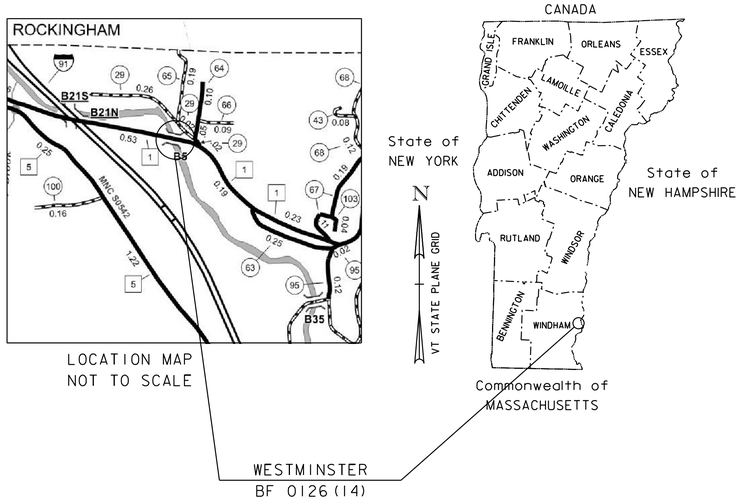
STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

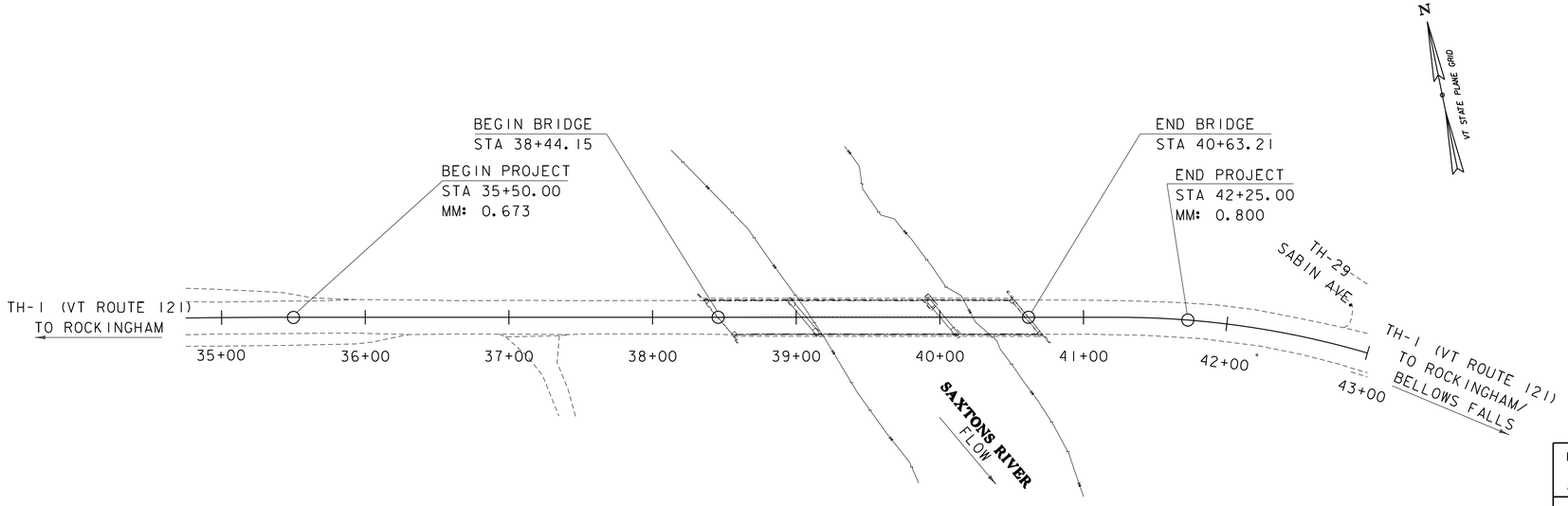
TOWN OF WESTMINSTER
COUNTY OF WINDHAM

ROUTE NO : FAS ROUTE 0126, MAJOR COLLECTOR (TH-1 (STATE NUMBERED TOWN HIGHWAY 121), SAXTONS RIVER RD.) BRIDGE NO: 5

PROJECT LOCATION: LOCATED IN THE TOWN OF WESTMINSTER ON FAS ROUTE 0126, BRIDGE 5 OVER SAXTONS RIVER, APPROXIMATELY 1.5 MILES WEST OF THE JUNCTION WITH US ROUTE 5.

PROJECT DESCRIPTION: REHABILITATION OF THE EXISTING BRIDGE, ALONG WITH RELATED ROADWAY APPROACH WORK.

LENGTH OF STRUCTURE: 219.06 FEET
LENGTH OF ROADWAY: 455.94 FEET
LENGTH OF PROJECT: 675.00 FEET



SCALE 1" = 50'-0"
50 0 50

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	2
SURVEYED BY :	R. GILMAN
SURVEYED DATE :	01/24/2017
DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD 83 (2011)

HIGHWAY DIVISION, CHIEF ENGINEER

APPROVED _____ DATE _____

PROJECT MANAGER : J. B. MCCARTHY

PROJECT NAME : WESTMINSTER
PROJECT NUMBER : BF 0126(14)

SHEET 1 OF 67 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PRELIMINARY INFORMATION SHEET (BRIDGE)

Version
LRFD

INDEX OF SHEETS

PLAN SHEETS

STANDARDS LIST

S-360A	BRIDGE RAILING, GALVANIZED 2 RAIL BOX BEAM	02-15-2023
S-360B	GUARDRAIL APPROACH SECTION, GALVANIZED 2 RAIL BOX BEAM	02-15-2023
S-360C	GUARDRAIL APPROACH SECTION, GALVANIZED 2 RAIL BOX BEAM	02-15-2023
S-363	THRIE-BEAM TO STANDARD STEEL BEAM TRANSITION SECTION	02-15-2023
S-500	CONCRETE DETAILS AND NOTES	02/15/2023
S-501	CONCRETE DETAILS AND NOTES	02/15/2023
S-600	STRUCTURAL STEEL DETAILS AND NOTES	02/15/2023
S-601	STRUCTURAL STEEL PLATE GIRDER DETAILS AND NOTES	02/15/2023
G-1	STEEL BEAM GUARDRAIL DETAILS (POST, DELINEATOR, TYPICALS)	01-04-1900
B-5	SLOPE GRADING, EMBANKMENTS, MUCK	06-01-1994
C-10	CURBING	02-17-2022
D-1	PRECAST REINFORCED CONCRETE DROP INLET DETAILS	06-01-1994
D-16	DRAINAGE DETAILS INCLUDING DROP INLETS, IRON GRATE TYPE B&C, CONC END SECTIONS. ETC.	06-01-1994
G-1D	STEEL BEAM GUARDRAIL DETAILS (END TERMINAL, ANCHOR, MEDIAN)	03-10-2017

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date: 3/3/2021

DRAINAGE AREA : 76.4 square miles
CHARACTER OF TERRAIN : Hilly to mountainous, mostly forested with some open areas
STREAM CHARACTERISTICS : Sinuous with some floodplain access upstream & downstream
NATURE OF STREAMBED : Sand, gravel, cobbles and small boulders

PEAK FLOW DATA - ANNUAL EXCEEDANCE PROBABILITY (AEP)

43% =	2,700 cfs	2% =	7,500 cfs
10% =	4,800 cfs	1% =	8,800 cfs
4% =	6,200 cfs	0.2% =	12,400 cfs

DATE OF FLOOD OF RECORD : 8/28/2011
ESTIMATED DISCHARGE: 21,600 cfs
WATER SURFACE ELEV.: Unknown
NATURAL STREAM VELOCITY : @ 2% AEP = 10.2 fps
ICE CONDITIONS : Unknown
DEBRIS: Unknown
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: 1.6%
HEADWATERS:
UNIFORM: X
IMMEDIATELY ABOVE SITE:

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Riveted two girder (3 span)
YEAR BUILT: 1940
CLEAR SPAN(NORMAL TO STREAM): 166 feet
VERTICAL CLEARANCE ABOVE STREAMBED: 20.7 feet
WATERWAY OF FULL OPENING: 3,632 square feet
DISPOSITION OF STRUCTURE: Superstructure and Pier Replacement
TYPE OF MATERIAL UNDER SUBSTRUCTURE: See Borings

WATER SURFACE ELEVATIONS AT:

43% AEP =	369.8 feet	VELOCITY =	6.0 fps
10% AEP =	361.6 feet	"	8.0 fps
4% AEP =	362.6 feet	"	9.1 fps
2% AEP =	363.5 feet	"	10.0 fps
1% AEP =	364.3 feet	"	10.9 fps

LONG TERM STREAMBED CHANGES: Unknown

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

UPSTREAM STRUCTURE

TOWN: Westminster — DISTANCE: 1,600 feet
HIGHWAY # : I-91 NB & SB — STRUCTURE #: 21N & 21S
CLEAR SPAN: Unknown — CLEAR HEIGHT: Unknown
YEAR BUILT: 1963 — FULL WATERWAY: Unknown
STRUCTURE TYPE: 7 Span rolled beam bridge

DOWNSTRUCTURE STRUCTURE

TOWN: Westminster — DISTANCE: 3,000 feet
HIGHWAY # : TH-25 — STRUCTURE #: 35
CLEAR SPAN: Unknown — CLEAR HEIGHT: Unknown
YEAR BUILT: 1975 (reconstructed 2011) — FULL WATERWAY: Unknown
STRUCTURE TYPE: 2 Span rolled beam bridge

LRFD LOAD RATING FACTORS

LOADING LEVELS	TRUCK						
	H-20	3AT	3S2	4AT	5AT	6AT	HS20
TONNAGE	20	30	36	34.5	38	66	36
INVENTORY	17	65					
POSTING							
OPERATING	109	109	181	143	166	198	51
COMMENTS:							

PROPOSED STRUCTURE

STRUCTURE TYPE: New Multi-Girder Bridge (3 Span)

CLEAR SPAN(NORMAL TO STREAM): 166 feet
VERTICAL CLEARANCE ABOVE STREAMBED: 20.7 feet
WATERWAY OF FULL OPENING: 3,632 square feet

WATER SURFACE ELEVATIONS AT:

43% AEP =	359.7 feet	VELOCITY=	6.4 fps
10% AEP =	361.6 feet	"	8.5 fps
4% AEP =	362.5 feet	"	9.7 fps
2% AEP =	363.3 feet	"	10.7 fps
1% AEP =	364.1 feet	"	11.6 fps

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

BRIDGE LOW CHORD ELEVATION: 372.0 feet
FREEBOARD: @ 2% AEP = 8.4 feet

SCOUR: Pier Scour Depth of 14.0 ft was estimated during the 1% AEP*
REQUIRED CHANNEL PROTECTION: Stone Fill, Type III

PERMIT INFORMATION

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

TEMPORARY BRIDGE REQUIREMENTS

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

ADDITIONAL INFORMATION

*Pier Scour Elevation was estimated to be 336.71 ft. and will be arrested by a revetment.
The top of the revetment will be located at 354.0 ft +/-. See plans for more details.

TRAFFIC MAINTENANCE NOTES

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

DESIGN VALUES

1.	DESIGN LIVE LOAD		HL-93
2.	FUTURE PAVEMENT	d_p:	2.5 INCH
3.	DESIGN SPAN	L:	212.7
4.	MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)	Δ:	- - -
5.	PRESTRESSING STRAND	f_y:	- - -
6.	PRESTRESSED CONCRETE STRENGTH	f'_c:	- - -
7.	PRESTRESSED CONCRETE RELEASE STRENGTH	f'_{ci}:	- - -
8.	HIGH PERFORMANCE CONCRETE, CLASS PCD	f'_c:	4.0 KSI
9.	HIGH PERFORMANCE CONCRETE, CLASS PCS	f'_c:	4.0 KSI
10.	CONCRETE HIGH PERFORMANCE, CLASS SCC	f'_c:	3.5 KSI
11.	CONCRETE, CLASS C	f'_c:	3.0 KSI
12.	REINFORCING STEEL	f_y:	60 KSI
13.	STRUCTURAL STEEL AASHTO M270M/270M GR. 50 (WEATHERING)	f_y:	60 KSI
14.	NOMINAL BEARING RESISTANCE OF SOIL	q_n:	20.5 KSF
15.	SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	- - -
16.	NOMINAL BEARING RESISTANCE OF ROCK	q_n:	22 KSF
17.	ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	- - -
18.	PILE RESISTANCE FACTOR	ϕ:	- - -
19.	LATERAL PILE DEFLECTION	Δ:	- - -
20.	BASIC WIND SPEED	V_{3s}:	- - -
21.	MINIMUM GROUND SNOW LOAD	P_g:	- - -
22.	SEISMIC DATA PGA: 0.12g	S_s:	0.22g
		S_1:	0.07g
23.			
24.			- - -
25.			- - -
26.			- - -

TRAFFIC DATA

YEAR	ADT	DHV	%D	%T	ADDT
2018	2700	360	51	6.6	210
2038	3000	410	51	10.1	350

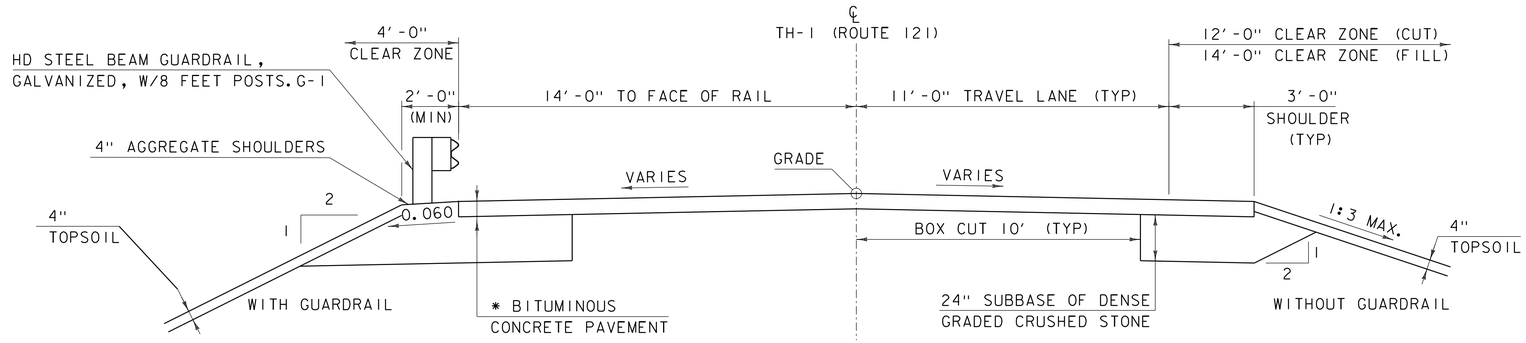
20 year ESAL for flexible pavement from 2018 to 2038 : 836000
40 year ESAL for flexible pavement from 2018 to 2058 : 1976000
Design Speed: 30 mph

AS BUILT "REBAR" DETAIL

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

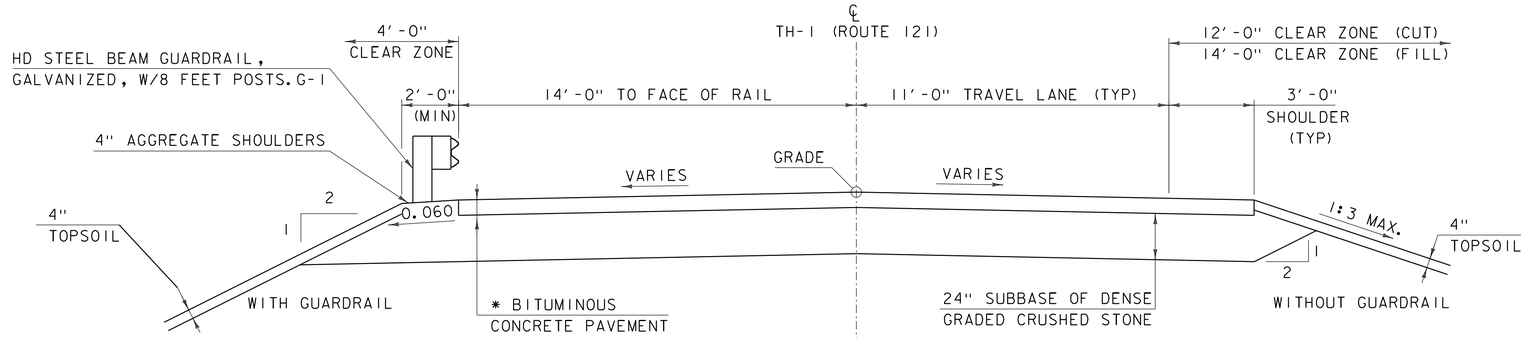
PROJECT NAME: **WESTMINSTER**
PROJECT NUMBER: **BF 0126(14)**

FILE NAME: 12j668/s12j668forms.dgn — PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER — DRAWN BY: C. TRIMBLE
DESIGNED BY: S. BROWN — CHECKED BY: E. STEHLGENS
PRELIMINARY INFORMATION SHEET — SHEET 2 OF 67



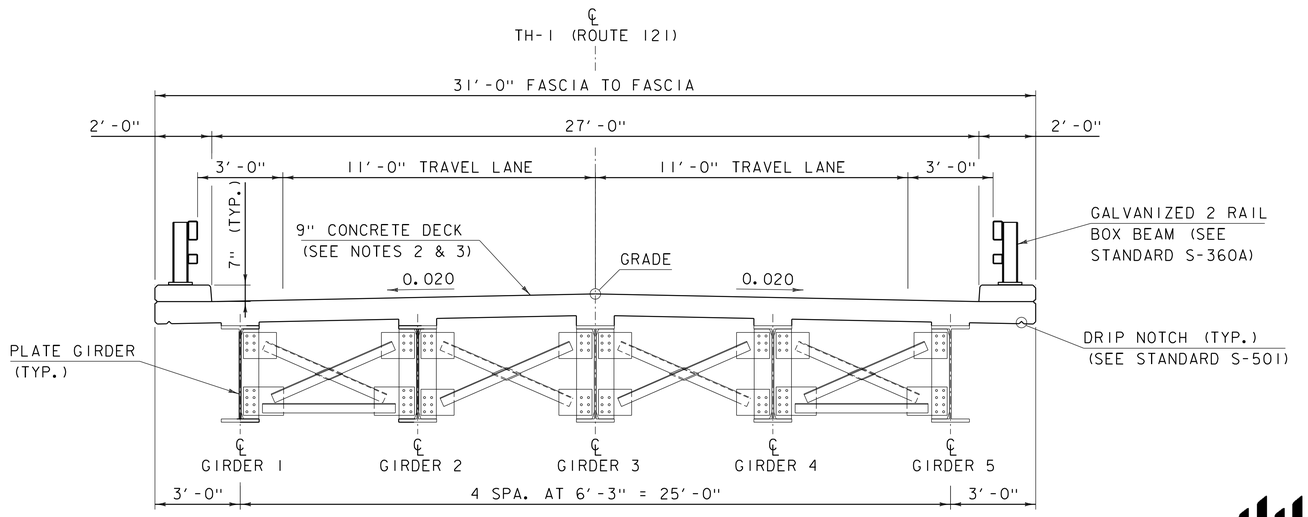
FAS 0126 TYPICAL SECTION

SCALE 3/8" = 1'-0"
STA 35+50.00 - STA 37+94.37
STA 41+12.98 - STA 42+25.00



FAS 0126 TYPICAL SECTION

SCALE 3/8" = 1'-0"
STA 37+94.37 - STA 38+44.15
STA 40+63.21 - STA 41+12.98



TYPICAL SECTION

SCALE 3/8" = 1'-0"

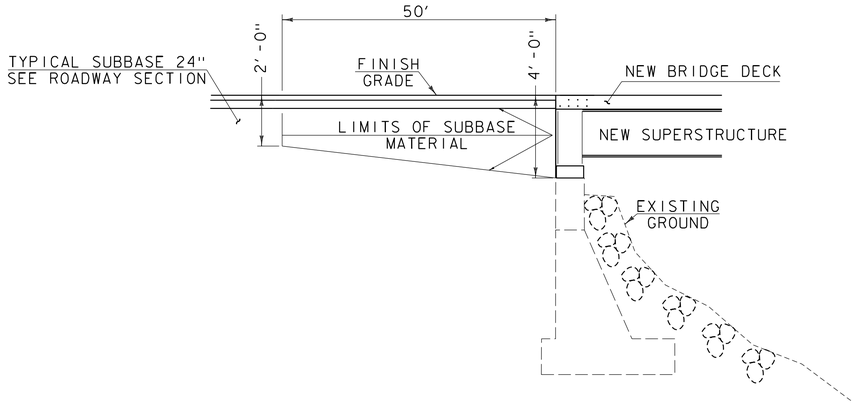
* SUPERPAVE BITUMINOUS CONCRETE PAVEMENT
1 1/2" TYPE IVS OVER
1 1/2" TYPE IVS OVER
3 1/2" TYPE IIS

NOTES:

1. THE GYRATION SPECIFICATION FOR SUPERPAVE BITUMNIOUS CONCRETE SHALL BE 80 AND THE PERFORMANCE GRADE BINDER SHALL BE 70-28.
2. 9.0" INITIAL THICKNESS PERFORMANCE-BASED CONCRETE, CLASS PCD
3. BARE DECK TO BE DIAMOND GROUND TO 8.5" THICKNESS IN ACCORDANCE WITH ITEM 900.670, "SPECIAL PROVISION (CONCRETE BRIDGE DECK SURFACE PREPARATION)."

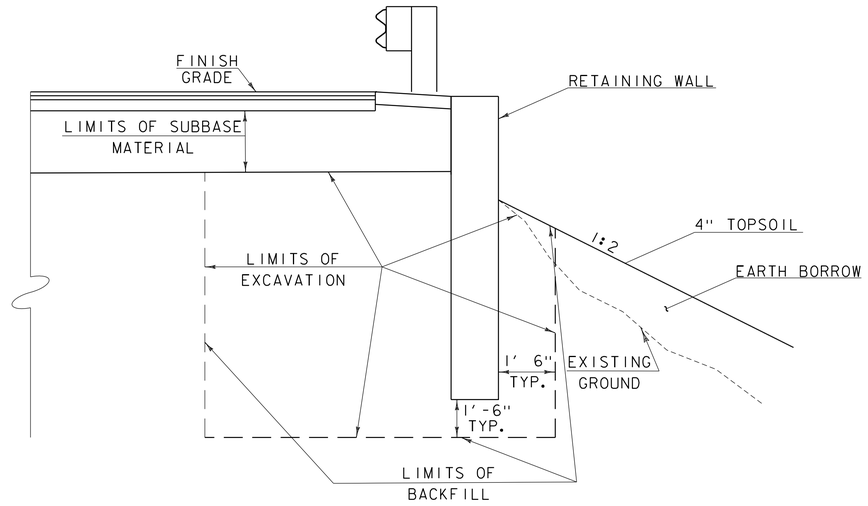
H&H

PROJECT NAME:	WESTMINSTER
PROJECT NUMBER:	BF 0126(14)
FILE NAME: zl2j668typ.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: C. TRIMBLE
DESIGNED BY: C. TRIMBLE	CHECKED BY: E. STEHLGENS
TYPICAL SECTIONS	SHEET 3 OF 67



ABUTMENT EARTHWORK TYPICAL SECTION

(NOT TO SCALE)



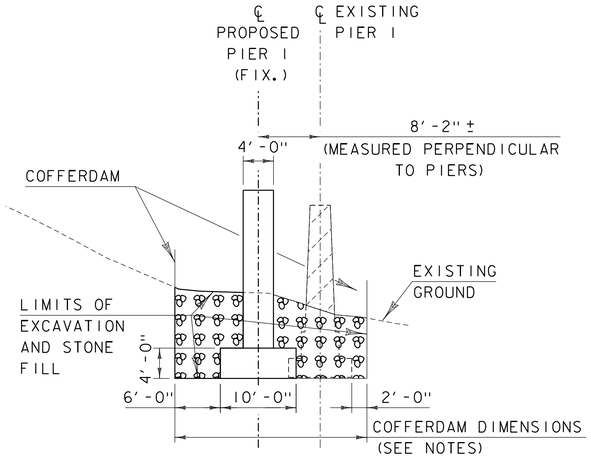
RETAINING WALL TYPICAL SECTION

(NOT TO SCALE)

NOTES:
THE LIMITS OF EXCAVATION AND BACKFILL WILL BE DETERMINED BY THE MANUFACTURER OF THE RETAINING WALL AND PAID UNDER ITEM 900.670 "SPECIAL PROVISION (CONCRETE RETAINING WALL)"

COFFERDAM NOTES:

1. COFFERDAM DIMENSIONS TO BE DETERMINED BY THE CONTRACTOR.
2. THE PAY LIMITS OF THE COFFERDAM EXCAVATION ITEMS FOR THE PIERS SHALL BE A MINIMUM OF 2 FEET OUTSIDE OF THE HORIZONTAL LIMITS OF THE FOOTING OR AS DEFINED IN THE SECTIONS AND TO THE VERTICAL LIMITED DEFINED ON THE PLANS. NO CHANGES TO THESE LIMITS WILL BE MADE FOR ENCOUNTERING OBSTRUCTIONS UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER. ANY EXCAVATION MADE OUTSIDE OF THE IDENTIFIED PAY LIMITS WILL BE MADE AT THE CONTRACTORS EXPENSE.
3. EXCAVATION INSIDE THE COFFERDAMS WILL BE PAID UNDER ITEM 208.30, "COFFERDAM EXCAVATION, EARTH" AND ITEM 208.35, "COFFERDAM EXCAVATION, ROCK" AS APPROPRIATE.
4. IF A COFFERDAM IS CONSTRUCTED WHICH IS LARGER THAN THE INDICATED COFFERDAM EXCAVATION PAY LIMITS, PAYMENT FOR ALL EXCAVATION, INCLUDING THAT PORTION WHICH IS INSIDE THE COFFERDAM BUT OUTSIDE THE COFFERDAM PAY LIMITS, WILL BE MADE AT THE CONTRACT UNIT PRICE FOR "COFFERDAM EXCAVATION, ROCK". NO MEASUREMENT AND PAYMENT WILL BE MADE FOR COFFERDAM EXCAVATION AND FILL OUTSIDE THE PAY LIMITS DEFINED IN NOTE 2.

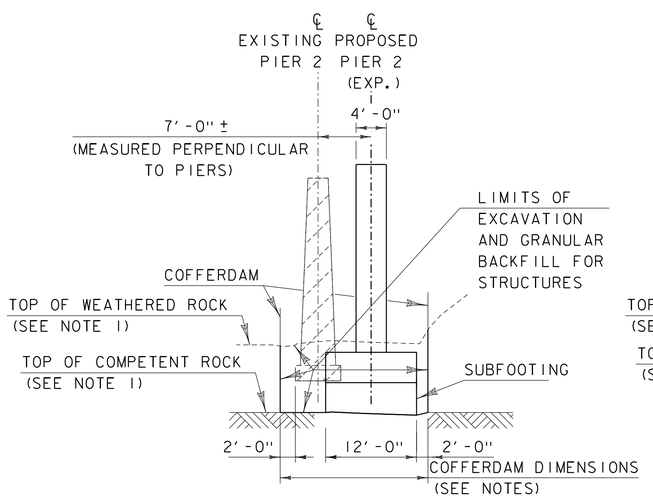


PIER 1 FOOTING SECTION

(LOOKING UPSTREAM)

SCALE 1" = 10'-0"

10 0 10

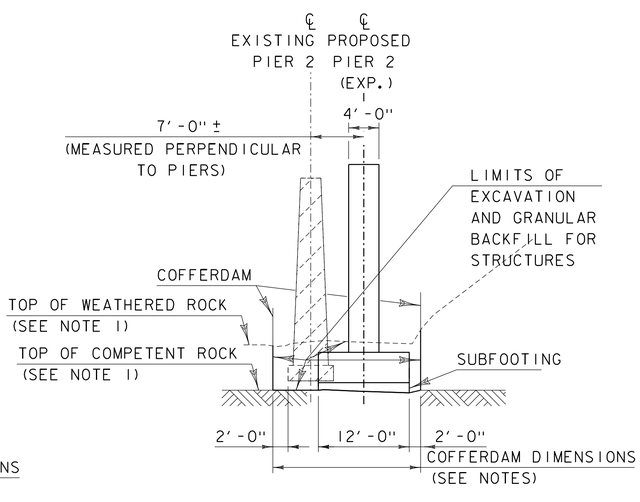


PIER 2 FOOTING DOWNSTREAM SECTION

(LOOKING UPSTREAM)

SCALE 1" = 10'-0"

10 0 10



PIER 2 FOOTING UPSTREAM SECTION

(LOOKING UPSTREAM)

SCALE 1" = 10'-0"

10 0 10

H&H

PROJECT NAME:	WESTMINSTER
PROJECT NUMBER:	BF 0126(14)
FILE NAME: zl2j668xs.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: C. TRIMBLE
DESIGNED BY: S. BROWN	CHECKED BY: C. BAKER
EARTHWORK TYPICAL SECTIONS	SHEET 4 OF 67

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT AGENCY OF TRANSPORTATION, 2018 STANDARD SPECIFICATION FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 17TH EDITION UNLESS NOTED OTHERWISE.

2. THE DESIGN LIVE LOAD SHALL BE HL-93.

3. ANY REQUIRED SAW CUT OF THE EXISTING PAVEMENT WILL BE CONSIDERED INCIDENTAL TO COMMON EXCAVATION.

4. ALL WORK AND ANY ASSOCIATED ACTIVITY ON THIS PROJECT SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY LIMITS.

5. DIMENSIONS SHOWN FOR EXISTING DETAILS ARE TAKEN FROM THE REFERENCE PLANS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND DETAILS NECESSARY FOR THE COMPLETION OF ALL WORK BY FIELD MEASUREMENTS ON THE EXISTING STRUCTURE. FOR EMPHASIS, SOME PROPOSED DIMENSIONS ARE NOTED AS "VERIFY IN FIELD" OR "VIF". THIS IS DONE FOR EMPHASIS ONLY AND DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND DETAILS AS NOTED PREVIOUSLY. REFERENCE PLANS CIRCA 1940 ARE STATIONED OPPOSITE OF THESE PLANS. SUBSTRUCTURE ELEMENTS AND NUMBERING ARE IN REVERSE ORDER FROM THESE PLANS.

6. ITEM 529.20, "PARTIAL REMOVAL OF STRUCTURE" SHALL INCLUDE ALL REMOVAL AND DISASSEMBLY OF THE EXISTING STRUCTURES AS NECESSARY TO COMPLETE THE PROPOSED WORK, UNLESS NOTED OTHERWISE. THE FOLLOWING LIST IDENTIFIES THE MAJOR ITEMS OF WORK TO BE REMOVED UNDER ITEM 529.20:

    A. REMOVAL OF BRIDGE RAIL, BRIDGE PAVEMENT, CONCRETE DECK, EXPANSION JOINTS, SUPERSTRUCTURE STEEL, AND BEARINGS.
    B. REMOVAL OF THE ABUTMENT BACKWALLS TO THE LIMITS SHOWN AND REMOVAL OF THE ENTIRE EXISTING PIERS INCLUDING FOOTINGS.

TRAFFIC CONTROL

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF A SITE-SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION. THE PLAN SHALL CLEARLY DETAIL HOW TRAFFIC WILL BE MAINTAINED. THE PLAN SHALL SPECIFY ALL CONSTRUCTION ACTIVITIES REQUIRING ALTERNATING ONE-WAY TRAFFIC, RELATE THOSE ACTIVITIES TO THE CONSTRUCTION SCHEDULE, AND SHOW APPROPRIATE TEMPORARY TRAFFIC CONTROL. ALL COSTS WILL BE INCLUDED IN ITEM 641.11 "TRAFFIC CONTROL, ALL-INCLUSIVE".

2. DETOUR SIGNS SHOWN ON THE DETOUR ROUTE AND DETOUR ROUTE SIGNS SHEETS HAVE BEEN PRE-PURCHASED BY VTRANS. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO ACQUIRE THESE SIGNS. SEVERAL PRE-PURCHASED SIGNS HAVE ALREADY BEEN INSTALLED. THE CONTRACTOR AND ENGINEER SHALL JOINTLY INSPECT ALL PREVIOUSLY INSTALLED SIGNS FOR SUITABILITY FOR CONTINUED USE. ANY DAMAGED SIGNS SHALL BE REPLACED. COST TO INSTALL, MAINTAIN, INSPECT, REPLACE, AND REMOVE THE PRE-PURCHASED SIGNS TO BE INCLUDED IN ITEM 641.11 "TRAFFIC CONTROL, ALL INCLUSIVE".

STRUCTURAL STEEL

1. EXISTING STRUCTURAL STEEL PAINT MAY CONTAIN LEAD. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE REGULATIONS WHEN HANDLING AND WORKING WITH THIS STEEL. ANY REMOVED STRUCTURAL STEEL SHALL BECOME 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.

2. UNLESS OTHERWISE NOTED, ALL NEW STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270 GRADE 50W AND SHALL BE PAID FOR UNDER ITEM 506.55, "STRUCTURAL STEEL, PLATE GIRDER".

3. ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" DIAMETER HIGH-STRENGTH BOLTS IN 15/16 " DIAMETER HOLES, PER SUBSECTION 506.19 OF THE STANDARD SPECIFICATIONS, UNLESS OTHERWISE SPECIFIED.

4. STRUCTURAL STEEL MEMBERS DESIGNATED "CVN" IN THE PLANS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH SUBSECTION 714.01 OF THE STANDARD SPECIFICATIONS.

5. FLEMING BRACKETS OR SIMILAR FALSEWORK SHALL BE SPACED AS REQUIRED BY DESIGN BUT SHALL BE LIMITED TO A MAXIMUM SPACING OF 4FT. THE DESIGN OF THE FALSEWORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

6. FLEMING BRACKETS SHALL EXTEND AS NEAR AS POSSIBLE TO THE BOTTOM FLANGE, BUT IN NO CASE SHALL THE FLEMING BRACKET DEPTH BE LESS THAN 3/4 OF THE WEB DEPTH.

7. AFTER THE GIRDERS HAVE BEEN ERECTED, ELEVATIONS ALONG THE TOP OF THE GIRDERS SHALL BE TAKEN AT 5FT INTERVALS FOR USE IN DETERMINING HAUNCH DEPTHS.

8. THE FAYING SURFACES ON ALL CONNECTION SURFACES SHALL BE PREPARED AS CLASS "B".

9. BEARING STIFFENERS SHALL BE PLUMB AFTER ERECTION AND DEAD LOADING OF STRUCTURE. INTERMEDIATE CONNECTION PLATES MAY EITHER BE ALL PLUMB OR ALL NORMAL TO THE TOP FLANGE.

10. STRUCTURAL STEEL SHALL BE DETAILED AND FABRICATED FOR TOTAL DEAD LOAD FIT.

REINFORCED CONCRETE

1. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" X 1".

2. CAST-IN-PLACE CONCRETE FOR THE DECK, CURBS, AND THE ABUTMENTS AND WINGWALLS ABOVE THE BRIDGE SEAT SHALL CONFORM TO ITEM 900.608, "SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCD)". CONCRETE FOR THE PIERS AND ABUTMENTS BELOW THE BRIDGE SEAT ELEVATION SHALL CONFORM TO ITEM 900.608, "SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCS)". CONCRETE SUBFOOTINGS SHALL CONFORM TO ITEM 541.30, "CONCRETE, CLASS C".

3. WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED SURFACES OF CONCRETE EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES. THIS WORK WILL BE PAID FOR UNDER ITEM 514.10, "WATER REPELLENT, SILANE".

4. THE DECK SHALL BE CAST TO AN INITIAL THICKNESS OF 9.0 INCHES. AFTER THE DECK HAS CURED AND THE BRIDGE RAIL IS INSTALLED THE ENTIRE BRIDGE DECK SURFACE SHALL BE DIAMOND GROUND A NOMINAL 0.5 INCH FOR A RESULTING DECK THICKNESS OF 8.5 INCHES. PAYMENT WILL BE MADE UNDER ITEM 900.670, "SPECIAL PROVISION (CONCRETE BRIDGE DECK SURFACE PREPARATION)".

5. REINFORCING STEEL IN THE ABUTMENT BACKWALLS, PIER FOOTINGS AND PIER STEMS SHALL CONFORM TO ITEM 507.11, "REINFORCING STEEL, LEVEL I". REINFORCING STEEL IN THE DECK, ABUTMENT PEDESTALS, AND PIER PEDESTALS SHALL CONFORM TO ITEM 507.12, "REINFORCING STEEL, LEVEL II".

6. BEARING PEDESTAL SURFACES SHALL BE LEVEL AND SMOOTH STEEL TROWEL FINISHED.

7. BEARING ANCHOR BOLTS AT PIERS SHALL BE SET BY TEMPLATE BEFORE CONCRETE IS PLACED. NO DRILLING WILL BE ALLOWED. ALL COSTS ASSOCIATED WITH THIS SHALL BE INCLUDED UNDER ITEM 531.15, "BEARING DEVICE ASSEMBLY, HIGH LOAD MULTI-ROTATIONAL".

EROSION PREVENTION AND SEDIMENT CONTROL

1. THE CONTRACTOR SHALL PROVIDE EROSION PREVENTION AND SEDIMENT CONTROL IN ACCORDANCE WITH SUBSECTIONS 105.23 THROUGH 105.29 OF THE STANDARD SPECIFICATIONS.

2. THE EXISTING CONDITIONS SHEETS HAVE BEEN INCLUDED FOR THE CONTRACTOR TO USE FOR SUBMITTALS.

PIERS

1. FOOTINGS, SUBFOOTINGS, AND/OR FOUNDATION SEALS FOR SUBSTRUCTURES FOUNDED ON BEDROCK SHALL BE PLACED ON CLEAN COMPETENT ROCK. ALL LOOSE ROCK AND DEBRIS SHALL BE REMOVED.

2. THE LOCATION OF BEDROCK SHOWN IN THE PLANS IS SUBJECT TO THE LIMITATIONS OF THE METHODS USED TO INVESTIGATE SUBSURFACE CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING ACTUAL ELEVATIONS.

3. UPON COMPLETION OF EXCAVATION FOR SUBSTRUCTURES FOUNDED ON BEDROCK AND PRIOR TO PLACING FORMWORK, THE CONTRACTOR SHALL NOTIFY THE ENGINEER THAT THEY INTEND TO BEGIN FORMING FOR FOUNDATIONS. THE ENGINEER WILL NOTIFY THE PROJECT MANAGER AND THE VTRANS STATE GEOLOGIST. THE GEOLOGIST WILL DETERMINE IF THE BEDROCK IS COMPETENT TO OBTAIN THE REQUIRED NOMINAL BEARING RESISTANCE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 72 HOURS PRIOR TO WHEN THE ANALYSIS WILL BE NEEDED. THE CONTRACTOR IS INFORMED THAT EXCAVATION LIMITS WILL NOT BE CONSIDERED FINAL UNTIL THE ENGINEER AND STATE GEOLOGIST DETERMINE THAT BEDROCK IS SOUND.

4. AFTER BEDROCK HAS BEEN EXPOSED AND DETERMINED COMPETENT BY GEOLOGIST, IF ELEVATIONS VARY FROM THE ELEVATIONS SHOWN IN THE PLANS, ADJUSTMENTS TO THE FOOTING ELEVATIONS MAY BE DESIRABLE TO MINIMIZE BEDROCK REMOVAL AND/OR REDUCE SUBFOOTING CONCRETE QUANTITIES. IF THE ACTUAL SITE CONDITIONS ENCOUNTERED REQUIRE LOWERING THE TOP OF FOOTING ELEVATION BY 2-FEET OR MORE, CONTACT THE PROJECT MANAGER IMMEDIATELY TO INQUIRE ABOUT REDESIGN OF THE FOUNDATION. THE CONTRACTOR SHOULD EXPECT THAT A DESIGN CHANGE MAY TAKE UP TO FIVE BUSINESS DAYS TO PROCESS AND PLAN CONSTRUCTION ACTIVITIES ACCORDINGLY.

5. ALL OVERBREAKAGE BEYOND ALLOWANCE SPECIFIED PER SUBSECTION 204.06(B)(1) OF THE STANDARD SPECIFICATIONS SHALL BE REPLACED WITH COMPETENT CONCRETE AT THE CONTRACTOR'S EXPENSE.

6. ANY EXPOSED SUBFOOTING FACES EXCEEDING 5 FEET IN HEIGHT SHALL BE REINFORCED WITH #5 REINFORCING STEEL BARS SPACED AT 12 INCHES EACH WAY. AN ESTIMATED QUANTITY FOR THESE BARS HAS BEEN INCLUDED IN ITEM 507.11, "REINFORCING STEEL, LEVEL I".

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: zl2j668notes.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
PROJECT NOTES

PLOT DATE: 3/12/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES			TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
1011 - ROADWAY	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
1				1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10				
1000				1000		CY	COMMON EXCAVATION	203.15				
283				283		CY	EARTH BORROW	203.30				
1				1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22				
		20		20		CY	STRUCTURE EXCAVATION	204.25				
		85		85		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30				
		600		600		CY	COFFERDAM EXCAVATION, EARTH	208.30				
		205		205		CY	COFFERDAM EXCAVATION, ROCK	208.35				
		1		1		LS	COFFERDAM (PIER 1)	208.40				
		1		1		LS	COFFERDAM (PIER 2)	208.40				
360				360		SY	COARSE-MILLING, BITUMINOUS PAVEMENT	210.10				
776				776		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35				
5				5		CY	AGGREGATE SURFACE COURSE	401.10				
50				50		TON	AGGREGATE SHOULDERS	402.12				
169				169		CWT	EMULSIFIED ASPHALT	404.65				
20				20		SY	HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES	406.38				
1				1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50				
		309700		309700		LB	STRUCTURAL STEEL, PLATE GIRDER	506.55				
		48850		48850		LB	REINFORCING STEEL, LEVEL I	507.11				
		1650		1650		LB	REINFORCING STEEL, LEVEL II	507.12				
		10		10		LF	DRILLING AND GROUTING DOWELS	507.16				
		1		1		LS	SHEAR CONNECTORS (3423 - 7/8 X 7)	508.15				
		45		45		GAL	WATER REPELLENT, SILANE	514.10				
		432		432		LF	BRIDGE RAILING, GALVANIZED 2 RAIL BOX BEAM	525.33				
		1		1		EACH	PARTIAL REMOVAL OF STRUCTURE	529.20				
		14		14		EACH	BEARING DEVICE ASSEMBLY, HIGH LOAD MULTI-ROTATIONAL	531.15				
		78		78		CY	CONCRETE, CLASS C	541.30				
11				11		LF	18" CPEP	601.0915				
1				1		EACH	PRECAST REINFORCED CONCRETE DROP INLET WITH CAST IRON GRATE	604.18				
1				1		CY	STONE FILL, TYPE I	613.10				
19				19		CY	STONE FILL, TYPE II	613.11				
220				220		LF	TREATED TIMBER CURB	616.35				
1				1		EACH	REMOVE AND RESET MAILBOX, SINGLE SUPPORT	617.10				
567				567		LF	HD STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS	621.215				
4				4		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60				
4				4		EACH	GUARDRAIL APPROACH SECTION, GALVANIZED 2 RAIL BOX BEAM	621.72				
620				620		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80				
40				40		HR	UNIFORMED TRAFFIC OFFICERS	630.10				
160				160		HR	FLAGGERS	630.15				
			1	1		LS	FIELD OFFICE, ENGINEERS	631.10				

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668quantity_sheets.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
QUANTITY SHEET 1

PLOT DATE: 3/12/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: S. BROWN

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES			TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
1011 - ROADWAY	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
			1	1		LS	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				
16				16		EACH	CPM SCHEDULE	633.10				
1				1		LS	MOBILIZATION/DEMOBILIZATION	635.11				
1				1		LS	TRAFFIC CONTROL, ALL-INCLUSIVE	641.11				
6				6		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15				
1550				1550		LF	DURABLE 4 INCH WHITE LINE, EPOXY PAINT	646.403				
1550				1550		LF	DURABLE 4 INCH YELLOW LINE, EPOXY PAINT	646.413				
	25			25		LB	SEED	651.15				
	150			150		LB	FERTILIZER	651.18				
	1			1		TON	AGRICULTURAL LIMESTONE	651.20				
	150			150		CY	TOPSOIL	651.35				
	1			1		LS	EPSC PLAN	653.01				
	40			40		HR	MONITORING EPSC PLAN	653.02				
	1			1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	653.03				
	1			1		TON	HAY MULCH	653.10				
	910			910		SY	ROLLED EROSION CONTROL PRODUCT, TYPE I	653.20				
	70			70		CY	STABILIZED CONSTRUCTION ENTRANCE	653.35				
	1			1		EACH	FILTER BAG	653.45				
	1400			1400		LF	SILT FENCE, TYPE I	653.475				
	1550			1550		LF	BARRIER FENCE	653.50				
2				2		EACH	REMOVING SIGNS	675.50				
2				2		EACH	RESETTING SIGNS	675.60				
		210		210		CY	SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCD)	900.608				
		432		432		CY	SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCS)	900.608				
460				460		CY	SPECIAL PROVISION (E-STONE FILL, TYPE II)	900.608				
		75770		75770		LB	SPECIAL PROVISION (REINFORCING STEEL - VTRANS-PROVIDED)	900.635				
		82		82		LF	SPECIAL PROVISION (BRIDGE EXPANSION JOINT, STRIP SEAL)	900.640				
1				1		LU	SPECIAL PROVISION (MAT DENSITY PAY ADJUSTMENT, SMALL QUANTITY (N.A.B.I.))	900.650				
1				1		LU	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT (N.A.B.I.))	900.650				
		130		130		SF	SPECIAL PROVISION (PRECAST CONCRETE RETAINING WALL)	900.670				
		5650		5650		SF	SPECIAL PROVISION (CONCRETE BRIDGE DECK SURFACE PREPARATION)	900.670				
610				610		TON	SPECIAL PROVISION (BITUMINIUS CONCRETE PAVEMENT, SMALL QUANTITY)	900.680				

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668quantity_sheets.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
QUANTITY SHEET 2

PLOT DATE: 3/12/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: S. BROWN
SHEET 7 OF 67

GENERAL INFORMATION

SYMBOLOGY LEGEND NOTE

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

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

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

COMMON TOPOGRAPHIC POINT SYMBOLS

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

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

PROPOSED GEOMETRY CODES

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

UTILITY SYMBOLOGY

UNDERGROUND UTILITIES

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

ABOVE GROUND UTILITIES (AERIAL)

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

PROJECT CONSTRUCTION SYMBOLOGY

PROJECT DESIGN & LAYOUT SYMBOLOGY

- CZ — CLEAR ZONE
- PLAN LAYOUT MATCHLINE

PROJECT CONSTRUCTION FEATURES

- TOP OF CUT SLOPE
- TOE OF FILL SLOPE
- STONE FILL
- BOTTOM OF DITCH ℄
- CULVERT PROPOSED
- STRUCTURE SUBSURFACE
- PROJECT DEMARCATION FENCE
- BARRIER FENCE
- TREE PROTECTION ZONE (TPZ)
- STRIPING LINE REMOVAL
- SHEET PILES

CONVENTIONAL BOUNDARY SYMBOLOGY

BOUNDARY LINES

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

EPSC LAYOUT PLAN SYMBOLOGY

EPSC MEASURES

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

SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLOGY

ENVIRONMENTAL RESOURCES

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

ARCHEOLOGICAL & HISTORIC

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

CONVENTIONAL TOPOGRAPHIC SYMBOLOGY

EXISTING FEATURES

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

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668symlegend.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: VTRANS
CONVENTIONAL SYMBOLOGY LEGEND

PLOT DATE: 3/6/2024
DRAWN BY: VTRANS
CHECKED BY: VTRANS
SHEET 8 OF 67

NETWORK CONTROL

__191_EXIT_5_AZ_MK___
NORTH = 212899.5900
EAST = 1650764.2200
ELEV. = __434.080___

GENERAL LOCATION, WESTMINSTER, VT.
THE MARK IS SET IN THE INTERSTATE 91 MEDIAN AT MILE MARKER 28.05; ABOUT 0.5 MILES SOUTH OF THE I-91 BRIDGES OVER WESTMINSTER STREET AT EXIT 5. IT IS SET 0.2 M BELOWGROUND SURFACE IN THE TOP OF A 0.8 M X 0.6 M ROCK OUTCROP. IT IS 3.5 M SOUTHEAST OF AND ABOUTO.5 M LOWER THAN THE I-91 SOUTHBOUND SOUTHEAST EDGE OF PAVEMENT, 9.3 M NORTHWEST OF THE I-91 NORTHBOUND NORTHWEST EDGE OF PAVEMENT, AND 2.0 M NORTHWEST OF A FIBERGLASS WITNESS POST.

_____191_EXIT_5_____
NORTH = 215738.0400
EAST = 1652161.3900
ELEV. = __422.870___

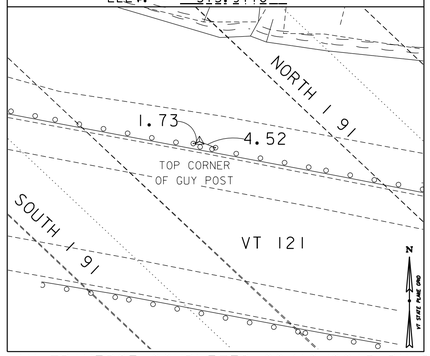
GENERAL LOCATION, WESTMINSTER, VT.
LOCATED IN THE TRIANGLE FORMED BY THE I 91 SB LANE, THE I 91 SB OFF-RAMP, AND THE I-91 ACCESS ROAD TO US ROUTE 5 AT EXIT 5. IT IS 4.9 M NW OF AND ABOUT 0.8 M LOWER THAN THE NORTHWEST EDGE OF PAVEMENT OF THE SB LANE, 10.3 M SE OF THE SOUTHEAST EDGE OF PAVEMENT OF THE OFF-RAMP, 14.2 M WSW OF THE NORTHEAST END OF THE METAL GUARD RAIL POST, 23.5 M NNE OF MILE MARKER 28.65, 34.9 M ENE OF A WRONG WAY SIGN FOR THE OFF-RAMP, AND 4.5 M NW OF A FIBERGLASS WITNESS.

HVCTRL_#3_____
SAXTON_____
NORTH_=227024.3500__
EAST__=_1649716.4800
ELEV._=_371.7600____

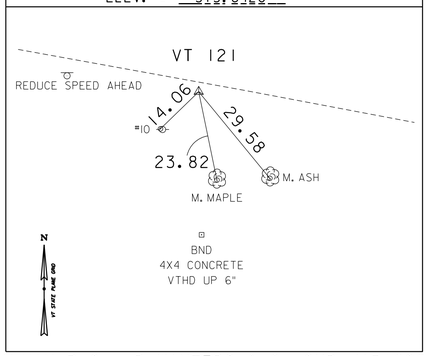
GENERAL LOCATION WESTMINSTER, VT.
TO REACH FROM THE I-91 NORTHBOUND BRIDGE OVER VT ROUTE 121 GO SOUTHEAST ALONG VT ROUTE 121 FOR 0.15 MI TO THE SITE OF THE MARK ON THE LEFT. THE MARK IS SET 12 CM BELOW GROUND SURFACE IN THE TOP OF A FENO-STYLE MONUMENT. IT IS 7.3 M (24.0 FT) NORTHEAST OF AND 0.1 M (0.3 FT) LOWER THAN THE CENTER LINE OF VT ROUTE 121, 20.4 M (66.9 FT) EAST OF POLE NO 9 AND 0.1 M 0.3 FT) SOUTHWEST OF A FIBERGLASS WITNESS POST.

LOCAL CONTROL

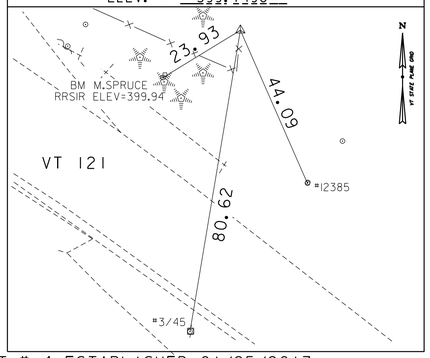
HVCTRL #51
NORTH = 227161.3015
EAST = 1648982.1907
ELEV. = __375.9110__



HVCTRL #52
NORTH = 227028.4495
EAST = 1649437.0057
ELEV. = __375.6420__



HVCTRL #4
NORTH = 226784.5312
EAST = 1650729.2630
ELEV. = __399.7490__



HVCTRL
NORTH = _____
EAST = _____
ELEV. = _____

_____
NORTH = _____
EAST = _____
ELEV. = _____

*MAIN TRAVERSE COMPLETED 09/16/2015 BY R.GILMAN P.C., P.WINTERS & C. CYR (13A098) PT # 4 ESTABLISHED 01/25/2017

LOCAL CONTROL

_____
NORTH = _____
EAST = _____
ELEV. =

HVCTRL #_____
NORTH = _____
EAST = _____
ELEV. = _____

HVCTRL #_____
NORTH = _____
EAST = _____
ELEV. = _____

HVCTRL #_____
NORTH = _____
EAST = _____
ELEV. = _____

HVCTRL #_____
NORTH = _____
EAST = _____
ELEV. = _____

DATUM
VERTICAL __NAVD88__
HORIZONTAL NAD83(2011)
ADJUSTMENT ___NONE___

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: Z12J668
PROJECT LEADER: C. BAKER
DESIGNED BY: VTRANS
SURVEY TIE SHEET

PLOT DATE: 3/6/2024
DRAWN BY: VTRANS
CHECKED BY: VTRANS
SHEET 9 OF 70

REMOVAL AND DISPOSAL OF GUARDRAIL
STA 35+69.4 - STA 38+00.0 LT
STA 37+40.7 - STA 38+00.0 RT

HD STEEL BEAM GUARDRAIL, GALVANIZED (W/8' POST)
STA 35+66.7 - STA 38+00.0 LT
STA 37+44.0 - STA 38+00.0 RT

ANCHOR FOR STEEL BEAM RAIL
STA 35+65.1 LT
STA 37+38.9 RT

5 FT PAVED APRON
HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES
3" AGGREGATE SURFACE COURSE
12" SUBBASE DG. CRUSHED STONE
STA 37+26.00 RT

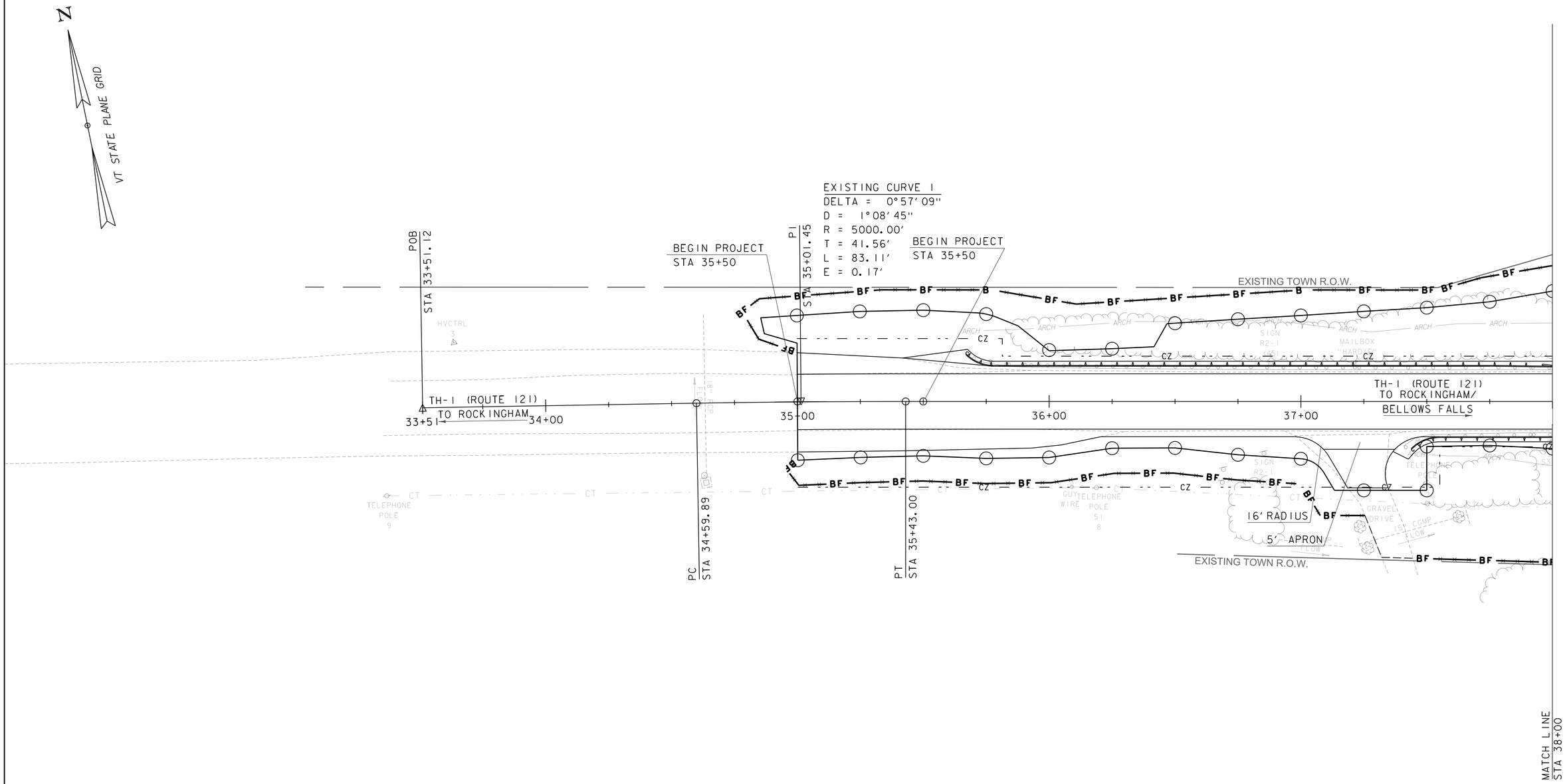
COARSE MILLING, BITUMNIOUS CONCRETE PAVMENT
STA 35+00 - STA 35+50

DURABLE 4 INCH WHITE LINE
STA 35+00 - STA 38+00

DURABLE 4 INCH YELLOW LINE
STA 35+00 - STA 38+00

REMOVE AND RESET MAILBOX, SINGLE SUPPORT
STA 37+22 LT

REMOVING SIGNS
RESETTING SIGNS
STA 36+88 LT



LAYOUT

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

PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668border.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: T. MARQUETTE
DESIGNED BY: K. HO	CHECKED BY: C. JENNE
LAYOUT SHEET 1	SHEET 10 OF 67

REMOVAL AND DISPOSAL OF GUARDRAIL
STA 38+00.0 - STA 38+35.0 LT
STA 38+00.0 - STA 38+55.0 RT
STA 40+51.8 - STA 40+94.9 LT
STA 40+71.9 - STA 42+68.2 RT

DURABLE 4 INCH WHITE LINE
STA 38+00 - STA 42+75

DURABLE 4 INCH YELLOW LINE
STA 38+00 - STA 42+75

HD STEEL BEAM GUARDRAIL, GALVANIZED (W/8' POST)
STA 38+00.0 - STA 38+04.8 LT
STA 38+00.0 - STA 38+28.6 RT
STA 40+78.8 - STA 41+26.6 LT
STA 41+02.5 - STA 42+98.9 RT

TREATED TIMBER CURB
STA 40+71.86 - STA 42+86.47 RT

ANCHOR FOR STEEL BEAM RAIL
STA 41+26.2 LT
STA 42+98.5 RT

GUARDRAIL APPROACH SECTION, GALVANIZED 2 RAIL BOX BEAM
STA 38+04.8 - STA 38+34.0 LT
STA 38+28.6 - STA 38+57.8 RT
STA 40+49.6 - STA 40+78.8 LT
STA 40+73.4 - STA 41+02.5 RT

BRIDGE RAILING, GALVANIZED 2 RAIL BOX BEAM
STA 38+34.0 - STA 40+49.6 LT
STA 38+57.8 - STA 40+73.4 RT

COARSE MILLING, BITUMNIOUS CONCRETE PAVMENT
STA 42+25 - STA 42+75

PRECAST REINFORCED CONCRETE DROP INLET WITH CAST IRON GRATE
STA 41+25 RT

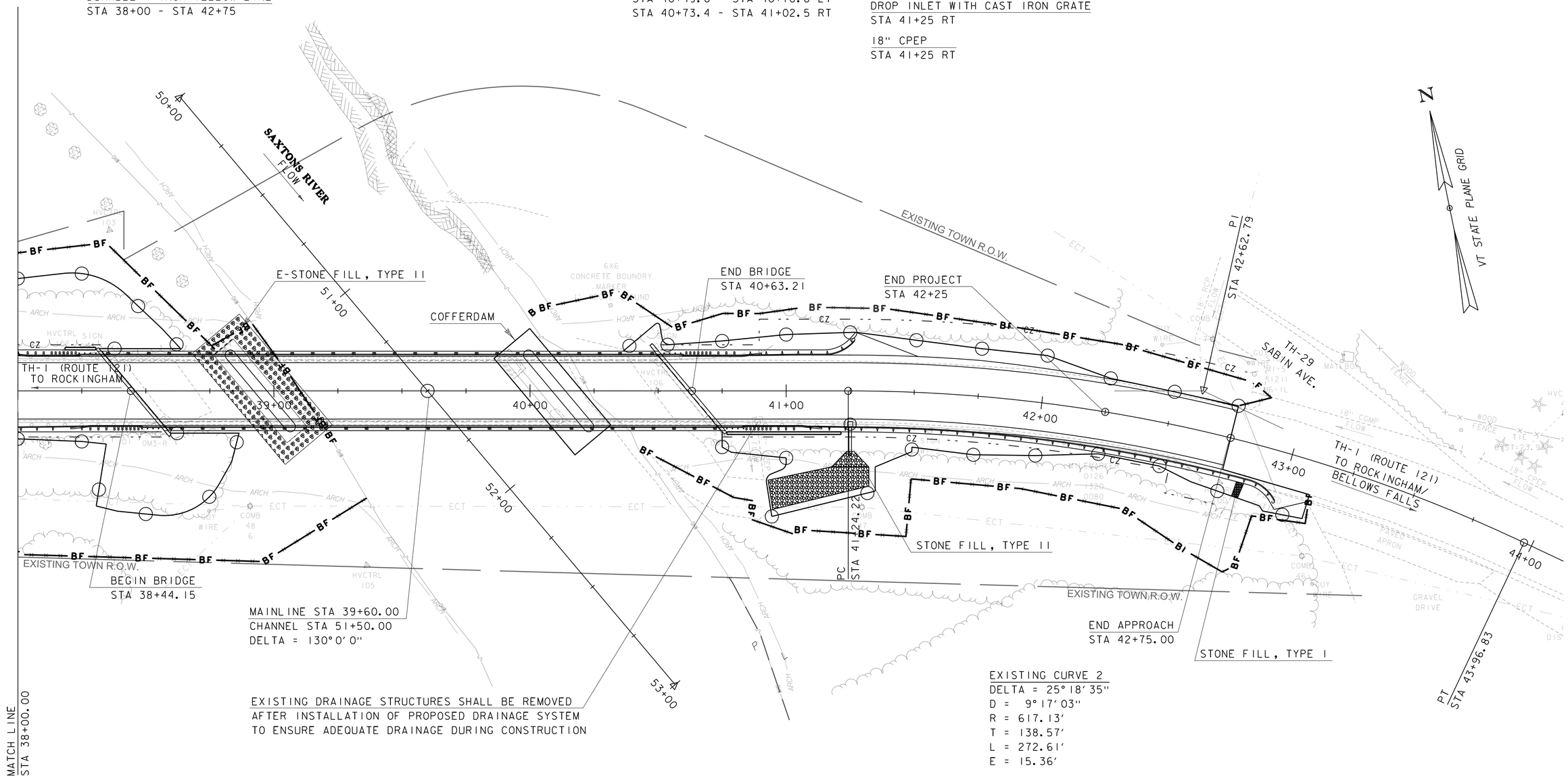
18" CPEP
STA 41+25 RT

SPECIAL PROVISION (PRECAST CONCRETE RETAINING WALL)
STA 38+19 - STA 38+31 LT
STA 40+76 - STA 41+21 RT

E-STONE FILL, TYPE II
CHANNEL STA 50+80.0 - STA 51+36.2,
RT 36.9' - RT 60.9'

STONE FILL, TYPE I
STA 42+82 RT - STA 42+85 RT

STONE FILL, TYPE II
STA 40+93 RT - STA 41+32 RT
STA 41+18 RT - STA 41+32 RT



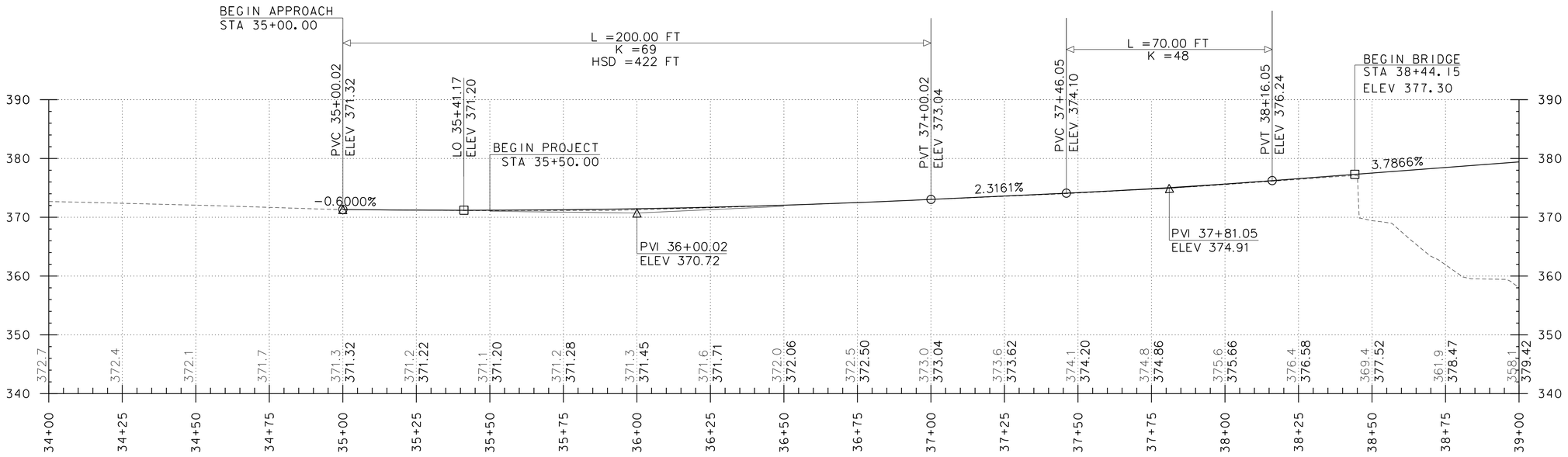
EXISTING CURVE 2
DELTA = 25°18'35"
D = 9°17'03"
R = 617.13'
T = 138.57'
L = 272.61'
E = 15.36'

LAYOUT

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

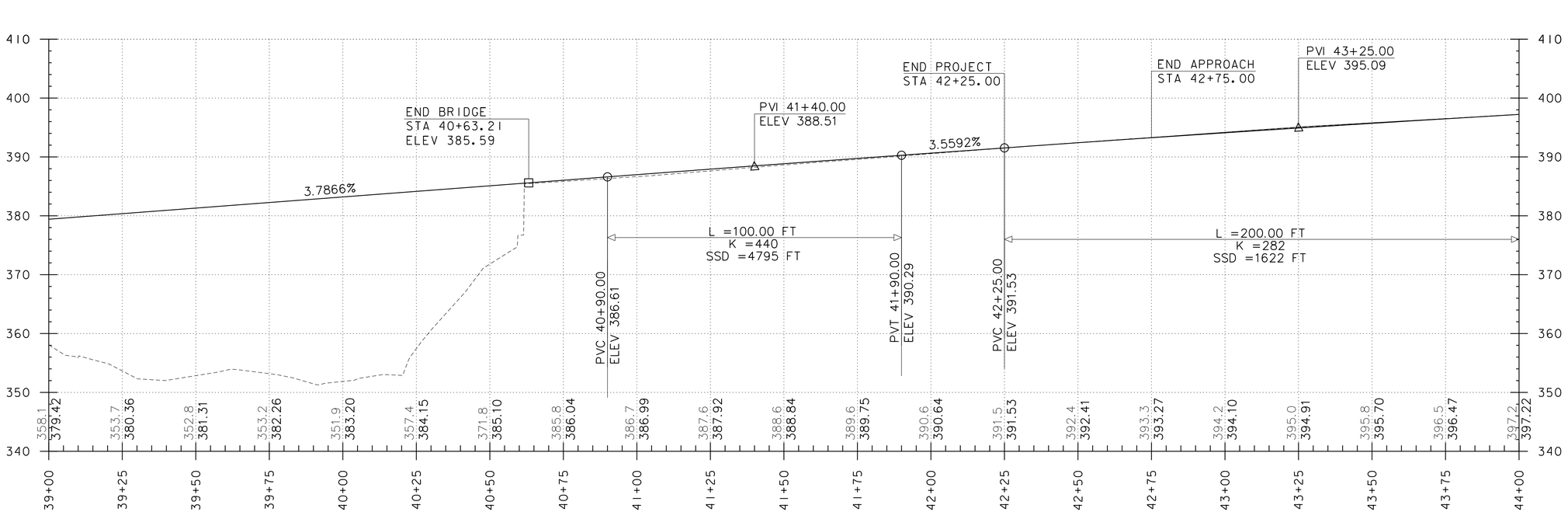
H&H

PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668border.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: T. MARQUETTE
DESIGNED BY: K. HO	CHECKED BY: C. JENNE
LAYOUT SHEET 2	SHEET II OF 67



FAS 0126 (VT ROUTE 121) PROFILE PART 1

SCALE: HORIZONTAL 1"=20'-0"
VERTICAL 1"=10'-0"



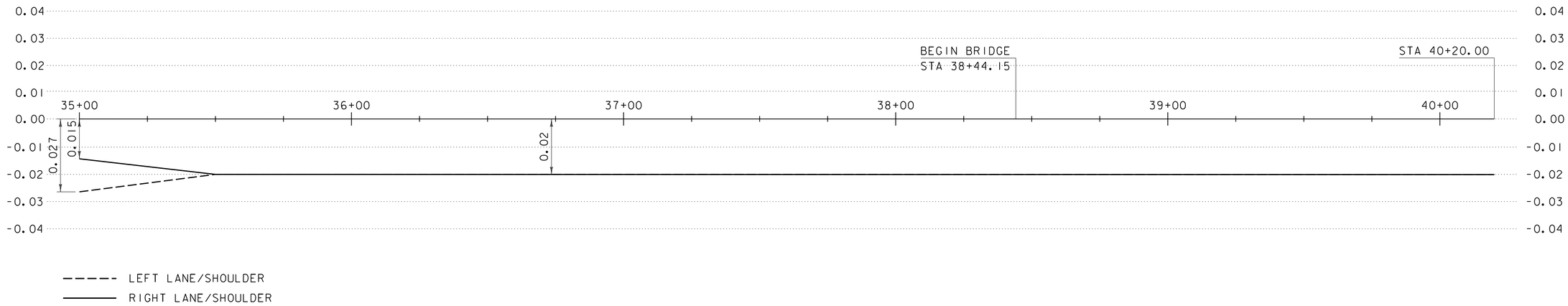
FAS 0126 (VT ROUTE 121) PROFILE PART 2

SCALE: HORIZONTAL 1"=20'-0"
VERTICAL 1"=10'-0"

NOTE:
GRADES SHOWN TO THE NEAREST
TENTH ARE EXISTING GROUND ALONG ℄
GRADES SHOWN TO THE NEAREST
HUNDREDTH ARE FINISH GRADE ALONG ℄

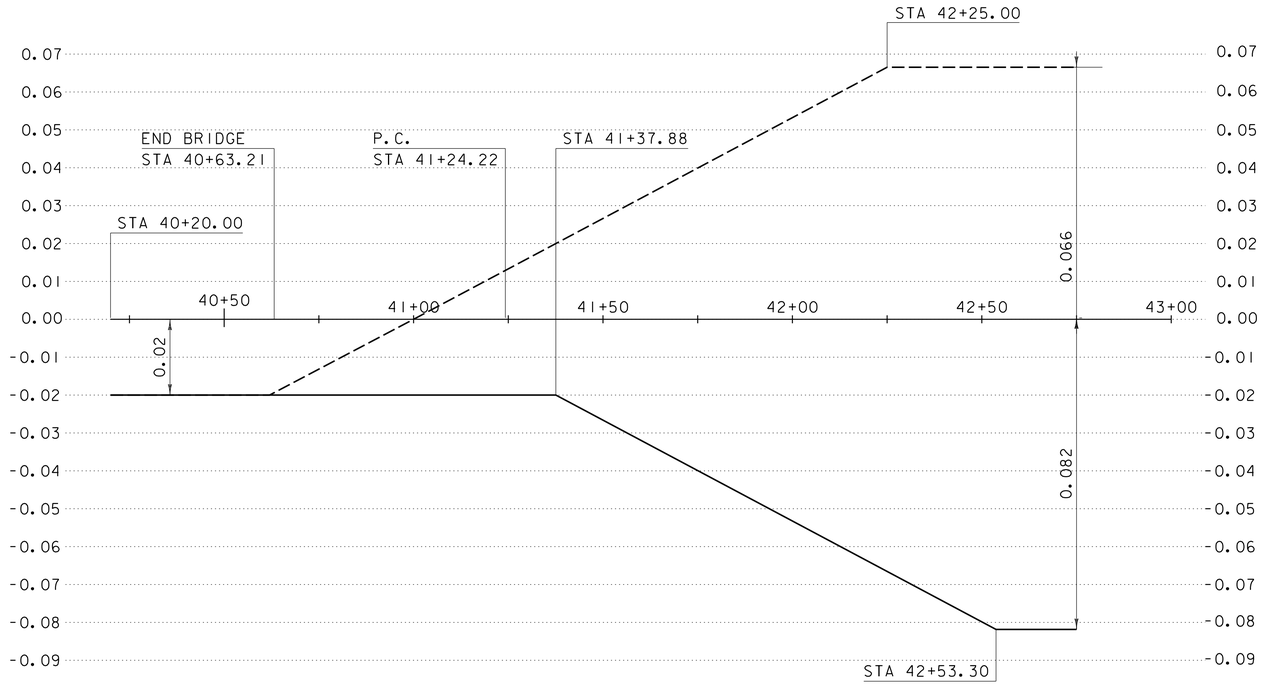
H&H

PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: zl2j668profile.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: T. MARQUETTE
DESIGNED BY: K. HO	CHECKED BY: C. JENNE
PROFILE SHEET	SHEET 12 OF 67



BANKING DIAGRAM

HORIZONTAL SCALE: 1" = 20'-0"
NO VERTICAL SCALE



BANKING DIAGRAM

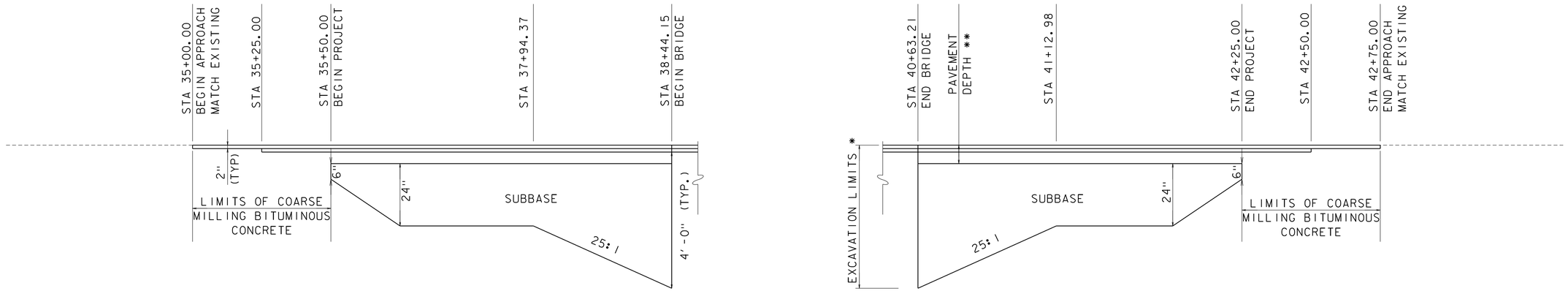
HORIZONTAL SCALE: 1" = 20'-0"
NO VERTICAL SCALE

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668banking_diagram.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
BANKING DIAGRAM

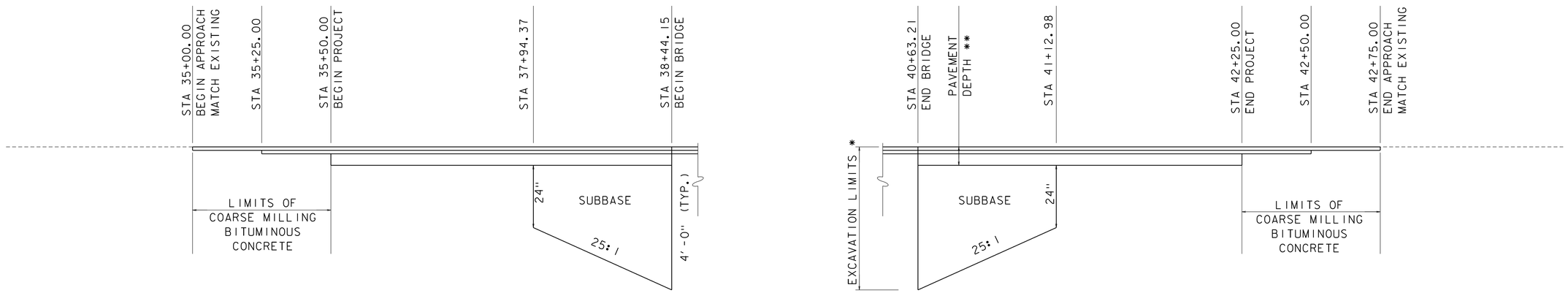
PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 13 OF 67



VT ROUTE 121 - ALONG SHOULDER STRIPE, 11' OFFSET FROM CENTERLINE

(NTS)

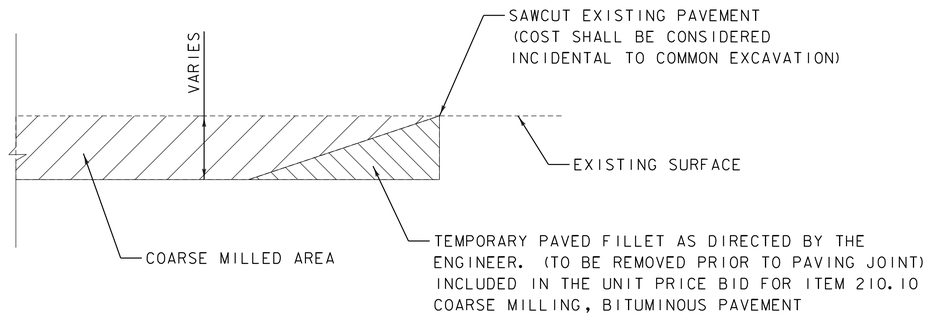
* SEE ABUTMENT EARTHWORK TYPICAL SECTION, FOR MORE INFORMATION
** SEE ROADWAY TYPICAL SECTIONS FOR PAVEMENT DESIGN



VT ROUTE 121 - AT CENTERLINE OF ROADWAY

(NTS)

* SEE ABUTMENT EARTHWORK TYPICAL SECTION, FOR MORE INFORMATION
** SEE ROADWAY TYPICAL SECTIONS FOR PAVEMENT DESIGN



DETAIL AT VERTICAL COARSE MILLING JOINTS

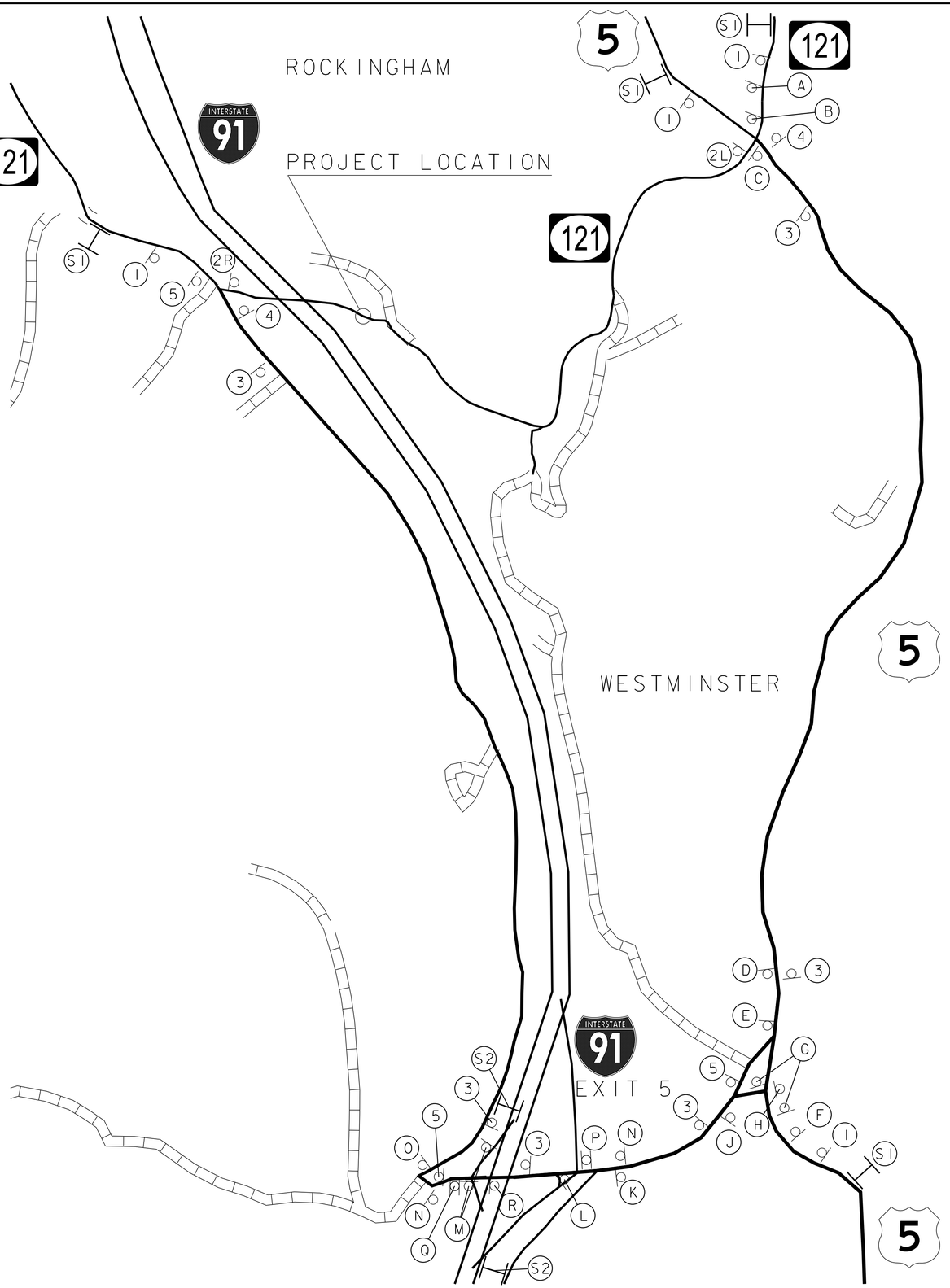
NOTE: THIS DETAIL SHALL BE USED AT THE LOCATIONS SHOWN ABOVE AS DIRECTED BY THE ENGINEER.

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
MATERIAL TRANSITION DIAGRAM

PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 14 OF 67



V	T		1	2	1		
C	L	O	S	E	D		
A	T		I	–	9	1	

PORTABLE CHANGEABLE SIGN–S1–PHASE 1

V	T		1	2	1		
C	L	O	S	E	D		

PORTABLE CHANGEABLE SIGN–S2–PHASE 1

D	E	T	O	U	R			
V	I	A		I	–	9	1	
A	C	C	E	S	S	R	D	

PORTABLE CHANGEABLE SIGN–S1–PHASE 2

A	T		N	O	R	T	H	
W	E	S	T	M	I	N	–	
S	T	E	R					

PORTABLE CHANGEABLE SIGN–S2–PHASE 2

*	M	M	M	M		D	D	–	
*	M	M	M	M		D	D		

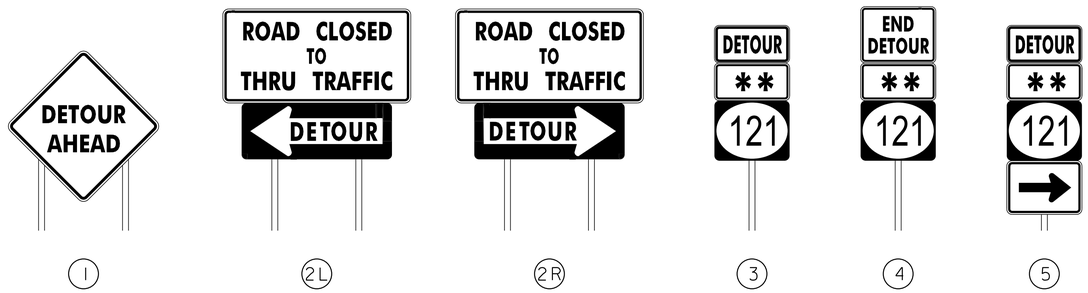
PORTABLE CHANGEABLE SIGN–S1–PHASE 3

*	M	M	M	M		D	D	–	
*	M	M	M	M		D	D		

PORTABLE CHANGEABLE SIGN–S2–PHASE 3

* M = MONTH
D = DAY

DURING ACTUAL CLOSURE REMOVE PHASE 3 FROM THE PCMS



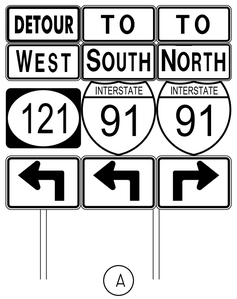
I 2L 2R 3 4 5

** EAST/WEST

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(13)

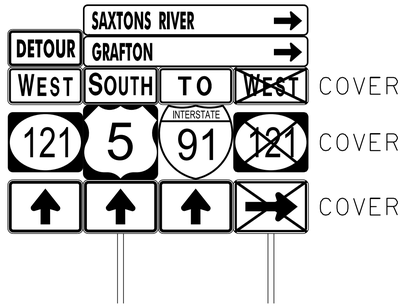
FILE NAME: s12j668detour.dgn
PROJECT LEADER: J.B.MCCARTHY
DESIGNED BY: J.B.MCCARTHY
DETOUR ROUTE

PLOT DATE: 22-DEC-2021
DRAWN BY: D.D.BEARD
CHECKED BY: J.B.MCCARTHY
SHEET 15 OF 54



A

B



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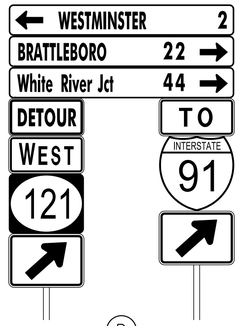

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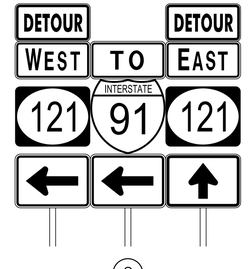
E

F



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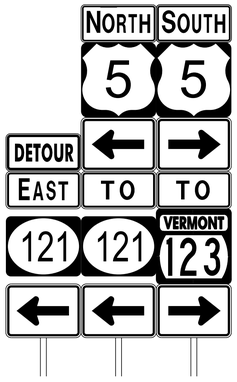

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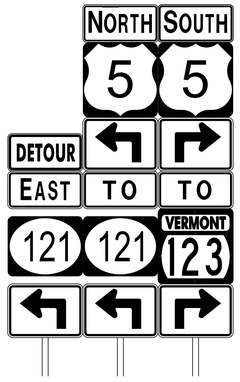

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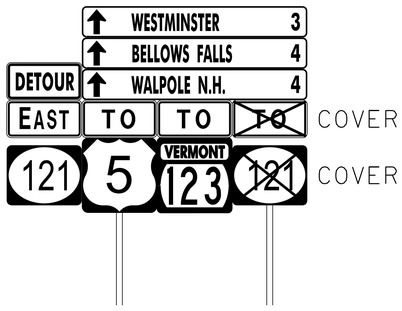

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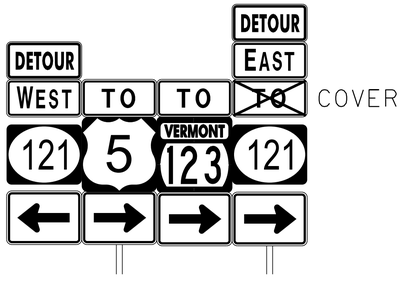

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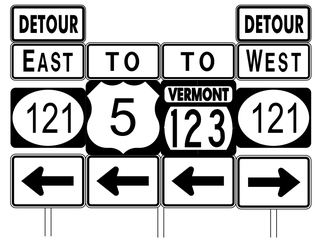
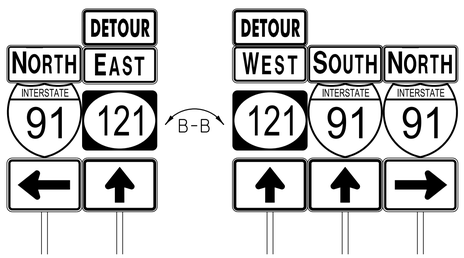


M

N

O



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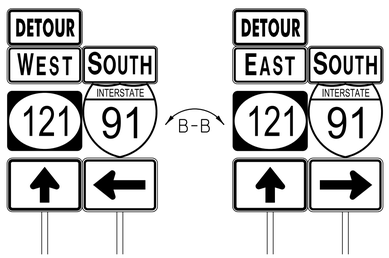


Q

R

** EAST/WEST

PROJECT NAME:	WESTMINSTER
PROJECT NUMBER:	BF 0126(13)

FILE NAME: s12j668detour.dgn		PLOT DATE:	22-DEC-2021
PROJECT LEADER:	J.B.MCCARTHY	DRAWN BY:	D.D.BEARD
DESIGNED BY:	J.B.MCCARTHY	CHECKED BY:	J.B.MCCARTHY
DETOUR ROUTE SIGNS		SHEET	16 OF 54

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

COMMONLY USED SYMBOLS

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

COLOR

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

DEFINITIONS (AASHTO)

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

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

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

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

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

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

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

VARVED - Alternate layers of silt and clay.

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

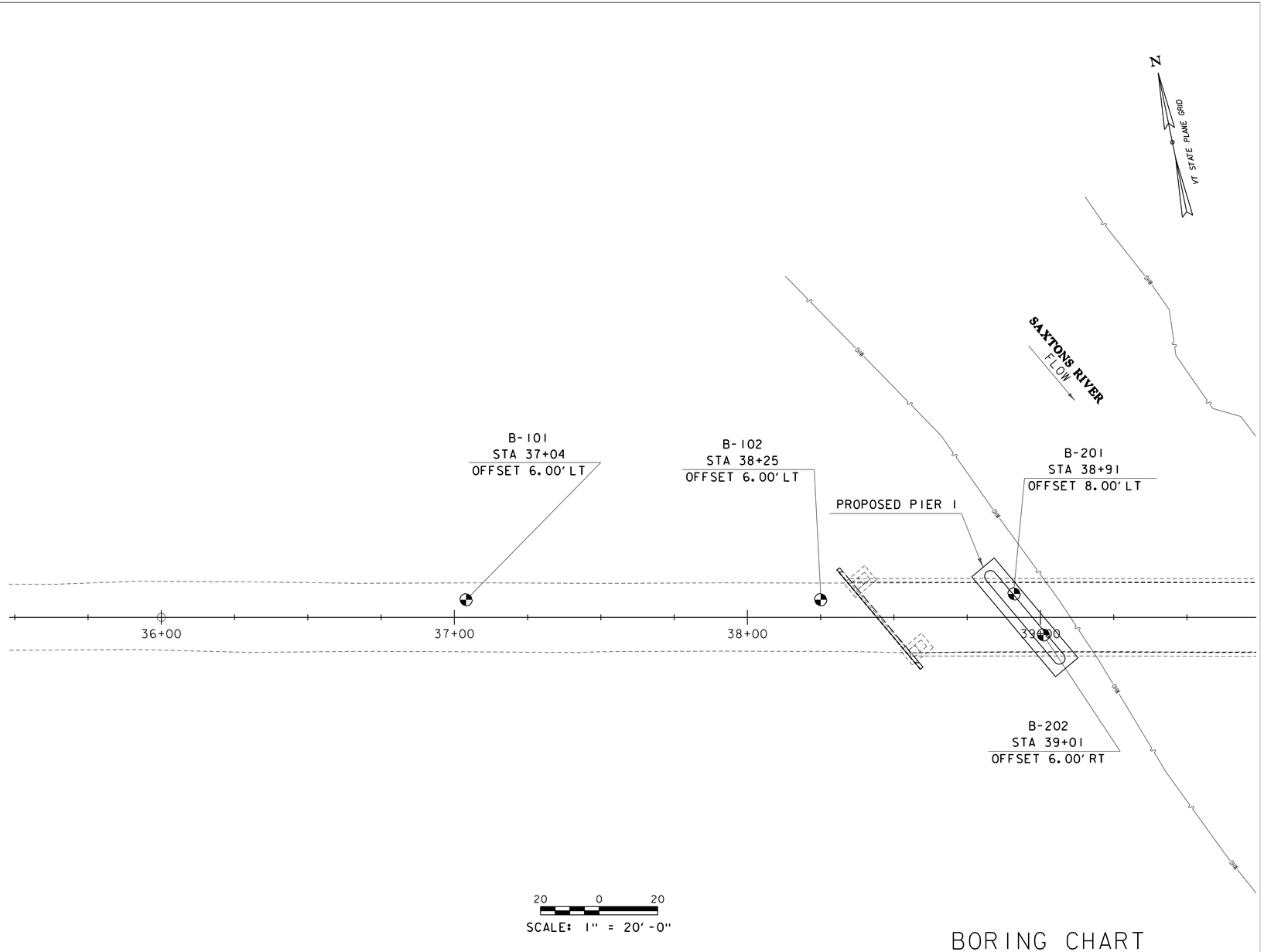
MUCK - Soft organic soil (containing > 10% organic material.

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

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

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

DIP - Inclination of bed with a horizontal plane.



GENERAL NOTES

1. 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.

2. 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.

3. 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.

4. 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.

5. 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.

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

BORING CHART

HOLE NO.	NORTHING	EASTING
B-101	226939.50	1650047.10
B-102	226914.80	1650165.30
B-201	226903.55	1650230.08
B-202	226887.63	1650238.07

PROJECT NAME: WESTMINSTER

PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668bori.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
BORING LAYOUT SHEET 1

PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS
SHEET 17 OF 67

SOIL CLASSIFICATION

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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
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%Rec.	Percent Recovery
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brn	Brown	rd	Red
dk	Dark	tn	Tan
gry	Gray	wh	White
gn	Green	yel	Yellow
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or	Orange		

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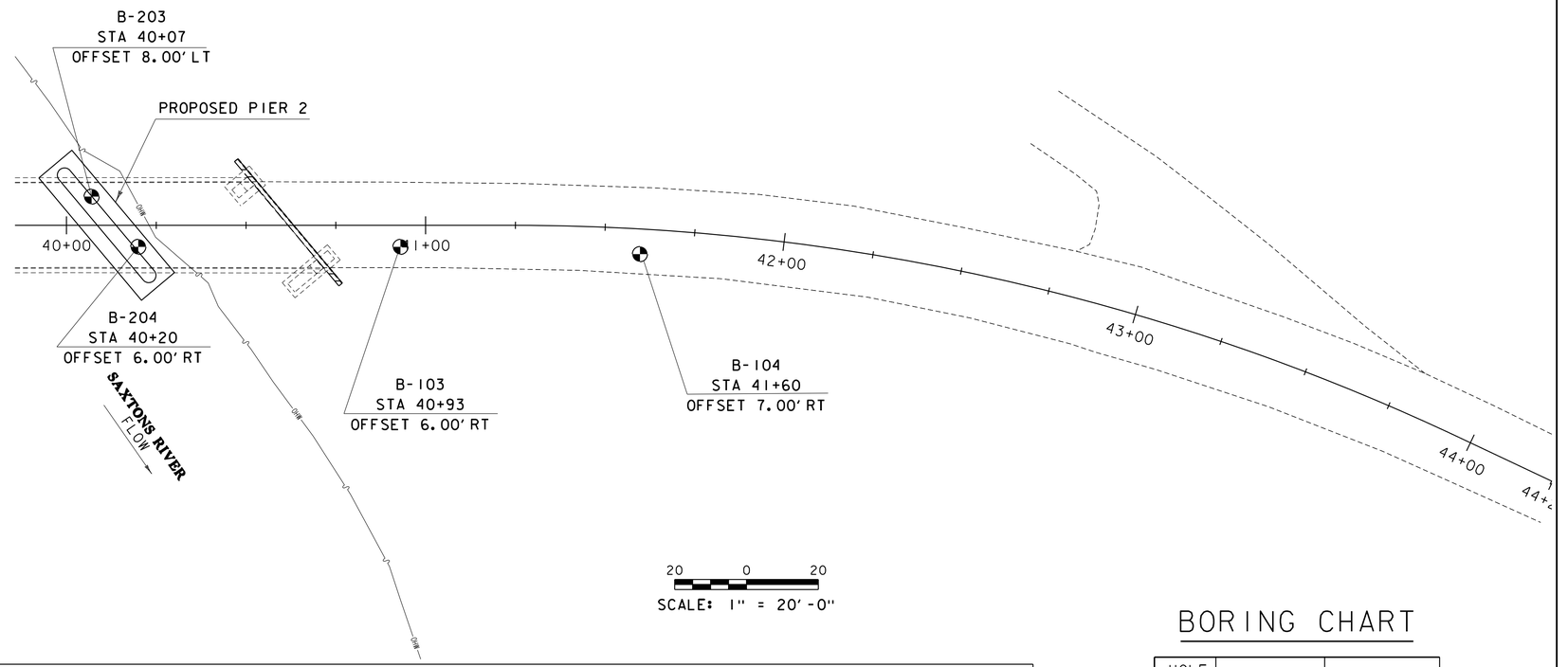

GENERAL NOTES

1. 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.

2. 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.

3. 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.

4. 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.

5. 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.

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

BORING CHART

HOLE NO.	NORTHING	EASTING
B-103	226848.80	1650425.10
B-104	226833.30	1650490.70
B-203	226880.17	1650344.21
B-204	226864.09	1650353.09

PROJECT NAME: WESTMINSTER

PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668bor2.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
BORING LAYOUT SHEET 2

PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS
SHEET 18 OF 67

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-101**
Page No.: 1 of 1
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: P. Schofield (NEBC), A. Fournier (GZA)
Date Started: 3/29/21 Date Finished: 3/29/21
VTSPG NAD83: N 226939.50 ft E 1650047.10 ft
Station: 37+04 Offset: 6' LT
Ground Elevation: 373.0 ft

	Casing	Sampler
Type:		SS
I.D.:		2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig: Mobile Drill B-48 Truck	C_E = 1.3	

Groundwater Observations

Date	Depth (ft)	Notes
03/29/21		Not Encountered

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Approximately 6 inches of pavement, 0.0 ft - 0.5 ft, ASPHALT					
		Visual Description, (Modified Burmister), S-1 (0.5-2.5'): Dense, brown, GRAVEL, some medium Sand, little Silt (A-1-a). Moist, Rec. = 1.0 ft, SAND and GRAVEL	19-20-21-30 (41)				
		Classification:, (Modified Burmister), S-2 (2.5-4.5'): Very dense, brown, GRAVEL, some medium Sand, trace Silt (A-1-a). Moist, Rec. = 0.83 ft, SAND and GRAVEL	15-30-48-47 (78)	1.6	72.0	22.2	5.8
5		Visual Description, (Modified Burmister), S-3 (4.5-6.5'): Medium dense, brown, fine to coarse SAND, some Gravel, trace Silt (A-1-a). Moist, Rec. = 0.83 ft, SAND and GRAVEL	17-11-11-13 (22)				
		Hole stopped @ 6.5 ft					
10		Remarks: 1. The tip of the split spoon for sample S-3 contained fine to medium SAND, trace Silt. 2. Boring terminated at approximately 6.5 feet below ground surface (bgs). Boring backfilled with drill cuttings and capped with approximately 4 inches of cold patch apshalt. 3. Visual descriptions are based on the Modified Burmister classification system.					
15							
20							
25							
30							

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 04.0191154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT.GDT 7/1/21

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
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CENTRAL LABORATORY

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-102**
Page No.: 1 of 2
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: P. Schofield (NEBC), A. Fournier (GZA)
Date Started: 3/29/21 Date Finished: 3/29/21
VTSPG NAD83: N 226914.80 ft E 1650165.30 ft
Station: 38+25 Offset: 6' LT
Ground Elevation: 376.0 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	300 lb.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig: Mobile Drill B-48 Truck	C_E = 1.3	

Groundwater Observations

Date	Depth (ft)	Notes
03/29/21	14.5	Stab. time = 10 min

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Approximately 6 inches of pavement, 0.0 ft - 0.5 ft, ASPHALT					
		Visual Description, SAND and GRAVEL	15-15-15-14 (30)				
		Visual Description, (Modified Burmister), S-1 (1-3'): Dense, brown, fine to coarse SAND, some Gravel, little Silt (A-1-a). Moist, Rec. = 0.67 ft, SAND and GRAVEL					
		Visual Description, SAND and GRAVEL					
5		Visual Description, (Modified Burmister), S-2 (4-6'): Dense, brown, fine to coarse SAND, some Silt (A-2-4). Moist, Rec. = 0.4 ft, SILTY SAND	50-20-10-10 (30)				
		Visual Description, SILTY SAND					
10		Visual Description, (Modified Burmister), S-3 (9-11'): Medium dense, brown, fine SAND, some Silt (A-2-4). Moist, Rec. = 0.5 ft, SILTY SAND	9-7-6-5 (13)				
		Visual Description, SILTY SAND					
15		Classification:, (Modified Burmister), S-4 (14-16'): Loose, brown, fine SAND, some Silt (A-2-4). Moist, Rec. = 0.67 ft, SILTY SAND	7-5-4-4 (9)	18.2	1.8	70.3	27.9
		Visual Description, SILTY SAND					
20		Visual Description, (Modified Burmister), S-5 (19-21'): Loose, brown, fine SAND, some Silt, trace Gravel (A-2-4). Moist, Rec. = 0.83 ft, SILTY SAND	2-3-6-5 (9)				
		Visual Description, SILTY SAND					
25		Visual Description, (Modified Burmister), S-6 (24-26'): NO RECOVERY, Rec. = 0.0 ft, SILTY SAND	6-9-6-14 (15)				
		Visual Description, GLACIAL TILL					
30		Classification:, (Modified Burmister), S-7 (29-31'): Dense, light brown, fine to coarse SAND, some Silt, little Gravel (A-1-b). Wet, Rec. = 0.83 ft, GLACIAL TILL	14-19-24-26 (43)	11.7	26.5	51.5	22.0
		Hole stopped @ 31.0 ft					
		Remarks: 1. Cobbles encountered during drilling from approximately 23 to 24 feet bgs.					

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 04.0191154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT.GDT 7/1/21

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668bor1.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
BORING LOG SHEET 1

PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-102**
Page No.: 2 of 2
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: P. Schofield (NEBC), A. Fournier (GZA)
Date Started: 3/29/21 Date Finished: 3/29/21
VTSPG NAD83: N 226914.80 ft E 1650165.30 ft
Station: 38+25 Offset: 6' LT
Ground Elevation: 376.0 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	300 lb.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	Mobile Drill B-48 Truck	C_E = 1.3

Groundwater Observations

Date	Depth (ft)	Notes
03/29/21	14.5	Stab. time = 10 min

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
40		2. Boring terminated at approximately 31 feet bgs. Boring backfilled with drill cuttings, sand, and capped with 4 inches of cold patch apshalt.					
45		3. Visual descriptions are based on the Modified Burmister classification system.					
50							
55							
60							
65							

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 04.0191154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT.GDT 7/1/21

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-103**
Page No.: 1 of 2
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: P. Schofield (NEBC), A. Fournier (GZA)
Date Started: 3/30/21 Date Finished: 3/30/21
VTSPG NAD83: N 226848.80 ft E 1650425.10 ft
Station: 40+93 Offset: 6' RT
Ground Elevation: 386.0 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	300 lb.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	Mobile Drill B-48 Truck	C_E = 1.3

Groundwater Observations

Date	Depth (ft)	Notes
03/30/21	17.0	Stab. time = 10 min

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Approximately 6 inches of pavement, 0.0 ft - 0.5 ft, ASPHALT					
		Visual Description, SAND and GRAVEL	8-8-8-8 (16)				
		Visual Description, (Modified Burmister), S-1 (1-3'): Medium dense, dark brown, fine to medium SAND, some Gravel, trace Silt (A-2-4). Moist, Rec. = 0.75 ft, SAND and GRAVEL					
		Visual Description, SAND and GRAVEL					
5		Classification:, (Modified Burmister), S-2 (4-6'): Medium dense, brown, fine to medium SAND, some Gravel, little Silt (A-2-4). Moist, Rec. = 0.5 ft, SAND and GRAVEL	11-7-8-10 (15)	11.7	29.9	53.4	16.7
		Visual Description, SAND and GRAVEL					
		Visual Description, (Modified Burmister), S-3 (9-11'): Medium dense, brown, fine to medium SAND, little Silt, trace Gravel (A-1-a). Moist, Rec. = 0.58 ft, SAND	11-12-9-8 (21)				
10		Visual Description, SAND					
		Visual Description, (Modified Burmister), S-4 (14-16'): Very dense, brown, GRAVEL, some fine to medium Sand, trace Silt (A-1-a). Moist, Rec. = 0.5 ft, SAND and GRAVEL	38-34-33-24 (77)				
15		Visual Description, SAND and GRAVEL					
		Classification:, (Modified Burmister), S-5 (19-21'): Loose, olive brown, fine to medium SAND, some Silt, little Gravel (A-2-4). Wet, Rec. = 0.5 ft, SAND	6-4-4-4 (8)				
20		Visual Description, SAND		13.1	22.4	44.4	33.2
		Visual Description, WEATHERED ROCK					
		Visual Description, (Modified Burmister), S-6 (24-25.1'): Very dense, olive brown, WEATHERED ROCK, little Silt, trace Gravel, trace Sand (Weathered Rock). Wet, Rec. = 0.67 ft, WEATHERED VROCK	66-68-100/1" (R)				
25		Visual Description, WEATHERED ROCK					
		Visual Description, (Modified Burmister), S-7 (29-29.1'): Very dense, olive brown, WEATHERED ROCK (Weathered Rock). Wet, Rec. = 0.1 ft, WEATHERED ROCK	100/1" (R)				
30		Visual Description, WEATHERED ROCK					
		Visual Description, (Modified Burmister), S-8 (34-34.2'): Very dense, olive brown,	100/2" (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 04.0191154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT.GDT 7/1/21

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668bori.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
BORING LOG SHEET 2

PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS
SHEET 20 OF 67

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-103**
Page No.: 2 of 2
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: P. Schofield (NEBC), A. Fournier (GZA)
Date Started: 3/30/21 Date Finished: 3/30/21
VTSPG NAD83: N 226848.80 ft E 1650425.10 ft
Station: 40+93 Offset: 6' RT
Ground Elevation: 386.0 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	300 lb.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	Mobile Drill B-48 Truck	C_E = 1.3

Groundwater Observations

Date	Depth (ft)	Notes
03/30/21	17.0	Stab. time = 10 min

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
40		WEATHERED ROCK (Weathered Rock). Wet, Rec. = 0.1 ft, WEATHERED ROCK					
		Hole stopped @ 34.2 ft					
45		Remarks: 1. Driller notes a possible increase in gravel and soil density at approximately 12 feet bgs based on a change in the drilling difficulty. 2. Advancing casing became very difficult at approximately 23.5 feet bgs. 3. Boring terminated at approximately 34.2 feet bgs. Boring backfilled with drill cuttings, sand, and capped with 4 inches of cold patch apshalt. 4. Visual descriptions are based on the Modified Burmister classification system.					
50							
55							
60							
65							

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 04.01911154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT.GDT 7/1/21

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-104**
Page No.: 1 of 1
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: P. Schofield (NEBC), A. Fournier (GZA)
Date Started: 3/30/21 Date Finished: 3/30/21
VTSPG NAD83: N 226833.30 ft E 1650490.70 ft
Station: 41+60 Offset: 7' RT
Ground Elevation: 388.0 ft

	Casing	Sampler
Type:		SS
I.D.:		2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:		Auto/AWJ
Rig:	Mobile Drill B-48 Truck	C_E = 1.3

Groundwater Observations

Date	Depth (ft)	Notes
03/30/21		Not Encountered

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Approximately 6 inches of pavement, 0.0 ft - 0.5 ft, ASPHALT					
		Classification:, (Modified Burmister), S-1 (0.5-2.5'): Dense, brown, GRAVEL, and fine to medium Sand, trace Silt (A-1-a). Moist, Rec. = 0.83 ft, SAND and GRAVEL	12-16-21-15 (37)	3.2	61.0	30.3	8.7
		Classification:, (Modified Burmister), S-2 (2.5-4.5'): Medium dense, brown, fine to medium SAND, some Silt, little Gravel (A-2-4). Moist, Rec. = 1.67 ft, SAND and GRAVEL	10-8-10-9 (18)	9.4	24.4	49.0	26.6
5		Visual Description, (Modified Burmister), S-3 (4.5-6.5'): Medium dense, brown, fine to medium SAND, some Gravel, some Silt (A-2-4). Moist, Rec. = 0.83 ft, SAND and GRAVEL	6-6-6-6 (12)				
		Hole stopped @ 6.5 ft					
10		Remarks: 1. Boring terminated at approximately 6.5 feet bgs. Boring backfilled with drill cuttings and capped with approximately 4 inches of cold patch apshalt. 2. Visual descriptions are based on the Modified Burmister classification system.					
15							
20							
25							
30							

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 04.01911154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT.GDT 7/1/21

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668borl.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
BORING LOG SHEET 3

PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS
SHEET 21 OF 67

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-201**
Page No.: 1 of 3
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: K. Smith (NEBC), K. Ashe (GZA)
Date Started: 5/22/23 Date Finished: 5/24/23
VTSPG NAD83: N 226903.55 ft E 1650230.08 ft
Station: 38+91 Offset: 8' LT
Ground Elevation: 359.9 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	TRUCK	C_E = 1.3

Groundwater Observations

Date	Depth (ft)	Notes
05/23/23	3.5	Stab time = 14 hrs

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Visual Description:, (Modified Burmister), S-1 (0.0 ft - 2.0 ft): Loose, brown, fine to medium SAND, little Silt, trace Gravel (A-1-b). Moist, Rec. = 1.3 ft, SAND				3-4-4-7 (8)				
		2.0 ft - 4.0 ft, SAND								
5		Visual Description:, (Modified Burmister), S-2 (4.0 ft - 6.0 ft): Medium dense, brown, fine to coarse SAND, some Gravel, little Silt (A-1-b). Wet, Rec. = 0.6 ft, SAND				11-13-15-8 (28)				
		6.0 ft - 9.0 ft, SAND								
10		Visual Description:, (Modified Burmister), S-3 (9.0 ft - 11.0 ft): Dense, gray, SILT, some fine to medium Sand, some Gravel (A-4). Wet, Rec. = 1.6 ft, GLACIAL TILL				16-26-23-25 (49)				
		11.0 ft - 14.0 ft, GLACIAL TILL								
15		Visual Description:, (Modified Burmister), S-4 (14.0 ft - 16.0 ft): Very dense, gray, SILT, little fine Sand (A-4). Wet, Rec. = 1.2 ft, GLACIAL TILL				12-26-47-58 (73)				
		16.0 ft - 19.0 ft, GLACIAL TILL								
20		Visual Description:, (Modified Burmister), S-5 (19.0 ft - 20.1 ft): Very dense, gray and brown, SILT and fine to medium Sand, some Gravel (A-4). Wet, Rec. = 0.6 ft, GLACIAL TILL				30-90-25/1" (R)				
		20.1 ft - 23.0 ft, COBBLES								
		23.0 ft - 24.0 ft, GLACIAL TILL								
25		Visual Description:, (Modified Burmister), S-6 (24.0 ft - 26.0 ft): Very dense, gray and brown, fine to medium SAND and Gravel, some Silt (A-1-b). Wet, Rec. = 1.2 ft, GLACIAL TILL				49-75-85-61 (>100)				
		26.0 ft - 29.0 ft, GLACIAL TILL								
30		Visual Description:, (Modified Burmister), S-7 (29.0 ft - 31.0 ft): Very dense, dark brown, fine to coarse SAND and Gravel, little Silt (A-1-b). Wet, Rec. = 1.5 ft, GLACIAL TILL				48-65-80-98 (>100)		45.8	37.0	17.2
		31.0 ft - 34.0 ft, GLACIAL TILL								
		Visual Description:, (Modified Burmister), S-8 (34.0 ft - 36.0 ft): Very				33-43-51-60				

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 04.01911154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT.GDT 8/4/23

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-201**
Page No.: 2 of 3
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: K. Smith (NEBC), K. Ashe (GZA)
Date Started: 5/22/23 Date Finished: 5/24/23
VTSPG NAD83: N 226903.55 ft E 1650230.08 ft
Station: 38+91 Offset: 8' LT
Ground Elevation: 359.9 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	TRUCK	C_E = 1.3

Groundwater Observations

Date	Depth (ft)	Notes
05/23/23	3.5	Stab time = 14 hrs

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		dense, gray and brown, fine to coarse SAND, little Gravel (A-1-b). Wet, Rec. = 1.3 ft, GLACIAL TILL				(94)				
		36.0 ft - 39.0 ft, GLACIAL TILL								
40		Visual Description:, (Modified Burmister), S-9 (39.0 ft - 41.0 ft): Very dense, gray and brown, fine to coarse SAND, some Silt, little Gravel (A-2-4). Wet, Rec. = 1.3 ft, GLACIAL TILL				24-35-35-44 (70)				
		41.0 ft - 44.0 ft, GLACIAL TILL								
45		Visual Description:, (Modified Burmister), S-10 (44.0 ft - 46.0 ft): Very dense, gray and brown, fine to medium SAND, little Silt (A-2-4). Wet, Rec. = 1.2 ft, GLACIAL TILL				25-35-34-40 (69)				
		46.0 ft - 49.0 ft, GLACIAL TILL								
50		Visual Description:, (Modified Burmister), S-11 (49.0 ft - 51.0 ft): Very dense, brown, fine to medium SAND, little Silt, trace Gravel (A-2-4). Wet, Rec. = 1.5 ft, GLACIAL TILL				18-25-32-38 (57)		11.7	75.1	13.2
		51.0 ft - 54.0 ft, GLACIAL TILL								
55		Visual Description:, (Modified Burmister), S-12 (54.0 ft - 56.0 ft): Very dense, gray and brown, fine to medium SAND, some Gravel, little Silt (A-1-b). Wet, Rec. = 1.3 ft, GLACIAL TILL				21-48-58-40 (>100)				
		56.0 ft - 59.0 ft, GLACIAL TILL								
60		Visual Description:, (Modified Burmister), S-13 (59.0 ft - 59.3 ft): Very dense, brown, fine to medium SAND and Gravel, little Silt (A-1-b). Wet, Rec. = 0.2 ft, GLACIAL TILL				100/4" (R)				
		59.3 ft - 64.0 ft, GLACIAL TILL								
65		Visual Description:, (Modified Burmister), S-14 (64.0 ft - 64.8 ft): Very dense, brown, fine to medium SAND and Weathered (foliated) rock, some Silt (A-1-b). Wet, Rec. = 0.5 ft, GLACIAL TILL				66-95/4" (R)				
		64.8 ft - 66.0 ft, WEATHERED ROCK								
		66.0 ft - 71.5 ft, BEDROCK								

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 04.01911154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT.GDT 8/4/23

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668borl.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
BORING LOG SHEET 4

PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS
SHEET 22 OF 67

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-201**
Page No.: 3 of 3
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: K. Smith (NEBC), K. Ashe (GZA)
Date Started: 5/22/23 Date Finished: 5/24/23
VTSPG NAD83: N 226903.55 ft E 1650230.08 ft
Station: 38+91 Offset: 8' LT
Ground Elevation: 359.9 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	TRUCK	C_E = 1.3

Groundwater Observations

Date	Depth (ft)	Notes
05/23/23	3.5	Stab time = 14 hrs

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
75		71.5 ft - 76.5 ft, C-1: Hard, moderately weathered, fine grained, gray, SCHIST. Joints are very closely spaced, horizontal to moderately dipping, foliated, undulating, rough, discolored, and moderately to very wide.	C-1	28 (0)	1.5 1 1.5 1 3					
80		76.5 ft - 80.5 ft, C-2: Hard, moderately weathered, fine grained, gray, SCHIST. Joints are very close to closely spaced, horizontal to vertical, foliated, planar, rough, discolored, and moderately wide.	C-2	43 (0)	1 3 1 7					
		80.5 ft - 84.5 ft, C-3: Hard, moderately weathered, fine grained, gray, SCHIST. Joints are very closely spaced, low angle to vertical, planar, rough to smooth, slightly discolored, and moderately wide.	C-3	98 (0)	2 2.5 3 3					
85		84.5 ft - 89.5 ft, C-4: Hard, slightly weathered, fine grained, gray, SCHIST. Joints are extremely close to closely spaced, moderately dipping to vertical, foliated, planar, rough to smooth, slightly discolored, and moderately wide.	C-4	96 (0)	2.5 2.5 5 3 4					
90		89.5 ft - 94.5 ft, C-5: Hard, slightly weathered, fine grained, gray, SCHIST. Joints are very close to closely spaced, low to high angle, foliated, planar, rough, slightly discolored, and open to wide.	C-5	98 (30)	3.5 3 7 3 3					
95		Hole stopped @ 94.5 ft								
100										

Remarks:
1. Driller cored through bridge deck (approximately 3 inches of asphalt and 7 inches of concrete) to advance boring. Mudline was measured 19 feet from bridge deck. All depths are from mudline.
2. Cobbles encountered during drilling from approximately 20.1 to 23 feet bgs.
3. Top of bedrock encountered at approximately 66 feet bgs based on observed drilling behavior and cuttings in drill wash water.
4. Rock core run attempted at 67 feet bgs. Unable to core due to weathered rock and drill water loss. Driller switched to 3-inch casing. Casing advanced to 71.5 feet to seat casing and to position top of casing below bridge deck elevation.

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 04.0191154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT.GDT 8/4/23

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-202**
Page No.: 1 of 3
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: K. Smith (NEBC), K. Ashe (GZA)
Date Started: 5/30/23 Date Finished: 6/01/23
VTSPG NAD83: N 226887.63 ft E 1650238.07 ft
Station: 39+01 Offset: 6' RT
Ground Elevation: 358.3 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	TRUCK	C_E = 1.3

Groundwater Observations

Date	Depth (ft)	Notes
05/31/23	3.5	Stab time = 14 hrs

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		0.0 ft - 3.0 ft, SAND								
5		Visual Description:, (Modified Burmister), S-1 (3.0 ft - 5.0 ft): Loose, brown, fine to coarse SAND, some Gravel, little Silt (A-1-b). Wet, Rec. = 0.2 ft, SAND				7-5-3-2 (8)				
		5.0 ft - 8.0 ft, SAND								
10		Visual Description:, (Modified Burmister), S-2 (8.0 ft - 10.0 ft): Medium dense, gray, fine to medium SAND, little Silt, little Gravel (A-1-b). Tip of Split Spoon - gray, SILT, little fine to medium Sand (A-4). Wet, Rec. = 0.9 ft, SAND				11-8-7-13 (15)				
		10.0 ft - 13.0 ft, GLACIAL TILL								
15		Visual Description:, (Modified Burmister), S-3 (13.0 ft - 15.0 ft): Very dense, gray, SILT, little fine Sand, little Gravel (A-4). Wet, Rec. = 1.8 ft, GLACIAL TILL				13-25-46-60 (71)				
		15.0 ft - 18.0 ft, GLACIAL TILL								
20		Visual Description:, (Modified Burmister), S-4 (18.0 ft - 18.6 ft): Very dense, gray and brown, fine to medium SAND and Gravel, little Silt (A-1-b). Wet, Rec. = 0.3 ft, GLACIAL TILL				100-45/1" (R)				
		18.6 ft - 23.0 ft, GLACIAL TILL								
25		Visual Description:, (Modified Burmister), S-5 (23.0 ft - 24.2 ft): Very dense, gray, fine to coarse SAND, some Gravel, little Silt (A-1-b). Wet, Rec. = 0.8 ft, GLACIAL TILL				79-106-45/2" (R)		45.0	36.6	18.4
		24.2 ft - 28.0 ft, GLACIAL TILL								
30		Visual Description:, (Modified Burmister), S-6 (28.0 ft - 30.0 ft): Very dense, gray and brown, fine to medium SAND and Gravel, little Silt (A-1-b). Wet, Rec. = 1.2 ft, GLACIAL TILL				54-66-90-90 (>100)				
		30.0 ft - 33.0 ft, GLACIAL TILL								
		Visual Description:, (Modified Burmister), S-7 (33.0 ft - 35.0 ft): Very dense, gray and brown, fine to medium SAND, some Gravel, little Silt (A-1-b). Wet, Rec. = 1.4 ft, GLACIAL TILL				30-46-45-53 (91)				

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 04.0191154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT.GDT 8/4/23

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668borl.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
BORING LOG SHEET 5

PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS
SHEET 23 OF 67

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-202**
Page No.: 2 of 3
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: K. Smith (NEBC), K. Ashe (GZA)
Date Started: 5/30/23 Date Finished: 6/01/23
VTSPG NAD83: N 226887.63 ft E 1650238.07 ft
Station: 39+01 Offset: 6' RT
Ground Elevation: 358.3 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	TRUCK	C_E = 1.3

Groundwater Observations

Date	Depth (ft)	Notes
05/31/23	3.5	Stab time = 14 hrs

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		35.0 ft - 38.0 ft, GLACIAL TILL								
		Visual Description:, (Modified Burmister), S-8 (38.0 ft - 40.0 ft): Very dense, gray and brown, fine to medium SAND, little Gravel, little Silt (A-2-4). Wet, Rec. = 1.3 ft, GLACIAL TILL				27-29-31-35 (60)				
40		40.0 ft - 43.0 ft, GLACIAL TILL								
		Visual Description:, (Modified Burmister), S-9 (43.0 ft - 45.0 ft): Very dense, brown, fine to medium SAND, little Silt (A-2-4). Wet, Rec. = 1.4 ft, GLACIAL TILL				21-33-38-43 (71)			87.2	12.8
45		45.0 ft - 48.0 ft, GLACIAL TILL								
		Visual Description:, (Modified Burmister), S-10 (48.0 ft - 50.0 ft): Very dense, gray and brown, fine to medium SAND, little Silt, trace Gravel (A-2-4). Wet, Rec. = 1.4 ft, GLACIAL TILL				25-31-43-52 (74)				
50		50.0 ft - 53.0 ft, GLACIAL TILL								
		Visual Description:, (Modified Burmister), S-11 (53.0 ft - 55.0 ft): Very dense, gray and brown, fine to medium SAND, little Silt, little Gravel (A-2-4). Wet, Rec. = 1.4 ft, GLACIAL TILL				20-25-40-48 (65)				
55		55.0 ft - 58.0 ft, GLACIAL TILL								
		Visual Description:, (Modified Burmister), S-12 (58.0 ft - 58.4 ft): Very dense, gray and brown, fine to medium SAND and Gravel, little Silt (A-1-b). Wet, Rec. = 0.2 ft, GLACIAL TILL				125/5"				
60		58.4 ft - 63.0 ft, GLACIAL TILL								
		Visual Description:, (Modified Burmister), S-13 (63.0 ft - 63.6 ft): Very dense, gray and brown, fine to medium SAND and Weathered Rock, little Silt, little Gravel (A-1-b). Wet, Rec. = 0.5 ft, GLACIAL TILL				109-45/1" (R)				
65		63.6 ft - 66.0 ft, WEATHERED ROCK								
		66.0 ft - 67.0 ft, BEDROCK								
		67.0 ft - 72.0 ft, C-1: Hard, moderately weathered, fine grained, gray, SCHIST. Joints are very closely spaced, low angle, foliated, smooth, and very wide.	C-1	24 (0)	1 1.5 0.5					

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

BORING LOG 04.01911154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT GDT 8/4/23

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-202**
Page No.: 3 of 3
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: K. Smith (NEBC), K. Ashe (GZA)
Date Started: 5/30/23 Date Finished: 6/01/23
VTSPG NAD83: N 226887.63 ft E 1650238.07 ft
Station: 39+01 Offset: 6' RT
Ground Elevation: 358.3 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	TRUCK	C_E = 1.3

Groundwater Observations

Date	Depth (ft)	Notes
05/31/23	3.5	Stab time = 14 hrs

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
					0.5					
					2					
		72.0 ft - 77.0 ft, C-2: Hard, slightly weathered, fine grained, gray, SCHIST. Joints are very close to closely spaced, low to high angle, planar, rough to smooth, slightly discolored, and partially open to wide.	C-2	32 (0)	2					
75					2					
					3.5					
					6					
					7					
		77.0 ft - 82.0 ft, C-3: Hard, moderately weathered, fine grained, gray, SCHIST. Joints are very close to closely spaced, low angle to vertical, foliated, planar, rough to smooth, slightly discolored, and open to wide.	C-3	82 (0)	2					
80					2					
					4					
					3					
					9					
		Hole stopped @ 82.0 ft								
85										
90										
95										
100										

Remarks:
1. Driller cored through bridge deck (approximately 3 inches of asphalt and 7 inches of concrete) to advance boring. Mudline was measured 21 feet from bridge deck. All depths are from mudline.
2. Top of bedrock encountered at approximately 66 feet bgs based on observed drilling behavior and cuttings in drill wash water.
3. Driller switched to 3-inch casing. Casing advanced to 67 feet to seat casing and to position top of casing below bridge deck elevation.
4. Following core run C-3, driller advanced 3-inch casing to 79 feet bgs. While attempting to start core run C-4, the core bit was sheared off in the borehole at approximately 82 feet bgs. Bit was unable to be retrieved and the borehole was terminated at this depth.

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 04.01911154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT GDT 8/4/23

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668borl.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
BORING LOG SHEET 6

PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS
SHEET 24 OF 67

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-203**
Page No.: 1 of 2
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: K. Smith (NEBC), K. Ashe (GZA)
Date Started: 5/25/23 Date Finished: 5/26/23
VTSPG NAD83: N 226880.17 ft E 1650344.21 ft
Station: 40+07 Offset: 8' LT
Ground Elevation: 353.2 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	TRUCK	C_E = 1.3

Groundwater Observations

Date	Depth (ft)	Notes

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		0.0 ft - 5.0 ft, WEATHERED ROCK								
5		5.0 ft - 8.0 ft, BEDROCK								
		8.0 ft - 11.0 ft, C-1: Hard, moderately weathered, fine grained, gray, SCHIST. Joints are very close to closely spaced, low to high angle, rough, discolored, and open to moderately wide.	C-1	93 (0)	1.5 2 2					
10		11.0 ft - 16.0 ft, C-2: Hard, moderately weathered, fine grained, gray, SCHIST. Joints are very close to closely spaced, moderate to high angle, planar, rough to slickensided, discolored, and partially open to moderately wide.	C-2	100 (22)	2 2 2 2 3.5					
15		16.0 ft - 21.0 ft, C-3: Hard, moderately weathered, fine grained, gray, SCHIST. Joints are very close to closely spaced, moderate to high angle, planar, rough, discolored, and partially open to wide.	C-3	64 (0)	2.5 2 3.5 4 5.5					
20		21.0 ft - 26.0 ft, C-4: Hard, slightly weathered, fine grained, gray, SCHIST. Joints are very close to closely spaced, low to high angle, planar, rough, discolored, and tight to open.	C-4	98 (56)	3 3 2 2 2					
25		26.0 ft - 31.0 ft, C-5: Hard, slightly weathered, fine grained, gray, SCHIST. Joints are very closely spaced, horizontal to high angle, planar to undulating, rough, discolored, and open to moderately wide.	C-5	100 (24)	2 2 2 2 2.5					
30		Hole stopped @ 31.0 ft								

Remarks:
1. Driller cored through bridge deck (approximately 3 inches of asphalt and 7 inches of concrete) to advance boring. Mudline was measured 30 feet from bridge deck. All depths are from mudline.
2. 4-inch casing seated to 4 feet bgs to set up for rock core.
3. Driller switched to 3-inch casing and advanced casing to 7 feet bgs to seat casing and to position top of casing below bridge deck elevation.
4. Driller advanced roller bit to 8 feet bgs and set up to core.

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 04.0191154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT.GDT 8/4/23

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-203**
Page No.: 2 of 2
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: K. Smith (NEBC), K. Ashe (GZA)
Date Started: 5/25/23 Date Finished: 5/26/23
VTSPG NAD83: N 226880.17 ft E 1650344.21 ft
Station: 40+07 Offset: 8' LT
Ground Elevation: 353.2 ft

Casing / Sampler
Type: WASH BORE / SS
I.D.: 4 in / 2 in
Hammer Wt: N.A. / 140 lb.
Hammer Fall: 24 in. / 30 in.
Hammer/Rod Type: Auto/AWJ
Rig: TRUCK C_E = 1.3

Groundwater Observations: Date | Depth (ft) | Notes

Depth (ft) | Strata (1) | CLASSIFICATION OF MATERIALS (Description) | Run (Dip deg.) | Core Rec. % (RQD %) | Drill Rate minutes/ft | Blows/6" (N Value) | Moisture Content % | Gravel % | Sand % | Fines %

40
45
50
55
60
65

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 04.0191154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT.GDT 8/4/23

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668borl.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
BORING LOG SHEET 7

PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS
SHEET 25 OF 67

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-204**
Page No.: 1 of 2
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: K. Smith (NEBC), K. Ashe (GZA)
Date Started: 6/02/23 Date Finished: 6/05/23
VTSPG NAD83: N 226864.09 ft E 1650353.09 ft
Station: 40+20 Offset: 6' RT
Ground Elevation: 352.0 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	TRUCK	C_E = 1.3

Groundwater Observations

Date	Depth (ft)	Notes

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		0.0 ft - 2.0 ft, SAND								
		2.0 ft - 8.0 ft, WEATHERED ROCK								
5										
		8.0 ft - 13.5 ft, BEDROCK								
10										
		13.5 ft - 18.5 ft, C-1: Hard, moderately weathered, fine grained, gray, SCHIST. Joints are very close to closely spaced, low angle to moderately dipping, foliated, planar, rough to smooth, discolored, and open to wide.	C-1	72 (0)	3 2 2 3 4					
15										
		18.5 ft - 22.8 ft, C-2: Hard, moderately weathered, fine grained, gray, SCHIST. Joints are very close to closely spaced, low angle to moderately dipping, foliated, planar, rough to smooth, discolored, and partially open to open.	C-2	100 (12)	2 1.5 2 2.5 2					
20										
		22.8 ft - 27.8 ft, C-3: Hard, slightly weathered, fine grained, gray, SCHIST. Joints are extremely close to closely spaced, low angle to moderately dipping, planar, rough to smooth, discolored, and partially open to open.	C-3	100 (0)	2.5 2.5 2 2 3					
25										
		27.8 ft - 31.8 ft, C-4: Hard, slightly weathered, fine grained, gray, SCHIST. Joints are very close to closely spaced, low angle to moderately dipping, planar, rough to smooth, discolored, and open to moderately wide.	C-4	100 (25)	2 2 2 5					
30										
		31.8 ft - 36.8 ft, C-5: Hard, slightly weathered, fine grained, gray, SCHIST. Joints are very close to closely spaced, low angle to moderately dipping, planar, rough to smooth, discolored, and partially open to wide.	C-5	88 (16)	1.5 1.5 2					

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 04.0191154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT GDT 8/4/23

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

BORING LOG

Westminster
BF 0126(13)
VT 121 BR 5

Boring No.: **B-204**
Page No.: 2 of 2
Pin No.: 12j668
Checked By: J. Baron

Boring Crew: K. Smith (NEBC), K. Ashe (GZA)
Date Started: 6/02/23 Date Finished: 6/05/23
VTSPG NAD83: N 226864.09 ft E 1650353.09 ft
Station: 40+20 Offset: 6' RT
Ground Elevation: 352.0 ft

	Casing	Sampler
Type:	WASH BORE	SS
I.D.:	4 in	2 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	24 in.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	TRUCK	C_E = 1.3

Groundwater Observations

Date	Depth (ft)	Notes

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
					2					
					5					
		36.8 ft - 41.8 ft, C-6: Hard, slightly weathered, fine grained, gray, SCHIST. Joints are very close to closely spaced, low angle to moderately dipping, planar, rough to smooth, discolored, and partially open to wide.	C-6	100 (14)	1.5 1.5 1.5 1.5 2					
40										
		Hole stopped @ 41.8 ft								
45										
50										
55										
60										
65										

Remarks:
1. Driller cored through bridge deck (approximately 3 inches of asphalt and 7 inches of concrete) to advance boring. Mudline was measured approximately 31.5 feet brom bridge deck. All depths are from mudline.
2. 4-inch casing seated to 8.5 feet bgs to set up for rock core.
3. Driller switched to 3-inch casing and advanced casing to 13.5 feet bgs to seat casing and to position top of casing below bridge deck elevation.
4. Driller advanced roller bit to 13.5 feet bgs and set up to core.

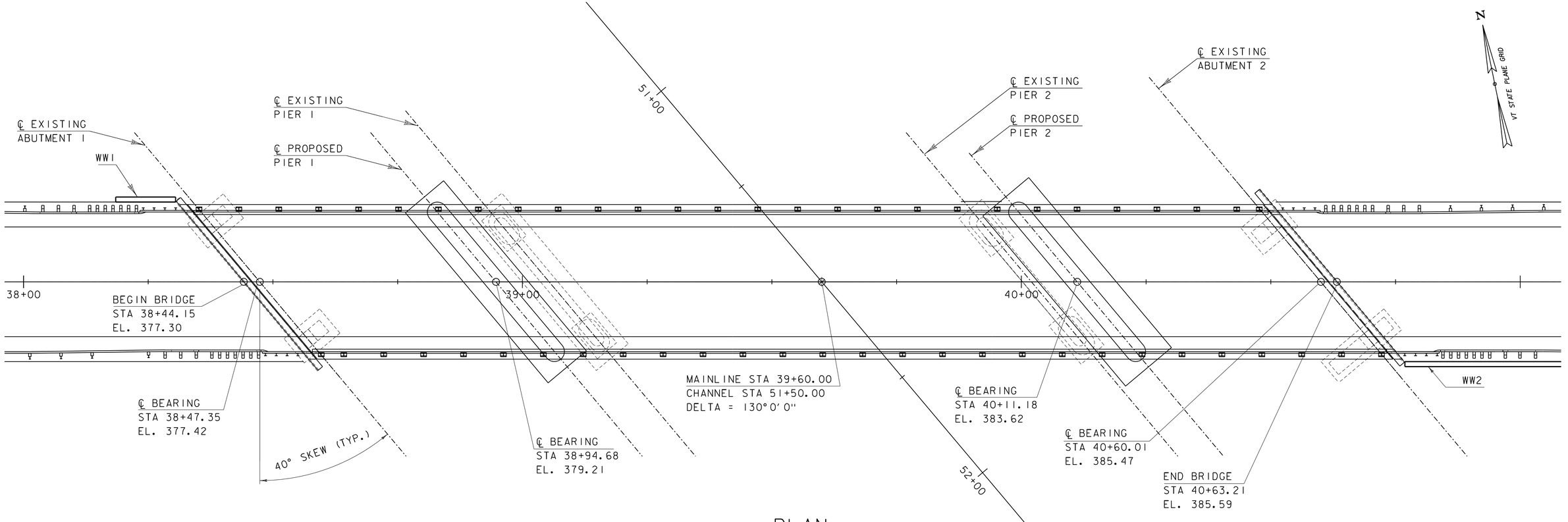
Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations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

BORING LOG 04.0191154.11 VTRANS WESTMINSTER BF 0126(13).GPJ VERMONT AOT GDT 8/4/23

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668borl.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
BORING LOG SHEET 8

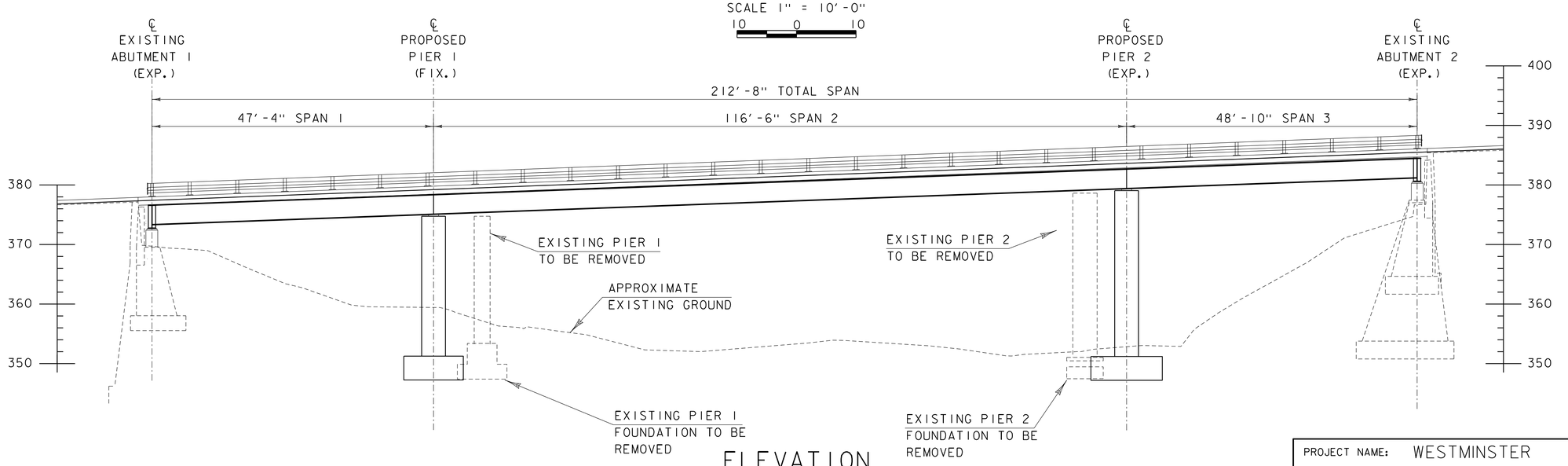
PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS
SHEET 26 OF 67



PLAN

SCALE 1" = 10'-0"

10 0 10



ELEVATION

SCALE 1" = 10'-0"

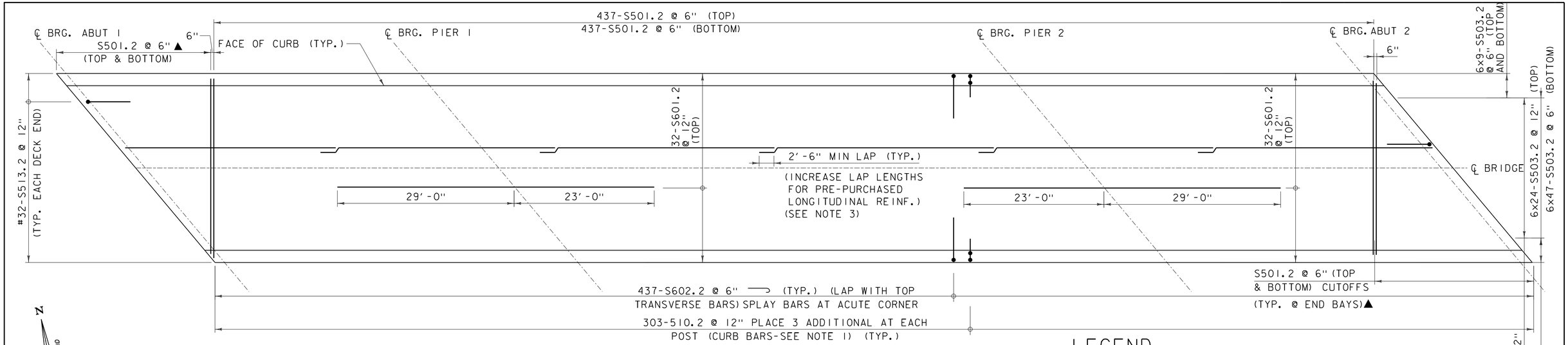
10 0 10

NOTES:

1. FOR ADDITIONAL FEATURES SEE LAYOUT SHEETS
2. BRIDGE RAILING DETAILS AND POST LOCATIONS SHOWN ON BRIDGE RAILING LAYOUT SHEET

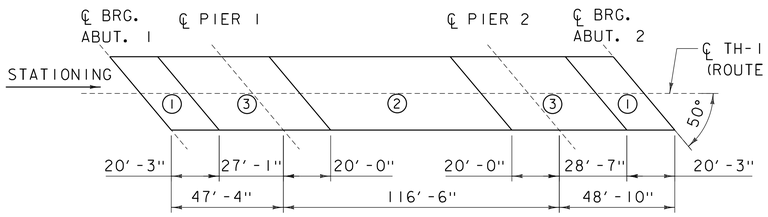
H&H

PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668pe.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: C. TRIMBLE
DESIGNED BY: C. TRIMBLE	CHECKED BY: E. STEHLGENS
PLAN AND ELEVATION	SHEET 27 OF 67



DECK REINFORCING PLAN

SCALE 1/8" = 1'-0"



DECK POUR SEQUENCE

NTS

DECK POUR NOTES:

1. THE BRIDGE DECK SLAB CONCRETE SHALL BE PLACED IN ACCORDANCE WITH THE DECK POUR SEQUENCE. CONCRETE SHALL BE PLACED CONTINUOUSLY WITH THE CONCRETE REMAINING PLASTIC THROUGHOUT THE PLACEMENT WITH A MAXIMUM DURATION OF EIGHT HOURS PER PLACEMENT. IF CIRCUMSTANCES BEYOND THE CONTRACTOR'S CONTROL PREVENT THIS FROM BEING ACCOMPLISHED, A CONSTRUCTION JOINT SHALL BE USED.

2. FOLLOWING THE COMPLETION OF DECK PLACEMENT 2 A MINIMUM 96 HOURS OF ACCEPTABLE CURING SHALL BE OBSERVED PRIOR TO PLACEMENT OF CONCRETE IN DECK AREA 3.

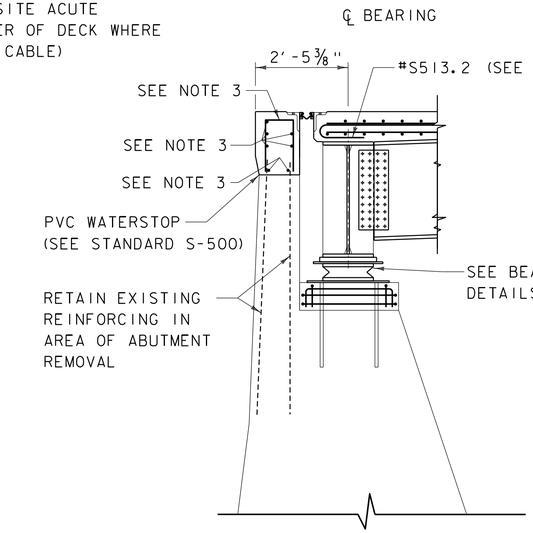
3. THE CONCRETE SHALL BE DEPOSITED PARALLEL TO THE CENTERLINE OF BEARING SO AS TO LOAD THE GIRDERS EQUALLY.

4. THE CONTRACTOR MAY SUBMIT, IN WRITING, AN ALTERNATE PLACEMENT SEQUENCE TO THE ENGINEER FOR REVIEW AND APPROVAL.

5. SEE STANDARD S-500 FOR TRANSVERSE BRIDGE SLAB CONSTRUCTION JOINT DETAILS

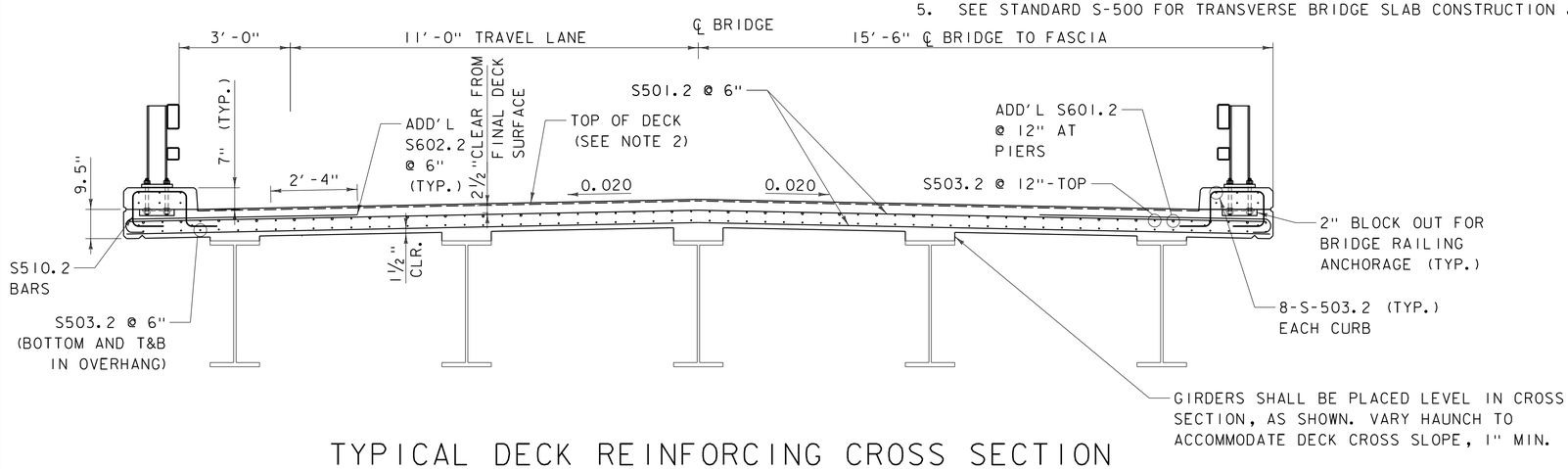
LEGEND

▲ DENOTES CUT IN FIELD (USE CUTOFFS ON OPPOSITE ACUTE CORNER OF DECK WHERE APPLICABLE)



DECK END DETAIL

SCALE 1/2" = 1'-0"



TYPICAL DECK REINFORCING CROSS SECTION

SCALE 1/2" = 1'-0"

NOTES

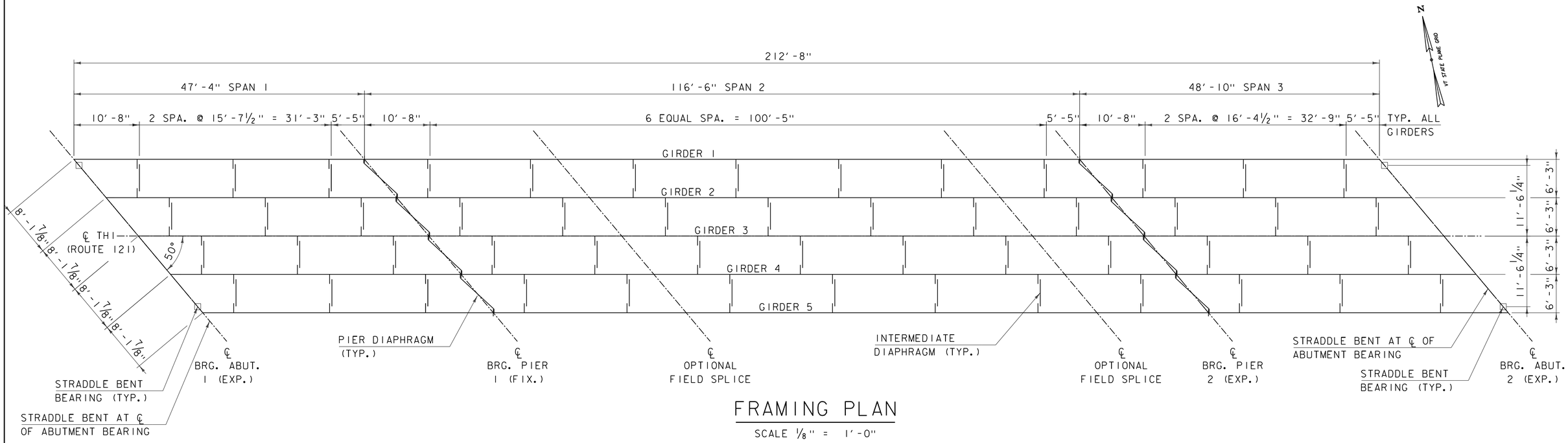
1. SEE STANDARD DRAWING S-360A FOR CURB REINFORCING DETAILS.
2. DECK TO BE POURED TO 9" MIN THICKNESS AND DIAMOND GROUND TO 8.5" IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
3. THE DECK AND SOME BACKWALL REINFORCEMENT HAS BEEN PRE-PURCHASED BY VTRANS. SEE THE SPECIAL PROVISIONS. # INDICATES NEW REINFORCING STEEL. SEE ABUTMENT MODIFICATION SHEETS FOR BACKWALL REINFORCEMENT.

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

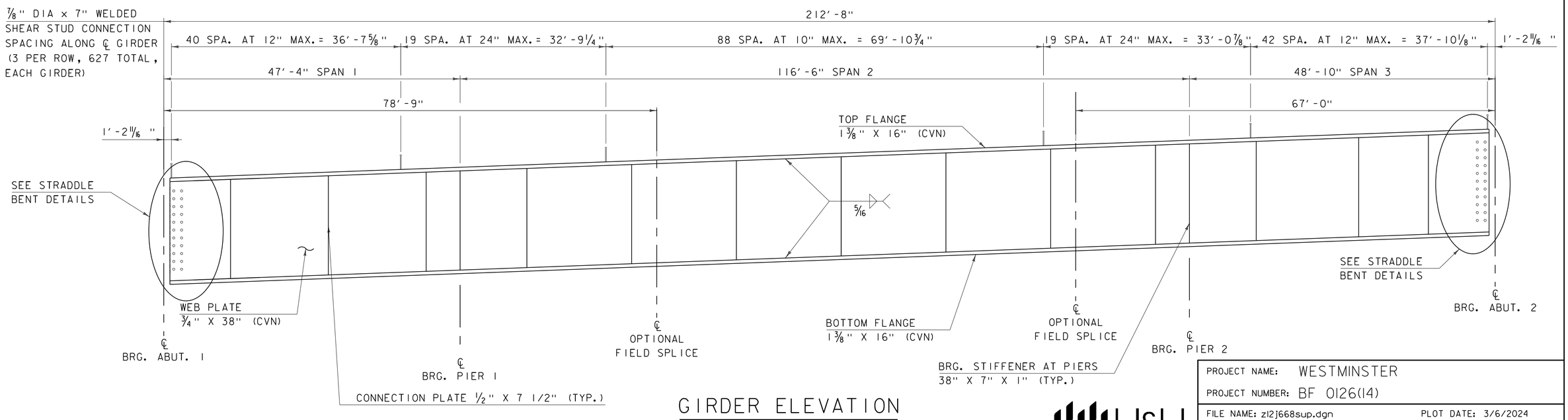
FILE NAME: z12j668sup.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. SMITH
DECK REINFORCEMENT SHEET

PLOT DATE: 3/6/2024
DRAWN BY: C. SCHWARTZ
CHECKED BY: S. BROWN
SHEET 28 OF 67



FRAMING PLAN

SCALE ⅛" = 1'-0"

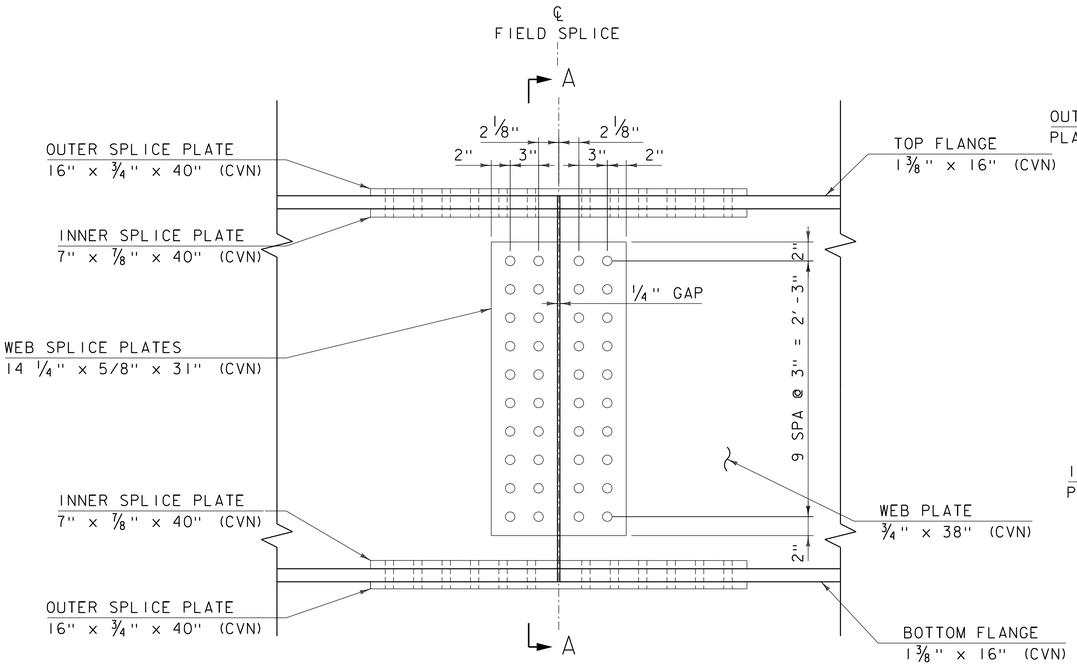


GIRDER ELEVATION

NTS

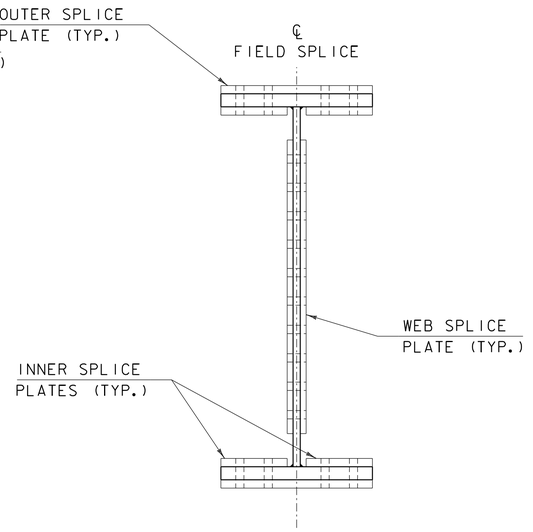
H&H

PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668sup.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: C. TRIMBLE
DESIGNED BY: C. TRIMBLE	CHECKED BY: E. STEHLGENS
FRAMING PLAN AND GIRDER ELEVATION	SHEET 29 OF 67



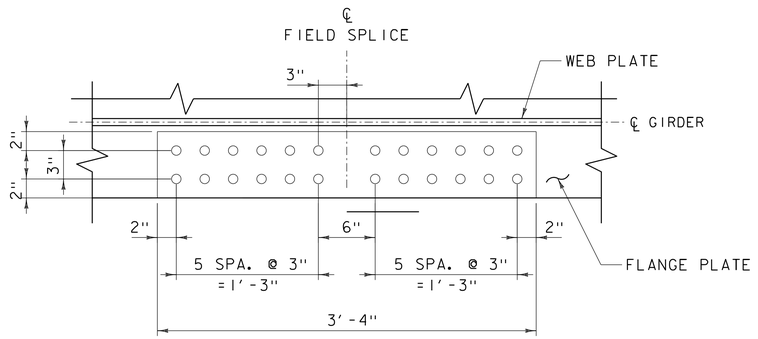
FIELD SPLICE ELEVATION

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



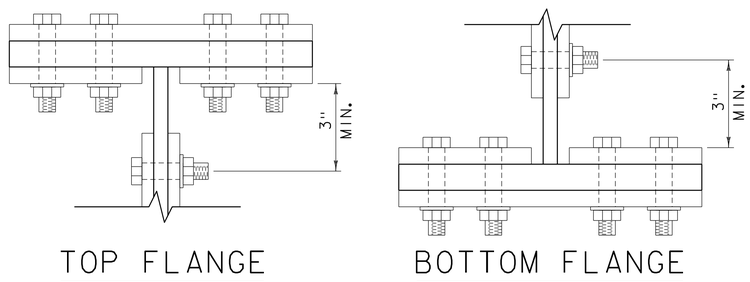
SECTION A-A

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



INNER PLATE TOP AND BOTTOM FLANGE

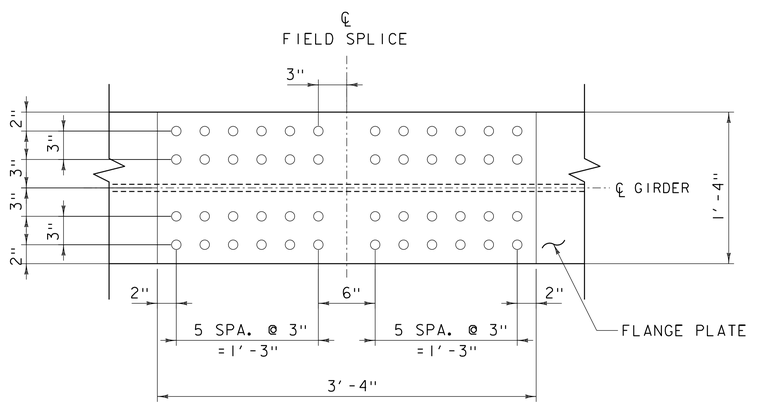
SCALE 1 1/2" = 1'-0"



TOP FLANGE BOTTOM FLANGE

BOLT ENTERING AND TIGHTENING CLEARANCES

NTS

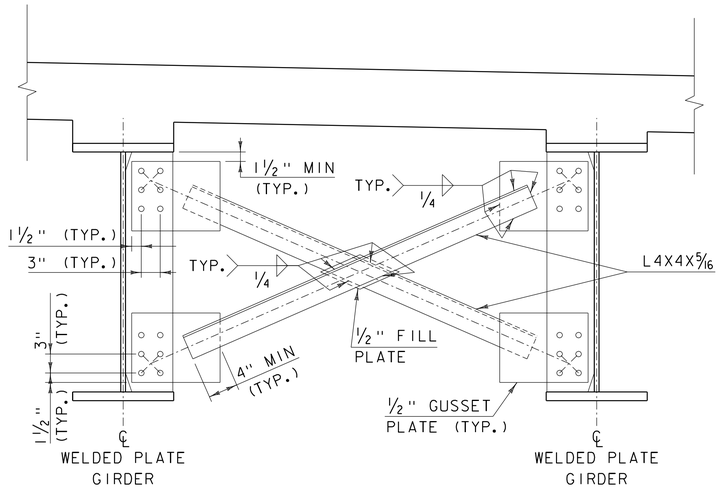


OUTER PLATE TOP AND BOTTOM FLANGE

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

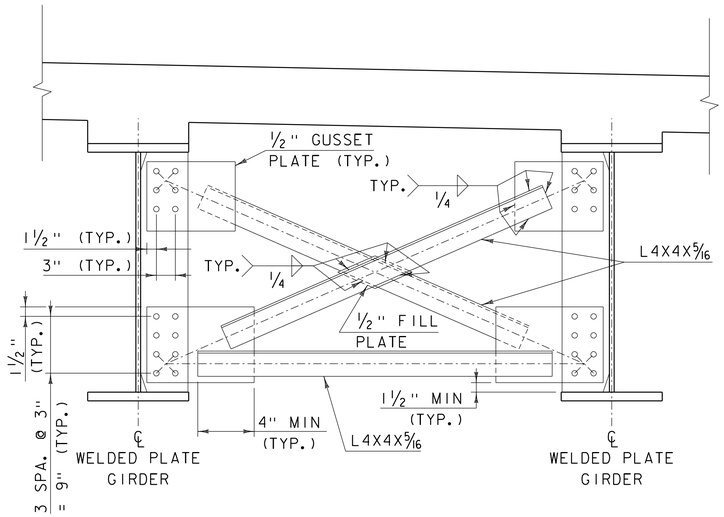
H&H

PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668sup.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: C. TRIMBLE
DESIGNED BY: C. TRIMBLE	CHECKED BY: E. STEHLGENS
GIRDER DETAILS I	SHEET 30 OF 67



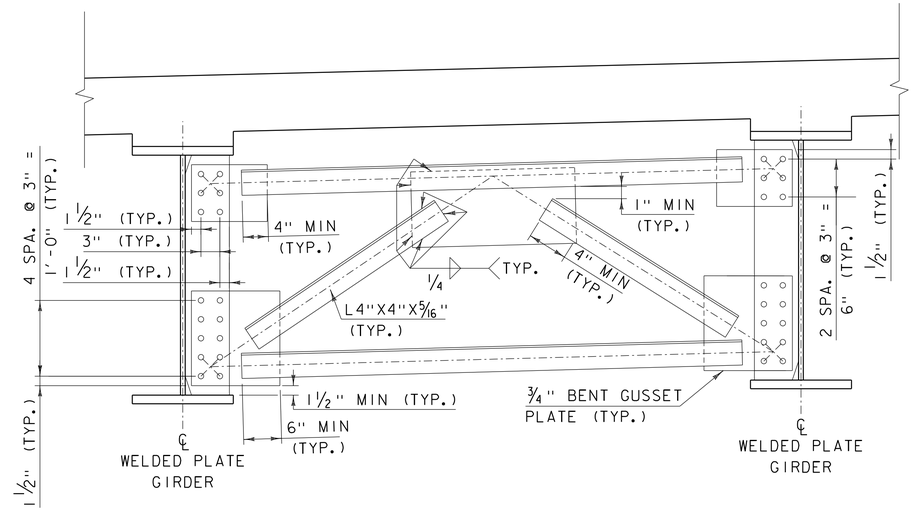
INTERMEDIATE DIAPHRAGM - INTERIOR BAY

SCALE 1" = 1'-0"



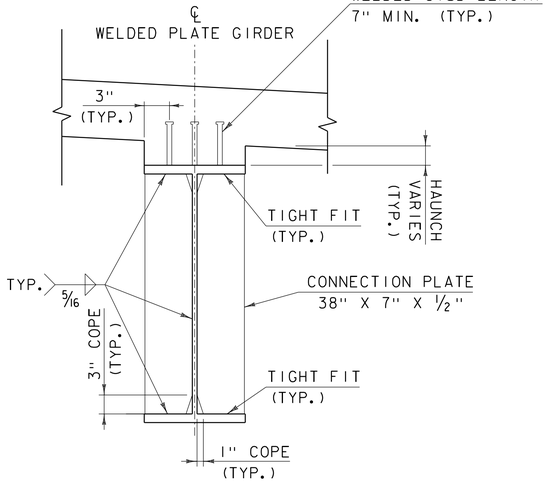
INTERMEDIATE DIAPHRAGM - EXTERIOR BAY

SCALE 1" = 1'-0"



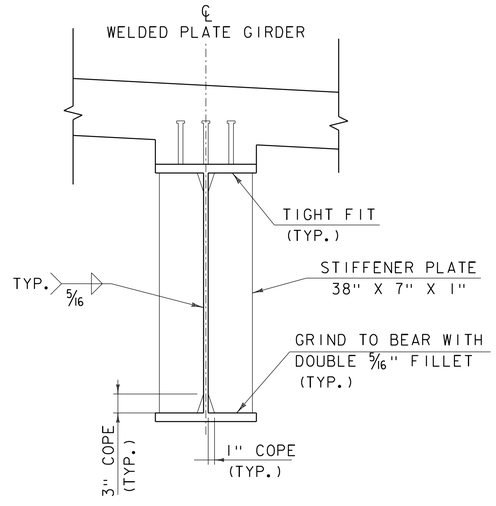
PIER DIAPHRAGM

SCALE 1" = 1'-0"



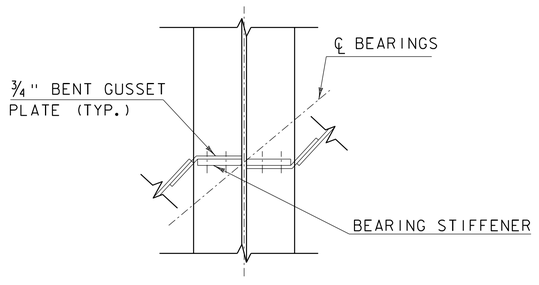
CONNECTION PLATE DETAIL

SCALE 1" = 1'-0"



PIER BEARING STIFFENERS FOR WELDED PLATE GIRDERS

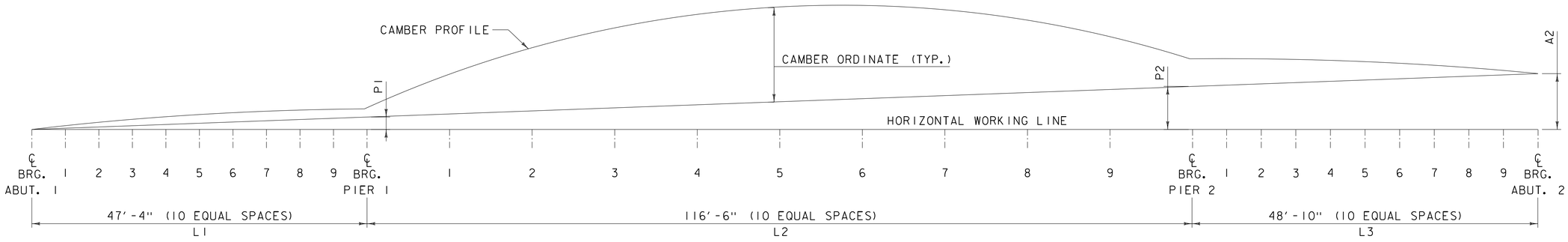
SCALE 1" = 1'-0"



BENT GUSSET PLATE DETAIL

SCALE 1" = 1'-0"

PROJECT NAME:	WESTMINSTER
PROJECT NUMBER:	BF 0126(14)
FILE NAME: z12j668sup.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: C. TRIMBLE
DESIGNED BY: C. TRIMBLE	CHECKED BY: E. STEHLGENS
GIRDER DETAILS 2	SHEET 31 OF 67



CAMBER DIAGRAM

NTS

P1	21.51"
P2	74.44"
A2	96.63"

CAMBER TABLE

GIRDER		℄ OF BRG. ABUT. 1	0.1L1	0.2L1	0.3L1	0.4L1	0.5L1	0.6L1	0.7L1	0.8L1	0.9L1	℄ OF BRG. PIER 1
1	STEEL DL DEFLECTION (IN)	0.00	-0.01	-0.02	-0.03	-0.04	-0.04	-0.05	-0.05	-0.04	-0.02	0.00
	SLAB DL DEFLECTION (IN)	0.00	-0.02	-0.05	-0.09	-0.13	-0.16	-0.18	-0.17	-0.16	-0.09	0.00
	SDL DEFLECTION (IN)	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	0.00
	TOTAL DEFLECTION (IN.)	0.00	-0.03	-0.07	-0.12	-0.17	-0.21	-0.24	-0.22	-0.21	-0.12	0.00
	RESIDUAL CAMBER (IN)	0.00	0.19	0.38	0.56	0.75	0.92	1.10	1.27	1.43	1.58	1.73
	TOTAL CAMBER (IN.)	0.00	0.16	0.31	0.44	0.58	0.71	0.86	1.04	1.22	1.46	1.73
2	STEEL DL DEFLECTION (IN)	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.04	-0.04	-0.03	-0.02	0.00
	SLAB DL DEFLECTION (IN)	0.00	-0.03	-0.06	-0.09	-0.12	-0.14	-0.16	-0.15	-0.13	-0.07	0.00
	SDL DEFLECTION (IN)	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02	-0.01	-0.01	0.00
	TOTAL DEFLECTION (IN.)	0.00	-0.04	-0.08	-0.12	-0.17	-0.20	-0.22	-0.21	-0.18	-0.09	0.00
	RESIDUAL CAMBER (IN)	0.00	0.19	0.38	0.56	0.75	0.92	1.10	1.27	1.43	1.58	1.73
	TOTAL CAMBER (IN.)	0.00	0.15	0.30	0.44	0.58	0.73	0.88	1.06	1.25	1.49	1.73
3	STEEL DL DEFLECTION (IN)	0.00	0.00	-0.01	-0.02	-0.03	-0.04	-0.04	-0.04	-0.03	-0.01	0.00
	SLAB DL DEFLECTION (IN)	0.00	-0.02	-0.04	-0.07	-0.10	-0.12	-0.13	-0.13	-0.11	-0.06	0.00
	SDL DEFLECTION (IN)	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02	-0.02	-0.01	-0.01	0.00
	TOTAL DEFLECTION (IN.)	0.00	-0.03	-0.06	-0.10	-0.14	-0.17	-0.19	-0.18	-0.15	-0.07	0.00
	RESIDUAL CAMBER (IN)	0.00	0.19	0.38	0.56	0.75	0.92	1.10	1.27	1.43	1.58	1.73
	TOTAL CAMBER (IN.)	0.00	0.16	0.31	0.46	0.60	0.75	0.91	1.09	1.25	1.51	1.73
4	STEEL DL DEFLECTION (IN)	0.00	0.00	-0.01	-0.02	-0.03	-0.04	-0.04	-0.04	-0.03	-0.01	0.00
	SLAB DL DEFLECTION (IN)	0.00	-0.02	-0.05	-0.08	-0.11	-0.13	-0.15	-0.15	-0.13	-0.07	0.00
	SDL DEFLECTION (IN)	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02	-0.01	-0.01	0.00
	TOTAL DEFLECTION (IN.)	0.00	-0.03	-0.07	-0.11	-0.15	-0.19	-0.21	-0.20	-0.17	-0.09	0.00
	RESIDUAL CAMBER (IN)	0.00	0.19	0.38	0.56	0.75	0.92	1.10	1.27	1.43	1.58	1.73
	TOTAL CAMBER (IN.)	0.00	0.16	0.31	0.45	0.59	0.74	0.89	1.07	1.25	1.49	1.73
5	STEEL DL DEFLECTION (IN)	0.00	-0.01	-0.02	-0.03	-0.04	-0.05	-0.05	-0.05	-0.04	-0.02	0.00
	SLAB DL DEFLECTION (IN)	0.00	-0.03	-0.06	-0.10	-0.14	-0.16	-0.19	-0.18	-0.16	-0.07	0.00
	SDL DEFLECTION (IN)	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.02	-0.02	-0.01	0.00
	TOTAL DEFLECTION (IN.)	0.00	-0.04	-0.09	-0.14	-0.19	-0.22	-0.26	-0.25	-0.22	-0.10	0.00
	RESIDUAL CAMBER (IN)	0.00	0.19	0.38	0.56	0.75	0.92	1.10	1.27	1.43	1.58	1.73
	TOTAL CAMBER (IN.)	0.00	0.15	0.29	0.43	0.56	0.70	0.84	1.02	1.21	1.48	1.73

NOTES:

1. DIMENSIONS SHOWN ARE ALONG THE ℄ OF THE GIRDER.
2. POSITIVE CAMBER VALUES ARE UPWARDS. POSITIVE DEFLECTION VALUES ARE DOWNWARD.
3. STEEL DL DEFLECTION IS DUE TO GIRDERS AND CROSS FRAMES.
4. SLAB DL DEFLECTION IS DUE TO CONCRETE DECK.
5. SDL DEFLECTION IS DUE TO CURBS AND RAILING.
6. HORIZONTAL WORKING LINE IS A STRAIGHT LINE BASED ON THE THEORETICAL ELEVATION AT THE TOP OF THE WEB AT THE ℄ OF THE STRADDLE BENT AT ABUTMENT 1.

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668sup.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
CAMBER DETAILS 1

PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS
SHEET 32 OF 67

CAMBER TABLE (CONT.)

GIRDER		℄ OF BRG. PIER 1	0.1L2	0.2L2	0.3L2	0.4L2	0.5L2	0.6L2	0.7L2	0.8L2	0.9L2	℄ OF BRG. PIER 2	0.1L3	0.2L3	0.3L3	0.4L3	0.5L3	0.6L3	0.7L3	0.8L3	0.9L3	℄ OF BRG. ABUT. 2
1	STEEL DL DEFLECTION (IN)	0.00	0.14	0.30	0.45	0.56	0.60	0.56	0.46	0.31	0.14	0.00	-0.03	-0.04	-0.05	-0.05	-0.05	-0.04	-0.03	-0.02	-0.01	0.00
	SLAB DL DEFLECTION (IN)	0.00	0.55	1.22	1.82	2.25	2.40	2.24	1.81	1.20	0.54	0.00	-0.09	-0.15	-0.17	-0.17	-0.14	-0.11	-0.08	-0.05	-0.02	0.00
	SDL DEFLECTION (IN)	0.00	0.07	0.15	0.23	0.29	0.31	0.26	0.24	0.17	0.08	0.00	-0.01	-0.02	-0.02	-0.02	-0.02	-0.01	-0.01	0.00	0.00	0.00
	TOTAL DEFLECTION (IN.)	0.00	0.76	1.68	2.50	3.11	3.32	3.07	2.51	1.68	0.76	0.00	-0.13	-0.21	-0.24	-0.24	-0.21	-0.17	-0.12	-0.07	-0.03	0.00
	RESIDUAL CAMBER (IN)	1.73	2.05	2.31	2.50	2.62	2.66	2.63	2.52	2.33	2.08	1.77	1.62	1.47	1.30	1.13	0.95	0.77	0.58	0.39	0.20	0.00
	TOTAL CAMBER (IN.)	1.73	2.81	3.98	5.00	5.72	5.97	5.69	5.02	4.01	2.84	1.77	1.49	1.25	1.07	0.89	0.75	0.60	0.46	0.32	0.17	0.00
2	STEEL DL DEFLECTION (IN)	0.00	0.15	0.32	0.48	0.58	0.62	0.58	0.47	0.32	0.15	0.00	-0.02	-0.03	-0.04	-0.04	-0.04	-0.03	-0.02	-0.01	0.00	0.00
	SLAB DL DEFLECTION (IN)	0.00	0.45	0.96	1.42	1.74	1.85	1.74	1.40	0.94	0.43	0.00	-0.07	-0.12	-0.13	-0.14	-0.12	-0.10	-0.07	-0.04	-0.01	0.00
	SDL DEFLECTION (IN)	0.00	0.07	0.14	0.21	0.25	0.27	0.25	0.20	0.14	0.06	0.00	-0.01	-0.01	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01	0.00	0.00
	TOTAL DEFLECTION (IN.)	0.00	0.67	1.42	2.11	2.57	2.74	2.57	2.07	1.39	0.64	0.00	-0.10	-0.17	-0.19	-0.20	-0.17	-0.14	-0.10	-0.06	-0.02	0.00
	RESIDUAL CAMBER (IN)	1.73	2.05	2.31	2.50	2.62	2.66	2.63	2.52	2.33	2.08	1.77	1.62	1.47	1.30	1.13	0.95	0.77	0.58	0.39	0.20	0.00
	TOTAL CAMBER (IN.)	1.73	2.71	3.73	4.60	5.19	5.39	5.19	4.59	3.73	2.72	1.77	1.52	1.30	1.11	0.93	0.78	0.63	0.48	0.33	0.17	0.00
3	STEEL DL DEFLECTION (IN)	0.00	0.16	0.33	0.49	0.60	0.63	0.60	0.49	0.33	0.16	0.00	-0.01	-0.03	-0.04	-0.04	-0.03	-0.03	-0.02	-0.01	0.00	0.00
	SLAB DL DEFLECTION (IN)	0.00	0.40	0.86	1.28	1.57	1.67	1.57	1.27	0.85	0.38	0.00	-0.06	-0.10	-0.11	-0.12	-0.10	-0.08	-0.05	-0.03	-0.01	0.00
	SDL DEFLECTION (IN)	0.00	0.06	0.13	0.19	0.24	0.25	0.24	0.19	0.13	0.06	0.00	-0.01	-0.01	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01	0.00	0.00
	TOTAL DEFLECTION (IN.)	0.00	0.62	1.32	1.96	2.41	2.55	2.40	1.95	1.31	0.60	0.00	-0.08	-0.14	-0.16	-0.18	-0.15	-0.12	-0.08	-0.05	-0.01	0.00
	RESIDUAL CAMBER (IN)	1.73	2.05	2.31	2.50	2.62	2.66	2.63	2.52	2.33	2.08	1.77	1.62	1.47	1.30	1.13	0.95	0.77	0.58	0.39	0.20	0.00
	TOTAL CAMBER (IN.)	1.73	2.67	3.63	4.46	5.02	5.21	5.03	4.47	3.64	2.69	1.77	1.55	1.32	1.14	0.96	0.80	0.65	0.50	0.34	0.18	0.00
4	STEEL DL DEFLECTION (IN)	0.00	0.15	0.32	0.48	0.58	0.62	0.58	0.48	0.32	0.15	0.00	-0.02	-0.03	-0.04	-0.04	-0.04	-0.03	-0.02	-0.01	0.00	0.00
	SLAB DL DEFLECTION (IN)	0.00	0.45	0.98	1.46	1.78	1.89	1.76	1.43	0.95	0.43	0.00	-0.07	-0.12	-0.13	-0.14	-0.12	-0.10	-0.07	-0.04	-0.02	0.00
	SDL DEFLECTION (IN)	0.00	0.06	0.14	0.20	0.25	0.26	0.25	0.20	0.14	0.07	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00
	TOTAL DEFLECTION (IN.)	0.00	0.67	1.44	2.14	2.61	2.77	2.60	2.11	1.41	0.65	0.00	-0.10	-0.17	-0.19	-0.20	-0.17	-0.14	-0.10	-0.06	-0.03	0.00
	RESIDUAL CAMBER (IN)	1.73	2.05	2.31	2.50	2.62	2.66	2.63	2.52	2.33	2.08	1.77	1.62	1.47	1.30	1.13	0.95	0.77	0.58	0.39	0.20	0.00
	TOTAL CAMBER (IN.)	1.73	2.71	3.75	4.64	5.22	5.43	5.22	4.63	3.75	2.73	1.77	1.52	1.30	1.12	0.93	0.78	0.63	0.48	0.33	0.17	0.00
5	STEEL DL DEFLECTION (IN)	0.00	0.14	0.31	0.46	0.56	0.59	0.56	0.45	0.30	0.13	0.00	-0.03	-0.04	-0.05	-0.05	-0.04	-0.04	-0.03	-0.02	-0.01	0.00
	SLAB DL DEFLECTION (IN)	0.00	0.56	1.21	1.82	2.23	2.34	2.23	1.80	1.20	0.53	0.00	-0.10	-0.15	-0.16	-0.17	-0.14	-0.11	-0.08	-0.05	-0.02	0.00
	SDL DEFLECTION (IN)	0.00	0.08	0.16	0.24	0.29	0.30	0.28	0.23	0.15	0.07	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL DEFLECTION (IN.)	0.00	0.78	1.68	2.51	3.08	3.23	3.07	2.49	1.65	0.74	0.00	-0.13	-0.20	-0.22	-0.22	-0.19	-0.15	-0.10	-0.06	-0.02	0.00
	RESIDUAL CAMBER (IN)	1.73	2.05	2.31	2.50	2.62	2.66	2.63	2.52	2.33	2.08	1.77	1.62	1.47	1.30	1.13	0.95	0.77	0.58	0.39	0.20	0.00
	TOTAL CAMBER (IN.)	1.73	2.82	3.99	5.01	5.70	5.89	5.69	5.00	3.98	2.82	1.77	1.50	1.27	1.08	0.91	0.77	0.62	0.48	0.33	0.17	0.00

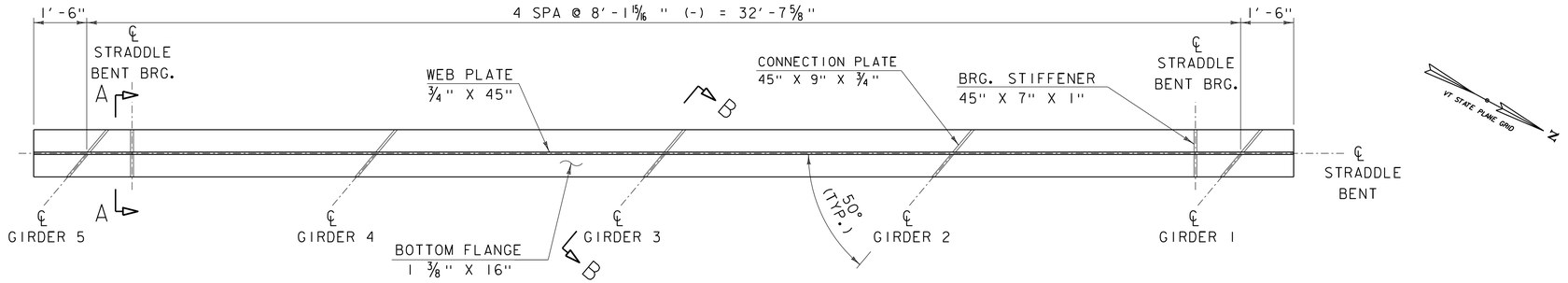
H&H

PROJECT NAME: WESTMINSTER

PROJECT NUMBER: BF 0126(14)

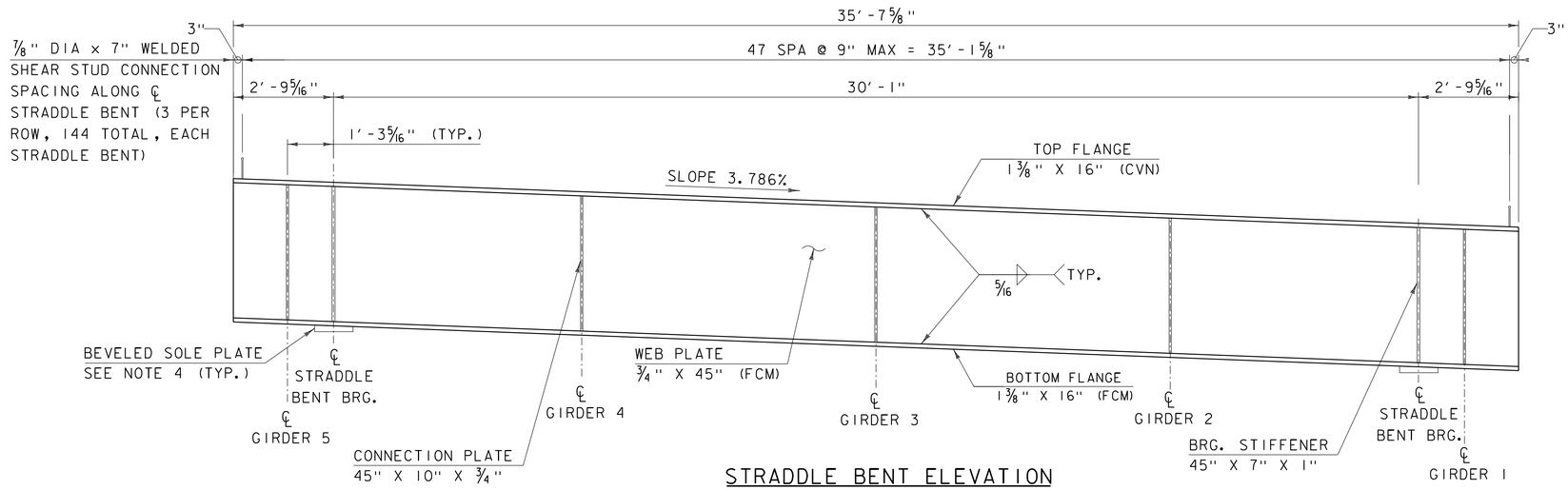
FILE NAME: z12j668sup.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
CAMBER DETAILS 2

PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS
SHEET 33 OF 67



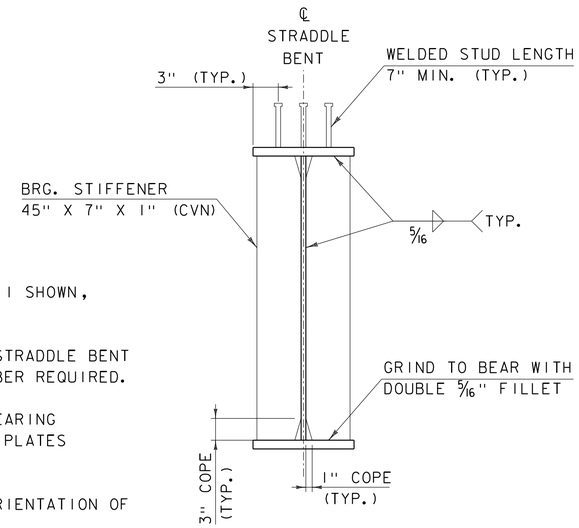
STRADDLE BENT PLAN

SCALE 1/2" = 1'-0"



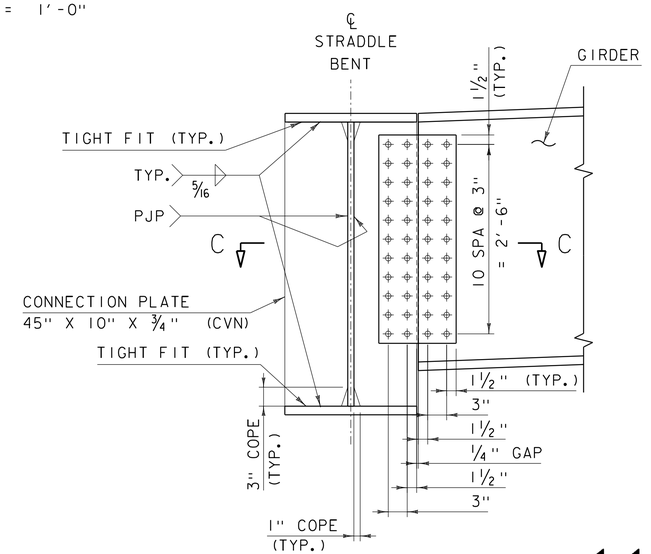
STRADDLE BENT ELEVATION

SCALE 1/2" = 1'-0"



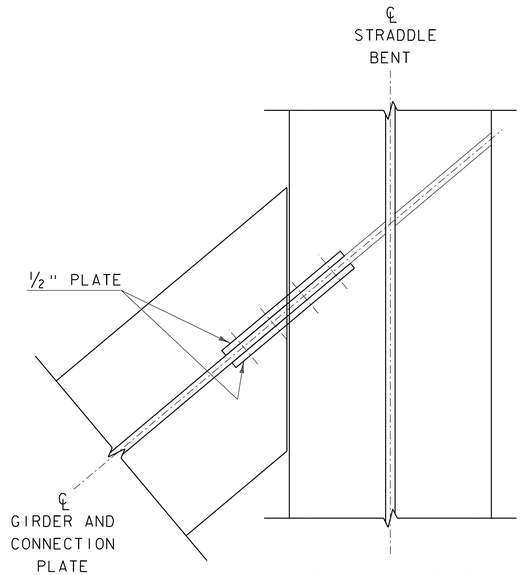
SECTION A-A

SCALE 1" = 1'-0"



SECTION B-B

SCALE 1" = 1'-0"



SECTION C-C

SCALE 1/4" = 1'-0"

NOTES:

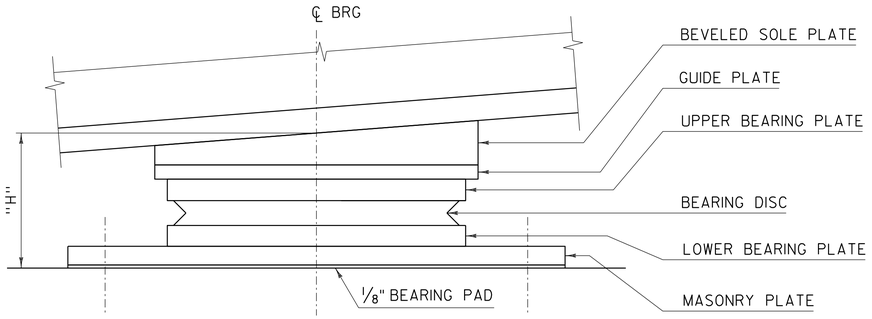
1. STRADDLE BENT AT ABUTMENT 1 SHOWN, ABUTMENT 2 OPPOSITE.
2. DEAD LOAD DEFLECTIONS ON STRADDLE BENT ARE LESS THAN 1/16". NO CAMBER REQUIRED.
3. SET STRADDLE BENT ENDS, BEARING STIFFENERS AND CONNECTION PLATES VERTICAL.
4. SEE BEARING DETAILS FOR ORIENTATION OF STRADDLE BENT BEARINGS.
5. SEE JOINT DETAILS FOR LOCATION OF JOINTS RELATIVE TO STRADDLE BENT

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

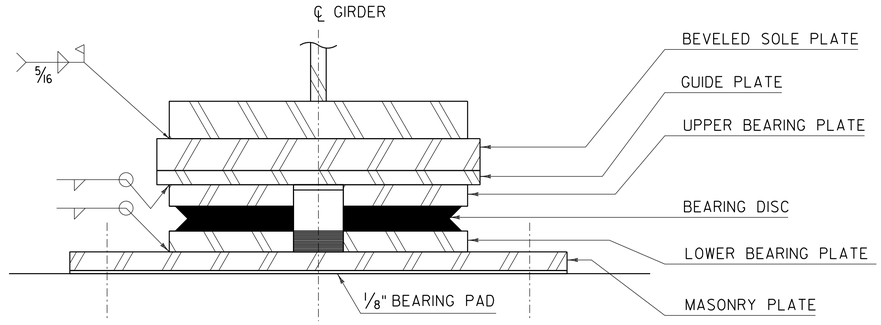
FILE NAME: z12j668sup.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
GIRDER DETAILS 2

PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS
SHEET 34 OF 67



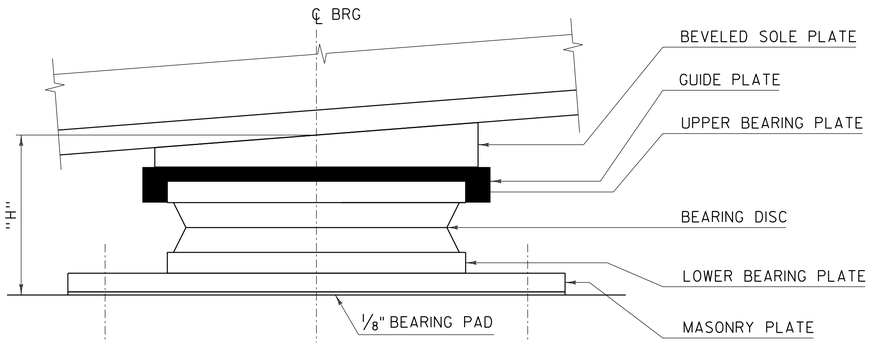
FIXED DISC BEARING ELEVATION

NTS



FIXED DISC BEARING SECTION

NTS



EXPANSION DISC BEARING ELEVATION

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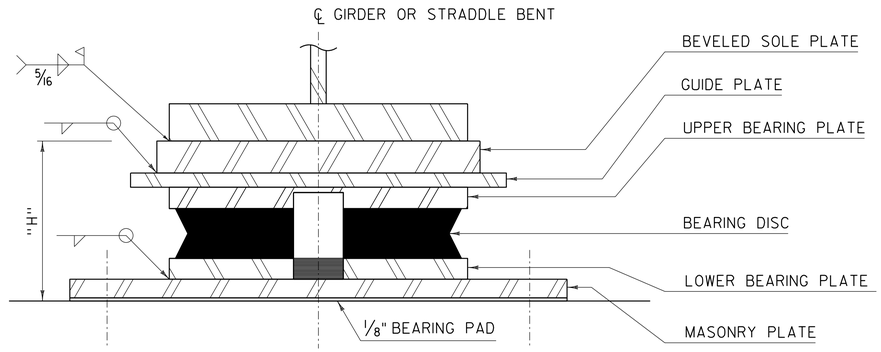


EXPANSION DISC BEARING SECTION

NTS

BEARING TABLE

LOCATION	BEARING TYPE	GRADE (%)	VERTICAL LOADS (KIP) SERVICE LIMIT STATE					LAT. LOADS (KIP) EXTREME LOAD STATE		STRENGTH LIMIT STATE DESIGN ROTATION (RADIANS) (NOTE #11)*	TOTAL LONGITUDINAL MOVEMENT (IN.)	UPLIFT RESTRAINT FORCE (KIP)
			DC1	DC2	DW	LL+IM MIN.	LL+IM MAX.	TRANSVERSE	LONGITUDINAL			
ABUTMENT #1	EXPANSION	3.787	20	3	3	-45	96	19	0	0.001	2.2	40
PIER #1	FIXED	3.787	122	18	20	86	137	58	86	0.004	0	-
PIER #2	EXPANSION	3.787	123	18	20	89	136	58	0	0.003	2.2	-
ABUTMENT #2	EXPANSION	3.787	20	3	3	-45	96	19	0	0.001	2.2	40

*STRENGTH LIMIT STATE ROTATION: POSITIVE RADIANS = CLOCKWISE ROTATION ABOUT THE Y (TRANVERSE) AXIS

NOTES:

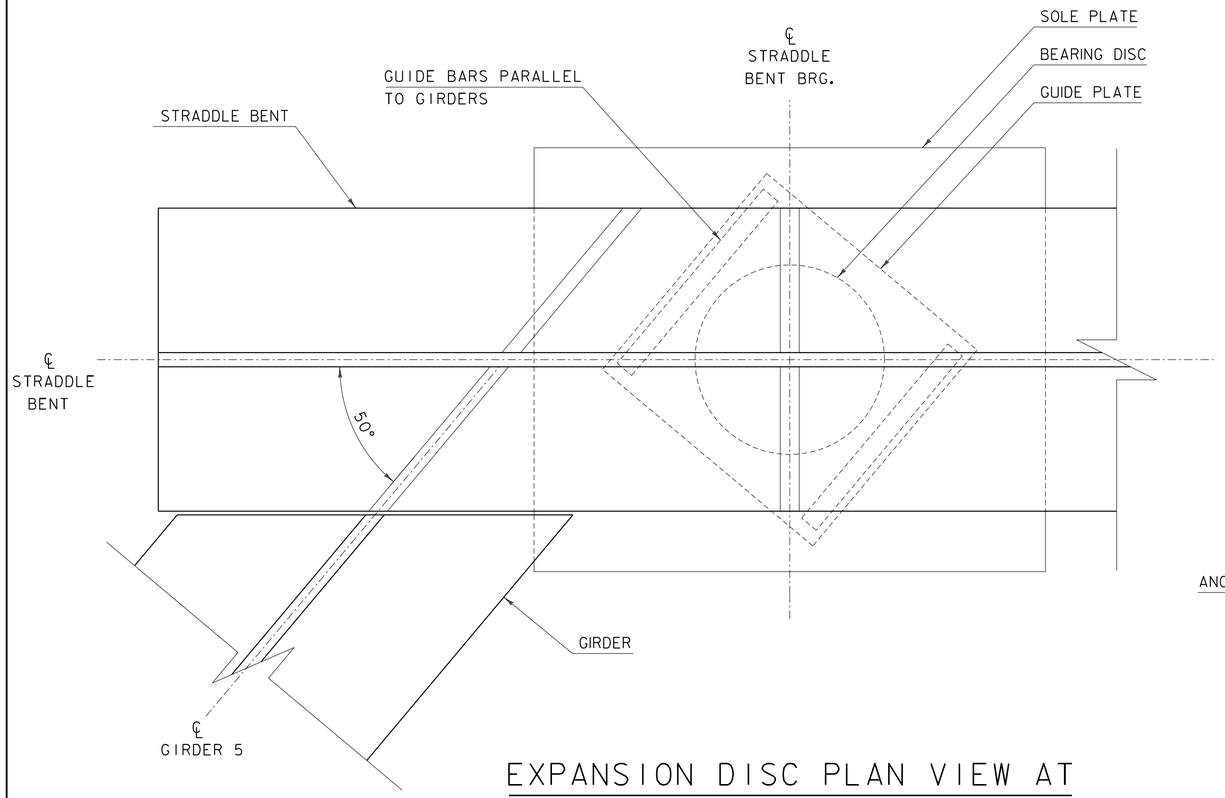
1. ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATIONS ON THE BRIDGE, AND A DIRECTION ARROW THAT POINTS UPSTATION. ALL MARKS SHALL BE PERMANENT AND SHALL BE VISIBLE AFTER THE BEARING IS INSTALLED.
2. A POSITIVE VALUE FOR THE SOLE PLATE BEVEL INDICATES THE THICKER END OF THE PLATE IS UPSTATION (PIERS), SOUTH (ABUTMENTS).
3. THE DESIGN TEMPERATURE RANGE SHALL BE 150°F (-30°F TO 120°F)
4. ALL STEEL, UNLESS OTHERWISE NOTED, SHALL MEET THE REQUIREMENTS OF AASHTO M 270, GRADE 50
5. THE CONTRACTOR MAY SUBMIT DESIGNS FOR ALTERNATE BEARINGS FOR APPROVAL.
6. BRIDGE SEAT ELEVATIONS PROVIDED ON THE PLANS ARE BASED ON AN "H" DIMENSION OF 8.0 INCHES. THE ACTUAL DIMENSION "H" IS THE RESPONSIBILITY OF THE CONTRACTOR. THE AGENCY WILL PROVIDE UPDATED BRIDGE SEAT ELEVATIONS UPON APPROVAL OF THE DISC BEARING FABRICATION DRAWINGS.
7. THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL BEARING DEVICE ASSEMBLY COMPONENTS FOR THE BEARINGS. THIS INCLUDES THE SOLE PLATES, MASONRY PLATES, AND ANCHOR RODS. THE MINIMUM SOLE PLATE THICKNESS, MEASURED AT THE THINNEST EDGE, AND THE MINIMUM MASONRY PLATE THICKNESS SHALL EACH BE 1 INCH. PAYMENT WILL BE MADE UNDER ITEM 531.15, "BEARING DEVICE ASSEMBLY, HIGH LOAD MULTI-ROTATIONAL."
8. 1" DIAMETER ANCHOR RODS SHALL BE USED AT ALL ABUTMENT BEARINGS. 1.5" DIAMETER RODS SHALL BE USED AT ALL PIER BEARINGS.
9. THE MINIMUM ANCHOR ROD EMBEDMENT SHALL BE 18 INCHES.
10. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ANCHOR ROD LAYOUT WITH THE BEARING FABRICATOR.
11. THE DESIGN OF THE BEARINGS SHALL INCLUDE A ROTATION TOLERANCE OF 0.005 RADIANS, WHICH SHALL BE ADDED TO THE STRENGTH LIMIT STATE ROTATIONS SHOWN IN THE BEARING TABLE. THE MINIMUM DESIGN ROTATION SHALL BE 0.015 RADIANS.
12. REFER TO BEARING SUBSECTION 531.05(b) OF THE STANDARD SPECIFICATIONS FOR CAULKING DETAILS.
13. THE UPLIFT RESTRAINT FORCES ARE UNFACTORED AS PER AASHTO 14.6.1 REQUIREMENTS OF 20% OF TOTAL LOADS
14. EXPANSION BEARINGS SHALL BE GUIDED IN THE LONGITUDINAL DIRECTION (PARALLEL TO THE GIRDERS).

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

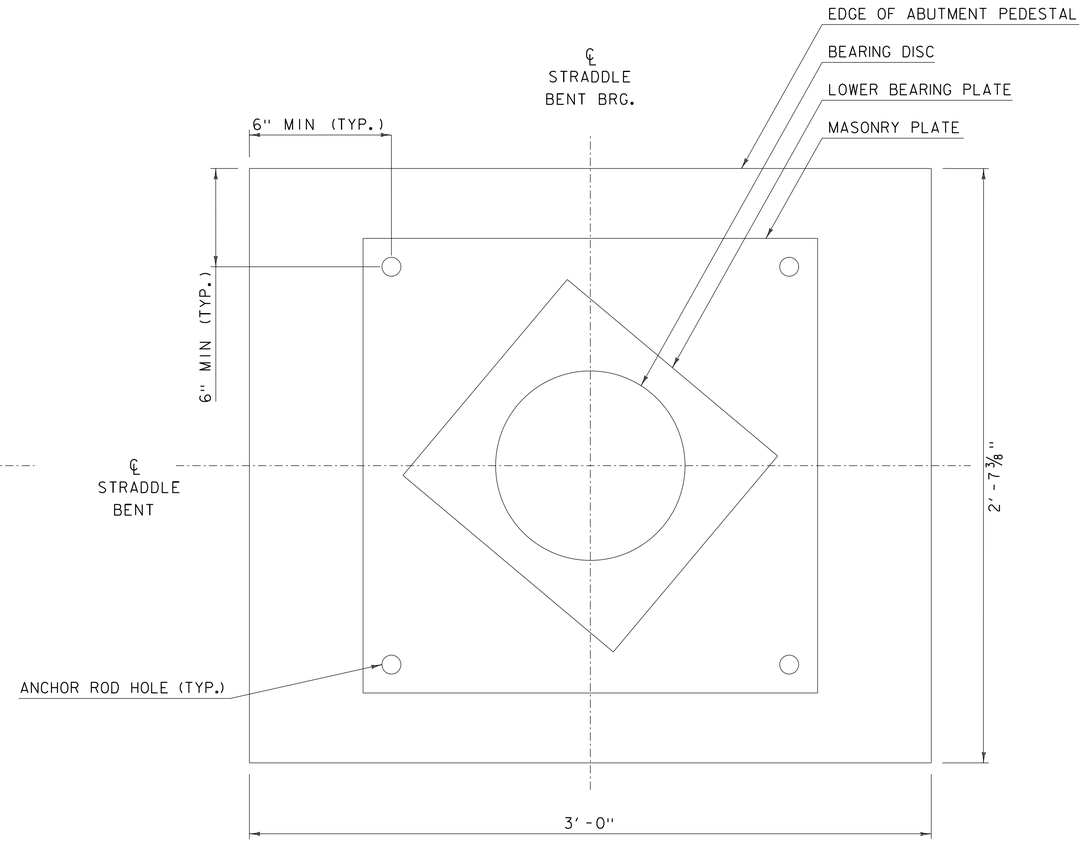
FILE NAME: z12j668sup.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
BEARING DETAILS SHEET 1

PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS



EXPANSION DISC PLAN VIEW AT
STRADDLE BENT BOTTOM FLANGE

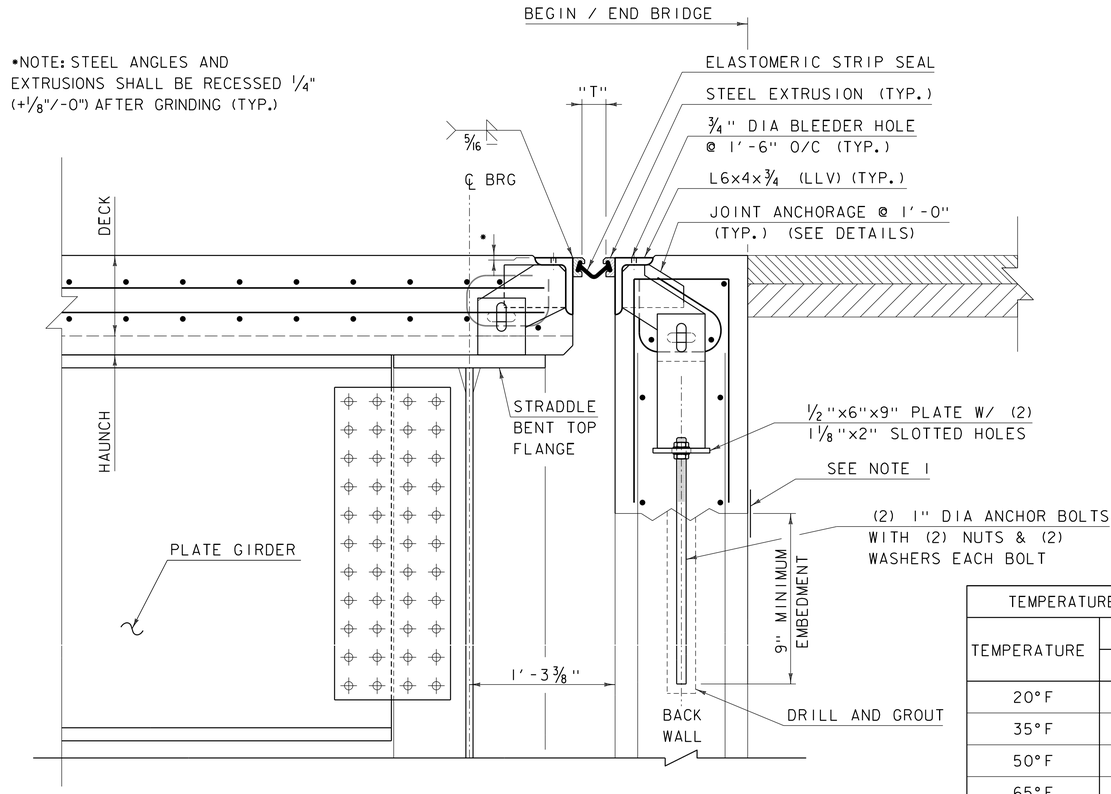
NTS



EXPANSION DISC PLAN VIEW AT
ABUTMENT MASONRY PLATE

NTS

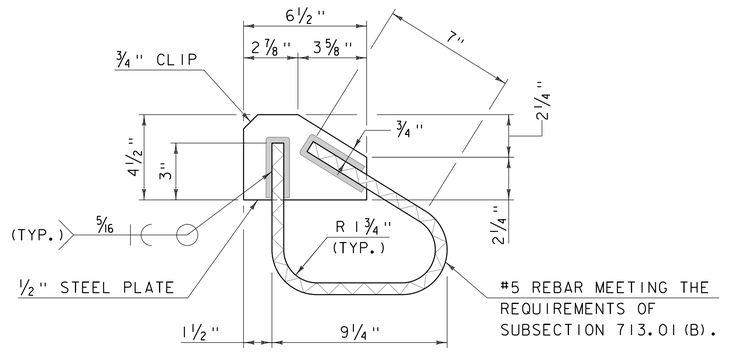
PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668sup.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: C. TRIMBLE
DESIGNED BY: C. TRIMBLE	CHECKED BY: E. STEHLGENS
BEARING DETAILS SHEET 2	SHEET 36 OF 67



EXPANSION JOINT TYPICAL SECTION

SCALE: 1 1/2" = 1'-0"

TEMPERATURE ADJUSTMENT TABLE		
TEMPERATURE	"T" (IN)	
	ABUT. 1	ABUT. 2
20°F	1 5/8"	2"
35°F	1 5/8"	1 3/4"
50°F	1 1/2"	1 5/8"
65°F	1 1/2"	1 1/2"
80°F	1 1/2"	1 3/8"
95°F	1 3/8"	1 1/4"

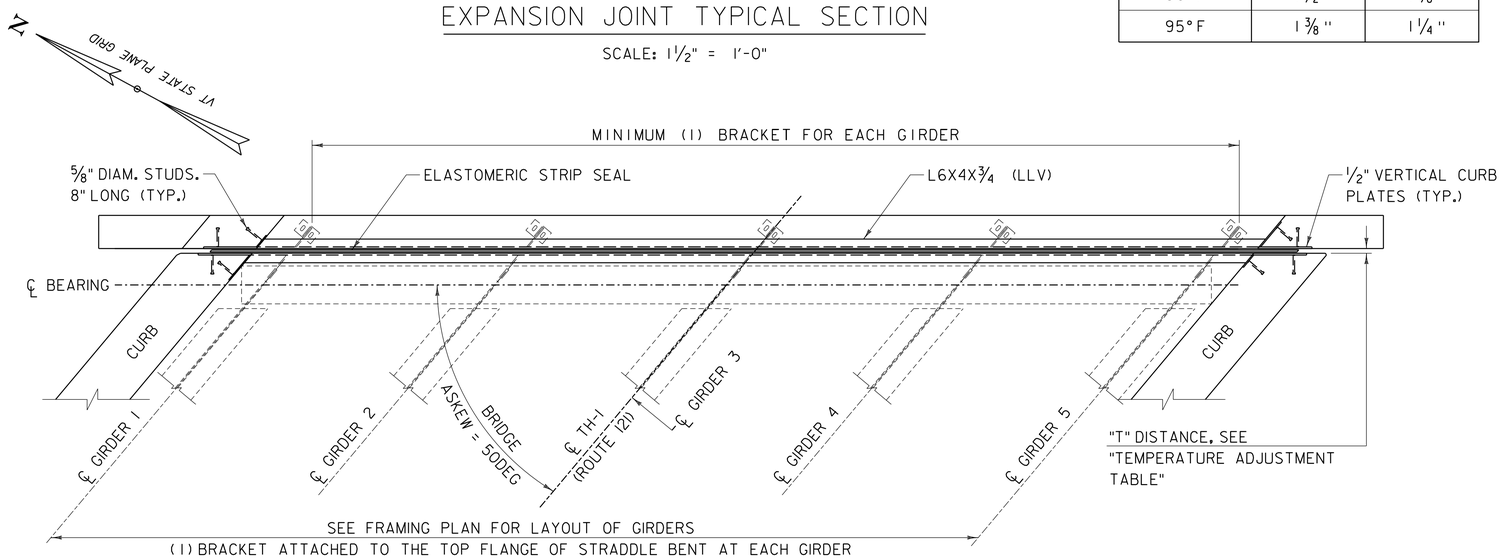


BACKWALL ANCHOR DETAIL

SCALE: 1 1/2" = 1'-0"

DECK ANCHOR DETAIL

SCALE: 1 1/2" = 1'-0"



EXPANSION JOINT PLAN

SCALE: 3/8 = 1'-0"

NOTE: JOINT AT ABUTMENT 2 SHOWN, ABUTMENT 1 SIMILAR

NOTE

1. INSTALL VERTICAL MEMBRANE ON BACK FACES OF BACK WALL AT HORIZONTAL CONSTRUCTION JOINTS. CONTRACTOR TO INSTALL FOAM PROTECTION BOARD OVER THE VERTICAL MEMBRANE PRIOR TO BACK FILLING. PAYMENT FOR VERTICAL MEMBRANE AND FOAM PROTECTION BOARD TO BE INCLUDED UNDER ITEM 900.608, "SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCS)".

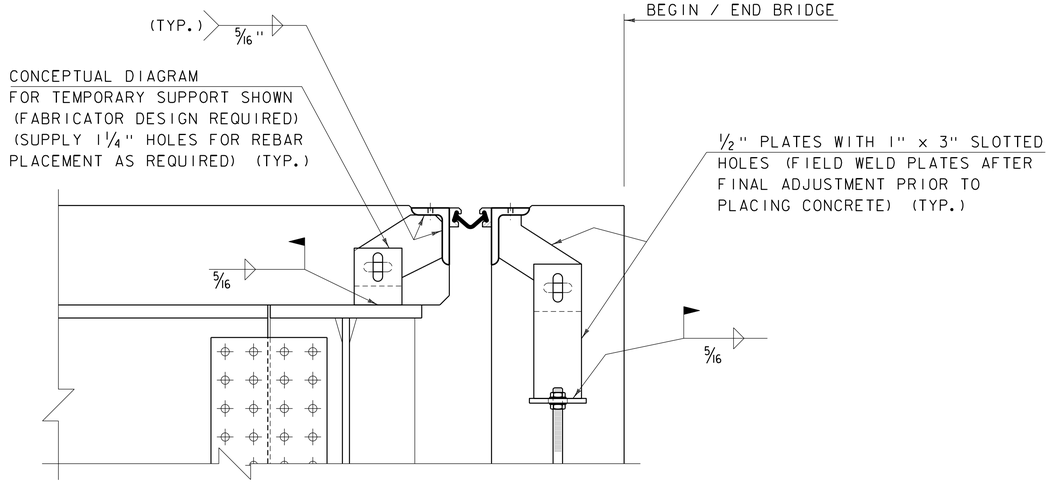
H&H

PROJECT NAME: WESTMINSTER

PROJECT NUMBER: BF 0126(14)

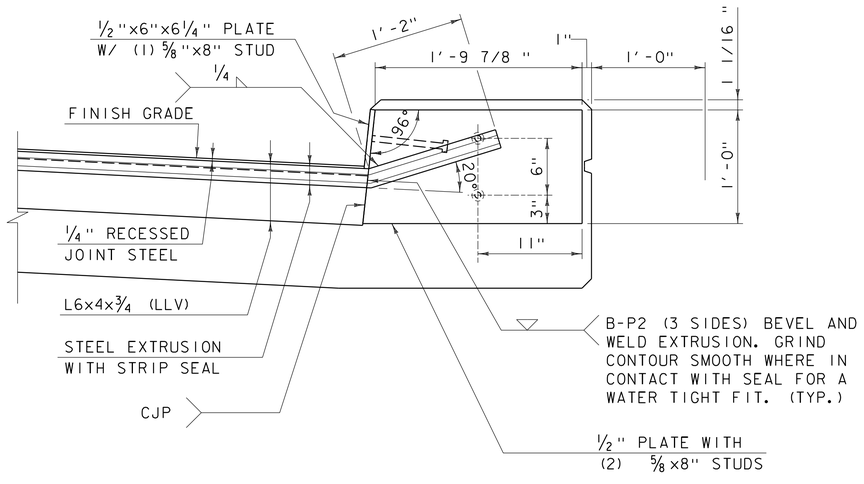
FILE NAME: z12j668sup.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
JOINT DETAILS 1

PLOT DATE: 3/12/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS



EXPANSION JOINT TEMPORARY SUPPORT DETAIL

SCALE: 3/4" = 1'-0"



STRIP SEAL END DETAIL

SCALE: 1 1/2" = 1'-0"

DETAIL IS THE SAME ON BOTH ENDS OF THE JOINT. THIS DETAIL IS SIMILAR ON THE DECK SIDE AND APPROACH SIDE OF THE JOINT. ON THE APPROACH SIDE THE STRIP SEAL AND PLATES ARE ATTACHED TO THE ABUTMENT BACKWALL. ON THE DECK SIDE THE STRIP SEAL AND PLATES ARE ATTACHED TO THE END OF THE CONCRETE DECK.

EXPANSION JOINT NOTES

1. ALL EXPANSION JOINT STEEL SHALL CONFORM TO AASHTO M270 GRADE 50. ALL EXPANSION JOINT STEEL, INCLUDING ANCHORS, SHALL BE GALVANIZED. THE ENTIRE ASSEMBLY, INCLUDING TEMPORARY SUPPORT PLATES, SHALL BE PAID FOR AS ITEM 900.640, SPECIAL PROVISION (BRIDGE EXPANSION JOINT, STRIP SEAL).

2. SHOP-WELDED SPLICES FOR STEEL ANGLES SHALL USE COMPLETE JOINT PENETRATION GROOVE WELDS. FOR STEEL EXTRUSIONS, USE 1/8" PARTIAL JOINT PENETRATION GROOVE WELDS BOTH TOP AND BOTTOM AND BACK SIDE OF VERTICAL FACES. GRIND ALL WELDS SMOOTH.

3. EXPANSION JOINT OPENING SHALL BE ADJUSTED TO TEMPERATURE ANTICIPATED JUST PRIOR TO THE DECK POURING. FINAL SETTING IN THE FIELD SHALL BE DETERMINED BY THE ENGINEER.

4. STRIP SEAL SHALL BE FURNISHED IN ON CONTINUOUS LENGTH. NO SPLICE WILL BE ALLOWED. SEAL SHALL BE INSTALLED IN THE FIELD BY THE CONTRACTOR, IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AFTER THE CONCRETE HAS CURED.

5. JOINT SUPPORT PLATES AND CURB PLATES SHALL BE SHOP WELDED TO EXPANSIONS JOINT STEEL AND SHALL BE NORMAL TO GRADE AFTER JOINT ASSEMBLY HAS BEEN ADJUSTED FOR ROADWAY CROSS-SLOPE AND GRADE. STEEL ANGLES AND EXTRUSIONS SHALL BE ASSEMBLED WITH A CONSTANT JOINT OPENING TO ENSURE PROPER PERFORMANCEORMATIN AND WATER TIGHTNESS.

6. THE EXPANSIONS JOINT ASSEMBLY SHALL BE INSTALLED ONLY AFTER BOTH ABUTMENTS HAVE BEEN BACKFILLED TO WITHIN 3'-0" OF FINISHED GRADE.

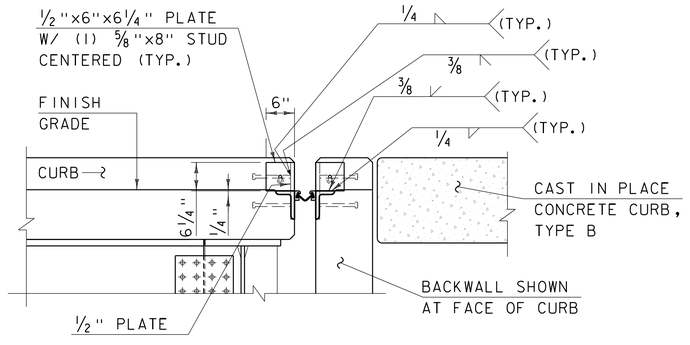
7. AFTER THE JOINT HAS BEEN SECURED TO THE STRUCTURAL STEEL AND BACKWALL, REMOVE SHIPPING DEVICES. REPAIR ANY DAMAGE TO GALVANIZED SURFACES IN ACCORDANCE WITH SUBSECTION 726.08.

8. PROTECT TOP OF EXPANSION JOINT DURING PLACEMENT OF CONCRETE AND BITUMINOUS PAVEMENT.

9. THE STRIP SEAL HAS BEEN DESIGNED FOR A TOTAL FACTORED MOVEMENT OF 1 INCH AT ABUTMENT 1 AND 2 5/8" INCHES AT ABUTMENT 2. DESIGN INCLUDES MOVEMENT DUE TO TEMPERATURE, SKEW, AND MINIMUM INSTALLATION. THE CONTRACTOR SHALL USE THE STRIP SEAL SE-400 MANUFACTURED BY WATSON BOWMAN ACME.

10. NO "LOW PROFILE" STEEL EXTRUSIONS SHALL BE ALLOWED.

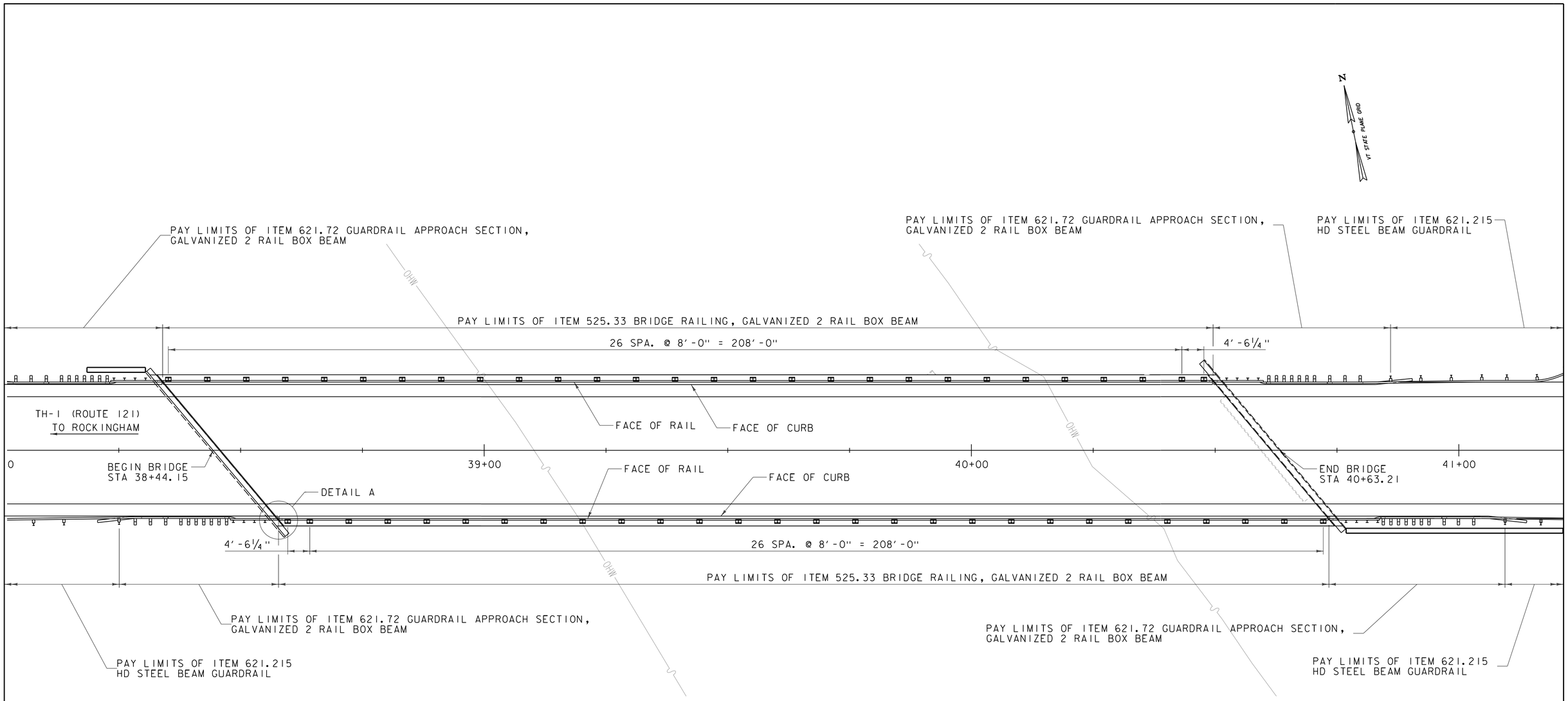
11. PRIOR TO INSTALLING THE SEAL, ALL TEMPORARY FORM WORK SHALL BE REMOVED AND THE JOINT SHALL BE FREE OF ALL DEBRIS. STEEL ANGLES AND EXTRUSIONS SHALL BE MAINTAINED FREE FROM DIRT, WATER, AND ANY OTHER LOOSE DEBRIS, WITH THE USE OF COMPRESSED AIR, TO ENSURE PROPER FIT OF THE SEAL. CARE SHALL BE TAKEN NOT TO DAMAGE GALVANIZED SURFACES.



SECTION AT FACE OF CURB

SCALE: 3/4" = 1'-0"

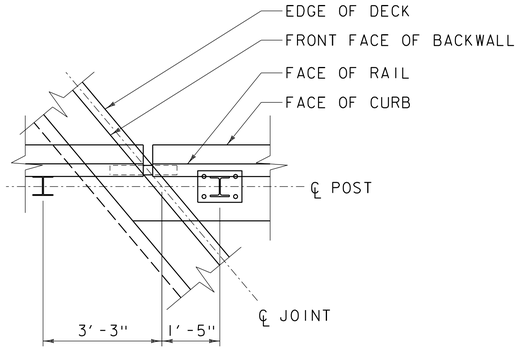
PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668sup.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: C. TRIMBLE
DESIGNED BY: C. TRIMBLE	CHECKED BY: E. STEHLGENS
JOINT DETAILS 2	SHEET 38 OF 67



BRIDGE RAILING LAYOUT

SCALE 1" = 10'-0"

10 0 10



DETAIL A
(SOUTHWEST CORNER SHOWN. OTHERS SIMILAR)

SCALE ½" = 1'-0"

NOTES:

REFER TO THE FOLLOWING STANDARDS FOR MATERIALS AND INSTALLATION DETAILS:

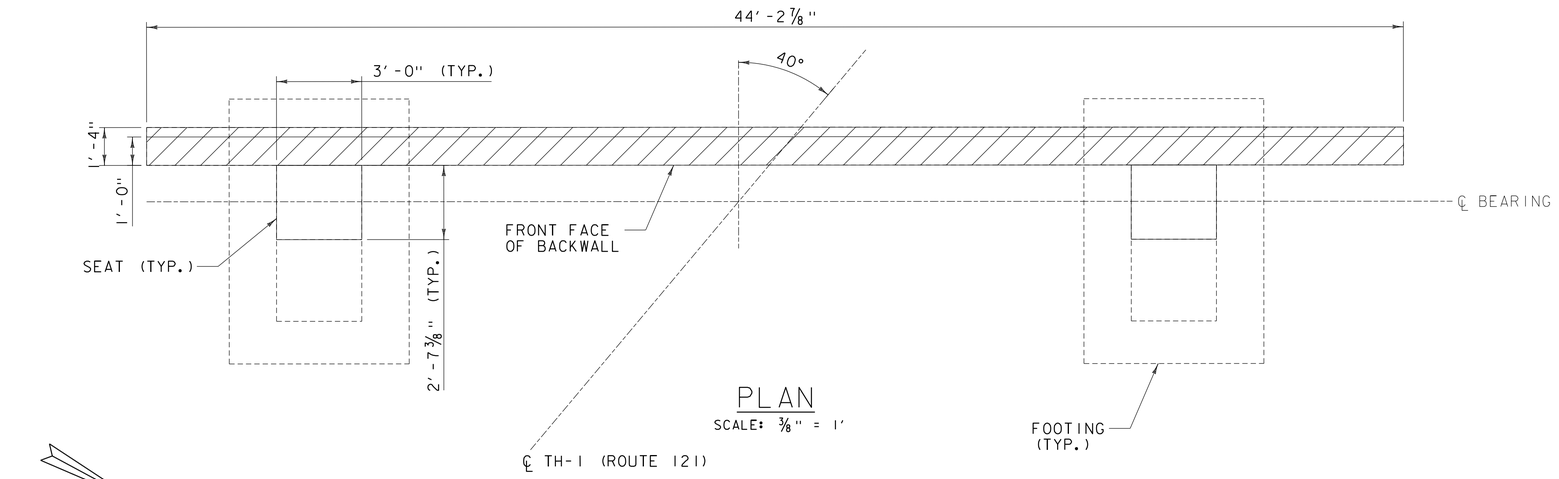
S-360A BRIDGE RAILING, GALVANIZED 2 RAIL BOX BEAM
S-360B GUARDRAIL APPROACH SECTION, GALVANIZED 2 RAIL BOX BEAM
S-360C GUARDRAIL APPROACH SECTION, GALVANIZED 2 RAIL BOX BEAM

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

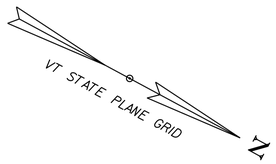
FILE NAME: z12j668border.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
BRIDGE RAILING LAYOUT SHEET

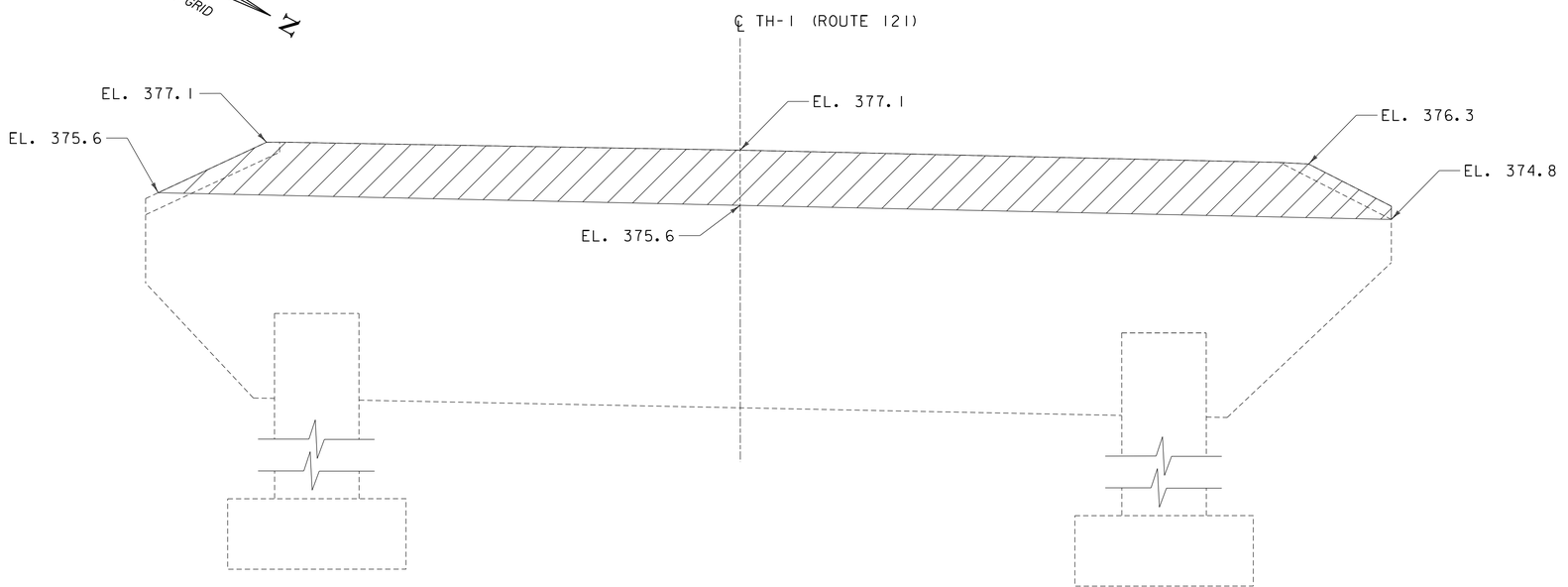
PLOT DATE: 3/6/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS
SHEET 39 OF 67



PLAN

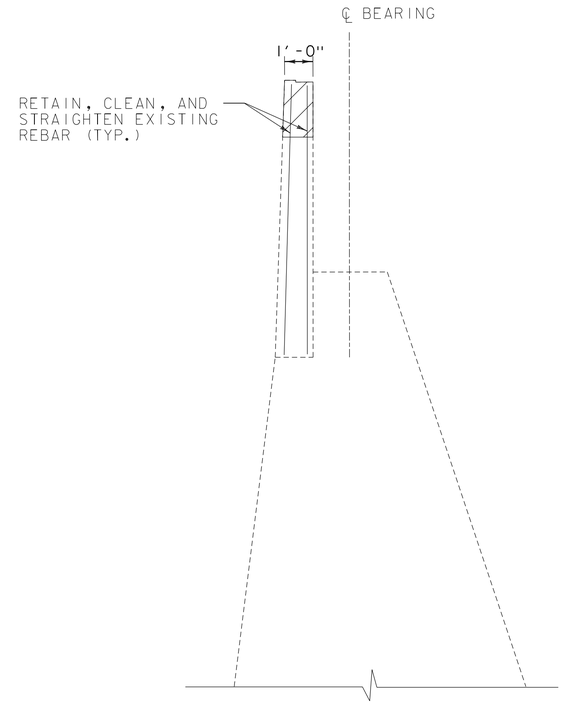
SCALE: 3/8" = 1'





ELEVATION

SCALE: 3/8" = 1'



TYPICAL SECTION

SCALE: 3/8" = 1'

LEGEND/KEY:

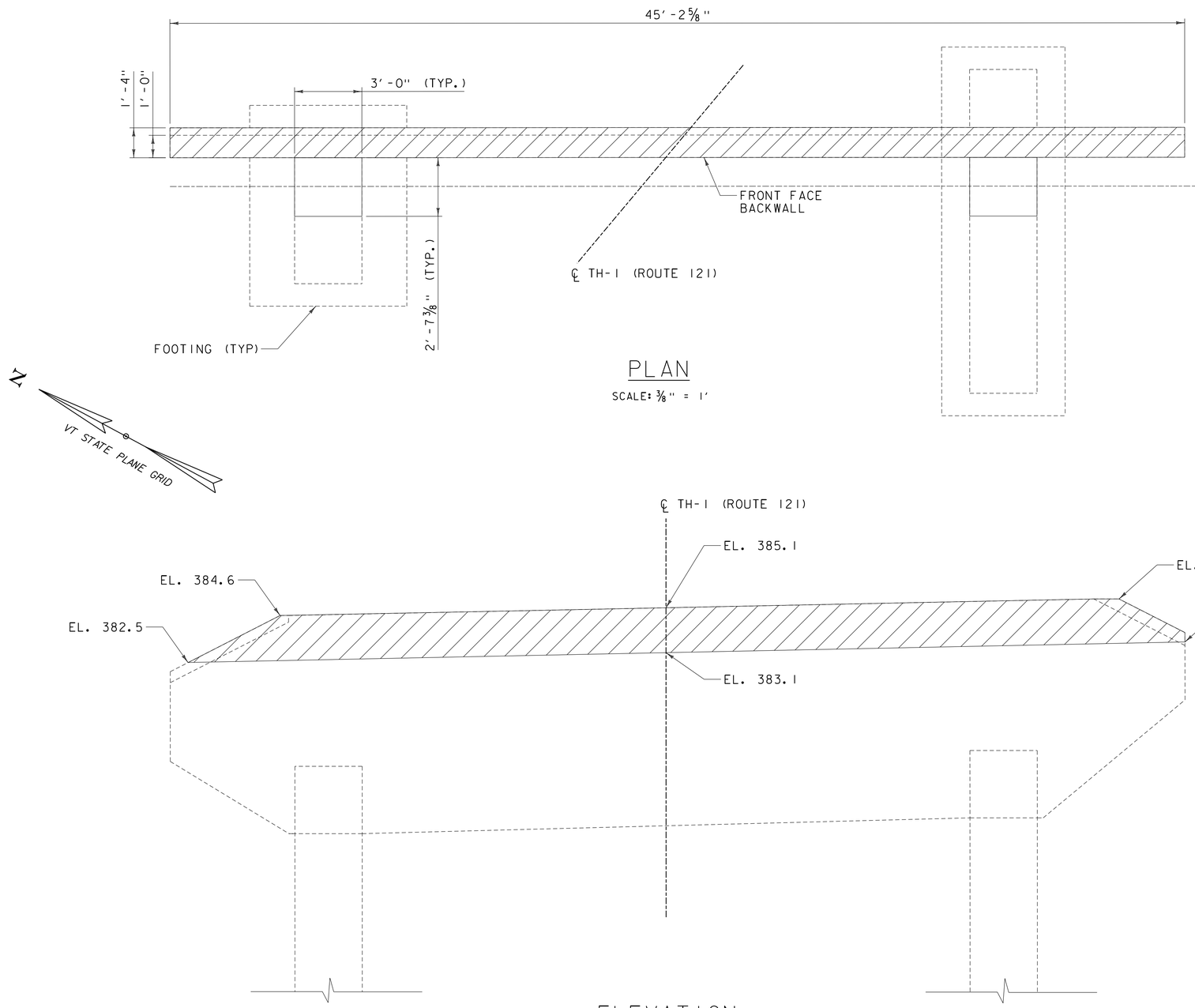
CONCRETE REMOVAL

NOTES:

1. CONCRETE REMOVAL PAID UNDER ITEM 529.20
2. ALL REINFORCING STEEL SHALL BE RETAINED, CLEANED, AND STRAIGHTENED UNLESS OTHERWISE DIRECTED BY ENGINEER.

H&H

PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668sub.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: C. SCHWARTZ
DESIGNED BY: K. SMITH	CHECKED BY: S. BROWN
ABUTMENT 1REMOVAL	SHEET 40 OF 67

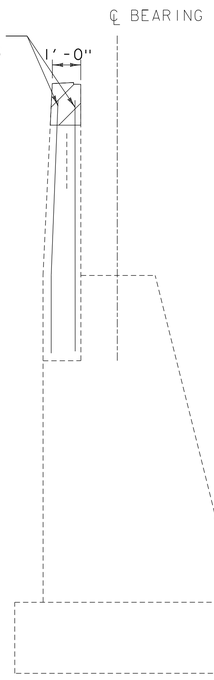


PLAN

SCALE: ⅜" = 1′

ELEVATION

SCALE: ⅜" = 1′



TYPICAL SECTION

SCALE: ⅜" = 1′

LEGEND/KEY:

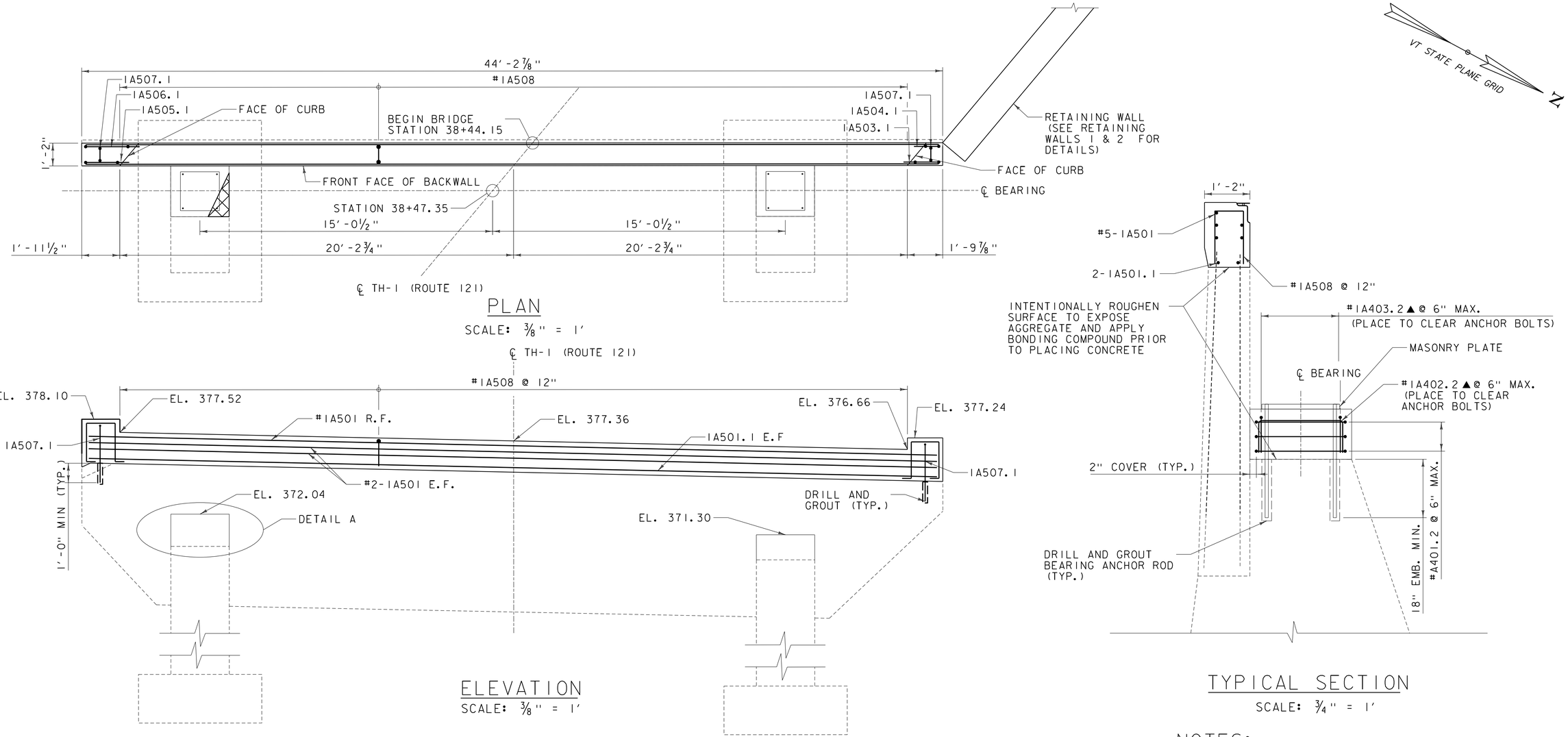
CONCRETE REMOVAL

NOTES:

1. CONCRETE REMOVAL PAID UNDER ITEM 529.20
2. ALL REINFORCING STEEL SHALL BE RETAINED, CLEANED, AND STRAIGHTENED UNLESS OTHERWISE DIRECTED BY ENGINEER.

H&H

PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668sub.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: C. SCHWARTZ
DESIGNED BY: K. SMITH	CHECKED BY: S. BROWN
ABUTMENT 2 REMOVAL	SHEET 41 OF 67



PLAN

SCALE: ⅜″ = 1′

ELEVATION

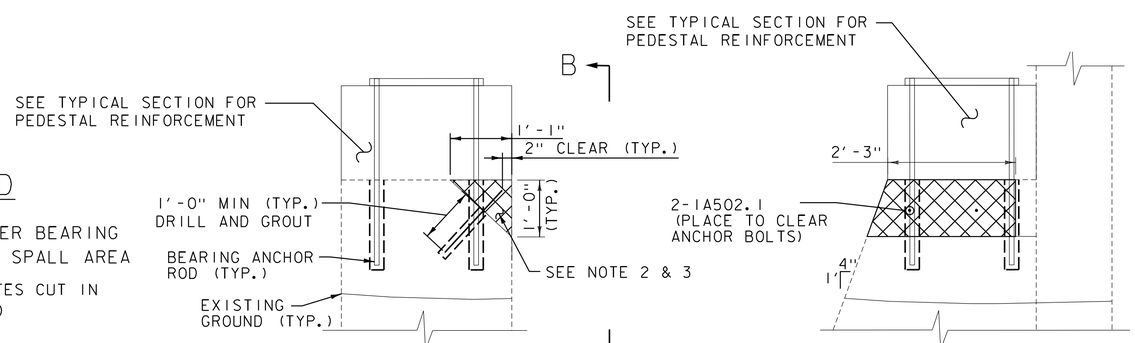
SCALE: ⅜″ = 1′

TYPICAL SECTION

SCALE: ¾″ = 1′

LEGEND

- ⊠ GIRDER BEARING SEAT SPALL AREA
- ▲ DENOTES CUT IN FIELD



DETAIL A

SCALE: ½″ = 1′

VIEW B-B

SCALE: ½″ = 1′

NOTES:

1. ALL ELEVATIONS ARE THE FRONT FACE OF BACKWALL WITHOUT ADJUSTMENT FOR EXPANSION JOINTS.
2. CONCRETE USED TO REPAIR THE GIRDER BEARING SEAT SHALL BE PAID FOR UNDER ITEM 900.608, "SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCS)".
3. LOOSE CONCRETE IN THE AREA OF REPAIR SHALL BE REMOVED. CONCRETE REMOVAL PAID UNDER ITEM 529.20. DRILL AND GROUT BARS SHALL BE POSITIONED TO AVOID ANCHOR BOLTS.
4. SOME BACKWALL REINFORCEMENT HAS BEEN PRE-PURCHSED BY VTRANS. SEE SPECIAL PROVISIONS. # INDICATES NEW REINFORCING STEEL.
5. FOR PEDESTAL REINFORCEMENT PLAN SEE ABUTMENT 2 MODIFICATIONS.

PROJECT NAME: WESTMINSTER

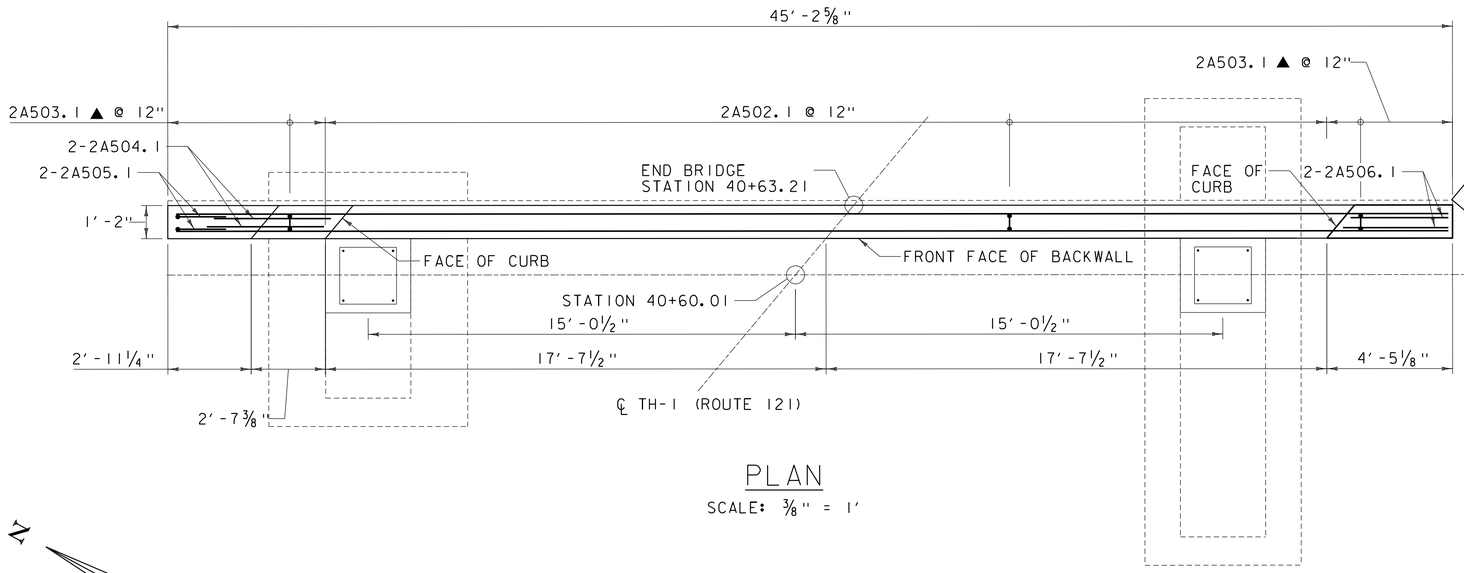
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668sub.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: C. TRIMBLE
ABUTMENT 1 MODIFICATIONS

PLOT DATE: 3/12/2024
DRAWN BY: C. TRIMBLE
CHECKED BY: E. STEHLGENS
SHEET 42 OF 67

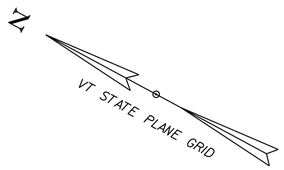
LEGEND

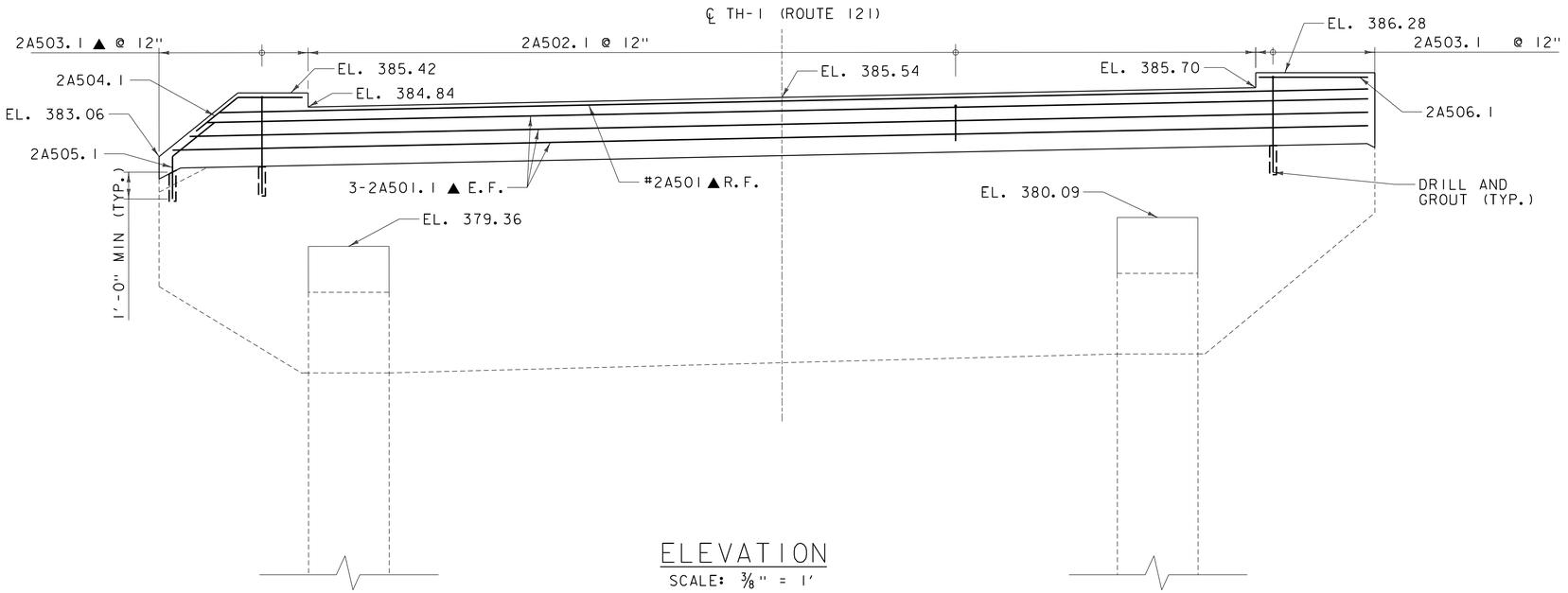
▲ DENOTES CUT IN FIELD



PLAN

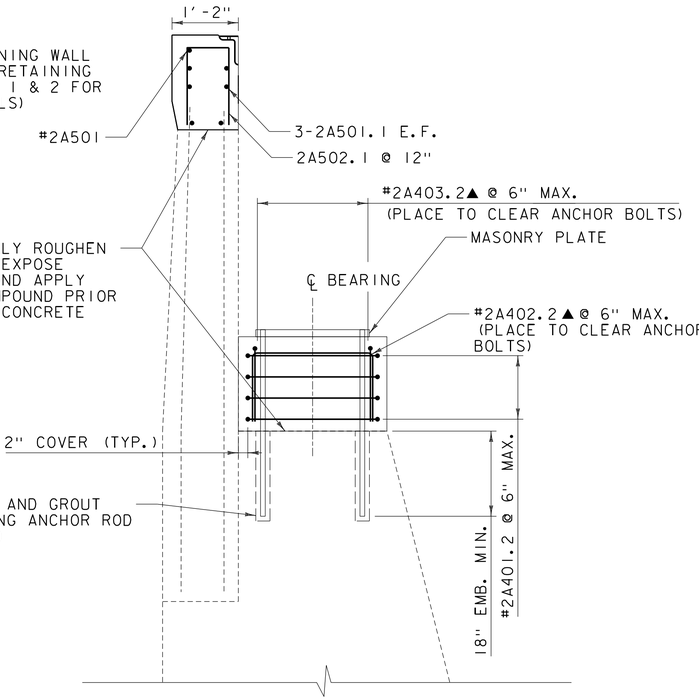
SCALE: ⅜" = 1′





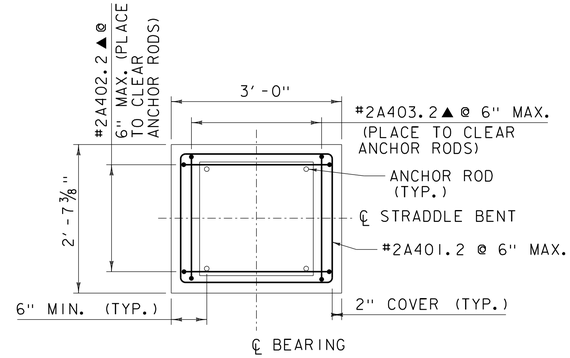
ELEVATION

SCALE: ⅜" = 1′



TYPICAL SECTION

SCALE: ¾" = 1′



PEDESTAL REINFORCEMENT PLAN

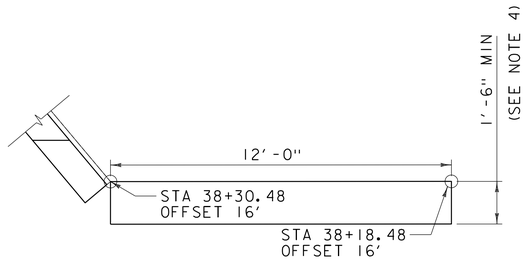
SCALE: ¾" = 1′

NOTES:

1. ALL ELEVATIONS ARE AT THE FRONT FACE OF BACKWALL WITHOUT ADJUSTMENT FOR EXPANSION JOINTS.
2. SOME BACKWALL REINFORCEMENT HAS BEEN PRE-PURCHASED BY VTRANS. SEE SPECIAL PROVISIONS. # INDICATES NEW REINFORCING STEEL.

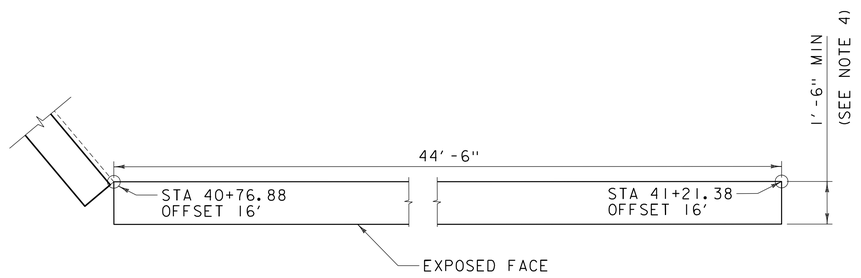
H&H

PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668sub.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: C. TRIMBLE
DESIGNED BY: C. TRIMBLE	CHECKED BY: E. STEHLGENS
ABUTMENT 2 MODIFICATIONS	SHEET 43 OF 67



ABUTMENT 1 RETAINING WALL PLAN

SCALE: 3/8" = 1'



ABUTMENT 2 RETAINING WALL PLAN

SCALE: 3/8" = 1'

NOTES:

1. FOUNDATION DESIGN VALUES GIVEN IN THESE NOTES ARE PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 9TH EDITION.

2. THE FOLLOWING SOIL PROPERTIES SHALL BE USED IN THE DESIGN OF THE RETAINING WALLS:

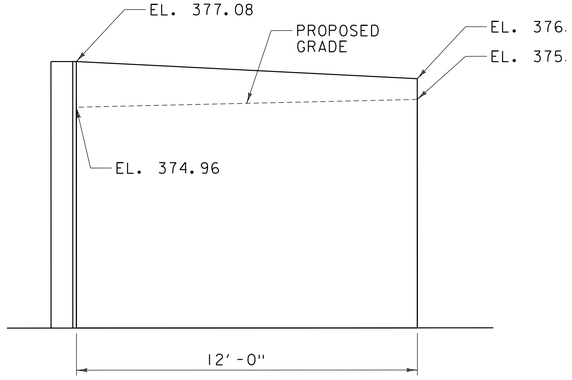
   A. FOUNDATION BEARING DESIGN VALUES:
   FACTORED BEARING RESISTANCE (Phi=0.45)= 6KSF

   B. FOUNDATION SOIL PARAMETERS
   UNIT WEIGHT: 120 PCF
   FRICTION ANGLE: 32 DEG

   C. BACKFILL SOIL PARAMETERS
   UNIT WEIGHT: 120 PCF
   FRICTION ANGLE: 34 DEG

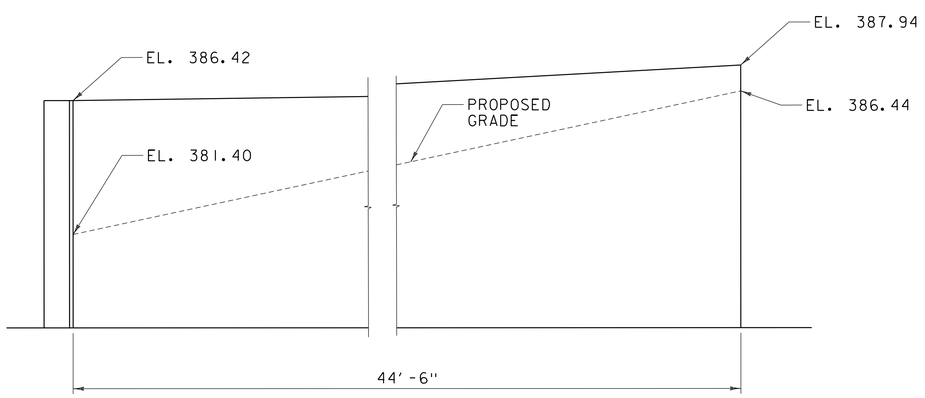
3. THE INTERFACE BETWEEN THE RETAINING WALL AND THE ABUTMENT CAP SHALL BE DESIGNED TO ALLOW 0.5 INCHES OF MOVEMENT. A JOINT DETAIL SHALL BE SUBMITTED FOR REVIEW AND APPROVAL. JOINT SHALL PROVIDE A FLEXIBLE WATER TIGHT SEAL IN ORDER TO PREVENT MIGRATION OF BACKFILL MATERIAL THROUGH THE JOINT. ALL COMPONENTS WILL BE INCLUDED IN THE UNIT PRICE FOR ITEM 900.670. "SPECIAL PROVISION (CONCRETE RETAINING WALL)." DIMENSIONS AND STATIONS SHOWN INCLUDE AN ASSUMED JOINT THICKNESS OF 3/4". IF A DIFFERENT THICKNESS IS USED THE GEOMETRY WILL NEED TO BE MODIFIED BY THE CONTRACTOR.

4. DIMENSION ARE BASED ON A RETAINING WALL THICKNESS OF 1'-6" (MIN). IF A DIFFERENT THICKNESS IS USED, GEOMETRY WILL NEED TO BE MODIFIED BY THE CONTRACTOR.



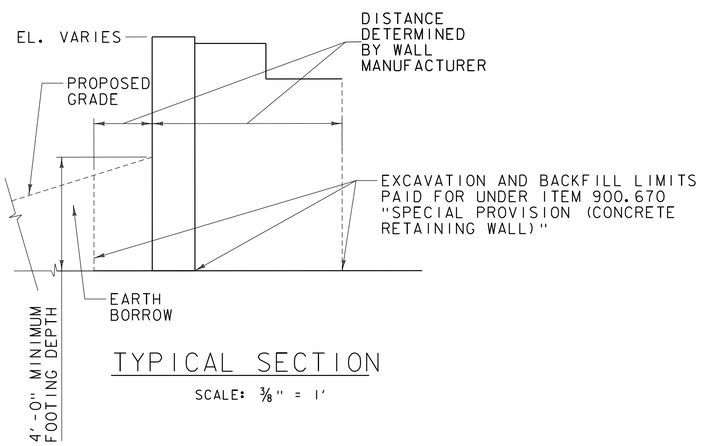
ABUTMENT 1 RETAINING WALL ELEVATION

SCALE: 3/8" = 1'



ABUTMENT 2 RETAINING WALL ELEVATION

SCALE: 3/8" = 1'

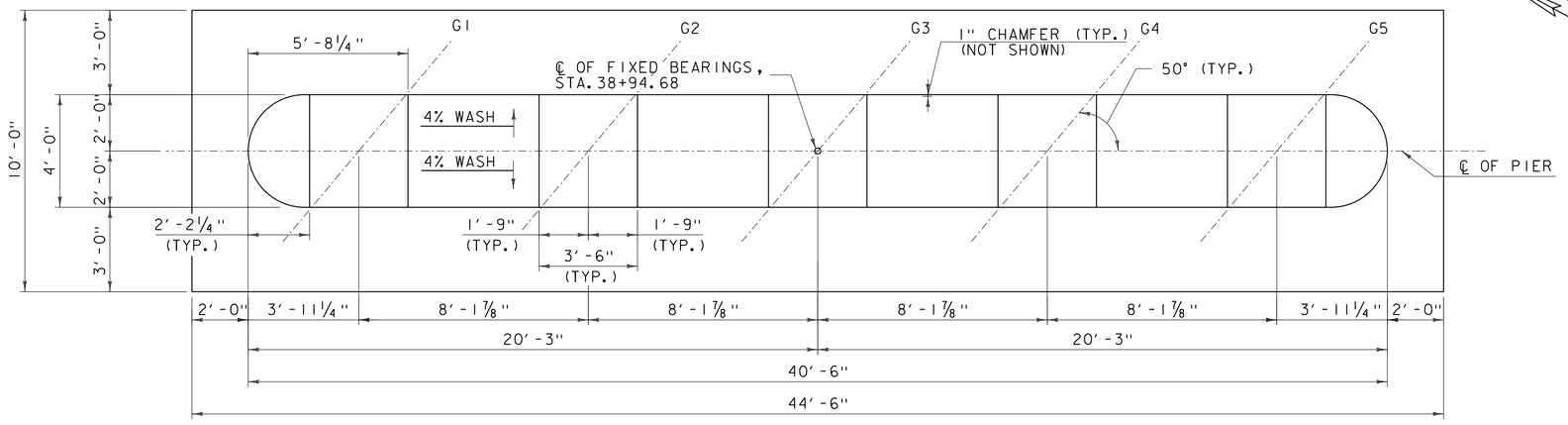


TYPICAL SECTION

SCALE: 3/8" = 1'

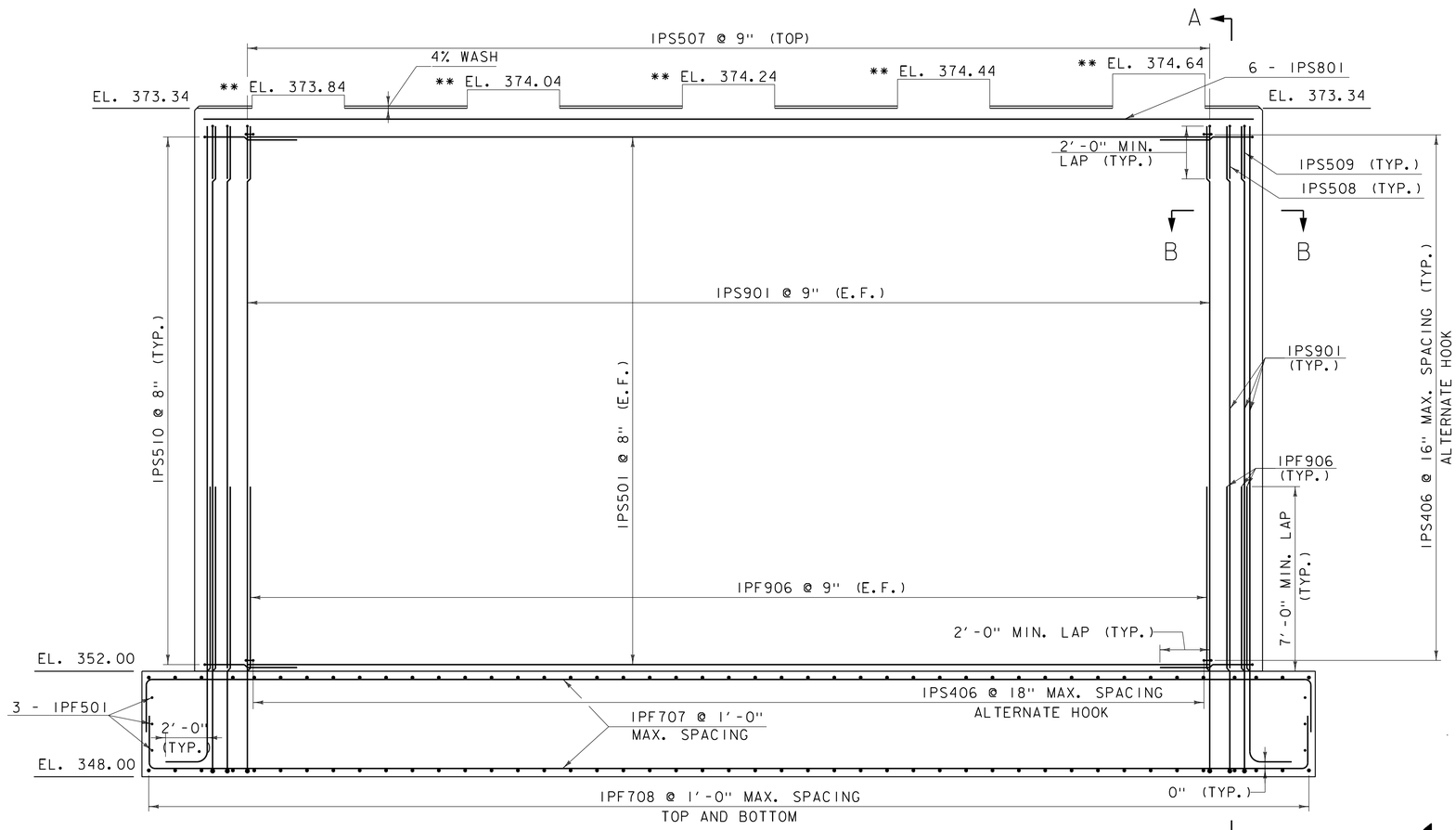
H&H

PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668sub.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: C. SCHWARTZ
DESIGNED BY: K.SMITH	CHECKED BY: S. BROWN
RETAINING WALLS 1& 2	SHEET 44 OF 67



PIER 1 PLAN

SCALE ⅜" = 1'-0"



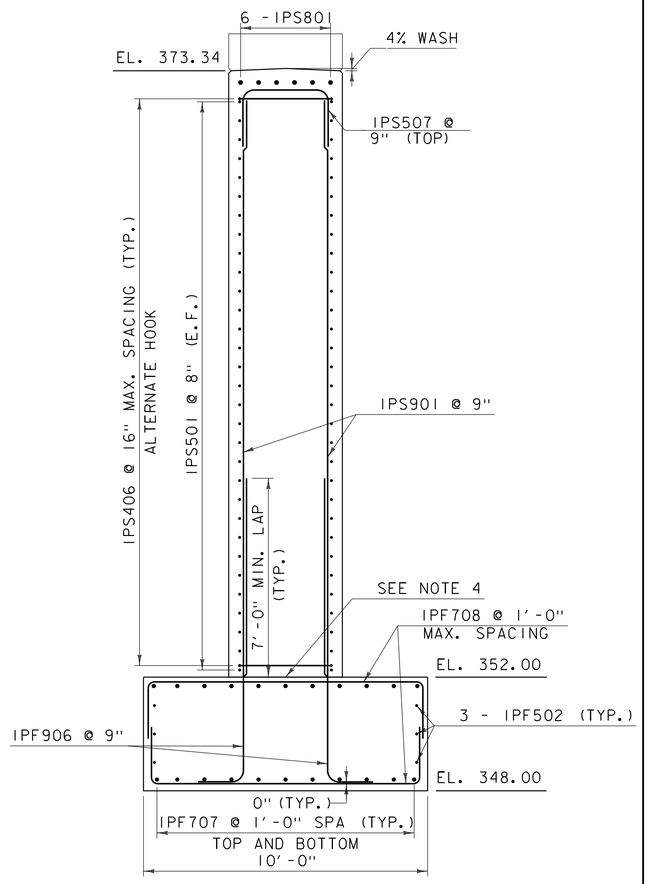
PIER 1 ELEVATION

SCALE ⅜" = 1'-0"

NOTES:

1. COVER FOR STEEL REINFORCEMENT IN SIDES OF FOOTING, TOP OF FOOTING AND PEDESTALS SHALL BE 2". COVER FOR STEEL REINFORCEMENT IN BOTTOM OF FOOTING SHALL BE 3". COVER FOR STEEL REINFORCEMENT IN STEM SHALL BE 4".
2. ALL LATERAL TIES IN THE SAME ROW SHALL ALTERNATE THE ORIENTATION OF THE 135° HOOK BETWEEN FACES.
3. SEE PIER COMMON VIEWS SHEET FOR SECTION B-B AND PEDESTAL REINFORCEMENT DETAILS.
4. REFER TO VTRANS STANDARD DRAWING S-500 FOR ROUGHENED SURFACE REQUIREMENTS AT CONSTRUCTION JOINT.

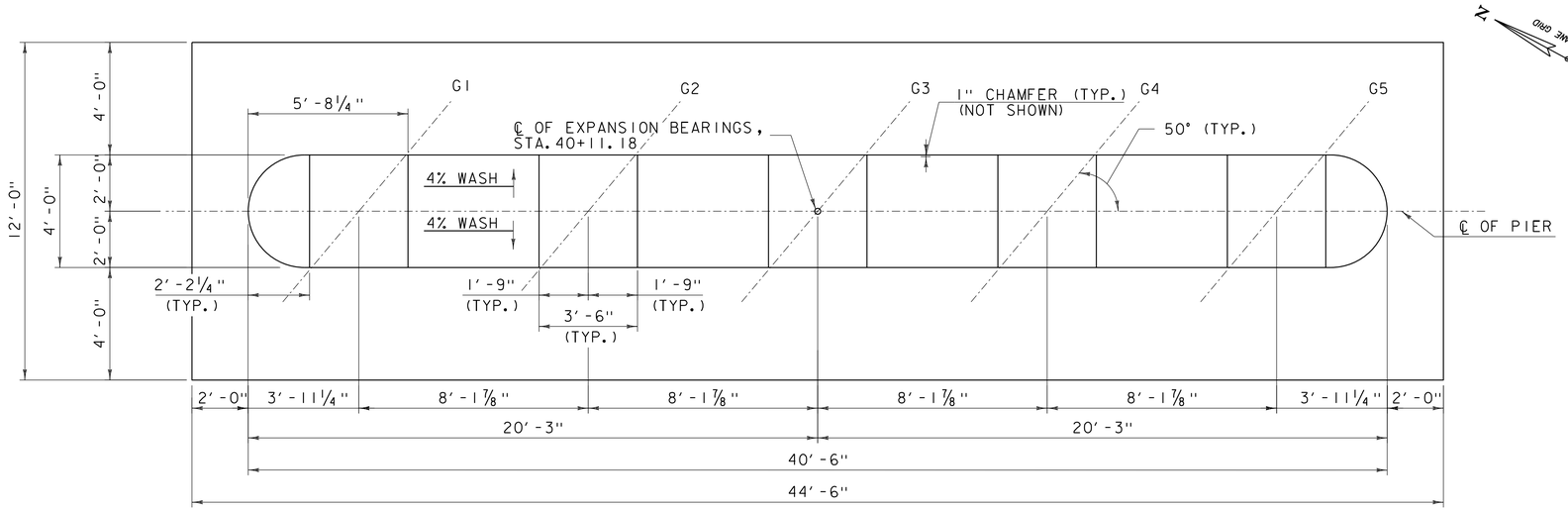
** THESE ELEVATIONS MAY HAVE TO BE ADJUSTED TO ACCOMMODATE THE ACTUAL BEARINGS FURNISHED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ANY CHANGES IN THE BEARINGS WHICH MAY AFFECT THE PEDESTAL ELEVATIONS OR DIMENSIONS.



SECTION A-A

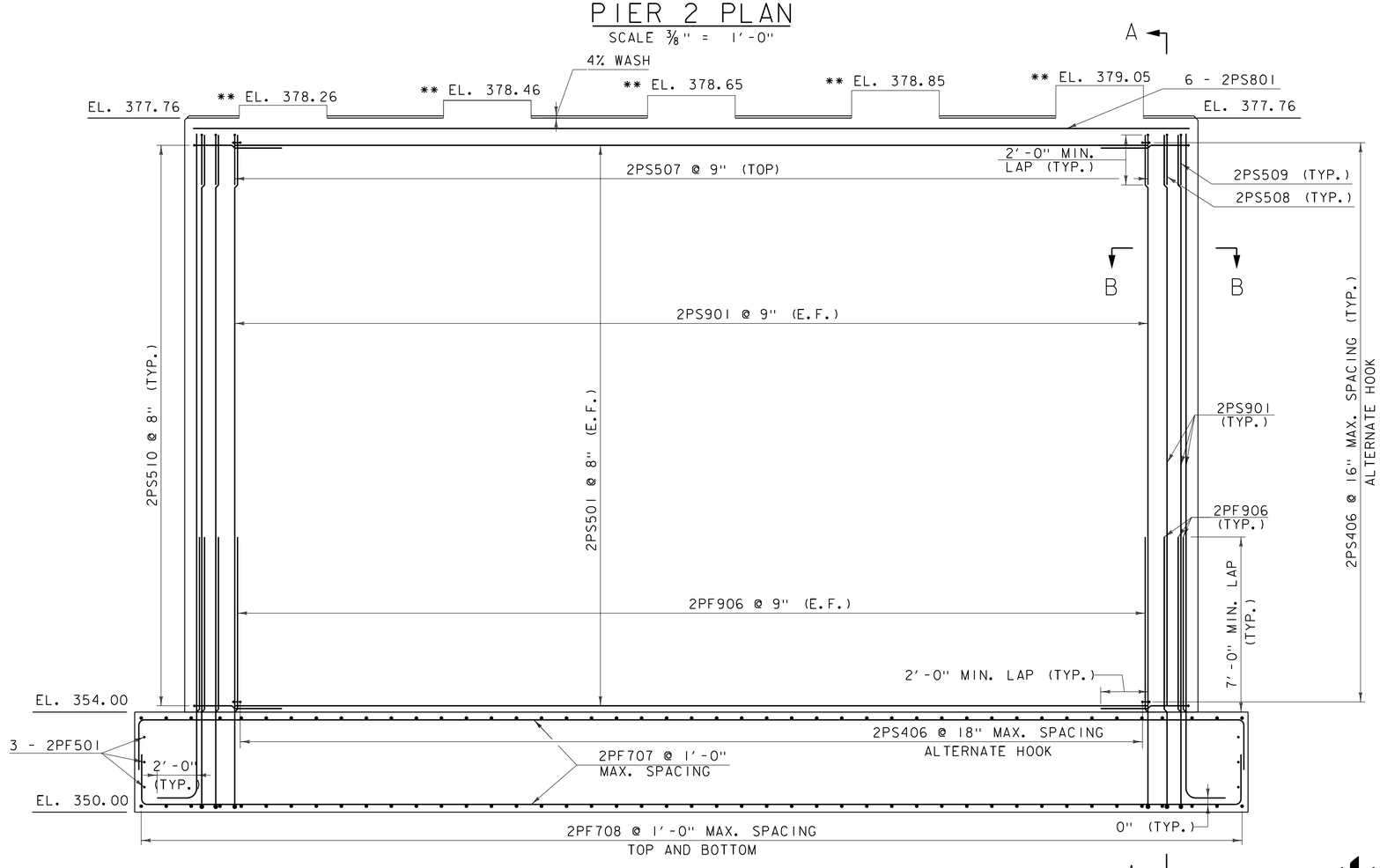
SCALE ⅜" = 1'-0"

PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668sub.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: P. GERKEN
DESIGNED BY: L. LUSTRINO	CHECKED BY: F. SIEH
PIER 1 PLAN AND ELEVATION	SHEET 45 OF 67



PIER 2 PLAN

SCALE ⅜" = 1'-0"



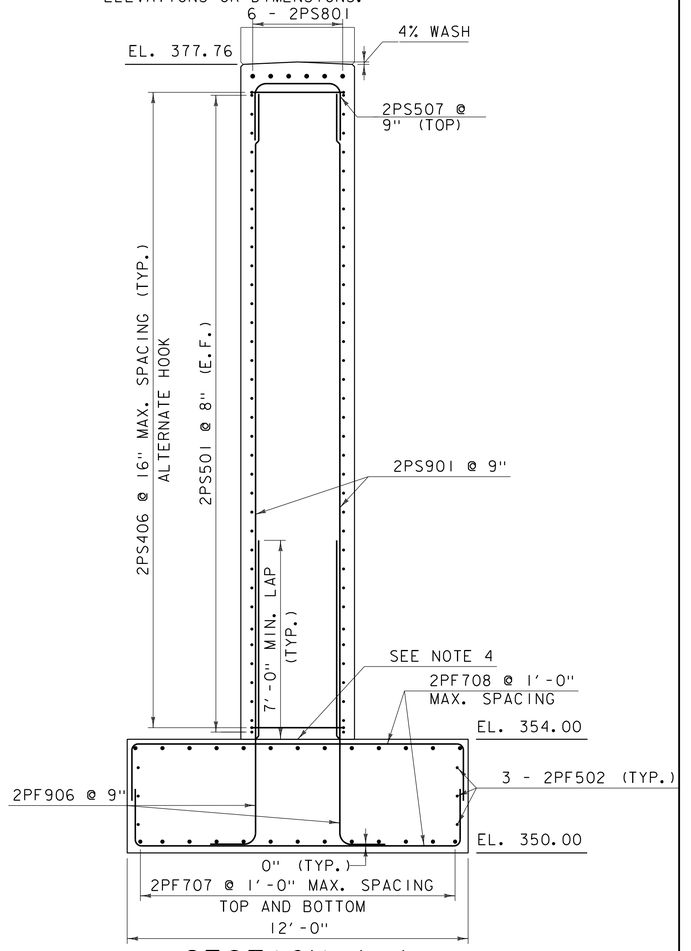
PIER 2 ELEVATION

SCALE ⅜" = 1'-0"

NOTES:

1. COVER FOR STEEL REINFORCEMENT IN SIDES OF FOOTING, TOP OF FOOTING AND PEDESTALS SHALL BE 2". COVER FOR STEEL REINFORCEMENT IN BOTTOM OF FOOTING SHALL BE 3". COVER FOR STEEL REINFORCEMENT IN STEM SHALL BE 4".
2. ALL LATERAL TIES IN THE SAME ROW SHALL ALTERNATE THE ORIENTATION OF THE 135° HOOK BETWEEN FACES.
3. SEE PIER COMMON VIEWS SHEET FOR SECTION B-B AND PEDESTAL REINFORCEMENT DETAILS.
4. REFER TO VTRANS STANDARD DRAWING S-500 FOR ROUGHENED SURFACE REQUIREMENTS AT CONSTRUCTION JOINT.

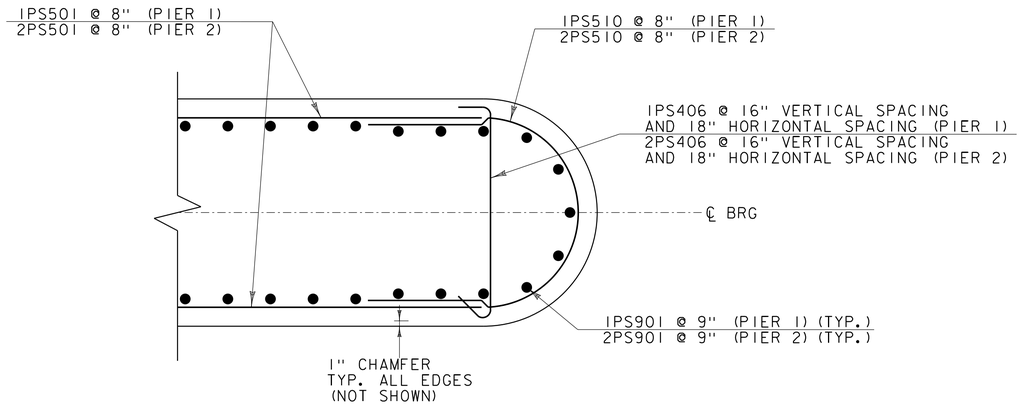
** THESE ELEVATIONS MAY HAVE TO BE ADJUSTED TO ACCOMMODATE THE ACTUAL BEARINGS FURNISHED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ANY CHANGES IN THE BEARINGS WHICH MAY AFFECT THE PEDESTAL ELEVATIONS OR DIMENSIONS.



SECTION A-A

SCALE ⅜" = 1'-0"

PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668sub.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: P. GERKEN
DESIGNED BY: L. LUSTRINO	CHECKED BY: F. SIEH
PIER 2 PLAN AND ELEVATION	SHEET 46 OF 67

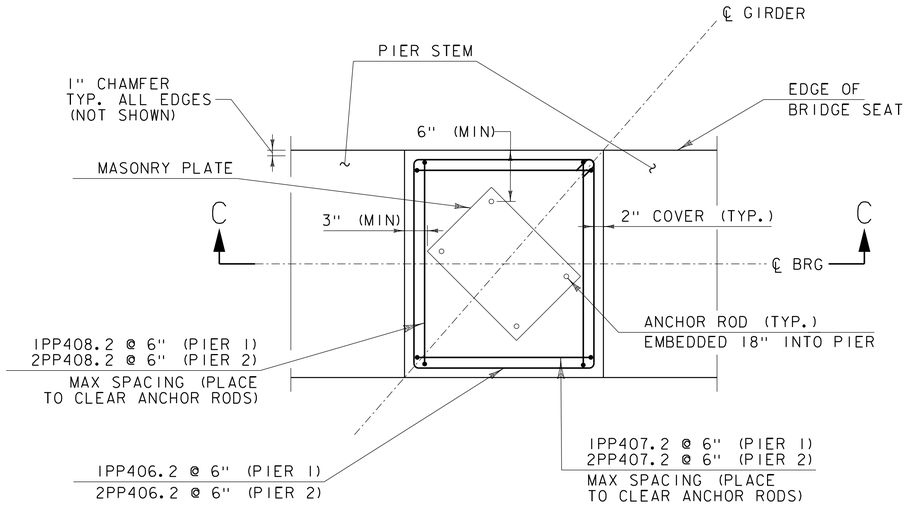


SECTION B-B

SCALE 3/4" = 1'-0"

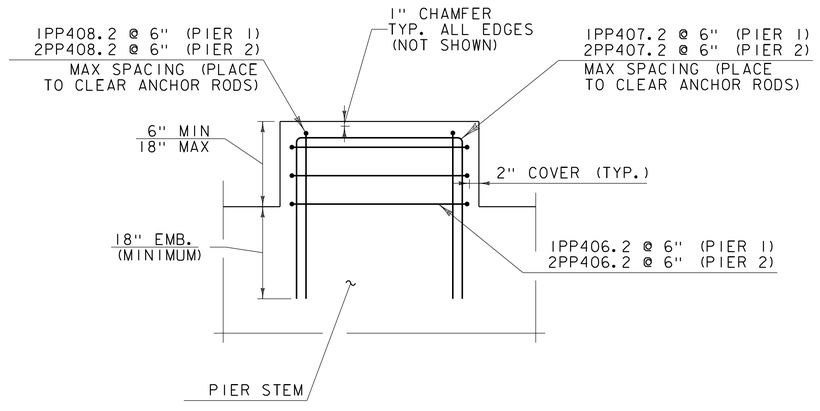
NOTES:

1. FOR LOCATION OF SECTION B-B, REFER TO PIER 1 PLAN AND ELEVATION SHEET AND PIER 2 PLAN AND ELEVATION SHEET.



PEDESTAL REINFORCEMENT PLAN

SCALE 3/4" = 1'-0"



SECTION C-C

SCALE 3/4" = 1'-0"

PROJECT NAME:	WESTMINSTER
PROJECT NUMBER:	BF 0126(14)
FILE NAME: z12j668sub.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: P. GERKEN
DESIGNED BY: L. LUSTRINO	CHECKED BY: F. SIEH
PIER DETAILS	SHEET 47 OF 67

STATE OF VERMONT
AGENCY OF TRANSPORTATION

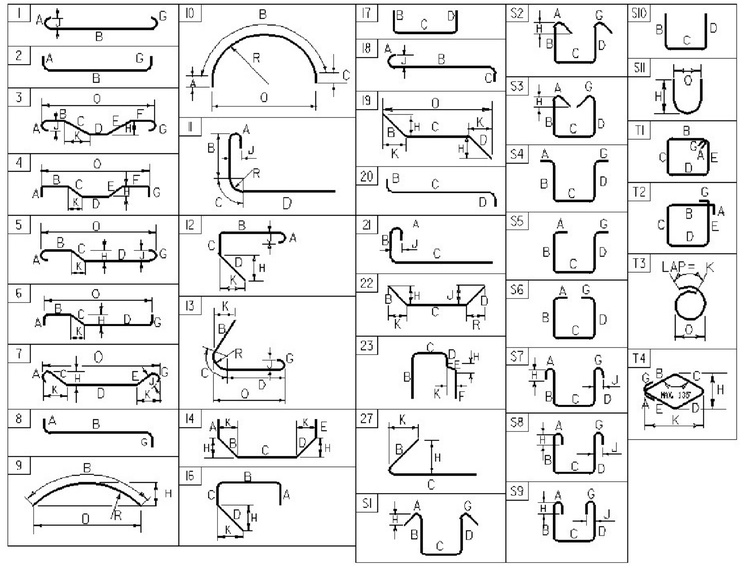
REINFORCING STEEL SCHEDULE

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
PIER 1 FOOTING																	
✳	7	5	9'- 8"	1PF501	STR												
	6	5	44'- 2"	1PF502	STR												
	22	7	48'- 2"	1PF707	17		2'- 0"	44'- 2"	2'- 0"								
✳	91	7	13'- 8"	1PF708	17		2'- 0"	9'- 8"	2'- 0"								
	110	9	13'- 0"	1PF906	17		---	11'- 0"	2'- 0"								
PIER 1 STEM																	
	66	5	36'- 2"	1PS501	STR												
▲ ✳	7	8	39'- 10"	1PS801	STR												
✳	111	9	20'- 8"	1PS901	STR												
✳	417	4	4'- 2"	1PS406	S2	0'- 5"	3'- 4"	0'- 5"	0'- 0"			0'- 0"	0'- 3"				
	50	5	7'- 2"	1PS507	17		2'- 0"	3'- 2"	2'- 0"								
	2	5	6'- 10"	1PS508	17		2'- 0"	2'- 10"	2'- 0"								
	2	5	5'- 9"	1PS509	17		2'- 0"	1'- 9"	2'- 0"								
	66	5	9'- 3"	1PS510	S11								3'- 8"				3'- 4"
PIER 1 PEDESTAL																	
	10	4	14'- 6"	1PP406.2	T1	0'- 5"	3'- 2"	3'- 8"	3'- 2"	3'- 8"		0'- 5"					
✳	41	4	9'- 1"	1PP407.2	17		3'- 0"	3'- 1"	3'- 0"								
	35	4	9'- 7"	1PP408.2	17		3'- 0"	3'- 7"	3'- 0"								
PIER 2 FOOTING																	
	6	5	11'- 8"	2PF501	STR												
	6	5	44'- 2"	2PF502	STR												
	26	7	48'- 2"	2PF707	17		2'- 0"	44'- 2"	2'- 0"								
	90	7	15'- 8"	2PF708	17		2'- 0"	11'- 8"	2'- 0"								
	110	9	13'- 0"	2PF906	17		---	11'- 0"	2'- 0"								
PIER 2 STEM																	
	72	5	36'- 2"	2PS501	STR												
▲	6	8	39'- 10"	2PS801	STR												
	110	9	23'- 1"	2PS901	STR												
	468	4	4'- 2"	2PS406	S2	0'- 5"	3'- 4"	0'- 5"	0'- 0"			0'- 0"	0'- 3"				
	50	5	7'- 2"	2PS507	17		2'- 0"	3'- 2"	2'- 0"								
	2	5	6'- 10"	2PS508	17		2'- 0"	2'- 10"	2'- 0"								
	2	5	5'- 9"	2PS509	17		2'- 0"	1'- 9"	2'- 0"								
	72	5	9'- 3"	2PS510	S11								3'- 8"				3'- 4"
PIER 2 PEDESTAL																	
	10	4	14'- 6"	2PP406.2	T1	0'- 5"	3'- 2"	3'- 8"	3'- 2"	3'- 8"		0'- 5"					
	40	4	9'- 1"	2PP407.2	17		3'- 0"	3'- 1"	3'- 0"								
	35	4	9'- 7"	2PP408.2	17		3'- 0"	3'- 7"	3'- 0"								
DECK																	
	64	5	4'- 8"	S513.2	S11	0'- 0"	3'- 6"	0'- 8"	0'- 6"			0'- 0"					
ABUTMENT 1																	
	5	5	43'- 9"	1A501	STR												
	44	5	3'- 7"	1A508	S10		1'- 5"	0'- 9"	1'- 5"								
	6	4	10'- 10"	1A401.2	T1	0'- 5"	2'- 8"	2'- 4"	2'- 8"	2'- 4"		0'- 5"					
▲	4	4	4'- 11"	1A402.2	17		1'- 4"	2'- 3"	1'- 4"								
▲	4	4	5'- 4"	1A403.2	17		1'- 4"	2'- 8"	1'- 4"								
ABUTMENT 2																	
	5	5	43'- 9"	2A501	STR												
	8	4	10'- 10"	2A401.2	T1	0'- 5"	2'- 8"	2'- 4"	2'- 8"	2'- 4"		0'- 5"					
▲	4	4	5'- 9"	2A402.2	17		1'- 9"	2'- 3"	1'- 9"								
▲	4	4	6'- 2"	2A403.2	17		1'- 9"	2'- 8"	1'- 9"								

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O

~ NOTES ~

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-SI). 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.



ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	AREA INCHES 2	PERIMETER INCHES
#3	0.376	0.375	0.11	1.178
#4	0.668	0.500	0.20	1.571
#5	1.043	0.625	0.31	1.963
#6	1.502	0.750	0.44	2.356
#7	2.044	0.875	0.60	2.749
#8	2.670	1.000	0.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

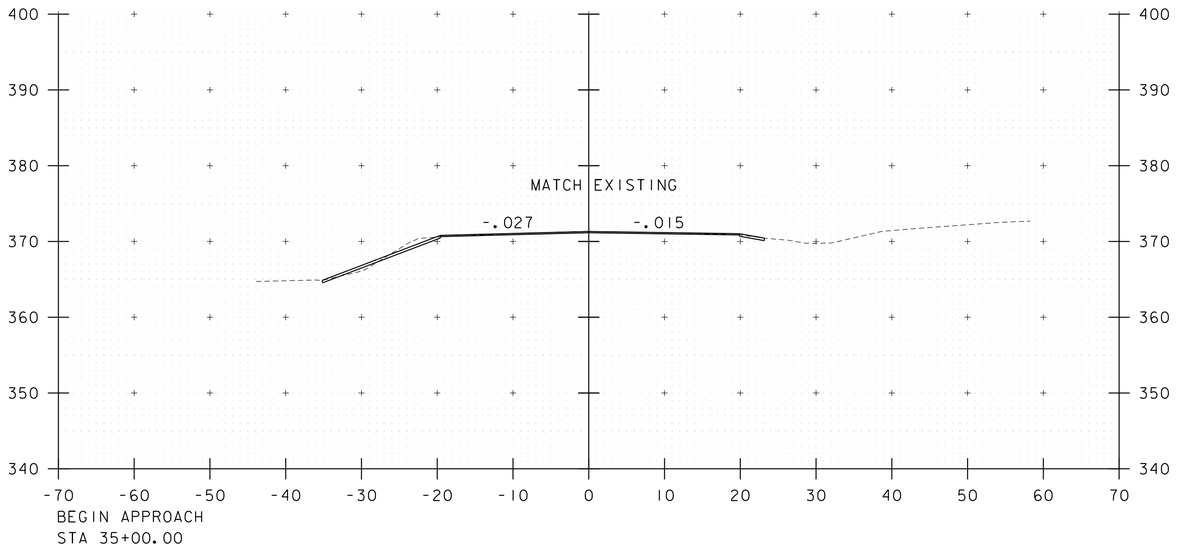
~ REINFORCING STEEL CORROSION RESISTANCE LEVEL ~

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 OR .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 PI SHEET FOR AS-BUILT RECORD PLAN ARCHIVES.

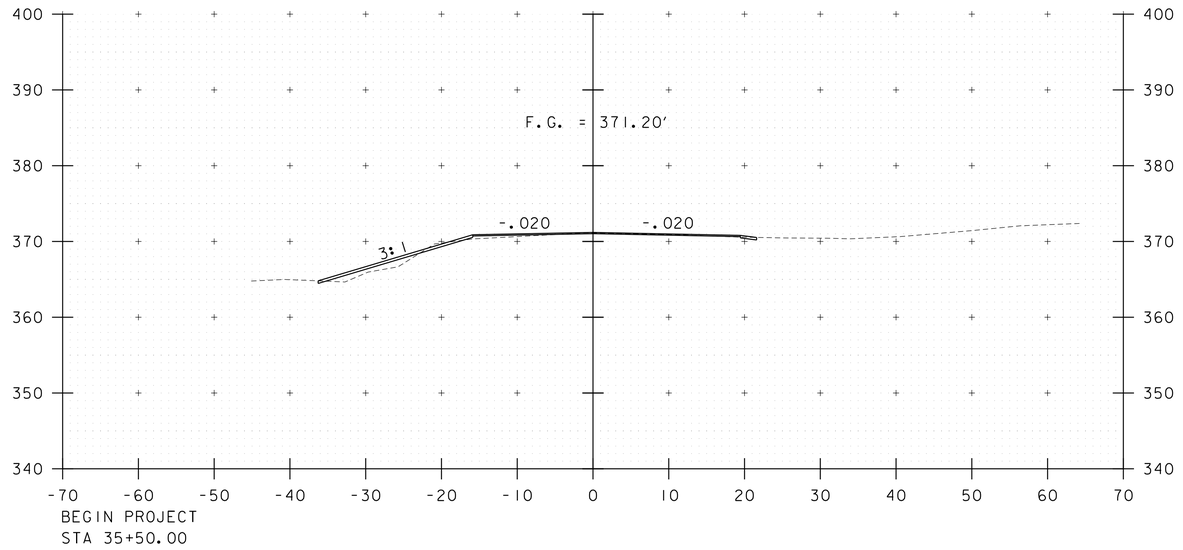
PROJECT NAME: **WESTMINSTER**
PROJECT NUMBER: **BF 0126(14)**

FILE NAME: **z12j668BarSchedule.dgn**
PROJECT MANAGER: **C. BAKER**
DESIGNED BY: **L. LUSTRINO**
REINFORCING STEEL SCHEDULE SHEET

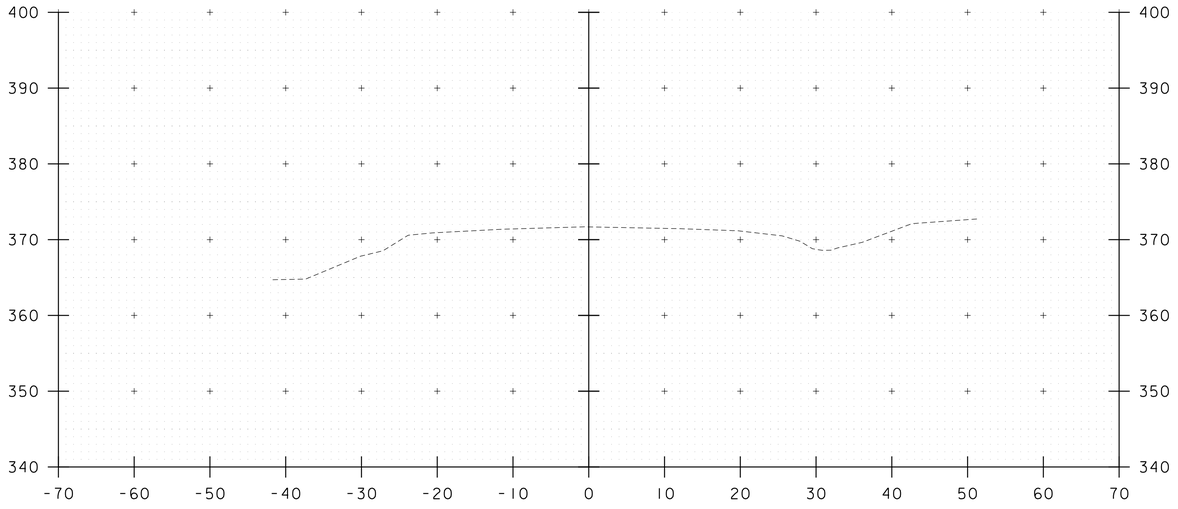
PLOT DATE: **03/06/2024**
DRAWN BY: **P. GERKEN**
CHECKED BY: **F. SIEH**
SHEET **48** OF **67**



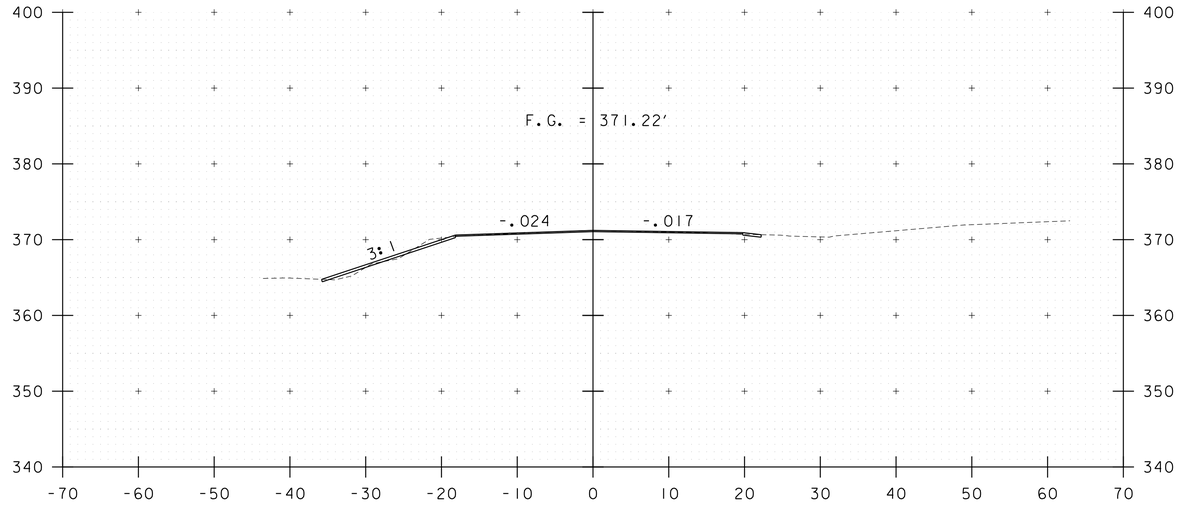
35+00



35+50



34+75



35+25

STA. 34+75 TO STA. 35+50

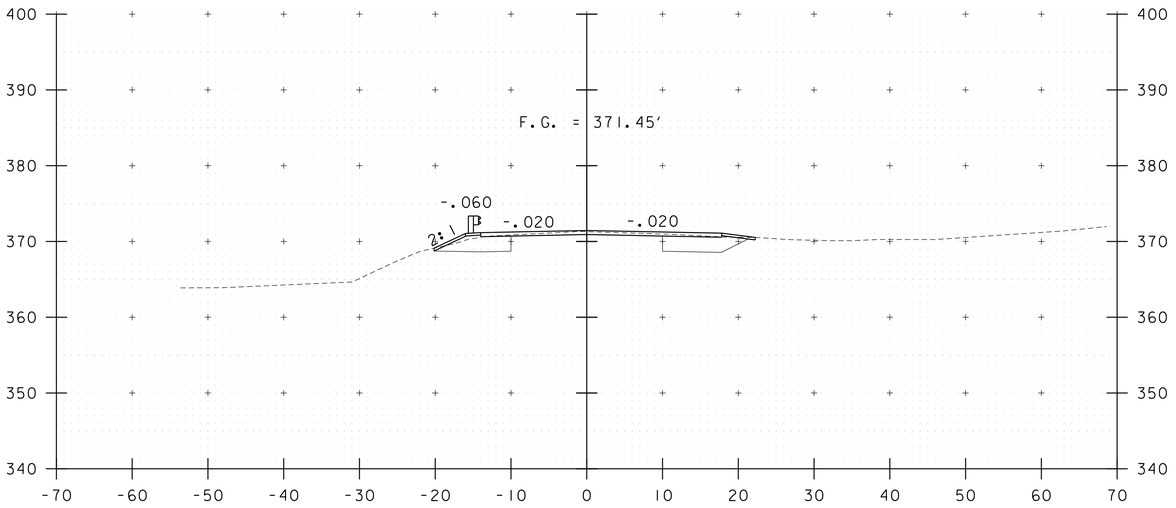
H&H

PROJECT NAME: WESTMINSTER

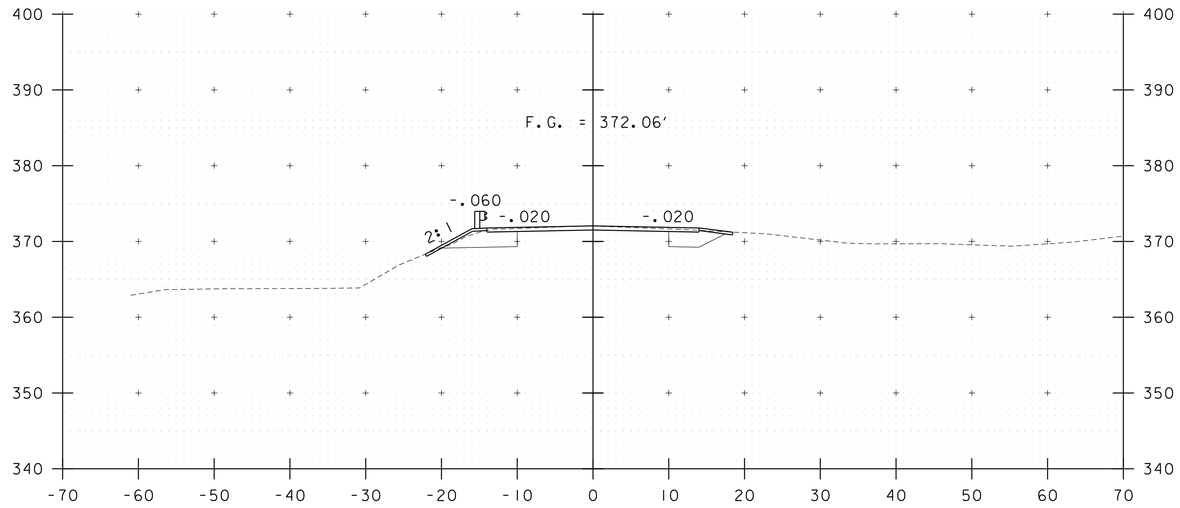
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
MAINLINE CROSS SECTIONS I

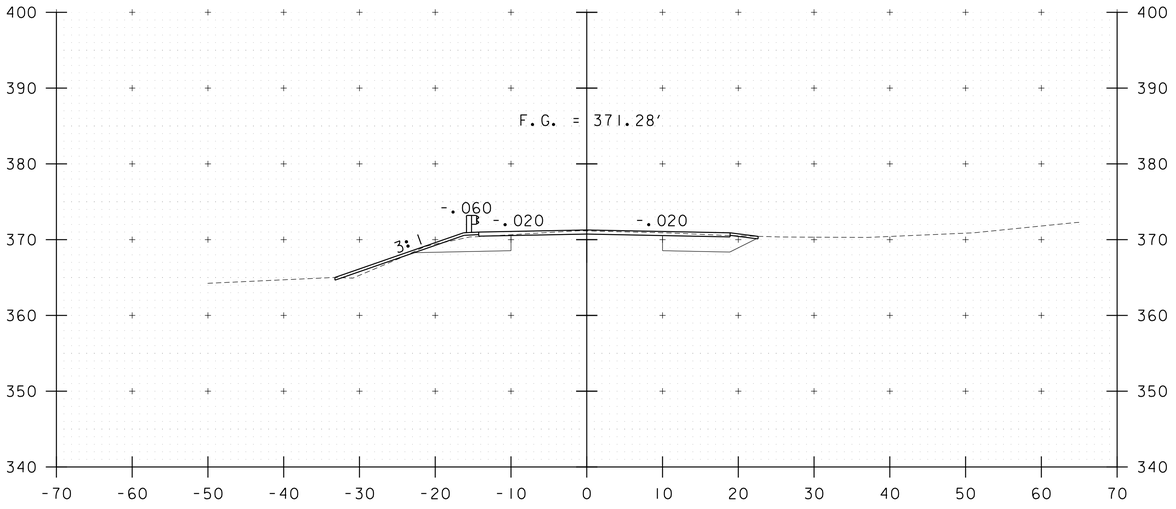
PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 49 OF 67



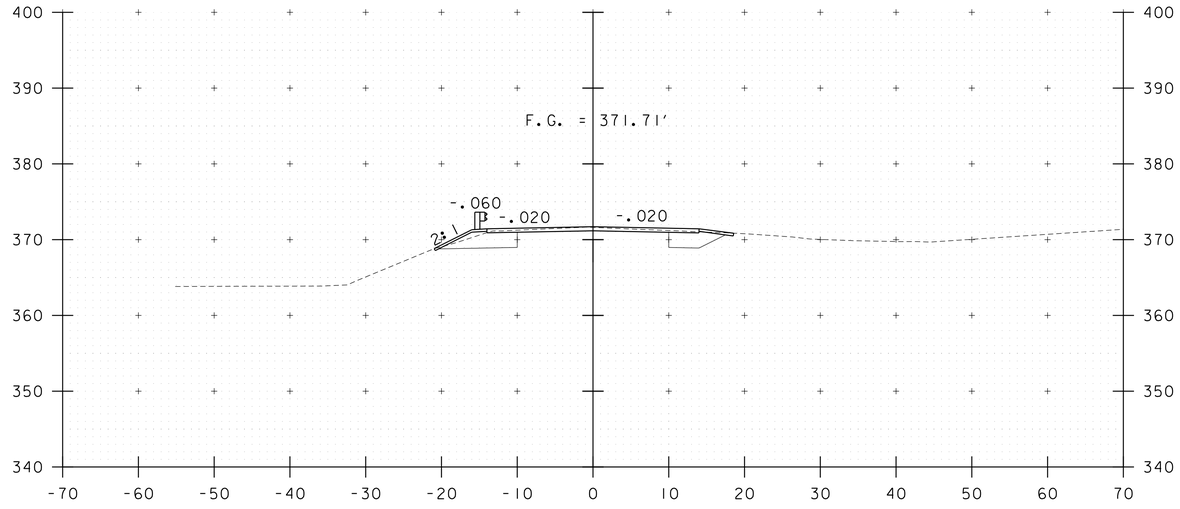
36+00



36+50



35+75



36+25

STA. 35+75 TO STA. 36+50

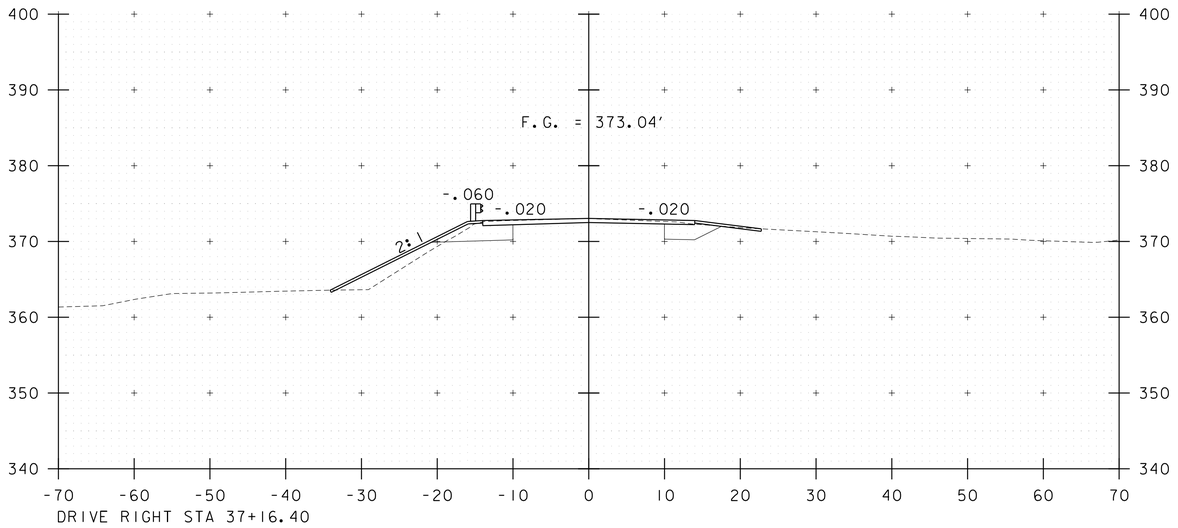
H&H

PROJECT NAME: WESTMINSTER

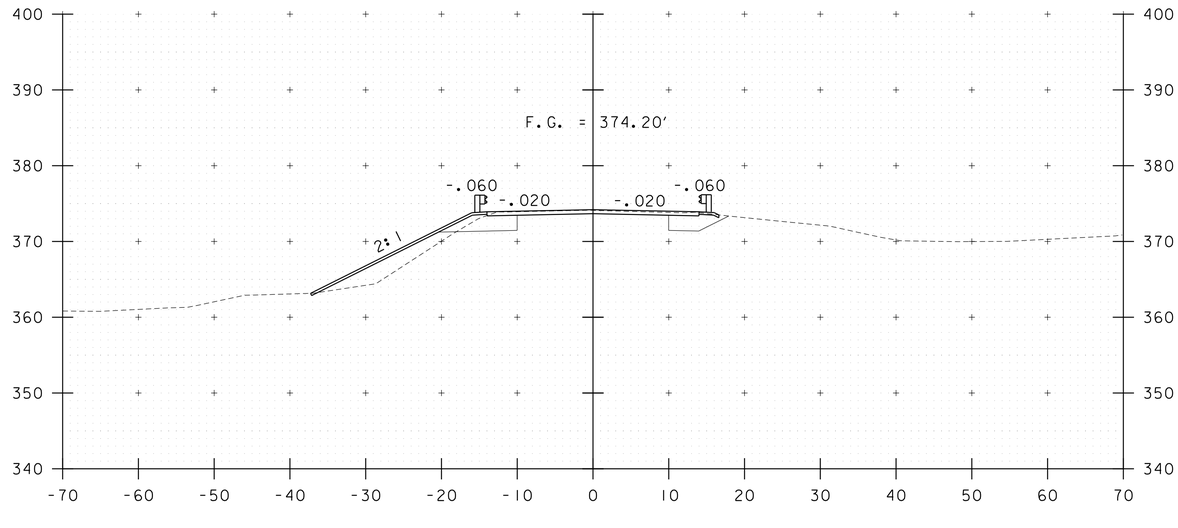
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
MAINLINE CROSS SECTIONS 2

PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 50 OF 67



37+00



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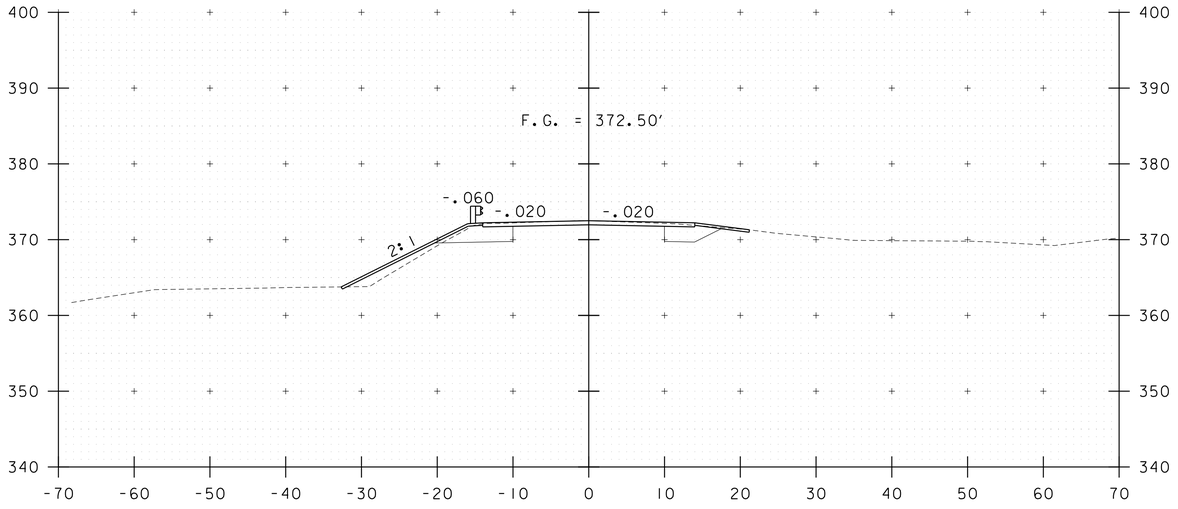
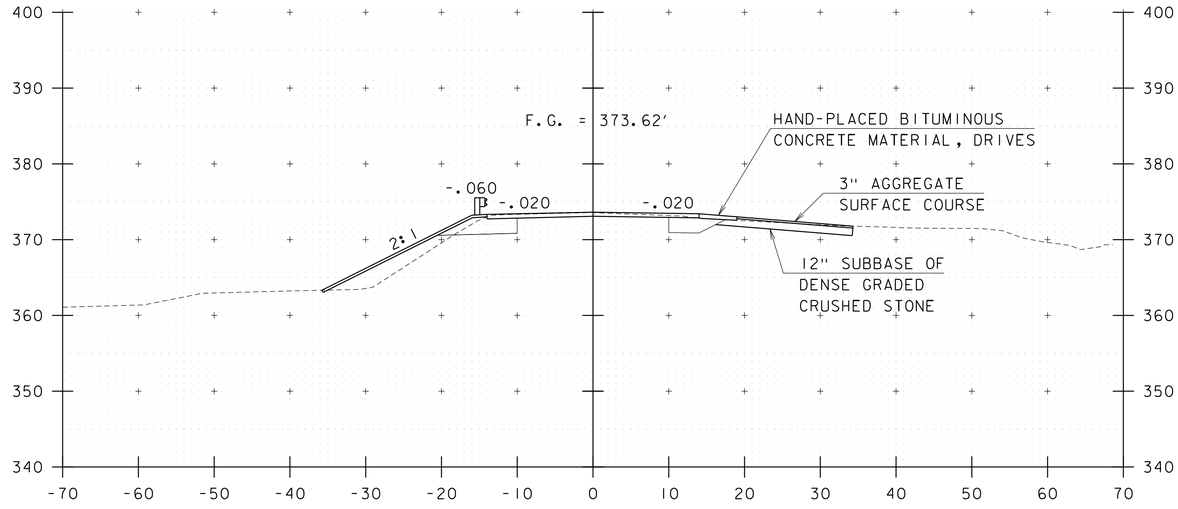


36+75



37+25

STA. 36+75 TO STA. 37+50

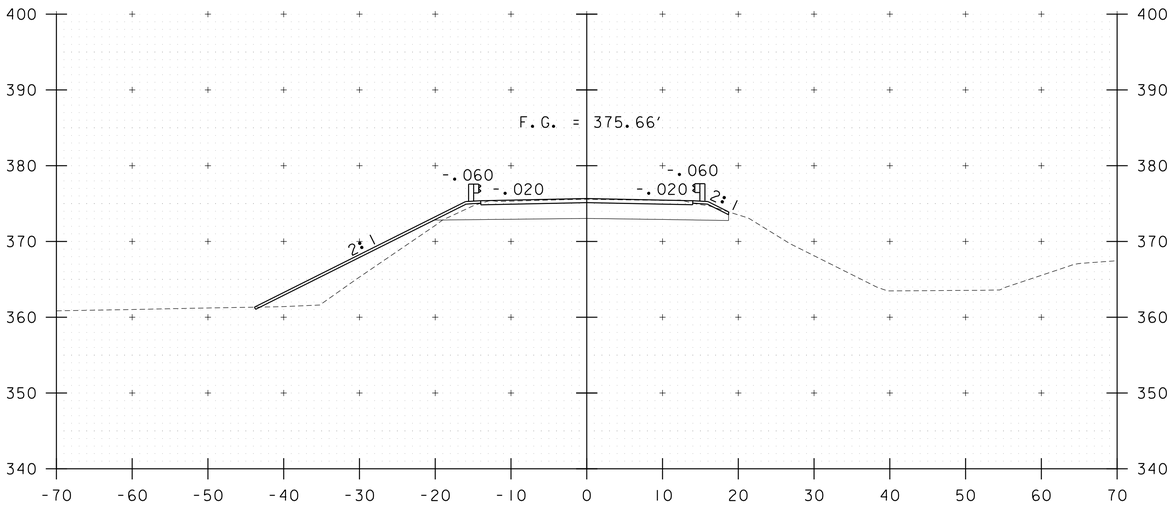
H&H

PROJECT NAME: WESTMINSTER

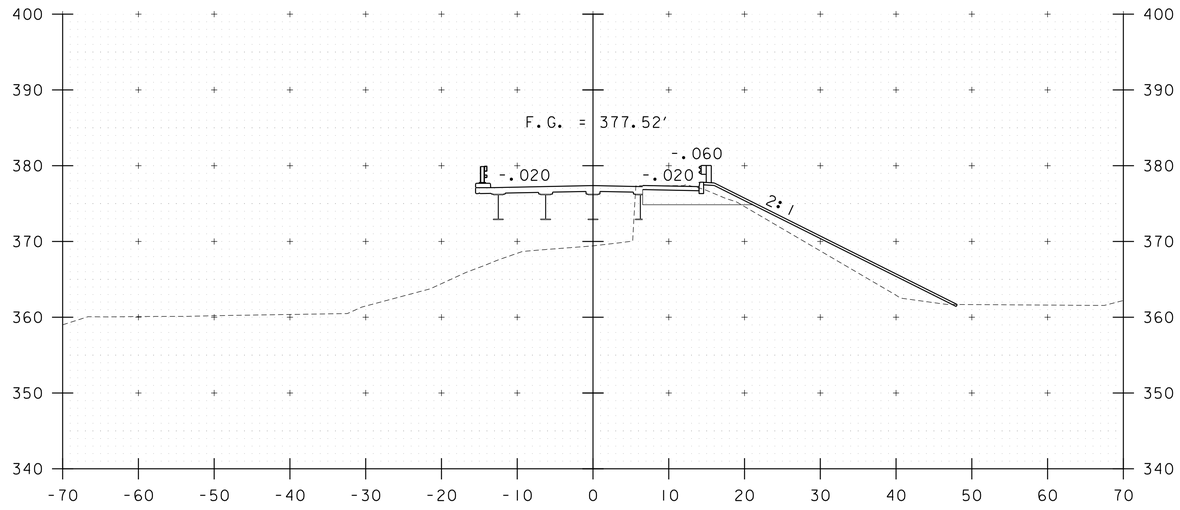
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
MAINLINE CROSS SECTIONS 3

PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 51 OF 67



38+00



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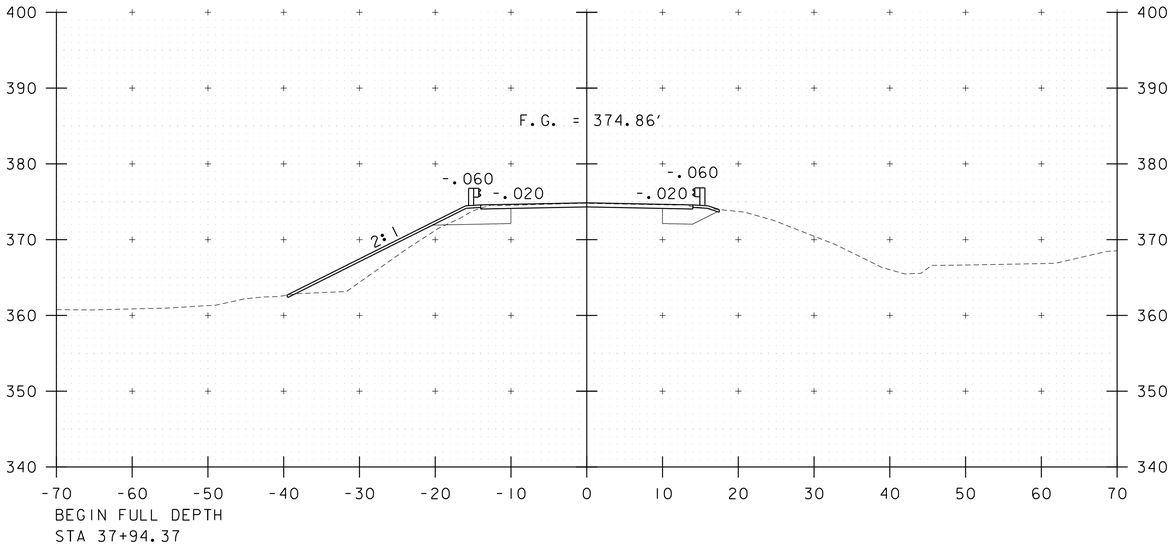
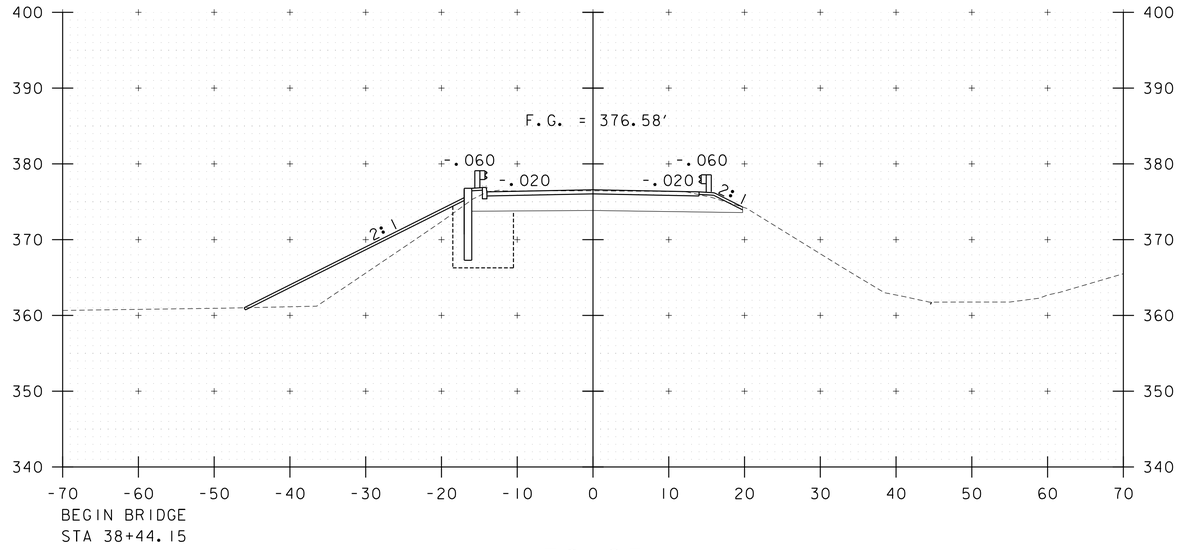


37+75



38+25

STA. 37+75 TO STA. 38+50

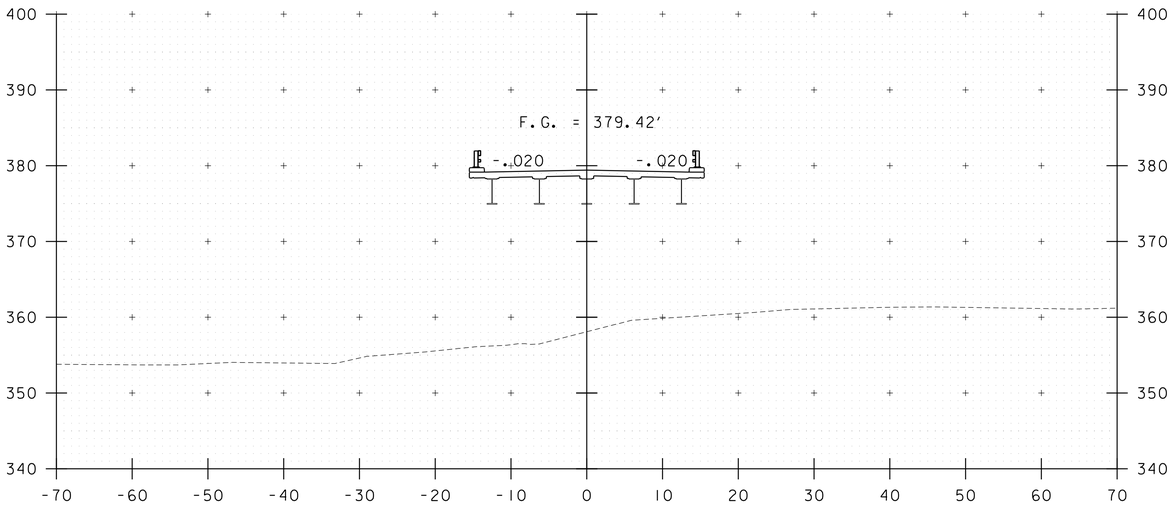
H&H

PROJECT NAME: WESTMINSTER

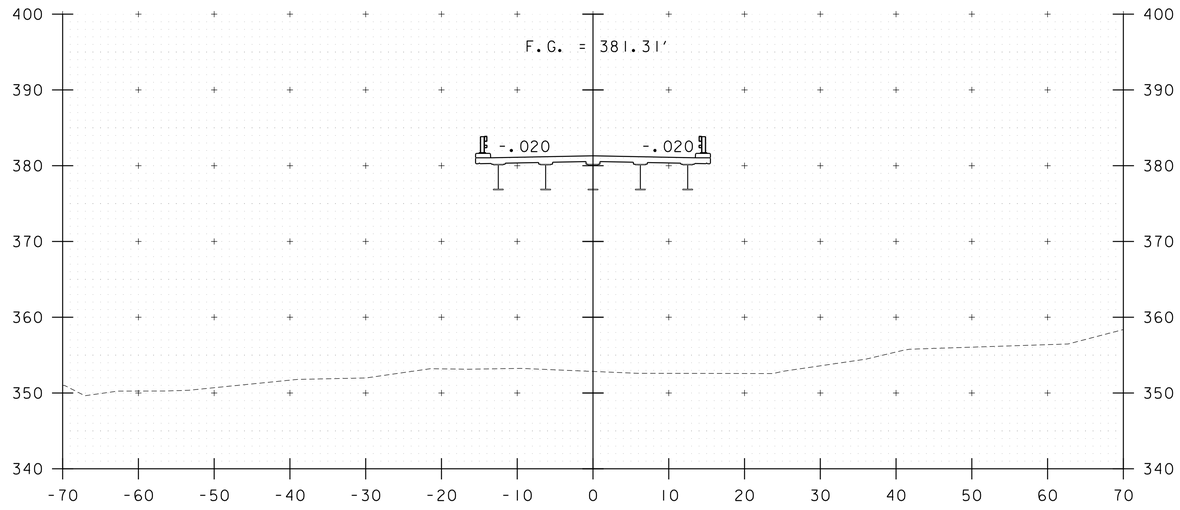
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
MAINLINE CROSS SECTIONS 4

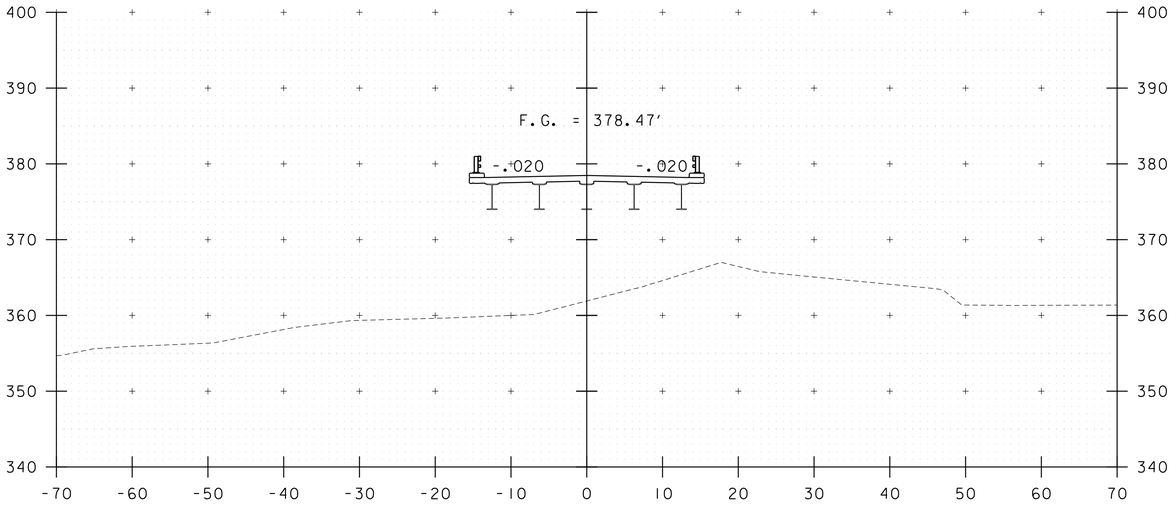
PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 52 OF 67



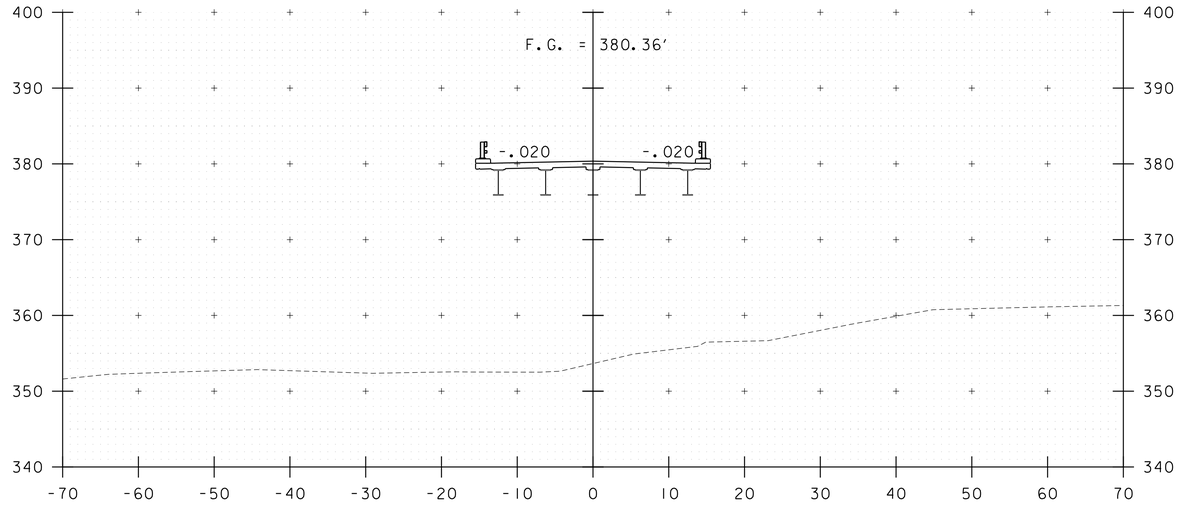
39+00



39+50



38+75



39+25

STA. 38+75 TO STA. 39+50

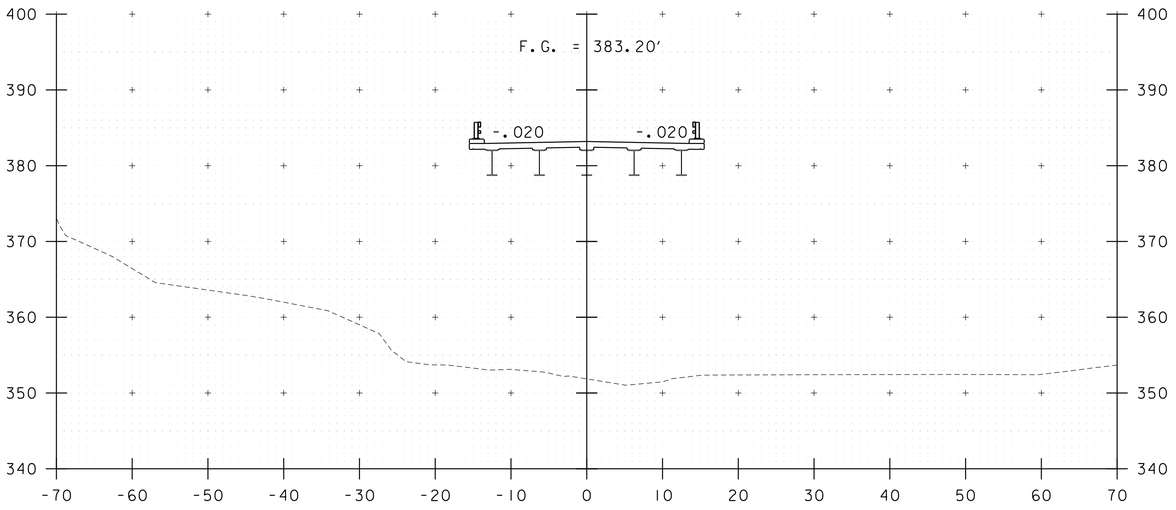
H&H

PROJECT NAME: WESTMINSTER

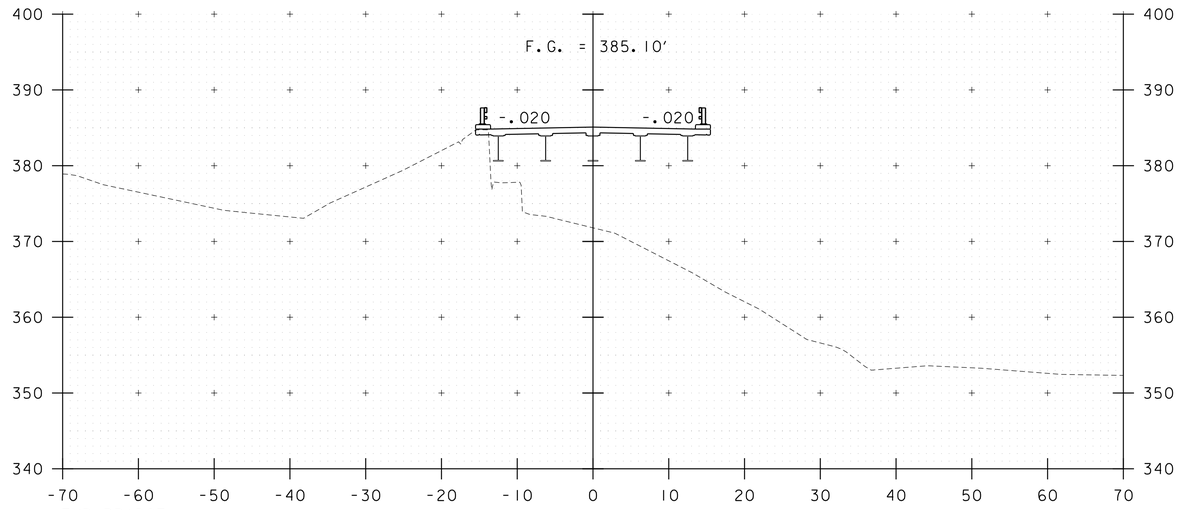
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
MAINLINE CROSS SECTIONS 5

PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 53 OF 67

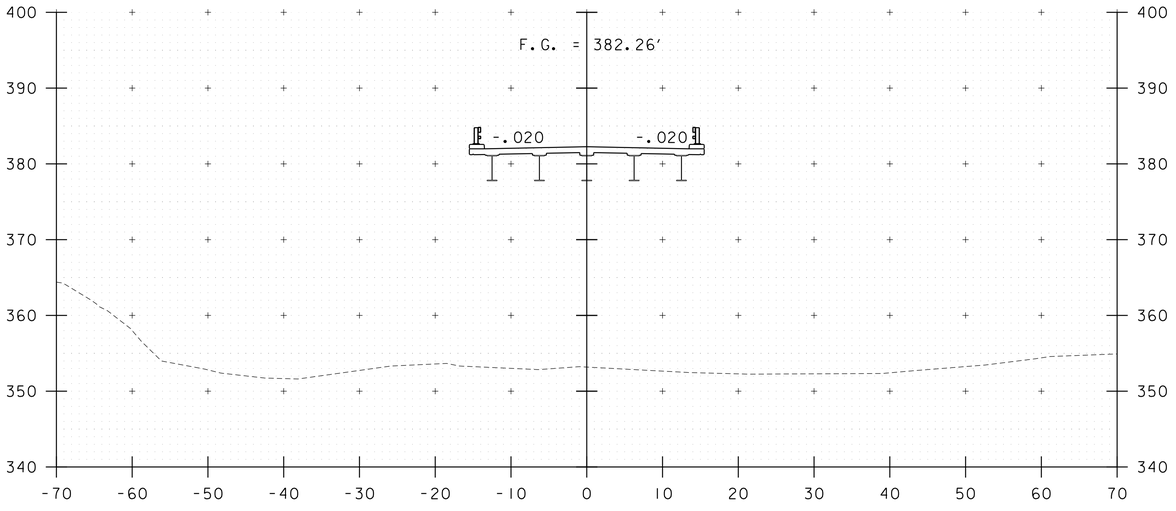


40+00

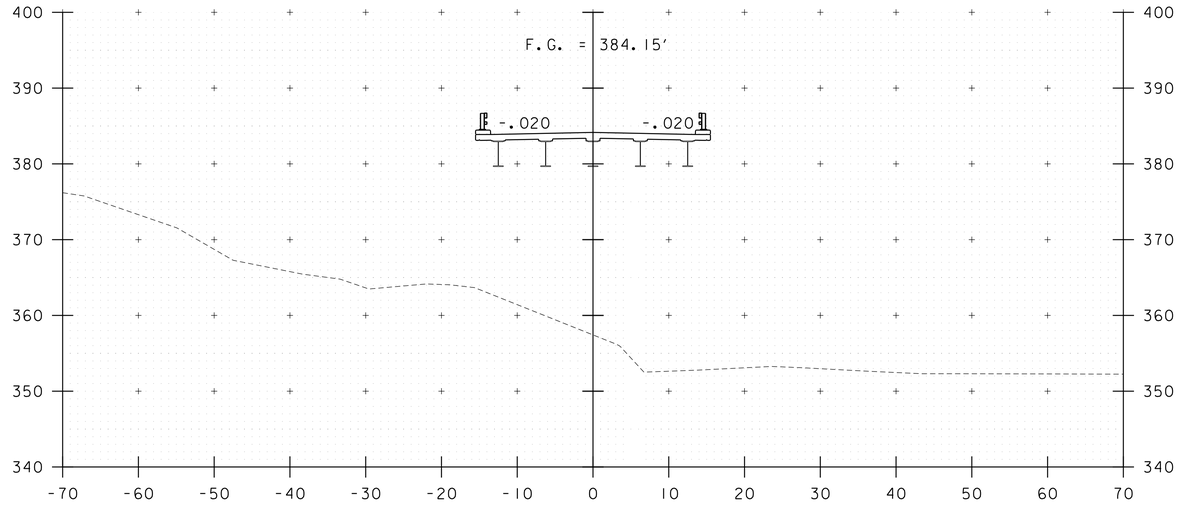


END BRIDGE
STA 40+63.21

40+50



39+75



40+25

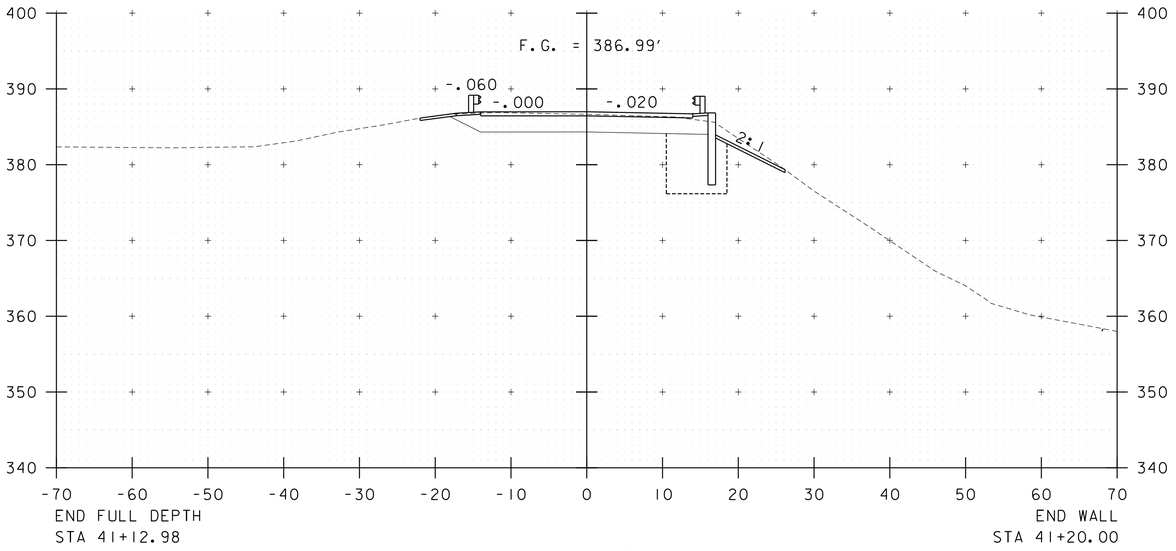
STA. 39+75 TO STA. 40+50

H&H

PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
MAINLINE CROSS SECTIONS 6

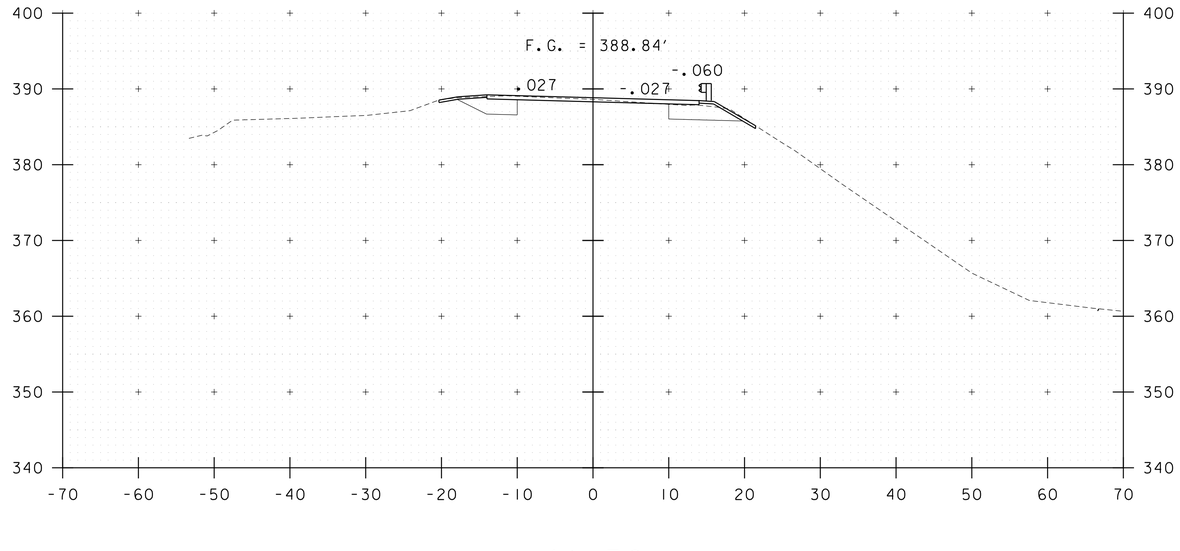
PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 54 OF 67



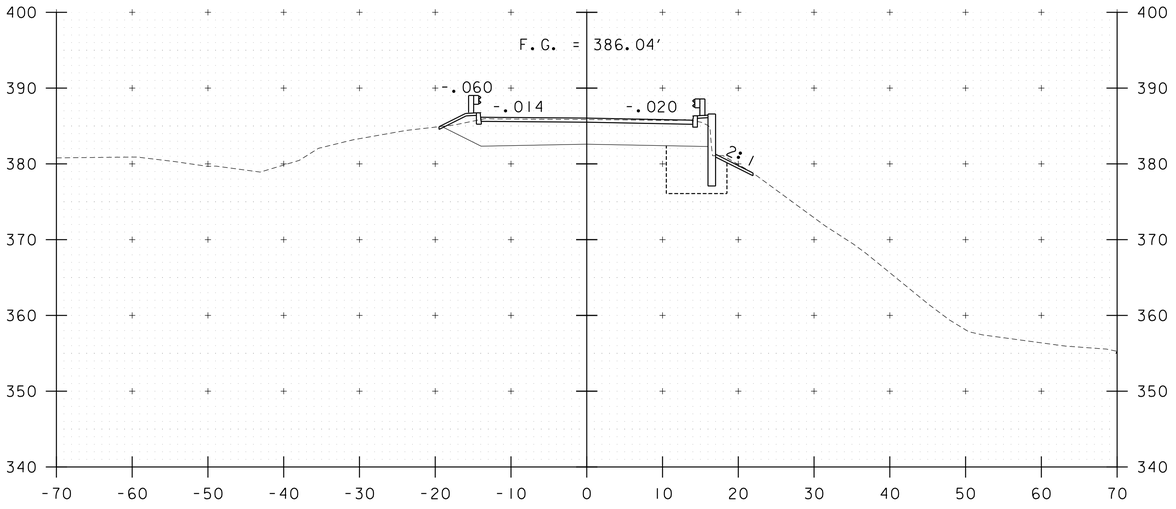
END FULL DEPTH
STA 41+12.98

END WALL
STA 41+20.00

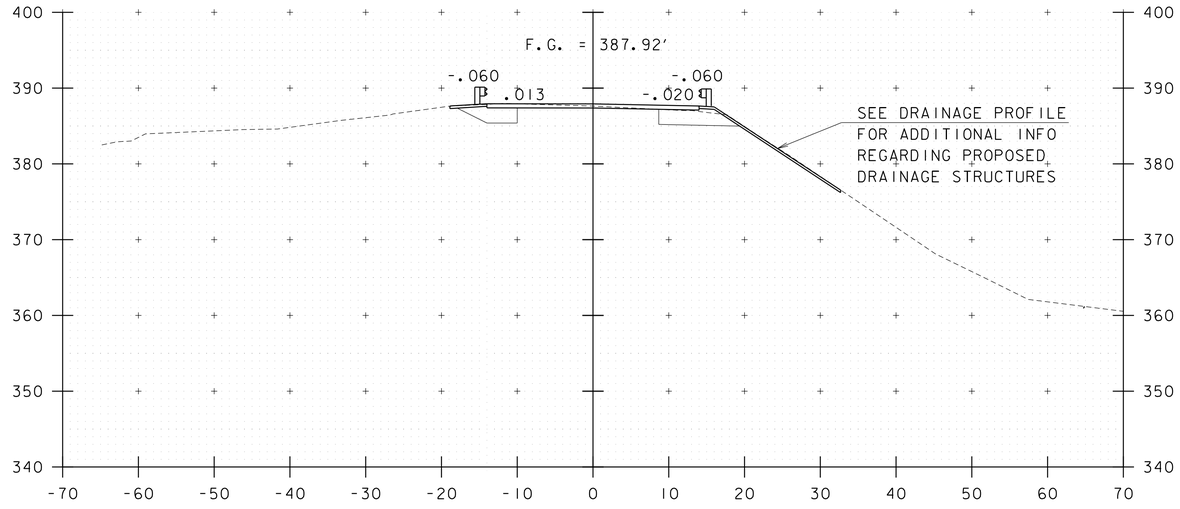
41+00



41+50



40+75



41+25

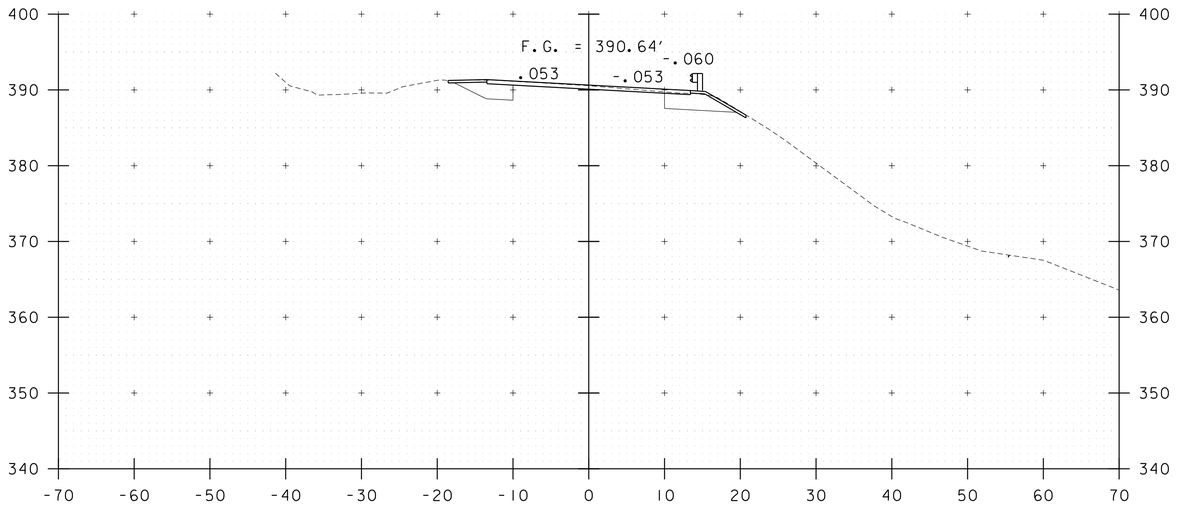
STA. 40+75 TO STA. 41+50

H&H

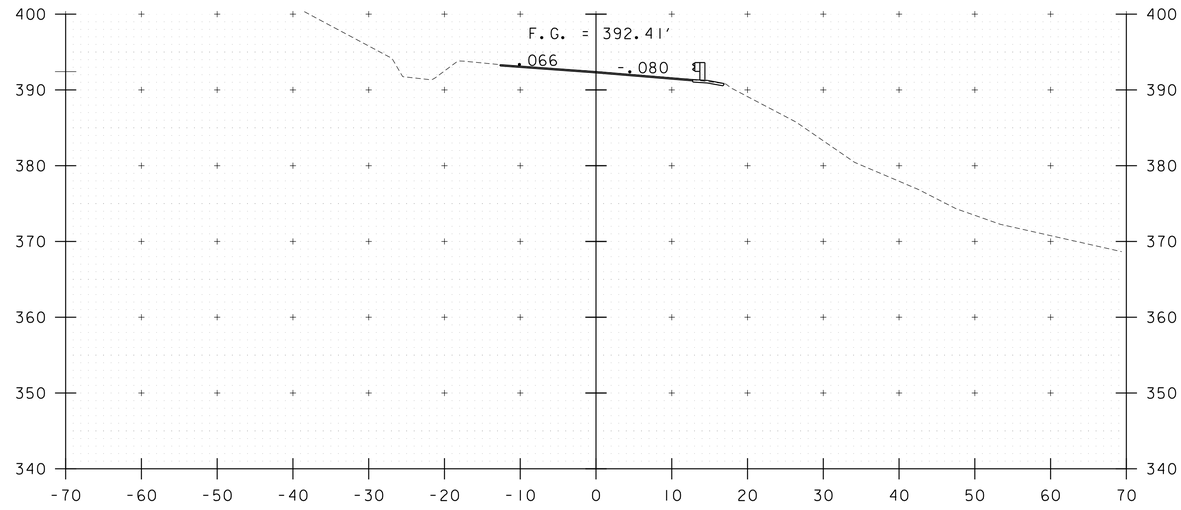
PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
MAINLINE CROSS SECTIONS 7

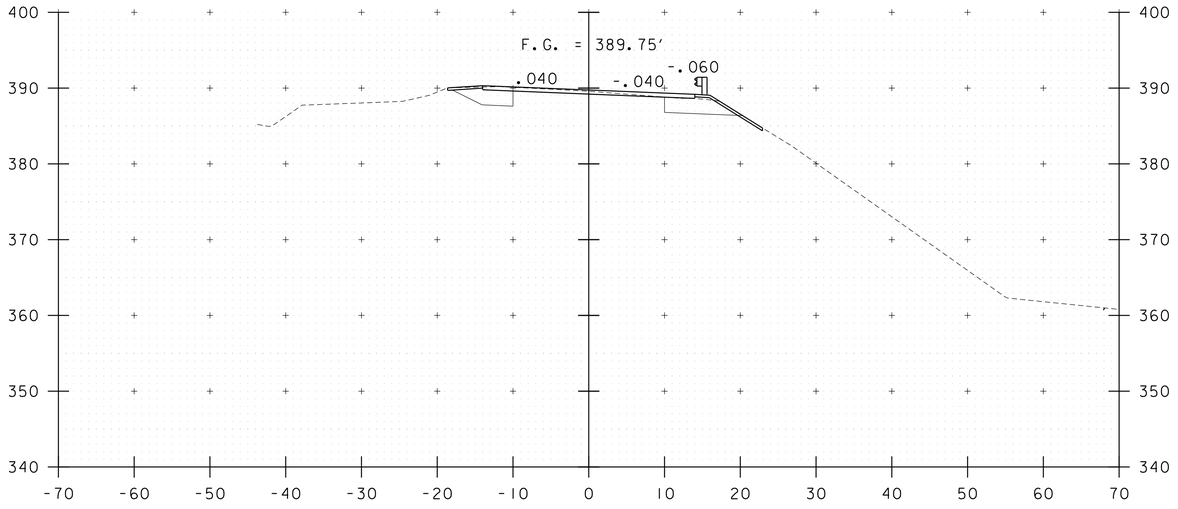
PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 55 OF 67



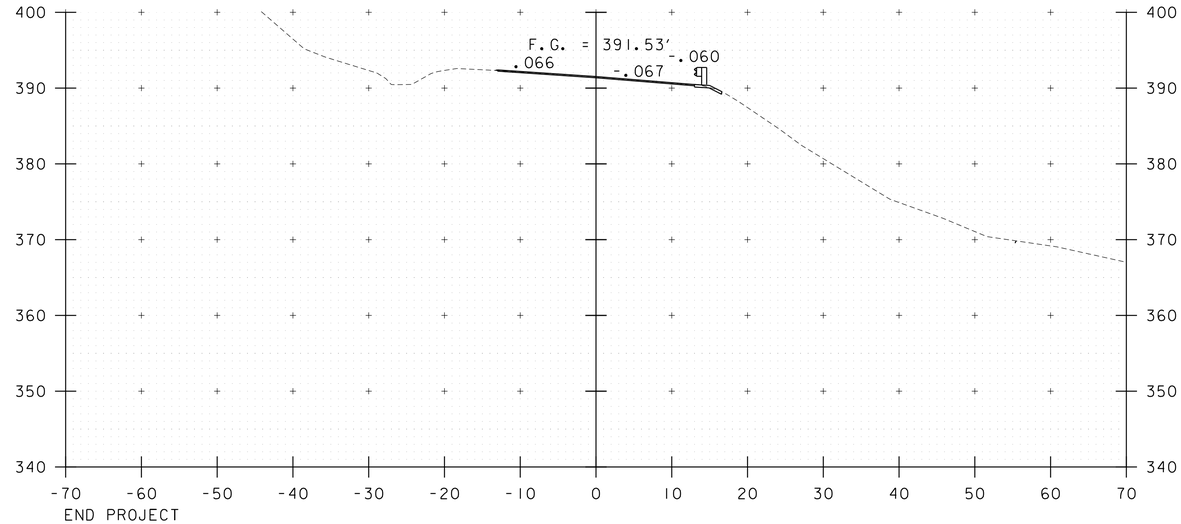
42+00



42+50



41+75



42+25

STA. 41+75 TO STA. 42+50

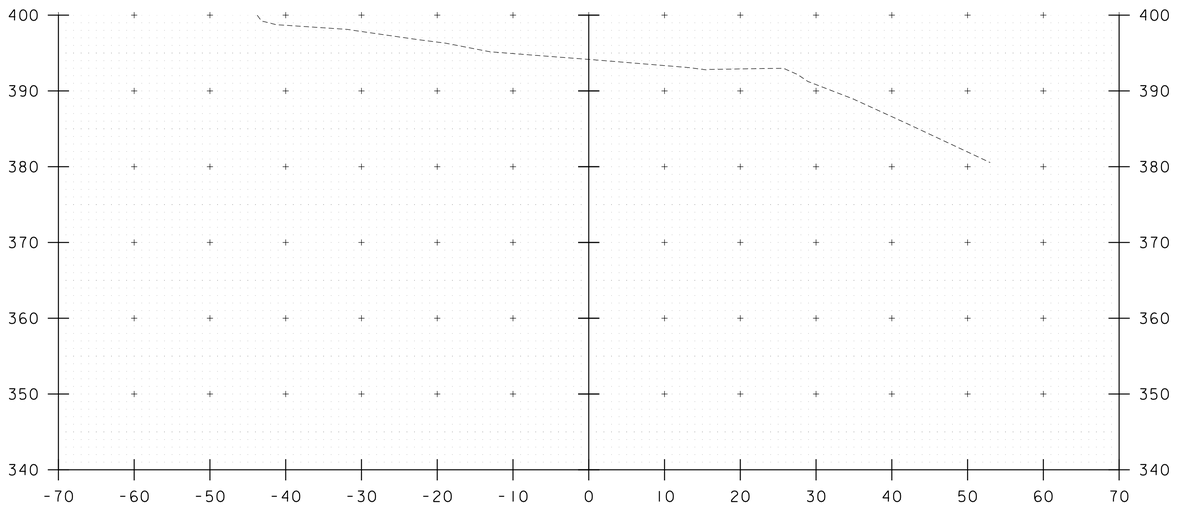
H&H

PROJECT NAME: WESTMINSTER

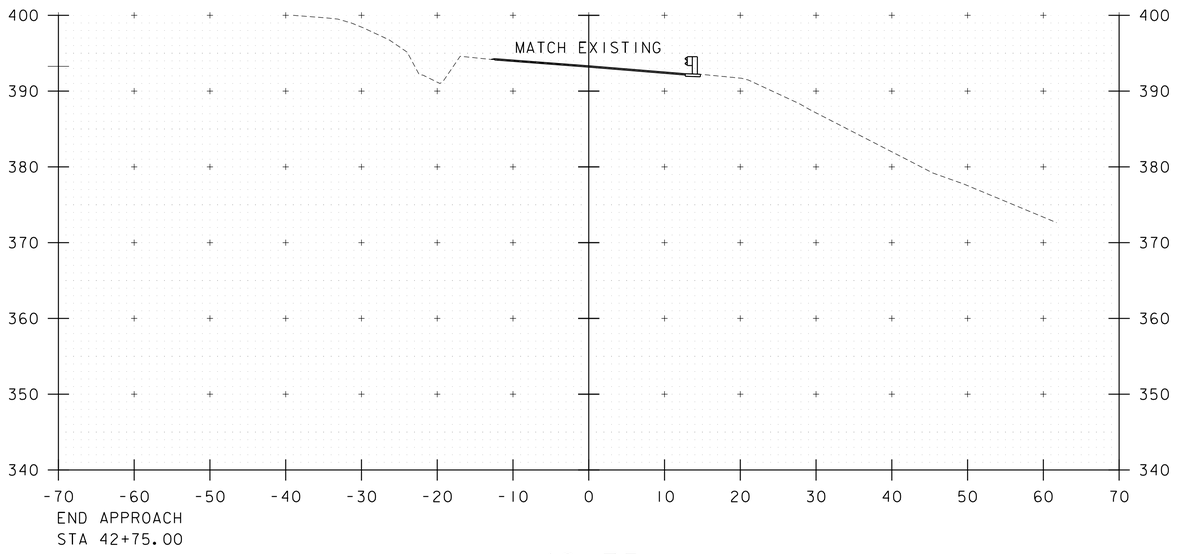
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
MAINLINE CROSS SECTIONS 8

PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 56 OF 67



43+00



42+75

STA. 42+75 TO STA. 43+00

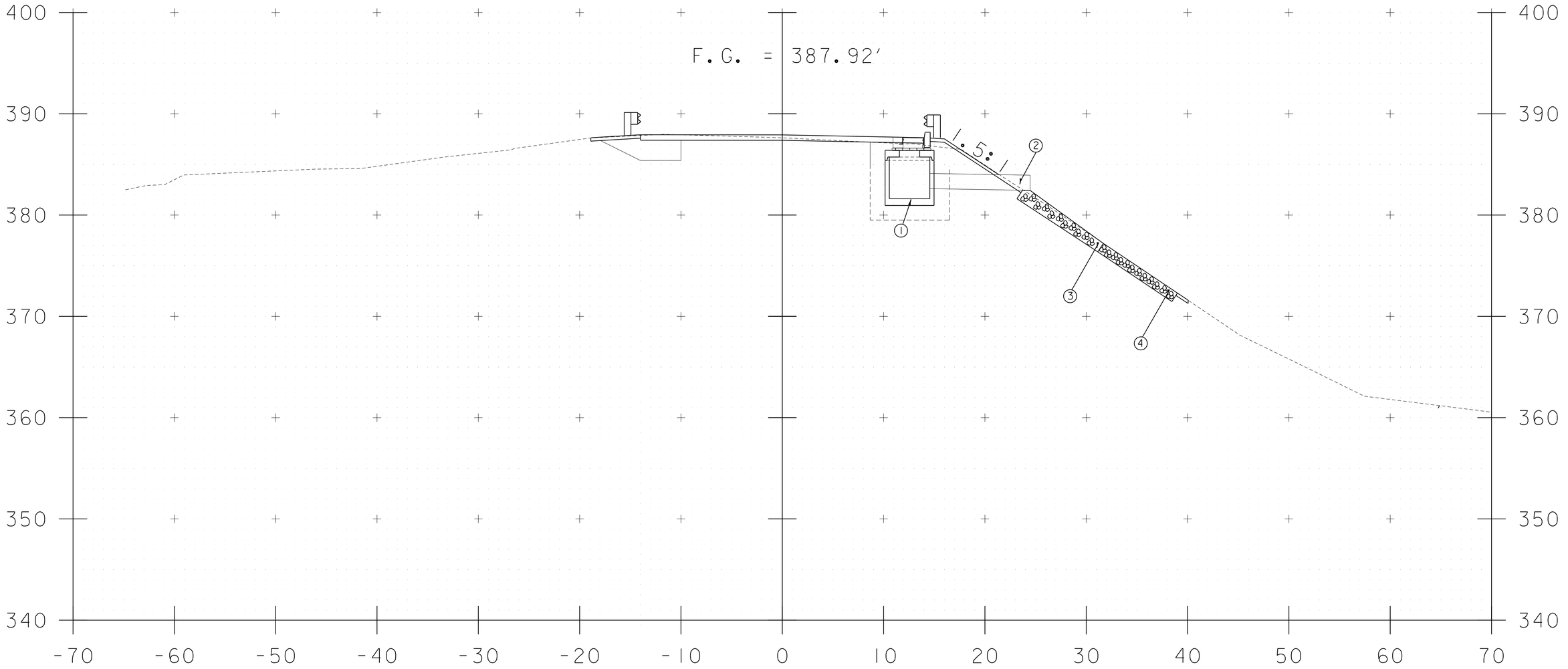
H&H

PROJECT NAME: WESTMINSTER

PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
MAINLINE CROSS SECTIONS 9

PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 57 OF 67



① STA 41+25.00, 13.00' RT
PRECAST REINFORCED DROP INLET
WITH CAST IRON GRATE, TYPE D
RIM EL. 387.70
SUMP EL. 381.20

② STA 41+25.00, 14.00' RT
NEW 18" X 12' CPEP (SL)
INLET EL. 382.20
OUTLET EL. 382.03

③ STA 41+18 TO STA. 41+32,
OFFSET 24' RT - 30' RT
STONE FILL, TYPE II

④ STA 40+93 TO STA. 41+32,
STONE LINED DITCH
(SEE LAYOUT PLAN)

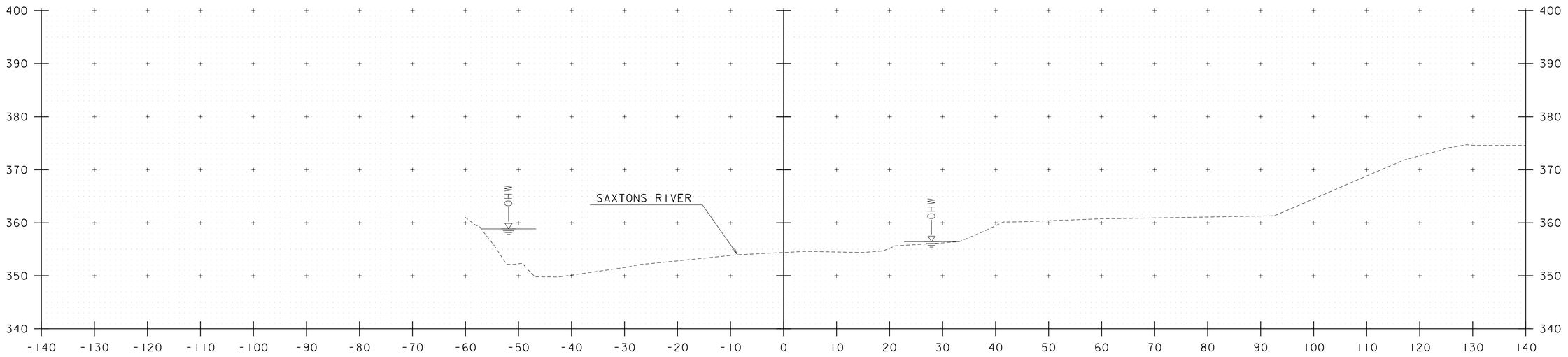
DRAINAGE PROFILE
STA @ 41+25.00 RT

H&H

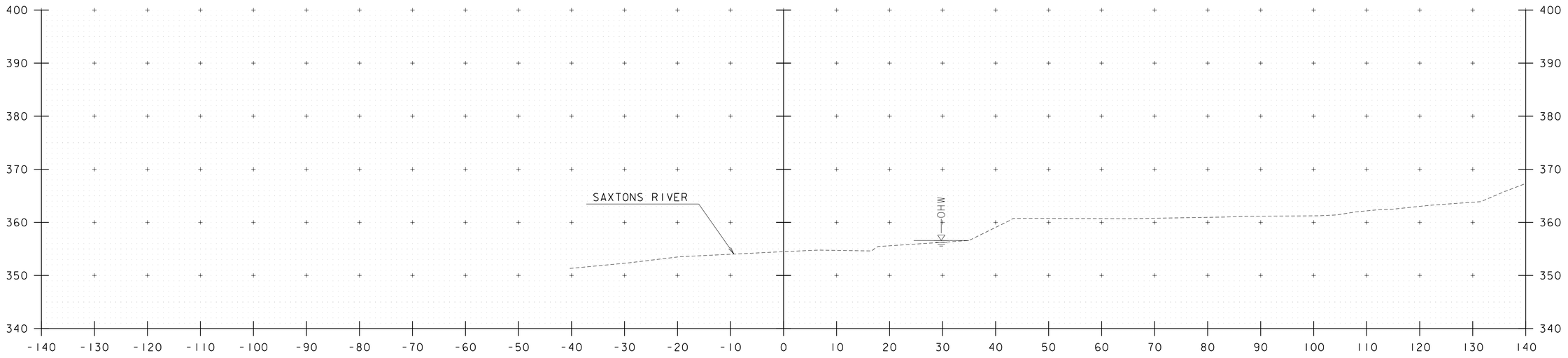
PROJECT NAME: WESTMINSTER
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
DRAINAGE PROFILE

PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 58 OF 67



50+25



50+00

STA. 50+00 TO STA. 50+25

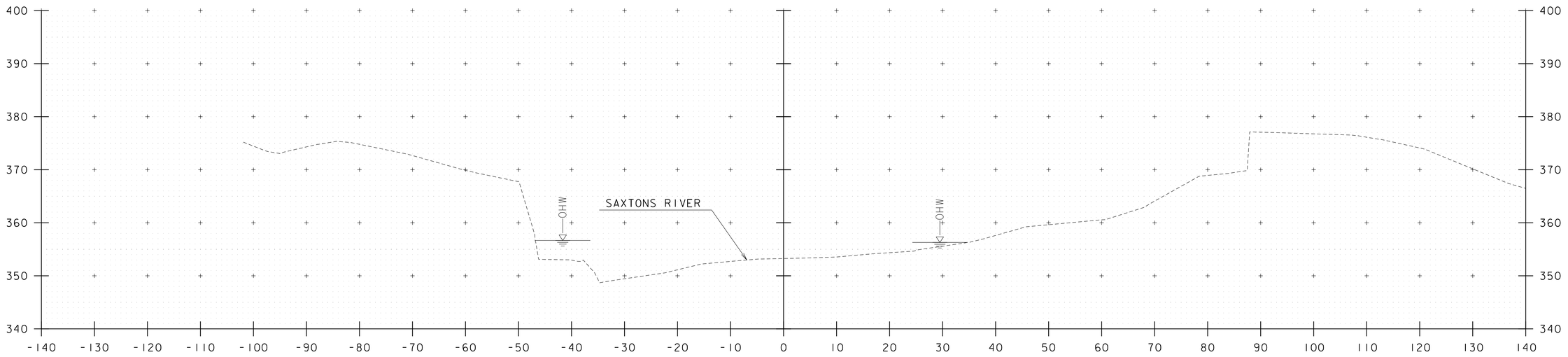
H&H

PROJECT NAME: WESTMINSTER

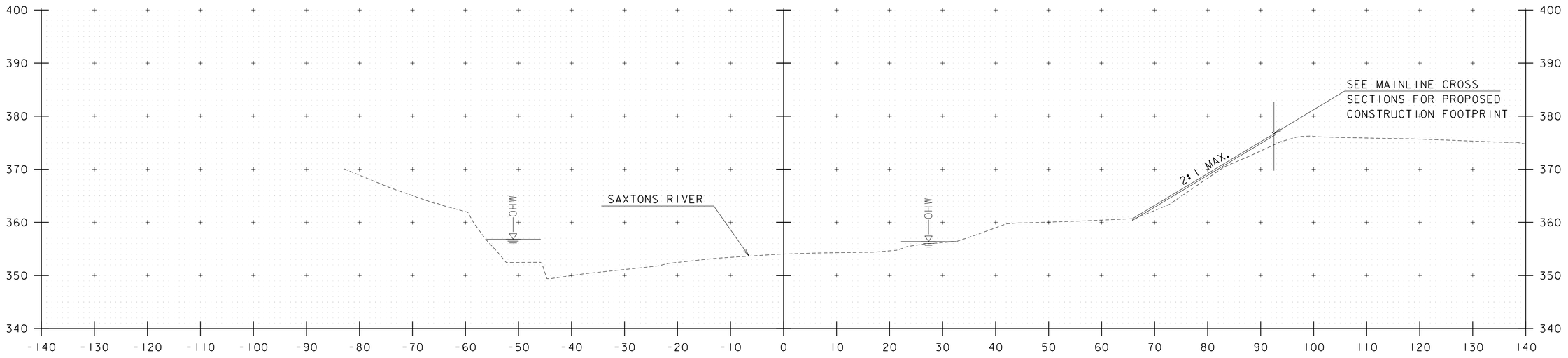
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
CHANNEL CROSS SECTIONS 1

PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 59 OF 67



50+75



50+50

STA. 50+50 TO STA. 50+75

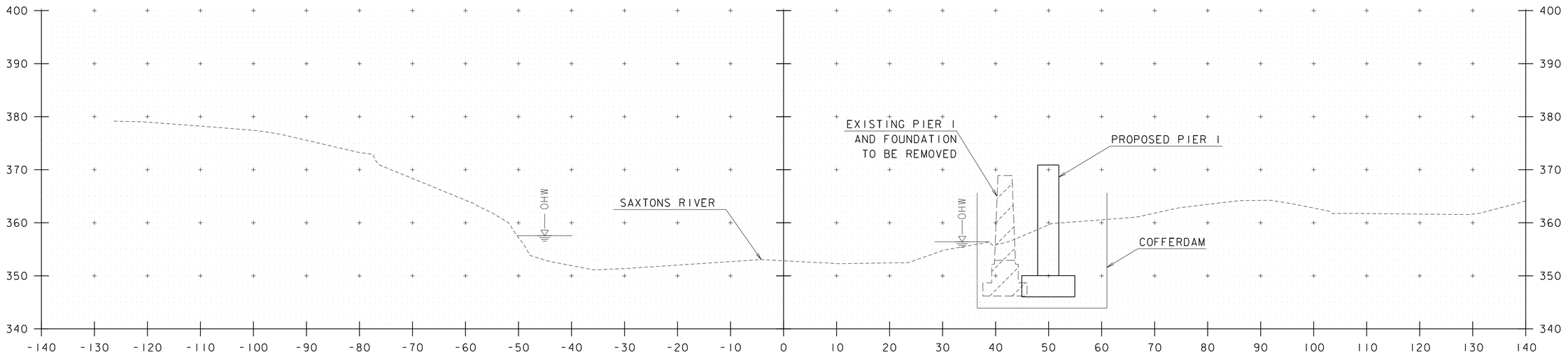
H&H

PROJECT NAME: WESTMINSTER

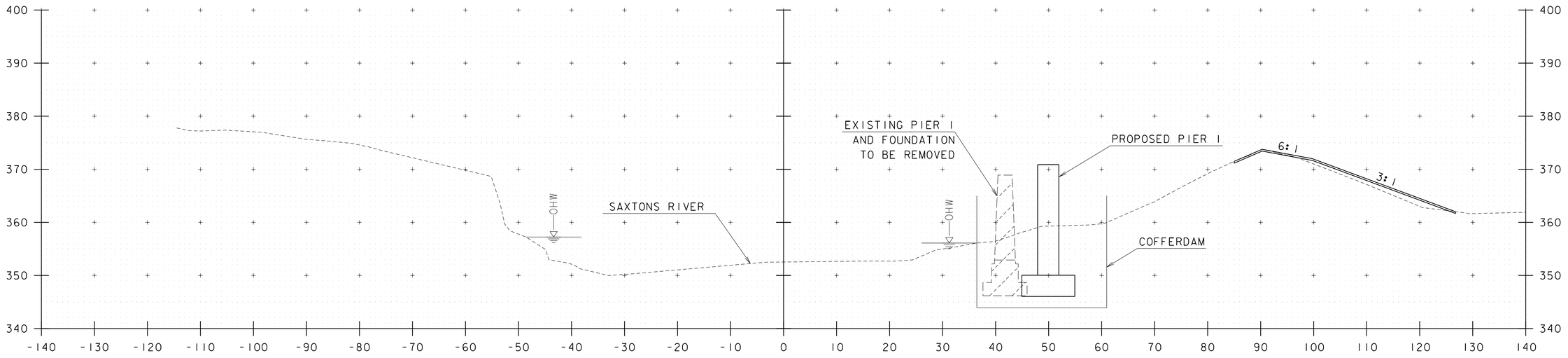
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
CHANNEL CROSS SECTIONS 2

PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 60 OF 67



51+25



51+00

STA. 51+00 TO STA. 51+25

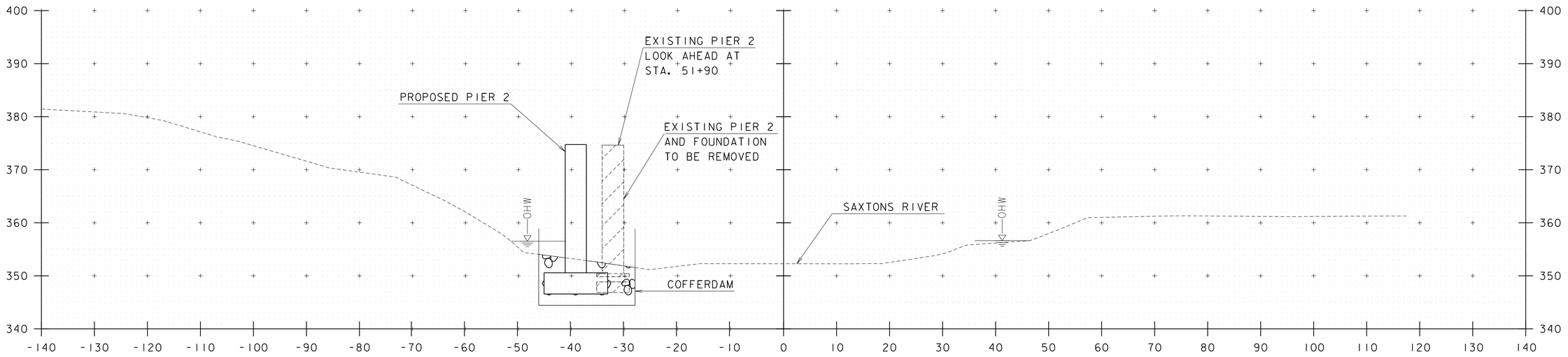
H&H

PROJECT NAME: WESTMINSTER

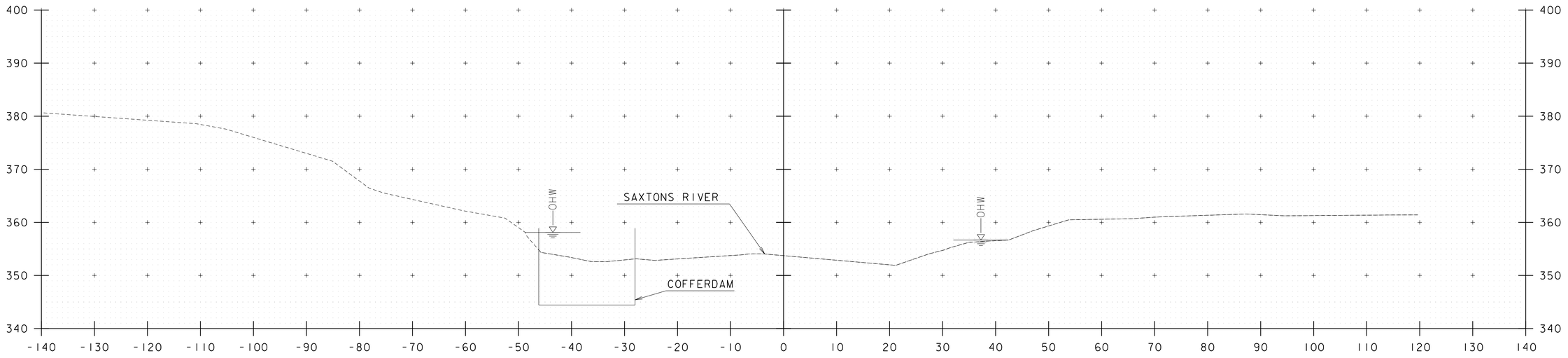
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
CHANNEL CROSS SECTIONS 3

PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 61 OF 67



51+75



51+50

STA. 51+50 TO STA. 51+75

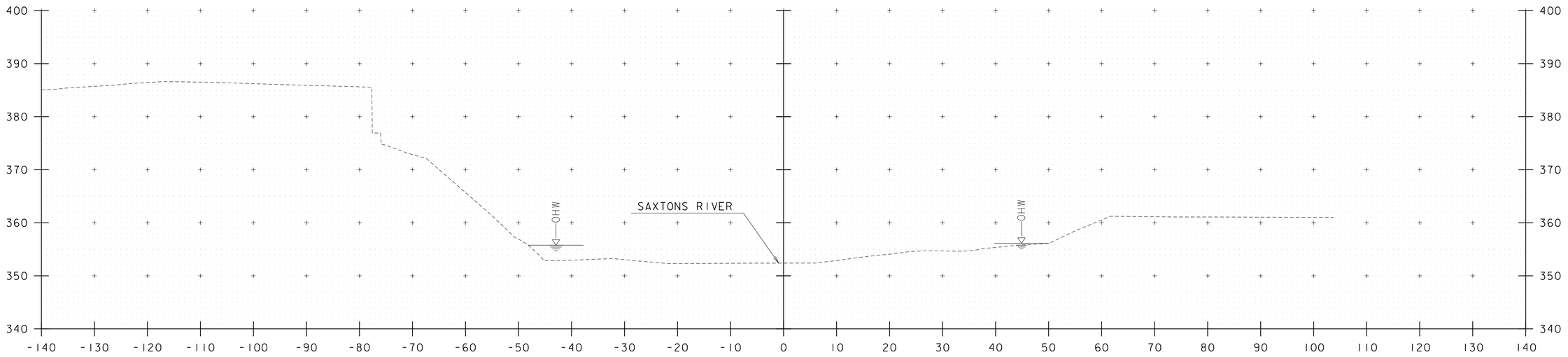
H&H

PROJECT NAME: WESTMINSTER

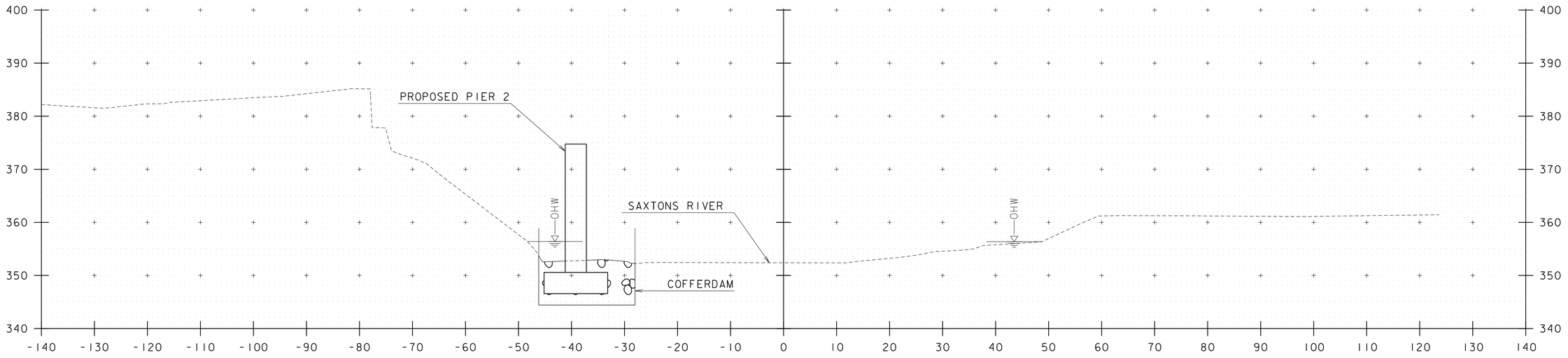
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
CHANNEL CROSS SECTIONS 4

PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 62 OF 67



52+25



52+00

STA. 52+00 TO STA. 52+25

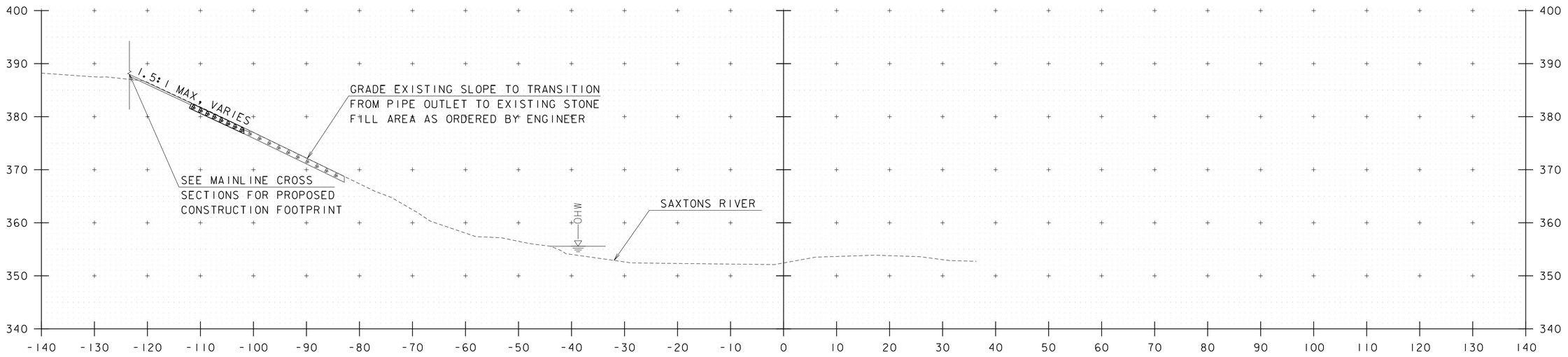
H&H

PROJECT NAME: WESTMINSTER

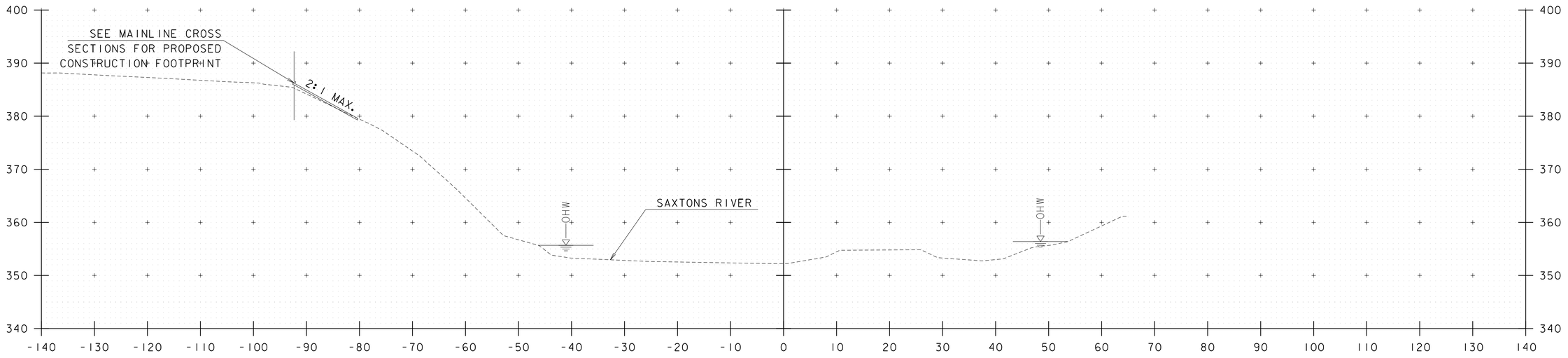
PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
CHANNEL CROSS SECTIONS 5

PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 63 OF 67



52+75



52+50

STA. 52+50 TO STA. 52+75

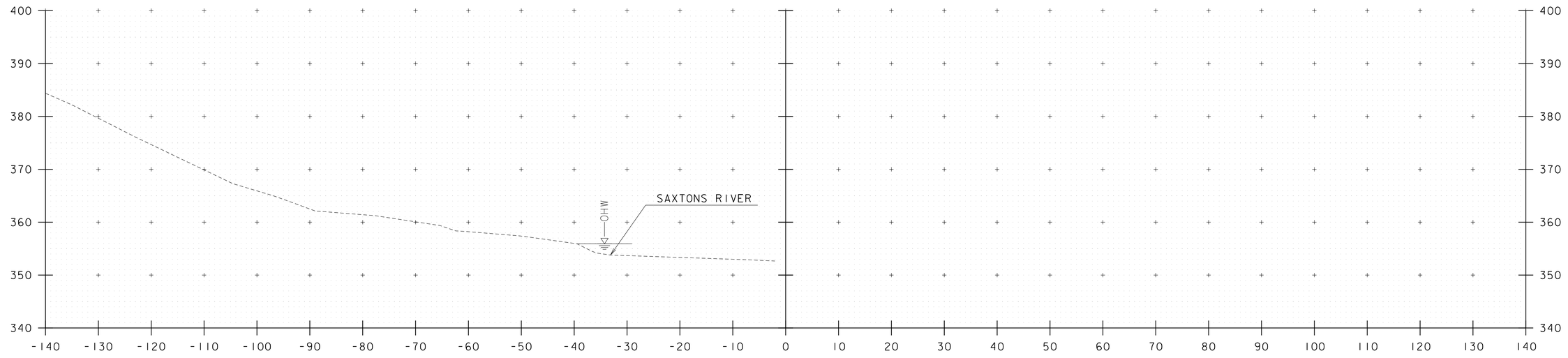
H&H

PROJECT NAME: WESTMINSTER

PROJECT NUMBER: BF 0126(14)

FILE NAME: z12j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
CHANNEL CROSS SECTIONS 6

PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 64 OF 67



53+00

STA. 53+00 TO STA. 53+00

H&H

PROJECT NAME: WESTMINSTER

PROJECT NUMBER: BF 0126(14)

FILE NAME: zl2j668xs.dgn
PROJECT LEADER: C. BAKER
DESIGNED BY: K. HO
CHANNEL CROSS SECTIONS 7

PLOT DATE: 3/6/2024
DRAWN BY: T. MARQUETTE
CHECKED BY: C. JENNE
SHEET 65 OF 67

N

VT STATE PLANE GRID

EXISTING CURVE 1
DELTA = 0°57'09"
D = 1°08'45"
R = 5000.00'
T = 41.56'
L = 83.11'
E = 0.17'

POB
STA 33+51.12

PI
STA 35+01.45

EXISTING TOWN R.O.W.

TH-1 (ROUTE 121)
TO ROCKINGHAM

33+51 34+00 35+00 36+00 37+00

TH-1 (ROUTE 121)
TO ROCKINGHAM/
BELLOWS FALLS

PC
STA 34+59.89

PT
STA 35+43.00

MATCH LINE
STA 38+00

HVCTRL 3

TELEPHONE POLE 9

GUY WIRE

TELEPHONE POLE 8

SIGN R2-1

MAILBOX

HARDIE

GRAVEL DRIVE

15" CGMP FLOW

ARCH

370

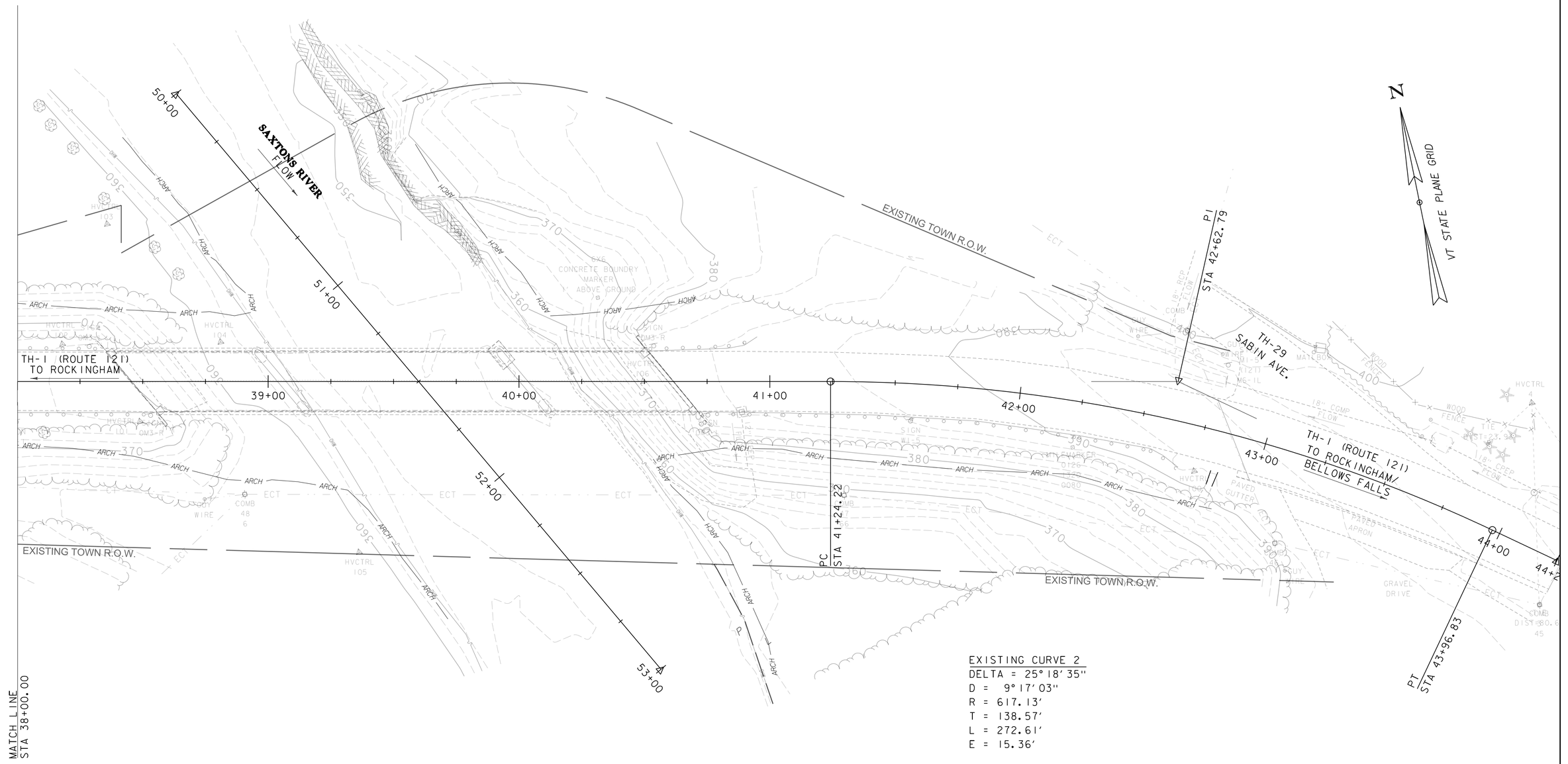
CT

EXISTING CONDITIONS

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

H&H

PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668border.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: C. SCHWARTZ
DESIGNED BY: K. SMITH	CHECKED BY: S. BROWN
EXISTING CONDITIONS SHEET 1	SHEET 66 OF 67



EXISTING CURVE 2
DELTA = 25° 18′ 35"
D = 9° 17′ 03"
R = 617.13′
T = 138.57′
L = 272.61′
E = 15.36′

EXISTING CONDITIONS

SCALE 1" = 20′-0"
20 0 20

H&H

PROJECT NAME: WESTMINSTER	
PROJECT NUMBER: BF 0126(14)	
FILE NAME: z12j668border.dgn	PLOT DATE: 3/6/2024
PROJECT LEADER: C. BAKER	DRAWN BY: C. SCHWARTZ
DESIGNED BY: K. SMITH	CHECKED BY: S. BROWN
EXISTING CONDITIONS SHEET 2	SHEET 67 OF 67