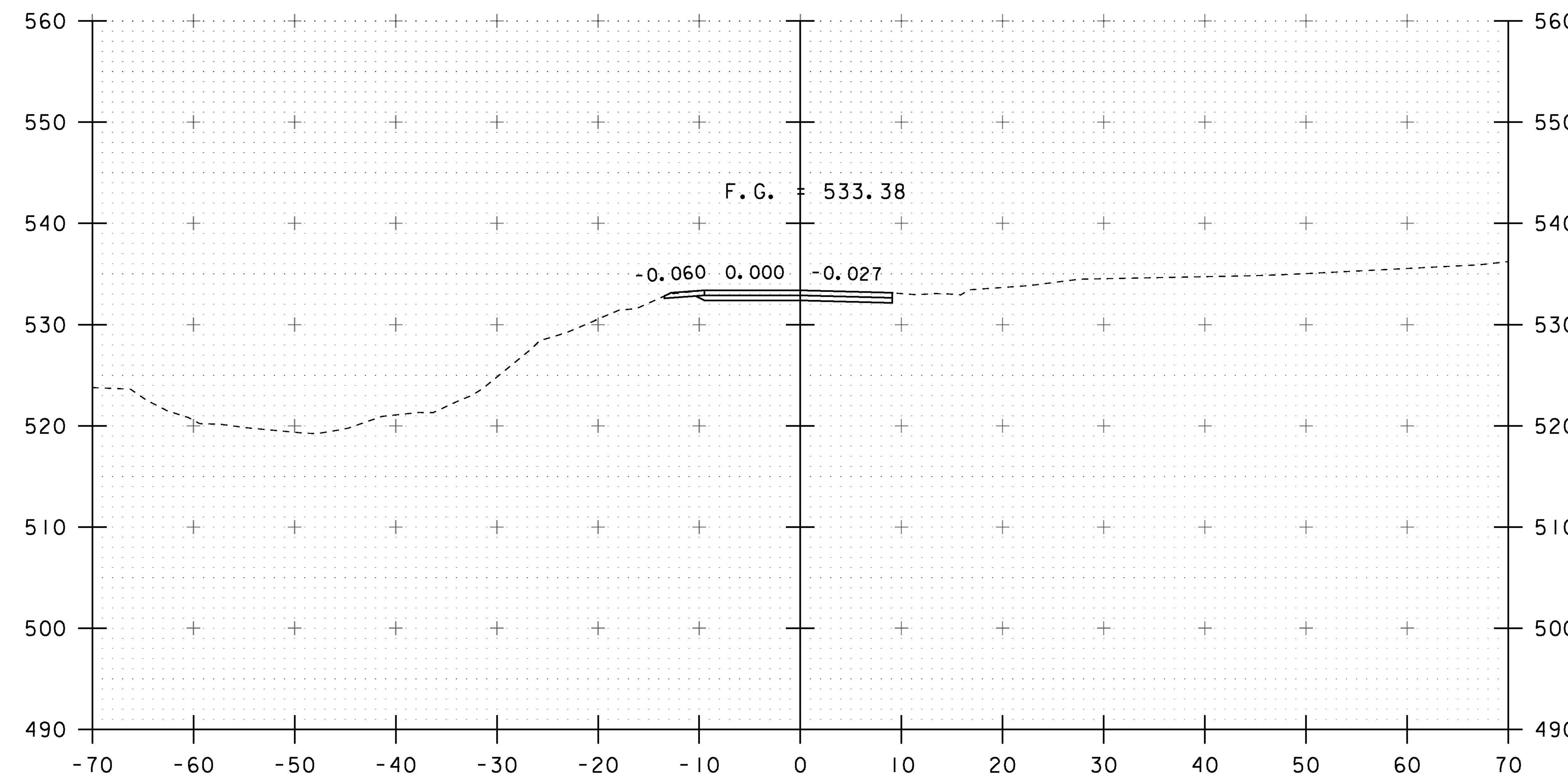


12+00



STA 11+12.55
BEGIN TH 9 APPROACH

11+25



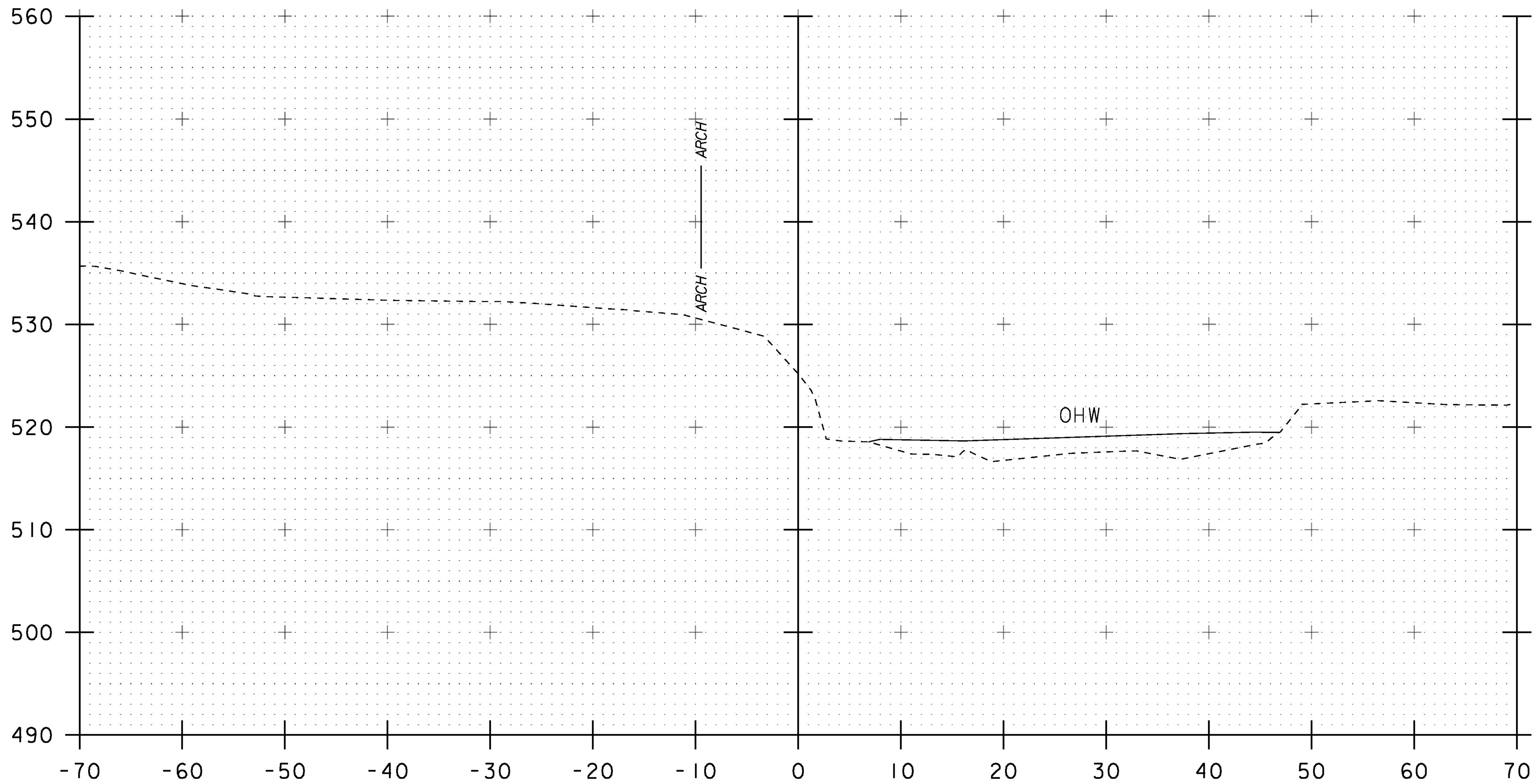
STA 11+75.00
END TH 9 APPROACH
MATCH EXISTING

11+75

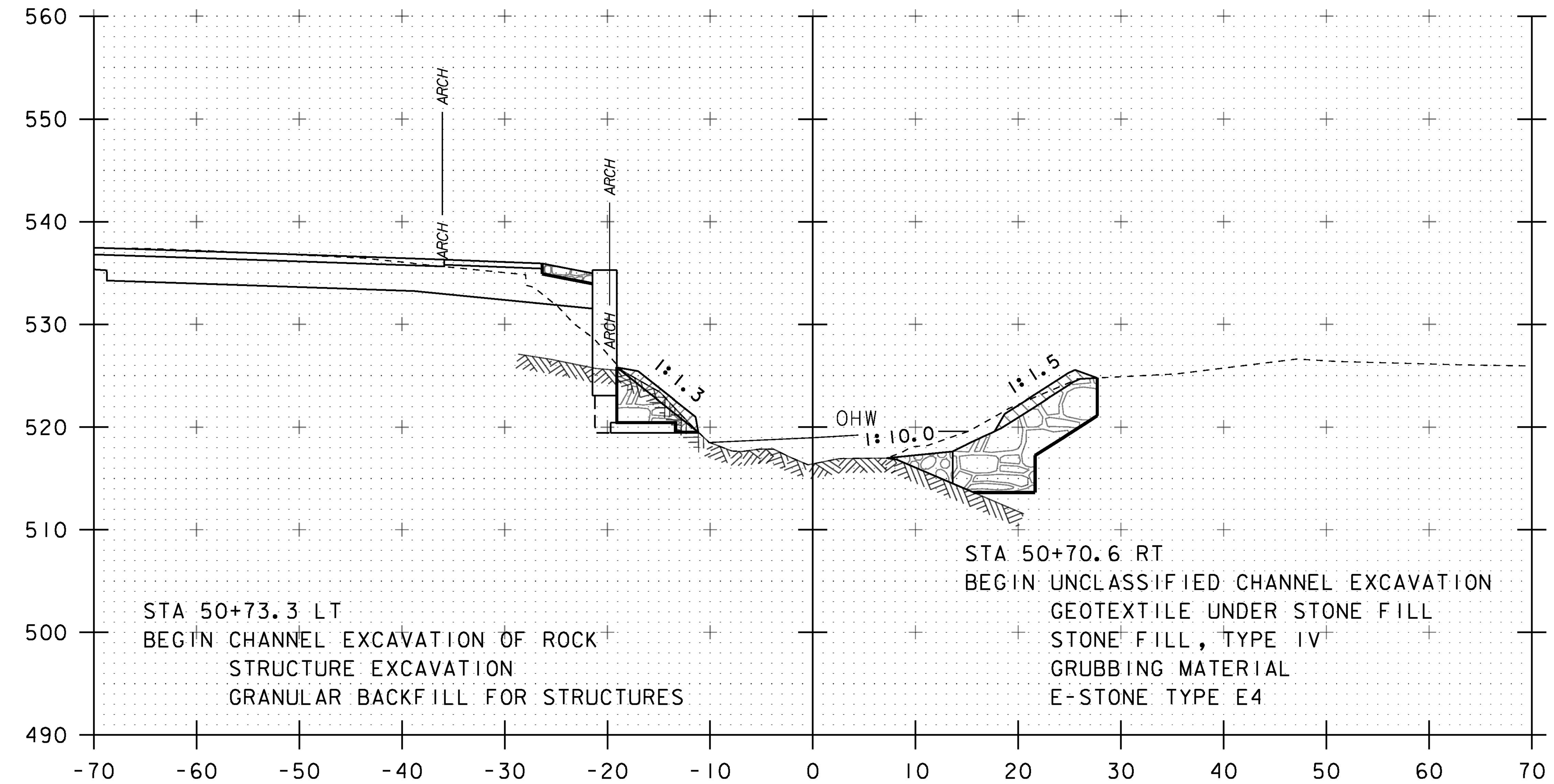
10 0 10
SCALE: 1" = 10'-0"

STA. 11+25 TO STA. 12+00

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276xs.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
TH 9 CROSS SECTIONS	SHEET 36 OF 46

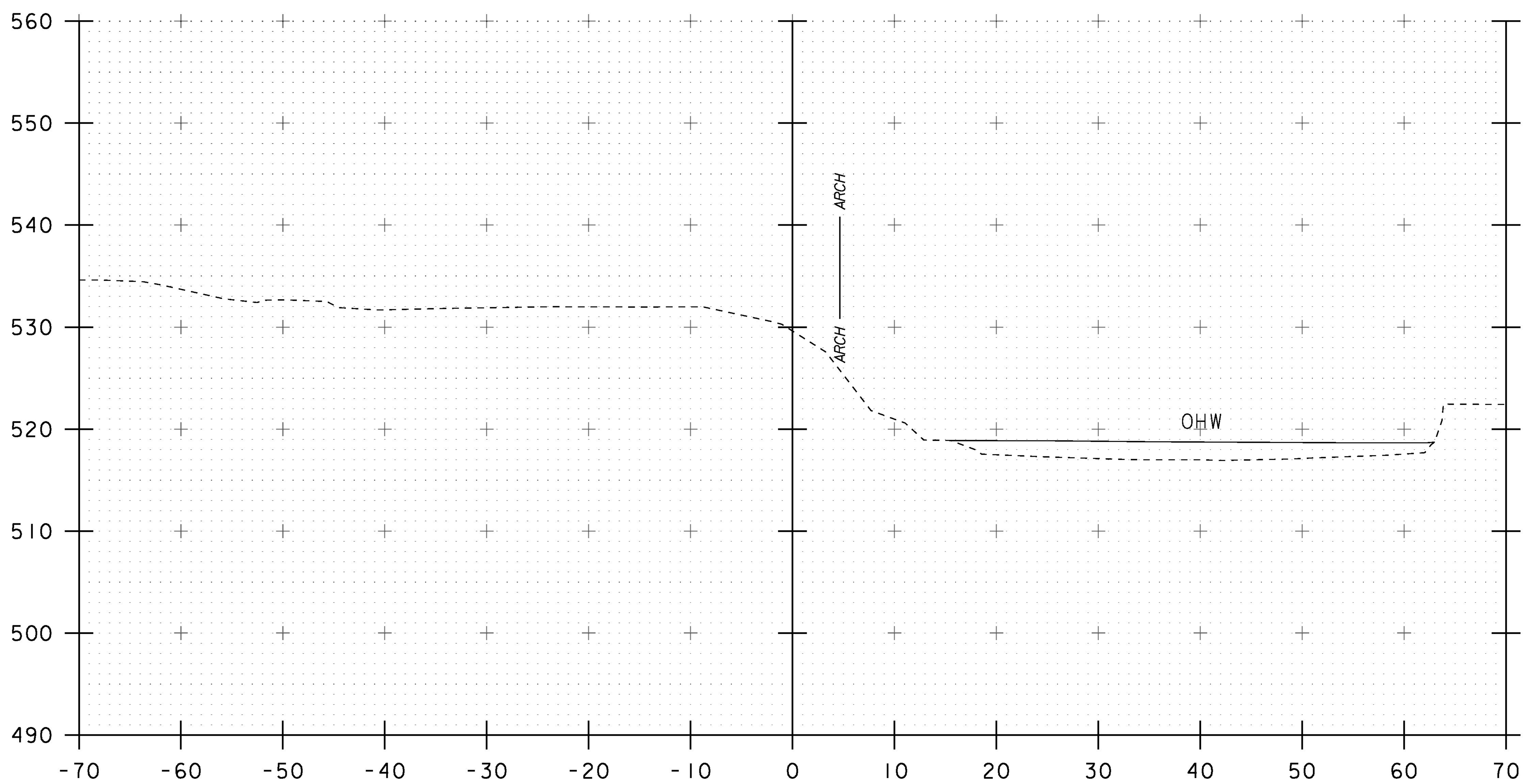


50+25

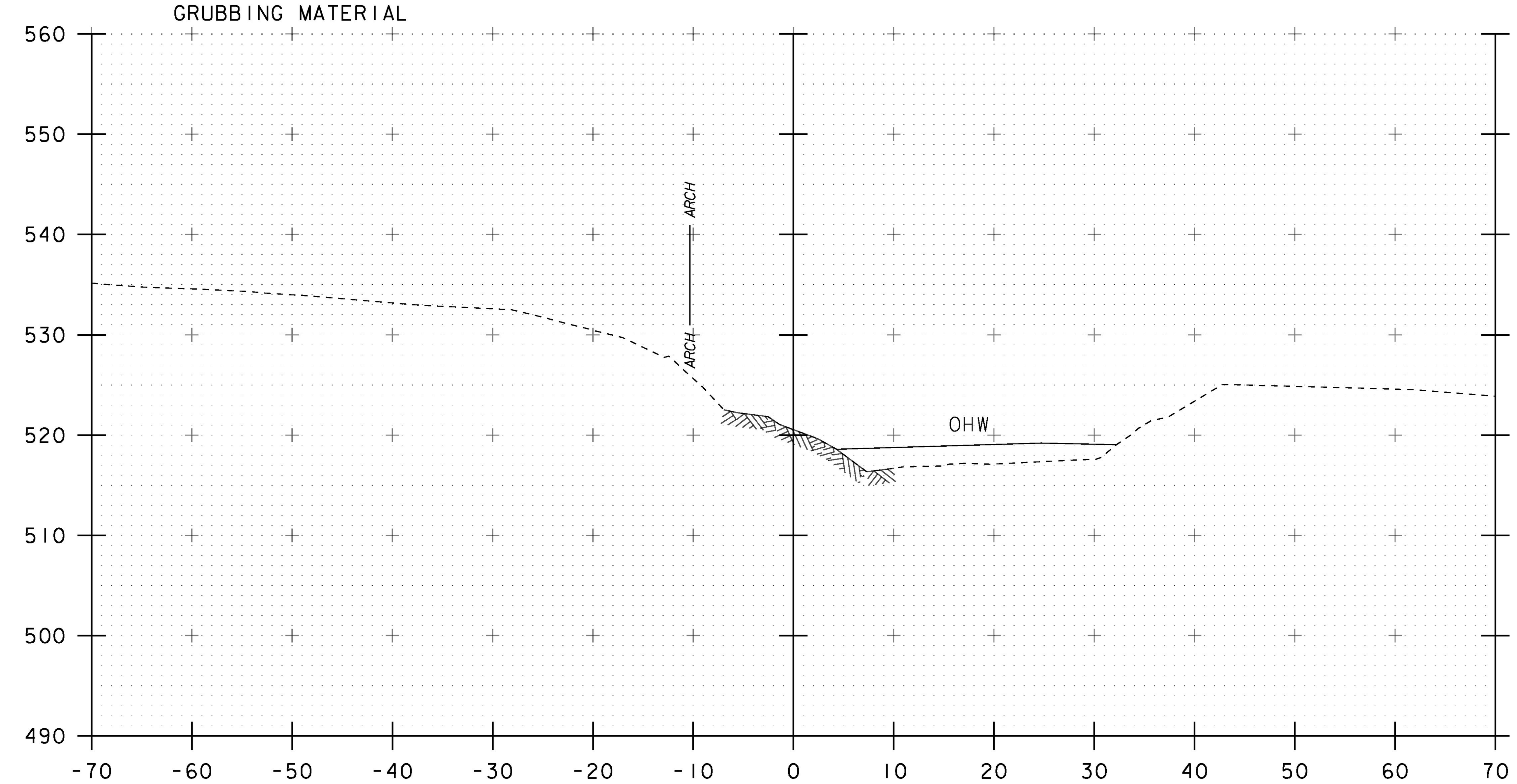


STA 50+61.3 LT
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
STONE FILL, TYPE IV
GRUBBING MATERIAL

50+75



50+00

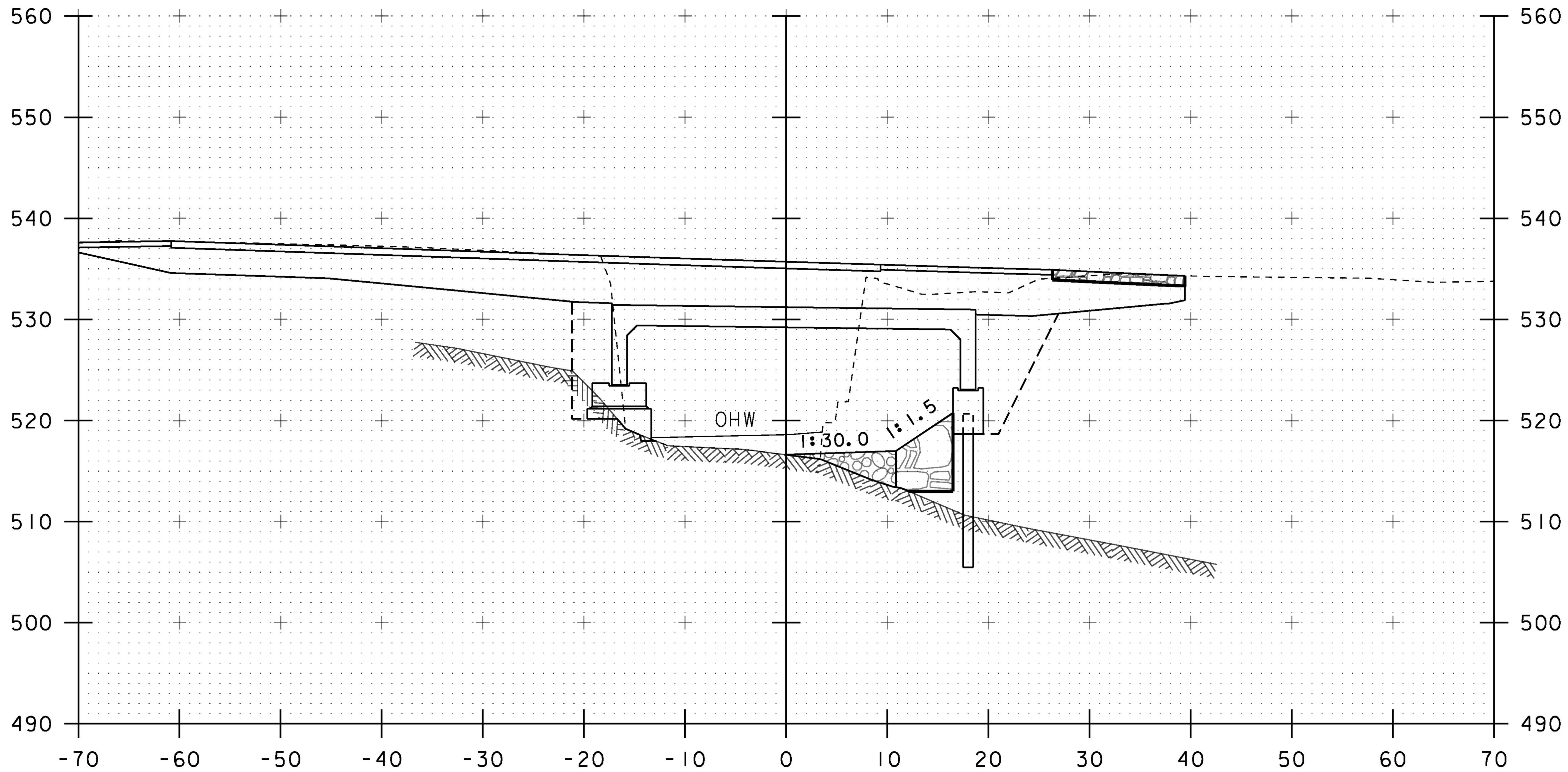


50+50

10 0 10
SCALE: 1" = 10'-0"

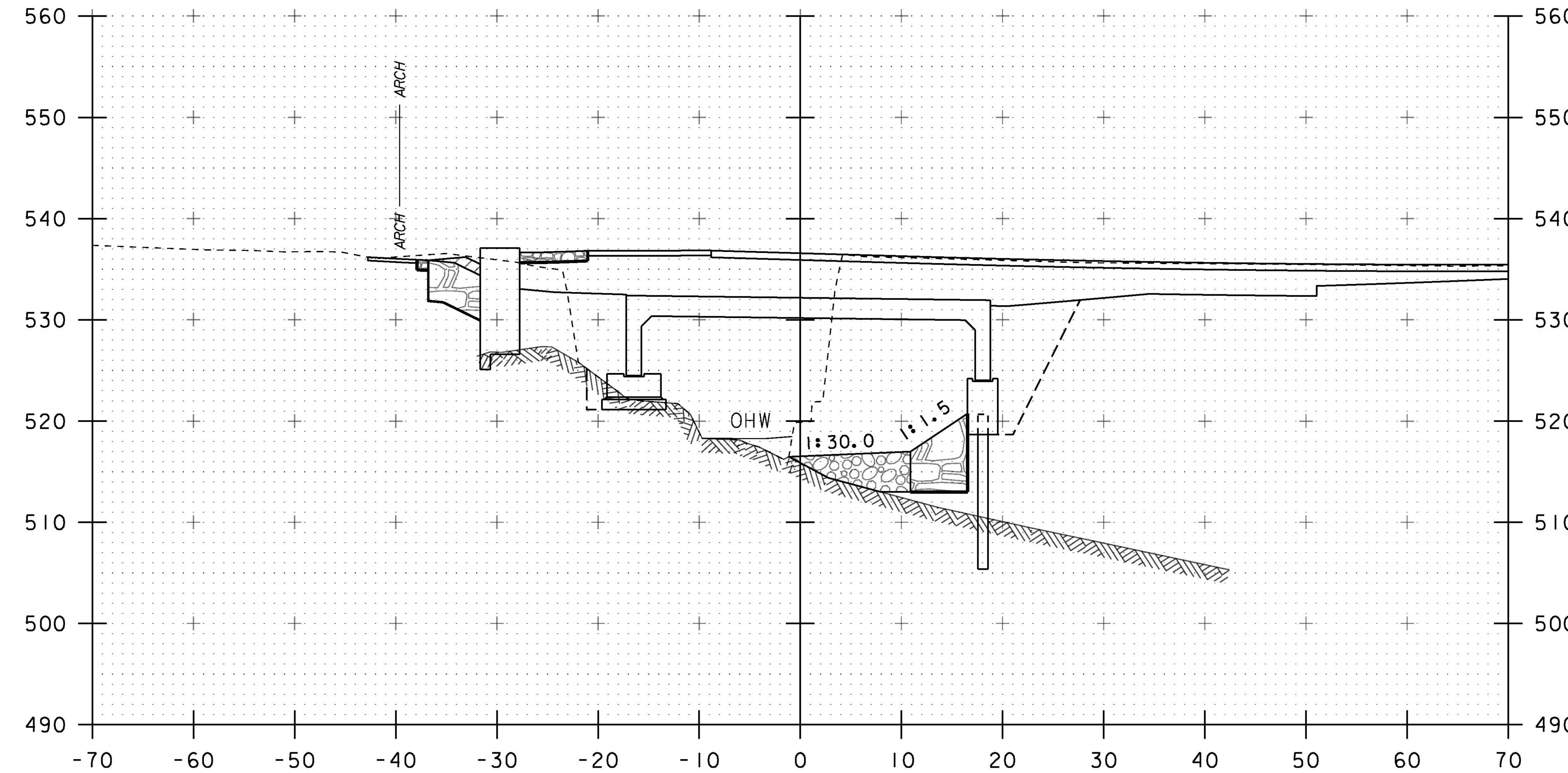
STA. 50+00 TO STA. 50+75

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276xs.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
CHANNEL CROSS SECTIONS (1)	SHEET 37 OF 46

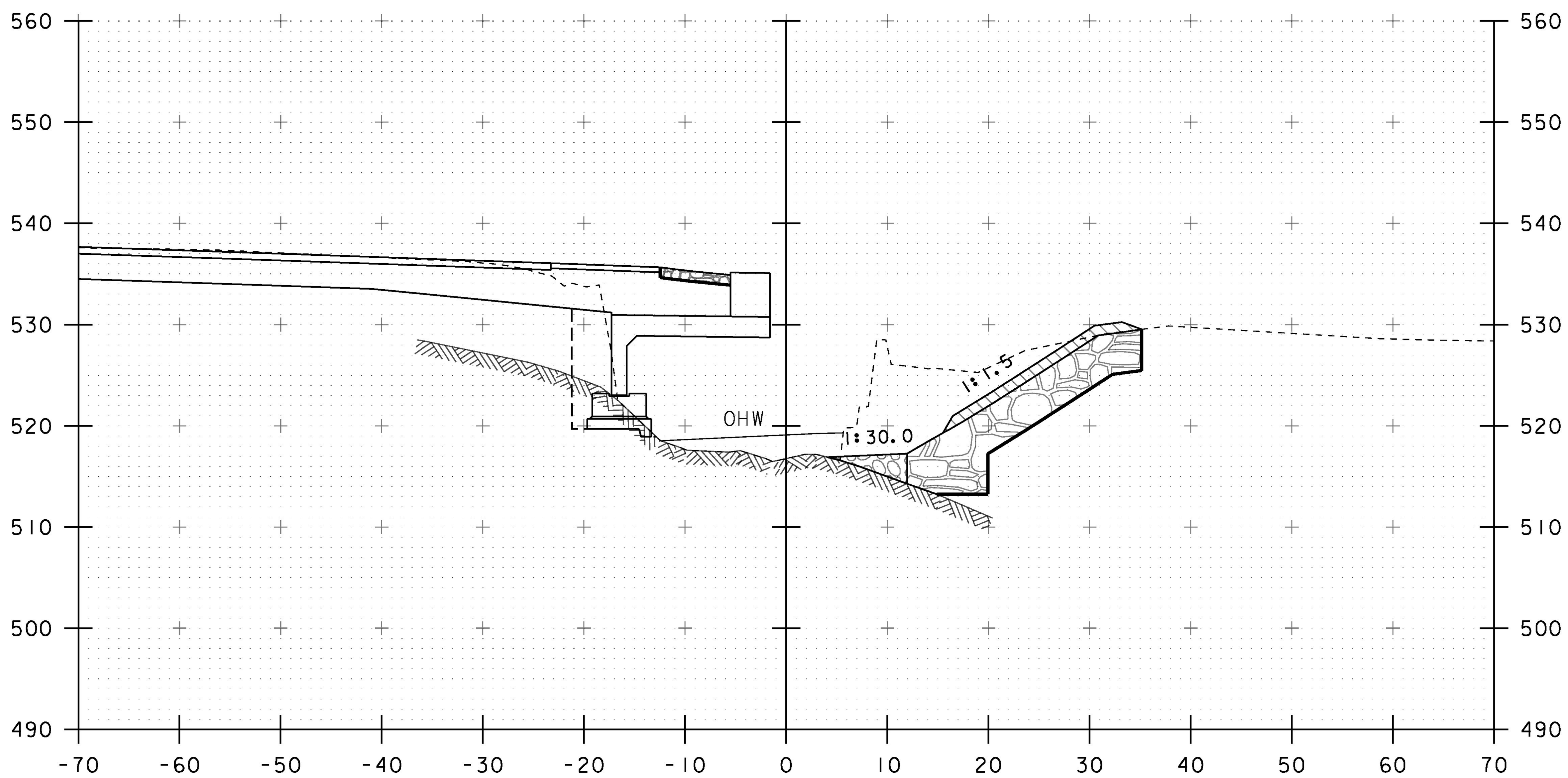


50+90

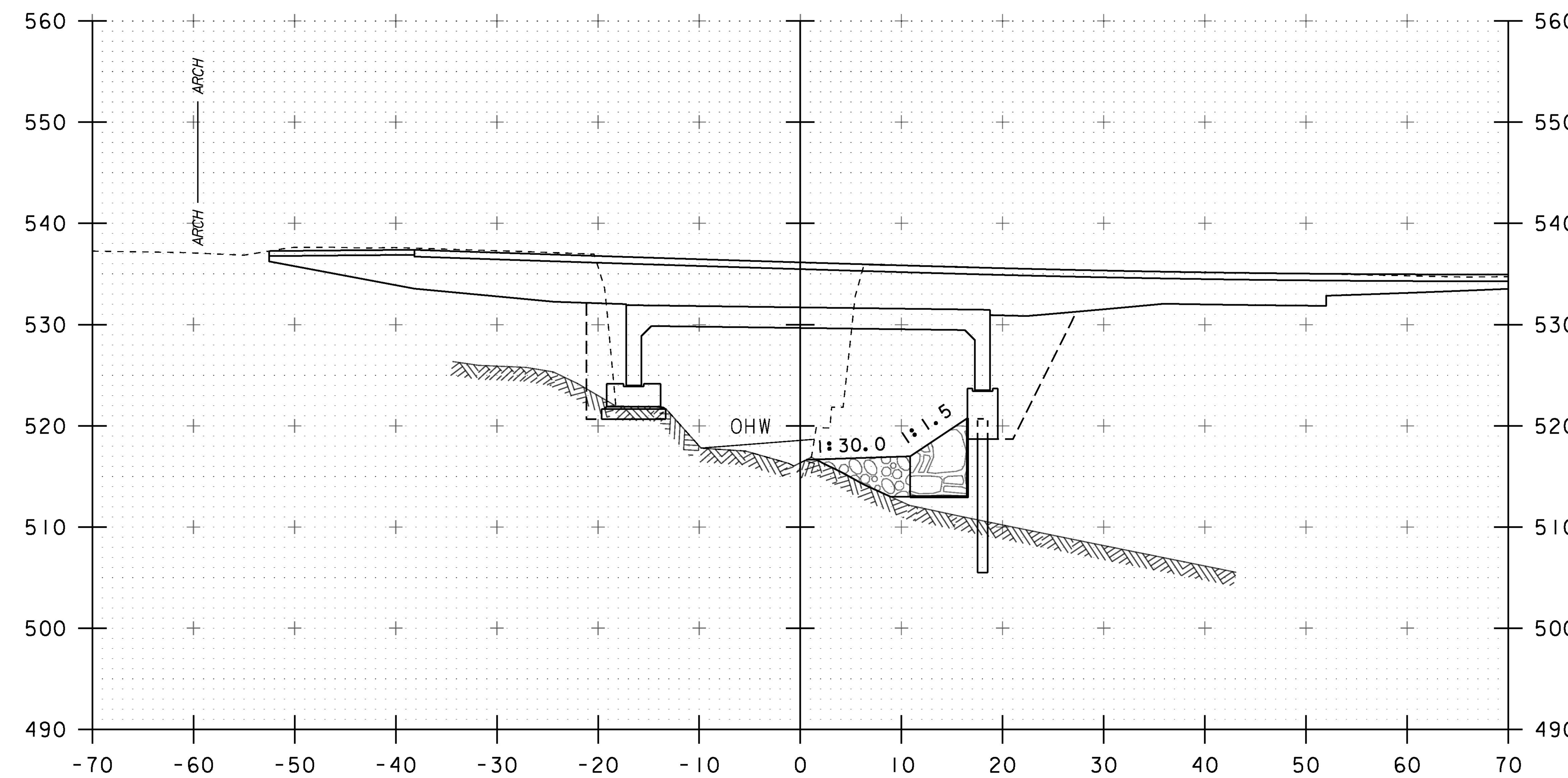
STA 50+83.0 RT
BEGIN STRUCTURE EXCAVATION
SPECIAL PROVISION (LIGHTWEIGHT BACKFILL)



51+10



50+80

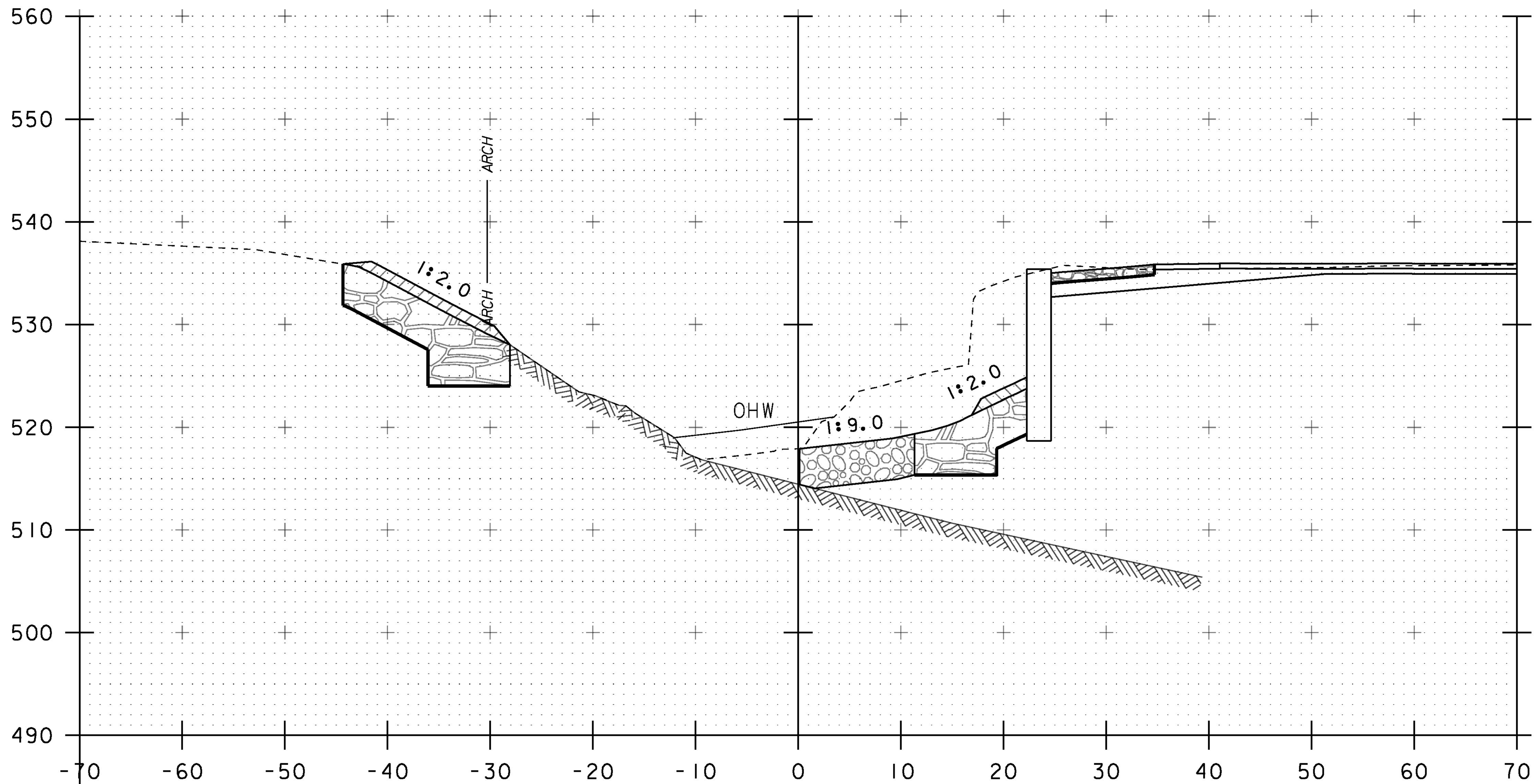


51+00

10 0 10
SCALE: 1" = 10'-0"

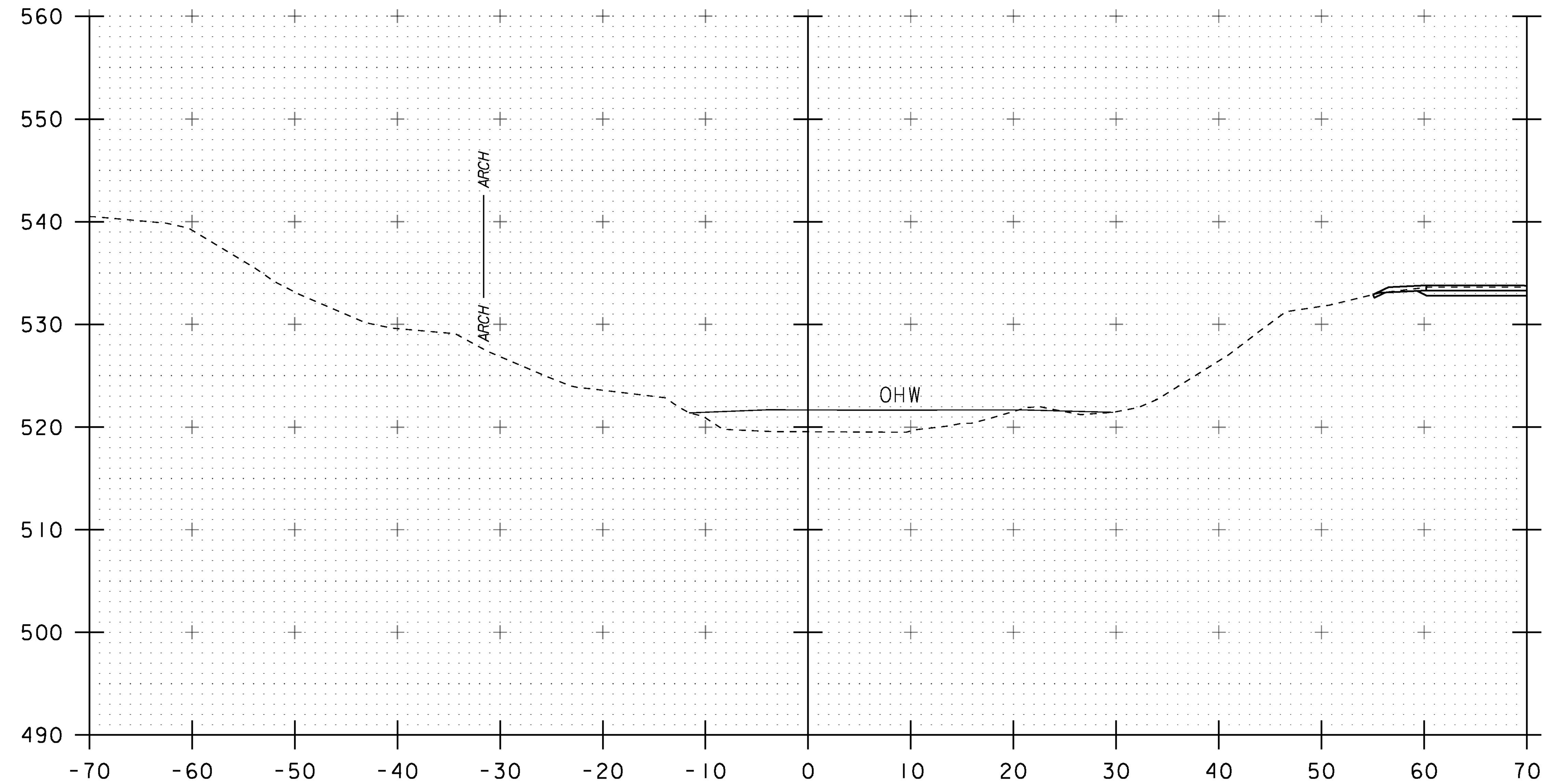
STA. 50+80 TO STA. 51+10

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276xs.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
CHANNEL CROSS SECTIONS (2)	SHEET 38 OF 46

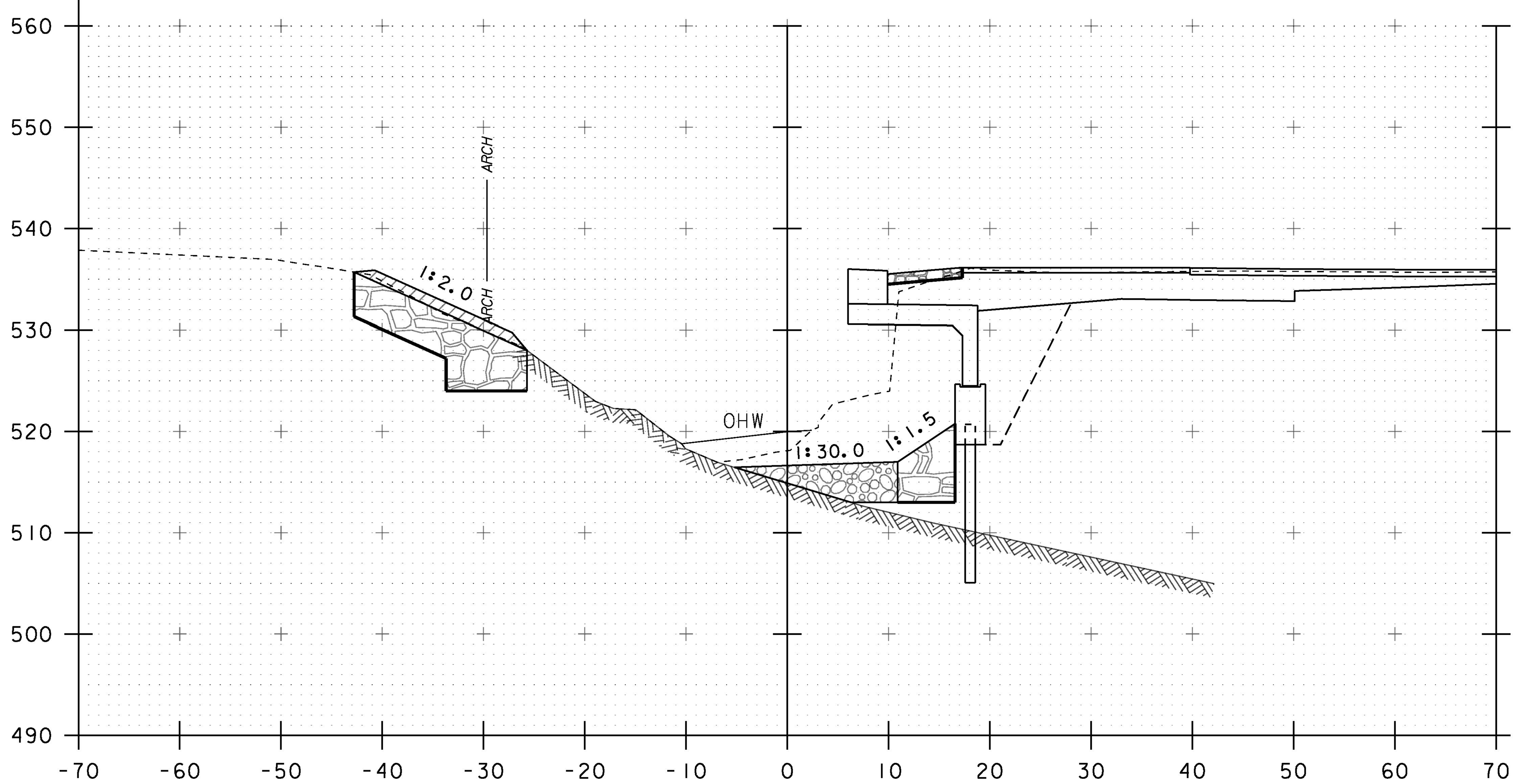


STA 51+25.4 RT
END STRUCTURE EXCAVATION
SPECIAL PROVISION (LIGHTWEIGHT BACKFILL)

51+25

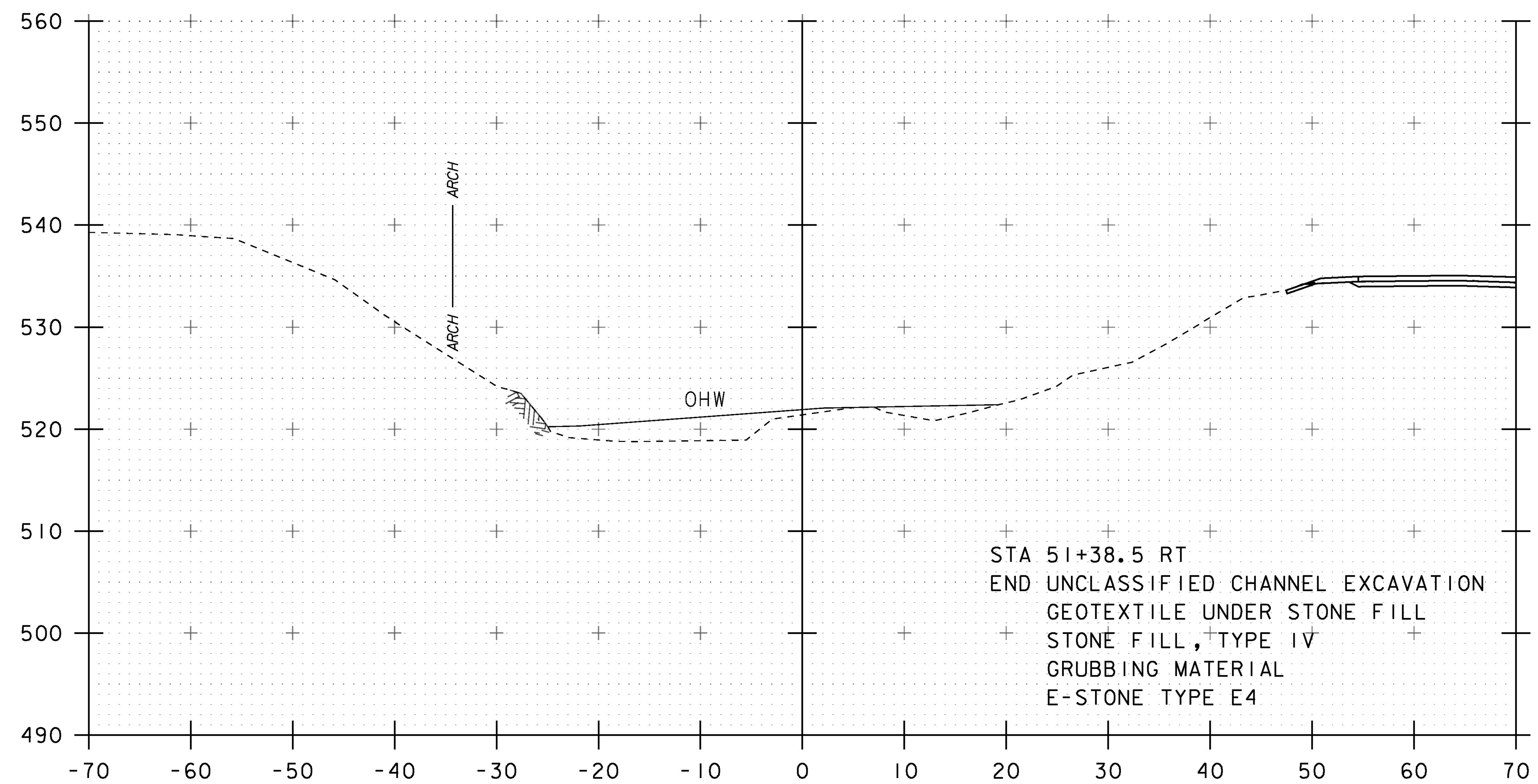


51+75



STA 51+16.8 LT
END CHANNEL EXCAVATION OF ROCK
STRUCTURE EXCAVATION
GRANULAR BACKFILL FOR STRUCTURES

51+20



STA 51+38.5 RT
END UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
STONE FILL, TYPE IV
GRUBBING MATERIAL
E-STONE TYPE E4

STA 51+25.4 LT
END UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
STONE FILL, TYPE IV
GRUBBING MATERIAL

51+50

10 0 10
SCALE: 1" = 10'-0"

STA. 51+20 TO STA. 51+75

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: s12j276xs.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY: G. LAROCHE
CHANNEL CROSS SECTIONS (3)	SHEET 39 OF 46

EPSC PLAN NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REMOVAL OF BRIDGE 2 IN ITS ENTIRETY. BRIDGE 2 WILL BE REPLACED WITH A NEW STRUCTURE SPANNING 30 FEET OVER THE FINEL HOLLOW BROOK ALONG THE EXISTING ALIGNMENT. BRIDGE 2 IS LOCATED IN THE TOWN OF POULTNEY, ON TH2 (SNR 140), APPROXIMATELY 2.2 MILES EAST OF THE JUNCTION WITH VT 30.

NOTE: AREA OF DISTURBANCE INCLUDES LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, AS WELL AS WASTE, BORROW AND STAGING AREAS, AND OTHER EARTH DISTURBING ACTIVITIES WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS AS SHOWN ON THE ATTACHED EPSC PLAN.

TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 0.37 ACRES. IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY

THE TOPOGRAPHY OF THE AREA INCLUDES FORESTED ROLLING HILLS WITH OCCASIONAL OPEN AREAS FOR RESIDENTIAL AND AGRICULTURAL USE. TOWN HIGHWAY 2 (SNR 140), FINEL HOLLOW ROAD (TH9), AND THREE DRIVEWAYS ARE WITHIN THE PROJECT SITE. THERE ARE FOUR RESIDENCES TO THE IMMEDIATE WEST SIDE OF THE PROJECT.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

FINEL HOLLOW BROOK, CROSSING UNDER BRIDGE 2, IS THE ONLY SOURCE OF WATER ON THE SITE. FINEL HOLLOW BROOK IS CLASSIFIED AS SINUOUS AND ALLUVIAL. THE STREAM BED CONSISTS OF LEDGE, COBBLES, AND GRAVEL. THE TRIBUTARY AREA AT THE BRIDGE CROSSING IS 6.5 MILES^2.

1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF HARDWOOD AND SOFTWOOD TREES AND UNDERGROWTH. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS DIRECTLY AFFECTED BY REPLACEMENT OF THE EXISTING BRIDGE. UPON PROJECT COMPLETION, THE CHANNEL WILL BE ARMORED WITH STONE FILL TYPE IV AS SPECIFIED ON THE CONTRACT PLANS. DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF RUTLAND, VERMONT. SOILS ON THE PROJECT SITE ARE MACOMBER/DUTCHESS, 3% TO 8% SLOPES, "K FACTOR" = 0.32 AND TACONIC/MACOMBER, 8% TO 25% SLOPES, "K FACTOR" = 0.37/0,32. BOTH OF THESE SOILS ARE CONSIDERED TO HAVE MODERATE TO HIGH EROSION POTENTIAL.

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING:
0.0-0.23 = LOW EROSION POTENTIAL
0.24-0.36 = MODERATE EROSION POTENTIAL
0.37 AND HIGHER = HIGH EROSION POTENTIAL

1.2.5 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO
HISTORICAL OR ARCHEOLOGICAL AREAS: YES, HISTORICAL AND ARCHEALOGICAL AREA ON WEST SIDE OF PROJECT.
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: NORTHERN LONG-EARED BAT
WATER RESOURCE: FINEL HOLLOW BROOK
WETLANDS: NO

1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES. SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE PRINCIPLES OUTLINED IN THIS NARRATIVE CONSIST OF APPLYING MEASURES THROUGHOUT CONSTRUCTION OF THE PROJECT IN ORDER TO MINIMIZE SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION PRACTICES. THEY HAVE BEEN PROPOSED BY THE DESIGNER AS A BASIS FOR PROTECTING RESOURCES AND WILL NEED TO BE BUILT UPON BASED ON THE SPECIFIC MEANS AND METHODS OF THE CONTRACTOR. REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR SPECIFIC GUIDANCE AND CONSTRUCTION DETAILING.

ALL MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED OF AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

1.4.1 MARK SITE BOUNDARIES

SITE BOUNDARIES AND AREAS CONSTRUCTION EQUIPMENT CAN ACCESS SHALL BE DELINEATED.

PROJECT DEMARCATION FENCE (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES AS PROPOSED ON THE EPSC PLAN.

1.4.2 LIMIT DISTURBANCE AREA

PREVENTING INITIAL SOIL EROSION BY MINIMIZING THE EXPOSED AREA IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY. THIS CAN LIMIT THE AREA THAT WILL BE DISTURBED AND EXPOSED TO EROSION. EMPLOY TEMPORARY CONSTRUCTION STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE. FOR PROJECTS WHICH FALL UNDER THE CONSTRUCTION GENERAL PERMIT, ONLY THE ACREAGE LISTED ON THE PERMIT AUTHORIZATION MAY BE EXPOSED AT ANY GIVEN TIME.

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

1.4.3 SITE ENTRANCE/EXIT STABILIZATION

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTORS PROGRESS SCHEDULE.

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLAN AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES.

1.4.4 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK.

SILT FENCE WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN.

1.4.5 DIVERT UPLAND RUNOFF

DIVERSIONARY MEASURES SHALL BE USED TO INTERCEPT RUNOFF FROM ABOVE THE CONSTRUCTION AND DIRECT IT AROUND THE DISTURBED AREA SO THAT CLEAN WATER DOES NOT BECOME MUDDIED WHILE TRAVELING OVER EXPOSED SOILS ON THE CONSTRUCTION SITE.

THE PROJECT AREA IS RELATIVELY FLAT. THEREFORE IT IS NOT ANTICIPATED THAT DIVERSION MEASURES WILL BE NECESSARY.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSIVE POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

NO CHECK STRUCTURES ARE ANTICIPATED ON THIS PROJECT.

1.4.7 CONSTRUCT PERMANENT CONTROLS

PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WTH PERMIT CONDITIONS.

NO INSTALLATION OF PERMANENT STORMWATER TREATMENT DEVICES IS PLANNED.

1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE OR IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT 3-9020 AUTHORIZATION.

SURFACE ROUGHENING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, SHALL BE UTILIZED ON A REGULAR BASIS. BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3.

THE FORECAST OF RAINFALL EVENTS SHALL TRIGGER IMMEDIATE PROTECTION OF EXPOSED SOILS.

1.4.9 WINTER STABILIZATION

VARIOUS MEASURES SPECIFIC TO WINTER MAY BE NECESSARY SHOULD THE PROJECT EXTEND INTO WINTER (OCTOBER 15 THROUGH APRIL 15). REFER TO THE LOW RISK SITE HANDBOOK FOR GUIDANCE.

THIS PROJECT IS SCHEDULED TO COMPLETE BEFORE OCTOBER 15TH. WINTER STABILIZATION MEASURES ARE NOT ANTICIPATED.

1.4.10 STABILIZE SOIL AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

SEED, MULCH, FERTILIZER AND LIME SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED INSTEAD OF MULCH.

1.4.11 DE-WATERING ACTIVITIES

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS OFF OF THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS.

NO DEWATERING ACTIVITIES ARE ANTICIPATED.

1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON SPECIAL PROVISION REQUIREMENTS OR CONSTRUCTION GENERAL PERMIT AUTHORIZATION STIPULATIONS.

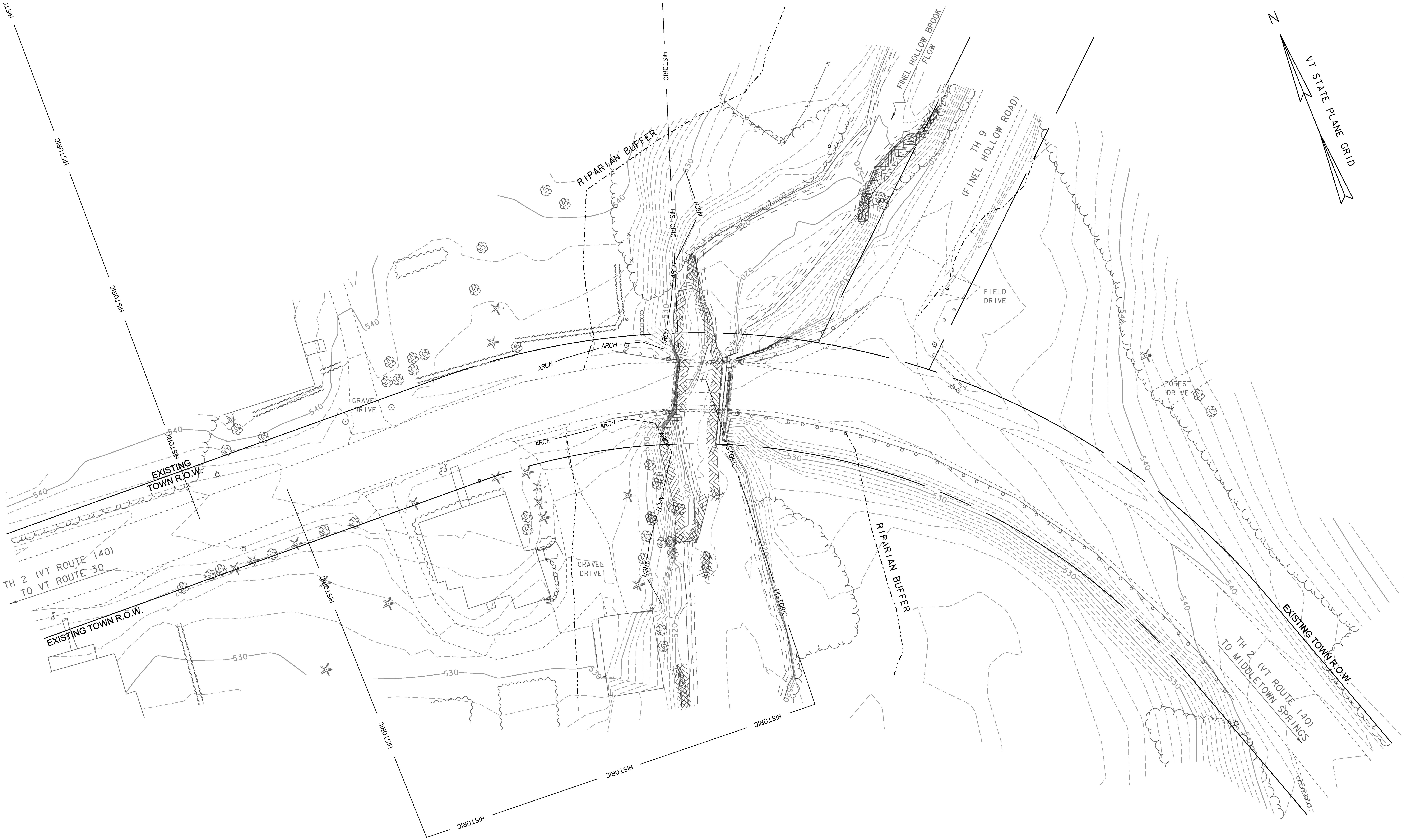
1.5 SEQUENCE AND STAGING

THIS SECTION WILL BE DEVELOPED BY THE CONTRACTOR USING THE GUIDANCE OUTLINED IN THE VTRANS EPSC PLAN CONTRACTOR CHECKLIST.

1.5.1 CONSTRUCTION SEQUENCE

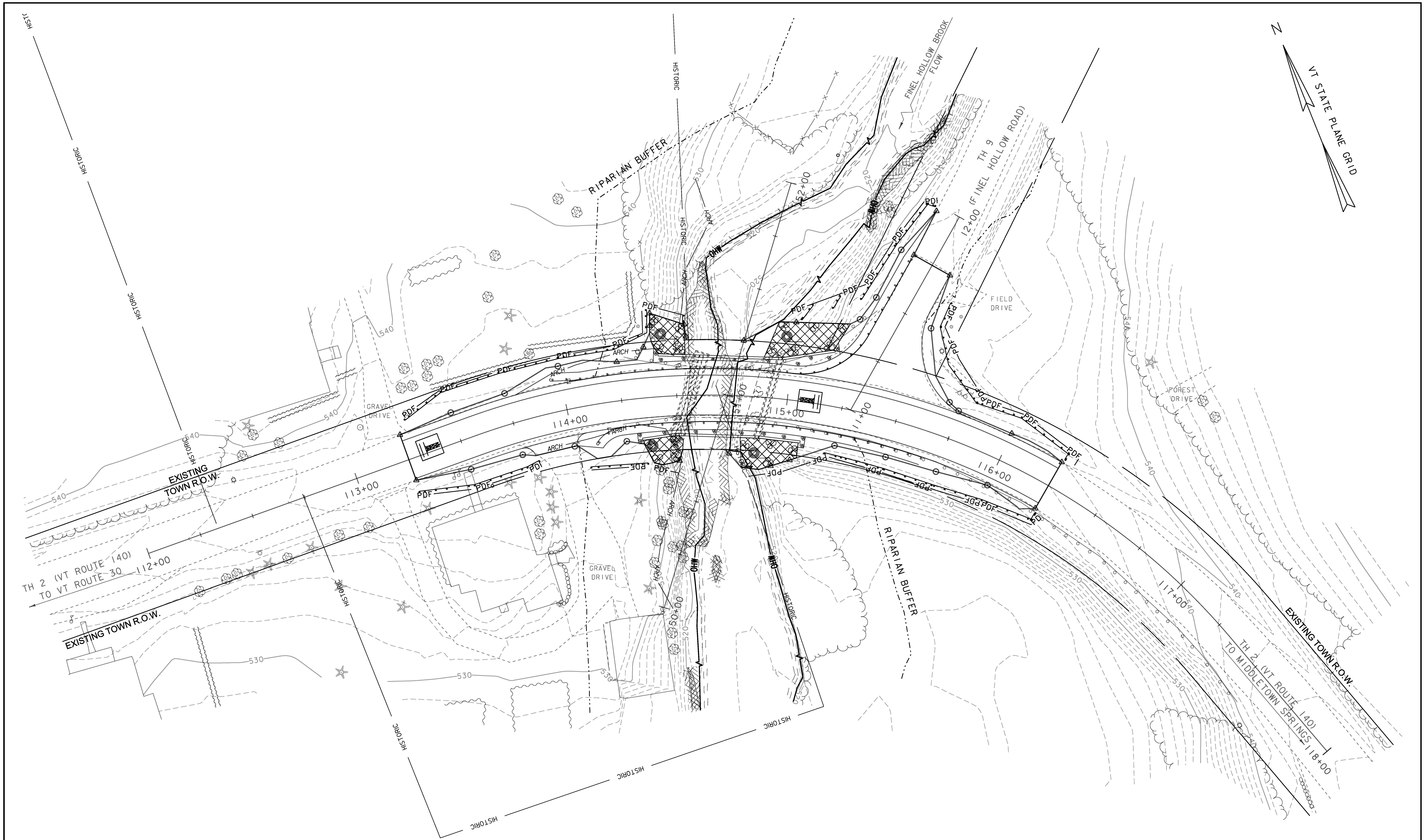
1.5.2 OFF-SITE ACTIVITIES

IN ADDITION TO THE CONTRACTOR CHECKLIST ANY ACTIVITIES OUTSIDE THE CONSTRUCTION LIMITS SHALL FOLLOW SUBSECTIONS 105.25- 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.



SCALE 1" = 20'-0"
20 0 20

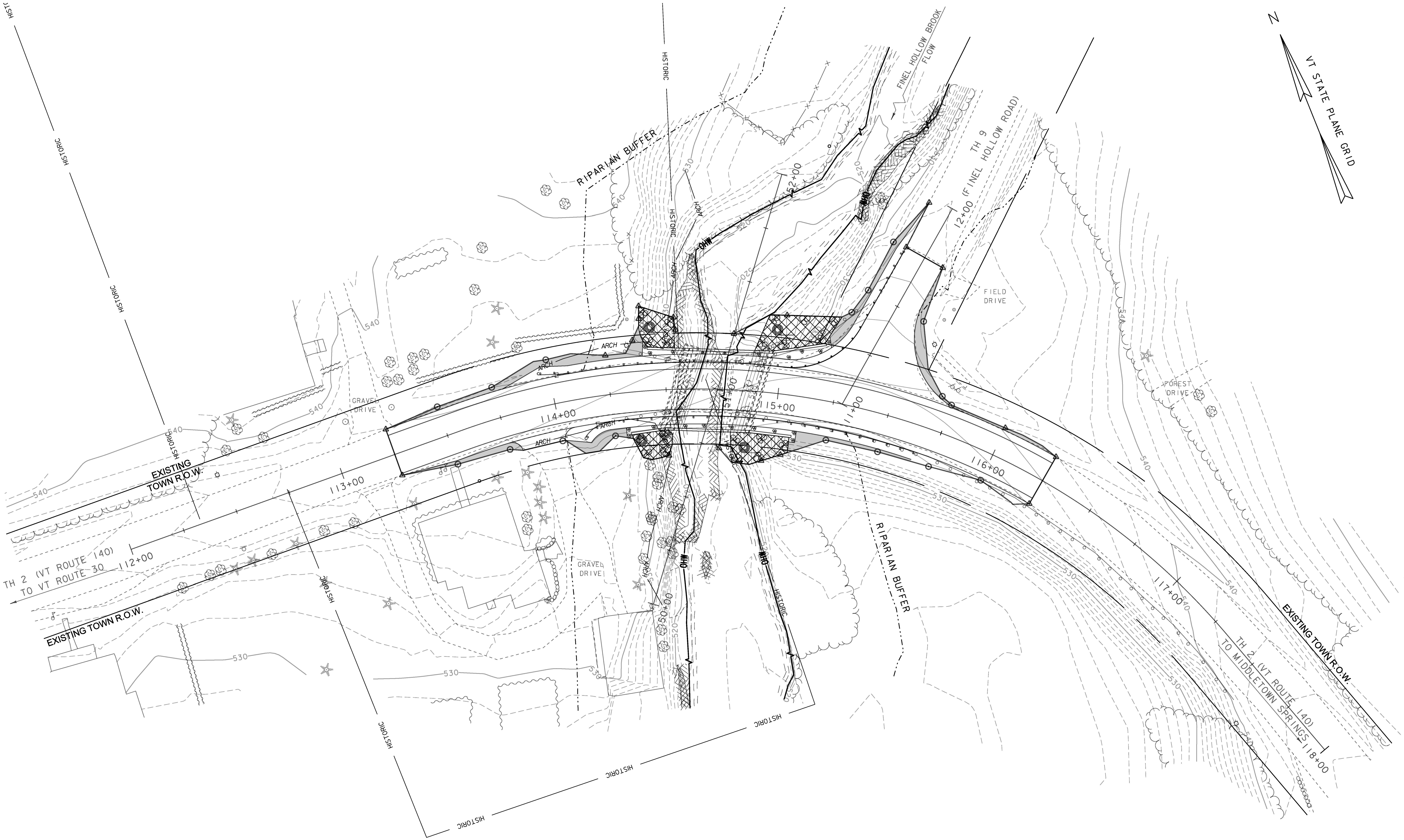
PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276epsc.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY:
EPSC EXISTING SITE PLAN	SHEET 41 OF 46



SCALE 1" = 20'-0"

20 0 20

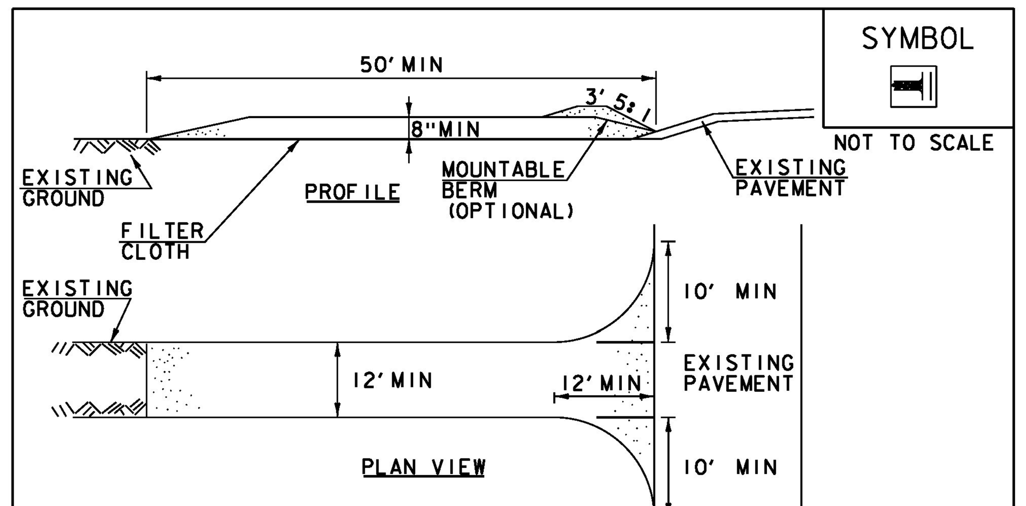
PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276epsc.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY:
EPSC CONSTRUCTION SITE PLAN	SHEET 42 OF 46



SCALE 1" = 20'-0"

20 0 20

PROJECT NAME: POULTNEY	
PROJECT NUMBER: BF 0138(12)	
FILE NAME: sl3j276epsc.dgn	PLOT DATE: 15-AUG-2018
PROJECT LEADER: R. YOUNG	DRAWN BY: G. DARGAN
DESIGNED BY: G. DARGAN	CHECKED BY:
EPSC FINAL SITE PLAN	SHEET 43 OF 46



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE- USE 1-4" STONE, RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH- NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
3. THICKNESS- NOT LESS THAN 8".
4. WIDTH- 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24' IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
6. SURFACE WATER- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

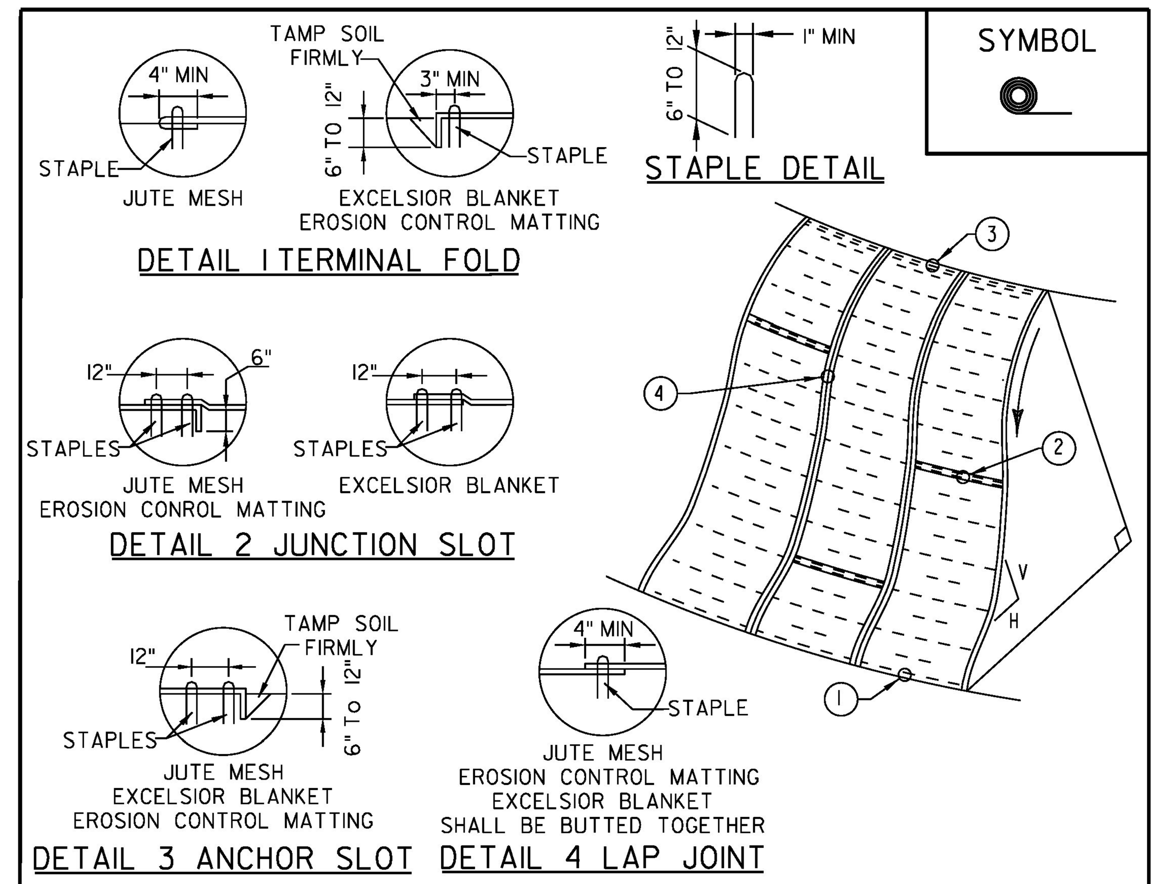
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

STABILIZED CONSTRUCTION ENTRANCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR VEHICLE TRACKING PAD (PAY ITEM 653.35) OR AS SPECIFIED IN THE CONTRACT.

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF



CONSTRUCTION SPECIFICATIONS

1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. APPLY FERTILIZER, LIME AND SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

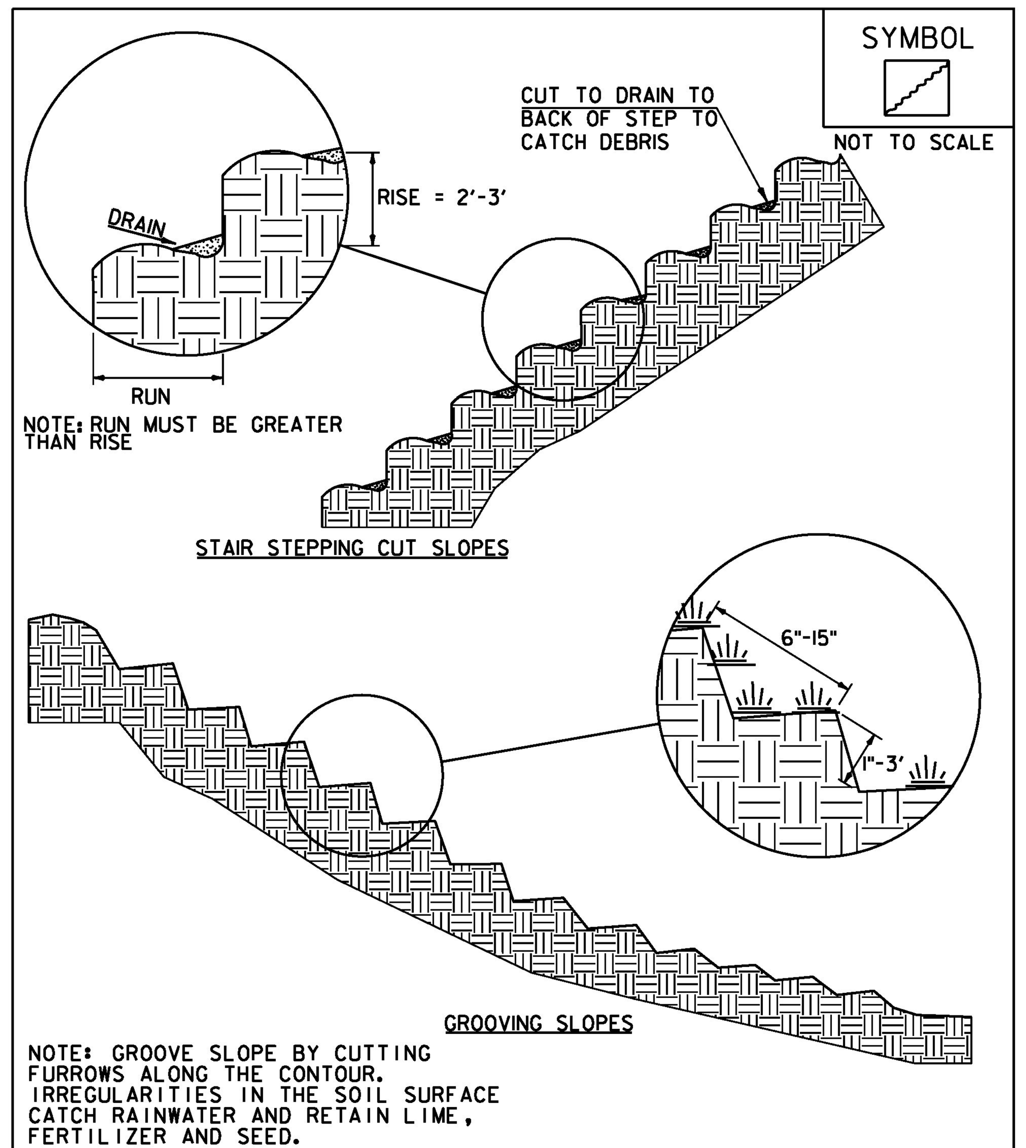
ADAPTED FROM DETAILS PROVIDED BY: ILLINOIS USDA-NRCS
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM
653.20 TEMPORARY EROSION MATTING OR
653.21 PERMANENT EROSION MATTING

NEW	
APRIL 16, 2007	WHF
REVISIONS	



ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SURFACE ROUGHENING

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF

VAOT LOW GROW/FINE FESCUE MIX

	LBS/AC					
WEIGHT	BROADCAST	HYDROSEED	NAME	LATIN NAME	GERM	PURITY
38%	57	95	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	90%	98%
29%	43.5	72.5	HARD FESCUE	FESTUCA LONGIFOLIA	85%	95%
15%	22.5	37.5	CHEWINGS FESCUE	FESTUCA RUBRA VAR. COMMUTATA	87%	95%
15%	22.5	37.5	ANNUAL RYEGRASS	LOLIUM MULTIFLORUM	90%	95%
3%	4.5	7.5	INERTS			
100%	150	250				

VAOT RURAL AREA MIX

	LBS/AC					
WEIGHT	BROADCAST	HYDROSEED	NAME	LATIN NAME	GERM	PURITY
37.5%	22.5	45	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	85%	98%
37.5%	22.5	45	TALL FESCUE	FESTUCA ARUNDINACEA	90%	95%
5.0%	3	6	RED TOP	AGROSTIS GIGANTEA	90%	95%
15.0%	9	18	WHITE FIELD CLOVER	TRIFOLIUM REPENS	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	LOLIUM MULTIFLORUM	85%	95%
100%	60	120				

GENERAL AMENDMENT GUIDANCE

FERTILIZER	LIME	
10/20/10	AG LIME	PELLITIZED
500 LBS/AC	2 TONS/AC	1 TONS/AC

CONSTRUCTION GUIDANCE

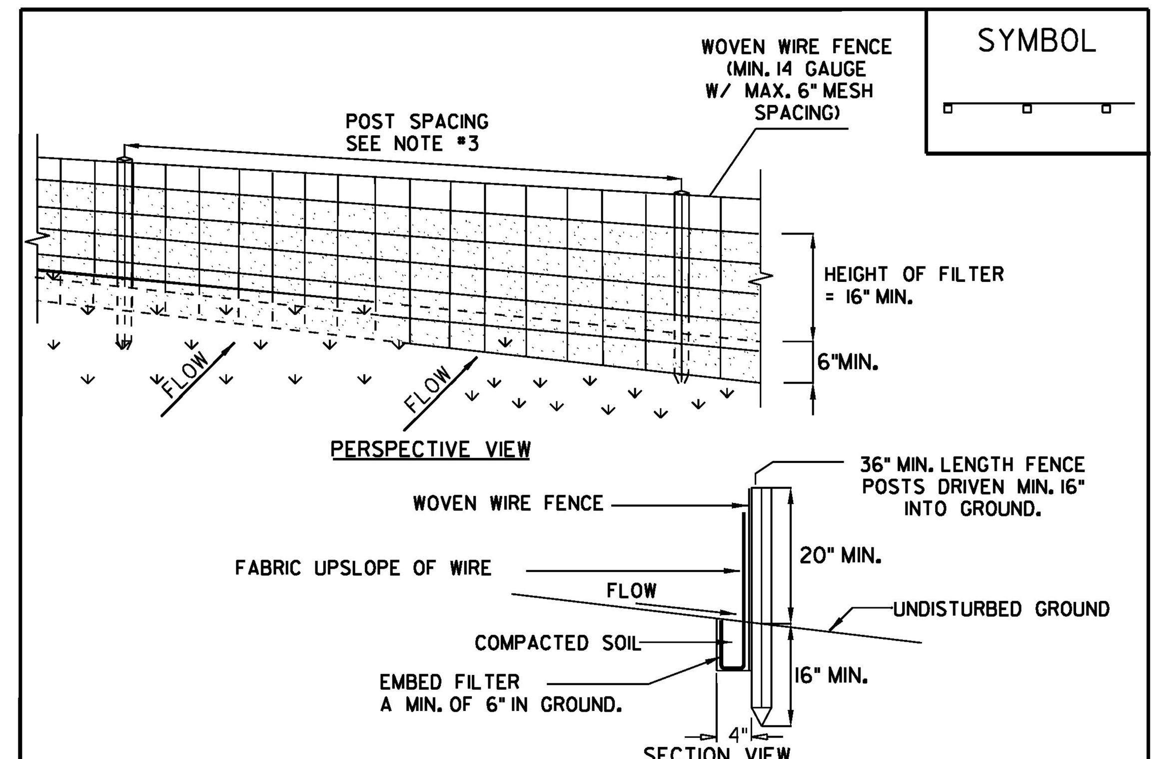
1. SEED MIX: THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER ON WHICH SEED MIX TO USE.
2. SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
4. FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER.
5. 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.
6. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED PROPOSED FOR USE WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED.
7. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

TURF ESTABLISHMENT

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.15)

REVISIONS	
JANUARY 12, 2015	WHF



CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE REINFORCEMENT IS ONLY REQUIRED WITHIN 100 FT UPSLOPE OF RECEIVING WATERS.
2. WHERE REQUIRED FENCE SHALL BE WOVEN WIRE, MIN. 14 GAUGE WITH A 6" MAXIMUM MESH OPENING. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUIVALENT.
3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4'. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
6. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
7. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM
649.51 GEOTEXTILE FOR SILT FENCE OR
649.515 GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED

PROJECT NAME: POULTNEY
PROJECT NUMBER: BF 0138(12)

FILE NAME: s13j276epsc_det.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: G. DARGAN
EPSC DETAILS

PLOT DATE: 15-AUG-2018
DRAWN BY: G. DARGAN
CHECKED BY: G. LAROCHE
SHEET 44 OF 46

STATE OF VERMONT
AGENCY OF TRANSPORTATION

RIGHT - OF - WAY DETAIL SHEET

TABLE OF PROPERTY ACQUISITION

PARCEL NO.	PROPERTY OWNER	ROW LAYOUT NO.	BEGINNING STATION	ENDING STATION	TAKE AREA±	REMAINDER AREA±	RIGHT TYPE	RIGHT T / P	RIGHT AREA ±	RECORDING DATA TITLE	RECORDING DATA DATE	RECORDING DATA TOWN / CITY	RECORDING DATA BOOK	RECORDING DATA PAGE	REMARKS
1	BLAESS, BARBARA P., ESTATE OF	1	114+77.00 LT	115+17.52 LT	420 SF		HIGHWAY	P							
			112+46.97 LT	115+23.30 LT			UTILITY	P	0.11 A						4,626 SF±
			113+85 LT	114+58 LT			CONSTRUCTION	T	169 SF						INCL. PDF & EC
			114+33.30 LT	114+55.25 LT			CHANNEL	P	172 SF						INCL. STONE FILL
			114+33.60 LT	114+34.08 LT			INSTALL & MAINTAIN	P							GUY WIRE & ANCHOR
			114+73 LT	115+22 LT			CONSTRUCTION	T	285 SF						INCL. PDF & EC
			115+04 LT	115+20 LT			SLOPE	T	56 SF						
2	SCHNEIDER, MARK	1	115+61 LT	115+67 LT			SLOPE	T	23 SF						INCL. EC
			115+61 LT	115+80 LT			CONSTRUCTION	T	156 SF						INCL. PDF & EC
			115+63.67 LT	116+58.19 LT			UTILITY	P	4,049 SF						
			115+88.68 LT	115+91.08 LT			INSTALL & MAINTAIN	P							GUY WIRE & ANCHOR
3	RINGER, WILLIAM L., JR.	1	112+48.63 RT	112+48.86 RT			INSTALL & MAINTAIN	P							GUY WIRE & ANCHOR
			113+46 RT	113+80 RT			INSTALL	T							PDF
			113+57 RT												MONITOR WELL W-1
			114+04 RT	114+54 RT			CONSTRUCTION	T	194 SF						INCL. PDF & EC
			114+18.56 RT	114+52.27 RT			CHANNEL	P	134 SF						INCL. STONE FILL
4	NEMETH, ARTHUR;	1	114+68 RT	115+33 RT			CONSTRUCTION	T	184 SF	WDOE	05/02/18	POULTNEY	182	423-424	INCL. PDF & EC
	SAYERS, JOYCE		114+71.89 RT	115+10.24 RT			CHANNEL	P	184 SF						INCL. STONE FILL
			117+61.55 RT	117+65.98 RT			INSTALL & MAINTAIN	P							GUY WIRE & ANCHOR
5	GREEN MOUNTAIN POWER CORPORATION		112+46.97 LT	117+65.98 RT											UTILITY
6	TELEPHONE OPERATING COMPANY OF		112+46.97 LT	117+65.98 RT											UTILITY
	VERMONT LLC														
7	COMCAST OF CONNECTICUT/GEORGIA/		112+46.97 LT	117+65.98 RT											UTILITY
	MASSACHUSETTS/NEW HAMPSHIRE/														
	NEW YORK/NORTH CAROLINA/VIRGINIA/														
	VERMONT, LLC														

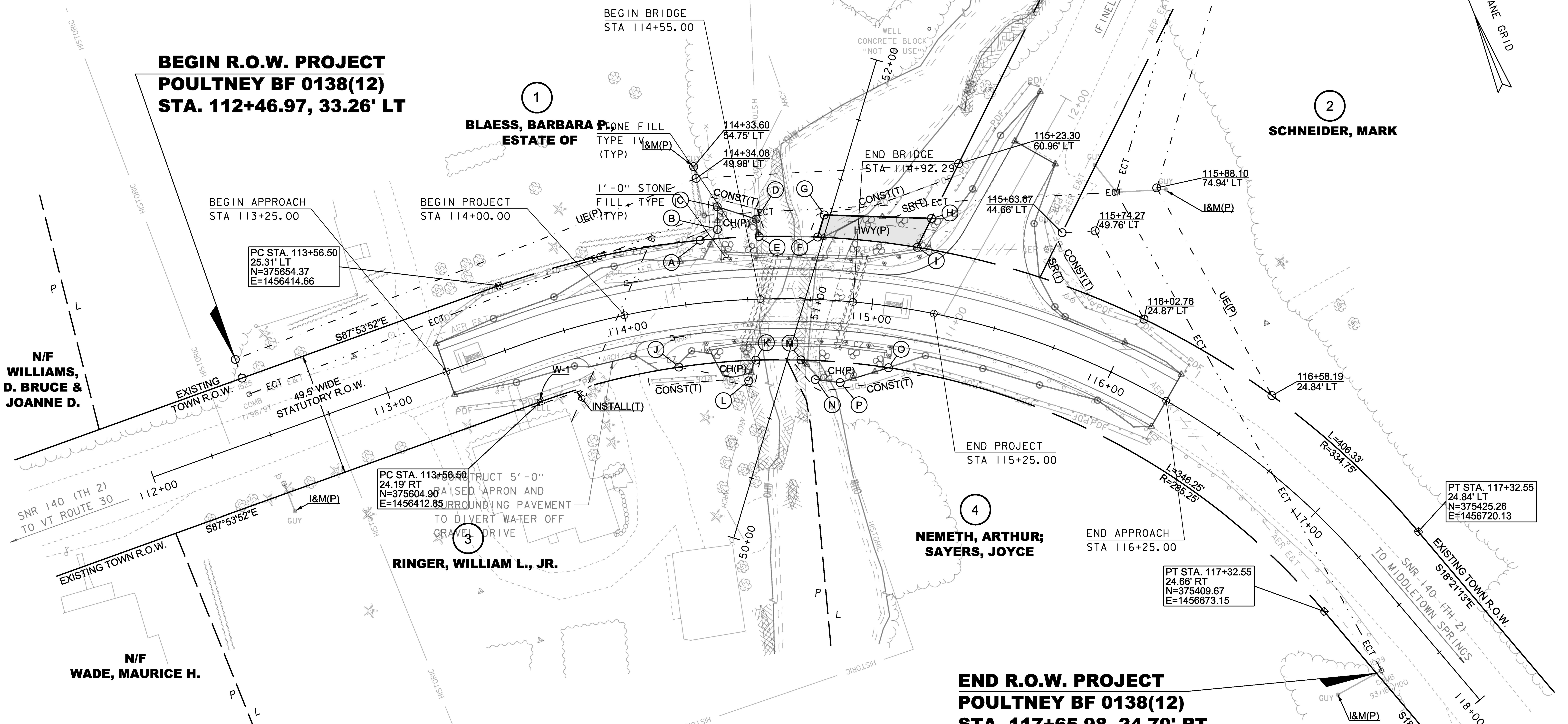
TABLE OF REVISIONS

REVISION NO.	ROW SET SHEET #	DESCRIPTION	DATE
1	3, 4	PARCEL 1, BLAESS - REVISE NAME TO	01/22/18
		READ AS BLAESS, BARBARA P,	
		ESTATE OF.	
		REV BY: MT CO 10333 APPR BY: TP	

PROJECT NAME:	**POULTNEY**		
PROJECT NUMBER:	**BF 0138(12)**		
FILE NAME:	**r13j276detail.xls**	PLOT DATE:	15-AUG-2018
PROJECT LEADER:	**R. YOUNG**	DRAWN BY:	**M. TROTTIER**
DESIGNED BY:	**A. PROULX**	CHECKED BY:	**T. POLK**
R.O.W. DETAIL SHEET #1		SHEET	45 OF 46

CONSTRUCT AGGREGATE SURFACE COURSE
DRIVES W/ 5'-0" PAVED APRONS
STA 113+91.0 RT - 19.00' WIDE*

REMOVAL AND DISPOSAL OF GUARDRAIL
STA 114+24.3 RT - 114+52.0 RT
STA 114+28.2 LT - 114+51.9 LT
STA 114+81.4 RT - 115+40.1 RT
STA 114+82.1 LT - 11+45.0 LT



A	114+33.30	25.13' LT
B	114+40.02	29.15' LT
C	114+40.54	37.92' LT
D	114+54.13	32.10' LT
E	114+55.25	25.08' LT
F	114+77.00	25.04' LT
G	114+79.00	34.00' LT
H	115+17.52	37.37' LT
I	115+14.12	25.01' LT
FG	N38°13'49"E	9.23'
GH	S66°15'12"E	43.07'
HI	S48°19'05"W	12.92'
IF	R=334.75'	40.13'

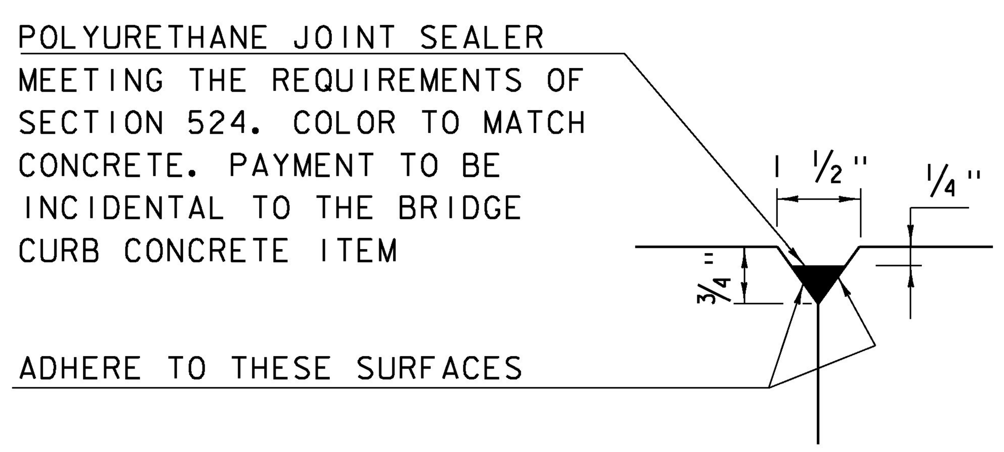
J	114+18.56	24.34' RT
K	114+52.27	24.42' RT
L	114+48.74	32.62' RT
M	114+71.89	24.45' RT
N	114+78.59	29.21' RT
O	115+10.24	24.52' RT
P	114+89.79	32.70' RT

LINES SHOWN ON THIS PLAN AS EXISTING PROPERTY LINES P/L ARE BELIEVED TO BE ACCURATE BUT SHOULD NOT BE RELIED UPON FOR PURPOSES UNRELATED TO THE TOWN OF POULTNEY'S ACQUISITION OF LAND AND RIGHTS FOR THIS PROJECT.

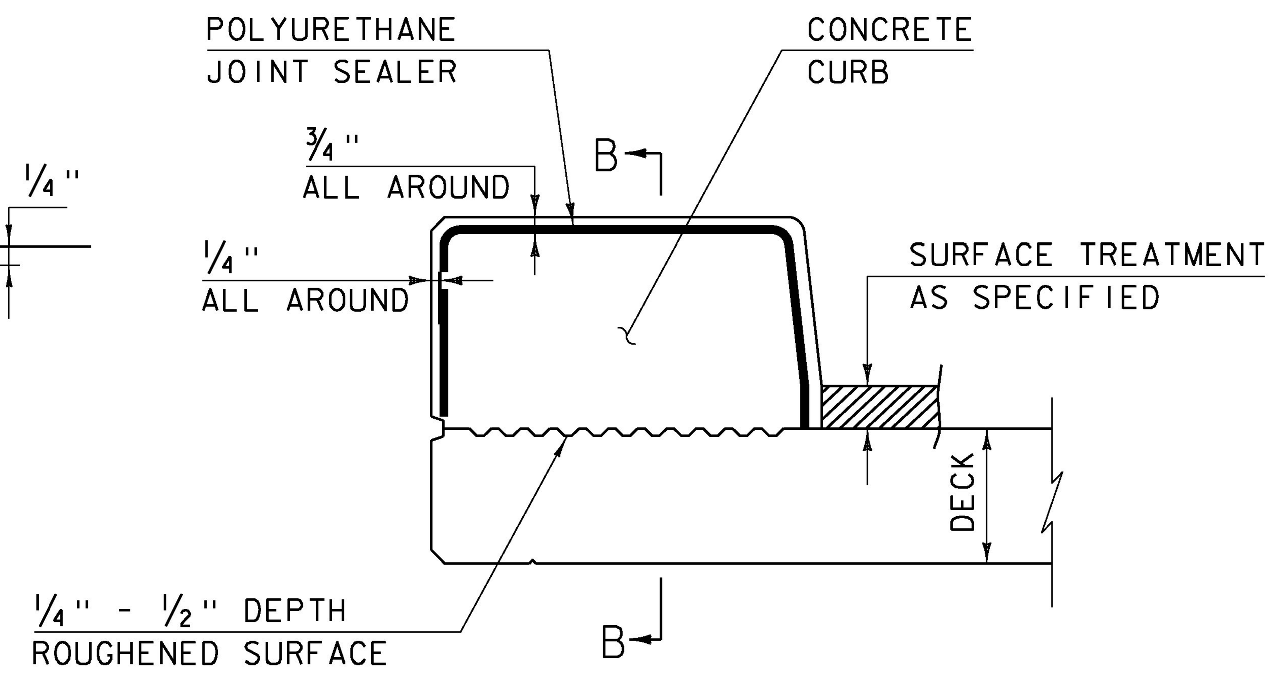
SCALE 1" = 20'-0"
20 0 20

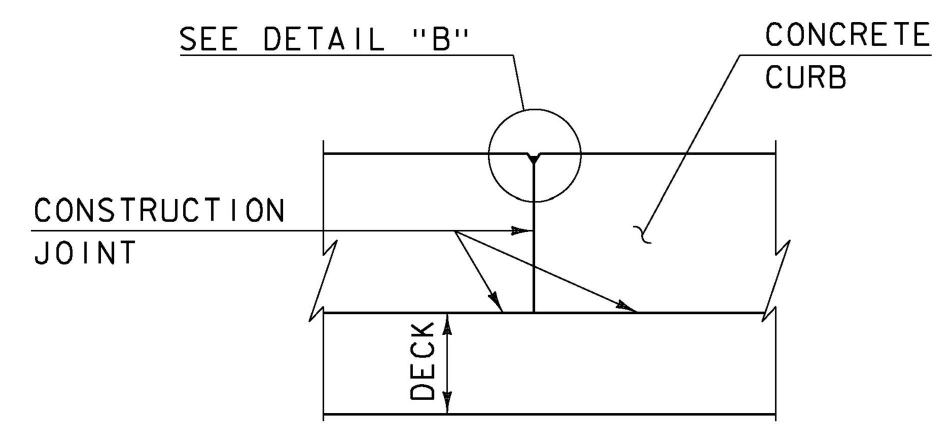
PROJECT NAME: POULTNEY
PROJECT NUMBER: BF 0138(12)

FILE NAME: s13j276bdr_row.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: G. DARGAN
R.O.W. LAYOUT
PLOT DATE: 15-AUG-2018
DRAWN BY: A. PROULX
CHECKED BY: S. PATTERSON
SHEET 46 OF 46

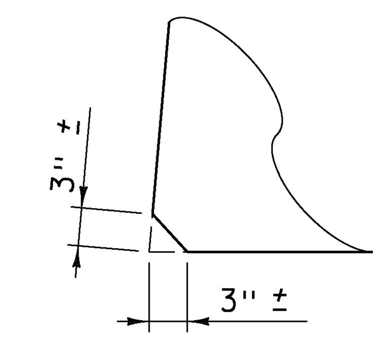


DETAIL "B"
(NOT TO SCALE)





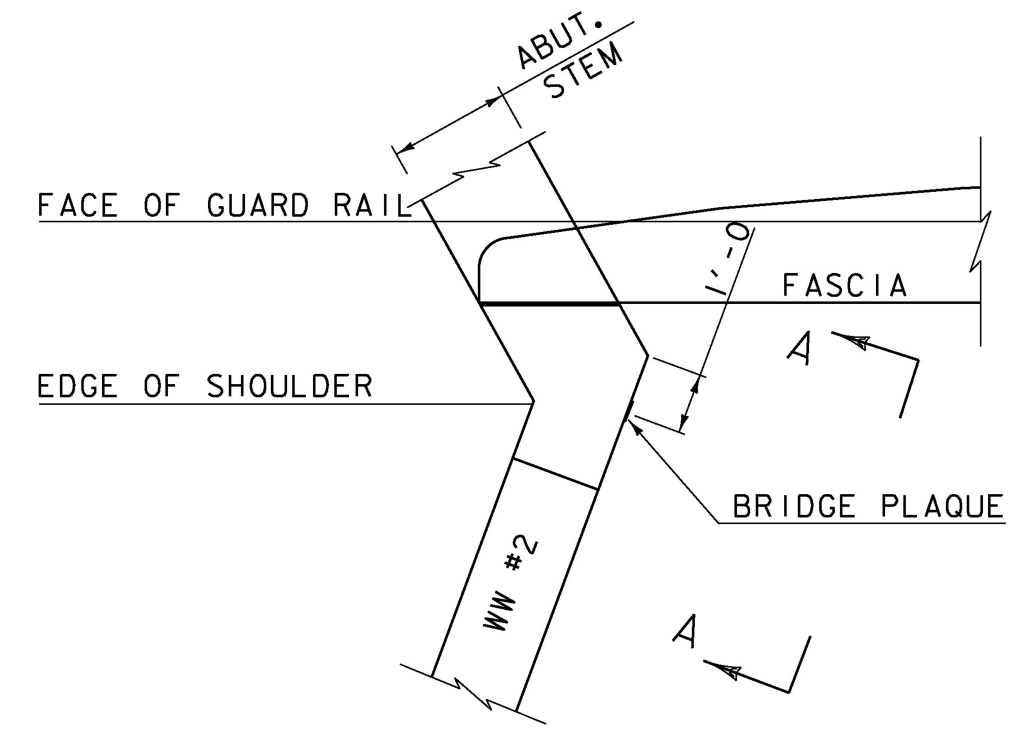
SECTION B - B
(NOT TO SCALE)



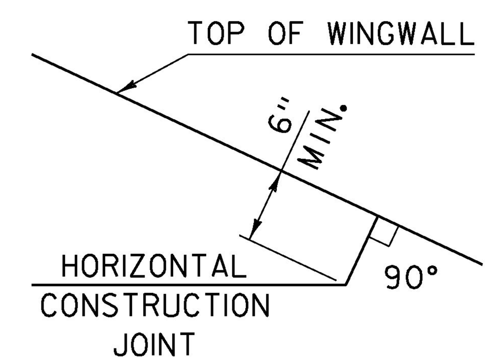
ACUTE ANGLE CLIP DETAIL
(NOT TO SCALE)

CONCRETE CURB JOINT SECTION
(NOT TO SCALE)

1. SEE TYPICAL HORIZONTAL CONSTRUCTION JOINT DETAIL FOR ADDITIONAL INFORMATION



PLAN



HORIZONTAL WINGWALL CONSTRUCTION JOINT
(NOT TO SCALE)

CONCRETE CURB JOINT NOTES

1. CONCRETE CURBS MAY BE PLACED IN ONE CONTINUOUS OPERATION IF AN APPROVED SHRINKAGE REDUCING ADMIXTURE LISTED IN THE SPECIAL PROVISIONS IS USED WITH THE CONCRETE MIX DESIGN. PAYMENT FOR THE SHRINKAGE REDUCING ADMIXTURE WILL BE INCIDENTAL TO THE BRIDGE CURB CONCRETE ITEM.

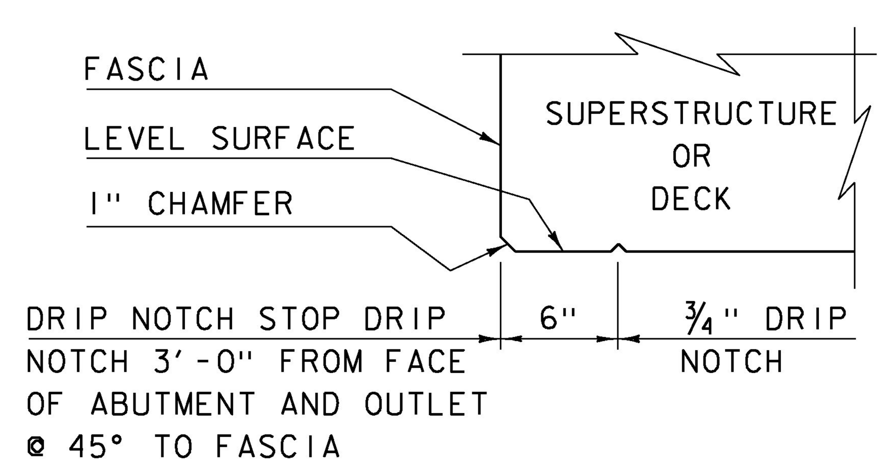
2. IF THE CONTRACTOR CHOOSES NOT TO USE AN APPROVED SHRINKAGE REDUCING ADMIXTURE, THE CURBS SHALL BE CONSTRUCTED WITH CONSTRUCTION JOINTS SPACED AT A MAXIMUM OF 15'-0" CENTER TO CENTER AND 2'-0" MINIMUM FROM THE CENTER OF NEAREST BRIDGE RAILING POST.

3. ON MULTI-SPAN CONTINUOUS SUPERSTRUCTURES, REGARDLESS OF WHETHER APPROVED SHRINKAGE REDUCING ADMIXTURE IS USED, CURB JOINTS SHALL BE LOCATED OVER THE CENTERLINE OF PIERS AND 7'-0" EACH SIDE OF THE CENTERLINE OF EACH PIER.

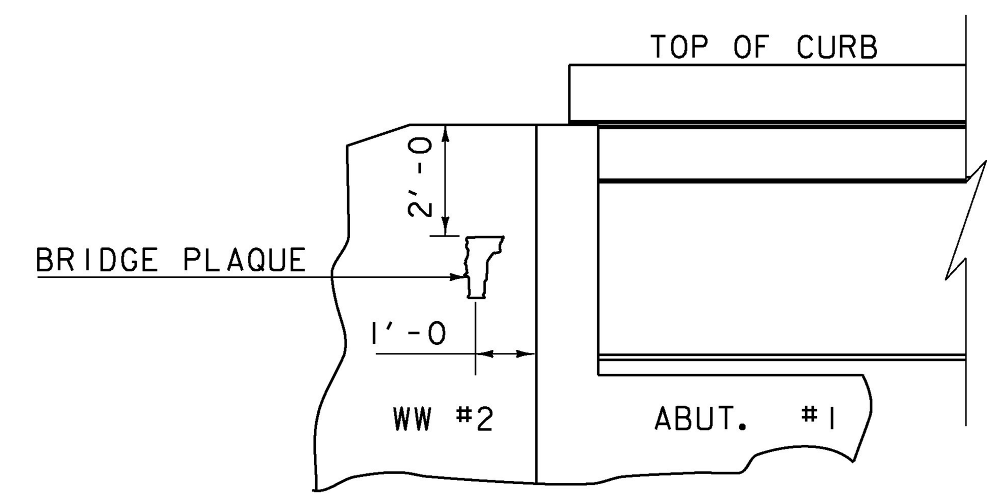
4. WHEN CURB JOINTS ARE USED THE CURBS SHALL BE PLACED IN ALTERNATE SECTIONS WITH A MINIMUM OF 48 HOUR DELAY BETWEEN ADJACENT PLACEMENTS.

5. LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THROUGH CURB CONSTRUCTION JOINTS. CURB STIRRUP BARS SHALL BE TURNED AS NECESSARY TO MAINTAIN COVER IN THE FLARED CURB ENDS.

6. THE JOINT SPACING AND DETAILS SHOWN SHALL APPLY TO SIDEWALKS WHEN SHOWN IN THE PLANS.



DRIP NOTCH DETAIL
(NOT TO SCALE)



VIEW "A - A"

BRIDGE PLAQUE
(NOT TO SCALE)

THE BRIDGE PLAQUE WILL BE SUPPLIED BY THE AGENCY OF TRANSPORTATION AND SHALL BE INSTALLED BY THE CONTRACTOR AT ABUTMENT #1 ON THE RIGHT SIDE AS SHOWN OR AS DIRECTED BY THE ENGINEER.

PAYMENT FOR INSTALLATION OF THE BRIDGE PLAQUE SHALL BE INCIDENTAL TO THE ADJACENT CONCRETE.

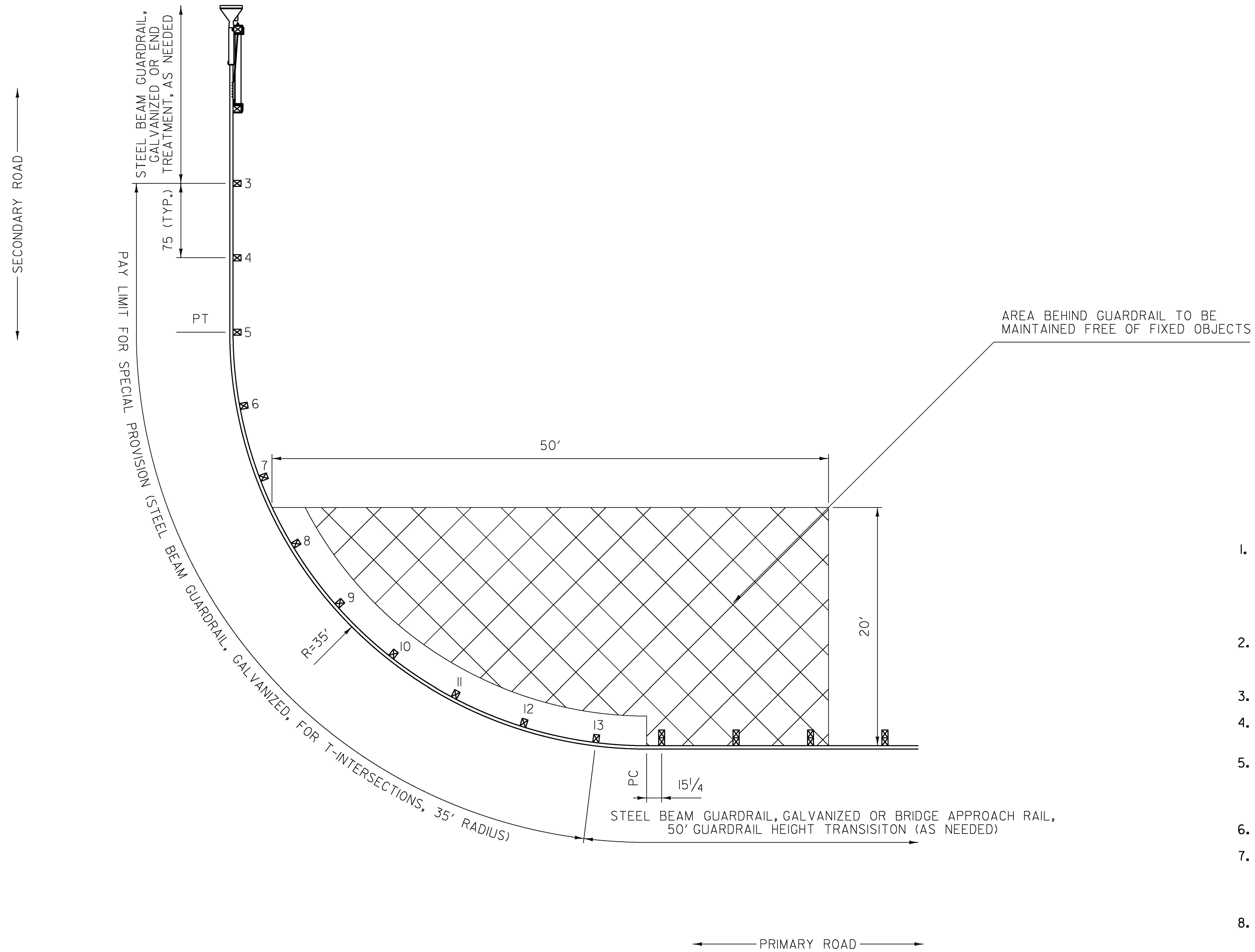
REVISIONS

MAY 7, 2010	APPROVED FOR USE BY VAOT STRUCTURES SECTION
JUNE 4, 2010	MODIFIED AND ADDED TWO DETAILS
OCTOBER 10, 2012	MODIFIED HORZ. JOINT WINGWALL ADD 6" MIN. DIMENSION

CONCRETE DETAILS AND NOTES

VERMONT AGENCY OF TRANSPORTATION · STRUCTURES · SECTION

STRUCTURES DETAIL SD-502.00



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. GUARDRAIL WITHIN THE PAY LIMITS OF SPECIAL PROVISION (STEEL BEAM GUARDRAIL, GALVANIZED/35 FOOT RADIUS) SHALL BE INSTALLED AT A HEIGHT OF 27 INCHES TO THE TOP OF RAIL.
3. POSTS 3 THROUGH 13 SHALL BE CRT TIMBER POSTS, PDE09.
4. POSTS 3 THROUGH 13 SHALL HAVE GUARDRAIL BOLTS AND RECESSED NUTS, FBB03.
5. ALL GUARDRAIL PANELS WITHIN THE PAY LIMITS FOR SPECIAL PROVISION (STEEL BEAM GUARDRAIL, GALVANIZED/35 FOOT RADIUS) SHALL BE W-BEAM GUARDRAIL, RWM02A AND SHALL BE SHOP BENT, WHERE APPLICABLE.
6. END TREATMENT SHOWN FOR REFERENCE ONLY.
7. WHEN STANDARD DRAWING G-1D IS USED FOR AN END TREATMENT ON THE SECONDARY ROAD IT SHALL BEGIN A MINIMUM OF 75 INCHES BEYOND THE PAY LIMITS FOR SPECIAL PROVISION (STEEL BEAM GUARDRAIL, GALVANIZED/35 FOOT RADIUS).
8. BASED ON DETAILS IN FHWA'S TECHNICAL ADVISORY T 5040.32, APRIL 13, 1992 (FOR REFERENCE ONLY).
9. PAYMENT SHALL BE MADE UNDER SPECIAL PROVISION (STEEL BEAM GUARDRAIL, GALVANIZED/35 FOOT RADIUS).
10. GUARDRAIL SHALL BE LAPPED IN THE DIRECTION OF THE NEAREST TRAVEL LANE.
11. ALL DIMENSIONS IN INCHES, UNLESS OTHERWISE NOTED.

REV.	DATE	DESCRIPTION
0	JUN. 9, 2015	ORIGINAL APPROVAL

OTHER DETAILS REQUIRED: HSD 621.01

DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

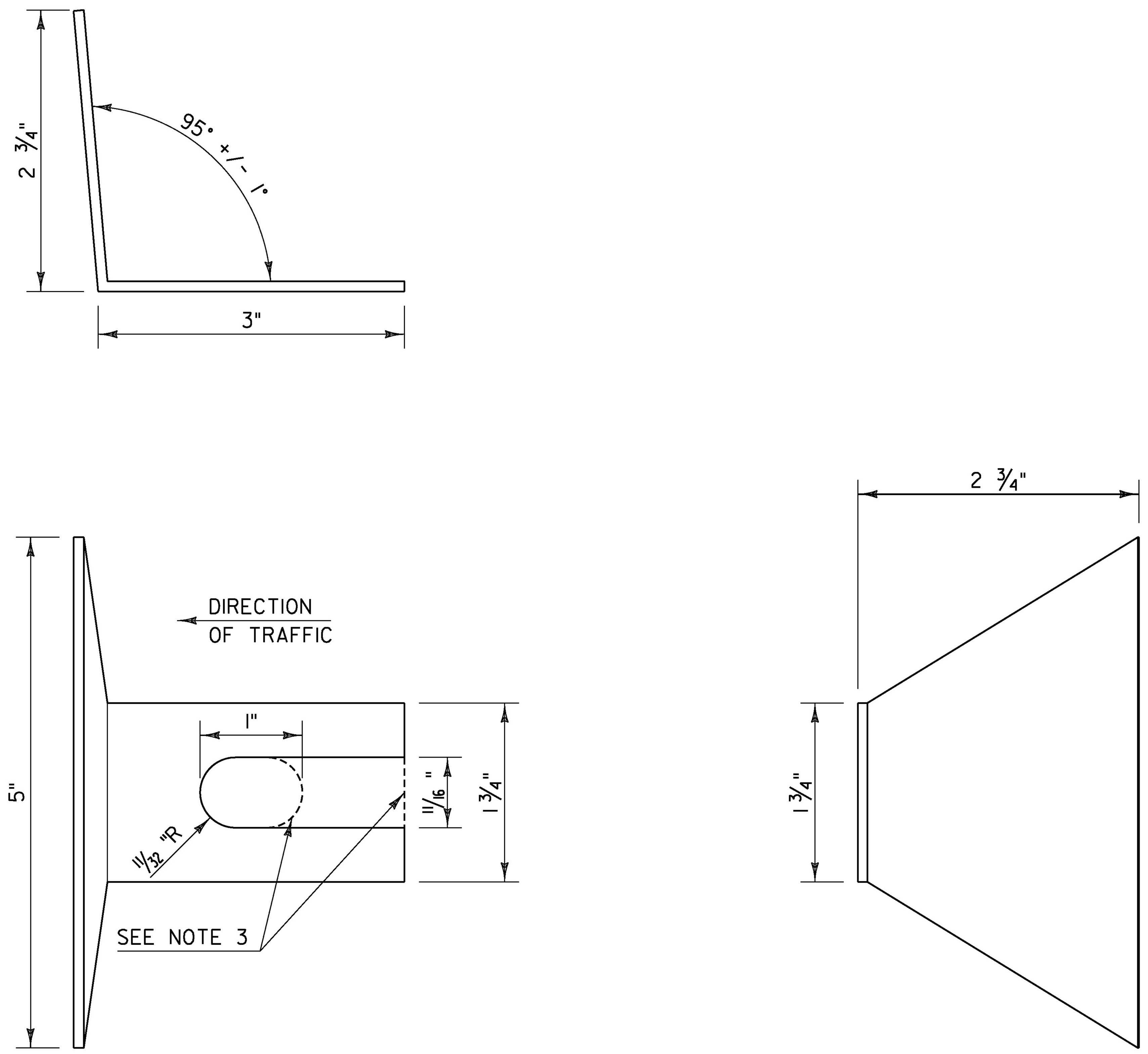
STEEL BEAM GUARDRAIL, GALVANIZED/35 FOOT RADIUS

VTrans Working to Get You There VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

HSD-621.05

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.

GUARDRAIL TERMINAL LABEL DETAIL

NOTES:

1. LINE ONE SHALL INDICATE THE INSTALLATION YEAR (YYYY).
2. 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 SHALL INDICATE ADDITIONAL MODEL INFORMATION IF NECESSARY.
4. LINE FOUR SHALL INDICATE FLARED (FLRD) OR TANGENT (TANG).
5. LEGEND SHALL BE SIZE ¾ 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.
11. PAYMENT SHALL BE INCIDENTAL TO OTHER TRAFFIC BARRIER ITEMS.

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

MISCELLANEOUS GUARDRAIL DETAILS

VTrans Working to Get You There — VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

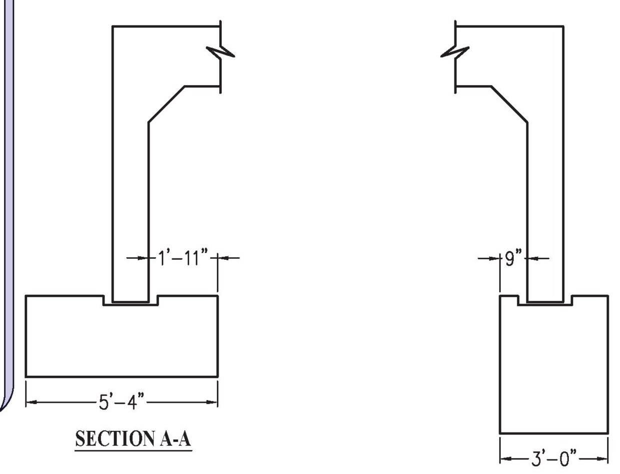
HSD-621.06

Summing up comments:
- Curing plant stated on shop drawings
- Add note: "Concrete clear cover shall be 3" unless otherwise noted."
- Add note: "All exposed concrete edges shall have a 3/4" chamfer.
- Retaining wall fabricator removed batter from wall. Abutments may be reduced in size back to plan dimensions (39' - 6").
- QC Plan: The test methods that are used by the plant for the Certifications or qualifications for the QC workers was not present. QSM did not have a list of personnel that are certified or qualified that do the QC work.

Approved AsNoted

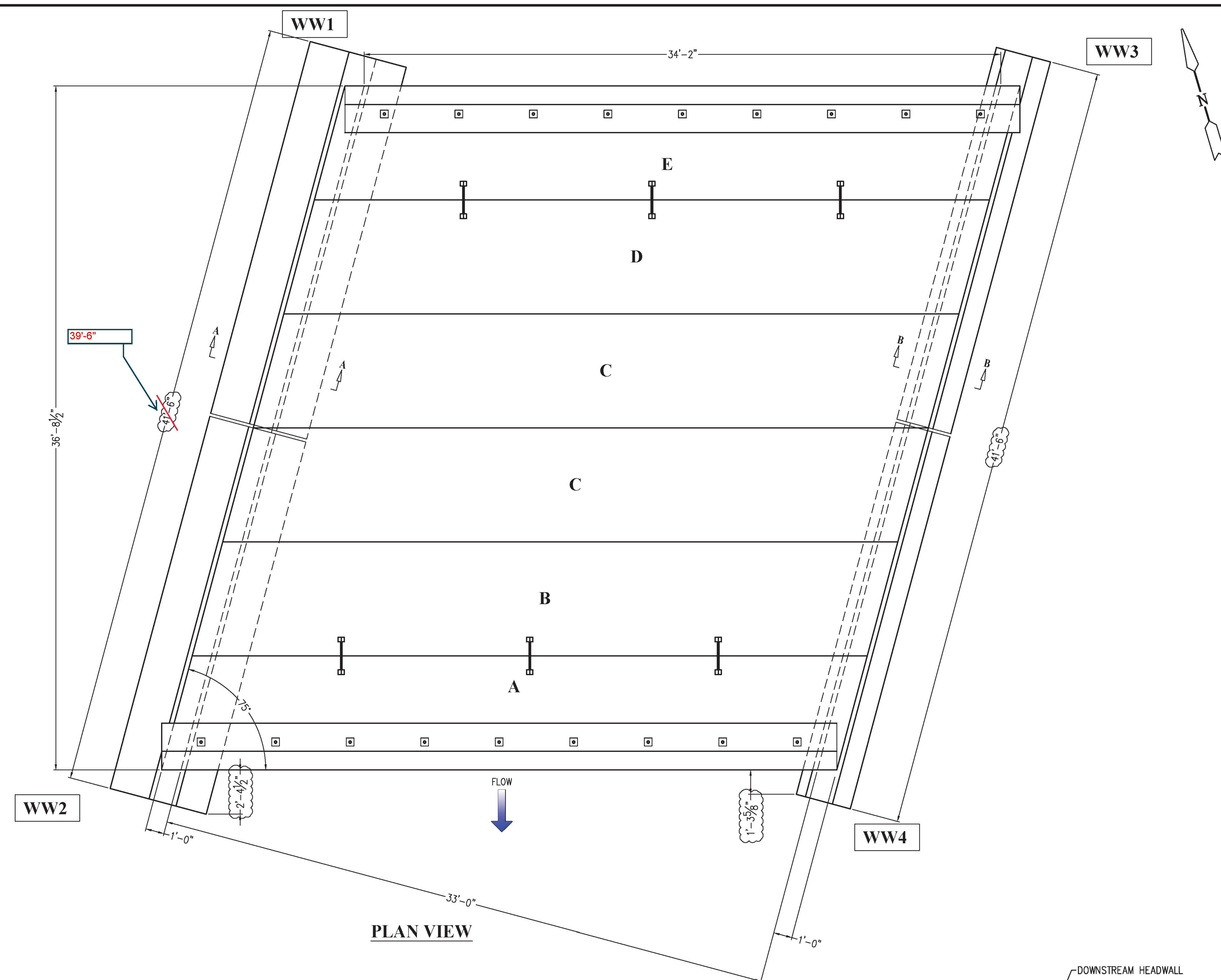
BY: R. Young
DATE: 03/07/19
RESUBMIT: No
RECEIVED: March 5, 2019
CKD BY: G. Laroche/G. Dargan/K. Moulton

STATE OF VERMONT
AGENCY OF TRANSPORTATION

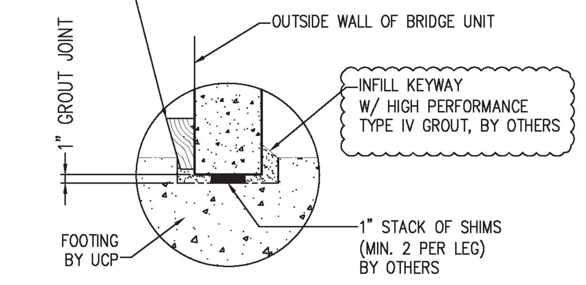


SECTION A-A

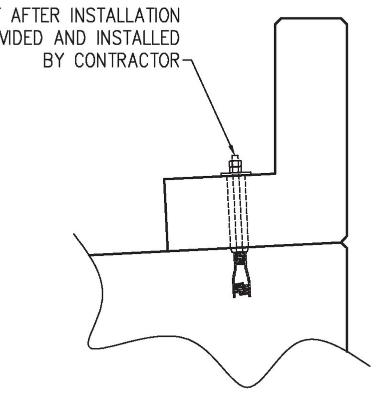
SECTION B-B



PLAN VIEW

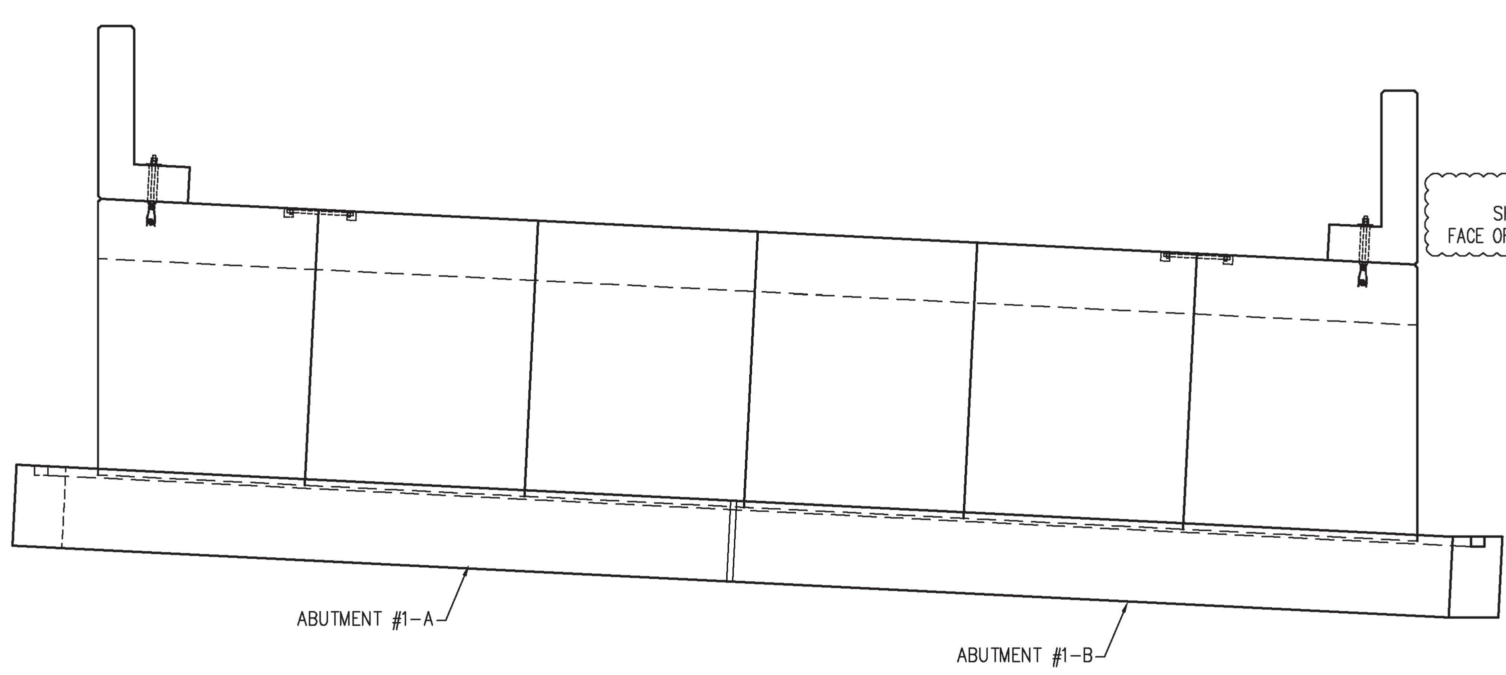


DETAIL 'A'
(TYP. KEYWAY)

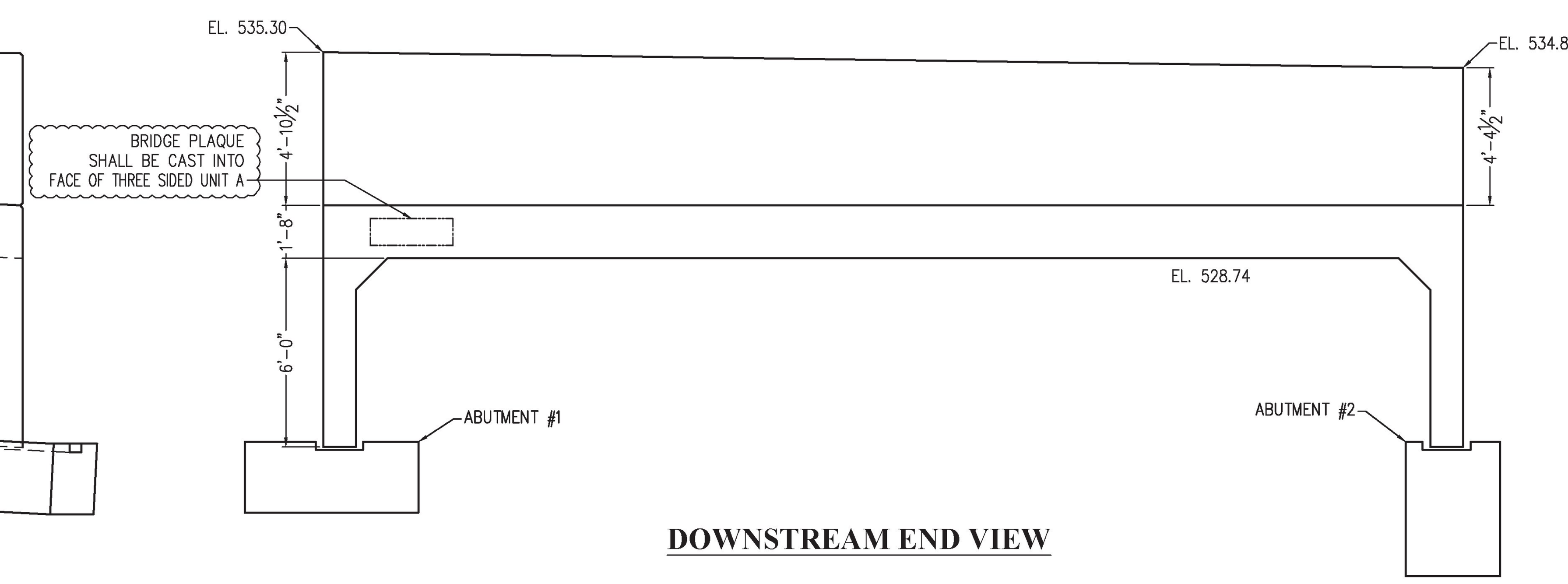


HEADWALL DETAIL

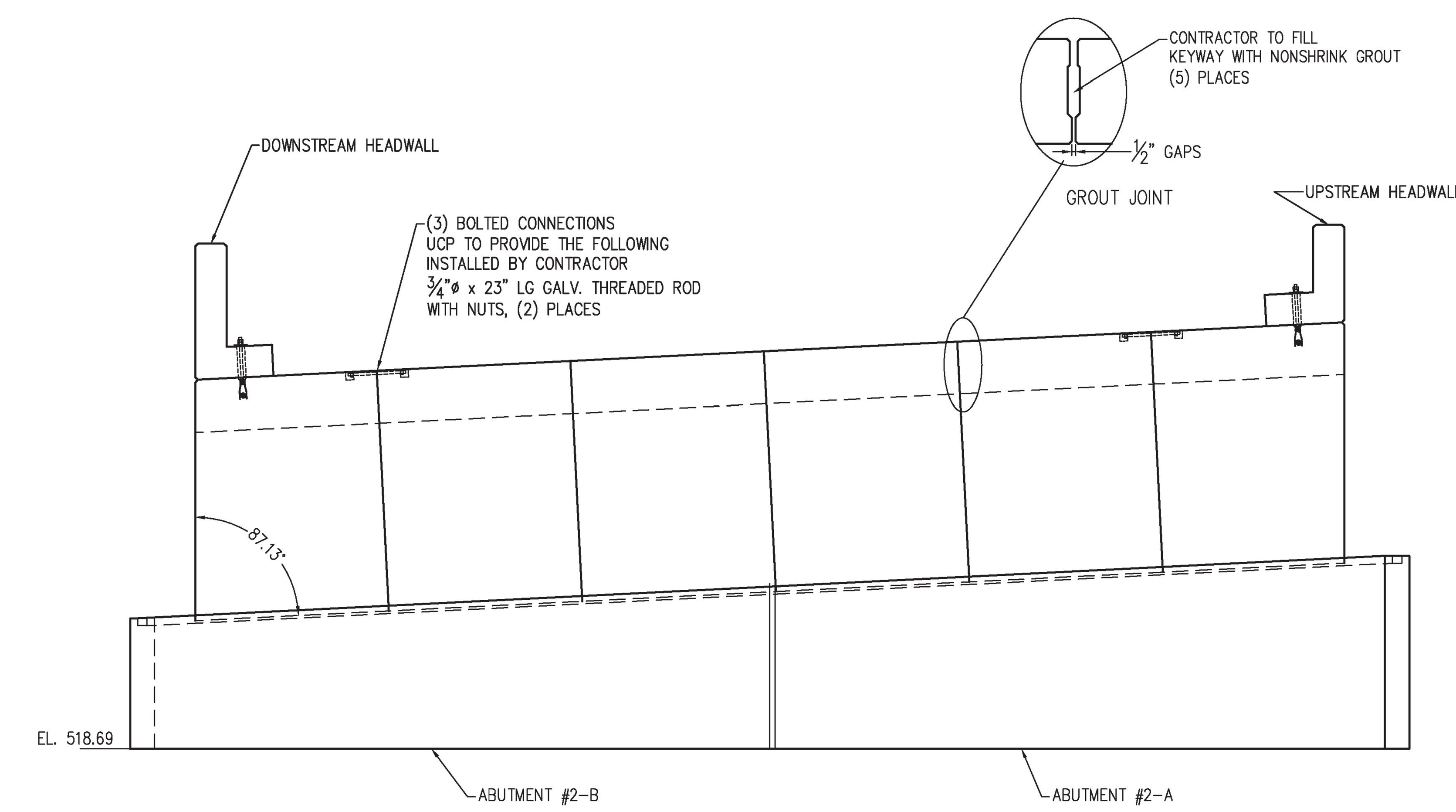
LRFR LOAD RATING FACTORS							
LOADING LEVELS	TRUCK						
	H-20	HL-93	3S2	6 AXLE	3A STR.	4A STR.	5A SEMI
TONNAGE	**20**	**36**	**36**	**66**	**30**	**34.5**	**38**
INVENTORY	1.97	1.10					
POSTING							
OPERATING	2.55	1.43	2.47	1.24	1.73	1.56	2.27
COMMENTS:	TABLE TO BE COMPLETED BY CONTRACTOR'S DESIGNER.						



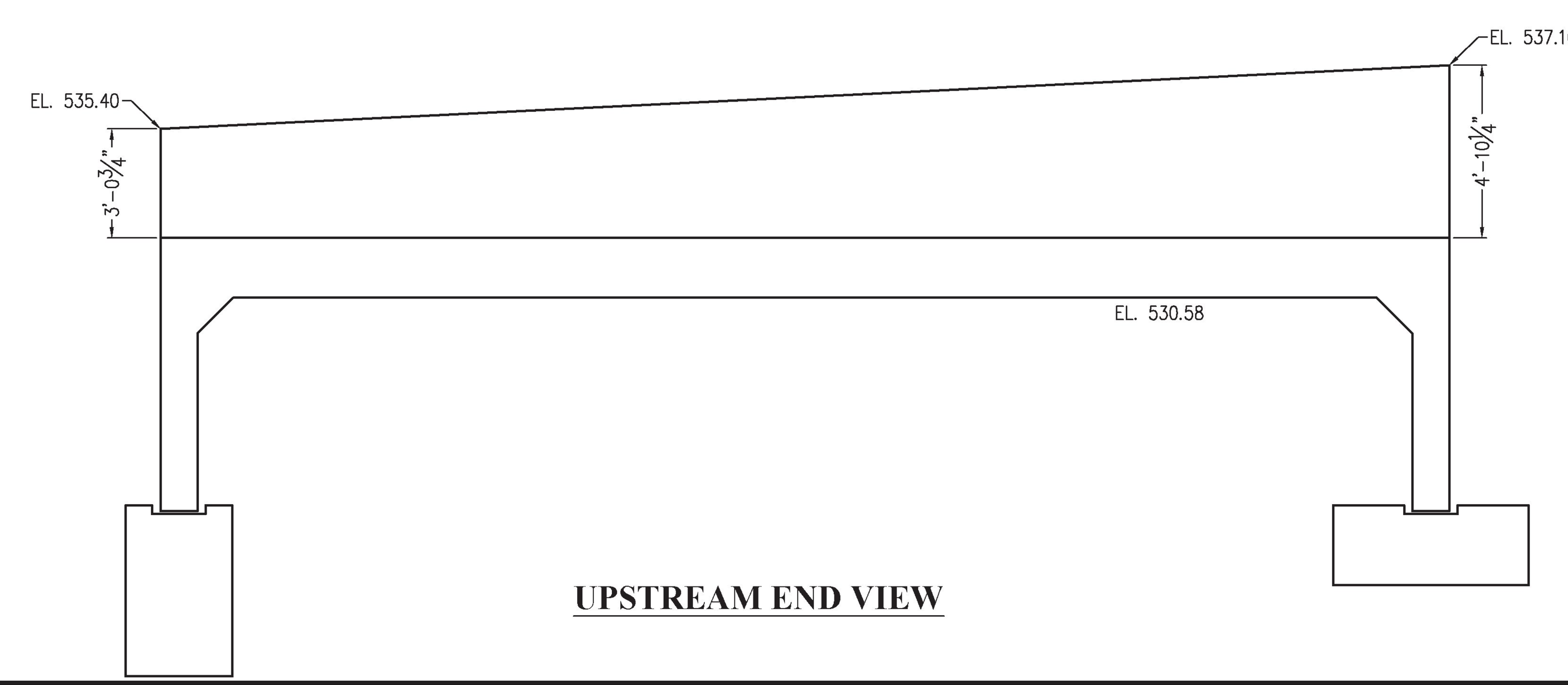
WEST SIDE ELEV. VIEW



DOWNSTREAM END VIEW



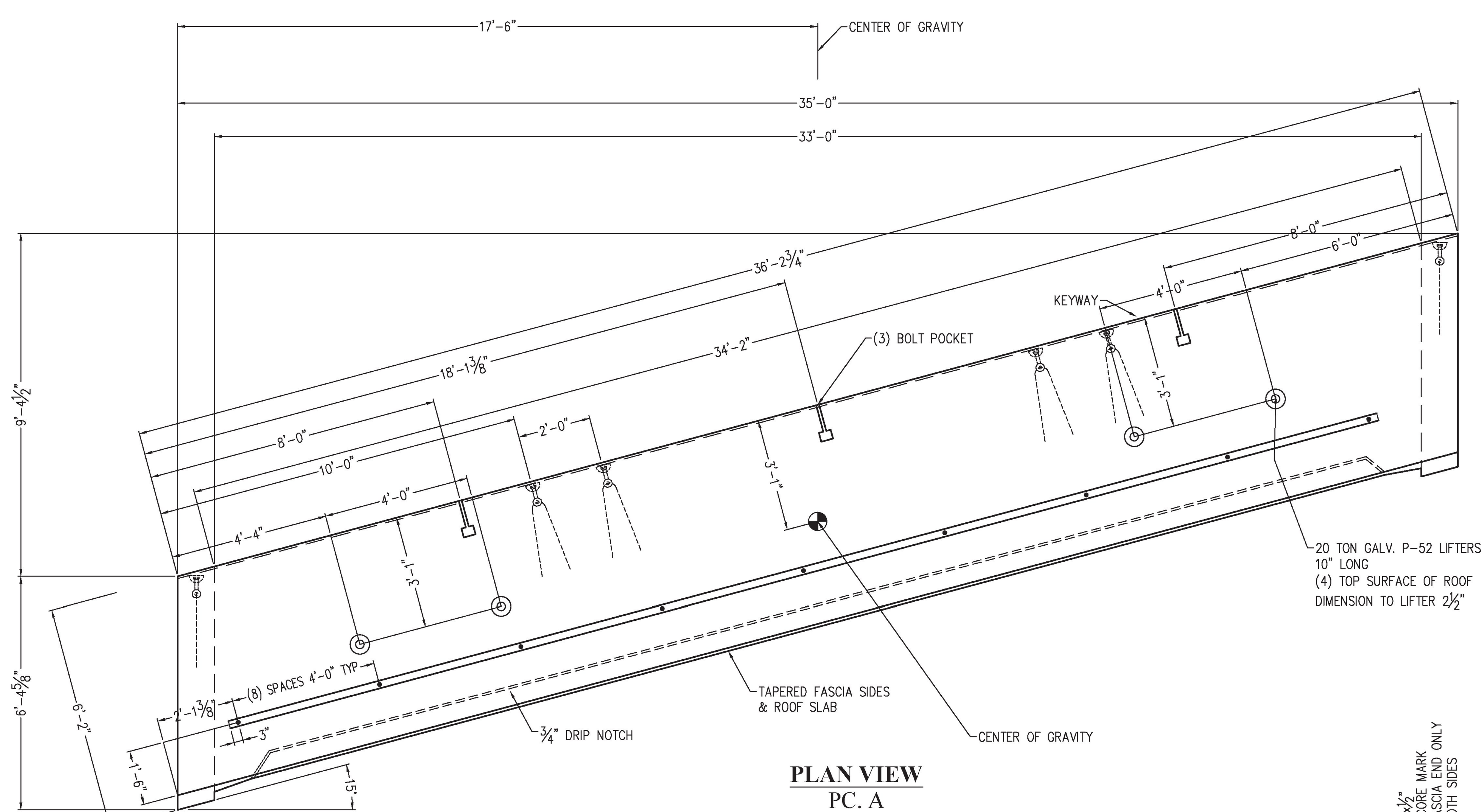
EAST SIDE ELEV. VIEW



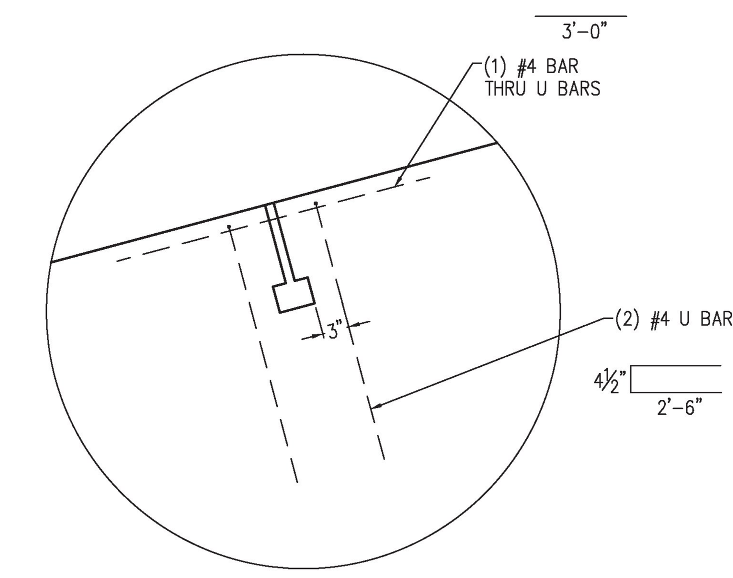
UPSTREAM END VIEW

WING WALLS DESIGNED BY OTHERS

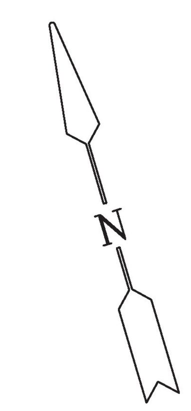
UNITED CONCRETE PRODUCTS, Inc. 173 CHURCH STREET YALESVILLE, CT 06492 TEL: (203)-269-3119 FAX: (203)-265-4941	PRECAST CONCRETE THREE SIDED BRIDGE LAYOUT	PROJECT #34491	
	CUSTOMER BUR CONSTRUCTION, LLC	SCALE NONE	
	JOB BRIDGE 0138(12) IMPROVEMENTS	DATE 11/08/18	SHEET B-1
	LOCATION POULTNEY, VT REVISED 3-06-2019 DH	DRW DH CHK JLT	



PLAN VIEW
PC. A
(1) REQUIRED



BOLT POCKET DETAIL

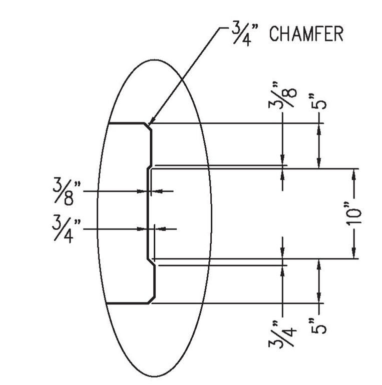


NOTES:

1. REINFORCING STEEL DEFORMED BARS CONFORM TO LATEST ASTM SPECIFICATION A615, GRADE 60 EPOXY COATED REINFORCING
2. CONCRETE COMPRESSIVE STRENGTH – **5,000 PSI** AT 28 DAYS ~~SELF COMPACTING CONCRETE MIX,~~ MIX No. MASS, RIDOT, VT 685 HP. ~~AIR ENTRAINMENT 7% ±1½%~~
3. METHOD OF MANUFACTURE: WET CAST.
4. THE STRUCTURE IS DESIGN AASHTO LRFD BRIDGE DESIGN SPEC. DESIGN LOAD HL–93 EARTH COVER 4'–0" TO 5'–3"
5. BRIDGE UNIT SHALL BE RELEASED FROM MOLD WHEN 3,500 PSI MIN IS OBTAINED.
6. SEE SHEET B–3 FOR TYP. REINFORCING. KEEP LONGITUDINAL BARS 3" FROM FASCIA END ALTER LENGTH AND QUANTITY OF BARS AS NEEDED
7. TOLERANCE – PER PCI TOLERANCE MANUAL MNL 135–00 FIG. 10.25.1 EXCEPT FOR FLOOR
8. FINISH – SURFACES TO BE STEEL FORM FINISH ~~AND/OR STEEL TROWEL FINISH.~~
9. CURING – AFTER STRIPPING STRENGTH IS ACHIEVED, UNIT WILL BE DAMPENED, THEN COMPLETELY WRAPPED WITH POLYETHYLENE SHEETS (PLASTIC) FOR A MINIMUM OF ONE DAYS OR UNTIL DESIGN STRENGTH IS MET.

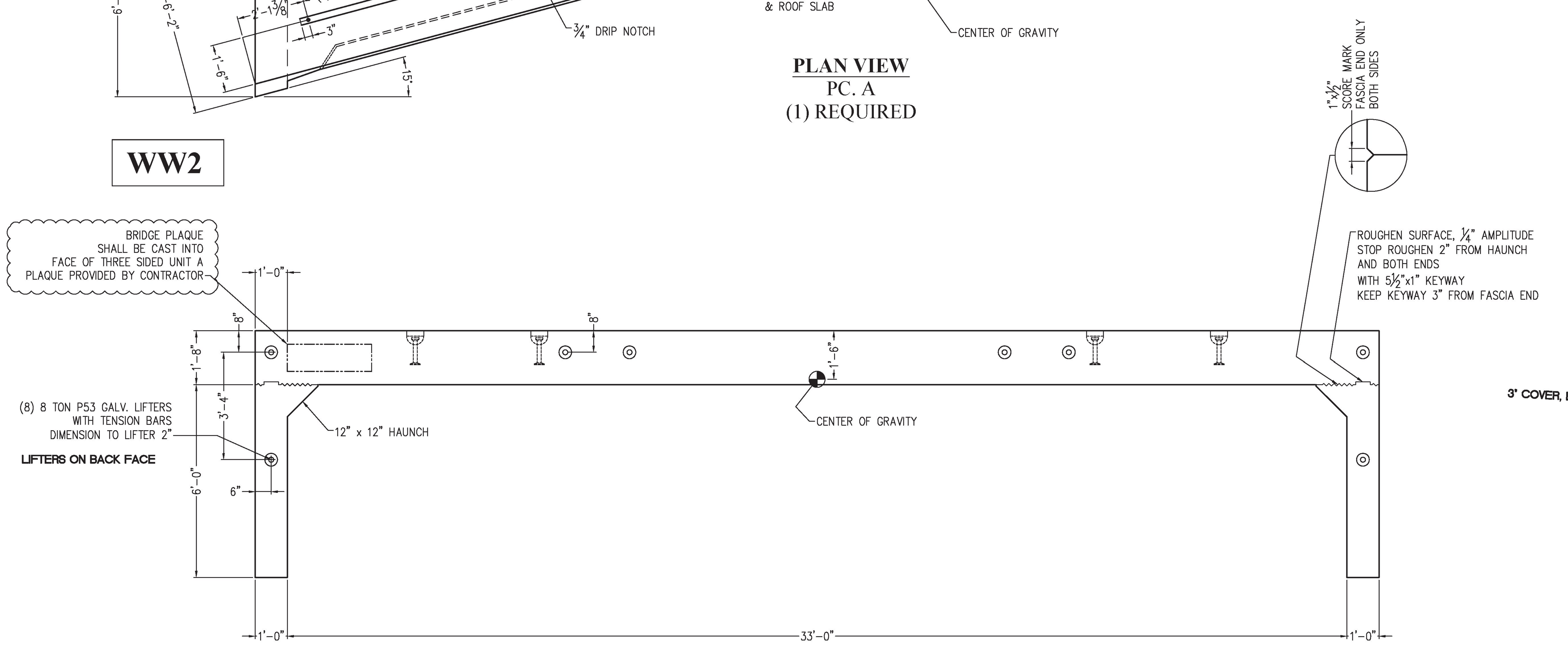
APPROX. WEIGHT:
PC. A – 73,000 LBS.

ALL LIFTERS:
DIMENSION TO TOP OF LIFTER EQUAL TO REINFORCING COVER.

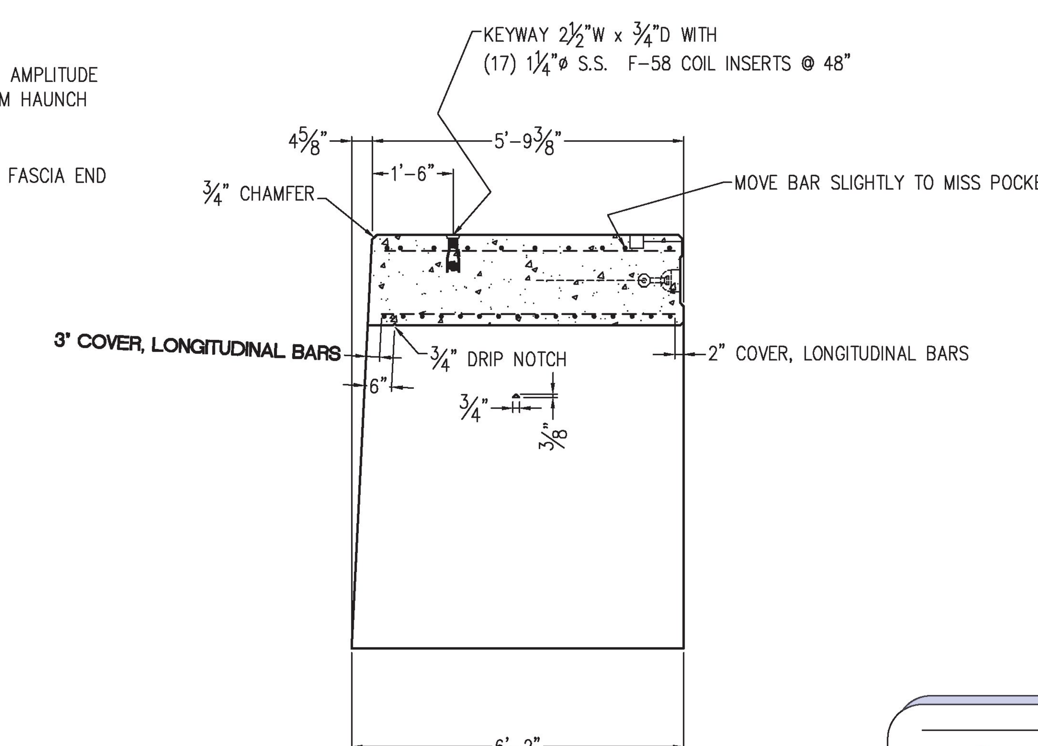


ROOF SLAB JOINT DETAIL

WW2



ELEV. VIEW



SECTION VIEW

Approved AsNoted

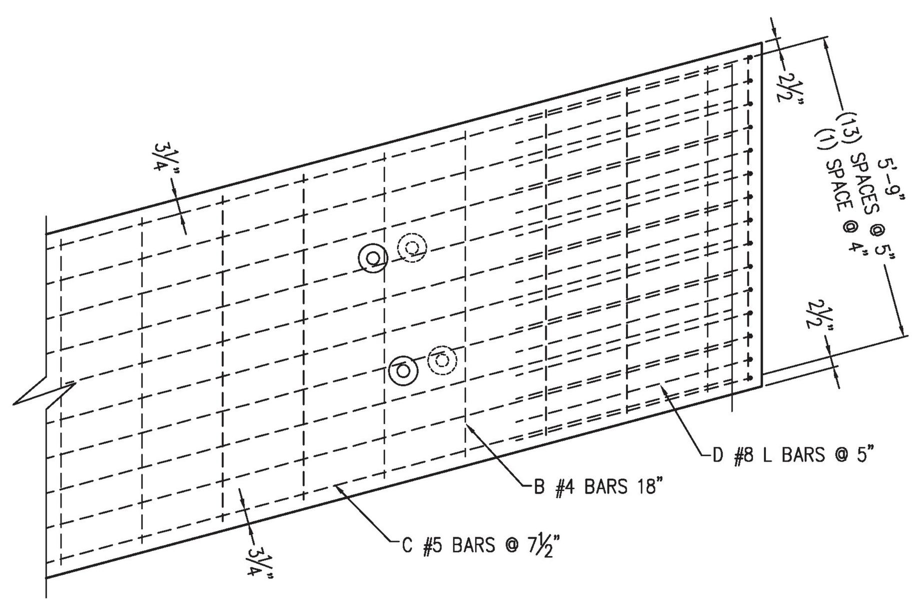
BY: R. Young
DATE: 03/07/19
RESUBMIT: No
RECEIVED: March 5, 2019
CKD BY: G. Laroche/G. Dargan/K. Moulton

STATE OF VERMONT
AGENCY OF TRANSPORTATION

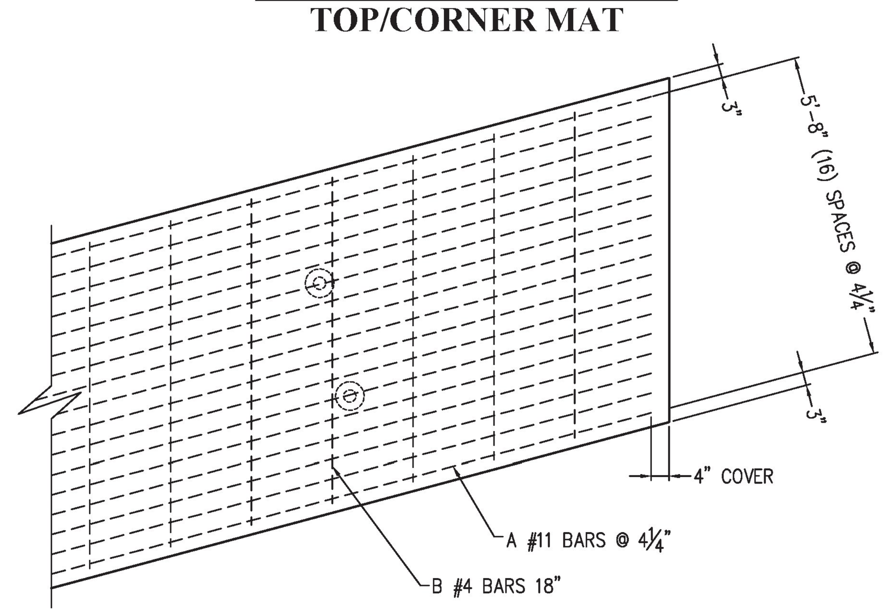
Poultney Frame - 3-5-2019 archive.pdf

EPOXY COATED REINFORCING

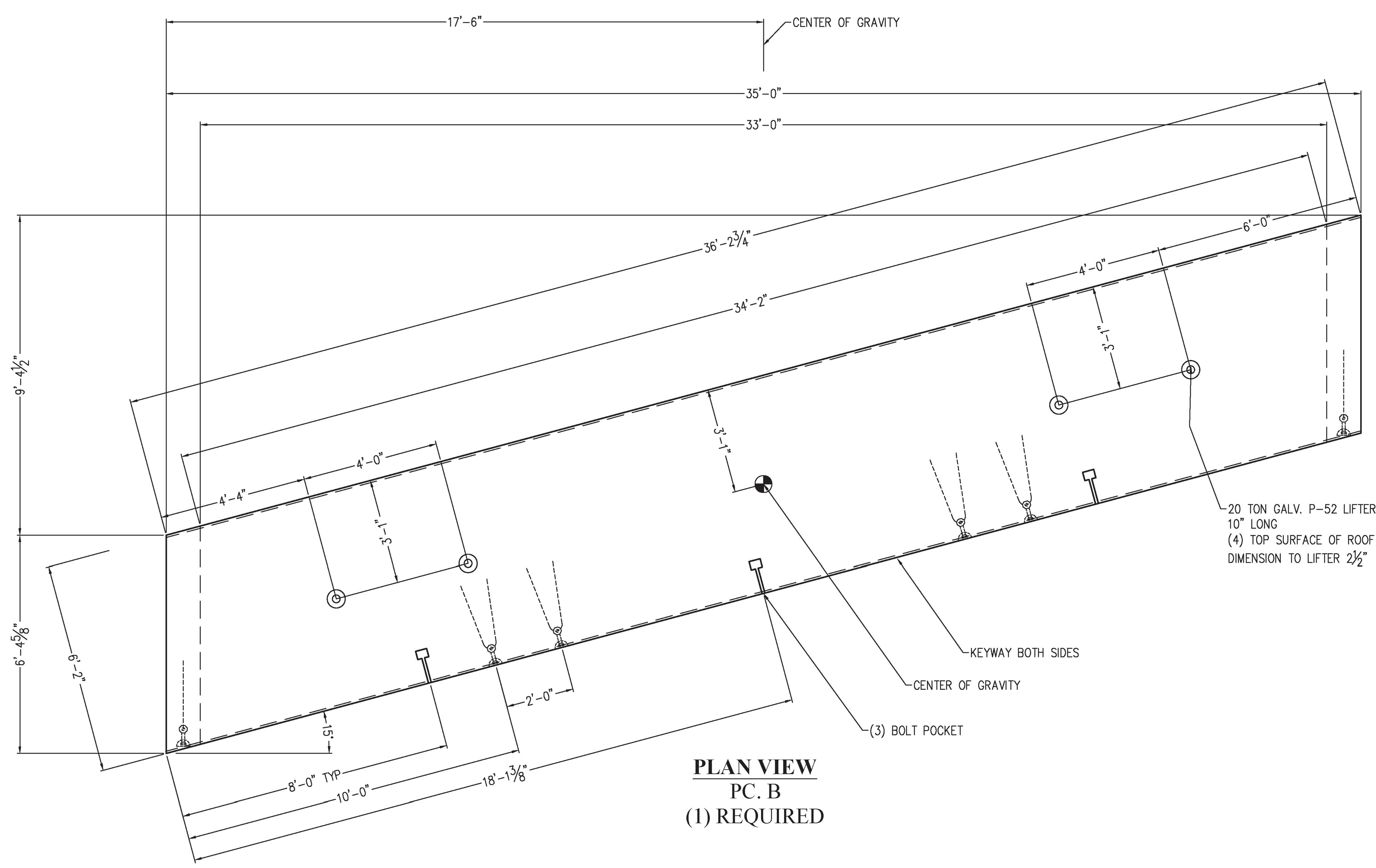
UNITED CONCRETE PRODUCTS, Inc. 173 CHURCH STREET YALESVILLE, CT 06492 TEL: (203)–269–3119 FAX: (203)–265–4941	PRECAST CONCRETE THREE SIDED BRIDGE PC. A	PROJECT #34491	
	CUSTOMER BUR CONSTRUCTION, LLC	SCALE NONE	
	JOB BRIDGE 0138(12) IMPROVEMENTS	DATE 11/08/18	SHEET B-2
	LOCATION POULTNEY, VT REVISED 3–06–2019 DH	DRW DH CHK JLT	



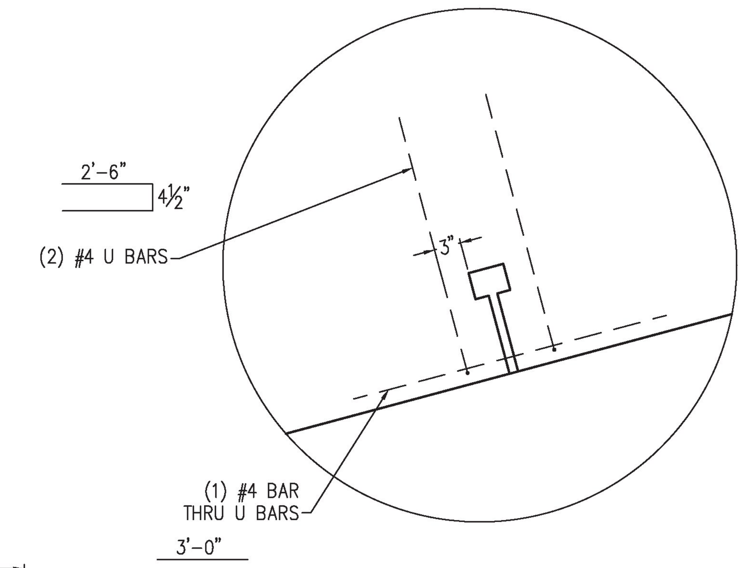
TOP SLAB REINFORCING
TOP/CORNER MAT



TOP SLAB REINFORCING
BOTTOM MAT



PLAN VIEW
PC. B
(1) REQUIRED

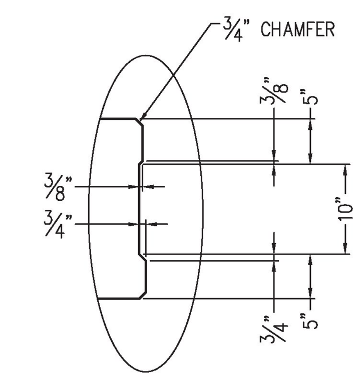


BOLT POCKET DETAIL

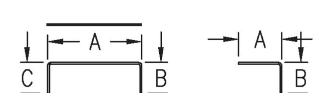
NOTES:
1. REINFORCING STEEL DEFORMED
BARS CONFORM TO LATEST ASTM
SPECIFICATION A615, GRADE 60
EPOXY COATED REINFORCING
2. CONCRETE COMPRESSIVE
STRENGTH – **5,000 PSI** AT 28 DAYS
~~SELF COMPACTING CONCRETE MIX,~~
MIX NO. MASS, RIDOT, VT 685 HP.
~~AIR ENTRAINMENT 7% ±1½%~~
3. METHOD OF MANUFACTURE:
WET CAST.
4. THE STRUCTURE IS DESIGN
AASHTO LRFD BRIDGE DESIGN SPEC.
DESIGN LOAD HL-93
EARTH COVER 4'-0" TO 5'-3"
5. BRIDGE UNIT SHALL BE RELEASED
FROM MOLD WHEN 3,500 PSI MIN
IS OBTAINED.
6. TOLERANCE – PER PCI TOLERANCE
MANUAL MNL 135-00
FIG. 10.25.1 EXCEPT FOR FLOOR
7. FINISH – SURFACES TO BE STEEL FORM FINISH
~~AND/OR STEEL TROWEL FINISH.~~
8. ~~CURING – AFTER STRIPPING STRENGTH IS ACHIEVED,~~
UNIT WILL BE DAMPENED, THEN COMPLETELY
WRAPPED WITH POLYETHYLENE SHEETS (PLASTIC)
FOR A MINIMUM OF ONE DAYS OR UNTIL
DESIGN STRENGTH IS MET.

APPROX. WEIGHT:
PC. B – 73,000 LBS.

ALL LIFTERS:
DIMENSION TO TOP OF LIFTER
EQUAL TO REINFORCING COVER.

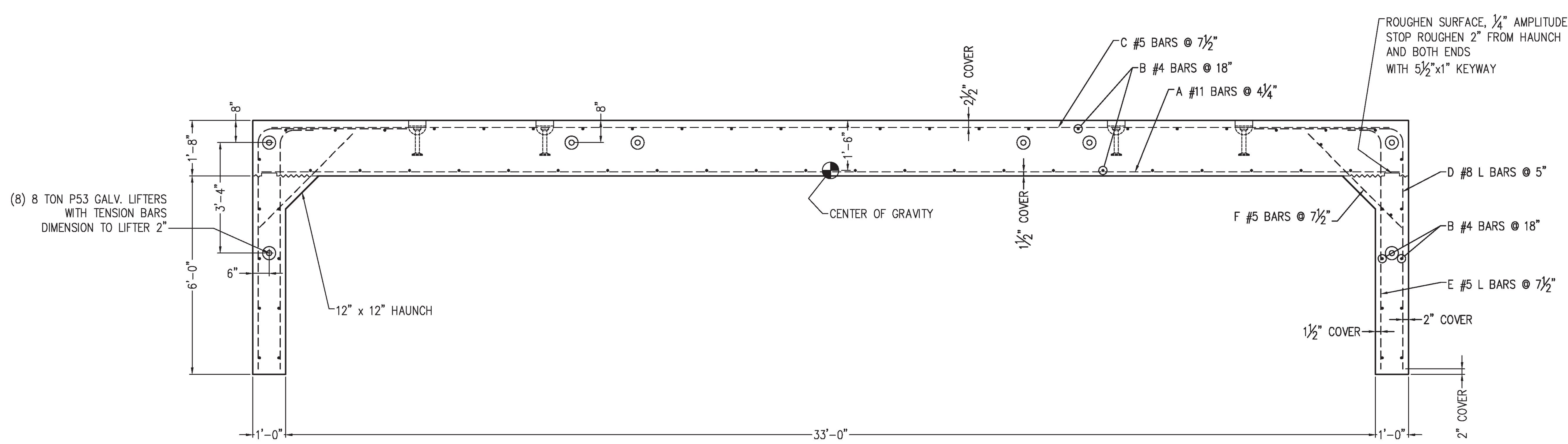


ROOF SLAB JOINT DETAIL

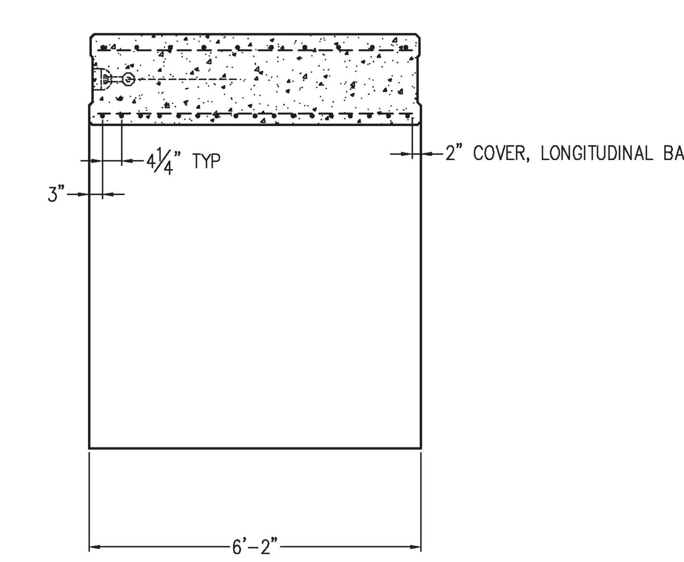


BAR CHART					
SYM.	SIZE	REQ'D.	A	B	C
A	#11	17	35'-6"		
B	#4	69	6'-0"		
C	#5	10	34'-0"		
D	#8	30	7'-4"	4'-6"	
E	#5	20	7'-4"	1'-0"	
F	#5	20	4'-0"		

CUT BARS AS REQUIRED FOR SPECIAL PIECES



ELEV. VIEW



SECTION VIEW

Approved AsNoted
BY: R. Young
DATE: 03/07/19
RESUBMIT: No
RECEIVED: March 5, 2019
CKD BY: G. Laroche/G. Dargan/K. Moulton
STATE OF VERMONT
AGENCY OF TRANSPORTATION

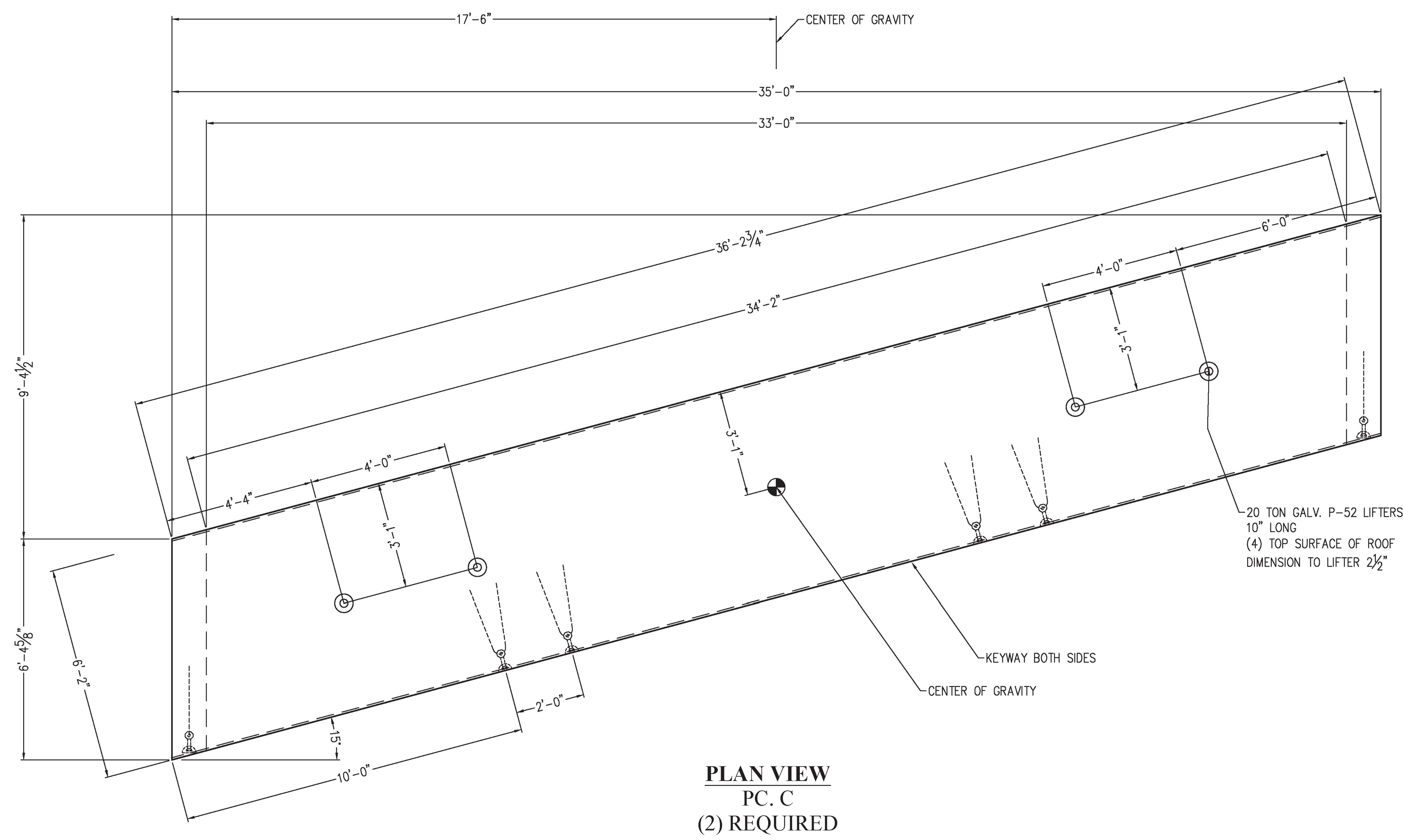
EPOXY COATED REINFORCING

UNITED CONCRETE PRODUCTS, Inc. 173 CHURCH STREET YALESVILLE, CT 06492 TEL: (203)-269-3119 FAX: (203)-265-4941	PRECAST CONCRETE THREE SIDED BRIDGE PC. B	PROJECT #34491	
	CUSTOMER BUR CONSTRUCTION, LLC	SCALE NONE	
	JOB BRIDGE 0138(12) IMPROVEMENTS	DATE 11/08/18	SHEET B-3
	LOCATION POULTNEY, VT REVISED 3-06-2019 DH	DRW DH CHK JLT	

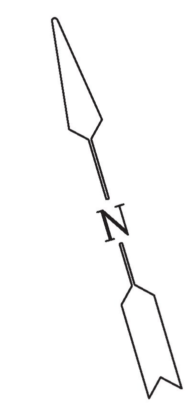
NOTES:
1. REINFORCING STEEL DEFORMED
   BARS CONFORM TO LATEST ASTM
   SPECIFICATION A615, GRADE 60
   EPOXY COATED REINFORCING
2. CONCRETE COMPRESSIVE
   STRENGTH – **5,000 PSI** AT 28 DAYS
   ~~SELF COMPACTING CONCRETE MIX,~~
   MIX NO. MASS, RIDOT, VT 685 HP.
   ~~AIR ENTRAINMENT 7% ±1½%~~
3. METHOD OF MANUFACTURE:
   WET CAST.
4. THE STRUCTURE IS DESIGN
   AASHTO LRFD BRIDGE DESIGN SPEC.
   DESIGN LOAD HL–93
   EARTH COVER 4'–0" TO 5'–3"
5. BRIDGE UNIT SHALL BE RELEASED
   FROM MOLD WHEN 3,500 PSI MIN
   IS OBTAINED.
6. SEE SHEET B–3 FOR TYP. REINFORCING.
7. TOLERANCE – PER PCI TOLERANCE
   MANUAL MNL 135–00
   FIG. 10.25.1 EXCEPT FOR FLOOR
8. FINISH – SURFACES TO BE STEEL FORM FINISH
   ~~AND/OR STEEL TROWEL FINISH.~~
9. CURING – AFTER STRIPPING STRENGTH IS ACHIEVED,
   UNIT WILL BE DAMPENED, THEN COMPLETELY
   WRAPPED WITH POLYETHYLENE SHEETS (PLASTIC)
   FOR A MINIMUM OF ONE DAYS OR UNTIL
   DESIGN STRENGTH IS MET.

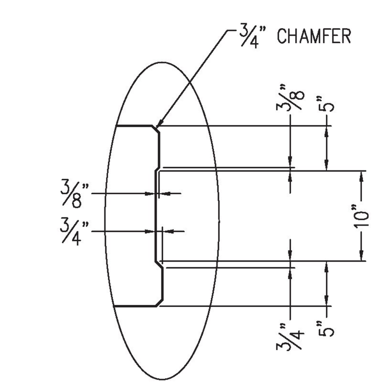
APPROX. WEIGHT:
PC. C – 73,000 LBS.

ALL LIFTERS:
DIMENSION TO TOP OF LIFTER
EQUAL TO REINFORCING COVER.

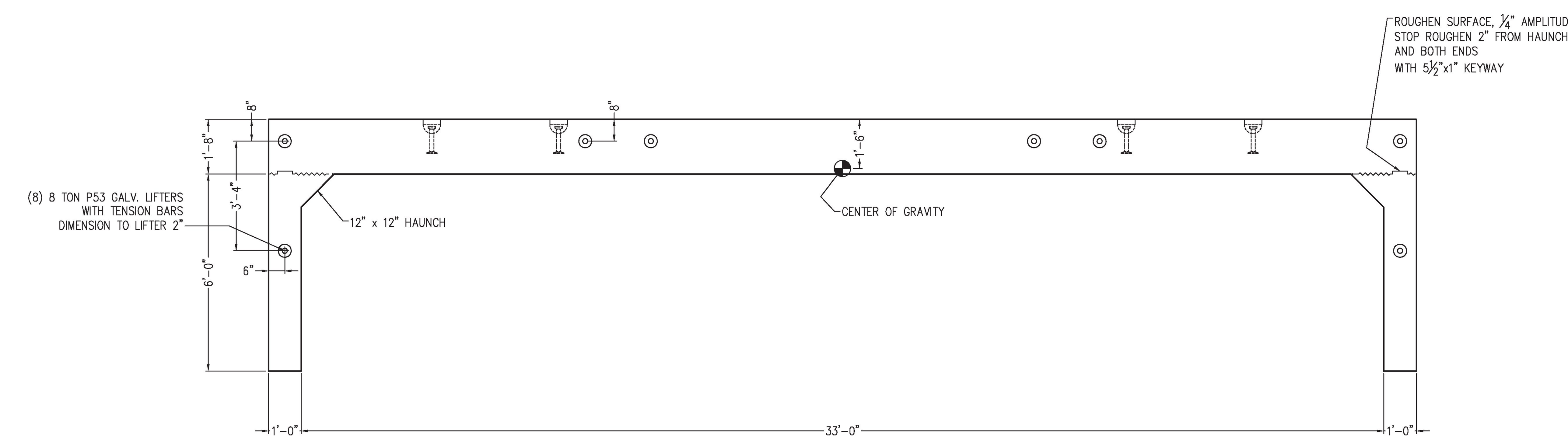


PLAN VIEW
PC. C
(2) REQUIRED

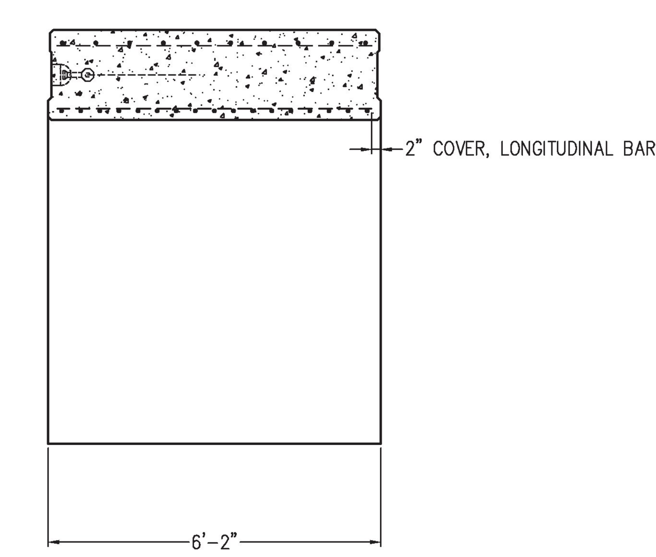




ROOF SLAB JOINT DETAIL



ELEV. VIEW



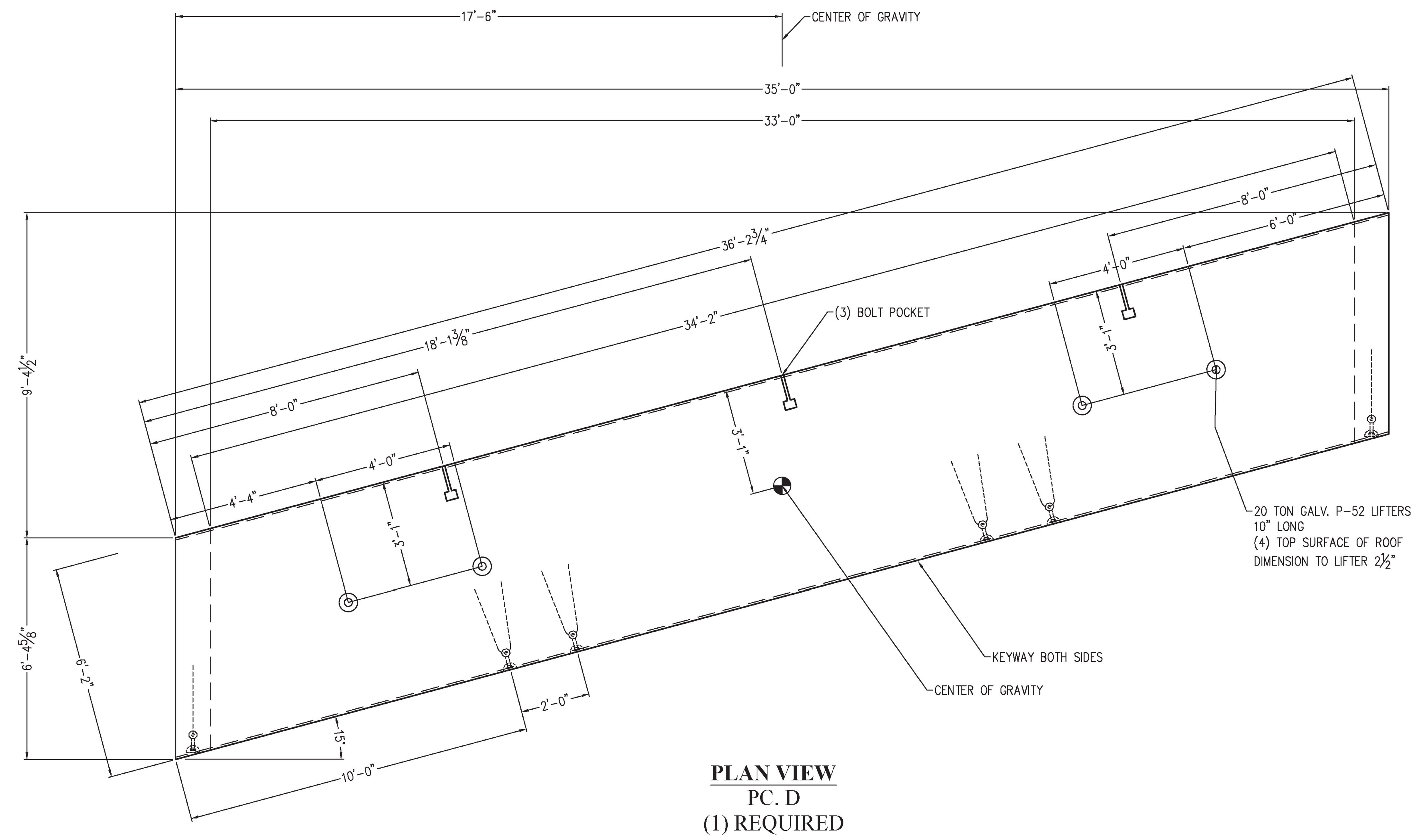
SECTION VIEW

Approved AsNoted	
BY:	R. Young
DATE:	03/07/19
RESUBMIT:	No
RECEIVED:	March 5, 2019
CKD BY:	G. Laroche/G. Dargan/K. Moulton

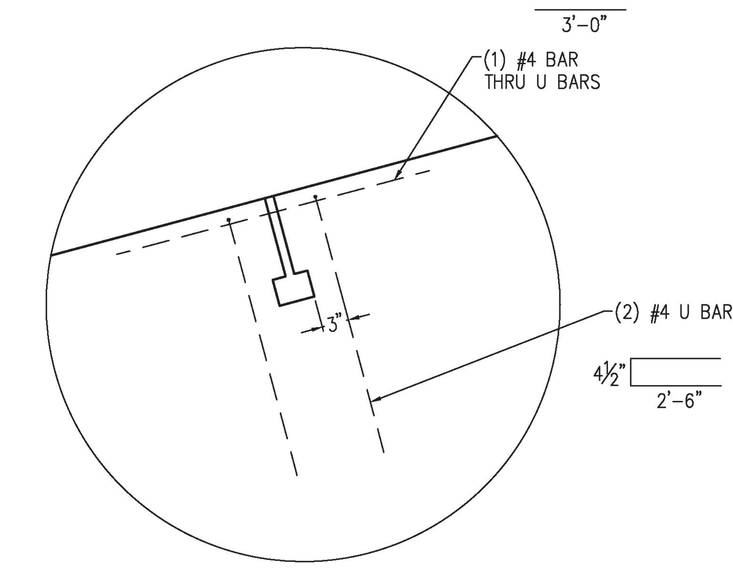
STATE OF VERMONT
AGENCY OF TRANSPORTATION

EPOXY COATED REINFORCING

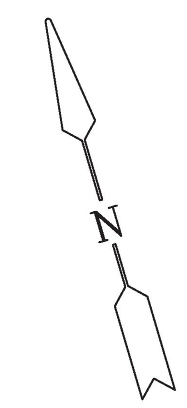
UNITED CONCRETE PRODUCTS, Inc.	**PRECAST CONCRETE THREE SIDED BRIDGE PC. C**	**PROJECT #34491**	
173 CHURCH STREET YALESVILLE, CT 06492 TEL: (203)–269–3119 FAX: (203)–265–4941	CUSTOMER **BUR CONSTRUCTION, LLC**	SCALE **NONE**	
	JOB **BRIDGE 0138(12) IMPROVEMENTS**	DATE **11/06/18**	SHEET B–4
	LOCATION **POULTNEY, VT** REVISED 3–06–2019 DH	DRW **DH** CHK **JLT**	

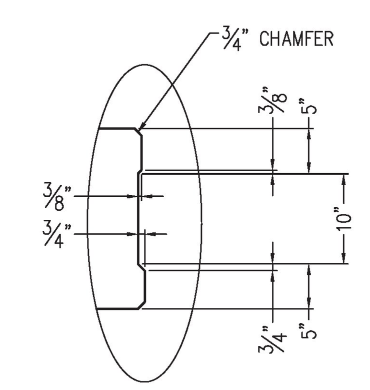


PLAN VIEW
PC. D
(1) REQUIRED



BOLT POCKET DETAIL



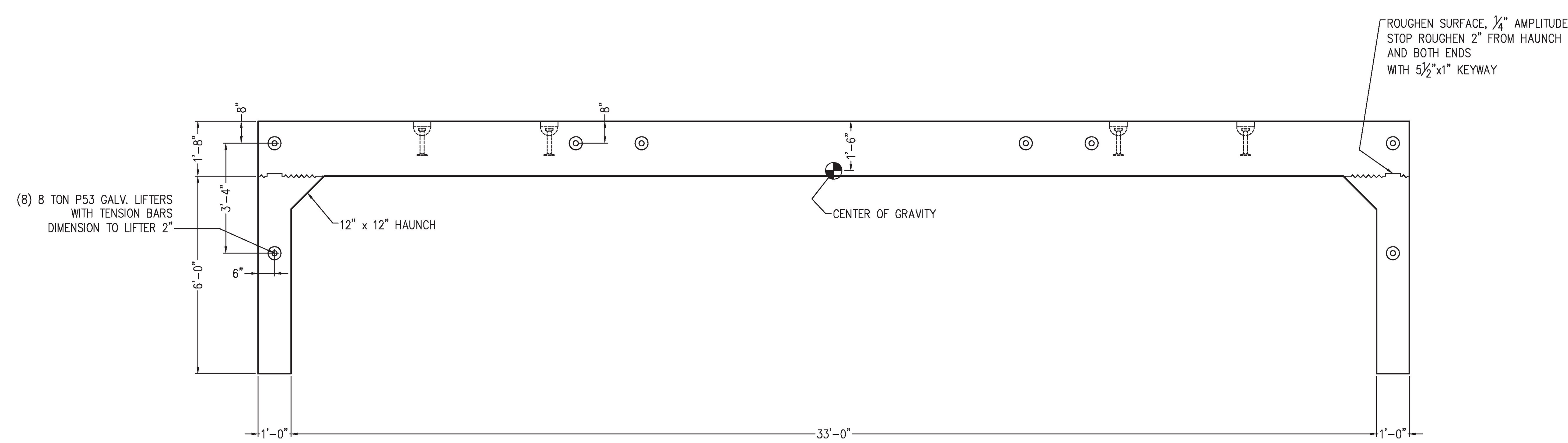


ROOF SLAB JOINT DETAIL

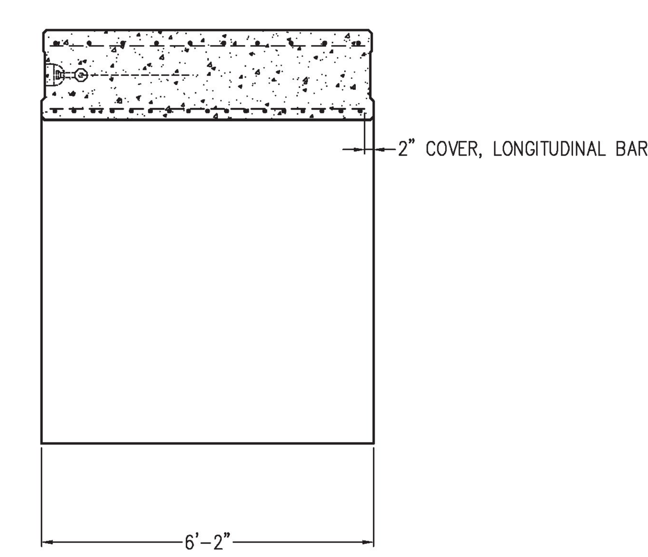
NOTES:
1. REINFORCING STEEL DEFORMED
BARS CONFORM TO LATEST ASTM
SPECIFICATION A615, GRADE 60
EPOXY COATED REINFORCING
2. CONCRETE COMPRESSIVE
STRENGTH – **5,000 PSI** AT 28 DAYS
~~SELF COMPACTING CONCRETE MIX,~~
MIX NO. MASS, RIDOT, VT 685 HP.
~~AIR ENTRAINMENT 7% ±1½%~~
3. METHOD OF MANUFACTURE:
WET CAST.
4. THE STRUCTURE IS DESIGN
AASHTO LRFD BRIDGE DESIGN SPEC.
DESIGN LOAD HL–93
EARTH COVER 4'–0" TO 5'–3"
5. BRIDGE UNIT SHALL BE RELEASED
FROM MOLD WHEN 3,500 PSI MIN
IS OBTAINED.
~~6. SEE SHEET B–3 FOR TYP. REINFORCING.~~
7. TOLERANCE – PER PCI TOLERANCE
MANUAL MNL 135–00
FIG. 10.25.1 EXCEPT FOR FLOOR
8. FINISH – SURFACES TO BE STEEL FORM FINISH
~~AND/OR STEEL TROWEL FINISH.~~
~~9. CURING – AFTER STRIPPING STRENGTH IS ACHIEVED,~~
UNIT WILL BE DAMPENED, THEN COMPLETELY
WRAPPED WITH POLYETHYLENE SHEETS (PLASTIC)
FOR A MINIMUM OF ONE DAYS OR UNTIL
DESIGN STRENGTH IS MET.

APPROX. WEIGHT:
PC. D – 73,000 LBS.

ALL LIFTERS:
DIMENSION TO TOP OF LIFTER
EQUAL TO REINFORCING COVER.



ELEV. VIEW

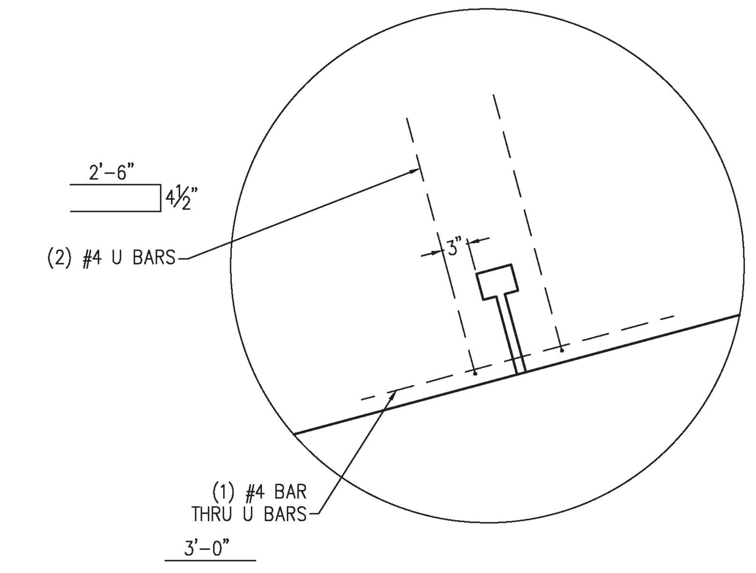


SECTION VIEW

Approved AsNoted
BY: R. Young
DATE: 03/07/19
RESUBMIT: No
RECEIVED: March 5, 2019
CKD BY: G. Laroche/G. Dargan/K. Moulton
STATE OF VERMONT
AGENCY OF TRANSPORTATION
Poultney Frame - 3-5-2019 archive.pdf

EPOXY COATED REINFORCING

UNITED CONCRETE PRODUCTS, Inc.	PRECAST CONCRETE THREE SIDED BRIDGE PC. B	PROJECT #34491	
173 CHURCH STREET YALESVILLE, CT 06492 TEL: (203)–269–3119 FAX: (203)–265–4941	CUSTOMER BUR CONSTRUCTION, LLC	SCALE NONE	
	JOB BRIDGE 0138(12) IMPROVEMENTS	DATE 11/08/18	SHEET B-5
	LOCATION POULTNEY, VT REVISED 3–06–2019 DH	DRW DH CHK JLT	

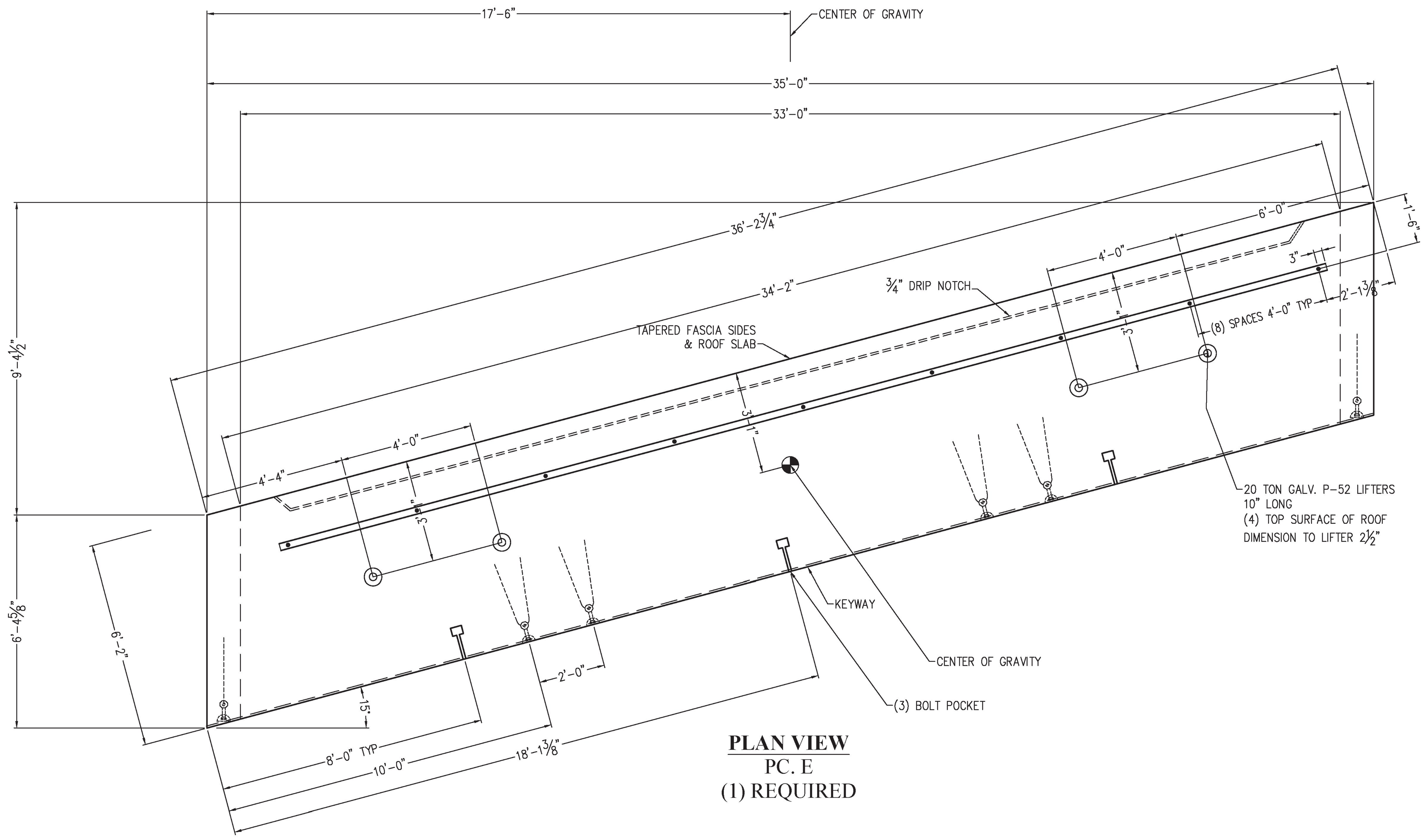


BOLT POCKET DETAIL

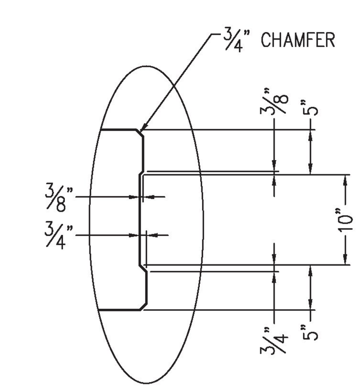
NOTES:
1. REINFORCING STEEL DEFORMED
BARS CONFORM TO LATEST ASTM
SPECIFICATION A615, GRADE 60
EPOXY COATED REINFORCING
2. CONCRETE COMPRESSIVE
STRENGTH – **5,000 PSI** AT 28 DAYS
~~SELF COMPACTING CONCRETE MIX,~~
MIX NO. MASS, RIDOT, VT 685 HP.
~~AIR ENTRAINMENT 7% ±1½%~~
3. METHOD OF MANUFACTURE:
WET CAST.
4. THE STRUCTURE IS DESIGN
AASHTO LRFD BRIDGE DESIGN SPEC.
DESIGN LOAD HL-93
EARTH COVER 4'-0" TO 5'-3"
5. BRIDGE UNIT SHALL BE RELEASED
FROM MOLD WHEN 3,500 PSI MIN
IS OBTAINED.
6. SEE SHEET B-3 FOR TYP. REINFORCING.
KEEP LONGITUDINAL BARS 3" FROM FASCIA END
ALTER LENGTH AND QUANTITY OF BARS AS NEEDED
7. TOLERANCE – PER PCI TOLERANCE
MANUAL MNL 135-00
FIG. 10.25.1 EXCEPT FOR FLOOR
8. FINISH – SURFACES TO BE STEEL FORM FINISH
~~AND/OR STEEL TROWEL FINISH~~
9. CURING – AFTER STRIPPING STRENGTH IS ACHIEVED,
UNIT WILL BE DAMPENED, THEN COMPLETELY
WRAPPED WITH POLYETHYLENE SHEETS (PLASTIC)
FOR A MINIMUM OF ONE DAYS OR UNTIL
DESIGN STRENGTH IS MET.

APPROX. WEIGHT:
PC. E – 73,000 LBS.

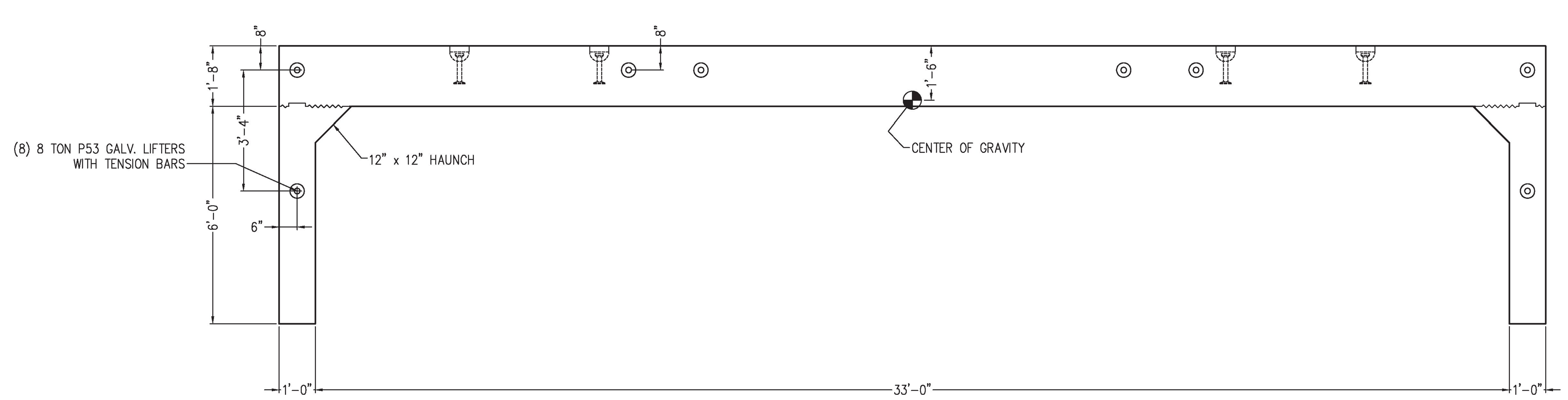
ALL LIFTERS:
DIMENSION TO TOP OF LIFTER
EQUAL TO REINFORCING COVER.



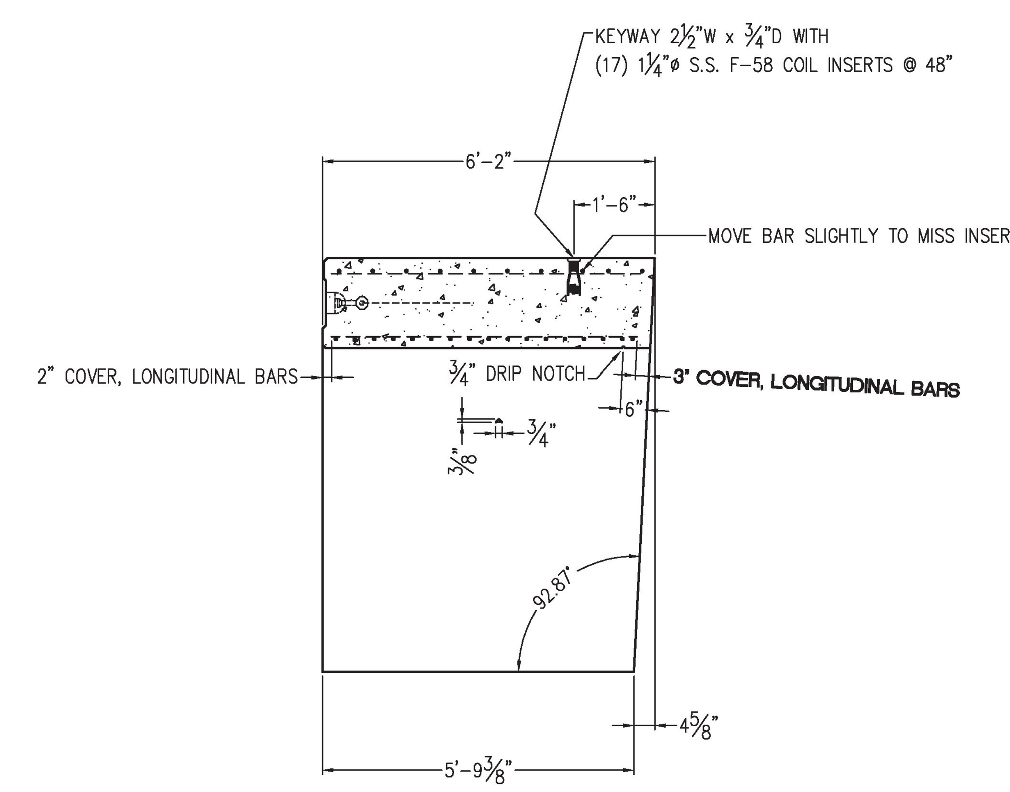
PLAN VIEW
PC. E
(1) REQUIRED



ROOF SLAB JOINT DETAIL



ELEV. VIEW



SECTION VIEW

Approved AsNoted

BY: R. Young
DATE: 03/07/19
RESUBMIT: No
RECEIVED: March 5, 2019
CKD BY: G. Laroche/G. Dargan/K. Moulton

STATE OF VERMONT
AGENCY OF TRANSPORTATION

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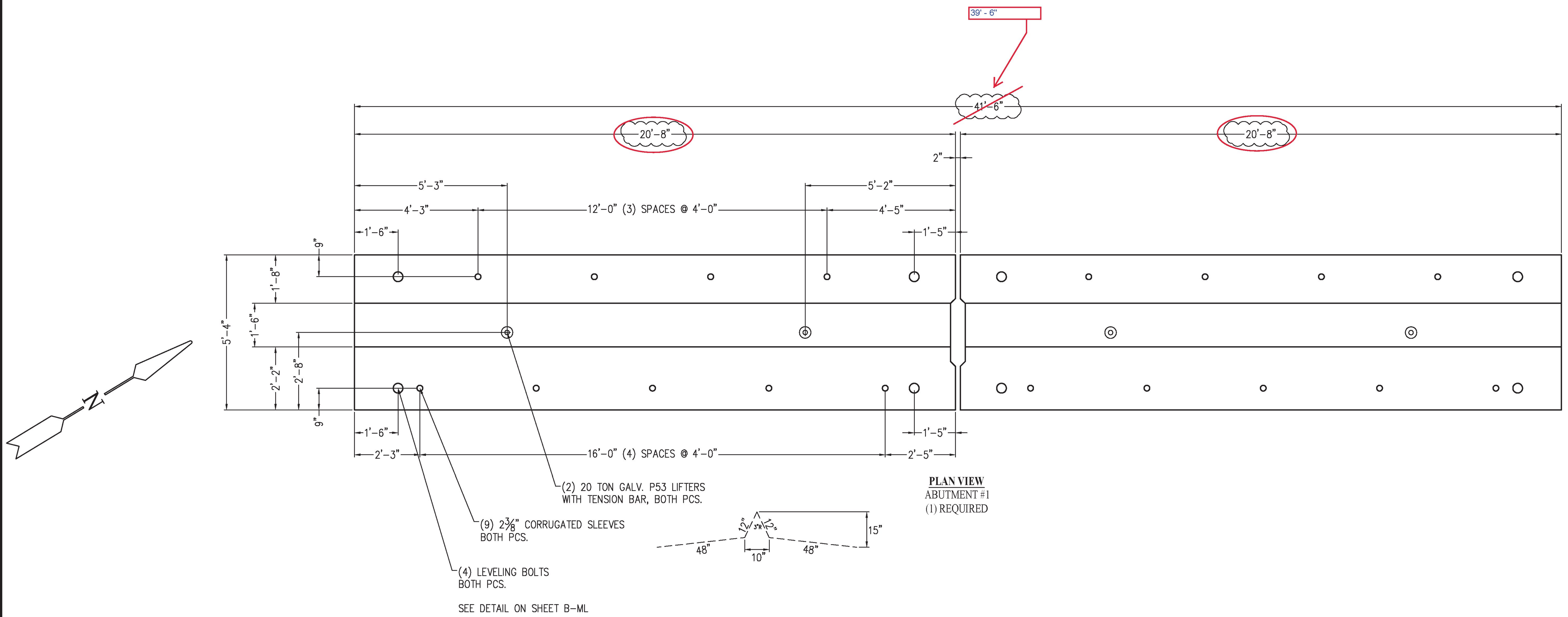
EPOXY COATED REINFORCING

UNITED CONCRETE PRODUCTS, Inc.
173 CHURCH STREET
YALESVILLE, CT 06492
TEL: (203)-269-3119
FAX: (203)-265-4941

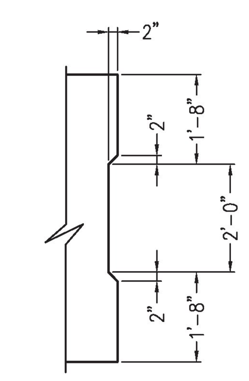
PRECAST CONCRETE THREE SIDED BRIDGE PC. C	PROJECT #34491	
CUSTOMER BUR CONSTRUCTION, LLC	SCALE NONE	
JOB BRIDGE 0138(12) IMPROVEMENTS	DATE 11/08/18	SHEET
LOCATION POULTNEY, VT	DRW DH	B-6
REVISED 3-06-2019 DH	CHK JLT	

NOTES:
1. REINFORCING STEEL DEFORMED BARS CONFORM TO LATEST ASTM A615, GRADE 60, COVER 3". EPOXY COATED REINFORCING
2. CONCRETE COMPRESSIVE STRENGTH- **5,000 PSI** AT 28 DAYS
~~SELF COMPACTING CONCRETE MIX.~~
MIX NO. MASS, RIDOT, VT 685 HP.
~~AIR ENTRAINMENT 7% ±2%~~
3. METHOD OF MANUFACTURE: WET CAST.
4. REINFORCING TAKEN FROM VT. AGENCY OF TRANSPORTATION PROJECT #BF 0138 (12)
SHEET 29 of 46, DATED 12-17-2018.
~~5. ABUTMENT UNIT SHALL BE RELEASED~~ FROM MOLD WHEN 3,500 PSI MIN ~~IS OBTAINED.~~
7. TOLERANCE – PER PCI TOLERANCE MANUAL MNL 135-00
8. FINISH – SURFACES TO BE STEEL FORM FINISH AND/OR STEEL TROWEL FINISH
9. CURING – AFTER STRIPPING STRENGTH IS ACHIEVED, UNIT WILL BE DAMPENED, THEN COMPLETELY WRAPPED WITH POLYETHYLENE SHEETS (PLASTIC) FOR A MINIMUM OF ONE DAYS OR UNTIL DESIGN STRENGTH IS MET.

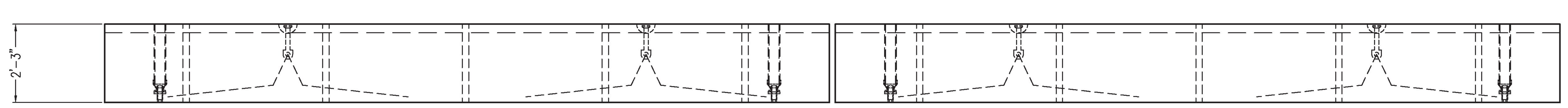
APPROX. WEIGHT:
ABUTMENT #1A – 38,000 LBS
ABUTMENT #1B – 38,000 LBS



PLAN VIEW
ABUTMENT #1
(1) REQUIRED



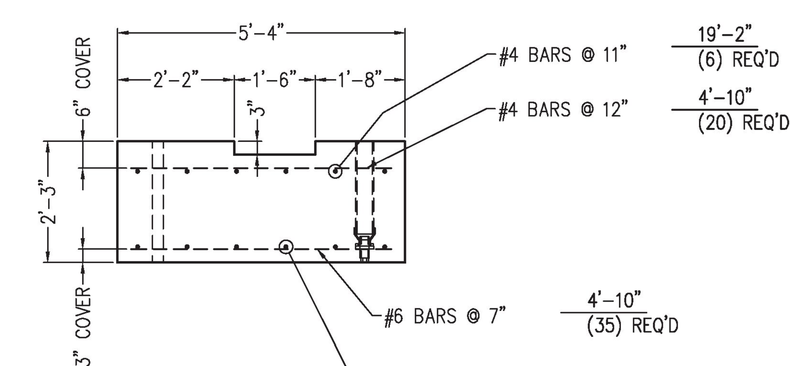
KEYWAY



ABUTMENT #1-A

ABUTMENT #1-B

ELEV. VIEW



END VIEW

Approved AsNoted

BY: R. Young
DATE: 03/07/19
RESUBMIT: No
RECEIVED: March 5, 2019
CKD BY: G. Laroche/G. Dargan/K. Moulton

STATE OF VERMONT
AGENCY OF TRANSPORTATION

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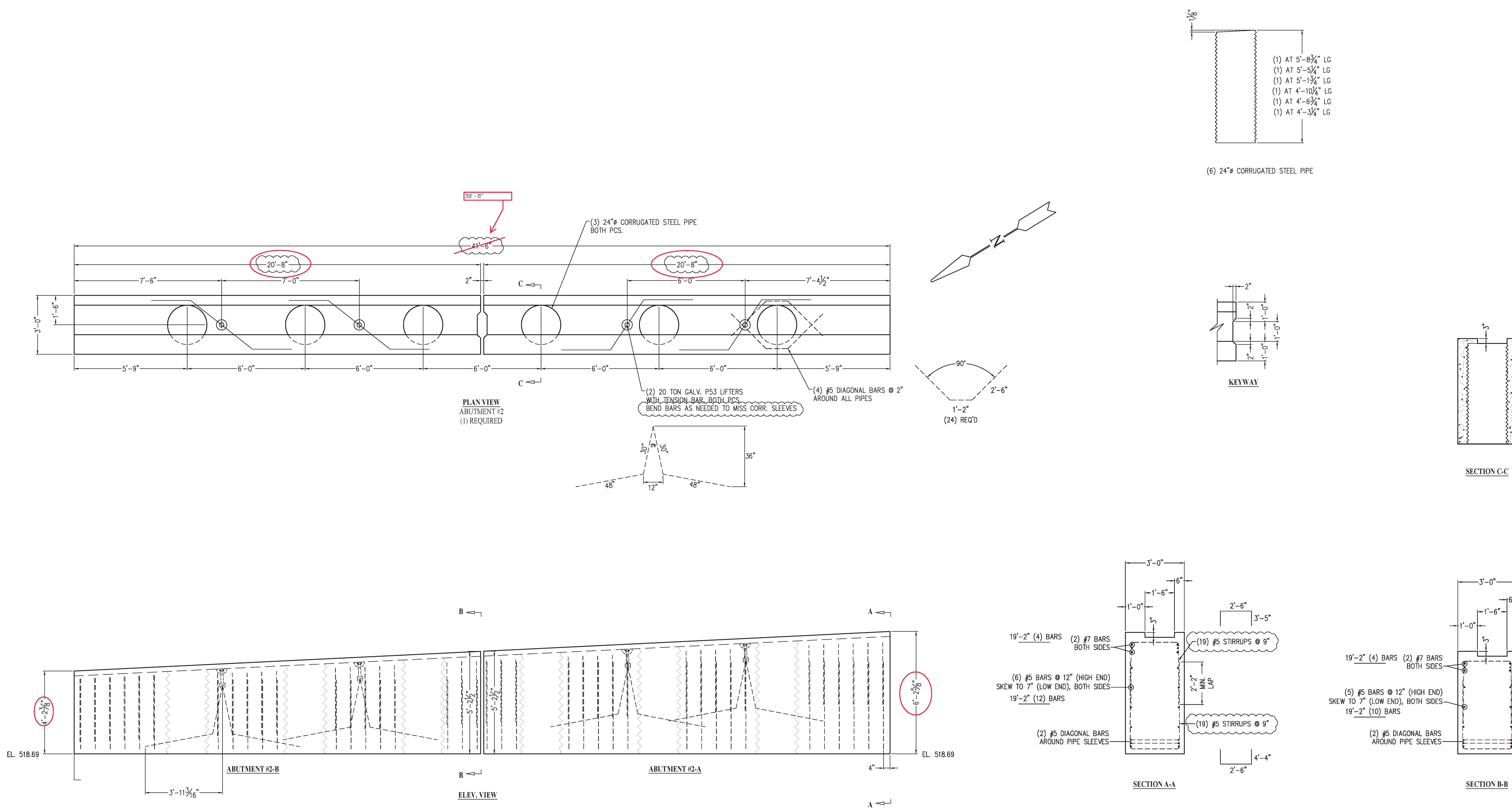
EPOXY COATED REINFORCING

UNITED CONCRETE PRODUCTS, Inc. 173 CHURCH STREET YALESVILLE, CT 06492 TEL: (203)-269-3119 FAX: (203)-265-4941	PRECAST CONCRETE ABUTMENT #1	PROJECT #34491
	CUSTOMER BUR CONSTRUCTION, LLC	SCALE NONE
	JOB BRIDGE 0138(12) IMPROVEMENTS	DATE 11/08/18
	LOCATION POULTNEY, VT REVISED 3-06-2019 DH	DRW DH CHK JLT
		SHEET B-7



NOTES:
1. REINFORCING STEEL DEFORMED BARS CONFORM TO LATEST ASTM A615, GRADE 60, COVER 3". EPOXY COATED REINFORCING
2. CONCRETE COMPRESSIVE STRENGTH- 5,000 PSI AT 28 DAYS
~~SELF COMPACTING CONCRETE MIX,~~
MIX NO. MASS, RIDOT, VT 685 HP.
~~AIR ENTRAINMENT 7% ±2%~~
3. METHOD OF MANUFACTURE: WET CAST.
4. REINFORCING TAKEN FROM VT. AGENCY OF TRANSPORTATION ~~PROJECT #BF 0138 (12)~~
SHEET 31 OF 46, DATED 12-11-2018.
5. ~~ABUTMENT UNIT SHALL BE RELEASED~~ FROM MOLD WHEN 3,500 PSI MIN ~~IS OBTAINED.~~
7. TOLERANCE – PER PCI TOLERANCE MANUAL MNL 135-00
8. FINISH – SURFACES TO BE STEEL FORM FINISH ~~AND/OR STEEL TROWEL FINISH.~~
9. ~~CURING – AFTER STRIPPING STRENGTH IS ACHIEVED,~~ UNIT WILL BE DAMPENED, THEN COMPLETELY WRAPPED WITH POLYETHYLENE SHEETS (PLASTIC) FOR A MINIMUM OF ONE DAYS OR UNTIL ~~DESIGN STRENGTH IS MET.~~

APPROX. WEIGHT:
ABUTMENT #2A – 47,000 LBS
ABUTMENT #2B – 38,000 LBS

Approved AsNoted

BY: R. Young
DATE: 03/07/19
RESUBMIT: No
RECEIVED: March 5, 2019
CKD BY: G. Laroche/G. Dargan/K. Moulton

STATE OF VERMONT
AGENCY OF TRANSPORTATION

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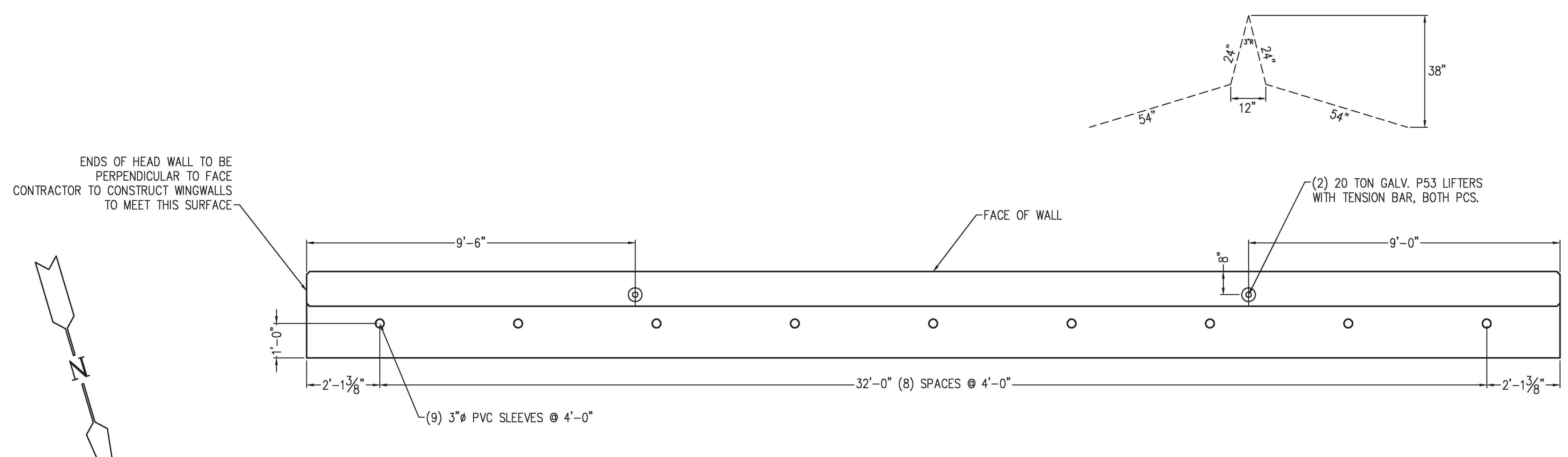
EPOXY COATED REINFORCING

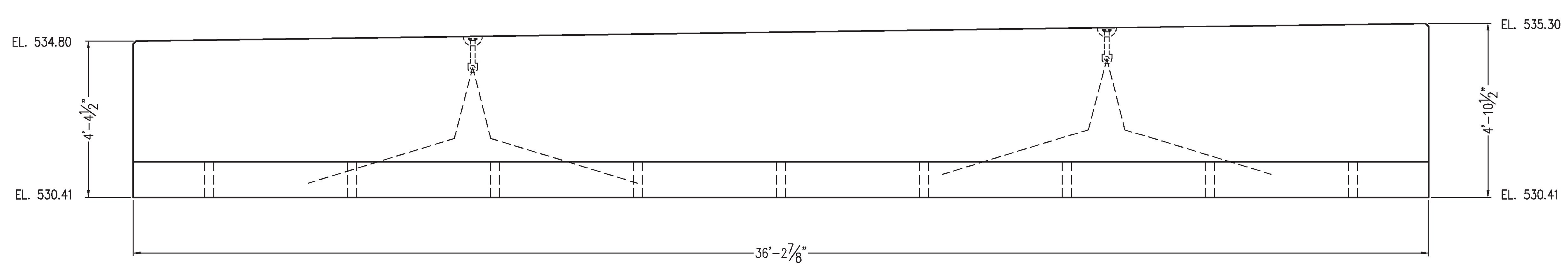
UNITED CONCRETE PRODUCTS, Inc. 173 CHURCH STREET YALESVILLE, CT 06492 TEL: (203)-269-3119 FAX: (203)-265-4941	PRECAST CONCRETE ABUTMENT #2	PROJECT #34491	
	CUSTOMER BUR CONSTRUCTION, LLC	SCALE NONE	
	JOB BRIDGE 0138(12) IMPROVEMENTS	DATE 11/08/18	SHEET B-8
	LOCATION POULTNEY, VT REVISED 3-06-2019 DH	DRW DH CHK JLT	

NOTES:
1. REINFORCING STEEL DEFORMED BARS CONFORM TO LATEST ASTM A615, GRADE 60, COVER 3".
EPOXY COATED REINFORCING
2. CONCRETE COMPRESSIVE STRENGTH- 5,000 PSI AT 28 DAYS
SELF COMPACTING CONCRETE MIX,
MIX NO. MASS, RIDOT, VT 685 HP.
AIR ENTRAINMENT 7% ±2%
3. METHOD OF MANUFACTURE:
WET CAST.
4. HEADWALL UNIT SHALL BE RELEASED FROM MOLD WHEN 3,500 PSI MIN IS OBTAINED.
7. TOLERANCE – PER PCI TOLERANCE MANUAL MNL 135-00
8. FINISH – SURFACES TO BE STEEL FORM FINISH AND/OR STEEL TROWEL FINISH.
9. CURING – AFTER STRIPPING STRENGTH IS ACHIEVED, UNIT WILL BE DAMPENED, THEN COMPLETELY WRAPPED WITH POLYETHYLENE SHEETS (PLASTIC) FOR A MINIMUM OF ONE DAYS OR UNTIL DESIGN STRENGTH IS MET.

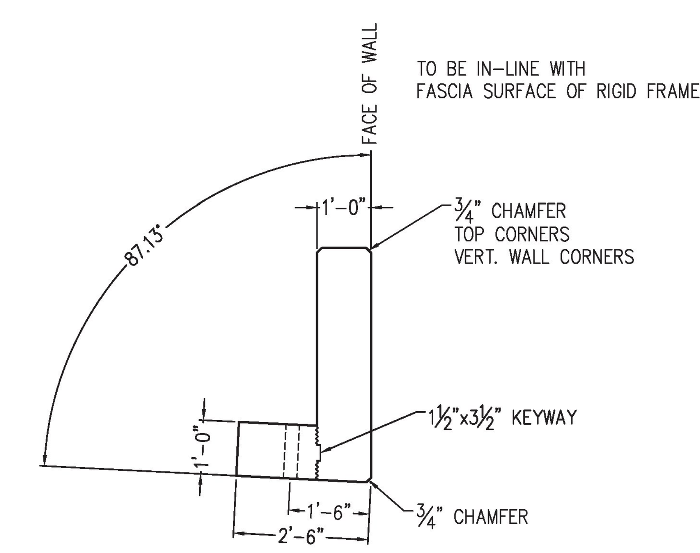
APPROX. WEIGHT:
HEADWALL – 35,000 LBS



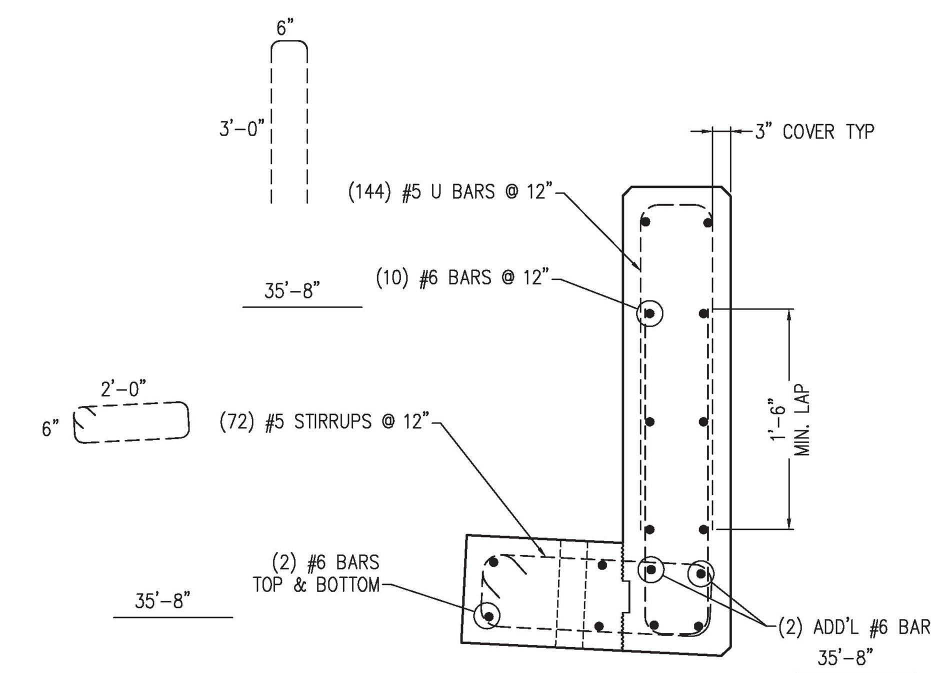
PLAN VIEW
DOWNSTREAM HEADWALL
(1) REQUIRED



ELEV. VIEW
LOOKING AT BACK OF WALL



END VIEW



REINFORCING

Approved AsNoted
BY: R. Young
DATE: 03/07/19
RESUBMIT: No
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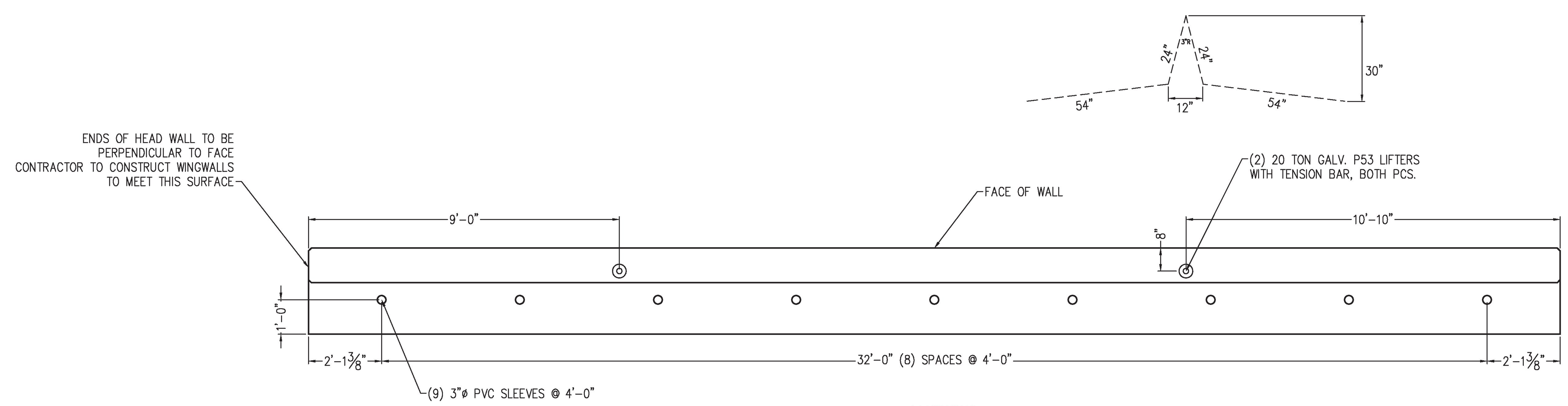
CKD BY: G. Laroche/G. Dargan/K. Moulton
STATE OF VERMONT
AGENCY OF TRANSPORTATION
Poultney Frame - 3-5-2019 archive.pdf

EPOXY COATED REINFORCING

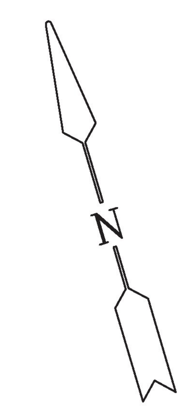
UNITED CONCRETE PRODUCTS, Inc. 173 CHURCH STREET YALESVILLE, CT 06492 TEL: (203)-269-3119 FAX: (203)-265-4941	PRECAST CONCRETE DOWNSTREAM HEADWALL	PROJECT #34491	
	CUSTOMER BUR CONSTRUCTION, LLC	SCALE NONE	
	JOB BRIDGE 0138(12) IMPROVEMENTS	DATE 11/08/18	SHEET B-9
	LOCATION POULTNEY, VT REVISED 3-06-2019 DH	DRW DH CHK JLT	

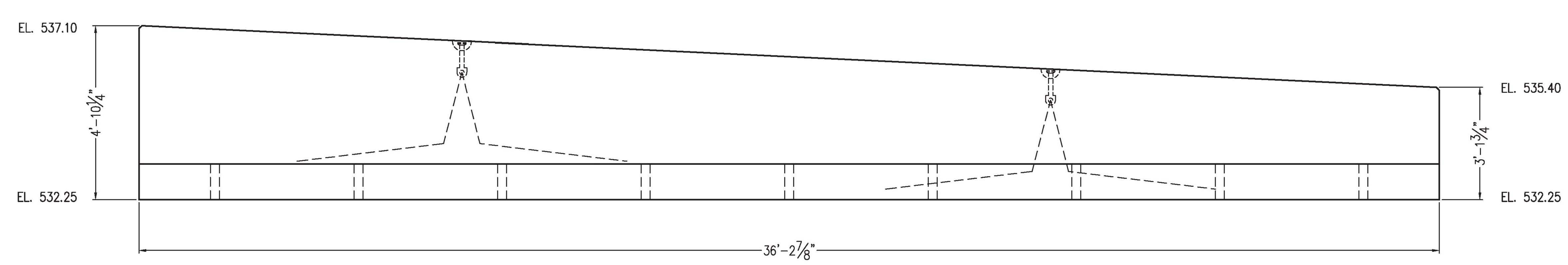
NOTES:
1. REINFORCING STEEL DEFORMED BARS CONFORM TO LATEST ASTM A615, GRADE 60, COVER 3". EPOXY COATED REINFORCING
2. CONCRETE COMPRESSIVE STRENGTH- **5,000 PSI** AT 28 DAYS ~~SELF COMPACTING CONCRETE MIX.~~ MIX NO. MASS, RIDOT, VT 685 HP. ~~AIR ENTRAINMENT 7% ±2%~~
3. METHOD OF MANUFACTURE: WET CAST.
4. HEADWALL UNIT SHALL BE RELEASED ~~FROM MOLD WHEN 3,500 PSI MIN~~ IS OBTAINED.
7. TOLERANCE – PER PCI TOLERANCE MANUAL MNL 135-00
8. FINISH – SURFACES TO BE STEEL FORM FINISH ~~AND/OR STEEL TROWEL FINISH.~~
9. CURING – AFTER STRIPPING STRENGTH IS ACHIEVED, UNIT WILL BE DAMPENED, THEN COMPLETELY WRAPPED WITH POLYETHYLENE SHEETS (PLASTIC) FOR A MINIMUM OF ONE DAYS OR UNTIL DESIGN STRENGTH IS MET.

APPROX. WEIGHT:
HEADWALL – 35,000 LBS

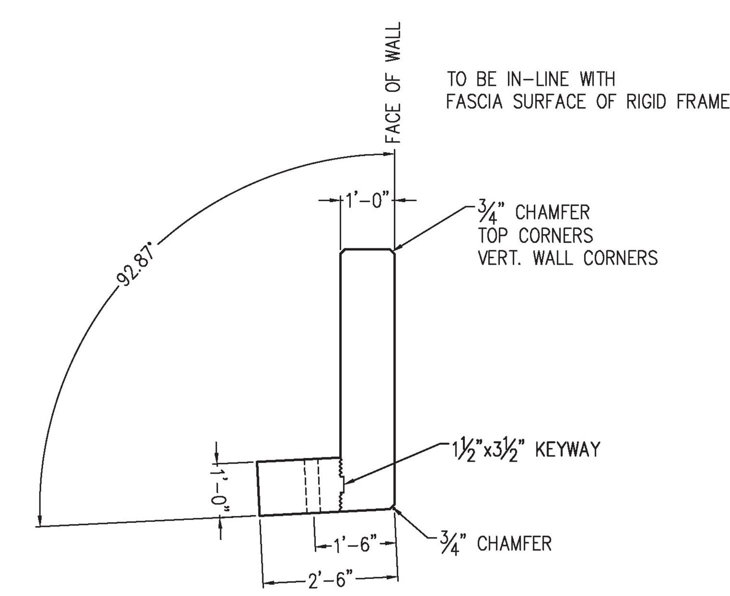


PLAN VIEW
UPSTREAM HEADWALL
(1) REQUIRED

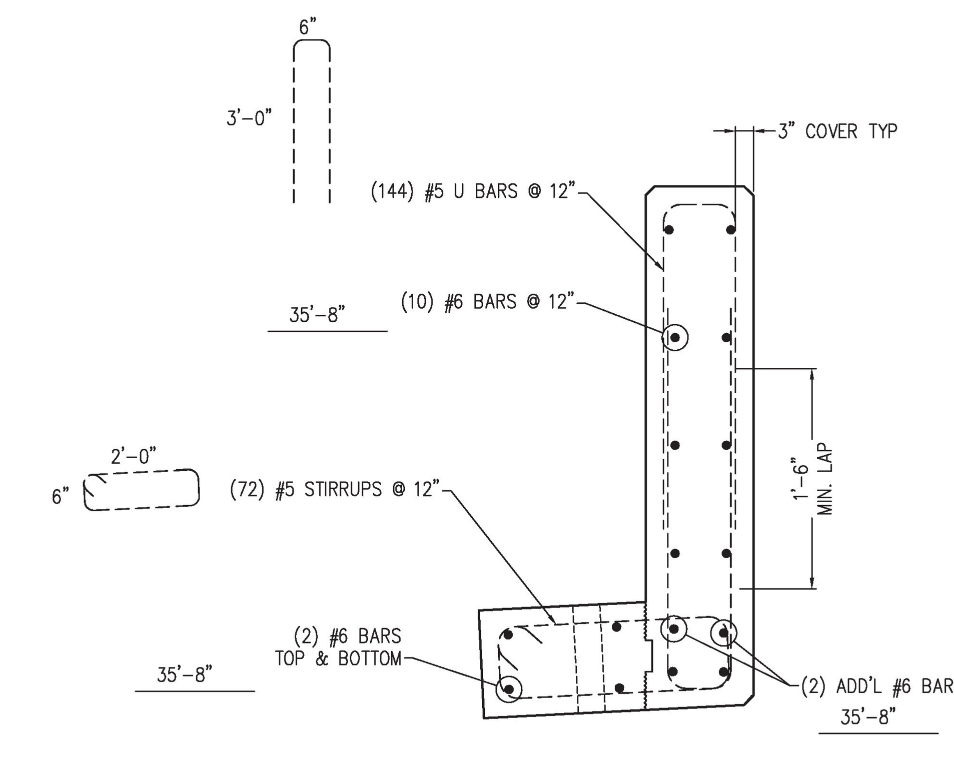




ELEV. VIEW
LOOKING AT BACK OF WALL



END VIEW



REINFORCING

Approved AsNoted
BY: R. Young
DATE: 03/07/19
RESUBMIT: No
RECEIVED: March 5, 2019
CKD BY: G. Laroche/G. Dargan/K. Moulton
STATE OF VERMONT
AGENCY OF TRANSPORTATION
Poultney Frame - 3-5-2019 archive.pdf

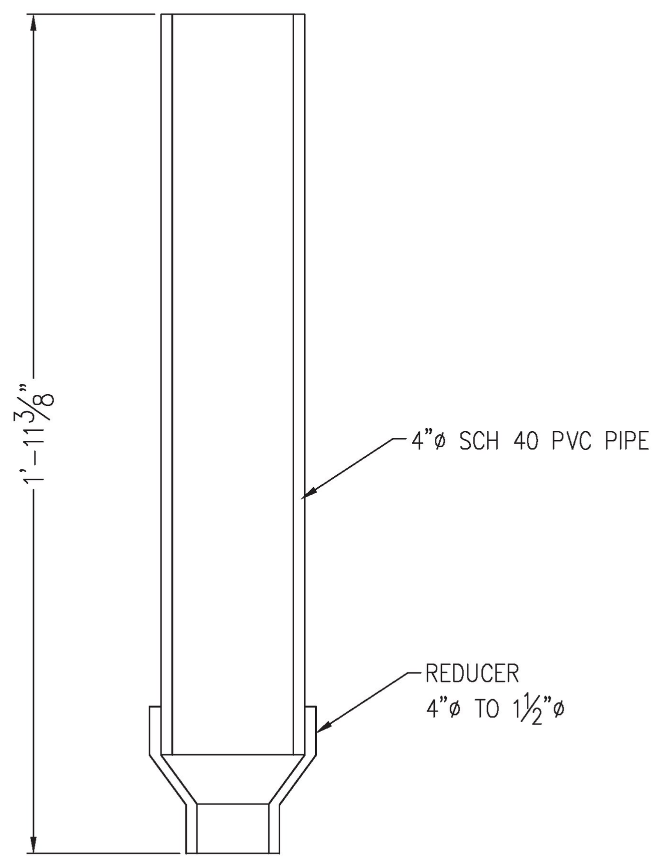
EPOXY COATED REINFORCING

UNITED CONCRETE PRODUCTS, Inc. 173 CHURCH STREET YALESVILLE, CT 06492 TEL: (203)-269-3119 FAX: (203)-265-4941	PRECAST CONCRETE UPSTREAM HEADWALL	PROJECT #34491	
	CUSTOMER BUR CONSTRUCTION, LLC	SCALE NONE	
	JOB BRIDGE 0138(12) IMPROVEMENTS	DATE 11/08/18	SHEET B-10
	LOCATION POULTNEY, VT REVISED 3-06-2019 DH	DRW DH CHK JLT	

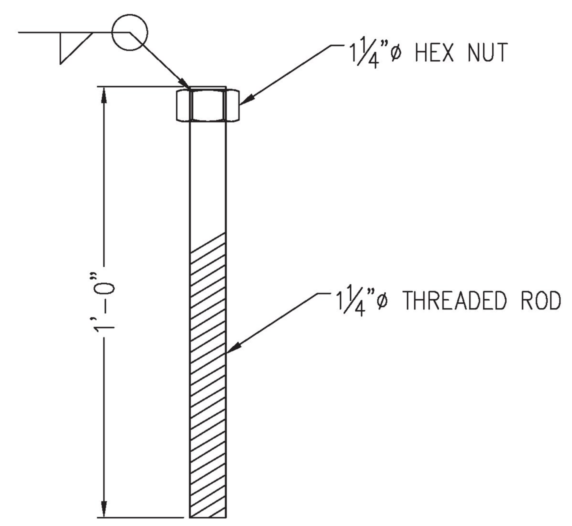
Approved AsNoted

BY:	R. Young
DATE:	03/07/19
RESUBMIT:	No
RECEIVED:	March 5, 2019
CKD BY:	G. Laroche/G. Dargan/K. Moulton

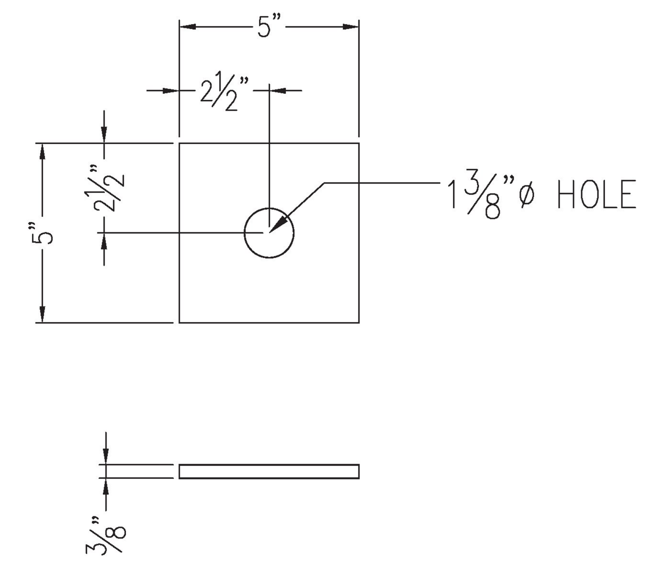
STATE OF VERMONT
AGENCY OF TRANSPORTATION



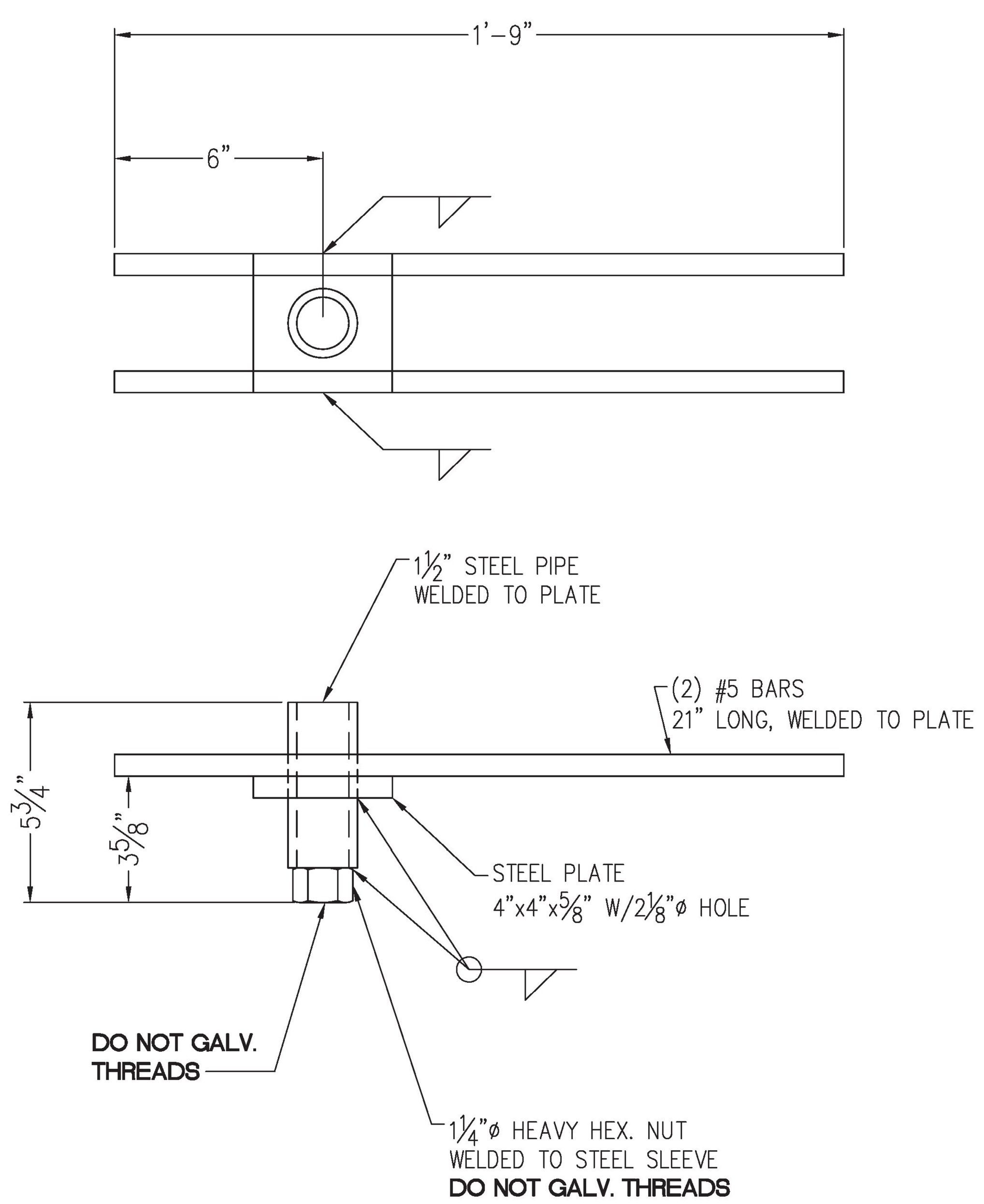
LEVELING ASS'Y
VOID (8) REQUIRED



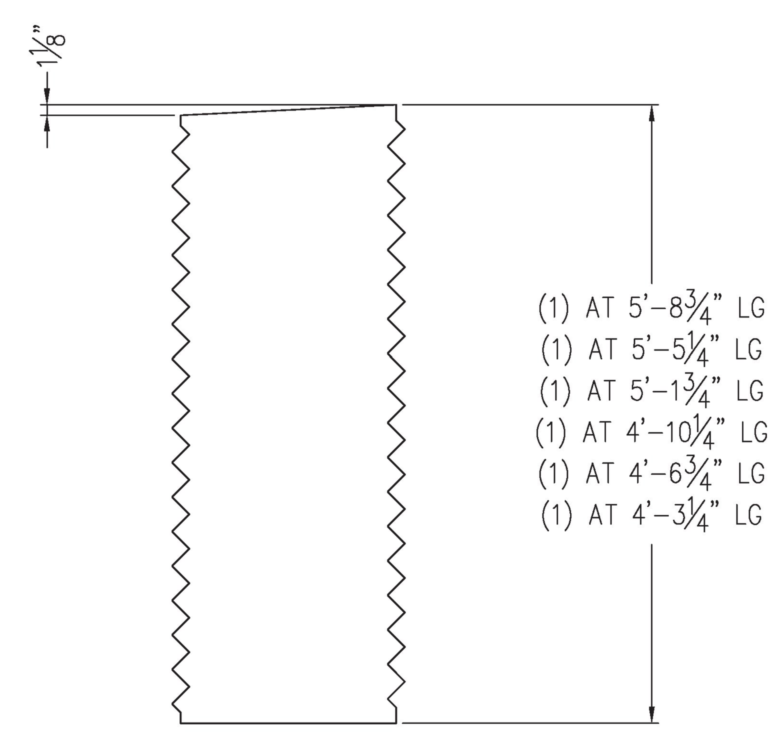
LEVELING ASS'Y BOLT
~~(8) REQUIRED~~
GALV. THREADED ROD and NUT



STAINLESS STEEL 5"x5" PLATE WASHER
(34) REQUIRED



LEVELING ASS'Y
(8) REQUIRED

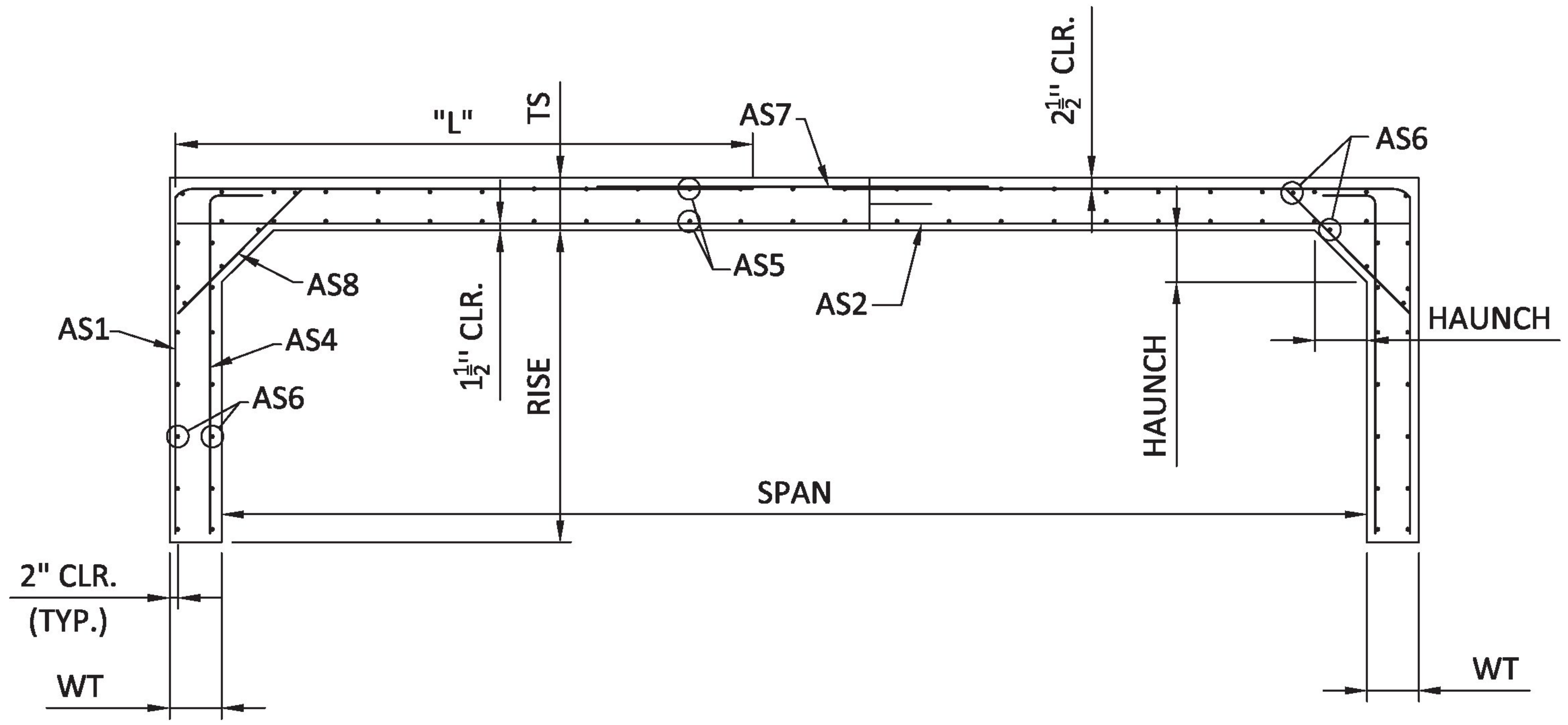


(6) 24"ø CORRUGATED STEEL PIPE

MATERIAL LIST

TOTAL QUANTITY	ITEM DESCRIPTION
24	GALV. 8 TON LIFTING ANCHOR, DAYTON P-52, 10" LONG OR EQUAL
48	GALV. 20 TON LIFTING ANCHOR, DAYTON P-52, 10" LONG OR EQUAL
48	GALV. 20 TON LIFTING ANCHOR, DAYTON P-53 OR EQUAL
48	20 TON TENSION BAR, DAYTON P-60, #9 BAR EPOXY COATED OR EQUAL
12	GALV. PLATE WASHER, PENNSYLVANIA INSERTS CORP. #4024
6	¾"ø x 23" LG GALV. THREADED ROD, GRADE B7
12	¾"ø GALV. NUT ASTM A193
8	LEVELING ASS'Y (SEE DETAIL)
8	LEVELING BOLTS, GALVANIZED (SEE DETAIL)
8	LEVELING PVC SLEEVES AND REDUCER (SEE DETAIL)
18	STAINLESS STEEL 1¼"ø COIL ROD, 1¼"ø x 18" LG
36	STAINLESS STEEL 1¼"ø COIL NUTS
18	STAINLESS STEEL 1¼"ø STD. WASHER
18	STAINLESS STEEL 5"x5"x⅜" PLATE WASHER
18	STAINLESS STEEL 1¼"ø COIL INSERT, DAYTON #F-58
18	3"ø PVC SLEEVES, 1'-0" LONG
18	2⅜"ø CORRUGATED PVC SLEEVES, 2'-3" LONG
6	24"ø CORRUGATED STEEL PIPE 4'-3" TO 5'-9" LONG (SEE DETAIL)

UNITED CONCRETE PRODUCTS, Inc. 173 CHURCH STREET YALESVILLE, CT 06492 TEL: (203)-269-3119 FAX: (203)-265-4941	PRECAST CONCRETE MATERIAL LIST	PROJECT #34491
	CUSTOMER BUR CONSTRUCTION, LLC	SCALE NONE
	JOB BRIDGE 0138(12) IMPROVEMENTS	DATE 11/06/18
	LOCATION POULTNEY, VT REVISED 1-30-2018 DH	DRW DH CHK JLT
		SHEET B-ML



TYPICAL BRIDGE UNIT REINFORCING ELEVATION

DESIGN DATA:

1. CORE STRENGTH OF CONCRETE SHALL BE 5,000 PSI MINIMUM AT 28 DAYS.
2. REINFORCING STEEL SHALL BE WITH A MINIMUM YIELD STRENGTH OF 60,000 PSI.
3. DESIGN LOAD: HL-93
4. SKEW ANGLE: N/A
5. $2\frac{1}{2}$'' COVER ON EXTERIOR OF TOP SLAB, $1\frac{1}{2}$'' ON ALL INTERIOR, 2'' ON EXTERIOR OF WALLS
6. D.E.C. - 4'-0'' - 5'-3''

SECTION CHARACTERISTICS:

SPAN: 33'-0'' (34'-2'' SKEWED)
RISE: 6'-0"
WT: 1'-0" (WALL THICKNESS)
TS: 1'-8" (TOP SLAB)
HAUNCH: 1'-0"

AREA OF STEEL REQUIRED: (IN^2/FT)

As1 = 1.896
As2 = 4.16
As3 = N/A
As4 = 0.48
As5 = 0.13
As6 = 0.13
As7 = 0.48
As8 = 0.48

L = 4'-6''

FOR APPROVAL

	DATE	DESCRIPTION	ENG
7			
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1			

POULTNEY BF 0138(12)

LOCALE: POULTNEY
STATE: VT

DESIGNED BY:
PRETEK GROUP
P.O. BOX 751471
DAYTON, OH 45475
800.241.0925

PROJECT NUMBER: 18-455
DATE: 11/9/2018
DESIGNED BY: RPZ
DRAWN BY: RPZ
CHECKED BY: TEN

P1

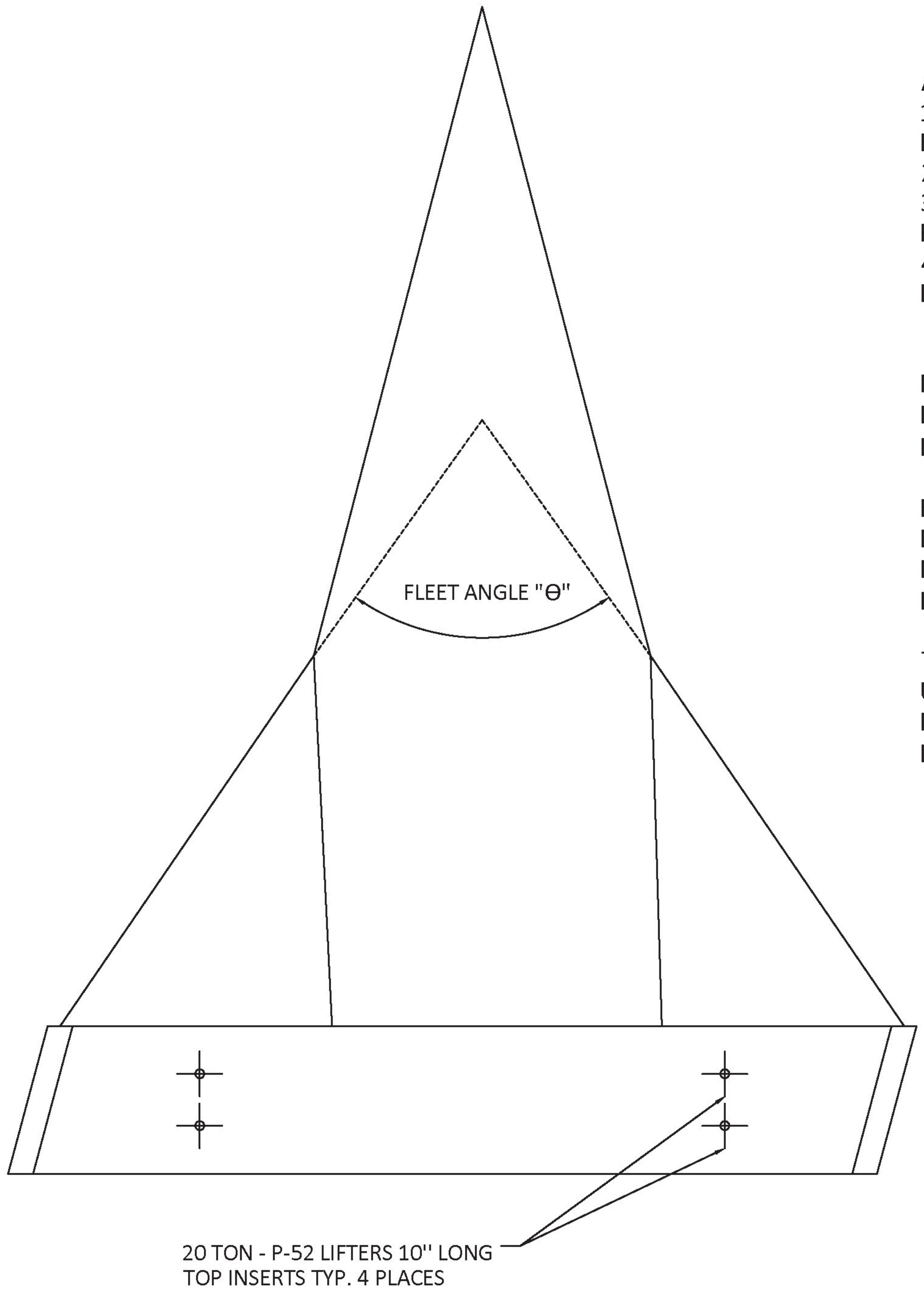
HEAVIEST PRECAST BRIDGE UNIT

ASSUMPTIONS:
1. ANY REINFORCING CUT FOR ANCHOR PLACEMENT MUST BE REPLACED PER ENGINEERS RECOMMENDATION.
2. CRANE IS STATIONARY AND WILL NOT EXERT IMPACT LOADING ON PRECAST.
3. FLEET ANGLE IS ASSUMED TO BE LESS THAN 45 DEGREES. DO NOT LIFT WITH FLEET ANGLE GREATER THAN 45 DEGREES.
4. RIGGING WILL UTILIZE EQUALIZERS TO ALLOW LOAD TO BE EVENLY DISTRIBUTED TO ALL LIFT POINTS.

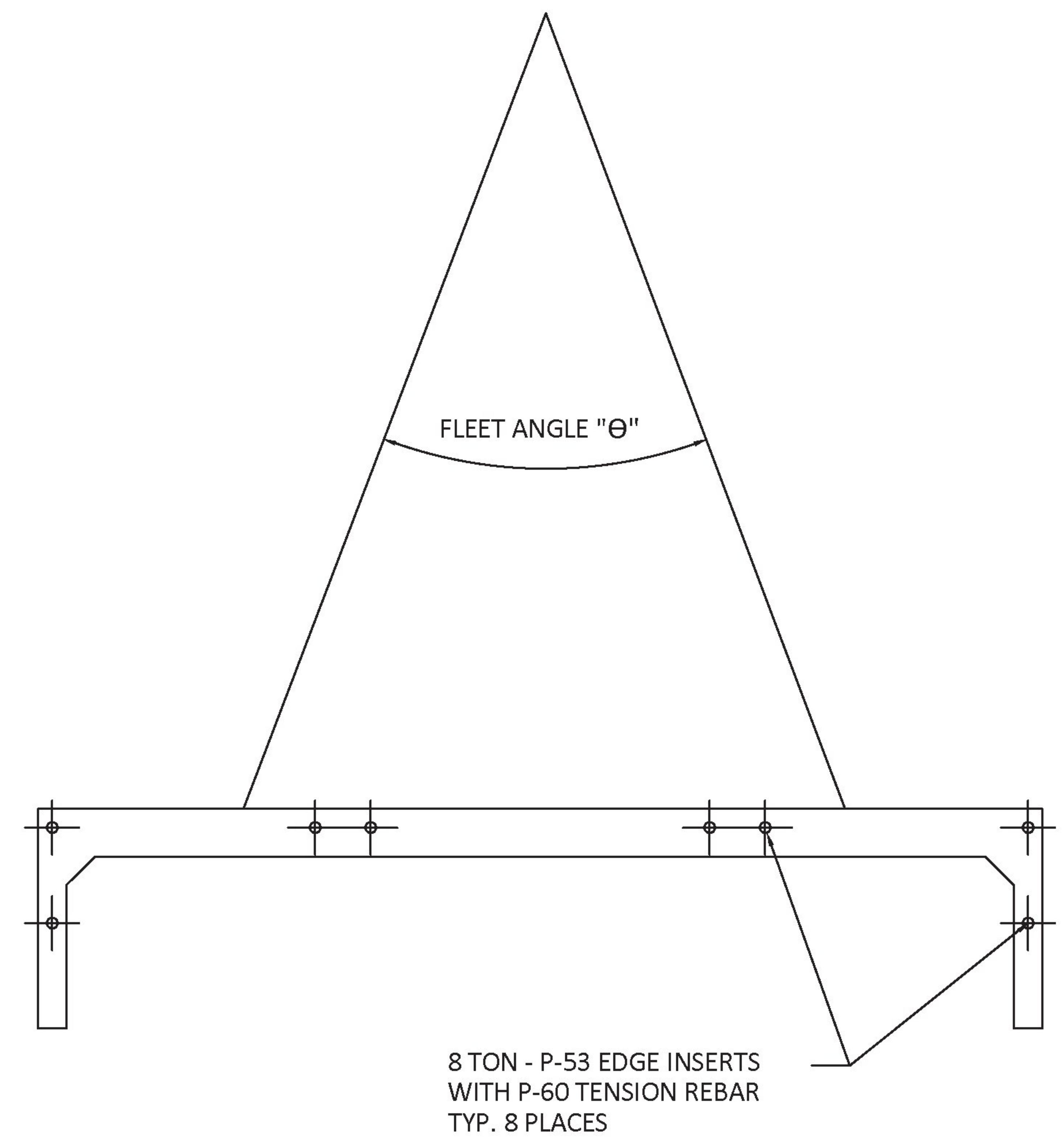
MAXIMUM PIECE WEIGHT = 36.5 TONS
LOAD PER INSERT = 36.5 TONS/4 INSERTS = 9.125 TONS
LOAD PER INSERT = 36.5 TONS/8 INSERTS = 4.5625 TONS

EDGE LIFT:
DAYTON SUPERIOR 8 TON P-53 INSERTS = 8.0 TONS CAPACITY
MULTIPLICATION FACTOR "F" FOR SLING ANGLE "Θ" = 1.08
LOAD PER INSERT = 4.5625 * 1.08 = 4.93 TONS < 8.0 TON CAPACITY O.K.

TOP SLAB LIFT:
USE DAYTON SUPERIOR 20 TON P-52 X 10" INSERTS = 12.5 TONS CAPACITY
MULTIPLICATION FACTOR "F" FOR SLING ANGLE "Θ" = 1.08
LOAD PER INSERT = 9.125 * 1.08 = 9.86 TONS < 12.5 TON CAPACITY O.K.



FORM ELEVATION / IN-PLACE PLAN



FORM PLAN / IN-PLACE ELEVATION

	DATE	DESCRIPTION	ENG
7			
6			
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1			

POULTNEY BF 0138(12)

LOCALE: POULTNEY

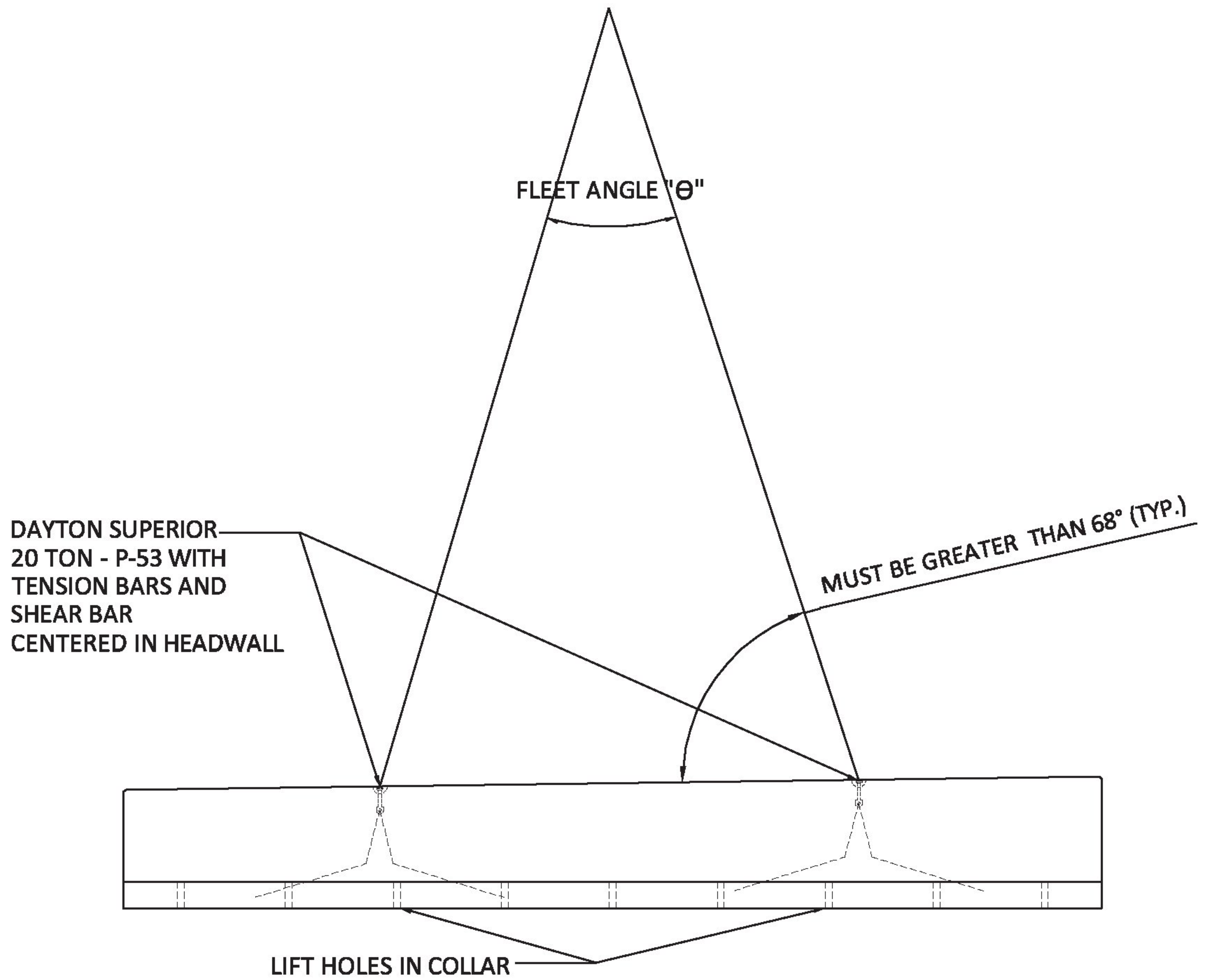
STATE: VT

PROVIDED BY:
UNITED CONCRETE PRODUCTS INC.
173 CHURCH STREET
YALESVILLE, CT 06492
800.234.3119

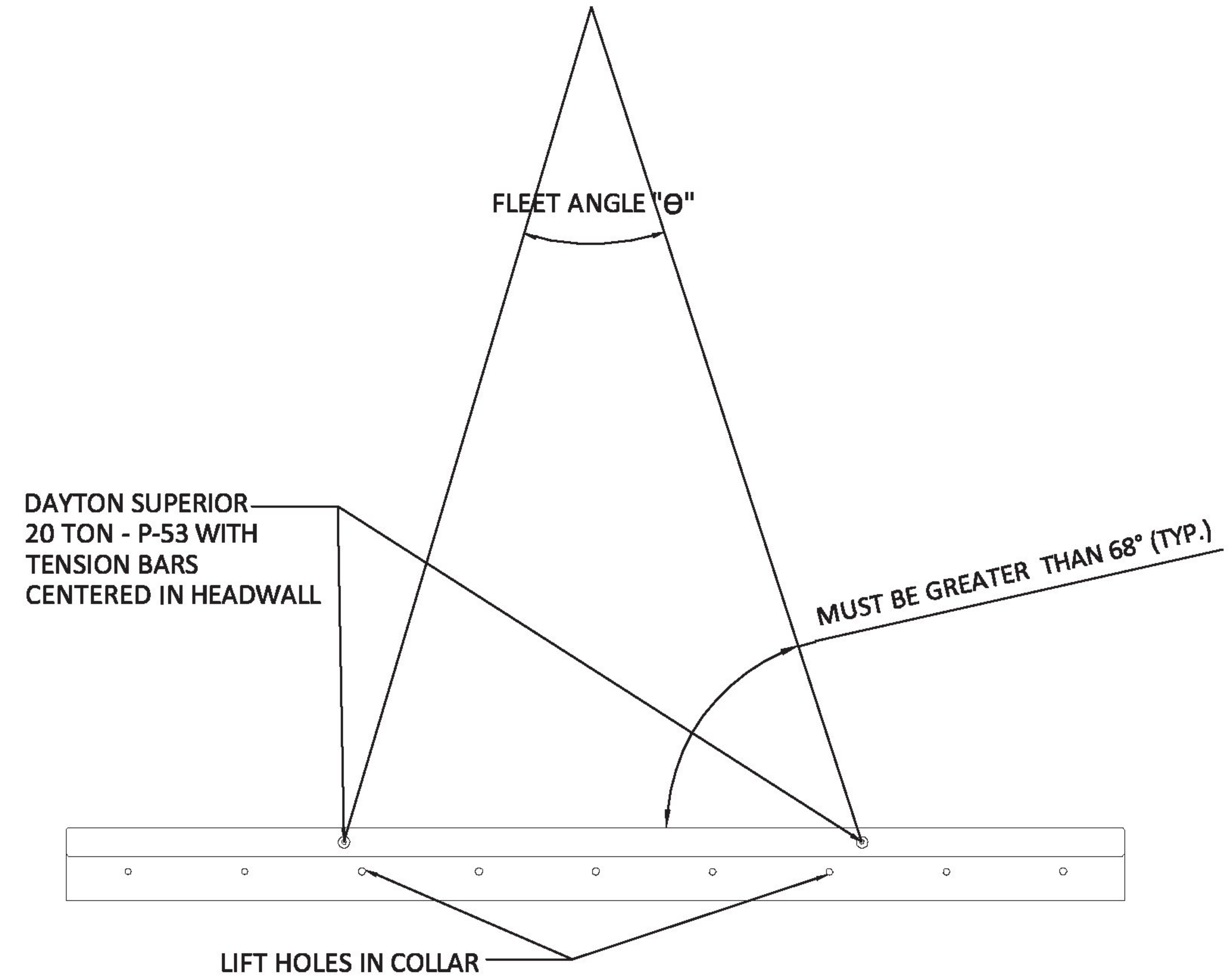
DESIGNED BY:
PRETEK GROUP
P.O. BOX 751471
DAYTON, OH 45475
800.241.0925

PROJECT NUMBER: 18-455
DATE: 12/10/2018
DESIGNED BY: RPZ
DRAWN BY: RPZ
CHECKED BY: TEN

E1



FORM PLAN / IN-PLACE ELEVATION



FORM ELEVATION / IN-PLACE PLAN

PRECAST HEADWALL

ASSUMPTIONS:
1. ANY REINFORCING CUT FOR ANCHOR PLACEMENT MUST BE REPLACED PER ENGINEERS RECOMMENDATION.
2. CRANE IS STATIONARY AND WILL NOT EXERT IMPACT LOADING ON PRECAST.
3. FLEET ANGLE IS ASSUMED TO BE LESS THAN 45 DEGREES. DO NOT LIFT WITH FLEET ANGLE GREATER THAN 45 DEGREES.

MAXIMUM PIECE WEIGHT = 17.5 TONS
LOAD PER INSERT = 17.5 TONS/2 INSERTS = 8.75 TONS

SETTING LIFT:
DAYTON SUPERIOR 20 TON P-53 INSERTS = 20 TONS CAPACITY
MULTIPLICATION FACTOR "F" FOR SLING ANGLE "Θ" = 1.08
LOAD PER INSERT = 8.75 * 1.08 = 9.45 TONS < 20 TON CAPACITY O.K.

UNLOADING LIFT:
USE LIFT HOLES IN COLLAR = 20 TONS CAPACITY
MULTIPLICATION FACTOR "F" FOR SLING ANGLE "Θ" = 1.08
LOAD PER INSERT = 4.375 * 1.08 = 4.7 TONS < 20.0 TON CAPACITY O.K.

	DATE	DESCRIPTION	ENG
7			
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POULTNEY BF 0138(12)

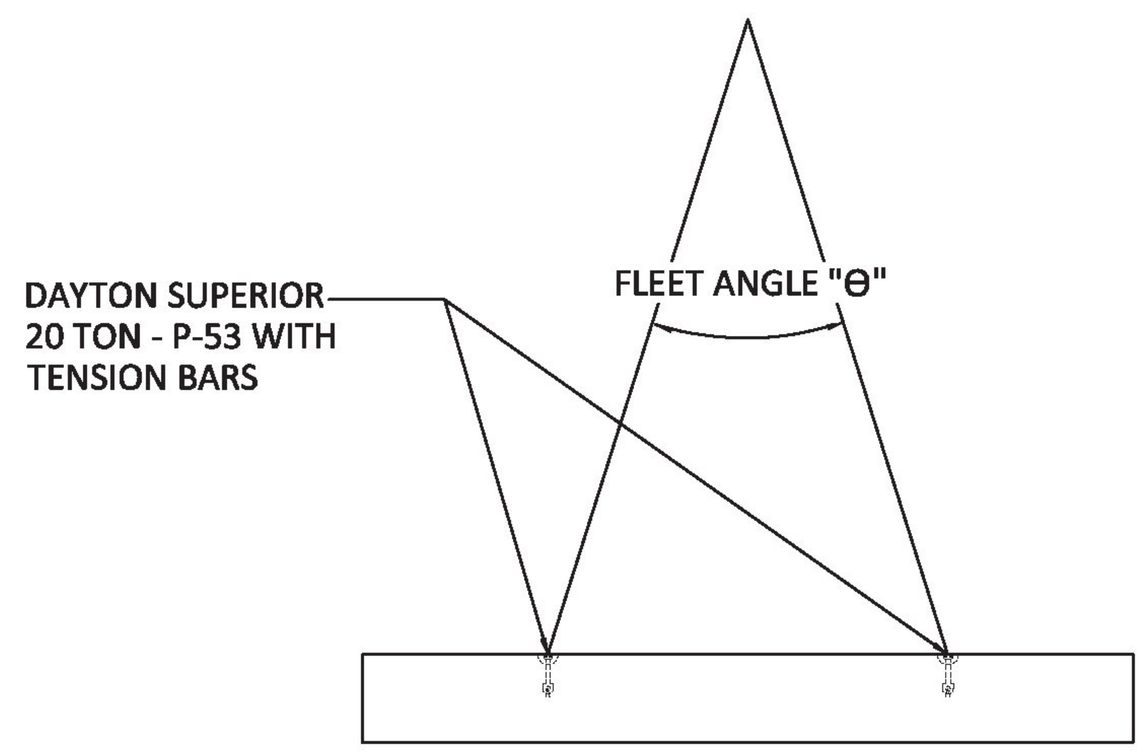
LOCALE: POULTNEY
STATE: VT

PROVIDED BY:
UNITED CONCRETE PRODUCTS
173 CHURCH STREET
YALESVILLE, CT 06492
800.234.3119

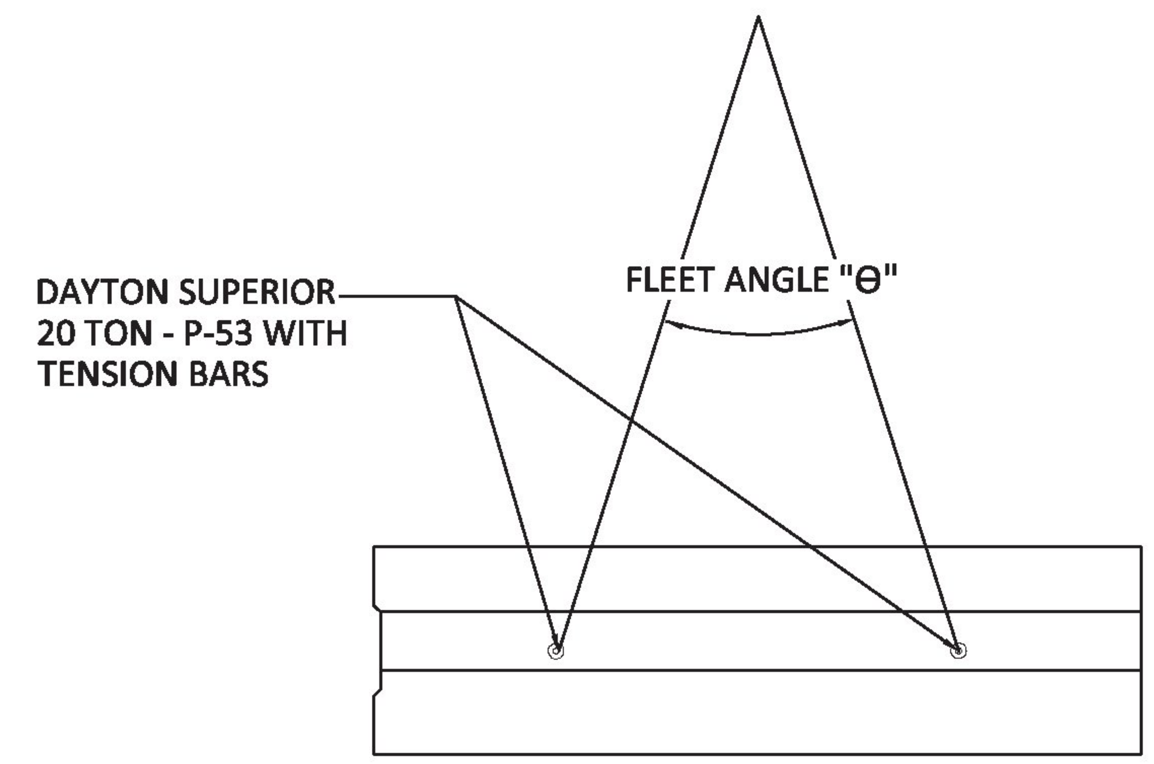
DESIGNED BY:
PRETEK GROUP
P.O. BOX 751471
DAYTON, OH 45475
800.241.0925

PROJECT NUMBER: 18-455
DATE: 12/21/2018
DESIGNED BY: RPZ
DRAWN BY: JJC
CHECKED BY: TEN

E2



FORM PLAN / IN-PLACE ELEVATION



FORM ELEVATION / IN-PLACE PLAN

PRECAST ABUTMENT #1

ASSUMPTIONS:
1. ANY REINFORCING CUT FOR ANCHOR PLACEMENT MUST BE REPLACED PER ENGINEERS RECOMMENDATION.
2. CRANE IS STATIONARY AND WILL NOT EXERT IMPACT LOADING ON PRECAST.
3. FLEET ANGLE IS ASSUMED TO BE LESS THAN 45 DEGREES. DO NOT LIFT WITH FLEET ANGLE GREATER THAN 45 DEGREES.

MAXIMUM PIECE WEIGHT = 18.0 TONS
LOAD PER INSERT = 18.0 TONS/2 INSERTS = 9.0 TONS

SETTING LIFT:
DAYTON SUPERIOR 20 TON P-53 INSERTS = 20 TONS CAPACITY
MULTIPLICATION FACTOR "F" FOR SLING ANGLE "ϴ" = 1.08
LOAD PER INSERT = 9.0 * 1.08 = 9.72 TONS < 20 TON CAPACITY O.K.

	DATE	DESCRIPTION	ENG
7			
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POULTNEY BF 0138(12)

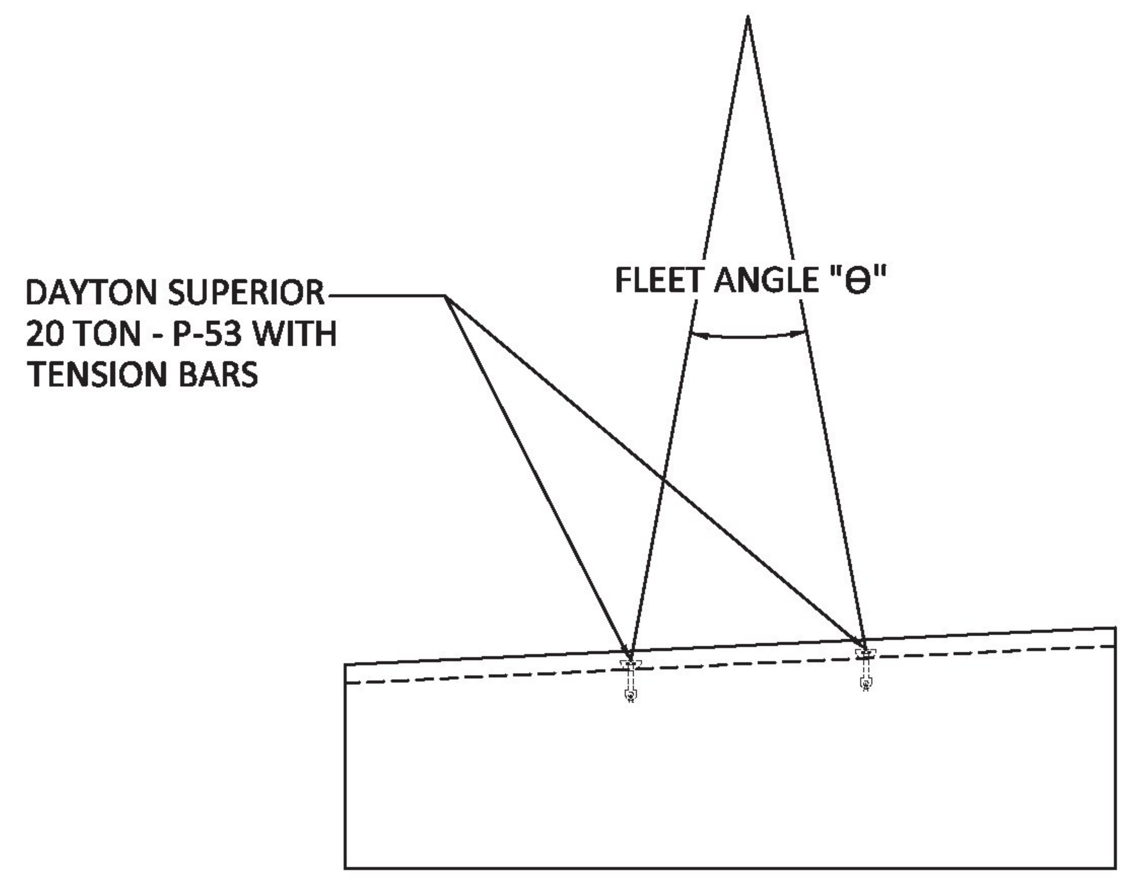
LOCALE: POULTNEY
STATE: VT

PROVIDED BY:
UNITED CONCRETE PRODUCTS
173 CHURCH STREET
YALESVILLE, CT 06492
800.234.3119

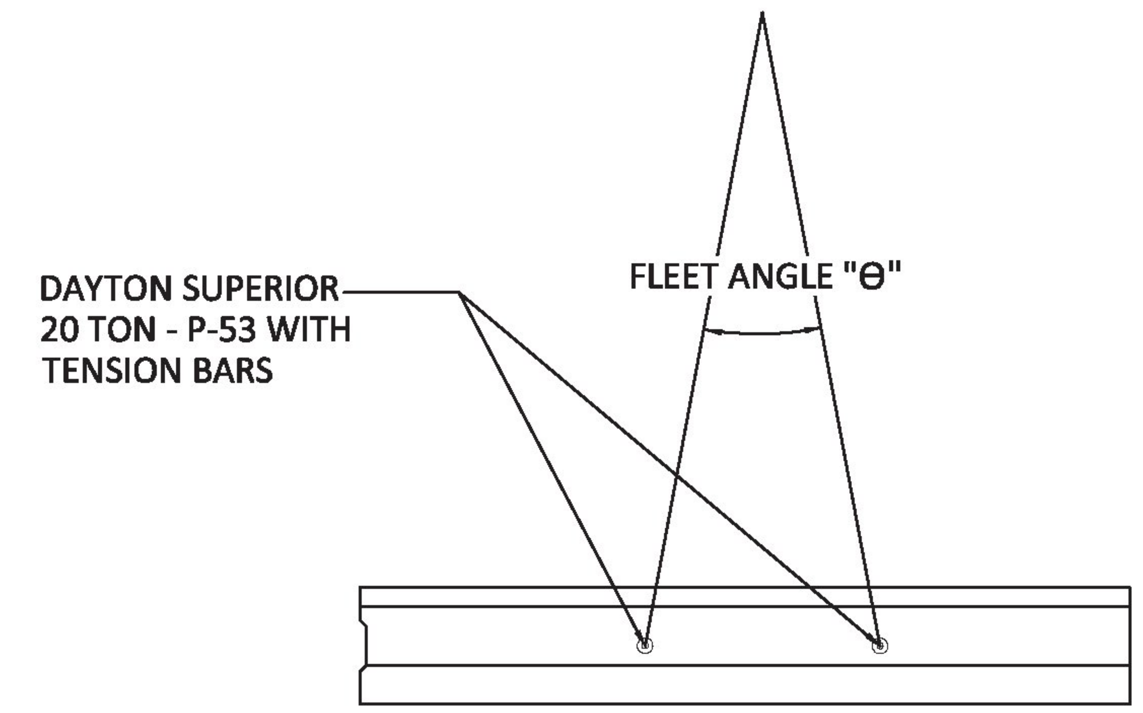
DESIGNED BY:
PRETEK GROUP
P.O. BOX 751471
DAYTON, OH 45475
800.241.0925

PROJECT NUMBER: 18-455
DATE: 01/28/2018
DESIGNED BY: RPZ
DRAWN BY: RPZ
CHECKED BY: TEN

E3



FORM PLAN / IN-PLACE ELEVATION



FORM ELEVATION / IN-PLACE PLAN

PRECAST ABUTMENT #2

ASSUMPTIONS:
1. ANY REINFORCING CUT FOR ANCHOR PLACEMENT MUST BE REPLACED PER ENGINEERS RECOMMENDATION.
2. CRANE IS STATIONARY AND WILL NOT EXERT IMPACT LOADING ON PRECAST.
3. FLEET ANGLE IS ASSUMED TO BE LESS THAN 45 DEGREES. DO NOT LIFT WITH FLEET ANGLE GREATER THAN 45 DEGREES.

MAXIMUM PIECE WEIGHT = 22.0 TONS
LOAD PER INSERT = 22.0 TONS/2 INSERTS = 11.0 TONS

SETTING LIFT:
DAYTON SUPERIOR 20 TON P-53 INSERTS = 20 TONS CAPACITY
MULTIPLICATION FACTOR "F" FOR SLING ANGLE "Θ" = 1.08
LOAD PER INSERT = 11.0 * 1.08 = 11.88 TONS < 20 TON CAPACITY O.K.

	DATE	DESCRIPTION	ENG
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POULTNEY BF 0138(12)

LOCALE: POULTNEY

STATE: VT

PROVIDED BY:
UNITED CONCRETE PRODUCTS
173 CHURCH STREET
YALESVILLE, CT 06492
800.234.3119

DESIGNED BY:
PRETEK GROUP
P.O. BOX 751471
DAYTON, OH 45475
800.241.0925

PROJECT NUMBER: 18-455
DATE: 01/28/2018
DESIGNED BY: RPZ
DRAWN BY: RPZ
CHECKED BY: TEN

E4

POULTNEY BRIDGE REPLACEMENT
POULTNEY, VERMONT

Approved
BY: R. Young
DATE: 3/13/19
RESUBMIT: No
RECEIVED: March 12, 2019
CKD BY: G. Laroche/G. Dargan
STATE OF VERMONT
AGENCY OF TRANSPORTATION

GENERAL NOTES:

QUALITY ASSURANCE PROVISIONS:

1. MULTIPLE CONTRACTORS (FENCE, WALL, GRADING, ETC.) MAY BE USED TO COMPLETE THE OVERALL PROJECT AS SHOWN ON THESE SHOP DRAWINGS. PLANS DO NOT DEFINE SCOPE OF WORK FOR INDIVIDUAL ENTITIES. SEE CONTRACT DOCUMENTS FOR SPECIFIC DETAILS ON THE SCOPE OF WORK THAT WILL BE PROVIDED BY ALL PARTIES.

2. WALL CONSTRUCTION SHALL BE SUPERVISED BY A QUALIFIED ENGINEER OR TECHNICIAN TO VERIFY FIELD AND SITE SOIL CONDITIONS. IF THIS WORK IS NOT PERFORMED BY THE SITE GEOTECHNICAL ENGINEER, A QUALIFIED GEOTECHNICAL ENGINEER/TECHNICIAN SHALL BE CONSULTED IN THOSE MATTERS PERTAINING TO THE SOIL CONDITIONS AND WALL PERFORMANCE.

3. THE FOUNDATION SOILS AT THE BASE OF THE WALLS SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER. ANY UNSUITABLE SOILS OR IMPROPERLY COMPACTED EMBANKMENT MATERIAL SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER PRIOR TO WALL CONSTRUCTION TO PROVIDE ADEQUATE BEARING CAPACITY AND MINIMIZE SETTLEMENT.

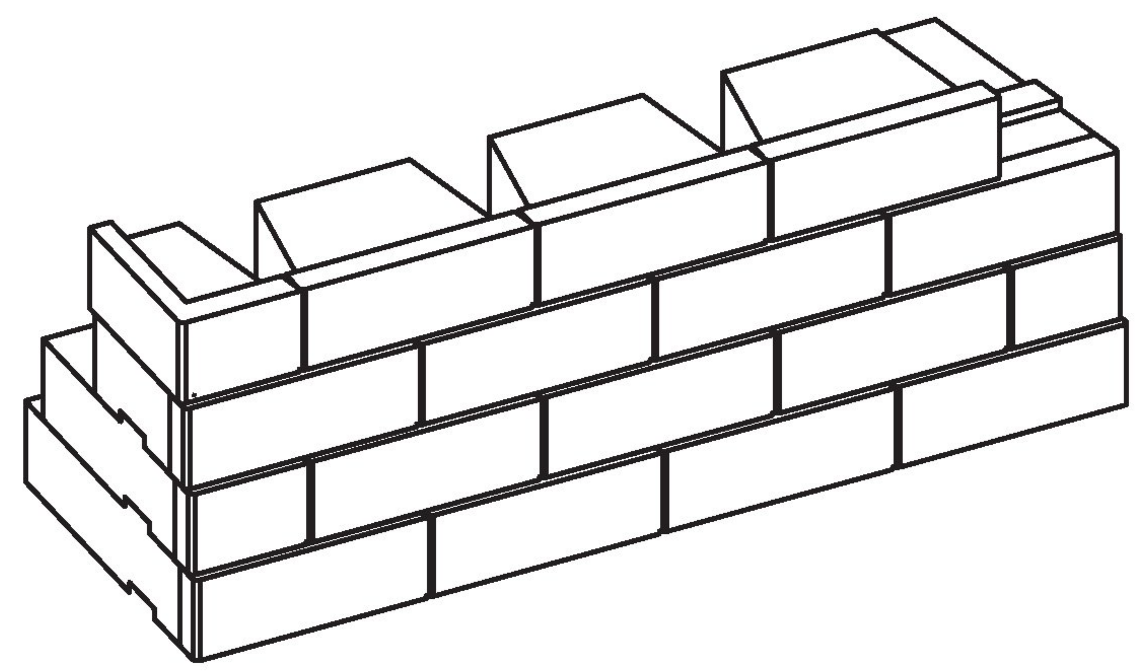
4. ALL WALL EXCAVATION AND RETAINED SOILS SHALL BE INSPECTED FOR GROUNDWATER CONDITIONS. ANY ADDITIONAL DRAINAGE PROVISIONS REQUIRED IN THE FIELD SHALL BE INCORPORATED INTO THE WALL CONSTRUCTION AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

5. WALL BACKFILL MATERIAL SHALL BE TESTED AND APPROVED BY THE ENGINEER, MEETING THE MINIMUM REQUIREMENTS OF THE APPROVED DESIGN PLANS OR SPECIFICATIONS.

6. ALL SOIL BACKFILL SHALL BE TESTED BY THE GEOTECHNICAL ENGINEER FOR MOISTURE, DENSITY, AND COMPACTION PERIODICALLY (EVERY 2' VERTICALLY, 100'-200' C/C) MEETING THE MINIMUM REQUIREMENTS OF THE APPROVED DESIGN PLANS OR SPECIFICATIONS.

7. THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN QUALITY CONTROL FOR THE CONSTRUCTION OF THE WALL TO ASSURE COMPLIANCE WITH CONTRACT REQUIREMENTS AND MAINTAIN RECORDS OF ITS QUALITY CONTROL.

8. ALL WALL ELEVATIONS, GRADES, AND BACK SLOPE CONDITIONS SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD FOR CONFORMANCE WITH APPROVED DESIGN PLANS. ANY REVISIONS TO THE STRUCTURE GEOMETRY OR DESIGN CRITERIA SHALL REQUIRE DESIGN MODIFICATIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.



SHEET INDEX

GENERAL NOTES:

DESIGN PROVISIONS:

1. THE WALLS ARE DESIGNED TO MEET THE FOLLOWING DESIGN PARAMETERS AND MAXIMUM SURCHARGE LOADINGS:

UNIT TYPE:	RECON SERIES 50
BATTER:	0.0° (NEAR VERTICAL)
REINFORCEMENT:	STRATA SG350
DESIGN METHOD:	AASHTO LRFD
LIVE LOAD:	250 PSF
DEAD LOAD:	NONE
TOE SLOPE:	AS SHOWN ON THE SITE PLAN
BACK SLOPE:	AS SHOWN ON THE SITE PLAN
SEISMIC:	NONE
HYDROSTATIC:	N/A (DRAINAGE PROVIDED)

(SEE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR LOAD FACTORS)

2. THE FOUNDATION SOILS AT THE WALL LOCATIONS SHALL BE CAPABLE OF SAFELY SUPPORTING THE MAXIMUM APPLIED BEARING PRESSURE AS SHOWN ON THE WALL PROFILES WITHOUT FAILURE OR EXCESSIVE SETTLEMENT. LOCAL BEARING CAPACITY SHALL BE CONFIRMED BY THE SITE GEOTECHNICAL ENGINEER AFTER FOUNDATION EXCAVATION AND PRIOR TO WALL CONSTRUCTION.

3. THE FOLLOWING EFFECTIVE STRENGTH PARAMETERS WERE USED IN THE PREPARATION OF THE STRUCTURAL CALCULATIONS FOR THE RECON RETAINING WALL SYSTEM:

	ϕ	c	γ	SOIL TYPE
REINFORCED SOIL (WALLS 1 AND 2)	34°	0 PSF	140 PCF	GRANULAR BACKFILL FOR STRUCTURES
REINFORCED SOIL (WALLS 3 AND 4)	40°	0 PSF	60 PCF	LIGHTWEIGHT BACKFILL
RETAINED SOIL (WALLS 1 AND 2)	32°	0 PSF	130 PCF	GRANULAR BORROW
RETAINED SOIL (WALLS 3 AND 4)	40°	0 PSF	60 PCF	LIGHTWEIGHT BACKFILL
FOUNDATION SOIL (WALLS 1 AND 2)	27°	0 PSF	160 PCF	BEDROCK
FOUNDATION SOIL (WALLS 3 AND 4)	34°	0 PSF	140 PCF	SANDY GRAVEL / SILTY SAND
LEVELING PAD	40°	0 PSF	120 PCF	AGGREGATE

4. SOILS INFORMATION OBTAINED FROM THE GEOTECHNICAL DATA REPORT PREPARED BY VTRANS LAST DATED JUNE 30, 2016. THE FOUNDATION SOILS SHALL BE EVALUATED BY A GEOTECHNICAL ENGINEER OR OTHER QUALIFIED REPRESENTATIVE OF THE OWNER TO ENSURE THAT THE BEARING SOILS MEET OR EXCEED THE DESIGN CONDITIONS OR ASSUMPTIONS.

STATE OF VERMONT
CURT J. DERICHS
NO. 74668
CIVIL
LICENSED
PROFESSIONAL ENGINEER

CIVIL DESIGN PROFESSIONALS
8609 LYNDALE AVENUE SOUTH, SUITE 200 BLOOMINGTON, MN 55420
PHONE: (952) 303-5312 | WEBSITE: WWW.CDP-US.COM
SITE SOLUTION PROFESSIONALS, INC. D.B.A. CIVIL DESIGN PROFESSIONALS

No.	Date	Revision	By
1	03.05.2019	REVIEW COMMENTS	TPH
2	03.11.2019	REVIEW COMMENTS	TPH
3			
4			
5			
6			

Designed By: TPH	Project: POULTNEY BRIDGE REPLACEMENT POULTNEY, VERMONT	Registration No: 74668
Scale: N.T.S.		Project No: 18-0989
Date: JAN 17, 2019	Title: TITLE SHEET	Sheet No: 1.00

CURT J. DERICHS, P.E.
Date: 3/11/19

NOTES:

1. THE SITE PLAN SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY. IT WAS REPRODUCED FROM STATE OF VERMONT AGENCY OF TRANSPORTATION (PROJECT #BF 0138(12)) DATED JULY 24, 2018. ANY CHANGES TO THE REFERENCED PLANS MAY IMPACT THE RETAINING WALL DESIGN AND SHALL BE PROVIDED TO CDP.
2. HORIZONTAL CONTROL FOR THE RETAINING WALLS SHALL BE AS INDICATED ON THE CIVIL PLANS.
3. THE WALLS ARE NOT DESIGNED FOR CONCENTRATED FLOW DIRECTED TOWARDS THE WALL, INCLUDING BUT NOT LIMITED TO: SWALES, DOWNSPOUTS, ETC. GRADING SHALL DIRECT WATER AROUND THE ENDS OF THE WALLS WHEN POSSIBLE OR INTO COLLECTOR DRAINS.
4. THE APPROXIMATE LOCATION OF UTILITIES KNOWN TO EXIST AS SHOWN ON THE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION.
5. THE CONTRACTOR SHALL VERIFY INVERTS OF PROPOSED AND EXISTING UTILITIES TO ENSURE THERE ARE NO CONFLICTS. THE ENGINEER SHALL BE CONTACTED IF CONFLICTS ARISE AND AN ALTERNATIVE DESIGN MAY BE REQUIRED.
6. 4 Ø DRAINPIPE TO BE PLACED BEHIND RETAINING WALLS DURING CONSTRUCTION. DRAIN TO LOW POINT AND OUTLET BELOW RETAINING WALL ON TO SLOPE.

LEGEND:

WALL LOCATION

GEOGRID LIMITS

4" Ø DRAINPIPE

NORTH

CIVIL DESIGN PROFESSIONALS

0 10 20 30

GRAPHIC SCALE IN FEET

811 Know what's below. Call before you dig.

Approved

BY: R. Young

DATE: 3/13/19

RESUBMIT: No

RECEIVED: March 12, 2019

CKD BY: G. Laroche/G. Dargan

STATE OF VERMONT AGENCY OF TRANSPORTATION

STATE OF VERMONT
CURT J. DERICHS
NO. 74668
CIVIL
LICENSED PROFESSIONAL ENGINEER

Date 3/11/19

CURT J. DERICHS, P.E.

CIVIL DESIGN PROFESSIONALS

8609 LYNDALE AVENUE SOUTH, SUITE 200 BLOOMINGTON, MN 55420
PHONE: (952) 303-5312 | WEBSITE: WWW.CDP-US.COM
SITE SOLUTION PROFESSIONALS, INC. D.B.A. CIVIL DESIGN PROFESSIONALS

No.	Date	Revision	By
1	03.05.2019	REVIEW COMMENTS	TPH
2	03.11.2019	REVIEW COMMENTS	TPH
3			
4			
5			
6			

Designed By: TPH

Scale: 1" = 10'

Date: JAN 17, 2019

Project: POULTNEY BRIDGE REPLACEMENT
POULTNEY, VERMONT

Title: SITE PLAN

Registration No: 74668

Project No: 18-0989

Sheet No: 2.00

PART 1: GENERAL

1.01 DESCRIPTION

A. THE WORK TO BE PERFORMED INCLUDES SOURCING, PROVIDING AND INSTALLING CONCRETE RETAINING WALL BLOCKS TO THE LINES AND GRADES AS SPECIFIED ON THE PROJECT CONSTRUCTION DRAWINGS AND AS MAY BE FURTHER SPECIFIED HEREIN.

B. WORK INCLUDES PREPARING FOUNDATION SOIL, FURNISHING AND INSTALLING LEVELING PAD, DRAINAGE AGGREGATE, AND BACKFILL TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS.

C. WORK INCLUDES FURNISHING AND INSTALLING ALL RELATED MATERIALS REQUIRED FOR CONSTRUCTION OF THE RETAINING WALL AS SHOWN ON THE CONSTRUCTION SHOP DRAWINGS.

1.02 REFERENCE STANDARDS

A. AASHTO T11 STANDARD METHOD OF TEST FOR MATERIALS FINER THAN 75-μm SIEVE IN MINERAL AGGREGATES BY WASHING.

B. AASHTO T27 STANDARD METHOD OF TEST FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES.

C. AASHTO T90 STANDARD METHOD OF TEST FOR DETERMINING THE PLASTIC LIMIT AND PLASTIC INDEX OF SOILS.

D. AASHTO T99 STANDARD METHOD OF TEST FOR MOISTURE–DENSITY RELATIONS OF SOILS USING A 5.5 LB. RAMMER AND A 12" DROP.

E. AASHTO T104 STANDARD METHOD OF TEST FOR SOUNDNESS OF AGGREGATE.

F. ASTM C330 STANDARD SPECIFICATION FOR LIGHTWEIGHT AGGREGATES.

G. ASTM D698 STANDARD TEST METHOD FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT (12,400 FT-LBF/FT³).

H. VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION.

PART 2: MATERIALS

2.01 DEFINITIONS

A. RETAINING WALL UNIT - A PRECAST CONCRETE, SEGMENTAL FACING BLOCK PROVIDED BY AN AUTHORIZED MANUFACTURER.

B. DRAINAGE AGGREGATE - CLEAN 1" CRUSHED ANGULAR ROCK LOCATED WITHIN AND IMMEDIATELY BEHIND THE RETAINING WALL UNITS TO FACILITATE DRAINAGE.

C. FOUNDATION SOIL - SOIL ZONE IMMEDIATELY BENEATH THE RETAINING WALL FACING UNITS, THE WALL LEVELING PAD, AND THE REINFORCED SOIL ZONE.

D. GEOGRID - A GEOSYNTHETIC MATERIAL MANUFACTURED OF HIGH TENSILE MATERIALS SPECIFICALLY FOR THE PURPOSE OF REINFORCING AND CREATING A STRUCTURAL SOIL MASS.

E. GEOTEXTILE - PERMEABLE FABRIC USED IN SUBSURFACE DRAINAGE TO SEPARATE, FILTER, AND PROVIDE PERMANENT EROSION CONTROL.

F. LEVELING PAD - AN UNREINFORCED CAST-IN-PLACE OR COMPACTED CRUSHED STONE PAD WHICH SERVES AS A FLAT SURFACE FOR PLACING THE INITIAL COURSE OF PRECAST UNITS.

G. REINFORCED BACKFILL - SOIL ZONE EXTENDING FROM THE DRAINAGE AGGREGATE ZONE TO THE BACK OF THE EMBEDDED GEOGRID.

H. RETAINED BACKFILL - SOIL IMMEDIATELY BEHIND THE RETAINING WALL FACING DRAINAGE AGGREGATE OR BEHIND THE RETAINING WALL REINFORCED BACKFILL.

I. SUBSURFACE DRAINAGE SYSTEM - A SYSTEM FOR REMOVING WATER FROM BEHIND THE WALL AND CHANNELING IT TO A POINT OF POSITIVE DRAINAGE.

2.02 RECON RETAINING WALL UNITS

A. RECON WALL UNITS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE DESIGN STRENGTH OF 4,000 PSI. STANDARD WEIGHT CONCRETE SHALL HAVE A 7% (+/- 2%) AIR ENTRAINMENT BY VOLUME. WEIGHT OF CONCRETE SHALL BE 145 PCF. VT AOT P50 TER, 5,000 PSI CONCRETE MIX DESIGN SHALL BE USED.

B. BLOCKS SHALL BE CONSISTENT AND FREE OF STAINS, DEFECTS, CRACKS, OR CHIPS. UNITS THAT CONTAIN VISIBLE DEFECTS SUCH AS, BUT NOT LIMITED TO, VERTICAL OR HORIZONTAL SEAMS, CONSPICUOUS STAINS, FORM MARKS, OR COLOR STREAKS SHALL BE REPAIRED TO THE SATISFACTION OF THE PROJECT ENGINEER OR REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

C. TEXTURE OF THE BLOCKS SHALL BE RECON NORTHSHORE GRANITE IN NATURAL CONCRETE GRAY COLOR.

D. PRODUCTION: POUR BLOCKS INSIDE HEATED PRODUCTION FACILITY. PLACE INSULATED CONCRETE BLANKETS OVER FORMS AFTER POURING. STRIP BLOCKS THE FOLLOWING DAY ONCE 1,500 PSI STRENGTH IS ACHIEVED. WET CURE TO FOLLOW SPEC 501.17(b)(5) AND BE MAINTAINED A MINIMUM 3-DAYS, OR UNTIL 80% OF THE 4,000 PSI DESIGN STRENGTH FOR RECON BLOCKS.

E. BLOCKS ARE TO BE PALLETIZED PRIOR TO PLACING OUTSIDE. DUNNAGE IS NOT USED FOR STORAGE OR SHIPPING.

F. ALL BLOCKS SHALL NOT BE SUBJECT TO AMBIENT TEMPERATURE CHANGE GREATER THAN 40°F IN A 24 HOUR PERIOD.

G. BLOCKS SHALL NOT BE SUBJECT TO TEMPERATURE LESS THAN 36°F PRIOR TO MEETING THE 4,000 PSI DESIGN STRENGTH.

H. BLOCKS SHALL NOT BE SHIP UNTIL THE 4,000 PSI DESIGN STRENGTH IS MET AND NOT BEFORE 72 HOURS FROM WHEN IT WAS CAST.

2.03 LEVELING PAD MATERIAL

A. MATERIAL SHALL CONSIST OF UNREINFORCED CLASS D CONCRETE (2,500 PSI) OR COMPACTED CRUSHED STONE AS SHOWN ON THE CONSTRUCTION DRAWING.

2.04 DRAINAGE AGGREGATE (VTRANS #704.16 - MINIMUM PHI 40°)

A. ROCK FOR DRAINAGE SHALL BE PRODUCED FROM NATURAL GRAVELS OR CRUSHED QUARRIED ROCK AND SHALL CONSIST OF CLEAN, HARD, SOUND, AND DURABLE MATERIAL.

B. DRAINAGE AGGREGATE SHALL BE UNIFORMLY GRADED FROM COARSE TO FINE MEETING THE FOLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO T27:

SIEVE SIZE	% PASSING
1"	100
3/4"	90 - 100
3/8"	20 - 55
NO. 4	0 - 10
NO. 8	0 - 5

2.05 BACKFILL

A. GRANULAR BACKFILL FOR STRUCTURES VTRANS #704.08 (MINIMUM PHI 34°) SHALL MEET THE FOLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO T27 AND AASHTO T11:

SIEVE SIZE	% PASSING
3"	100
NO. 4	45 - 75
NO. 100	0 - 12
NO. 200	0 - 6

B. PLASTICITY INDEX (P.I.), AS DETERMINED IN ACCORDANCE WITH AASHTO T90, SHALL NOT EXCEED SIX.

C. GRANULAR BACKFILL FOR STRUCTURES SHALL BE OBTAINED FROM APPROVED SOURCE. IT SHALL CONSIST OF SATISFACTORILY GRADED, FREE-DRAINING GRANULAR MATERIAL REASONABLY FREE FROM LOAM, SILT, CLAY, AND ORGANIC MATERIAL.

D. BACKFILL SAMPLES AND TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

2.06 LIGHTWEIGHT BACKFILL

A. LIGHTWEIGHT BACKFILL SHALL BE AN APPROVED ROTARY KILN MATERIAL MEETING THE REQUIREMENTS OF ASTM C330. NO BY-PRODUCT SLAGS, CINDERS, OR BY-PRODUCTS OF COAL COMBUSTION WILL BE PERMITTED. LIGHTWEIGHT BACKFILL SHALL BE NON-CORROSIVE AND SHALL HAVE A PROVEN RECORD OF DURABILITY AS DETERMINED IN ACCORDANCE WITH AASHTO T104.

B. LIGHTWEIGHT BACKFILL (MINIMUM PHI 40°) SHALL MEET THE FOLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO T27 AND AASHTO T11:

SIEVE SIZE	% PASSING
1"	100
3/4"	90 - 100
3/8"	10 - 50
NO. 4	0 - 15

2.07 SUBSURFACE DRAINAGE SYSTEM

A. SUBSURFACE DRAINAGE SYSTEM SHALL CONSIST OF PERFORATED POLYETHYLENE (PE) PIPE. IF THE PIPE IS NOT PLACED WITHIN CLEAN CRUSHED STONE IT SHALL BE WRAPPED IN A GEOTEXTILE FABRIC OR NON-PERFORATED WHERE REQUIRED.

B. NON-PERFORATED PIPE SHALL BE USED TO CONNECT DRAINS FROM THE WALL TO DRAINAGE STRUCTURES OR HEADWALLS.

C. FITTINGS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

2.08 GEOTEXTILE

A. GEOTEXTILE SHALL BE A NON-WOVEN FABRIC MEETING THE REQUIREMENTS OF SECTION 649 FOR GEOTEXTILE FOR ROADBED SEPARATOR.

PART 3: EXECUTION

3.01 EXCAVATION

A. CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. CONTRACTOR SHALL BE CAREFUL NOT TO DISTURB EMBANKMENT AND FOUNDATION MATERIALS BEYOND LINES SHOWN.

3.02 FOUNDATION SOIL PREPARATION

A. FOUNDATION SOIL SHALL BE EXCAVATED AS REQUIRED FOR LEVELING PAD DIMENSIONS SHOWN ON THE CONSTRUCTION DRAWINGS, OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

B. UNSUITABLE SOILS SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIAL.

C. OVER-EXCAVATED AREAS SHALL BE BACKFILLED WITH APPROVED COMPACTED BACKFILL MATERIAL.

3.03 BASE LEVELING PAD

A. LEVELING PAD MATERIALS SHALL BE PLACED UPON APPROVED FOUNDATION AS SHOWN ON THE CONSTRUCTION DRAWINGS TO A MINIMUM THICKNESS OF 12".

B. AGGREGATE MATERIAL SHALL BE COMPACTED TO PROVIDE A DENSE, LEVEL SURFACE ON WHICH TO PLACE THE FIRST COURSE OF MODULAR UNITS. COMPACTION SHALL BE TO 95% OF STANDARD PROCTOR DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D698.

C. CRUSHED STONE SHALL BE PLACED IN MAXIMUM 6" LIFTS AND SHALL BE WELL COMPACTED WITH A VIBRATORY PLATE COMPACTOR OR OTHER SUITABLE EQUIPMENT.

3.04 UNIT INSTALLATION

A. THE FIRST COURSE OF CONCRETE MODULAR WALL UNITS SHALL BE CAREFULLY PLACED ON THE BASE LEVELING PAD. EACH UNIT SHALL BE CHECKED FOR LEVEL AND ALIGNMENT.

B. UNITS ARE PLACED SIDE BY SIDE FOR FULL LENGTH OF WALL ALIGNMENT. ALIGNMENT MAY BE DONE BY MEANS OF A STRING LINE OR OFFSET FROM A BASE LINE.

C. SWEEP EXCESS MATERIAL FROM TOP OF UNITS AND INSTALL NEXT COURSE. ENSURE THAT EACH COURSE IS COMPLETELY UNIT FILLED, BACKFILLED AND COMPACTED PRIOR TO PROCEEDING TO NEXT COURSE.

3.05 DRAINAGE SYSTEM PLACEMENT

A. A DRAINAGE SYSTEM SHALL BE PROVIDED AT THE BASE OF THE WALL SYSTEM BEHIND THE WALL UNITS.

B. THE DRAINAGE SYSTEM SHALL CONSIST OF 4" PERFORATED POLYETHYLENE (PE) PIPE WRAPPED WITH GEOTEXTILE FABRIC.

C. THE PIPE SHALL BE INSTALLED WITH POSITIVE DRAINAGE, 1% MINIMUM.

3.06 GEOGRID INSTALLATION

A. GEOGRID SHALL BE LAID AT THE PROPER ELEVATIONS AND ORIENTATION AS SHOWN ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE ENGINEER. EMBED GEOGRID OVER THE TONGUE AND GROOVE AND UP THE UNEXPOSED FRONT EDGE OF THE BLOCK.

B. THE GEOGRID SHALL BE PULLED TAUT (50LBS/FT) TO ELIMINATE LOOSE FOLDS AND PRETENSION THE REINFORCEMENT. STAKE OR SECURE BACK EDGE OF GEOGRID PRIOR TO AND DURING BACKFILL AND COMPACTION.

C. CORRECT ORIENTATION (ROLL DIRECTION) OF THE GEOGRID SHALL BE VERIFIED BY THE CONTRACTOR.

3.07 FILL PLACEMENT

A. FILL PLACE SHALL FOLLOW THIS SPECIFICATION OR THE GEOTECHNICAL REPORT, WHICHEVER IS MORE STRINGENT.

B. BACKFILL PLACEMENT SHALL CLOSELY FOLLOW ERECTION OF EACH ROW OF BLOCKS. BACKFILL SHALL BE PLACED IN A WAY THAT DOES NOT CAUSE DAMAGE OR DISTURBANCE TO THE WALL.

C. THE AREA IN FRONT AND AROUND THE LEVELING PAD SHALL BE BACKFILLED AS SOON AS PRACTICALLY POSSIBLE.

D. BACKFILL MATERIAL SHALL BE PLACED WITH A MAXIMUM OF 12" LIFTS AND COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH AASHTO T99. THE IN PLACE MOISTURE CONTENT SHALL NOT EXCEED THE OPTIMUM MOISTURE CONTENT AS DETERMINED IN ACCORDANCE WITH ASTM D698 AND BE NO LOWER THAN 2% BELOW OPTIMUM MOISTURE CONTENT.

E. CRUSHED STONE BACKFILL COMPACTION REQUIREMENTS:

1. CRUSHED STONE BACKFILL SHALL BE PLACED IN UNIFORM MAXIMUM LIFTS OF 9".
2. THE CRUSHED STONE BACKFILL SHALL BE COMPACTED BY A MINIMUM OF 3 PASSES OF A VIBRATORY COMPACTOR CAPABLE OF EXERTING 2,000 LBS OF CENTRIFUGAL FORCE AND TO THE SATISFACTION OF THE ONSITE GEOTECHNICAL ENGINEER OR THEIR DESIGNATED REPRESENTATIVE.

F. COMPACTION WITHIN 3 FEET OF BACK FACE OF WALL SHALL BE ACHIEVED BY MEANS OF A MINIMUM 3 PASSES WITH A LIGHTWEIGHT MECHANICAL TAMPER, ROLLER, OR VIBRATORY SYSTEM. MAXIMUM LIFT SIZE SHALL NOT EXCEED 6 INCHES LOOSE. SOIL DENSITY IN THIS AREA SHALL NOT BE LESS THAN 9[illegible]% STANDARD PROCTOR DENSITY.

STATE OF VERMONT
CURT J. DERICHS
NO. 74668
CIVIL
LICENSED
PROFESSIONAL ENGINEER

CURT J. DERICHS, P.E. Date: 3/11/19

CDP

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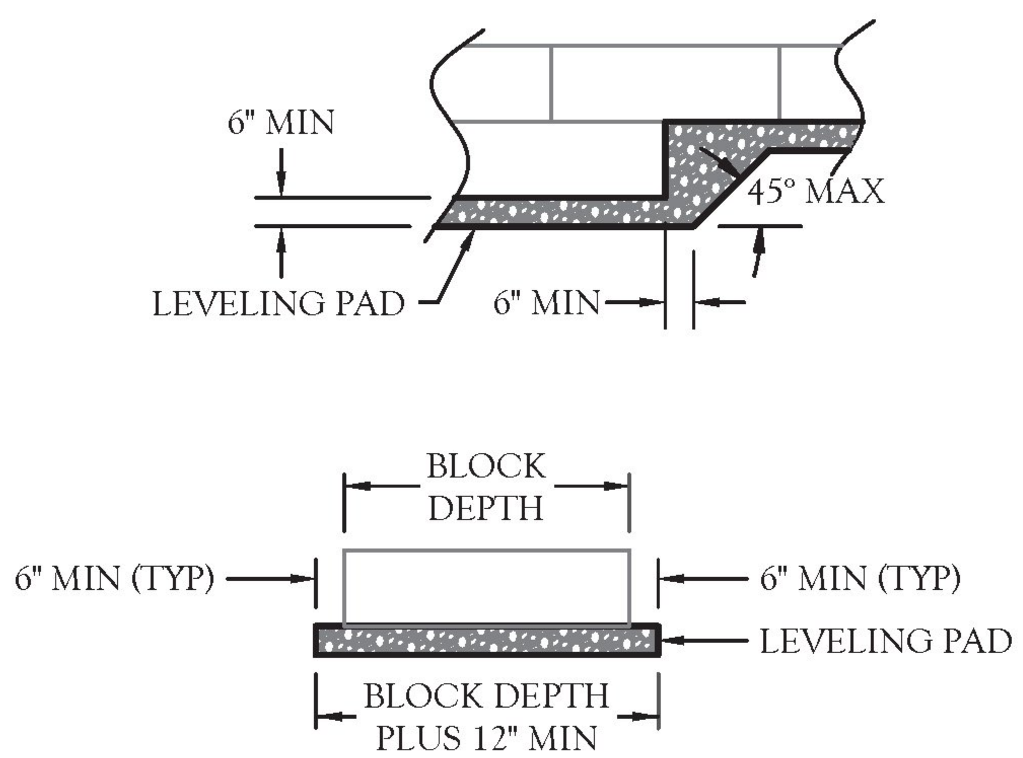
No.	Date	Revision	By
1	03.05.2019	REVIEW COMMENTS	TPH
2	03.11.2019	REVIEW COMMENTS	TPH
3			
4			
5			
6			

Designed By: TPH	Project: POULTNEY BRIDGE REPLACEMENT POULTNEY, VERMONT	Registration No: 74668
Scale: N.T.S.		Project No: 18-0989
Date: JAN 17, 2019	Title: SPECIFICATIONS	Sheet No: 3.00

NOTES:

1. THE LEVELING PAD SHALL BE CONSTRUCTED OF CRUSHED STONE OR UNREINFORCED CLASS D CONCRETE (2,500).
2. THE CONTRACTOR SHALL HAVE A QUALIFIED GEOTECHNICAL ENGINEER VERIFY THE FOUNDATION SOILS TO ENSURE THAT IT MEETS OR EXCEEDS THE MINIMUM BEARING CAPACITY REQUIREMNTS.
3. THE BASE FOUNDATION SHALL BE APPROVED PRIOR TO PLACEMENT OF THE LEVELING PAD.

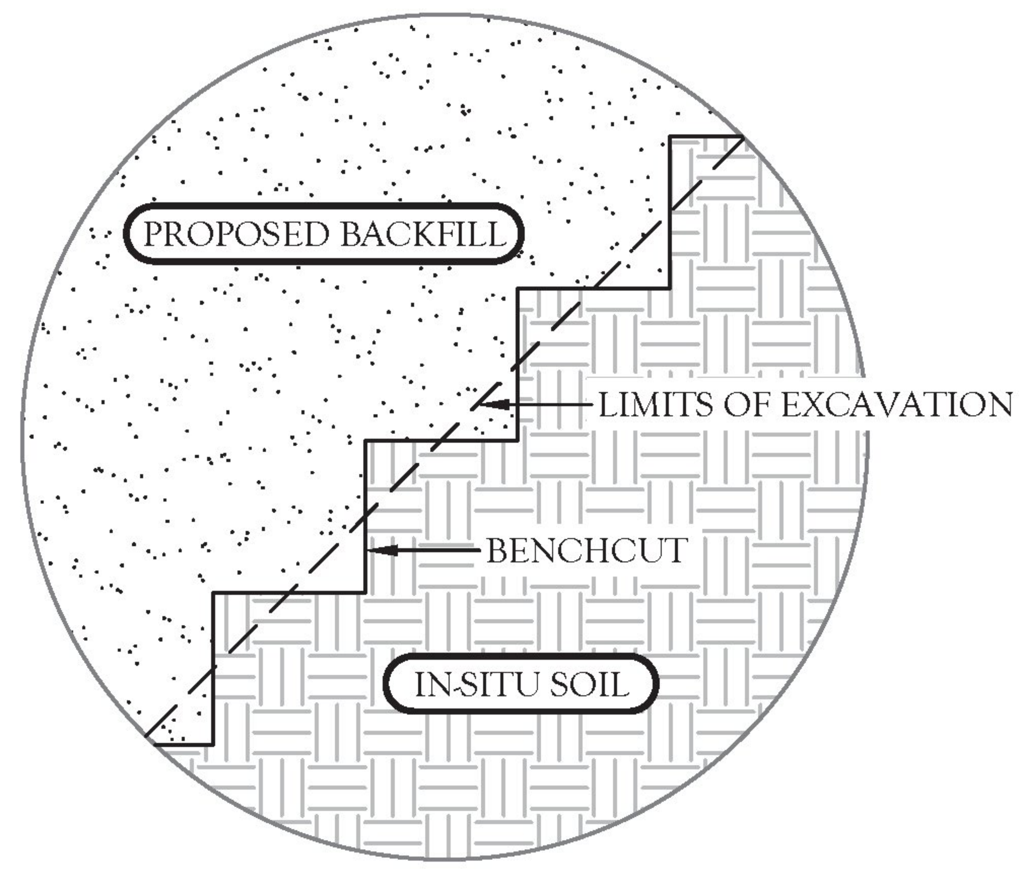


1/4.00 LEVELING PAD

SCALE: N.T.S.

NOTES:

1. DURING WALL EXCAVATION, BENCHCUT LIMITS OF EXCAVATION, WHEN ONSITE SOILS ALLOW, TO INCREASE BOND BETWEEN THE IN-SITU SOILS AND NEW BACKFILL.
2. BENCHCUT USING MINIMUM 24-INCH HORIZONTAL BENCHES (TYPICAL).

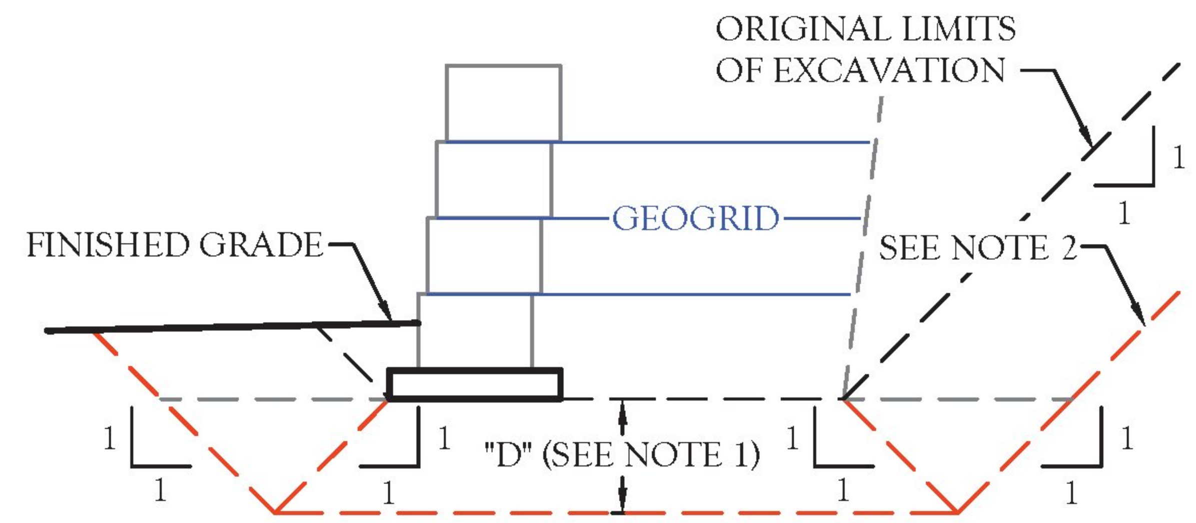


2/4.00 TYPICAL BENCHCUT DETAIL

SCALE: N.T.S.

NOTES:

1. UPON EXCAVATION, WHERE UNSUITABLE SOILS ARE FOUND, SUBCUT TO DEPTH "D" AS REQUIRED BY THE ONSITE GEOTECHNICAL ENGINEER AND REPLACE WITH SUITABLE COMPACTED STRUCTURAL FILL TO ACHIEVE THE REQUIRED BEARING CAPACITY.
2. APPROXIMATE LIMITS OF EXCAVATION VARIES WHERE SUBCUT IS REQUIRED. ACTUAL LIMITS AND SIDE SLOPES SHALL BE DETERMINED BY OSHA REGULATIONS AND MATCH FIELD CONDITIONS AS DETERMINED BY THE CONTRACTOR.

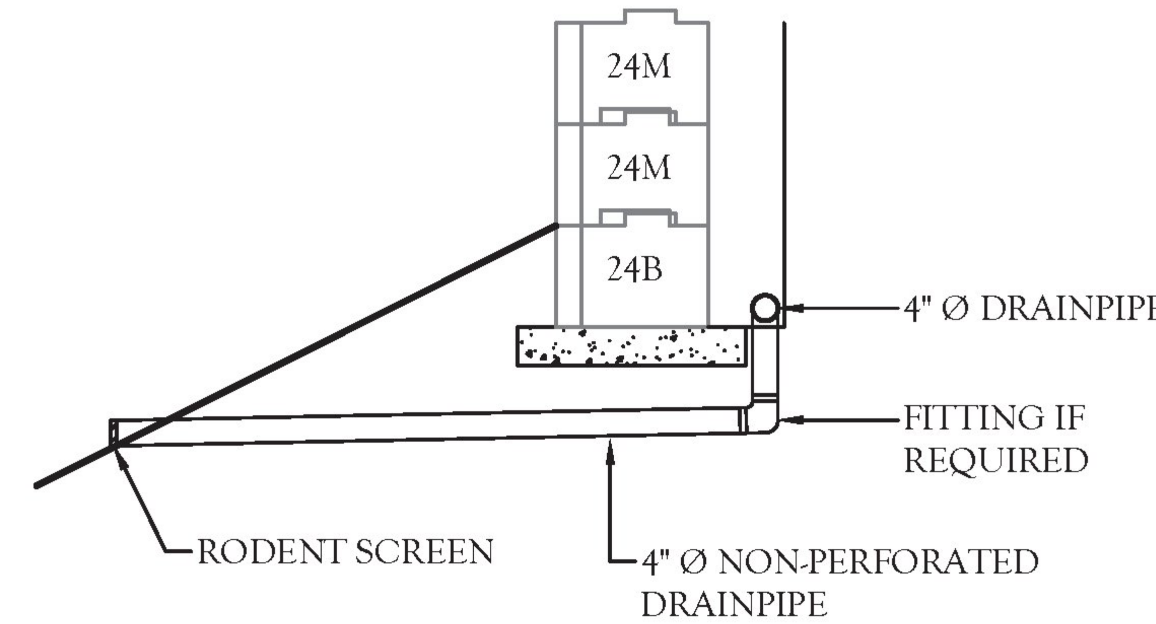


3/4.00 TYPICAL SUBCUT DETAIL

SCALE: N.T.S.

NOTES:

1. 4" DIAMETER CORRUGATED PERFORATED PLASTIC DRAINPIPE WRAPPED WITH A GEOTEXTILE FABRIC.
2. OUTLET BELOW RETAINING WALL AND DAYLIGHT ON SLOPE. ADD SCOUR PROTECTION AS REQUIRED.
3. INSTALL DRAINPIPE WITH POSITIVE DRAINAGE.
4. PROVIDE RODENT SCREEN AND NON-PERFORATED PLASTIC PIPE FOR OUTLET THROUGH THE WALL.

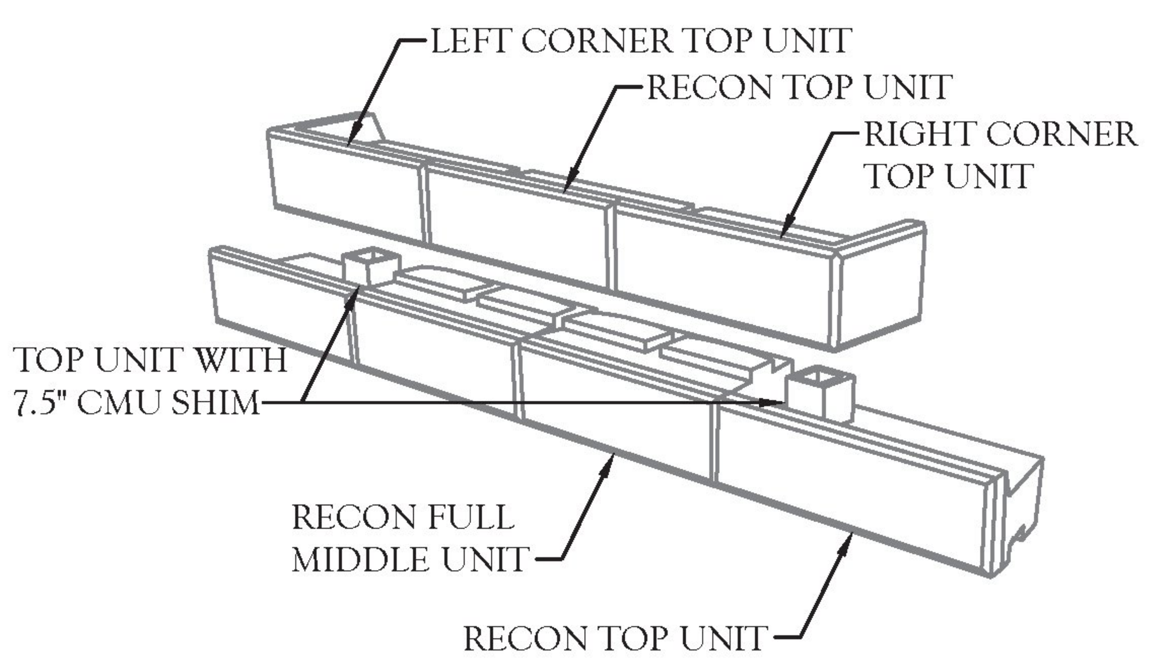


4/4.00 TYPICAL 4" DRAINPIPE OUTLET

SCALE: N.T.S.

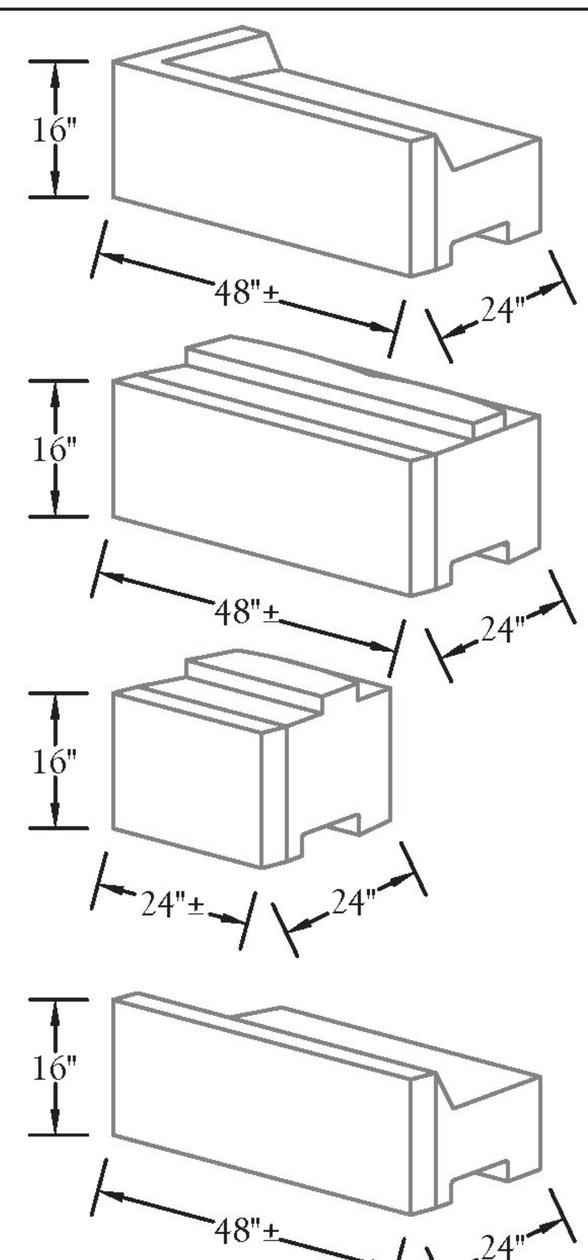
NOTES:

1. IT WILL BE NECESSARY FOR BLOCK STABILITY TO ADD A CONCRETE SHIM BENEATH THE PORTION OF THE TOP CORNER UNIT THAT BEARS ON PART OF ANOTHER UNIT LOCATED BELOW.
2. THE SHIM IS TYPICALLY A STANDARD CONCRETE MASONRY UNIT (CMU). USING ADHESIVE ON THE SHIM WILL RESIST MOVEMENT DURING CONSTRUCTION.



5/4.00 STANDARD TOP OF WALL STEP

SCALE: N.T.S.



CORNER TOP	
WIDTH:	48"
DEPTH:	24"
HEIGHT:	16"
WEIGHT:	±1,103 LBS

MIDDLE UNIT	
WIDTH:	48"
DEPTH:	24"
HEIGHT:	16"
WEIGHT:	±1,411 LBS

HALF MIDDLE UNIT	
WIDTH:	24"
DEPTH:	24"
HEIGHT:	16"
WEIGHT:	±675 LBS

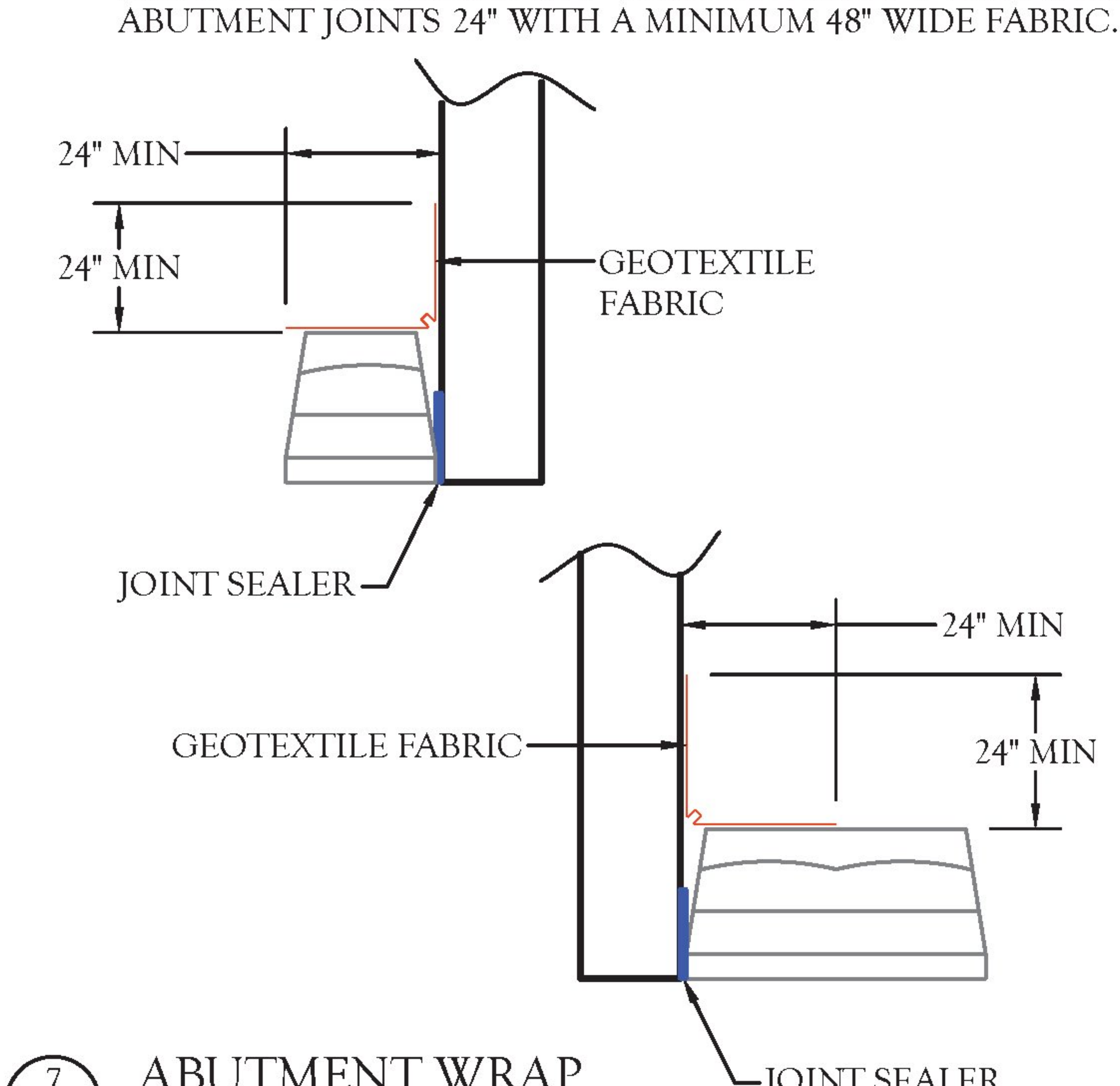
TOP UNIT	
WIDTH:	48"
DEPTH:	24"
HEIGHT:	16"
WEIGHT:	±971 LBS

6/4.00 RECON UNITS

SCALE: N.T.S.

NOTES:

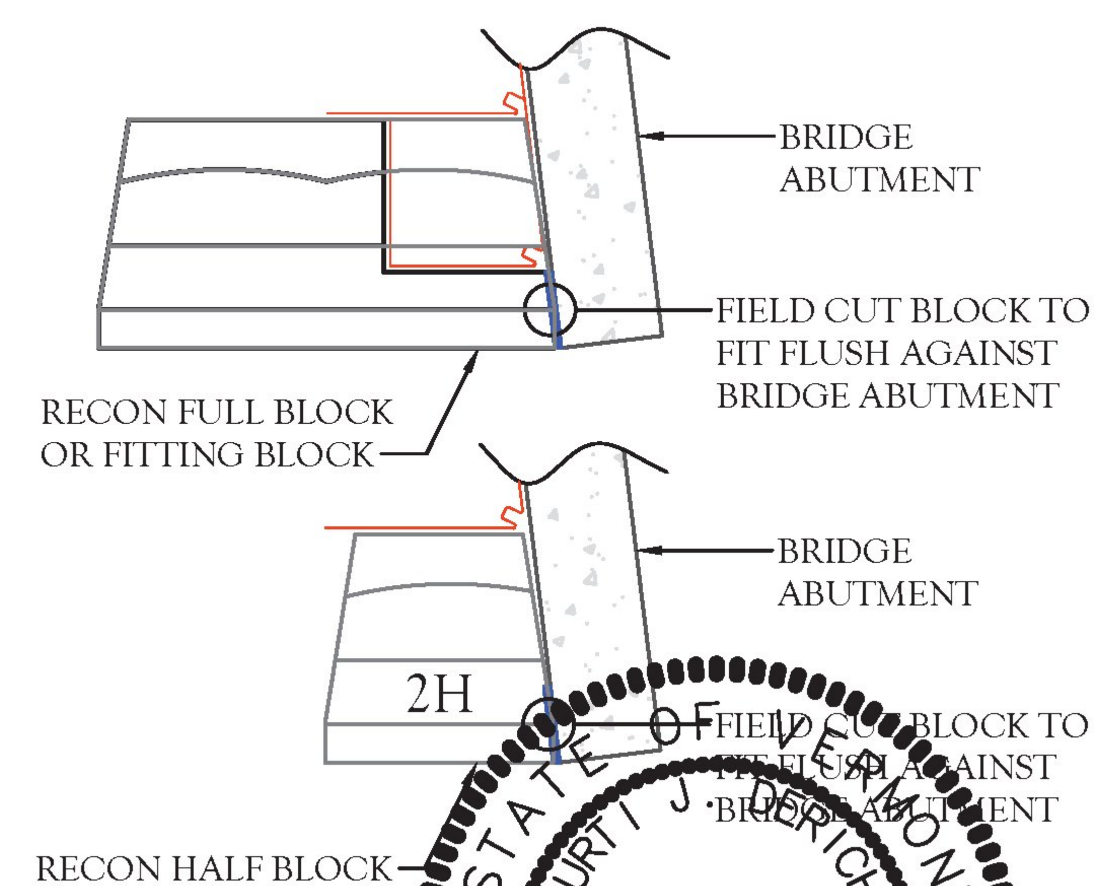
1. A GEOTEXTILE FABRIC SHALL BE PLACED WHERE THE RETAINING WALLS ABUT TO EXISTING FOUNDATIONS AS SHOWN ON THE RETAINING WALL SITE PLAN. OVERLAP ALL ABUTMENT JOINTS 24" WITH A MINIMUM 48" WIDE FABRIC.



7/4.00 ABUTMENT WRAP

NOTES:

1. IF BLOCKS REQUIRE FIELD CUTTING: USING A CONCRETE SAW, FIELD CUT BLOCKS AT ABUTMENT AS REQUIRED FOR A FLUSH FIT AGAINST BRIDGE ABUTMENT.
2. RECON FITTING BLOCKS MAY BE USED FOR EASE OF CONSTRUCTION.



8/4.00 ACUTE ANGLE ABUTMENT

SCALE: N.T.S.

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1	03.05.2019	REVIEW COMMENTS	TPH
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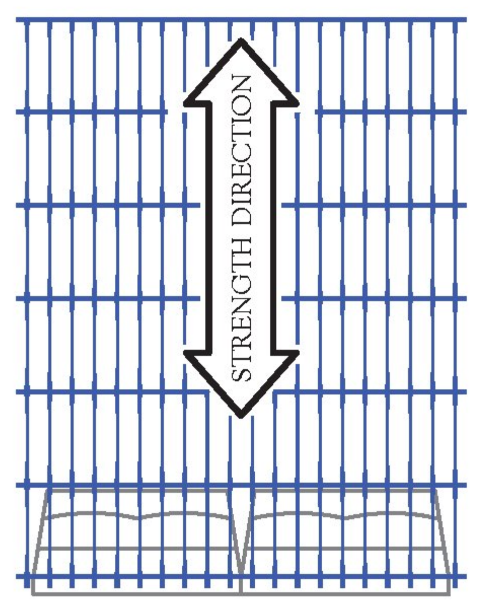
Designed By: TPH	Project: POULTNEY BRIDGE REPLACEMENT POULTNEY, VERMONT	Registration No: 74668
Scale: AS NOTED		Project No: 18-0989
Date: JAN 17, 2019	Title: TYPICAL DETAILS	Sheet No: 4.00

STATE OF VERMONT
CURT J. DERICHS
NO. 74668
CIVIL
LICENSED PROFESSIONAL ENGINEER

CURT J. DERICHS, P.E.
Date 3/11/19

NOTES:

1. INSTALL GEOGRID IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION AND CONSTRUCTION DRAWINGS.
2. LEVEL AND COMPACT BACKFILL MATERIAL TO THE LEVEL OF REINFORCEMENT.
3. POSITION GEOGRID OVER THE TONGUE AND GROOVE AND TO WITHIN 2" OF THE FRONT EXPOSED FACE. PLACE NEXT COURSE OF UNITS.
4. PRIOR TO BACKFILLING, PULL GEOGRID TAUT TO REMOVE WRINKLES AND FOLDS. STAKE GEOGRID AS REQUIRED.

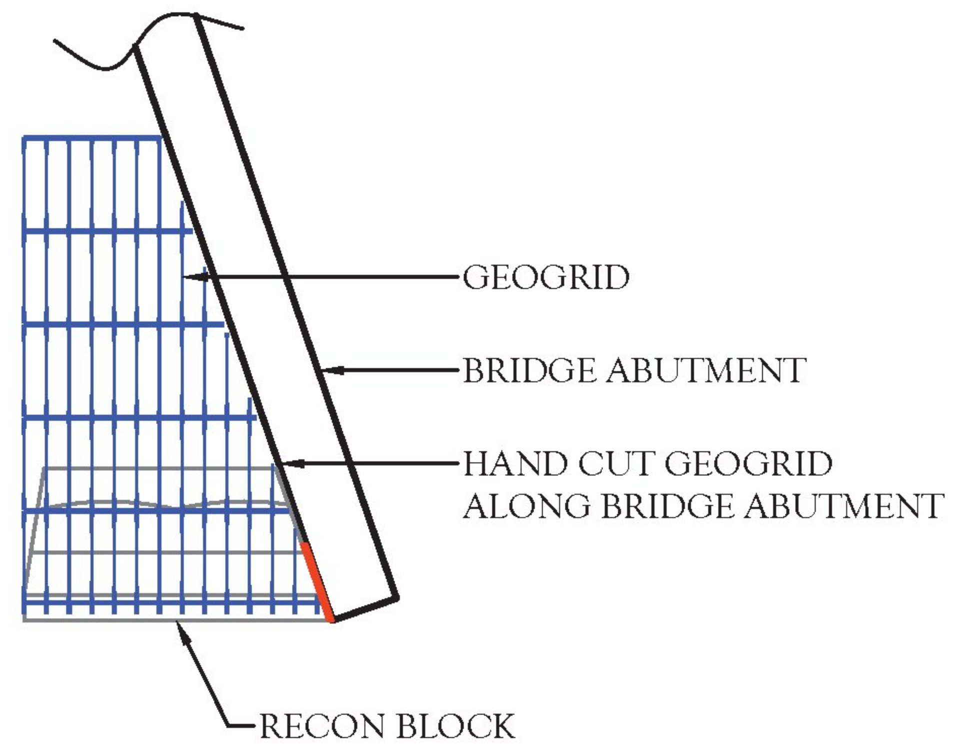


1/4.01 GEOGRID ORIENTATION

SCALE: N.T.S.

NOTES:

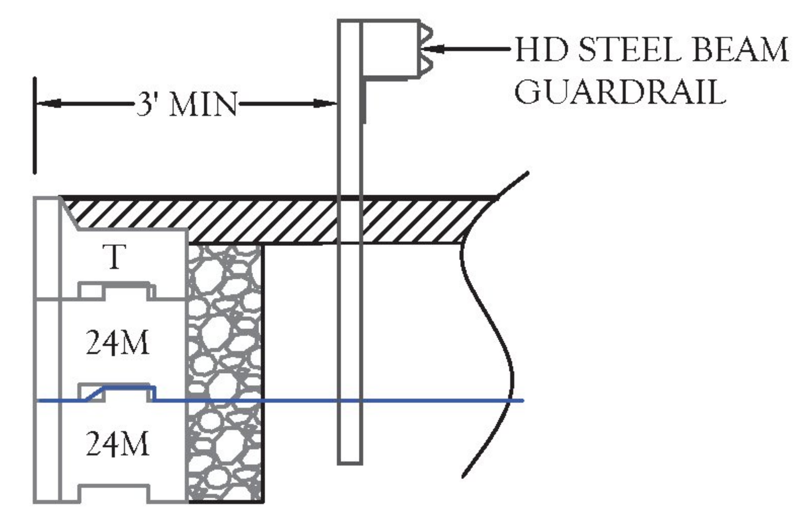
1. AT ABUTMENT LOCATIONS, HAND CUT GEOGRID ALONG BRIDGE ABUTMENT AS REQUIRED.



2/4.01 BRIDGE ABUTMENT OBSTRUCTION

NOTES:

1. GUARDRAIL TO BE PER THE APPROVED SHOP DRAWINGS. CONSULT WITH THE CONTRACTOR AND RESIDENT ENGINEER FOR SPECIFIC REQUIREMENTS (TYPE, SIZE, SPACING, ETC.).
2. HD STEEL BEAM GUARDRAIL (SEE STD G-1).

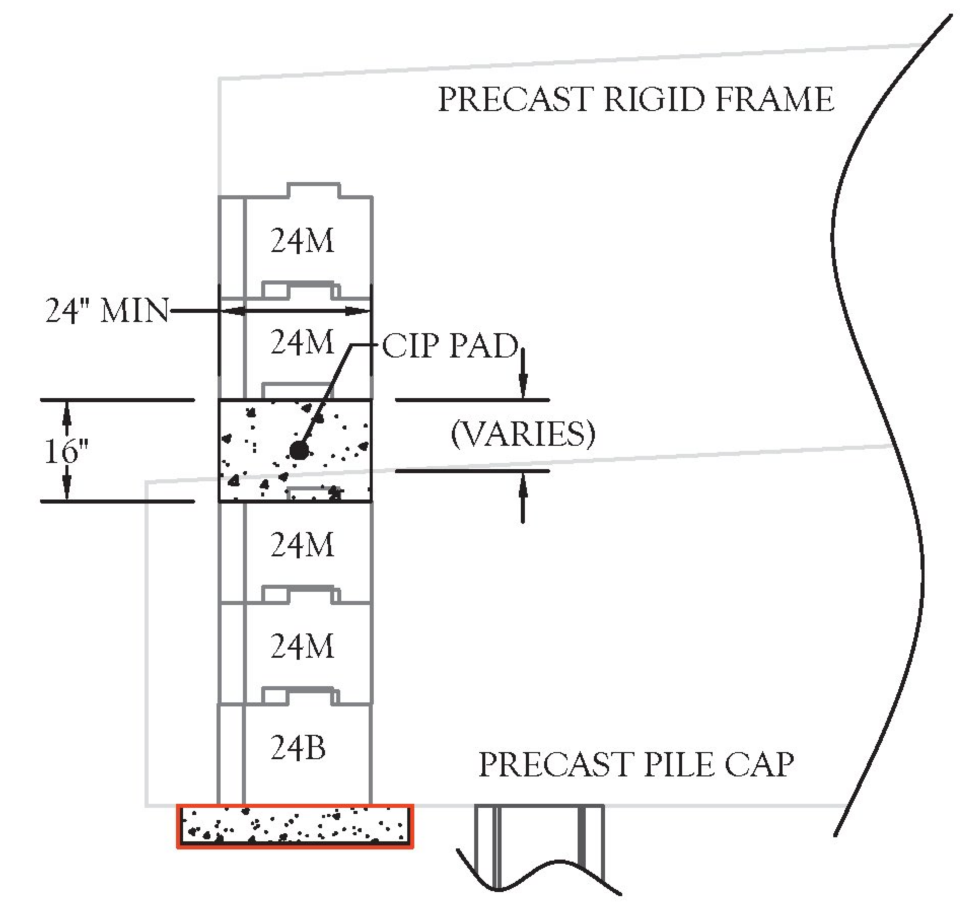


3/4.01 TYPICAL GUARDRAIL INSTALLATION

SCALE: N.T.S.

NOTES:

1. DURING WALL CONSTRUCTION, FORM CIP PAD TO MATCH ELEVATION REQUIRED BY COURSING ELEVATION.
2. CIP PAD SHALL MEET THE REQUIREMENTS OF SUBSECTION 540.05 SECTION 501 FOR CONCRETE, HIGH PERFORMANCE CLASS A OR CONCRETE, HIGH PERFORMANCE CLASS B.



4/4.01 CIP PAD DETAIL

SCALE: N.T.S.

Approved

BY: R. Young

DATE: 3/13/19

RESUBMIT: No

RECEIVED: March 12, 2019

CKD BY: G. Laroche/G. Dargan

STATE OF VERMONT
AGENCY OF TRANSPORTATION

STATE OF VERMONT
CURT J. DERICHS
NO. 74668
CIVIL
LICENSED PROFESSIONAL ENGINEER

CURT J. DERICHS, P.E. Date 3/11/19

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Designed By: TPH	Project: POULTNEY BRIDGE REPLACEMENT POULTNEY, VERMONT	Registration No: 74668
Scale: AS NOTED		Project No: 18-0989
Date: JAN 17, 2019	Title: TYPICAL DETAILS	Sheet No: 4.01

NOTES:

1. THE SECTION SHOWN IS A REPRESENTATIVE WALL SECTION. THE WALL HEIGHTS, ELEVATIONS, TOE SLOPES, AND BACK SLOPES VARY ACCORDING TO THE ELEVATION PLAN AND SITE PLAN RESPECTIVELY. SECTIONS AND DETAILS APPLY TO SAME AND SIMILAR CONDITIONS UNLESS SPECIFICALLY NOTED OTHERWISE.

2. UPON EXCAVATION, WHERE UNSUITABLE SOILS ARE FOUND, SUBCUT AS REQUIRED BY THE ONSITE GEOTECHNICAL ENGINEER AND REPLACE WITH SUITABLE COMPACTED STRUCTURAL FILL TO ACHIEVE THE REQUIRED BEARING CAPACITY. THE STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY. (SEE DETAIL 3/4.00)

3. APPROXIMATE LIMITS OF EXCAVATION VARIES WHERE SUBCUT IS REQUIRED. ACTUAL LIMITS AND SIDE SLOPES SHALL BE DETERMINED BY OSHA REGULATIONS AND MATCH FIELD CONDITIONS AS DETERMINED BY THE CONTRACTOR.

4. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL STATE, COUNTY, AND CITY REGULATIONS AND CODES AS WELL AS OSHA STANDARDS.

5. THE WALLS SHALL BE CONSTRUCTED WITH RECON SERIES 50: 24" DEEP UNITS USING 0.0° BATTER AND STRATA SG350 GEOGRID REINFORCEMENT AT THE ELEVATIONS SHOWN.

NOTES:

6. WALLS 1 AND 2 SHALL BE BACKFILLED WITH GRANULAR BACKFILL FOR STRUCTURES. WALLS 3 AND 4 SHALL BE BACKFILLED WITH LIGHTWEIGHT BACKFILL.

7. TO PREVENT PONDING OF WATER, POSITIVE DRAINAGE SHALL BE PROVIDED AT THE TOP AND BOTTOM OF WALL. INSPECT EXCAVATION SLOPES FOR ACTIVE SEEPAGE AND PLACE ADDITIONAL DRAINS WHERE SEEPAGE OCCURS.

8. THE WORK SHALL BE PERFORMED IN A GENERAL SEQUENCE DEVELOPED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR THE SEQUENCES AND PROCEDURES TO BE USED.

9. ALL AVAILABLE MEANS AND METHODS SHALL BE USED TO KEEP EXCAVATION FOR THE RETAINING WALLS WITHIN THE CONSTRUCTION LIMITS SHOWN ON THE PLANS. EXCAVATION SLOPES SHALL BE DETERMINED BY OSHA REGULATIONS AND IN-SITU SOIL CONDITIONS.

10. AT THE END OF EACH DAY'S OPERATION, SLOPE THE LAST LIFT OF BACKFILL TO DIRECT SURFACE RUNOFF AWAY FROM THE WALL. DO NOT ALLOW SURFACE RUNOFF FROM ADJACENT AREAS TO ENTER WALL CONSTRUCTION AREA.

NOTES:

11. THE CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE RELOCATION OF ALL EXISTING CONDUITS AND SERVICES WITH THE UTILITY PROVIDER. IF CONFLICTS EXIST THE ENGINEER SHALL BE CONTACTED IMMEDIATELY.

12. DO NOT BRING HEAVY COMPACTION OR PAVING EQUIPMENT WITHIN 3 FEET OF THE BACK OF THE RECON RETAINING WALL. ONLY HAND-OPERATED COMPACTION EQUIPMENT (E.G. TAMPER, PLATE COMPACTOR, SHEEP'S FOOT ROLLER) SHALL BE USED WITHIN 3 FEET OF THE BACK OF THE RECON RETAINING WALL UNITS.

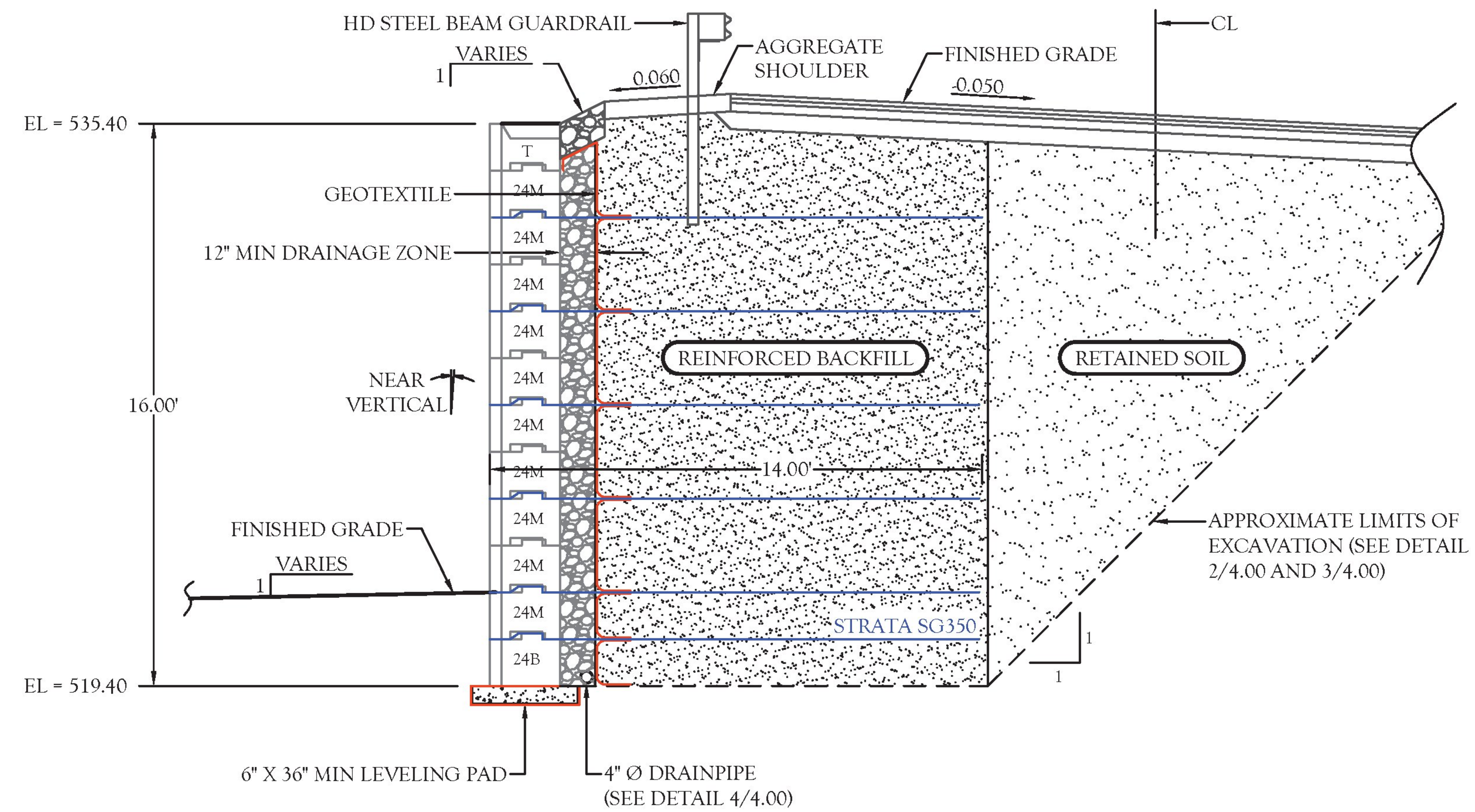
13. IF, DURING THE PERFORMANCE OF THE WORK, THE CONTRACTOR FINDS A CONFLICT, ERROR, OR DISCREPANCY IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL SO REPORT TO THE ENGINEER IN WRITING AT ONCE. BEFORE PROCEEDING WITH THE AFFECTED THEREBY, THE CONTRACTOR SHALL OBTAIN A WRITTEN INTERPRETATION OR CLARIFICATION FROM THE ENGINEER. WORK DONE BEFORE THE ENGINEER RENDERS A DECISION IS AT THE CONTRACTOR'S SOLE RISK.

14. SEE MANUFACTURERS INFORMATION FOR ADDITIONAL DETAILS ON THE RECON RETAINING WALL SYSTEM. THE MANUFACTURER INFORMATION SHALL ACCOMPANY THE CONSTRUCTION PLANS.

Approved

BY:	R. Young
DATE:	3/13/19
RESUBMIT:	No
RECEIVED:	March 12, 2019
CKD BY:	G. Laroche/G. Dargan

STATE OF VERMONT
AGENCY OF TRANSPORTATION



T	24" DEEP FULL TOP
24M	24" DEEP FULL MIDDLE
24B	24" DEEP FULL BOTTOM

TYPICAL REINFORCED WALL SECTION A - A

(WALL 3 SECTION SHOWN AT STATION 22.00')

STATE OF VERMONT
CURT J. DERICHS
NO. 74668
CIVIL
LICENSED
PROFESSIONAL ENGINEER

CIVIL DESIGN PROFESSIONALS

8609 LYNDALE AVENUE SOUTH, SUITE 200 BLOOMINGTON, MN 55420
PHONE: (952) 303-5312 | WEBSITE: WWW.CDP-US.COM
SITE SOLUTION PROFESSIONALS, INC. D.B.A. CIVIL DESIGN PROFESSIONALS

No.	Date	Revision	By
1	03.05.2019	REVIEW COMMENTS	TPH
2	03.11.2019	REVIEW COMMENTS	TPH
3			
4			
5			
6			

Designed By: TPH	Project: POULTNEY BRIDGE REPLACEMENT POULTNEY, VERMONT	Registration No: 74668
Scale: 1"=5'		Project No: 18-0989
Date: JAN 17, 2019	Title: SECTION A - A	Sheet No: 5.00

CURT J. DERICHS, P.E. Date 3/11/19

Approved

BY: R. Young
DATE: 3/13/19
RESUBMIT: No
RECEIVED: March 12, 2019
CKD BY: G. Laroche/G. Dargan

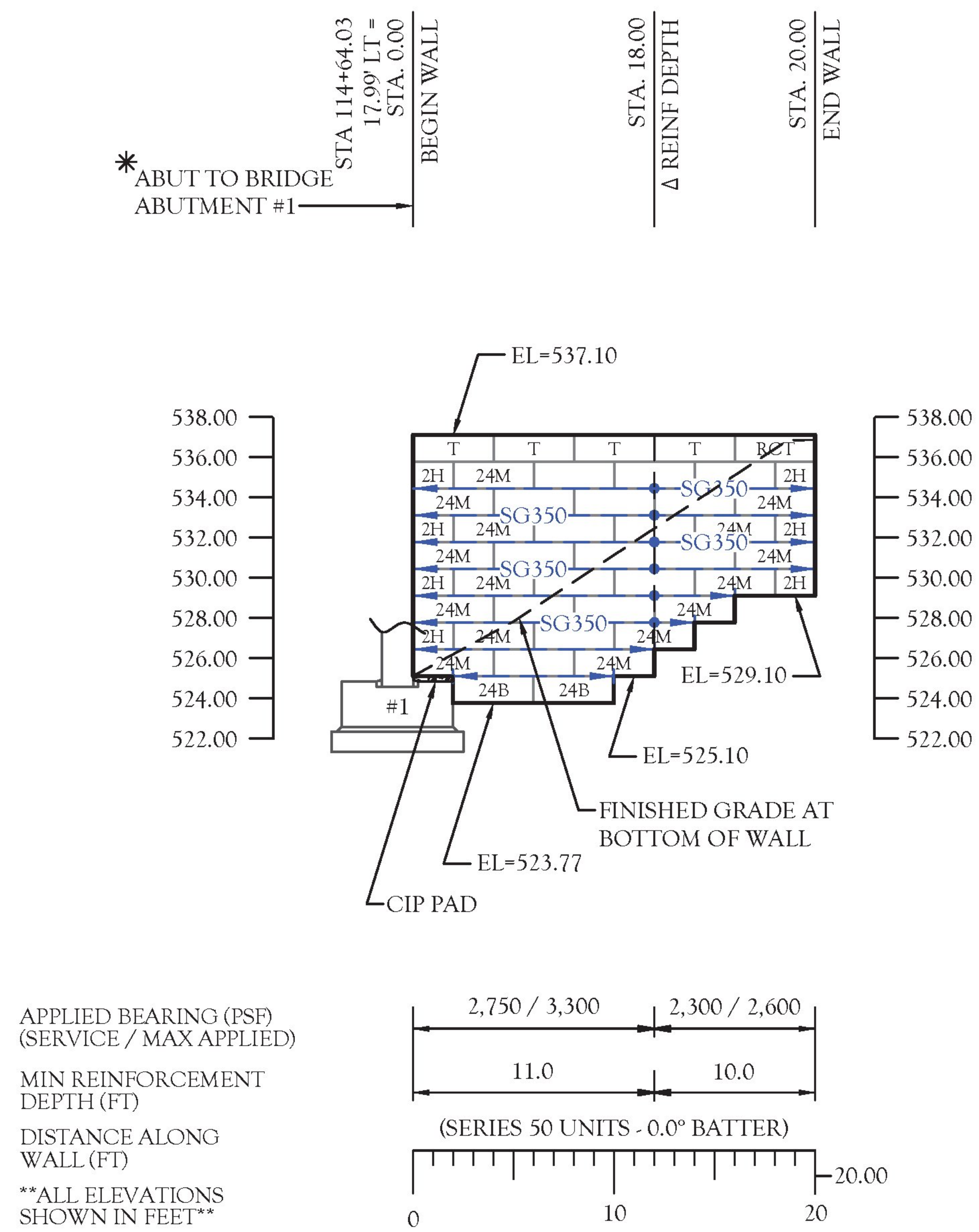
STATE OF VERMONT
AGENCY OF TRANSPORTATION

NOTES:

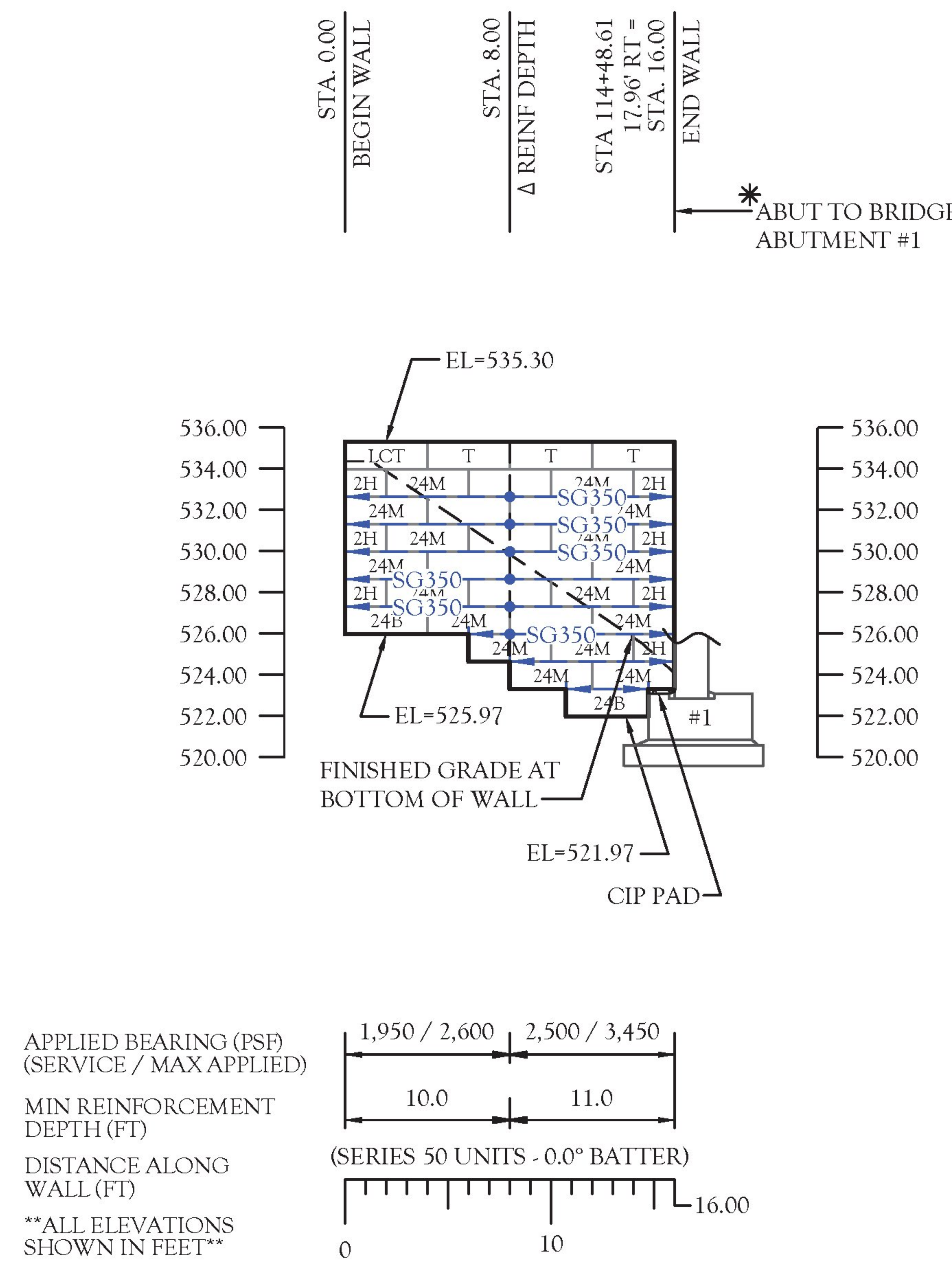
1. REINFORCED WALLS SHALL BE CONSTRUCTED WITH RECON SERIES 50: 24" DEEP UNITS USING 0.0° BATTER (NEAR VERTICAL) AND STRATAGRID SG350 GEOGRID REINFORCEMENT AT THE ELEVATIONS SHOWN. ALL BLOCKS NOT SHOWN ARE 24" DEEP MIDDLE UNITS.
2. WALLS 1 AND 2 SHALL BE BACKFILLED WITH GRANULAR BACKFILL FOR STRUCTURES.
3. * A GEOTEXTILE FABRIC SHALL BE PLACED WHERE RETAINING WALLS ABUT TO THE PROPOSED BRIDGE ABUTMENTS AS SHOWN ON THE PLAN SHEETS. OVERLAP ALL ABUTMENT JOINTS 24" WITH A MINIMUM 48" WIDE FABRIC. (SEE DETAIL 7/4.00)
4. IF COMPETENT BEDROCK IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR AND RESIDENT ENGINEER CAN DETERMINE TO ELIMINATE BLOCK OR EXCAVATE BEDROCK LEDGE.
5. SEE MANUFACTURER INFORMATION FOR ADDITIONAL CONSTRUCTION DETAILS FOR THE RECON RETAINING WALL SYSTEM. THE MANUFACTURER INFORMATION SHALL ACCOMPANY THE CONSTRUCTION PLANS.
6. SEE DETAIL 4/4.01 FOR CIP PAD REQUIREMENTS.

RECON BLOCK KEY		
RCT	RIGHT CORNER TOP	2
LCT	LEFT CORNER TOP	2
T	TOP BLOCK	16
24M	24" DEEP MIDDLE BLOCK	137
2H	24" DEEP HALF MIDDLE	32
24B	24" DEEP BOTTOM BLOCK	6
STRATAGRID SG350		623 SY
WWW.RECONWALLS.COM		

CONTRACTOR SHALL CONFIRM ALL QUANTITIES



RECON WALL 1 - FRONT FACE ELEVATION



RECON WALL 2 - FRONT FACE ELEVATION

STATE OF VERMONT
CURT J. DERICHS
NO. 74668
CIVIL
PROFESSIONAL LICENSED ENGINEER

CURT J. DERICHS, P.E. Date 3/11/19

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No	Date	Revision	By
1	03.05.2019	REVIEW COMMENTS	TPH
2	03.11.2019	REVIEW COMMENTS	TPH
3			
4			
5			
6			

Designed By: TPH	Project: POULTNEY BRIDGE REPLACEMENT POULTNEY, VERMONT	Registration No: 74668
Scale: 1" = 10'		Project No: 18-0989
Date: JAN 17, 2019	Title: WALL 1 AND 2 ELEVATION	Sheet No: 6.00

NOTES:

1. REINFORCED WALLS SHALL BE CONSTRUCTED WITH RECON SERIES 50: 24" DEEP UNITS USING 0.0° BATTER (NEAR VERTICAL) AND STRATAGRID SG350 GEOGRID REINFORCEMENT AT THE ELEVATIONS SHOWN. ALL BLOCKS NOT SHOWN ARE 24" DEEP MIDDLE UNITS.
2. WALLS 3 AND 4 SHALL BE BACKFILLED WITH LIGHTWEIGHT AGGREGATE.
3. * A GEOTEXTILE FABRIC SHALL BE PLACED WHERE RETAINING WALLS ABUT TO THE PROPOSED BRIDGE ABUTMENTS AS SHOWN ON THE PLAN SHEETS. OVERLAP ALL ABUTMENT JOINTS 24" WITH A MINIMUM 48" WIDE FABRIC. (SEE DETAIL 7/4.00)
4. IF COMPETENT BEDROCK IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR AND RESIDENT ENGINEER CAN DETERMINE TO ELIMINATE BLOCK OR EXCAVATE BEDROCK LEDGE.
5. SEE MANUFACTURER INFORMATION FOR ADDITIONAL CONSTRUCTION DETAILS FOR THE RECON RETAINING WALL SYSTEM. THE MANUFACTURER INFORMATION SHALL ACCOMPANY THE CONSTRUCTION PLANS.
6. SEE DETAIL 4/4.01 FOR CIP PAD REQUIREMENTS.

RECON BLOCK KEY		
RCT	RIGHT CORNER TOP	2
LCT	LEFT CORNER TOP	2
T	TOP BLOCK	16
24M	24" DEEP MIDDLE BLOCK	137
2H	24" DEEP HALF MIDDLE	32
24B	24" DEEP BOTTOM BLOCK	6
STRATAGRID SG350		623 SY
WWW.RECONWALLS.COM		

CONTRACTOR SHALL CONFIRM ALL QUANTITIES

Approved
BY: R. Young
DATE: 3/13/19
RESUBMIT: No
RECEIVED: March 12, 2019
CKD BY: G. Laroche/G. Dargan
STATE OF VERMONT
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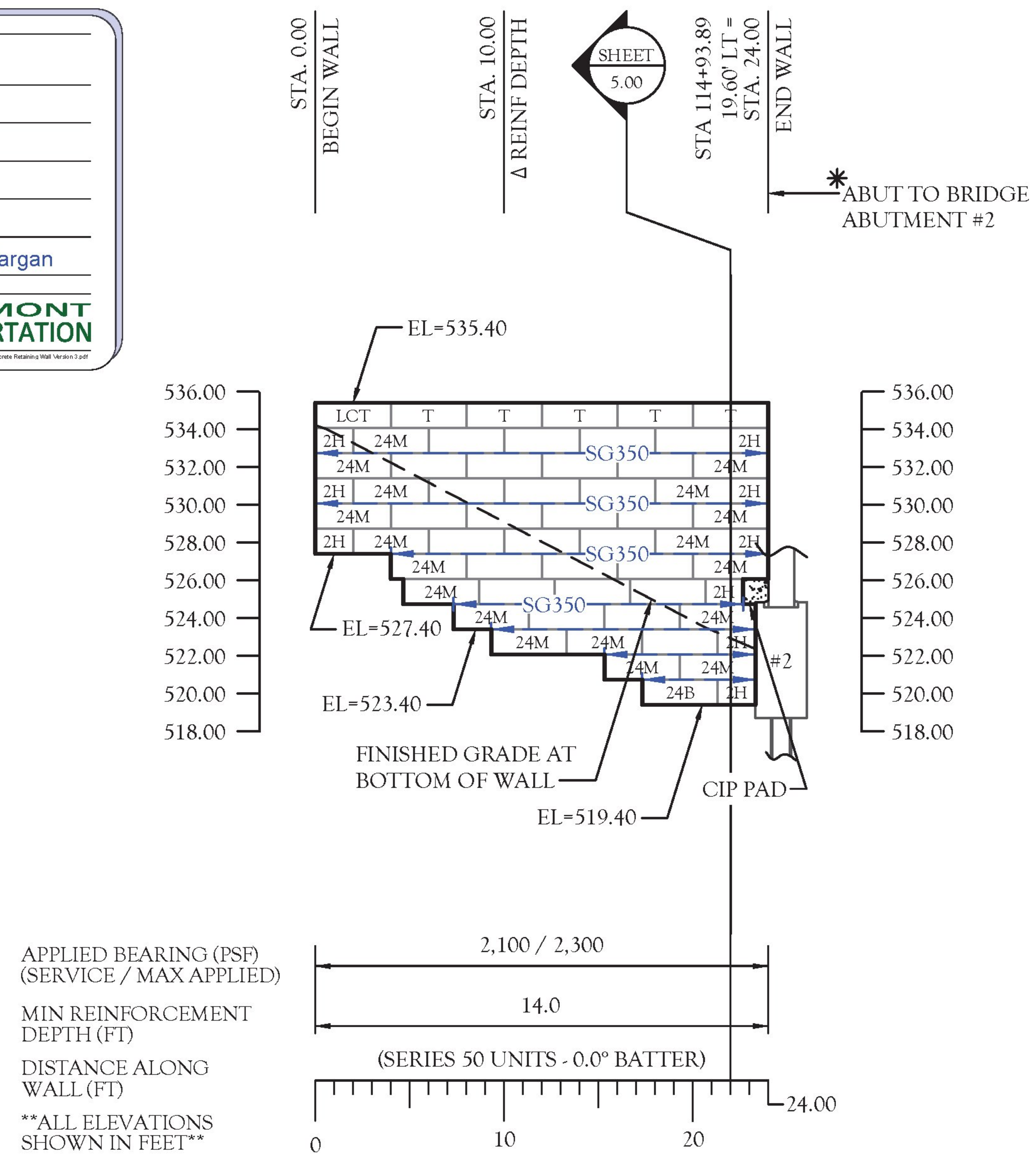
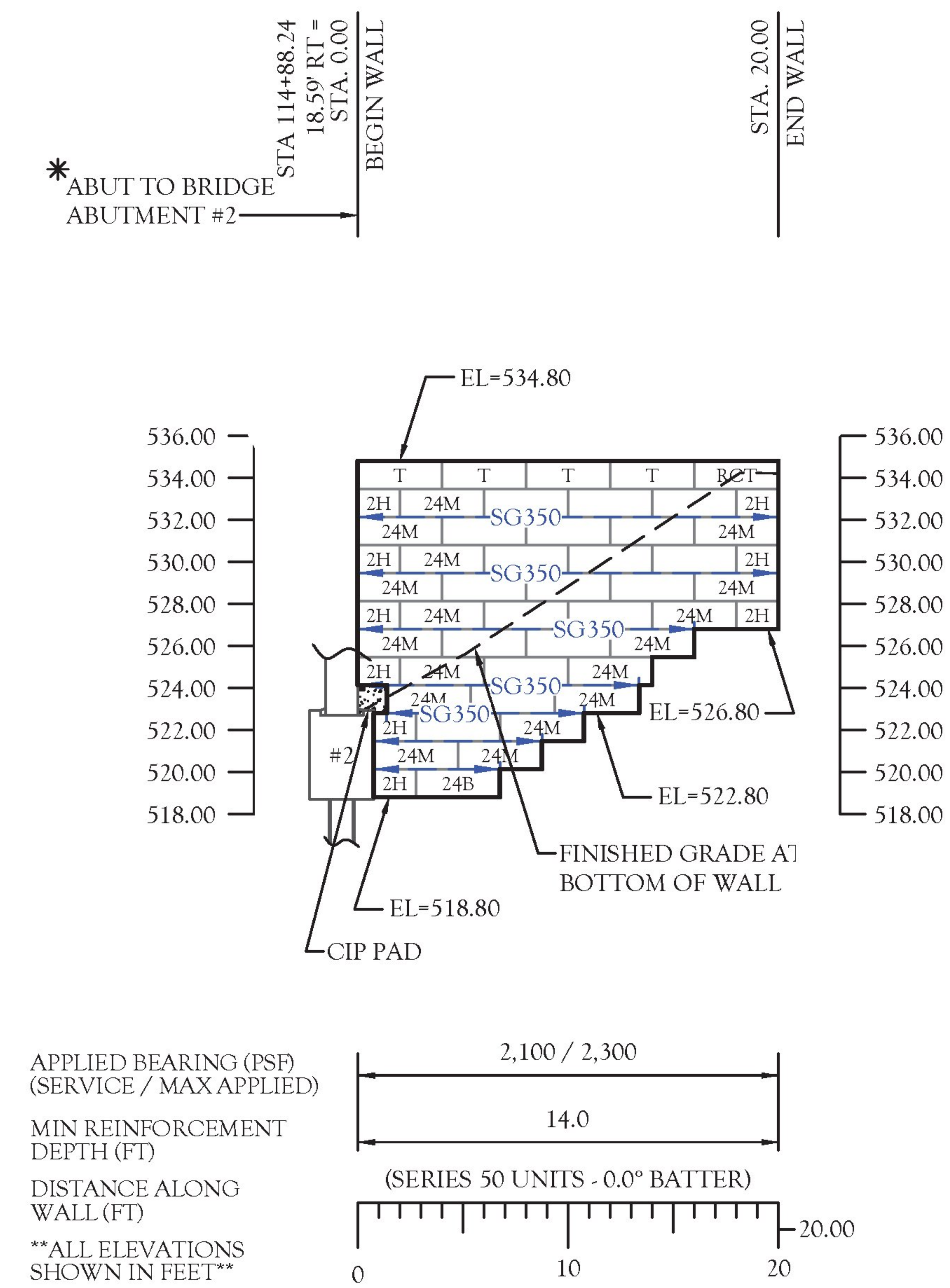


RECON WALL 3 - FRONT FACE ELEVATION



RECON WALL 4 - FRONT FACE ELEVATION

CIVIL DESIGN PROFESSIONALS
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No	Date	Revision	By
1	03.05.2019	REVIEW COMMENTS	TPH
2	03.11.2019	REVIEW COMMENTS	TPH
3			
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6			

Designed By: TPH
Scale: 1" = 10'
Date: JAN 17, 2019
Project: POULTNEY BRIDGE REPLACEMENT POULTNEY, VERMONT
Title: WALL 3 AND 4 ELEVATION
Registration No: 74668
Project No: 18-0989
Sheet No: 6.01

STATE OF VERMONT
CURT J. DERICHS
NO. 74668
CIVIL
LICENSED PROFESSIONAL ENGINEER

CURT J. DERICHS, P.E.
Date 3/11/19