

STATE OF VERMONT
AGENCY OF TRANSPORTATION

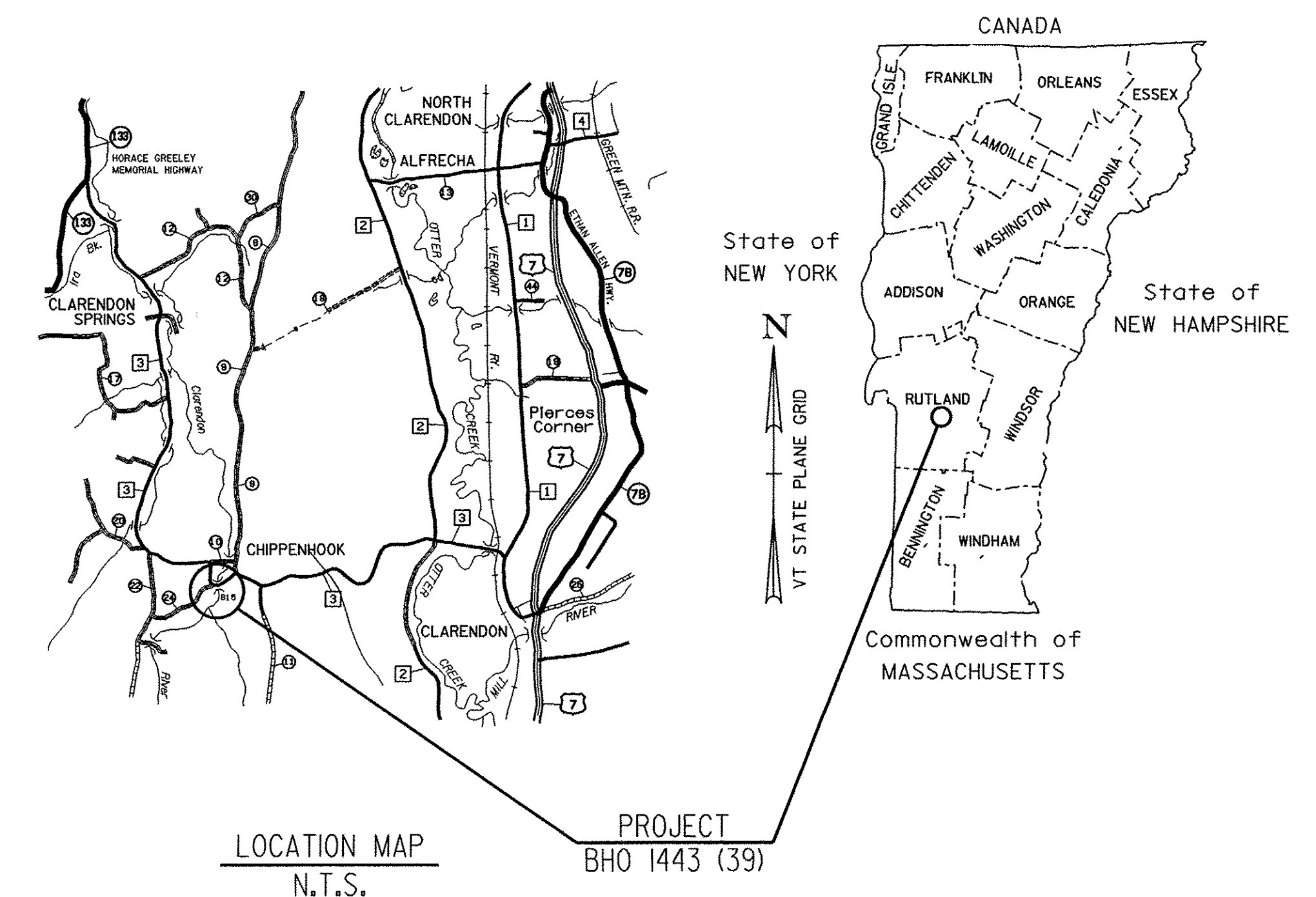


PROPOSED IMPROVEMENT
BRIDGE PROJECT
TOWN OF CLARENDON
COUNTY OF RUTLAND

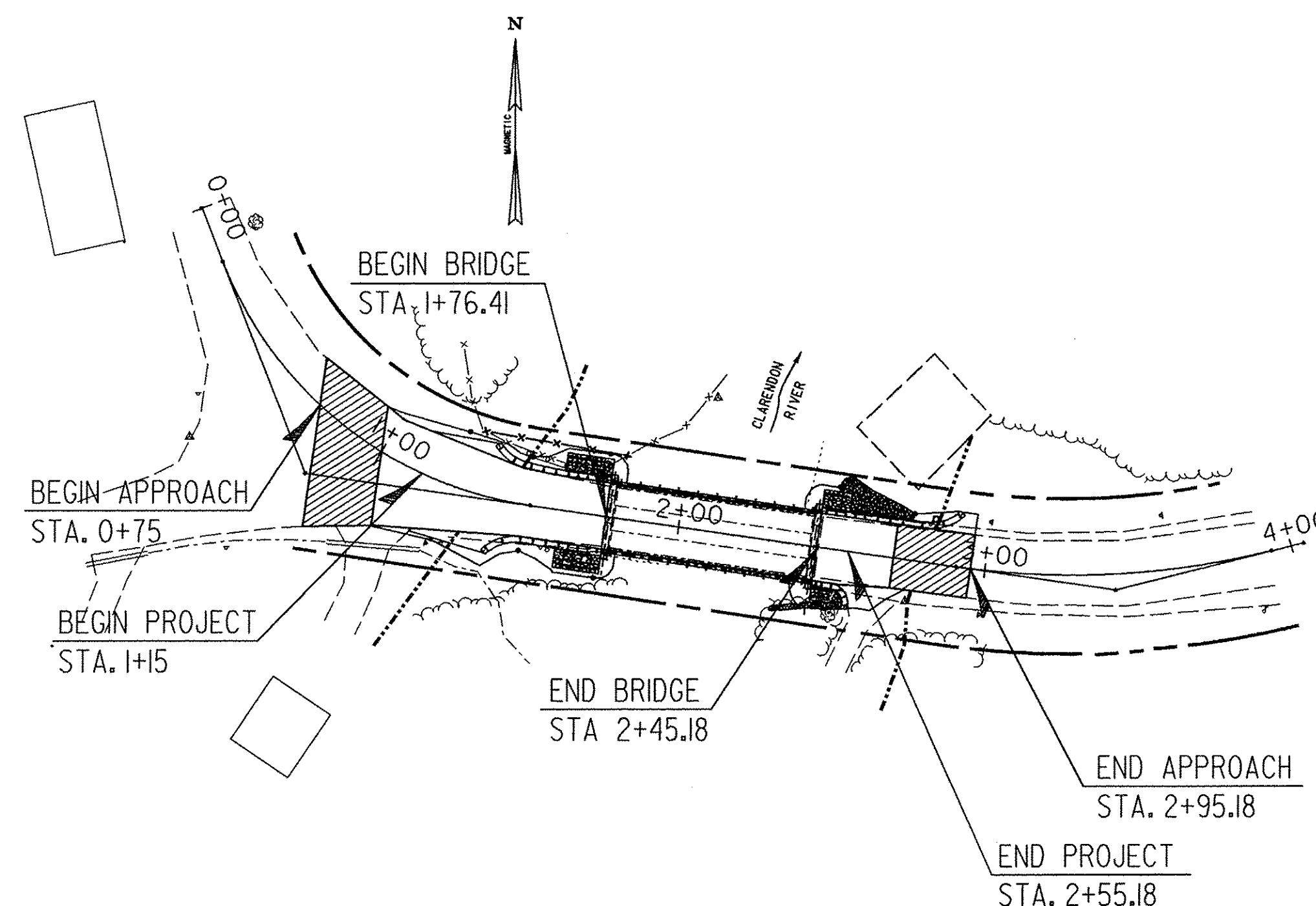
BRIDGE NO.15 ON TOWN HIGHWAY NO.3 (MINOR COLLECTOR)

PROJECT LOCATION: BEGINNING AT APPROXIMATELY 2.45 MILES WEST OF THE INTERSECTION
OF TOWN HIGHWAY 1 AND TOWN HIGHWAY 3 AND EXTENDING WEST 0.027 MILES.

PROJECT DESCRIPTION: THIS PROJECT INVOLVES THE REMOVAL OF THE EXISTING BRIDGE
SUPERSTRUCTURE, REHABILITATION OF EXISTING BRIDGE ABUTMENTS, CONSTRUCTION OF THE
NEW BRIDGE SUPERSTRUCTURE AND MINOR APPROACH RECONSTRUCTION.
LENGTH OF STRUCTURE: 68.77 FEET (0.013 MILES)
LENGTH OF ROADWAY: 71.41 FEET (0.014 MILES)
LENGTH OF PROJECT: 140.18 FEET (0.027 MILES)



RECORD PLANS	
CONTRACTOR:	MILLER CONSTRUCTION, INC. - WINDSOR, VT
RESIDENT ENGINEER:	ERIC FOSTER
CONSTRUCTION BEGAN:	SEPTEMBER 22, 2009
CONSTRUCTION COMPLETE:	AUGUST 20, 2010
RECORD PLANS BY:	ERIC FOSTER & AMOS KEMPTON
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.	
BY	<i>Eric Foster</i> RESIDENT ENGINEER
DATE	12.1.12
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.	



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

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	

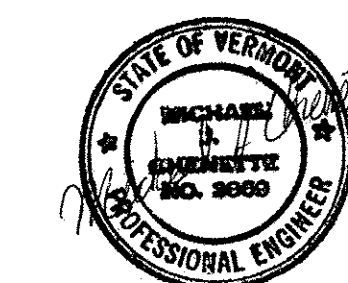
SURVEYED BY : VERMONT SURVEY CONSULT., INC
SURVEYED DATE : MAY 16, 2000

DATUM
VERTICAL NGVD 1988
HORIZONTAL ASSUMED

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.



Stantec Consulting Services Inc.
55 Green Mountain Drive
South Burlington VT U.S.A.
05403
Tel. 802.864.0223
Fax. 802.864.0165
www.stantec.com



DIRECTOR OF PROGRAM DEVELOPMENT	
APPROVED <i>Richard Johnson</i>	DATE 7-16-09
PROJECT MANAGER : MARTHA EVANS-MONGEON	
PROJECT NAME : CLARENDON	
PROJECT NUMBER : BHO 1443 (39)	
SHEET 1 OF 24 SHEETS	

INDEX OF SHEETS

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2.	PRELIMINARY INFORMATION SHEET
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4.	TYPICAL ROADWAY SECTIONS
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6.	QUANTITY SHEET #2
7.	BRIDGE QUANTITY SHEET
8.	TIE SHEET
9.	SITE PLAN AND PROFILE
10.	EXISTING CONDITIONS SITE PLAN AND NARRATIVE
11.	EROSION AND SEDIMENT CONTROL PLAN
12.	FINAL CONDITIONS SITE PLAN
13.-14.	EROSION CONTROL DETAILS
15.	TRAFFIC CONTROL PLAN
16.	PROJECT NOTES
17.	DECK REINFORCING PLAN
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21.	BEARING DETAILS
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23.	REINFORCING SCHEDULE
24.	ROADWAY CROSS SECTIONS

LIST OF STANDARDS

C-10	02/11/08
E-100	01/02/04
E-101	05/30/03
E-102	06/30/03
E-102A	05/01/04
E-107	06/30/03
E-107A	06/08/09
E-108	06/08/09
E-121	08/08/95
E-160	05/20/99
G-1	01/03/00
G-1d	01/03/00
SB-R4A-82	09/19/89
SB-R6-82	01/06/95

EXISTING STRUCTURE

1. STRUCTURE TYPE STEEL BEAMS WITH CONCRETE DECK OVERALL LENGTH 68.77' INVENTORY RATING _____

2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 66.77'

3. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 64'

4. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) _____ VERTICAL CLEARANCE ABOVE STREAM BED _____

5. WATER SURFACE ELEVATION @ 0 2.33 _____ WATER SURFACE ELEVATION @ 0 100 _____

6. WATER SURFACE ELEVATION AT FLOOD OF RECORD _____ YEAR _____ ESTIMATED DISCHARGE _____

7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? _____ IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? 010 _____

ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF _____

8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL _____

9. DISPOSITION OF STRUCTURE CONCRETE DECK AND STEEL BEAMS TO BE REPLACED

NOTE: A HYDRAULICS ANALYSIS WAS NOT PERFORMED FOR THIS PROJECT.

ALLOWABLE STRESSES:

1. DESIGN LIVE LOAD AASHTO HS25-44

2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL _____ ON LEDGE _____

3. ALLOWABLE LOAD FOR PILING N/A TYPE N/A ESTIMATED LENGTH N/A

4. ALLOWABLE STRESS FOR STRUCTURAL STEEL AASHTO M 270 GRADE 50W TENSION 27.0 KSI

5. ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24.0 KSI COMPRESSION 20.0 KSI

6. ALLOWABLE STRESS FOR CONCRETE, HIGH PERFORMANCE CLASS A f'_c 4,000 PSI f_c 1,600 PSI

HIGH PERFORMANCE CLASS B f'_c 3,500 PSI f_c 1,400 PSI

TRAFFIC MAINTENANCE: ROAD CLOSED DURING CONSTRUCTION

1. IS TRAFFIC TO BE MAINTAINED? CONSTRUCTION IF YES, ON EXISTING STRUCTURE _____ OR ON TEMPORARY BRIDGE _____

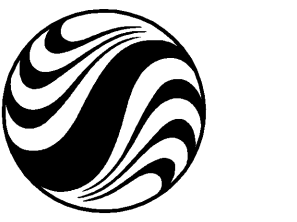
2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY _____ TRAFFIC CONTROL SIGNALS REQUIRED _____

MINIMUM CLEAR SPAN _____ MINIMUM CLEAR HEIGHT _____ MINIMUM WATERWAY AREA _____

ARE SIDEWALKS REQUIRED? _____ IF SO, ON WHAT SIDE? _____

LOAD FACTOR LOAD RATING (TONS)								TRAFFIC DATA					
LOADING LEVELS (LOAD FACTOR)	TRUCK							YEAR	ADT	DHV	% D	% T	ADTT
	H	HS	352	6 AXLE	3A. STR.	4A. STR.	5A. SEMI						
INVENTORY A=2.17; B=1.00	47	60						2000	810	-	-	-	-
POSTED A=1.55; B=1.40	65	83	104		75	77	93	2020	1100	-	-	-	-
OPERATING A=1.30; B=1.67		99	124	151	89	92		DESIGN SPEED: 15 MPH					

STRENGTH RF = $\frac{0.95 F_y S_{LL+1} - M_{DL} S_{LL+1}}{A \times M_{LL+1}}$ SERVICEABILITY RF = $B \left[\frac{0.95 F_y S_{LL+1} - M_{DL} S_{LL+1}}{1.67 M_{LL+1}} \right]$



PROJECT NAME: CLARENDON

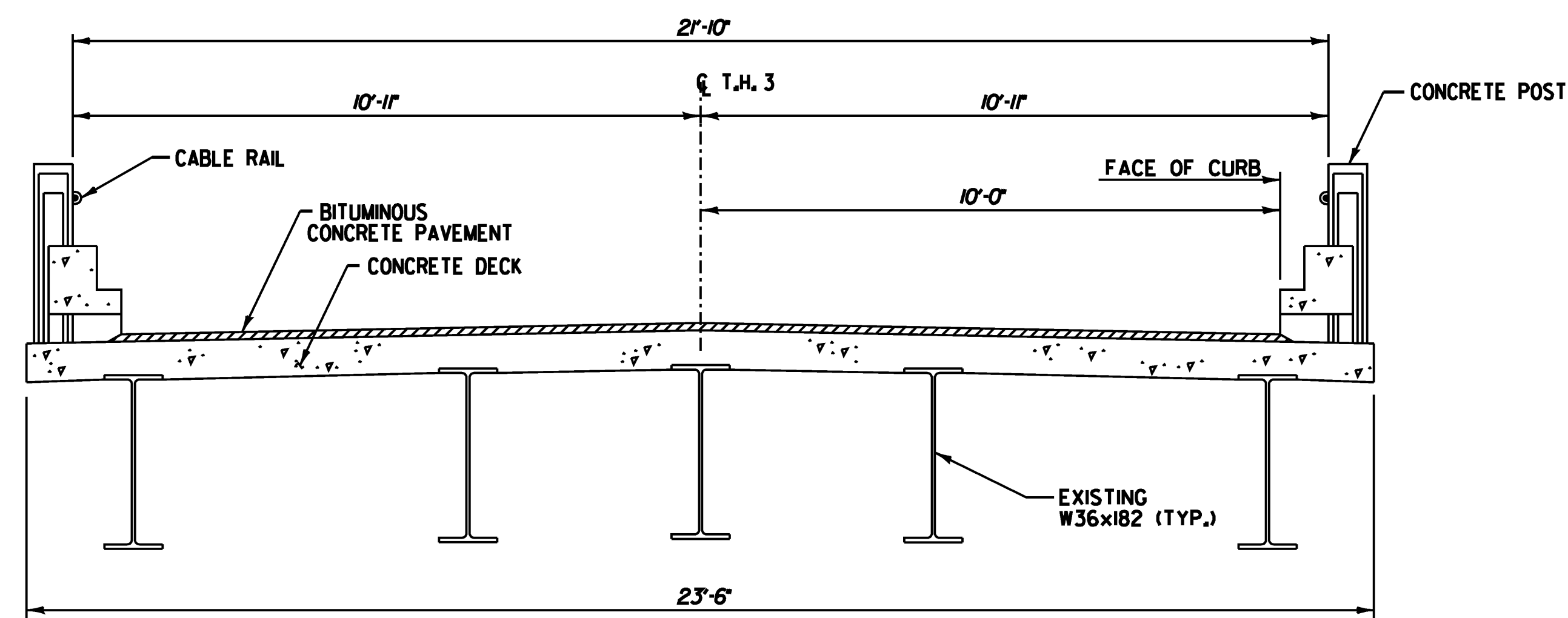
PROJECT NUMBER: BHO 1443 (39)

FILE NAME: ...\\Drawing\02-clar-pl.dgn PLOT DATE: 7/23/2009

PROJECT LEADER: MJC DRAWN BY: SEB

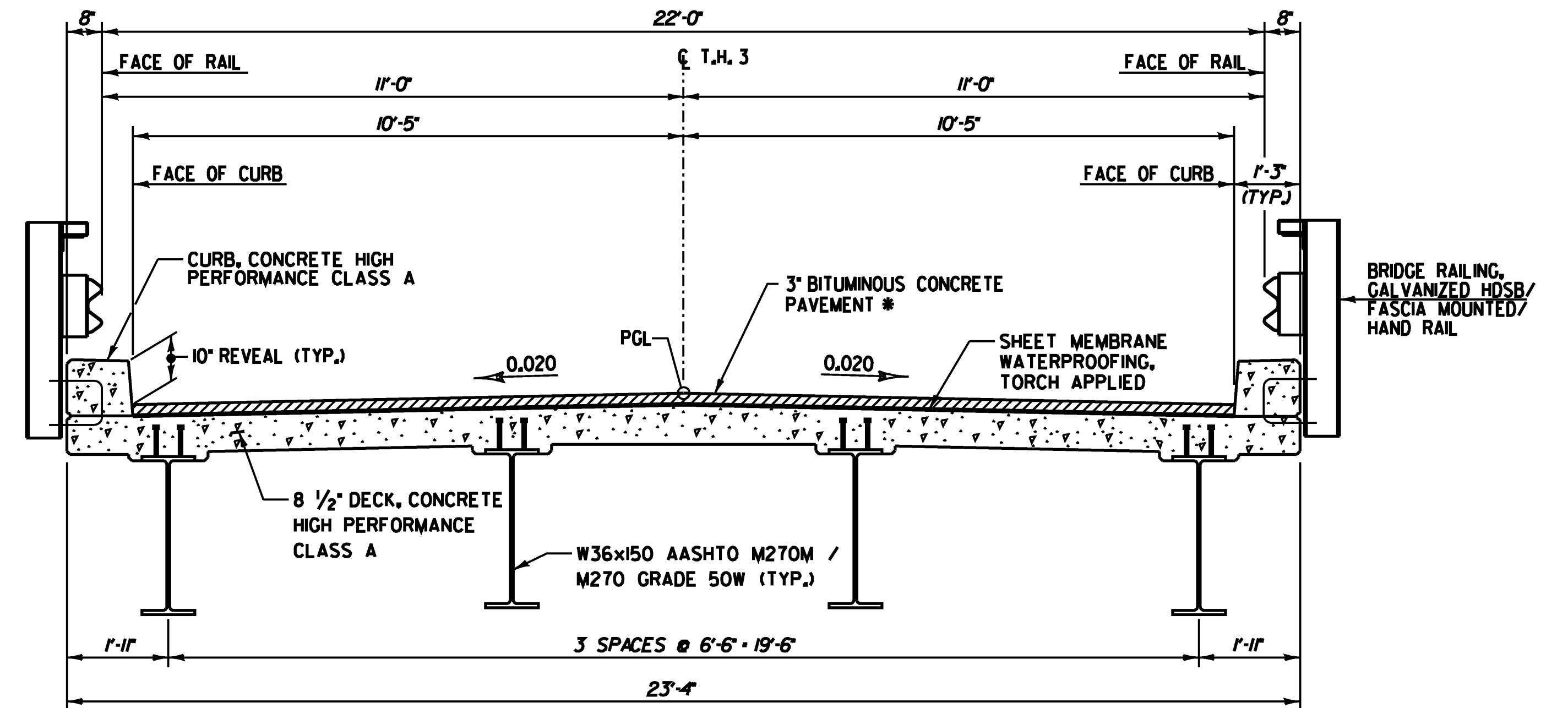
DESIGNED BY: SEB CHECKED BY: MJC

PRELIMINARY INFORMATION SHEET SHEET 2 OF 24



EXISTING BRIDGE SECTION

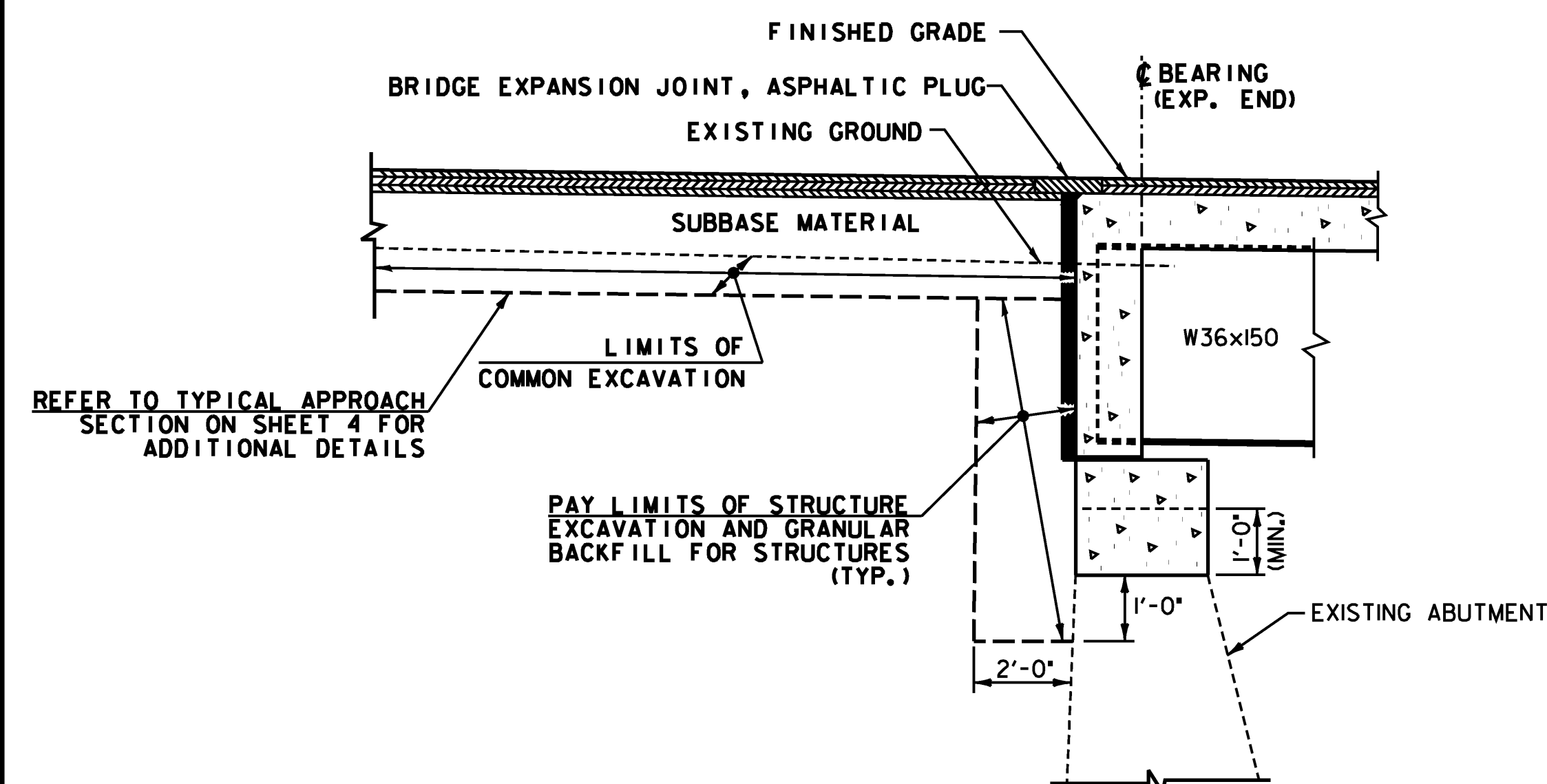
SCALE 1/2" = 1'-0"
1 0 2



TYPICAL BRIDGE SECTION

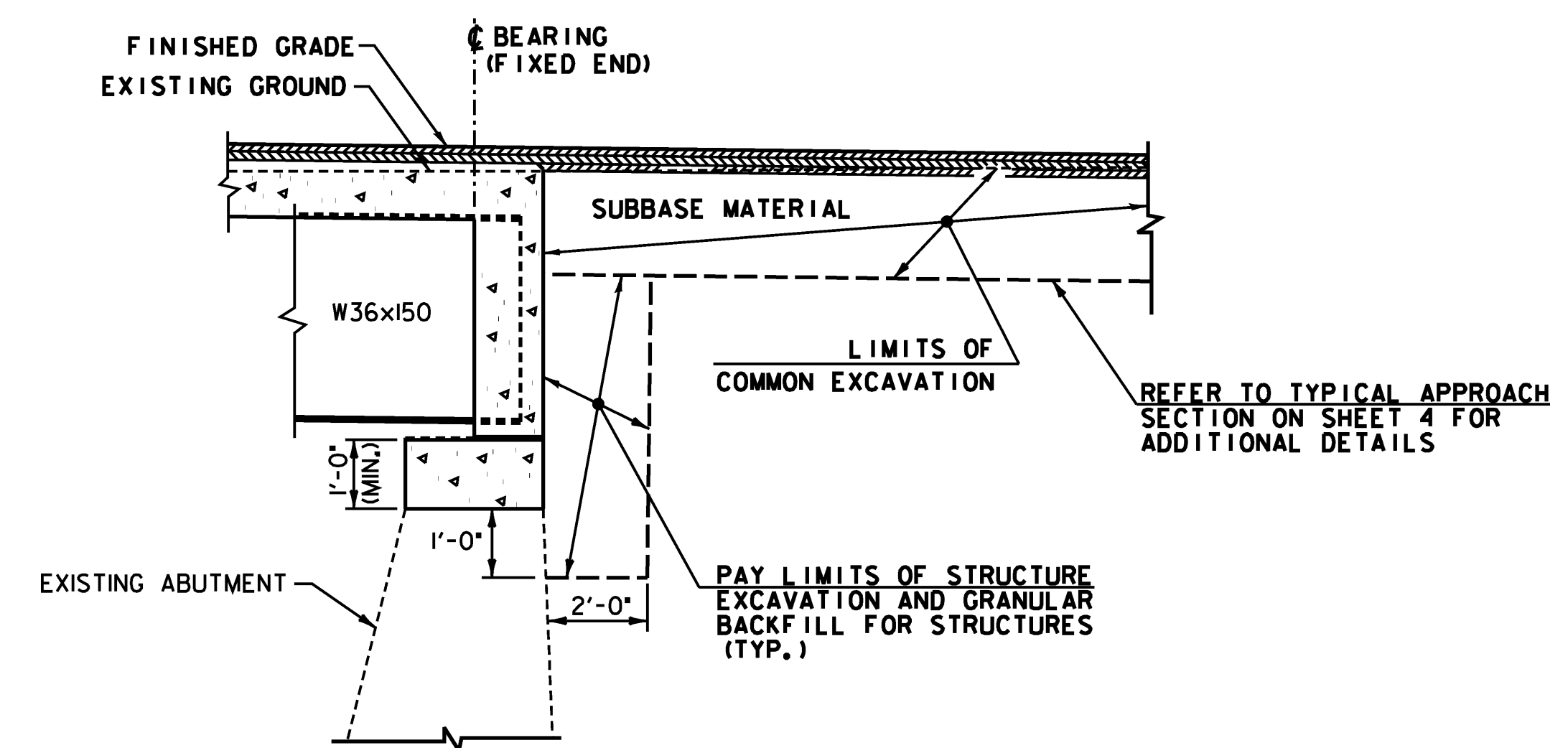
SCALE 1/2" = 1'-0"
1 0 2

* 1 1/2" TYPE IV OVER 1 1/2" TYPE IV



**ABUTMENT #1
EARTHWORK SECTION**

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



**ABUTMENT #2
EARTHWORK SECTION**

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



PROJECT NAME:	CLARENDON
PROJECT NUMBER:	BHO 1443 (39)
FILE NAME:	...Drawing\03-clar-brsect.dgn
PROJECT LEADER:	MJC
DESIGNED BY:	SEB
TYPICAL BRIDGE SECTIONS	
PLOT DATE:	7/2/2009
DRAWN BY:	AET
CHECKED BY:	MJC
SHEET	3 OF 24



TYPICAL ROADWAY SECTION WITH GUARD RAIL

NOT TO SCALE

*** BITUMINOUS CONCRETE PAVEMENT:**

1 1/2" TYPE IV	OVER
1 1/2" TYPE IV	OVER
1 1/2" TYPE III	

SUBBASE:
18" OF SUBBASE OF GRAVEL

The diagram illustrates a cross-section of a road reconstruction project. The existing pavement is labeled "COLD PLANE EXISTING PAVT." and is 25'-0" wide. The subgrade is labeled "BEGIN SUBGRADE REPLACEMENT AND FULL PAVEMENT SECTION" and is 15'-0" wide. The new pavement is labeled "FULL SUBBASE RECONSTRUCTION" and is 15'-0" wide. The new pavement consists of a 1 1/2" BITUMINOUS CONCRETE PAVEMENT (TYPE IV) layer and an 18" SUBBASE OF GRAVEL layer. The subgrade replacement is labeled "BEGIN FULL SUBBASE REPLACEMENT". The diagram also shows a "STA 0+75 BEGIN APPROACH" and a "STA 1+00" marker. A note specifies that the subbase shall also be tapered at the end of construction, with full 18" subbase ends and a taper beginning at STA 2+55.18, with a cold plane area from STA 2+70.18.

NOTE:
SUBBASE SHALL ALSO BE
TAPERED AT END OF CONSTRUCTION.
FULL 18" SUBBASE ENDS AND
TAPER BEGINS AT STA 2+55.18,
COLD PLANE AREA FROM STA 2+70.18

NOTE:
SUBBASE SHALL ALSO BE
TAPERED AT END OF CONSTRUCTION.
FULL 18" SUBBASE ENDS AND
TAPER BEGINS AT STA 2+55.18.
COLD PLANE AREA FROM STA 2+70.18
THROUGH 2+95.18.

TYPICAL APPROACH SECTION

NOT TO SCALE



AND GABION WALL

NOT TO SCALE

NOTE: FOR PG BINDER GRADE SEE
SECTION 406 OF THE GENERAL
SPECIAL PROVISIONS.



STATE OF VERMONT AGENCY OF TRANSPORTATION													QUANTITY SHEET 1									
SUMMARY OF ESTIMATED QUANTITIES													TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
									ROADWAY	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					
									150				150		CY	COMMON EXCAVATION	203.15					
									1				1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22					
									81		15		96		CY	STRUCTURE EXCAVATION	204.25					
									41		15		56		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30					
									175				175		SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10					
									140				140		CY	SUBBASE OF GRAVEL	301.15					
									2				2		CWT	EMULSIFIED ASPHALT	404.65					
									1				1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50					
											59		59		CY	CONCRETE, HIGH PERFORMANCE CLASS A	501.33					
											9		9		CY	CONCRETE, HIGH PERFORMANCE CLASS B	501.34					
											44610		44610		LB	STRUCTURAL STEEL, ROLLED BEAM	506.50					
											976		976		LB	REINFORCING STEEL	507.15					
											112		112		LF	DRILLING AND GROUTING DOWELS	507.16					
											13520		13520		LB	EPOXY COATED REINFORCING STEEL	507.17					
											1		1		LS	SHEAR CONNECTORS (592 - 7/8" x 7")	508.15					
											8		8		GAL	WATER REPELLENT, SILANE	514.10					
											24		24		LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10					
											172		172		SY	SHEET MEMBRANE WATERPROOFING, TORCH APPLIED	519.20					
											150		150		LF	BRIDGE RAILING, GALVANIZED HDSB/FASCIA MOUNTED/HAND RAIL	525.43					
											153		153		SY	REMOVAL OF BRIDGE PAVEMENT	529.10					
											1		1		EACH	PARTIAL REMOVAL OF STRUCTURE	529.20					
											8		8		EACH	BEARING DEVICE ASSEMBLY, PREFORMED FABRIC PAD	531.10					
											2		2		SY	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I	580.13					
									10				10		CY	STONE FILL, TYPE I	613.10					
									19				19		LF	TREATED TIMBER CURB	616.35					
									50				50		LF	REMOVING AND RESETTING FENCE	620.50					
									169				169		LF	HD STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS	621.215					
									3				3		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60					
									85				85		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80					
									40				40		LF	TEMPORARY TRAFFIC BARRIER	621.90					
												1	1		LS	FIELD OFFICE, ENGINEERS	631.10					
												1	1		LS	TESTING EQUIPMENT, CONCRETE	631.16					
												1	1		LS	TESTING EQUIPMENT, BITUMINOUS	631.17					
												1	1		LU	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.25					
									1				1		LS	MOBILIZATION/DEMOBILIZATION	635.11					
									1				1		LS	TRAFFIC CONTROL	641.10					
									441				441		LF	4 INCH WHITE LINE	646.20					
									441				441		LF	4 INCH YELLOW LINE	646.21					
									30				30		SY	GEOTEXTILE UNDER STONE FILL	649.31					
																		PROJECT NAME: CLARENDON				
																		PROJECT NUMBER: BHO 1443 (39)				
																		FILE NAME: ...\\05-07-quantity sheet.dgn				
																		PLOT DATE: 7/2/2009				
																		PROJECT LEADER: MJC				
																		DRAWN BY: ENA				
																		DESIGNED BY: SEB				
																		CHECKED BY: MJC				
																		QUANTITY SHEET 1				
																		SHEET 5 OF 24				

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

QUANTITY SHEET 2

[illegible]

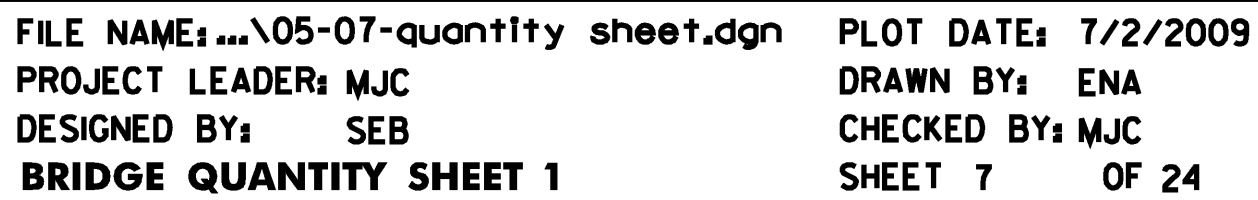
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PROJECT NUMBER:	BHO 1443 (39)

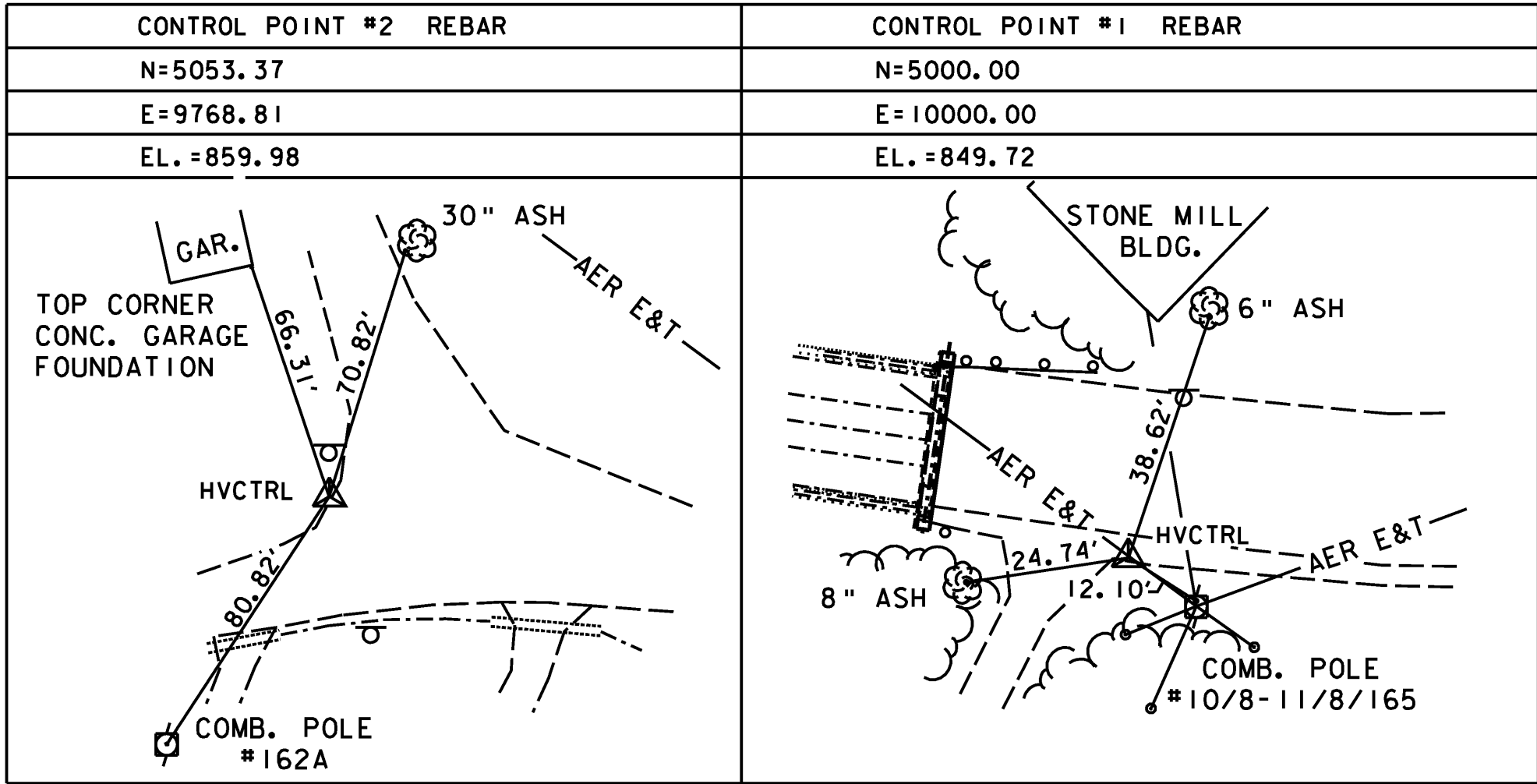
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PROJECT LEADER: MJC	DRAWN BY: ENA
DESIGNED BY: SEB	CHECKED BY: MJC
QUANTITY SHEET 2	SHEET 6 OF 24



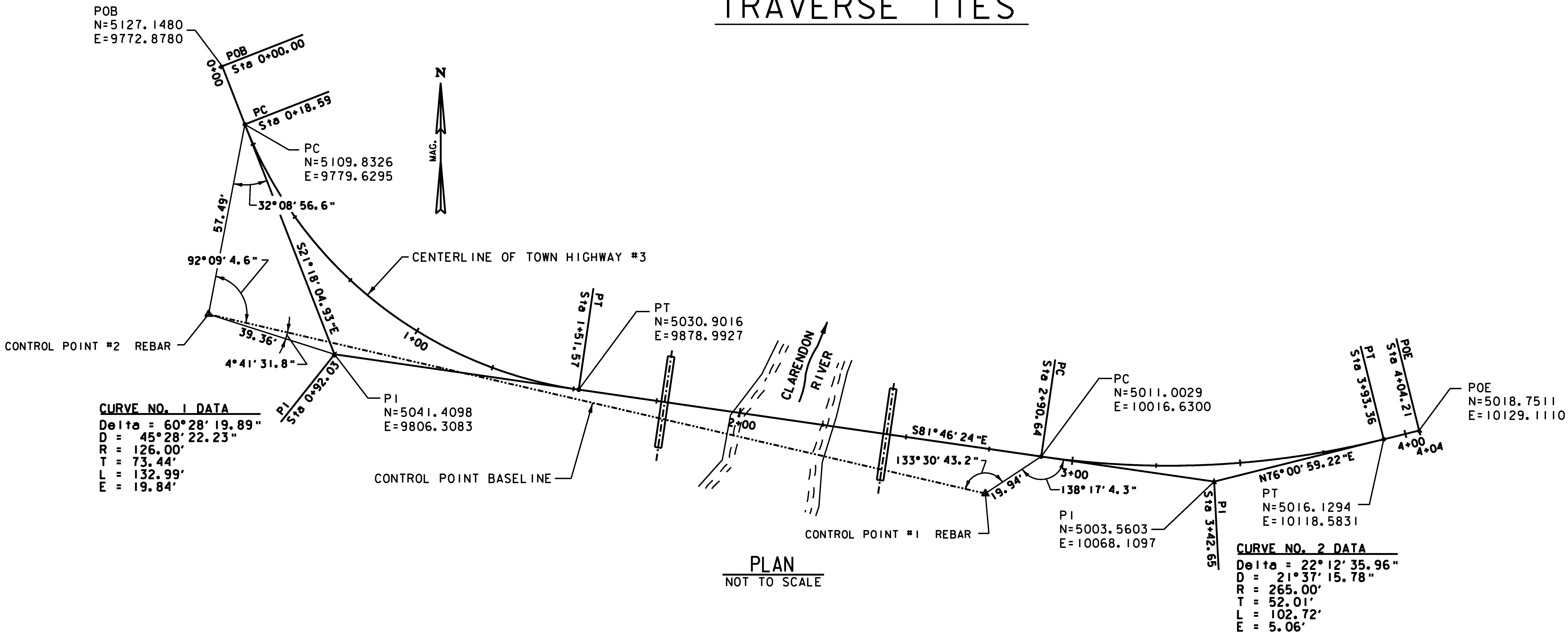
BRIDGE QUANTITY SHEET 1

PROJECT NAME: CLARENDON	
PROJECT NUMBER: BHO 1443 (39)	
FILE NAME: ...05-07-quantity sheet.dgn	PLOT DATE: 7/2/2009
PROJECT LEADER: MJC	DRAWN BY: ENA
DESIGNED BY: SEB	CHECKED BY: MJC
BRIDGE QUANTITY SHEET 1	SHEET 7 OF 24





TRAVERSE TIES



ALIGNMENT COORDINATES

SURVEYED BY : VERMONT SURVEY CONSULT., INC.
SURVEYED DATE : MAY 16, 2000

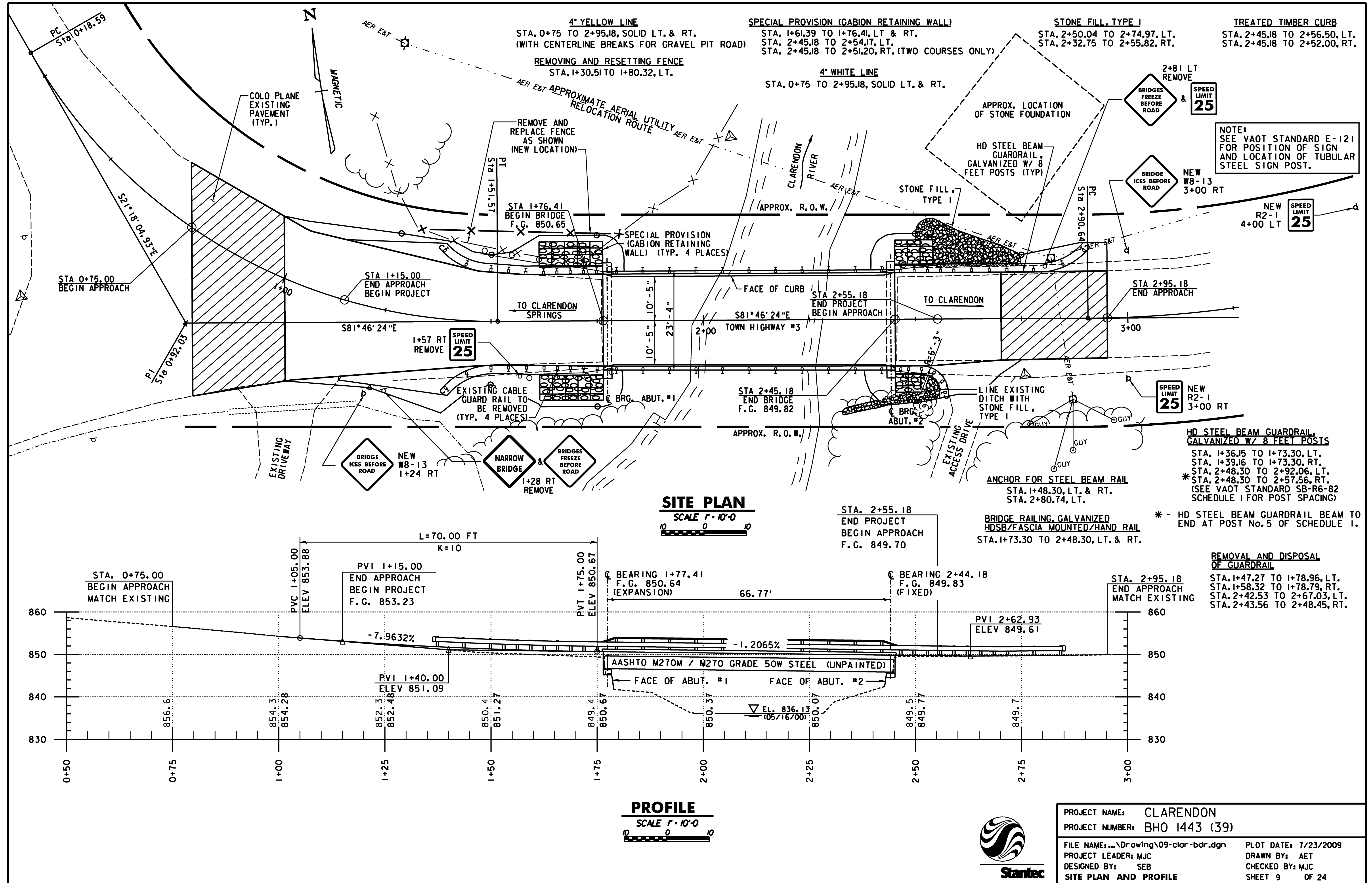
DATUM
VERTICAL NGVD 1988
HORIZONTAL ASSUMED

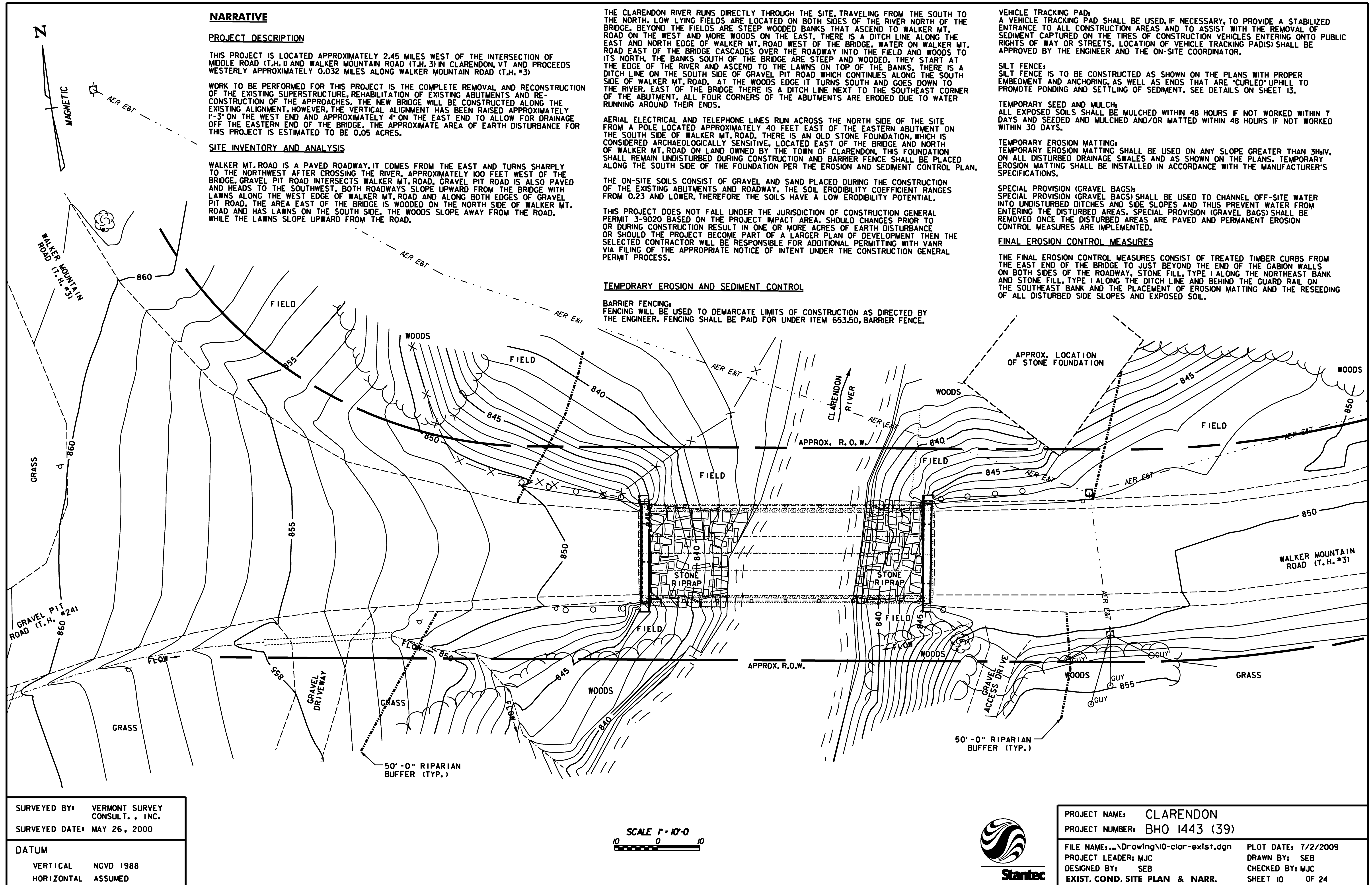


PROJECT NAME: CLARENDON
PROJECT NUMBER: BHO 1443 (39)

FILE NAME: ...\\Drawing\\08-clar-ties.dgn
PROJECT LEADER: MJC
DESIGNED BY: SEB
TIE SHEET

PLOT DATE: 7/2/2009
DRAWN BY: AET
CHECKED BY: MJC
SHEET 8 OF 24

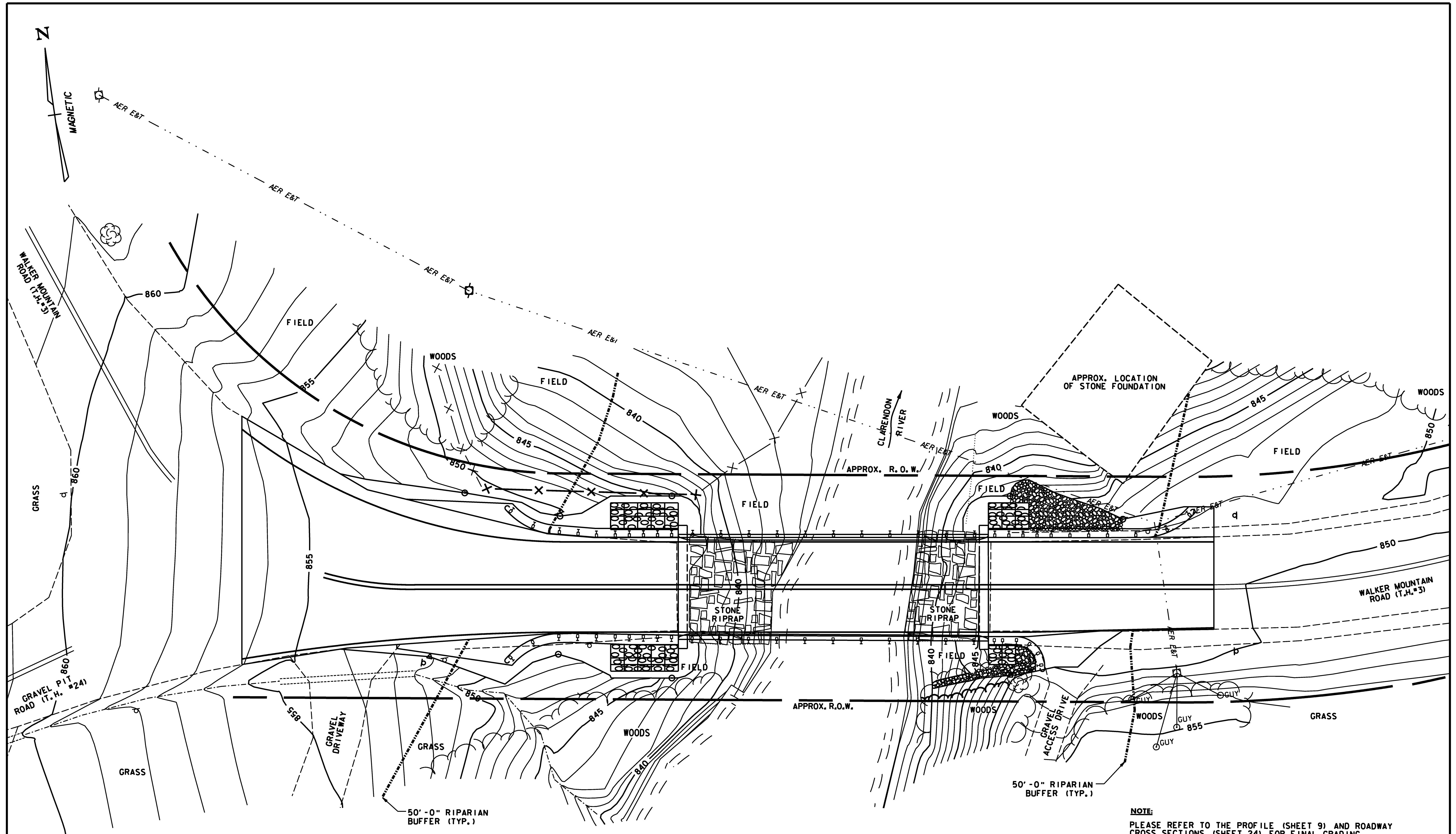




SURVEYED BY:	VERMONT SURVEY CONSULT., INC.
SURVEYED DATE:	MAY 26, 2000
DATUM	
VERTICAL	NGVD 1988
HORIZONTAL	ASSUMED



PROJECT NAME:	CLARENDON
PROJECT NUMBER:	BHO 1443 (39)
FILE NAME:	...Drawing\10-clar-exist.dgn
PROJECT LEADER:	MJC
DESIGNED BY:	SEB
EXIST. COND. SITE PLAN & NARR.	
PLOT DATE:	7/2/2009
DRAWN BY:	SEB
CHECKED BY:	MJC
SHEET 10	OF 24



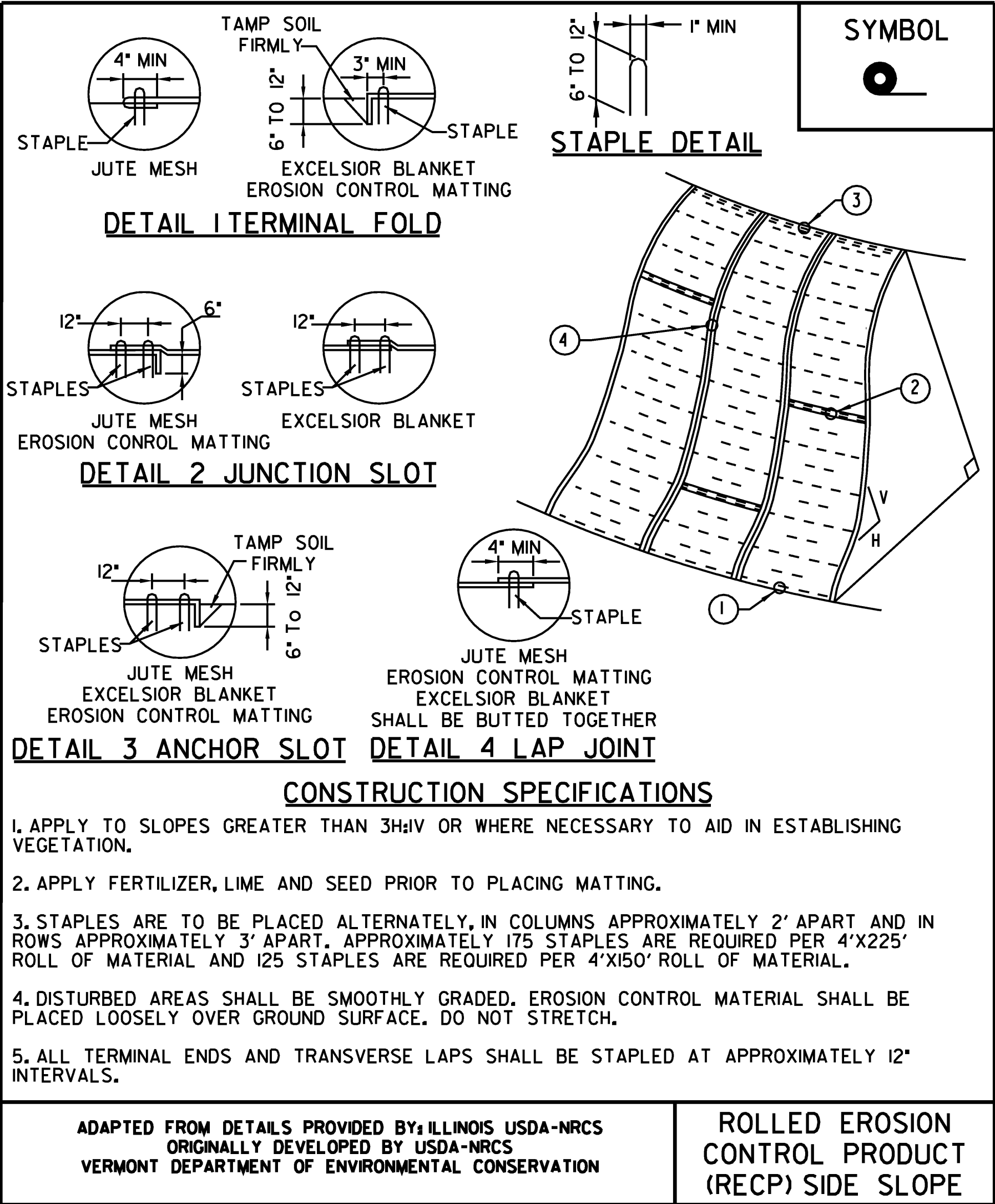
NOTE:
PLEASE REFER TO THE PROFILE (SHEET 9) AND ROADWAY CROSS SECTIONS (SHEET 24) FOR FINAL GRADING.

SURVEYED BY: VERMONT SURVEY CONSULT., INC.	
SURVEYED DATE: MAY 26, 2000	
DATUM	
VERTICAL	NGVD 1988
HORIZONTAL	ASSUMED

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

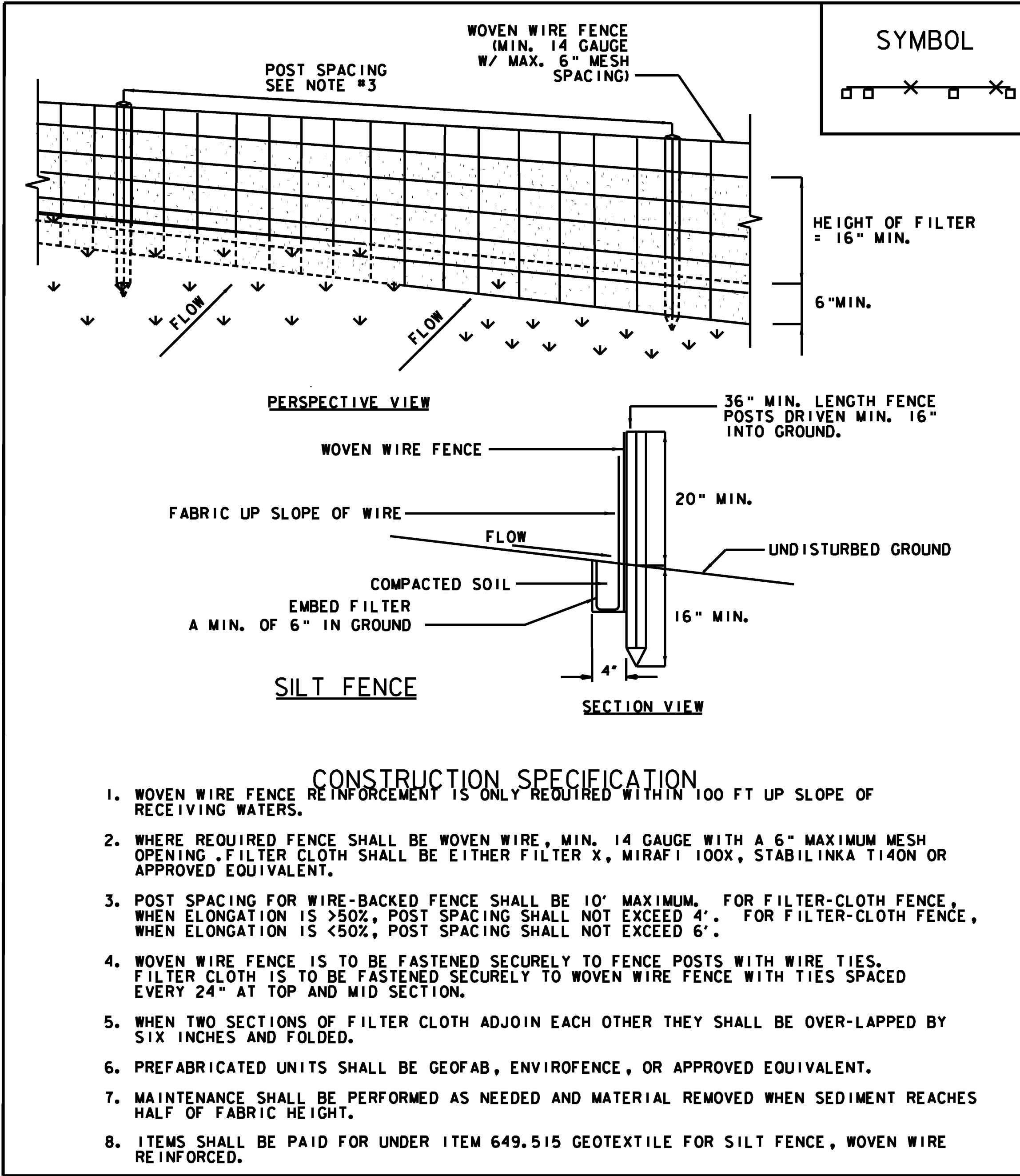


PROJECT NAME: CLARENDON	
PROJECT NUMBER: BHO 1443 (39)	
FILE NAME: ...Drawing\12-clar-final.dgn	PLOT DATE: 7/2/2009
PROJECT LEADER: MJC	DRAWN BY: SEB
DESIGNED BY: SEB	CHECKED BY: MJC
FINAL CONDITIONS SITE PLAN	SHEET 12 OF 24



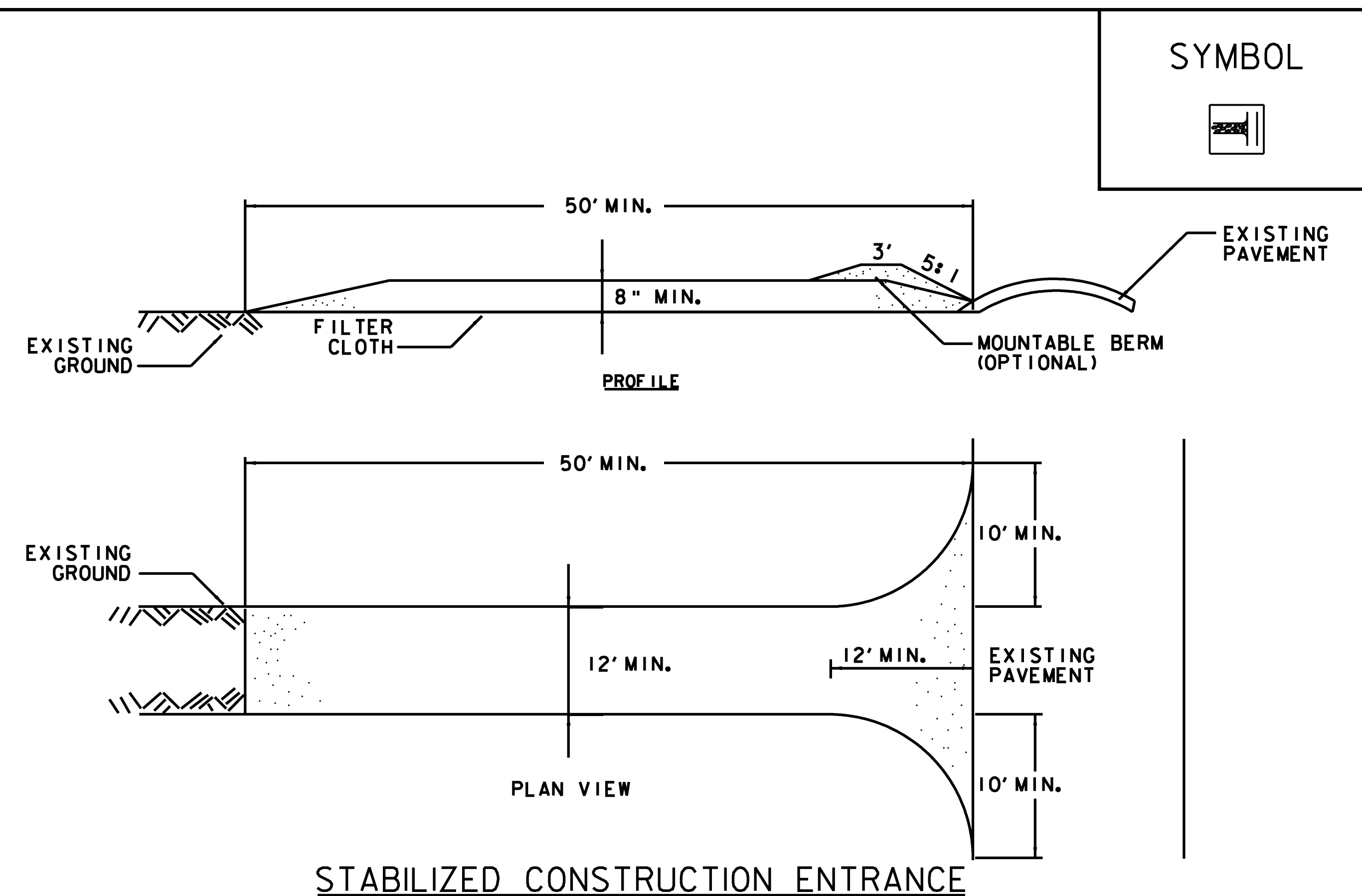
NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM
653.20 TEMPORARY EROSION MATTING



PROJECT NAME: CLARENDON
PROJECT NUMBER: BHO 1443 (39)

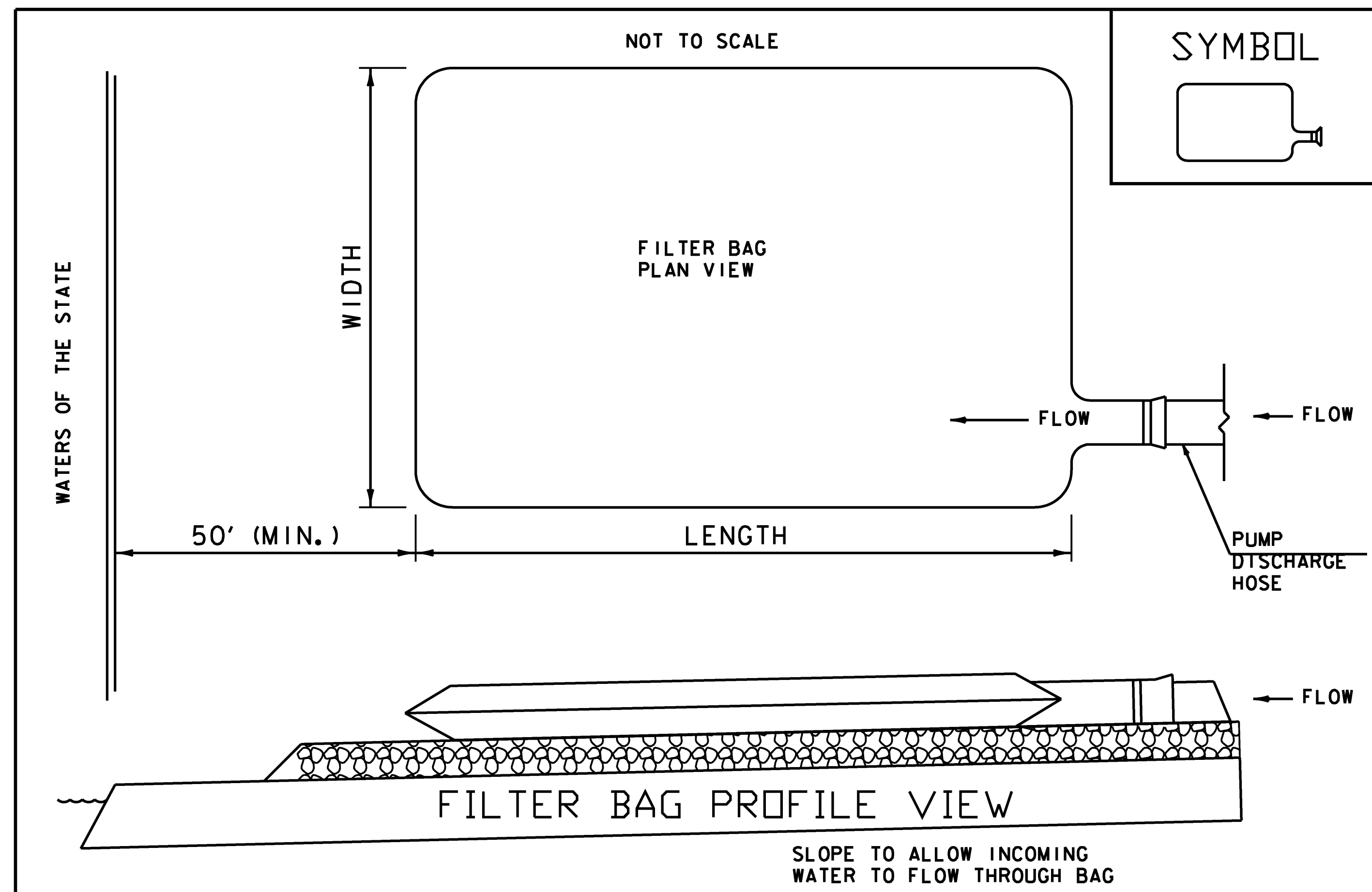
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PROJECT LEADER: MJC DRAWN BY: SEB
DESIGNED BY: SEB CHECKED BY: MJC
EROSION CONTROL DETAILS 1 SHEET 13 OF 24



STABILIZED CONSTRUCTION ENTRANCE

CONSTRUCTION SPECIFICATION

1. STONE SIZE - USE 1-4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH APPLIES).
3. THICKNESS - NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT 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 CON-STRUCTURE 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.
10. THIS ITEM SHALL BE PAID FOR UNDER ITEM 653.35 VEHICLE TRACKING PAD.



APPLICATION NOTES:

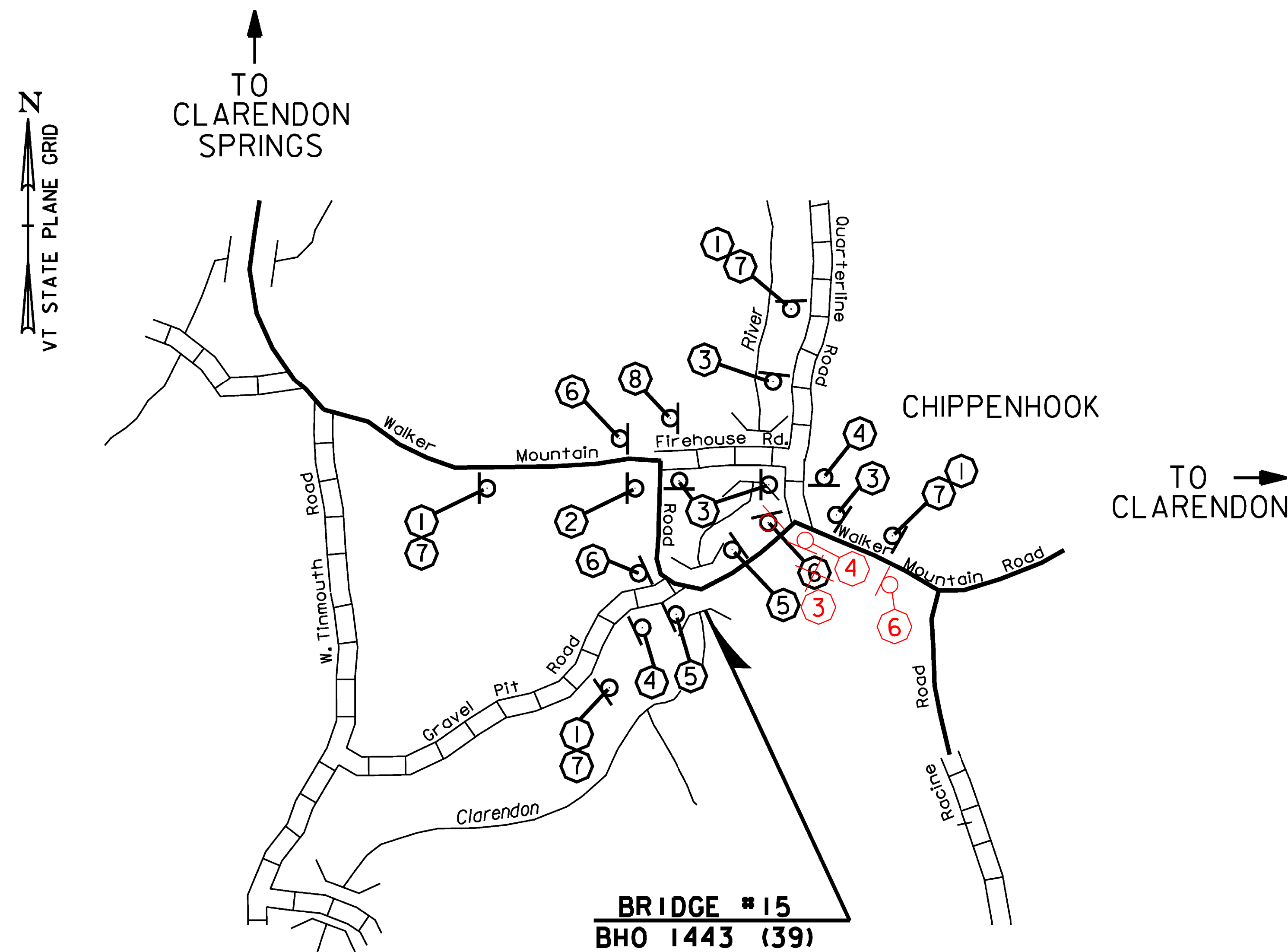
THE PRIMARY PURPOSE OF THE FILTER BAG IS TO RETAIN SILT, SAND, AND FINES DURING DEWATERING OPERATIONS WHILE ALLOWING WATER TO PASS THROUGH THE BAG.

GENERAL NOTES:

1. FILTER BAG SHALL BE INSTALLED ON A VEGETATED SLOPE TO ALLOW INCOMING WATER TO FLOW THROUGH THE BAG.
2. FILTER BAGS MAY ALSO BE PLACED ON COARSE AGGREGATE, STONE, OR HAYBALES TO INCREASE FILTRATION EFFICIENCY.
3. FILTER BAG SHALL BE LOCATED A MINIMUM OF 50 FEET FROM WATERS OF THE STATE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
4. THE NECK OF THE FILTER BAG SHALL BE STRAPPED TIGHTLY TO THE DISCHARGE HOSE.
5. A FILTER BAG IS FULL WHEN IT NO LONGER CAN EFFICIENTLY FILTER SEDIMENT OR ALLOW WATER TO PASS AT A REASONABLE RATE.
6. FILTER BAG SHALL BE DISPOSED OF AS APPROVED IN THE EPSC PLAN OR AS DIRECTED BY THE ENGINEER.
7. THIS ITEM SHALL BE PAID FOR UNDER ITEM 653.45 FILTER BAG



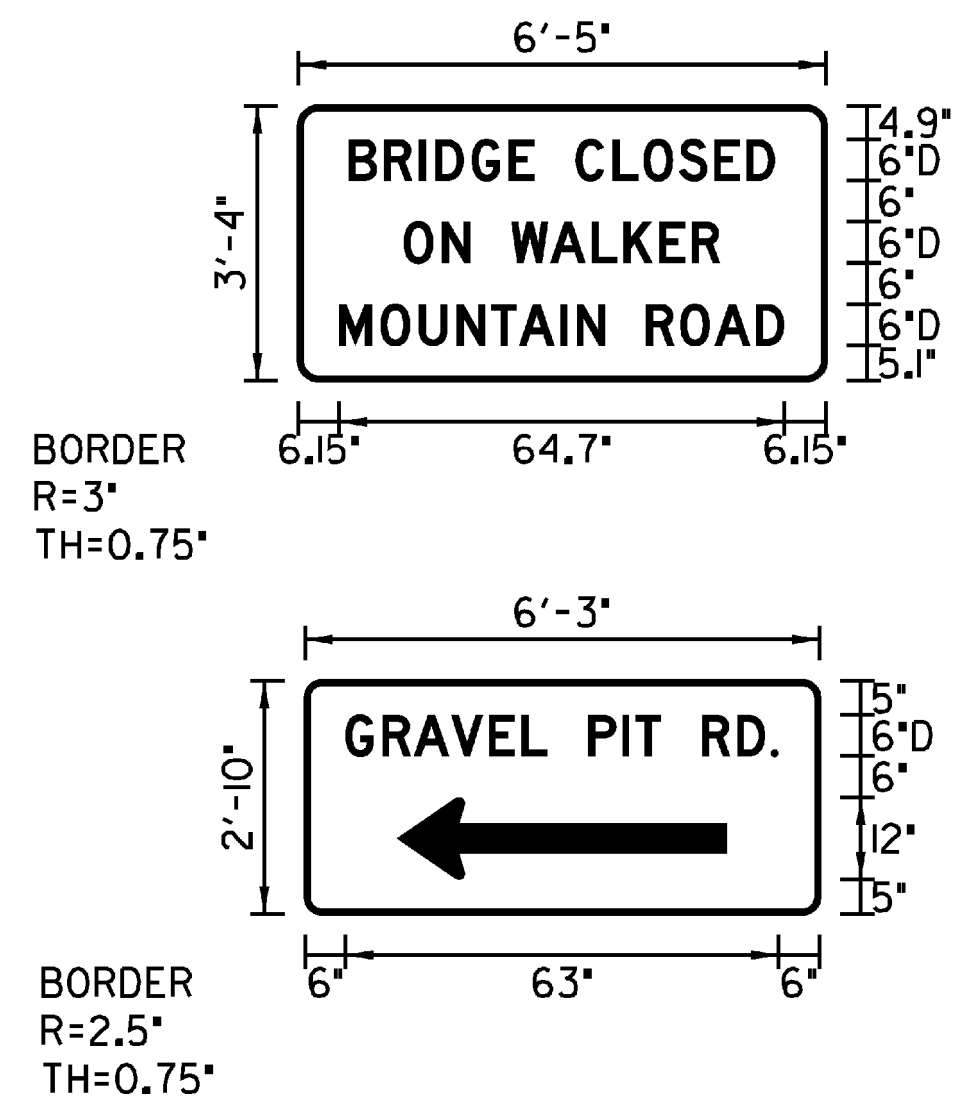
PROJECT NAME:	CLARENDON
PROJECT NUMBER:	BHO 1443 (39)
FILE NAME:	...Drawing\14-clar-ecdet2.dgn
PROJECT LEADER:	MJC
DESIGNED BY:	SEB
EROSION CONTROL DETAILS 2	
PLOT DATE:	7/2/2009
DRAWN BY:	SEB
CHECKED BY:	MJC
SHEET 14	OF 24



TRAFFIC CONTROL PLAN
APPROX. SCALE: 1"=500'

NOTES:

- 1. ALL TRAFFIC SIGNS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2003 EDITION.
- 2. "BRIDGE CLOSED" SIGNS SHALL BE MOUNTED AND MAINTAINED ON TYPE III MODIFIED BARRICADES.
- 3. TYPE III CONSTRUCTION BARRICADES AND TEMPORARY TRAFFIC BARRIERS SHALL BE PLACED SO AS TO PHYSICALLY EXCLUDE TRAFFIC FROM THE ENTIRE ROADWAY WIDTH OR AT THE DISCRETION OF THE ENGINEER. TEMPORARY TRAFFIC BARRIERS WILL BE PAID FOR UNDER ITEM 621.90.
- 4. ALL ORANGE SIGNS SHALL BE FABRICATED USING RETROREFLECTORIZED FLUORESCENT ORANGE COLORED SHEETING.
- 5. USE TYPE A SIGN WITH BACKGROUND PER NOTE 4 AND NON-RETROREFLECTIVE BLACK LETTERING.
- 6. "BRIDGE CLOSED" SIGN PLACEMENT MAY CHANGE WITH FIELD CONDITIONS OR AT THE DISCRETION OF THE ENGINEER.
- 7. ALL COSTS OF INSTALLING, MAINTAINING, AND REMOVING THE SIGNS AND BARRICADES IN THIS TRAFFIC CONTROL PLAN AS NECESSARY TO MEET PROJECT CONDITIONS WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10.
- 8. REFER TO VAOT STANDARD E-100 FOR CONSTRUCTION APPROACH SIGNING AT BRIDGE.
- 9. THE "BRIDGE CLOSED ON WALKER MOUNTAIN ROAD" SIGN SHALL BE ERECTED DIRECTLY BELOW THE "DETOUR AHEAD" SIGN.
- 10. DETOUR SIGNS SHALL BE INSTALLED SUCH THAT THEY DO NOT OBSTRUCT VISIBILITY OF EXISTING TRAFFIC CONTROL DEVICES OR CORNER SIGHT DISTANCE.



NON-STANDARD CONSTRUCTION SIGNS

PLAN REF. SYMBOL	ID NUMBER	SIGN TEXT	SIZE OF SIGN		NUMBER OF SIGNS REQ'D.	TOTAL AREA (SQ. FT.)	REMARKS
			WIDTH	HEIGHT			
①	W20-2	DETOUR AHEAD	48"	48"	4	16.00	
②	M4-9V	DETOUR	30"	24"	1	5.00	
③	M4-9R	DETOUR	30"	24"	4	5.00	
④	M4-9L	DETOUR	30"	24"	2	5.00	
⑤	R11-2C	BRIDGE CLOSED	48"	30"	2	10.00	SEE NOTES 2 & 3
⑥	M4-8a	END DETOUR	24"	18"	3	3.00	
⑦	---	BRIDGE CLOSED ON WALKER MOUNTAIN ROAD	77"	40"	4	24.39	SEE NOTE 5 & 9
⑧	---	GRAVEL PIT RD.	75"	34"	1	17.71	SEE NOTE 5



PROJECT NAME: CLARENDON	
PROJECT NUMBER: BHO 1443 (39)	
FILE NAME: ...\\Drawing\\15-clar-traffic.dgn	PLOT DATE: 7/2/2009
PROJECT LEADER: MJC	DRAWN BY: AET
DESIGNED BY: SEB	CHECKED BY: MJC
TRAFFIC CONTROL PLAN	
SHEET 15 OF 24	

PROJECT NOTES

GENERAL

- 1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT, AGENCY OF TRANSPORTATION, 2006 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 2002, AND ITS LATEST REVISIONS.
- 2. ALL WORK ON THIS PROJECT SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY LIMITS. NO ADDITIONAL R.O.W. RIGHTS ARE ANTICIPATED FOR THIS PROJECT.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY PROJECT SIGNING AND BARRICADES SHOWN ON THE PLANS. ALL COSTS ASSOCIATED WITH THIS WORK WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10, TRAFFIC CONTROL.
- 4. DURING CONSTRUCTION, TOWN HIGHWAY 3 WILL BE CLOSED TO THROUGH TRAFFIC. ACCESS TO ALL EXISTING SIDE ROADS, DRIVES AND PARKING AREAS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR WILL NOTIFY THE TOWN OF CLARENDON, ADMINISTRATIVE ASSISTANT, LINDA TROMBLEY AT (802)-747-4074, TWO WEEKS AHEAD OF TIME, OF THEIR INTENTION TO CLOSE THE ROAD.
- 5. ALL DIMENSIONS SHOWN IN THE PLANS ARE HORIZONTAL OR VERTICAL AT 68 DEGREES FAHRENHEIT.
- 6. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS, CONSTRUCTION DIMENSIONS AND ELEVATIONS. ANY DISCREPANCIES SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ENGINEER.

EARTHWORK AND RELATED ITEMS

- 7. THE FOLLOWING SHALL BE PAID FOR UNDER ITEM 529.20, "PARTIAL REMOVAL OF STRUCTURE": REMOVAL AND DISPOSAL OF THE EXISTING BRIDGE DECK, CURBS, BRIDGE RAIL, STEEL BEAMS AND BACK WALLS. REMOVAL AND DISPOSAL OF THE BRIDGE PAVEMENT SHALL BE PAID FOR UNDER ITEM 529.10, "REMOVAL OF BRIDGE PAVEMENT." PARTIAL REMOVAL OF STRUCTURE WILL ALSO INCLUDE REMOVING ANY PART OF THE EXISTING ABUTMENTS WHICH IS ABOVE ELEVATION 844.33. THE EXISTING STRUCTURAL STEEL ON THIS PROJECT WAS PAINTED WITH A MATERIAL WHICH MAY CONTAIN LEAD. 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 STRUCTURAL STEEL.
- 8. BACKFILLING BEHIND ABUTMENTS SHALL NOT BEGIN UNTIL THE ABUTMENT AND DECK CONSTRUCTION IS COMPLETE AND THE CURING PERIOD IS UP. THE DIFFERENCE IN ELEVATION OF FILL BEHIND THE ABUTMENTS AT ANY TIME DURING BACKFILLING OPERATIONS SHALL NOT EXCEED TWO (2) FEET.

CONCRETE AND REINFORCING STEEL

- 9. CONCRETE FOR THE DECK, CURBS AND CURTAIN WALL SHALL BE HIGH PERFORMANCE CLASS A AND WILL BE PAID FOR UNDER ITEM 501.33, "CONCRETE, HIGH PERFORMANCE CLASS A". ALL OTHER CONCRETE SHALL BE HIGH PERFORMANCE CLASS B AND WILL BE PAID FOR UNDER ITEM 501.34, "CONCRETE, HIGH PERFORMANCE CLASS B" UNLESS OTHERWISE NOTED.
- 10. THE DECK IS TO BE PLACED IN ONE CONTINUOUS POUR WITH A MAXIMUM DURATION OF EIGHT (8) HOURS. IF CIRCUMSTANCES BEYOND THE CONTRACTORS CONTROL PREVENT THIS FROM BEING ACCOMPLISHED, A CONSTRUCTION JOINT SHALL BE USED AS SHOWN ON SHEET 20 OF THE PLANS. A NINETY-SIX (96) HOUR DELAY BETWEEN THE COMPLETION OF ONE DAY'S POUR AND THE BEGINNING OF ANY OTHER POUR SHALL BE OBSERVED.
- 11. NO TRAFFIC SHALL BE ALLOWED ON THE DECK UNTIL THE CURE PERIOD IS UP AND THE 28-DAY DESIGN STRENGTH IS ATTAINED, AS EVIDENCED BY TEST CYLINDERS CURED UNDER FIELD CONDITIONS.
- 12. WHEN CONSTRUCTING THE DECK, THE CONCRETE SHALL BE PLACED PARALLEL TO THE CENTERLINE OF BEARING SO AS TO LOAD THE BEAMS EQUALLY.
- 13. WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF DECK BETWEEN DRIP BEADS.
- 14. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED ONE (1) INCH.
- 15. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS SHOWN ON SHEET 20 OF THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 16. THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. UPWARD KEYS SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.
- 17. ALL SUPERSTRUCTURE AND CURTAIN WALL REINFORCING STEEL SHALL BE EPOXY COATED AND PAID FOR UNDER ITEM 507.17, "EPOXY COATED REINFORCING STEEL". WHEN EPOXY COATED REINFORCING STEEL IS TO BE CUT, THE UNCOATED ENDS SHALL BE REPAIRED WITH MATERIALS AND PROCEDURES APPROVED BY THE COATING MANUFACTURER. FLAME CUTTING OF EPOXY COATED REINFORCING STEEL WILL NOT BE PERMITTED.
- 18. ALL SUBSTRUCTURE REINFORCING STEEL SHALL BE PAID FOR UNDER ITEM 507.15, "REINFORCING STEEL".
- 19. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE "CONCRETE REINFORCING STEEL INSTITUTE."
- 20. MINIMUM COVER FOR REINFORCING STEEL IN THE SUBSTRUCTURE SHALL BE TWO (2) INCHES ALONG WALL FACES AGAINST EARTH, AND THREE (3) INCHES ELSEWHERE UNLESS DETAILED OTHERWISE.

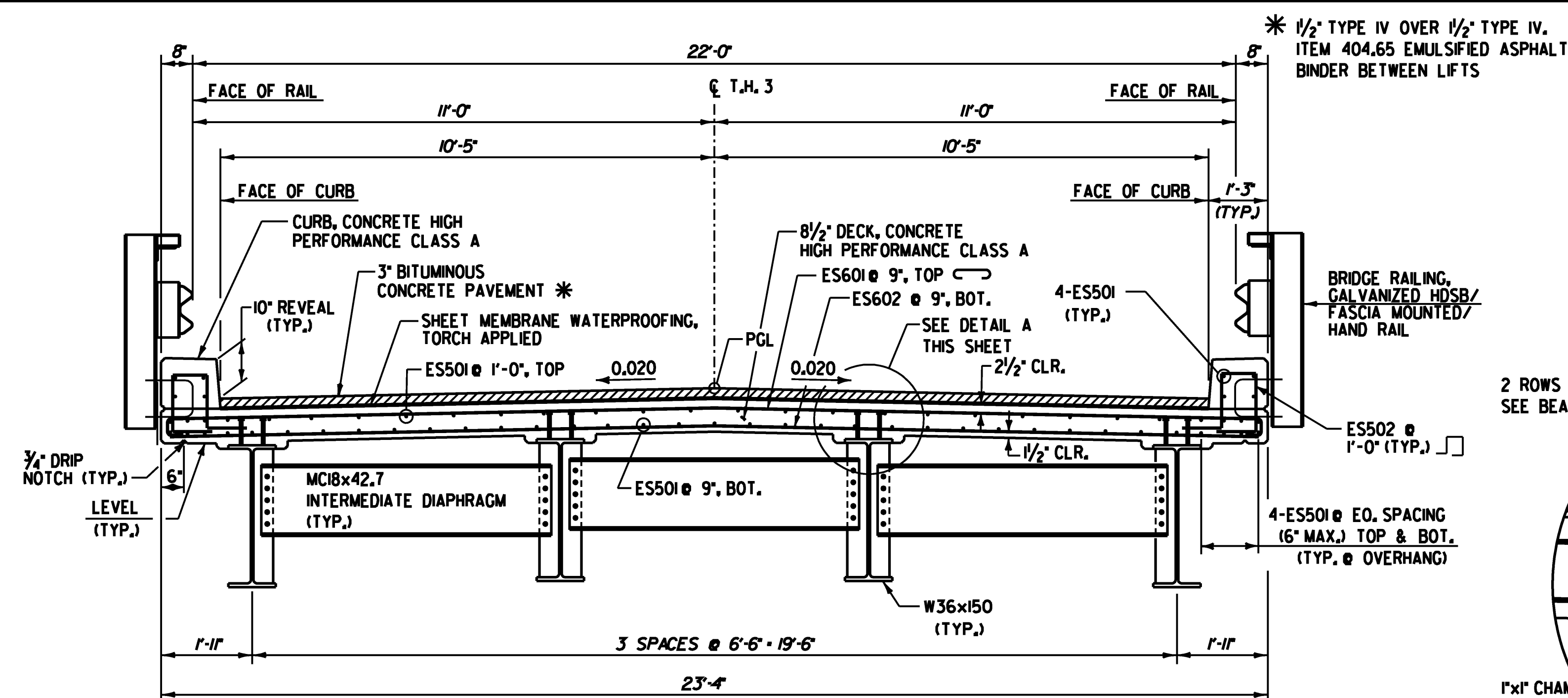
- 21. REINFORCING PLACEMENT TOLERANCES SHALL BE:
SPACING +/- 1"
CLEARANCE +/- 1/4"
- 22. SURFACES OF BRIDGE SEATS UNDER BEARING DEVICES SHALL BE LEVEL. OTHER BRIDGE SEAT AREAS SHALL BE SLOPED 1/2" PER FOOT. ABUTMENT SEATS SHALL BE SLOPED FULL WIDTH TOWARD MID-SPAN. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE GIVEN A MAGNESIUM FLOAT FINISH.

STRUCTURAL STEEL

- 23. ALL STRUCTURAL STEEL SHALL BE PAID FOR UNDER ITEM 506.50, "STRUCTURAL STEEL, ROLLED BEAM" AND SHALL CONFORM TO SECTION 506 OF THE STANDARD SPECIFICATIONS.
- 24. AFTER SUPERSTRUCTURE STEEL HAS BEEN SET ON THE BEARINGS, ELEVATIONS SHALL BE TAKEN ALONG THE TOP OF EACH BEAM UNDER THE DIRECTION OF THE ENGINEER. THESE ELEVATIONS SHALL BE USED IN DETERMINING FINAL GRADES.
- 25. FASCIA OVERHANG BRACKETS OR SIMILAR FALSE WORK SHALL BE SPACED AT A MAXIMUM OF FOUR (4) FEET. THE DESIGN OF THE FALSE WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 26. ANY HOLES IN THE FASCIA BEAMS NOT OTHERWISE FILLED SHALL BE FILLED WITH BUTTON HEAD OR HEX HEAD BOLTS CONFORMING TO AASHTO M164 TYPE 3. THE BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH SUBSECTION 506.19.
- 27. ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" DIAMETER BOLTS CONFORMING TO AASHTO M164 TYPE 3. HOLES SHALL BE 15/16" DIAMETER, UNLESS OTHERWISE NOTED. CONNECTIONS NOT DESIGNED SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL.
- 28. THE CHARPY V-NOTCH TEST IS REQUIRED ONLY FOR THOSE MEMBERS DESIGNATED AS SUCH IN THE PLANS AS SPECIFIED IN SUBSECTION 714.01.

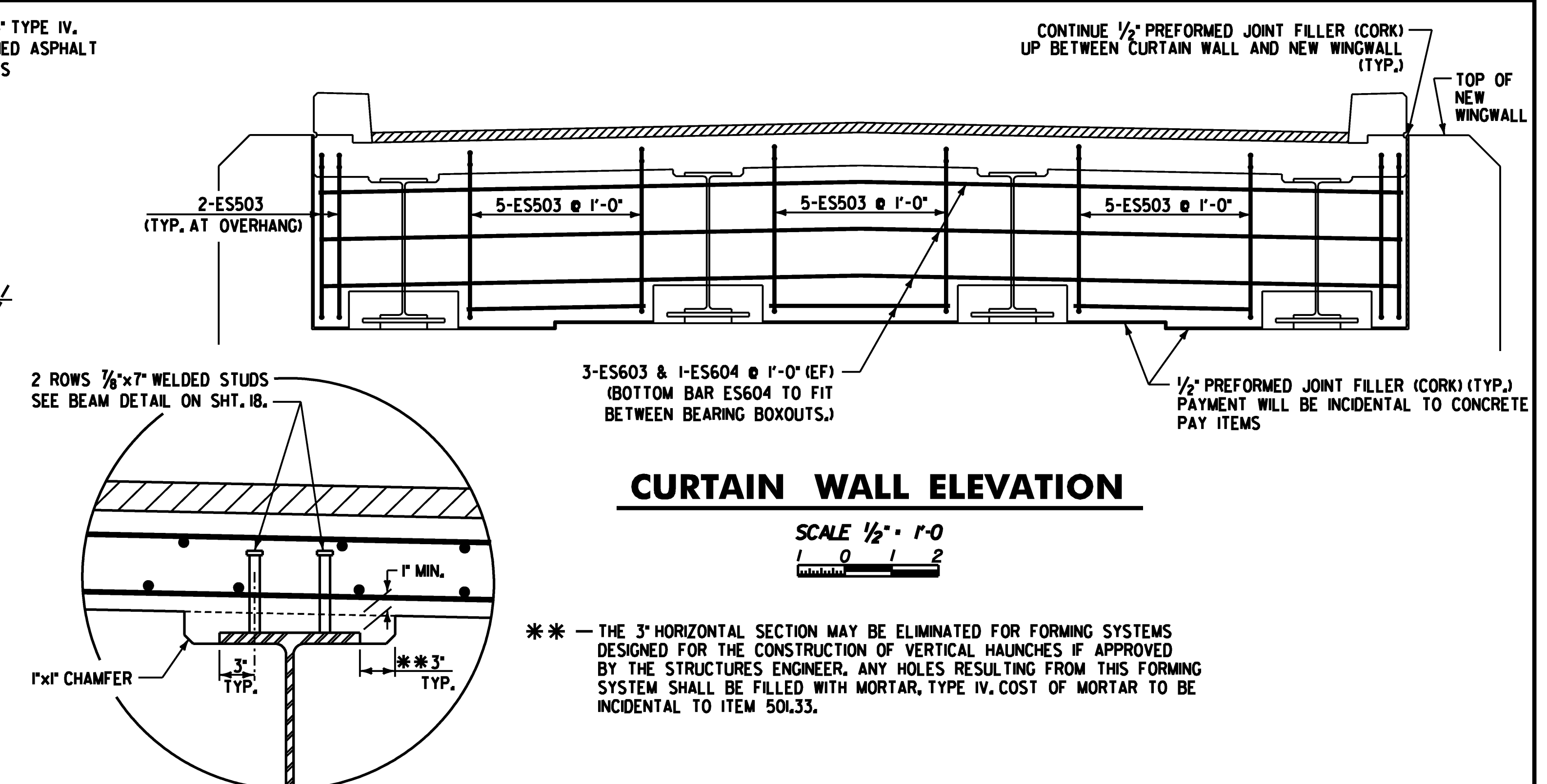


PROJECT NAME: CLARENDON	
PROJECT NUMBER: BHO 1443 (39)	
FILE NAME: ...\\Drawing\\16-clar-notes.dgn	PLOT DATE: 7/2/2009
PROJECT LEADER: MJC	DRAWN BY: AET
DESIGNED BY: SEB	CHECKED BY: MJC
PROJECT NOTES	SHEET 16 OF 24



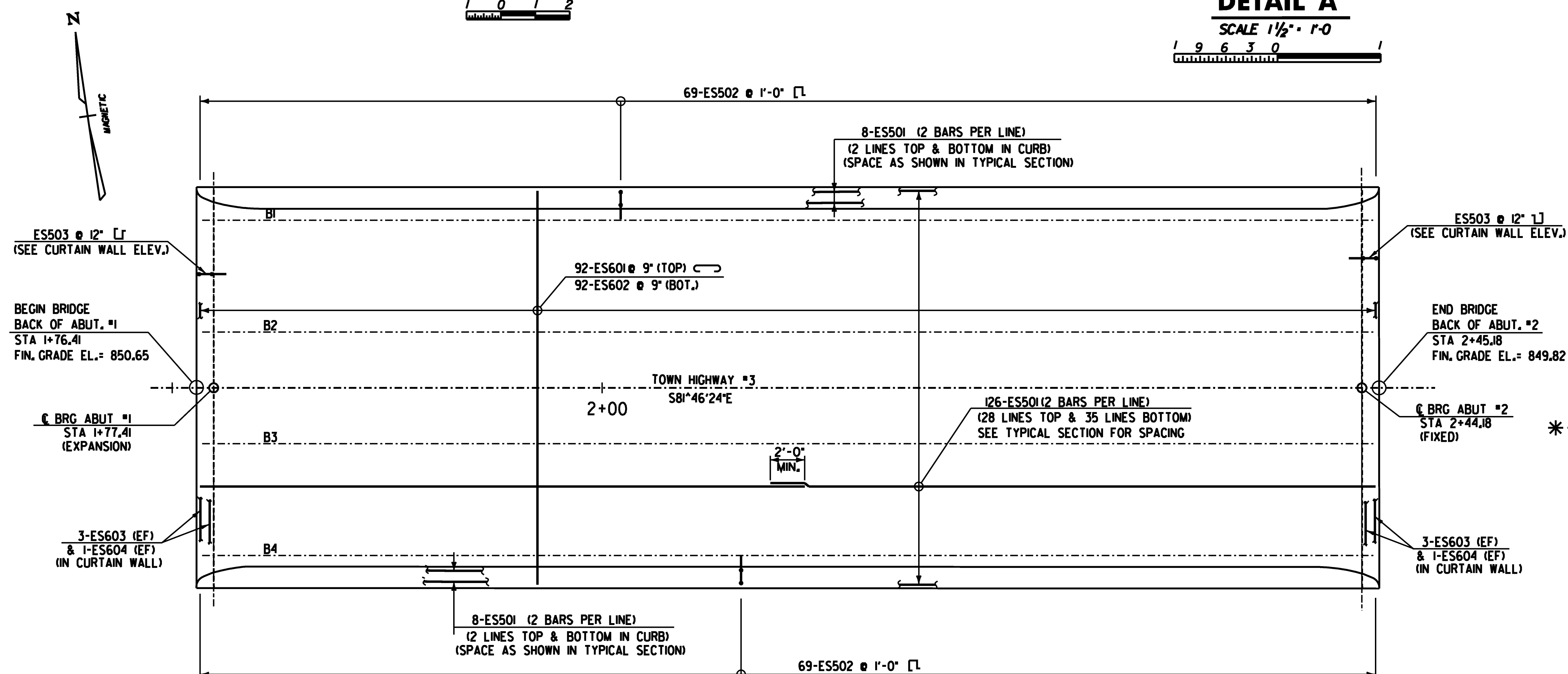
BRIDGE TYPICAL SECTION

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



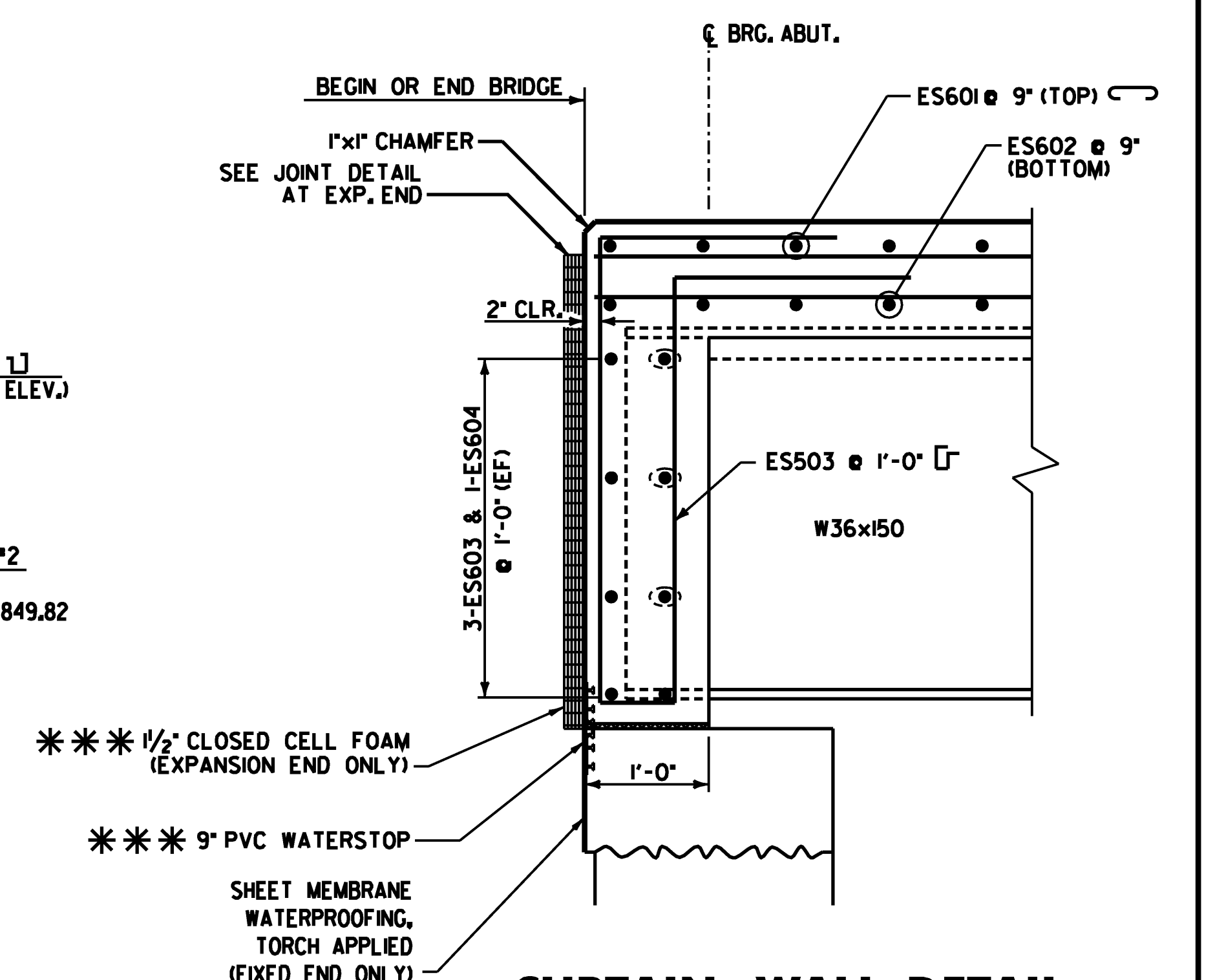
DETAIL A

SCALE 1 1/2" = 1'-0"
1 9 6 3 0



DECK REINFORCING PLAN

SCALE 1/4" = 1'-0"
1 0 2 4 6



CURTAIN WALL DETAIL

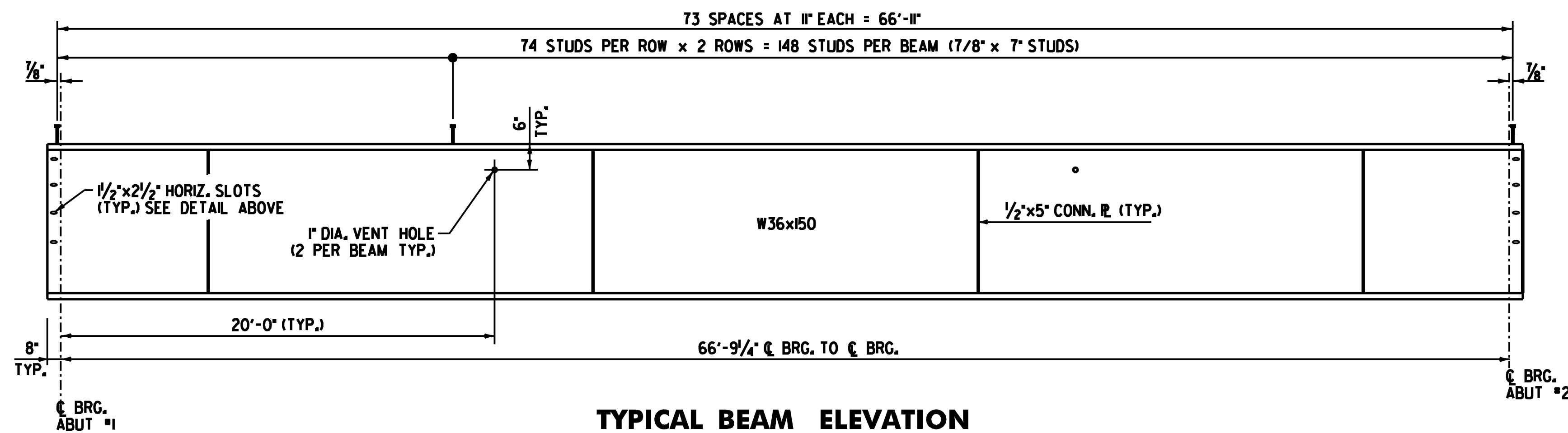
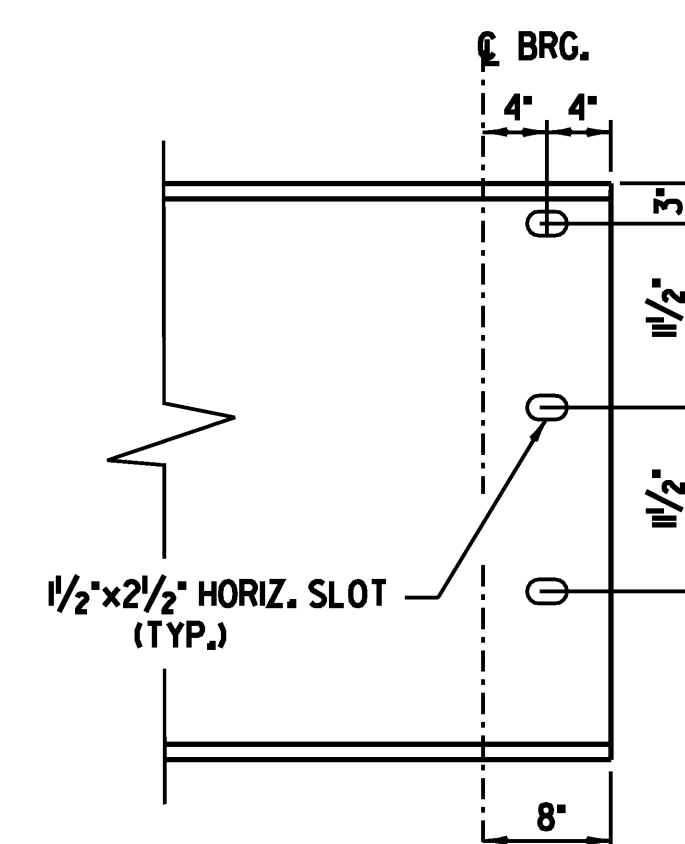
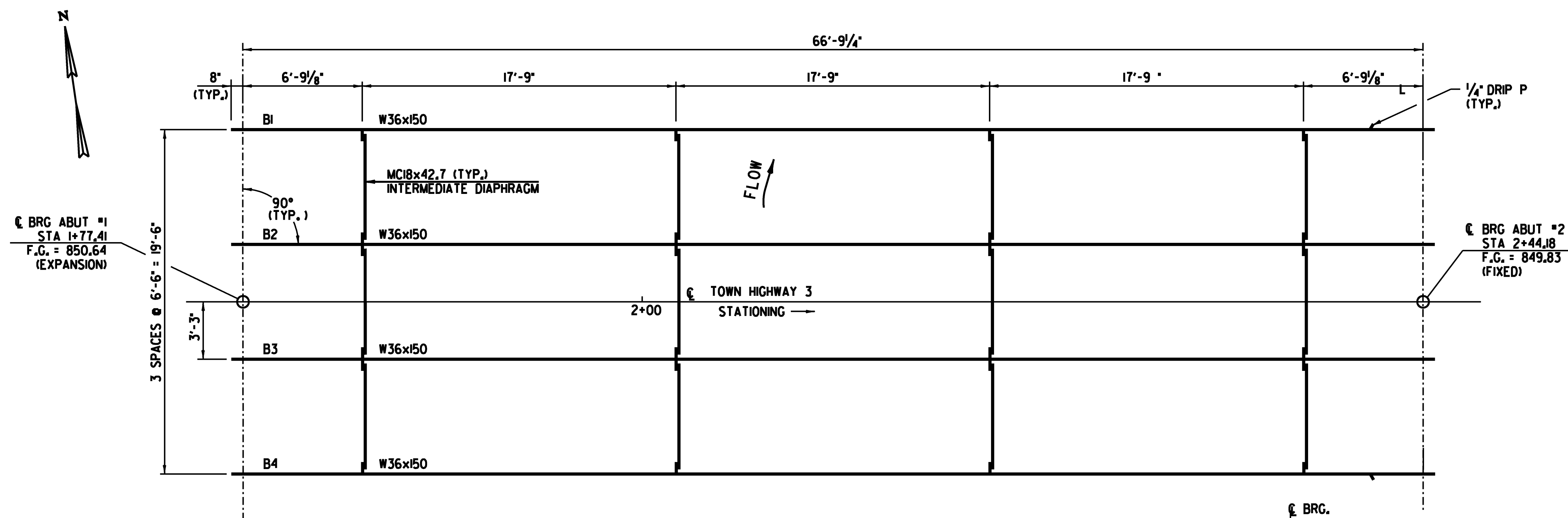
SCALE 1" = 1'-0"
1 9 6 3 0

NOTE:
1. ALL REINFORCING STEEL IN DECK, CURB AND CURTAIN WALL SHALL BE EPOXY COATED, ITEM 507.17.



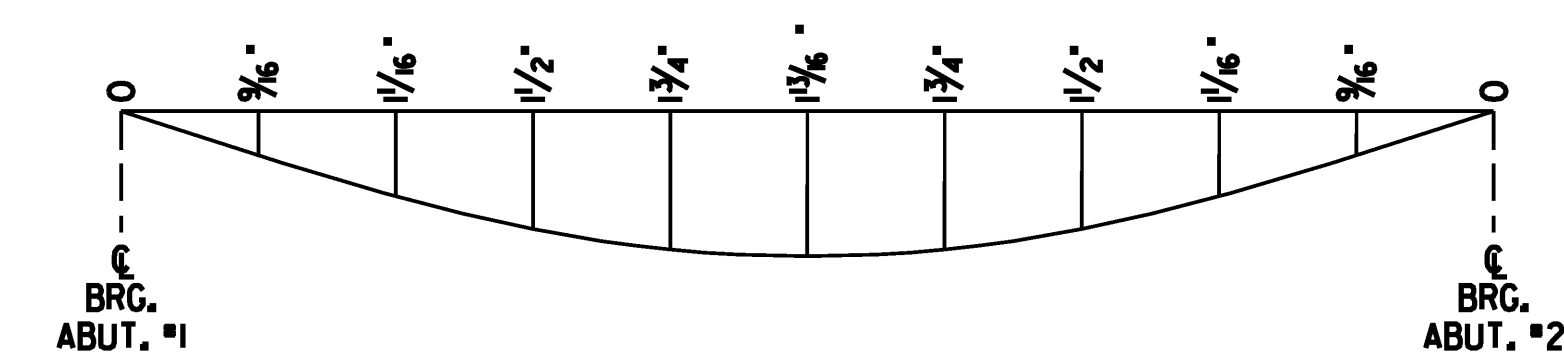
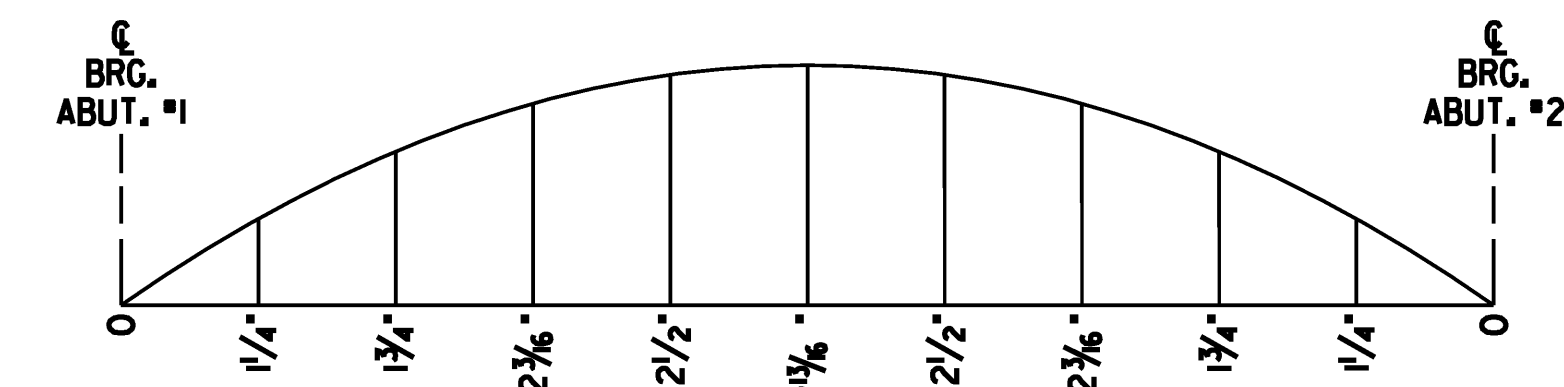
PROJECT NAME: CLARENDON
PROJECT NUMBER: BHO 1443 (39)

FILE NAME: ...Drawing\17-clar-deck.dgn
PROJECT LEADER: MJC
DESIGNED BY: SEB
DECK REINFORCING PLAN
PLOT DATE: 7/2/2009
DRAWN BY: AET
CHECKED BY: SEB
SHEET 17 OF 24



NOTES:

1. ALL STRUCTURAL STEEL SHALL BE AASHTO M270M / M270 GRADE 50W STEEL, UNPAINTED.
2. FOR DIAPHRAGM DETAILS, SEE SHEET 19.
3. THE ENDS OF THE BEAMS SHALL BE VERTICAL IN THE FINAL POSITION.
4. THE CONNECTION PLATES SHALL BE PERPENDICULAR TO THE FLANGES AND THE WEBS.
5. FOR DRIP PLATE DETAILS, SEE SHEET 19.
6. CHARPY V-NOTCH TESTING IS REQUIRED OF ALL W36x150 BEAMS IN ACCORDANCE WITH SUBSECTION 714.01.



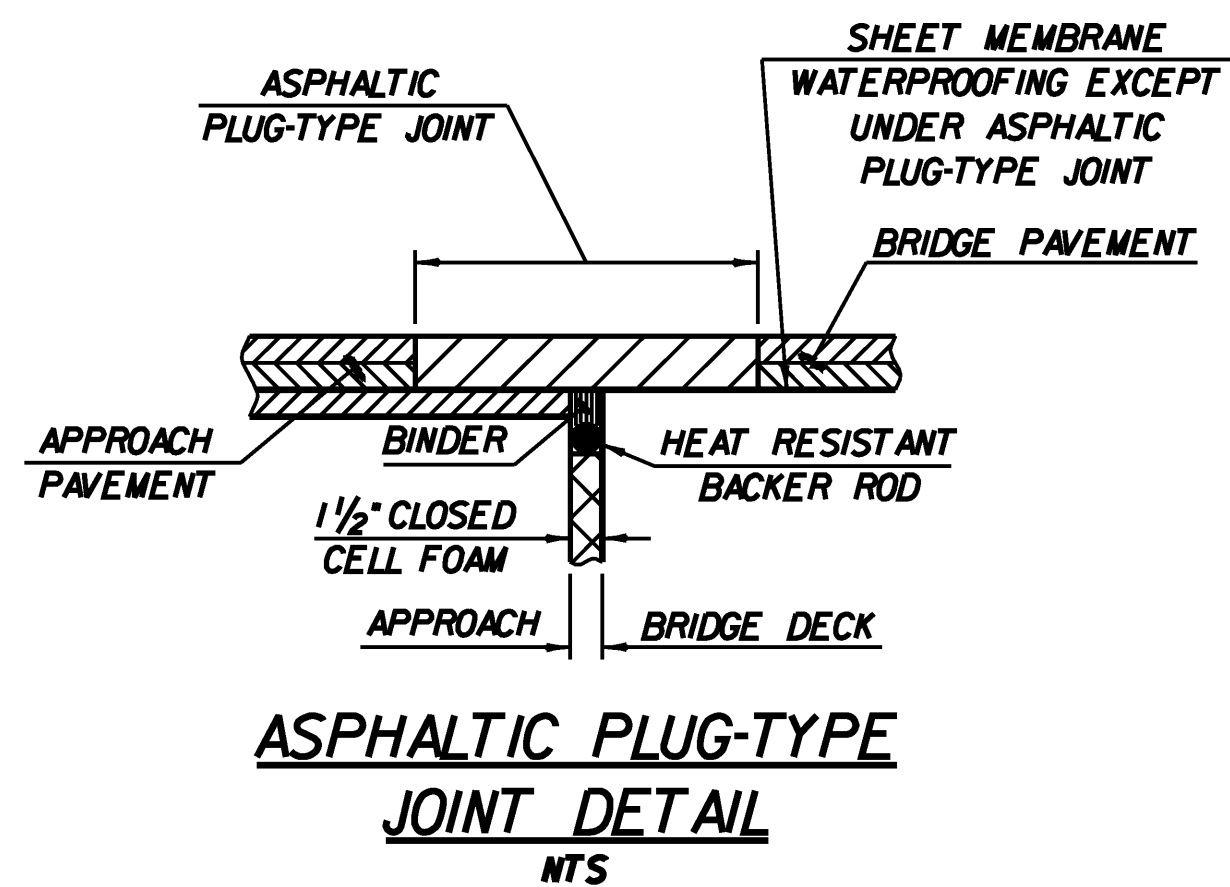
NOTES:

- DEAD LOAD DEFLECTIONS SHOWN ARE FOR ALL DEAD LOADS AND SUPERIMPOSED DEAD LOADS INCLUDING BEAM AND CROSS FRAME WEIGHTS.



PROJECT NAME: CLARENDON
PROJECT NUMBER: BHO 1443 (39)

FILE NAME: ...Drawing\18-clar-frame.dgn PLOT DATE: 7/2/2009
PROJECT LEADER: MJC DRAWN BY: TEK
DESIGNED BY: SEB CHECKED BY: MJC
FRAMING PLAN SHEET 18 OF 24



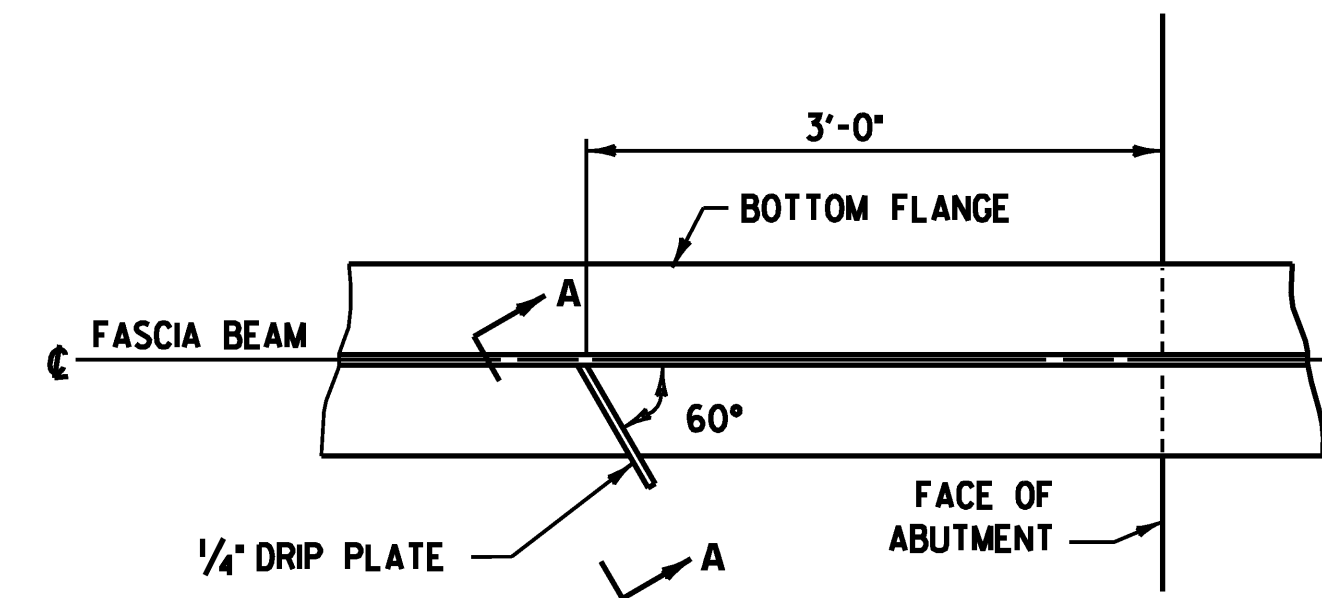
ASPHALTIC PLUG JOINT NOTES

1. INSTALLATION

- LOCATE THE JOINT CENTRALLY OVER THE DECK OVERLAY EXPANSION GAP OR FIXED JOINT MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
- EXCAVATE THE JOINT AS SHOWN ON THE PLANS WITH SAWS AND PNEUMATIC HAMMER OR A HAMMER AND CHISEL.
- BLAST CLEAN THE JOINT AREA OF DEBRIS AND ASPHALT. THOROUGHLY DRY THE JOINT AREA WITH HOT COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.
- PLACE PROPERLY SIZED HEAT RESISTANT BACKER ROD IN THE MOVEMENT GAP ALLOWING FOR 1" +/- OF BINDER ABOVE THE ROD.
- HEAT AND PLACE THE BINDER MATERIAL AS RECOMMENDED BY THE MANUFACTURER.
- HEAT AND MIX THE BINDER MATERIAL AND AGGREGATE AS RECOMMENDED BY THE MANUFACTURER.
- INSTALLATION OF MATERIAL, COMPACTION, AND TOP COATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
- IMMEDIATELY AFTER TOP COATING, CAST AN ANTI-SKID MATERIAL OVER THE JOINT TO REDUCE THE RISK OF TRACKING.
- PROTECTED JOINT FROM TRAFFIC UNTIL THE MATERIAL HAS COOLED TO 51 DEG C (125 DEG F) +/-.

2. WEATHER LIMITATIONS. (APPLY BINDER MATERIAL ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL):

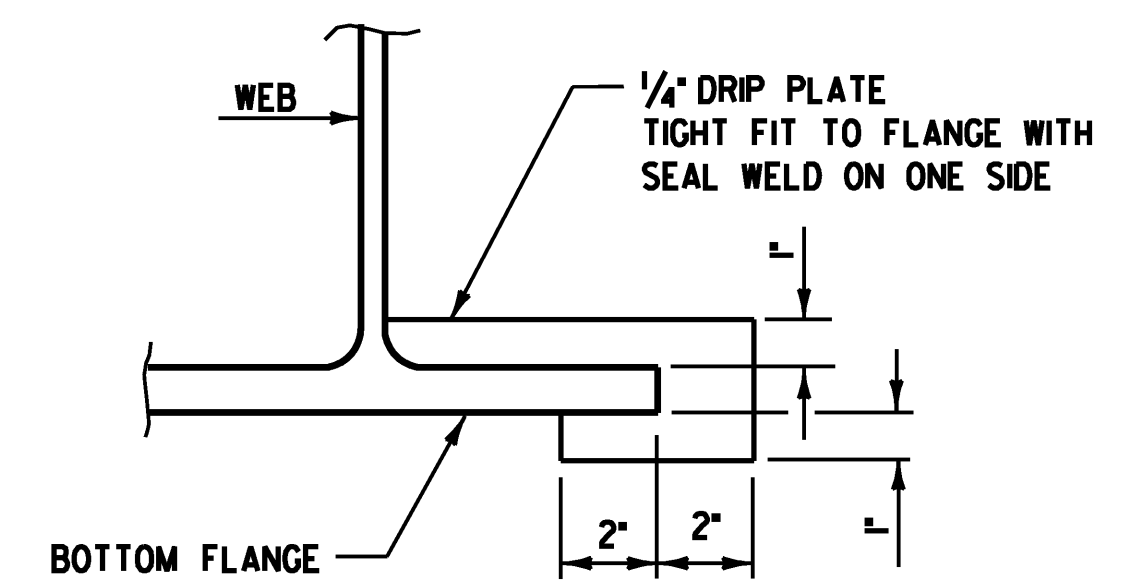
- THE AMBIENT AIR TEMPERATURE IS AT LEAST 10 DEG C (50 DEG F) AND RISING.
- THE ROAD SURFACE IS SUFFICIENTLY DRY.
- WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF SATISFACTORY WORK.



NOTE: DRIP PLATES SHALL BE PLACED ON OUTSIDE EDGE OF FASCIA BEAMS AS INDICATED ON THE FRAMING PLAN.

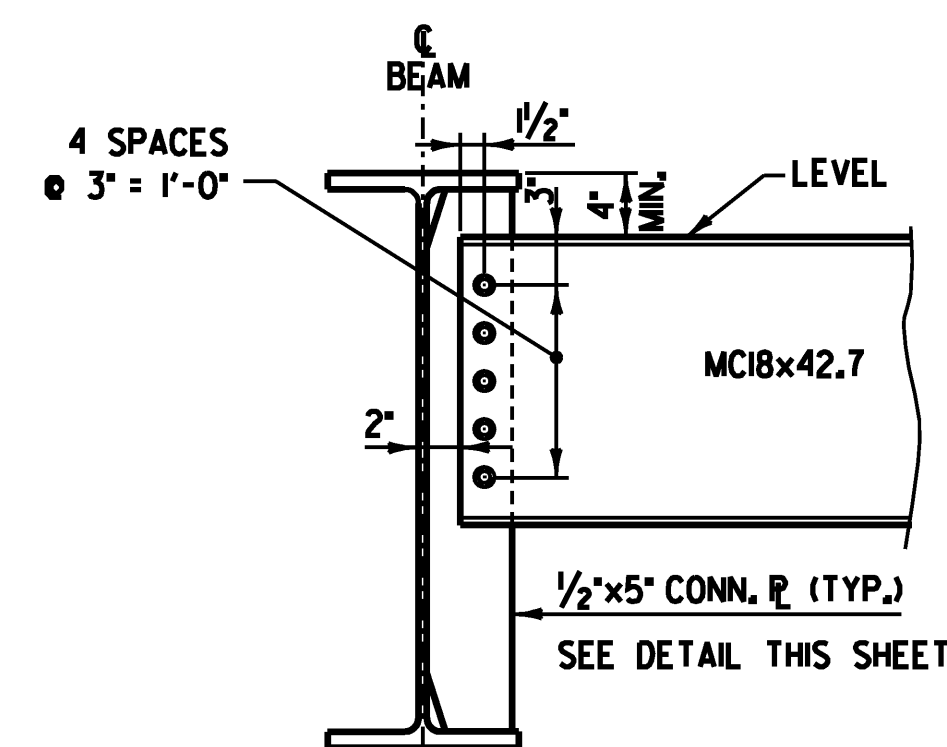
PLAN DRIP PLATE

SCALE 1" = 1'-0"



SECTION A-A

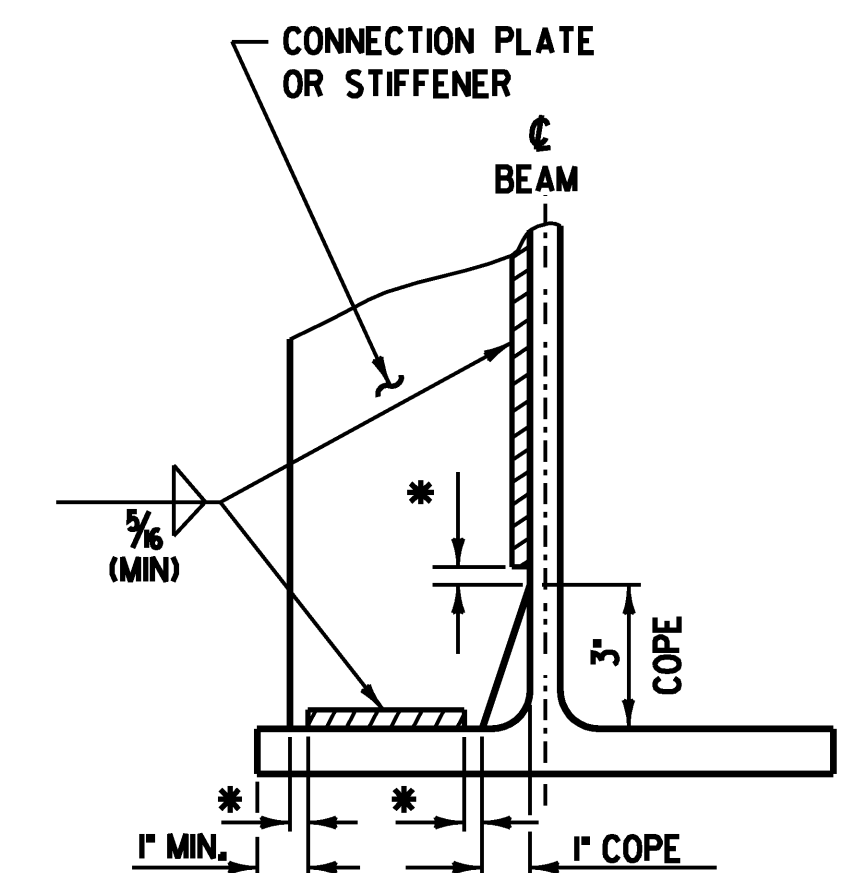
SCALE 3" = 1'-0"



INTERMEDIATE DIAPHRAGMS

SCALE 1" = 1'-0"

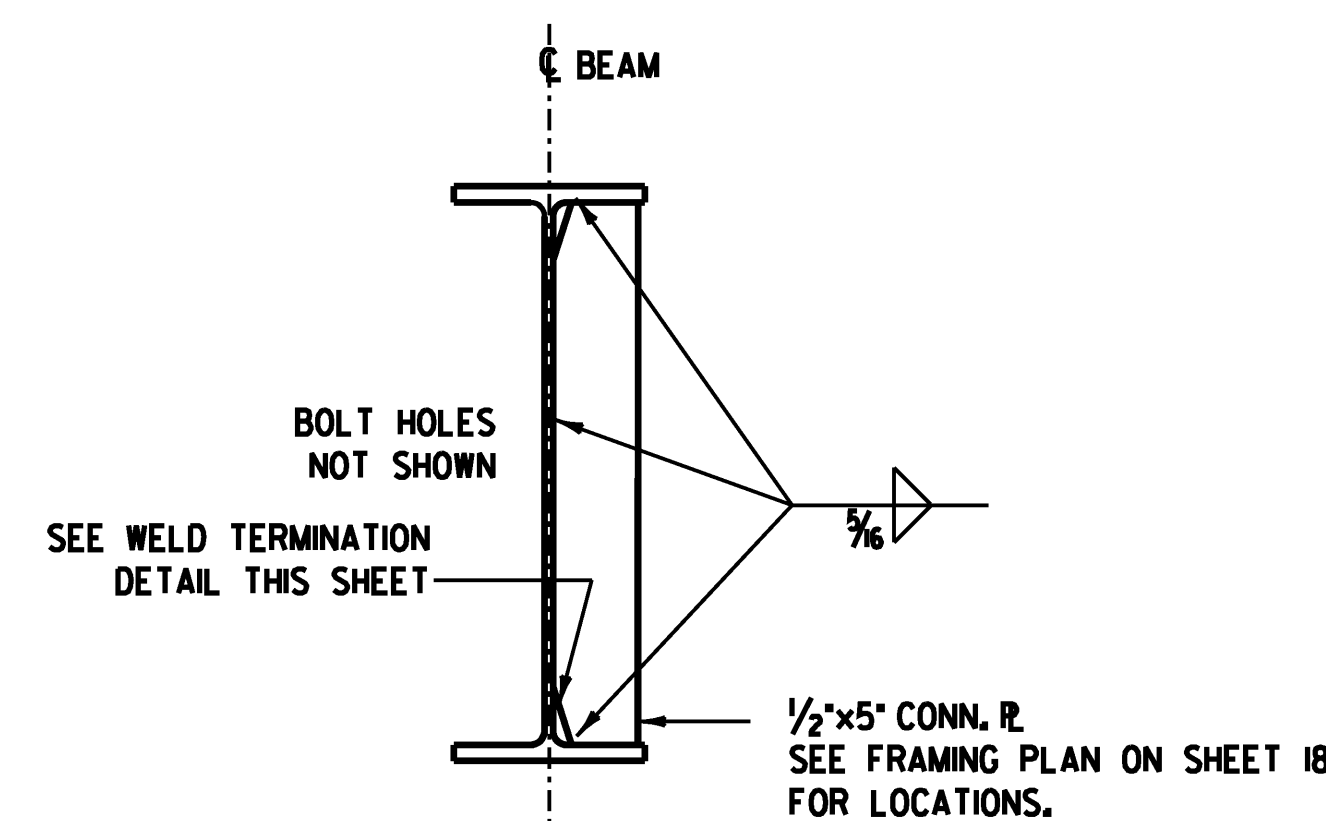
NOTE: ALL BOLTED FIELD CONNECTIONS SHALL BE MADE WITH 3/8" DIAMETER HIGH STRENGTH (AASHTO M164, TYPE 3) BOLTS PLACED IN 5/16" DIAMETER HOLES.



* NO WELD FOR 1/4" MIN., 1/2" MAX (EXCEPT MUST MAINTAIN 1" MIN. FROM EDGE OF FLANGE)

WELD TERMINATION AND COPING DETAILS FOR STEEL MEMBERS

SCALE 3" = 1'-0"

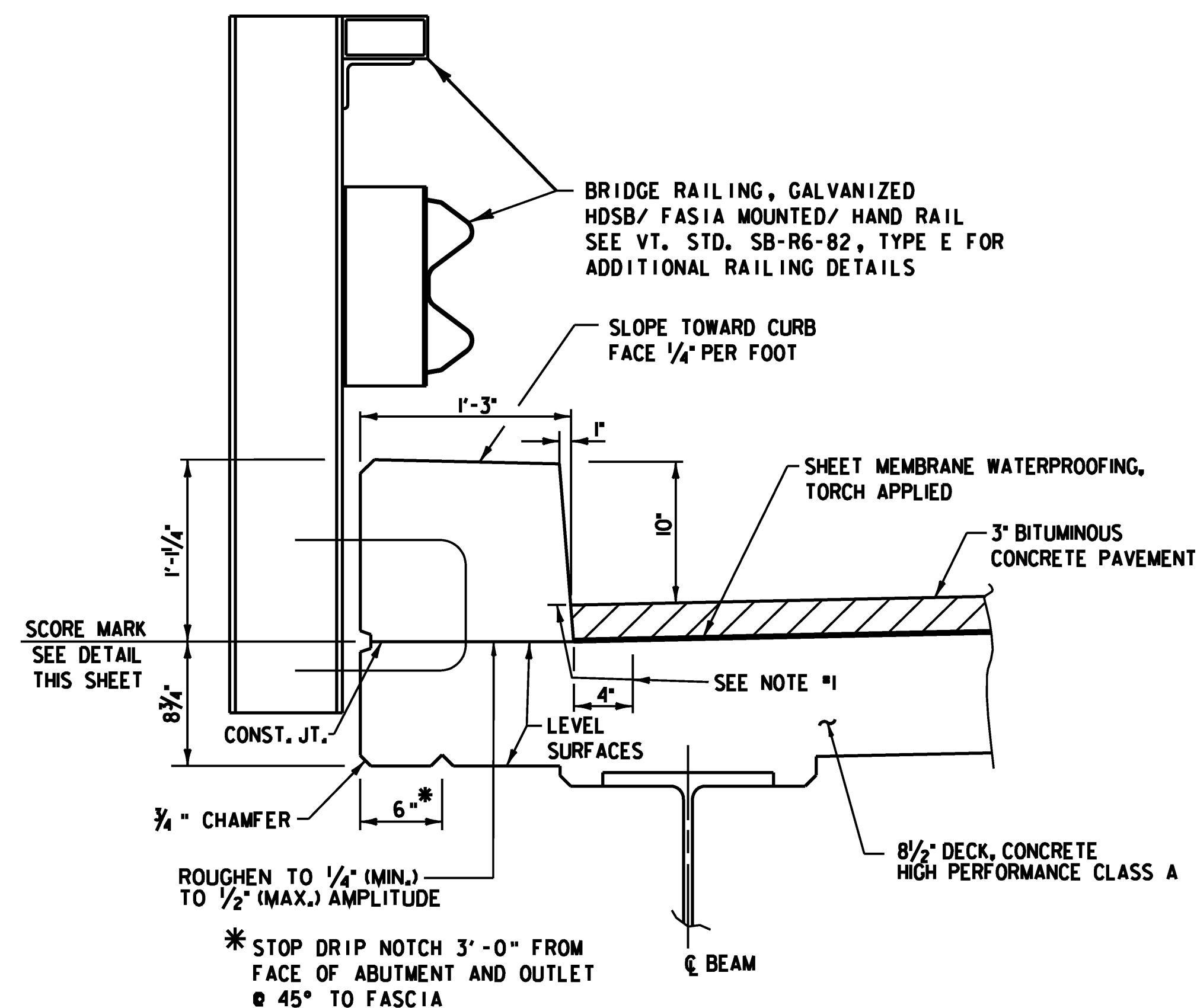


CONNECTION PLATE

SCALE 1" = 1'-0"



PROJECT NAME:	CLARENDON
PROJECT NUMBER:	BHO 1443 (39)
FILE NAME:	...\\Drawing\\19-clar-misc\\details\\dgrPLOT DATE: 7/2/2009
PROJECT LEADER:	MJC
DESIGNED BY:	SEB
MISCELLANEOUS DETAILS:	1
DRAWN BY:	TEK
CHECKED BY:	MJC
SHEET:	19
OF:	24

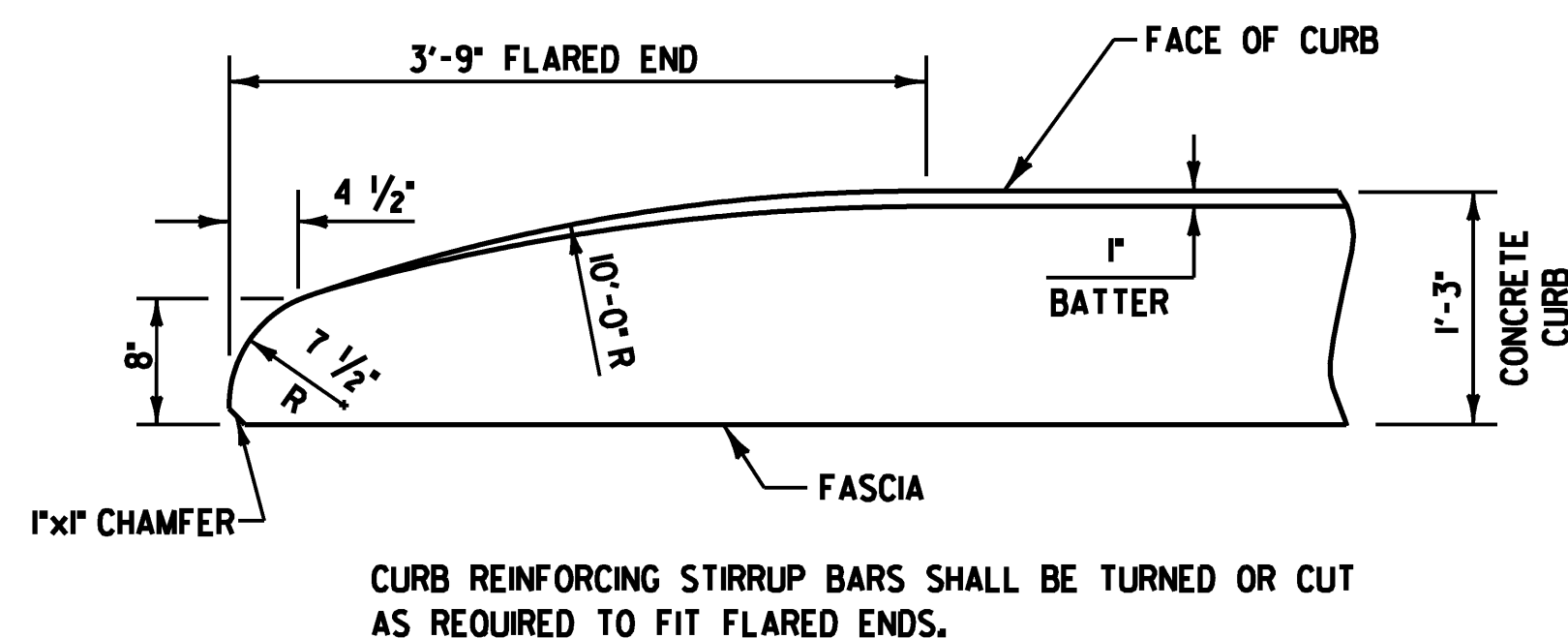


NOTES:

1. INDICATES AREA ALONG DECK AND UP FACE OF CURB FOR PLACEMENT OF TWO COATS OF POLYURETHANE MEMBRANE.
2. POLYURETHANE MEMBRANE AND BLAST CLEANING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SHEET MEMBRANE WATERPROOFING, TORCH APPLIED
3. SHEET MEMBRANE WATERPROOFING, TORCH APPLIED SHALL EXTEND TO FACE OF CURB AS SHOWN ABOVE.
4. ALL CONCRETE IN CURBS SHALL BE CONCRETE, HIGH PERFORMANCE CLASS A.

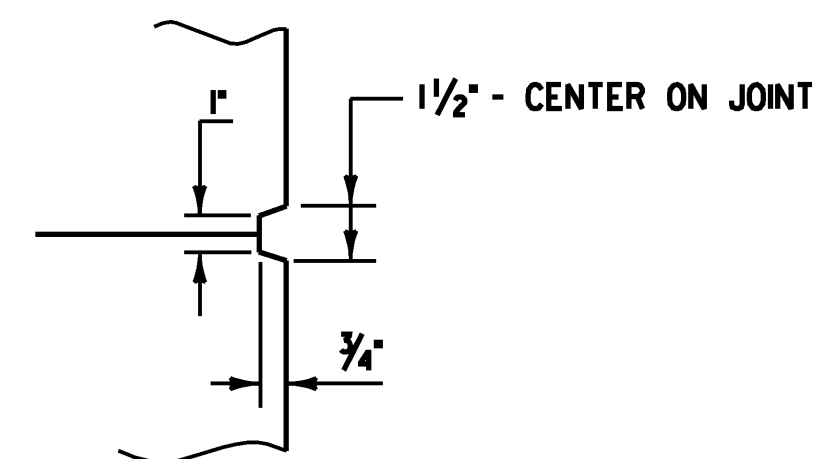
CURB & RAIL DETAIL

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



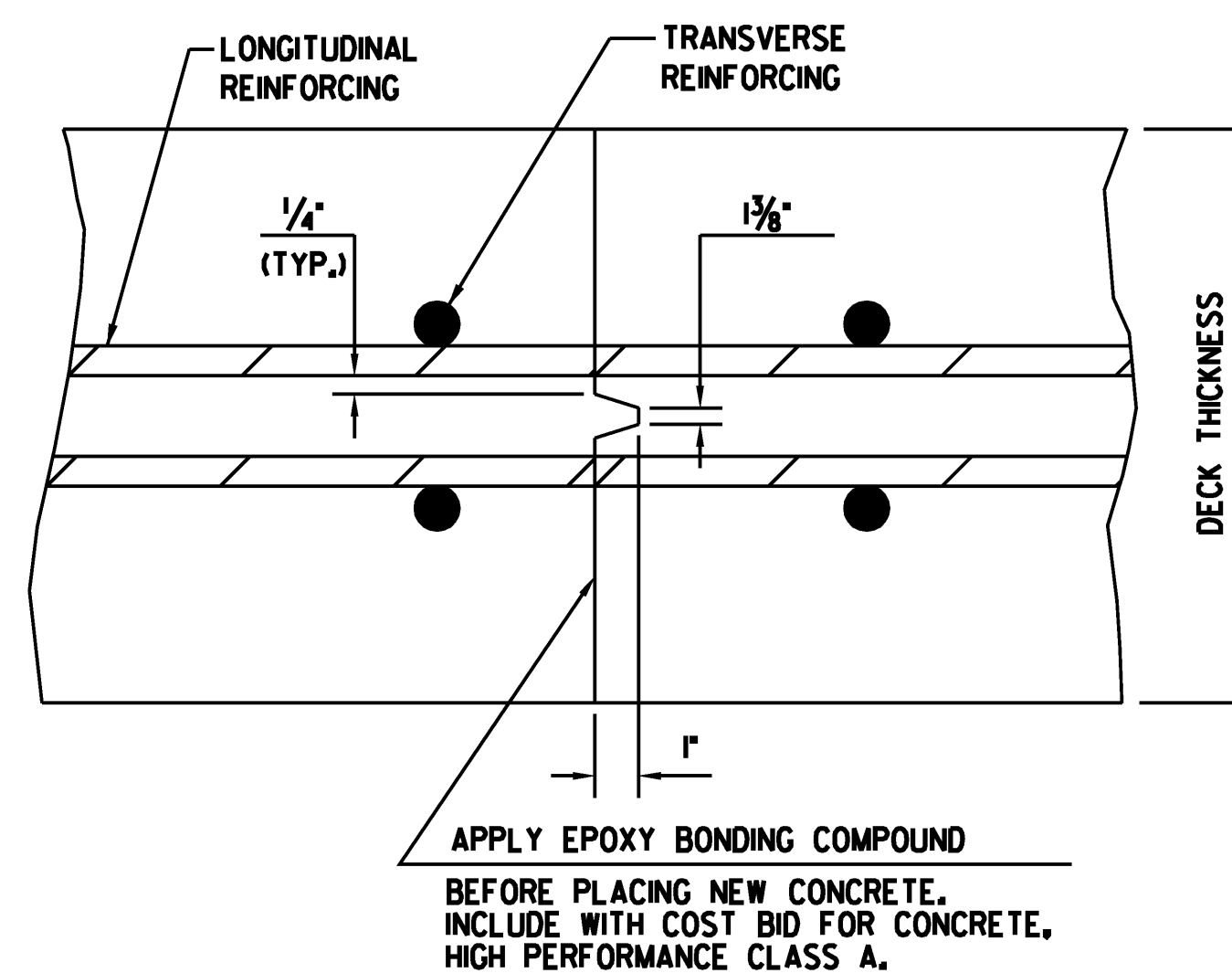
FLARED END DETAIL FOR CURB

SCALE 1" = 1'-0"



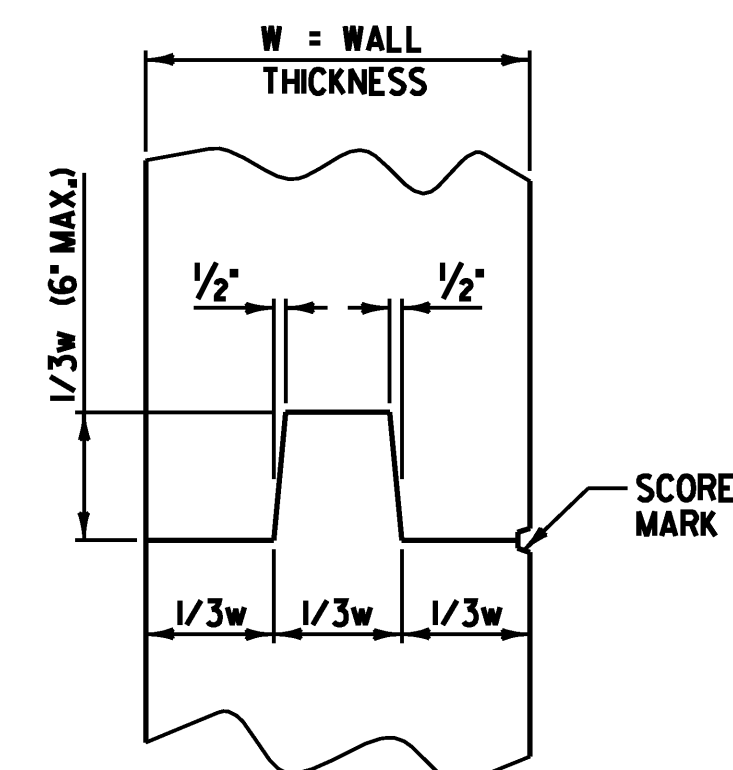
SCORE MARK DETAIL

NOT TO SCALE



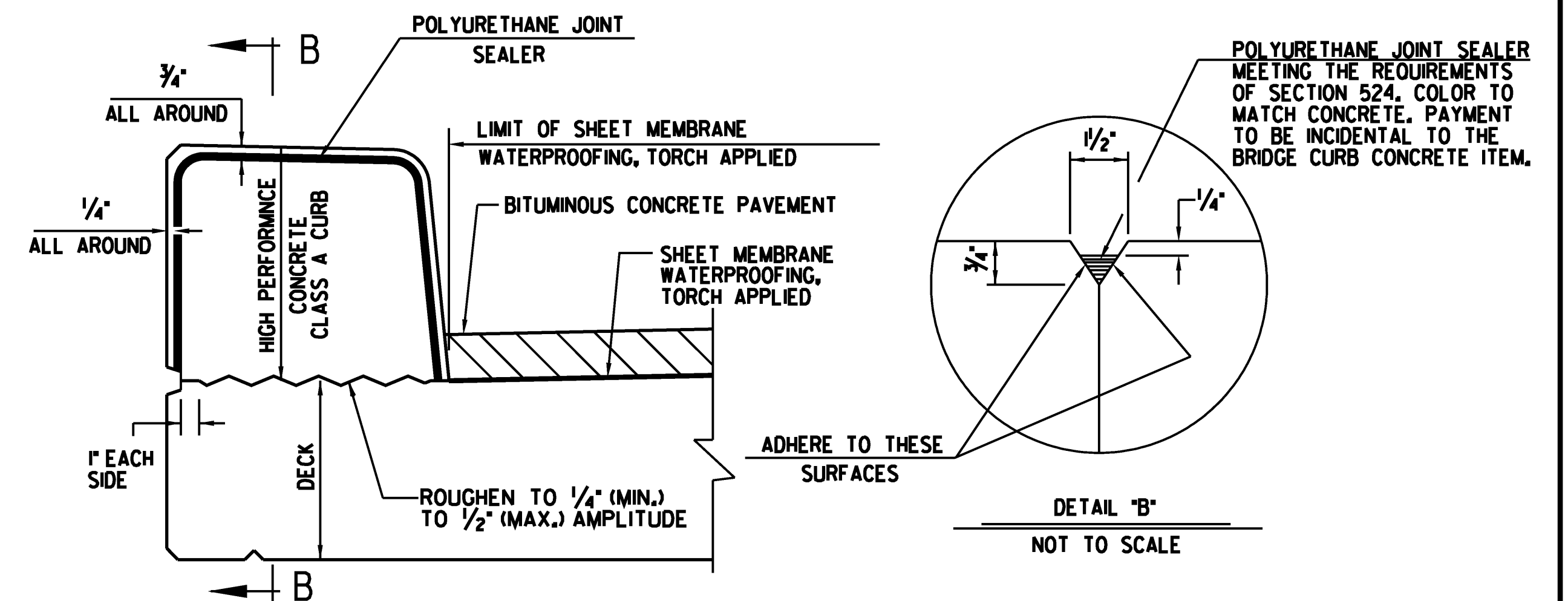
TRANSVERSE BRIDGE SLAB CONSTRUCTION JOINT DETAILS

NOT TO SCALE



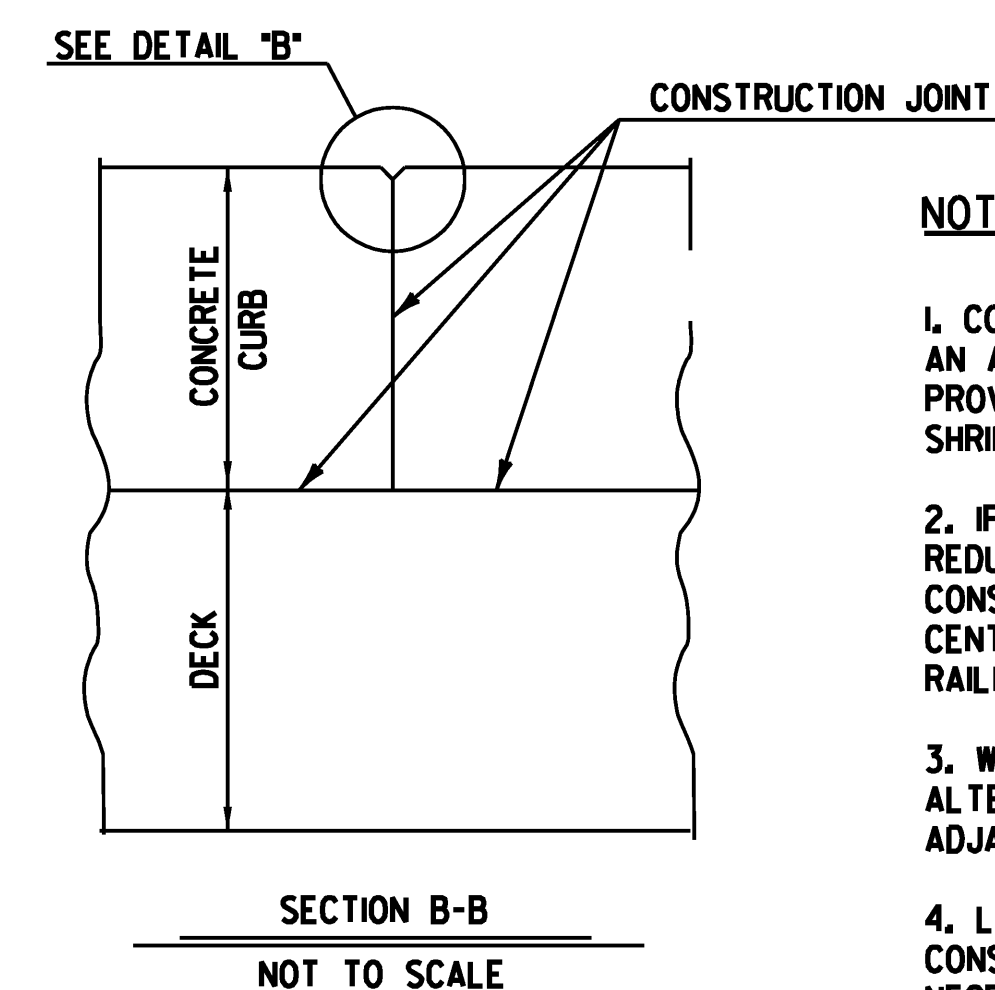
TYPICAL CONCRETE CONSTRUCTION JOINT

NOT TO SCALE



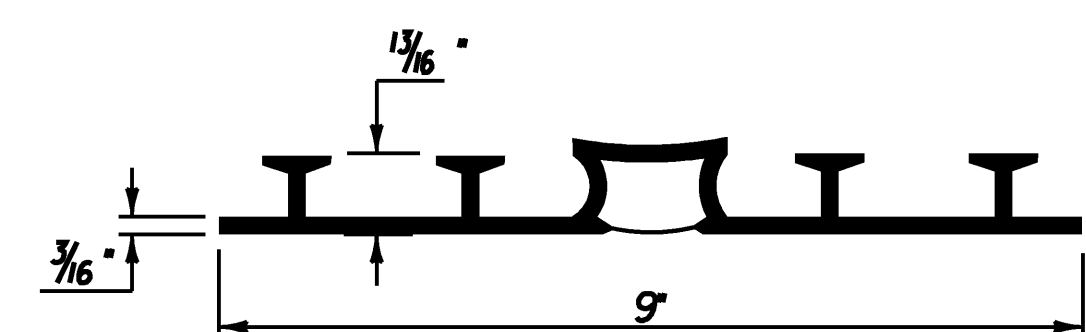
TYPICAL SECTION THROUGH CONCRETE CURB CONSTRUCTION JOINT

NOT TO SCALE



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 ITEM 501.33.
2. IF THE CONTRACTOR CHOOSES NOT TO USE AN APPROVED SHRINKAGE REDUCING ADMIXTURE, THE CURBS SHALL BE CONSTRUCTED WITH CONSTRUCTION JOINTS SPACED AT AT A MAXIMUM OF 15'-0" CENTER TO CENTER AND 2'-0" MINIMUM FROM THE CENTER OF NEAREST BRIDGE RAILING POST.
3. WHEN CURB JOINTS ARE USED THE CURBS SHALL BE PLACED IN ALTERNATE SECTIONS WITH A MINIMUM OF 48 HOUR DELAY BETWEEN ADJACENT PLACEMENTS.
4. 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.



P.V.C. WATERSTOP FOR EXPANSION JOINTS

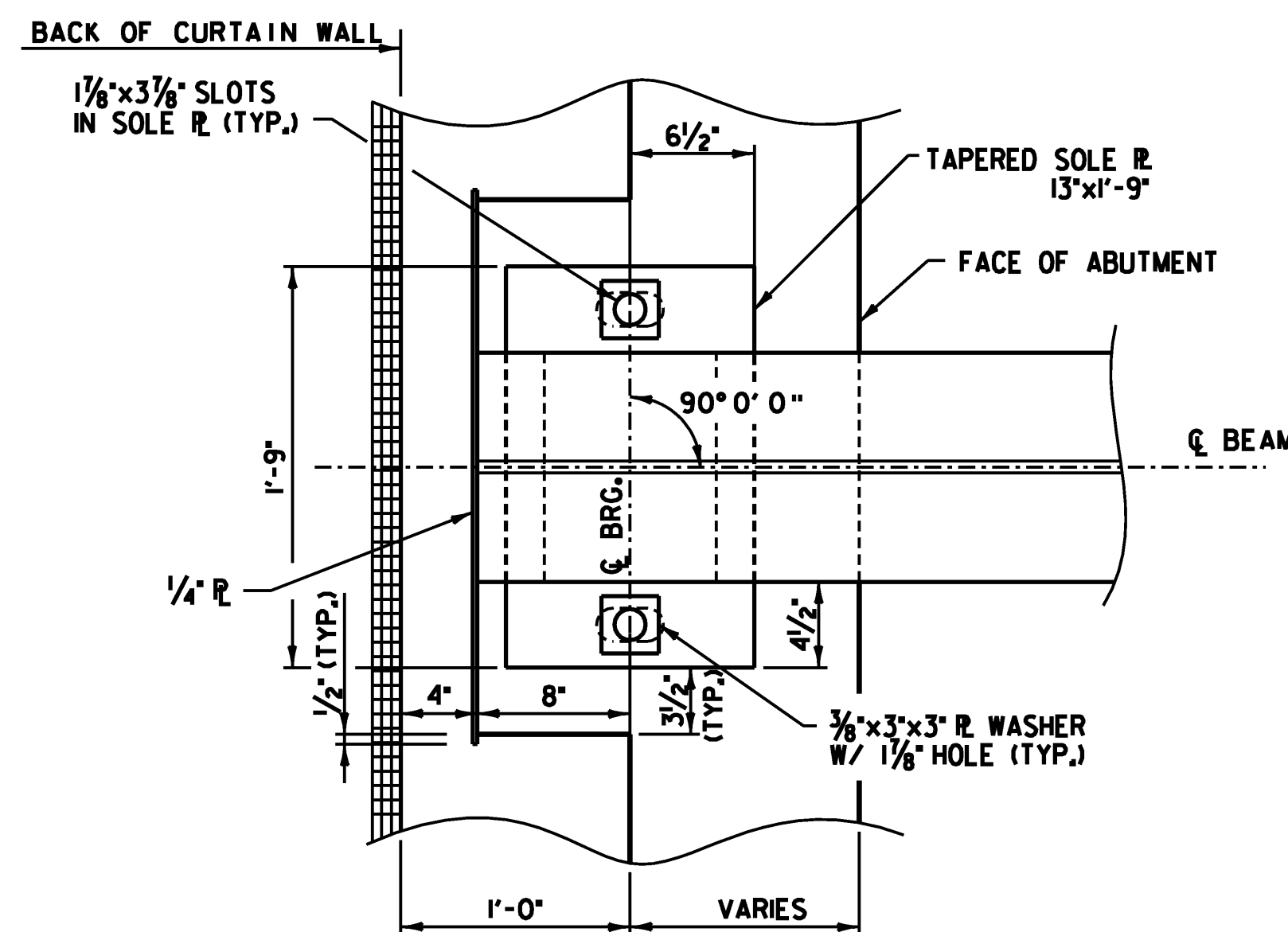
THE COSTS FOR P.V.C. WATERSTOP SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONCRETE, HIGH PERFORMANCE CLASS B. OTHER CONFIGURATIONS MAY BE USED UPON APPROVAL OF THE STRUCTURES ENGINEER.



PROJECT NAME: CLARENDON
PROJECT NUMBER: BHO 1443 (39)

FILE NAME: ...Drawing\20-clar-miscdets2.dgn
PROJECT LEADER: MJC
DESIGNED BY: SEB
MISCELLANEOUS DETAILS II

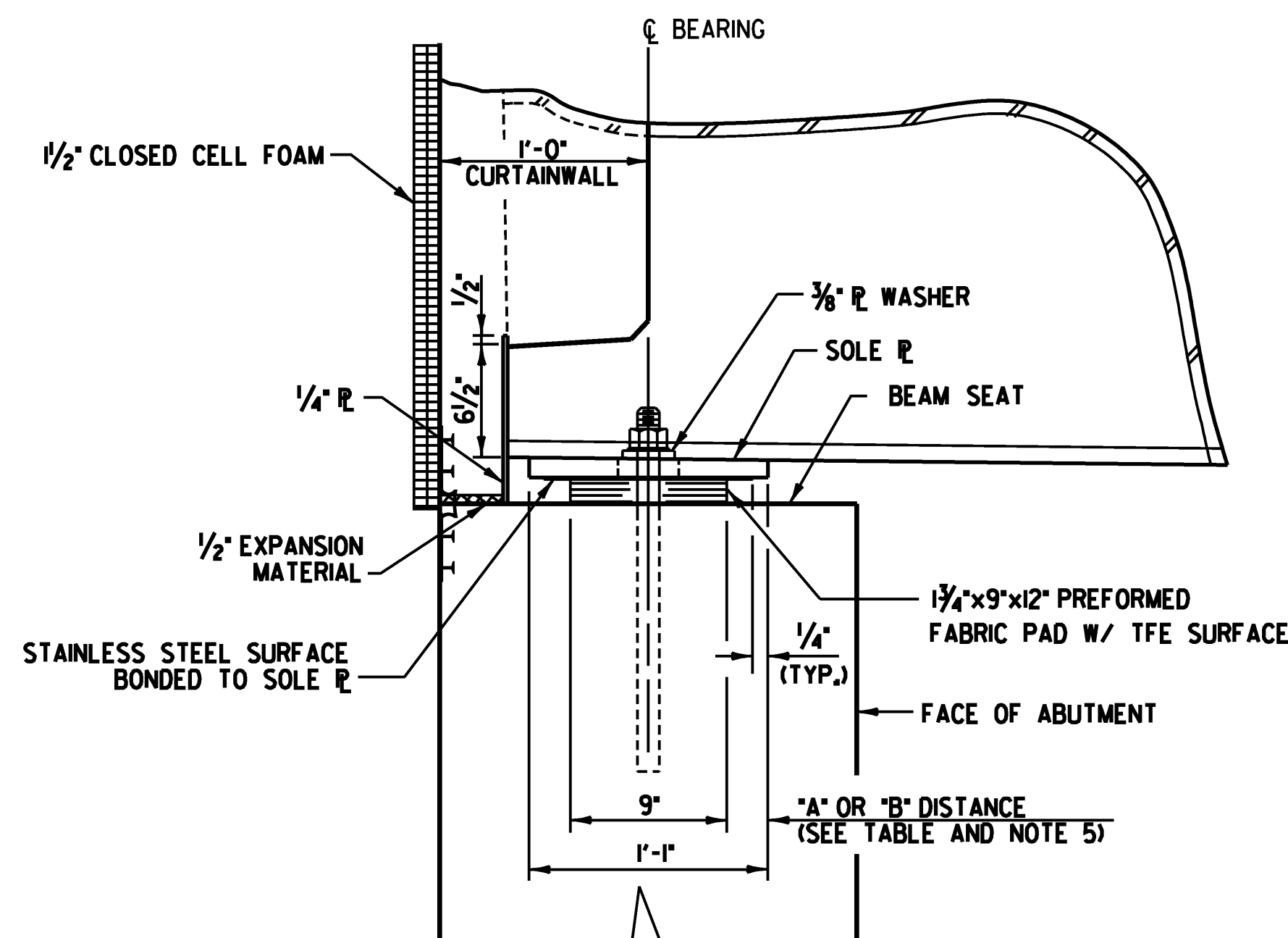
DATE: 7/2/2009
DRAWN BY: AET
CHECKED BY: MJC
SHEET 20 OF 24



ABUTMENT NO. 1

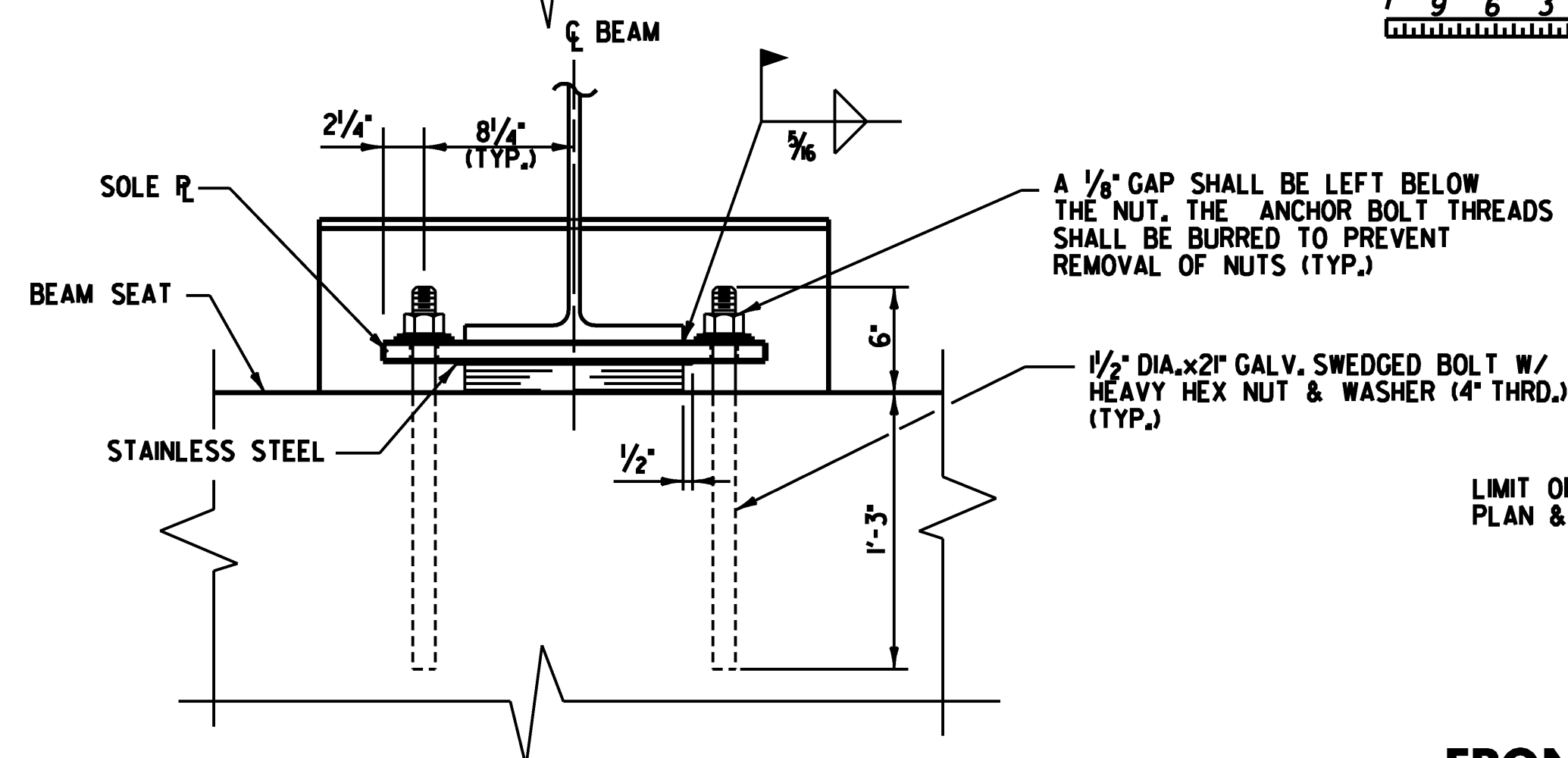
PLAN

SCALE 1 1/2" = 1'-0"
1 9 6 3 0 1



SIDE ELEVATION

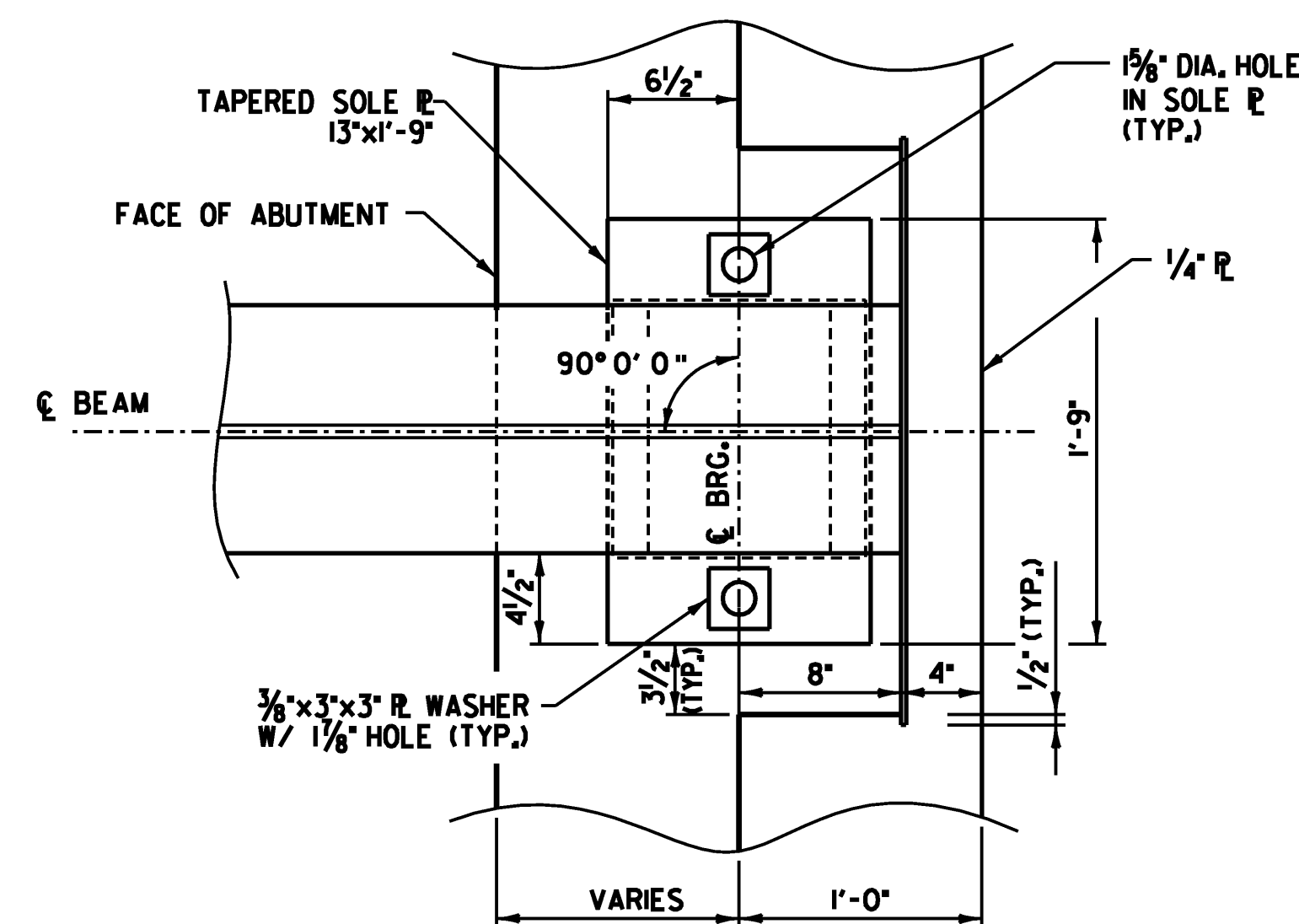
SCALE 1 1/2" = 1'-0"
1 9 6 3 0 1



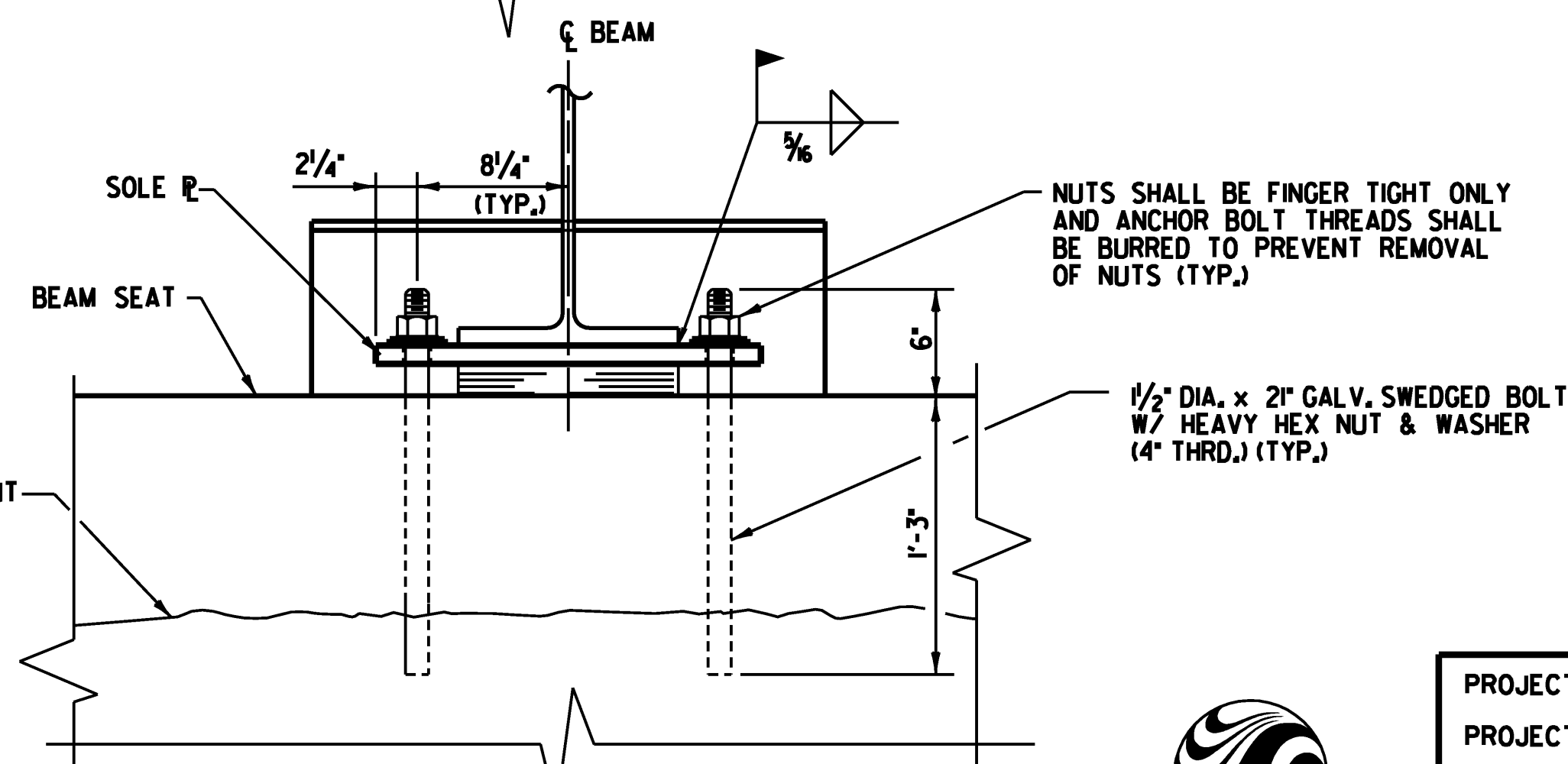
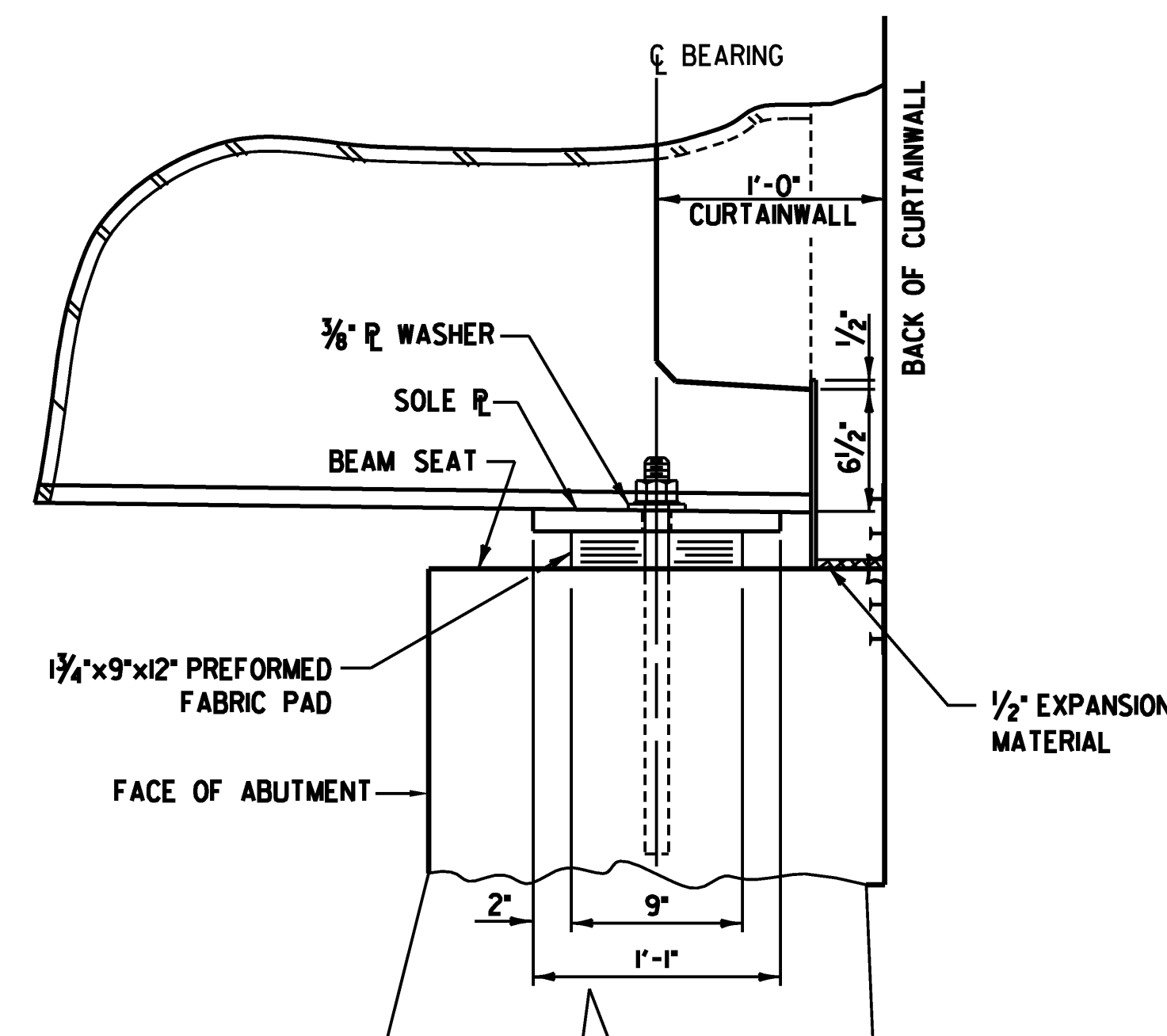
FRONT VIEW

SCALE 1 1/2" = 1'-0"
1 9 6 3 0 1

EXPANSION BEARING DETAILS @ ABUTMENT NO. 1



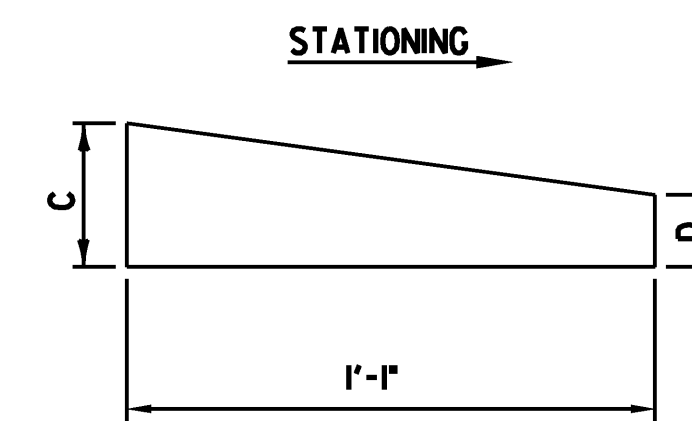
ABUTMENT NO. 2



FIXED BEARING DETAILS @ ABUTMENT NO. 2

BEARING NOTES:

1. BEARINGS SHALL CONFORM TO APPLICABLE SUBSECTIONS OF THE STANDARD SPECIFICATION SECTIONS 531 AND 731.
2. BEARINGS SHALL BE PAID FOR UNDER THE ITEM 531.00 "BEARING DEVICE ASSEMBLY, PREFORMED FABRIC PAD".
3. FABRICATION DRAWINGS CONFORMING TO STANDARD SPECIFICATIONS SUBSECTION 531.03 SHALL BE SUBMITTED TO INCLUDE WELDING AND BONDING PROCEDURES.
4. THE CONCRETE SURFACE UNDER THE BEARING DEVICE SHALL BE LEVEL.
5. THE "A" DISTANCE IS LISTED FOR SETTING THE BEARING AFTER THE STRUCTURAL STEEL IS ERECTED AND BEFORE THE CONCRETE DECK IS POURED. THE "B" DISTANCE IS THE FINAL SETTING FOR THE BEARING PAD AFTER THE CONCRETE SLAB, CURB, PAVEMENT, AND BRIDGE RAIL ARE PLACED. THE DIFFERENCE IS THE THEORETICAL ELONGATION OF THE BOTTOM FLANGE DUE TO DEAD LOAD DEFLECTION. THE FINAL "B" DISTANCE, AS SHOWN IN THE TABLE, MUST BE ATTAINED WITHIN 1/8".
6. DESIGN CRITERIA:
 - A. BASE PLATE TO CONCRETE DESIGN PRESSURE = 1000 P.S.I. MAXIMUM.
 - B. MAXIMUM ALLOWABLE DESIGN ROTATION = 0.015 RADIAN.
 - C. HORIZONTAL CAPACITY SHALL BE A MINIMUM OF 10% OF THE VERTICAL LOAD.
 - D. DESIGN LOAD PER BEARING = 105.3 KIPS.
7. ALL STEEL IN BEARING DEVICES (EXCEPT STAINLESS STEEL) SHALL BE AASHTO M270M / M270, GRADE 36.
8. ANCHOR BOLTS SHALL HAVE A MINIMUM OF 1'-3" EMBEDMENT INTO THE CONCRETE AND SHALL CONFORM TO SUBSECTION 714.08.
9. ALL THE ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. ALL WASHERS SHALL BE 3/8" PLATE (MINIMUM). PAYMENT FOR ANCHOR BOLTS, NUTS AND WASHERS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 531.00.
10. BEARING DEVICES SHALL BE GALVANIZED OR METALIZED AS PER SUBSECTIONS 531.04(b) AND 506.15(d) AND (e). AREAS OF DAMAGED GALVANIZING SHALL BE COATED IN ACCORDANCE WITH ASTM A 760/A 760M AND A 780. AREAS OF DAMAGED METALIZING SHALL BE COATED WITH THE SAME SEALANT USED BY THE BEARING SUPPLIER.
11. EXISTING STEEL ANCHOR BOLTS OR REINFORCING TO BE TERMINATED SHALL BE REMOVED 1' BELOW THE SURFACE OF ANY EXPOSED FACE.



TAPERED SOLE PLATE

N.T.S.

SOLE PLATE TABLE		
LOCATION	C	D
ABUTMENT #1	1 1/8"	1"
ABUTMENT #2	1 3/8"	1"

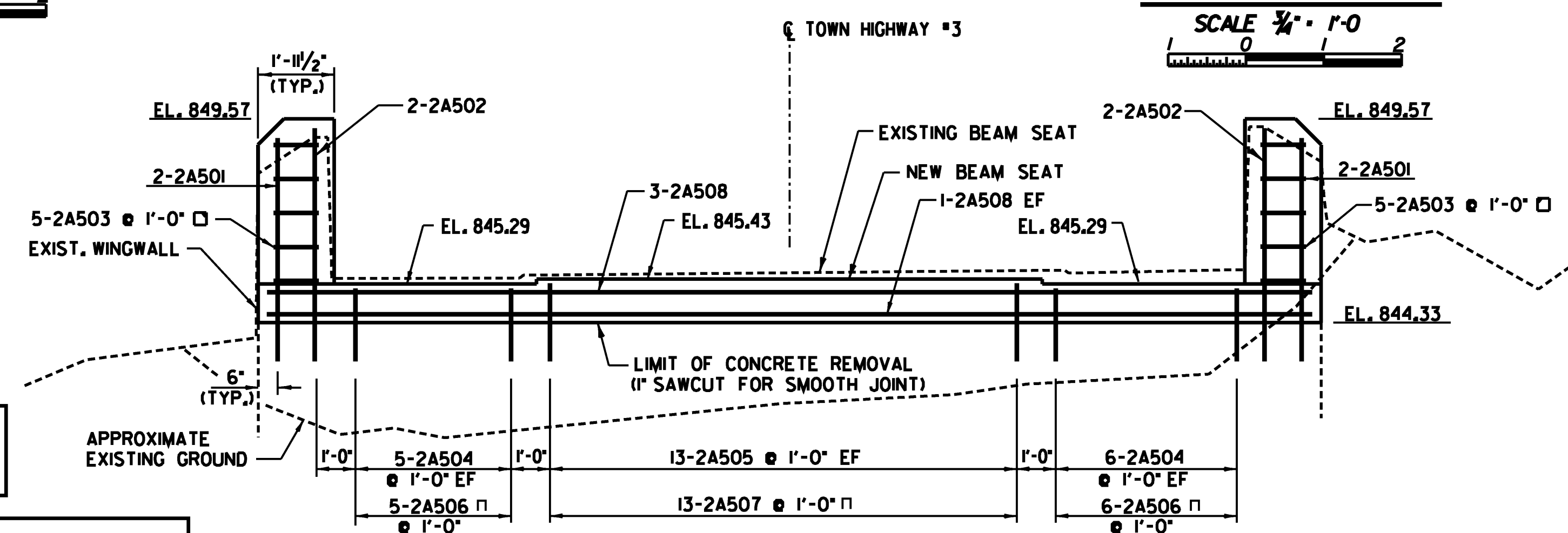
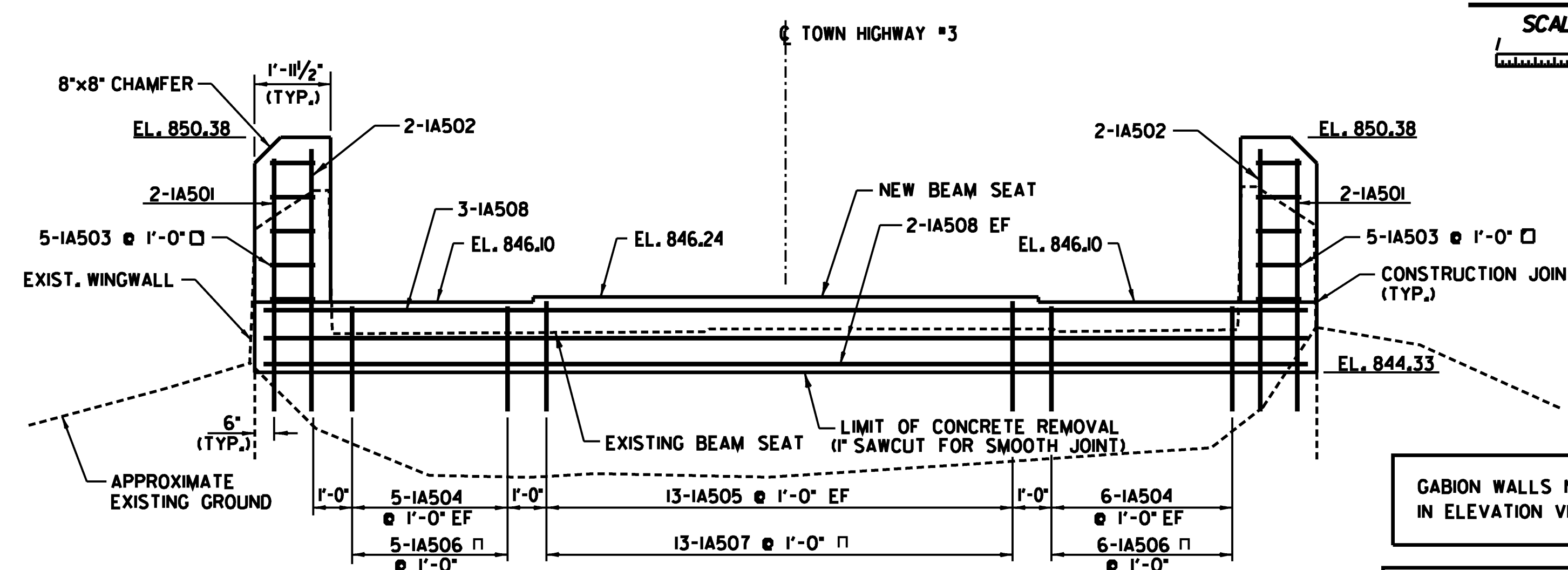
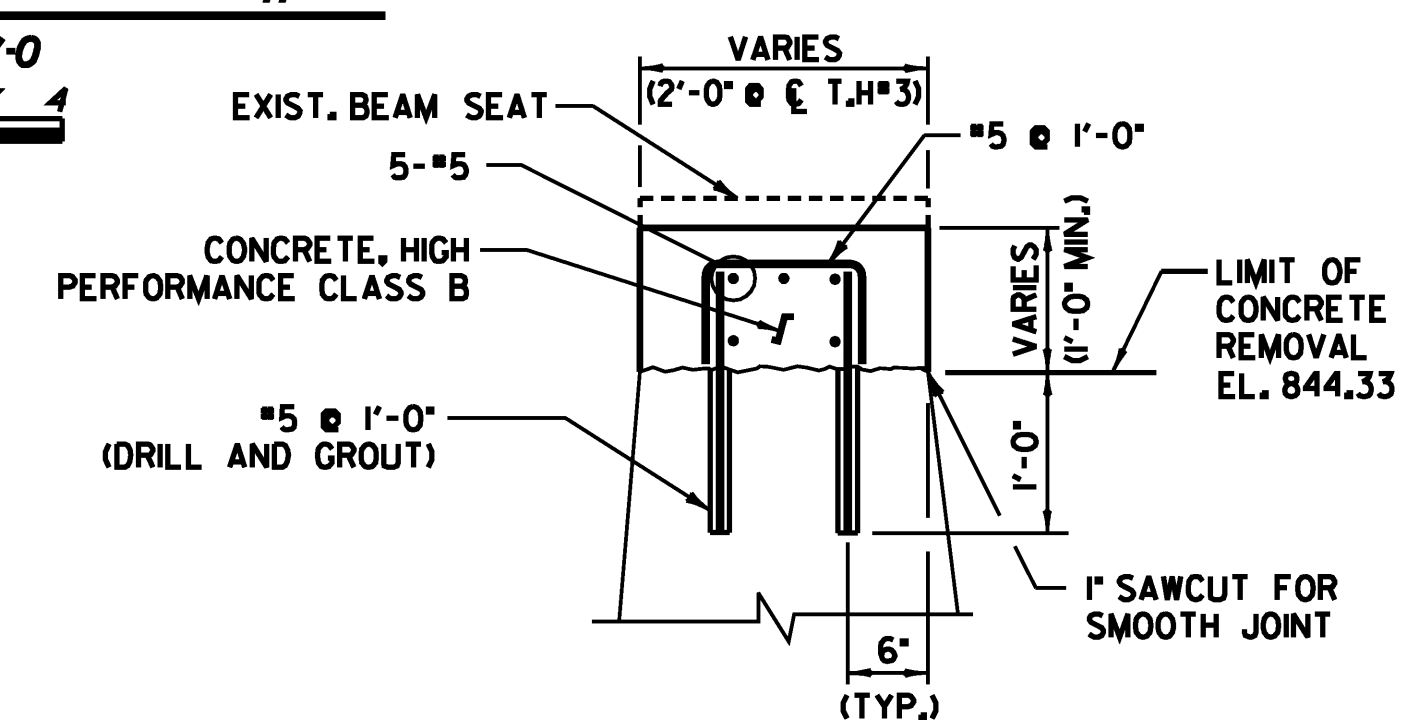
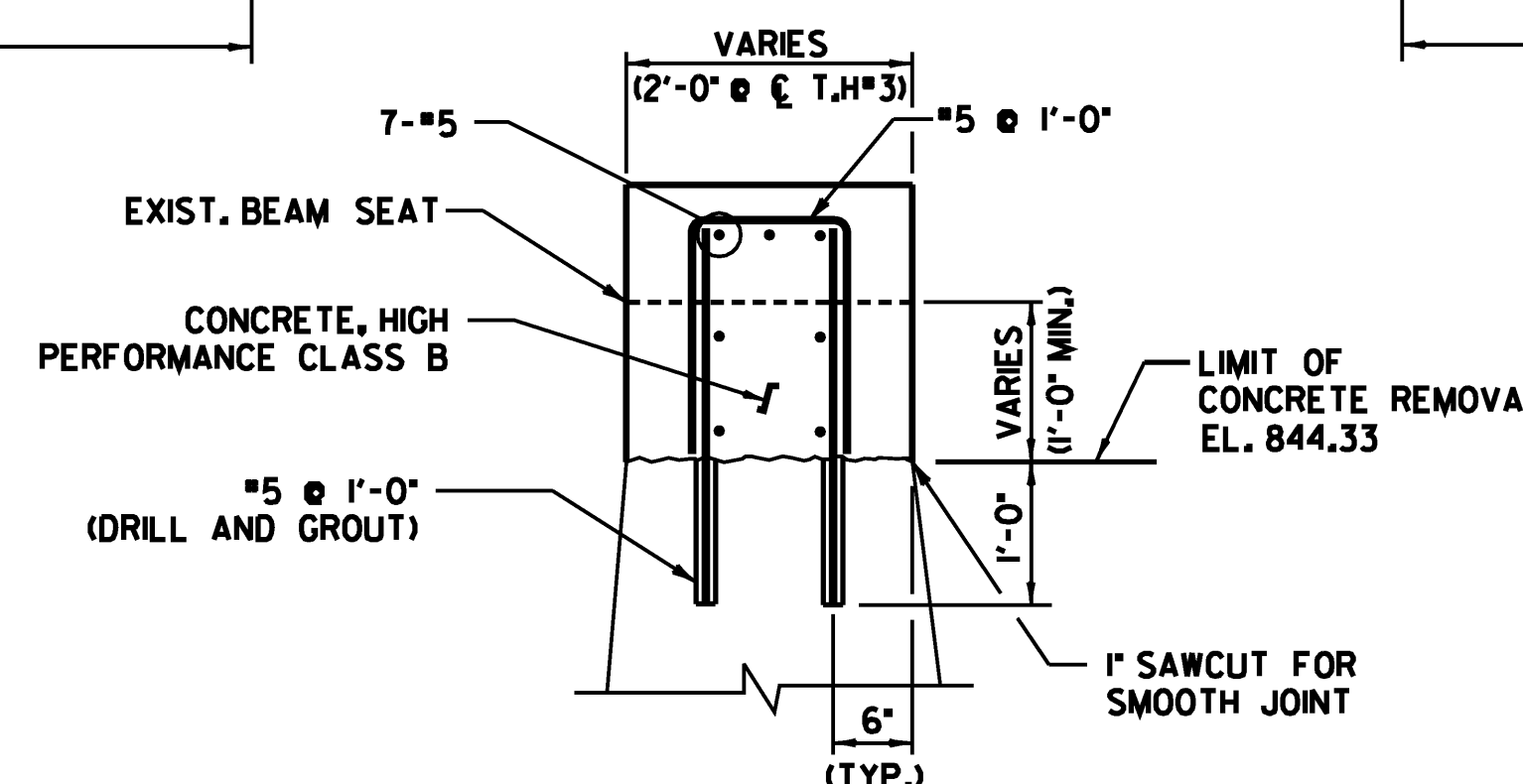
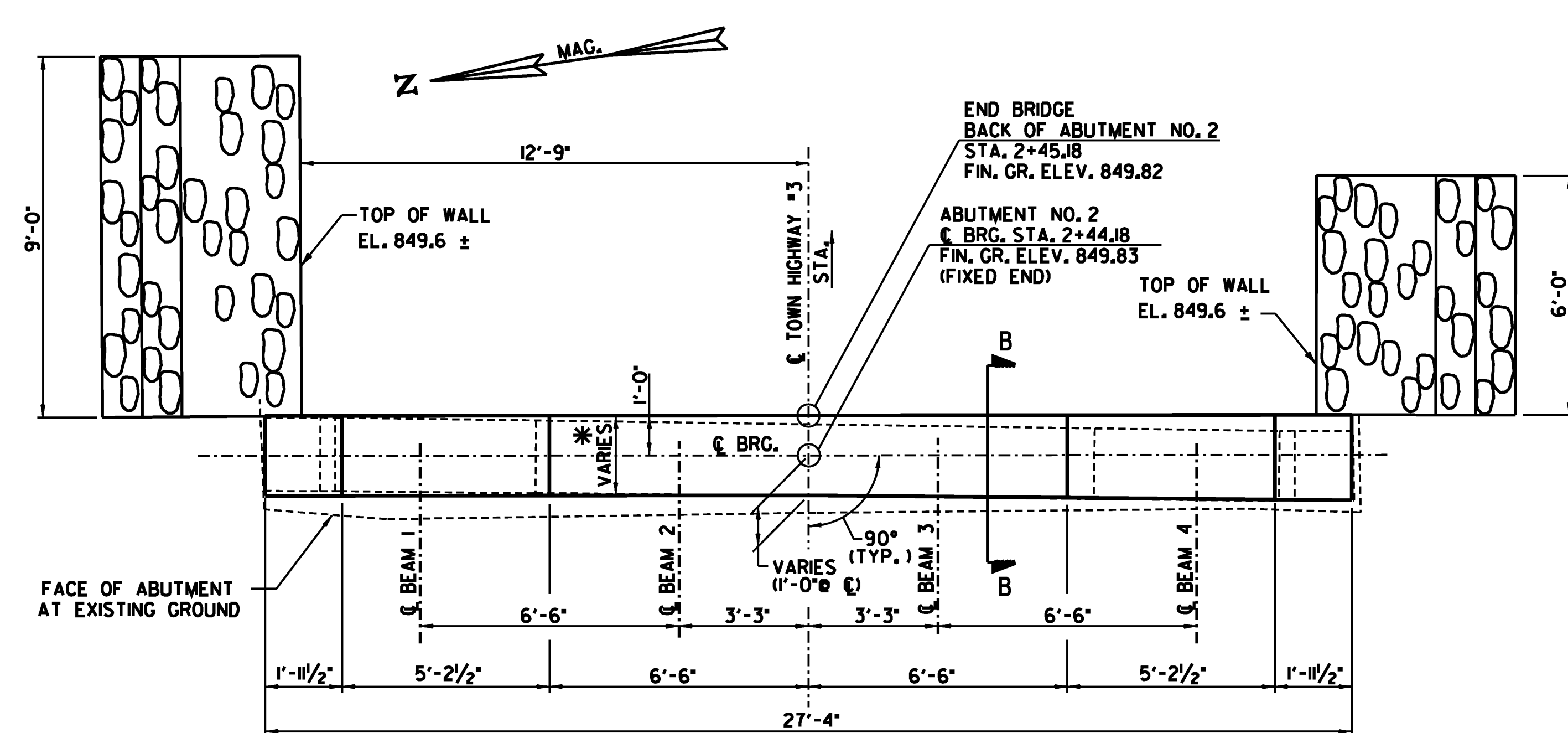
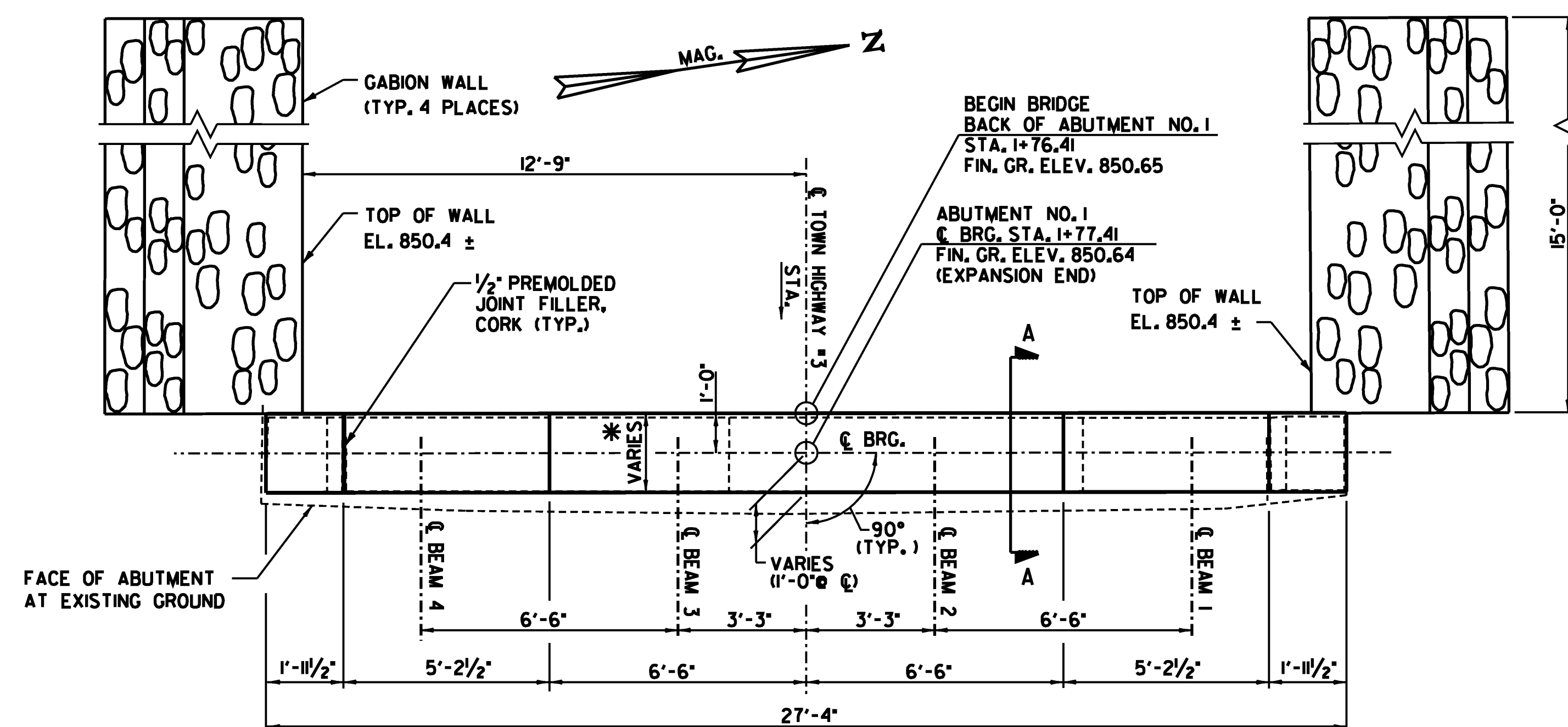
TEMPERATURE ADJUSTMENT TABLE

ABUTMENT NO. 1		
TEMP.	DIM. "A"	DIM. "B"
0°F	2 5/8"	2 3/8"
15°F	2 3/4"	2 3/8"
30°F	2 1/2"	2 1/4"
45°F	2 3/8"	2 1/8"
60°F	2 3/8"	2 1/8"
75°F	2 1/4"	2"
90°F	2 3/8"	1 7/8"
105°F	2 1/8"	1 7/8"



PROJECT NAME: CLARENDON
PROJECT NUMBER: BHO 1443 (39)

FILE NAME: ...Drawing\21-clar-bearings.dgn PLOT DATE: 7/2/2009
PROJECT LEADER: MJC DRAWN BY: TEK
DESIGNED BY: TEK CHECKED BY: GAB
BEARING DETAILS SHEET 21 OF 24



GABION WALLS NOT SHOWN IN ELEVATION VIEWS.

- NOTES:
1. CONCRETE ABOVE BRIDGE SEAT ELEVATIONS SHOULD NOT BE PLACED UNTIL AFTER THE BEAMS HAVE BEEN PROFILED.
 2. EXISTING VERTICAL REINFORCING IN WINGWALLS TO BE RETAINED IF POSSIBLE. ANY RETAINED REINFORCING SHALL BE BLAST CLEANED PER SECTION 580.
 3. AREAS OF CONCRETE SURFACE REPAIR ON EXISTING ABUTMENTS TO BE DETERMINED IN THE FIELD BY THE ENGINEER AND PAID FOR UNDER ITEM 580J3.

NOTE:

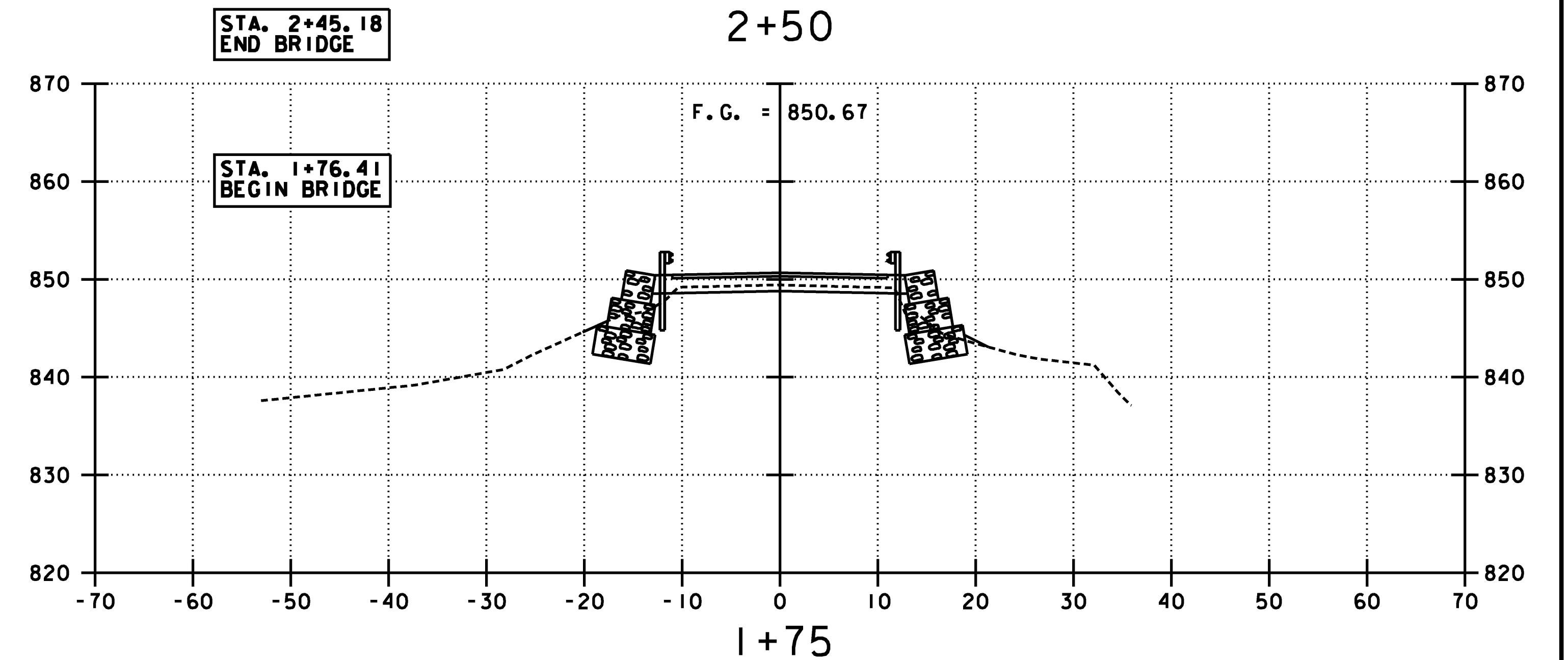
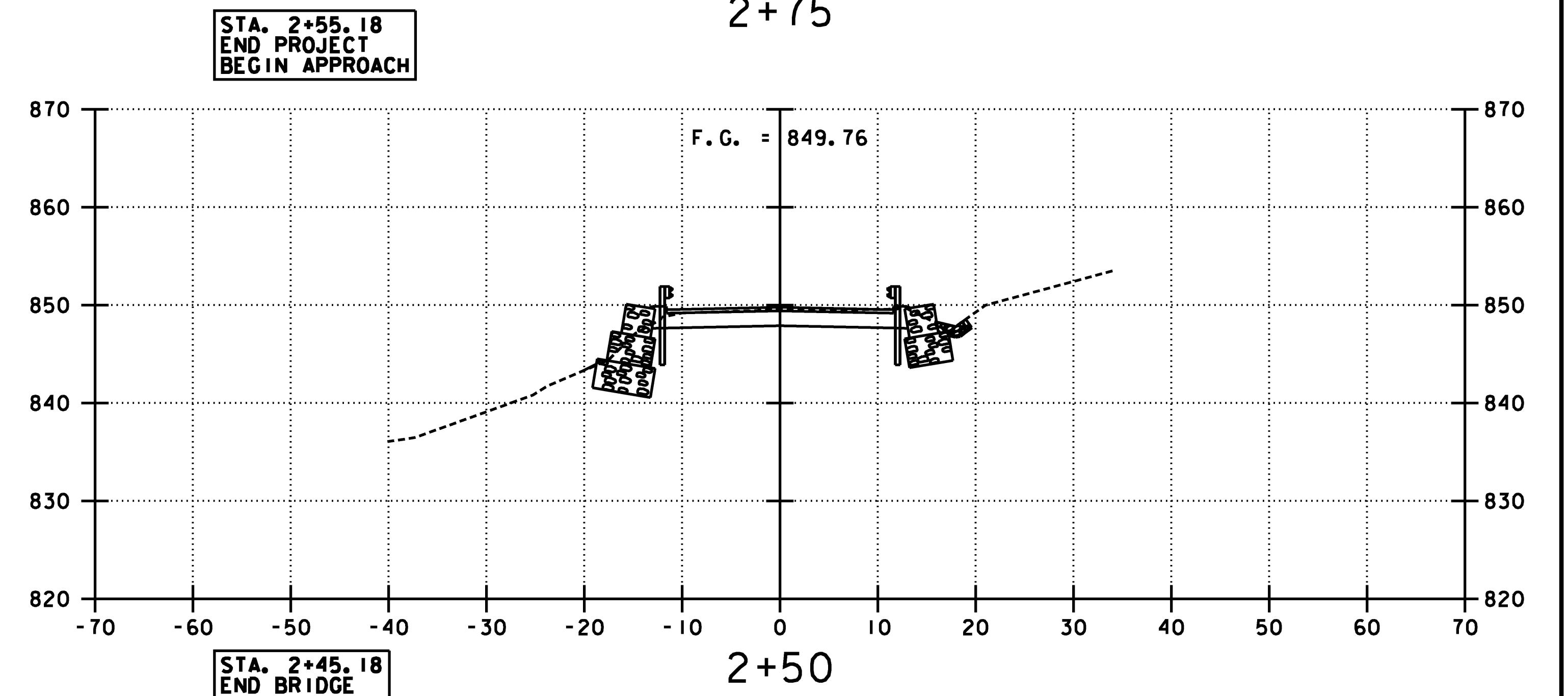
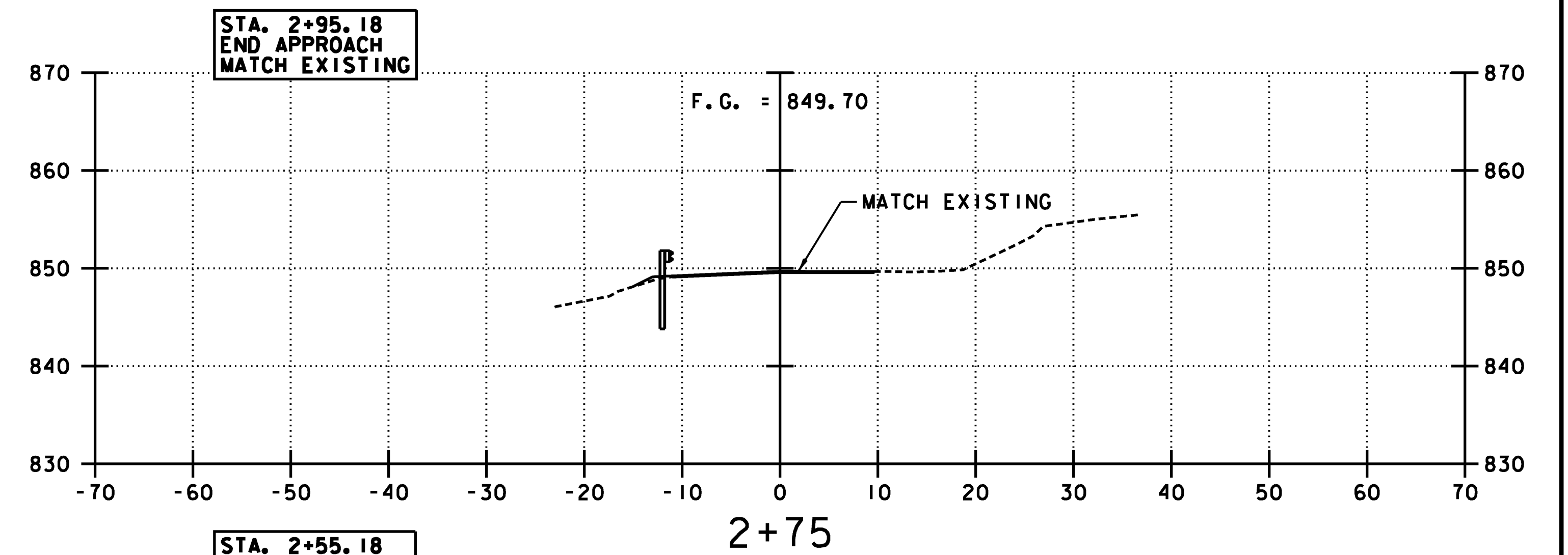
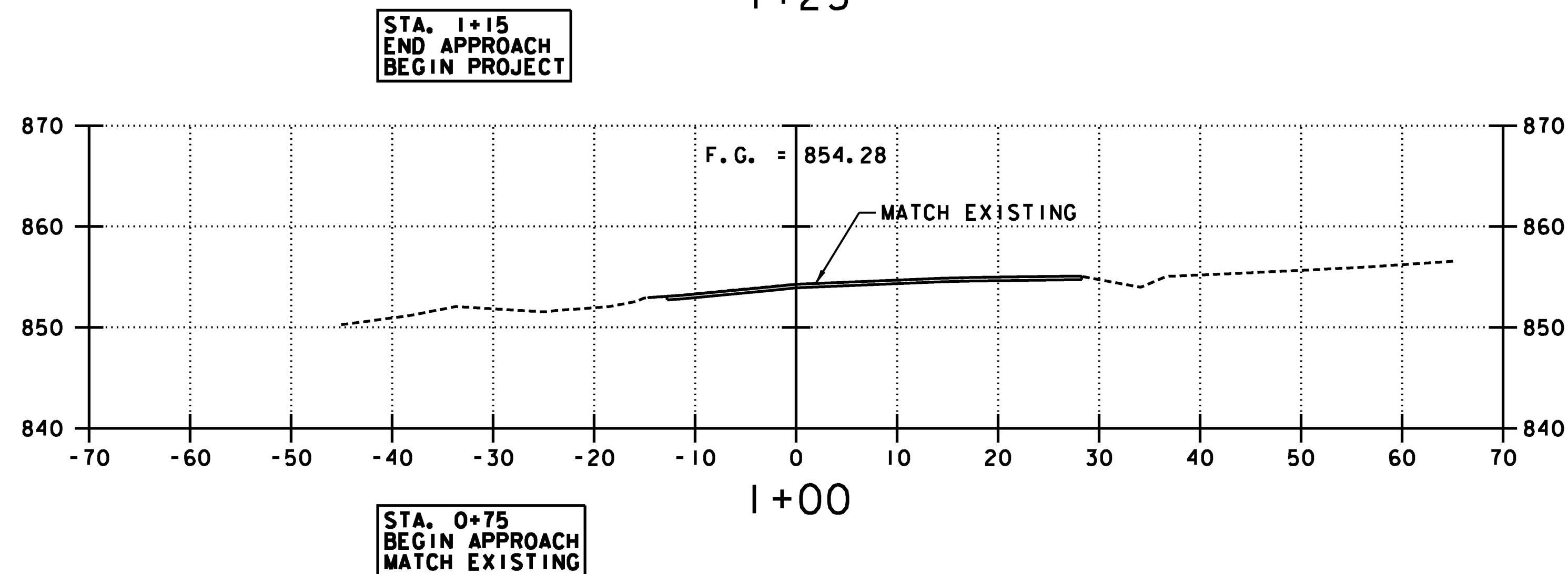
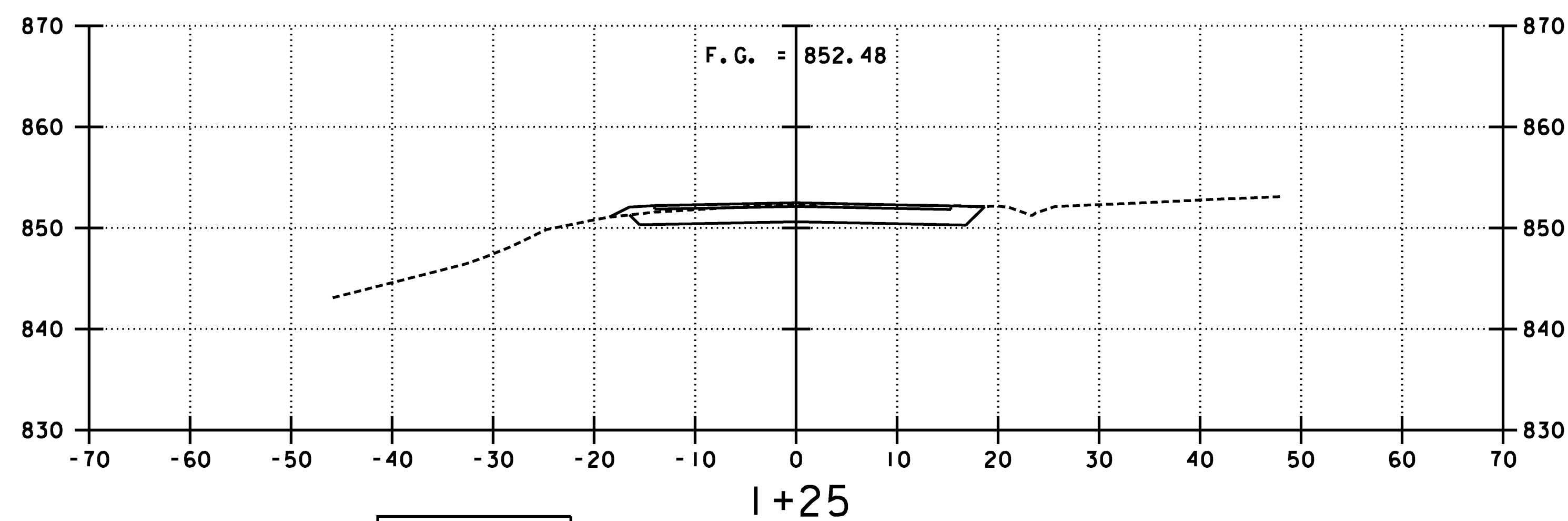
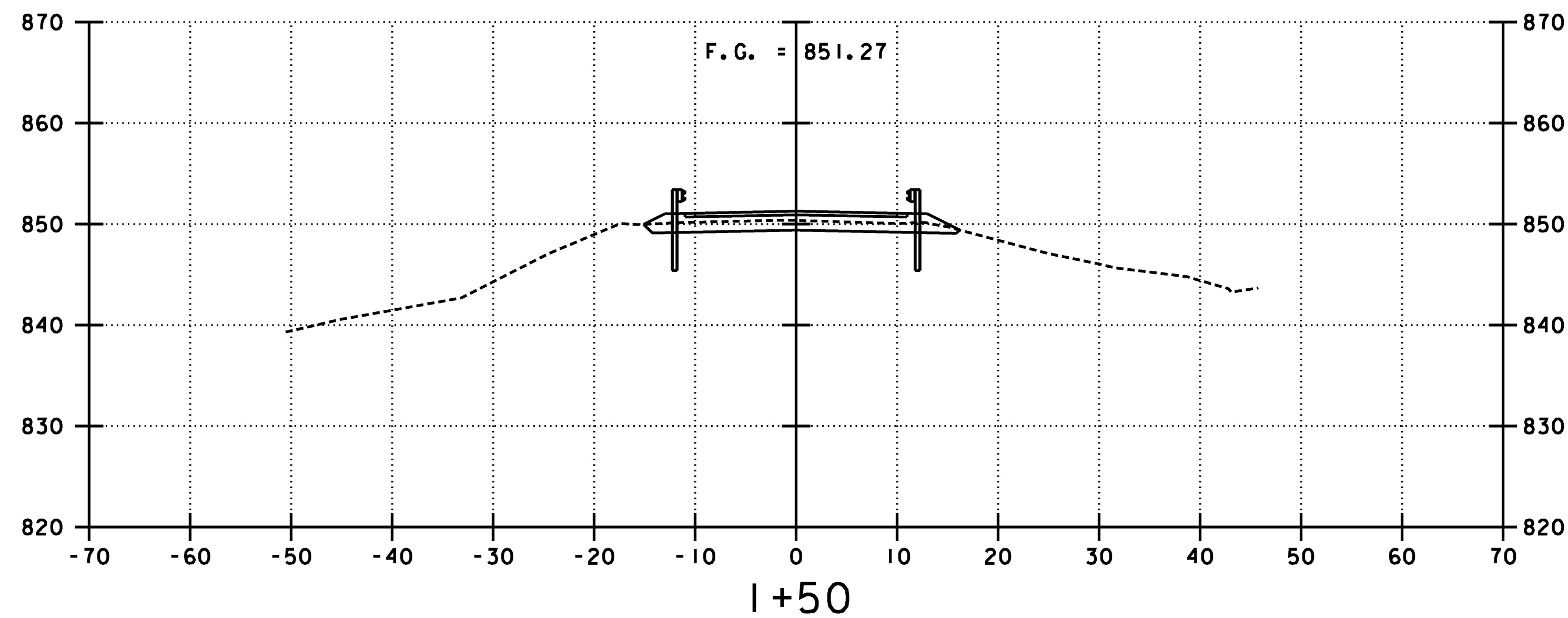
NF - NEAR FACE
 FF - FAR FACE
 EF - EACH FACE
 ▲ - CUT TO FIT IN FIELD
 3" CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.



PROJECT NAME: CLARENDON
 PROJECT NUMBER: BHO 1443 (39)

FILE NAME: ...Drawing\22-clar-abuts.dgn PLOT DATE: 7/2/2009
 PROJECT LEADER: MJC DRAWN BY: AET
 DESIGNED BY: SEB CHECKED BY: SEB
 ABUTMENT PLANS & ELEVATIONS SHEET 22 OF 24

ITEM	NO.	PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O	ITEM	NO.	PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
1																			99																		
2																			100																		
3																			101																		
4	△	144	5	35'-2"	ES501	STR													102																		
5																			103																		
6		138	5	5'-2"	ES502	SS	0'-10"	1'-5"	0'-8"	1'-5"									104																		
7		38	5	11'-4"	ES503	SS	1'-11"	3'-8"	0'-7"	3'-3"			0'-10"						105																		
8																			106																		
9	△	94	6	22'-10"	ES602	STR													107																		
10		12	6	23'-0"	ES603	STR													108																		
11		12	6	3'-8"	ES604	STR													109																		
12																			110																		
13		92	6	24'-2"	ES601	I	0'-8"	22'-10"					0'-8"		0'-6"				111																		
14																			112																		
15																			113																		
16																			114																		
17																			115																		
18																			116																		
19	△	6	5	6'-6"	1A501	STR													117																		
20		4	5	6'-9"	1A502	STR													118																		
21		22	5	2'-7"	1A504	STR													119																		
22		26	5	2'-9"	1A505	STR													120																		
23		7	5	26'-10"	1A508	STR													121																		
24																			122																		
25		10	5	5'-8"	1A503	TI	0'-6"	1'-2"	1'-2"	1'-2"	1'-2"						0'-6"		123																		
26		11	5	4'-4"	1A506	SIO													124																		
27		13	5	4'-6"	1A507	SIO													125																		
28																			126																		
29																			127																		
30																			128																		
31																			129																		
32																			130																		
33																			131																		
34	△	6	5	5'-9"	2A501	STR													132																		
35		4	5	6'-0"	2A502	STR													133																		
36		22	5	1'-9"	2A504	STR													134																		
37		26	5	1'-11"	2A505	STR													135																		
38		5	5	26'-10"	2A508	STR													136																		
39		10	5	5'-8"	2A503	TI	0'-6"	1'-2"	1'-2"	1'-2"	1'-2"						0'-6"		137																		
40		11	5	2'-8"	2A506	SIO													138																		
41		13	5	2'-10"	2A507	SIO													139																		
42																			140																		
43																			141																		
44																			142																		
45																			143																		
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76																			174																		
77																			175																		
78																																					



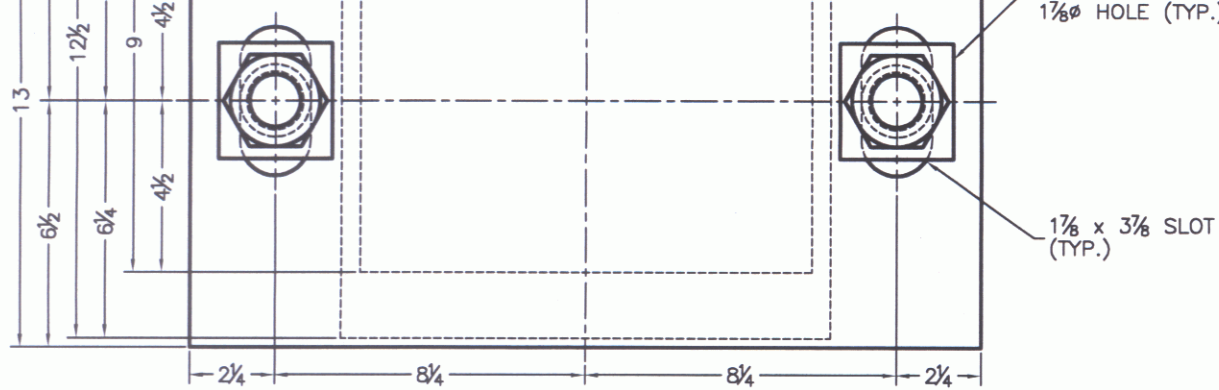
SCALE 1" = 10'-0"



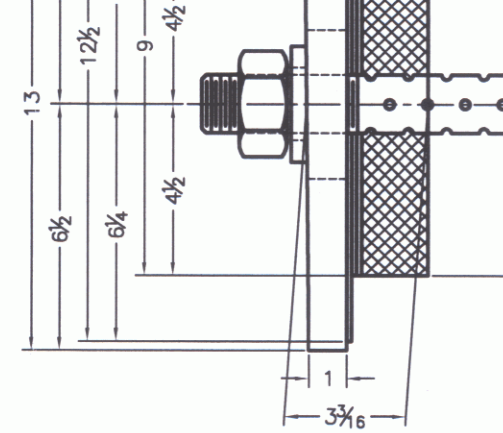
PROJECT NAME: CLARENDON
PROJECT NUMBER: BHO 1443 (39)

FILE NAME: ...Drawing\24-clar-xs.dgn
PROJECT LEADER: MJC
DESIGNED BY: SEB
ROADWAY CROSS SECTIONS

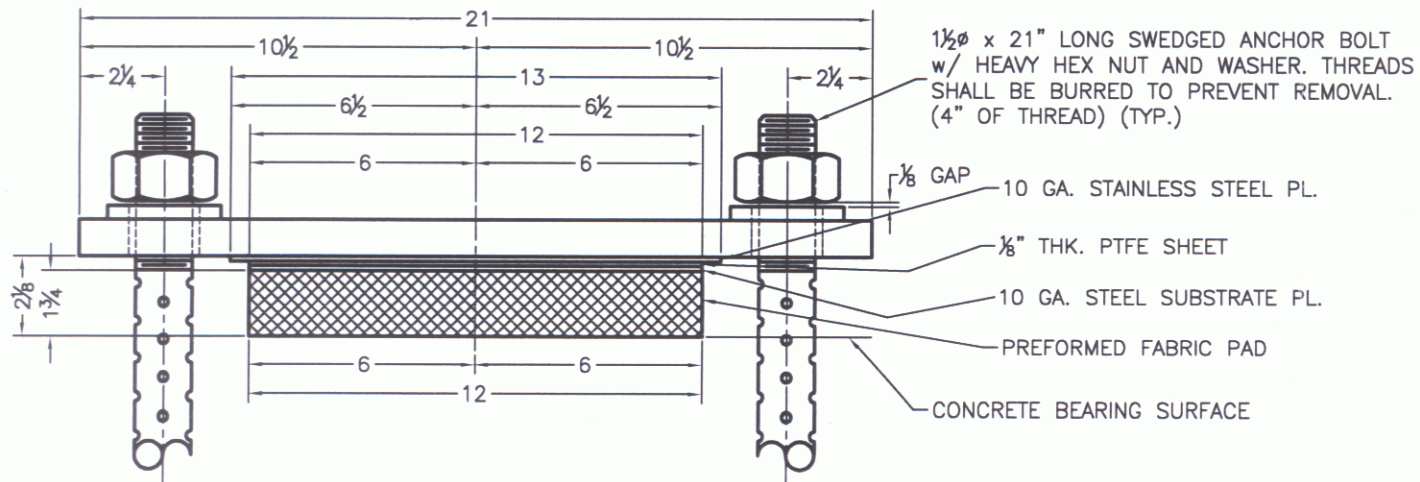
PLOT DATE: 7/2/2009
DRAWN BY: AET
CHECKED BY: MJC
SHEET 24 OF 24



PLAN VIEW

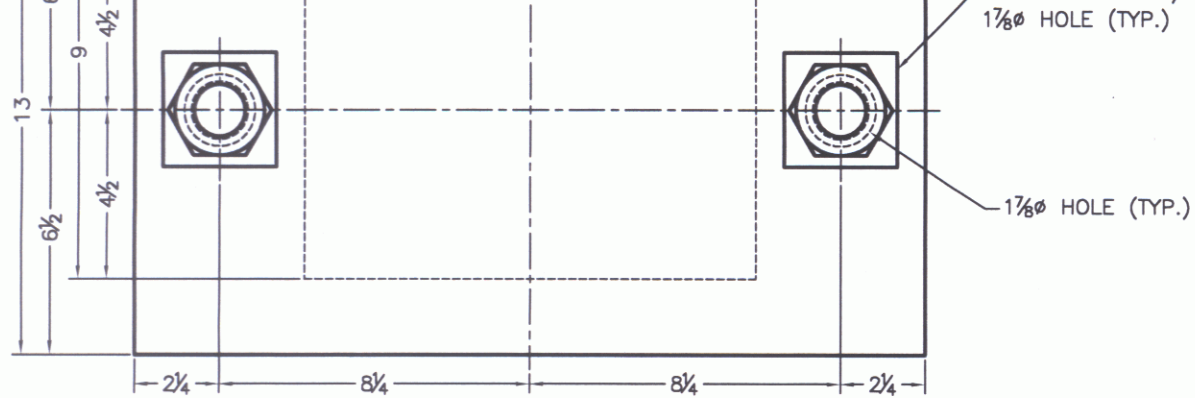


SIDE VIEW

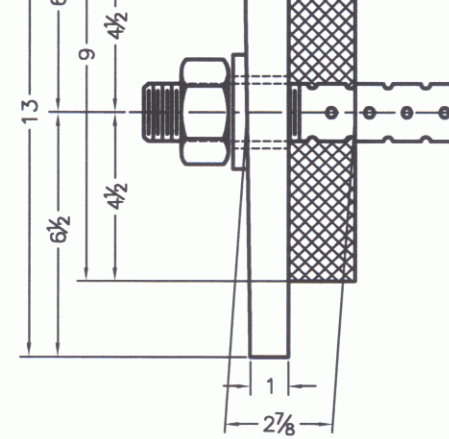


ELEVATION VIEW

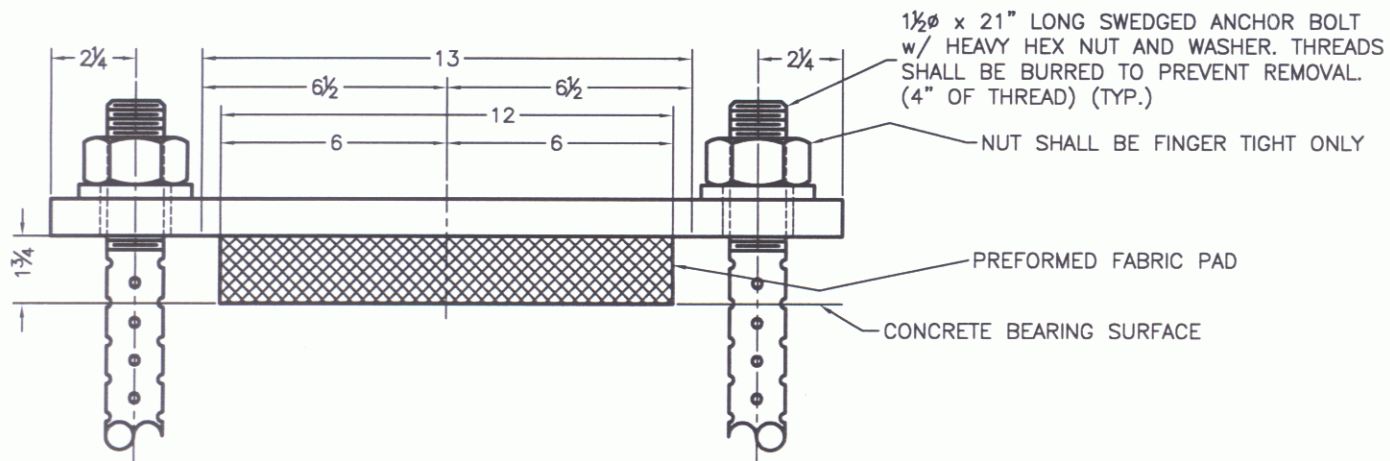
ABUTMENT NO. 1
QTY REQ'D = 4 ASSY.
ITEM NO. 531.10



PLAN VIEW



SIDE VIEW

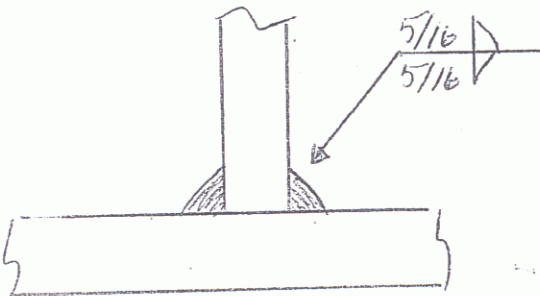


ELEVATION VIEW

ABUTMENT NO. 2
QTY REQ'D = 4 ASSY.
ITEM NO. 531.10

Filler metal classification E81T1-Ni-A4 E5AB
 Flux NA
 Shielding gas 75% AR - 25% CO₂ Flow rate 35 CFH +0 -4
 Single or multiple pass single / multiple Elec Ex 5/8 ± 1/4
 Single or multiple arc single
 Welding current DC
 Polarity DCEP
 Welding progression See detail
 Root treatment wire brush - area to be free of loose scale, slag, rust & moisture
 Preheat and interpass temperature To 20 (74) 10 (50) 20 (74) To 40 (104) 20 (74) 40 (104) To 60 (140) 65 C
 Postheat temperature over 60 (140) 110 (225)
 Heat Input Min 27.7 KJ/in Max 43.6 KJ/in PQR FCM #8 39.6 KJ/in

WELDING PROCEDURE

Pass no.	Electrode size	Welding current		Travel speed	Joint detail
		Amperes	Volts		
1/16		287	29	13	
		258	26.8	11.4	
		To	To	To	
		315	31	14	

VERMONT A.C.T.
 B1 #15 - Proj #1143(39)
 CHARTERED - CBSS424

AWSD-13
 AWS D1-5 Joint detail Fillet

CK'D BY JWC CK'D BY JWC
 SEP 23 2009
 RESUBMIT APPROVED
 BY DATE 10/13/09

AWSD-13
 OCT
 PAUL E. GOODALE
 98100201
 CWI

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

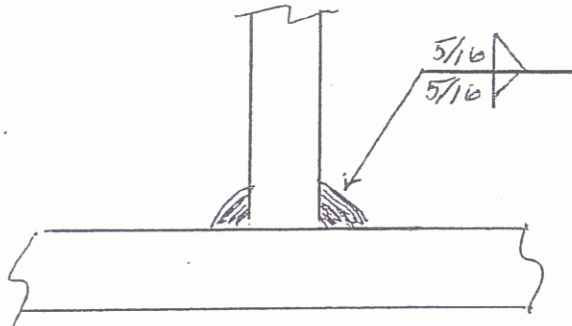
Procedure no. 101
 Revision no. _____

Contractor Casco Bay Steel
 Authorized By Paul E. Goodale
 Date 12-6-06

Filler metal classification E6010-ENVIK-MIL
 Flux Lincoln 960 with LA75 Elec.
 Shielding gas NA Flow rate NA
 Single or multiple pass single
 Single or multiple arc single
 Welding current DC
 Polarity DCEN
 Welding progression see Joint Detail
 Root treatment Blast Clean - wire brush - Free of loose scale & moisture
 Preheat and interpass temperature 3/4-50°F, 3/4" to 1 1/2" - 70°F, 1 1/2" to 2 1/2" - 150°F over 2 1/2" - 225°F
 Postheat temperature NA
 Heat Input Min 30.3 KJ/in Max 47.6 KJ/in PQR-FCM #9-43.3 KJ/in

WELDING PROCEDURE

Vermont A.C.T.
 B1-15- Proj #1443(39)
 CIAREDA - C855424

Pass no.	Electrode size	Welding current		Travel speed	AWS 5-13 AWS D1-5 Joint detail Fillet
		Amperes	Volts		
		293	32	13 IPM	
		270	30	11	
		TO	TO	TO	
	3/32	322	34	14	

TRANS
 RECEIVED
 CK'D BY _____ OK'D BY JWC
 SEP 23 2009
 RESUBMIT _____ APPROVED ✓
 BY _____ DATE 10/13/09

AWS
 QC 1
 PAUL E. GOODALE
 88100201
 CMI

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. 250

Revision no. _____

Form III-2

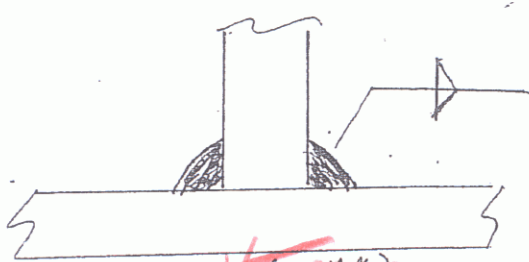
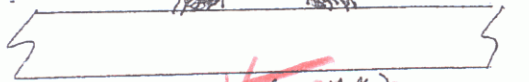
Contractor Casco Bay Steel

Authorized By Paul E. Goodale

Date 12-6-06

Filler metal specification AWS A5-23
 Filler metal classification F8A2-ENiK-Ni Lincoln
 Flux Lincoln 960 FLUX with LA75 Elec.
 Shielding gas NA Flow rate _____
 Single or multiple pass Single
 Single or multiple arc Single
 Welding current DC
 Polarity DCEP
 Welding progression See Joint Detail
 Root treatment WIRE BRUSH - area To be Free of Loose Scale - Slag - Rust & Moisture
 Preheat and interpass temperature To 3/4(19) 50°F (109) - 3/4(19) To 1 1/2(38) 70°F (209) 1 1/2(38) To 2 1/2(63) 150°F (66) over 2 1/2(63) 225°F (110°C)
 Postheat temperature NA
 Heat Input Min 46.1 (1.6) Max 64.5 (2.5) P.Q.R. 3A-58.7 KJ/IN (2.3 KJ/mm) Δ

VERMONT A.C.T.
 B1-15- Proj #1443(39)
 CIARE-DEM - CB55424

(Metric)		WELDING PROCEDURE			Travel speed	AWS D1.5 Joint detail Fillet
Pass no.	Electrode size	Welding current				
		Amperes	Volts			
1	5/32	597	29.5	18 IPM		
		567	27	16		
		To	To	To		
		627	31	21		
1	3.9	597	29.5	457 ^{mm} / _{min}		
		567	27	406		
		To	To	To		
		627	31	533		

MAX 420°F (216°C)

5/16 (8mm) RECEIVED
 CK'D BY _____ OK'D BY JWC
 SEP 23 2009
 RESUBMIT _____ APPROVED ✓
 BY _____ DATE 10/13/09

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. 201 Br. ST of V

Revision no. A New P.Q.R

Form III-2

Contractor Casco Bay Steel

Authorized By Paul E. Goodale

Date 1-24-05

Manual or machine Manual
 Position of welding Flat (1F), Horizontal (2F)
 Filler metal specification AWS/AWS A5.1 - A5.5
 Filler metal classification E7018 - 8018 C/C3 - 7028
 Flux NA
 Shielding gas NA Flow rate NA
 Single or multiple pass Single and multiple
 Single or multiple arc single
 Welding current AC/DC
 Polarity STRAIGHT / Reverse
 Welding progression _____
 Root treatment MEET AWS SPECIFICATION
 Preheat and interpass temperature To 3/4(19) 50°F(10°C) 3/4(19) To 1 1/2(38) 70°F(20°C) 1 1/2(38) To 2 1/2(63.5) 150°F(65°C)
 Postheat temperature NA over 2 1/2(63.5) 225°F(110°C)
 Heat Input Min NA Max NA

VERMONT RECEIVED
 SEP 28 2009
 RESUBMIT _____ APPROVED ✓
 BY _____ DATE 10/13/09

VERMONT A.C.T.
 B-15- Proj # 1443(34)
 CIARE-DON - C B55424

(Metric)

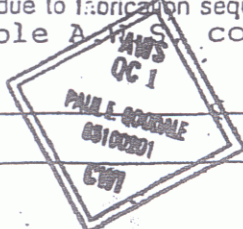
WELDING PROCEDURE

Pass no.	Electrode size	Welding current		Travel speed	AWS D1.5 Joint detail Filler		
		Amperes	Volts				
AS REQ.	<u>7018</u>				<u>1F</u>		
	<u>1/8 (3.2)</u>	<u>70-170</u>	<u>22-26</u>	<u>AS REQ.</u>			
	<u>5/32 (3.9)</u>	<u>120-225</u>	<u>22-26</u>				
	<u>3/16 (4.8)</u>	<u>170-300</u>	<u>24-27</u>				
	<u>8018</u>						
	<u>1/8 (3.2)</u>	<u>90-160</u>	<u>22-26</u>				
	<u>5/32 (3.9)</u>	<u>120-225</u>	<u>22-26</u>				
	<u>3/16 (4.8)</u>	<u>180-290</u>	<u>24-27</u>				
	<u>7028</u>				<u>2F</u>		
	<u>5/32 (3.9)</u>	<u>170-270</u>	<u>22-26</u>				
	<u>3/16 (4.8)</u>	<u>210-330</u>	<u>24-27</u>				

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable AWS codes or contract specifications

Procedure no. 401
 Revision no. _____

Contractor Casco Bay Steel
 Authorized By Paul E. Hoodale
 Date 3/2/00



GENERAL NOTES

CONSTRUCTION SPECIFICATIONS

- 1). ALL MATERIAL AND WORKMANSHIP TO BE IN ACCORDANCE WITH THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006 WITH LATEST REVISIONS AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR HIGHWAY BRIDGES DATED 2002 AND ITS LATEST REVISIONS.

MATERIAL SPECIFICATIONS

- 1). UNLESS OTHERWISE NOTED, ALL STEEL TO BE AASHTO M270M (ASTM A709M) GRADE 50W.
- 2). MATERIAL NOTED "CVN" OR "H2-3" ON DETAIL DRAWINGS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF VERMONT STANDARD SPECIFICATIONS SECTION 714.01.
- 3). HIGH STRENGTH BOLTS: $\frac{7}{8}$ " ϕ ASTM A325 TYPE 3 IN $\frac{15}{16}$ " ϕ HOLES. NUTS SHALL BE A563 GRADE C3. BOLTS & NUTS SHALL BE ROTATIONAL CAPACITY TESTED. DO NOT MIX NUTS & BOLTS FROM DIFFERENT CONTAINERS UNLESS ALL BOLTS & NUTS HAVE THE SAME LOT NUMBER.

FABRICATION

- 1). ALL HOLES SHALL BE PUNCHED OR DRILLED FULL SIZE (UN).

WELDING

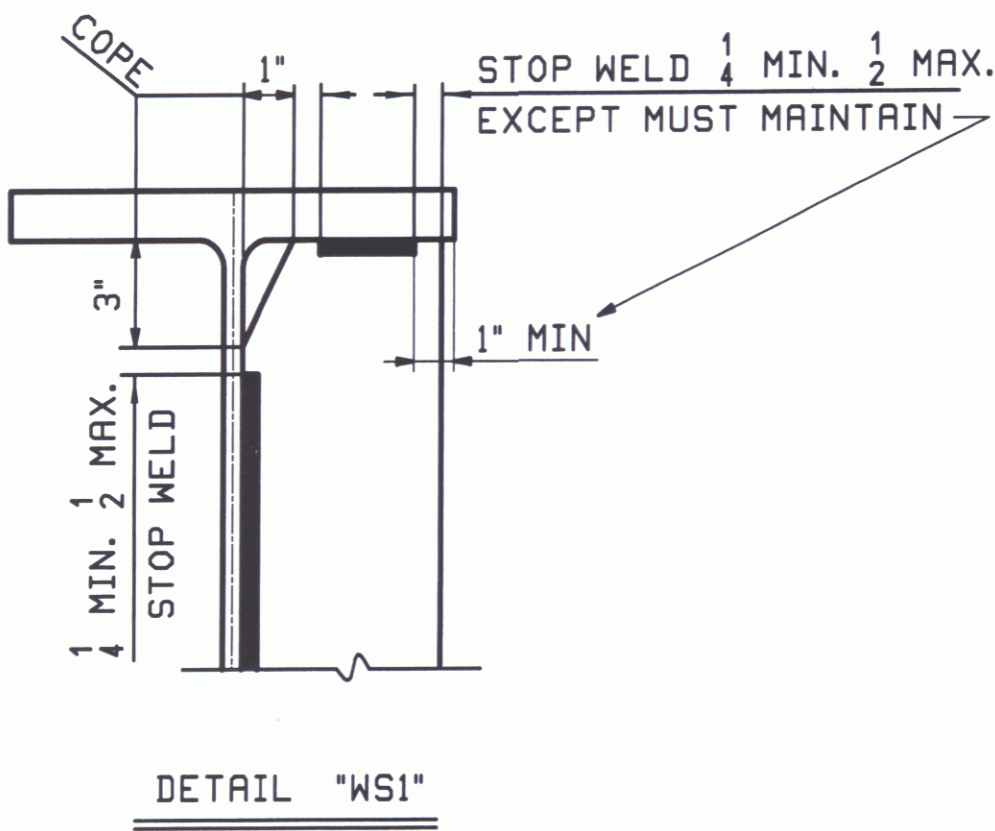
- 1). THE CONFIGURATION OF THE WELD JOINTS AND ALL WELDING PROCEDURES SHALL BE IN ACCORDANCE WITH AASHTO/AWS D1.5-02 BRIDGE WELDING CODE AND IN ADDITION TO SPECIFICATIONS SHOWN ABOVE. ALL WELDING WILL BE DETAILED TO PRE-QUALIFIED JOINTS, UNLESS PROHIBITED BY THE DESIGNER.
- 2). WELDING OF MAIN LOAD CARRYING MEMBERS AND ATTACHMENTS SHALL BE PERFORMED USING THE AUTOMATIC SUBMERGED ARC & SHIELDED METAL ARC PROCESSES. ALL WELDS ARE CONTINUOUS U.N.
- 3). NON DESTRUCTIVE TESTING OF WELDS SHALL BE IN ACCORDANCE WITH THE REFERENCED SPECIFICATION.
- 4). SEE DETAIL "WS1" ON THIS DRAWING FOR WELD TERMINATION DETAIL.

CLEANING

1. ALL STEEL SHALL BE BLAST CLEANED IN ACCORDANCE WITH SSPC SP-6.
2. STRUCTURAL STEEL SHALL NOT BE PAINTED.

FIELD CONNECTIONS

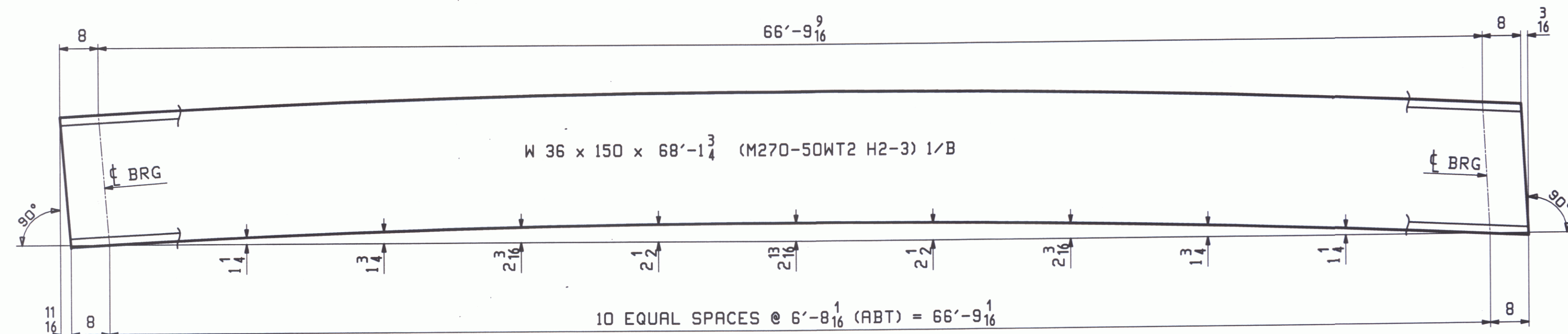
- 1). ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" DIAMETER HIGH STRENGTH A-325 TYPE 3 BOLTS (UN), INSTALLED PER SECTION 506.19(c). SEE DWG E1 FOR FIELD BOLT SIZES.
- 2). BOLTS SHALL HAVE HEAVY HEX NUT, HEAVY HEX HEAD, AND AT LEAST ONE FLAT WASHER EACH. WASHER TO BE PLACED UNDER TURNED ELEMENT.
- 3). PIECE MARKS WILL BE LOCATED AS SHOWN ON ERECTION DRAWINGS.



NOTE TO ENGINEER:
THESE NOTES ARE NOT INTENDED TO BE ALL INCLUSIVE AND COMPLIANCE WITH RELEVANT SPECIFICATIONS REMAIN UNCHANGED.

RECEIVED
OK'D BY: *mjm*
SEP 20 2009
APPROVED: *As Noted*
BY: DATE 10/13/09

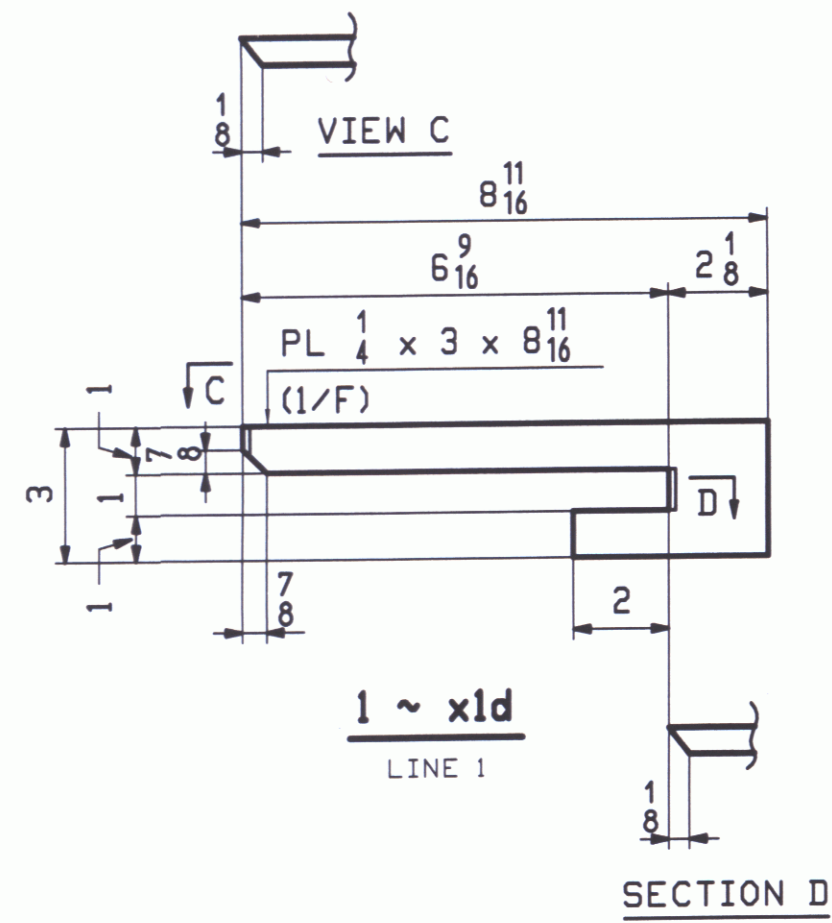
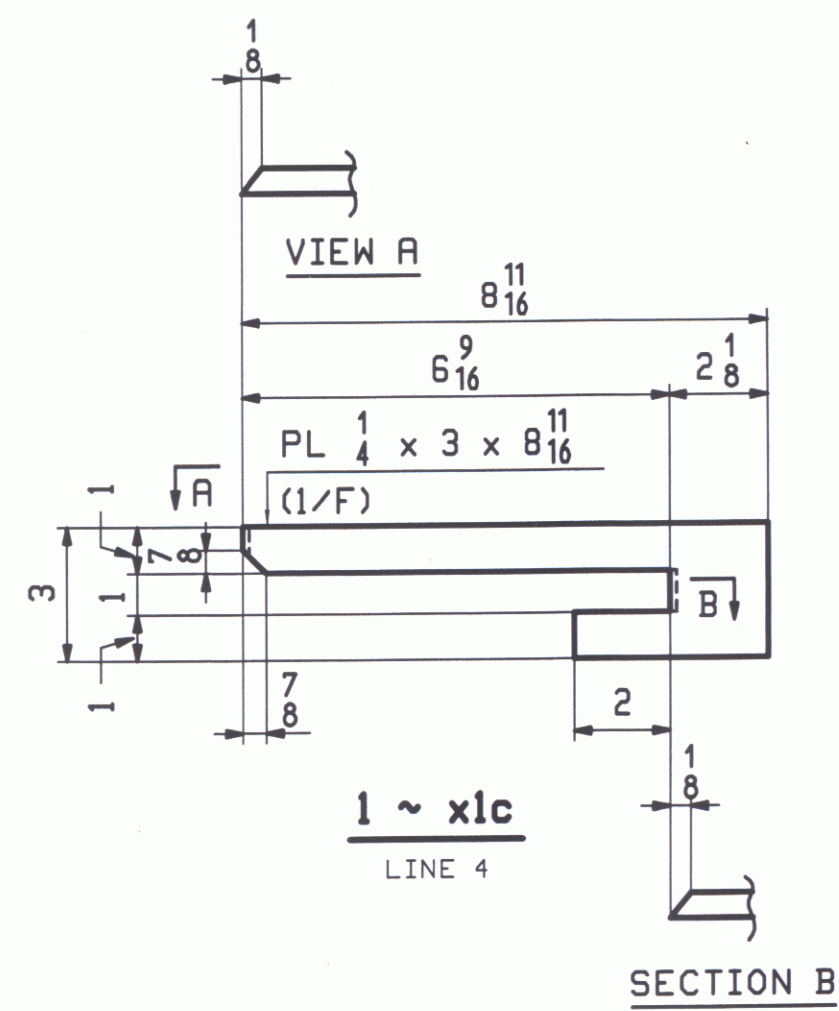
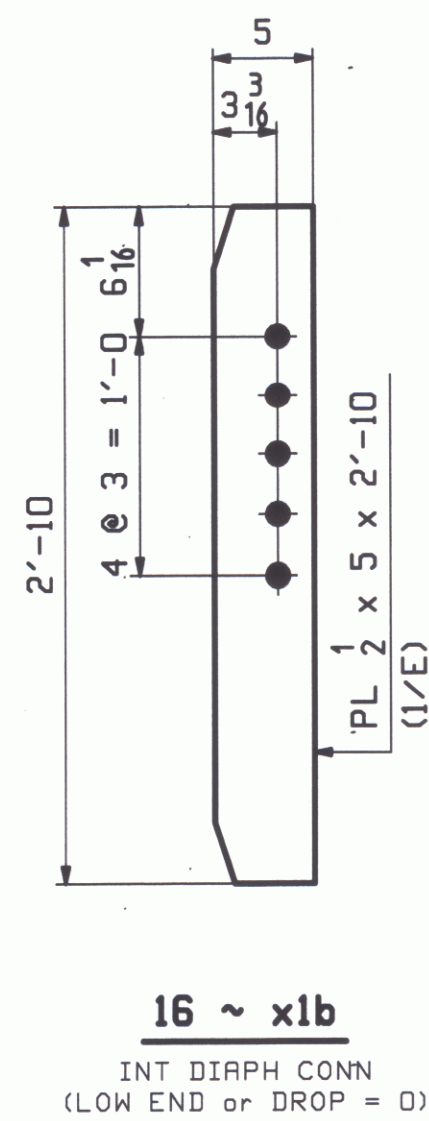
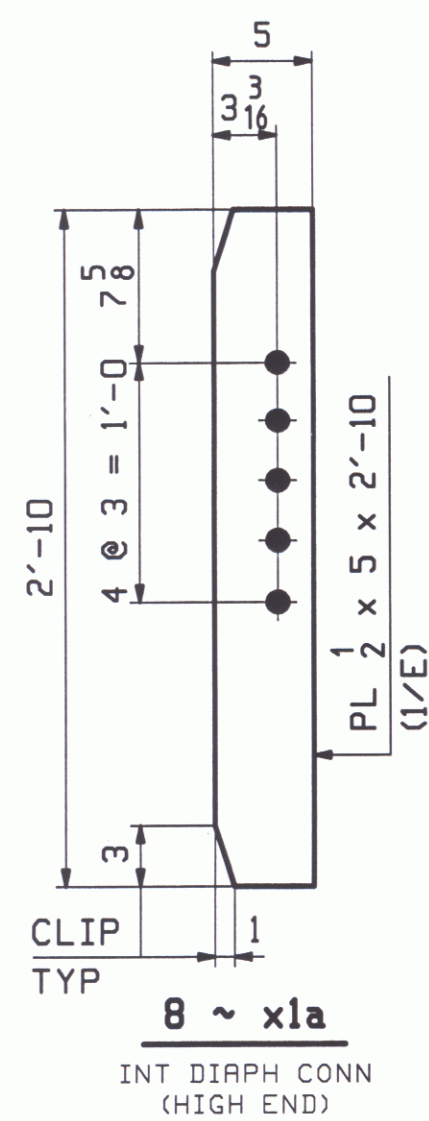
0							SEP 21 2009		
REV.	DATE	REMARKS			DWN	CHK	APVL	SHOP	
MATERIAL:		SURFACE PREP. & PAINT:			HOLES:		SHOP BOLTS:		
DESCRIPTION: GENERAL NOTES									
CASCO BAY STEEL STRUCTURES, INC.									
75 SPRING HILL ROAD				SACO, MAINE 04072					
PHONE (207) 282-7360				FAX. (207) 282-1179					
STRUCTURE:		BRIDGE NO. 15 ON TOWN HIGHWAY NO. 3 (MINOR COLLECTOR) COUNTY OF RUTLAND				DRAWN: JTB		DATE: 09/16	
						CHKD: JCF		DATE: 09/16	
LOCATION:		TOWN OF CLARENDON, VERMONT				JOB NO.		DWG NO.	
PROJ NO.		BHO 1443 (39)				424		GN1	
CUSTOMER:		VERMONT A.O.T.						REV. 	



CAMBER DIAGRAM FOR 1S1, 1S2, 2S3, 2S4
4 (REQ'D)

RECEIVED
OK'D BY _____ OK'D BY mem
SEP 22 2009
REVISED BY _____ DATE 10/13/09
RECEIVED
OK'D BY _____ OK'D BY _____
SEP 22 2009
REVISED BY _____ DATE _____

- NOTES:**
1. FOR GENERAL NOTES SEE DRAWING GNI.
 2. H2-3 DENOTES MATERIAL SUBJECT TO CHARPY V-NOTCH TEST AT H FREQ. FOR ZONE 2



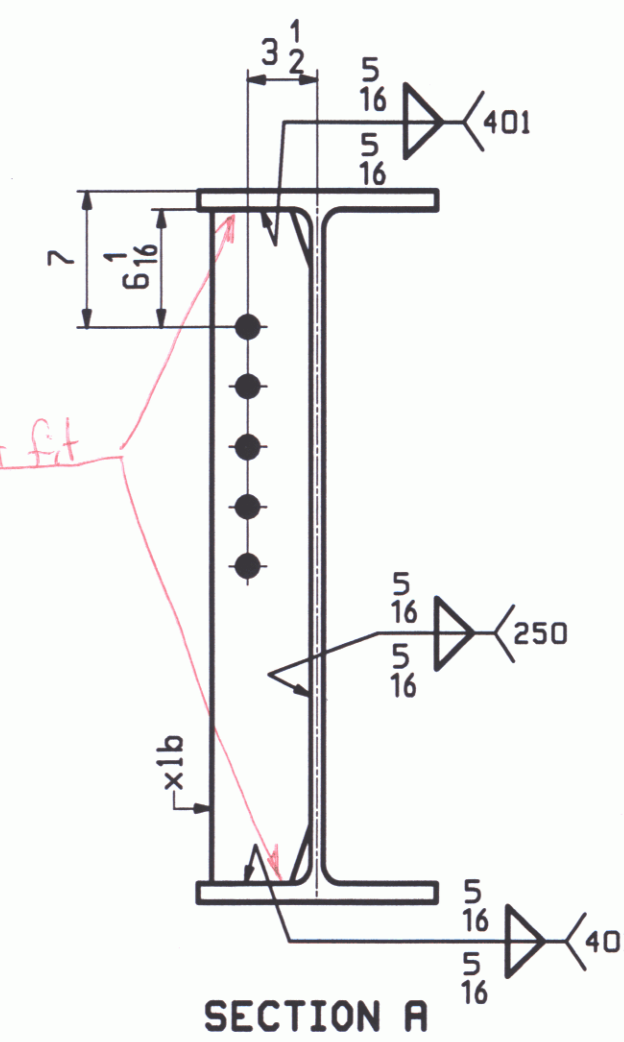
RECEIVED
OK'D BY _____ OK'D BY *mm*
SEP 22 2009
BY _____ DATE 10/13/09

NOTES:
ALL MATERIAL SHALL BE M270M-50W.
ALL BOLT HOLES SHALL BE 15/16" Ø FOR 7/8" Ø HSB.
FOR GENERAL NOTES SEE DRAWING GNI.

0							SEP 21 2009		
REV.	DATE	REMARKS			DWN	CHK	APVL		SHOP
MATERIAL: M270M-50W		SURFACE PREP. & PAINT: SEE DWG GNI			HOLES: 15 16 ∅		SHOP BOLTS: NONE		
DESCRIPTION: STRINGER STANDARDS									
CASCO BAY STEEL STRUCTURES, INC. 75 SPRING HILL ROAD SACO, MAINE 04072 PHONE (207) 282-7360 FAX. (207) 282-1179									
STRUCTURE: BRIDGE NO. 15 ON TOWN HIGHWAY NO. 3 (MINOR COLLECTOR) COUNTY OF RUTLAND						DRAWN:		DATE:	
						JTB		09/08	
						CHKD:		DATE:	
						JCF		09/16	
LOCATION: TOWN OF CLARENDON, VERMONT						JOB NO.		DWG NO.	
PROJ NO. BHO 1443 (39)						424		X1	
CUSTOMER: VERMONT A.O.T.								REV.	
								△	



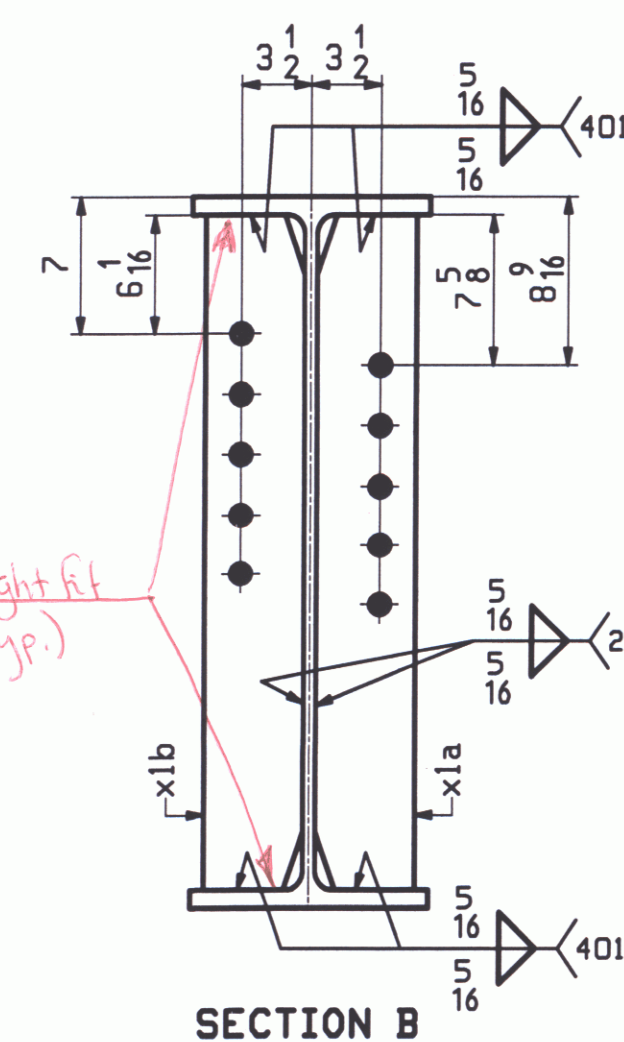
TIGHT FIT TO FLANGE
WITH SEAL WELD ALL AROUND
(TYP 401)



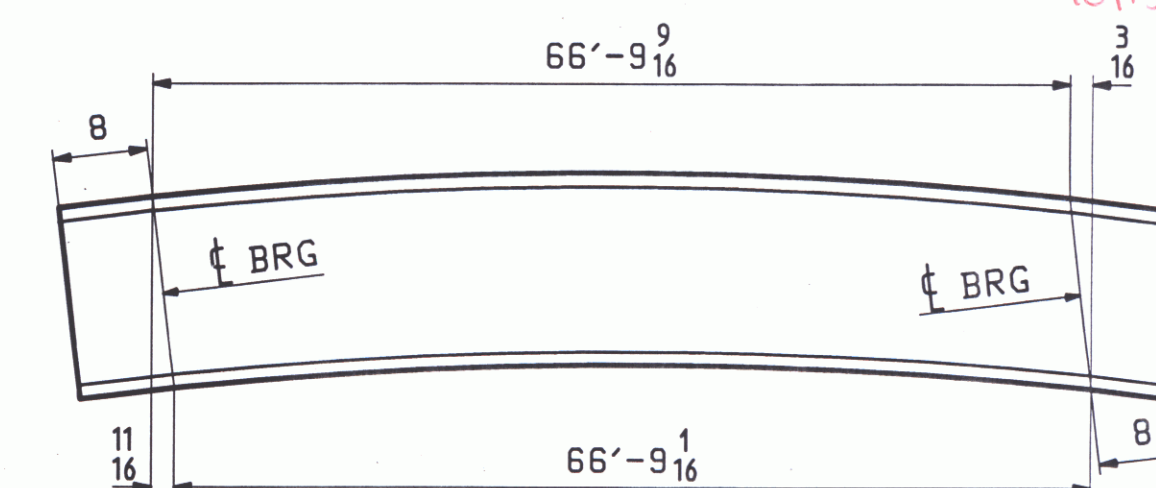
SECTION A



LE



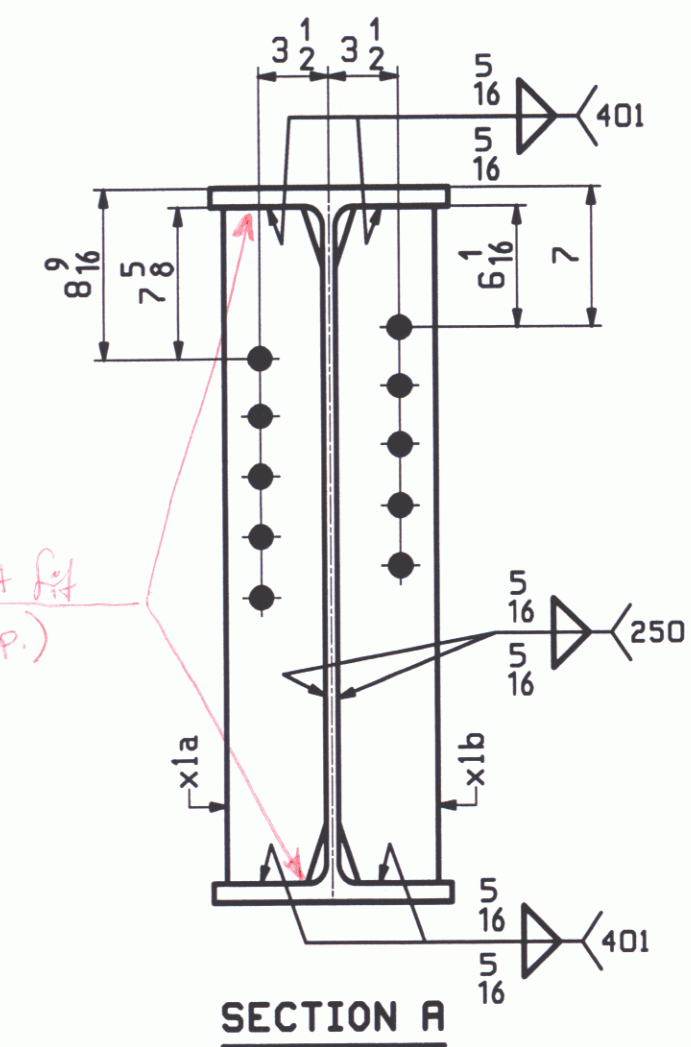
SECTION B



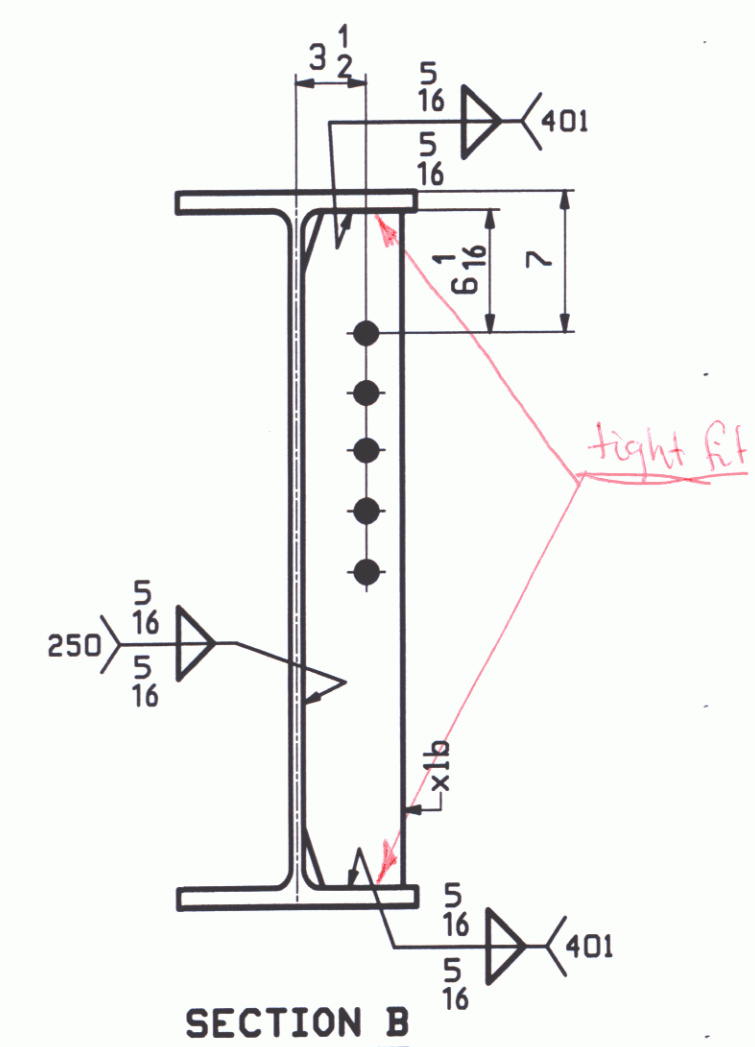
ORIENTATION DIAGRAM - 1S1 & 1S2
FOR CAMBER SEE DWG C1

D							Sep 21 2009	
REV.	DATE	REMARKS			DWN	CHK	APVL	SHOP
MATERIAL:	SURFACE PREP. & PAINT:			HOLES:		SHOP BOLTS:		
M27DM-50W (UN)	SEE DWG GN1			15 x Ø 16		NONE		
DESCRIPTION:								STRINGERS - 151 & 152
CASCO BAY STEEL STRUCTURES, INC. 75 SPRING HILL ROAD SACO, MAINE 04072 PHONE (207) 282-7360 FAX. (207) 282-1179								 TENSOR 2912
STRUCTURE: BRIDGE NO. 15 ON TOWN HIGHWAY NO. 3 (MINOR COLLECTOR) COUNTY OF RUTLAND					DRAWN:		DATE:	
					JTB		09/08	
					CHKD:		DATE:	
					JCF		09/16	
LOCATION: TOWN OF CLARENDON, VERMONT					JOB NO.		DWG NO.	
PROJ NO. BHO 1443 (39)					424		1	
CUSTOMER: VERMONT A.O.T.							REV. / A	

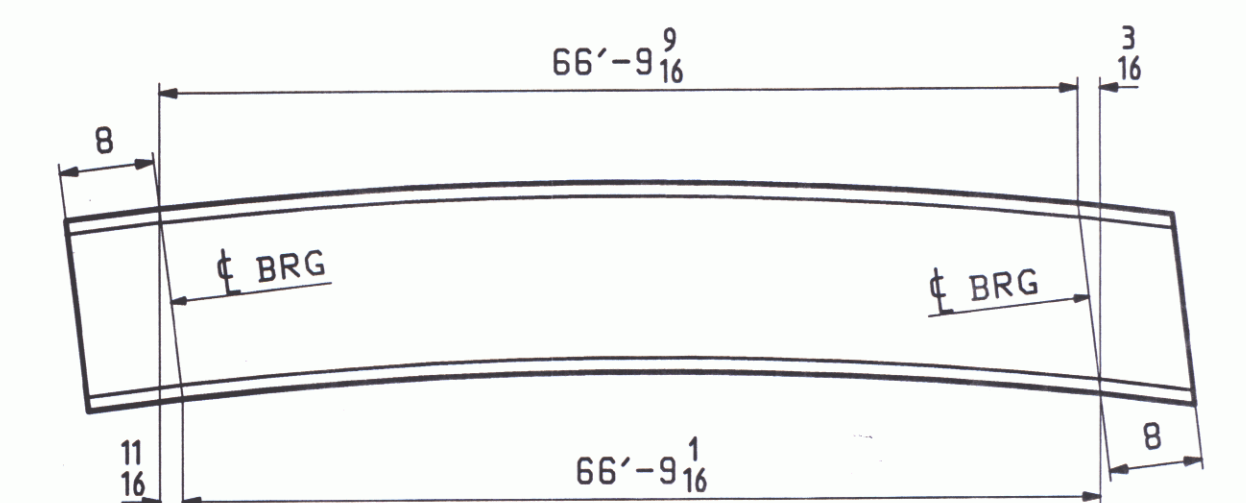
NOTES:
FOR STRINGER STANDARD DETAILS SEE DRAWING X1.
FOR CAMBER DIAGRAMS SEE DRAWING C1.
FOR GENERAL NOTES SEE DRAWING GNI.
H2-3 DENOTES MATERIAL SUBJECT TO CHARPY V-NOTCH TESTING.



SECTION A

[illegible]

SECTION B



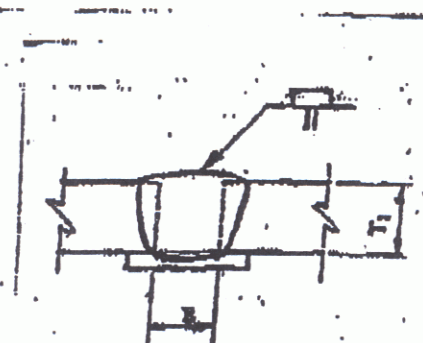
ORIENTATION DIAGRAM - 2S3 & 2S4
FOR CAMBER SEE DWG C1

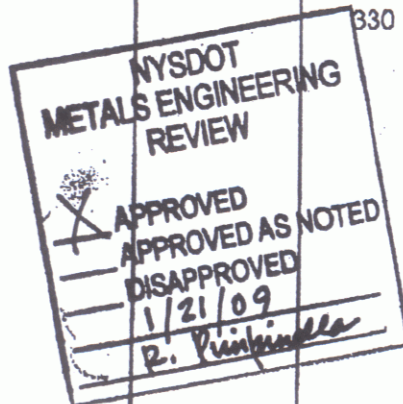
O						SEP 21 2009		
REV.	DATE	REMARKS			DWN	CHK	APVL	SHOP
MATERIAL:		SURFACE PREP. & PAINT:		HOLES:		SHOP BOLTS:		
M27DM-50W (UN)		SEE DWG GN1		15 16"Ø		NONE		
DESCRIPTION: STRINGERS - 2S3 & 2S4								
CASCO BAY STEEL STRUCTURES, INC. 75 SPRING HILL ROAD SACO, MAINE 04072 PHONE (207) 282-7360 FAX. (207) 282-1179							 TENSOR 2912	
STRUCTURE:	BRIDGE NO. 15 ON TOWN HIGHWAY NO. 3 (MINOR COLLECTOR) COUNTY OF RUTLAND					DRAWN:	DATE:	
						JTB	09/09	
						CHKD:	DATE:	
						JCF	09/16	
LOCATION:	TOWN OF CLARENDON, VERMONT					JOB NO.	DWG NO.	
PROJ NO.	BHO 1443 (39)					424	2	
CUSTOMER:	VERMONT A.O.T.						REV.	

NOTES:
FOR STRINGER STANDARD DETAILS SEE DRAWING X1.
FOR CAMBER DIAGRAMS SEE DRAWING C1.
FOR GENERAL NOTES SEE DRAWING GNI.
H2-3 DENOTES MATERIAL SUBJECT TO CHARPY V-NOTCH TESTING.

Flux	N/A	
Shielding Gas	CO 2	Dew Point -40DEG F Flow Rate 50CFH
Single or Multiple Pass	SINGLE	
Single or Multiple Arc	SINGLE	
Welding Current	DC	
Polarity	(REVERSE) ELECTRODE POSITIVE	
Welding Progression	STRINGER	
Root Treatment	CLEAN AS PER SECTION 603 OF THE NYSSCM	
Preheat and Interpass Temperature	PREHEAT AS PER TABLE 708 OF THE NYSSCM	
Postheat Temperature	NONE	
Heat Input	Min _____	Max _____

WELDING PROCEDURE

Pass no.	Electrode size	Welding Current		Travel speed	Joint detail
		Amperes	Volts		
	1/16	300	26	14	 Sequence of weld passes shall be shown diagrammatically
Variable	LIMITS	270	24	12.6	
		TO	TO	TO	
		330	28	15.4	



This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in Section 5.

Procedure No. 1028
Revision No. _____

Contractor Elderlee, Inc.
Authorized By RANDY SCOTT
Date 12/4/2008

Form III-2

Form III-2-Sample Welding Procedure Specification

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CK'D BY _____ OK'D BY Juc

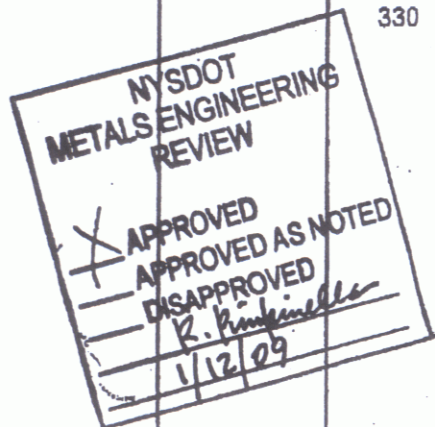
OCT 05 2008

RECEIVED APPROVED

Filler Metal Classification	E71T-1H8 E71T-9H8 LINCOLN ULTRACORE
Flux	N/A
Shielding Gas	CO 2 Dew Point -40DEG F Flow Rate 50CFH
Single or Multiple Pass	SINGLE
Single or Multiple Arc	SINGLE
Welding Current	DC
Polarity	REVERSE ELECTRODE POSITIVE
Welding Progression	STRINGER
Root Treatment	CLEAN AS PER SECTION 603 OF THE NYSSCM
Preheat and Interpass Temperature	PREHEAT AS PER TABLE 708 OF THE NYSSCM
Postheat Temperature	NONE
Heat Input	Min _____ Max _____

WELDING PROCEDURE

Pass no.	Electrode size	Welding Current		Travel speed	Joint detail
		Amperes	Volts		
1	1/16	300	26	14	
Variable	LIMITS	270	24	12.6	
		TO	TO	TO	
		330	28	15.4	



This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in Section 5.

Procedure No. 1025
Revision No. _____

Contractor Elderlee, Inc.
Authorized By RANDY SCOTT
Date 12/4/2008

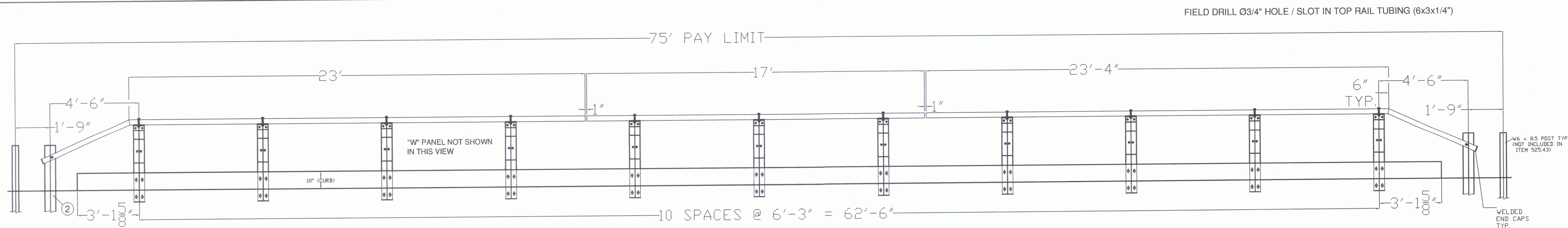
CK'D BY _____ OK'D BY JWC

Form III-2

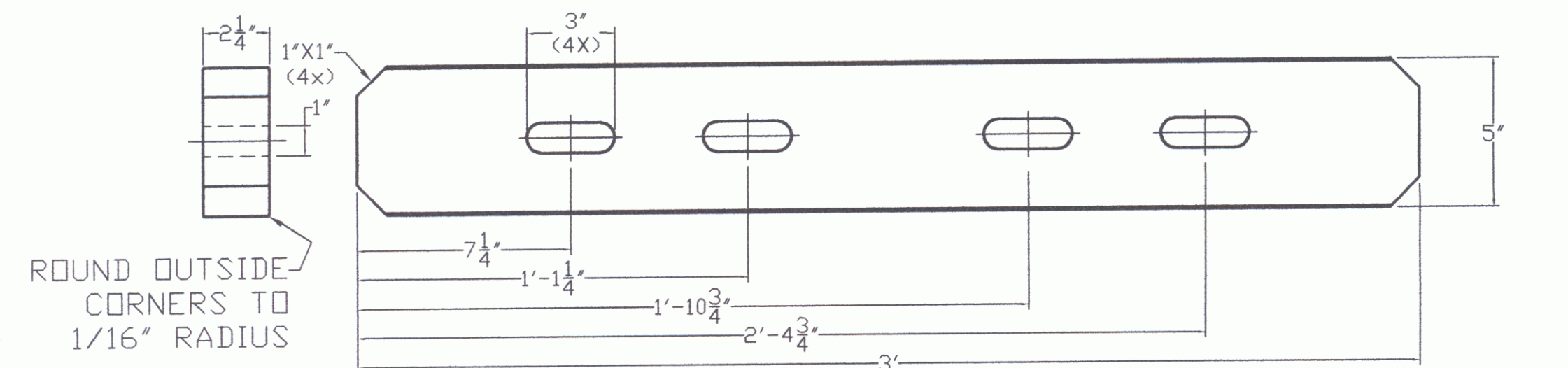
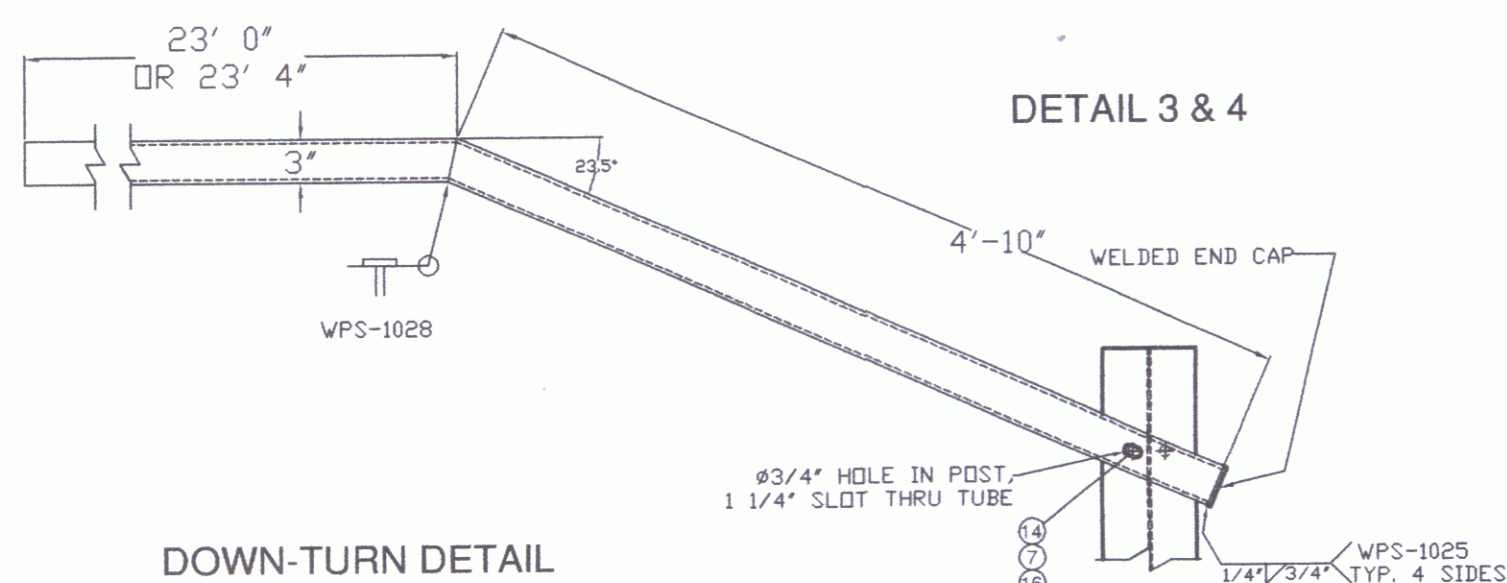
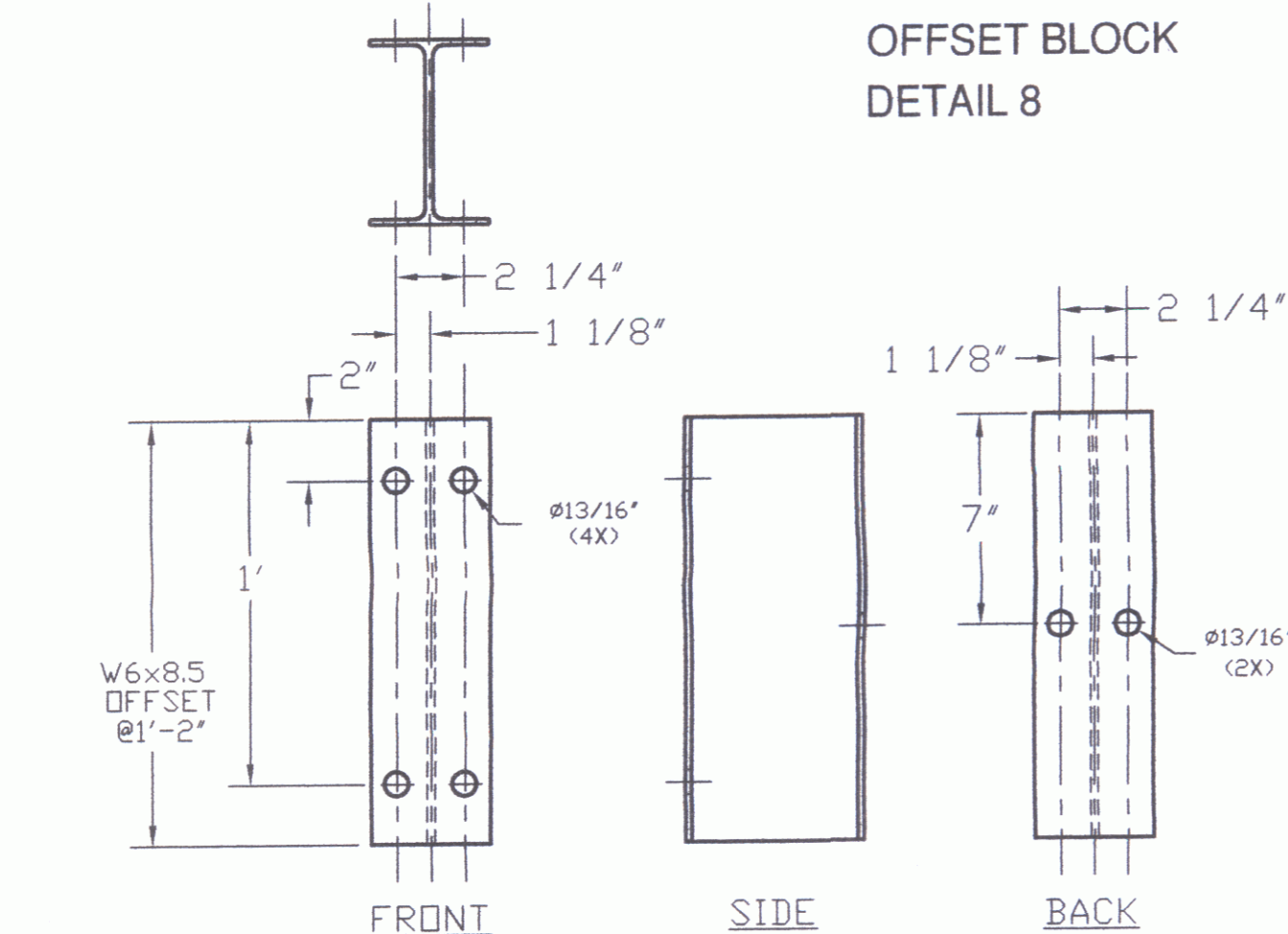
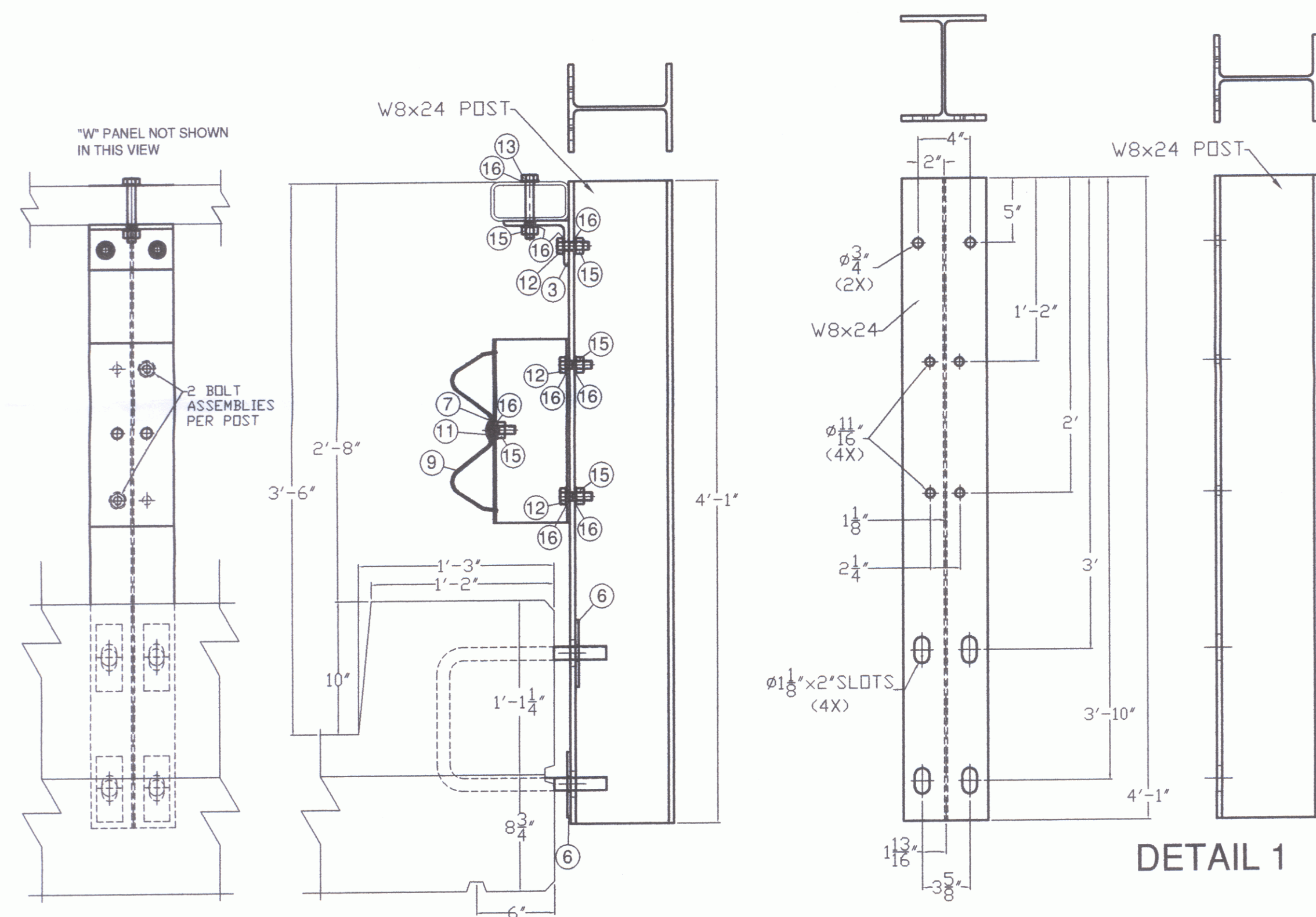
Form III-2-Sample Welding Procedure Specification

OCT 05 2009

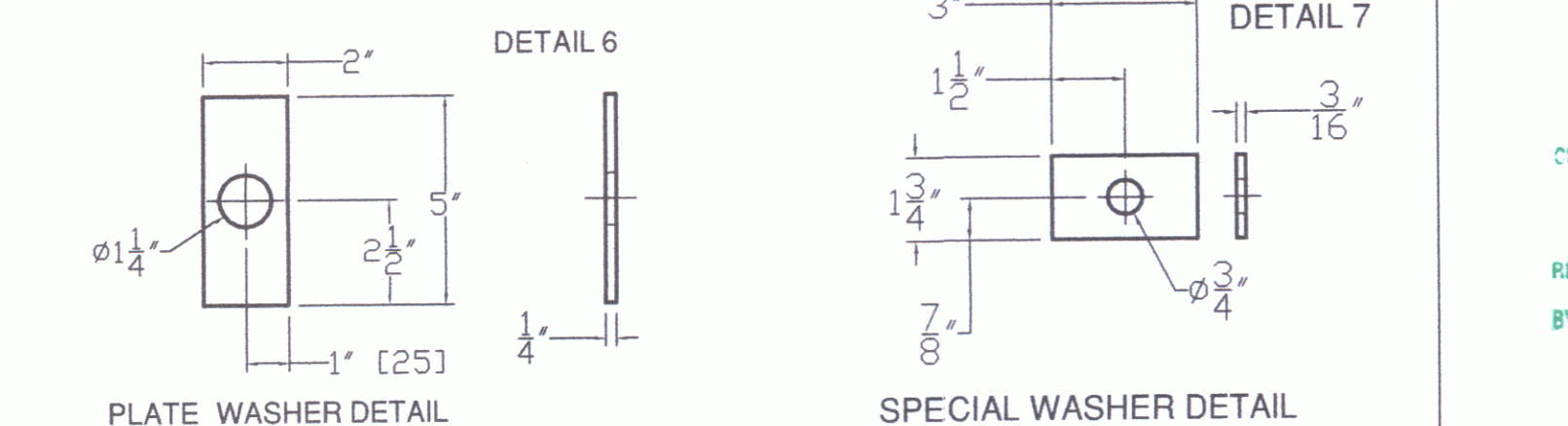
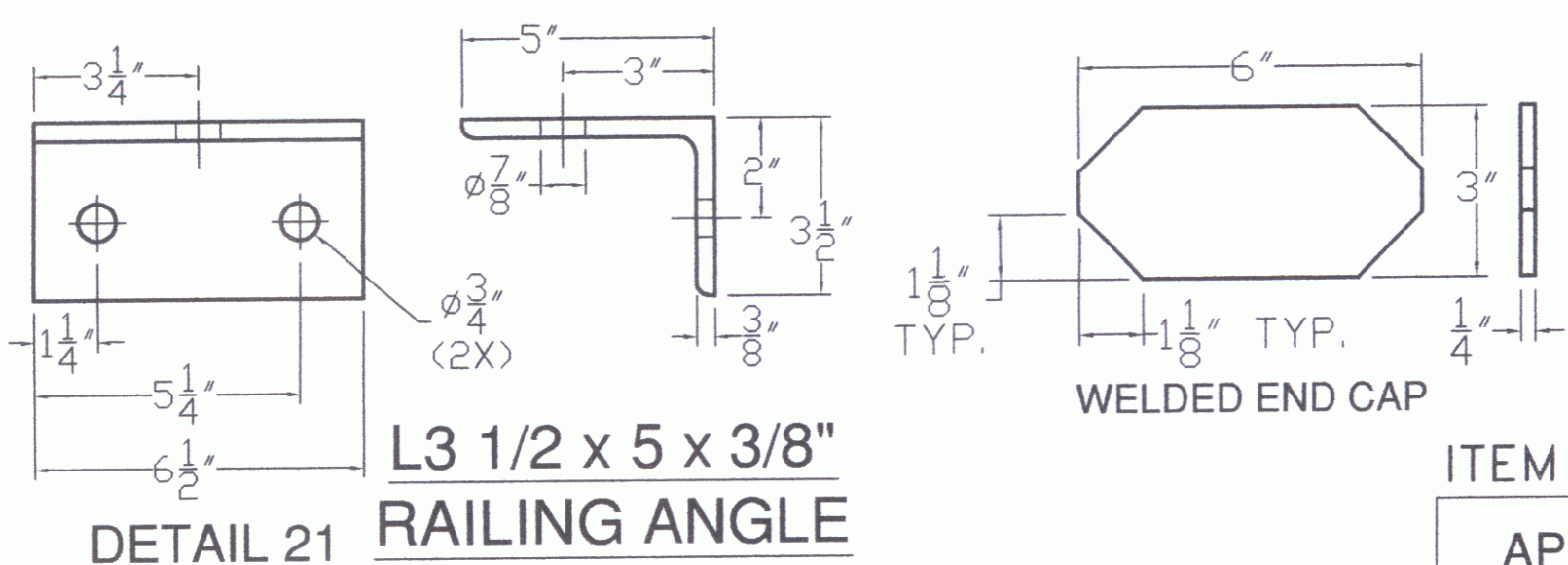
RECEIVED
APPROVED _____
BY _____



NORTH RAILING FACING NORTH SHOWN (SOUTH RAILING SIMILAR)



DET. #	QTY	DESCRIPTION	MATERIAL
1	22	W8x24 FASCIA POST @ 4'-1"	ASTM A36
2	4	W8x24 POST @ 6'-0"	ASTM A36
3	2	6"x3"x1/4" END SECTION @ 23' 0" W/ WELDED END CAP	ASTM A500 Gr. B
4	2	6"x3"x1/4" END SECTION @ 23' 4" W/ WELDED END CAP	ASTM A500 Gr. B
5	2	6"x3"x1/4" RAIL @ 17' 0"	ASTM A500 Gr. B
6	88	1/4"x2" PLATE WASHER @ 5"	ASTM A36
7	26	1/4"x1-3/4" SPECIAL WASHER @ 3"	ASTM A36
8	22	W6x8.5 OFFSET BLOCK @ 14"	ASTM A36
9	12	10 GAUGE "W" BEAM @ 12' 6"	ASTM A36
10	96	5/8"x1-1/4" SPLICE BOLT / RECESSED NUT (PANEL ASS'Y)	ASTM A307
11	22	5/8"x2" SPLICE BOLT / RECESSED NUT (PANEL POST BOLT)	ASTM A307
12	66	5/8"x2" HEX BOLT	ASTM A307
13	22	5/8"x4-1/2" HEX BOLT	ASTM A307
14	4	5/8"x10" HEX BOLT	ASTM A307
15	114	5/8" HEX NUT	ASTM A307
16	202	5/8" FLAT WASHER	ASTM A307
17	16	3/4"x4" HEX BOLT	ASTM A325
18	16	3/4" HEAVY HEX NUT	ASTM A563
19	32	3/4" FLAT WASHER	ASTM F436
20	4	2 1/4"x5"x3/16" EXP. SPLICE BAR	ASTM A36 OR ASTM A572
21	22	3/8"x3-1/2"x5" SHELF BRACKET @ 6-1/2"	ASTM A36
22	44	U BOLTS, NUTS, F.W. - SUPPLIED BY OTHERS	ASTM A449 OR AASHTO M164
23	6	DELINEATOR'S	ALUMINUM



ITEM #: 525.43-BRIDGE RAIL, GALV. HDSB-150 LF GEN CONTR: F R LaFayette SHEET 1 OF 1

APPROVED BY:

RECEIVED
11/13/09
RESUBMITTED
DATE 12/10/09

BRIDGE RAIL DETAILS SHEET			
CLARENDON, PROJECT # BHO 1443 (39), BRIDGE #15, HWY #3 TOWN OF CLARENDON, RUTLAND COUNTY, STATE OF VERMONT			
R NO.	DATE	DESCRIPTION	BY
1	11/13/09	CHANGES PER MARTHA EVANS- MONGEON	E.P.
R NO.	DATE	DESCRIPTION	BY
1	11/13/09	CHANGES PER MARTHA EVANS- MONGEON	E.P.
DRAWN		E.P.	9/28/09
CHECKED		D.L.	9/28/09
APPROVED			
SCALE		SCHEMATIC	
DRAWING NO.		EM09-171	

ELDERLEE, INC.
OAKS CORNERS, NEW YORK 14518
E-Mail: dlong@elderlee.com
Tel: 315-789-6670 Fax: 315-789-6615