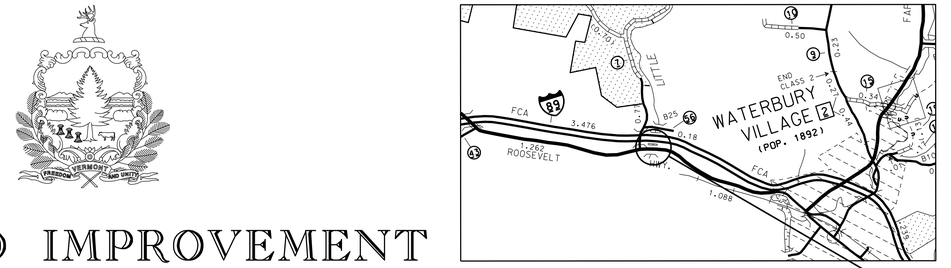
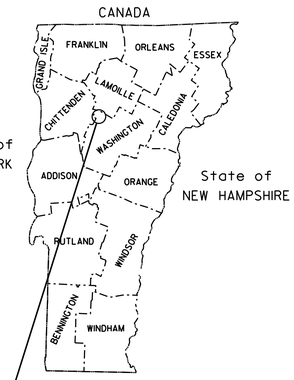
STATE OF VERMONT
AGENCY OF TRANSPORTATION





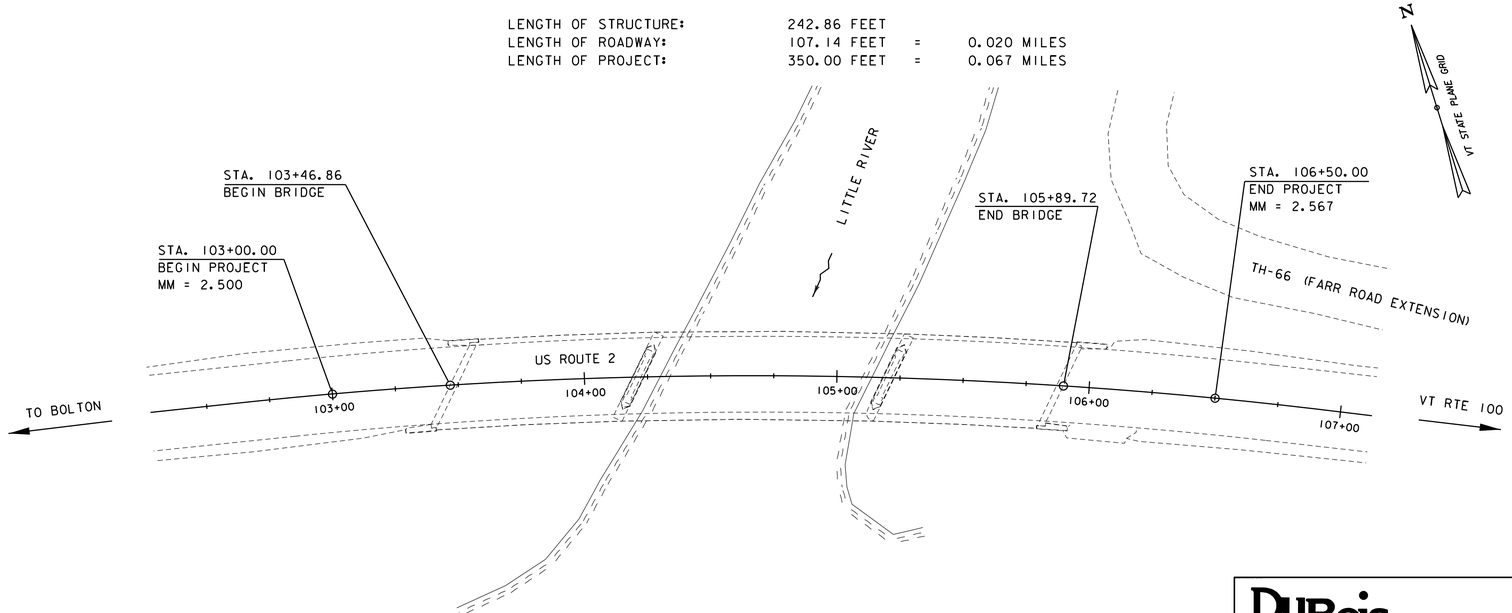
LOCATION MAP

PROPOSED IMPROVEMENT
BRIDGE PROJECT
TOWN OF WATERBURY
COUNTY OF WASHINGTON
BRIDGE #44
US ROUTE 2, RURAL MINOR ARTERIAL

PROJECT LOCATION: BEGINNING IN THE TOWN OF WATERBURY ON US ROUTE 2, AT A POINT APPROXIMATELY 1.3 MILES TO THE WEST OF THE INTERSECTION OF US ROUTE 2 AND VT ROUTE 100 AND EXTENDING EASTERLY ON US ROUTE 2 FOR A DISTANCE OF 0.067 MILES.

PROJECT DESCRIPTION: WORK TO BE PERFORMED INCLUDES REMOVAL OF THE EXISTING SUPERSTRUCTURE AND REPLACEMENT WITH A NEW SUPERSTRUCTURE, REHABILITATION OF EXISTING PIERS, AND OTHER HIGHWAY RELATED ITEMS.

LENGTH OF STRUCTURE:	242.86 FEET		
LENGTH OF ROADWAY:	107.14 FEET	=	0.020 MILES
LENGTH OF PROJECT:	350.00 FEET	=	0.067 MILES



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.

FINAL PLANS 8/18/2022

QUALITY ASSURANCE PROGRAM : LEVEL 2

SURVEYED BY : VSE
SURVEYED DATE : OCTOBER 2018

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83 (2011)

DuBois & King inc.

HIGHWAY DIVISION, CHIEF ENGINEER
APPROVED _____ DATE _____

PROJECT MANAGER : MAHENDRA THILLIYAR

PROJECT NAME : WATERBURY
PROJECT NUMBER : BF 0284 (33)

SHEET 1 OF 130 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PRELIMINARY INFORMATION SHEET (BRIDGE)

Version
LRFD

INDEX OF SHEETS

PLAN SHEETS

STANDARDS LIST

DETAIL SHEETS

HSD-400.01 SAFETY EDGE DETAILS	1/5/2018

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date:

DRAINAGE AREA : 112 sq. mi.
CHARACTER OF TERRAIN : Hilly to Mountainous
STREAM CHARACTERISTICS : Straight with wide floodplain
NATURE OF STREAMBED : Gravel

PEAK FLOW DATA - ANNUAL EXCEEDANCE PROBABILITY (AEP)

43% =	1,700 cfs	2% =	5,600 cfs
10% =	3,200 cfs	1% =	6,900 cfs
4% =	4,500 cfs	0.2% =	11,000 cfs

DATE OF FLOOD OF RECORD March 18, 1936
ESTIMATED DISCHARGE: 6520 cfs
WATER SURFACE ELEV.: Unknown
NATURAL STREAM VELOCITY : @ 2% AEP = 3.0 fps
ICE CONDITIONS : Low to Moderate
DEBRIS: Low to Moderate
DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? NO
IS ORDINARY RISE RAPID? NO
IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? YES
IF YES, DESCRIBE: Tailwater is effected by Winooski River and Bolton Falls Dam. Upstream flow is controlled by Waterbury Reservoir Dam (FERC # P-2090)

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

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Three Span Steel Rolled Beam
YEAR BUILT: 1961
CLEAR SPAN(NORMAL TO STREAM): 237.5 ft,
VERTICAL CLEARANCE ABOVE STREAMBED: 70.9 ft. +/-
WATERWAY OF FULL OPENING: 5238 sq. ft.
DISPOSITION OF STRUCTURE: Superstructure Replacement
TYPE OF MATERIAL UNDER SUBSTRUCTURE: See Borings

WATER SURFACE ELEVATIONS AT:

43% AEP =	410.3 ft	VELOCITY =	1.5 fps
10% AEP =	413.9 ft	"	2.1 fps
4% AEP =	416.0 ft	"	2.7 fps
2% AEP =	417.6 ft	"	3.0 fps
1% AEP =	419.4 ft	"	3.4 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: Waterbury — DISTANCE: 95 ft.
HIGHWAY # : I-89 South Bound — STRUCTURE #: 48S
CLEAR SPAN: 301 ft. — CLEAR HEIGHT: Unknown
YEAR BUILT: 1961 — FULL WATERWAY: Unknown
STRUCTURE TYPE: Steel Continuous

DOWNSTRUCTURE STRUCTURE

TOWN: Richmond — DISTANCE: 8.7 mi
HIGHWAY # : TH-3 — STRUCTURE #: 10
CLEAR SPAN: 247 ft. — CLEAR HEIGHT: Unknown
YEAR BUILT: 2002 — FULL WATERWAY: Unknown
STRUCTURE TYPE: Steel Continuous

LRFR LOAD RATING FACTORS

LOADING LEVELS	TRUCK						
	H-20	HL-93	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEM
TONNAGE	20	36	36	66	30	34.5	38
INVENTORY							
POSTING							
OPERATING							
COMMENTS:							

PROPOSED STRUCTURE

STRUCTURE TYPE: Steel Continuous

CLEAR SPAN(NORMAL TO STREAM): 237.5 ft.
VERTICAL CLEARANCE ABOVE STREAMBED: 71.3 ft. +/-
WATERWAY OF FULL OPENING: 5316 sq. ft.

WATER SURFACE ELEVATIONS AT:

43% AEP =	410.3 ft	VELOCITY=	1.5 fps
10% AEP =	413.9 ft	"	2.1 fps
4% AEP =	416.0 ft	"	2.7 fps
2% AEP =	417.6 ft	"	3.0 fps
1% AEP =	419.4 ft	"	3.4 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: 430.35 ft
FREEBOARD: @ 2% AEP = 12.8 ft

SCOUR: A total pier scour depth of 7.5-ft was calculated.

REQUIRED CHANNEL PROTECTION: *Stone Fill Type III

PERMIT INFORMATION

		DEPTH OR ELEVATION:
AVERAGE DAILY FLOW:	-	
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

*E-Stone, Type III should be used for all in channel work

TRAFFIC MAINTENANCE NOTES

1. MAINTAIN TWO-WAY TRAFFIC ON A TEMPORARY ROADWAY AND BRIDGE.
2. INSTALL AND MAINTAIN TRAFFIC SIGNS
3. SIDEWALKS ARE NOT NECESSARY
4. THE TEMPORARY ROADWAY SHALL BE PAVED.

DESIGN VALUES

1. DESIGN LIVE LOAD		HL-93
2. FUTURE PAVEMENT	d_P:	2.5 INCH
3. DESIGN SPAN	L:	68.1,99.2,73.1
	H:	7'-0
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. SP (PERFORMANCE BASED CONCRETE, CLASS PCD)	f'_c:	4.0 KSI
9. SP (PERFORMANCE BASED CONCRETE, CLASS PCS)	f'_c:	3.5 KSI
10. CONCRETE HIGH PERFORMANCE, CLASS	f'_c:	---
11. CONCRETE, CLASS C	f'_c:	---
12. REINFORCING STEEL	f_y:	60 KSI
13. STRUCTURAL STEEL AASHTO M270W (WEATHERING)	f_y:	50 KSI
14. NOMINAL BEARING RESISTANCE OF SOIL	q_n:	---
15. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	---
16. NOMINAL BEARING RESISTANCE OF ROCK	q_n:	---
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: 9 %g	S_s:	---
	S_1:	---
23.		
24.		---
25.		---
26.		---

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2023	2700	430	61	3.7	200
2043	3000	460	61	5.8	350

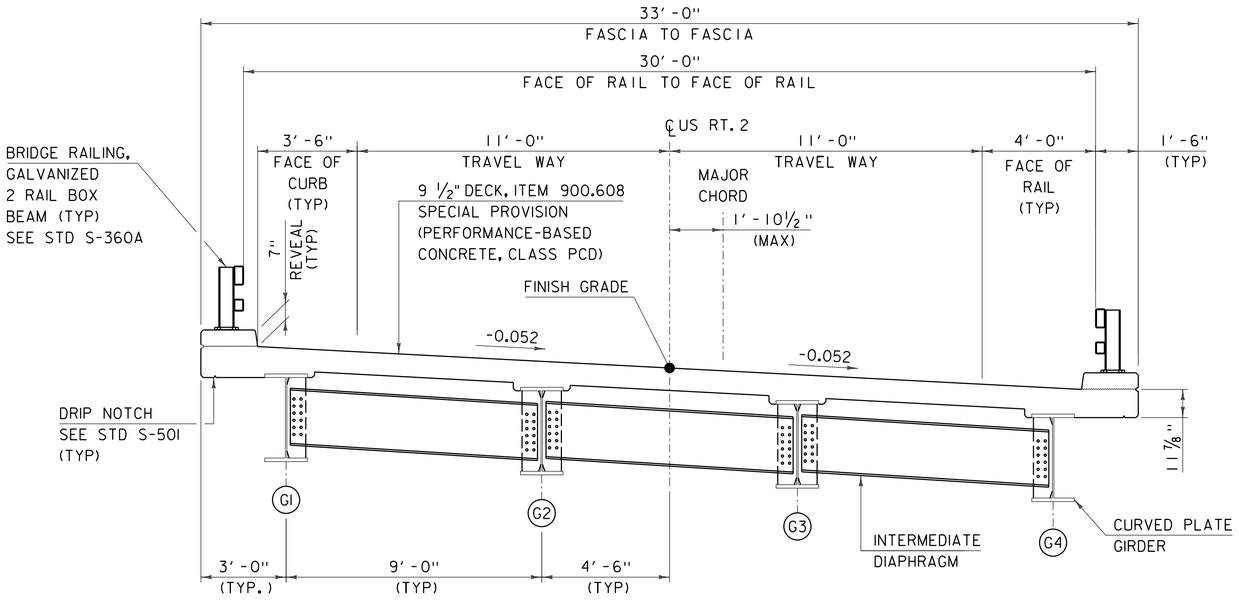
20 year ESAL for flexible pavement from 2023 to 2043 : 1.270.000
40 year ESAL for flexible pavement from 2023 to 2063 : 2.953.000
Design Speed : 50 mph

AS BUILT "REBAR" DETAIL

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

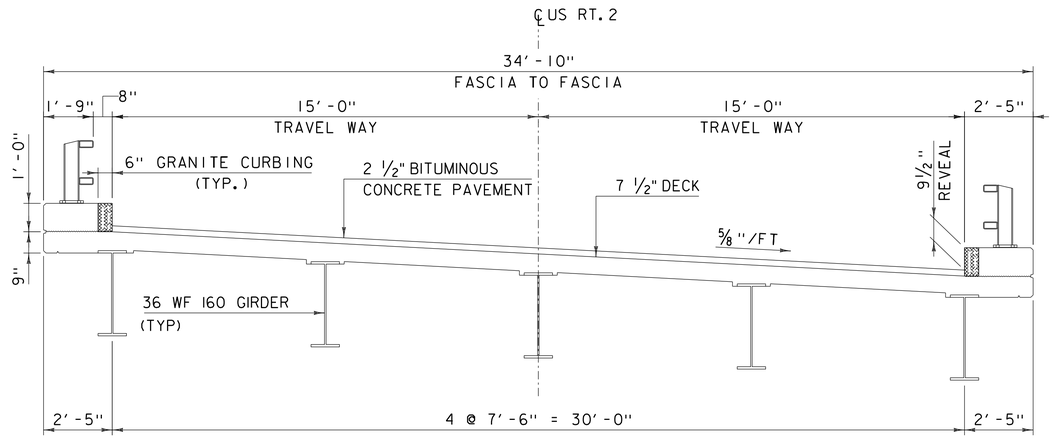
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602pi.dgn — PLOT DATE: 8/18/2022
PROJECT LEADER: R. TETREAULT — DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU — CHECKED BY: M.OOMS
PRELIMINARY INFORMATION SHEET — SHEET 2 OF 130



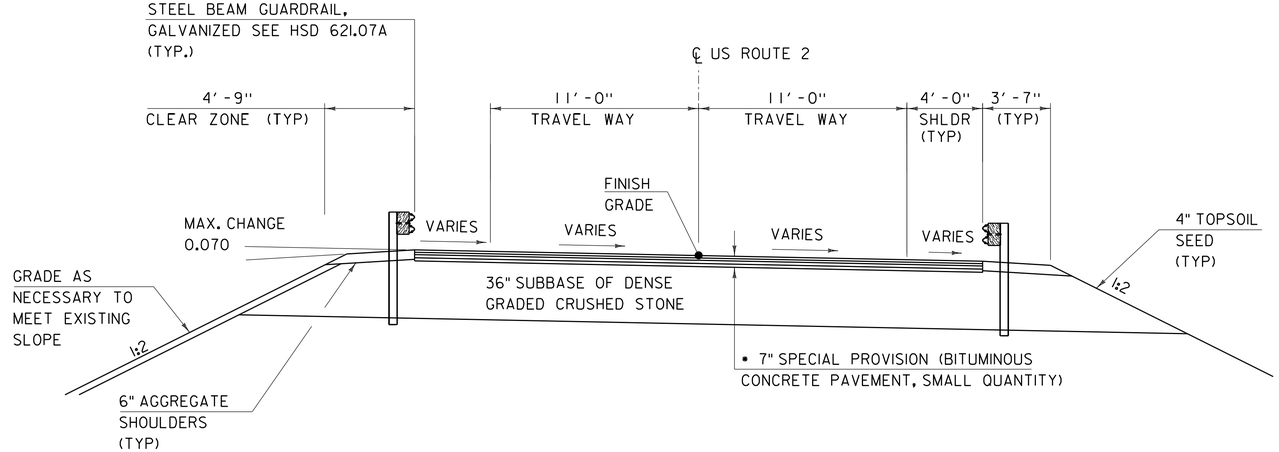
BRIDGE TYPICAL SECTION

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



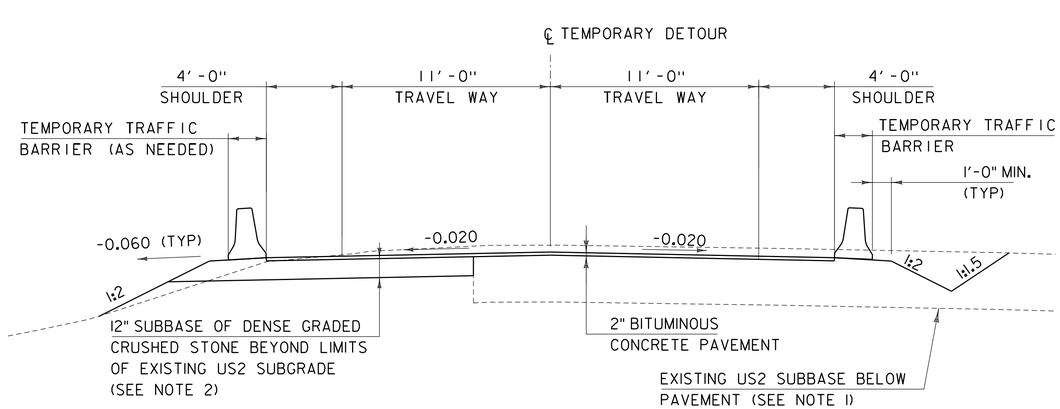
EXISTING BRIDGE TYPICAL SECTION

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



US ROUTE 2 TYPICAL SECTION

STA 103+00.00 TO STA 103+25.13
STA 106+13.88 TO STA 106+50.00
SCALE: 1/4" = 1'-0"



TEMPORARY DETOUR TYPICAL SECTION

STA 9+98.67 TO STA 20+31.07
SCALE: 1/4" = 1'-0"

NOTES:

1. 36" OF EXISTING SUBBASE OF DENSE GRADED CRUSHED STONE ASSUMED UNDER EXISTING US 2 BASED ON RECORD DRAWINGS.
2. SEE CROSS SECTIONS FOR MORE INFORMATION.

*US ROUTE 2:
1 1/2" BITUMINOUS CONCRETE PAVEMENT TYPE IV
1 1/2" BITUMINOUS CONCRETE PAVEMENT TYPE IV
2 LIFTS OF 2" BITUMINOUS CONCRETE PAVEMENT TYPE II
36" SUBBASE OF DENSE GRADED CRUSHED STONE
EMULSIFIED ASPHALT TO BE APPLIED AT A RATE OF 0.10 GAL/SY OVER PORTLAND CEMENT CONCRETE AND COLD PLANED SURFACES AND 0.06 GAL/SY BETWEEN SUCCESSIVE COURSES OF NEW PAVEMENT, AS DIRECTED BY ENGINEER

MATERIAL TOLERANCES
(IF USED ON PROJECT)

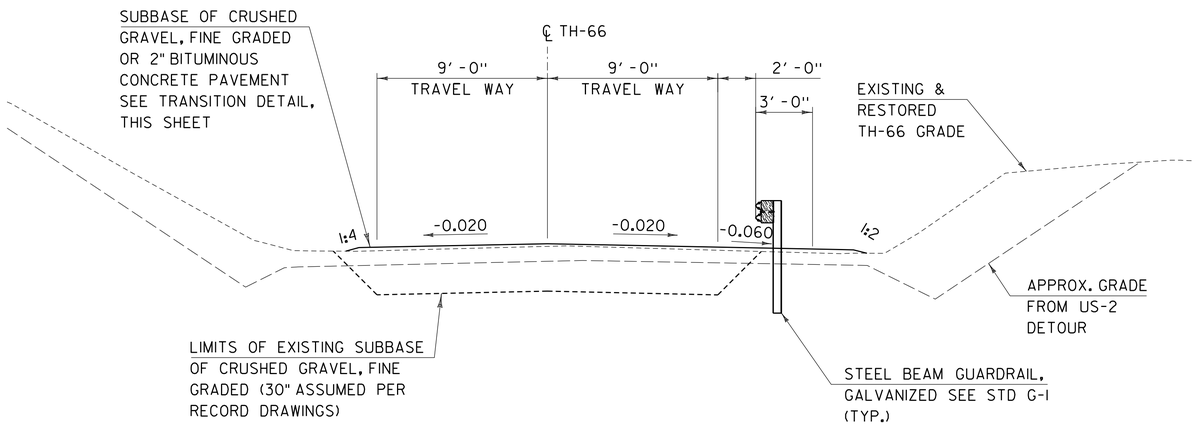
SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
SUBBASE	+/- 1"

		DESCRIPTION
BINDER	PG 70-28	PERFORMANCE GRADE ASPHALT BINDER
GYRATION	80	DESIGN NUMBER OF GYRATIONS

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

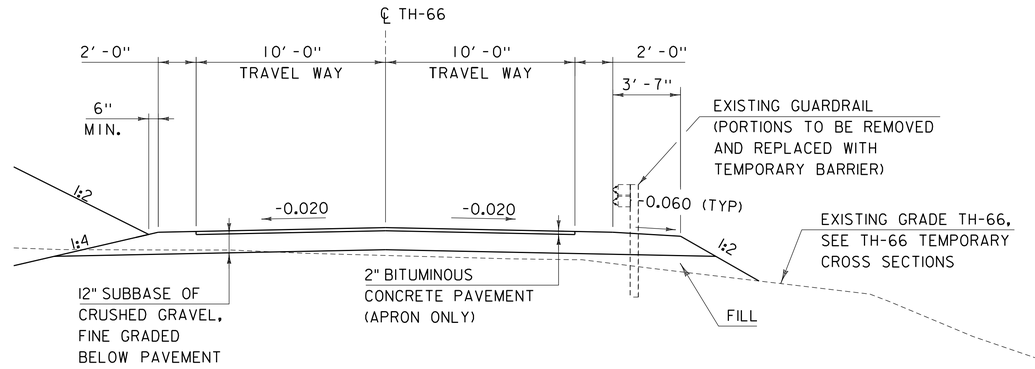
FILE NAME: z12c602typ.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: M.EVANS-MONGEON
TYPICAL SECTIONS 1

PLOT DATE: 8/18/2022
DRAWN BY: G.CANTAVE
CHECKED BY: M.OOMS



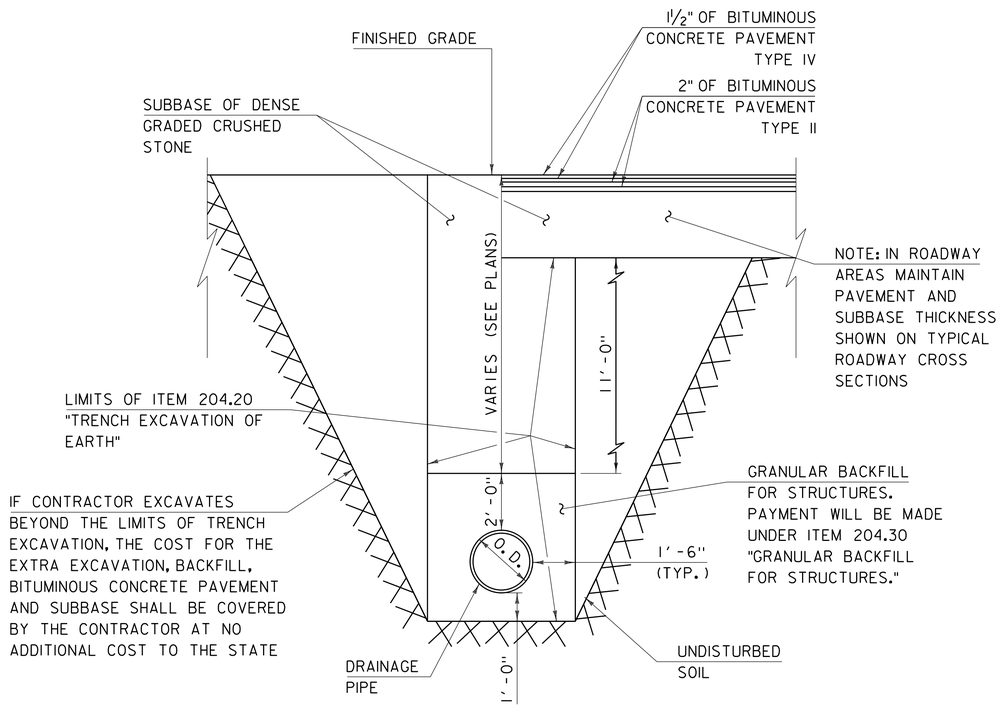
TH-66 TYPICAL SECTION

STA 30+50.00 TO STA 32+66.64
SCALE: 1/4" = 1'-0"



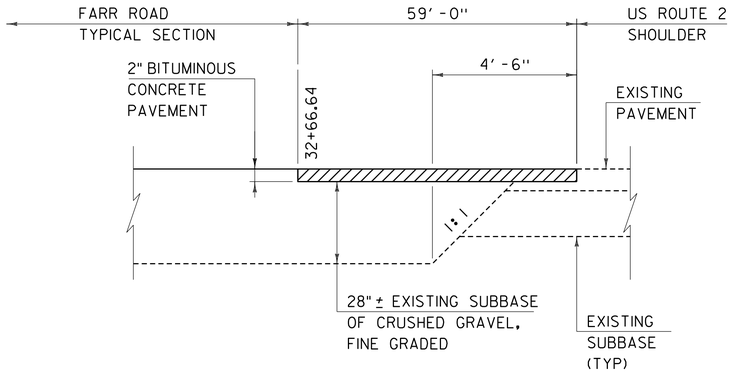
TH-66 TEMPORARY TYPICAL SECTION

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



TYPICAL TRENCH BOX DETAIL

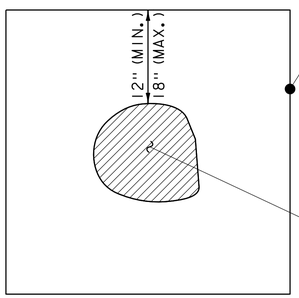
NOT TO SCALE



FARR ROAD TO US ROUTE 2 TRANSITION DETAIL

NOT TO SCALE

EMULSIFIED ASPHALT MEETING SECTION 404 SHALL BE APPLIED AT ALL PATCH INTERFACES AT A RATE OF 0.08 GAL/SY



TYPICAL - POTHOLE REPAIR

NOT TO SCALE

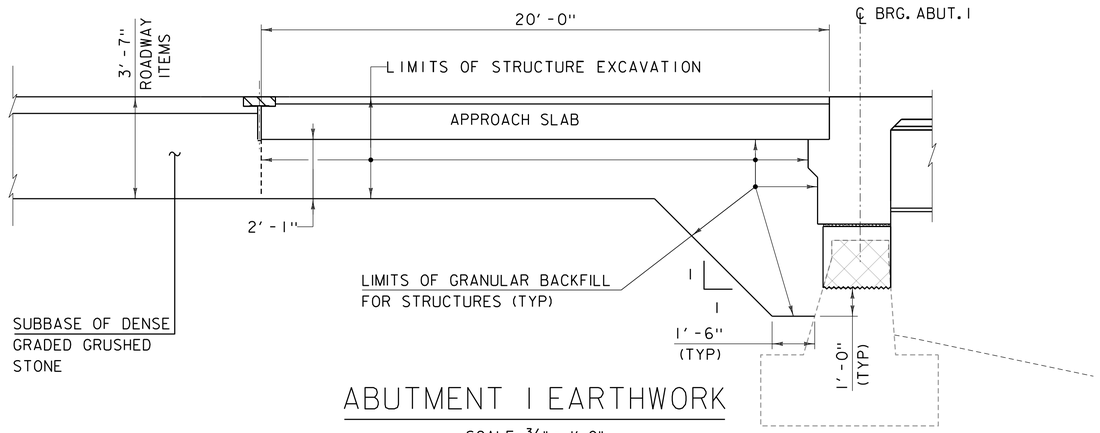
NOTE:
ALL WORK ASSOCIATED WITH POTHOLE REPAIR SHALL BE PAID UNDER ITEM 406.45 "EMULSIFIED ASPHALT"

MATERIAL TOLERANCES
(IF USED ON PROJECT)

SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
SUBBASE	+/- 1"

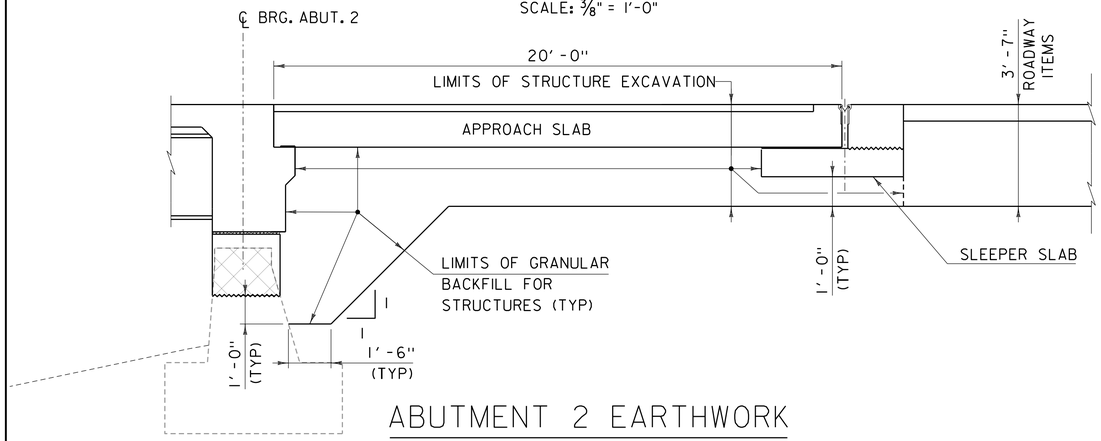
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602typ.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: M.EVANS-MONGEON
TYPICAL SECTIONS 2
PLOT DATE: 8/18/2022
DRAWN BY: G.CANTAVE
CHECKED BY: M.OOMS
SHEET 4 OF 130



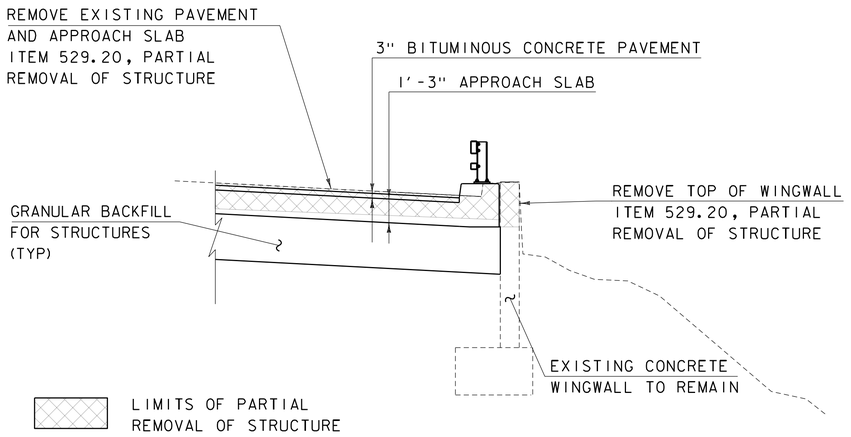
ABUTMENT 1 EARTHWORK

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



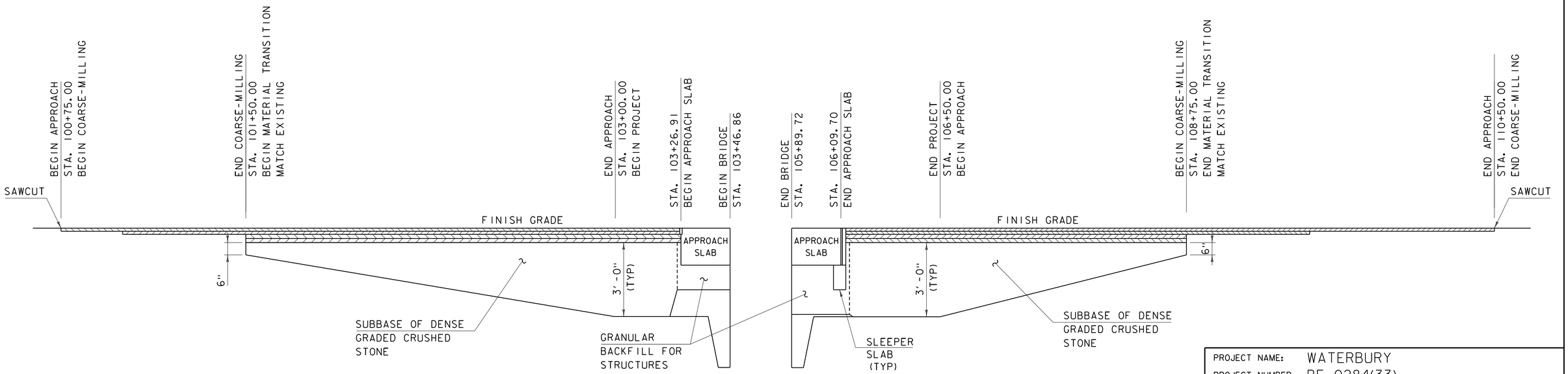
ABUTMENT 2 EARTHWORK

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



WINGWALL EARTHWORK

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



MATERIAL TRANSITION DETAIL

HORIZONTAL SCALE 1" = 20'-0"
VERTICAL SCALE 1/2" = 1'-0"

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602typ.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: G.CANTAVE
DESIGNED BY: R.GAUDREAU	CHECKED BY: M.OOMS
TYPICAL SECTIONS 3	SHEET 5 OF 130

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES

1011 - ROADWAY	1041 - LANDSCAPING	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS
1				
1520				
90				
220				
1				
			170	
			230	
840				
35				
1520				
160				
27				
1				
			43343	
			258000	
			7450	
			111600	
			1	
			49	
			34	
			100	
			567	
			1	
			16	
			30	
			13	
			5	
102				
1				
160				
20				
160				
336				
336				
637.5				
2				
1				
4				
877				
2				

TOTALS

GRAND TOTAL	FINAL
1	
1520	
90	
220	
1	
170	
230	
840	
35	
1520	
160	
27	
1	
43343	
258000	
7450	
111600	
1	
49	
34	
100	
567	
1	
16	
30	
13	
5	
102	
1	
160	
20	
160	
336	
336	
637.5	
2	
1	
4	
877	
2	

DESCRIPTIONS

UNIT	ITEMS	ITEM NUMBER	ROUND
LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	
CY	COMMON EXCAVATION	203.15	0.02
CY	SOLID ROCK EXCAVATION	203.16	9.5
CY	TRENCH EXCAVATION OF EARTH	204.20	2.2
CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	
CY	STRUCTURE EXCAVATION	204.25	5.49
CY	GRANULAR BACKFILL FOR STRUCTURES	204.30	1.64
SY	COARSE-MILLING, BITUMINOUS PAVEMENT	210.10	7.02
CY	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	301.26	2.47
CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	7.87
TON	AGGREGATE SHOULDERS	402.12	0.12
CWT	EMULSIFIED ASPHALT	404.65	0.81
LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	
LB	STRUCTURAL STEEL, ROLLED BEAM	506.50	0.64
LB	STRUCTURAL STEEL, CURVED PLATE GIRDER	506.56	997
LB	REINFORCING STEEL, LEVEL I	507.11	4.09
LB	REINFORCING STEEL, LEVEL II	507.12	50.73
LS	SHEAR CONNECTORS (3150 - 7/8" X 7")	508.15	
GAL	WATER REPELLENT, SILANE	514.10	0.92
LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	0.52
LF	JOINT SEALER, HOT POURED	524.11	4.22
LF	BRIDGE RAILING, GALVANIZED 2 RAIL BOX BEAM	525.33	0.83
EACH	PARTIAL REMOVAL OF STRUCTURE	529.20	
EACH	BEARING DEVICE ASSEMBLY, HIGH LOAD MULTI-ROTATIONAL	531.15	
SY	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I	580.13	0.4
SY	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II	580.14	0.12
CY	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III	580.15	0.07
LF	24" CPEP(SL)	601.2620	1.45
EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS III	604.418	
MGAL	DUST CONTROL WITH WATER	609.10	4.48
CY	STONE FILL, TYPE I	613.10	0.61
LF	CAST-IN-PLACE CONCRETE CURB, TYPE B	616.28	2
LF	WOVEN WIRE FENCE WITH STEEL POSTS	620.25	0.52
LF	REMOVAL OF EXISTING FENCE	620.55	0.52
LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	
EACH	MANUFACTURED TERMINAL SECTION, FLARED	621.50	
EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	
EACH	GUARDRAIL APPROACH SECTION, GALVANIZED 2 RAIL BOX BEAM	621.72	
LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	0.26
EACH	REMOVAL AND DISPOSAL OF GUIDE POSTS	621.81	

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		EARTHWORKS SUMMARY
1520	CY	COMMON EXCAVATION
81	CY	SOLID ROCK EXCAVATION
218	CY	TRENCH EXCAVATION OF EARTH
165	CY	STRUCTURE EXCAVATION
17.21	CY	ROUNDING
2000	CY	TOTAL FILL AVAILABLE
		FILL REQUIRED
208		FACTORED FILL (181 X 1.15)
2		ROUNDING
210		TOTAL FILL REQUIRED
1790		WASTE

N.A.B.I. = NOT A BID ITEM

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_qty.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: R. GAUDREAU
QUANTITY SHEET 1

PLOT DATE: 8/18/2022
DRAWN BY: K. KITTREDGE
CHECKED BY: M. OOMS
SHEET 6 OF 130

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES				TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
1011 - ROADWAY	1041 - LANDSCAPING	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
2					2		EACH	GUIDE POSTS	621.85				
560					560		LF	TEMPORARY TRAFFIC BARRIER	621.90	2			
2200					2200		HR	UNIFORMED TRAFFIC OFFICERS	630.10				
4400					4400		HR	FLAGGERS	630.15				
				1	1		LS	FIELD OFFICE, ENGINEERS	631.10				
			1		1		LS	TESTING EQUIPMENT, CONCRETE	631.16				
			1		1		LS	TESTING EQUIPMENT, BITUMINOUS	631.17				
				3000	3000		DL	FIELD OFFICE COMMUNICATIONS (N.A.B.I.)	631.26				
				12	12		EACH	CPM SCHEDULE	633.10				
				1	1		LS	MOBILIZATION/DEMOBILIZATION	635.11				
1					1		LS	TRAFFIC CONTROL, ALL-INCLUSIVE	641.11				
2					2		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15				
2020					2020		LF	DURABLE 4 INCH WHITE LINE, POLYUREA	646.404	3.7			
1970					1970		LF	DURABLE 4 INCH YELLOW LINE, POLYUREA	646.414	8.64			
17					17		LF	DURABLE 24 INCH STOP BAR, POLYUREA	646.484	0.05			
4					4		EACH	DURABLE LETTER OR SYMBOL, POLYUREA	646.494				
		310			310		LB	SEED	651.15	0.5			
		620			620		LB	FERTILIZER	651.18	1			
		3			3		TON	AGRICULTURAL LIMESTONE	651.20	0.52			
		670			670		CY	TOPSOIL	651.35	4.23			
		1			1		LS	EPSC PLAN	653.01				
		100			100		HR	MONITORING EPSC PLAN	653.02	4			
		1			1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	653.03				
		4			4		TON	HAY MULCH	653.10	0.29			
		1470			1470		SY	ROLLED EROSION CONTROL PRODUCT, TYPE I	653.20	4.85			
		90			90		CY	STABILIZED CONSTRUCTION ENTRANCE	653.35				
		610			610		LF	SILT FENCE, TYPE II	653.476	7.95			
		1110			1110		LF	BARRIER FENCE	653.50	7.82			
		800			800		LF	PROJECT DEMARCATION FENCE	653.55	3.14			
	17				17		EACH	DECIDUOUS SHRUBS (CEANOTHUS AMERICANUS)(CONT.)(2 GALLON)	656.35				
	17				17		EACH	DECIDUOUS SHRUBS (CORNUS AMOMUM)(CONT.)(2 GALLON)	656.35				
	4				4		EACH	DECIDUOUS SHRUBS (CORNUS RACEMOSA)(CONT.)(2 GALLON)	656.35				
	18				18		EACH	DECIDUOUS SHRUBS (CORNUS SERICEA)(CONT.)(2 GALLON)	656.35				
	4				4		EACH	DECIDUOUS SHRUBS (RHUS TYPHINA)(CONT.)(2 GALLON)	656.35				
	15				15		EACH	DECIDUOUS SHRUBS (VIBURNUM LENTAGO)(CONT.)(2 GALLON)	656.35				
61					61		SF	TRAFFIC SIGN, TYPE A	675.20	0.6			
255					255		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341				
17					17		EACH	REMOVING SIGNS	675.50				
3					3		EACH	RESETTING SIGNS	675.60				
			310		310		CY	SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS PCD)	900.608	0.3			N.A.B.I. = NOT A BID ITEM

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_qty.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: R. GAUDREU
QUANTITY SHEET 2

PLOT DATE: 8/18/2022
DRAWN BY: K. KITTREDGE
CHECKED BY: M. OOMS
SHEET 7 OF 130

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES

1011 - ROADWAY	1041 - LANDSCAPING	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS
			103	
			36	
1				
			7050	
750				

TOTALS

GRAND TOTAL	FINAL
103	
36	
1	
7050	
750	

DESCRIPTIONS

UNIT	ITEMS	ITEM NUMBER	ROUND
CY	SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS PCS)	900.608	0.21
LF	SPECIAL PROVISION (EXPANSION JOINT, STRIP SEAL)	900.640	0.83
LS	SPECIAL PROVISION (TEMPORARY DETOUR ROAD, BRIDGE AND STAGING AREAS)	900.645	
SF	SPECIAL PROVISION (CONCRETE BRIDGE DECK SURFACE PREPARATION)	900.670	6.93
TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)	900.680	5.53

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		PAVEMEMNT SUMMARY
744.47	TON	SPECIAL PROVISION (BITUMINOUS CONC. PAVE., SMALL QTY.)
5.53	TON	ROUNDING
750	TON	TOTAL

PROJECT NAME: WATERBURY
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QUANTITY SHEET 3

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SHEET 8 OF 130

GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2018, AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION.

2. THE PROPOSED DECK AND SUPERSTRUCTURE ARE DESIGNED FOR HL-93 LIVE LOAD. THE EXISTING SUBSTRUCTURE COMPONENTS WERE DESIGNED FOR H20-44 ACCORDING TO THE AASHTO 1957 DESIGN SPECIFICATIONS. PROPOSED REPAIRS ARE INTENDED TO RESTORE THE COMPONENTS TO THEIR ORIGINAL CAPACITIES.

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

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING CONSISTENCY BETWEEN THE FABRICATOR'S SHOP DRAWINGS OF ALL RELATED COMPONENTS AND ENSURING THE FIT-UP OF ALL COMPONENTS.

5. ALL EXISTING ELEVATIONS AND DIMENSIONS ARE APPROXIMATE AND BASED OFF OF RECORD PLANS AND SURVEY DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING APPLICABLE ELEVATIONS AND DIMENSIONS PRIOR TO SUBMITTING FABRICATION DRAWINGS FOR APPROVAL AND PRIOR ORDERING MATERIALS.

6. THE EXISTING BRIDGE CONTAINS STRUCTURAL STEEL THAT MAY BE PAINTED WITH MATERIAL THAT MAY CONTAIN LEAD. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE REGULATIONS WHEN HANDLING AND WORKING WITH EXISTING STEEL COMPONENTS. THE REMOVED STRUCTURAL STEEL IS THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, ITS OFFICERS, AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE REMOVED EXISTING STRUCTURAL STEEL.

7. THE REMOVAL OF EXISTING BRIDGE COMPONENTS WILL BE PAID FOR UNDER ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE". THIS WORK WILL INCLUDE THE COMPLETE REMOVAL AND DISPOSAL OF THE EXISTING BRIDGE SUPERSTRUCTURE, INCLUDING ALL BRIDGE RAILINGS, BEARINGS, ANCHOR BOLTS, DECK, STRUCTURAL STEEL, AND ABANDONED UTILITIES, AS WELL AS THE EXISTING APPROACH SLABS AND PORTIONS OF THE BRIDGE SUBSTRUCTURE INDICATED FOR REMOVAL ON THE PLANS. THE CONTRACTOR MAY SUBMIT A DETAILED OR OUTLINED PLAN FOR THE PROPOSED METHOD OF REMOVAL PRIOR TO COMMENCEMENT OF ANY REMOVAL ACTIVITIES. THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE THE EXISTING STRUCTURE TO REMAIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO THE EXISTING STRUCTURE.

8. THE CONTRACTORS METHOD FOR REMOVAL OF THE EXISTING BRIDGE ELEMENTS SHALL BE SUBMITTED FOR REVIEW PRIOR TO THE COMMENCEMENT OF REMOVAL OPERATIONS, INCLUDING ALL TEMPORARY BRACING, TEMPORARY SUPPORTS, REMOVAL SEQUENCE, AND ANY DESIGN CALCULATIONS REQUIRED FOR COMPLETION OF THE WORK. COSTS SHALL BE INCIDENTAL TO ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE".

9. UTILITIES THAT ARE PRESENT ON THE STRUCTURE SHALL NOT BE DAMAGED OR REMOVED BY THE CONTRACTOR UNTIL CONFIRMED WITH THE UTILITY COMPANY THAT SAID UTILITY HAS BEEN DECOMMISSIONED OR ABANDONED. THE UTILITY LISTED BELOW IS FOR INFORMATION PURPOSES AND DOES NOT RELIEVE THE CONTRACTOR FROM INDEPENDENTLY VERIFYING THE LOCATION OF UTILITIES WITHIN THE LIMITS OF CONSTRUCTION.

   CONSOLIDATED COMMUNICATIONS - UNDERGROUND AND BRIDGE MOUNTED FIBER OPTIC COMMUNICATIONS.

REINFORCING STEEL

10. REINFORCEMENT IN THE DECK, BRUSH CURBS, CURTAIN WALLS, APPROACH SLABS, SLEEPER SLAB AND WINGWALLS SHALL BE ITEM 507.12, "REINFORCING STEEL, LEVEL II", MEETING THE REQUIREMENTS OF SECTION 507.

11. REINFORCEMENT USED FOR THE ABUTMENTS AND PIERS SHALL BE ITEM 507.11, "REINFORCING STEEL, LEVEL I" IN ACCORDANCE WITH SECTION 507.

12. TEST BARS SHALL BE PROVIDED IN ACCORDANCE WITH THE "VERMONT AGENCY OF TRANSPORTATION MATERIAL SAMPLING MANUAL" AVAILABLE ON THE AGENCY WEBSITE. ALL COSTS ASSOCIATED WITH PROVIDING BARS FOR TESTING WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE 507 ITEM.

13. MINIMUM COVER FOR REINFORCING STEEL SHALL BE 2" FOR VERTICAL SURFACES CAST AGAINST EARTH, 1½" ALONG THE BOTTOM SURFACE OF THE DECK, AND 3" ELSEWHERE, UNLESS OTHERWISE NOTED.

14. LAP LENGTHS PROVIDED ARE THE MINIMUM REQUIRED, EXCEPT WHERE NOTED AS CUT TO FIT.

15. ALL LAP SPLICES SHALL BE STAGGERED BETWEEN ADJACENT RUNS, BOTH VERTICALLY AND TRANSVERSELY.

16. UNLESS NOTED OTHERWISE, LAP SPLICES FOR #5 BARS SHALL BE A MINIMUM OF 2'-0" AND LAP SPLICES FOR #6 BARS SHALL BE A MINIMUM OF 2'-4".

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

STRUCTURAL STEEL

18. STRUCTURAL STEEL INCLUDING GIRDERS AND ALL SPLICE, STIFFENER AND CONNECTION PLATES WILL BE PAID FOR UNDER ITEM 506.56 "STRUCTURAL STEEL, CURVED PLATE GIRDER (FPQ)" AND SHALL CONFORM TO AASHTO 270M/M 270 GRADE 50W UNLESS NOTED OTHERWISE.

19. DIAPHRAGMS AND SCUPPERS SHALL BE PAID FOR UNDER ITEM 506.50, "STRUCTURAL STEEL, ROLLED BEAM" AND SHALL CONFORM TO AASHTO 270M/M 270 GRADE 50W.

20. ALL MEMBERS MARKED (CVN) MUST MEET THE CHARPY V-NOTCH TESTING REQUIREMENTS AS INDICATED IN SUBSECTION 714.01. THIS SHALL INCLUDE ALL DIAPHRAGMS AND CONNECTION PLATES.

21. ALL BOLTED CONNECTIONS SHALL BE MADE WITH ASTM F3125 GRADE A325 TYPE 3 ⅞" DIAMETER HIGH STRENGTH BOLTS IN STANDARD 15/16" HOLES MEETING THE REQUIREMENTS OF SUBSECTION 714.05, UNLESS OTHERWISE NOTED.

22. ANY CONNECTIONS THAT ARE NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL. ALL ASSOCIATED COSTS SHALL BE INCIDENTAL TO THE CONTRACT.

23. IN ADDITION TO THE REQUIREMENTS OF SUBSECTION 506.18, THE CONTRACTOR SHALL ALSO INCLUDE COMPUTATIONS THAT SHOW THAT FACTORED CONSTRUCTION STRESSES SATISFY THE REQUIREMENTS OF AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS ARTICLE 6.10.3 FOR ALL CRITICAL STAGES OF TRANSPORT AND ERECTION, AND SHALL INCLUDE FLANGE LATERAL BENDING STRESSES AS APPROPRIATE INCLUDING TORSIONAL EFFECTS OF CURVATURE.

24. AFTER THE STRUCTURAL STEEL HAS BEEN SET ON THE BEARINGS, ELEVATIONS SHALL BE TAKEN ALONG THE TOP OF EACH GIRDER UNDER THE DIRECTION OF THE ENGINEER, WHICH SHALL BE USED TO DETERMINE THE FINAL GRADE AND BLOCKING DISTANCES.

25. BEARING STIFFENERS AND GIRDER ENDS SHALL BE PLUMB UNDER FULL DEAD LOAD DEFLECTION.

26. UNLESS NOTED OTHERWISE, ALL BOLTED CONNECTIONS SHALL BE SLIP CRITICAL WITH CLASS B FAYING SURFACES.

CONCRETE

27. CONCRETE FOR THE DECK AND BRIDGE CURBS SHALL BE PAID UNDER ITEM 900.608, "SPECIAL PROVISION (PERFOMANCE-BASED CONCRETE, CLASS PCD)", AND SHALL BE IN ACCORDANCE WITH SECTION 501 OF THE STANDARD SPECIFICATIONS.

28. CONCRETE FOR THE SUBSTRUCTURE MAJOR REPAIRS AND APPROACH SLABS SHALL BE PAID UNDER ITEM 900.608, "SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCS)", AND SHALL BE IN ACCORDANCE WITH SECTION 501 OF THE STANDARD SPECIFICATIONS.

29. DURING EACH PHASE OF CONSTRUCTION, THE FULL DECK WIDTH SHALL BE POURED IN ONE CONTINUOUS OPERATION, WITH THE CONCRETE REMAINING PLASTIC DURING THE ENTIRE POUR. IF CIRCUMSTANCES BEYOND THE CONTRACTOR'S CONTROL PREVENT THIS FROM BEING ACCOMPLISHED, THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED AND A TRANSVERSE CONSTRUCTION JOINT SHALL BE USED BETWEEN ADJACENT POURS. A MINIMUM OF A 96 HOUR DELAY BETWEEN ADJACENT POURS SHALL BE OBSERVED.

30. RELATIVE TO THE GRADE, ALL DECK POURS SHALL BEGIN FROM THE LOW ELEVATION END AND PROCEED TOWARDS THE HIGH ELEVATION END.

31. THE FINISHED SURFACE OF THE BARE DECK SHALL BE PREPARED IN ACCORDANCE WITH SECTION 509 AND THE SPECIAL PROVISION AND SHALL BE PAID FOR UNDER ITEM 900.670, "SPECIAL PROVISION (CONCRETE BRIDGE DECK SURFACE PREPARATION)".

32. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" x 1" UNLESS OTHERWISE NOTED.

33. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

34. FLEMING BRACKETS OR SIMILAR FALSEWORK SHALL BE DESIGNED BY THE CONTRACTOR AND SPACED AS REQUIRED BY DESIGN, BUT SHALL BE LIMITED TO A MAXIMUM SPACING OF 4'-0". BRACKETS SHALL ENGAGE THE GIRDERS AT THE FLANGES OR ON THE WEB, BUT SHALL NOT EXCEED A DISTANCE OF 25% OF THE WEB DEPTH BEYOND THE BOTTOM FLANGE.

35. SURFACES OF THE RECONSTRUCTED BRIDGE SEATS UNDER BEARING DEVICES SHALL BE LEVEL. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE SMOOTH STEEL TROWEL FINISH.

36. ITEM 514.10, "WATER REPELLENT, SILANE", SHALL BE APPLIED TO ALL EXPOSED CONCRETE ON THE BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES.

37. IN ACCORDANCE WITH SUBSECTION 506.23(a) AND AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL TAKE MEASURES NECESSARY TO PROTECT ALL SUBSTRUCTURE CONCRETE FROM STAINING DUE TO OXIDE FORMATION IN THE STRUCTURAL STEEL PRIOR TO PLACEMENT OF THE DECK. THESE MEASURES WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 501.38, "HIGH PERFORMANCE CONCRETE, CLASS PCS". ANY SUCH STAINING THAT OCCURS PRIOR TO DECK PLACEMENT SHALL BE REMOVED AT NO ADDITIONAL COST TO THE STATE.

38. UNLESS NOTED OTHERWISE, ALL CONSTRUCTION JOINTS SHALL BE INTENTIONALLY ROUGHENED TO A ¼" MINIMUM AMPLITUDE AND PREPARED IN ACCORDANCE WITH SUBSECTIONS 501.13 AND 541.13.

39. ALL COSTS ASSOCIATED WITH THE POLYETHYLENE SHEETING UNDER APPROACH SLABS AND EXPANSION MATERIAL AT ABUTMENT CURTAIN WALL LOCATIONS SHALL BE INCIDENTAL TO ITEM 501.38, "HIGH PERFORMANCE CONCRETE, CLASS PCS".

SUBSTRUCTURE REPAIR NOTES

40. THE ABUTMENT BACKWALLS ARE CAST AROUND THE EXISTING STEEL BEAMS. REMOVE THE BACKWALLS IN THEIR ENTIRETY. COST FOR CONCRETE REMOVAL SHALL BE INCLUDED IN ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE".

41. REPAIR OF CONCRETE SURFACES SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 580, AND WILL BE PAID UNDER ITEMS 580.13, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I)", 580.14, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II)", AND 580.15, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III)". REPAIR MATERIAL SHALL BE CONCRETE CLASS A IN ACCORDANCE WITH SECTION 541 UNLESS OTHERWISE NOTED. PAYMENT IS INCLUDED IN THE APPROPRIATE 580 ITEM.

42. CLASS I AND II CONCRETE REPAIRS ON VERTICAL SURFACES MAY BE COMPLETED AT ANY TIME WITHIN THE CONSTRUCTION SCHEDULE AS DETERMINED BY THE CONTRACTOR. THE REPAIR OF THE COLUMNS AND MODIFICATION OF BRIDGE SEATS AS INDICATED WITHIN THE CONTRACT PLANS SHALL BE COMPLETED AFTER THE EXISTING SUPERSTRUCTURE HAS BEEN REMOVED AND PRIOR TO THE PLACEMENT OF THE PROPOSED SUPERSTRUCTURE.

43. THE LIMITS OF CONCRETE REPAIR INDICATED IN THE PLANS IS APPROXIMATE AND BASED ON INSPECTION DATA. FURTHER DETERIORATION MAY HAVE OCCURRED SINCE THE LAST INSPECTION. CONCRETE SURFACES NOT INDICATED FOR REPAIR SHALL BE SOUNDED AT THE DIRECTION OF THE ENGINEER AND REPAIRED AS DIRECTED. ALL COSTS WILL BE PAID UNDER THE APPROPRIATE 580 ITEMS.

44. PRIOR TO PLACEMENT OF REPAIR OR RECONSTRUCTION CONCRETE, ALL REINFORCEMENT TO REMAIN SHALL BE ABRASIVE BLAST-CLEANED A MAXIMUM OF 24 HOURS PRIOR TO PLACING THE NEW CONCRETE. ALL SURFACES SHALL BE CLEANED OF DUST AND DEBRIS IN ACCORDANCE WITH SUBSECTION 580.04.

45. ALL EXPOSED EXISTING CONCRETE SURFACES NOT REQUIRING REPAIR SHALL BE CLEANED UPON COMPLETION OF ALL REPAIR WORK AND SEALED WITH SILANE SEALER. THIS WORK WILL BE PAID UNDER ITEM 514.10, "WATER REPELLENT, SILANE".

46. IN ADDITION TO CRACK REPAIRS NOTED WITHIN THE PLAN SET, ADDITIONAL CRACKS SHALL BE REPAIRED AT THE DIRECTION OF THE ENGINEER.

47. SEE SUBSTRUCTURE REPAIR SHEETS FOR ADDITIONAL NOTES.

TRAFFIC CONTROL

48. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, MAINTENANCE AND IMPLEMENTATION OF A SITE-SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION, AND SHALL SUBMIT A DETAILED TRAFFIC CONTROL PLAN IN ACCORDANCE WITH SECTION 641 FOR ALL STAGES OF CONSTRUCTION FOR APPROVAL. ALL COSTS WILL BE INCLUDED IN ITEM 641.11, "TRAFFIC CONTROL, ALL-INCLUSIVE".

49. TRAFFIC SHALL BE MAINTAINED ON A TEMPORARY DETOUR ROAD AND BRIDGE UTILIZING FARR ROAD EXTENSION AS INDICATED ON THE PLANS. THE DESIGN SPEED OF THE TEMPORARY DETOUR ROAD SHALL BE 30 MPH.

50. THE TEMPORARY BRIDGE SHALL BE PAID UNDER ITEM 900.645, "SPECIAL PROVISION (TEMPORARY DETOUR ROAD, BRIDGE AND STAGING AREAS)" AND SHALL INCLUDE THE DESIGN, CONSTRUCTION AND REMOVAL OF THE TEMPORARY BRIDGE AND FOOTINGS FOR THE TEMPORARY BRIDGE. ALL OTHER ITEMS REQUIRED TO IMPLEMENT THE CONTRACTOR'S TRAFFIC CONTROL PLAN WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE INCLUDED IN THE BID PRICE FOR ITEM 900.645, UNLESS NOTED OTHERWISE.

51. FOOTINGS FOR THE TEMPORARY BRIDGE SHALL BE DESIGNED BY THE CONTRACTOR BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF VERMONT. DESIGN PLANS AND CALCULATIONS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION. ALL ASSOCIATED COSTS SHALL BE INCIDENTAL TO ITEM 900.645, "SPECIAL PROVISION (TEMPORARY DETOUR ROAD, BRIDGE AND STAGING AREAS)".

52. ANY TEMPORARY MEANS OF SUPPORTING EXCAVATION NECESSARY TO MAINTAIN TRAFFIC WILL BE INCLUDED IN THE PAYMENT OF ITEM 641.11, "TRAFFIC CONTROL, ALL-INCLUSIVE."

53. MAINTENANCE OF TRAFFIC SHALL INCLUDE PROVISIONS FOR CYCLISTS, AND SHALL BE INCLUDED IN ITEM 641.11, "TRAFFIC CONTROL, ALL-INCLUSIVE".

54. THE CONTRACTOR SHALL REVIEW AND USE THE "VERMONT BICYCLE AND PEDESTRIAN WORK ZONE TRAFFIC CONTROL GUIDE," AVAILABLE ON THE VTRANS WEBSITE, TO DESIGN AND IMPLEMENT TRAFFIC CONTROL FOR BICYCLE USE INTO THEIR SITE-SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION.

55. THE CONTRACTOR SHALL NOT CLOSE US ROUTE 2 TO TRAFFIC UNLESS APPROVED FOR SPECIFIC CONSTRUCTION ACTIVITIES. US ROUTE 2 SHALL NOT BE CLOSED FOR A CONTINUOUS DURATION LONGER THAN 72 HOURS. EACH SPECIFIC ROAD CLOSURE OCCURRENCE MUST BE APPROVED A MINIMUM OF 14 DAYS PRIOR TO DATE OF CLOSURE. THE CONTRACTOR SHALL INCLUDE ALL DETAILS FOR THE TEMPORARY CLOSURE OF US ROUTE 2 IN THE TRAFFIC CONTROL PLAN SUBMITTED TO THE ENGINEER FOR APPROVAL. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED SIGNING INCLUDING PORTABLE CHANGEABLE MESSAGE SIGNS FOR TEMPORARY ROAD CLOSURES. CONSTRUCTION ACTIVITIES THAT ARE PERMITTED TO UTILIZE A TEMPORARY CLOSURE OF US ROUTE 2 INCLUDE THE FOLLOWING:
    - INSTALLATION OF TEMPORARY BRIDGE
    - REMOVAL OF TEMPORARY BRIDGE
    - DEMOLITION
    - ERECTING OF STEEL GIRDERS
        - TIE IN OF TEMPORARY DETOUR ROAD

    A MAXIMUM OF 8 TEMPORARY ROAD CLOSURES OF US ROUTE 2 WILL BE APPROVED. ANY TEMPORARY CLOSURE OF US ROUTE 2 MUST BE ACCOMPANIED WITH APPROPRIATE DETOUR SIGNAGE.

56. FARR ROAD EXTENSION SHALL REMAIN OPEN TO VEHICULAR TRAFFIC AT ALL TIMES, EXCEPT FOR TEMPORARY CLOSURES OF 4 HOURS OR LESS. TRAFFIC MAY BE REDUCED TO ONE LANE FOR A PERIOD OF 72 HOURS AT A TIME. THE CONTRACTOR SHALL INCLUDE ALL DETAILS ASSOCIATED WITH EACH TYPE OF TEMPORARY CLOSURE IN THE TRAFFIC CONTROL PLAN FOR APPROVAL.

57. TRAFFIC PATTERNS SHALL NOT CHANGE UNTIL TEMPORARY MARKINGS, SIGNING AND/OR SIGNAL WORK ARE COMPLETED FOR THE NEXT PATTERN. ANY CONFLICTING MARKINGS FROM THE PREVIOUS PATTERN(S) SHALL BE REMOVED.

58. REFER TO THE T-SERIES AND E-SERIES VERMONT STATE CONSTRUCTION STANDARD DRAWINGS AND THE LATEST EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES(MUTCD) FOR DETAILED INFORMATION REGARDING CHANNELIZATION DEVICES, TAPER LENGTHS, BARRICADES, DETOURS, LONGITUDINAL DROP-OFFS AND MISCELLANEOUS TRAFFIC CONTROL DETAILS, IF APPLICABLE.

59. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING CONSTRUCTION SIGNAGE SO AS NOT TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE AND CORNER SIGHT DISTANCE. EXISTING SIGNS SHALL BE COVERED OR REMOVED WHEN THEY CONFLICT WITH CONSTRUCTION TRAFFIC OPERATIONS.

60. SIGN COVERING SHALL NOT DAMAGE THE RETRO-REFLECTIVITY OF THE SIGN FACE. THE SIGN COVER SHALL NOT DETERIORATE FOR THE DURATION THAT THE SIGN IS COVERED.

61. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL RESIDENTIAL DRIVEWAYS AND BUSINESS ACCESSES DURING CONSTRUCTION, 24 HOURS A DAY. IF ACCESS REQUIRES CLOSURE FOR ANY PERIOD OF TIME, THE CONTRACTOR SHALL CONTACT THE RESIDENCE OR BUSINESS 48 HOURS PRIOR TO THE SCHEDULED CLOSURE AND PROVIDE AN ALTERNATIVE ACCESS FOR THE ENTIRE LENGTH OF THE CLOSURE PERIOD.

62. TEMPORARY TRAFFIC BARRIERS SHALL BE DELINEATED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE LATEST EDITION OF THE MUTCD. DELINEATION OF TRAFFIC BARRIERS SHALL BE PAID FOR UNDER CONTRACT ITEM 641.11, "TRAFFIC CONTROL, ALL-INCLUSIVE"

63. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE KEPT IN THEIR PROPER POSITION AT ALL TIMES AND SHALL BE REPAIRED, REPLACED OR CLEANED AS NECESSARY TO PRESERVE THEIR APPEARANCE AND CONTINUITY. THE CONTRACTOR SHALL PROVIDE AT LEAST 2 PORTABLE CHANGEABLE MESSAGE SIGNS FOR THE DURATION OF THE PROJECT. THE INITIAL LOCATION AND MESSAGE CONTENT SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. MESSAGES SHALL CONSIST OF A MAXIMUM OF TWO PHRASES AND 3 LINES WITH 8 CHARACTERS AND SHALL ONLY BE VISIBLE TO MOTORISTS AT TIMES WHEN THE MESSAGE IS PERTINENT. THE RELOCATION OF THE SIGNS MAY BE NECESSARY TO CONVEY WORK ZONE TRAVEL INFORMATION THAT IS OTHERWISE DIFFICULT TO CONVEY WITH STATIC SIGNS. THESE RELOCATIONS SHALL BE PAID FOR UNDER CONTRACT ITEM 641.15, "PORTABLE CHANGEABLE MESSAGE SIGN."

64. ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVED. PAYMENT SHALL BE MADE UNDER CONTRACT ITEM 641.11, "TRAFFIC CONTROL, ALL-INCLUSIVE".

65. FLAGGERS AND/OR TRAFFIC CONTROL PERSONNEL SHALL DIRECT BICYCLISTS THROUGH THE CONSTRUCTION AREA IN THE SAME MANNER AS VEHICULAR TRAFFIC. TRAFFIC CONTROL PERSONNEL MAY ASK BICYCLE RIDERS TO GO LAST TO ENSURE THEIR SAFETY.

66. SPECIAL CARE SHALL BE TAKEN TO PROVIDE ACCESS THROUGH THE WORK ZONE FOR EMERGENCY VEHICLES. THE CONTRACTOR SHALL COORDINATE WITH BOTH WATERBURY POLICE AND FIRE DEPARTMENTS AS WELL AS VERMONT STATE POLICE WATERBURY BARRACKS TO DETERMINE THEIR MINIMUM ACCESS REQUIREMENTS BEFORE SUBMITTING A TRAFFIC CONTROL PLAN. THE CONTRACTOR SHALL ENSURE THE EMERGENCY ACCESS REQUIREMENTS PROVIDED FROM THESE DEPARTMENTS ARE CLEARLY STATED FOR ALL PROPERTIES, AND ARE ACCOMMODATED IN THE TRAFFIC CONTROL PLAN.

67. IT IS THE CONTRACTOR'S OPTION TO USE GEOTEXTILE FOR ROADBED SEPARATOR AS A BARRIER BETWEEN EXISTING GRADE AND TEMPORARY PROPOSED GRADE IN THE FILL CONDITIONS. IF UTILIZED, THERE SHALL BE NO SEPARATE PAYMENT FOR GEOTEXTILE FOR ROADBED SEPARATOR, BUT SHALL BE INCIDENTAL TO ITEM 900.645, "SPECIAL PROVISION (TEMPORARY DETOUR ROAD, BRIDGE AND STAGING AREAS)".

68. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REESTABLISH EXISTING CONDITION IN THE AREAS OF THE TEMPORARY DETOUR ROAD, TEMPORARY BRIDGE AND STAGING AREAS, INCLUDING REVEGETATION AND REESTABLISHMENT OF SLOPES. ALL COSTS ASSOCIATED WITH REESTABLISHING EXISTING CONDITIONS SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.645, "SPECIAL PROVISION (TEMPORARY DETOUR ROAD, BRIDGE AND STAGING AREAS)".

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: zl2c602gennts.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R. TETREAULT	DRAWN BY: R. GAUDREAU
DESIGNED BY: R. GAUDREAU	CHECKED BY: M. OOMS
GENERAL NOTES 2	SHEET 10 OF 130

TRAFFIC CONTROL (CONTINUED)

69. CONSTRUCTION SIGNS SHALL BE IN NEW OR LIKE NEW CONDITION PER VTRANS STANDARDS.

70. PAVEMENT MARKING OBLITERATION SHALL REMOVE THE NON-APPLICABLE PAVEMENT MARKING MATERIAL, AND THE OBLITERATION METHOD SHALL MINIMIZE PAVEMENT SCARRING. PAINTING OVER EXISTING PAVEMENT MARKINGS WITH BLACK PAINT OR SPRAYING WITH ASPHALT SHALL NOT BE ACCEPTED AS A SUBSTITUTE FOR REMOVAL OR OBLITERATION.

71. A TRAVEL WIDTH OF 14-FEET MINIMUM (11'-0" TRAVEL LANES, 3'-0" SHOULDERS) SHALL BE MAINTAINED FOR US ROUTE 2 TEMPORARY ROADWAY.

72. THE CONTRACTOR SHALL COVER THE EXISTING DRAINAGE INLET, WHERE INDICATED ON THE PLANS, PRIOR TO INSTALLATION OF THE TEMPORARY ROADWAY TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE INLET UNTIL REOPENED AFTER THE TEMPORARY ROADWAY IS REMOVED.

73. SIGNS SHALL ONLY BE VISIBLE TO MOTORISTS AT TIMES WHEN THE MESSAGE IS APPLICABLE, I.E. A "FLAGGER AHEAD" SIGN SHALL ONLY BE VISIBLE TO MOTORISTS WHEN A FLAGGER IS ACTUALLY PERFORMING THEIR DUTIES.

74. ADDITIONAL SIGNING MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.

75. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY CONSTRUCTION SIGNS APPLICABLE TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED INCLUDING, BUT NOT LIMITED TO, SIGNAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS. THE SIGNS SHALL BE IN COMPLIANCE WITH THE VTRANS STANDARDS AND THE MUTCD. PAYMENT SHALL NOT BE MADE SEPARATELY, BUT SHALL BE INCIDENTAL TO ITEM 641.11, "TRAFFIC CONTROL, ALL-INCLUSIVE".

76. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SELECTED SPEED LIMIT.

77. ALL CONCRETE BARRIER ENDS SHALL BE FLARED OUTSIDE THE CLEARZONE OR PROTECTED WITH A CRASHWORTHY DEVICE.

78. TEMPORARY BARRIER SHALL HAVE DRAIN HOLES.

79. A MINIMUM WIDTH OF 12' (10' LANE AND 1' SHOULDERS) SHALL BE MAINTAINED AT ALL TIMES DURING ONE LANE OPERATIONS. IT IS RECOMMENDED THAT BICYCLES ARE HELD TO THE END OF THE QUEUE BEFORE BEING RELEASED SO THEY ARE NOT COMPETING FOR LANE SPACE WITHIN THE ONE LANE CLOSURE.

80. WHEN COARSE-MILLED BITUMINOUS PAVEMENT IS OPEN TO TRAFFIC, A "MOTORCYCLES USE CAUTION" SIGN, AS PER VAOT STANDARD T-17 AND T-28, SHALL BE PROVIDED.

81. THE CONTRACTOR SHALL LEAVE NO LONGITUDINAL DROP-OFFS DURING THE OVERNIGHT HOURS. THEREFORE, THE FULL ROADWAY WIDTH SHALL BE COARSE-MILLED OR PAVED DURING THE DAILY WORK PERIOD. WHEN NECESSARY, DROP-OFF PROTECTION IN THESE AREAS SHALL CONFORM TO VTRANS STANDARD T-36.

82. IT IS IMPORTANT THAT CYCLIST ROUTES ARE FREE OF RUTS, SAND AND MUD TO PREVENT CYCLIST CRASHES.

83. ALL TEMPORARY SLOPES CONSTRUCTED AS PART OF THE TEMPORARY DETOUR ROAD, BRIDGE OR STAGING AREAS SHALL BE ADEQUATELY STABILIZED WHEN STEEPER THAN 1:2. ALL COST ASSOCIATED WITH TEMPORARY SLOPE STABILIZATION SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.645, "SPECIAL PROVISION (TEMPORARY DETOUR ROAD, BRIDGE AND STAGING AREAS)".

84. WHERE TEMPORARY SIGNS ARE PLACED BEHIND THE GUARDRAIL OR TEMPORARY CONSTRUCTION BARRIER, THEY SHALL BE ADJUSTED SUCH THAT THE BOTTOM OF THE SIGNS ARE ABOVE THE TOP OF THE GUARDRAIL OR TEMPORARY CONSTRUCTION BARRIER.

85. ALL COSTS ASSOCIATED WITH THE INSTALLATION AND MAINTENANCE OF TEMPORARY DRAINAGE REQUIRED WHILE THE TEMPORARY DETOUR ROAD IS IN PLACE SHALL BE INCLUDED IN THE ITEM 900.645, "TEMPORARY DETOUR ROAD, BRIDGE AND STAGING AREAS". IT IS THE CONTRACTOR'S RESPONSIBILITY THAT THE TEMPORARY DETOUR ROAD HAS APPROPRIATE DRAINAGE FOR THE ENTIRE DURATION OF USE AND THAT ANY TEMPORARY DRAINAGE THAT IS INSTALLED DOES NOT NEGATIVELY IMPACT THE ADJACENT WATERWAYS OR PARCELS.

UTILITY RELOCATIONS

86. CONSOLIDATED COMMUNICATIONS CURRENTLY HAS A FIBER OPTIC CABLE ON THE EXISTING BRIDGE AS WELL AS BURIED UNDERNEATH US ROUTE 2 WITHIN THE PROJECT LIMITS. CONSOLIDATED COMMUNICATIONS IS SCHEDULED TO RELOCATE THE FIBER OPTIC CABLE OUTSIDE OF THE PROJECT LIMITS PRIOR TO START OF CONSTRUCTION. THE EXISTING FIBER-OPTIC ATTACHED TO THE BRIDGE AND BURIED ALONG US ROUTE 2 WITHIN THE PROJECT LIMITS WILL BE ABANDONED AFTER RELOCATION.

87. THE CONTRACTOR SHALL COORDINATE WITH CONSOLIDATED COMMUNICATIONS TO VERIFY THAT THE FIBER OPTIC CABLE WITHIN THE PROJECT LIMITS ARE ABANDONED BEFORE COMMENCEMENT OF ANY REMOVAL ACTIVITIES OF THE SUPERSTRUCTURE AND BEFORE COMMENCEMENT OF ANY EXCAVATION ACTIVITIES.

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602gennts.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: R. GAUDREAU
GENERAL NOTES 3

PLOT DATE: 8/18/2022
DRAWN BY: R. GAUDREAU
CHECKED BY: M. OOMS
SHEET 11 OF 130

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

CONVENTIONAL BOUNDARY SYMBOLOGY

BOUNDARY LINES

- TOWN LINE — TOWN BOUNDARY LINE
- COUNTY LINE — COUNTY BOUNDARY LINE
- STATE LINE — STATE BOUNDARY LINE
- PROPOSED STATE R.O.W. (LIMITED ACCESS)
- PROPOSED STATE R.O.W.
- STATE ROW (LIMITED ACCESS)
- STATE ROW
- TOWN ROW
- PERMANENT EASEMENT LINE (P)
- TEMPORARY EASEMENT LINE (T)
- SURVEY LINE
- P/L — PROPERTY LINE (P/L)
- SR 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 — HAZ — HAZARDOUS WASTE AREA
- AG — AGRICULTURAL LAND
- HABITAT — FISH & WILDLIFE HABITAT
- FLOOD PLAIN — FLOOD PLAIN
- OHW — ORDINARY HIGH WATER (OHW)
- STORM WATER
- USDA FOREST SERVICE LANDS
- WILDLIFE HABITAT SUIT/CONN

ARCHEOLOGICAL & HISTORIC

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

CONVENTIONAL TOPOGRAPHIC SYMBOLOGY

EXISTING FEATURES

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

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602LegendSheet.dgn
PROJECT LEADER: VTRANS
DESIGNED BY: VTRANS
PLOT DATE: 8/18/2022
DRAWN BY: VTRANS
CHECKED BY: VTRANS

GPS CONTROL POINTS

VERMONT CAPITAL CORS ARP

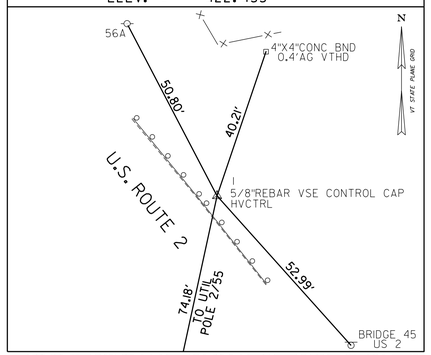
PID AF9563
N = 642229.414
E = 1618836.277
ELLIP HEIGHT = 526.702

STATION IS A GPS CONTINOUSLY OPERATING REFERENCE STATION. STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA. THE ANTENNA IS MOUNTED ON THE ROOF OF 133 STATE STREET IN MONTPELIER, VERMONT. OWNERSHIP: VERMONT AGENCY OF TRANSPORTATION, 219 NORTH MAIN STREET, DRAWER 33, BARRE, VT 05641. CONTACT: DANIEL MARTIN.

TRAVERSE TIES

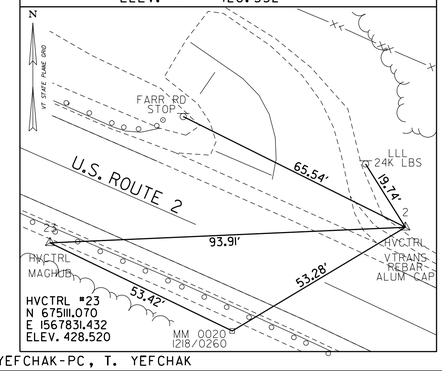
HVCTRL #1

NORTH =	674777.193
EAST =	1568366.974
ELEV. =	422.455



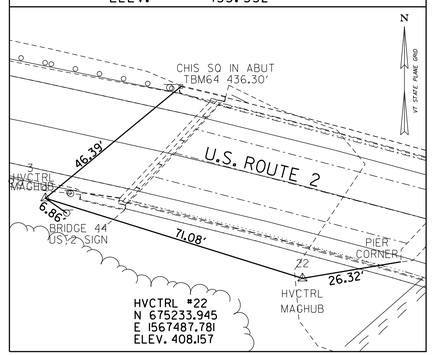
HVCTRL #2

NORTH =	675115.188
EAST =	1567925.254
ELEV. =	428.552



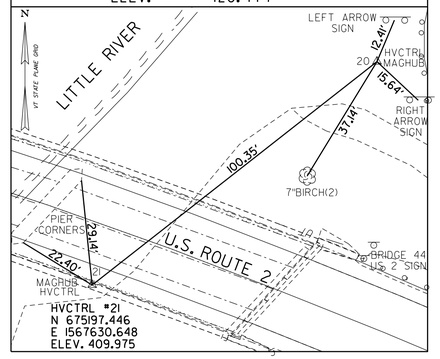
HVCTRL #3

NORTH =	675255.088
EAST =	1567419.914
ELEV. =	433.352



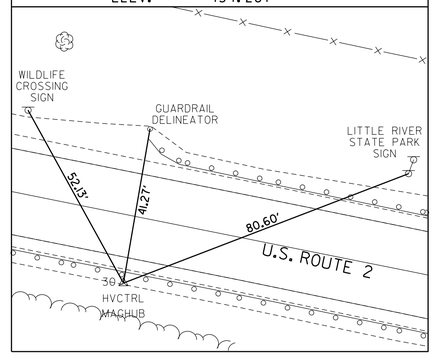
HVCTRL #20

NORTH =	675259.377
EAST =	1567709.605
ELEV. =	420.174



HVCTRL #30

NORTH =	675280.801
EAST =	1567297.083
ELEV. =	434.287



* SURVEY COMPLETED: OCTOBER 18, 2018 BY VSE, M. YEFCHAK-PC, T. YEFCHAK

ALIGNMENT TIES

NORTH =	
EAST =	
ELEV. ◎ =	

NORTH =	
EAST =	
ELEV. =	

NORTH =	
EAST =	
ELEV. =	

NORTH =	
EAST =	
ELEV. =	

NORTH =	
EAST =	
ELEV. =	

DATUM

VERTICAL	NAVD88
HORIZONTAL	NAD83(2011)
ADJUSTMENT	LSQ

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602ti.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: M. YEFCHAK
TIE SHEET

PLOT DATE: 8/18/2022
DRAWN BY: M. YEFCHAK
CHECKED BY: M.OOMS
SHEET 13 OF 130

DETOUR CURVE 1
DELTA = 16°20'50.94"
D = 12°11'26.13"
R = 470.00'
T = 67.51'
L = 133.64'
E = 4.82'

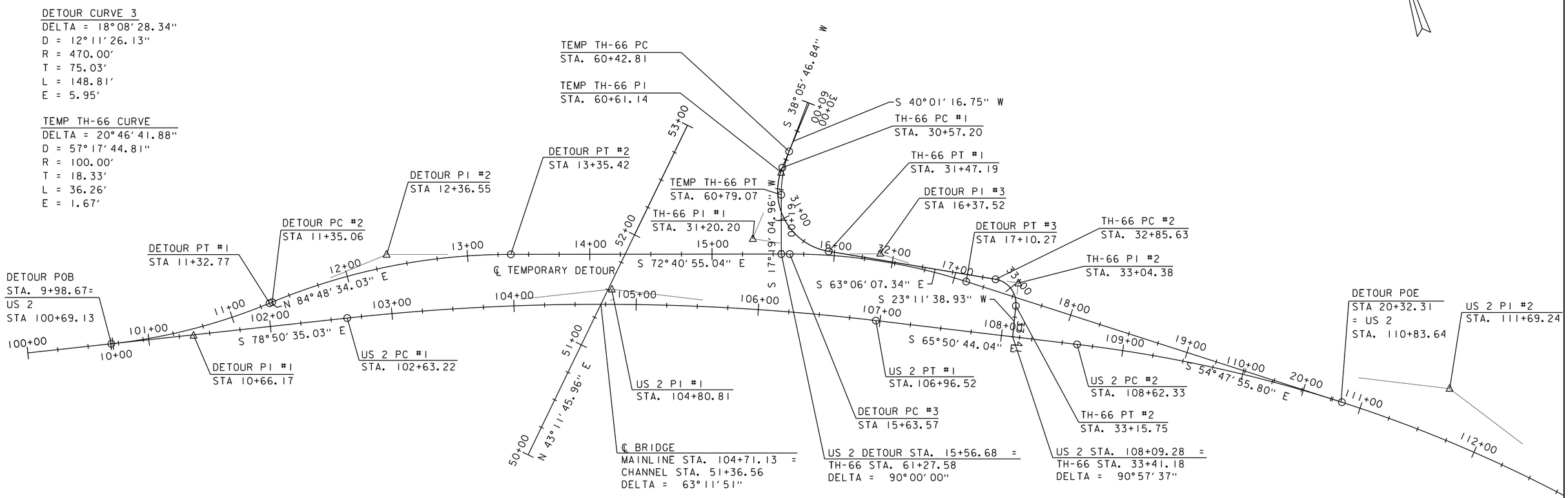
DETOUR CURVE 2
DELTA = 22°30'30.93"
D = 11°14'04.08"
R = 510.00'
T = 101.49'
L = 200.35'
E = 10.00'

DETOUR CURVE 3
DELTA = 18°08'28.34"
D = 12°11'26.13"
R = 470.00'
T = 75.03'
L = 148.81'
E = 5.95'

TEMP TH-66 CURVE
DELTA = 20°46'41.88"
D = 57°17'44.81"
R = 100.00'
T = 18.33'
L = 36.26'
E = 1.67'

TH-66 CURVE 1
DELTA = 103°07'24.10"
D = 114°35'29.61"
R = 50.00'
T = 63.00'
L = 89.99'
E = 30.43'

TH-66 CURVE 2
DELTA = 86°17'46.27"
D = 286°28'44.03"
R = 20.00'
T = 18.75'
L = 30.12'
E = 7.41'



US 2 CURVE #1
DELTA = 12°59'50.99"
D = 3°00'00"
R = 1910.08'
T = 217.58'
L = 433.30'
E = 12.35'

US2 CURVE #2
DELTA =29°58'40.08"
D = 4°59'54.28"
R = 1146.28'
T = 306.91'
L = 599.75'
E = 40.37'

ALIGNMENT LAYOUT

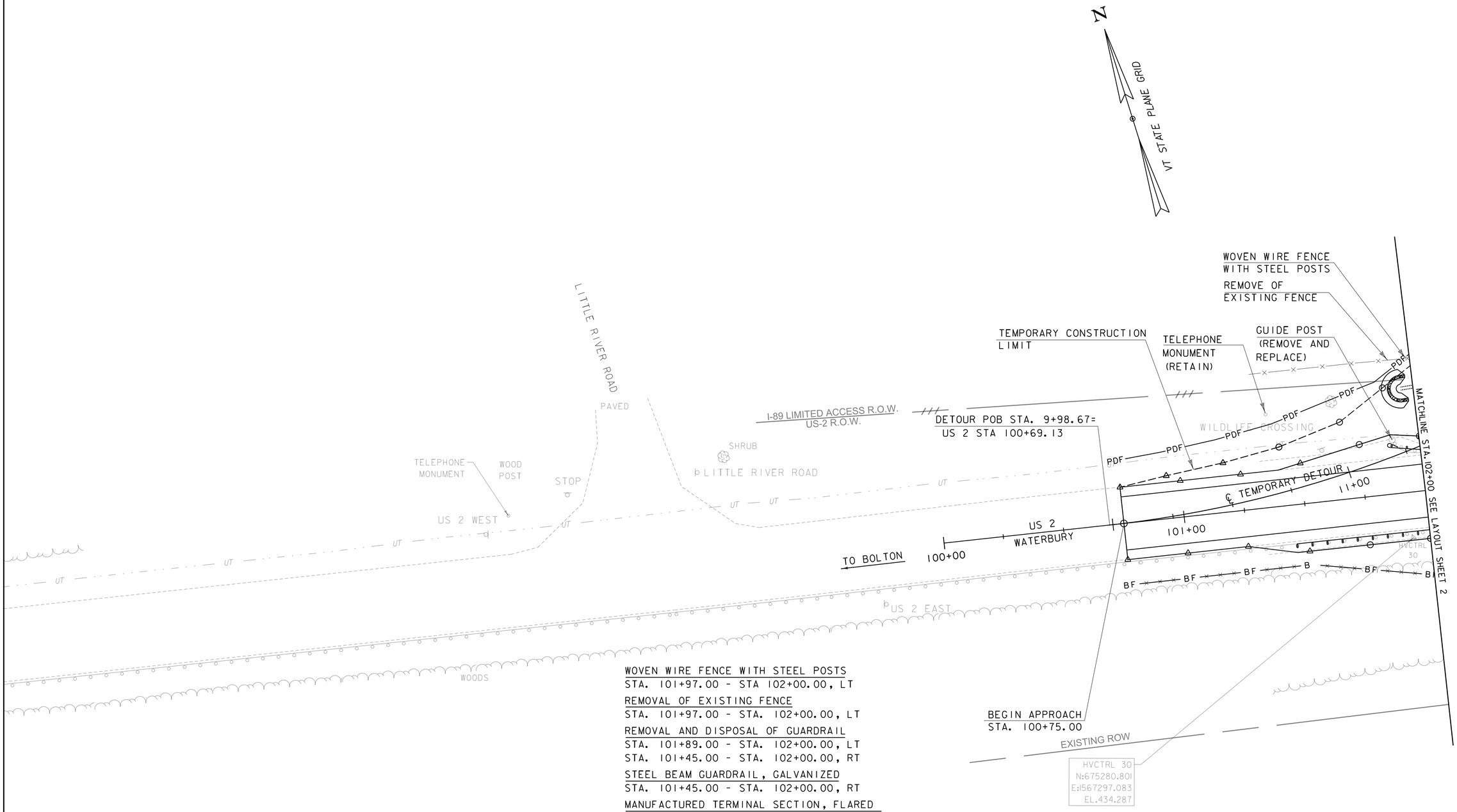
SCALE: 1" = 40'-0"

SCALE 1" = 40'-0"
40 0 40

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602bdr_align.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: M. EVANS-MONGEON
ALIGNMENT LAYOUT

PLOT DATE: 8/18/2022
DRAWN BY: G. CANTAVE
CHECKED BY: M.OOMS
SHEET 14 OF 130



WOVEN WIRE FENCE WITH STEEL POSTS
STA. 101+97.00 - STA 102+00.00, LT

REMOVAL OF EXISTING FENCE
STA. 101+97.00 - STA. 102+00.00, LT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 101+89.00 - STA. 102+00.00, LT
STA. 101+45.00 - STA. 102+00.00, RT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 101+45.00 - STA. 102+00.00, RT

MANUFACTURED TERMINAL SECTION, FLARED
STA. 101+87.00 - STA. 102+00.00, LT

COARSE-MILLING, BITUMINOUS PAVEMENT
STA. 100+75.00 - STA. 101+50.00

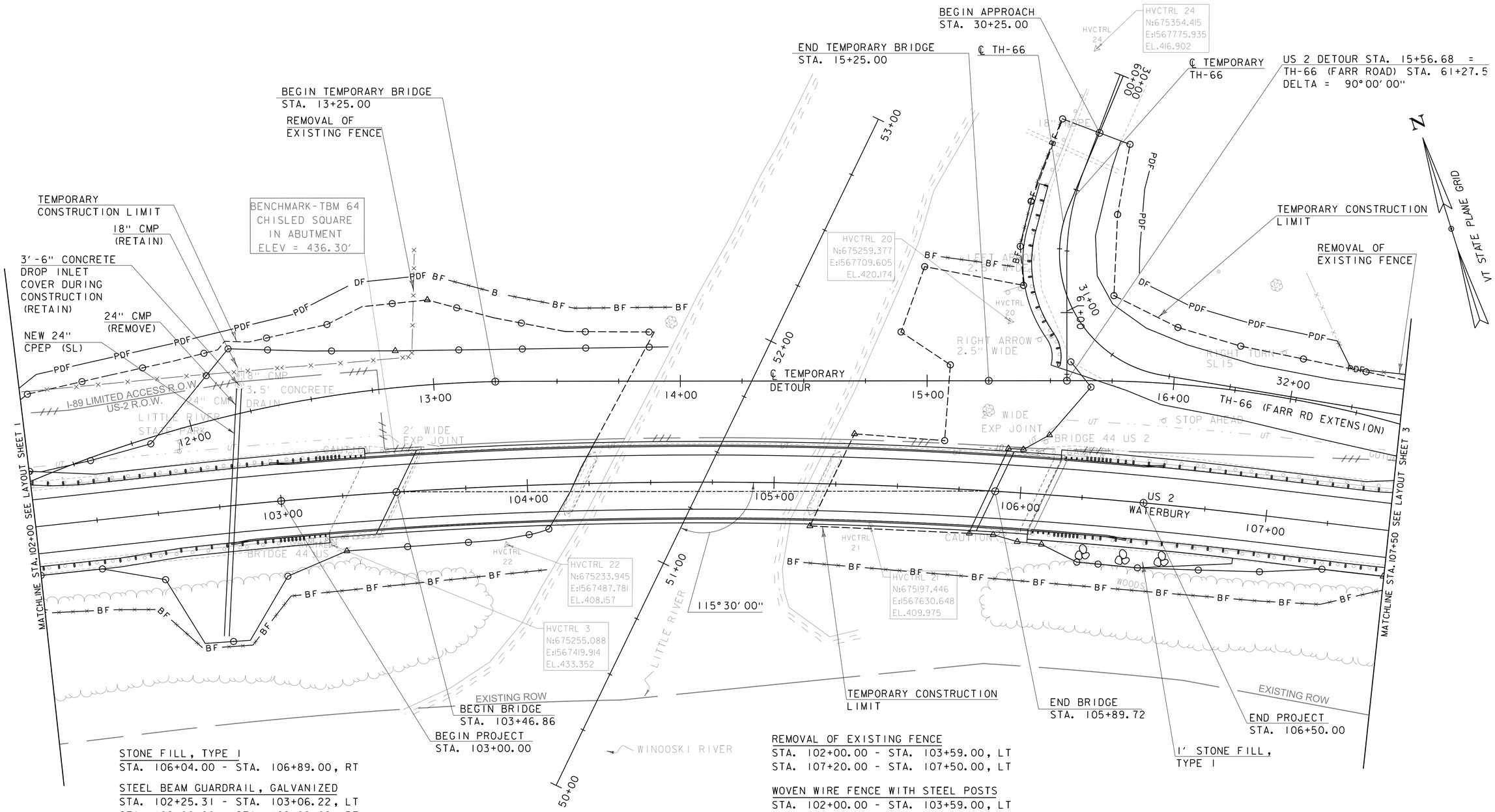
REMOVAL AND DISPOSAL OF GUIDE POSTS
STA. 101+89.00, LT

GUIDE POSTS
STA. 101+89.00, LT

AGGREGATE SHOULDERS
STA. 101+40.00 - STA. 102+00.00, LT
STA. 101+45.00 - STA. 102+00.00, RT

SCALE: 1"=20'
20 0 20

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602bdr.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R. TETREAULT	DRAWN BY: G. CANTAVE
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
LAYOUT SHEET 1	SHEET 15 OF 130



STONE FILL, TYPE I
STA. 106+04.00 - STA. 106+89.00, RT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 102+25.31 - STA. 103+06.22, LT
STA. 102+00.00 - STA. 102+89.02, RT
STA. 106+44.50 - STA. 107+37.87, LT
STA. 106+33.80 - STA. 107+50.00, RT
STA. 31+52.95 - STA. 31+13.88, RT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 102+00.00 - STA. 103+44.65, LT
STA. 102+00.00 - STA. 103+26.61, RT
STA. 106+05.21 - STA. 107+50.00, LT
STA. 105+92.40 - STA. 107+50.00, RT
STA. 30+52.95 - STA. 31+13.98, RT

MANUFACTURED TERMINAL SECTION, FLARED
STA. 102+00.00 - STA. 102+25.31, LT

EXISTING BRIDGE DATA:
THREE SPAN STEEL ROLLED BEAM
WITH C.I.P. CONCRETE DECK
BUILT 1961
243′ LONG, 30′ CURB TO CURB

ANCHOR FOR STEEL BEAM RAIL
STA. 31+13.20, RT

CAST-IN-PLACE CONCRETE CURB, TYPE B
STA. 102+96.63 - STA. 103+35.15, LT
STA. 102+78.27 - STA. 103+18.42, RT
STA. 106+16.85 - STA. 106+56.54, LT
STA. 106+05.47 - STA. 106+44.26, RT

BRIDGE RAILING, GALVANIZED 2 RAIL BOX BEAM
STA. 103+35.94 - STA. 106+14.61, LT
STA. 103+19.65 - STA. 106+02.77, RT

REMOVAL OF EXISTING FENCE
STA. 102+00.00 - STA. 103+59.00, LT
STA. 107+20.00 - STA. 107+50.00, LT

WOVEN WIRE FENCE WITH STEEL POSTS
STA. 102+00.00 - STA. 103+59.00, LT
STA. 107+20.00 - STA. 107+50.00, LT

AGGREGATE SHOULDERS
STA. 102+00.00 - STA. 103+35.00, LT
STA. 102+00.00 - STA. 103+18.00, RT
STA. 106+15.00 - STA. 107+50.00, LT
STA. 106+04.00 - STA. 107+25.00, RT
STA. 30+53.00 - STA. 31+36.00, RT

GUARDRAIL APPROACH SECTION,
GALVANIZED 2 RAIL BOX BEAM
STA. 103+06.22 - STA. 103+35.15, LT
STA. 102+89.02 - STA. 103+18.42, RT
STA. 106+15.38 - STA. 106+44.50, LT
STA. 106+03.97 - STA. 106+33.80, RT

SCALE: 1"=20′
20 0 20

NOTE:
TEMPORARY CONSTRUCTION LIMITS INDICATED ARE RELATED TO TEMPORARY DETOUR AND END AT FACE OF ABUTMENT ON SOUTHERN SIDE OF BRIDGE.

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602bdr.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: M. EVANS-MONGEON
LAYOUT SHEET 2

PLOT DATE: 8/18/2022
DRAWN BY: G. CANTAVE
CHECKED BY: M.OOMS
SHEET 16 OF 130

AGGREGATE SHOULDERS
STA. 107+50.00 - STA. 107+83.00, LT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 107+50.00 - STA. 107+80.00, LT
STA. 107+50.00 - STA. 108+78.00, RT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 107+50.00 - STA. 108+78.00, RT

MANUFACTURED TERMINAL SECTION, FLARED
STA. 107+50.00 - STA. 107+77.00, LT

COARSE-MILLING, BITUMINOUS PAVEMENT
STA. 108+75.00 - STA. 110+50.00

REMOVAL OF EXISTING FENCE
STA. 107+50.00 - STA. 108+57.00, LT

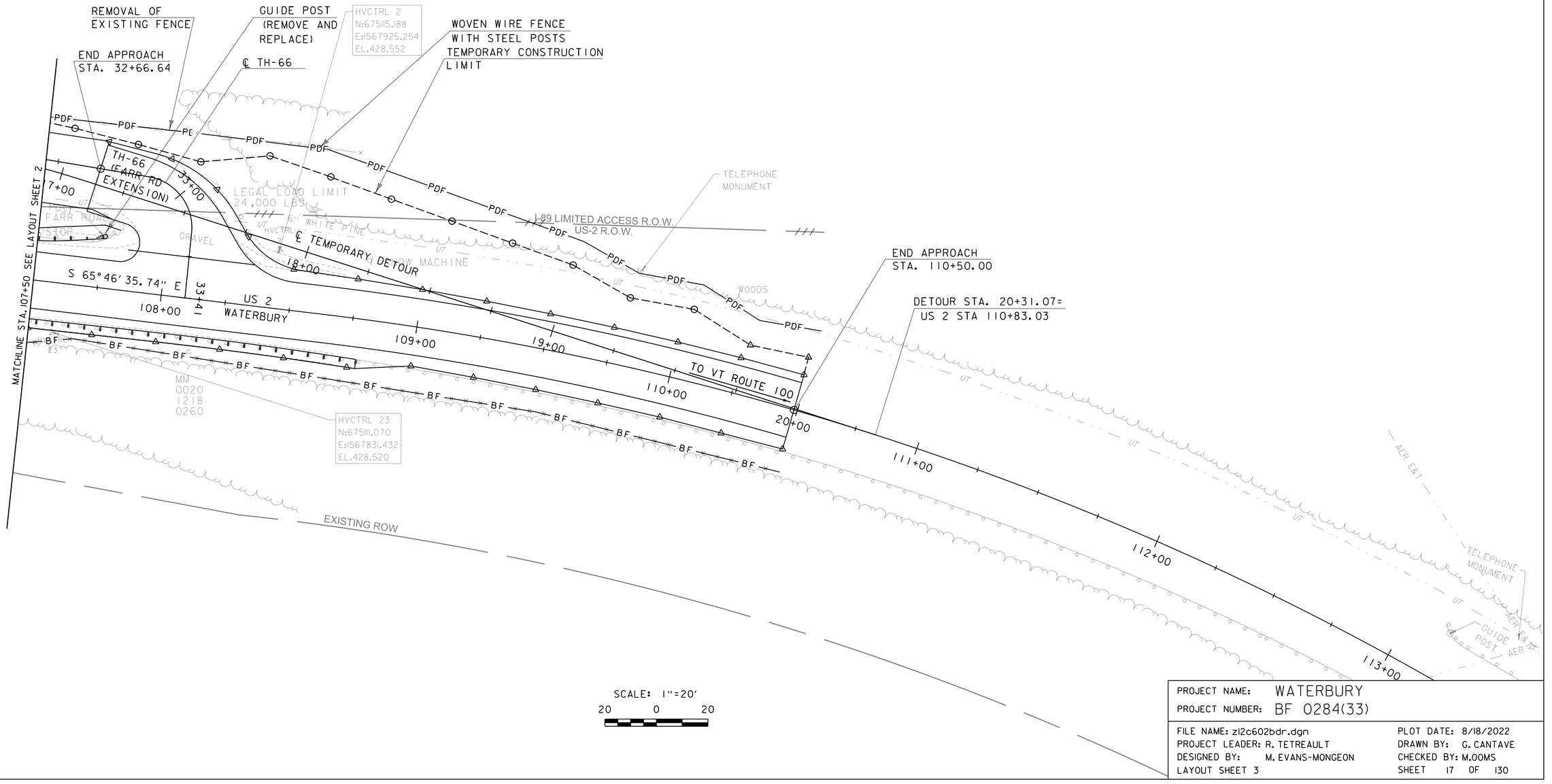
WOVEN WIRE FENCE WITH STEEL POSTS
STA. 107+50.00 - STA. 108+57.00, LT

REMOVAL AND DISPOSAL OF GUIDE POSTS
STA. 107+75.00, LT

GUIDE POSTS
STA. 107+75.00, LT

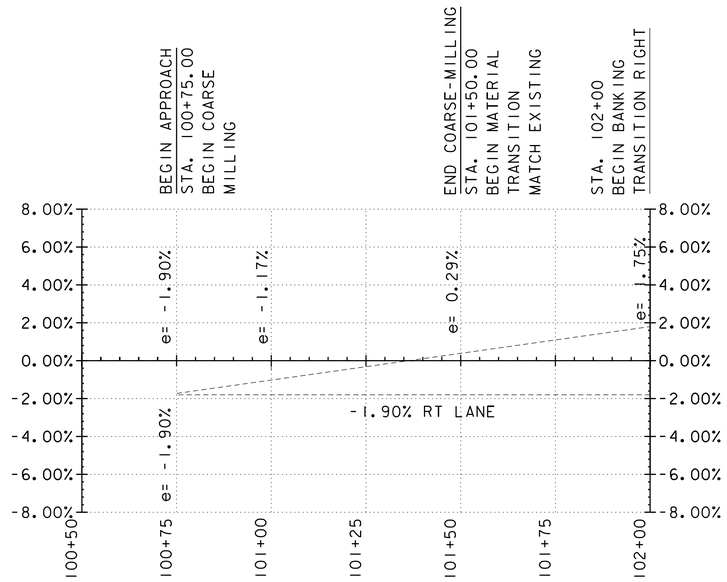
N

VT STATE PLANE GRID



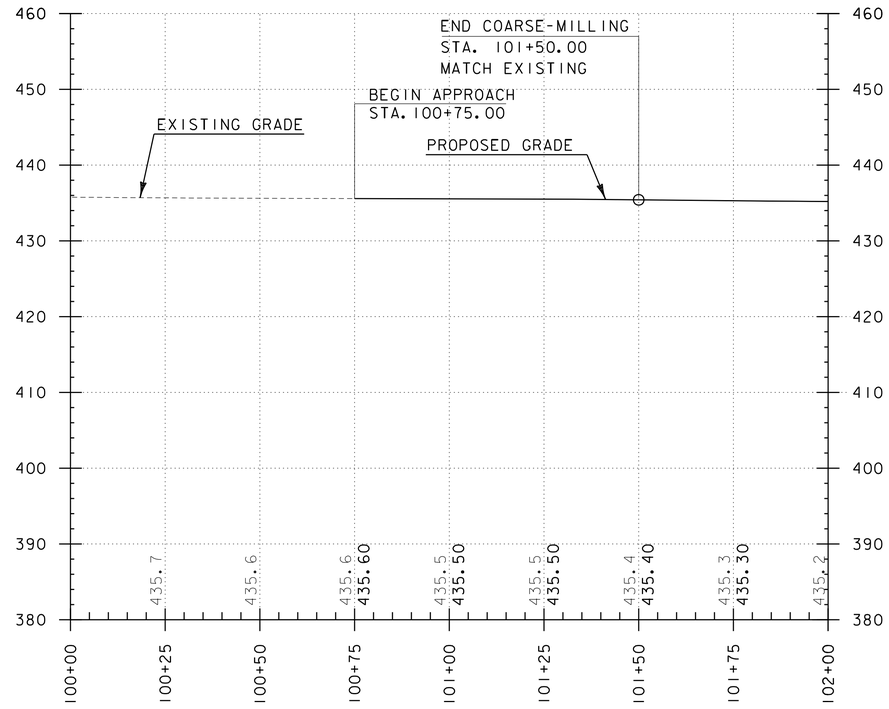
SCALE: 1"=20'
20 0 20

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: zl2c602bdr.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R. TETREAULT	DRAWN BY: G. CANTAVE
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
LAYOUT SHEET 3	SHEET 17 OF 130



US 2 BANKING DIAGRAM

NOT TO SCALE



US 2 PROFILE

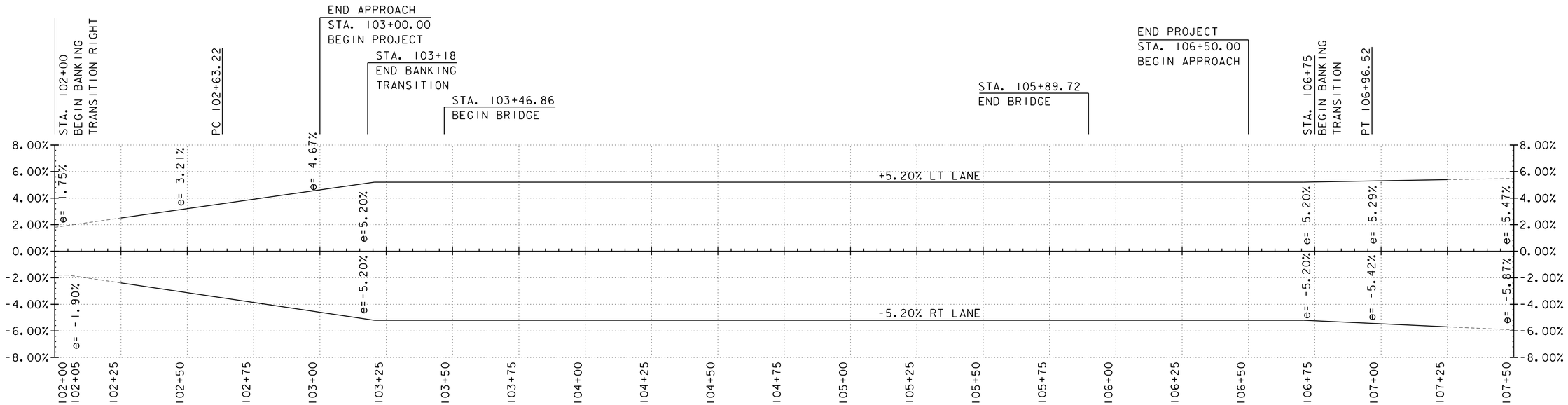
HORIZONTAL SCALE 1" = 20'-0"
VERTICAL SCALE 1" = 10'-0"

NOTES:

1. 1. BEGIN/END MATHEMATIZED PROFILE. MATCH EXISTING GRADES. REFER TO MATERIAL TRANSITION DETAIL.

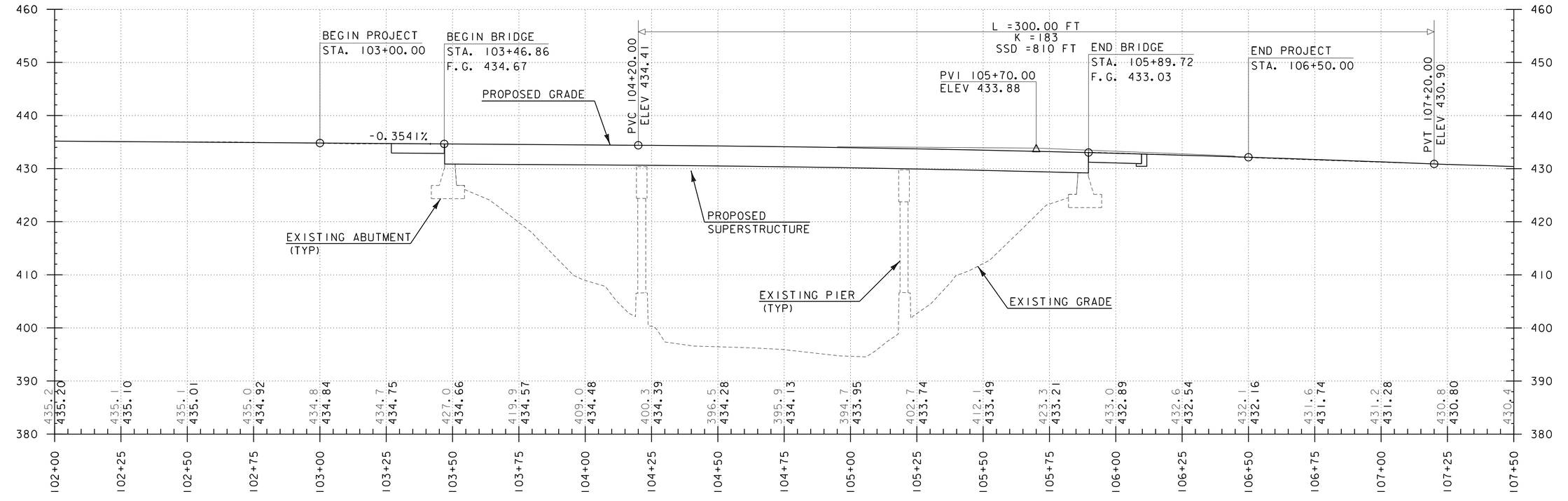
2. GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG ℄
   GRADES SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADE ALONG ℄

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602_bdr pro.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R. TETREAULT	DRAWN BY: G. CANTAVE
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
US 2 PROFILE SHEET 1	SHEET 18 OF 130



US 2 BANKING DIAGRAM

NOT TO SCALE



NOTE:

1. GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG ℄
   GRADES SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADE ALONG ℄

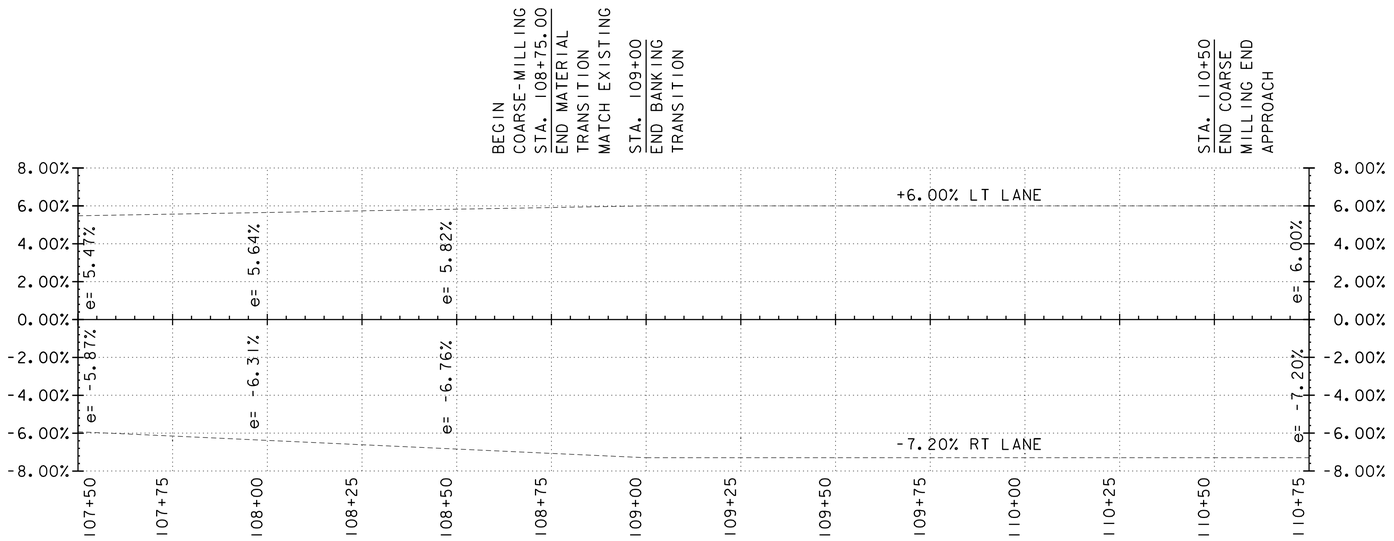
US 2 PROFILE

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

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

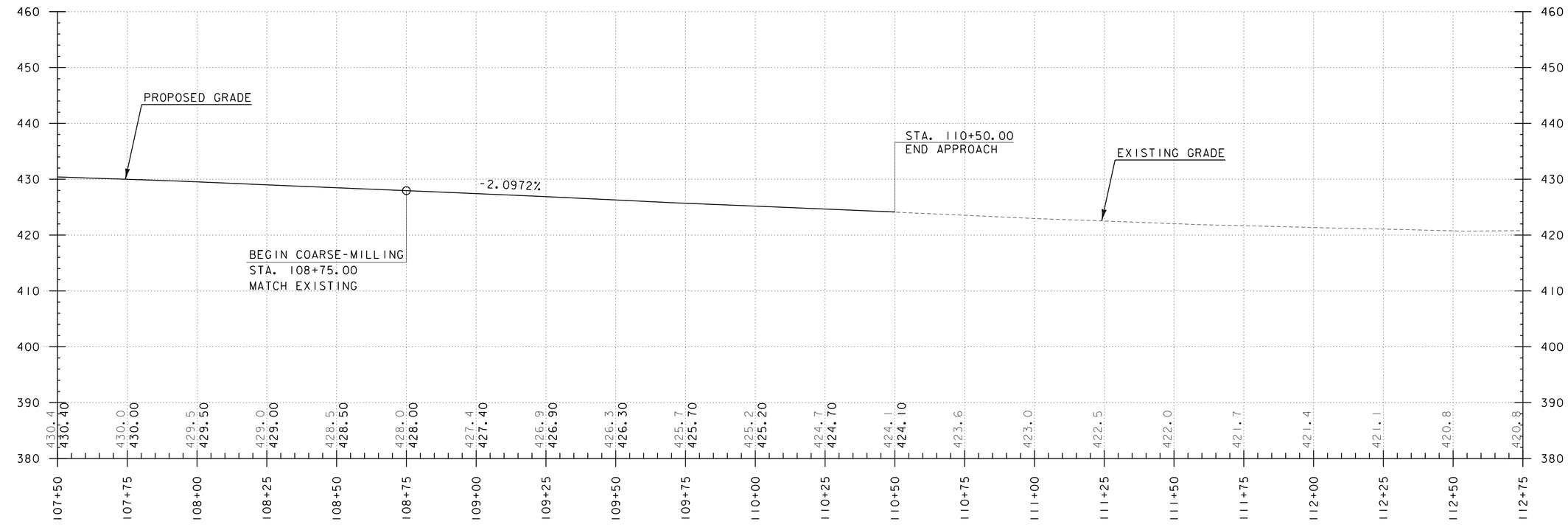
FILE NAME: z12c602_bdr pro.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: M. EVANS-MONGEON
US 2 PROFILE SHEET 2

PLOT DATE: 8/18/2022
DRAWN BY: G. CANTAVE
CHECKED BY: M.OOMS



US 2 BANKING DIAGRAM

NOT TO SCALE



US 2 PROFILE

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

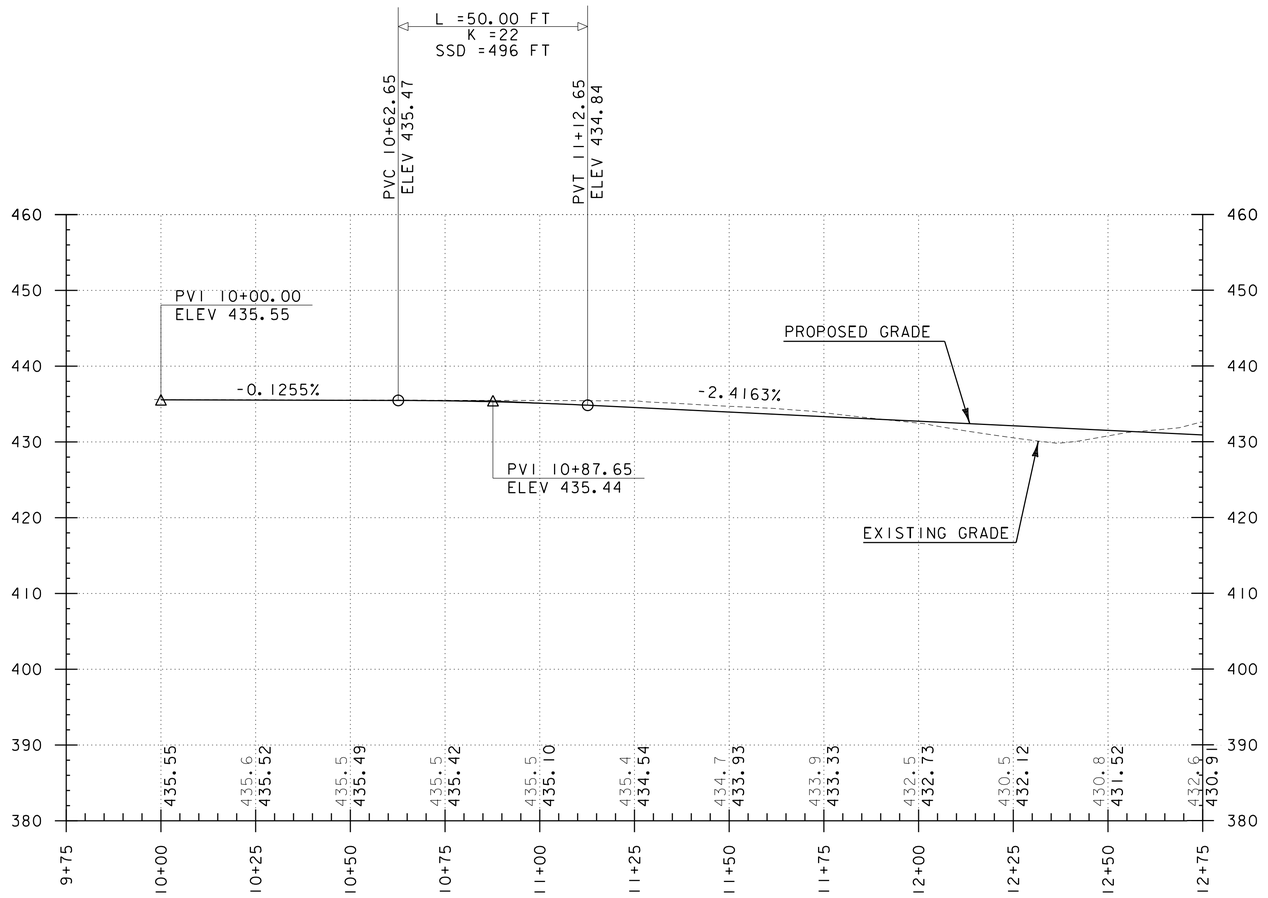
NOTES:
1. 1. BEGIN/END MATHEMATIZED PROFILE. MATCH EXISTING GRADES. REFER TO MATERIAL TRANSITION DETAIL.

2. GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG ℄
GRADES SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADE ALONG ℄

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_bdr pro.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: M. EVANS-MONGEON
US 2 PROFILE SHEET 3

PLOT DATE: 8/18/2022
DRAWN BY: G. CANTAVE
CHECKED BY: M.OOMS
SHEET 20 OF 130

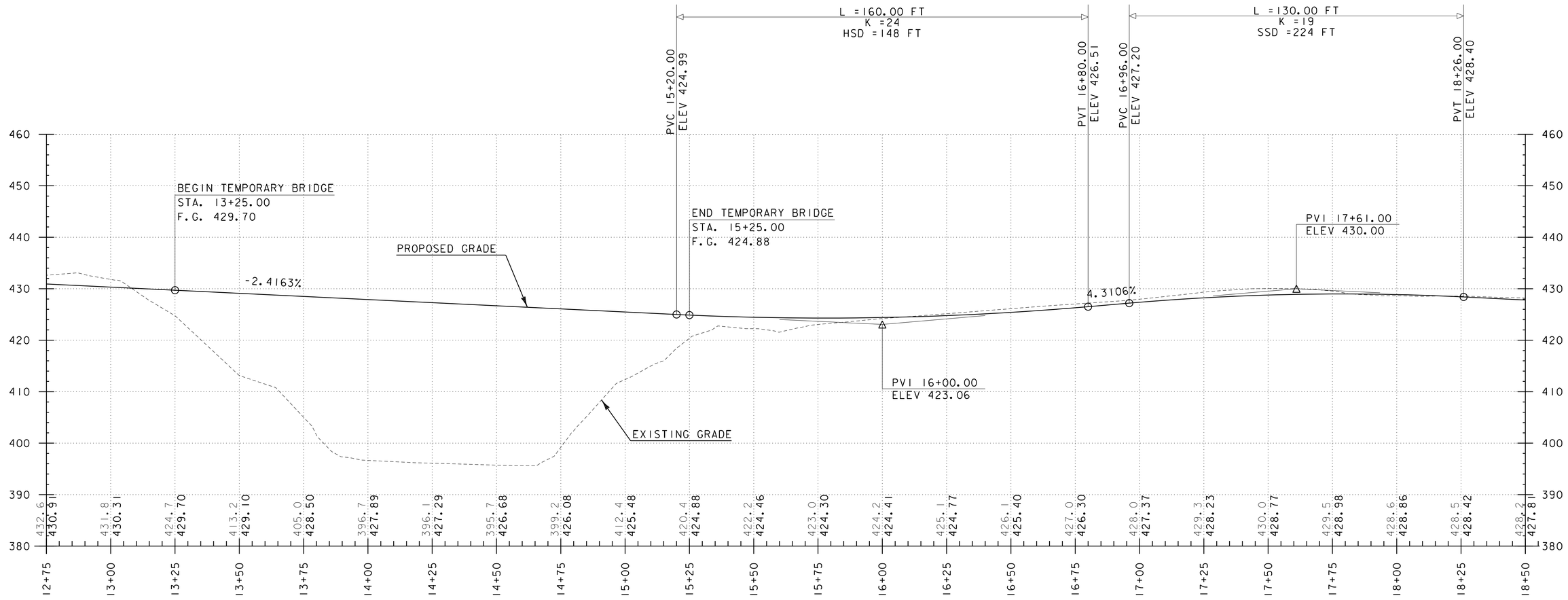


TEMPORARY DETOUR PROFILE

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

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

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602_bdr pro.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R. TETREAULT	DRAWN BY: G. CANTAVE
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
TEMPORARY DETOUR PROFILE SHEET 1	SHEET 21 OF 130

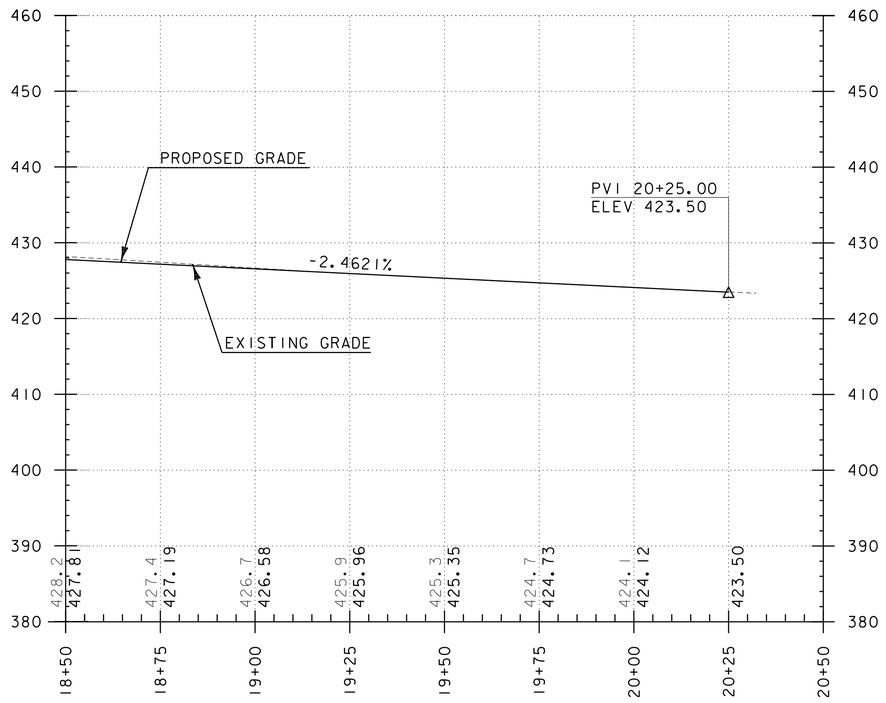


TEMPORARY DETOUR PROFILE

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

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

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602_bdr pro.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R. TETREAULT	DRAWN BY: G. CANTAVE
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
TEMPORARY DETOUR PROFILE SHEET 2	SHEET 22 OF 130

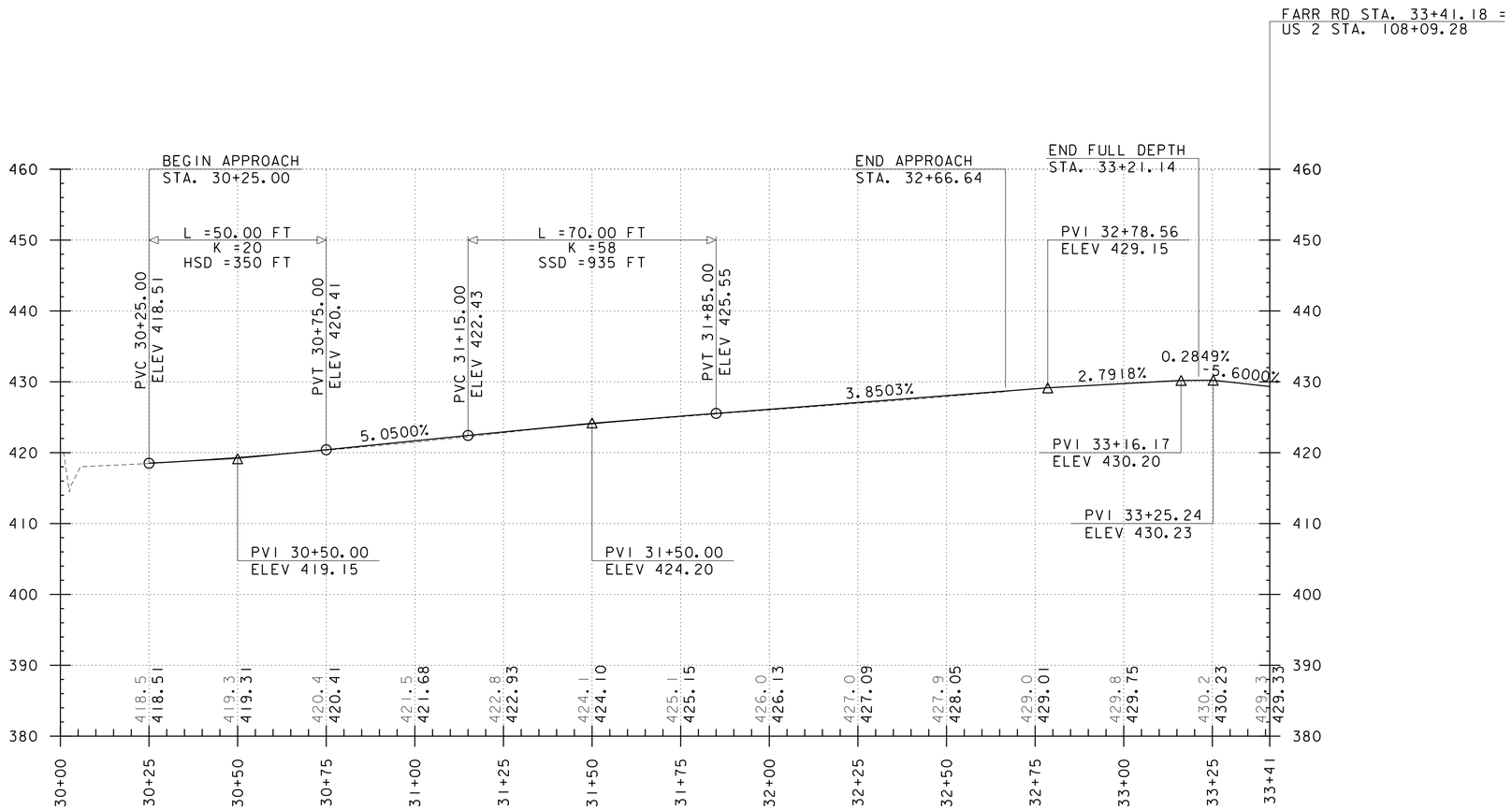


TEMPORARY DETOUR PROFILE

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

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

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602_bdr pro.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R. TETREAULT	DRAWN BY: G. CANTAVE
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
TEMPORARY DETOUR PROFILE SHEET 3	SHEET 23 OF 130

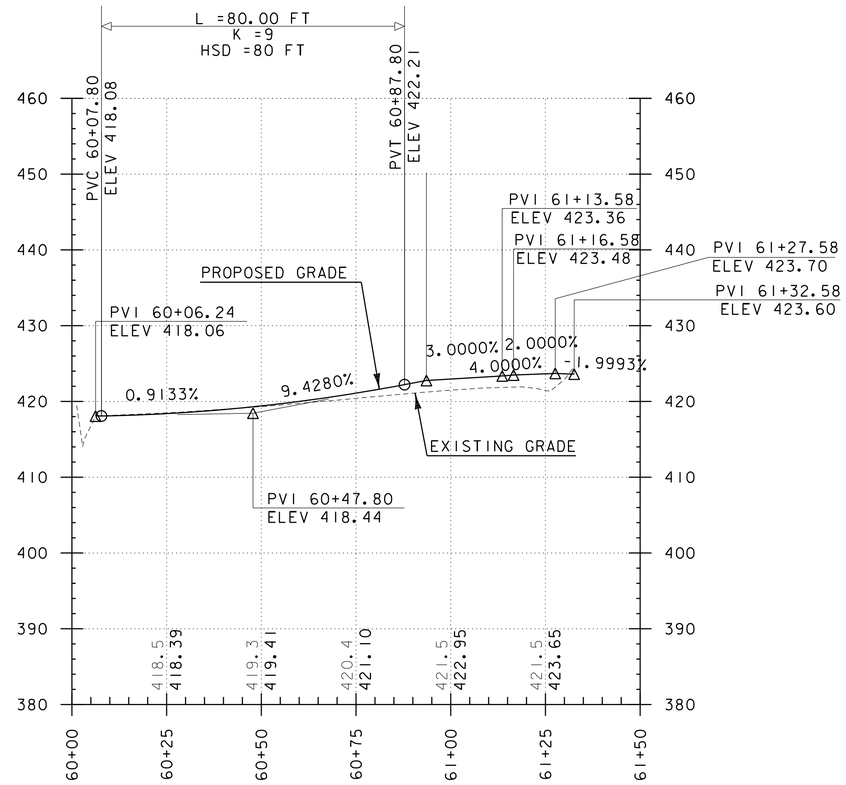


TH-66 PROFILE

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

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

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602_bdr pro.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R. TETREAULT	DRAWN BY: G. CANTAVE
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
TH-66 PROFILE	SHEET 24 OF 130

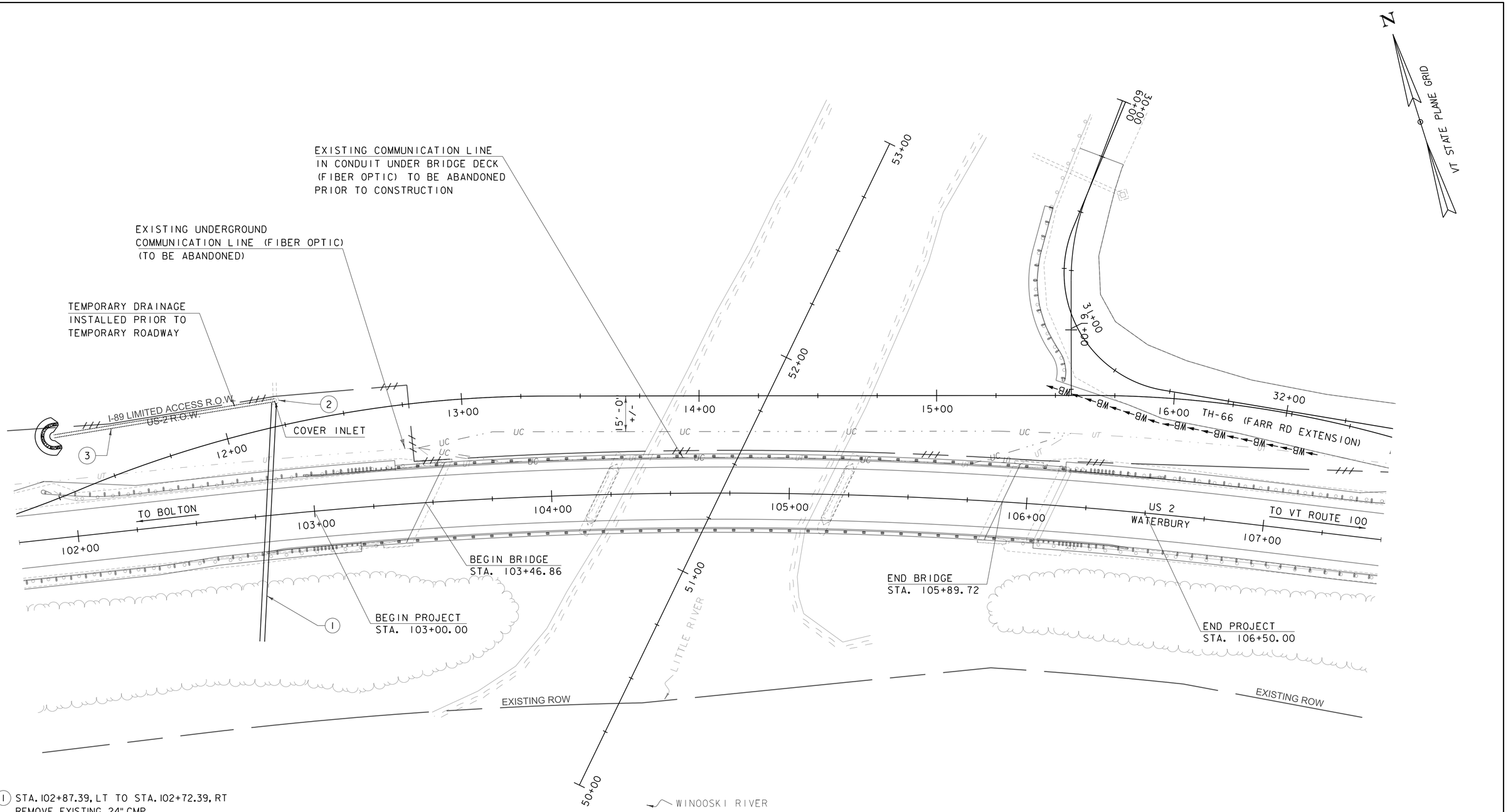


TH-66 TEMPORARY PROFILE

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

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

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602_bdr pro.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R. TETREAULT	DRAWN BY: G. CANTAVE
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
TH-66 TEMPORARY PROFILE	SHEET 25 OF 130



(1) STA. 102+87.39, LT TO STA. 102+72.39, RT
REMOVE EXISTING 24" CMP
INSTALL 24" CPEP (SL) (100'-7")
INV. IN: 427.46
INV. OUT: 416.90

(2) STA. 102+87.39, LT
REHAB. DROP INLET, CLASS III

(3) STA. 101+94.41, LT TO STA. 102+88.24, LT
CONSTRUCT TEMPORARY 24" PIPE (94'-0")
INV. IN: 430.00
INV. OUT: 428.00

FIBER OPTIC WITHIN PROJECT LIMITS TO BE
RELOCATED BY THE UTILITY OWNER PRIOR TO CONSTRUCTION.
RELOCATION WILL BE OUTSIDE OF PROJECT LIMITS AND
FIBEROPTIC TO BE ABANDONED IN PLACE.

SCALE: 1"=20'
20 0 20

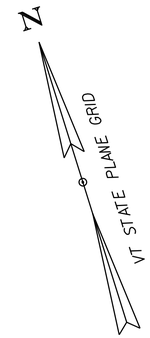
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

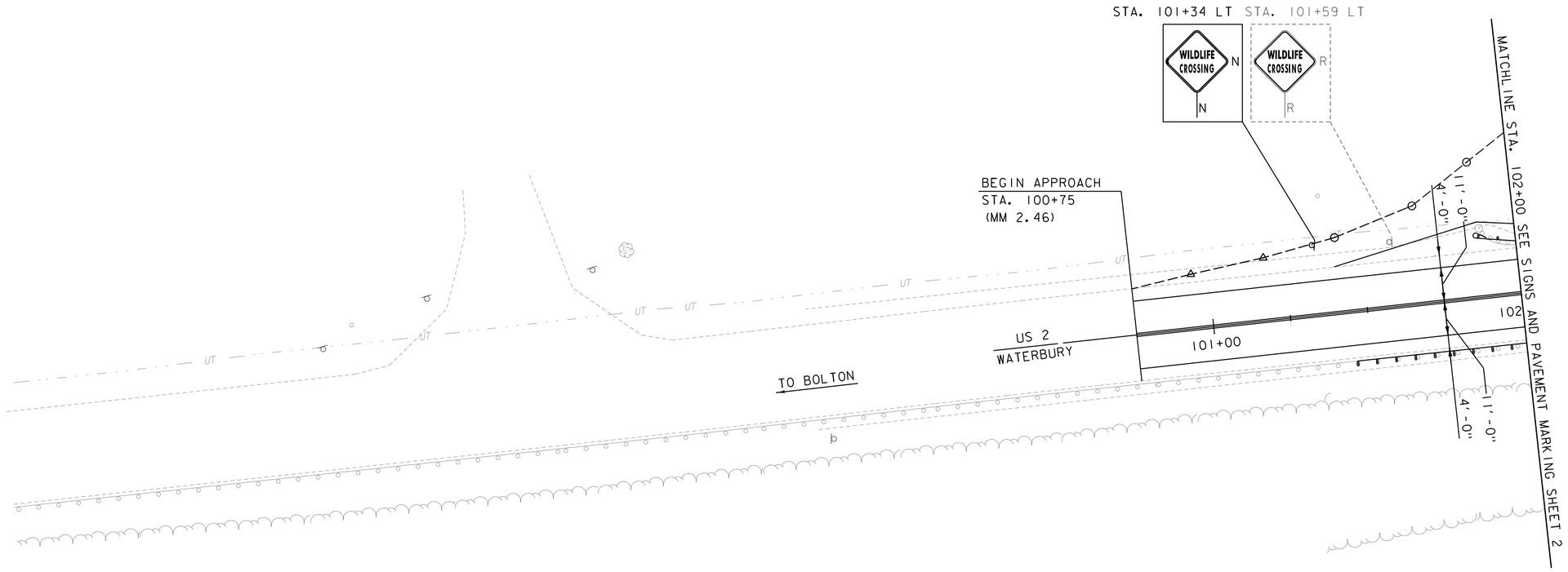
FILE NAME: z12c602bdr_util.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: M. EVANS-MONGEON
DRAINAGE AND UTILITY LAYOUT SHEET

PLOT DATE: 8/18/2022
DRAWN BY: M.EVANS-MONGEON
CHECKED BY: K. ROBIE
SHEET 26 OF 130

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 100+75 - 102+00 (SOLID LT&RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 100+75 - 102+00 (SOLID LT&RT)





SIGN LEGEND

R	=	REMOVE
R&RES	=	REMOVE AND RESET
RES	=	RESETTING SIGN
RET	=	RETAIN
N	=	NEW
B-B	=	BACK TO BACK
----	=	EXISTING
____	=	NEW

NOTE:
SIGNS REQUIRED TO BE ADDED OR REMOVED AND RESET AS PART OF THE TEMPORARY DETOUR ROAD ARE NOT INCLUDED IN THE TABLE AS ALL WORK ASSOCIATED WITH INSTALLING, REMOVING OR MOVING SIGNS FOR THE TEMPORARY CONDITION SHALL BE PAID FOR UNDER ITEM 641.11, "TRAFFIC CONTROL, ALL-INCLUSIVE" AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DEVELOP THE TEMPORARY TRAFFIC CONTROL PLAN.

SCALE: 1"=20'
20 0 20

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_bdr pm.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: S. SOLLA
SIGNS AND PAVEMENT MARKING SHEET 1

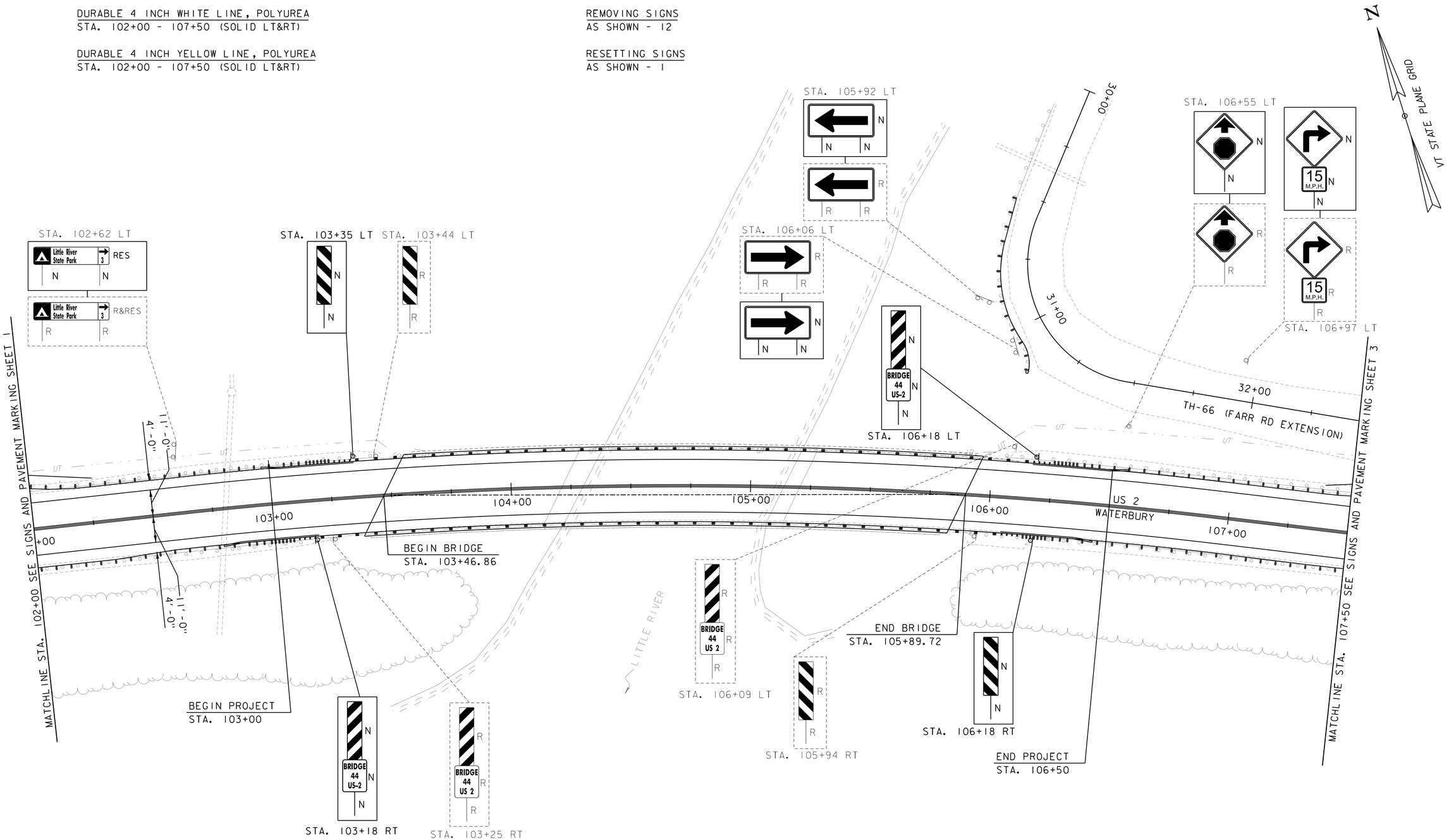
PLOT DATE: 8/18/2022
DRAWN BY: S. SOLLA
CHECKED BY: C. LATHROP
SHEET 27 OF 130

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 102+00 - 107+50 (SOLID LT&RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 102+00 - 107+50 (SOLID LT&RT)

REMOVING SIGNS
AS SHOWN - 12

RESETTING SIGNS
AS SHOWN - 1



SIGN LEGEND

R	=	REMOVE
R&RES	=	REMOVE AND RESET
RES	=	RESETTING SIGN
RET	=	RETAIN
N	=	NEW
B-B	=	BACK TO BACK
----	=	EXISTING
____	=	NEW

NOTE:
SIGNS REQUIRED TO BE ADDED OR REMOVED AND RESET AS PART OF THE TEMPORARY DETOUR ROAD ARE NOT INCLUDED IN THE TABLE AS ALL WORK ASSOCIATED WITH INSTALLING, REMOVING OR MOVING SIGNS FOR THE TEMPORARY CONDITION SHALL BE PAID FOR UNDER ITEM 641.11, "TRAFFIC CONTROL, ALL-INCLUSIVE" AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DEVELOP THE TEMPORARY TRAFFIC CONTROL PLAN.

SCALE: 1"=20'
20 0 20

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_bdr pm.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: S. SOLLA
SIGNS AND PAVEMENT MARKING SHEET 2

PLOT DATE: 8/18/2022
DRAWN BY: S. SOLLA
CHECKED BY: C. LATHROP
SHEET 28 OF 130

DURABLE 4 INCH WHITE LINE, POLYUREA
(LINES WILL INCLUDE EDGE LINE BREAKS AND RADII AS SHOWN)
STA. 107+50 - 110+50 (SOLID LT&RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
(LINES WILL INCLUDE CENTERLINE BREAKS AS SHOWN)
STA. 107+50 - 110+50 (SOLID LT&RT)
STA. 108+06 LT (CENTERLINE TH-66)

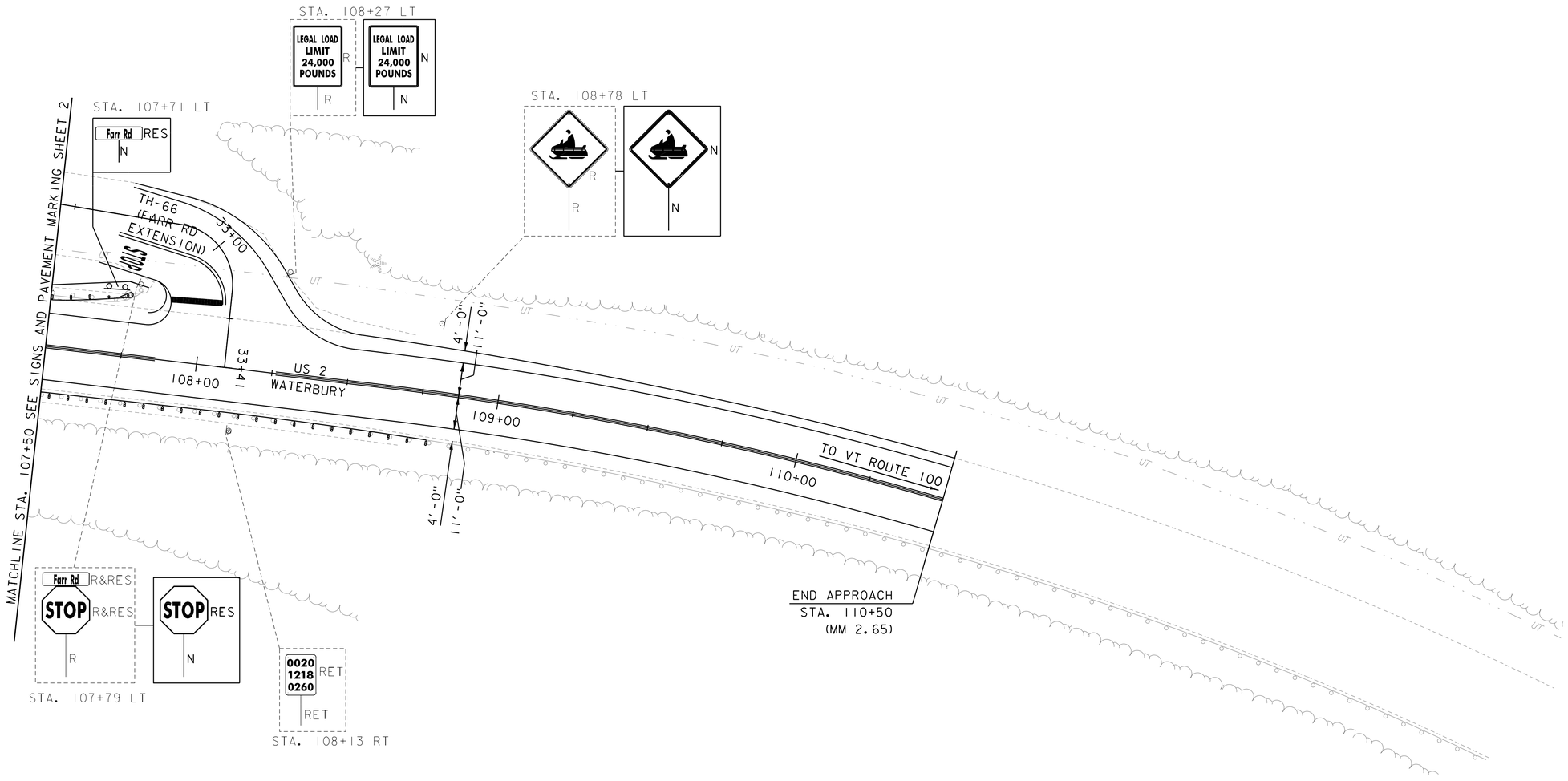
DURABLE 24 INCH STOP BAR, POLYUREA
STA. 107+82 - 108+06 LT (24FT)

DURABLE LETTER OR SYMBOL, POLYUREA
STA. 107+75 LT (STOP)

REMOVING SIGNS
AS SHOWN - 4

RESETTING SIGNS
AS SHOWN - 2

N
VT STATE PLANE GRID



SIGN LEGEND

R	=	REMOVE
R&RES	=	REMOVE AND RESET
RES	=	RESETTING SIGN
RET	=	RETAIN
N	=	NEW
B-B	=	BACK TO BACK
----	=	EXISTING
____	=	NEW

NOTE:
SIGNS REQUIRED TO BE ADDED OR REMOVED AND RESET AS PART OF THE TEMPORARY DETOUR ROAD ARE NOT INCLUDED IN THE TABLE AS ALL WORK ASSOCIATED WITH INSTALLING, REMOVING OR MOVING SIGNS FOR THE TEMPORARY CONDITION SHALL BE PAID FOR UNDER ITEM 641.11, "TRAFFIC CONTROL, ALL-INCLUSIVE" AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DEVELOP THE TEMPORARY TRAFFIC CONTROL PLAN.

SCALE: 1"=20'
20 0 20

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_bdr pm.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: S. SOLLA
SIGNS AND PAVEMENT MARKING SHEET 3

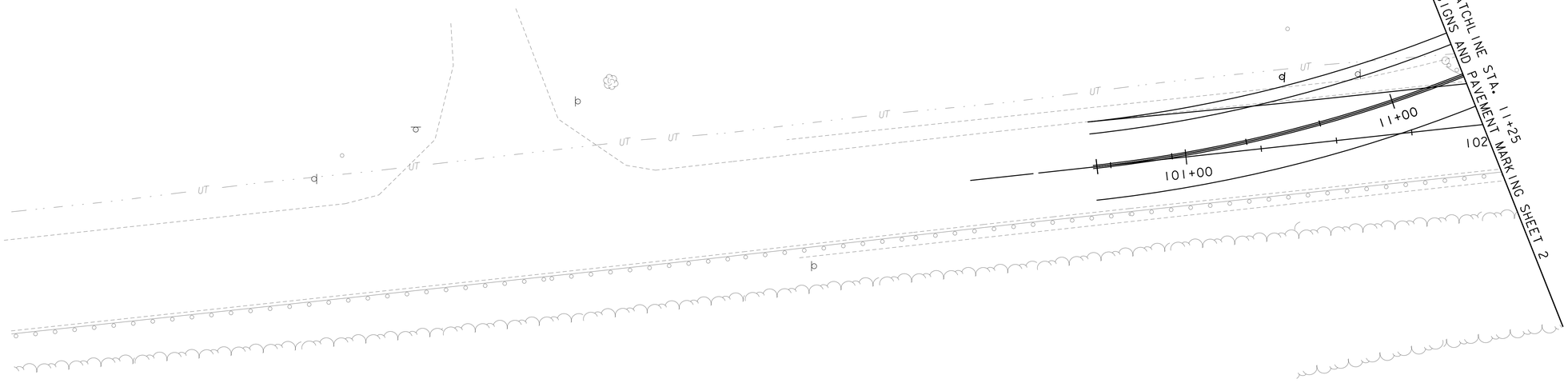
PLOT DATE: 8/18/2022
DRAWN BY: S. SOLLA
CHECKED BY: C. LATHROP
SHEET 29 OF 130

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 9+98.67 - 11+25 (SOLID LT&RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 9+98+67 - 11+25 (SOLID LT&RT)

N

VT STATE PLANE GRID



SIGN LEGEND

R = REMOVE
R&RES = REMOVE AND RESET
RES = RESETTING SIGN
RET = RETAIN
N = NEW
B-B = BACK TO BACK
---- = EXISTING
____ = NEW

SCALE: 1"=20'
20 0 20

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_bdr pm temp.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: S. SOLLA
TEMP. SIGNS AND PAVE. MARKINGS 1

PLOT DATE: 8/18/2022
DRAWN BY: S. SOLLA
CHECKED BY: C. LATHROP
SHEET 30 OF 130

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 11+25 - 16+75 (SOLID LT&RT)
(WITH EDGELINE BREAKS AS SHOWN)

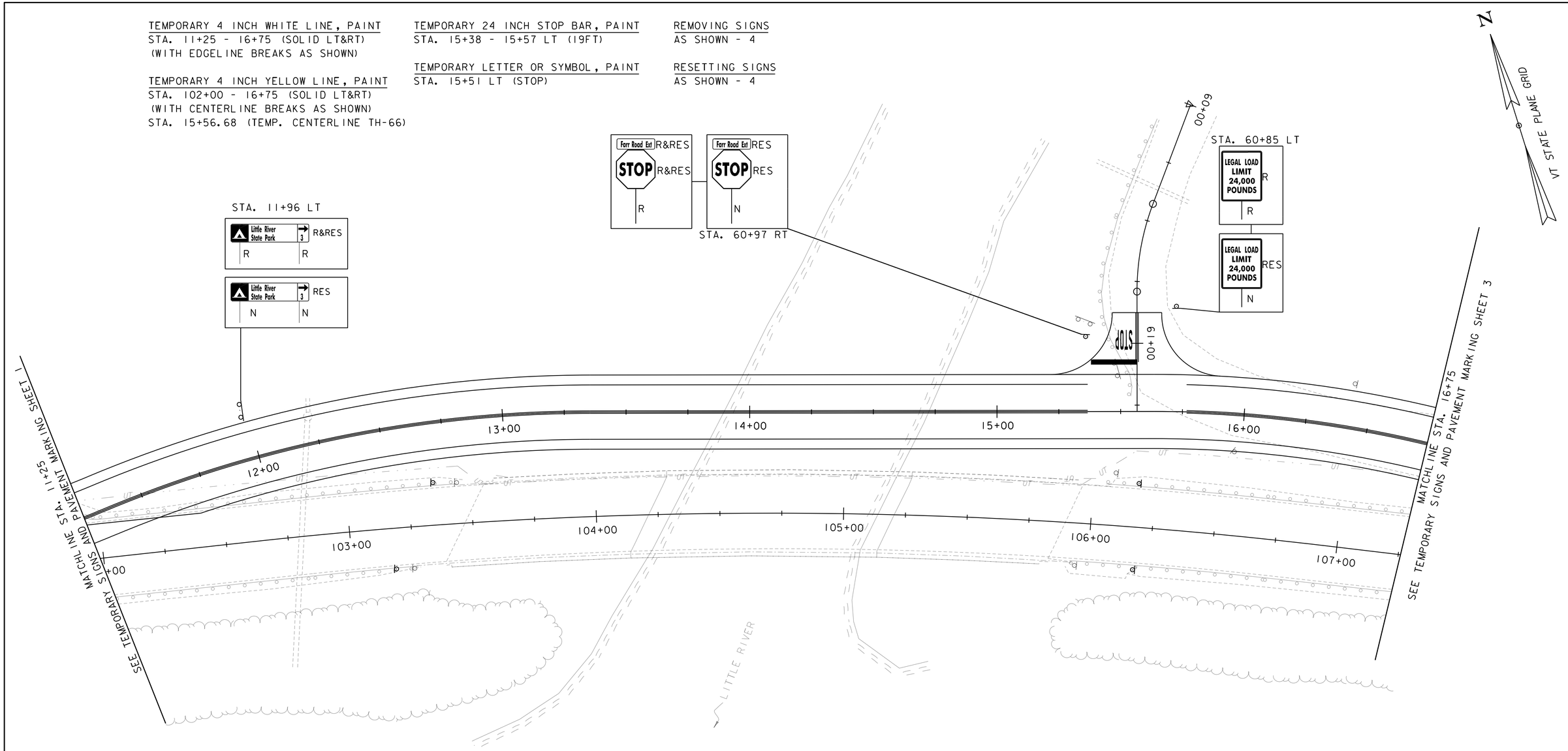
TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 102+00 - 16+75 (SOLID LT&RT)
(WITH CENTERLINE BREAKS AS SHOWN)
STA. 15+56.68 (TEMP. CENTERLINE TH-66)

TEMPORARY 24 INCH STOP BAR, PAINT
STA. 15+38 - 15+57 LT (19FT)

TEMPORARY LETTER OR SYMBOL, PAINT
STA. 15+51 LT (STOP)

REMOVING SIGNS
AS SHOWN - 4

RESETTING SIGNS
AS SHOWN - 4



SIGN LEGEND

R	=	REMOVE
R&RES	=	REMOVE AND RESET
RES	=	RESETTING SIGN
RET	=	RETAIN
N	=	NEW
B-B	=	BACK TO BACK
----	=	EXISTING
____	=	NEW

SCALE: 1"=20'
20 0 20

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_bdr pm temp.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: S. SOLLA
TEMP. SIGNS AND PAVE. MARKINGS 2

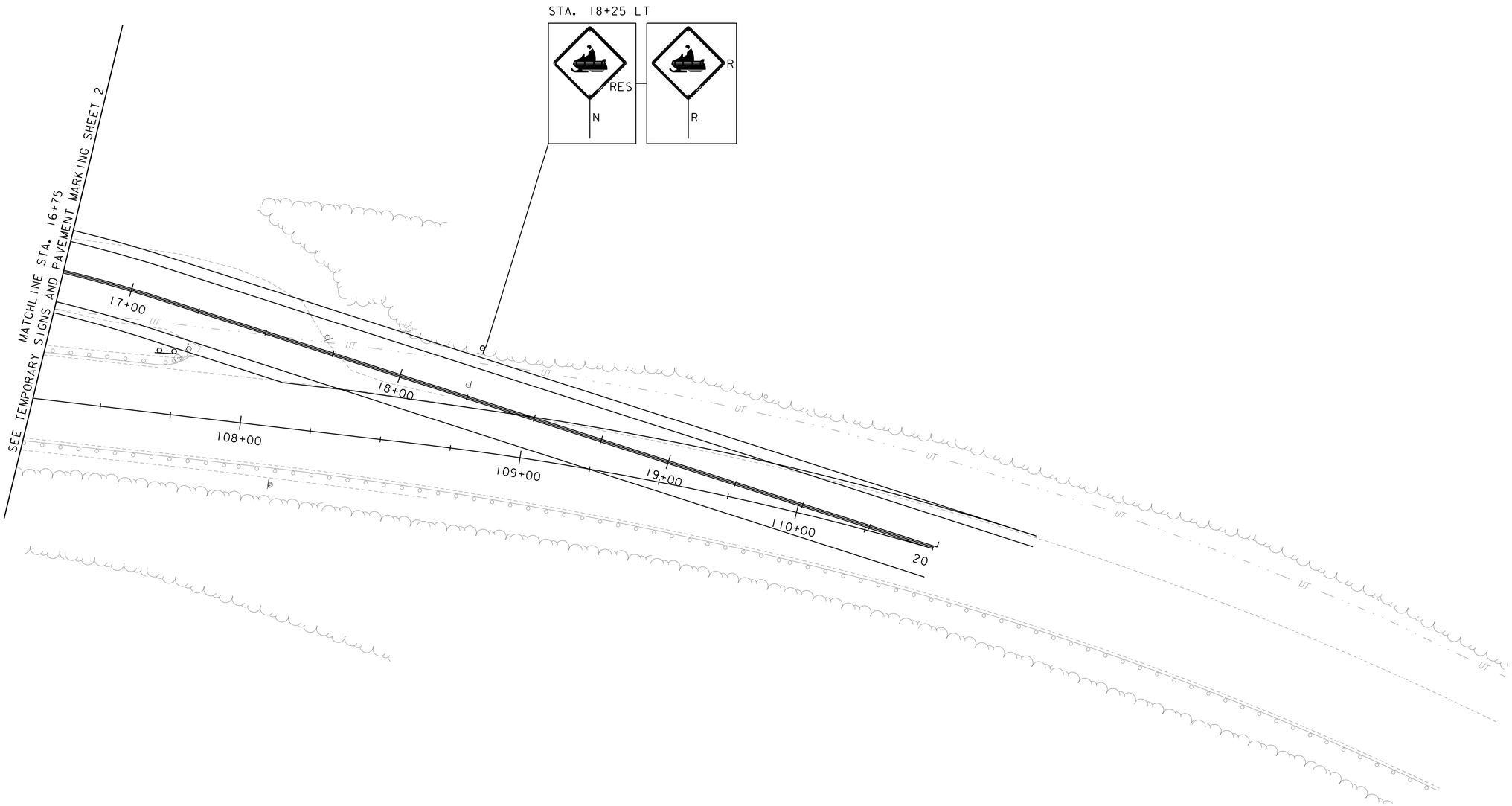
PLOT DATE: 8/18/2022
DRAWN BY: S. SOLLA
CHECKED BY: C. LATHROP
SHEET 31 OF 130

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 16+75 - 20+31.07 (SOLID LT&RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 16+75 - 20+31.07 (SOLID LT&RT)

REMOVING SIGNS
AS SHOWN - 1

RESETTING SIGNS
AS SHOWN - 1

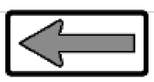
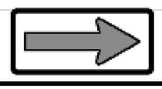


SIGN LEGEND

R	=	REMOVE
R&RES	=	REMOVE AND RESET
RES	=	RESETTING SIGN
RET	=	RETAIN
N	=	NEW
B-B	=	BACK TO BACK
----	=	EXISTING
____	=	NEW

SCALE: 1"=20'
20 0 20

PROJECT NAME: WATERBURY	
PROJECT NUMBER: BF 0284(33)	
FILE NAME: z12c602_bdr pm temp.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R. TETREAULT	DRAWN BY: S. SOLLA
DESIGNED BY: S. SOLLA	CHECKED BY: C. LATHROP
TEMP SIGNS AND PAVE. MARKINGS 3	SHEET 32 OF 130

DIR	MILEPOINT	LOCATION CODE	MUTCD CODE	WIDTH	HEIGHT	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS REMOVE FROM	EXISTING SIGNS RESET TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (in) 1.75 (LB / FT) 1.88	SQUARE STEEL (in) 2.00 (LB / FT) 2.42	SQUARE STEEL (in) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL: DETAIL IN SHS	SIGN DETAIL: DETAIL ON SHEET NUMBER	SIGN DETAIL: DETAIL ON STD SHEET NUMBER
WATERBURY US 2							FYG-FLUORESCENT YELLOW-GREEN																			"SHSM" - STANDARD HIGHWAY SIGNS AND MARKINGS			
	STA. 101+34	LT	VW-318	30	30			6.25								1		15										SHT 36	
	STA. 101+59	LT	VW-318	30	30		WILDLIFE CROSSING						1		1														
	STA. 102+62	LT		60	12		LITTLE RIVER STATE PARK 3 --->				1				2														
				60	12							1				2		30											
	STA. 103+18	RT	0M3-R	12	36			3.00								1		15									X		
			VD-701	6	10			0.42																				T-42
	STA. 103+25	RT	0M3-R	12	36		OBJECT MARKER						1		1														
			VD-701	6	10		BRIDGE 44 US 2						1																
	STA. 103+35	LT	0M3-L	12	36			3.00								1		15									X		
	STA. 103+44	LT	0M3-L	12	36		OBJECT MARKER						1		1														
	STA. 105+92	LT	W1-6L	48	24		ARROW LEFT						1		2													X	
			W1-6L	48	24			8.00								2		30									X		
	STA. 105+94	RT	0M3-L	12	36		OBJECT MARKER						1		1														
	STA. 106+06	LT	W1-6R	48	24		ARROW RIGHT						1		2													X	
			W1-6R	48	24			8.00								2		30									X		
SIGN SUMMARY SHEET							SHEET TOTALS	28.67	0.00	0	1	1	7	0	10	9		135										
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT										
VERMONT AGENCY OF TRANSPORTATION							TOWN TOTALS	60.4	0.0	0.0	3.0	3.0	14.0	0.0	17.0	17		255.0										

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_tsss.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: R. TETREAULT
TRAFFIC SIGN SUMMARY SHEET 1

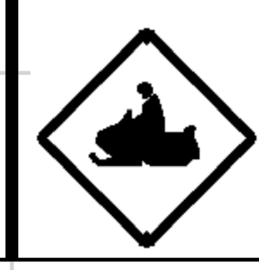
PLOT DATE: 8/18/2022
DRAWN BY: S.SOLLA
CHECKED BY: K. ROBIE

DIR	MILEPOINT	LOCATION CODE	MUTCD CODE	WIDTH	HEIGHT	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS REMOVE FROM	EXISTING SIGNS RESET TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (in) 1.75 (LB / FT) 1.88	SQUARE STEEL (in) 2.00 (LB / FT) 2.42	SQUARE STEEL (in) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL: DETAIL IN SHS	SIGN DETAIL: DETAIL ON SHEET NUMBER	SIGN DETAIL: DETAIL ON STD SHEET NUMBER
WATERBURY US 2							FYG-FLUORESCENT YELLOW-GREEN																			"SHSM" - STANDARD HIGHWAY SIGNS AND MARKINGS			
	STA. 106+09	LT	0M3-R	12	36		OBJECT MARKER						1		1													
			VD-701	6	10		BRIDGE 44 US 2						1															
	STA. 106+18	RT	0M3-L	12	36			3.00								1		15								X		
	STA. 106+18	LT	0M3-R	12	36			3.00								1		15								X		
			VD-701	6	10			0.42																				T-42
	STA. 106+55	LT	W3-1	30	30		STOP AHEAD						1		1													
			W3-1	30	30			6.25									1		15								X		
	106+97	LT	W1-1R	30	30		RIGHT TURN						1		1													
			W13-1P	18	18		15 MPH						1															
			W1-1R	30	30			6.25									1		15								X		
			W13-1P	15	15			1.56																				X	
	STA. 107+71	LT	VD3-1	30	12		FARR RD					1				1		15										
	STA. 107+79	LT	VD3-1	30	12		FARR RD				1				1													
			R1-1	30	30		STOP				1				1													
			R1-1	30	30		STOP					1				1		15								X		
SIGN SUMMARY SHEET							SHEET TOTALS	20.48	0.00	0	2	2	5	0	5	6		90										
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT										
VERMONT AGENCY OF TRANSPORTATION							TOWN TOTALS	60.4	0.0	0.0	3.0	3.0	14.0	0.0	17.0	17		255.0										

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_tsss.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: R. TETREAULT
TRAFFIC SIGN SUMMARY SHEET 2

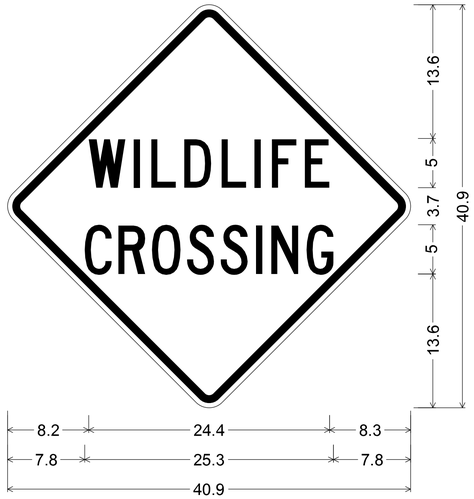
PLOT DATE: 8/18/2022
DRAWN BY: S.SOLLA
CHECKED BY: K. ROBIE

DIR	MILEPOINT	LOCATION CODE	MUTCD CODE	WIDTH	HEIGHT	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS "A"	NEW SIGNS "B"	EXISTING SIGNS RETAIN	EXISTING SIGNS REMOVE FROM	EXISTING SIGNS RESET TO	EXISTING SIGNS REMOVE	EXIST POST RETAIN	EXIST POST REMOVE	NUMBER OF NEW POSTS	SQUARE STEEL (in) 1.75 (LB / FT) 1.88	SQUARE STEEL (in) 2.00 (LB / FT) 2.42	SQUARE STEEL (in) 2.50 (LB / FT) 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) 3.00 (LB / FT) 7.60	TUBULAR STEEL Ø (IN) 3.50 (LB / FT) 9.00	TUBULAR STEEL Ø (IN) 4.00 (LB / FT) 10.80	TUBULAR STEEL Ø (IN) 5.00 (LB / FT) 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL: DETAIL IN SHS	SIGN DETAIL: DETAIL ON SHEET NUMBER	SIGN DETAIL: DETAIL ON STD SHEET NUMBER
WATERBURY US 2							FYG-FLUORESCENT YELLOW-GREEN																			"SHSM" - STANDARD HIGHWAY SIGNS AND MARKINGS			
	STA. 108+27	LT	VR-017	24	30		LLL 24,000 POUNDS						1		1														
			VR-017	24	30			5.00								1		15											T-70
	STA. 108+78	LT	W11-6H	30	30		SNOWMOBILE CROSSING						1		1														
			W11-6H	30	30			6.25								1		15								HINGED SIGN, INSTALL IN THE CLOSED POSITION		SHT 36	
SIGN SUMMARY SHEET							SHEET TOTALS	11.25	0.00	0	0	0	2	0	2	2		30											
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT											
VERMONT AGENCY OF TRANSPORTATION							TOWN TOTALS	60.4	0.0	0.0	3.0	3.0	14.0	0.0	17.0	17		255.0											

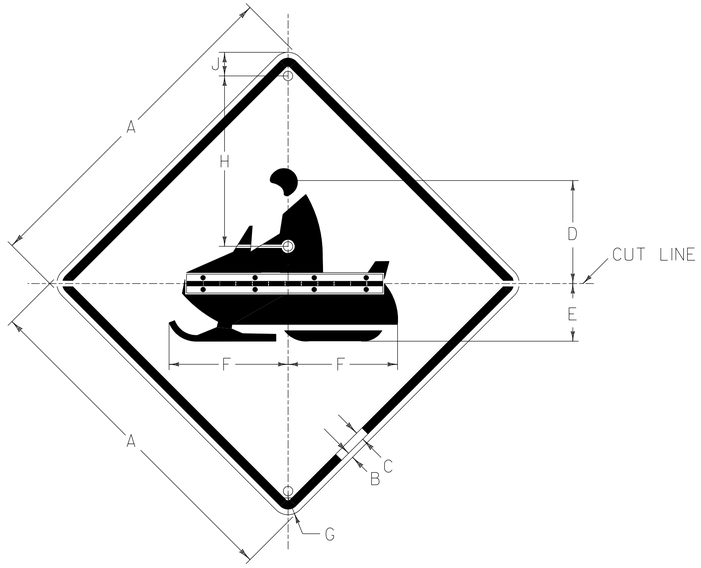
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_tsss.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: R. TETREAULT
TRAFFIC SIGN SUMMARY SHEET 3

PLOT DATE: 8/18/2022
DRAWN BY: S.SOLLA
CHECKED BY: K. ROBIE



30.0" across sides 1.9" Radius, 0.8" Border,
0.5" Indent, Black on Yellow;
[WILDLIFE] C;
CROSSING] C 80% spacing;



W11-6H

SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J
STD.	30	1/2	3/4	11 7/16	5 9/16	12 11/16	1 7/8	14	2 1/2

MATERIALS

ITEM 641.11 "TRAFFIC CONTROL, ALL-INCLUSIVE" WILL INCLUDE THE FOLLOWING AS NEEDED: APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, BARRELS, CONES, BARRICADES, TEMPORARY REGULATORY AND WARNING SIGNS, AND POSTS AS DETAILED IN VAOT STANDARDS. ALL ADJUSTING, RELOCATING, AND REMOVING OF THESE DEVICES AS DIRECTED BY THE ENGINEER WILL ALSO BE INCLUDED.

COLORS

ALL THE WARNING SIGNS SHOWN ON THIS SHEET SHALL HAVE BLACK TEXT AND SYMBOLS ON RETROREFLECTORIZED YELLOW BACKGROUND, EXCEPT AS OTHERWISE NOTED. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION AND THE FEDERAL HIGHWAY ADMINISTRATION.

THE TEXT, BORDER AND SYMBOLS SHALL BE LETTERING FILM. THE REFLECTIVE MATERIAL SHALL BE REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN.

TEXT DESIGN

LETTERS, DIGITS, SYMBOLS, SPACINGS AND TEXT SHALL CONFORM WITH THE STANDARD ALPHABETS AND DESIGNS PRESCRIBED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

SPECIFICATIONS

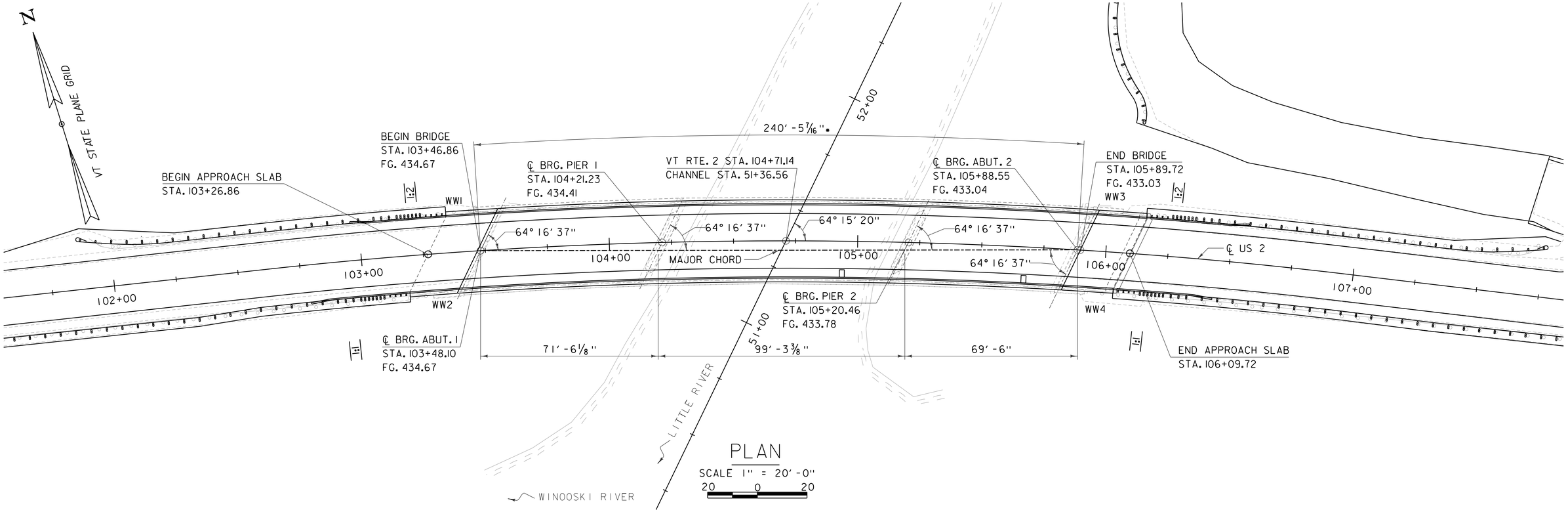
WARNING SIGNS SHALL MEET THE VERMONT STANDARD SPECIFICATIONS FOR "TRAFFIC SIGNS".

ALL DIMENSIONS SHOWN IN INCHES, EXCEPT WHERE NOTED.
NOT TO SCALE

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_tsss.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: R. TETREAULT
SIGN DETAIL SHEET

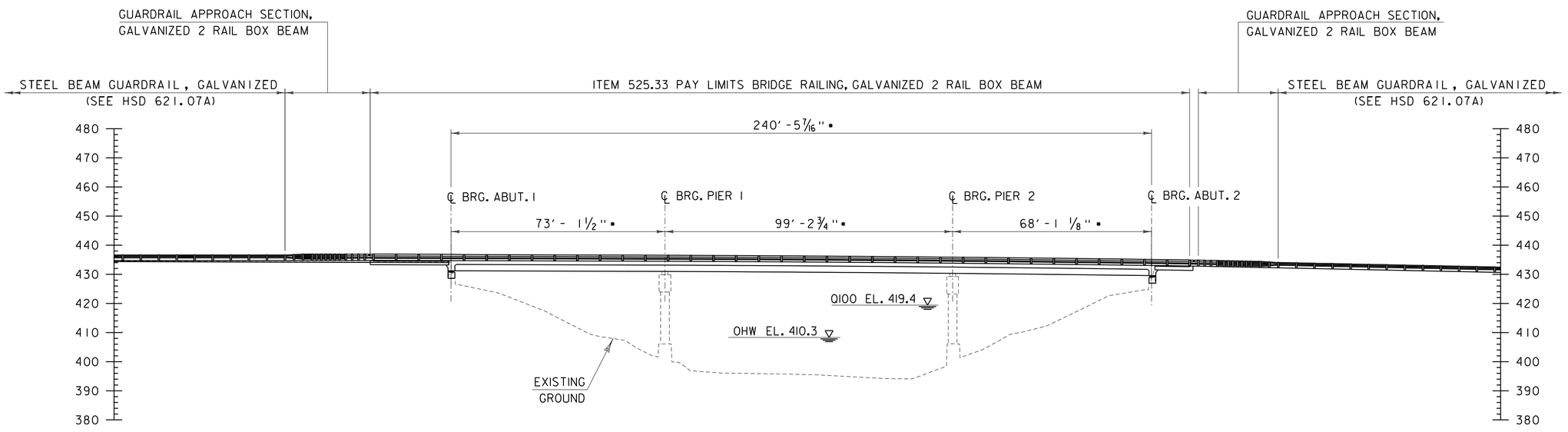
PLOT DATE: 8/18/2022
DRAWN BY: S.SOLLA
CHECKED BY: K. ROBIE
SHEET 36 OF 130



PLAN

SCALE 1" = 20′-0"

20 0 20



ELEVATION

SCALE 1" = 20′-0"

20 0 20

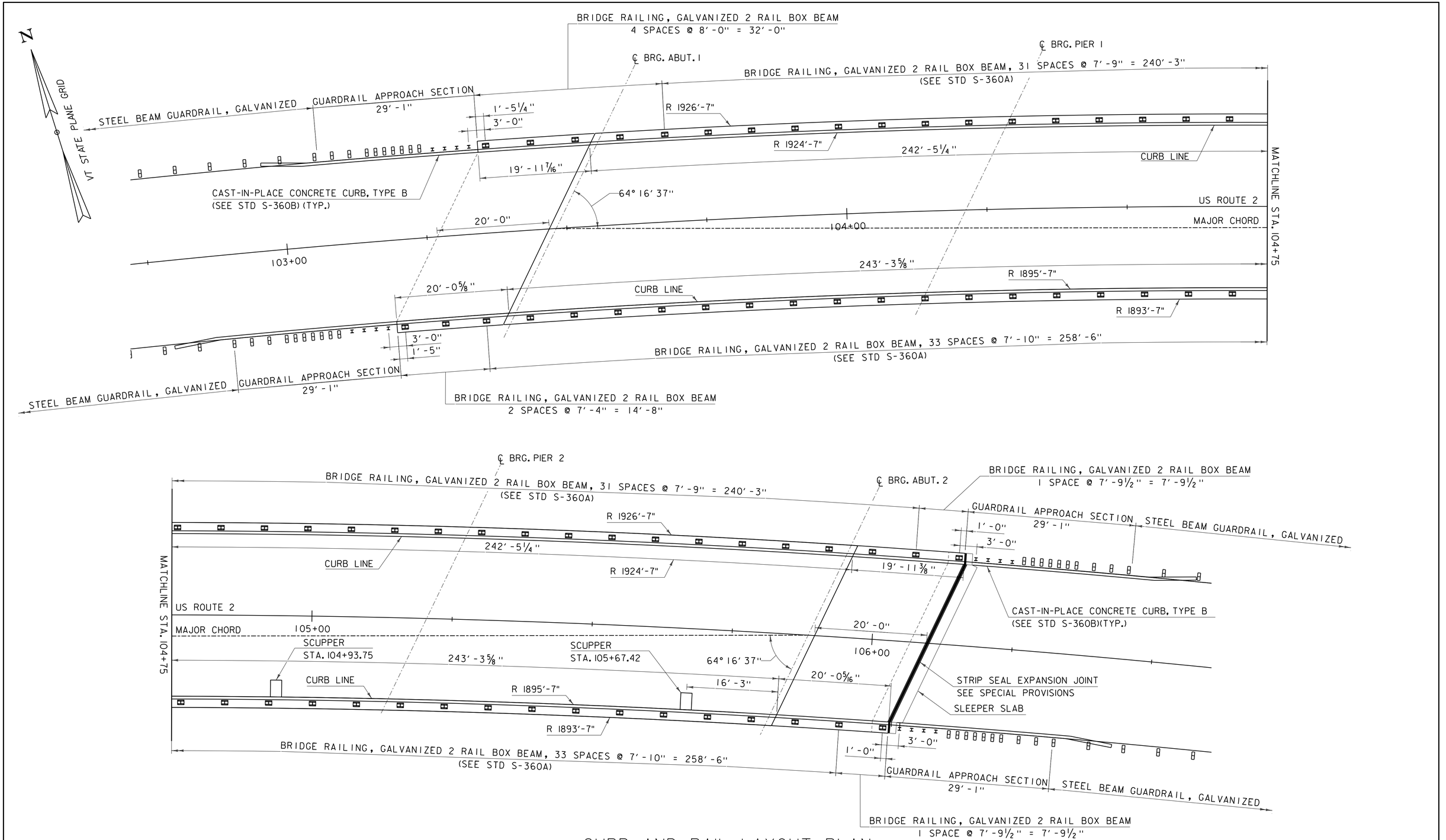
NOTE:

1. SEE CURB AND RAIL LAYOUT SHEET FOR ALL GUARDRAIL POST SPACINGS.
2. SEE BEARING LOCATION PLAN FOR LAYOUT OF FIXED, EXPANSION, AND GUIDED BEARINGS.
3. ARC LENGTHS SHOWN ARE TAKEN AT THE CL ALIGNMENT OF US ROUTE 2.
4. THE SYMBOL • DENOTES ARC LENGTH MEASUREMENTS ALONG ℄ US 2.

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602pe.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R. GAUDREAU
BRIDGE PLAN AND ELEVATION

PLOT DATE: 8/18/2022
DRAWN BY: K. KITTREDGE
CHECKED BY: M.OOMS
SHEET 37 OF 130



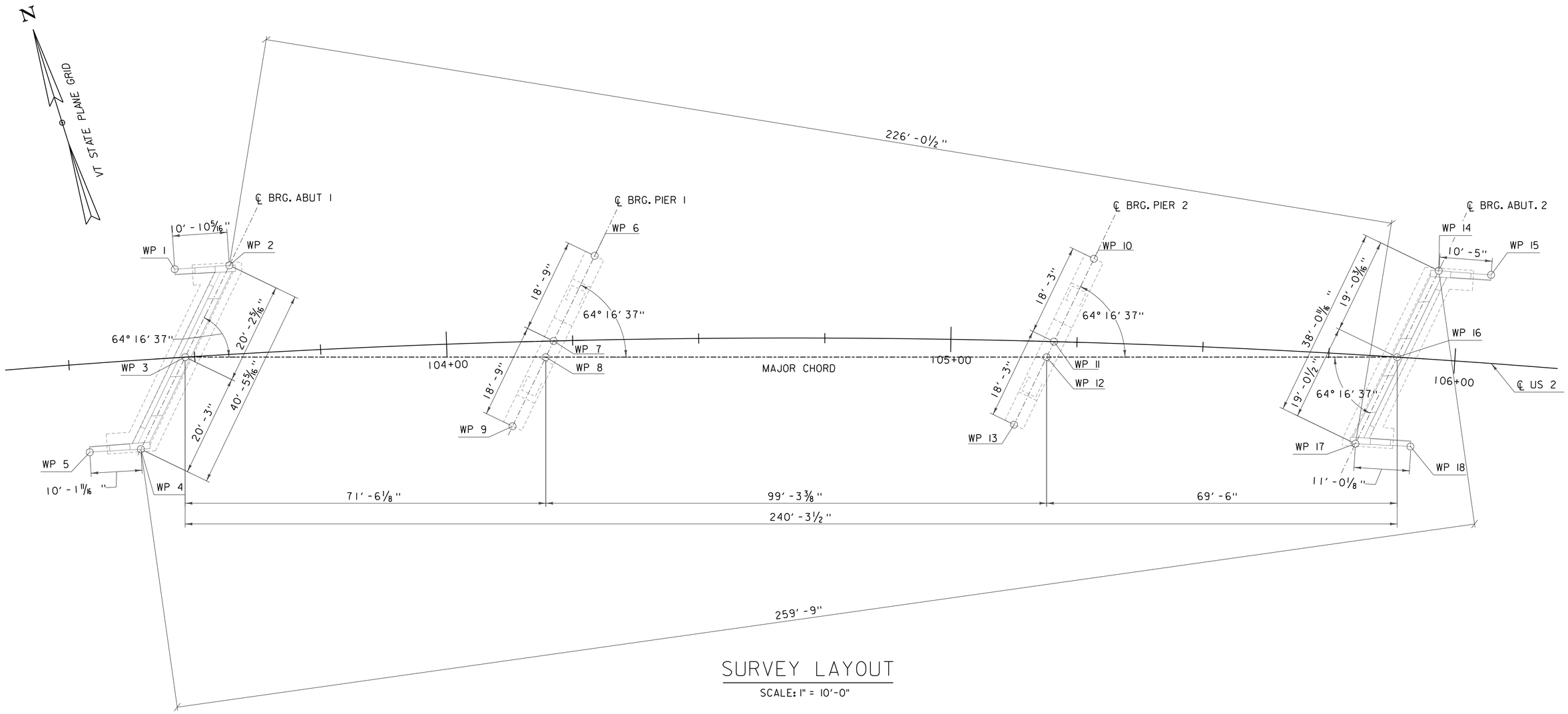
CURB AND RAIL LAYOUT PLAN

SCALE: ⅛" = 1'-0"

NOTES:

1. SEE SCUPPER DETAILS SHEET FOR BRIDGE DECK DRAIN REQUIREMENTS

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602_crb.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: K. KITTREDGE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
RAIL AND CURB LAYOUT PLAN	SHEET 38 OF 130



SURVEY LAYOUT

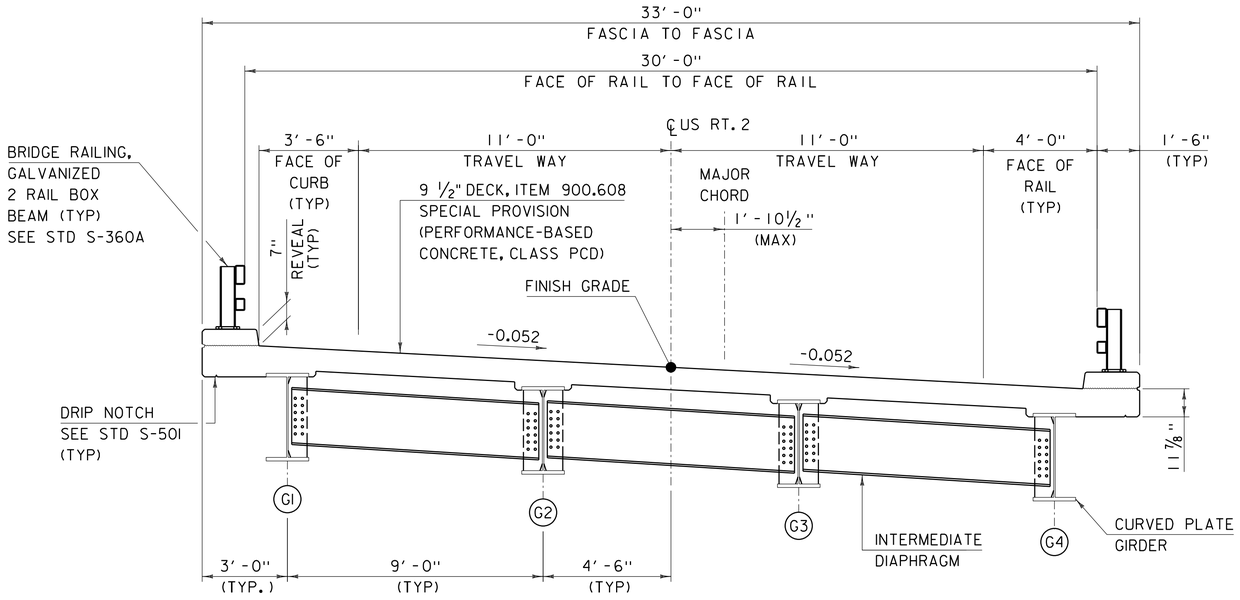
SCALE: 1" = 10′-0"

WP #	NORTHING	EASTING	WP #	NORTHING	EASTING
1	675284.6702	1567455.8191	10	675232.4242	1567630.4432
2	675282.1680	1567466.3855	11	675219.0841	1567617.9891
3	675267.4082	1567452.6060	12	675216.5923	1567615.6629
4	675252.6070	1567438.7880	13	675205.7439	1567605.5351
5	675255.0493	1567428.9477	14	675209.8129	1567694.9913
6	675262.4350	1567536.0984	15	675205.9417	1567704.6600
7	675248.7294	1567523.3031	16	675195.9139	1567682.0155
8	675246.1316	1567520.8779	17	675181.9950	1567669.0212
9	675235.0238	1567510.5079	18	675178.2221	1567679.2701

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602surveylayout.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: R. GAUDREAU
SURVEY LAYOUT

PLOT DATE: 8/18/2022
DRAWN BY: M. NEUROTH
CHECKED BY: M. OOMS
SHEET 39 OF 130

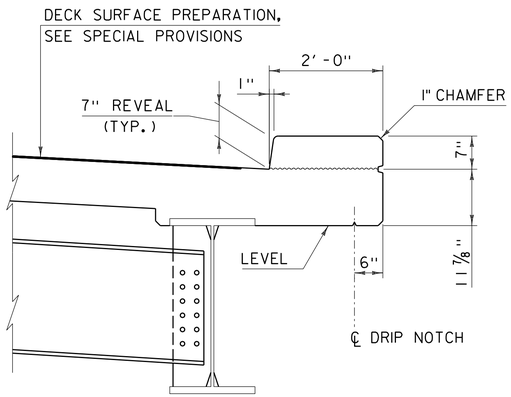


BRIDGE TYPICAL SECTION

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

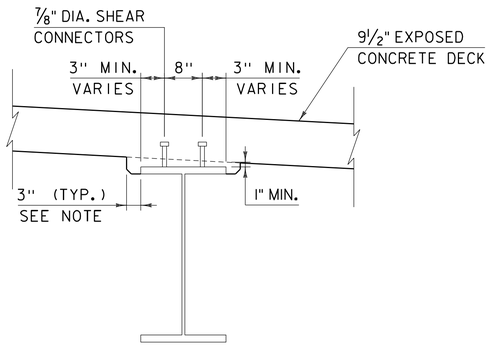
NOTES:

1. THE 3" HORIZONTAL HAUNCH SECTION MAYBE ELIMINATED FOR FORMING SYSTEMS DESIGNED FOR THE CONSTRUCTION OF VERTICAL HAUNCHES. SEE STANDARD S-600 FOR REQUIREMENTS.
2. THE BRIDGE DECK SHALL BE PREPARED IN ACCORDANCE WITH SECTION 509. PAYMENT SHALL BE MADE UNDER ITEM 900.670, "SPECIAL PROVISION (CONCRETE BRIDGE DECK SURFACE PREPARATION)".
3. DRIP BARS SHALL BE LOCATED ON THE HIGH END OF THE FASCIA GIRDERS PRIOR TO ALL SUPPORT LOCATIONS SEE STANDARD S-600.
4. SHEAR CONNECTORS SHALL PROJECT A MINIMUM OF 2" INTO THE DECK AND SHALL NOT BE CLOSER THAN 3" FROM THE TOP OF DECK. STUDS SHALL NOT BE WELDED TO FIELD SPLICE PLATES. WHERE CONFLICTS WITH SPLICE PLATES EXIST, STUDS SHALL BE LOCATED 4" CLEAR FROM SPLICE PLATE.
5. SHEAR CONNECTORS SHALL BE PAID UNDER ITEM 508.15 "SHEAR CONNECTORS".



FASCIA DETAIL

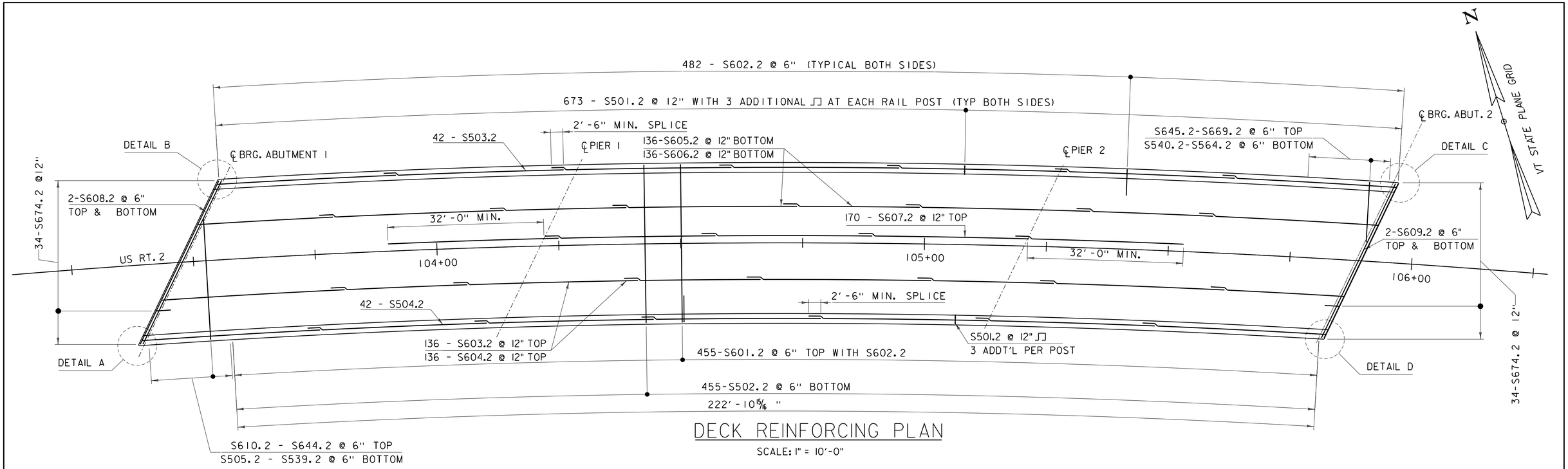
SCALE: 3/4"= 1'-0"



HAUNCH DETAIL

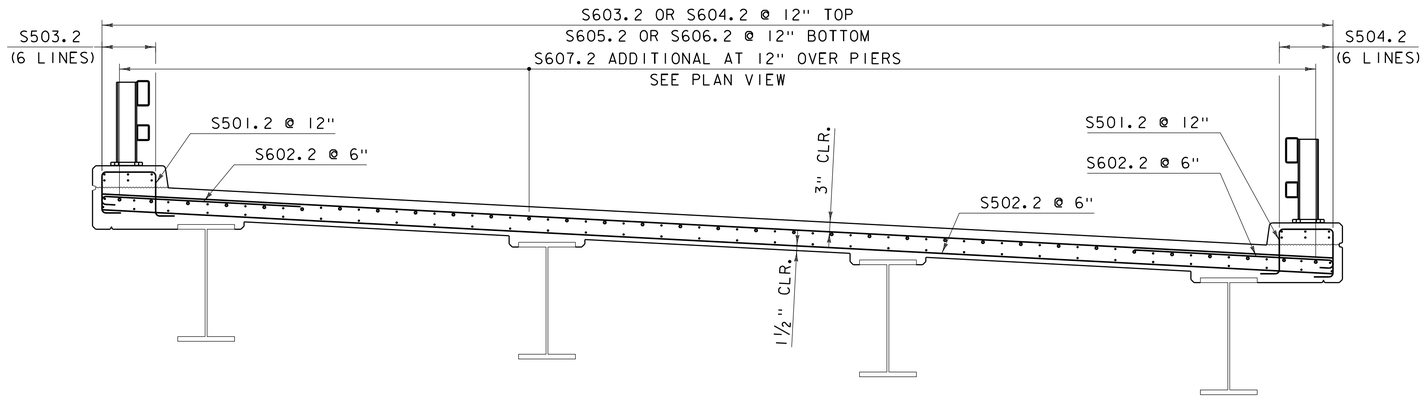
SCALE: 3/4"= 1'-0"

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602sup.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: K. KITTREDGE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
BRIDGE TYPICALS	SHEET 40 OF 130



DECK REINFORCING PLAN

SCALE: 1" = 10'-0"



DECK REINFORCING CROSS SECTION

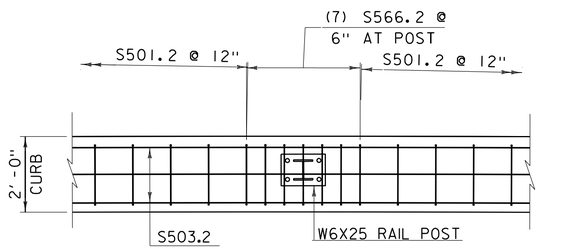
SCALE: ½" = 1'-0"

NOTES:

1. LAP SPLICES SHALL BE 2'-9" MIN. UNLESS OTHERWISE NOTED.
2. ALTERNATE S603.2 AND S604.2/ S605.2 AND S606.2 LONGITUDINAL TOP AND BOTTOM DECK BARS SO THAT LAP SPLICES ARE IN ALTERNATE LOCATIONS FOR ADJACENT BARS.
3. PROVIDE 3 ADDITIONAL S501.2 AT EACH RAIL POST.
4. FOR ALL LONGITUDINAL BARS TOP AND BOTTOM WHERE THE ACTUAL LAP LENGTHS ARE GREATER THAN THE MINIMUM SPECIFIED, SET ALL LAPS IN A SINGLE LONGITUDINAL LINE TO BE APPROXIMATELY EQUAL LENGTHS.
5. ALL TRANSVERSE BARS SHALL BE ORIENTED RADIALLY, EXCEPT FOR S608.2 AND 609.2 WHICH SHALL BE SKEWED ALONG THE SUPPORT LINE.
6. 3" CLEAR, UNLESS SPECIFIED ELSEWHERE ON THE PLANS.
7. SEE DECK DETAILS SHEET FOR DETAILS A THROUGH D.

NOTE:

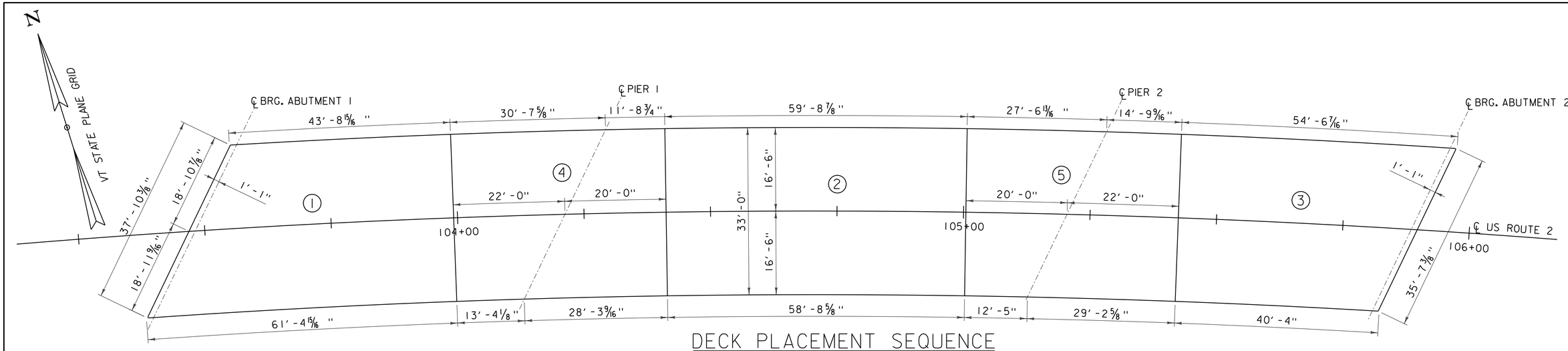
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.



DECK REINFORCING CURB SECTION

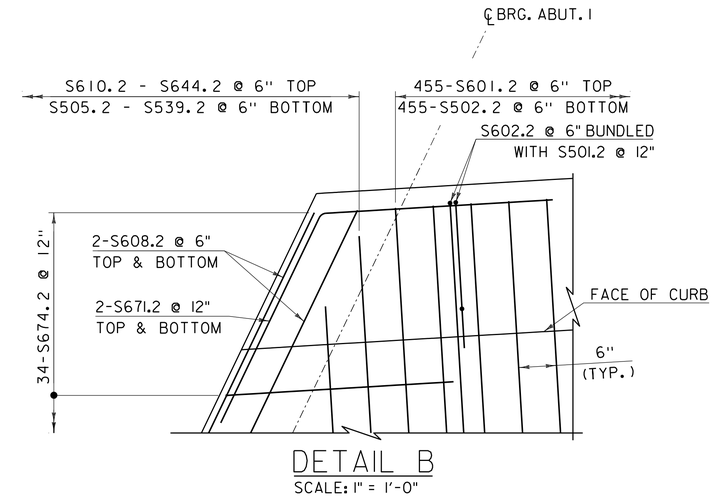
SCALE: ½" = 1'-0"

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602sup3.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: K. KITTREDGE
DESIGNED BY: K. KITTREDGE	CHECKED BY: R.GAUDREAU
DECK REINFORCEMENT PLAN	SHEET 41 OF 130



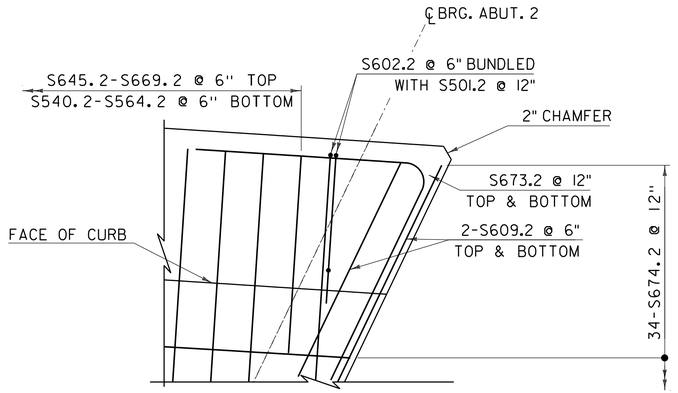
DECK PLACEMENT SEQUENCE

SCALE: 1" = 10'-0"



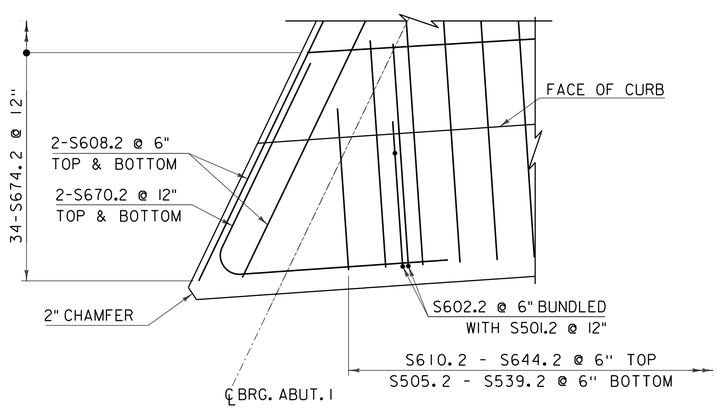
DETAIL B

SCALE: 1" = 1'-0"



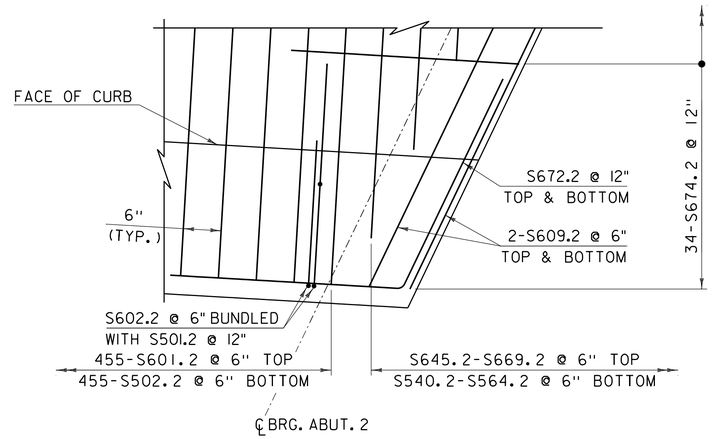
DETAIL C

SCALE: 1" = 1'-0"



DETAIL A

SCALE: 1" = 1'-0"



DETAIL D

SCALE: 1" = 1'-0"

NOTES:

1. THE BRIDGE DECK SHALL BE PLACED IN ACCORDANCE WITH THE PLACEMENT SEQUENCE SHOWN ON THE PLANS. THE CONTRACTOR MAY SUBMIT AN ALTERNATIVE PLACEMENT PLAN FOR APPROVAL.

2. THE DECK SHALL REMAIN PLASTIC FOR THE DURATION OF EACH POUR. THE INITIAL SET (500 PSI) OF ALL CONCRETE MUST NOT OCCUR UNTIL AFTER THE COMPLETION OF THE CURRENT PHASE OF DECK PLACEMENT. AN APPROVED RETARDER SHALL BE USED WHEN NECESSARY TO RETAIN THE WORKABILITY OF CONCRETE.

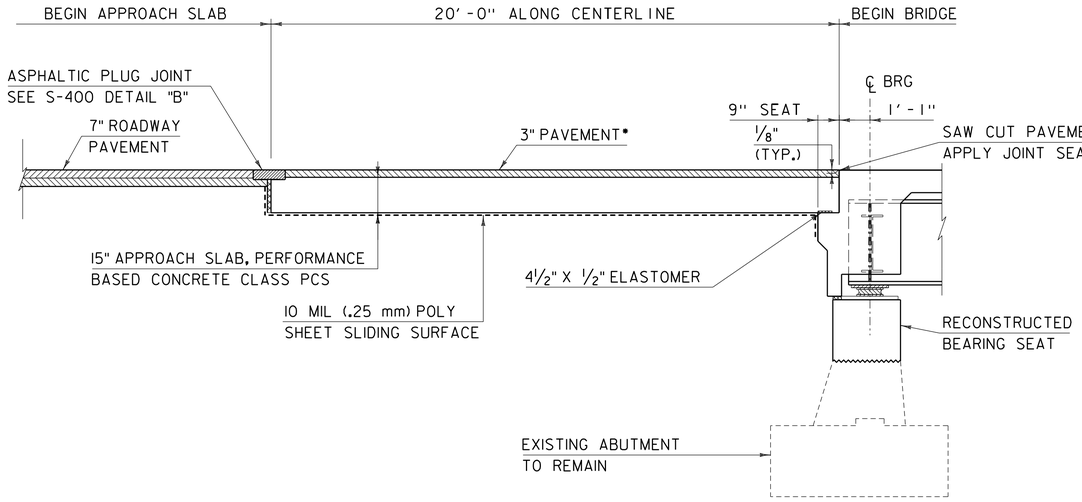
3. A MINIMUM OF 72 HRS SHALL PASS BETWEEN PLACEMENTS.

4. NOT ALL LONGITUDINAL BARS ARE SHOWN IN DETAILS A-D FOR CLARITY.

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602sup3.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: K. KITTREDGE
DECK DETAILS

PLOT DATE: 8/18/2022
DRAWN BY: K. KITTREDGE
CHECKED BY: R. GAUDREAU
SHEET 42 OF 130

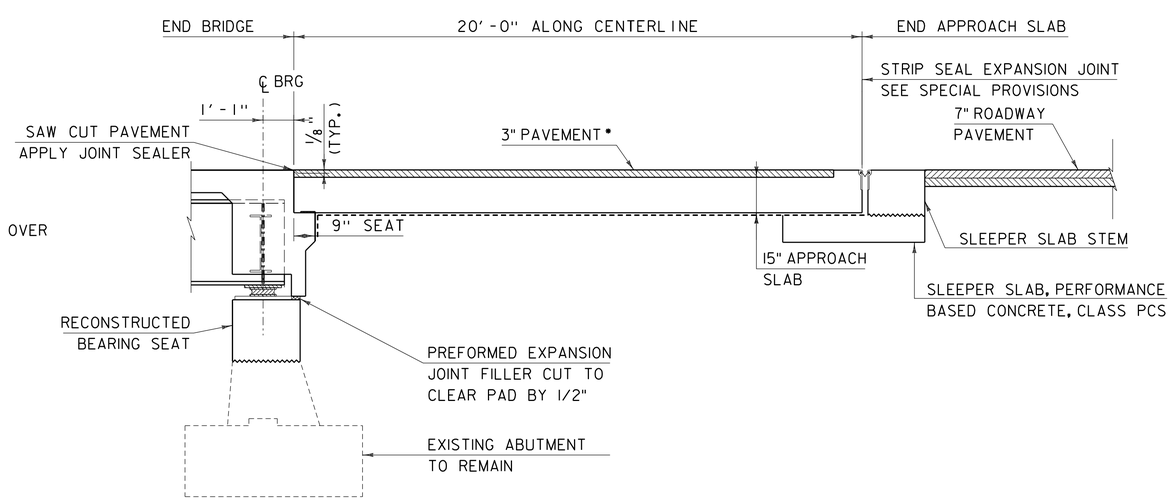


*1½" TYPE IV OVER
1½" TYPE IV

ABUTMENT 1- SEMI-INTEGRAL END DETAIL

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

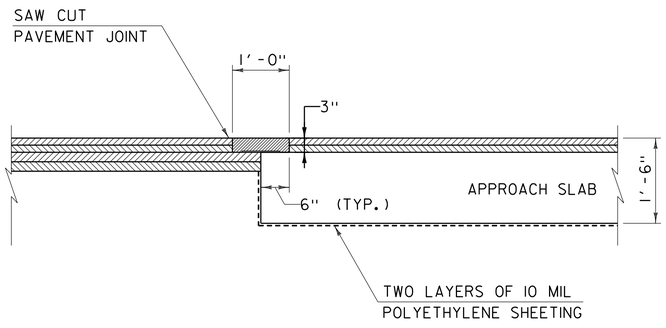
(REINFORCEMENT NOT SHOWN FOR CLARITY)



ABUTMENT 2 - SEMI-INTEGRAL END DETAIL

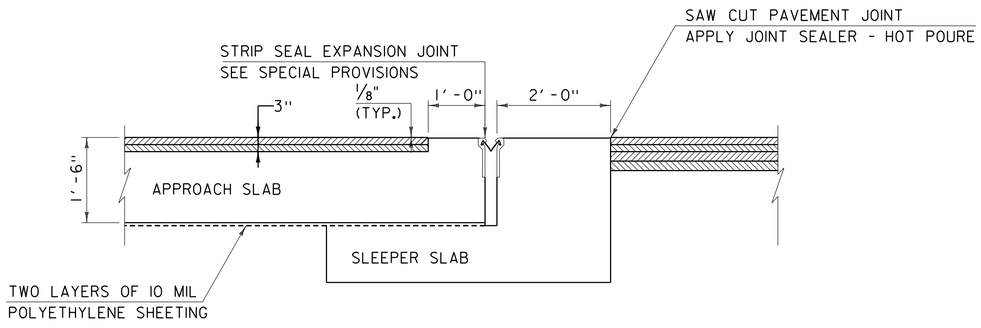
SCALE: 3/8" = 1'-0"

(REINFORCEMENT NOT SHOWN FOR CLARITY)



APPROACH SLAB 1- END DETAIL

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



APPROACH SLAB 2 - END DETAIL

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

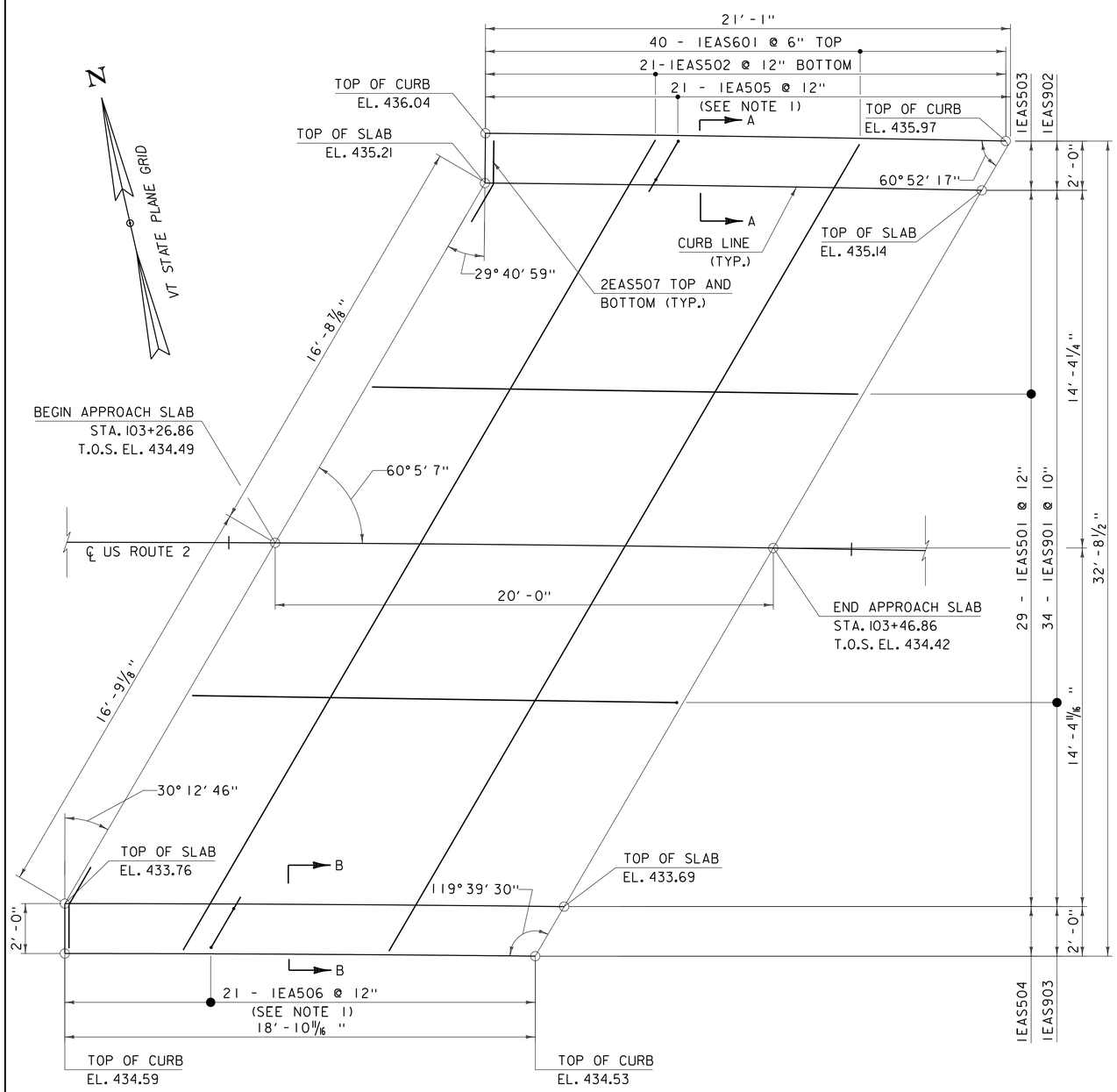
NOTES:

1. COMPACT THE SUBBASE IN THE AREA UNDER THE APPROACH SLAB TO A SMOOTH SURFACE.

2. MATERIAL FOR POLYETHYLENE SHEETING SHALL MEET THE REQUIREMENTS OF SUBSECTION 725.01(c) OF THE STANDARD SPECIFICATIONS. PLACE THE SHEETING ON TOP OF THE FINISHED SUBBASE FOR THE FULL LENGTH OF THE APPROACH SLAB. LAP SHEETING AT LEAST 24 INCHES . PAYMENT SHALL BE INCIDENTAL TO ITEM 900.608, "SPECIAL PROVISION (PERFORMANCE BASED CONCRETE, CLASS PCS)".

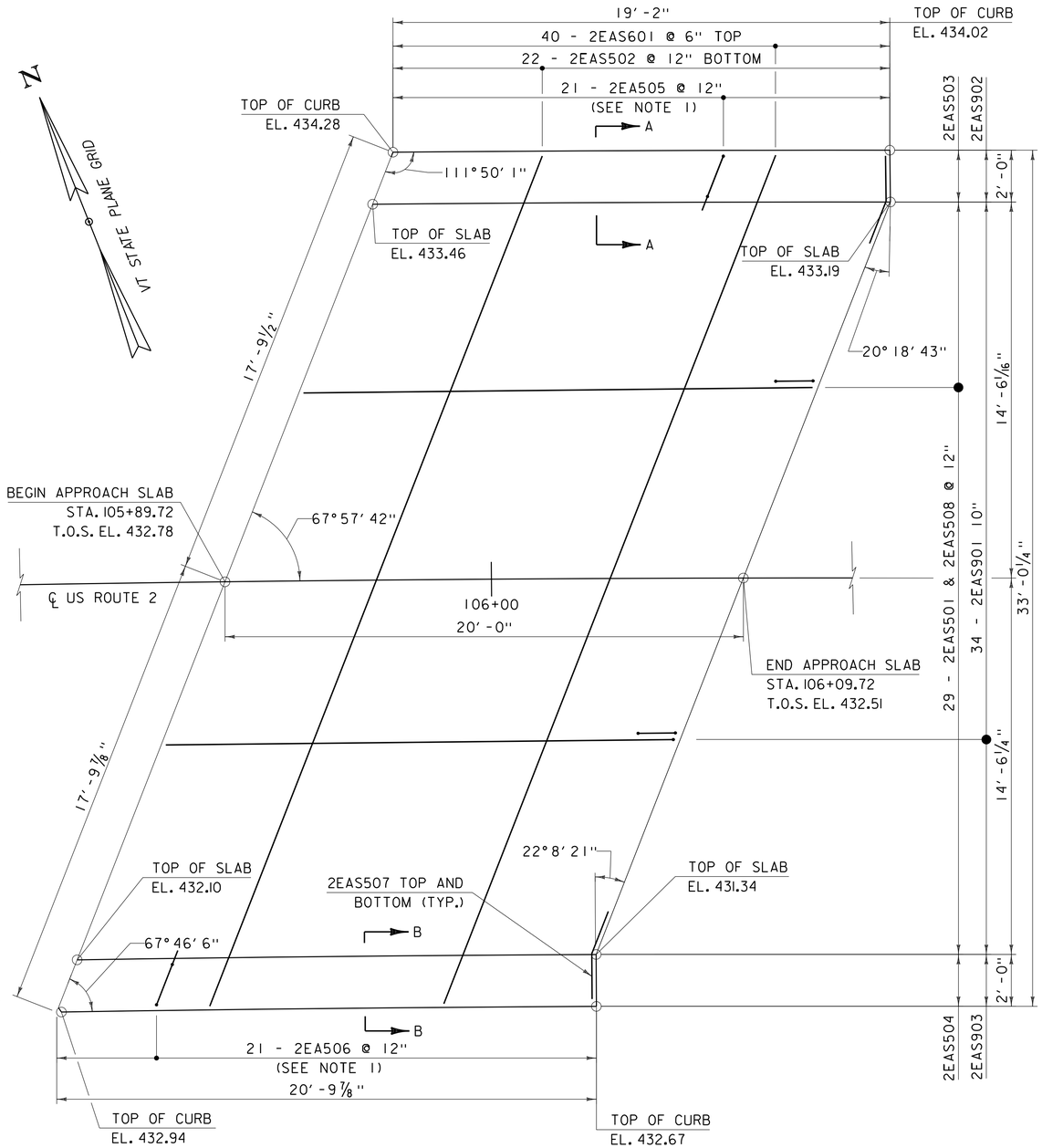
3. PAYMENT FOR BOND BREAKER SHALL BE INCIDENTAL TO THE CONCRETE ITEMS.

PROJECT NAME: WATERBURY	
PROJECT NUMBER: BF 0284(33)	
FILE NAME: zl2c602sup2.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C.BELLISLE
DESIGNED BY: R.GAUDREAU	CHECKED BY: M.OOMS
END OF DECK DETAILS	SHEET 43 OF 130



APPROACH SLAB NO. 1 PLAN

SCALE: ⅜" = 1'-0"



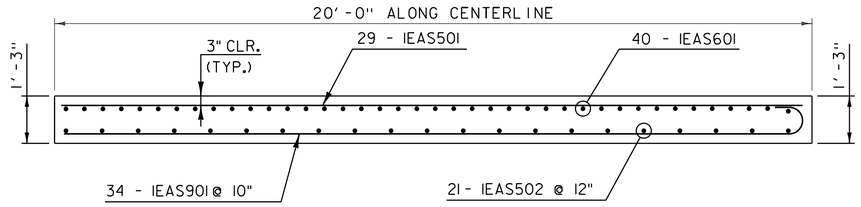
APPROACH SLAB NO. 2 PLAN

SCALE: ⅜" = 1'-0"

NOTES:

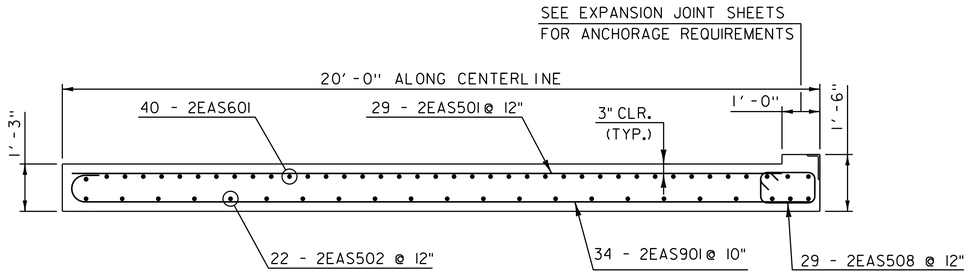
1. SEE CURB AND RAIL LAYOUT SHEET FOR RAIL POST LOCATIONS.
2. SEE APPROACH SLAB DETAILS 2 SHEET FOR SECTIONS A & B.

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602sup2.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: K. KITTREDGE
DESIGNED BY: R.GAUDREAU	CHECKED BY: M.OOMS
APPROACH SLAB DETAILS 1	SHEET 44 OF 130



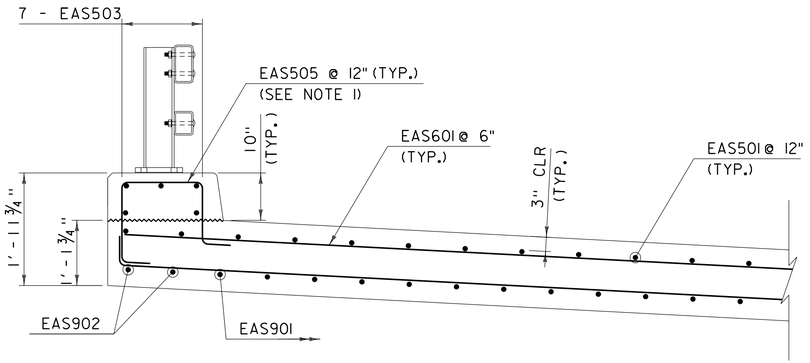
APPROACH SLAB 1 REINFORCEMENT

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



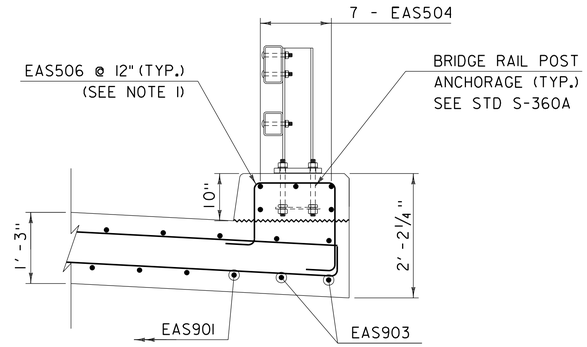
APPROACH SLAB 2 REINFORCEMENT

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



APPROACH SLAB SECTION A-A

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

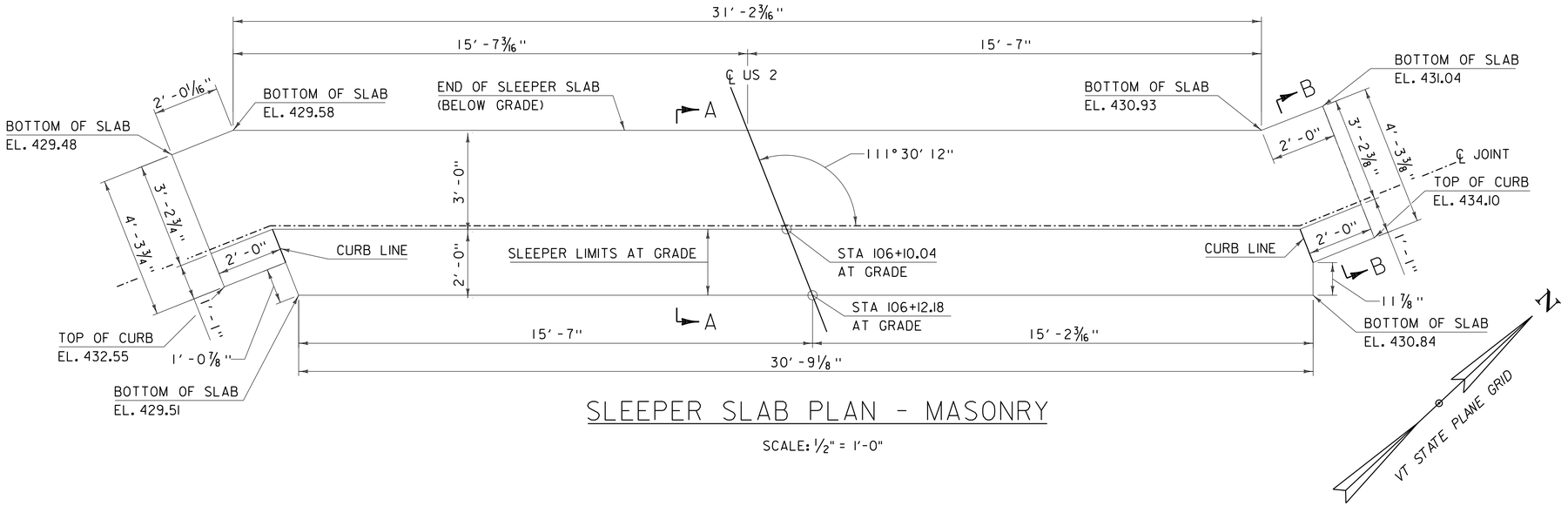


APPROACH SLAB SECTION B-B

SCALE: 3/4" = 1'-0"
(ABUTMENT 2 SHOWN, ABUTMENT 1 SIMILAR)

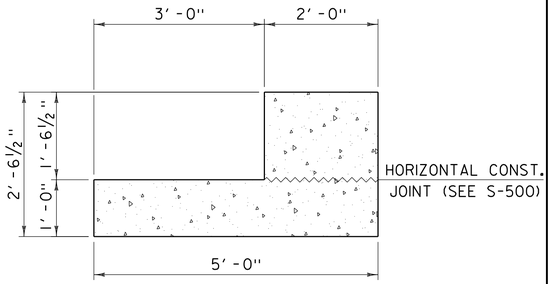
NOTES:
1. PROVIDE 3 ADDITIONAL EAS505 OR EAS506 AT EACH RAIL POST.

PROJECT NAME: WATERBURY	
PROJECT NUMBER: BF 0284(33)	
FILE NAME: z12c602sup2.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C.BELLISLE
DESIGNED BY: R.GAUDREAU	CHECKED BY: M.OOMS
APPROACH SLAB DETAILS 2	SHEET 45 OF 130



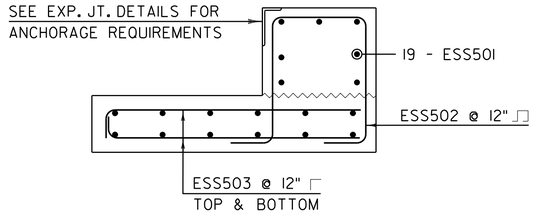
SLEEPER SLAB PLAN - MASONRY

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



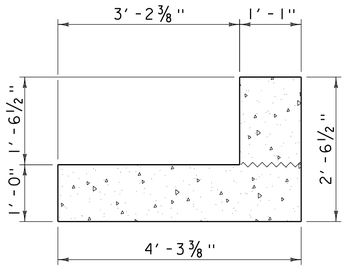
SECTION A-A MASONRY

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



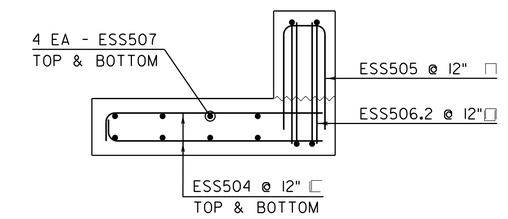
SECTION A-A REINFORCEMENT

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



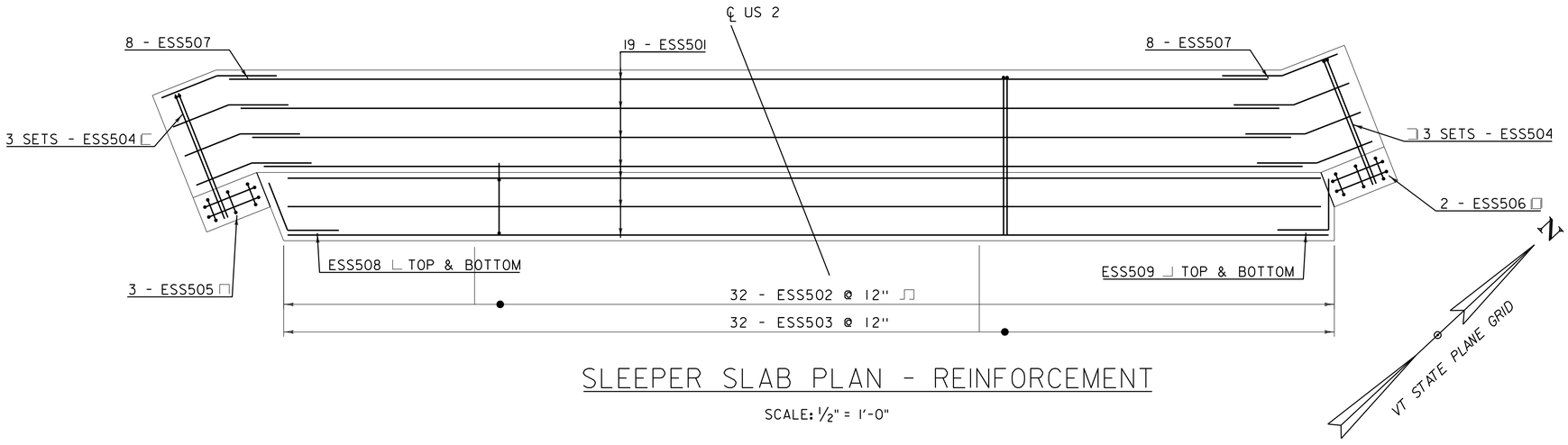
SECTION B-B MASONRY

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



SECTION B-B MASONRY

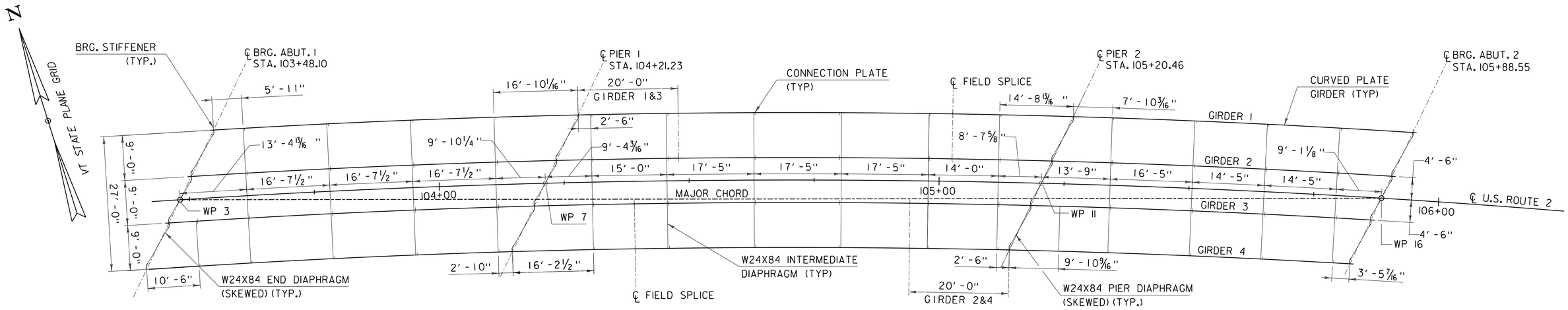
SCALE: 3/4" = 1'-0"



SLEEPER SLAB PLAN - REINFORCEMENT

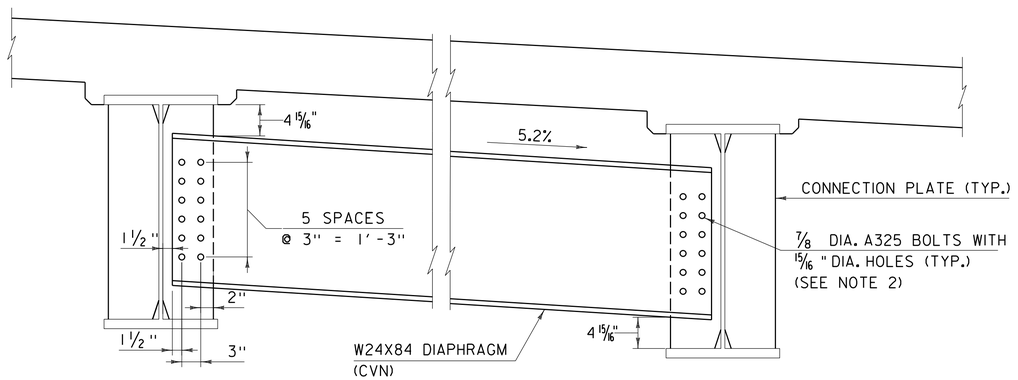
SCALE: 1/2" = 1'-0"

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602sub3.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: K. KITTREDGE
DESIGNED BY: R.GAUDREAU	CHECKED BY: M.OOMS
SLEEPER SLAB DETAILS	SHEET 46 OF 130



FRAMING PLAN

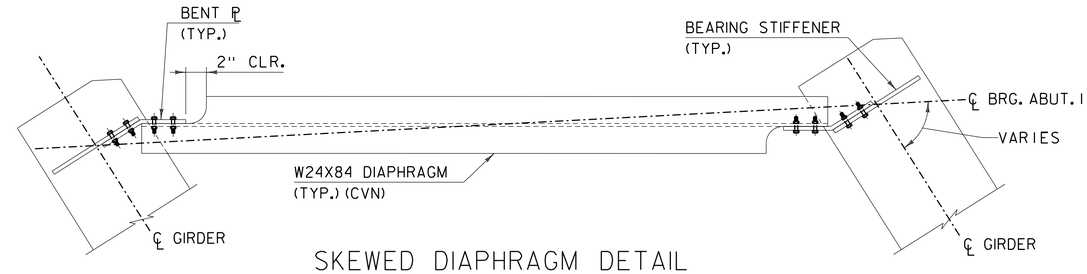
SCALE: 1" = 10'-0"



DIAPHRAGM DETAIL

SCALE: 1" = 1'-0"

(DIAPHRAGMS IN ADJACENT BAYS NOT SHOWN FOR CLARITY)



SKEWED DIAPHRAGM DETAIL AT ABUTMENTS AND PIERS

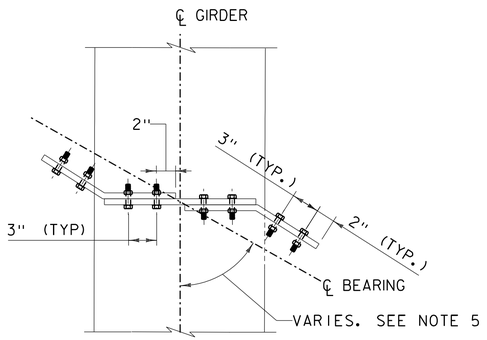
SCALE: 1" = 1'-0"

(ABUTMENT 1 SHOWN, OTHER SUPPORTS SIMILAR)

(DIAPHRAGMS IN ADJACENT BAYS NOT SHOWN FOR CLARITY)

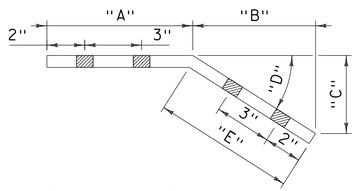
NOTES:

1. THE CONTRACTOR SHALL SUBMIT SHOP SPLICE LOCATIONS FOR APPROVAL.
2. BUTT WELDS AT WEB AND FLANGE SPLICES SHALL BE COMPLETE JOINT PENETRATION WELDS AND SHALL BE GROUND SMOOTH AND FLUSH IN THE LONGITUDINAL DIRECTION OF THE GIRDER.
3. HOLES IN CONNECTION PLATES MAY BE OVERSIZED TO 1 1/16" DIAMETER TO FACILITATE FIELD FIT UP. ALL OTHER HOLES SHALL BE 15/16" DIAMETER.
4. SEE STD. S-601 FOR DIAPHRAGM, STIFFENER CONNECTIONS, AND WELD TERMINATION REQUIREMENTS.
5. SEE SUBSTRUCTURE SHEETS FOR SKEW ANGLES.



TYPICAL SKEWED DIAPHRAGM CONNECTION

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



BENT PLATE DETAIL

SCALE: 3" = 1'-0"

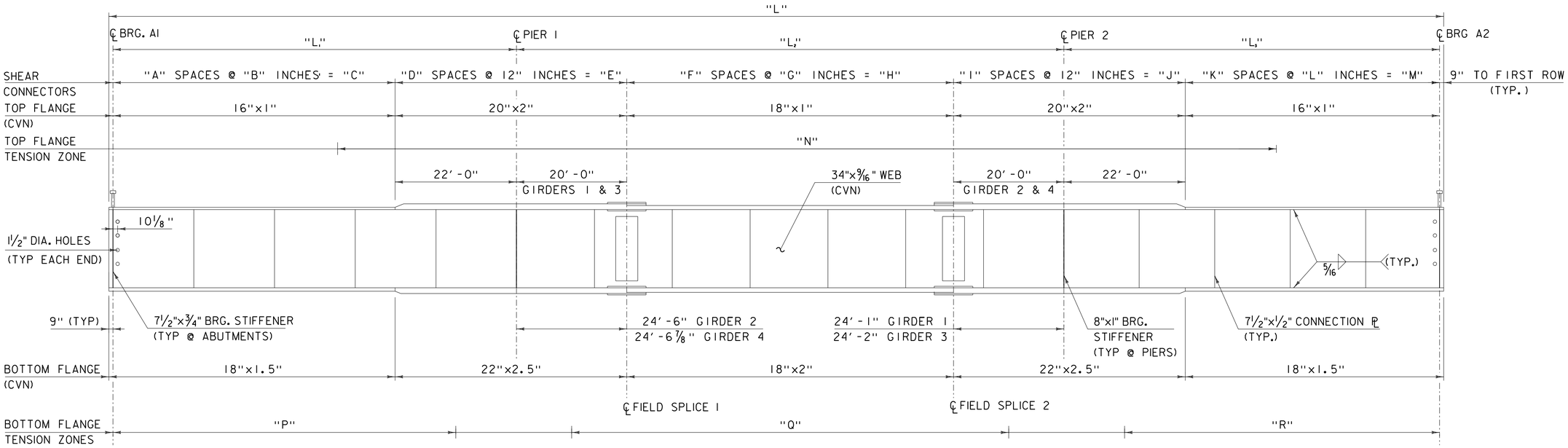
SUPPORT LINE	"A" & "E" (INCH)	"B" (INCH)	"C" (INCH)	"D" (DEG)
ABUT. 1	7 1/2"	6 5/16"	4"	32.3
PIER. 1	7 1/2"	6 1/2"	3 3/4"	30.0
PIER. 2	7 1/2"	6 11/16"	3 7/16"	27.3
ABUT. 2	7 1/2"	6 13/16"	3 3/16"	24.9

NOTES: THE DIMENSIONS AND ANGLES SHOWN IN THE ABOVE TABLE AND BENT PLATE DETAIL ARE APPROXIMATE AND INCLUDED TO IDENTIFY THE CHANGES RESULTING FROM THE VARIABLE SKEW ANGLES AT ALL SUPPORT LOCATIONS. FINAL SIZES AND LAYOUT SHALL BE COMPLETED BY THE STEEL FABRICATOR IN THE SHOP DRAWINGS, WITH THE EXCEPTION OF THE 3" BOLT SPACING WHICH SHALL BE MAINTAINED.

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602sup.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R. GAUDREAU
FRAMING PLAN

PLOT DATE: 8/18/2022
DRAWN BY: K. KITTREDGE
CHECKED BY: M.OOMS



TYPICAL GIRDER ELEVATION

SCALE: 1" = 10' HORIZ. 1" = 2' VERT.

GIRDER NUMBER	"L"	"L1"	"L2"	"L3"	"A" (COUNT)	"B" (INCH)	"C"	"D" (COUNT)	"E"	"F" (COUNT)	"G" (INCH)	"H"	"I" (COUNT)	"J"	"K" (COUNT)	"L" (INCH)	"M"	"N"	"P"	"Q"	"R"
1	240.06	72.98	99.07	68.01	102	6	51.7	42	42.0	111	6	55.0	47	46.1	93	6	46.7	169.75	61.98	79.07	57.01
2	240.32	73.08	99.18	68.06	103	6	51.8	47	46.5	110	6	54.7	42	42.0	93	6	46.8	170	62.08	79.18	57.06
3	240.58	73.18	99.28	68.12	103	6	51.9	42	42.0	111	6	55.1	47	46.2	93	6	46.9	170.25	62.18	79.28	57.12
4	240.86	73.28	99.39	68.18	103	6	52.0	47	46.5	110	6	54.9	42	42.0	93	6	46.9	170.5	62.28	79.39	57.18

UNITS IN FEET UNLESS OTHERWISE NOTED

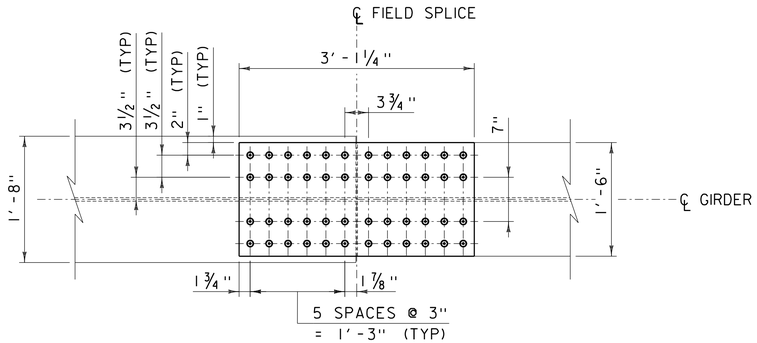
NOTES:

1. ALL LENGTHS ON THIS SHEET ARE MEASURED ALONG THE ARC LENGTH OF THE GIRDER UNLESS OTHERWISE SPECIFIED.
2. GIRDERS AND DIAPHRAGMS SHALL BE CHARPY V-NOTCH TESTED (CVN) IN ACCORDANCE WITH SUBSECTION 714.01.
3. SEE FRAMING PLAN FOR DIAPHRAGM LAYOUT.
4. ALL INTERMEDIATE DIAPHRAGMS SHALL BE RADIALLY ALIGNED AND SPACED ALONG THE BASELINE AS SHOWN ON THE FRAMING PLAN. ALL SKEWED DIAPHRAGMS AT SUPPORTS SHALL BE ALIGNED PARALLEL TO THE SUPPORT.

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

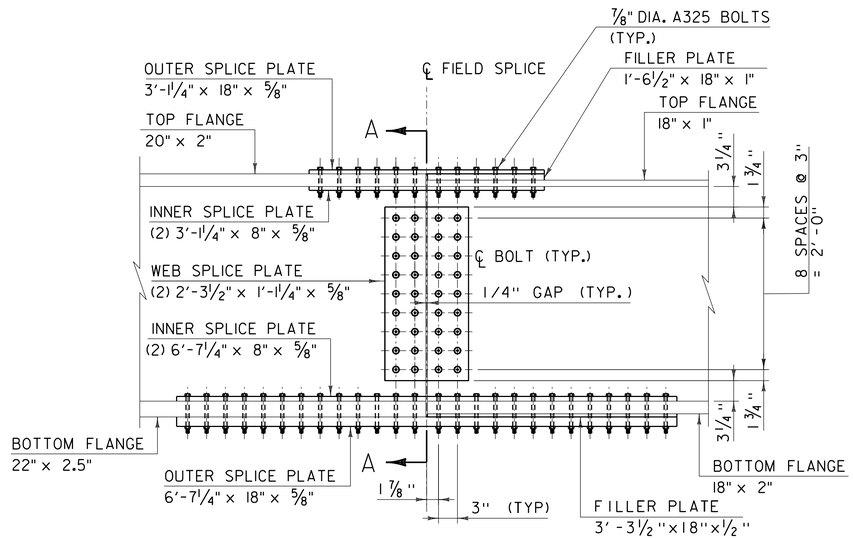
FILE NAME: z12c602sup.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R. GAUDREAU
GIRDER ELEVATION

PLOT DATE: 8/18/2022
DRAWN BY: K. KITTREDGE
CHECKED BY: M.OOMS
SHEET 48 OF 130



PLAN - TOP FLANGE FIELD SPLICE

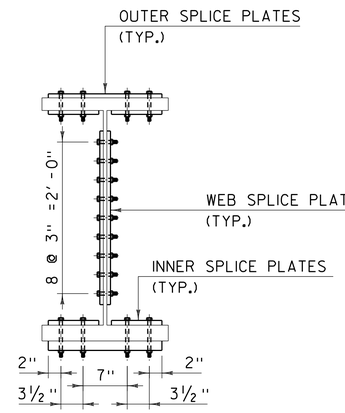
SCALE: 1" = 1′-0"



ELEVATION - FIELD SPLICE

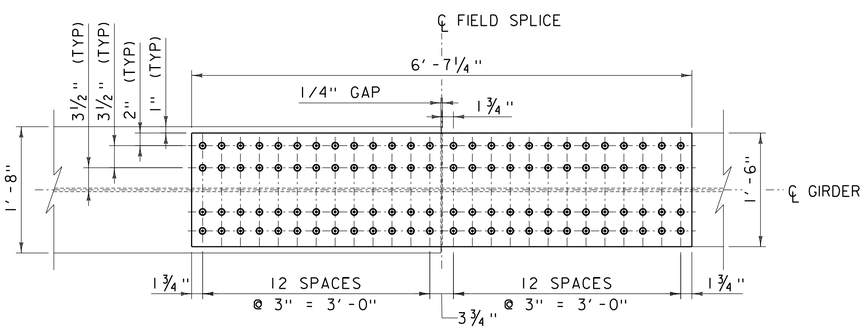
SCALE: 1" = 1′-0"

NOTE: CHARPY V-NOTCH TESTING IS NOT REQUIRED ON FILLER PLATES.



SECTION A-A

SCALE: 1" = 1′-0"



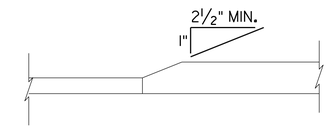
PLAN - BOTTOM FLANGE FIELD SPLICE

SCALE: 1" = 1′-0"

NOTE: FIELD SPLICE LOCATION 1 SHOWN, FIELD SPLICE LOCATION 2 MIRRORED.

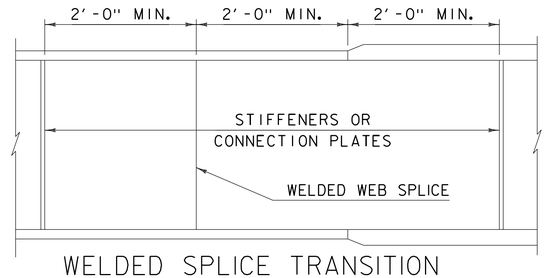
FLANGE COPE DETAIL

SCALE: 1" = 1′-0"



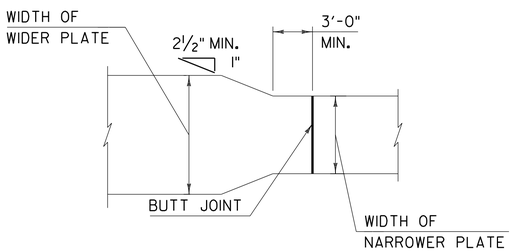
FLANGE TRANSITION BUTT WELD

(NOT TO SCALE)

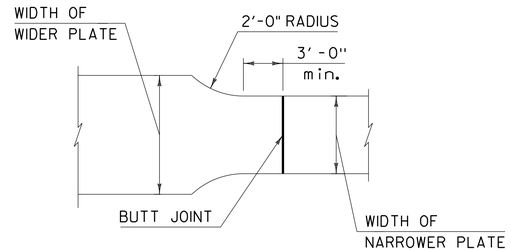


WELDED SPLICE TRANSITION

(NOT TO SCALE)



STRAIGHT TAPERED TRANSITION

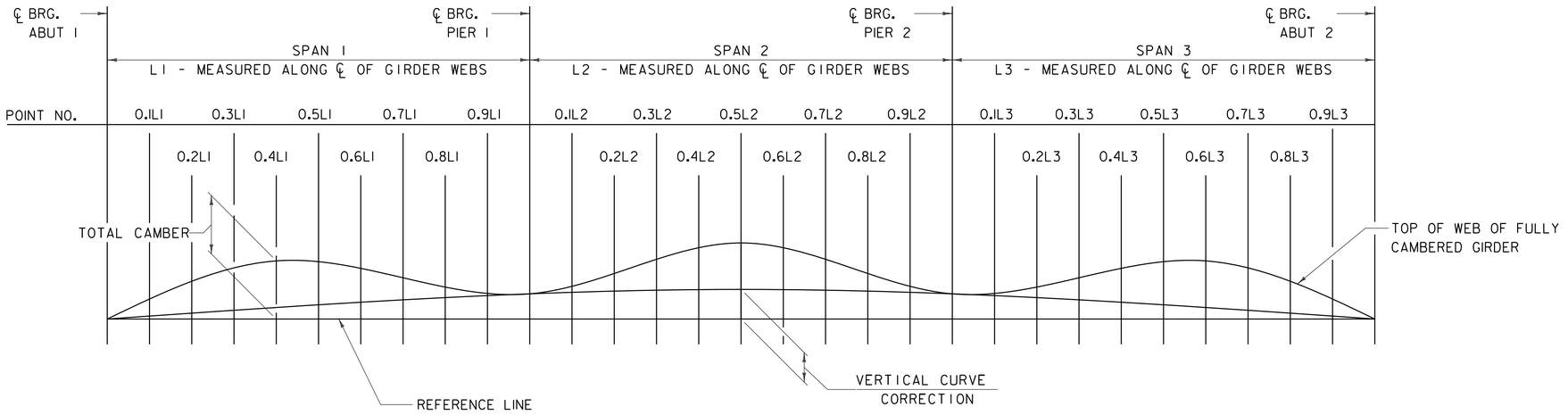


2′-0" RADIUS TRANSITION

FLANGE TRANSITION DETAILS

(NOT TO SCALE)

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602sup.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
SUPERSTRUCTURE DETAILS	SHEET 49 OF 130



Camber Table		C.L. BRG. Abut. 1	0.1 L_1	0.2 L_1	0.3 L_1	0.4 L_1	0.5 L_1	0.6 L_1	0.7 L_1	0.8 L_1	0.9 L_1	C.L. Pier 1	0.1 L_2	0.2 L_2	0.3 L_2	0.4 L_2	0.5 L_2	0.6 L_2	0.7 L_2	0.8 L_2	0.9 L_2	C.L. Pier 2	0.1 L_3	0.2 L_3	0.3 L_3	0.4 L_3	0.5 L_3	0.6 L_3	0.7 L_3	0.8 L_3	0.9 L_3	C.L. BRG. Abut. 2
Girder 1	1. Steel DL Deflection	0.00	-0.04	-0.08	-0.10	-0.10	-0.09	-0.07	-0.04	-0.01	0.01	0.00	-0.07	-0.17	-0.26	-0.33	-0.35	-0.33	-0.27	-0.17	-0.07	0.00	0.01	0.00	-0.02	-0.04	-0.06	-0.07	-0.07	-0.05	-0.03	0.00
	2. Concrete DL Deflection	0.00	-0.15	-0.28	-0.36	-0.38	-0.36	-0.29	-0.20	-0.10	-0.03	0.00	-0.11	-0.29	-0.46	-0.58	-0.62	-0.58	-0.47	-0.30	-0.12	0.00	-0.01	-0.06	-0.13	-0.20	-0.24	-0.26	-0.25	-0.19	-0.11	0.00
	3. Superimposed DL Deflection	0.00	-0.03	-0.06	-0.07	-0.08	-0.08	-0.06	-0.04	-0.02	-0.01	0.00	-0.03	-0.08	-0.12	-0.16	-0.17	-0.16	-0.13	-0.08	-0.03	0.00	0.00	-0.01	-0.03	-0.04	-0.05	-0.06	-0.05	-0.04	-0.02	0.00
	4. Vertical Curve	0.00	0.29	0.57	0.86	1.14	1.43	1.71	2.00	2.28	2.57	2.85	3.21	3.50	3.72	3.89	3.98	4.01	3.98	3.89	3.72	3.50	3.29	3.05	2.78	2.48	2.14	1.78	1.38	0.95	0.49	0.00
	Total Deflection (1 + 2 + 3)	0.00	-0.23	-0.41	-0.53	-0.56	-0.52	-0.42	-0.28	-0.13	-0.03	0.00	-0.22	-0.54	-0.85	-1.06	-1.14	-1.07	-0.86	-0.55	-0.23	0.00	0.00	-0.07	-0.17	-0.28	-0.35	-0.39	-0.37	-0.29	-0.16	0.00
	Total Camber (1 + 2 + 3 + 4)	0.00	0.51	0.98	1.38	1.71	1.95	2.13	2.27	2.42	2.59	2.85	3.43	4.04	4.57	4.95	5.12	5.08	4.84	4.44	3.95	3.50	3.29	3.12	2.96	2.76	2.50	2.17	1.75	1.24	0.65	0.00
Girder 2	1. Steel DL Deflection	0.00	-0.04	-0.08	-0.10	-0.10	-0.09	-0.07	-0.04	-0.01	0.00	0.00	-0.07	-0.17	-0.26	-0.32	-0.35	-0.33	-0.26	-0.17	-0.07	0.00	0.01	0.00	-0.02	-0.04	-0.06	-0.07	-0.07	-0.05	-0.03	0.00
	2. Concrete DL Deflection	0.00	-0.15	-0.28	-0.36	-0.39	-0.36	-0.30	-0.21	-0.11	-0.03	0.00	-0.11	-0.29	-0.46	-0.58	-0.62	-0.58	-0.47	-0.30	-0.12	0.00	-0.01	-0.06	-0.13	-0.20	-0.25	-0.27	-0.25	-0.20	-0.11	0.00
	3. Superimposed DL Deflection	0.00	-0.03	-0.05	-0.07	-0.07	-0.07	-0.06	-0.04	-0.02	-0.01	0.00	-0.03	-0.07	-0.11	-0.14	-0.16	-0.15	-0.12	-0.08	-0.03	0.00	0.00	-0.01	-0.02	-0.04	-0.05	-0.05	-0.05	-0.04	-0.02	0.00
	4. Vertical Curve	0.00	0.29	0.57	0.86	1.14	1.43	1.71	2.00	2.28	2.57	2.85	3.21	3.50	3.73	3.89	3.98	4.02	3.98	3.89	3.73	3.50	3.29	3.05	2.78	2.48	2.15	1.78	1.38	0.95	0.49	0.00
	Total Deflection (1 + 2 + 3)	0.00	-0.22	-0.41	-0.52	-0.56	-0.52	-0.42	-0.28	-0.14	-0.03	0.00	-0.22	-0.53	-0.83	-1.04	-1.12	-1.06	-0.85	-0.55	-0.23	0.00	0.00	-0.07	-0.18	-0.28	-0.35	-0.39	-0.36	-0.29	-0.16	0.00
	Total Camber (1 + 2 + 3 + 4)	0.00	0.51	0.98	1.38	1.70	1.95	2.14	2.28	2.42	2.60	2.85	3.42	4.03	4.56	4.93	5.11	5.07	4.84	4.44	3.96	3.50	3.30	3.13	2.96	2.76	2.50	2.17	1.75	1.24	0.65	0.00
Girder 3	1. Steel DL Deflection	0.00	-0.04	-0.08	-0.10	-0.11	-0.09	-0.07	-0.04	-0.01	0.00	0.00	-0.07	-0.17	-0.26	-0.32	-0.34	-0.32	-0.26	-0.17	-0.07	0.00	0.01	0.00	-0.02	-0.04	-0.06	-0.07	-0.07	-0.05	-0.03	0.00
	2. Concrete DL Deflection	0.00	-0.15	-0.28	-0.36	-0.39	-0.37	-0.30	-0.21	-0.11	-0.03	0.00	-0.11	-0.28	-0.45	-0.57	-0.62	-0.58	-0.47	-0.31	-0.13	0.00	-0.01	-0.06	-0.13	-0.20	-0.25	-0.27	-0.25	-0.19	-0.11	0.00
	3. Superimposed DL Deflection	0.00	-0.03	-0.05	-0.07	-0.07	-0.07	-0.06	-0.04	-0.02	0.00	0.00	-0.03	-0.07	-0.11	-0.14	-0.15	-0.14	-0.12	-0.08	-0.03	0.00	0.00	-0.01	-0.02	-0.04	-0.04	-0.05	-0.05	-0.04	-0.02	0.00
	4. Vertical Curve	0.00	0.29	0.57	0.86	1.14	1.43	1.71	2.00	2.28	2.57	2.86	3.21	3.50	3.73	3.89	3.99	4.02	3.99	3.89	3.73	3.50	3.29	3.05	2.78	2.48	2.15	1.78	1.38	0.95	0.49	0.00
	Total Deflection (1 + 2 + 3)	0.00	-0.23	-0.41	-0.53	-0.57	-0.53	-0.43	-0.29	-0.15	-0.03	0.00	-0.21	-0.52	-0.82	-1.03	-1.11	-1.05	-0.85	-0.55	-0.23	0.00	0.00	-0.07	-0.17	-0.27	-0.35	-0.38	-0.36	-0.28	-0.16	0.00
	Total Camber (1 + 2 + 3 + 4)	0.00	0.51	0.98	1.38	1.71	1.96	2.14	2.29	2.43	2.60	2.86	3.42	4.02	4.55	4.92	5.10	5.07	4.83	4.44	3.96	3.50	3.30	3.12	2.95	2.75	2.49	2.16	1.74	1.24	0.65	0.00
Girder 4	1. Steel DL Deflection	0.00	-0.04	-0.08	-0.10	-0.11	-0.10	-0.07	-0.04	-0.02	0.00	0.00	-0.07	-0.16	-0.25	-0.32	-0.34	-0.32	-0.26	-0.17	-0.07	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2. Concrete DL Deflection	0.00	-0.15	-0.28	-0.36	-0.39	-0.37	-0.30	-0.21	-0.11	-0.03	0.00	-0.10	-0.27	-0.44	-0.56	-0.60	-0.57	-0.46	-0.30	-0.12	0.00	-0.01	0.00	0.00	0.00	2.50	0.00	0.00	0.00	0.00	0.00
	3. Superimposed DL Deflection	0.00	-0.03	-0.06	-0.08	-0.08	-0.08	-0.07	-0.05	-0.02	-0.01	0.00	-0.03	-0.08	-0.12	-0.15	-0.16	-0.15	-0.12	-0.08	-0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4. Vertical Curve	0.00	0.29	0.57	0.86	1.14	1.43	1.71	2.00	2.29	2.57	2.86	3.21	3.50	3.73	3.89	3.99	4.02	3.99	3.89	3.73	3.50	3.29	3.05	2.78	2.48	2.15	1.78	1.38	0.95	0.49	0.00
	Total Deflection (1 + 2 + 3)	0.00	-0.23	-0.42	-0.54	-0.58	-0.54	-0.44	-0.30	-0.15	-0.04	0.00	-0.20	-0.51	-0.81	-1.02	-1.10	-1.04	-0.84	-0.55	-0.23	0.00	0.00	0.00	0.00	0.00	2.50	0.00	0.00	0.00	0.00	0.00
	Total Camber (1 + 2 + 3 + 4)	0.00	0.51	0.99	1.39	1.72	1.97	2.16	2.30	2.44	2.61	2.86	3.41	4.01	4.54	4.91	5.09	5.06	4.83	4.44	3.96	3.50	3.29	3.05	2.78	2.48	-0.35	1.78	1.38	0.95	0.49	0.00

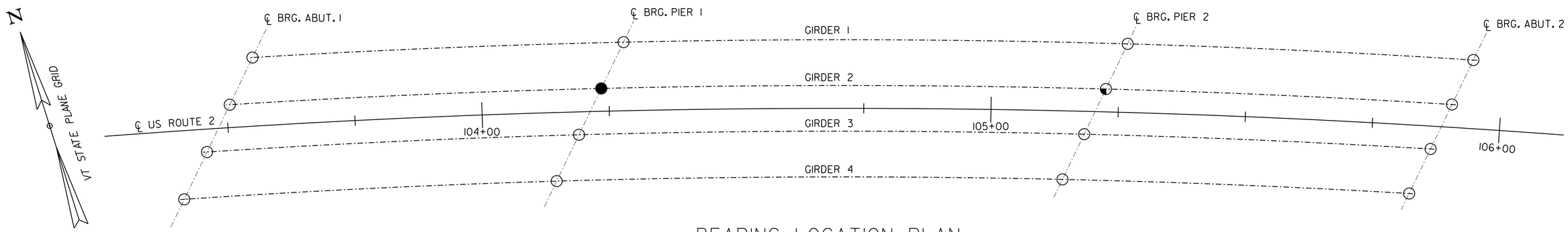
NOTES:

1. AFTER THE SUBSTRUCTURE STEEL HAS BEEN ERECTED, ELEVATIONS ALONG THE TOP OF THE GIRDERS SHALL BE TAKEN AS DIRECTED BY THE RESIDENT ENGINEER FOR USE IN DETERMINING FINISHED GRADES.

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602sup.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R. GAUDREAU
CAMBER DIAGRAM AND DEFLECTIONS TABLE

PLOT DATE: 8/18/2022
DRAWN BY: K. KITTREDGE
CHECKED BY: M.OOMS
SHEET 50 OF 130



BEARING LOCATION PLAN

N.T.S.

LEGEND:

- ○ EXPANSION DISC BEARING
- ◒ UNI-DIRECTIONAL DISC BEARING WITH GUIDE BARS PARALLEL TO CENTERLINE OF GIRDER TO ALLOW FOR TANGENTIAL MOVEMENT
- ● FIXED DISC BEARING

BEARING DESIGN TABLE

LOCATION	GIRDER NO.	BEARING FIXITY		VERTICAL LOADS (SERVICE)			HORIZONTAL LOADS (SERVICE)		MAXIMUM MOVEMENT & ROTATIONS					ESTIMATED BEARING HEIGHT "H"
		TANGENTIAL TO GIRDER	RADIAL (PERPENDICULAR TO GIRDER)	DEAD (K)	LIVE + IMPACT (K)	TOTAL VERTICAL (K)	LONGITUDINAL (K)	TRANSVERSE (K)	DEAD LOAD ROTATION (RAD)	CONSTRUCTION TOLERANCE (RAD)	LIVE LOAD ROTATION (RAD)	TANGENTIAL MOVEMENT (IN)	RADIAL MOVEMENT (IN)	(IN)
ABUT NO. 1	GIRDER 1	FREE	FREE	38.0	87.6	125.6	0	0	.003	.005	.002	.011	.011	6"
	GIRDER 2			39.9	87.2	127.0	0	0	.003	.005	.002	.010	.010	
	GIRDER 3			41.5	76.8	118.3	0	0	.003	.005	.002	.010	.010	
	GIRDER 4			38.2	51.8	90	0	0	.002	.005	.003	.010	.010	
PIER NO. 1	GIRDER 1	FREE	FREE	152.9	117.5	270.4	0	0	.000	.005	.002	.008	NA	6½"
	GIRDER 2	FIXED	FIXED	165.2	133.0	298.2	133.7	61.1	.001	.005	.002	.007	NA	11"
	GIRDER 3	FREE	FREE	155.4	135.2	290.6	0	0	.001	.005	.002	.008	NA	6½"
	GIRDER 4	FREE	FREE	154.9	116.6	271.5	0	0	.001	.005	.002	.008	NA	6½"
PIER NO. 2	GIRDER 1	FREE	FREE	148.9	104.6	253.5	0	0	.001	.005	.002	.008	NA	6½"
	GIRDER 2		FIXED	158.6	132.3	290.9	0	24.3	.001	.005	.002	.008	NA	8⅜"
	GIRDER 3		FREE	148.6	133.1	281.6	0	0	.001	.005	.002	.008	NA	6½"
	GIRDER 4		FREE	150.9	125.2	276.1	0	0	.001	.005	.002	.008	NA	6½"
ABUT NO. 2	GIRDER 1	FREE	FREE	36.2	52.6	88.7	0	0	.002	.005	.002	.009	.009	6½"
	GIRDER 2			36.0	77.5	113.6	0	0	.002	.005	.002	.009	.009	
	GIRDER 3			32.0	88.2	120.2	0	0	.002	.005	.002	.009	.009	
	GIRDER 4			38.1	87.5	125.6	0	0	.002	.005	.002	.009	.009	

SERVICE LOADS AND MOVEMENTS SHOWN IN THIS TABLE ARE MAXIMUM BEARING REACTIONS AND MOVEMENTS DURING ANY PHASE OF CONSTRUCTION FOR THE GIVEN LOCATION.

DESIGN TABLE NOTES:

1. DEAD LOAD ROTATION IS THE ANTICIPATED GIRDER END ROTATION DUE TO THE SELF WEIGHT OF THE SUPERSTRUCTURE AND IS PROVIDED FOR USE DURING THE CONSTRUCTION CONDITION. GIRDER ENDS SHALL BE PLUMB AFTER DEAD LOADS HAVE BEEN APPLIED.
2. THE TOTAL THERMAL MOVEMENT IS CALCULATED USING A TEMPERATURE RISE OF 88F AND A TEMPERATURE FALL OF 130F TO ACCOMMODATE THE THERMAL RANGE OF 150F (-30F TO 120F) AND A SETTING TEMPERATURE RANGE OF 32F TO 100F. STEEL SHALL NOT BE ERECTED OUTSIDE OF THE PRESCRIBED SETTING TEMPERATURE RANGE. THE 1.2 THERMAL LOAD FACTOR REQUIRED BY THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS HAS NOT BEEN APPLIED TO THE MOVEMENTS NOTED IN THE TABLE.
3. THE DIMENSION "H" IN THE BEARING TABLE REPRESENTS THE TOTAL HEIGHT OF THE BEARING DEVICE INCLUDING BEVELED SOLE AND MASONRY PLATES USED BY THE DESIGNER IN ESTABLISHING THE BRIDGE SEAT ELEVATIONS. THE CONTRACTOR SHALL RECOMPUTE ALL BRIDGE SEAT ELEVATIONS TO ACCURATELY REFLECT THE ACTUAL HEIGHT OF THE BEARING DEVICES SUPPLIED.

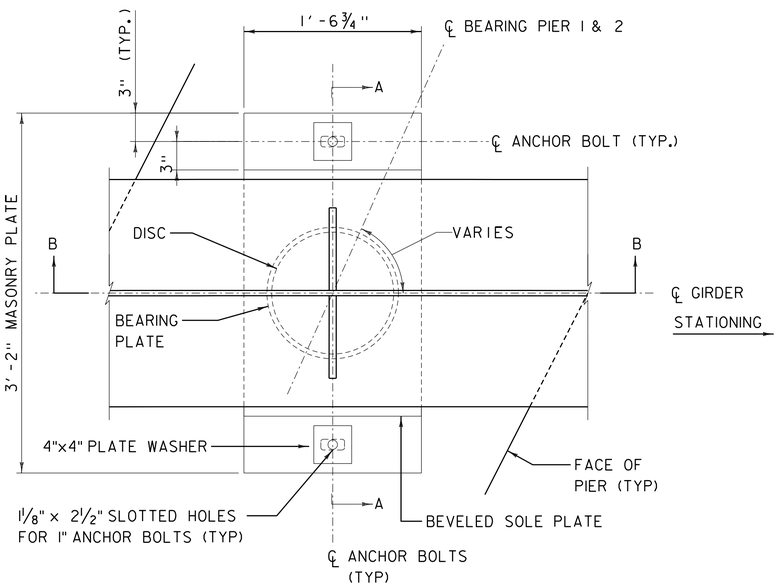
DISC BEARING NOTES:

1. FIXED AND GUIDED HIGH-LOAD MULTI-ROTATIONAL DISC BEARINGS, INCLUDING MASONRY PLATE, SOLE PLATE, ANCHOR BOLTS, NUTS, WASHERS, AND BEARING PAD SHALL BE PAID FOR UNDER ITEM 531.15 "BEARING DEVICE ASSEMBLY, HIGH LOAD MULTI-ROTATIONAL". BEARING DEVICES AND SHALL CONFORM TO APPLICABLE SUBSECTIONS OF SECTION 531.
2. EXCEPT FOR ANCHOR BOLTS AND MASONRY PLATE, THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL BEARING DEVICE ASSEMBLY COMPONENTS INCLUDING THE BEVELED SOLE PLATES AND CONNECTION TO THE MASONRY PLATE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION 2020. THE BEARING DEVICES SHALL BE CAPABLE OF TRANSMITTING THE LOADS AND MOVEMENTS SHOWN ON THESE PLANS.
3. ALL STEEL PLATES SHALL CONFORM TO AASHTO M270 GRADE 50 AND SHALL BE METALIZED PER SUBSECTION 726.09. DAMAGED COATING RESULTING FROM SHIPPING, ERECTION, OR INSTALLATION AND WELDING PROCEDURES SHALL BE REPAIRED AT NO ADDITIONAL CONTRACT COST.
4. BEARINGS SHALL BE DESIGNED TO ACCOMMODATE THE DEAD LOAD ROTATION PLUS CONSTRUCTION TOLERANCE AT GIRDER ERECTION. BEVELED SOLE PLATES ARE USED TO PROVIDE A LEVEL BEARING SURFACE AFTER ALL DEAD LOADS HAVE BEEN APPLIED. THEREFORE, IN THE FINAL CONDITION, THE BEARINGS SHALL BE DESIGNED TO ACCOMMODATE CONSTRUCTION TOLERANCE PLUS LIVE LOAD ROTATION. SEE BEARING DESIGN TABLE FOR DESIGN VALUES.

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_brg.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R. GAUDREAU
BEARING LOCATION PLAN

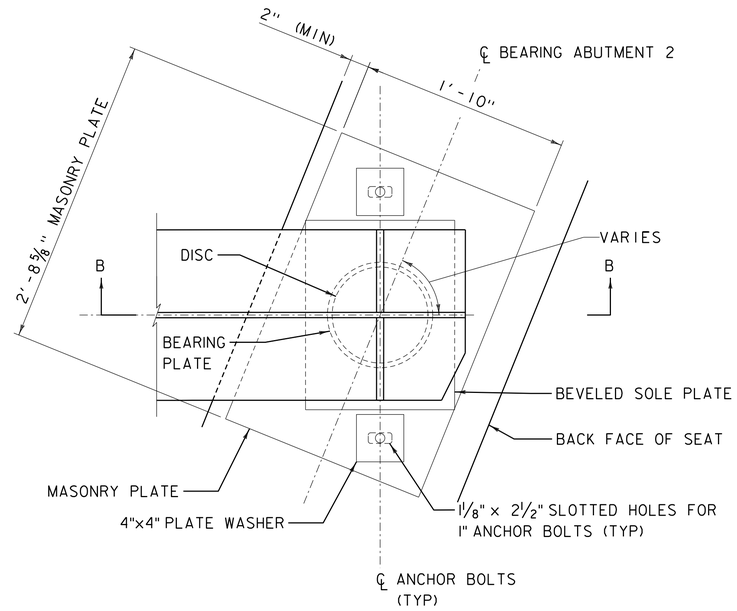
PLOT DATE: 8/18/2022
DRAWN BY: M. NEUROTH
CHECKED BY: M.OOMS
SHEET 51 OF 130



EXPANSION BEARING - AT PIERS

SCALE: 1½" = 1'-0"

(SEE BEARING DETAILS SHEET 2 FOR SECTION B-B)



EXPANSION BEARING - AT ABUTMENTS

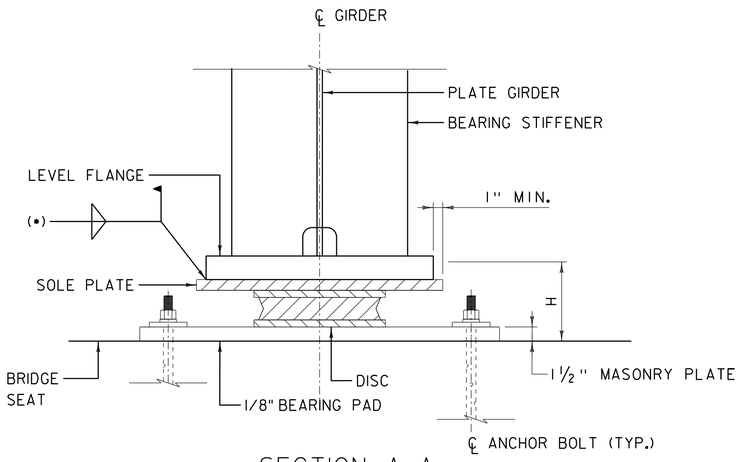
SCALE: 1½" = 1'-0"

(ABUTMENT 2 SHOWN, ABUTMENT 1 SIMILAR)

SEE SUBSTRUCTURE SHEETS FOR INDIVIDUAL SKEW ANGLES AT GIRDER LINES

ADDITIONAL BEARING NOTES:

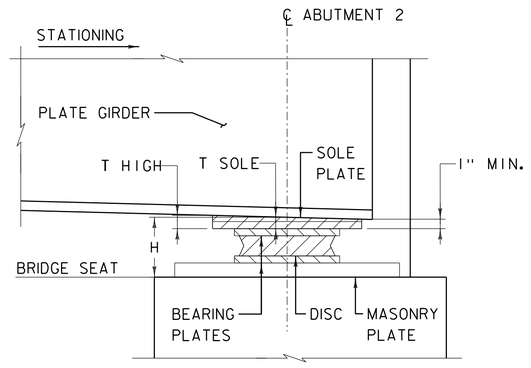
1. BEVELED SOLE PLATES SHALL BE DESIGNED TO PROVIDE A LEVEL BEARING SURFACE AFTER ALL DEAD LOADS HAVE BEEN APPLIED. BEVELED SOLE PLATE LENGTH AND THICKNESSES USED BY THE DESIGNER FOR GEOMETRIC LAYOUT HAVE BEEN PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING NO GEOMETRIC CONFLICTS EXIST IF THE BEVELED SOLE PLATE DIMENSIONS PROVIDED ARE CHANGED.
2. ANCHOR BOLTS SHALL BE SWEDGED ASTM F-1554 GRADE 105 AND SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH SUBSECTION 714.08. ANCHOR BOLTS SHALL HAVE A MINIMUM OF 6 INCHES OF THREAD. THREADS SHALL BE BURRED ABOVE THE NUT TO PREVENT NUT REMOVAL. NUTS AND WASHERS SHALL BE GALVANIZED AND CONFORM TO SUBSECTION 714.08.
3. ALL ANCHOR BOLTS SHALL BE SET BY TEMPLATE BEFORE THE CONCRETE IS PLACED.
4. BEARINGS SHALL BE ALIGNED NORMAL TO THE CENTERLINE OF GIRDER.
5. 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.
6. THE STAINLESS STEEL PLATES SHALL BE TYPE 304 ASTM A240, AND SURFACES IN CONTACT WITH THE PTFE SHALL HAVE A #8 MIRROR FINISH.
7. RECESS AND BOND THE PTFE TO THE TOP AND SIDES OF THE UPPER BEARING PLATE WITH AN APPROVED ADHESIVE. THE SURFACE PREPERATION OF THE PTFE AND MATING STEEL SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS.
8. THE SLIDING BEARING FRICTION COEFFICIENT SHALL NOT EXCEED 6%. ALL COMPONENTS OF THE BEARING SYSTEM WHICH ARE LIABLE TO COME INTO CONTACT DURING TRANSLATION SHALL HAVE A PTFE/ STAINLESS STEEL SLIDING INTERFACE.
9. BEARING DEVICE ASSEMBLIES SHALL BE PLACED ON ⅛" THICK PREFORMED FABRIC BEARING PADS IN ACCORDANCE WITH SUBSECTION 731.01. ALL COSTS INCIDENTAL TO ITEM 531.15.



SECTION A-A

SCALE: 1½" = 1'-0"

(PIER BEARING SHOWN, ABUTMENT BEARING SIMILAR)

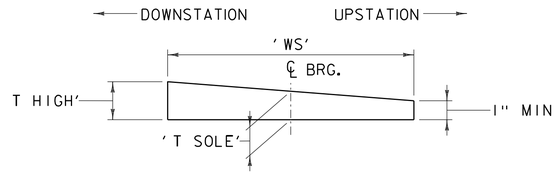


SECTION B-B

SCALE: 1½" = 1'-0"

(CURTAIN WALL NOT SHOWN FOR CLARITY)

(•) MANUFACTURER SHALL SIZE THE WELD FOR THE BEARING ASSEMBLY CHOSEN, HOWEVER THE WELD SHALL NOT BE LESS THAN 5/16".



SOLE PLATE DETAIL

SCALE: 1" = 1'-0"

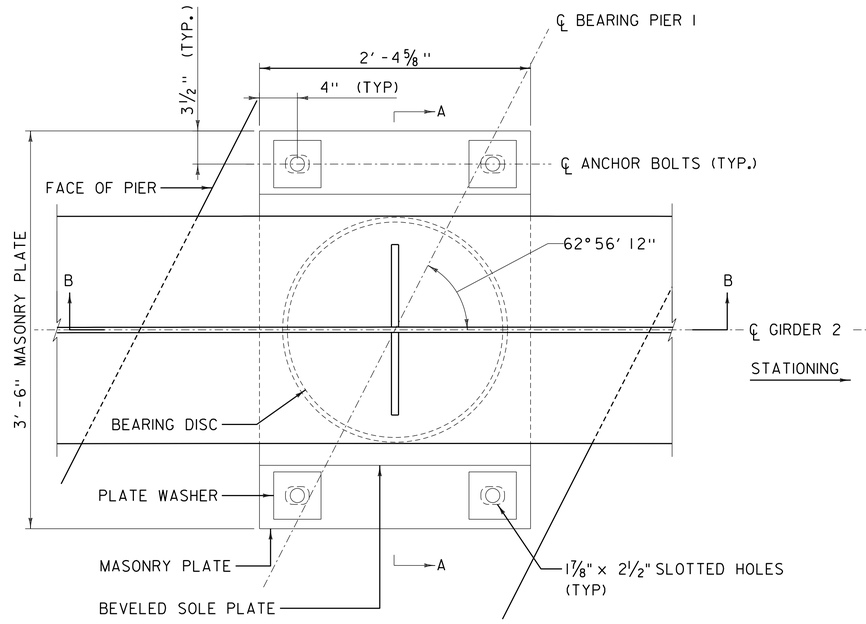
LOCATION	T HIGH	T SOLE	T LOW
ABUTMENT 1	1¼"	1⅛"	1"
PIER 1	1¼"	1⅛"	1"
PIER 2	1 11/16"	1 5/16"	1"
ABUTMENT 2	1 15/16"	1 7/16"	1"

•THE BEVELED SOLE PLATE SIZES SHOWN IN THIS TABLE ARE BASED ON ASSUMED BEARING SIZES. THE CONTRACTOR SHALL CONFIRM THESE DIMENSIONS BASED ON THE FINAL BEARING ASSEMBLY. MINIMUM THICKNESS SHALL NOT BE LESS THAN 1".

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

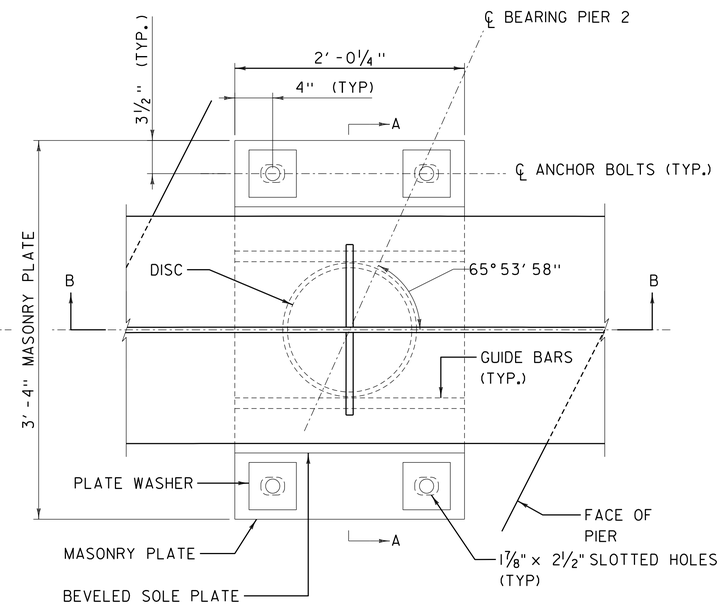
FILE NAME: z12c602_brg.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R. GAUDREAU
BEARING DETAILS 1

PLOT DATE: 8/18/2022
DRAWN BY: M. NEUROTH
CHECKED BY: M.OOMS
SHEET 52 OF 130



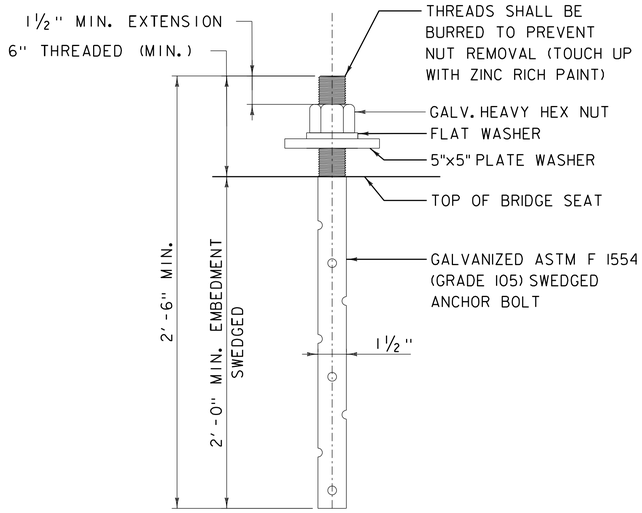
FIXED BEARING

SCALE: 1½" = 1'-0"



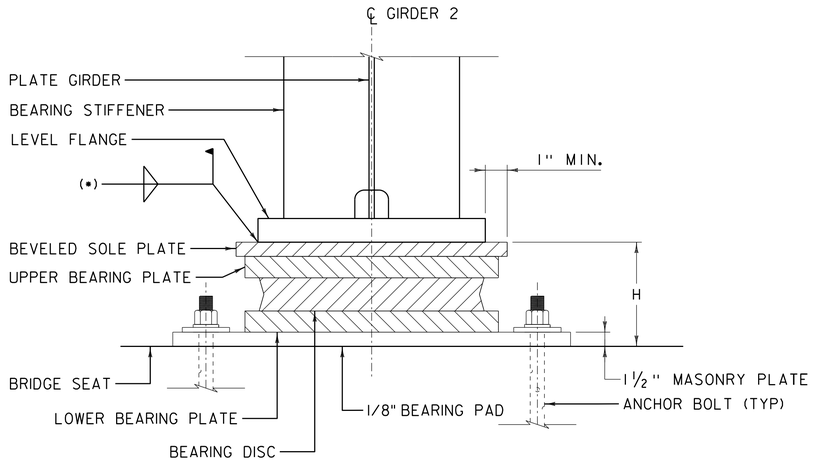
GUIDED BEARING AT PIER 2

SCALE: 1½" = 1'-0"



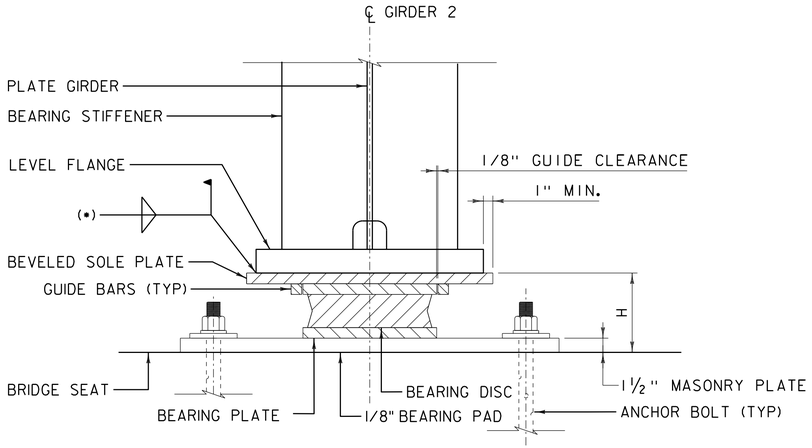
ANCHOR BOLT DETAIL

NOT TO SCALE



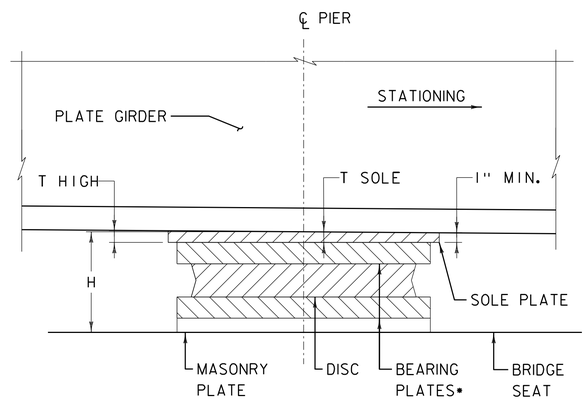
FIXED BEARING - SECTION A-A

SCALE: 1½" = 1'-0"



GUIDED BEARING - SECTION A-A

SCALE: 1½" = 1'-0"



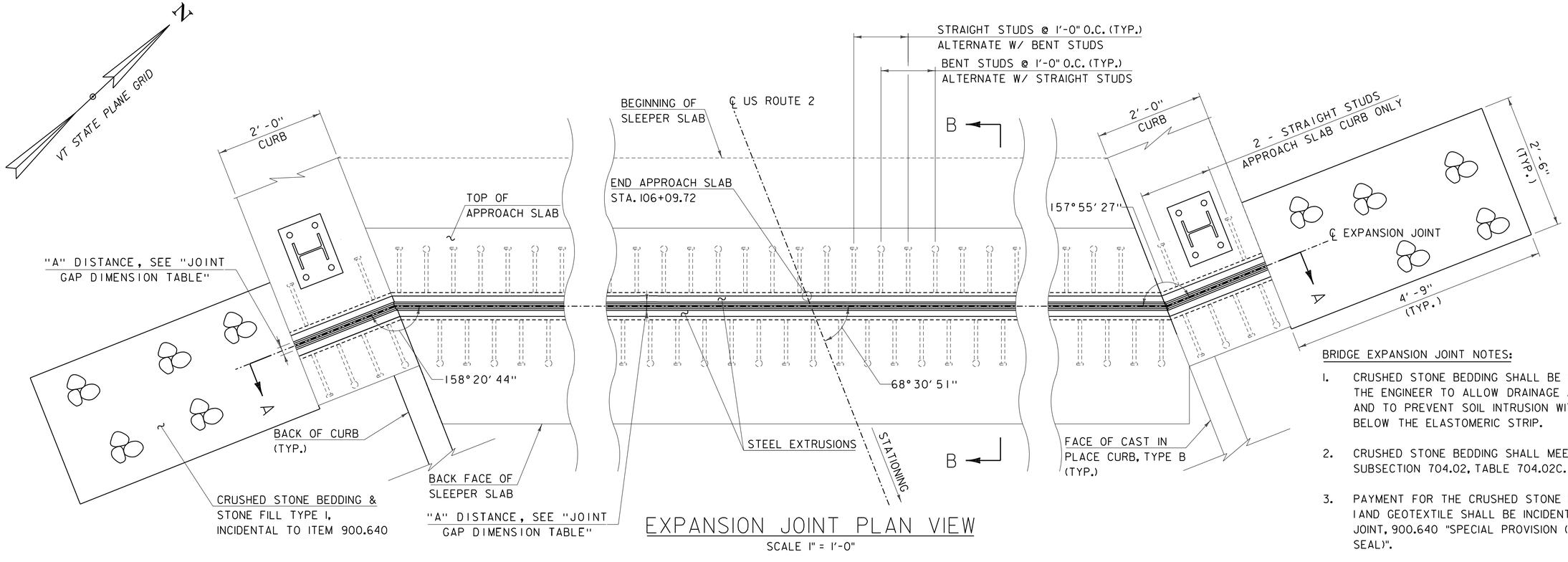
(FIXED BEARING SHOWN, GUIDED AND EXPANSION BEARINGS SIMILAR)
•AND GUIDE BARS (GUIDED BEARING ONLY)

SECTION B-B

SCALE: 1½" = 1'-0"

(•) MANUFACTURER SHALL SIZE THE WELD FOR THE BEARING ASSEMBLY CHOSEN, HOWEVER THE WELD SHALL NOT BE LESS THAN 5/16".

PROJECT NAME: WATERBURY	
PROJECT NUMBER: BF 0284(33)	
FILE NAME: z12c602_brg.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: M. NEUROTH
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
BEARING DETAILS 2	SHEET 53 OF 130

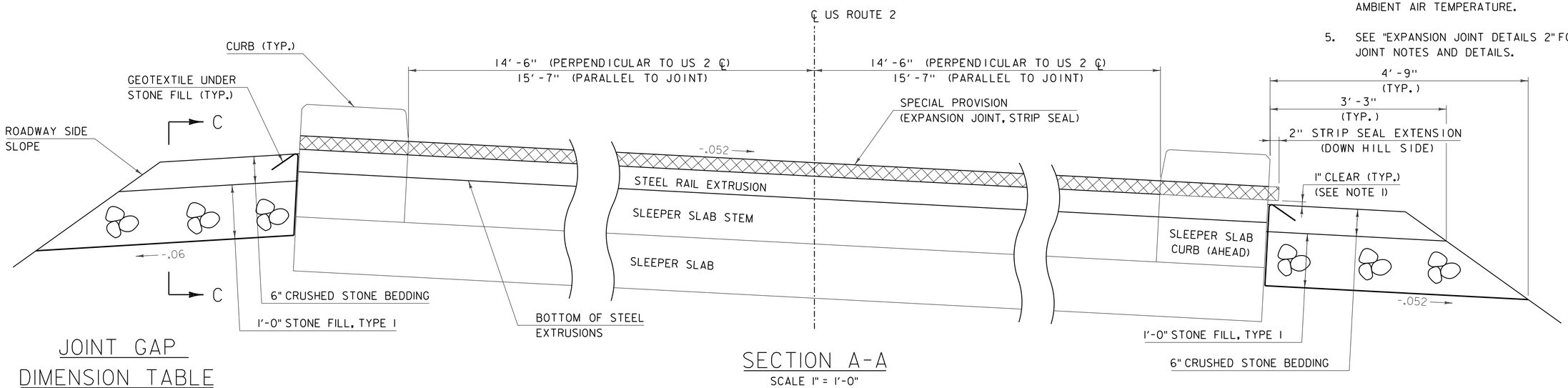


EXPANSION JOINT PLAN VIEW

SCALE 1" = 1'-0"

BRIDGE EXPANSION JOINT NOTES:

1. CRUSHED STONE BEDDING SHALL BE GRADED AS DIRECTED BY THE ENGINEER TO ALLOW DRAINAGE AWAY FROM THE ROADWAY AND TO PREVENT SOIL INTRUSION WITHIN THE JOINT OPENING BELOW THE ELASTOMERIC STRIP.
2. CRUSHED STONE BEDDING SHALL MEET THE REQUIREMENTS OF SUBSECTION 704.02, TABLE 704.02C.
3. PAYMENT FOR THE CRUSHED STONE BEDDING, STONE FILL, TYPE I AND GEOTEXTILE SHALL BE INCIDENTAL TO THE EXPANSION JOINT, 900.640 "SPECIAL PROVISION (EXPANSION JOINT, STRIP SEAL)".
4. TEMPERATURES PROVIDED IN THE JOINT SETTING TABLE ARE THAT OF THE STEEL GIRDERS AND NOT NECESSARILY THE AMBIENT AIR TEMPERATURE.
5. SEE "EXPANSION JOINT DETAILS 2" FOR ADDITIONAL EXPANSION JOINT NOTES AND DETAILS.



SECTION A-A

SCALE 1" = 1'-0"

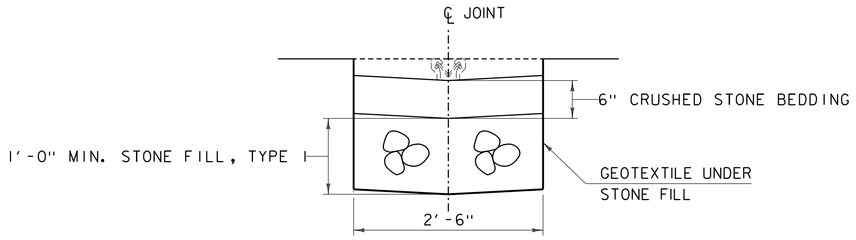
JOINT GAP DIMENSION TABLE

TEMP	"A" DIST.
15 F	$2\frac{9}{16}$"
30 F	$2\frac{3}{16}$"
45 F	$1\frac{13}{16}$"
60 F	$1\frac{1}{2}$"
75 F	$1\frac{1}{8}$"
90 F	$\frac{3}{4}$"
105 F	$\frac{3}{8}$"

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

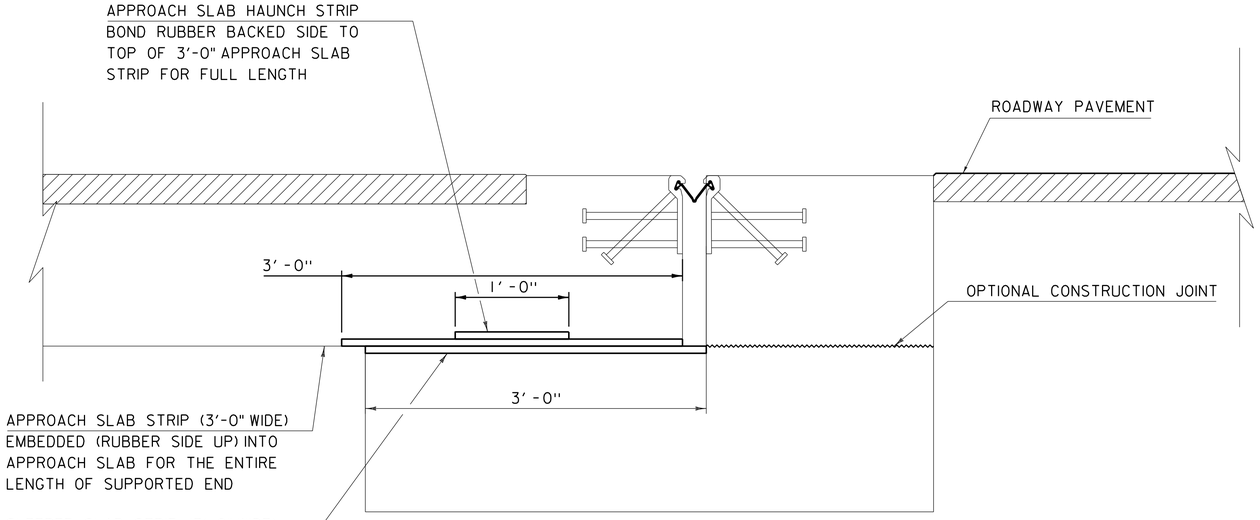
FILE NAME: z12c602sub3.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R.GAUDREAU
EXPANSION JOINT DETAILS 1

PLOT DATE: 8/18/2022
DRAWN BY: C.BELLISLE
CHECKED BY: M.OOMS
SHEET 54 OF 130



SECTION C-C

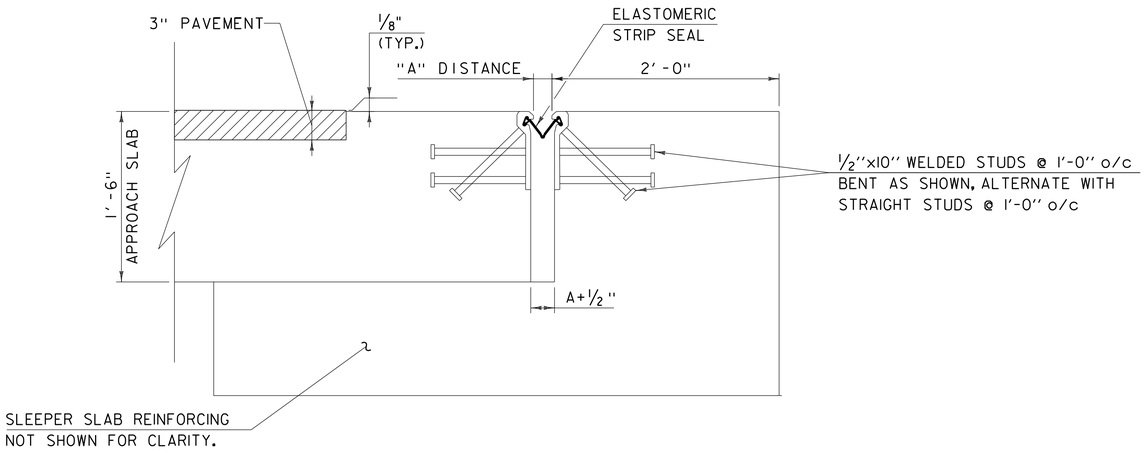
SCALE 1" = 1'-0"



BEARING STRIP DETAILS

SCALE 1½" = 1'-0"

BEARING STRIPS SHALL BE RUBBER BACKED UHMW-PE, ¼" MINIMUM THICK (⅜" MAXIMUM). ALL COSTS INCIDENTAL TO ITEM 900.640 "SPECIAL PROVISION (EXPANSION JOINT, STRIP SEAL)".



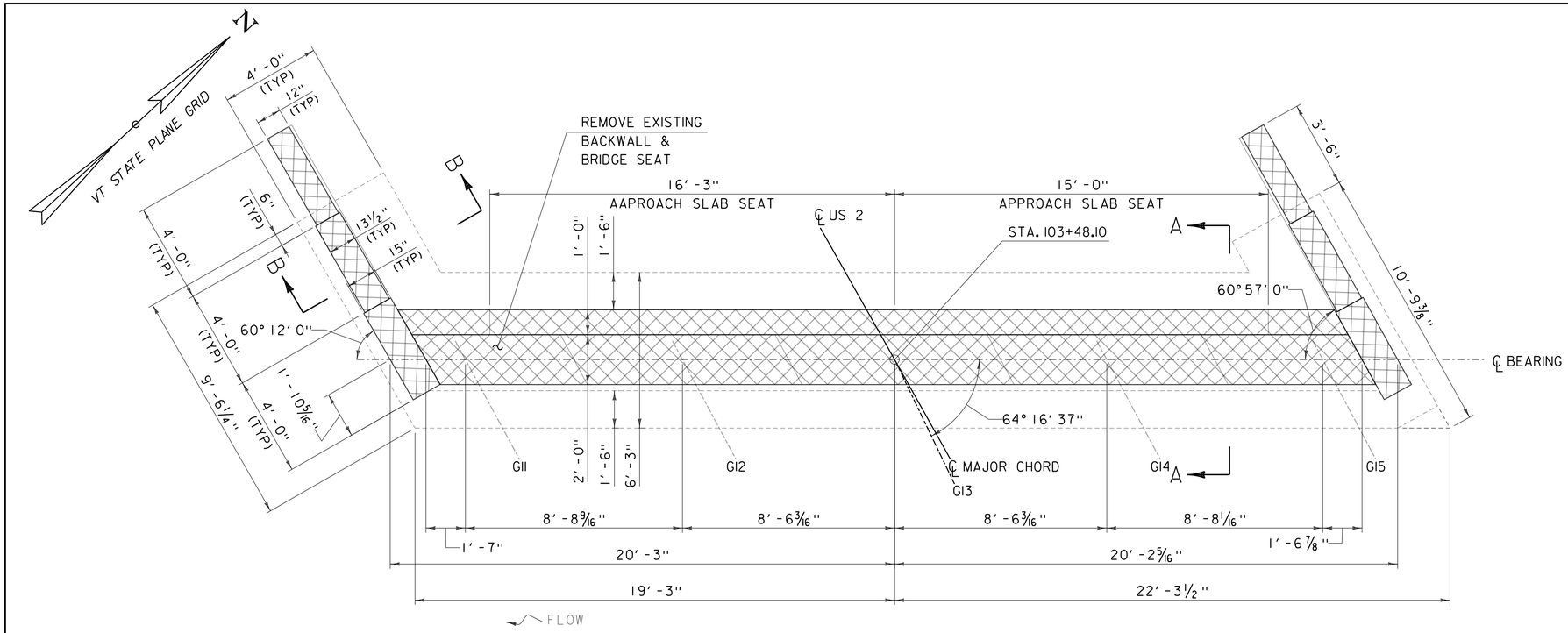
SECTION B-B

SCALE 1½" = 1'-0"

EXPANSION JOINT DETAIL NOTES:

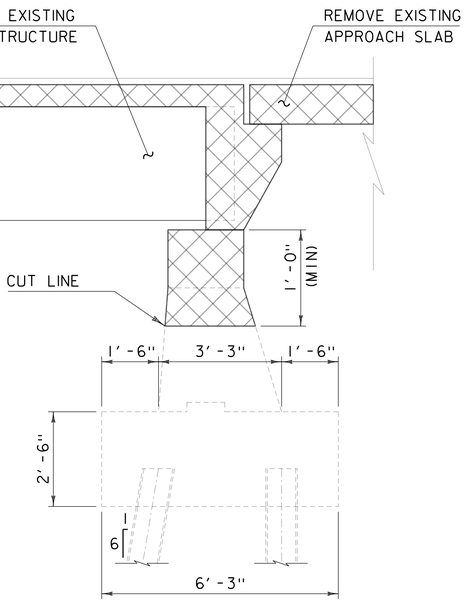
1. FABRICATION AND INSTALLATION OF THE EXPANSION JOINT WILL BE PAID UNDER ITEM 900.640, "SPECIAL PROVISION (EXPANSION JOINT, STRIP SEAL)", AND SHALL CONFORM TO SPECIFICATION SECTION 516. FABRIC MATERIAL SHALL CONFORM TO SECTION 707.
2. PROTECT THE TOP OF EXPANSION JOINT DURING PLACEMENT OF BRIDGE DECK CONCRETE AND BITUMINOUS PAVEMENT.
3. STRIP SEAL SHALL BE PROTECTED AND THOROUGHLY CLEANED AND FLUSHED AFTER PAVING OPERATIONS.
4. TEMPORARY SHIPPING ATTACHMENTS SHALL BE ATTACHED BY BOLTING; WELDING WILL NOT BE PERMITTED.
5. SEE "JOINT GAP DIMENSION TABLE" FOR DISTANCE "A" VALUES IN TEMPERATURE RANGE PROVIDED. TEMPERATURES ARE THAT OF THE STEEL GIRDERS AND NOT NECESSARILY THE AMBIENT AIR TEMPERATURE.
6. ALL STEEL COMPONENTS SHALL BE GALVANIZED AND MEET THE REQUIREMENTS OF SUBSECTION 516.02. PRIOR TO GALVANIZING, ALL CORNERS AND EDGES OF STEEL PLATES, SHAPES, ETC., SHALL BE GROUND TO A 1/16" RADIUS. THREADED RODS SHALL CONFORM TO THE REQUIREMENTS OF 714.04. THE WELDED STUD ANCHOR PLATE AND WELDED STUDS MAY BE SUPPLIED WITHOUT GALVANIZING.
7. THE STEEL EXTRUSION AND STRIP SEAL SHALL BE FURNISHED AS ONE CONTINUOUS PIECE. FIELD SPLICES WILL NOT BE PERMITTED.
8. THE MINIMUM JOINT MOVEMENT RATING SHALL BE 4 INCHES.
9. RUBBER BACKED UHMW-PE BEARING STRIPS SHALL BE EITHER "KOROLATH UHMW RUBBER BACKED" MANUFACTURED BY KOROLATH OF NEW ENGLAND, OR "TIVAR 1000 RUBBER BACKED" MANUFACTURED BY MITSUBISHI CHEMICAL ADVANCED MATERIAL OR AN EQUIVALENT TO BE APPROVED BY THE ENGINEER.
10. ADHESIVE FOR BEARING STRIPS SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
11. ALL COSTS FOR BEARING STRIPS AND INSTALLATION WILL BE INCIDENTAL TO THE EXPANSION JOINT ITEM.

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602sub3.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C.BELLISLE
DESIGNED BY: R.GAUDREAU	CHECKED BY: M.OOMS
EXPANSION JOINT DETAILS 2	SHEET 55 OF 130



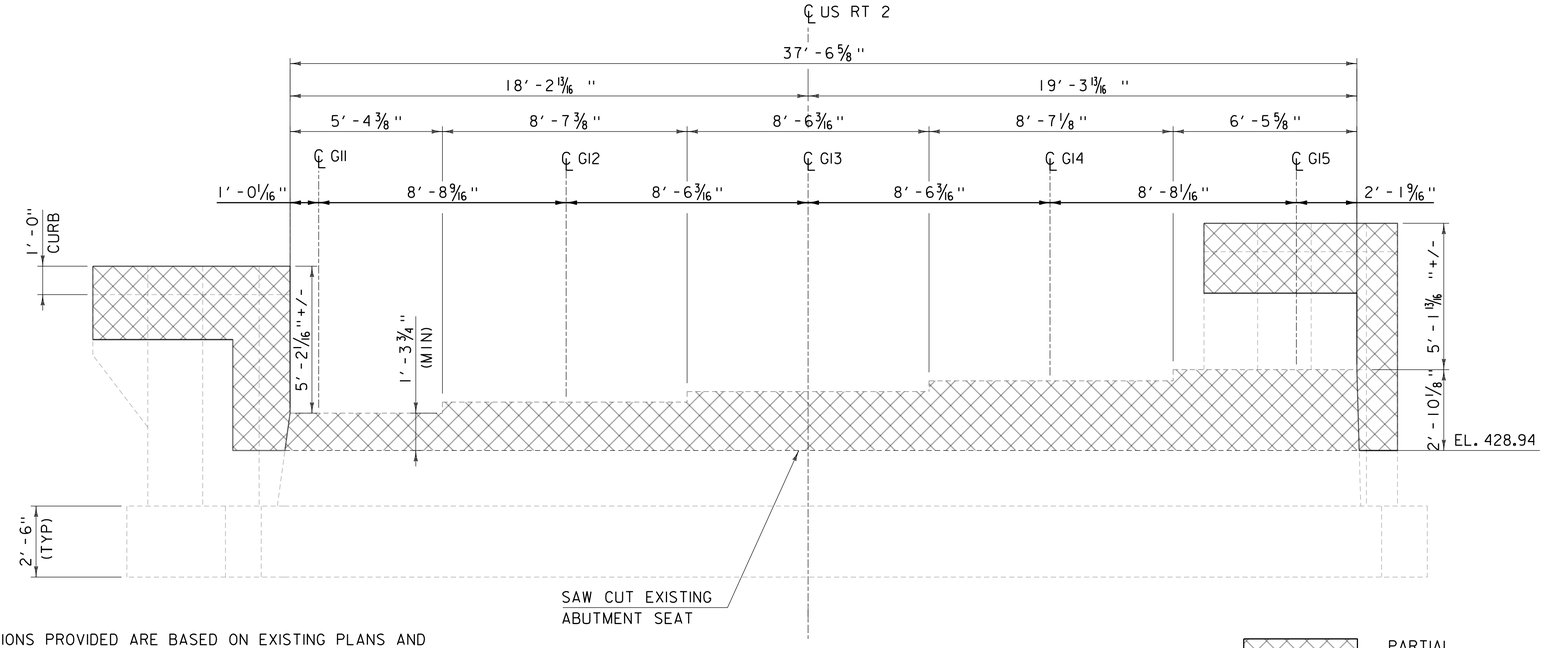
EXISTING ABUTMENT 1 PLAN

SCALE: ⅜" = 1'-0"



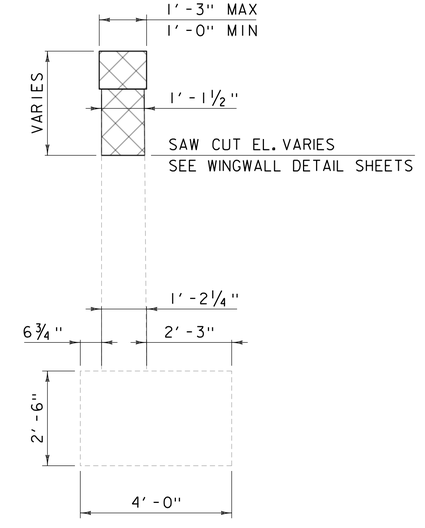
SECTION A-A

(ABUTMENT 1 SHOWN, ABUTMENT 2 SIMILAR)
SCALE: ½" = 1'-0"



EXISTING ABUTMENT 1 ELEVATION

SCALE: ⅜" = 1'-0"
(PILES NOT SHOWN FOR CLARITY)



SECTION B-B

SCALE: ½" = 1'-0"

NOTE:

1) DIMENSIONS PROVIDED ARE BASED ON EXISTING PLANS AND SHALL BE VERIFIED PRIOR TO ORDERING REINFORCEMENT.

2) SEE WINGWALL DETAIL SHEETS FOR LIMITS OF WINGWALL REMOVAL.

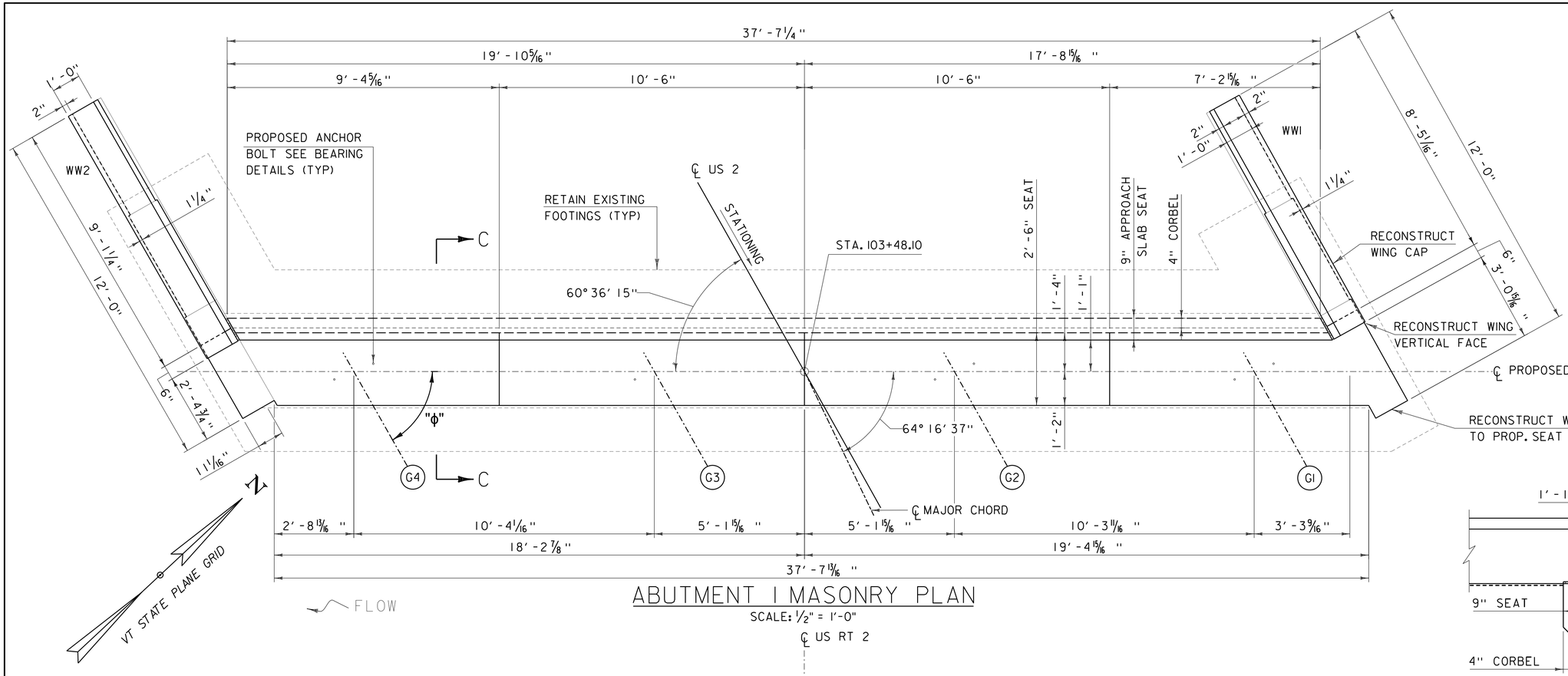
PARTIAL REMOVAL OF STRUCTURE

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602sub.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
EXISTING ABUTMENT 1 DETAILS	SHEET 56 OF 130

NOTES:
1) SEE END OF DECK DETAILS SHEET FOR BACKWALL DETAILS.

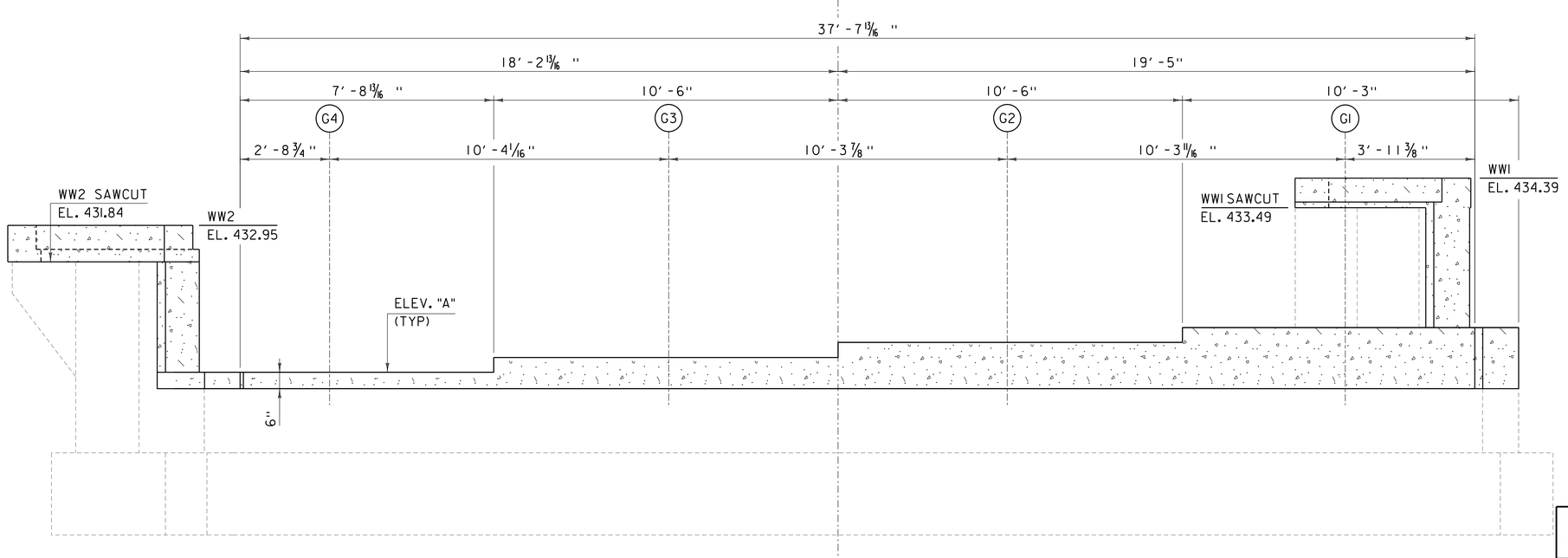
2) SEE WINGWALL DETAIL SHEETS FOR WINGWALL RECONSTRUCTION DETAILS.

GIRDER	ABUTMENT I	
	SKEW "ϕ"	EL. "A"
1	60° 55' 46"	430.80
2	60° 48' 14"	430.35
3	60° 37' 56"	429.89
4	60° 30' 14"	429.44



ABUTMENT I MASONRY PLAN

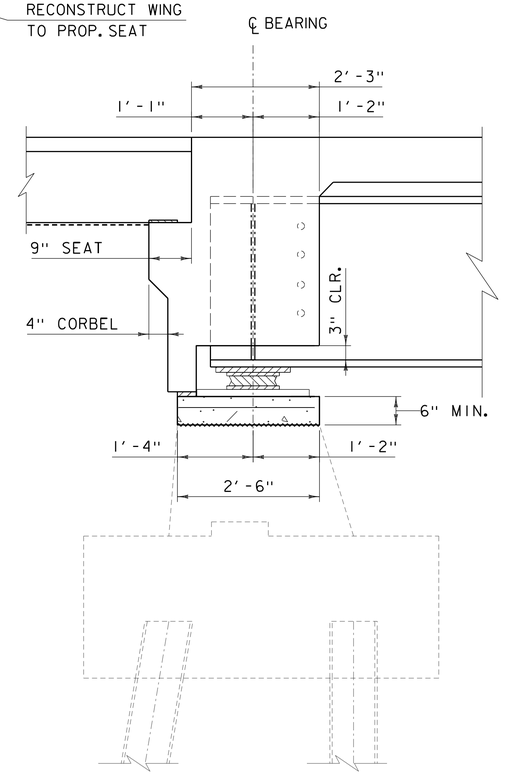
SCALE: 1/2" = 1'-0"



ABUTMENT I ELEVATION

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

PROPOSED CONCRETE



SECTION C-C

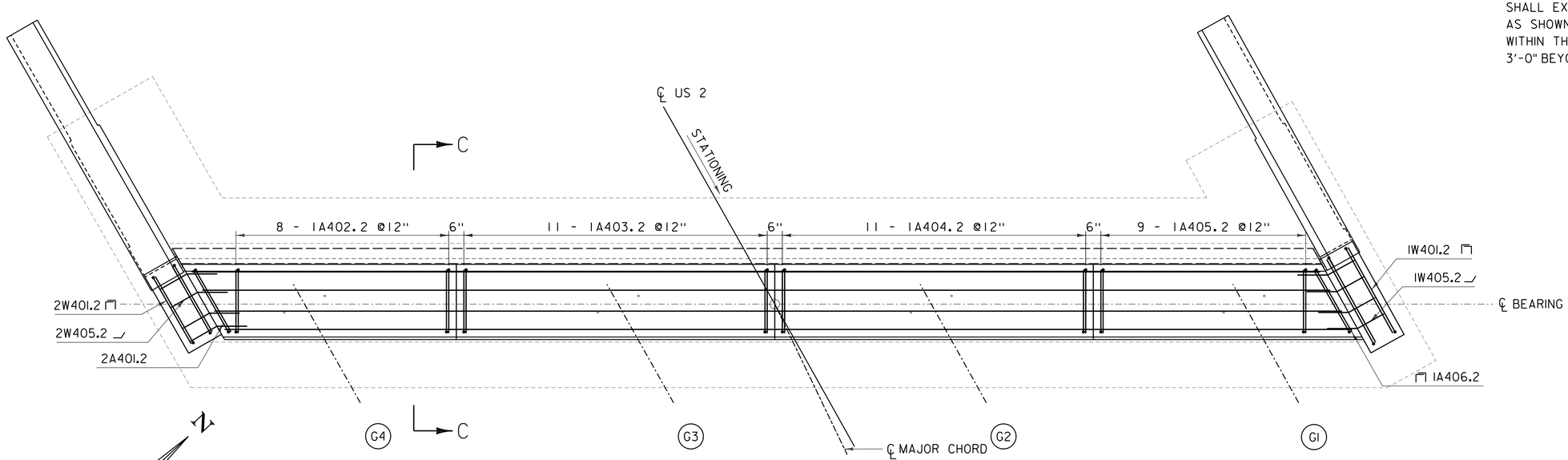
SCALE: 3/4" = 1'-0"

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602subI.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R. GAUDREAU
ABUTMENT I MASONRY

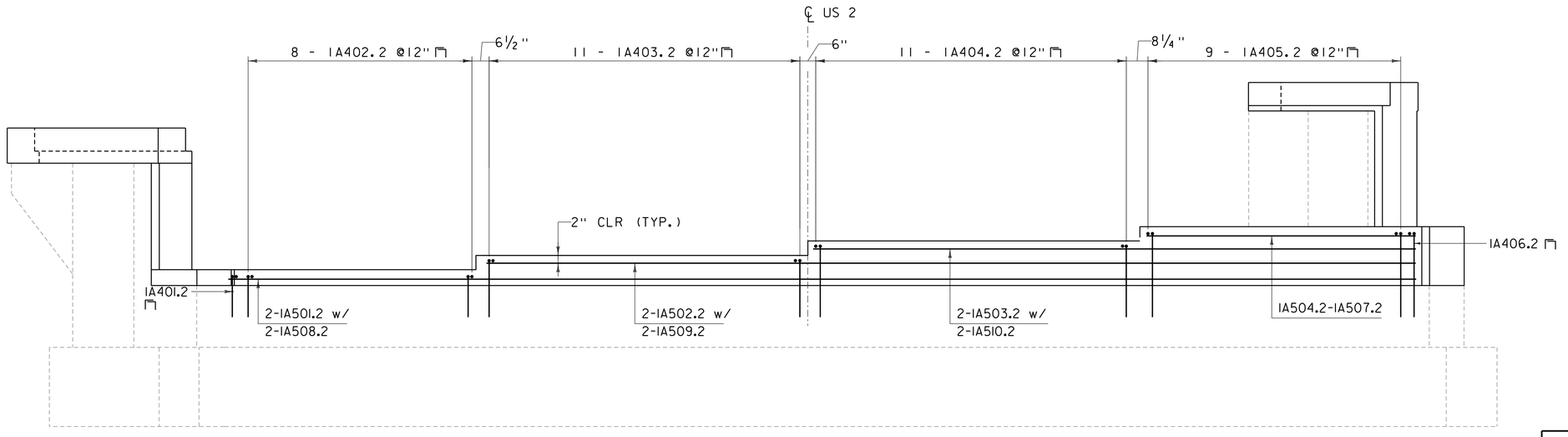
PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 57 OF 130

NOTES:
1) EXTERIOR BARS AT SEAT LEVEL (A501 THROUGH A503) SHALL EXTEND THE REMAINING LENGTH OF THE ABUTMENT AS SHOWN IN THE ELEVATION VIEW. THE CENTRAL BARS WITHIN THE SEAT (A505 THROUGH A507) SHALL TERMINATE 3'-0" BEYOND THE SEAT STEP BOUNDARY.



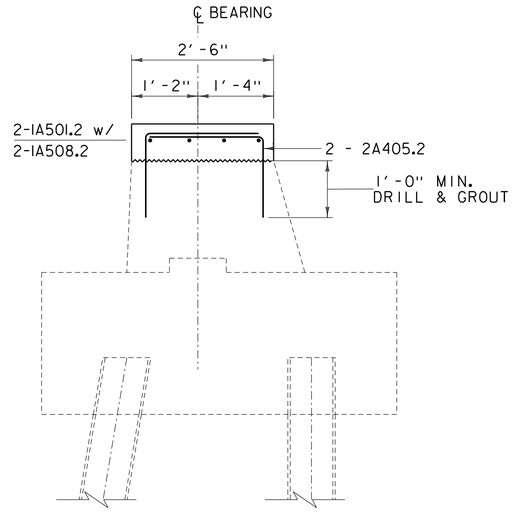
ABUTMENT 1 PLAN - REINFORCEMENT

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



ABUTMENT 1 ELEVATION - REINFORCEMENT

SCALE: 1/2" = 1'-0"
(WINGWALL REINFORCEMENT NOT SHOWN FOR CLARITY. SEE WINGWALL DETAILS)



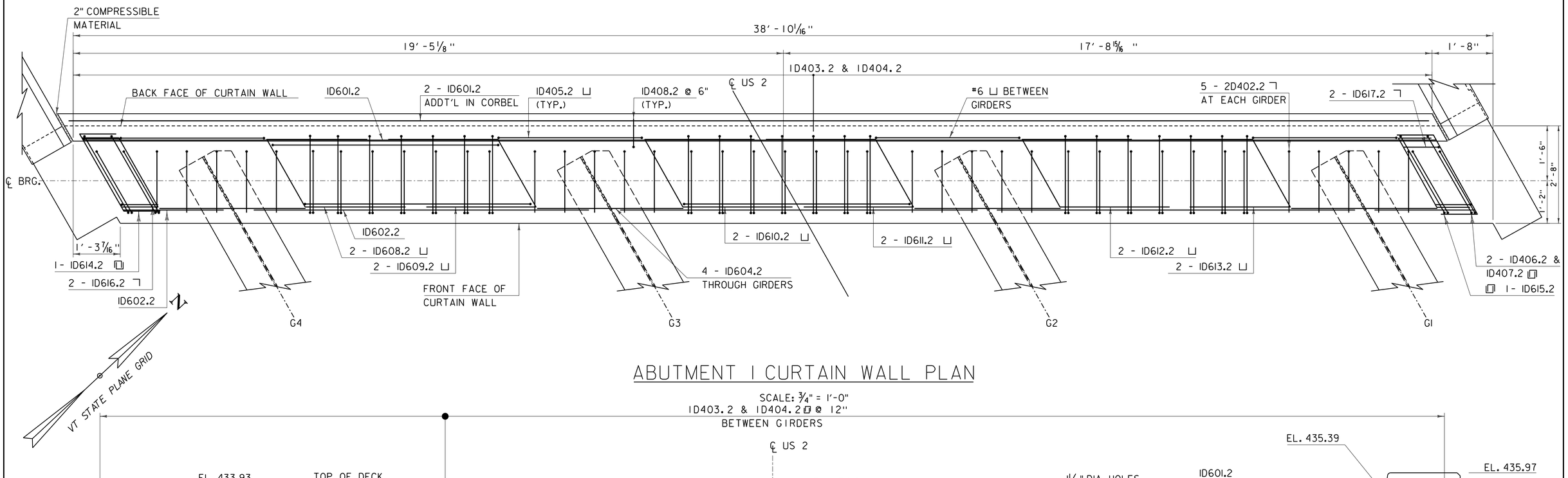
SECTION C-C

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

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

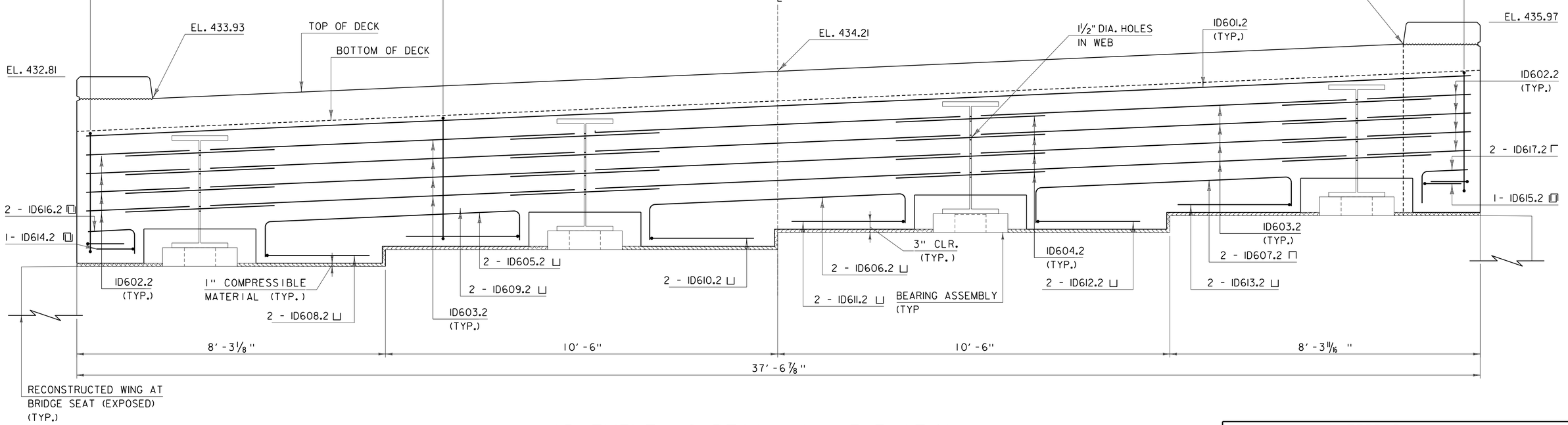
FILE NAME: z12c602sub1.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R. GAUDREAU
ABUTMENT 1 REINFORCING

PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 58 OF 130



ABUTMENT 1 CURTAIN WALL PLAN

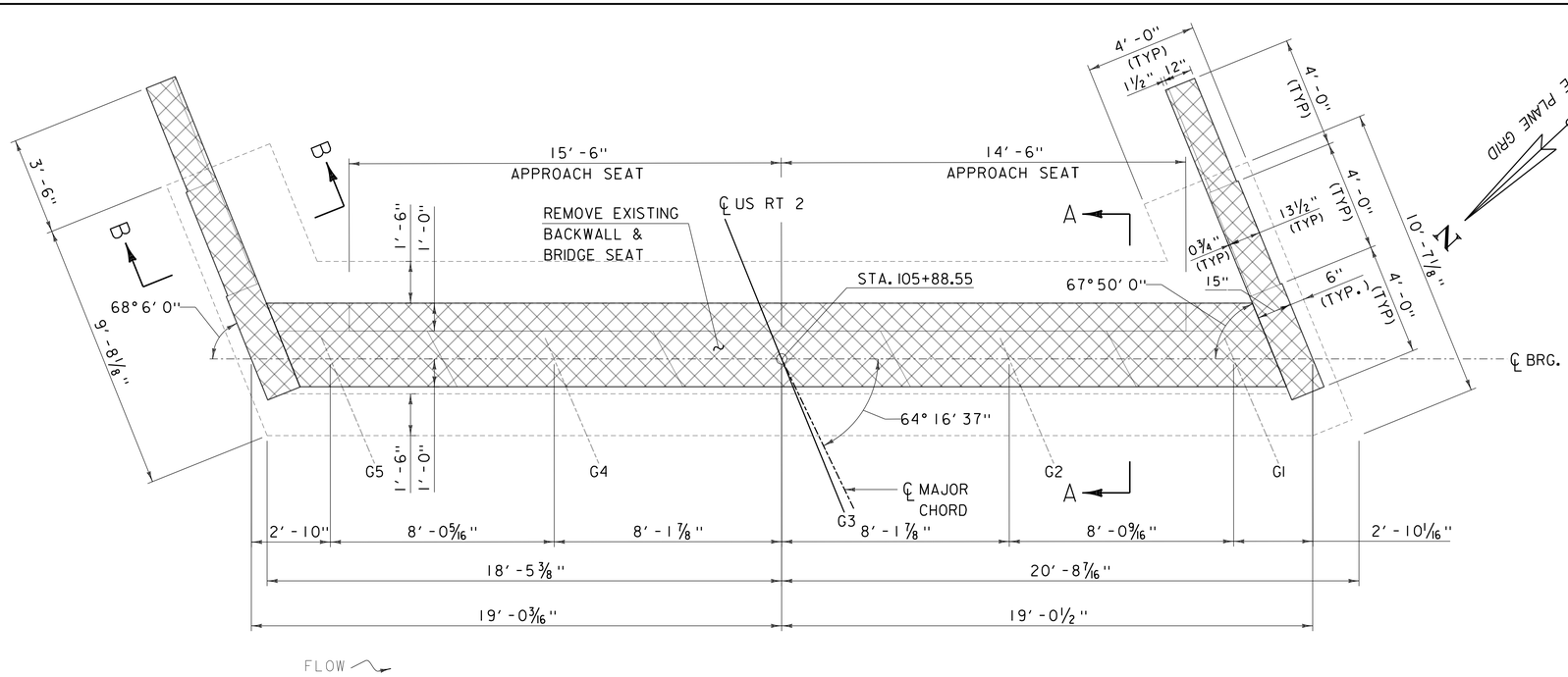
SCALE: 3/4" = 1'-0"



ABUTMENT 1 CURTAIN WALL ELEVATION

SCALE: 3/4" = 1'-0"
(TAKEN AT ℄ OF BEARING)

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602sub2.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
ABUTMENT 1 CURTAIN WALL	SHEET 59 OF 130

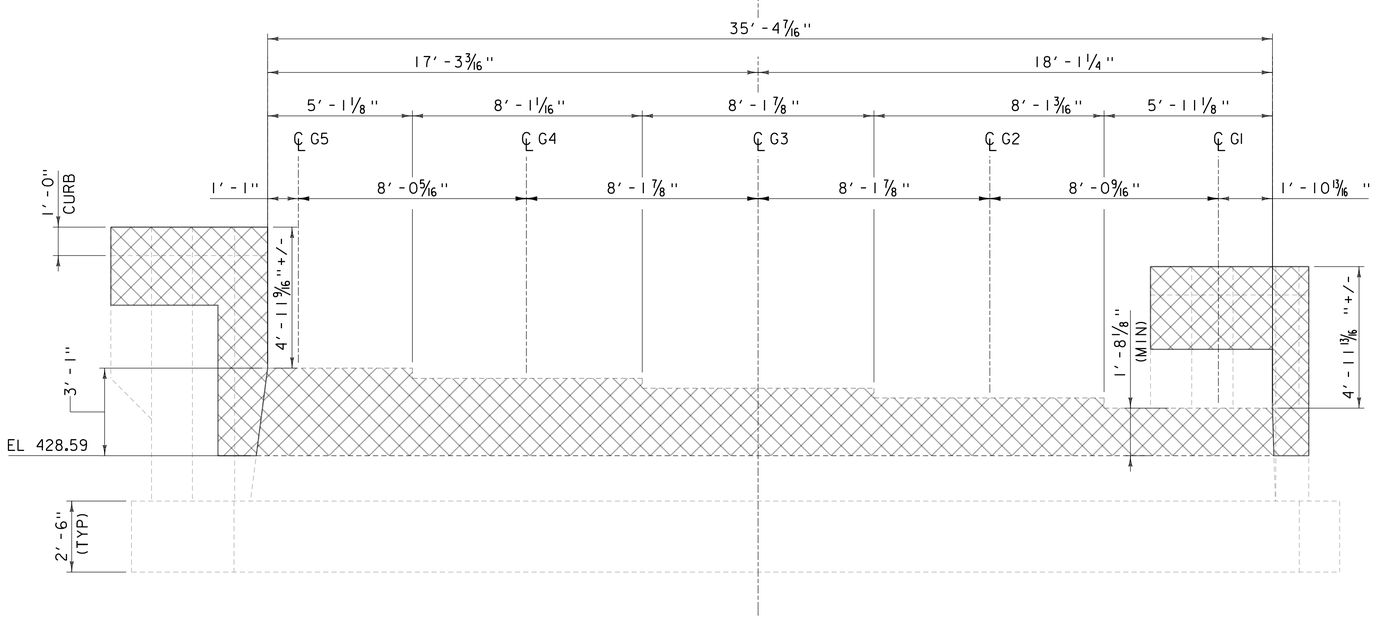


EXISTING ABUTMENT 2 PLAN

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

NOTES:

1) STATIONING DIRECTION AND SUBSTRUCTURE NUMBERING IN THIS SET IS REVERSE OF NUMBERING NOTED IN THE 1958 PLANS.
2) SEE EXISTING ABUTMENT 1 SHEET FOR SECTIONS A-A AND B-B.
3) DIMENSIONS PROVIDED ARE BASED ON EXISTING PLANS AND SHALL BE VERIFIED PRIOR TO ORDERING REINFORCEMENT.
4) DIMENSIONS IN THE ELEVATION VIEW ARE SHOWN AT THE CENTERLINE OF BEARING.
5) SEE WINGWALL DETAIL SHEETS FOR LIMITS OF WINGWALL REMOVAL.



EXISTING ABUTMENT 2 ELEVATION

SCALE: 3/8" = 1'-0"
(PILES NOT SHOWN FOR CLARITY)

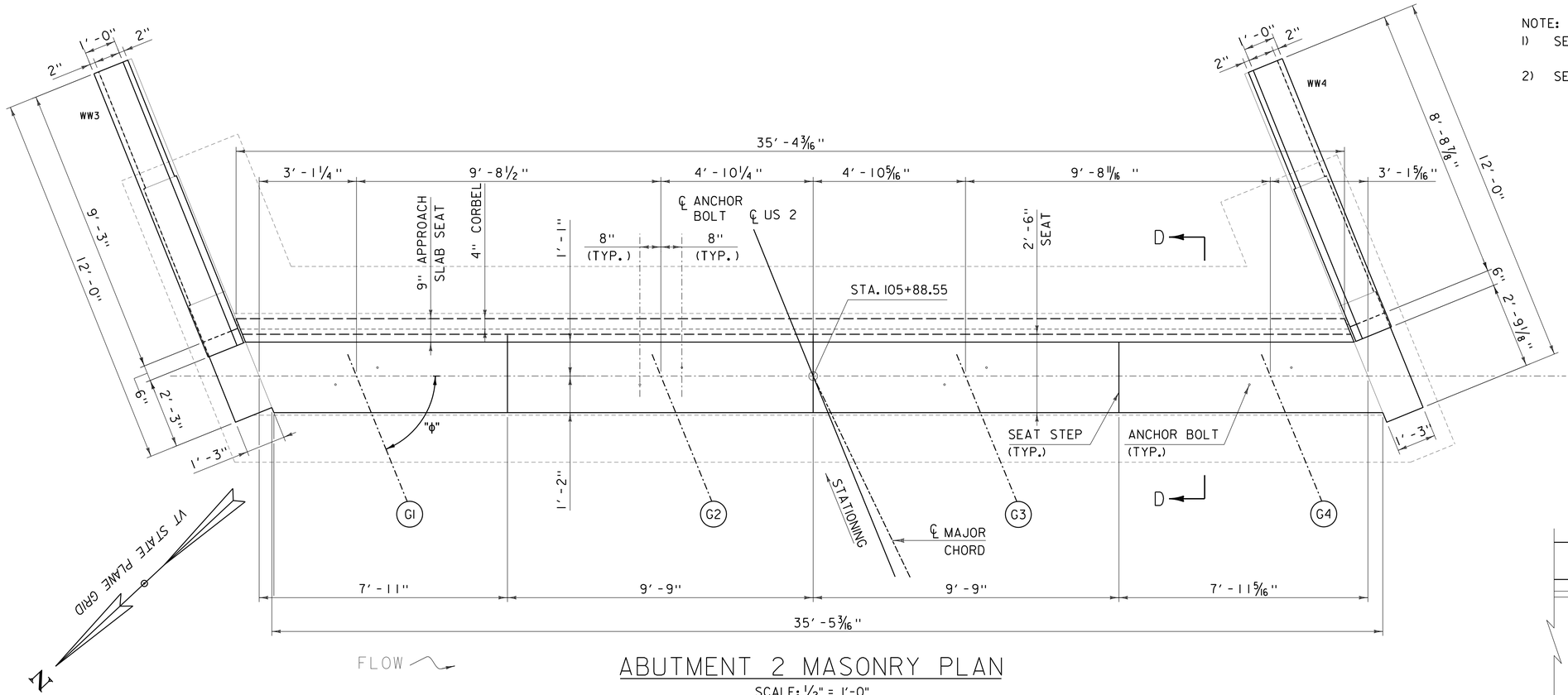
PARTIAL REMOVAL OF STRUCTURE

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: zl2c602sub.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
EXISTING ABUTMENT 2 DETAILS	SHEET 60 OF 130

NOTE:
1) SEE END OF DECK DETAILS SHEET FOR BACKWALL DETAILS.

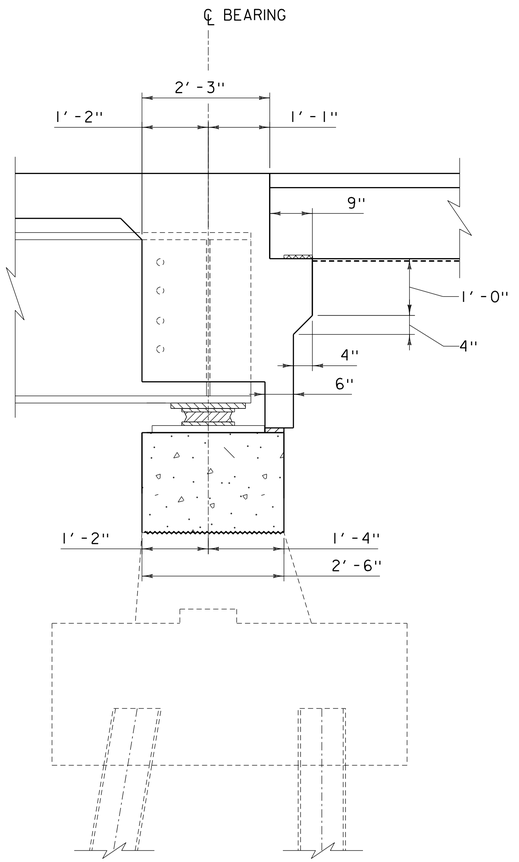
2) SEE BEARING DETAILS FOR ANCHOR BOLT REQUIREMENTS.

GIRDER	ABUTMENT 2	
	SKEW "ϕ"	EL. "A"
1	68° 0' 42"	429.09
2	67° 53' 10"	428.67
3	67° 47' 14"	428.25
4	67° 41' 20"	427.83



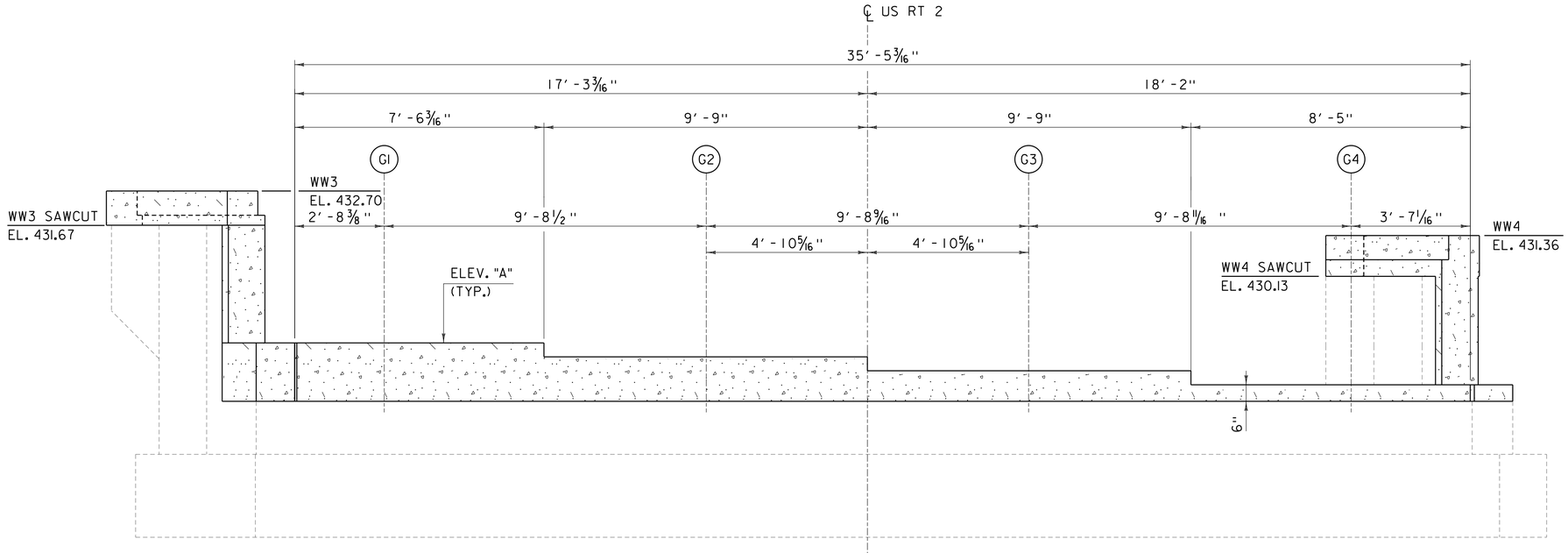
ABUTMENT 2 MASONRY PLAN

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



SECTION D-D

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

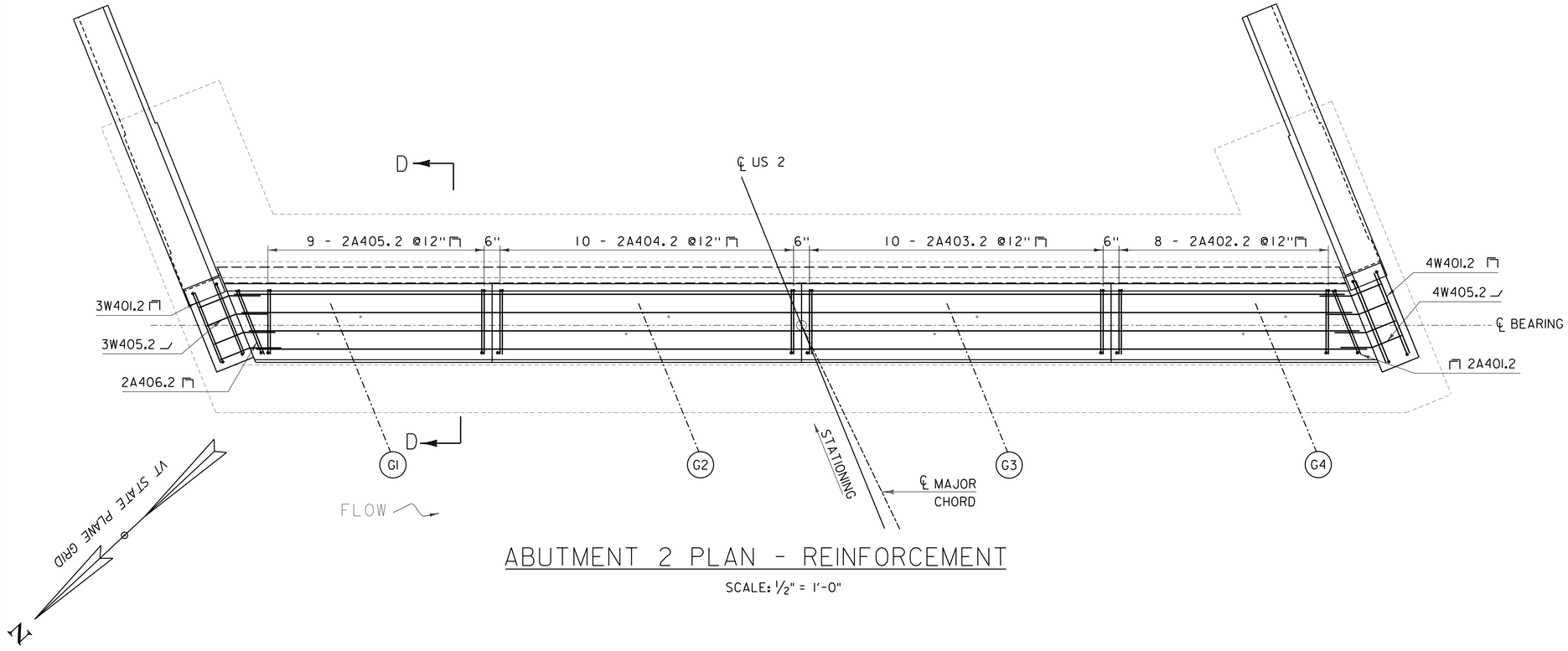


ABUTMENT 2 ELEVATION

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

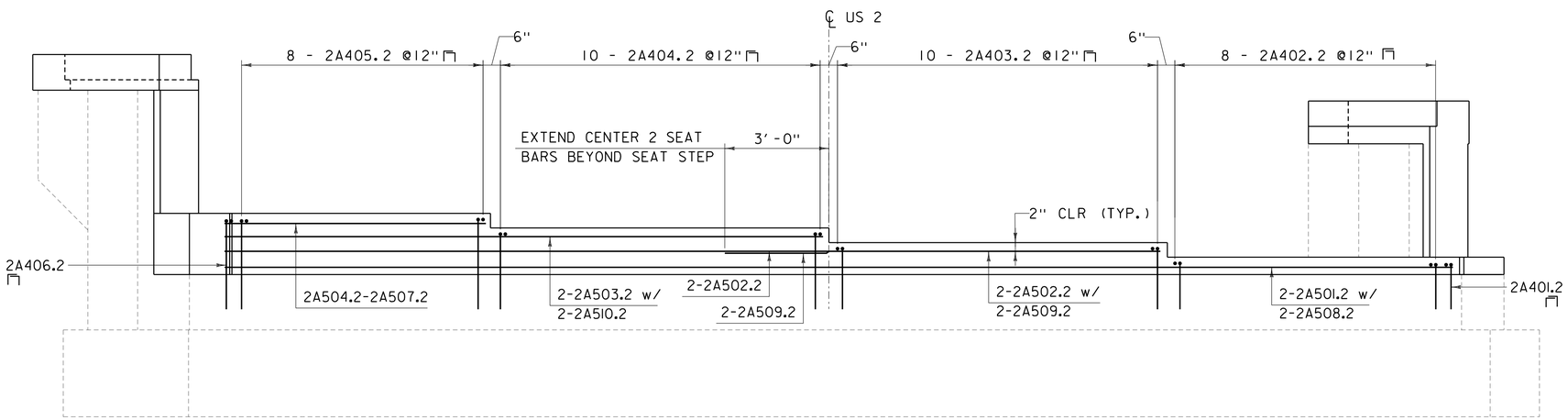
PROPOSED CONCRETE

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602subl.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
ABUTMENT 2 MASONRY	SHEET 61 OF 130



ABUTMENT 2 PLAN - REINFORCEMENT

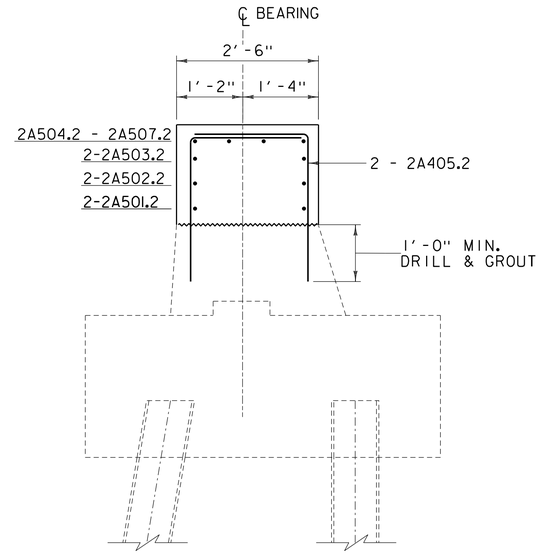
SCALE: ½" = 1'-0"



ABUTMENT 2 ELEVATION - REINFORCEMENT

SCALE: ½" = 1'-0"

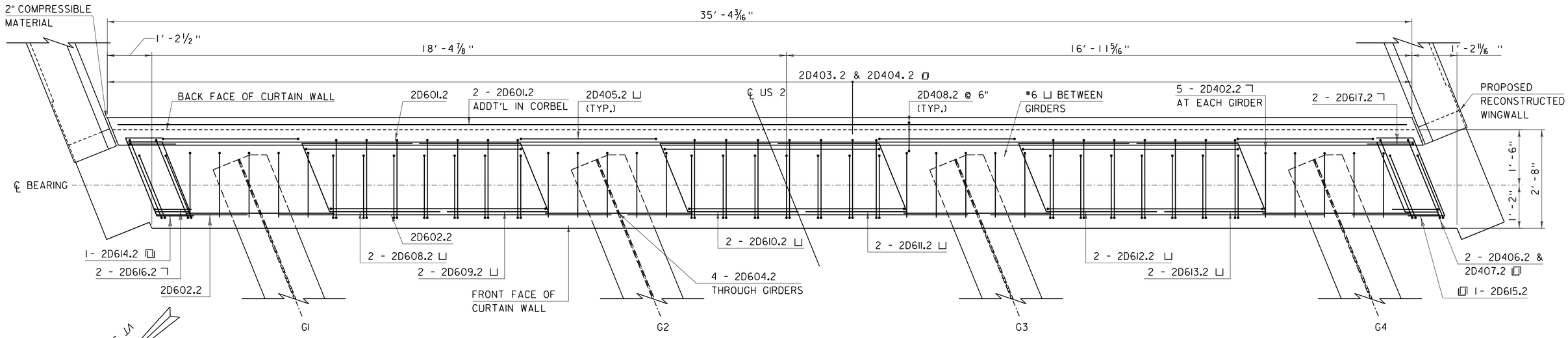
(WINGWALL REINFORCEMENT NOT SHOWN FOR CLARITY. SEE WINGWALL DETAILS)



SECTION D-D

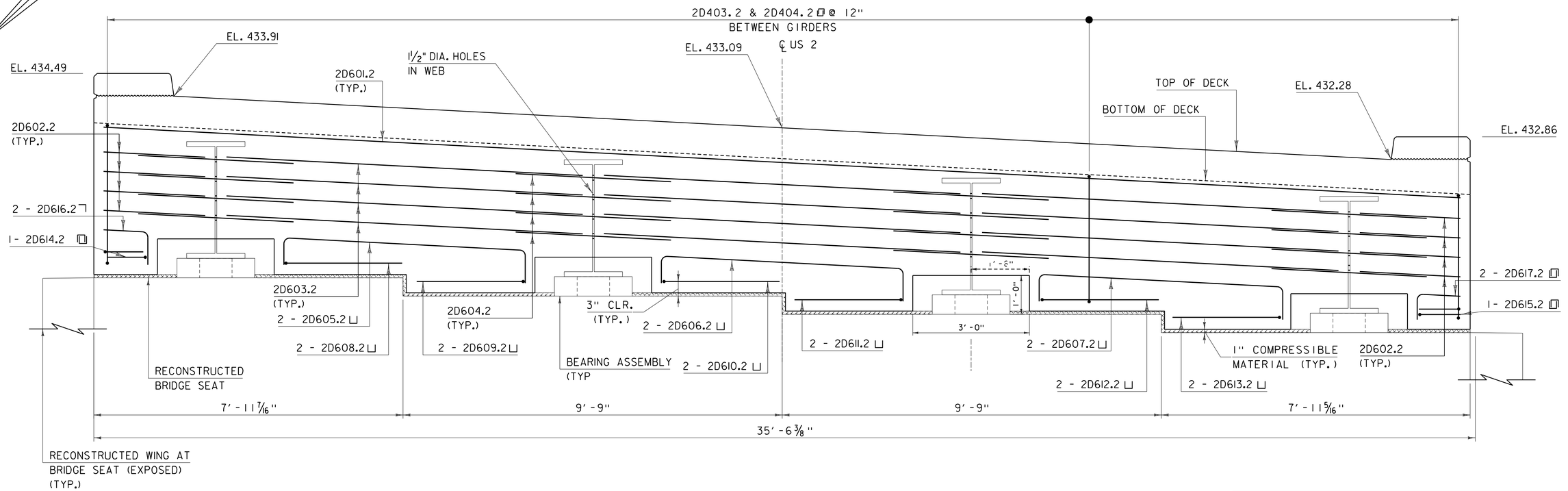
SCALE: ¾" = 1'-0"

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602subl.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
ABUTMENT 2 REINFORCING	SHEET 62 OF 130



ABUTMENT 2 CURTAIN WALL PLAN

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



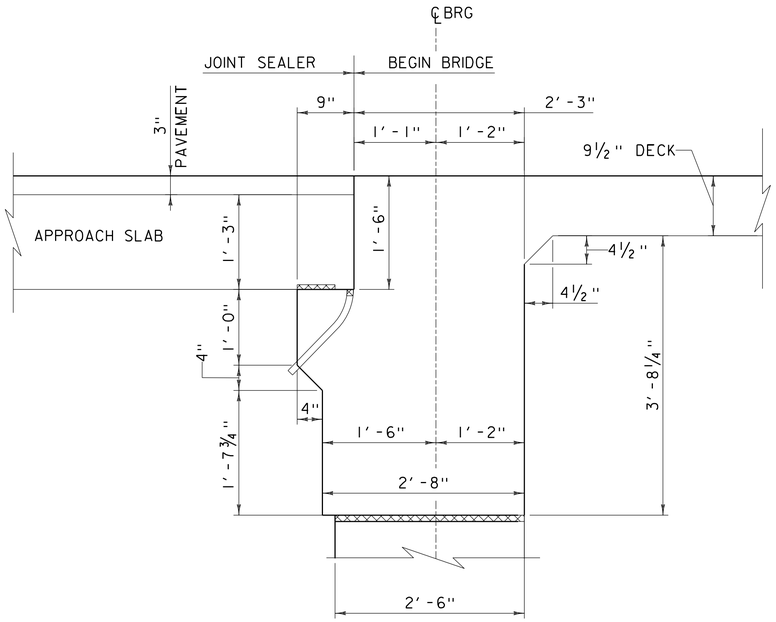
ABUTMENT 2 CURTAIN WALL ELEVATION

SCALE: 3/4" = 1'-0"
(TAKEN AT ℄ OF BEARING)

NOTE:

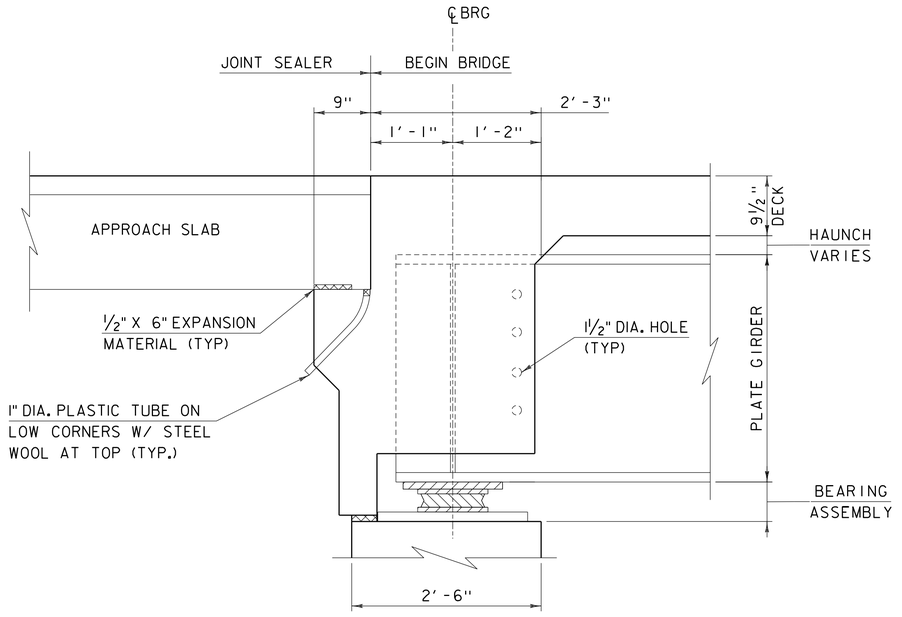
1. HOOKED BARS CONNECTING CURTAIN WALL TO APPROACH SLAB AND DECK NOT SHOWN FOR CLARITY. SEE SECTION VIEWS FOR DETAILS.
2. DECK REINFORCING NOT SHOWN FOR CLARITY.

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602sub2.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
ABUTMENT 2 CURTAIN WALL	SHEET 63 OF 130



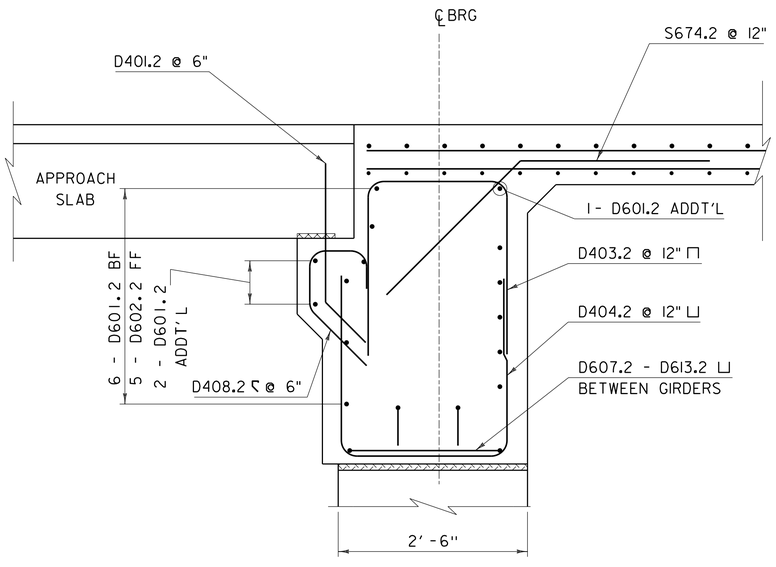
MASONRY SECTION BETWEEN GIRDERS

SCALE: 1" = 1'-0"



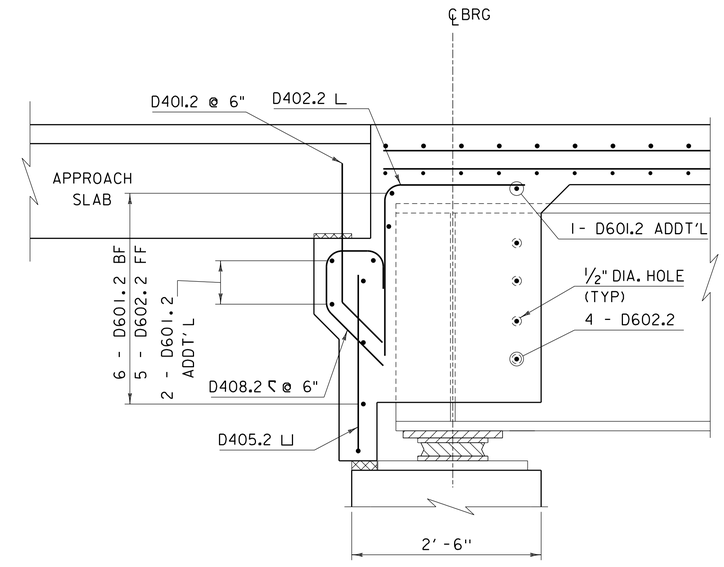
MASONRY SECTION AT GIRDERS

SCALE: 1" = 1'-0"



REINFORCEMENT SECTION BETWEEN GIRDERS

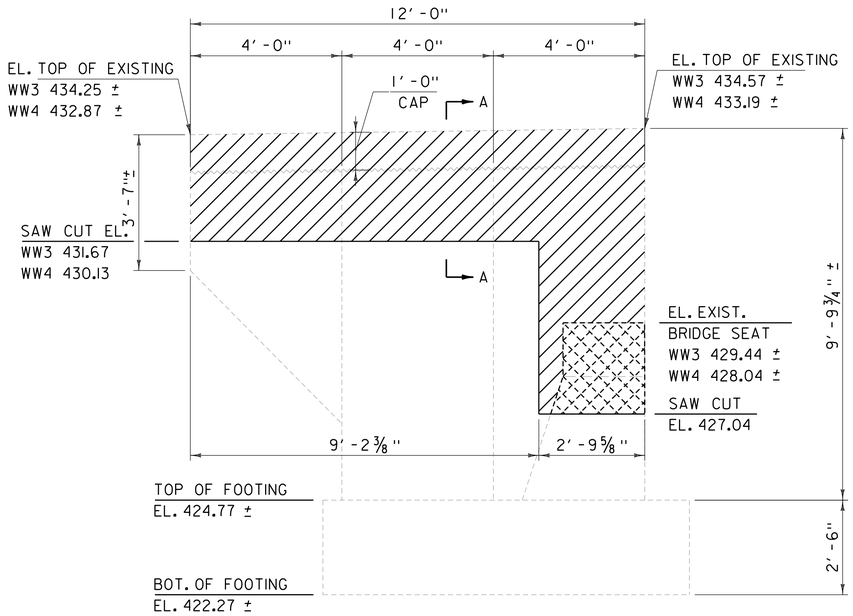
SCALE: 1" = 1'-0"



REINFORCEMENT SECTION AT GIRDERS

SCALE: 1" = 1'-0"

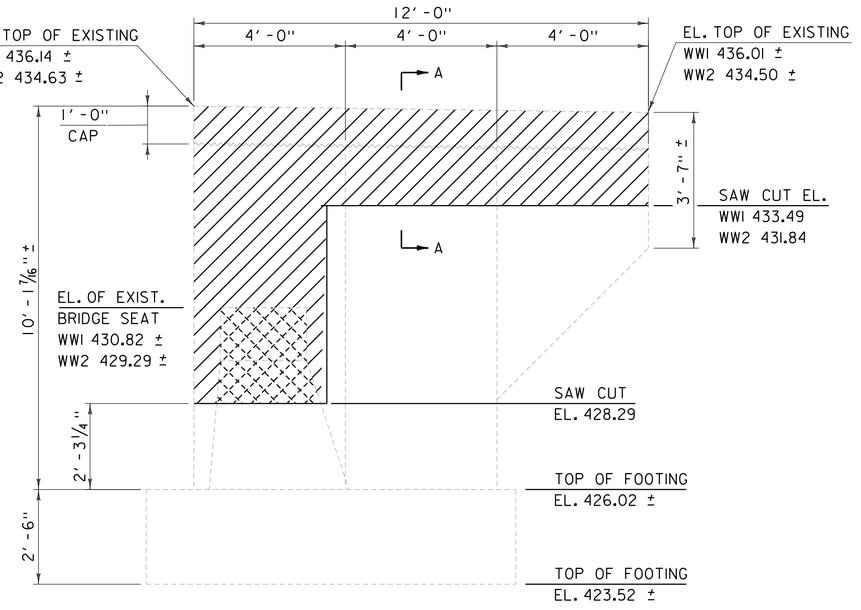
PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: zl2c602sub2.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
CURTAIN WALL DETAILS	SHEET 64 OF 130



EXISTING WINGWALL 3 ELEVATION

SCALE: ½" = 1'-0"

(WW3 SHOWN. WW4 OPPOSITE HAND AND AS NOTED)



EXISTING WINGWALL 1 ELEVATION

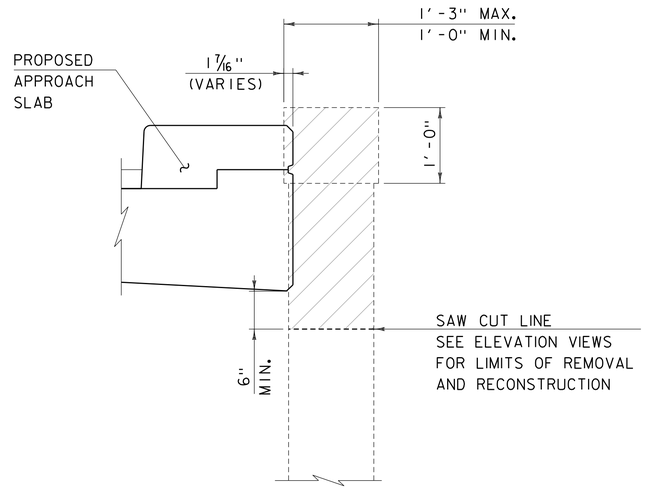
SCALE: ½" = 1'-0"

(WW1 SHOWN. WW2 OPPOSITE HAND AND AS NOTED)

NOTES:

1) SEE ABUTMENT MASONRY SHEETS FOR PROPOSED BRIDGE SEAT ELEVATIONS.

2) DIMENSIONS AND ELEVATIONS OF EXISTING FEATURES SHOWN ARE ESTIMATED FROM THE ORIGINAL BRIDGE PLANS AND THE 1994 REHAB PLANS. EXISTING CONDITIONS MAY VARY. ALL DIMENSIONS AND ELEVATIONS SHOULD BE FIELD VERIFIED PRIOR TO COMMENCEMENT OF WORK.



SECTION A-A - DEMOLITION

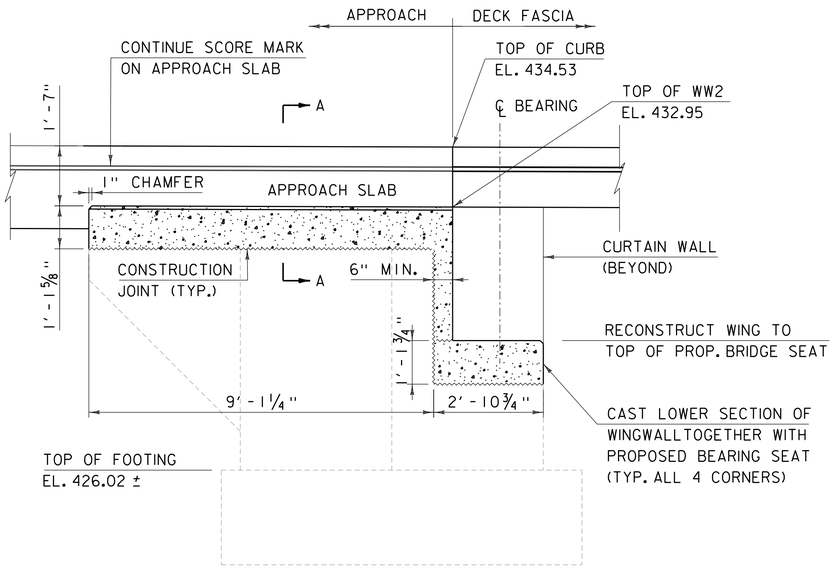
SCALE: ¾" = 1'-0"

DEMOLITION LIMITS

LIMITS OF ABUTMENT STEM REMOVAL

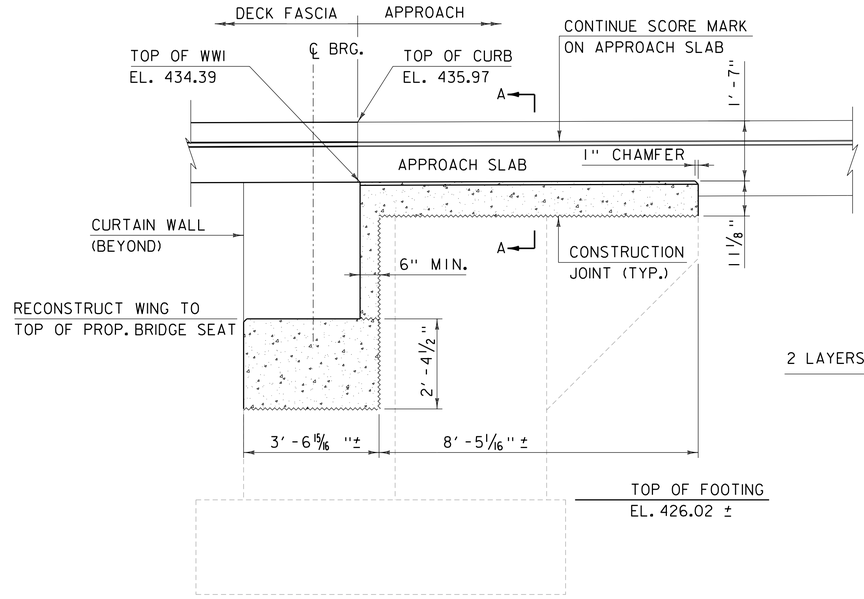
LIMITS OF WINGWALL REMOVAL

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: zl2c602sub4.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
WINGWALL REMOVAL DETAILS	SHEET 65 OF 130



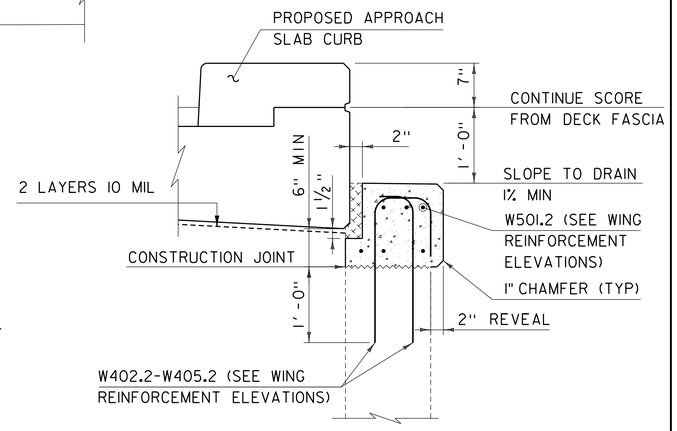
WINGWALL 2 MASONRY ELEVATION

SCALE: ½" = 1'-0"



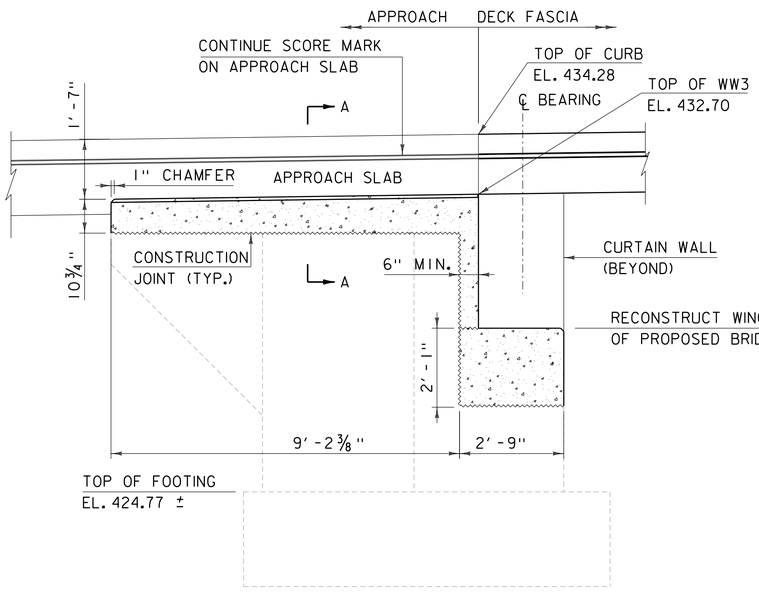
WINGWALL 1 MASONRY ELEVATION

SCALE: ½" = 1'-0"



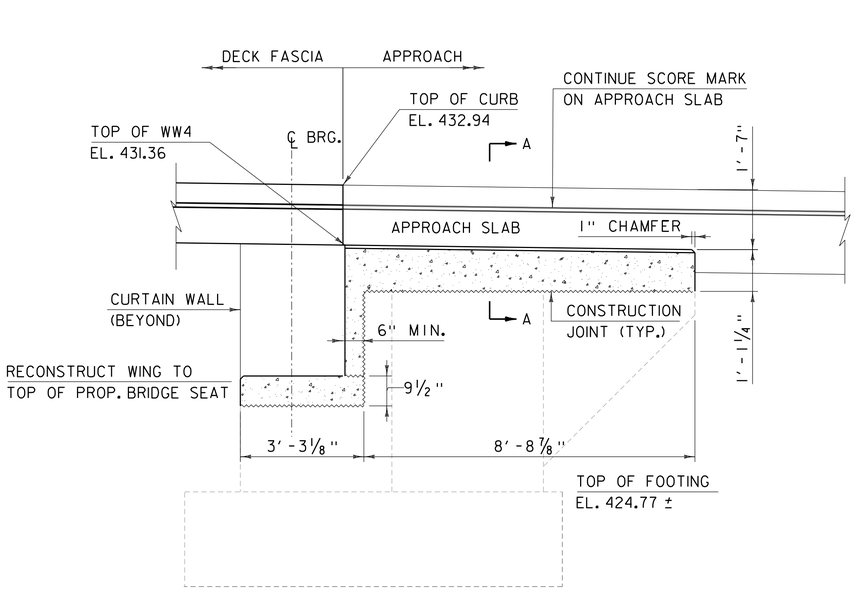
SECTION A-A

SCALE: 1" = 1'-0"



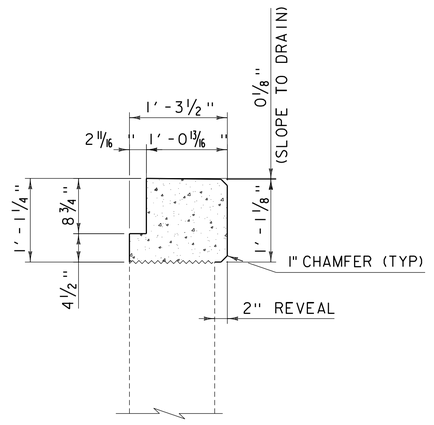
WINGWALL 3 MASONRY ELEVATION

SCALE: ½" = 1'-0"



WINGWALL 4 MASONRY ELEVATION

SCALE: ½" = 1'-0"

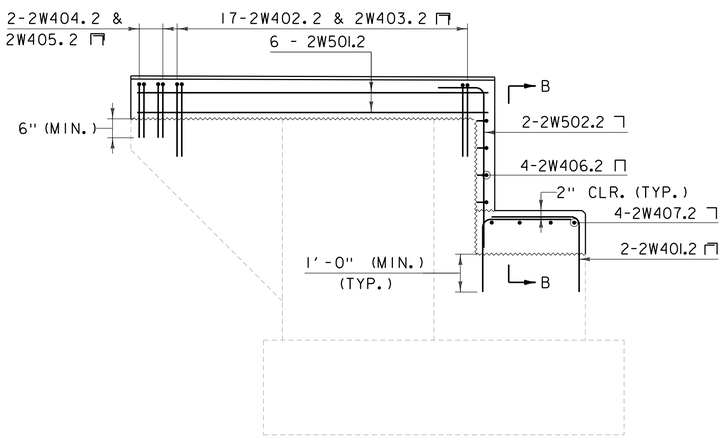


SECTION A-A - PROPOSED RECONSTRUCTION DETAILS

SCALE: 1" = 1'-0"

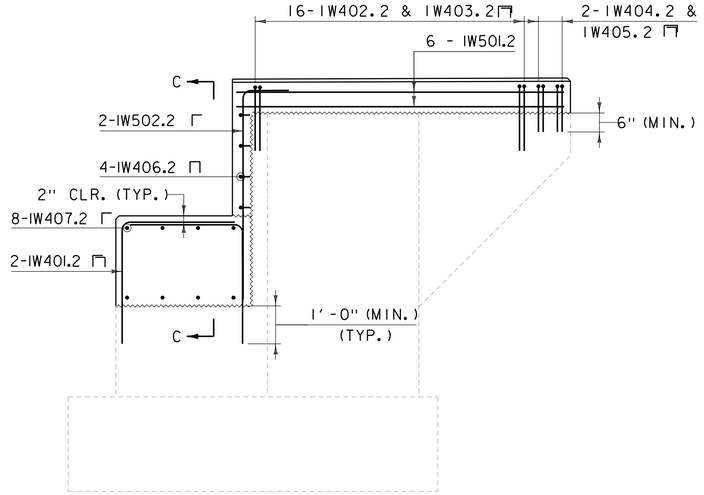
NOTE: SEE ABUTMENT MASONRY SHEETS FOR PROPOSED BRIDGE SEAT ELEVATIONS.

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: zl2c602sub4.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
WINGWALL MASONRY ELEVATIONS	SHEET 66 OF 130



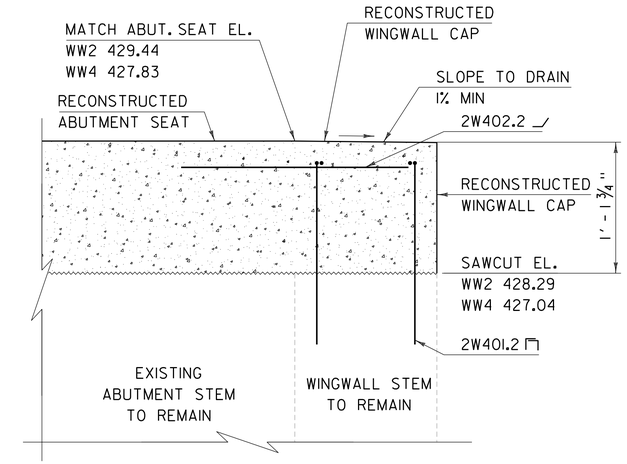
WINGWALL 2 REINFORCEMENT ELEVATION

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



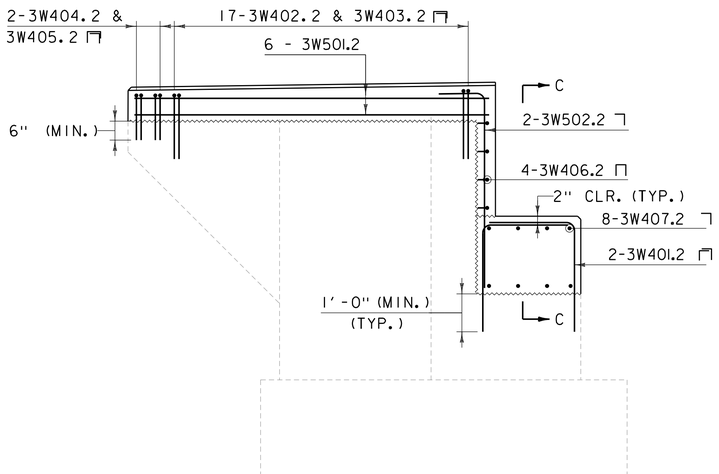
WINGWALL 1 REINFORCEMENT ELEVATION

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



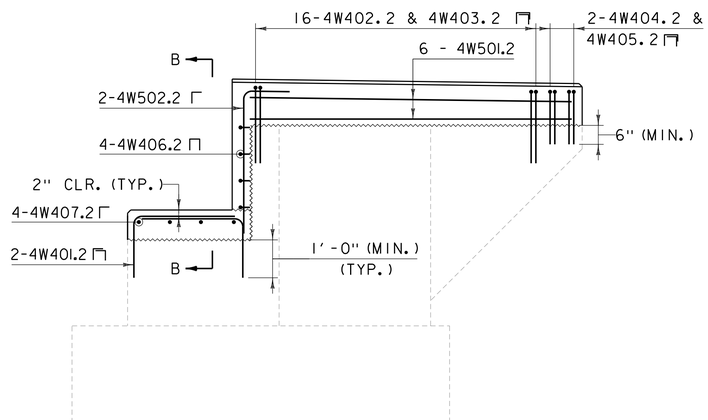
SECTION B-B - PROPOSED

SCALE: 1 1/2" = 1'-0"
(WINGWALL 2 SHOWN, WINGWALL 4 SIMILAR)
(ABUTMENT SEAT REINFORCING NOT SHOWN FOR CLARITY)



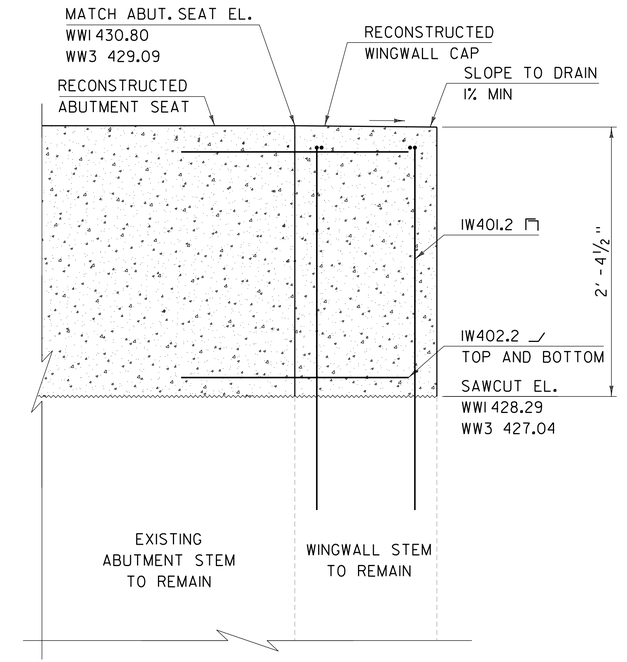
WINGWALL 3 REINFORCEMENT ELEVATION

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



WINGWALL 4 REINFORCEMENT ELEVATION

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



SECTION C-C - PROPOSED

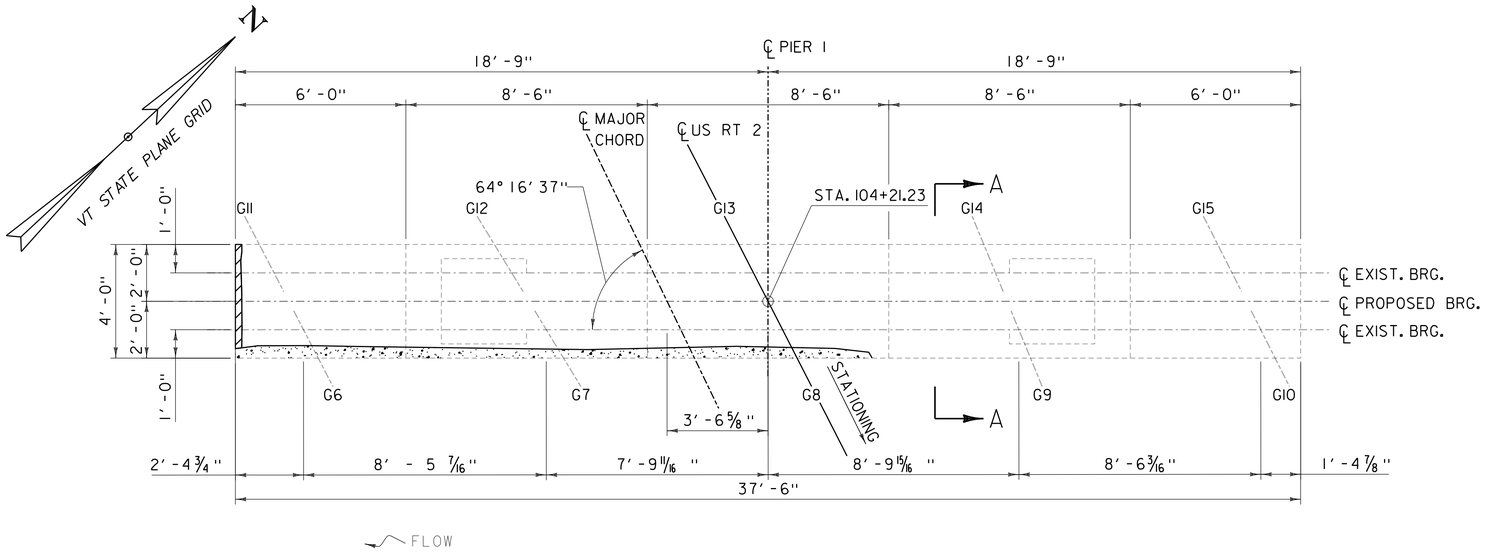
SCALE: 1 1/2" = 1'-0"
(WINGWALL 1 SHOWN, WINGWALL 3 SIMILAR)
(ABUTMENT SEAT REINFORCING NOT SHOWN FOR CLARITY)

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602sub4.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R. GAUDREAU
WINGWALL RINFORCEMENT ELEVATIONS

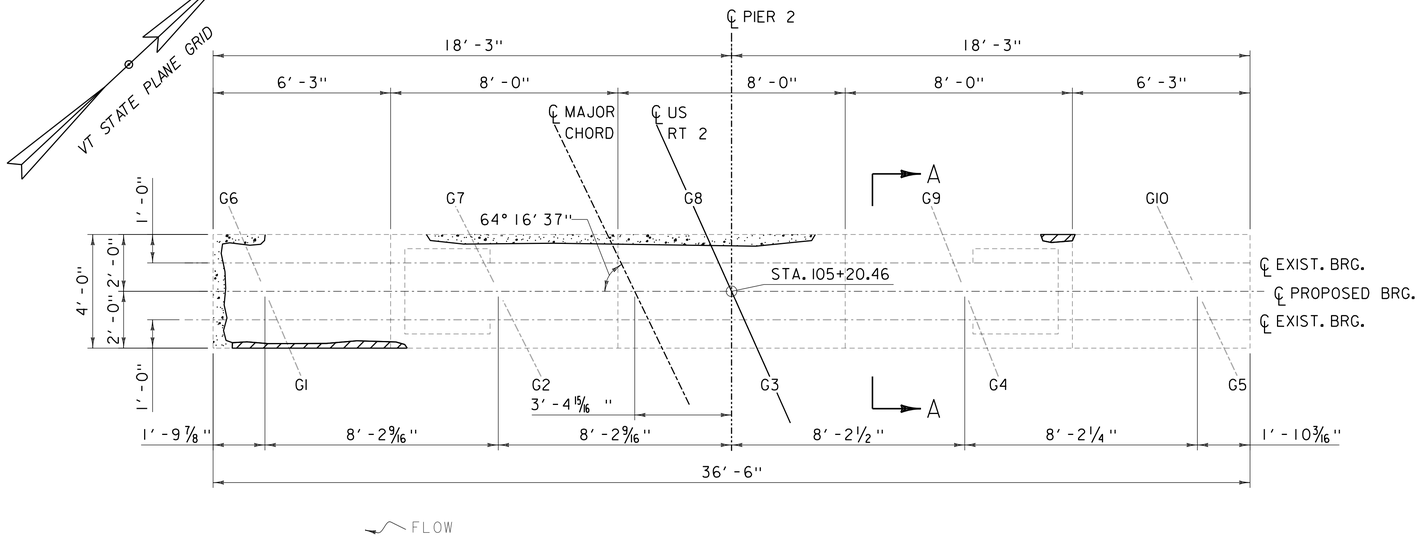
PLOT DATE: 8/18/2022
DRAWN BY: K. KITTREDGE
CHECKED BY: M.OOMS
SHEET 67 OF 130

NOTES:
1. STATIONING DIRECTION AND SUBSTRUCTURE NUMBERING IN THIS SET IS REVERSE OF NUMBERING NOTED IN THE 1958 PLANS.



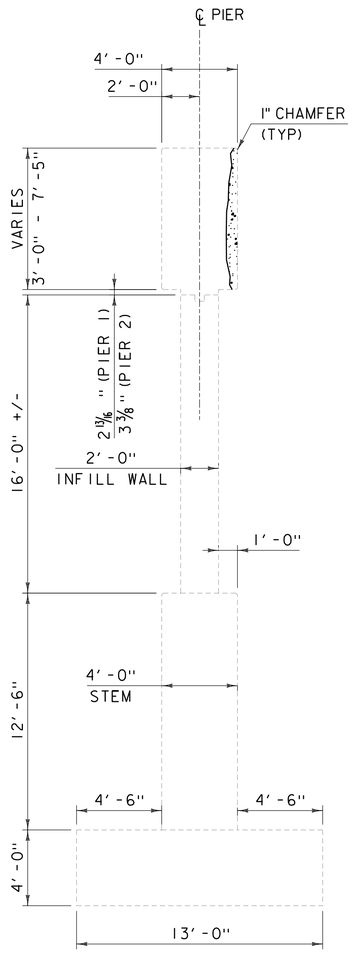
EXISTING PIER 1 PLAN

SCALE: ⅜" = 1′-0"



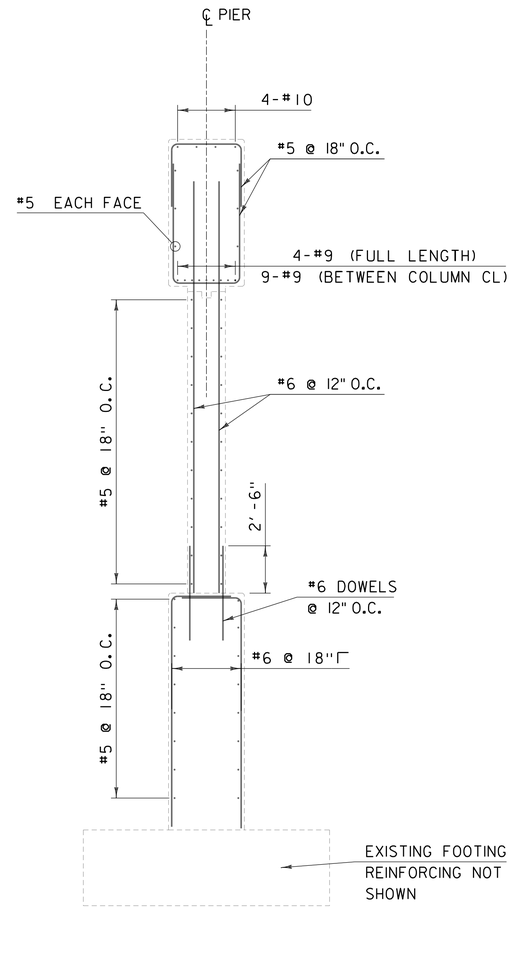
EXISTING PIER 2 PLAN

SCALE: ⅜" = 1′-0"



MASONRY DETAIL

SCALE: ¼" = 1′-0"



REINFORCEMENT DETAIL

SCALE: ¼" = 1′-0"

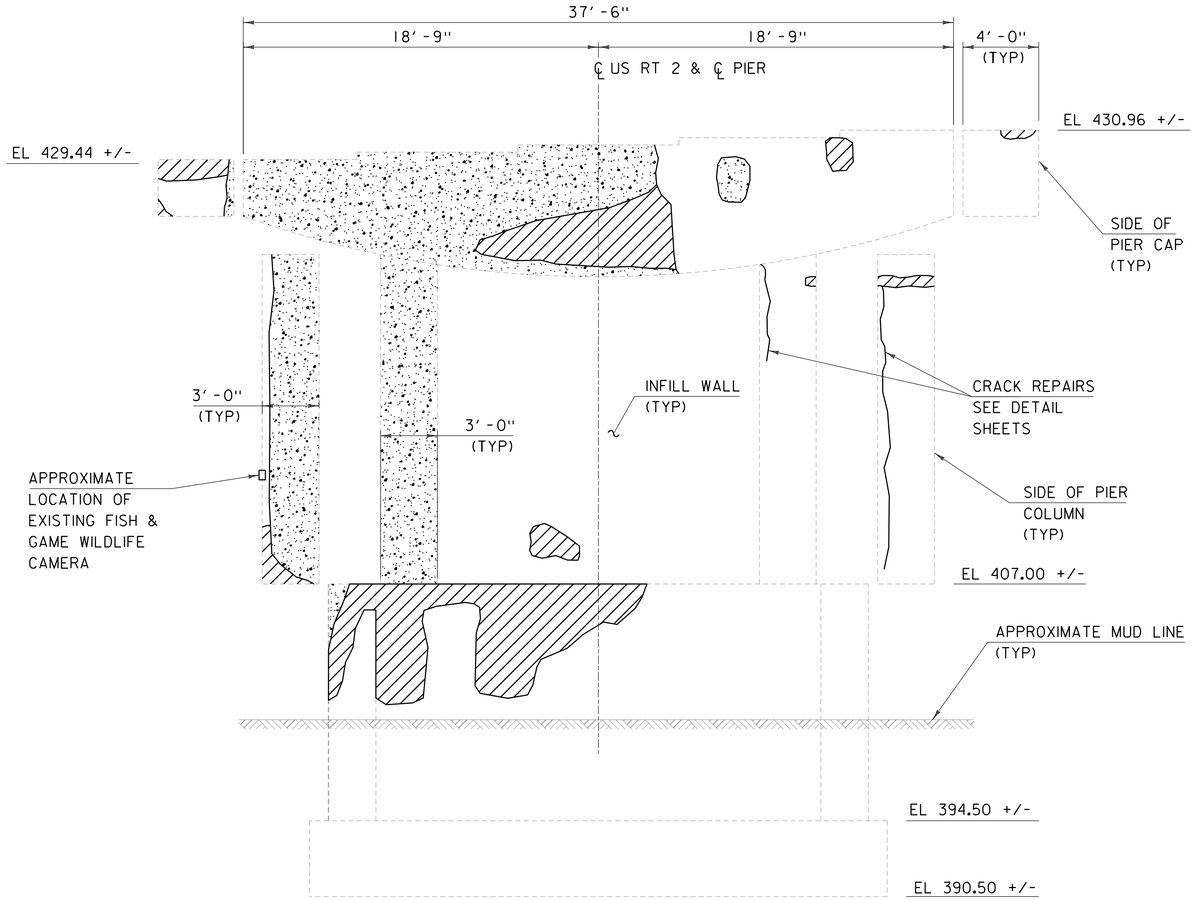
EXISTING TYPICAL PIER SECTIONS (A-A)

(PIER PILES NOT SHOWN)

DELAMINATED AREA

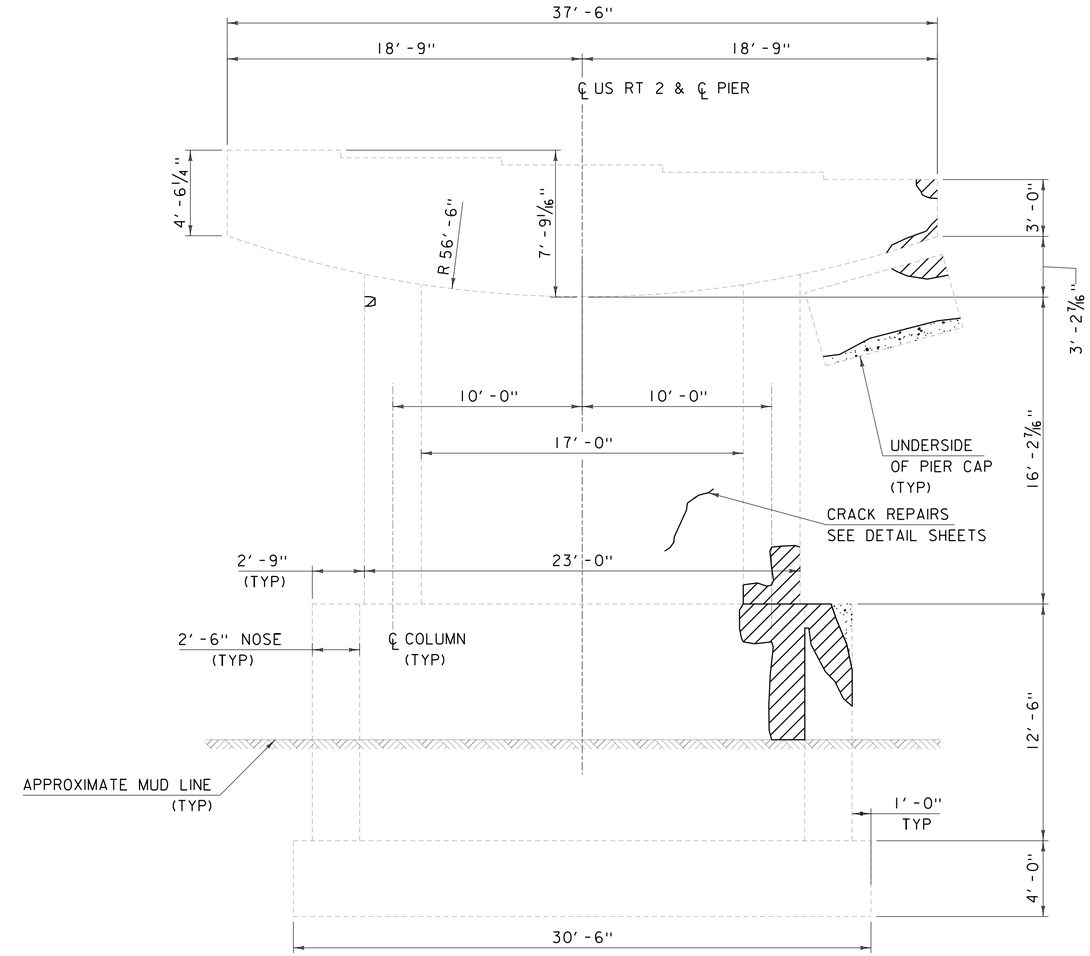
SPALLED GREATER THAN 2" DEPTH WITH EXPOSED REBAR

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602sub.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
EXISTING PIERS PLAN AND SECTION	SHEET 68 OF 130



EXISTING PIER 1 ELEVATION

SCALE: 1/4" = 1′-0"
(EAST FACE)



EXISTING PIER 1 ELEVATION

SCALE: 1/4" = 1′-0"
(WEST FACE)

NOTES:

1. ALL REPAIRS ARE ESTIMATED. THE PIER REPAIR PLANS WERE DEVELOPED FROM NOTES OF A NOVEMBER 2020 PRELIMINARY INSPECTION AND SHALL BE USED ONLY AS AN INDICATION OF THE GENERAL CONDITION OF THE SUBSTRUCTURE. A THOROUGH INSPECTION BY THE ENGINEER WILL BE MADE OF ALL SUBSTRUCTURE AREAS AT THE TIME OF CONSTRUCTION. AREAS OF DELAMINATED CONCRETE WILL BE IDENTIFIED AND DELINEATED. THE CONTRACTOR SHALL SUPPLY ACCESS REQUIRED FOR THIS INSPECTION. COST SHALL BE INCIDENTAL TO ITEM 635.11, "MOBILIZATION/DEMOBILIZATION".

2. AREAS OF UNSOUND CONCRETE ON THE PIERS SHALL BE REPAIRED IN ACCORDANCE WITH SECTION 580, STRUCTURAL CONCRETE REPAIR, IN THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID UNDER ITEMS 580.13, 580.14, & 580.15.

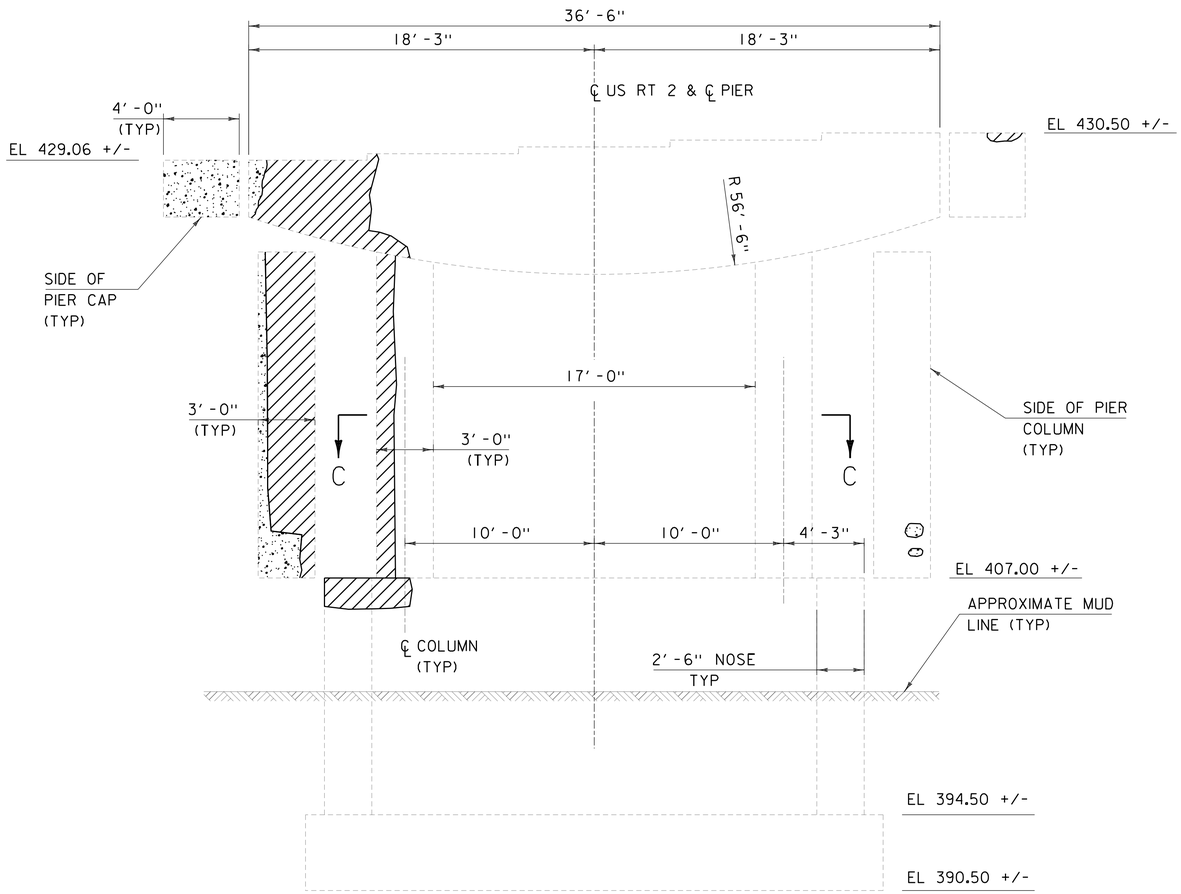
3. CLASS 3 REPAIRS SHALL BE MADE AT THE DIRECTION OF THE ENGINEER IF UNSOUND CONCRETE EXTENDS MORE THAN 6" FROM THE ORIGINAL FACE.

4. CRACKS IN REGIONS OF SOUND CONCRETE SHALL BE REPAIRED AT THE DIRECTION OF THE ENGINEER OR AS INDICATED IN THESE PLANS. CRACK REPAIR COSTS SHALL BE INCIDENTAL TO THE CONCRETE REPAIR ITEMS.

DELAMINATED AREA
CLASS 1 REPAIR

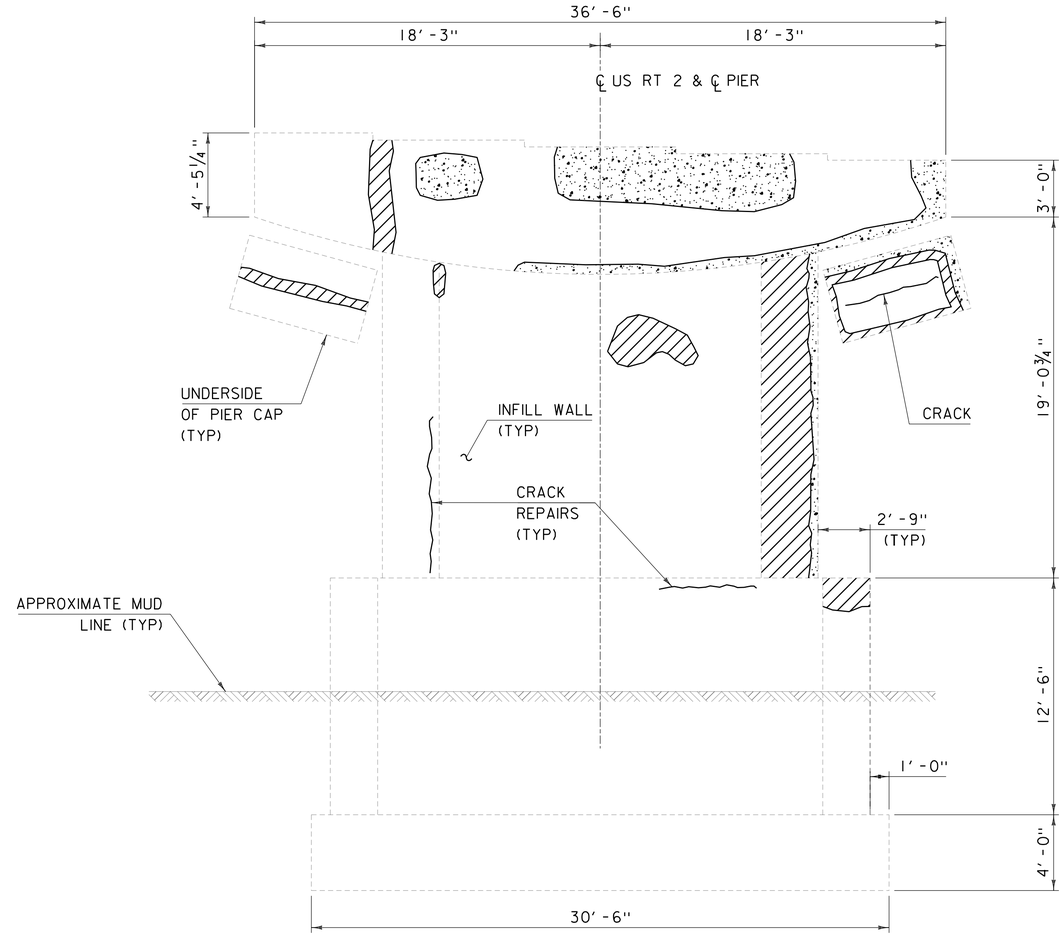
SPALLED GREATER THAN 2"
DEPTH W/ EXPOSED REBAR
CLASS 2 REPAIR

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602sub.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
EXISTING PIER 1 ELEVATION	SHEET 69 OF 130



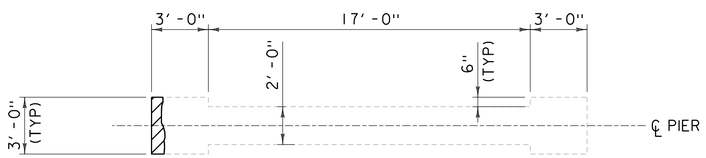
EXISTING PIER 2 ELEVATION

SCALE: 1/4" = 1′-0"
(EAST FACE)



EXISTING PIER 2 ELEVATION

SCALE: 1/4" = 1′-0"
(WEST FACE)



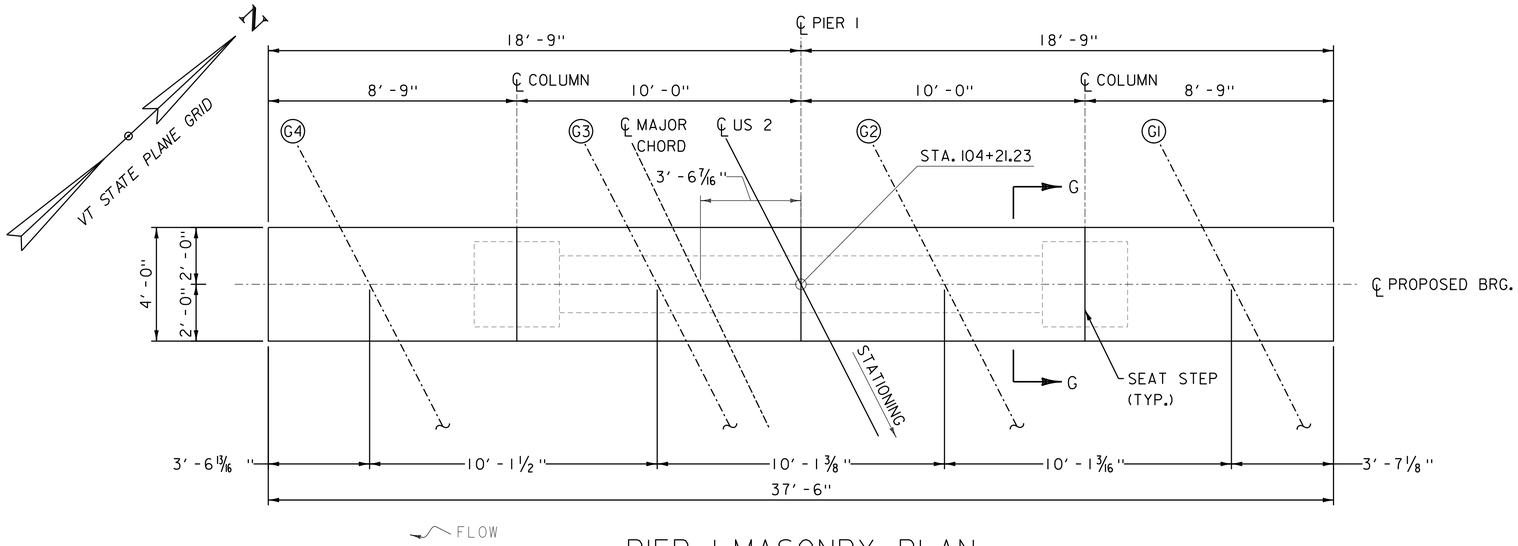
SECTION C-C

SCALE: 1/4" = 1′-0"
(PIER 2 SHOWN, PIER 1 SIMILAR)

DELAMINATED AREA
CLASS 1 REPAIR

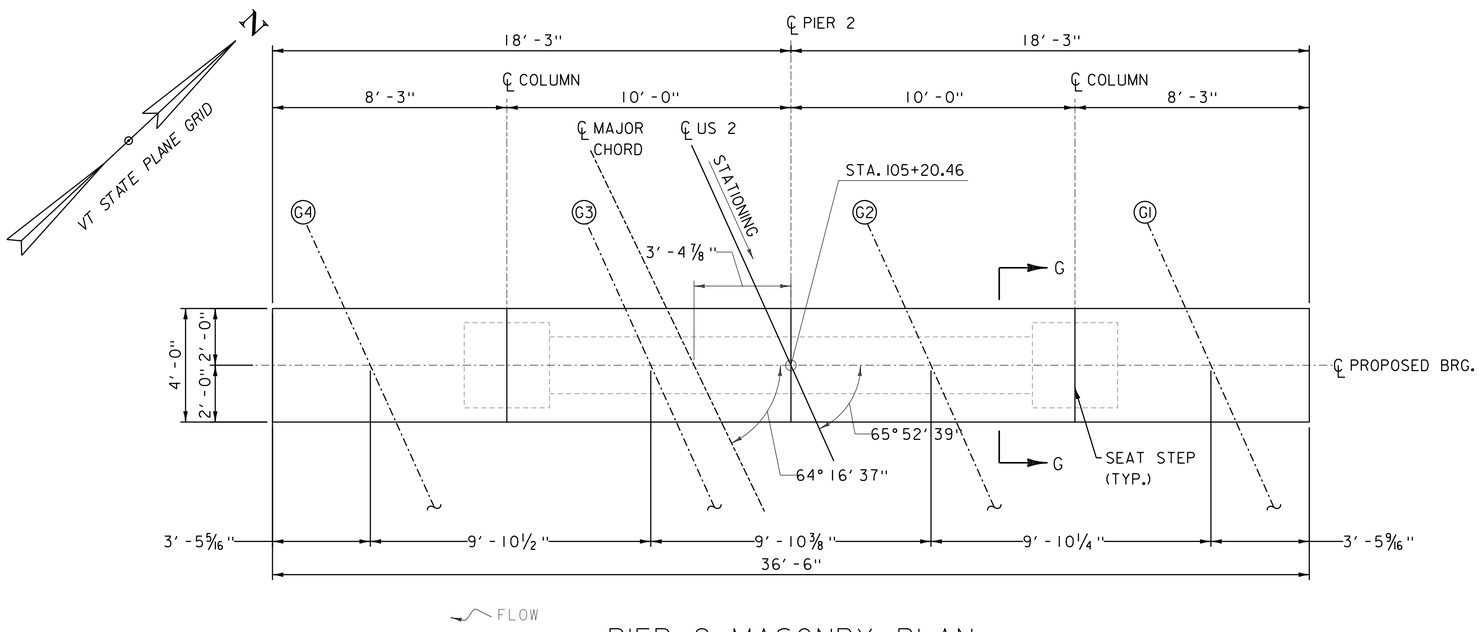
SPALLED GREATER THAN 2"
DEPTH W/ EXPOSED REBAR
CLASS 2 REPAIR

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602sub.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
EXISTING PIER 2 ELEVATION	SHEET 70 OF 130



PIER 1 MASONRY PLAN

SCALE: 3/8" = 1′-0"



PIER 2 MASONRY PLAN

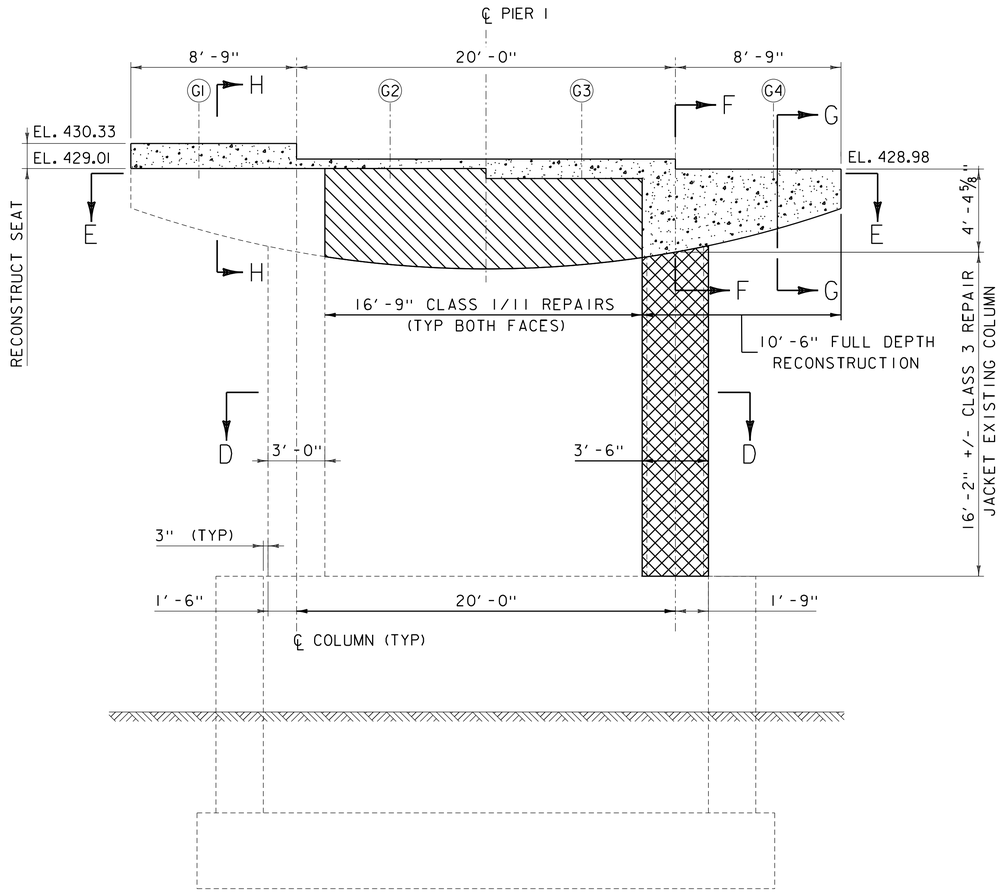
SCALE: 3/8" = 1′-0"

GIRDER	PIER 1		PIER 2	
	SKEW "ϕ"	EL. "A"	SKEW "ϕ"	EL. "A"
1	63° 00′ 14"	430.33	65° 57′ 41"	429.68
2	62° 51′ 38"	429.51	65° 51′ 02"	429.18
3	62° 44′ 20"	429.51	65° 45′ 26"	428.90
4	62° 36′ 32"	428.98	65° 37′ 50"	428.38

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602subl.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R. GAUDREAU
PIER MASONRY

PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 71 OF 130



PIER 1 ELEVATION

SCALE: 1/4" = 1′-0"

LEGEND:

- CLASS 1 OR II REPAIR
- CLASS III REPAIR
- RECONSTRUCTION

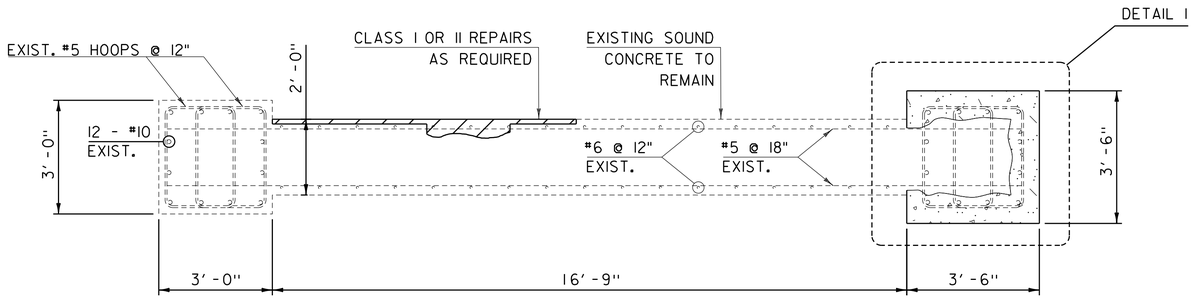
NOTES:

1) SEE CONCRETE REPAIR DETAILS SHEET FOR ADDITIONAL CLASS I AND II REPAIR REQUIREMENTS.

2) EXISTING TIE REINFORCEMENT THAT HAS SEVERELY DETERIORATED MAY BE CUT AT THE SURFACE OF THE EXISTING CONCRETE FACE TO REMAIN OR AS DIRECTED BY THE ENGINEER.

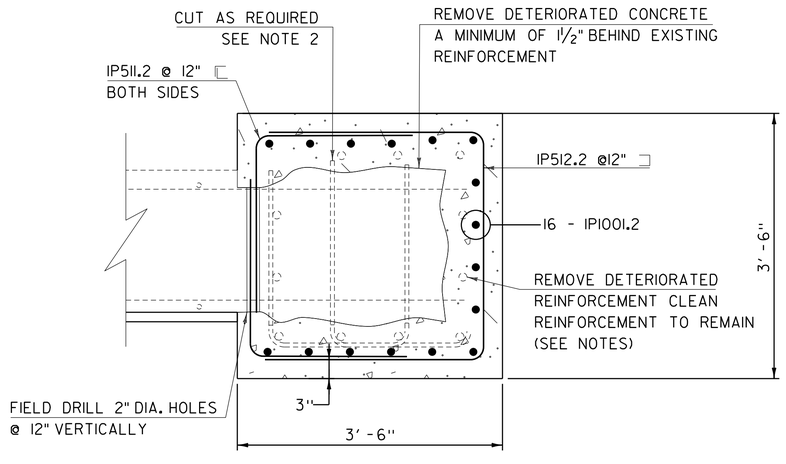
3) FIELD DRILL HOLES @ 12" TO RECEIVE 2 - P511.2. TIE P512.2 AFTER P511.2 HAVE BEEN INSERTED. GROUT HOLES PRIOR TO CONCRETE PLACEMENT.

4) THE CONCRETE COLUMN REPAIR SHALL CONSIST OF THE FOLLOWING:
   REMOVAL OF DETERIORATED CONCRETE
   REMOVAL OF REINFORCEMENT WITH SUBSTANTIAL DETERIORATION
   BLAST CLEAN AND PREPARE CONCRETE SURFACE TO BOND WITH NEW CONCRETE
   DRILL 2" DIAMETER HOLE THROUGH EXISTING CONCRETE TO REMAIN TO RECEIVE L BARS
   PLACE NEW REINFORCEMENT
   GROUT DRILL HOLES AFTER REBAR HAS BEEN PLACED
   POUR CONCRETE JACKET



SECTION D-D - REPAIR

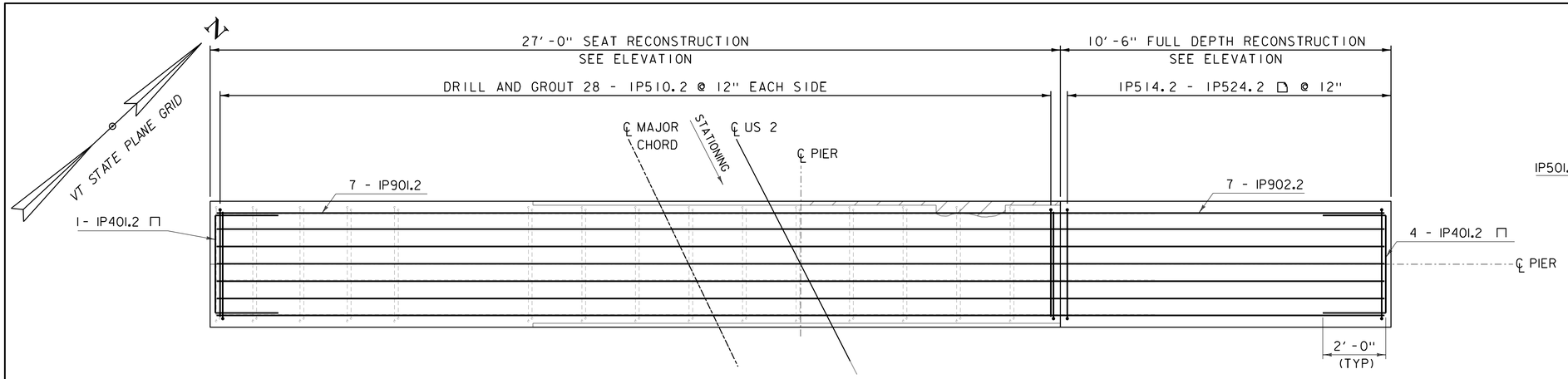
SCALE: 1/2" = 1′-0"



DETAIL 1

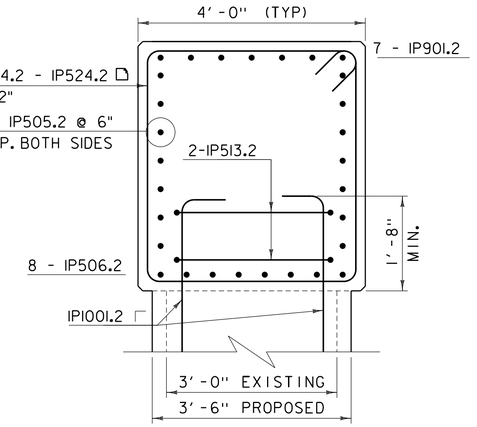
SCALE: 1" = 1′-0"

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602subl.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: K. KITTREDGE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
PIER 1 DETAILS	SHEET 72 OF 130



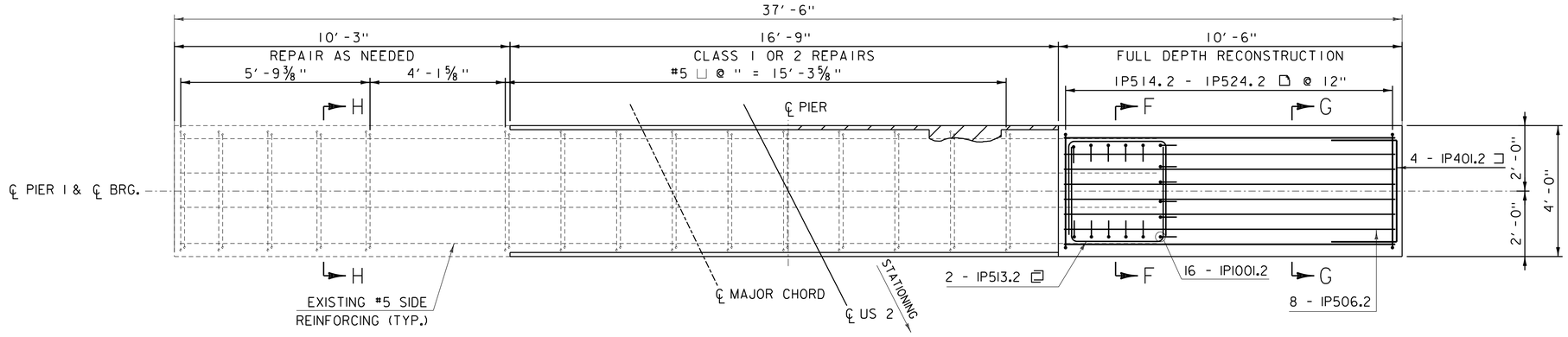
PIER 1 PROPOSED REINFORCEMENT

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



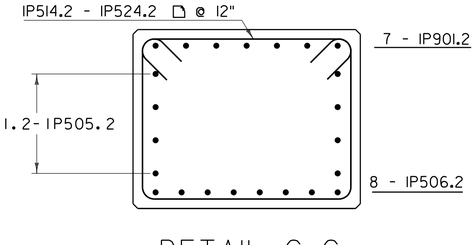
DETAIL F-F

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



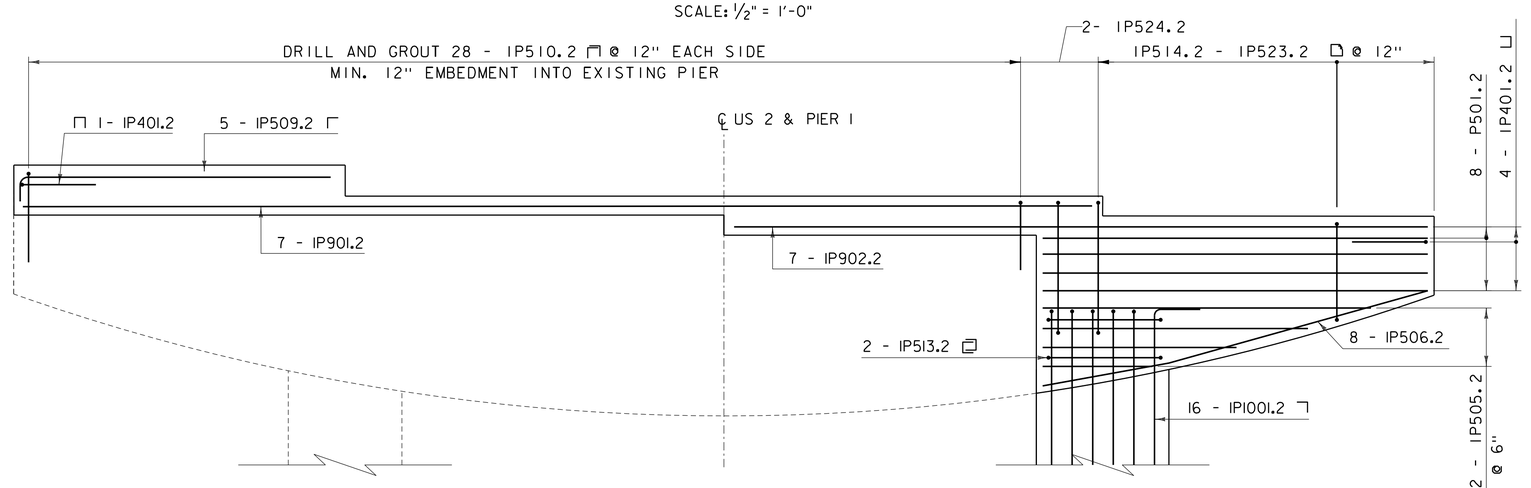
SECTION E-E - PIER 1 REPAIR

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



DETAIL G-G

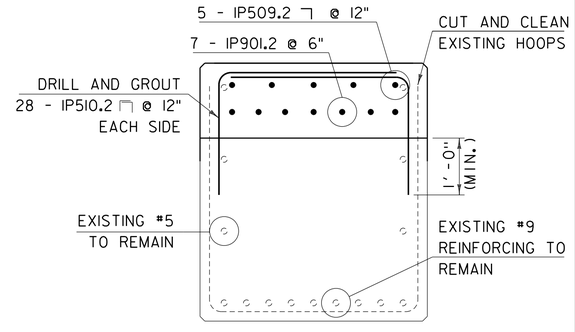
SCALE: 3/4" = 1'-0"



PIER 1 PROPOSED REINFORCEMENT ELEVATION

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

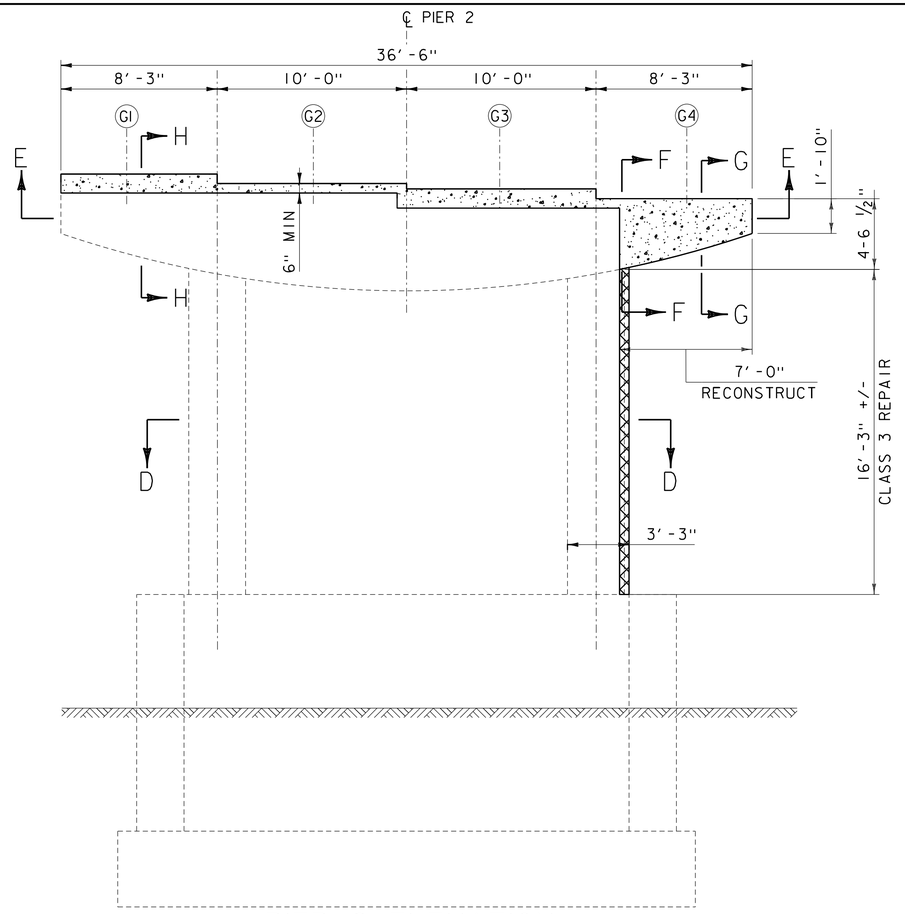
EXISTING REINFORCEMENT NOT SHOWN FOR CLARITY



DETAIL H-H

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

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602subl.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: K. KITTREDGE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
PIER 1 REINFORCING	SHEET 73 OF 130

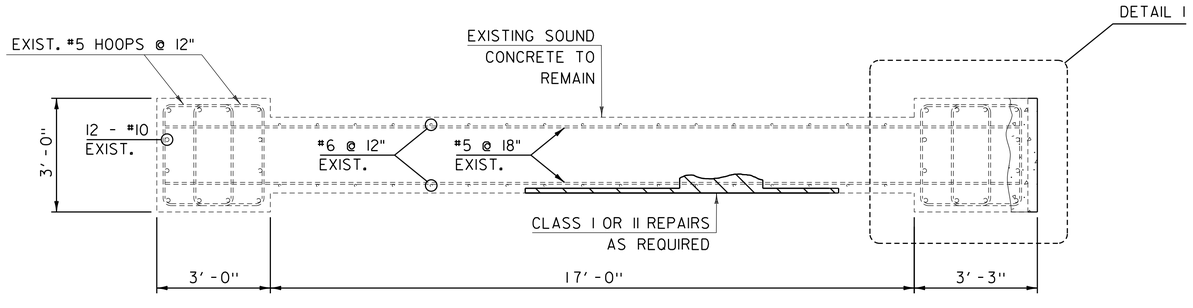


PIER 2 ELEVATION

SCALE: ¼" = 1′-0"

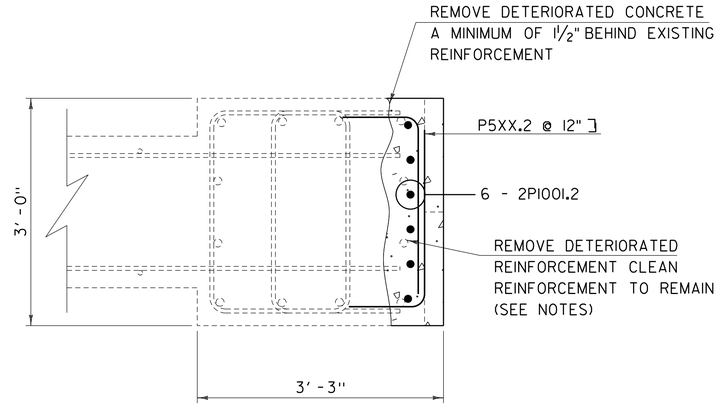
LEGEND:

- CLASS I REPAIR
- CLASS II REPAIR
- CLASS III REPAIR
- RECONSTRUCTION



SECTION D-D - REPAIR

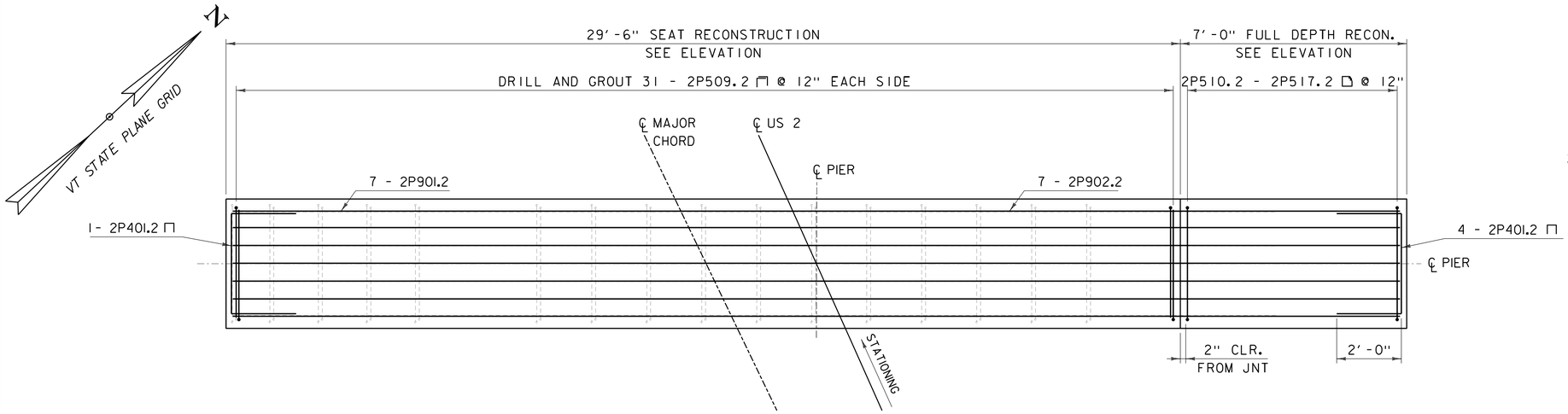
SCALE: ½" = 1′-0"



DETAIL I

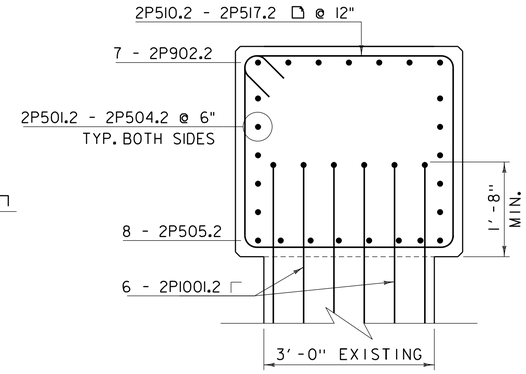
SCALE: 1" = 1′-0"

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: zl2c602subl.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: K. KITTREDGE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
PIER 2 DETAILS	SHEET 74 OF 130



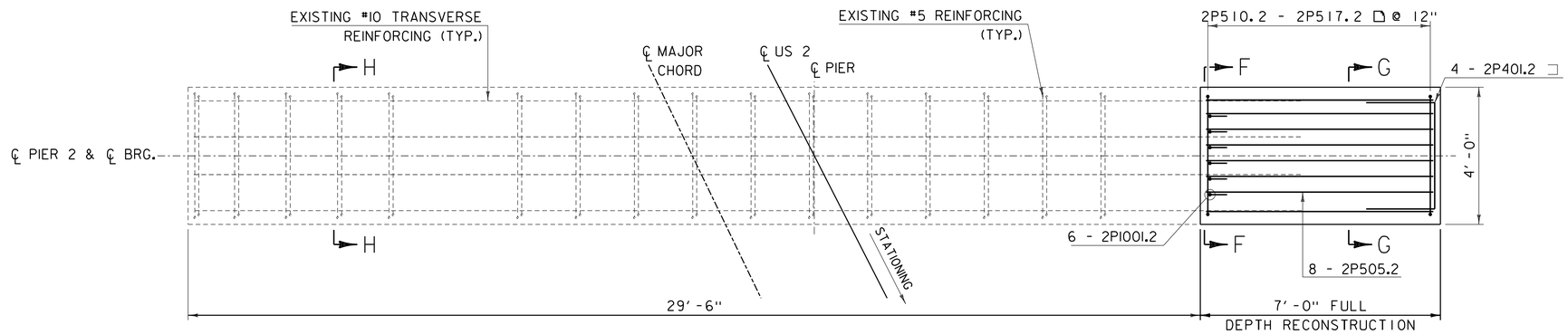
PIER 2 PROPOSED REINFORCEMENT

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



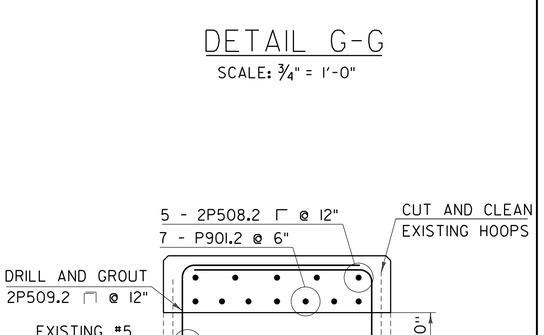
DETAIL F-F

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



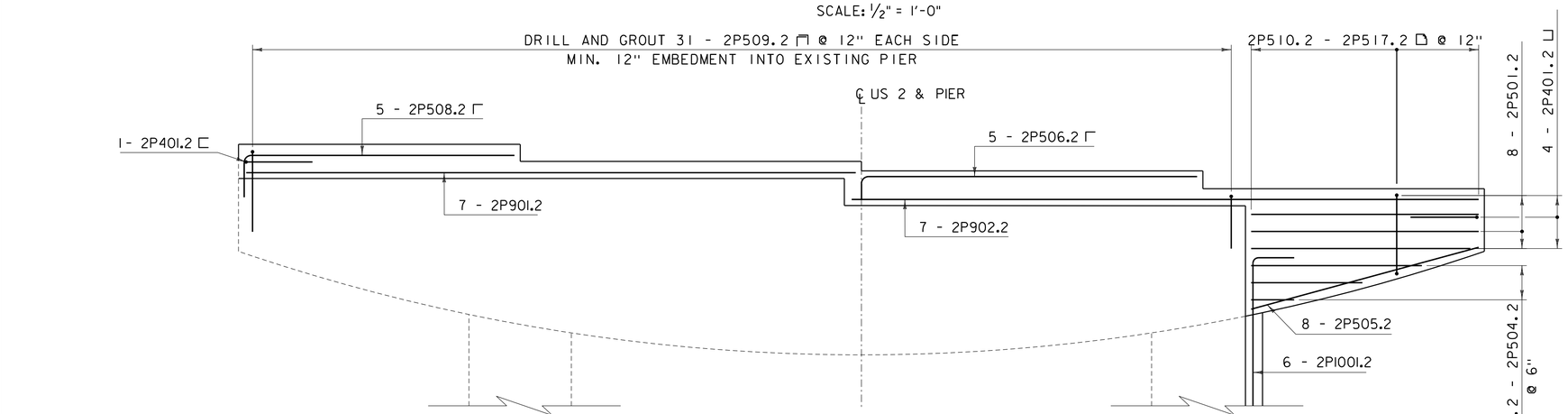
SECTION E-E - PIER 2 REPAIR

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



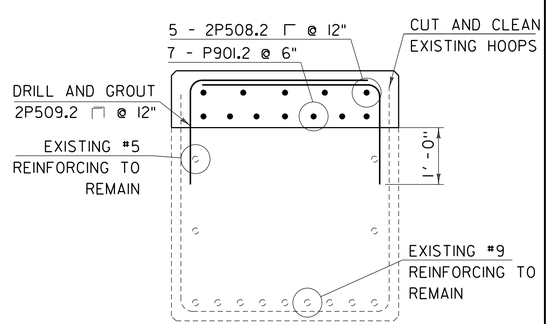
DETAIL G-G

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



PIER 2 PROPOSED REINFORCEMENT ELEVATION

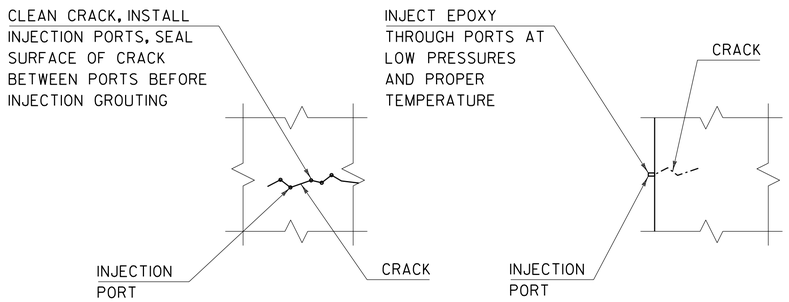
SCALE: 1/2" = 1'-0"



DETAIL H-H

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

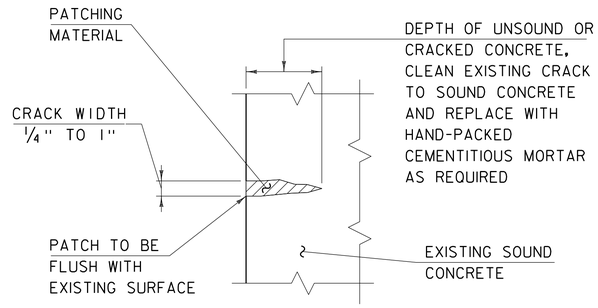
PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602subl.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: K. KITTREDGE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M.OOMS
PIER 2 REINFORCING	SHEET 75 OF 130



ELEVATION

SECTION

CRACKS 1/8" - 1/4" •

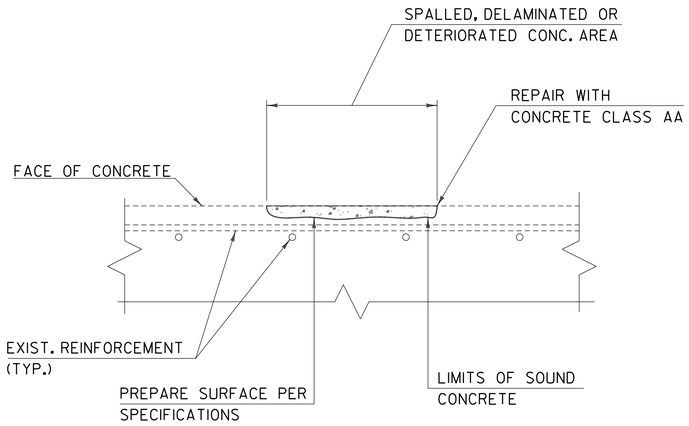


CRACKS GREATER THAN 1/4"

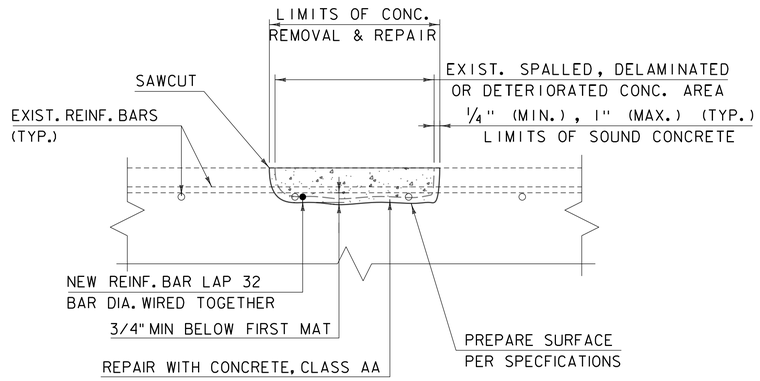
• CRACKS LESS THAN 1/4" IN WIDTH SHALL BE REPAIRED ONLY AT THE DIRECTION OF THE ENGINEER.

CRACK REPAIR DETAILS

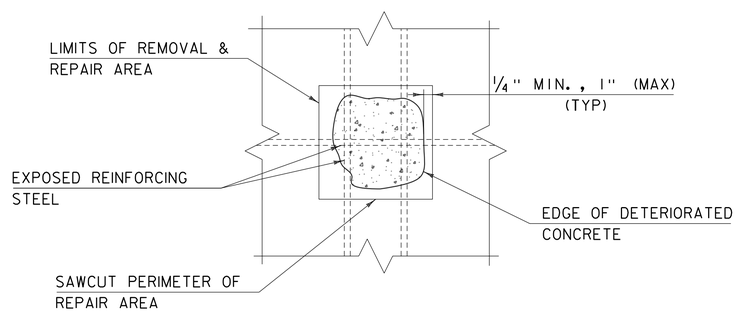
SCALE: N.T.S.



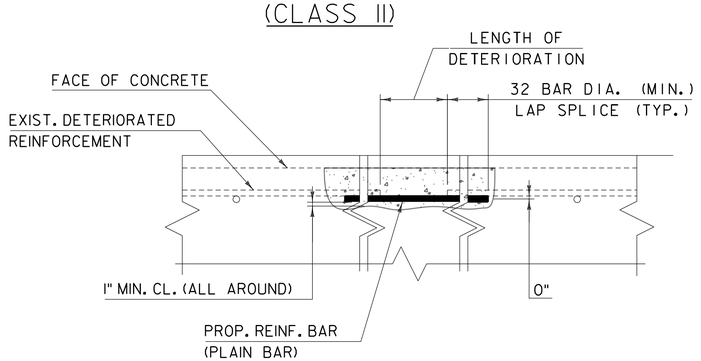
SHALLOW DEPTH REPAIR
(CLASS I)



PARTIAL DEPTH REPAIR
(CLASS II)



PLAN VIEW
TYPICAL LIMITS OF REPAIR AREA



TYPICAL DETERIORATED REINFORCING BAR
REPAIR DETAIL

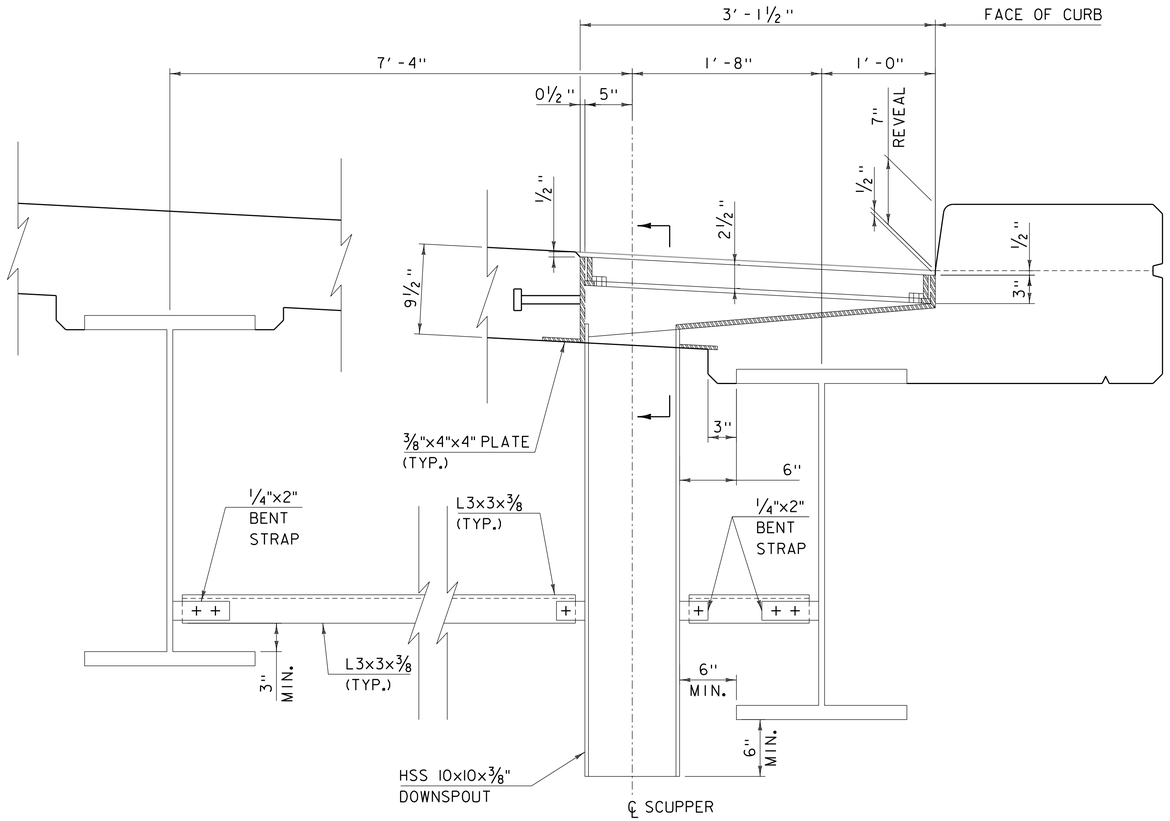
SUBSTRUCTURE REPAIR DETAILS

SCALE: N.T.S.

SUBSTRUCTURE REPAIR NOTES:

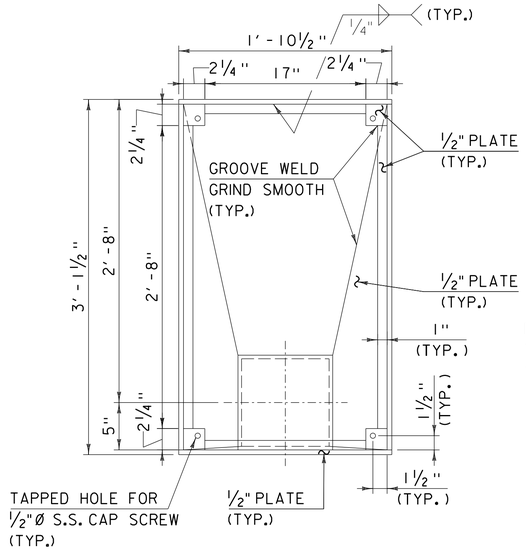
1. ALL CONCRETE REPAIR WORK SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 580.
2. LIMITS OF REPAIR INCLUDING EXTENT, LOCATION AND REPAIR TYPE OF ALL AREAS NOT NOTED IN THESE PLANS ARE TO BE FIELD VERIFIED AND APPROVED BY THE ENGINEER AFTER THE CONTRACTOR HAS SOUNDED AND MARKED OUT ALL REPAIR AREAS. REPAIR CONFIGURATIONS SHALL BE KEPT AS SIMPLE AS POSSIBLE, PREFERABLY WITH SQUARE CORNERS.
4. THE REMOVAL OF DETERIORATED CONCRETE SHALL PROCEED AS DIRECTED BY THE ENGINEER. IF THE REMOVAL OF DETERIORATED CONCRETE EXCEEDS 6" IN DEPTH, A CLASS 3 REPAIR WILL BE REQUIRED AND THE ENGINEER SHALL BE NOTIFIED PRIOR TO FURTHER REMOVAL.
5. REMOVE DETERIORATED AND DELAMINATED CONCRETE, UNDERCUT EXPOSED REINFORCING STEEL TO PROVIDE MINIMUM CLEARANCE AROUND BARS, REMOVE ADDITIONAL CONCRETE AS REQUIRED TO ACHIEVE THE MINIMUM REQUIRED THICKNESS OF REPAIR MATERIAL.
6. EXPOSED REINFORCING STEEL SHALL BE CLEANED BY MECHANICAL CLEANING AND HIGH PRESSURE WASH WITH WATER THAT CONTAINS NO DETERGENTS OR BOND INHIBITING CHEMICALS. WHERE ACTIVE CORROSION HAS OCCURRED THAT WOULD INHIBIT BONDING, SANDBLAST STEEL TO NEAR WHITE METAL FINISH. ALL COSTS ASSOCIATED WITH THIS WORK WILL BE PAID FOR UNDER THE APPROPRIATE CONCRETE REPAIR ITEM.
7. A NEW REINFORCING BAR (PLAIN BAR) SHALL BE PLACED TO SUPPLEMENT AN EXISTING REINFORCING BAR WHEN AN EXISTING BAR HAS A SECTION LOSS OF 25% OR MORE OF THE ORIGINAL CROSS SECTION, AS DETERMINED BY THE ENGINEER, OR THE EXISTING REINFORCEMENT IS BROKEN. A NEW REINFORCEMENT BAR (PLAIN BAR) SHALL EXTEND 32 BAR DIAMETERS PAST LOCATIONS WHERE THE EXISTING REINFORCEMENT BAR HAS A SECTION LOSS OF 25% OR MORE, OR THE EXISTING REINFORCEMENT BAR IS BROKEN.
8. UPON APPROVAL OF THE ENGINEER, MODIFY LIMITS OF CONCRETE REMOVAL AS SHOWN IN THE LIMITS OF REPAIR AREA WHEN SUPPLEMENTARY REINFORCEMENT BARS ARE REQUIRED.
9. THE NEW REINFORCEMENT BAR SHALL BE PLACED AT THE SAME LEVEL ALONG THE EXISTING DETERIORATED OR BROKEN REINFORCEMENT BAR.

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602subrepair.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R. TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: R. GAUDREAU	CHECKED BY: M. OOMS
SUBSTRUCTURE REPAIR DETAILS	SHEET 76 OF 130



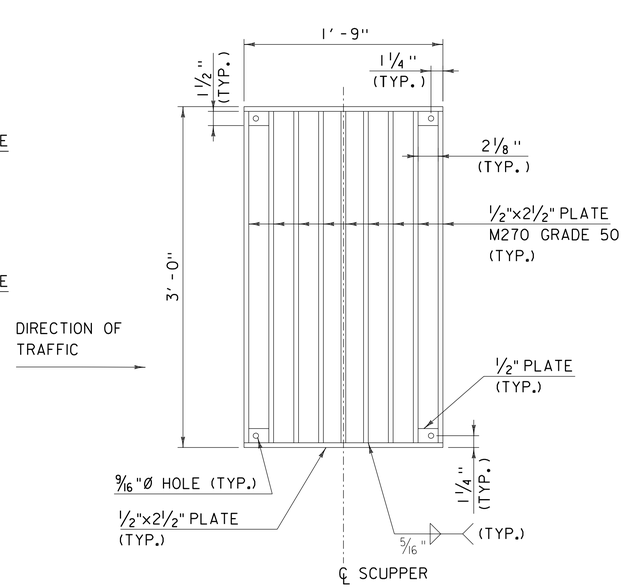
SECTION AT CURB

SCALE: 1½" = 1'-0"



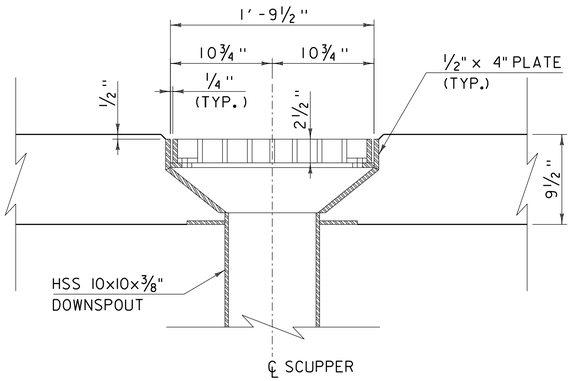
PLAN (GRATING REMOVED)

SCALE: 1½" = 1'-0"



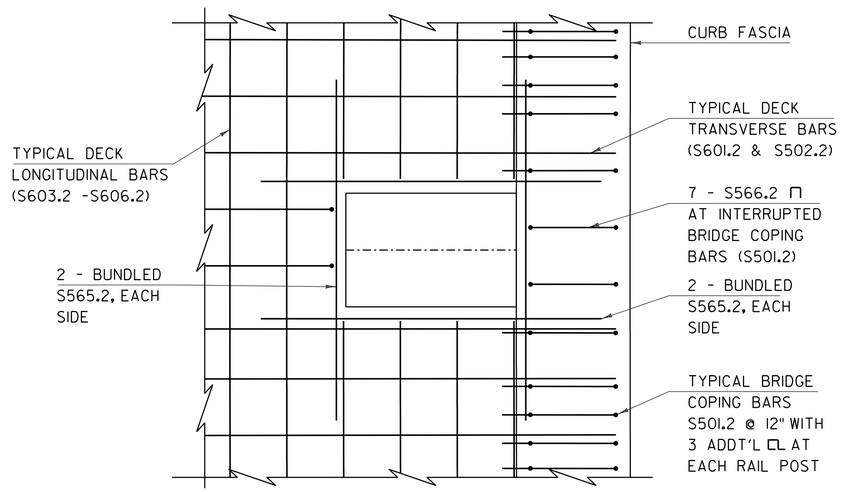
PLAN OF GRATING

SCALE: 1½" = 1'-0"



SECTION

SCALE: 1½" = 1'-0"



DECK REINFORCING AT SCUPPER

SCALE: ¾" = 1'-0"

SCUPPER NOTES:

1. ALL MATERIALS AND INSTALLATION COSTS FOR THE SCUPPERS, INCLUDING STEEL TUBING, RELATED HARDWARE, AND ANCHOR BOLTS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 506.50, "STRUCTURAL STEEL, ROLLED BEAM", AND SHALL BE FABRICATED IN ACCORDANCE WITH SECTION 506.
2. HOLLOW STRUCTURAL STEEL TUBING SHALL CONFORM TO THE REQUIREMENTS OF STANDARD SPECIFICATION SUBSECTION 714.11.
3. ALL PLATES, BARS, AND ANGLES SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 714.02.
4. ALL BOLTS AND RELATED HARDWARE SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 714.04 AND SHALL BE GALVANIZED IN ACCORDANCE WITH SUBSECTION 726.08.
5. SCUPPERS SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 726.08.
6. ALL REQUIRED WELDS FOR SCUPPERS SHALL BE DETAILED ON FABRICATION DRAWINGS WHICH SHALL ALSO INCLUDE ALL APPLICABLE WELDING PROCEDURES.
7. AFTER ALL CONCRETE OPERATIONS, THE SCUPPERS SHALL BE CLEANED OF ALL CONTAMINATION BY FLUSHING.
8. TEMPORARY SUPPORT IS REQUIRED. SUPPORT DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
9. REFER TO CURB AND RAIL LAYOUT SHEET FOR SCUPPER LOCATIONS.

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602scuppers.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R.GAUDREAU
SCUPPER DETAILS

PLOT DATE: 8/18/2022
DRAWN BY: C.BELLISLE
CHECKED BY: M.OOMS
SHEET 77 OF 130

STATE OF VERMONT
AGENCY OF TRANSPORTATION

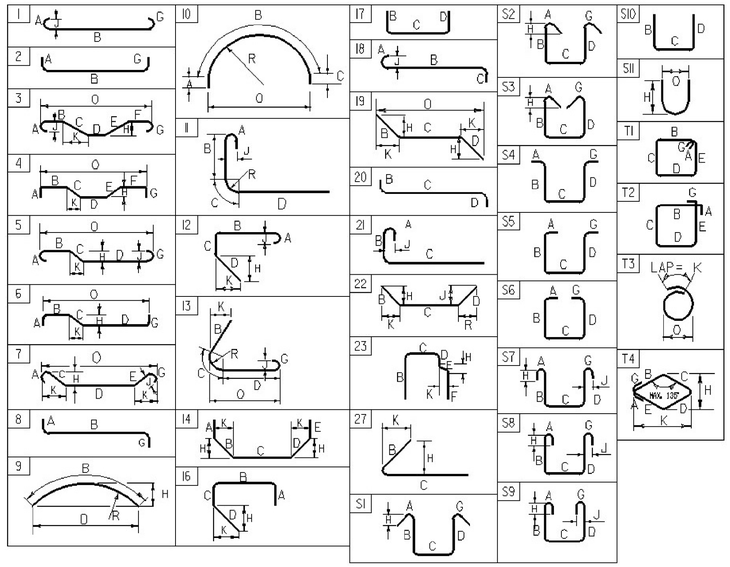
REINFORCING STEEL SCHEDULE

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
	DECK AND CURB																
	673	5	4'- 5"	S501.2	S5	0'- 6"	1'- 0"	1'- 5"	1'- 0"			0'- 6"					
	455	5	32'- 6"	S502.2	STR	32'- 6"											
	42	5	36'- 9"	S503.2	STR	36'- 9"											
✳	43	5	36'- 11"	S504.2	STR	36'- 11"											
	1	5	2'- 2"	S505.2	STR	2'- 2"											
	1	5	3'- 0"	S506.2	STR	3'- 0"											
	1	5	3'- 11"	S507.2	STR	3'- 11"											
	1	5	4'- 9"	S508.2	STR	4'- 9"											
	1	5	5'- 8"	S509.2	STR	5'- 8"											
	1	5	6'- 6"	S510.2	STR	6'- 6"											
	1	5	7'- 5"	S511.2	STR	7'- 5"											
	1	5	8'- 3"	S512.2	STR	8'- 3"											
	1	5	9'- 2"	S513.2	STR	9'- 2"											
	1	5	10'- 0"	S514.2	STR	10'- 0"											
	1	5	10'- 11"	S515.2	STR	10'- 11"											
	1	5	11'- 9"	S516.2	STR	11'- 9"											
	1	5	12'- 8"	S517.2	STR	12'- 8"											
	1	5	13'- 6"	S518.2	STR	13'- 6"											
	1	5	14'- 5"	S519.2	STR	14'- 5"											
	1	5	15'- 3"	S520.2	STR	15'- 3"											
	1	5	16'- 2"	S521.2	STR	16'- 2"											
	1	5	17'- 0"	S522.2	STR	17'- 0"											
	1	5	17'- 11"	S523.2	STR	17'- 11"											
	1	5	18'- 9"	S524.2	STR	18'- 9"											
	1	5	19'- 8"	S525.2	STR	19'- 8"											
	1	5	20'- 6"	S526.2	STR	20'- 6"											
	1	5	21'- 5"	S527.2	STR	21'- 5"											
	1	5	22'- 4"	S528.2	STR	22'- 4"											
	1	5	23'- 2"	S529.2	STR	23'- 2"											
	1	5	24'- 1"	S530.2	STR	24'- 1"											
	1	5	25'- 0"	S531.2	STR	25'- 0"											
	1	5	25'- 11"	S532.2	STR	25'- 11"											
	1	5	26'- 9"	S533.2	STR	26'- 9"											
	1	5	27'- 8"	S534.2	STR	27'- 8"											
	1	5	28'- 7"	S535.2	STR	28'- 7"											
	1	5	29'- 5"	S536.2	STR	29'- 5"											
	1	5	30'- 4"	S537.2	STR	30'- 4"											
	1	5	31'- 3"	S538.2	STR	31'- 3"											
	1	5	32'- 2"	S539.2	STR	32'- 2"											
	1	5	2'- 8"	S540.2	STR	2'- 8"											
	1	5	3'- 10"	S541.2	STR	3'- 10"											
	1	5	5'- 1"	S542.2	STR	5'- 1"											
	1	5	6'- 4"	S543.2	STR	6'- 4"											
	1	5	7'- 7"	S544.2	STR	7'- 7"											
	1	5	8'- 9"	S545.2	STR	8'- 9"											
	1	5	10'- 0"	S546.2	STR	10'- 0"											
	1	5	11'- 3"	S547.2	STR	11'- 3"											
	1	5	12'- 6"	S548.2	STR	12'- 6"											
	1	5	13'- 8"	S549.2	STR	13'- 8"											
	1	5	14'- 11"	S550.2	STR	14'- 11"											
	1	5	16'- 2"	S551.2	STR	16'- 2"											
	1	5	17'- 4"	S552.2	STR	17'- 4"											
	1	5	18'- 7"	S553.2	STR	18'- 7"											
	1	5	19'- 9"	S554.2	STR	19'- 9"											
	1	5	21'- 0"	S555.2	STR	21'- 0"											
	1	5	22'- 3"	S556.2	STR	22'- 3"											
	1	5	23'- 5"	S557.2	STR	23'- 5"											
	1	5	24'- 8"	S558.2	STR	24'- 8"											
	1	5	25'- 10"	S559.2	STR	25'- 10"											
	1	5	27'- 1"	S560.2	STR	27'- 1"											
	1	5	28'- 3"	S561.2	STR	28'- 3"											
	1	5	29'- 6"	S562.2	STR	29'- 6"											
	1	5	30'- 8"	S563.2	STR	30'- 8"											
	1	5	31'- 10"	S564.2	STR	31'- 10"											
	16	5	6'- 0"	S565.2	STR	6'- 0"											
	462	5	3'- 5"	S566.2	S10		1'- 0"	1'- 5"	1'- 0"								
	455	6	32'- 6"	S601.2	STR	32'- 6"											
	910	6	5'- 8"	S602.2	1	0'- 6"	5'- 2"					0'- 0"		0'- 6"			
	136	6	28'- 0"	S603.2	STR	28'- 0"											
	136	6	37'- 10"	S604.2	STR	37'- 10"											
✳	137	6	28'- 0"	S605.2	STR	28'- 0"											
	136	6	37'- 10"	S606.2	STR	37'- 10"											
	170	6	35'- 2"	S607.2	STR	35'- 2"											
	4	6	35'- 0"	S608.2	STR	35'- 0"											
	4	6	37'- 3"	S609.2	STR	37'- 3"											
	1	6	2'- 2"	S610.2	STR	2'- 2"											
	1	6	3'- 0"	S611.2	STR	3'- 0"											
	1	6	3'- 11"	S612.2	STR	3'- 11"											
	1	6	4'- 9"	S613.2	STR	4'- 9"											
	1	6	5'- 8"	S614.2	STR	5'- 8"											
	1	6	6'- 6"	S615.2	STR	6'- 6"											
	1	6	7'- 5"	S616.2	STR	7'- 5"											
	1	6	8'- 3"	S617.2	STR	8'- 3"											
	1	6	9'- 2"	S618.2	STR	9'- 2"											
	1	6	10'- 0"	S619.2	STR	10'- 0"											
	1	6	10'- 11"	S620.2	STR	10'- 11"											
	1	6	11'- 9"	S621.2	STR	11'- 9"											
	1	6	12'- 8"	S622.2	STR	12'- 8"											
	1	6	13'- 6"	S623.2	STR	13'- 6"											
	1	6	14'- 5"	S624.2	STR	14'- 5"											
	1	6	15'- 3"	S625.2	STR	15'- 3"											
	1	6	16'- 2"	S626.2	STR	16'- 2"											

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
	1	6	17'- 0"	S627.2	STR	17'- 0"											
	1	6	17'- 11"	S628.2	STR	17'- 11"											
	1	6	18'- 9"	S629.2	STR	18'- 9"											
	1	6	19'- 8"	S630.2	STR	19'- 8"											
	1	6	20'- 6"	S631.2	STR	20'- 6"											
	1	6	21'- 5"	S632.2	STR	21'- 5"											
	1	6	22'- 4"	S633.2	STR	22'- 4"											
	1	6	23'- 2"	S634.2	STR	23'- 2"											
	1	6	24'- 1"	S635.2	STR	24'- 1"											
	1	6	25'- 0"	S636.2	STR	25'- 0"											
	1	6	25'- 11"	S637.2	STR	25'- 11"											
	1	6	26'- 9"	S638.2	STR	26'- 9"											
	1	6	27'- 8"	S639.2	STR	27'- 8"											
	1	6	28'- 7"	S640.2	STR	28'- 7"											
	1	6	29'- 5"	S641.2	STR	29'- 5"											
	1	6	30'- 4"	S642.2	STR	30'- 4"											
	1	6	31'- 3"	S643.2	STR	31'- 3"											
	1	6	32'- 2"	S644.2	STR	32'- 2"											
	1	6	2'- 8"	S645.2	STR	2'- 8"											
	1	6	3'- 10"	S646.2	STR	3'- 10"											
	1	6	5'- 1"	S647.2	STR	5'- 1"											
	1	6	6'- 4"	S648.2	STR	6'- 4"											
	1	6	7'- 7"	S649.2	STR	7'- 7"											
	1	6	8'- 9"	S650.2	STR	8'- 9"											
	1	6	10'- 0"	S651.2	STR	10'- 0"											
	1	6	11'- 3"	S652.2	STR	11'- 3"											
	1	6	12'- 6"	S653.2	STR	12'- 6"											
	1	6	13'- 8"	S654.2	STR	13'- 8"											
	1	6	14'- 11"	S655.2	STR	14'- 11"											
	1	6	16'- 2"	S656.2	STR	16'- 2"											
	1	6	17'- 4"	S657.2	STR	17'- 4"											
	1	6	18'- 7"	S658.2	STR	18'- 7"											
	1	6	19'- 9"	S659.2	STR	19'- 9"											
	1	6	21'- 0"	S660.2	STR	21'- 0"											
	1	6	22'- 3"	S661.2	STR	22'- 3"											
	1	6	23'- 5"	S662.2	STR	23'- 5"											
	1	6	24'- 8"	S663.2	STR	24'- 8"											
	1	6	25'- 10"	S664.2	STR	25'- 10"											
	1	6	27'- 1"	S665.2	STR	27'- 1"											
	1	6	28'- 3"	S666.2	STR	28'- 3"											
	1	6	29'- 6"	S667.2	STR	29'- 6"											
	1	6	30'- 8"	S668.2	STR	30'- 8"											
	1	6	31'- 10"	S669.2	STR	31'- 10"											
	2	6	6'- 0"	S670.2	27		3'- 0"	3'- 0"					2'- 9"		1'- 6"		
	2	6	6'- 0"	S671.2	19		3'- 0"	3'- 0"	0'- 0"				2'- 8"		1'- 6"		4'- 6"
	2	6	6'- 0"	S672.2	19		3'- 0"	3'- 0"	0'- 0"				2'- 10"		1'- 10"		4'- 6"
	2	6	6'- 0"	S673.2	27		3'- 0"	3'- 0"					2'- 11"		1'- 2"		
	68	6	5'- 0"	S674.2	19		2'- 6"	2'- 6"	0'- 0"				0'- 0"		1'- 9"		4'- 3"
	ABUTMENT 1																
	2	4	4'- 1"	1A401.2	27		2'- 4"	1'- 9"					2'- 4"		0'- 0"		
	16	4	3'- 9"	1A402.2	27		2'- 0"	1'- 9"					2'- 0"		0'- 0"		
	22	4	4'- 4"	1A403.2	27		2'- 0"	2'- 4"					2'- 0"		0'- 0"		
	22	4	4'- 10"	1A404.2	27		2'- 0"	2'- 10"					2'- 0"		0'- 0"		
✳	19	4	5'- 4"	1A405.2	27		2'- 0"	3'- 4"					2'- 0"		0'- 0"		
	2	4	5'- 8"	1A406.2	27		2'- 4"	3'- 4"					2'- 4"		0'- 0"		
	2	5	37'- 2"	1A501.2	STR	37'- 2"											
	2	5	28'- 6"	1A502.2	STR	28'- 6"											
	2	5	18'- 0"	1A503.2	STR	18'- 0"											
	1	5	7'- 2"	1A504.2	STR	7'- 2"											
	1	5	7'- 6"	1A505.2	STR	7'- 6"											
	1	5	7'- 11"	1A506.2	STR	7'- 11"											
	1	5	8'- 3"	1A507.2	STR	8'- 3"											
	2	5	11'- 9"	1A508.2	STR	11'- 9"											
	2	5	13'- 6"	1A509.2	STR	13'- 6"											
	2	5	16'- 6"	1A510.2	STR	16'- 6"											
	PIER 1																
	5	4	7'- 2"	1P401.2	17		2'- 0"	3'- 2"	2'- 0"								
	8	5	10'- 2"	1P501.2	STR	10'- 2"											
	2	5	8'- 8"	1P502.2	STR	8'- 8"											
	2	5	7'- 0"	1P503.2	STR	7'- 0"											
	2	5	5'- 1"	1P504.2	STR	5'- 1"											
	2	5	2'- 10"	1P505.2	STR	2'- 10"											
✳	9	5	10'- 6"	1P506.2	STR	10'- 6"											
	5	5	10'- 8"	1P507.2	2	0'- 6"	10'- 2"							0'- 0"			
	5	5	8'- 11"	1P509.2	2	1'- 0"	7'- 11"							0'- 0"			
	56	5	5'- 8"	1P510.2	2	2'- 4"	3'- 4"							0'- 0"			
	18	5	4'- 0"	1P511.2	2	2'- 0"	2'- 0"							0'- 0"			
	18	5	8'- 8"	1P512.2	17		2'- 10"	3'- 0"	2'- 10"								
	4	5	8'- 6"	1P513.2	17		2'- 10"	2'- 10"	2'- 10"								
	1	5	15'- 4"	1P514.2	T1	0'- 3"	3'- 5"	4'- 0"	3'- 5"	4'- 0"				0'- 3"			
	1	5	15'- 0"	1P515.2	T1	0'- 3"	3'- 5"	3'- 10"	3'- 5"	3'- 10"				0'- 3"			
	1	5	14'- 6"	1P516.2	T1	0'- 3"	3'- 5"	3'- 7"	3'- 5"	3'- 7"				0'- 3"			
	1	5	14'- 2"	1P517.2	T1	0'- 3"	3'- 5"	3'- 5"	3'- 5"	3'- 5"				0'- 3"			
	1	5	13'- 8"	1P518.2	T1	0'- 3"	3'- 5"	3'- 2"	3'- 5"	3'- 2"				0'- 3"			
	1	5	13'- 2"	1P519.2	T1	0'- 3"	3'- 5"	2'- 11"	3'- 5"	2'- 11"				0'- 3"			
	1	5	12'- 8"	1P520.2	T1	0'- 3"	3'- 5"	2'- 8"	3'- 5"	2'- 8"				0'- 3"			
	1	5	12'- 2"	1P521.2	T1	0'- 3"	3'- 5"	2'- 5"	3'- 5"	2'- 5"				0'- 3"			
	1	5	11'- 6"	1P522.2	T1	0'- 3"	3'- 5"	2'- 1"	3'- 5"	2'- 1"				0'- 3"			
	1	5	11'- 0"	1P523.2	T1	0'- 3"	3'- 5"	1'- 10"	3'- 5"	1'- 10"				0'- 3"			
	2	5	14'- 2"	1P524.2	T1	0'- 3"	3'- 5"	3'- 5"	3'- 5"	3'- 5"				0'- 3"			

~ 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 INCHES²	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	2.04	0.875	0.60	2.749
#8	2.670	1.000	0.79	3.14
#9	3.400	1.13	1.00	3.54
#10	4.3	1.270	1.27	3.990
#11	5.31	1.410	1.56	4.430
#14	7.65	1.69	2.25	5.32
#18	13.60	2.26	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: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_reinf.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R. GAUDREAU
REINFORCING SCHEDULE I

PLOT DATE: 8/18/2022
DRAWN BY: K. KITTREDGE
CHECKED BY: M.OOMS
SHEET 78 OF 130

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
	7	9	18'- 4"	1P901.2	STR	18'- 4"											
	7	9	19'- 0"	1P902.2	STR	19'- 0"											
	16	10	20'- 6"	1P1001.2	17		0'- 6"	20'- 0"	0'- 0"								
	PIER 2																
	5	4	7'- 1"	2P401.2	17		2'- 0"	3'- 1"	2'- 0"								
	8	5	6'- 8"	2P501.2	STR	6'- 8"											
✳	3	5	5'- 0"	2P502.2	STR	5'- 0"											
	2	5	3'- 3"	2P503.2	STR	3'- 3"											
	2	5	1'- 3"	2P504.2	STR	1'- 3"											
	8	5	6'- 11"	2P505.2	STR	6'- 11"											
	5	5	10'- 2"	2P506.2	2	0'- 6"	9'- 8"					0'- 0"					
	62	5	5'- 8"	2P509.2	2	2'- 4"	3'- 4"					0'- 0"					
	1	5	14'- 0"	2P510.2	T1	0'- 3"	3'- 5"	3'- 4"	3'- 5"	3'- 4"		0'- 3"					
	1	5	13'- 6"	2P511.2	T1	0'- 3"	3'- 5"	3'- 1"	3'- 5"	3'- 1"		0'- 3"					
	1	5	13'- 2"	2P512.2	T1	0'- 3"	3'- 5"	2'- 11"	3'- 5"	2'- 11"		0'- 3"					
	1	5	12'- 8"	2P513.2	T1	0'- 3"	3'- 5"	2'- 8"	3'- 5"	2'- 8"		0'- 3"					
	1	5	12'- 2"	2P514.2	T1	0'- 3"	3'- 5"	2'- 5"	3'- 5"	2'- 5"		0'- 3"					
	1	5	11'- 6"	2P515.2	T1	0'- 3"	3'- 5"	2'- 1"	3'- 5"	2'- 1"		0'- 3"					
	1	5	11'- 0"	2P516.2	T1	0'- 3"	3'- 5"	1'- 10"	3'- 5"	1'- 10"		0'- 3"					
	1	5	10'- 4"	2P517.2	T1	0'- 3"	3'- 5"	1'- 6"	3'- 5"	1'- 6"		0'- 3"					
	7	9	17'- 10"	2P901.2	STR	17'- 10"											
	7	9	18'- 8"	2P902.2	STR	18'- 8"											
	16	10	20'- 6"	2P1001.2	17		0'- 6"	20'- 0"	0'- 0"								
	ABUTMENT 2																
	2	4	3'- 10"	2A401.2	27		2'- 1"	1'- 9"					2'- 1"		0'- 0"		
✳	17	4	3'- 9"	2A402.2	27		2'- 0"	1'- 9"					2'- 0"		0'- 0"		
	20	4	4'- 2"	2A403.2	27		2'- 0"	2'- 2"					2'- 0"		0'- 0"		
	20	4	4'- 9"	2A404.2	27		2'- 0"	2'- 9"					2'- 0"		0'- 0"		
	16	4	5'- 2"	2A405.2	27		2'- 0"	3'- 2"					2'- 0"		0'- 0"		
	2	4	5'- 4"	2A406.2	27		2'- 2"	3'- 2"					2'- 2"		0'- 0"		
	2	5	35'- 0"	2A501.2	STR	35'- 0"											
	2	5	27'- 3"	2A502.2	STR	27'- 3"											
	2	5	17'- 7"	2A503.2	STR	17'- 7"											
	1	5	7'- 2"	2A504.2	STR	7'- 2"											
	1	5	7'- 5"	2A505.3	STR	7'- 5"											
	1	5	7'- 7"	2A506.2	STR	7'- 7"											
	1	5	7'- 10"	2A507.2	STR	7'- 10"											
	2	5	10'- 10"	2A508.2	STR	10'- 10"											
	2	5	12'- 6"	2A509.3	STR	12'- 6"											
	2	5	12'- 3"	2A510.4	STR	12'- 3"											
	APPROACH SLAB 1																
	29	5	19'- 6"	1EAS501	STR	19'- 6"											
	21	5	37'- 6"	1EAS502	STR	37'- 6"											
✳	8	5	19'- 8"	1EAS503	STR	19'- 8"											
	7	5	19'- 7"	1EAS504	STR	19'- 7"											
	21	5	4'- 11"	1EAS505	S5	0'- 6"	1'- 5"	1'- 5"	1'- 1"			0'- 6"					
	21	5	5'- 0"	1EAS506	S5	0'- 6"	1'- 6"	1'- 5"	1'- 1"			0'- 6"					
	4	5	3'- 6"	1EAS507	27		1'- 9"	1'- 9"					0'- 10"		1'- 6"		
	40	6	37'- 6"	1EAS601	STR	37'- 6"											
	34	9	20'- 0"	1EAS901	18	0'- 6"	19'- 6"	0'- 0"						0'- 9"			
	2	9	19'- 8"	1EAS902	STR	19'- 8"											
	2	9	19'- 7"	1EAS903	STR	19'- 7"											
	APPROACH SLAB 2																
	29	5	19'- 7"	2EAS501	STR	19'- 7"											
	21	5	35'- 2"	2EAS502	STR	35'- 2"											
	7	5	19'- 6"	2EAS503	STR	19'- 6"											
	7	5	19'- 8"	2EAS504	STR	19'- 8"											
	21	5	4'- 11"	2EAS505	S5	0'- 6"	1'- 5"	1'- 5"	1'- 1"			0'- 6"					
	21	5	5'- 0"	2EAS506	S5	0'- 6"	1'- 6"	1'- 5"	1'- 1"			0'- 6"					
	4	5	3'- 6"	2EAS507	27		1'- 9"	1'- 9"					0'- 7"		1'- 7"		
	29	5	5'- 0"	2EAS508	T1	0'- 3"	1'- 6"	0'- 9"	1'- 6"	0'- 9"		0'- 3"					
	40	6	35'- 2"	2EAS601	STR	35'- 2"											
	34	9	20'- 1"	2EAS901	18	0'- 6"	19'- 7"	0'- 0"						0'- 9"			
	2	9	19'- 6"	2EAS902	STR	19'- 6"											
	2	9	19'- 8"	2EAS903	STR	19'- 8"											
	SLEEPER SLAB																
	19	5	30'- 8"	ESS501	STR	30'- 8"											
	31	5	6'- 11"	ESS502	S5	0'- 6"	2'- 2"	1'- 7"	2'- 2"			0'- 6"					
	31	5	4'- 11"	ESS503	17		0'- 6"	4'- 5"	0'- 0"								
✳	13	5	4'- 5"	ESS504	17		0'- 6"	3'- 11"	0'- 0"								
	6	5	4'- 0"	ESS505	17		1'- 8"	0'- 8"	1'- 8"								
	8	5	5'- 11"	ESS506	17		2'- 2"	1'- 7"	2'- 2"								
	16	5	3'- 6"	ESS507	22		1'- 9"	1'- 9"	0'- 0"				0'- 8"		1'- 7"		3'- 4"
	2	5	3'- 0"	ESS508	22		1'- 6"	1'- 6"	0'- 0"				1'- 6"		0'- 6"		2'- 0"
	2	5	3'- 0"	ESS509	22		1'- 6"	1'- 6"	0'- 0"				1'- 6"		0'- 0"		1'- 6"
	CURTAIN WALL 1																
	76	4	2'- 7"	1D401.2	19		0'- 9"	1'- 10"	0'- 0"				0'- 6"		0'- 6"		2'- 4"
	20	4	4'- 2"	1D402.2	17		1'- 10"	2'- 4"	0'- 0"								

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
✳	21	4	6'- 6"	1D403.2	17		2'- 4"	1'- 10"	2'- 4"								
	21	4	6'- 10"	1D404.2	17		2'- 4"	2'- 2"	2'- 4"								
	4	4	8'- 7"	1D405.2	17		2'- 4"	3'- 11"	2'- 4"								
	4	4	6'- 7"	1D406.2	17		2'- 4"	1'- 11"	2'- 4"								
	4	4	7'- 1"	1D407.2	17		2'- 4"	2'- 5"	2'- 4"								
	76	4	3'- 0"	1D408.2	16	0'- 6"	0'- 9"	0'- 9"	1'- 0"				0'- 9"		0'- 9"		
	8	6	37'- 2"	1D601.2	STR	37'- 2"											
	8	6	2'- 9"	1D602.2	STR	2'- 9"											
	12	6	9'- 9"	1D603.2	STR	9'- 9"											
	16	6	4'- 0"	1D604.2	STR	4'- 0"											
	2	6	8'- 6"	1D605.2	17		1'- 0"	6'- 9"	0'- 9"								
	2	6	8'- 7"	1D606.2	17		1'- 0"	6'- 10"	0'- 9"								
	2	6	8'- 7"	1D607.2	17		1'- 0"	6'- 10"	0'- 9"								
	2	6	8'- 0"	1D608.2	17		2'- 9"	2'- 6"	2'- 9"								
	2	6	8'- 6"	1D609.2	17		3'- 0"	2'- 6"	3'- 0"								
	2	6	8'- 0"	1D610.2	17		2'- 9"	2'- 6"	2'- 9"								
	2	6	8'- 6"	1D611.2	17		3'- 0"	2'- 6"	3'- 0"								
	2	6	8'- 0"	1D612.2	17		2'- 9"	2'- 6"	2'- 9"								
	2	6	8'- 6"	1D613.2	17		3'- 0"	2'- 6"	3'- 0"								
	2	6	4'- 6"	1D614.2	17		1'- 0"	2'- 6"	1'- 0"								
	2	6	4'- 6"	1D615.2	17		1'- 0"	2'- 6"	1'- 0"								
	2	6	1'- 11"	1D616.2	17		0'- 0"	1'- 3"	0'- 8"								
	2	6	1'- 11"	1D617.2	17		0'- 0"	1'- 3"	0'- 8"								
	CURTAIN WALL 2																
	72	4	2'- 7"	2D401.2	19		0'- 9"	1'- 10"	0'- 0"				0'- 6"		0'- 6"		2'- 4"
	20	4	4'- 2"	2D402.2	17		1'- 10"	2'- 4"	0'- 0"								
	21	4	6'- 6"	2D403.2	17		2'- 4"	1'- 10"	2'- 4"								
	21	4	6'- 10"	2D404.2	17		2'- 4"	2'- 2"	2'- 4"								
	4	4	8'- 7"	2D405.2	17		2'- 4"	3'- 11"	2'- 4"								
	4	4	6'- 6"	2D406.2	17		2'- 4"	1'- 10"	2'- 4"								
	4	4	6'- 11"	2D407.2	17		2'- 4"	2'- 3"	2'- 4"								
	72	4	3'- 0"	2D408.2	16	0'- 6"	0'- 9"	0'- 9"	1'- 0"				0'- 9"		0'- 9"		
	8	6	34'- 11"	2D601.2	STR	34'- 11"											
✳	9	6	2'- 8"	2D602.2	STR	2'- 8"											
	12	6	9'- 2"	2D603.2	STR	9'- 2"											
	16	6	4'- 0"	2D604.2	STR	4'- 0"											
	2	6	7'- 8"	2D605.2	17		0'- 8"	6'- 2"	0'- 10"								
	2	6	7'- 8"	2D606.2	17		0'- 8"	6'- 2"	0'- 10"								
	2	6	7'- 8"	2D607.2	17		0'- 8"	6'- 2"	0'- 10"								
	2	6	8'- 4"	2D608.2	17		3'- 0"	2'- 4"	3'- 0"								
	2	6	7'- 10"	2D609.2	17		2'- 9"	2'- 4"	2'- 9"								
	2	6	8'- 4"	2D610.2	17		3'- 0"	2'- 4"	3'- 0"								
	2	6	7'- 10"	2D611.2	17		2'- 9"	2'- 4"	2'- 9"								
	2	6	8'- 4"	2D612.2	17		3'- 0"	2'- 4"	3'- 0"								
	2	6	7'- 10"	2D613.2	17		2'- 9"	2'- 4"	2'- 9"								
	2	6	4'- 4"	2D614.2	17		1'- 0"	2'- 4"	1'- 0"								
	2	6	4'- 4"	2D615.2	17		1'- 0"	2'- 4"	1'- 0"								
	2	6	1'- 10"	2D616.2	17		0'- 0"	1'- 2"	0'- 8"								
	2	6	1'- 10"	2D617.2	17		0'- 0"	1'- 2"	0'- 8"								
	WINGWALL 1																
	4	4	6'- 2"	1W401.2	17		3'- 2"	3'- 0"	0'- 0"								
	16	4	2'- 2"	1W402.2	17		1'- 8"	0'- 6"	0'- 0"								
	16	4	3'- 2"	1W403.2	17		1'- 8"	0'- 9"	0'- 9"								
	2	4	1'- 8"	1W404.2	17		1'- 2"	0'- 6"	0'- 0"								
	2	4	2'- 8"	1W405.2	17		1'- 2"	0'- 9"	0'- 9"								
	4	4	1'- 5"	1W406.2	17		0'- 3"	0'- 11"	0'- 3"								
	8	4	2'- 0"	1W407.2	19		1'- 0"	1'- 0"	0'- 0"				0'- 6"		0'- 10"		1'- 10"
	6	5	8'- 8"	1W501.2	STR	8'- 8"											
	2	5	6'- 9"	1W502.2	17		1'- 3"	5'- 6"	0'- 0"								
	WINGWALL 2																
	4	4	4'- 4"	2W401.2	17		2'- 0"	2'- 4"	0'- 0"								
	17	4	2'- 5"	2W402.2	17		1'- 11"	0'- 6"	0'- 0"								
	17	4	3'- 5"	2W403.2	17		1'- 11"	0'- 9"	0'- 9"								
	2	4	1'- 11"	2W404.2	17		1'- 5"	0'- 6"	0'- 0"								
	2	4	2'- 11"	2W405.2	17		1'- 5"	0'- 9"	0'- 9"								
	4	4	1'- 5"	2W406.2	17		0'- 3"	0'- 11"	0'- 3"								
	4	4	2'- 0"	2W407.2	19		1'- 0"	1'- 0"	0'- 0"				0'- 6"		0'- 11"		1'- 11"
	6	5	9'- 3"	2W501.2	STR	9'- 3"											
	2	5	5'- 5"	2W502.2	17		1'- 3"	4'- 2"	0'- 0"								
	WINGWALL 3																
	4	4	5'- 1"	3W401.2	17		2'- 3"	2'- 10"	0'- 0"								
	17	4	2'- 4"	3W402.2	17		1'- 10"	0'- 6"	0'- 0"								
	17	4	3'- 4"	3W403.2	17		1'- 10"	0'- 9"	0'- 9"								
	2	4	1'- 10"	3W404.2	17		1'- 4"	0'- 6"	0'- 0"								
	2	4	2'- 10"	3W405.2	17		1'- 4"	0'- 9"	0'- 9"								
	4	4	1'- 5"	3W406.2	17		0'- 3"	0'- 11"	0'- 3"								
	8	4	1'- 11"	3W407.2	19		1'- 0"	0'- 11"	0'- 0"				0'- 5"		0'- 11"		1'- 11"
	6	5	9'- 4"	3W501.2	STR	9'- 4"											
	2	5	6'- 4"	3W502.2	17		1'- 3"	5'- 1"	0'- 0"								
	WINGWALL 4																
	4	4	6'- 2"	4W401.2	17		3'- 2"	3'- 0"	0'- 0"								
	16	4	2'- 2"	4W402.2	17		1'- 8"	0'- 6"	0'- 0"								
	16	4	3'- 2"	4W403.2	17		1'- 8"	0'- 9"	0'- 9"								

~ NOTES ~

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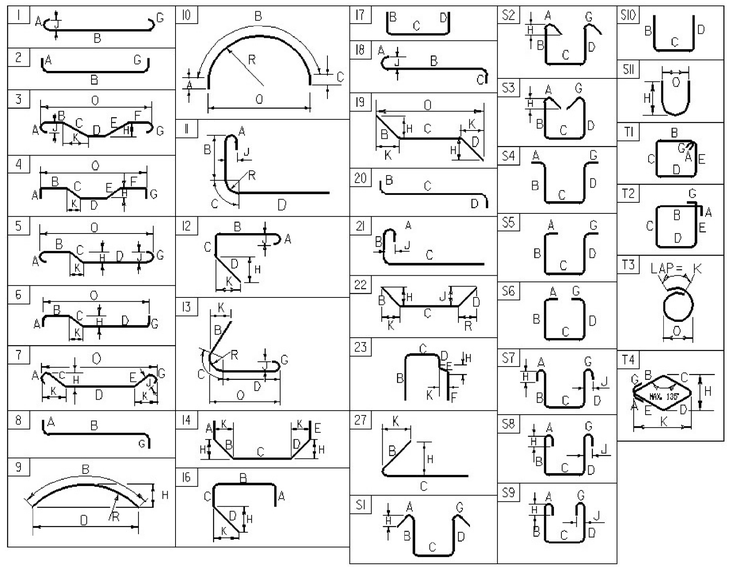
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180 DEGREE AND 135 DEGREE HOOKS.
5. "J" DIMENSION ON 180 DEGREE HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE, 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 INCHES²	PERIMETER INCHES
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#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	2.04	0.875	0.60	2.749
#8	2.670	1.000	0.79	3.14
#9	3.400	1.13	1.00	3.54
#10	4.3	1.270	1.27	3.990
#11	5.31	1.410	1.56	4.430
#14	7.65	1.69	2.25	5.32
#18	13.60	2.26	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: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_reinf.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R. GAUDREAU
REINFORCING SCHEDULE 2

PLOT DATE: 8/18/2022
DRAWN BY: K. KITTREDGE
CHECKED BY: M.OOMS
SHEET 79 OF 130

STATE OF VERMONT
AGENCY OF TRANSPORTATION

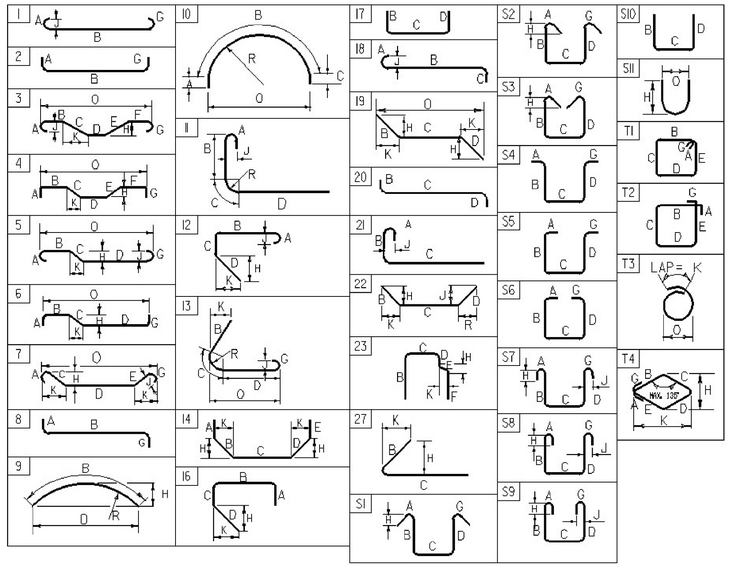
REINFORCING STEEL SCHEDULE

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
	2	4	1'- 8"	4W404.2	17		1'- 2"	0'- 6"	0'- 0"								
	2	4	2'- 8"	4W405.2	17		1'- 2"	0'- 9"	0'- 9"								
	4	4	1'- 5"	4W406.2	17		0'- 3"	0'- 11"	0'- 3"								
	4	4	1'- 11"	4W407.2	19		1'- 0"	0'- 11"	0'- 0"				0'- 5"		0'- 11"		1'- 11"
	6	5	8'- 8"	4W501.2	STR	8'- 8"											
	2	5	6'- 9"	4W502.2	17		1'- 3"	5'- 6"	0'- 0"								

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 SQUARE INCHES	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	2.04	0.875	0.60	2.749
#8	2.670	1.000	0.79	3.14
#9	3.400	1.13	1.00	3.54
#10	4.3	1.270	1.27	3.990
#11	5.31	1.410	1.56	4.430
#14	7.65	1.69	2.25	5.32
#18	13.60	2.26	4.00	7.09

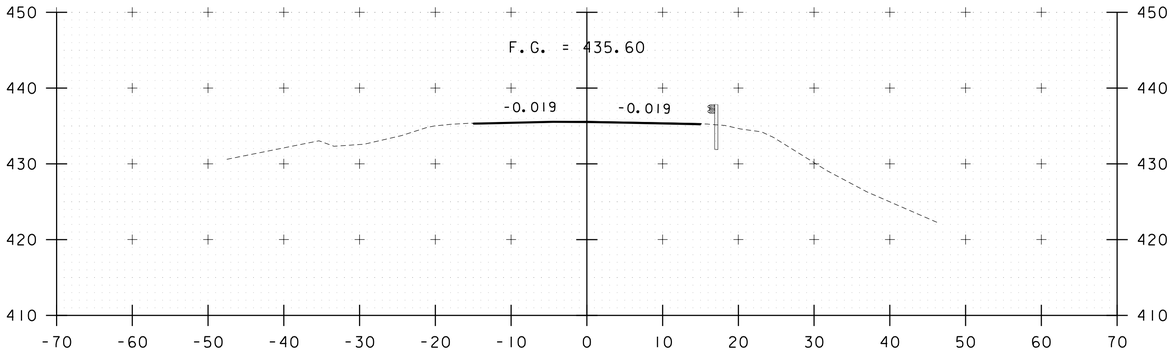
~ REINFORCING STEEL CORROSION RESISTANCE LEVEL ~

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.

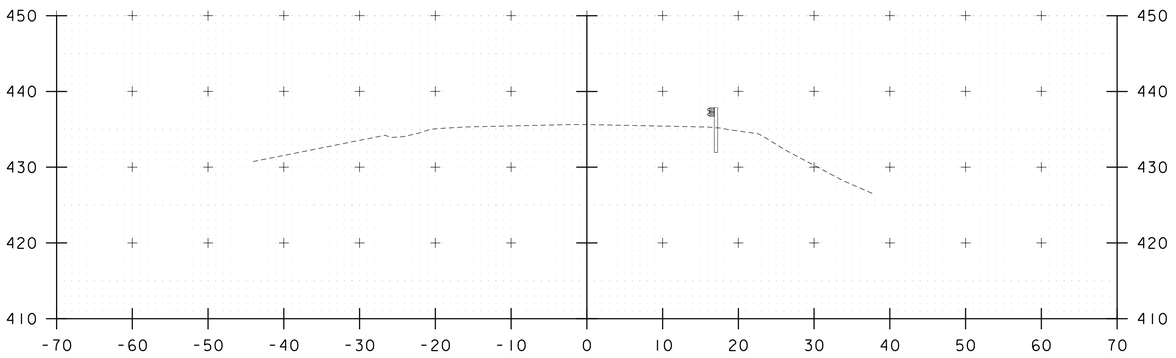
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_reinf.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: R. GAUDREAU
REINFORCING SCHEDULE 3

PLOT DATE: 8/18/2022
DRAWN BY: K. KITTREDGE
CHECKED BY: M.OOMS
SHEET 80 OF 130



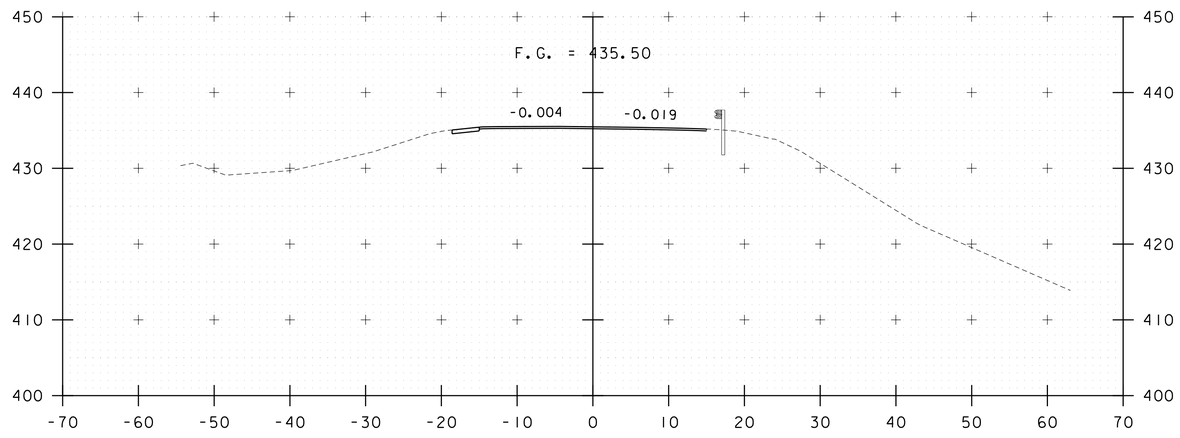
100+75



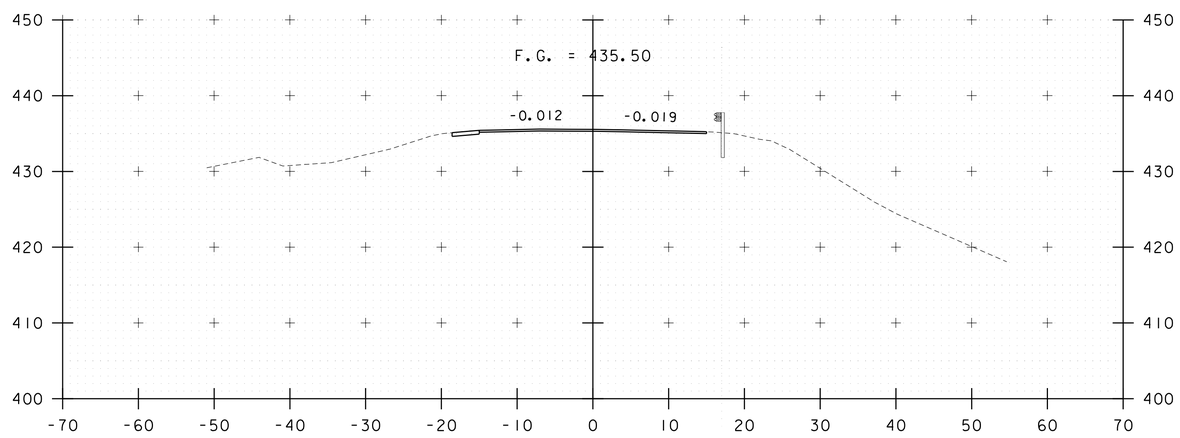
100+50

MATCH EXISTING 100+75

BEGIN APPROACH 100+75



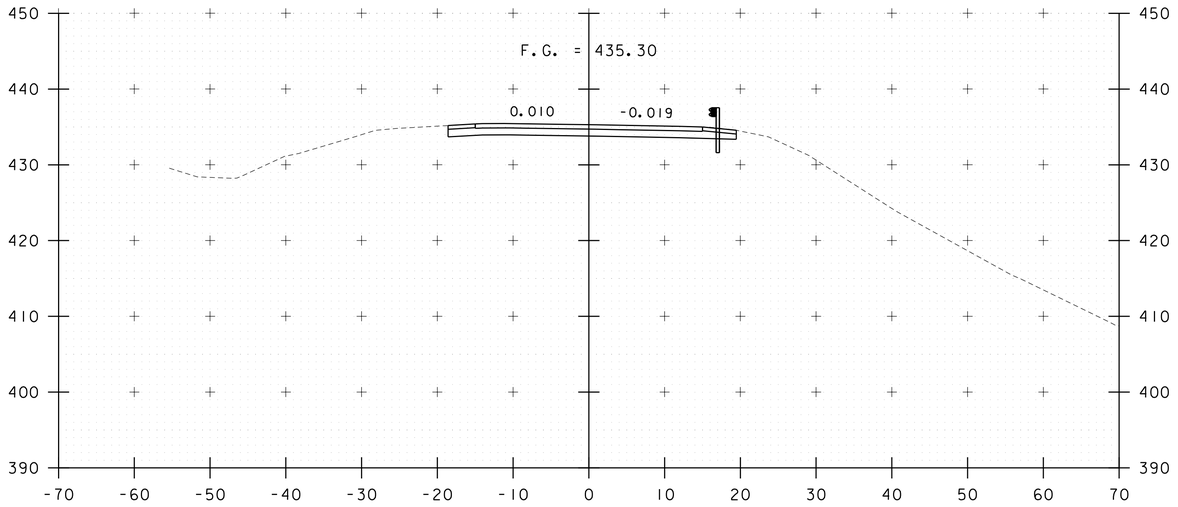
101+25



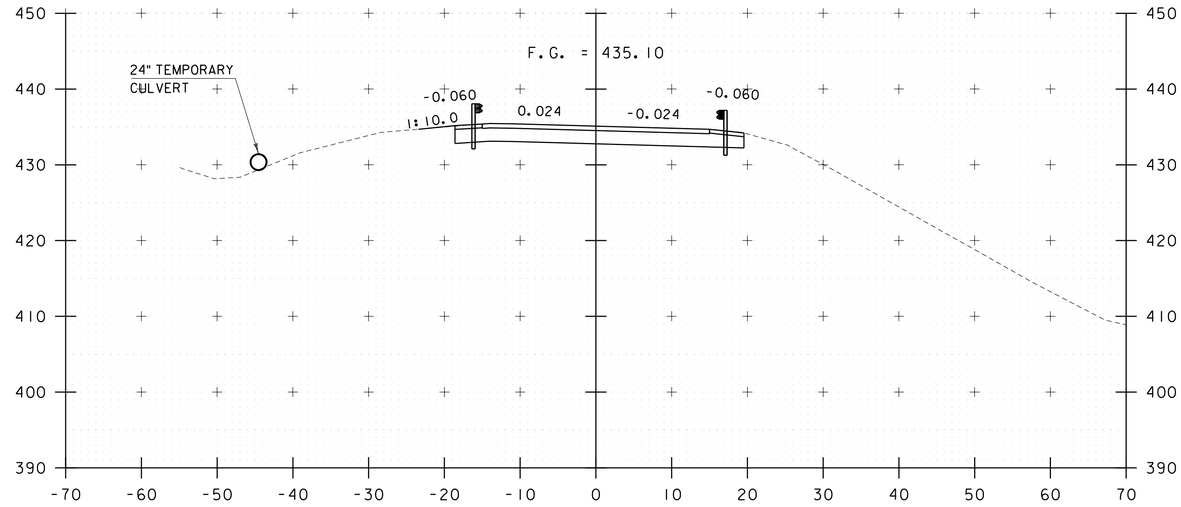
101+00

STA. 100+50 TO STA. 101+25

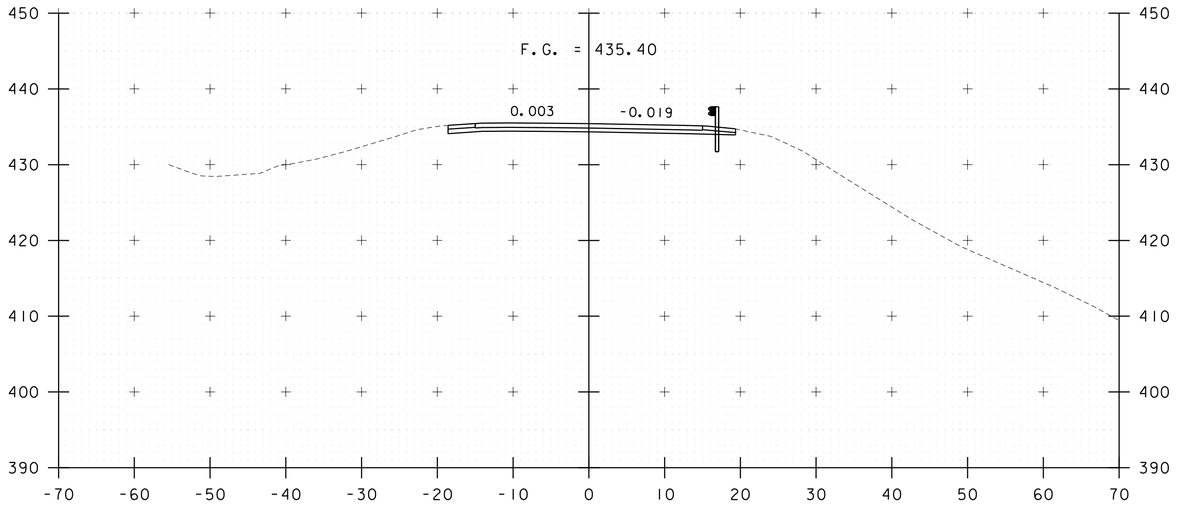
PROJECT NAME: WATERBURY	
PROJECT NUMBER: BF 0284(33)	
FILE NAME: z12c602_xs.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: G. CANTAVE	CHECKED BY: M.OOMS
US 2 CROSS SECTION 1	SHEET 81 OF 130



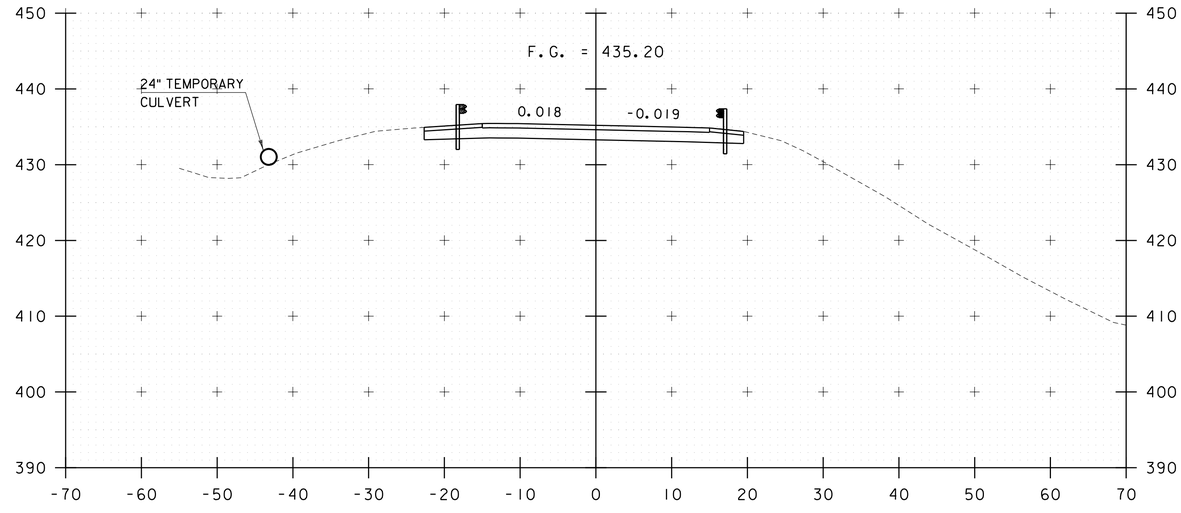
101+75



102+25



101+50



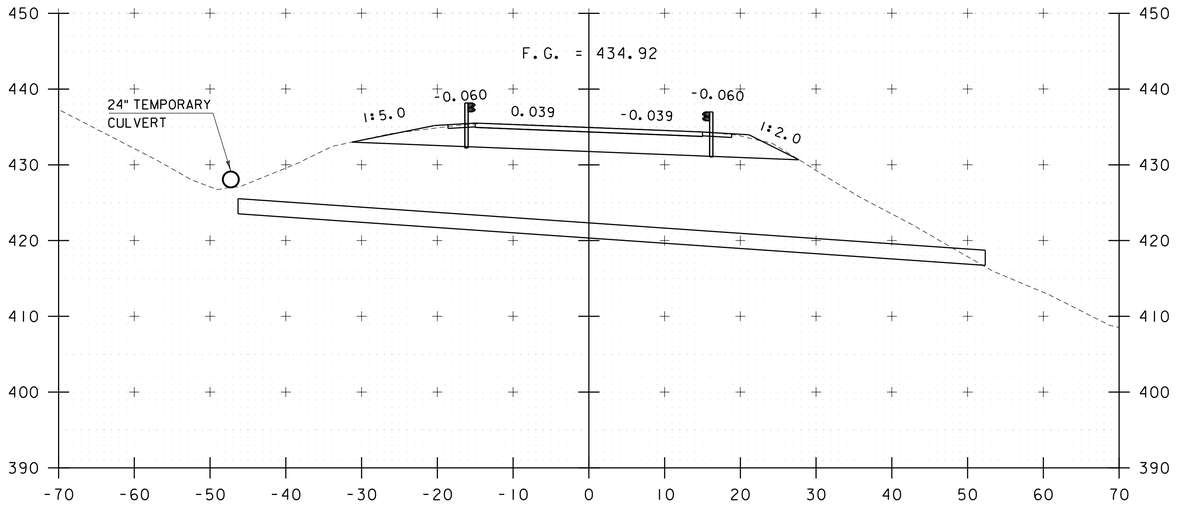
102+00

STA. 101+50 TO STA. 102+25

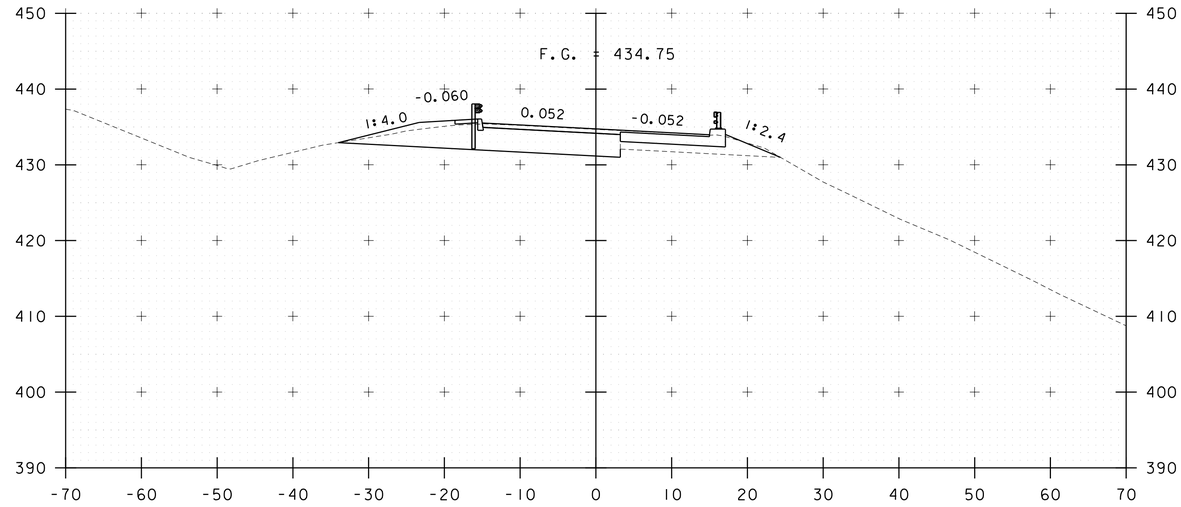
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
US 2 CROSS SECTION 2

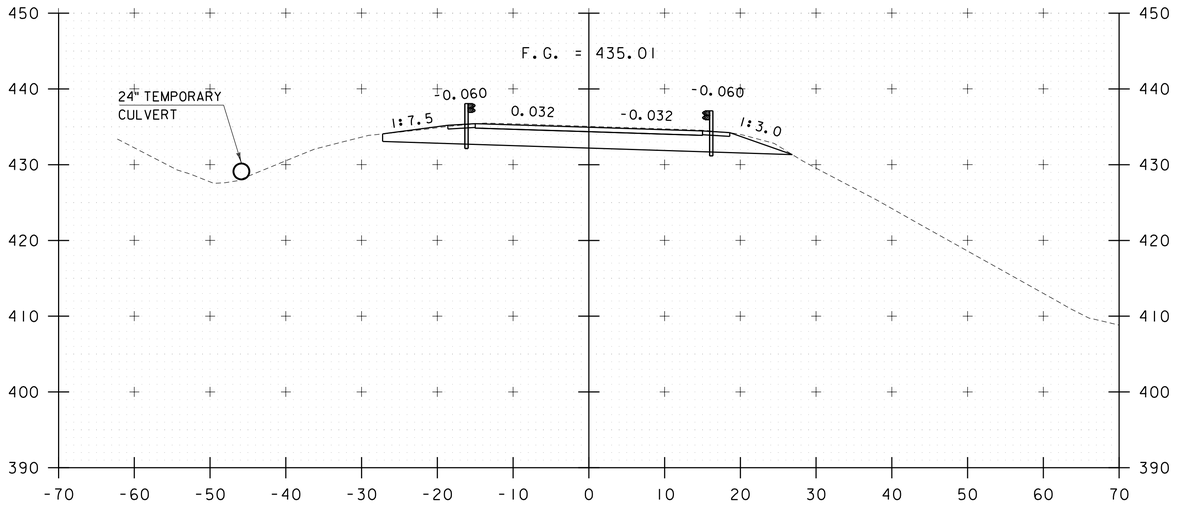
PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 82 OF 130



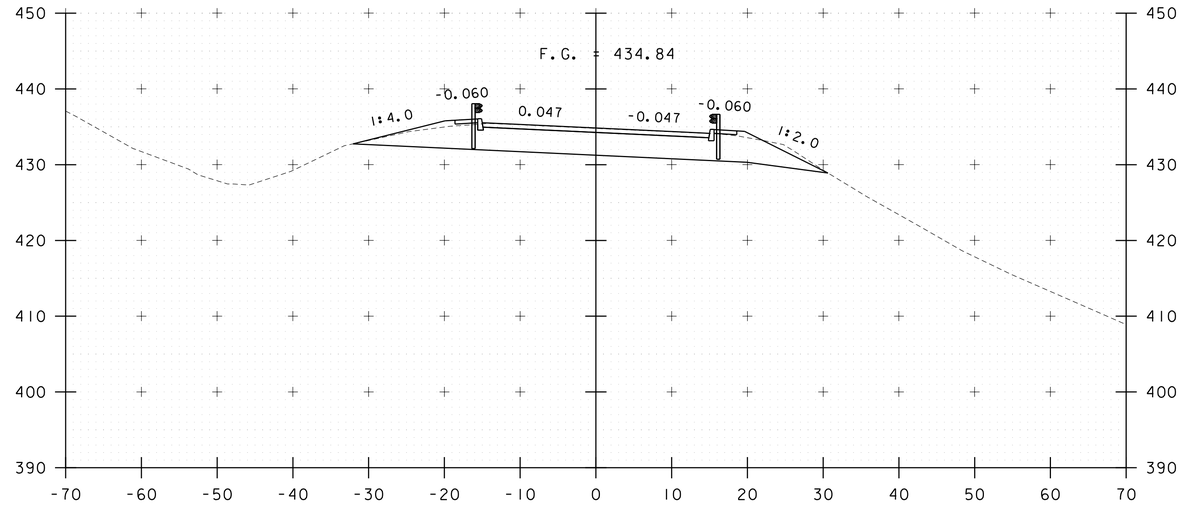
102+75



103+25



102+50



103+00

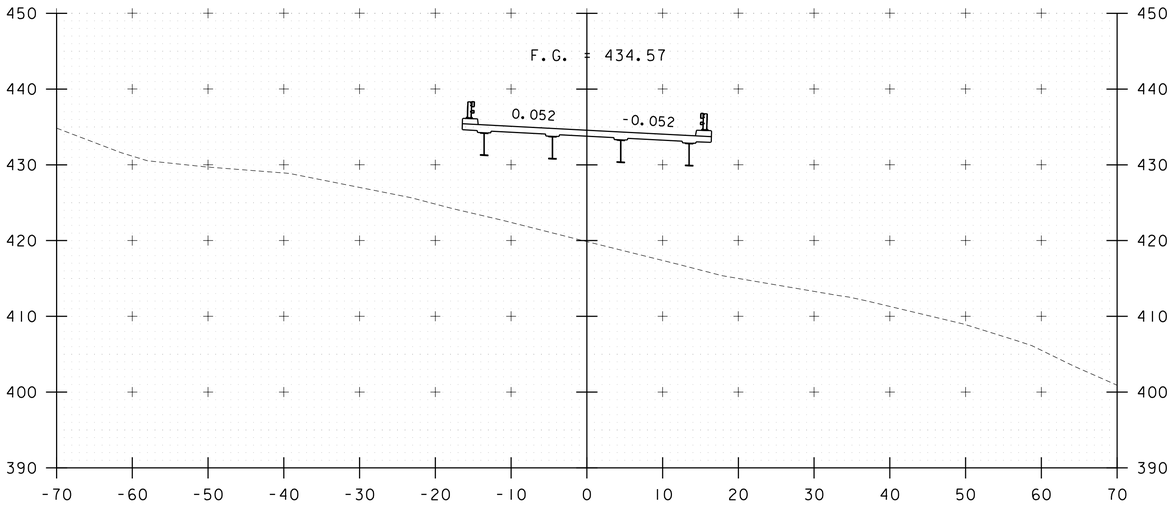
BEGIN PROJECT

STA. 102+50 TO STA. 103+25

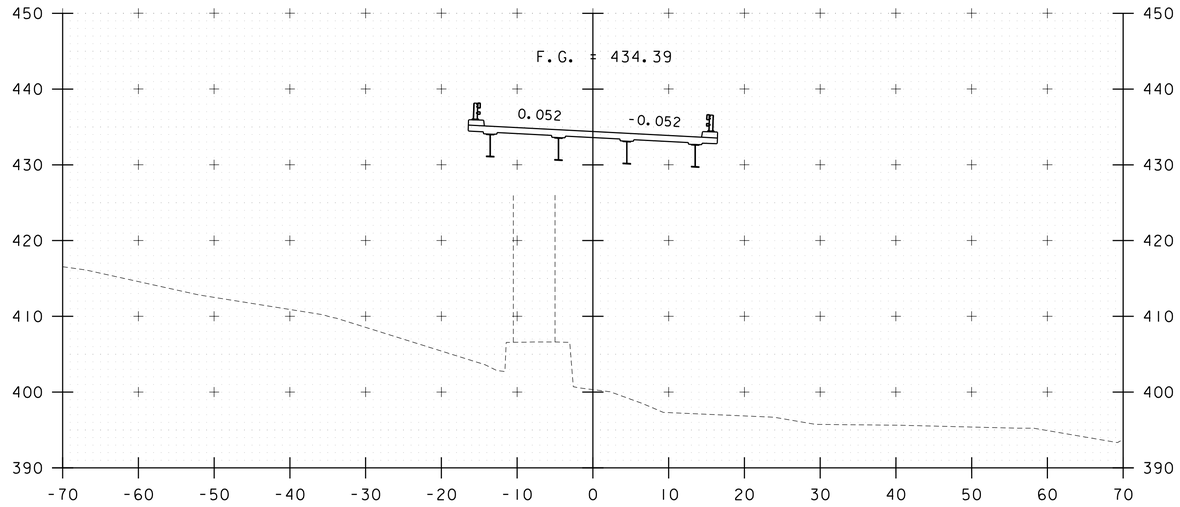
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
US 2 CROSS SECTION 3

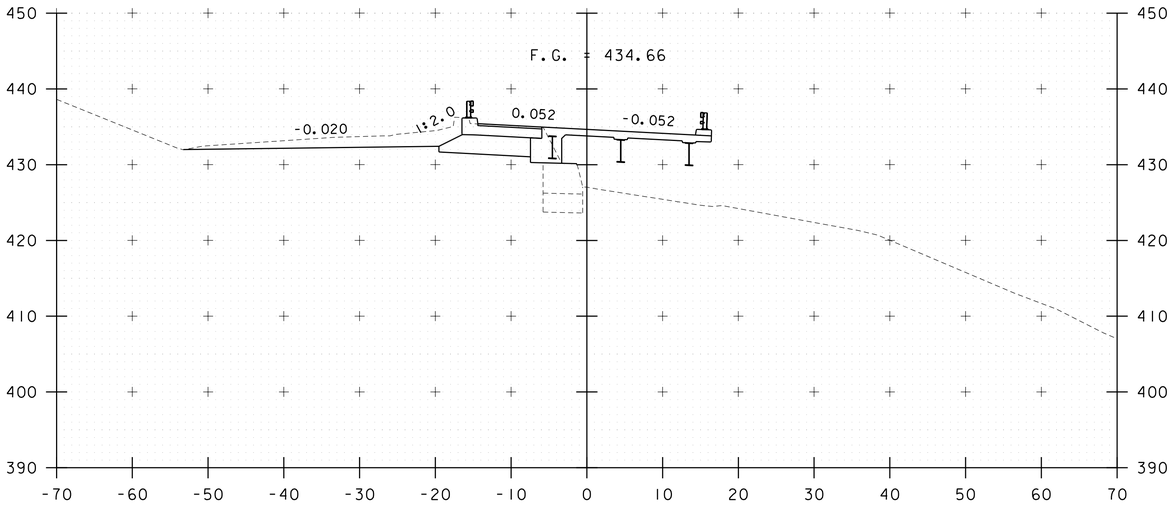
PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 83 OF 130



103+75

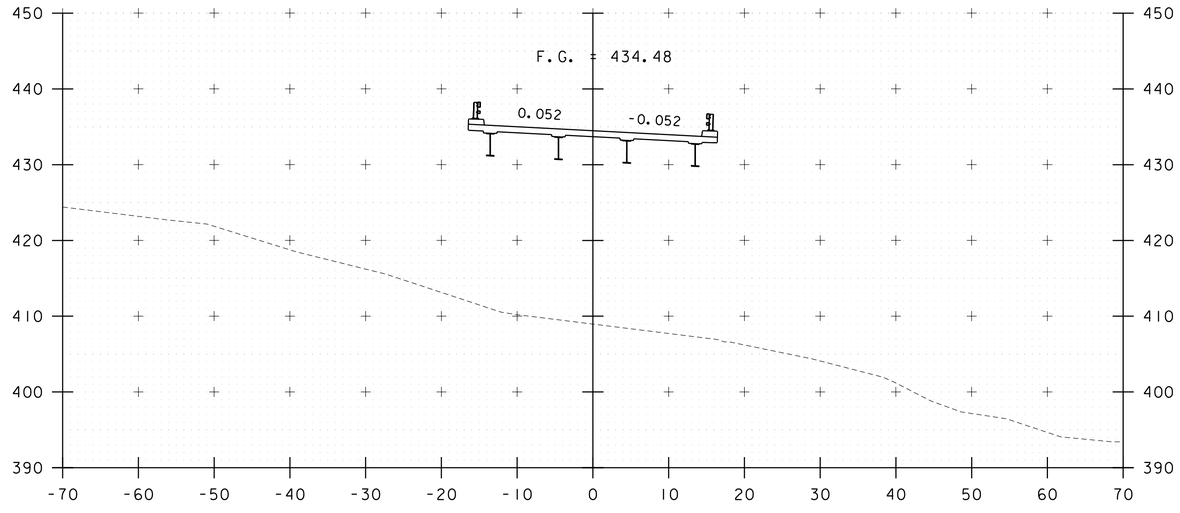


104+25



103+50

BEGIN BRIDGE 103+46.67



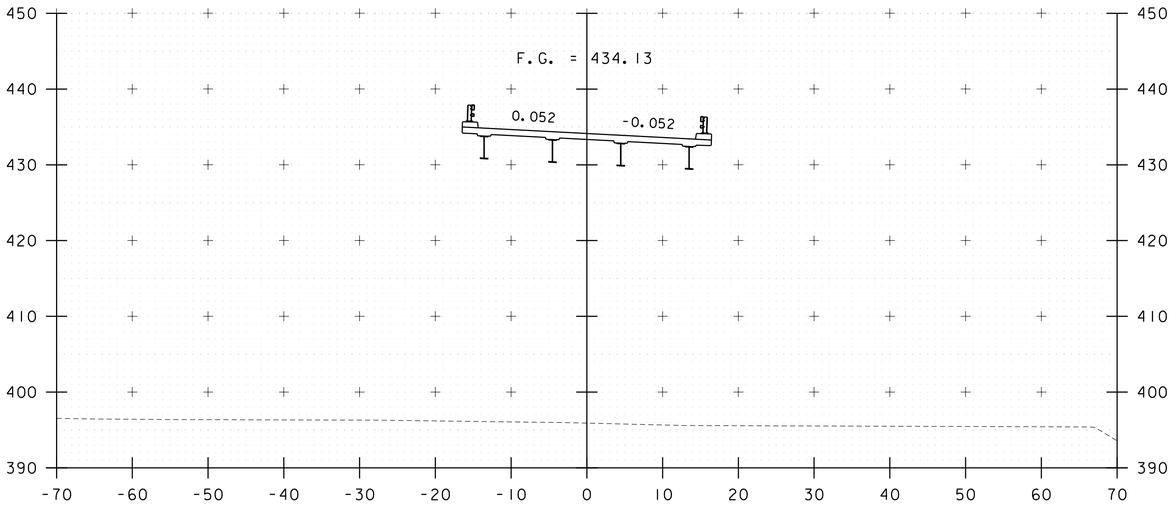
104+00

STA. 103+50 TO STA. 104+25

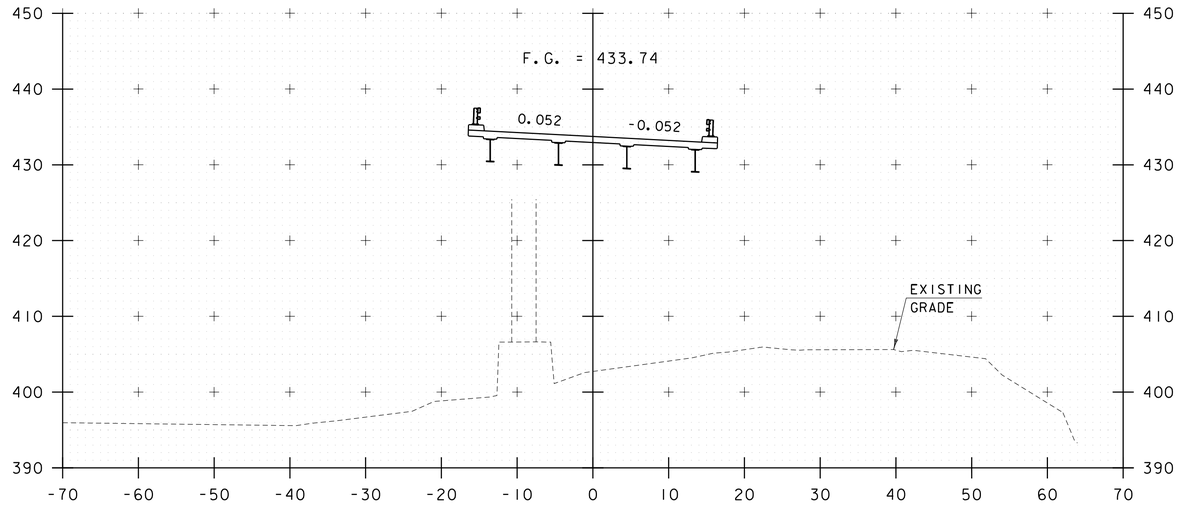
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
US 2 CROSS SECTION 4

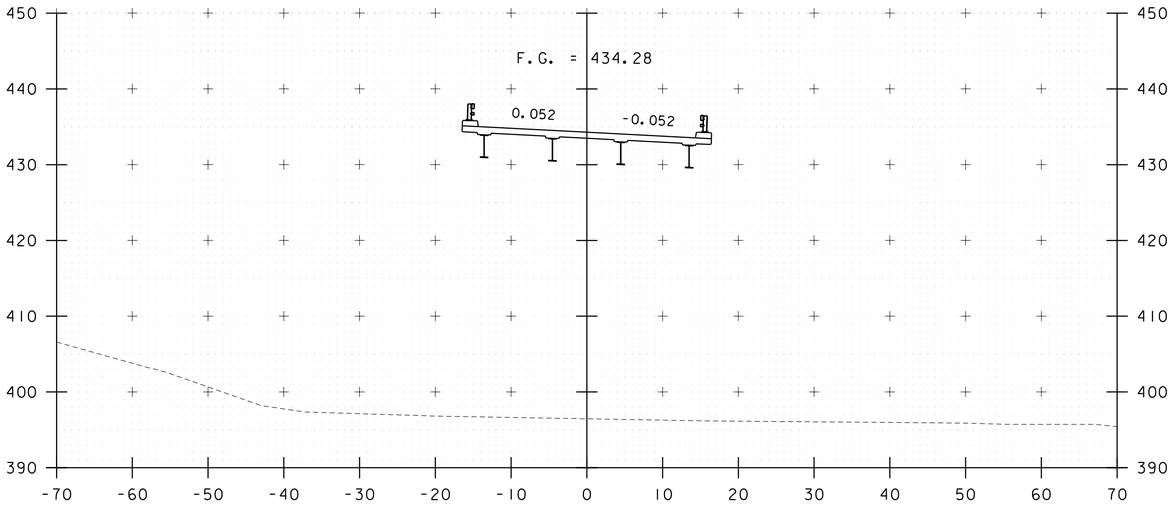
PLOT DATE: 8/18/2022
DRAWN BY: G. CANTAVE
CHECKED BY: M.OOMS
SHEET 84 OF 130



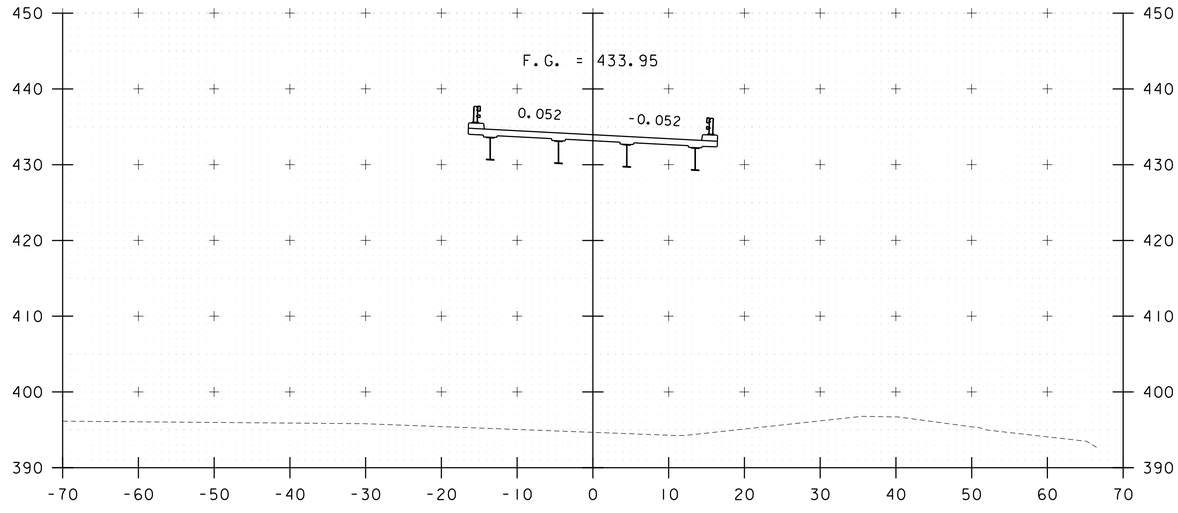
104+75



105+25



104+50



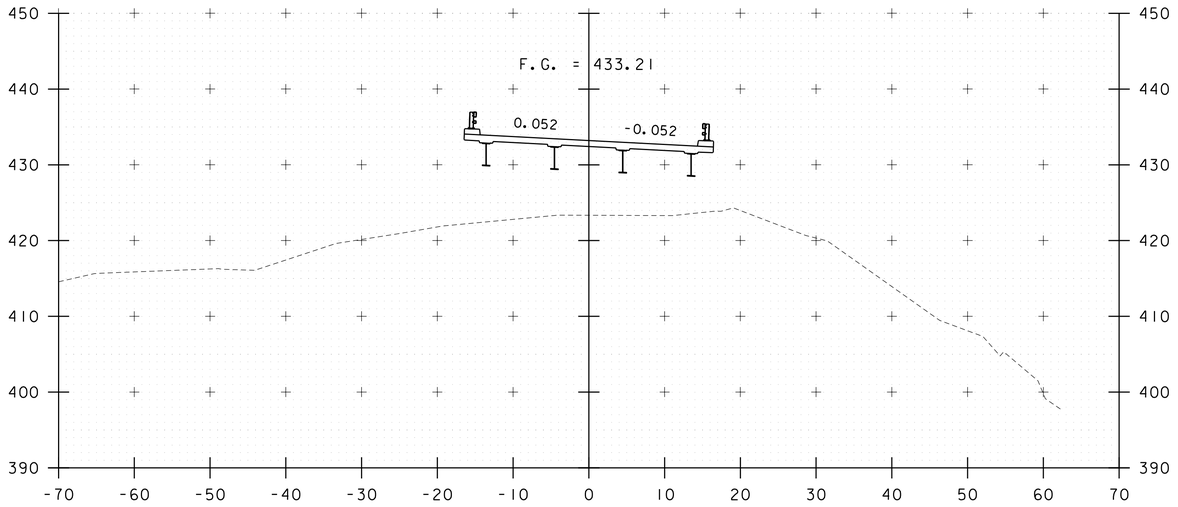
105+00

STA. 104+50 TO STA. 105+25

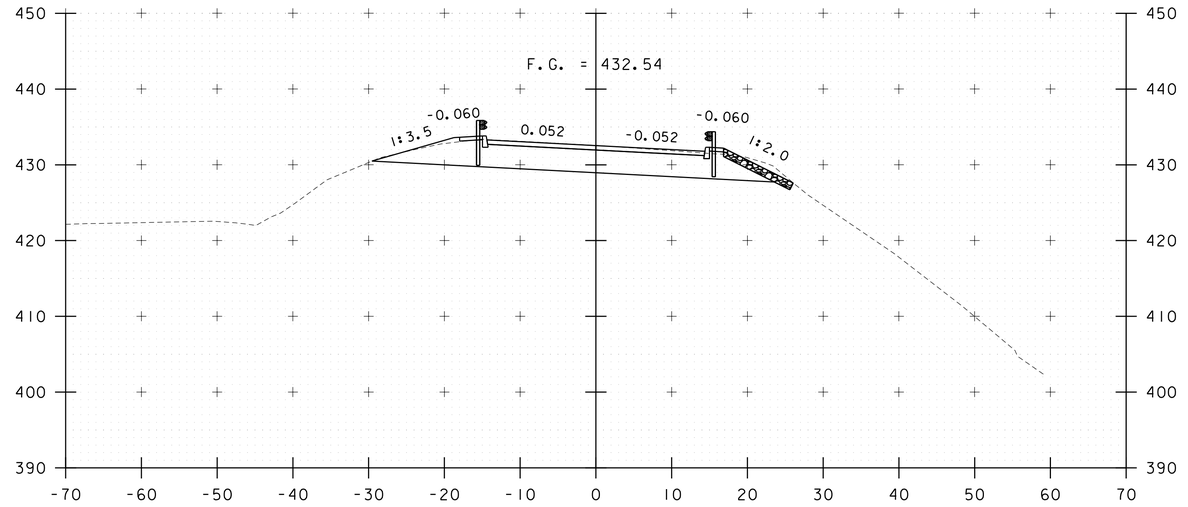
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
US 2 CROSS SECTION 5

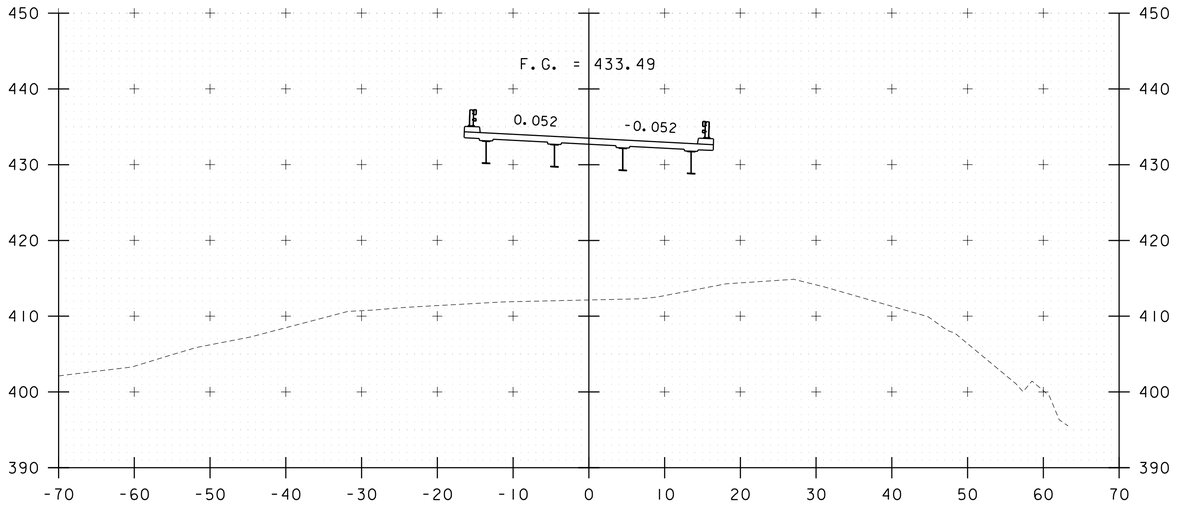
PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 85 OF 130



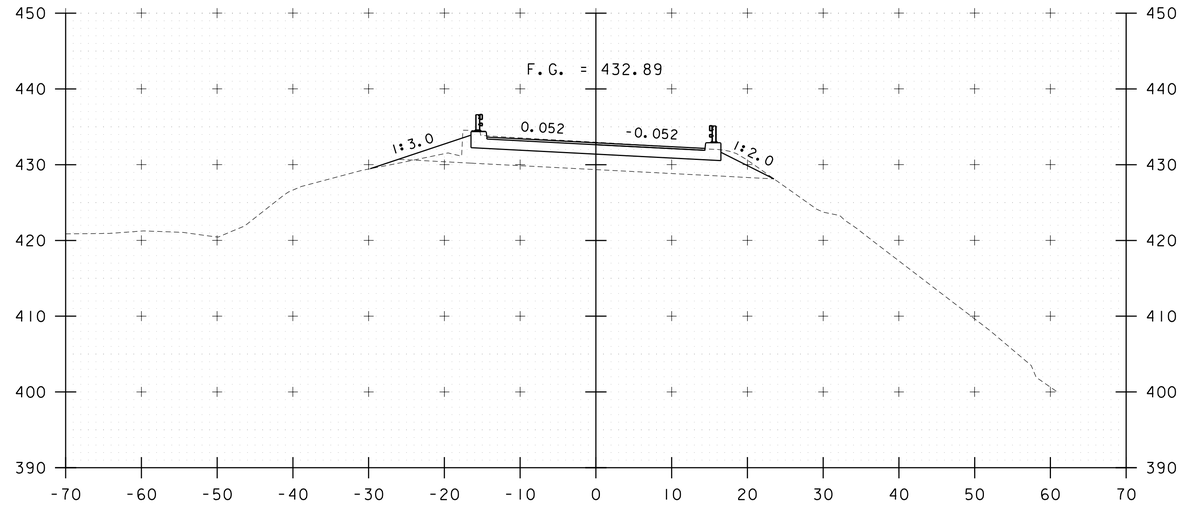
105+75



106+25



105+50



106+00

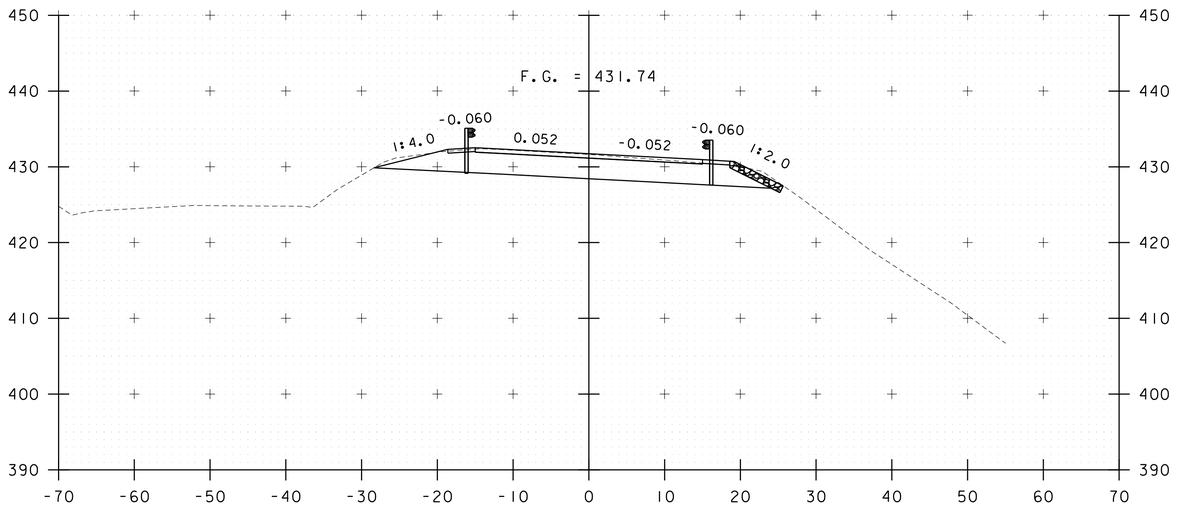
END BRIDGE 105+89.90

STA. 105+50 TO STA. 106+25

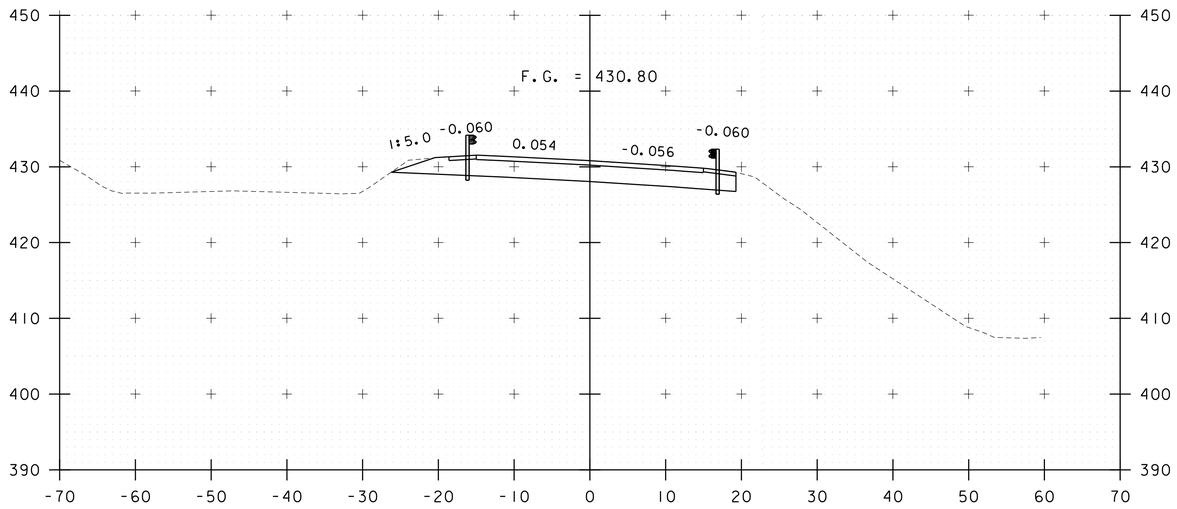
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
US 2 CROSS SECTION 6

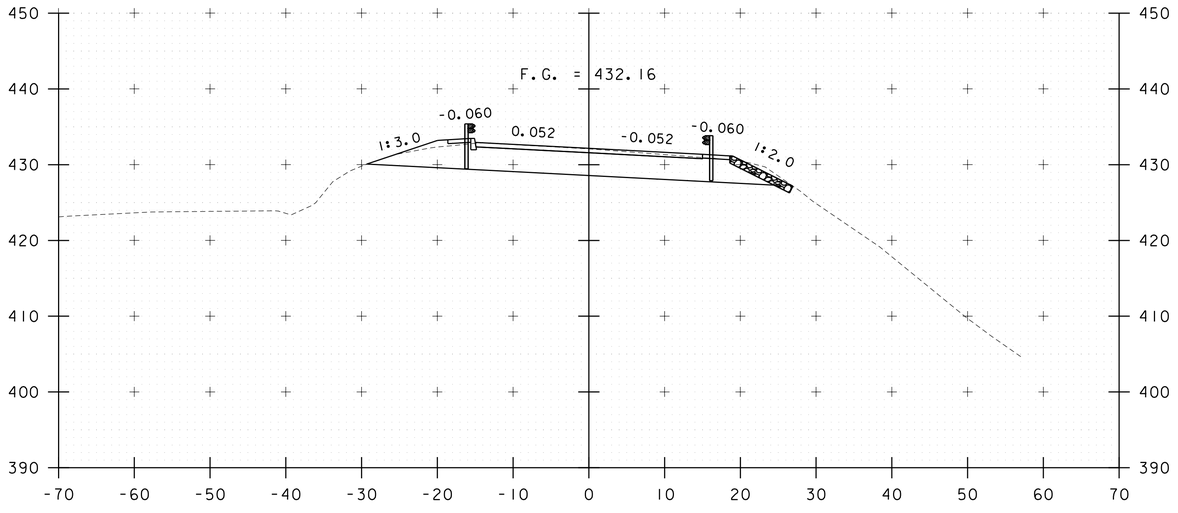
PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 86 OF 130



106+75

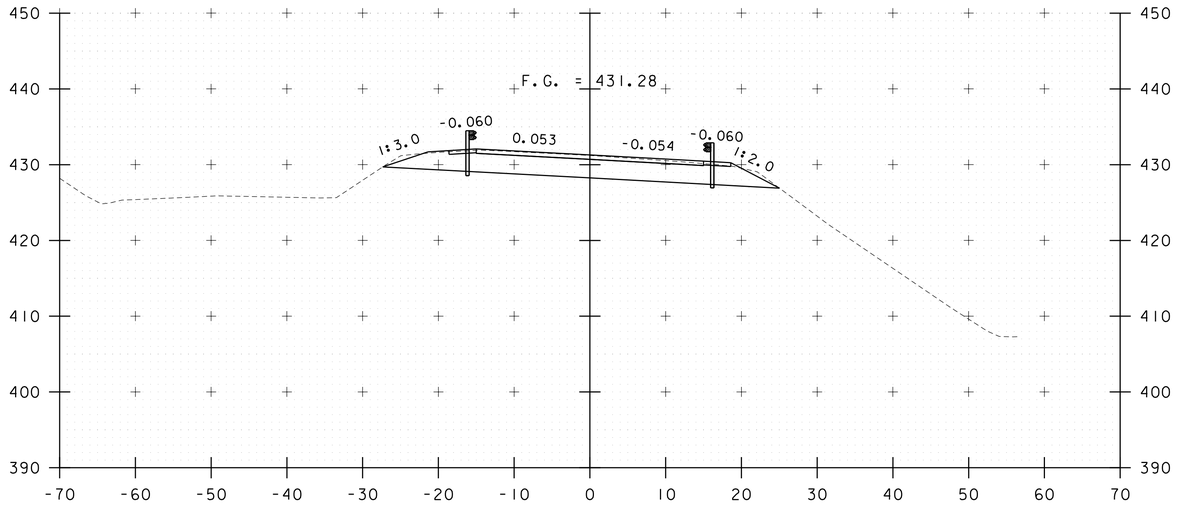


107+25



106+50

END PROJECT



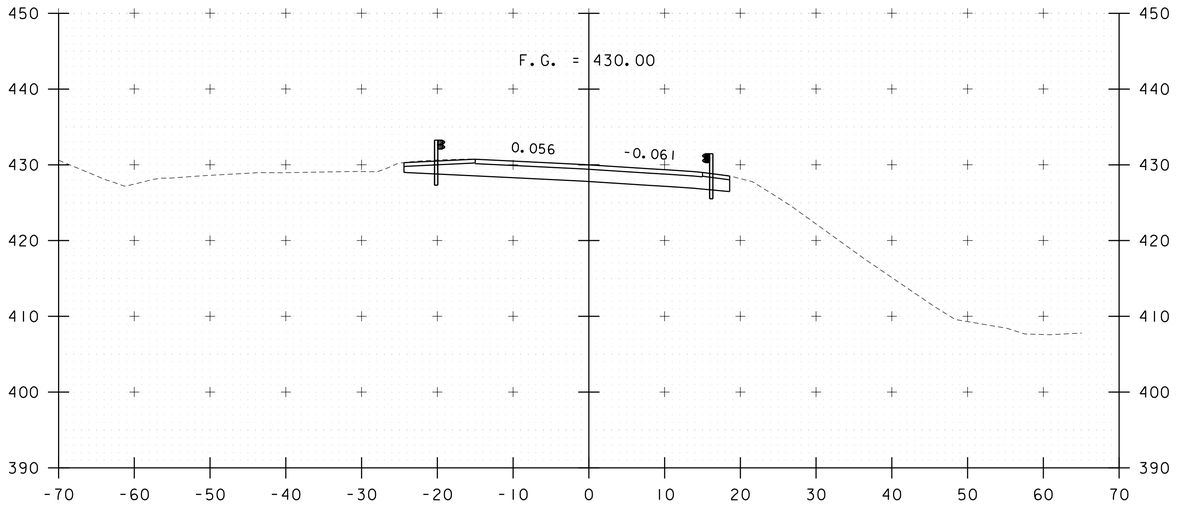
107+00

STA. 106+50 TO STA. 107+25

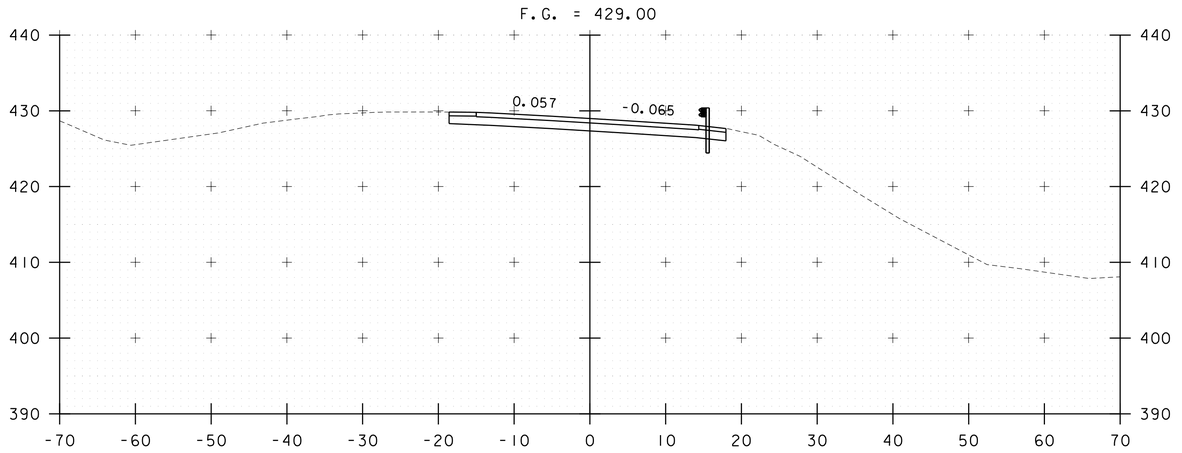
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
US 2 CROSS SECTION 7

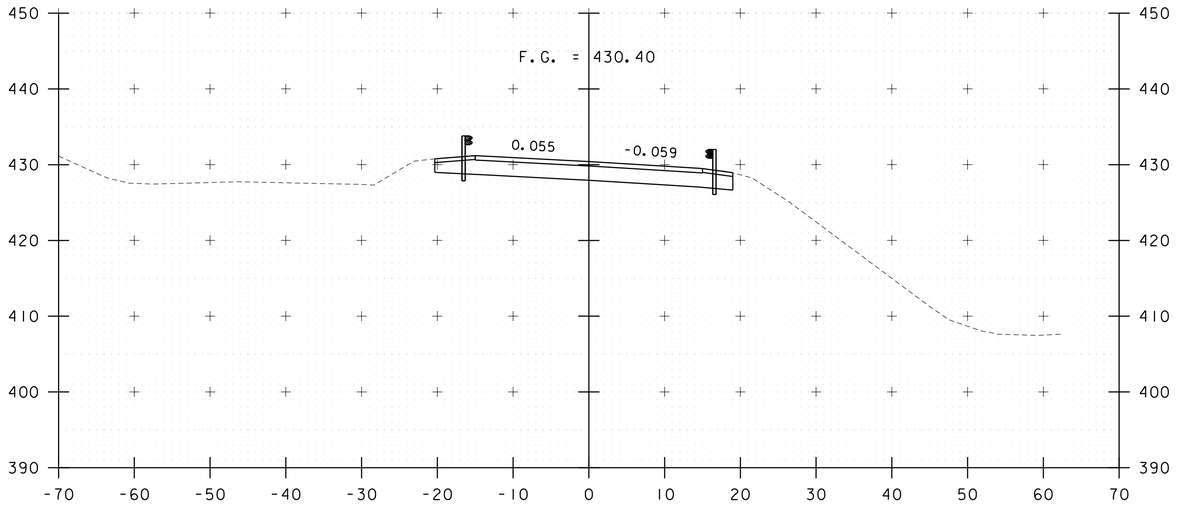
PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 87 OF 130



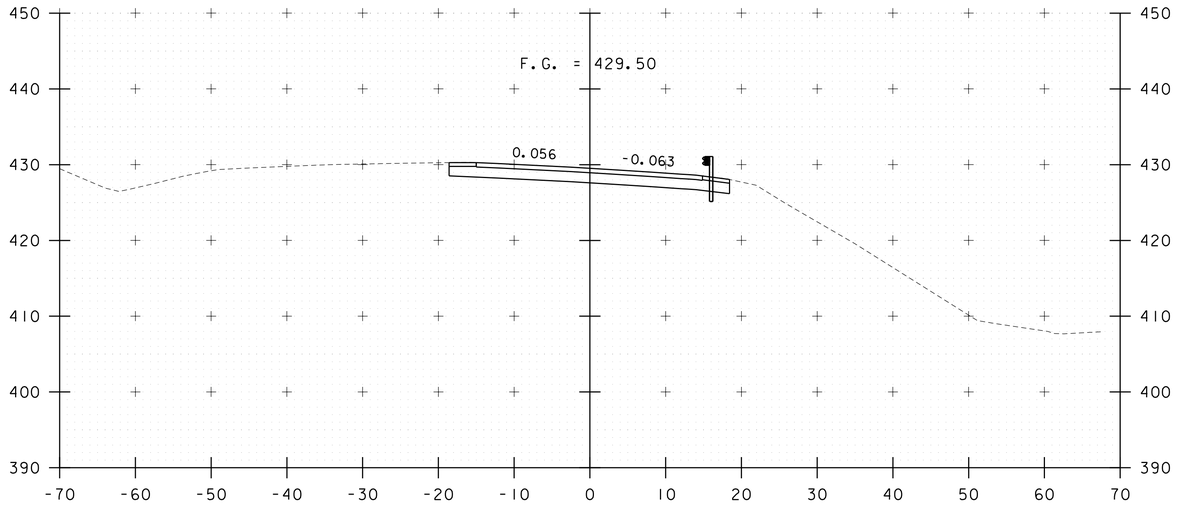
107+75



108+25



107+50



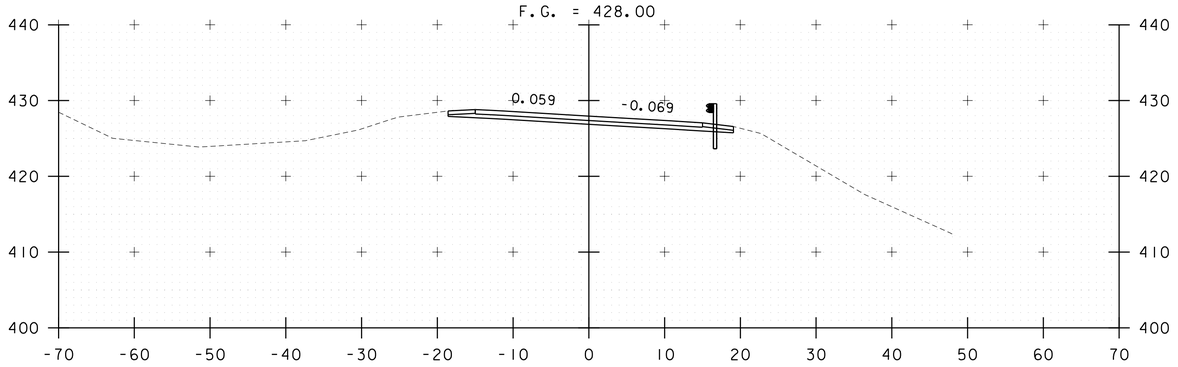
108+00

STA. 107+50 TO STA. 108+25

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

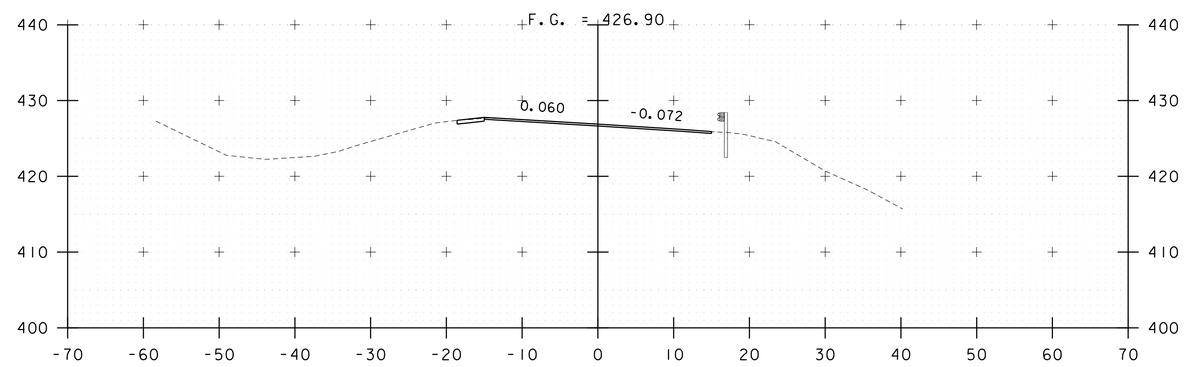
FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
US 2 CROSS SECTION 8

PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 88 OF 130

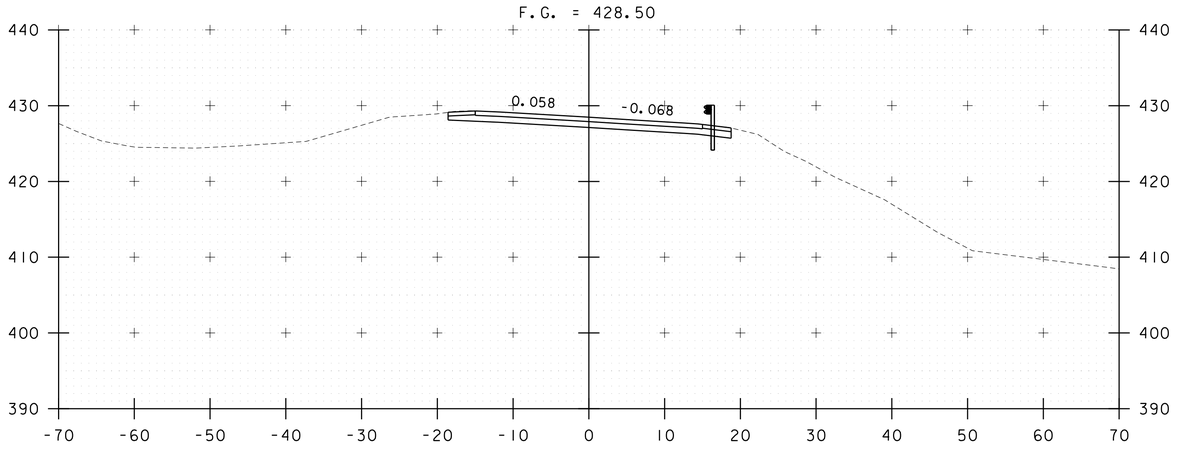


108+75

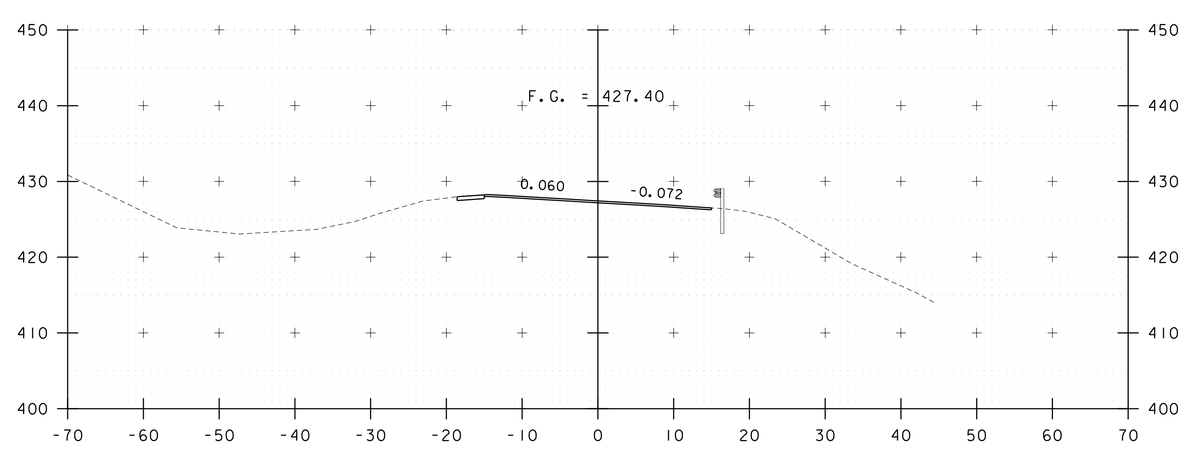
BEGIN COARSE-MILLING
MATCH EXISTING
END DENSE GRADED CRUSHED STONE



109+25



108+50



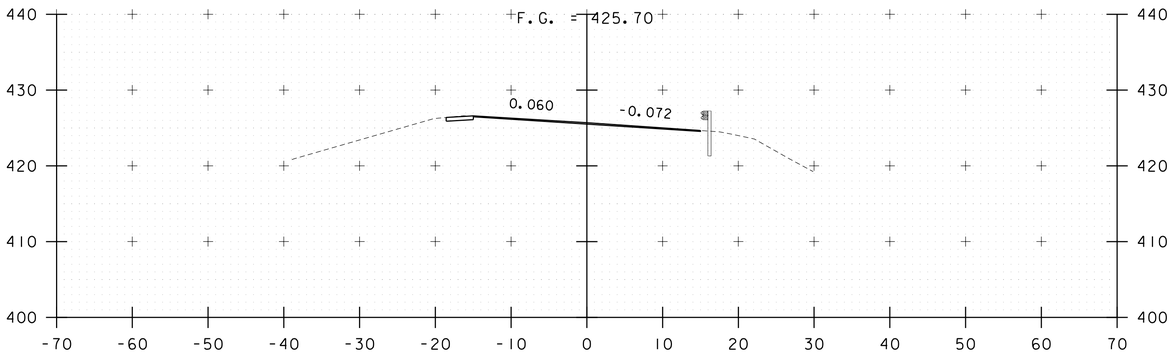
109+00

STA. 108+50 TO STA. 109+25

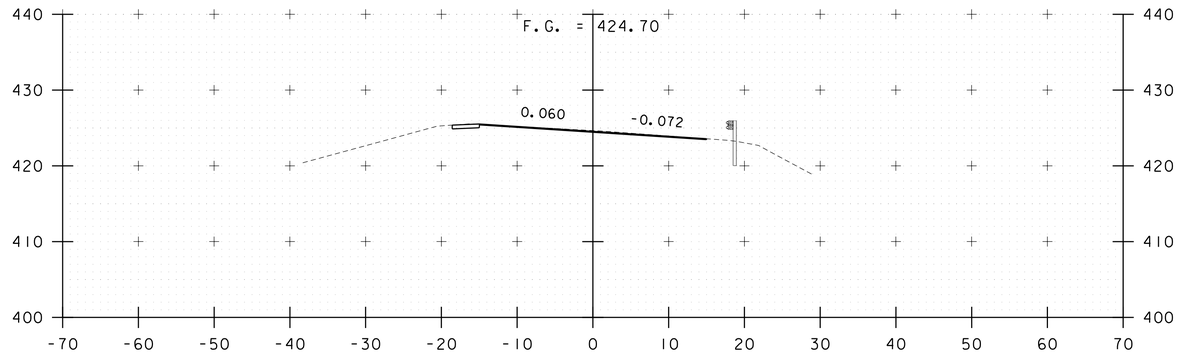
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G.CANTAVE
US 2 CROSS SECTION 9

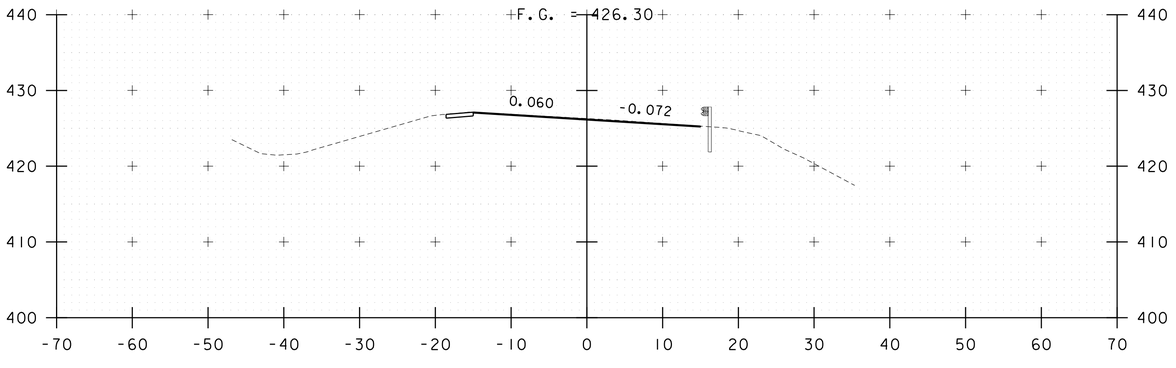
PLOT DATE: 8/18/2022
DRAWN BY: C.BELLISLE
CHECKED BY: M.OOMS
SHEET 89 OF 130



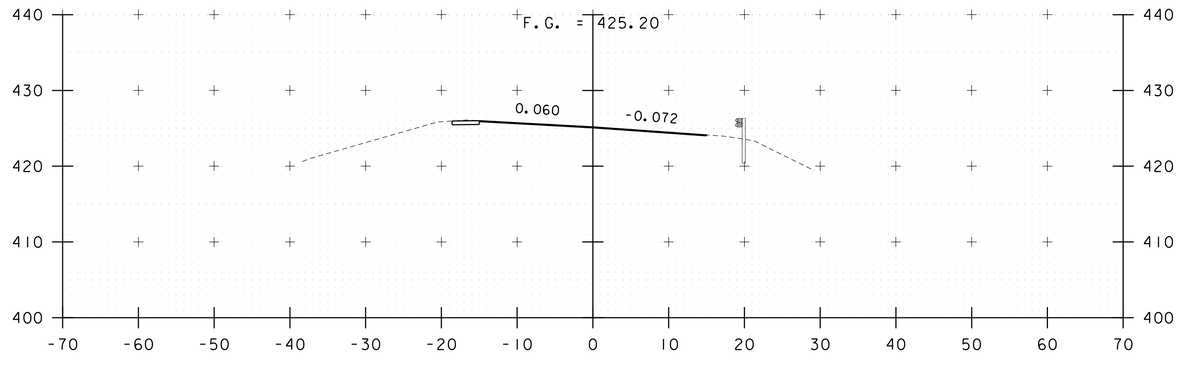
109+75



110+25



109+50



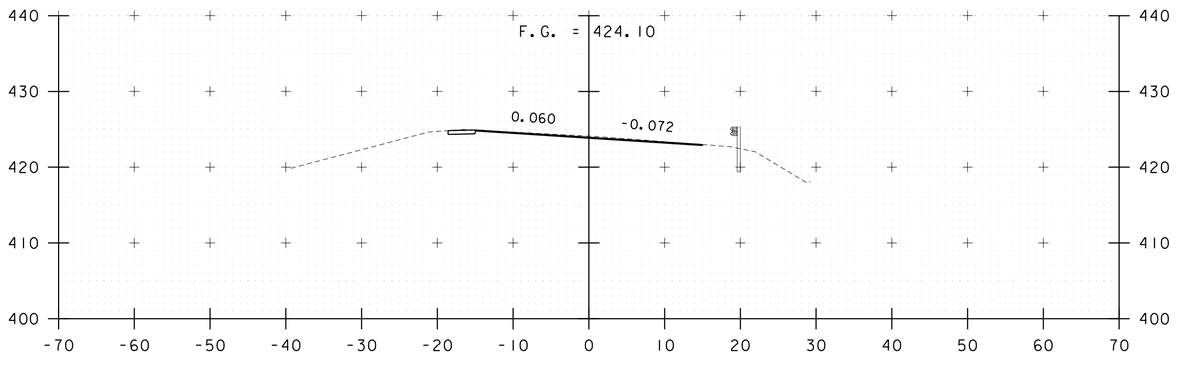
110+00

STA. 109+50 TO STA. 110+25

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
US 2 CROSS SECTION 10

PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 90 OF 130



110+50

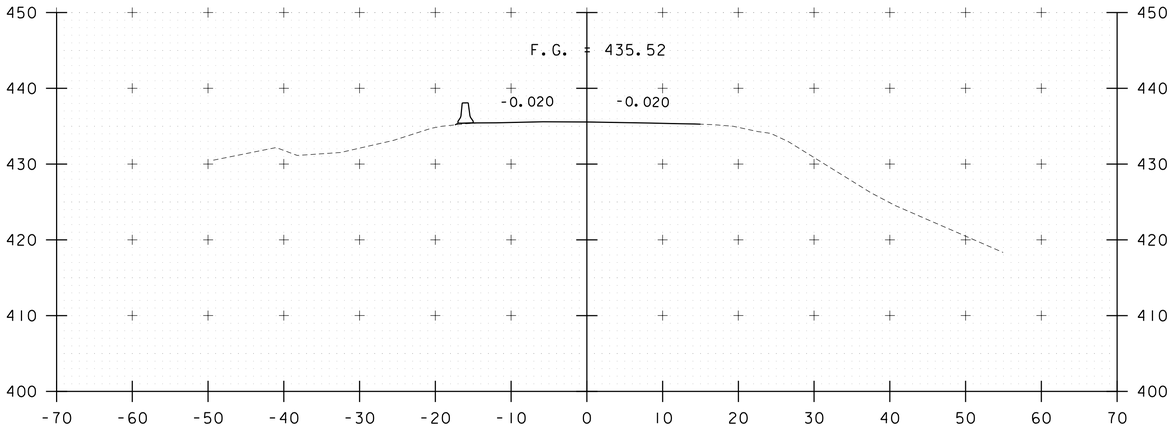
110+50
END APPROACH
END COARSE-MILLING, BITUMINOUS PAVEMENT

STA. 110+50 TO STA. 110+50

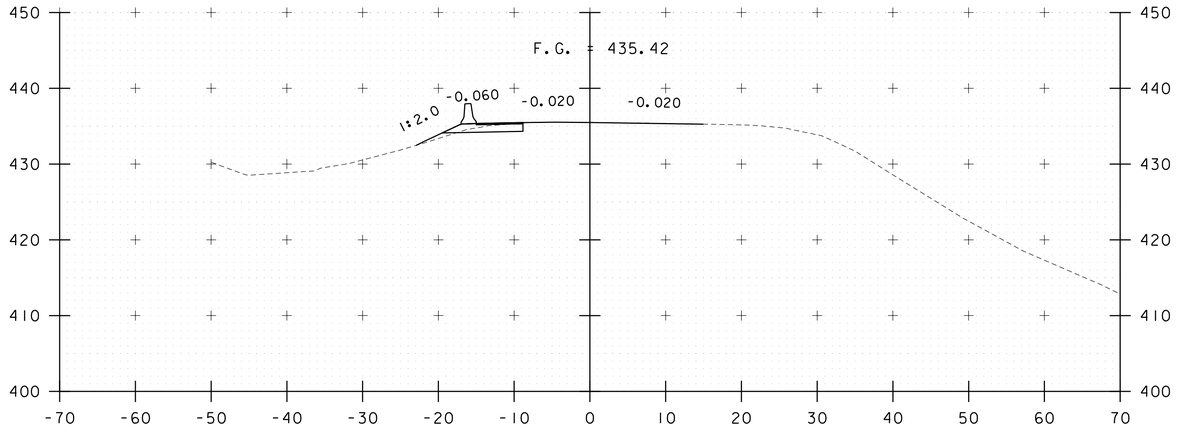
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
US 2 CROSS SECTION II

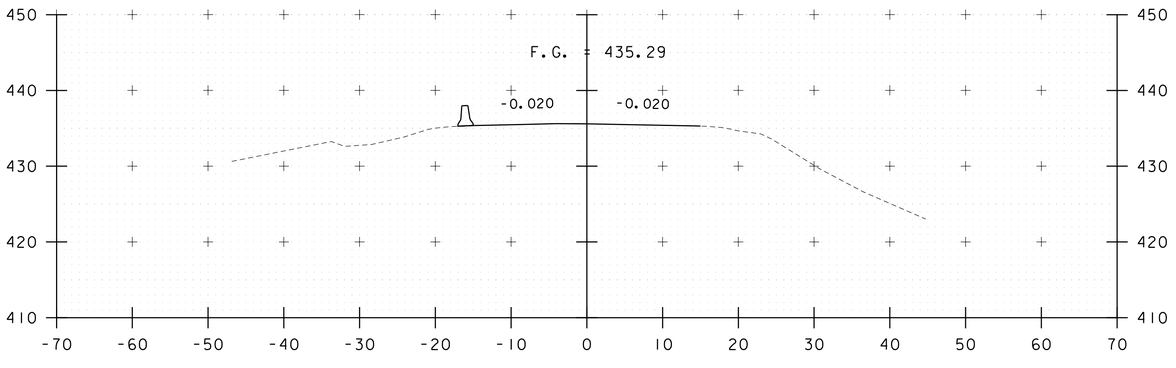
PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 91 OF 130



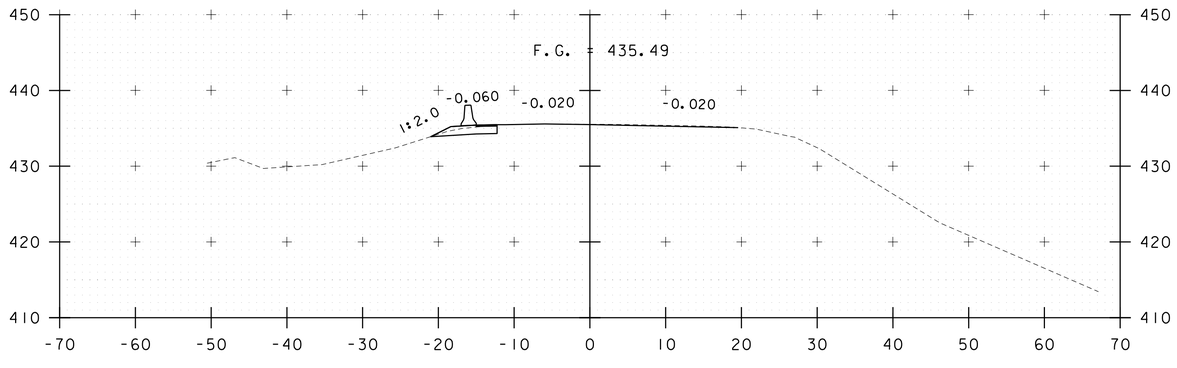
10+25



10+75



10+00



10+50

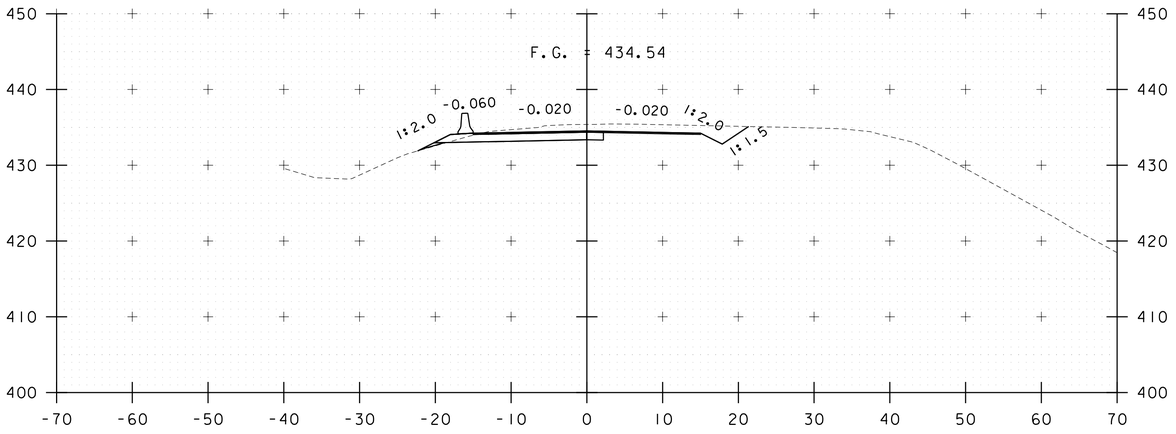
TEMPORARY DETOUR CROSS SECTIONS
PROVIDED ONLY TO INDICATE LIMITS
OF CONSTRUCTION USED FOR PERMITTING

STA. 10+00 TO STA. 10+75

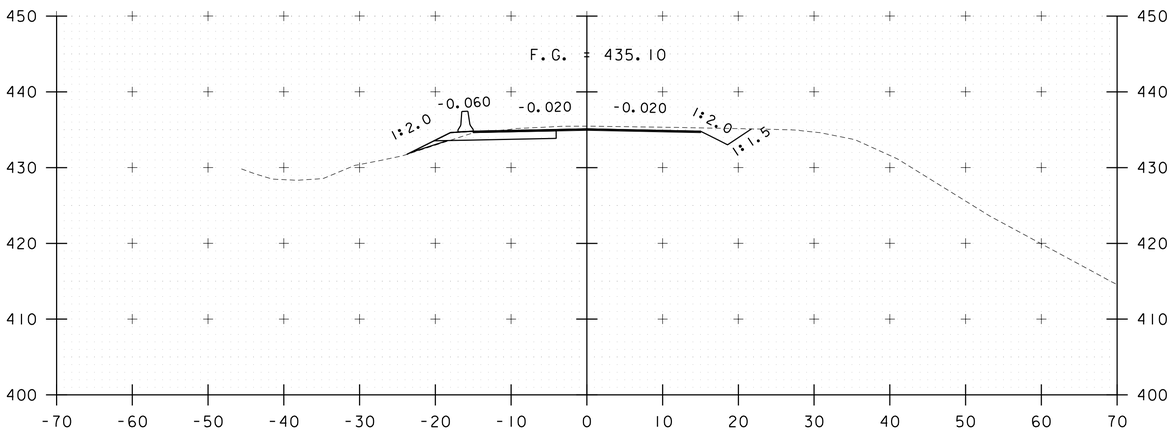
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
TEMPORARY DETOUR CROSS SECTION 1

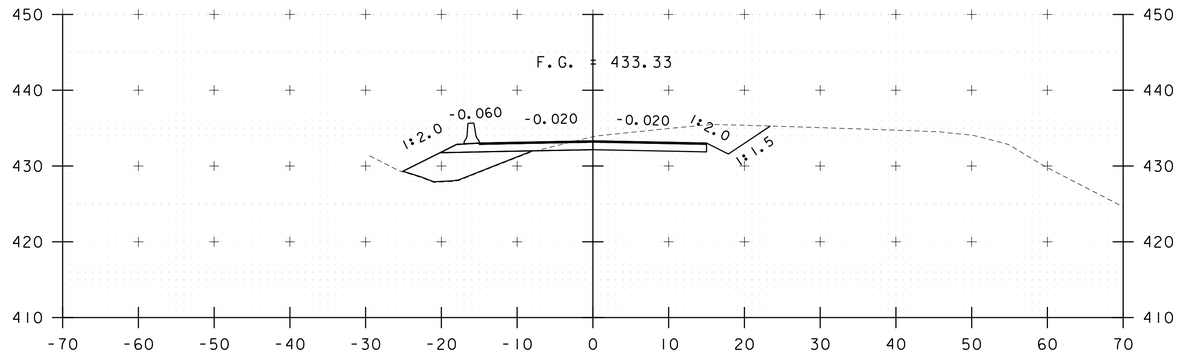
PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 92 OF 130



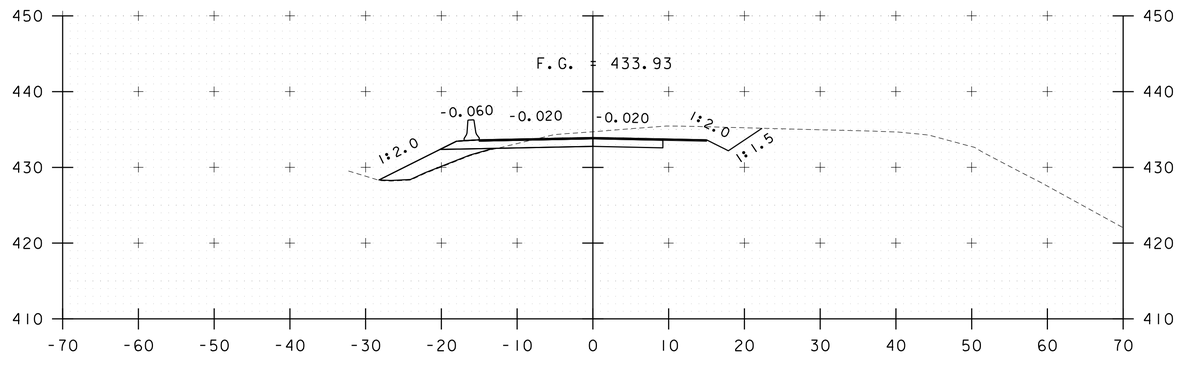
11+25



11+00



11+75



11+50

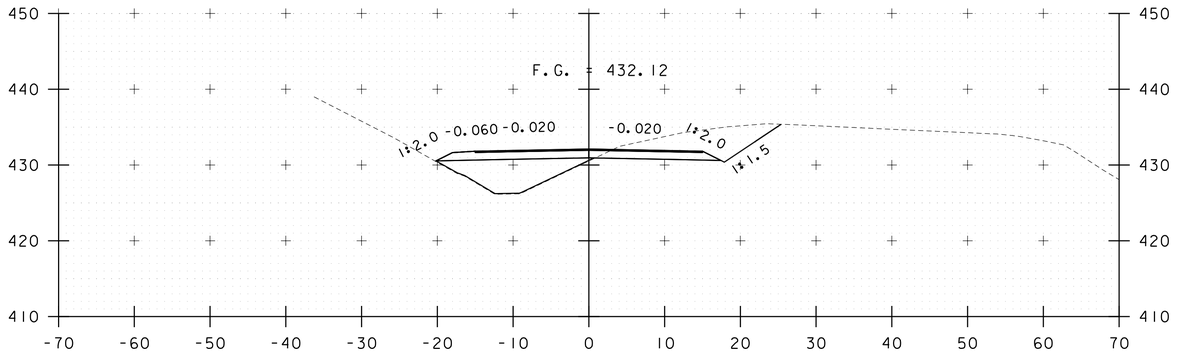
TEMPORARY DETOUR CROSS SECTIONS
PROVIDED ONLY TO INDICATE LIMITS
OF CONSTRUCTION USED FOR PERMITTING

STA. 11+00 TO STA. 11+75

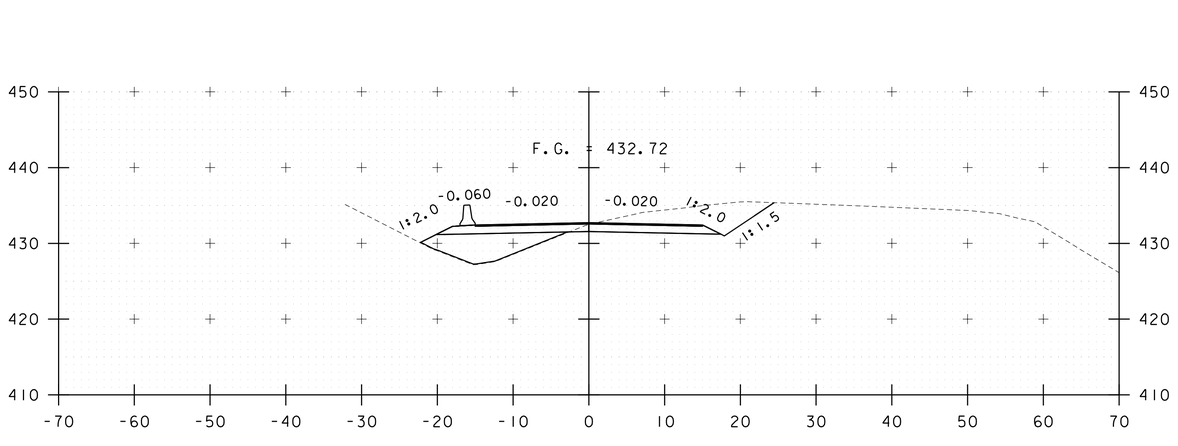
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: M. EVANS-MONGEON
TEMPORARY DETOUR CROSS SECTION 2

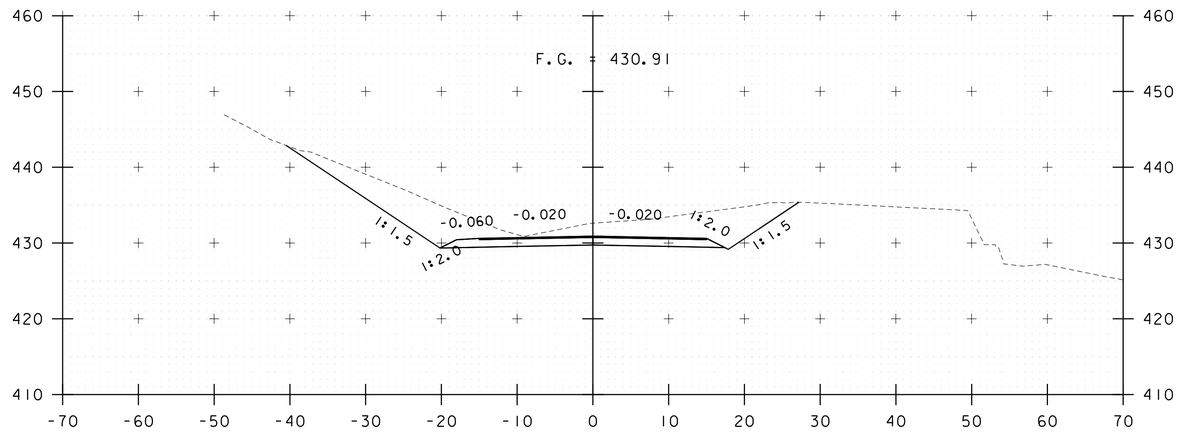
PLOT DATE: 8/18/2022
DRAWN BY: G. CANTAVE
CHECKED BY: M.OOMS
SHEET 93 OF 130



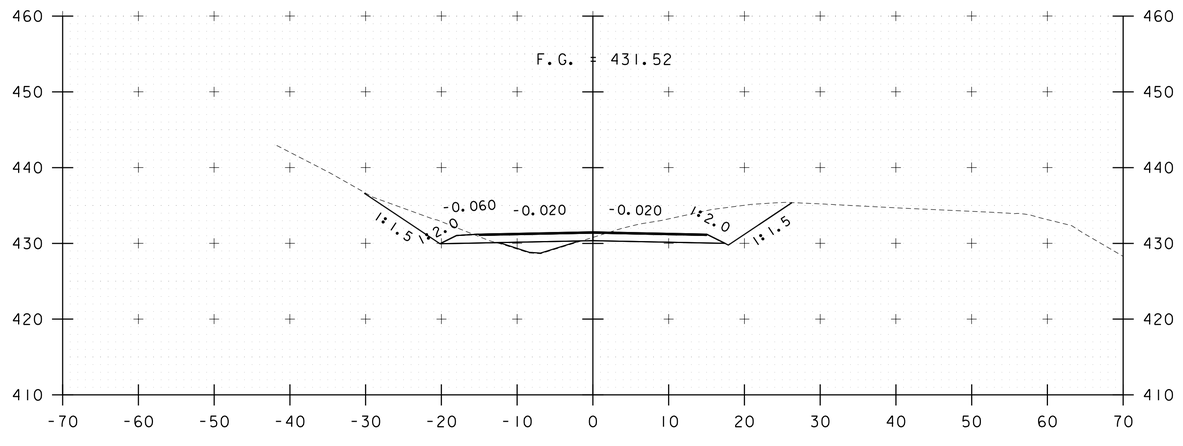
12+25



12+00



12+75



12+50

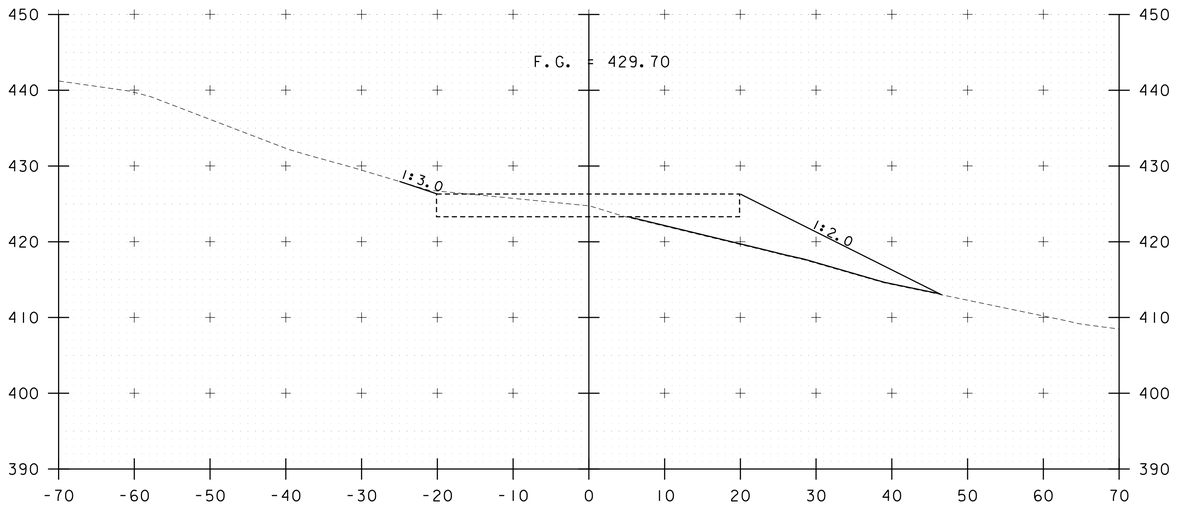
TEMPORARY DETOUR CROSS SECTIONS
PROVIDED ONLY TO INDICATE LIMITS
OF CONSTRUCTION USED FOR PERMITTING

STA. 12+00 TO STA. 12+75

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

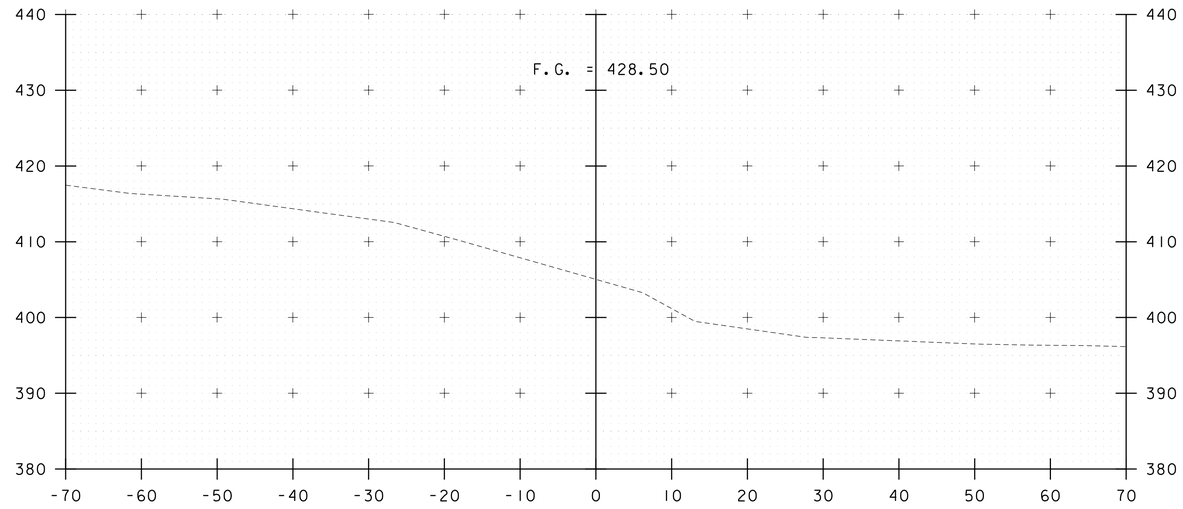
FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: M. EVANS-MONGEON
TEMPORARY DETOUR CROSS SECTION 3

PLOT DATE: 8/18/2022
DRAWN BY: G. CANTAVE
CHECKED BY: M.OOMS
SHEET 94 OF 130

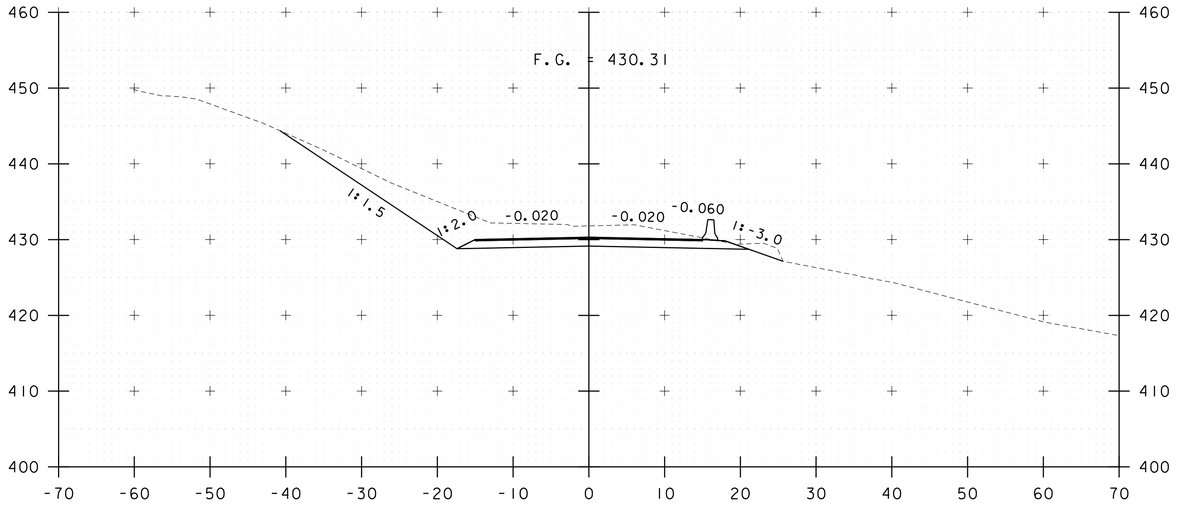


13+25

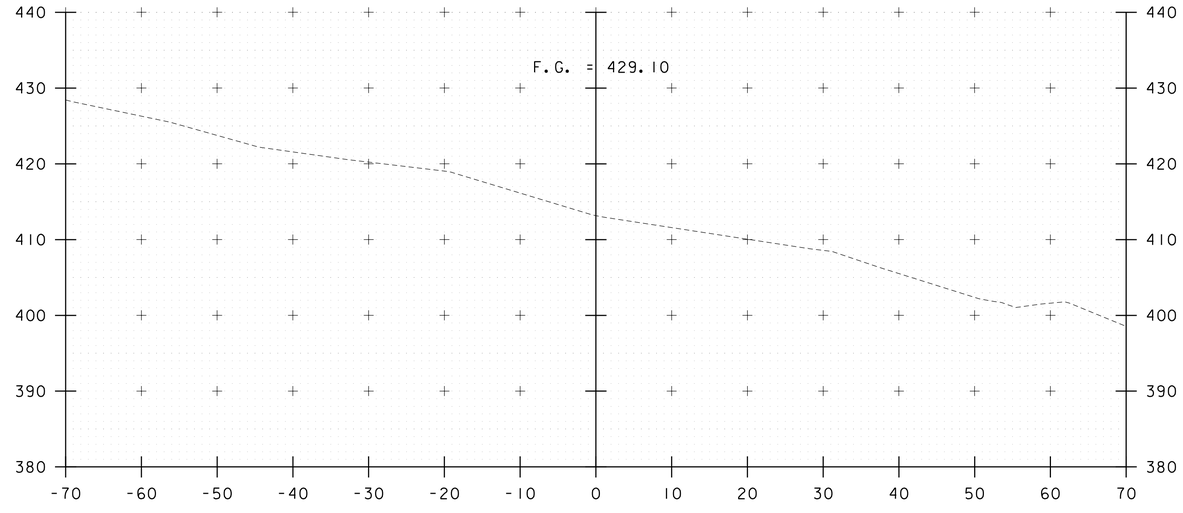
BEGIN TEMPORARY BRIDGE



13+75



13+00



13+50

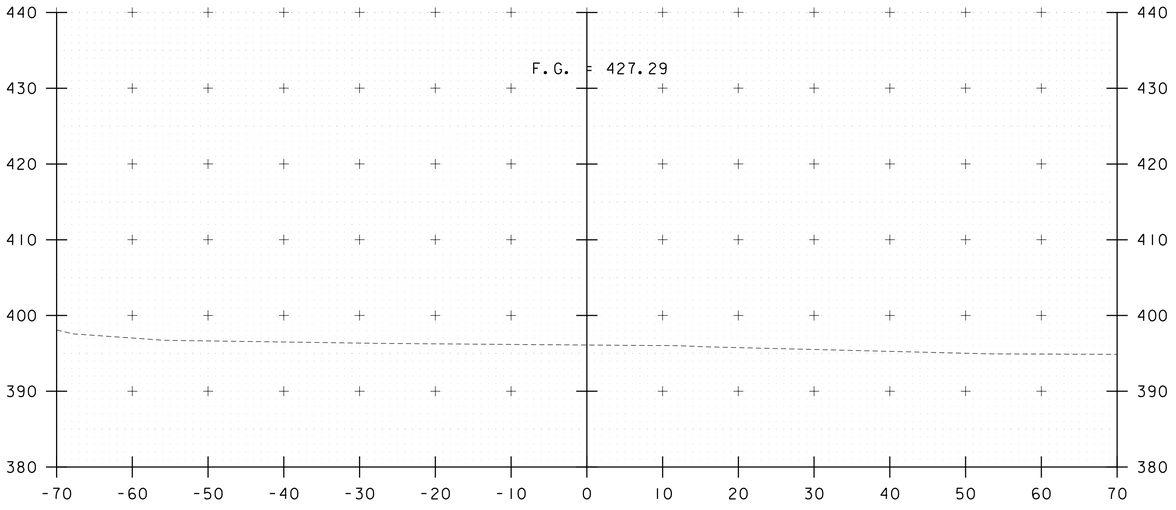
TEMPORARY DETOUR CROSS SECTIONS
PROVIDED ONLY TO INDICATE LIMITS
OF CONSTRUCTION USED FOR PERMITTING

STA. 13+00 TO STA. 13+75

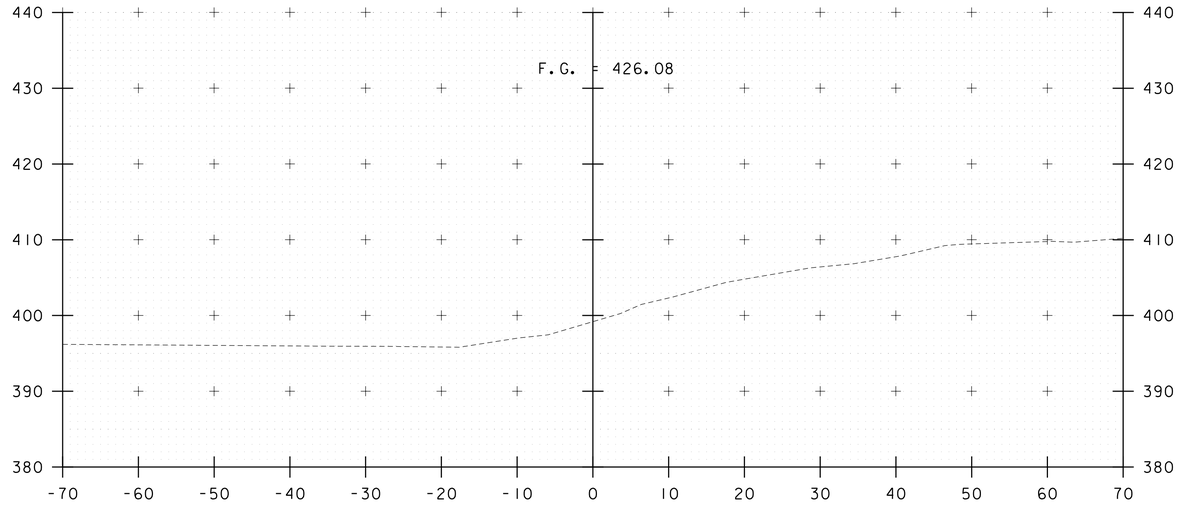
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
TEMPORARY DETOUR CROSS SECTION 4

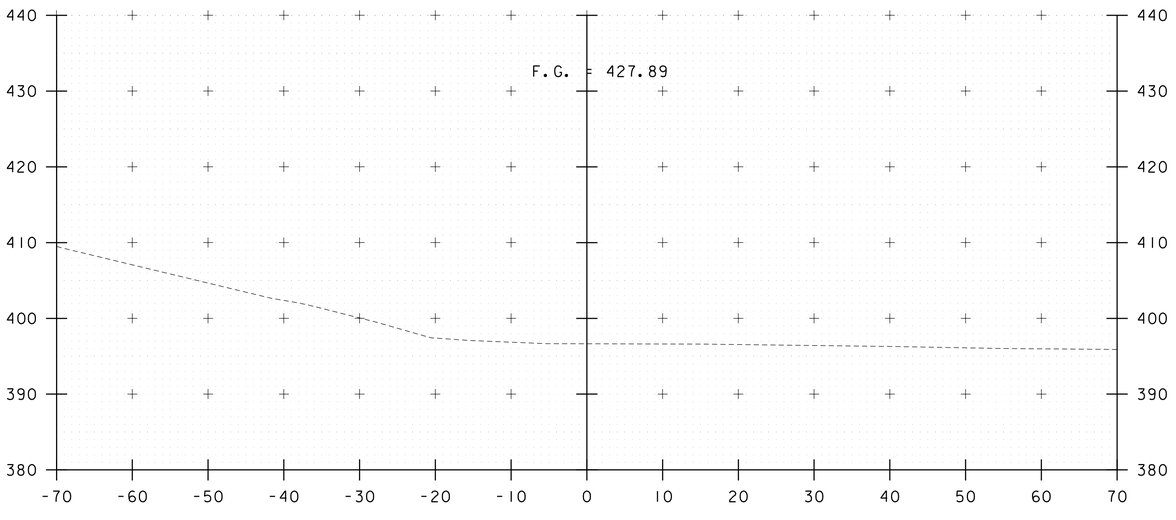
PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 95 OF 130



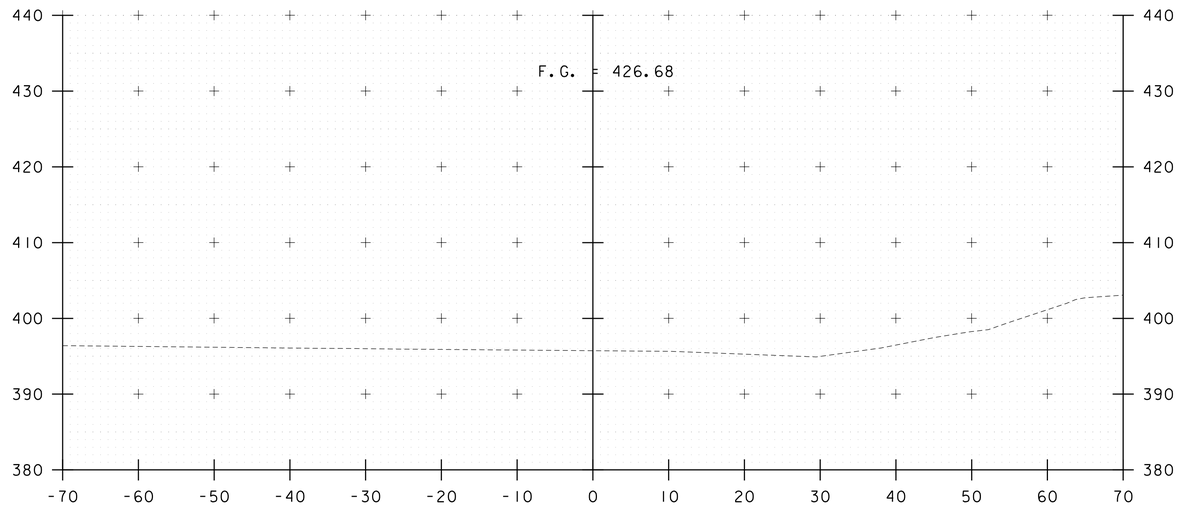
14+25



14+75



14+00



14+50

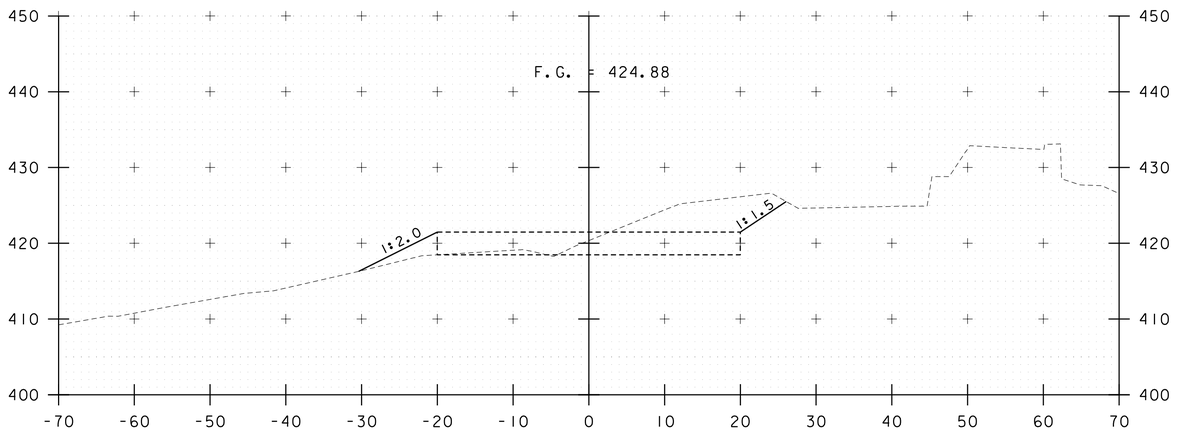
TEMPORARY DETOUR CROSS SECTIONS
PROVIDED ONLY TO INDICATE LIMITS
OF CONSTRUCTION USED FOR PERMITTING

STA. 14+00 TO STA. 14+75

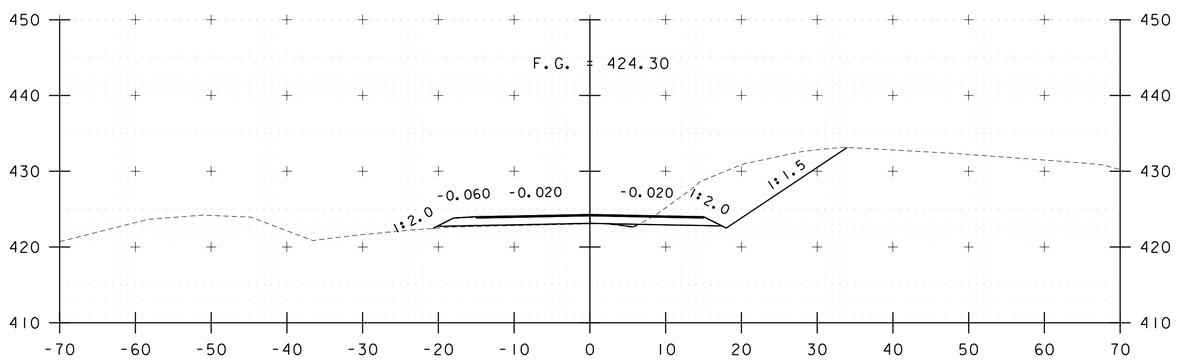
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
TEMPORARY DETOUR CROSS SECTION 5

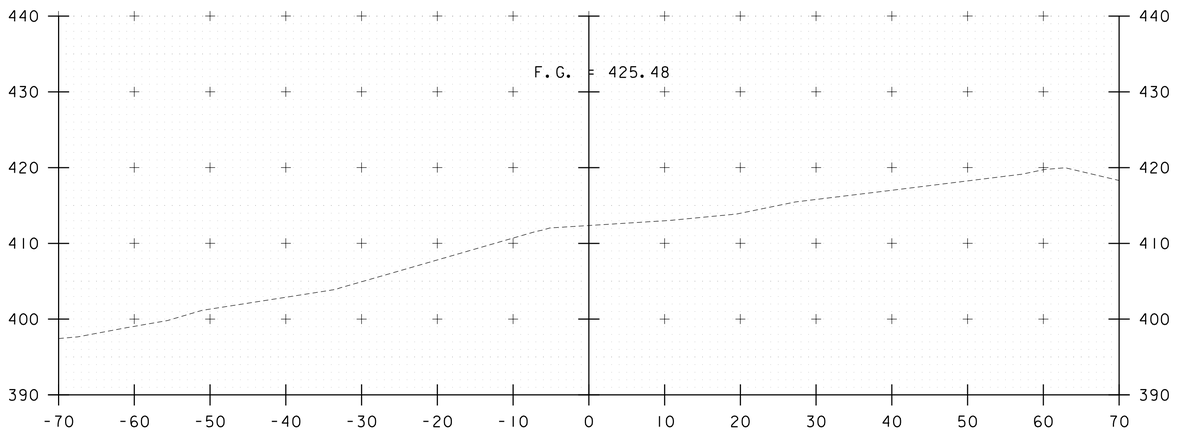
PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 96 OF 130



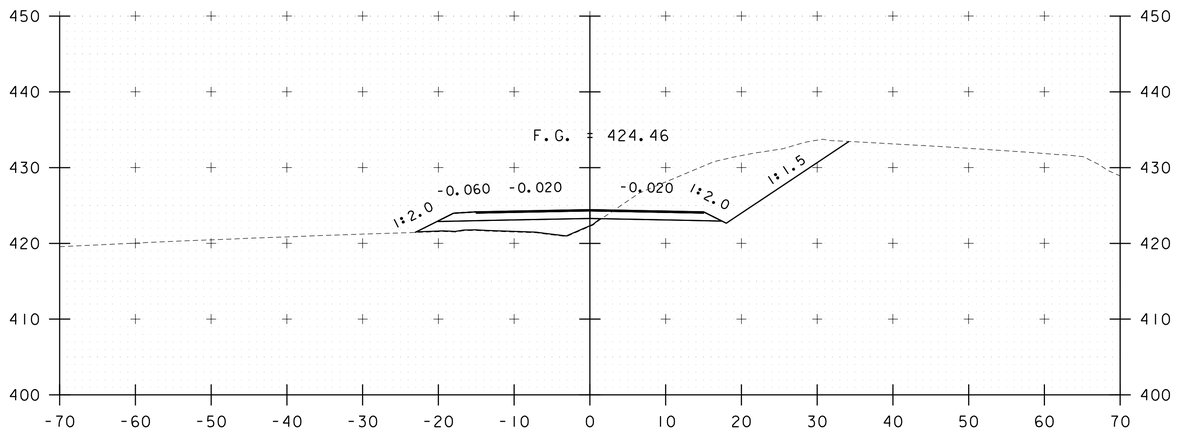
15+25
END TEMPORARY BRIDGE



15+75



15+00



15+50

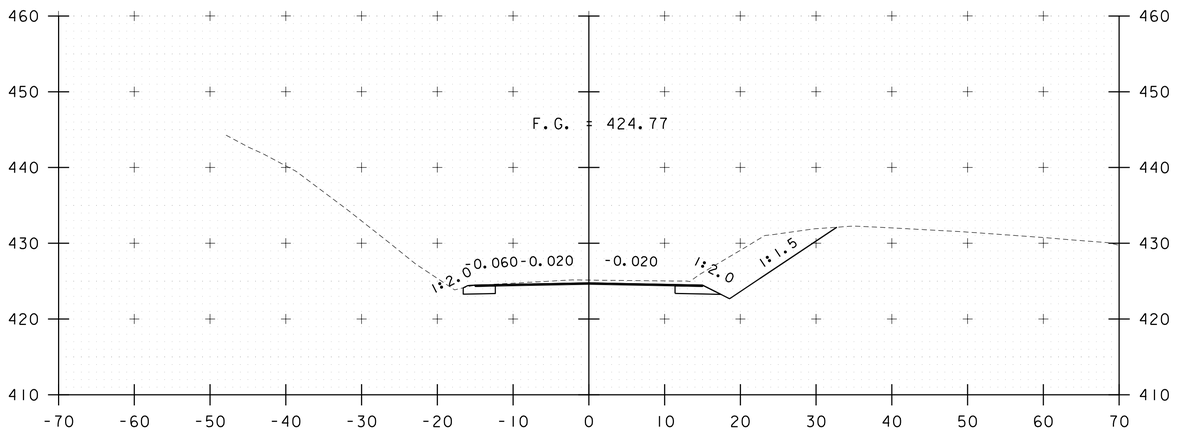
TEMPORARY DETOUR CROSS SECTIONS
PROVIDED ONLY TO INDICATE LIMITS
OF CONSTRUCTION USED FOR PERMITTING

STA. 15+00 TO STA. 15+75

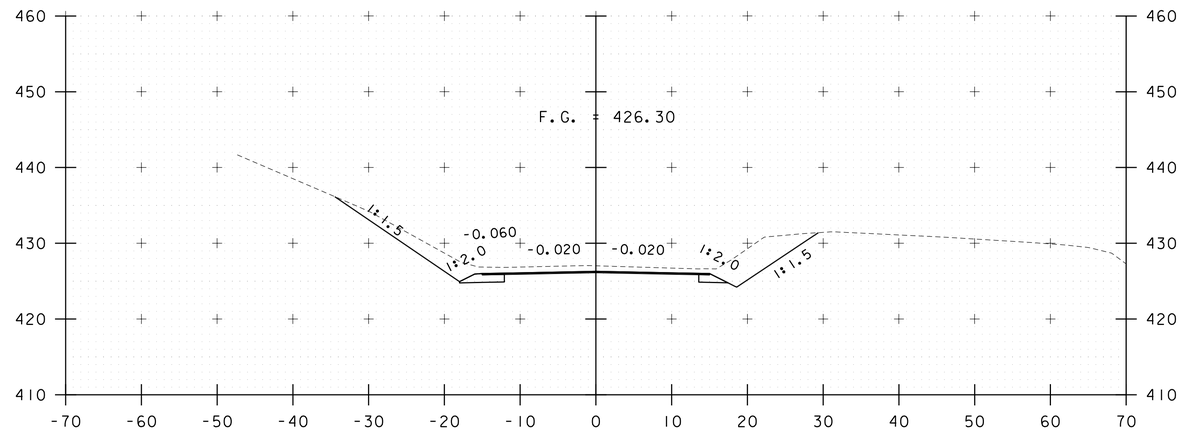
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G.CANTAVE
TEMPORARY DETOUR CROSS SECTION 6

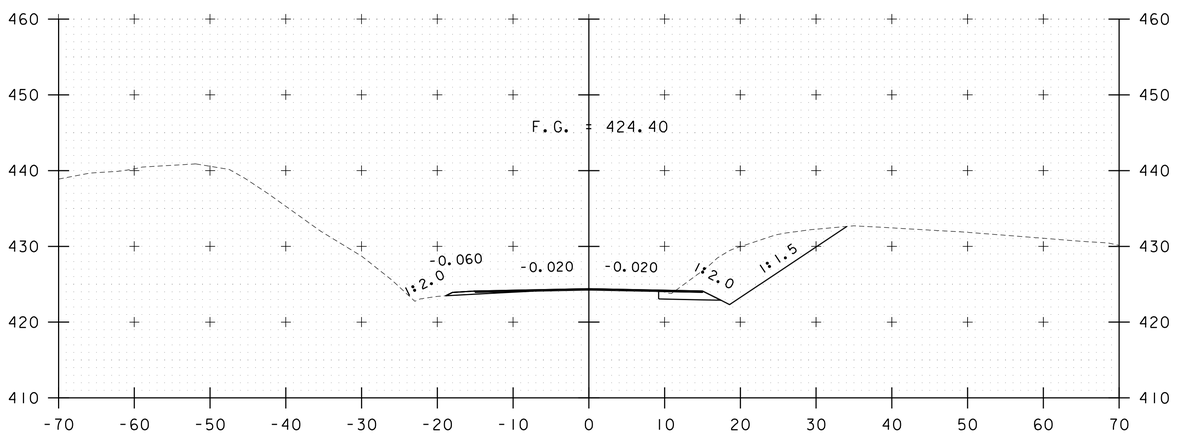
PLOT DATE: 8/18/2022
DRAWN BY: C.BELLISLE
CHECKED BY: M.OOMS
SHEET 97 OF 130



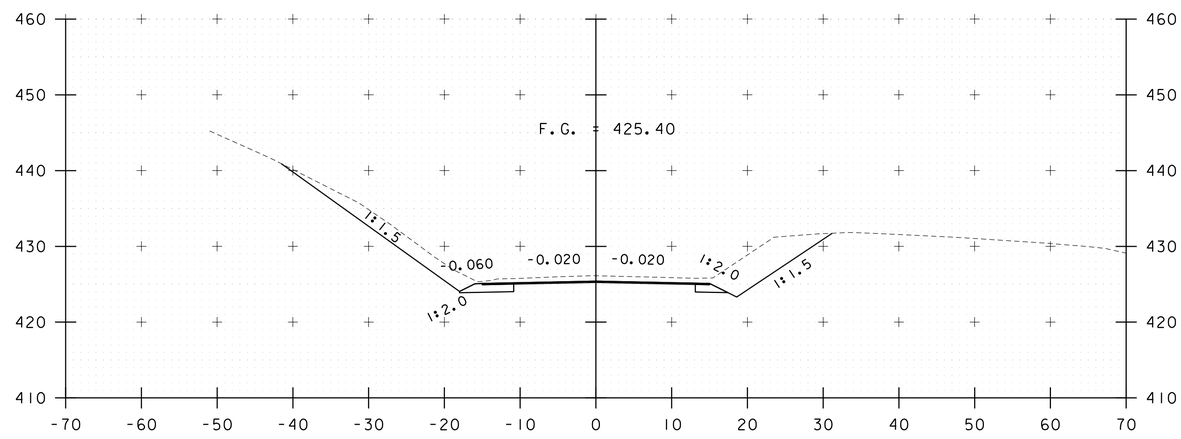
16+25



16+75



16+00



16+50

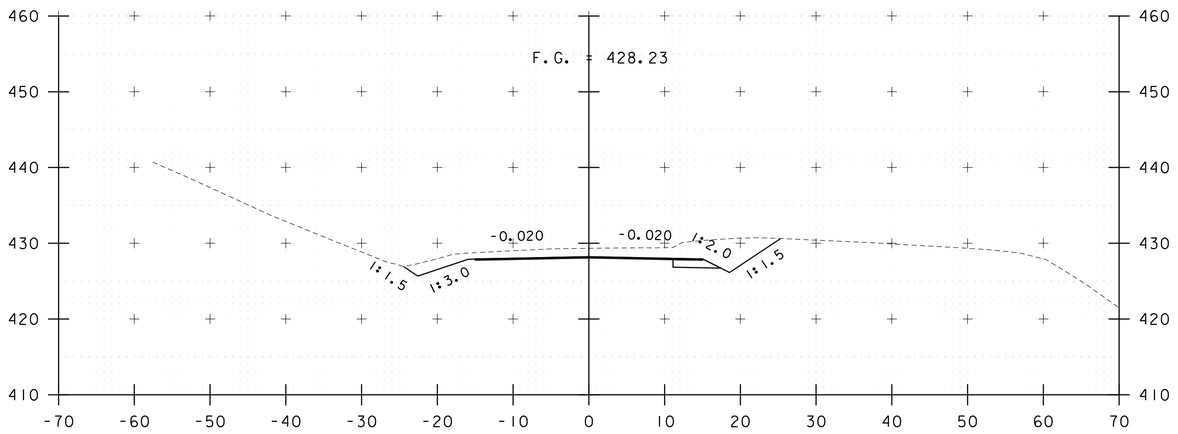
TEMPORARY DETOUR CROSS SECTIONS
PROVIDED ONLY TO INDICATE LIMITS
OF CONSTRUCTION USED FOR PERMITTING

STA. 16+00 TO STA. 16+75

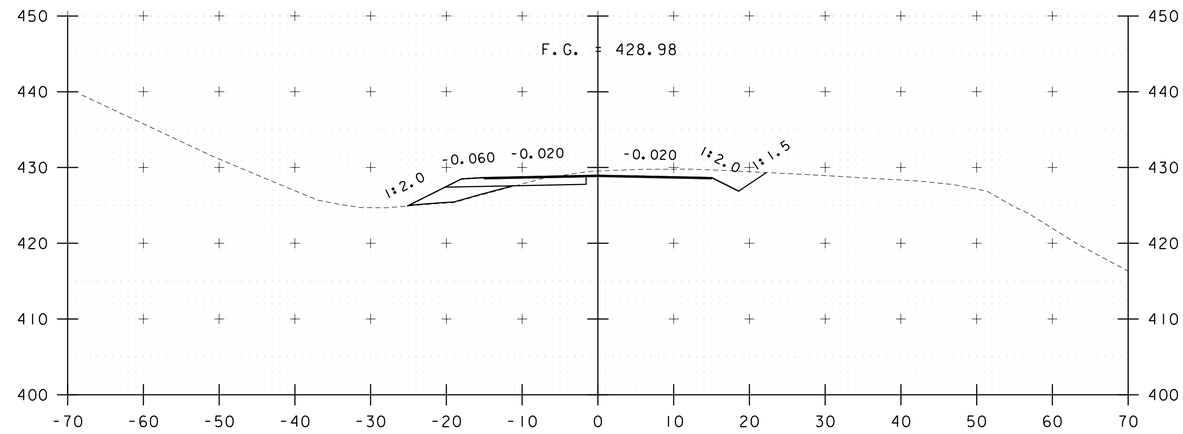
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G.CANTAVE
TEMPORARY DETOUR CROSS SECTION 7

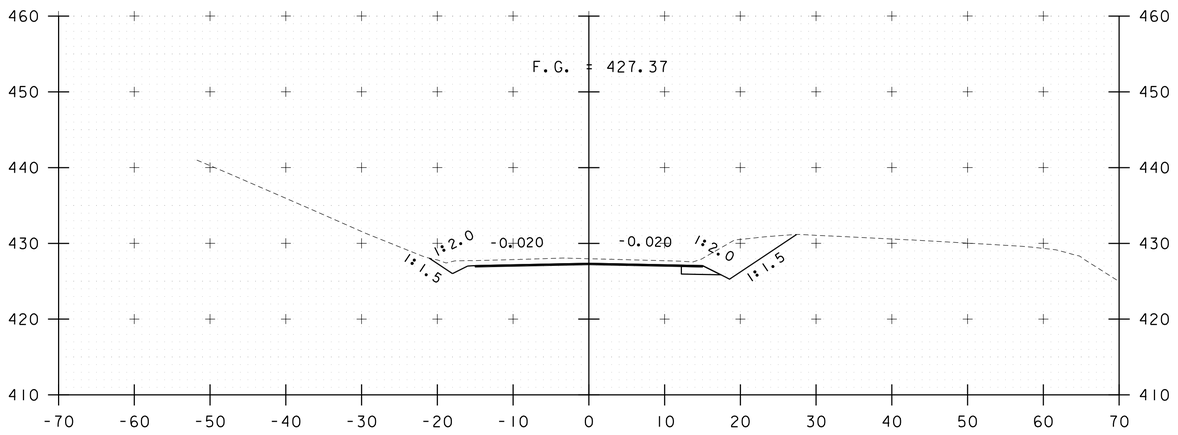
PLOT DATE: 8/18/2022
DRAWN BY: C.BELLISLE
CHECKED BY: M.OOMS
SHEET 98 OF 130



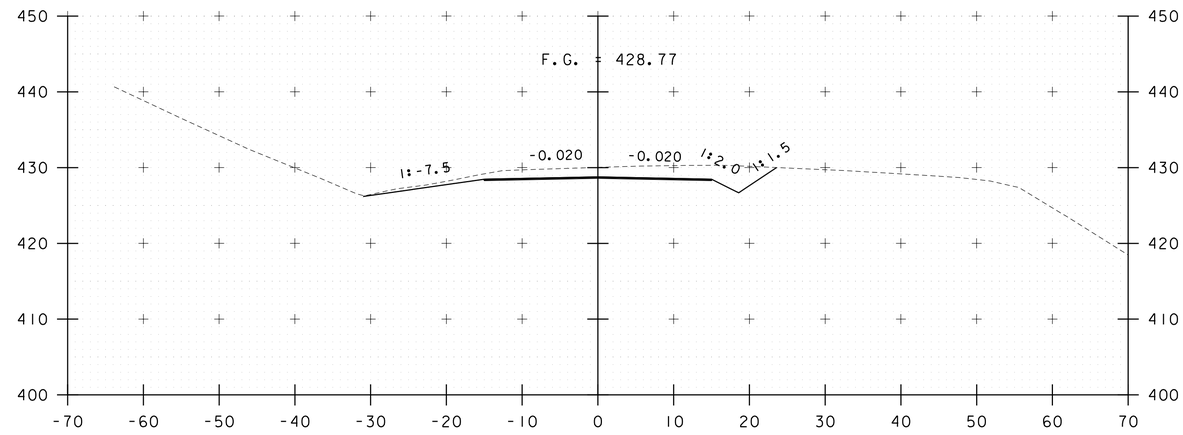
17+25



17+75



17+00



17+50

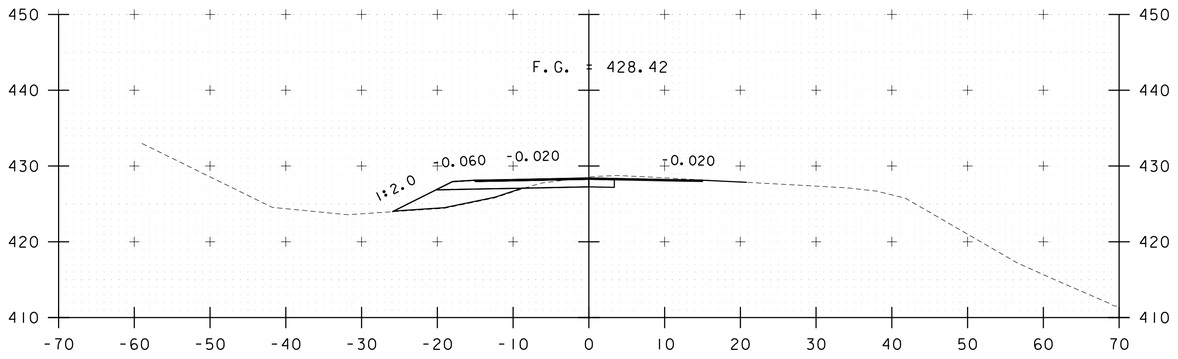
TEMPORARY DETOUR CROSS SECTIONS
PROVIDED ONLY TO INDICATE LIMITS
OF CONSTRUCTION USED FOR PERMITTING

STA. 17+00 TO STA. 17+75

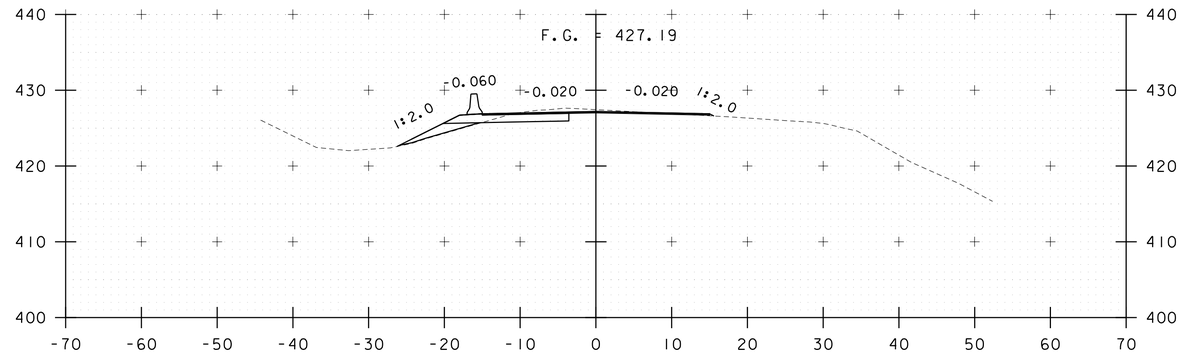
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
TEMPORARY DETOUR CROSS SECTION 8

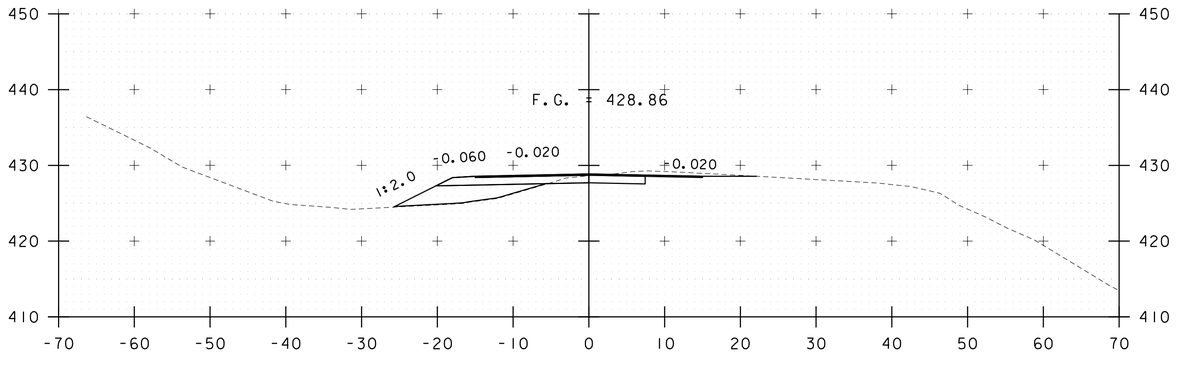
PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 99 OF 130



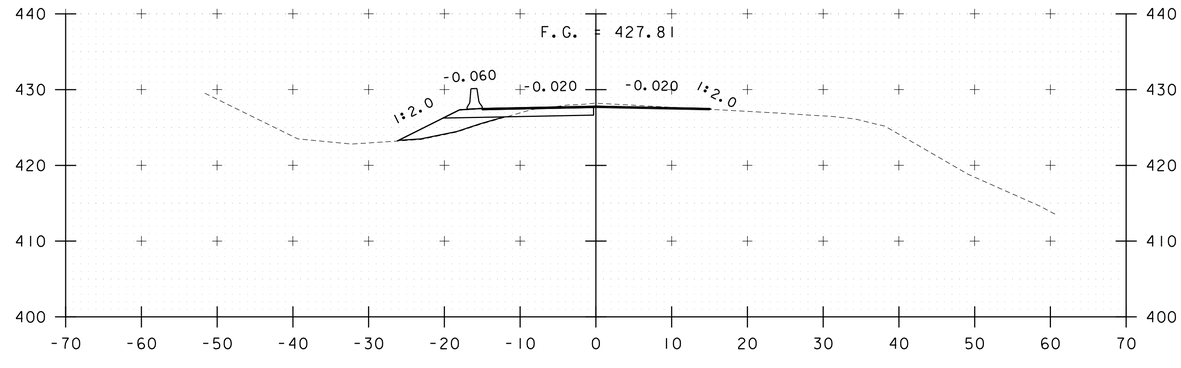
18+25



18+75



18+00



18+50

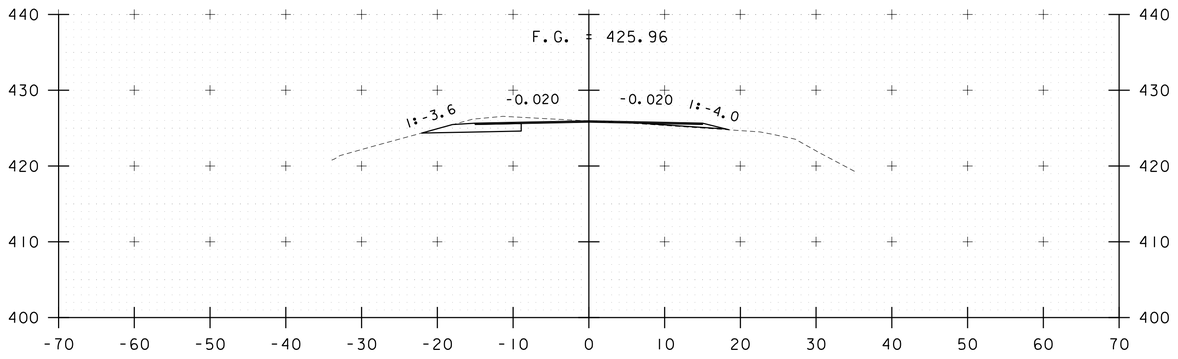
TEMPORARY DETOUR CROSS SECTIONS
PROVIDED ONLY TO INDICATE LIMITS
OF CONSTRUCTION USED FOR PERMITTING

STA. 18+00 TO STA. 18+75

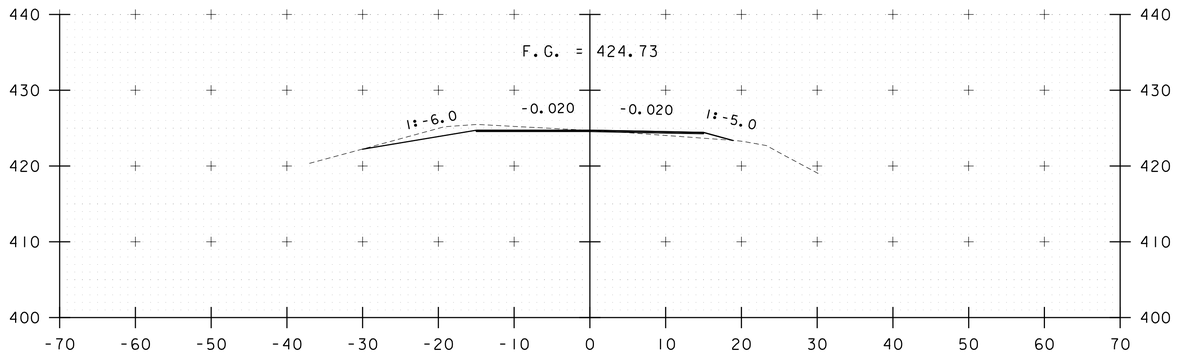
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
TEMPORARY DETOUR CROSS SECTION 9

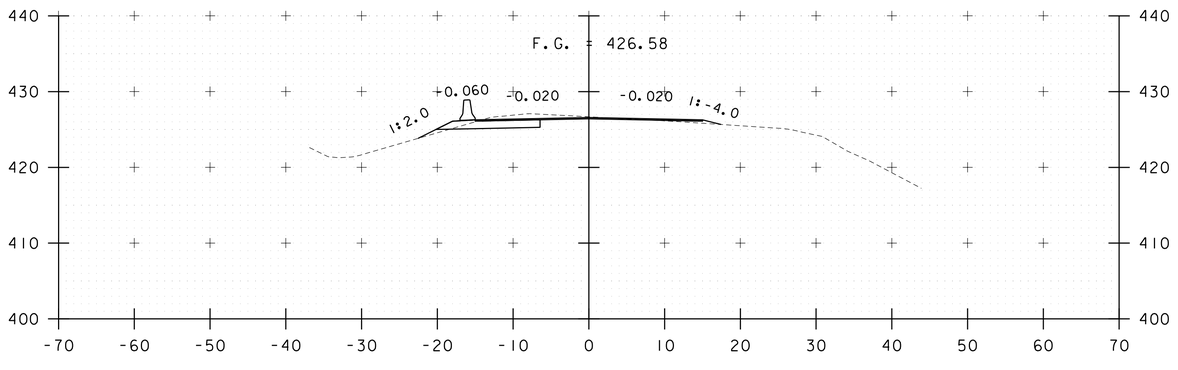
PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 100 OF 130



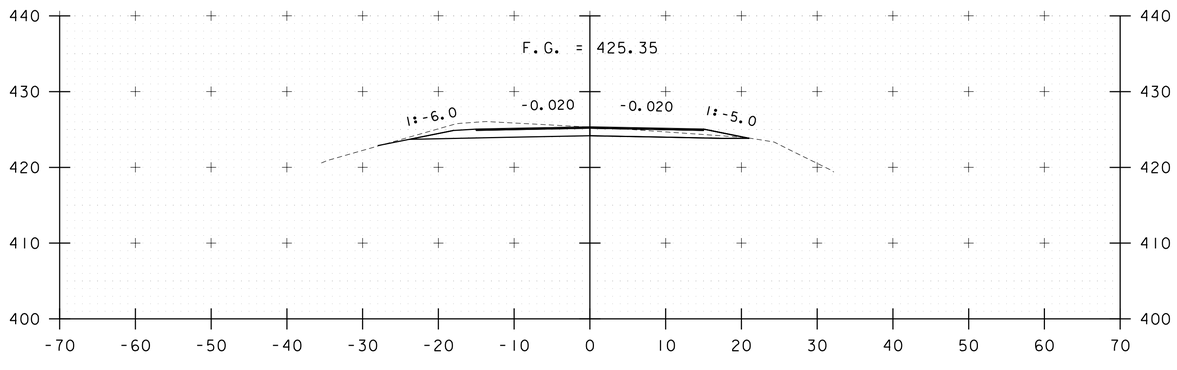
19+25



19+75



19+00



19+50

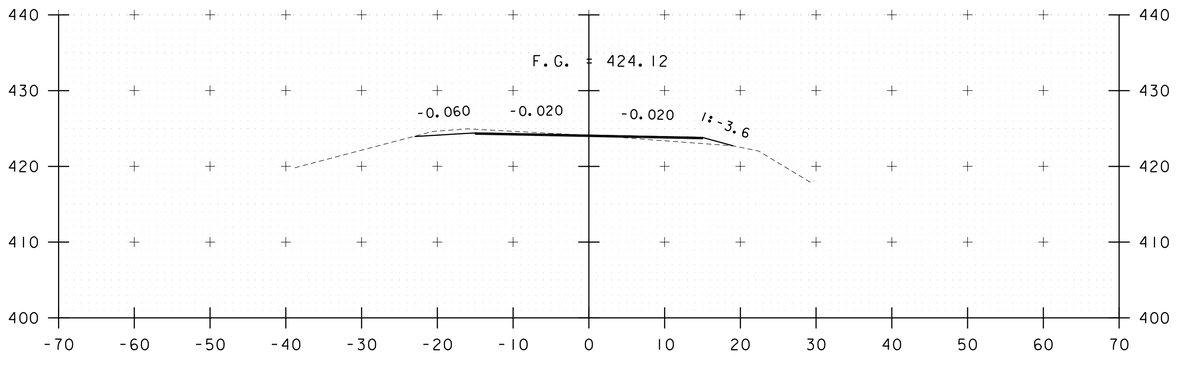
TEMPORARY DETOUR CROSS SECTIONS
PROVIDED ONLY TO INDICATE LIMITS
OF CONSTRUCTION USED FOR PERMITTING

STA. 19+00 TO STA. 19+75

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
TEMPORARY DETOUR CROSS SECTION 10

PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 101 OF 130



20+00

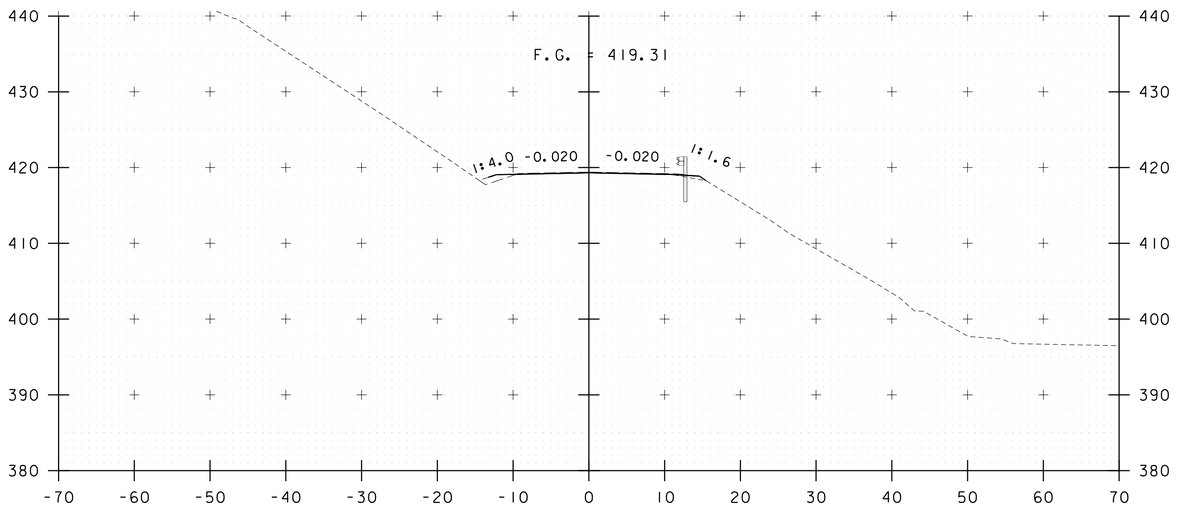
TEMPORARY DETOUR CROSS SECTIONS
PROVIDED ONLY TO INDICATE LIMITS
OF CONSTRUCTION USED FOR PERMITTING

STA. 20+00 TO STA. 20+00

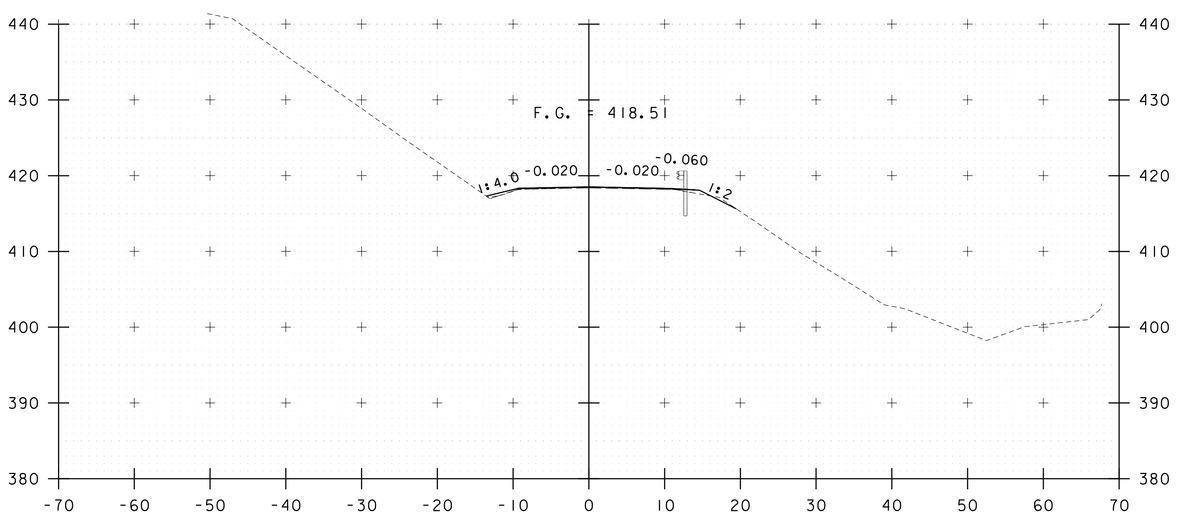
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
TEMPORARY DETOUR CROSS SECTION II

PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 102 OF 130



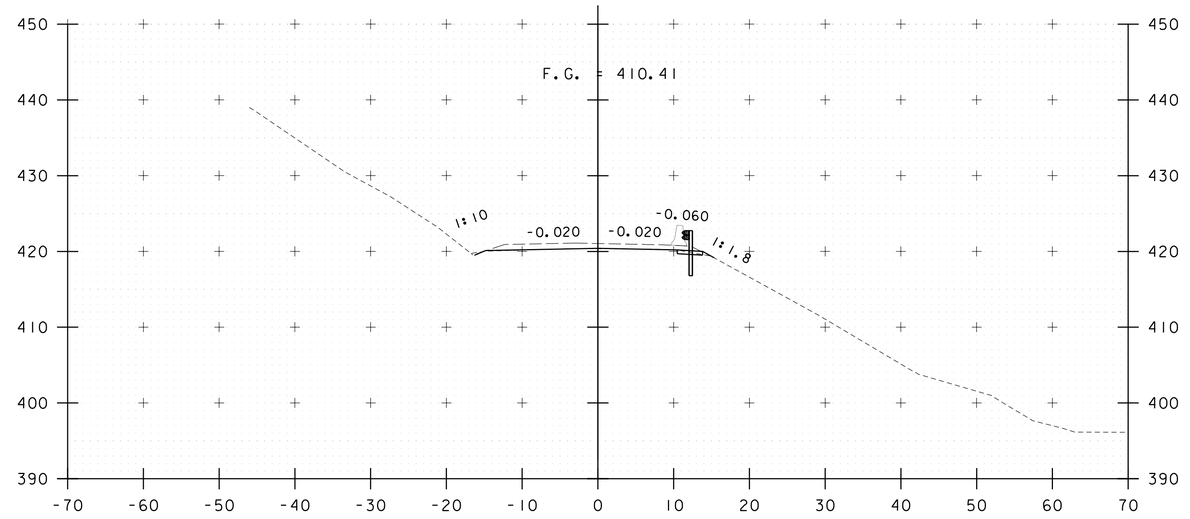
30+50



30+25

MATCH EXISTING

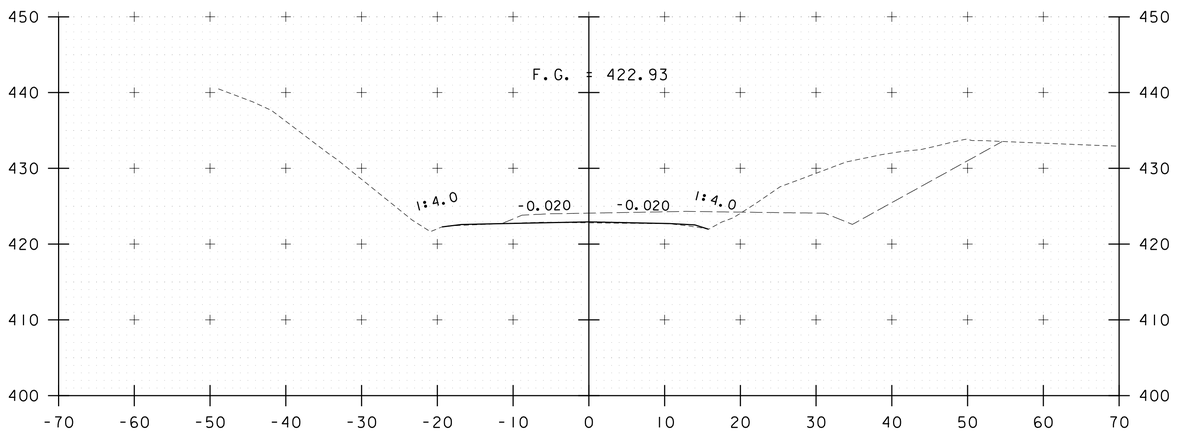
BEGIN SUBBASE OF CRUSHED GRAVEL, FINE GRADED



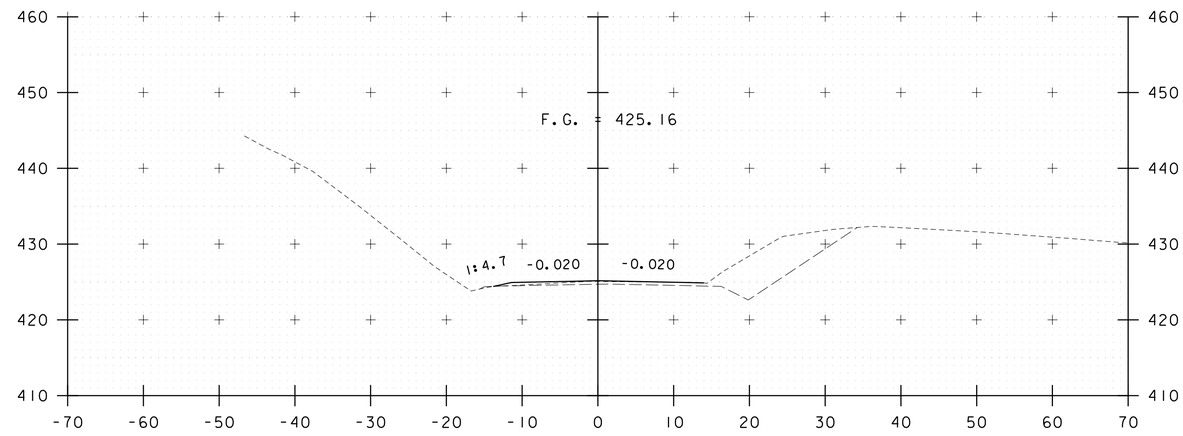
30+75

STA. 30+25 TO STA. 30+75

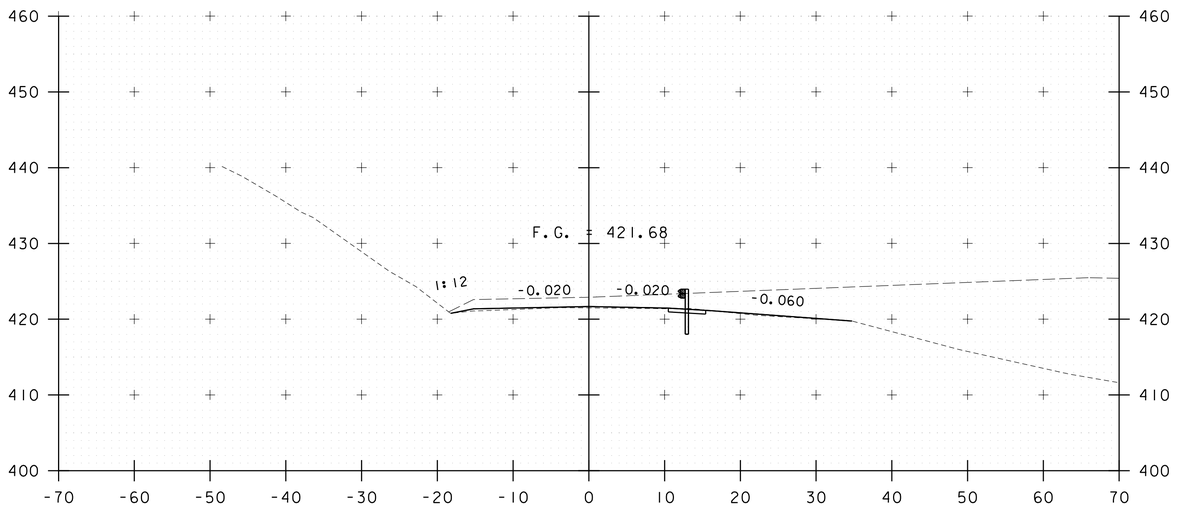
PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: zl2c602_xs.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: G. CANTAVE	CHECKED BY: M.OOMS
TH-66 CROSS SECTION 1	SHEET 103 OF 130



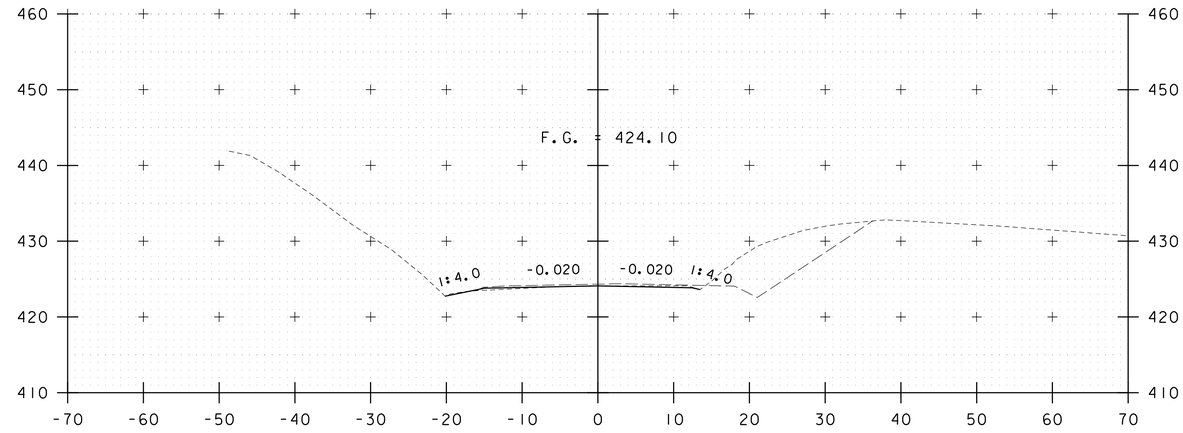
31+25



31+75



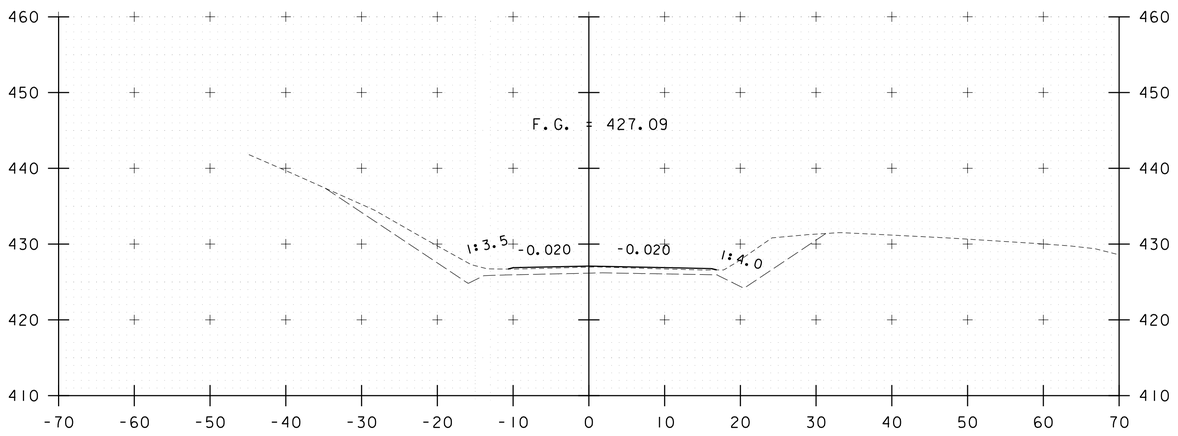
31+00



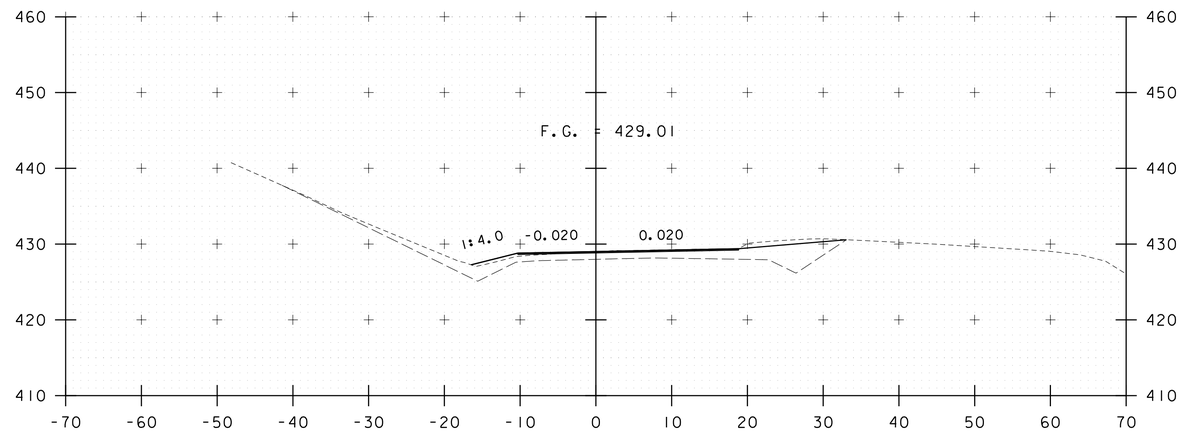
31+50

STA. 31+00 TO STA. 31+75

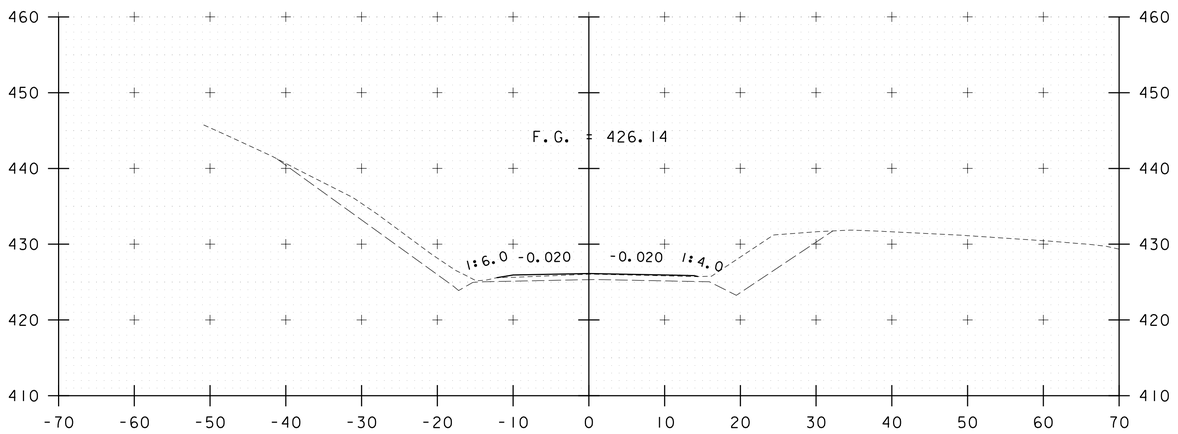
PROJECT NAME: WATERBURY	
PROJECT NUMBER: BF 0284(33)	
FILE NAME: zl2c602_xs.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C.BELLISLE
DESIGNED BY: G.CANTAVE	CHECKED BY: M.OOMS
TH-66 CROSS SECTION 2	SHEET 104 OF 130



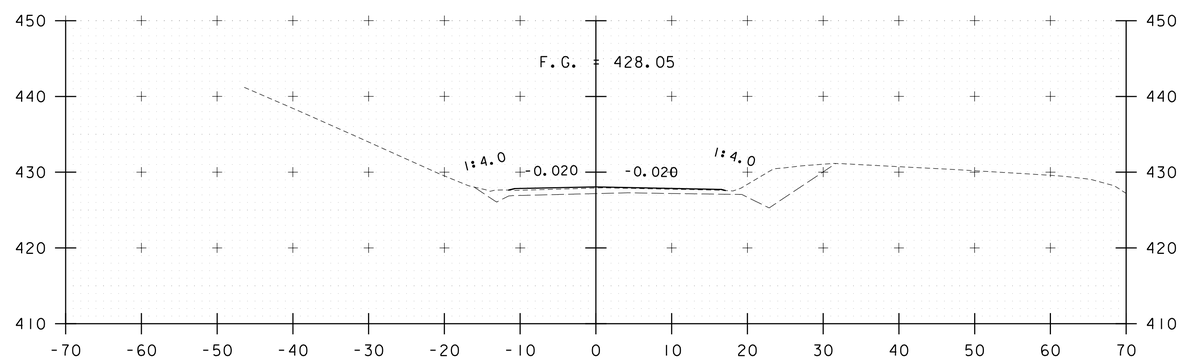
32+25



32+75



32+00



32+50

END SUBBASE OF CRUSHED GRAVEL 32+68

BEGIN PAVED APRON 32+68

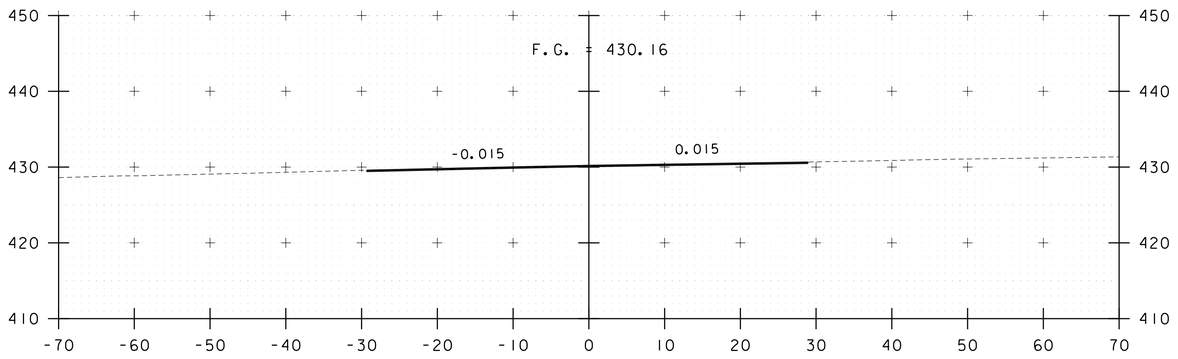
STA. 32+00 TO STA. 32+75

PROJECT NAME: WATERBURY

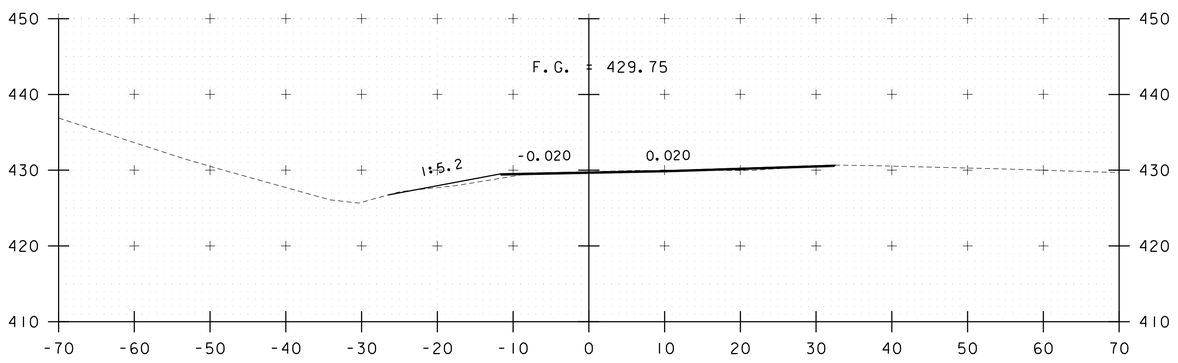
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G.CANTAVE
TH-66 CROSS SECTION 3

PLOT DATE: 8/18/2022
DRAWN BY: C.BELLISLE
CHECKED BY: M.OOMS
SHEET 105 OF 130



33+25
END PAVED APRON 33+25.24



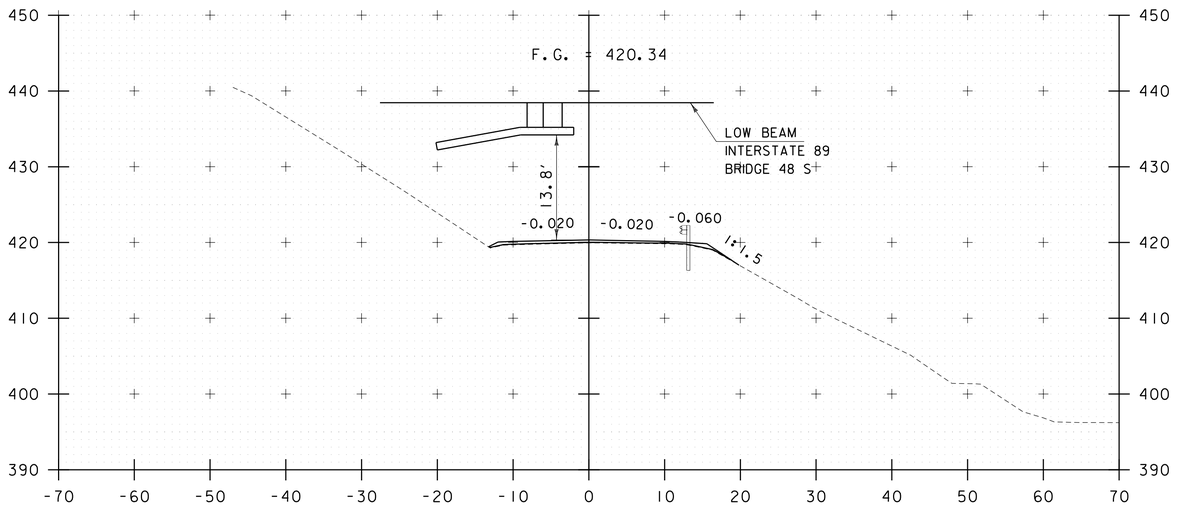
33+00

STA. 33+00 TO STA. 33+25

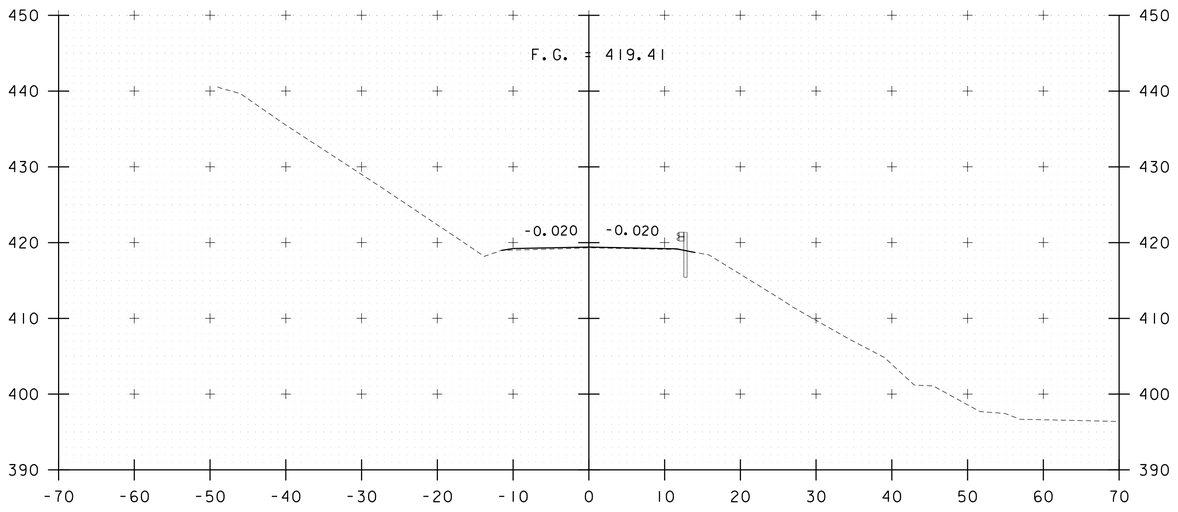
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: zl2c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
TH-66 CROSS SECTION 4

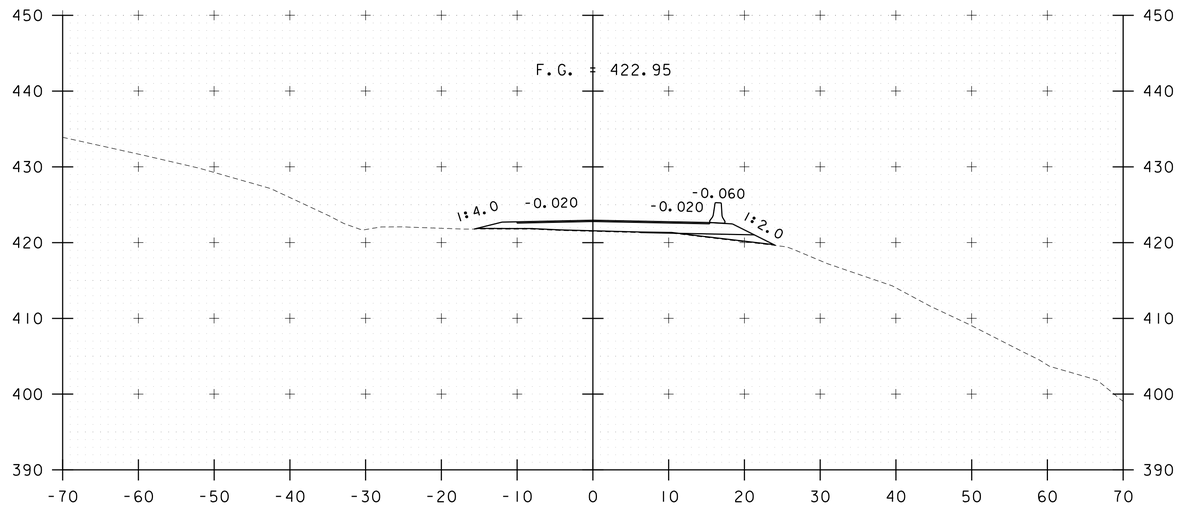
PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 106 OF 130



60+65



60+50



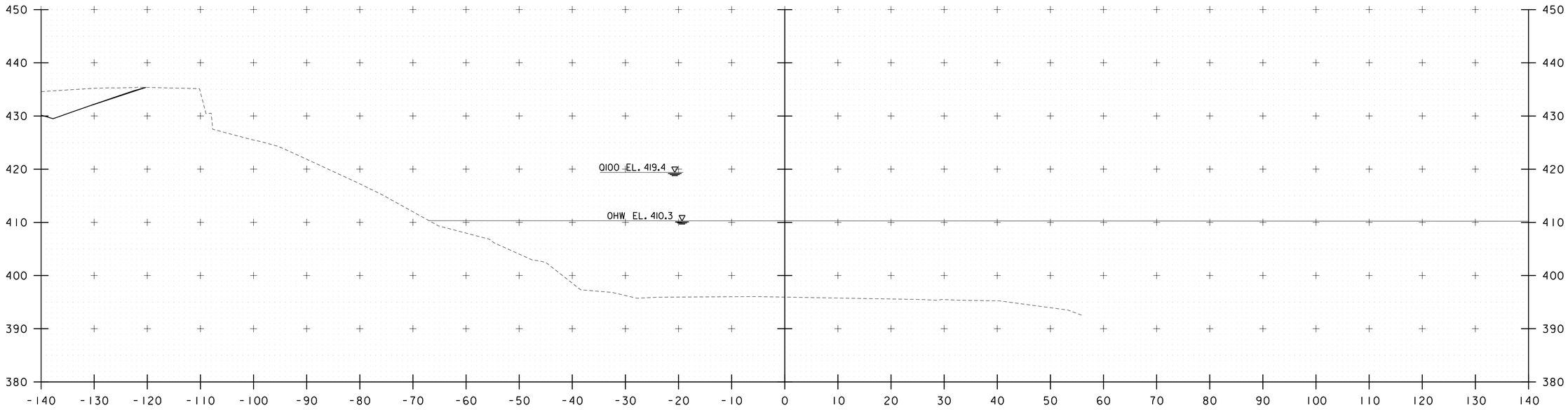
61+00

STA. 60+50 TO STA. 61+00

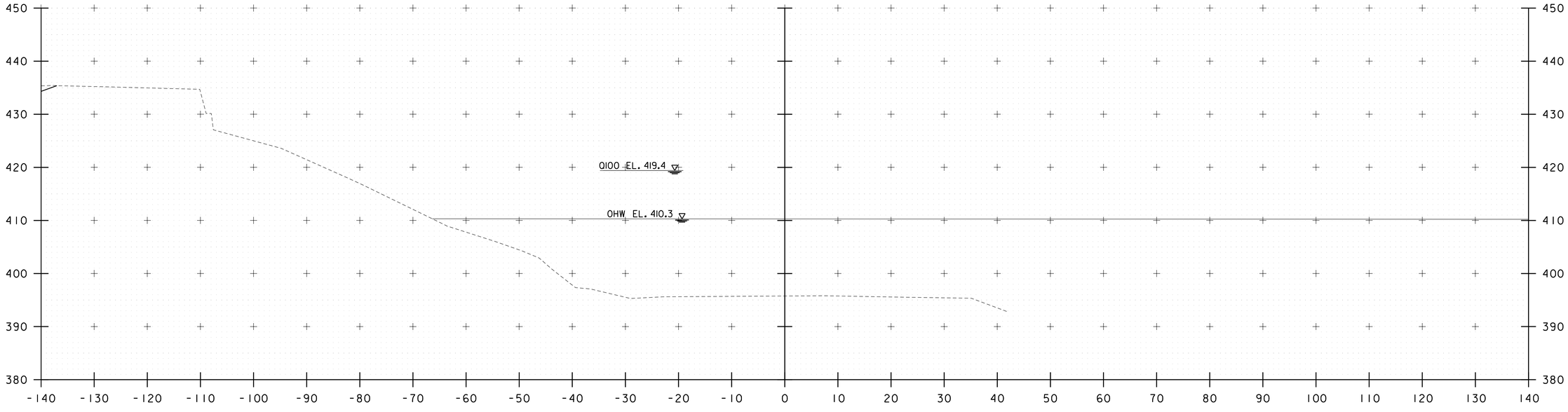
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G.CANTAVE
TH-66 TEMPORARY CROSS SECTIONS

PLOT DATE: 8/18/2022
DRAWN BY: C.BELLISLE
CHECKED BY: M.OOMS
SHEET 107 OF 130



50+90

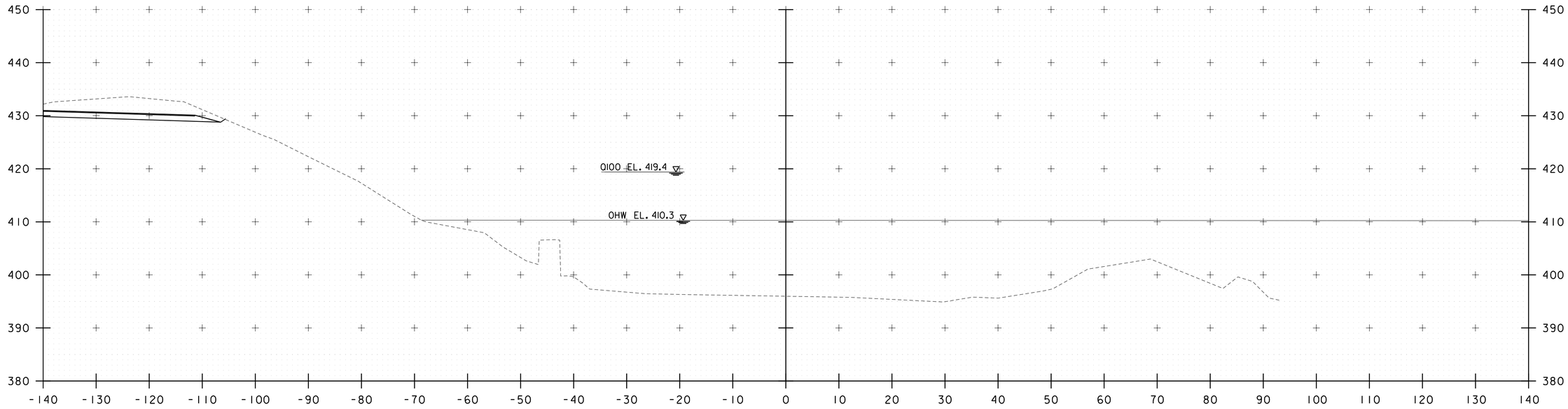


50+80

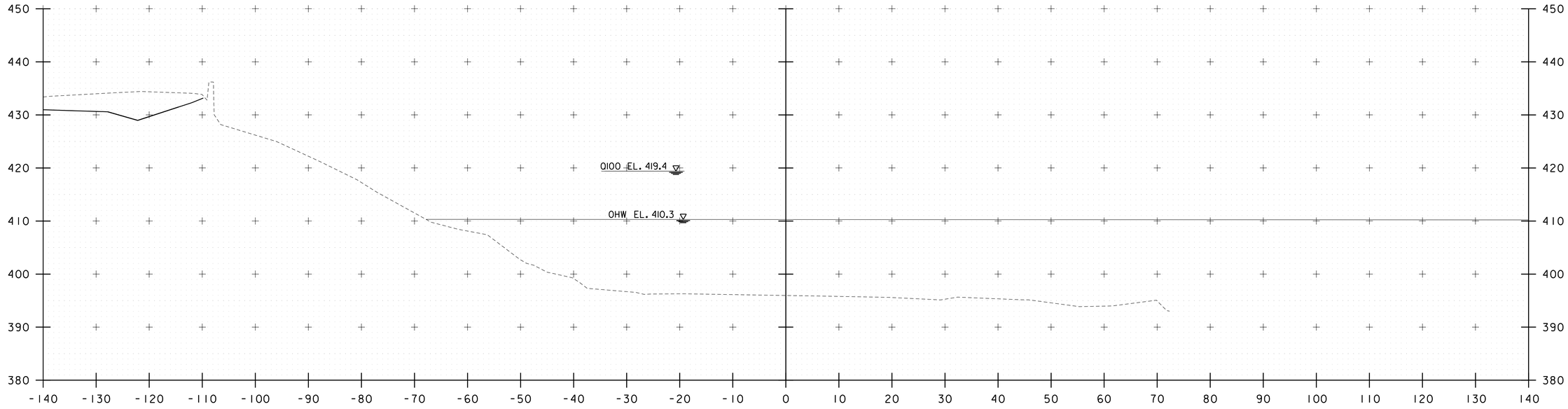
STA. 50+80 TO STA. 50+90

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)

FILE NAME: z12c602_xs.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: G. CANTAVE	CHECKED BY: M.OOMS
CHANNEL CROSS SECTION 1	SHEET 108 OF 130



51+10

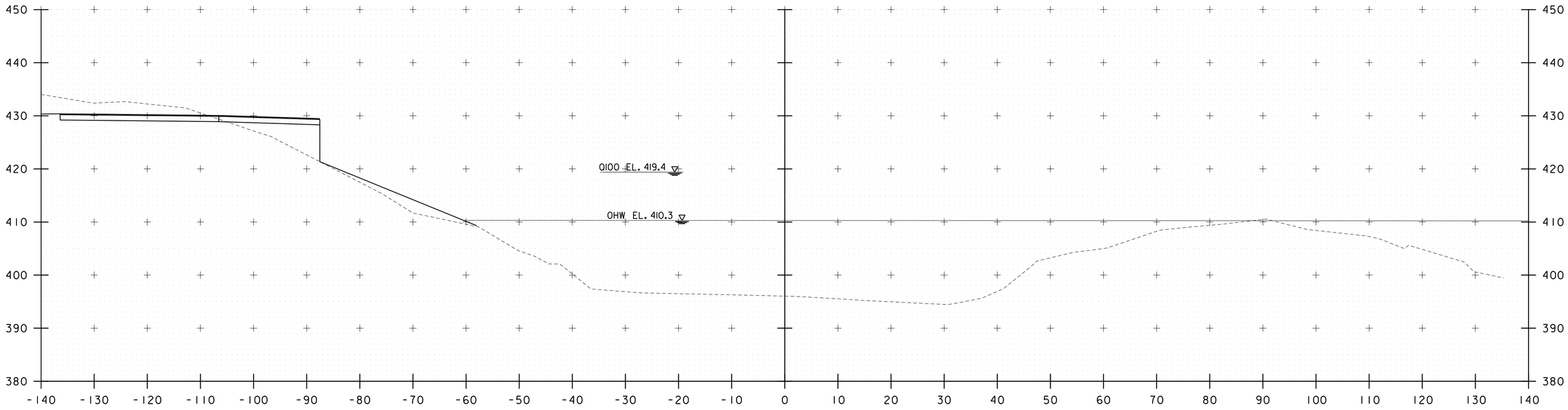


51+00

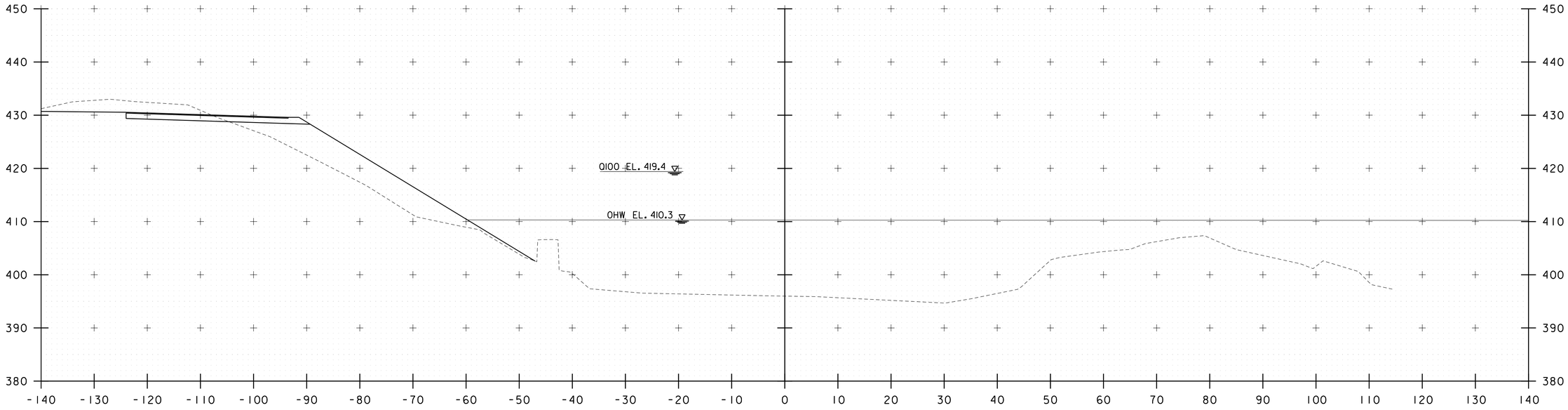
STA. 51+00 TO STA. 51+10

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)

FILE NAME: z12c602_xs.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: G. CANTAVE	CHECKED BY: M.OOMS
CHANNEL CROSS SECTION 2	SHEET 109 OF 130



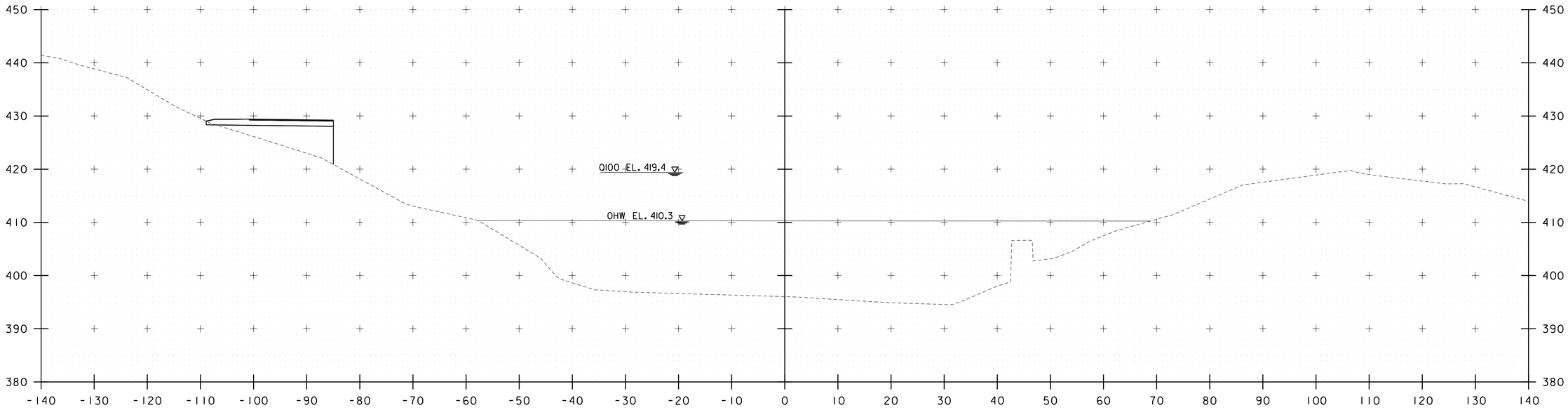
51+30



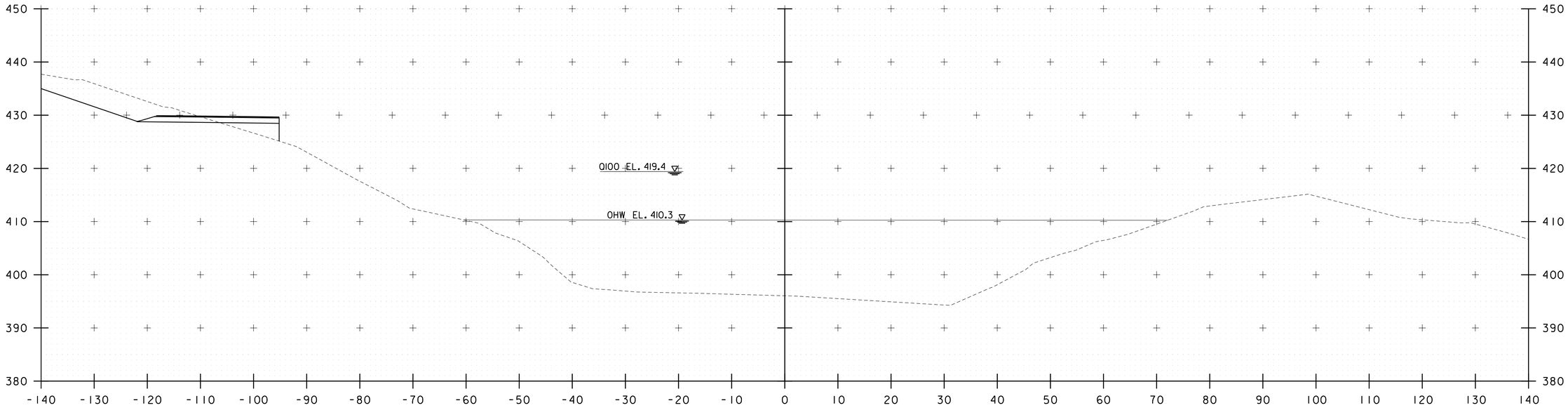
51+20

STA. 51+20 TO STA. 51+30

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602_xs.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: G. CANTAVE	CHECKED BY: M.OOMS
CHANNEL CROSS SECTION 3	SHEET 110 OF 130



51+50

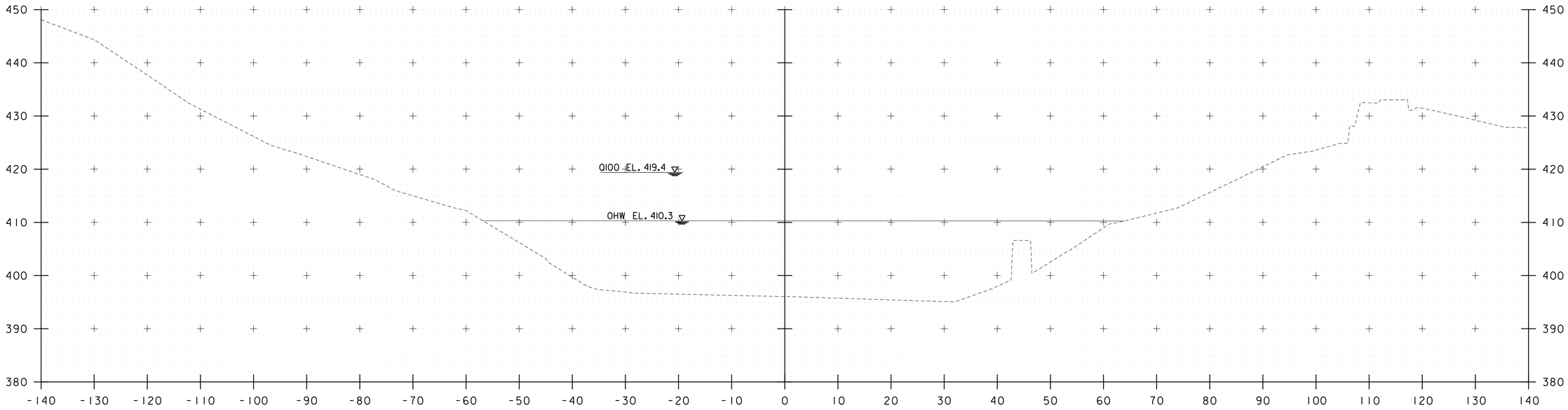


51+40

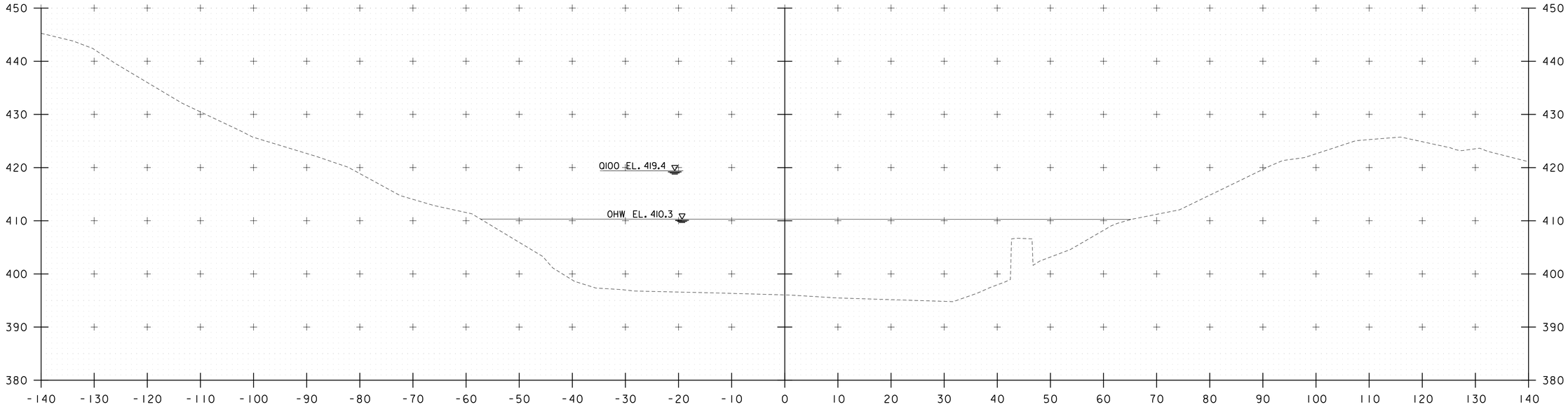
STA. 51+40 TO STA. 51+50

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)

FILE NAME: z12c602_xs.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: G. CANTAVE	CHECKED BY: M.OOMS
CHANNEL CROSS SECTION 4	SHEET III OF 130



51+70



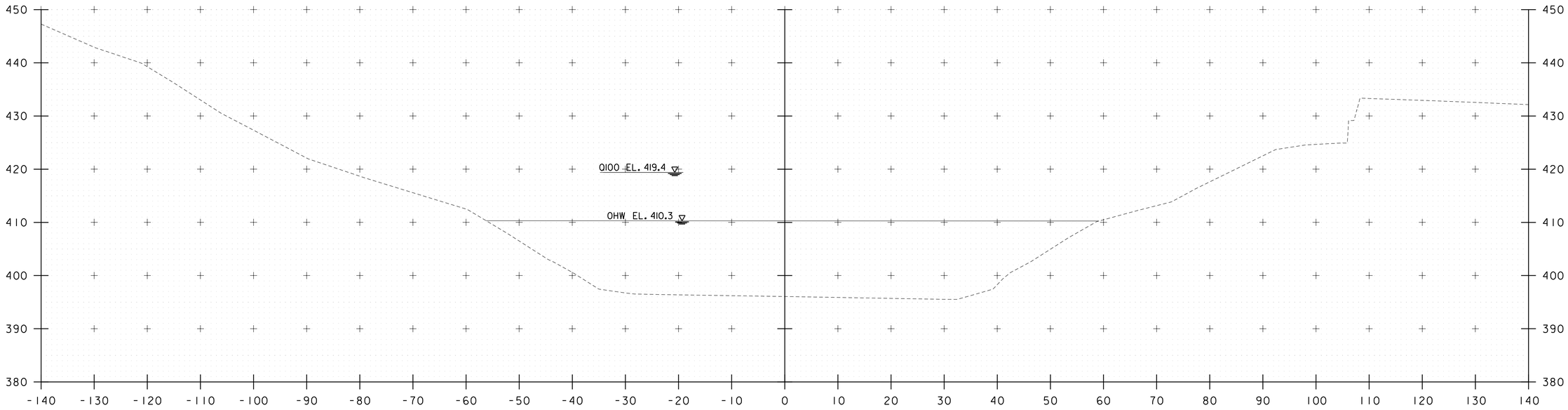
51+60

STA. 51+60 TO STA. 51+70

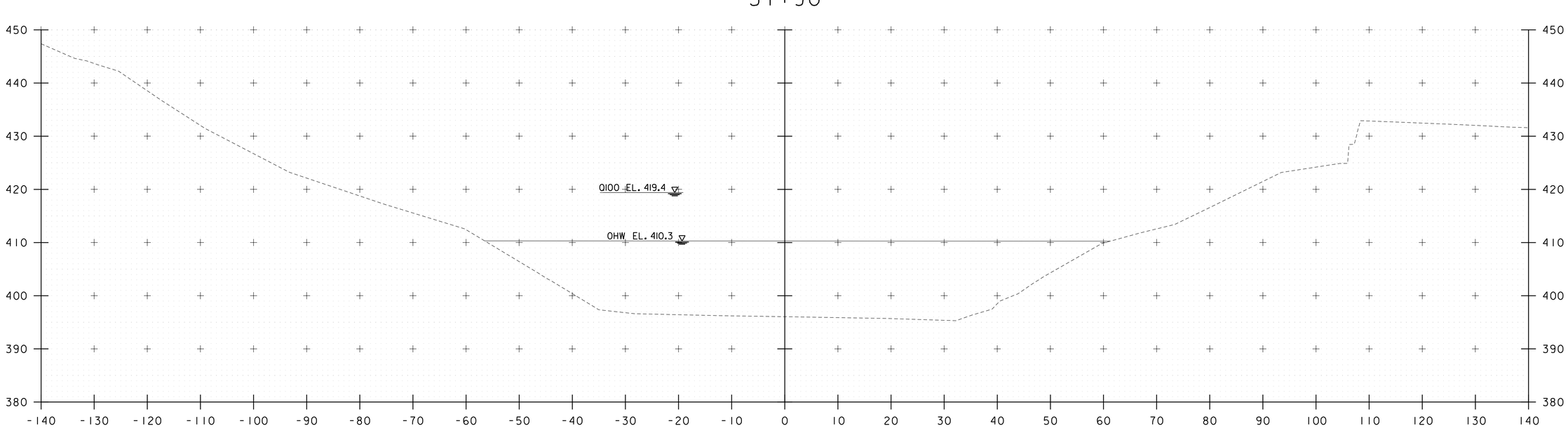
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
CHANNEL CROSS SECTION 5

PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 112 OF 130



51+90



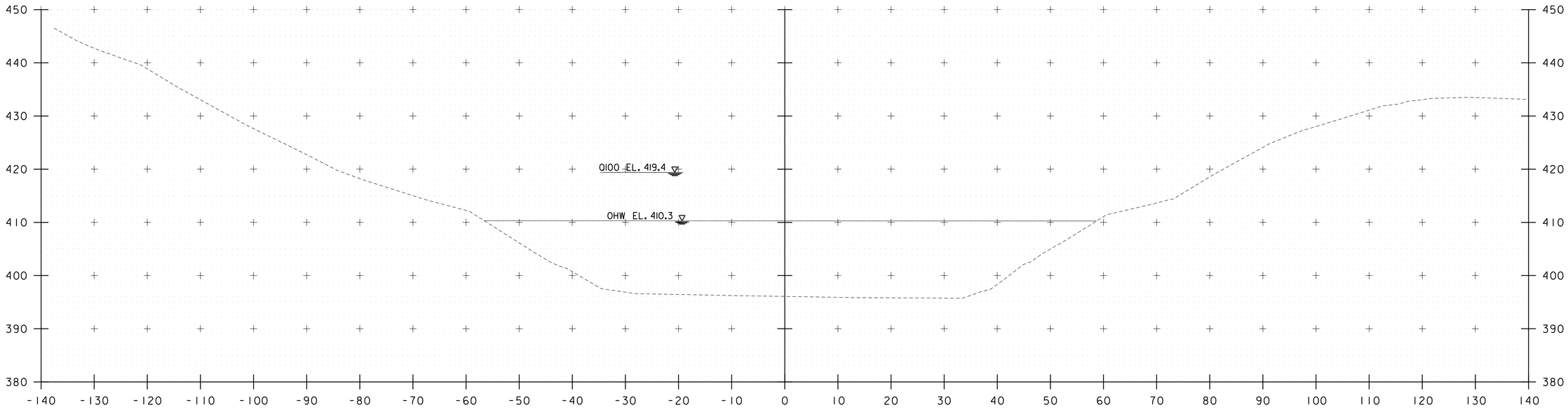
51+80

STA. 51+80 TO STA. 51+90

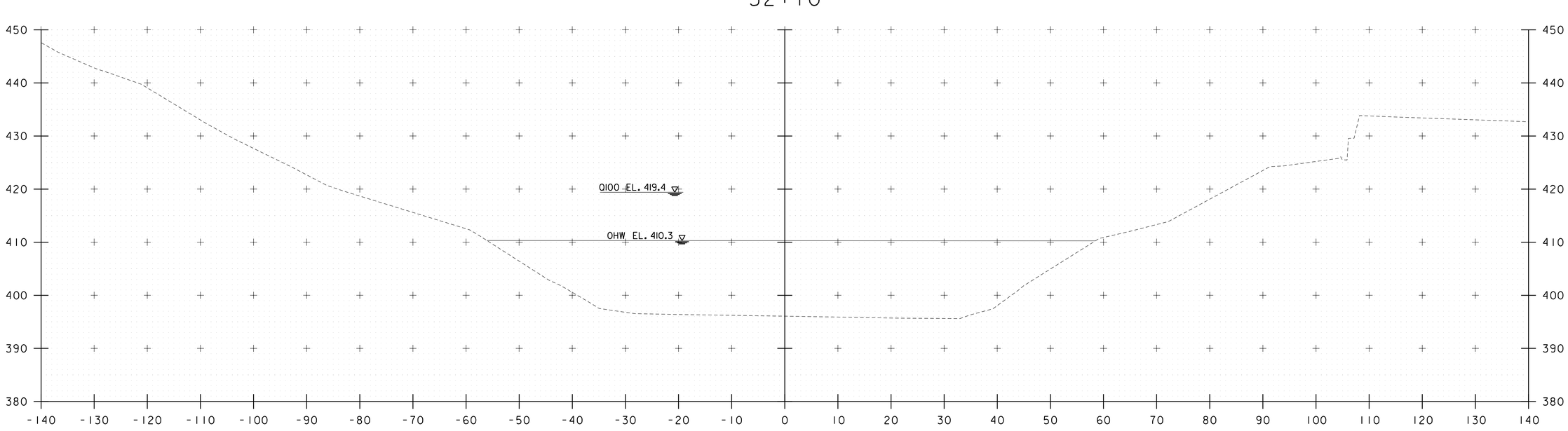
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
CHANNEL CROSS SECTION 6

PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 113 OF 130



52+10



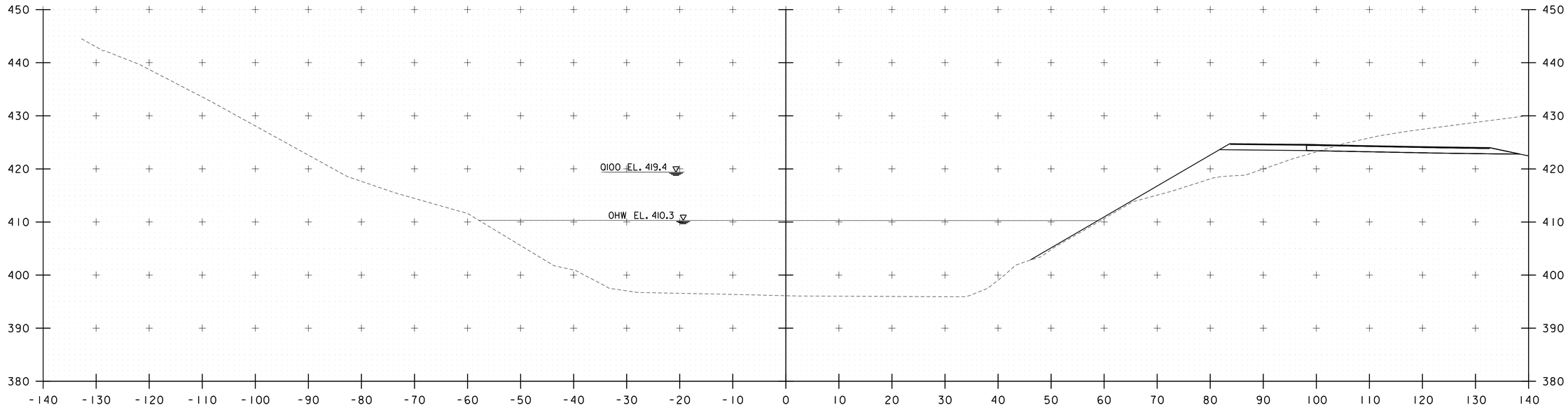
52+00

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

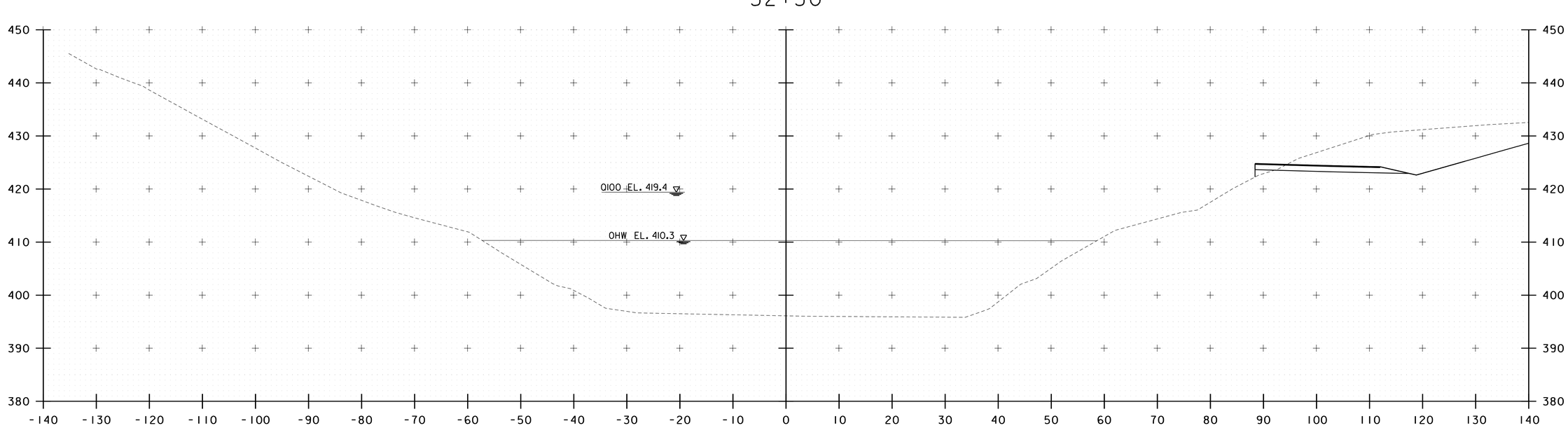
FILE NAME: z12c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
CHANNEL CROSS SECTION 7

PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 114 OF 130

STA. 52+00 TO STA. 52+10



52+30



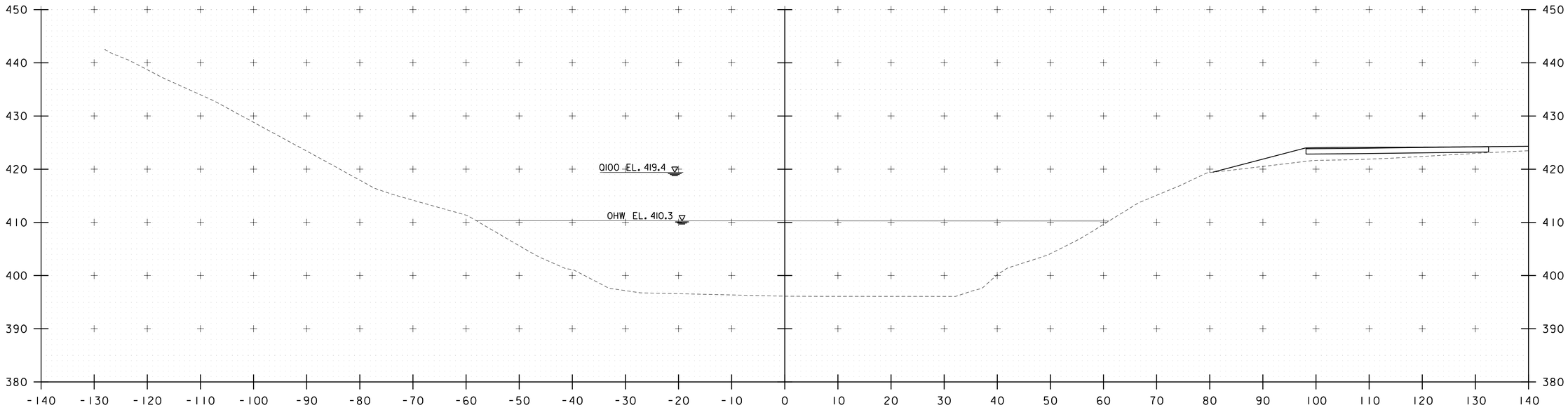
52+20

STA. 52+20 TO STA. 52+30

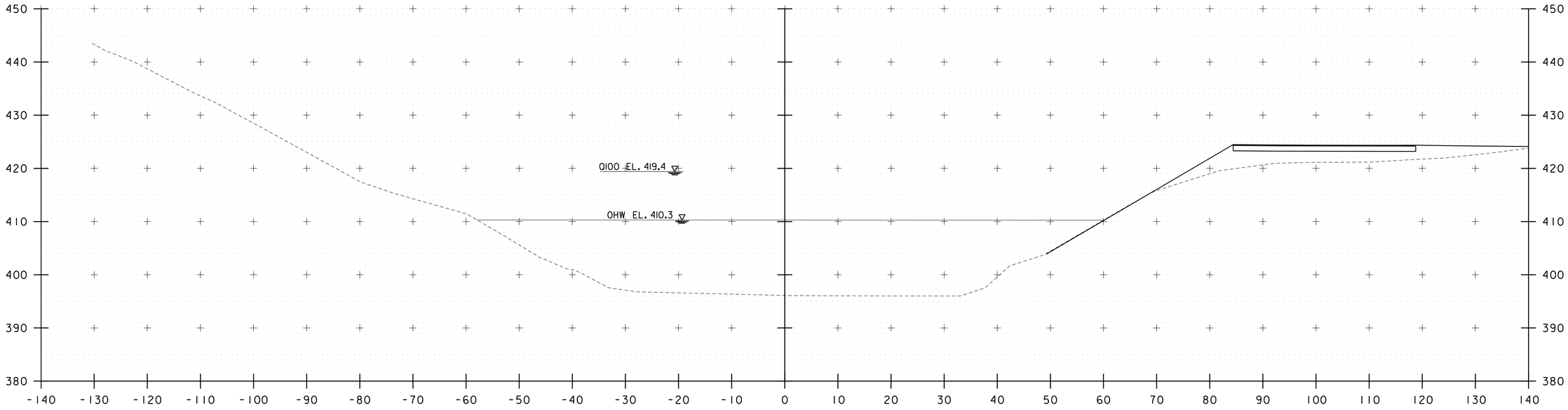
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
CHANNEL CROSS SECTION 8

PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 115 OF 130



52+50



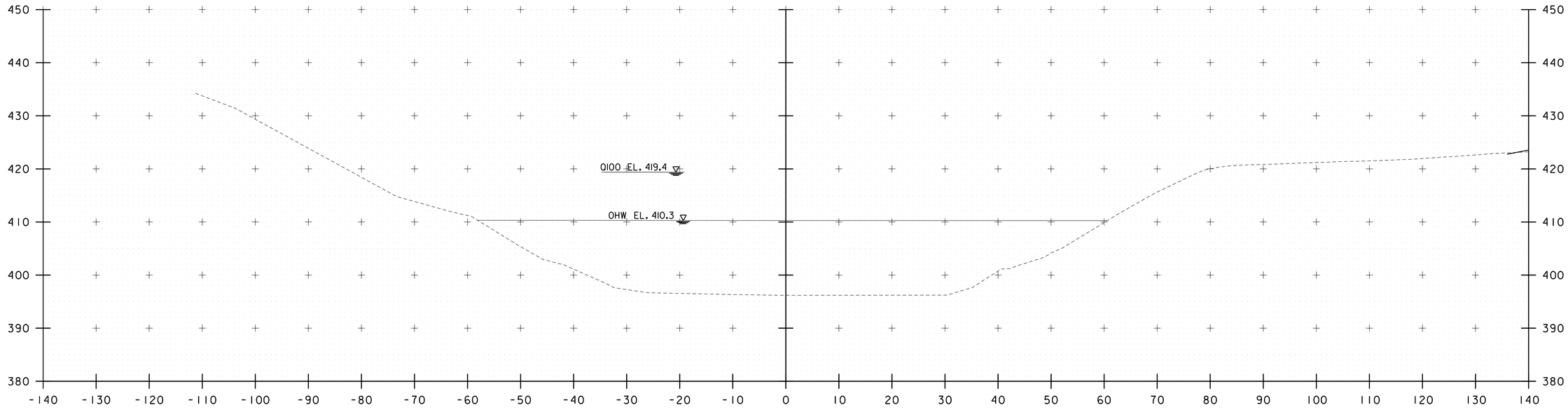
52+40

STA. 52+40 TO STA. 52+50

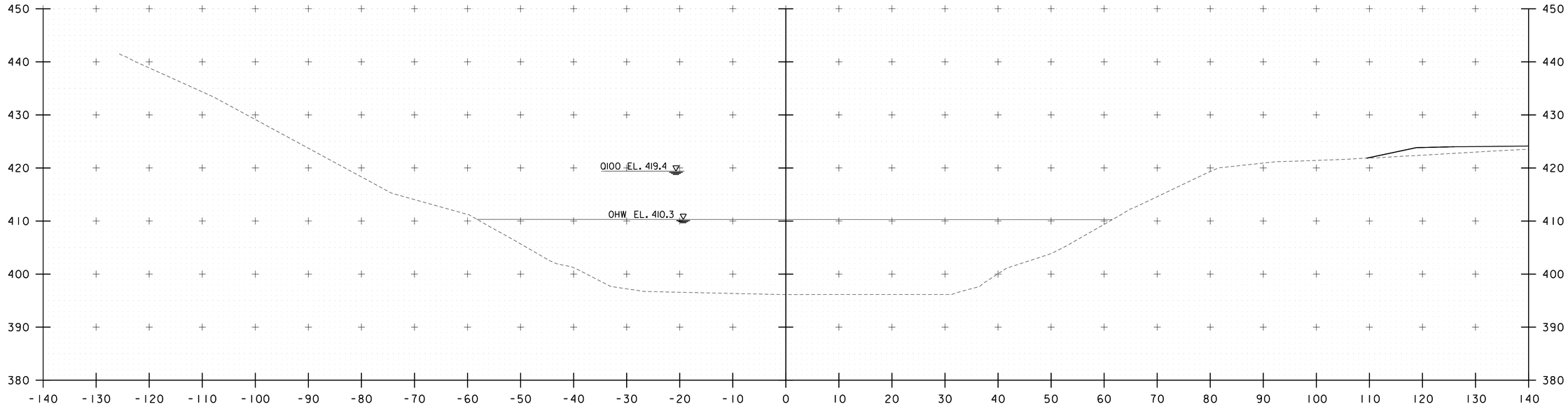
PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
CHANNEL CROSS SECTION 9

PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 116 OF 130



52+70



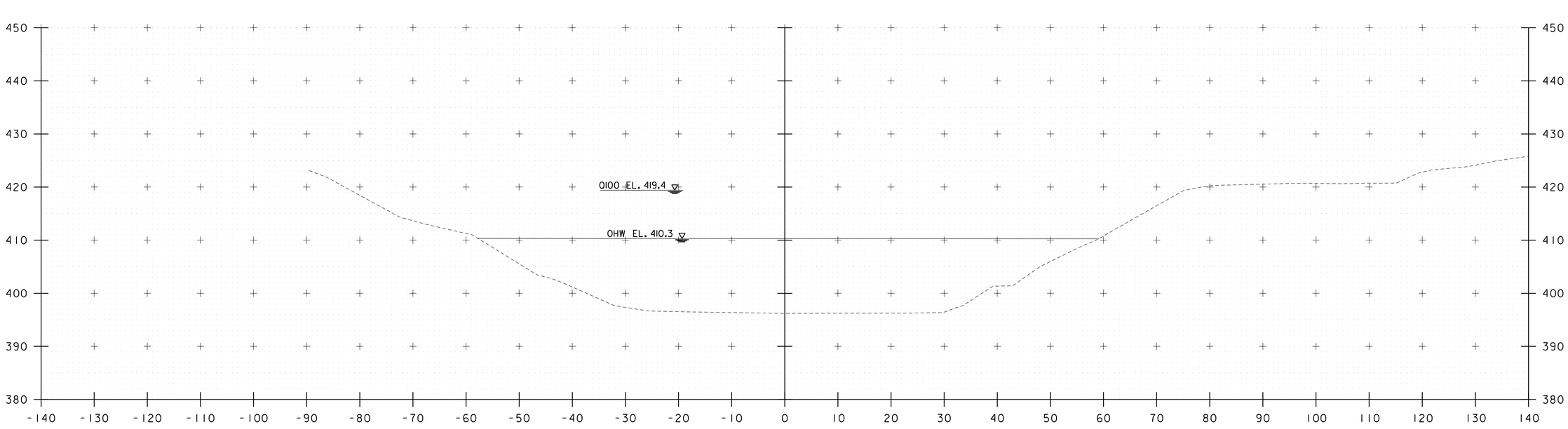
52+60

STA. 52+60 TO STA. 52+70

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602_xs.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: G. CANTAVE
CHANNEL CROSS SECTION 10

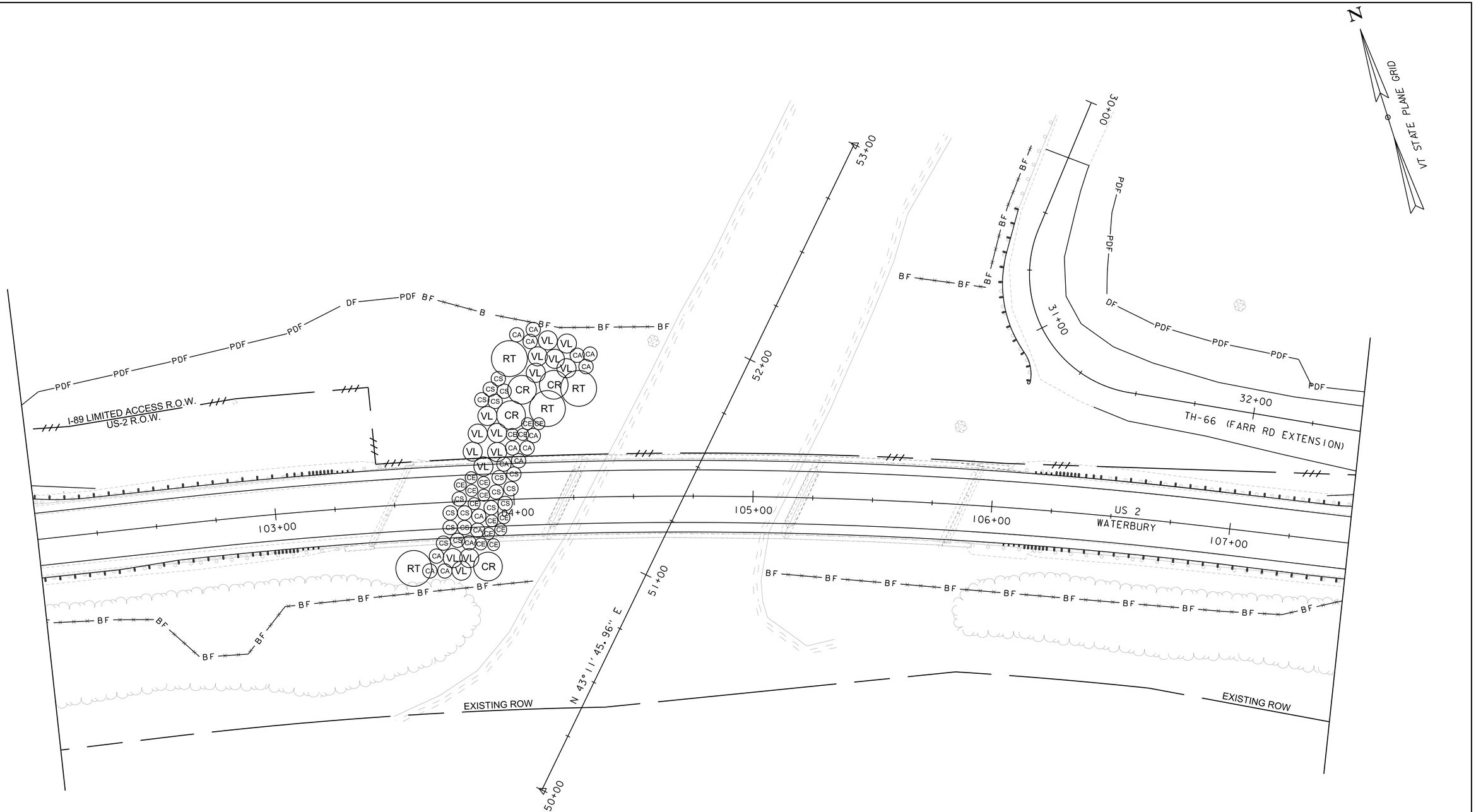
PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 117 OF 130



52+80

STA. 52+80

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: z12c602_xs.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: C. BELLISLE
DESIGNED BY: G. CANTAVE	CHECKED BY: M.OOMS
CHANNEL CROSS SECTION II	SHEET 118 OF 130



KEY	QUANTITY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONT.	SPACING
SHRUBS - DECIDUOUS						
CE	17	*Ceanothus americanus*	New Jersey tea	2 GAL	CONT.	5' O.C.
CA	17	*Cornus amomum*	Silky dogwood	2 GAL	CONT.	6' O.C.
CR	4	*Cornus racemosa*	Gray dogwood	2 GAL	CONT.	12' O.C.
CS	18	*Cornus sericea*	Red twig dogwood	2 GAL	CONT.	6' O.C.
RT	4	*Rhus typhina*	Staghorn sumac	2 GAL	CONT.	15' O.C.
VL	15	*Viburnum lentago*	Nannyberry	2 GAL	CONT.	8' O.C.

SCALE: 1"=20'
20 0 20

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602bdr_ls.dgn
PROJECT LEADER: R. TETREAULT
DESIGNED BY: B.DONAHUE
LANDSCAPE PLAN

PLOT DATE: 8/18/2022
DRAWN BY: B.DONAHUE
CHECKED BY: M.OOMS

EPSC PLAN NARRATIVE

1. PROJECT DESCRIPTION

THIS PROJECT INVOLVES REMOVAL OF EXISTING SUPERSTRUCTURE AND REPLACEMENT WITH A NEW SUPERSTRUCTURE, REHABILITATION OF EXISTING PIERS, AND OTHER HIGHWAY RELATED ITEMS.

IT IS ANTICIPATED THAT CONSTRUCTION WILL LAST 2 CONSTRUCTION SEASONS.

2. AMOUNT OF DISTURBANCE & RISK EVALUATION

TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 2.2 ACRES.

THE MAXIMUM CONCURRENT EARTH DISTURBANCE USED TO SCORE THIS PROJECT IN APPENDIX A RISK ASSESSMENT IS 2.0 ACRES.

THIS PROJECT REQUIRES COVERAGE UNDER GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES FOR MODERATE RISK PROJECTS.

ANY MODIFICATIONS TO THE PROJECT THAT INCREASE THE RISK TO ENVIRONMENTAL RESOURCES SHALL BE EVALUATED IN ACCORDANCE WITH THE PERMIT REQUIREMENTS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

3. MAJOR COMPONENTS & SEQUENCING

THE CONTRACTOR SHALL SEQUENCE CONSTRUCTION ACTIVITIES TO MINIMIZE THE EXTENT OF DISTURBED SOILS LEFT OPEN TO EROSION AT ANY GIVEN TIME.

THE MAJOR COMPONENTS OF THE PROJECT AND A PROPOSED GENERAL SEQUENCE IS AS FOLLOWS:

CONSTRUCTION OF THE PROJECT WILL BE BROKEN INTO FOUR MAIN PHASES THAT CONSIST OF BUILDING THE TEMPORARY BRIDGE ON NEW ALIGNMENT, DEMOLISHING THE EXISTING BRIDGE, RECONSTRUCTION OF THE EXISTING SUBSTRUCTURE AND CONSTRUCTING THE NEW BRIDGE SUPERSTRUCTURE AND THEN FINAL SITE GRADING AND CLEANUP TASKS.

PHASE 1
- ESTABLISH PERIMETER CONTROLS AND MARK PROJECT BOUNDARIES
- INSTALL SEDIMENT CONTROL MEASURES
- CLEARING
- CONSTRUCT TEMPORARY BRIDGE APPROACHES
- CONSTRUCT TEMPORARY SUBSTRUCTURE
- ERECT TEMPORARY SUPERSTRUCTURE
- INSTALL STABILIZATION MEASURES FOR TEMPORARY SLOPES
- SWITCH TRAFFIC ONTO TEMPORARY BRIDGE

PHASE 2
- INSTALL OR ADJUST SEDIMENT CONTROL MEASURES
- DEMOLISH AND REMOVE EXISTING BRIDGE SUPERSTRUCTURE
- REMOVE CONCRETE AS NECESSARY FOR SUBSTRUCTURE REPAIR

PHASE 3
- ADJUST PERIMETER CONTROLS AND PROJECT DEMARCATION, AS NECESSARY
- POUR CONCRETE AS NECESSARY FOR SUBSTRUCTURE REPAIRS
- PLACE STEEL BEAMS ON NEWLY RECONSTRUCTED SUBSTRUCURE
- POUR CONCRETE DECK

PHASE 4
- ADJUST PERIMETER CONTROLS AND PROJECT DEMARCATION, AS NECESSARY
- INSTALL OR ADJUST SEDIMENT CONTROL MEASURES
- REMOVE ACCESS ROADS AND SHAPE FINAL SLOPES
- INSTALL PERMANENT STABILIZATION MEASURES

4. SITE DESCRIPTION
4.1 VEGETATED BUFFERS

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

THIS PROJECT DOES NOT RELY ON VEGETATED BUFFERS AS A MITIGATING RISK FACTOR.

4.2 STREAM CROSSINGS

NO WORK IS PROPOSED WITHIN THE WATER OR BELOW THE ORDINARY HIGH WATER MARK.

4.3 WETLANDS

THERE ARE NO WETLANDS OR WETLAND BUFFERS BEING IMPACTED WITHIN THE PROJECT LIMITS.

4.4 TOPOGRAPHY

THE TOPOGRAPHY OF THE PROJECT AREA IS GENERALLY FLAT ALONG THE ROADWAY, WITH MODERATELY STEEP SIDE SLOPES FROM THE ROADWAY TO THE RIVER. US ROUTE 2 AND FARR ROAD (TH 66) ARE WITHIN THE PROJECT SITE. THE IMMEDIATE AREA TO THE NORTH (UPSTREAM) IS I-89 AND ASSOCIATED EMBANKMENTS AND IS RURAL WITH NO HOUSES IN CLOSE PROXIMITY TO THE PROJECT. THERE IS AN UNDERGROUND COMMUNICATION LINE WHICH MUST BE TEMPORARILY SUPPORTED ON THE TEMPORARY BRIDGE AND RELOCATED TO THE PERMANENT BRIDGE PRIOR TO THE END OF CONSTRUCTION.

4.5 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF HARDWOOD TREES, GRASS AND UNDERGROWTH. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS DIRECTLY AFFECTED BY THE PROJECT. UPON COMPLETION, THE DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES AS DESCRIBED IN THE TURF ESTABLISHMENT DETAIL, UNLESS NOTED OTHERWISE. REFER TO PLANTING PLAN FOR ADDITIONAL DETAILS OF REVEGETATION.

4.6 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE. SOILS ON THE PROJECT SITE INCLUDE:
RUMNEY FINE SANDY LOAM 0% TO 3% SLOPES K FACTOR 0.20.
BUXTON SILT LOAM 15% TO 25% SLOPES K FACTOR 0.32.

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

5. DRAINAGE
5.1 RECEIVING WATERS

LITTLE RIVER AND THE WINOOSKI RIVER ARE THE ONLY TWO WATER SOURCES ON THE PROJECT SITE. NO RESIDENCES AND BUSINESSES ARE PRESENT WITHIN THE PROJECT AREA.

5.2 DISCHARGE POINTS

DUE TO THE NATURE OF A BRIDGE PROJECT BEING LOCATED DIRECTLY OVER THE RECEIVING WATER, THERE ARE NO DISCRETE DISCHARGE POINTS. ALL WATER FROM THE PROJECT AREA DRAINS TOWARD THE BROOK AND ENTERS THE RECEIVING WATER IN MULTIPLE LOCATIONS IN THE AREAS DIRECTLY ADJACENT TO THE BRIDGE.

5.3 CONVEYANCE/FLOW PATH FROM PROJECT TO WATERS

THE ROADWAY PORTION OF THE PROJECT HAS NO CURBS AND RUNOFF IS SHEETFLOW TO DRAIN OVERLAND TO THE RIVERS. THE BRIDGE PORTION OF THE PROJECT IS CURBED AND RUNOFF FROM THE BRIDGE DRAINS THROUGH SCUPPERS.

6. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES

THE MEASURES INCLUDED IN THIS PLAN ARE PROVIDED AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. IT IS EXPECTED THAT THE CONTRACTOR MAY USE THIS PLAN, WITH ADJUSTMENTS AS NECESSARY, BASED ON THEIR SPECIFIC MEANS AND METHODS OF CONSTRUCTION.

APPLYING THESE MEASURES THROUGHOUT CONSTRUCTION IS CRITICAL TO THEIR SUCCESS IN MINIMIZING SEDIMENT TRANSPORT TO THE RECEIVING WATERS. REFER TO THE DETAILS INCLUDED IN THESE PLANS AND THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR SPECIFIC GUIDANCE.

6.1 IDENTIFY LIMITS OF DISTURBANCE

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

PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES. BARRIER FENCE SHALL BE USED INSTEAD OF PROJECT DEMARCATION FENCE WITHIN 100 FEET OF A WATER RESOURCE (STREAM, BROOK, LAKE, POND, WETLAND, ETC).

6.2 LIMIT CONCURRENT DISTURBANCE

LIMITING THE AMOUNT OF SOIL EXPOSED AT ONE TIME REDUCES THE POTENTIAL EROSION ON SITE. CONCURRENT EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY AND EMPLOYING STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE.

6.3 STABILIZE DISTURBED AREAS
6.3.1 ACCESS POINTS/ENTRANCE/EXITS

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

STABILIZED CONSTRUCTION ENTRANCES ARE ANTICIPATED ON THIS PROJECT AND SHALL BE LOCATED AS SHOWN ON THIS EPSC PLAN AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES.

6.3.2 TEMPORARY MEASURES FOR EXPOSED AREAS DURING CONSTRUCTION

ALL AREAS OF EARTH DISTURBANCE MUST HAVE STABILIZATION IN PLACE WITHIN 14 DAYS OF INITIAL DISTURBANCE. AFTER THIS TIME, DISTURBED AREAS MUST BE STABILIZED IN ADVANCE OF ANY RUNOFF PRODUCING EVENT.

SURFACE ROUGHENING OF EXPOSED SLOPES, SEEDING OF TEMPORARY SLOPES, AND STANDARD MULCHING PRACTICES DESCRIBED IN SPECIFICATION SECTION 653.07 SHALL BE UTILIZED TO TEMPORARILY STABILIZE DISTURBED AREAS.

6.3.3 PERMANENT STABILIZATION AT FINAL GRADE

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

SEED, MULCH, FERTILIZER AND LIME SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, ROLLED EROSION CONTROL PRODUCT, TYPE I SHALL BE USED INSTEAD OF MULCH.

EXISTING SWALES WITHIN THE PROJECT LIMITS SHALL BE STONE ARMORED AND A WATER BAR SHALL BE ADDED AS SHOWN ON THE PLANS.

6.4 DIVERT UPLAND RUNOFF

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

DURING CONSTRUCTION A TEMPORARY DROP INLET WILL BE INSTALLED TO CATCH THE DRAINAGE RUNOFF CURRENTLY DIVERTED TO THE EXISTING DROP INLET ON THE EAST SIDE OF THE PROJECT. UPLAND RUNOFF SHALL BE DIVERTED TO THIS TEMPORARY DROP INLET.

6.5 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED ON THE DOWNHILL SIDE OF CONSTRUCTION ACTIVITIES, PRIOR TO ANY UP-SLOPE WORK.

SILT FENCE WILL BE INSTALLED ALONG THE CONTOURS AND AS PROPOSED ON THE EPSC PLAN. WOVEN WIRE REINFORCED SILT FENCE SHALL BE USED INSTEAD OF SILT FENCE WITHIN 100 FEET UPSLOPE OF RECEIVING WATERS AS SHOWN ON THE PLANS.

6.6 SLOW DOWN CHANNELIZED RUNOFF

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

TEMPORARY STONE CHECK DAMS WILL BE INSTALLED AS SHOWN ON THE PLANS.

7. CONSTRUCT PERMANENT CONTROLS

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

PERMANENT STORMWATER TREATMENT DEVICES ARE NOT ANTICIPATED TO BE NEEDED AS DESIGNED.

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)

FILE NAME: z12c602ero_nar.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: M.EVANS-MONGEON	DRAWN BY: C. BELLISLE
DESIGNED BY: EVANS-MONGEON	CHECKED BY: M.OOMS
EPSC NARRATIVE I	SHEET 120 OF 130

8. DEWATERING

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS OFF OF THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS. DEWATERED STORMWATER OR GROUNDWATER MUST BE FILTERED AND ROUTED IN A MANNER THAT DOES NOT RESULT IN VISIBLY TURBID DISCHARGES TO WATERS.

NO DEWATERING IS ANTICIPATED FOR THIS PROJECT, HOWEVER IF THE CONTRACTOR REQUIRES DEWATERING FOR ANY ACTIVITY THE SPECIFIC MEANS FOR TREATMENT OF DISCHARGE SHALL BE PROVIDED BY THE CONTRACTOR. ALL COSTS FOR TREATMENT OF DISCHARGE SHALL BE PAID FOR UNDER CONTRACT ITEM 653.45.

9. OFF-SITE AREAS

OFF-SITE WASTE AND BORROW AREAS HAVE NOT BEEN IDENTIFIED FOR THIS PROJECT. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND PERMIT, AS NECESSARY, ANY OFF-SITE AREAS THAT ARE NEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 105.25 - 105.28. ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES NECESSARY FOR WASTE, BORROW, AND STAGING AREAS OUTSIDE THE PROJECT LIMITS SHALL BE PAID FOR PER 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

VEHICLE AND EQUIPMENT STORAGE AREAS OR AREAS ADJACENT TO CONSTRUCTION TRAILERS OR OTHER HIGH TRAFFIC AREAS SHALL BE COVERED WITH GEOTEXTILE FABRIC AND 12" OF GRAVEL. FOLLOWING COMPLETION OF CONSTRUCTION, ALL NON-NATIVE MATERIALS SHALL BE REMOVED FROM THE STAGING AREA. COMPACTED, RUTTED, OR OTHERWISE DISTURBED SOILS SHALL BE TILLED, RAKED, SEEDED AND MULCHED.

ERODIBLE MATERIALS STOCKPILED WITHIN THE MATERIAL STORAGE AREAS SHALL BE ISOLATED WITH SILT FENCE OR OTHER ACCEPTABLE SEDIMENT BARRIER. SOIL STOCKPILED ON THE SITE SHALL BE SEEDED AND MULCHED.

10. WINTER CONSTRUCTION

CONSTRUCTION ACTIVITIES MAY CONTINUE INTO THE WINTER CONSTRUCTION SEASON, DEPENDING ON ACTUAL FIELD AND WEATHER CONDITIONS. IF ACTIVITIES ARE ON-GOING BETWEEN OCTOBER 15 AND APRIL 15, THE CONTRACTOR SHALL FOLLOW REQUIREMENTS FOR WINTER CONSTRUCTION, AS DEFINED IN SPECIFIC PERMIT CONDITIONS AND AS FOLLOWS:

- ENLARGED ACCESS POINTS, STABILIZED TO PROVIDE FOR SNOW STOCKPILING.
- LIMITS OF DISTURBANCE MOVED OR REPLACED TO REFLECT BOUNDARY OF WINTER WORK.
- DEVELOPMENT OF A SNOW MANAGEMENT PLAN THAT INCLUDES:
  - ADEQUATE STORAGE AND CONTROL OF MELT-WATER
  - STORAGE OF CLEARED SNOW TO BE PLACED DOWN SLOPE OF DISTURBED AREAS AND OUT OF STORMWATER TREATMENT STRUCTURES
- AREAS OF DISTURBANCE WITHIN 100 FT OF A WATERBODY MUST HAVE REINFORCED (WOVEN WIRE) SILT FENCE INSTALLED ACROSS THE SLOPE, DOWNGRADIENT OF THE EARTH DISTURBANCE. ALTERNATIVELY, REGULAR, NON-WOVEN WIRE SILT FENCE MAY BE USED IF COMBINED WITH EROSION CONTROL BERM, EROSION LOG, OR STRAW WATTLE.
- DRAINAGE STRUCTURES MUST BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS.
- SILT FENCE AND OTHER PRACTICES REQUIRING EARTH DISTURBANCE MUST BE INSTALLED AHEAD OF FROZEN GROUND.
- MULCH TO BE APPLIED AT A MINIMUM OF 2 INCHES DEPTH WITH 80-90% COVERAGE.
- AREAS OF DISTURBED SOILS MUST BE STABILIZED PRIOR TO ANY RUNOFF-PRODUCING EVENT, WITH THE FOLLOWING EXCEPTION:
  - STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION WITH NO OUTLET AND A DEPTH OF 2 FT OR GREATER (OPEN UTILITY TRENCHES), PROVIDED THAT ANY DEWATERING, IF NECESSARY, IS CONDUCTED AS REQUIRED.
- PRIOR TO STABILIZATION, SNOW OR ICE MUST BE REMOVED TO LESS THAN 1" THICKNESS.
- USE STONE TO STABILIZE AREAS WHERE CONSTRUCTION VEHICLE TRAFFIC IS ANTICIPATED.

11. INSPECTION & MAINTENANCE

INSPECTION AND MONITORING OF THE PROJECT'S EPSC MEASURES SHALL BE CONDUCTED IN ACCORDANCE WITH STANDARD SPECIFICATION 653.04 MONITORING EROSION PREVENTION AND SEDIMENT CONTROL PLAN, ALONG WITH PERMIT SPECIFIC INSPECTION REQUIREMENTS.

THE CONTRACTOR SHALL PROVIDE A COPY OF THEIR INSPECTION FORM AS PART OF THEIR EPSC PLAN.

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

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602ero_nar.dgn
PROJECT LEADER: M.EVANS-MONGEON
DESIGNED BY: EVANS-MONGEON
EPSC NARRATIVE 2

PLOT DATE: 8/18/2022
DRAWN BY: C. BELLISLE
CHECKED BY: M.OOMS
SHEET 121 OF 130

STATE OF VERMONT

STATE OF VERMONT

SOIL INFORMATION:
RUMNEY FINE SANDY LOAM
K-FACTOR = .2, 0%-3% SLOPES
HYDROLOGICAL SOIL GROUP:B/D

N

VT STATE PLANE GRID

PAVED

I-89 LIMITED ACCESS R.O.W.
US-2 R.O.W.

SHRUB

TELEPHONE MONUMENT

WOOD POST

STOP

LITTLE RIVER ROAD

US 2 WEST

UT

TO BOLTON

100+00

US 2
WATERBURY

101+00

US 2 EAST

WOODS

430

WILDLIFE CROSSING

MATCHLINE STA. 102+00 SEE EPSC EXISTING CONDITIONS 2

HYCTRL
30

430

420

420

410

EXISTING ROW

STATE OF VERMONT

STATE OF VERMONT

SCALE: 1"=20'
20 0 20

PROJECT NAME: WATERBURY
PROJECT NUMBER: BF 0284(33)

FILE NAME: z12c602bdr_ero.dgn
PROJECT LEADER: R.TETREAULT
DESIGNED BY: M. EVANS-MONGEON
EPSC EXISTING CONDITIONS 1

PLOT DATE: 8/18/2022
DRAWN BY: G. CANTAVE
CHECKED BY: M.OOMS
SHEET 122 OF 130

SOIL INFORMATION:
RUMNEY FINE SANDY LOAM
K-FACTOR = .2, 0%-3% SLOPES
HYDROLOGICAL SOIL GROUP:B/D

SOIL INFORMATION:
BUXTON SILT LOAM
K-FACTOR = NA, 15%-25% SLOPES
HYDROLOGICAL SOIL GROUP:D

N

VT STATE PLANE GRID

STATE OF VERMONT

STATE OF VERMONT

STATE OF VERMONT

STATE OF VERMONT

I-89 LIMITED ACCESS R.O.W.
US-2 R.O.W.
LITTLE RIVER STATE PARK
18" CMP
24" CMP
3.5' CONCRETE DRAIN
2' WIDE EXP. JOINT
CAUTION
HVCTRL 24
18" HDPE
LEFT ARROW 2.5' WIDE
RIGHT ARROW 2.5' WIDE
HVCTRL 20
RIGHT TURN SL15
TH-66 (FARR RD EXTENSION)
STOP AHEAD
BRIDGE 44 US 2
US 2
WATERBURY
WOODS
HVCTRL 22
EXISTING ROW
EXISTING ROW
MATCHLINE STA. 102+00 SEE EPSC EXISTING CONDITIONS 1
MATCHLINE STA. 107+50 SEE EPSC EXISTING CONDITIONS 3

SCALE: 1"=20'
20 0 20

PROJECT NAME: WATERBURY	
PROJECT NUMBER: BF 0284(33)	
FILE NAME: z12c602bdr_ero.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: G. CANTAVE
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
EPSC EXISTING CONDITIONS 2	SHEET 123 OF 130

SOIL INFORMATION:
LAMOINE SILT LOAM
K-FACTOR = .37, 8%-15% SLOPES
HYDROLOGICAL SOIL GROUP:C/D

STATE OF VERMONT

STATE OF VERMONT

N

VT STATE PLANE GRID

SOIL INFORMATION:
BUXTON SILT LOAM
K-FACTOR = NA, 15%-25% SLOPES
HYDROLOGICAL SOIL GROUP:D

SOIL INFORMATION:
LAMOINE SILT LOAM
K-FACTOR= .37, 8%-15% SLOPES
HYDROLOGICAL SOIL GROUP:C/D

440
430
TH-66
(FARR RD
EXTENSION)
LEGAL LOAD LIMIT
24,000 LBS
6" WHITE PINE
HYCTRL
2
I-89 LIMITED ACCESS R.O.W.
US-2 R.O.W.
TELEPHONE
MONUMENT
POST
FARR ROAD
STOP
GRAVEL
SNOW MACHINE
WOODS
MATCHLINE STA. 107+50 SEE EPSC EXISTING CONDITIONS 2
430
108+00
US 2
WATERBURY
109+00
110+00
TO VT ROUTE 100
111+00
112+00
113+00
HYCTRL
MM
0020
12T8
0260
420
410
EXISTING ROW
STATE OF VERMONT
STATE OF VERMONT

SOIL INFORMATION:
SUNNY SILT LOAM
K-FACTOR = .43, 0%-2% SLOPES
HYDROLOGICAL SOIL GROUP:B/D

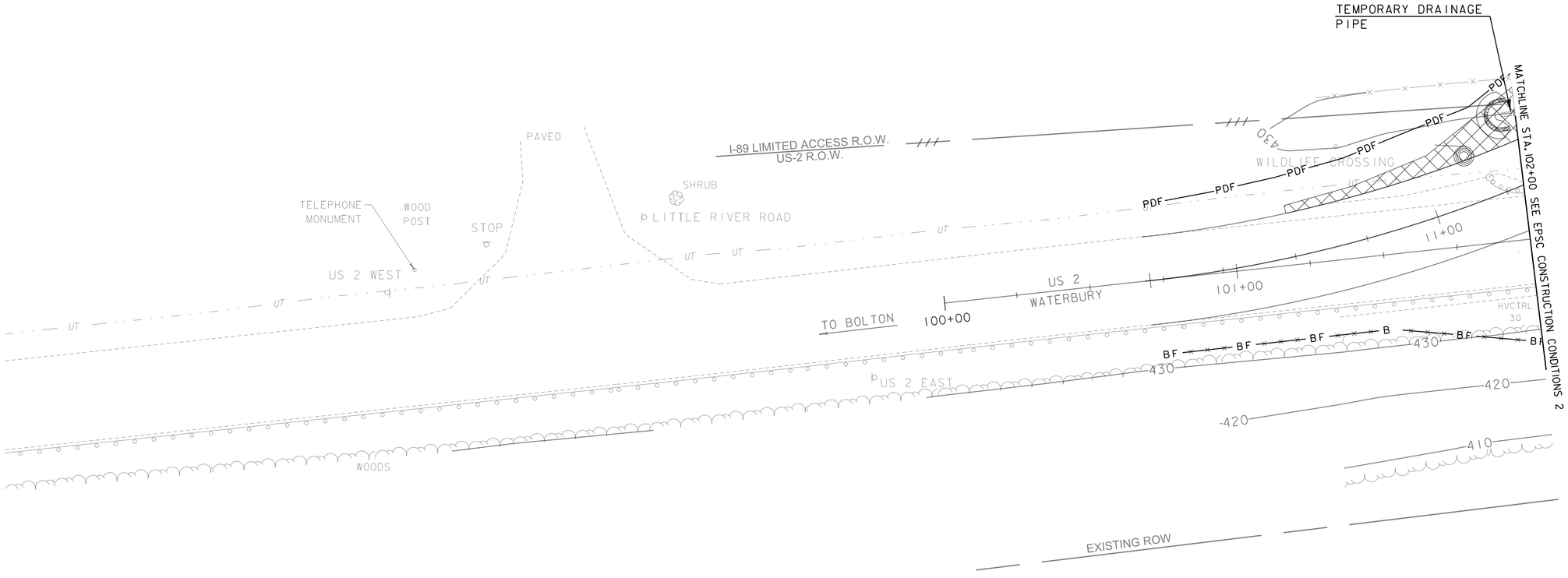
AER E&T
TELEPHONE
MONUMENT
OUTLINE
POST

SCALE: 1"=20'
20 0 20

PROJECT NAME: WATERBURY	
PROJECT NUMBER: BF 0284(33)	
FILE NAME: z12c602bdr_ero.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: G. CANTAVE
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
EPSC EXISTING CONDITIONS 3	SHEET 124 OF 130

N

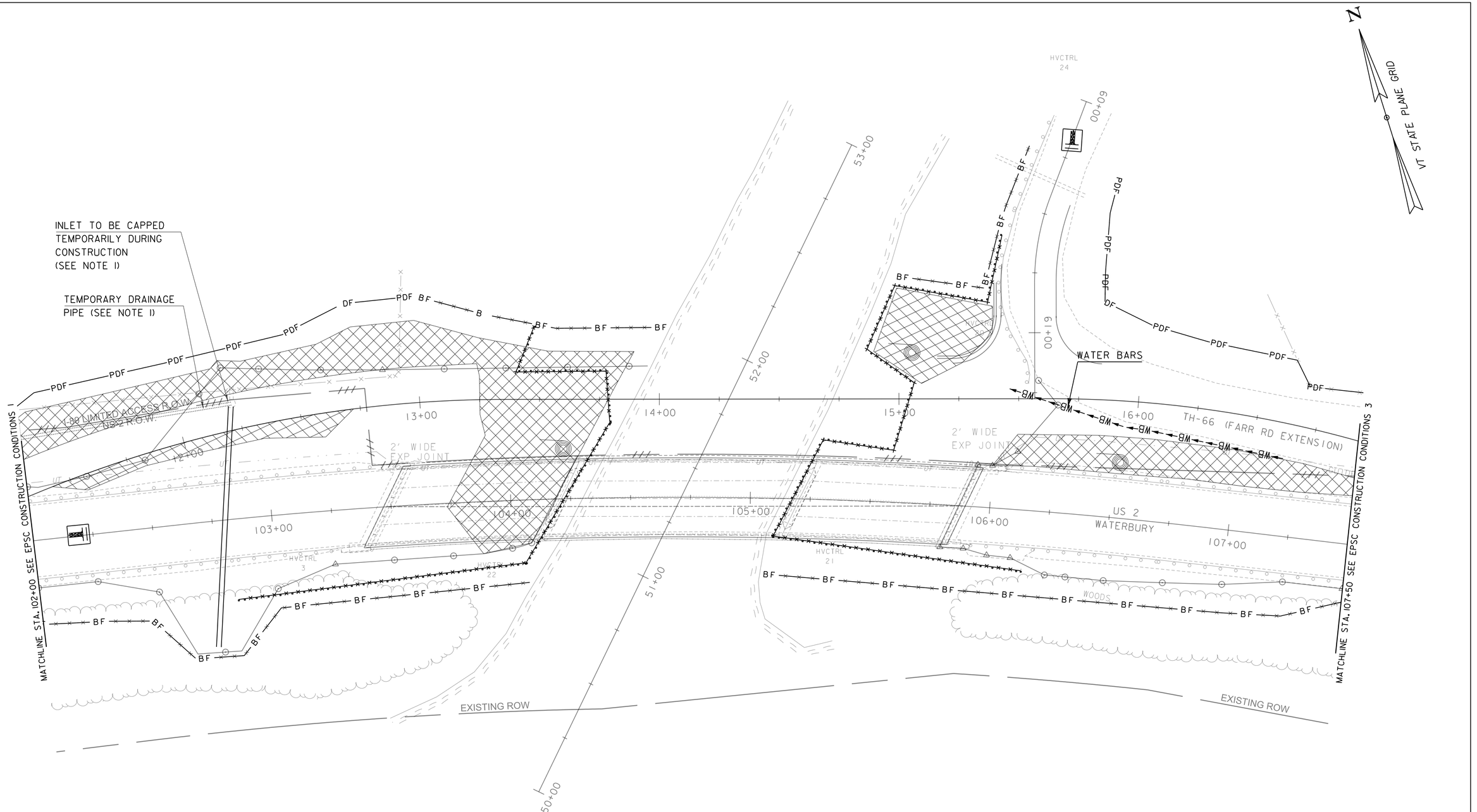
VT STATE PLANE GRID



SCALE: 1"=20'

20 0 20

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: zl2c602bdr_ero.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: G. CANTAVE
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
EPSC CONSTRUCTION CONDITIONS 1	SHEET 125 OF 130



NOTE:
DURING CONSTRUCTION EXISTING DRAINAGE INLET AT STA 102+80 TO BE CAPPED AND COVERED DURING CONSTRUCTION. PRIOR TO CAPPING THE DRAINAGE INLET, A TEMPORARY PIPE WILL BE INSTALLED UNDER THE TEMPORARY DETOUR DRAINING TO THIS INLET FROM STA 102+00 LT TO THIS INLET.

SCALE: 1"=20'
20 0 20

PROJECT NAME: WATERBURY	
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EPSC CONSTRUCTION CONDITIONS 2	SHEET 126 OF 130

N

VT STATE PLANE GRID

MATCHLINE STA. 107+50 SEE EPSC CONSTRUCTION CONDITIONS 2

TH-66
(FARR RD
EXTENSION)

FARR ROAD

7+00

18+00

108+00

109+00

19+00

110+00

20+00

111+00

112+00

113+00

US 2
WATERBURY

GRAVEL

LEGEND TREE
24,000 DBH

6" WHITE PINE

HVCTRL

SNOW MACHINE

I-89 LIMITED ACCESS R.O.W.
US-2 R.O.W.

TELEPHONE
MONUMENT

WOODS

TO VT ROUTE 100

MM
0020
1218
0260

EXISTING ROW

AER E&T

TELEPHONE
MONUMENT

GUIDE
POST

AER

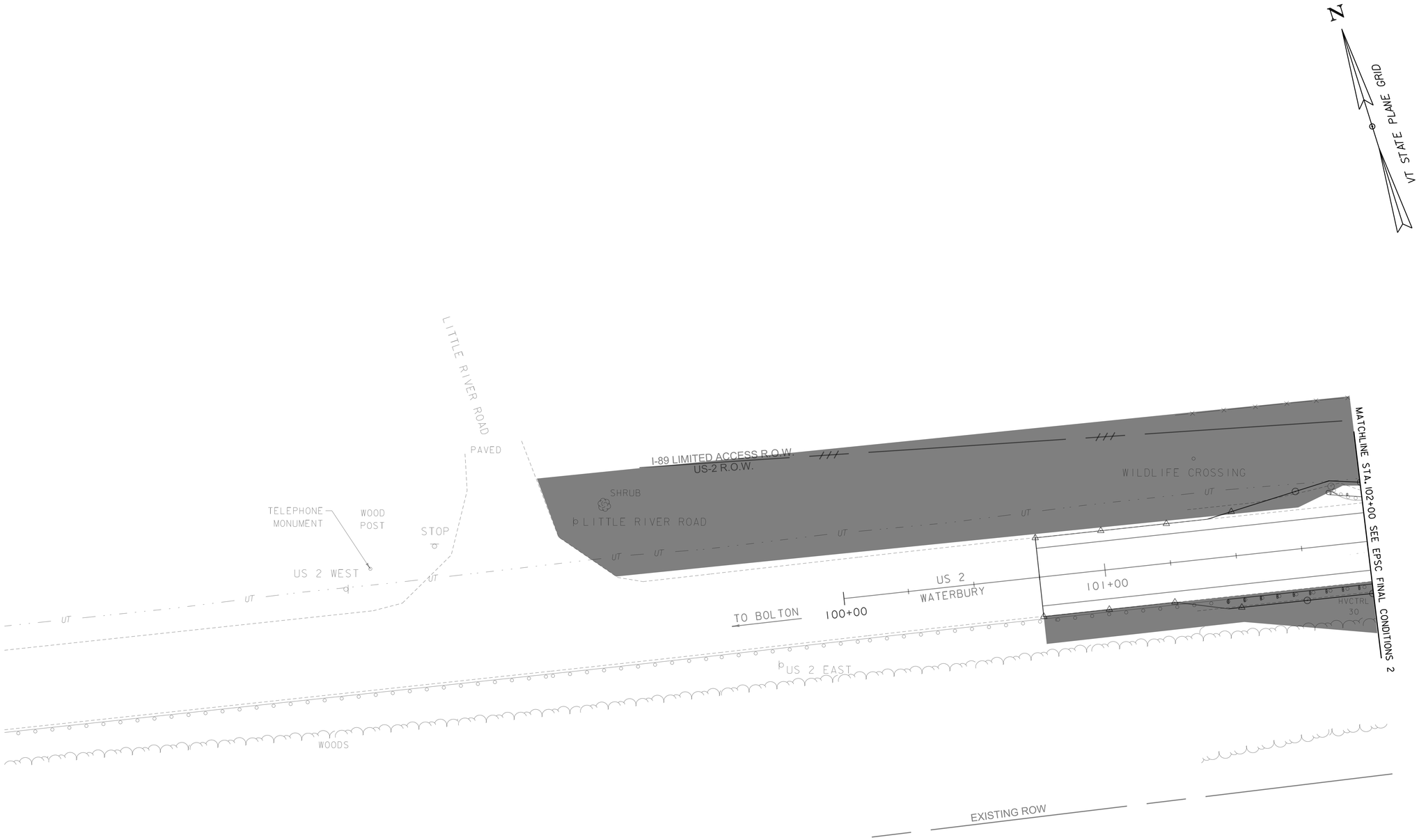
PDF

BF

UT

SCALE: 1"=20'
20 0 20

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: zl2c602bdr_ero.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: G. CANTAVE
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
EPSC CONSTRUCTION CONDITIONS 3	SHEET 127 OF 130



SCALE: 1"=20'

20 0 20

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: zl2c602bdr_ero.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: G. CANTAVE
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
EPSC FINAL CONDITIONS 1	SHEET 128 OF 130

N

VT STATE PLANE GRID

HVCTRL 24

00+09

53+00

52+00

61+00

HVCTRL 20

I-89 LIMITED ACCESS R.O.W.
US-2 R.O.W.

2' WIDE EXP JOINT

TH-66 (FARR RD EXTENSION)

2' WIDE EXP JOINT

UT

103+00

104+00

105+00

106+00

US 2
WATERBURY

107+00

HVCTRL 3

HVCTRL 22

HVCTRL 21

WOODS

MATCHLINE STA. 102+00 SEE EPSC FINAL CONDITIONS 1

MATCHLINE STA. 107+50 SEE EPSC FINAL CONDITIONS 3

LITTLE RIVER

51+00

50+00

EXISTING ROW

EXISTING ROW

SCALE: 1"=20'

20 0 20

PROJECT NAME: WATERBURY	
PROJECT NUMBER: BF 0284(33)	
FILE NAME: z12c602bdr_ero.dgn	PLOT DATE: 8/18/2022
PROJECT LEADER: R.TETREAULT	DRAWN BY: G. CANTAVE
DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
EPSC FINAL CONDITIONS 2	SHEET 129 OF 130

N

VT STATE PLANE GRID

TH-66
(FARR RD
EXTENSION)

LEGAL LOAD LIMIT
24,000 LBS

6" WHITE PINE

HVCTRL
2

TELEPHONE
MONUMENT

I-89 LIMITED ACCESS R.O.W.
US-2 R.O.W.

FARR ROAD

STOP

GRAVEL

UT

SNOW MACHINE

WOODS

S 65°46'35.74" E

US 2
WATERBURY

108+00

109+00

110+00

111+00

112+00

113+00

TO VT ROUTE 100

HVCTRL
23

MM
0020
1218
0260

MATCHLINE STA. 107+50 SEE EPSC FINAL CONDITIONS 2

EXISTING ROW

AER E&T

TELEPHONE
MONUMENT

GUIDE
POST

AER

SCALE: 1"=20'
20 0 20

PROJECT NAME:	WATERBURY
PROJECT NUMBER:	BF 0284(33)
FILE NAME: zl2c602bdr_ero.dgn	PLOT DATE: 8/18/2022
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DESIGNED BY: M. EVANS-MONGEON	CHECKED BY: M.OOMS
EPSC FINAL CONDITIONS 3	SHEET 130 OF 130