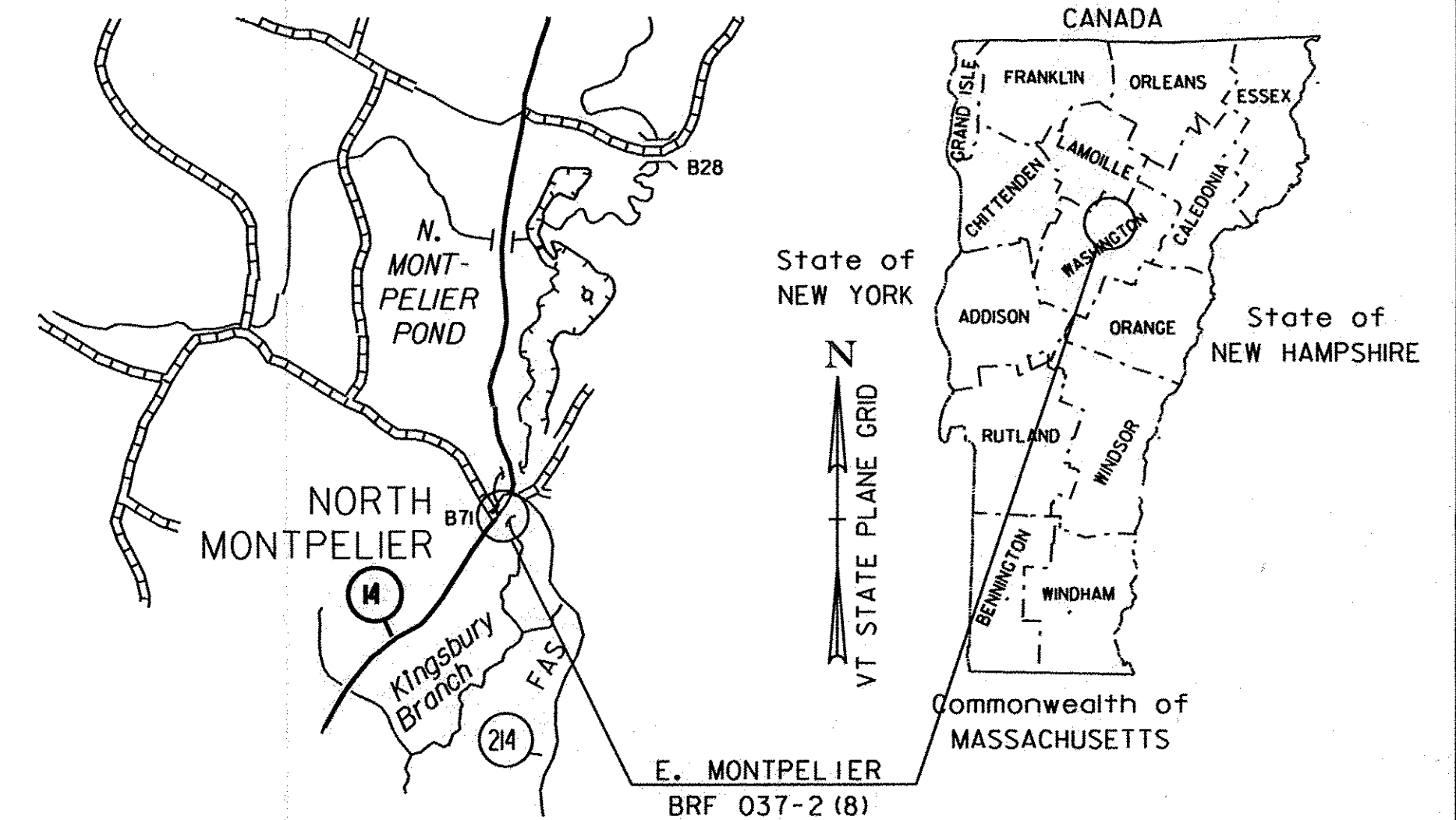


SEE SHEET 2 FOR THE
INDEX OF SHEETS AND
LIST OF STANDARDS

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT BRIDGE PROJECT TOWN OF EAST MONTPELIER COUNTY OF WASHINGTON



RECORD PLANS

CONTRACTOR: AL ST ONGE CONTRACTOR INC. - MONTGOMERY, VT

RESIDENT ENGINEER: CHRIS CRAIG

CONSTRUCTION BEGAN: MAY 9, 2011

CONSTRUCTION COMPLETE: OCTOBER 31, 2011

RECORD PLANS BY: CHRIS CRAIG & JENNA HYDE

I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET
OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.

BY *Chris Craig* RESIDENT ENGINEER

DATE 7-3-14

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

ROUTE NO : VT RT 14, MINOR ARTERIAL BRIDGE NO: 71

PROJECT LOCATION : BEGINNING ON VT RT 14 APPROXIMATELY 0.085 KILOMETERS SOUTH
OF THE INTERSECTION OF VT RT 214 AND VT RT 14 EXTENDING
APPROXIMATELY 45 METERS IN A NORTHERLY DIRECTION.

PROJECT DESCRIPTION : REPLACEMENT OF BRIDGE NO. 71 ON THE EXISTING
LOCATION AND NECESSARY APPROACH AND CHANNEL WORK.

LENGTH OF STRUCTURE : 19.600 METERS
LENGTH OF ROADWAY : 25.400 METERS
LENGTH OF PROJECT : 45.000 METERS

QUALITY ASSURANCE PROGRAM: LEVEL 2

CONVENTIONAL SYMBOLS

COUNTY LINE	
TOWN LINE	
LIMITS OF ACCESS	
POINT OF ACCESS	
FENCE LINE	
STONE WALL	
TRAVELED WAY	
GUARD RAIL	
RAILROAD	
SURVEY LINE	
CULVERT	
POWER POLE	
TELEPHONE POLE	
TREES	
CONTROL OF ACCESS	
PROPERTY LINE	
R.O.W. TAKING LINE	
SLOPE RIGHTS	
TOP OF CUT	
TOE OF SLOPE	

SURVEYED BY : R. MOREAU
SURVEYED DATE : 3/93

DATUM

VERTICAL USGS
HORIZONTAL ASSUMED

0 20 40 60
SCALE IN METERS
1 : 500

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING
CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY
ADMINISTRATION OR THE DIRECTOR OF PROGRAM
DEVELOPMENT.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE
WITH THESE PLANS AND THE STANDARD SPECIFICATIONS
FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE
FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006
FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT
REVISIONS AND SUCH REVISED SPECIFICATIONS AND
SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE
PLANS.

86e054/structures/se054bdr.dgn se054tit.i

Metric

UNLESS NOTED OTHERWISE
STATIONS ARE IN KILOMETERS
ELEVATIONS ARE IN METERS
DIMENSIONS ARE IN MILLIMETERS

DIRECTOR OF PROGRAM DEVELOPMENT

APPROVED *Richard F. Williams* DATE 8-18-10

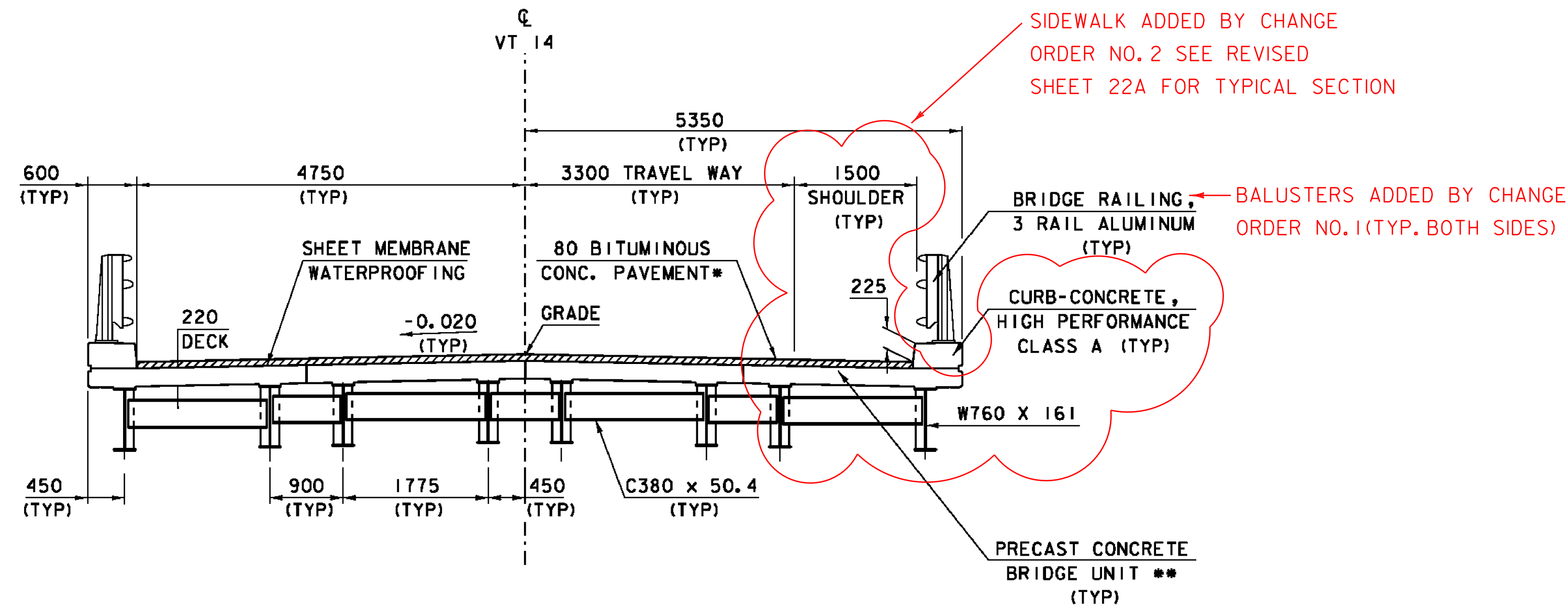
PROJECT MANAGER : C.P. WILLIAMS

PROJECT NAME : EAST MONTPELIER

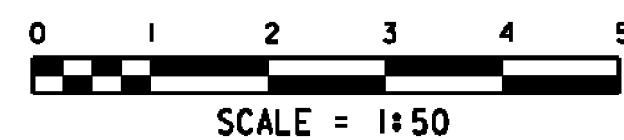
PROJECT NUMBER : BRF 037-2 (8)

PLOTTED 17-AUG-2010

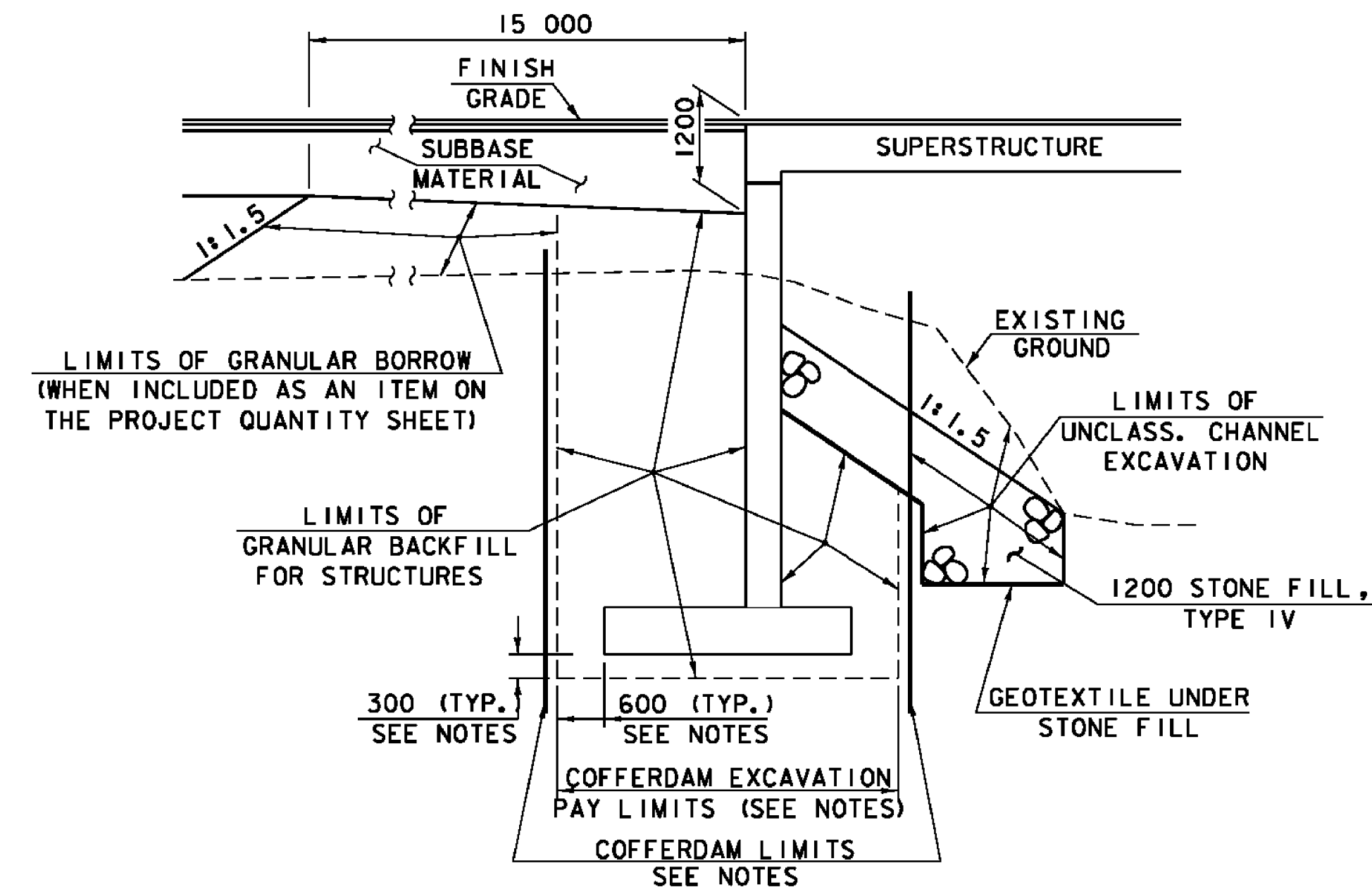
SHEET 1 OF 63 SHEETS



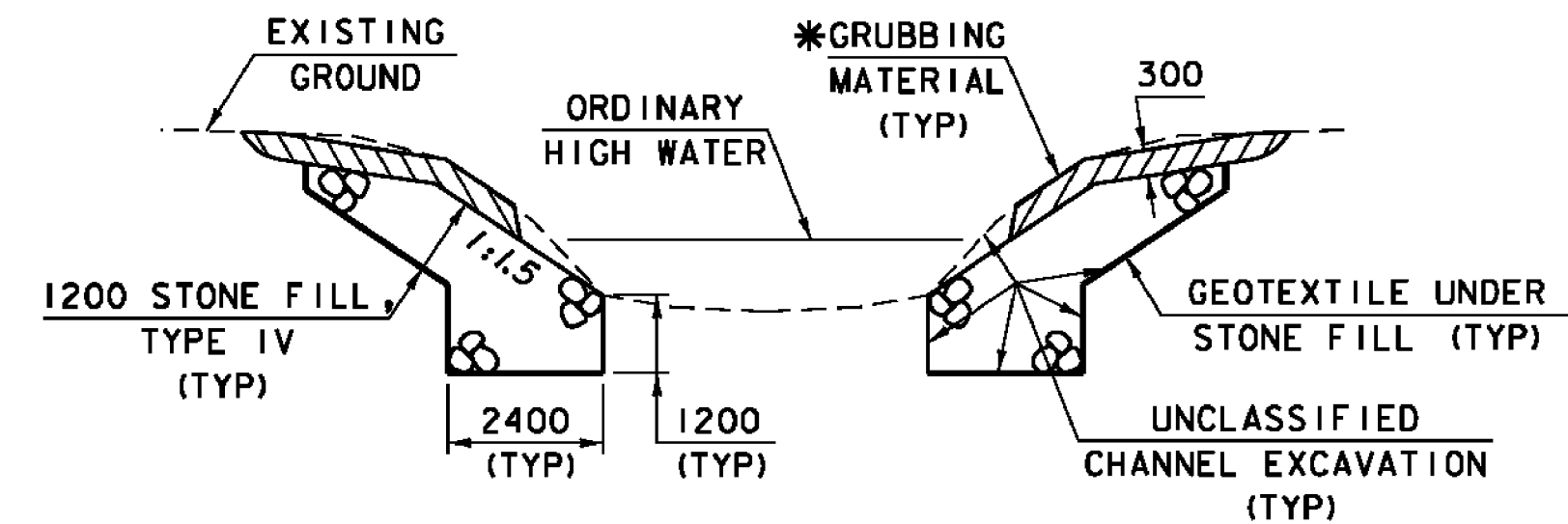
TYPICAL BRIDGE SECTION
(PRECAST)



* 40 mm Type IIIS or IVS over
40 mm Type IIIS or IVS
PAID FOR UNDER ITEM# 900.680
SPECIAL PROVISION (BITUMINOUS
CONCRETE PAVEMENT, SMALL QUANTITY)
** SEE PRECAST CONCRETE/STEEL
COMPOSITE SUPERSTRUCTURE OF
SECTION 900 OF THE SPECIAL
PROVISIONS

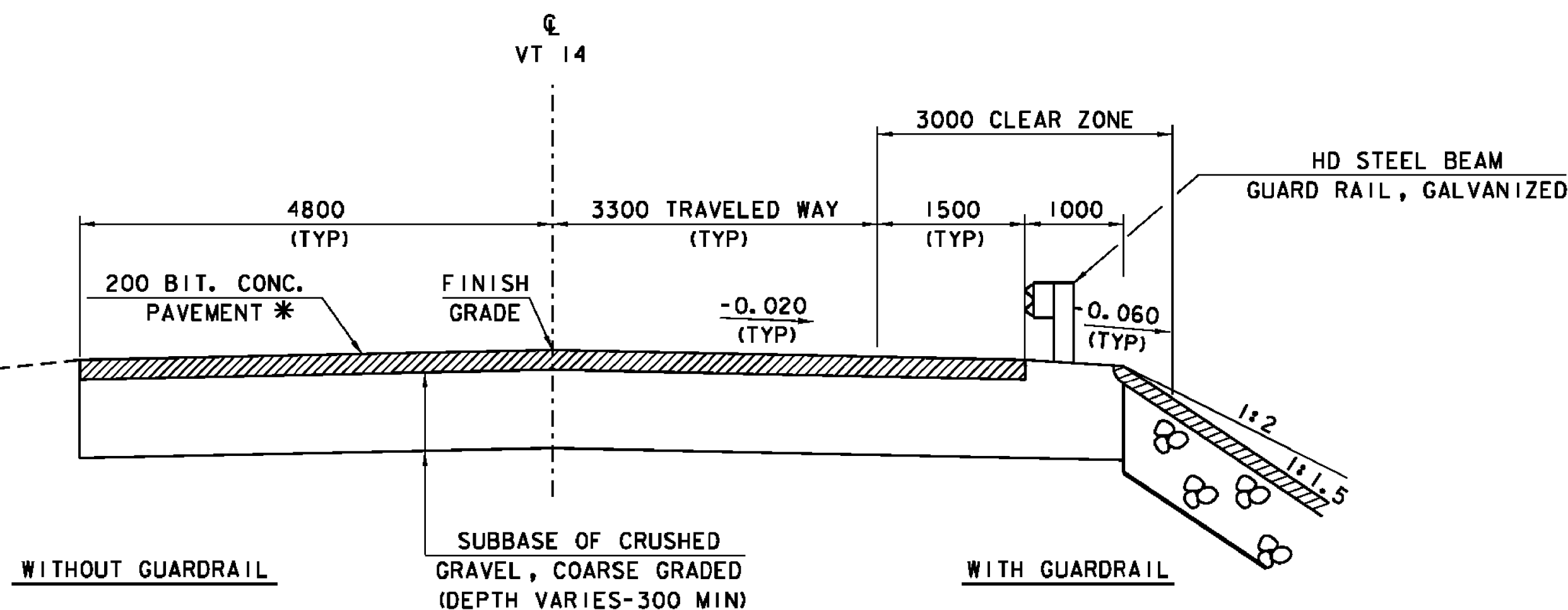


TYPICAL ABUTMENT SECTION
(NOT TO SCALE)

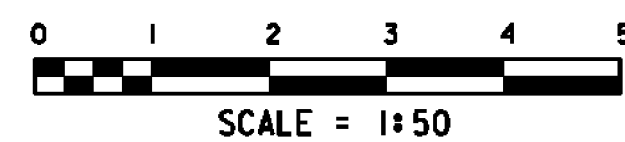


TYPICAL CHANNEL SECTION
(NOT TO SCALE)

* GRUBBING MATERIAL SHALL NOT BE PLACED ON THE
STONE FILL IN THE AREA UNDER THE BRIDGE.
WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY
SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE
BOTTOM OF SUBBASE.



TYPICAL ROADWAY SECTION



* 40 mm Type IIIS or IVS over
40 mm Type IIIS or IVS over
60 mm Type IS or IIS over
60 mm Type IS or IIS
PAID FOR UNDER ITEM# 900.680
SPECIAL PROVISION (BITUMINOUS
CONCRETE PAVEMENT, SMALL QUANTITY)

NOTES

- COFFERDAM LIMITS TO BE DETERMINED BY THE CONTRACTOR.
- THE PAY LIMITS OF "COFFERDAM EXCAVATION, EARTH" AND "COFFERDAM EXCAVATION, ROCK" SHALL BE 600 OUTSIDE THE PERIMETER OF THE FOOTING, UP TO EXISTING GROUND OR BOTTOM OF SUBBASE, WHICHEVER IS LOWER.
- 300 UNDERCUT AS DETERMINED NECESSARY BY THE ENGINEER.
- IF A COFFERDAM IS CONSTRUCTED WHICH IS LARGER THAN THE INDICATED COFFERDAM EXCAVATION PAY LIMITS, PAYMENT FOR ALL UNCLASSIFIED CHANNEL EXCAVATION, INCLUDING THAT PORTION WHICH IS INSIDE THE COFFERDAM BUT OUTSIDE THE COFFERDAM EXCAVATION PAY LIMITS, WILL BE MADE AT THE CONTRACT UNIT PRICE FOR UNCLASSIFIED CHANNEL EXCAVATION.

MATERIAL ITEM	TOLERANCE
PAVEMENT	±5 mm TOTAL THICKNESS
BASE COURSE	±10 mm
SUBBASE	±30 mm
SAND BORROW	±30 mm
GRANULAR BORROW	±30 mm

PROJECT#	PROJECT NO.:
EAST MONTPELIER	BRF 037-2 (8)
DESIGN FILE NAME: 86e054/structures/s86e054notes.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054excsect.i	DRAWN BY: L.J. STONE
DESIGNED BY: L.J. STONE	CHECKED BY: H.I. SALLS
SQUAD LEADER: C.P. WILLIAMS	TYPICAL SECTIONS
	SHEET: 3 OF 63

QUANTITY SHEET 1



SUMMARY OF ESTIMATED QUANTITIES														TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES					
									ROADWAY	TRAINING	EROSION CONTROL		BRIDGE	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS		
1															1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10		EARTHWORKS SUMMARY				
520															520		CM	COMMON EXCAVATION	203.15					520 CM	FILL AVAILABLE COMMON EXCAVATION (520 x 1.0)
															150		CM	UNCLASSIFIED CHANNEL EXCAVATION	203.27					45 CM	UNCLASSIFIED CHANNEL EXCAVATION (150 x 0.3)
																								245.4 CM	COFFERDAM EXCAVATION EARTH + ROCK (818 x 0.3)
															7		CM	TRENCH EXCAVATION OF EARTH	204.20		4.6 CM	ROUNDING			
2															2		CM	TRENCH EXCAVATION OF ROCK	204.21		815 CM	TOTAL FILL AVAILABLE			
1															1		CM	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22			FILL REQUIRED			
10															370		CM	GRANULAR BACKFILL FOR STRUCTURES	204.30		34.5 CM	PLANIMETERED FILL			
															558		CM	COFFERDAM EXCAVATION, EARTH	208.30		39.675 CM	FACTORED FILL (x 1.15)			
															260		CM	COFFERDAM EXCAVATION, ROCK	208.35		0.325 CM	ROUNDING			
															1		LS	COFFERDAM (ABUTMENT NO.1)	208.40		40 CM	TOTAL FILL REQUIRED			
															1		LS	COFFERDAM (ABUTMENT NO.2)	208.40		775 CM	TOTAL WASTE			
510															510		SM	COLD PLANING, BITUMINOUS PAVEMENT	210.10						
370															370		CM	SUBBASE OF CRUSHED GRAVEL, COARSE GRADED	301.25						
1															1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50						
															18		CM	CONCRETE, HIGH PERFORMANCE CLASS A	501.33						
															258		CM	CONCRETE, HIGH PERFORMANCE CLASS B	501.34						
13840															13840		KG	REINFORCING STEEL	507.15						
38															38		M	DRILLING AND GROUTING DOWELS	507.16						
4480															4480		KG	EPOXY COATED REINFORCING STEEL	507.17						
192															192		EACH	MECHANICAL BAR CONNECTOR (#16 - EPOXY COATED)	507.19						
83															83		L	WATER REPELLENT, SILANE	514.10						
11															11		M	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10						
190															190		SM	SHEET MEMBRANE WATERPROOFING, TORCH APPLIED	519.20						
11															11		M	JOINT SEALER, HOT POURED	524.11						
41															41		M	BRIDGE RAILING, 3 RAIL ALUMINUM	525.22						
1															1		LS	TEMPORARY PEDESTRIAN BRIDGE (100 SM - EST.)	528.12						
1															1		EACH	REMOVAL OF STRUCTURE (165 SM - EST.)	529.15						
16															16		EACH	BEARING DEVICE ASSEMBLY, ELASTOMERIC PAD	531.11						
50															50		CM	CONCRETE, CLASS C	541.30						
																		BEGIN OPTION AA							
3.5															3.5		M	450 CAAP 1.91 (68 X 12)	601.0216						
3.5															3.5		M	450 PCCSP(PI) 1.63 (68 X 12)	601.0615						
3.5															3.5		M	450 CPEP	601.0915						
																		END OPTION AA							
1															1		EACH	PRECAST REINFORCED CONCRETE DROP INLET WITH CAST IRON GRATE	604.18						
10															10		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25						
1															1		T	DUST AND ICE CONTROL WITH CALCIUM CHLORIDE	609.15						
															10		CM	STONE FILL, TYPE I	613.10						
200															200		CM	STONE FILL, TYPE IV	613.13						
40															40		M	HD STEEL BEAM GUARDRAIL, GALVANIZED	621.21						

QUANTITY SHEET 2



SUMMARY OF ESTIMATED QUANTITIES														TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
								ROADWAY	TRAINING	EROSION CONTROL	BRIDGE		FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
								3						3		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60				
								27						27		M	ALUMINUM APPROACH RAILING	621.74				
								51						51		M	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80				
								100						100		HR	UNIFORMED TRAFFIC OFFICERS	630.10				
								624						624		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 TELEPHONE (N.A.B.I.)	631.26				
									520					520		HR	EMPLOYEE TRAINEESHIP	634.10				
								1						1		LS	MOBILIZATION/DEMOBILIZATION	635.11				
								1						1		LS	TRAFFIC CONTROL	641.10				
								1						1		LS	PUBLIC RELATIONS OFFICER	641.12				
								118						118		DAY	PORTABLE CHANGEABLE MESSAGE SIGN RENTAL	641.17				
								219						219		M	100 MM WHITE LINE	646.20				
								186						186		M	100 MM YELLOW LINE	646.21				
											270			270		SM	GEOTEXTILE UNDER STONE FILL	649.31				
										30				30		SM	GEOTEXTILE FOR SILT FENCE	649.51				
										50				50		SM	GEOTEXTILE FOR FILTER CURTAIN	649.61				
										5				5		KG	SEED	651.15				
										50				50		KG	FERTILIZER	651.18				
										1				1		T	AGRICULTURAL LIMESTONE	651.20				
										1				1		T	HAY MULCH	651.25				
										5				5		CM	TOPSOIL	651.35				
											140			140		SM	GRUBBING MATERIAL	651.40				
										1				1		LS	EPSC PLAN	652.10				
										16				16		HR	MONITORING EPSC PLAN	652.20				
										1				1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30				
										210				210		SM	PERMANENT EROSION MATTING	653.21				
										5				5		CM	TEMPORARY STONE CHECK DAM, TYPE I	653.25				
										16				16		CM	VEHICLE TRACKING PAD	653.35				
										1				1		EACH	INLET PROTECTION DEVICE, TYPE I	653.40				
										1				1		EACH	FILTER BAG	653.45				
										97				97		M	PROJECT DEMARCATION FENCE	653.55				
								0.315						0.315		SM	TRAFFIC SIGNS, TYPE A	675.20				
								9						9		M	SQUARE TUBE SIGN POST AND ANCHOR	675.341				
								3						3		EACH	REMOVING SIGNS	675.50				
								1						1		LU	SPECIAL PROVISION (INCENTIVE/DISINCENTIVE) (N.A.B.I.)	900.650				
								1						1		LU	SPECIAL PROVISION (MAT DENSITY PAY ADJUSTMENT, SMALL QUANTITY) (N.A.B.I.)	900.650				
								1						1		LU	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT) (N.A.B.I.)	900.650				

BRIDGE QUANTITY SHEET 1

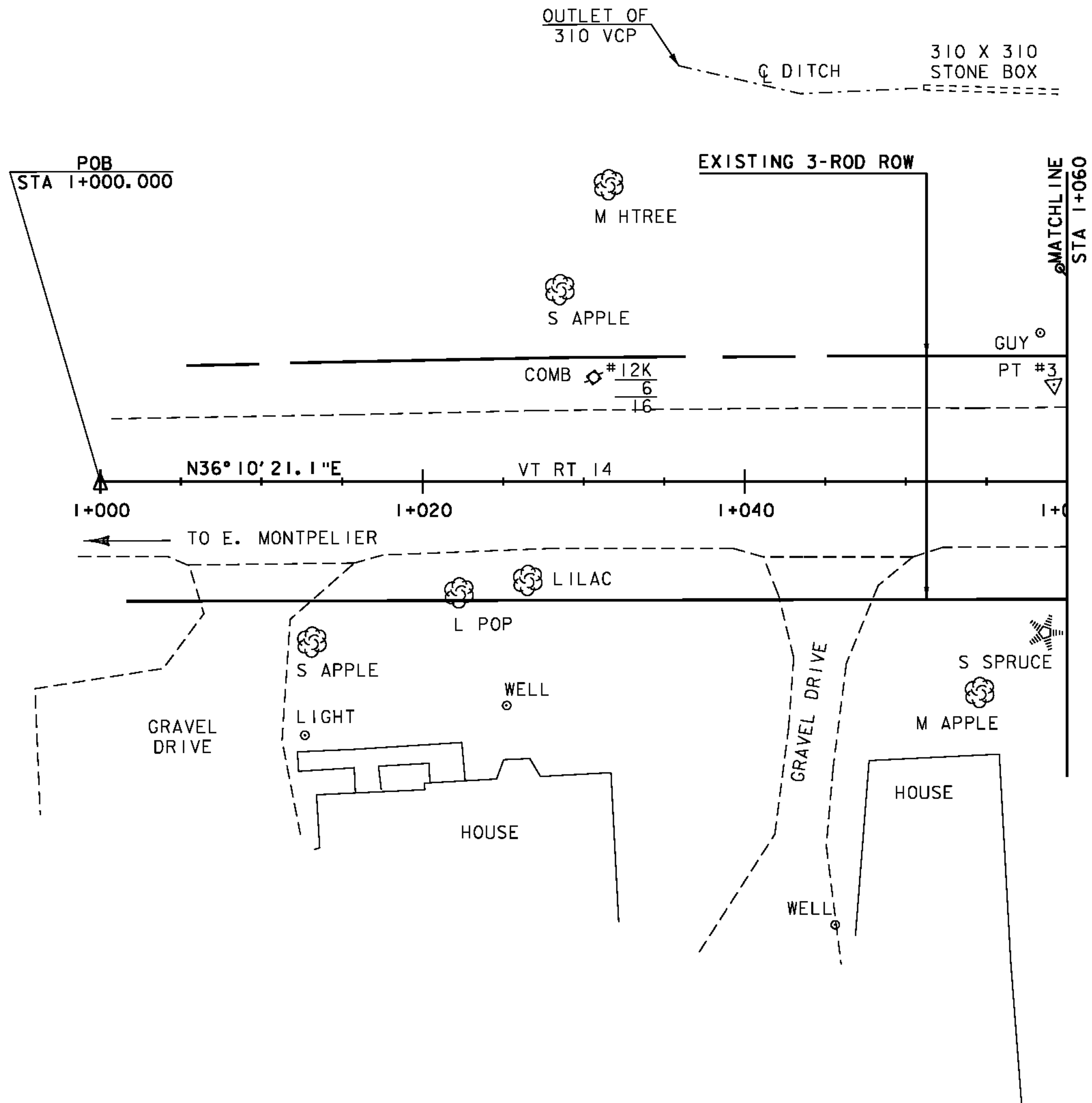
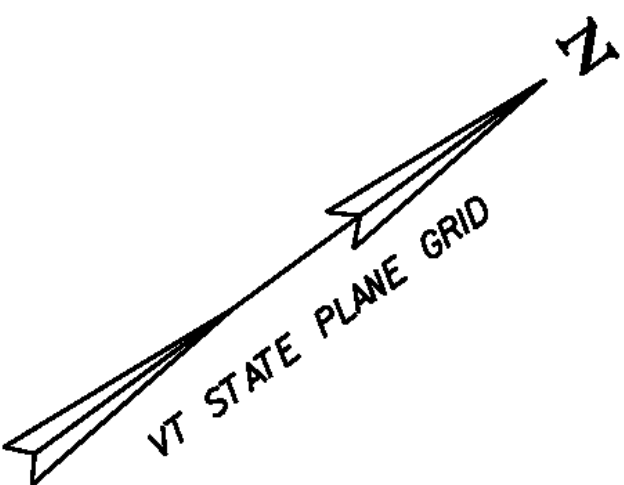


SUMMARY OF BRIDGE QUANTITIES														TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
			APPROACH SLABS		BRIDGE 71		ABUT.#1		ABUT. #2		CHANNEL			BRIDGE TOTAL		UNIT	ITEMS	ITEM NUMBER		QUANTITIES	UNIT	ITEMS
														150		CM	UNCLASSIFIED CHANNEL EXCAVATION	203.27				
							173		187					360		CM	GRANULAR BACKFILL FOR STRUCTURES	204.30				
							279		279					558		CM	COFFERDAM EXCAVATION, EARTH	208.30				
							150		110					260		CM	COFFERDAM EXCAVATION, ROCK	208.35				
							1							1		LS	COFFERDAM (ABUTMENT NO.1)	208.40				
									1					1		LS	COFFERDAM (ABUTMENT NO.2)	208.40				
														18		CM	CONCRETE, HIGH PERFORMANCE CLASS A	501.33				
							44		117		97			258		CM	CONCRETE, HIGH PERFORMANCE CLASS B	501.34				
									7370		6470			13840		KG	REINFORCING STEEL	507.15				
									19		19			38		M	DRILLING AND GROUTING DOWELS	507.16				
							3117		1363					4480		KG	EPOXY COATED REINFORCING STEEL	507.17				
									96		96			192		EACH	MECHANICAL BAR CONNECTOR (#16 - EPOXY COATED)	507.19				
									83					83		L	WATER REPELLENT, SILANE	514.10				
							11							11		M	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10				
							190							190		SM	SHEET MEMBRANE WATERPROOFING, TORCH APPLIED	519.20				
							11							11		M	JOINT SEALER, HOT POURED	524.11				
							41							41		M	BRIDGE RAILING, 3 RAIL ALUMINUM	525.22				
							1							1		LS	TEMPORARY PEDESTRIAN BRIDGE (100 SM - EST.)	528.12				
							1							1		EACH	REMOVAL OF STRUCTURE (165 SM - EST.)	529.15				
									8		8			16		EACH	BEARING DEVICE ASSEMBLY, ELASTOMERIC PAD	531.11				
									35		15			50		CM	CONCRETE, CLASS C	541.30				
									10					10		CM	STONE FILL, TYPE I	613.10				
									129		71			200		CM	STONE FILL, TYPE IV	613.13				
									170		100			270		SM	GEOTEXTILE UNDER STONE FILL	649.31				
									80		60			140		SM	GRUBBING MATERIAL	651.40				
							210							210		SM	SPECIAL PROVISION (PRECAST CONCRETE/STEEL COMPOSITE SUPERSTRUCTURE)	900.675				

TRAVERSE TIE INFORMATION

POINT #3 1 1/2 STORY WOOD FRAME HOUSE PT #3 4 943 M SPRUCE COMB #8K 8 5 15 N = 200282.9853 E = 504178.6709 Z = 213.8570	POINT #4 2 STORY WOOD FRAME HOUSE PT #4 14 373 US POST OFFICE #8 2 12 N = 200381.8246 E = 504262.1268 Z = 215.8860	POINT #300 TOP OF CONCRETE DAM PT #300 1 564 4 248 1 818 N = 200349.2400 E = 504186.0505 Z = 215.1784	POINT #350 CONCRETE ROOF COVERED WITH GRAVEL (OLD COAL STORAGE BUILDING) PT #350 8 802 14 709 1 636 N = 200303.5850 E = 504227.7282 Z = 213.7451
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NEW ALIGNMENT TIE INFORMATION

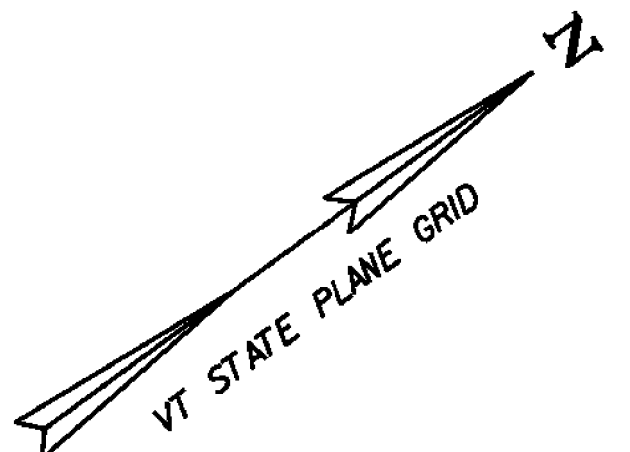


LAYOUT
SCALE 1"=250



DATUM	
VERTICAL	USGS
HORIZONTAL	ASSUMED

PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: 86e054/structures/s86e054bdr.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se0541a1.i	SURVEY DATE: 3/93
SURVEYED BY: R. MOREAU	DRAWN BY: L. J. STONE
SQUAD LEADER: C. P. WILLIAMS	SHEET: 9 OF 63
LAYOUT SHEET 1	



REMOVAL AND DISPOSAL OF GUARDRAIL
 STA 1+086.000 LT - 1+109.000 LT
 STA 1+104.500 RT - 1+107.500 RT
 STA 1+129.000 RT - 1+144.500 RT
 STA 1+129.000 LT - 1+130.500 LT

CONSTRUCT DRIVE**
 STA 1+092.000 RT - W/3000 PAVED APRON
 STA 1+135.000 LT - PAVED DRIVE
 STA 1+150.000 RT - PAVED DRIVE

** PAVEMENT FOR DRIVES SHALL BE ONE 40MM LIFT OF TYPE IIS PAVEMENT.

UNDERGROUND UTILITIES
 * STA 1+135.000 - SEWER LINE
 * STA 1+160.000 - WATER LINE
 * APPROXIMATE LOCATION

BARRIER FENCE (FOR PEDESTRIAN DETOUR)
 STA 1+131 - 1+135 LT
 (INCIDENTAL TO ITEM 528.12 TEMPORARY PEDESTRIAN BRIDGE)

BM M-11
 1928 USGS
 EL 216.970 m

BRIDGE RAILING, 3 RAIL ALUMINUM
 STA 1+110.070 LT - 1+129.850 LT
 STA 1+110.070 RT - 1+129.520 RT

HD STEEL BEAM GUARDRAIL, GALVANIZED
 STA 1+085.600 LT - 1+102.460 LT
 STA 1+095.200 RT - 1+102.460 RT
 STA 1+137.140 RT - 1+144.080 RT

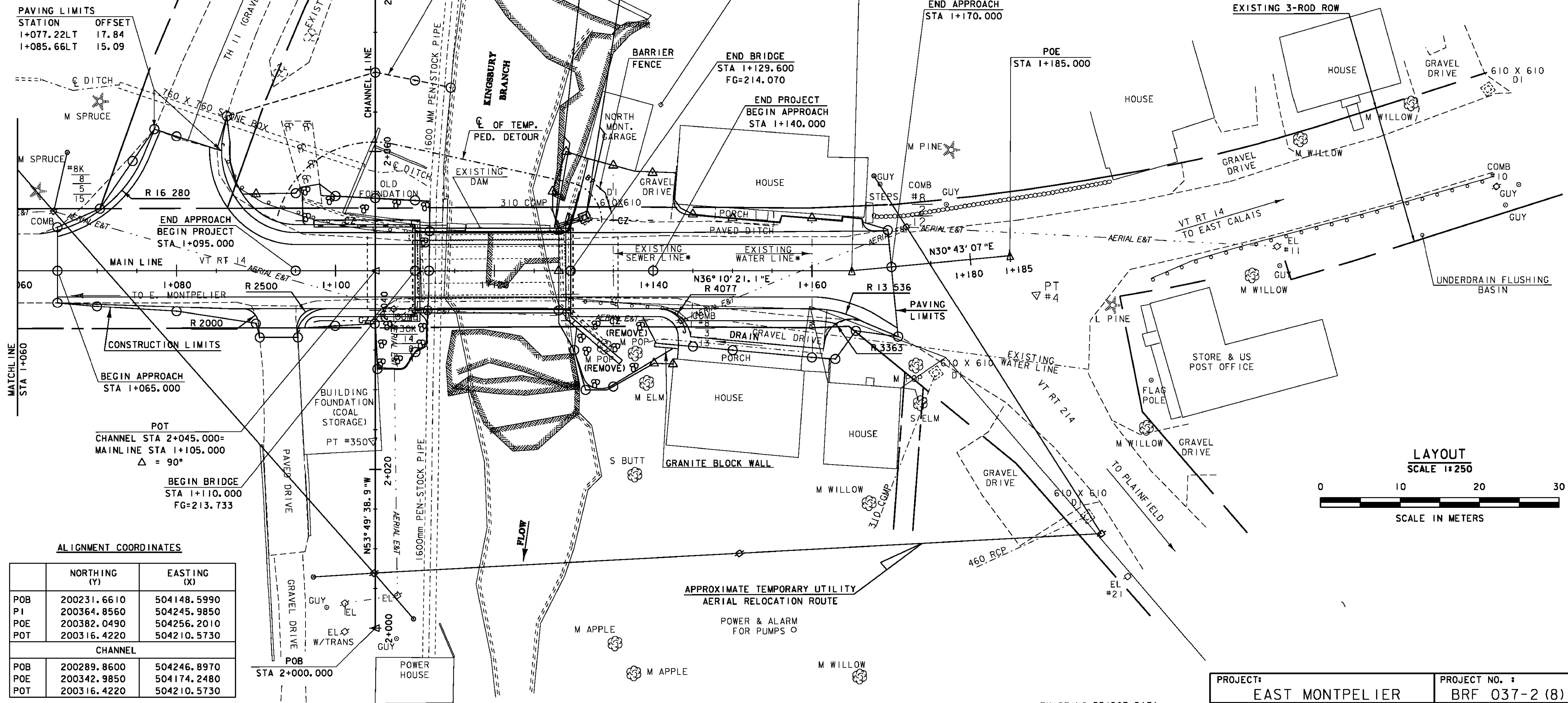
ANCHOR FOR STEEL BEAM RAIL
 STA 1+085.000 LT
 STA 1+097.000 RT
 STA 1+143.000 RT

ALUMINUM APPROACH RAILING
 STA 1+102.460 LT - 1+110.070 LT
 STA 1+102.460 RT - 1+110.070 RT
 STA 1+129.520 RT - 1+137.140 RT
 STA 1+129.850 LT - 1+130.780 LT

SEE REVISED SHEET 10A

PAVING LIMITS

STATION	OFFSET
1+077.22LT	17.84
1+085.66LT	15.09

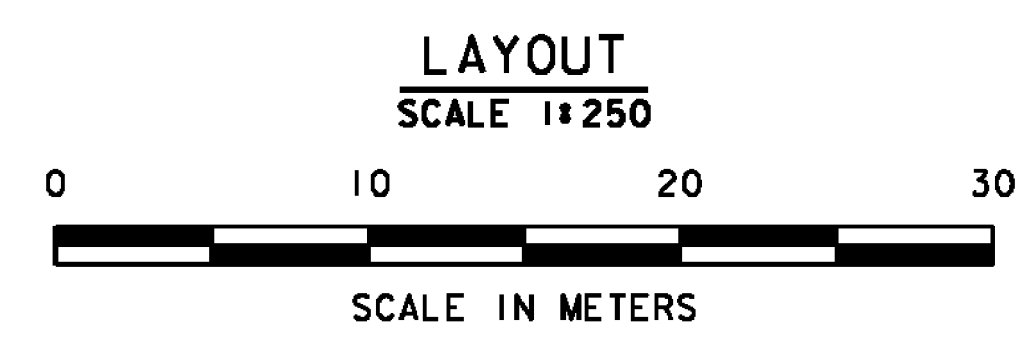


ALIGNMENT COORDINATES

	NORTHING (Y)	EASTING (X)
POB	200231.6610	504148.5990
PI	200364.8560	504245.9850
POE	200382.0490	504256.2010
POT	200316.4220	504210.5730
CHANNEL		
POB	200289.8600	504246.8970
POE	200342.9850	504174.2480
POT	200316.4220	504210.5730

DATUM

VERTICAL	USGS
HORIZONTAL	ASSUMED



① - ② SEE PIPE SECTIONS AND DRAINAGE DETAIL SHEET

EXISTING BRIDGE DATA
 YEAR BUILT = 1936
 SINGLE SPAN ROLLED BEAM
 OVERALL LENGTH = 18.90m (62')
 CLEAR SPAN = 17.98m (59')
 ROADWAY WIDTH = 7.32m (24')

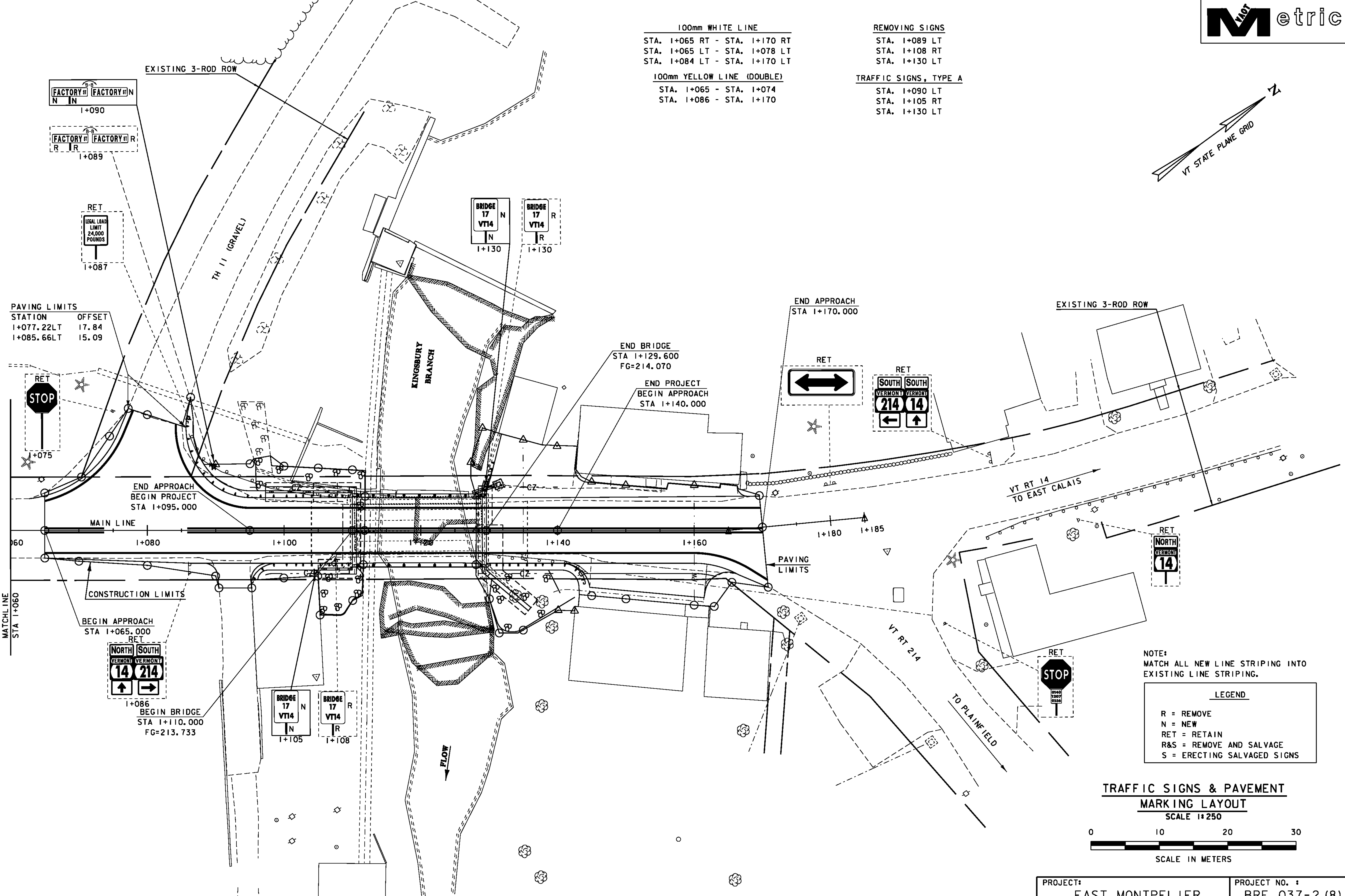
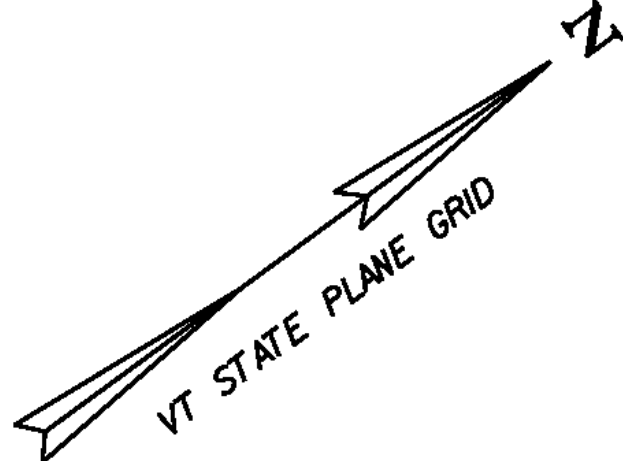
PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: 86e054/structures/s86e054bdr.dgn IPARM FILE NAME: se0541a2.i SURVEYED BY: R. MOREAU SQUAD LEADER: C.P. WILLIAMS LAYOUT SHEET 2	PLOT DATE: 18-AUG-2010 SURVEY DATE: 3/93 DRAWN BY: L.J. STONE SHEET: 10 OF 63

100mm WHITE LINE
STA. 1+065 RT - STA. 1+170 RT
STA. 1+065 LT - STA. 1+078 LT
STA. 1+084 LT - STA. 1+170 LT

100mm YELLOW LINE (DOUBLE)
STA. 1+065 - STA. 1+074
STA. 1+086 - STA. 1+170

REMOVING SIGNS
STA. 1+089 LT
STA. 1+108 RT
STA. 1+130 LT

TRAFFIC SIGNS, TYPE A
STA. 1+090 LT
STA. 1+105 RT
STA. 1+130 LT



PAVING LIMITS

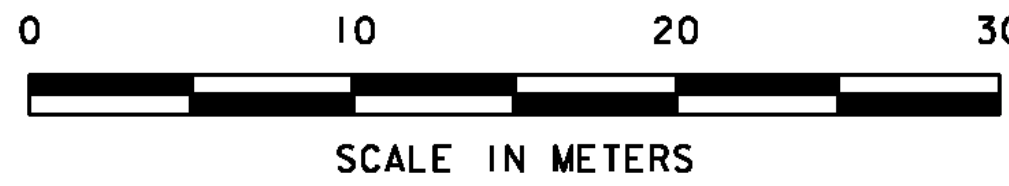
STATION	OFFSET
1+077.22LT	17.84
1+085.66LT	15.09

NOTE:
MATCH ALL NEW LINE STRIPING INTO
EXISTING LINE STRIPING.

LEGEND

R	= REMOVE
N	= NEW
RET	= RETAIN
R&S	= REMOVE AND SALVAGE
S	= ERECTING SALVAGED SIGNS

TRAFFIC SIGNS & PAVEMENT
MARKING LAYOUT
SCALE 1:250



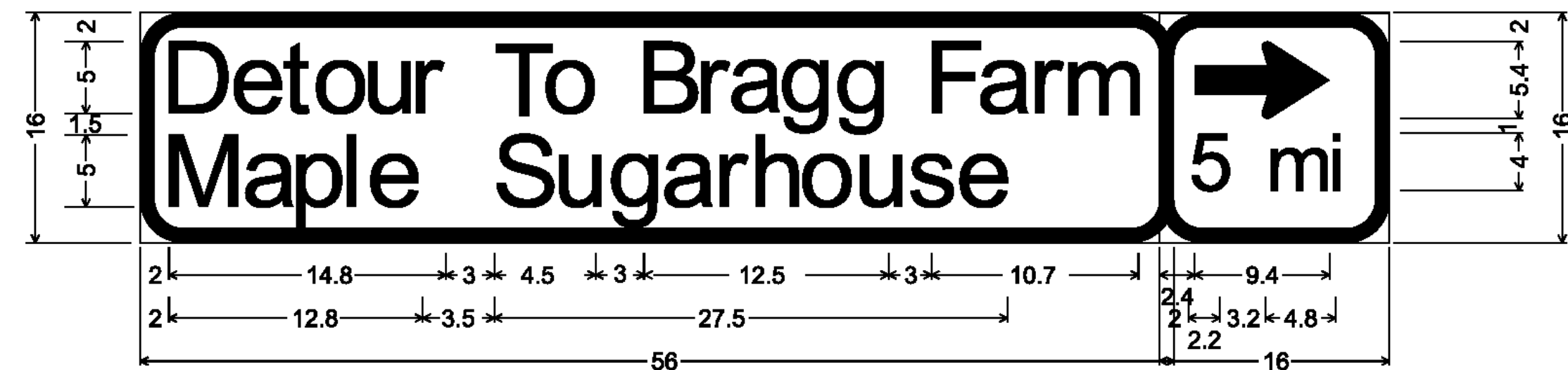
DATUM

VERTICAL	USGS
HORIZONTAL	ASSUMED

PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: 86e054/structures/s86e054bdr.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054signs.i	SURVEYED BY: R. MOREAU
SURVEYED BY: R. MOREAU	SURVEY DATE: 3/93
SQUAD LEADER: C.P. WILLIAMS	DRAWN BY: L.J. STONE
TRAFFIC SIGNS AND PAVEMENT MARKINGS	SHEET: 13 OF 63

[illegible]

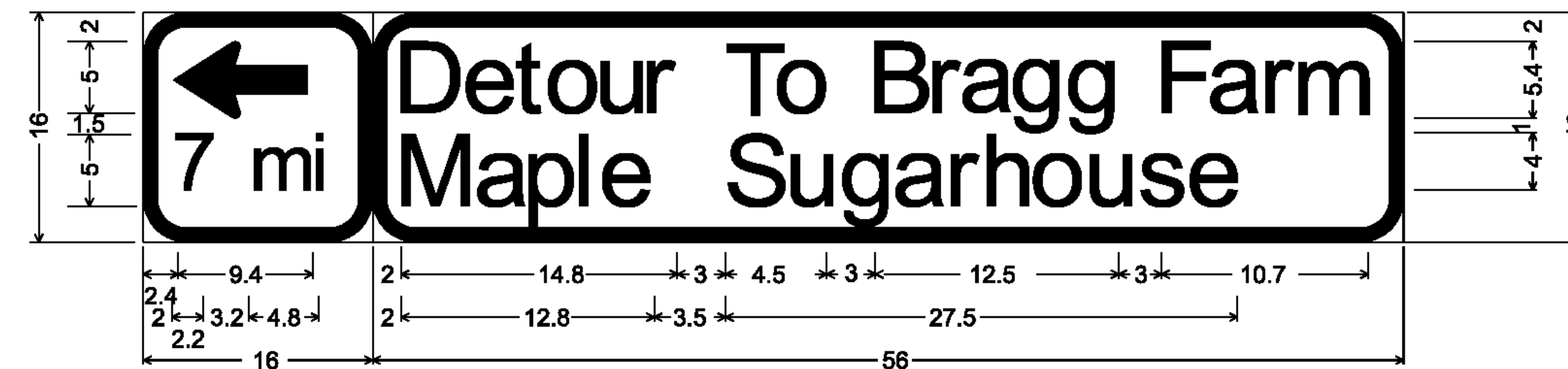
*THESE DETOUR SIGNS SHALL BE INCIDENTAL TO ITEM 641.10 'TRAFFIC CONTROL'. THEY ARE SHOWN HERE IN ORDER TO PROVIDE ACCURATE DIMENSIONS FOR FABRICATION.



3.0" Radius, 1.0" Border, Black on Orange;
[Detour To Bragg Farm] B 60) spacing;
[Maple Sugarhouse] B 70) spacing;

3.0" Radius, 1.0" Border, Black on Orange;
Standard Arrow Custom 9.4" X 5.4" 0{;
[5 ml] C 80} spacing;

SIGN DIMENSIONS SHOWN IN INCHES



3.0" Radius, 1.0" Border, Black on Orange;
[Detour To Bragg Farm] B 60) spacing;
[Maple Sugarhouse] B 70) spacing;

3.0" Radius, 1.0" Border, Black on Orange;
Standard Arrow Custom 9.4" X 5.4" O{;
[5 ml] C 80} spacing;

SIGN DIMENSIONS SHOWN IN INCHES

SIGNS FOR DETOUR

[illegible]

DRAINAGE DETAIL SHEET

[illegible]

PROJECT NAME: EAST MONTEPELIER	
PROJECT NUMBER: BRF 037-2(8)	
FILE NAME: s86e054dds.xls	PLOT DATE: 6/10/2010
PROJECT MANAGER: C. P. WILLIAMS	DRAWN BY: L.J.STONE
DESIGNED BY: L.J.STONE	CHECKED BY: H.I.SALLS
DRAINAGE DETAIL SHEET	SHEET 16 OF 63

SOIL CLASSIFICATION

AASHTO

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

ROCK QUALITY DESIGNATION

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

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN kPa	CONSISTENCY
<12	Very Soft
12-24	Soft
24-48	Med. Stiff
48-96	Stiff
96-192	Very Stiff
>192	Hard

CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

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

COMMONLY USED SYMBOLS

▼	Water Elevation
⊙	Standard Penetration Boring
⊕	Auger Boring
⊖	Rod Sounding
S	Sample
N	Standard Penetration Test
	Blow Count Per 300 mm For:
	50.8 mm O.D. Sampler
	35.0 mm I.D. Sampler
	Hammer Weight Of 63.5 kg.
	Hammer Fall Of 762 mm
VS	Field Vane Shear Test
US	Undisturbed Soil Sample
B	Blast
DC	Diamond Core
MD	Mud Drill
WA	Wash Ahead
HSA	Hollow Stem Auger
AX	Core Size 30.1mm
BX	Core Size 42.0 mm
NX	Core Size 54.7 mm
M	Double Tube Core Barrel Used
LL	Liquid Limit
PL	Plastic Limit
PI	Plasticity Index
NP	Non Plastic
w	Moisture Content (Dry Wgt. Basis)
D	Dry
M	Moist
MTW	Moist To Wet
W	Wet
Sat	Saturated
Bo	Boulder
Gr	Gravel
Sa	Sand
SI	Silt
Cl	Clay
HP	Hardpan
Le	Ledge
NLTD	No Ledge To Depth
CNPF	Can Not Penetrate Further
TLOB	To Ledge Or Boulder
NR	No Recovery
Rec.	Recovery
%Rec.	Percent Recovery
ROD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than
R	Refusal (N > 100)

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

DEFINITIONS (AASHTO)

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

BOULDER - A rock fragment with an average dimension > 304.8 mm.

COBBLE - Rock fragments with an average dimension between 76.2 and 304.8 mm.

GRAVEL - Rounded particles of rock < 76.2 mm and > 2 mm (#10 sieve).

SAND - Particles of rock < 2 mm (#10 sieve) and > 75 µm (#200 sieve).

SILT - Soil < 75 µm (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.

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

VARVED - Alternate layers of silt and clay.

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

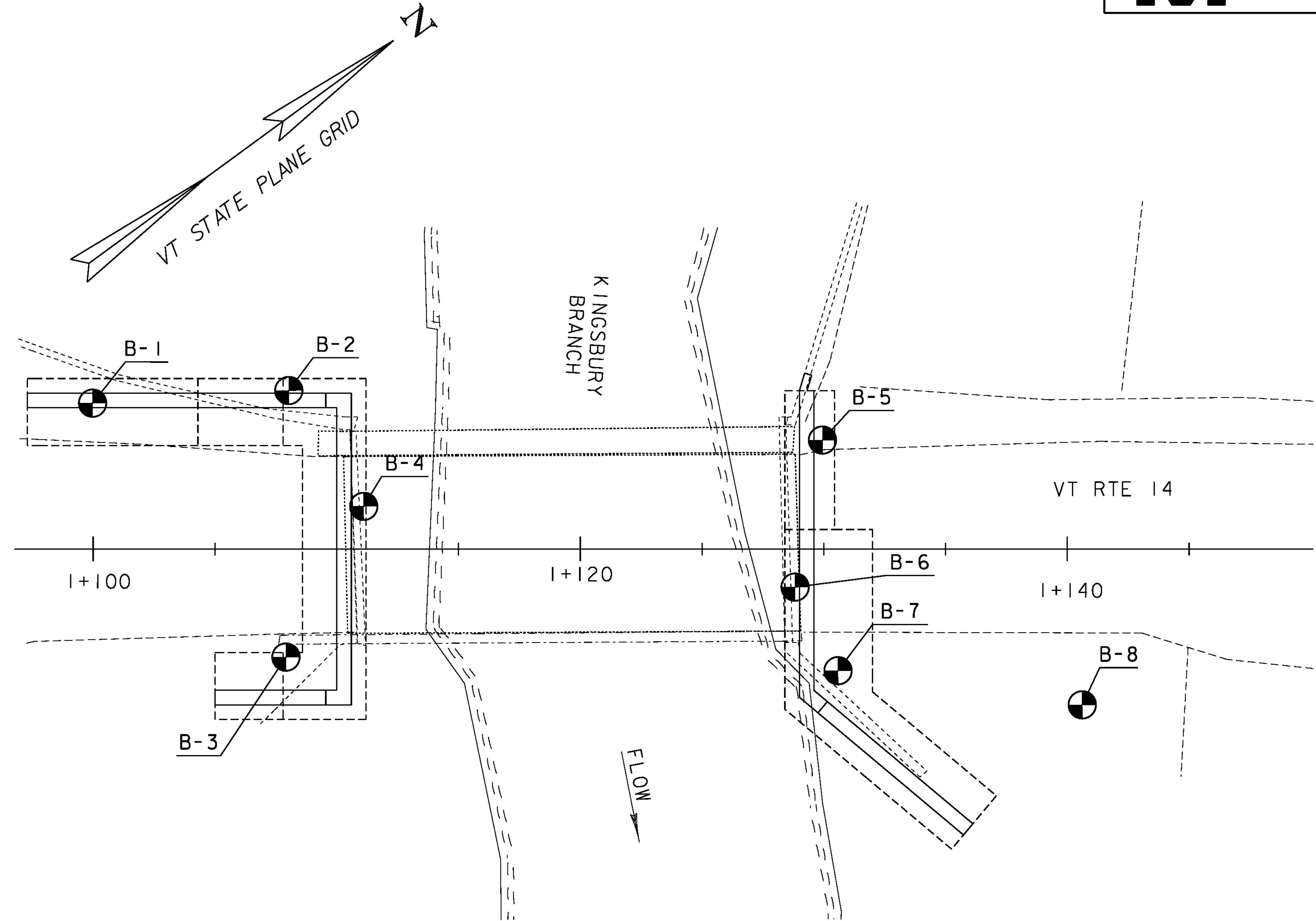
MUCK - Soft organic soil (containing > 10% organic material).

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

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

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

DIP - Inclination of bed with a horizontal plane.



BORING LAYOUT



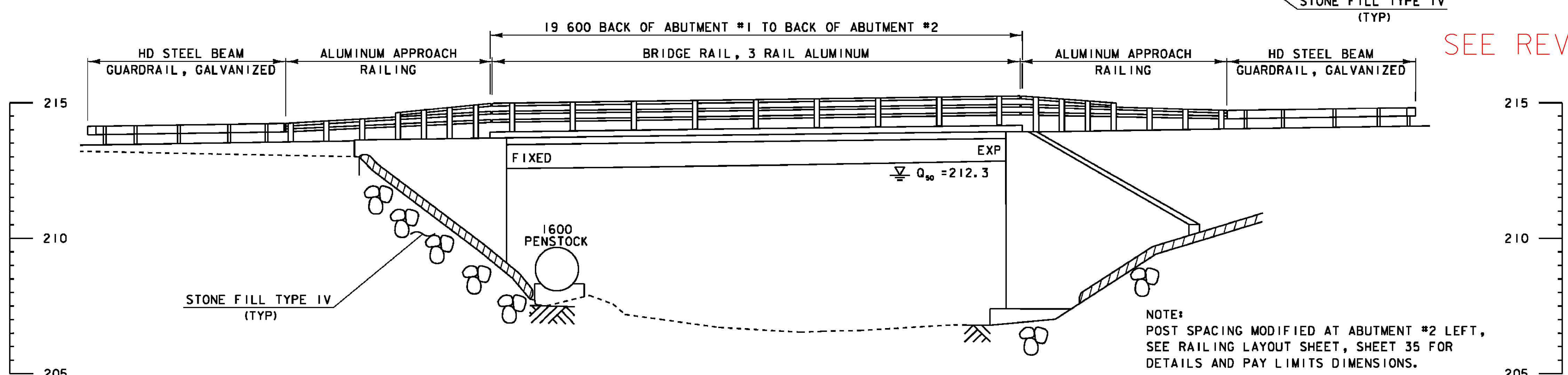
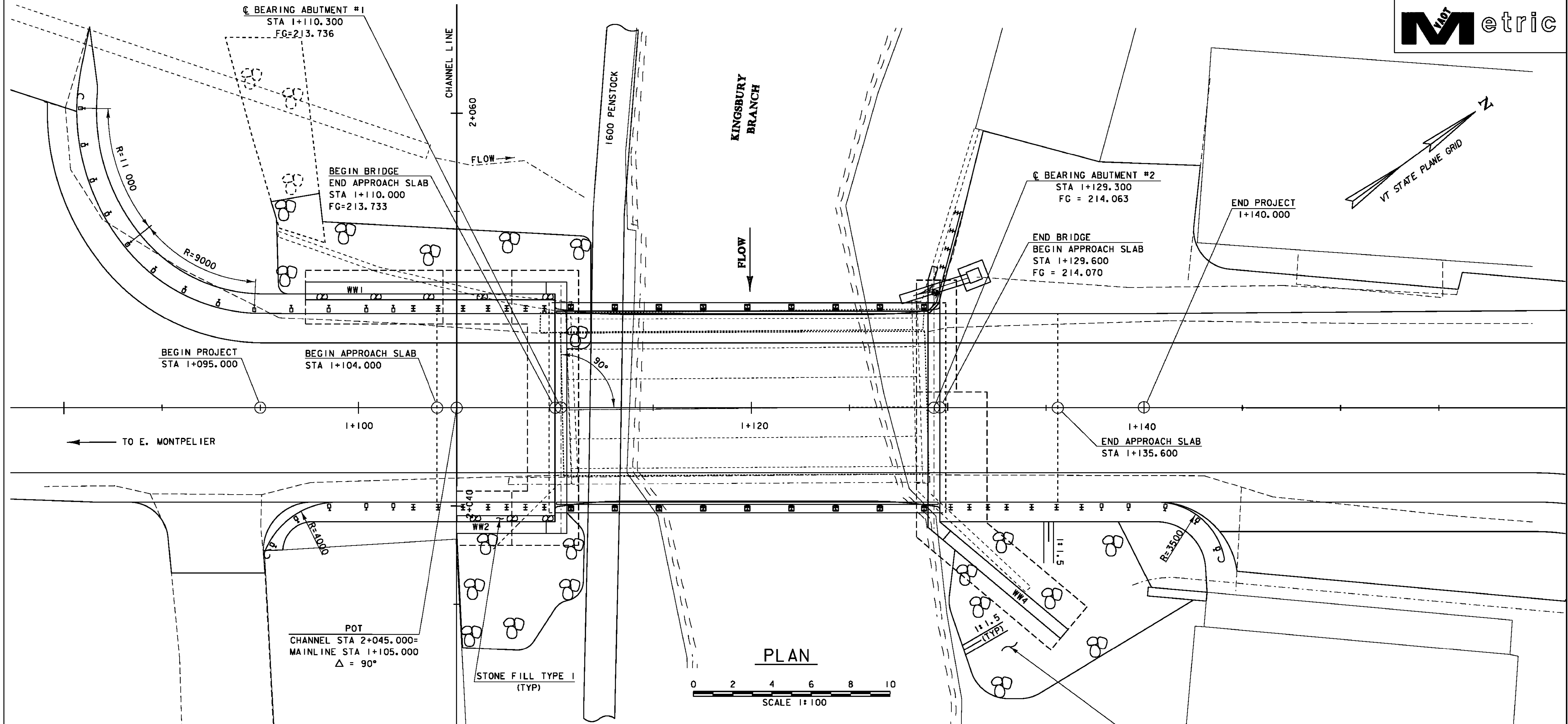
GENERAL NOTES

- The subsurface explorations shown herein were made between Jan 1996 and March 1996 by the Agency.
- Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
- Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.
- Engineering judgement was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgement by the Contractor.
- Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.
- Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.

BORING CHART

HOLE NO.	STATION	OFFSET (m)	GROUND ELEV.	TLOB ELEV.
B-1	1+100.00	5.99 LT	213.247	210.507
B-2	1+108.03	6.51 LT	210.099	207.659
B-3	1+107.97	4.42 RT	213.244	208.444
B-4	1+111.11	1.75 LT	213.598	207.498
B-5	1+129.94	4.47 LT	214.107	210.407
B-6	1+128.82	1.56 RT	214.067	207.367
B-7	1+130.59	5.00 RT	213.982	206.732
B-8	1+140.61	6.40 RT	214.110	209.090

PROJECT:	EAST MONTPELIER	PROJECT NO.:	BRF 037-2(8)
DESIGN FILE NAME:	86e054/structures/se054bor.dgn	PLOT DATE:	18-AUG-2010
IPARM FILE NAME:	se086borlay.l		
VT RTE 14 OVER KINGSBURY SHEET			
BORING LAYOUT SHEET		SHEET: 17 OF 63	

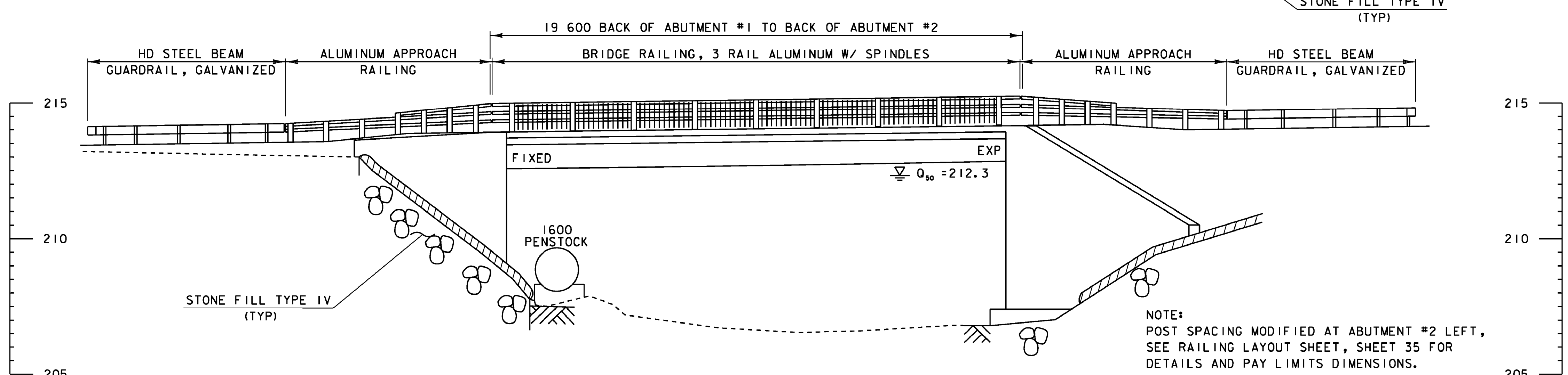
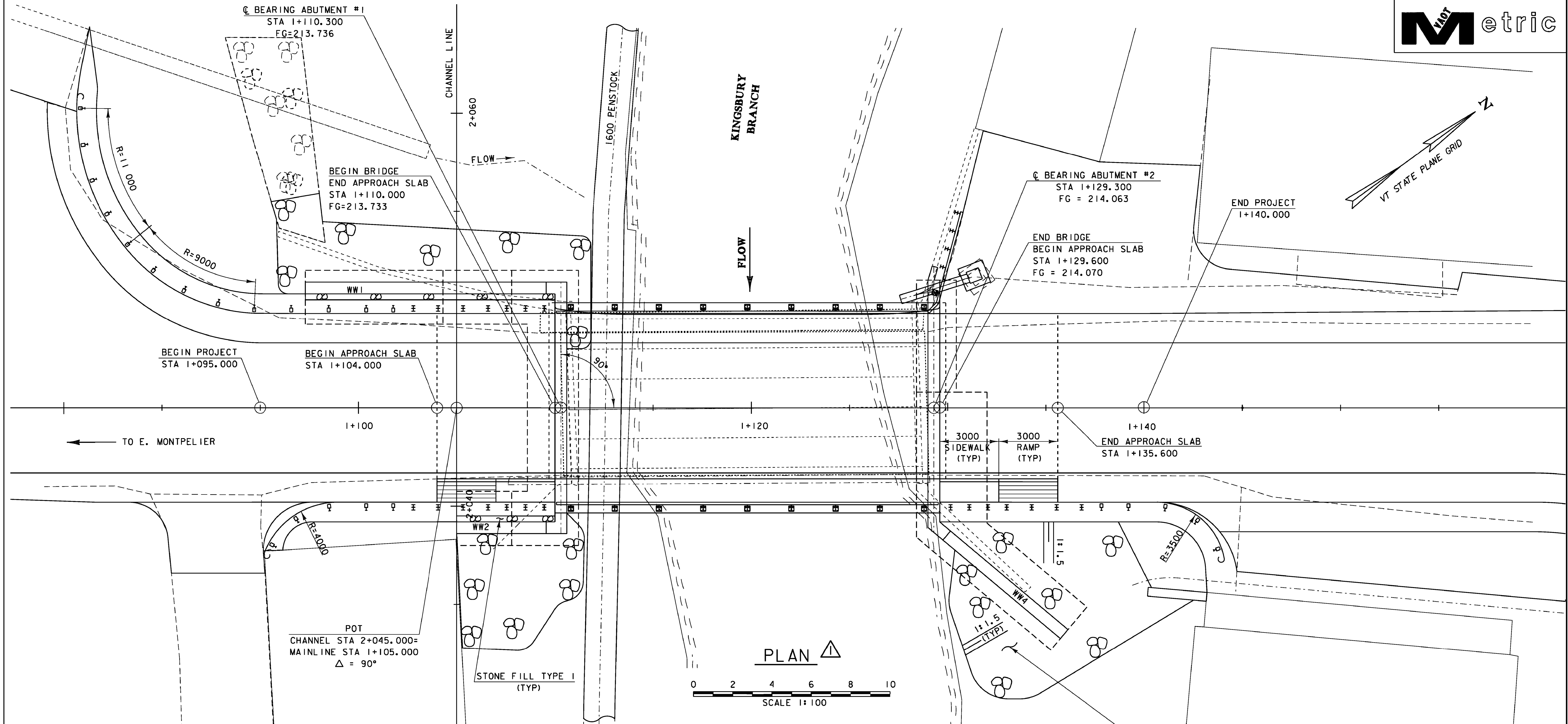


SEE REVISED SHEET 20A

NOTE:
POST SPACING MODIFIED AT ABUTMENT #2 LEFT,
SEE RAILING LAYOUT SHEET, SHEET 35 FOR
DETAILS AND PAY LIMITS DIMENSIONS.

DATUM	
VERTICAL	USGS
HORIZONTAL	ASSUMED

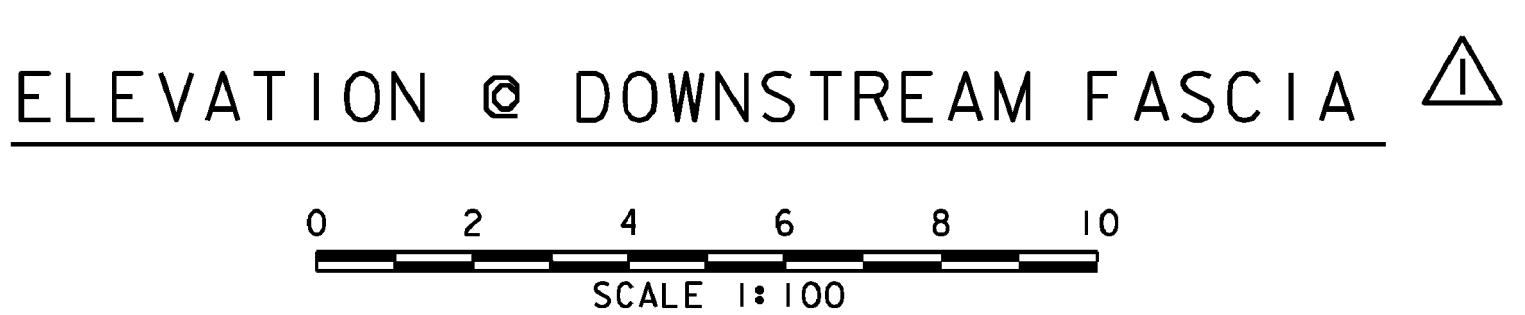
PROJECT:	EAST MONTPELIER	PROJECT NO.:	BRF 037-2(8)
DESIGN FILE NAME:	86e054/structures/se054pe.dgn	PLOT DATE:	18-AUG-2010
IPARM FILE NAME:	se054pe.i	SURVEY DATE:	3/93
SURVEYED BY:	R. MOREAU	DRAWN BY:	L.J. STONE
SQUAD LEADER:	C. P. WILLIAMS	SHEET:	20 OF 63
PLAN AND ELEVATION SHEET			



NOTE:
POST SPACING MODIFIED AT ABUTMENT #2 LEFT,
SEE RAILING LAYOUT SHEET, SHEET 35 FOR
DETAILS AND PAY LIMITS DIMENSIONS.

DATUM
VERTICAL <u>USGS</u>
HORIZONTAL <u>ASSUMED</u>

REV. NO.	DATE	BY	DESCRIPTION
1	2/18/2011	VAOT	MODIFIED RIGHT SIDE OF BRIDGE, ADDED SPINDLES AND APPROACH SLABS TO ACCOMMODATE SIDEWALK.



PROJECT:	EAST MONTPELIER	PROJECT NO.:	BRF 037-2(8)
DESIGN FILE NAME:	86e054\Structures\SidewalkChange\Plan-Elevation.dgn	PLOT DATE:	23-FEB-2011
IPARM FILE NAME:	se054pe.i	SURVEY DATE:	3/93
SURVEYED BY:	R. MOREAU	DRAWN BY:	L.J. STONE
SQUAD LEADER:	C. P. WILLIAMS	SHEET:	20A OF 63
PLAN AND ELEVATION SHEET			

GENERAL NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006, AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOURTH EDITION, DATED 2007, AND ITS LATEST REVISIONS. ALSO THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS SECOND EDITION, DATED 2004, AND ITS LATEST REVISIONS.
2. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 20°C, UNLESS OTHERWISE NOTED.
3. ALL ON AND OFF PROJECT CONSTRUCTION SIGNS AND BARRICADES AS REQUIRED BY RESIDENT ENGINEER, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND PAID FOR UNDER THE ITEM 641.10 "TRAFFIC CONTROL".
4. ANY EXISTING SIGNS OR BARRICADES NOT REUSED SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE STOCKPILED IN A SUITABLE PLACE FOR REMOVAL BY THE DISTRICT. DISTRICT 6 DTA IS WAYNE GAMMELL, HE CAN BE REACHED AT 828-2691 TO ARRANGE FOR PICK UP.
5. THE BRIDGE PLAQUE SHALL BE FURNISHED BY THE AGENCY OF TRANSPORTATION AND INSTALLED BY THE CONTRACTOR AS SHOWN ON SHEET 23.
6. THE 1600mm DIAMETER PENSTOCK NEAR THE SOUTHERN ABUTMENT (ABUTMENT #1) SHALL NOT BE DISTURBED. ANY DAMAGE TO THE PENSTOCK BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
7. A TEMPORARY PEDESTRIAN BRIDGE SHALL BE CONSTRUCTED UPSTREAM OF THE EXISTING BRIDGE AND SHALL BE PAID FOR UNDER ITEM 528.12 "TEMPORARY PEDESTRIAN BRIDGE". THE BRIDGE SHALL REMAIN IN PLACE UNTIL THE COMPLETION OF THE PROJECT.
8. GRANITE BLOCKS FROM THE EXISTING ABUTMENTS ARE TO BE USED TO BUILD A WALL SO A DRAINAGE SWALE CAN BE BUILT. THE DRAINAGE SWALE IS TO BE LOCATED FROM STA 1+139RT - 1+161RT AND SHALL BE ORIENTED ACCORDING TO THE RESIDENT ENGINEER. THE SWALE IS TO EXTEND AROUND THE CORNER OF THE BUILDING WITH THE INTENT OF KEEPING THE RUN OFF AWAY FROM ALL STRUCTURES. THIS WORK IS CONSIDERED TO BE INCIDENTAL TO ITEM 529.15 "REMOVAL OF STRUCTURE".
9. AN ESTIMATED AMOUNT OF 2 CM OF ITEM 204.21, "TRENCH EXCAVATION OF ROCK" HAS BEEN ADDED FOR EXCAVATION FOR THE CONSTRUCTION OF NEW CULVERTS AND DROP INLETS.
10. THE EXISTING STEEL IS PAINTED WITH A MATERIAL THAT MAY CONTAIN LEAD. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE REGULATIONS WHEN HANDLING AND WORKING WITH THIS STEEL. THE REMOVED STRUCTURAL STEEL IS THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, ITS OFFICERS AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE REMOVED EXISTING STRUCTURAL STEEL.
11. FOR INFORMATION REGARDING UTILITIES, SEE THE SPECIAL PROVISIONS.
12. NO BEDROCK SHALL BE EXCAVATED TO PLACE STONE FILL TYPE IV. ANY SMOOTH BEDROCK SHALL BE ROUGHENED TO KEY IN THE STONE FILL IF DEEMED NECESSARY BY THE RESIDENT ENGINEER. PAYMENT FOR ANY ROUGHENING OF BEDROCK SHALL BE CONSIDERED INCIDENTAL TO ITEM 613.13, "STONE FILL, TYPE IV".
13. LINE STRIPING TARGETS, IF USED, SHALL BE INCLUDED IN ITEM 641.10 "TRAFFIC CONTROL".

CONCRETE NOTES:

14. THE CURBS AND CURTAIN WALLS SHALL ALL BE MADE OF CONCRETE, HIGH PERFORMANCE CLASS A. ALL OTHER CONCRETE SHALL BE CONCRETE, HIGH PERFORMANCE CLASS B UNLESS NOTED OTHERWISE.
15. REINFORCING STEEL PLACEMENT TOLERANCE SHALL BE AS FOLLOWS:

SPACING

+/-

25mm

CLEARANCE

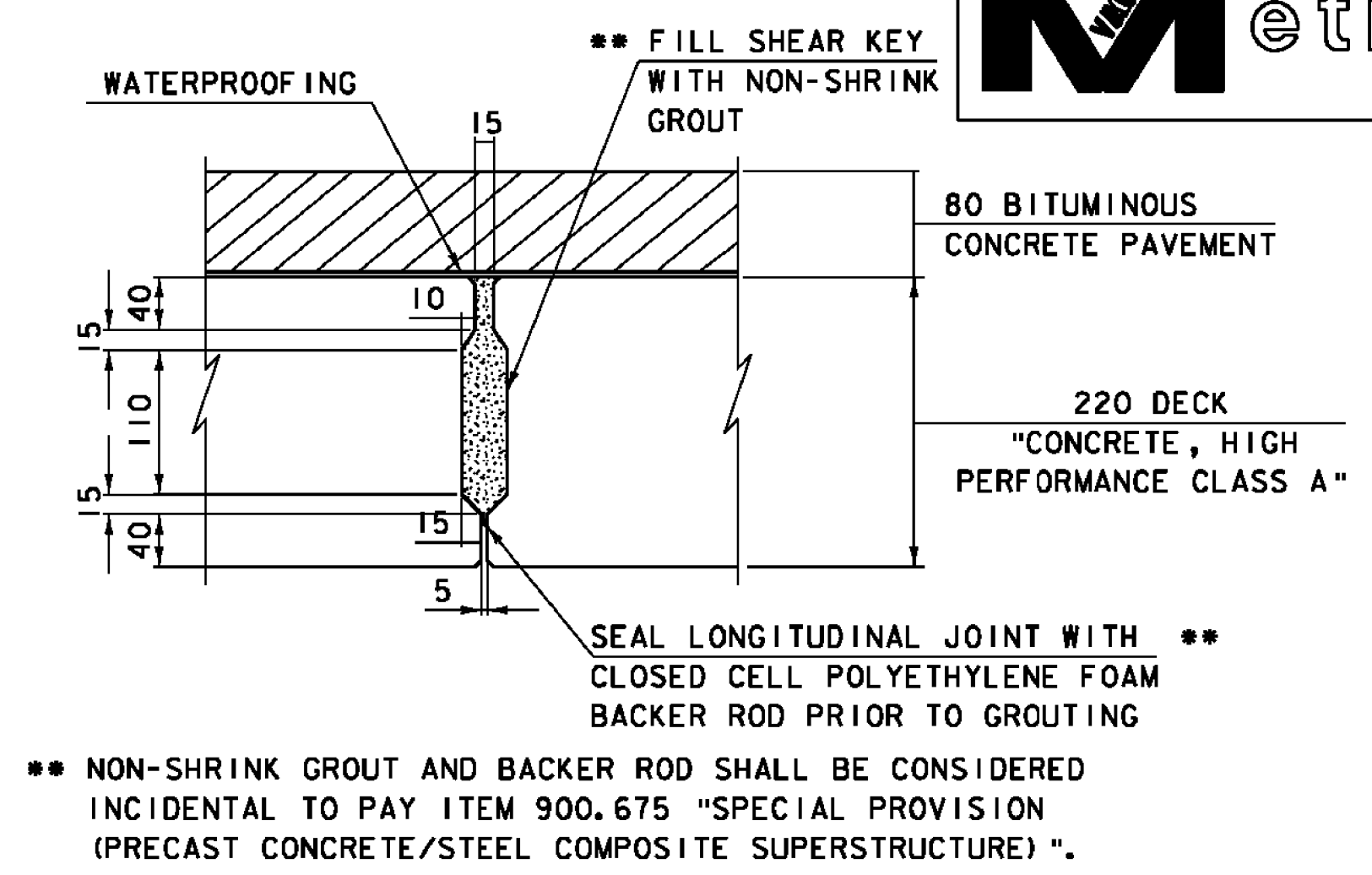
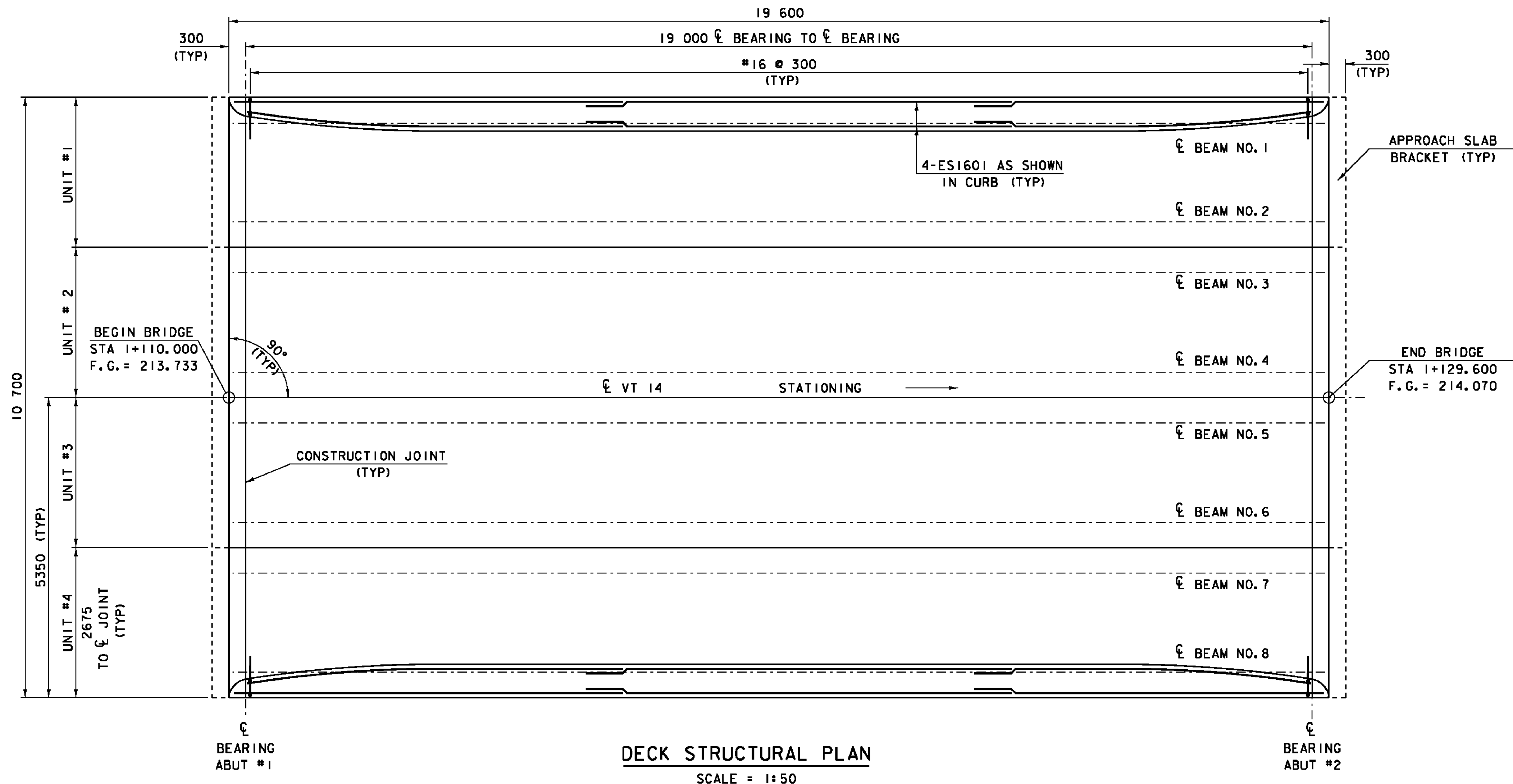
+/-

6mm
16. ALL REINFORCING STEEL IN THE DECK, CURTAIN WALLS AND CURBS SHALL BE EPOXY COATED. THE EPOXY COATED REBAR IN THE CURB AND CURTAIN WALLS SHALL BE PAID FOR UNDER THE ITEM 507.17 "EPOXY COATED REINFORCING STEEL".
17. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25mm X 25mm.
18. JOINTS AND SCORE MARKS IN THE CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
19. ITEM 514.10, "WATER REPELLENT, SILANE" SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES.
20. THE SURFACE OF BRIDGE SEATS UNDER THE BEARING DEVICES SHALL BE LEVEL. OTHER AREAS OF THE BRIDGE SEAT SHALL BE SLOPED 0.02%. THE ABUTMENT SEATS SHALL BE SLOPED FULL WIDTH TOWARD MIDSPAN AND THE ENTIRE BRIDGE SEAT SHALL BE GIVEN A MAGNESIUM FLOAT FINISH. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 501.34 "CONCRETE, HIGH PERFORMANCE CLASS B".
21. IN ACCORDANCE WITH SUBSECTION 506.23 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION AND AS DIRECTED BY THE RESIDENT ENGINEER, THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROTECT ALL SUBSTRUCTURE CONCRETE FROM STAINING DUE TO OXIDATION FORMATION ON THE STRUCTURAL STEEL. THESE MEASURES WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO ITEM 501.34 "CONCRETE, HIGH PERFORMANCE CLASS B". ANY SUCH STAINING THAT OCCURS PRIOR TO PLACEMENT OF THE CURTAIN WALLS SHALL BE REMOVED AT NO ADDITIONAL COST TO THE STATE.

SUBSTRUCTURES ON BEDROCK:

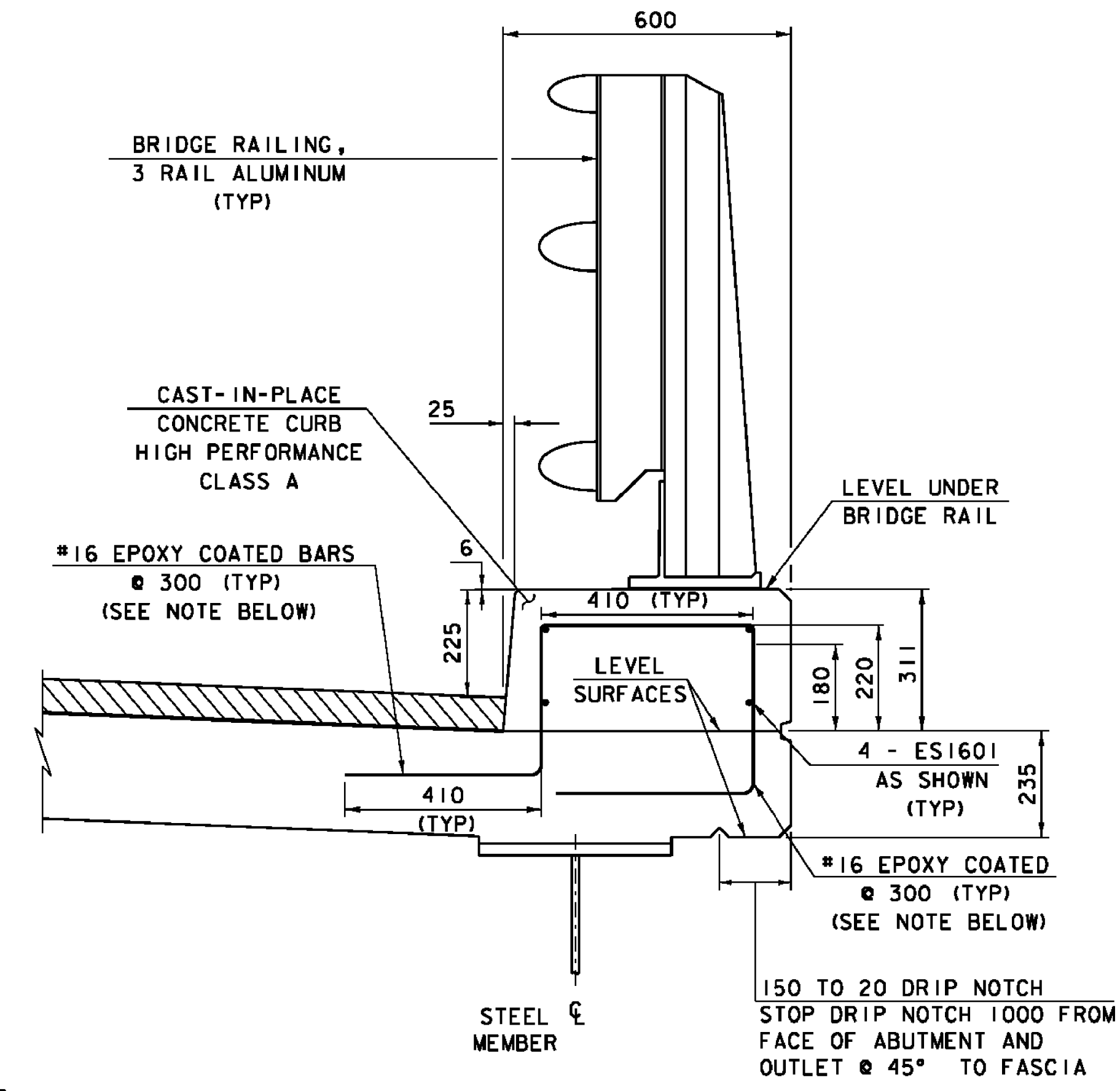
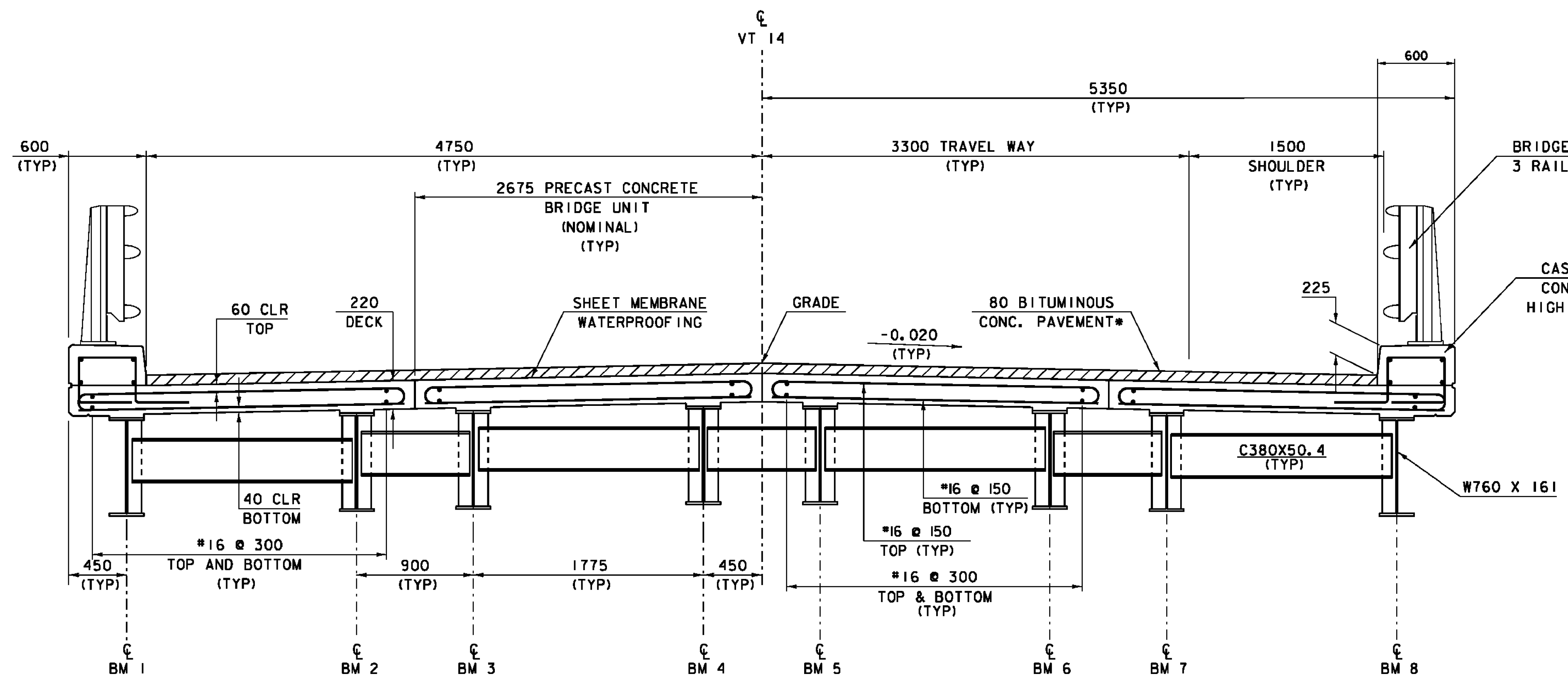
22. FOOTINGS OR SUBFOOTINGS FOR SUBSTRUCTURES FOUNDED ON BEDROCK SHALL BE PLACED ON CLEAN COMPETENT ROCK. ALL LOOSE ROCK AND DEBRIS SHALL BE REMOVED.
23. UPON COMPLETION OF THE EXCAVATION FOR SUBSTRUCTURES FOUNDED ON BEDROCK AND PRIOR TO PLACING FORMWORK, THE RESIDENT ENGINEER SHALL NOTIFY THE PROJECT MANAGER AND THE VTRANS SOILS AND FOUNDATION ENGINEER. THE SOILS AND FOUNDATION ENGINEER WILL DETERMINE IF THE BEDROCK IS COMPETENT TO OBTAIN THE NOMINAL BEARING RESISTANCE AS SHOWN ON THE PLANS. FIVE (5) WORKING DAYS FROM NOTIFICATION SHALL BE ALLOWED TO MAKE THE INSPECTION AND THE DETERMINATION FOR THE COMPETENCY OF THE BEDROCK.
24. ONCE THE ELEVATION OF COMPETENT BEDROCK HAS BEEN DETERMINED, THE CONTRACTOR SHALL PROVIDE A BEDROCK PROFILE TO THE PROJECT MANAGER TO DETERMINE WHETHER THE DESIGN BOTTOM OF FOOTING ELEVATION SHALL BE RAISED OR LOWERED AND WHETHER A SUBFOOTING SHALL BE REQUIRED. FOOTING ELEVATIONS SHALL NOT BE ADJUSTED WITHOUT APPROVAL OF THE PROJECT MANAGER. THREE (3) WORKING DAYS FROM RECEIPT OF THE BEDROCK PROFILE SHALL BE ALLOWED TO MAKE THIS DETERMINATION. NO WORK SHALL BE DONE ON THE FOOTINGS UNTIL A REPLY IS RECEIVED.
25. THE LIMITS OF SUBFOOTINGS SHALL BE 300mm OUTSIDE OF THE HORIZONTAL LIMITS OF THE FOOTING. THE TOP SURFACE OF ALL SUBFOOTINGS SHALL BE INTENTIONALLY ROUGHENED TO 6mm AMPLITUDE.
26. ANY CONCRETE REQUIRED FOR SUBFOOTINGS SHALL BE PAID FOR WITH ITEM 541.30 CONCRETE, CLASS C. AN ESTIMATED QUANTITY OF 50 CM OF ITEM 541.30 HAS BEEN INCLUDED IN THE CONTRACT.
27. ANY BEDROCK THAT NEEDS TO BE REMOVED SHALL BE PAID FOR WITH THE CORRESPONDING EXCAVATION ITEM INCLUDED IN THE CONTRACT. OVERBREAKAGE BEYOND THE AVERAGE MAXIMUM ALLOWANCE SPECIFIED IN SUBSECTIONS 204.09 (B) (1) AND 208.11 (C) WILL BE AT THE CONTRACTOR'S EXPENSE.
28. DOWELS SHALL BE DRILLED AND GROUTED INTO BEDROCK WHEN SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER. THE DOWELS SHALL HAVE A 600mm MINIMUM EMBEDMENT IN THE BEDROCK AND SHALL EXTEND IN THE FOOTING OR SUBFOOTING A MINIMUM OF 450mm, UNLESS NOTED OTHERWISE.

PROJECT:	EAST MONTPELIER	PROJECT NO.:	BRF 037-2 (8)
DESIGN FILE NAME: 86e054/structures/s86e054notes.dgn			
IPARM FILE NAME: se054notes.i		PLOT DATE: 18-AUG-2010	
DESIGNED BY: L. J. STONE		DRAWN BY: L. J. STONE	
SQUAD LEADER: C. P. WILLIAMS		CHECKED BY: H. I. SALLS	
GENERAL NOTES		SHEET: 21 OF 63	



- NOTE**
1. THE SLABS SHALL BE PLACED AT THE NOMINAL SPACING SHOWN ON THE PLANS WITH A 1/4" WIDE GAP BETWEEN THE SLABS. THE WIDTH OF THE GAP CAN VARY DUE TO TOLERANCES OF THE SLABS.
 2. GROUT FOR THE SHEAR KEYS SHALL BE RODDED OR VIBRATED TO ENSURE THAT ALL VOIDS IN THE SHEAR KEYS ARE FILLED.

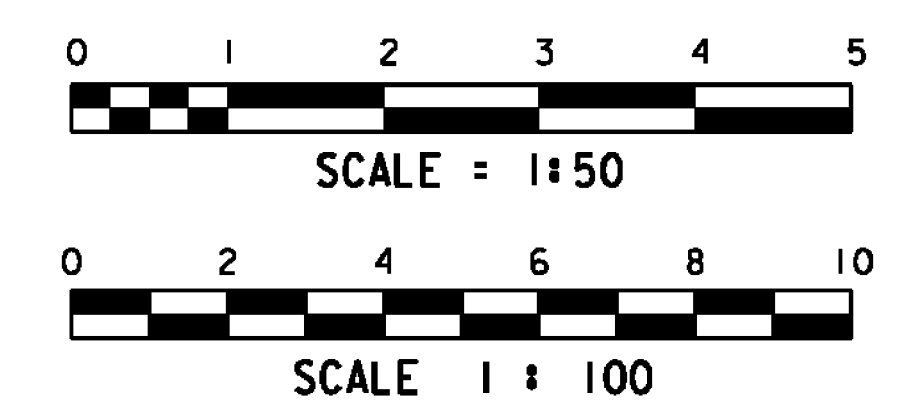
SEE REVISED SHEET 22A



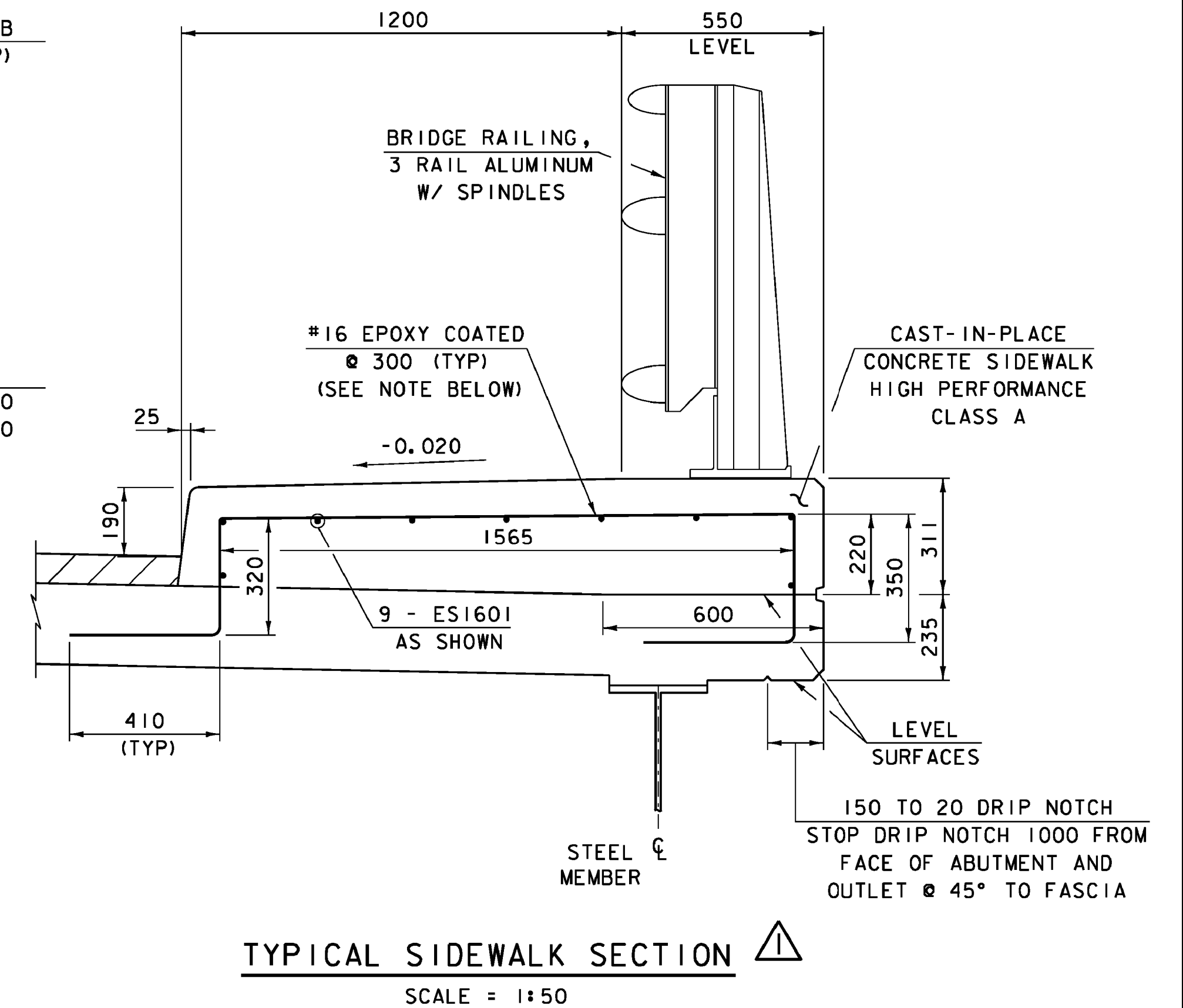
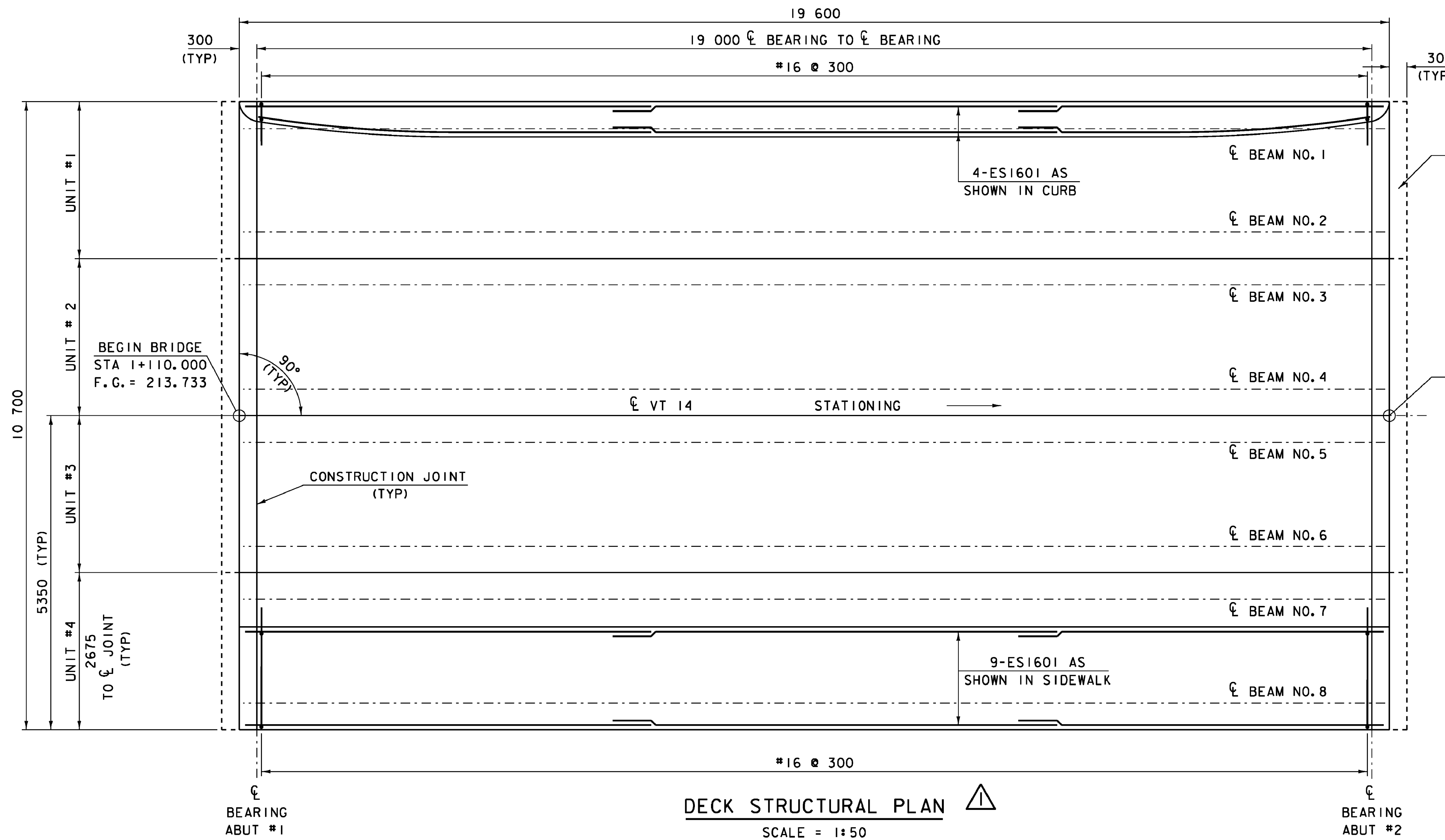
NOTE:
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
80 CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS
660 LAP MIN. UNLESS OTHERWISE SPECIFIED ON THE PLANS

NOTE
1. THE #16 EPOXY COATED CURB BARS SHALL BE SUPPLIED BY THE MANUFACTURER OF THE PRECAST BRIDGE UNITS AND SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 900.675 "SPECIAL PROVISION (PRECAST CONCRETE/STEEL COMPOSITE SUPERSTRUCTURE)".

* 40 mm Type IIIS or IVS over 40 mm Type IIIS or IVS

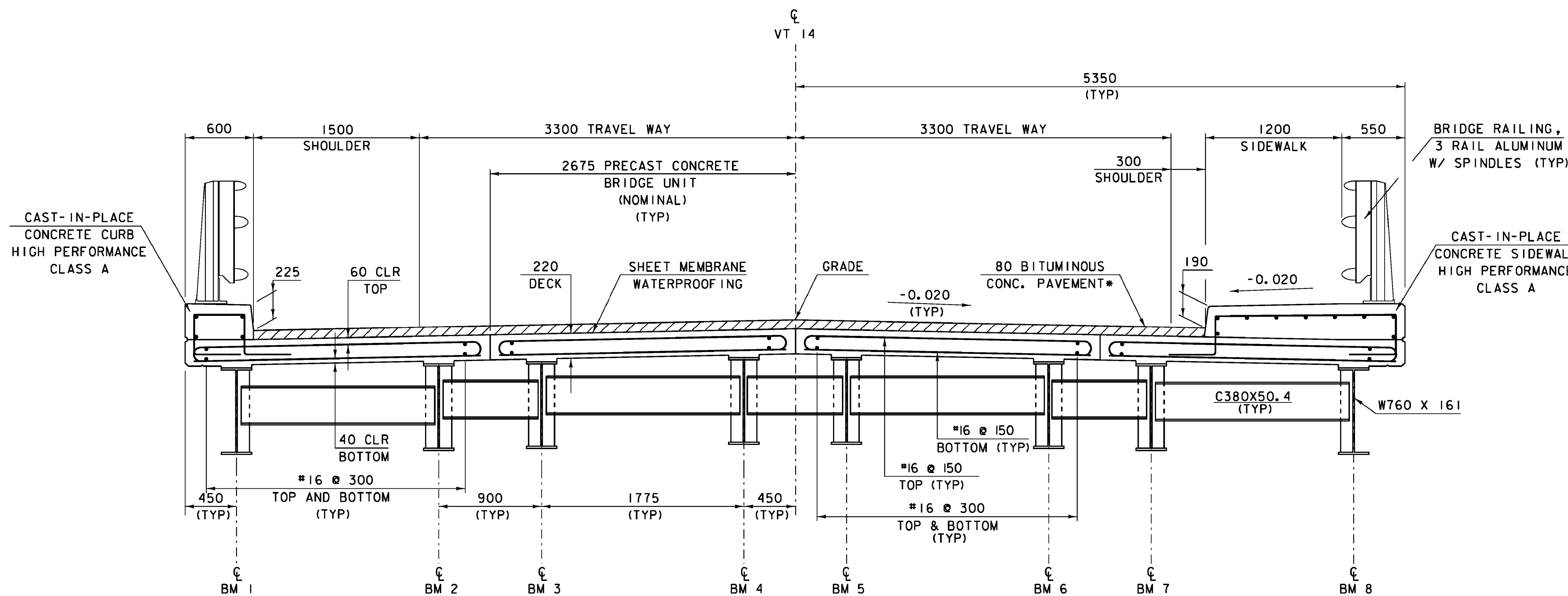


PROJECT: EAST MONTEPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: 86e054\Structures\se054sup	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054deck.i	DRAWN BY: D.D.BEARD
DESIGNED BY: L.J.STONE	CHECKED BY: H.I.SALLS
SQUAD LEADER: C.P.WILLIAMS	SHEET: 22 OF 63
DECK STRUCTURAL DETAILS	



NOTE

1. THE #16 EPOXY COATED SIDEWALK BARS SHALL BE SUPPLIED BY THE MANUFACTURER OF THE PRECAST BRIDGE UNITS AND SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 900.675 "SPECIAL PROVISION (PRECAST CONCRETE/STEEL COMPOSITE SUPERSTRUCTURE)".

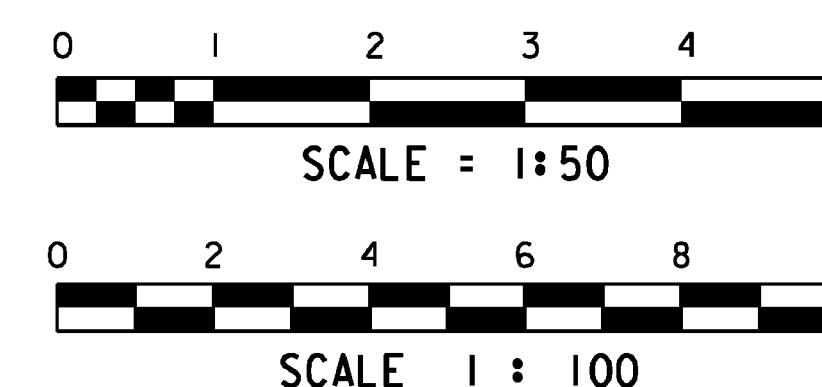


NOTE:

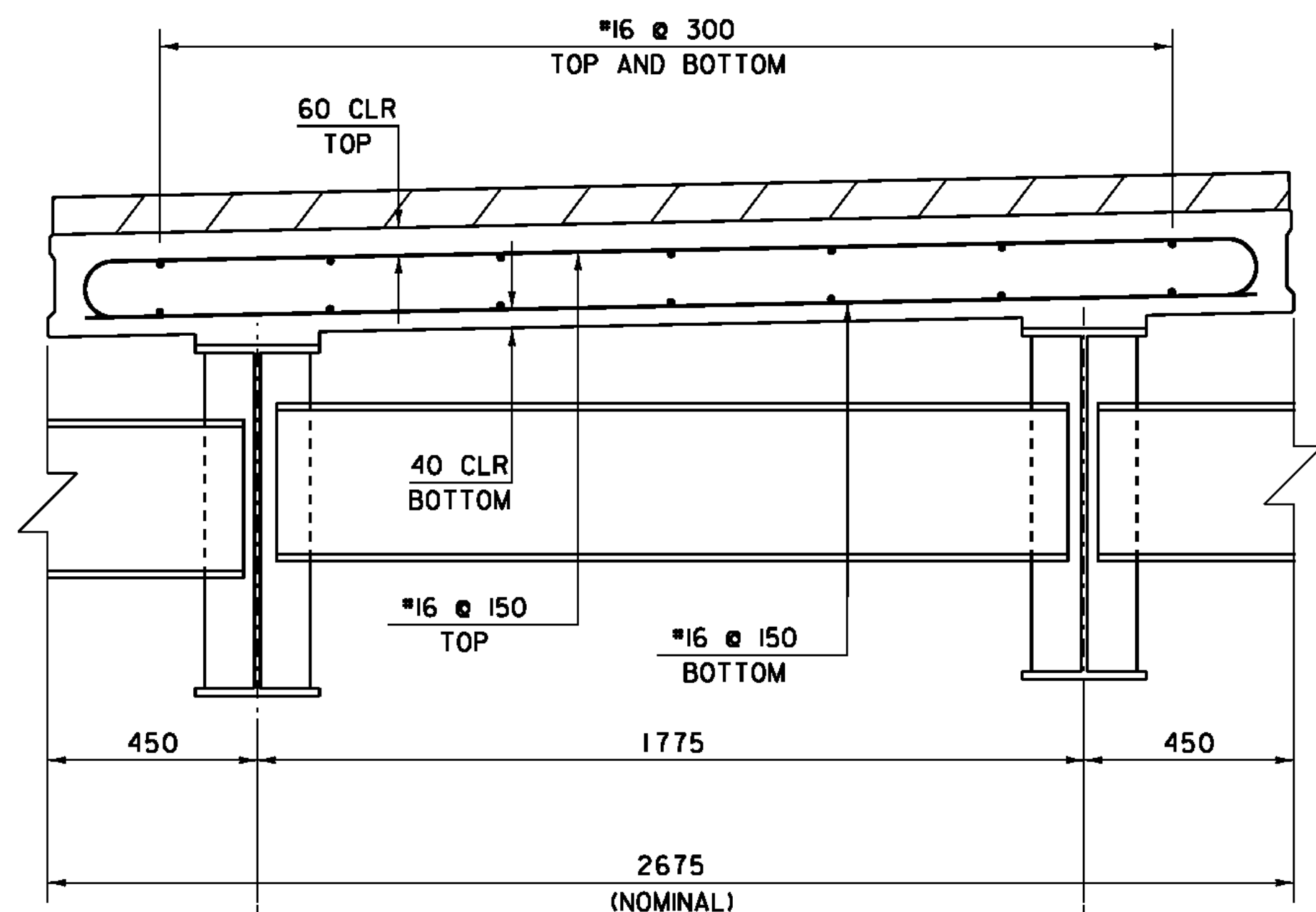
NF = NEAR FACE
 FF = FAR FACE
 EF = EACH FACE
 ▲ = CUT TO FIT IN FIELD
 80 CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS
 660 LAP MIN. UNLESS OTHERWISE SPECIFIED ON THE PLANS

* 40 mm Type IIIS or IVS over 40 mm Type IIIS or IVS

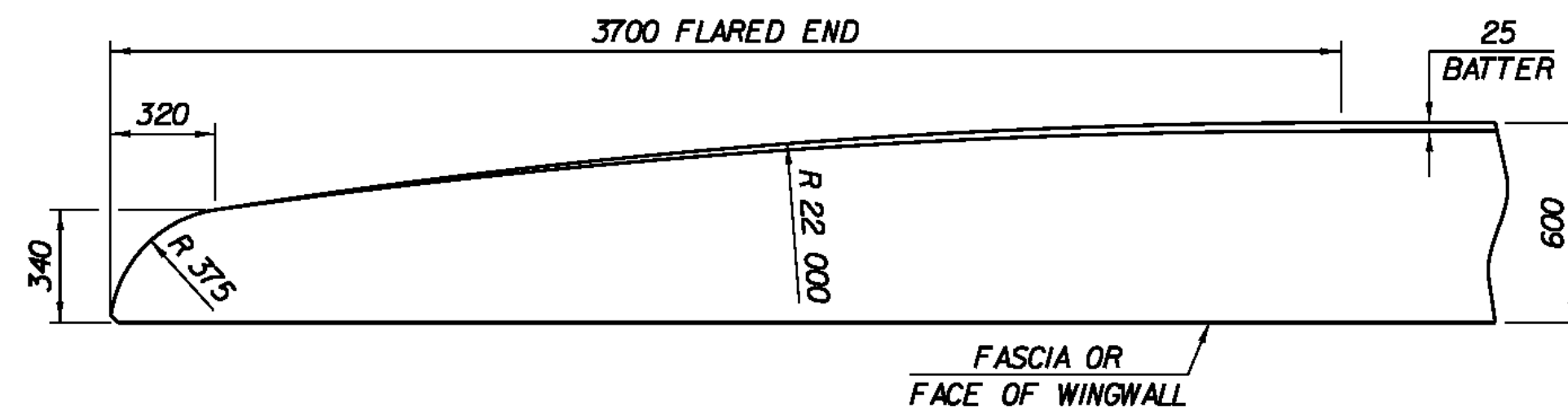
REV. NO.	DATE	BY	DESCRIPTION
1	2/18/2011	VAOT	MODIFIED RIGHT CURB ON BRIDGE TO A SIDEWALK



PROJECT:	PROJECT NO.:
EAST MONTEPELIER	BRF 037-2 (8)
DESIGN FILE NAME: 86e054\Structures\SidewalkChange\TypicalSection.dgn	
IPARM FILE NAME: se054sidewalk.i	PLOT DATE: 23-FEB-2011
DESIGNED BY: L.J. STONE	DRAWN BY: D.D. BEARD
SQUAD LEADER: C.P. WILLIAMS	CHECKED BY: H.I. SALLS
DECK STRUCTURAL DETAILS	SHEET: 22A OF 63



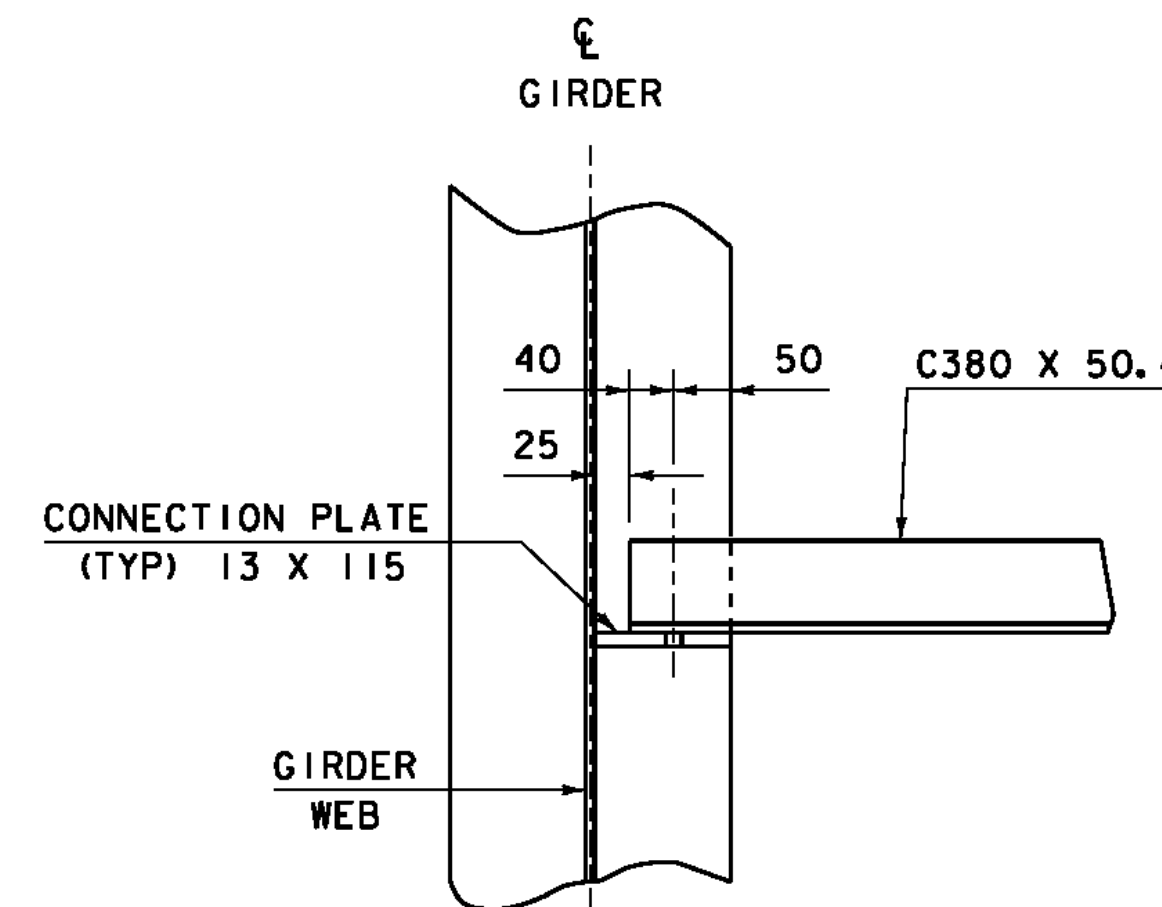
TYPICAL PRECAST BRIDGE UNIT SECTION
SCALE = 1:200



FLARED END FOR 600 CURB
BARS SHALL BE TURNED AS
REQUIRED TO FIT FLARED ENDS
(NOT TO SCALE)

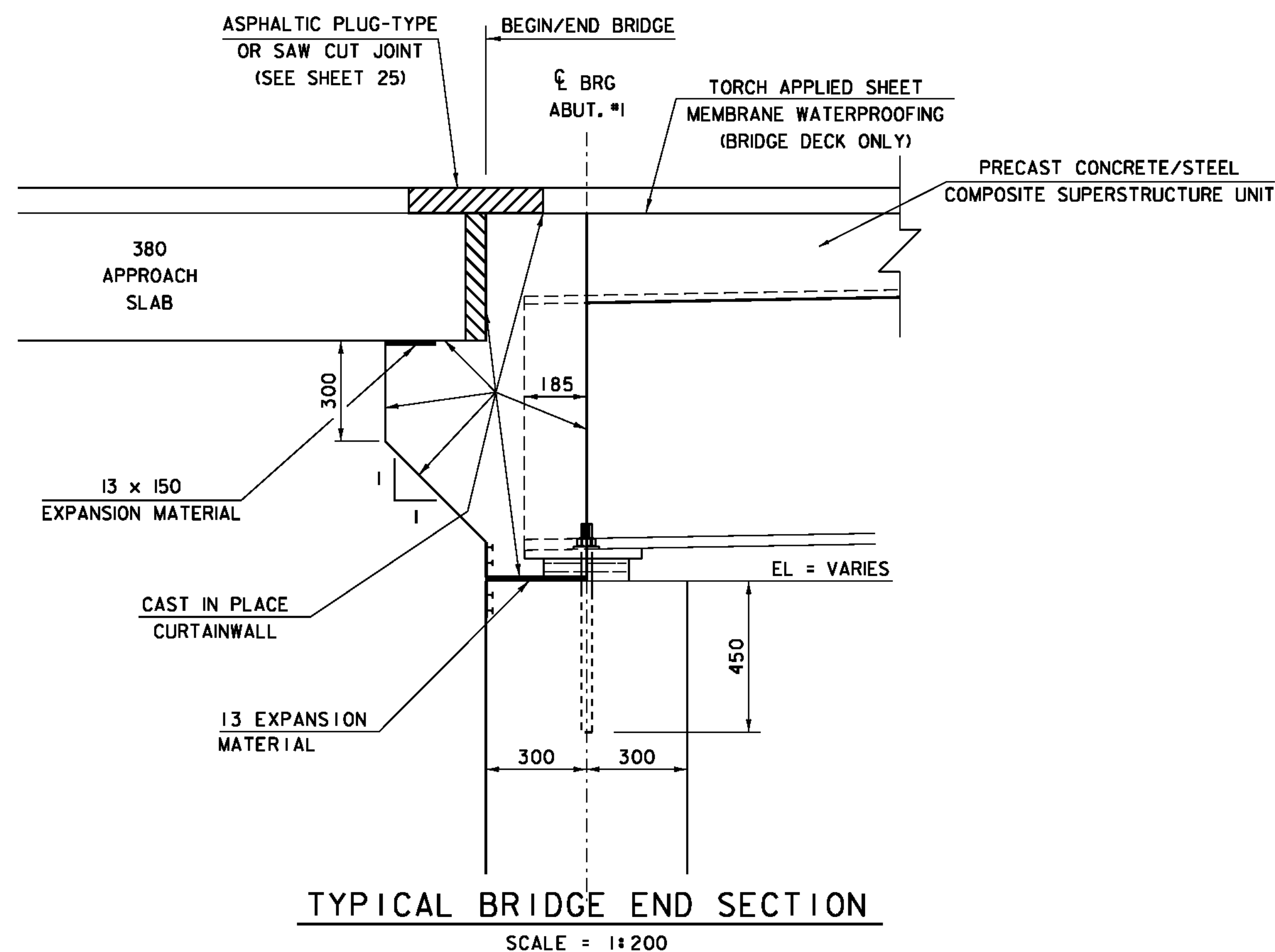
CONCRETE CURB JOINT NOTES

1. CONCRETE CURBS MAY BE PLACED IN ONE CONTINUOUS OPERATION IF AN APPROVED SHRINKAGE REDUCING ADMIXTURE LISTED IN THE SPECIAL PROVISIONS IS USED WITH THE CONCRETE MIX DESIGN. PAYMENT FOR THE SHRINKAGE REDUCING ADMIXTURE WILL BE INCIDENTAL TO THE BRIDGE CURB CONCRETE ITEM.
2. IF THE CONTRACTOR CHOOSES NOT TO USE AN APPROVED SHRINKAGE REDUCING ADMIXTURE, THE CURBS SHALL BE CONSTRUCTED WITH CONSTRUCTION JOINTS SPACED AT A MAXIMUM OF 4570 CENTER TO CENTER AND 610 MINIMUM FROM THE CENTER OF NEAREST BRIDGE RAILING POST.
3. ON MULTI-SPAN CONTINUOUS SUPERSTRUCTURES, REGARDLESS OF WHETHER APPROVED SHRINKAGE REDUCING ADMIXTURE IS USED, CURB JOINTS SHALL BE LOCATED OVER THE CENTERLINE OF PIERS AND 2135 EACH SIDE OF THE CENTERLINE OF EACH PIER.
4. WHEN CURB JOINTS ARE USED THE CURBS SHALL BE PLACED IN ALTERNATE SECTIONS WITH A MINIMUM OF 48 HOUR DELAY BETWEEN ADJACENT PLACEMENTS.
5. LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THROUGH CURB CONSTRUCTION JOINTS. CURB STIRRUP BARS SHALL BE TURNED AS NECESSARY TO MAINTAIN COVER IN THE FLARED CURB ENDS.
6. THE JOINT SPACING AND DETAILS SHOWN SHALL APPLY TO SIDEWALKS WHEN SHOWN IN THE PLANS.

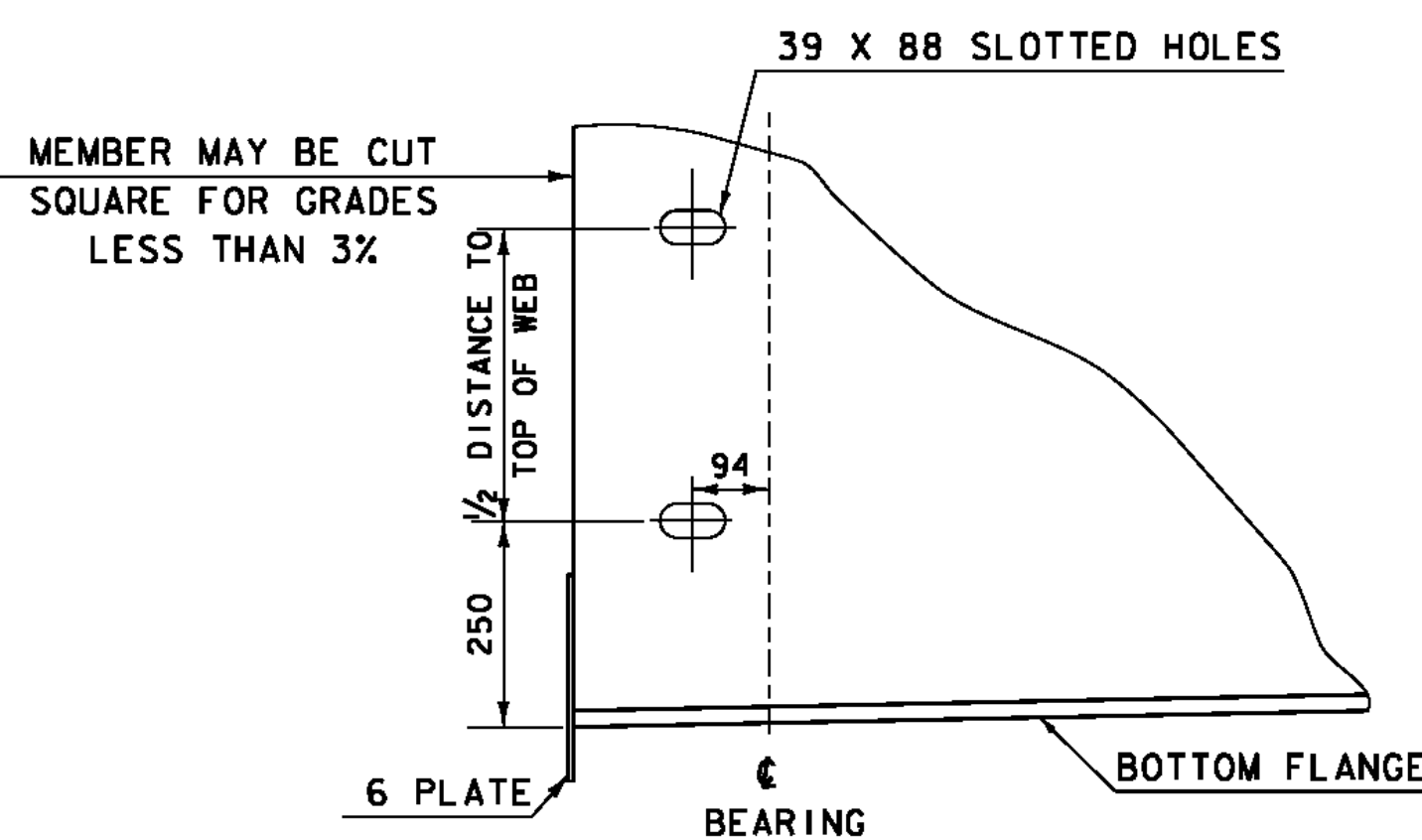


ALL CONNECTIONS SHALL BE MADE USING 22 DIAMETER, AASHTO M164M BOLTS. ALL HOLES IN THE DIAPHRAGMS SHALL BE 24 DIAMETER, ALL HOLES IN THE CONNECTION PLATES SHALL BE 24 DIAMETER.

SECTION B - B
(NOT TO SCALE)

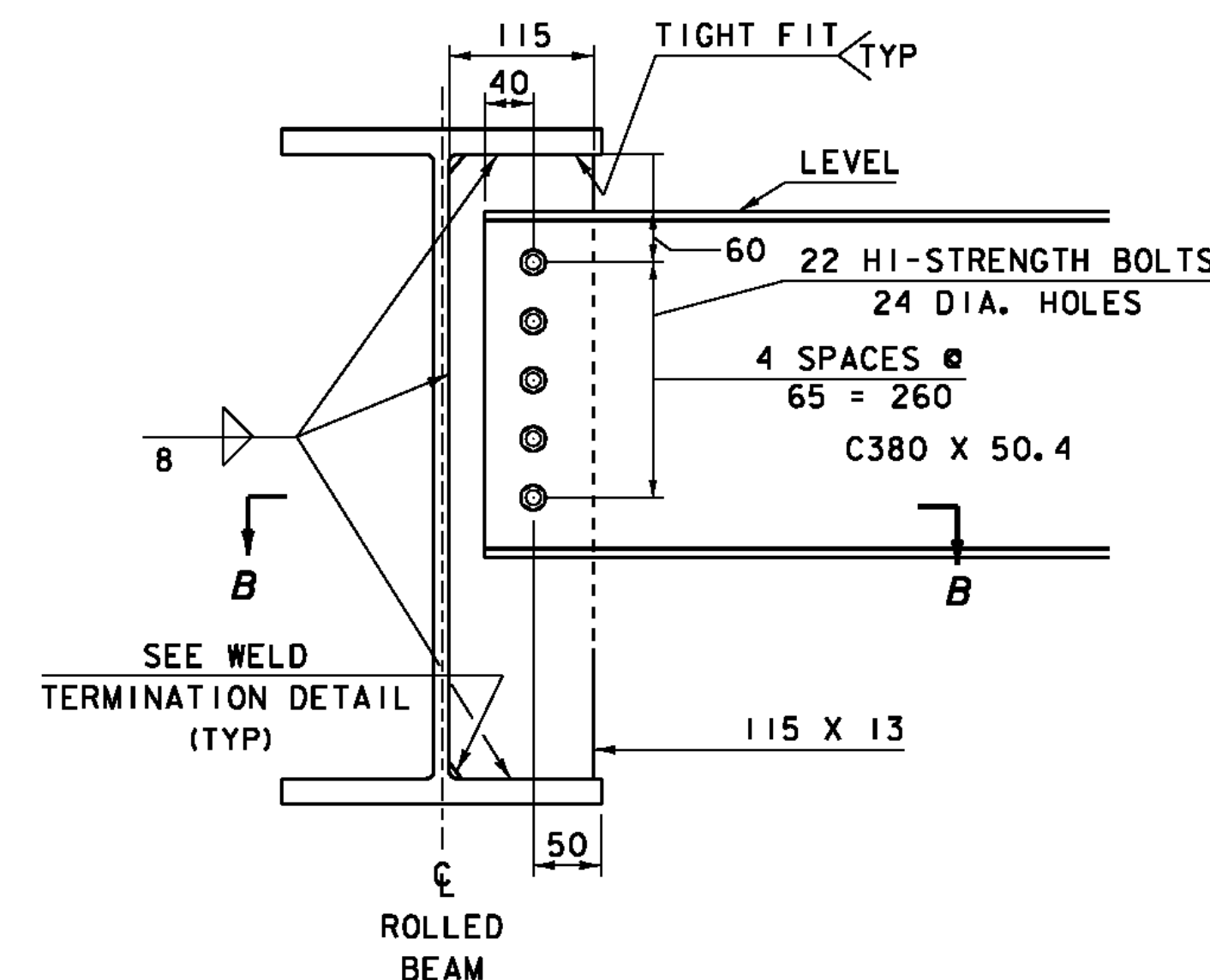


TYPICAL BRIDGE END SECTION
SCALE = 1:200



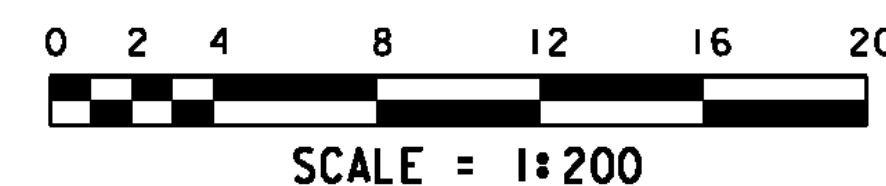
ELEVATION VIEW END OF STEEL MEMBER AT ABUTMENT
(NOT TO SCALE)

SLOTTED HOLES ARE FOR HORIZONTAL REINFORCING BARS IN FRONT FACE OF CURTAIN WALL.

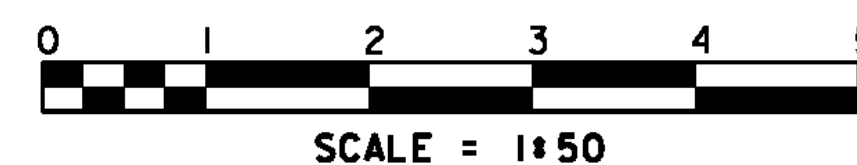
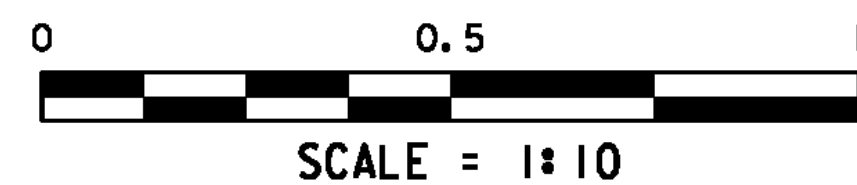
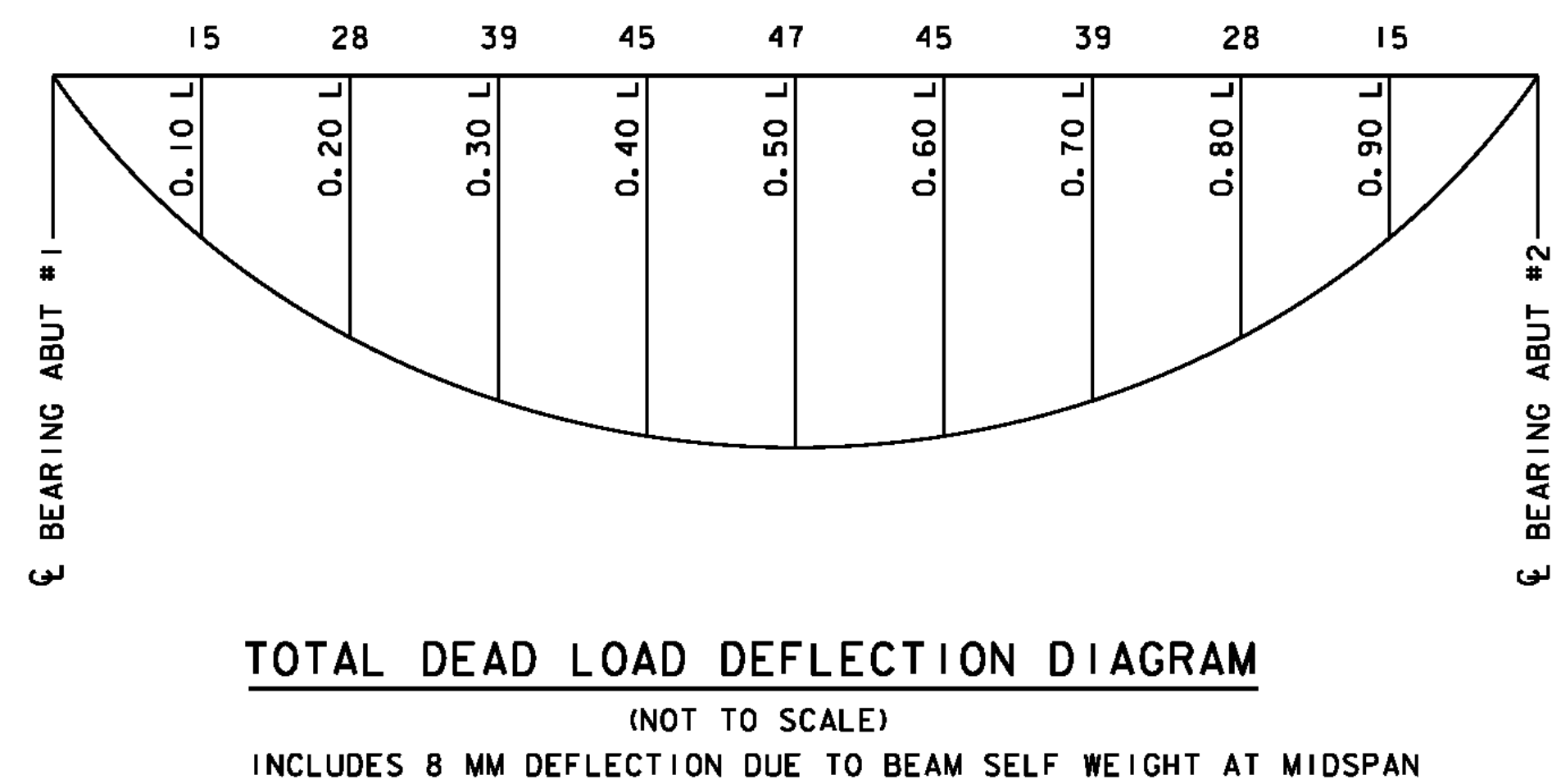
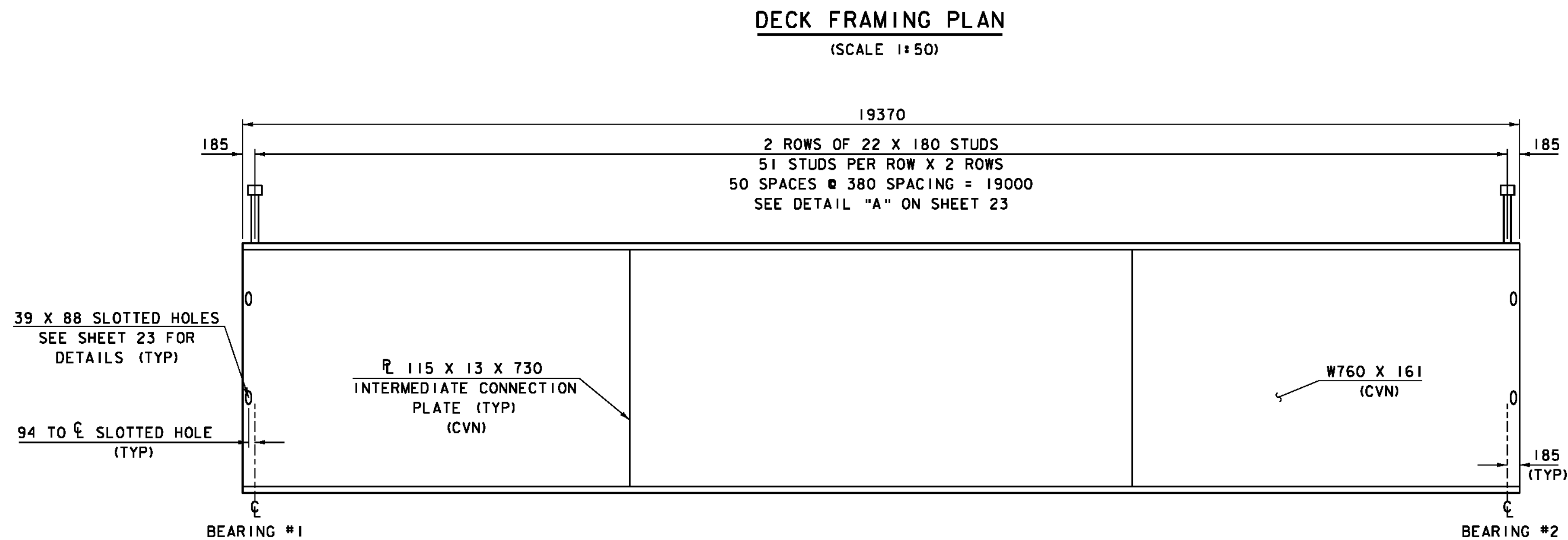
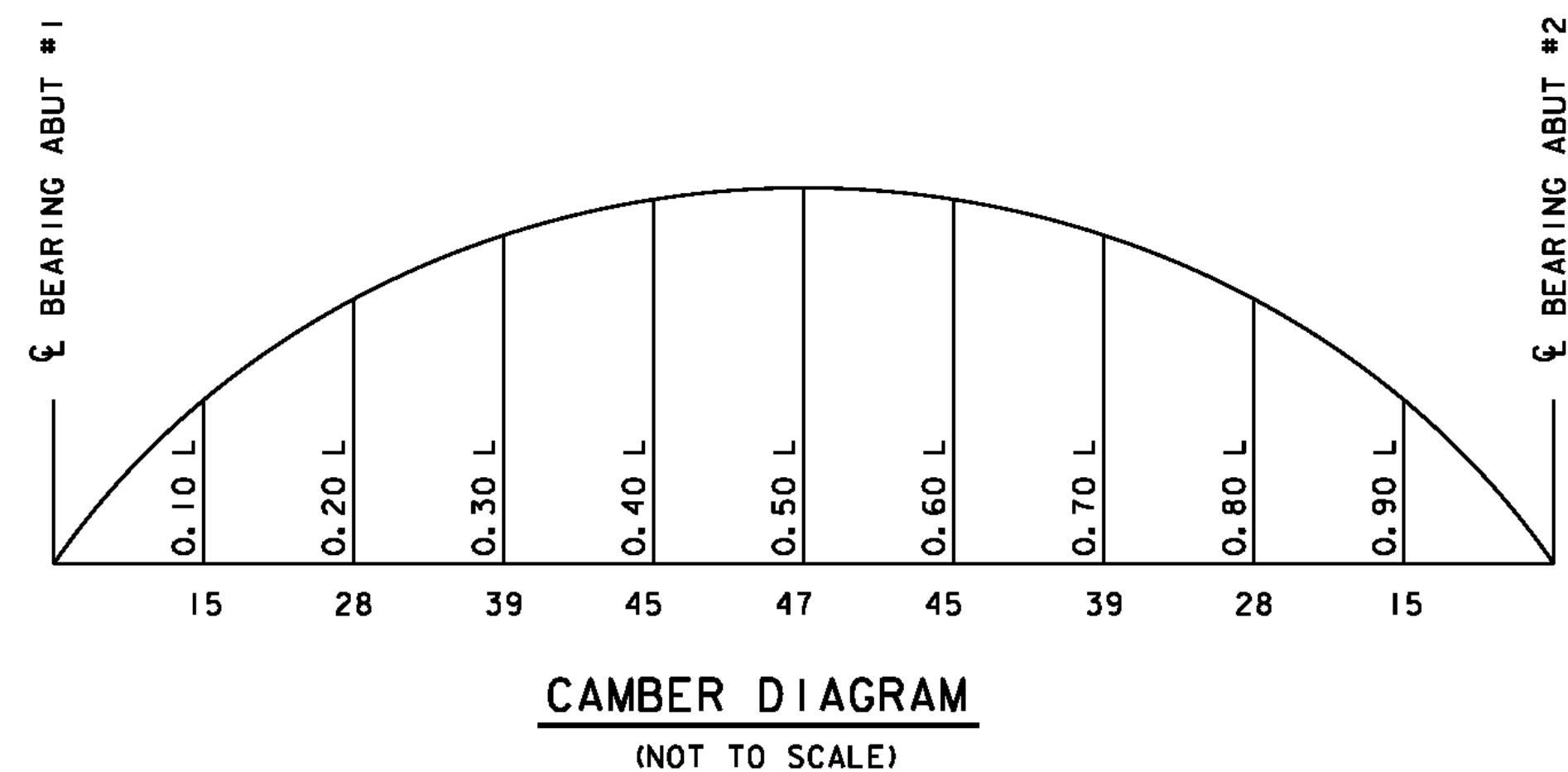
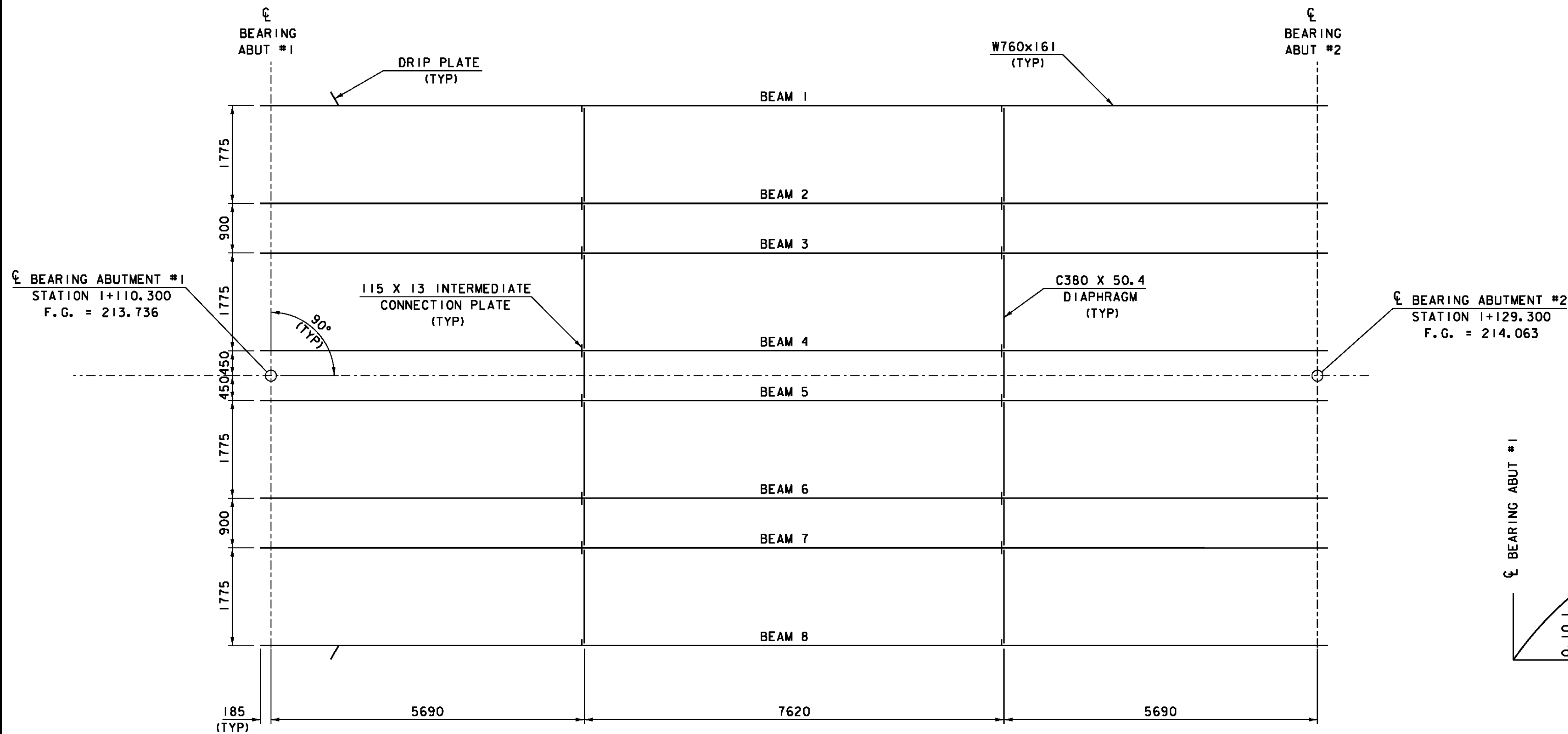


NOTE: HI-STRENGTH BOLTS, NUTS AND WASHERS SHALL CONFORM TO AASHTO M164M.

INTERMEDIATE DIAPHRAGMS
(NOT TO SCALE)

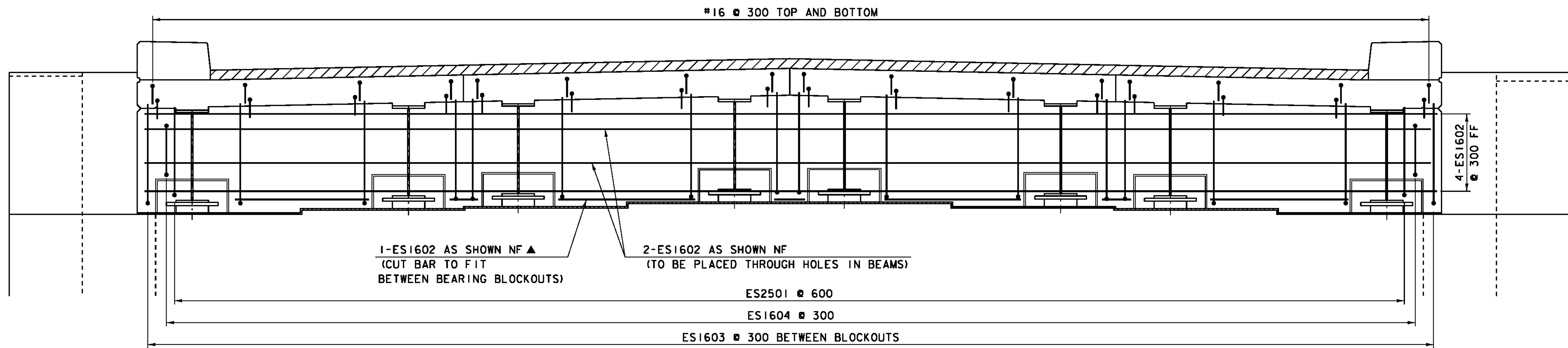


PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: 86e054\Structures\se054sup	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054aps. i	DRAWN BY: L. J. STONE
DESIGNED BY: L. J. STONE	CHECKED BY: H. I. SALLS
SQUAD LEADER: C. P. WILLIAMS	SHEET: 23 OF 63
SUPERSTRUCTURE DETAILS	



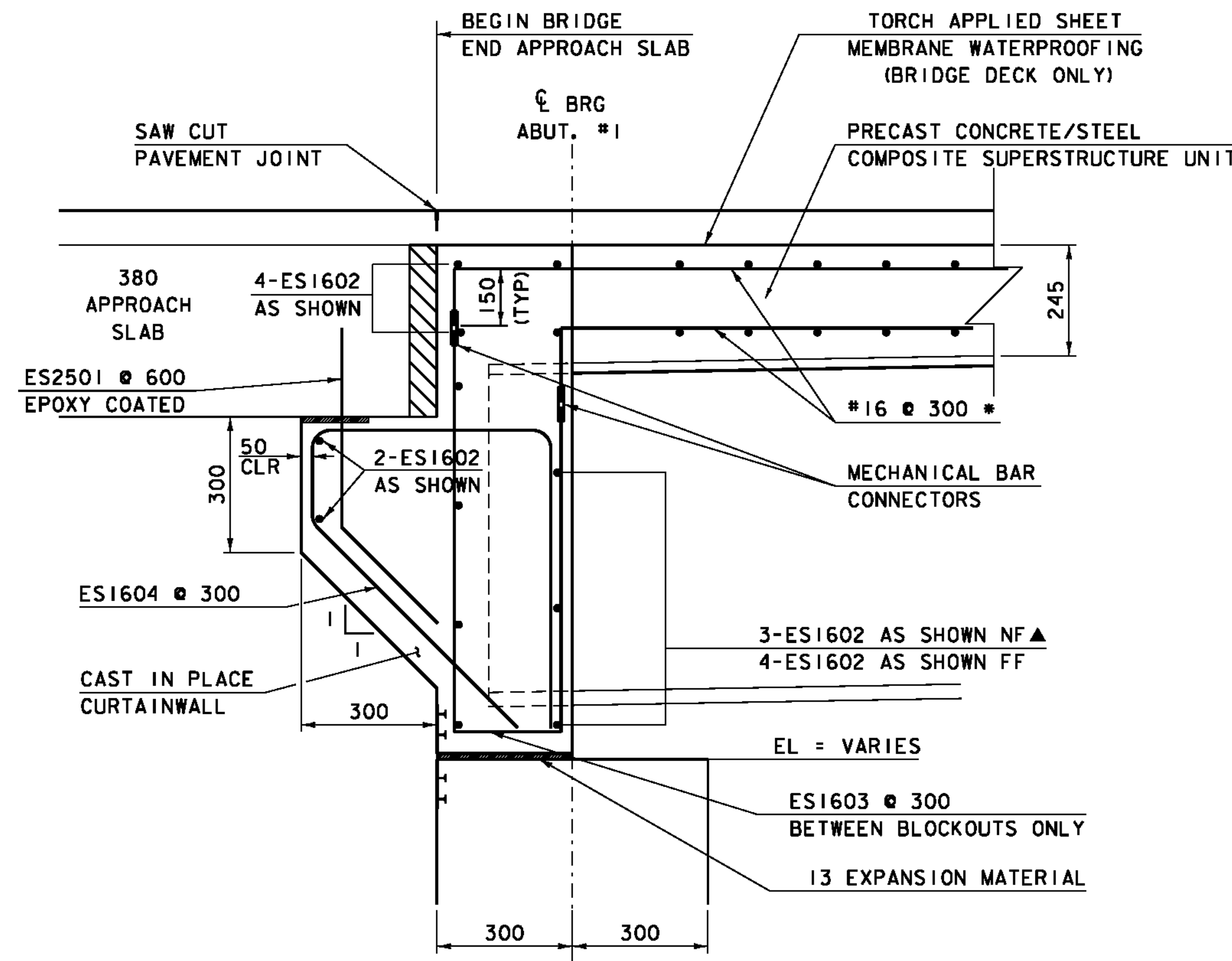
ALL STRUCTURAL STEEL SHALL BE GRADE 345 WEATHERING STEEL PER SUBSECTION 714.03.

PROJECT: EAST MONTEPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: 86e054\Structures\se054sup	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054fram.i	DRAWN BY: L.J. STONE
DESIGNED BY: L.J. STONE	CHECKED BY: H.I. SALLS
SQUAD LEADER: C.P. WILLIAMS	SHEET: 24 OF 63
FRAMING DETAILS	



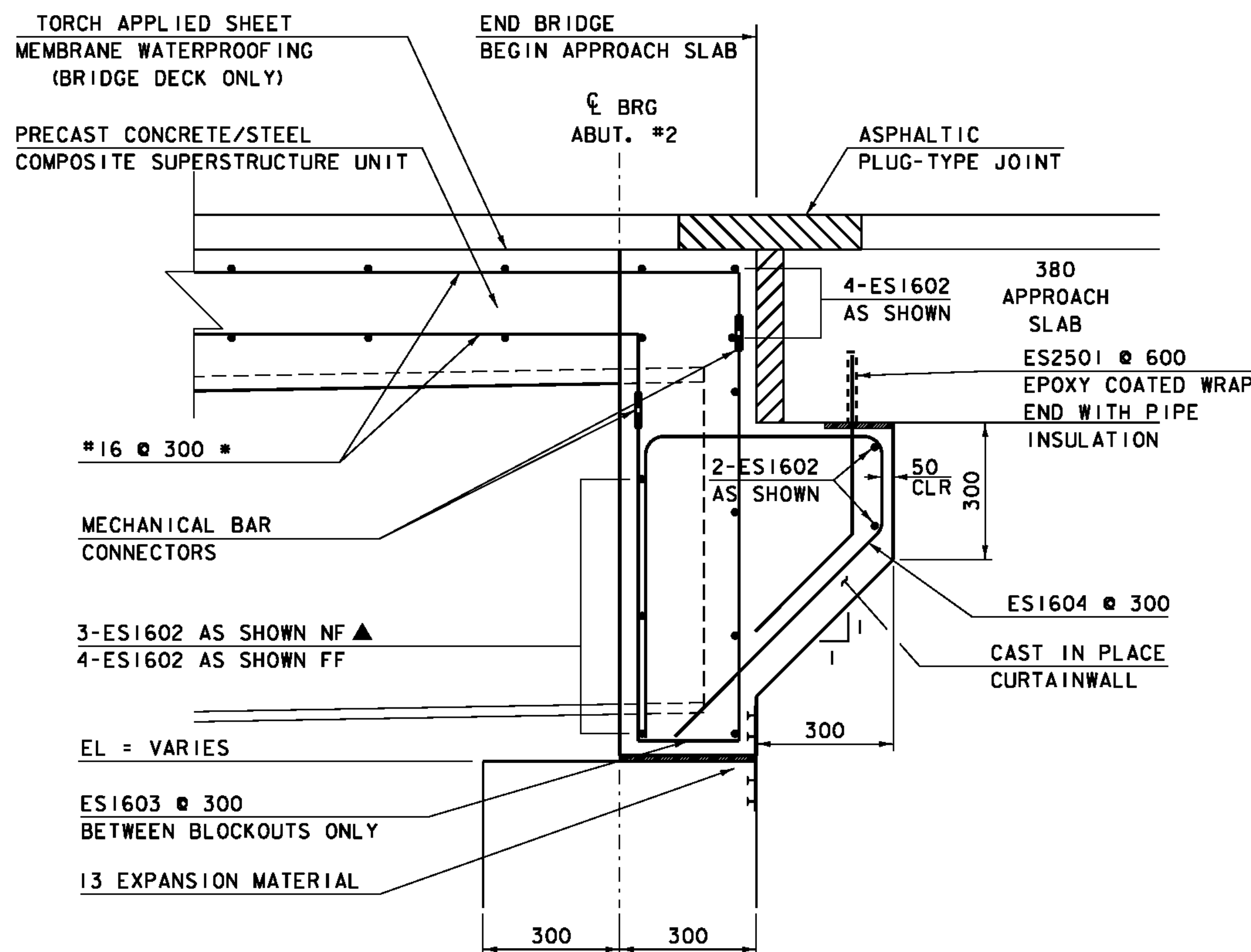
BACKWALL TYPICAL SECTION

NOT TO SCALE



ABUTMENT #1 BRIDGE END SECTION

NOT TO SCALE



ABUTMENT #2 BRIDGE END SECTION

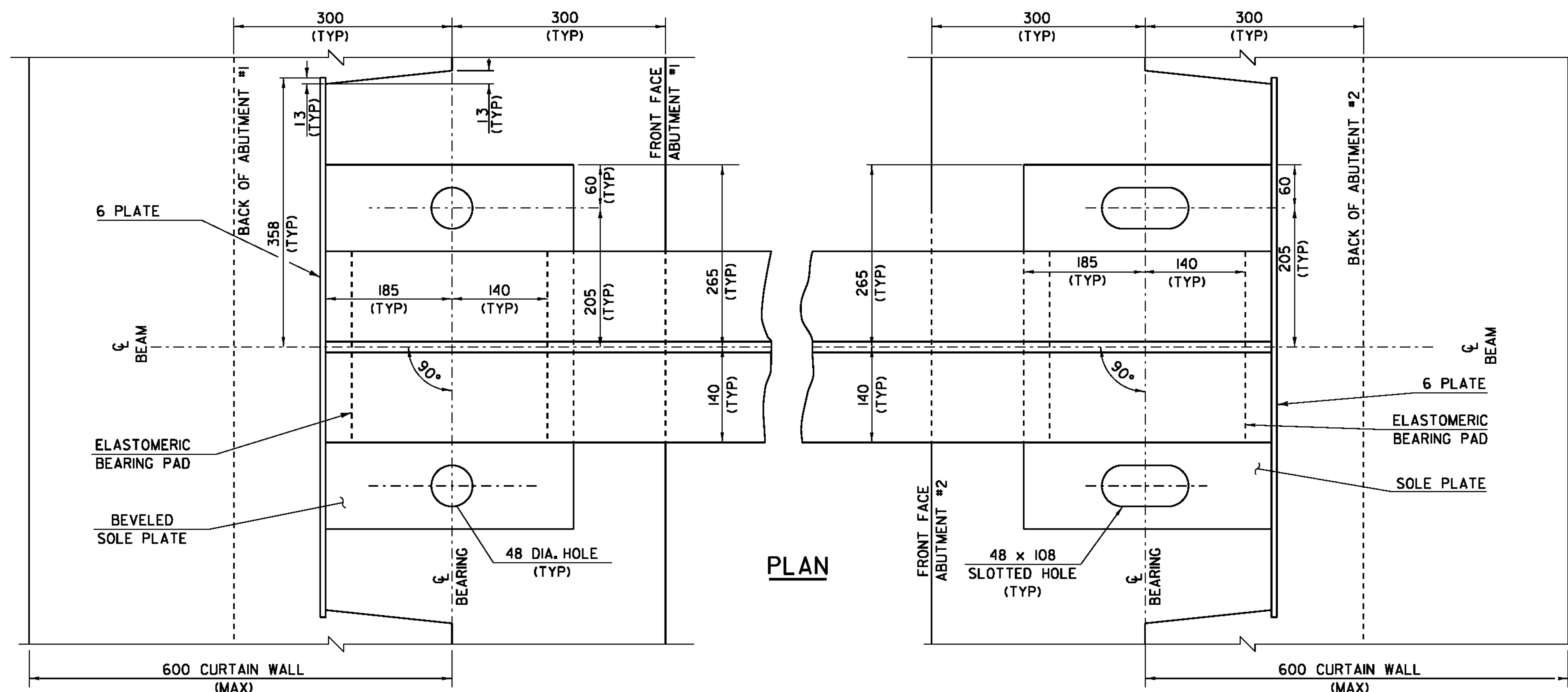
NOT TO SCALE

* SHALL BE INCIDENTAL TO ITEM 900.675
"SPECIAL PROVISION (PRECAST
CONCRETE/STEEL COMPOSITE SUPERSTRUCTURE) "

NOTE:

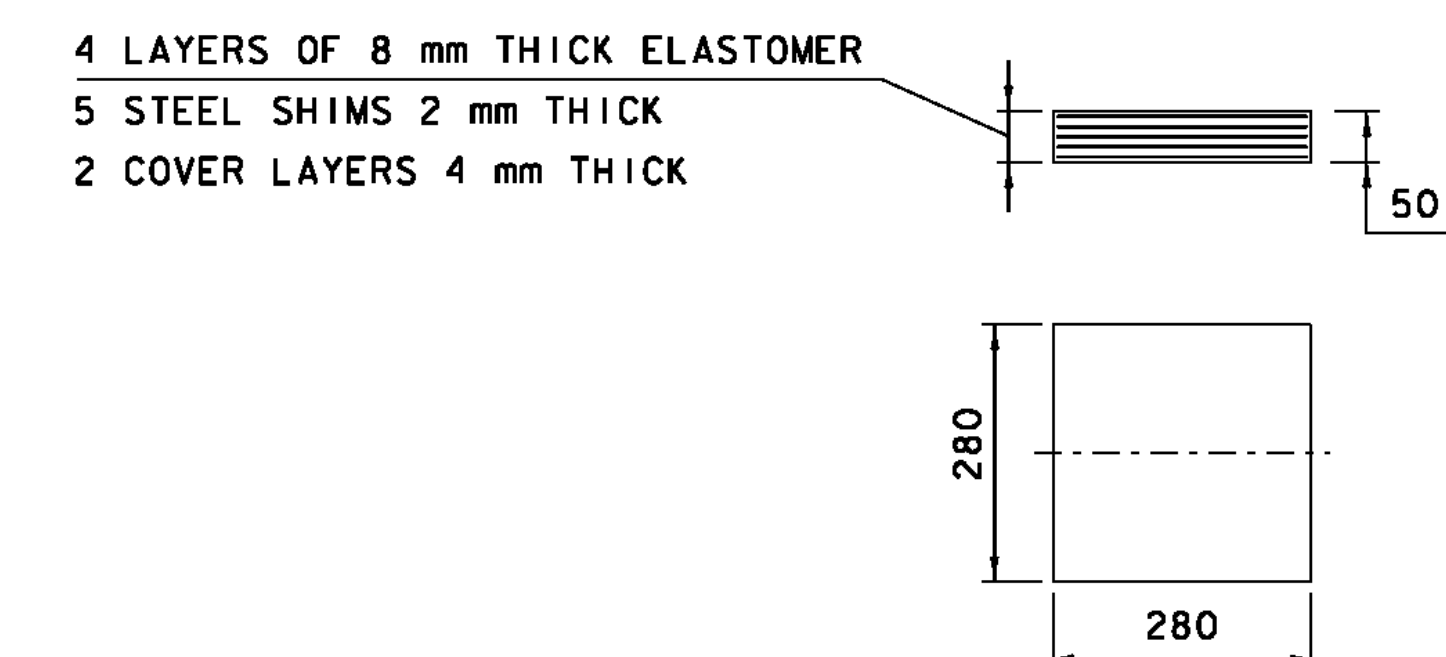
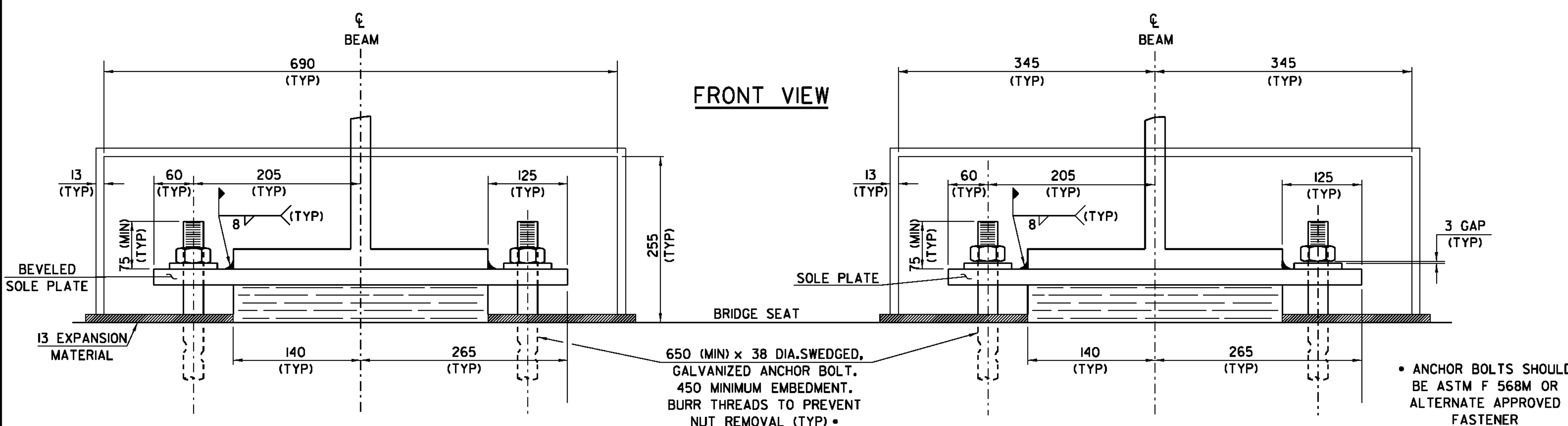
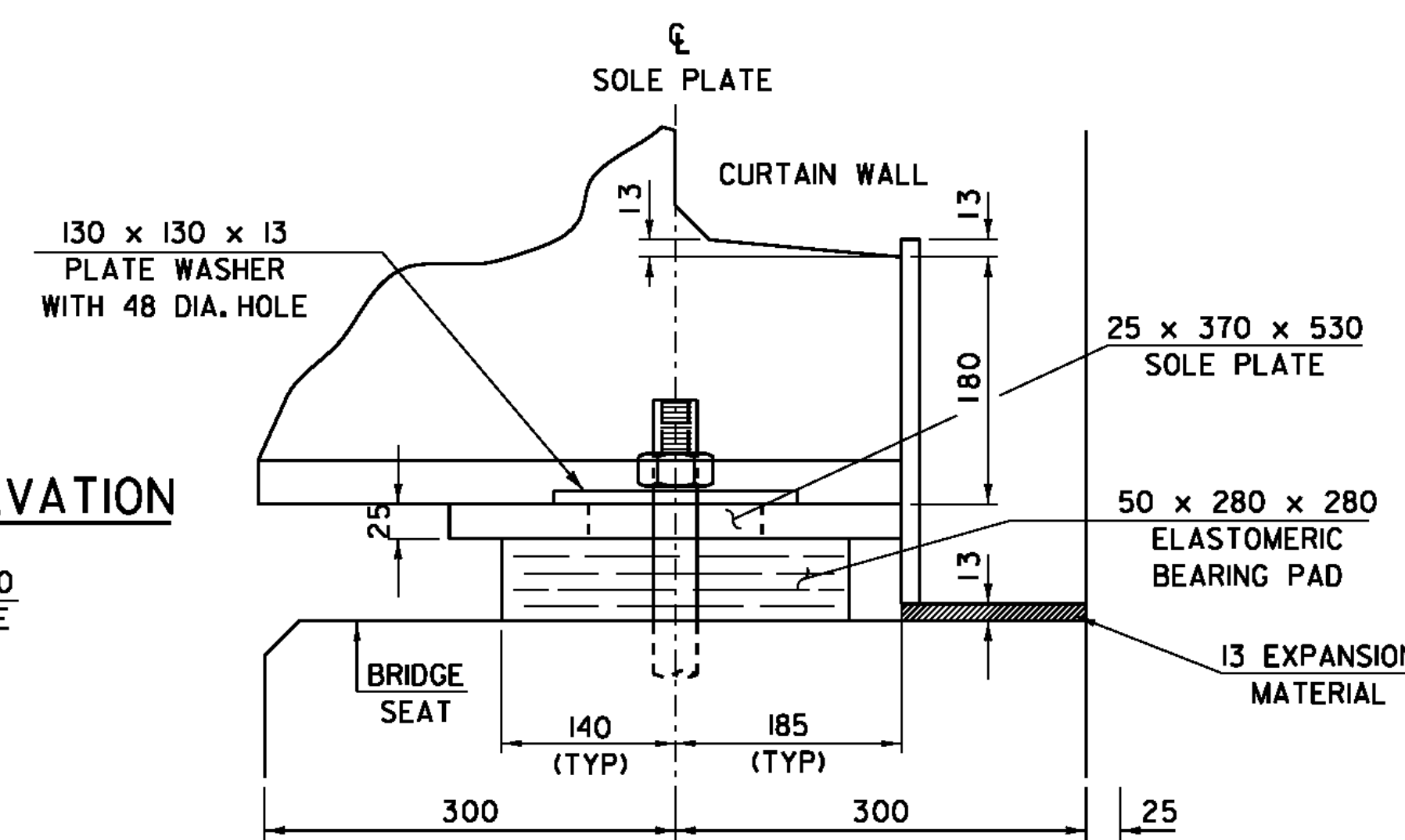
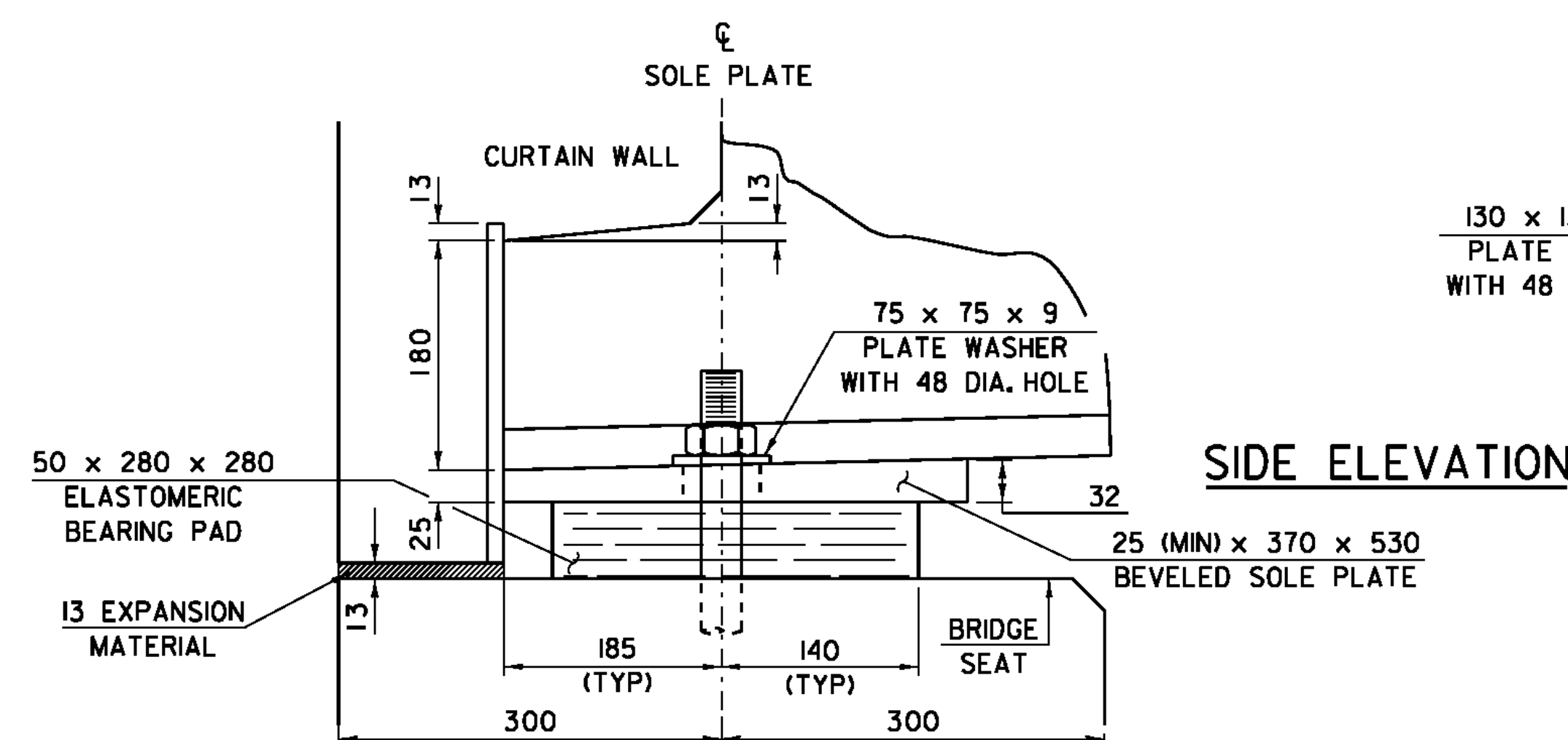
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
80 CLR. UNLESS OTHERWISE
SPECIFIED ON THE PLANS
660 LAP MIN. UNLESS
OTHERWISE SPECIFIED
ON THE PLANS

PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: 86e054\Structures\se054sup	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054curt.i	DRAWN BY: L.J. STONE
DESIGNED BY: L.J. STONE	CHECKED BY: H.I. SALLS
SQUAD LEADER: C.P. WILLIAMS	SHEET: 25 OF 63
CURTAINWALL DETAILS	



BEARING NOTES

- Bearings shall be paid for under the item 531.11 "Bearing Device Assembly, Elastomeric Pad" and shall conform to applicable subsections of Standard Specifications Sections 531 and 731.
 - All Bearing Devices shall be galvanized or metalized as per subsections 531.04 (b) and 506.15 of the Standard Specifications. If the bearings are metalized, they shall be sealed with an approved sealer as specified in subsection 506.15 (b) of the Standard Specifications. Areas of galvanizing or metalizing damaged by field welding or handling shall be repaired in conformance with section 513.
 - Payment for anchor bolts, nuts, and washers shall be included in the unit bid price for Item 531.11 "Bearing Device Assembly, Elastomeric Pad." Anchor bolts, nuts and washers shall be galvanized per AASHTO M232M/M232.
 - All steel in bearing devices shall be AASHTO M270M/M270 Grade 50, unless noted otherwise.
 - All reinforcement between layers of elastomer shall be steel AASHTO M270M/M270 Grade 36. All internal steel plates shall be sand blasted and free of coatings, rust, and mill scale. The plates shall be free of sharp edges and burrs.
 - Steel reinforced elastomeric bearings shall have a minimum of 3 mm edge seal of elastomer integral with bearing over all internal plates.
 - Alternate configurations for bearings may be submitted for approval. Any alternate submitted shall be designed and certified to meet the design loads and criteria shown on this sheet. The alternate shall maintain the anchorage system shown and shall be designed per AASHTO LRFD Bridge Design Specifications 4th Edition and its latest revisions and shall be fabricated per AASHTO LRFD Construction Specifications 2nd Edition and its latest revisions.
 - Bridge seat elevations may be revised to accommodate an alternative configuration.
 - Design Criteria:
 - Rotation = 0.0081 Radius
 - RDL = 37 K
 - RLL = 67 K
 - Translation = $s = 1"$
 - Temperature Range = -30°F to 120°F
- Bearings are designed as per AASHTO LRFD Bridge Design Specifications 4th Edition, Section 14, Method B.
- Elastomer shall have a Shear Modulus between 0.130 ksi and 0.200.
- The elastomer shall meet the requirements of Low Temperature Zone D, Grade 4.
- No fabric reinforcement will be allowed in elastomeric pads.
- The steel sole plates shall be hot bonded to the reinforced elastomeric pad during the vulcanization process. The steel surfaces to be bonded to the pad shall not be metalized.
 - The concrete surface under the Bearing Device shall be level.
 - All required fabrication of bearings will occur before vulcanization process.

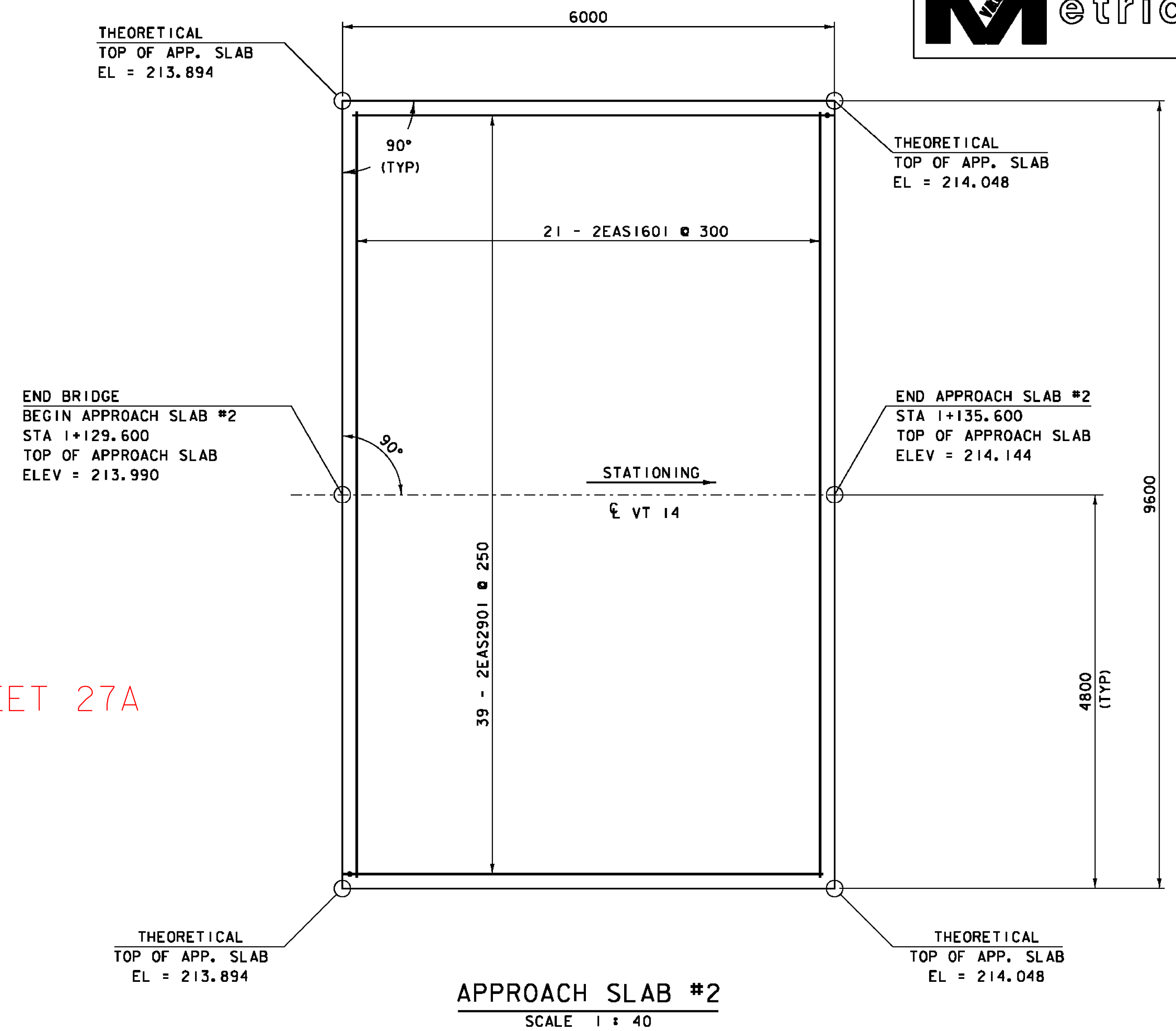
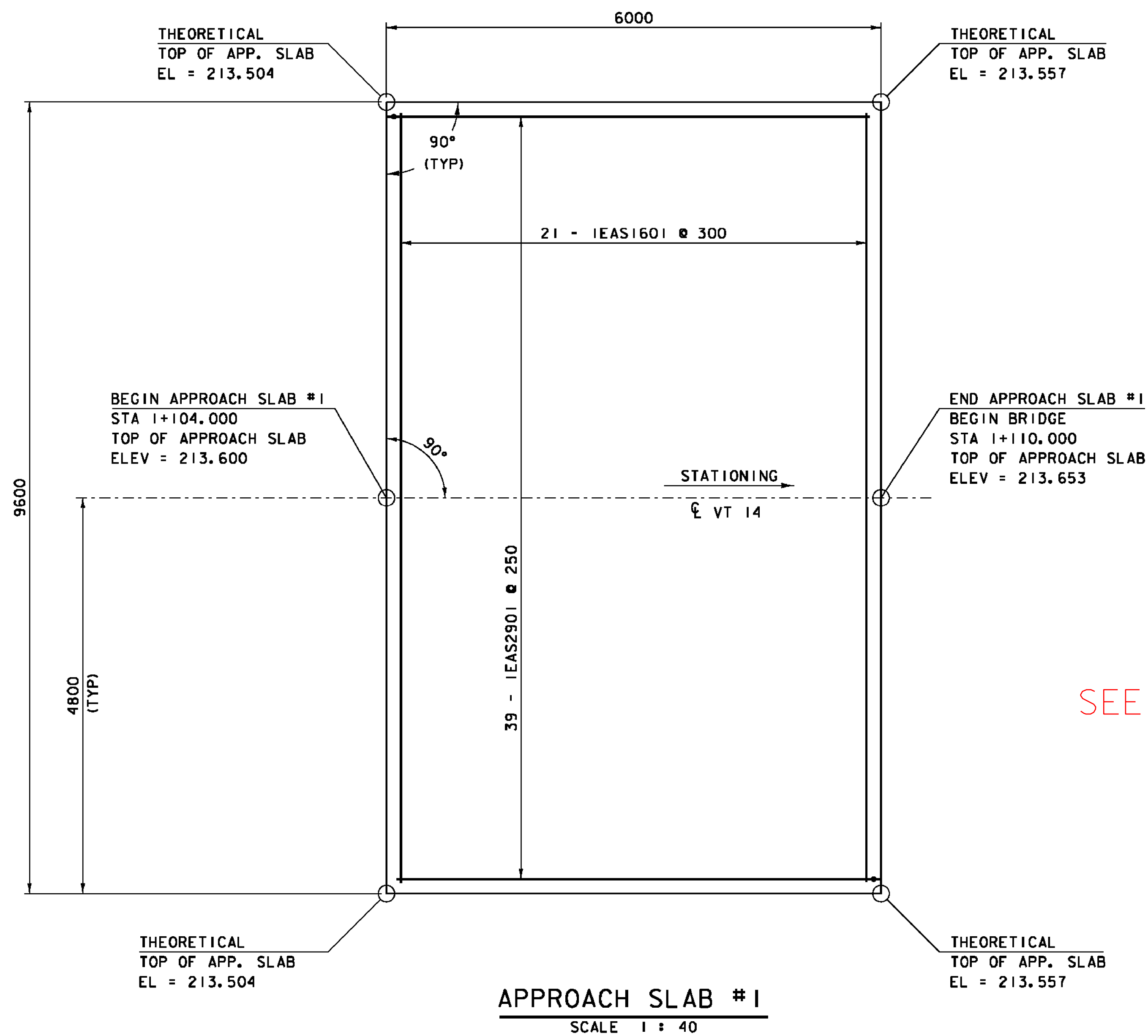


ELASTOMERIC BEARING DETAIL

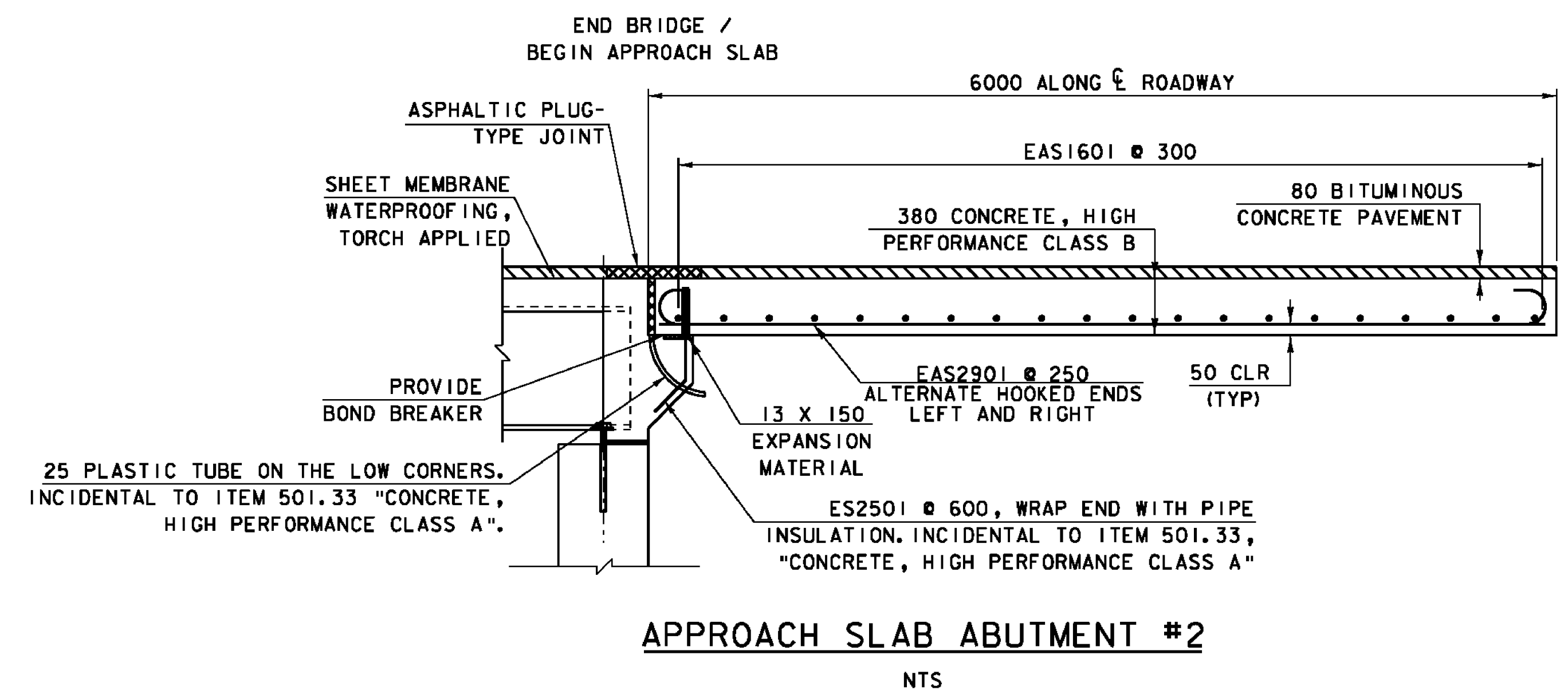
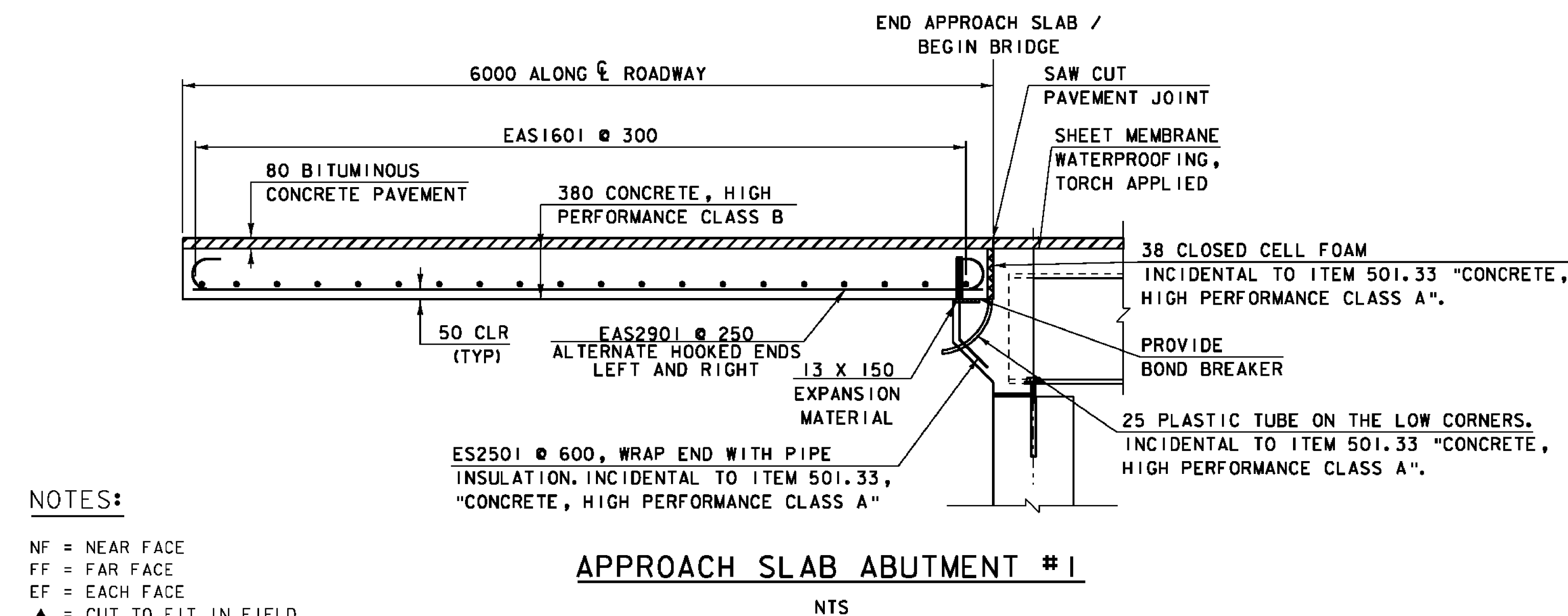
PROJECT:	EAST MONTPELIER	PROJECT NO.:	BRF 037-2 (8)
DESIGN FILE NAME:	86e054\Structures\se054sup	PLOT DATE:	18-AUG-2010
IPARM FILE NAME:	se054bear.i	DRAWN BY:	L. J. STONE
DESIGNED BY:	L. J. STONE	CHECKED BY:	H. I. SALLS
SQUAD LEADER:	C. P. WILLIAMS	SHEET:	26 OF 63
BEARING DETAIL SHEET			

FIXED BEARING @ ABUT #1

EXPANSION BEARING @ ABUT #2



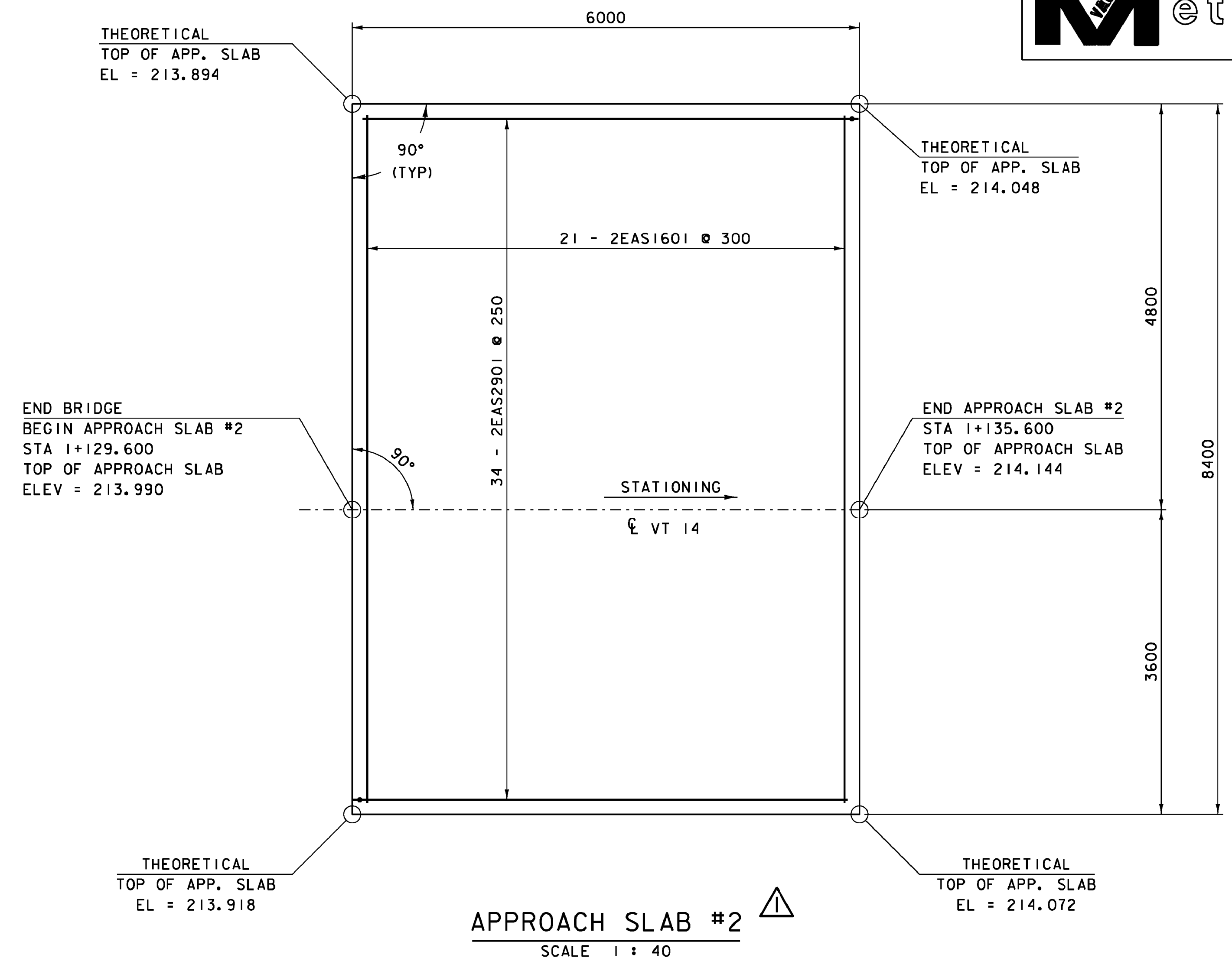
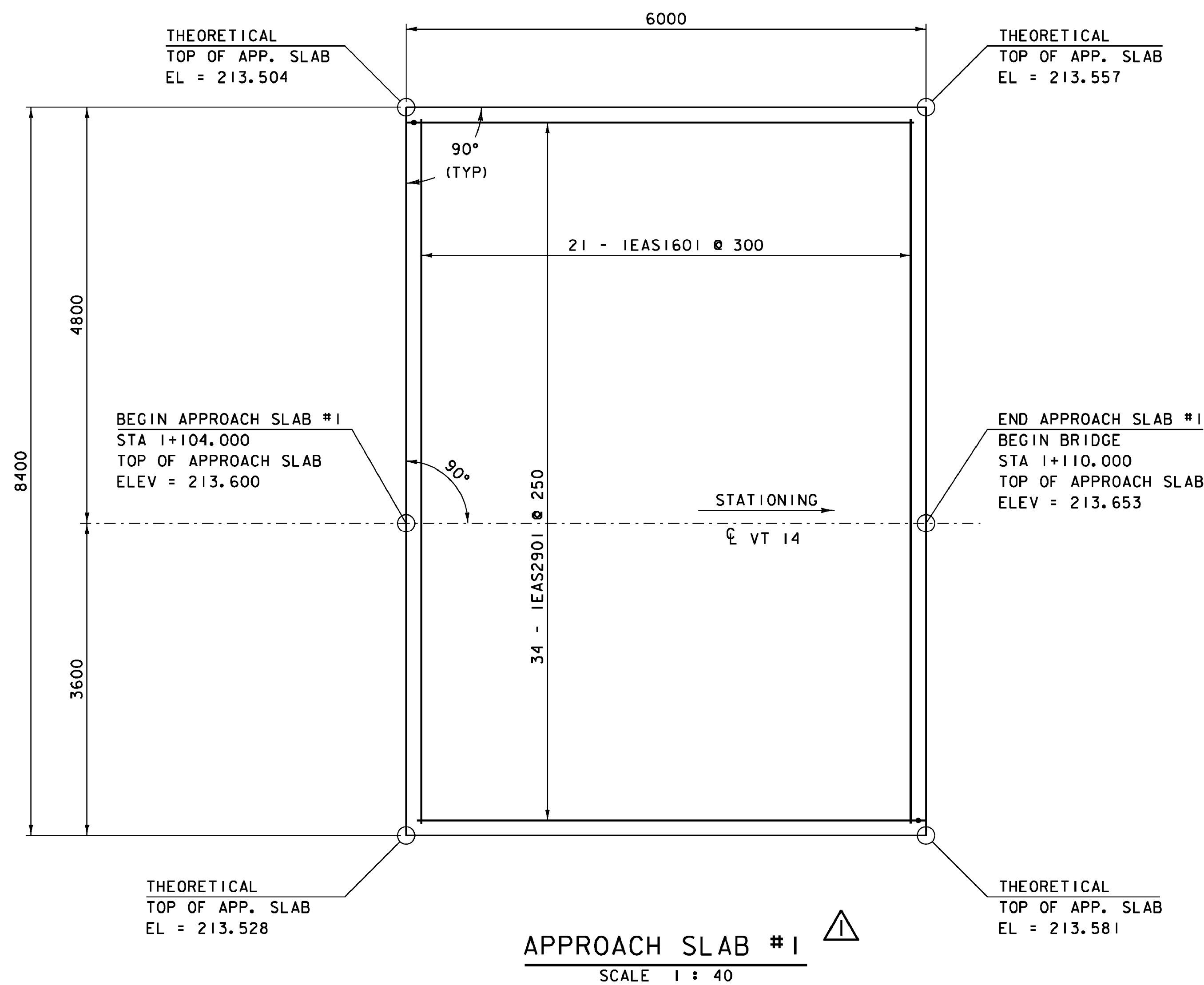
SEE REVISED SHEET 27A



NOTES:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
80 CLEAR UNLESS OTHERWISE SPECIFIED ON THE PLANS
ALL LAPS 660 UNLESS OTHERWISE NOTED.
ALL REINFORCING STEEL SHALL BE EPOXY COATED.

PROJECT:	PROJECT NO.:
EAST MONTEPELIER	BRF 037-2 (8)
DESIGN FILE NAME: 86e054\Structures\se054sup	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054aps2.i	DRAWN BY: L.J. STONE
DESIGNED BY: L.J. STONE	CHECKED BY: H.I. SALLS
SQUAD LEADER: C.P. WILLIAMS	SHEET: 27 OF 63
APPROACH SLAB DETAILS SHEET	



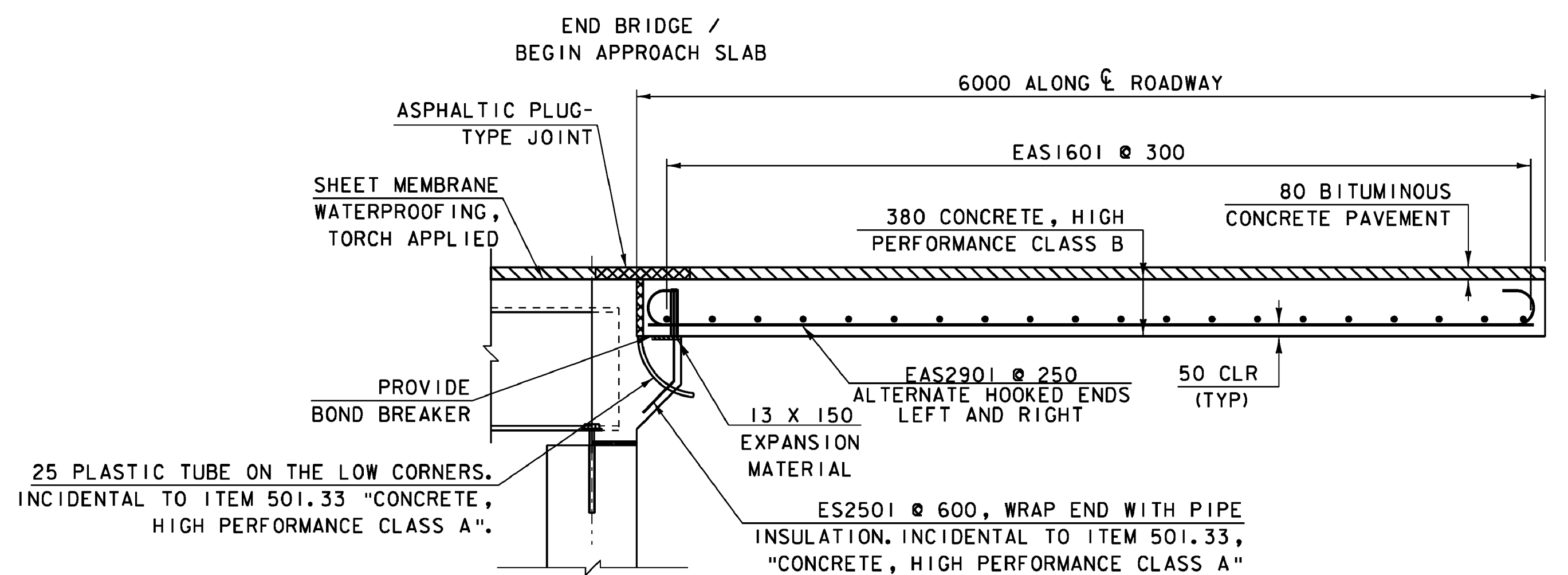
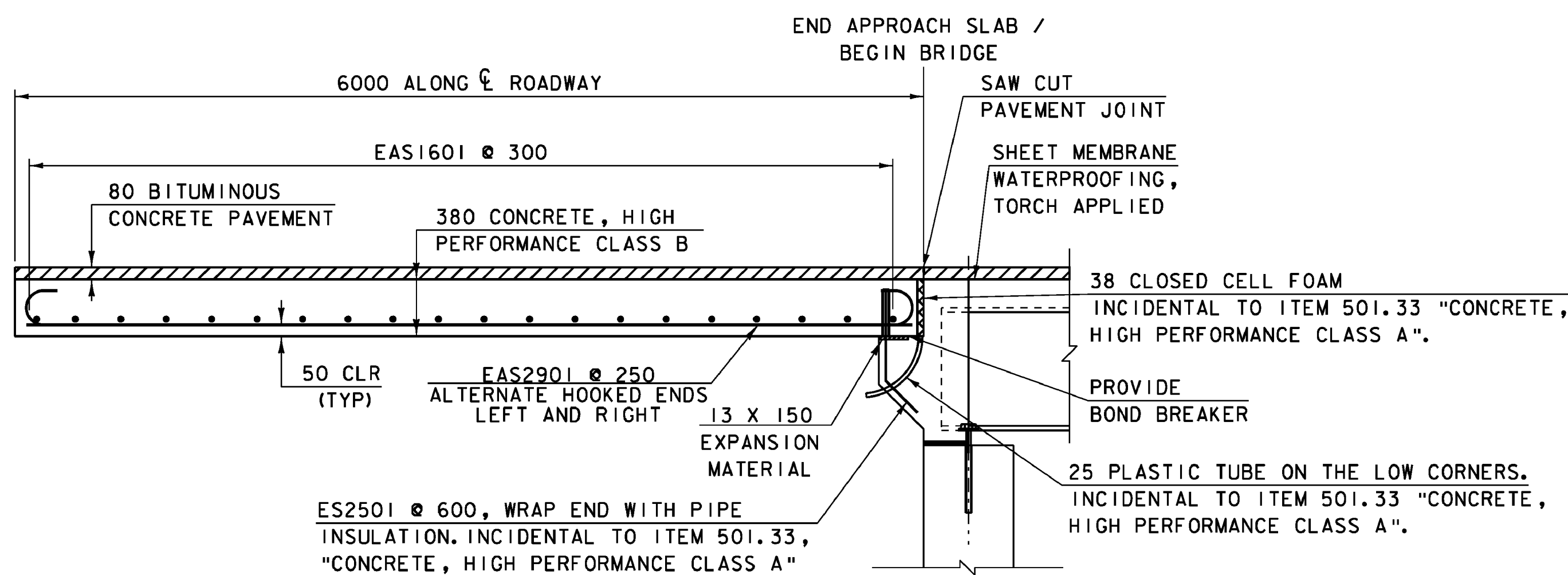
NOTES:

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80 CLEAR UNLESS OTHERWISE SPECIFIED ON THE PLANS

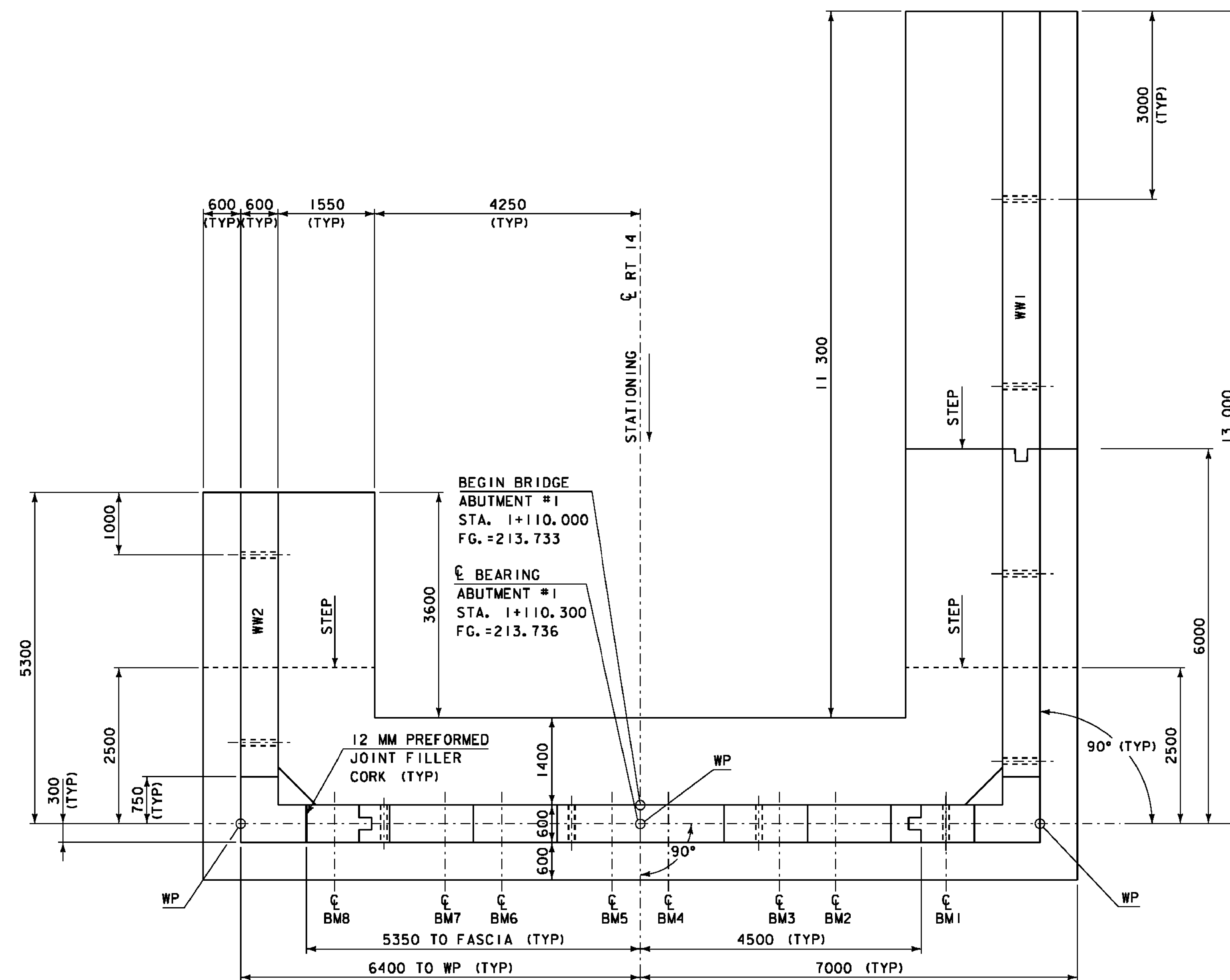
ALL LAPS 660 UNLESS OTHERWISE NOTED.

ALL REINFORCING STEEL SHALL BE EPOXY COATED.



REV. NO.	DATE	BY	DESCRIPTION
1	2/18/2011	VAOT	MODIFIED RIGHT WIDTH OF APPROACH SLABS IN ORDER TO ACCOMMODATE SIDEWALK.

PROJECT:	PROJECT NO.:
EAST MONTEPELIER	BRF 037-2 (8)
DESIGN FILE NAME: 86e054\Structures\SidewalkChange\ApproachSlab.dgn	PLOT DATE: 23-FEB-2011
IPARM FILE NAME: se054aps2.i	DRAWN BY: L.J. STONE
DESIGNED BY: L.J. STONE	CHECKED BY: H.I. SALLS
SQUAD LEADER: C.P. WILLIAMS	SHEET: 27A OF 63
APPROACH SLAB DETAILS SHEET	

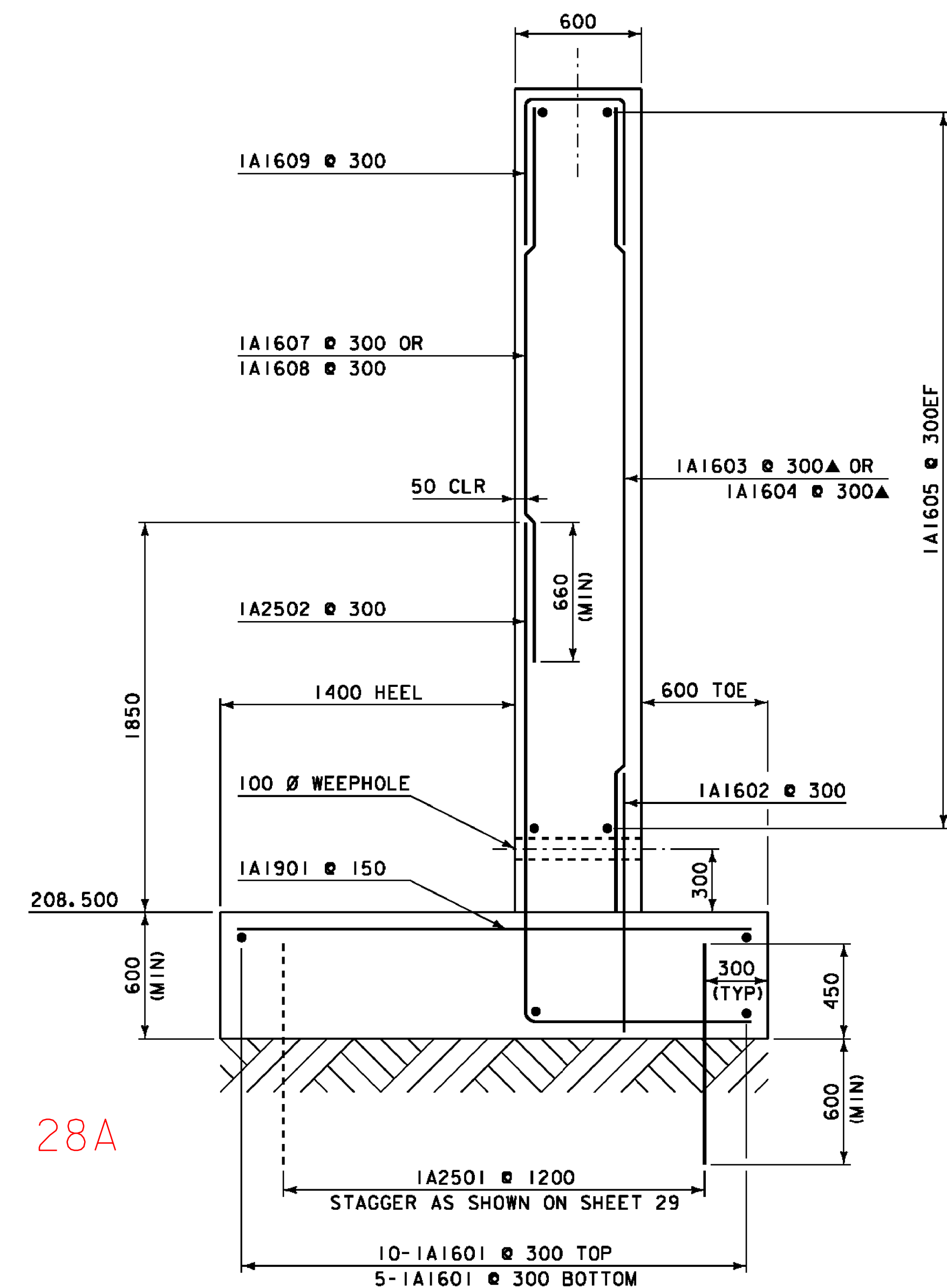


ABUTMENT #1 PLAN VIEW

SCALE 1:50

← FLOW

SEE REVISED SHEET 28A



ABUTMENT #1 TYPICAL SECTION

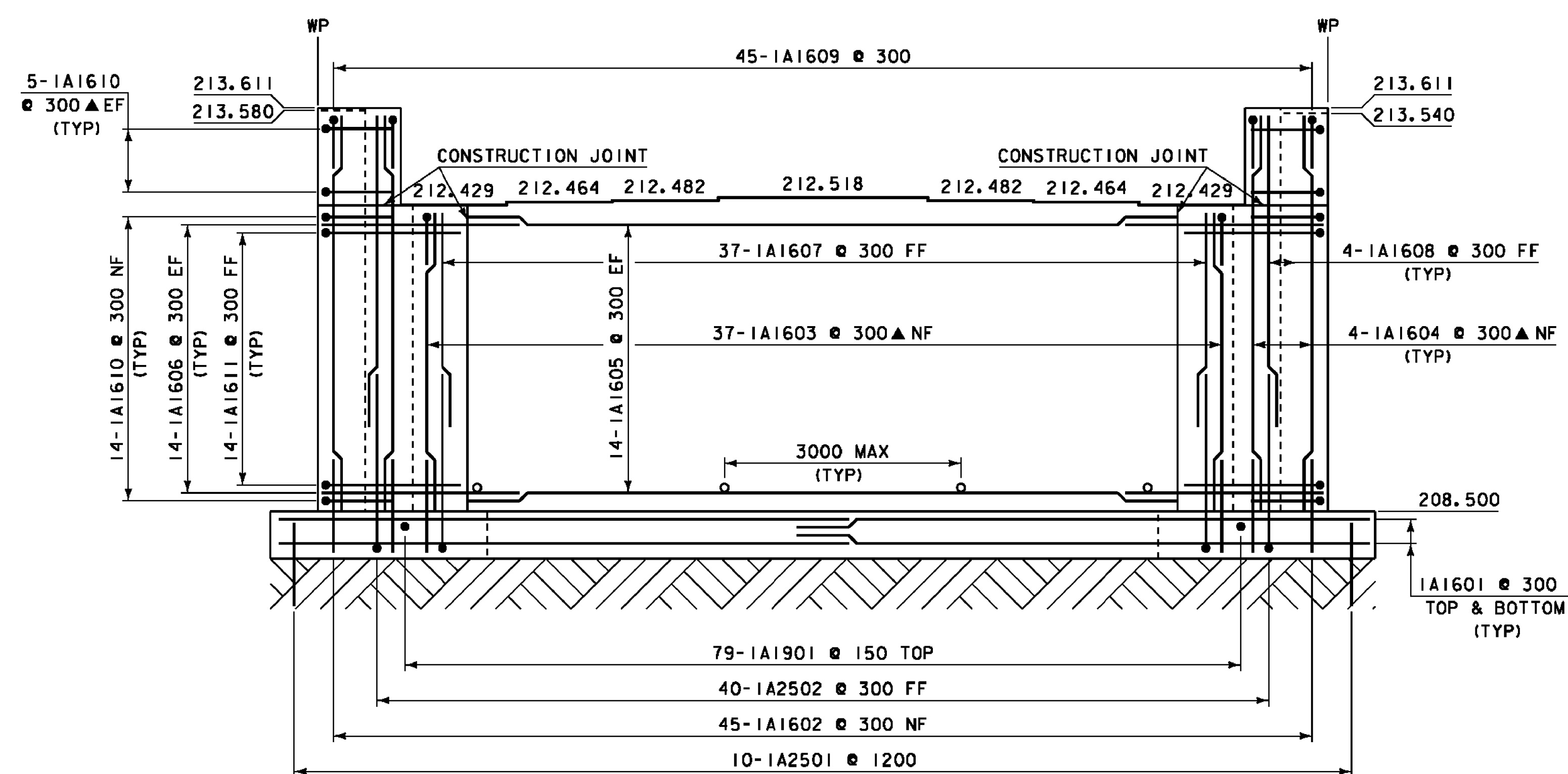
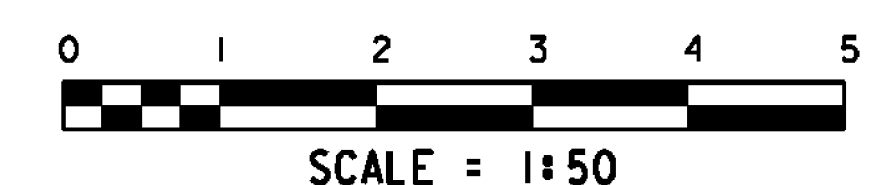
SCALE 1:20

NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80 CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.

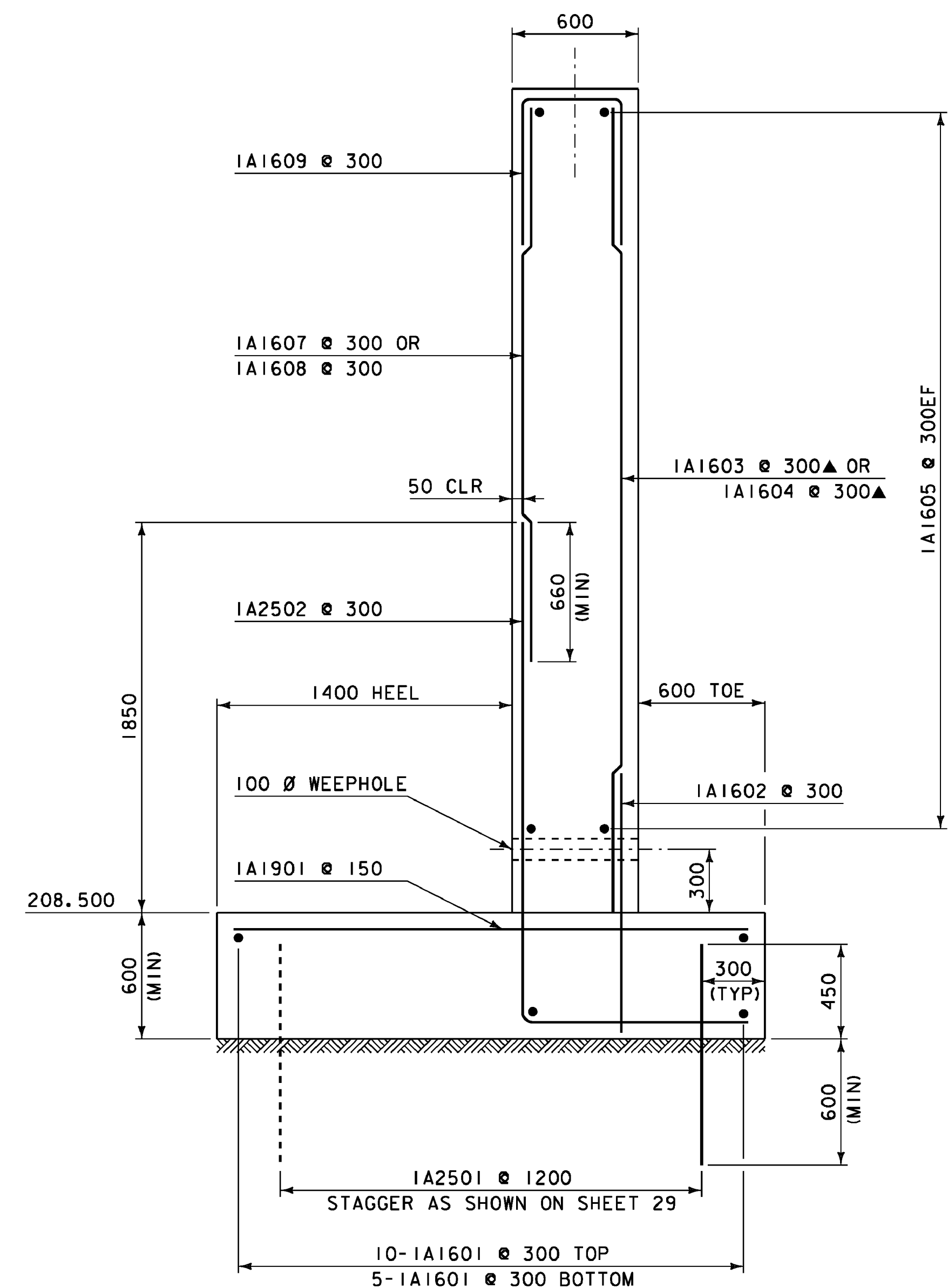
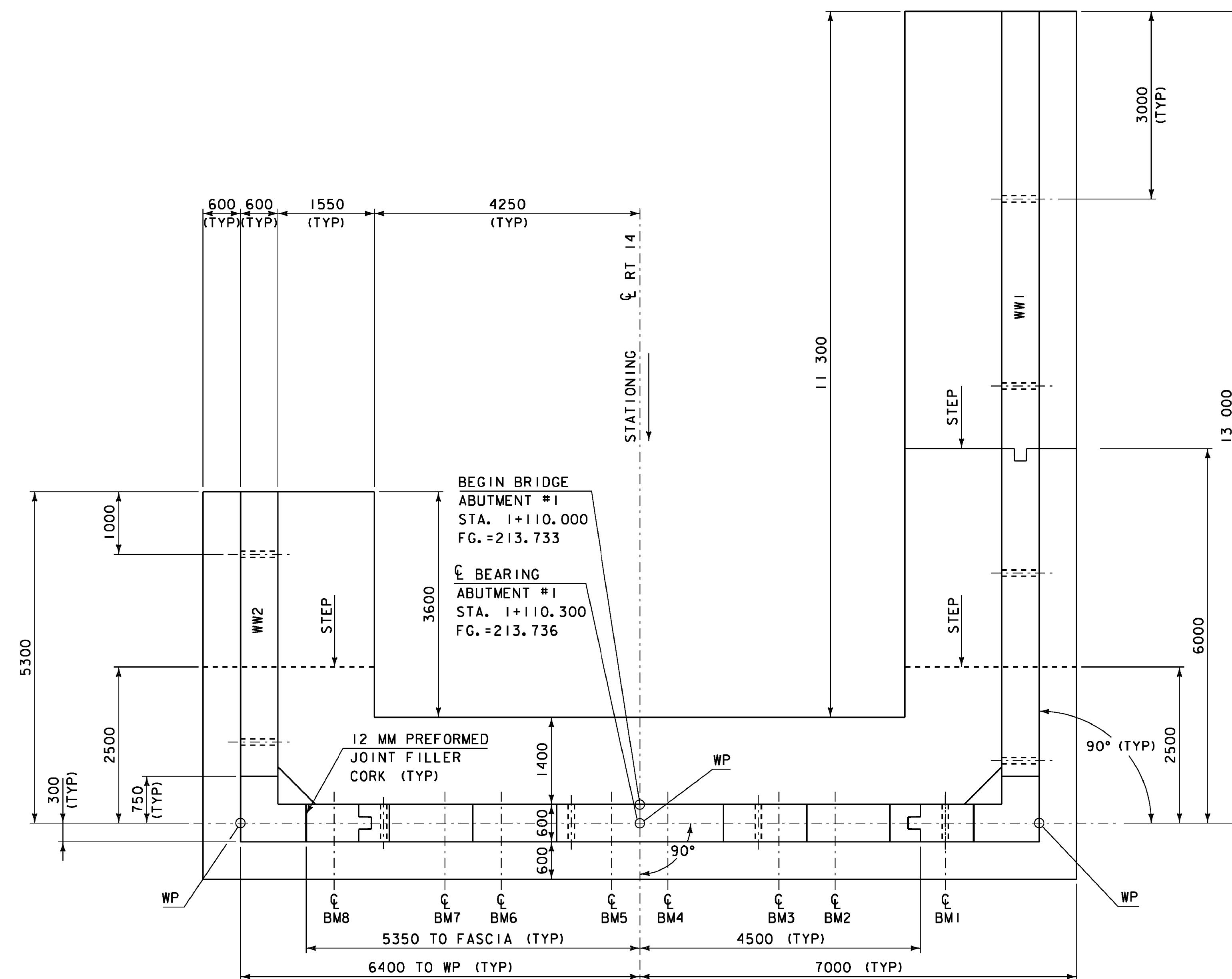
ALL LAPS ARE 660 MIN UNLESS OTHERWISE SPECIFIED ON THE PLANS.



ABUTMENT #1 ELEVATION

SCALE 1:50

PROJECT: EAST MONTEPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: 86e054\structures\se054sub	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054abut1.i	DRAWN BY: D.D.BEARD
DESIGNED BY: L.J.STONE	CHECKED BY: H.I.SALLS
SQUAD LEADER: C.P.WILLIAMS	SHEET: 28 OF 63
ABUTMENT 1 DETAILS	

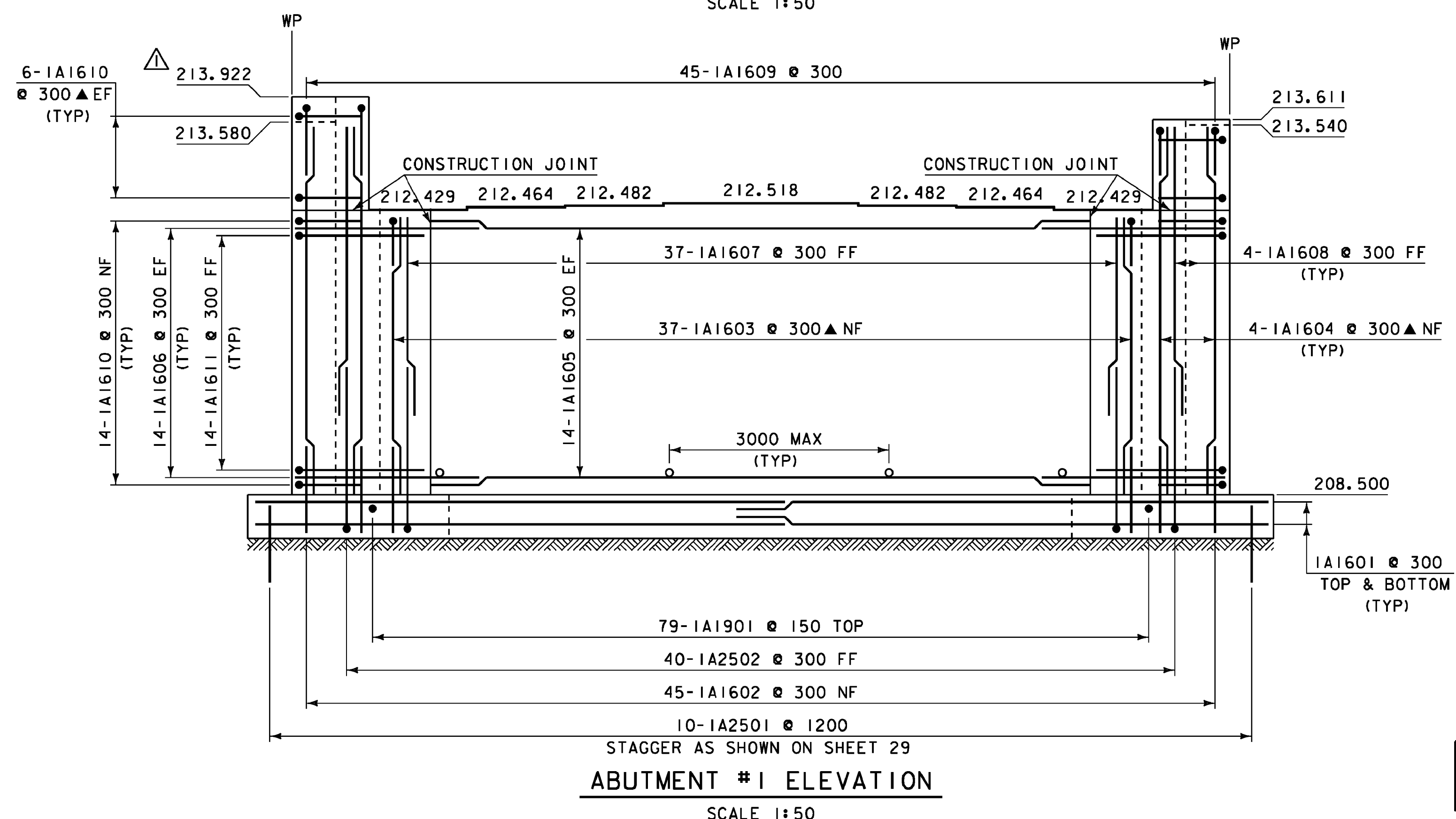
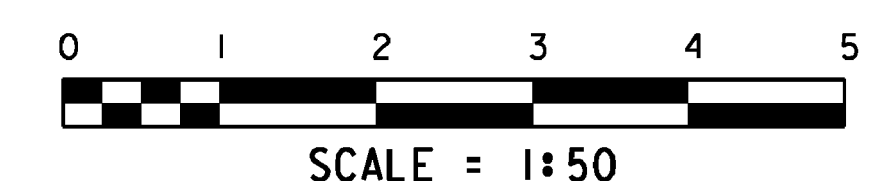


NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

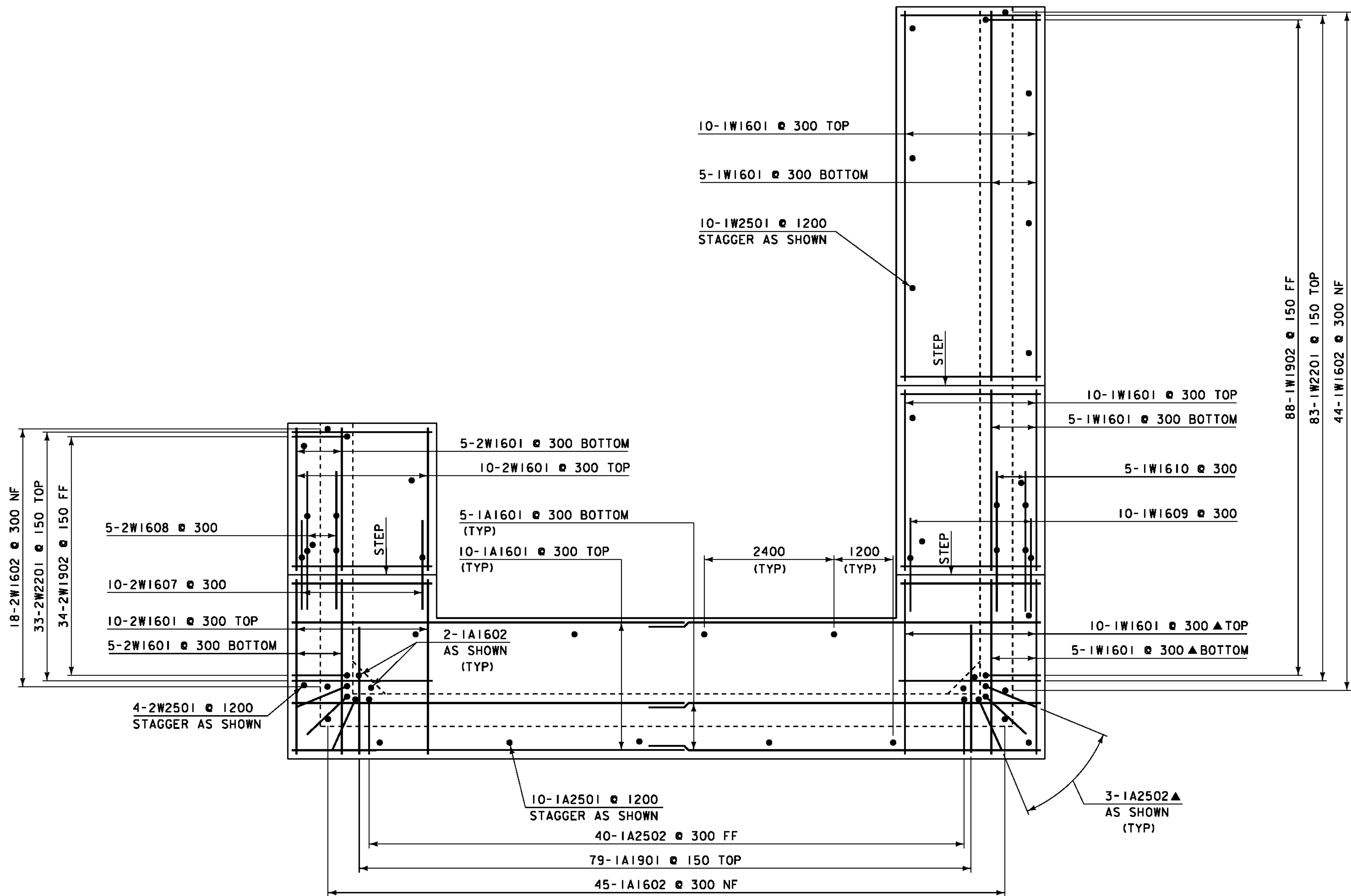
80 CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.

ALL LAPS ARE 660 MIN UNLESS OTHERWISE SPECIFIED ON THE PLANS.



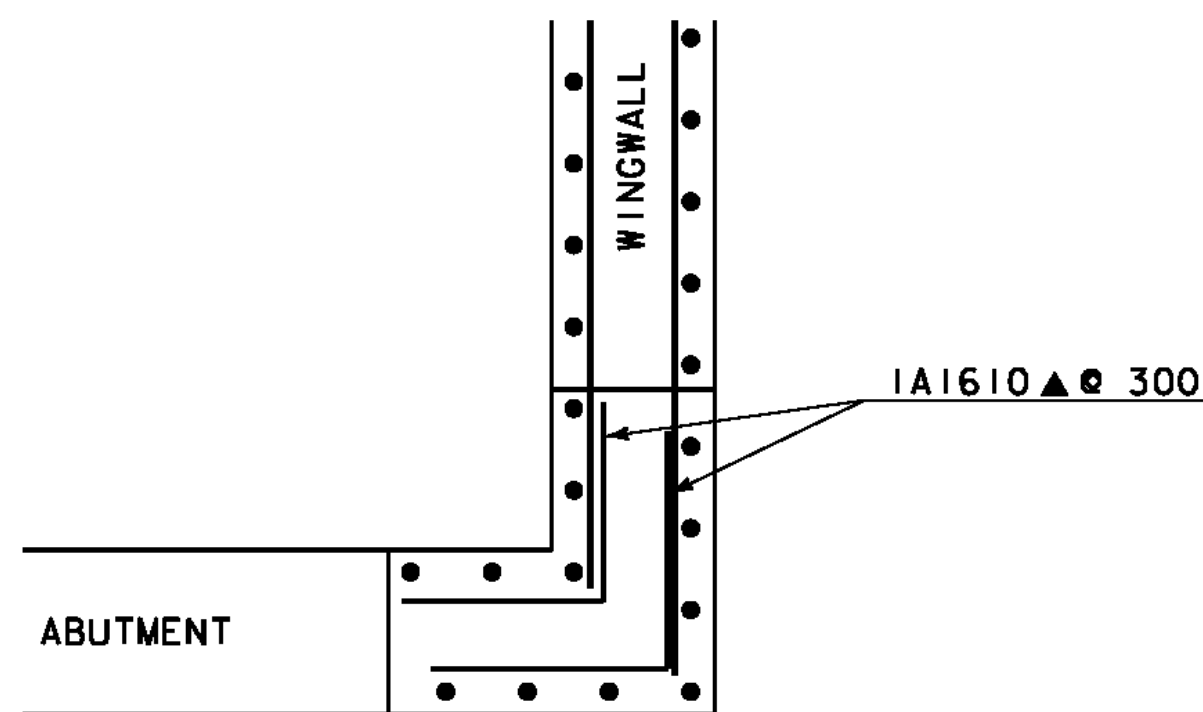
REV. NO.	DATE	BY	DESCRIPTION
△	2/18/2011	VAOT	MODIFIED ELEVATION OF WINGWALL.

PROJECT:	PROJECT NO.:
EAST MONTEPELIER	BRF 037-2 (8)
DESIGN FILE NAME: 86e054\Structures\SidewalkChange\Abutment.dgn	PLOT DATE: 23-FEB-2011
IPARM FILE NAME: se054abu+1.i	DRAWN BY: D.D.BEARD
DESIGNED BY: L.J.STONE	CHECKED BY: H.I.SALLS
SQUAD LEADER: C.P.WILLIAMS	SHEET: 28A OF 63
ABUTMENT 1 DETAILS	

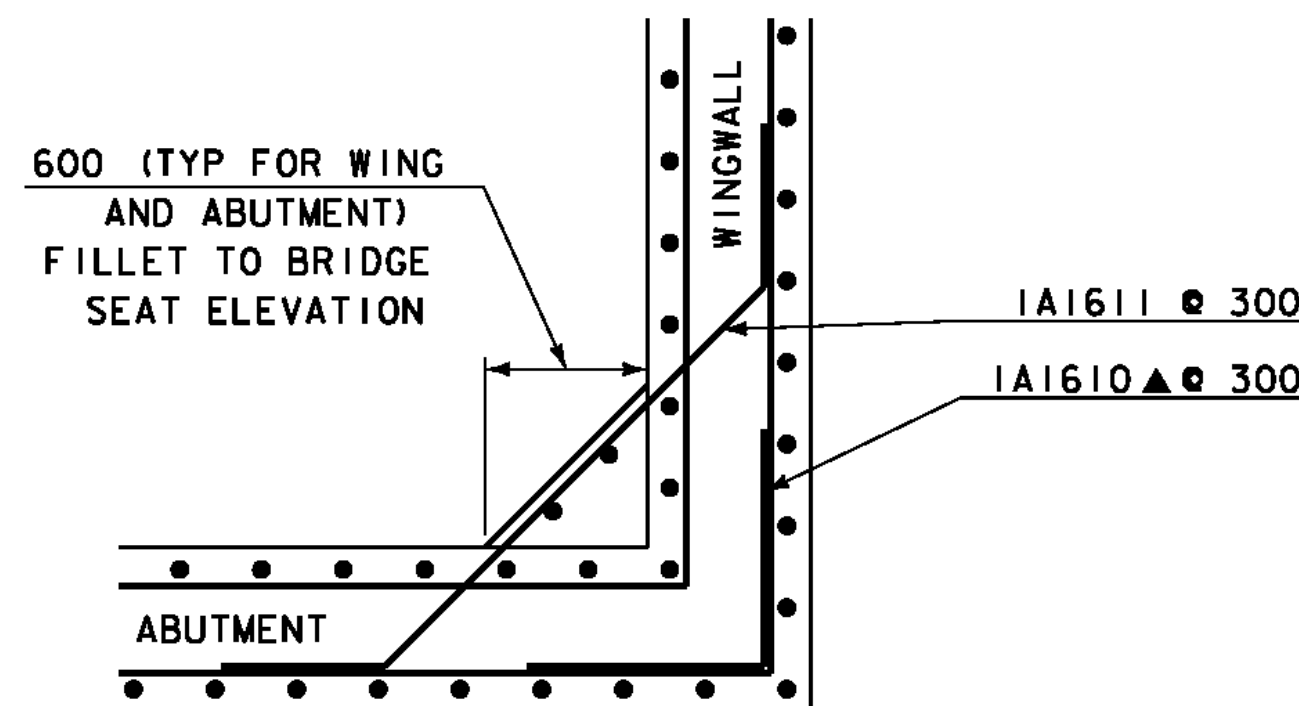


ABUTMENT #1 FOOTING REINFORCEMENT

SCALE 1:50



**WINGWALL CORNER DETAIL
ABOVE BRIDGE SEAT (TYP)**



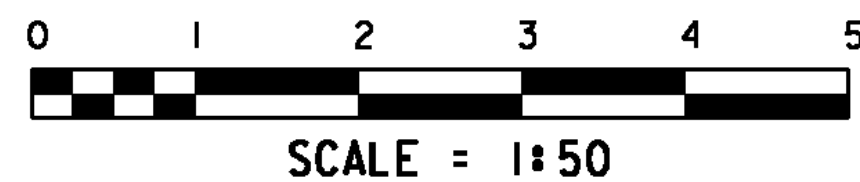
**WINGWALL CORNER DETAIL
BELOW BRIDGE SEAT (TYP)**

NOTE:

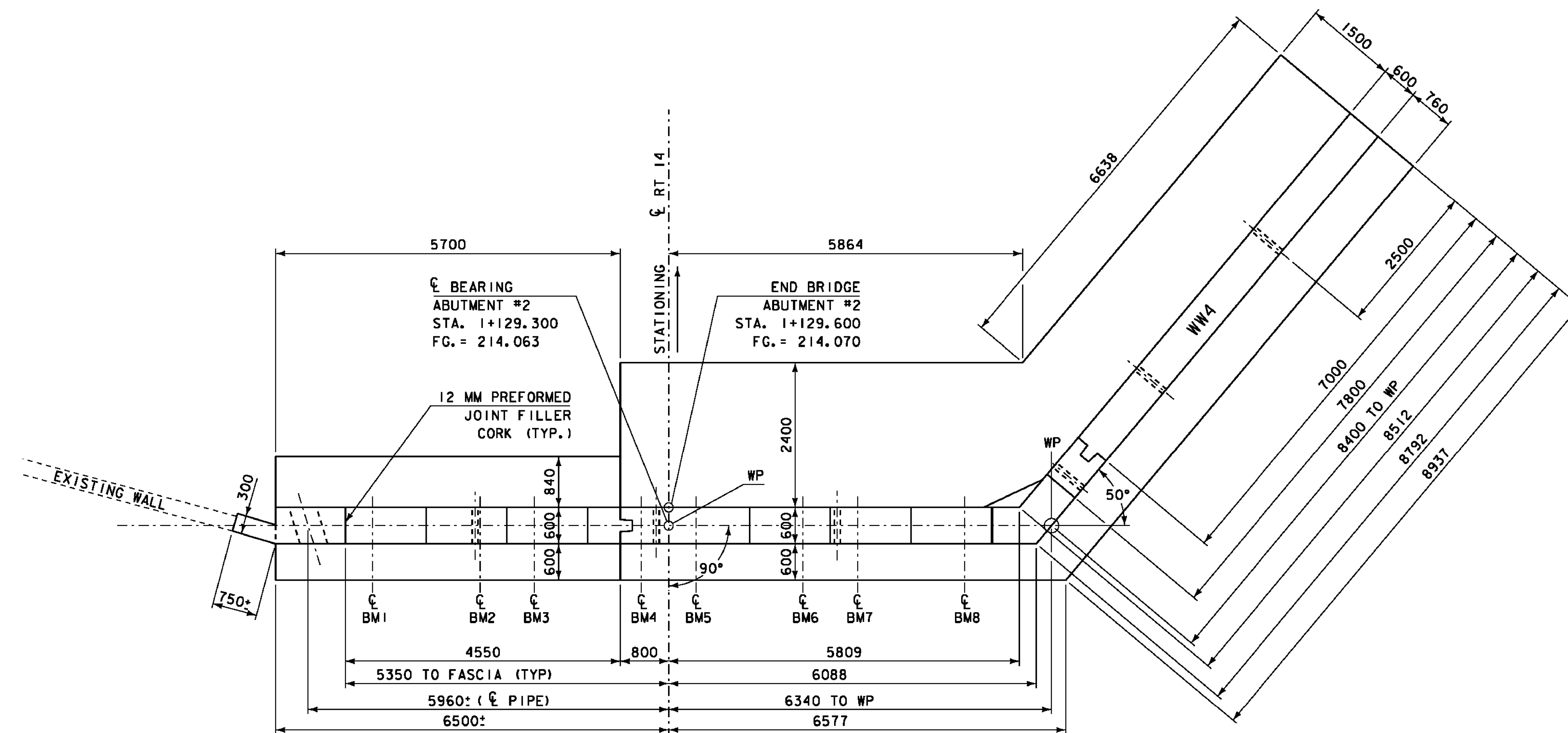
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80 CLR. UNLESS OTHERWISE
SPECIFIED ON THE PLANS.

ALL LAPS ARE 660 MIN
UNLESS OTHERWISE
SPECIFIED ON THE PLANS.



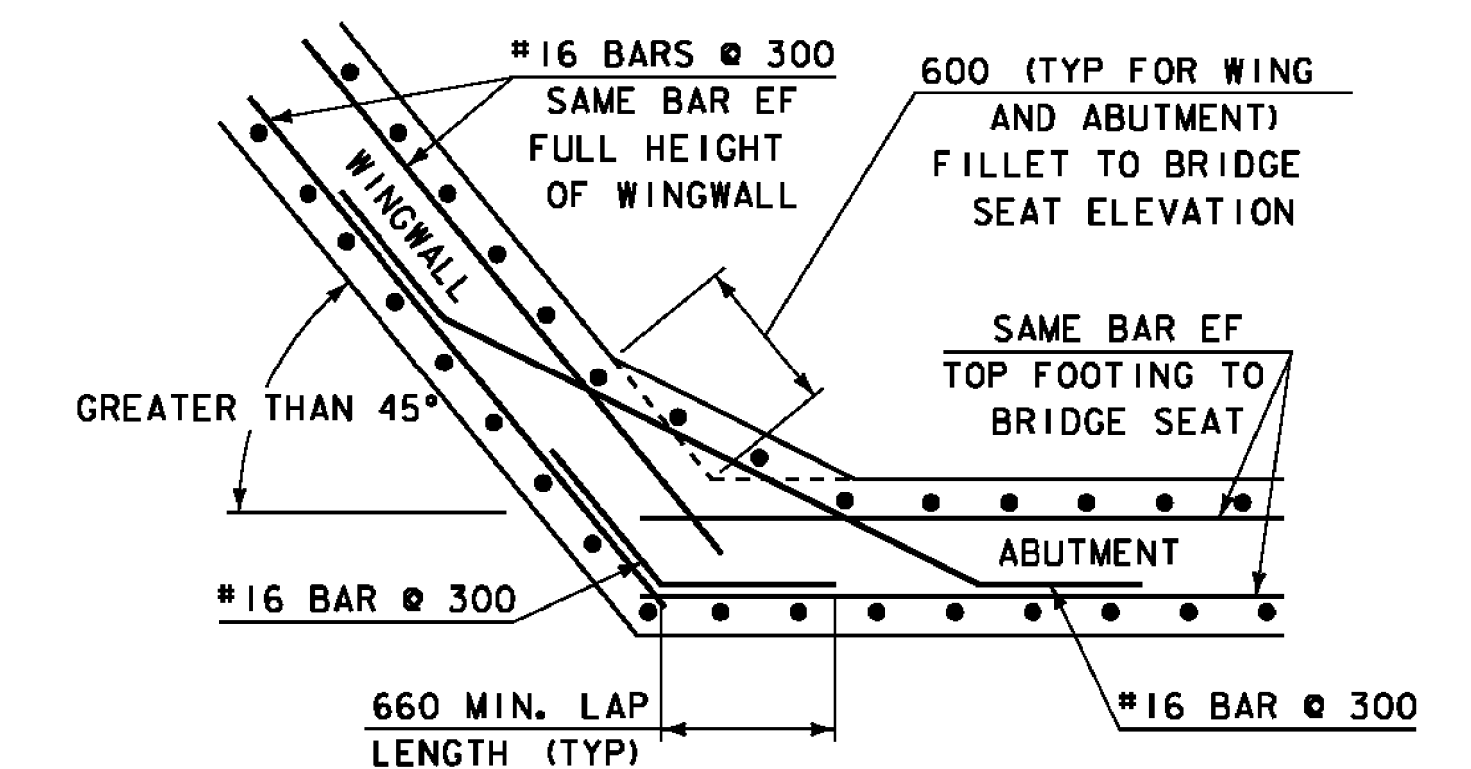
PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: 86e054/Structures/se054sub.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054ftgl.i	DRAWN BY: D.D.BEARD
DESIGNED BY: L.J.STONE	CHECKED BY: H.I.SALLS
SQUAD LEADER: C.P.WILLIAMS	ABUTMENT 1 FOOTING REINFORCEMENT
	SHEET: 29 OF 63



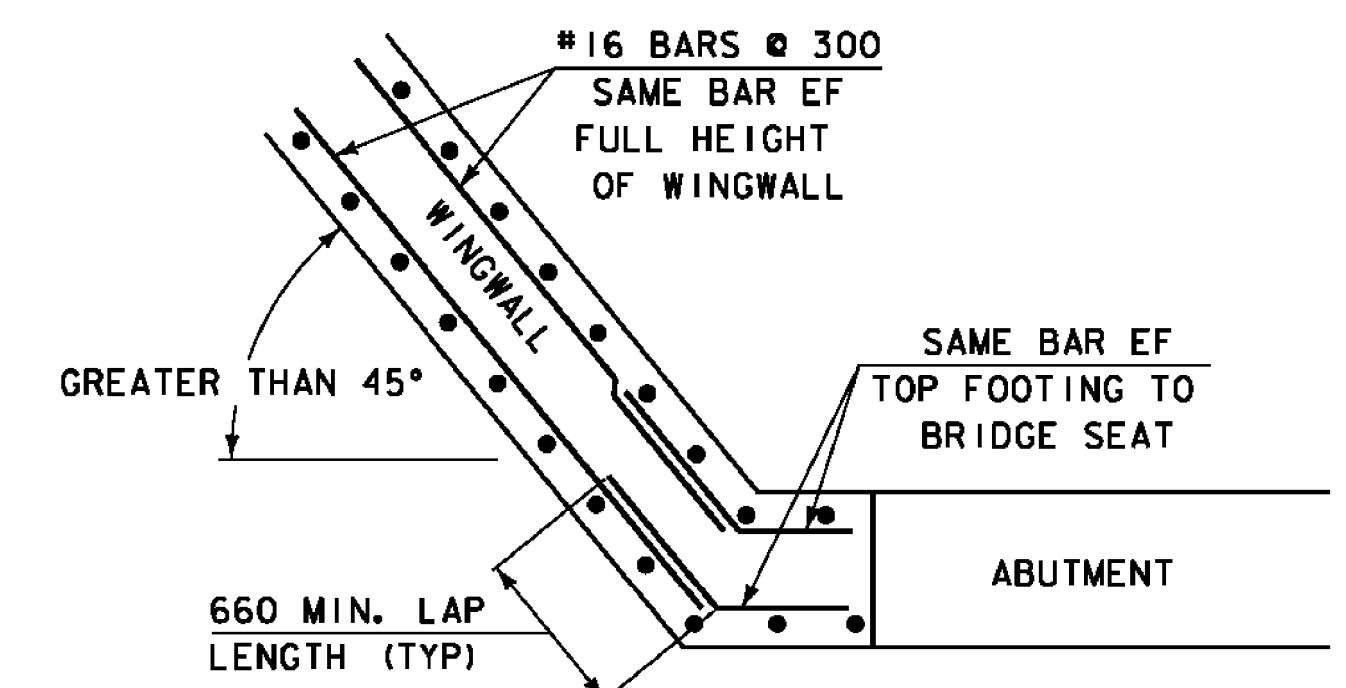
ABUTMENT #2 PLAN VIEW

SCALE 1:50

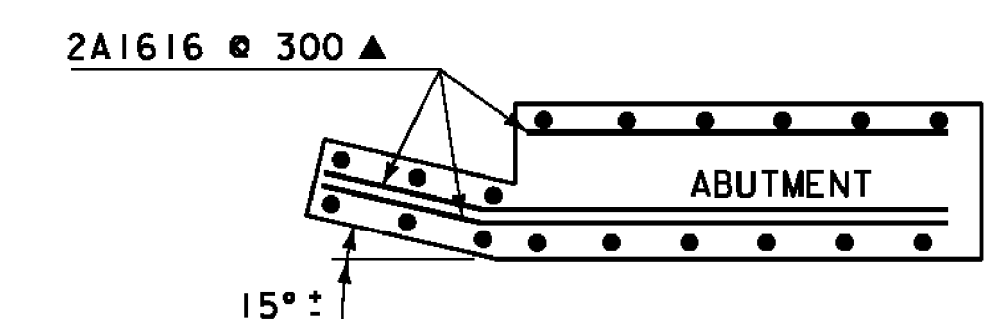
SEE REVISED SHEET 30A



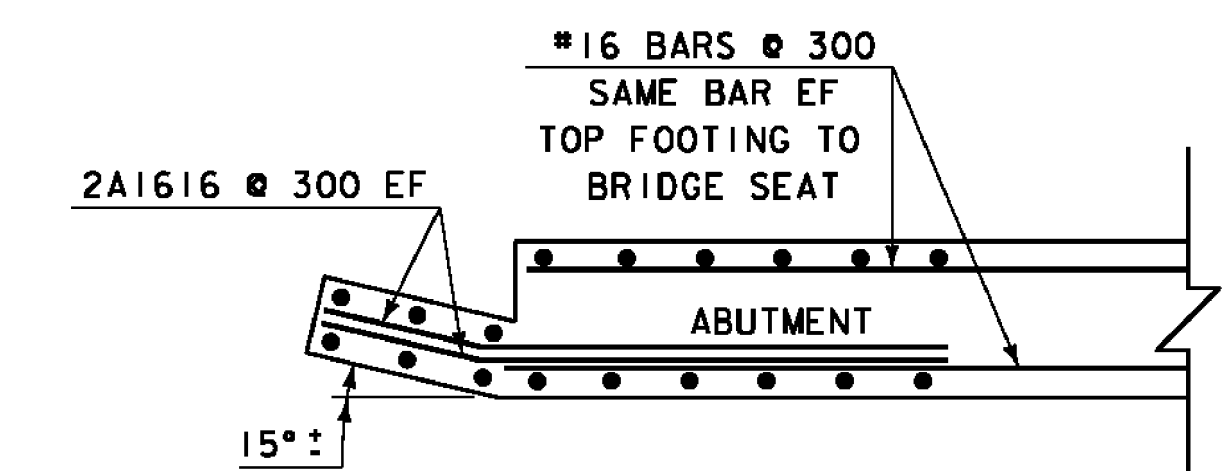
WINGWALL CORNER DETAIL FOR GREATER THAN 45°
BELOW BRIDGESEAT (TYP)



WINGWALL CORNER DETAIL FOR GREATER THAN 45°
ABOVE BRIDGESEAT (TYP)



CORNER DETAIL FOR WINGWALL
#3 ABOVE BRIDGE SEAT



CORNER DETAIL FOR WINGWALL
#3 BELOW BRIDGE SEAT



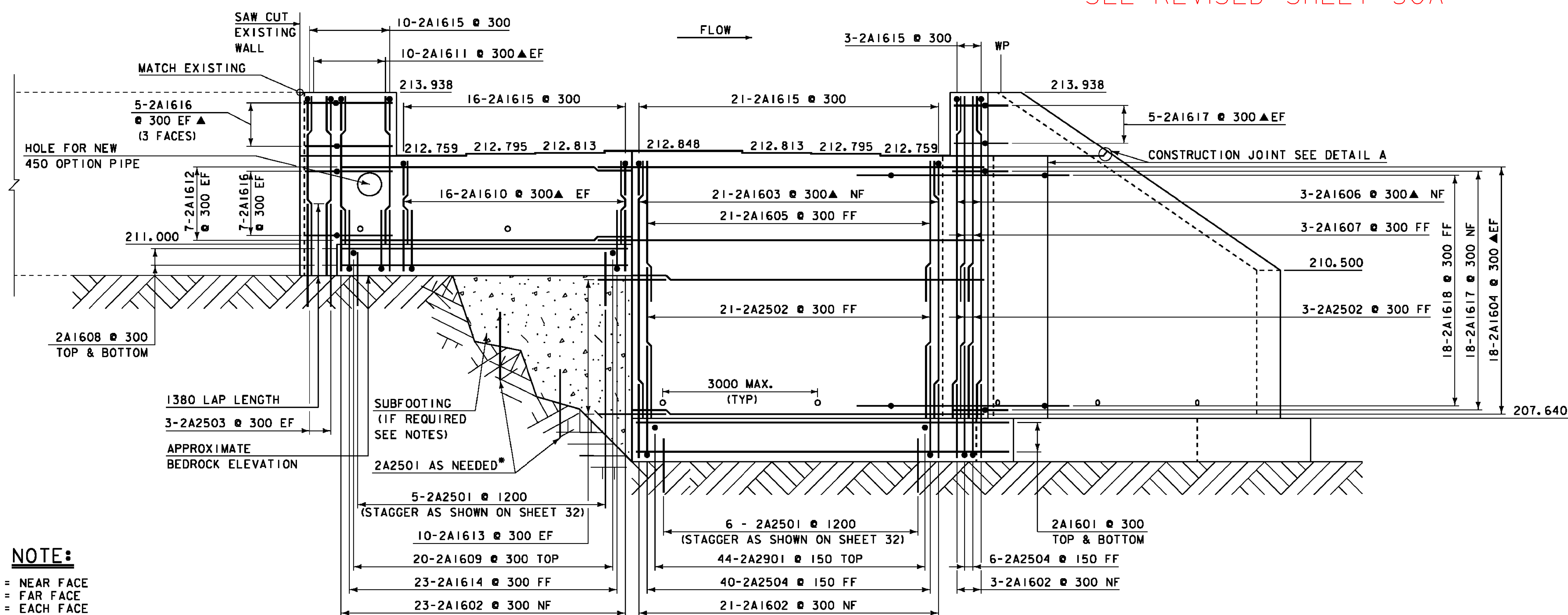
SCALE = 1:50

NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80 CLR. UNLESS OTHERWISE
SPECIFIED ON THE PLANS.

ALL LAPS ARE 660 MIN
UNLESS OTHERWISE
SPECIFIED ON THE PLANS.

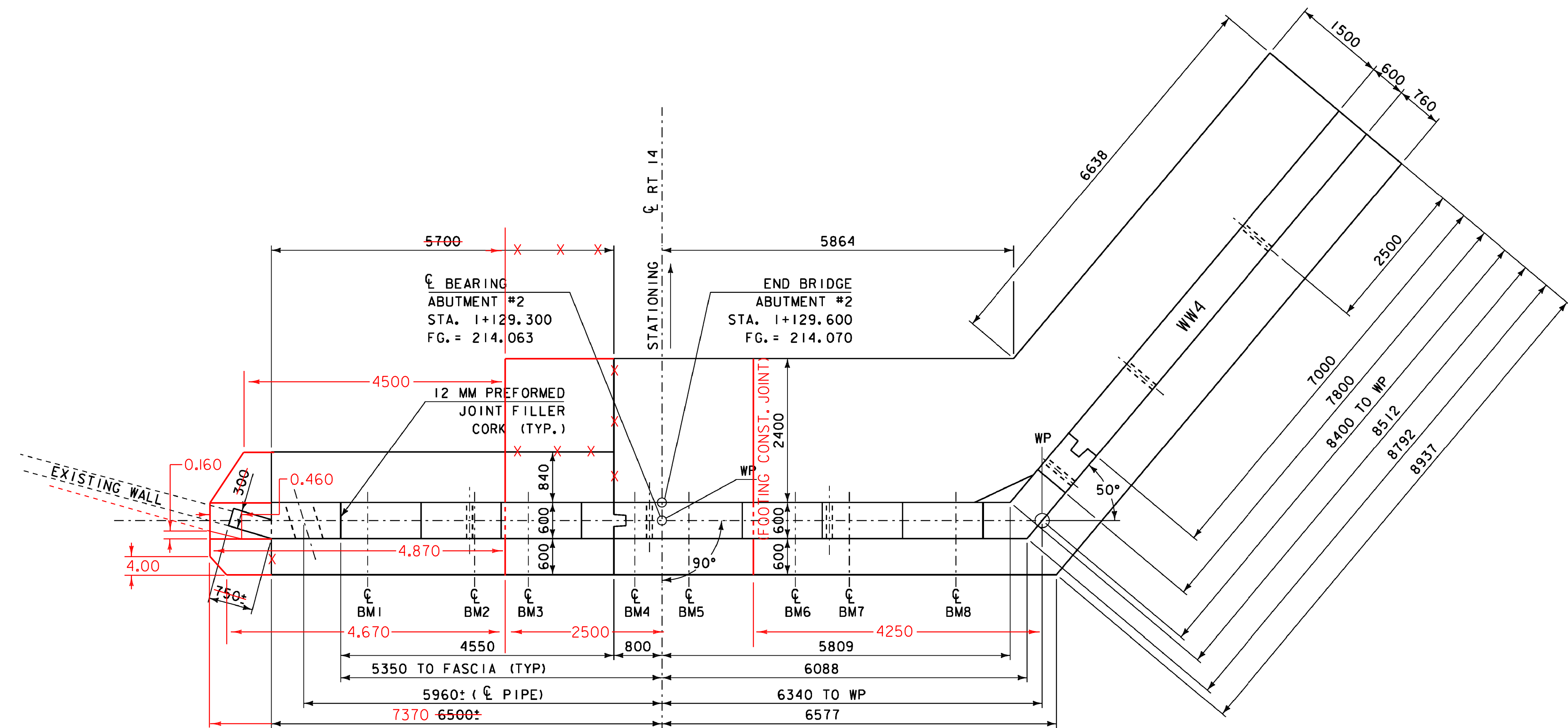


ABUTMENT #2 ELEVATION

SCALE 1:50

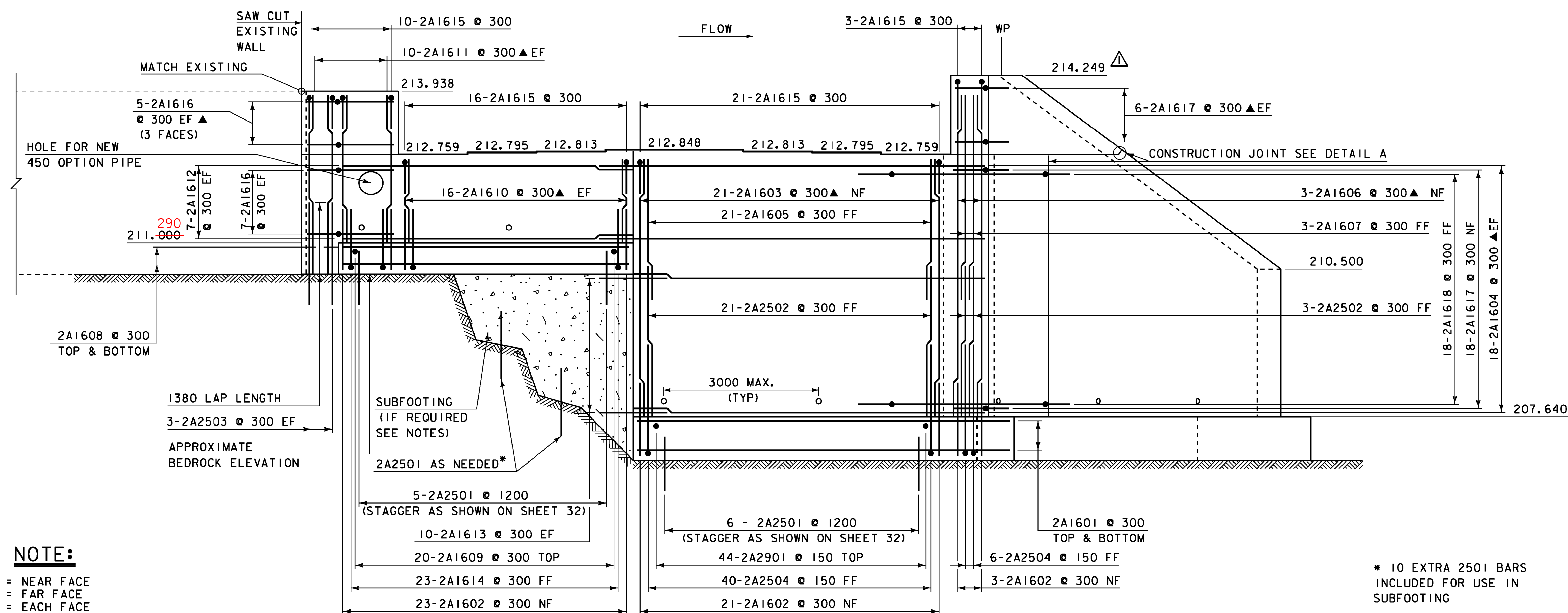
* 10 EXTRA 250I BARS
INCLUDED FOR USE IN
SUBFOOTING

PROJECT:	PROJECT NO.:
EAST MONTEPELIER	BRF 037-2 (8)
DESIGN FILE NAME: 86e054/Structures/se054sub.dgn	
IPARM FILE NAME: se054abu+2.i	PLOT DATE: 18-AUG-2010
DESIGNED BY: L. J. STONE	DRAWN BY: D. D. BEARD
SQUAD LEADER: C. P. WILLIAMS	CHECKED BY: H. I. SALLS
ABUTMENT 2 DETAILS	SHEET: 30 OF 63



ABUTMENT #2 PLAN VIEW

SCALE 1:50



ABUTMENT #2 ELEVATION

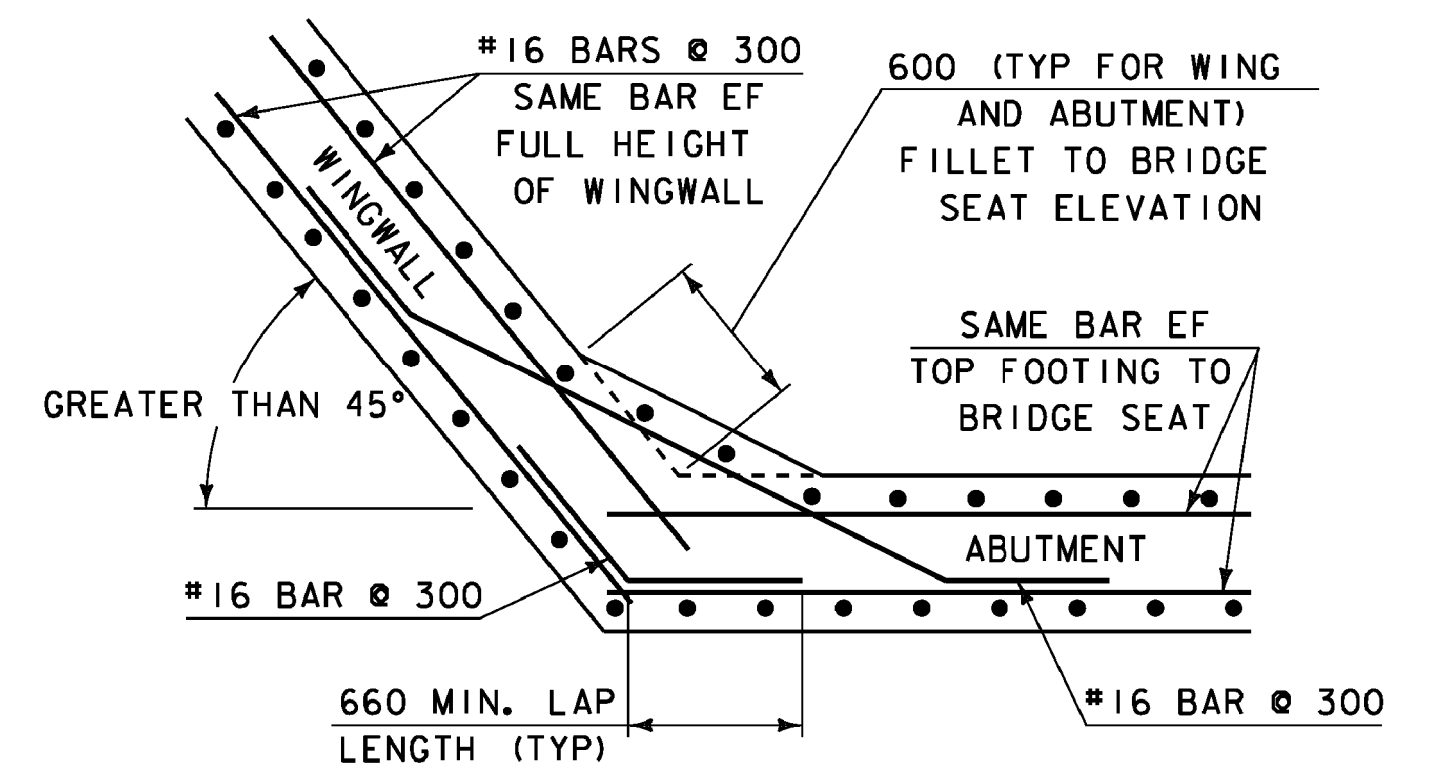
SCALE 1:50

NOTE:

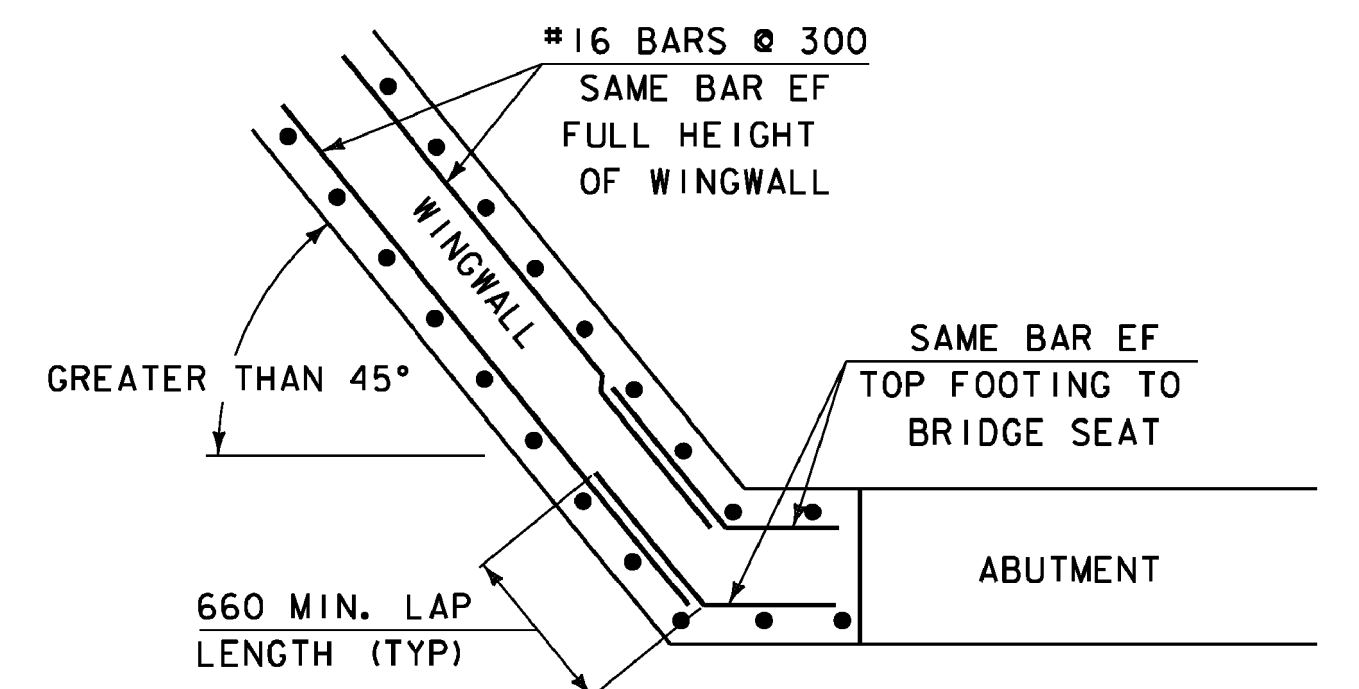
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80 CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.

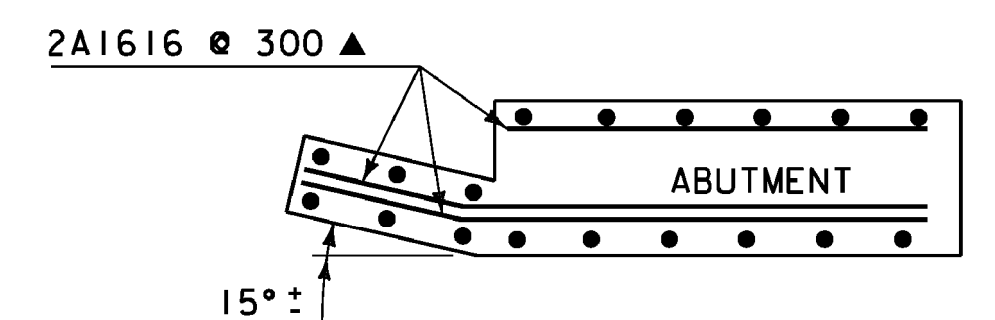
ALL LAPS ARE 660 MIN UNLESS OTHERWISE SPECIFIED ON THE PLANS.



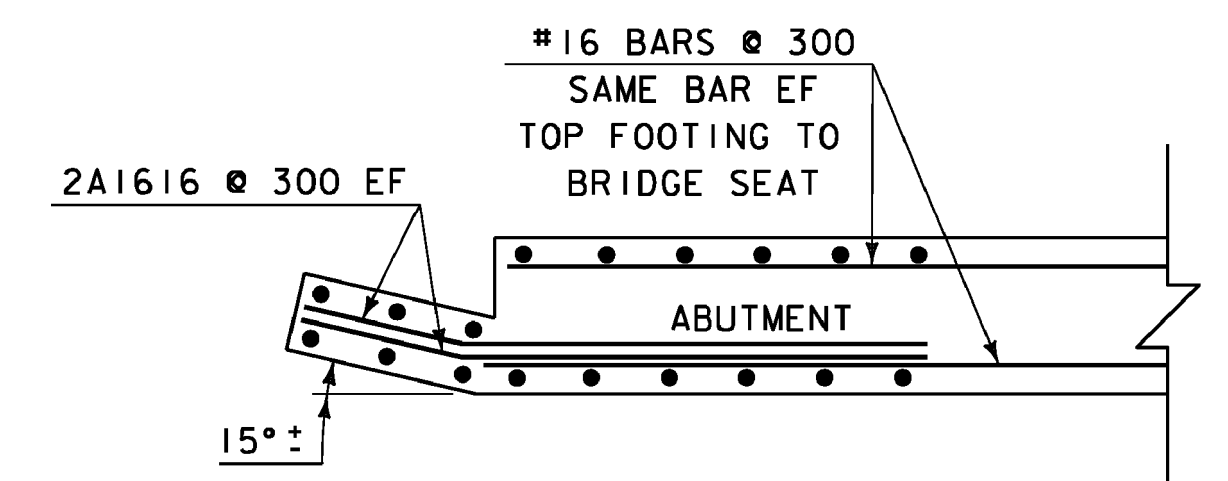
WINGWALL CORNER DETAIL FOR GREATER THAN 45°
BELOW BRIDGESEAT (TYP)



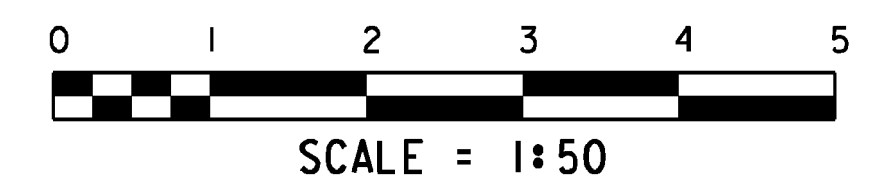
WINGWALL CORNER DETAIL FOR GREATER THAN 45°
ABOVE BRIDGESEAT (TYP)



CORNER DETAIL FOR WINGWALL
#3 ABOVE BRIDGE SEAT



CORNER DETAIL FOR WINGWALL
#3 BELOW BRIDGE SEAT

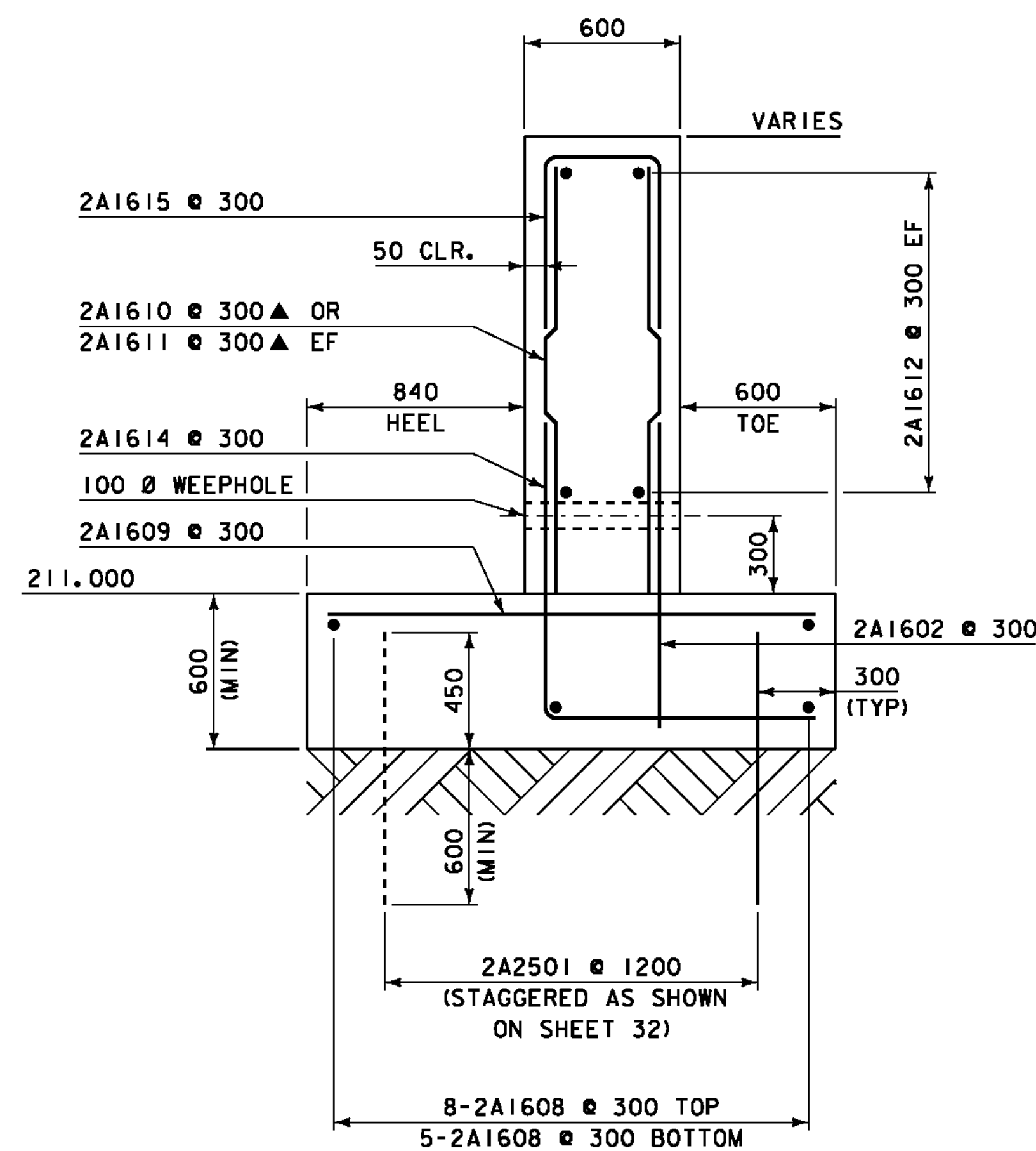


SCALE = 1:50

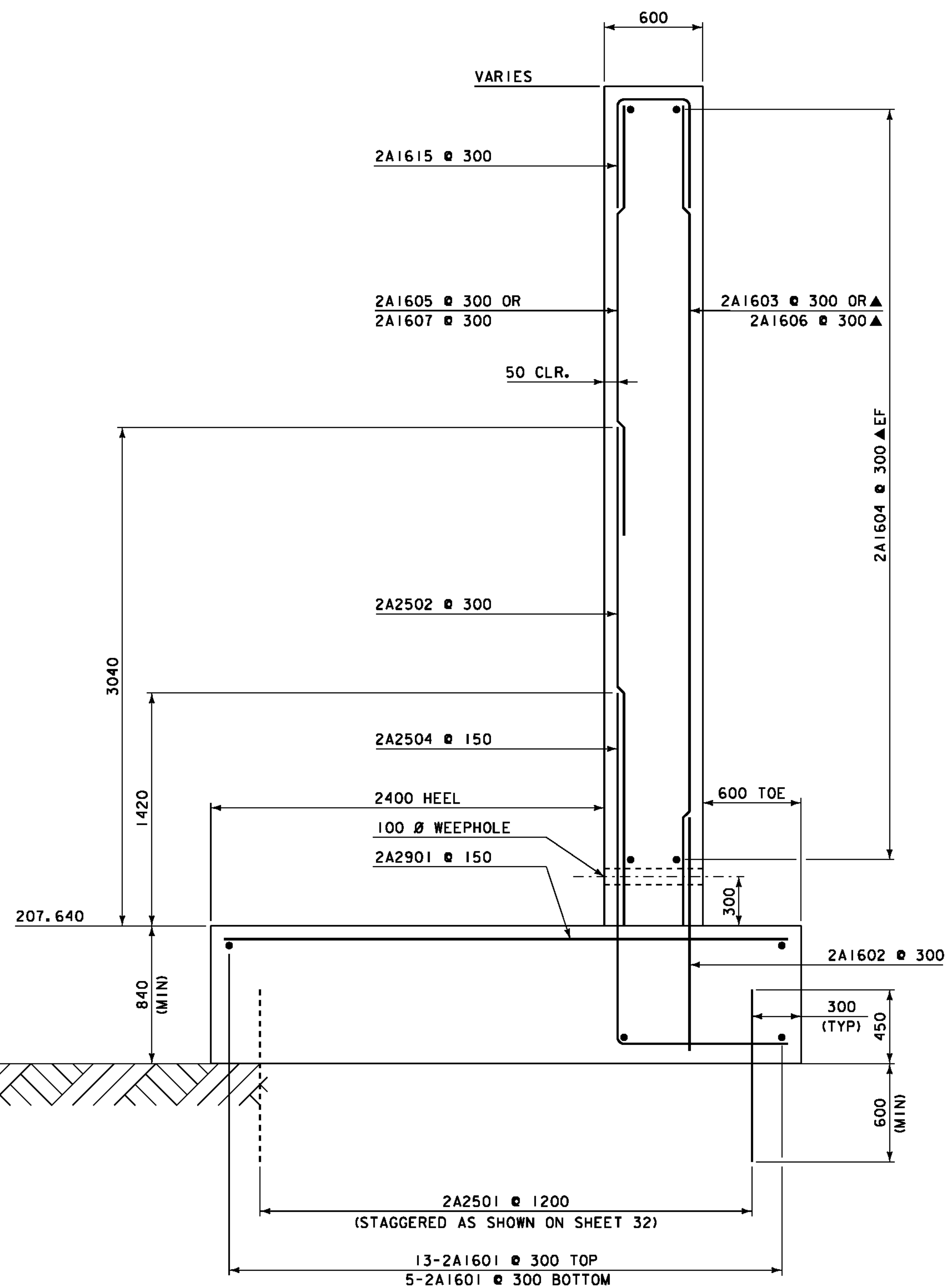
* 10 EXTRA 2501 BARS INCLUDED FOR USE IN SUBFOOTING

PROJECT:	PROJECT NO.:
EAST MONTPELIER	BRF 037-2 (8)
DESIGN FILE NAME: 86e054\Structures\SideWallChange\Abutment.dgn	IPARM FILE NAME: se054abu2.i
DESIGNED BY: L.J. STONE	PLOT DATE: 23-FEB-2011
SQUAD LEADER: C.P. WILLIAMS	DRAWN BY: D.D. BEARD
ABUTMENT 2 DETAILS	CHECKED BY: H.I. SALLS
	SHEET: 30A OF 63

REV. NO.	DATE	BY	DESCRIPTION
1	2/18/2011	VAOT	MODIFIED ELEVATION OF WINGWALL.



ABUTMENT #2
SHORT TYPICAL SECTION
SCALE 1:20



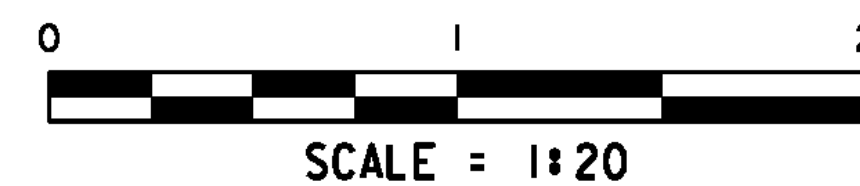
ABUTMENT #2
TALL TYPICAL SECTION
SCALE 1:20

NOTE:

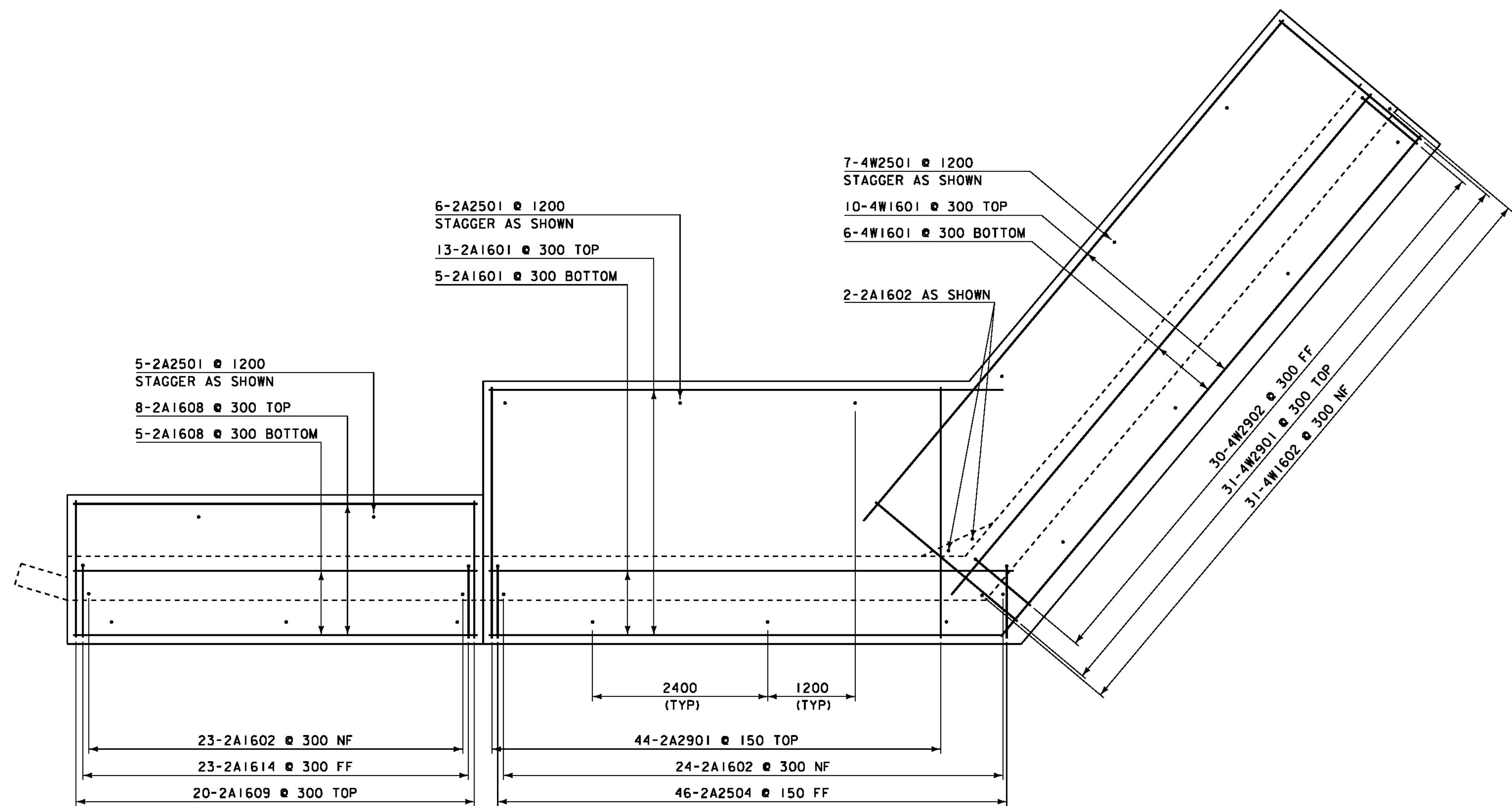
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80 CLR. UNLESS OTHERWISE
SPECIFIED ON THE PLANS.

ALL LAPS ARE 660 MIN
UNLESS OTHERWISE
SPECIFIED ON THE PLANS.



PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: 86e054/Structures/se054sub.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054abut2typ.i	DRAWN BY: D.D.BEARD
DESIGNED BY: L.J.STONE	CHECKED BY: H.I.SALLS
SQUAD LEADER: C.P.WILLIAMS	ABUTMENT 2 TYPICAL DETAILS
ABUTMENT 2 TYPICAL DETAILS	SHEET: 31 OF 63



ABUTMENT #2 FOOTING REINFORCEMENT

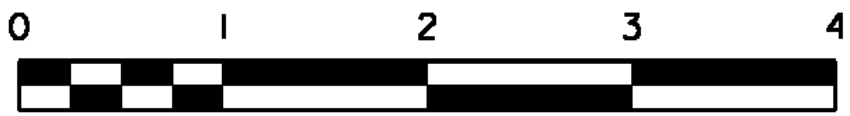
SCALE 1:40

NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

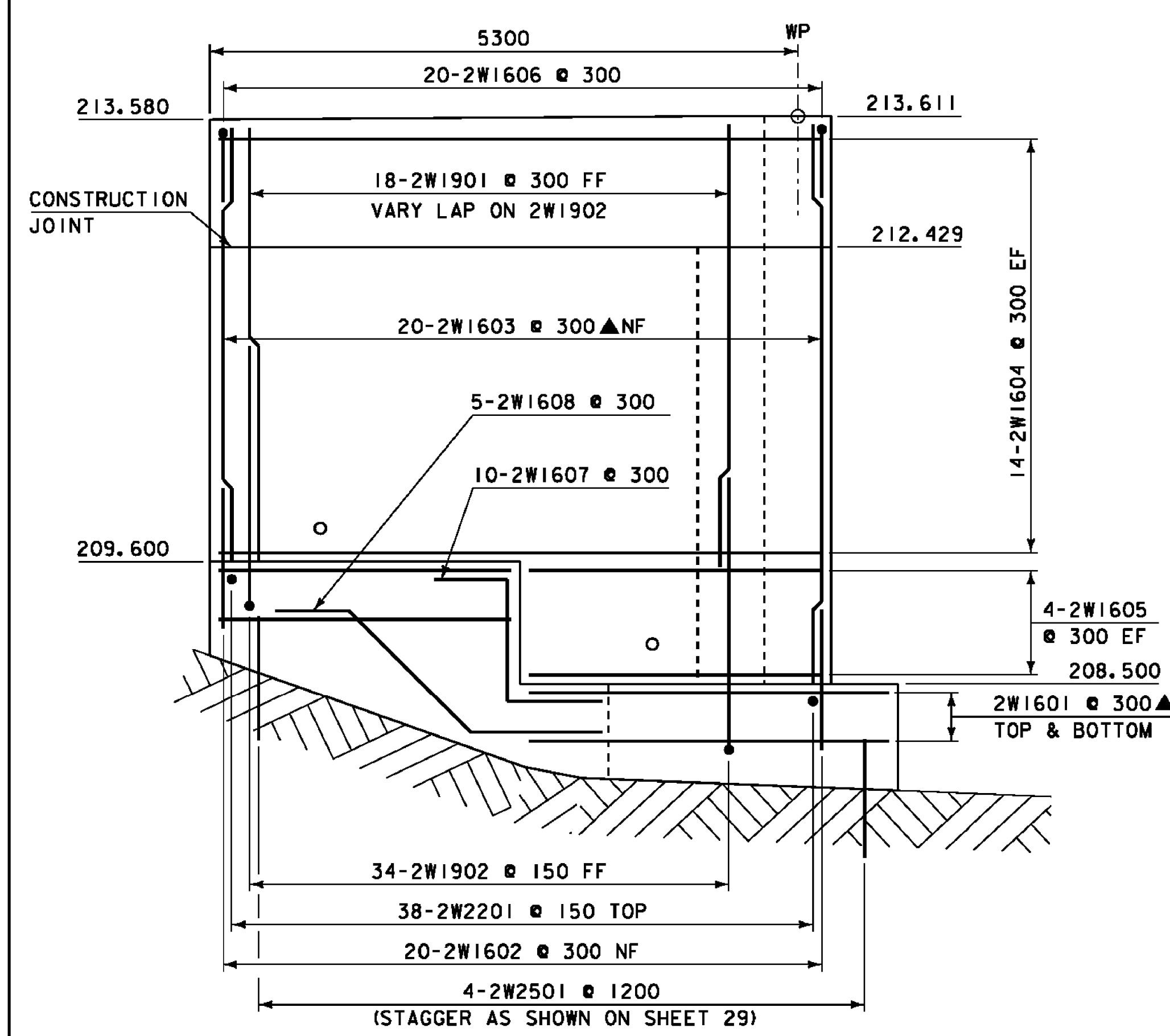
80 CLR. UNLESS OTHERWISE
SPECIFIED ON THE PLANS.

ALL LAPS ARE 660 MIN
UNLESS OTHERWISE
SPECIFIED ON THE PLANS.



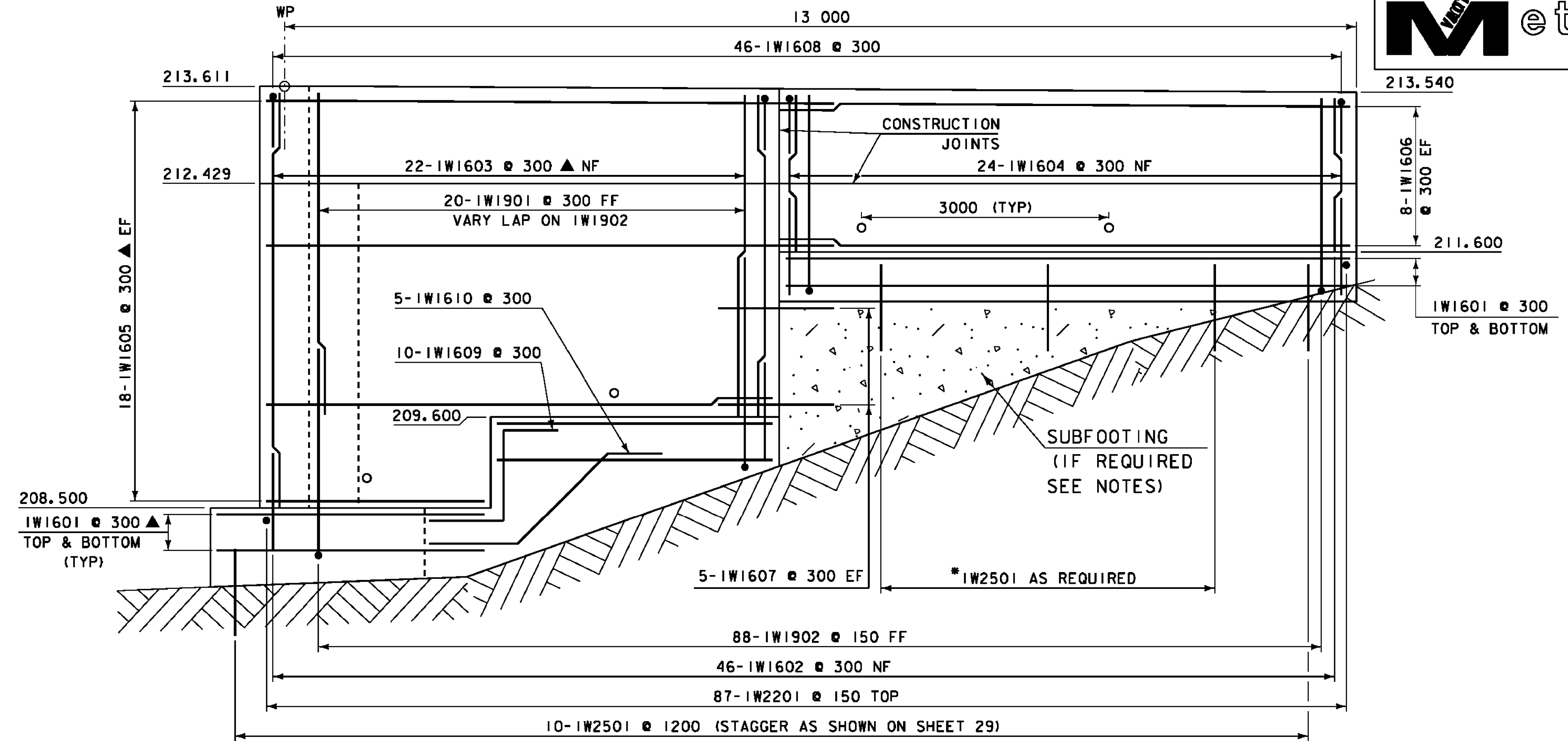
SCALE = 1:40

PROJECT:	EAST MONTEPELIER	PROJECT NO.:	BRF 037-2 (8)
DESIGN FILE NAME:	86e054/Structures/se054sub.dgn	PLOT DATE:	18-AUG-2010
IPARM FILE NAME:	se054ftg2.i	DRAWN BY:	D.D. BEARD
DESIGNED BY:	L.J. STONE	CHECKED BY:	H.I. SALLS
SQUAD LEADER:	C.P. WILLIAMS		
ABUTMENT 2 FOOTING REINFORCEMENT		SHEET:	32 OF 63



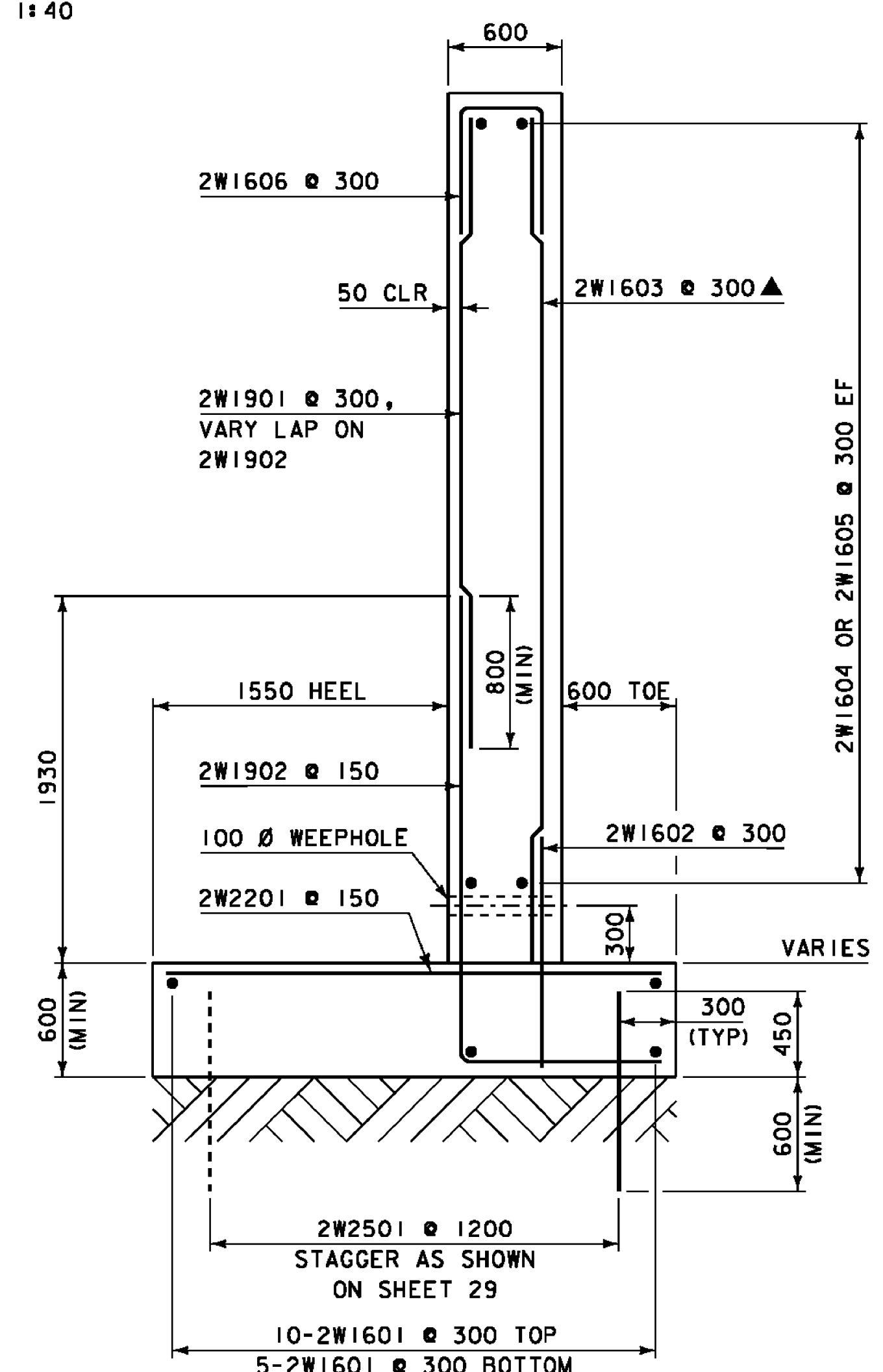
WINGWALL 2 ELEVATION VIEW
SCALE 1:40

SEE REVISED SHEET 33A

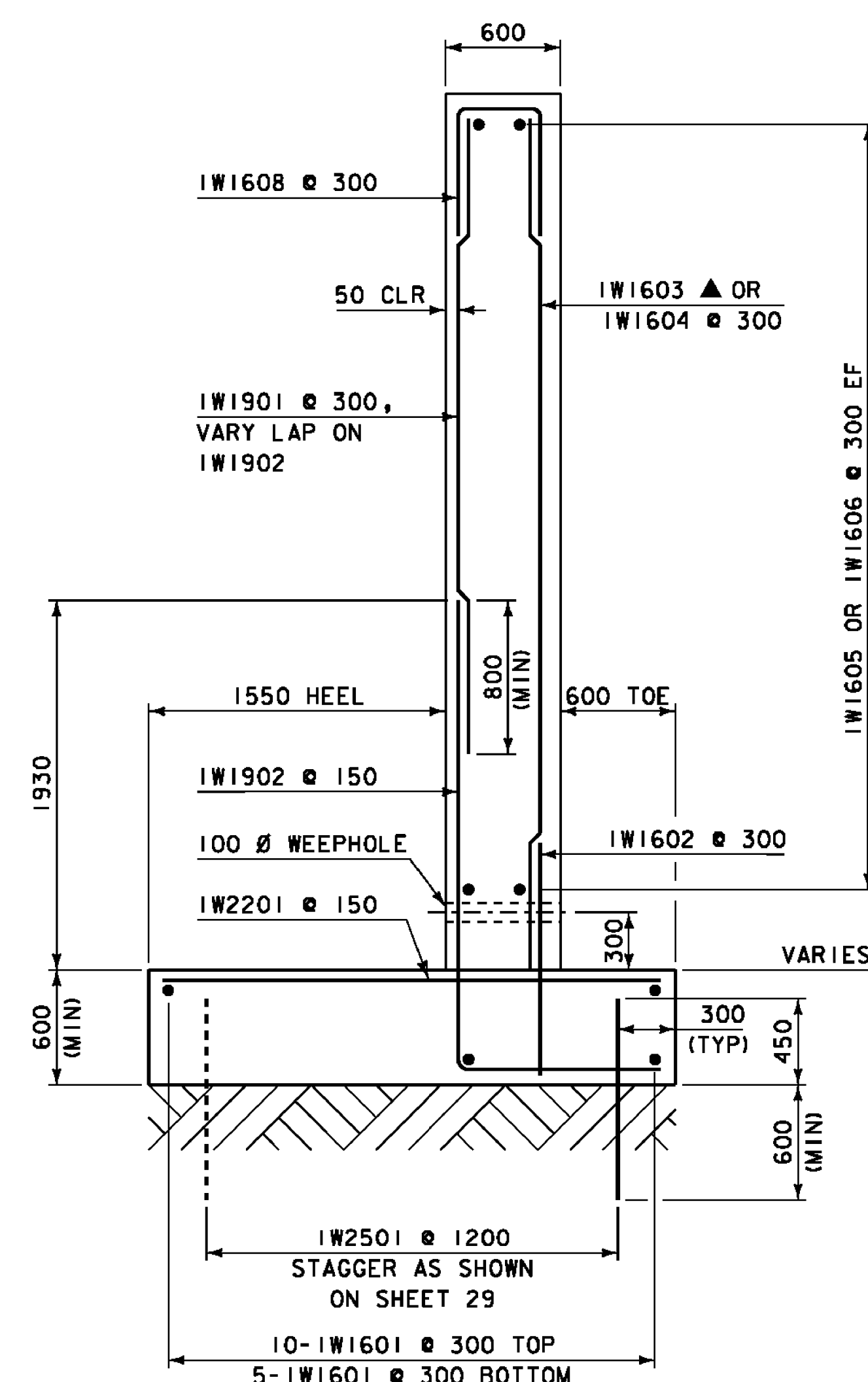


WINGWALL 1 ELEVATION VIEW
SCALE 1:40

* 10 EXTRA 2501 BARS INCLUDED FOR USE IN SUBFOOTING

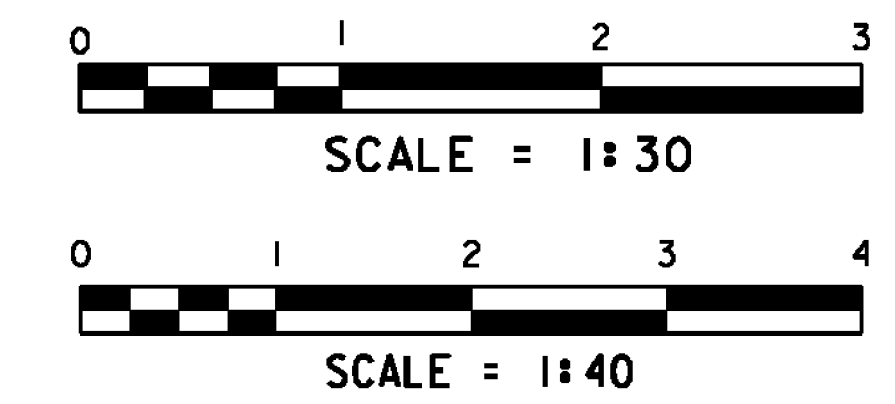


WINGWALL 2 TYPICAL SECTION
SCALE 1:30

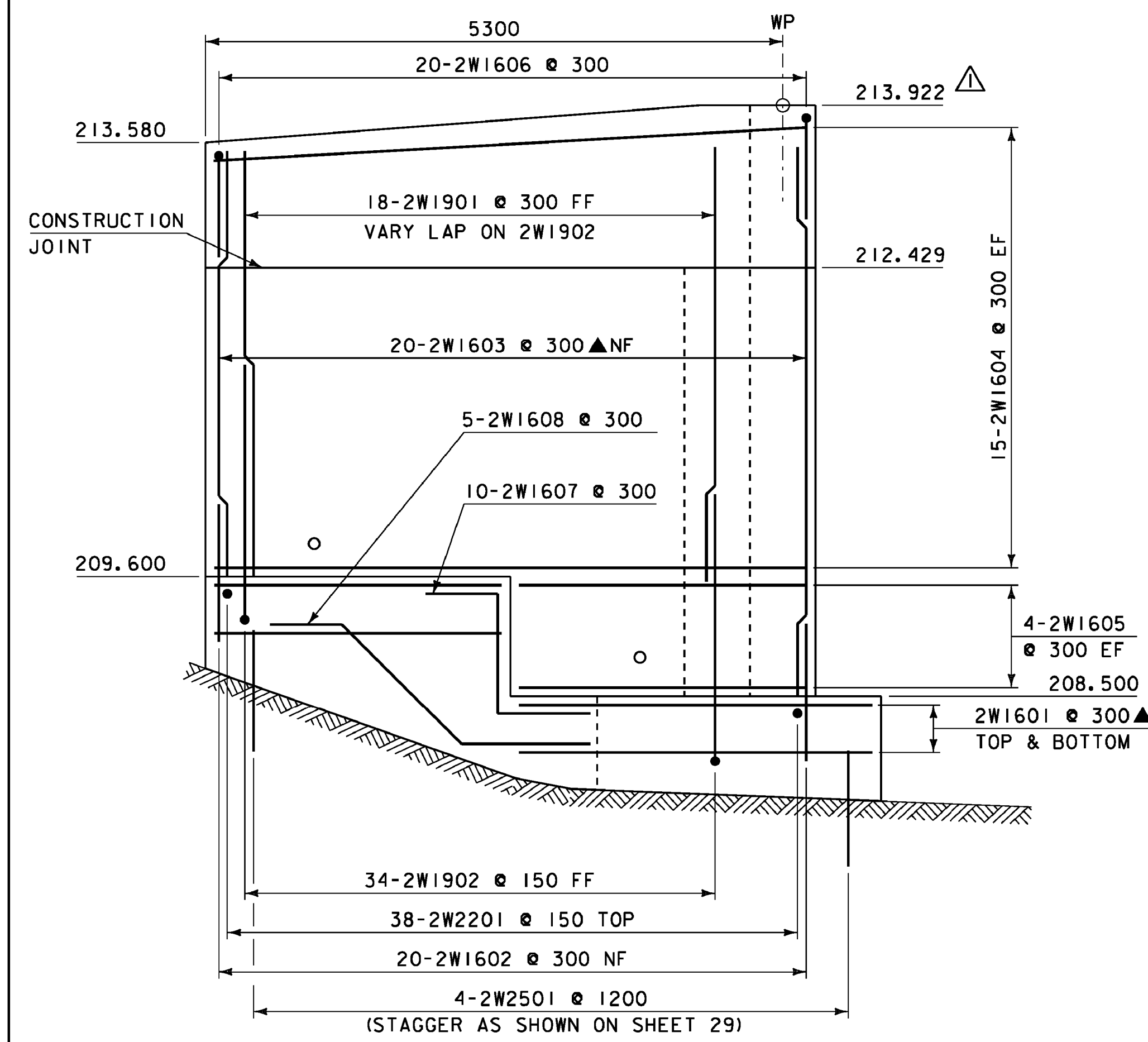


WINGWALL 1 TYPICAL SECTION
SCALE 1:30

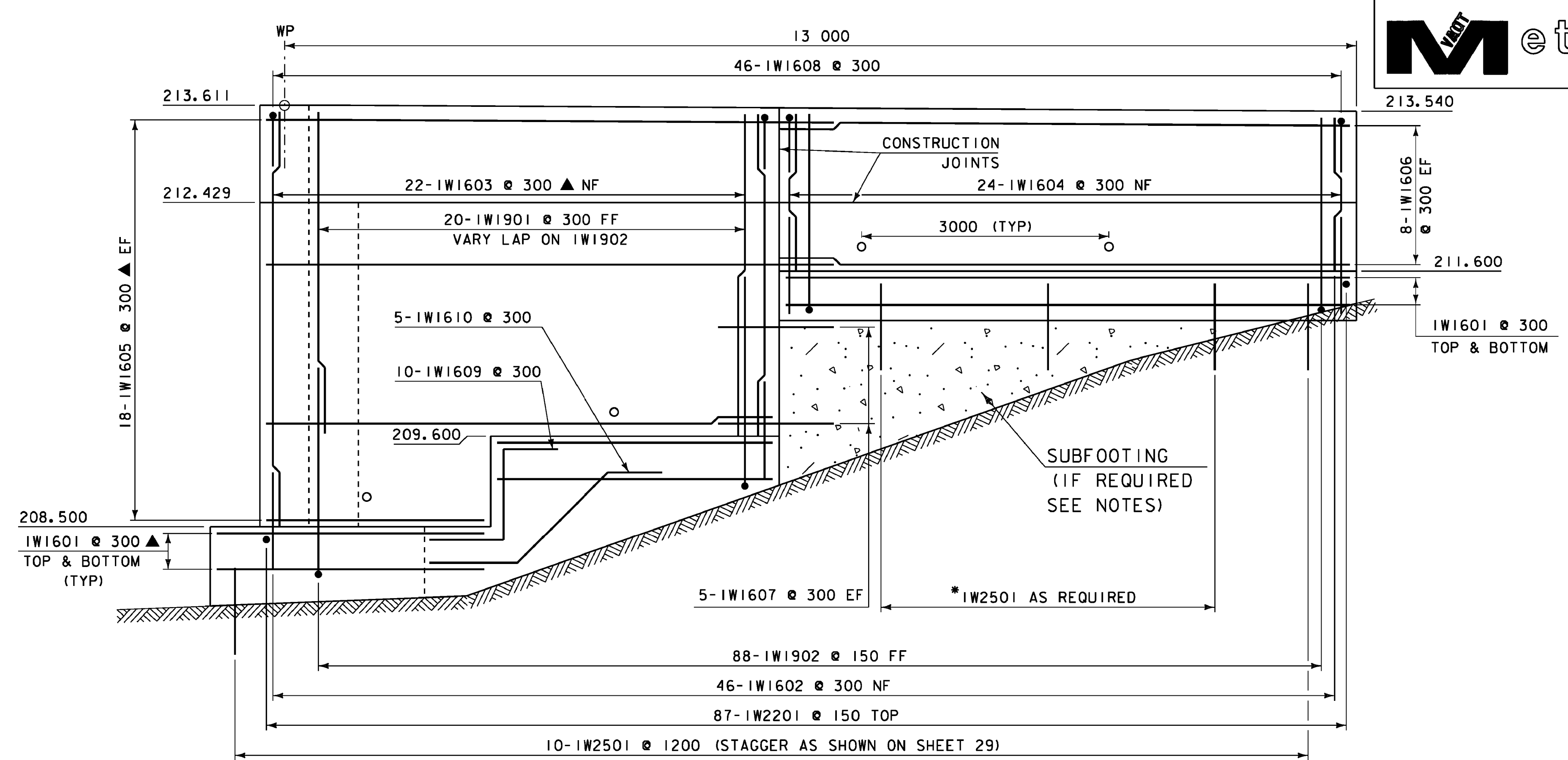
NOTE:
 NF = NEAR FACE
 FF = FAR FACE
 EF = EACH FACE
 ▲ = CUT TO FIT IN FIELD
 80 CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS
 660 LAP MIN. UNLESS OTHERWISE SPECIFIED ON THE PLANS



PROJECT: EAST MONTEPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: 86e054\Structures\se054sub	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054ww1x2.i	DRAWN BY: D.D.BEARD
DESIGNED BY: L.J.STONE	CHECKED BY: H.I.SALLS
SQUAD LEADER: C.P.WILLIAMS	SHEET: 33 OF 63
WINGWALLS 1 & 2 DETAILS	

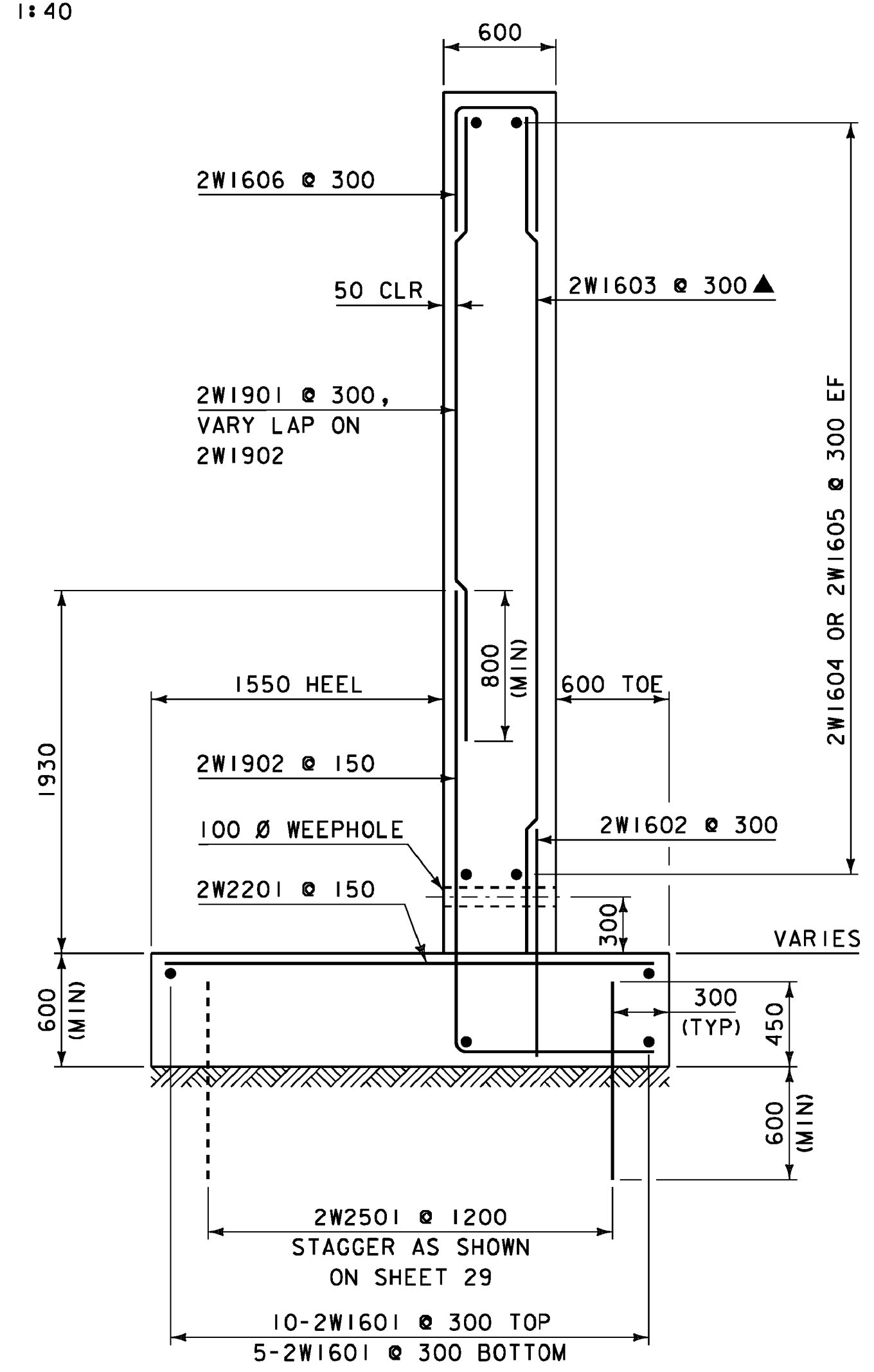


WINGWALL 2 ELEVATION VIEW
SCALE 1:40

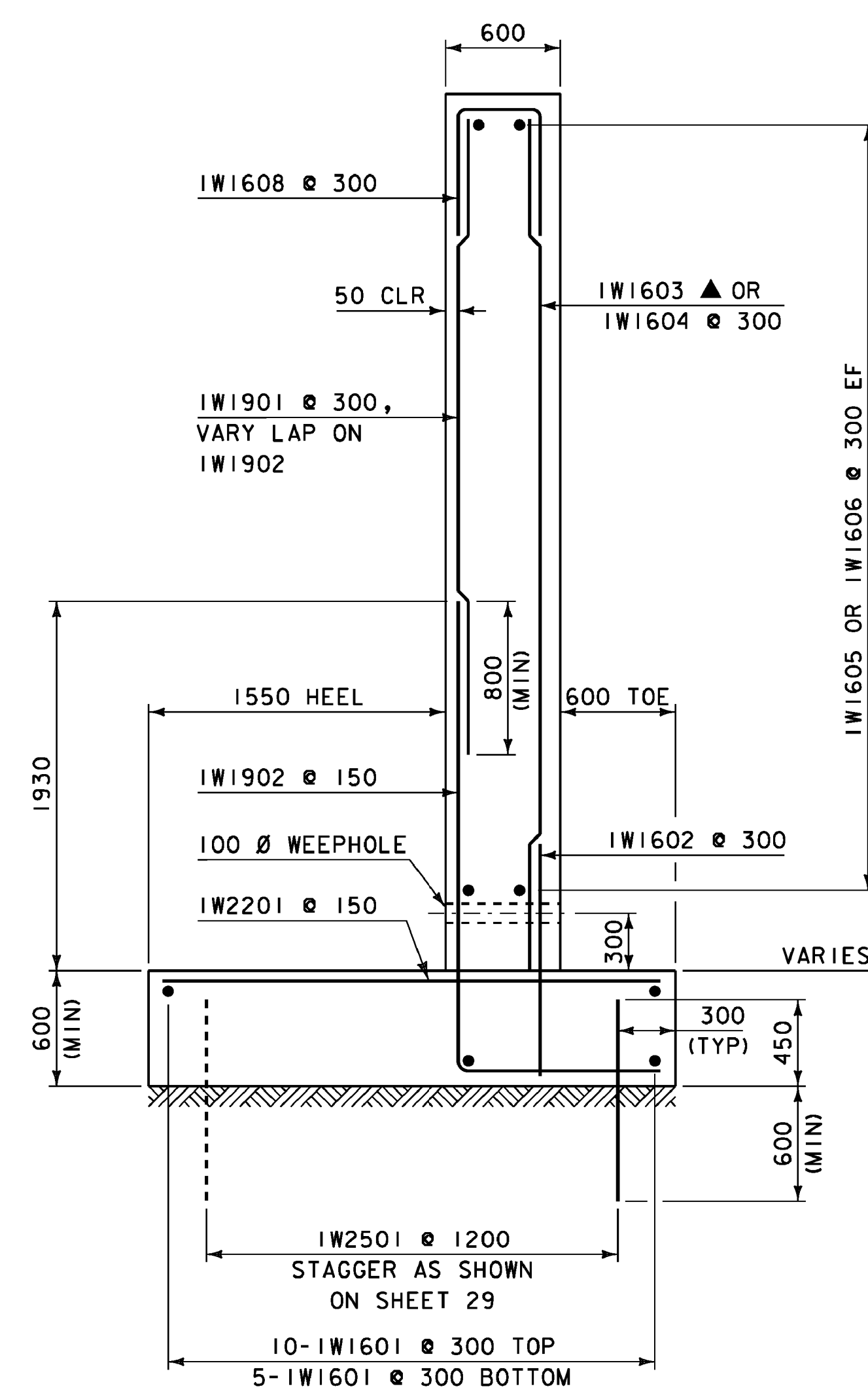


WINGWALL 1 ELEVATION VIEW
SCALE 1:40

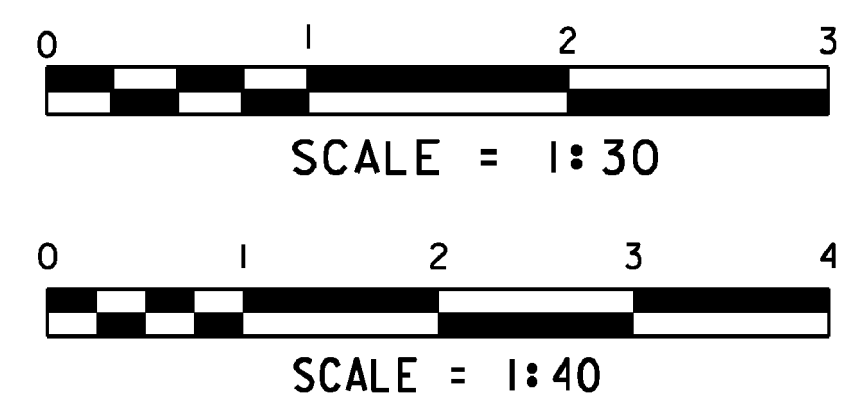
* 10 EXTRA 2501 BARS INCLUDED FOR USE IN SUBFOOTING



WINGWALL 2 TYPICAL SECTION
SCALE 1:30



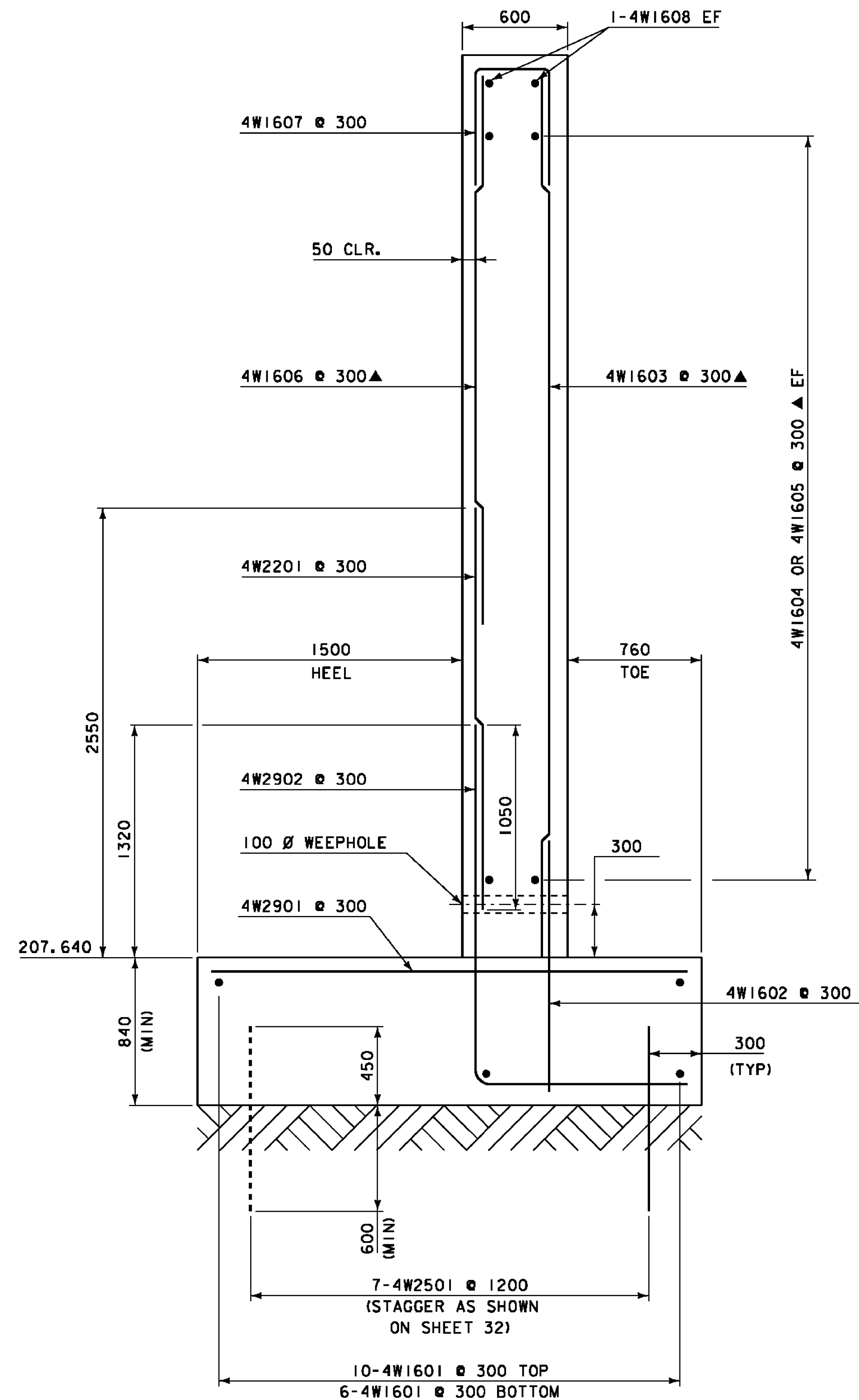
WINGWALL 1 TYPICAL SECTION
SCALE 1:30



NOTE:
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FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD
80 CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS
660 LAP MIN. UNLESS OTHERWISE SPECIFIED ON THE PLANS

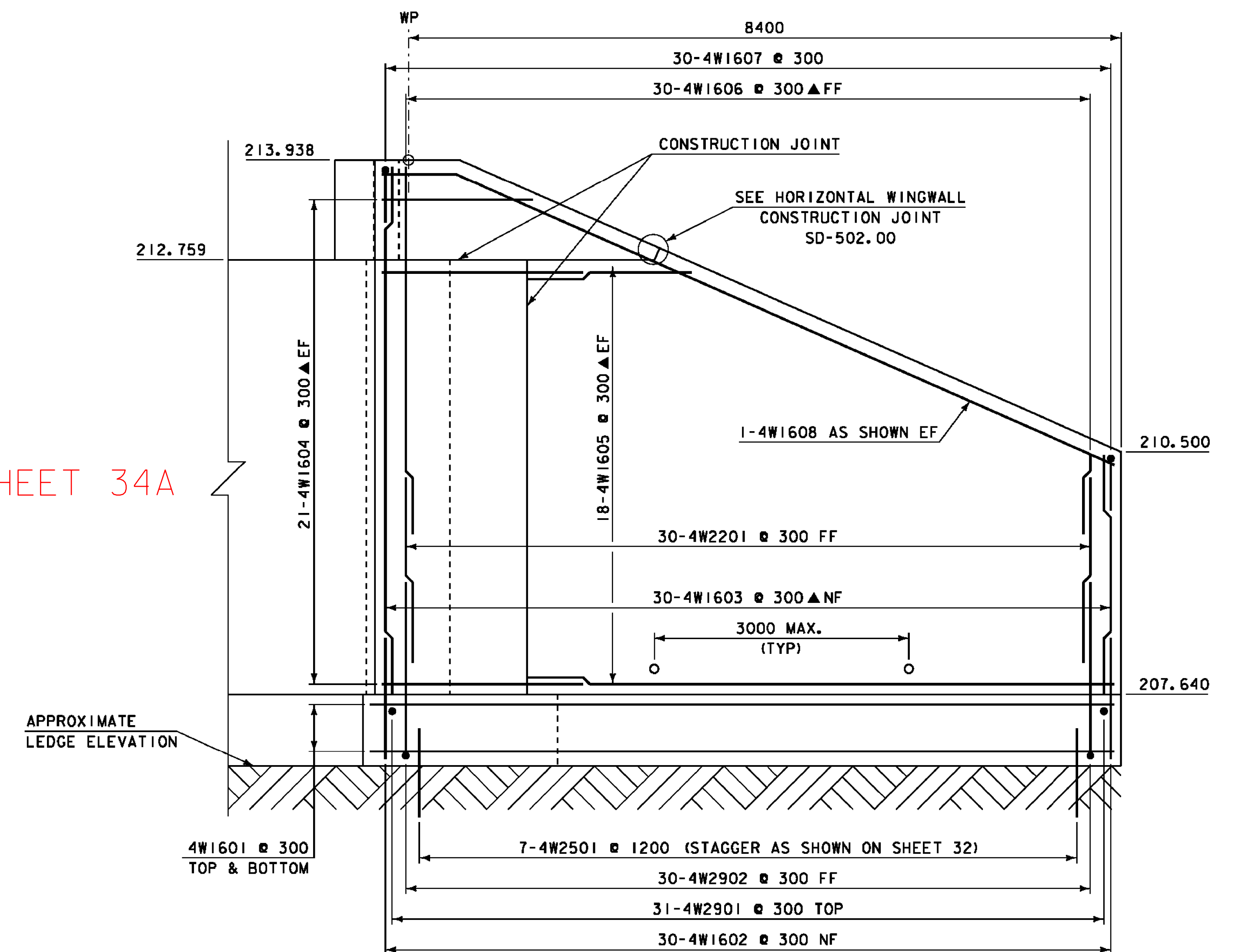
REV. NO.	DATE	BY	DESCRIPTION
△	2/18/2011	VAOT	MODIFIED ELEVATION OF WINGWALL.

PROJECT: EAST MONTEPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: 86e054\Structures\SidewalkChange\Abutment.dgn	PLOT DATE: 23-FEB-2011
IPARM FILE NAME: se054ww1x2.i	DRAWN BY: D.D.BEARD
DESIGNED BY: L.J.STONE	CHECKED BY: H.I.SALLS
SQUAD LEADER: C.P.WILLIAMS	WINGWALLS 1 & 2 DETAILS
	SHEET: 33A OF 63



WINGWALL #4 TYPICAL SECTION
SCALE = 1:20

SEE REVISED SHEET 34A



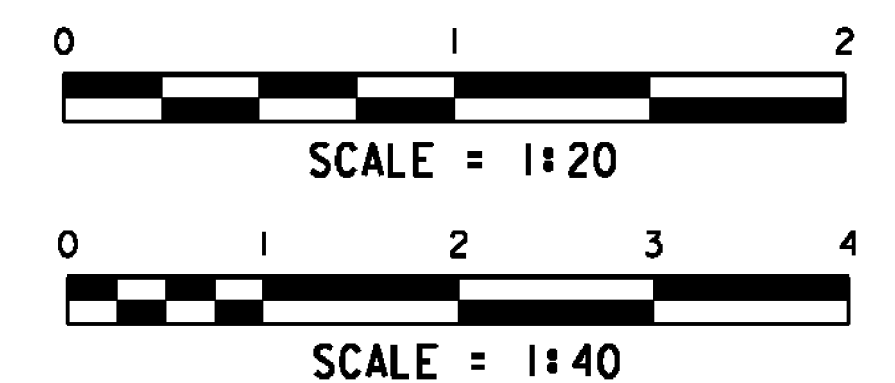
WINGWALL #4 ELEVATION
SCALE = 1:40

NOTE:

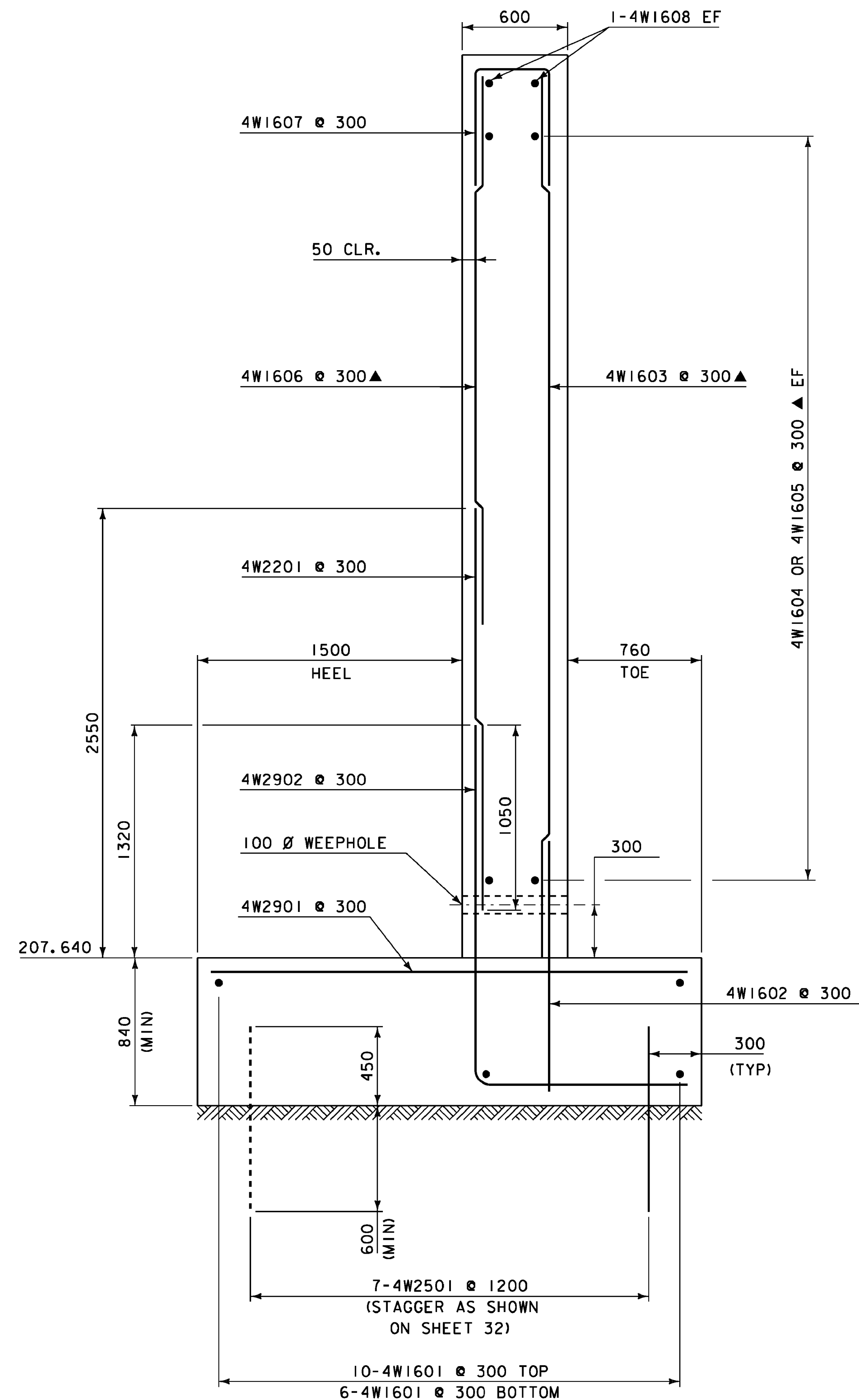
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

80 CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.

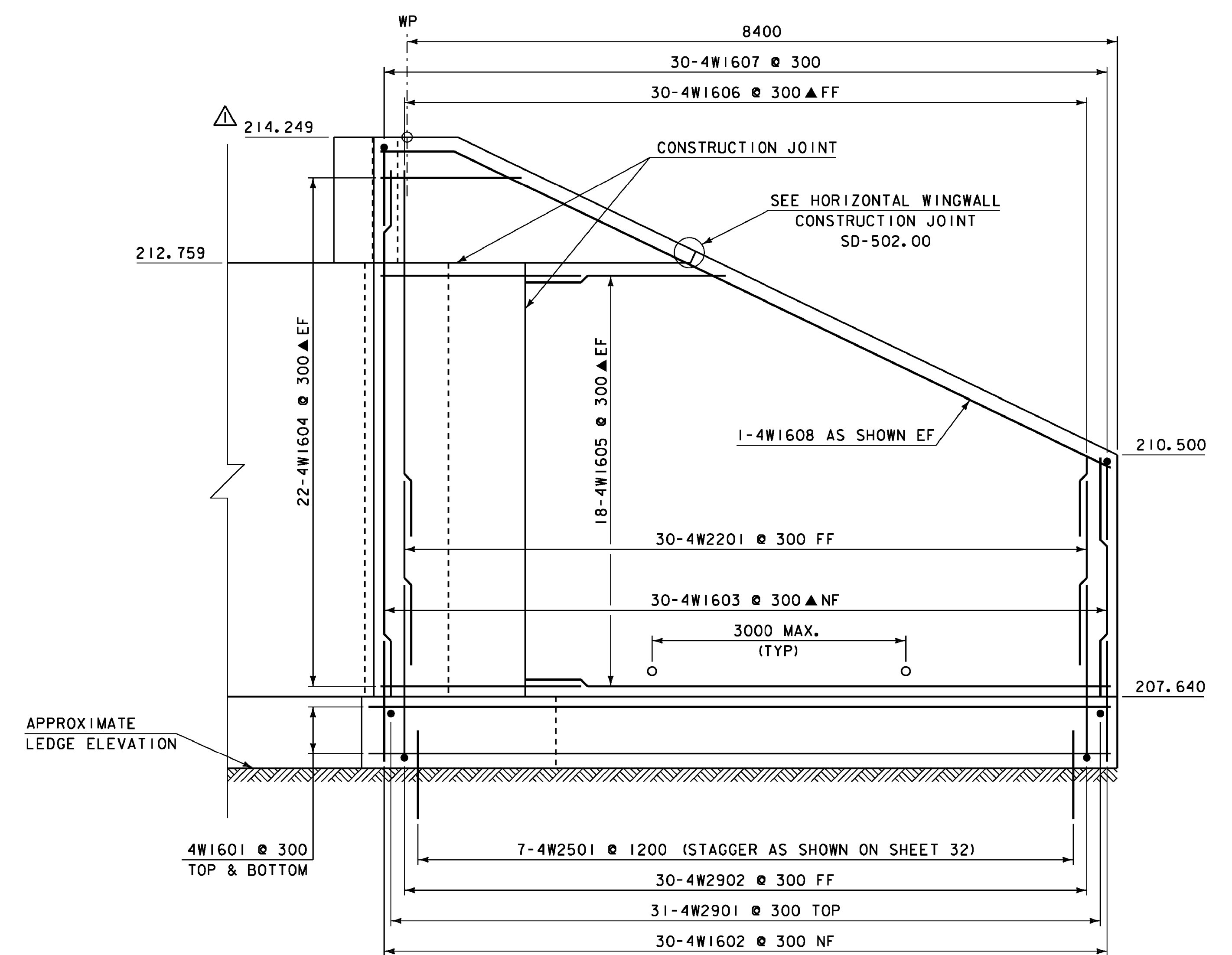
ALL LAPS ARE 660 MIN UNLESS OTHERWISE SPECIFIED ON THE PLANS.



PROJECT:	EAST MONTEPELIER	PROJECT NO.:	BRF 037-2 (8)
DESIGN FILE NAME:	86e054/Structures/se054sub.dgn	PLOT DATE:	18-AUG-2010
IPARM FILE NAME:	se054ww3x4.i	DRAWN BY:	D.D. BEARD
DESIGNED BY:	L.J. STONE	CHECKED BY:	H.I. SALLS
SQUAD LEADER:	C.P. WILLIAMS	WINGWALL 4 DETAILS	SHEET: 34 OF 63



WINGWALL #4 TYPICAL SECTION
SCALE = 1:20



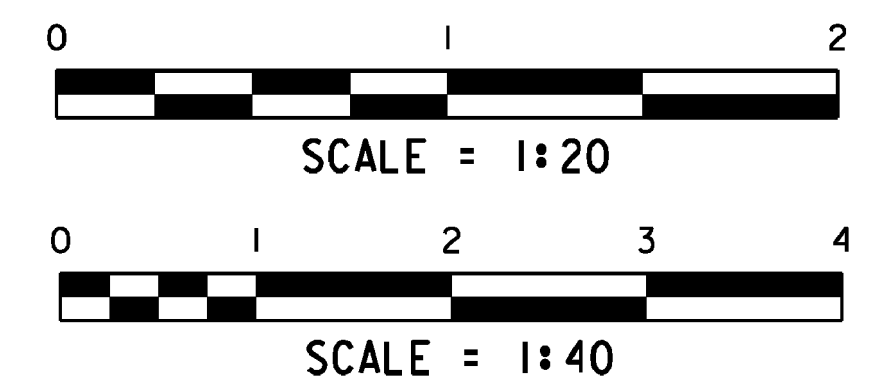
WINGWALL #4 ELEVATION
SCALE = 1:40

NOTE:

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = CUT TO FIT IN FIELD

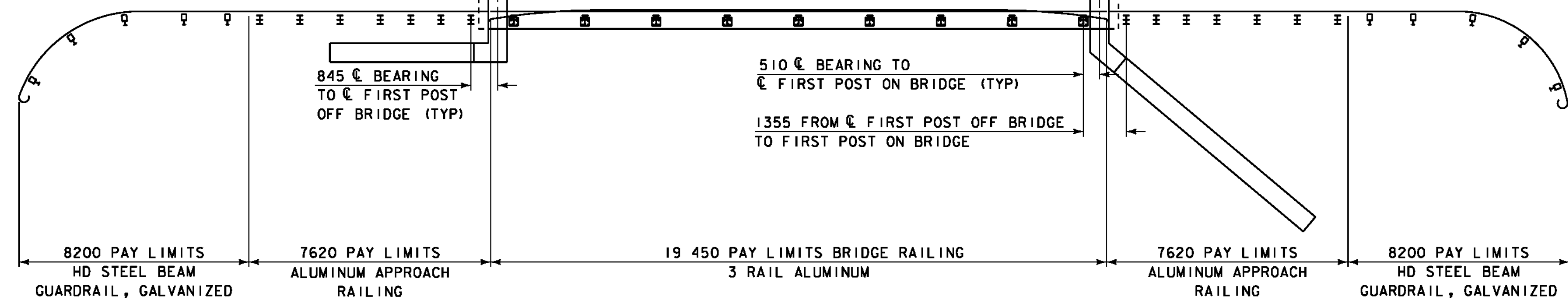
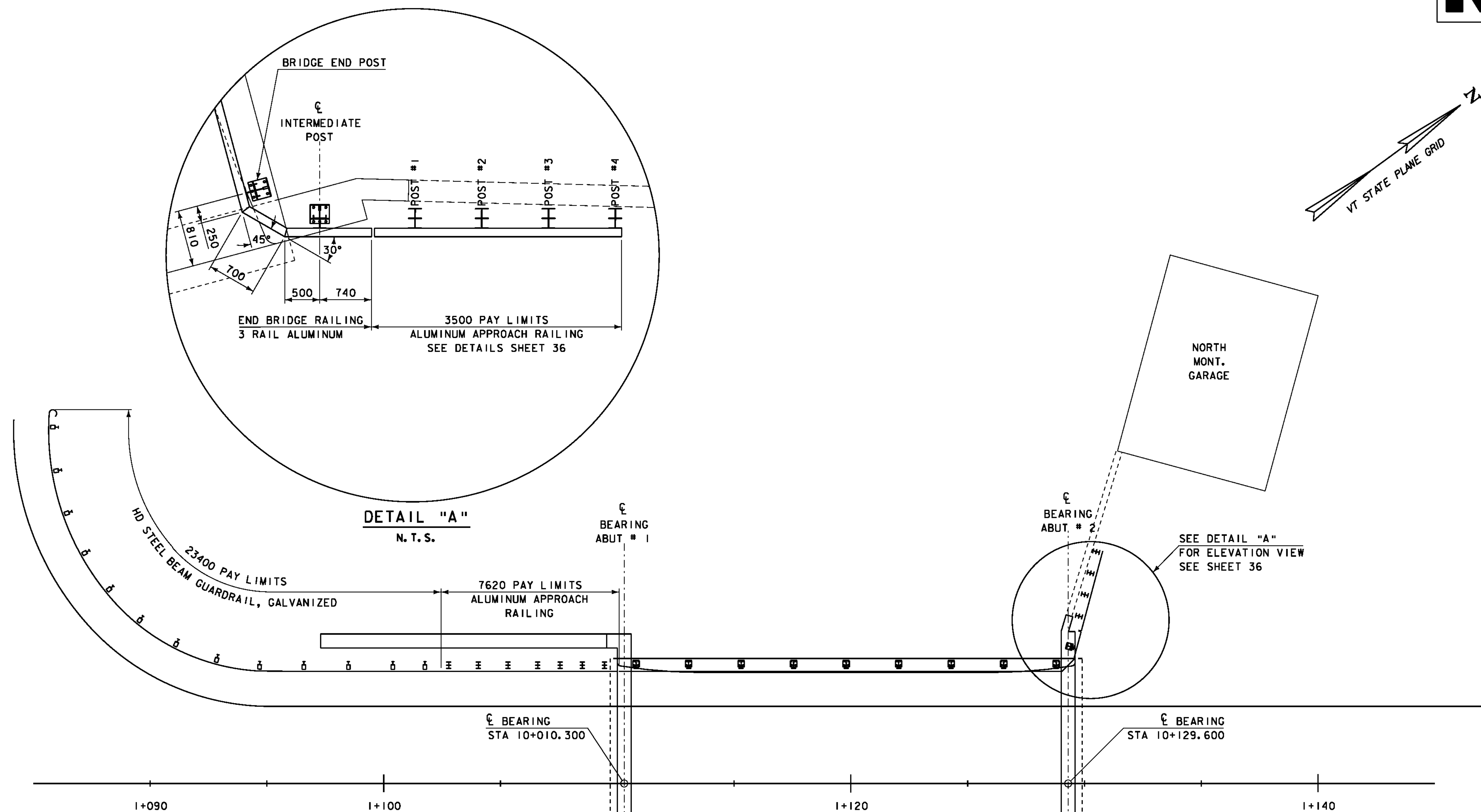
80 CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.

ALL LAPS ARE 660 MIN UNLESS OTHERWISE SPECIFIED ON THE PLANS.



REV. NO.	DATE	BY	DESCRIPTION
△	2/18/2011	VAOT	MODIFIED ELEVATION OF WINGWALL.

PROJECT:	PROJECT NO.:
EAST MONTEPELIER	BRF 037-2 (8)
DESIGN FILE NAME: 86e054\Structures\SidewalkChange\Abutment.dgn	PLOT DATE: 23-FEB-2011
IPARM FILE NAME: se054ww3x4.i	DRAWN BY: D.D. BEARD
DESIGNED BY: L.J. STONE	CHECKED BY: H.I. SALLS
SQUAD LEADER: C.P. WILLIAMS	SHEET: 34A OF 63
WINGWALL 4 DETAILS	



PLAN VIEW

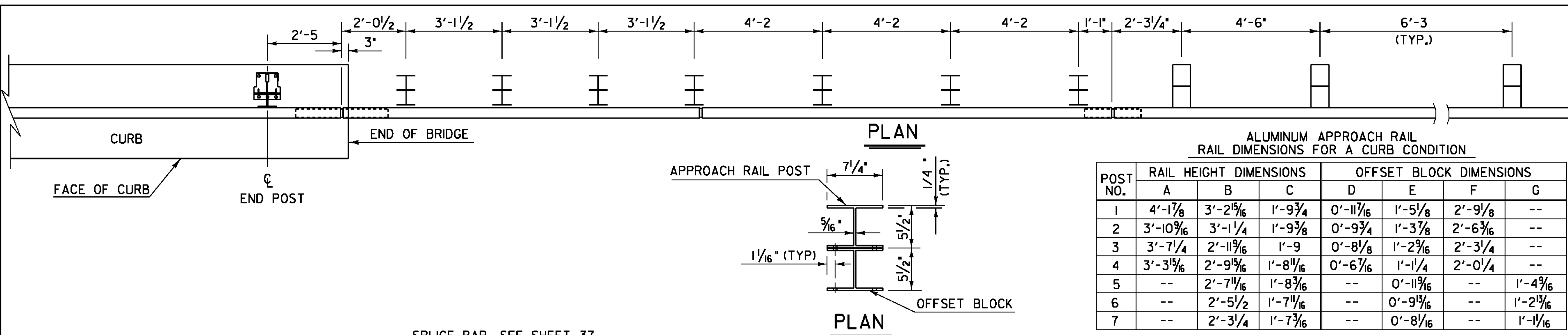


NOTE: SEE SHEET 20 FOR
GUARD RAIL RADI

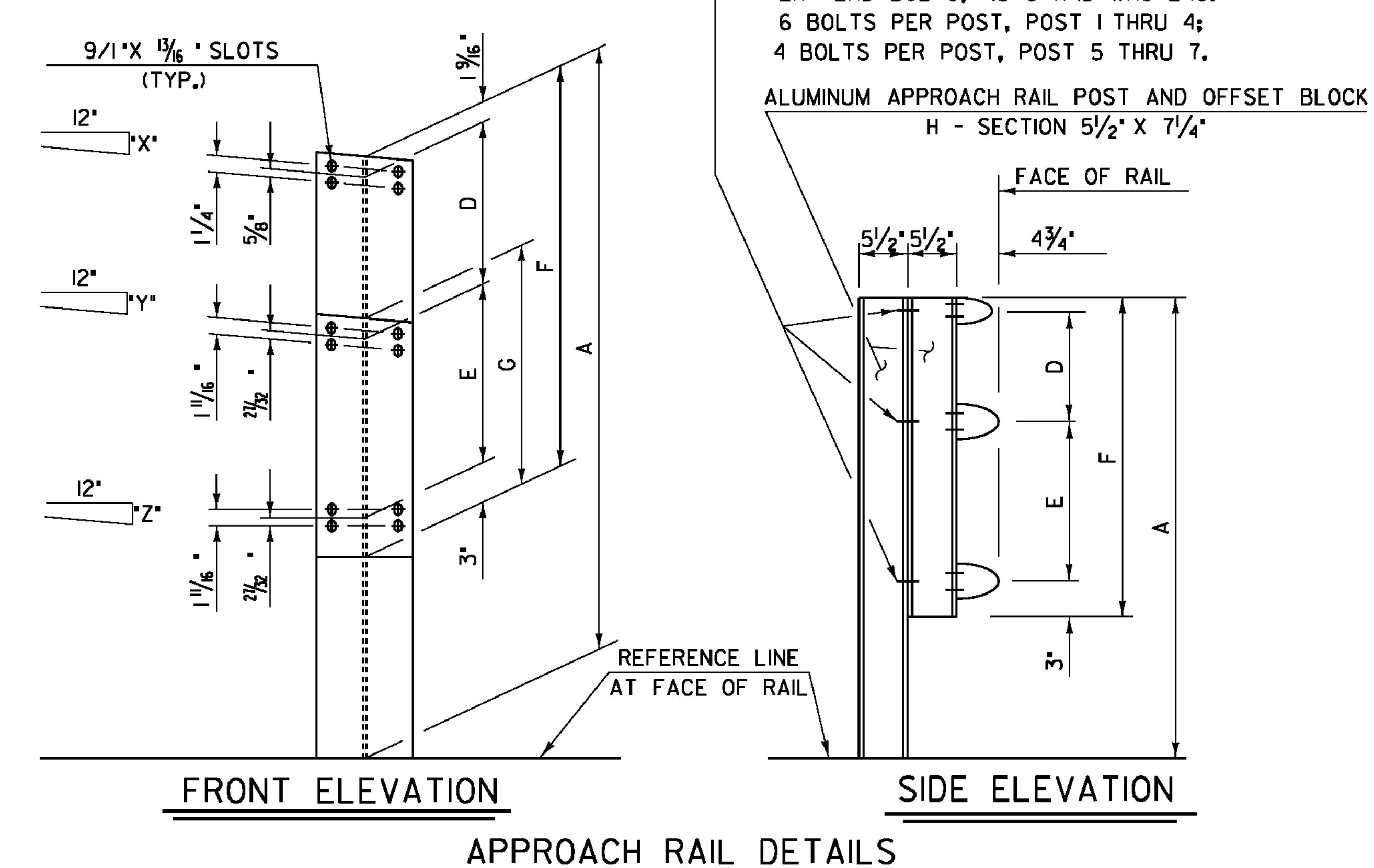
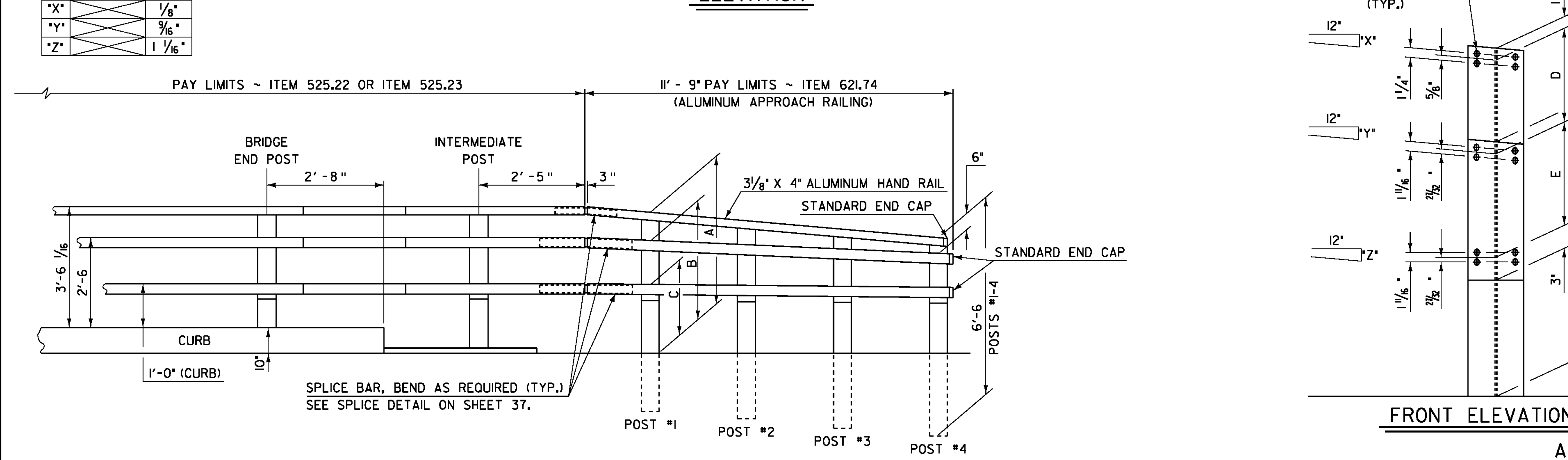
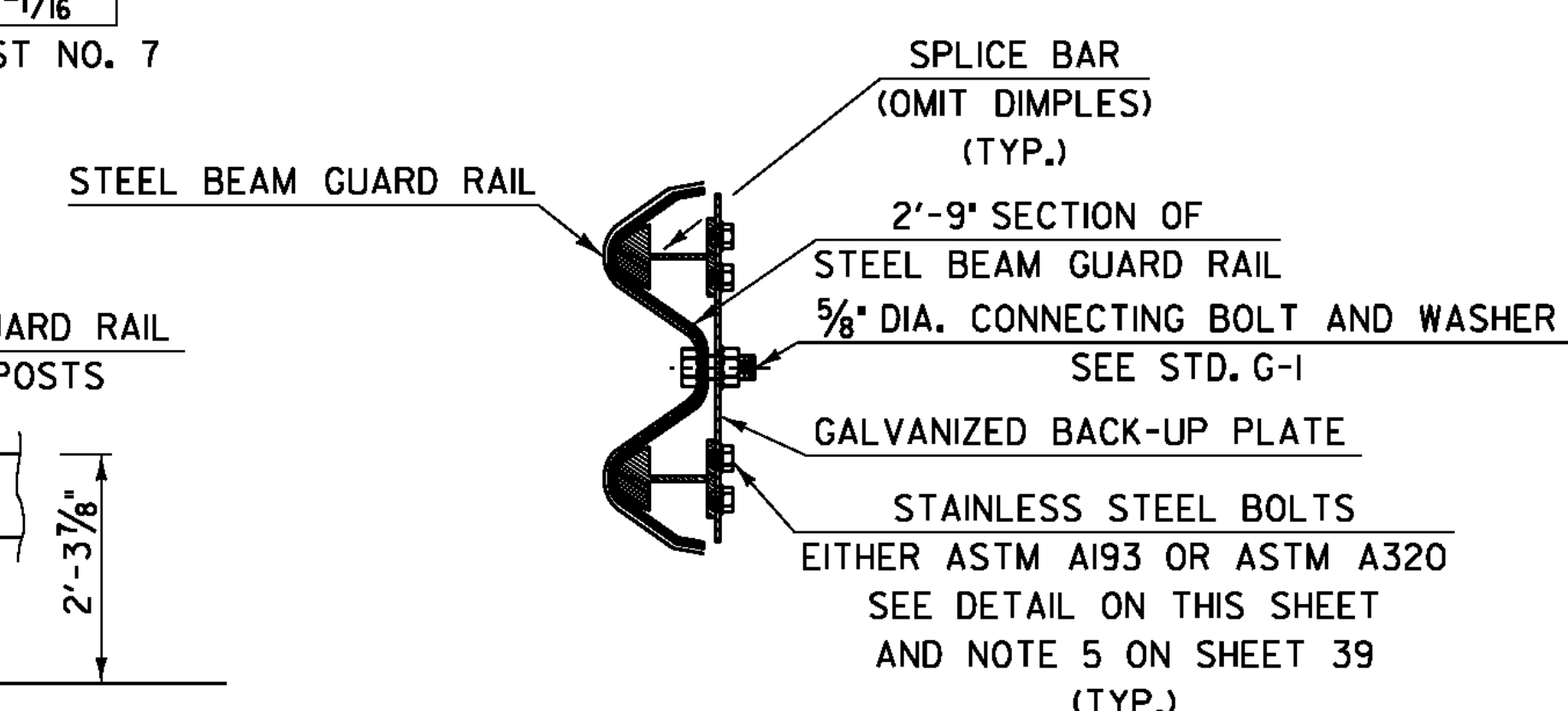
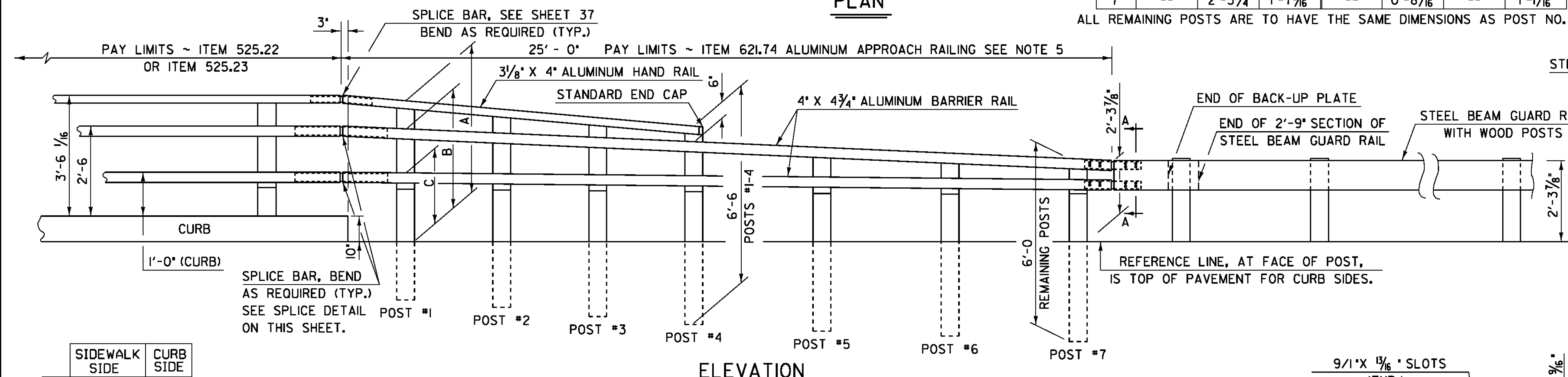
DATUM

VERTICAL USGS
HORIZONTAL ASSUMED

PROJECT: EAST MONTEPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: 86e054/structures/se054rail.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054railay.i	SURVEY DATE: 3/93
SURVEYED BY: R. MOREAU	DRAWN BY: D.D. BEARD
SQUAD LEADER: C.P. WILLIAMS	SHEET: 35 OF 63
RAILING LAYOUT	

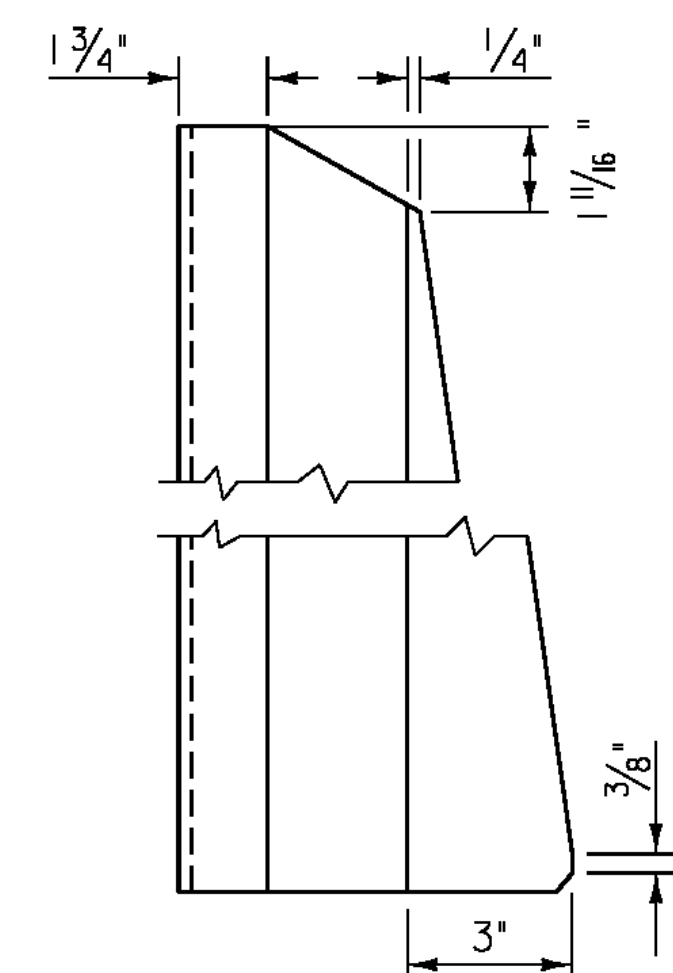


- NOTES**
1. POST 1 THROUGH 7 SHALL BE EXTRUDED ALUMINUM.
 2. ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 36 GALVANIZED AFTER FABRICATION.
 3. ALL ITEMS NOT OTHERWISE INDICATED SHALL MEET THE SPECIFICATION REQUIREMENTS OF THE STANDARD SHEETS ON WHICH THEY ARE DETAILED.
 4. SEE STANDARD G-1 FOR STEEL BEAM GUARD RAIL DETAILS. SEE SHEETS 37 AND 38 FOR ALUMINUM BRIDGE RAILING DETAILS.
 5. THE COST OF ALL MATERIALS AND LABOR FOR THE SPLICE BETWEEN THE ALUMINUM APPROACH RAILING AND THE STEEL BEAM GUARD RAIL SHALL BE SUBSIDIARY TO ITEM 621.74, ALUMINUM APPROACH RAILING.
 6. DETAILS ARE SHOWN FOR TRANSITION TO A 3 RAIL ALUMINUM BRIDGE RAILING.
 7. DIMENSIONS SHOWN ARE FROM A REFERENCE LINE AT THE FACE OF POST FOR A NORMAL CROWNED SECTION. APPROPRIATE CORRECTIONS SHALL BE MADE FOR CROSS SLOPES OTHER THAN A NORMAL SECTION.

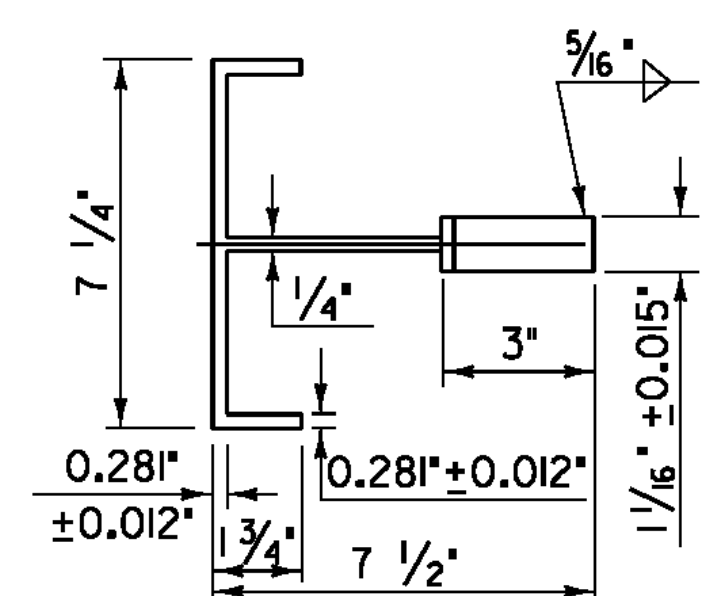


PROJECT:	PROJECT NO.:
EAST MONTPELIER	BRF 037 - 2 (8)
DESIGN FILE NAME: 86e054\Structures\se054rail.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: raildet1.i	DRAWN BY: D.D.BEARD
DESIGNED BY: L.J.STONE	CHECKED BY: H.I.SALLS
SQUAD LEADER: C.P.WILLIAMS	SHEET: 36 OF 63
ALUMINUM RAILING DETAILS 1	

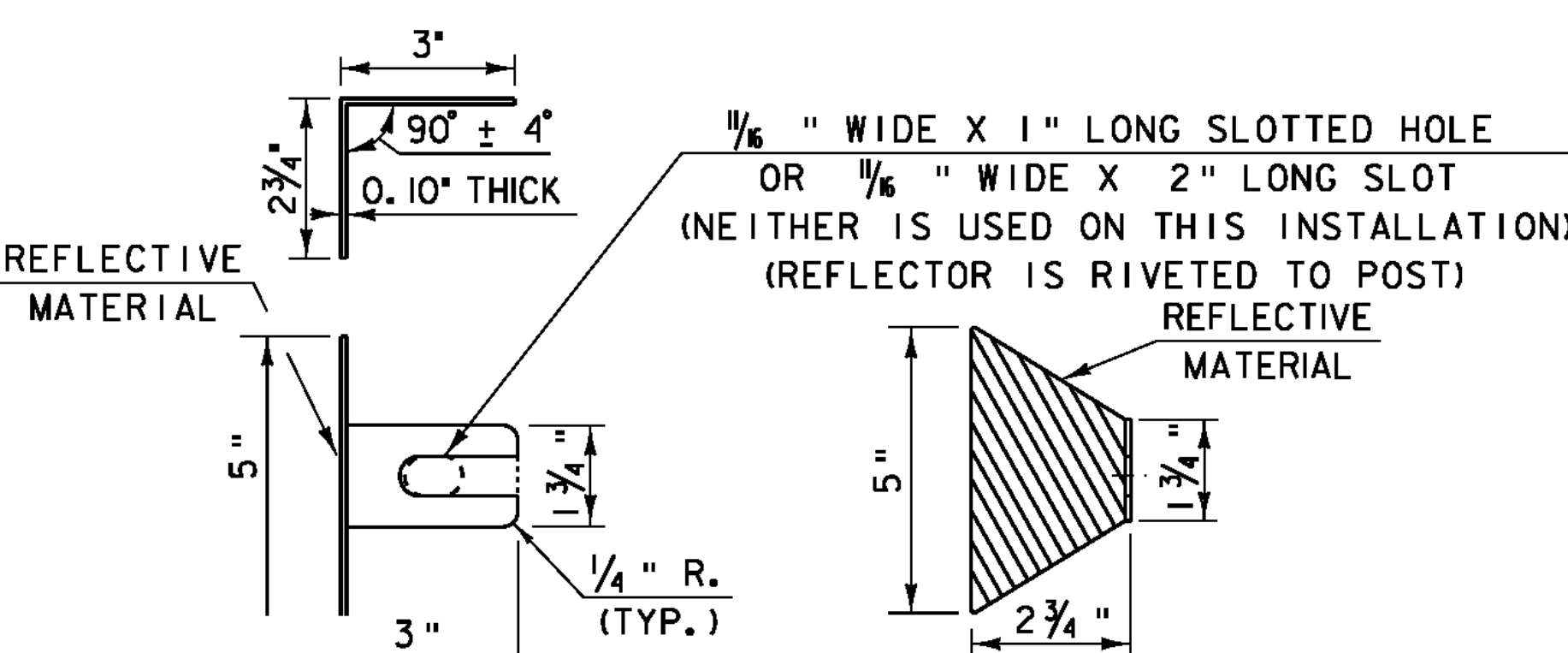
NOTE: DETAILS IN ENGLISH UNITS



POST SIDE VIEW



POST PLAN VIEW



REFLECTOR DETAILS

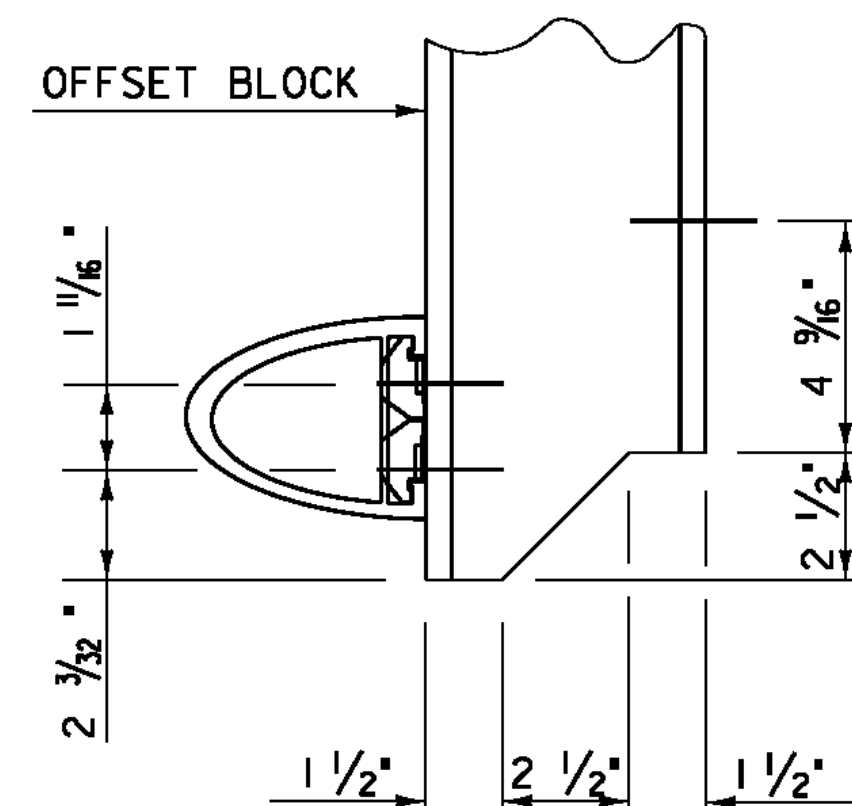
THIS REFLECTORIZED ALUMINUM DELINEATOR IS TO BE ERECTED EVERY 30 FEET (OR CLOSEST POST) WITH 2 NO. 8 X 3/4" SELF-TAPPING SCREWS.

DELINEATORS SHALL MEET SPECIFICATION REQUIREMENTS FOR ASTM B209 ALLOY 5052-H32.

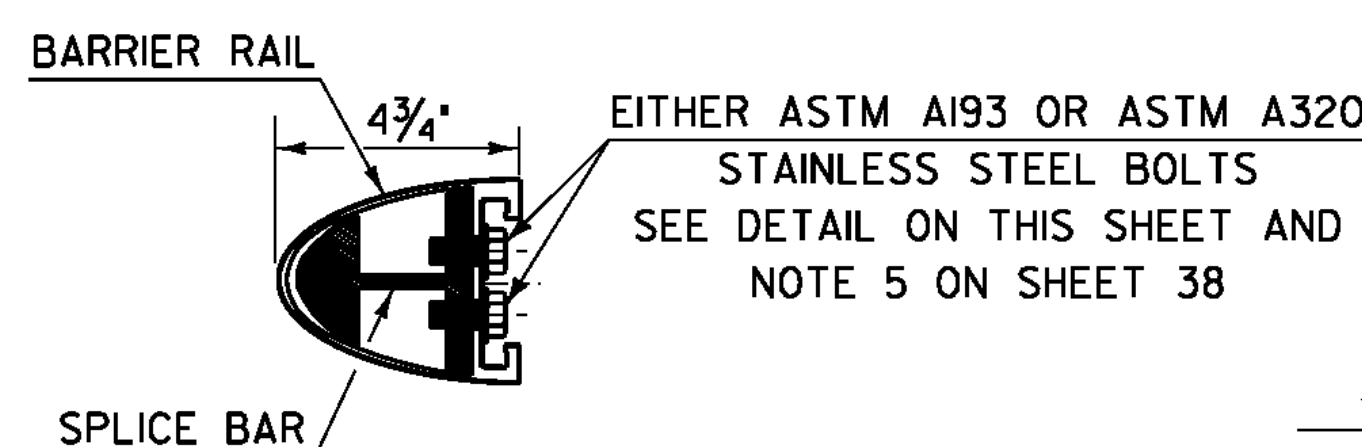
REFLECTIVE MATERIAL SHALL MEET THE REQUIREMENTS OF SUBSECTION 750.08 AND SHALL BE OF ENCAPSULATED LENS SILVER OR AMBER. AMBER IS TO BE INSTALLED ON THE DRIVER'S LEFT AND SILVER ON THEIR RIGHT.

ON BRIDGES WITH A SIDEWALK, DELINEATORS ARE NOT TO BE INSTALLED ON THE SIDEWALK SIDE OF THE BRIDGE (I.E. DELINEATORS INSTALLED ONLY ON THE CURB SIDE AND ON THE APPROACH RAIL ON THE CURB SIDE.)

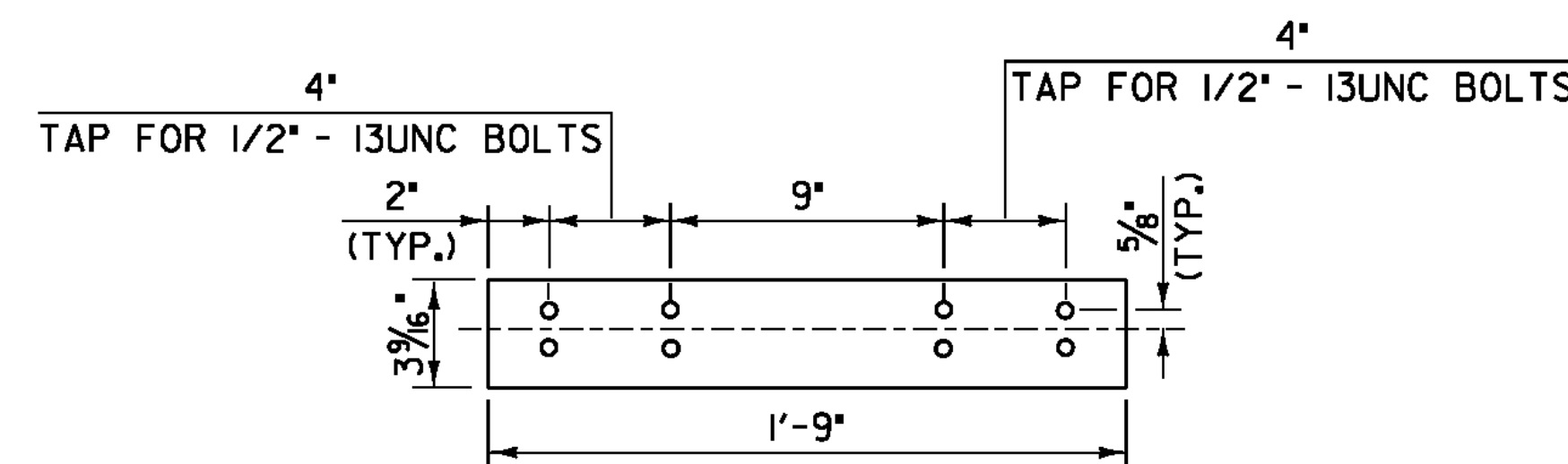
PAYMENT SHALL BE SUBSIDIARY TO ALL OTHER ITEMS.



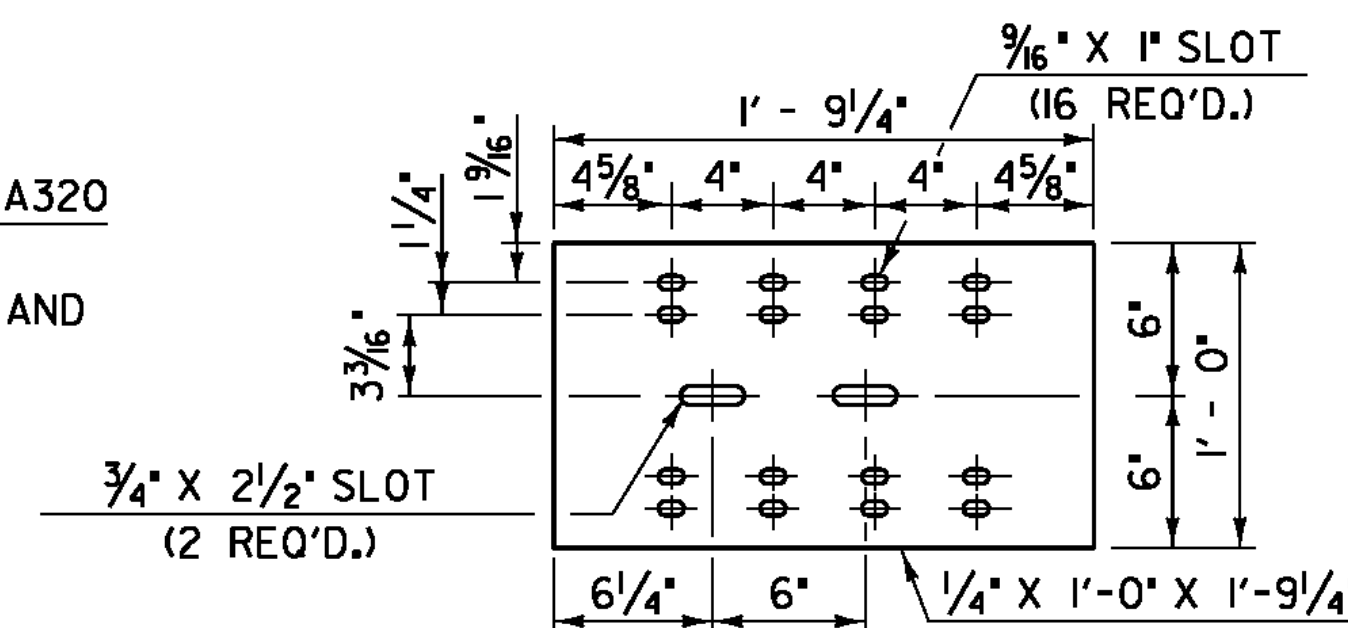
COPING DETAIL



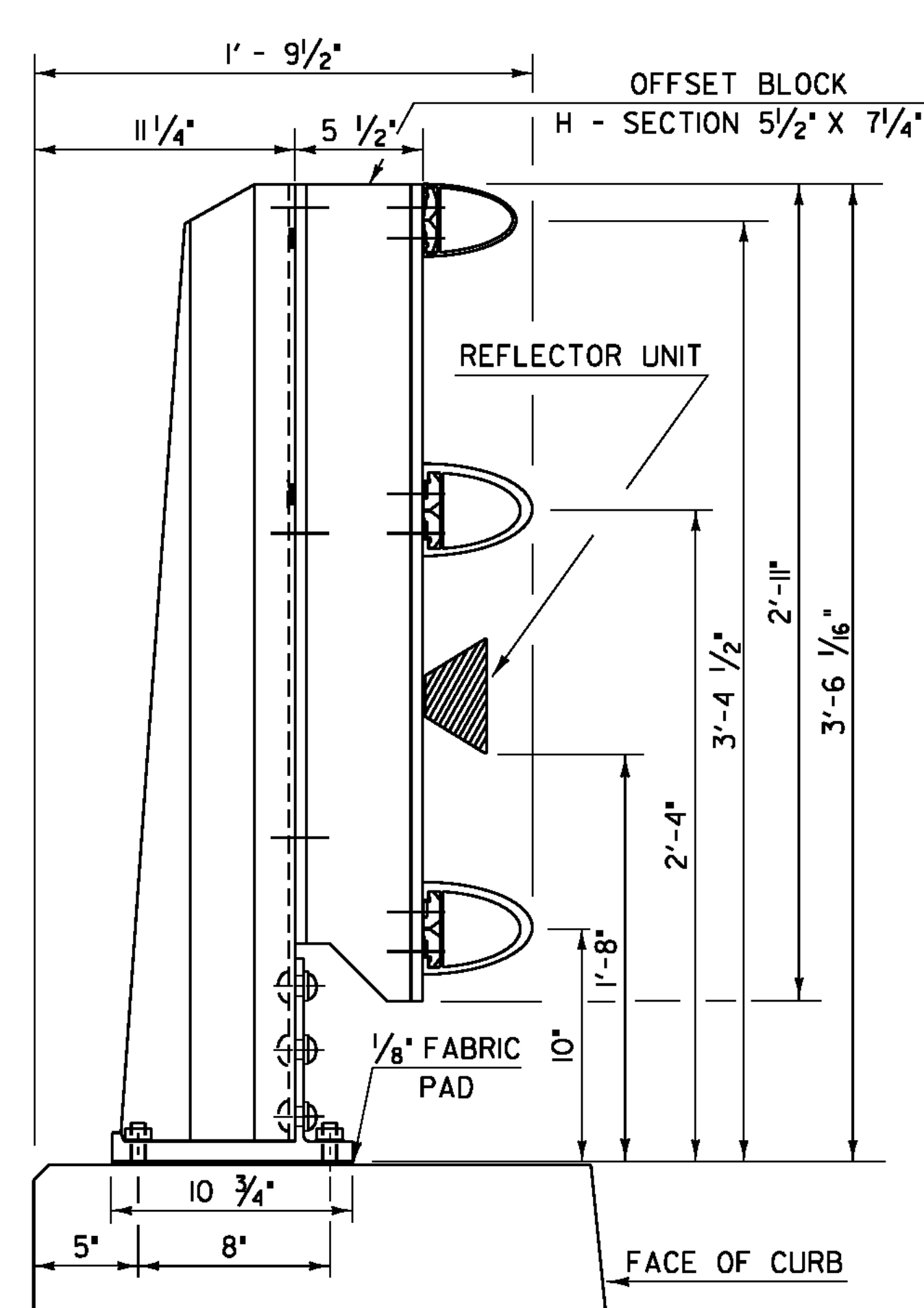
TYPICAL SECTION THROUGH BARRIER RAIL SPLICE



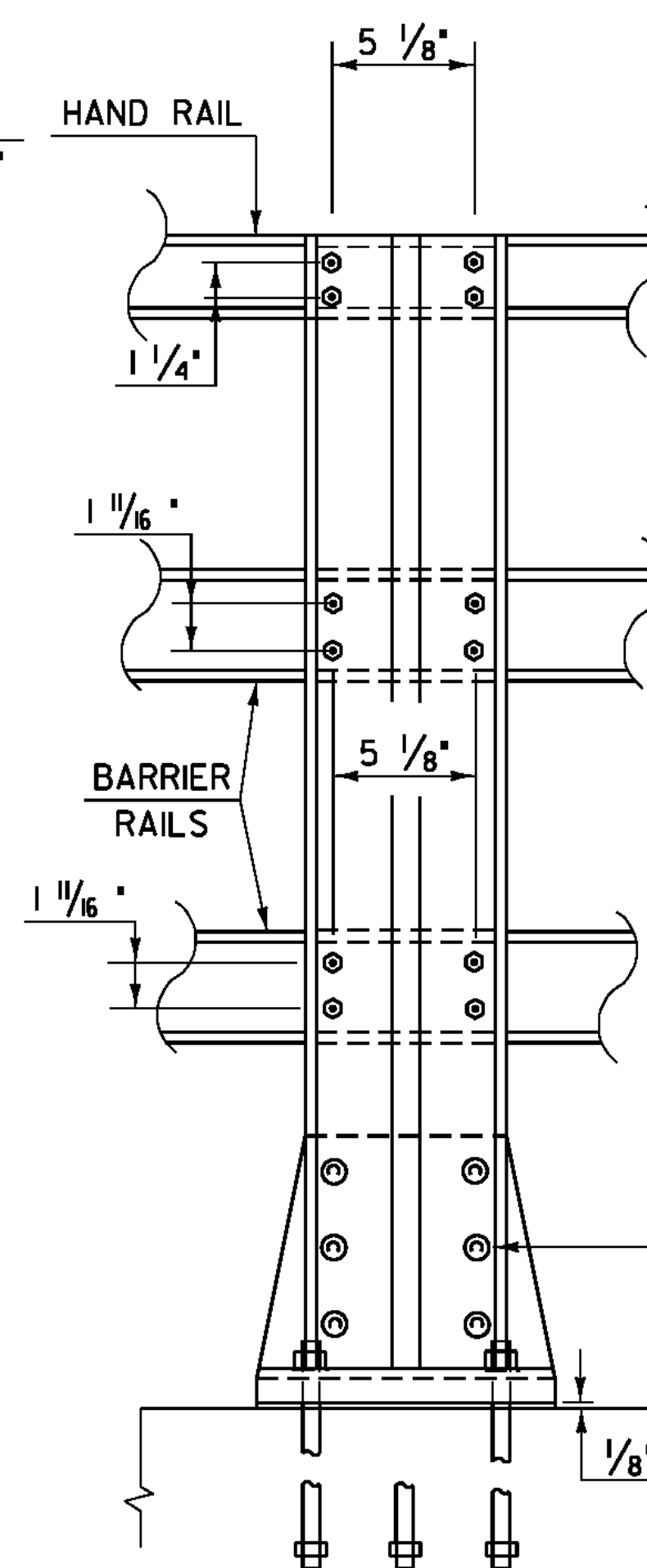
ELEVATION OF BARRIER RAIL SPLICE BAR TO BE USED AT TRANSITION BETWEEN APPROACH RAIL & GUARD RAIL (FROM BACK)



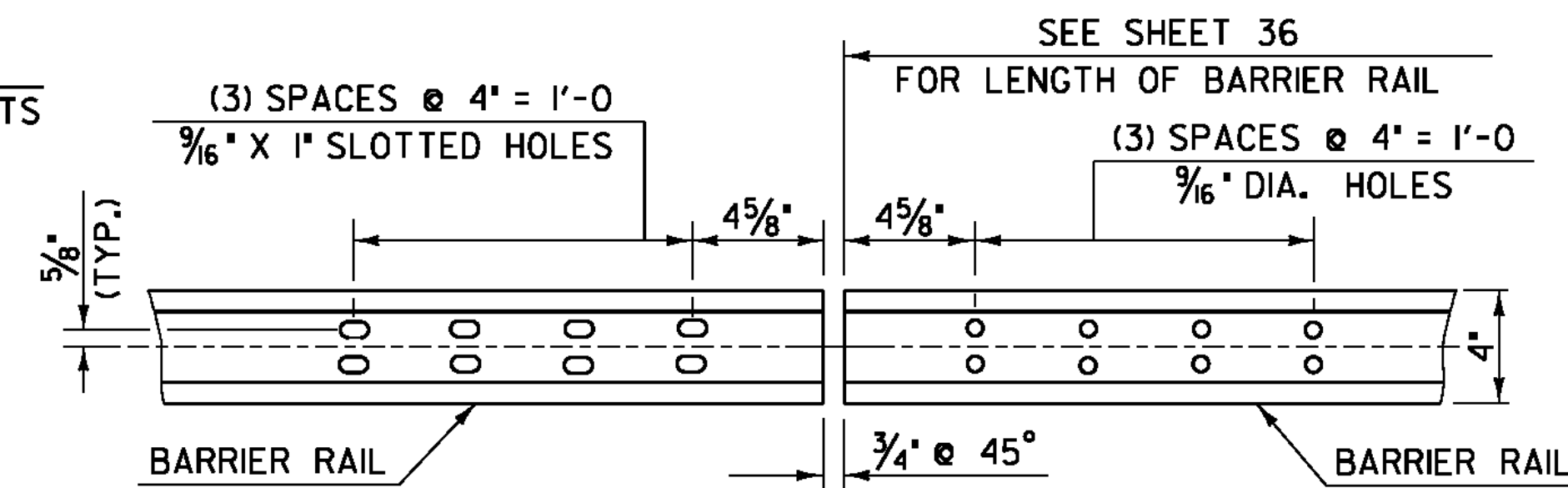
BACK-UP PLATE DETAILS



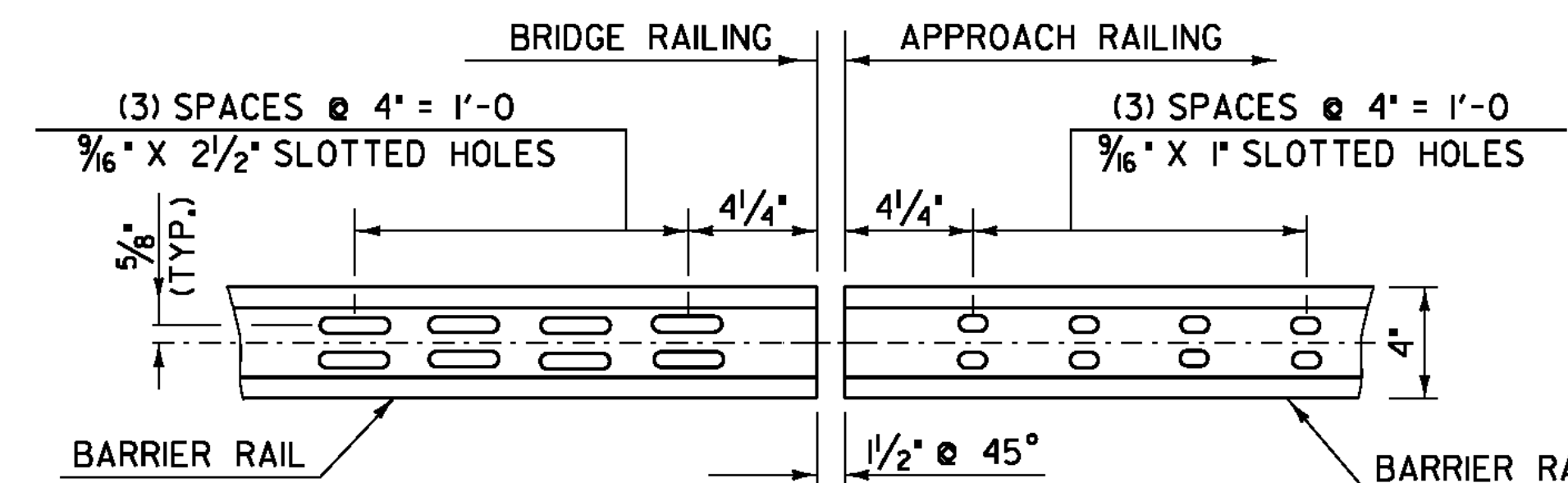
RAIL POST DETAILS ON SUPERSTRUCTURE SIDE ELEVATION OF THREE RAIL TO BE USED ON CURB SIDE



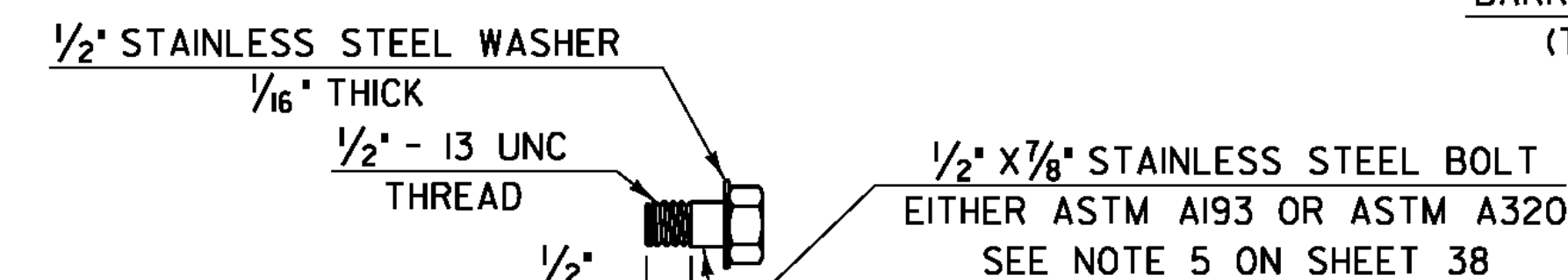
OUTSIDE ELEVATION OF THREE RAIL POST



ELEVATION OF BARRIER RAIL (FROM BACK) AT ALL INTERMEDIATE RAIL SPLICES

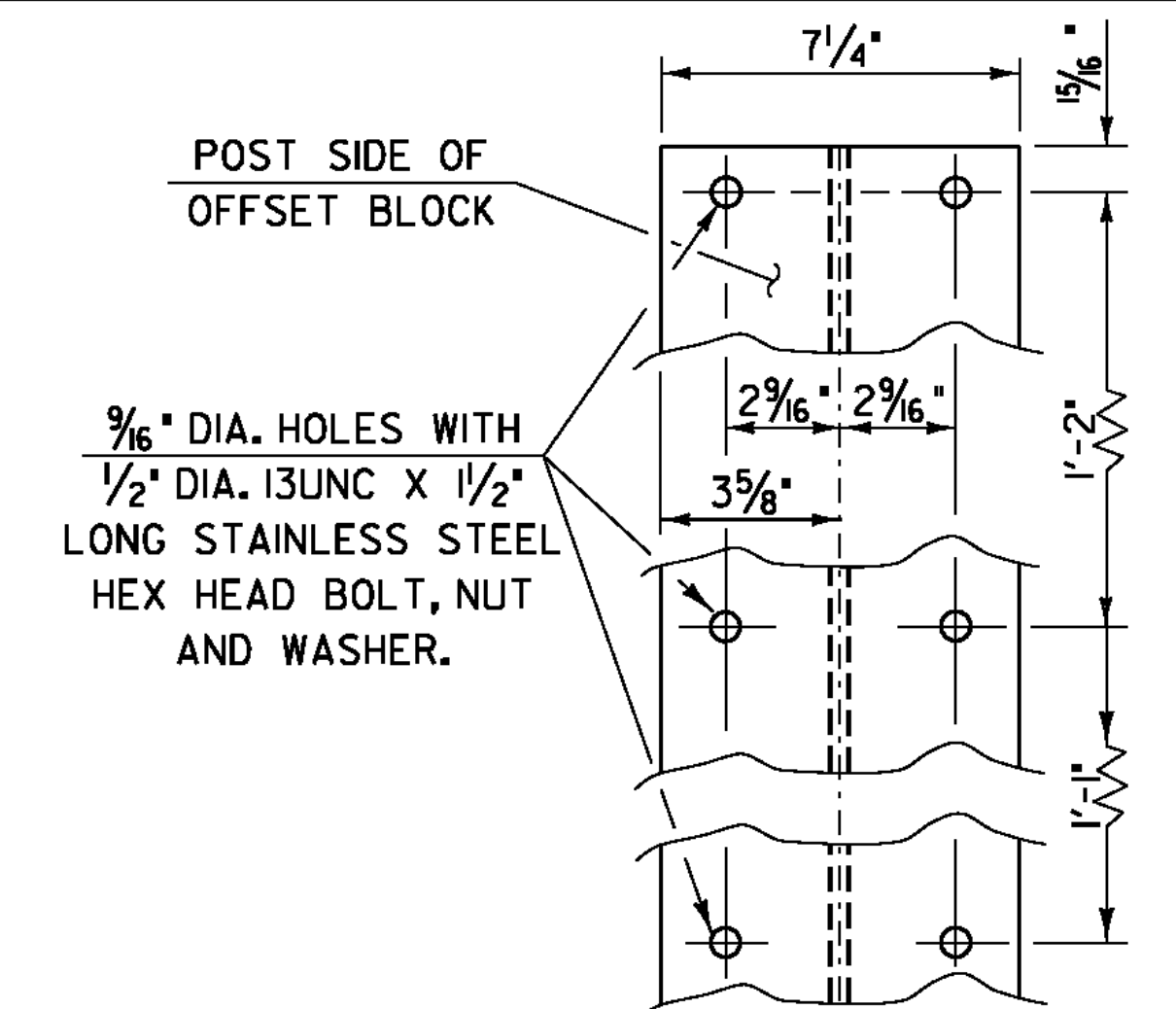


ELEVATION OF BARRIER RAIL (FROM BACK)

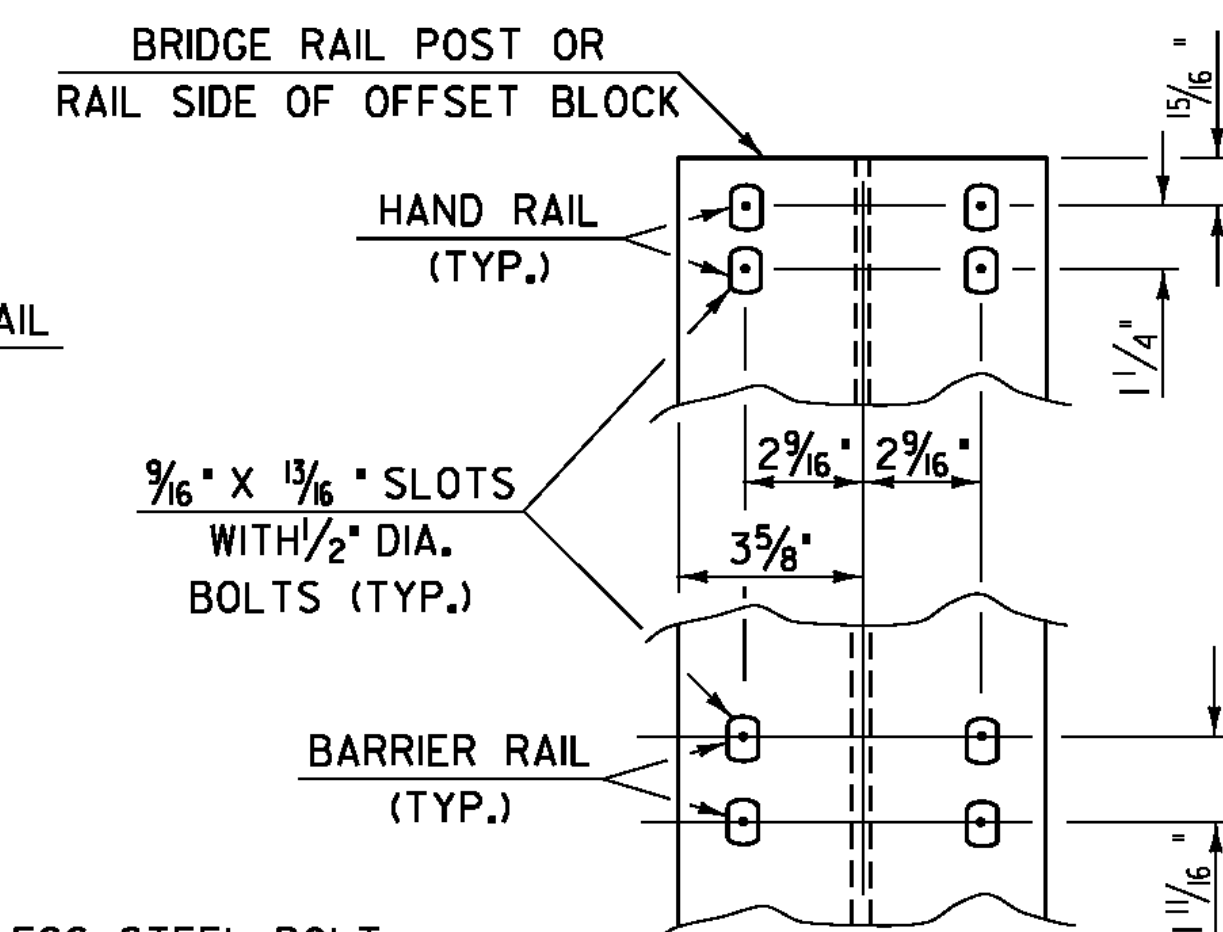


STAINLESS STEEL BOLT DETAILS

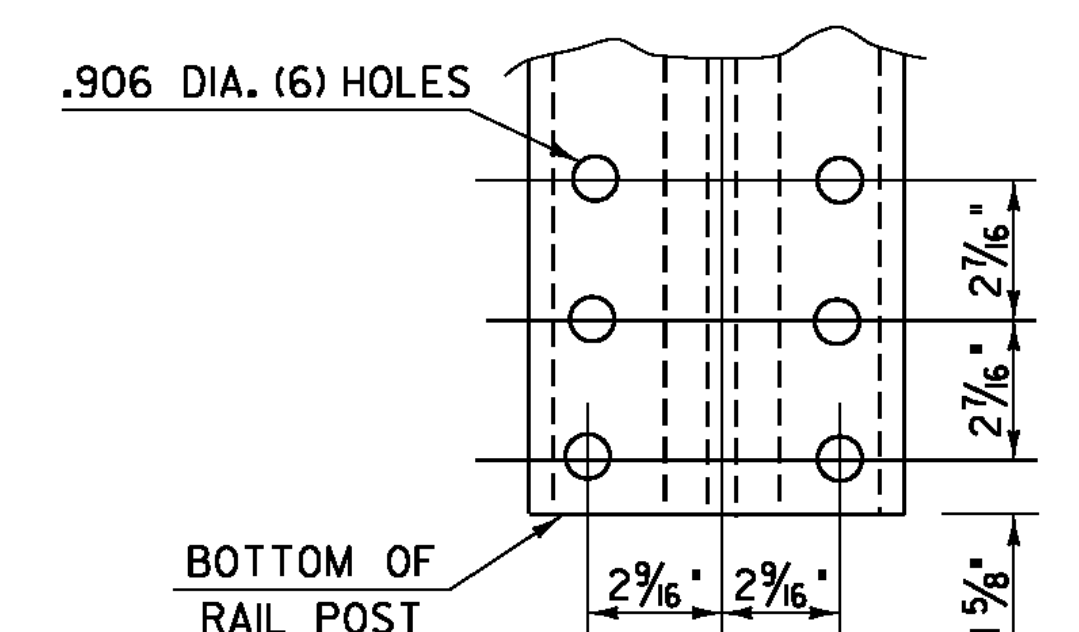
NOTE:
RAIL POSTS ARE TO BE SET NORMAL TO GRADE UNLESS OTHERWISE DESIGNATED ON BRIDGE PLANS. ALL DIMENSIONS ARE TYPICAL UNLESS OTHERWISE DESIGNATED ON THE BRIDGE PLANS.



OFFSET BLOCK CONNECTION



RAIL CONNECTION



POST BASE BOLT HOLE DETAILS

ALLOWABLE STRESSES:
RAILING : 21,000 PSI TENSION
22,000 PSI COMPRESSION
POSTS : 17,000 PSI TENSION
19,000 PSI COMPRESSION

NOTE: DETAILS IN ENGLISH UNITS

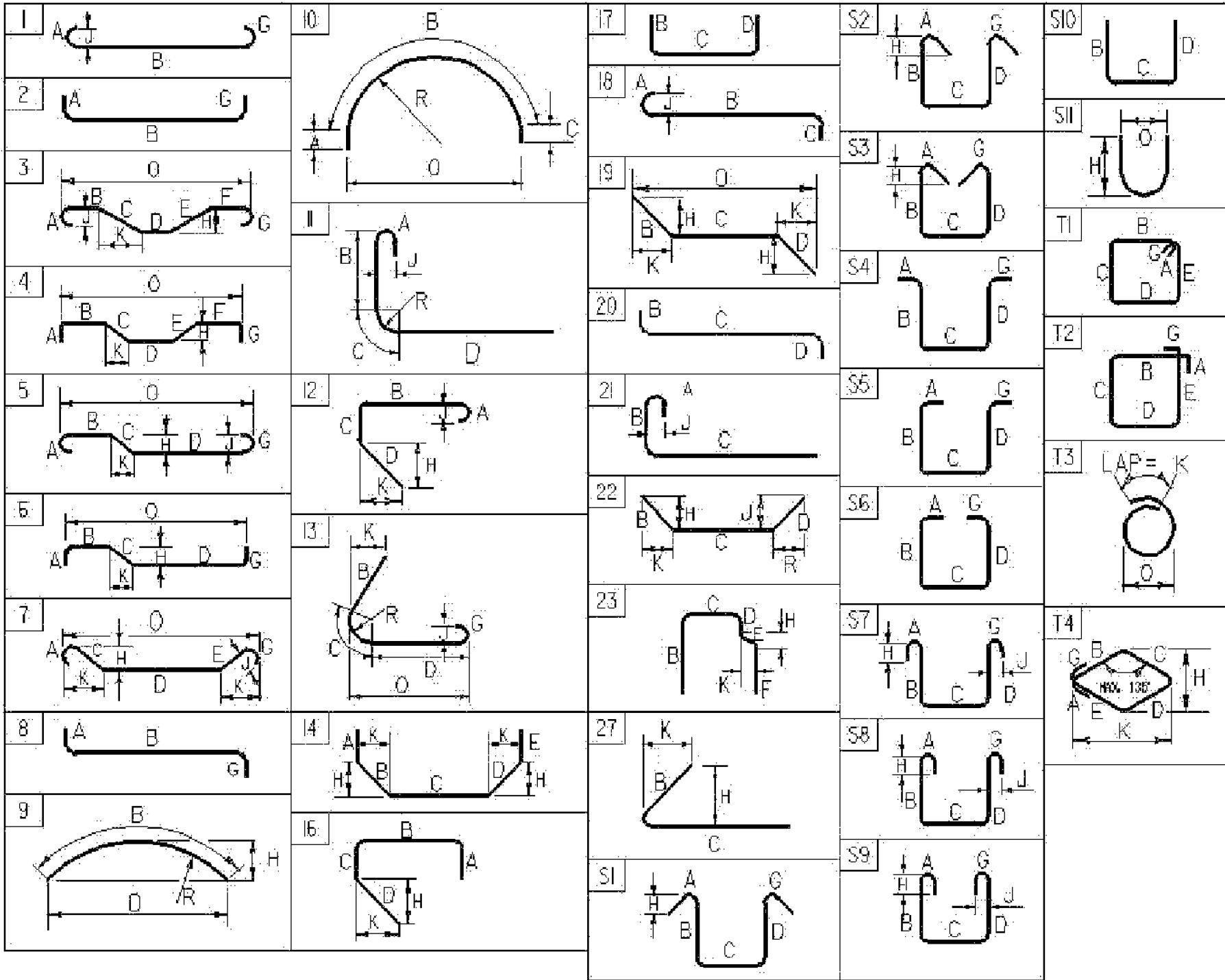
PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037 - 2 (8)
DESIGN FILE NAME: 86a054\Structures\se054rail.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: raildet2.i	DRAWN BY: D.D. BEARD
DESIGNED BY: L.J. STONE	CHECKED BY: H.I. SALLS
SQUAD LEADER: C.P. WILLIAMS	SHEET: 37 OF 63
ALUMINUM RAILING DETAILS 2	

ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O	ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O														
BRIDGE #71																																																	
	24	16	6920	ES1601	STR																																												
▲	26	16	10540	ES1602	STR																																												
	48	16	1600	ES1603	S10			790	140	670																																							
	74	16	1790	ES1604	T1	595		470	190	535				375		375																																	
*	75	16	1850	ES1605	S10			840	170	840																																							
*	39	25	900	ES2501	19			300	600					150		150																																	
APPROACH SLAB #1																																																	
*	22	16	9440	1EAS1601	STR																																												
*	40	29	6220	1EAS2901	1	380		5840																																									
APPROACH SLAB #2																																																	
	21	16	9440	2EAS1601	STR																																												
	39	29	6220	2EAS2901	1	380		5840																																									
ABUTMENT # 1																																																	
	30	16	7250	1A1601	STR																																												
	49	16	1180	1A1602	STR																																												
▲	41	16	3940	1A1603	STR																																												
▲	8	16	5030	1A1604	STR																																												
	28	16	9000	1A1605	STR																																												
*	57	16	2480	1A1606	STR																																												
	37	16	2750	1A1607	STR																																												
	8	16	3840	1A1608	STR																																												
	45	16	1790	1A1609	17		660	470	660																																								
▲	48	16	1740	1A1610	17		870	870	---																																								
	28	16	3460	1A1611	22		660	2140	660																																								
*	79	19	2440	1A1901	STR																																												
	10	25	1050	1A2501	STR																																												
	46	25	3440	1A2502	17		2370	1070	---																																								
WINGWALL #1																																																	
▲	15	16	6840	1W1601	STR																																												
	46	16	1180	1W1602	STR																																												
▲	22	16	5030	1W1603	STR																																												
*	25	16	1930	1W1604	STR																																												
▲	36	16	6880	1W1605	STR																																												
	16	16	6920	1W1606	STR																																												
	10	16	1320	1W1607	STR																																												
	46	16	1790	1W1608	17		660	470	660																																								
	10	16	2640	1W1609	20		820	1160	660																																								
	5	16	3200	1W1610	19		990	1550	660																																								
*	21	19	3900	1W1901	STR																																												
	88	19	3520	1W1902	17		2450	1070	---																																								
*	87	22	2590	1W2201	STR																																												
*	21	25	1050	1W2501	STR																																												
WINGWALL #2																																																	
	15	16	2640	2W1601	STR																																												
	20	16	1180	2W1602	STR																																												
▲	20	16	5030	2W1603	STR																																												
	28	16	5440	2W1604	STR																																												
	8	16	2640	2W1605	STR																																												
	20	16	1790	2W1606	17		660	470	660																																								
	10	16	2580	2W1607	20		820	1100	660																																								
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*	19	19	3900	2W1901	STR																																												
	34	19	3520	2W1902	17		2450	1070	---																																								
*	38	22	2590	2W2201	STR																																												
*	5	25	1050	2W2501	STR																																												

SEE REVISED SHEET 39A

~ NOTES ~

- UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING 55M SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M31M (ASTMA 615M-S). ALL BARS SHALL BE GRADE 420, UNLESS OTHERWISE DESIGNATED.
- 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".
- BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
- ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180 DEGREE AND 135 DEGREE HOOKS.
- "J" DIMENSION ON 180 DEGREE HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE, STANDARD HOOKS ARE TO BE USED.
- "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
- WHERE SLOPE DIFFERS FROM 45 DEGREES, DIMENSIONS "H" AND "K" MUST BE SHOWN.
- ▲ DENOTES BARS TO BE CUT IN FIELD.
- * DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.
- △ DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES.
- E DENOTES EPOXY COATED REINFORCING STEEL.



ASTM STANDARD REINFORCING BARS

BAR SIZE	NOMINAL MASS (Kg/m)	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER (mm)	CROSS SECTIONAL AREA (mm²)	PERIMETER (mm)
#10	0.560	9.5	71	29.84
#13	0.994	12.7	129	39.90
#16	1.552	15.9	199	49.95
#19	2.235	19.1	284	60.00
#22	3.042	22.2	387	69.74
#25	3.973	25.4	510	79.80
#29	5.060	28.7	645	90.16
#32	6.404	32.3	819	101.47
#36	7.907	35.8	1006	112.47
#43	11.380	43.0	1452	135.09
#57	20.240	57.3	2581	180.01

PROJECT NAME: East Montpelier
PROJECT NUMBER: BRF 037-2(8)
FILE NAME: 86e054rss.xls
PROJECT MANAGER: C.WILLIAMS
DESIGNED BY: L.J.STONE
REINFORCING STEEL SCHEDULE

PLOT DATE: 5/13/2010
DRAWN BY: D.D.BEARD
CHECKED BY: H.I.SALLS
SHEET 39 OF 63

~ NOTES ~

UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING 55M SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M31M (ASTM A615M-SI). ALL BARS SHALL BE GRADE 420, UNLESS OTHERWISE DESIGNATED.

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#32	6.404	32.3	819	101.47
#36	7.907	35.8	1006	112.47
#43	11.380	43.0	1452	135.09
#57	20.240	57.3	2581	180.01

PROJECT NAME: **East Montpelier**

PROJECT NUMBER: **BRF 037-2(8)**

FILE NAME: **86e054rss (sidewalk).xls**

PROJECT MANAGER: **C. WILLIAMS**

DESIGNED BY: **H.I.SALLS**

REINFORCING STEEL SCHEDULE

PLOT DATE: **2/23/2011**

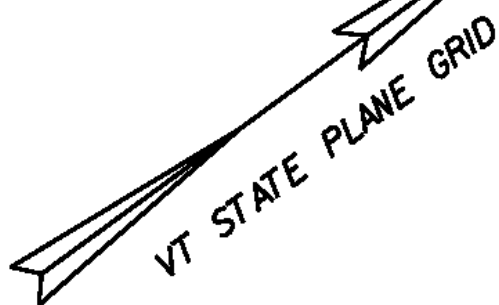
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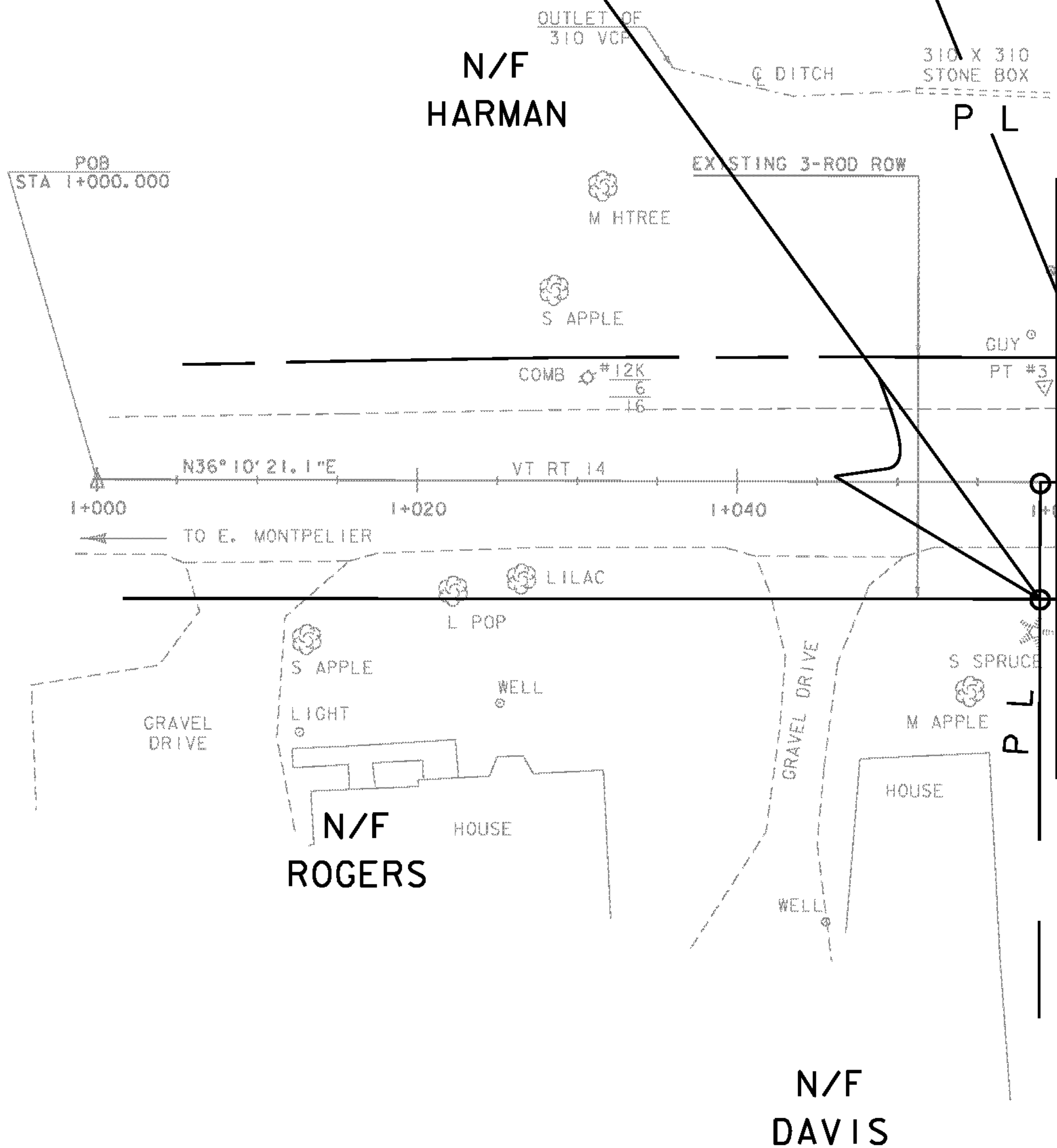
SHEET **39A** OF **63**

PROJECT NAME: East Montpelier	
PROJECT NUMBER: BRF 037-2(8)	
FILE NAME: 86e054rss (sidewalk).xls	PLOT DATE: 2/23/2011
PROJECT MANAGER: C. WILLIAMS	DRAWN BY: 0
DESIGNED BY: H.I.SALLS	CHECKED BY: 0
REINFORCING STEEL SCHEDULE	SHEET 39A OF 63

ROGERS,
DAVID E.



BEGIN R.O.W. PROJECT
BRF 037-2(8)
STA. 1+058.93 7.54m
(24.75')RT.



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

**FOR R.O.W.
USE ONLY**

DATUM	
VERTICAL	USGS
HORIZONTAL	ASSUMED

PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: re054zzz.dgn IPARM FILE NAME: se054rowl SURVEYED BY: R. MOREAU SQUAD LEADER: C.P. WILLIAMS ROW SHEET 13 OF 14	PLOT DATE: 18-AUG-2010 SURVEY DATE: 3/93 DRAWN BY: L.J. STONE SHEET: 40 OF 63

END MAINTENANCE AGREEMENT
ZONE #1 TH 11
I+080.00 LT 7.54M (24.75')

POE
STA 2+090.000

EXISTING 3-ROD ROW

WOODS

CONCRETE SIDEWALK

LIMITS OF TEMPORARY PEDESTRIAN DETOUR

PORTER, WILLIAM K. & STUWE, THOMAS J.

ROGERS, DAVID E.

MAINTENANCE AGREEMENT

ZONE #1 TH 11

I+080.00 LT 7.54M (24.75')

POE

STA 2+090.000

EXISTING 3-ROD ROW

WOODS

CONCRETE SIDEWALK

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LIMITS OF TEMPORARY PEDESTRIAN DETOUR

PORTER, WILLIAM K. & STUWE, THOMAS J.

ROGERS, DAVID E.

MAINTENANCE AGREEMENT

ZONE #1 TH 11

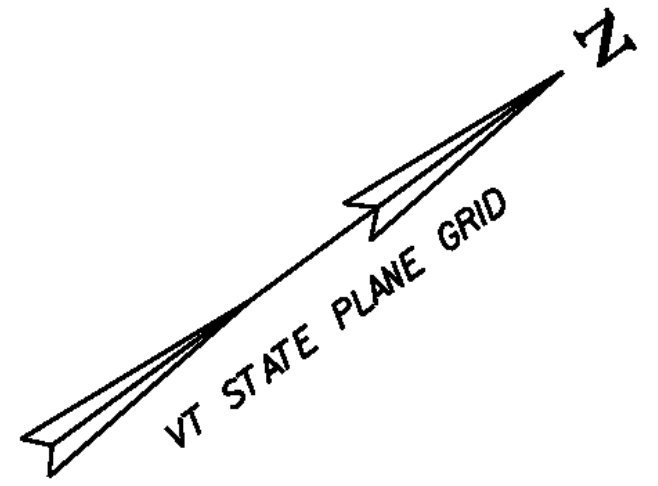
I+080.00 LT 7.54M (24.75')

REMOVAL AND DISPOSAL OF GUARDRAIL
STA I+086.000 LT - I+109.000 LT
STA I+104.500 RT - I+107.500 RT
STA I+129.000 RT - I+144.500 RT
STA I+129.000 LT - I+130.500 LT
CONSTRUCT DRIVE**
STA I+092.000 RT - W/3000 PAVED APRON
STA I+135.000 LT - PAVED DRIVE
STA I+150.000 RT - PAVED DRIVE
** PAVEMENT FOR DRIVES SHALL BE ONE 40MM LIFT OF TYPE 1115 PAVEMENT.

UNDERGROUND UTILITIES
* STA I+135.000 - SEWER LINE
* STA I+160.000 - WATER LINE
* APPROXIMATE LOCATION
BARRIER FENCE (FOR PEDESTRIAN DETOUR)
STA I+131 - I+135 LT
(INCIDENTAL TO ITEM 528.12 TEMPORARY PEDESTRIAN BRIDGE)

BRIDGE RAILING, 3 RAIL ALUMINUM
STA I+110.070 LT - I+129.850 LT
STA I+110.070 RT - I+129.520 RT
HD STEEL BEAM GUARDRAIL, GALVANIZED
STA I+085.600 LT - I+102.460 LT
STA I+095.200 RT - I+102.460 RT
STA I+137.140 RT - I+144.080 RT
ANCHOR FOR STEEL BEAM RAIL
STA I+085.000 LT
STA I+097.000 RT
STA I+143.000 RT
ALUMINUM APPROACH RAILING
STA I+102.460 LT - I+110.070 LT
STA I+102.460 RT - I+110.070 RT
STA I+129.520 RT - I+137.140 RT
STA I+129.850 LT - I+130.780 LT

END R.O.W. PROJECT
BRF 037-2(8)
STA. 1+189.93 36.16m
(118.63')RT.



PAVING LIMITS

STATION	OFFSET
I+077.22 LT	17.84
I+085.60 LT	15.09

APPROACH (T) DETOUR (T)

INSTALL (T) SLOPE (P)

CUL, DIT, DR (P)

INSTALL (P) SLOPE (P)

DRIVE (T) CH (P)

CONST. (T) UE (P)

UE (T)

PORTER, WILLIAM K. & STUWE, THOMAS J.

ROGERS, DAVID E.

MAINTENANCE AGREEMENT

ZONE #1 TH 11

I+080.00 LT 7.54M (24.75')

MASCITTI, MIKELJON.
MASCITTI, PAUL A.
LIFE ESTATE

END BRIDGE
STA I+129.600
FG=214.070

END PROJECT
BEGIN APPROACH
STA I+140.000

HOUSE EXCEPT & RESERVE

PAVED DITCH

EXISTING WATER LINE

DRIVE (T) INSTALL

CONST. (T) & MAINTAIN (P)

ROGERS, DAVID E.

GRANITE BLOCK WALL

M APPLE

M WILLOW

POWER & ALARM FOR PUMPS

END APPROACH
STA I+170.000

N/F McKENNEY

POE
STA I+185.000

HOUSE

GRAVEL DRIVE

M WILLOW

COMB

GUY

VT RT 14 TO EAST CALAIS

UNDERDRAIN FLUSHING BASIN

STORE & US POST OFFICE

N/F CERUTTI

FOR R.O.W. USE ONLY

SCALE 1 : 250

EXISTING BRIDGE DATA

YEAR BUILT = 1936
SINGLE SPAN ROLLED BEAM
OVERALL LENGTH = 18.90m (62')

CLEAR SPAN = 17.98m (59')

ROADWAY WIDTH = 7.32m (24')

PROJECT:	EAST MONTPELIER	PROJECT NO. :	BRF 037-2 (8)
DESIGN FILE NAME:	re054zzz.dgn	PLOT DATE:	18-AUG-2010
IPARM FILE NAME:	se054row2	SURVEY DATE:	3/93
SURVEYED BY:	R. MOREAU	SQUAD LEADER:	C.P. WILLIAMS
ROW SHEET	14 OF 14	SHEET:	41 OF 63

[illegible]

PLAN LEGEND	
	EXISTING RIGHT-OF-WAY
	TAKING WITH ACCESS
	TAKING WITHOUT ACCESS
	CLEAR ZONE
	PROPERTY LINE
	TOE OF SLOPE
	TOP OF CUT
	SLOPE RIGHT
	CONSTRUCTION RIGHT
	PROJECT DEMARCATION FENCE

EC	-EROSION CONTROL
(P)	-PERMANENT
(T)	-TEMPORARY
DR.	-DRAINAGE RIGHT
DIT.	-DITCHING RIGHT
CH.	-CHANNEL RIGHT
DRIVE	-DRIVE RIGHT
CUL.	-CULVERT RIGHT
C&T	-CLEARING & TRIMMING RIGHT
SR	-SLOPE RIGHT
UE	-UTILITY EASEMENT

APPROVED: FRANK J. MALNATI, JR DATE: 02-02-07
ACTING CHIEF, PLANS & TITLES

PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BRF 037-2 (8)

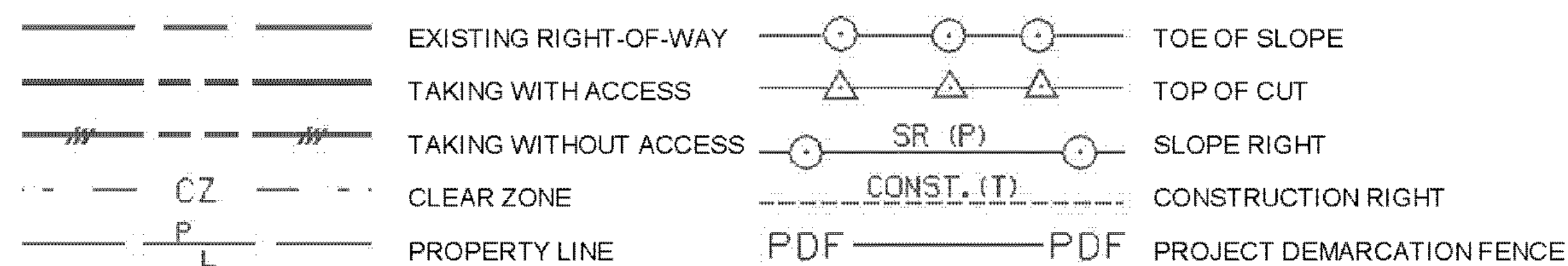
FILE NAME: 086e054
PROJECT LEADER: C.P. WILLIAMS
DESIGNED BY: K.M. HIGGINS
R.O.W. SHEET 11 OF 14

PLOT DATE:
DRAWN BY: JB
CHECKED BY: FM
SHEET 42 OF 63

TABLE OF REVISIONS

[illegible][illegible]

PLAN LEGEND



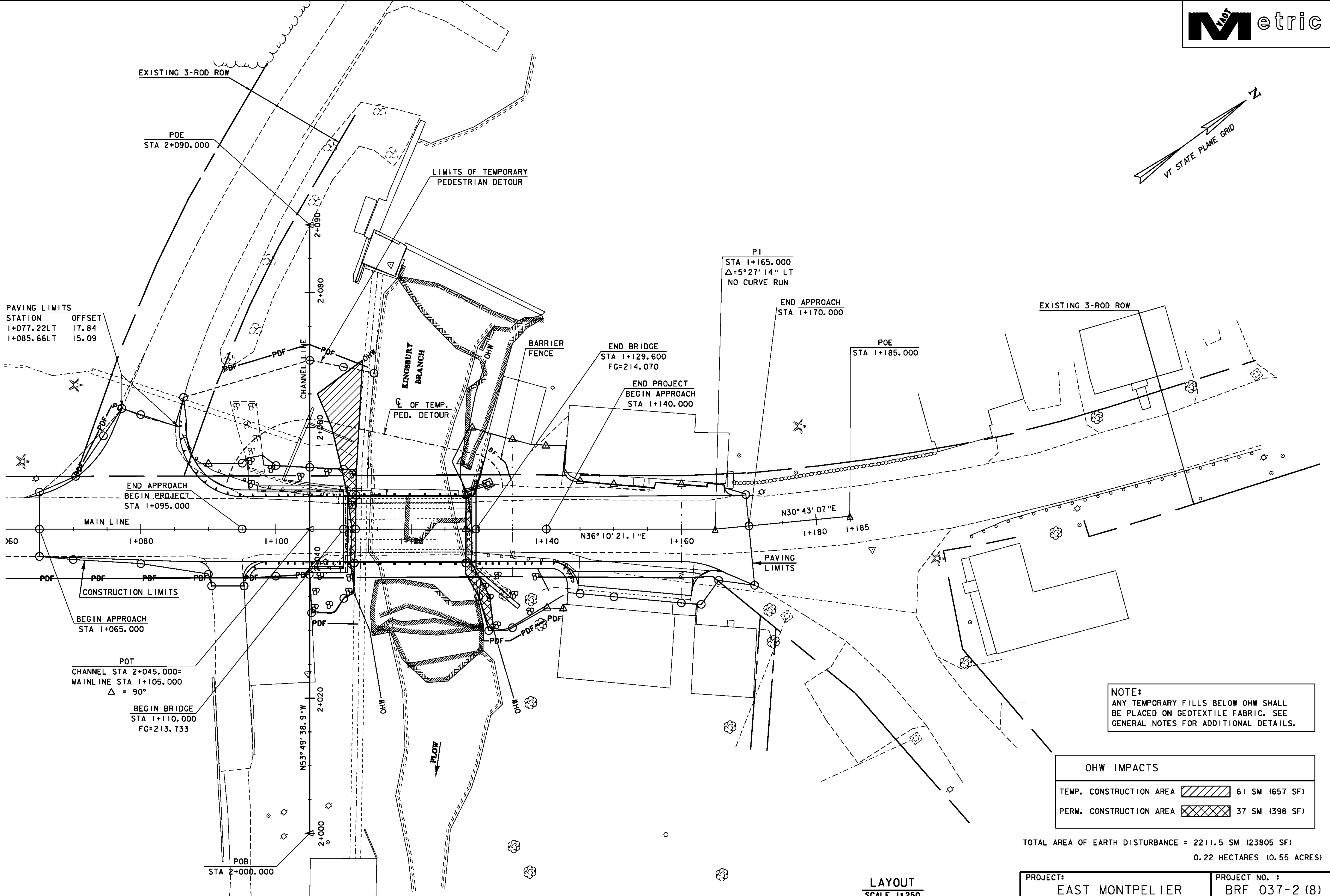
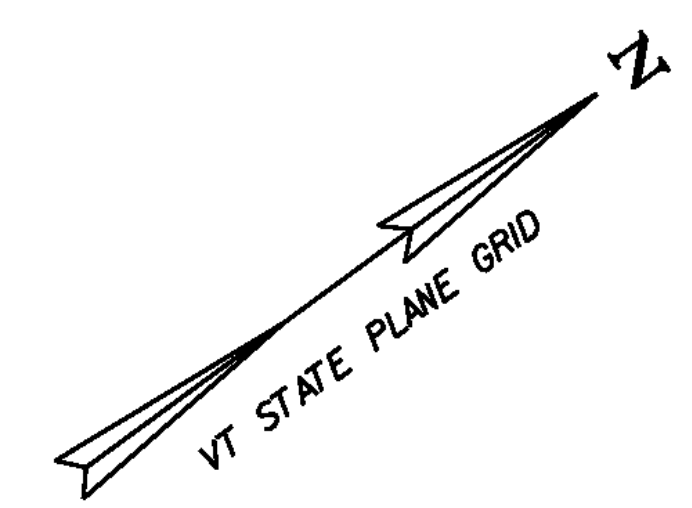
EC	-EROSION CONTROL
(P)	-PERMANENT
(T)	-TEMPORARY
DR.	-DRAINAGE RIGHT
DIT.	-DITCHING RIGHT
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DRIVE	-DRIVE RIGHT
CUL.	-CULVERT RIGHT
C&T	-CLEARING & TRIMMING RIGHT
SR	-SLOPE RIGHT
UE	-UTILITY EASEMENT

APPROVED: FRANK J. MALNATI, JR. DATE: 02-02-07
ACTING CHIEF, PLANS & TITLES

PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BRF 037-2 (8)

FILE NAME: 86e054Detail.xls
PROJECT LEADER: C.P. WILLIAMS
DESIGNED BY: K.M. HIGGINS
R.O.W. SHEET 12 OF 14

PLOT DATE:
DRAWN BY: JB
CHECKED BY: FM
SHEET 43 OF 63



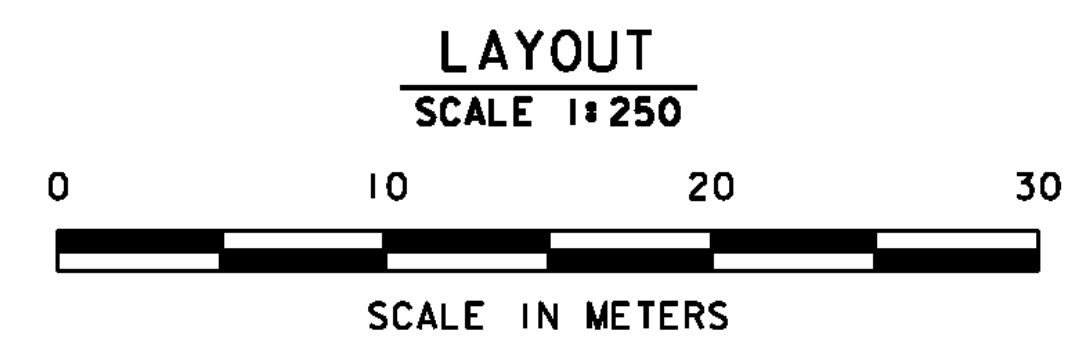
PAVING LIMITS

STATION	OFFSET
1+077.22LT	17.84
1+085.66LT	15.09

NOTE:
ANY TEMPORARY FILLS BELOW OHW SHALL
BE PLACED ON GEOTEXTILE FABRIC. SEE
GENERAL NOTES FOR ADDITIONAL DETAILS.

OHW IMPACTS	
TEMP. CONSTRUCTION AREA	61 SM (657 SF)
PERM. CONSTRUCTION AREA	37 SM (398 SF)

TOTAL AREA OF EARTH DISTURBANCE = 2211.5 SM (23805 SF)
0.22 HECTARES (0.55 ACRES)



PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: s86e054/Str/environmental.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054env.i	SURVEY DATE: 3/93
SURVEYED BY: R. MOREAU	DRAWN BY: M. FESSEL
SQUAD LEADER: C.P. WILLIAMS	SHEET: 44 OF 63
ENVIRONMENTAL IMPACTS	

EROSION CONTROL NARRATIVE

1.1 PROJECT DESCRIPTION

THE PROJECT IS LOCATED IN EAST MONTPELIER ON VT RT. 14 OVER THE KINGSBURY BRANCH. THE PROJECT INCLUDES THE REPLACEMENT OF BRIDGE #71, THE ABUTMENTS AND SOME MINOR APPROACH WORK. THE HORIZONTAL ALIGNMENT IS ON THE EXISTING CENTERLINE OF RT. 14 AND THE VERTICAL ALIGNMENT IS NEARLY THE SAME AS EXISTING CONDITIONS.

THE BRIDGE WILL BE CLOSED TO TRAFFIC DURING CONSTRUCTION AND ALL TRAFFIC WILL BE DETOURED AROUND THE SITE AS SHOWN ON THE PLANS.

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

TOTAL AREA OF EARTH DISTURBANCE IS APPROXIMATELY 0.223 HA (0.55 ACRES).

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY

THE TOPOGRAPHY OF THE PROJECT SITE IS ROLLING HILLS WITH GRASS AND BUILDINGS NEAR THE SITE. THERE ARE TWO BUILDINGS AT THE NORTH END OF THE BRIDGE, AN OLD FOUNDATION TO THE WEST OF THE BRIDGE, AN OLD COAL STORAGE BUILDING AT THE SOUTH END OF THE BRIDGE WITH A NATURAL COVERED ROOF (GRASS) THAT CANNOT BE DRIVEN ON, AND A 1600MM DIAMETER PENSTOCK NEAR THE SOUTHERN ABUTMENT THAT CANNOT BE DISTURBED.

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

KINGSBURY BRANCH IS LOCATED IN THE PROJECT AREA. THERE ARE NO OTHER WATER BODIES OR WETLANDS WITHIN THE PROJECT AREA. THE KINGSBURY BRANCH IS CLASSIFIED AS ROLLING TO MOUNTAINOUS, PERENNIAL, AND STRAIGHT AT SITE BUT SINUOUS UPSTREAM AND DOWNSTREAM CONTAINING A STREAMBED OF MOSTLY LEDGE. THE CONTRIBUTING DRAINAGE AREA AT THE BRIDGE CROSSING IS 131.1 SQ. KM. THERE IS ALSO A DAM LOCATED UPSTREAM FROM THE BRIDGE. THERE IS AN UNDERGROUND WATER PIPE AT THE NORTHERN END OF THE BRIDGE, AND A DROP INLET WITH A PIPE OUTLET THROUGH THE EXISTING WINGWALL. RUNOFF WATER ENTERING THE PROJECT SITE WILL BE PRIMARILY LIMITED TO WHAT IS CONVEYED ALONG ROADWAY DITCHES AND A BOX CULVERT LOCATED BETWEEN STATIONS 1+070 AND 1+105 LT.

1.2.3 VEGETATION

THERE ARE A FEW TREES ON SITE RANGING FROM SAPLINGS TO ONE LARGE TREE. THERE ARE TWO RESIDENCES NEAR THE BRIDGE SITE; EACH HAS A SMALL PARKING AREA AND ONE HAS A SMALL GRASSY AREA. IMPACT TO VEGETATION WILL BE LIMITED TO THE DISTURBANCE CAUSED BY CONSTRUCTION OF NEW ABUTMENTS. MOST IF NOT ALL OF THE TREES WILL BE REMOVED. THE SLOPES ARE STABILIZED WITH STONE FILL AND VEGETATION. THE SLOPE ON THE NORTHEAST SIDE OF THE BRIDGE IS APPROACHING 1:1 AND IS UNSTABLE. THE NEW WINGWALL WILL BE LONGER AND THE SLOPE WILL BE 1:1.5 AND STABILIZED WITH STONE.

1.2.4 SOILS

ACCORDING TO A SOIL SURVEY COMPLETED BY THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE THERE IS ONLY ONE TYPE OF SOIL AT THIS LOCATION. THE SOIL IS CLASSIFIED AS LAMOINE SILTY LOAM, WITH A K-VALUE EQUAL TO 0.32, SLOPES OF 3-8% AND PART OF HYDROLOGIC GROUP D. DUE TO THE STEEP SLOPES FOUND ON SITE THE SOIL HAS THE POTENTIAL OF BECOMING HIGHLY ERODIBLE.

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

1.2.5 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO
HISTORICAL OR ARCHEOLOGICAL AREAS: THE PROJECT LIES WITHIN THE NORTH MONTPELIER HISTORICAL DISTRICT. NO SIGNIFICANT ARCHEOLOGICAL RESOURCES ARE TO BE IMPACTED.
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: NO
WATER RESOURCE: KINGSBURY BRANCH
WETLANDS: NO

1.3 RISK EVALUATION

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

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

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

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

1.4.1 MARK SITE BOUNDARIES

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

PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO DELINEATE THE LIMITS THE CONTRACTOR CAN ACCESS WITH CONSTRUCTION EQUIPMENT. THIS MEASURE LIMITS THE AREA THAT CAN BE DISTURBED AND EXPOSED TO EROSION EFFECTS.

1.4.2 LIMIT DISTURBANCE AREA

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

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

1.4.3 SITE ENTRANCE/EXIT STABILIZATION

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

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES. LOCATIONS OF STABILIZED CONSTRUCTION ENTRANCES SHALL BE DETERMINED BY THE CONTRACTOR, SUBJECT TO APPROVAL BY THE ENVIRONMENTAL CONSTRUCTION ENGINEER.

1.4.4 INSTALL SEDIMENT BARRIERS

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

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

FILTER CURTAIN WILL BE INSTALLED AND MAINTAINED AS PROPOSED ON THE EPSC PLAN AND EPSC DETAIL SHEET.

INLET PROTECTION SHALL BE INSTALLED AS SHOWN ON THE EPSC PLAN AND EPSC DETAIL SHEET. THE HEIGHT OF THE BARRIER SHALL BE LIMITED SUCH THAT THE PONDING AREA DOES NOT PRESENT A HAZARD TO THE TRAVELING PUBLIC.

1.4.5 DIVERT UPLAND RUNOFF

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

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

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

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

STONE CHECK DAMS SHALL BE INSTALLED AND MAINTAINED AS PROPOSED ON THE EPSC PLAN, AND EPSC DETAIL SHEET, AND WHEREVER THERE IS A CONCENTRATED FLOW OF STORMWATER ON THE PROJECT SITE.

1.4.7 CONSTRUCT PERMANENT CONTROLS

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

THE CHANNEL SHALL BE ARMORED WITH STONE FILL TYPE IV AS SHOWN ON THE PLANS. AREAS INSIDE THE WINGWALLS SHALL BE ARMORED WITH STONE FILL TYPE I AS SHOWN ON THE PLANS.

1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

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

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

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

1.4.9 WINTER STABILIZATION

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

1.4.10 STABILIZE SOIL AT FINAL GRADE

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

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

1.4.11 DE-WATERING ACTIVITIES

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

WATER FROM DEWATERING ACTIVITIES THAT FLOWS OFF OF THE CONSTRUCTION SITE MUST BE CLEAR. WATER MUST NOT BE PUMPED INTO STORM SEWERS, LAKES, OR WETLANDS UNLESS THE WATER IS CLEAR. FILTER BAGS SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLAN OR IN OTHER SUITABLE LOCATIONS BY THE CONTRACTOR, SUBJECT TO APPROVAL BY THE ENVIRONMENTAL CONSTRUCTION ENGINEER.

1.4.12 INSPECT YOUR SITE

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

1.5 SEQUENCE AND STAGING

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

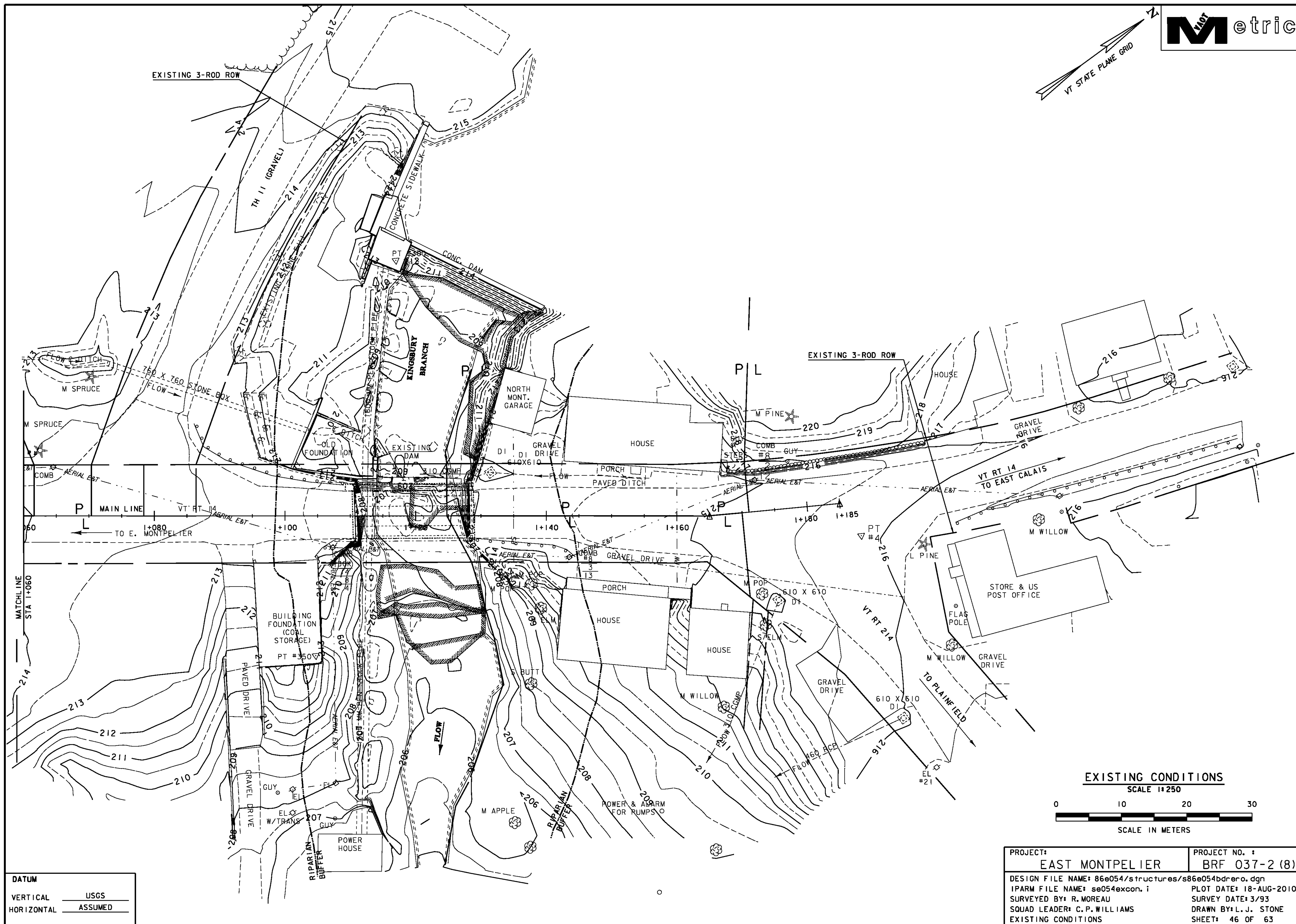
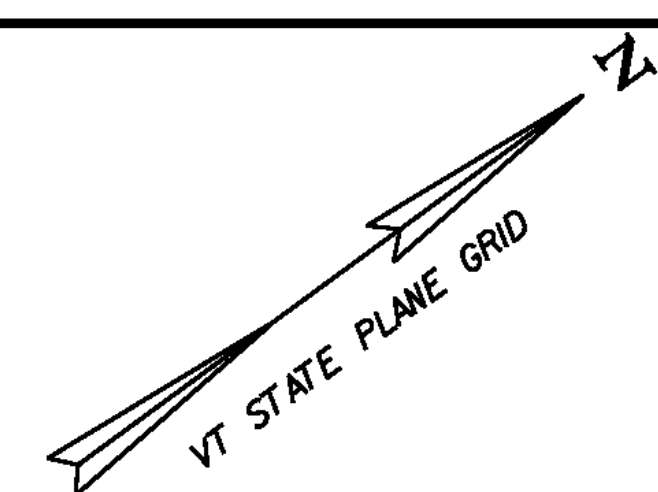
1.5.1 CONSTRUCTION SEQUENCE

1.5.2 OFF-SITE ACTIVITIES

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

1.5.3 UPDATES

PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2 (8)
DESIGN FILE NAME: 86e054/structures/se054excel.dgn IPARM FILE NAME: se054ecnar.l SURVEYED BY: R. MOREAU SQUAD LEADER: C. P. WILLIAMS EROSION CONTROL NARRATIVE	PLOT DATE: 18-AUG-2010 SURVEY DATE: 3/93 DRAWN BY: M.FESSEL SHEET: 45 OF 63



EXISTING CONDITIONS

SCALE 1"=250'



SCALE IN METERS

DATUM	
VERTICAL	USGS
HORIZONTAL	ASSUMED

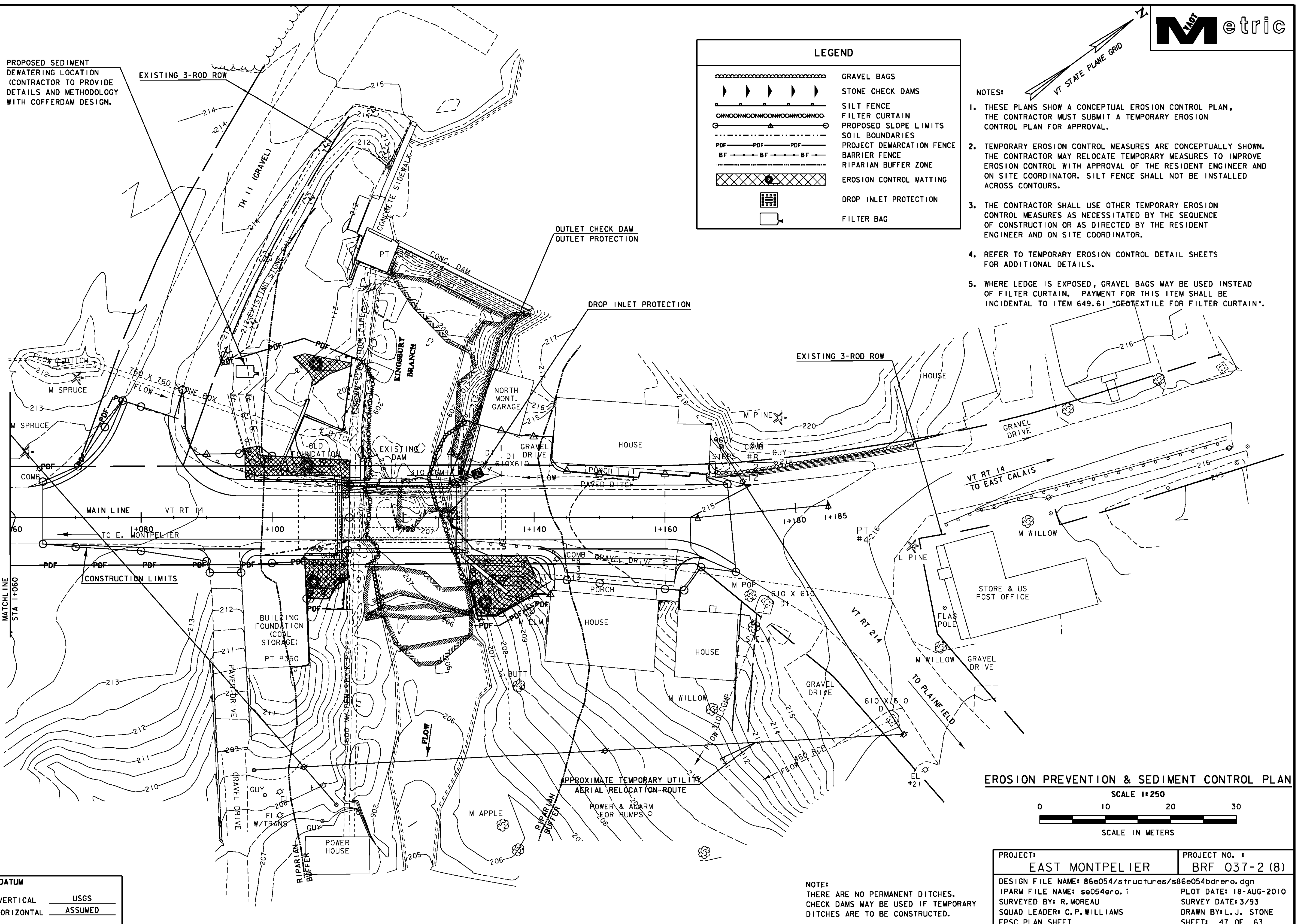
PROJECT:	EAST MONTEPELIER	PROJECT NO. :	BRF 037-2 (8)
DESIGN FILE NAME:	86e054/structures/s86e054bdrero.dgn	PLOT DATE:	18-AUG-2010
IPARM FILE NAME:	se054excon.i	SURVEYED BY:	R. MOREAU
SQUAD LEADER:	C.P. WILLIAMS	DRAWN BY:	L.J. STONE
EXISTING CONDITIONS		SHEET:	46 OF 63

DATUM	
VERTICAL	USGS
HORIZONTAL	ASSUMED

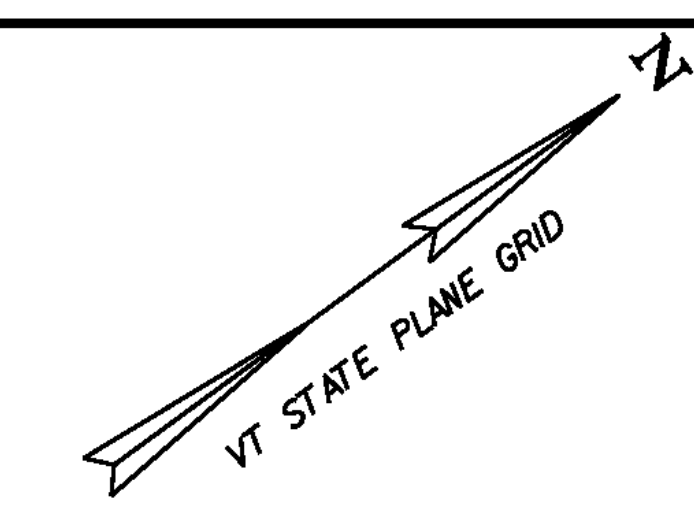
Diagram illustrating various erosion control measures:

- GRAVEL BAGS
- STONE CHECK DAMS
- SILT FENCE
- FILTER CURTAIN
- PROPOSED SLOPE LIMITS
- SOIL BOUNDARIES
- PROJECT DEMARCATION FENCE
- BARRIER FENCE
- RIPARIAN BUFFER ZONE
- EROSION CONTROL MATTING
- DROP INLET PROTECTION
- FILTER BAG

1. THESE PLANS SHOW A CONCEPTUAL EROSION CONTROL PLAN, THE CONTRACTOR MUST SUBMIT A TEMPORARY EROSION CONTROL PLAN FOR APPROVAL.
2. TEMPORARY EROSION CONTROL MEASURES ARE CONCEPTUALLY SHOWN. THE CONTRACTOR MAY RELOCATE TEMPORARY MEASURES TO IMPROVE EROSION CONTROL WITH APPROVAL OF THE RESIDENT ENGINEER AND ON SITE COORDINATOR. SILT FENCE SHALL NOT BE INSTALLED ACROSS CONTOURS.
3. THE CONTRACTOR SHALL USE OTHER TEMPORARY EROSION CONTROL MEASURES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION OR AS DIRECTED BY THE RESIDENT ENGINEER AND ON SITE COORDINATOR.
4. REFER TO TEMPORARY EROSION CONTROL DETAIL SHEETS FOR ADDITIONAL DETAILS.
5. WHERE LEDGE IS EXPOSED, GRAVEL BAGS MAY BE USED INSTEAD OF FILTER CURTAIN. PAYMENT FOR THIS ITEM SHALL BE INCIDENTAL TO ITEM 649.61 "GEOTEXTILE FOR FILTER CURTAIN".

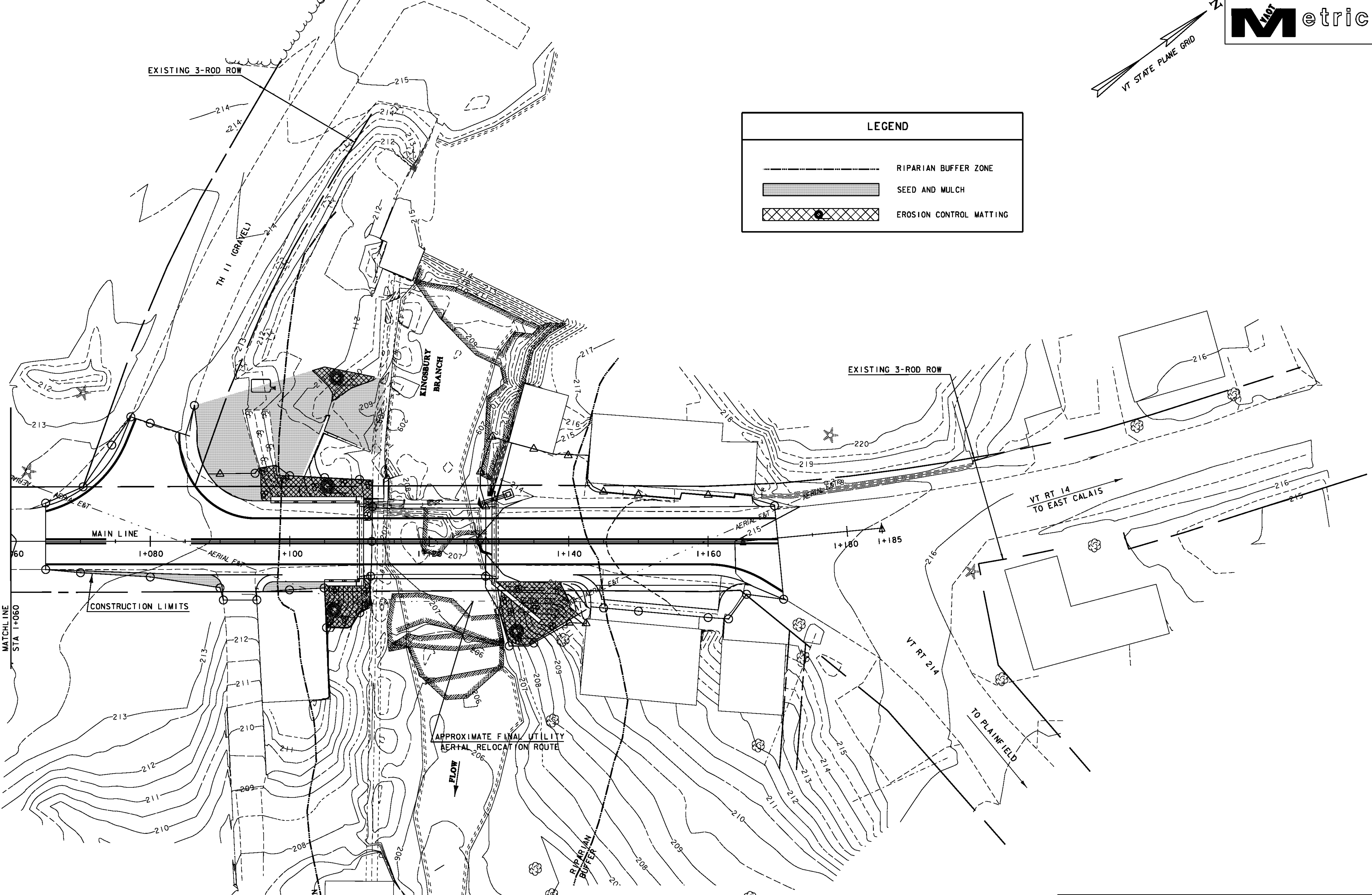


PROJECT:	PROJECT NO. :
EAST MONTPELIER	BRF 037-2 (8)
DESIGN FILE NAME: 86e054/structures/86e054bdrero.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054ero.i	SURVEY DATE: 3/93
SURVEYED BY: R. MOREAU	DRAWN BY: L. J. STONE
SQUAD LEADER: C. P. WILLIAMS	SHEET: 47 OF 63
EPSC PLAN SHEET	



LEGEND

RIPARIAN BUFFER ZONE

SEED AND MULCH

DATUM	
VERTICAL	USGS
HORIZONTAL	ASSUMED

FINAL CONDITIONS

SCALE 1:250

SCALE IN METERS

PROJECT:	EAST MONTPELIER	PROJECT NO. :	BRF 037-2 (8)
DESIGN FILE NAME:	86e054/structures/s86e054bdrero.dgn	PLOT DATE:	18-AUG-2010
IPARM FILE NAME:	se054fincon.i	SURVEYED BY:	R. MOREAU
SQUAD LEADER:	C.P. WILLIAMS	DRAWN BY:	L.J. STONE
FINAL CONDITIONS SHEET		SHEET:	48 OF 63

- ### CONSTRUCTION SPECIFICATIONS
1. WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
 2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFIL100X, STABILINKA T140N OR APPROVED EQUIVALENT.
 3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
 4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
 5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.
 6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

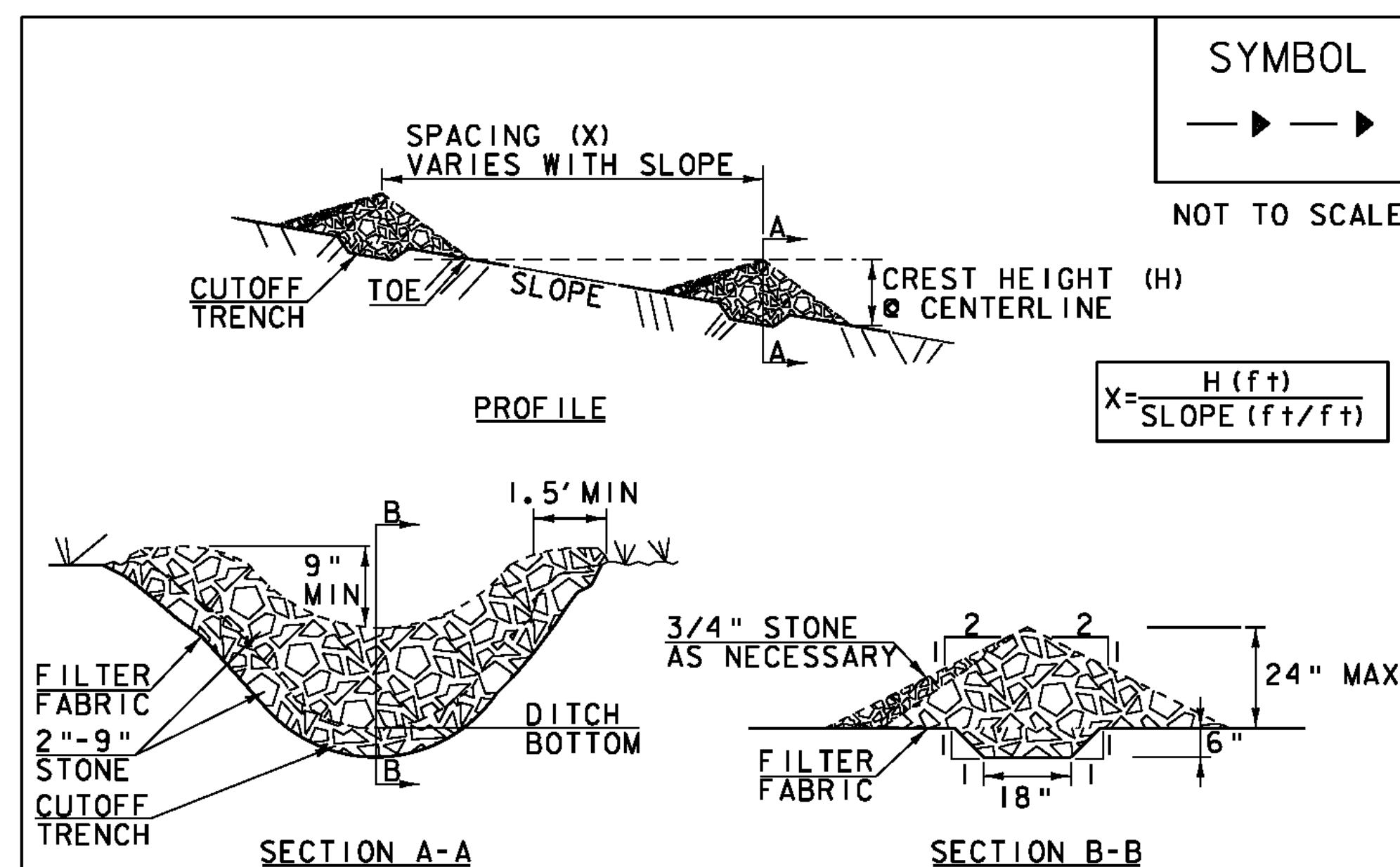
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

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

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE FOR SILT FENCE (PAY ITEM 649.51) OR GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED (PAY ITEM 649.515).

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



CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
2. CHECK DAMS SHALL BE SPACED SO THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
3. 3/4" FILTERING STONE MAY BE ADDED TO THE FACE OF THE CHECK DAM AS NECESSARY.
4. EXTEND THE STONE A MINIMUM OF 1.5' BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
5. PROTECT CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
6. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
7. MAXIMUM DRAINAGE AREA 2 ACRES.

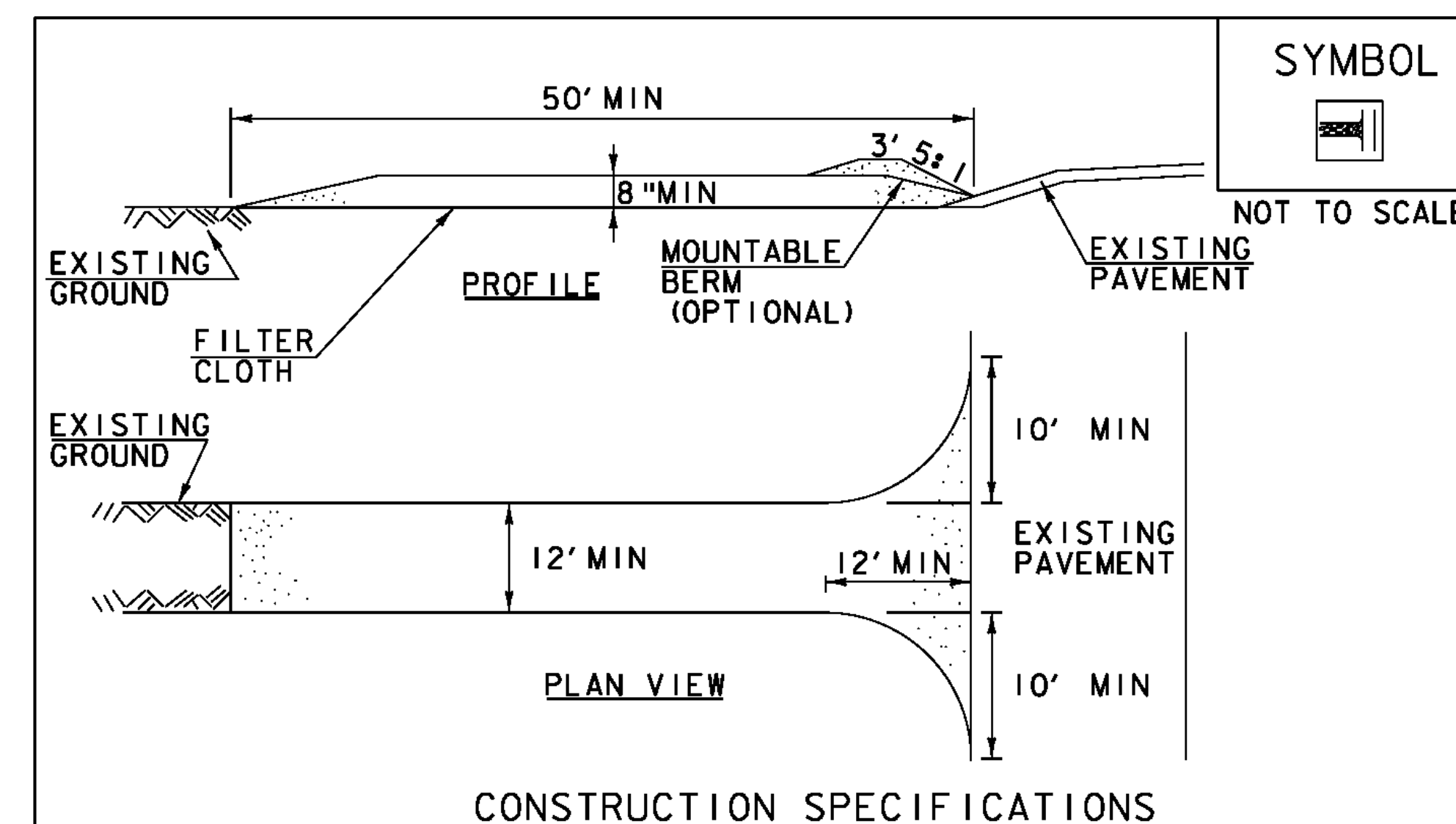
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CHECK DAM

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

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH
SECTION 653 FOR TEMPORARY STONE CHECK DAM, TYPE I (PAY
ITEM 653.25)

REVISIONS	
MARCH 21, 2008	WHF
JANUARY 8, 2009	WHF



CONSTRUCTION SPECIFICATIONS

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

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

STABILIZED
CONSTRUCTION
ENTRANCE

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

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

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF

PROJECT NAME: FAST MONTPELIER

PROJECT NUMBER: BRF 037-2(8)

FILE NAME: se054erodet.dgn

PROJECT LEADER: C.P.WILLIAMS

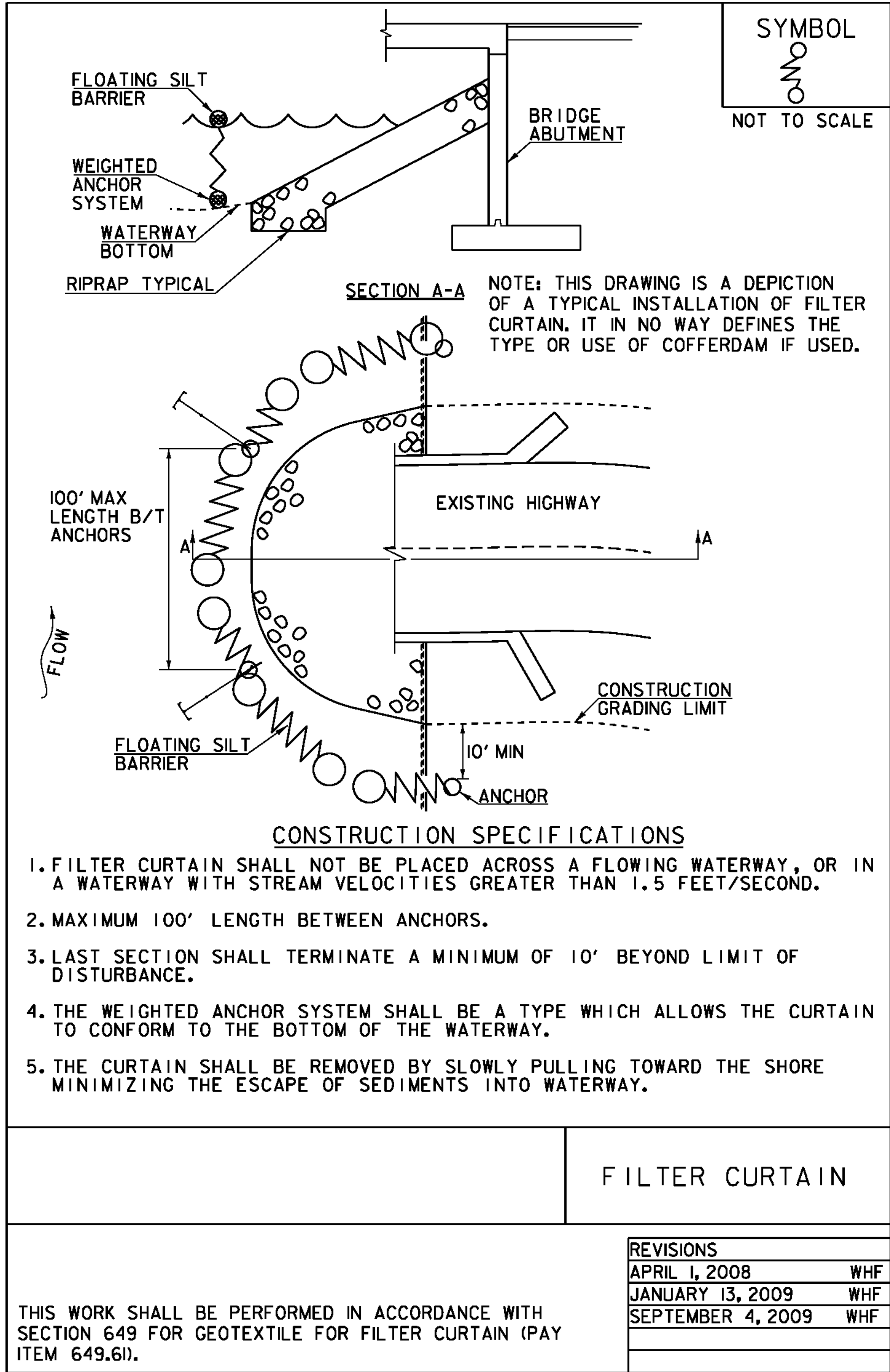
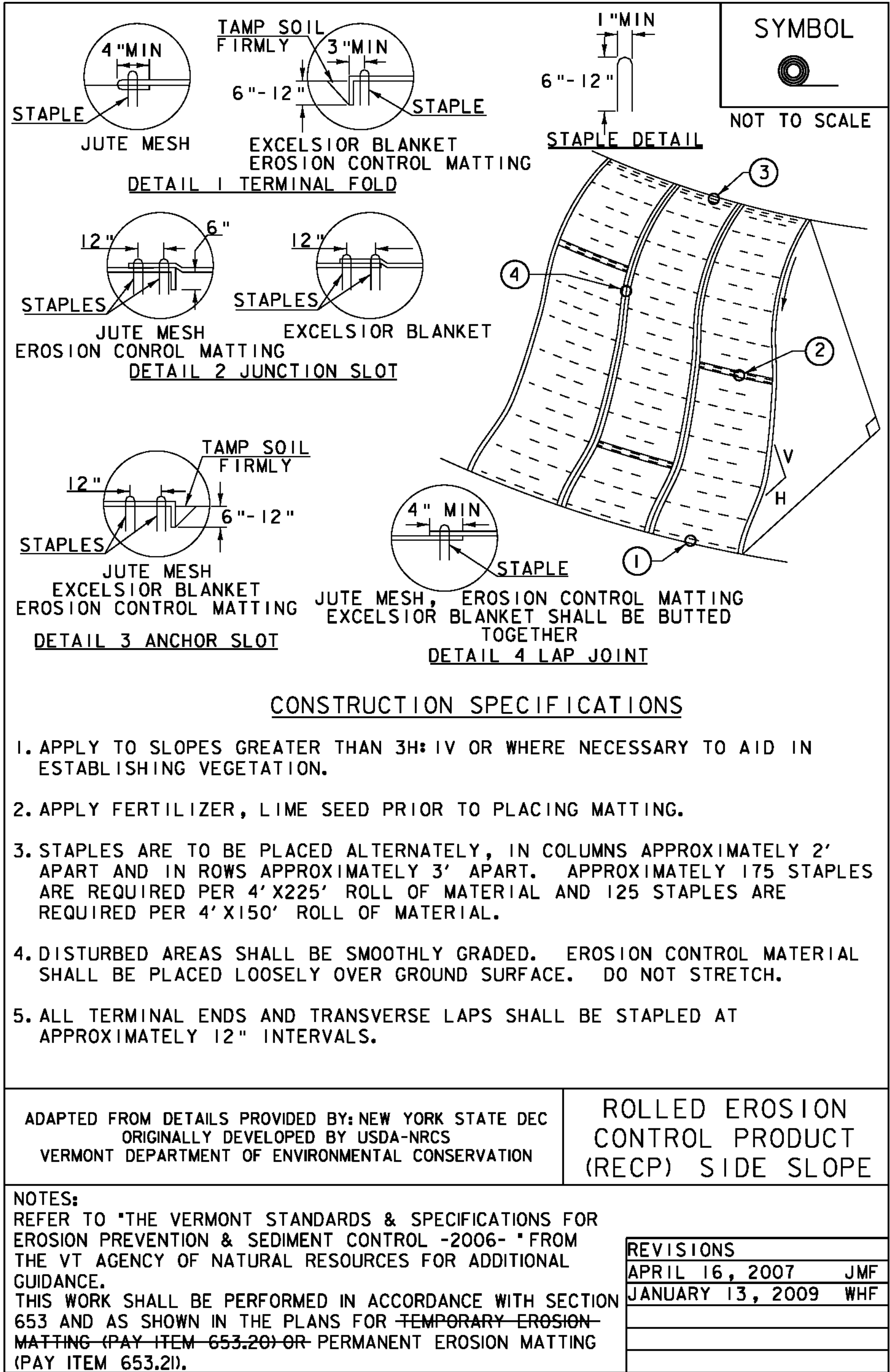
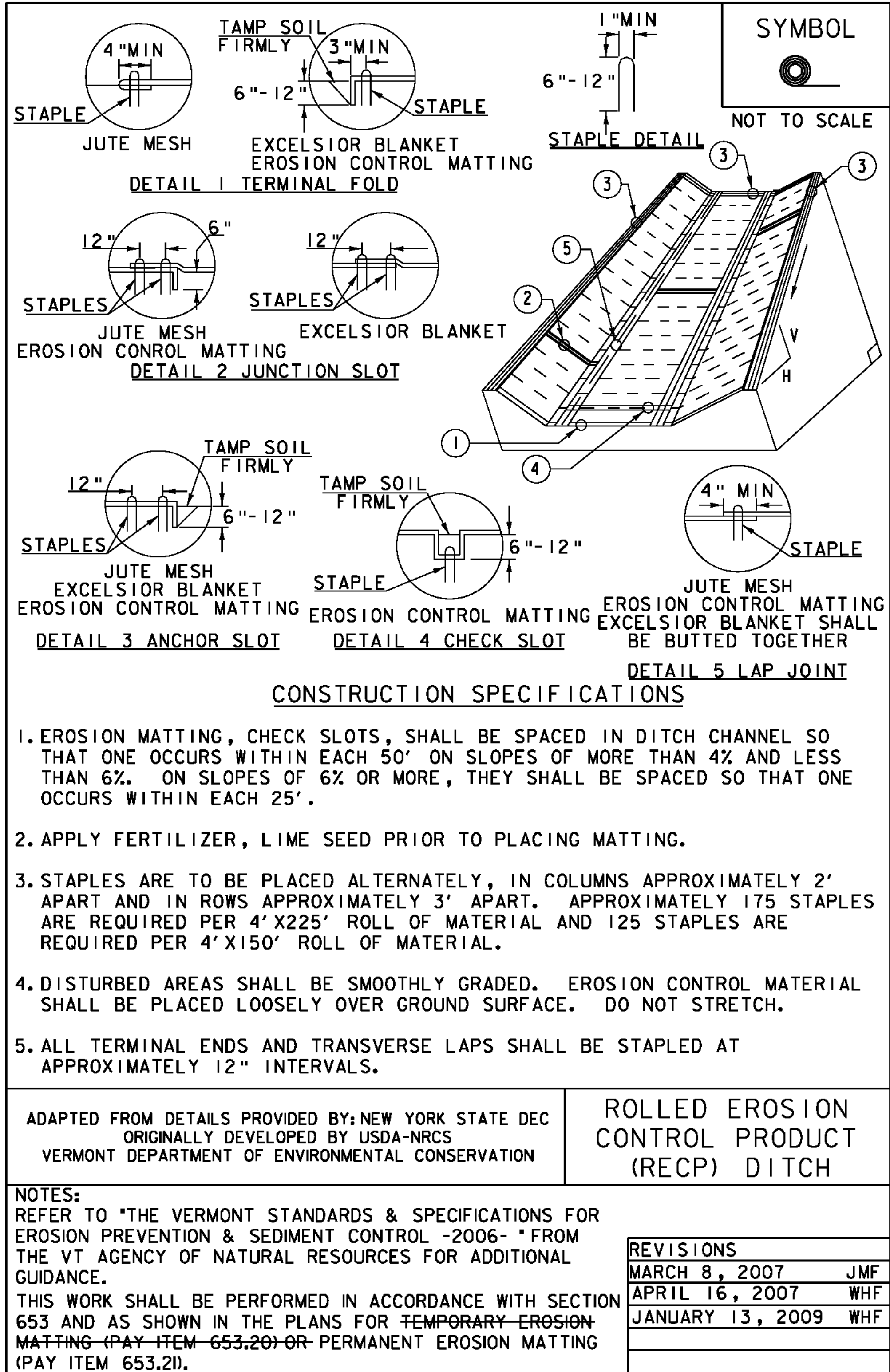
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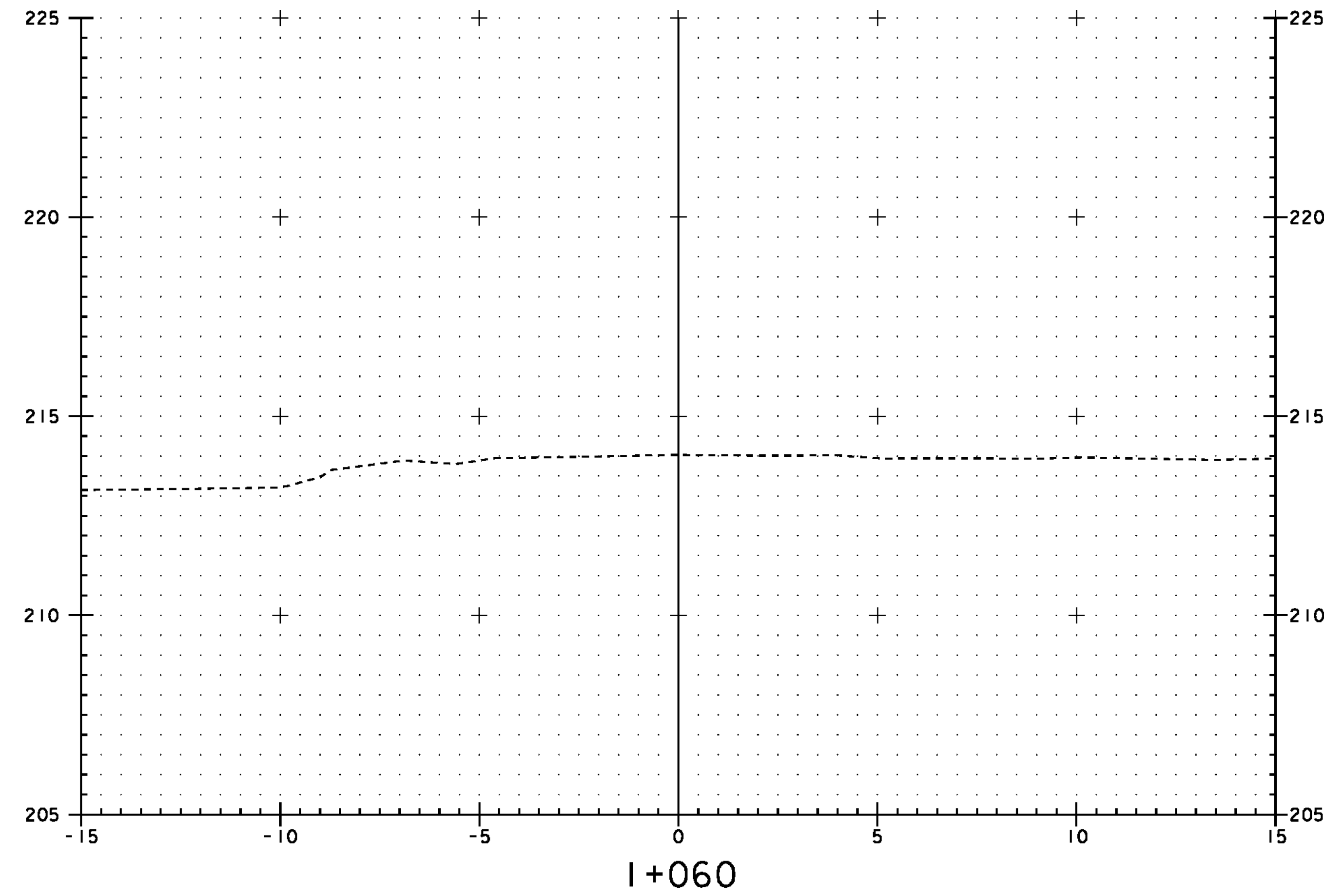
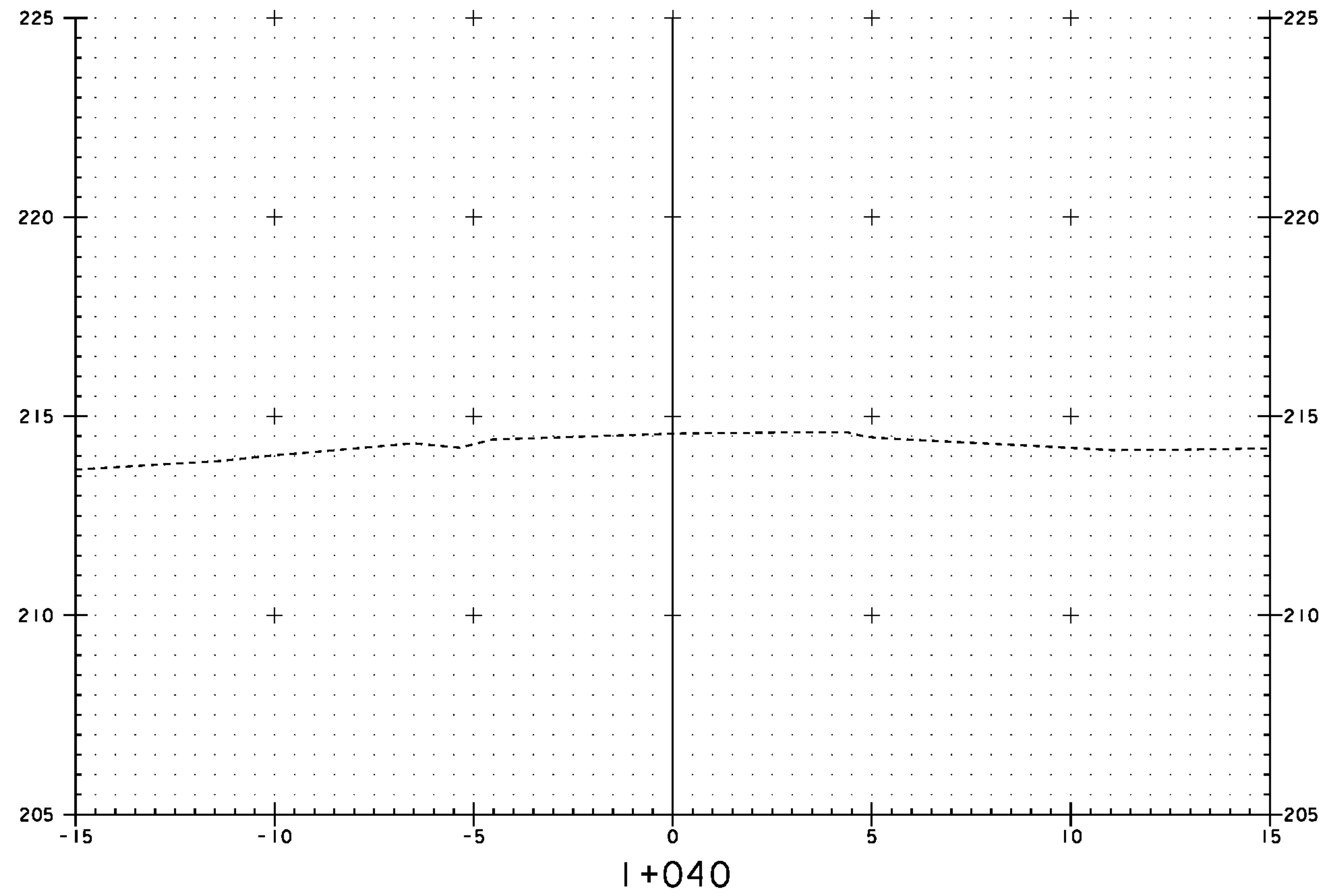
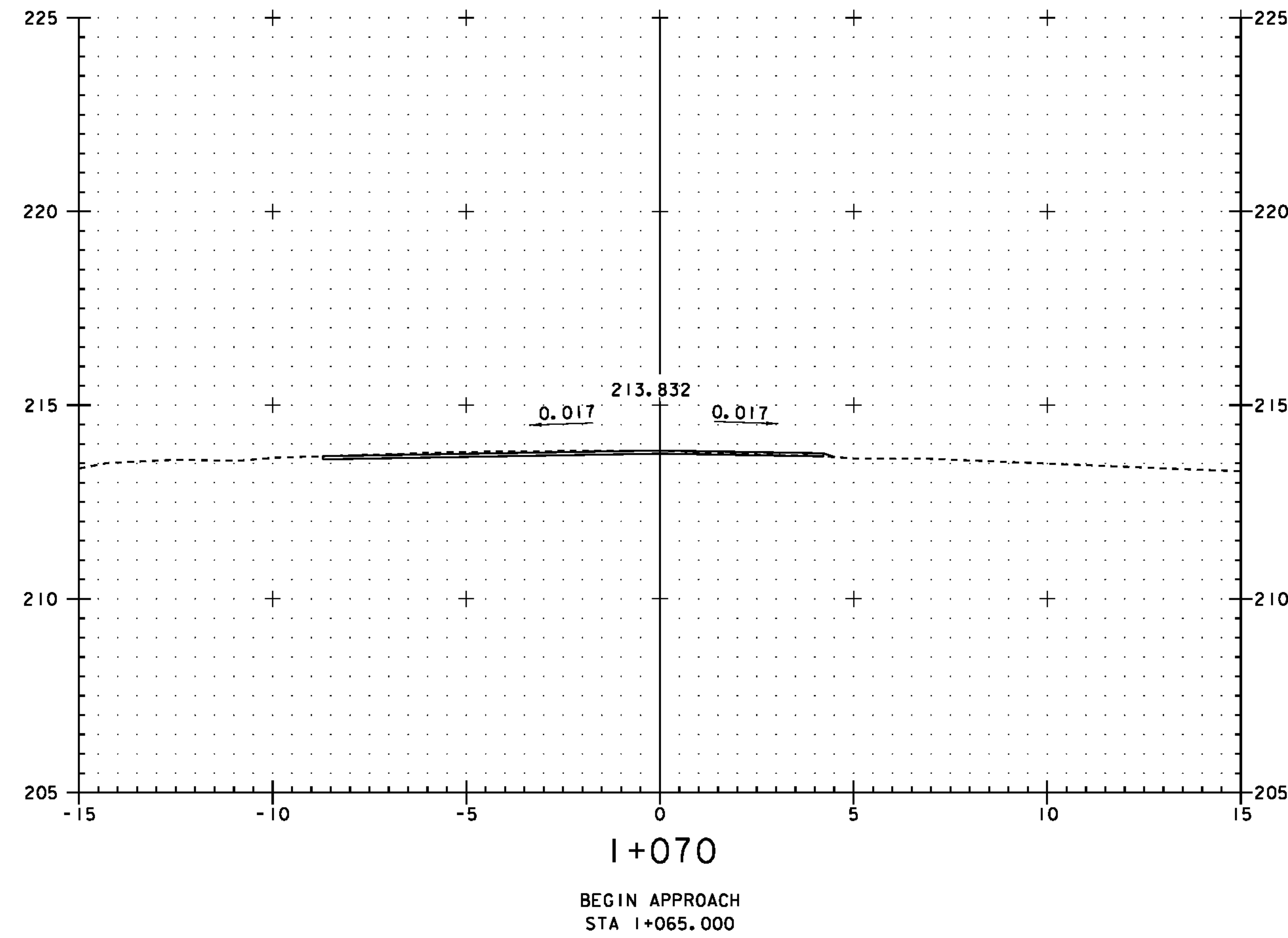
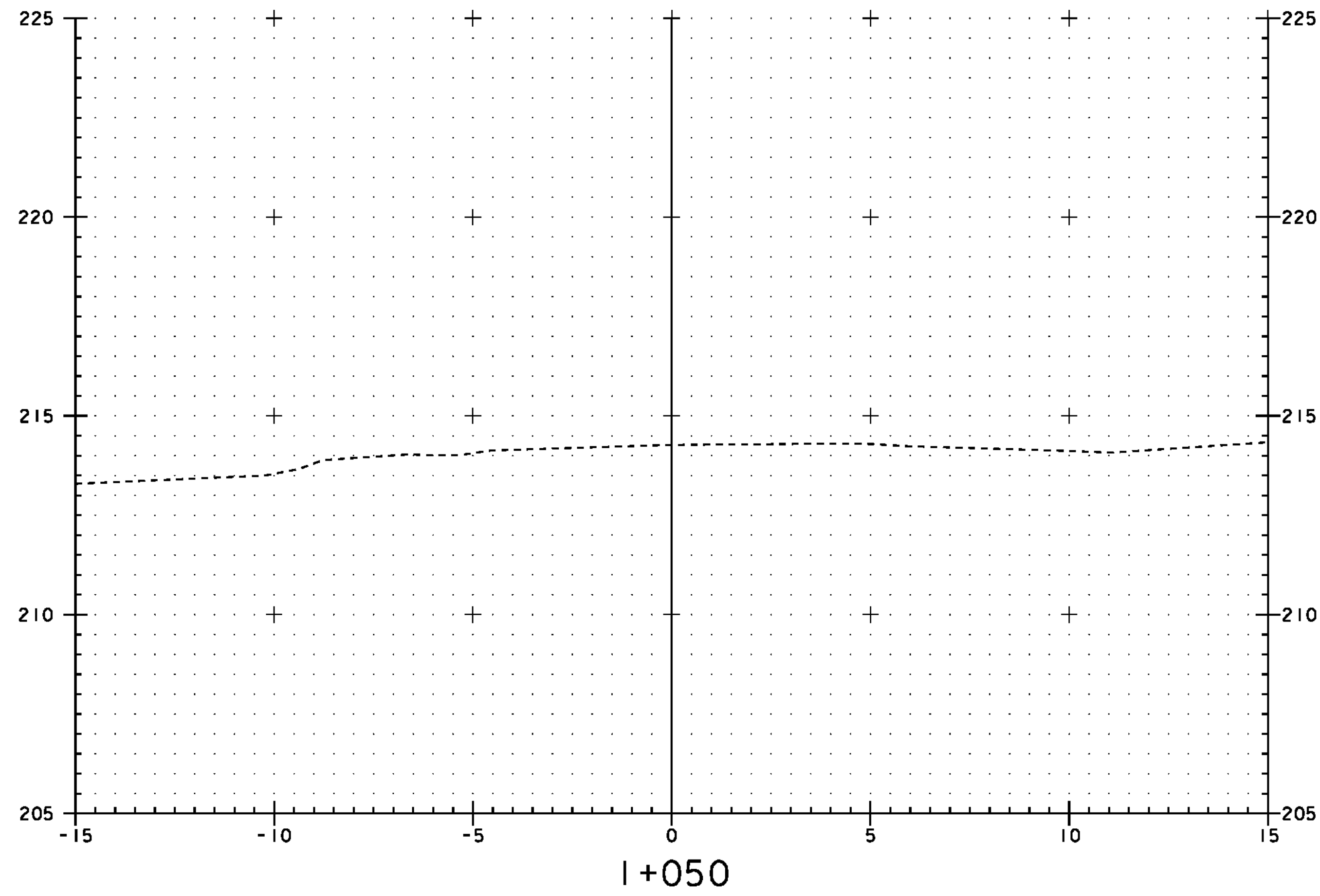
PLOT DATE: 18-AUG-2010

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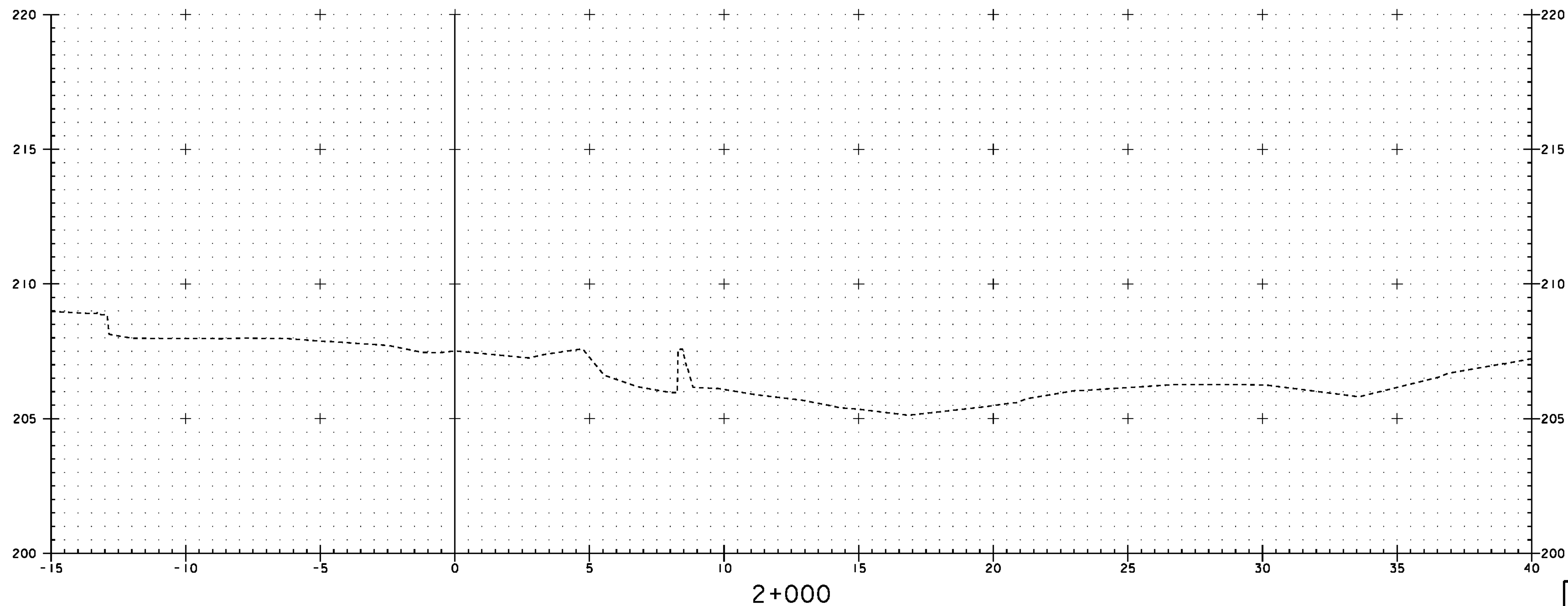
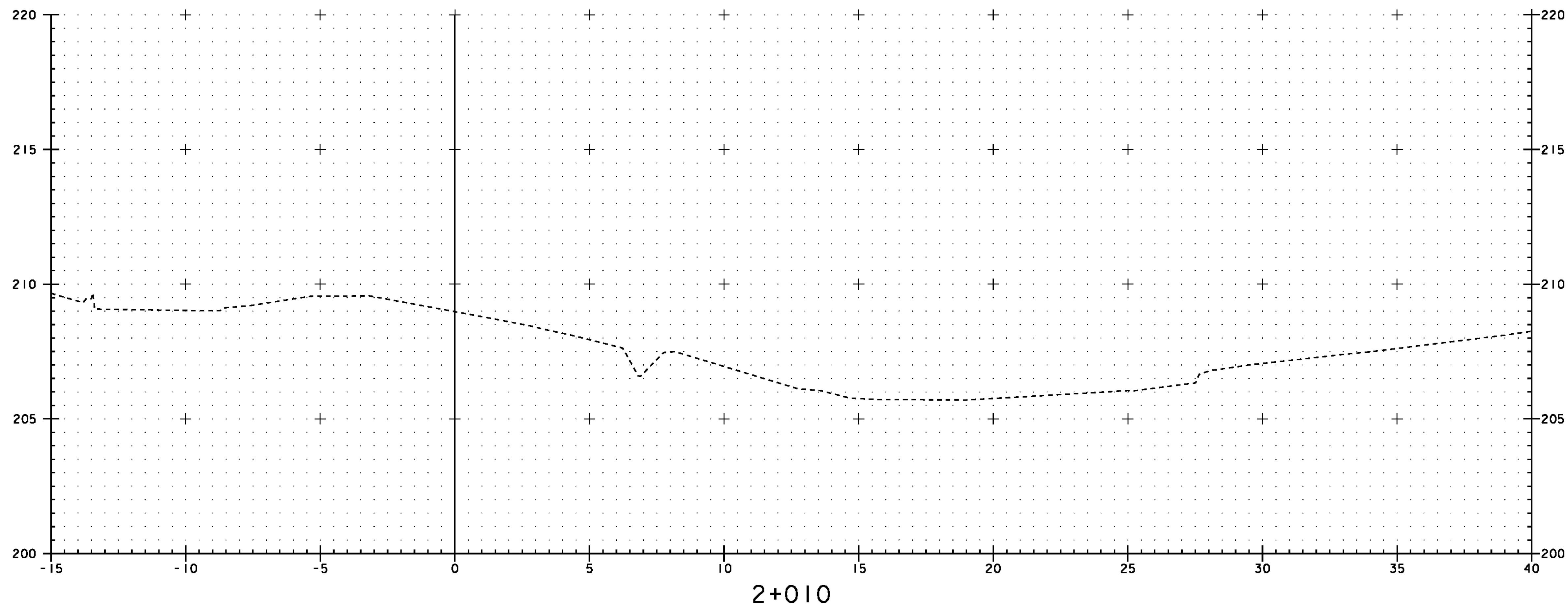
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SHEET 49 OF 63

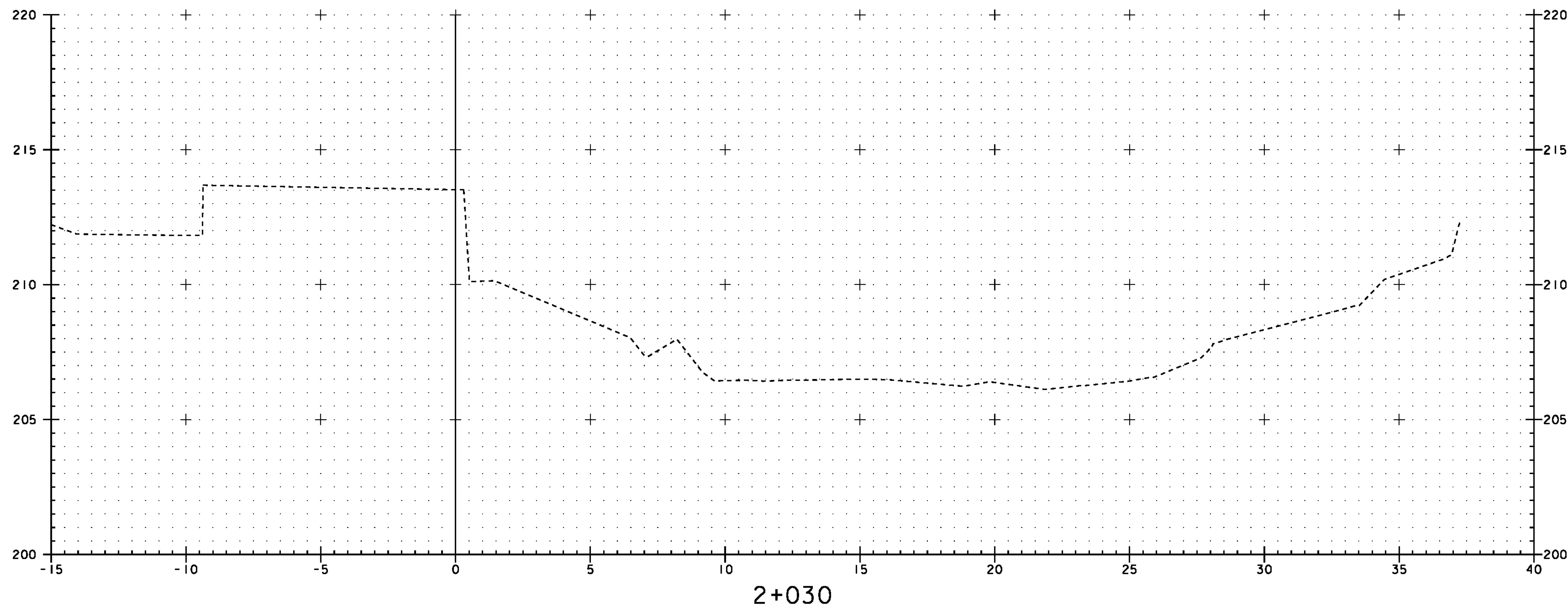




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MAINLINE SECTIONS	SHEET: 52 OF 63

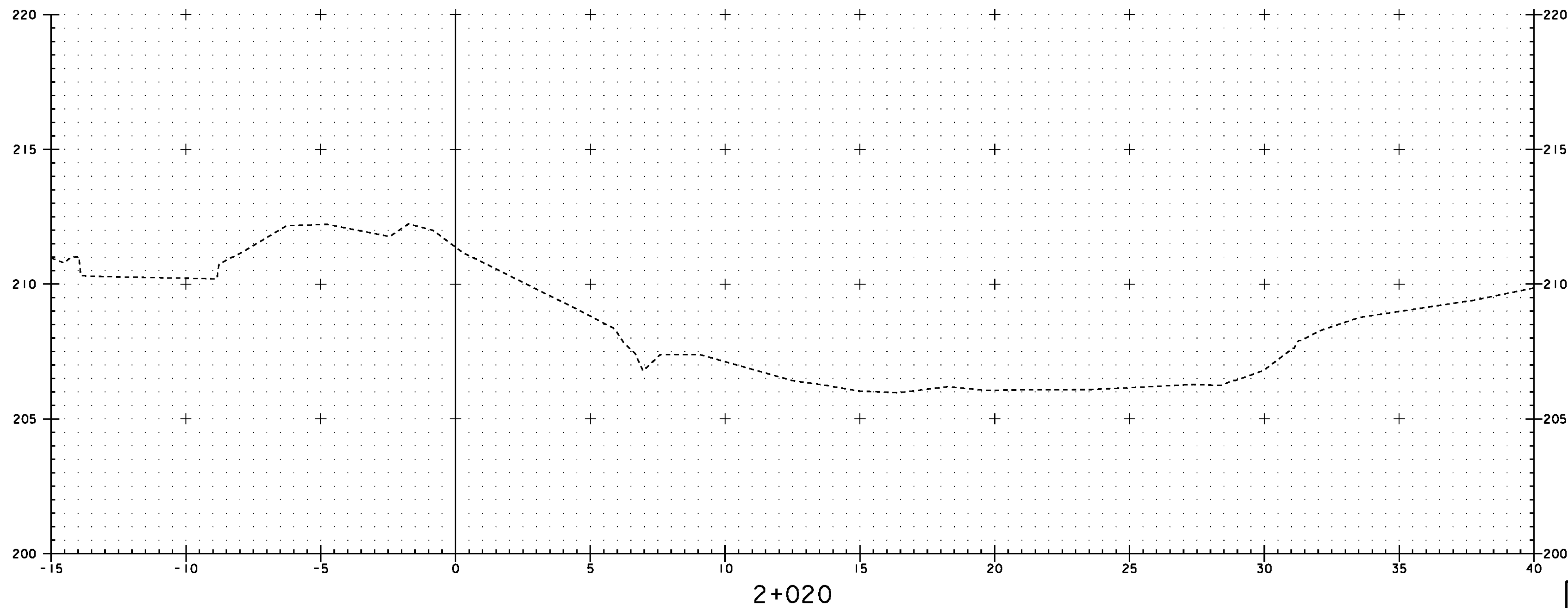


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CHANNEL SECTIONS	SHEET: 57 OF 63



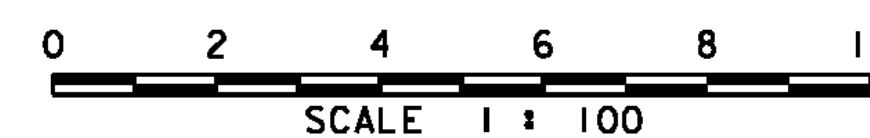
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(ABUTMENT No. 1)

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BEGIN GRUBBING MATERIAL
BEGIN UNCLASSIFIED CHANNEL EXCAVATION

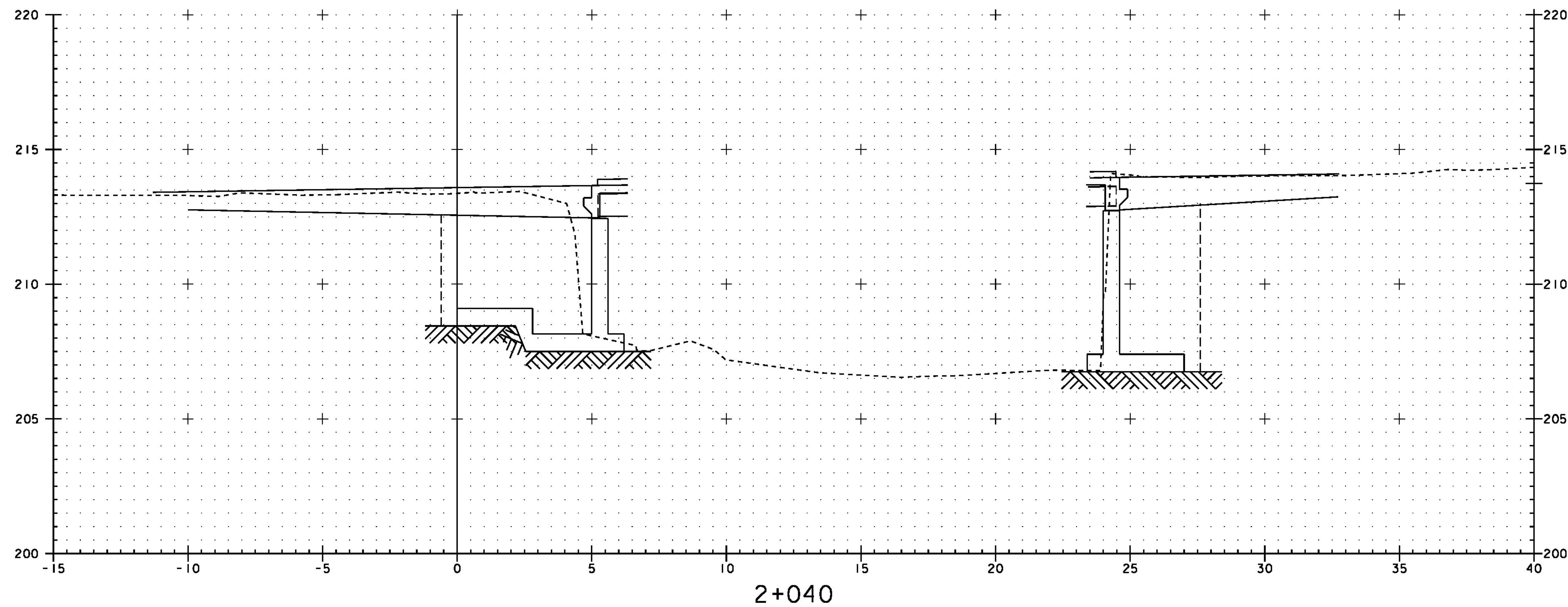


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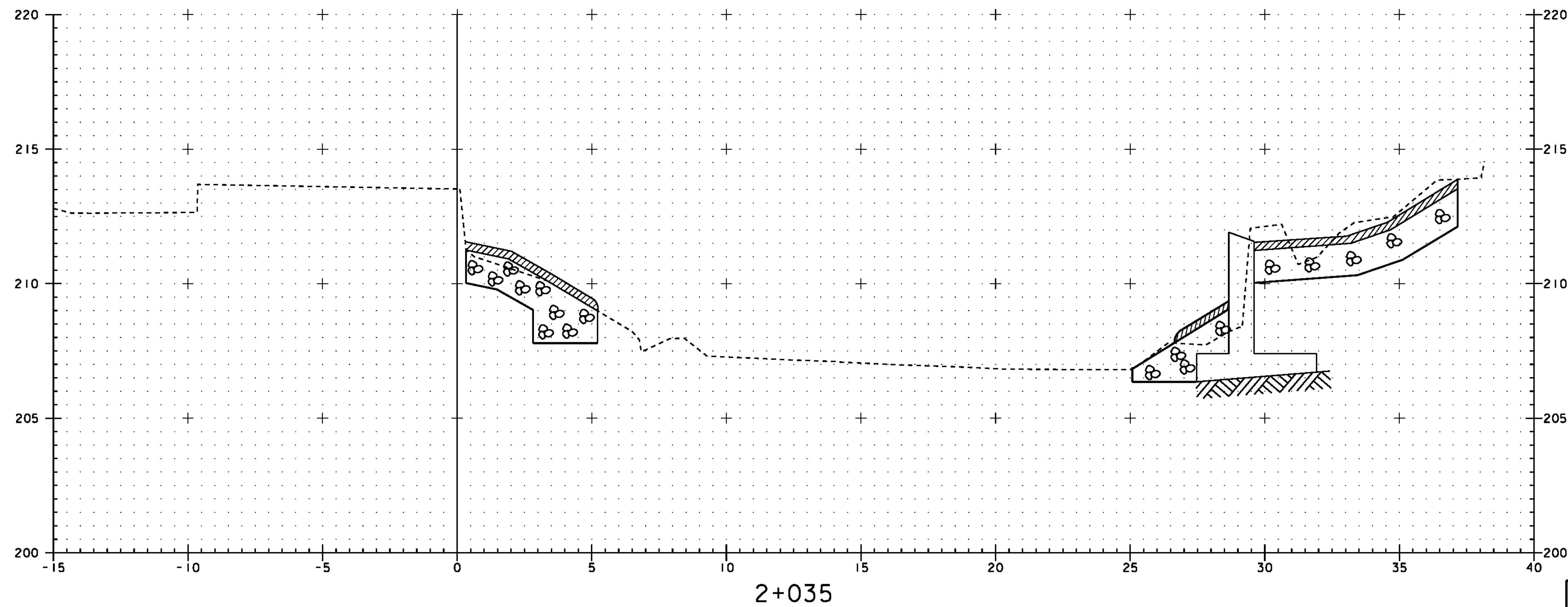
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BEGIN UNCLASSIFIED CHANNEL EXCAVATION



PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2(8)
DESIGN FILE NAME: 86e054/structures/se054xsl.dgn	PLOT DATE: 18-AUG-2010
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SECTION 2+020 THROUGH 2+030	
CHANNEL SECTIONS	SHEET: 58 OF 63



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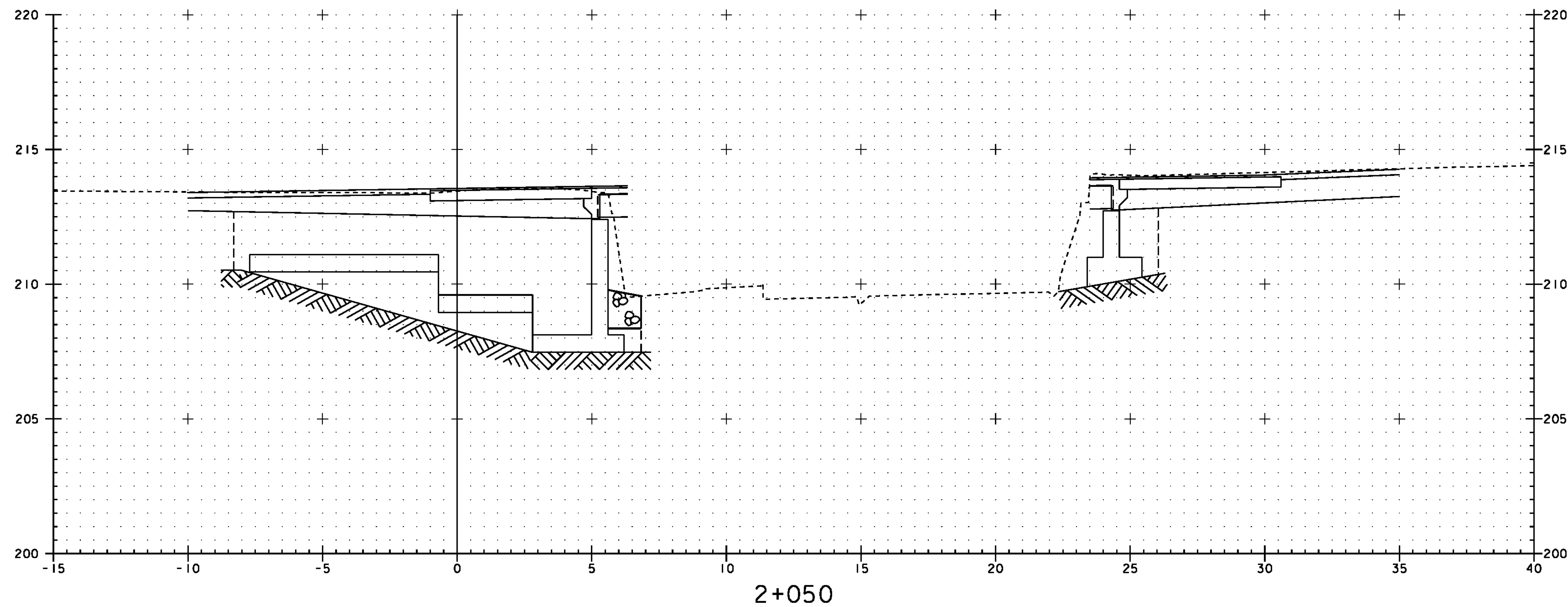


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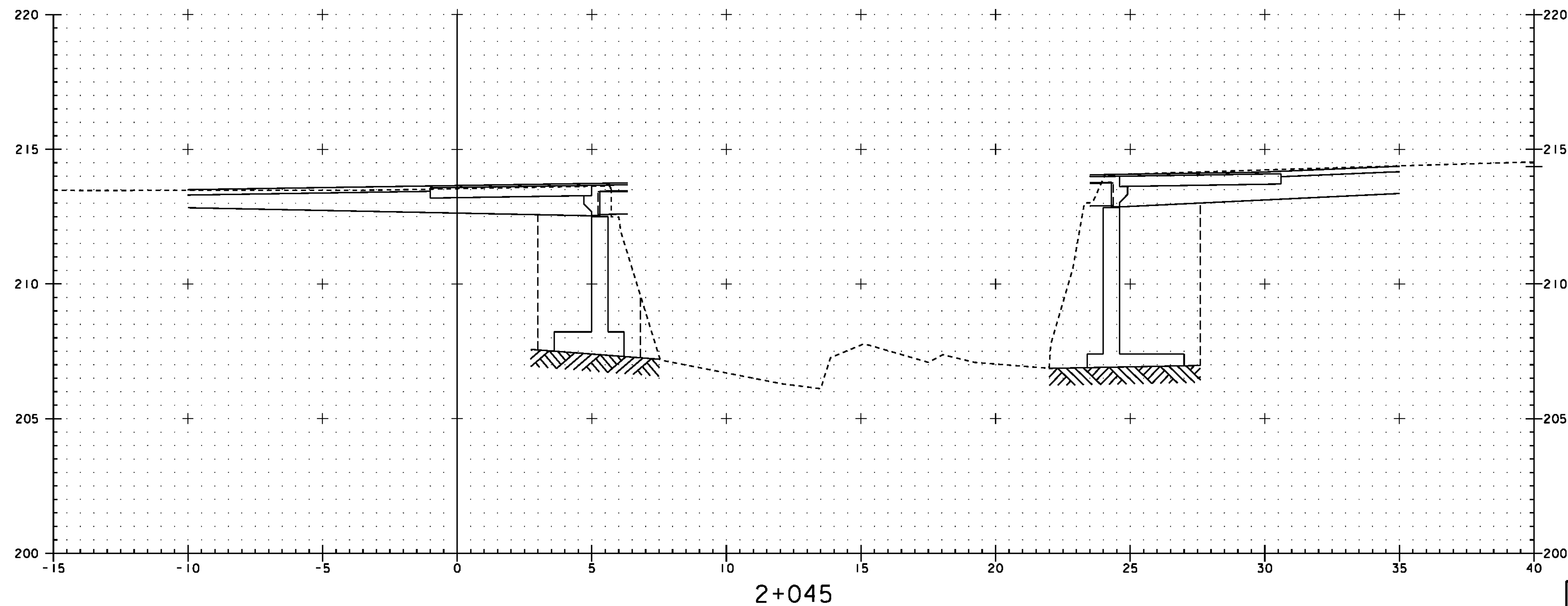
Metric

0 2 4 6 8 10
SCALE 1" = 100'

PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2(8)
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SECTION 2+035 THROUGH 2+040	
CHANNEL SECTIONS	SHEET: 59 OF 63



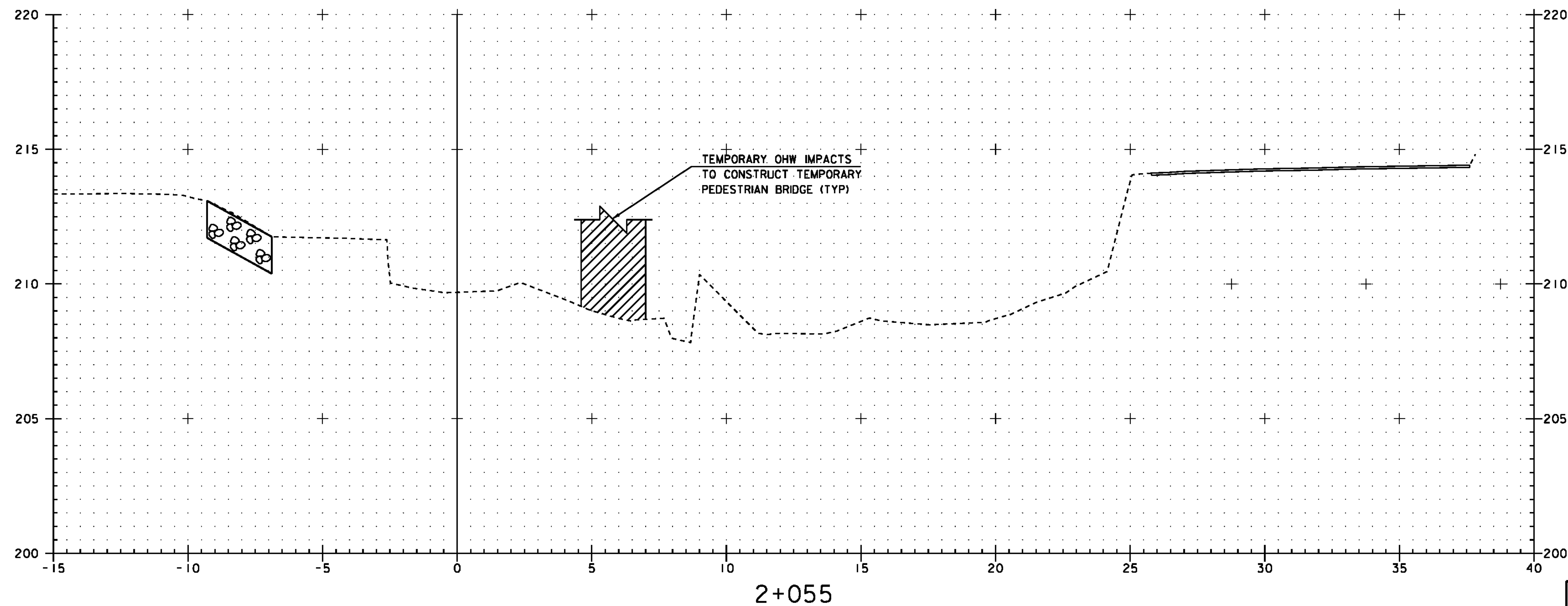
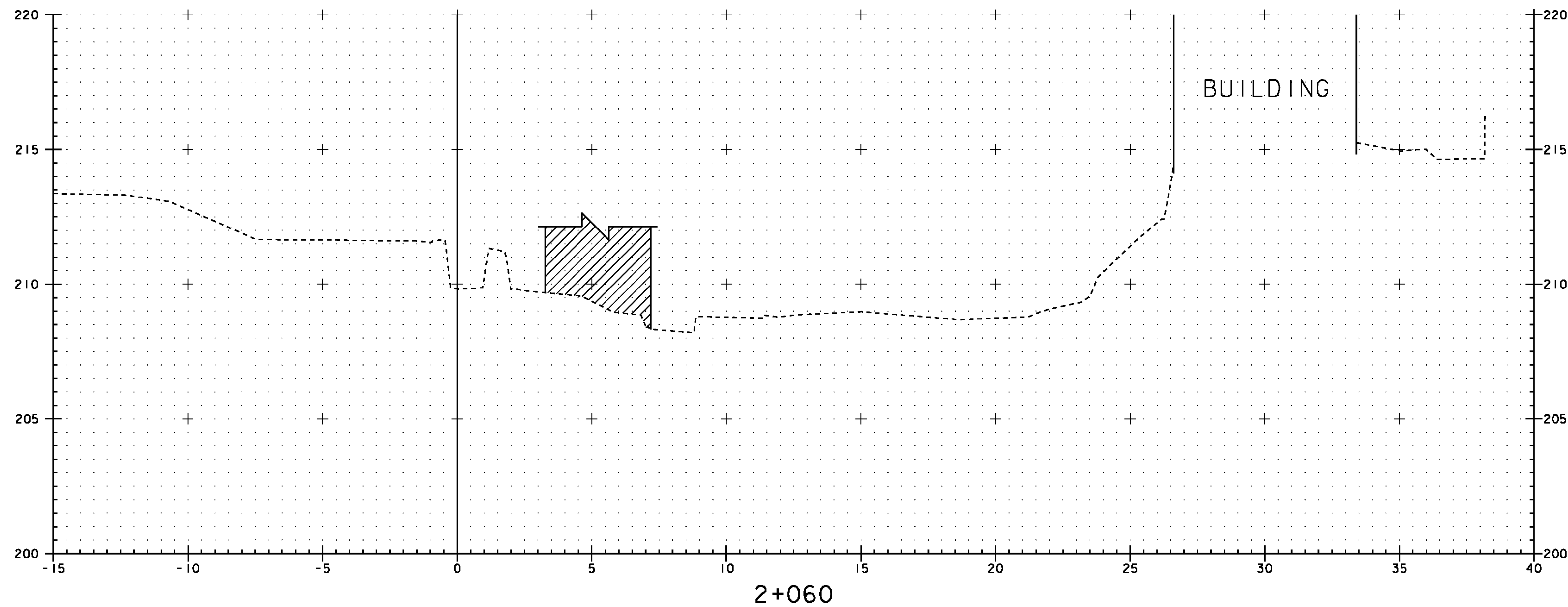
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BEGIN UNCLASSIFIED CHANNEL EXCAVATION



Metric

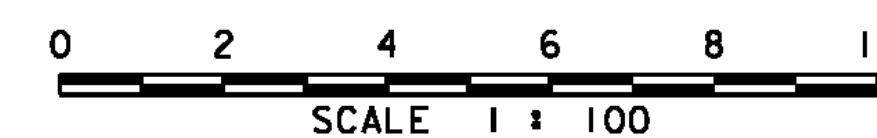
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SCALE 1" = 100'

EAST MONTPELIER		PROJECT NO.:	BRF 037-2(8)
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CHANNEL SECTIONS		SHEET: 60 OF 63	

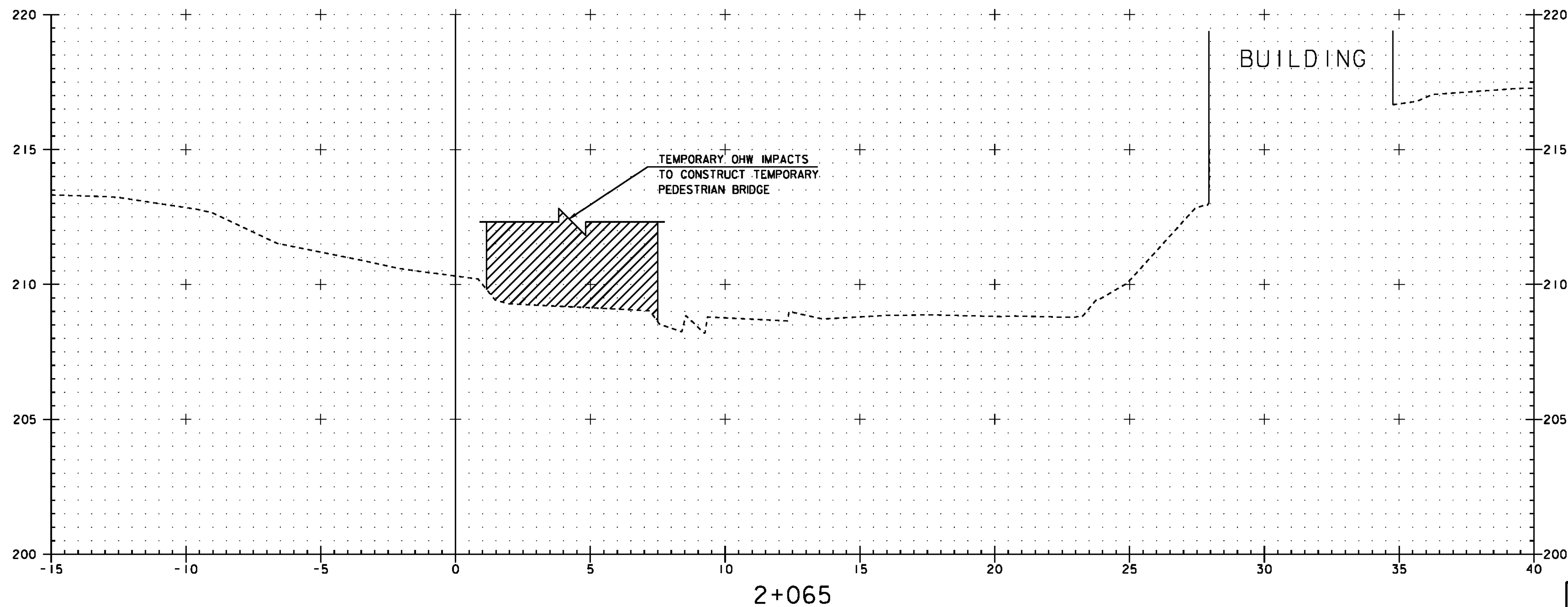
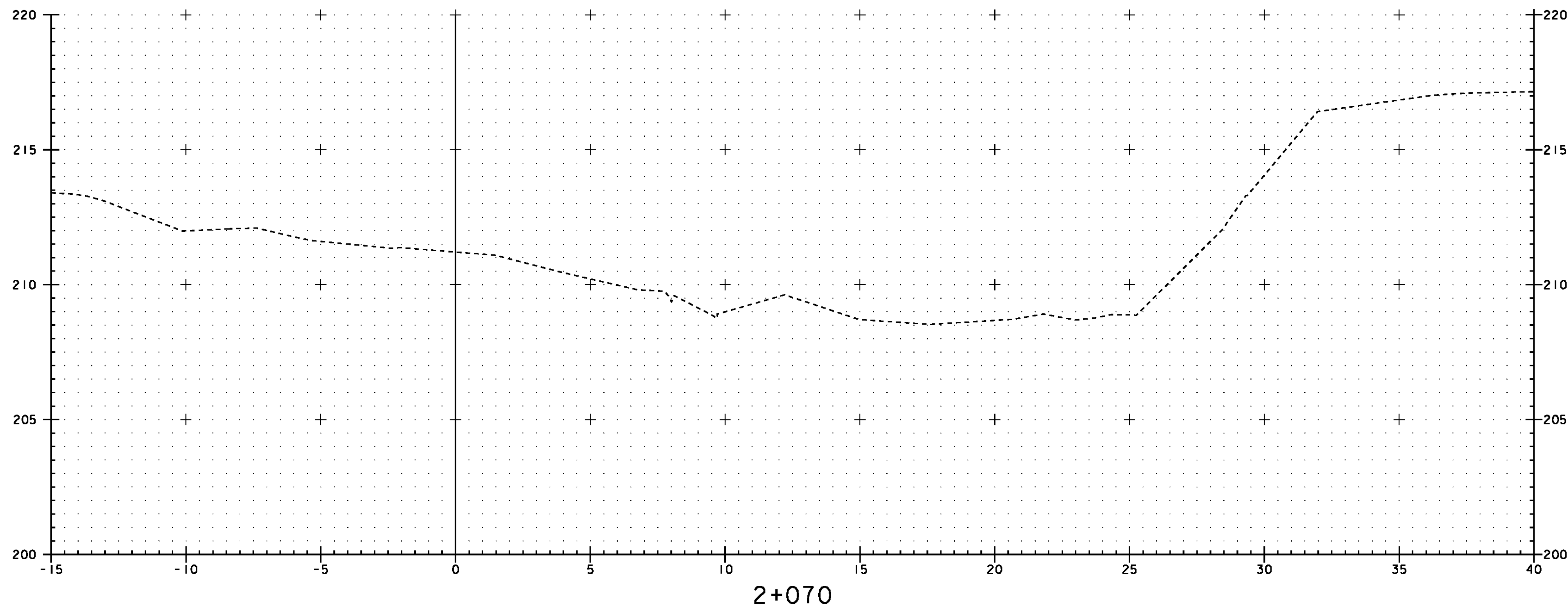


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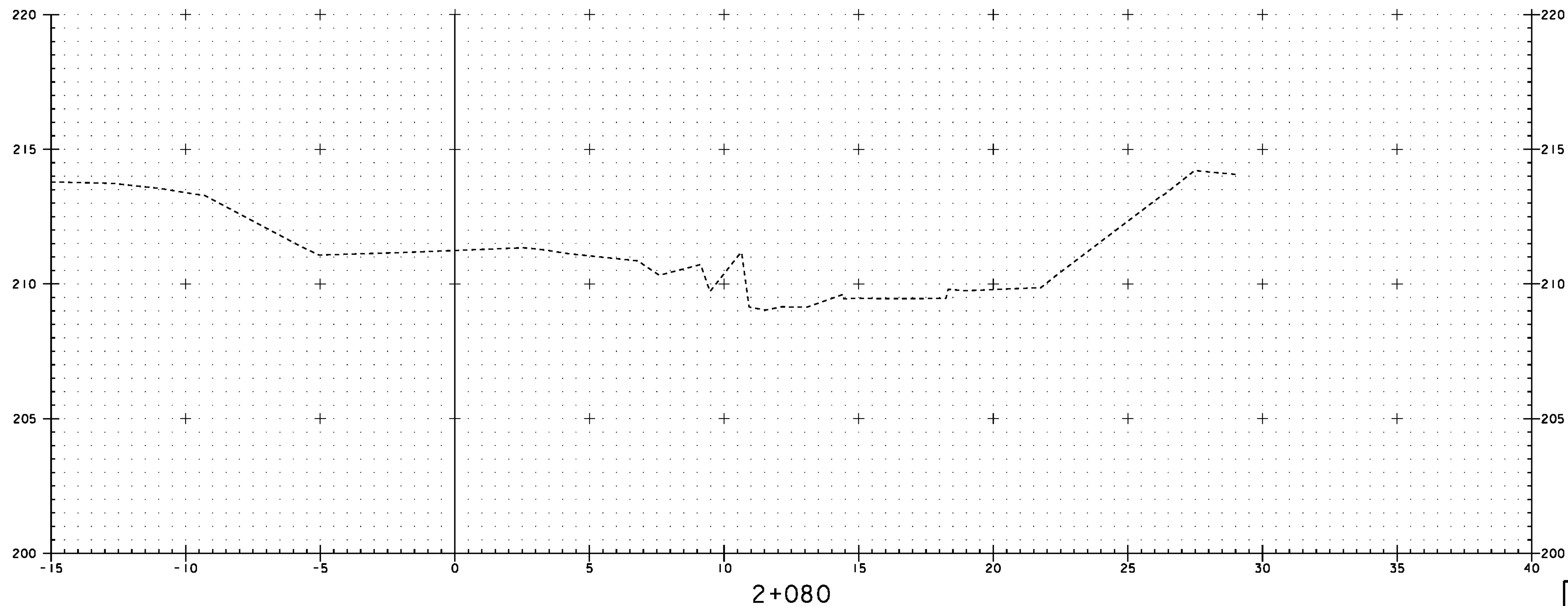
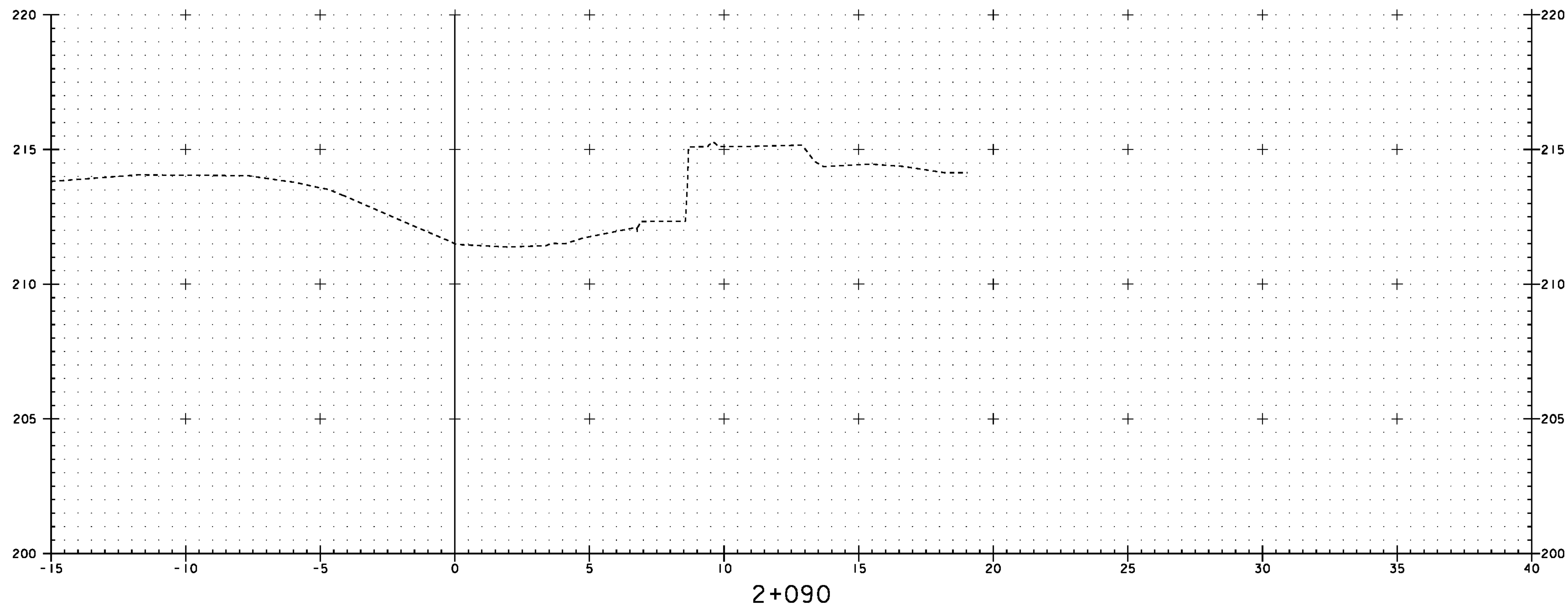
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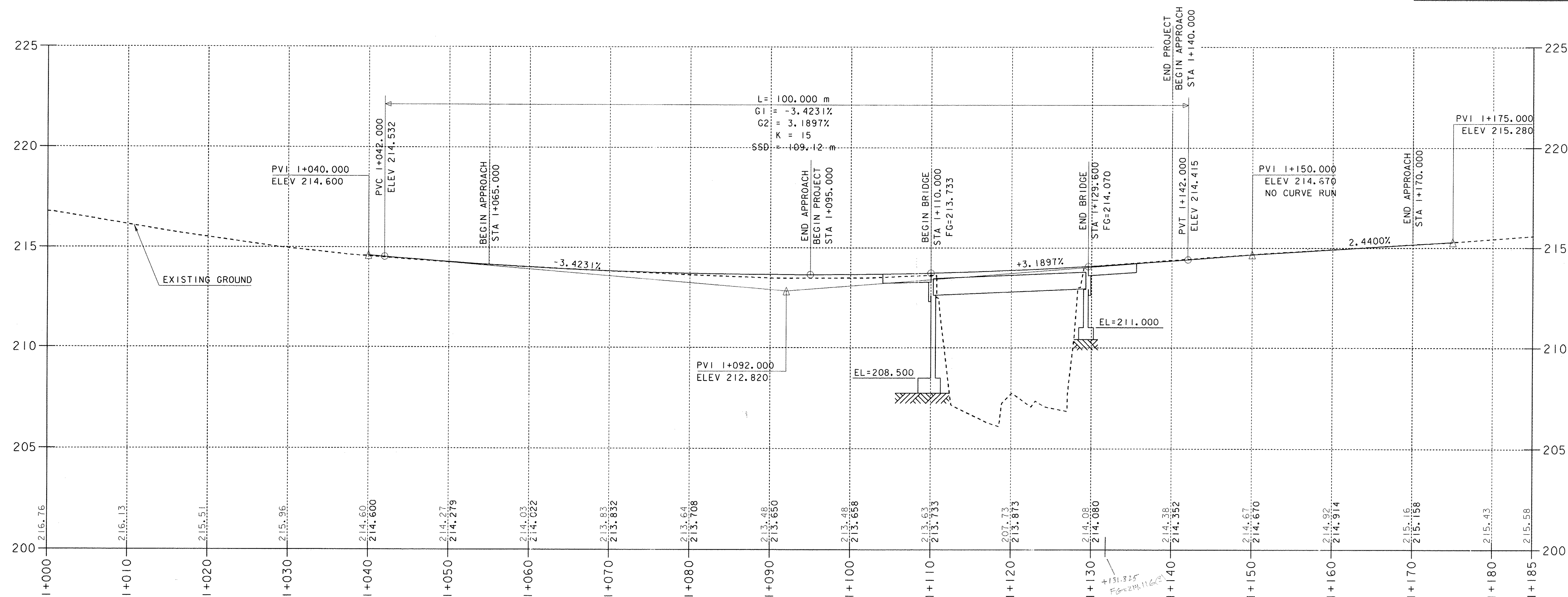
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CHANNEL SECTIONS	SHEET: 61 OF 63



PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2(8)
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CHANNEL SECTIONS	SHEET: 62 OF 63



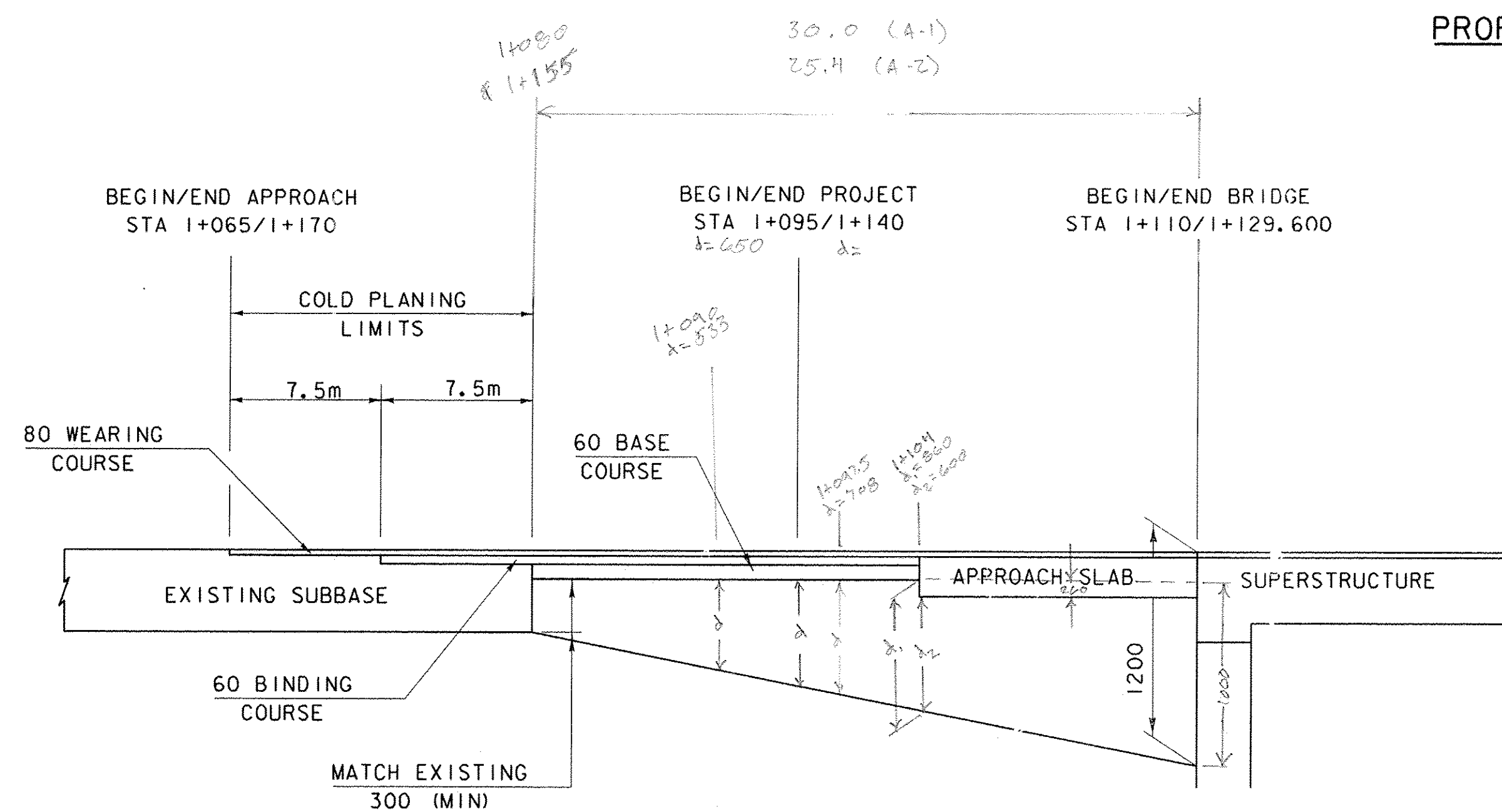
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SECTION 2+080 THROUGH 2+090	
CHANNEL SECTIONS	SHEET: 63 OF 63



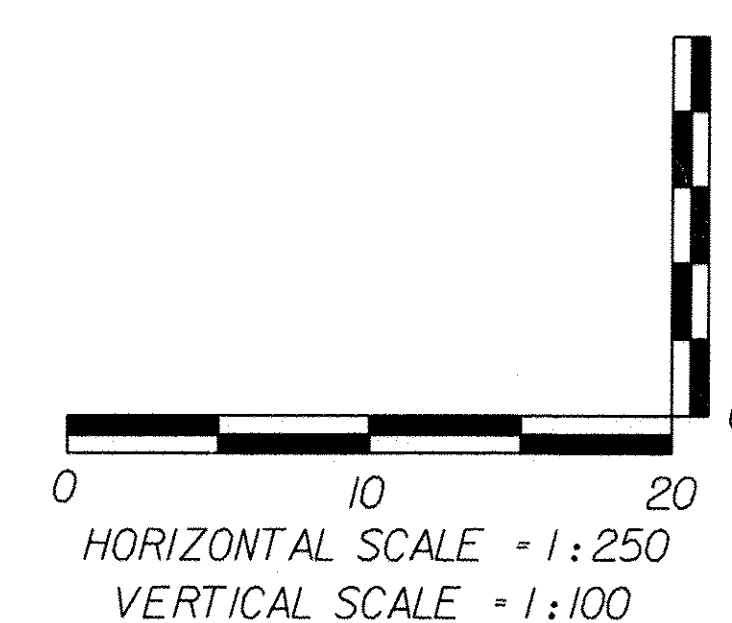
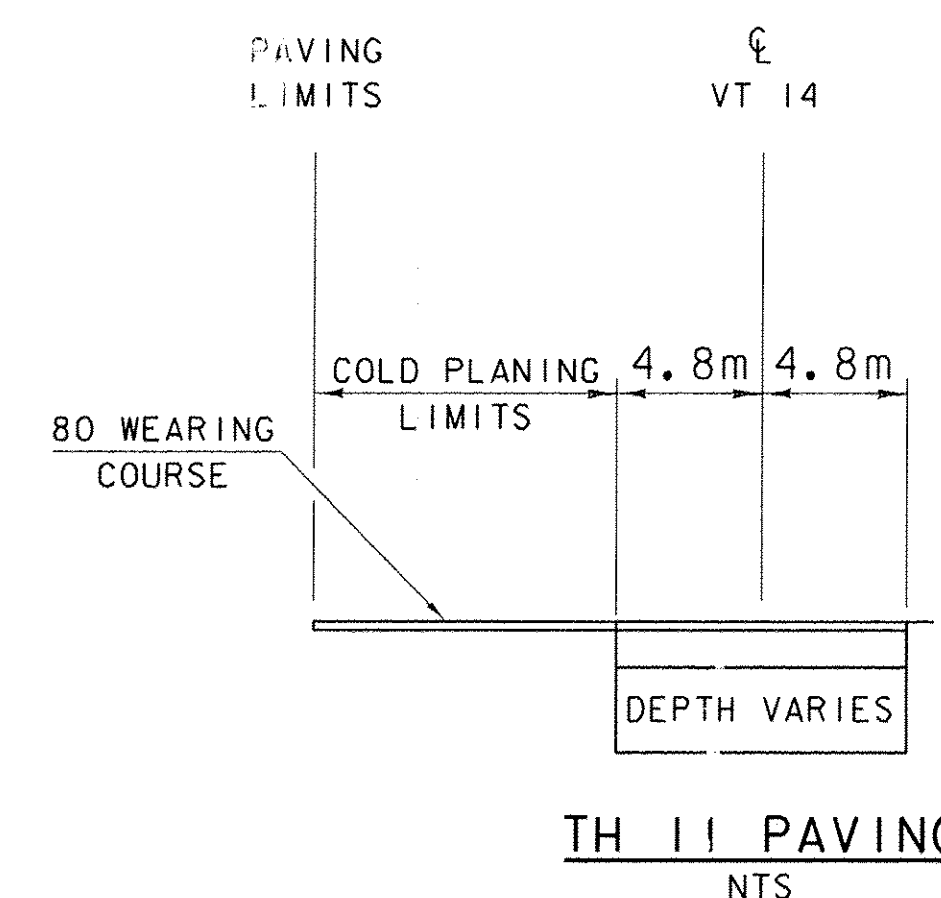
PROFILE VT RT 14

NOTE: GRADES SHOWN TO THE NEAREST HUNDRETH ARE EXISTING GROUND ALONG CENTERLINE.

GRADES SHOWN TO THE NEAREST THOUSANDTH ARE FINISH GRADE ALONG CENTERLINE.



VT 14 SUBBASE TAPER
NTS



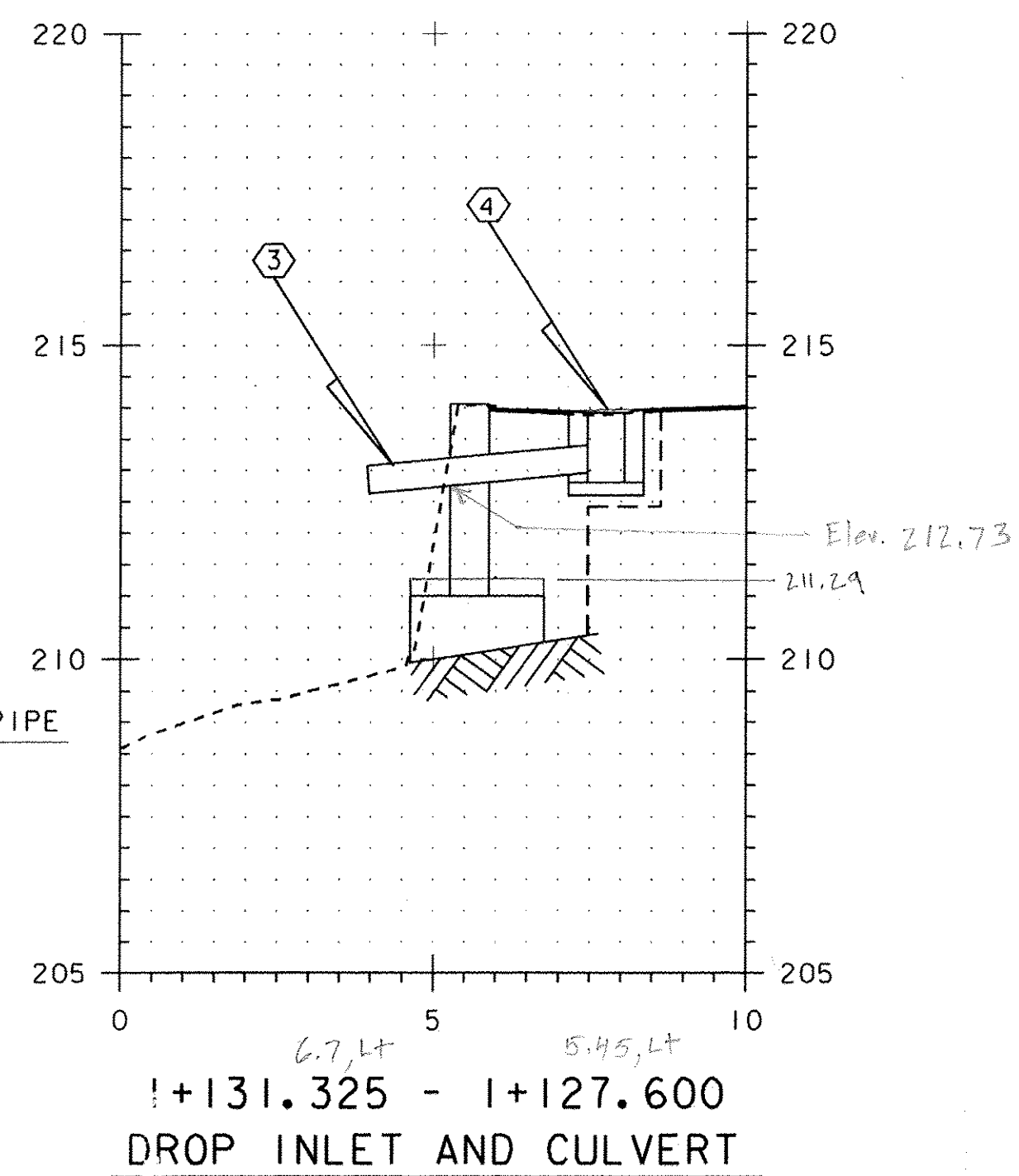
PROJECT NAME: EAST MONTPELIER
PROJECT NUMBER: BR 037-2(8)

FILE NAME: se054pro.dgn
PROJECT LEADER: C.P.WILLIAMS
DESIGNED BY: L.J.STONE
PROFILE VT RT 14

PLOT DATE: 18-AUG-2010
DRAWN BY: L.J.STONE
CHECKED BY: H.SALLS
SHEET II OF 63

NEW 450 mm X 3500 mm OPTION PIPE
 INLET INVERT
 ELEVATION = 212.950
 OUTLET INVERT
 ELEVATION = 212.600

0.350



F6 @ 1+131.325 = 214.116
 - 0.02 (6.7) = 213.982 ✓

$\frac{2.2}{3.5} (0.35) = .22$

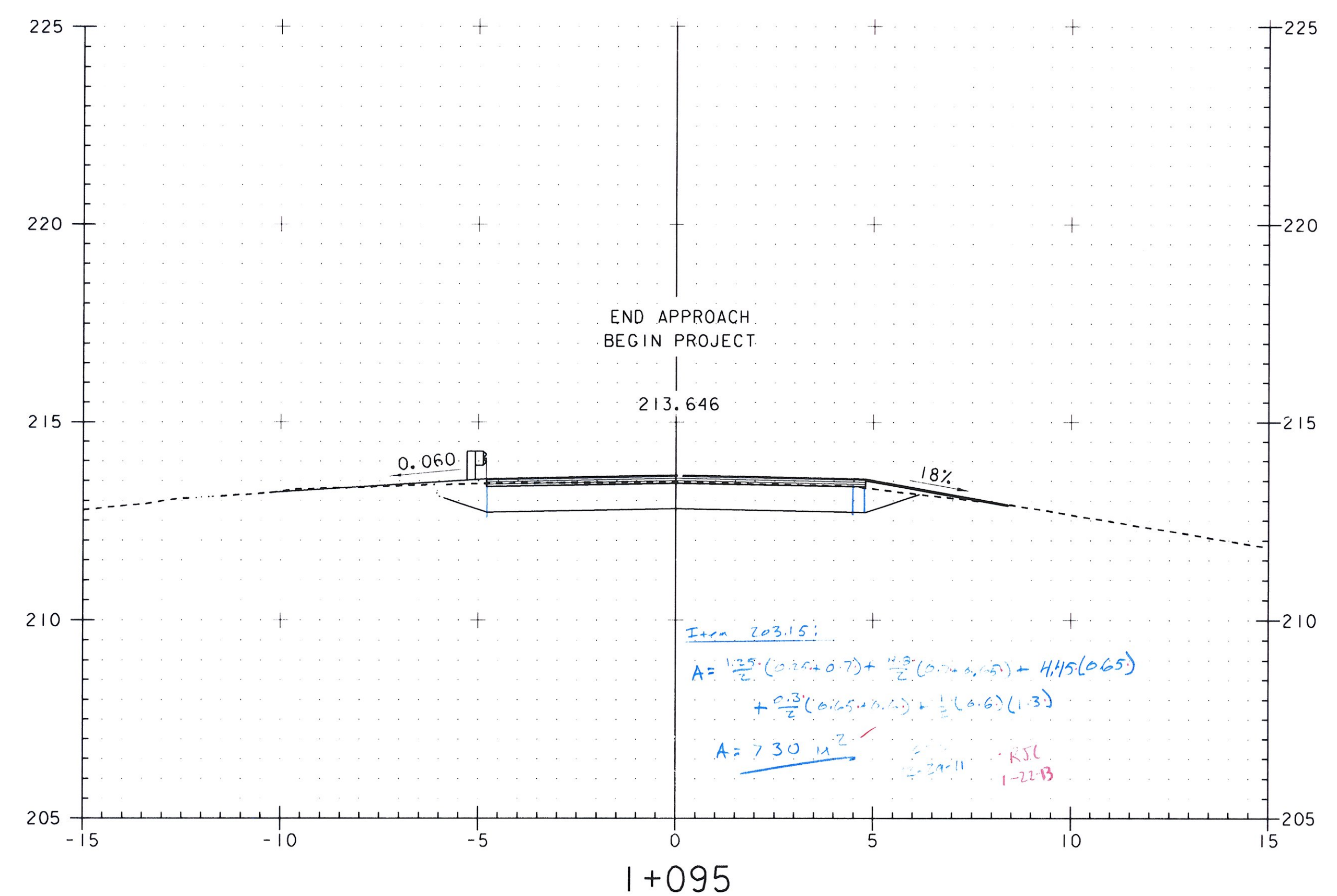
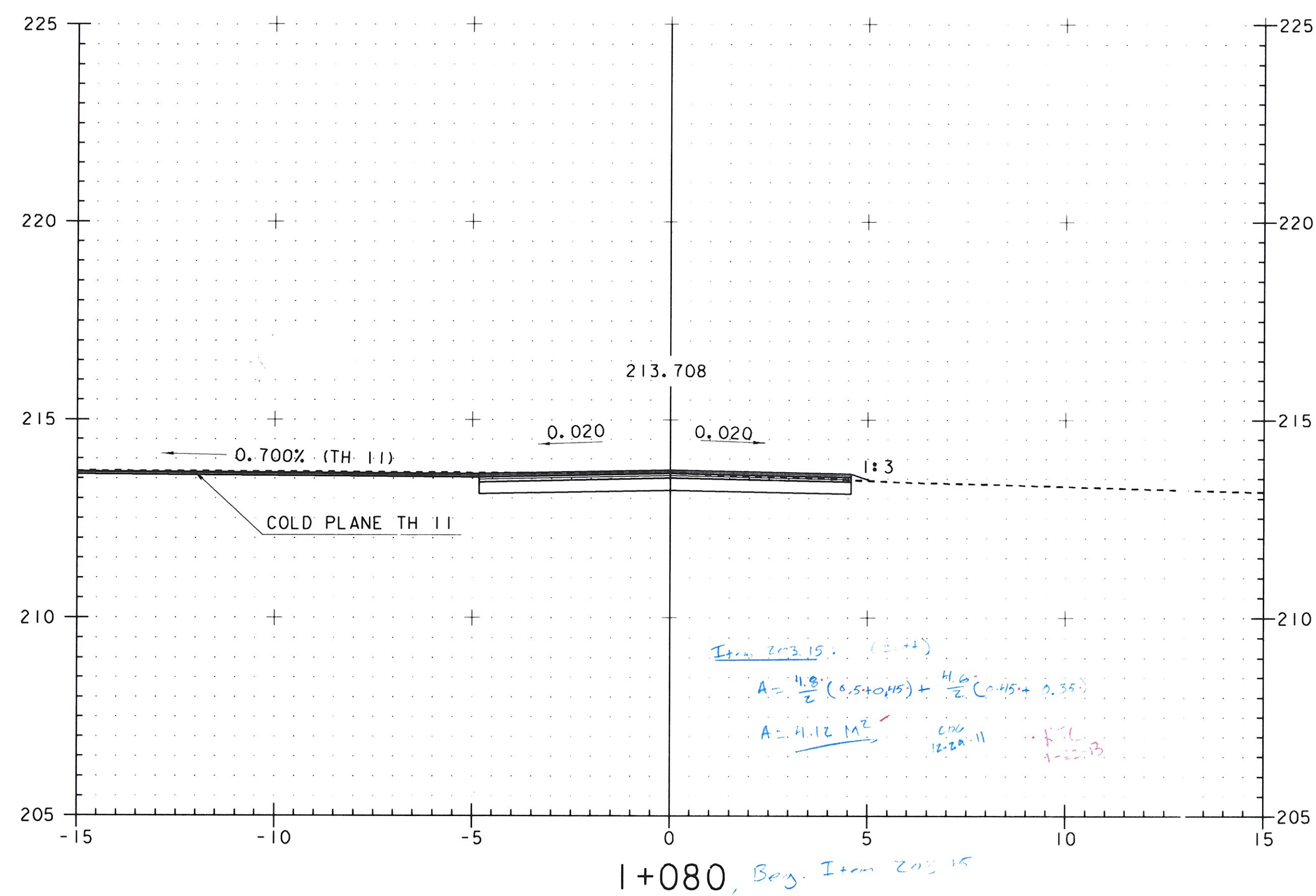
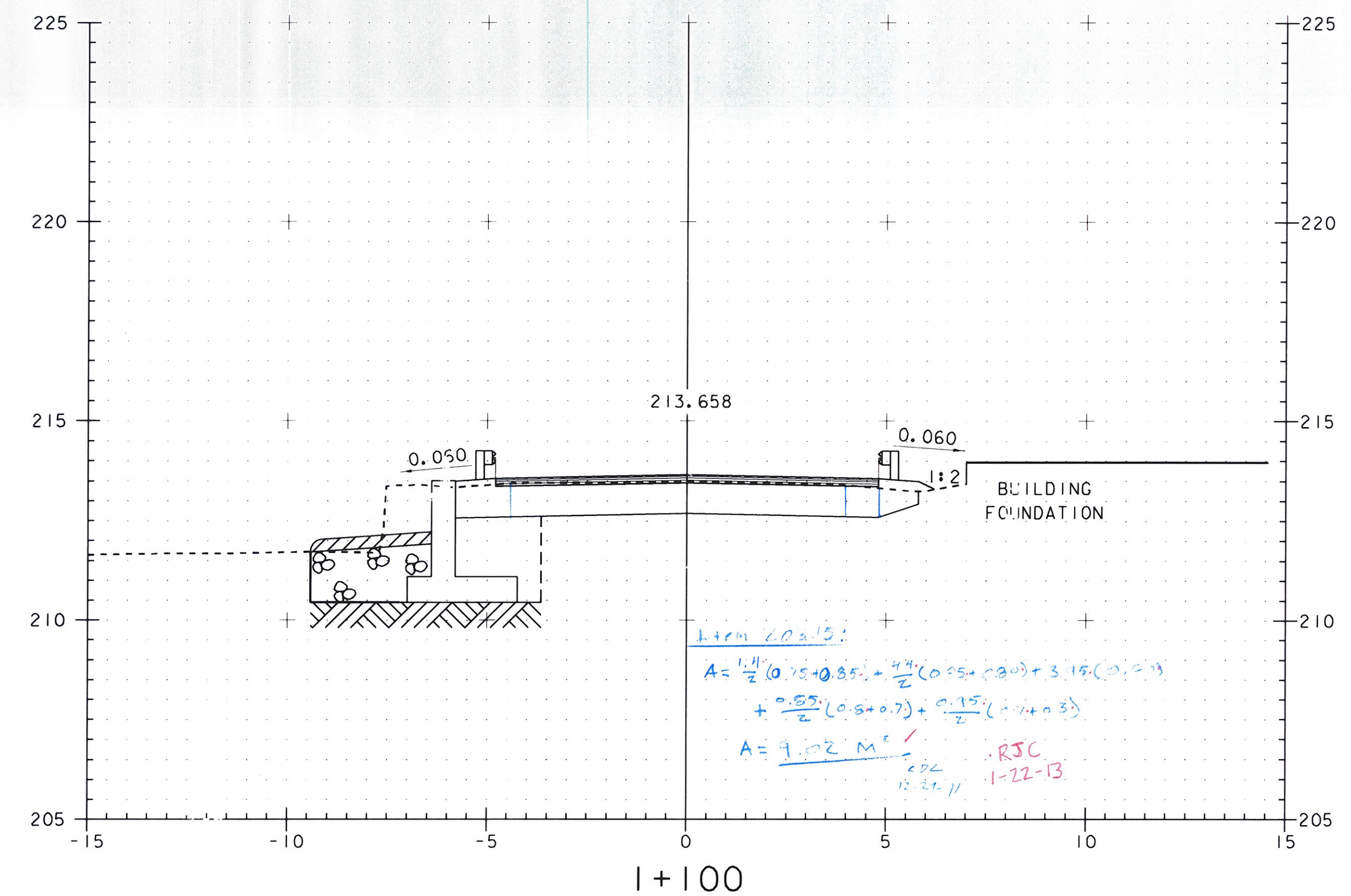
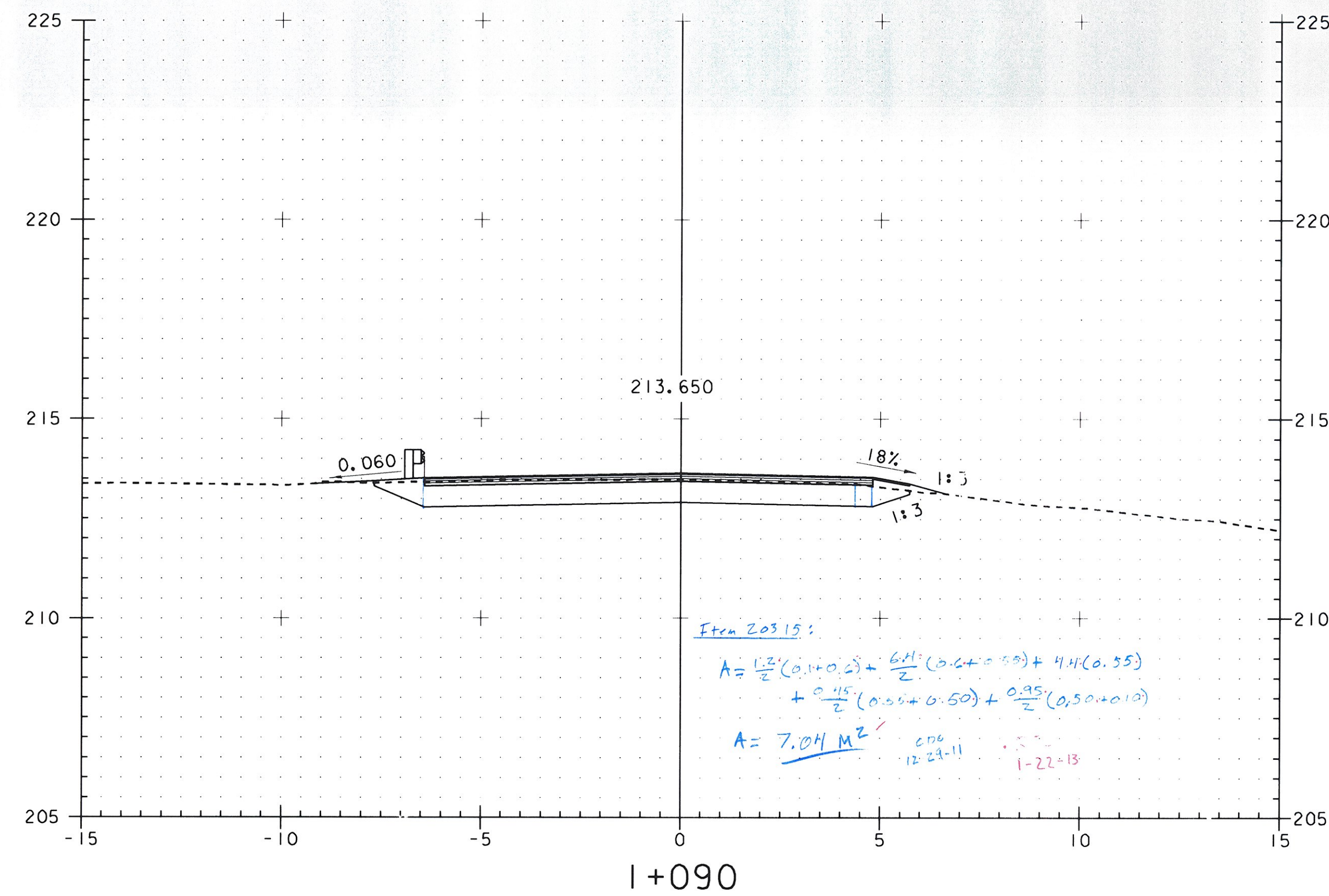
211.95 ⇒ USE 0.950
 $\frac{211.29}{.660}$

T.E. Depth = 213.982
 - 212.950
 + 0.150
 + 0.300
 + 0.300
 1.782 m

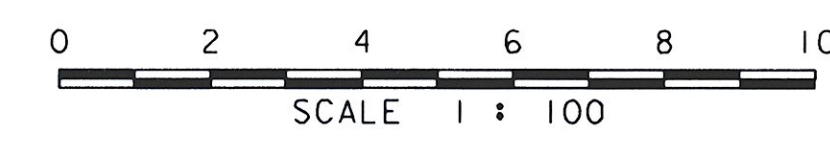
Metric

0 2 4 6 8 10
 SCALE 1 : 100

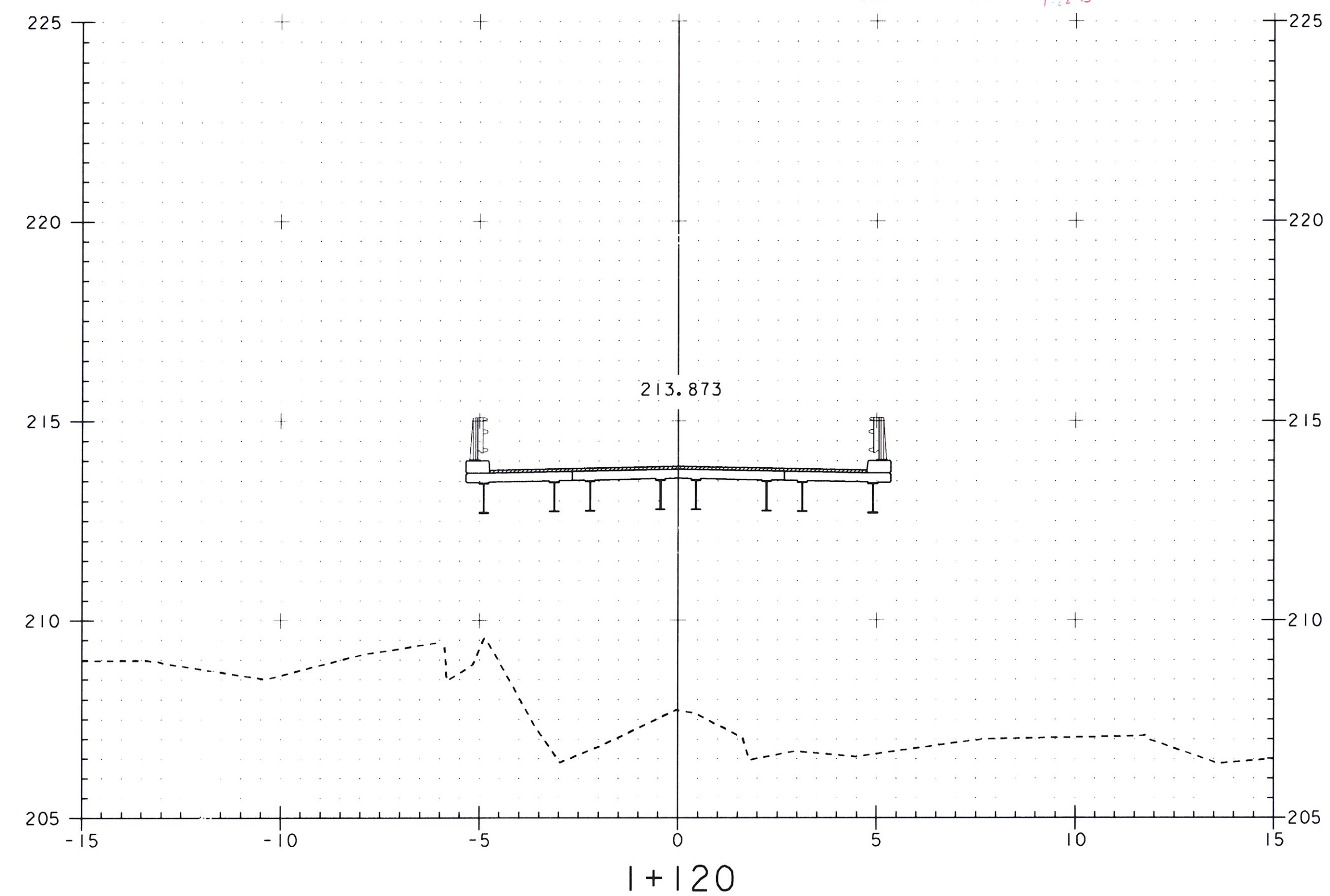
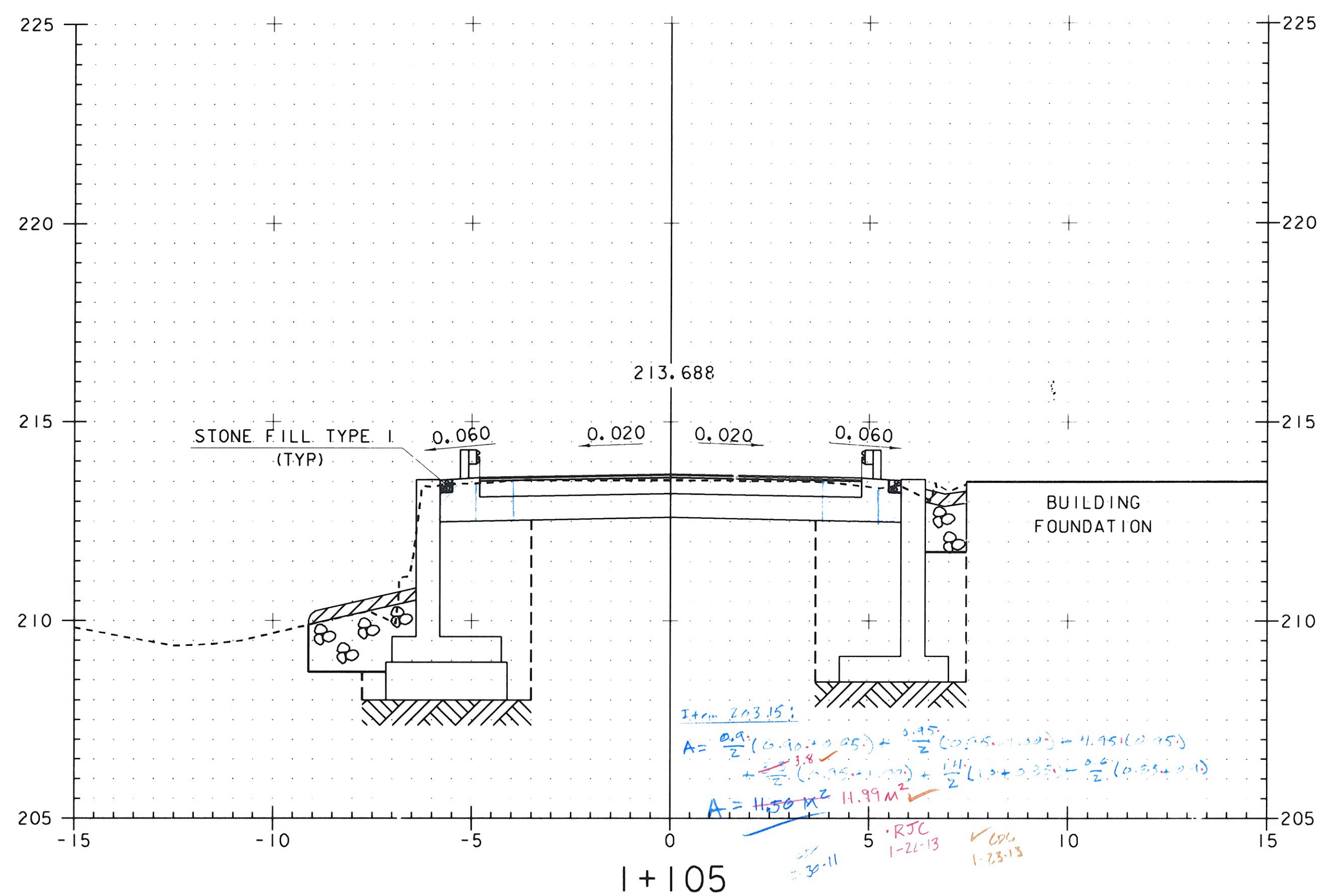
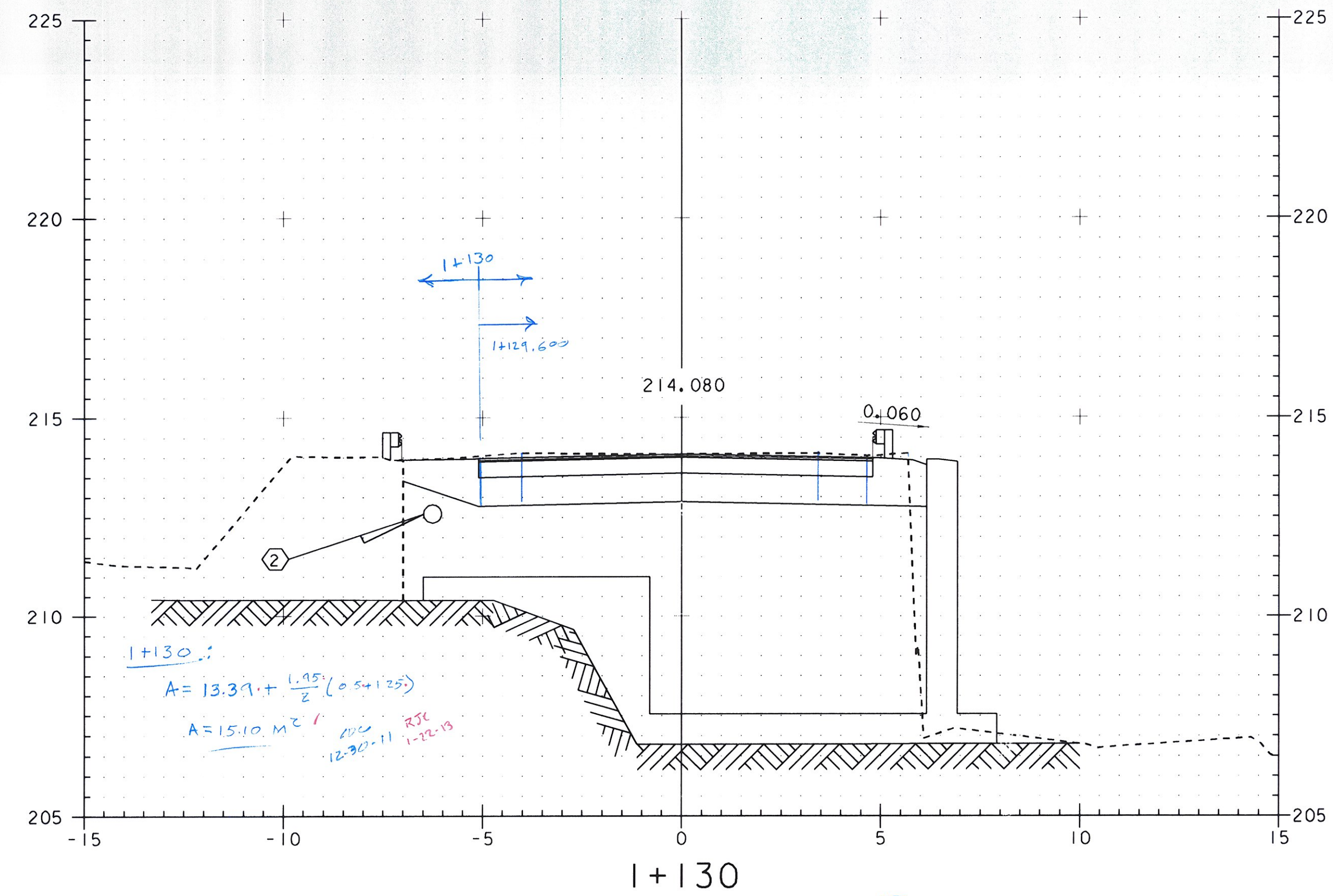
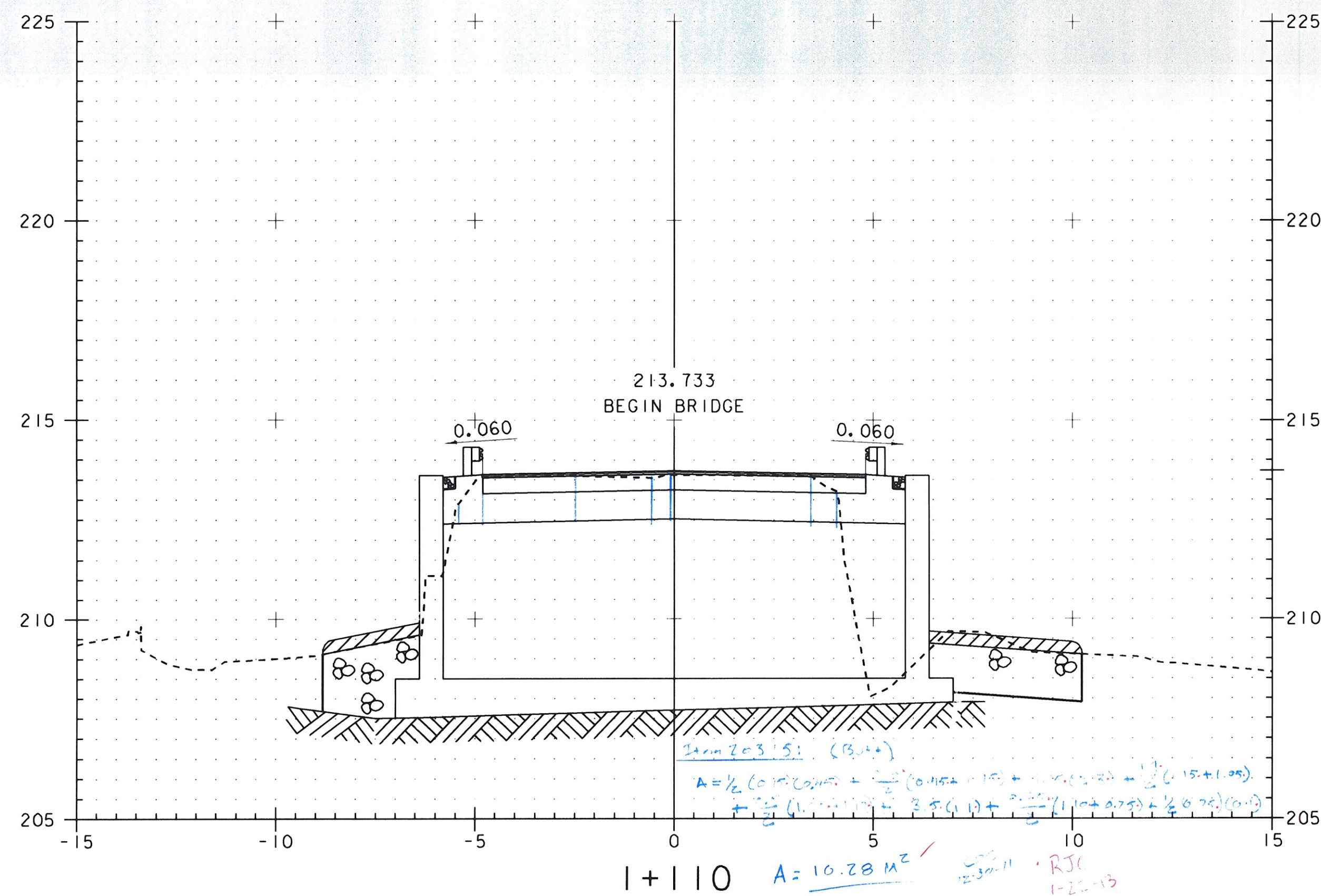
PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2(8)
DESIGN FILE NAME: 86e054/structures/se054xsl.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054pipesec.l	
PIPE SECTIONS	SHEET: 15 OF 63



Metric



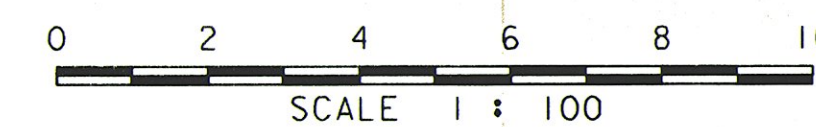
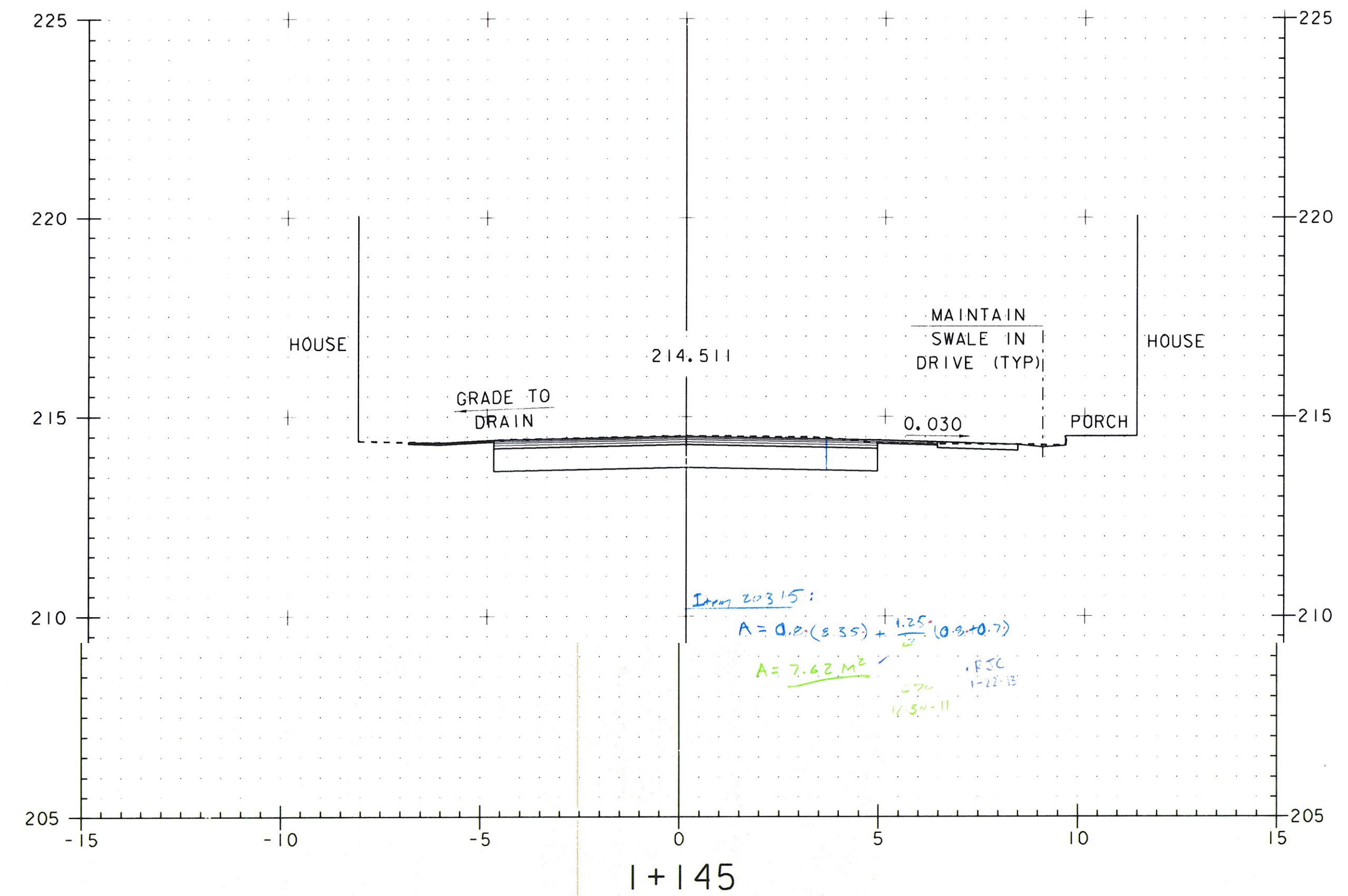
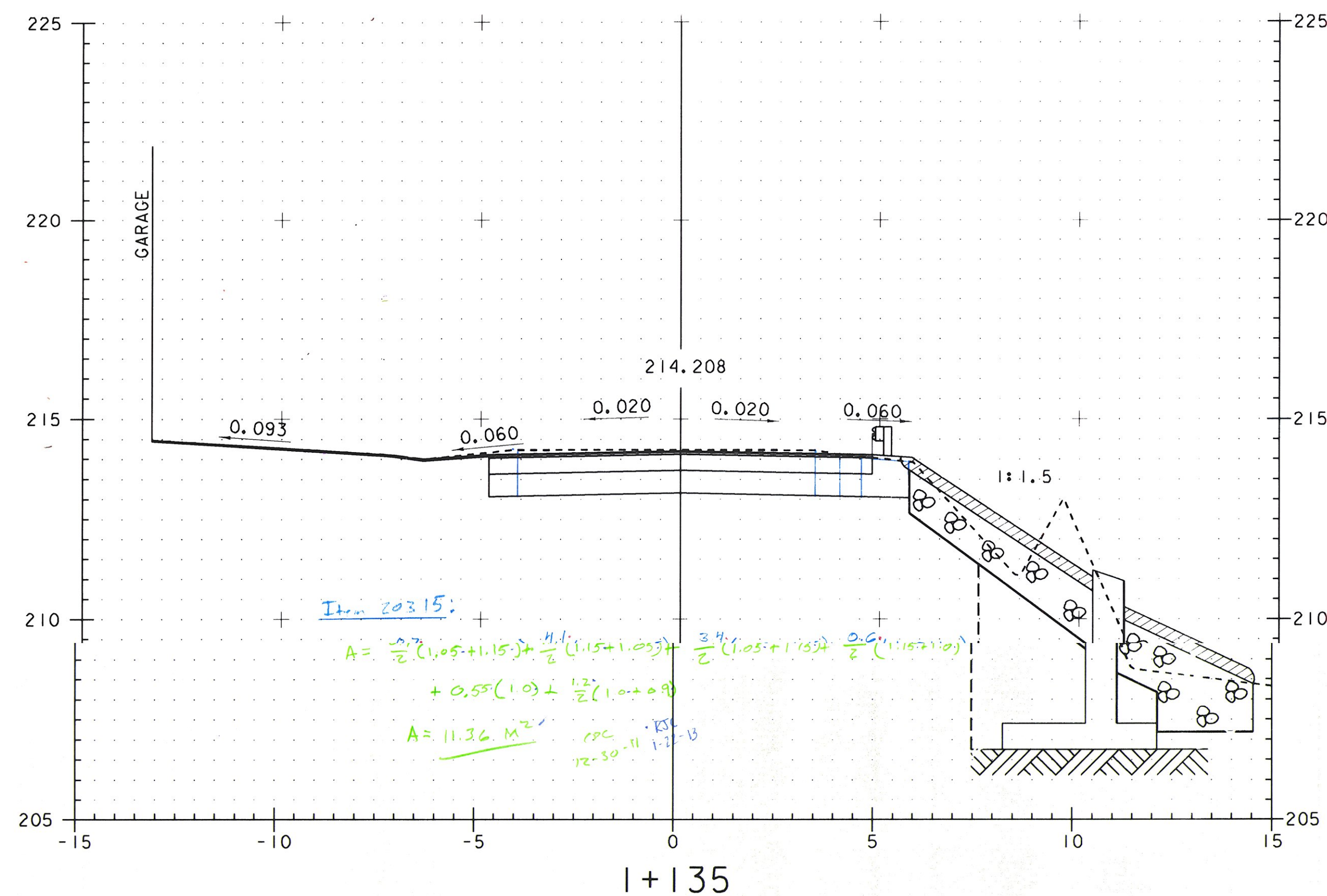
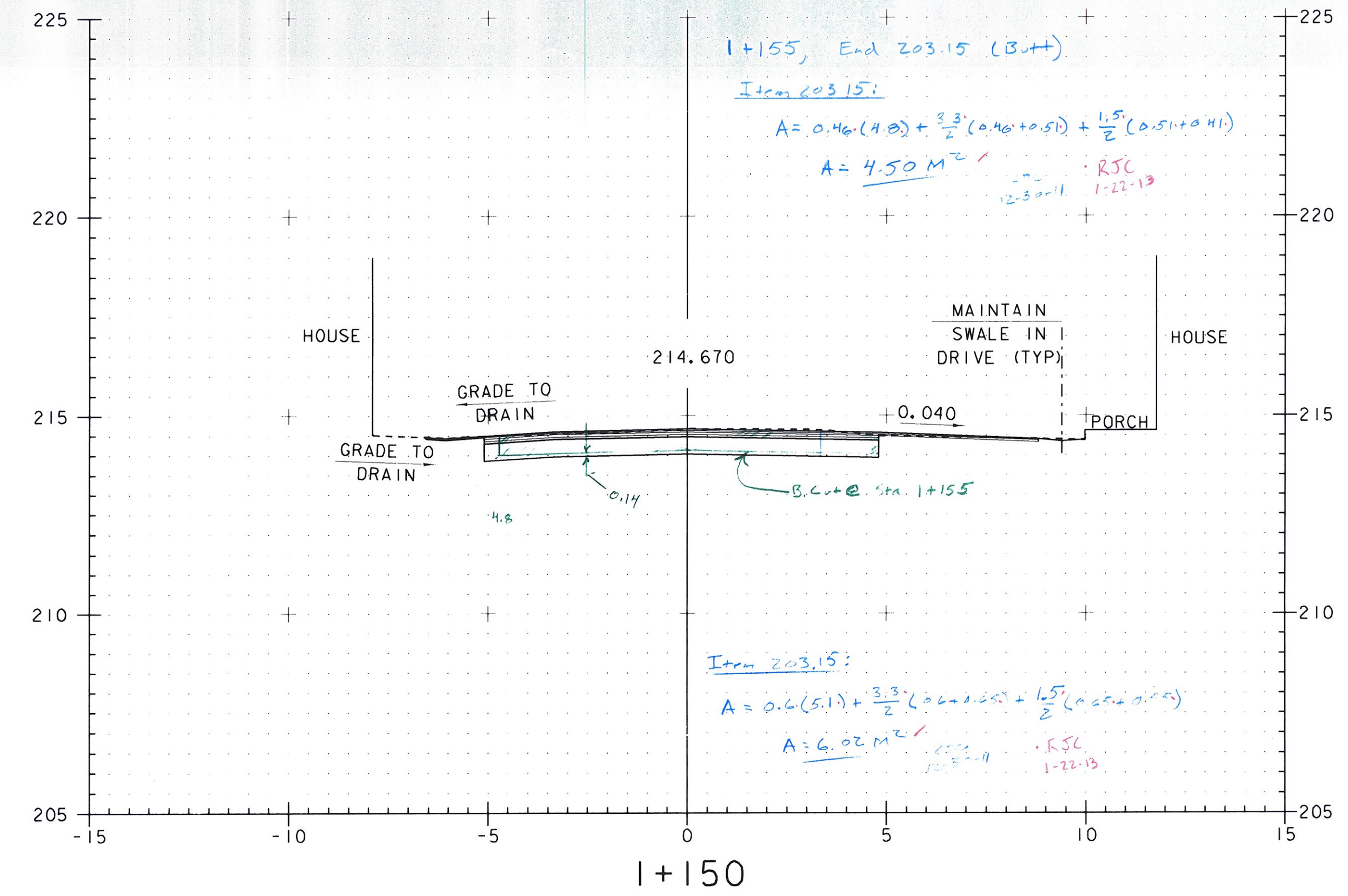
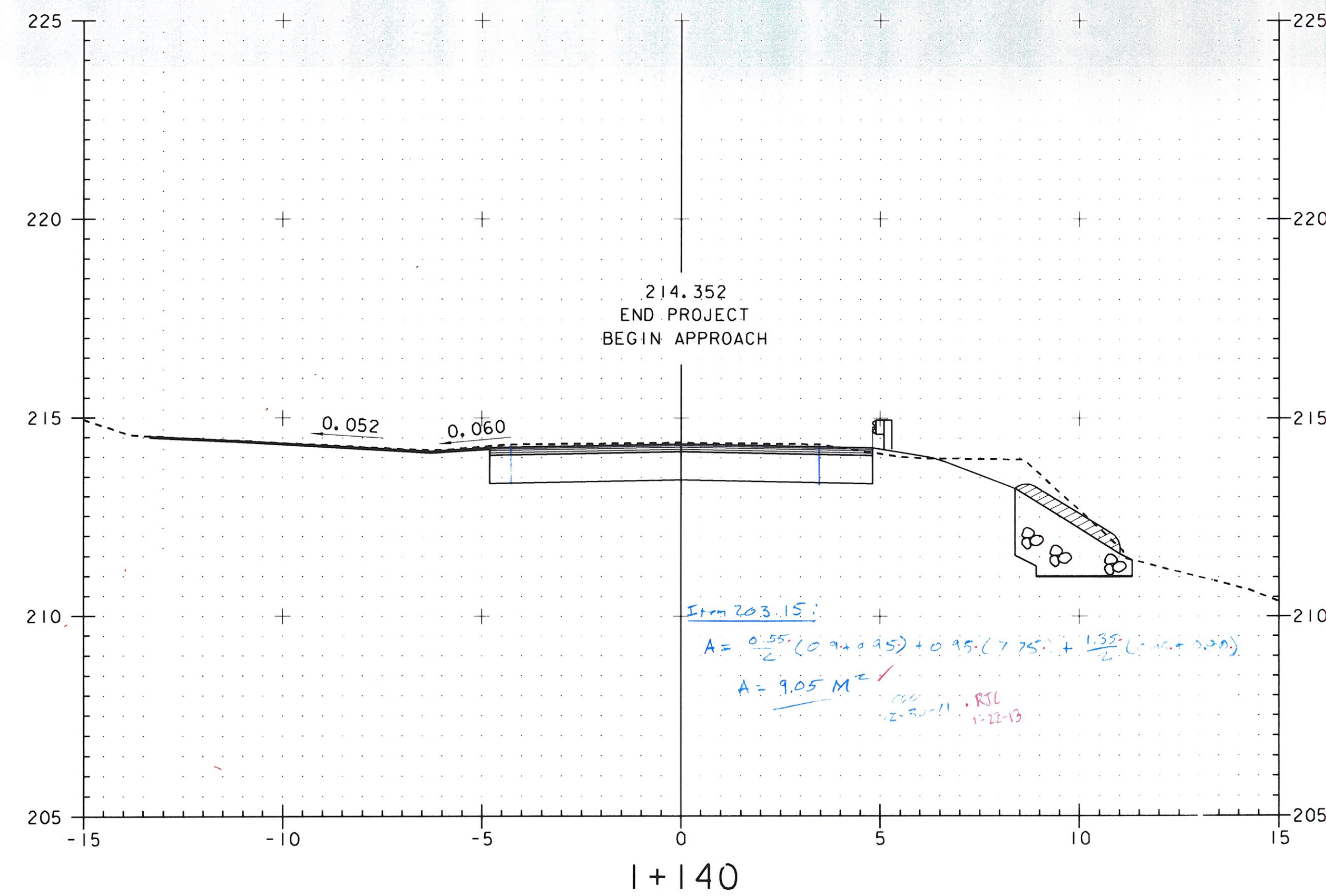
PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2(8)
DESIGN FILE NAME: 86e054/structures/se054xsl.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054m2.i	
SECTION I+080 THROUGH I+100	
MAINLINE SECTIONS	SHEET: 53 OF 63



Metric

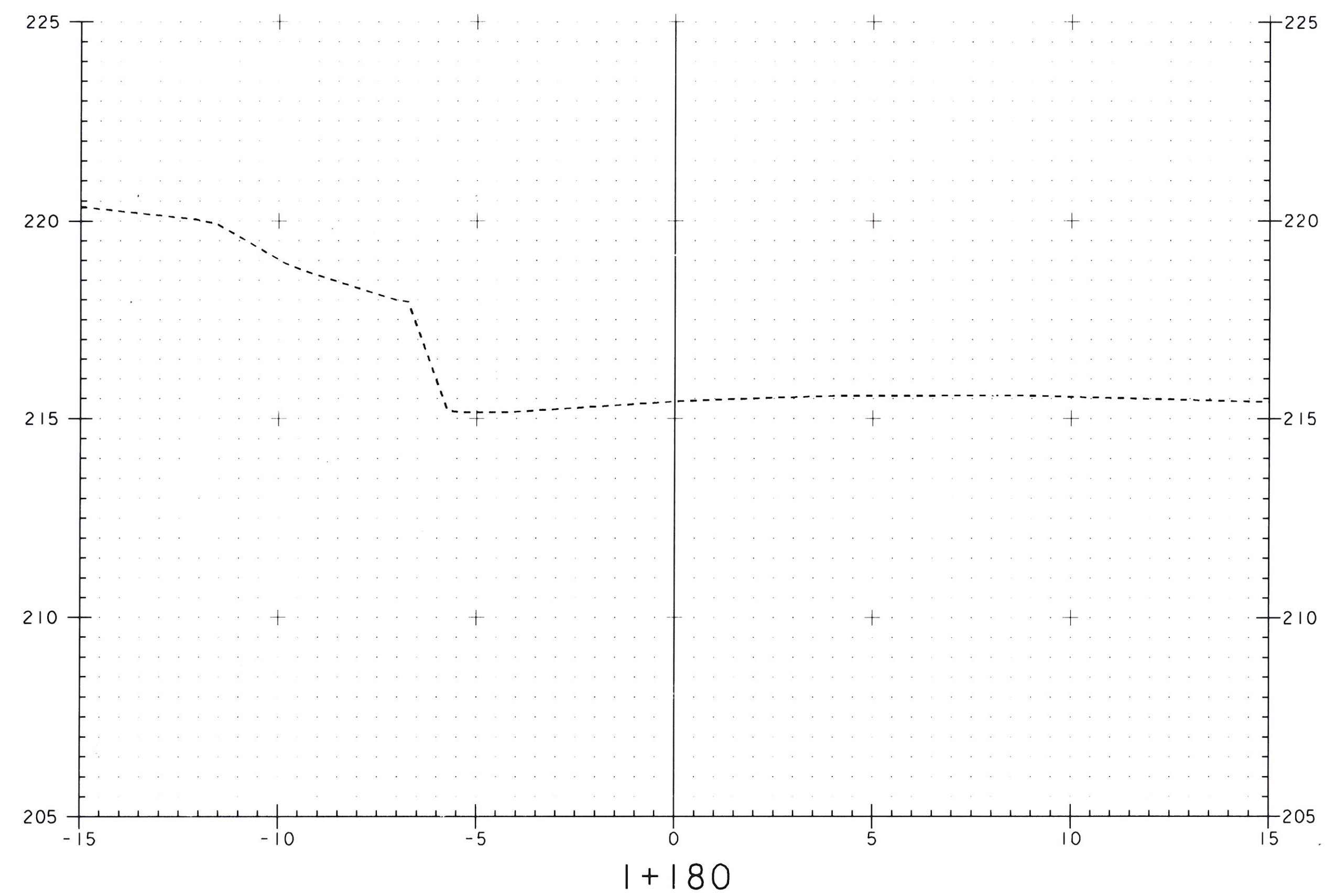
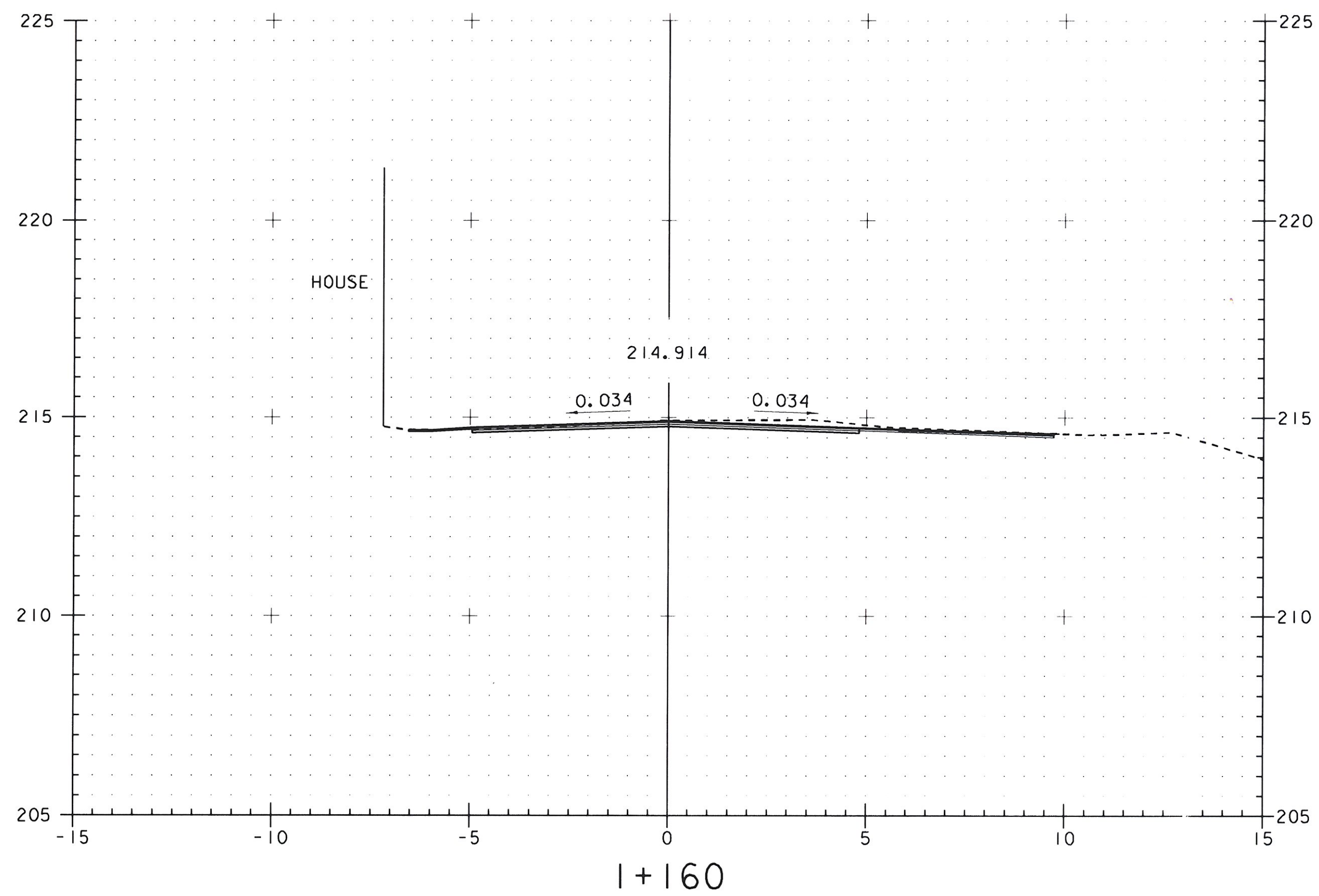
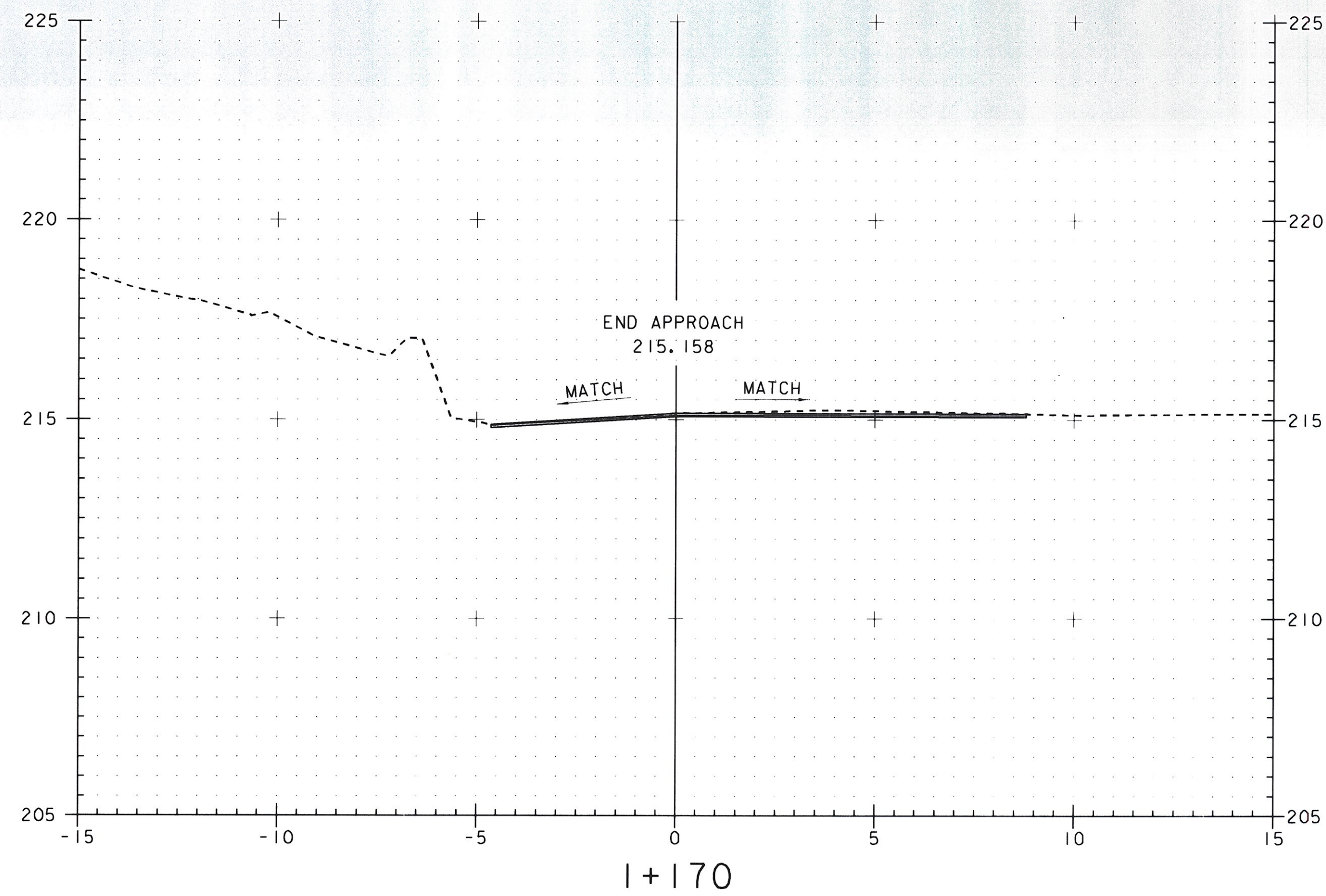
0 2 4 6 8 10
SCALE 1 : 100

PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2(8)
DESIGN FILE NAME: 86e054/structures/se054xsl.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054m13.1	SECTION I+105 THRU I+130
MAINLINE SECTIONS	SHEET: 54 OF 63



Metric

PROJECT: EAST MONTEPELIER	PROJECT NO.: BRF 037-2(8)
DESIGN FILE NAME: 86e054/structures/se054xsl.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054m4.1	SECTION I+135 THROUGH I+150
MAINLINE SECTIONS	SHEET: 55 OF 63



Item 203.15, Common Excavation

	Station	Distance	Area	Volume
(Butt)	1 + 080	10.	4.12.	55.80.
	1 + 090	5.	7.04.	35.85.
	1 + 095	5.	7.30.	40.80.
	1 + 100	5.	9.02.	52.53 ✓
	1 + 105	5.	11.99 ✓ 11.50	55.68 ✓ 54.45
(Butt)	1 + 110	5.	10.28.	—
Bridge				
(Butt)	1 + 121.4	0.4.	13.37.	5.70.
	1 + 130	5.	15.10.	66.15.
	1 + 135	5.	11.36.	51.03.
	1 + 140	5.	9.05.	41.68.
	1 + 145	5.	7.62.	34.10.
	1 + 150	5.	6.02.	26.30.
(Butt)	1 + 155	5.	4.50.	463.16 ✓

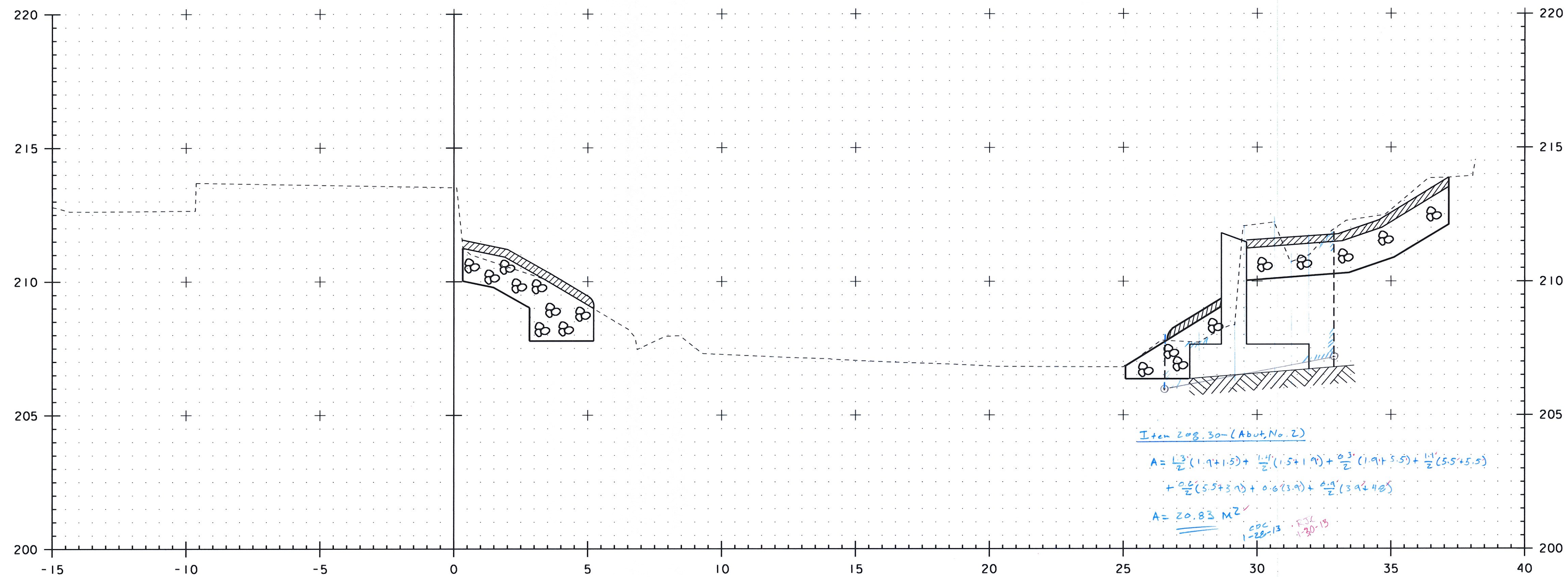
465.62 M³ ✓
RSC
1-22-13
1-23-13

6.06
1-30-11

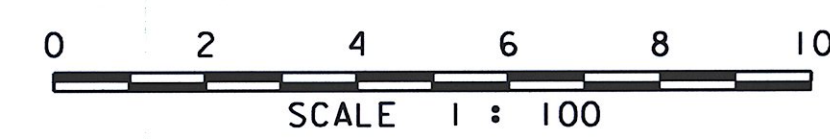
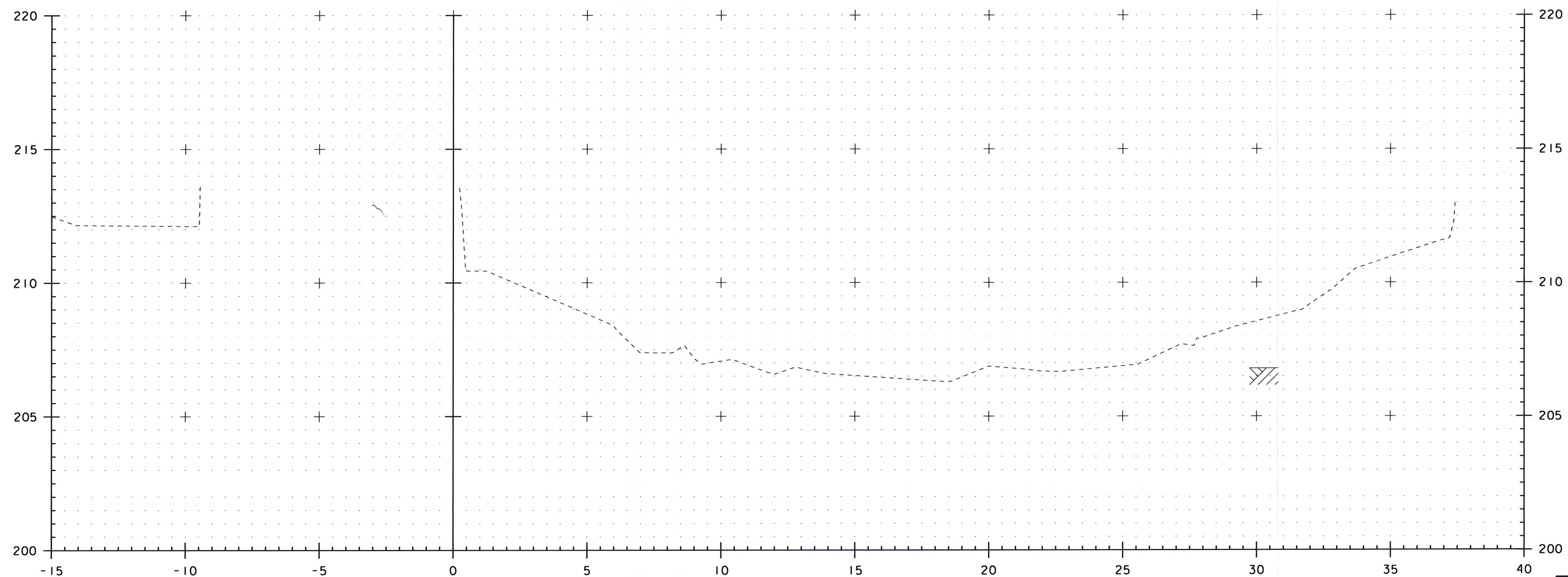
Metric

0 2 4 6 8 10
SCALE 1 : 100

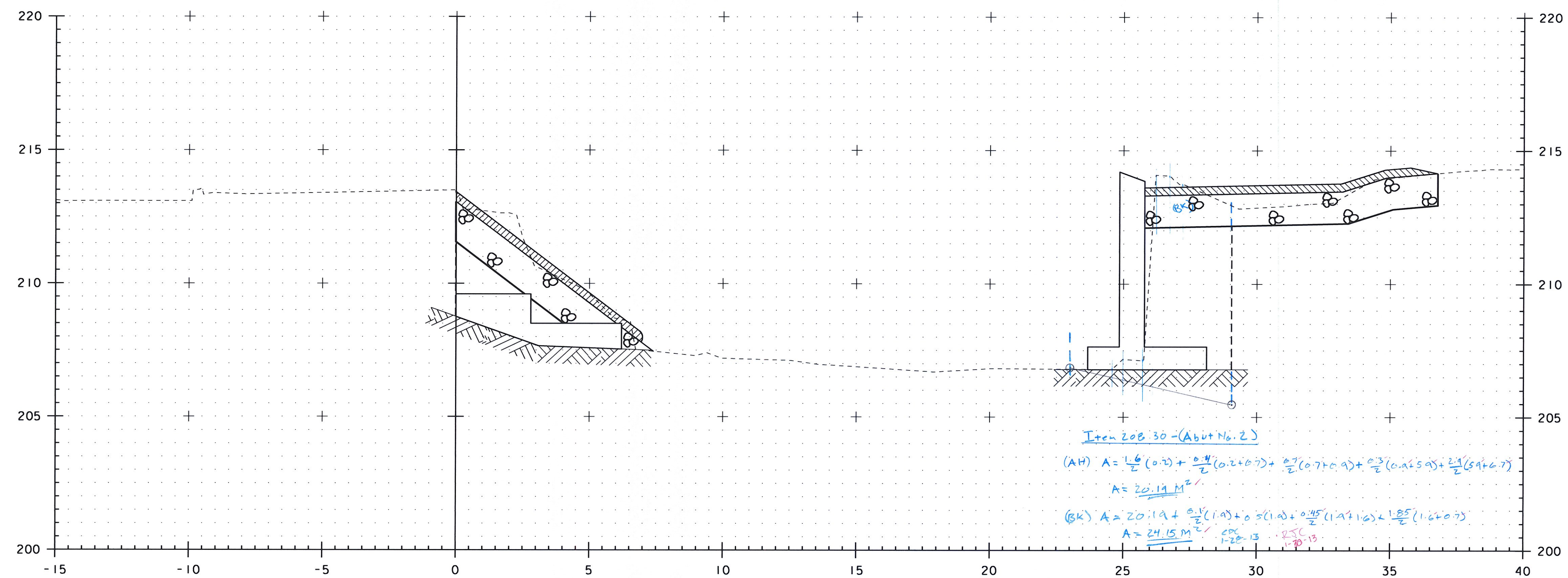
PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2(8)
DESIGN FILE NAME: 86e054/structures/se054xsl.dgn	PLOT DATE: 18-AUG-2010
IPARM FILE NAME: se054m15.i	
SECTION I+160 THROUGH I+180	
MAINLINE SECTIONS	SHEET: 56 OF 63



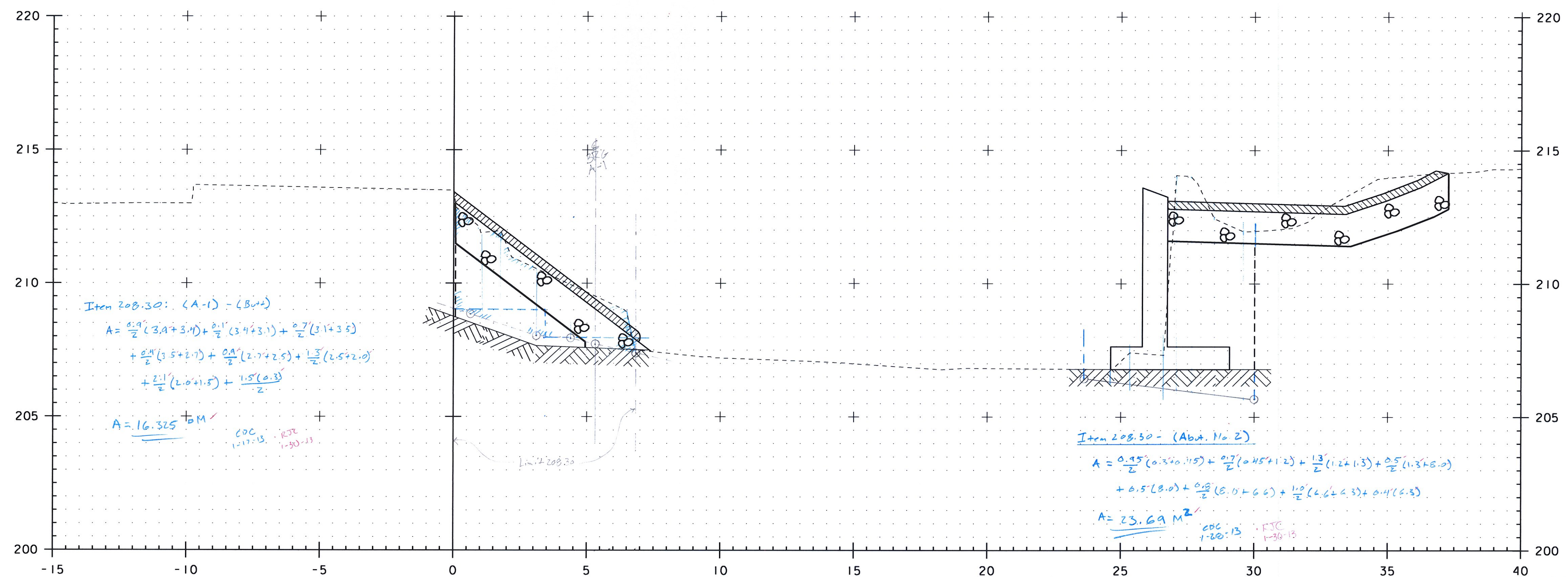
2+035.000



PROJECT:	EAST MONTPELIER	PROJECT NO.:	BRF 037-2(8)
DESIGN FILE NAME:	86e054/structures/se054xsl_extra.dgn	IPARM FILE NAME:	se054chextra.i
SECTION	2+031.800 THROUGH 2+035.000	PLOT DATE:	19-DEC-2011
CHANNEL SECTIONS		SHEET:	1 OF 6



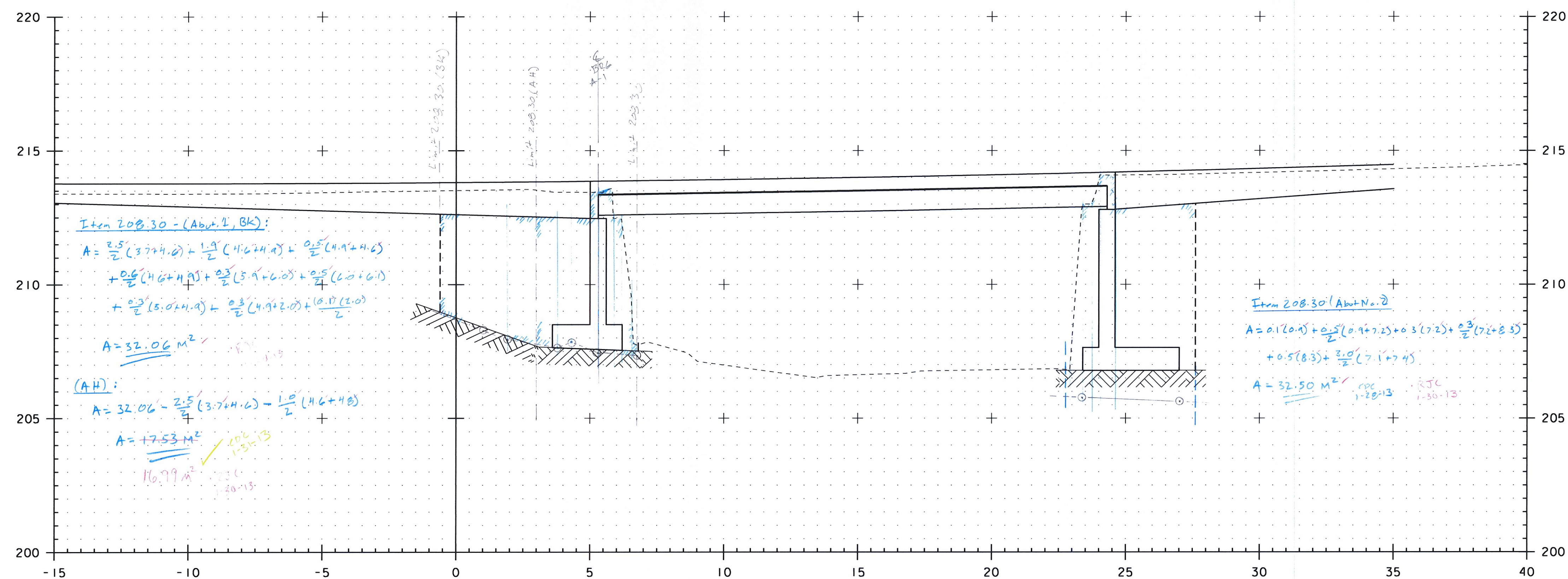
2+038.200



2+037.400

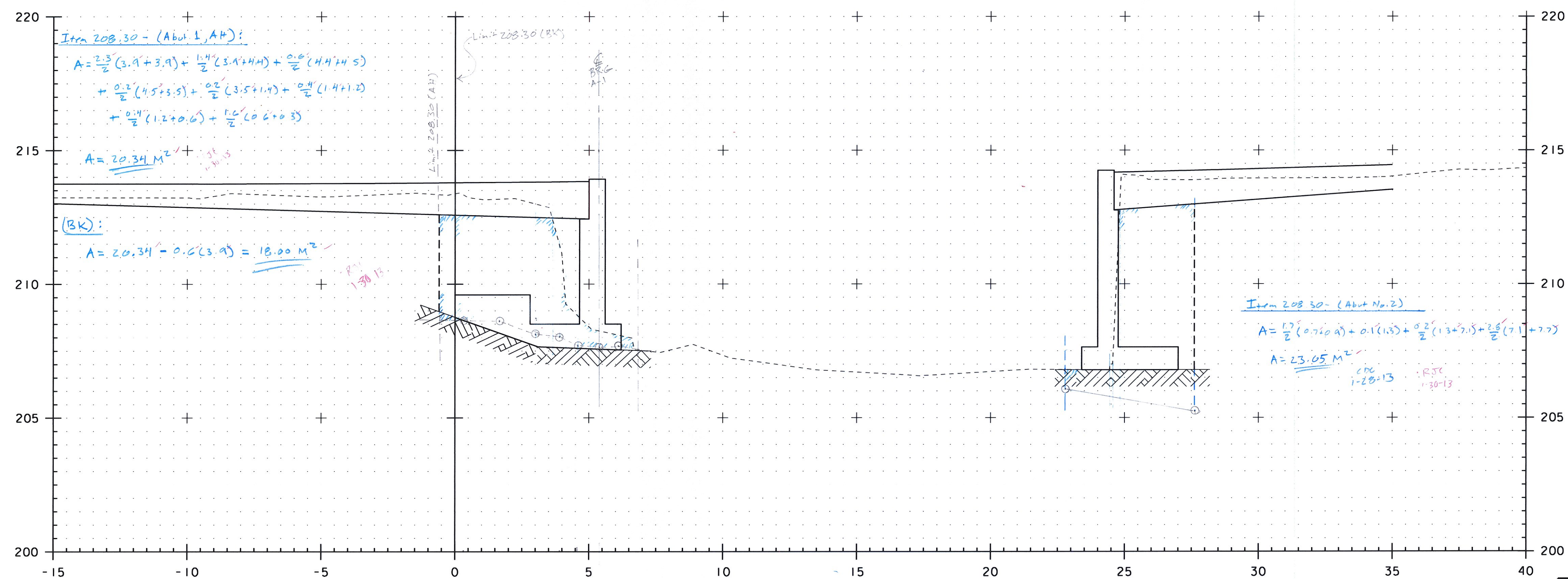


PROJECT:	EAST MONTPELIER	PROJECT NO.:	BRF 037-2(8)
DESIGN FILE NAME:	86e054/structures/se054xsl.extra.dgn	PLOT DATE:	19-DEC-2011
IPARM FILE NAME:	se054ch2extra.i		
SECTION 2+037.400 THROUGH 2+038.200			
CHANNEL SECTIONS		SHEET:	2 OF 6



2+041.350

Same for: Z+043.800 (Abut. No. 2)

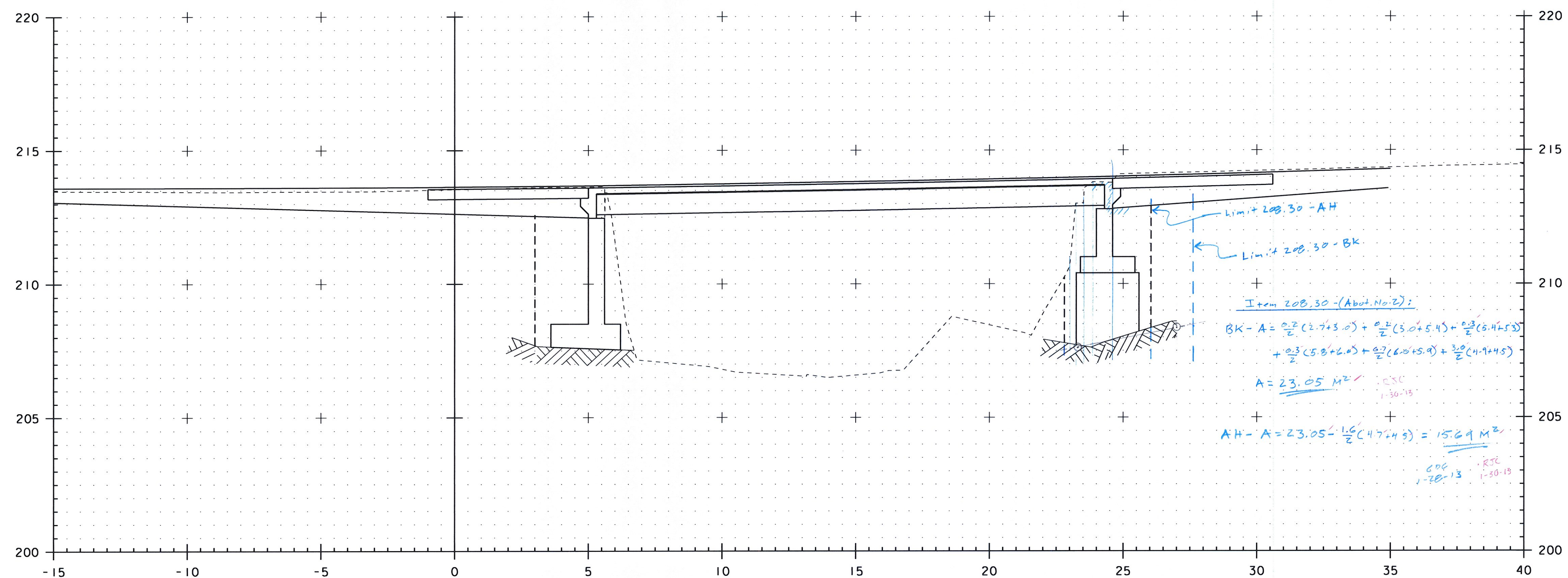


2+039.450

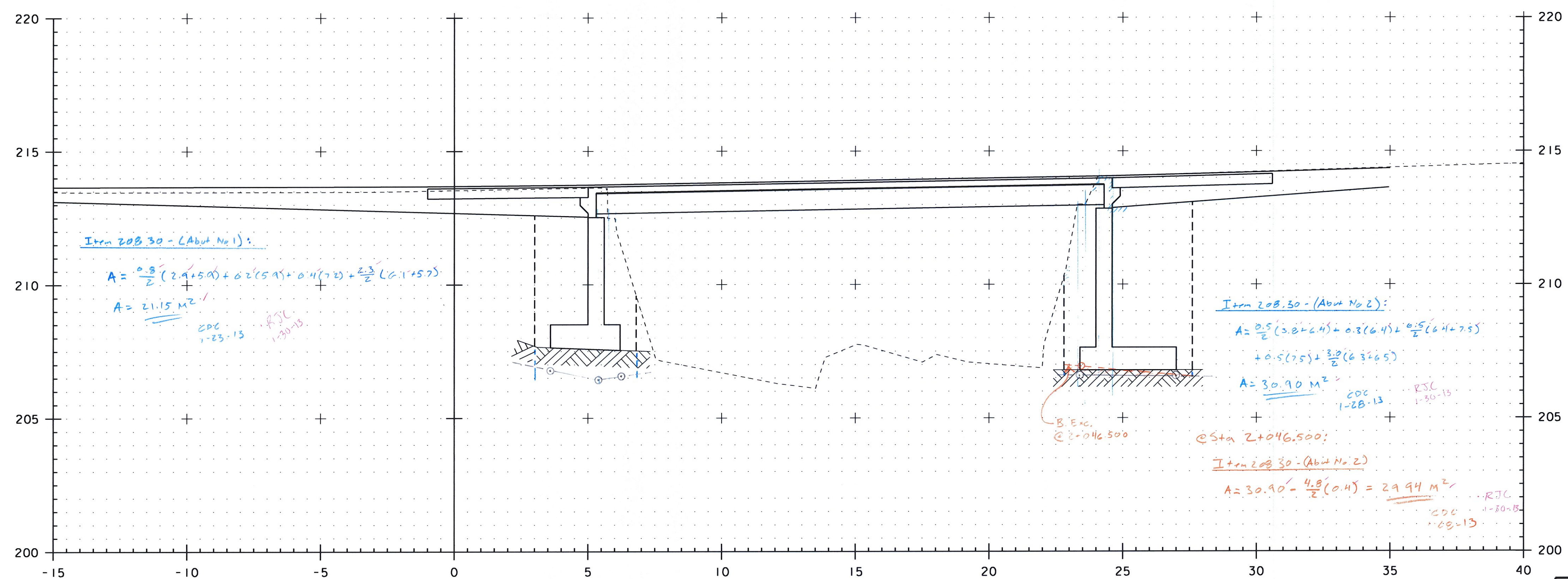
Same for: Z+039.200 (Abut. No. 1)



PROJECT:	EAST MONTEPELIER	PROJECT NO.:	BRF 037-2(8)
DESIGN FILE NAME:	86e054/structures/se054xsl_extra.dgn	IPARM FILE NAME:	se054ch3extra.i
SECTION	2+039.450 THROUGH 2+041.350	PLOT DATE:	19-DEC-2011
CHANNEL SECTIONS		SHEET:	3 OF 6



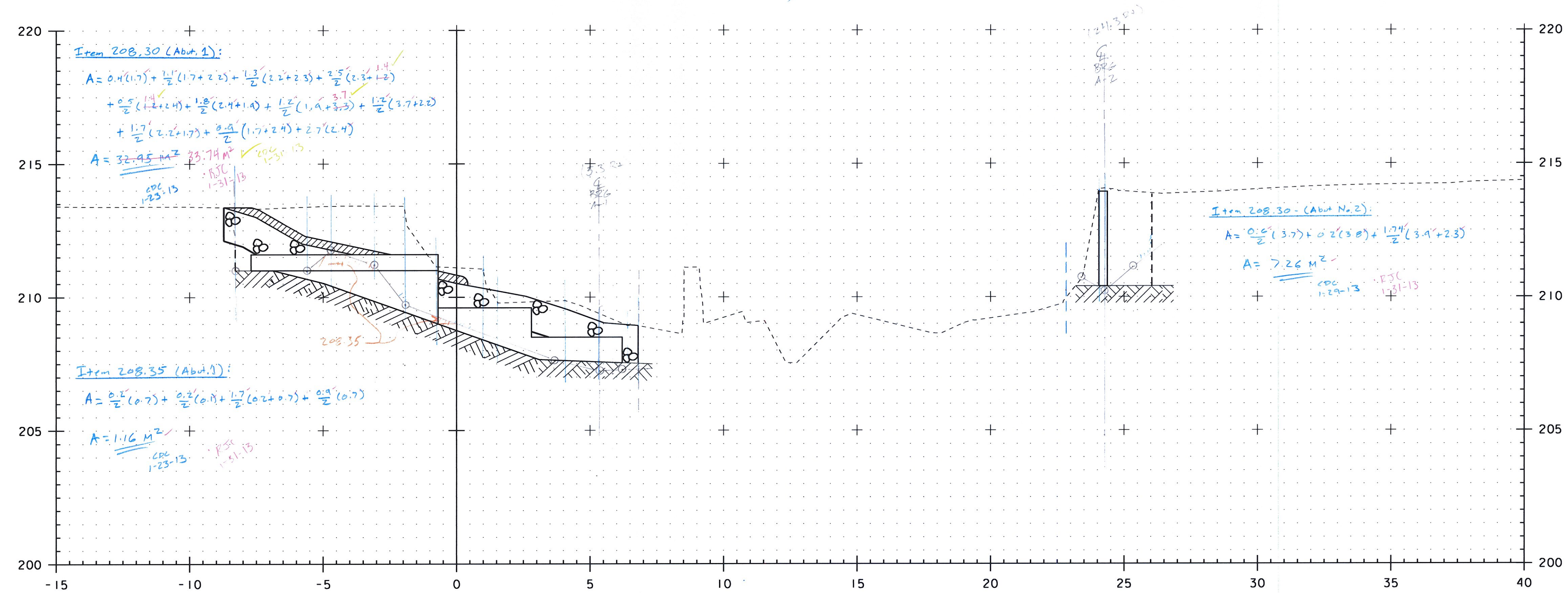
2+048.100



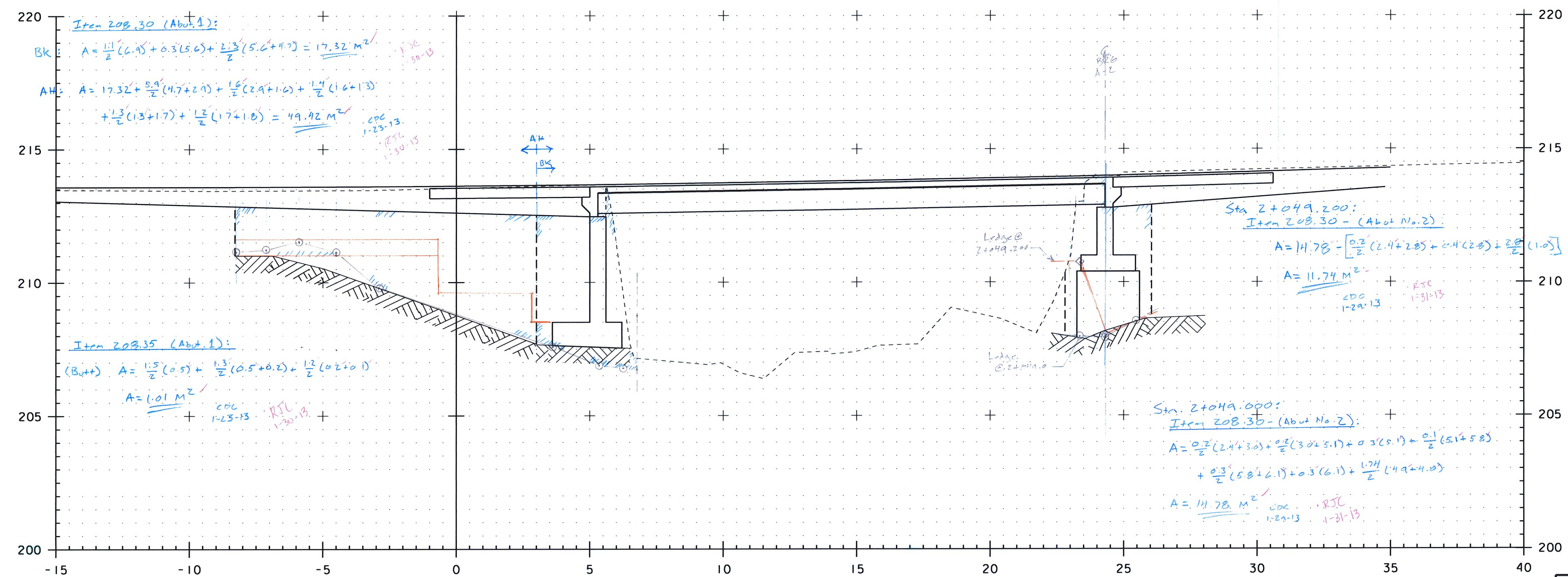
2+045.000 (Same for Sta 2+046.500 @ Abut. No. 2)



PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2(8)
DESIGN FILE NAME: 86e054/structures/se054xsl_extra.dgn	PLOT DATE: 19-DEC-2011
IPARM FILE NAME: se054ch4extra.i	
SECTION 2+045.000 THROUGH 2+048.100	
CHANNEL SECTIONS	SHEET: 4 OF 6



2+051.700 = 2+051.500 (Abut. No. 2)
Same for 2+051.400 (Abut. 1)



2+048.650
Same for 2+049.000 & 2+049.200 (Abut. No. 2)



PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 037-2(8)
DESIGN FILE NAME: 86e054/structures/se054xsl_extra.dgn	PLOT DATE: 19-DEC-2011
IPARM FILE NAME: se054ch5extra.i	
SECTION 2+048.650 THROUGH 2+051.700	
CHANNEL SECTIONS	SHEET: 5 OF 6

<u>Item 208.35 - Cofferdam Excavation, Rock</u>				
<u>Abutment No 1:</u>				
<u>Station</u>	<u>Distance</u>	<u>Area</u>	<u>Volume</u>	
(Bolt) 2+048.650	1.01 ✓		2.084 ✓	
2+051.400	2.75 ✓	1.16 ✓	1.080 ✓	
2+052.600	1.20 ✓	0.64		
(Bolt) 2+052.600			4.064 M ³ ✓	
			1-25-13 ✓	RSC 1-31-13

Hand-drawn graph showing a signal trace (likely a spectrum or frequency response) plotted against frequency (Hz) on the x-axis. The x-axis has major ticks at 10, 15, 20, and 25 Hz. The y-axis is unlabeled but has a grid.

Key annotations and data points:

- Frequency Labels:**
 - $2+051.500$ (at ~10.5 Hz)
 - $2+052.000$ (at ~12.5 Hz)
 - $2+052.400$ (at ~14.5 Hz)
- Amplitude/Level Labels:**
 - 0.5 (at ~11.5 Hz)
 - 0.4 (at ~13.5 Hz)
 - 7.26 (at ~19.5 Hz)
 - 3.353 (at ~23.5 Hz)
 - 2.460 (at ~24.5 Hz)
- Other Labels:**
 - $(Batt)$ (near $2+052.400$)
 - $Sub - Tot + 1 =$ (near 18 Hz)
 - $IR-5C$ (near 18 Hz)
 - $1-31-13$ (near 18 Hz)
 - CDC (near 18 Hz)
 - $1-29-13$ (near 18 Hz)
 - $423.823M$ (near 24.5 Hz)
 - $444.323M$ (near 24.5 Hz)
 - 302 (near 24.5 Hz)
 - 412 (near 24.5 Hz)
- Trace Features:**
 - A solid line trace with a peak around 12.5 Hz and a smaller peak around 14.5 Hz.
 - A dashed line trace with a peak around 12.5 Hz and a smaller peak around 14.5 Hz.
 - A vertical dashed line at approximately 24.5 Hz.
 - A horizontal dashed line at approximately 24.5 Hz.
 - A small circle with a dot inside at approximately 24.5 Hz.

At the bottom of the page, there is a handwritten note: "Same for 2+052.000 (About 1/2.2)".

SECTION 2+052.600

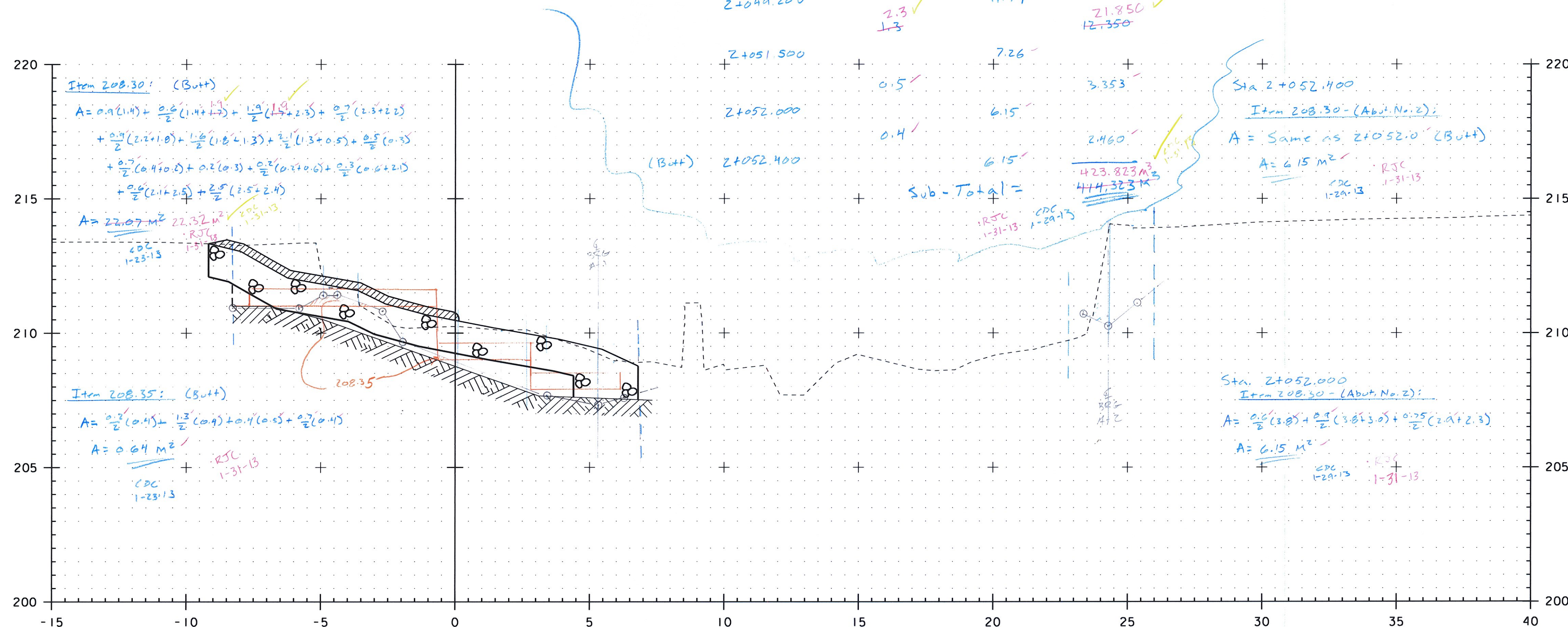
PROJECT: EAST MONTEPELIER

PROJECT NO.: BRF 037-2(8)

DESIGN FILE NAME: 86e054/structures/se054xsl.extra.dgn

IPARM FILE NAME: se054ch6extra.i

PLOT DATE: 19-DEC-2011



Metric



HEAVY HEX NUT

75 x 75 x 9 PLATE WASHER w/ 48ø HOLE

38ø x 650 LONG (MIN.) SWEDGED GALVANIZED ANCHOR BOLT ASTM F 568M OR ALTERNATE APPROVED FASTENER.

CONCRETE BEARING SURFACE

60

75 (MIN)

BURR THREADS TO PREVENT NUT REMOVAL (TYP.)

450 MIN.

VED

BY HJS

ANCHOR BOLT DETAIL

RECEIVED
OK'D BY _____ OK'D BY HIS

MAR 10 2011

RESUBMIT APPROVED ✓

BY CPW DATE 3/11/11

NOTES:

1. BEARINGS TO BE MANUFACTURED ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 4TH EDITION, SECTION 14, METHOD B.
2. THE BEARINGS ARE DESIGNED SO THAT THE SUPERSTRUCTURE MAY BE ERECTED WHEN THE AMBIENT AIR TEMPERATURE IS WITHIN THE RANGE OF 20°F. TO 70°F.
- △ 3. THE ELASTOMER AASHTO GR. (NATURAL RUBBER), TEMPERATURE GR. 4, SHALL HAVE A DUROMETER HARDNESS SHORE A 60 ± 5 POINTS.
4. STEEL SHIM PLATES FOR INTERNAL LAMINATES SHALL BE AASHTO M270M/M270 GRADE 36. SHIMS SHALL BE SMOOTH CUT, DEBURRED, GRIT BLASTED, AND DEGREASED PRIOR TO VULCANIZATION.
- △ 5. SOLE PLATES SHALL BE AASHTO M270M/M270 GRADE 50.
6. ALL STEEL PRODUCED IN THE U.S.A.
7. CONTACT PETER SOMOGYI , COORDINATOR.
8. TOLERANCES:
 THICKNESS -0+2mm
 PLAN -0+2mm
9. MANUFACTURING FACILITY LOCATION:
 AMSCOT STRUCTURAL PRODUCTS INC.
 241 EAST BLACKWELL STREET
 DOVER, NJ 07801
10. ALL DIMENSIONS ARE IN MILLIMETERS
- △ 11. ALL SOLE PLATES, ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AS PER STANDARD SPECIFICATIONS 506.15 AND 531.04(b), AS MODIFIED BY THE GENERAL SPECIAL PROVISIONS. PRIOR TO GALVANIZING, ALL CORNERS AND EDGES OF STEEL PLATES, SHAPES, ECT., SHALL BE GROUND TO A 1.6mm RADIUS.

FIXED ELASTOMERIC BEARING DETAIL

AMSCOT

STRUCTURAL PRODUCTS CORP.
DOVER, NJ

JOB # 3584

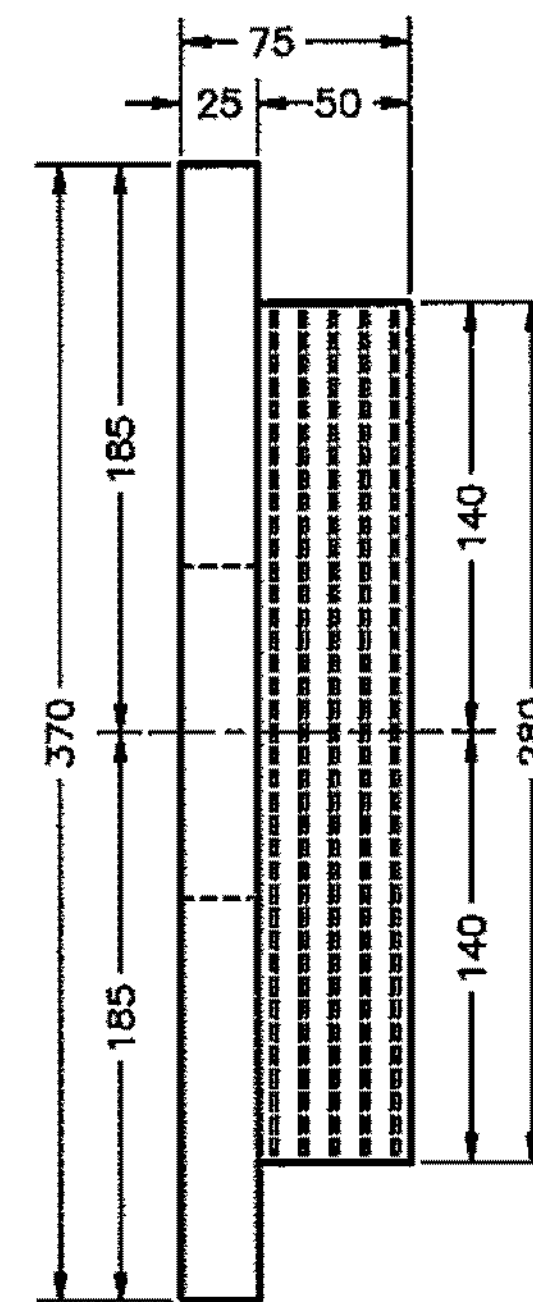
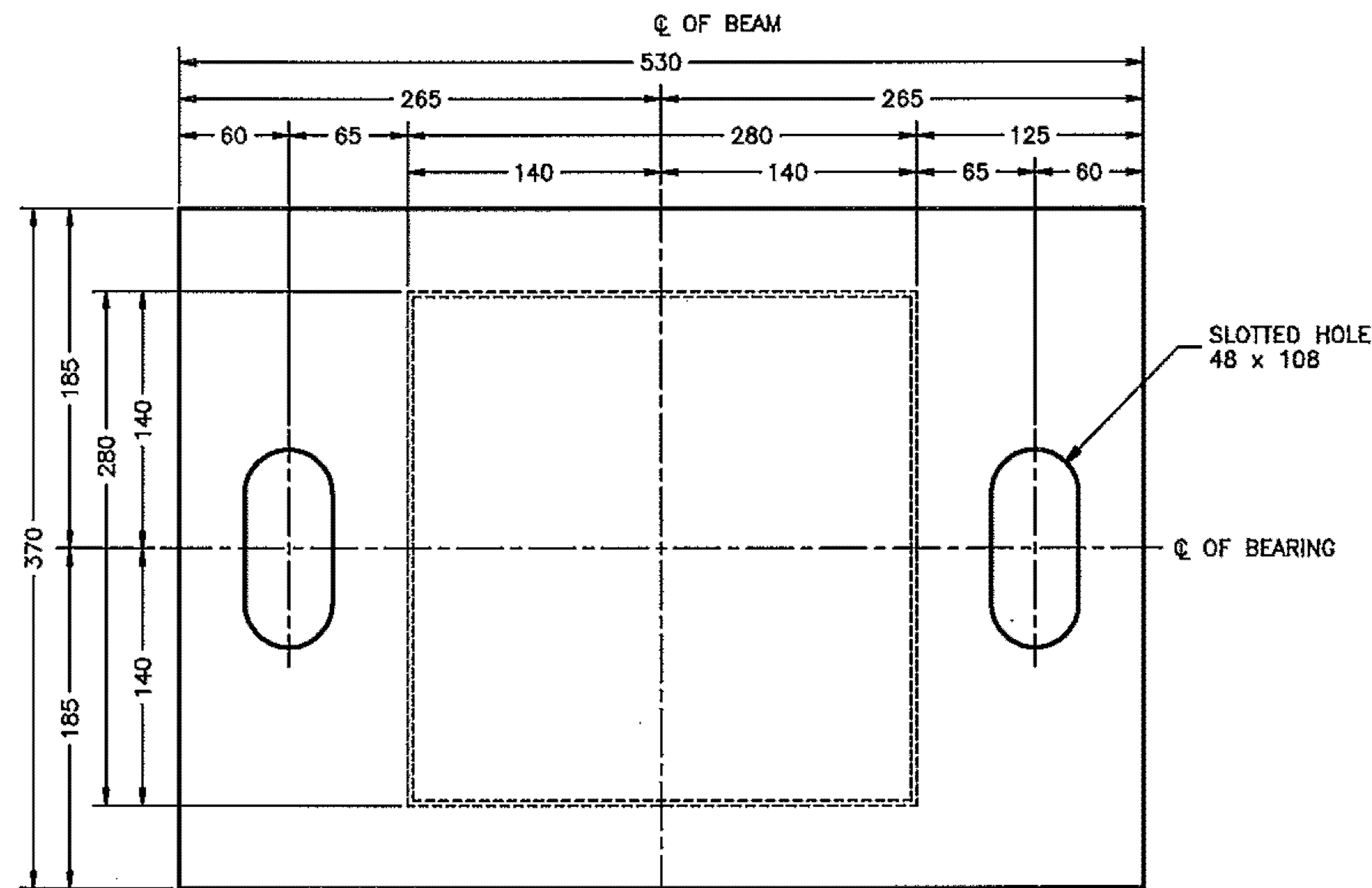
SCALE: N.T.S.	CHECKED:	DRAWN BY: C.A.M.
---------------	----------	------------------

DATE:	12/28/10	CHECKED:	B.F.	DESIGNED BY:	
				REVISION:	A

FOR: AL ST. ONGE

DWG NO: AS010A1RA

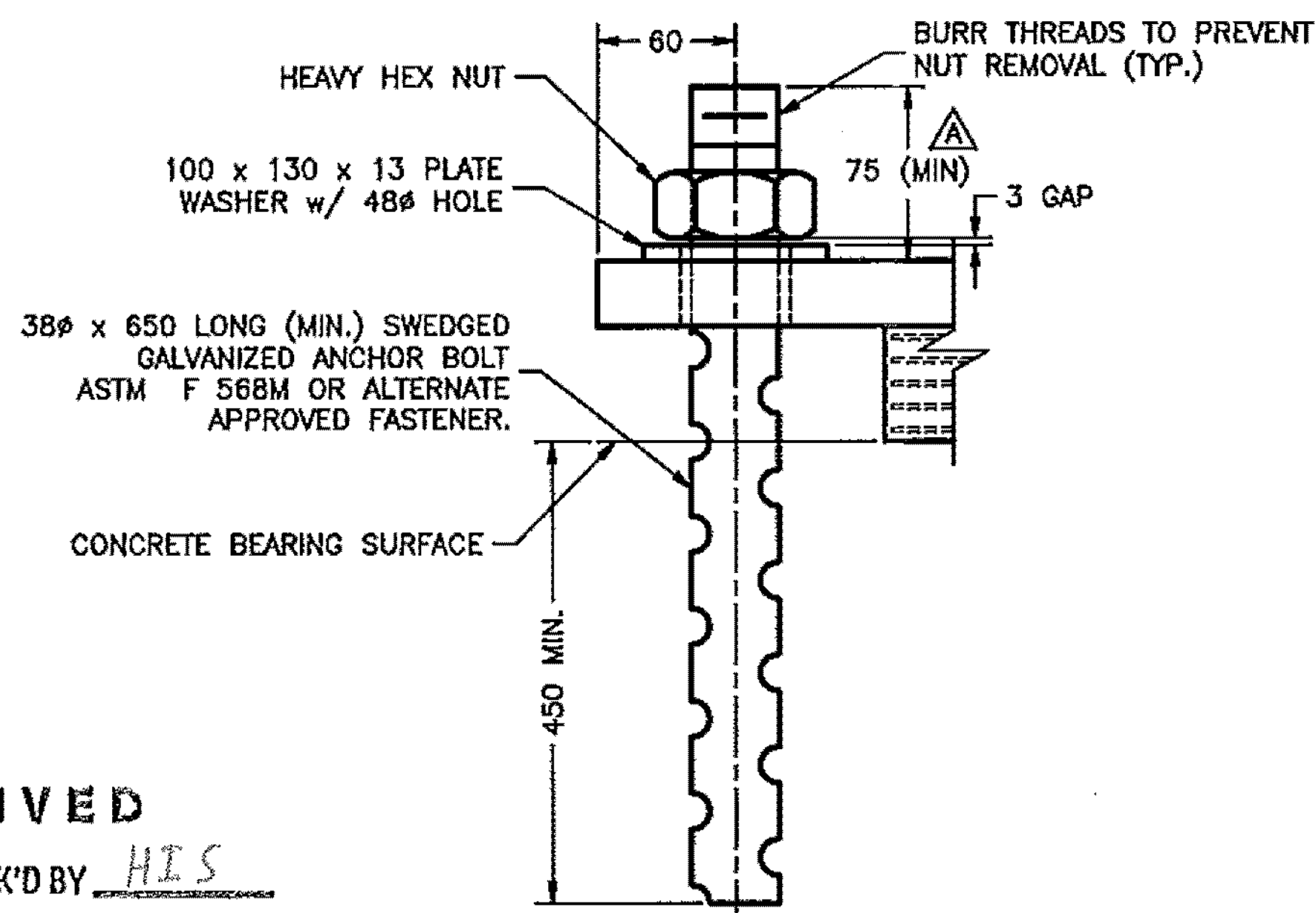
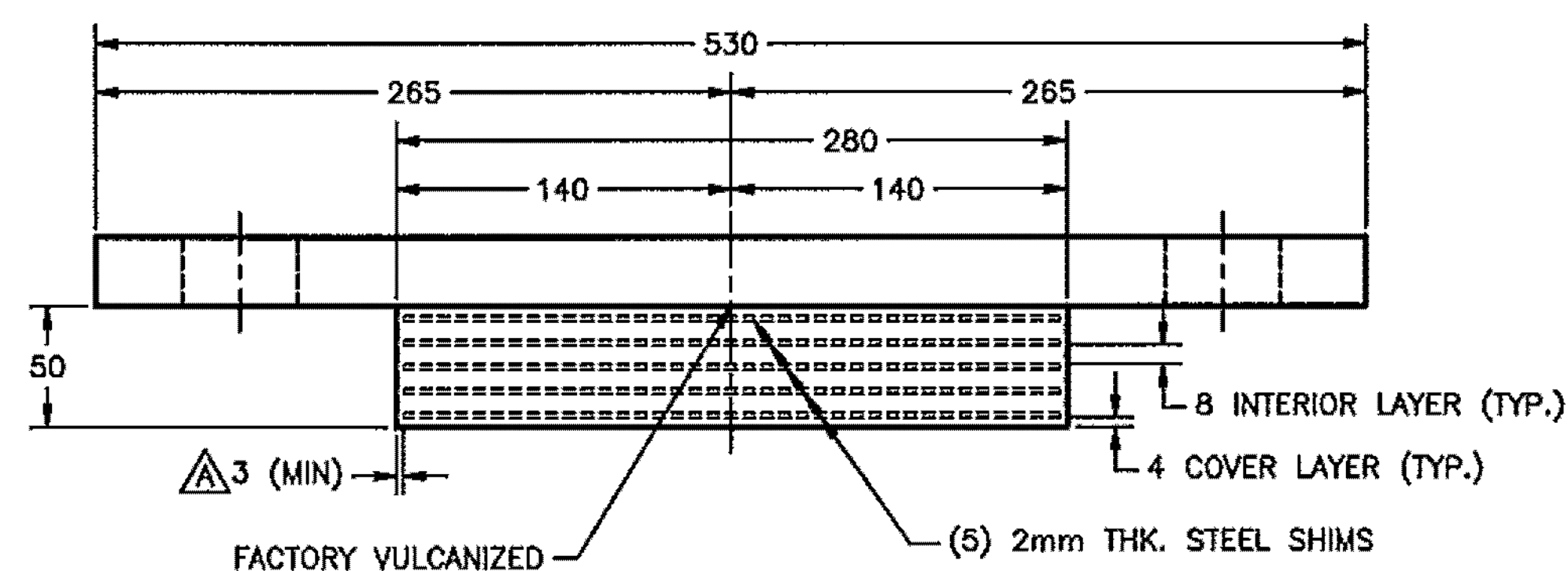
SHEET NO. 1 OF 2



REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
--	A	PER ENGINEER'S MARK	3/4/11	C.A.M.

NOTES:

1. BEARINGS TO BE MANUFACTURED ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 4th EDITION, SECTION 14, METHOD B.
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6. ALL STEEL PRODUCED IN THE U.S.A.
7. CONTACT PETER SOMOGYI, COORDINATOR.
8. TOLERANCES: THICKNESS -0+2mm
PLAN -0+2mm
9. MANUFACTURING FACILITY LOCATION:
AMSCOT STRUCTURAL PRODUCTS INC.
241 EAST BLACKWELL STREET
DOVER, NJ 07801
10. ALL DIMENSIONS ARE IN MILLIMETERS
11. ALL SOLE PLATES, ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AS PER STANDARD SPECIFICATIONS 506.15 AND 531.04(b), AS MODIFIED BY THE GENERAL SPECIAL PROVISIONS. PRIOR TO GALVANIZING, ALL CORNERS AND EDGES OF STEEL PLATES, SHAPES, ECT., SHALL BE GROUND TO A 1.6mm RADIUS.



RECEIVED

OK'D BY _____ OK'D BY HIS

MAR 10 2011

RESUBMIT _____ APPROVED ✓

BY CPW DATE 3/11/11

VERMONT AGENCY OF TRANSPORTATION TOWN OF EAST MONTPELIER PROJECT NO. BRF 037-2 (8)		
EXPANSION ELASTOMERIC BEARING DETAIL		
AMSCOT		
STRUCTURAL PRODUCTS CORP. DOVER, NJ		
SCALE: N.T.S.	CHECKED: B.F.	DRAWN BY: C.A.M.
DATE: 12/28/10		REVISION: A
FOR: AL ST. ONGE		
DWG NO: AS010A2RA	SHEET NO. 2 OF 2	

GENERAL NOTES

SPECIFICATIONS

- ALL MATERIAL AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006 AND ITS LATEST REVISIONS.
- THE AASHTO LRFD BRIDGE DESIGN SPECS. (4TH EDITION), DATED 2007 AND ITS LATEST REVISIONS.
- THE AASHTO LRFD BRIDGE CONSTRUCTION SPECS. (2ND EDITION), DATED 2004 AND ITS LATEST REVISIONS.
- ALL WELDING SHALL CONFORM TO THE PROVISIONS OF SUBSECTION 506.10 OF VTAOT. (BRIDGE WELDING CODE D1.5 ~LATEST EDITION)

MATERIAL SPECIFICATIONS

ALL STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M270M GRADE 345W (WEATHERING STEEL PER SUBSECTION 714.03), UNCOATED.

ALL BOLTS SHALL CONFORM TO AASHTO M164 (ASTM A325) TYPE 3.

ALL BOLTS SHALL BE M22 (7/8") HIGH STRENGTH HEAVY HEX HEAD IN STD. HOLES 24mm (1 5/16") U.O.N.

FABRICATION

CVN- INDICATES CHARPY V-NOTCH TESTING REQUIRED (ZONE 2) PER STD. SPECS. SUBSECTION 714.01.

MEMBERS WITH "CVN" REQUIREMENTS ARE: BEAMS AND DIAPH. CONNECTION PLATES.

THE BOTTOM FLANGE OF STEEL BEAMS AT BEARING AREAS SHALL BE SHOP STRAIGHTENED AS NECESSARY TO PROVIDE UNIFORM CONTACT BETWEEN THE BEAM FLANGE & THE BEARING AT THE BRIDGE SEAT.

STRUCTURAL ROLLED BEAMS SHALL BE CAMBERED TO THE AMOUNT SHOWN ON THE PLANS WITH A TOLERANCE OF 1/2" (-0,+12) FOR BEAMS 50'-0 (15M) OR LESS.

FOR BEAMS GREATER THAN 50'-0 (15M), THE PLUS TOLERANCE OF 1/2" (12mm) SHALL BE INCREASED BY 1/8" (3mm) FOR EACH 10'-0 (3M) OR FRACTION THEREOF IN EXCESS OF 50'-0 (15M).

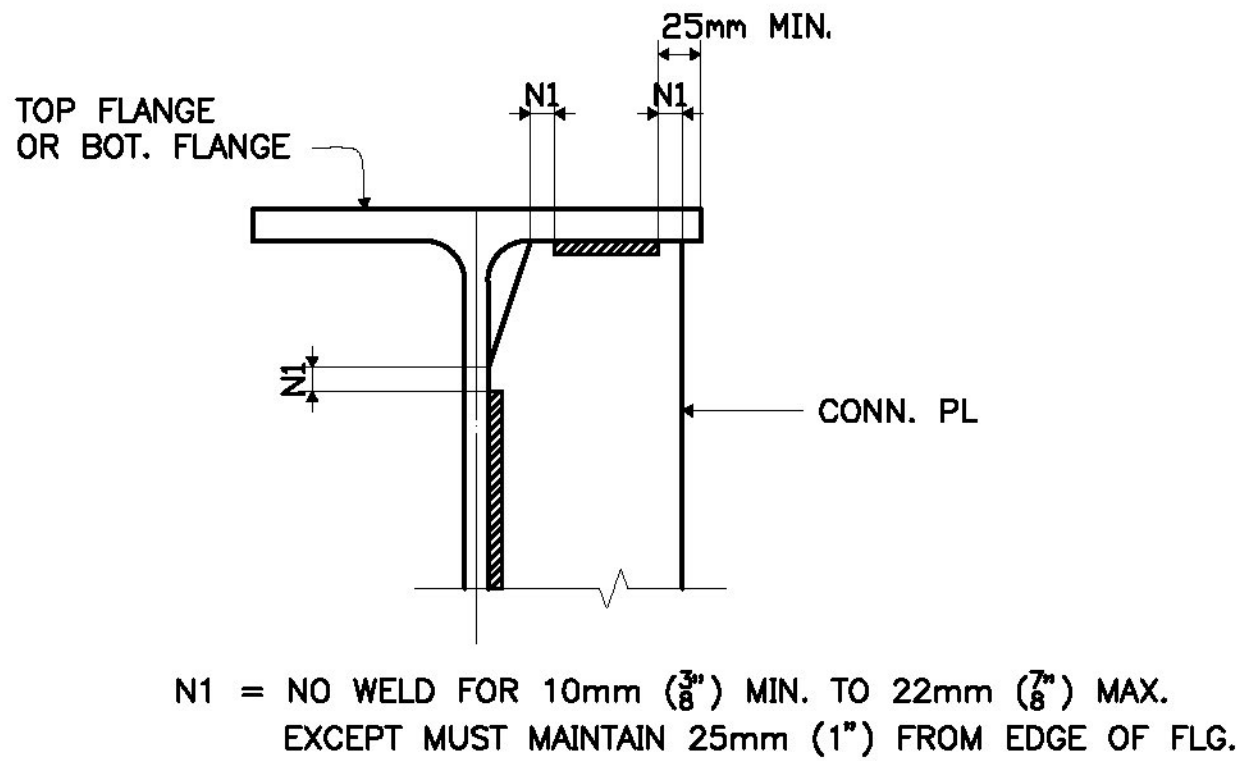
WELD ELECTRODES SHALL BE: ER80S-Ni1

CLEANING

SURFACE PREPARATION
SSPC-SP10 (NEAR WHITE BLAST CLEANING).
PRIOR TO BLAST CLEANING, ALL OIL, GREASE OR OTHER FOREIGN MATTER SHALL BE REMOVED BY SOLVENT CLEANING (SSPC-SP1).

SHOP PAINTING:

NO PAINT REQUIRED FOR ALL STRUCTURAL STEEL.

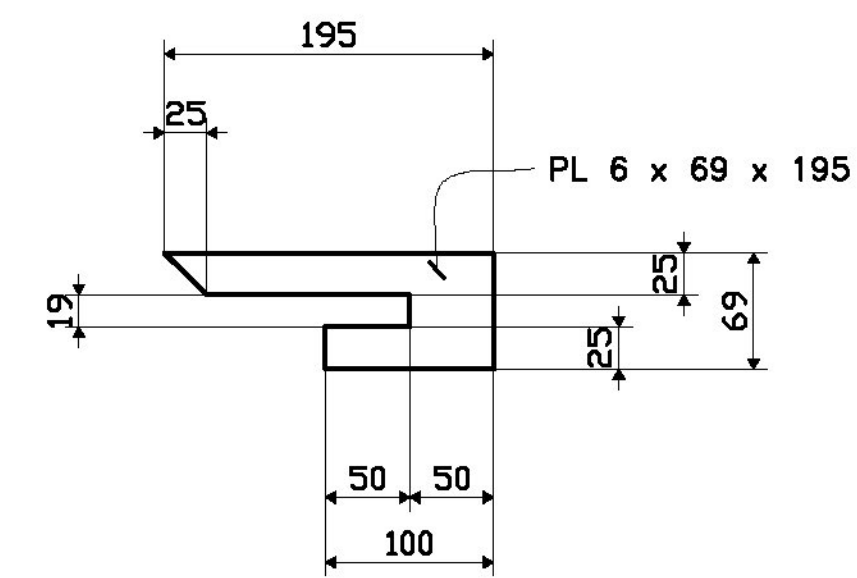


TYP. WELDING DETAIL

INDEX OF DRAWINGS	
SHEET	DESCRIPTION
GN1	GENERAL NOTES
E1, E2	STEEL ERECTION PLAN
P1	JOB STANDARD DETAILS
1 - 8	BEAM SUB-ASS'Y. DETAILS
9	DIAPHRAGM & MISC. DETAILS
10	SHOP ASSEMBLY DIAGRAMS

Received Date: 3/25/11
Checked By: Hiram Salls
Approval Type: Approved
Approved By: Chris Williams
Date: 4/13/11

3							
2							
1							
REV.NO	DATE	REVISION					
GENERAL NOTES							
PROJECT No. BRF 037-2(8) REPLACEMENT OF BRIDGE No. 71 TOWN OF EAST MONTPELIER, WASHINGTON COUNTY, VT							
FOSTER . PRECISE 3 FARM LANE GEORGETOWN, MA 01833-1843							
OWNER: STATE OF VERMONT AGENCY OF TRANSPORTATION CONTRACTOR: J.R. SLAW							
DRAWN BY	CHECKED BY	APP.	SHOP	DIST.	CONTRACT NO.	SHEET NO.	
PDC/WS 03-2011	PDC/SB 03-2011				3561	GN1	



SHOP NOTE
ALL CONNECTION PLATES TO BE "CVN"

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DO NOT SHIP MATERIAL FROM THIS DRAWING. MATERIAL SHOWN ON THIS DRAWING SHALL BE SHOP ASSEMBLED TO STRINGERS. SEE BEAM DRAWINGS FOR LOCATION AND DETAILS OF ASSEMBLY.

SHOP NOTES

HOLES 24# (1 5/8")

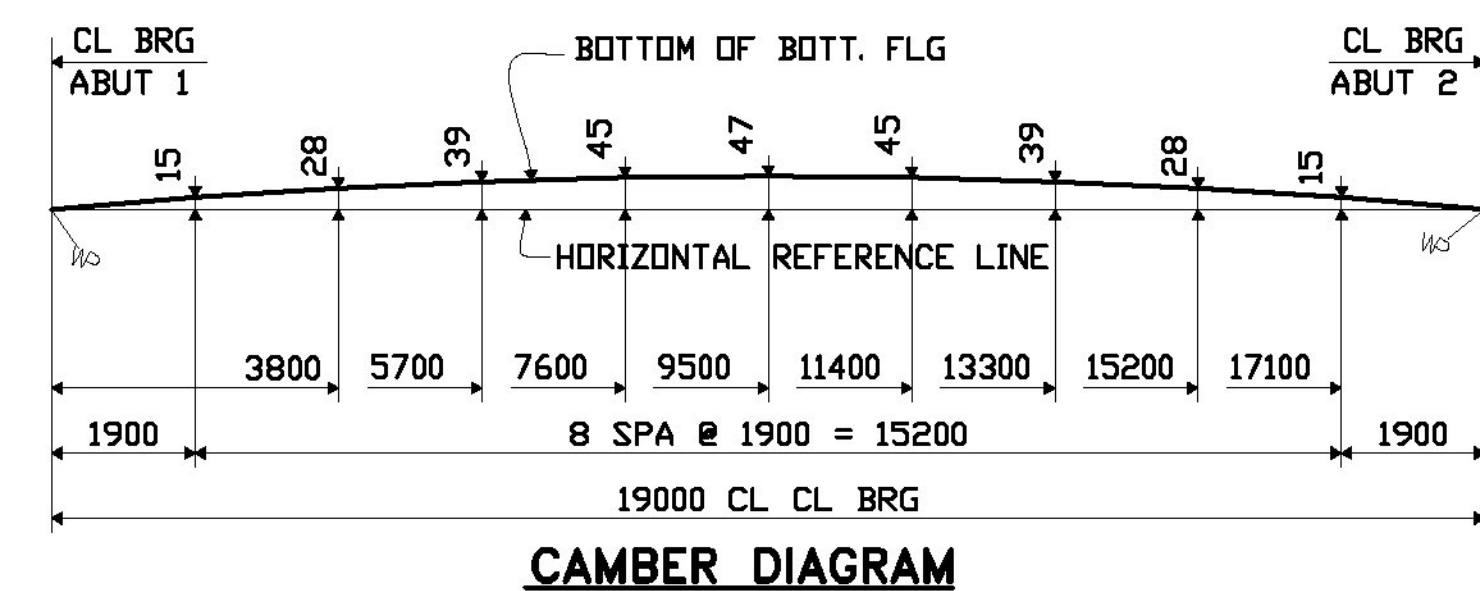
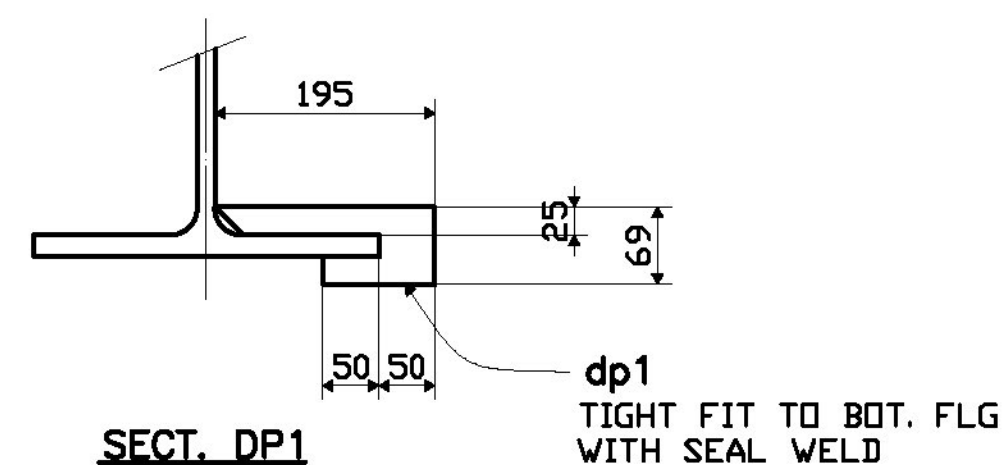
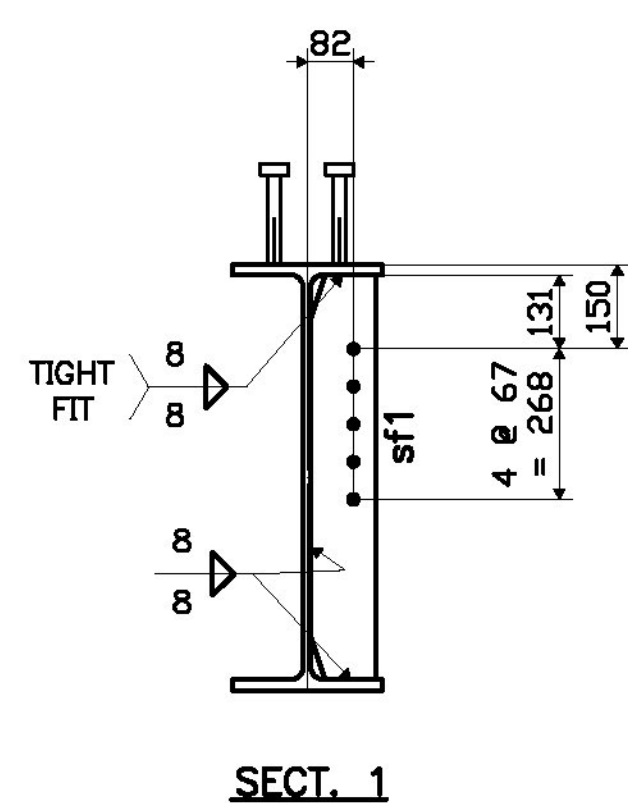
BOLTS NONE

PAINT NONE

WELDS TO BE MADE USING _____ ELECTRODES

MATERIAL M270-345W

3								
2								
1								
REV.NO	DATE	REVISION						
JOB STANDARD DETAILS								
PROJECT No. BRF 037-2(8)								
REPLACEMENT OF BRIDGE No. 71								
TOWN OF EAST MONTPELIER, WASHINGTON COUNTY, VT								
FOSTER . PRECISE								
3 FARM LANE								
GEORGETOWN, MA 01833-1843								
OWNER: STATE OF VERMONT AGENCY OF TRANSPORTATION								
CONTRACTOR: J.R. SLAW								
DRAWN BY	CHECKED BY	APP.	SHOP	DIST.	CONTRACT NO.	SHEET NO.		
PDC/WS 03-2011	PDC/SB 03-2011				3561	P1		

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3								
2								
1								
REV.NO	DATE	REVISION						
BEAM DETAIL								
PROJECT No. BRF 037-2(8)								
REPLACEMENT OF BRIDGE No. 71								
TOWN OF EAST MONTPELIER, WASHINGTON COUNTY, VT								
FOSTER . PRECISE								
3 FARM LANE								
GEORGETOWN, MA 01833-1843								
OWNER: STATE OF VERMONT AGENCY OF TRANSPORTATION								
CONTRACTOR: J.R. SLAW								
DRAWN BY	CHECKED BY	APP.	SHOP	DIST.	CONTRACT NO.	SHEET NO.		
PDC/WS 03-2011	PDC/SB 03-2011				3561	1		

SHOP NOTES

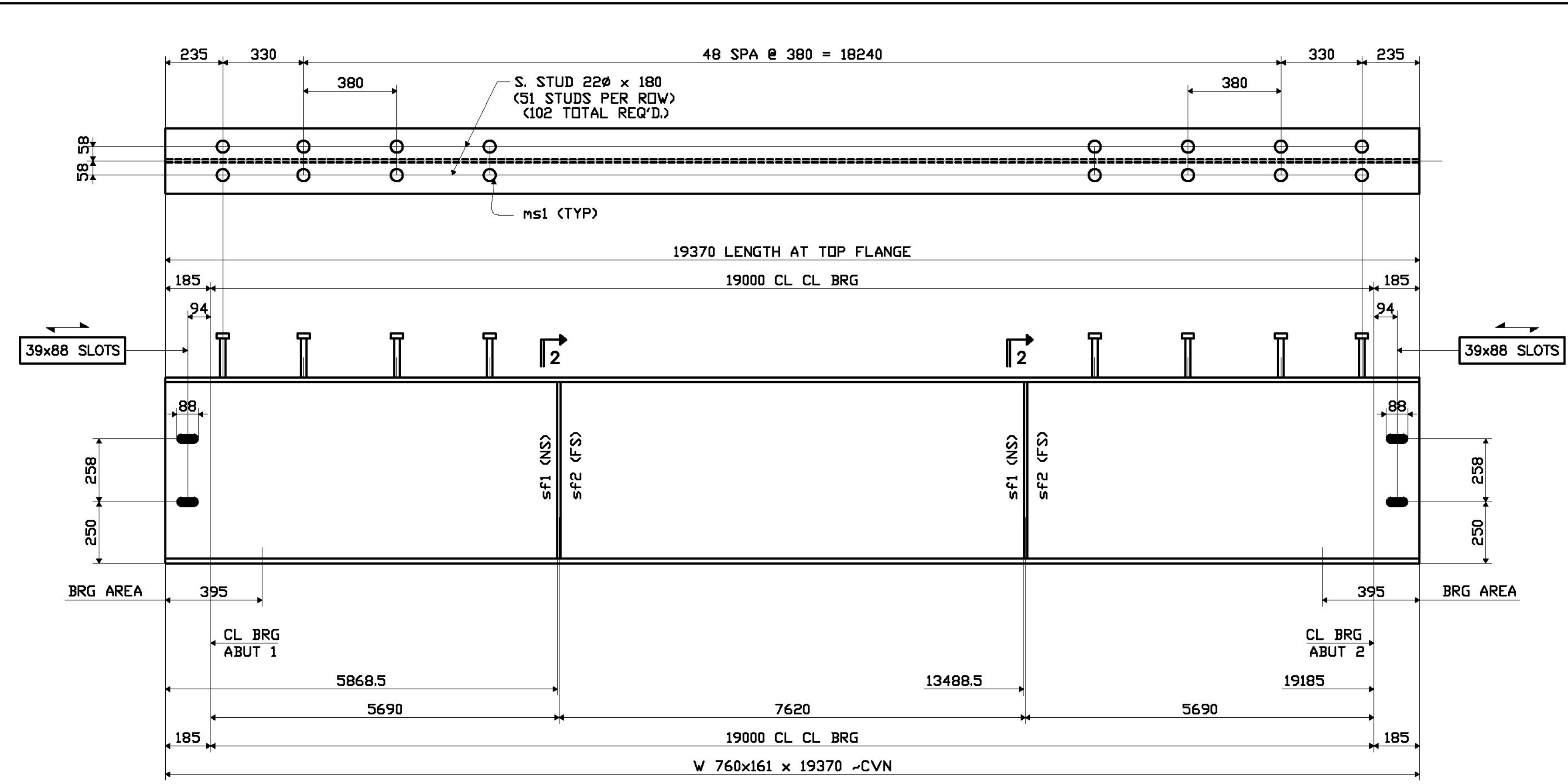
HOLES 24Ø (1 5/8") (UN)

BOLTS NONE

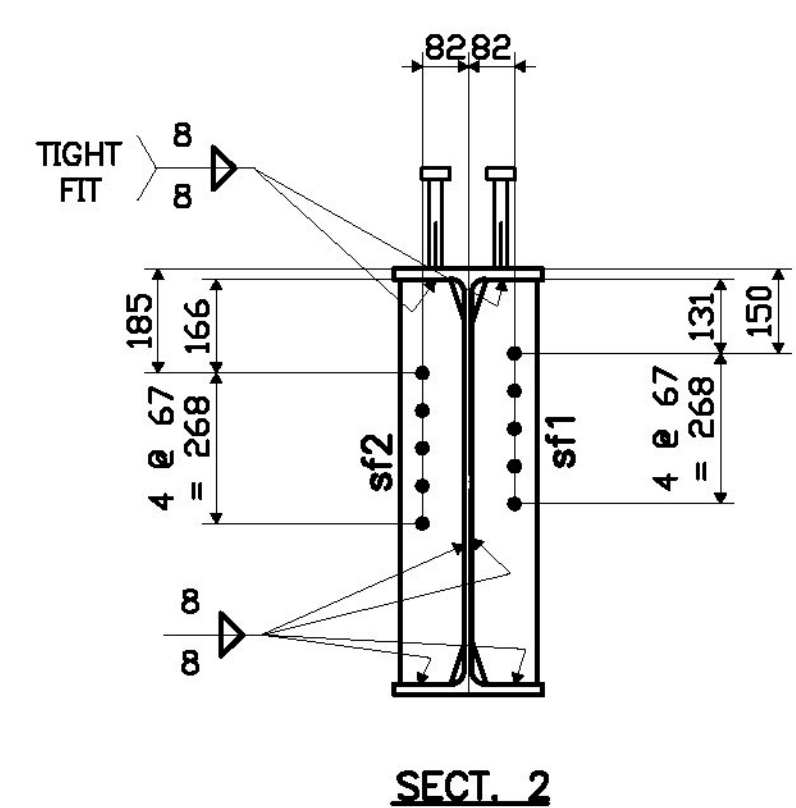
PAINT NONE

WELDS TO BE MADE USING SEE GN1 ELECTRODES

MATERIAL M270-345W

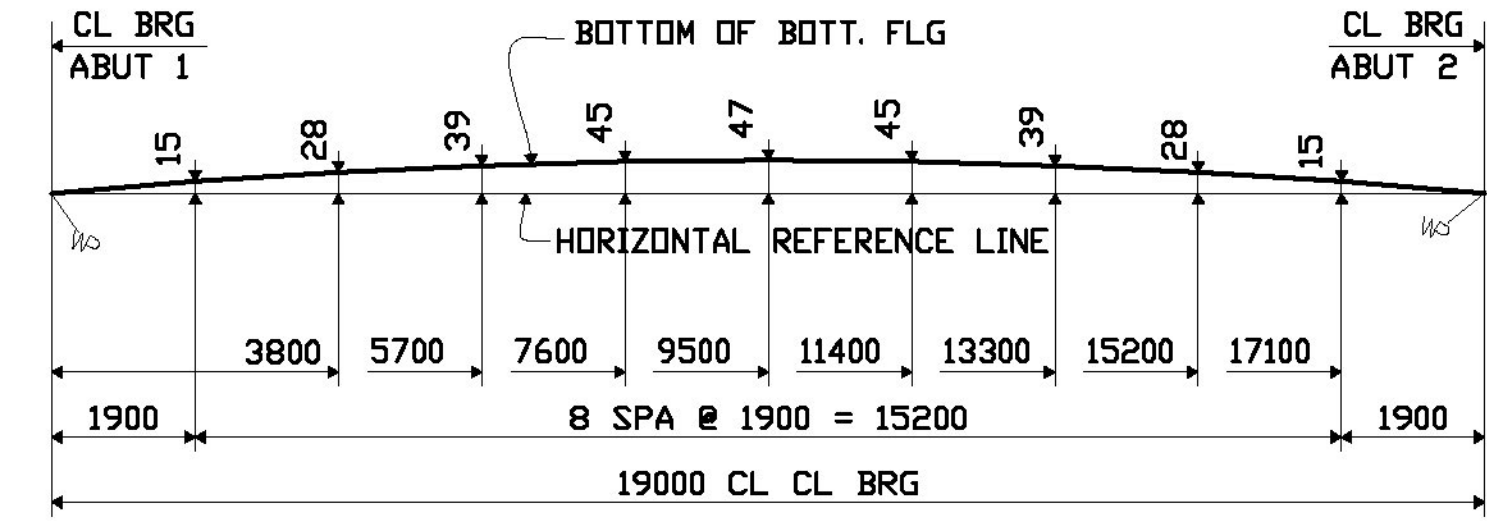


ONE ~BEAM~ MA2



SECT. 2

SHIPPER				BILL OF MATERIAL				
NO.	MARK	NO.	MARK	SIZE	LENGTH	REMARKS	ITEM	WEIGHT
		1	MA2	BEAM SUB-ASSEMBLY				
		1		W760x161	19370	CVN		
		2	sf1	PL 13x115	720	CVN		
		2	sf2	PL 13x115	720	CVN		
		102	ms1	S. STUD 22#	180	A108		

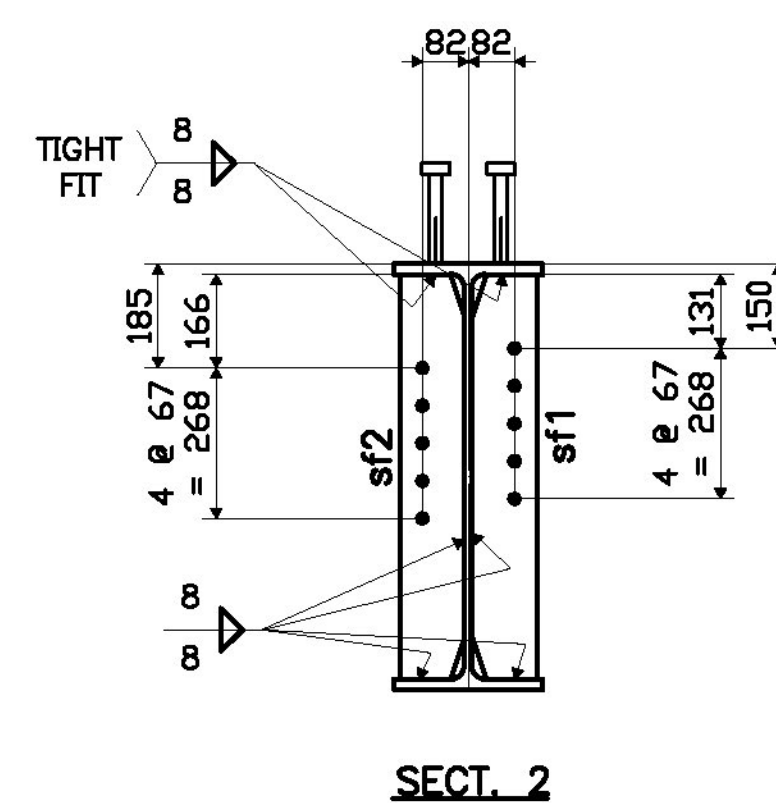
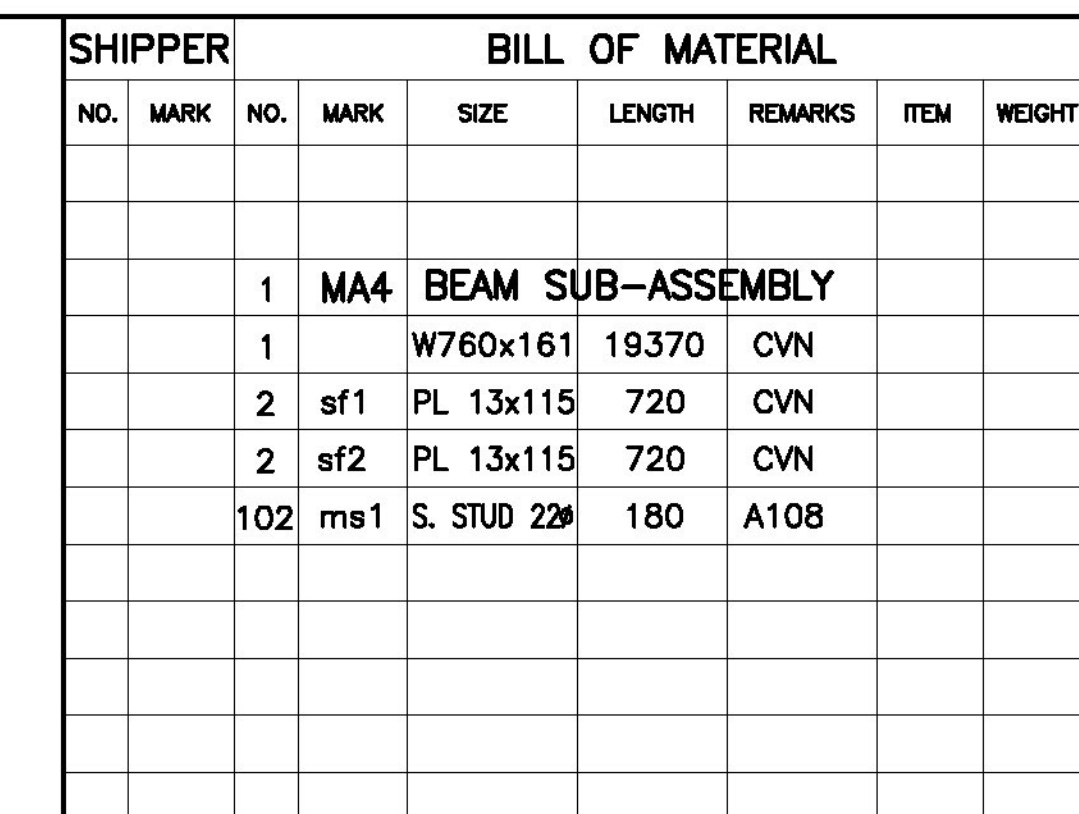


CAMBER DIAGRAM

Received Date: 3/25/11
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Approved By: Chris Williams
Date: 4/13/11

SHOP NOTES
HOLES 24# (1 3/8") (UN)
BOLTS NONE
PAINT NONE
WELDS TO BE MADE USING SEE GN1 ELECTRODES
MATERIAL M270-345W

3								
2								
1								
REV.NO	DATE	REVISION						
BEAM DETAIL								
PROJECT No. BRF 037-2(8) REPLACEMENT OF BRIDGE No. 71 TOWN OF EAST MONTPELIER, WASHINGTON COUNTY, VT								
FOSTER . PRECISE 3 FARM LANE GEORGETOWN, MA 01833-1843 OWNER: STATE OF VERMONT AGENCY OF TRANSPORTATION CONTRACTOR: J.R. SLAW								
DRAWN BY	CHECKED BY	APP.	SHOP	DIST.	CONTRACT NO.	SHEET NO.		
PDC/WS 03-2011	PDC/SB 03-2011				3561	2		



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Approved By: Chris Williams
Date: 4/13/11

3								
2								
1								
REV. NO	DATE	REVISION						
BEAM DETAIL								
PROJECT No. BR# 037-2(B) REPLACEMENT OF BRIDGE No. 71 TOWN OF EAST MONTPELIER, WASHINGTON COUNTY, VT								
FOSTER . PRECISE 3 FARM LANE GEORGETOWN, MA 01833-1843								
OWNER: STATE OF VERMONT AGENCY OF TRANSPORTATION CONTRACTOR: J.R. SLAW								
DRAWN BY	CHECKED BY	APP.	SHOP	DIST.	CONTRACT NO.	SHEET NO.		
PDC/WS 03-2011	PDC/SB 03-2011				3561	4		

SHOP NOTES

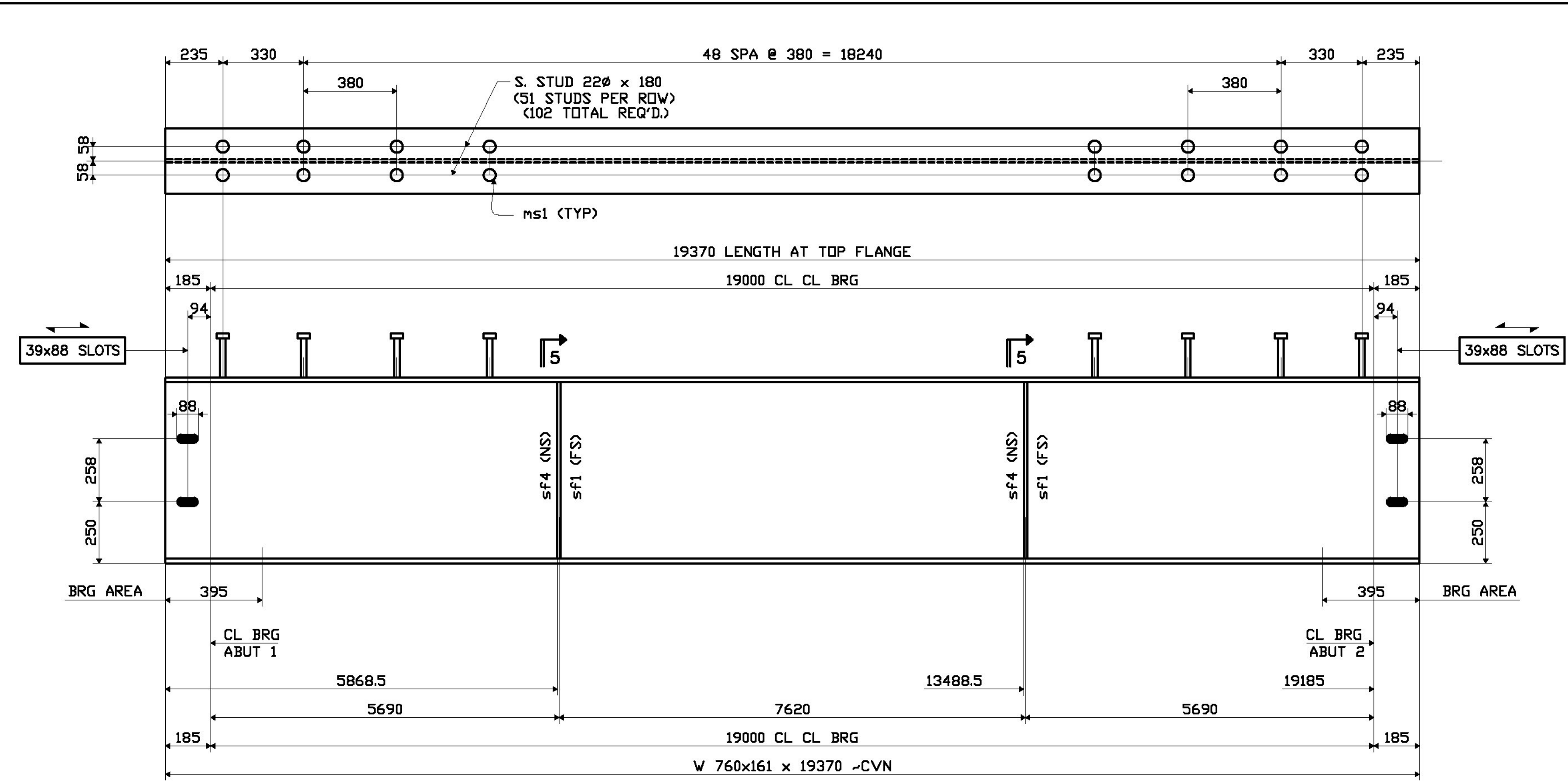
HOLES 24ø (1 5/8") (UN)

BOLTS NONE

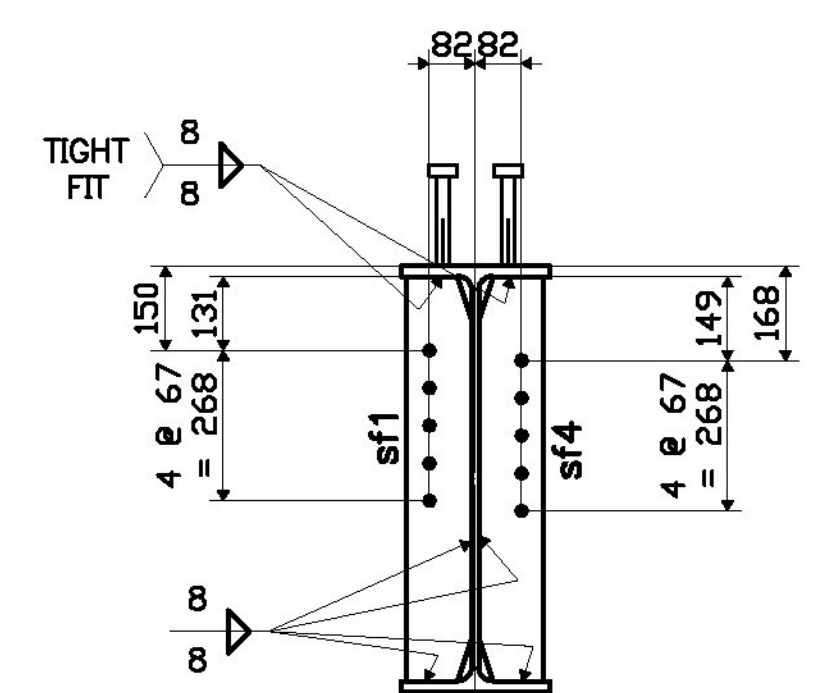
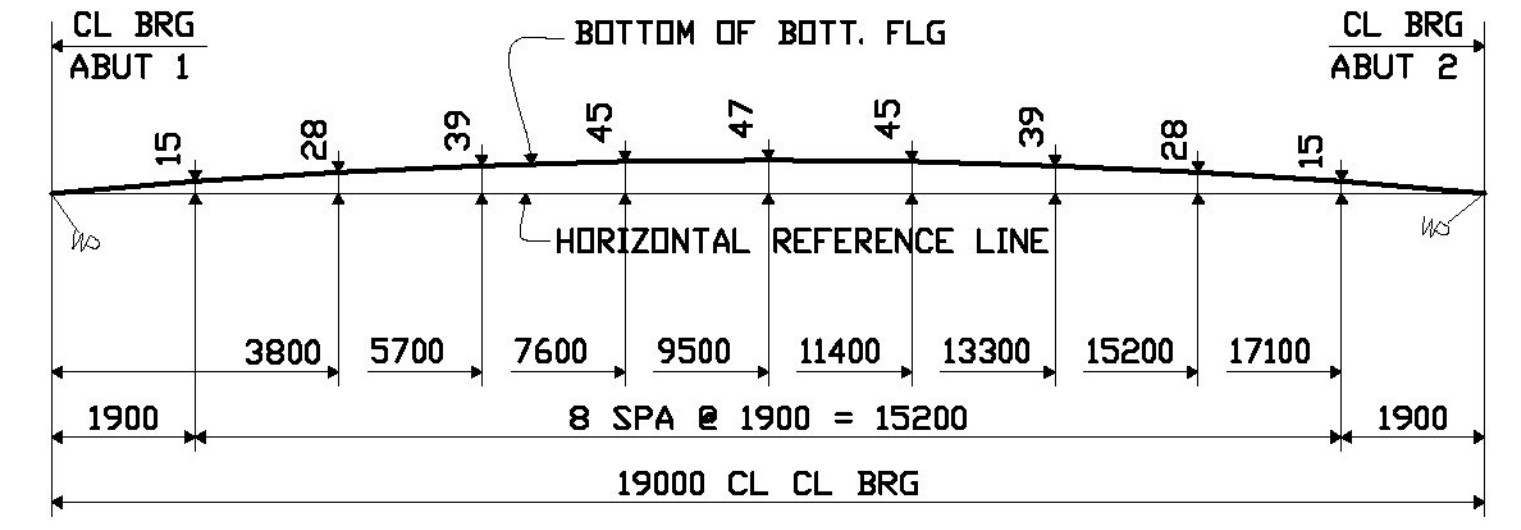
PAINT NONE

WELDS TO BE MADE USING SEE GN1 ELECTRODES

MATERIAL M270-345W



ONE ~BEAM~ MA6



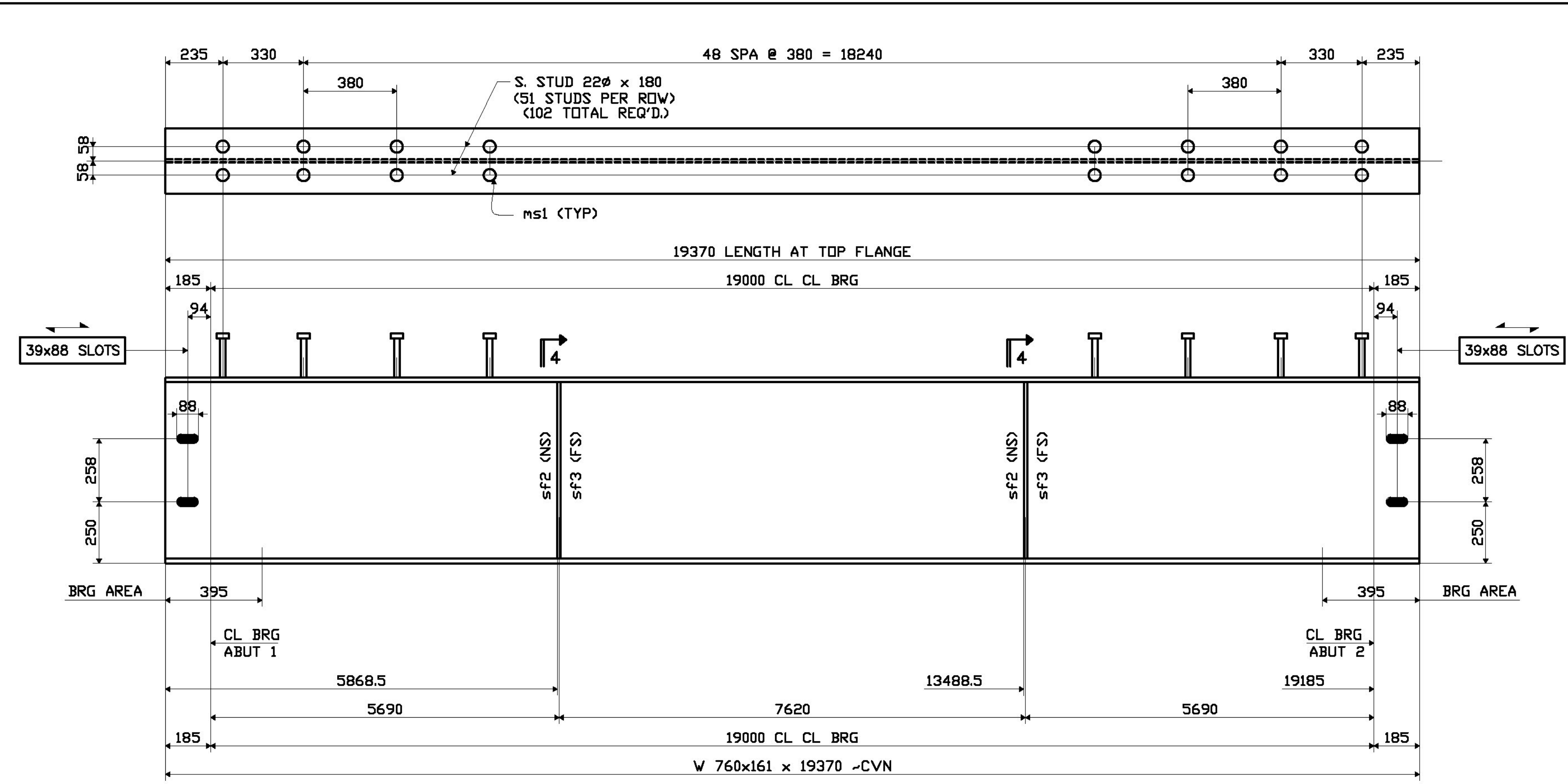
SECT. 5

SHIPPER				BILL OF MATERIAL				
NO.	MARK	NO.	MARK	SIZE	LENGTH	REMARKS	ITEM	WEIGHT
		1	MA6	BEAM SUB-ASSEMBLY				
		1		W760x161	19370	CVN		
		2	sf1	PL 13x115	720	CVN		
		2	sf4	PL 13x115	720	CVN		
		102	ms1	S. STUD 22#	180	A108		

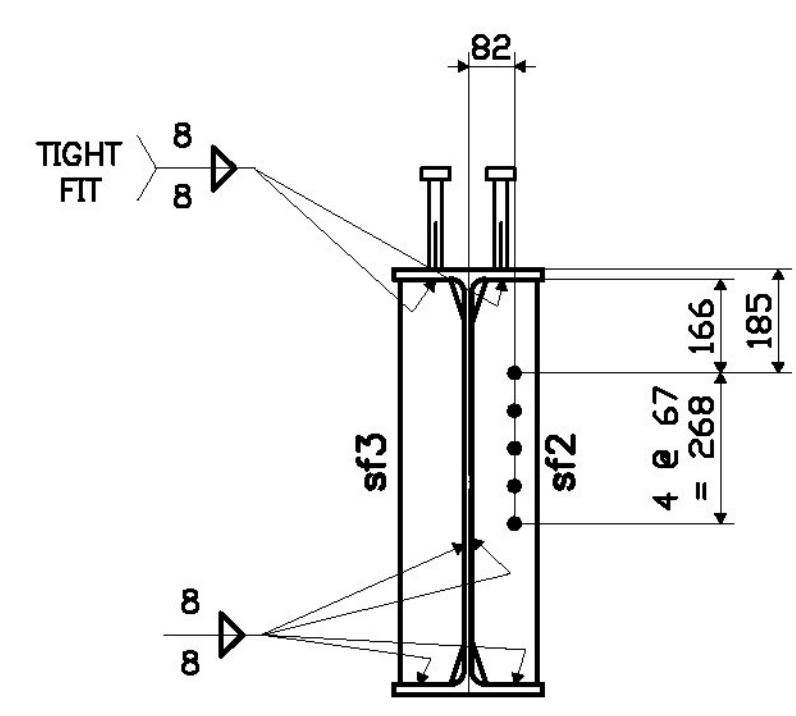
Received Date: 3/25/11
Checked By: Hiram Salls
Approval Type: Approved
Approved By: Chris Williams
Date: 4/13/11

SHOP NOTES
HOLES 24# (1 1/8") (UN)
BOLTS NONE
PAINT NONE
WELDS TO BE MADE USING SEE GN1 ELECTRODES
MATERIAL M270-345W

3								
2								
1								
REV. NO.	DATE	REVISION						
BEAM DETAIL								
PROJECT No. BRF 037-2(8) REPLACEMENT OF BRIDGE No. 71 TOWN OF EAST MONTPELIER, WASHINGTON COUNTY, VT								
FOSTER . PRECISE 3 FARM LANE GEORGETOWN, MA 01833-1843								
OWNER: STATE OF VERMONT AGENCY OF TRANSPORTATION CONTRACTOR: J.R. SLAW								
DRAWN BY	CHECKED BY	APP.	SHOP	DIST.	CONTRACT NO.	SHEET NO.		
PDC/WS 03-2011	PDC/SB 03-2011				3561	6		

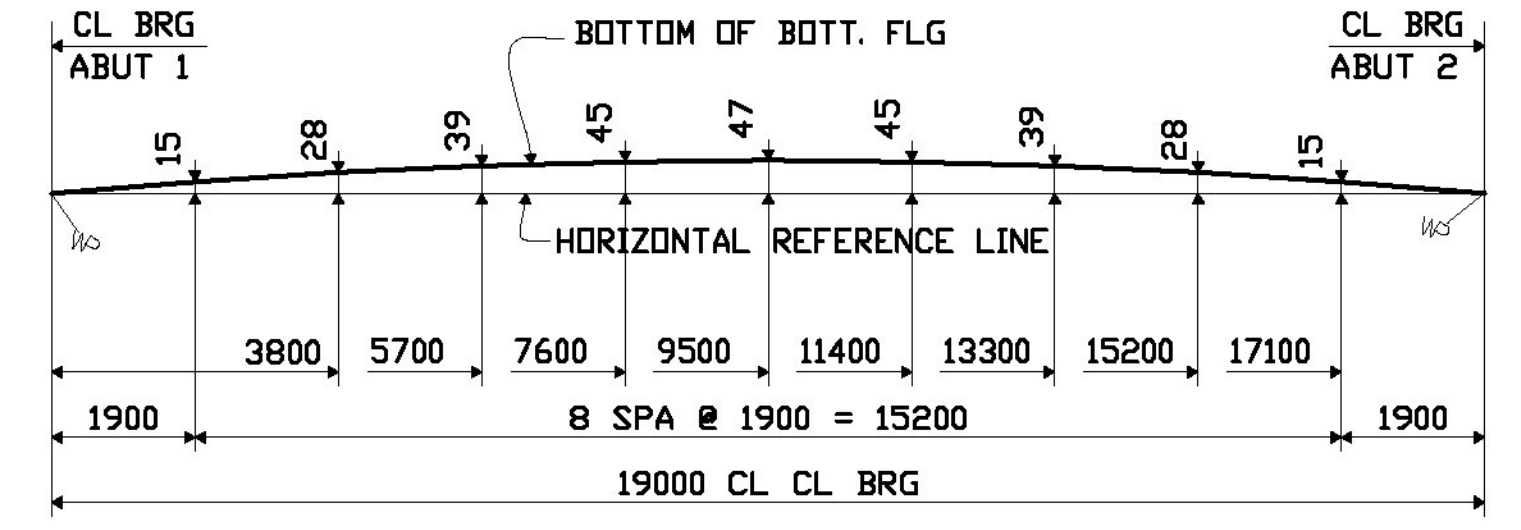


ONE ~BEAM~ MA7



SECT. 4

SHIPPER				BILL OF MATERIAL				
NO.	MARK	NO.	MARK	SIZE	LENGTH	REMARKS	ITEM	WEIGHT
		1	MA7	BEAM SUB-ASSEMBLY				
		1		W760x161	19370	CVN		
		2	sf2	PL 13x115	720	CVN		
		2	sf3	PL 13x115	720	CVN		
		102	ms1	S. STUD 22#	180	A108		

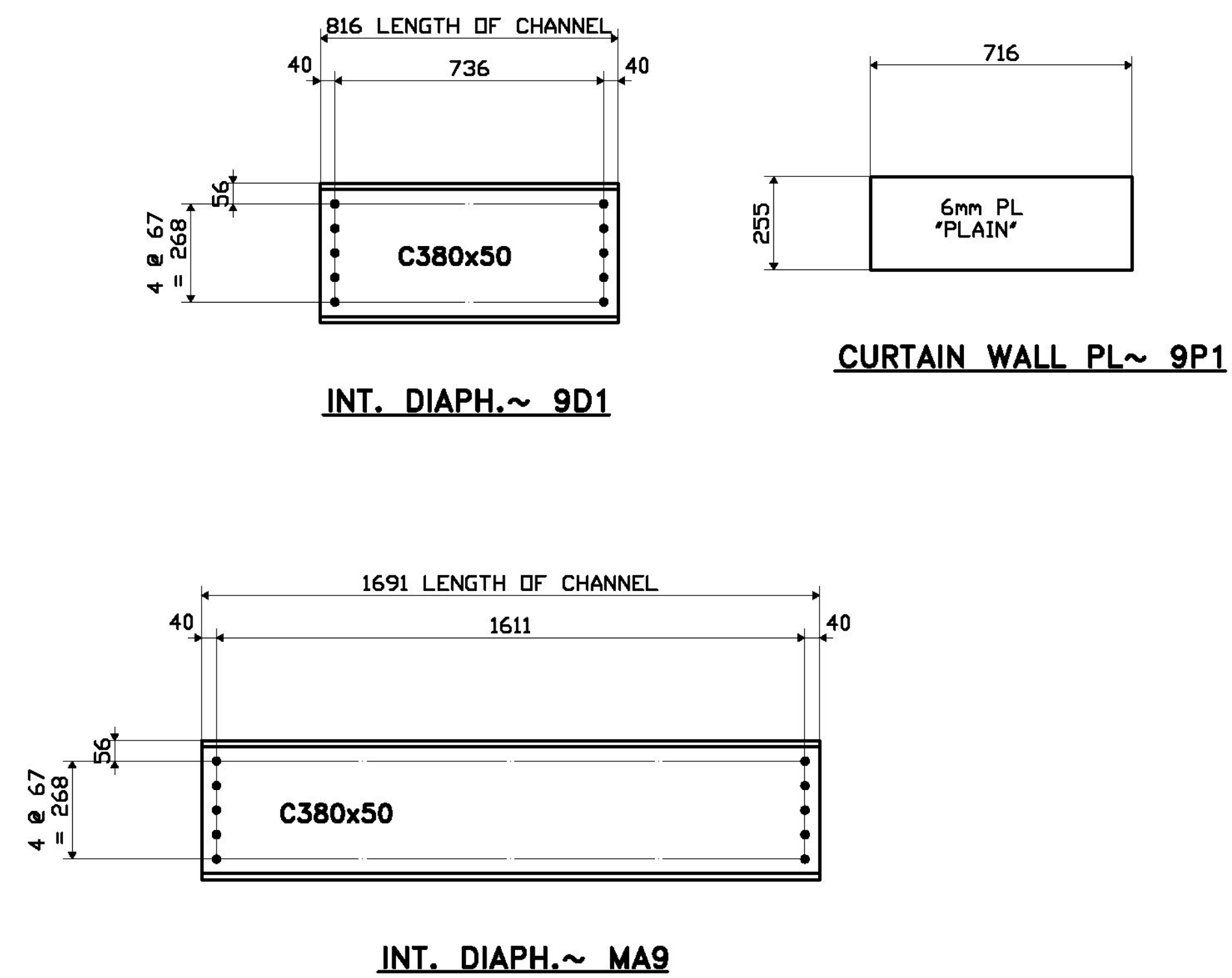


CAMBER DIAGRAM

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Checked By: Hiram Salls
Approval Type: Approved
Approved By: Chris Williams
Date: 4/13/11

SHOP NOTES
HOLES 24# (1 1/8") (UN)
BOLTS NONE
PAINT NONE
WELDS TO BE MADE USING SEE GN1 ELECTRODES
MATERIAL M270-345W

3								
2								
1								
REV. NO.	DATE	REVISION						
BEAM DETAIL								
PROJECT No. BRP 037-2(8) REPLACEMENT OF BRIDGE No. 71 TOWN OF EAST MONTPELIER, WASHINGTON COUNTY, VT								
FOSTER . PRECISE 3 FARM LANE GEORGETOWN, MA 01833-1843								
OWNER: STATE OF VERMONT AGENCY OF TRANSPORTATION CONTRACTOR: J.R. SLAW								
DRAWN BY	CHECKED BY	APP.	SHOP	DIST.	CONTRACT NO.	SHEET NO.		
PDC/WS 03-2011	PDC/SB 03-2011				3561	7		



SHIPPER		BILL OF MATERIAL						
NO.	MARK	NO.	MARK	SIZE	LENGTH	REMARKS	ITEM	WEIGHT
FIELD INSTALLED MATERIAL								
6	9D1			C380x50	816			
16	9P1			PL 6x255	716			
SHOP INSTALLED DIAPHRAGMS								
	8	MA9		C380x50	1691			

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SHOP NOTES

HOLES 24ø (1⁵/₈)

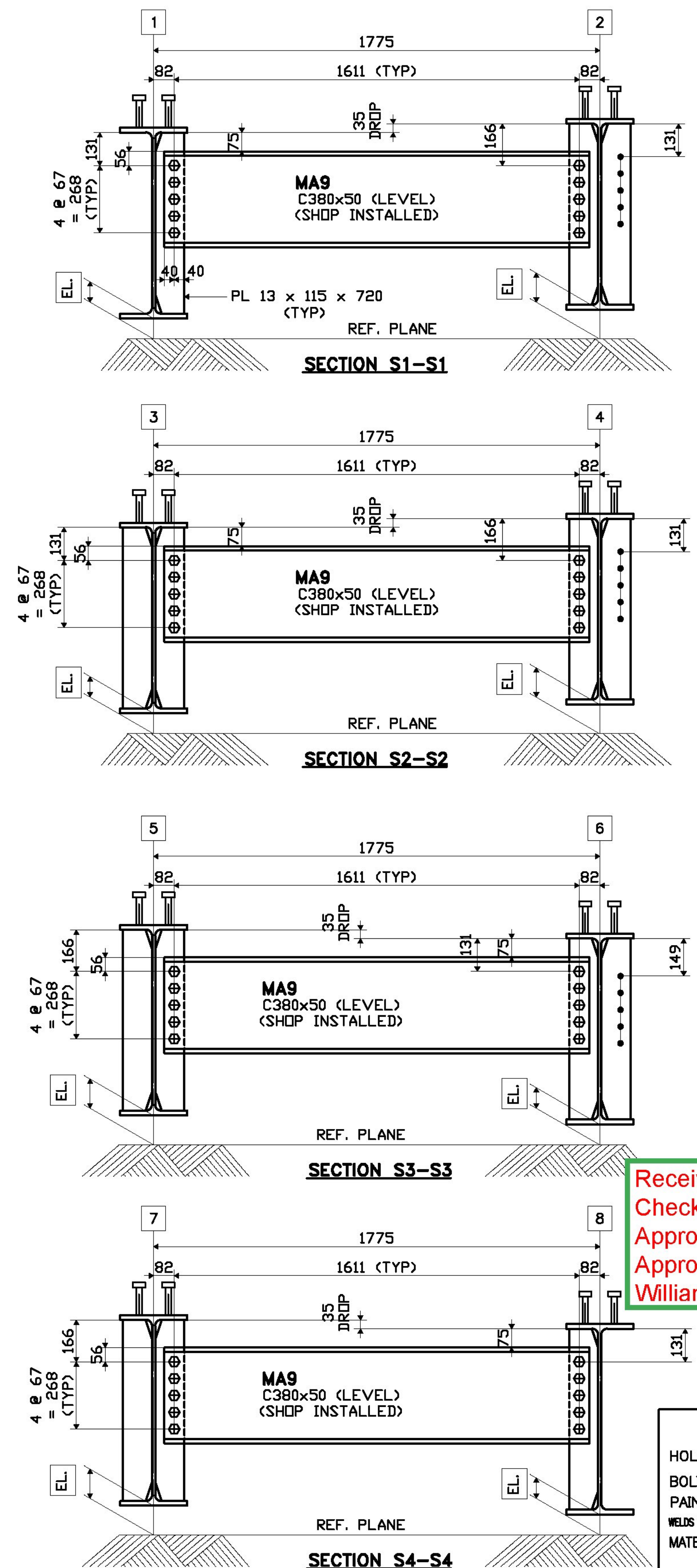
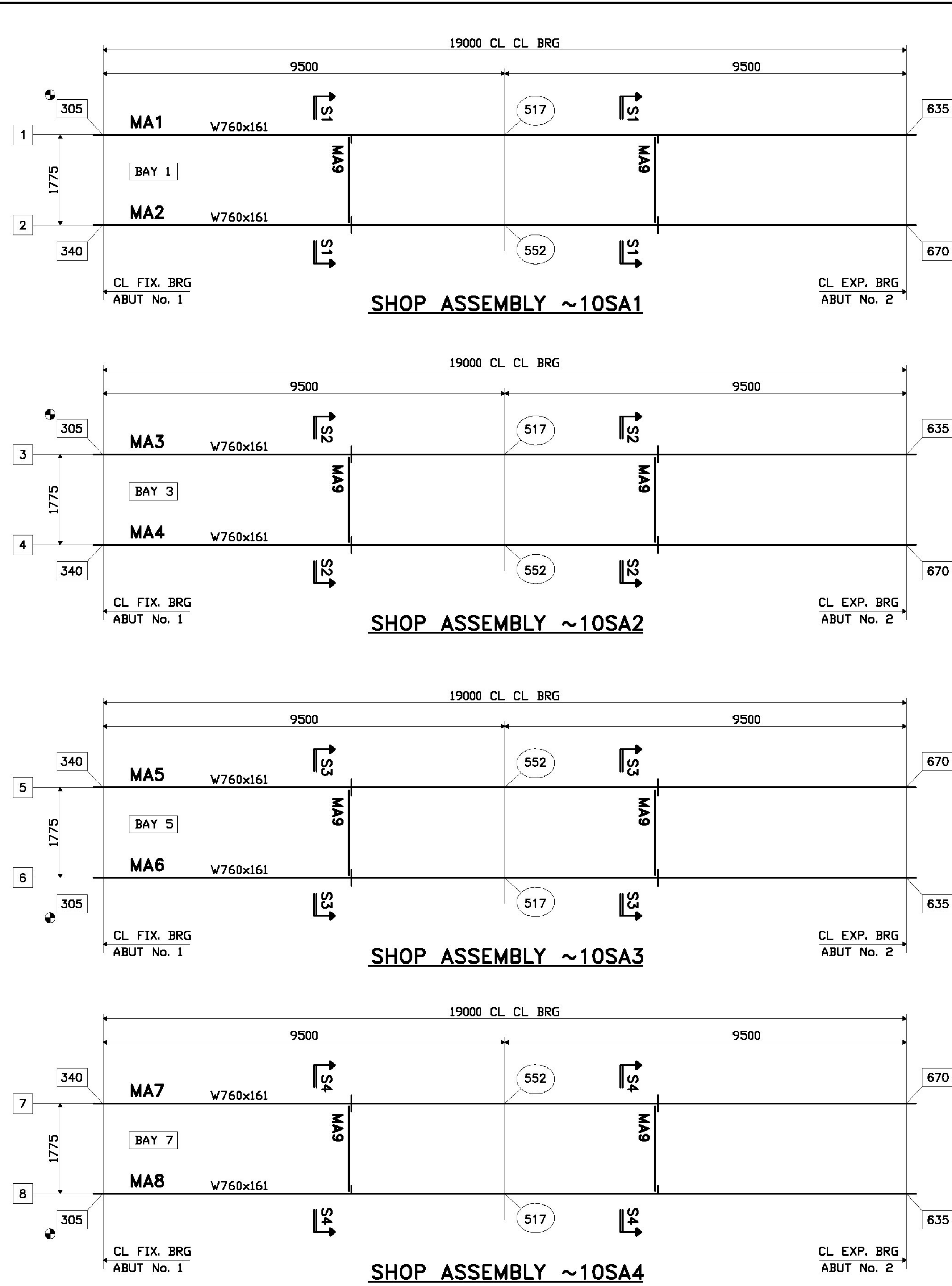
BOLTS NONE

PAINT NONE

WELDS TO BE MADE USING _____ ELECTRODES

MATERIAL M270-345W

3							
2							
1							
REV.NO	DATE	REVISION					
DIAPHRAGM & MISC. DETAILS							
PROJECT NO. BR# 037-2(8)							
REPLACEMENT OF BRIDGE No. 71							
TOWN OF EAST MONTPELIER, WASHINGTON COUNTY, VT							
FOSTER . PRECISE							
3 FARM LANE							
GEORGETOWN, MA 01833-3483							
OWNER: STATE OF VERMONT AGENCY OF TRANSPORTATION							
CONTRACTOR: J.R. SLAW							
DRAWN BY	CHECKED BY	APP.	SHOP	DIST.	CONTRACT NO.	SHEET NO.	
PDC/WS 03-2011	PDC/SB 03-2011				3561	9	



SHIPPER				BILL OF MATERIAL				
NO.	MARK	NO.	MARK	SIZE	LENGTH	REMARKS	ITEM	WEIGHT
1	10SA1			SHOP ASSEMBLY				
		1	MA1	BEAM SUB-ASS'Y.				
		1	MA2	BEAM SUB-ASS'Y.				
		2	MA9	DIAPH. SUB-ASS'Y.				
		20	HSBT 22#	57	A325-3			
		20	HWASH 22#		F436-3			
1	10SA2			SHOP ASSEMBLY				
		1	MA3	BEAM SUB-ASS'Y.				
		1	MA4	BEAM SUB-ASS'Y.				
		2	MA9	DIAPH. SUB-ASS'Y.				
		20	HSBT 22#	57	A325-3			
		20	HWASH 22#		F436-3			
1	10SA3			SHOP ASSEMBLY				
		1	MA5	BEAM SUB-ASS'Y.				
		1	MA6	BEAM SUB-ASS'Y.				
		2	MA9	DIAPH. SUB-ASS'Y.				
		20	HSBT 22#	57	A325-3			
		20	HWASH 22#		F436-3			
1	10SA4			SHOP ASSEMBLY				
		1	MA7	BEAM SUB-ASS'Y.				
		1	MA8	BEAM SUB-ASS'Y.				
		2	MA9	DIAPH. SUB-ASS'Y.				
		20	HSBT 22#	57	A325-3			
		20	HWASH 22#		F436-3			

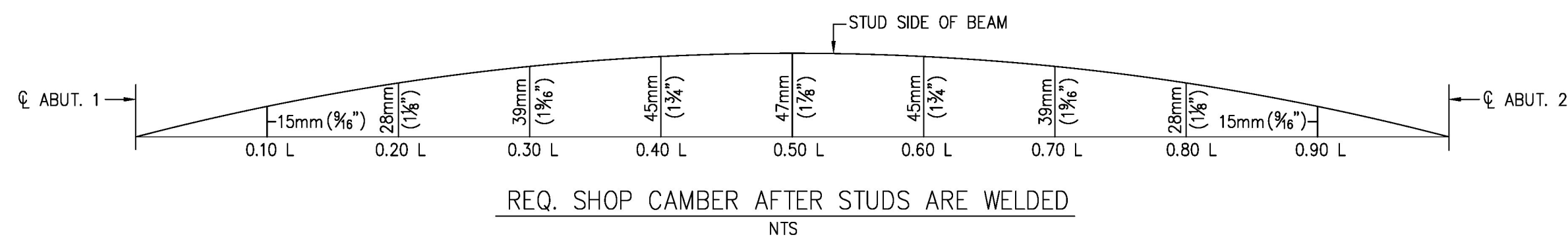
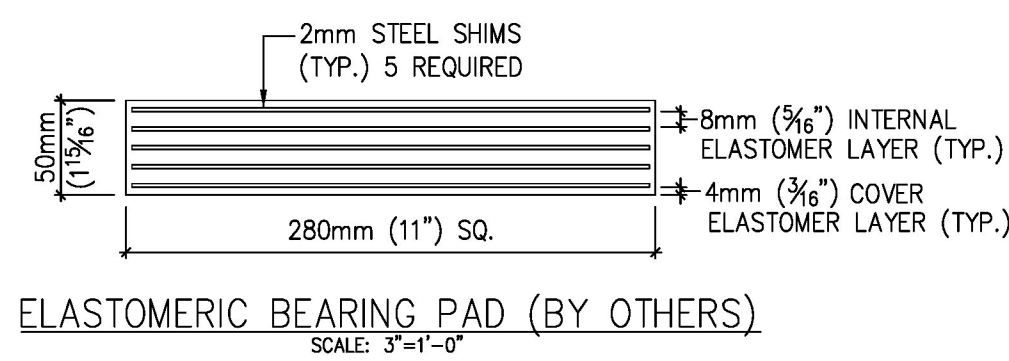
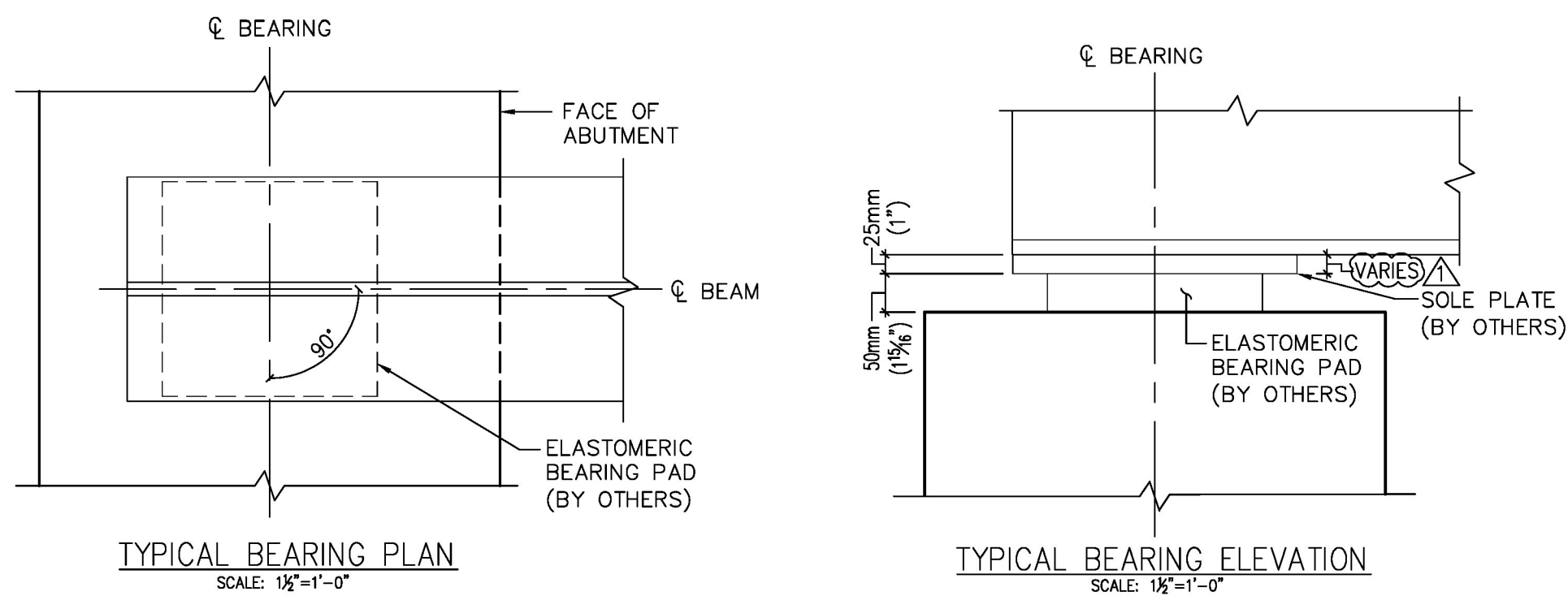
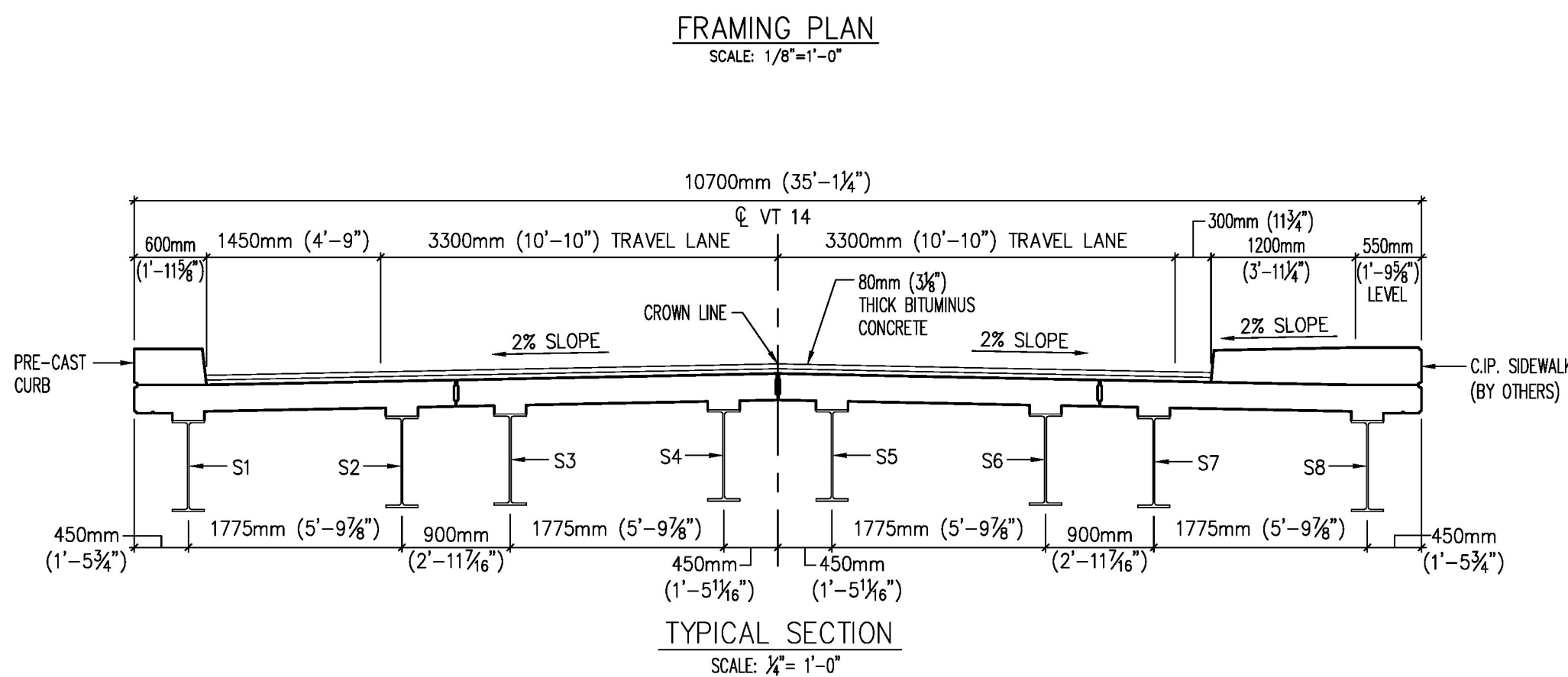
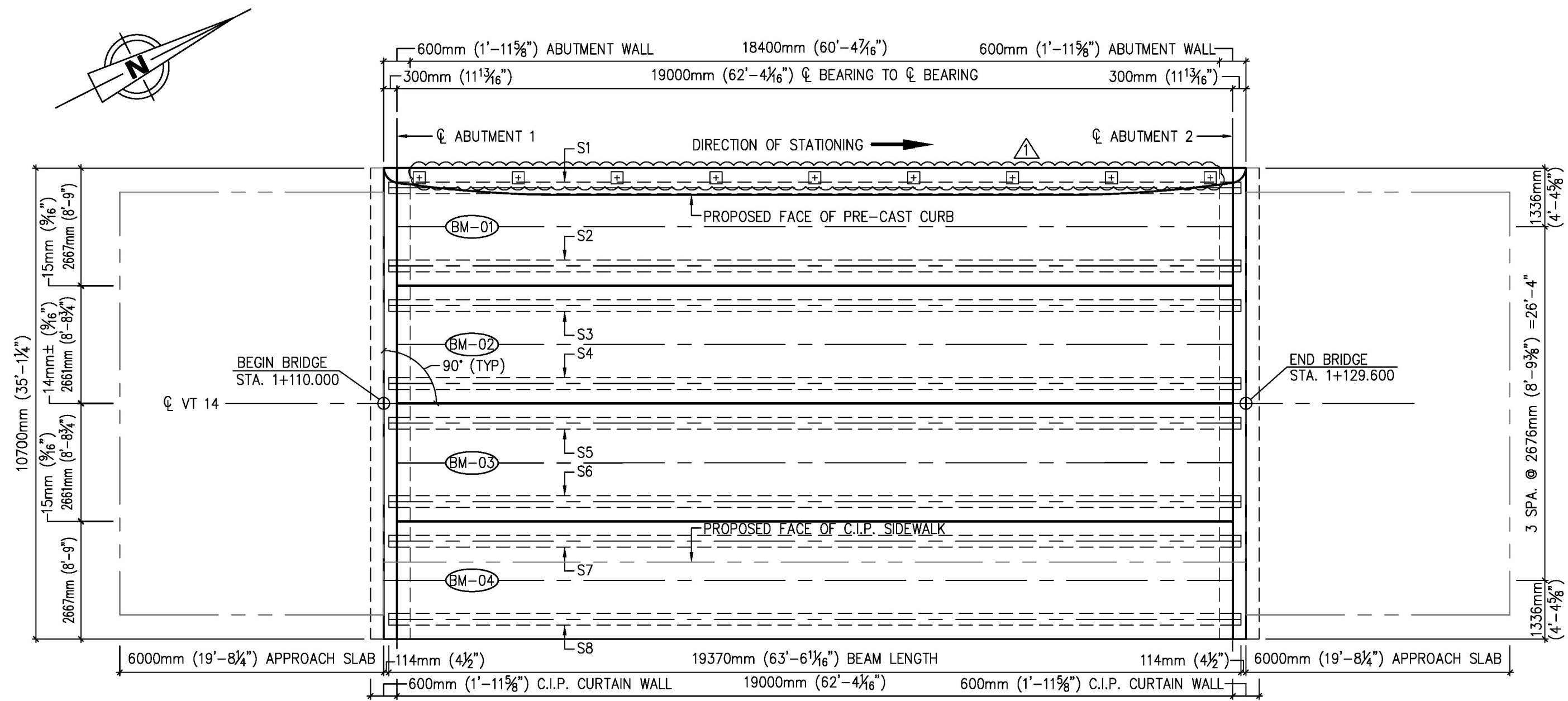
SHOP ASSEMBLY NOTES

- 305 DENOTES ELEVATION GIVEN FROM REFERENCE PLANE (SHOP FLOOR) TO BOTTOM OF BOTTOM FLG. AT CL BRG.
- 517 DENOTES ELEVATION GIVEN FROM REF. PLANE (SHOP FLOOR) TO BOTTOM OF CAMBERED BOTTOM FLG. AT MIDPOINT OF BM. THESE ELEVATIONS ARE THEORETICAL AND MAY VARY SLIGHTLY DEPENDING ON FINAL SHOP CAMBER (± FABRICATION TOLERANCE) OBTAINED AFTER FABRICATION OF BEAM.
- INDICATES LOWEST ELEVATION POINT OF THE SHOP ASSEMBLY.
- SEE SHEETS 1 THRU 8 FOR BEAM SUB-ASSEMBLY DETAILS.
- SEE SHEET 9 FOR DIAPHRAGM SUB-ASSEMBLY DETAILS.

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Approval Type: Approved
Approved By: Chris Williams

SHOP NOTES
HOLES 24# (1 1/8")
BOLTS NONE
PAINT NONE
WELDS TO BE MADE USING ELECTRODES
MATERIAL AS PER DETAIL DWGS

REV.	NO.	DATE	REVISION
3			
2			
1			
SHOP ASSEMBLY DIAGRAMS			
PROJECT No. BR 037-2(8) REPLACEMENT OF BRIDGE No. 71 TOWN OF EAST MONTPELIER, WASHINGTON COUNTY, VT			
FOSTER . PRECISE 3 FARM LANE GEORGETOWN, MA 01833-1843			
OWNER: STATE OF VERMONT AGENCY OF TRANSPORTATION CONTRACTOR: J.R. SLAW			
DRAWN BY	CHECKED BY	APP.	SHOP
PDC/WS 03-2011	PDC/SB 03-2011		
CONTRACT NO.			3561
SHEET NO.			10



GENERAL NOTES

SPECIFICATIONS

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION (2006) AND ITS LATEST REVISIONS & AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4TH EDITION, 17TH EDITION (2007) AND ITS LATEST REVISIONS & AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, 2ND EDITION (2004), AND ITS LATEST REVISIONS.

DESCRIPTION OF FABRICATION FACILITIES FOR UNIT PRODUCTION

1. ALL CONCRETE TO BE SUPPLIED BY J & R SLAW USING APPROVED MIX (V-63) 4000 PSI.
2. QUALITY CONTROL EQUIPMENT
3. COMPRESSIVE STRENGTH TESTER - FORNEY MODEL F-250F-01
4. HIGH PRESSURE AIR METER - GILSON AR-8

QUALITY ASSURANCE

1. ALL UNITS SHALL BE MANUFACTURED IN ACCORDANCE WITH J & R SLAW QUALITY SYSTEM MANUAL APPROVED BY PCI.
2. ALL PLASTIC AND HARDENED CONCRETE TESTING SHALL BE PERFORMED UNDER J & R SLAW QUALITY ASSURANCE PROGRAM, BY ACI & PCI CERTIFIED TECHNICIANS.
3. CONCRETE TEST CYLINDERS SHALL BE TAKEN AS FOLLOWS:
 - a. MIN (8) FOR STRIPPING STRENGTH - 4" DIA. X 8" LONG
 - b. MIN (4) FOR 28 DAY STRENGTH - 4" DIA. X 8" LONG
4. NO UNIT SHALL BE SHIPPED TO THE JOBSITE WITHOUT THE APPROVAL OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION. EACH UNIT SHALL BE MARKED ON THE UNDERSIDE OF THE CONCRETE DECK BY THE INSPECTOR TO INDICATE APPROVAL.
5. ADDITIONAL TESTS TO BE MADE IN ACCORDANCE WITH SPECIAL PROVISIONS SECTION 995 AND THIS NOTE SHEET.

6. ALL CONCRETE TO BE CONSOLIDATED USING INTERNAL VIBRATION.
7. CONCRETE SHALL BE NATURAL CURED. PRODUCT WILL BE COVERED WITH WET BURLAP AND AN IMPERMEABLE COVERING TO RETAIN MOISTURE UNTIL STRIPPING STRENGTH IS ACHIEVED.

CONCRETE DATA

1. CONCRETE TO MEET THE REQUIREMENTS VERMONT AOT SPECIFICATIONS.
2. CONCRETE COMPRESSIVE STRENGTH:
 - a. REMOVAL FROM FORM: 4000 PSI STRIPPING STRENGTH IS ACHIEVED
 - b. 28 DAY: 4,000 PSI MIN
3. MIX DESIGNS SHALL BE SUBMITTED UNDER A SEPARATE COVER (YIELD: ONE (1) CUBIC YARD):
4. MIX DESIGNS ARE SUBJECT TO CHANGE DUE TO AMBIENT CONDITIONS.
5. SLUMP: 8"-11"
6. MAX. AGGREGATE SIZE: 3/4"
7. TOTAL CEMENTITIOUS MATERIAL: 710 LBS
8. ALL MATERIALS SHALL BE APPROVED BY VERMONT AGENCY OF TRANSPORTATION.
9. ENTRAINED AIR: 6.0% - 8.0%

REINFORCING STEEL

1. ALL CONCRETE REINFORCEMENT SHALL CONFIRM TO AASHTO-M31, GRADE 60, AND SHALL BE EPOXY COATED.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL SHALL MEET THE REQUIREMENTS OF AASHTO M270, GRADE 50 WEATHERING.
2. NO STRUCTURAL STEEL SHALL BE PLACED INTO FORMS UNTIL APPROVED BY VERMONT AOT. EACH FRAME SHALL BE MARKED ON THE WEB OR BOTTOM FLANGE BY THE INSPECTOR TO INDICATE HIS APPROVAL PRIOR TO INSTALLATION IN THE FORM.
3. STRUCTURAL STEEL FABRICATOR: FOSTER-PRECOSE, GEORGETOWN, MA.
4. THE ENDS OF THE BEAM SHALL BE VERTICAL. ALL STIFFENER/CONNECTION PLATES SHALL BE VERTICAL UNDER DEAD LOAD AT THE ENDS. ALL INTERMEDIATE STIFFENER/CONNECTION PLATES SHALL BE VERTICAL UNDER DEAD LOAD.
5. ALL WELDING, WELDING MATERIAL PREPARATION AND ASSEMBLY OF MATERIAL FOR WELDING SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, THE AASHTO/AWS BRIDGE WELDING CODE (ANS/AASHTO/AWS D1.5), AND ALL INTERIM REVISIONS PUBLISHED BY AASHTO AS OF THE BID OPENING DATE.
6. ALL BOLTED CONNECTIONS SHALL BE CONSIDERED SLIP CRITICAL CONNECTIONS WITH CLASS B FAYING SURFACES.

FABRICATION PROCEDURE

1. THESE UNITS SHALL BE CAST IN AN UPRIGHT ORIENTATION.
2. SET STEEL BEAMS ON END SUPPORTS IN A VERTICAL, UPRIGHT POSITION.
3. FORM SHALL BE ASSEMBLED ON TOP OF STEEL BEAMS IN ACCORDANCE WITH THE SHOP DRAWINGS, THE REINFORCING STEEL SHALL THEN BE PLACED IN THE FORM. ALL FORM SIDES SHALL BE VERTICAL.
4. PLACE CONCRETE IN FORM AND SCREED TO PROPER LEVEL.
5. CONCRETE SHALL BE CURED UTILIZING WET BURLAP AND PLASTIC COVERS.
6. FORM MAY BE REMOVED UPON COMPLETION OF THE CURING PERIOD.
7. PRE-ASSEMBLY, THE UNITS SHALL BE PRE-ASSEMBLED AT THE FABRICATOR'S PLANT TO ASSURE PROPER MATCH BETWEEN UNITS BEFORE SHIPPING TO THE PROJECT SITE, TO THE SATISFACTION OF THE AOT DIMENSIONS SHALL BE PROVIDED TO THE CONTRACTOR FOR SETTING ABUTMENT POSITION AND ELEVATIONS.
8. THESE UNITS ARE ASSUMED TO BE FABRICATED IN AN UNSHORED STATE. HOWEVER, AT THE OPTION OF THE FABRICATOR, TEMPORARY SHORES MAY BE PLACED UNDER THE BEAMS TO IMPROVE STABILITY DURING FABRICATION. ALL TEMPORARY SHORES MUST BE REMOVED WHILE CONCRETE IS STILL FLUID.

FINISHING

1. DECK TEXTURE TO BE MAXIMUM FLAT FINISH.
2. UNDERSIDE OF DECK TO RECEIVE FORM FINISH.

HANDLING OF UNITS

1. HANDLING: SWEDGE LIFTING CABLES SHALL BE INSTALLED THROUGH THE HOLES IN THE DECK AND CONNECTED TO 18 TON OR LARGER COFFEE POTS, THE SWEDGE LIFTING CABLES WILL ATTACH TO CONVENTIONAL LIFTING EQUIPMENT. CONTRACTOR'S ERECTION PLAN SHALL INSURE FORCES FROM RIGGING DO NOT EXCEED 18 TONS.
2. SHIPPING: UNITS SHALL BE SHIPPED TO THE JOBSITE ON FLATBED TRAILERS.
3. ERECTION: ALL ERECTION HARDWARE IS BY OTHERS.

TOLERANCES

1. UNITS SHALL BE FABRICATED AND COMPLY WITH FOLLOWING TOLERANCES:
2. LENGTH: +/- 20mm (3/4")
3. WIDTH: +/- 10mm (3/8")
4. OVERALL DEPTH OF STRUCTURAL SLAB: +10mm (3/8") -6mm (1/4")
5. REINFORCING COVER: TOP MAT AND BOTTOM MAT (BOTTOM MAT IN MOLD): +/- 10mm (3/8")
6. DEVIATION FROM SQUARE - HORIZONTAL DIAGONALS: +/- 20mm (3/4")
7. OVERALL LENGTH OF UNIT: +/- 10mm (3/8")

LABELING

1. EACH UNIT SHALL BE CLEARLY AND PERMANENTLY LABELED (STENOILED) ON THE UNDERSIDE OF THE LEFT END, (AS SITUATED ON THE SHOP DRAWING), OF THE DECK WITH THE FOLLOWING INFORMATION:
 - a. J & R SLAW CO.
 - b. DATE OF MANUFACTURE
 - c. DESIGN RATING - HL-93
 - d. MARK NUMBER AS SHOWN ON LAYOUT SHEET OF SHOP DRAWINGS

MISCELLANEOUS:

1. CRACK WIDTHS 0.012" - 0.03" SHALL BE EPOXY INJECTED USING (V-63) APPROVED MATERIALS AND PROCEDURES.
2. CRACK WIDTHS LESS THAN 0.012" SHALL BE SEALED WITH A PENETRATING SEALER USING (V-63) APPROVED MATERIALS AND PROCEDURES.
3. A CERTIFICATION OF COMPLIANCE SHALL BE FURNISHED FOR THE SUPPLY OF THE UNITS. A COPY OF THE RESULTS OF ALL TESTS PERFORMED THAT ARE NECESSARY TO ASSURE COMPLIANCE WITH THESE SPECIFICATIONS SHALL ALSO BE PROVIDED.

INSTALLATION:

1. GENERAL: THE UNITS SHALL BE FABRICATED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE SPECIFICATIONS AND/OR THE SPECIAL PROVISIONS FOR EACH RESPECTIVE ITEM. SUBMIT CONSTRUCTION PROCEDURES AND PERMISSIBLE VARIATIONS OTHER THAN THOSE CONTAINED HEREIN, FOR APPROVAL.
2. ERECTION PROCEDURE: PROVIDE TO THE ENGINEER IN ADVANCE (15 WORKING DAYS) OF ANY ERECTION A DETAILED ERECTION PROCEDURE THAT INDICATES THE METHOD OF ERECTION AND THE EQUIPMENT TO BE USED. THE ERECTION PROCEDURE AND TIME ESTIMATE SHALL BE APPROVED BY THE ENGINEER PRIOR TO THE START OF ANY ERECTION WORK. ANY TEMPORARY CONSTRUCTION AND SUBSEQUENT RESTORATION REQUIRED FOR THE POSITIONING AND SUPPORT OF A CRANE OR CRANES SHALL BE INCLUDED IN THE COST OF THE WORK.
3. BEARING AND BEARING SURFACES: PROVIDE BEARING SURFACES PROPERLY FINISHED TO THE CORRECT ELEVATION TO PROVIDE FULL AND EVEN SUPPORTING SURFACES FOR ALL THE BEARINGS. INSTALL BEARINGS IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS.
4. ERECTION OF UNITS: ERECTION OF UNITS SHALL NOT PROCEED UNTIL SUBSTRUCTURE CONCRETE HAS BEEN CURED FOR THE MINIMUM LENGTH OF TIME AS SPECIFIED IN THE SPECIFICATIONS. INSTALL UNITS TO THE CORRECT LINE AND GRADE AS SHOWN ON THE APPROVED DRAWINGS AND AS INDICATED IN THE APPROVED ERECTION PROCEDURE. AFTER ALL THE UNITS ARE ERECTED, INSPECT THEM TO INSURE THE CORRECTNESS OF THEIR LOCATION. USE APPROVED STEEL SHIMS BETWEEN THE BEARING AND THE STRINGER, TO COMPENSATE FOR MINOR DIFFERENCES IN ELEVATION BETWEEN UNITS AND TO COMPLY WITH APPROACH AND ADJACENT DECK ELEVATIONS.
5. STRUCTURAL STEEL: INSTALL ALL DIAPHRAGMS AND OTHER STRUCTURAL STEEL WORK AS SHOWN ON THE APPROVED WORKING DRAWINGS AFTER THE UNITS ARE IN THEIR FINAL LOCATIONS.
6. MATCHING ELEVATIONS OF UNITS: ADJACENT UNITS SHALL MATCH ELEVATION WITHIN 1/4" VERTICALLY (ALONG LONGITUDINAL EDGES TAKING INTO ACCOUNT DIFFERENCES DUE TO DECK CROSS SLOPE) AND 1/4" VERTICALLY AT THE END OF UNITS, PROVIDED ALL DIAPHRAGMS CAN BE TIGHTENED WITHOUT PERMANENT DEFORMATION OR DAMAGE TO ANY STRUCTURAL COMPONENT. IF THE TOLERANCE IS NOT MET, ADJUST THE UNITS AS INDICATED IN THE PROCEDURES SHOWN ON THE APPROVED WORKING DRAWINGS.
7. CLOSURE POUR: THE SURFACE OF THE LONGITUDINAL JOINT SHALL BE FREE OF ANY MATERIAL SUCH AS OIL, GREASE OR DIRT, WHICH MAY PREVENT BONDING OF THE CONCRETE FILL MATERIAL PRIOR TO PLACEMENT OF THE CONCRETE MATERIAL, FORM THE BOTTOM OF THE JOINT FLUSH WITH THE BOTTOM OF THE SLAB. DO NOT USE BAKER ROD. PLACE CLOSURE CONCRETE AND CURE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
8. SEALING OF LIFTING HOLES: AFTER THE UNITS ARE IN THEIR FINAL LOCATIONS, APPLY BONDING AGENT AND FILL THE LIFTING HOLES WITH CEMENTITIOUS GROUT. PROVIDE A REMOVABLE FORM AT THE BOTTOM SURFACE OF THE DECK TO RETAIN THE CONCRETE.
9. LOADING: UNITS MAY BE LOADED UPON ERECTION AND BEFORE THE CLOSURE POUR IN ACCORDANCE WITH THE APPROVED ERECTION PROCEDURE. ONCE THE CLOSURE POUR IS CAST, NO FURTHER LOADING OF THE UNITS WILL BE ALLOWED UNTIL THE CLOSURE POUR CONCRETE HAS PROPERLY AND FINALLY CURED AND AS APPROVED BY THE ENGINEER. CURE THE CONCRETE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS UNTIL DESIGN STRENGTH HAS BEEN MET.
10. FINAL REPAIRS: AFTER THE INSTALLATION WORK IS COMPLETE, REPAIR REMAINING CONCRETE DEFECTS, HOLES FOR INSERTS AND LIFTING HOLES AND INDICATED AND APPROVED BY THE ENGINEER.
11. TECHNICAL ASSISTANCE: HAVE A REPRESENTATIVE FROM THE FABRICATOR PRESENT AT THE PROJECT SITE, FULL TIME, DURING THE ERECTION OF PREFABRICATED SUPERSTRUCTURE UNITS TO PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR IN THE EVENT UNUSUAL PROBLEMS OR SPECIAL CIRCUMSTANCES ARISE.

<i>DRAWN</i>	<i>CHECKED</i>	<i>ENGINEERED</i>	<i>CHECKED</i>	<i>APPROVED</i>
KLT 04/06/11	JJJ 04/06/11	-- --/--/--	-- --/--/--	RLE 04/06/11

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J & R SLAW, INC.
438 RIVERVIEW ROAD
LEHIGHTON, PA. 18235
(610)852-2020

STATE OF VERMONT
AGENCY OF TRANSPORTATION
SUPERSTRUCTURE REPLACEMENT
EAST MONTPELIER

BRIDGE NO.: 71
CONTRACT NO.: SLAW #773
CONTRACTOR: AL ST. ONGE CONTRACTING
FED. AID PROJECT NO.: BRF 037-2(8)

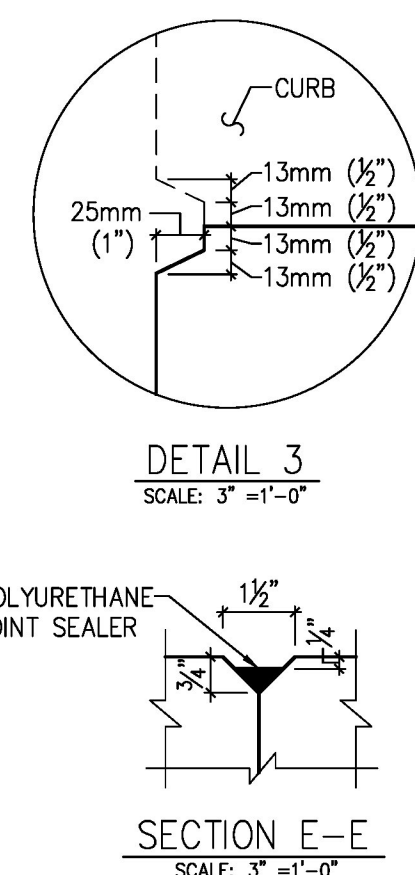
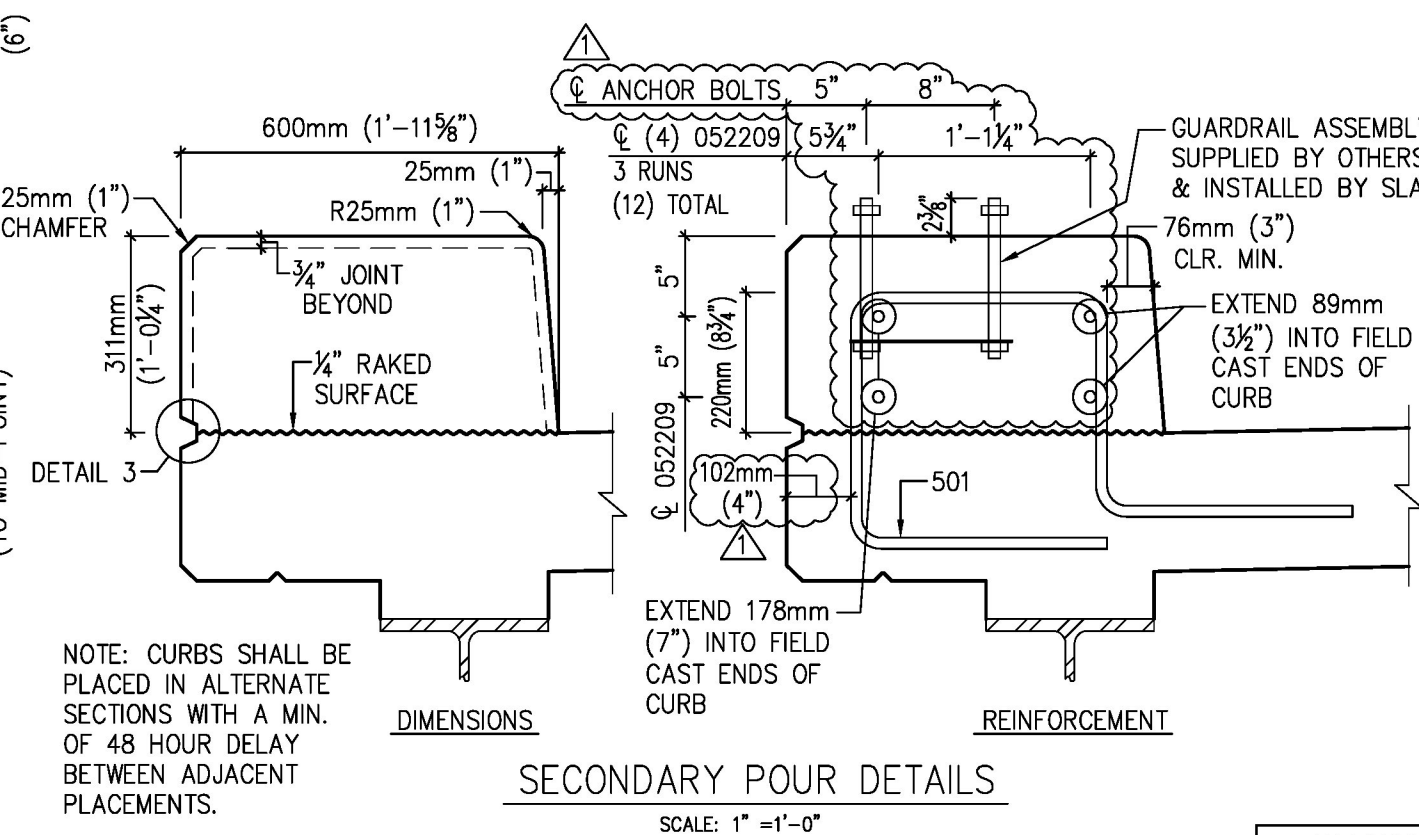
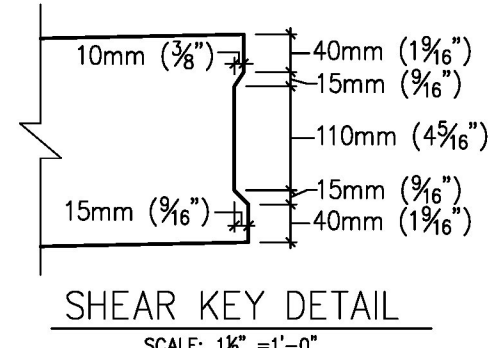
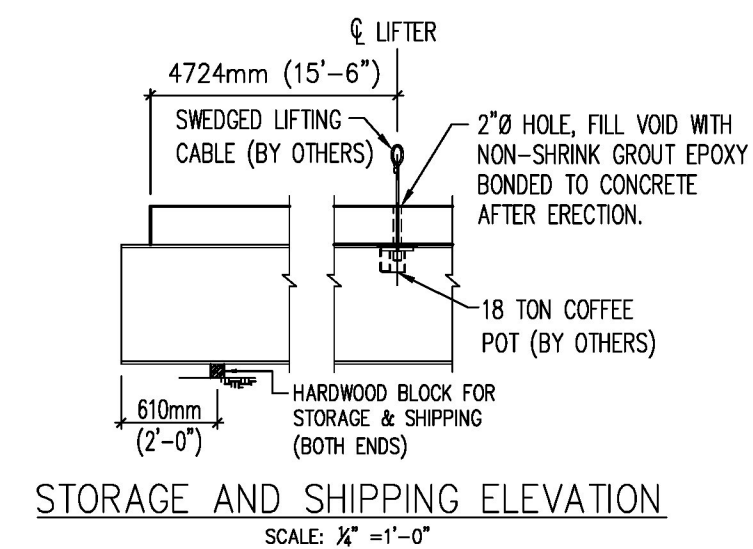
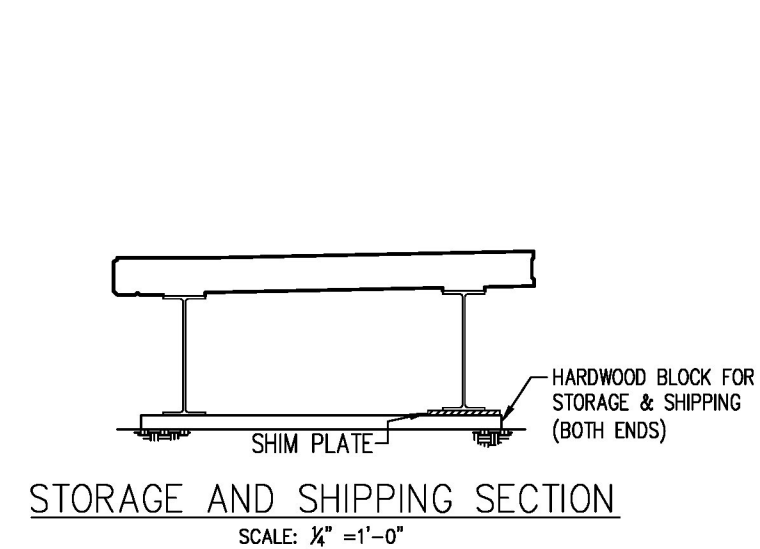
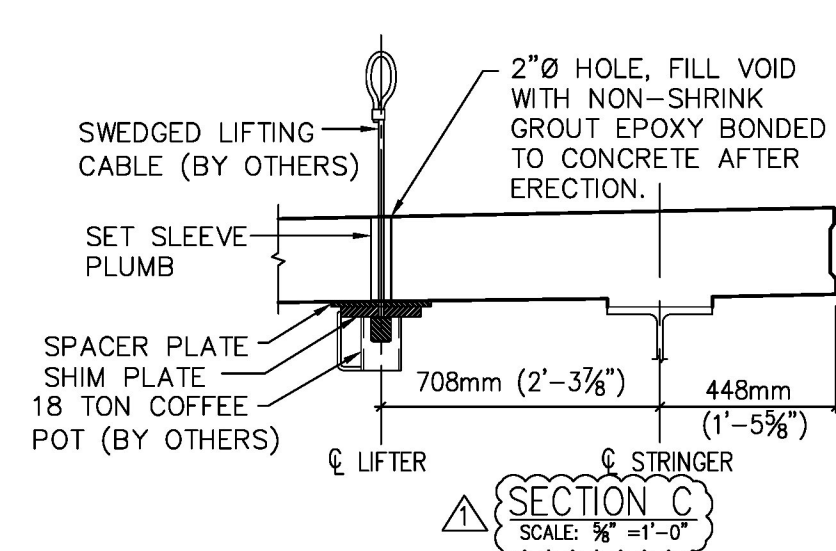
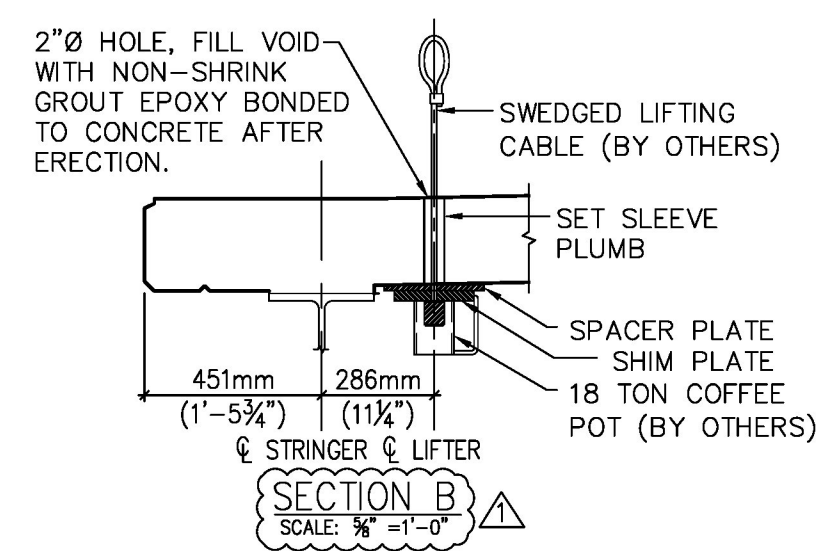
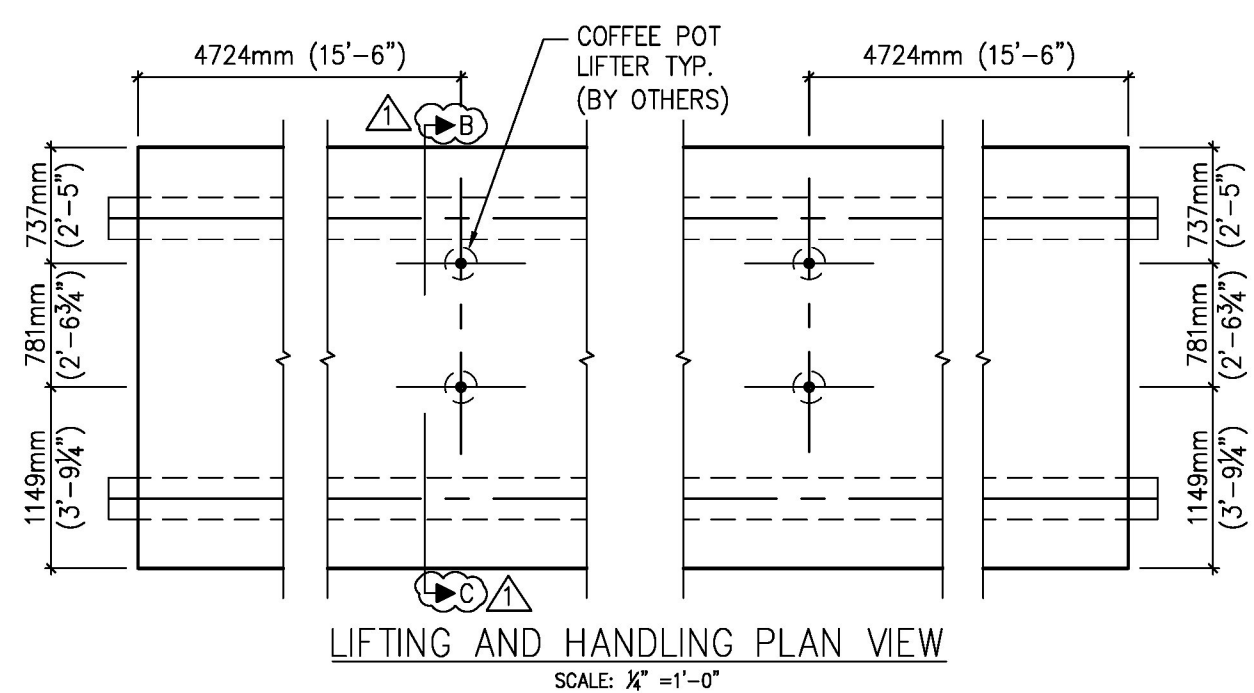
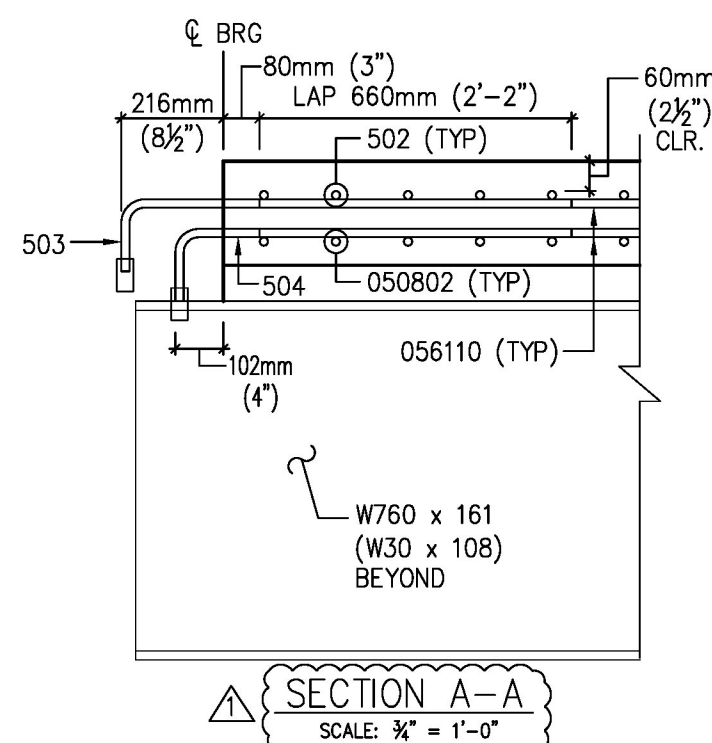
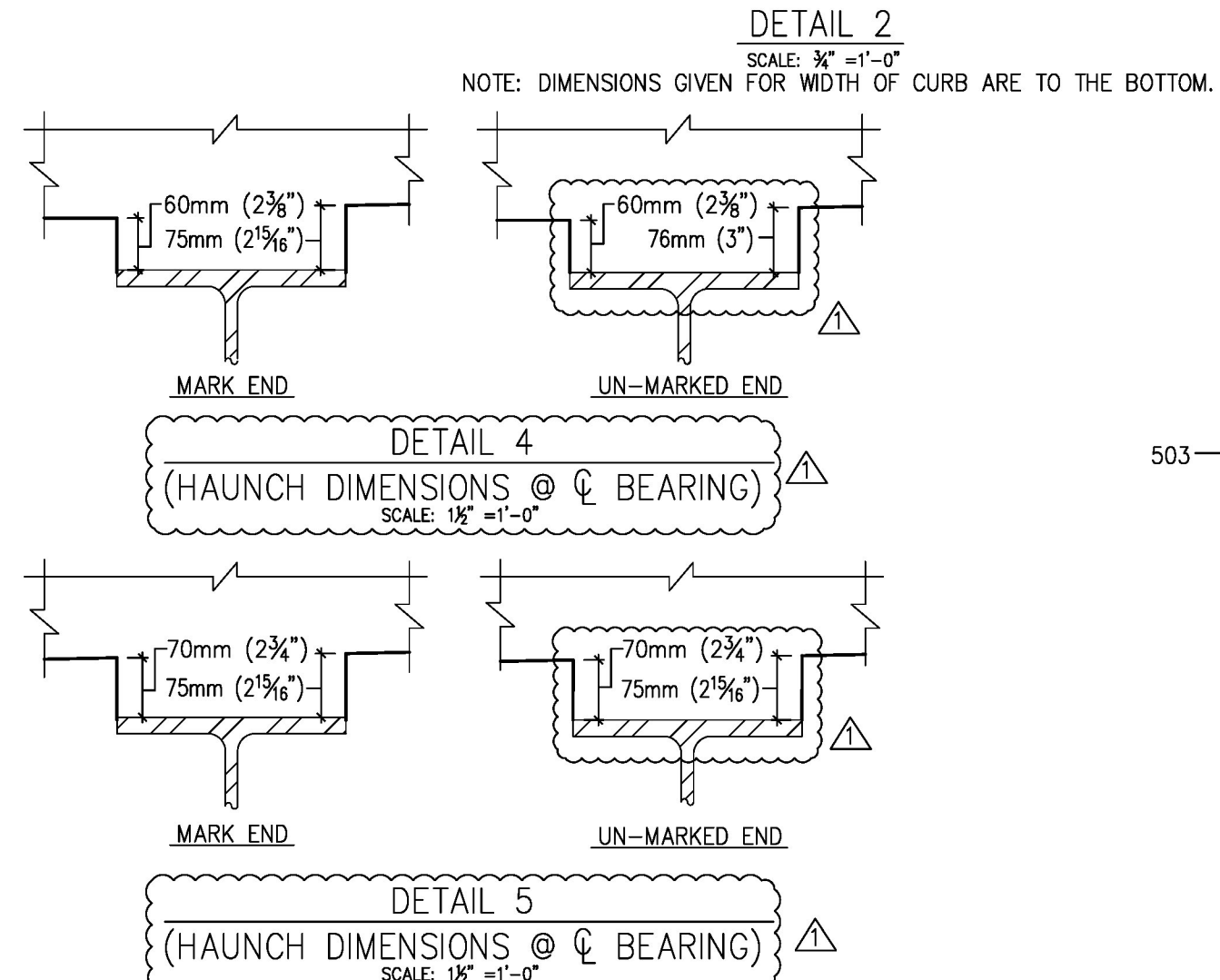
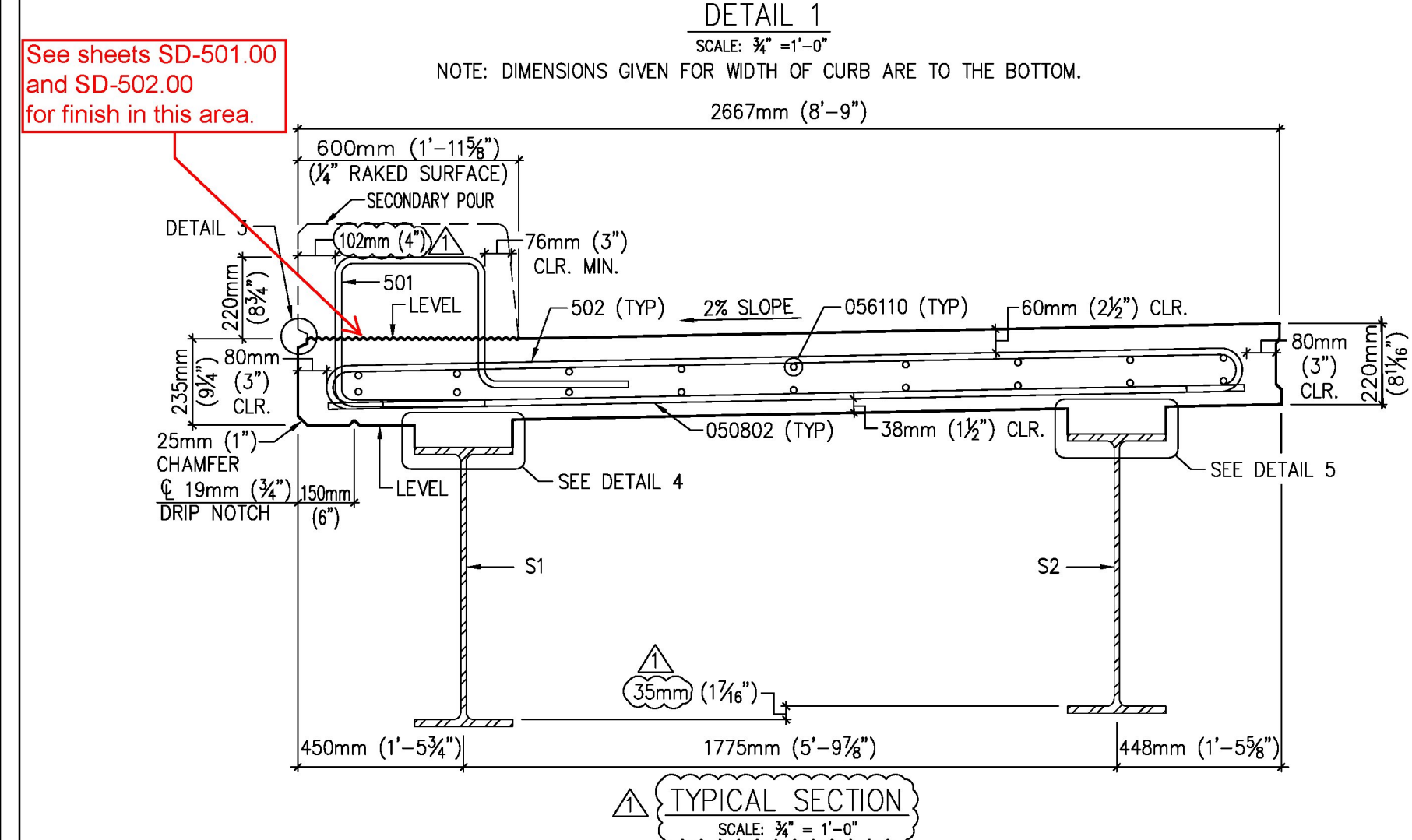
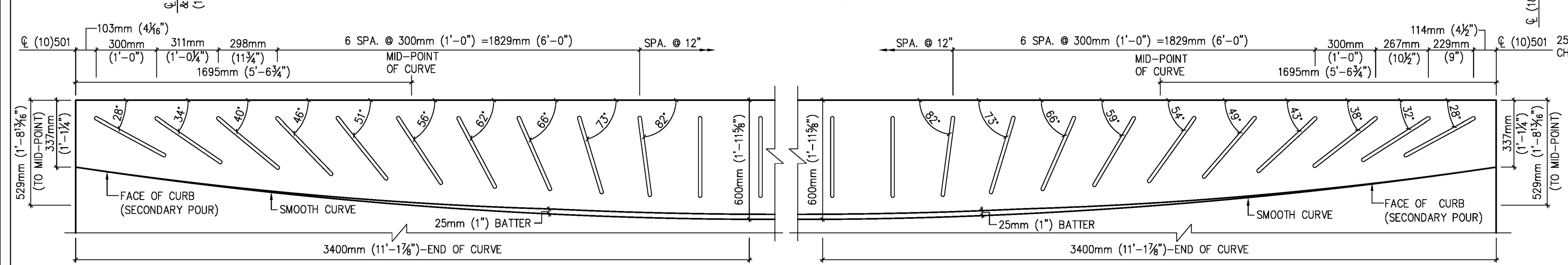
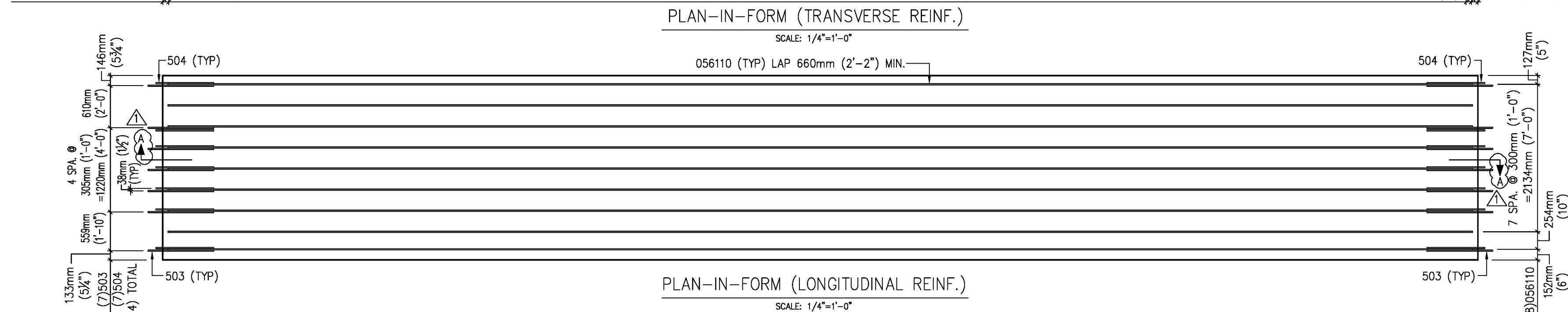
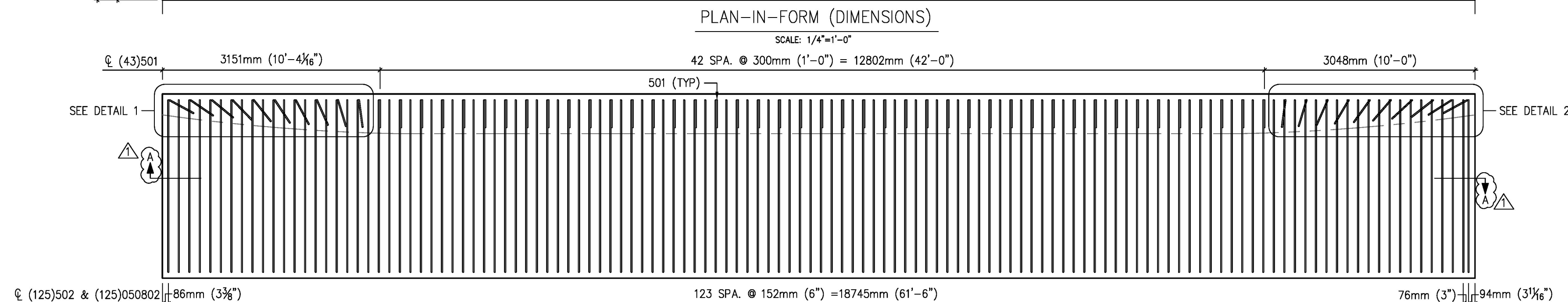
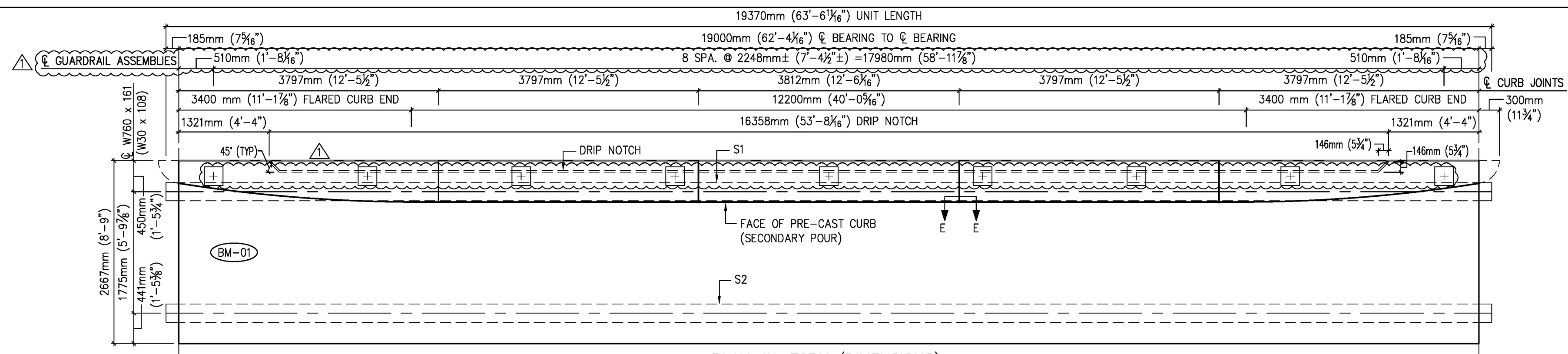
FRAMING PLAN AND GENERAL NOTES

SHEET 01 OF 06

Received Date: 4/22/11
Checked By: Hiram Salls
Approval Type: Approved
Approved By: Chris Williams
Date: 4/26/11

REVISIONS

1. PER REVISE & RESUBMIT DRAWINGS RECEIVED ON 04/14/11 & PER SLAW EMAIL ON 04/21/11

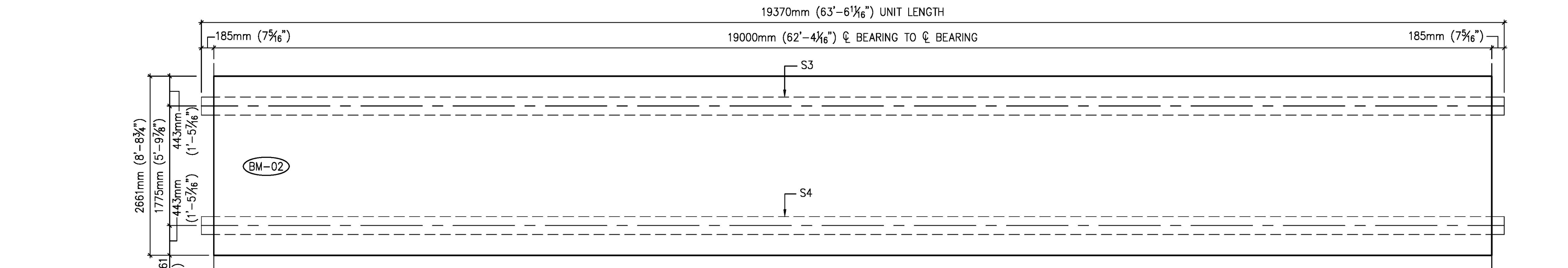


BAR LIST							
MARK #	BAR SIZE	QTY	LENGTH	WT/PC (LBS)	TOTAL WT	TYPE	REMARKS
501	#16 (#5)	63	6'-1"	6.3	400	BENT	EPOXY COATED
502	#16 (#5)	125	9'-5"	9.8	1228	BENT	EPOXY COATED
503	#16 (#5)	14	3'-6"	3.7	51	BENT	EPOXY COATED
504	#16 (#5)	14	3'-2"	3.3	46	BENT	EPOXY COATED
050802	#16 (#5)	125	8'-2"	8.5	1065	STR.	EPOXY COATED
056110	#16 (#5)	18	61'-10"	64.5	1161	STR.	EPOXY COATED
052209	#16 (#5)	12	22'-9"	23.7	285	STR.	EPOXY COATED
TOTAL:					4235		

MARK: BM-01	QTY: ONE	CONCRETE VOLUME: 20.02 cy
WT (CONC. & REBAR): 42.6 T		WT (STRUCT. STEEL): 6.9 T
TOTAL WT: 49.5 T		
EMBEDMENTS		
MARK #	SUPPLIER	REMARKS

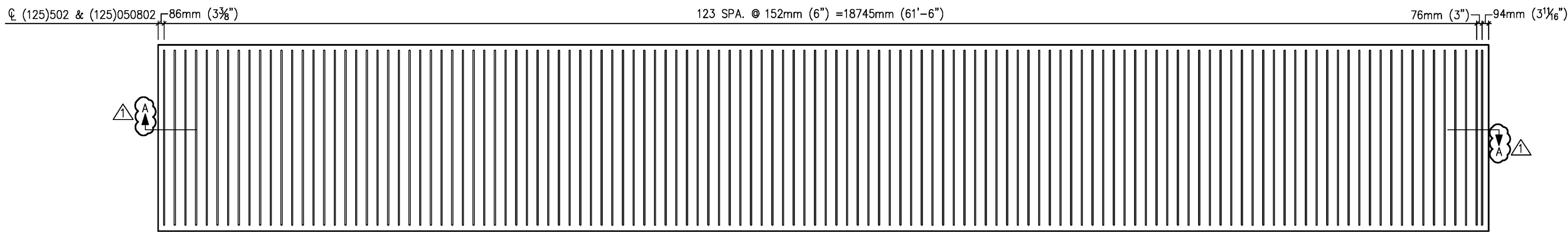
MATERIAL SPECIFICATION		
TYPE	DESCRIPTION	
CONCRETE	UNIT WEIGHT: 150 PCF	
	REMOVAL FROM FORM : 4000 PSI 	
	28 DAY: 4000 PSI	
	CORROSION INHIBITOR : 0.0 GAL/S/CY	
REINFORCING STEEL	DEFORMED ASTM A775 EPOXY COATED REBAR	

<u>DRAWN</u>	<u>CHECKED</u>	<u>ENGINEERED</u>	<u>CHECKED</u>	<u>APPROVED</u>
KLT 04/06/11	JJJ 04/06/11	-- --/-/-	-- --/-/-	RLE 04/06/11
		813.989.3317 TAMPA, FL LRFD.COM		
J & R SLAW, INC. 438 RIVERVIEW ROAD LEHIGHTON, PA. 18235 (610)852-2020				
STATE OF VERMONT AGENCY OF TRANSPORTATION SUPERSTRUCTURE REPLACEMENT EAST MONTEPELIER				
BRIDGE NO.: 71 CONTRACT NO.: SLAW #773 CONTRACTOR: AL ST. ONGE CONTRACTING FED. AID PROJECT NO.: BRF 037-2(8)				
MARK NO.: BM-01			SHEET 02 OF 06	



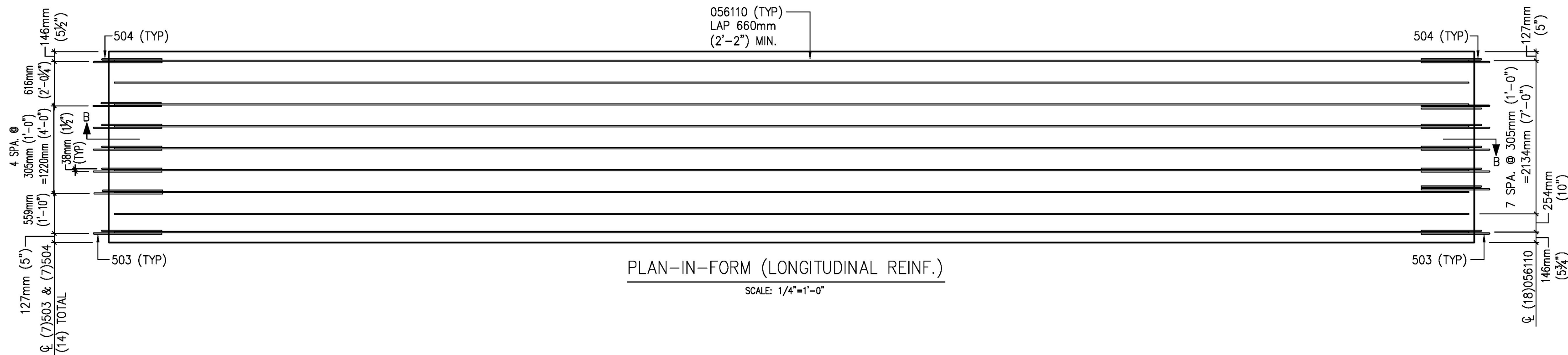
PLAN-IN-FORM (DIMENSIONS)

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



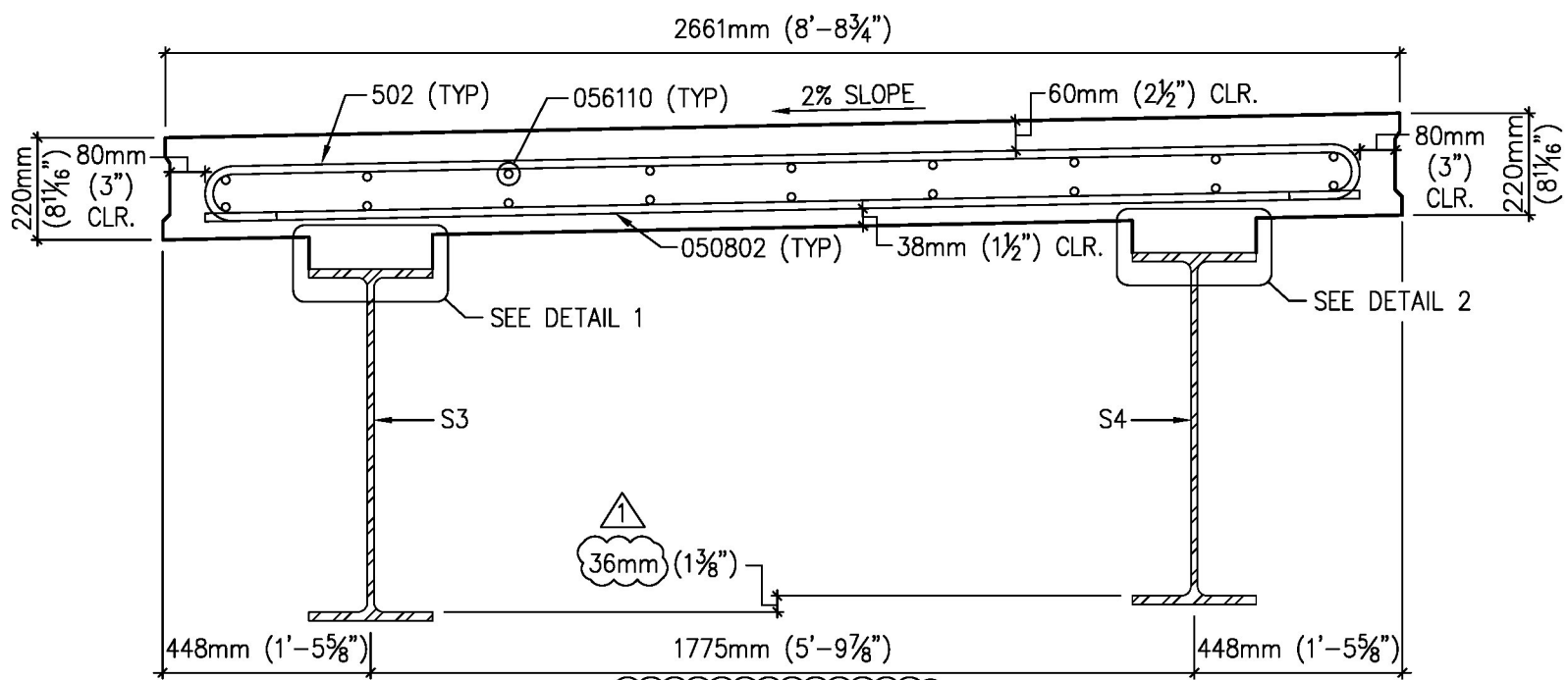
PLAN-IN-FORM (TRANSVERSE REINF.)

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



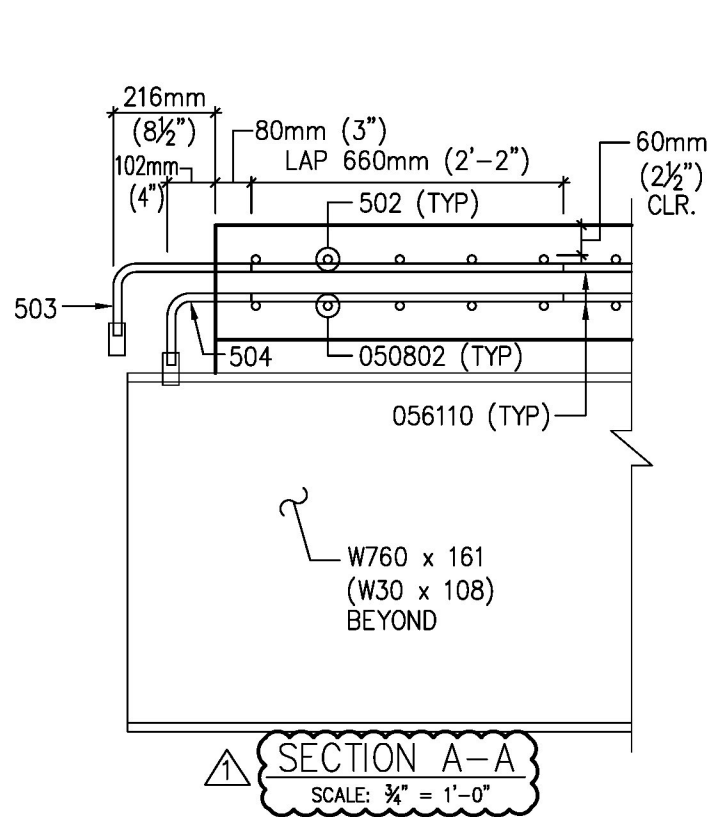
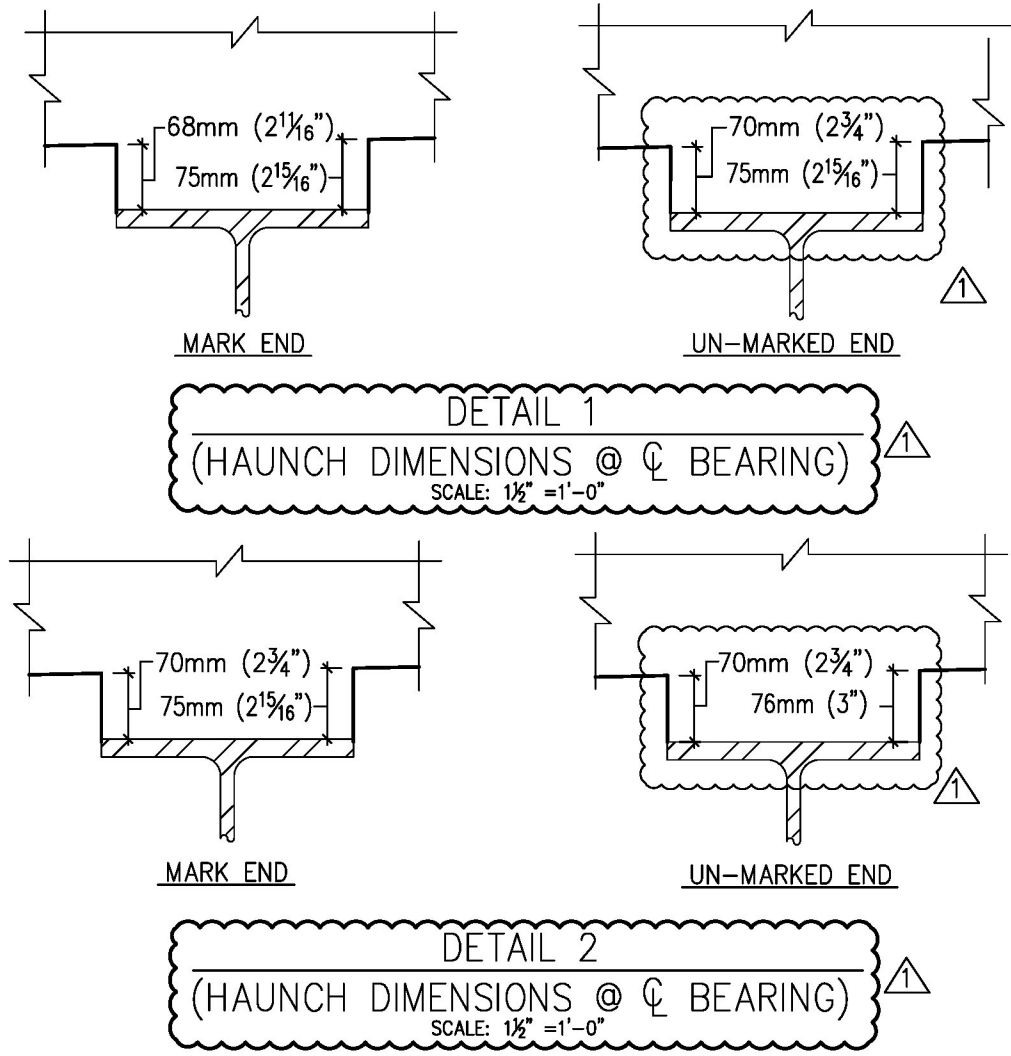
PLAN-IN-FORM (LONGITUDINAL REINF.)

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



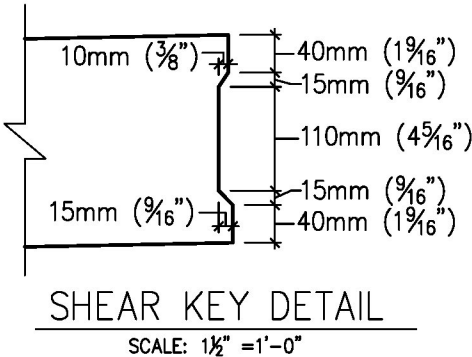
TYPICAL SECTION

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



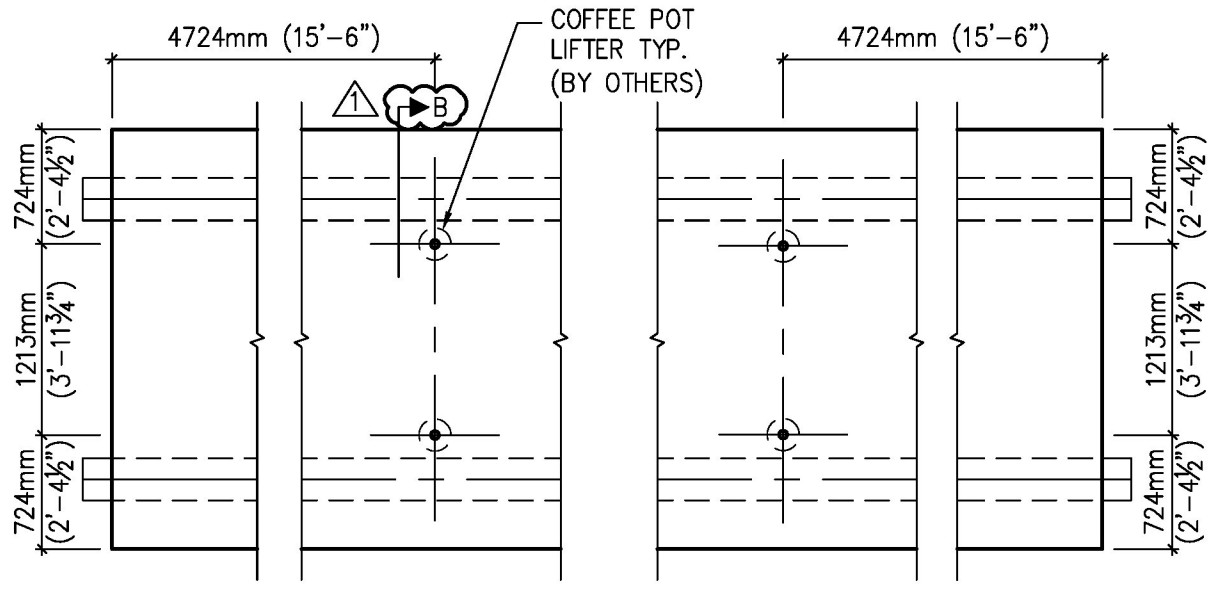
SECTION A-A

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



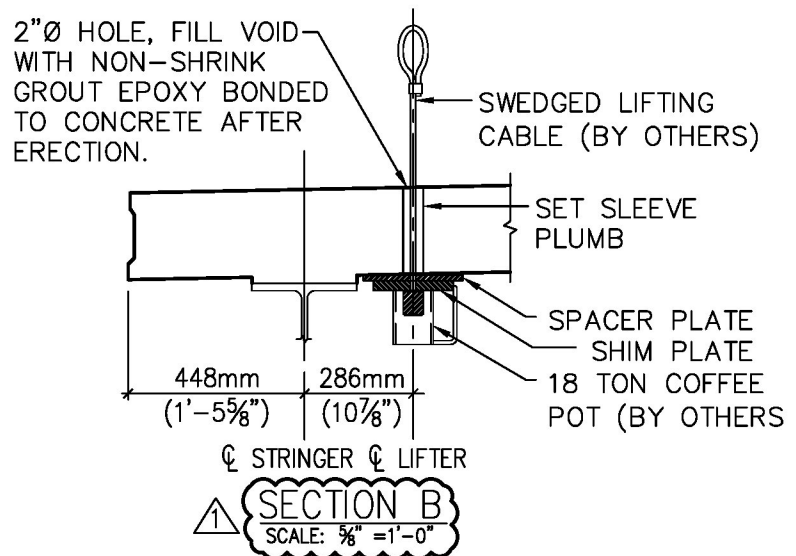
SHEAR KEY DETAIL

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



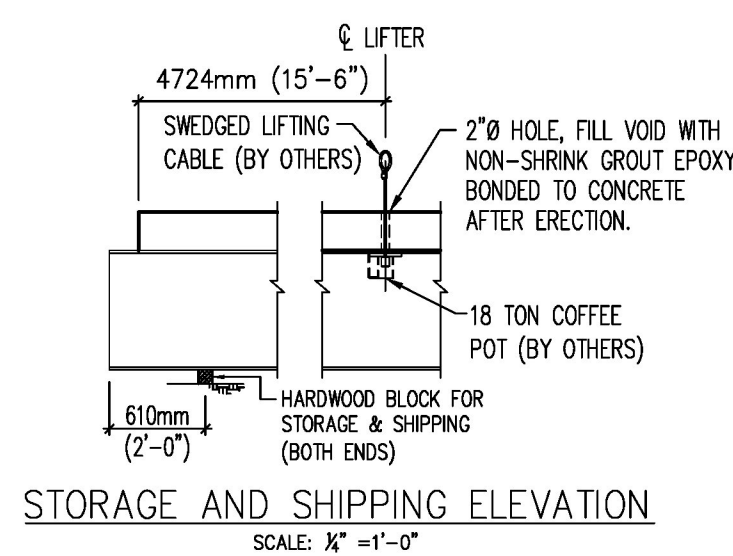
LIFTING AND HANDLING PLAN VIEW

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



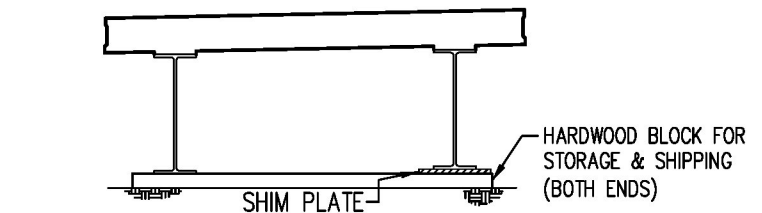
SECTION B

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



STORAGE AND SHIPPING ELEVATION

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



STORAGE AND SHIPPING SECTION

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

BAR LIST							
MARK #	BAR SIZE	QTY	LENGTH	WT/PC (LBS)	TOTAL WT	TYPE	REMARKS
502	#16 (#5)	125	9'-5"	9.8	1228	BENT	EPOXY COATED
503	#16 (#5)	14	3'-6"	3.7	51	BENT	EPOXY COATED
504	#16 (#5)	14	3'-2"	3.3	46	BENT	EPOXY COATED
050802	#16 (#5)	125	8'-2"	8.5	1065	STR.	EPOXY COATED
056110	#16 (#5)	18	61'-10"	64.5	1161	STR.	EPOXY COATED
TOTAL:					3551		

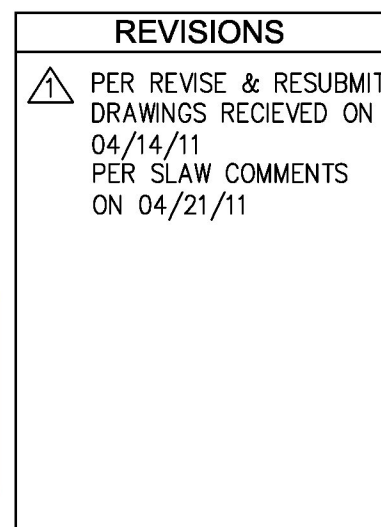
MARK: BM-02	QTY: ONE	CONCRETE VOLUME:	15.47 cy
WT (CONC. & REBAR):	33.1 T	WT (STRUCT. STEEL):	6.9 T
TOTAL WT:	40.0 T		
EMBEDMENTS			
MARK #	QTY	SUPPLIER	REMARKS
	--		
MATERIAL SPECIFICATION			
TYPE	DESCRIPTION		
CONCRETE	UNIT WEIGHT: 150 PCF		
	REMOVAL FROM FORM: 4000 PSI		
	28 DAY: 4000 PSI		
	CORROSION INHIBITOR : 0.0 GAL/CY		
REINFORCING STEEL	DEFORMED ASTM A775 EPOXY COATED REBAR		

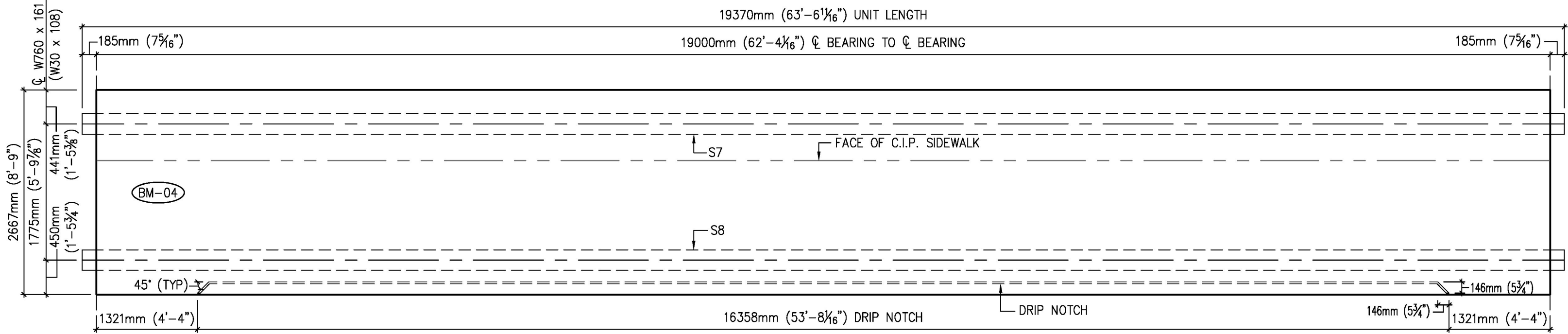
DRAWN	CHECKED	ENGINEERED	CHECKED	APPROVED
KLT	04/06/11	JJ	04/06/11	--
Eriksson technologies		813.989.3317 TAMPA, FL LRFD.COM		

J & R SLAW, INC. 438 RIVERVIEW ROAD LEHIGHTON, PA. 18235 (610)852-2020	
STATE OF VERMONT AGENCY OF TRANSPORTATION SUPERSTRUCTURE REPLACEMENT EAST MONTPELIER	
BRIDGE NO.: 71 CONTRACT NO.: SLAW #773 CONTRACTOR: AL ST. ONGE CONTRACTING FED. AID PROJECT NO.: BRF 037-2(8)	
MARK NO.: BM-02	SHEET 03 OF 06

REVISIONS
PER REVISE & RESUBMIT DRAWINGS RECEIVED ON 04/14/11 PER SLAW COMMENTS ON 04/21/11

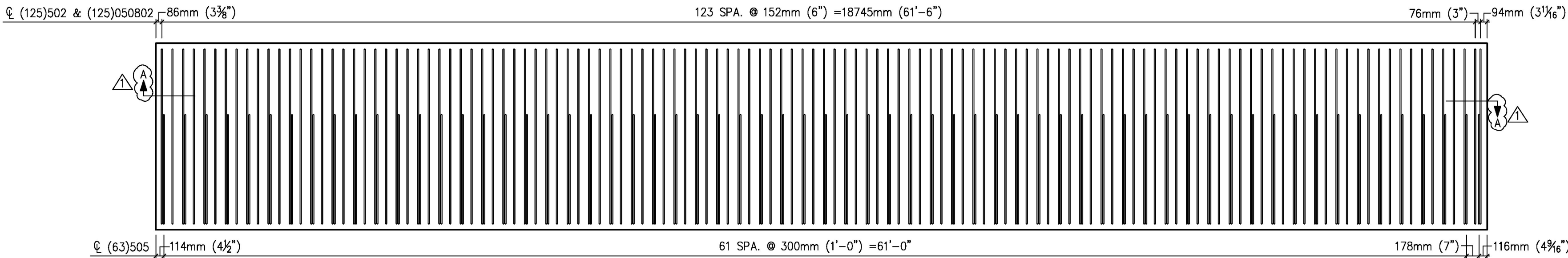
Received Date: 4/22/11
Checked By: Hiram Salls
Approval Type: Approved
Approved By: Chris Williams
Date: 4/26/11





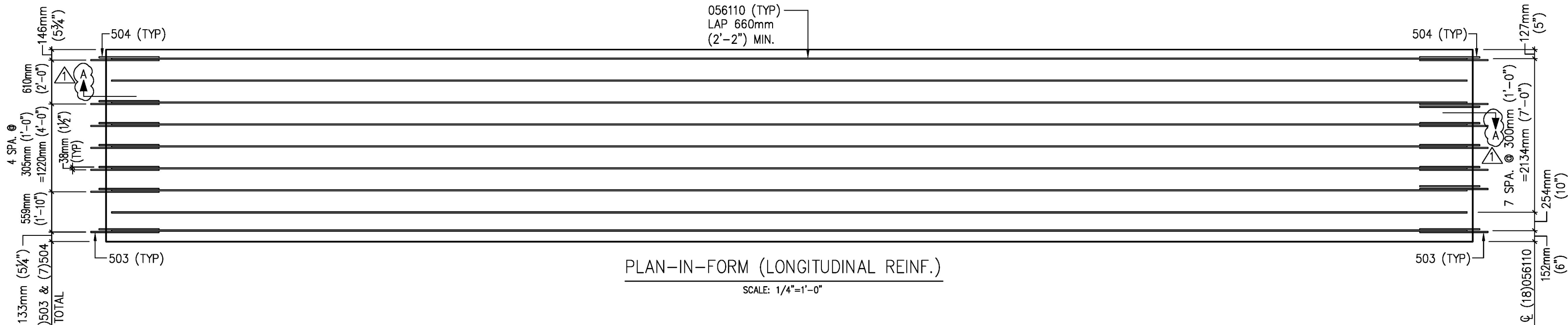
PLAN-IN-FORM (DIMENSIONS)

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



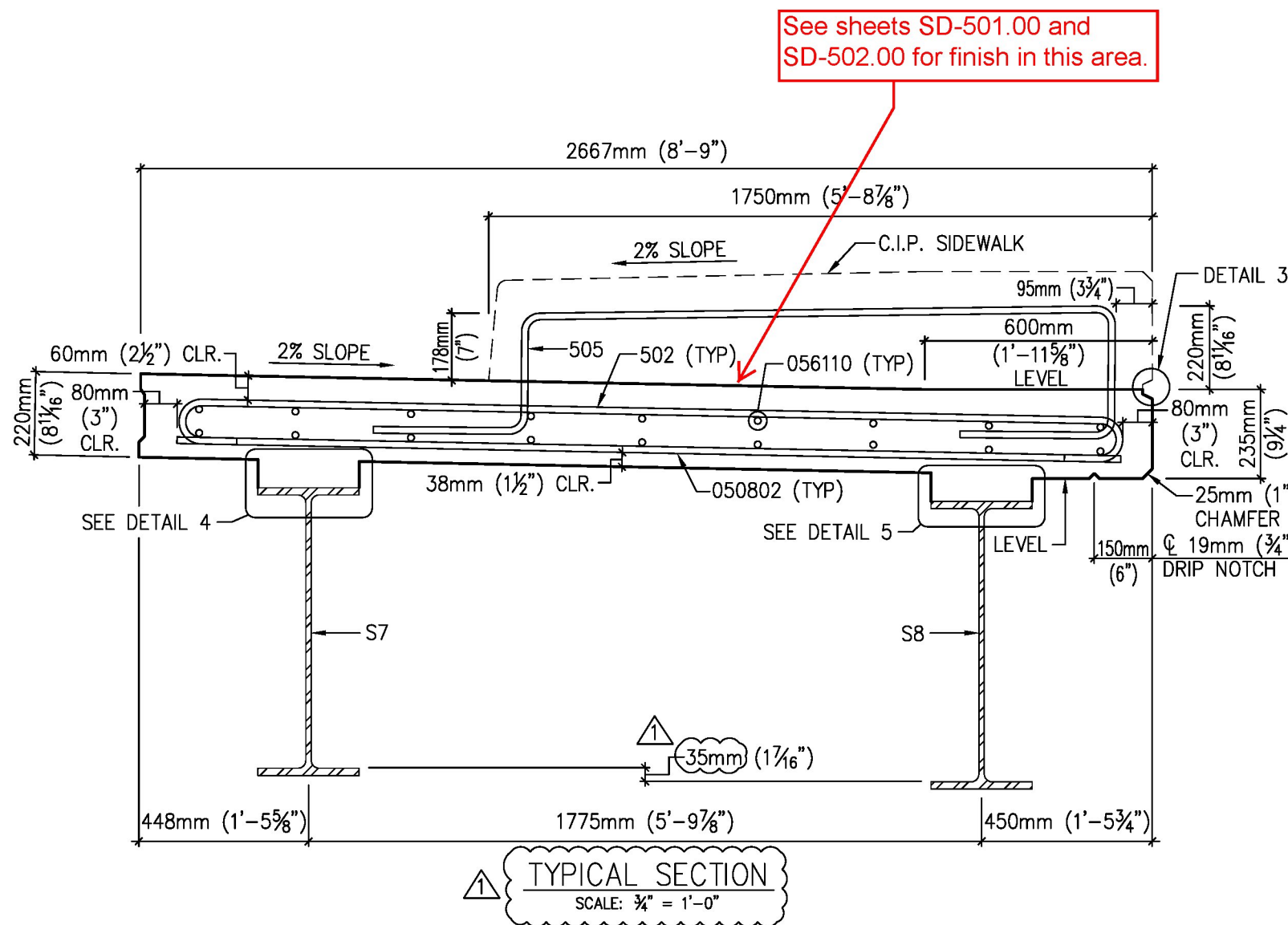
PLAN-IN-FORM (TRANSVERSE REINF.)

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

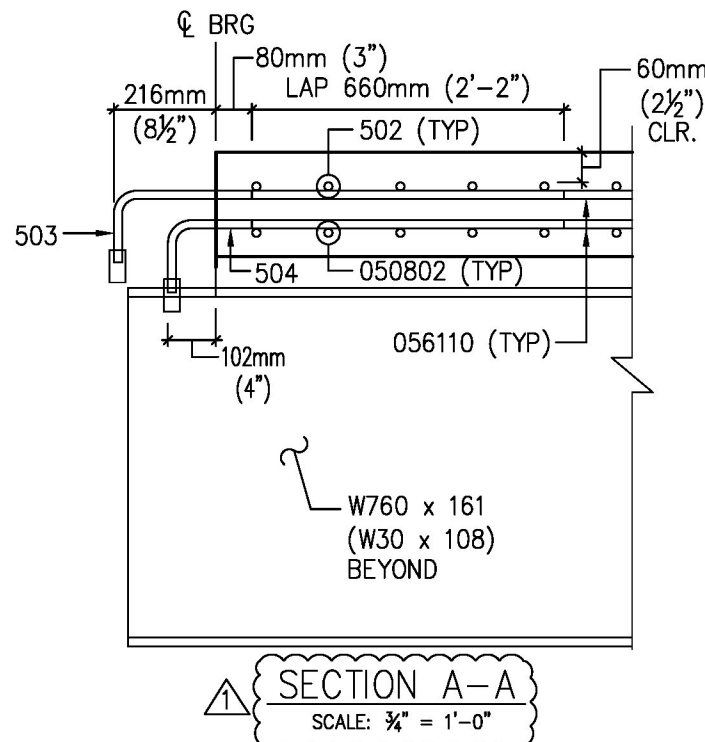
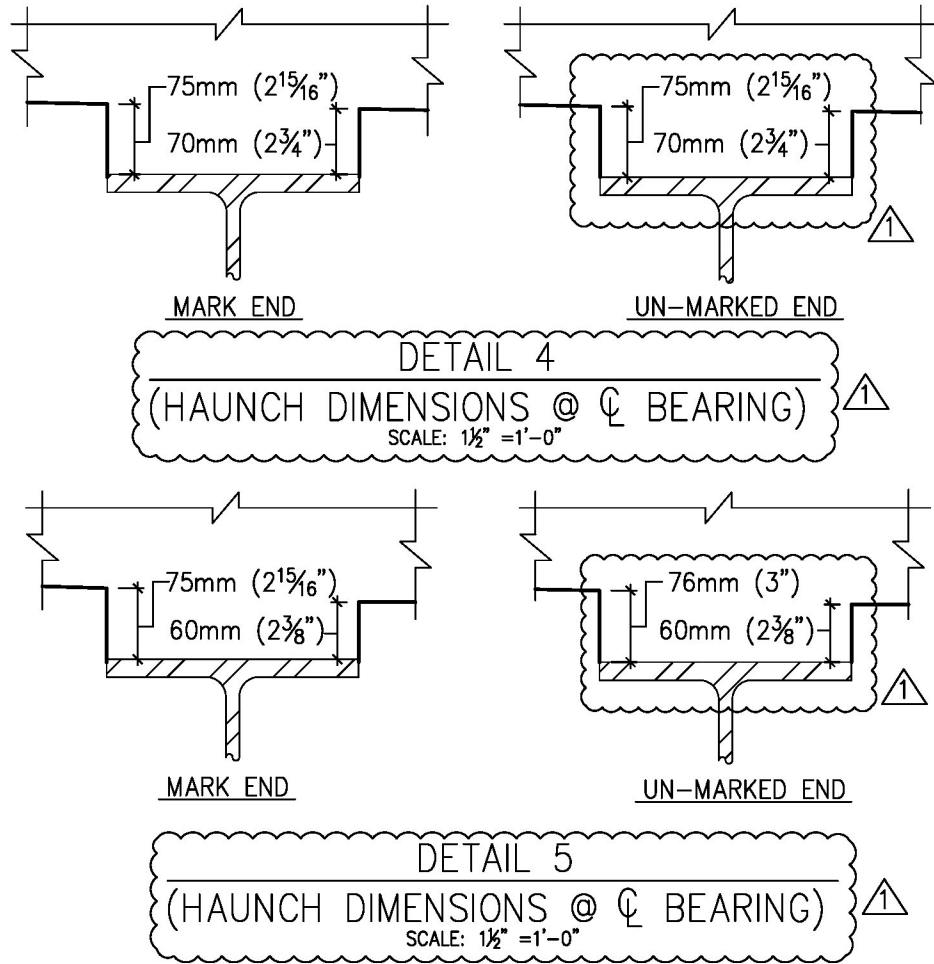
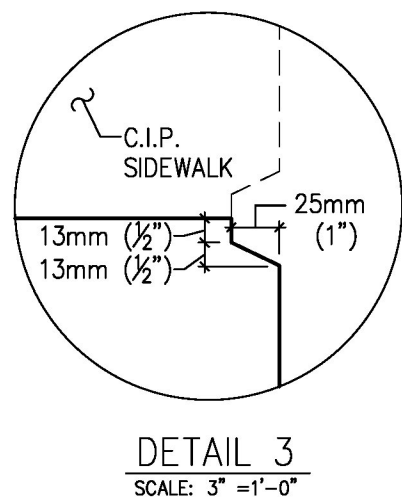


PLAN-IN-FORM (LONGITUDINAL REINF.)

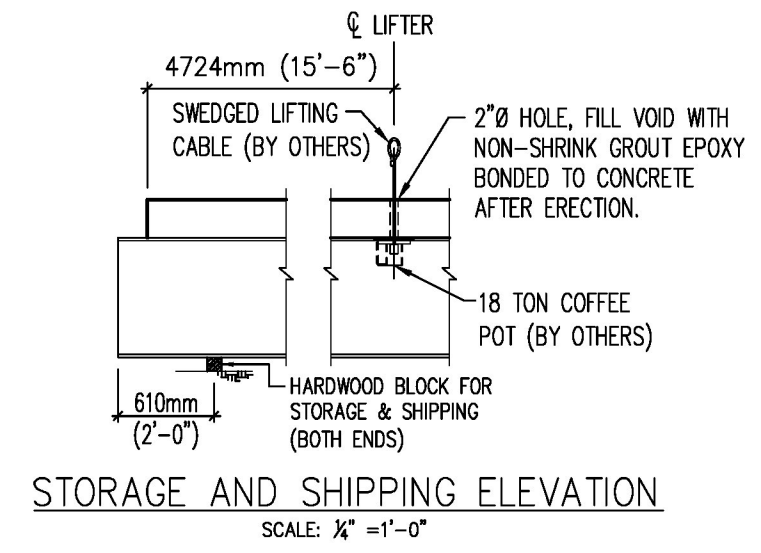
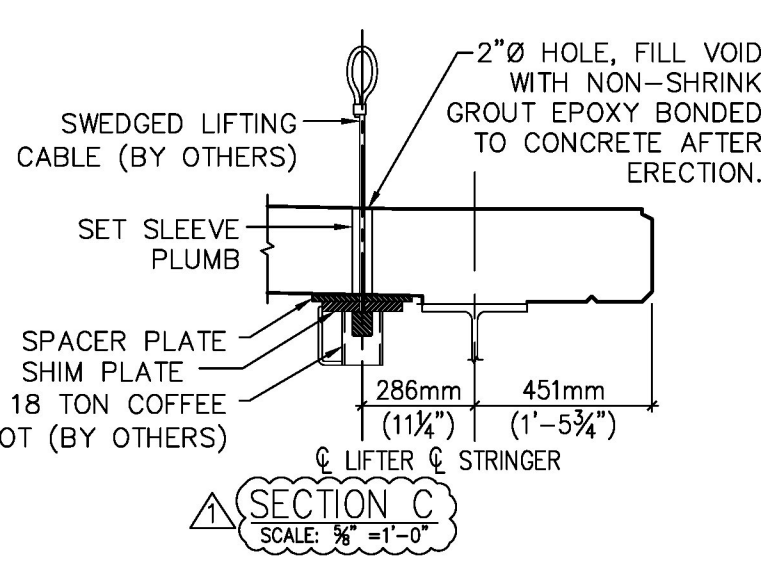
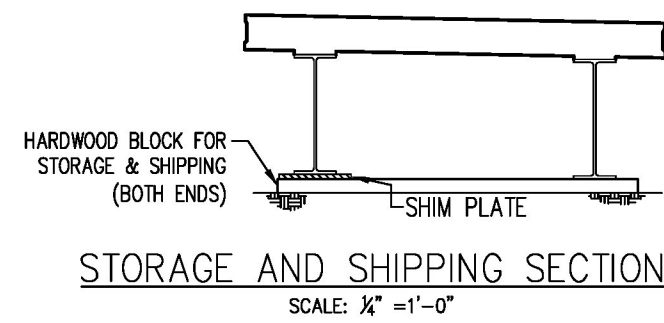
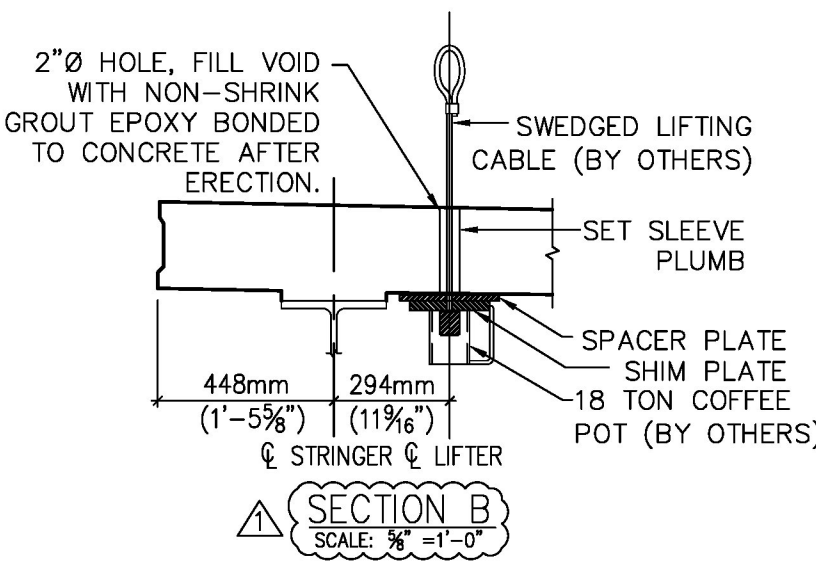
SCALE: 1/4"=1'-0"



See sheets SD-501.00 and SD-502.00 for finish in this area.



Received Date: 4/22/11
Checked By: Hiram Salls
Approval Type: Approved As Noted
Approved By: Chris Williams
Date: 4/26/11



BAR LIST							
MARK #	BAR SIZE	QTY	LENGTH	WT/PC (LBS)	TOTAL WT	TYPE	REMARKS
502	#16 (#5)	125	9'-5"	9.8	1228	BENT	EPOXY COATED
503	#16 (#5)	14	3'-6"	3.7	51	BENT	EPOXY COATED
504	#16 (#5)	14	3'-2"	3.3	46	BENT	EPOXY COATED
505	#16 (#5)	63	9'-7"	10.0	630	BENT	EPOXY COATED
050802	#16 (#5)	125	8'-2"	8.5	1065	STR.	EPOXY COATED
056110	#16 (#5)	18	61'-10"	64.5	1161	STR.	EPOXY COATED
TOTAL					4180		

MARK: BM-04	QTY: ONE	CONCRETE VOLUME: 15.63 cy	
WT (CONC. & REBAR): 33.7 T		WT (STRUCT. STEEL): 6.9 T	
TOTAL WT: 40.6 T			
EMBEDMENTS			
MARK #	QTY	SUPPLIER	REMARKS

MATERIAL SPECIFICATION			
TYPE		DESCRIPTION	
CONCRETE	UNIT WEIGHT: 150 PCF		
	REMOVAL FROM FORM: 4000 PSI ⚠		
	28 DAY: 4000 PSI		
	CORROSION INHIBITOR : 0.0		GALS/CY
REINFORCING STEEL	DEFORMED ASTM A775 EPOXY COATED REBAR		

DRAWN	CHECKED	ENGINEERED	CHECKED	APPROVED
KL	04/06/11	JJ	04/06/11	--
Eriksson technologies		813.989.3317 TAMPA, FL		LRFD.COM

J & R SLAW, INC.
438 RIVERVIEW ROAD
LEHIGHTON, PA. 18235
(610)852-2020

STATE OF VERMONT
AGENCY OF TRANSPORTATION
SUPERSTRUCTURE REPLACEMENT
EAST MONTPELIER

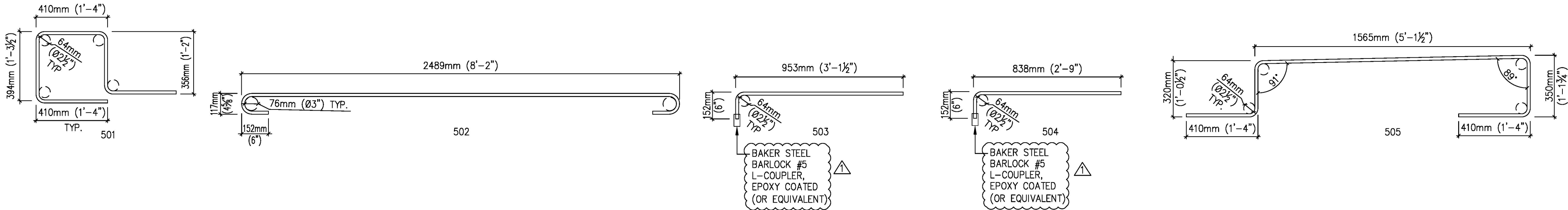
BRIDGE NO.: 71
CONTRACT NO.: SLAW #773
CONTRACTOR: AL ST. ONGE CONTRACTING
FED. AID PROJECT NO.: BRF 037-2(8)

MARK NO.: BM-04

SHEET 05 OF 06

REVISIONS
 Δ PER REVISE & RESUBMIT DRAWINGS RECEIVED ON 04/14/11
 Δ PER SLAW COMMENTS ON 04/21/11

BAR LIST					
MARK #	BAR SIZE	QTY	LENGTH (METRIC)	LENGTH	WT/P/C (LBS)
501	#5/#16	63	1854mm	6'-1"	6.3
502	#5/#16	500	2870mm	9'-5"	9.8
503	#5/#16	56	1067mm	3'-6"	3.7
504	#5/#16	56	965mm	3'-2"	3.3
505	#5/#16	63	2921mm	9'-7"	10.0
050802	#5/#16	500	2489mm	8'-2"	8.5
056110	#5/#16	72	18847mm	61'-10"	64.5
052209	#5/#16	12	6920mm	22'-9"	23.7



Received Date: 4/22/11
Checked By: Hiram Salls
Approval Type: Approved
Approved By: Chris Williams
Date: 4/26/11

REVISIONS	
△	PER REVISE & RESUBMIT DRAWINGS RECIEVED ON 04/14/11 & PER SLAW EMAIL ON 04/18/11

DRAWN	CHECKED	ENGINEERED	CHECKED	APPROVED
KLT 04/06/11	JJJ 04/06/11	-- -/-/-	-- -/-/-	RLE 04/06/11
Eriksson technologies		813.989.3317 TAMPA, FL LRFD.COM		
J & R SLAW, INC. 438 RIVERVIEW ROAD LEHIGHTON, PA. 18235 (610)852-2020				
STATE OF VERMONT AGENCY OF TRANSPORTATION SUPERSTRUCTURE REPLACEMENT EAST MONTPELIER				
BRIDGE NO.: 71 CONTRACT NO.: SLAW #773 CONTRACTOR: AL ST. ONGE CONTRACTING FED. AID PROJECT NO.: BRF 037-2(8)				
BAR DETAILS			SHEET 06 OF 06	

AUCIELLO IRON WORKS, INC.
560 Main Street
Hudson, MA 01749
Phone: 978-568-8382
Fax: 978-562-5982
AucielloIron.com

Aluminum Production Joint Welding Procedure Specification
Procedure No: 2011-01 Date Issued: 06/06/2011
Revision No: Rev. Date: D1.2-2003

1. Contractor (Fabricator)Auciello Iron Works Prepared by: Philippe Lefebvre QC

2. Referenced PQR No(s) 10 , ,

3. Base Metal M Num. & Alloy23Temper6061-T6

4. Base Metal M Num. & Alloy23Temper6061-T6

5. Base Metal Thickness (es) 3 mm To 12 mm

6. Welding process(es): GMAW X GTAW PAW-VP

7. Manual ☐ , Machine ☐ , Semiautomatic ☒

8. Position(s) of welding 2F

9. Filler metal F number23

10. Filler metal classification and brand nameALCOTEC/HARRIS BR 5356

11. Shielding gas 75%HELIUM 25% ARGON Flow rate (cfh)

12. Single or multiple pass MULTIPLE

13. Polarity DCEP

14. Welding progression FOREHAND

15. Stringer X Weave Backing Type

16. Root treatment

17. Postheat treatment

Original Temper Final Temper Temperature

Time Quench

18. AWS A5.12 Tungsten Electrode Class

19. Initial Cleaning: Oxide SS WIRE BRUSH Oil & Dirt SOLVENT

20. Interpass Cleaning: Oxide SS WIRE BRUSH

Weld Process	Weld size	Pass No(s)	Electrode Ext	Electrode Size	Welding Process Variables		Travel Speed
					AMPS/WRS	VOLTS	
GMAW	1/2	ALL	1/2	.035	116-174	21-29	18-26

*Wire feed speed may be used along with Amperage (include chart)

Preparer's Signature:

Additional Notes:

Preheat and Interpass Temperature Chart		
Minimum preheat (°F)	Max Preheat & Interpass (°F)	Maximum Heat Exposure Time
50	150	250

Joint Detail

VP RANS
RECEIVED

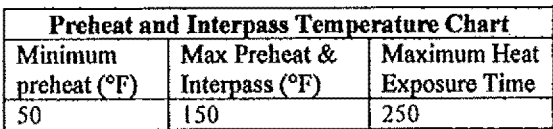
OK'D BY OK'D BY JWC

JUN 06 2011

RESUBMIT APPROVED

DY DATE 06/13/11

1. Contractor (Fabricator) Alcotec Iron Works Prepared by: Phillipe Lefebvre QC
2. Reference (Proc No.) 10
3. Base Metal M Num. & Alloy 2Temper 6061-T6
4. Base Metal M Num. & Alloy 2Temper 6061-T6
5. Base Metal Thickness (cm) 4 mm To 12 mm
6. Welding process(es) GMAW X GTAW PAW-VP
7. Manual ☐ Machine ☐ Semi-automatic ☒
8. Position(s) of welding IG
9. Filler Metal F number 23
10. Filler Metal classification and brand name ALCOTEC/HARRIS ER 5356
11. Shielding gas 75%HELIUM 25% ARGON Flow rate (cmh)
12. Single or multiple pass MULTIPLE
13. Polarity DCEP
14. Welding progression FOREHAND
15. Stringer X Weave Backing Type
16. Root treatment
17. Postheat treatment
Original Temper Final Temper Temperature
Time Quench
18. AWS A5.12 Tungsten Electrode Class
19. Initial Cleaning: Oxide SS WIRE BRUSH Oil & Dirt SOLVENT
20. Interpass Cleaning: Oxide SS WIRE BRUSH



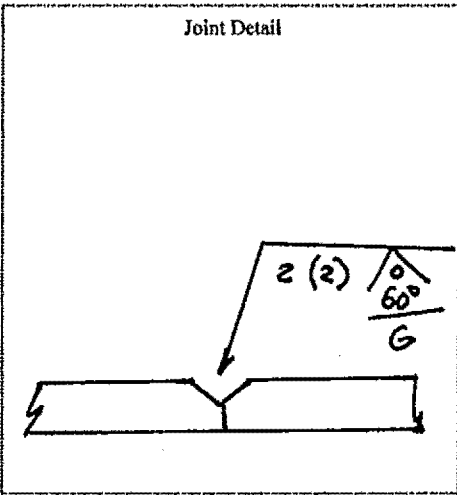
Minimum preheat (°F)	Max Preheat & Interpass (°F)	Maximum Heat Exposure Time
50	150	250

RECEIVED
 OK'D BY _____ OK'D BY Jue
 JUN 06 2011
 RESUBMIT _____ APPROVED ✓
 BY _____ DATE 06/13/11

AUCIELLO IRON WORKS, INC. 560 Main Street Hudson, MA 01749 Phone: 978-568-8382 Fax: 978-561-9982 AucielloIron.com	Aluminum Production Joint Welding Procedure Specification Procedure No: 2011-01 Date Issued: 06/06/2011 Revision No: Rev. Date: D1.2-2003
--	---

1. Contractor (Fabricator) Auciello Iron Works Prepared by: Philippe Lefebvre QC
2. Referenced PQR No(s) 10 , , ,
3. Base Metal M Num. & Alloy 23 Temper 6061-T6
4. Base Metal M Num. & Alloy 23 Temper 6061-T6
5. Base Metal Thickness (es) 3 mm To 12 mm
6. Welding process(es): GMAW ☒ GTAW PAW-VP
7. Manual ☐ , Machine ☐ , Semiautomatic ☒
8. Position(s) of welding 1G
9. Filler metal F number 23
10. Filler metal classification and brand name ALCOTEC/HARRIS ER 5356
11. Shielding gas 75%HELIUM 25% ARGON Flow rate (cfh)
12. Single or multiple pass MULTIPLE
13. Polarity DCEP
14. Welding progression FOREHAND
15. Stringer ☒ Weave Backing Type
16. Root treatment
17. Postheat treatment
Original Temper Final Temper Temperature
Time Quench
18. AWS A5.12 Tungsten Electrode Class
19. Initial Cleaning: Oxide SS WIRE BRUSH Oil & Dirt SOLVENT
20. Interpass Cleaning: Oxide SS WIRE BRUSH

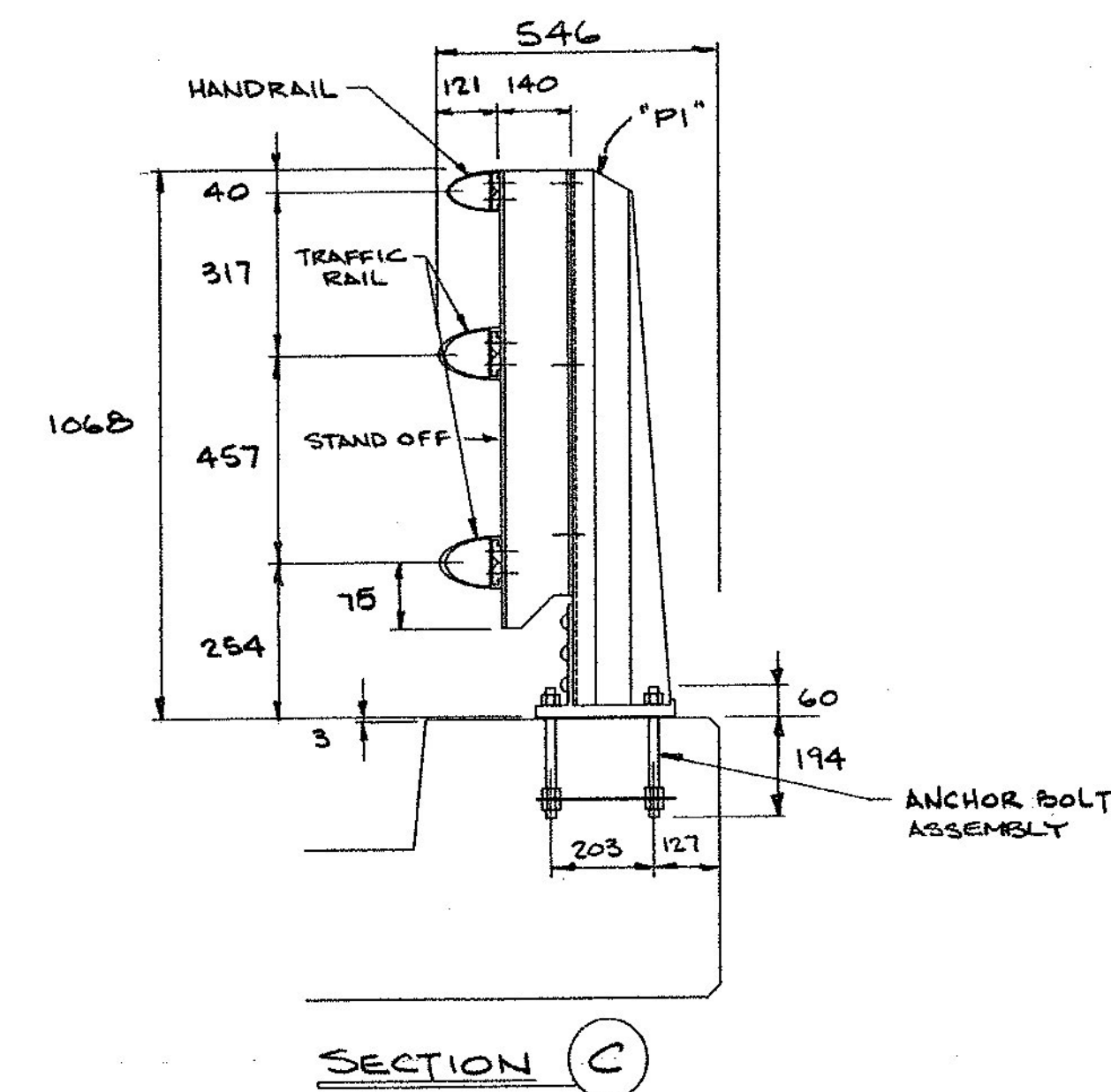
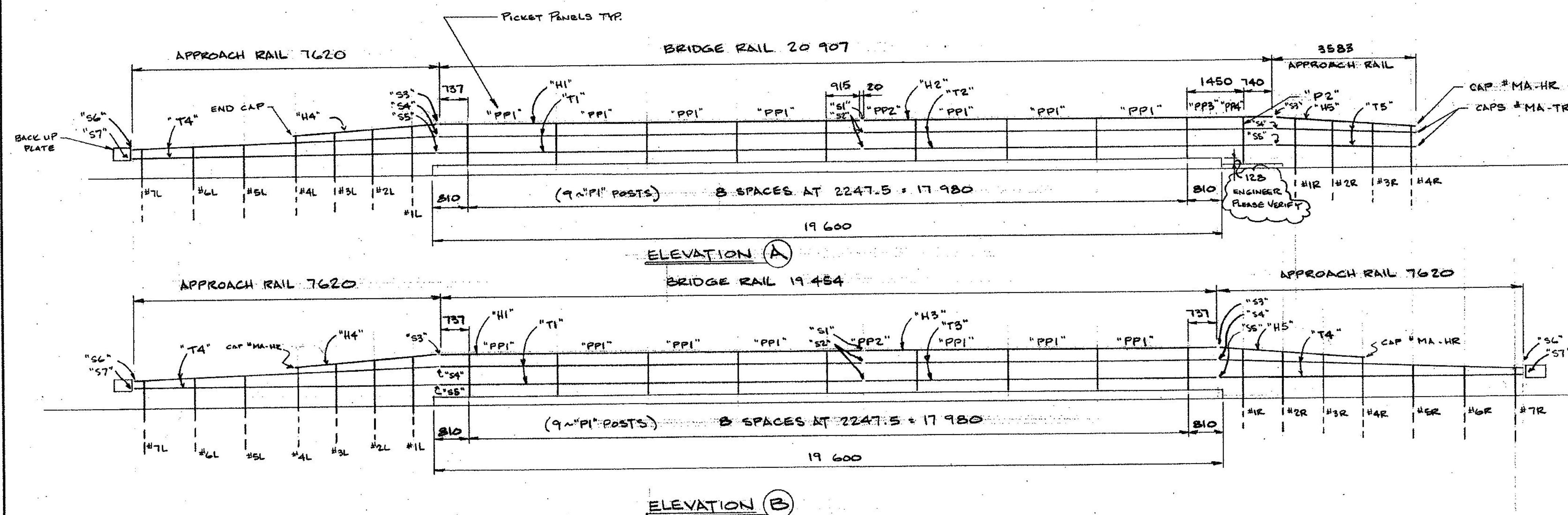
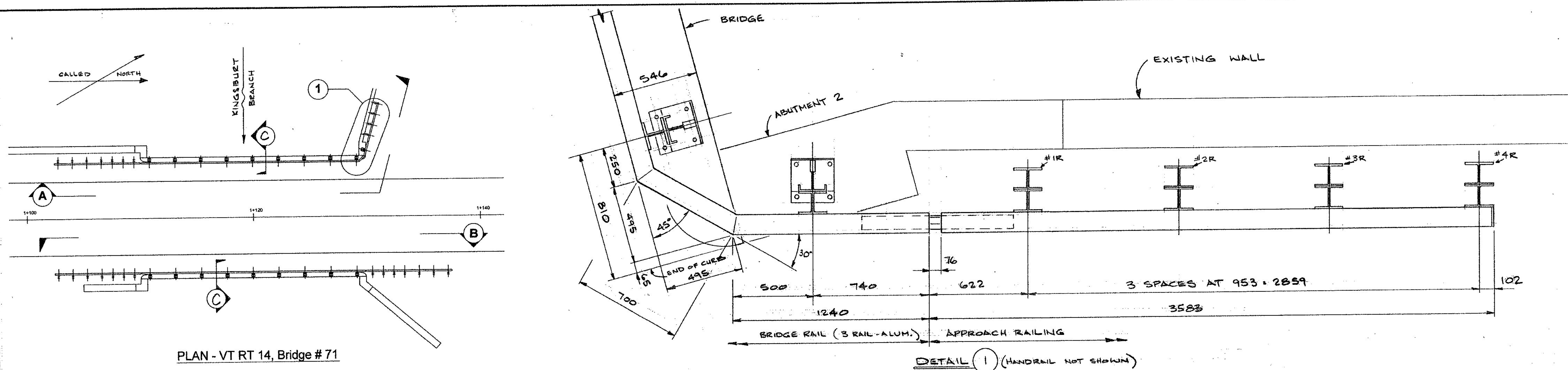
Weld Process	Weld size	Puls No(s)	Electrode Ext.	Electrode Size	Welding Process Variables		Travel Speed
					AMP/WFS	VOLTS	
GMAW	3	AL	1/2"	.035	116-174	21-29	10-26



*Wire feed speed may be used along with apparatus (include chart)
Preparer's Signature: _____
Additional Notes: _____

Preheat and Interpass Temperature Chart		
Minimum preheat (°F)	Max Preheat & Interpass (°F)	Maximum Heat Exposure Time
50	150	250

RECEIVED
OK'D BY _____ OK'D BY JWC
JUN 06 2011
RESUBMIT _____ APPROVED _____
BY _____ DATE 06/13/11



DIMENSIONS ARE IN MILLIMETERS

AUCIELLO IRON WORKS INC
560 MAIN ST. HUDSON, MA (978) 588-8382

EAST MONTPELIER, VT
VT RT 14, BRIDGE #17
BRF 037-2 (B)

ALUM. BRIDGE AND APPROACH RAIL

SURFACE PREP: NONE FINISH: MILL

FOR: FR. LAFAYETTE, INC.

DR: 8-13-2011 DWG NO: BR-3006

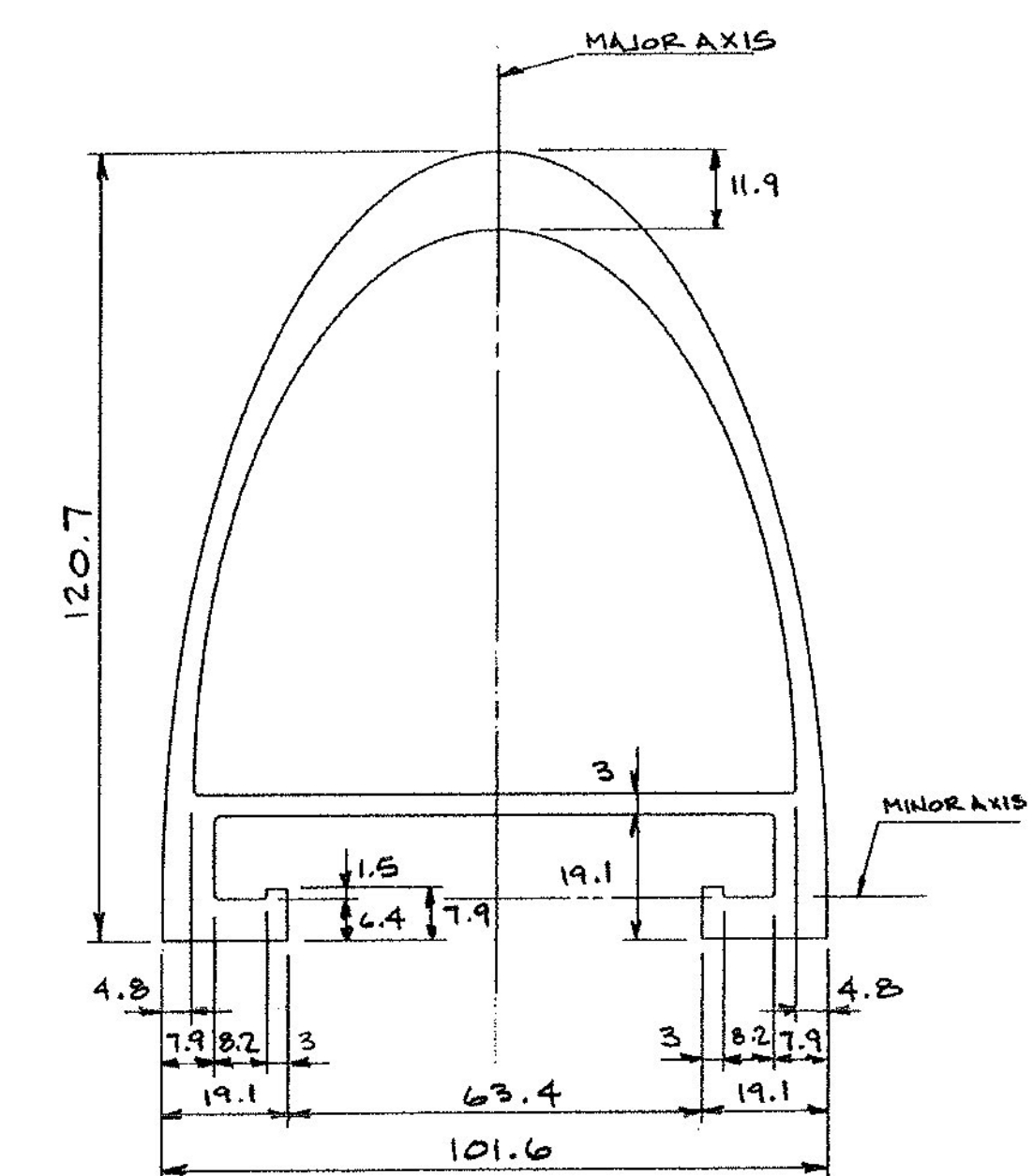
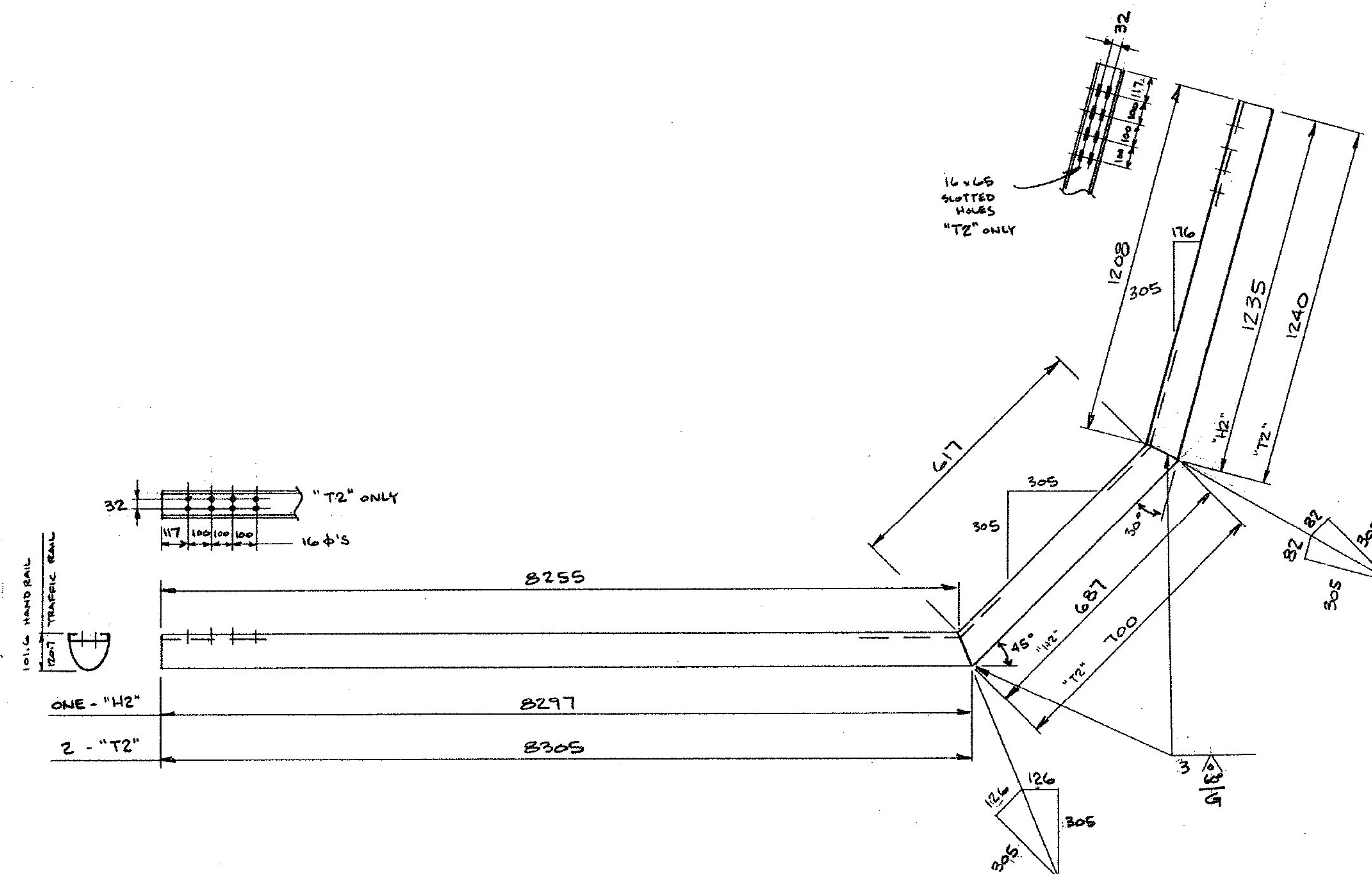
CHK: 5-25-11

JOB NO: AS104A-1001 SHEET 1-E1 OF

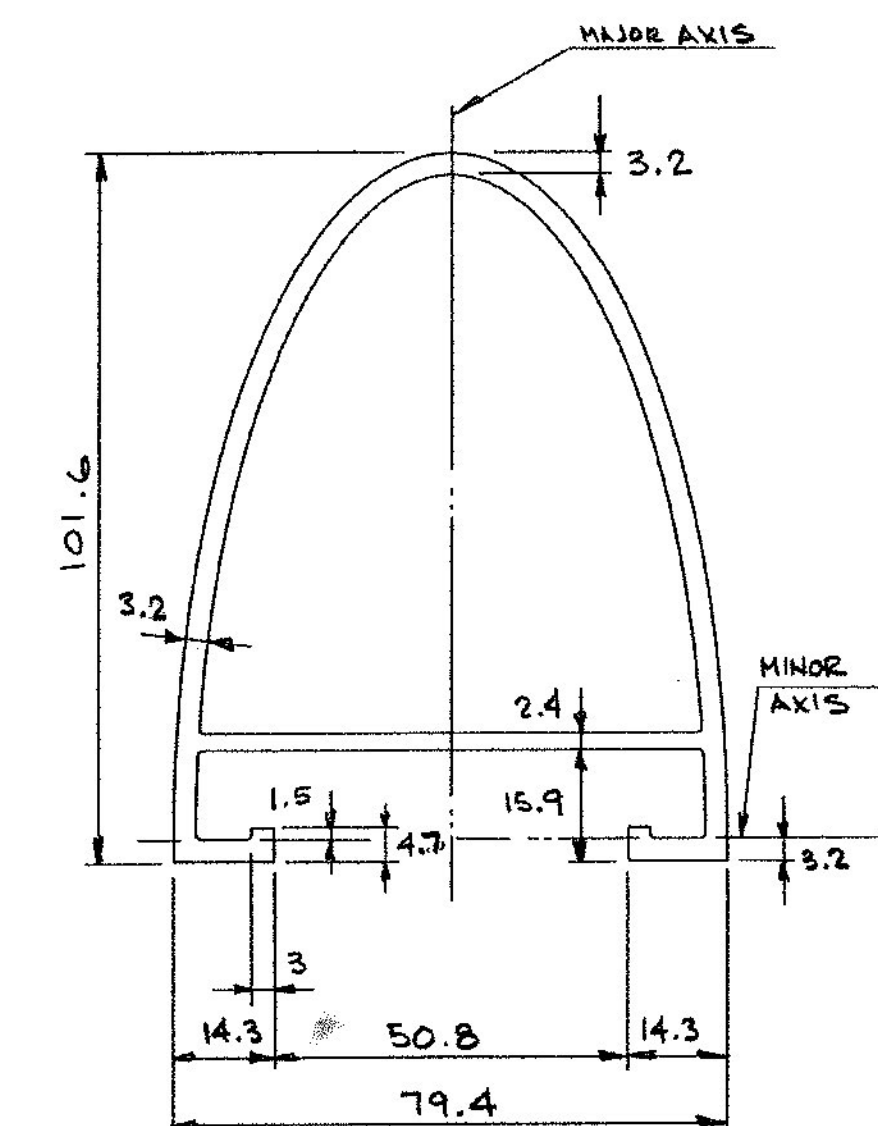
Received Date: 6/1/11
Checked By: Hiram Salls
Reviewed By: Rob Young
Approval Type: Approved
Approved By: Chris Williams
Date: 6/13/11

ISSUE	DATE	DESCRIPTION	BY
1	5-25-11	FOR APPROVAL	AS104A-1001

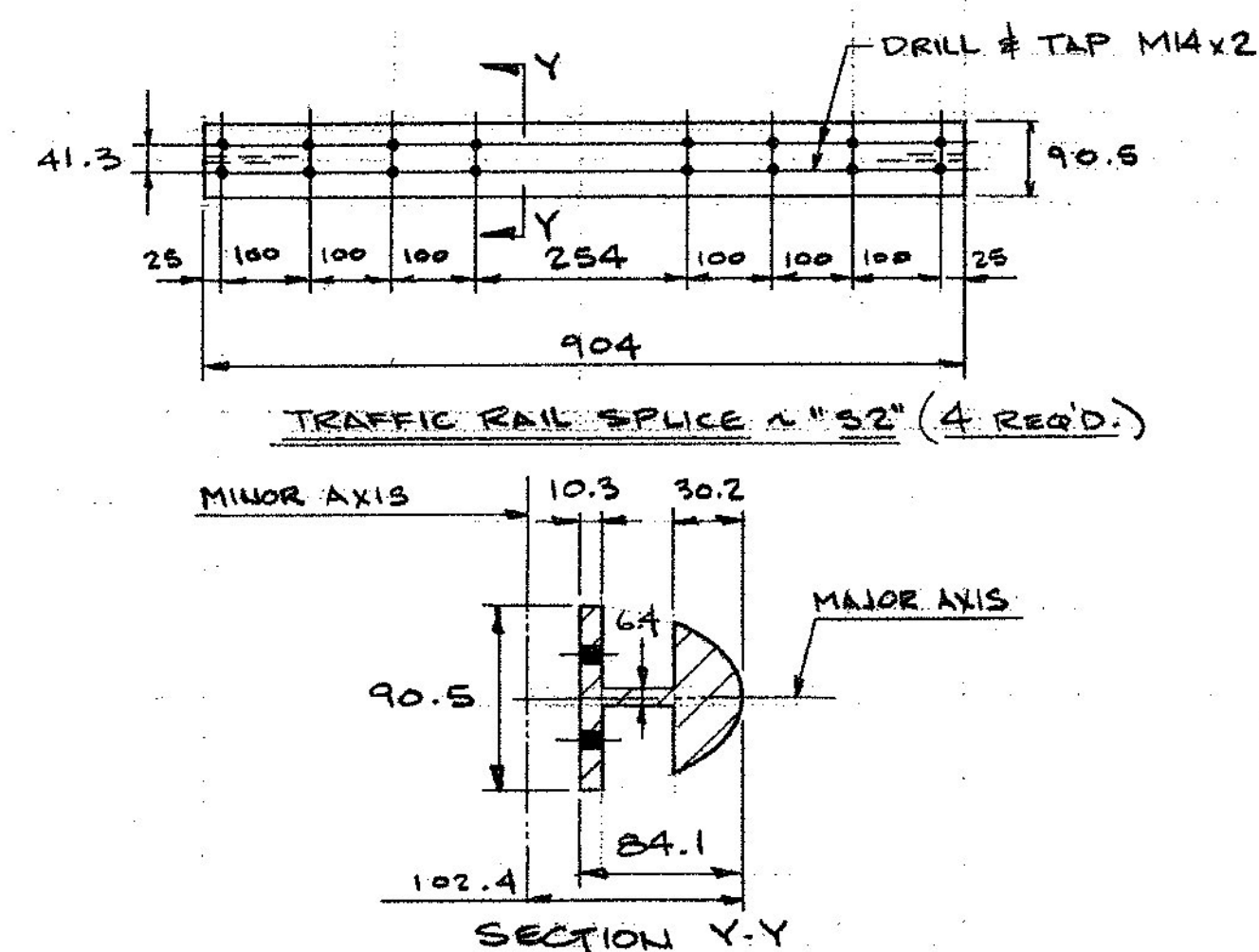
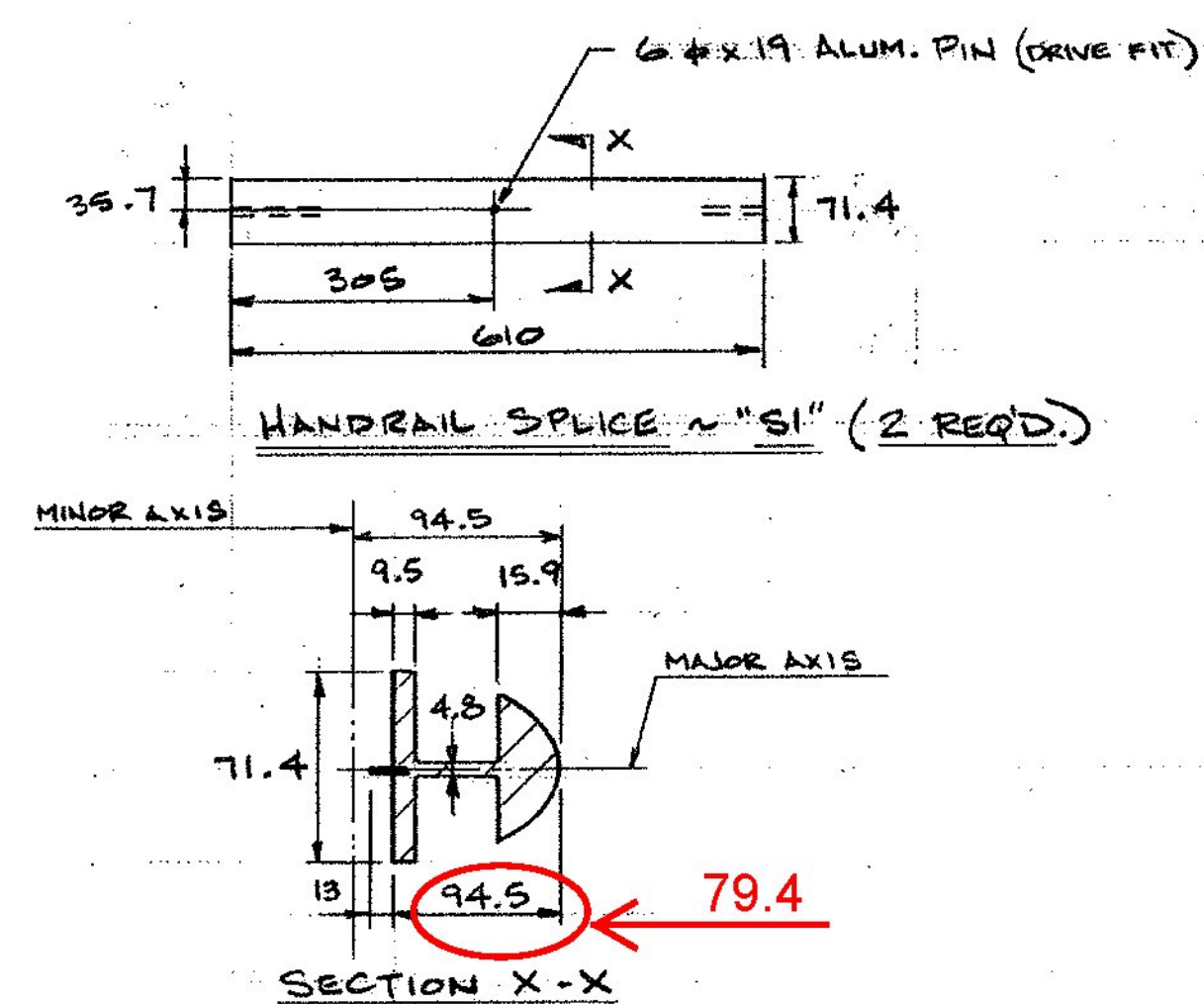
				DIM'S GIVEN IN MILLIMETERS AUCIELLO IRON WORKS INC 580 MAIN ST. HUDSON, MA (978) 588-8382 VT. AGENCY OF TRANSPORTATION EAST MONTPELIER, VT VT RT 14, BRIDGE # 17 BR# 037-2(3) ALUM. BRIDGE RAILING	
				SURFACE PREP: None FINISH: MILL FOR: FR. LAFAYETTE, INC DR: CHK 3-17-2011 DWG. NO. 5-25-11 BR-3006 JOB NO. 11 BY AB17044-1001 SHEET 1-FI OF	
1	5-25-11	FOR APPROVAL			
ISSUE	DATE	DESCRIPTION		BY	



TRAFFIC RAIL EXTRUSION
FULL SIZE

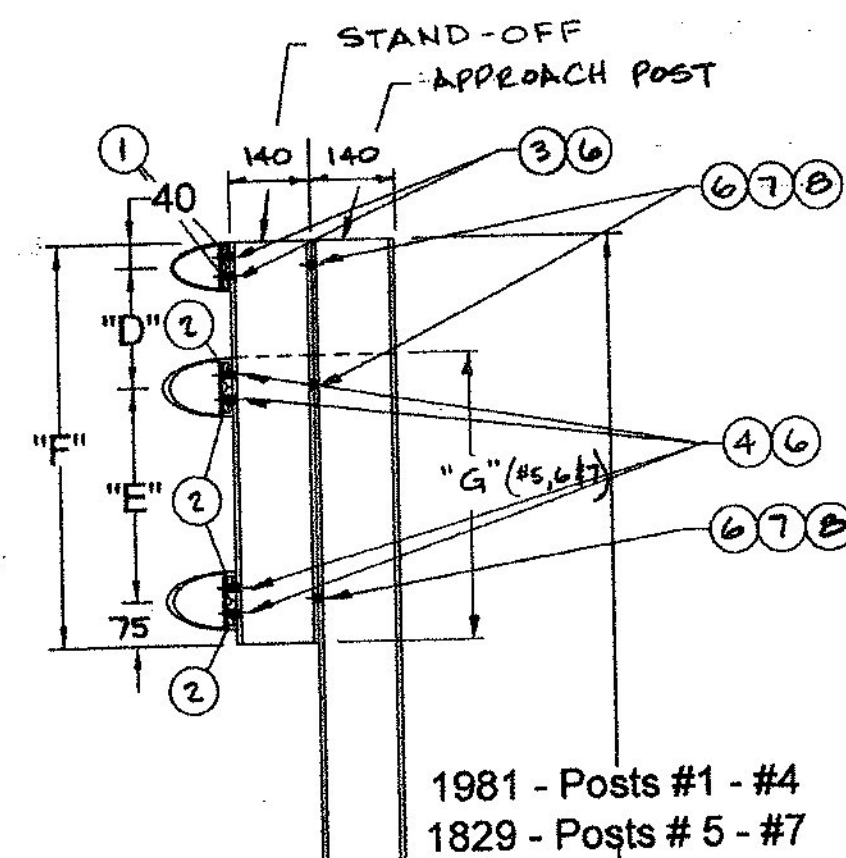


HANDRAIL EXTRUSION - FULL SIZE



Received Date: 6/1/11
Checked By: Hiram Salls
Reviewed By: Rob Young
Approval Type: Approved As Noted
Approved By: Chris Williams
Date: 6/13/11

		AUCIELLO IRON WORKS INC 560 MAIN ST. HUDSON, MA (978) 568-8382	
		VT. AGENCY OF TRANSPORTATION EAST MONTPELIER, VT VT RT 14, BRIDGE # 17 BR# 037-2 (B)	
		AL. BRIDGE & APPROACH RAILING	
		SURFACE PREP: NONE	FINISH: MILL
		FOR: F.R. LAFAYETTE, INC	
		DR: FR 5/14/2011 CHK: 5-25-11	DWG. NO. BE-3006
1	5-25-11	FOR APPROVAL	
ISSUE	DATE	DESCRIPTION	BY

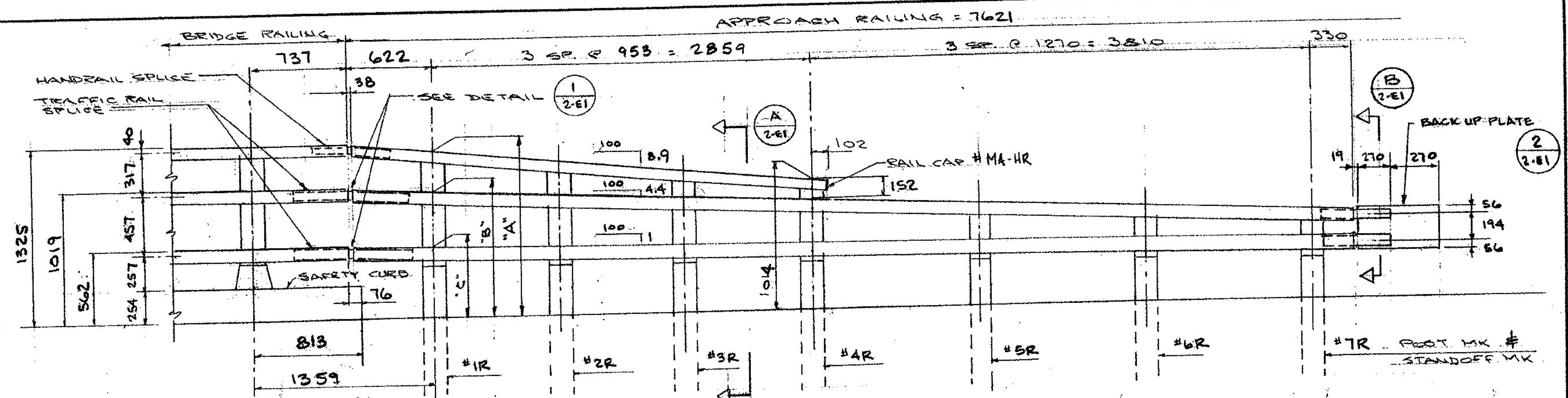


1981 - Posts #1 - #4
1829 - Posts #5 - #7

Section Thru Approach Rail (A)
2-E1

- ① #4 CLAMP BAR
- ② #1 CLAMP BAR
- ③ 1/2"-13 UNC x 3/4" HEX HEAD CAP SCREW (A193, GRADE B8)
- ④ 1/2"-13 UNC x 1" HEX HEAD CAP SCREW (A193, GRADE B8)
- ⑤ 7/8" DIA ALUM. RIVET (3004 T6), BUTT-ON HEAD, CONE POINT, GOLD DRIVEN
- ⑥ ALUM. WASHER 1 1/8" OD x 1/8" ID x 3/32" THK (ALCAD 2024-T4)
- ⑦ 1/2"-13 UNC x 1 1/2" HEX HEAD CAP SCREW (304 SS)
- ⑧ 1/2"-13 UNC HEX NUT (304 SS)
- ⑨ DEFLECTORIZED DELIMINATOR (WHITE) PER SPEC. LOCATED EVERY 30M OR SMOOT POST. TYPICAL AT BRIDGE RAIL AND APPROACH RAIL
- ⑩ 1/8" x 1/4" SS SELF-TAPPING SCREW. POSTS DRILLED IN FIELD

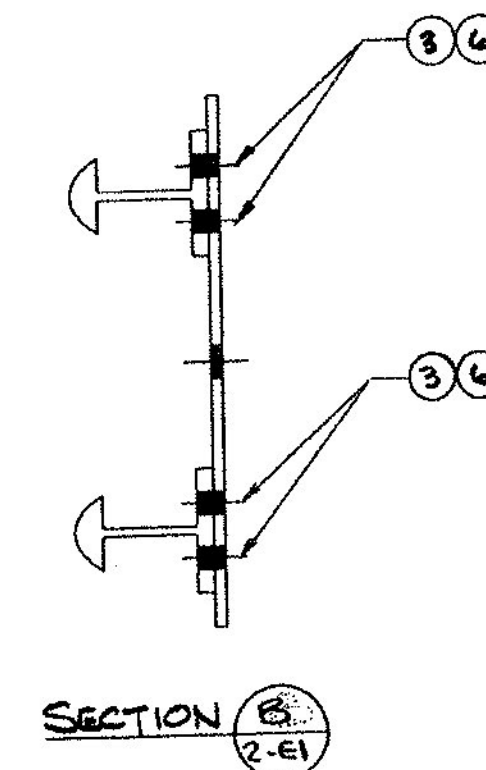
POST NO.	STAND-OFF DIMENSIONS			
	"D"	"E"	"F"	"G"
1	291	435	841	-
2	248	403	766	-
3	206	370	691	-
4	164	337	616	-
5	-	294	-	420
6	-	249	-	375
7	-	205	-	331



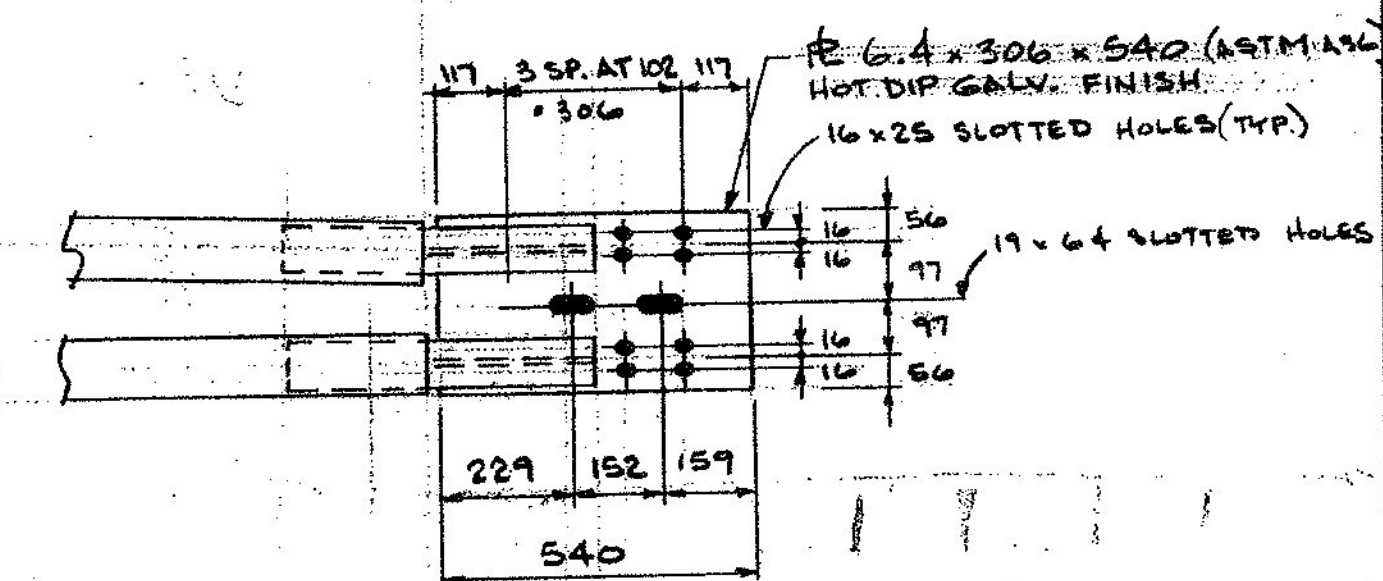
APPROACH RAIL AT SAFETY CURB

R.H. AS SHOWN (SW)
L.H. OPP. HAND (NW & SE)

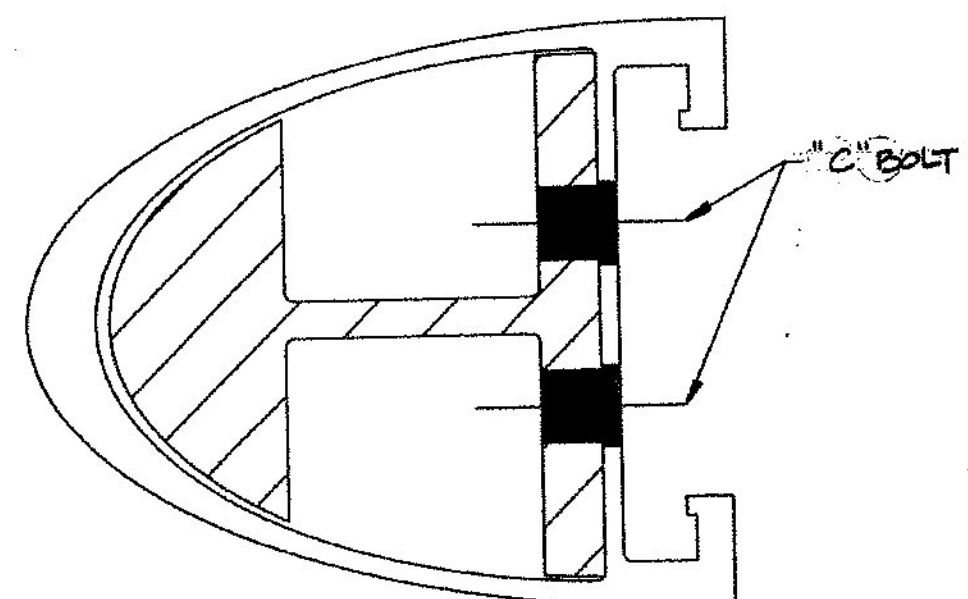
POST NO.	RAILING HEIGHTS		
	"A"	"B"	"C"
1	1267	989	552
2	1183	946	543
3	1099	903	533
4	1014	862	525
5	-	805	513
6	-	749	500
7	-	692	487



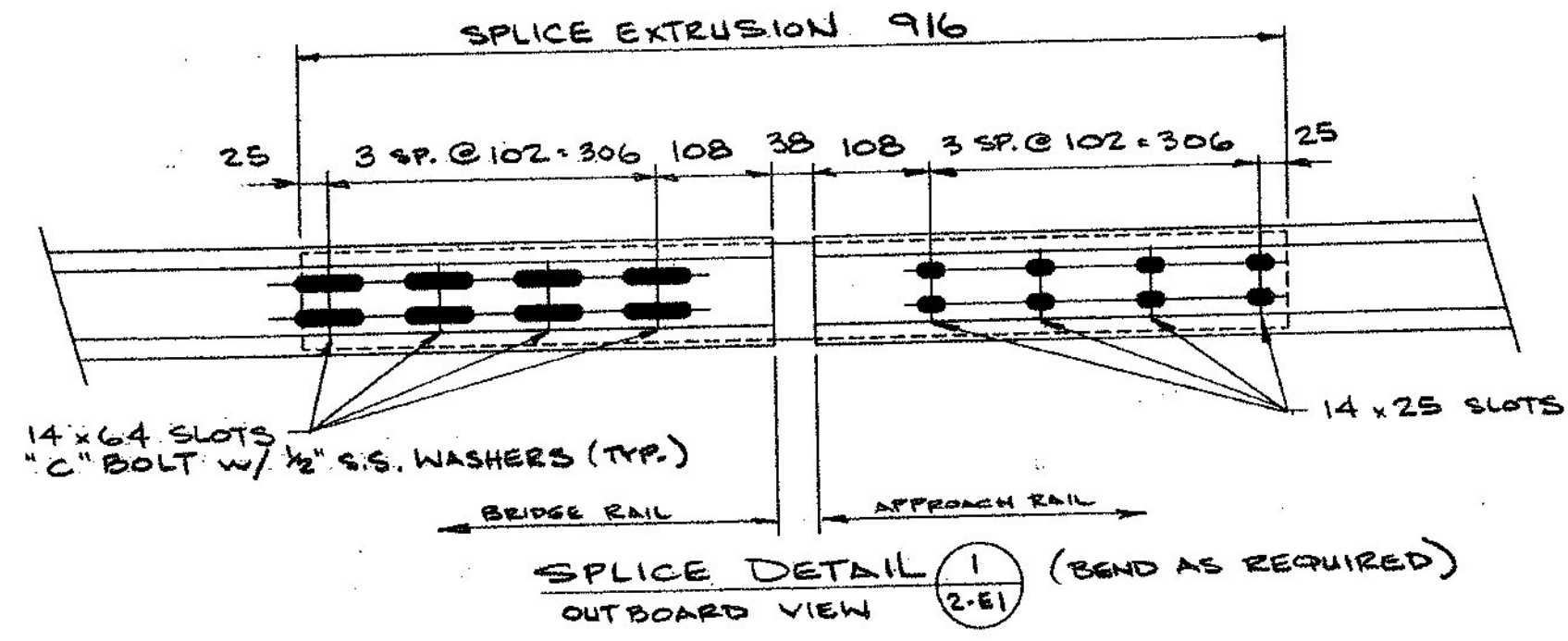
SECTION B (B)
2-E1



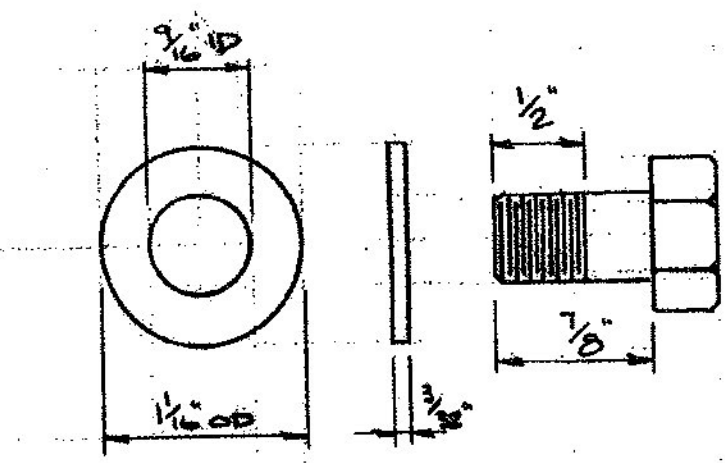
BACK-UP PLATE DETAIL (2)
2-E1



SECTION THRU SPLICE



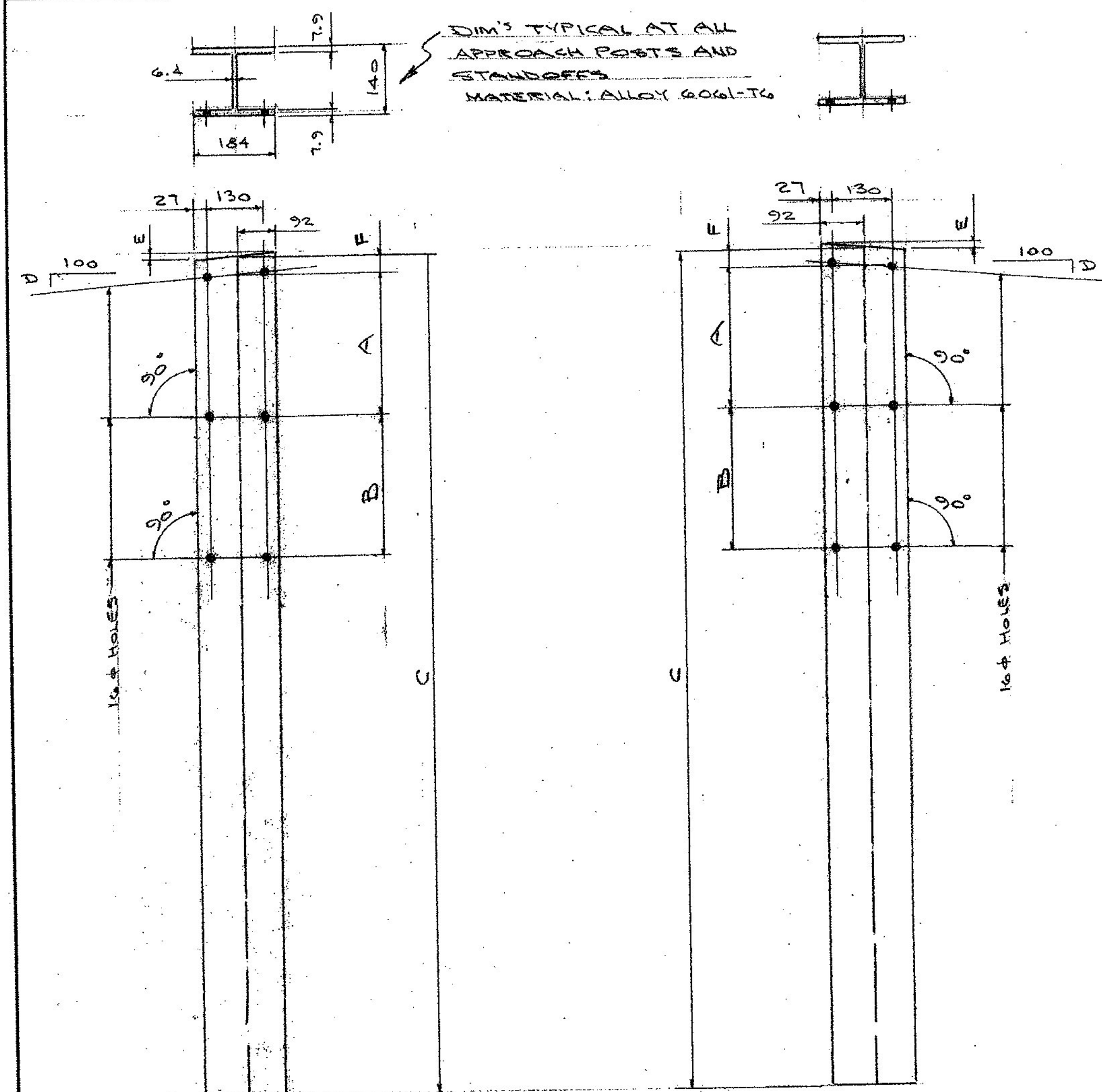
SPICE DETAIL (1)
2-E1 (BEND AS REQUIRED)



S.S. WASHER 'C' BOLT (1/2-13 UNC x 2 LG. 304 S.S.)
HEX HEAD BOLT

Received Date: 6/1/11
Checked By: Hiram Salls
Reviewed By: Rob Young
Approval Type: Approved
Approval By: Chris Williams
Date: 6/13/11

ALL FASTENERS ARE IN ENGLISH UNITS		DIM. ARE GIVEN IN MILLIMETERS	
		AUCIELLO IRON WORKS INC 560 MAIN ST. HUDSON, MA (978) 568-8382	
		VT. DEPT. OF TRANSPORTATION EAST MONTPELIER, VT VT. RT. 14, BRIDGE #17 BRF 037-2(8)	
		AL. APPROACH RAIL AT SAFETY CURB	
		SURFACE PREP: NONE FINISH: MILL	
FOR: FR. LAFAYETTE, INC.		DR. 3-22-2011 DWG. NO. BR-3006	
CHK. 5-25-11		JOB NO. 11	
1	5-25-11	FOR APPROVAL	BY AB1044-1002 SHEET 2-E1 OF
ISSUE	DATE	DESCRIPTION	

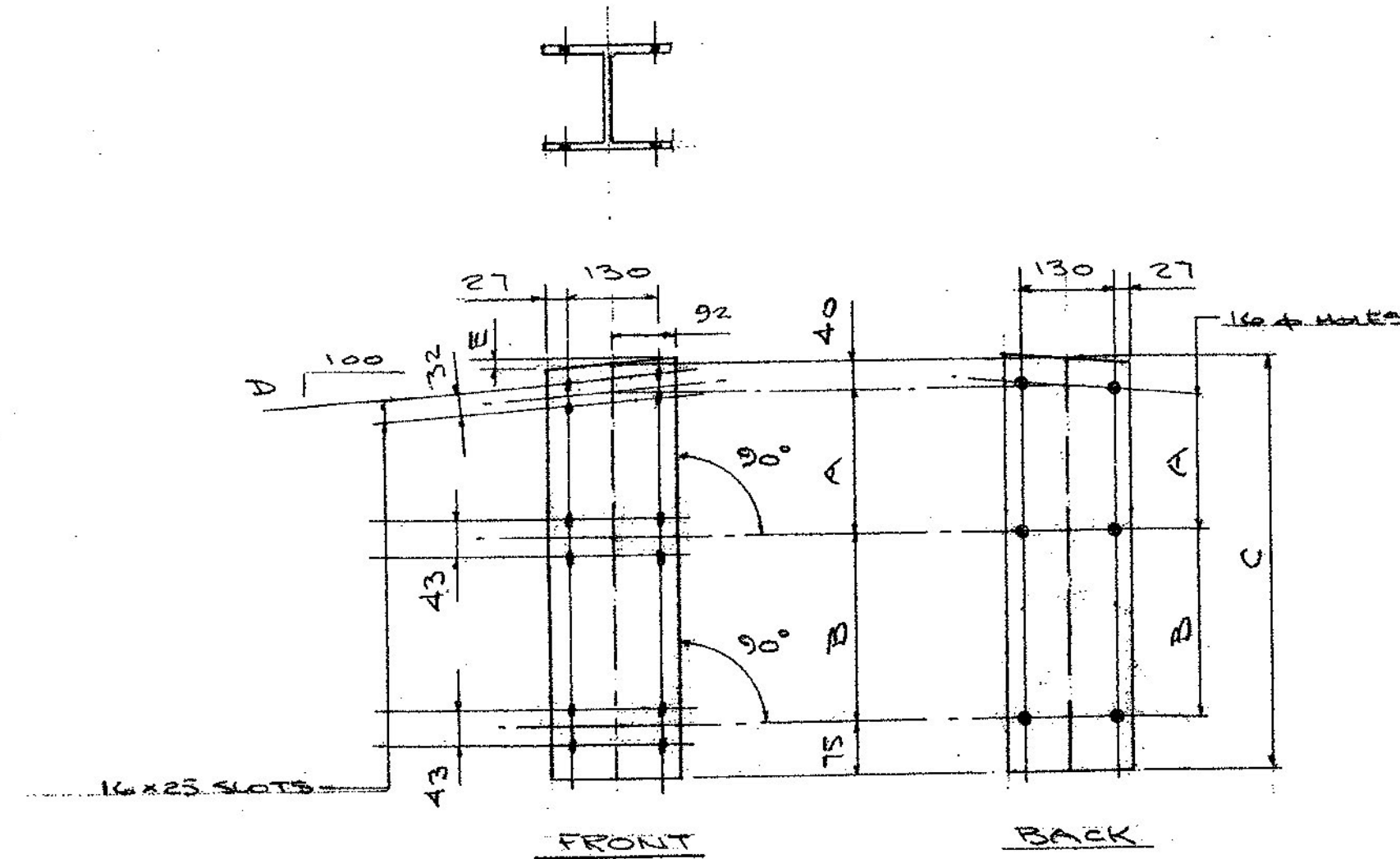


APPROACH POSTS

QUAN	MK	A	B	C	D	E	F
2	1L	291	435	1981	8.9	16	40
2	2L	248	403	1981	8.9	16	40
2	3L	206	370	1981	8.9	16	40
2	4L	167	337	1981	8.9	16	40
2	5L	—	294	1829	4.4	8	51
2	6L	—	249	1829	4.4	8	51
2	7L	—	205	1829	4.4	8	51

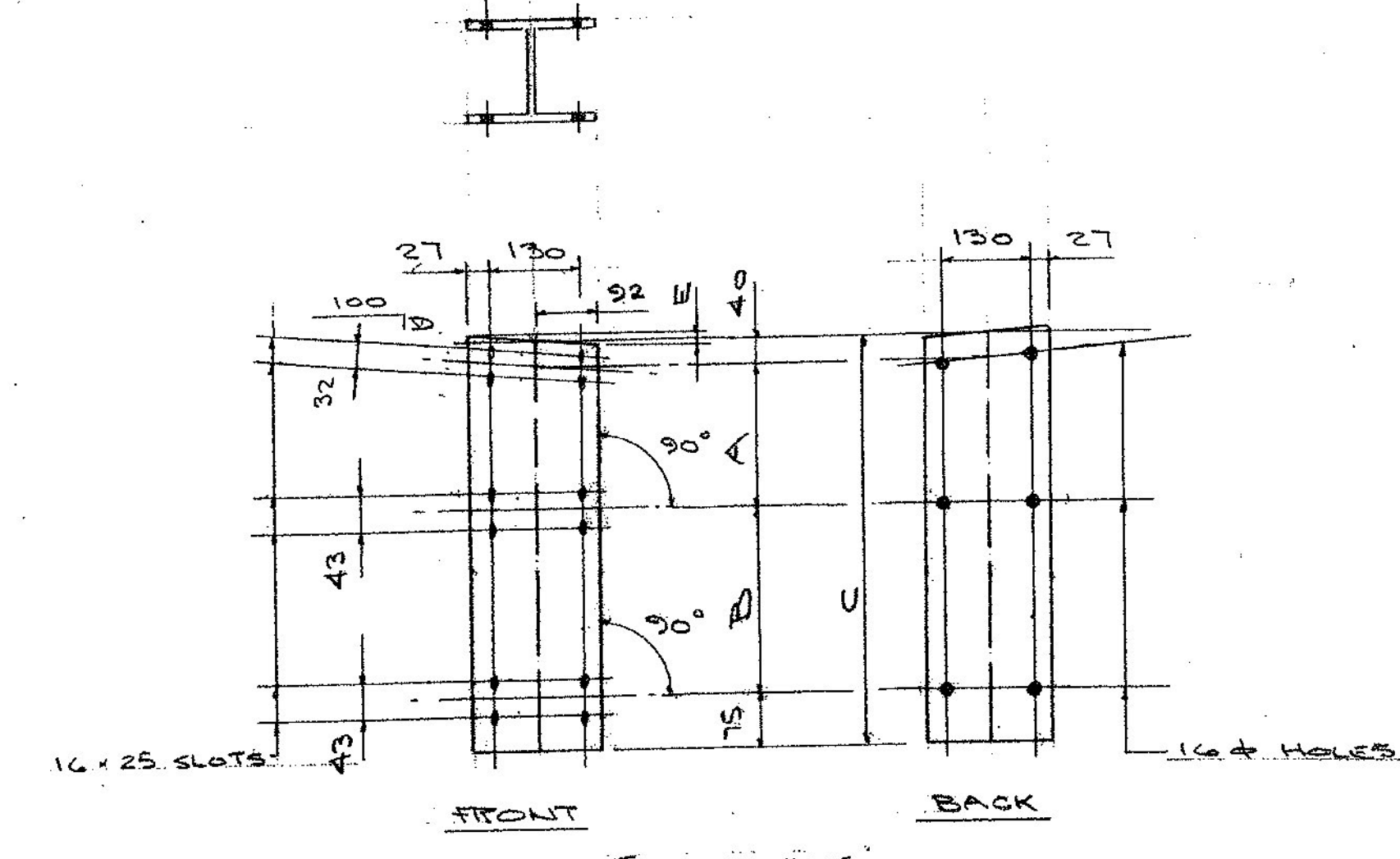
APPROACH POSTS

QUAN	MK	A	B	C	D	E	F
2	1R	291	435	1981	8.9	16	40
2	2R	248	403	1981	8.9	16	40
2	3R	206	370	1981	8.9	16	40
2	4R	167	337	1981	8.9	16	40
ONE	5R	—	294	1829	4.4	8	51
ONE	6R	—	249	1829	4.4	8	51
ONE	7R	—	205	1829	4.4	8	51



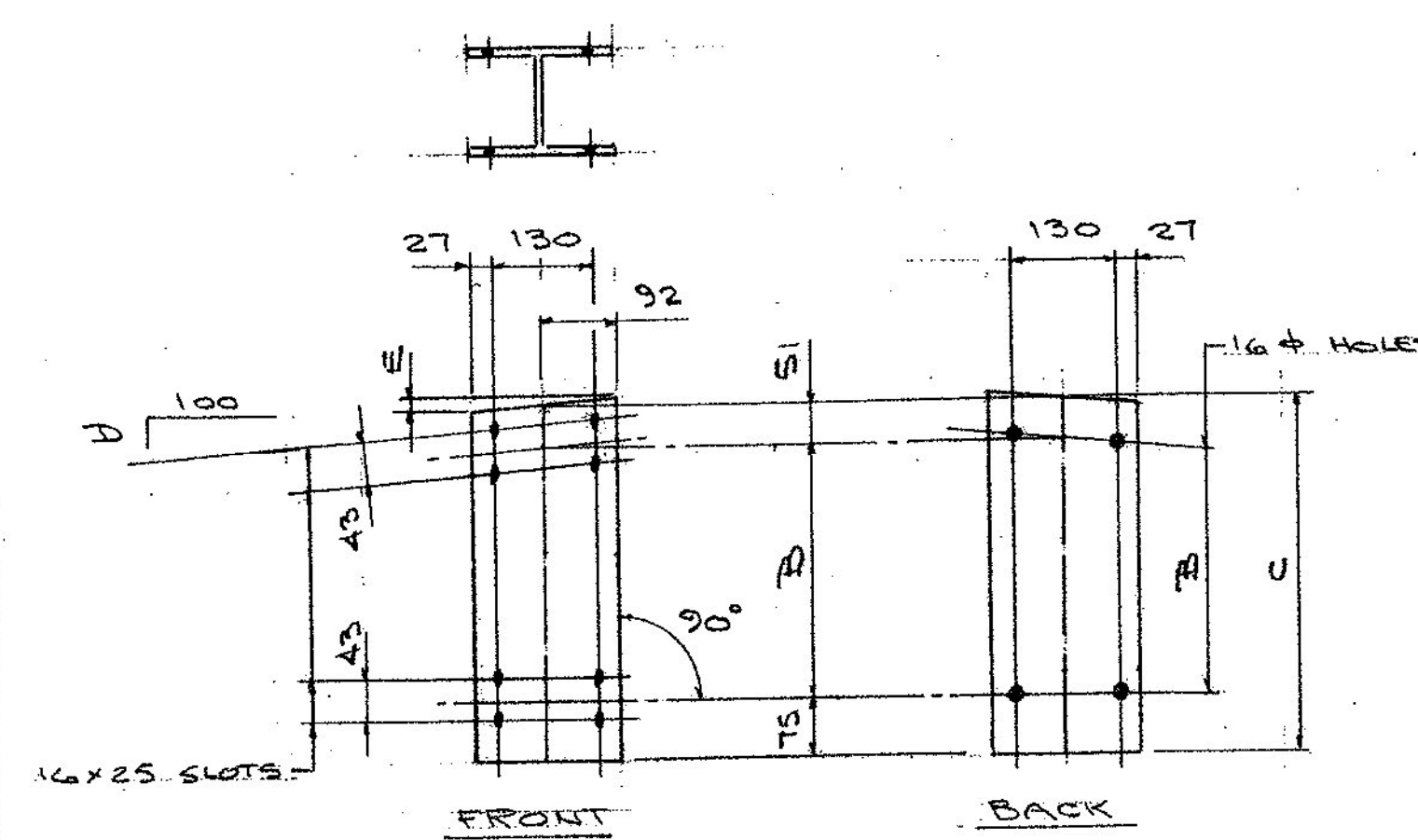
STANDOFFS

QUAN	MK	A	B	C	D	E
2	1L	291	435	841	8.9	16
2	2L	248	403	766	8.9	16
2	3L	206	370	691	8.9	16
2	4L	167	337	619	8.9	16



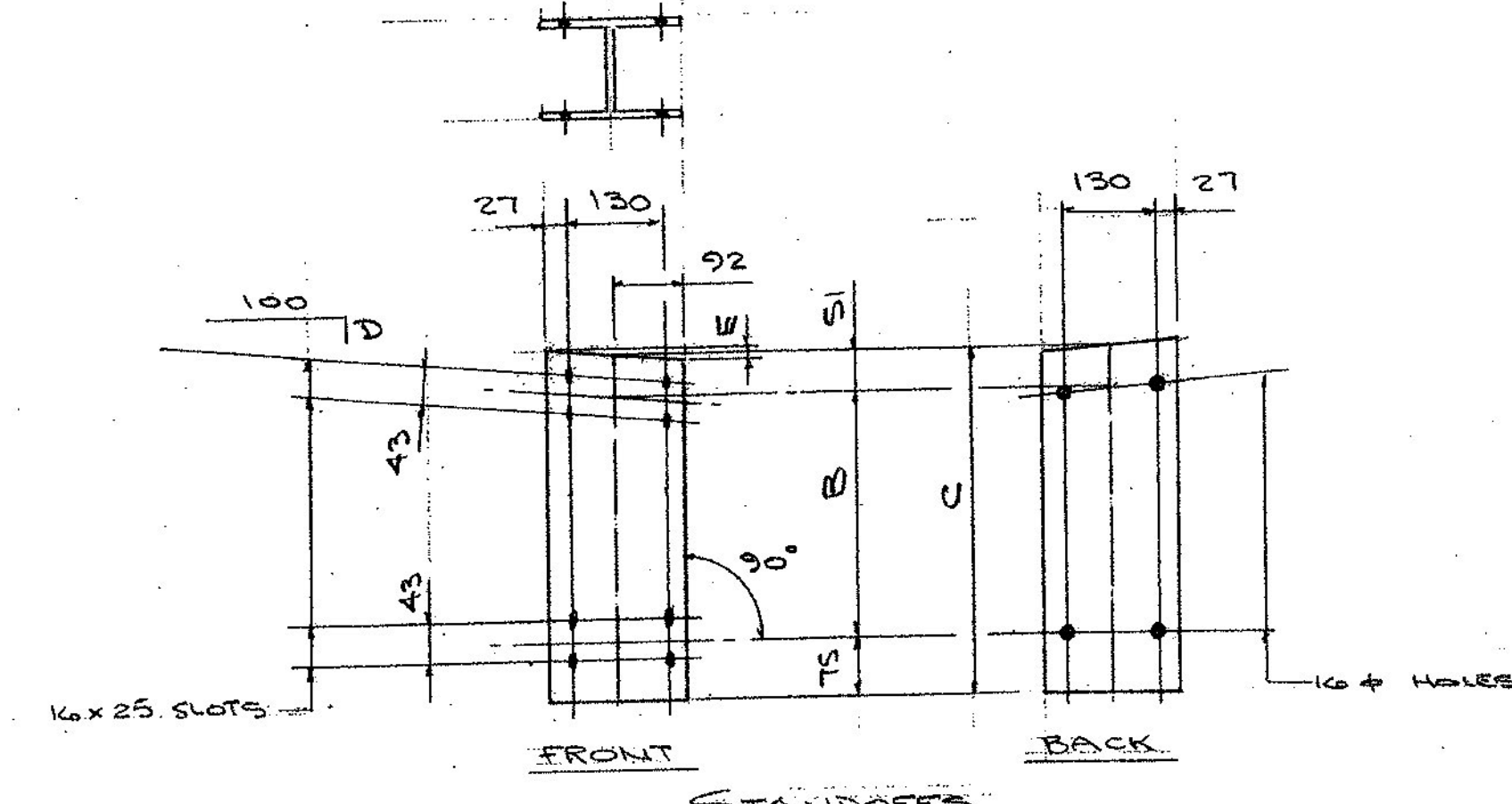
STANDOFFS

QUAN	MK	A	B	C	D	E
2	1R	291	435	841	8.9	16
2	2R	248	403	766	8.9	16
2	3R	206	370	691	8.9	16
2	4R	167	337	619	8.9	16



STANDOFFS

QUAN	MK	B	C	D	E
2	5L	294	420	4.4	8
2	6L	249	375	4.4	8
2	7L	205	331	4.4	8



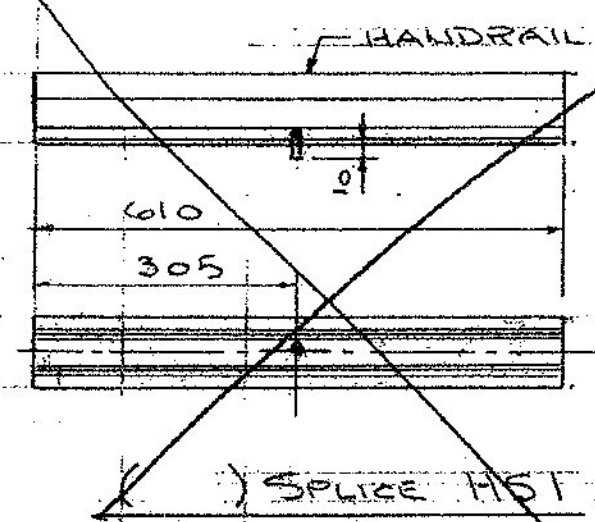
STANDOFFS

QUAN	MK	B	C	D	E
ONE	5R	294	420	4.4	8
ONE	6R	249	375	4.4	8
ONE	7R	205	331	4.4	8

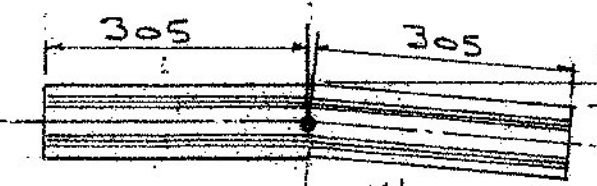
Received Date: 6/1/11
 Checked By: Hiram Salls
 Reviewed By: Rob Young
 Approval Type: Approved
 Approved By: Chris Williams
 Date: 6/13/11

1		5-25-11	FOR APPROVAL
ISSUE	DATE	DESCRIPTION	

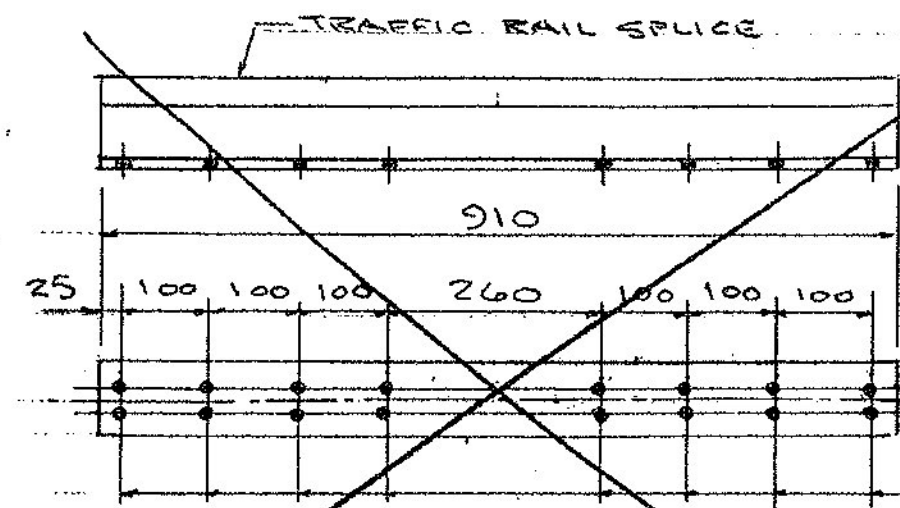
AUCIELLO IRON WORKS INC 560 MAIN ST. HUDSON, MA (978) 568-9382	
VT. AGENCY OF TRANSPORTATION EAST MONTPELIER, VT. VT. RT. 14, BRIDGE # 17 BRF 037-2(8)	
ALUM. APPROACH RAILING	
SURFACE PREP: NONE	FINISH: MILL
FOR: FR. LAFAYETTE, INC.	
DR: 3-22-2011	DWG. NO. 5-25-11
CHK: 5-25-11	BR-3006
JOB NO. 1044-1002	SHEET 2 OF 2



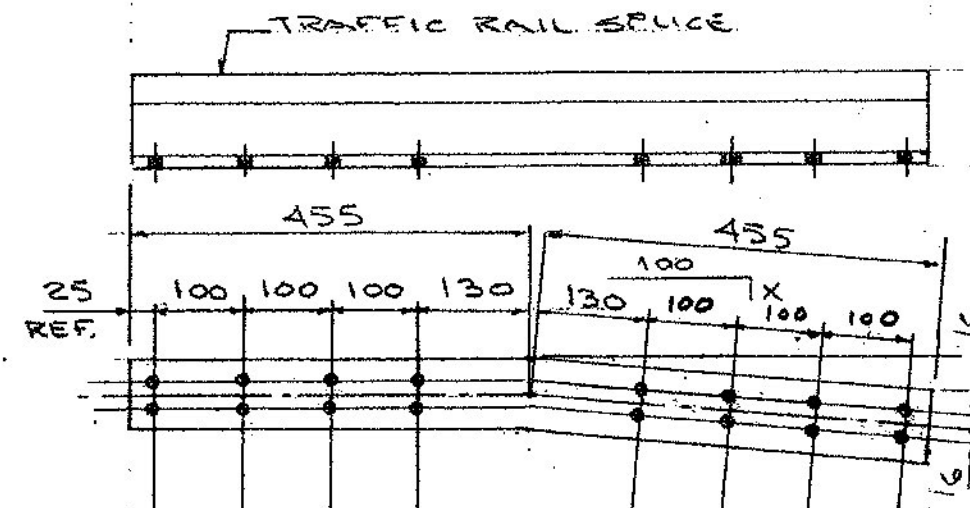
6X20 ALU PIN
DRIVE FIT



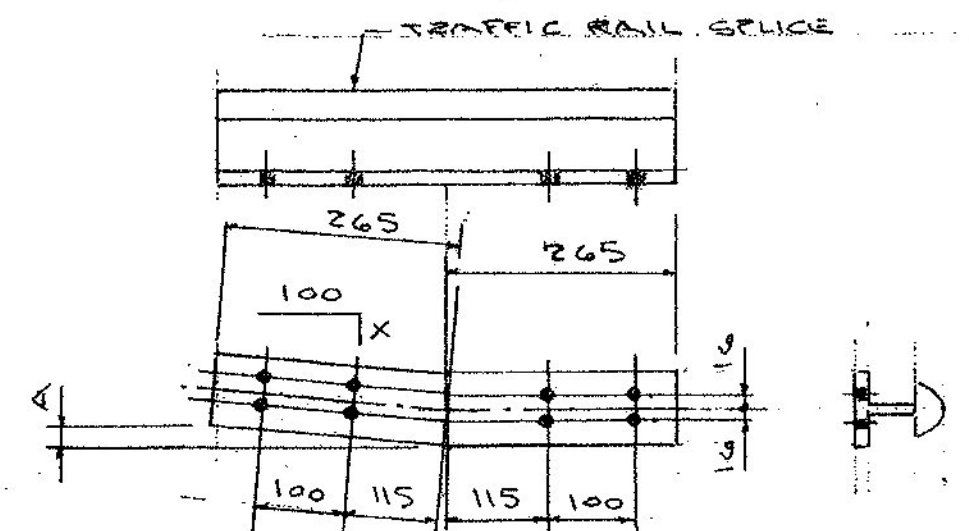
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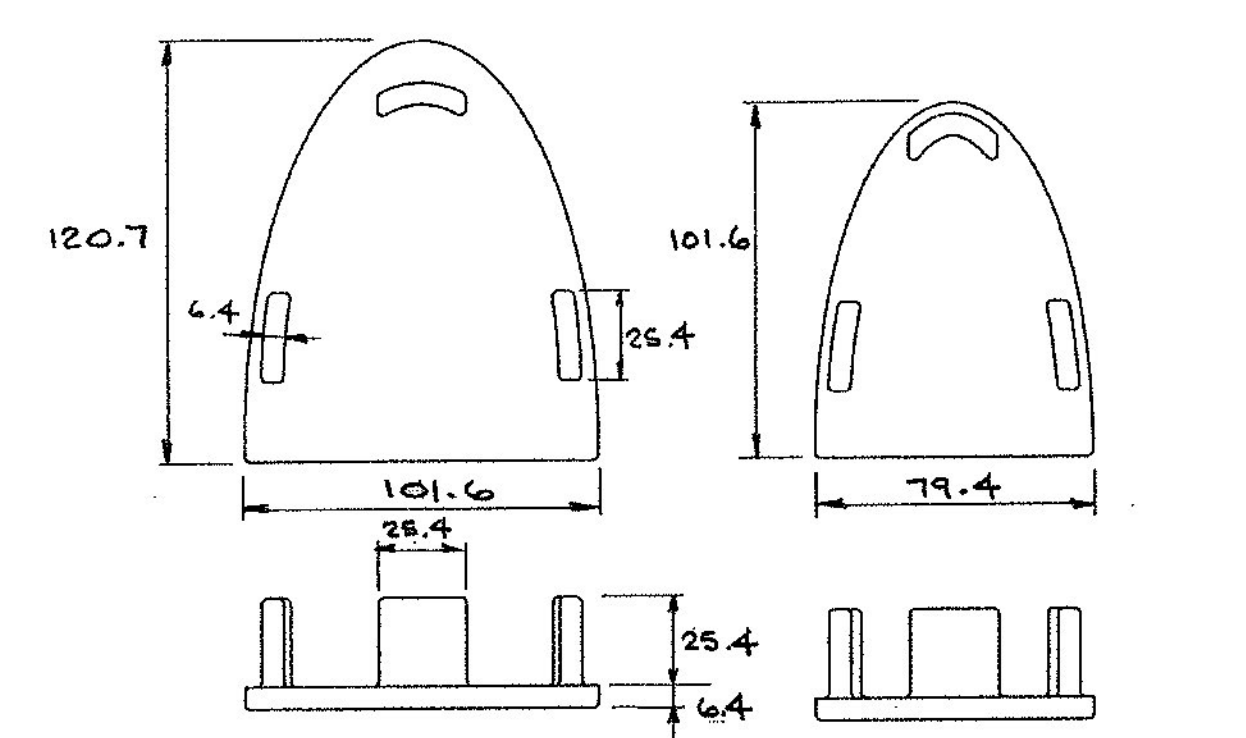
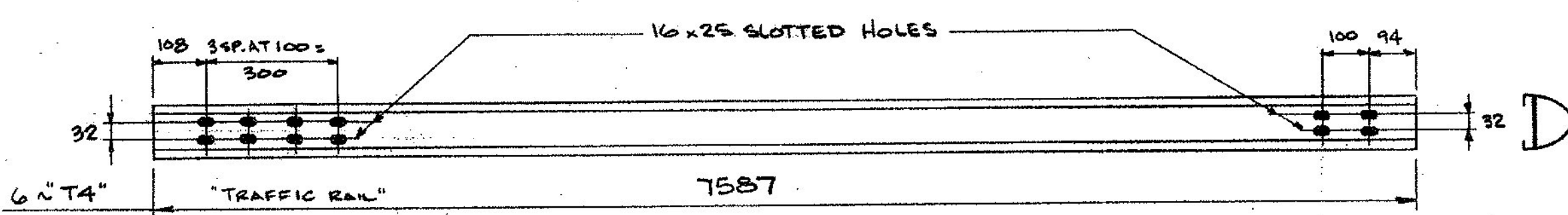
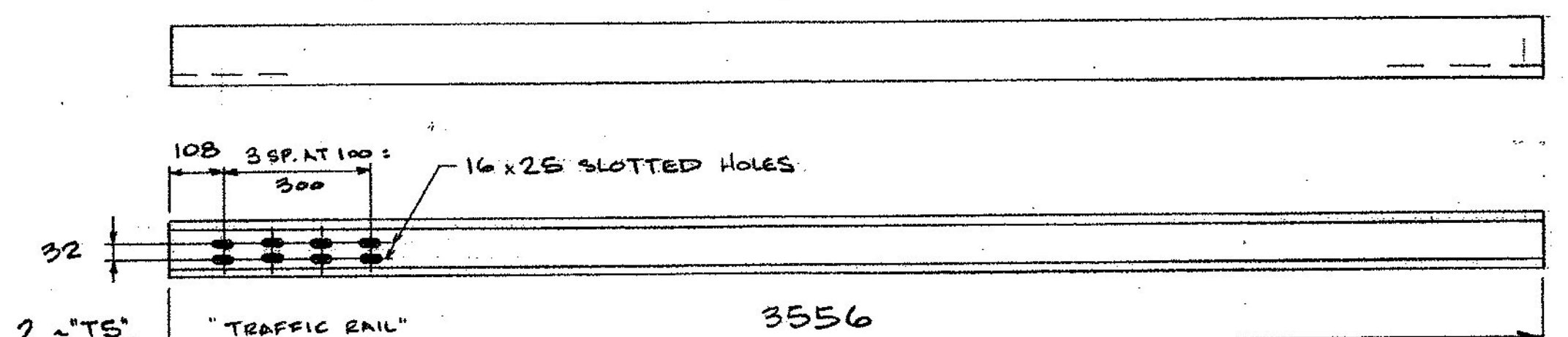
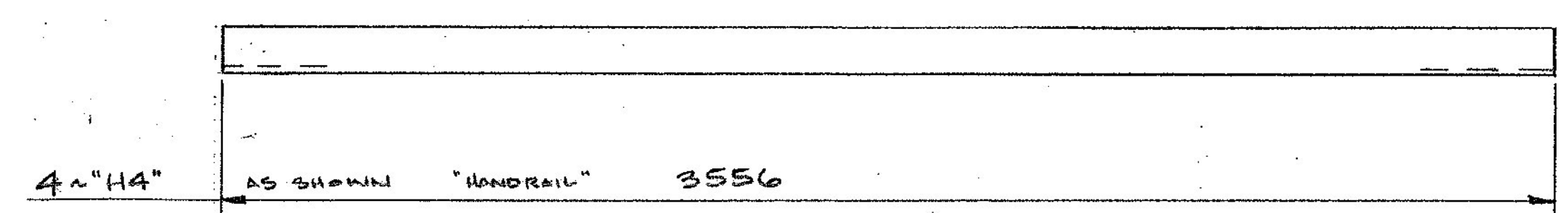
SPlice TSI



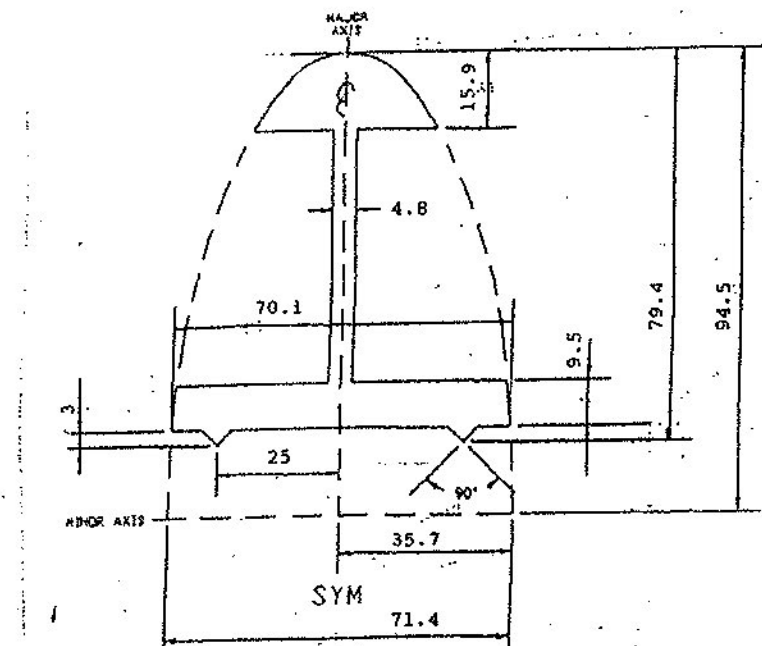
QUAN	MK	X	A
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4	S5	1	5



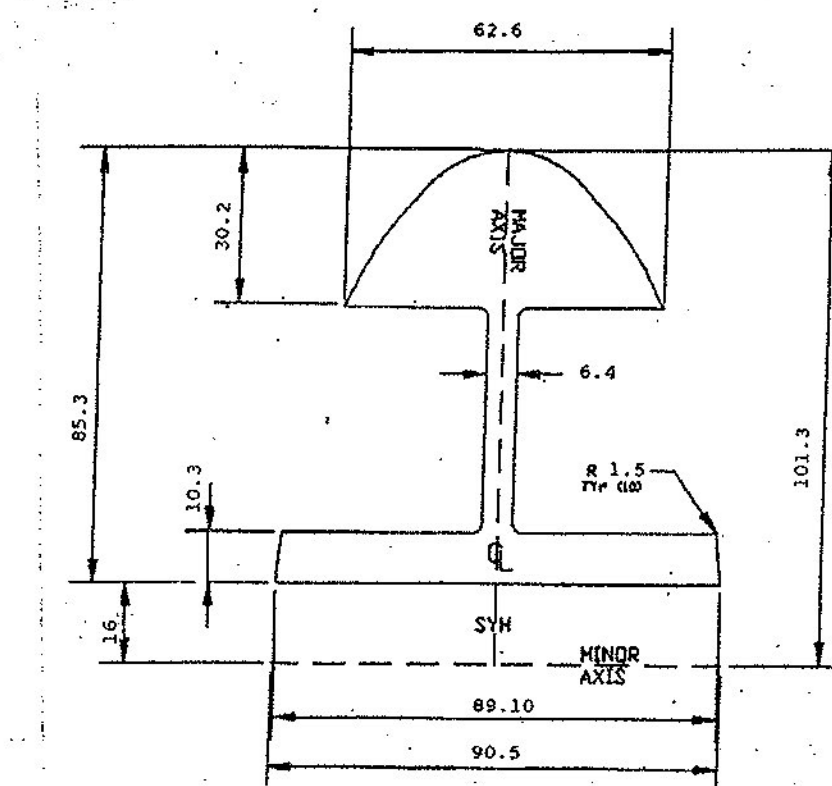
QUAN	MK	X	A
3	S6	4.4	12
3	S7	1	3



#MA-TR
RAIL CAPS ~ CAST ALUM. (ALLOY 356F)



HANDRAIL SPLICE
EXTRUSION
ALLOY 6061-T6



TRAFFIC RAIL SPLICE
EXTRUSION
ALLOY 6061-T6

Received Date: 6/1/11
Checked By: Hiram Salls
Reviewed By: Rob Young
Approval Type: Approved
Approved By: Chris Williams
Date: 6/13/11

FASTENERS ARE IN ENGLISH UNITS		DIM'S ARE GIVEN IN MILLIMETERS	
		AUCIELLO IRON WORKS INC 560 MAIN ST. HUDSON, MA (978) 568-8382	
		VT. AGENCY OF TRANSPORTATION EAST MONTPELIER, VT. VT. RT. 14, BRIDGE # 17 BRP 037-2(B)	
		AL. BRIDGE & APPROACH RAILING	
		SURFACE PREP: NONE	FINISH: MILL
		FOR: FR. LAFAYETTE, INC. DR. 3-22-2011 DWG. NO. 3-22-11 CHK. 5-25-11	
1 5-25-11 ISSUE DATE	FOR APPROVAL DESCRIPTION	BY AB7044-1002	SHEET 2-2 OF 2

				AUCIELLO IRON WORKS INC 560 MAIN ST. HUDSON, MA (978) 568-8382	
				VT. AGENCY OF TRANSPORTATION EAST MONTPELIER, VT VT RT 14, BRIDGE # 17 BR# 037-2(B)	
				AL. BRIDGE & APPROACH RAILING.	
		SURFACE PREP: NONE		FINISH: MILL	
		FOR: F.R. LAFAYETTE, INC.			
		DR: 12-13-12-2011 CHK: 5-25-11		DWG. NO.	
1 5-25-11		FOR APPROVAL		BR-3006	
ISSUE DATE	DESCRIPTION	BY	JOB NO. AB17044-1003		
			SHEET 3-FI of 1		