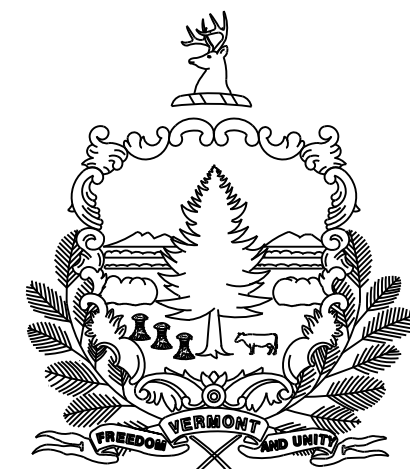


REVIEWER NOTES:

1. PLEASE NOTE THAT WE ARE USING THE BRIDGE RAILING, GALVANIZED NETC 3 RAIL BOX BEAM FOR OUR BRIDGE RAIL. AS THE STANDARDS FOR THIS TYPE OF RAIL ARE CURRENTLY UNDER DEVELOPMENT AND THE PAY ITEMS NOT BEEN ADDED TO THE ESTIMATOR CATALOG, WE USED SIMILAR ITEMS IN OUR ESTIMATE AND QUANTITY SHEETS FOR BRIDGE RAIL AND APPROACH RAIL TO COVER THESE ITEMS. WE ALSO INCLUDE THE STANDARDS IN OUR PI SHEET STANDARDS LIST, BUT DID NOT PROVIDE A DATE AS THEY ARE CURRENTLY IN DRAFT FORM.

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

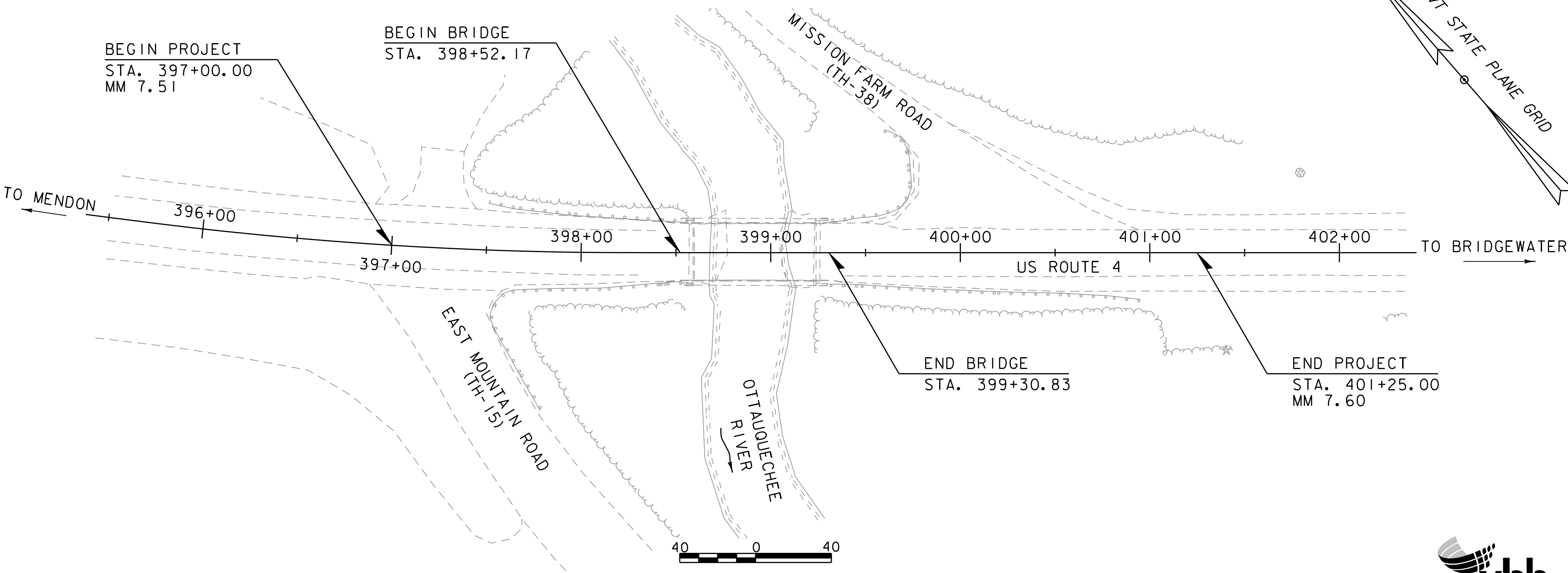
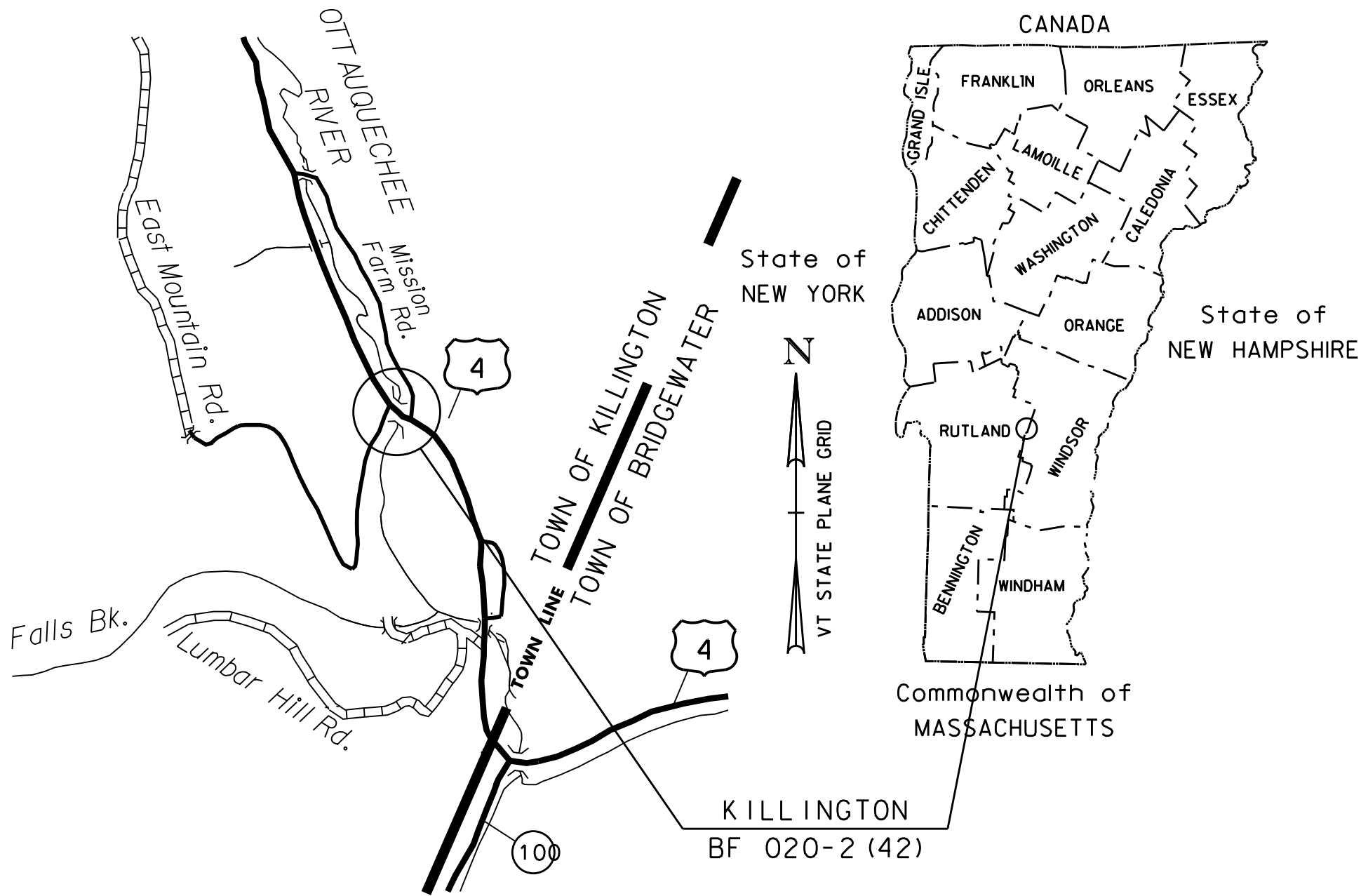
TOWN OF KILLINGTON
COUNTY OF RUTLAND

US ROUTE 4 (RURAL PRINCIPAL ARTERIAL) , BRIDGE NO 33

PROJECT LOCATION: LOCATED IN THE COUNTY OF RUTLAND , IN THE TOWN OF KILLINGTON, ON US ROUTE 4; BRIDGE NO. 33 OVER THE OTTAUQUECHEE RIVER; APPROXIMATELY 1.0 MILE WEST OF THE INTERSECTION OF US ROUTE 4 AND VT ROUTE 100 IN THE TOWN OF BRIDGEWATER.

PROJECT DESCRIPTION: WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES THE REMOVAL AND REPLACEMENT OF BRIDGE NO. 33 ON THE EXISTING ALIGNMENT, WITH ASSOCIATED ROADWAY AND CHANNEL WORK.

LENGTH OF STRUCTURE: 78.66 FEET
LENGTH OF ROADWAY: 346.34 FEET
LENGTH OF PROJECT: 425.00 FEET



CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2018, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON APRIL 13, 2018 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

QUALITY ASSURANCE PROGRAM : LEVEL 1	
SURVEYED BY :	R. GILMAN
SURVEYED DATE :	12/2013
DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD 83 (2011)

FINAL PLANS
APRIL 2020

HIGHWAY DIVISION, CHIEF ENGINEER	
APPROVED _____	DATE _____
PROJECT MANAGER : ROBERT YOUNG, PE	
PROJECT NAME : KILLINGTON	
PROJECT NUMBER : BF 020-2 (42)	
SHEET 1 OF 62 SHEETS	



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PLAN SHEETS					STANDARDS LIST					HYDROLOGIC DATA					PROPOSED STRUCTURE				
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STANDARD FOR RESIDENTIAL AND COMMERCIAL DRIVES

07-08-2005

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CURBING

02-11-2008

E-121

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08-08-1995

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PAVEMENT MARKING DETAILS

08-18-1995

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STEEL BEAM GUARDRAIL DETAILS (POST, DELINEATOR, TYPICALS)

03-10-2017

G-1D

STEEL BEAM GUARDRAIL DETAILS (END TERMINAL, ANCHOR, MEDIAN)

03-10-2017

G-19

GENERIC GRADING PLANS FOR GUARDRAIL END TERMINALS

11-15-2002

S-361A

BRIDGE RAILING, GALVANIZED NETC 3 RAIL BOX BEAM

TBD

S-361B

BRIDGE RAILING, GALVANIZED NETC 3 RAIL BOX BEAM

TBD

S-361C

GUARDRAIL APPROACH SECTION, GALVANIZED NETC 3 RAIL BOX BEAM

TBD

T-1

TRAFFIC CONTROL GENERAL NOTES

04-25-2016

T-2

TRAFFIC SIGN GENERAL NOTES

04-25-2016

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CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING

08-06-2012

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TRAFFIC CONTROL MISCELLANEOUS DETAILS

08-06-2012

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CONSTRUCTION SIGN DETAILS

08-06-2012

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CONSTRUCTION SIGN DETAILS

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CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS

08-06-2012

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CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS FOR PAVING

08-06-2012

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DELINEATORS AND MILEPOSTS

01-02-2013

T-42

BRIDGE NUMBER PLAQUE

04-09-2014

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MILEMARKER DETAILS STATE AND TOWN HIGHWAYS

04-09-2014

T-45

SQUARE TUBE SIGN POST AND ANCHOR

01-02-2013

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STANDARD SIGN PLACEMENT

10-26-2015

DATE: 02/11/2016

DRAINAGE AREA : 24.3 square miles

CHARACTER OF TERRAIN : Hilly to mountainous - mostly forested

STREAM CHARACTERISTICS : Low gradient; steep, defined, vegetated banks

NATURE OF STREAMBED : Sand-gravel-cobble mix

PEAK FLOW DATA - ANNUAL EXCEEDANCE PROBABILITY (AEP)

43% = 975 cfs2% = 3100 cfs

10% = 2000 cfs1% = 3600 cfs

4% = 2575 cfs0.2% = 5040 cfs

DATE OF FLOOD OF RECORD : 1927

ESTIMATED DISCHARGE: Unknown

WATER SURFACE ELEV.: Unknown

NATURAL STREAM VELOCITY : @ 2% AEP = 8.9 fps

ICE CONDITIONS : Moderate

DEBRIS: Moderate

DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? Unknown

IS ORDINARY RISE RAPID? Unknown

IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No

IF YES, DESCRIBE:

WATERSHED STORAGE: 3%HEADWATERS: X

UNIFORM:

IMMEDIATELY ABOVE SITE:

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Single-span rolled beam bridge with concrete deck

YEAR BUILT: 1956

CLEAR SPAN(NORMAL TO STREAM): 65 feet

VERTICAL CLEARANCE ABOVE STREAMBED: 15 feet

WATERWAY OF FULL OPENING: 580 square feet

DISPOSITION OF STRUCTURE: Removal and Replacement

TYPE OF MATERIAL UNDER SUBSTRUCTURE: Concrete abutments

WATER SURFACE ELEVATIONS AT:

43% AEP = 1149.8 ftVELOCITY = 4.7 fps

10% AEP = 1152.2 ft"6.7 fps

4% AEP = 1153.2 ft"7.6 fps

2% AEP = 1153.9 ft"8.4 fps

1% AEP = 1154.5 ft"9.1 fps

LONG TERM STREAMBED CHANGES: Moderately stable, existing scour hole through bridge opening

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: No

FREQUENCY: N/A

RELIEF ELEVATION: 1158.7 ft

DISCHARGE OVER ROAD @ 1% AEP: N/A

UPSTREAM STRUCTURE

TOWN: KillingtonDISTANCE: 3600 ft

HIGHWAY #: Town Highway 38STRUCTURE #: B 28

CLEAR SPAN: ~37 feetCLEAR HEIGHT:

YEAR BUILT: 1992FULL WATERWAY:

STRUCTURE TYPE: Concrete Slab Bridge

DOWNSTREAM STRUCTURE

TOWN: KillingtonDISTANCE: 4400 ft

HIGHWAY #: US Route 4STRUCTURE #: B 34

CLEAR SPAN: ~180 feetCLEAR HEIGHT:

YEAR BUILT: 1961FULL WATERWAY:

STRUCTURE TYPE: 3-span Rolled Beam Bridge

LRFR LOAD RATING FACTORS

LOADING LEVELS

TONNAGE

INVENTORY

POSTING

OPERATING

COMMENTS:

TEMPORARY BRIDGE PROFILE ALONG TEMP CL

98.75 FT (MIN)

12.00 FT (MIN)

OPENING 1283.75 FT (MIN)

PROJECT NAME: KILLINGTON

PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260pi.dgn

PROJECT LEADER: S.E. BURBANK

DESIGNED BY: E.F. LAWES

PRELIMINARY INFORMATION SHEET

PLOT DATE: 4/27/2020

DRAWN BY: R.H. BARNES

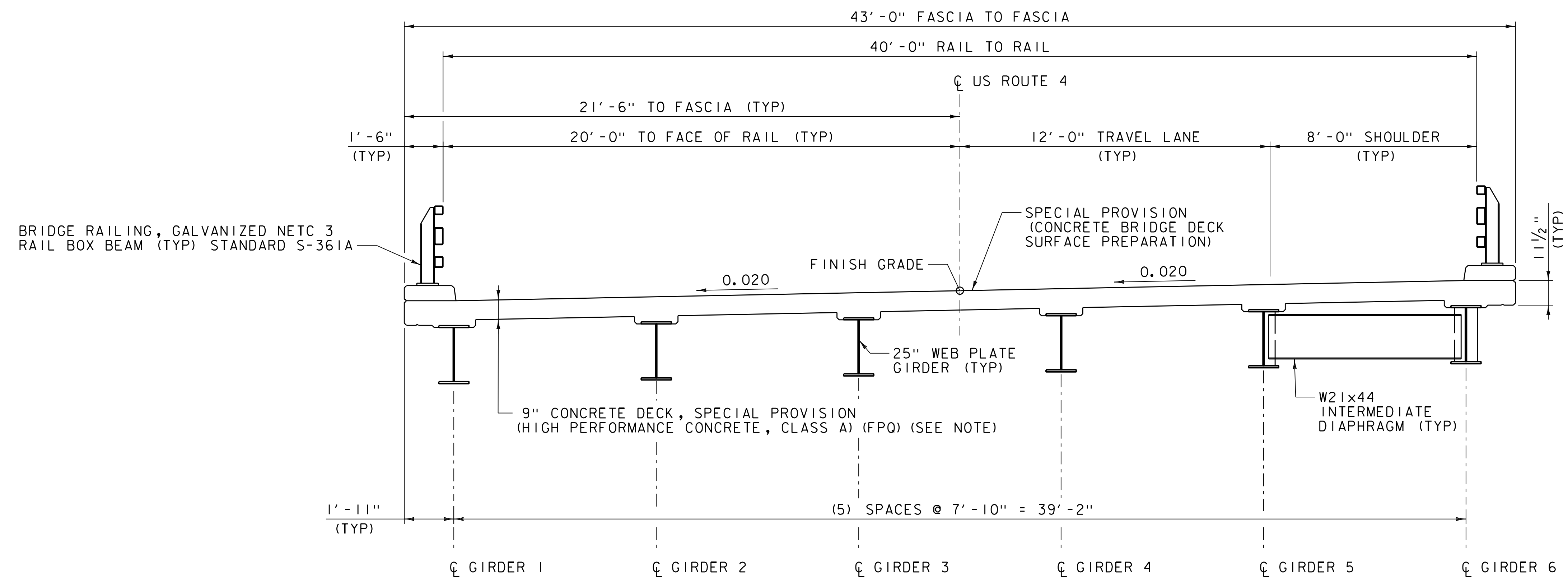
CHECKED BY: K.C. BARRY

SHEET 2 OF 62

DETAIL SHEETS

SD-501.00	CONCRETE DETAILS AND NOTES	2/9/2012
SD-502.00	CONCRETE DETAILS AND NOTES	10/10/2012
SD-516.10	BRIDGE JOINT ASPHALTIC PLUG	8/29/2011
SD-601.00	STRUCTURAL STEEL DETAILS AND NOTES	6/4/2010
SD-602.00	STRUCTURAL STEEL PLATE GIRDER DETAILS AND NOTES	5/2/2011
HSD-400.01	SAFETY EDGE DETAILS	1/5/2018
HSD-621.06	MISCELLANEOUS GUARDRAIL DETAILS	2/27/2017
HSD-621.07A	MIDWEST GUARDRAIL SYSTEM (MGS)	4/17/2019
HSD-621.07B	W-BEAM GUARDRAIL COMPONENTS	4/17/2019
HSD-621.07F	MIDWEST GUARDRAIL SYSTEM TRANSITION SECTION	4/17/2019

TRAFFIC DATA					AS BUILT "REBAR" DETAIL			
YEAR	ADT	DHV	% D		LEVEL I	LEVEL II	LEVEL III	
2017	5600	780	58	9.7	TYPE:	TYPE:	TYPE:	
2037	5900	820	58	10.6	GRADE:	GRADE:	GRADE:	
20 year ESAL for flexible pavement from 2017 to 2037 : 5501000								
40 year ESAL for flexible pavement from 2017 to 2057 : 5501000								
Design Speed : 50 mph								



TYPICAL BRIDGE SECTION

SCALE $\frac{3}{8}" = 1'-0"$

NOTE:
SEE PRECAST CONCRETE DECK PANEL DETAIL SHEET FOR DECK PANEL ALTERNATIVE DETAILS.

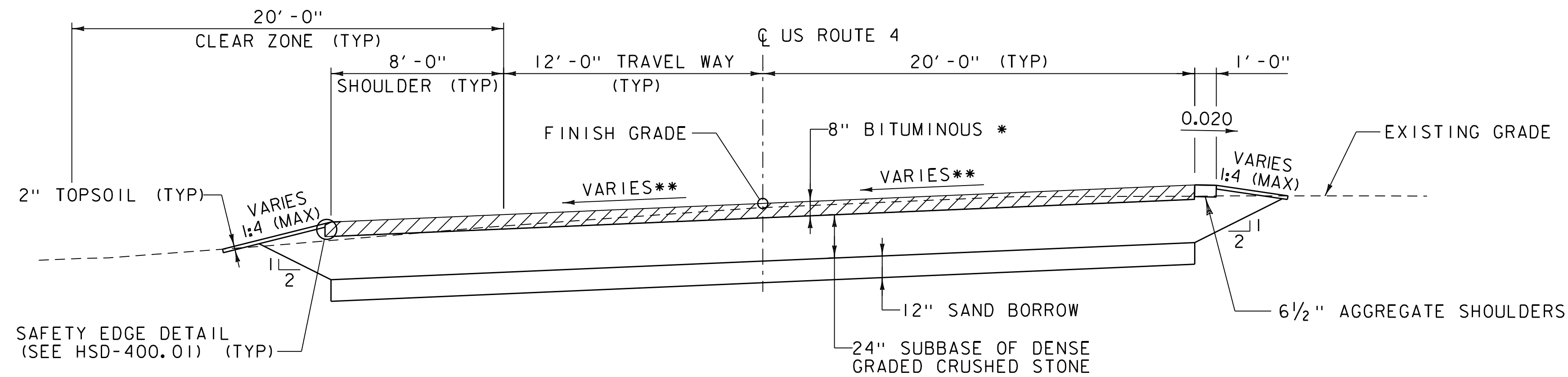
PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260typ.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
TYPICAL BRIDGE SECTION

PLOT DATE: 4/27/2020
DRAWN BY: E.F. LAWES
CHECKED BY: K.C. BARRY
SHEET 3 OF 62

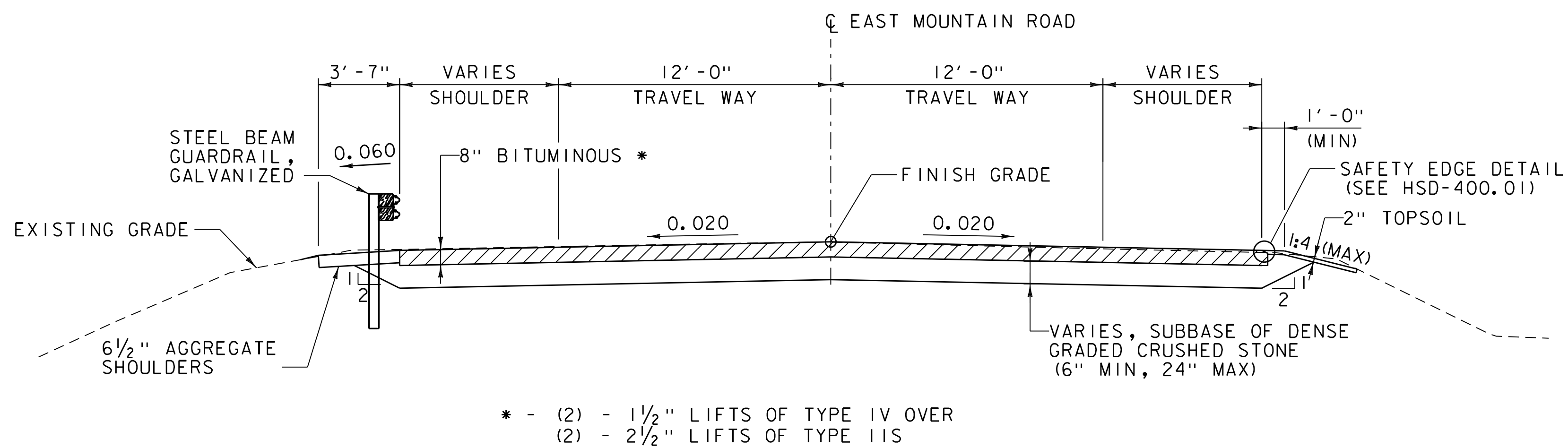


MATERIAL TOLERANCES (IF USED ON PROJECT)	
SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
- AGGREGATE SURFACE COURSE	+/- 1/2"
SUBBASE	+/- 1"
SAND BORROW	+/- 1"



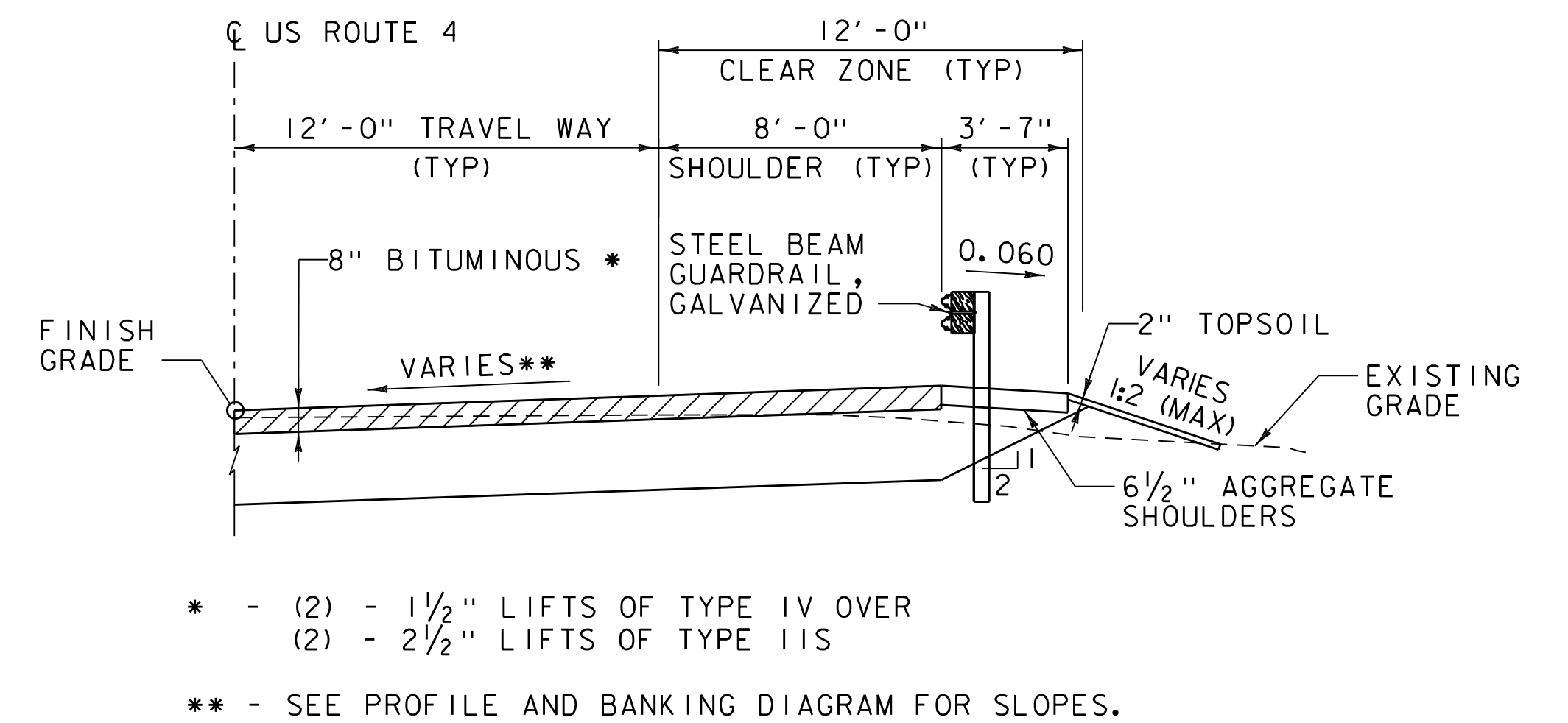
- * - (2) - 1 1/2" LIFTS OF TYPE IV OVER
(2) - 2 1/2" LIFTS OF TYPE IIS
- ** - SEE PROFILE AND BANKING DIAGRAM FOR SLOPES

TYPICAL US ROUTE 4 SECTION
SCALE 1/4" = 1'-0"



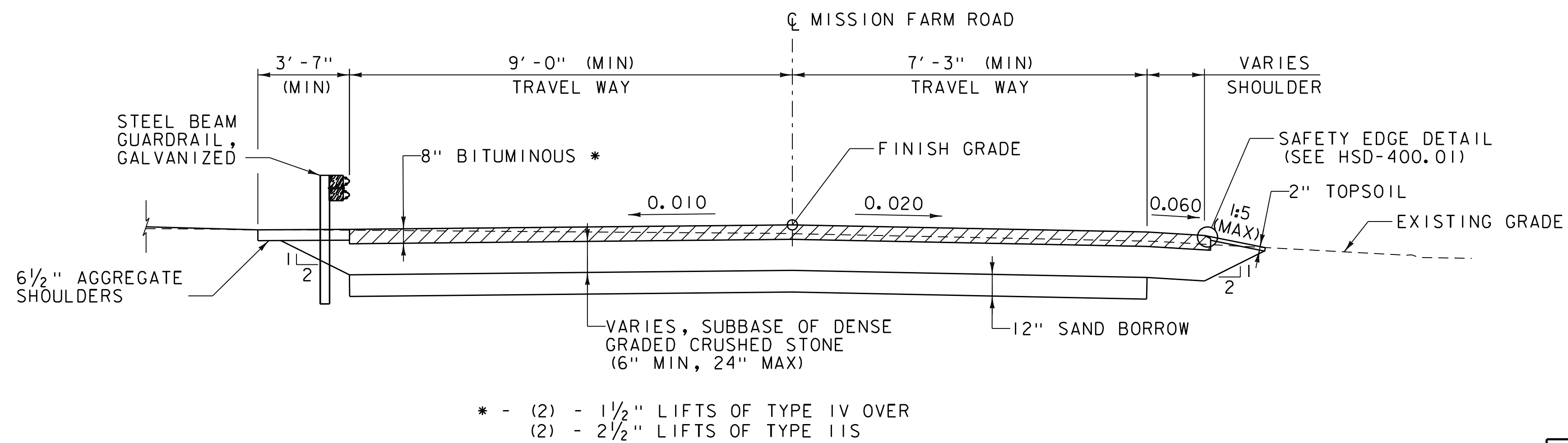
- * - (2) - 1 1/2" LIFTS OF TYPE IV OVER
(2) - 2 1/2" LIFTS OF TYPE IIS

TYPICAL EAST MOUNTAIN ROAD SECTION
SCALE 1/4" = 1'-0"



- * - (2) - 1 1/2" LIFTS OF TYPE IV OVER
(2) - 2 1/2" LIFTS OF TYPE IIS
- ** - SEE PROFILE AND BANKING DIAGRAM FOR SLOPES.

TYPICAL US ROUTE 4 SECTION WITH GUARDRAIL
SCALE 1/4" = 1'-0"



- * - (2) - 1 1/2" LIFTS OF TYPE IV OVER
(2) - 2 1/2" LIFTS OF TYPE IIS

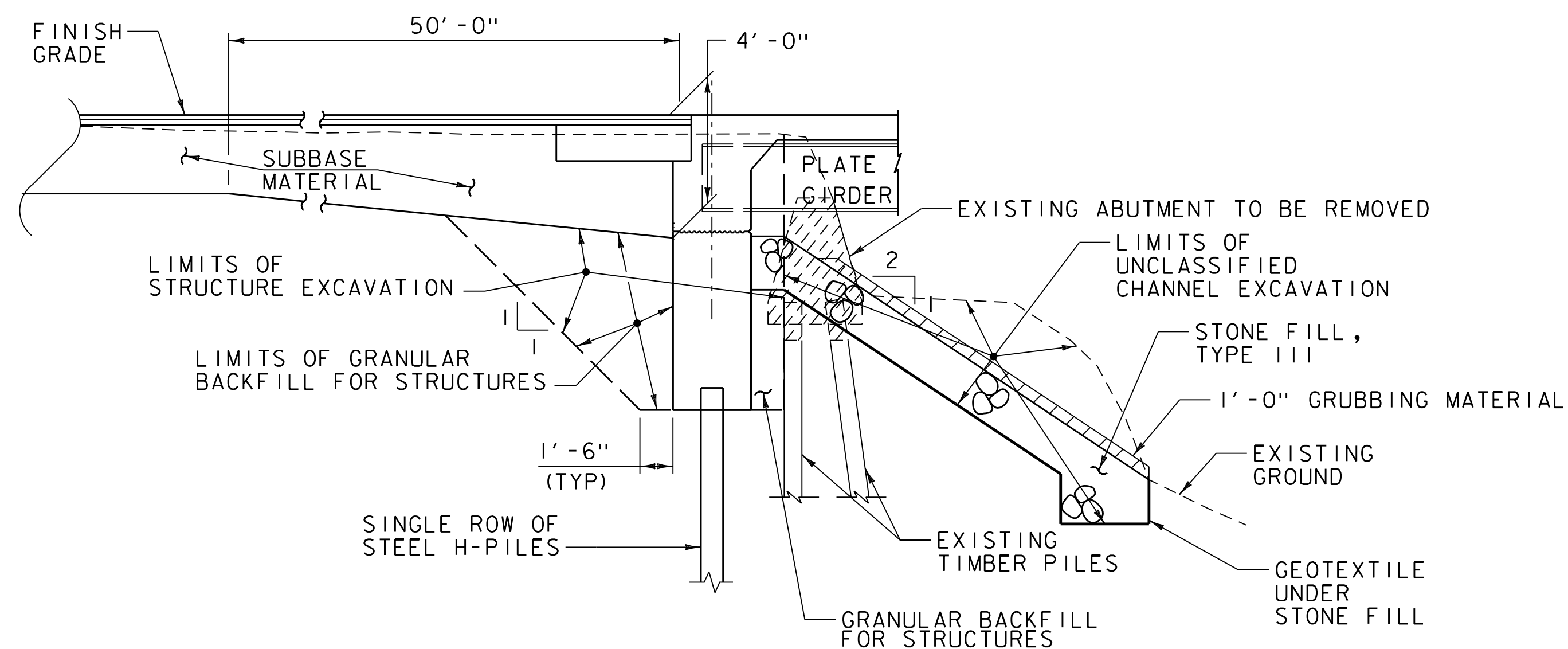
TYPICAL MISSION FARM ROAD SECTION
SCALE 1/4" = 1'-0"



PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

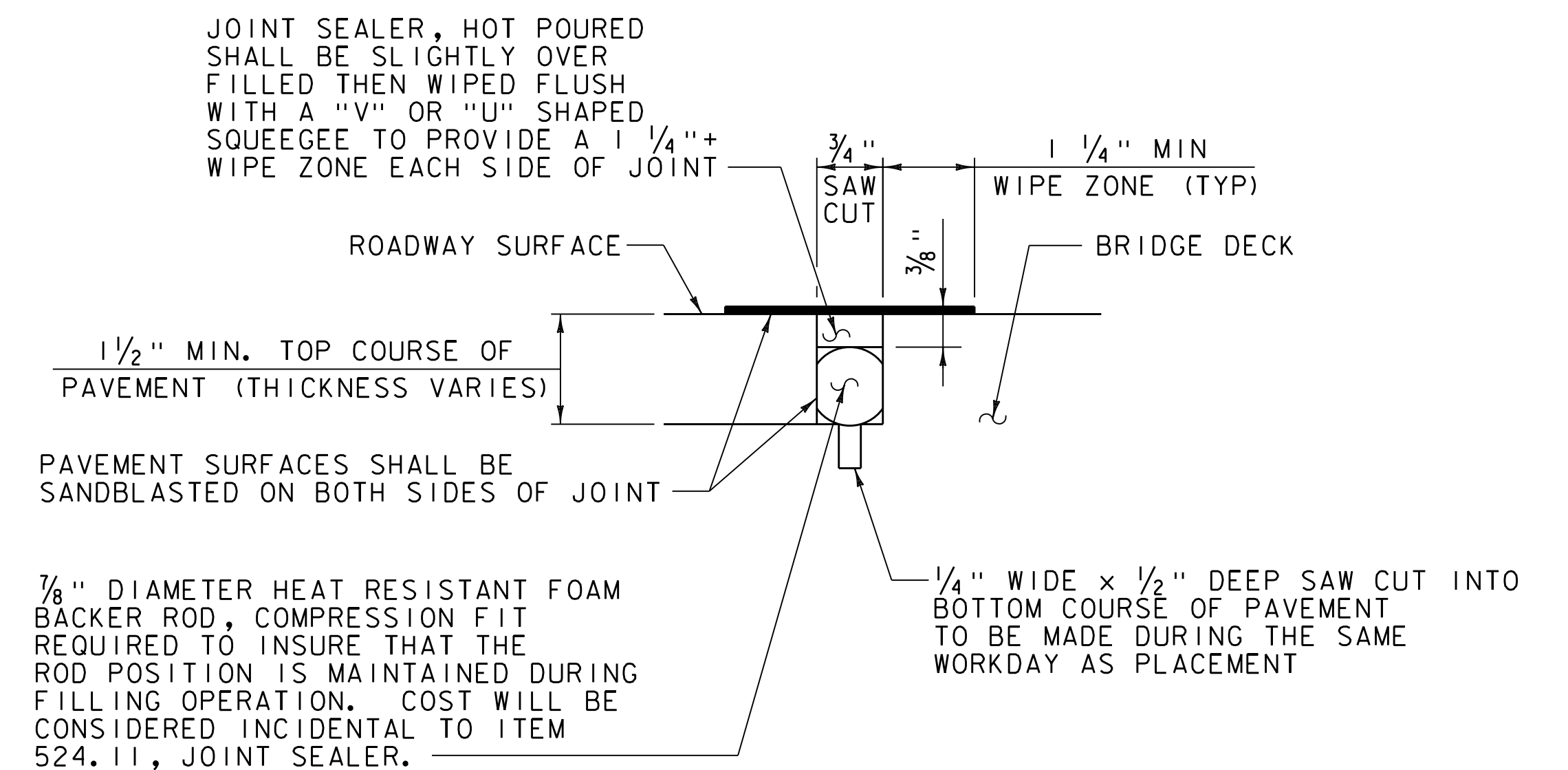
FILE NAME: z13b260typ.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
TYPICAL ROADWAY SECTIONS (1 OF 2)

PLOT DATE: 4/27/2020
DRAWN BY: R.H. BARNES
CHECKED BY: K.C. BARRY
SHEET 4 OF 62



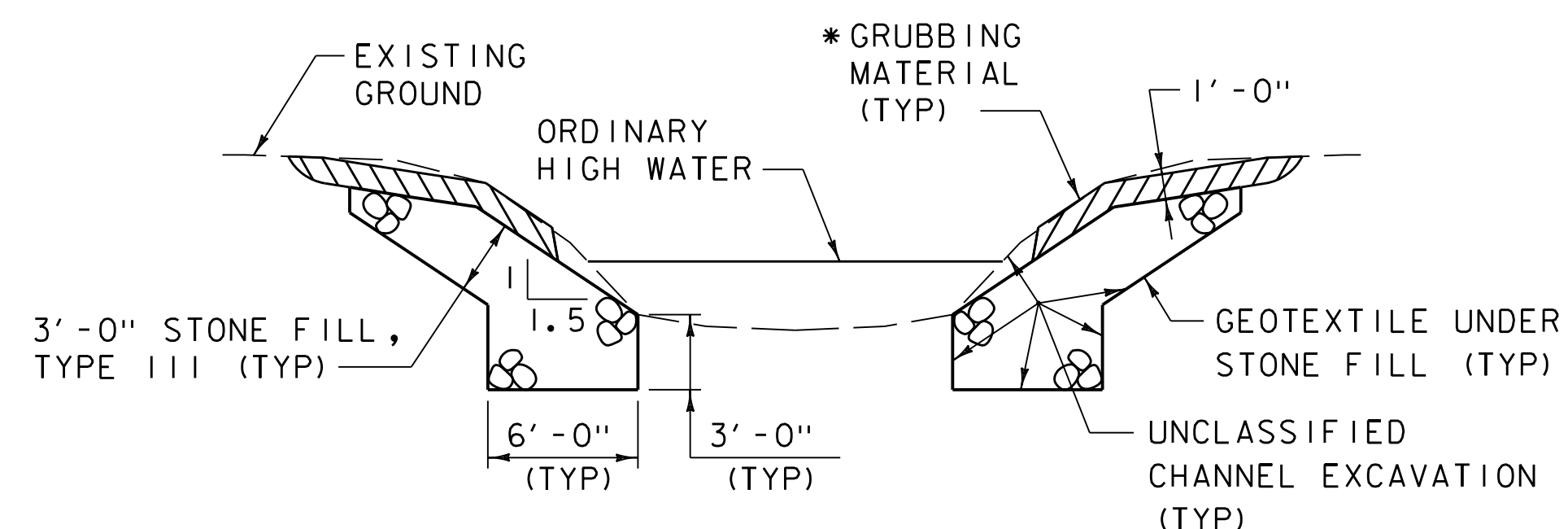
NOTE: ACTUAL STRUCTURE EXCAVATION LIMITS SHALL BE DETERMINED BY THE CONTRACTOR. HOWEVER, ONLY THE EXCAVATION BETWEEN THE LIMITS SHOWN FOR STRUCTURE EXCAVATION WILL BE PAID FOR UNDER ITEM 204.25, "STRUCTURE EXCAVATION". TIMBER PILES SHALL BE REMOVED TO A MINIMUM OF 1'-0" BELOW THE STONE FILL LIMITS AND WILL BE PAID FOR UNDER ITEM 529.15, "REMOVAL OF STRUCTURE." THE ABANDONED SEWER LINE ON THE BRIDGE WILL BE REMOVED AND CAPPED AND PAID FOR UNDER ITEM 529.15, "REMOVAL OF STRUCTURE." EXCAVATION OUTSIDE OF THESE LIMITS WILL BE AT THE EXPENSE OF THE CONTRACTOR.

ABUTMENT EARTHWORK SECTION
NOT TO SCALE



SAW CUT JOINT DETAIL
NOT TO SCALE

1. JOINT IS TO BE LOCATED ACCURATELY BY STRING LINING OR OTHER MEANS, PRIOR TO PAVING, SO THAT THE SAW CUTS WILL BE MADE DIRECTLY OVER THE END OF THE CONCRETE DECK. JOINT SHALL BE CUT DRY IN A SINGLE PASS AND BE SEALED WITHIN 24 HOURS OR PRIOR TO EXPOSURE TO TRAFFIC. JOINT SHALL BE CLEANED PRIOR TO APPLYING THE JOINT SEALER.
2. SAWED PAVEMENT JOINTS SHALL BE LOCATED BETWEEN THE APPROACH SLABS AND EACH END OF THE BRIDGE.



TYPICAL CHANNEL SECTION
NOT TO SCALE

*GRUBBING MATERIAL SHALL NOT BE PLACED ON STONE FILL WITHIN 3' OF THE FACE OF THE ABUTMENT UNDER THE BRIDGE. WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.



PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260typ.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
TYPICAL ROADWAY SECTIONS (2 OF 2)

PLOT DATE: 4/27/2020
DRAWN BY: K.C. BARRY
CHECKED BY: S.E. BURBANK
SHEET 5 OF 62

PROJECT NOTES

GENERAL

- 1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2018, AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION, AND ITS LATEST REVISIONS.
- 2. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL, AND ARE GIVEN AT 68 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE.
- 3. THE BRIDGE IS DESIGNED FOR HL-93 LIVE LOAD WITH A 2.5 INCH ALLOWANCE FOR FUTURE PAVEMENT.
- 4. THE EXISTING BRIDGE CONTAINS STRUCTURAL STEEL. THE STRUCTURAL STEEL MAY BE PAINTED WITH MATERIAL THAT MAY CONTAIN LEAD. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE REGULATIONS WHEN HANDLING AND WORKING WITH THIS STEEL. THE REMOVED STRUCTURAL STEEL IS THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, ITS OFFICERS, AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR’S USE OR DISPOSITION OF THE REMOVED EXISTING STRUCTURAL STEEL.
- 5. THE REMOVAL OF THE EXISTING BRIDGE WILL BE PAID FOR UNDER ITEM 529.15 “REMOVAL OF STRUCTURE”. THIS WORK WILL INCLUDE THE COMPLETE REMOVAL AND DISPOSAL OF THE EXISTING BRIDGE SUPERSTRUCTURE, INCLUDING ALL BRIDGE RAILINGS, BEARINGS, ANCHOR BOLTS, TIMBER PILES TO 1’-0” BELOW STONE FILL LIMITS, THE EXISTING ABANDONED SEWER PIPE ON THE BRIDGE, AND THE BRIDGE SUBSTRUCTURE THAT FALLS OUTSIDE THE LIMITS COVERED BY THE CONTRACT EXCAVATION ITEMS.

TRAFFIC CONTROL

- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A DETAILED TRAFFIC CONTROL PLAN TO THE PROJECT MANAGER FOR ALL STAGES OF CONSTRUCTION FOR APPROVAL. ALL COSTS WILL BE INCLUDED IN ITEM 649.11, “TRAFFIC CONTROL, ALL-INCLUSIVE”.
- 7. ALL ITEMS REQUIRED TO IMPLEMENT THE CONTRACTOR’S TRAFFIC CONTROL PLAN WILL NOT BE PAID FOR DIRECTLY BUT WILL BE INCLUDED IN THE BID PRICE FOR ITEM 641.11, “TRAFFIC CONTROL, ALL-INCLUSIVE”.
- 8. DURING CONSTRUCTION, TRAFFIC SHALL BE MAINTAINED ON A TWO-WAY TEMPORARY BRIDGE LOCATED UPSTREAM OF THE NEW STRUCTURE. THE TEMPORARY BRIDGE AND DETOUR SHALL BE PAVED. CONSTRUCTION AND MAINTENANCE OF THE TEMPORARY BRIDGE AND ITS APPROACHES SHALL BE PAID FOR UNDER ITEM 528.11, “TWO-WAY TEMPORARY BRIDGE”.
- 9. FULL ACCESS TO EAST MOUNTAIN ROAD SHALL BE MAINTAINED AT ALL TIMES. MISSION FARM ROAD AND THE DRIVE TO THE GRAVEL PARKING LOT SHALL BE CLOSED DURING THE DETOUR. THIS WORK WILL BE CONSIDERED INCIDENTAL TO 641.11, "TRAFFIC CONTROL, ALL-INCLUSIVE".
- 10. PAYMENT FOR FLAGGERS WILL BE MADE UNDER ITEM 630.15, “FLAGGERS”. PAYMENT FOR PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) WILL BE MADE UNDER ITEM 641.15, “PORTABLE CHANGEABLE MESSAGE SIGN”.

EARTHWORK

- 11. STONE FILL SHALL BE PLACED IN FRONT OF THE ABUTMENTS BEFORE THE NEW GIRDERS ARE SET, AS SHOWN ON THE PLANS.

H-PILES

- 12. ABUTMENT PILES
 - A. THE PILES SHALL BE HP 12x63.
 - B. THE PILES SHALL BE DRIVEN TO A NOMINAL PILE DRIVING RESISTANCE (RNDR) OF 323 KIPS, PROVIDED A MINIMUM PENETRATION OF 25.0 FEET BELOW THE BOTTOM OF PILE CAP HAS BEEN ACHIEVED.
- 13. A MINIMUM OF ONE DYNAMIC TEST PER ABUTMENT IS REQUIRED DURING PILE INSTALLATION. PAYMENT WILL BE MADE UNDER ITEM 505.45, “DYNAMIC PILE LOADING TEST”.
- 14. THE TOPS OF THE PILES AFTER INSTALLATION 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 DRIVING COMMENCES.
- 15. FOR ESTIMATING PURPOSES, THE PILE TIP ELEVATIONS WERE ASSUMED AS SHOWN ON THE BORING LOGS. THE ACTUAL IN PLACE LENGTHS MAY VARY.

STRUCTURAL STEEL

- 16. ALL STRUCTURAL STEEL WILL BE PAID UNDER ITEM 506.55, “STRUCTURAL STEEL, PLATE GIRDER (METALIZED)(FPQ)” AND SHALL CONFORM TO AASHTO M270M/M270 GRADE 50.
- 17. ALL STRUCTURAL STEEL SHALL BE METALIZED IN ACCORDANCE WITH SUBSECTION 726.09.

- 18. ALL MEMBERS MARKED (CVN) MUST MEET THE CHARPY V-NOTCH TESTING REQUIREMENTS AS INDICATED IN SUBSECTION 714.01.
- 19. ALL FIELD CONNECTIONS SHALL BE MADE WITH TYPE 1 7/8” DIAMETER HIGH-STRENGTH BOLTS IN 15/16” DIAMETER HOLES, PER SECTION 506.
- 20. ANY CONNECTIONS THAT ARE NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL.
- 21. FLEMING BRACKETS OR SIMILAR FALSE WORK SHALL BE DESIGNED BY THE CONTRACTOR AND PLACED AT A MAXIMUM SPACING OF 4’-0”. THE BRACKETS SHALL BEAR NEAR THE BOTTOM FLANGE AND IN NO CASE SHALL THEY BEAR ABOVE THE BOTTOM QUARTER OF THE WEB DEPTH.
- 22. AFTER THE STRUCTURAL STEEL HAS BEEN SET ON THE BEARINGS, ELEVATIONS SHALL BE TAKEN ALONG THE TOP OF EACH GIRDER UNDER THE DIRECTION OF THE ENGINEER. THESE ELEVATIONS SHALL BE USED IN DETERMINING THE FINAL GRADE.
- 23. BEARING STIFFENERS AND GIRDER ENDS SHALL BE VERTICAL UNDER FULL DEAD LOAD DEFLECTION.
- 24. CONTRACTOR IS RESPONSIBLE FOR STABILITY OF THE BEAMS ONCE ERECTED, PRIOR TO THE INTEGRAL BACKWALL BEING CAST AND CURED.

CONCRETE

- 25. CONCRETE FOR THE DECK, CURB, AND INTEGRAL BACKWALL/SUBSTRUCTURE ABOVE THE CONSTRUCTION JOINT SHALL BE SPECIAL PROVISION ITEM 900.608, “CONCRETE, HIGH PERFORMANCE CLASS A)(FPQ)”.
- 26. CONCRETE FOR THE SUBSTRUCTURE BELOW THE CONSTRUCTION JOINT AND APPROACH SLABS SHALL BE SPECIAL PROVISION ITEM 900.608, “CONCRETE, HIGH PERFORMANCE CLASS B)(FPQ)” UNLESS OTHERWISE NOTED.
- 27. THE DECK IS TO BE POURED IN ONE CONTINUOUS POUR WITH A MAXIMUM DURATION OF EIGHT HOURS. IF CIRCUMSTANCES BEYOND THE CONTRACTOR’S CONTROL PREVENT THIS FROM BEING ACCOMPLISHED, A TRANSVERSE CONSTRUCTION JOINT SHALL BE USED BETWEEN ADJACENT POURS. A MINIMUM 96 HOUR DELAY BETWEEN ADJACENT POURS SHALL BE OBSERVED.
- 28. THE DECK SHALL BE CAST TO AN INITIAL THICKNESS OF 9.5 INCHES. AFTER THE DECK HAS CURED AND THE CONCRETE CURB HAS BEEN PLACED AND CURED, THE BRIDGE DECK SURFACE BETWEEN FACE OF CURBS SHALL BE DIAMOND GROUND A NOMINAL 0.5 INCH FOR A RESULTING DECK THICKNESS OF 9 INCHES. THE DISTANCE FROM THE TOP OF THE DECK TO THE TOP OF THE CONCRETE CURB SHALL BE 7” IN THE FINAL CONDITION. PAYMENT WILL BE MADE UNDER ITEM 900.670, “SPECIAL PROVISION (CONCRETE BRIDGE DECK SURFACE PREPARATION)”.
- 29. IN ACCORDANCE WITH SUBSECTION 506.23 (a) AND AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL TAKE MEASURES NECESSARY TO PROTECT ALL SUBSTRUCTURE CONCRETE FROM STAINING DUE TO OXIDE FORMATION ON THE STRUCTURAL STEEL PRIOR TO PLACEMENT OF THE DECK. THESE MEASURES WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO SPECIAL PROVISION ITEM 900.608, “CONCRETE, HIGH PERFORMANCE CLASS B)(FPQ)”. ANY SUCH STAINING THAT OCCURS PRIOR TO DECK PLACEMENT SHALL BE REMOVED AT NO ADDITIONAL COST TO THE STATE.
- 30. RELATIVE TO GRADE, ALL DECK POURS SHALL BEGIN FROM THE LOW ELEVATION END AND PROCEED TOWARDS THE HIGH ELEVATION END.
- 31. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1” x 1” UNLESS OTHERWISE NOTED.
- 32. ITEM 514.10, “WATER REPELLENT, SILANE”, SHALL BE APPLIED TO ALL EXPOSED CONCRETE ON THE BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES.
- 33. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 34. ALL FORM SUPPORTS AND FORM TIES THAT ARE TO REMAIN PERMANENTLY IN THE CONCRETE ABOVE THE BRIDGE SEAT SHALL BE AT A MINIMUM PROTECTION LEVEL OF GALVANIZED AND CONFORM TO SECTION 726 OF THE SPECIFICATIONS.

REINFORCING STEEL

- 35. ALL REINFORCING STEEL SHALL BE ITEM 507.13, “REINFORCEMENT STEEL, LEVEL III” IN ACCORDANCE WITH SECTION 507.
- 36. TEST BARS SHALL BE PROVIDED IN ACCORDANCE WITH THE “VERMONT AGENCY OF TRANSPORTATION MATERIAL SAMPLING MANUAL” AVAILABLE ON THE AGENCY WEBSITE. ALL COSTS ASSOCIATED WITH PROVIDING BARS FOR TESTING WILL BE CONSIDERED INCIDENTAL TO ITEM 507.13, “REINFORCEMENT STEEL, LEVEL III”.
- 37. MINIMUM COVER FOR REINFORCING STEEL SHALL BE 2” ALONG THE BACK FACES OF WALLS AGAINST EARTH, 1½” ALONG THE BOTTOM SURFACE OF THE DECK AND 3” ELSEWHERE, UNLESS OTHERWISE NOTED.

PRECAST PRESTRESSED DECK PANELS

- 38. THE CONTRACTOR HAS THE OPTION TO FORM THE DECK USING PRECAST PRESTRESSED DECK PANELS. IF THE CONTRACTOR DECIDES TO USE THE PRECAST PRESTRESSED DECK PANELS, THEY SHOULD REFER TO THE PRECAST CONCRETE DECK PANEL DETAILS.



PROJECT NAME: KILLINGTON	
PROJECT NUMBER: BF 020-2(42)	
FILE NAME: z13b260pn.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: E.F. LAWES
DESIGNED BY: E.F. LAWES	CHECKED BY: K.C. BARRY
PROJECT NOTES	SHEET 6 OF 62

QUANTITY SHEET 1

PROJECT NAME: KILLINGTON	
PROJECT NUMBER: BF 020-2(42)	
FILE NAME: z13b260qs.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: E.F. LAWES
DESIGNED BY: E.F. LAWES	CHECKED BY: K.C. BARRY
QUANTITY SHEET 1 OF 2	SHEET 7 OF 62

STATE OF VERMONT AGENCY OF TRANSPORTATION												QUANTITY SHEET 2										
SUMMARY OF ESTIMATED QUANTITIES												TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES				
				ROADWAY	TRAINING	EROSION CONTROL	BRIDGE	FULL C.E. ITEMS	BRIDGE ALT 1	BRIDGE ALT 2		GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS		
				2								2		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60						
				4								4		EACH	GUARDRAIL APPROACH SECTION, GALVANIZED 3 RAIL BOX BEAM	621.725						
				530								530		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80						
				500								500		HR	FLAGGERS	630.15						
								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 COMMUNICATIONS (N.A.B.I.)	631.26						
							4					4		EACH	CPM SCHEDULE	633.10						
					520							520		HR	EMPLOYEE TRAINEESHIP	634.10						
				1								1		LS	MOBILIZATION/DEMOBILIZATION	635.11						
				1								1		LS	TRAFFIC CONTROL, ALL-INCLUSIVE	641.11						
				2								2		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15						
				1520								1520		LF	DURABLE 4 INCH WHITE LINE, POLYUREA	646.404						
				1415								1415		LF	DURABLE 4 INCH YELLOW LINE, POLYUREA	646.414						
				51								51		LF	DURABLE 24 INCH STOP BAR, POLYUREA	646.484						
						770						770		SY	GEOTEXTILE UNDER STONE FILL	649.31						
						160						160		SY	GEOTEXTILE FOR FILTER CURTAIN	649.61						
						60						60		LB	SEED	651.15						
						230						230		LB	FERTILIZER	651.18						
						1						1		TON	AGRICULTURAL LIMESTONE	651.20						
						140						140		CY	TOPSOIL	651.35						
						390						390		SY	GRUBBING MATERIAL (12")	651.40						
						1						1		LS	EPSC PLAN	653.01						
						80						80		HR	MONITORING EPSC PLAN	653.02						
						1						1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	653.03						
						0.9						0.9		TON	HAY MULCH	653.10						
						155						155		SY	TEMPORARY EROSION MATTING	653.20						
						30						30		CY	STABILIZED CONSTRUCTION ENTRANCE	653.35						
						1090						1090		LF	SILT FENCE, TYPE I	653.475						
						520						520		LF	SILT FENCE, TYPE II	653.476						
						790						790		LF	BARRIER FENCE	653.50						
						890						890		LF	PROJECT DEMARCATION FENCE	653.55						
				38								38		SF	TRAFFIC SIGNS, TYPE A	675.20						
				150								150		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341						
				14								14		EACH	REMOVING SIGNS	675.50						
						1						1		LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50						
							146					146		CY	SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS B)(FPQ)	900.608						
							3070					3070		SF	SPECIAL PROVISION (CONCRETE BRIDGE DECK SURFACE PREPARATION)	900.670						
																	PROJECT NAME: KILLINGTON					
																	PROJECT NUMBER: BF 020-2(42)					
																	FILE NAME: z13b260qs.dgn					
																	PROJECT LEADER: S.E. BURBANK					
																	DESIGNED BY: E.F. LAWES					
																	QUANTITY SHEET (2 OF 2)					
																	PLOT DATE: 4/27/2020					
																	DRAWN BY: E.F. LAWES					
																	CHECKED BY: K.C. BARRY					
																	SHEET 8 OF 62					



GENERAL INFORMATION

SYMBOLOLOGY LEGEND NOTE

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

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

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

COMMON TOPOGRAPHIC POINT SYMBOLS

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

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

PROPOSED GEOMETRY CODES

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

UTILITY SYMBOLOLOGY

UNDERGROUND UTILITIES

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

ABOVE GROUND UTILITIES (AERIAL)

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

PROJECT CONSTRUCTION SYMBOLOLOGY

PROJECT DESIGN & LAYOUT SYMBOLOLOGY

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

PROJECT CONSTRUCTION FEATURES

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

CONVENTIONAL BOUNDARY SYMBOLOLOGY

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

EPSC LAYOUT PLAN SYMBOLOLOGY

EPSC MEASURES

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

SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLOLOGY

ENVIRONMENTAL RESOURCES

—	WETLAND BOUNDARY
---	RIPARIAN BUFFER ZONE
---	WETLAND BUFFER ZONE
---	SOIL TYPE BOUNDARY
---	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 SYMBOLOLOGY

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: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260legend.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: VTRANS
CONVENTIONAL SYMBOLOLOGY LEGEND
PLOT DATE: 4/27/2020
DRAWN BY: VTRANS
CHECKED BY: K.C. BARRY
SHEET 9 OF 62



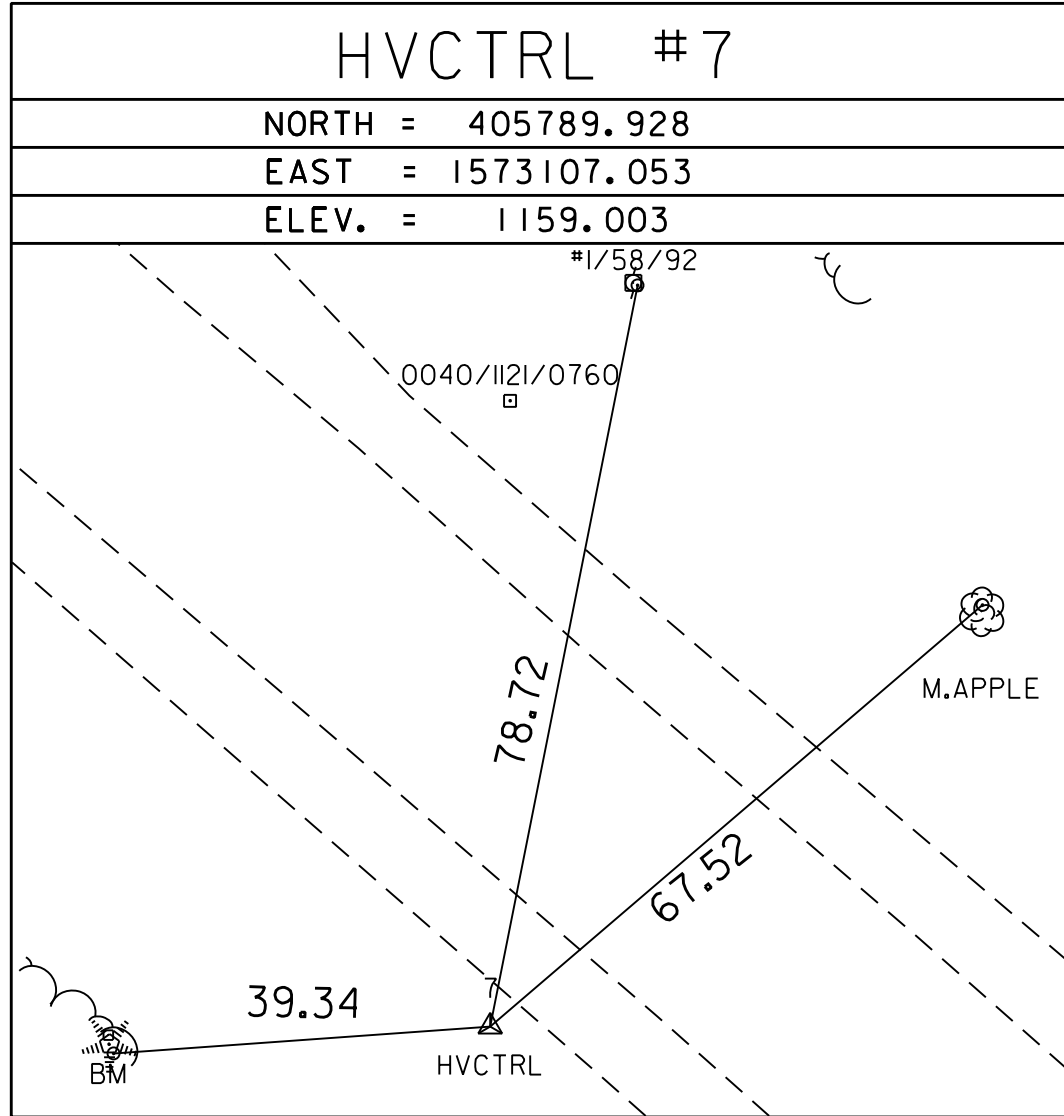
GPS CONTROL POINTS

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EAST = 1573671.02
ELEV. = 1070.40

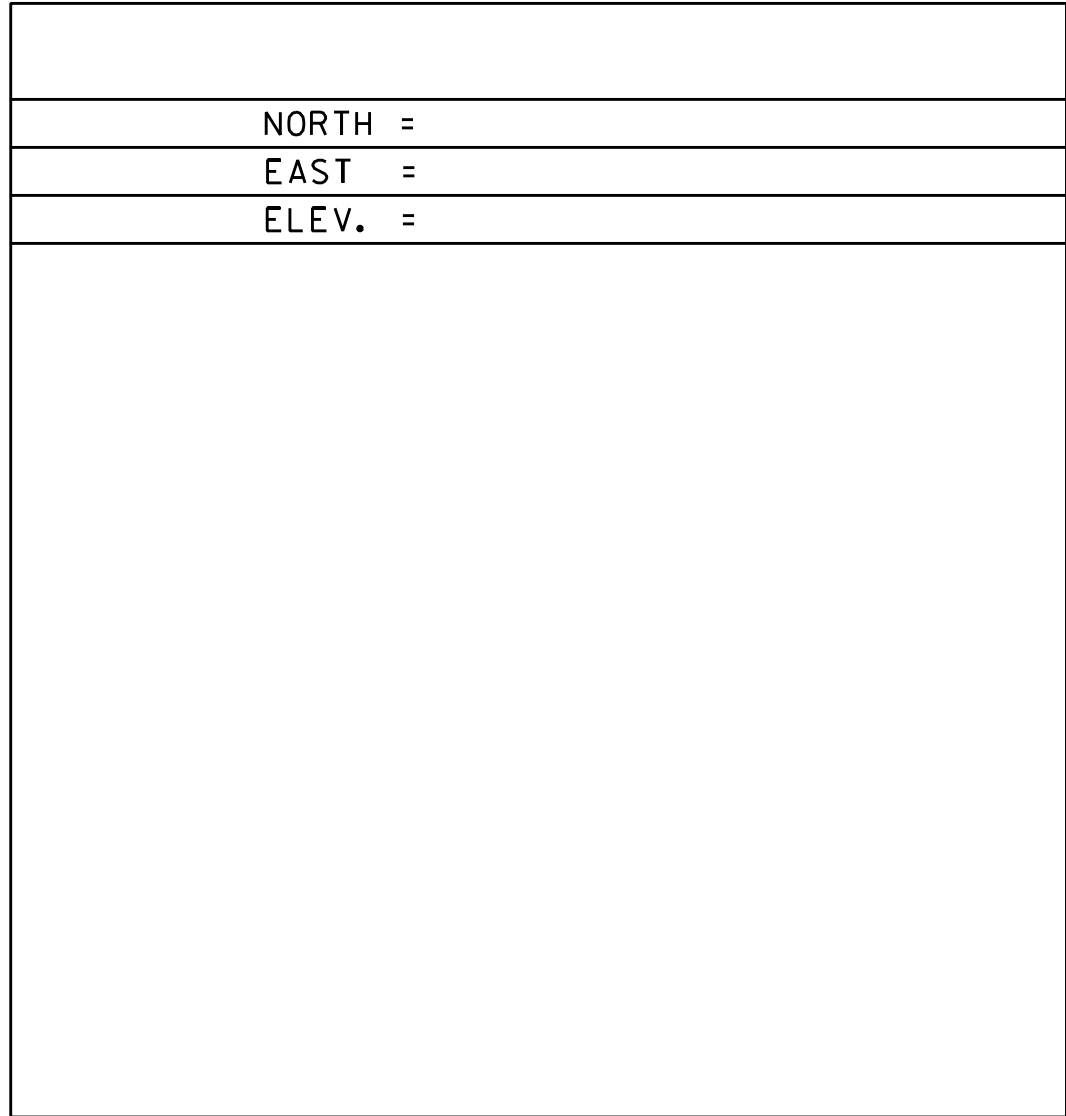
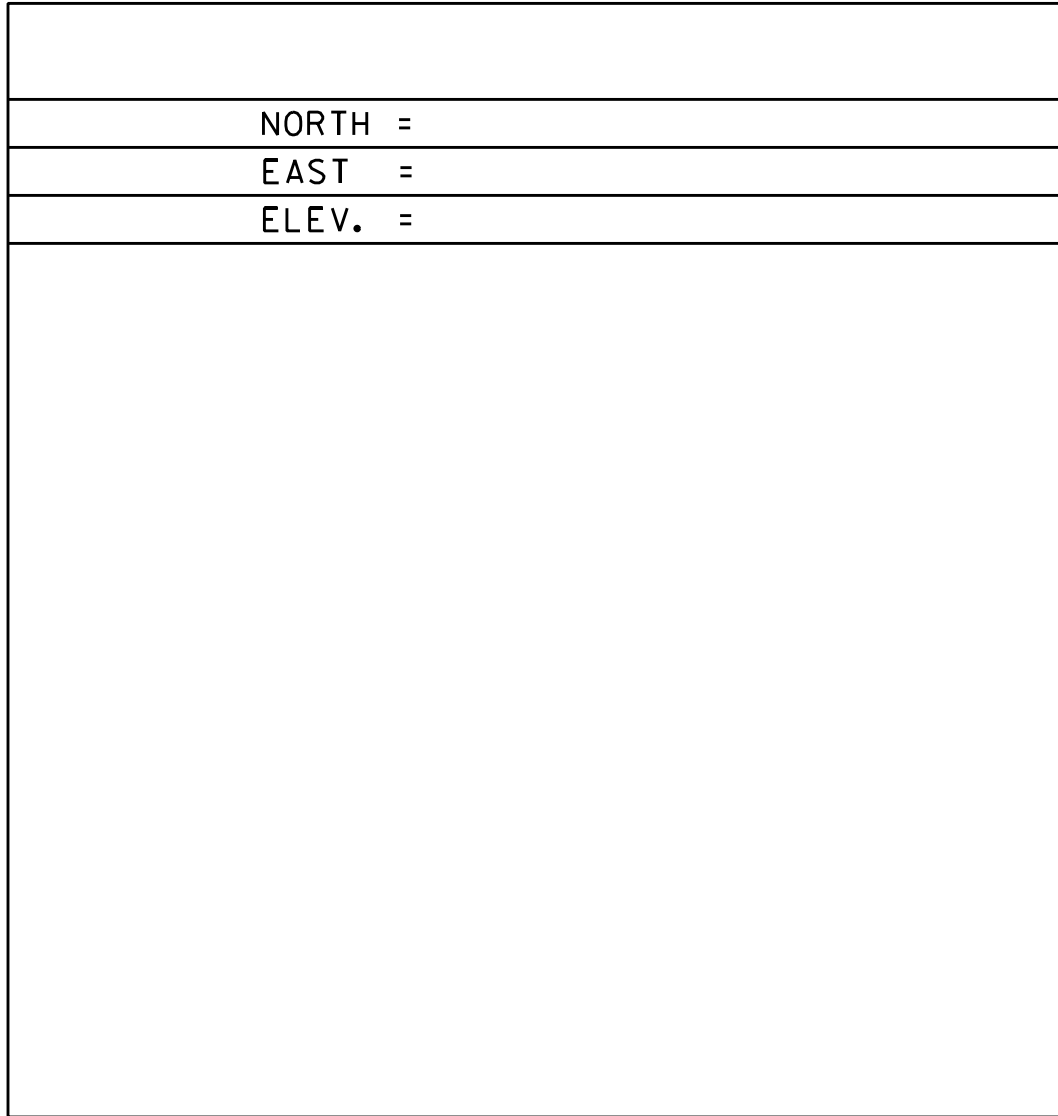
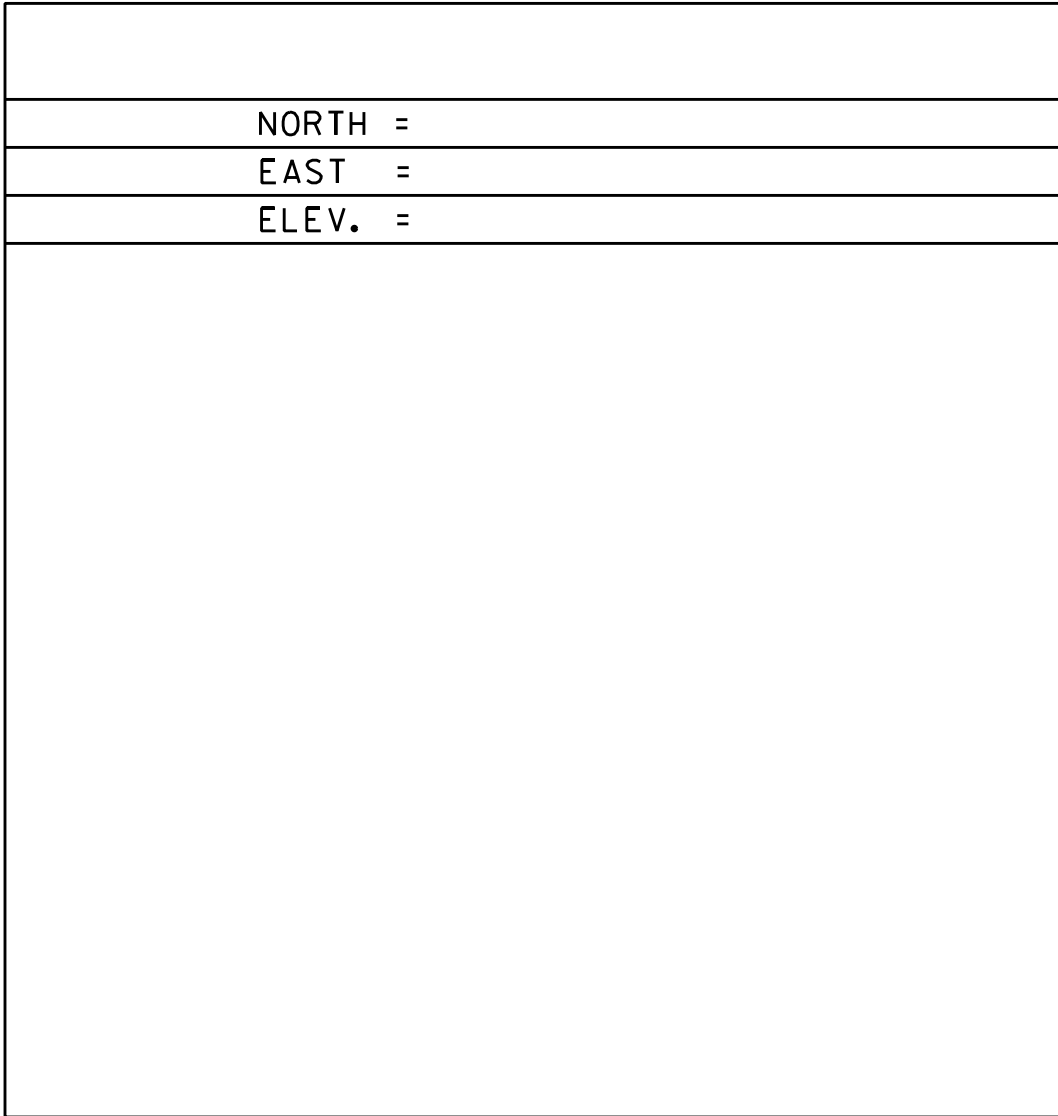
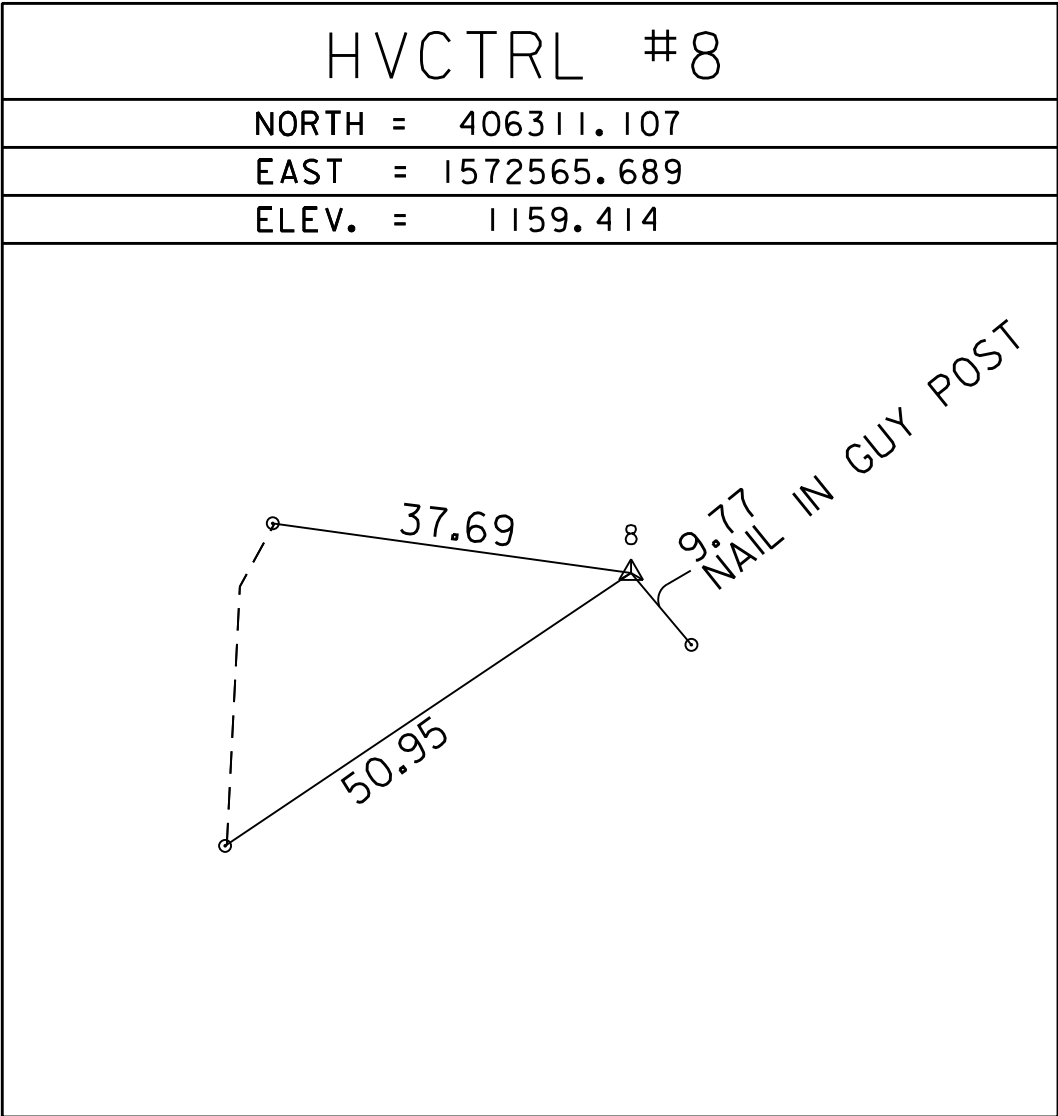
PT #2 CEDAR BROOK
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EAST = 1574460.50
ELEV. = 1055.91

PT #9 B94027
NORTH = 405999.88
EAST = 1572876.94
ELEV. = 1159.80

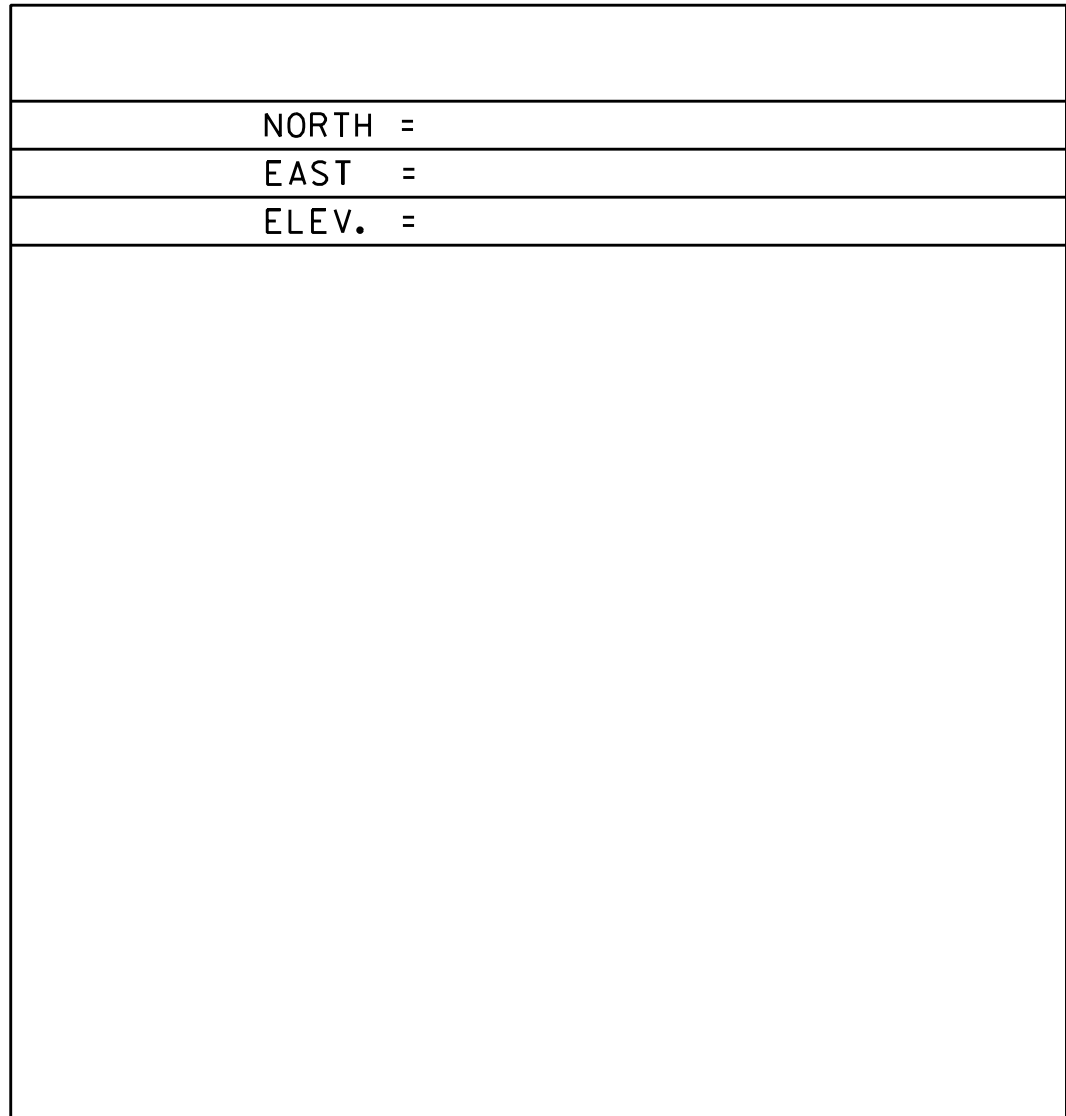
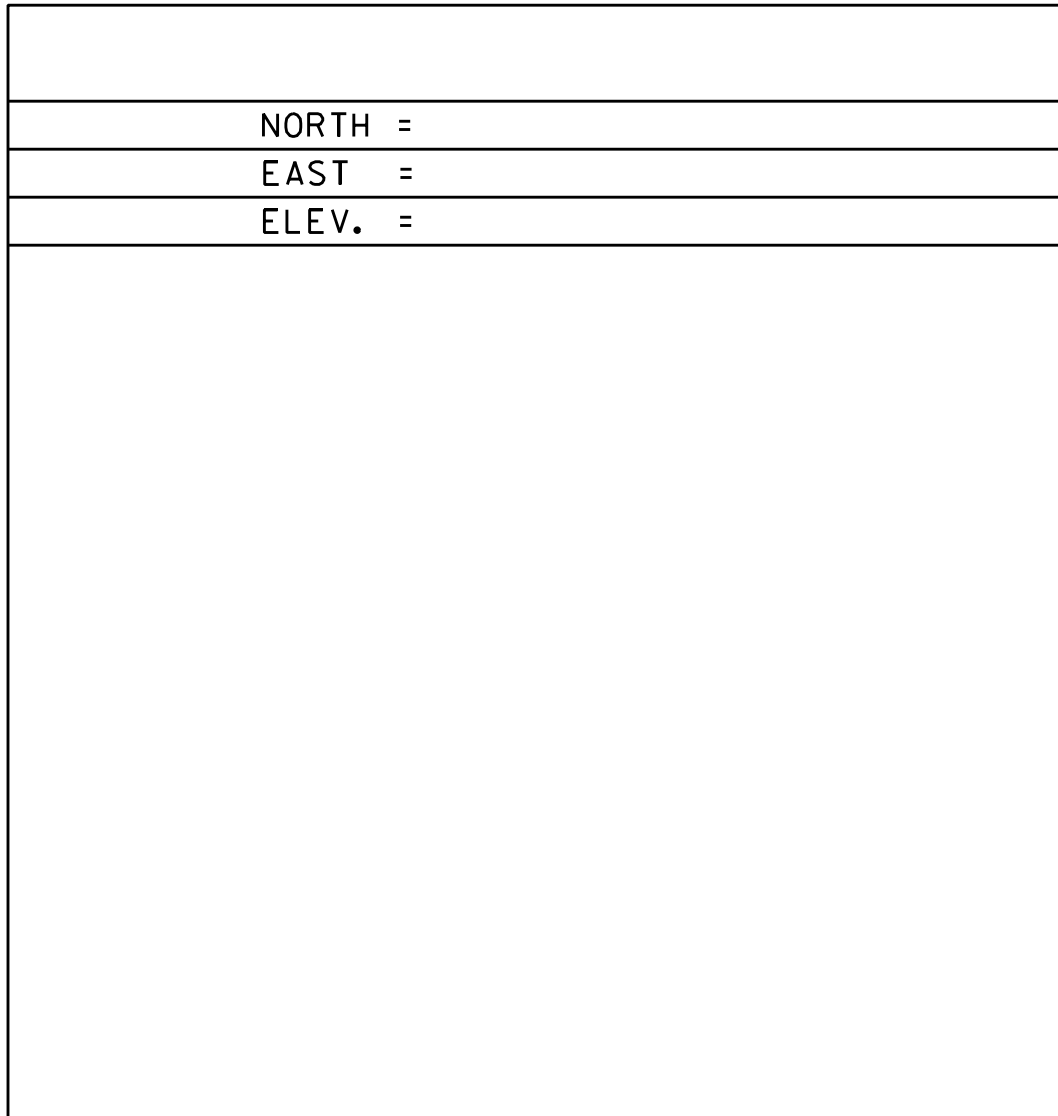
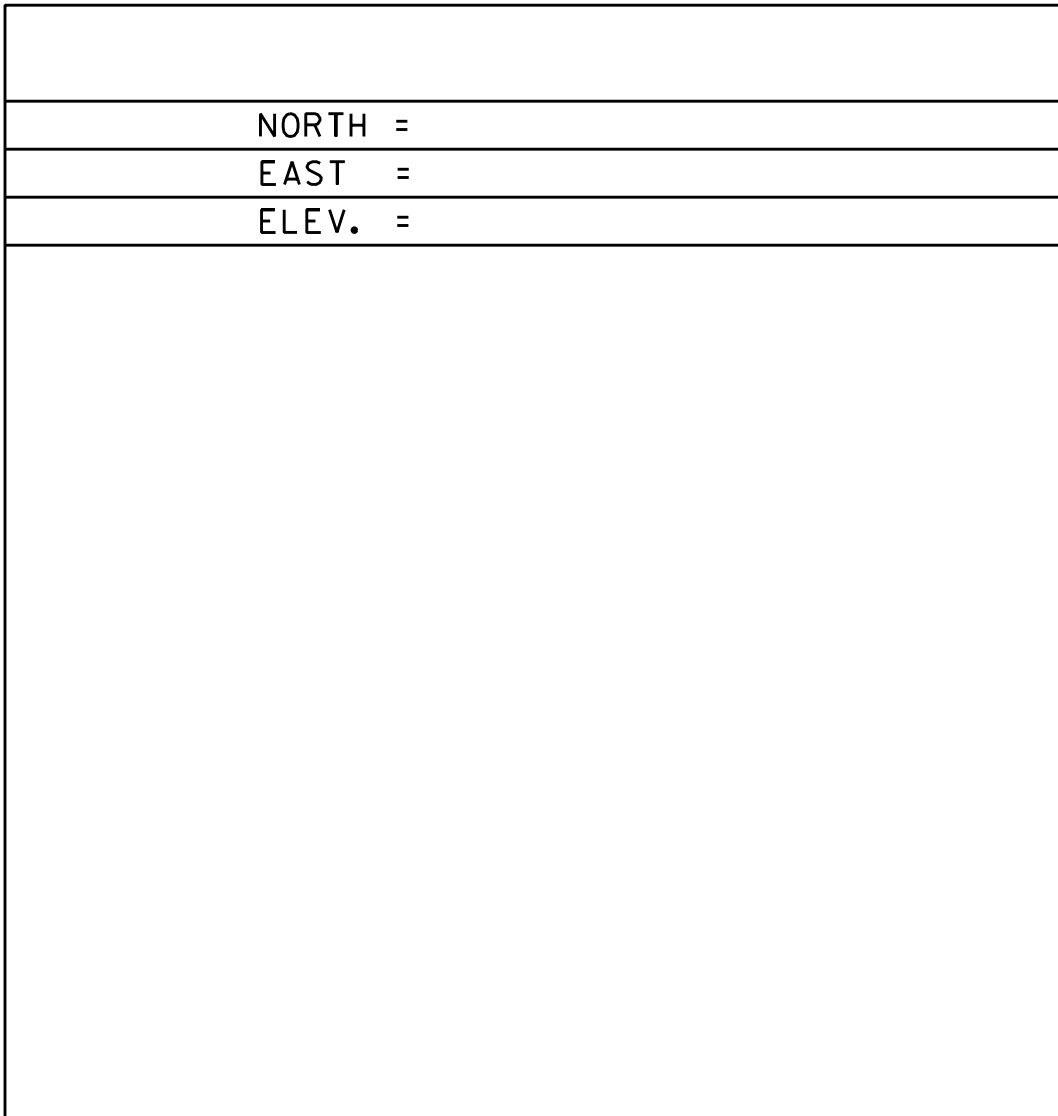
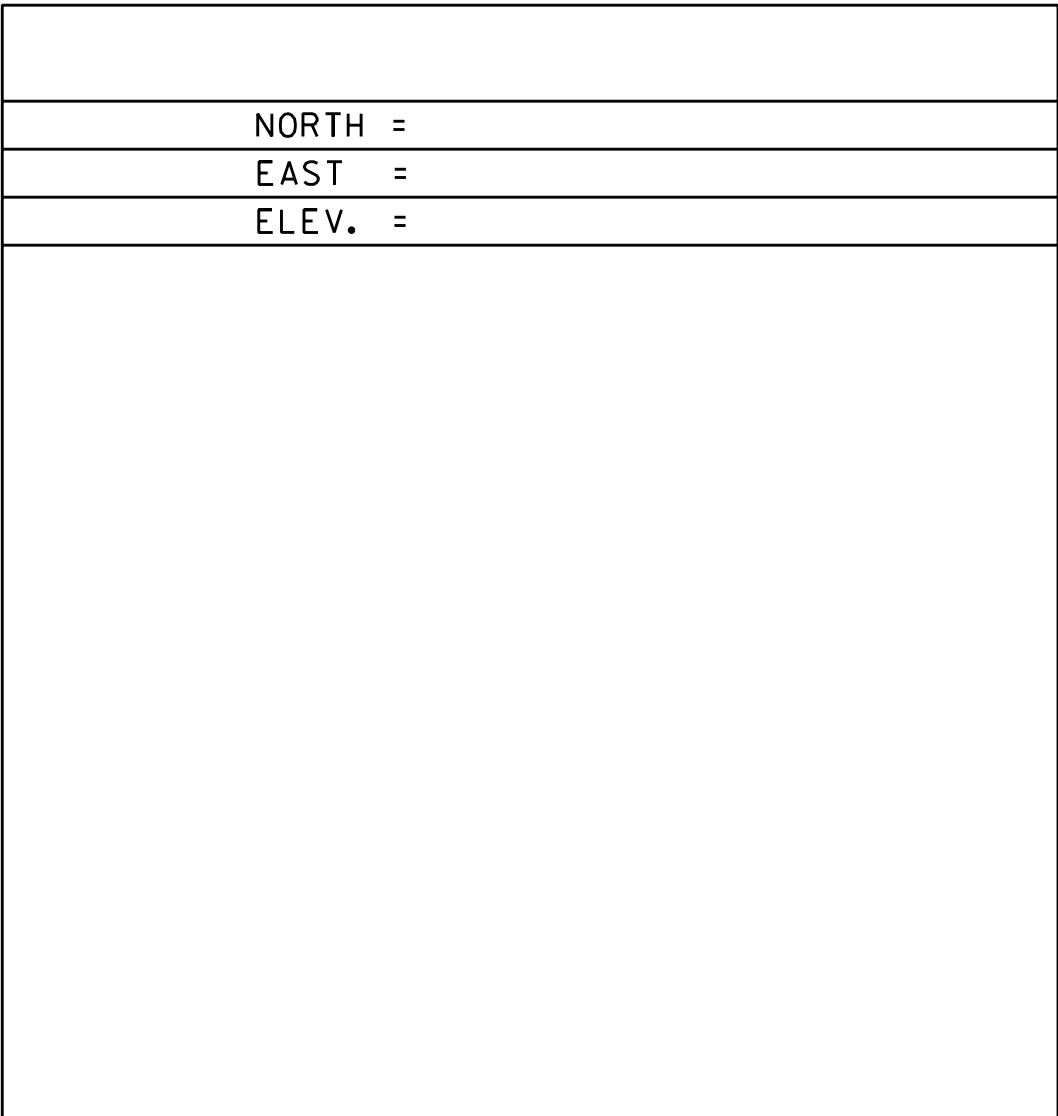
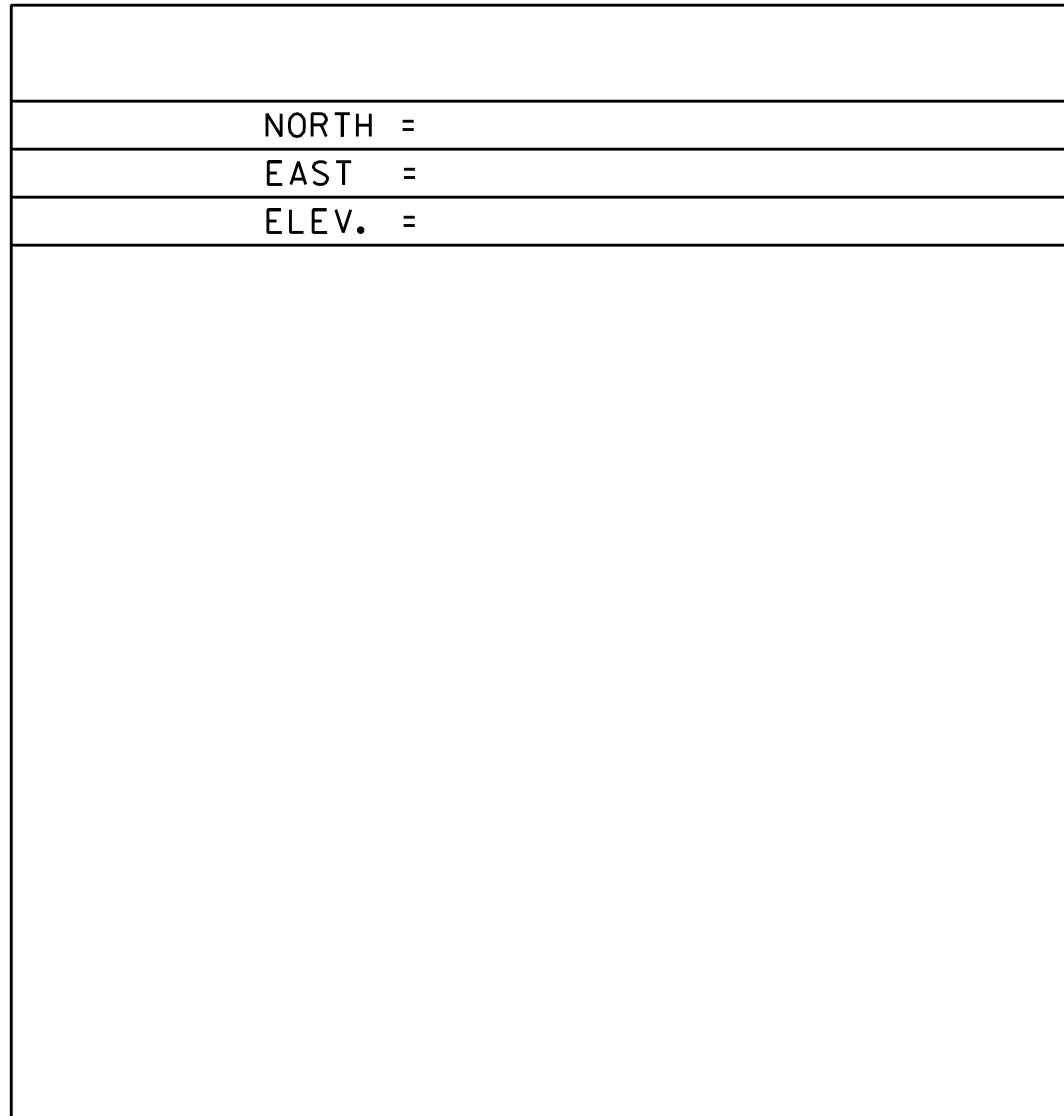
TRAVERSE TIES



TRAVERSE COMPLETED BY R GILMAN P.C. / P. WINTERS & C. CYR 12/05/2013

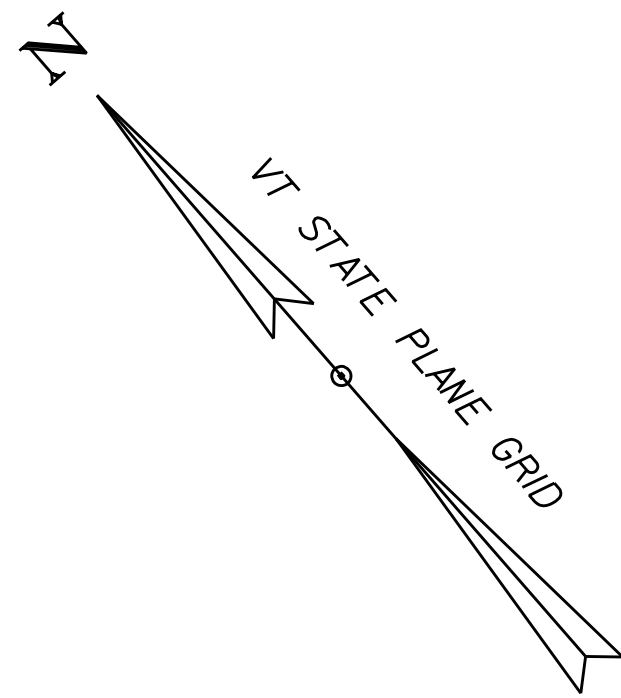


ALIGNMENT TIES



DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83/11
ADJUSTMENT	COMPASS

PROJECT NAME:	KILLINGTON
PROJECT NUMBER:	BF 020-2(42)
FILE NAME: x13b260+1.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: VTRANS
DESIGNED BY: VTRANS	CHECKED BY: VTRANS
TIE SHEET	SHEET 10 OF 62



US ROUTE 4 ALIGNMENT

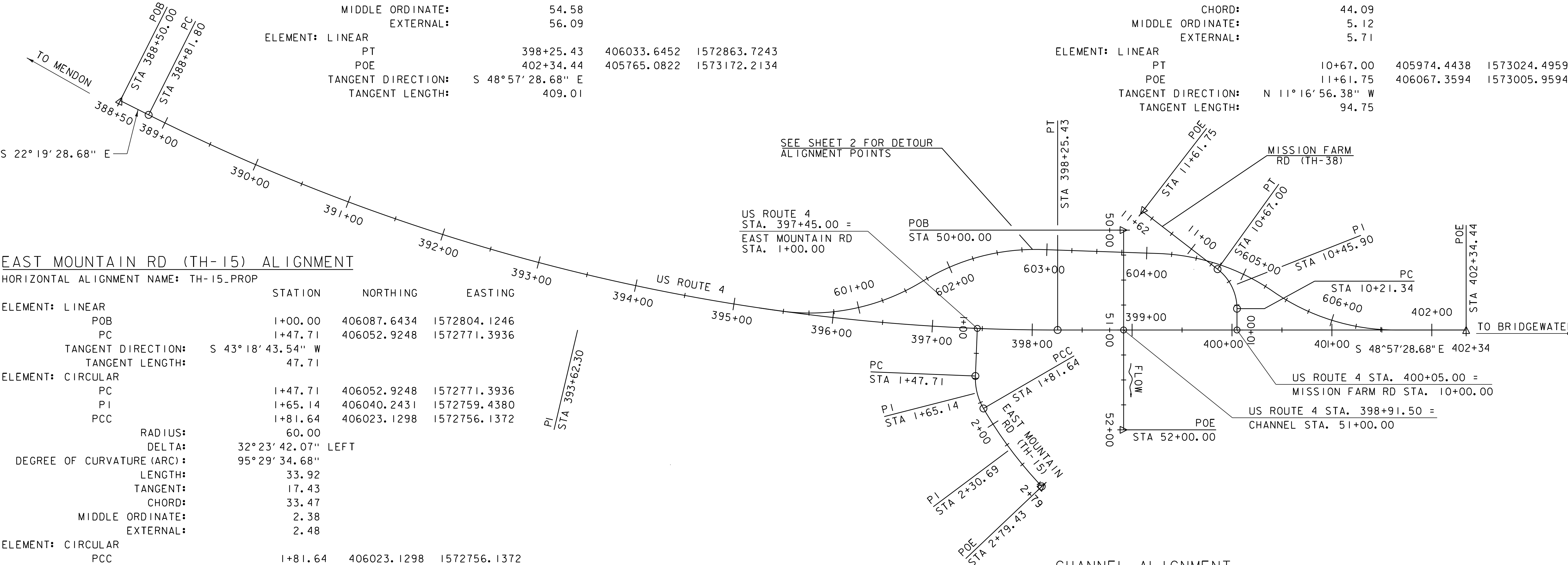
HORIZONTAL ALIGNMENT NAME: US4_PROP

		STATION	NORTHING	EASTING
ELEMENT: LINEAR	POB	388+50.00	406823.0457	1572306.7222
	PC	388+81.80	406793.6248	1572318.8033
	TANGENT DIRECTION:	S 22°19'28.68" E		
		TANGENT LENGTH:	31.80	
ELEMENT: CIRCULAR	PC	388+81.80	406793.6248	1572318.8033
	PI	393+62.30	406349.1444	1572501.3213
	PT	398+25.43	406033.6452	1572863.7243
	RADIUS:	2030.00		
	DELTA:	26°38'00.00" LEFT		
DEGREE OF CURVATURE (ARC):		2°49'20.83"		
LENGTH:		943.62		
TANGENT:		480.50		
CHORD:		935.15		
MIDDLE ORDINATE:		54.58		
EXTERNAL:		56.09		
ELEMENT: LINEAR	PT	398+25.43	406033.6452	1572863.7243
	POE	402+34.44	405765.0822	1573172.2134
	TANGENT DIRECTION:	S 48°57'28.68" E		
		TANGENT LENGTH:	409.01	

MISSION FARM RD (TH-38) ALIGNMENT

HORIZONTAL ALIGNMENT NAME: TH-38_PROP

		STATION	NORTHING	EASTING
ELEMENT: LINEAR	POB	10+00.00	405915.7364	1572999.1620
	PC	10+21.34	405931.8310	1573013.1736
	TANGENT DIRECTION:	N 41°02'31.32" E		
		TANGENT LENGTH:	21.34	
ELEMENT: CIRCULAR	PC	10+21.34	405931.8310	1573013.1736
	PI	10+45.90	405950.3564	1573029.3013
	PT	10+67.00	405974.4438	1573024.4959
	RADIUS:	50.00		
	DELTA:	52°19'27.70" LEFT		
DEGREE OF CURVATURE (ARC):		114°35'29.61"		
LENGTH:		45.66		
TANGENT:		24.56		
CHORD:		44.09		
MIDDLE ORDINATE:		5.12		
EXTERNAL:		5.71		
ELEMENT: LINEAR	PT	10+67.00	405974.4438	1573024.4959
	POE	11+61.75	406067.3594	1573005.9594
	TANGENT DIRECTION:	N 11°16'56.38" W		
		TANGENT LENGTH:	94.75	



EAST MOUNTAIN RD (TH-15) ALIGNMENT

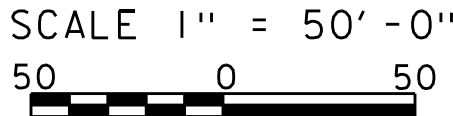
HORIZONTAL ALIGNMENT NAME: TH-15_PROP

		STATION	NORTHING	EASTING
ELEMENT: LINEAR	POB	1+00.00	406087.6434	1572804.1246
	PC	1+47.71	406052.9248	1572771.3936
	TANGENT DIRECTION:	S 43°18'43.54" W		
		TANGENT LENGTH:	47.71	
ELEMENT: CIRCULAR	PC	1+47.71	406052.9248	1572771.3936
	PI	1+65.14	406040.2431	1572759.4380
	PCC	1+81.64	406023.1298	1572756.1372
	RADIUS:	60.00		
	DELTA:	32°23'42.07" LEFT		
DEGREE OF CURVATURE (ARC):		95°29'34.68"		
LENGTH:		33.92		
TANGENT:		17.43		
CHORD:		33.47		
MIDDLE ORDINATE:		2.38		
EXTERNAL:		2.48		
ELEMENT: CIRCULAR	PCC	1+81.64	406023.1298	1572756.1372
	PI	2+30.69	405974.9676	1572746.8477
	PT	2+79.30	405925.9609	1572748.9062
	RADIUS:	420.00		
DELTA:		13°19'20.20" LEFT		
DEGREE OF CURVATURE (ARC):		13°38'30.67"		
LENGTH:		97.66		
TANGENT:		49.05		
CHORD:		97.44		
MIDDLE ORDINATE:		2.84		
EXTERNAL:		2.85		
ELEMENT: LINEAR	PT	2+79.30	405925.9609	1572748.9062
	POE	2+79.43	405925.8244	1572748.9119
	TANGENT DIRECTION:	S 2°24'18.73" E		
		TANGENT LENGTH:	0.14	

CHANNEL ALIGNMENT

HORIZONTAL ALIGNMENT NAME: CHANNEL_PROP

		STATION	NORTHING	EASTING
ELEMENT: LINEAR	POB	50+00.00	406065.6848	1572979.2184
	POE	52+00.00	405914.8391	1572847.8959
	TANGENT DIRECTION:	S 41°02'31.32" W		
		TANGENT LENGTH:	200.00	



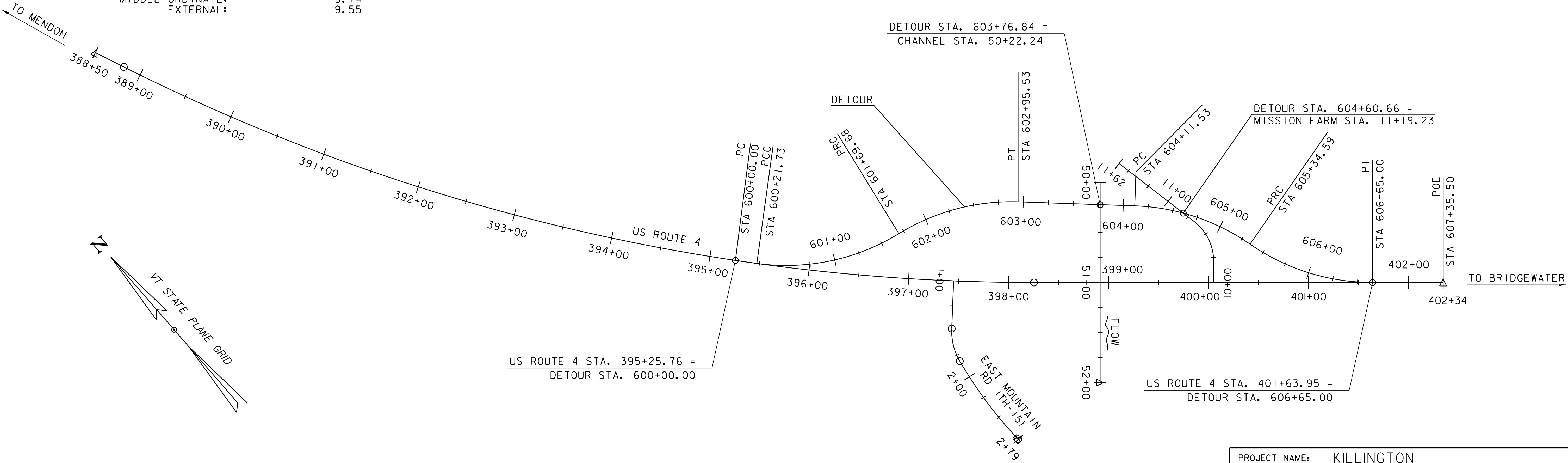
PROJECT NAME: KILLINGTON	
PROJECT NUMBER: BF 020-2(42)	
FILE NAME: z13b260align.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: E.F. LAWES
DESIGNED BY: E.F. LAWES	CHECKED BY: K.C. BARRY
ALIGNMENT LAYOUT SHEET (1 OF 2)	SHEET 11 OF 62

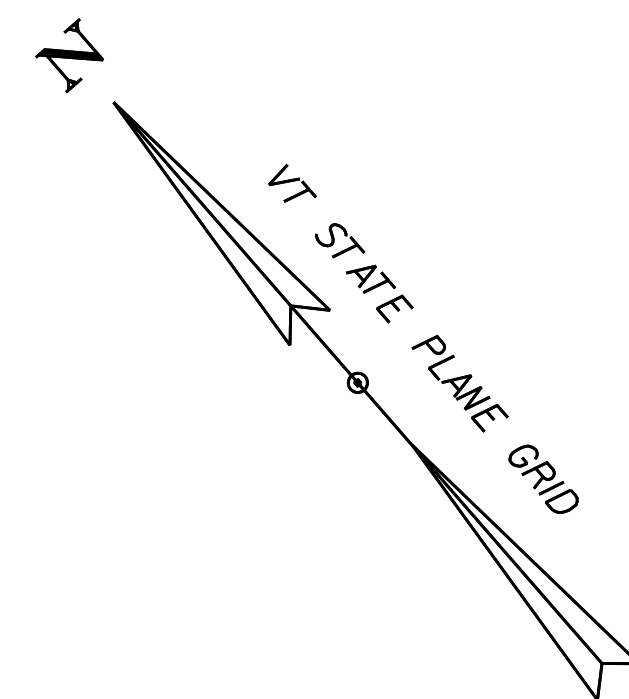
DETOUR ALIGNMENT
HORIZONTAL ALIGNMENT NAME: DETOUR

ELEMENT: CIRCULAR	STATION	NORTHING	EASTING
PC	600+00.00	406246.3513	1572653.0214
PI	600+10.87	406238.0883	1572660.0787
CC		407564.7282	1574196.6477
PCC	600+21.73	406229.9013	1572667.2240
RADIUS:	2030.00		
DELTA:	0°36'48.24" LEFT		
DEGREE OF CURVATURE (ARC):	2°49'20.83"		
LENGTH:	21.73		
TANGENT:	10.87		
CHORD:	21.73		
MIDDLE ORDINATE:	0.03		
EXTERNAL:	0.03		
ELEMENT: CIRCULAR			
PCC	600+21.73	406229.9013	1572667.2240
PI	600+98.77	406171.8617	1572717.8789
CC		406371.2746	1572829.2073
PRC	601+69.68	406159.1990	1572793.8668
RADIUS:	215.00		
DELTA:	39°25'32.93" LEFT		
DEGREE OF CURVATURE (ARC):	26°38'57.12"		
LENGTH:	147.94		
TANGENT:	77.04		
CHORD:	145.04		
MIDDLE ORDINATE:	12.60		
EXTERNAL:	13.38		
ELEMENT: CIRCULAR			
PRC	601+69.68	406159.1990	1572793.8668
PI	602+34.46	406148.5496	1572857.7733
CC		405947.1234	1572758.5264
PT	602+95.53	406104.3644	1572905.1560
RADIUS:	215.00		
DELTA:	33°32'20.83" RIGHT		
DEGREE OF CURVATURE (ARC):	26°38'57.12"		
LENGTH:	125.85		
TANGENT:	64.79		
CHORD:	124.06		
MIDDLE ORDINATE:	9.14		
EXTERNAL:	9.55		

ELEMENT: LINEAR			
PT	602+95.53	406104.3644	1572905.1560
PC	604+11.53	406025.2526	1572989.9931
TANGENT DIRECTION:	S 47°00'00.00" E		
TANGENT LENGTH:	116.00		
ELEMENT: CIRCULAR			
PC	604+11.53	406025.2526	1572989.9931
PI	604+74.80	405982.1039	1573036.2644
CC		405868.0116	1572843.3634
PRC	605+34.59	405920.7702	1573051.7897
RADIUS:	215.00		
DELTA:	32°47'42.63" RIGHT		
DEGREE OF CURVATURE (ARC):	26°38'57.12"		
LENGTH:	123.06		
TANGENT:	63.27		
CHORD:	121.39		
MIDDLE ORDINATE:	8.74		
EXTERNAL:	9.12		
ELEMENT: CIRCULAR			
PRC	605+34.59	405920.7702	1573051.7897
PI	606+01.87	405855.5470	1573068.2996
CC		405973.5289	1573260.2160
PT	606+65.00	405811.3698	1573119.0443
RADIUS:	215.00		
DELTA:	34°45'11.31" LEFT		
DEGREE OF CURVATURE (ARC):	26°38'57.12"		
LENGTH:	130.41		
TANGENT:	67.28		
CHORD:	128.42		
MIDDLE ORDINATE:	9.81		
EXTERNAL:	10.28		
ELEMENT: LINEAR			
PT	606+65.00	405811.3698	1573119.0443
POE	607+35.50	405765.0822	1573172.2134
TANGENT DIRECTION:	S 48°57'28.68" E		
TANGENT LENGTH:	70.49		

DETOUR BANKING TABLE		
STATION	LEFT EP	RIGHT EP
601+01.1	-4.0%	4.0%
601+35.4	-2.0%	2.0%
601+69.7	0.0%	0.0%
602+34.8	3.8%	-3.8%
602+73.8	3.8%	-3.8%
603+04.7	2.0%	-2.0%
604+02.4	2.0%	-2.0%
604+33.2	3.8%	-3.8%
604+69.4	3.8%	-3.8%
605+00.3	2.0%	-2.0%
605+34.6	0.0%	0.0%
605+99.7	-3.8%	3.8%
606+43.3	-3.8%	3.8%
606+74.1	-2.0%	2.0%
607+08.4	-2.0%	0.0%
607+42.7	-2.0%	-2.0%





MANUFACTURED TERMINAL SECTION, TANGENT
STA. 397+49 - 397+97, LT
STA. 399+86 - 400+33, RT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 397+97 - 398+22, LT
STA. 397+83 - 398+22, RT
STA. 399+61 - 399+60, LT
STA. 399+61 - 399+86, RT

ANCHOR FOR STEEL BEAM RAIL
STA. 397+73, RT
STA. 399+73, LT

GUARDRAIL APPROACH SECTION, GALVANIZED NETC 3 RAIL BOX BEAM
STA. 398+22 - 398+52, LT & RT
STA. 399+32 - 399+61, LT & RT

CAST-IN-PLACE CONCRETE CURB, TYPE B
STA. 398+19 - 398+52, LT & RT
STA. 399+32 - 399+64, LT & RT

BRIDGE RAILING, GALVANIZED NETC 3 RAIL BOX BEAM
STA. 398+52 - 399+32, LT & RT

LIMITS OF COLD PLANING
STA. 395+50 - 396+50, LT & RT
STA. 1+65 - 2+05, LT & RT
STA. 10+75 - 11+50, LT & RT

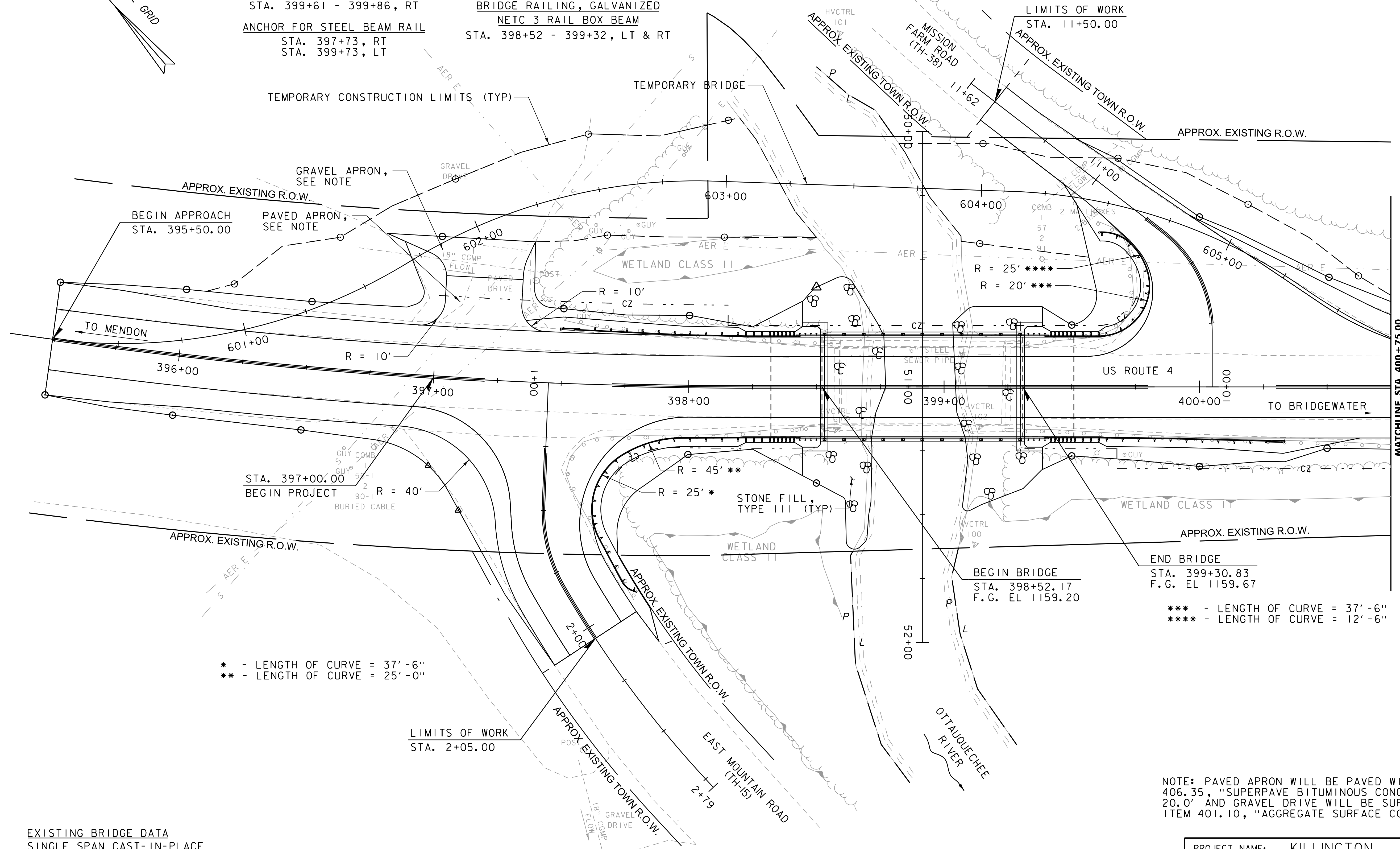
CONSTRUCT 20.0' PAVED APRON
STA. 396+93 - 397+43, LT

CONSTRUCT 15.0' GRAVEL DRIVE
STA. 396+78 - 397+38, LT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 397+50 - 398+56, LT
STA. 397+53 - 398+53, RT
STA. 399+27 - 399+75, LT
STA. 399+31 - 400+75, RT

GEOTEXTILE UNDER STONE FILL
STA. 398+45 - 398+77, LT & RT
STA. 399+03 - 399+38, LT & RT

STONE FILL TYPE III
STA. 398+45 - 398+77, LT & RT
STA. 399+03 - 399+38, LT & RT



* - LENGTH OF CURVE = 37'-6"
** - LENGTH OF CURVE = 25'-0"

*** - LENGTH OF CURVE = 37'-6"
**** - LENGTH OF CURVE = 12'-6"

EXISTING BRIDGE DATA
SINGLE SPAN CAST-IN-PLACE
CONCRETE DECK ON ROLLED BEAMS
STRUCTURE LENGTH = 67'
DECK WIDTH OUT TO OUT = 35.4'
BRIDGE WIDTH CURB TO CURB = 29.8'

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

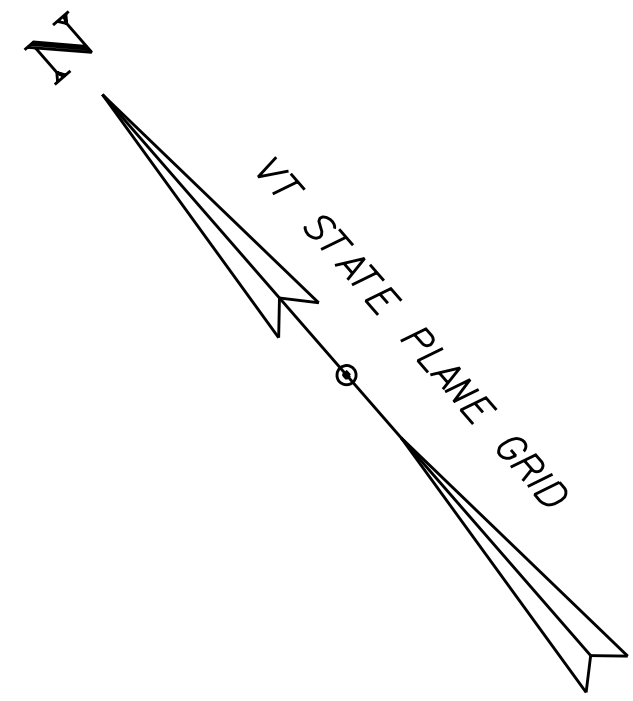
NOTE: PAVED APRON WILL BE PAVED WITH 2" OF ITEM 406.35, "SUPERPAVE BITUMINOUS CONCRETE PAVEMENT," FOR 20.0' AND GRAVEL DRIVE WILL BE SURFACED WITH 3" OF ITEM 401.10, "AGGREGATE SURFACE COURSE," FOR 15.0'

PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260bdr_nul.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
LAYOUT SHEET (1 OF 2)

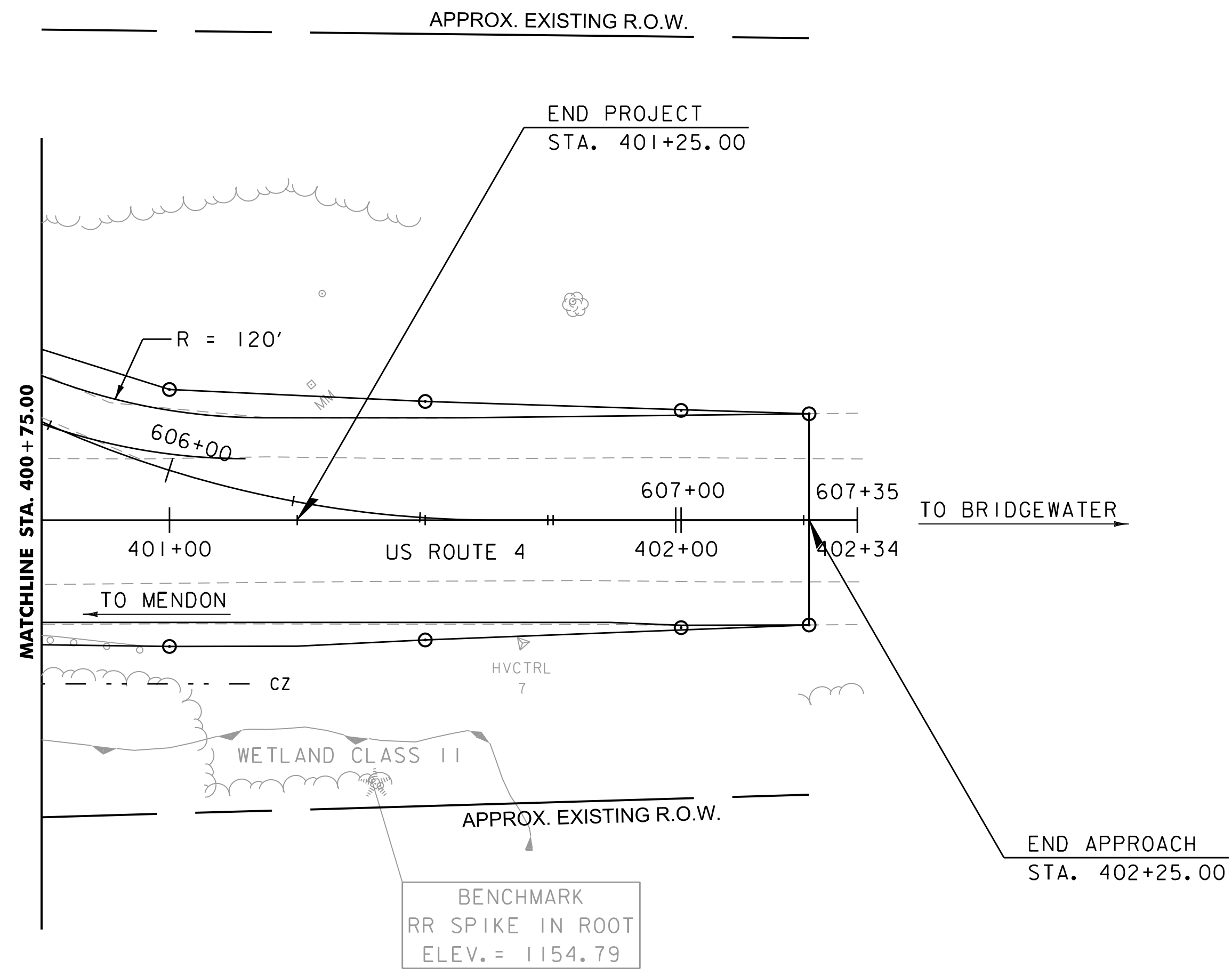
PLOT DATE: 4/27/2020
DRAWN BY: R.H. BARNES
CHECKED BY: K.C. BARRY
SHEET 13 OF 62





LIMITS OF COLD PLANING
STA. 401+75 - 402+25, LT & RT

REMOVAL AND DISPOSAL
OF GUARDRAIL
STA. 400+75 - 400+95, RT



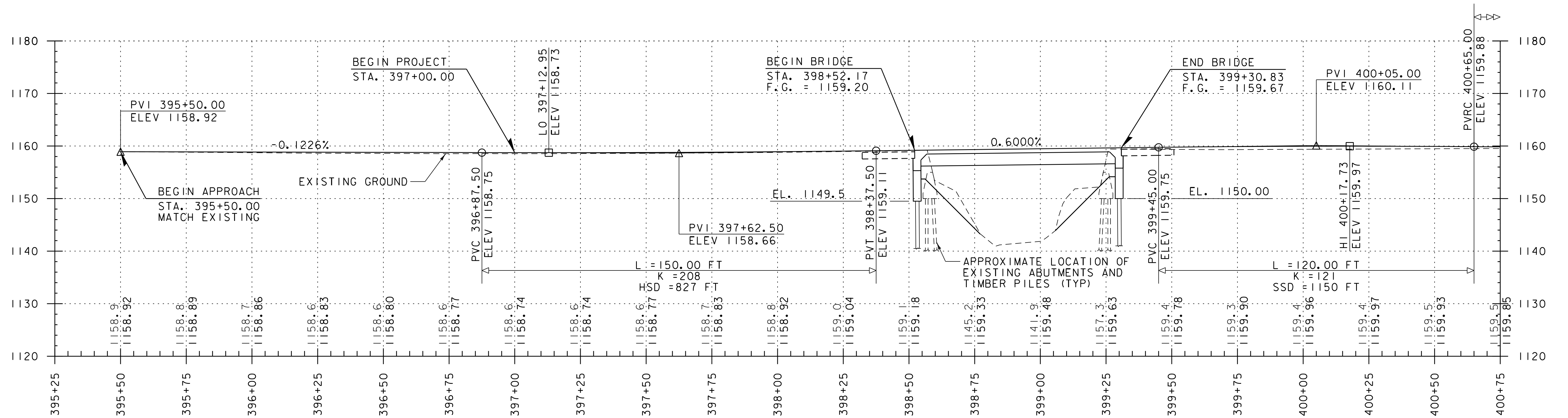
SCALE 1" = 20'-0"
20 0 20



PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

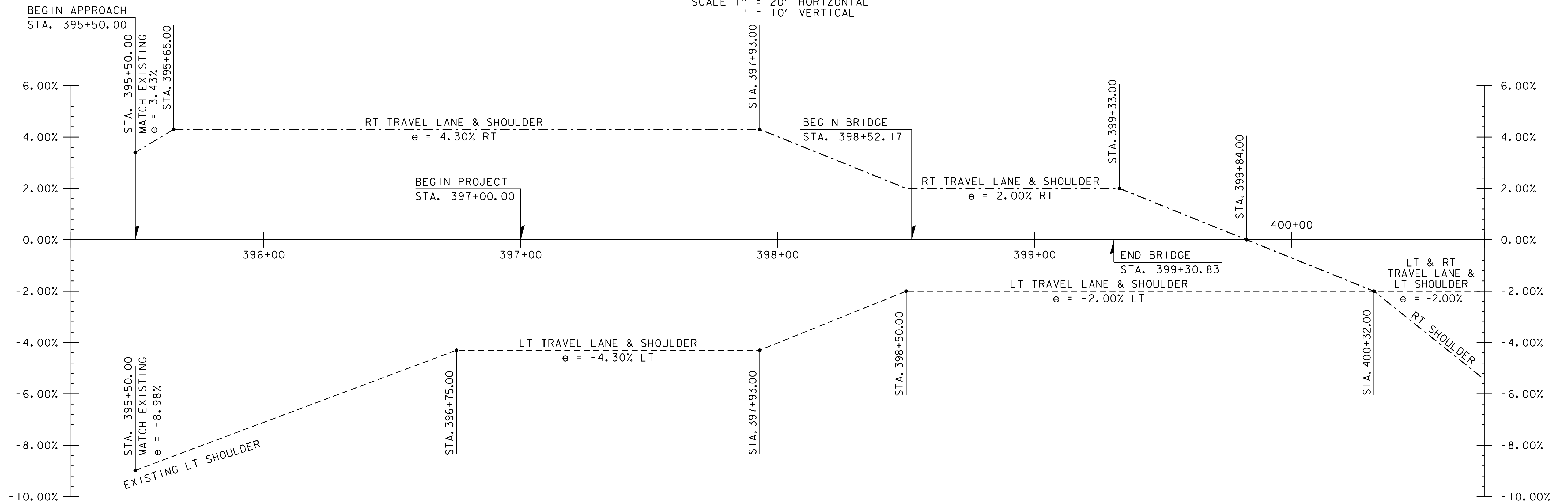
FILE NAME: z13b260bdr_nul.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
LAYOUT SHEET (2 OF 2)

PLOT DATE: 4/27/2020
DRAWN BY: R.H. BARNES
CHECKED BY: K.C. BARRY
SHEET 14 OF 62



US ROUTE 4 PROFILE

SCALE 1" = 20' HORIZONTAL
1" = 10' VERTICAL



US ROUTE 4 BANKING DIAGRAM

SCALE 1" = 20' HORIZONTAL
1" = 0.020 FT/FT VERTICAL

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

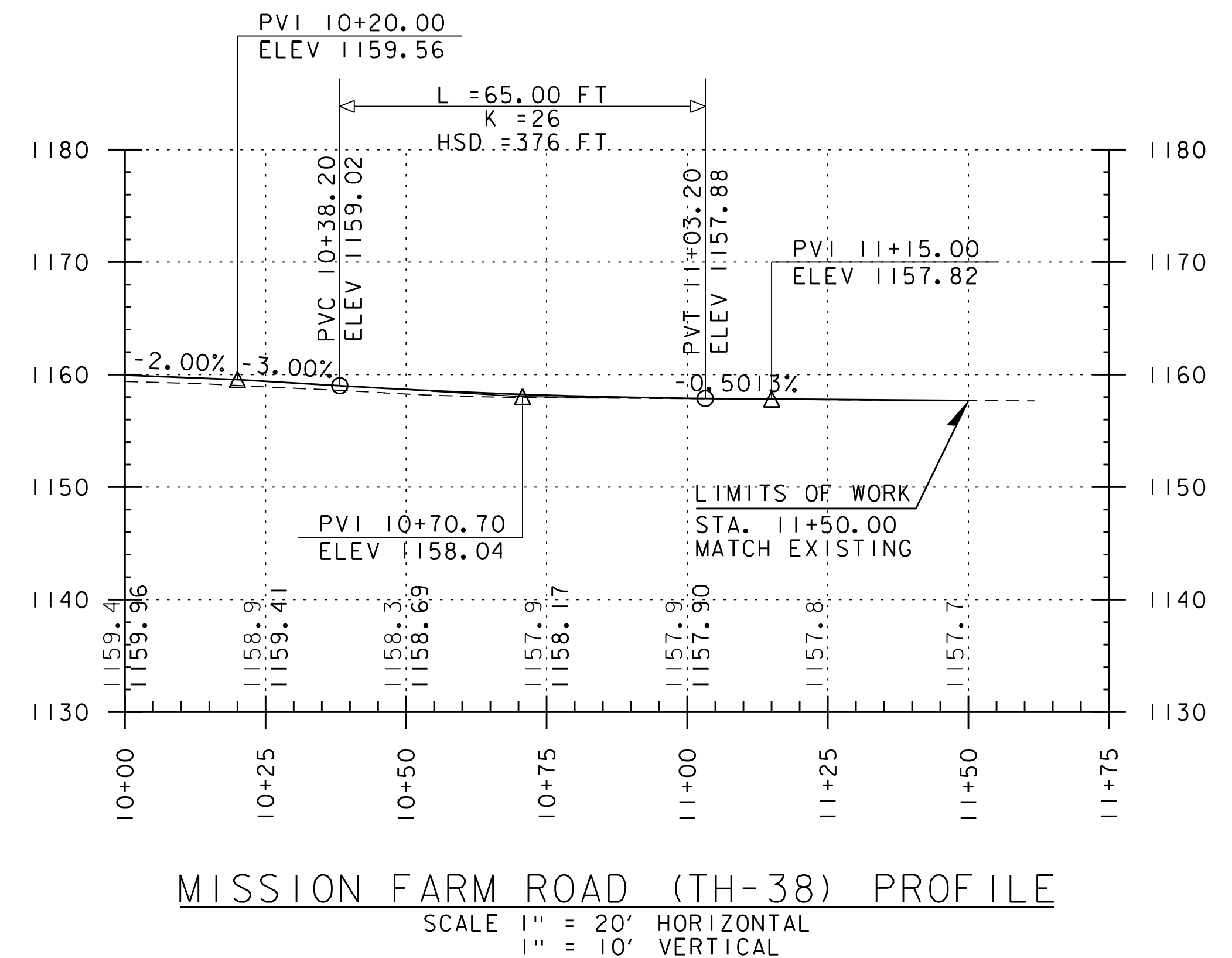
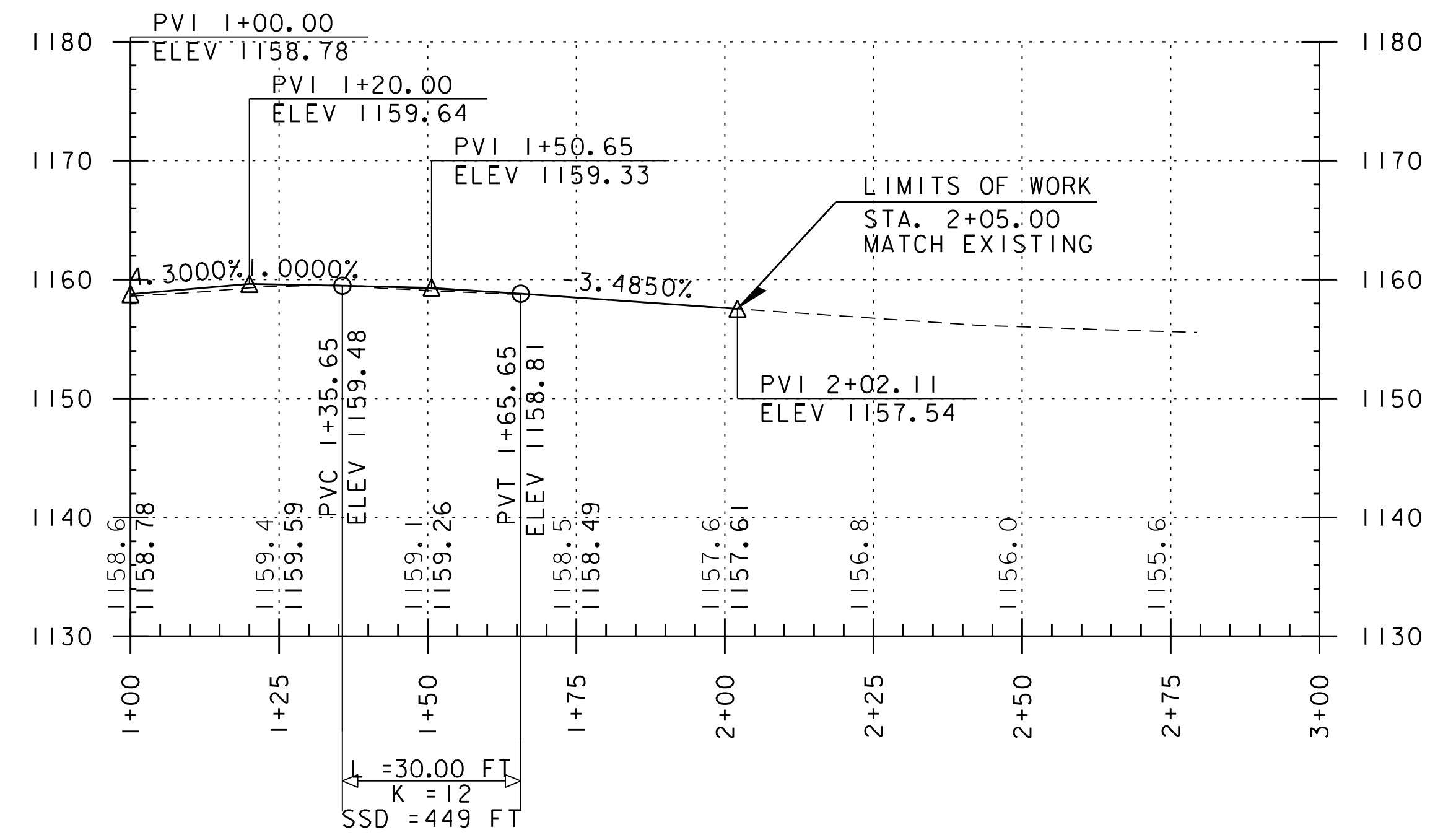
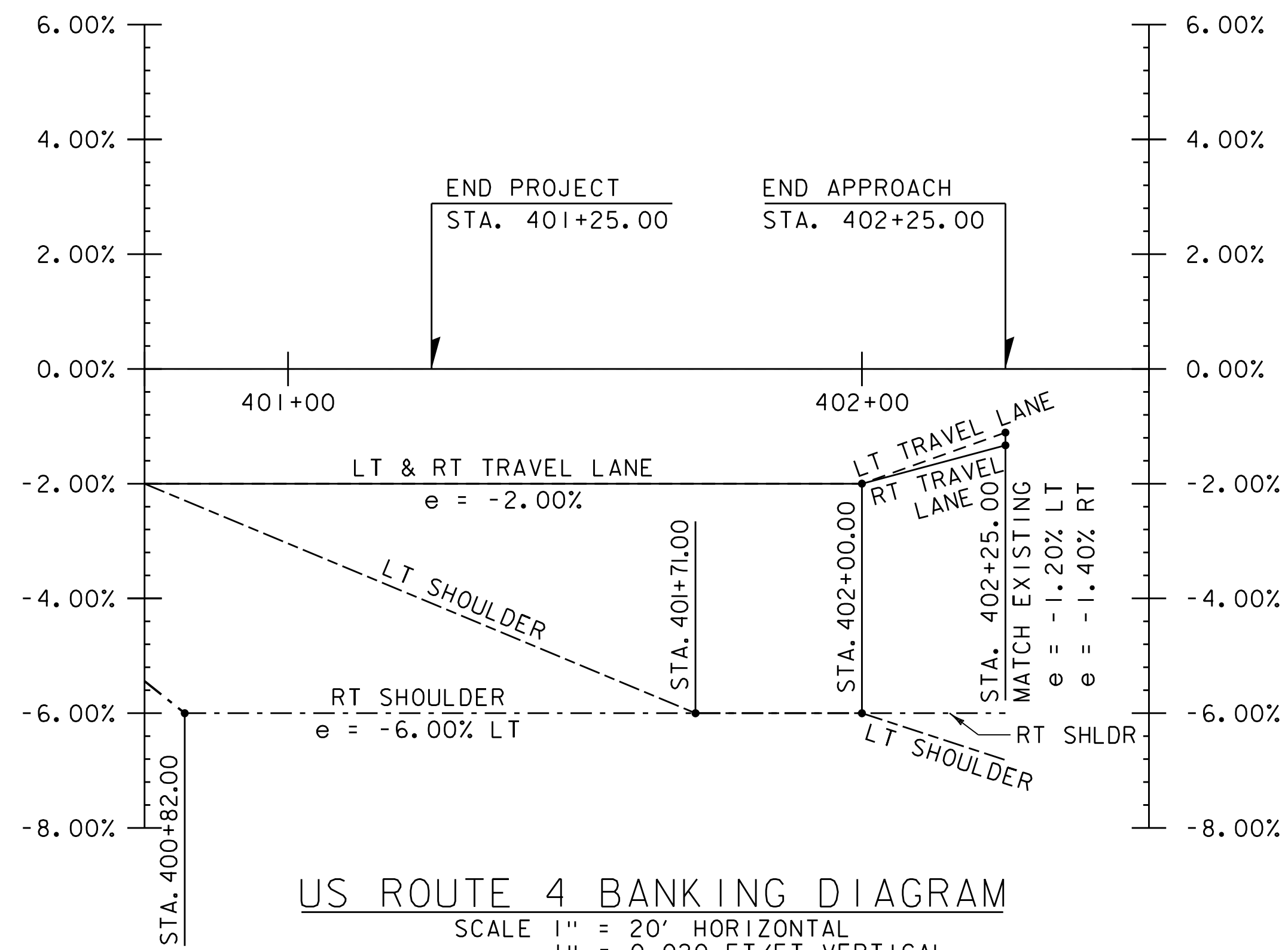
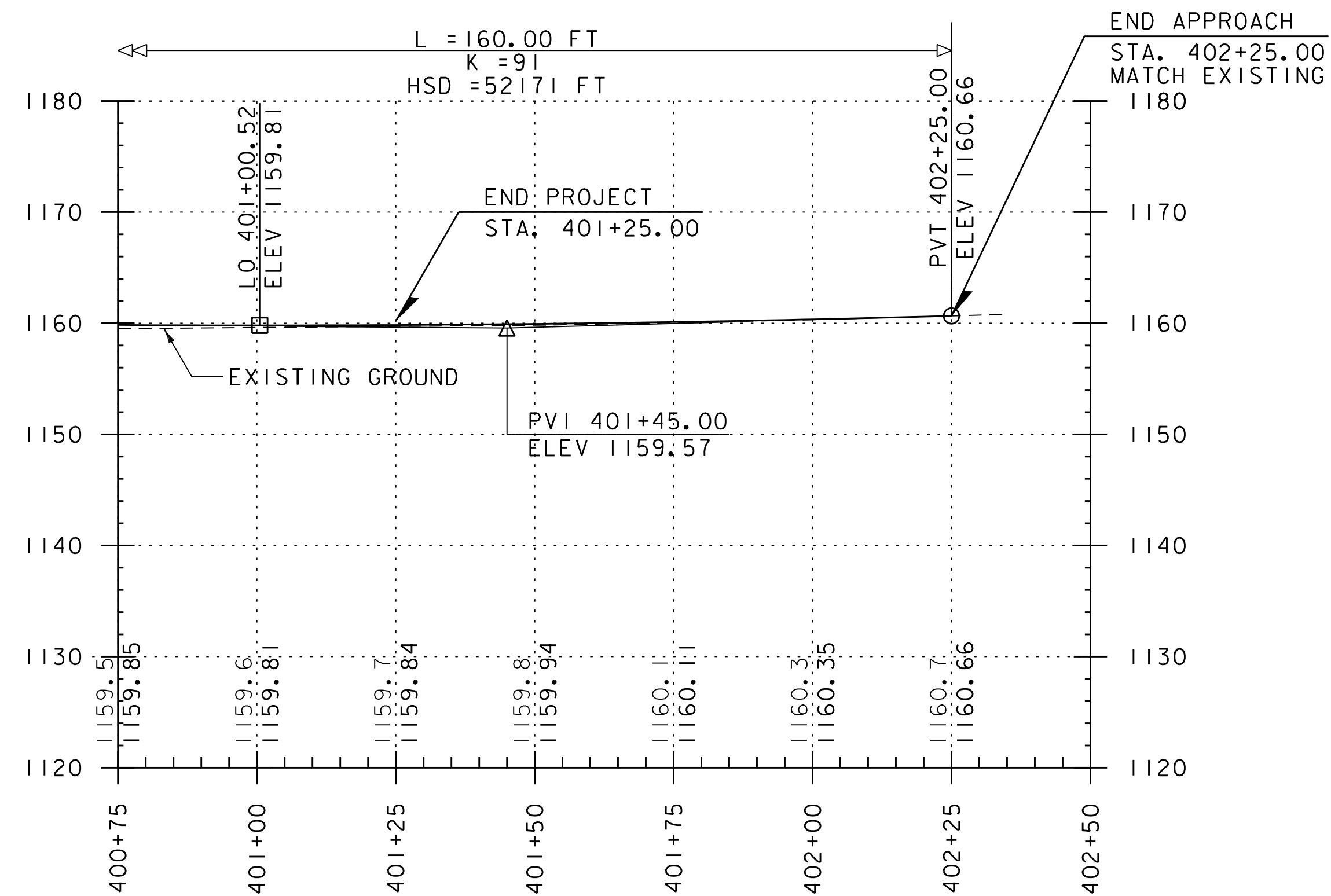
THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.



PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260pro.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
PROFILE AND BANKING DIAGRAM (1 OF 2)

PLOT DATE: 4/27/2020
DRAWN BY: R.H. BARNES
CHECKED BY: K.C. BARRY
SHEET 15 OF 62



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

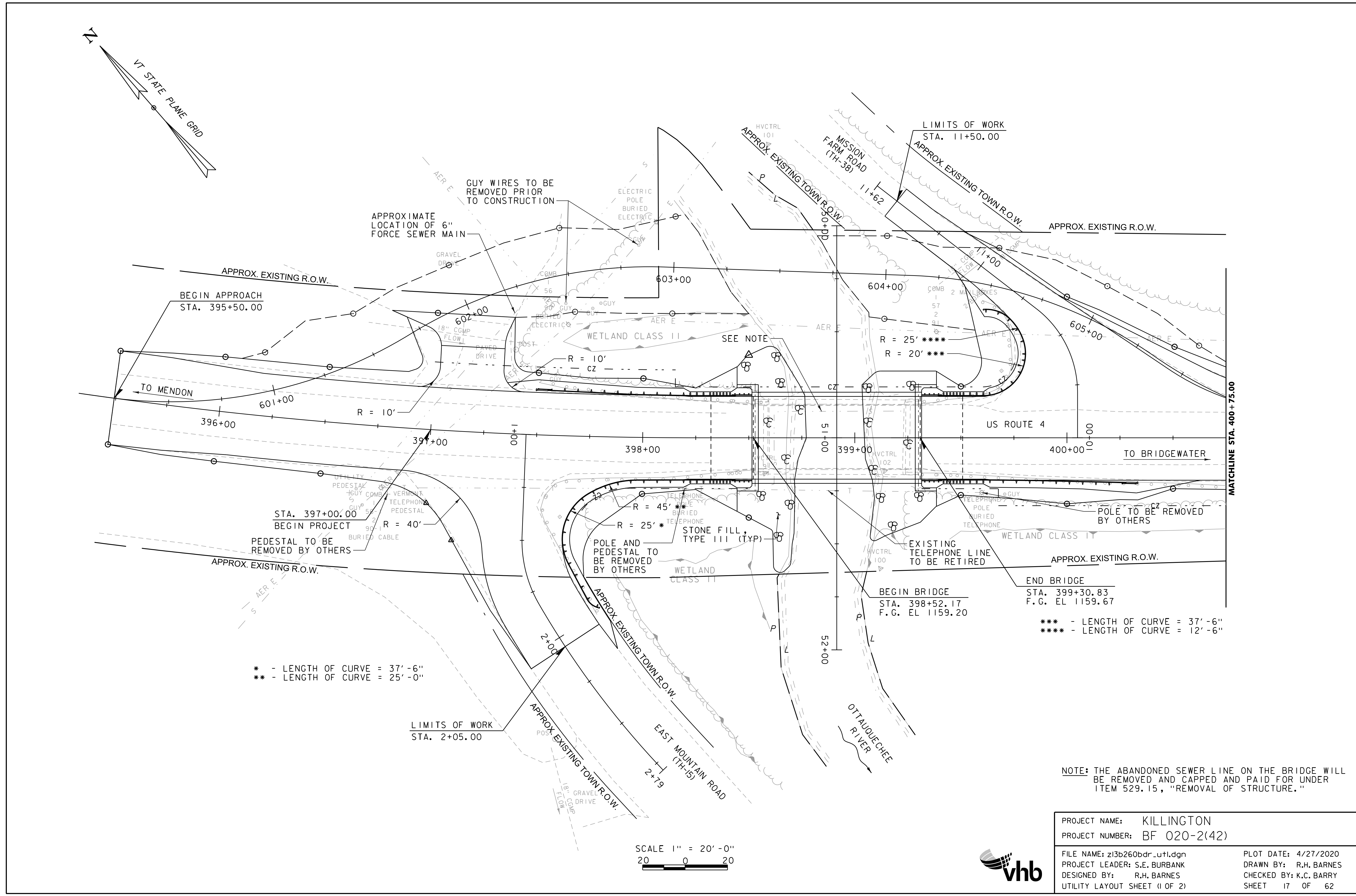
THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

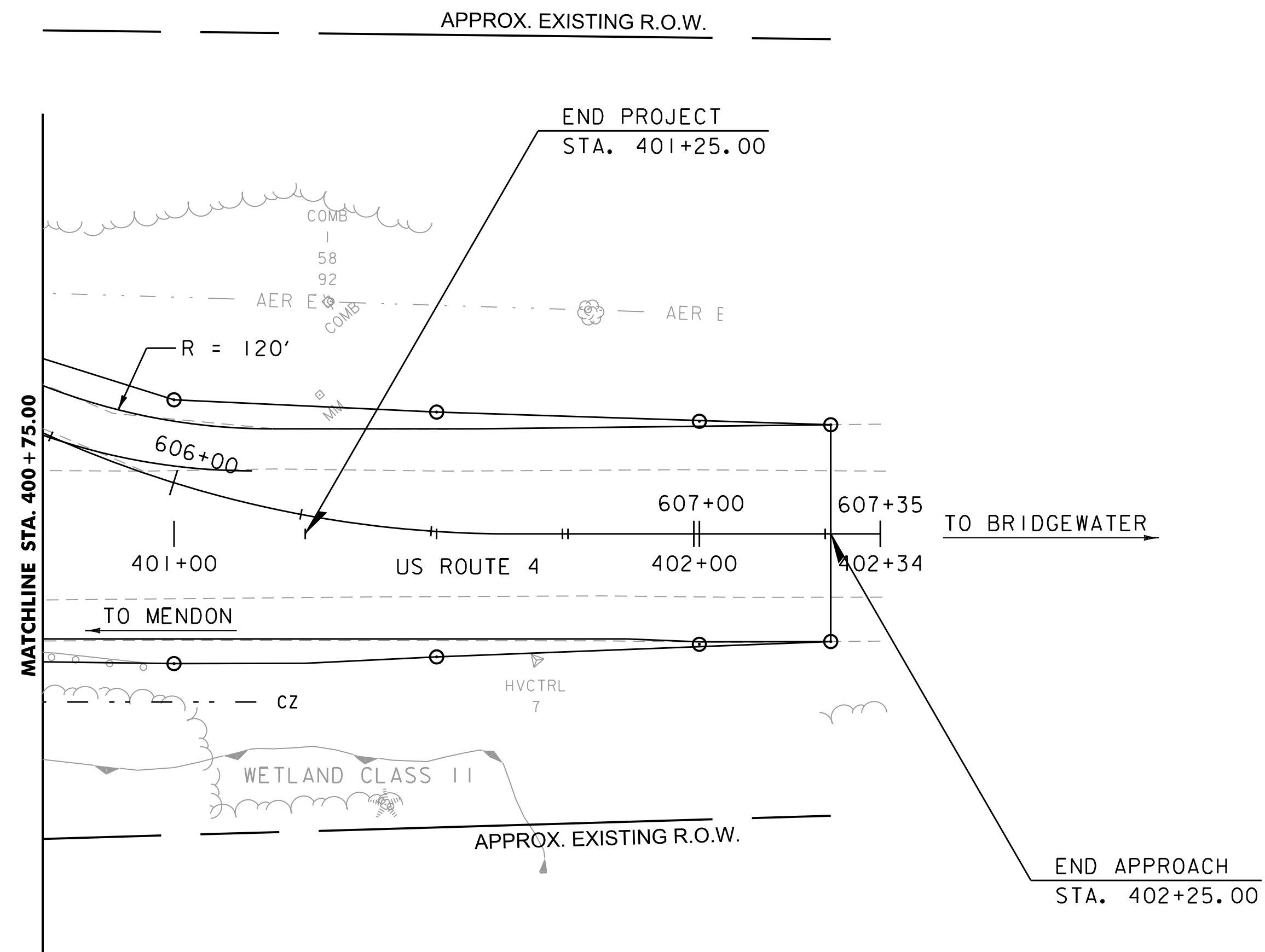
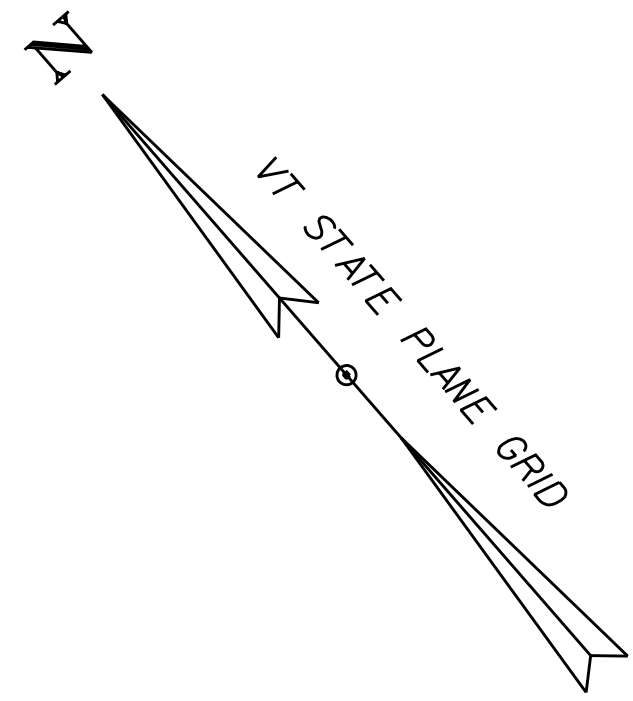
FILE NAME: z13b260pro.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
PROFILE AND BANKING DIAGRAM (2 OF 2)

PLOT DATE: 4/27/2020
DRAWN BY: R.H. BARNES
CHECKED BY: K.C. BARRY
SHEET 16 OF 62





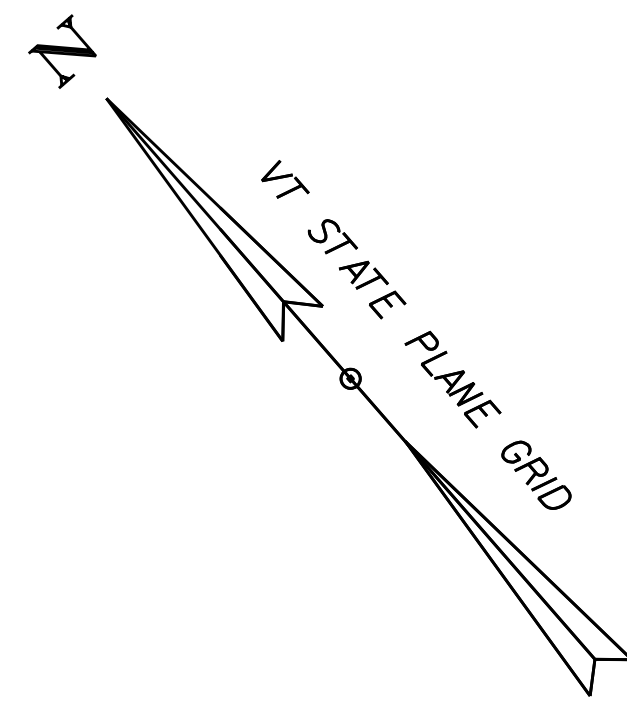
PROJECT NAME: KILLINGTON	
PROJECT NUMBER: BF 020-2(42)	
FILE NAME: z13b260bdr_utl.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: R.H. BARNES
DESIGNED BY: R.H. BARNES	CHECKED BY: K.C. BARRY
UTILITY LAYOUT SHEET (1 OF 2)	SHEET 17 OF 62



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



PROJECT NAME: KILLINGTON	
PROJECT NUMBER: BF 020-2(42)	
FILE NAME: z13b260bdr.utldgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: R.H. BARNES
DESIGNED BY: R.H. BARNES	CHECKED BY: K.C. BARRY
UTILITY LAYOUT SHEET (2 OF 2)	SHEET 18 OF 62



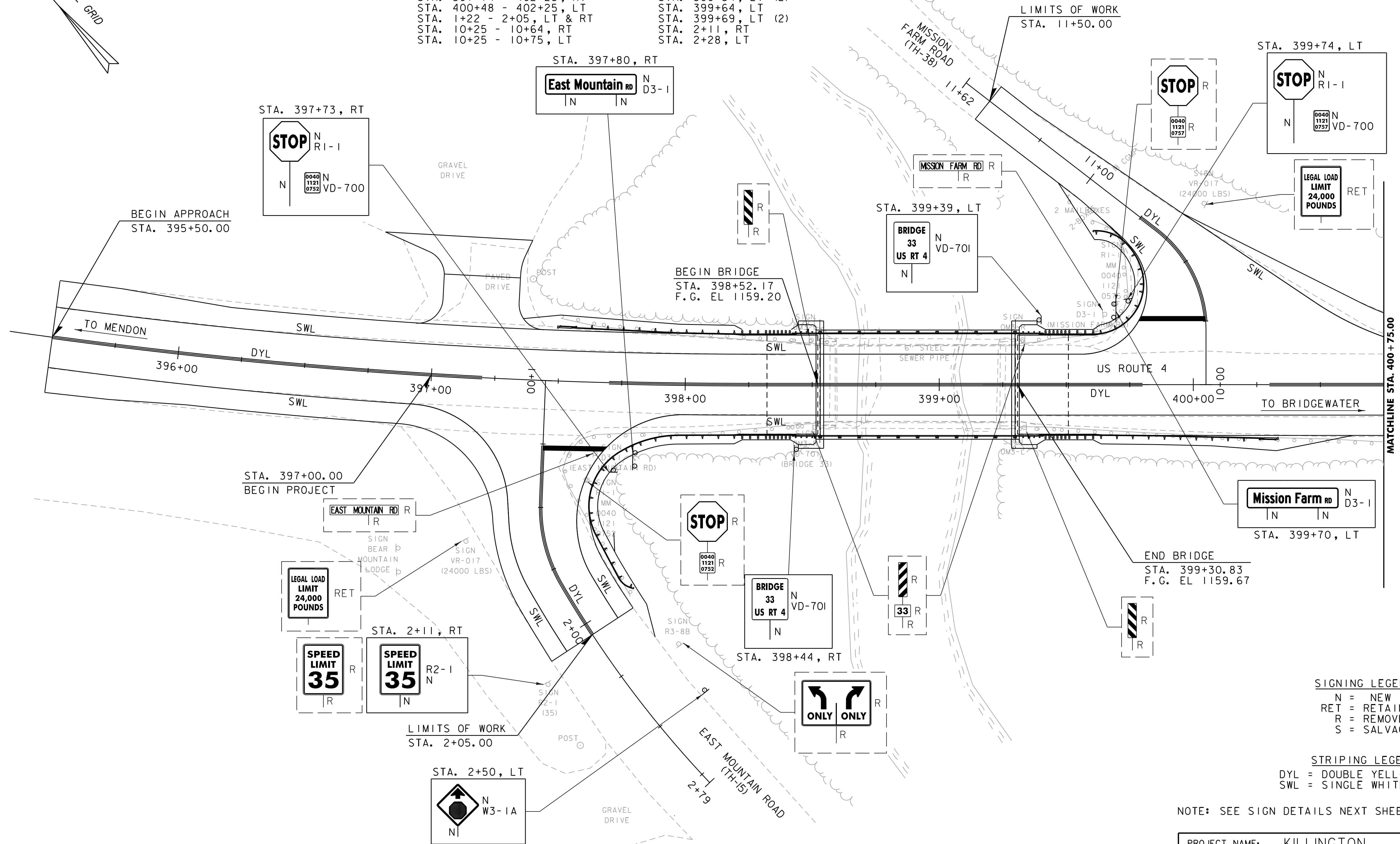
4 INCH YELLOW LINE
STA. 395+50 - 397+20, LT & RT
STA. 397+70 - 399+80, LT & RT
STA. 400+30 - 402+25, LT & RT
STA. 1+25 - 2+05, LT & RT
STA. 10+25 - 10+75, LT & RT

4 INCH WHITE LINE
STA. 395+50 - 399+78, LT
STA. 395+50 - 397+20, RT
STA. 397+74 - 402+25, RT
STA. 400+48 - 402+25, LT
STA. 1+22 - 2+05, LT & RT
STA. 10+25 - 10+64, RT
STA. 10+25 - 10+75, LT

STOP BAR
STA. 397+45 - 397+69, RT
STA. 399+79 - 400+05, LT

REMOVING SIGNS
STA. 397+63, RT (2)
STA. 397+65, RT
STA. 398+49, LT
STA. 398+50, RT (2)
STA. 399+34, RT
STA. 399+34, LT (2)
STA. 399+64, LT
STA. 399+69, LT (2)
STA. 2+11, RT
STA. 2+28, LT

TRAFFIC SIGNS, TYPE A
STA. 397+73, RT (2)
STA. 397+80, RT
STA. 398+44, RT
STA. 399+39, LT
STA. 399+70, LT
STA. 399+74, LT (2)
STA. 2+11, RT



SIGNING LEGEND
N = NEW
RET = RETAIN
R = REMOVE
S = SALVAGE

STRIPING LEGEND
DYL = DOUBLE YELLOW LINE
SWL = SINGLE WHITE LINE

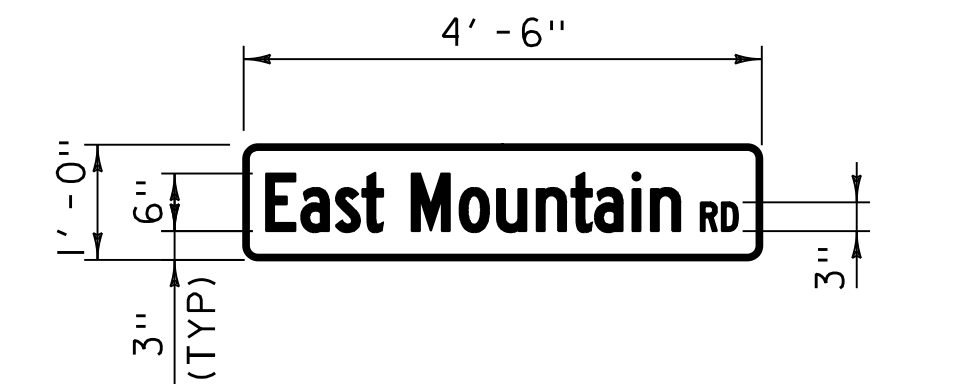
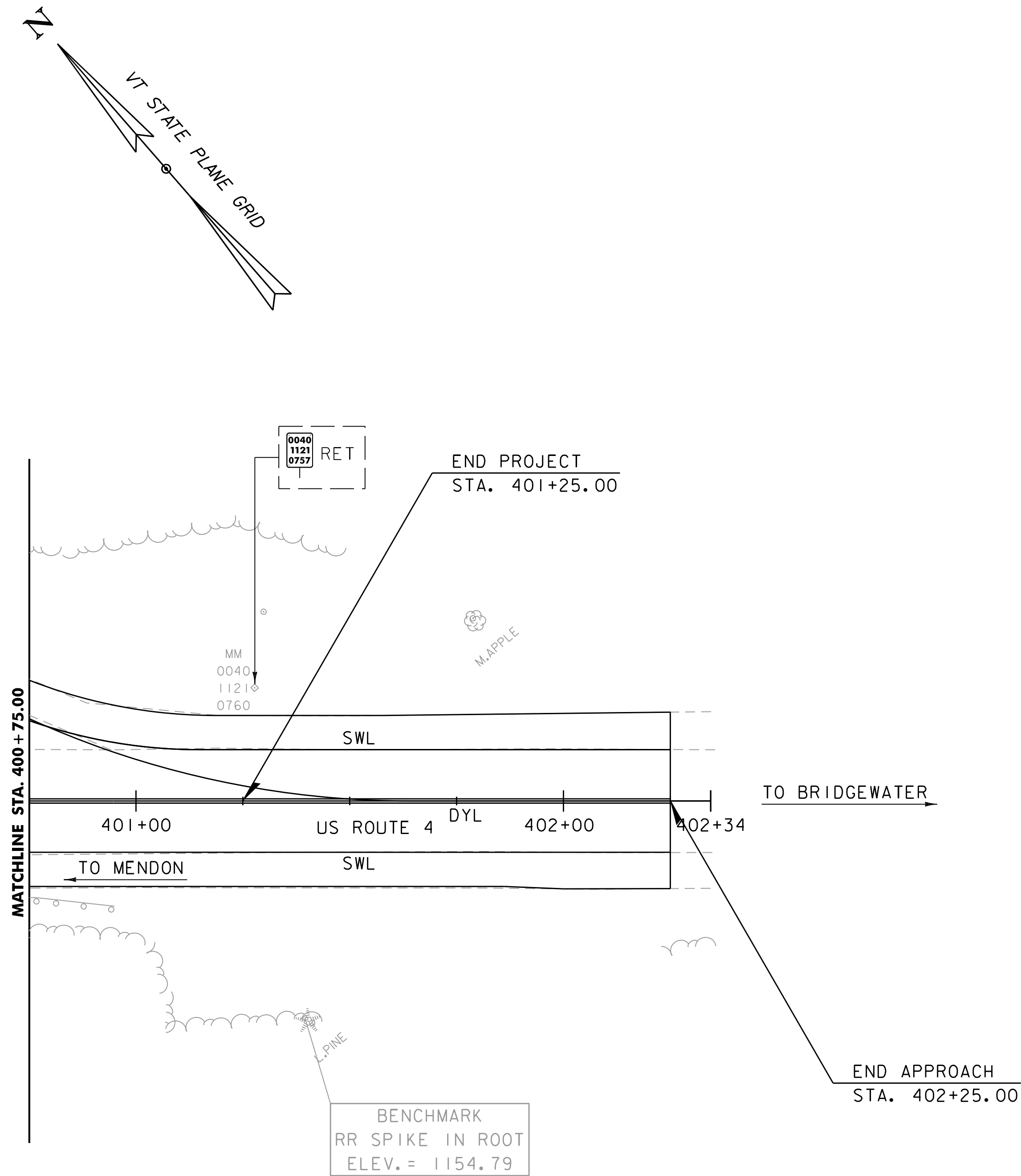
NOTE: SEE SIGN DETAILS NEXT SHEET.

PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

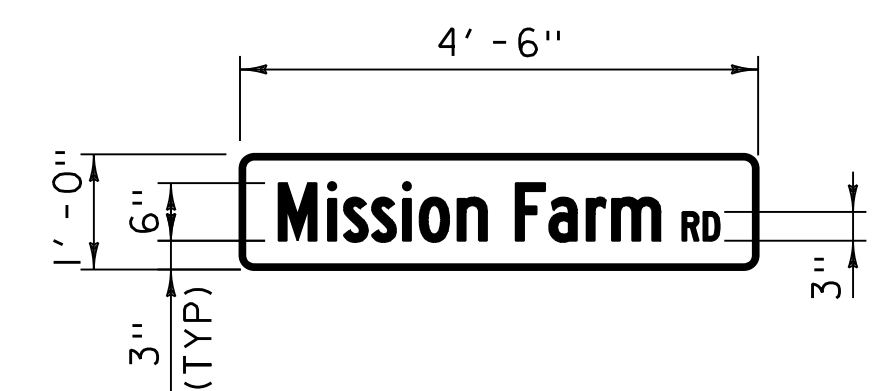
FILE NAME: z13b260+sl.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: R.H. BARNES
TRAFFIC SIGNS & LINE STRIPING (1 OF 2)

PLOT DATE: 4/27/2020
DRAWN BY: R.H. BARNES
CHECKED BY: K.C. BARRY
SHEET 19 OF 62





EAST MOUNTAIN RD SIGN
NOT TO SCALE



MISSION FARM RD SIGN
NOT TO SCALE

NOTES:

1. STREET NAME SIGN LEGEND TEXT 6" / 4.5" C
SIGN BACKGROUND SHALL BE GREEN WITH
WHITE LETTERING.
2. SIGNS SHALL BE DOUBLE SIDED AND BE
0.125" THICK ALUMINUM.

SIGNING LEGEND

N = NEW
RET = RETAIN
R = REMOVE
S = SALVAGE

STRIPING LEGEND

DYL = DOUBLE YELLOW LINE
SWL = SINGLE WHITE LINE

SCALE 1" = 20' - 0"

20 0 20



PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260+sl.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: R.H. BARNES
DESIGNED BY: R.H. BARNES	CHECKED BY: K.C. BARRY
TRAFFIC SIGNS & LINE STRIPING (2 OF 2)	SHEET 20 OF 62

TRAFFIC SIGN SUMMARY SHEET

PROJECT NAME: KILLINGTON	
PROJECT NUMBER: BF 020-2(42)	
FILE NAME: z13b260tss.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: E.F. LAWES
DESIGNED BY: E.F. LAWES	CHECKED BY: K.C. BARRY
TRAFFIC SIGN SUMMARY SHEET	SHEET 21 OF 62

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)		CONSISTENCY (COHESIVE SOILS)	
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
<5	Very Loose	<2	Very Soft
5-10	Loose	2-4	Soft
11-24	Med. Dense	5-8	Med. Stiff
25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

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

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 3/8"

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

ROD

Rock Quality Designation

CBR

California Bearing Ratio

<

Less Than

>

Greater Than

R

Refusal (N > 100)

VTSPG

NAD83 - See Note 7

BORING LAYOUT

SCALE 1" = 20' - 0"

20 0 20

BORING CHART

BORING NO.	STATION	OFFSET	NORTHING	EASTING	GROUND ELEV.	DEPTH TLOB
B-101	398+50.00	11.20' LT	406024.24	1572888.14	1159.2	-
B-104	399+28.00	10.40' RT	405959.45	1572933.11	1160.0	-

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).

SLT - 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 Oct 19, 2015 and Nov 5, 2015 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.

v

h

b

PROJECT NAME:

KILLINGTON

PROJECT NUMBER:

BF 020-2(42)

FILE NAME:

z13b260bor.dgn

PROJECT LEADER:

S.E. BURBANK

DESIGNED BY:

R.H. BARNES

BORING INFORMATION SHEET

PLOT DATE:

4/27/2020

DRAWN BY:



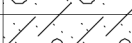
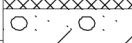

R.H. BARNES

CHECKED BY:

K.C. BARRY



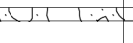
SHEET 22 OF 62

BOTTOM OF CAP
EL = 1149.50

		STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG		Boring No.: B-101		
				KILLINGTON BF 020-2(42) US-4 BR #33		Page No.: 1 of 2 Pin No.: 13b260 Checked By: MRG		
Boring Crew: Garrow, Nieto		Casing Type: WB I.D.: 4 in		Sampler SS 1.5 in		Groundwater Observations		
Date Started: 10/19/15 Date Finished: 11/02/15		Hammer Wt: N.A.		Date		Notes		
VTSPG NAD83: N 406024.24 ft E 1572888.14 ft		Hammer Fall: N.A.		10/27/15		12.2 W.T. Before Drilling		
Station: 398+50 Offset: -11.20		Hammer/Rod Type: Auto/AWJ		10/28/15		12.9 W.T. Before Drilling		
Ground Elevation: 1159.2 ft		Rig: CME 45C SKID C _e = Unknown		11/02/15		12.4 W.T. Before Drilling		
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)		Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
10		Asphalt Pavement, 0.0 ft - 0.66 ft		13-9-11-11	5.3	47.7	36.6	15.7
		A-1-b, SaGr, brn, Moist, Rec. = 1.5 ft		(20)	7.7	42.4	40.5	17.1
		Field Note: NXDC, Cleaned out casing.		6-8-9-10				
		A-1-b, SaGr, brn, Moist, Rec. = 0.9 ft		(17)				
		Field Note: NXDC, Cleaned out casing.		9-8-10-				
		A-1-a, SaGr, Lt/brn-brn, Moist, Rec. = 0.6 ft, Lab Note: Broken rock was within sample.		25				
		Field Note: No Recovery		(18)				
		Field Note: NXDC, Cleaned out casing.		R@6"				
		A-2-4, Sa, gry-rust, Moist, Rec. = 0.8 ft, Lab Note: Sample was rust colored.		15-10-5-	22.7	10.2	73.6	16.2
		Field Note: NXDC, Cleaned out casing.		6	32.7	3.7	65.6	30.7
20		A-2-4, SiSa, gry, Moist, Rec. = 0.9 ft, Lab Note: Black silt layers were within sample.		3-3-3-2				
		Field Note: No Recovery		(9)				
		A-2-4, Sa, brn-gry, Moist, Rec. = 1.2 ft, Lab Note: Wood and wood fibers were within sample. Sample was black.		WH-2-2-	59.8	4.2	79.4	16.4
		Field Note: No Recovery		2				
		A-2-4, SiSa, gry, Moist, Rec. = 0.5 ft		(4)				
				2-3-4-4				
				(7)				
				6-4-4-5				
				(8)				
				3-2-3-5	28.2	1.4	73.5	25.1
30				(5)				
		A-2-4, SiSa, brn, Moist, Rec. = 0.9 ft		3-3-3-3	27.3	0.2	68.2	31.6
				(6)				
		Field Note: No Recovery		3-3-5-4				
				(8)				
		A-4, SaSi, brn, Moist, Rec. = 1.3 ft		2-2-2-2	34.2	2.9	31.3	65.8
				(4)				
		A-4, SiSa, brn, Moist, Rec. = 0.9 ft		3-3-5-3	32.7	0.1	53.8	46.1
				(8)				
		Field Note: NXDC, Cleaned out casing.		6-6-6-7				
50		Field Note: No Recovery		(12)				
		Field Note: NXDC, Cleaned out casing.						
		A-1-b, GrSa, brn, Moist, Rec. = 1.0 ft		11-33-18-16	15.1	38.2	52.9	8.9
				(51)				
		Field Note: NXDC, Cleaned out casing.						
		Field Note: No Recovery		R@0"				
		Field Note: NXDC, Cobbles		(R)				
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 KILLINGTON BF020-2(42) GPJ, VERMONT AOT, GDT, 11/12/15

ESTIMATED PILE TIP
EL = 1074.5

		STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG		Boring No.: B-101		
				KILLINGTON BF 020-2(42) US-4 BR #33		Page No.: 2 of 2 Pin No.: 13b260 Checked By: MRG		
Boring Crew: Garrow, Nieto		Casing Type: WB I.D.: 4 in		Sampler SS 1.5 in		Groundwater Observations		
Date Started: 10/19/15 Date Finished: 11/02/15		Hammer Wt: N.A.		Date		Notes		
VTSPG NAD83: N 406024.24 ft E 1572888.14 ft		Hammer Fall: N.A.		10/27/15		12.2 W.T. Before Drilling		
Station: 398+50 Offset: -11.20		Hammer/Rod Type: Auto/AWJ		10/28/15		12.9 W.T. Before Drilling		
Ground Elevation: 1159.2 ft		Rig: CME 45C SKID C _e = Unknown		11/02/15		12.4 W.T. Before Drilling		
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)		Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
70		A-2-4, GrSiSa (Visual Description), white-Lt/gry, Moist, Rec. = 1.1 ft, Lab Note: Sample had a strong "moth ball" type odor. P.I.D. test performed showing 0.4 ppm.		32-41-R@2.5"				
		Field Note: NXDC, Cleaned out casing.						
		Visual Description: SaGr, gry, Moist, Rec. = 2.2 ft, Lab Note: Insufficient sample for testing.		R@3.5"	13.4			
		Field Note: NXDC, Cleaned out casing.						
		A-1-b, Sa, Lt/gry, Moist, Rec. = 0.4 ft, Lab Note: Broken rock was within sample.		R@5"	22.8	16.5	79.7	3.8
				(R)				
		A-1-a, SaGr, Lt/gry, Moist, Rec. = 0.5 ft		R@6"	10.3	50.6	35.0	14.4
		Field Note: Sleeved 3.0 inch casing. Sampling with AWJ rod						
		Field Note: NXDC, Cleaned out casing.		R@5"	14.3	48.2	32.9	18.9
		A-1-b, SaGr, brn-gry, Moist, Rec. = 0.4 ft						
90		Field Note: NXDC, Cleaned out casing.		R@5"				
		Field Note: No Recovery						
		Field Note: NXDC, Cleaned out casing.						
		Visual Description: Gr, gry-Lt/brn, Moist, Rec. = 0.2 ft, Lab Note: Insufficient sample for testing.		R@2.5"	2.2			
				(R)				
		Hole stopped @ 111.0 ft						
		Remarks: Hole Collapsed at 9.6 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 KILLINGTON BF020-2(42) GPJ, VERMONT AOT, GDT, 11/12/15

NOTE: ESTIMATED PILE TIP ELEVATIONS MAY VARY.
ELEVATIONS GIVEN ARE ESTIMATED BASED ON
APPROXIMATE LENGTH OF PILE NEEDED TO RESIST
APPLIED LOADING.





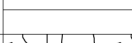
PROJECT NAME: BF 020-2(42)
PROJECT NUMBER: KILLINGTON



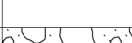

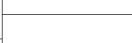


FILE NAME: z13b260borlogs.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: VTRANS
BORING LOGS (10 OF 2)

PLOT DATE: 4/27/2020
DRAWN BY: K.C. BARRY
CHECKED BY: S.E. BURBANK
SHEET 23 OF 62



BOTTOM OF CAP
 EL = 1150.00

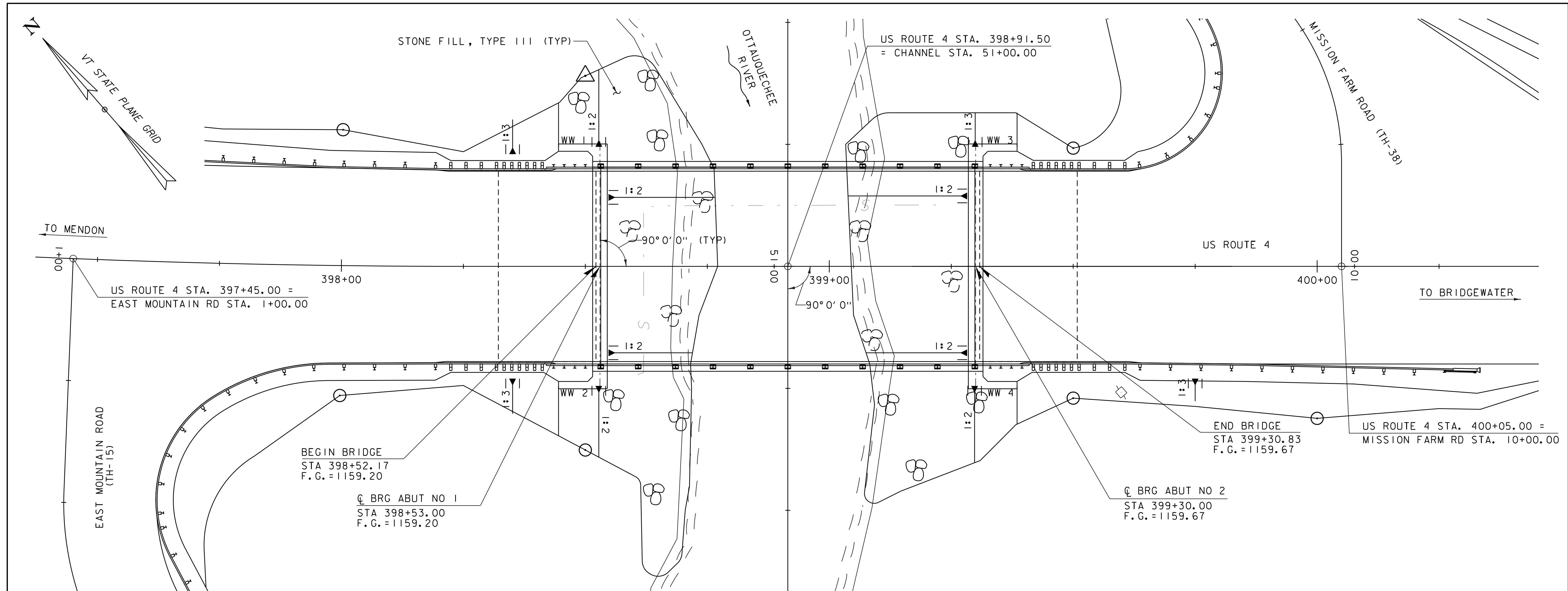
 STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG KILLINGTON BF 020-2(42) US-4 BR #33		Boring No.: B-104 Page No.: 1 of 2 Pin No.: 13b260 Checked By: MRG			
Boring Crew: Gardner, GARROW, NIETO Date Started: 11/03/15 Date Finished: 11/05/15 VTSPG NAD83: N 405959.45 ft E 1572933.11 ft Station: 398+28 Offset: 10.40 Ground Elevation: 1160.0 ft		Casing I.D.: 4 in Hammer Wt: N.A. Hammer Fall: N.A. Hammer/Rod Type: Auto/AWJ Rig: CME 45C SKID C _e = Unknown		Sampler SS 1.5 in 140 lb. 30 in.		Groundwater Observations Date Depth Notes 11/04/15 12.6 W.T. before drilling 11/05/15 12.8 W.T. before drilling	
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/ft* (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		Asphalt Pavement, 0.0 ft - 0.62 ft					
		A-1-b, SaGr, brn, Moist, Rec. = 1.3 ft, Lab Note: Broken rock was within sample.	10-7-8-9 (15)	9.1	44.8	40.4	14.8
		A-1-b, SaGr, brn, Wet, Rec. = 1.2 ft	7-6-5-5 (11)	24.3	44.1	39.9	16.0
		Field Note:., NXDC, Cleaned out casing.					
		A-1-a, SaGr, gry, Moist, Rec. = 0.5 ft	5-6-6-7 (12)	16.4	59.5	27.8	12.7
		A-1-b, SaGr, brn, Moist, Rec. = 0.8 ft	9.3	42.1	41.5	16.4	
		A-1-b, GrSa, brn, Wet, Rec. = 0.7 ft	8-15-6-5 (21)	25.9	46.2	47.5	6.3
		Field Note:., NXDC, Cleaned out casing.					
		A-2-4, SiGrSa, brn, MTW, Rec. = 1.1 ft	2-2-6-6 (8)	32.9	32.2	41.7	26.1
		A-1-b, GrSa, brn-gry, Moist, Rec. = 1.4 ft	10-15-11-9 (26)	15.8	35.9	47.3	16.8
15		Field Note:., NXDC, Cleaned out casing., Cobbles					
		A-2-4, GrSa, brn, Moist, Rec. = 1.5 ft, Lab Note: Sample contained rust colored layers.	6-7-8-6 (15)	17.7	24.9	56.4	18.7
		A-2-4, SiSa, brn, Moist, Rec. = 1.1 ft, Lab Note: Sample contained rust colored layers.	2-WH-2-3 (W.H.)	26.1	9.1	65.8	25.1
		A-2-4, Sa, brn, Moist, Rec. = 1.0 ft	1-2-2-4 (4)	27.8	2.7	78.9	18.4
		A-3, Sa, brn, Moist, Rec. = 1.0 ft	2-3-4-4 (7)	25.4	9.4	80.7	9.9
25		Field Note:., NXDC, Cleaned out casing.					
		A-1-a, SaGr, brn, Moist, Rec. = 0.4 ft, Lab Note: Broken rock was within sample.	6-7-6-6 (13)	13.6	58.7	36.3	5.0
		Field Note:., NXDC, Cleaned out casing., Cobbles					
		A-1-a, SaGr, brn, Moist, Rec. = 0.4 ft, Lab Note: Broken rock was within sample.	8-8-8-8 (16)	16.3	55.4	38.6	6.0
		Field Note:., NXDC, Cleaned out casing., Cobbles					
35		Field Note:., NXDC, Cleaned out casing., Cobbles					
		A-1-a, SaGr, brn, Moist, Rec. = 0.9 ft, Lab Note: Broken rock was within sample.	6-33-8-10 (41)	12.8	60.1	32.2	7.7
		Field Note:., NXDC, Cleaned out casing., Boulder					
		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.				

 STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG KILLINGTON BF 020-2(42) US-4 BR #33		Boring No.: B-104 Page No.: 2 of 2 Pin No.: 13b260 Checked By: MRG				
Boring Crew: Gardner, GARROW, NIETO Date Started: 11/03/15 Date Finished: 11/05/15 VTSPG NAD83: N 405959.45 ft E 1572933.11 ft Station: 398+28 Offset: 10.40 Ground Elevation: 1160.0 ft		Casing I.D.: 4 in Hammer Wt: N.A. Hammer Fall: N.A. Hammer/Rod Type: Auto/AWJ Rig: CME 45C SKID C _e = Unknown		Sampler SS 1.5 in 140 lb. 30 in.		Groundwater Observations Date Depth Notes 11/04/15 12.6 W.T. before drilling 11/05/15 12.8 W.T. before drilling		
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/ft* (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	
45		A-1-a, SaGr, brn, Moist, Rec. = 0.8 ft, Lab Note: Broken rock was within sample.	10-9-6-5 (15)	11.8	54.6	34.8	10.6	
		Field Note:., NXDC, Cleaned out casing., Cobbles						
		A-1-b, GrSa, brn, Moist, Rec. = 0.5 ft	34-34-R@2.5" (R)	15.3	27.9	58.9	13.2	
50		Field Note:., NXDC, Cleaned out casing., Cobbles						
		A-1-b, SiGrSa, brn, Moist, Rec. = 0.8 ft	20-R@3.5 (R)	15.6	27.1	51.3	21.6	
		Field Note:., NXDC, Cleaned out casing., Cobbles						
55		A-1-a, SaGr, brn, Moist, Rec. = 0.4 ft, Lab Note: Broken rock was within sample. Field Note:., Sleeved 3.0 inch casing. Sampling with AWJ rod.	R@5" (R)	10.2	55.8	30.4	13.8	
		Field Note:., NXDC, Cleaned out casing., Cobbles						
60		A-1-a, SaGr, brn, Moist, Rec. = 0.7 ft, Lab Note: Broken rock was within sample.	4-R@6" (R)	11.0	59.3	28.2	12.5	
		Field Note:., NXDC, Cleaned out casing.						
65		A-1-a, SaGr, brn, Moist, Rec. = 0.5 ft	23-R@3.5" (R)	12.0	56.6	28.7	14.7	
		Field Note:., NXDC, Cleaned out casing.						
		Field Note:., No Recovery	R@1" (R)					
75		Remarks: Hole Collapsed at 12.3 1.) Started mud drilling at 25.0 feet. 2.) Additional sample taken of cuttings from 61.0-65.0 feet. Sample had a moth ball like smell and had brown "oil like" spots. (Lab Note: Sample was not tested)						
		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.					

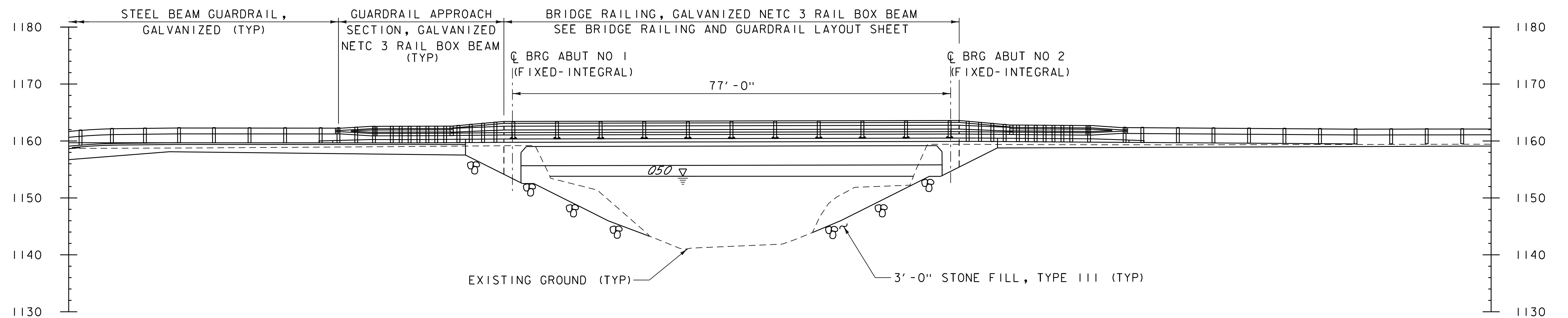
- NOTES:
- ESTIMATED PILE TIP AT ELEVATION = 1075.0
 - ESTIMATED PILE TIP ELEVATIONS MAY VARY. ELEVATIONS GIVEN ARE ESTIMATED BASED ON APPROXIMATE LENGTH OF PILE NEEDED TO RESIST APPLIED LOADING.



PROJECT NAME:	BF 020-2(42)	PLOT DATE:	4/27/2020
PROJECT NUMBER:	KILLINGTON	DRAWN BY:	K.C. BARRY
FILE NAME:	z13b260borlogs.dgn	CHECKED BY:	S.E. BURBANK
PROJECT LEADER:	S.E. BURBANK	SHEET	24 OF 62
DESIGNED BY:	VTRANS		
BORING LOGS (2 OF 2)			



PLAN
SCALE 1" = 10' - 0"



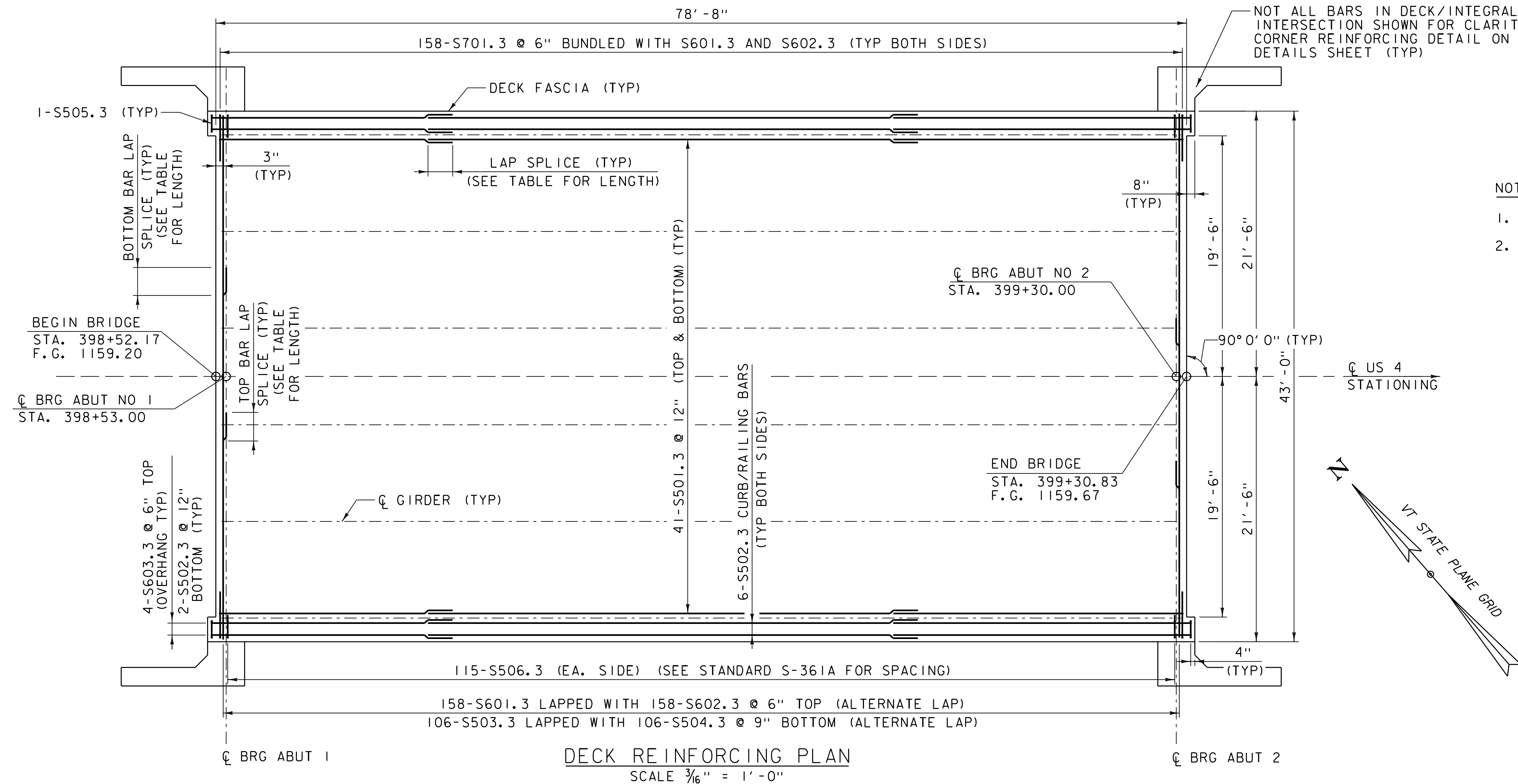
ELEVATION
SCALE 1" = 10' - 0"



PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260pe.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: R.H. BARNES
PLAN & ELEVATION

PLOT DATE: 4/27/2020
DRAWN BY: R.H. BARNES
CHECKED BY: K.C. BARRY
SHEET 25 OF 62



NOTES:

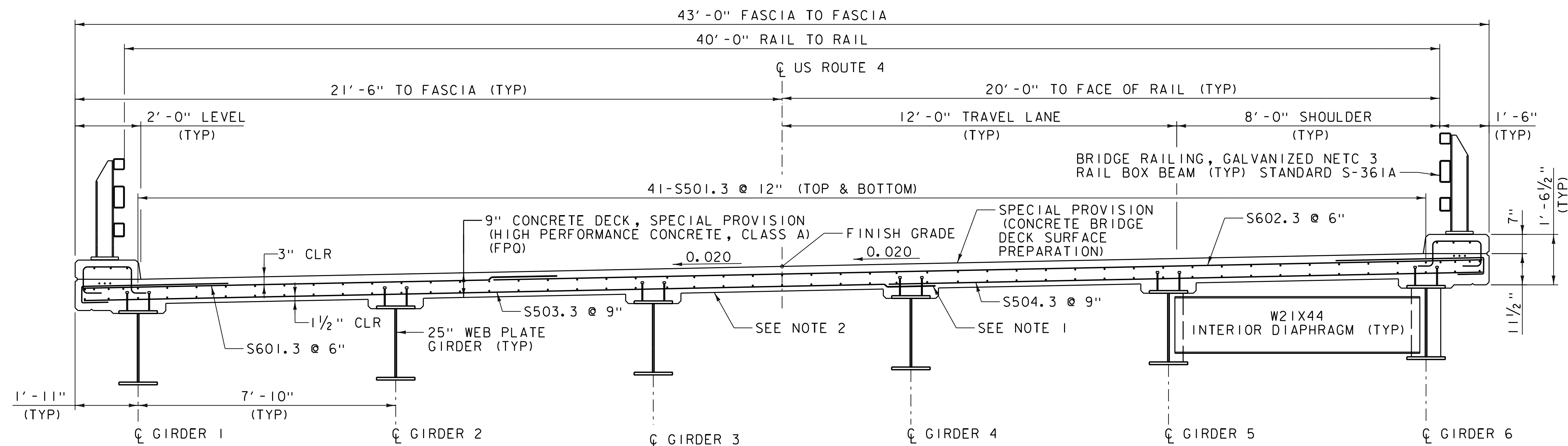
1. EDGE OF CURB NOT SHOWN IN PLAN FOR CLARITY.
2. 3" CLEAR UNLESS OTHERWISE SPECIFIED.

MINIMUM LAP
SPLICE LENGTH

BAR SIZE	SPLICE LENGTH
#5	2'-0"
#6	2'-5"

DECK REINFORCING PLAN

SCALE $\frac{3}{16}" = 1'-0"$



NOTES:

1. ALTERNATE LAP SPLICES OF S601.3 TO S602.3 AND S503.3 TO S504.3 SUCH THAT ADJACENT BARS ARE NOT SPLICED AT THE SAME LOCATION.
2. SEE PRECAST CONCRETE DECK PANEL DETAIL SHEET FOR DECK PANEL ALTERNATE DETAILS.
3. SEE DECK DETAILS (2 OF 2) SHEET FOR OVERHANG AND CURB REINFORCING DETAILS.

TYPICAL DECK REINFORCEMENT

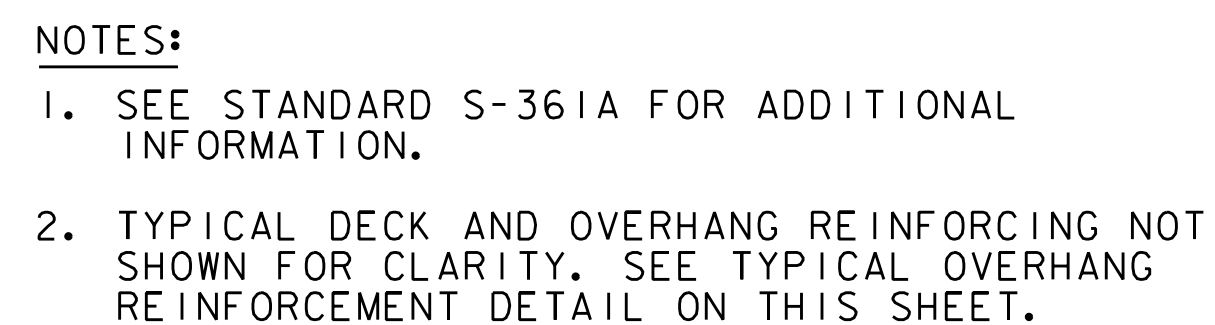
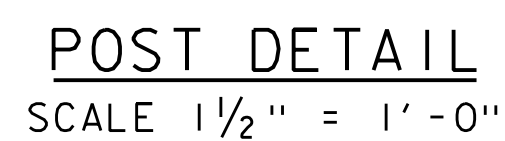
SCALE $\frac{1}{2}" = 1'-0"$

PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260sup.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: K.F. SMIACH
DECK DETAILS (1 OF 2)

PLOT DATE: 4/27/2020
DRAWN BY: T.R. BLALOCK
CHECKED BY: K.F. SMIACH
SHEET 26 OF 62





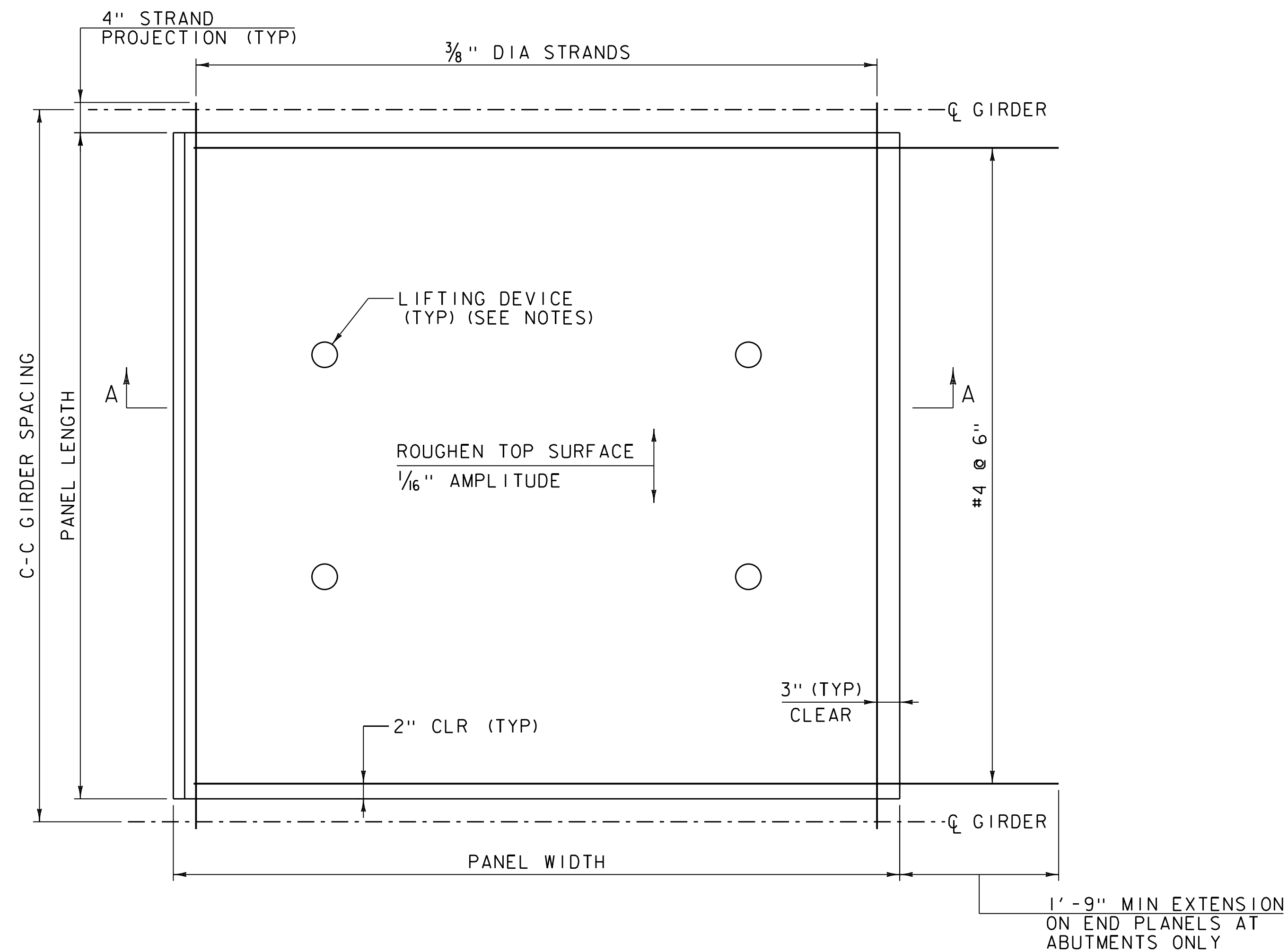
TYPICAL CURB AND RAILING REINFORCING
SCALE 1½" = 1'-0"



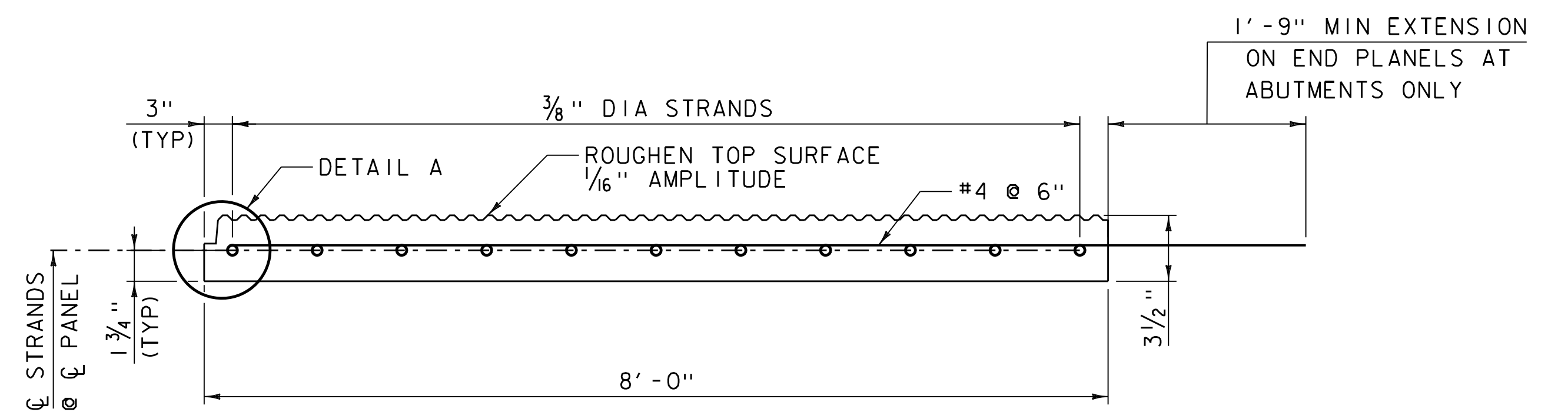
NOTES:

1. SEE CONCRETE NOTES ON PROJECT NOTES SHEET FOR ADDITIONAL INFORMATION.
2. TOP OF AS-CAST DECK IS 1/2" ABOVE P.G.L.

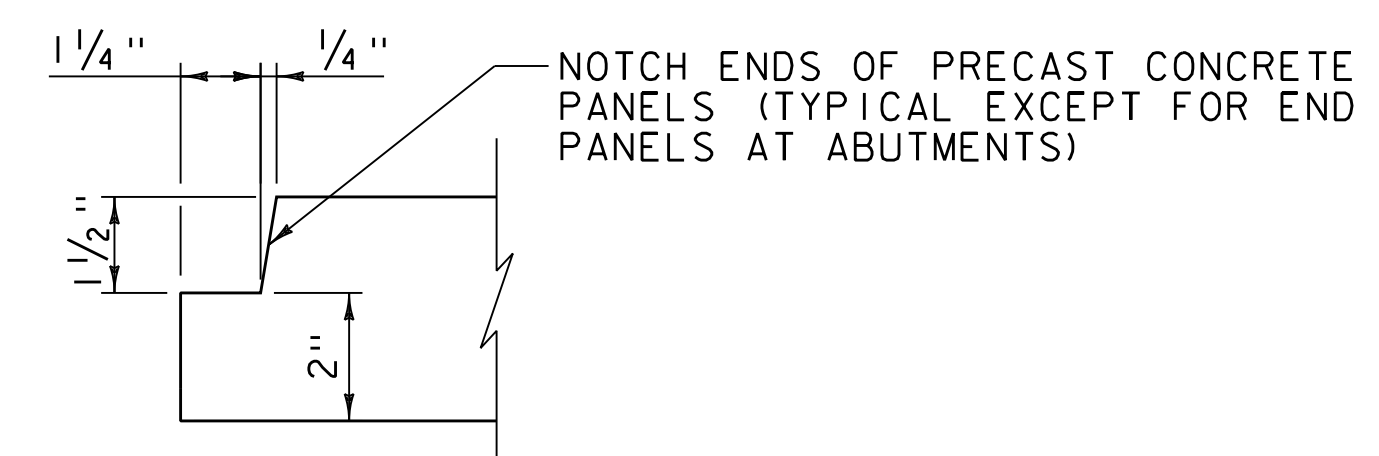




PRECAST PRESTRESSED
CONCRETE DECK PANEL PLAN
SCALE: 1"=1'-0"



SECTION A-A
HORIZONTAL SCALE: 1"=1'-0"
VERTICAL SCALE: 2"=1'-0"



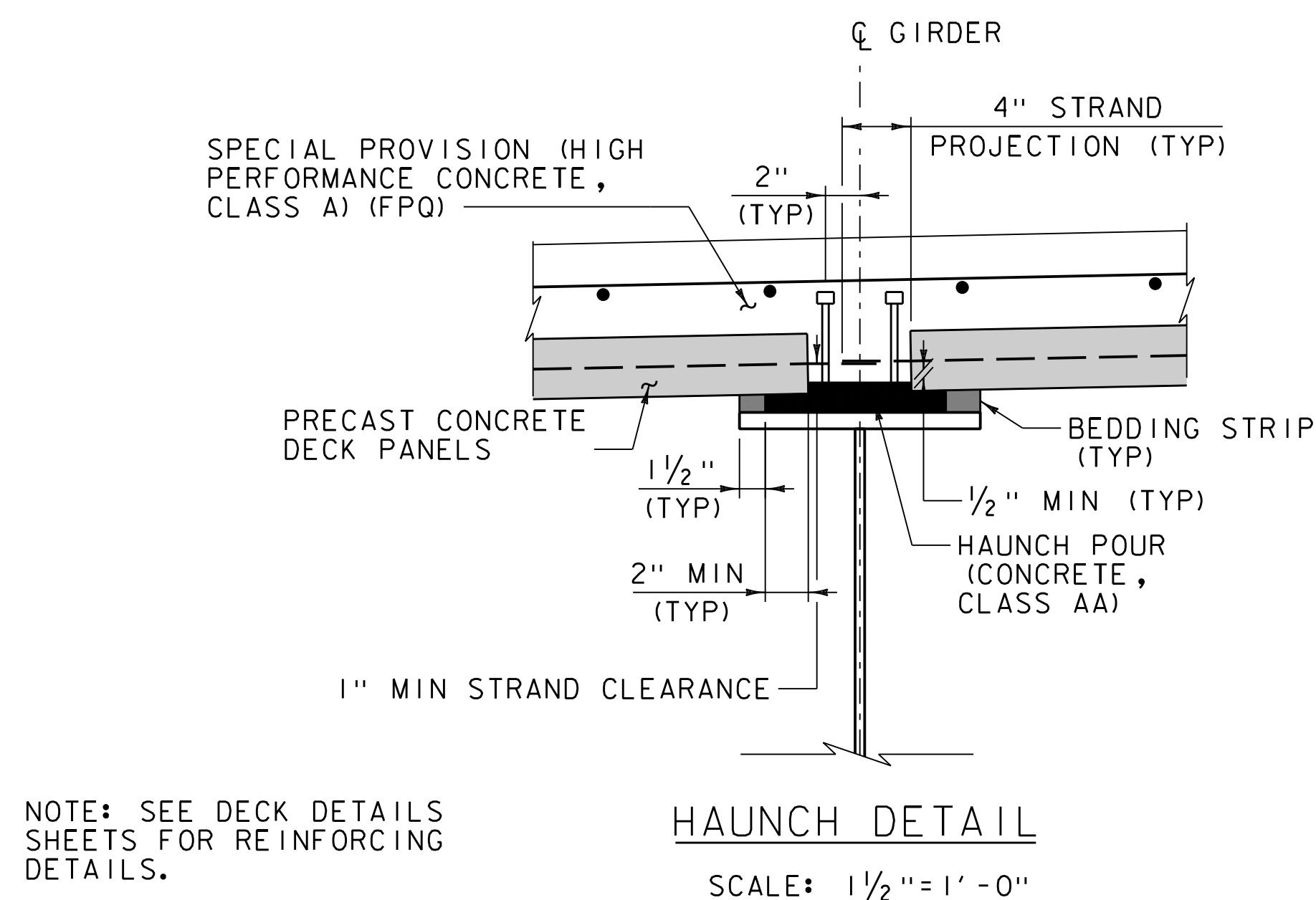
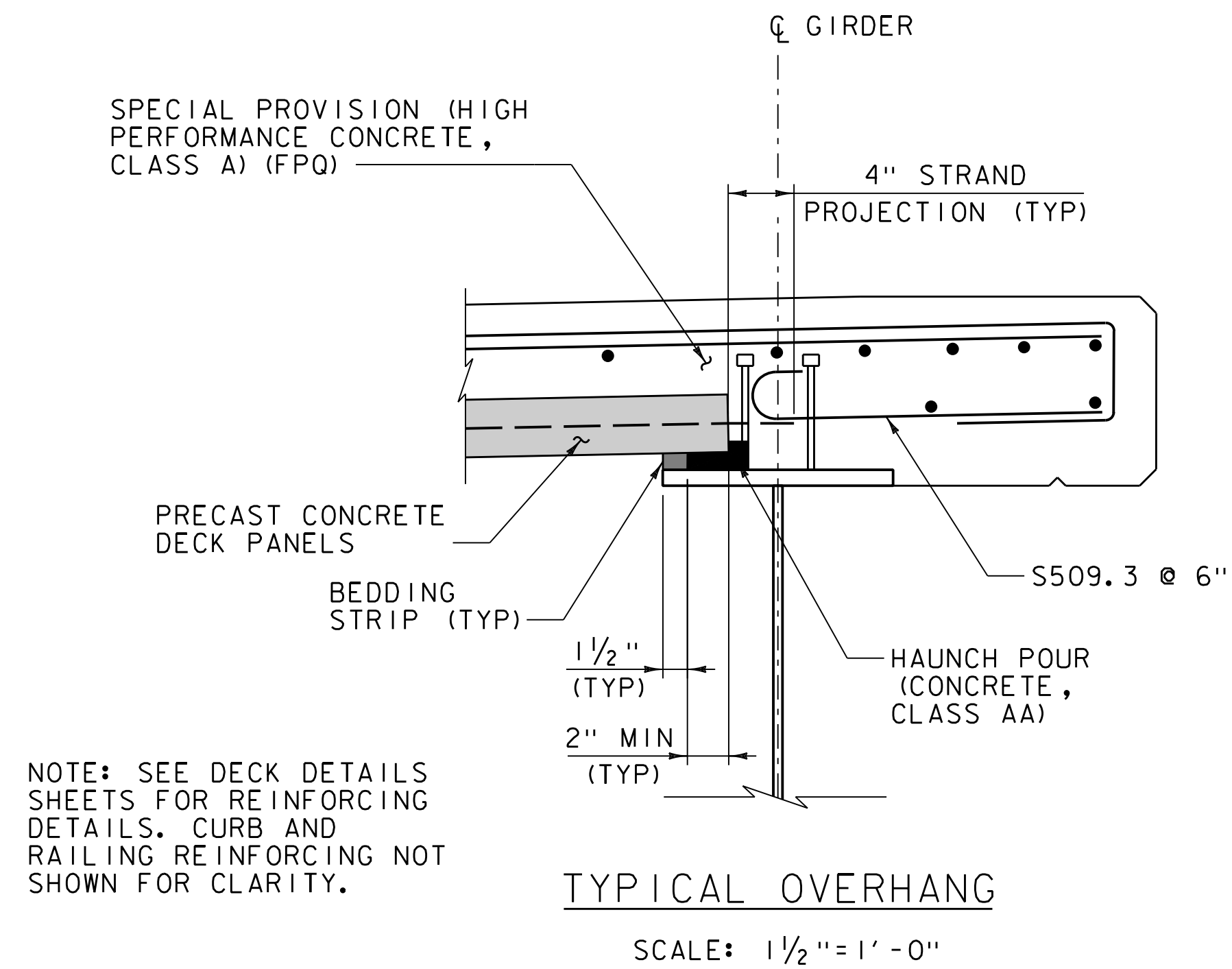
DETAIL A
NOT TO SCALE
(SEE NOTES ON PRECAST CONCRETE DECK PANEL DETAIL (SHEET 2 OF 2))

PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260deckpanel.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: K.C. BARRY
PRECAST CONC. DECK PANEL DETAIL (1 OF 2)

PLOT DATE: 4/27/2020
DRAWN BY: K.C. BARRY
CHECKED BY: K.F. SMIACH
SHEET 28 OF 62





C-C GIRDER SPACING	PANEL THICKNESS	F'CI (PSI)	F'C (PSI)	STRAND SPACING	TOTAL STRANDS PER 8' PANEL
≤8' - 0"	3 1/2"	4000	6000	8"	12
8' - 6"	3 1/2"	4800	6000	6"	16
9' - 0"	3 1/2"	4800	6000	6"	16
9' - 6"	3 1/2"	6000	8000	5"	19
10' - 0"	3 1/2"	6000	8000	5"	19

NOTES:

- LIFTING DEVICE SHALL BE DESIGNED BY THE FABRICATOR.
- SHEAR CONNECTORS AND STRANDS PROJECTING FROM THE PANELS SHALL BE CLEANED OF ANY EXCESS CONCRETE, CLASS AA AFTER HAUNCH POUR PLACEMENT.
- STRANDS PROJECTING FROM PANELS SHALL BE SECURED IN PLACE DURING DECK CONCRETE PLACEMENT.
- OMIT TRANSVERSE NOTCH ON END PANELS AT ABUTMENTS.
- PRESTRESSED CONCRETE DESIGN VALUES:
 - CONCRETE COMPRESSIVE STRENGTH: F'C = SEE TABLE A, THIS SHEET
 - CONCRETE COMPRESSIVE STRENGTH AT RELEASE: F'CI = SEE TABLE A, THIS SHEET
 - PRESTRESSING STRANDS: 0.375 INCH DIAMETER, 270 KSI, LOW-RELAXATION 7-WIRE STRANDS CONFORMING TO THE REQUIREMENTS OF ASTM A416
 - JACKING FORCE PER PRESTRESSING STRAND = 17.2 KIPS
 - ASSUMED MODULUS OF ELASTICITY FOR THE STRAND IS 28,500 KSI
- REINFORCING SHALL BE THE SAME LEVEL AS THE REINFORCING IN THE CONCRETE DECK AND MEET THE REQUIREMENTS OF SUBSECTION 713.01.
- THE TOP SURFACE OF THE PANELS SHALL BE BROOMED TO A SURFACE ROUGHNESS OF 0.0625 IN. BROOM THE SURFACE PARALLEL TO THE STRAND.
- INSTALLATION OF THE PRESTRESSED DECK PANELS SHALL BE IN ACCORDANCE WITH VTRANS SPECIFICATION 510.11 (b).
- AFTER THE GIRDERS HAVE BEEN ERECTED, ELEVATIONS SHALL BE TAKEN ALONG THE TOP OF THE GIRDERS AS DIRECTED BY THE ENGINEER FOR USE IN DETERMINING THE HEIGHT OF THE DECK PANEL BEDDING STRIPS. AFTER THE DECK PANELS HAVE BEEN SET AND BEFORE THE HAUNCH POUR, THE CONTRACTOR SHALL RE-PROFILE THE TOP FLANGES OF THE GIRDERS AS DIRECTED BY THE ENGINEER, FOR USE IN DETERMINING SCREED RAIL ELEVATIONS AND CHAIR HEIGHTS FOR REINFORCING STEEL.
- BEDDING STRIPS ACTING AS TEMPORARY SUPPORTS FOR THE PANELS SHALL BE CUT TO THE REQUIRED HEIGHT AFTER THE GIRDERS HAVE BEEN ERECTED AND PROFILED.
- THE MINIMUM HEIGHT OF THE BEDDING STRIPS IS 1". IF THIS CANNOT BE MET, THE PROFILE GRADE MUST BE ADJUSTED.
- BEDDING STRIPS SHALL BE HIGH-DENSITY EXTRUDED POLYSTYRENE WITH A MINIMUM COMPRESSIVE STRENGTH OF 60 PSI MEETING THE REQUIREMENTS OF SUBSECTION 735.01.
- BEDDING STRIPS SHALL BE ATTACHED TO THE TOP FLANGE OF THE GIRDERS WITH AN APPROVED HIGH STRENGTH ADHESIVE. THE ADHESIVE SHALL BE ALLOWED TO CURE PER THE MANUFACTURER'S INSTRUCTIONS BEFORE SETTING PANELS.
- PANELS SHALL NOT BE USED TO SUPPORT HEAVY LOADS UNTIL THE FULL DECK IS CAST AND CURED.
- TEMPORARY BRACING BETWEEN PANELS SHALL BE PROVIDED AS REQUIRED TO PREVENT PANEL MOVEMENT TRANSVERSE TO THE GIRDERS.
- THE HAUNCH POUR SUPPORTING THE PANELS SHALL BE ITEM 541.21, "CONCRETE, CLASS AA". THE HAUNCH POUR SHALL BE ALLOWED TO CURE FOR A MINIMUM OF 3 DAYS PRIOR TO PLACING THE CONCRETE DECK.
- ALL COSTS ASSOCIATED WITH PROVIDING AND PLACING BEDDING STRIPS AND THE HAUNCH POURS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 900.670, "SPECIAL PROVISION (PRECAST PRESTRESSED CONCRETE DECK PANEL) (3 1/2")".
- REGARDLESS OF THE CURING METHOD OF THE HAUNCH POUR, FULLY SATURATE CONTINUOUSLY THE TOP AND SIDE SURFACES OF THE PANELS FOR 3 DAYS AFTER THE HAUNCH POUR AND PRIOR TO THE CONCRETE DECK POUR. THE WETTING METHOD PROCEDURE SHALL BE DETERMINED BY CONTRACTOR AND SUBMITTED FOR APPROVAL TO THE ENGINEER.
- THE CONTRACTOR IS ADVISED THAT DURING THE PLACEMENT OF CONCRETE FOR THE TOP PORTION OF THE DECK, THE EXTERIOR GIRDERS MAY DEFLECT MORE THAN THE INTERIOR GIRDERS DUE TO THE PANEL DEAD LOAD DISTRIBUTION.
- THE FOLLOWING DECK PANEL DESIGN INFORMATION SHALL BE USED FOR THIS PROJECT:

C-C GIRDER SPACING = 7' - 10"

GIRDER FLANGE WIDTH = 14"

ASSUMED BEDDING STRIP WIDTH = 1.5"

PANEL LENGTH = 7' - 3" (NOTE: IF THE CONTRACTOR PROPOSES A BEDDING STRIP WIDTH THAT EXCEEDS THE ASSUMED WIDTH, PANEL LENGTH SHALL BE INCREASED AS REQUIRED TO PROVIDE A 2" MIN. HAUNCH BEARING WIDTH.)

PANEL THICKNESS = 3.5"

STRAND SPACING = 8"

TOTAL NUMBER OF STRANDS REQUIRED PER 8' PANEL WIDTH = 12

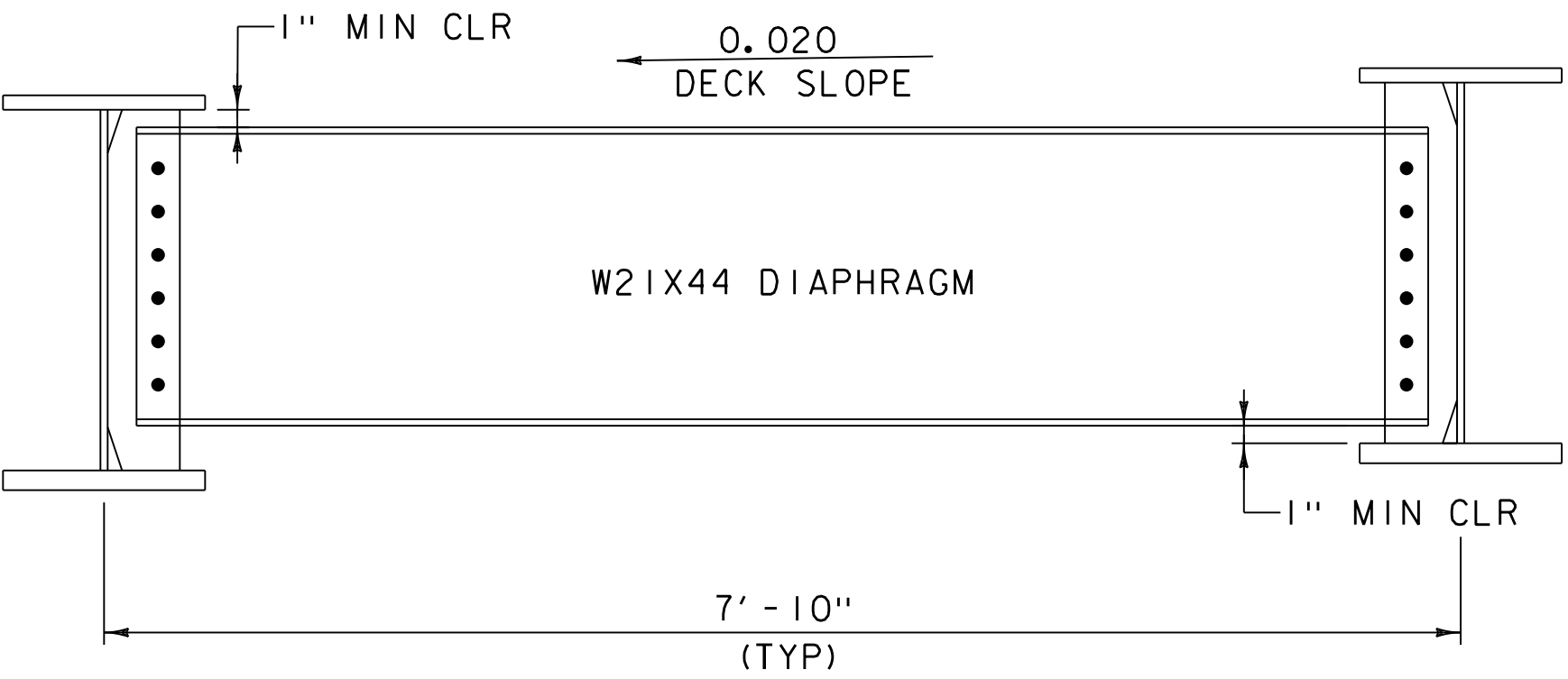


PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260deckpanel.dgn PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK DRAWN BY: K.C. BARRY
DESIGNED BY: K.C. BARRY CHECKED BY: K.F. SMACH
PRECAST CONC. DECK PANEL DETAIL (2 OF 2) SHEET 29 OF 62

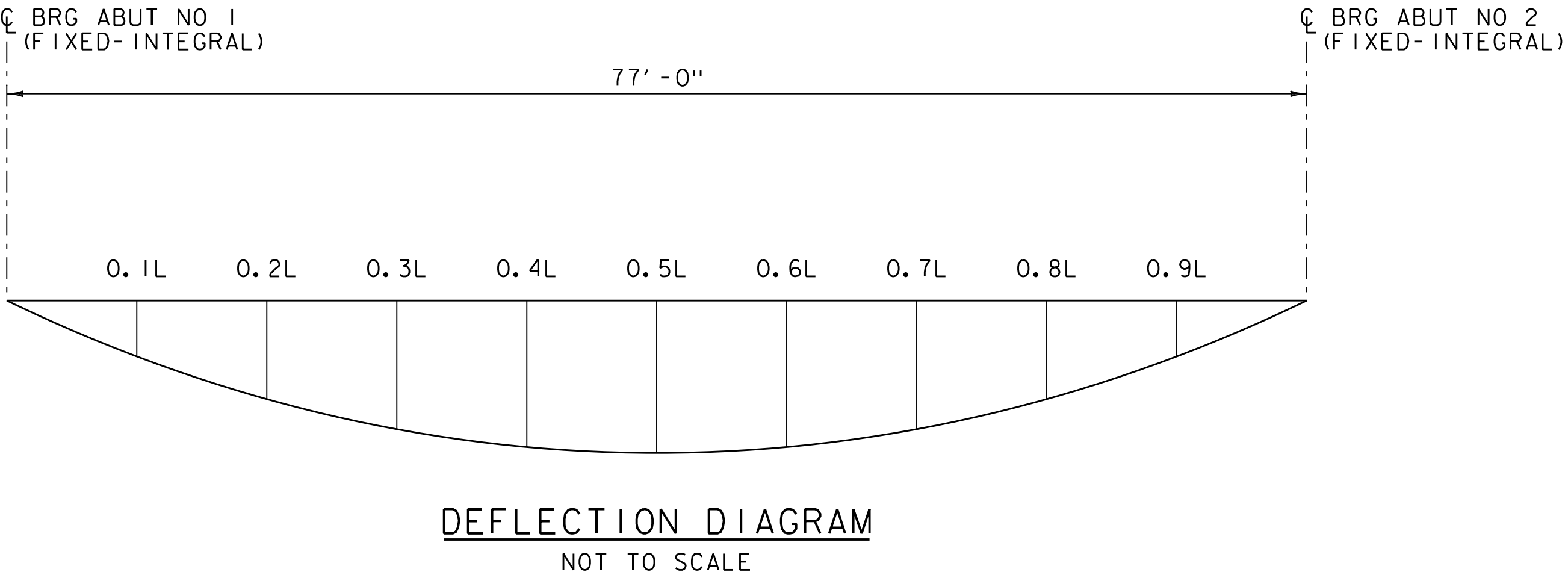
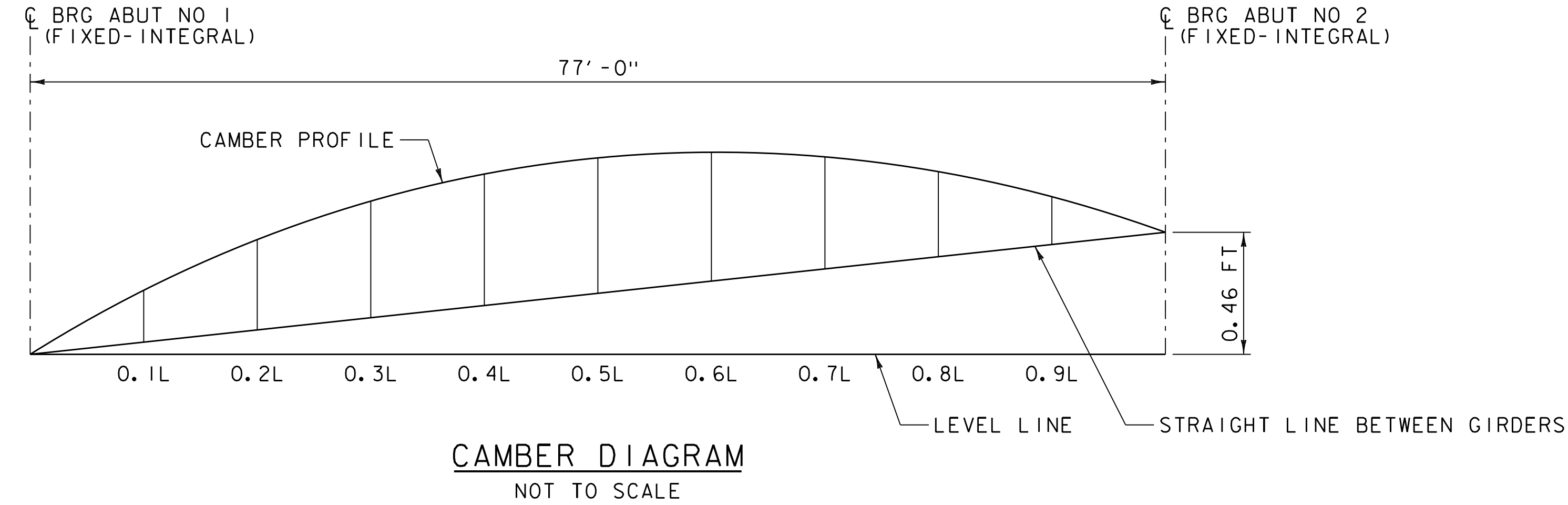
CAMBER TABLE @ 1/10 POINTS - GIRDERS 1 & 6 (INCHES)											
	CL BRG. ABUT. 1	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	CL BRG. ABUT. 2
STEEL DL	0	- 1/4	- 7/16	- 5/8	- 3/4	- 3/4	- 3/4	- 5/8	- 7/16	- 1/4	0
CONCRETE SLAB	0	-1	-1 7/8	-2 9/16	-3	-3 3/16	-3	-2 9/16	-1 7/8	-1	0
SUPERIMPOSED DL	0	- 3/16	- 3/8	- 1/2	- 9/16	- 5/8	- 9/16	- 1/2	- 3/8	- 3/16	0
TOTAL DEFLECTION	0	-1 7/16	-2 11/16	-3 11/16	-4 5/16	-4 9/16	-4 5/16	-3 11/16	-2 11/16	-1 7/16	0
RESIDUAL CAMBER	0	5/16	9/16	13/16	15/16	1	15/16	13/16	9/16	5/16	0
TOTAL CAMBER	0	1 3/4	3 1/4	4 1/2	5 1/4	5 9/16	5 1/4	4 1/2	3 1/4	1 3/4	0

CAMBER TABLE @ 1/10 POINTS - GIRDERS 2 - 5 (INCHES)											
	CL BRG. ABUT. 1	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	CL BRG. ABUT. 2
STEEL DL	0	- 1/4	- 7/16	- 5/8	- 3/4	- 3/4	- 3/4	- 5/8	- 7/16	- 1/4	0
CONCRETE SLAB	0	-1 5/16	-2 7/16	-3 5/16	-3 7/8	-4 1/8	-3 7/8	-3 5/16	-2 7/16	-1 5/16	0
SUPERIMPOSED DL	0	- 3/16	- 5/16	- 7/16	- 1/2	- 9/16	- 1/2	- 7/16	- 5/16	- 3/16	0
TOTAL DEFLECTION	0	-1 3/4	-3 3/16	-4 3/8	-5 1/8	-5 7/16	-5 1/8	-4 3/8	-3 3/16	-1 3/4	0
RESIDUAL CAMBER	0	5/16	9/16	13/16	15/16	1	15/16	13/16	9/16	5/16	0
TOTAL CAMBER	0	2 1/16	3 3/4	5 3/16	6 1/16	6 7/16	6 1/16	5 3/16	3 3/4	2 1/16	0



NOTE: SEE STRUCTURES DETAIL SD-602.00 FOR ADDITIONAL INFORMATION.

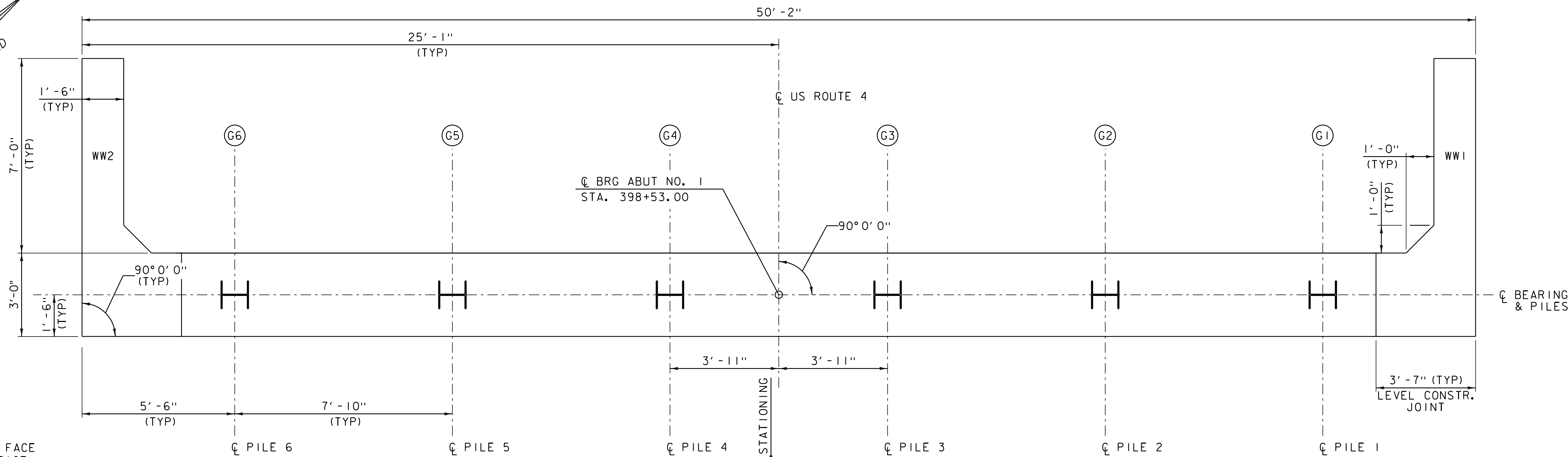
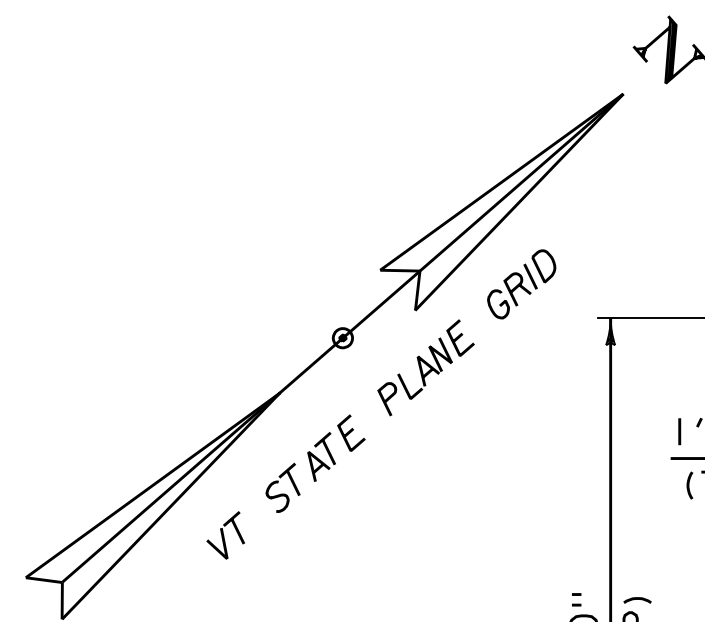
DIAPHRAGM CLEARANCE DETAIL
SCALE 1" = 1'-0"



PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260sup.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: K.F. SMIACH
CAMBER DETAILS

PLOT DATE: 4/27/2020
DRAWN BY: T.R. BLALOCK
CHECKED BY: K.F. SMIACH
SHEET 31 OF 62



NOTE:

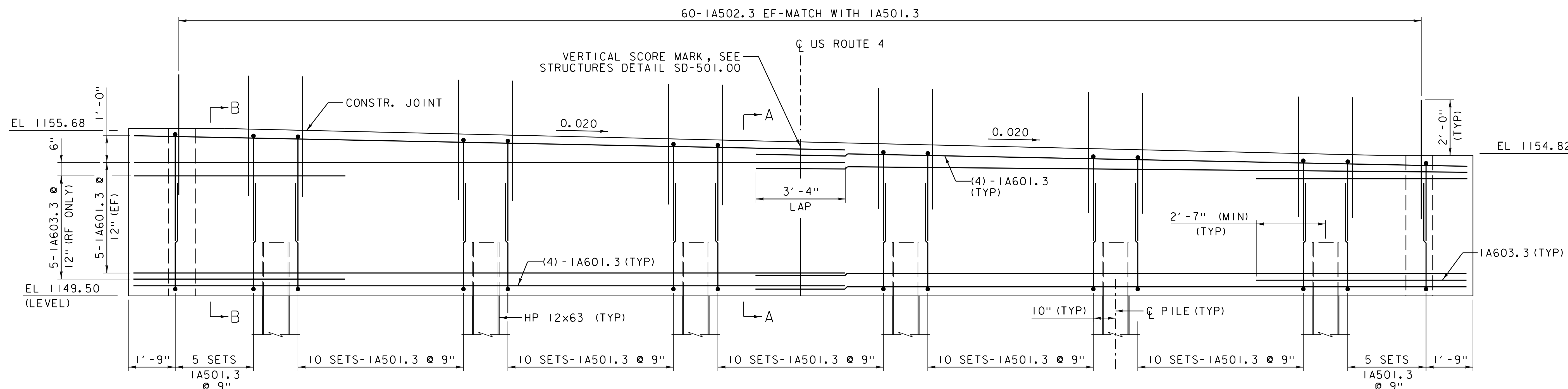
FF = FRONT FACE
RF = REAR FACE
EF = EACH FACE

3" CLEAR, UNLESS OTHERWISE
SPECIFIED ON THE PLANS.

2'-2" BAR LAP UNLESS OTHERWISE
SPECIFIED ON THE PLANS.

ABUTMENT NO. 1 PLAN

SCALE $\frac{1}{2}" = 1'-0"$



ABUTMENT NO. 1 ELEVATION

SCALE $\frac{1}{2}" = 1'-0"$

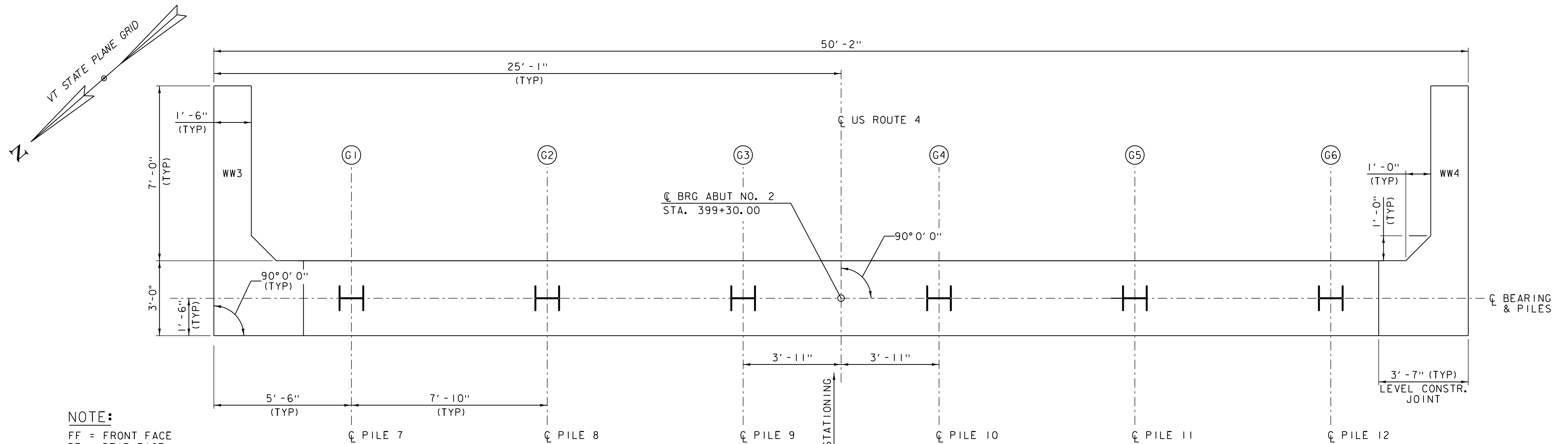
SEE ABUTMENT DETAILS SHEET FOR SECTIONS A-A AND B-B.
NOTE: WINGWALL REINFORCING NOT SHOWN FOR CLARITY.
SEE WINGWALL DETAILS SHEET FOR REINFORCING.

PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

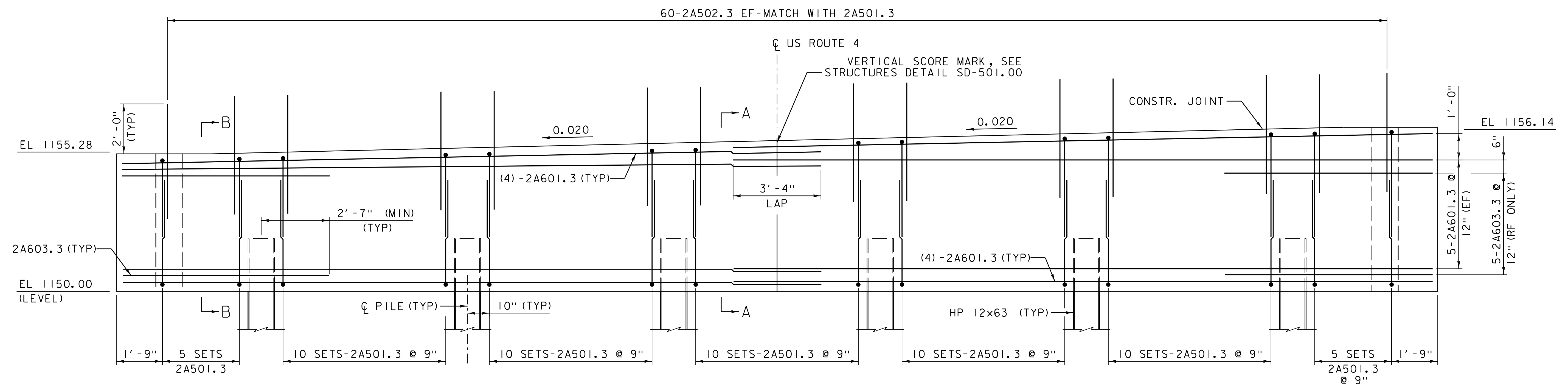
FILE NAME: z13b260sub.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: K.F. SMIACH
ABUTMENT NO. 1 PLAN & ELEVATION

PLOT DATE: 4/27/2020
DRAWN BY: T.R. BLALOCK
CHECKED BY: K.F. SMIACH
SHEET 32 OF 62





ABUTMENT NO. 2 PLAN
SCALE 1/2" = 1' - 0"



ABUTMENT NO. 2 ELEVATION
SCALE 1/2" = 1' - 0"

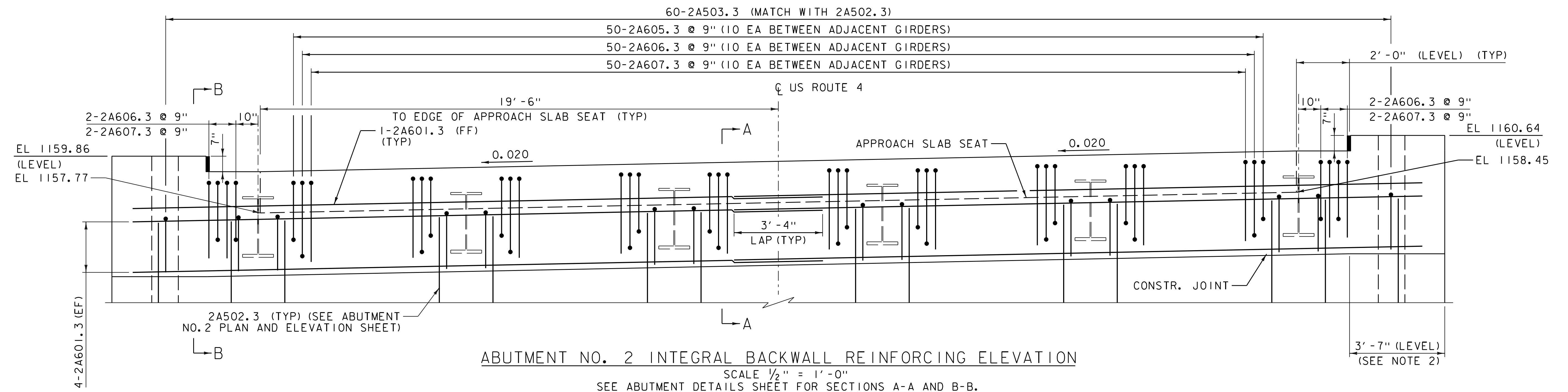
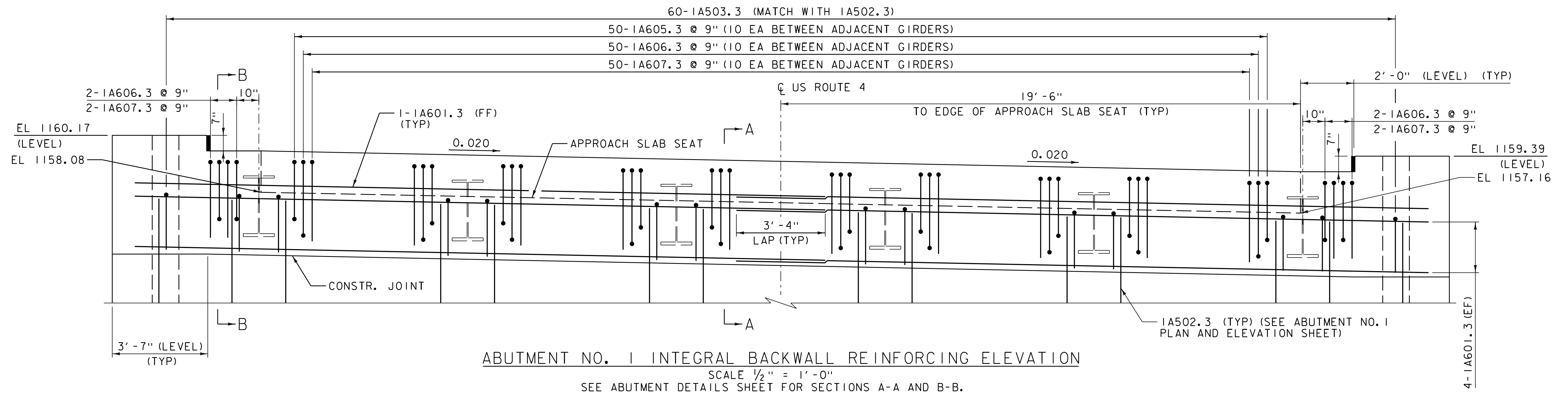
SEE ABUTMENT DETAILS SHEET FOR SECTIONS A-A AND B-B.
NOTE: WINGWALL REINFORCING NOT SHOWN FOR CLARITY.
SEE WINGWALL DETAILS SHEET FOR REINFORCING.



PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260sub.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: K.F. SMIACH
ABUTMENT NO. 2 PLAN & ELEVATION

PLOT DATE: 4/27/2020
DRAWN BY: T.R. BLALOCK
CHECKED BY: K.F. SMIACH
SHEET 33 OF 62



NOTE:

FF = FRONT FACE
 RF = REAR FACE
 EF = EACH FACE
 3" CLEAR, UNLESS OTHERWISE
 SPECIFIED ON THE PLANS.
 2'-2" BAR LAP UNLESS OTHERWISE
 SPECIFIED ON THE PLANS.

NOTES:

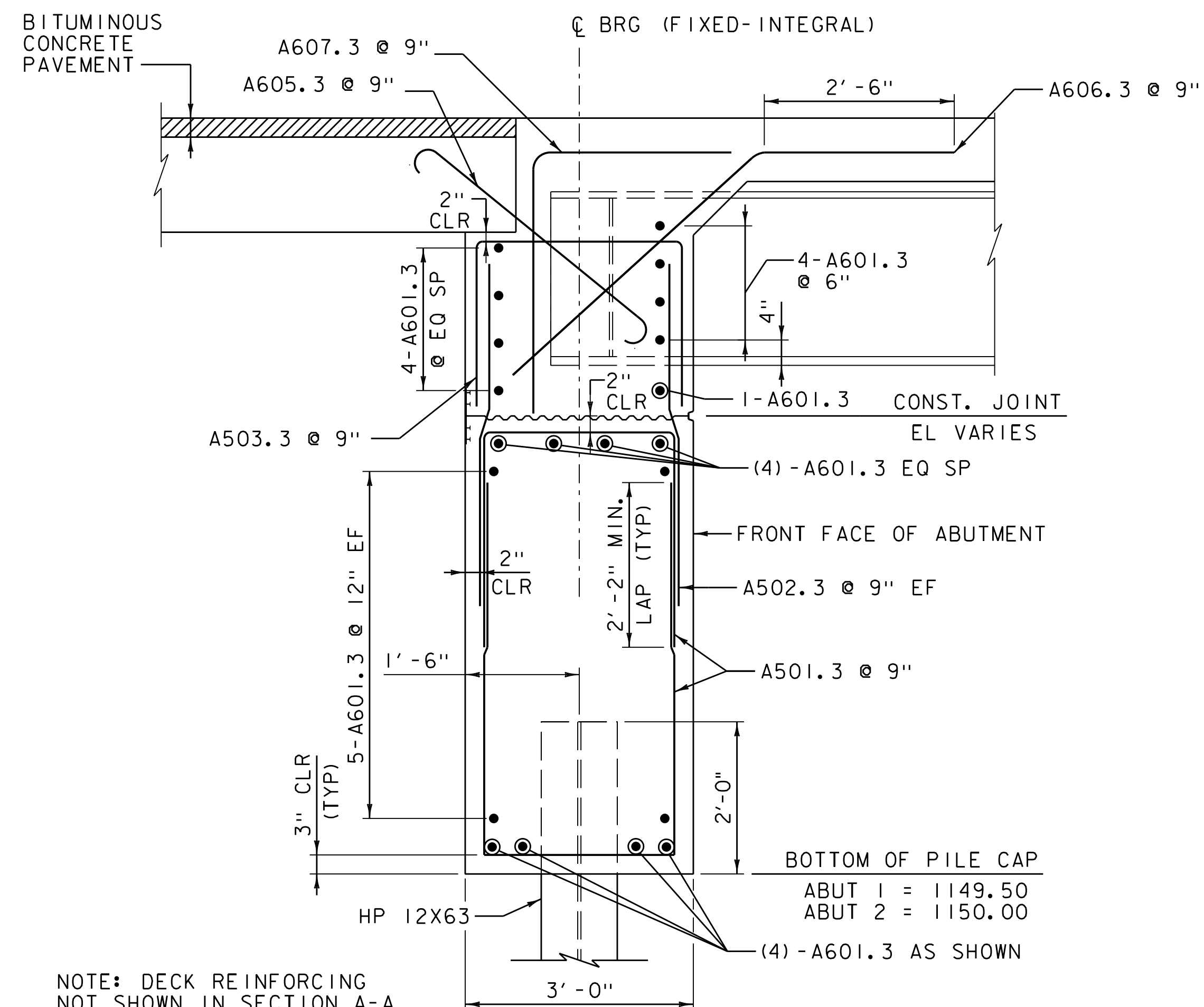
1. WINGWALL REINFORCING NOT SHOWN FOR CLARITY. SEE WINGWALL DETAILS SHEET FOR REINFORCING.
2. 3'-7" LEVEL SECTION AT TOP AND BOTTOM OF INTEGRAL BACKWALL. TOP 3'-7" DIMENSION INCLUDES 1/2" OF PREMOLDED FILLER MATERIAL ADJACENT TO THE CURB REAR FACE. PAYMENT FOR 3'-0" LONG x 7" HIGH x 1/2" PREMOLDED FILLER ON EACH SIDE OF THE BACKWALL IS INCIDENTAL TO SPECIAL PROVISION ITEM 900.608 "CONCRETE, HIGH PERFORMANCE CLASS A (FPQ)."

PROJECT NAME: KILLINGTON
 PROJECT NUMBER: BF 020-2(42)

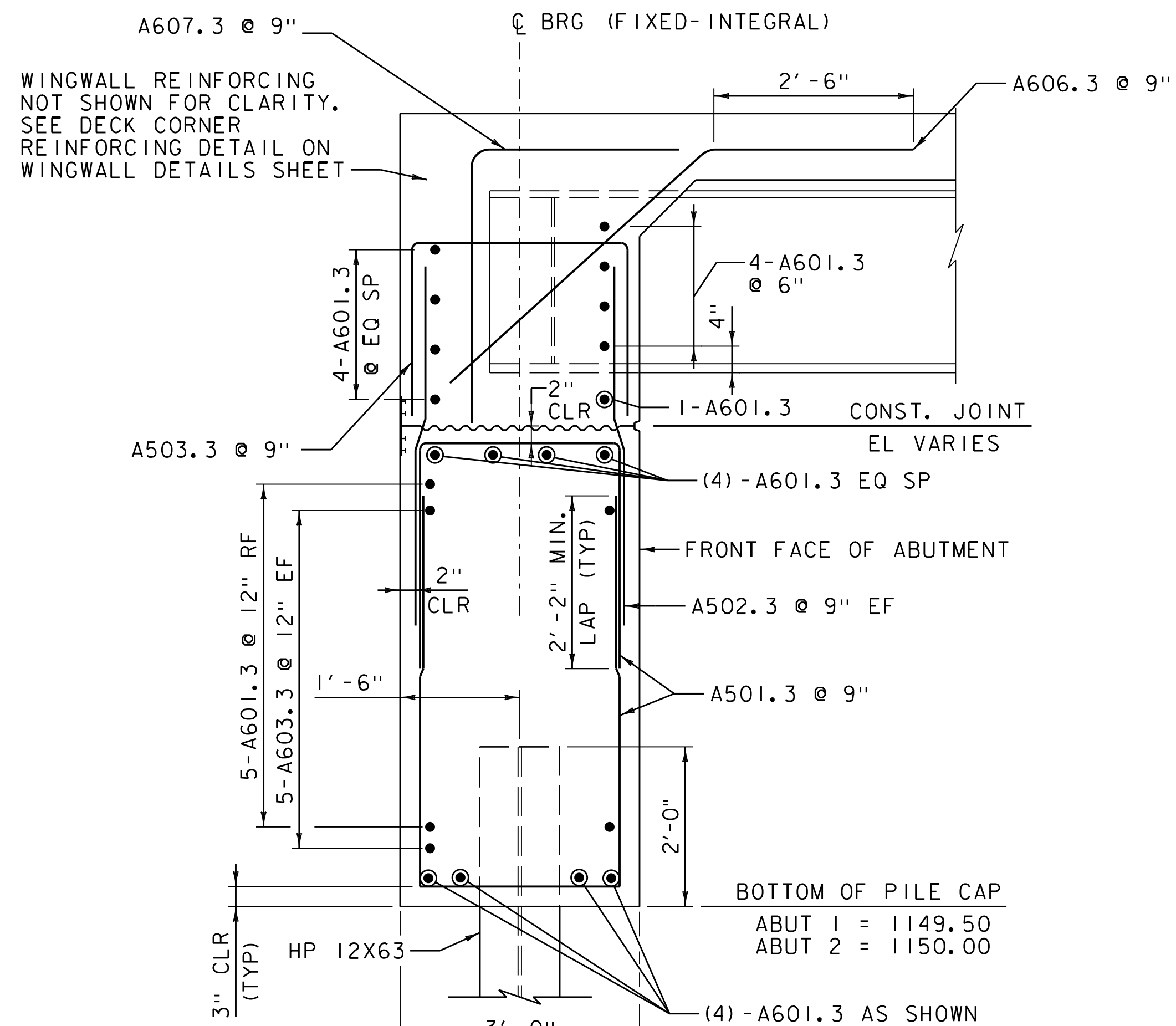
FILE NAME: z13b260sub.dgn
 PROJECT LEADER: S.E. BURBANK
 DESIGNED BY: K.F. SMIACH
 ABUTMENT BACKWALL REINFORCING

PLOT DATE: 4/27/2020
 DRAWN BY: T.R. BLALOCK
 CHECKED BY: K.F. SMIACH
 SHEET 34 OF 62

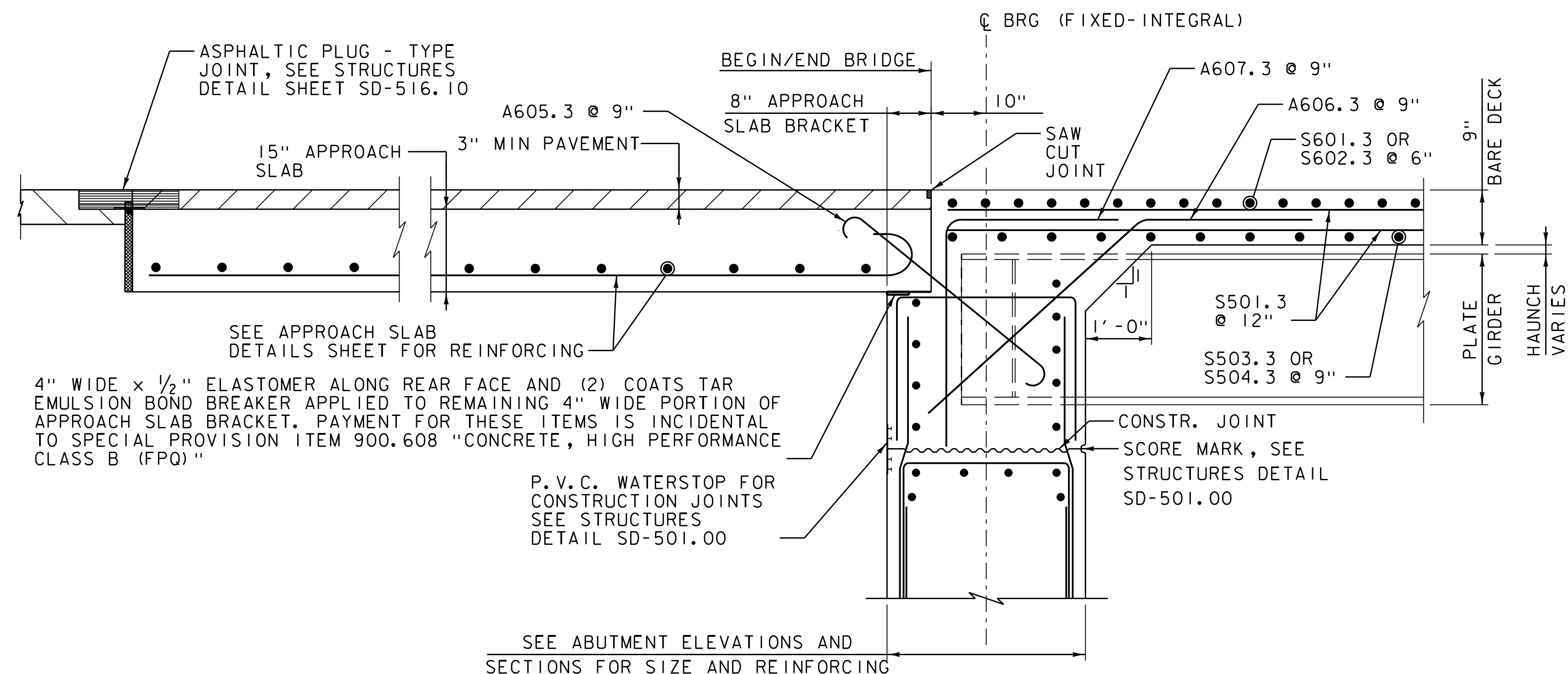




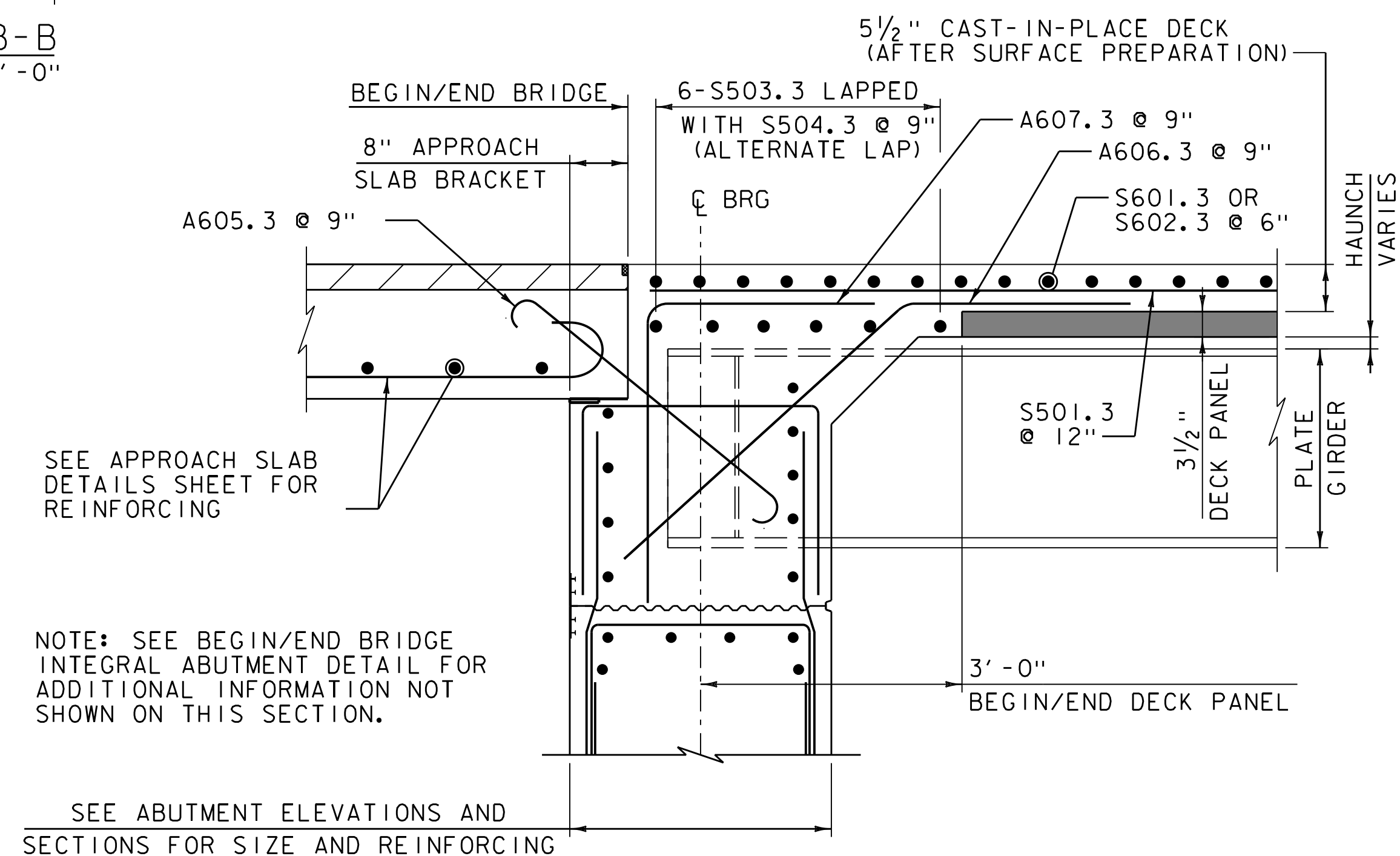
SECTION A-A
SCALE $\frac{3}{4}" = 1'-0"$



SECTION B-B
SCALE $\frac{3}{4}" = 1'-0"$



BEGIN/END BRIDGE INTEGRAL ABUTMENT DETAIL
SCALE $\frac{3}{4}" = 1'-0"$



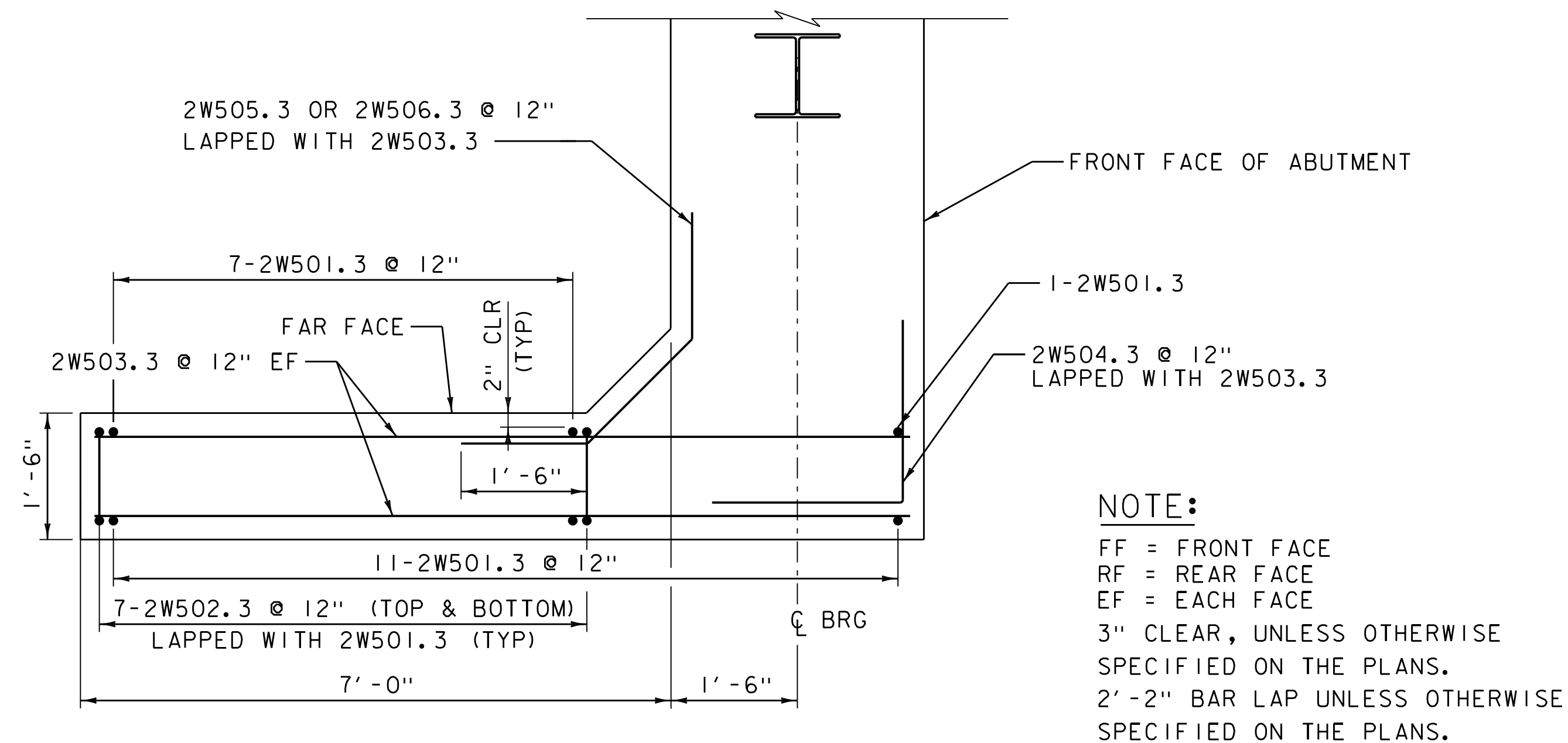
BEGIN/END BRIDGE INTEGRAL ABUTMENT DETAIL
WITH ALTERNATE DECK PANELS
SCALE $\frac{3}{4}" = 1'-0"$

PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

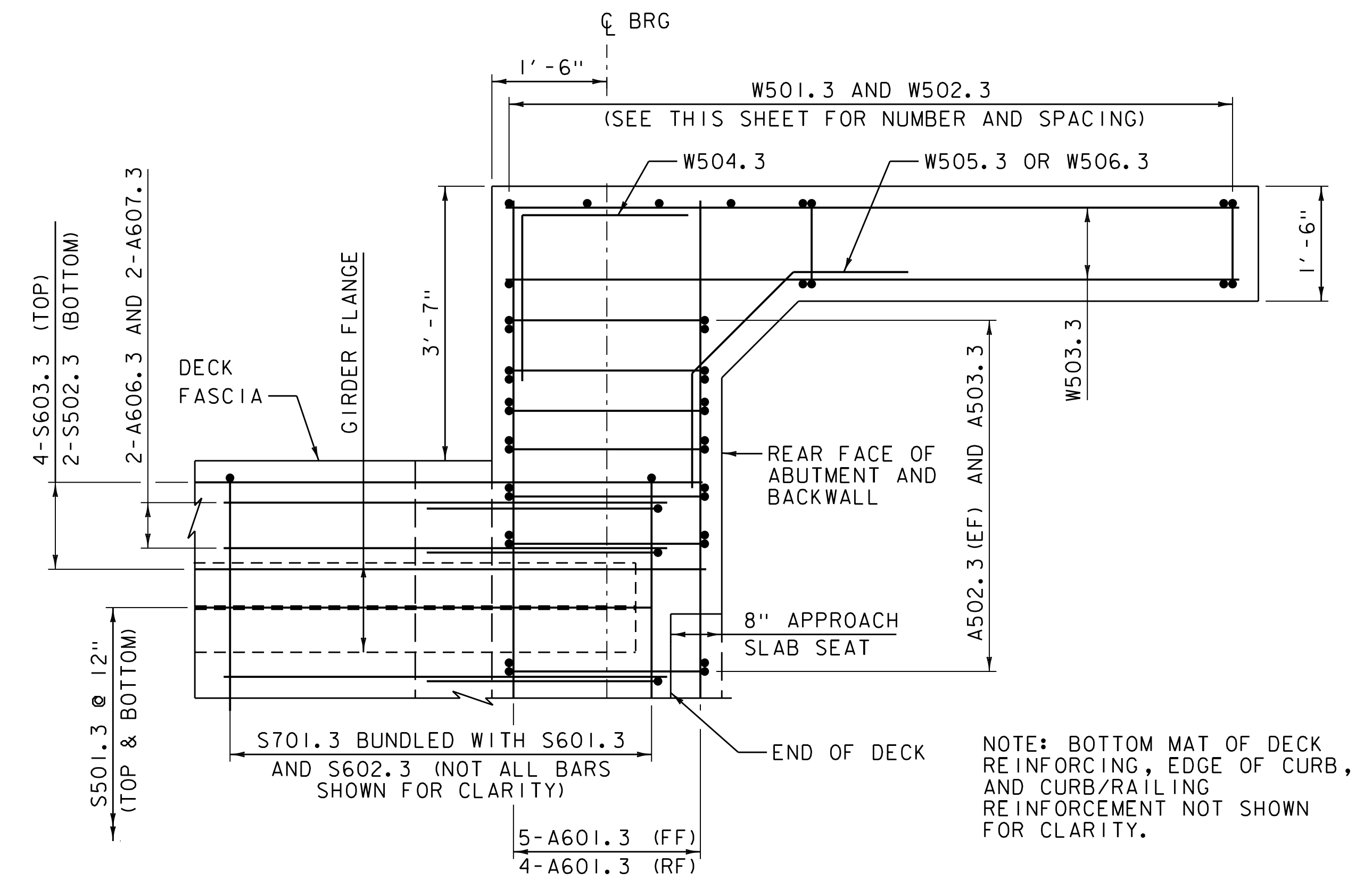
FILE NAME: z13b260sub.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: K.F. SMIACH
ABUTMENT DETAILS

PLOT DATE: 4/27/2020
DRAWN BY: T.R. BLALOCK
CHECKED BY: K.F. SMIACH
SHEET 35 OF 62

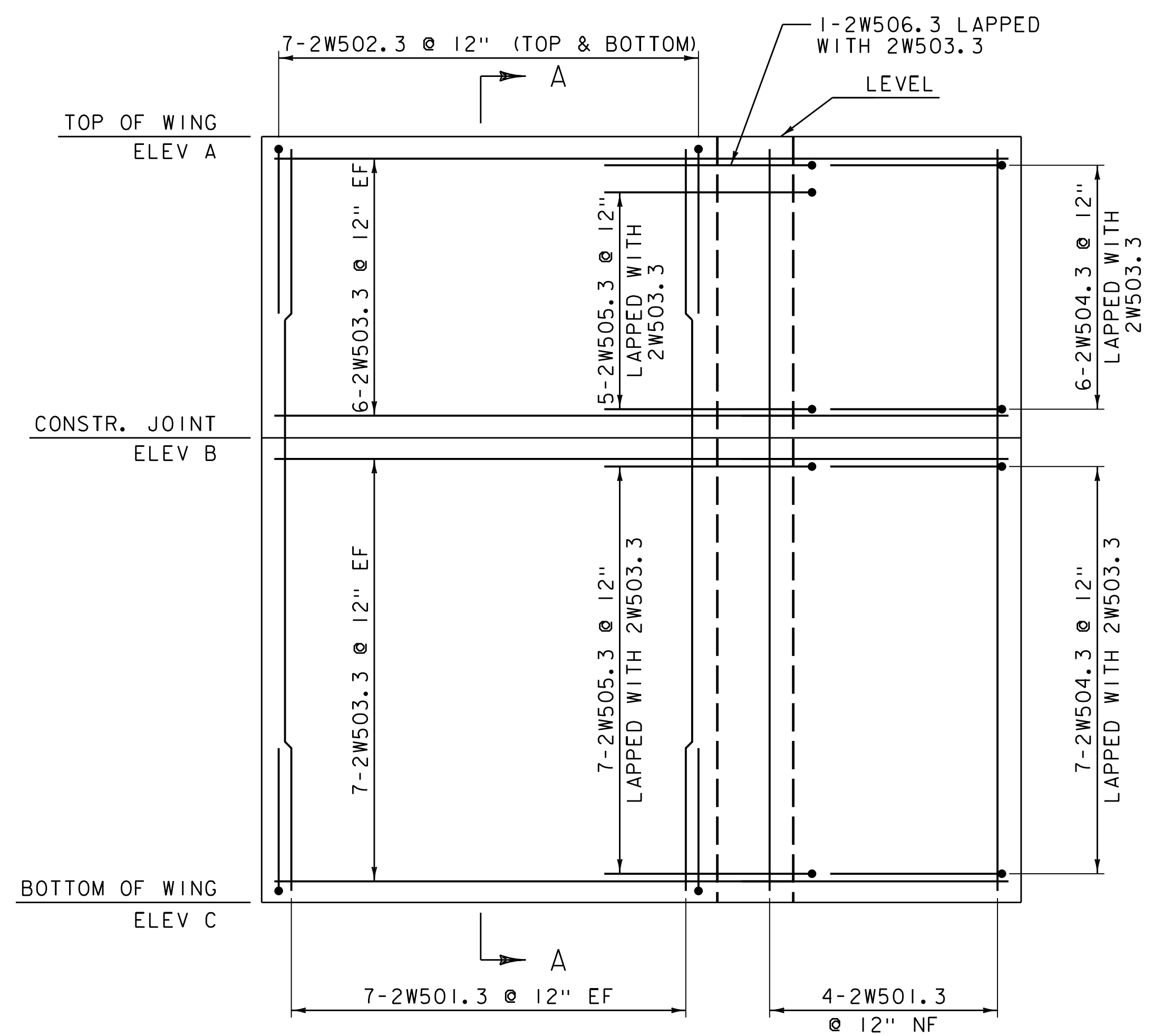




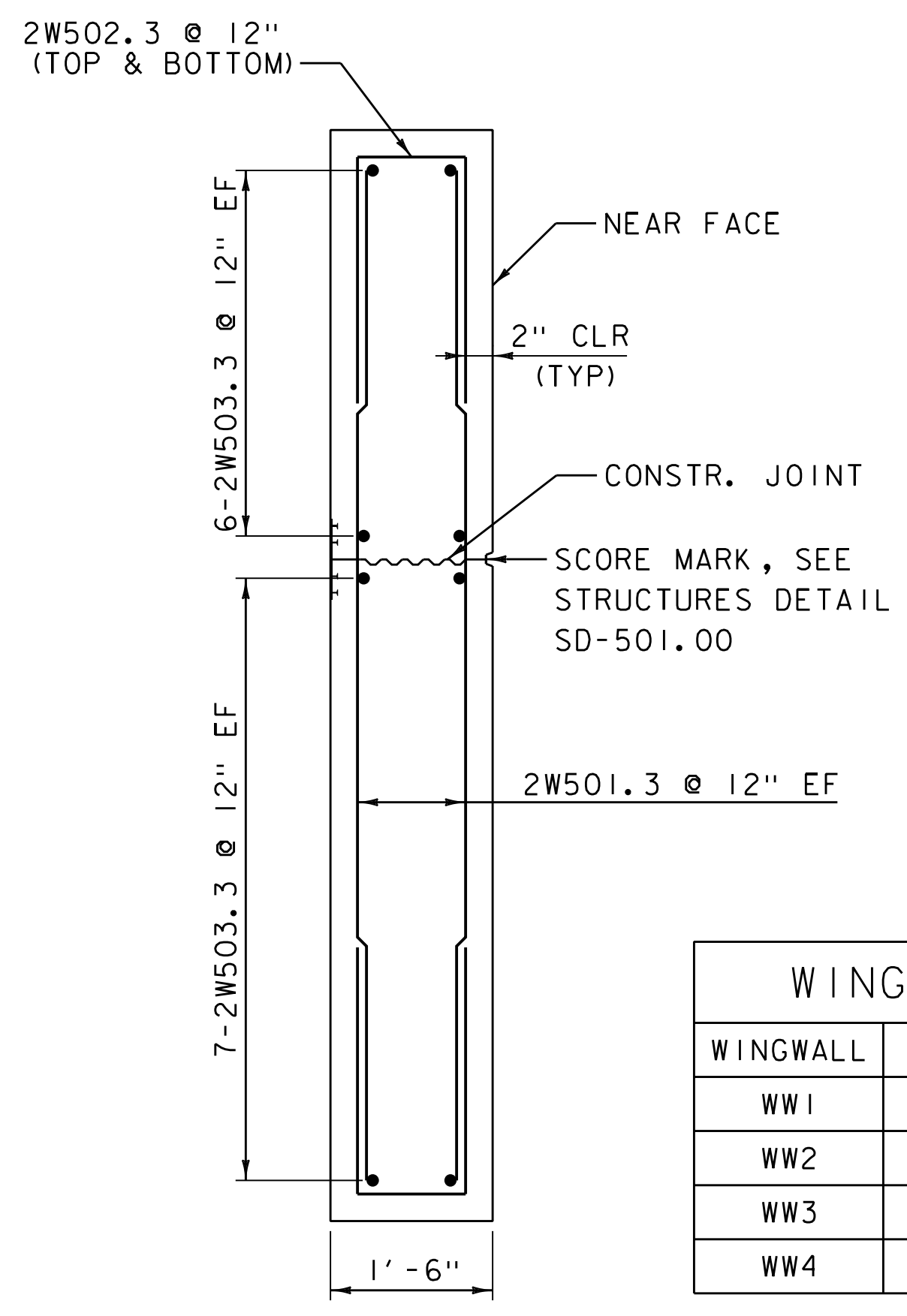
WINGWALL NO. 2 PLAN
WINGWALLS 1, 3, & 4 SIMILAR
SCALE $\frac{3}{4}" = 1'-0"$



DECK CORNER REINFORCING DETAIL
WINGWALL 3 SHOWN - WINGWALLS 1, 2, & 4 SIMILAR
SCALE $\frac{3}{4}" = 1'-0"$



WINGWALL NO 2 ELEVATION
WINGWALLS 1, 3, AND 4 SIMILAR
SCALE $\frac{3}{4}" = 1'-0"$



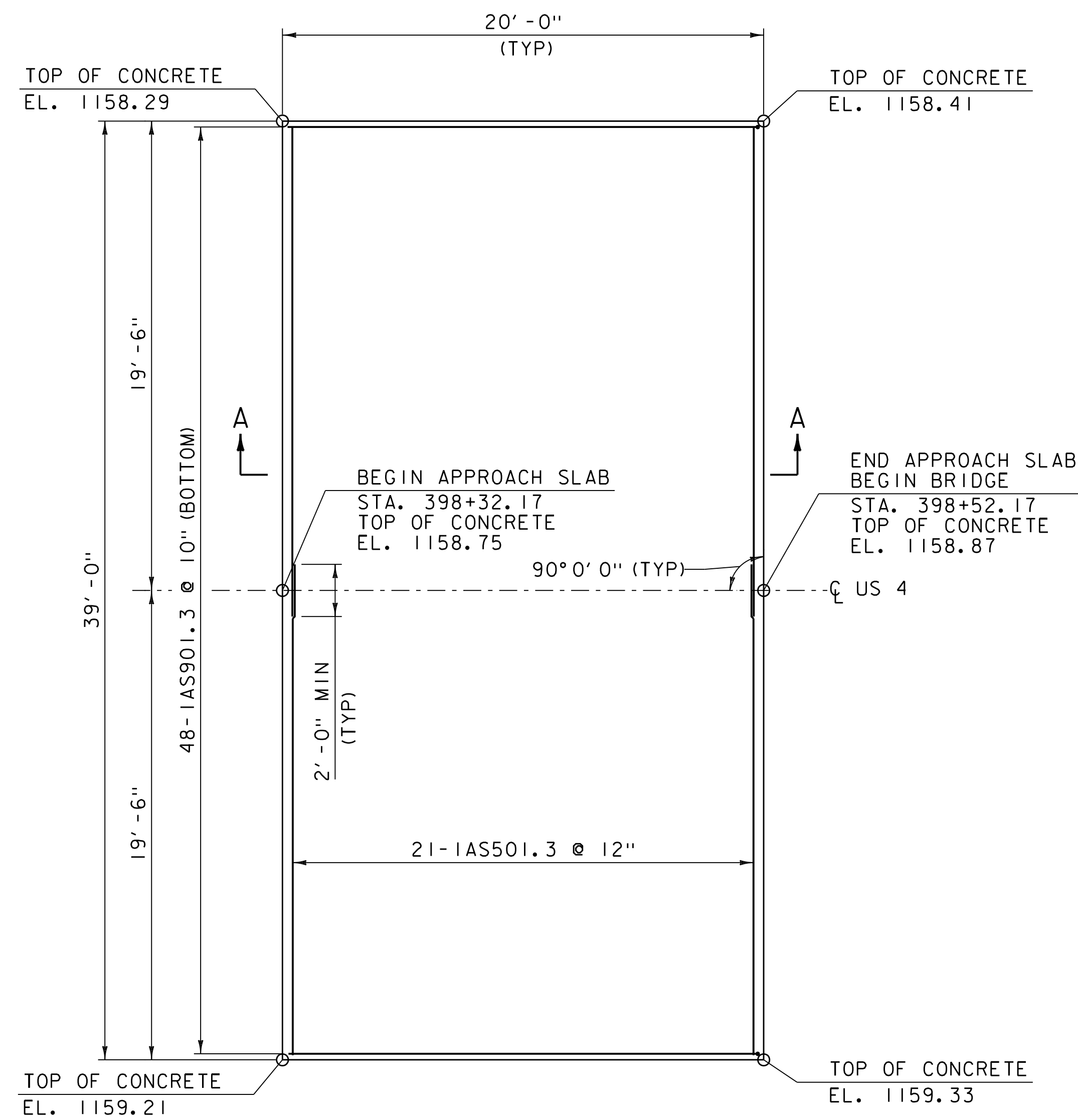
SECTION A-A
SCALE $\frac{3}{4}" = 1'-0"$

WINGWALL ELEVATIONS			
WINGWALL	ELEV A	ELEV B	ELEV C
WW1	1159.39	1154.82	1149.50
WW2	1160.17	1155.68	1149.50
WW3	1159.86	1155.28	1150.00
WW4	1160.64	1156.14	1150.00

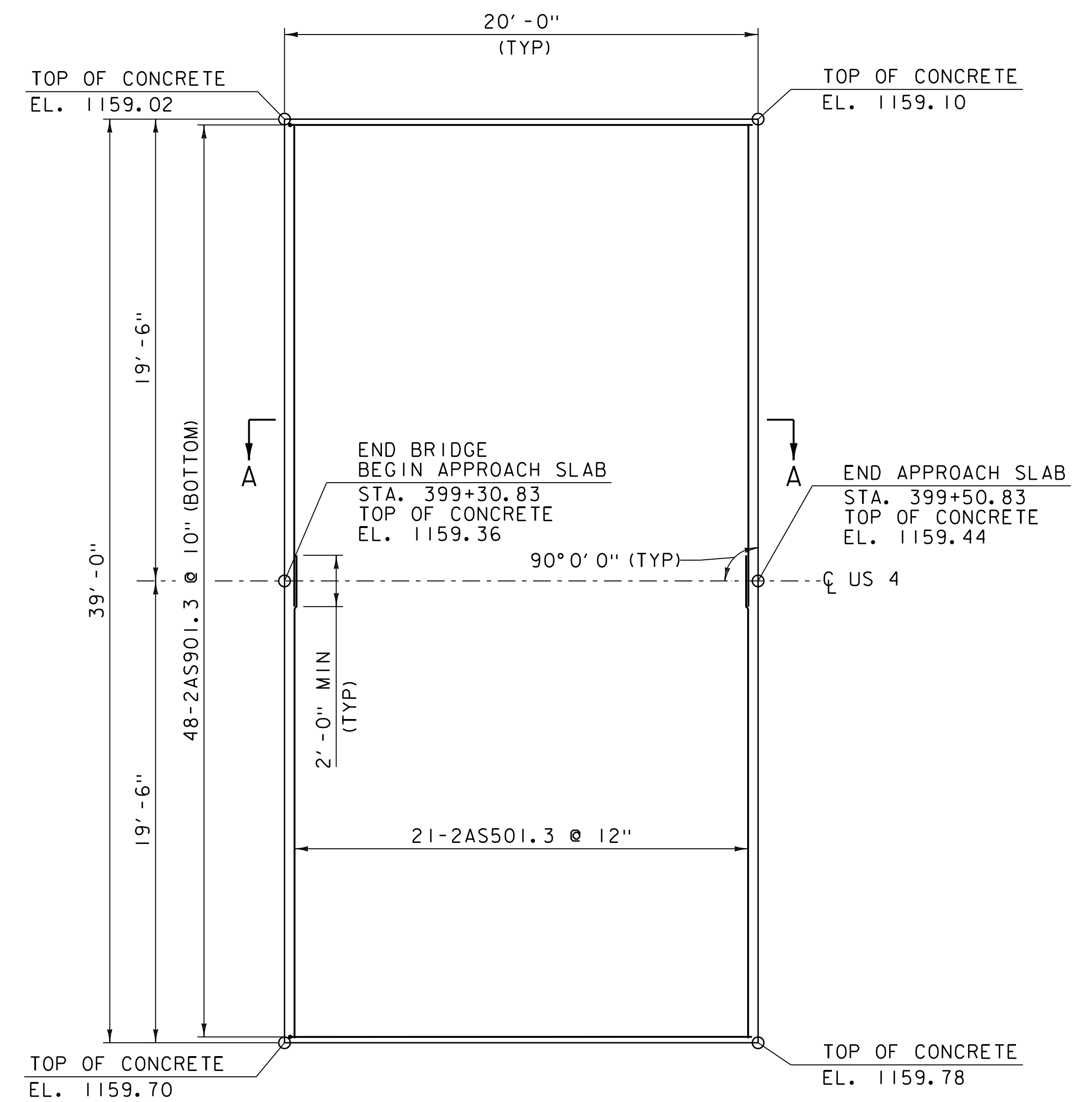
- NOTES:
1. REINFORCING DETAILING SHOWN FOR WINGWALL NO. 2 IN 2W*** FORMAT. OTHER WINGS SIMILAR WITH SIMILAR BAR MARKS BEGINNING WITH RESPECTIVE WINGWALL NUMBER.
 2. THE BRIDGE PLAQUE FURNISHED BY THE AGENCY SHALL BE CAST INTO WINGWALL 2. ALL WORK TO INSTALL THE PLAQUE WILL BE INCIDENTAL TO THE ADJACENT CONCRETE. SEE STRUCTURES DETAIL SD-502.00 FOR FURTHER DETAILS.
 3. SEE ABUTMENT REINFORCING SHEETS FOR ADDITIONAL REINFORCING NOT SHOWN FOR CLARITY.



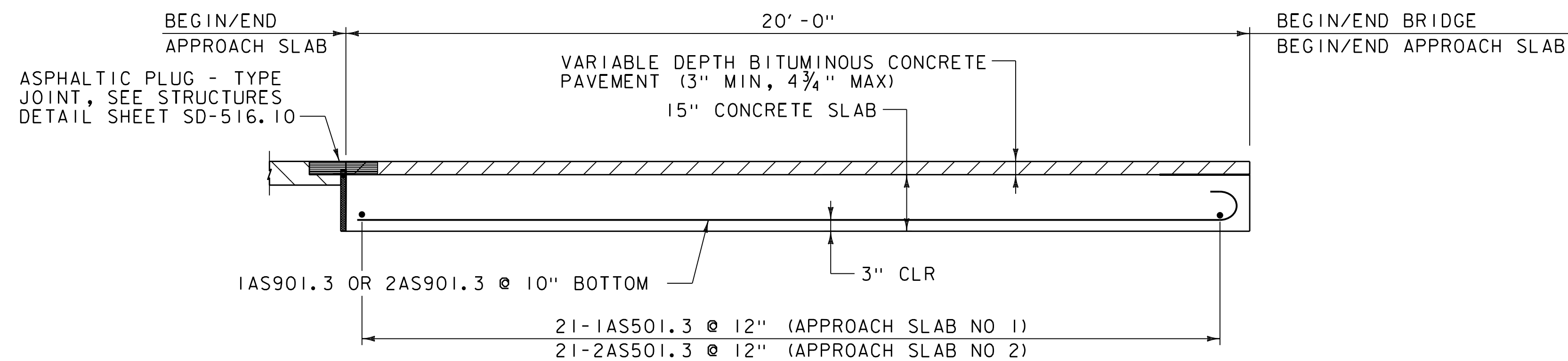
PROJECT NAME: KILLINGTON	
PROJECT NUMBER: BF 020-2(42)	
FILE NAME: z13b260sub.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: T.R. BLALOCK
DESIGNED BY: K.F. SMIACH	CHECKED BY: K.F. SMIACH
WINGWALL DETAILS	SHEET 36 OF 62



APPROACH SLAB NO 1 PLAN
SCALE 1/4" = 1'-0"



APPROACH SLAB NO 2 PLAN
SCALE 1/4" = 1'-0"



SECTION A-A
SCALE 1/2" = 1'-0"

NOTE:
3" CLEAR, UNLESS OTHERWISE
SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE
SPECIFIED ON THE PLANS.

PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260app.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: K.F. SMIACH
APPROACH SLAB DETAILS

PLOT DATE: 4/27/2020
DRAWN BY: T.R. BLALOCK
CHECKED BY: K.F. SMIACH
SHEET 37 OF 62



REINFORCING STEEL SCHEDULE

DECK (FOR USE WITH DECK PANEL ALTERNATE ONLY)

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M 31 (ASTM A 615-S1). ALL BARS SHALL BE GRADE 60, UNLESS OTHERWISE DESIGNATED.
2. FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS, AND OTHER STANDARD PRACTICE, SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE".
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180 DEGREE AND 135 DEGREE HOOKS.
5. "J" DIMENSION ON 180 DEGREE HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE, STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45 DEGREES, DIMENSIONS "H" AND "K" MUST BE SHOWN.
8. ▲ DENOTES BARS TO BE CUT IN FIELD.
9. * DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.
10. △ DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES.
11. E IN BAR MARK PREFIX DENOTES EPOXY COATED REINFORCING STEEL.



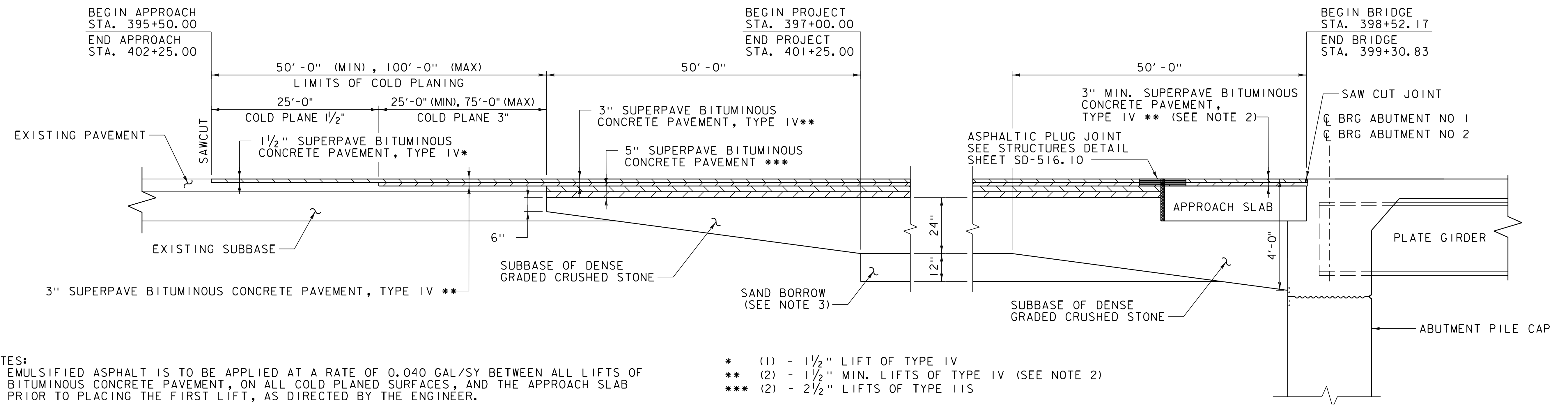
~ REINFORCING STEEL CORROSION RESISTANCE LEVEL ~

THE REINFORCING STEEL MARKS IN THIS SCHEDULE INDICATE THE REQUIRED BAR CORROSION RESISTANCE LEVEL. CORROSION RESISTANCE LEVEL IS DENOTED WITH A .2 FOR LEVEL TWO SUFFIX, .3 FOR LEVEL THREE SUFFIX, .1 FOR LEVEL ONE IS TO BE OMITTED. THE BAR MATERIAL TYPE AND BAR STEEL GRADE PROVIDED FOR EACH CORROSION LEVEL WILL BE RECORDED ON THE PLAN SET PL SHEET FOR AS-BUILT RECORD PLAN ARCHIVES.

FILE NAME: z13b260r.ss.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: K.F. SMIACH
REINFORCING STEEL SCHEDULE

PLOT DATE: 4/27/2020
DRAWN BY: T.R. BLALOCK
CHECKED BY: K.F. SMIACH
SHEET 39 OF 62

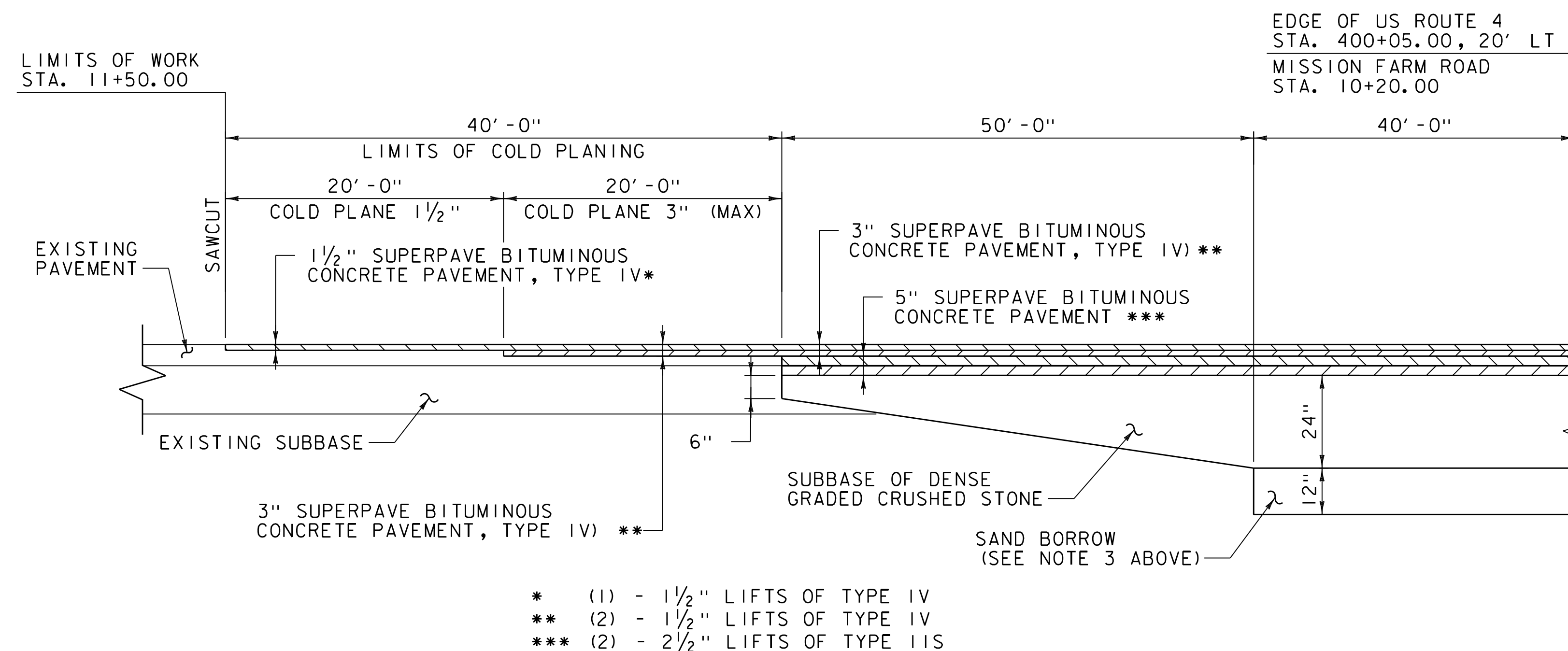




- NOTES:
1. EMULSIFIED ASPHALT IS TO BE APPLIED AT A RATE OF 0.040 GAL/SY BETWEEN ALL LIFTS OF BITUMINOUS CONCRETE PAVEMENT, ON ALL COLD PLANED SURFACES, AND THE APPROACH SLAB PRIOR TO PLACING THE FIRST LIFT, AS DIRECTED BY THE ENGINEER.
 2. PAVEMENT THICKNESS ON APPROACH SLAB VARIES FROM 3" (MIN) TO 4 $\frac{3}{4}$ " (MAX). THE BOTTOM LIFT SHALL BE 1 $\frac{1}{2}$ " THICK AND THE TOP LIFT SHALL VARY FROM 1 $\frac{1}{2}$ " TO 3 $\frac{1}{4}$ " TO MEET FINISH GRADE.
 3. THE CONTRACTOR MAY SUBSTITUTE SUBBASE OF DENSE GRADED CRUSHED STONE FOR THE SAND BORROW SHOWN ON THE PLANS. THE SUBBASE SHALL BE PLACED IN ACCORDANCE WITH ITS SPECIFICATIONS. IF SUBBASE IS PLACED IN LIEU OF SAND BORROW, A GEOTEXTILE MEETING THE REQUIREMENTS OF 649.11 "GEOTEXTILE FOR ROADBED SEPARATOR" SHALL BE PLACED BETWEEN THE SUBGRADE AND SUBBASE MATERIAL. ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING THE GEOTEXTILE WILL BE INCIDENTAL TO ITEM 203.31, "SAND BORROW".

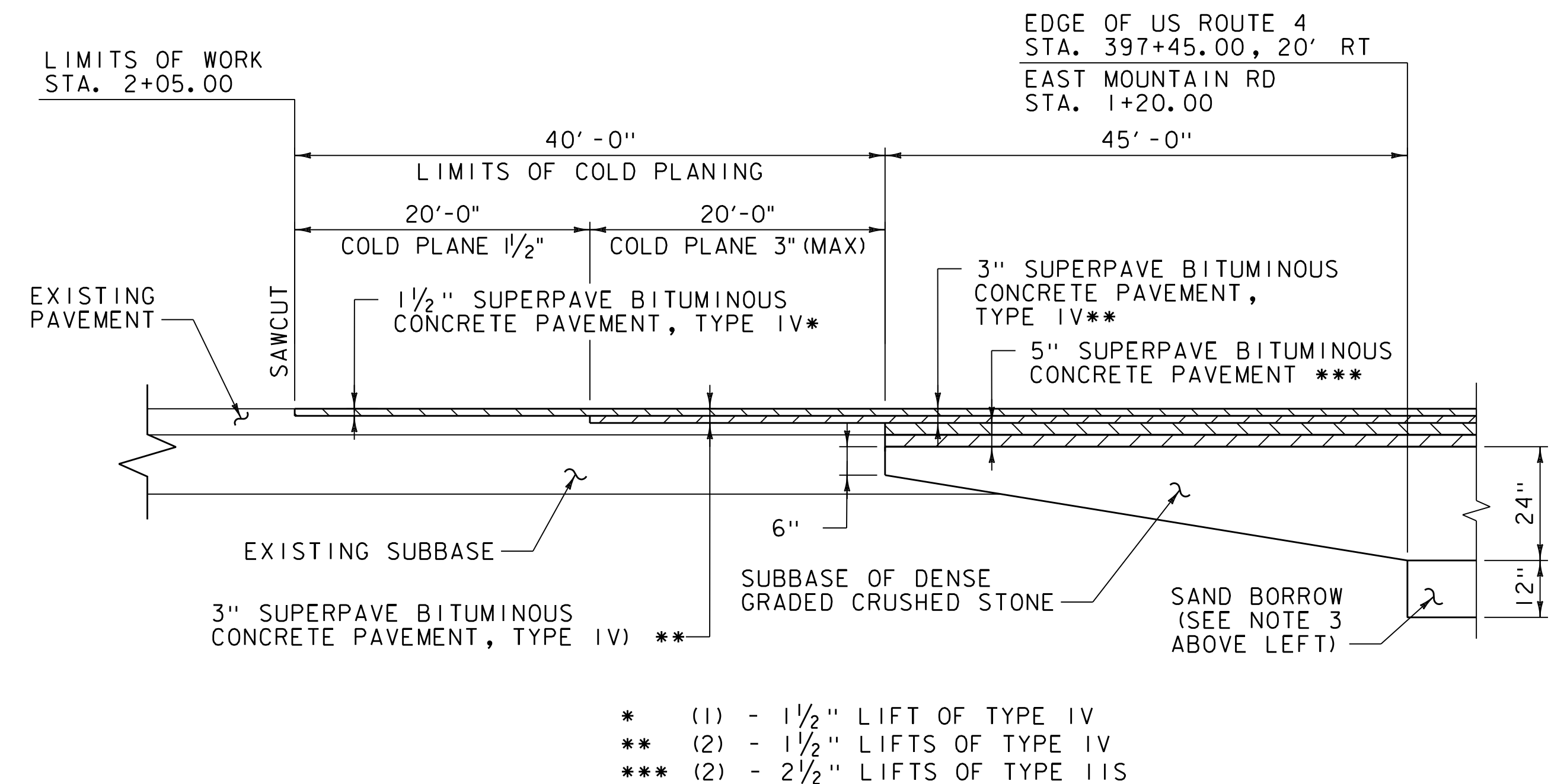
- * (1) - 1 $\frac{1}{2}$ " LIFT OF TYPE IV
 ** (2) - 1 $\frac{1}{2}$ " MIN. LIFTS OF TYPE IV (SEE NOTE 2)
 *** (2) - 2 $\frac{1}{2}$ " LIFTS OF TYPE IIS

APPROACH SECTION
NOT TO SCALE



NOTE: EMULSIFIED ASPHALT IS TO BE APPLIED AT A RATE OF 0.040 GAL/SY BETWEEN ALL LIFTS OF BITUMINOUS CONCRETE PAVEMENT, ON ALL COLD PLANED SURFACES, AND THE APPROACH SLAB PRIOR TO PLACING THE FIRST LIFT, AS DIRECTED BY THE ENGINEER.

MISSION FARM ROAD (TH-38) APPROACH SECTION
NOT TO SCALE



NOTE: EMULSIFIED ASPHALT IS TO BE APPLIED AT A RATE OF 0.040 GAL/SY BETWEEN ALL LIFTS OF BITUMINOUS CONCRETE PAVEMENT, ON ALL COLD PLANED SURFACES, AND THE APPROACH SLAB PRIOR TO PLACING THE FIRST LIFT, AS DIRECTED BY THE ENGINEER.

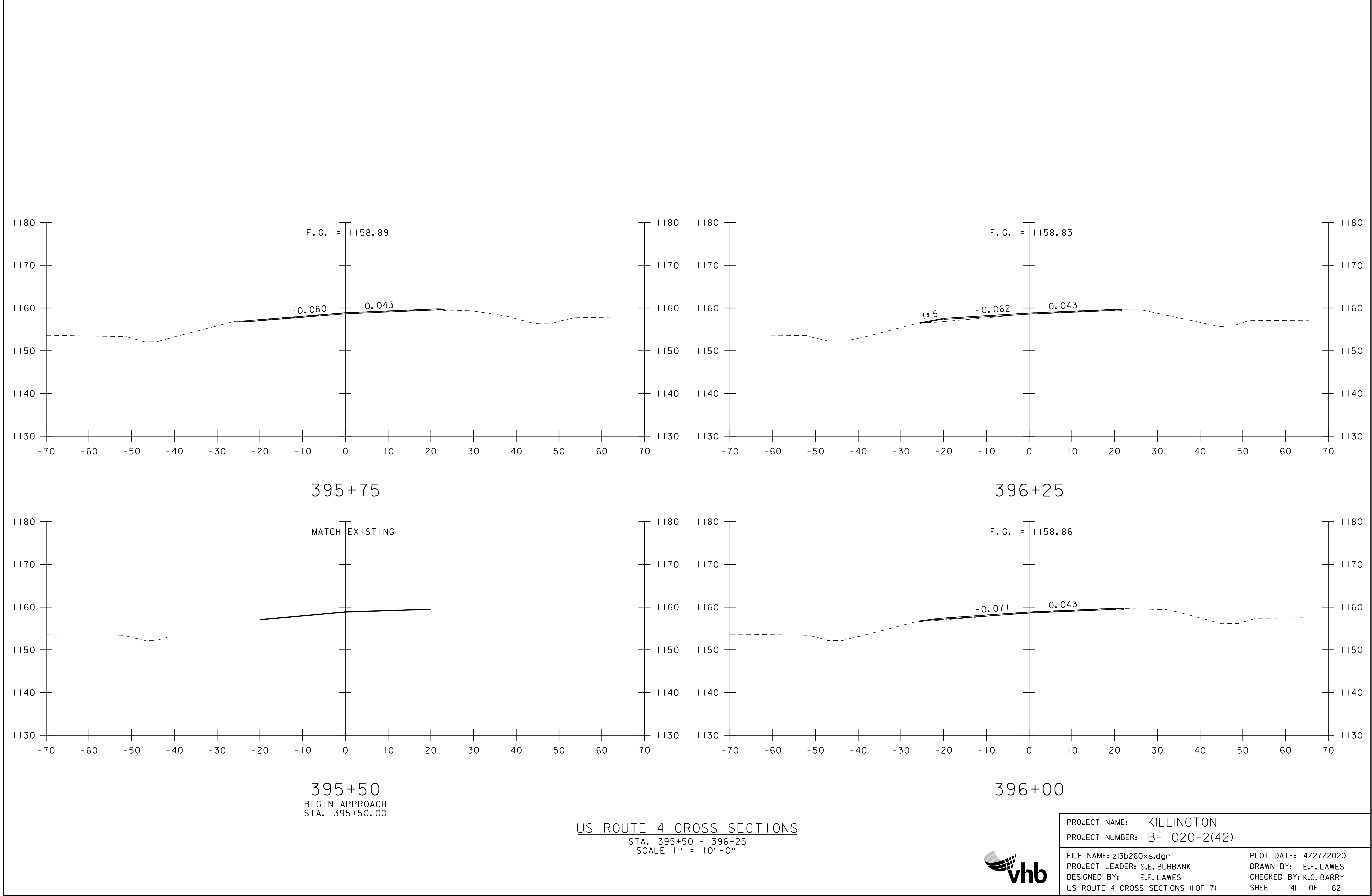
EAST MOUNTAIN ROAD (TH-15) APPROACH SECTION
NOT TO SCALE

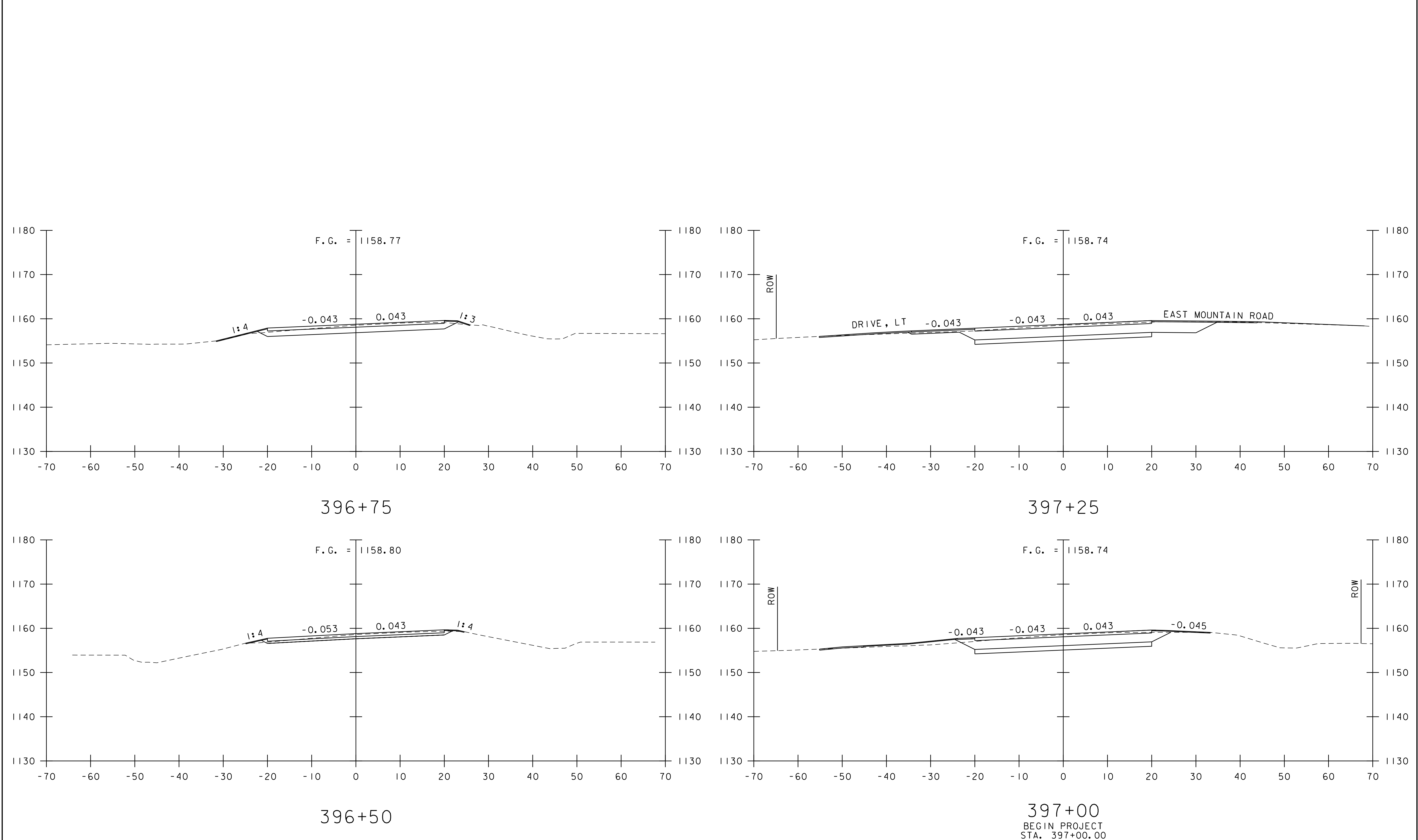
PROJECT NAME: KILLINGTON
 PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260+yp.dgn
 PROJECT LEADER: S.E. BURBANK
 DESIGNED BY: E.F. LAWES
 MATERIAL TRANSITION SHEET

PLOT DATE: 4/27/2020
 DRAWN BY: E.F. LAWES
 CHECKED BY: K.C. BARRY
 SHEET 40 OF 62



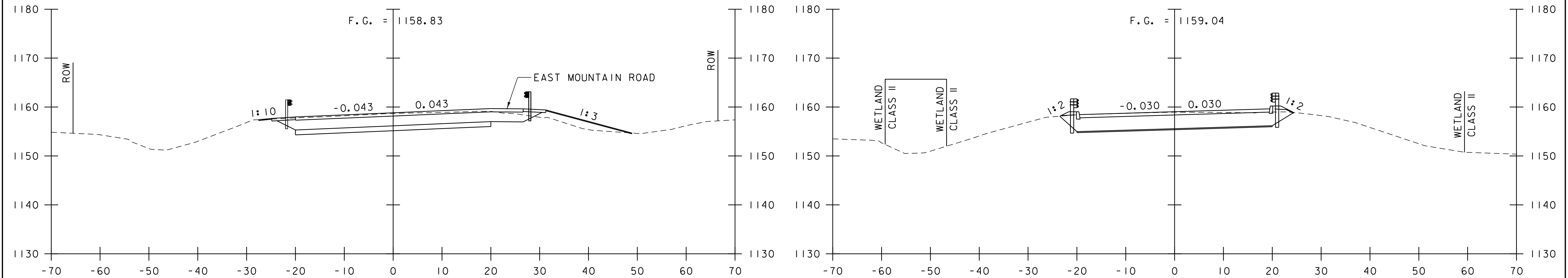




US ROUTE 4 CROSS SECTIONS
STA. 396+50 - 397+25
SCALE 1" = 10'-0"

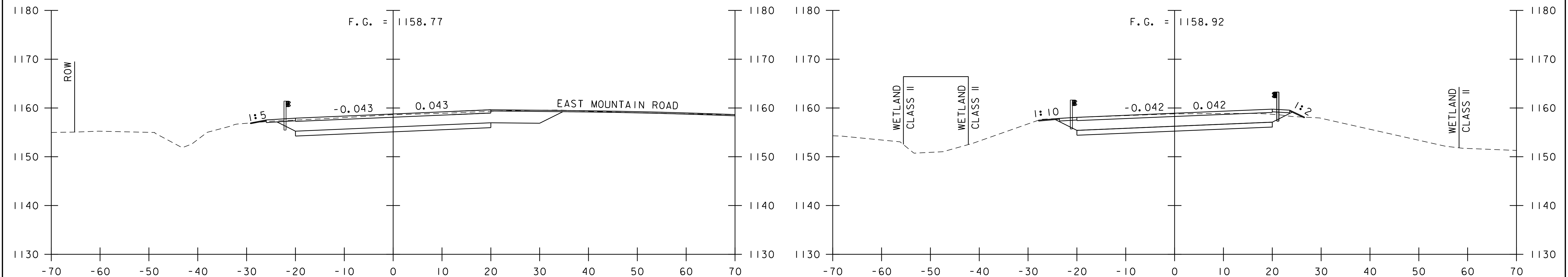


PROJECT NAME: KILLINGTON	
PROJECT NUMBER: BF 020-2(42)	
FILE NAME: z13b260xs.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: E.F. LAWES
DESIGNED BY: E.F. LAWES	CHECKED BY: K.C. BARRY
US ROUTE 4 CROSS SECTIONS (2 OF 7)	SHEET 42 OF 62



397+75

398+25



397+50

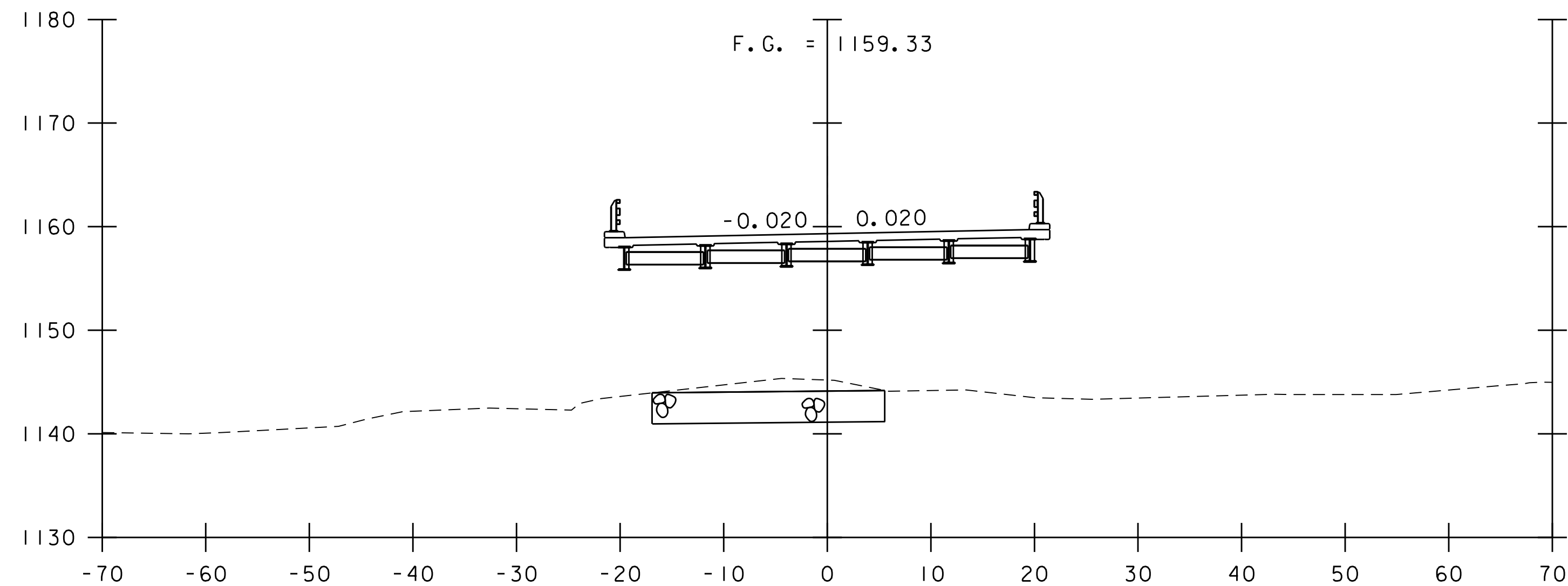
398+00

US ROUTE 4 CROSS SECTIONS

STA. 397+50 - 398+25
SCALE 1" = 10' - 0"



PROJECT NAME: KILLINGTON	
PROJECT NUMBER: BF 020-2(42)	
FILE NAME: z13b260xs.dgn	PLOT DATE: 4/27/2020
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DESIGNED BY: E.F. LAWES	CHECKED BY: K.C. BARRY
US ROUTE 4 CROSS SECTIONS (3 OF 7)	SHEET 43 OF 62

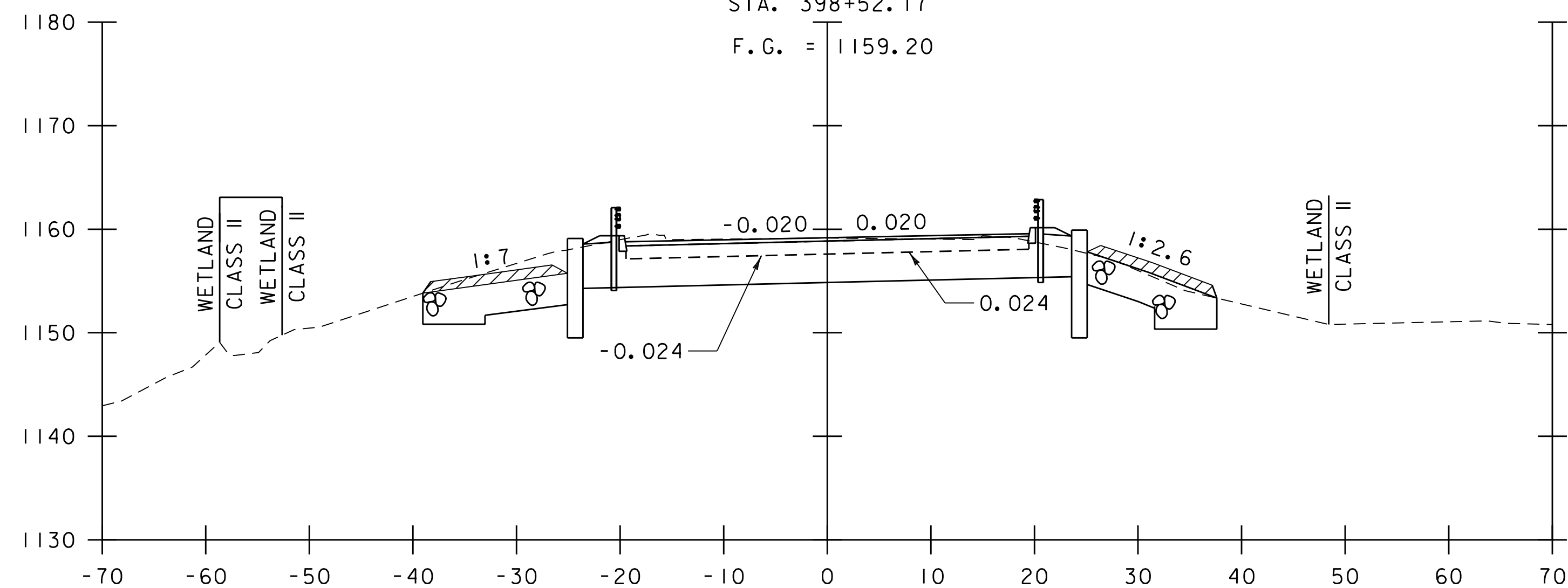


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END STONE FILL TYPE III
GEOTEXTILE UNDER STONE FILL

398+75

BEGIN BRIDGE
STA. 398+52.17

F.G. = 1159.20

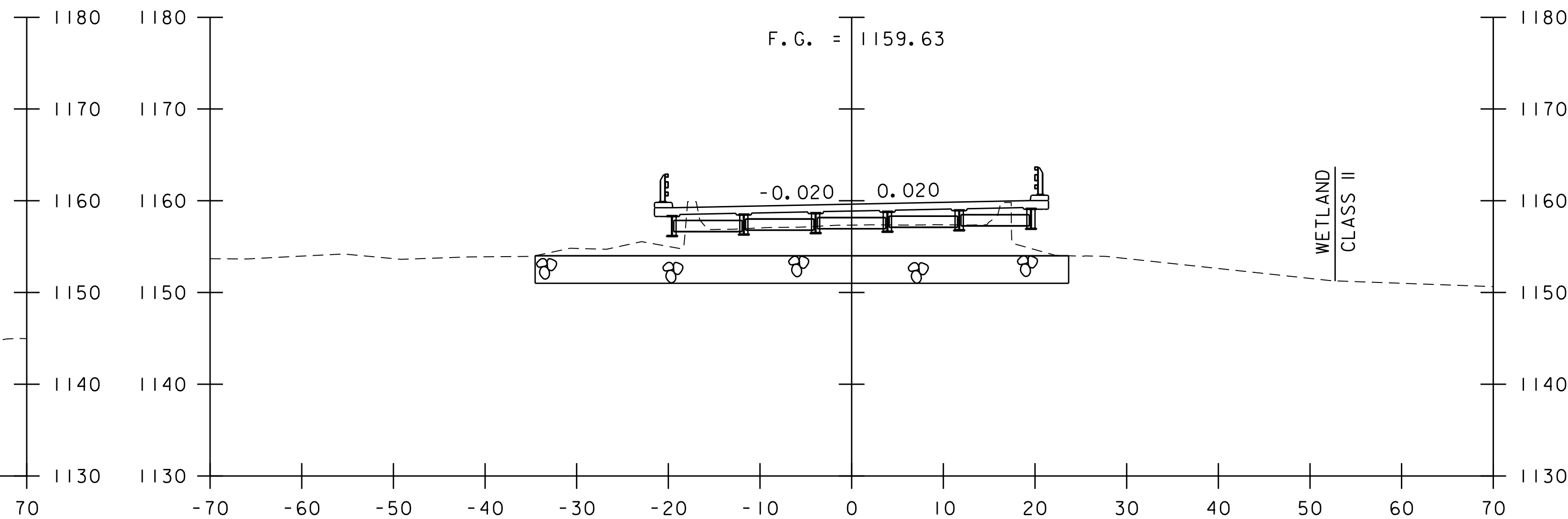


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GEOTEXTILE UNDER STONE FILL

398+50

US ROUTE 4 CROSS SECTIONS

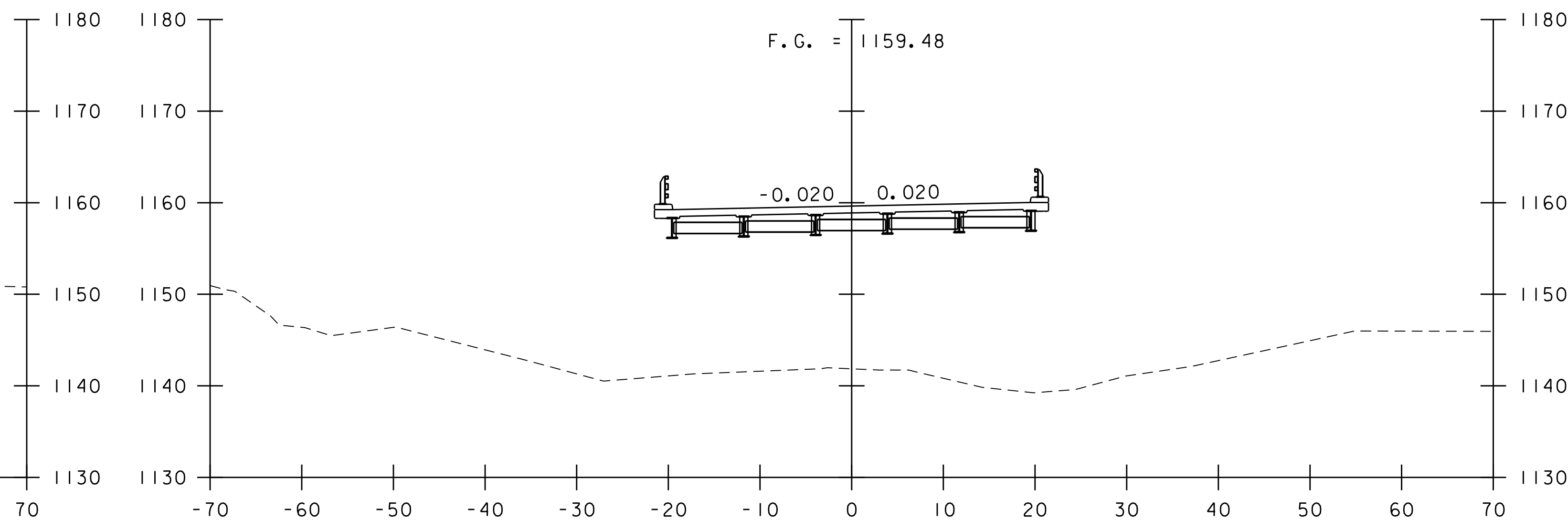
STA. 398+50 - 399+25
SCALE 1" = 10' - 0"



STA. 399+03, LT & RT
BEGIN STONE FILL TYPE III
GEOTEXTILE UNDER STONE FILL

399+25

F.G. = 1159.48



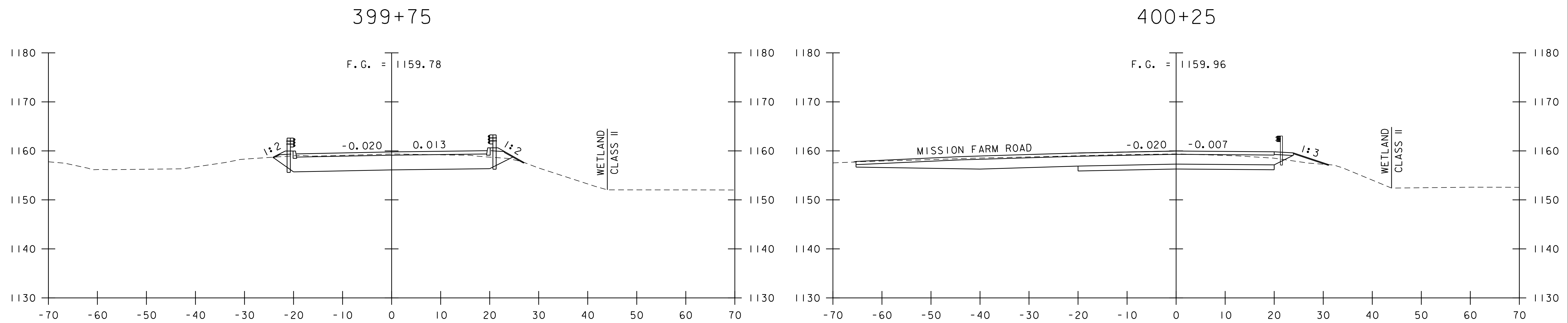
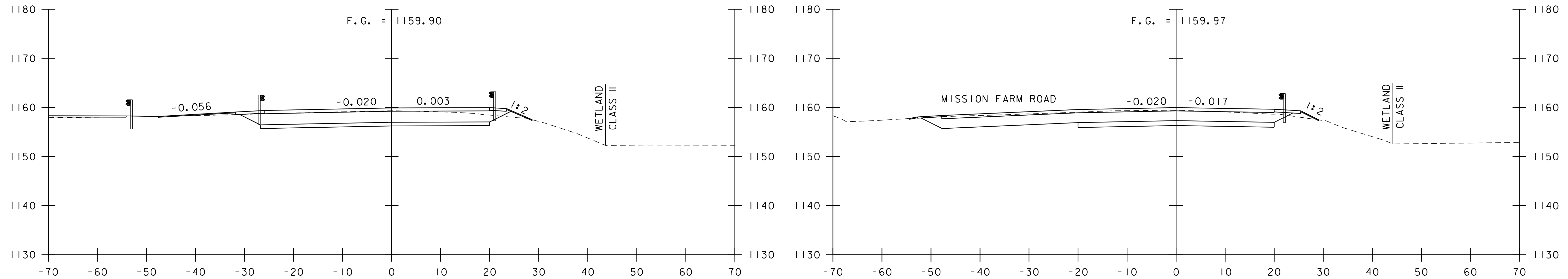
399+00



PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260xs.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
US ROUTE 4 CROSS SECTIONS (4 OF 7)

PLOT DATE: 4/27/2020
DRAWN BY: E.F. LAWES
CHECKED BY: K.C. BARRY
SHEET 44 OF 62



STA. 399+38, LT & RT
END STONE FILL TYPE III
GEOTEXTILE UNDER STONE FILL

399+50
END BRIDGE
STA. 399+30.83

US ROUTE 4 CROSS SECTIONS

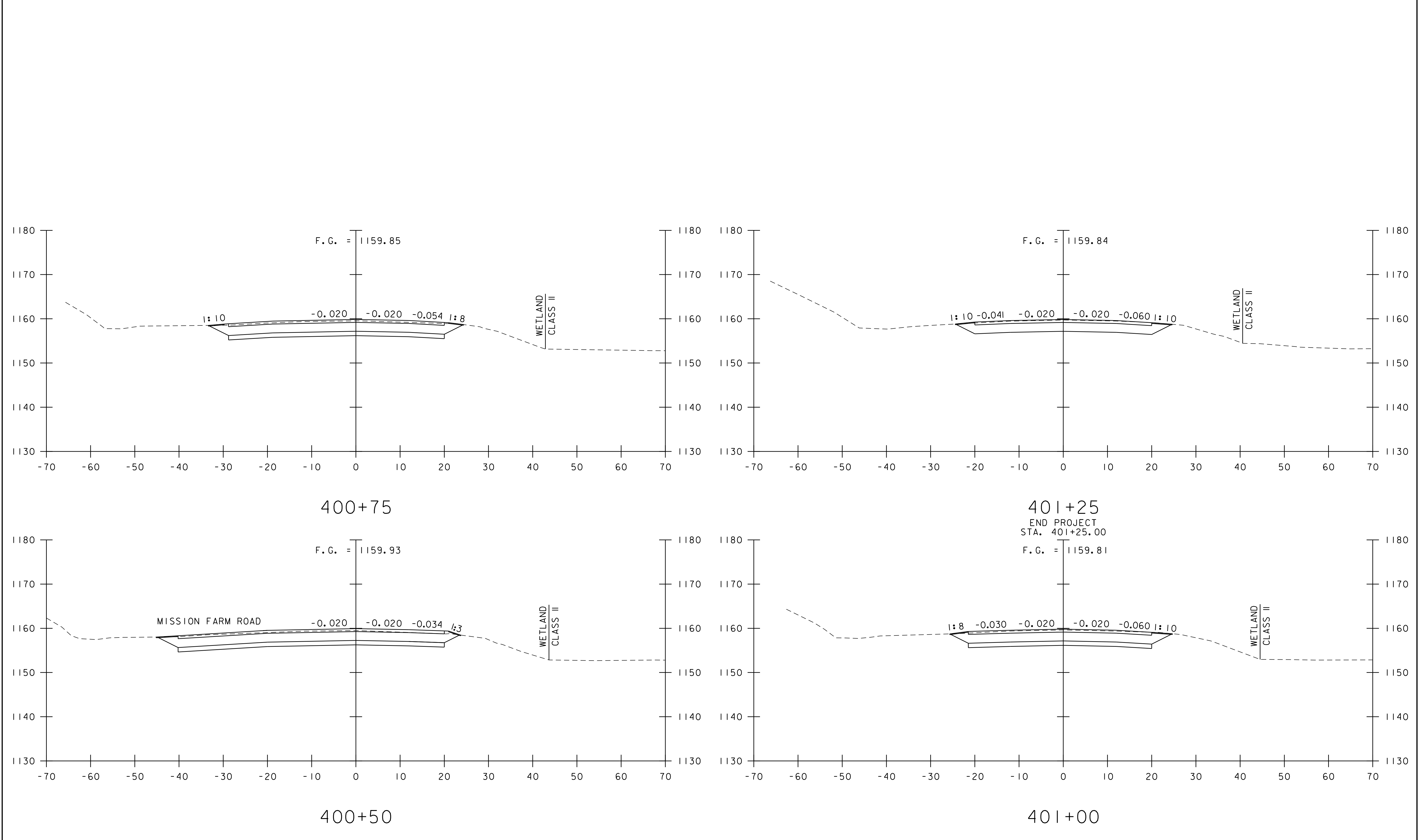
STA. 399+50 - 400+25
SCALE 1" = 10'-0"



PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260xs.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
US ROUTE 4 CROSS SECTIONS (5 OF 7)

PLOT DATE: 4/27/2020
DRAWN BY: E.F. LAWES
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US ROUTE 4 CROSS SECTIONS

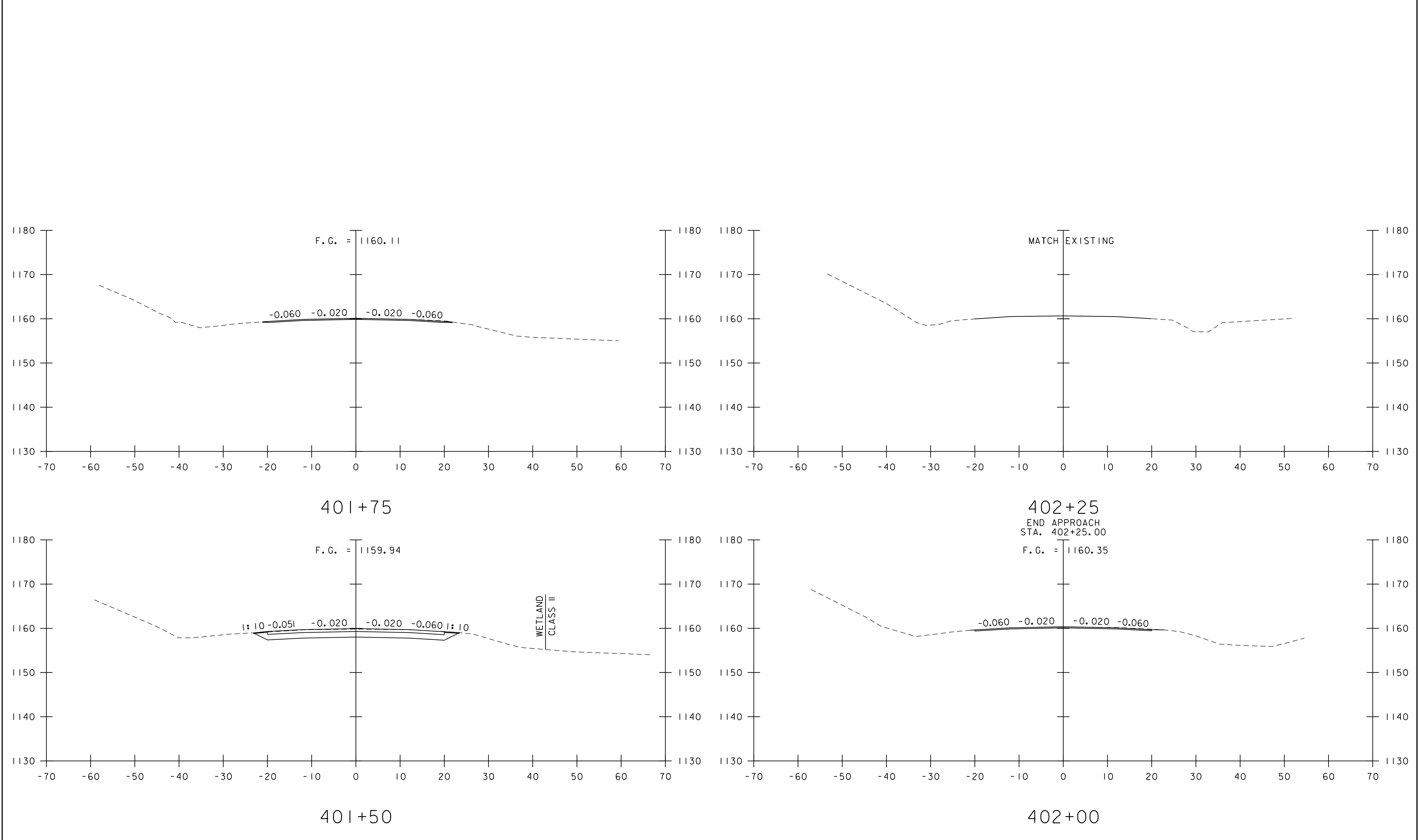
STA. 400+50 - 401+25
SCALE 1" = 10'-0"



PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260xs.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
US ROUTE 4 CROSS SECTIONS (6 OF 7)

PLOT DATE: 4/27/2020
DRAWN BY: E.F. LAWES
CHECKED BY: K.C. BARRY
SHEET 46 OF 62



US ROUTE 4 CROSS SECTIONS

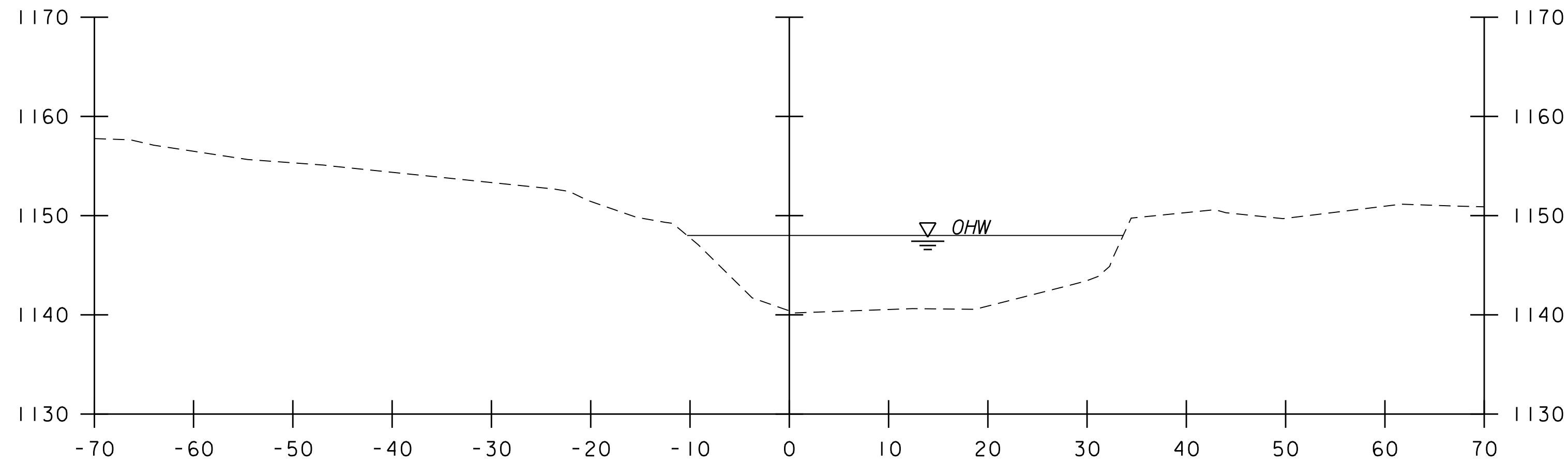
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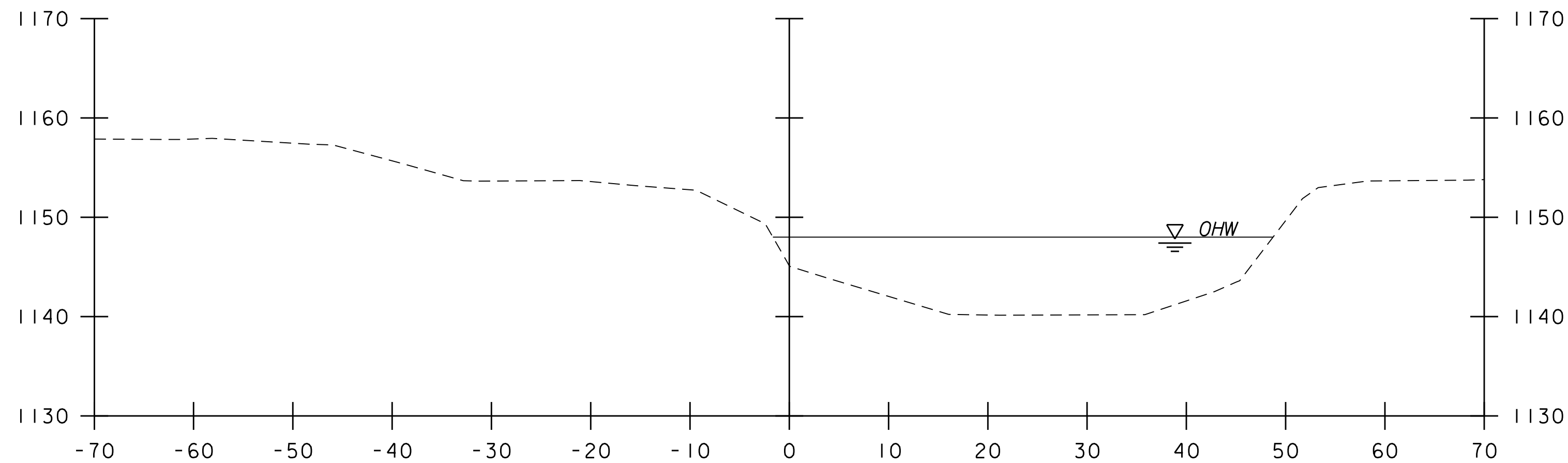
PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260xs.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
US ROUTE 4 CROSS SECTIONS (7 OF 7)

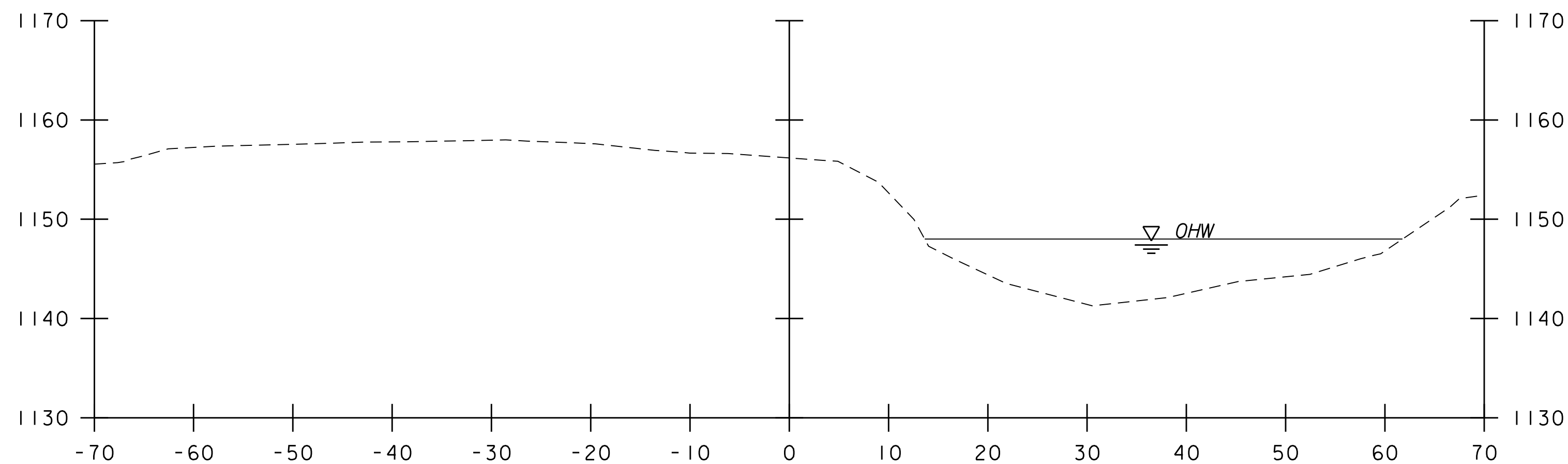
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DRAWN BY: E.F. LAWES
CHECKED BY: K.C. BARRY
SHEET 47 OF 62



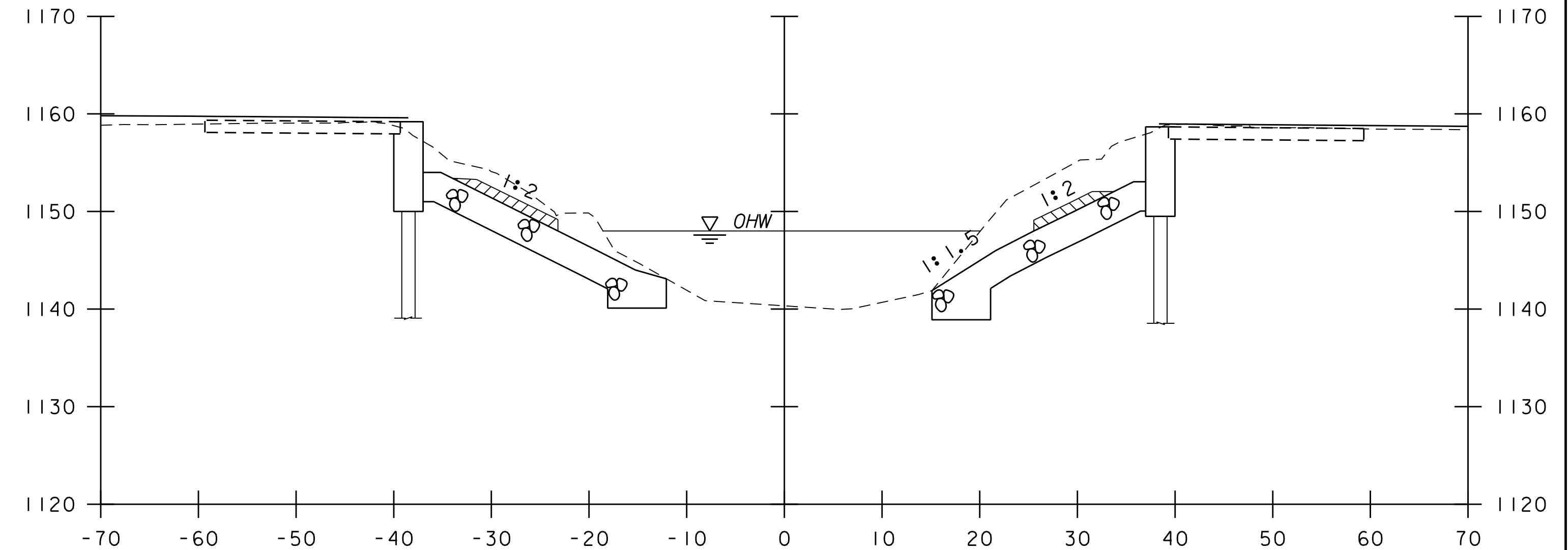
50+50



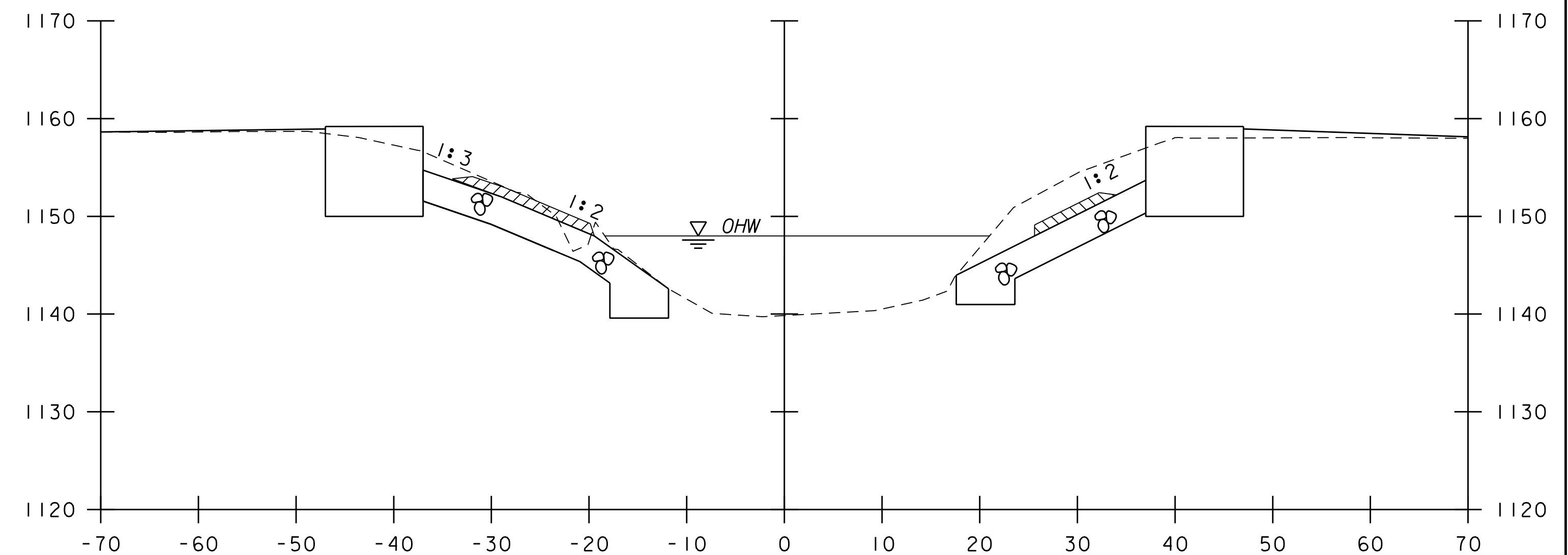
50+25



50+00



50+80



50+75

STA. 50+64, LT
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
STONE FILL, TYPE III, & GRUBBING MATERIAL

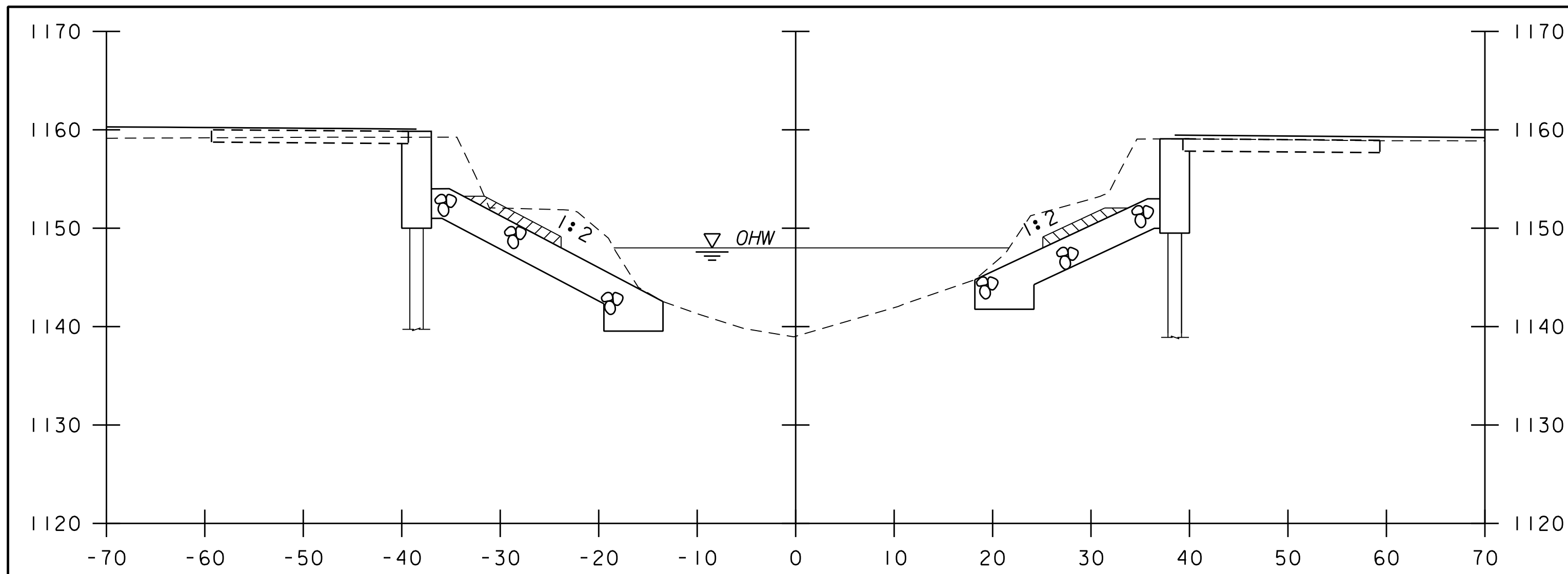
STA. 50+58, RT
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
STONE FILL, TYPE III, & GRUBBING MATERIAL

CHANNEL CROSS SECTIONS

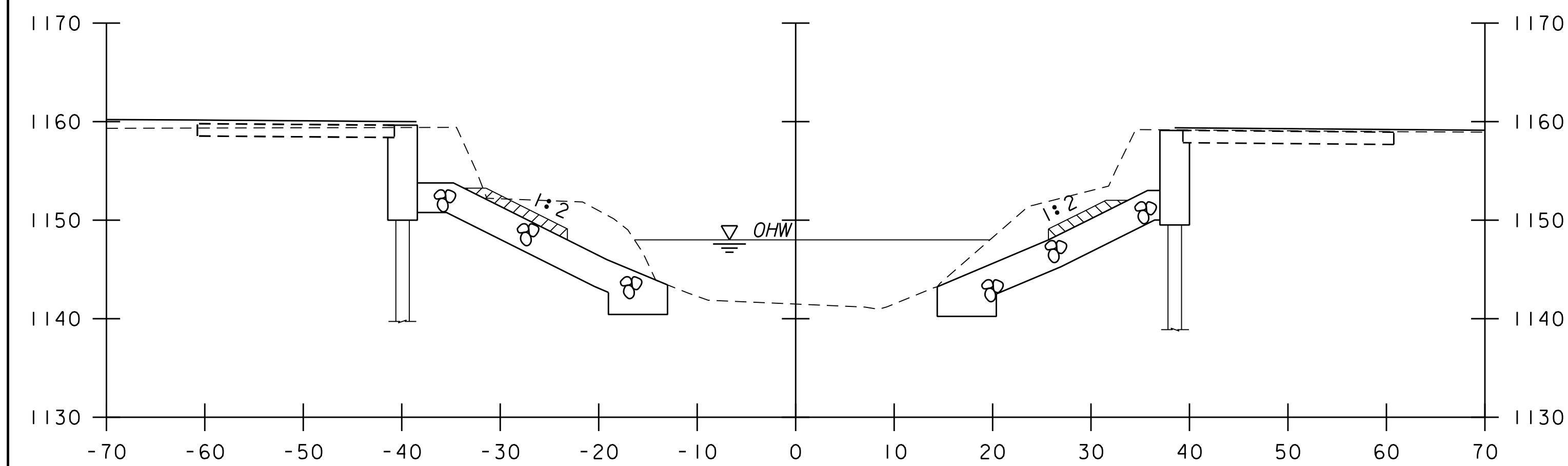
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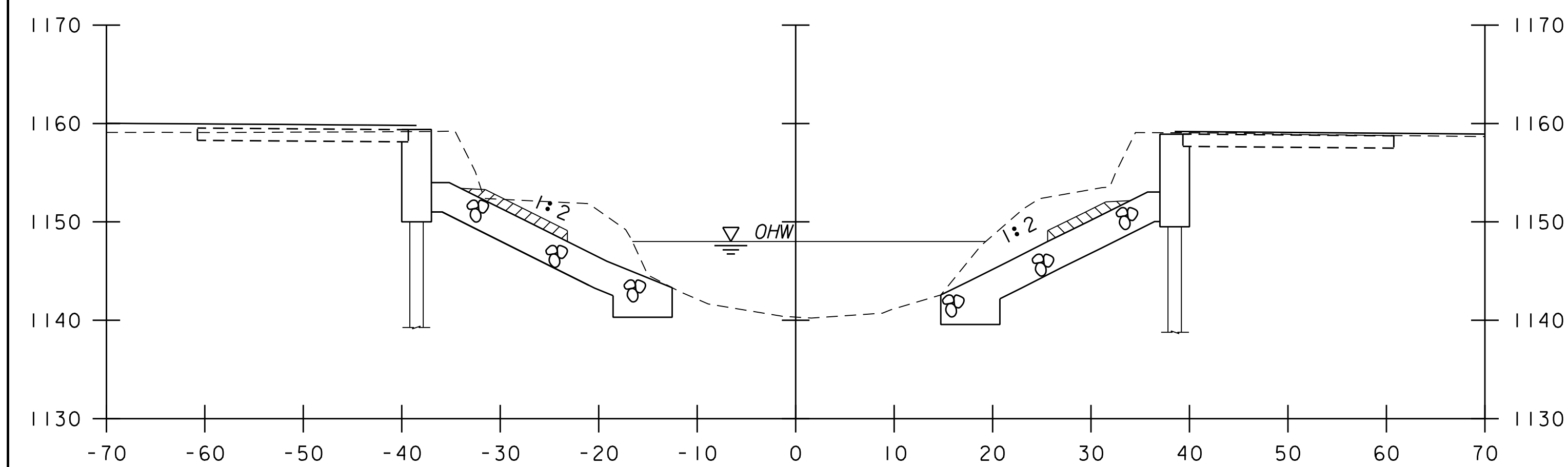
PROJECT NAME: KILLINGTON	
PROJECT NUMBER: BF 020-2(42)	
FILE NAME: z13b260xs.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: E.F. LAWES
DESIGNED BY: E.F. LAWES	CHECKED BY: K.C. BARRY
CHANNEL CROSS SECTIONS (10F 3)	SHEET 48 OF 62



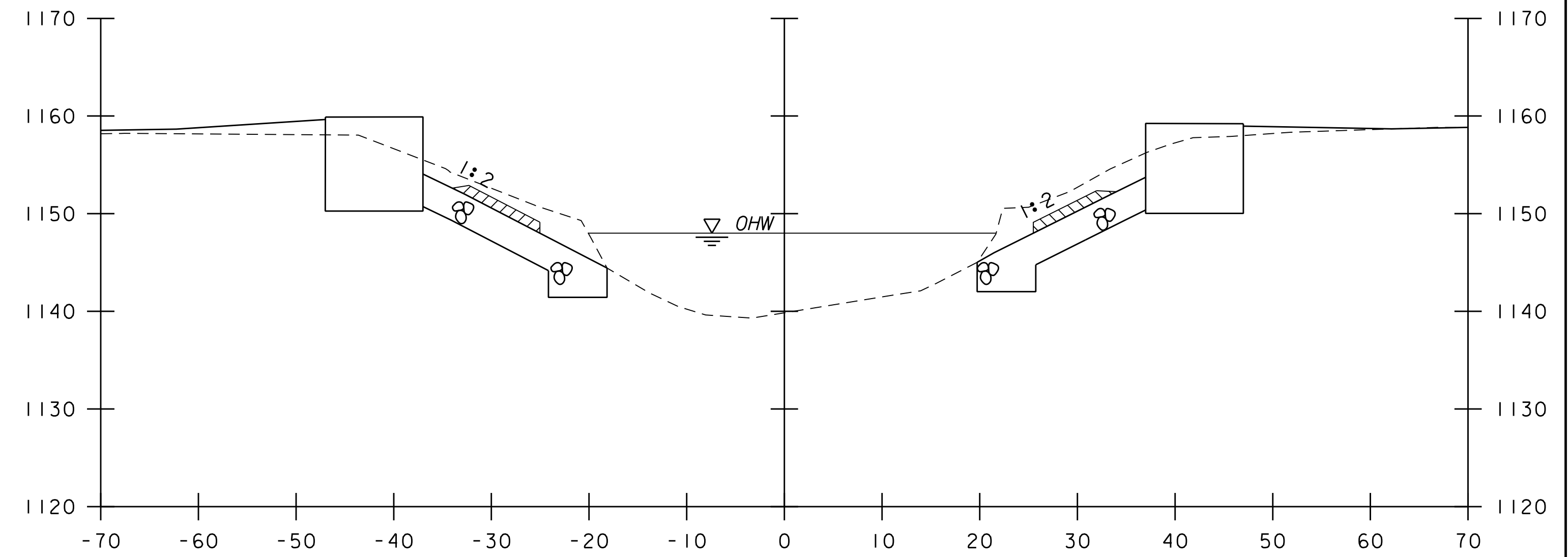
51+10



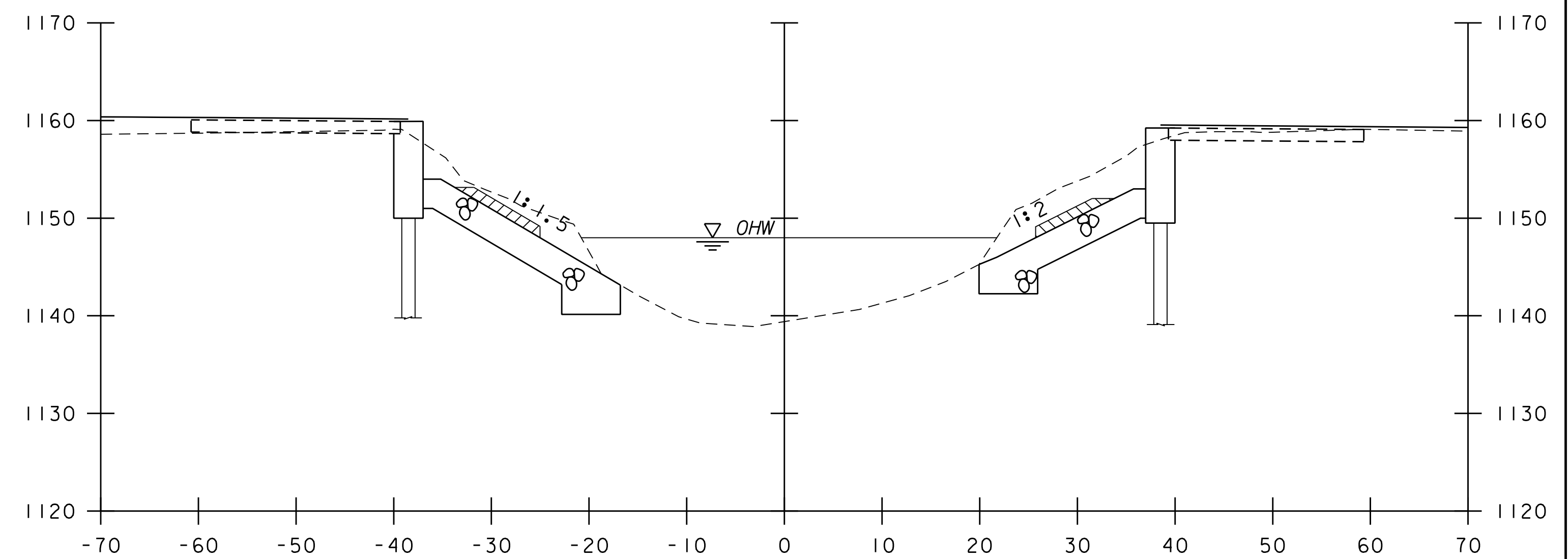
51+00



50+90



51+25



51+20

CHANNEL CROSS SECTIONS

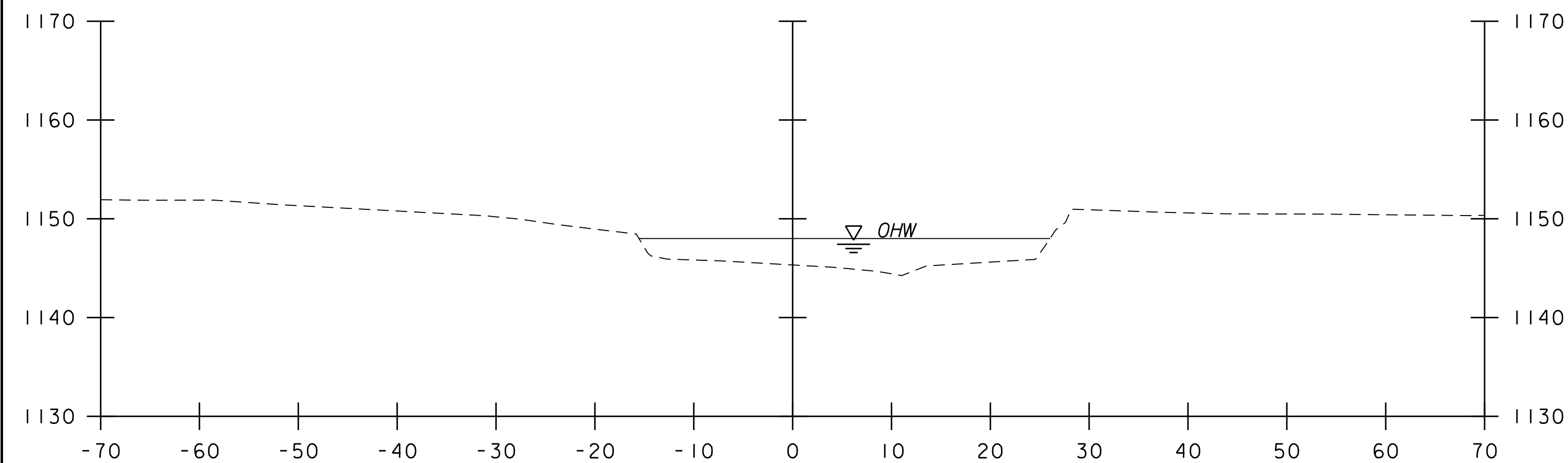
STA. 50+90 - 51+25
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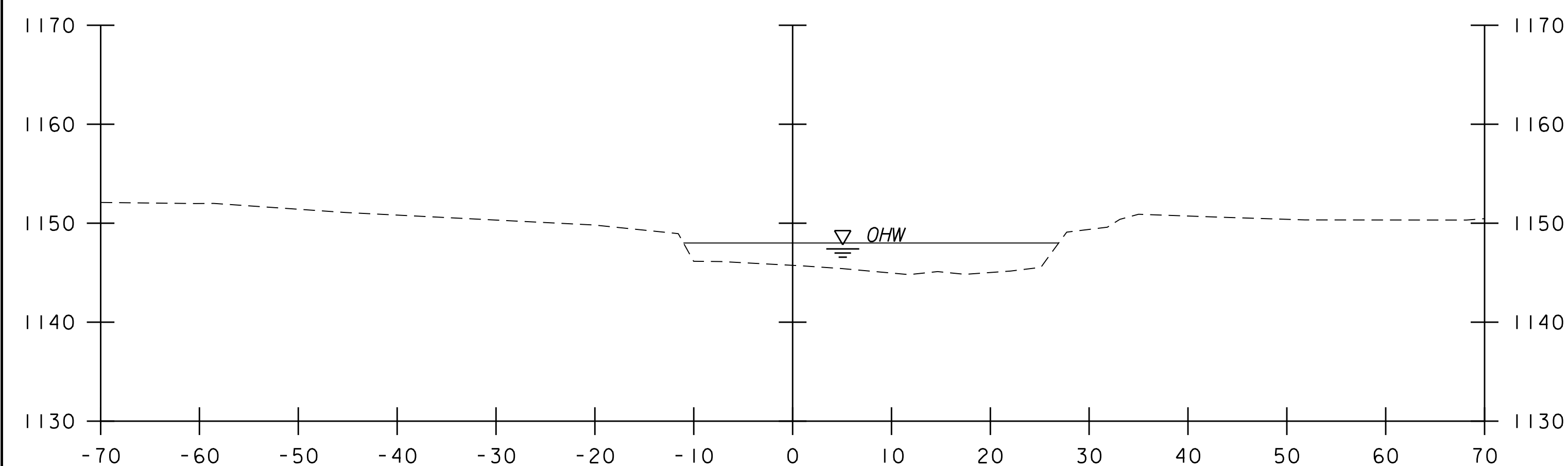
PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260xs.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
CHANNEL CROSS SECTIONS (2 OF 3)

PLOT DATE: 4/27/2020
DRAWN BY: E.F. LAWES
CHECKED BY: K.C. BARRY
SHEET 49 OF 62

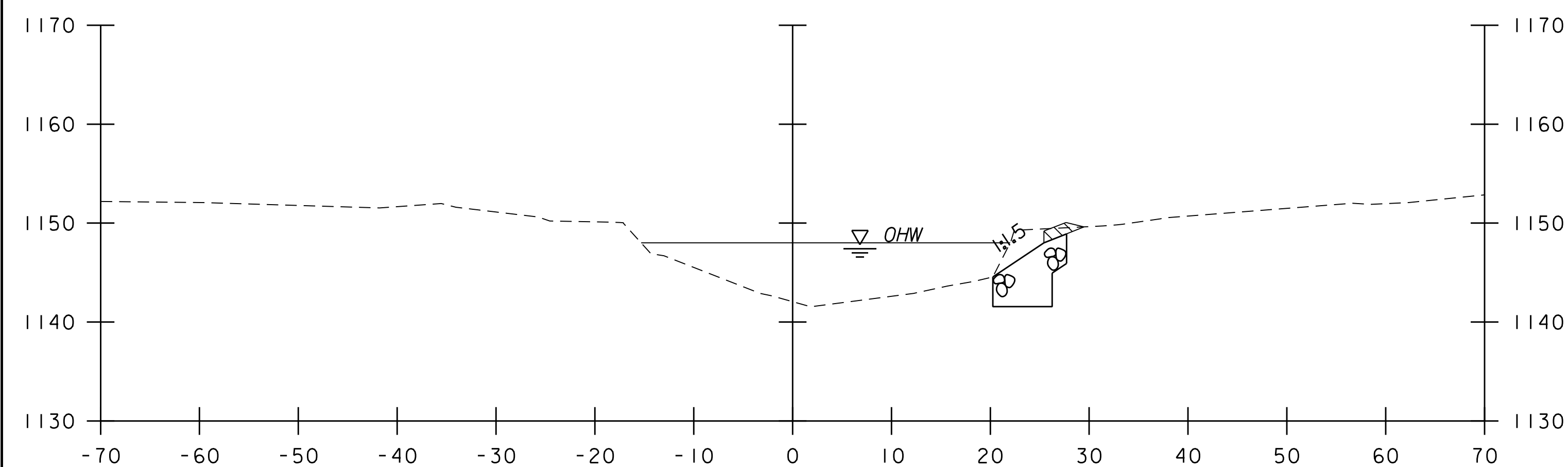


52+00



51+75

STA. 51+63, RT
END UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
STONE FILL, TYPE III, & GRUBBING MATERIAL



51+50

STA. 51+48, LT
END UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
STONE FILL, TYPE III, & GRUBBING MATERIAL

CHANNEL CROSS SECTIONS

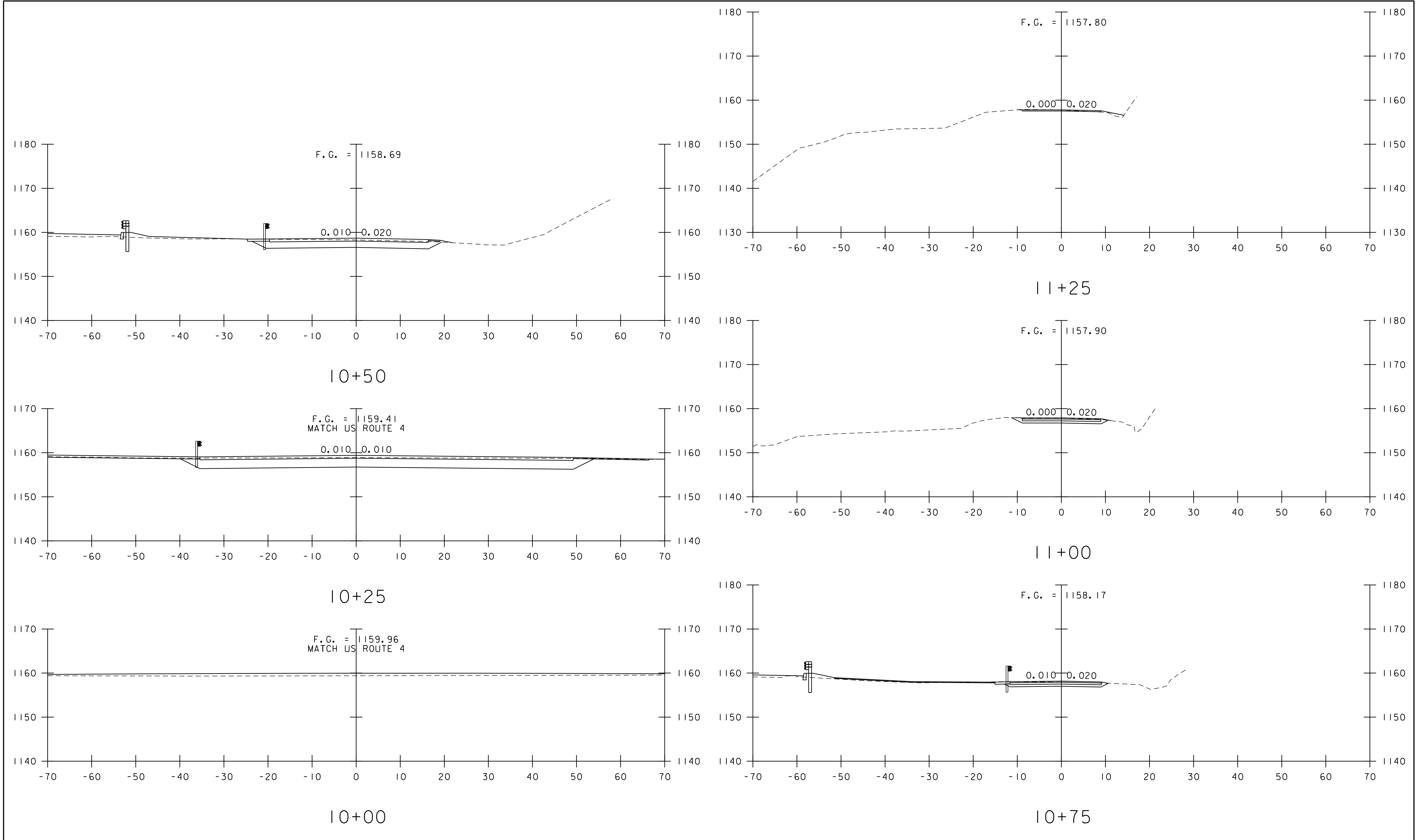
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PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260xs.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
CHANNEL CROSS SECTIONS (3 OF 3)

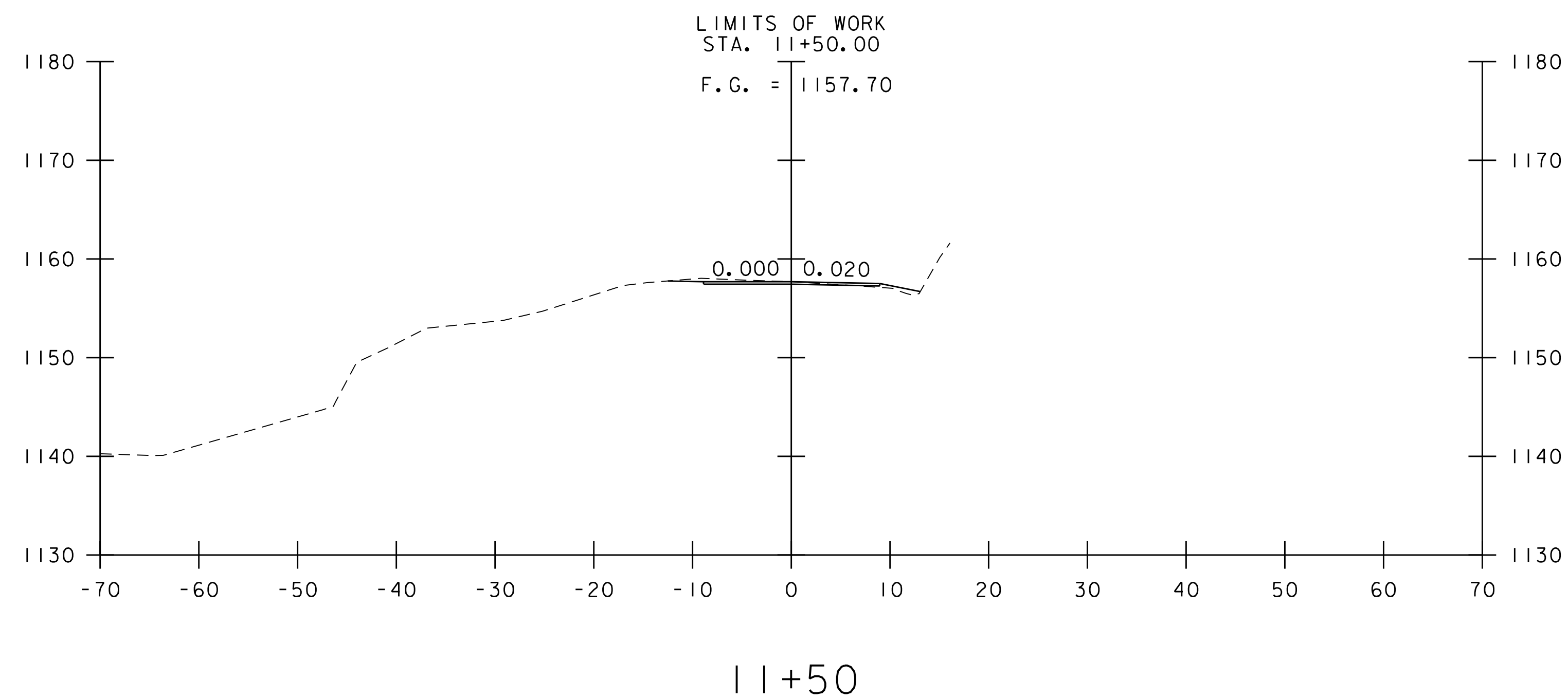
PLOT DATE: 4/27/2020
DRAWN BY: E.F. LAWES
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SHEET 50 OF 62



MISSION FARM ROAD CROSS SECTIONS
STA. 10+00 - 11+25
SCALE 1" = 10' - 0"



PROJECT NAME: KILLINGTON	
PROJECT NUMBER: BF 020-2(42)	
FILE NAME: z13b260xs.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: E.F. LAWES
DESIGNED BY: E.F. LAWES	CHECKED BY: K.C. BARRY
MISSION FARM ROAD CROSS SECTIONS (1 OF 2) SHEET 51 OF 62	



MISSION FARM ROAD CROSS SECTIONS

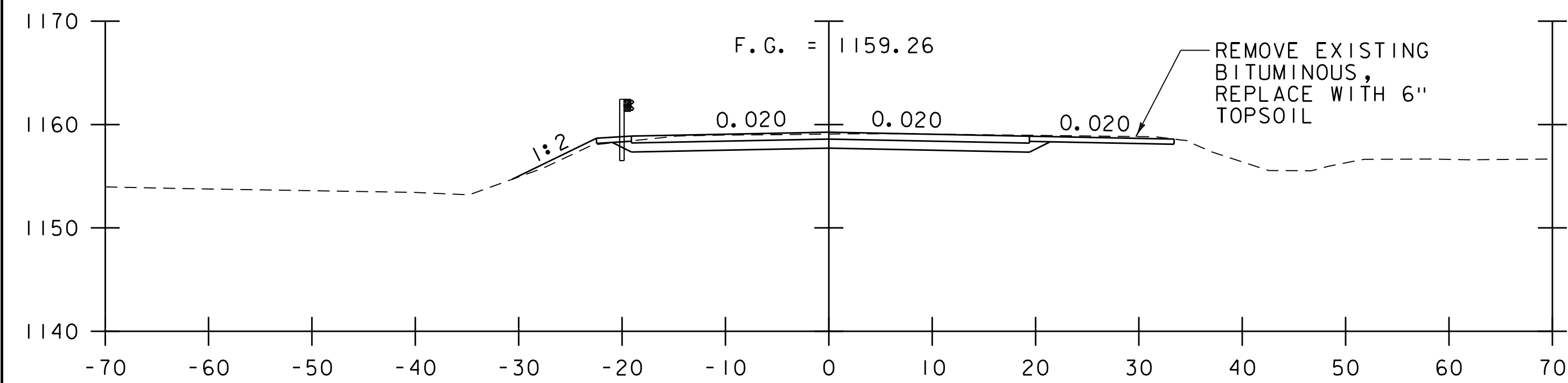
STA. 10+00 - 11+25
SCALE 1" = 10' - 0"



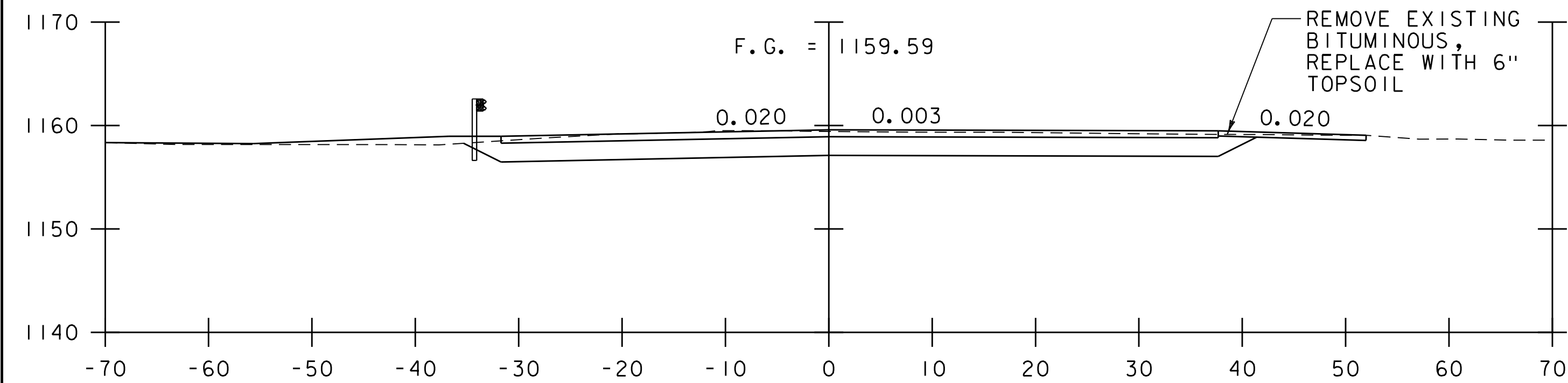
PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260xs.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
MISSION FARM ROAD CROSS SECTIONS(2 OF 2) SHEET 52 OF 62

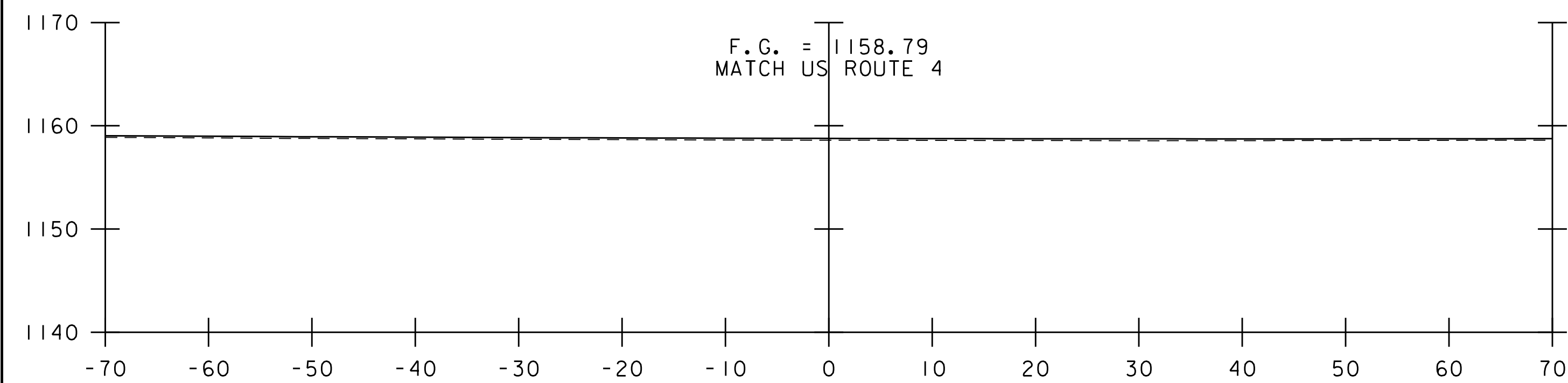
PLOT DATE: 4/27/2020
DRAWN BY: E.F. LAWES
CHECKED BY: K.C. BARRY



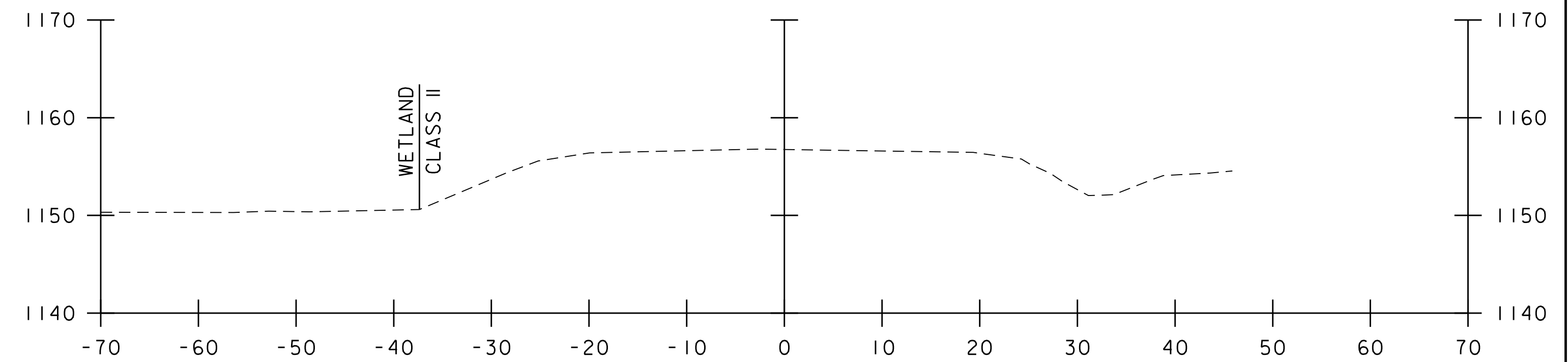
1+50



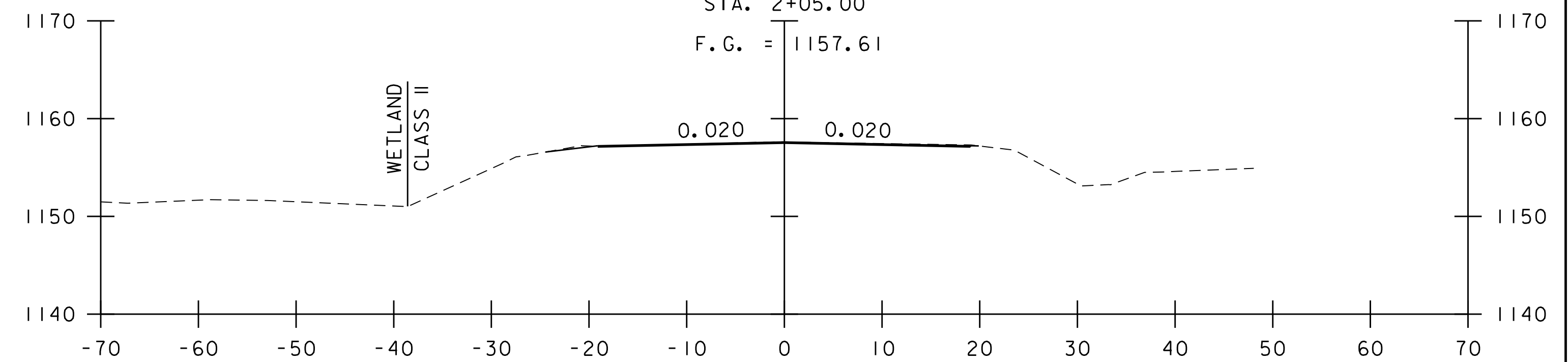
1+25



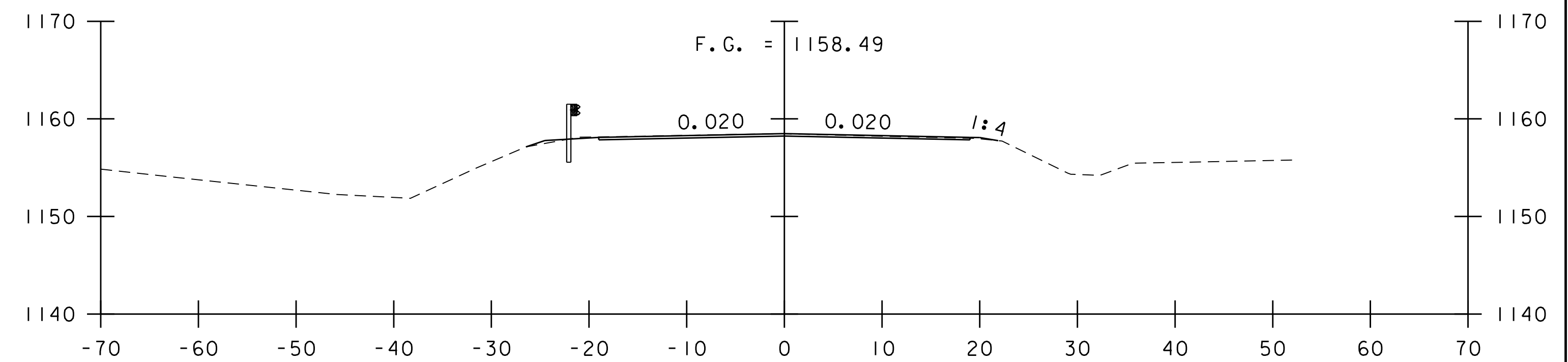
1+00



2+25



2+00



1+75

EAST MOUNTAIN ROAD CROSS SECTIONS

STA. 1+00 - 2+25
SCALE 1" = 10' - 0"



PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260xs.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
EAST MOUNTAIN ROAD CROSS SECTIONS

PLOT DATE: 4/27/2020
DRAWN BY: E.F. LAWES
CHECKED BY: K.C. BARRY
SHEET 53 OF 62

EPSC PLAN NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REMOVAL AND REPLACEMENT OF THE EXISTING STEEL BEAM AND CONCRETE DECK SUPERSTRUCTURE AND CONCRETE ABUTMENTS OF BRIDGE NO. 33 WITH RELATED APPROACH AND CHANNEL WORK. THIS PROJECT IS LOCATED ON US ROUTE 4, OVER THE OTTAUQUECHEE RIVER, APPROXIMATELY 1.0 MILES WEST OF THE INTERSECTION OF US ROUTE 4 AND VT ROUTE 100S IN THE TOWN OF KILLINGTON. DURING CONSTRUCTION TRAFFIC WILL BE MAINTAINED ON A TEMPORARY BRIDGE. THE EXISTING BRIDGE HAS A 67-FOOT SPAN AND A 25'-3" WIDE CONCRETE DECK.

THE BRIDGE REPLACEMENT INCLUDES THE REMOVAL OF THE EXISTING STRUCTURE IN ITS ENTIRETY AND THE CONSTRUCTION OF A NEW 77-FOOT SINGLE SPAN BRIDGE WITH STEEL GIRDER BEAMS AND A CONCRETE DECK TO CREATE A NEW BRIDGE WIDTH OF 43'-4". NEW INTEGRAL CONCRETE ABUTMENTS, EACH ON A SINGLE ROW OF PILES, AND WINGWALLS. ASSOCIATED ROADWAY APPROACH WORK INCLUDES BRIDGE APPROACH SLABS AND NEW GUARDRAIL. ONCE THE BRIDGE IS COMPLETED, THE TEMPORARY BRIDGE SIGNS WILL BE REMOVED AND THE AREA WILL BE RESTORED TO THE PREVIOUS CONDITION.

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 1.18 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 IS A GENERALLY FLAT AREA THAT IS MOSTLY WELL ESTABLISHED FOREST WITH OCCASIONAL OPEN AREAS. EAST MOUNTAIN ROAD (TH15) AND MISSION FARM ROAD (TH 38) ARE WITHIN THE PROJECT SITE. BRIDGE NO. 33 CROSSES OVER THE OTTAUQUECHEE RIVER WHERE WETLANDS ARE FOUND ON BOTH THE NORTH AND SOUTH SIDES OF THE BRIDGE.

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

THE OTTAUQUECHEE RIVER FLOWS SOUTH THROUGH THE PROJECT SITE AND IS CLASSIFIED AS AN ESSENTIAL FISH HABITAT THAT SUPPORTS A VARIETY OF AQUATIC ORGANISMS AND FISH SPECIES. THE STREAM BED CONSISTS OF SAND-GRAVEL-COBBLE MIX. THERE ARE MAPPED CLASS II WETLANDS IN THREE QUADRANTS OF THE PROJECT AREA. DUE TO THE NATURE OF THE SURROUNDING TERRAIN THE PROJECT SITE COULD RECEIVE RUNOFF WATER FROM A FEW NEARBY SLOPES.

1.2.3 VEGETATION

THE VEGETATION IN THE WETLANDS AREA CONSISTS OF EMERGENT, SCRUB SHRUB AND FOREST WITH DOMINANT VEGETATION BEING SPECKLED ALDER, ELM, SENSITIVE FERN, MEADOWSWEET, AND WHITE PINE. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS DIRECTLY AFFECTED BY REPLACEMENT OF THE EXISTING BRIDGE. UPON PROJECT COMPLETION, 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 WINDSOR, VERMONT. SOILS ON THE FAR NORTHEAST SECTION OF THE SITE ARE SUDBURY FINE, SANDY LOAM, 0% TO 3% SLOPES, "K FACTOR" = 0.32. THE WETLAND AREA JUST NORTH OF US ROUTE 4 ARE UDORTHENTS LOAMY SOIL WITH A "K FACTOR" = 0.10. THE SOUTHWESTERN AREA OF THE OTTAUQUECHEE RIVER CONTAINS WINDSOR LOAMY SAND, 8% TO 15% SLOPES, "K FACTOR" = 0.15 AND 25% TO 60% SLOPES, "K FACTOR"= 0.20 CLOSER TO US ROUTE 4. THE SOIL IS CONSIDERED TO HAVE A LOW TO MEDIUM EROSION POTENTIAL THROUGHOUT THE PROJECT.

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: YES. RANGE 4 ON THE WILDLIFE HABITAT REGIONAL ANALYSIS.
HISTORICAL OR ARCHEOLOGICAL AREAS: YES. ARCHEOLOGICAL AREA WITHIN ALL FOUR QUADRANTS.
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: SUBJECT TO NLEB REVIEW
WATER RESOURCE: OTTAUQUECHEE RIVER
WETLANDS: YES. CLASS II WETLAND FEATURES WERE LOCATED IN THREE QUADRANTS OF THE AREA. SOME UPSTREAM WETLANDS APPEAR TO HAVE BEEN FILLED IN OVER TIME.

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 FENCING (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES.

BARRIER FENCE SHALL BE USED TO PHYSICALLY MARK ARCHAEOLOGICAL AREAS.

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.

FILTER CURTAIN SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLANS.

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 EROSION POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

STONE CHECK DAMS ARE NOT ANTICIPATED FOR THIS PROJECT.

1.4.7 CONSTRUCT PERMANENT CONTROLS

PERMANENT EROSION CONTROL STRUCTURES ARE NOT ANTICIPATED FOR THIS PROJECT.

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.

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.

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.

TREATMENT OF DEWATERING COFFERDAM IS NOT 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

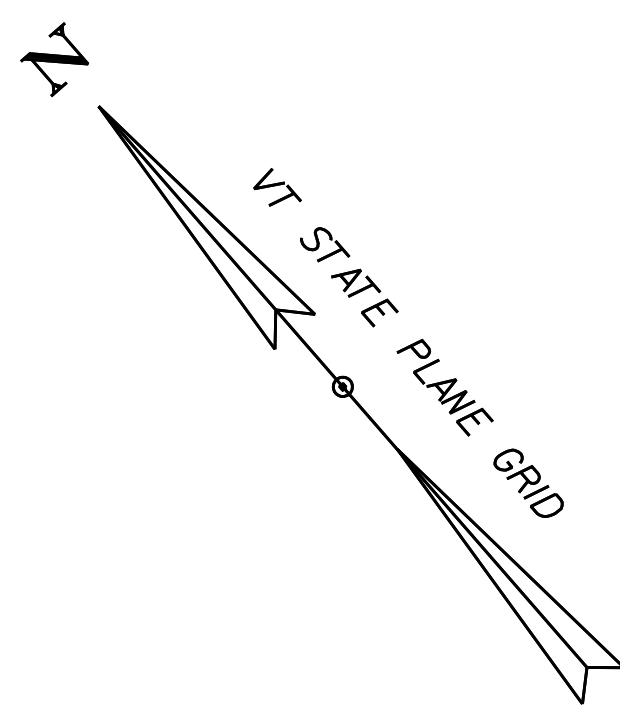
THIS SECTION WILL BE DEVELOPED BY THE CONTRACTOR USING THE GUIDANCE OUTLINED IN THE VTRANS EPSC PLAN CONTRACTOR CHECKLIST.

1.5.1 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.

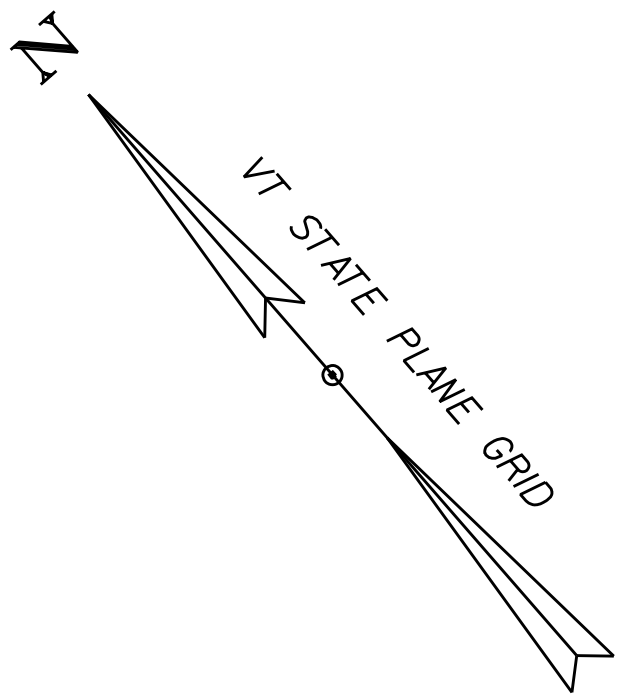


PROJECT NAME: KILLINGTON	
PROJECT NUMBER: BF 020-2(42)	
FILE NAME: z13b260EPSC-Narrative.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: E.F. LAWES
DESIGNED BY: E.F. LAWES	CHECKED BY: K.C. BARRY
EPSC NARRATIVE	SHEET 54 OF 62



SOIL INFORMATION:
SUDBURY FINE SANDY LOAM
0%-3% SLOPES
MODERATE EROSION POTENTIAL
K= 0.32

SOIL INFORMATION:
WINDSOR LOAMY SAND
25%- 60% SLOPES
LOW EROSION POTENTIAL
K= .20



**KILLINGTON/PICO SKI
RESORT PARTNERS, LLC**

**TOWN OF
KILLINGTON**
**STATE OF
VERMONT**

**N/F
PHILLIP C. CAMP**

N=406269.76
E=1572716.59
STA. 39+00.00, 63.40' LT

R=1,844.10' APPROX. EXISTING R.O.W.
L=248.83'

BEGIN APPROACH
STA. 395+50.00

TO MENDON

396+00

397+00

1+00

398+00

399+00

400+00

TO BRIDGEWATER

STA. 397+00.00
BEGIN PROJECT

R=1,976.10'
L=267.45' APPROX. EXISTING R.O.W.

N=406182.84
E=1572617.25
STA. 39+00.00, 68.60' RT

**KILLINGTON/PICO SKI
RESORT PARTNERS, LLC**

**KILLINGTON/PICO SKI
RESORT PARTNERS, LLC**

**N/F
CORPORACION EL CERRITO**

SOIL INFORMATION:
UDORTHENTS LOAMY
LOW EROSION POTENTIAL
K= .10

LIMITS OF WORK
STA. 2+05.00

**TOWN OF
KILLINGTON**

**STATE OF
VERMONT**

OTTAUQUECHEE
RIVER

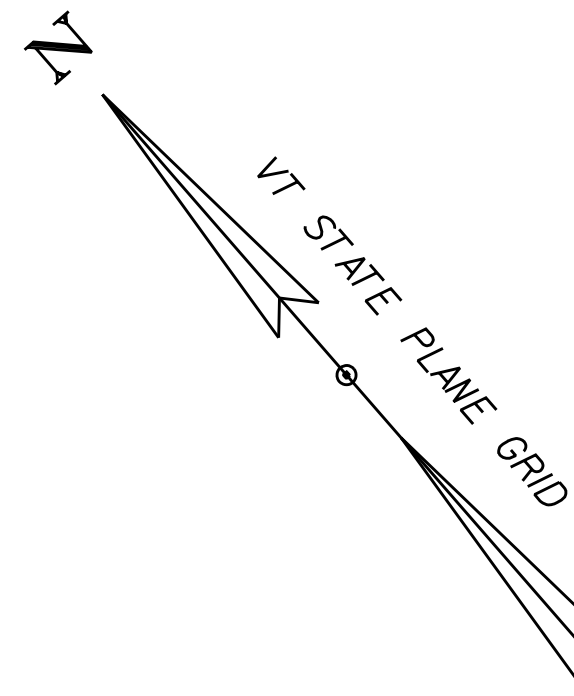
SCALE 1" = 20' - 0"
20 0 20

PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260bdr_ero.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
EPSC EXISTING SITE PLAN (10 OF 2)

PLOT DATE: 4/27/2020
DRAWN BY: R.H. BARNES
CHECKED BY: K.C. BARRY
SHEET 55 OF 62





N=405842.34
E=1573226.95
STA. 45+75.00, 94.21' LT

[374.18']
[S48°18'55"E]

APPROX. EXISTING R.O.W.

MATCHLINE STA. 400+75.00

401+00

US ROUTE 4

402+00

402+34

TO BRIDGEWATER

TO MENDON

COMB
+
5.8
9.2
AER E

MM
0040
1121
0760

[374.18']
[S50°38'41"E]

APPROX. EXISTING R.O.W.

N=405730.79
E=1573129.84
STA. 45+75.00, 53.68' RT

SOIL INFORMATION:
WINDSOR LOAMY SAND
8% - 15% SLOPES
LOW EROSION POTENTIAL
K = .15

HVCTRL
6

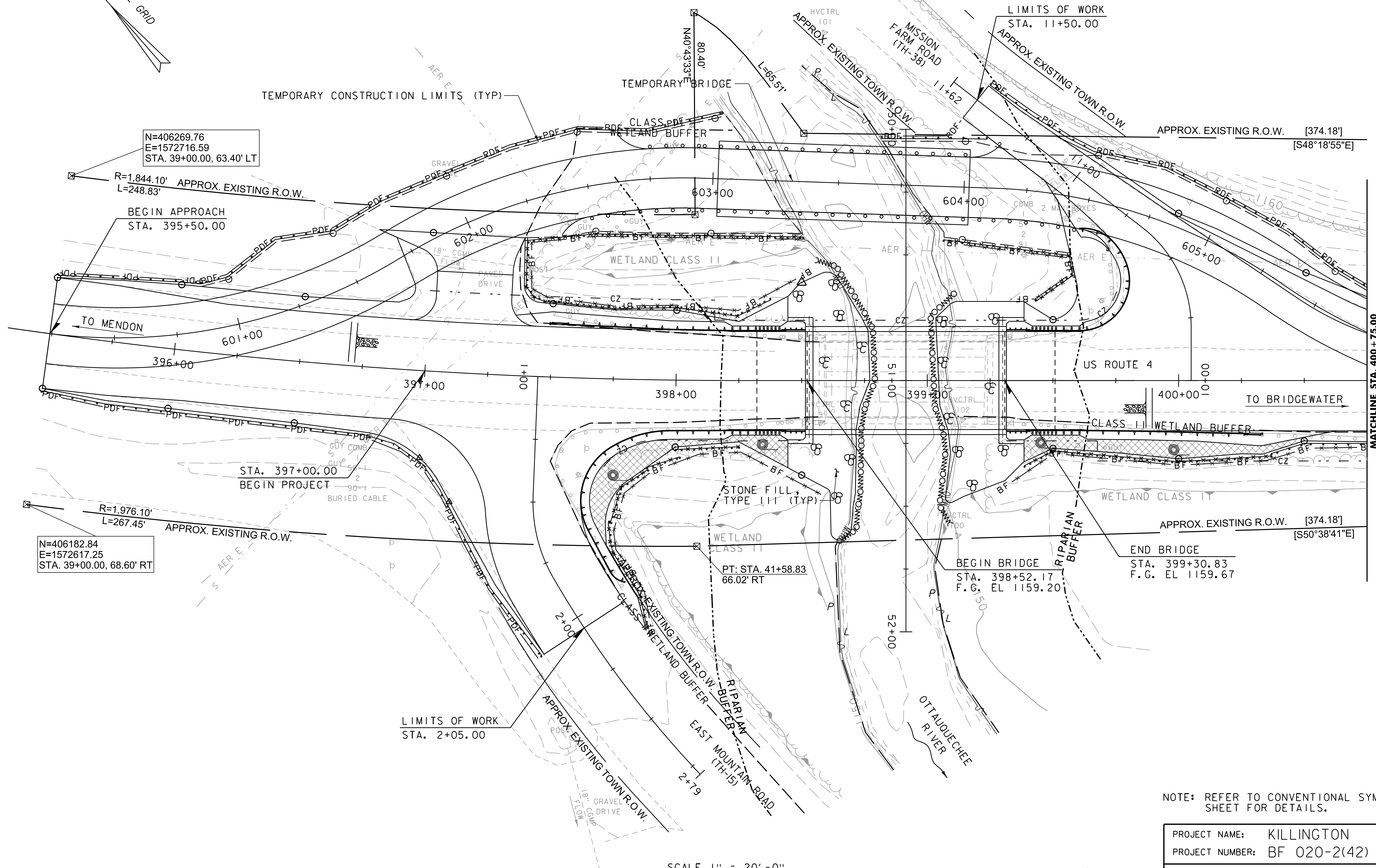
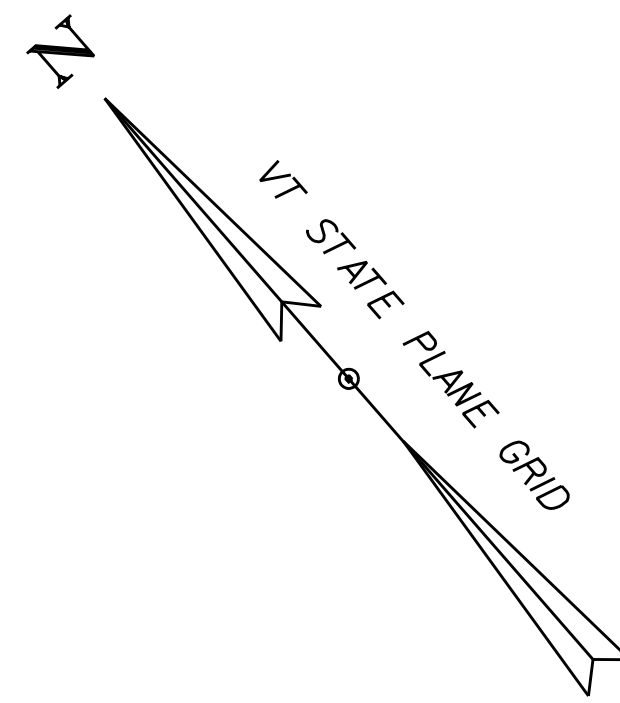
SCALE 1" = 20'-0"
20 0 20



PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

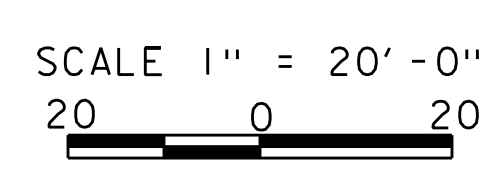
FILE NAME: z13b260bdr_ero.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
EPSC EXISTING SITE PLAN (2 OF 2)

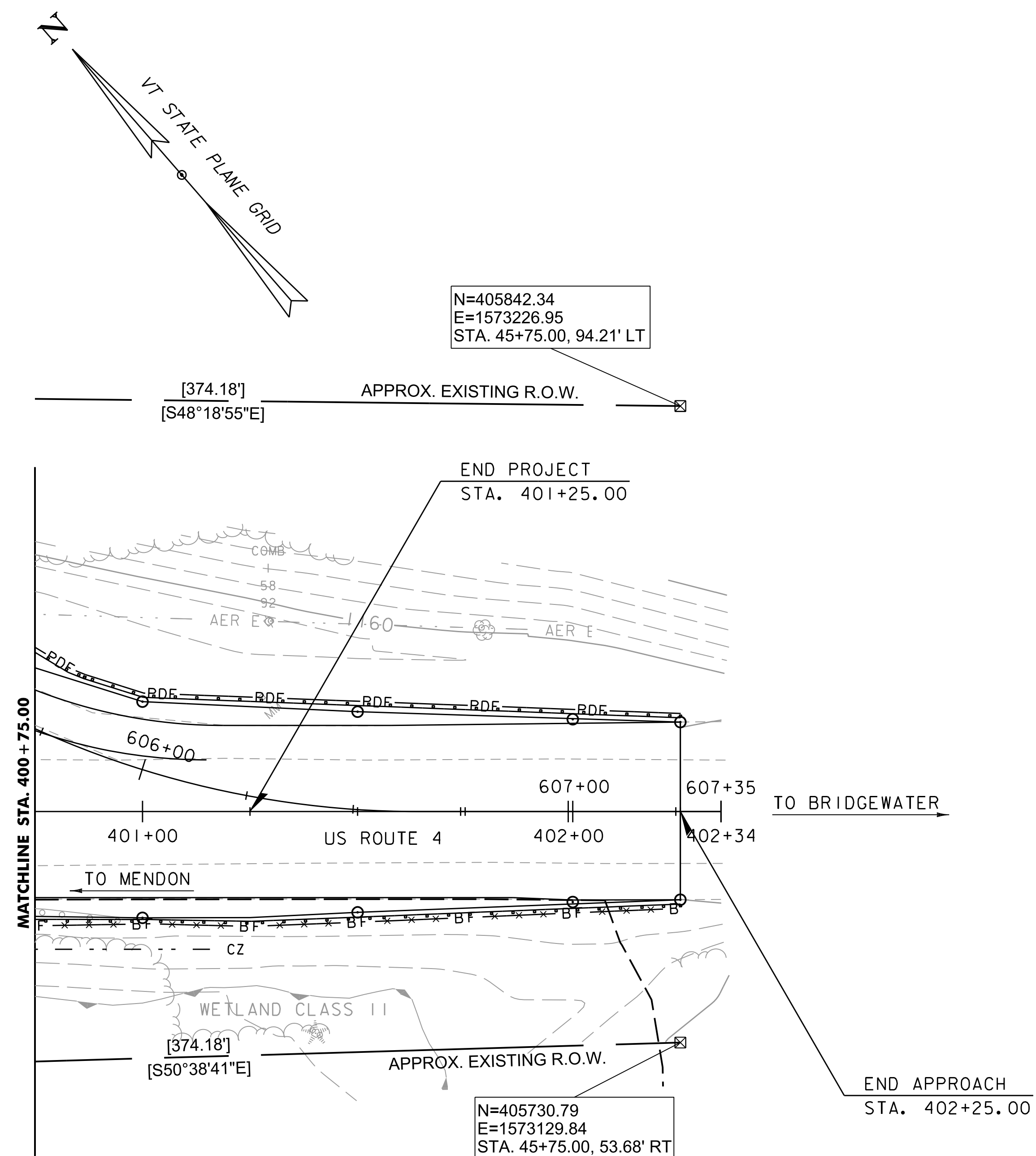
PLOT DATE: 4/27/2020
DRAWN BY: R.H. BARNES
CHECKED BY: K.C. BARRY
SHEET 56 OF 62



NOTE: REFER TO CONVENTIONAL SYMBOLOGY LEGEND SHEET FOR DETAILS.

PROJECT NAME: KILLINGTON	
PROJECT NUMBER: BF 020-2(42)	
FILE NAME: z13b260bdr_ero.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: R.H. BARNES
DESIGNED BY: E.F. LAWES	CHECKED BY: K.C. BARRY
EPSC CONSTRUCTION SITE PLAN (1 OF 2)	SHEET 57 OF 62





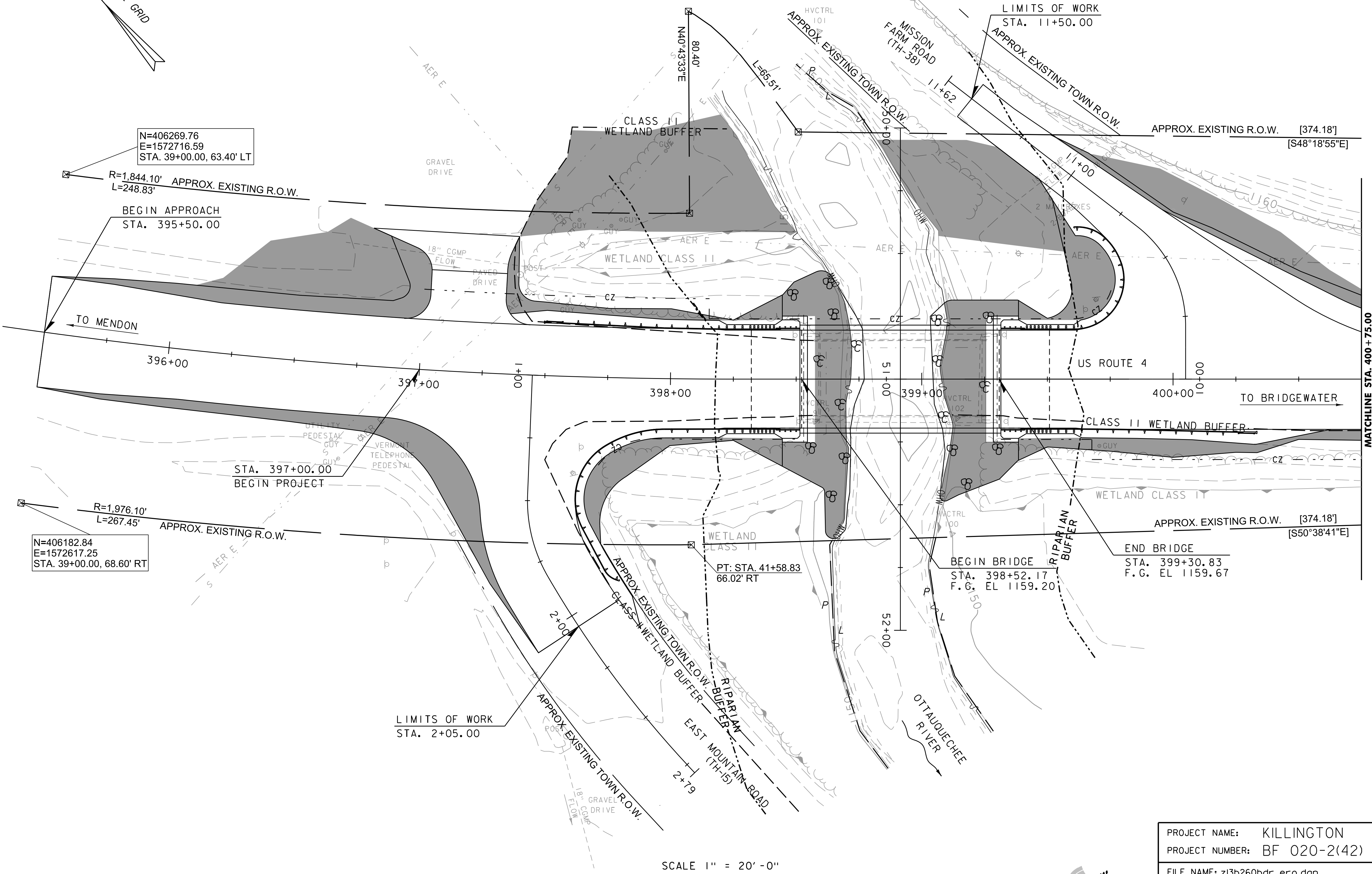
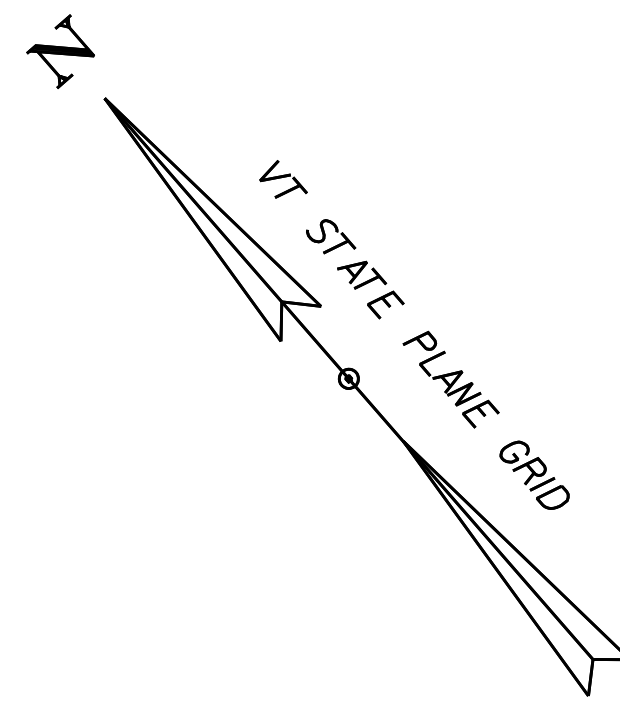
NOTE: REFER TO CONVENTIONAL SYMBOLOGY LEGEND
SHEET FOR DETAILS.

PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260bdr_ero.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: R.H. BARNES
DESIGNED BY: E.F. LAWES	CHECKED BY: K.C. BARRY
EPSC CONSTRUCTION SITE PLAN (2 OF 2)	SHEET 58 OF 62

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



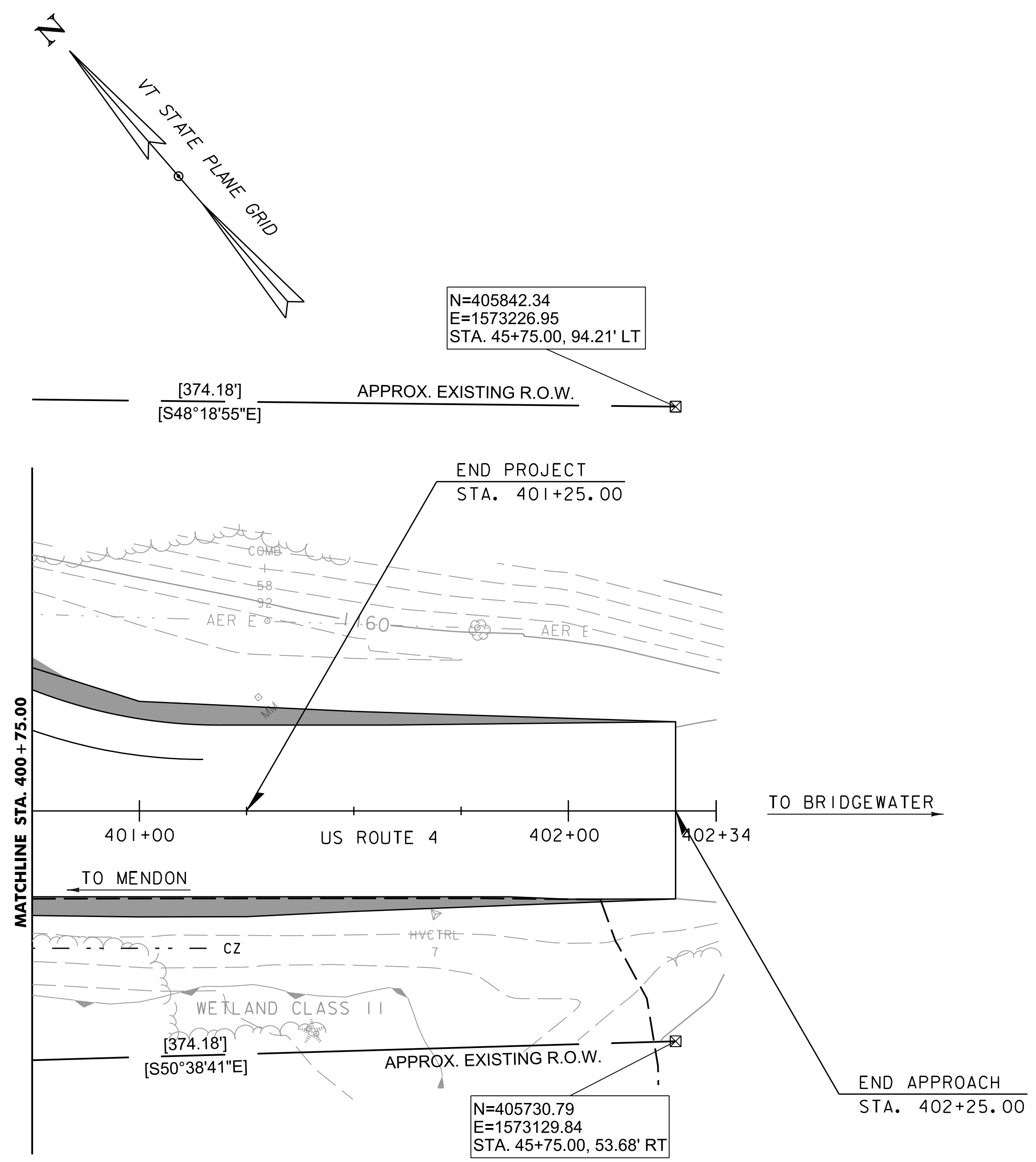


PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260bdr_ero.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: E.F. LAWES
EPSC FINAL SITE PLAN (1 OF 2)

PLOT DATE: 4/27/2020
DRAWN BY: R.H. BARNES
CHECKED BY: K.C. BARRY
SHEET 59 OF 62



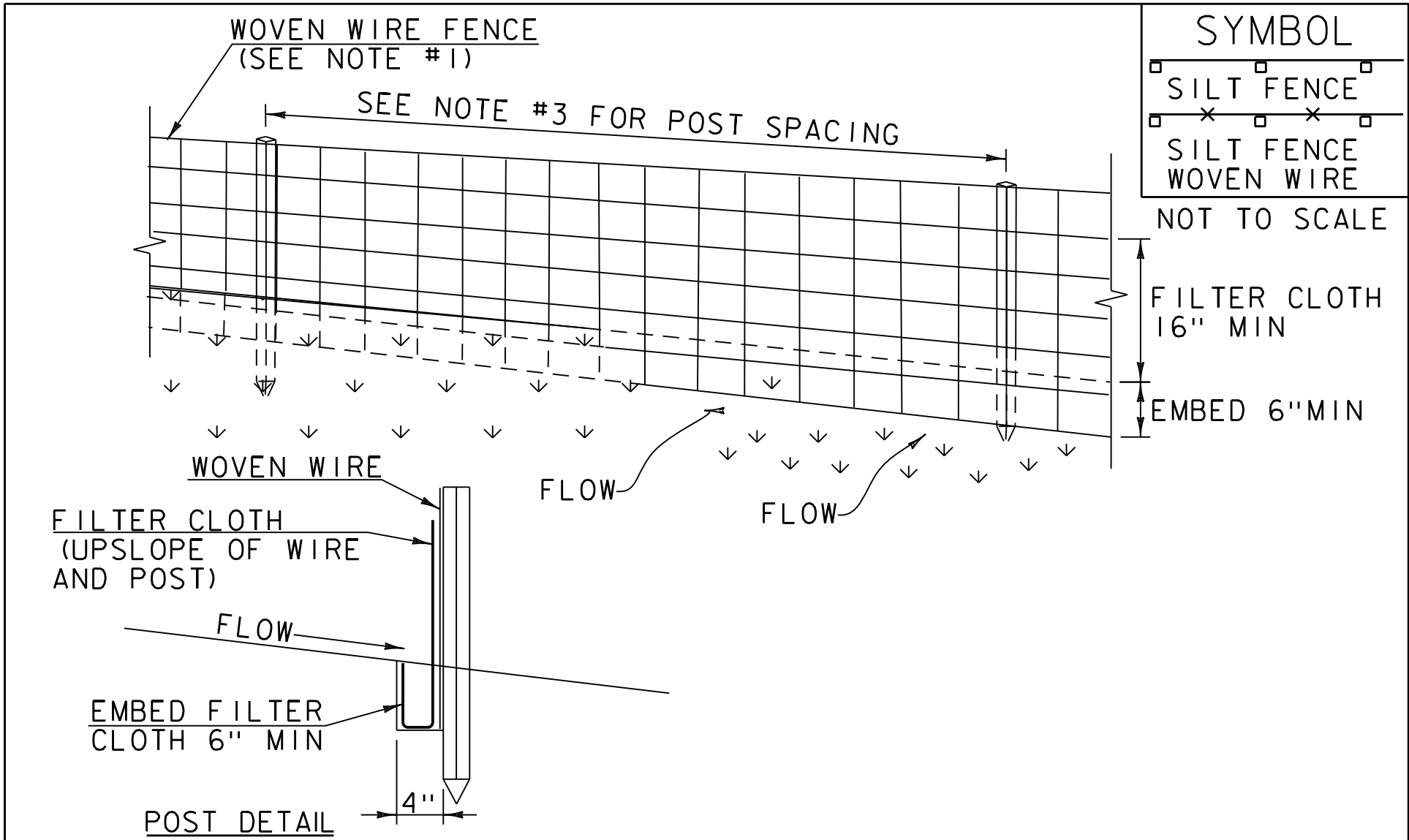


HVCTRL
6

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



PROJECT NAME: KILLINGTON	
PROJECT NUMBER: BF 020-2(42)	
FILE NAME: z13b260bdr_ero.dgn	PLOT DATE: 4/27/2020
PROJECT LEADER: S.E. BURBANK	DRAWN BY: R.H. BARNES
DESIGNED BY: E.F. LAWES	CHECKED BY: K.C. BARRY
EPSC FINAL SITE PLAN (2 OF 2)	SHEET 60 OF 62



CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFLIOOX, 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' AND 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 6" AND FOLDED.
6. 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 WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR SILT FENCE, TYPE 1(PAY ITEM 653.475) OR SILT FENCE, TYPE 2 (PAY ITEM 653.476).

REVISIONS		
MARCH 21, 2008	WHF	
DECEMBER 11, 2008	WHF	
JANUARY 13, 2009	WHF	

VAOT LOW GROW/FINE FESCUE MIX						
	LBS/AC		NAME	LATIN NAME	GERM	PURITY
WEIGHT	BROADCAST	HYDROSEED				
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		NAME	LATIN NAME	GERM	PURITY
WEIGHT	BROADCAST	HYDROSEED				
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

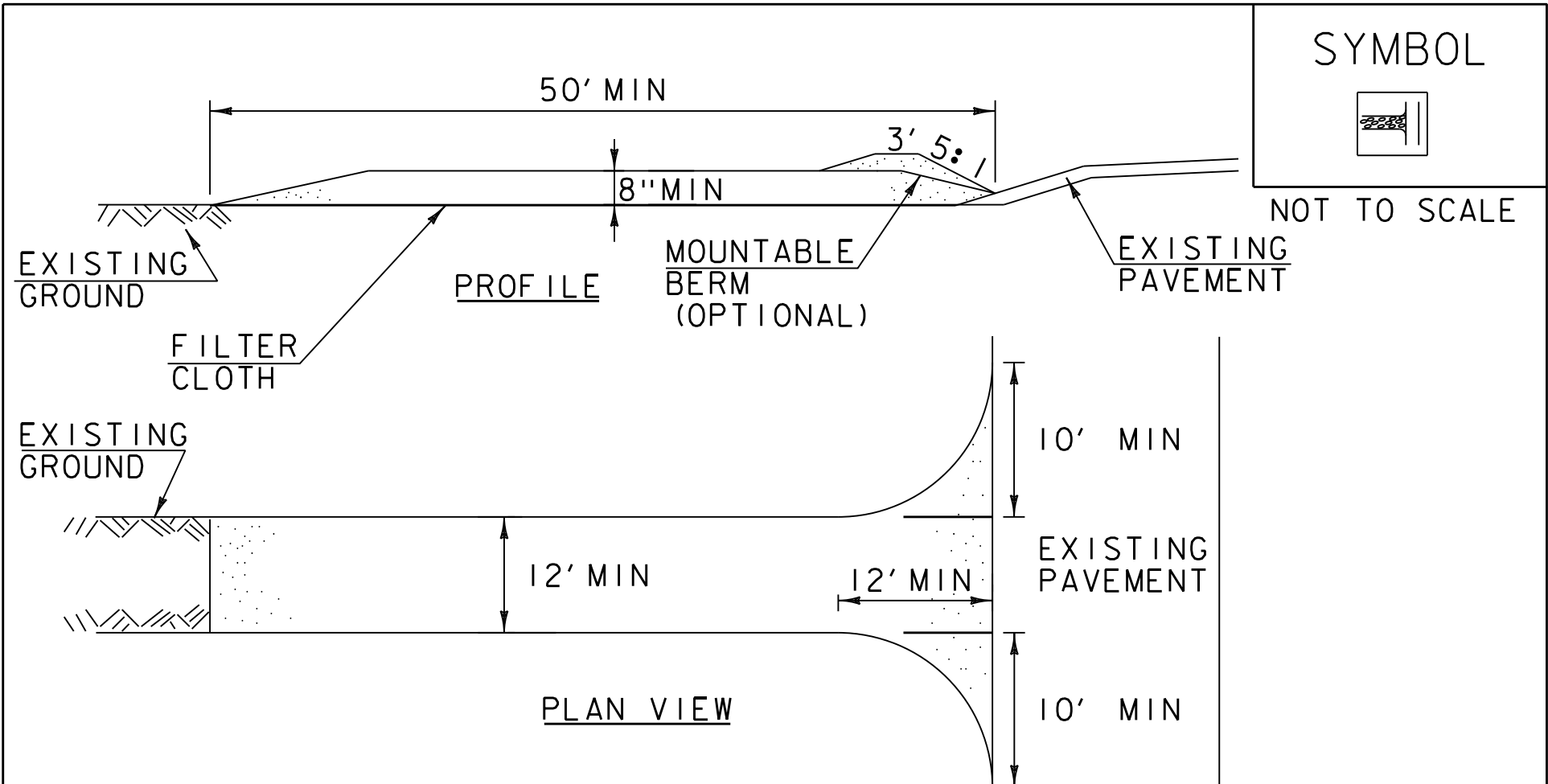
1. SEED MIX: THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER ON WHICH SEED MIX TO USE.
2. SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT 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. 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 STABILIZED CONSTRUCTION ENTRANCE (PAY ITEM 653.35) OR AS SPECIFIED IN THE CONTRACT.

REVISIONS		
MARCH 24, 2008	WHF	
JANUARY 13, 2009	WHF	



PROJECT NAME: KILLINGTON
PROJECT NUMBER: BF 020-2(42)

FILE NAME: z13b260ero_details.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: VTRANS
EROSION CONTROL DETAILS (1 OF 2)

PLOT DATE: 4/27/2020
DRAWN BY: E.F. LAWES
CHECKED BY: K.C. BARRY
SHEET 61 OF 62

