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METRIC STANDARDS FOR PAVING PROJECT

D-3M	TREATED GUTTERS	06-13-97
E-100M	CONSTRUCTION APPROACH SIGNS	06-13-97
E-101M	CONSTRUCTION SIGN DETAILS	06-13-97
E-102M	CONSTRUCTION SIGN DETAILS	06-13-97
E-102AM	CONSTRUCTION SIGN DETAILS	06-13-97
E-106M	TRAFFIC CONTROL - MISCELLANEOUS DETAILS	06-13-97
E-107M	DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS	06-13-97
E-107AM	BREAKAWAY BARRICADE DETAILS	06-13-97
E-108M	CONSTRUCTION ZONE LONGITUDINAL DROP OFFS	06-13-97
E-110M	MAJOR MAINTAINANCE OPERATION LANE CLOSURE	06-13-97
E-111M	MAINTENANCE OPERATION APPROACH SIGNS	02-17-98
E-119M	UTILITY WORK ZONE	06-13-97
E-120M	STANDARD SIGN PLACEMENT - FREEWAY/EXPRESSWAY	06-13-97
E-121M	STANDARD SIGN PLACEMENT - RURAL ROADS	06-13-97
E-123M	GUIDE SIGN PLACEMENT - MISC. DETAILS	06-13-97
E-127M	ROUTE MARKINGS AT RURAL INTERSECTIONS	06-13-97
E-131M	GUIDE SIGN DETAILS	06-13-97
E-136AM	U.S. ROUTE MARKER SIGN DETAILS	06-13-97
E-136BM	STATE ROUTE MARKER SIGN DETAILS	06-13-97
E-141M	REGULATORY SIGN DETAILS	06-13-97
E-142M	REGULATORY SIGN DETAILS	06-13-97
E-143M	REGULATORY SIGN DETAILS	06-13-97
E-144M	REGULATORY SIGN DETAILS	03-29-99
E-150M	WARNING SIGN DETAILS	06-13-97
E-160M	FLANGED CHANNEL STEEL SIGN POST	06-13-97
E-164M	SQUARE STEEL SIGN POST	06-13-97
E-191M	PAVEMENT MARKING DETAILS	02-01-99
E-192M	PAVEMENT MARKING DETAILS	12-28-98
E-193M	PAVEMENT MARKING DETAILS	06-13-97
G-1M	STEEL BEAM GUARD RAIL	01-03-00
G-1DM	STEEL BEAM GUARD RAIL	01-03-00
G-4M	YIELDING MARKER POSTS	06-13-97
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ENGLISH STANDARDS FOR BRIDGE PROJECT

SB-R4B-82	GUARD RAIL APPROACH SECTION	09-19-89
B-5	EMBANKMENTS ON EARTH SLOPES	06-01-94
E-102A	CONSTRUCTION SIGN DETAILS	08-08-95
E-121	STANDARD SIGN PLACEMENT	08-08-95
E-124	TOWN LINE SIGNS	08-08-95
E-136A	U.S. ROUTE MARKER SIGN DETAILS	08-08-95
E-141	REGULATORY SIGN DETAILS	09-20-95
E-143	REGULATORY SIGN DETAILS	09-20-95
E-146	REGULATORY SIGN DETAILS	09-20-95
E-150	WARNING SIGN DETAILS	01-15-97
E-154	WARNING SIGN DETAILS	08-08-95
E-160	FLANGED CHANNEL STEEL SIGN POSTS	05-20-99
G-19	GENERIC PLANS FOR GUARDRAIL END TERMINALS	11-15-02
T-1	TEMPORARY EROSION CONTROL DETAILS	06-01-94
T-2	TEMPORARY EROSION CONTROL DETAILS	06-01-94

STATE OF VERMONT AGENCY OF TRANSPORTATION



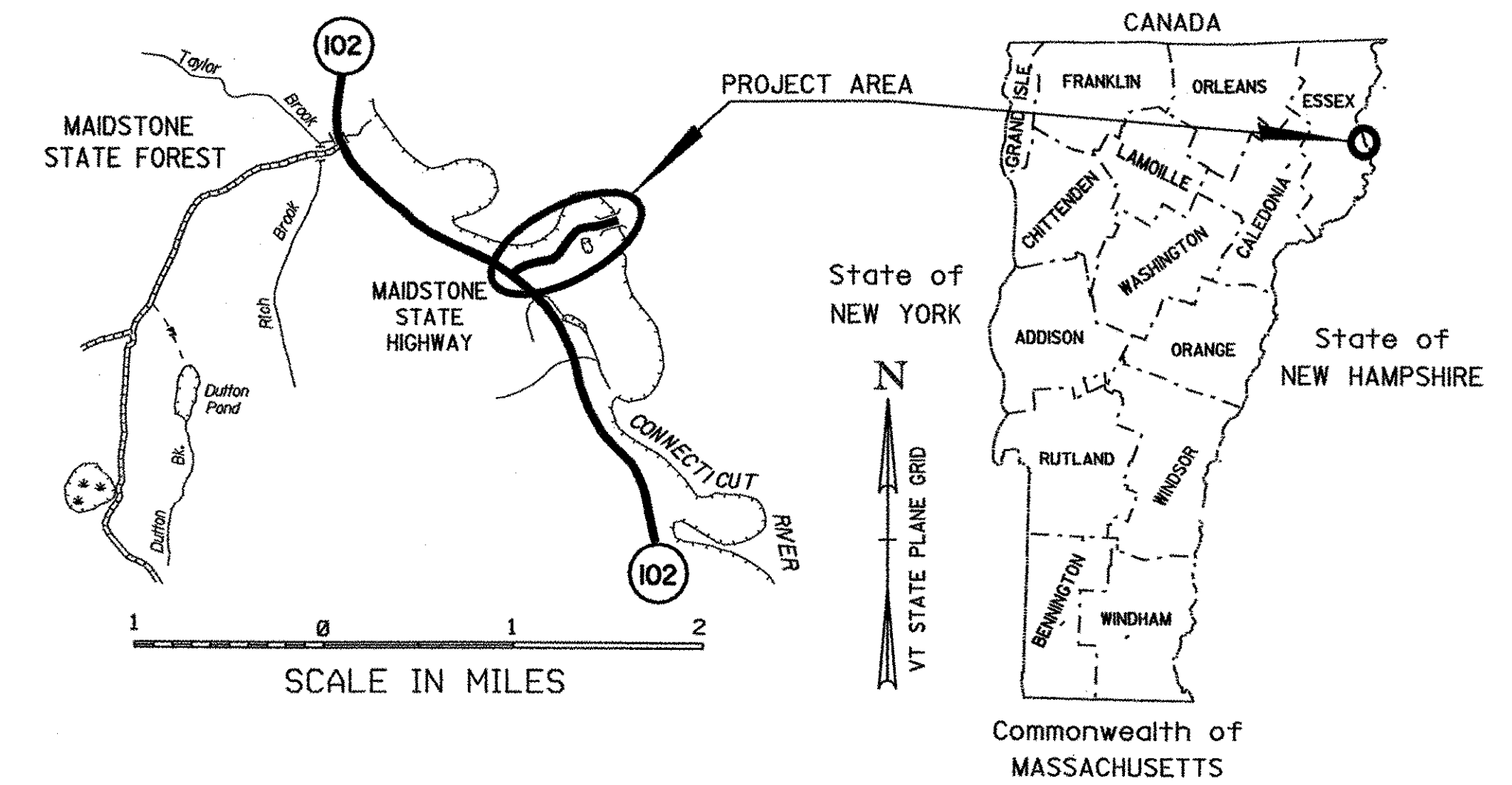
PROPOSED IMPROVEMENT TOWN OF MAIDSTONE COUNTY OF ESSEX MAIDSTONE STATE HIGHWAY

PAVING PROJECT

BEGINNING AT THE INTERSECTION OF VT ROUTE 102 AND THE MAIDSTONE STATE HIGHWAY, STA 0+000 (MM 0.000), AND EXTENDING EASTERLY ALONG THE MAIDSTONE STATE HIGHWAY FOR A DISTANCE OF 930.0 METERS (0.578 MILES) TO STA 0+930.0, THE BEGINNING OF BRIDGE PROJECT NUMBER BHO 1447(24) (APPROXIMATELY 50 METERS WEST OF THE VERMONT / NEW HAMPSHIRE STATE LINE).

STATION TO STATION DATA	LENGTH (METERS)	LENGTH (MILES)
STA 0+000 TO 0+930.0 (MM 0.000 TO 0.578)	930.0	0.578

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES RESURFACING OF THE EXISTING HIGHWAY WITH AN OVERLAY SECTION (LEVELING AND WEARING COURSE), NEW PAVEMENT MARKINGS, GUARD RAIL INSTALLATION, DRAINAGE IMPROVEMENTS AND INCIDENTAL ITEMS.



TRAFFIC DATA

ACCURATE TRAFFIC DATA FOR THIS PROJECT IS CURRENTLY NOT AVAILABLE AS MAIDSTONE STATE HIGHWAY HAS BEEN CLOSED FOR AN EXTENDED PERIOD OF TIME.

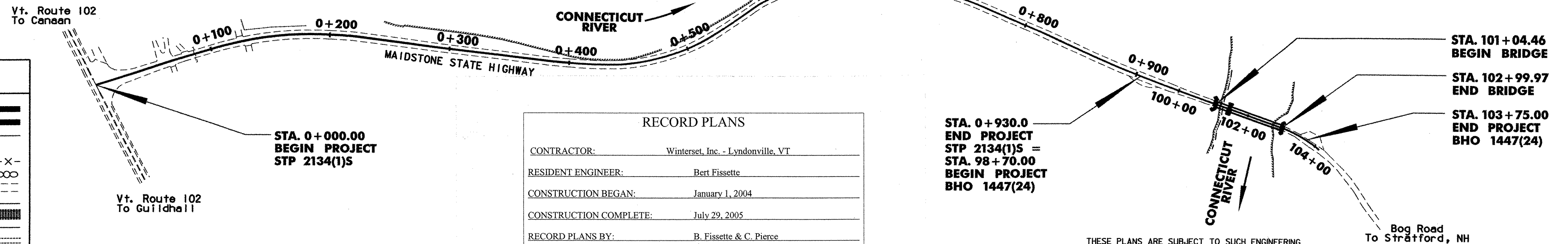
MAIDSTONE STATE HIGHWAY WILL REMAINED CLOSED THROUGHOUT THE DURATION OF THIS PROJECT.

BRIDGE PROJECT

MAIDSTONE STATE HIGHWAY OVER THE CONNECTICUT RIVER BETWEEN MAIDSTONE, VERMONT AND STRATFORD, NEW HAMPSHIRE.

LENGTH OF BRIDGE	195.51 FEET = 0.037 MILES
LENGTH OF ROADWAY	309.49 FEET = 0.059 MILES
LENGTH OF PROJECT	505.00 FEET = 0.096 MILES

REHABILITATION OF EXISTING HISTORIC PIN CONNECTED PRATT TRUSS WITH INSTALLATION OF A 10 1/2" GLUE LAMINATED TIMBER DECK ON NEW FLOORBEAMS, INSTALLATION OF A PRESTRESSED VOIDED SLAB APPROACH SPAN, REPLACEMENT OF ABUTMENTS, AND INSTALLATION OF A PIER.



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 : VAOT
SURVEYED DATE : DECEMBER, 1999

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD-83 (96)

RECORD PLANS

CONTRACTOR:	Winterset, Inc. - Lyndonville, VT
RESIDENT ENGINEER:	Bert Fissette
CONSTRUCTION BEGAN:	January 1, 2004
CONSTRUCTION COMPLETE:	July 29, 2005
RECORD PLANS BY:	B. Fissette & C. Pierce

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

BY Bert Fissette RESIDENT ENGINEER
DATE 5/3/06

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.

STA. 0+930.0
END PROJECT
STP 2134(1)S =
STA. 98+70.00
BEGIN PROJECT
BHO 1447(24)

STA. 101+04.46
BEGIN BRIDGE
STA. 102+99.97
END BRIDGE
STA. 103+75.00
END PROJECT
BHO 1447(24)

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 2001, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JANUARY 4, 2001 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

DIRECTOR OF PROGRAM DEVELOPMENT

APPROVED [Signature] DATE 5/3/03

PROJECT MANAGER : C. KELLER

PROJECT NAME : MAIDSTONE STP 2134(1)S
PROJECT NUMBER : and
MAIDSTONE-STRATFORD, NH BHO 1447(24)
SHEET 1 OF 65 SHEETS

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES										TOTALS			DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES			
								STP 2134 METRIC	METRIC UNITS	STP 2134 ENGLISH	BHO 1447 ENGLISH	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	QUANTITIES	UNIT	ITEMS
											1	1		LS	CLEARING AND GRUBBING (PLUS INDIVIDUAL TREES & STUMPS)	201.10			
							160	CM		209	540	749		CY	COMMON EXCAVATION	203.15			
											490	490		CY	UNCLASSIFIED CHANNEL EXCAVATION	203.27			
							5	CM		7	50	57		CY	EARTH BORROW	203.30			
											225	225		CY	SAND BORROW	203.31			
							1	CM		1		1		CY	TRENCH EXCAVATION OF EARTH (NOT A BID ITEM)	204.20			
											45	45		CY	STRUCTURE EXCAVATION	204.25			
											440	440		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30			
											40	40		CY	GRANULAR BACKFILL FOR STRUCTURES (MOD) (UNDERCUT @ PIER)	204.30			
											615	615		LS	COFFERDAM EXCAVATION, EARTH	208.30			
											40	40		LS	COFFERDAM EXCAVATION, EARTH (MOD) (UNDERCUT @ PIER)	208.30			
											100	100		CY	COFFERDAM EXCAVATION, ROCK	208.35			
											1	1		LS	COFFERDAM (101+47)	208.40			
											1	1		LS	COFFERDAM (103+00)	208.40			
							400	SM		478		478		SY	COLD PLANING-BIT PAVEMENT	210.10			
											310	310		CY	SUBBASE OF GRAVEL	301.15			
							460	TON		507		507		TON	SUBBASE OF CRUSHED GRAVEL (FINE GRADED)	301.28			
							180	TON		198		198		TON	AGGREGATE SHOULDERS	402.12			
							1500	KG		33.0	1.5	34.5		CWT	EMULSIFIED ASPHALT	404.65			
							800	TON		882	105	987		TON	MEDIUM DUTY BIT. CONC. PAVEMENT (PG 58-34)	406.27			
											16	16		CY	CONCRETE, HIGH PERFORMANCE CLASS AA	501.32			
											4	4		CY	CONCRETE, HIGH PERFORMANCE CLASS A	501.33			
											360	360		CY	CONCRETE, HIGH PERFORMANCE CLASS B	501.34			
											1	1		LS	FURNISHING EQUIPMENT FOR DRIVING PILING	504.10			
											2430	2430		LF	STEEL PILING (HP 14 X 73)	505.17			
											2	2		EACH	DYNAMIC PILE LOADING TESTS	505.45			
											15000	15000		LB	STRUCTURAL STEEL (ROLLED BEAM) (GALVANIZED)	506.50			
											2300	2300		LB	STRUCTURAL STEEL	506.60			
											38130	38130		LB	REINFORCING STEEL	507.15			
											5355	5355		LB	EPOXY COATED REINFORCING STEEL	507.17			
											1	1		LS	SHEAR CONNECTORS (68 - 7/8" x 6" SIZE STUDS)	508.15			
											6	6		EACH	PRESTRESSED CONCRETE MEMBER (18" X 36" VOIDED SLAB)	510.20			
											1	1		LS	STRUCTURAL PAINTING, FIELD APPLIED	513.30			
											1	1		LS	CONTAINMENT & ENVIRON. PROTECTION, FIELD	513.36			
											1	1		LS	SURFACE PREPARATION, FIELD	513.41			
											7	7		GAL	WATER REPELLENT	514.10			
											15.5	15.5		LF	BRIDGE EXPANSION JOINT	516.10			
											60	60		SY	SHEET MEMBRANE WATERPROOFING	519.20			
											1.90	1.9		MFBM	STRUCTURAL LUMBER AND TIMBER - TREATED	522.25			
											3.90	3.9		MFBM	NON - STRUCTURAL LUMBER-TREATED	522.35			
											1	1		LS	STRUCTURAL GLUED LAMINATED TIMBER	522.40			
											35.5	35.5		LF	JOINT SEALER, COLD POURED	524.13			

PROJECT NAME: **Maidstone-Stratford, NH**
 PROJECT NUMBER: **BHO 1447(24) & STP 2134(1)S**
 FILE NAME: **str5/99e054/masterqs.xls** PLOT DATE: **08/26/2003**
 PROJECT LEADER: **C. Keller** DRAWN BY:
 DESIGNED BY: **Lichtenstein** CHECKED BY:
 QUANTITY SHEET #1 SHEET **2** OF **65**

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES										TOTALS			DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES			
								STP 2134 METRIC	METRIC UNITS	STP 2134 ENGLISH	BHO 1447 ENGLISH	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	QUANTITIES	UNIT	ITEMS
											426	426		LF	BRIDGE RAILING-NETC 2 RAIL (MODIFIED)	525.33			
											1	1		EACH	REMOVAL OF STRUCTURE (MODIFIED)	529.15			
											1	1		EACH	PARTIAL REMOVAL OF STRUCTURE (MODIFIED) (EXISTING ABUTMENT # 1)	529.20			
											1	1		EACH	PARTIAL REMOVAL OF STRUCTURE (MODIFIED) (EXISTING ABUTMENT # 2)	529.20			
											1	1		EACH	PARTIAL REMOVAL OF STRUCTURE (MODIFIED) (EXISTING TRUSS)	529.20			
											4	4		EACH	BEARING DEVICE ASSEMBLY (TRUSS BEARINGS)	531.10			
											8	8		EACH	BEARING DEVICE ASSEMBLY (DECK EXPANSION BEARINGS)	531.10			
											1	1		EACH	BEARING DEVICE ASSEMBLY (UNREINFORCED ELASTOMERIC PAD @ FIXED END)	531.10			
											24	24		EACH	BEARING DEVICE ASSEMBLY (FOR VOIDED SLAB)	531.10			
							30	M		98		98		LF	18" CPEP	601.0915			
							8	HR		8		8		HR	POWER GRADER RENTAL	608.15			
							50	HR		50		50		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25			
							5	HR		5		5		HR	POWER BROOM RENTAL	608.30			
							100	HR		100		100		HR	TRUCK RENTAL	608.37			
							9	HR		9		9		HR	LOADER RENTAL, TYPE I	608.40			
							300	CM		392		392		CY	STONE FILL, TYPE II	613.11			
											830	830		CY	STONE FILL, TYPE IV	613.13			
							2	EA		2		2		EACH	YIELDING MARKER POSTS	619.17			
							240	M		787	463	1250		LF	STEEL BEAM GUARD RAIL	621.20			
							70	M		230		230		LF	STEEL BEAM GUARD RAIL (MODIFIED 8 FOOT LONG POSTS)	621.20			
											100	100		LF	HEAVY DUTY STEEL BEAM GUARD RAIL	621.21			
							2	EA		2	4	6		EACH	MANUFACTURED TERMINAL SECTION (FLARED)	621.505			
											250	250		LF	REMOVAL AND DISPOSAL OF GUARD RAIL	621.80			
							60	HR		60		60		HR	UNIFORMED TRAFFIC OFFICERS	630.10			
							100	HR		100		100		HR	FLAGGERS	630.15			
											1	1		LS	FIELD OFFICE-ENGINEERS	631.10			
											1	1		LS	TESTING EQUIPMENT - CONCRETE	631.16			
							0.9	LS		0.9	0.1	1		LS	TESTING EQUIPMENT - BITUMINOUS	631.17			
											1.0	1		LS	TESTING EQUIPMENT - PROTECTIVE COATINGS	631.18			
											1	1		LU	FIELD OFFICE - TELEPHONE	631.25			
											520	520		HR	EMPLOYEE TRAINEESHIP	634.10			
							0.1	LS		0.1	0.9	1		LS	MOBILIZATION	635.10			
							1900	M		6234	620	6854		LF	DURABLE 4" WHITE LINE	646.40			
							1900	M		6234	450	6684		LF	DURABLE 4" YELLOW LINE	646.41			
							15	M		49	20	69		LF	DURABLE 24" STOP BAR	646.46			
							22	EA		22		22		EACH	DURABLE LETTER OR SYMBOL	646.50			
							100	EA		100		100		EACH	LINE STRIPING TARGETS	646.76			
							300	SM		359	625	984		SY	GEOTEXTILE UNDER STONE FILL	649.31			
											160	160		SY	GEOTEXTILE FOR SILT FENCE	649.51			
											250	250		SY	GEOTEXTILE FOR FILTER CURTAIN	649.61			
							30	KG		66	30	96		LB	SEED	651.15			

PROJECT NAME: **Maidstone-Stratford, NH**
PROJECT NUMBER: **BHO 1447(24) & STP 2134(1)S**
FILE NAME: **str5/89e054/masterqrs.xls** PLOT DATE: **08/26/2003**
PROJECT LEADER: **C. Keller** DRAWN BY:
DESIGNED BY: **Lichtenstein** CHECKED BY:
QUANTITY SHEET #2 SHEET **3** OF **65**

QUANTITY SHEET

SUMMARY OF ESTIMATED QUANTITIES										TOTALS			DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES				
								STP 2134 METRIC	METRIC UNITS	STP 2134 ENGLISH	BHO 1447 ENGLISH		GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	QUANTITIES	UNIT	ITEMS
								300	KG	661		661		LB	FERTILIZER	651.18				
								2	TON	2.2	1.0	3.2		TON	AGRICULTURAL LIMESTONE	651.20				
								2	TON	2.2	1.0	3.2		TON	HAY MULCH	651.25				
											50	50		EACH	HAY BALES FOR EROSION CONTROL	651.26				
								10	CM	13	110	123		CY	TOPSOIL	651.35				
											150	150		SY	GRUBBING MATERIAL	651.40				
								0.1	LS	0.1	0.9	1		LS	EROSION & SEDIMENT CONTROL PLAN	652.10				
								20	HOUR	20.0	60	80		HOUR	MONITORING EROSION & SEDIMENT CONTROL PLAN	652.20				
								0.1	LU	0.1	0.9	1		LU	FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN (N.A.B.I.)	652.30				
								100	SM	120		120		SY	EROSION MATTING	654.10				
								25.0	SM	269.0	138.5	408		SF	TRAFFIC SIGNS, TYPE A	675.20				
															BEGIN OPTION SIGN POSTS					
								170	M	558	120	678		LF	FLANGED CHANNEL SIGN POST	675.301				
								170	M	558	120	678		LF	SQUARE TUBE SIGN POSTS AND ANCHOR	675.341				
															END OPTION SIGN POSTS					
								9	EA	9		9		EACH	REMOVING SIGNS	675.50				

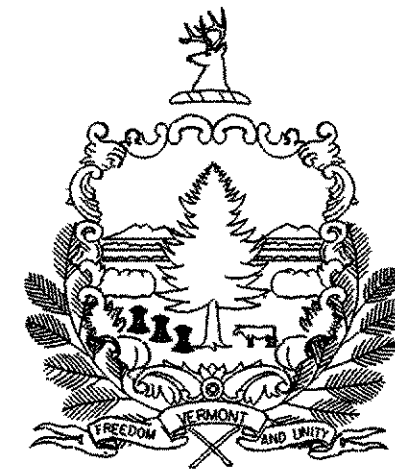
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- 7 QUANTITY SHEET
- 8 ITEM DETAIL SUMMARY SHEET
- 9-11 PAVING PROJECT LAYOUT SHEETS
- 12-16 TRAFFIC SIGN SUMMARY SHEETS
- 17-18 TRAFFIC SIGN DETAIL SHEETS
- 19 CONSTRUCTION APPROACH SIGNING

VAOT STANDARDS

D-3M	TREATED GUTTERS	06-13-97
E-100M	CONSTRUCTION APPROACH SIGNS	06-13-97
E-101M	CONSTRUCTION SIGN DETAILS	06-13-97
E-102M	CONSTRUCTION SIGN DETAILS	06-13-97
E-102AM	CONSTRUCTION SIGN DETAILS	06-13-97
E-106M	TRAFFIC CONTROL - MISCELLANEOUS DETAILS	06-13-97
E-107M	DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS	06-13-97
E-107AM	BREAKAWAY BARRICADE DETAILS	06-13-97
E-108M	CONSTRUCTION ZONE LONGITUDINAL DROP OFFS	06-13-97
E-110M	MAJOR MAINTAINANCE OPERATION LANE CLOSURE	06-13-97
E-111M	MAINTENANCE OPERATION APPROACH SIGNS	02-17-98
E-119M	UTILITY WORK ZONE	06-13-97
E-120M	STANDARD SIGN PLACEMENT - FREEWAY/EXPRESSWAY	06-13-97
E-121M	STANDARD SIGN PLACEMENT - RURAL ROADS	06-13-97
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G-1DM	STEEL BEAM GUARD RAIL	01-03-00
G-4M	YIELDING MARKER POSTS	06-13-97
G-19M	GENERIC GRADING PLANS FOR GUARDRAIL END TERMINALS	10-21-99

STATE OF VERMONT AGENCY OF TRANSPORTATION



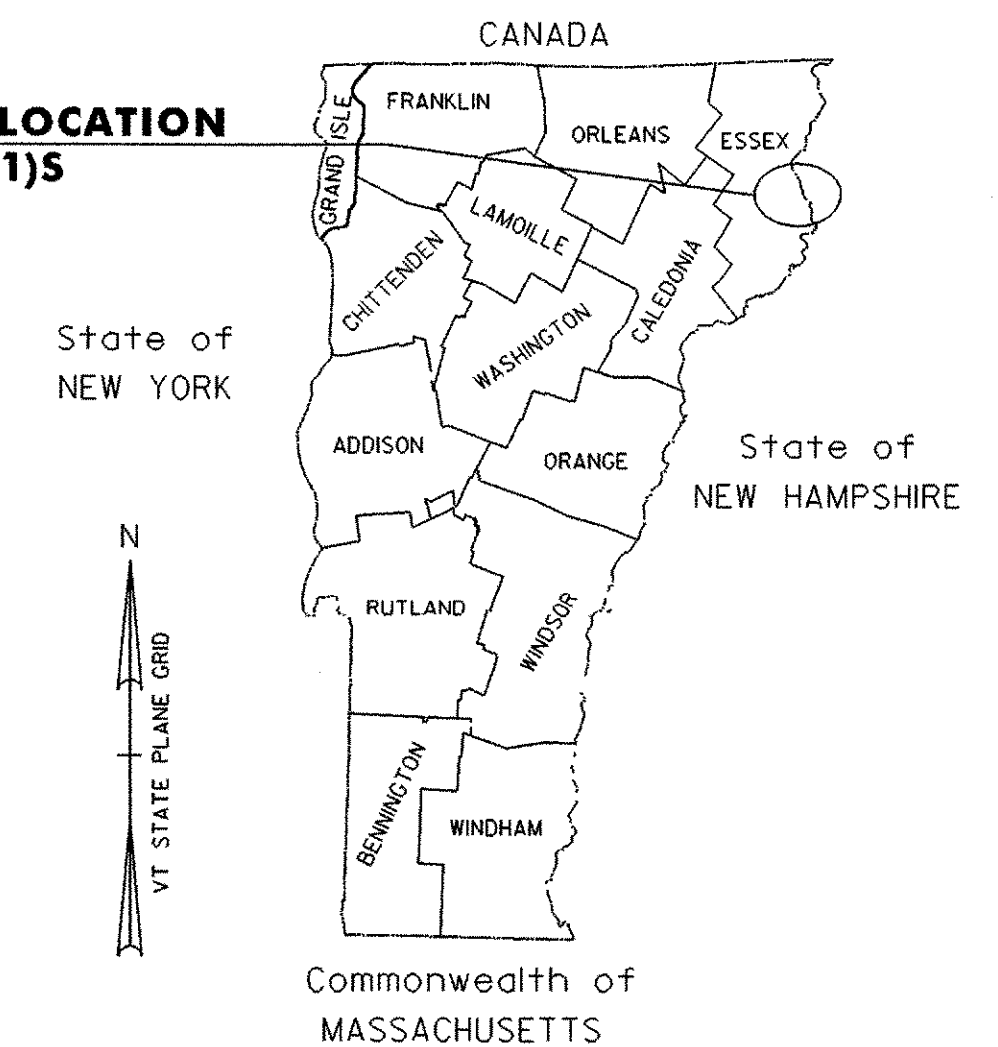
PROPOSED IMPROVEMENTS TOWN OF MAIDSTONE COUNTY OF ESSEX MAIDSTONE STATE HIGHWAY

BEGINNING AT THE INTERSECTION OF VT ROUTE 102 AND THE MAIDSTONE STATE HIGHWAY, STA 0+000 (MM 0.000), AND EXTENDING EASTERLY ALONG THE MAIDSTONE STATE HIGHWAY FOR A DISTANCE OF 930.0 METERS (0.578 MILES) TO STA 0+930.0, THE BEGINNING OF BRIDGE PROJECT NUMBER BHO 1447(24) (APPROXIMATELY 50 METERS WEST OF THE VERMONT/NEW HAMPSHIRE STATE LINE).

STATION TO STATION DATA	LENGTH	
	(METERS)	(MILES)
TOWN OF MAIDSTONE		
STA 0+000 TO 0+930.0 (MM 0.000 TO 0.578)	930.0	0.578

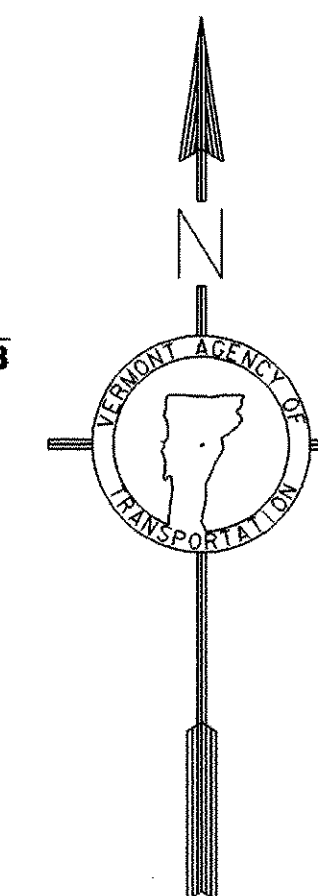
WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES RESURFACING OF THE EXISTING HIGHWAY WITH AN OVERLAY SECTION (LEVELING AND WEARING COURSE), NEW PAVEMENT MARKINGS, GUARD RAIL INSTALLATION, DRAINAGE IMPROVEMENTS AND INCIDENTAL ITEMS.

**PROJECT LOCATION
STP 2134(1)S**



TRAFFIC DATA

	ADT		DHV		ESAL'S	
	2001	2011	2001	2011	(2001-2011)	(2001-2021)
BEGIN PROJECT (MM 0.000) TO END PROJECT (MM 0.602)	330	390	75	85	114,000	279,000



RIGHT-OF-WAY LIMITS, IF APPLICABLE, ARE PROVIDED SOLELY FOR THE CONVENIENCE OF THE STATE AND ITS CONTRACTOR DURING THE COURSE OF THIS PAVING PROJECT. ANY REFERENCES TO OFFSETS ON THESE PLANS ARE APPROXIMATE AND SHOULD NOT BE RELIED UPON FOR ANY OTHER PURPOSES.

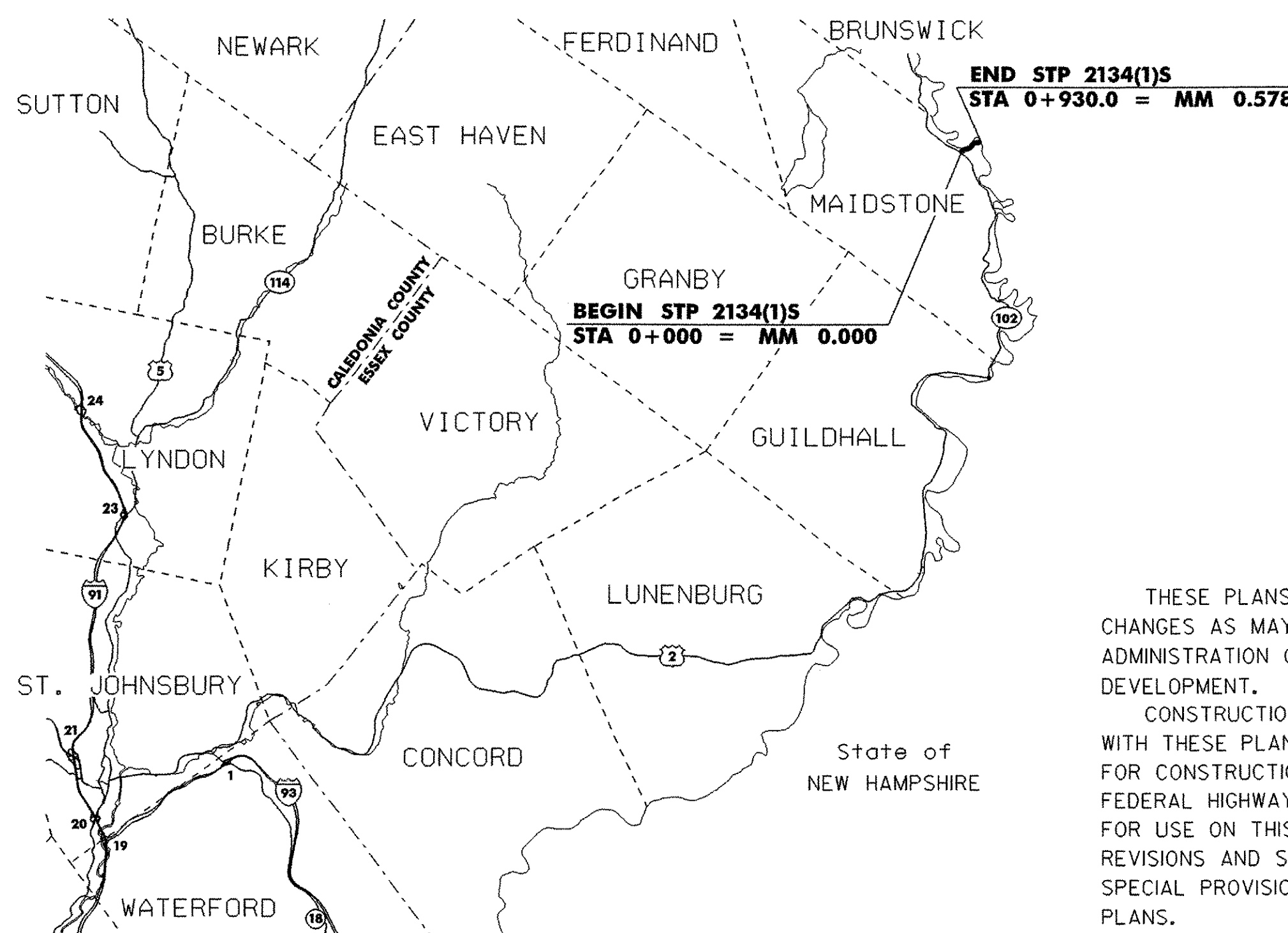
UNLESS OTHERWISE NOTED, ALL DRAWINGS AND DETAILS ON THESE PLANS ARE DRAWN 'NOT TO SCALE'.

CONVENTIONAL SIGNS

COUNTY LINE	---
TOWN LINE	- - - -
LIMITS OF ACCESS	—○—○—○—
POINT OF ACCESS	X
FENCE LINE	—x—x—
STONE WALL	—o—o—o—
TRAVELED WAY	—/—/—/—/—
GUARD RAIL	—o—o—o—
RAILROAD	— — — — —
SURVEY LINE	—+—+—+—+—
CULVERT	—x—x—x—x—
POWER POLE	⊙
TELEPHONE POLE	⊕
TREES	⊙ ⊕
CONTROL OF ACCESS	—/—/—/—/—
PROPERTY LINE	—x—x—x—x—
R.O.W. TAKING LINE	—SR—
SLOPE RIGHTS	—○—△—
TOP OF CUT	—△—△—
TOE OF SLOPE	—○—○—

DATUM

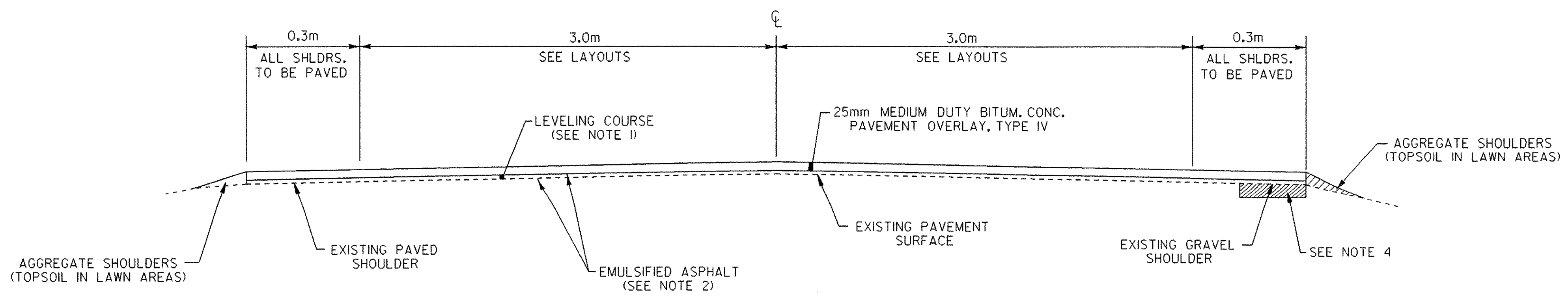
VERTICAL	N/A
HORIZONTAL	N/A



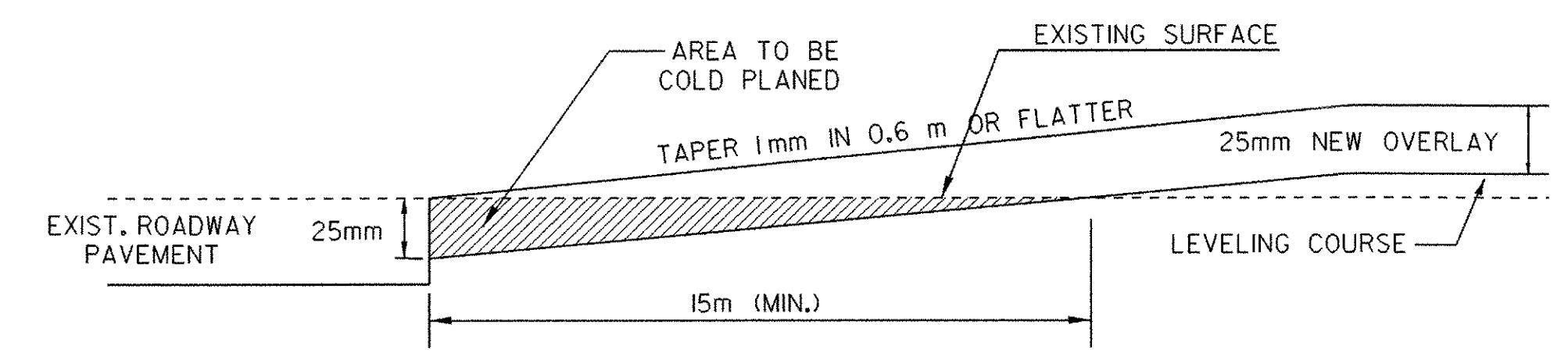
THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROJECT DEVELOPMENT.
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2004 AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JANUARY 4, 2001 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.



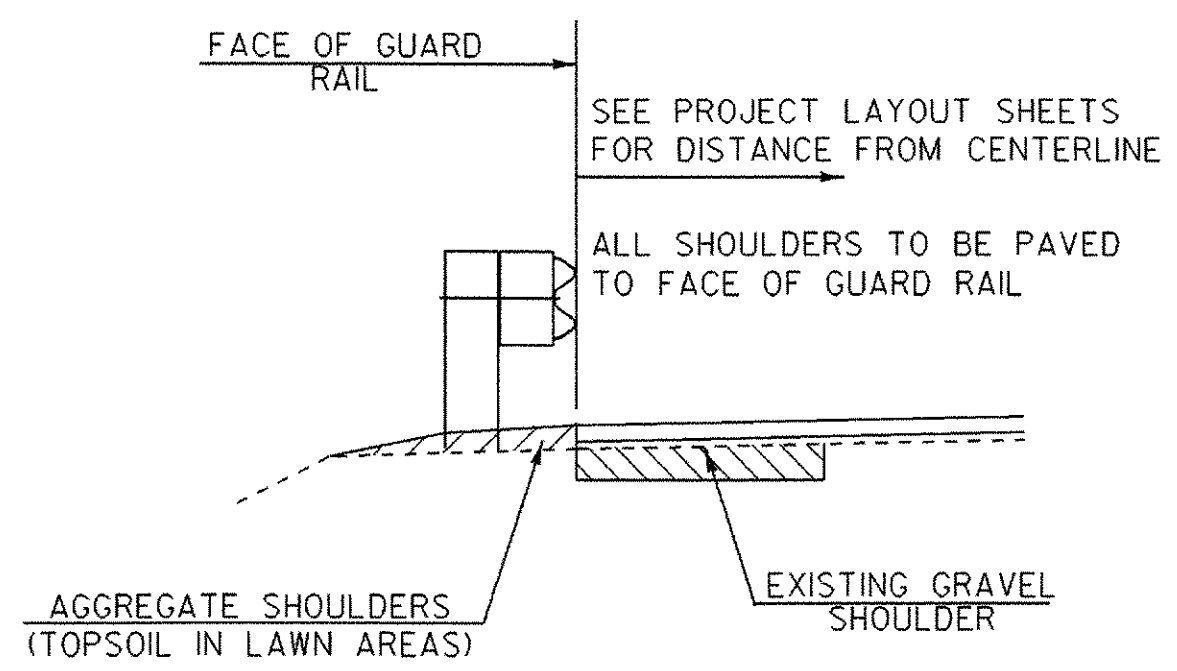
DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATOR	
APPROVED _____	DATE _____
DIRECTOR OF PROJECT DEVELOPMENT	
APPROVED _____	DATE _____
PROJECT MANAGER :	
PROJECT NAME : MAIDSTONE	
PROJECT NUMBER : STP 2134(1)S	
SHEET 5 OF 65 SHEETS	



**OVERLAY TYPICAL SECTION
MAIDSTONE
STA 0+000 TO 0+930.0**



**-APPROACH AREA DETAIL-
MAIDSTONE
STA 0+004 TO 0+019 (BEGIN PROJECT)**



**- TYPICAL SECTION AT GUARD RAIL -
(@ EXISTING GRAVEL SHOULDER)**

- NOTES**
- THE PAVEMENT WEARING COURSE SHALL BE TYPE IV. THE LEVELING COURSE SHALL BE TYPE IV UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER. LEVELING HAS BEEN INCLUDED TO RESHAPE THE ROADWAY PRIOR TO PAVING THE TOP COURSE. AN ESTIMATED THICKNESS OF 25 mm OF ITEM 406.27 HAS BEEN INCLUDED TO COVER THIS PROVISION. ALL ASPHALT CEMENT USED IN THE BITUMINOUS CONCRETE PAVEMENT SHALL BE PG 58-34.
 - EMULSIFIED ASPHALT SHALL BE APPLIED ON EXISTING PAVEMENT SURFACES, BETWEEN ALL COURSES OF PAVEMENT AND ON ALL COLD PLANED SURFACES AT THE RATE OF 0.12 L/S/M OR AS DIRECTED BY THE RESIDENT ENGINEER.
 - BITUMINOUS CONCRETE PAVEMENT TOLERANCE = +/- 5 mm (TOTAL THICKNESS EXCLUDING LEVELING).
 - EXISTING SHOULDER MATERIAL DEEMED UNSUITABLE BY THE RESIDENT ENGINEER WILL BE EXCAVATED TO A DEPTH OF 75 mm +/- OR AS DIRECTED BY THE ENGINEER. EXCAVATED MATERIAL WILL BE SPREAD ON THE ADJACENT SLOPES OR REMOVED FROM THE PROJECT, AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR USING THE APPROPRIATE RENTAL ITEMS SUCH AS ALL PURPOSE EXCAVATOR RENTAL, GRADER RENTAL, LOADER RENTAL, TRUCK RENTAL, AND POWER BROOM RENTAL. THE METHOD OF REMOVAL AND THE USE OF RENTAL ITEMS SHALL BE APPROVED BY THE ENGINEER PRIOR TO ANY WORK BEING DONE. MATERIAL REMOVED SHALL BE REPLACED WITH SUBBASE OF CRUSHED GRAVEL (FINE GRADED).
 - ONE METER OF BACKING IS REQUIRED BEHIND THE FACE OF GUARD RAIL WITH 1.8m POSTS. IF THIS CANNOT BE OBTAINED THEN 2.4m POSTS SHALL BE USED.
 - COLD PLANING TO BE COMPLETED ACCORDING TO THE TYPICAL OR AS NOTED OTHERWISE ON THE PLANS. A FULL DEPTH BUTT JOINT SHALL BE CONSTRUCTED AT THE PROJECT BEGIN/END AS DENOTED ON THE PROJECT PLANS OR AS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER.
 - PIPE INLET AND OUTLET AREAS, AND DITCH CLEANING THROUGH THE PROJECT, SHALL BE PERFORMED AT LOCATIONS AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT WILL BE UNDER THE APPLICABLE EQUIPMENT RENTAL ITEMS. AN ESTIMATED QUANTITY OF 450 mm CPEP HAS ALSO BEEN INCLUDED IN THE PROJECT QUANTITIES, THE INSTALLATION OF WHICH SHALL BE PERFORMED AT LOCATIONS DETERMINED BY THE ENGINEER.
 - ALL EDGES OF PAVEMENT SHALL BE BACKED UP FULL HEIGHT WITH ITEM 402.12, AGGREGATE SHOULDERS, AS DIRECTED BY THE RESIDENT ENGINEER.
 - ALL DRIVES SHALL RECEIVE A PAVED APRON AS DIRECTED BY THE RESIDENT ENGINEER. ANY AND ALL REQUIRED EXCAVATION IN DRIVE AREAS SHALL BE AS DIRECTED AND WILL BE PAID FOR UNDER THE APPLICABLE RENTAL ITEMS. IF REQUIRED, A NEW DRIVEWAY SUBBASE SHALL BE CONSTRUCTED AND WILL BE PAID FOR UNDER ITEM 301.28, SUBBASE OF CRUSHED GRAVEL (FINE GRADED). A NEW BITUMINOUS SURFACE SHALL BE CONSTRUCTED AS DIRECTED AND WILL BE PAID FOR UNDER ITEM 406.27. QUANTITIES OF THE ABOVE ITEMS HAVE BEEN INCLUDED TO PAY FOR THIS WORK.
 - ESTIMATED QUANTITIES OF ITEM 608.25, EXCAVATOR RENTAL AND 608.37, TRUCK RENTAL HAVE BEEN INCLUDED FOR THE PROVISION OF CONSTRUCTING GUARD RAIL FLARES WITH EXCAVATED DITCHING MATERIAL. THE GUARD RAIL FLARES SHALL BE CAPPED WITH AN ESTIMATED 75mm DEPTH OF AGGREGATE SHOULDER MATERIAL UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER. THE QUANTITIES INCLUDED REFLECT 5 TONS OF AGGREGATE SHOULDER MATERIAL AND 20 CUBIC METERS OF DITCHING MATERIAL FOR EACH GUARD RAIL TERMINAL.
 - GRASS GROWING ADJACENT TO PAVEMENT, OR THROUGH CRACKS IN THE PAVEMENT, WHICH MAY HAMPER THE PLACEMENT OF NEW BITUMINOUS CONCRETE, SHALL BE REMOVED BY THE CONTRACTOR, AS DIRECTED BY THE ENGINEER. PAYMENT FOR THIS WORK WILL NOT BE MADE DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO ITEM 406.27, MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT.
 - COMPACTION, GRADING, AND CLEAN UP OF ITEM 301.28, SUBBASE OF CRUSHED GRAVEL, ITEM 402.12, AGGREGATE SHOULDER MATERIAL, AND ITEM 651.35, TOPSOIL, IS TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF EACH ITEM.

**CONSERVATION SEED MIX
RURAL AREA - SEED MIXTURE**

% WT.	kg/HECTARE	NAME	PUR%	GERM%
38.0	25	CREeping RED FESCUE	98	85
38.0	25	TALL FESCUE	95	90
4.5	3	RED TOP	95	90
15.0	10	BIRD'SFOOT TREFoil	98	85
4.5	3	ANNUAL RYEGRASS	95	85
100.0	66			

SEED MIXTURE:
SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

SEED:
TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.

FERTILIZER:
FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 560 kg/HECTARE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA)

AGRICULTURAL LIMESTONE:
TO BE APPLIED AT THE RATE OF 4.5 TONS/HECTARE, OR AS DIRECTED BY THE ENGINEER.

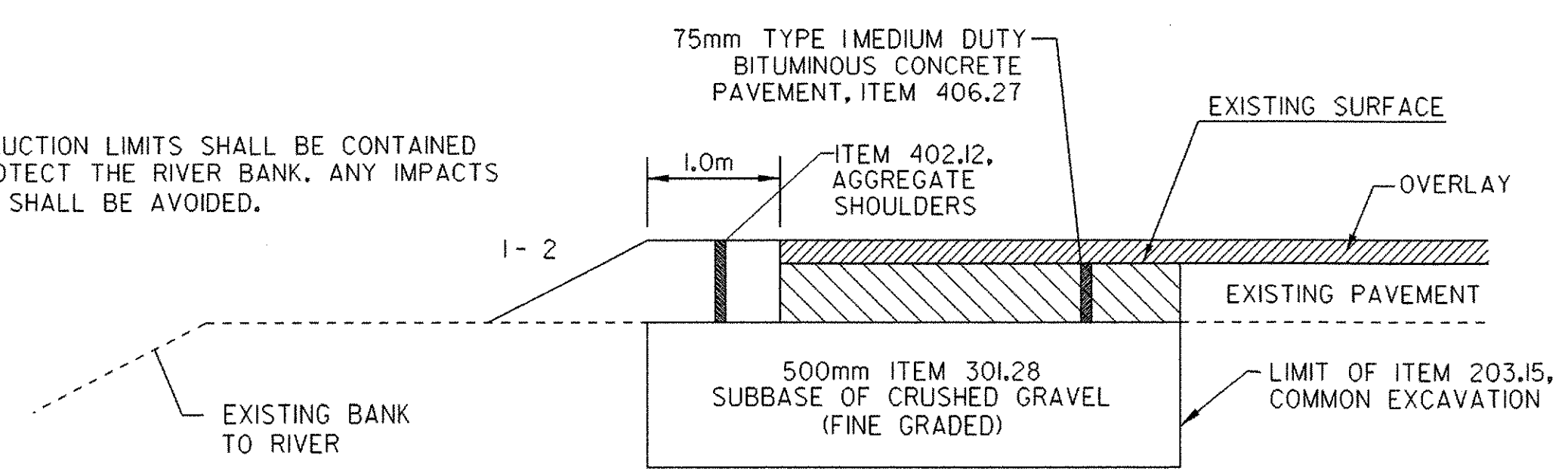
HAY MULCH:
TO BE PLACED ON EARTH SLOPES AT THE RATE OF 4.5 TONS/HECTARE, OR AS DIRECTED BY THE ENGINEER.

TOPSOIL:
TO BE USED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

MARKER POSTS:
TO BE PLACED AS INDICATED OR AS DIRECTED BY THE ENGINEER.

NEW POSTS WILL BE A DELINEATOR POST WITHOUT THE REFLECTOR UNIT.

NOTE: CONSTRUCTION LIMITS SHALL BE CONTAINED SO AS TO PROTECT THE RIVER BANK. ANY IMPACTS TO THE RIVER SHALL BE AVOIDED.



**ROAD SECTION AT REPAIR AREAS
MAIDSTONE
STA 0+417 TO 0+461 (APPROXIMATELY)**

PROJECT PAVING LIMITS

TOWN & ROUTE	BEGIN STATION	END STATION	LANE TYPICAL	WEARING DEPTH	LEVELING Tons	NOTES
MAIDSTONE - MAIDSTONE STATE HIGHWAY	0+000	0+930	0.3m-3.0m-3.0m-0.3m	25mm	370	LEVEL & PAVE w/25mm TYPE IV.



PROJECT TYPICAL SHEET

DESIGNED BY BCE/PJM DATE 10-01
 DRAWN BY C.E.A., INC. DATE 10-01
 DESIGN FILE NO. /pave/00c050/pc050.dgn
 PRF FILE pc050.tyl DATE PLOTTED 18-AUG-2003
 PROJ. NAME **MAIDSTONE**
 PROJ. NO. **STP 2134(1)S**
 SHEET **6** OF **65** SHEETS

ITEM DETAIL SUMMARY SHEET



LOCATION			MISCELLANEOUS ITEMS									DRAINAGE ITEMS							GUARD RAIL ITEMS										REMARKS				
STA	STA	POS.	203.15 COM. EXCAV.	203.28 EXCAV. OF SURFACES AND PAVE.	203.30 EARTH BORROW	204.20 TRENCH EXCAV. OF EARTH	204.21 TRENCH EXCAV. OF ROCK	301.28 SUBBASE OF CRUSHED GRAVEL	402.12 AGG. SHOULD.	616.30 BITUM. CONC. CURB TYPE A	616.47 B. CONC. GUTTER & TRAF. ISLAND	618.10 PORT. CEMENT CONC. WALK (125mm)	501.25 CONC. CLASS B	507.15 REIN. STEEL	604.40 CHANGE ELEV.	604.412 REHAB. D.I. CLASS I	604.47 CAST IRON GRATE TYPE D	NEW PIPE		613.11 STONE FILL TYPE II	619.17 YIELD. MARKER POSTS	621.20 STEEL POST G.R.	(MOD.)	621.505 MAN. TERMINAL SECTION	621.54 MELT	621.60 ANCHOR FOR G.R.	621.75 REMOVE AND RESET G.R.	621.76 REPLACE POST ASSEM.		621.77 REPLACE BEAM UNIT	621.80 REMOVE & DISP. OF G.R.	621.81 REMOVE & DISP. OF GUIDE POSTS	
			m 3	m 3	m 3	m 3	m 3	T	T	T	T	m 2	m 3	KG	EA	EA	EA	mm	M	m 3	EA	M	M	EA	EA	EA	M	EA	EA	M	EA		
MAIDSTONE																																	
0+000	0+930	LT&RT			5	1		160	160										450	30	200	2											ESTIMATED QUANTITIES TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER.
0+297	0+628	LT								10																							INSTALL NEW STEEL BEAM GUARD RAIL.
0+417	0+461	LT	160					300	10																								REPAIR EXISTING SUBBASE.
0+635		LT																			100												
SUB-TOTALS			160		5	1		460	180										30	300	2	239	70	2									
ROUNDING			--		--	--		--	--										--	--	--	1	--	--									
PROJECT TOTALS			160		5	1		460	180										30	300	2	240	70	2									

ITEM DETAIL SHEET

DESIGNED BY BCE/PJM DATE 2-02

DRAWN BY C.E.A., INC. DATE 2-02

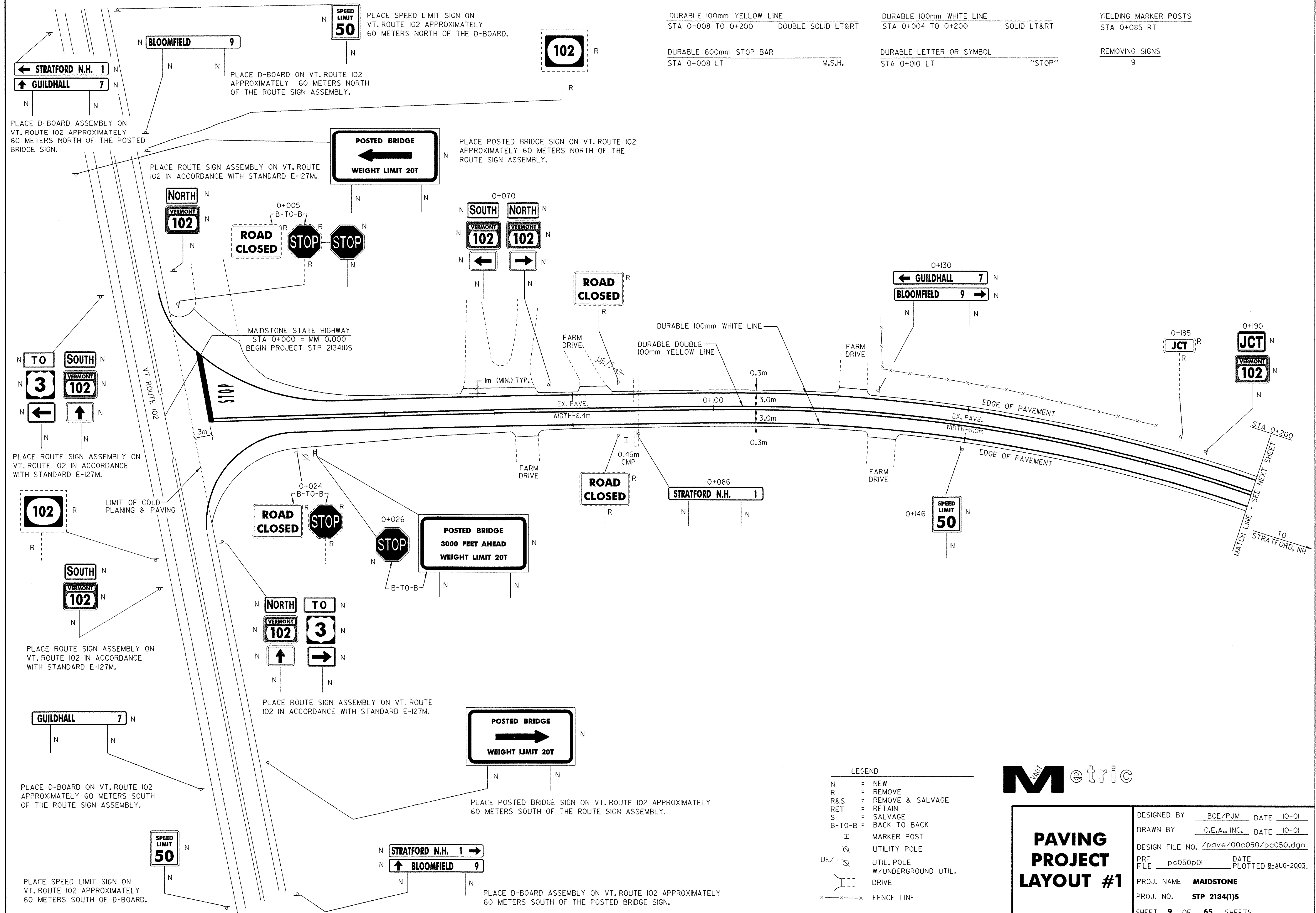
DESIGN FILE NO. /pave/00c050/pc050.dgn

PRF FILE pc050ids DATE PLOTTED 18-AUG-2003

PROJ. NAME MAIDSTONE

PROJ. NO. STP 2134(1)S

SHEET **8** OF **65** SHEETS



DURABLE 100mm YELLOW LINE STA 0+008 TO 0+200	DOUBLE SOLID LT&RT	DURABLE 100mm WHITE LINE STA 0+004 TO 0+200	SOLID LT&RT	YIELDING MARKER POSTS STA 0+085 RT
DURABLE 600mm STOP BAR STA 0+008 LT	M.S.H.	DURABLE LETTER OR SYMBOL STA 0+010 LT	"STOP"	REMOVING SIGNS 9

PLACE D-BOARD ASSEMBLY ON VT. ROUTE 102 APPROXIMATELY 60 METERS NORTH OF THE POSTED BRIDGE SIGN.

PLACE D-BOARD ON VT. ROUTE 102 APPROXIMATELY 60 METERS NORTH OF THE ROUTE SIGN ASSEMBLY.

PLACE POSTED BRIDGE SIGN ON VT. ROUTE 102 APPROXIMATELY 60 METERS NORTH OF THE ROUTE SIGN ASSEMBLY.

PLACE ROUTE SIGN ASSEMBLY ON VT. ROUTE 102 IN ACCORDANCE WITH STANDARD E-127M.

MAIDSTONE STATE HIGHWAY
STA 0+000 = MM 0.000
BEGIN PROJECT STP 2134(1)S

PLACE ROUTE SIGN ASSEMBLY ON VT. ROUTE 102 IN ACCORDANCE WITH STANDARD E-127M.

LIMIT OF COLD PLANING & PAVING

PLACE ROUTE SIGN ASSEMBLY ON VT. ROUTE 102 IN ACCORDANCE WITH STANDARD E-127M.

PLACE ROUTE SIGN ASSEMBLY ON VT. ROUTE 102 IN ACCORDANCE WITH STANDARD E-127M.

PLACE D-BOARD ON VT. ROUTE 102 APPROXIMATELY 60 METERS SOUTH OF THE ROUTE SIGN ASSEMBLY.

PLACE POSTED BRIDGE SIGN ON VT. ROUTE 102 APPROXIMATELY 60 METERS SOUTH OF THE ROUTE SIGN ASSEMBLY.

PLACE SPEED LIMIT SIGN ON VT. ROUTE 102 APPROXIMATELY 60 METERS SOUTH OF D-BOARD.

PLACE D-BOARD ASSEMBLY ON VT. ROUTE 102 APPROXIMATELY 60 METERS SOUTH OF THE POSTED BRIDGE SIGN.

LEGEND

N	= NEW
R	= REMOVE
R&S	= REMOVE & SALVAGE
RET	= RETAIN
S	= SALVAGE
B-TO-B	= BACK TO BACK
I	= MARKER POST
U	= UTILITY POLE
U/E/T	= UTIL. POLE W/UNDERGROUND UTIL.
- - -	= DRIVE
x-x-x	= FENCE LINE



PAVING PROJECT LAYOUT #1

DESIGNED BY	BCE/PJM	DATE	10-01
DRAWN BY	C.E.A., INC.	DATE	10-01
DESIGN FILE NO.	/pave/00c050/pc050.dgn		
PRF FILE	pc050p01	DATE PLOTTED	18-AUG-2003
PROJ. NAME	MAIDSTONE		
PROJ. NO.	STP 2134(1)S		
SHEET	9	OF	65 SHEETS

DURABLE 100mm YELLOW LINE
STA 0+200 TO 0+600 DOUBLE SOLID LT&RT

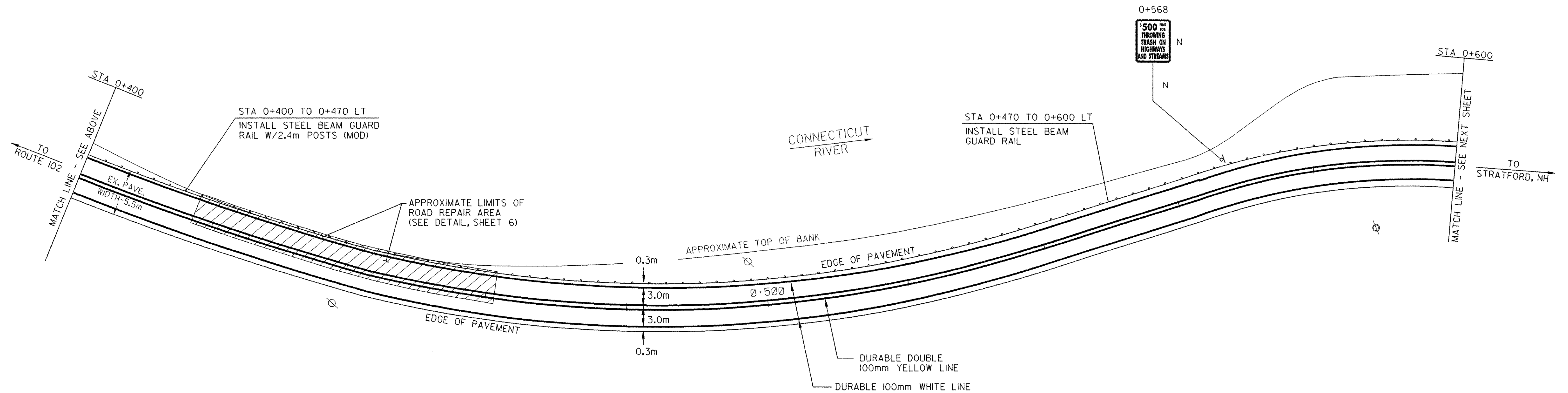
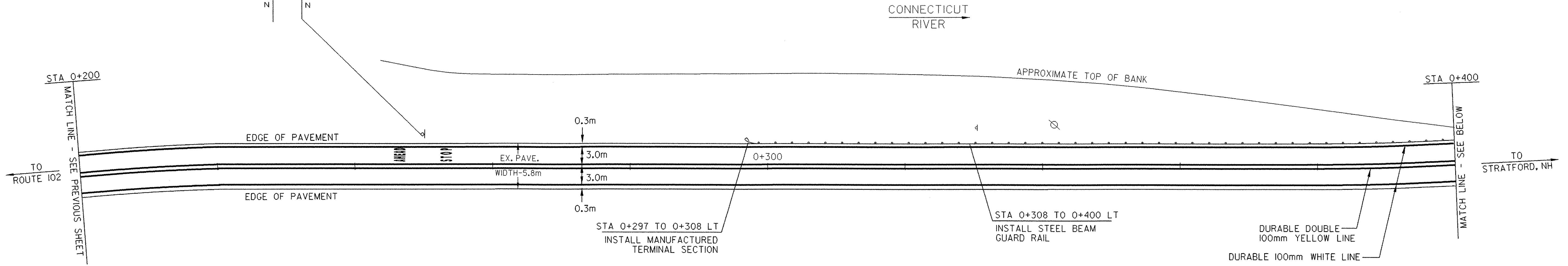
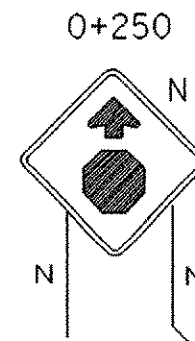
DURABLE 100mm WHITE LINE
STA 0+200 TO 0+600 SOLID LT&RT

MANUFACTURED TERMINAL SECTION
STA 0+297 TO 0+308 LT (FLARED)

STEEL BEAM GUARD RAIL
STA 0+308 TO 0+400 LT
STA 0+470 TO 0+600 LT

STEEL BEAM GUARD RAIL W/2.4m POSTS (MOD)
STA 0+400 TO 0+470 LT

DURABLE LETTER OR SYMBOL
STA 0+250 LT "STOP AHEAD"



LEGEND

N	= NEW
R	= REMOVE
R&S	= REMOVE & SALVAGE
RET	= RETAIN
S	= SALVAGE
B-TO-B	= BACK TO BACK
I	MARKER POST
⊙	UTILITY POLE
U/I	UTIL. POLE W/UNDERGROUND UTIL.
---	DRIVE
x-x-x	FENCE LINE



PAVING PROJECT LAYOUT #2

DESIGNED BY BCE/PJM DATE 10-01
 DRAWN BY C.E.A., INC. DATE 10-01
 DESIGN FILE NO. /pave/00c050/pc050.dgn
 PRF FILE pc050p02 DATE PLOTTED 18-AUG-2003
 PROJ. NAME **MAIDSTONE**
 PROJ. NO. **STP 2134(1)S**
 SHEET **10** OF **65** SHEETS

DURABLE 100mm YELLOW LINE
STA 0+600 TO 0+930 DOUBLE SOLID LT&RT

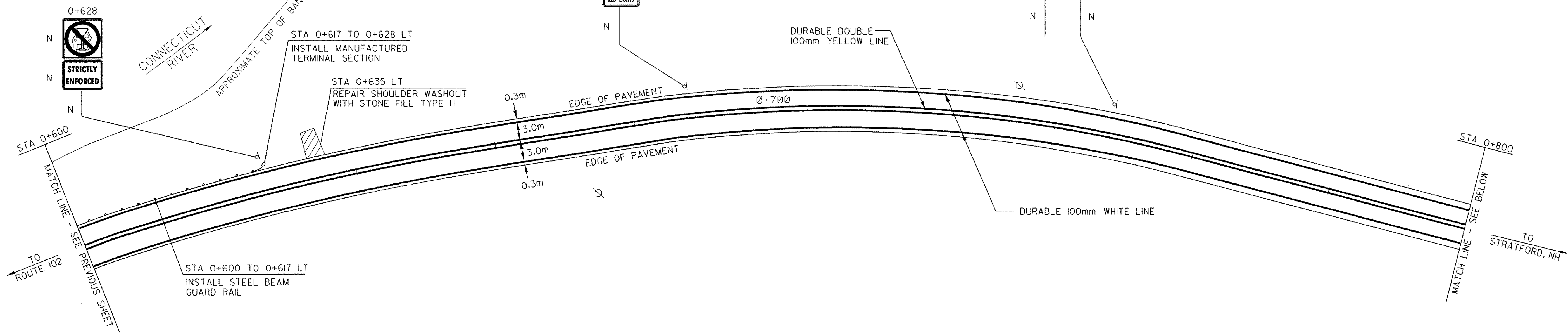
DURABLE 100mm WHITE LINE
STA 0+600 TO 0+930 SOLID LT&RT

DURABLE LETTER OR SYMBOL
STA 0+875 RT "STOP AHEAD"

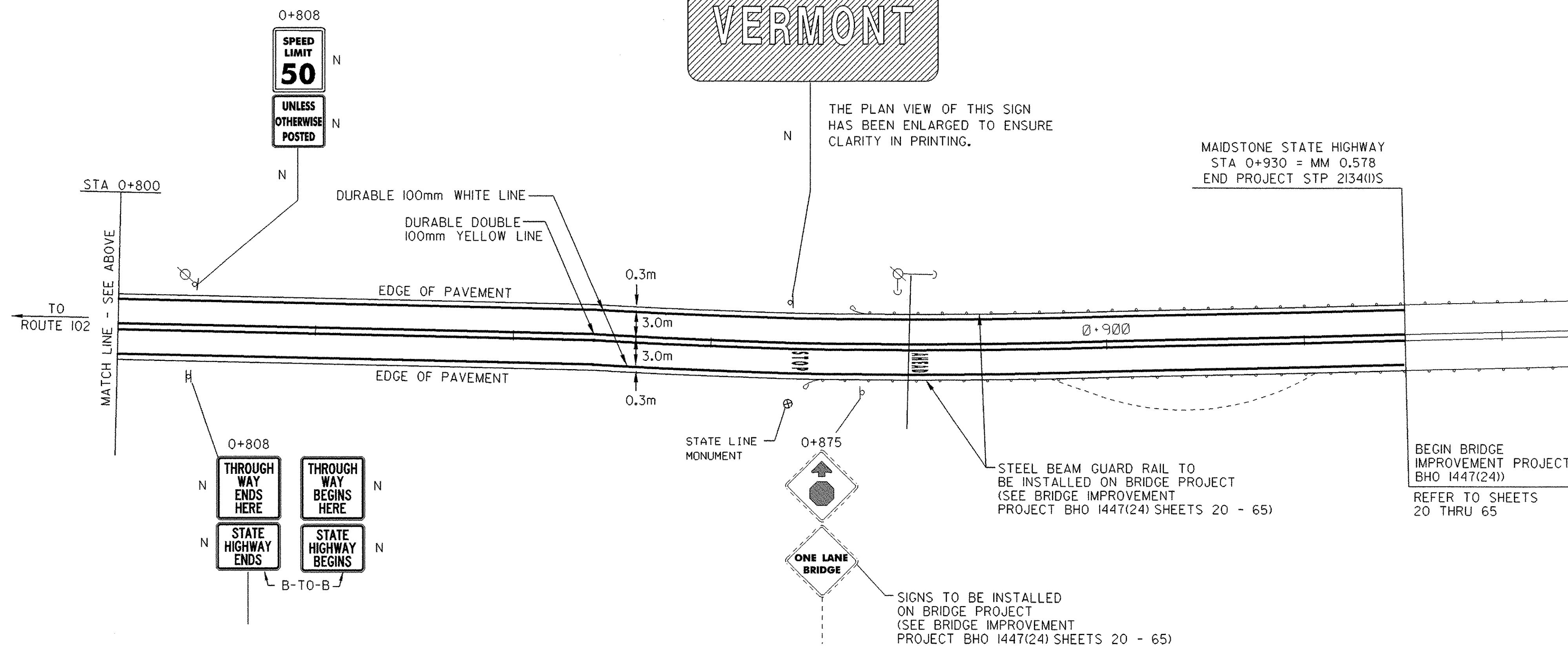
MANUFACTURED TERMINAL SECTION
STA 0+617 TO 0+628 LT (FLARED)

STEEL BEAM GUARD RAIL
STA 0+600 TO 0+617 LT

0+748
SAFETY BELTS
REQUIRED



THE PLAN VIEW OF THIS SIGN
HAS BEEN ENLARGED TO ENSURE
CLARITY IN PRINTING.



LEGEND

N	= NEW
R	= REMOVE
R&S	= REMOVE & SALVAGE
RET	= RETAIN
S	= SALVAGE
B-T-O-B	= BACK TO BACK
I	= MARKER POST
⊗	= UTILITY POLE
⊕	= UTIL. POLE W/UNDERGROUND UTIL.
—	= DRIVE
×-×-×	= FENCE LINE

Metric

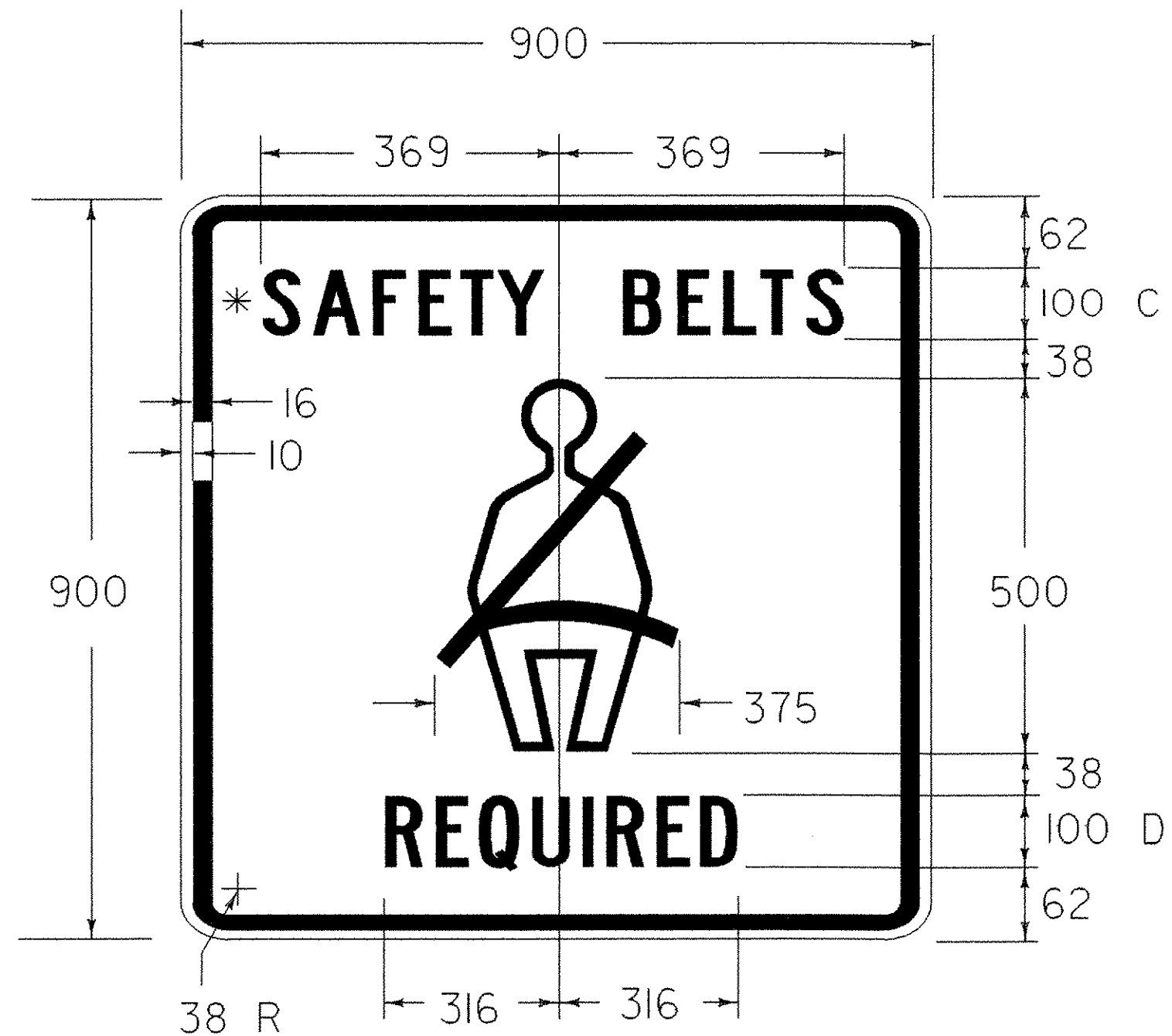
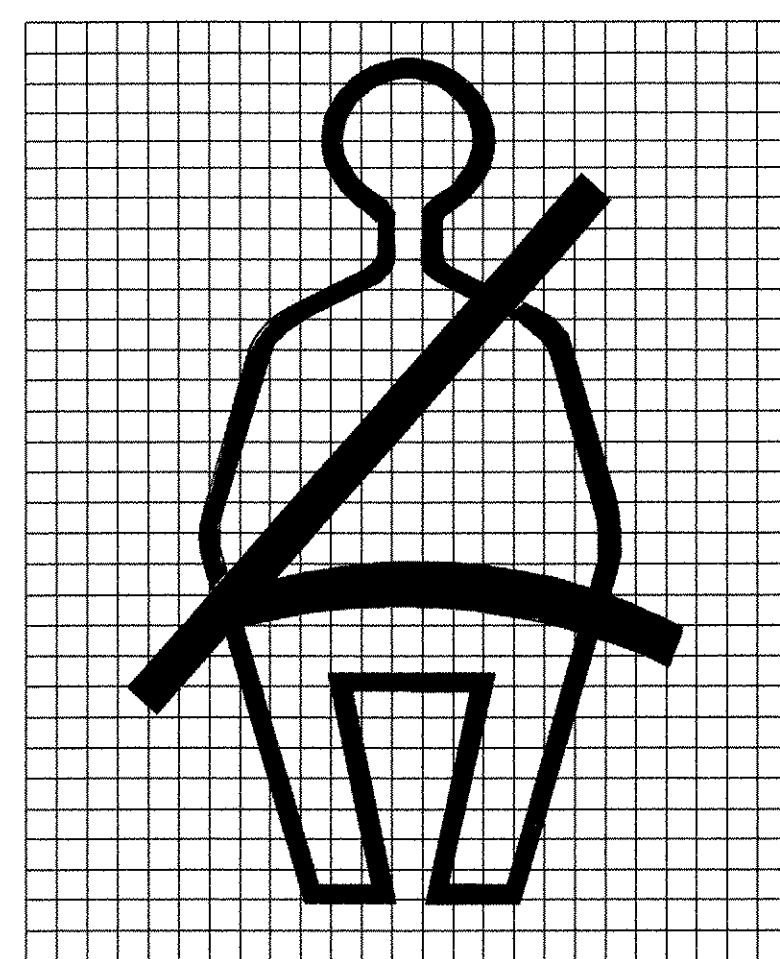
**PAVING
PROJECT
LAYOUT #3**

DESIGNED BY BCE/PJM DATE 10-01
 DRAWN BY C.E.A., INC. DATE 10-01
 DESIGN FILE NO. /pave/00c050/pc050.dgn
 PRF FILE pc050p03 DATE PLOTTED 18-AUG-2003
 PROJ. NAME **MAIDSTONE**
 PROJ. NO. **STP 2134(1)S**
 SHEET **11** OF **65** SHEETS

KILOMETER MARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS		NEW & SALVAGED SIGNS				EXISTING POST RETAIN	NO. OF POSTS	NEW SIGN POSTS																		REMARKS	SIGN DETAIL	
		EA	WIDTH (mm)	HEIGHT (mm)	"A"	"B"	SALV SIGN			SALV TIS	FLANGED CHANNEL			SQUARE STEEL (mm)			TUBULAR ALUMINUM Ø (mm)			TUBULAR STEEL Ø (mm)				W-SHAPE STEEL			DETAIL ON SHEET NUMBER		STD. SHEET NUMBER	
											kg/m			44	50	63	75	100	100 MOD	kg/m				FTG. SIZE		WEIGHT				POST SIZE
											1.7	3.0	4.5	3.4	3.9	5.0	1.9	2.5	2.5	FOUNDATION	75	89	100	125	600 mm					
OPTION ITEMS																														
WEST SIDE OF VT. 102 (SOUTH TO NORTH)																														
		1	600	750	0.45				1			X		X											REFER TO SHEET # 9 AND STANDARD E-127M FOR PLACEMENT.		E-142M			
		1	1800	250	0.45				2			X		X											REFER TO SHEET # 9 AND STANDARD E-127M FOR PLACEMENT.		E-123M			
		1	600	300	0.18				1			X		X											REFER TO SHEET # 9 AND STANDARD E-127M FOR PLACEMENT.		E-136BM			
		1	750	600	0.45																						E-136BM			
		1	600 600	300 300	0.18 0.18				2			X		X											REFER TO SHEET # 9 AND STANDARD E-127M FOR PLACEMENT.		E-136AM E-136BM			
		1	600 750	600 600	0.36 0.45																						E-136AM E-136BM			
		1	525 525	375 375	0.20 0.20																						E-136AM E-136BM			
		1	1650	1050	1.73				2			X		X											REFER TO SHEET # 9 AND STANDARD E-127M FOR PLACEMENT.	18				
		1	1800	250	0.45				2			X		X											REFER TO SHEET # 9 AND STANDARD E-127M FOR PLACEMENT.		E-123M			
		1	1800	250	0.45																						E-123M			
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."					m 2	m 2	EA.	m 2		m	m	m	m	m	m	EA.	kg	kg	kg	EA.	kg	kg	kg	kg	EA.	EA.	kg			
		SHEET TOTALS			5.73					40.1			40.1																	

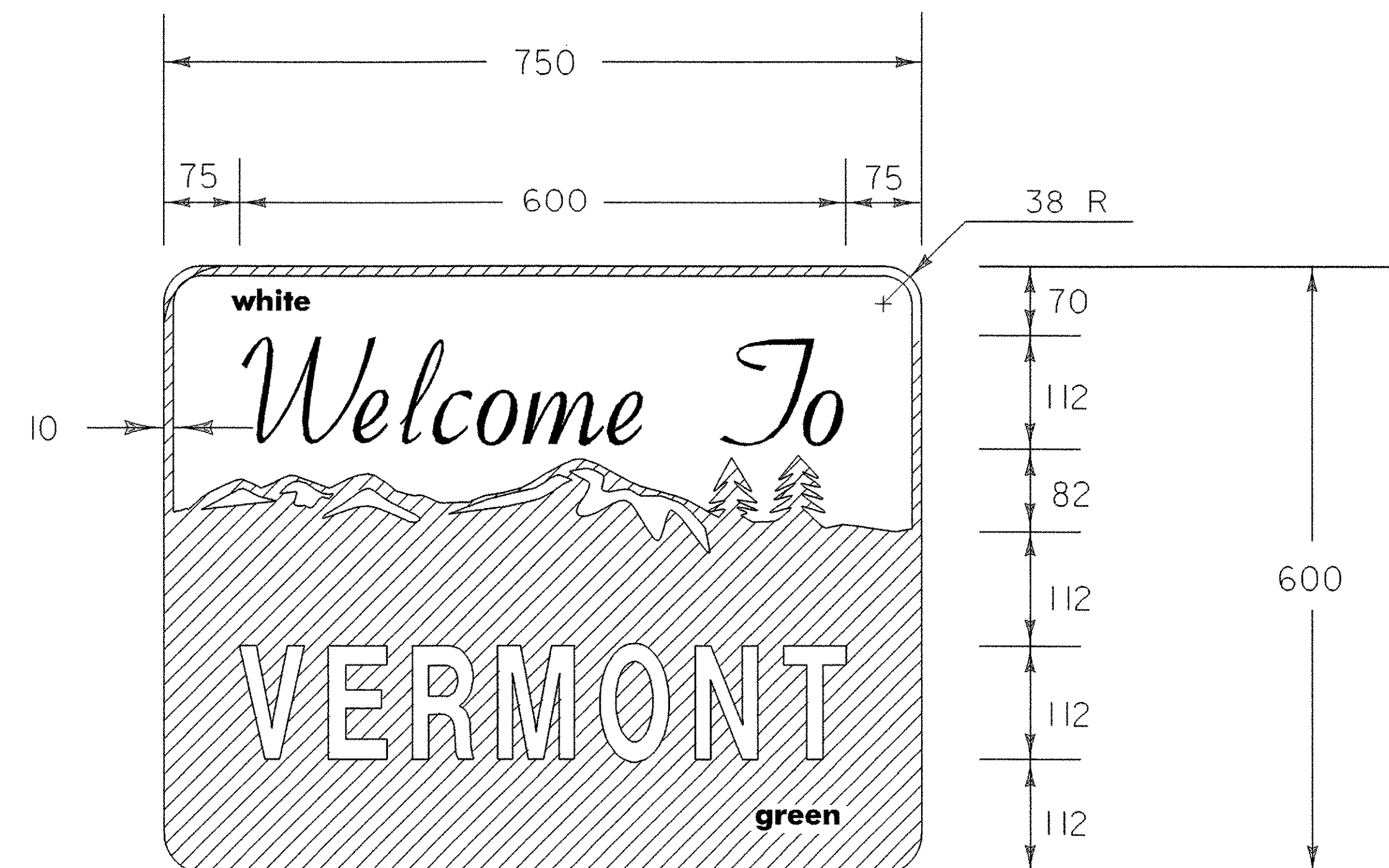
PROJECT: MAIDSTONE	PROJECT NO.: STP 2134(1)S
DESIGN FILE NAME: /pave00c050pc050.dgn	PLOT DATE: 18-AUG-2003
IPARM FILE NAME: pc050ts2	SURVEY DATE:
SURVEYED BY:	DRAWN BY: LFW
SQUAD LEADER:	SHEET: 13 OF 65

KILOMETER MARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS		NEW & SALVAGED SIGNS				EXIST. POST RETAIN	NO. OF POSTS	NEW SIGN POSTS																REMARKS	SIGN DETAIL				
		EA	WIDTH (mm)	HEIGHT (mm)	"A"	"B"	SALV SIGN			SALV TIS	FLANGED CHANNEL			SQUARE STEEL (mm)			TUBULAR ALUMINUM (mm)			TUBULAR STEEL (mm)				W-SHAPE STEEL			DETAIL ON SHEET NUMBER	STD. SHEET NUMBER			
											kg/m			44	50	63	75	100	100 MOD	FOUND-ATION	75	89	100	125	FTG. SIZE				WEIGHT	POST SIZE	
											1.7	3.0	4.5	3.4	3.9	5.0	1.9	2.5	2.5		11.3	13.4	16.1	21.7	600 mm						750 mm
MAIDSTONE 0+005 LT		1	750	750	0.56				1		X	X																E-143M			
0+026 RT		1	750	750	0.56				2		X	X														MOUNT STOP SIGN BACK TO BACK WITH THE POSTED BRIDGE SIGN.	E-143M				
		1	1650	1050	1.73																						18				
0+070 LT		1	600	300	0.18				2		X	X																E-136BM			
			600	300	0.18																								E-136BM		
		1	750	600	0.45																							E-136BM			
			750	600	0.45																								E-136BM		
		1	525	375	0.20																							E-136BM			
			525	375	0.20																								E-136BM		
0+086 RT		1	1800	250	0.45				2		X	X																E-123M			
0+130 LT		1	1800	250	0.45				2		X	X																E-123M			
		1	1800	250	0.45																							E-123M			
0+146 RT		1	600	750	0.45				1		X	X																E-142M			
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."					m 2	m 2	EA.	m 2		m	m	m	m	m	m		EA.	kg	kg	kg	EA.	kg	kg	kg	kg	EA.	EA.	kg			
				</																											

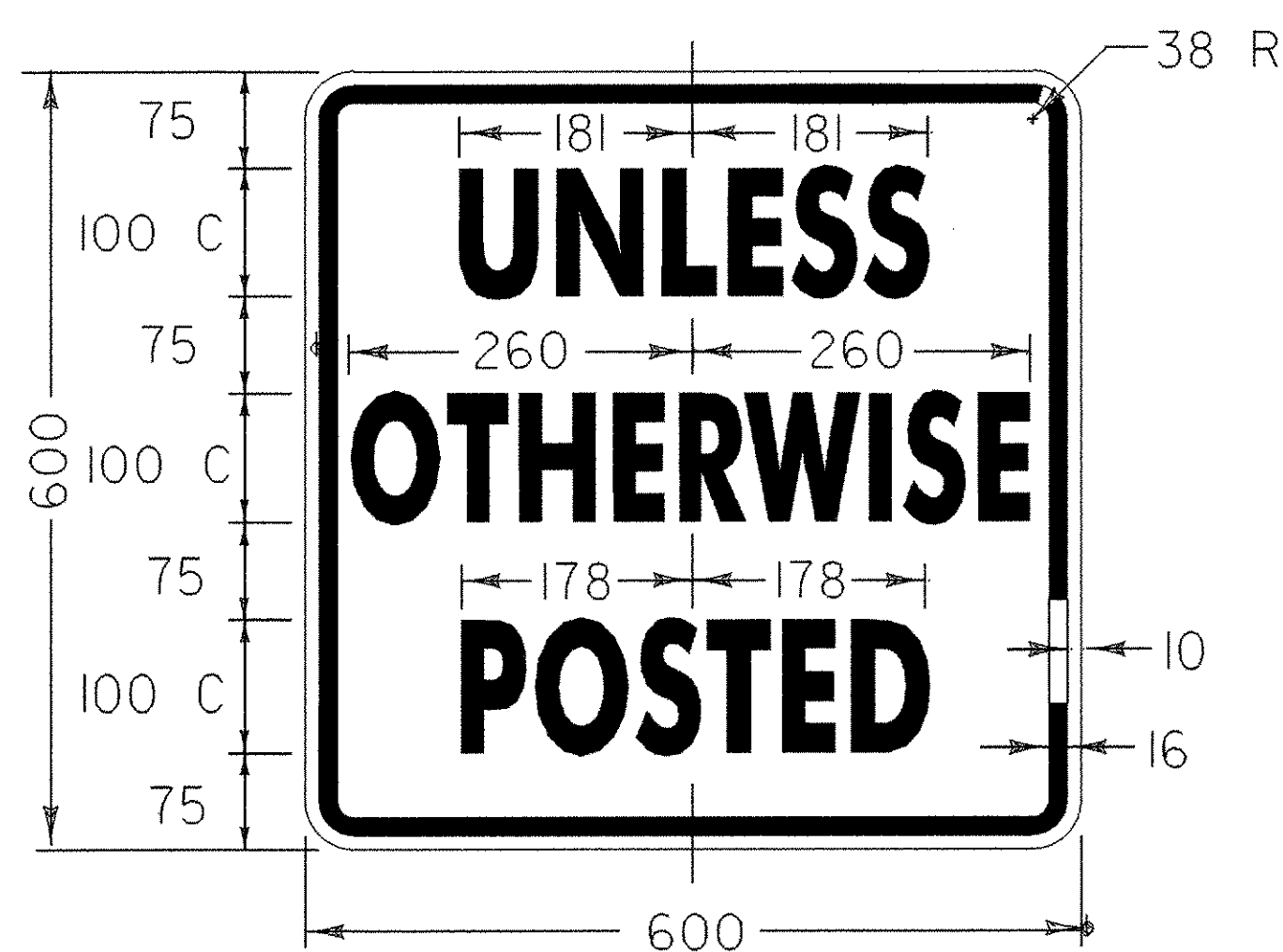


VR-128

REFER TO STANDARD E-142M FOR MATERIALS
 COLORS: BLACK TEXT AND BORDER WITH REFLECTORIZED WHITE BACKGROUND
 * 50% REDUCTION IN SPACING



REFER TO STANDARD E-131M FOR COLORS
 REFER TO STANDARD E-136BM FOR MATERIALS
 FOR THE WORDS "WELCOME TO" USE GERBER FONT MURRAY HILL BOLD OR EQUIVALENT. TEXT COLOR IS GREEN. ALL OTHER TEXT USE GERBER FONT SOUVENIR DEMIBOLD OR EQUIVALENT. THE TEXT COLOR IS WHITE.



VR-028

REFER TO STANDARD E-142M FOR MATERIALS
 COLORS: BLACK TEXT AND BORDER WITH REFLECTORIZED WHITE BACKGROUND



VR-655 P

REFER TO STANDARD E-142M FOR MATERIALS
 COLORS: BLACK TEXT AND BORDER WITH REFLECTORIZED WHITE BACKGROUND



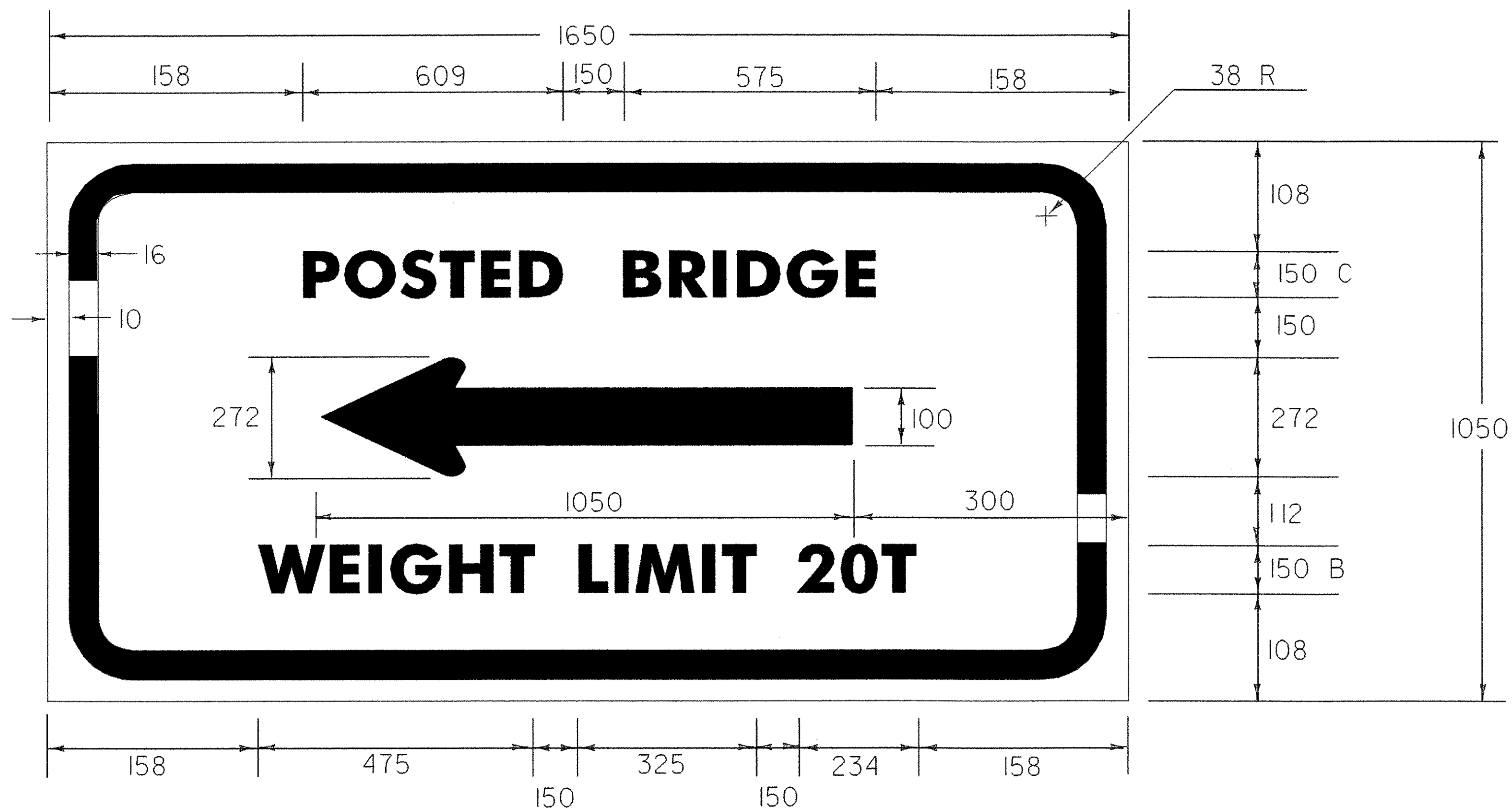
NOT TO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED

SIGN DETAIL SHEET 1

DESIGNED BY	LFW	DATE	6-02
DRAWN BY	LFW	DATE	6-02
DESIGN FILE NO.	/pave/00c050/pc050.dgn		
PRF FILE	pc050+6	DATE PLOTTED	18-AUG-2003
PROJ. NAME	MAIDSTONE		
PROJ. NO.	STP 2134(1)S		
SHEET	17	OF	65 SHEETS

DATUM	
VERTICAL	N/A
HORIZONTAL	N/A

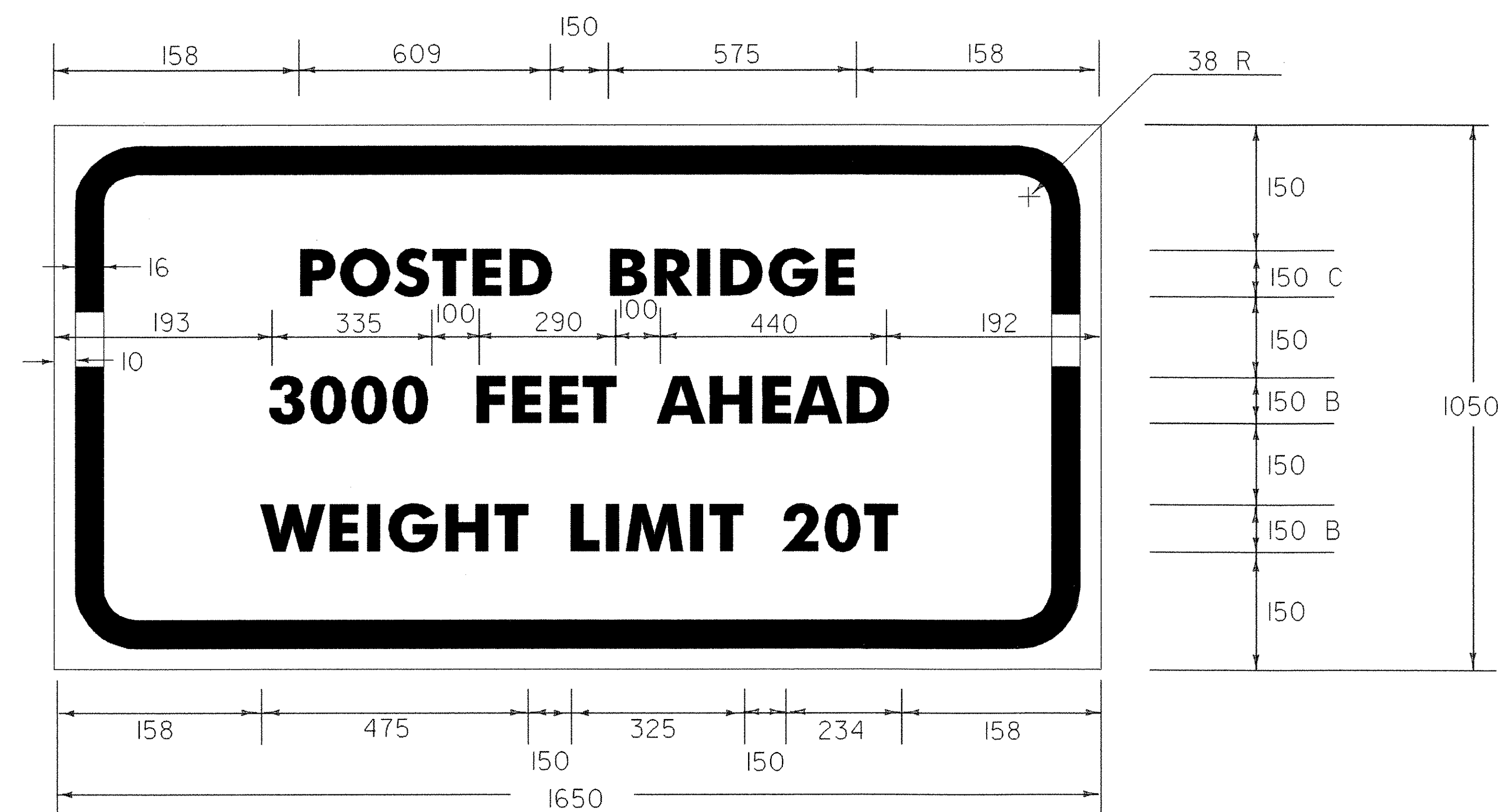


SAME DIMENSIONS AS LEFT ARROW



VR-209

REFER TO STANDARD E-142M FOR MATERIALS
 COLORS: BLACK TEXT AND BORDER WITH
 REFLECTORIZED WHITE BACKGROUND



VR-209

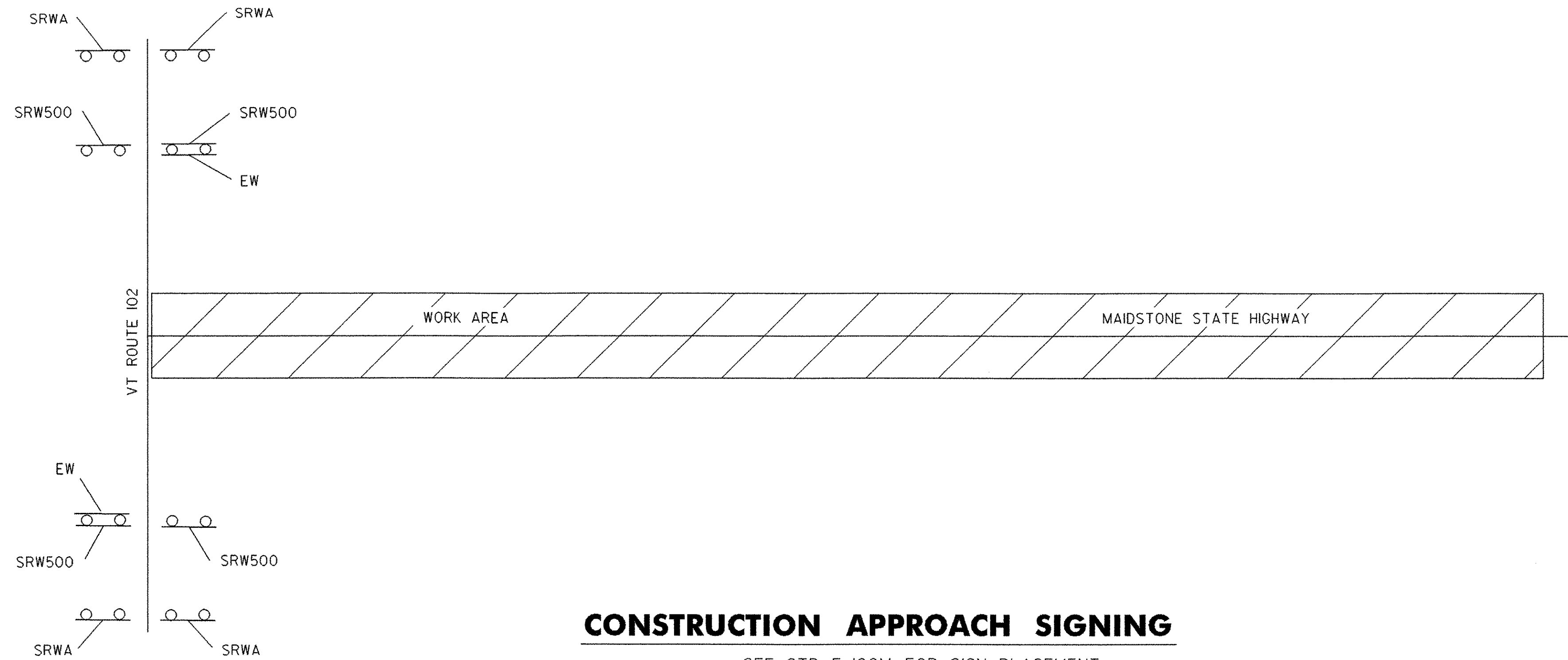
REFER TO STANDARD E-142M FOR MATERIALS
 COLORS: BLACK TEXT AND BORDER WITH
 REFLECTORIZED WHITE BACKGROUND

NOT TO SCALE ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE INDICATED

SIGN DETAIL SHEET 2

DATUM	
VERTICAL	N/A
HORIZONTAL	N/A

DESIGNED BY	LFW	DATE	6-02
DRAWN BY	LFW	DATE	6-02
DESIGN FILE NO.	/pave/00c050/pc050.dgn		
PRF FILE	pc050+st7	DATE PLOTTED	18-AUG-2003
PROJ. NAME	MAIDSTONE		
PROJ. NO.	STP 2134(1)S		
SHEET	18	OF	65 SHEETS



CONSTRUCTION APPROACH SIGNING

SEE STD. E-100M FOR SIGN PLACEMENT

LEGEND
 EW = END WORK
 SRWA = SIDE ROAD WORK AHEAD
 SRW500 = SIDE ROAD WORK 500 FEET

LIST OF
CONSTRUCTION SIGNS

TOWN HIGHWAY	EW	SRWA	SRW500
BEGIN PROJECT	2	4	4
TOTALS	2	4	4

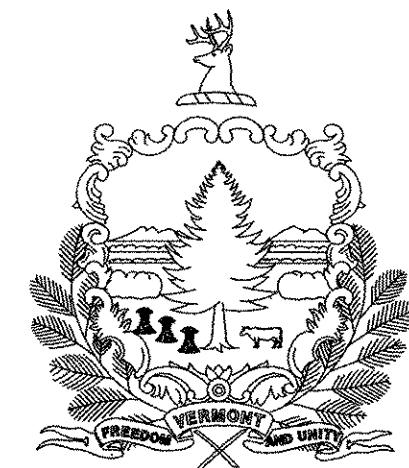
DATUM
 VERTICAL N/A
 HORIZONTAL N/A

**CONSTRUCTION APPROACH
SIGNING**

DESIGNED BY BCE/PJM DATE 2-02
 DRAWN BY C.E.A., INC. DATE 2-02
 DESIGN FILE NO. /pave/00c050/pc050.dgn
 PRF FILE pc050cas DATE 18-AUG-2003
 PROJ. NAME **MAIDSTONE**
 PROJ. NO. **STP 2134(1)S**
 SHEET **19** OF **65** SHEETS

INDEX OF SHEETS	
SHEET NO.	TITLE
21	TITLE SHEET
22	PRELIMINARY INFORMATION SHEET
23	QUANTITY SHEET
24	RIGHT OF WAY 1
25	BLANK
26	TIE SHEET AND PROFILE
27	PLAN SHEET
28-34	BORING SHEETS 1-7
35	GENERAL PLAN AND ELEVATION
36	BRIDGE CROSS SECTIONS
37	EROSION CONTROL SHEET
38	GENERAL NOTES SHEET
39	DECK PLAN - SPAN 1
40	DECK DETAILS - SPAN 1
41	DECK PLAN - SPAN 2
42	DECK DETAILS - SPAN 2
43	EXISTING STRUCTURE 1
44	EXISTING STRUCTURE 2
45	STEEL DETAILS 1
46	STEEL DETAILS 2
47	BEARING DETAILS
48	EXPANSION JOINT DETAILS
49	MISCELLANEOUS DETAILS
50	BRIDGE RAIL DETAILS 1
51	BRIDGE RAIL DETAILS 2
52	APPROACH SLAB DETAILS
53	APPROXIMATE EXISTING SUBSTRUCTURE
54	ABUTMENT 1 DETAILS
55	ABUTMENT 2 DETAILS
56	ABUTMENTS 1 & 2 REINFORCING DETAILS
57	ABUTMENT 2 REINFORCING DETAILS
58	PIER DETAILS
59	PIER REINFORCING DETAILS
60	REINFORCING STEEL SCHEDULE
61	CROSS SECTIONS
62-63	CHANNEL CROSS SECTION
64	TRAFFIC SIGN SUMMARY SHEET
65a	TRAFFIC SIGN LAYOUT SHEET
65b	NETC RAIL DETAILS

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT BRIDGE PROJECT

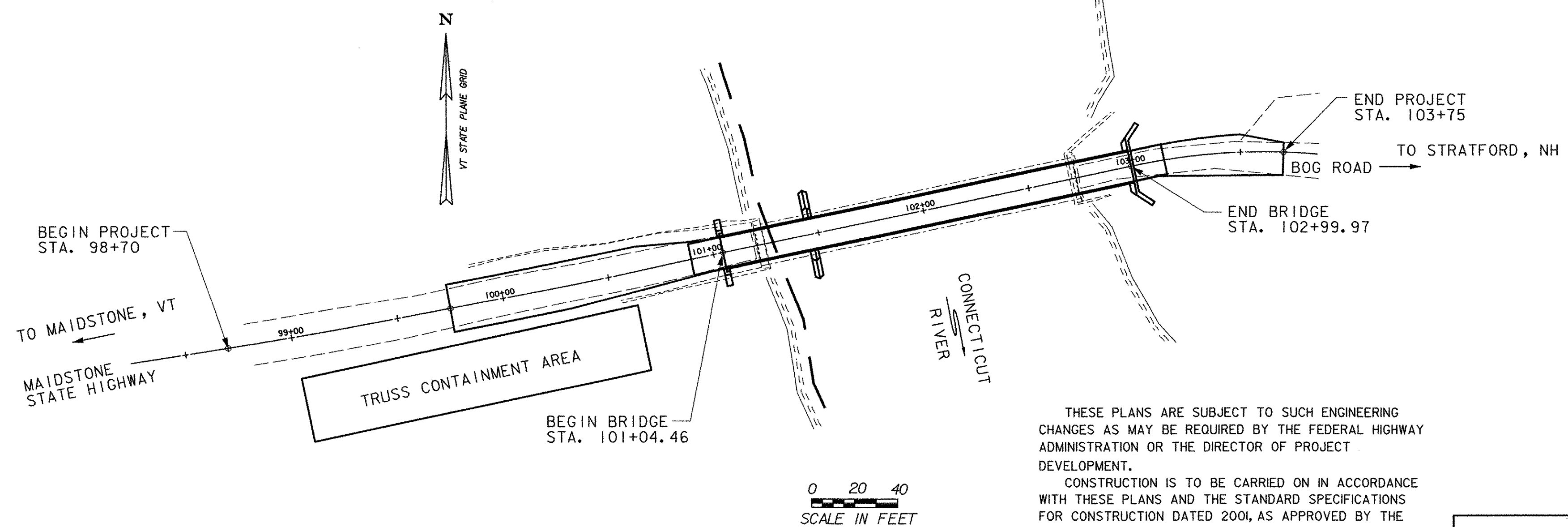
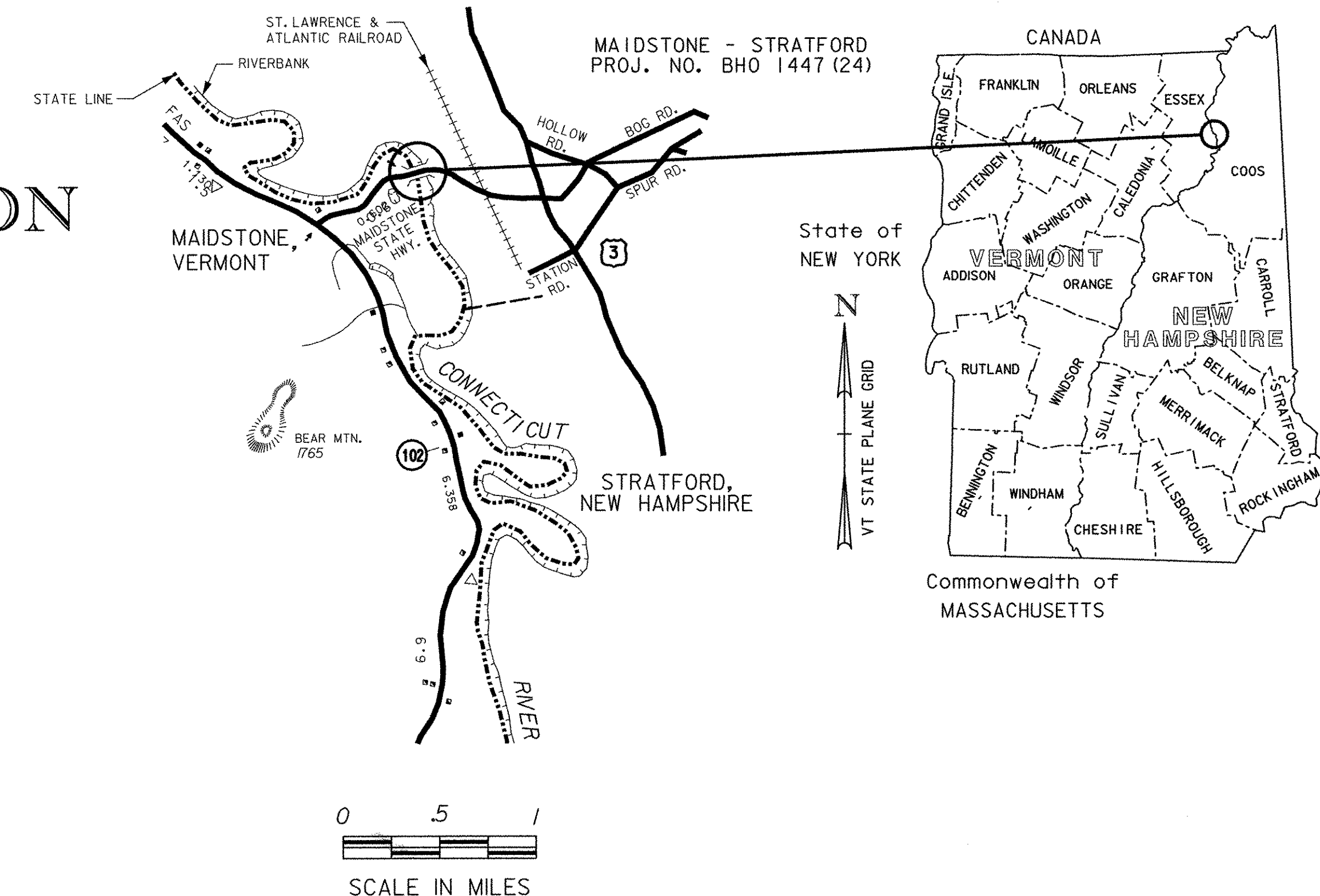
TOWN OF MAIDSTONE, VT ESSEX COUNTY
TOWN OF STRATFORD, NH COOS COUNTY

ROUTE NO : MAIDSTONE STATE HIGHWAY BRIDGE NO : 1

PROJECT LOCATION : MAIDSTONE STATE HIGHWAY OVER THE CONNECTICUT RIVER BETWEEN MAIDSTONE, VT AND STRATFORD, NH.

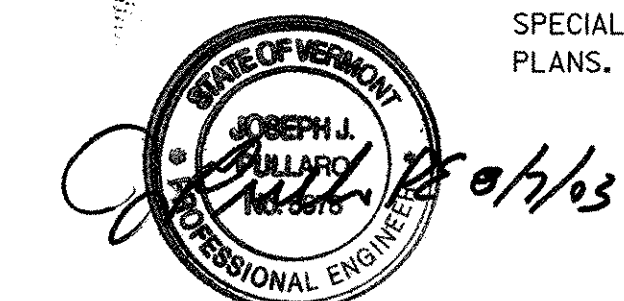
PROJECT DESCRIPTION : REHABILITATION OF EXISTING HISTORIC PIN CONNECTED PRATT TRUSS WITH INSTALLATION OF A 10 1/2" GLUED LAMINATED TIMBER DECK ON NEW STEEL FLOORBEAMS, INSTALLATION OF A PRESTRESSED VOIDED SLAB APPROACH SPAN, REPLACEMENT OF ABUTMENTS, AND INSTALLATION OF A PIER.

LENGTH OF BRIDGE: 195.51 FEET
LENGTH OF ROADWAY: 309.49 FEET
LENGTH OF PROJECT: 505 FEET



THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROJECT DEVELOPMENT.
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2001, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JANUARY 4, 2001 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

0 20 40
SCALE IN FEET



LIST OF STANDARDS

SB-R4b-82	3/30/88
B-5	6/1/94
D-2	6/1/94
E-102a	8/8/95
E-121	8/8/95
E-136A	8/8/95
E-141	9/20/95
E-143	9/20/95
E-146	9/20/95
E-150	1/15/97
E-152	1/15/97
E-154	8/8/95
E-160	5/20/99
E-164	5/20/99
G-1	6/1/94
G-1d	1/3/00
G-19	10/21/98
T-1	6/1/94
T-2	6/1/94

SURVEYED BY : VAOT ROUTE SURVEY
SURVEYED DATE : DECEMBER 1999

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD-83 (96)

CONVENTIONAL SYMBOLS

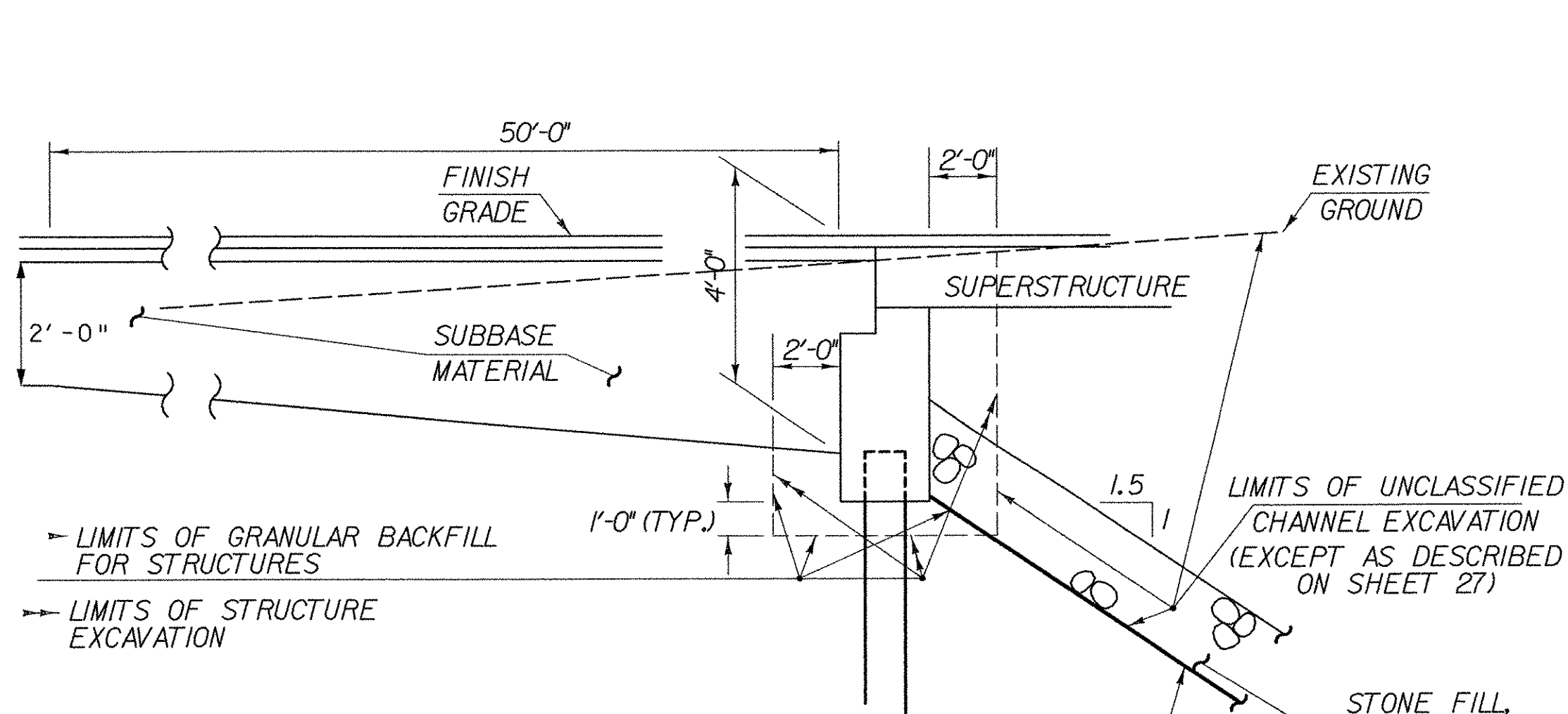
COUNTY LINE	
TOWN LINE	
LIMITS OF ACCESS	
POINT OF ACCESS	
FENCE LINE	
STONE WALL	
TRAVELED WAY	
GUARD RAIL	
RAILROAD	
SURVEY LINE	
CULVERT	
POWER POLE	
TELEPHONE POLE	
TREES	
CONTROL OF ACCESS	
PROPERTY LINE	
R.O.W. TAKING LINE	
SLOPE RIGHTS	
TOP OF CUT	
TOE OF SLOPE	

APPROVED _____ DATE _____
VAOT DIRECTOR OF PROGRAM DEVELOPMENT

PROJECT MANAGER : CRAIG KELLER

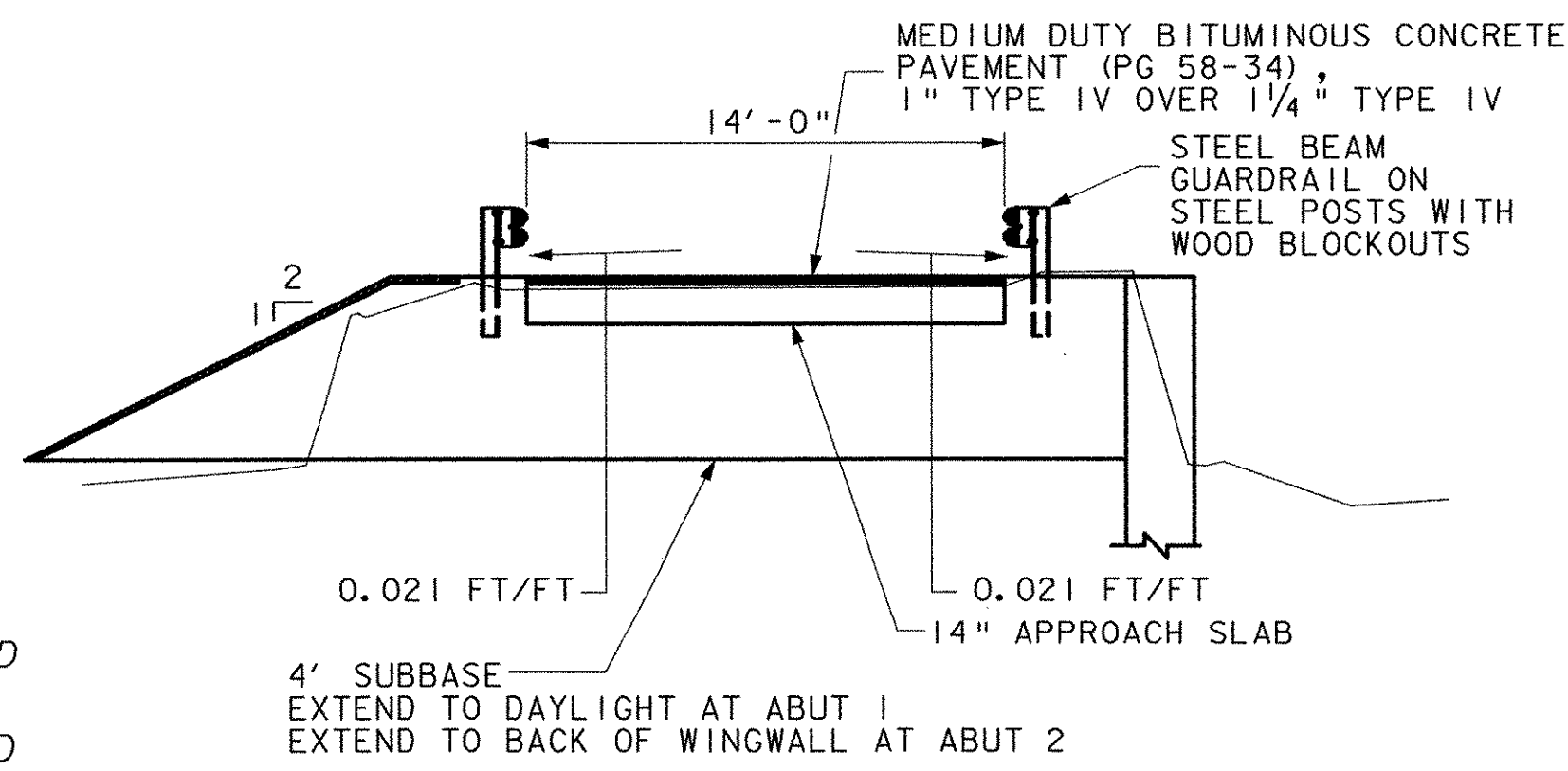
PROJECT NAME : MAIDSTONE-STRATFORD
PROJECT NUMBER : BHO 1447 (24)

SHEET 21 OF 65 SHEETS



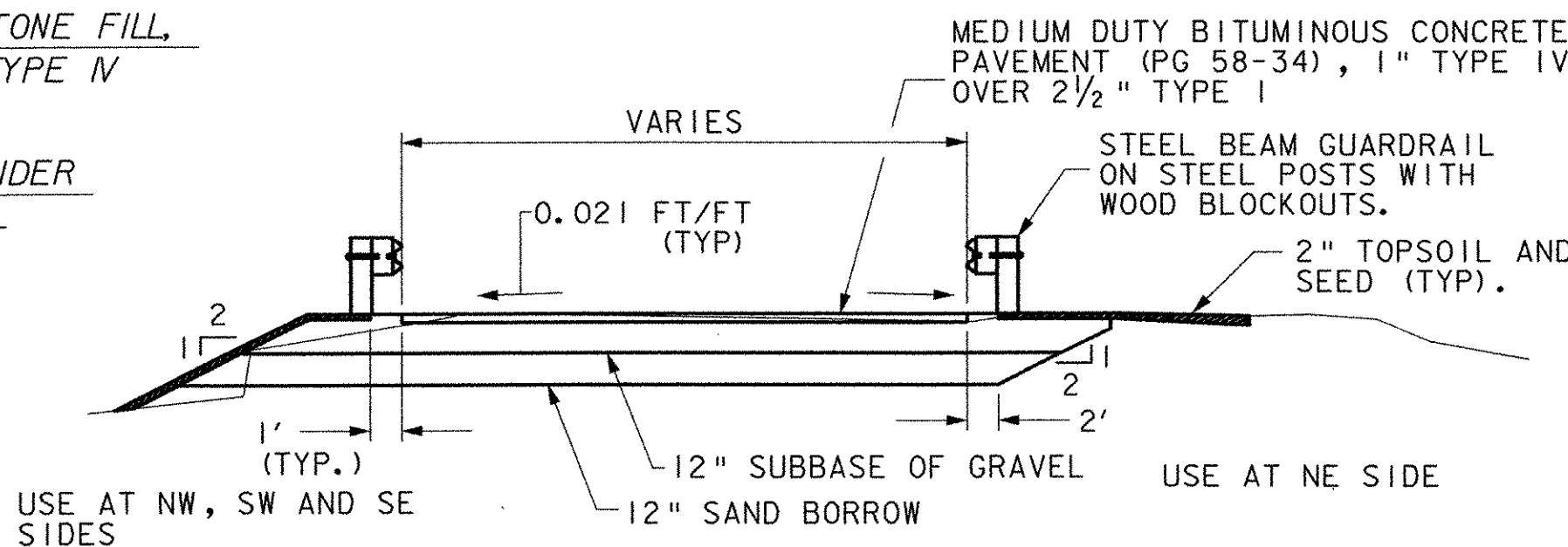
TYPICAL ABUTMENT 1 SECTION
(NOT TO SCALE)

MATERIAL ITEM	TOLERANCE
PAVEMENT	± 1/4" TOTAL THICKNESS
BASE COURSE	± 1/2"
SUBBASE	± 1"
SAND BORROW	± 1"



TYPICAL APPROACH @ BACK OF ABUTMENTS

SCALE: 3/16" = 1'-0"



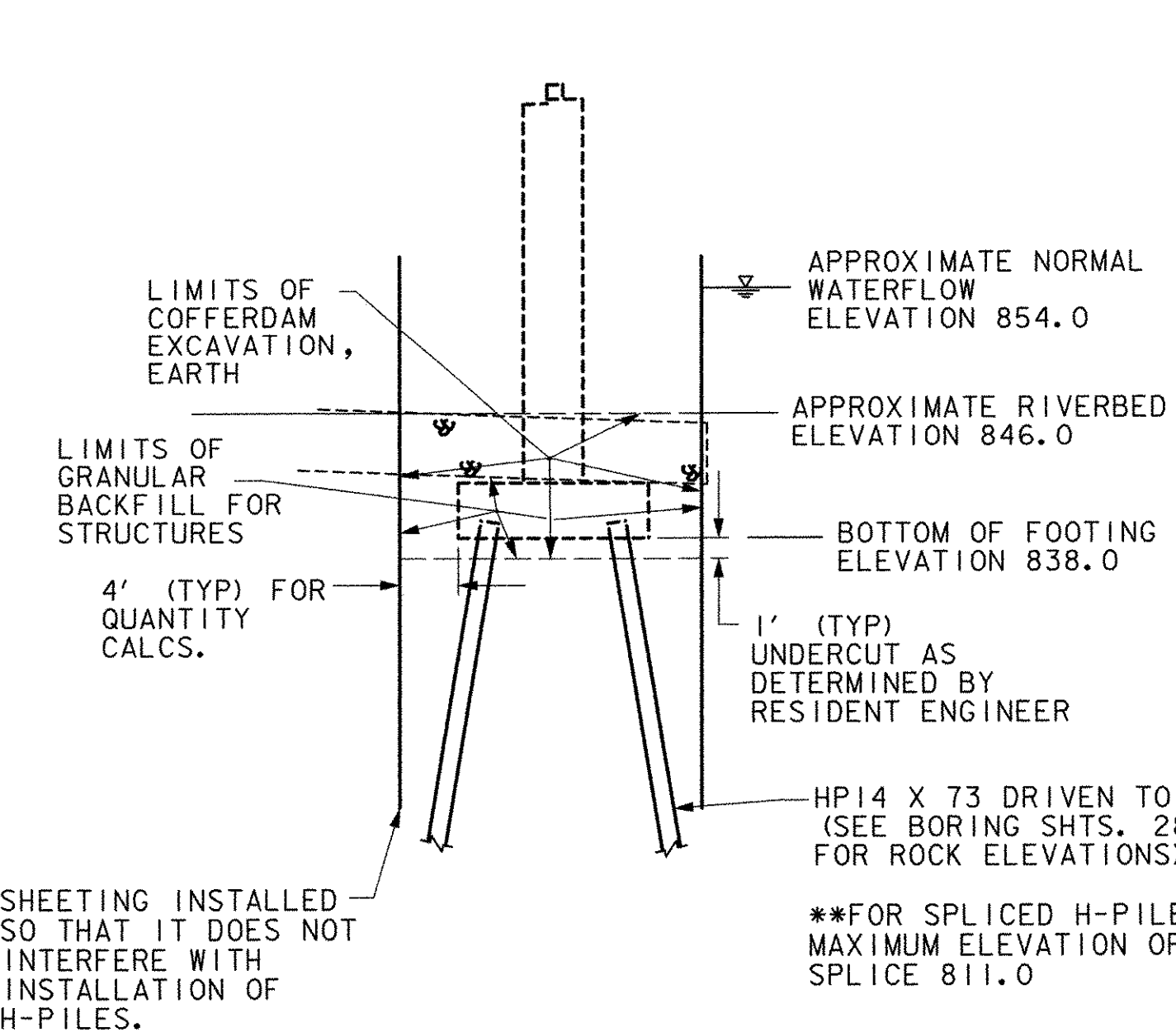
TYPICAL APPROACH SECTION

SCALE: 3/16" = 1'-0"

PIER COFFERDAM NOTES

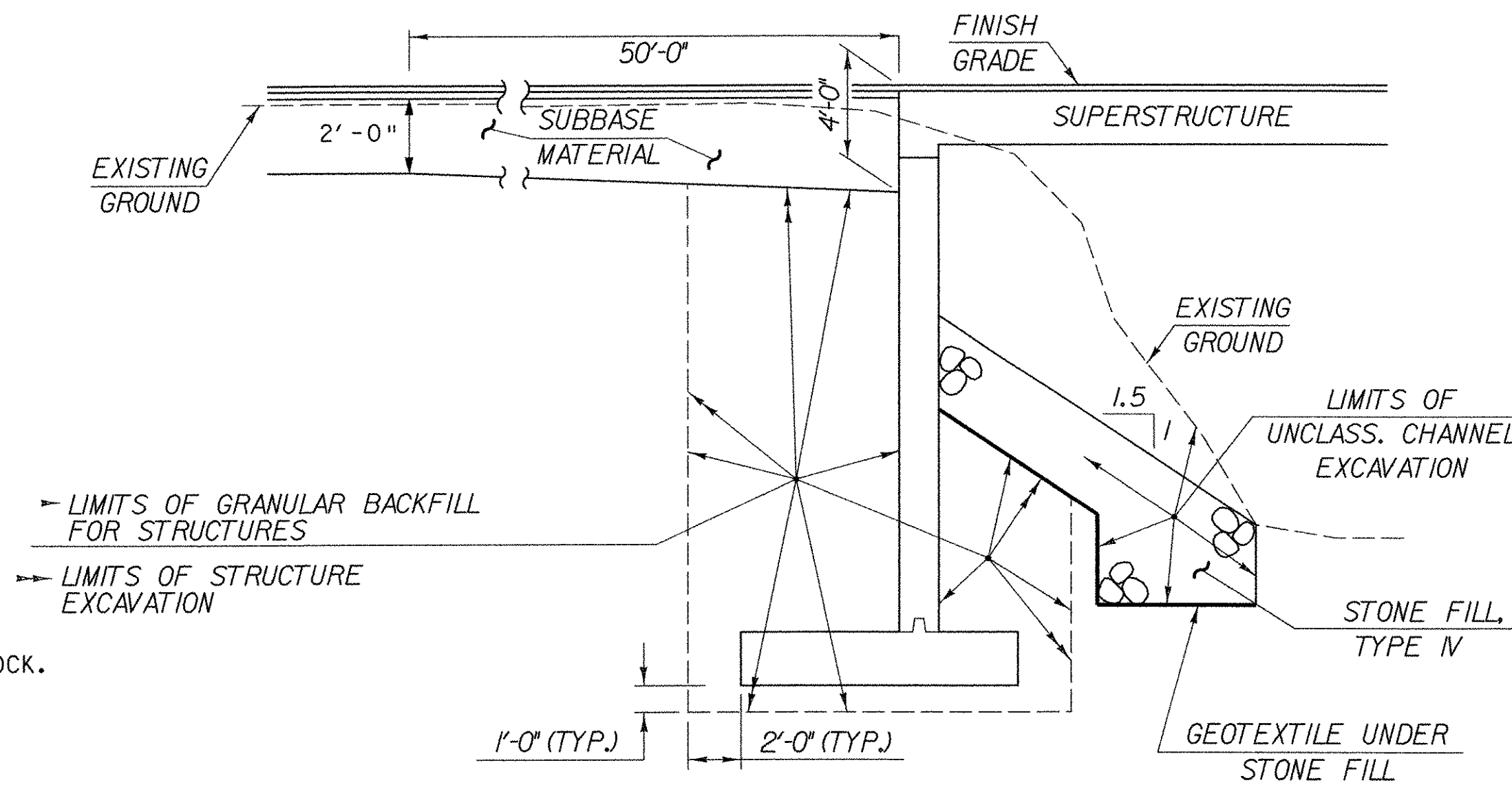
1. COFFERDAM LIMITS TO BE DETERMINED BY THE CONTRACTOR.
2. FOR PURPOSES OF ESTIMATING EARTHWORK QUANTITIES, THE LIMITS OF COFFERDAM HAVE BEEN ASSUMED TO BE 4'-0" OUTSIDE THE PERIMETER OF THE FOOTING. A ONE FOOT UNDERCUT MAY BE REQUIRED AS DETERMINED NECESSARY BY THE RESIDENT ENGINEER TO REMOVE UNSUITABLE MATERIAL. REPLACE MATERIAL AS NEEDED UNDER ITEM 204.30 GRANULAR BACKFILL FOR STRUCTURES.
3. IF A COFFERDAM IS CONSTRUCTED WHICH IS MORE THAN THE INDICATED MINIMUM DISTANCE OUTSIDE THE FOOTING LIMITS, PAYMENT FOR ALL UNCLASSIFIED CHANNEL EXCAVATION INCLUDING THAT PORTION WHICH IS INSIDE THE COFFERDAM BUT OUTSIDE THE MINIMUM COFFERDAM LIMITS SHOWN WILL BE MADE AT THE CONTRACT UNIT PRICE FOR UNCLASSIFIED CHANNEL EXCAVATION.
4. REMOVE SHEETING COMPLETELY UPON REMOVAL OF COFFERDAM.
5. THE CONTRACTOR'S COFFERDAM DESIGN SHALL BE SUBMITTED TO THE RESIDENT ENGINEER FOR REVIEW AT LEAST ONE MONTH PRIOR TO THE BEGINNING OF CONSTRUCTION OF THE COFFERDAM.
6. THE COFFERDAM WILL BE PAID FOR UNDER ITEM NO. 208.40 "COFFERDAM". THE COFFERDAM SHALL BE IN ACCORDANCE WITH SECTION 208 OF THE SPECIAL PROVISIONS.

TRAFFIC DATA
FUNCTIONAL CLASSIFICATION - MINOR COLLECTOR
INFORMATION NOT READILY AVAILABLE
BRIDGE CURRENTLY CLOSED TO TRAFFIC



TYPICAL PIER SECTION

N. T. S.



TYPICAL ABUTMENT 2 SECTION

(NOT TO SCALE)



HYDROLOGIC DATA Date: 12/15/02
 DRAINAGE AREA: 896 square miles
 CHARACTER OF TERRAIN: Open valleys to forested rolling hills and mountains
 STREAM CHARACTERISTICS: Perennial, low valley relief and wide floodplain
 NATURE OF STREAMBED: Silt, sand, gravel to cobble

PEAK FLOW DATA

Q 2.33 =	14,800 cfs	Q 50 =	30,250 cfs
Q 10 =	22,800 cfs	Q 100 =	33,550 cfs
Q 25 =	27,000 cfs	Q 500 =	46,650 cfs

DATE OF FLOOD OF RECORD: November, 1927
 ESTIMATED DISCHARGE: Unknown
 WATER SURFACE ELEV.: Unknown
 NATURAL STREAM VELOCITY: @ Q50 = 6.3 fps
 ICE CONDITIONS: Moderate
 DEBRIS: Moderate
 DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? No
 IS ORDINARY RISE RAPID? No
 IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No
 IF YES, DESCRIBE:

WATERSHED STORAGE: LOX HEADWATERS: UNIFORM: X
 IMMEDIATELY ABOVE SITE:

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: Pin Connected Pratt Iron Truss
 YEAR BUILT: 1893
 CLEAR SPAN (NORMAL TO STREAM): 130 ft
 VERTICAL CLEARANCE ABOVE STREAMBED: 27.8 ft (maximum)
 WATERWAY OF FULL OPENING: 3090 sf
 DISPOSITION OF STRUCTURE: Rehabilitate
 TYPE OF MATERIAL UNDER SUBSTRUCTURE: Refer to boring logs

WATER SURFACE ELEVATIONS AT:

Q2.33 =	859.8 ft	VELOCITY =	6.8 fps
Q10 =	867.7 ft		9.4 fps
Q25 =	863.0 ft		8.5 fps
Q50 =	863.9 ft		7.7 fps
Q100 =	864.7 ft		7.1 fps

LONG TERM STREAMBED CHANGES: VAOT survey shows 4 feet of scour through the bridge area.

IS THE ROADWAY OVERTOPPED BELOW Q100: Yes
 FREQUENCY: Q2.33
 RELIEF ELEVATION: 860 ft
 DISCHARGE OVER ROAD @Q100: 13,400 cfs

DESIGN CRITERIA:

1. DESIGN LIVE LOAD AASHTO TRUSS HS20 POSTED LEVEL (0.67 YIELD), VOIDED SLAB HS25
2. DESIGN SPAN TRUSS 150'-6", VOIDED SLAB 40'
3. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 4 KSF ON LEDGE 10 K/SF
4. ALLOWABLE LOAD FOR PILING 100 KIPS TYPE HP14 x 73 A 572 GRADE 42 ESTIMATED LENGTH AT PIER - AVERAGE 55 FT.
5. STRUCTURAL STEEL AASHTO GRADE M270 GRADE 50 GALVANIZED & PAINTED AT ABUTMENT 1 - AVERAGE 80 FT
6. REINFORCING STEEL GRADE 60
7. CONCRETE, HIGH PERFORMANCE CLASS AA f'_c : 4000 PSI
 CONCRETE, HIGH PERFORMANCE CLASS A f'_c : 4000 PSI
 CONCRETE, HIGH PERFORMANCE CLASS B f'_c : 3500 PSI

TRAFFIC MAINTENANCE:

1. IS TRAFFIC TO BE MAINTAINED? NO IF YES, ON EXISTING STRUCTURE N/A OR ON TEMPORARY BRIDGE N/A
2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY N/A TRAFFIC CONTROL SIGNALS REQUIRED N/A

ARE SIDEWALKS REQUIRED? N/A IF SO, ON WHAT SIDE? N/A

TRUSS LOAD FACTOR LOAD RATING (TONS)

LOADING LEVELS (LOAD FACTOR)	TRUCK						
	H	HS	352	6 AXLE	3A.STR.	4A.STR.	5A. SEMI
INVENTORY A=2.17s B=1.00	15	26					
POSTED A=1.55s B=1.40	21	37	41		29	32	39
OPERATING A=1.30s B=1.67		44	48	50	34	39	

STRENGTH $RF = \frac{\phi M_n - 1.3 M_{DL}}{A \times M_{LL+I}}$ SERVICEABILITY $RF = B \left[\frac{.95 F_y S_{LL+I} - M_{DL} S_{LL+I} - M_{50k} S_{50k}}{1.67 M_{LL+I}} \right]$

VOIDED SLAB LOAD FACTOR LOAD RATING (TONS)

LOADING LEVELS (LOAD FACTOR)	TRUCK						
	H	HS	352	6 AXLE	3A.STR.	4A.STR.	5A. SEMI
INVENTORY A=2.17s B=1.00	33	47					
POSTED A=1.55s B=1.40	47	65	89		52	56	83
OPERATING A=1.30s B=1.67		105	145	138	85	90	

FOR STRENGTH AND SERVICEABILITY RATING EQUATIONS SEE SEC. 6.6.3.3 OF THE MANUAL FOR CONDITION EVALUATION OF BRIDGES

UPSTREAM STRUCTURE

TOWN: Bloomfield, VT / Stratford, NH DISTANCE: 9.2 miles
 HIGHWAY #: VT 105 STRUCTURE #: 029/206 NH
 CLEAR SPAN: Unknown CLEAR HEIGHT: Unknown
 YEAR BUILT: 1947 FULL WATERWAY: Unknown
 STRUCTURE TYPE: Plate girders with concrete deck

DOWNSTREAM STRUCTURE

TOWN: Gullhall, VT / Northumberland, NH DISTANCE: 12.2 miles
 HIGHWAY #: TH2 STRUCTURE #: 14/059 NH
 CLEAR SPAN: Unknown CLEAR HEIGHT: Unknown
 YEAR BUILT: 1984 FULL WATERWAY: Unknown
 STRUCTURE TYPE: Plate girders with concrete deck

PROPOSED STRUCTURE

STRUCTURE TYPE: Rehabilitate the Existing Truss and add a Concrete slab approach span

CLEAR SPAN (NORMAL TO STREAM): 148 ft
 VERTICAL CLEARANCE ABOVE STREAMBED: 27.4 ft (maximum)
 WATERWAY OF FULL OPENING: 3300 sf

WATER SURFACE ELEVATIONS AT:

Q2.33 =	859.8 ft	VELOCITY =	6.4 fps
Q10 =	865.6 ft		8.5 fps
Q25 =	863.0 ft		7.6 fps
Q50 =	863.9 ft		6.9 fps
Q100 =	864.7 ft		6.4 fps

IS THE ROADWAY OVERTOPPED BELOW Q100: Yes
 FREQUENCY: Q2.33
 RELIEF ELEVATION: 860 ft
 DISCHARGE OVER ROAD @Q100: 13,400 cfs

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: Truss - 864.9 ft
 VERTICAL CLEARANCE: @ Q50 = 1.0 ft (below truss)

SCOUR: No contraction scour and Maximum pier scour of 13 ft @ Q500

REQUIRED CHANNEL PROTECTION: Type IV stone fill

PERMIT INFORMATION

AVERAGE DAILY FLOW: 1900 cfs DEPTH OR ELEVATION:
 ORDINARY LOW WATER: 800 cfs 848 ft
 ORDINARY HIGH WATER: 6350 cfs 857 ft

TEMPORARY BRIDGE REQUIREMENTS

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

ADDITIONAL INFORMATION

The temporary causeway should not be left in place through the winter months.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of MAIDSTONE, VT Bridge No. 1
 STRATFORD, NH Log Sta.
 Highway No. MAIDSTONE STATE HWY Surv. Sta.

PRELIMINARY INFORMATION SHEET

Designed By J. MESSIER Drawn By C. DONOHUE

Checked By Date Bridge Design Supervisor

D. B. SULLIVAN 08/01/03 Date

PROJECT PROJECT NO.
 MAIDSTONE-STRATFORD BHO 1447 (24)

L.G.C. info.

Bridge Sheet No. Sheet 22 of 65

BRIDGE QUANTITY SHEET

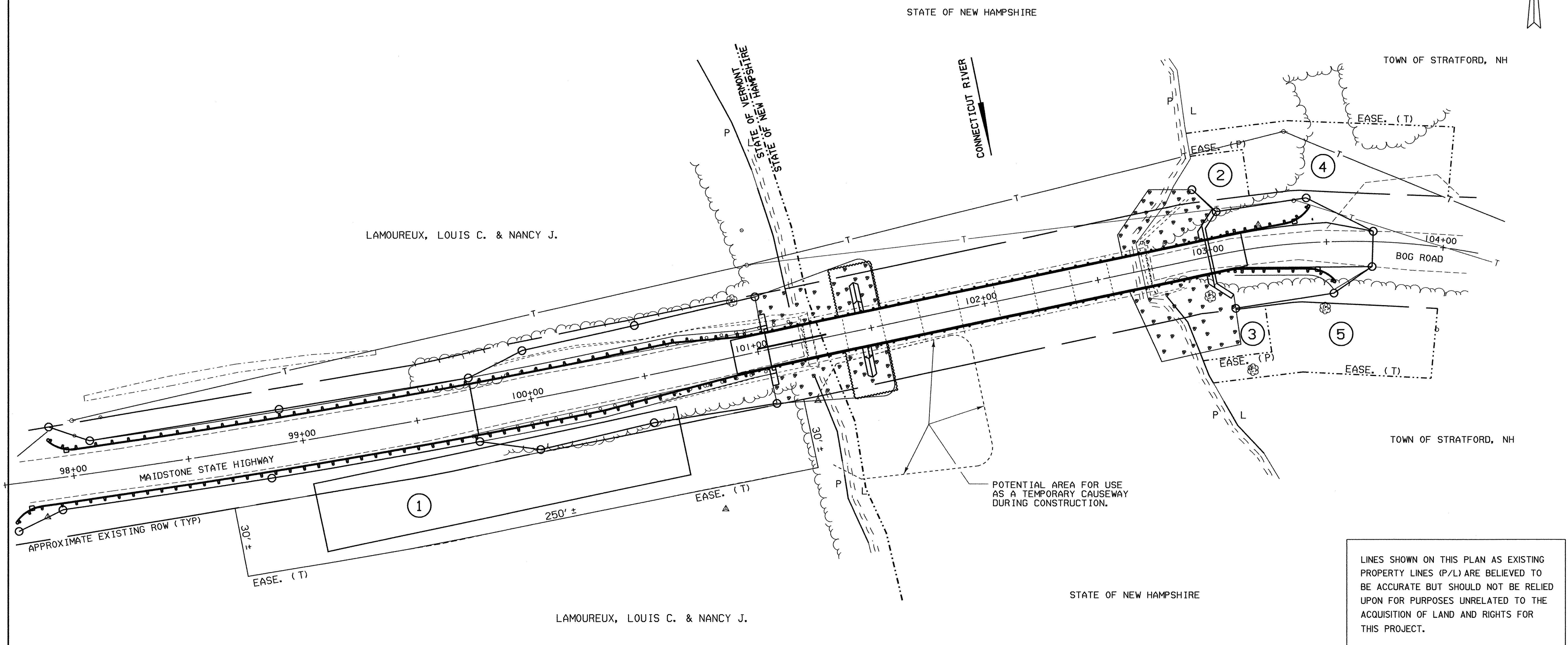
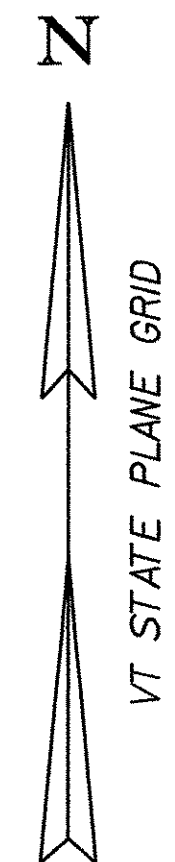
ITEM NO.	ITEM	UNIT	QUANTITY BREAKDOWN								TOTAL	FINAL	ITEM NO.	ITEM	UNIT	QUANTITY BREAKDOWN						TOTAL	FINAL
			SUPER-STRUCTURE	ABUTMENT 1	ABUTMENT 2	APPROACH SLAB 1	APPROACH SLAB 2	PIER	CHANNEL	ROADWAY						SUPER-STRUCTURE	CHANNEL	ROADWAY	EROSION CONTROL	FULL E & C	EMPLOYEE TRAINEESHIP		
201.10	CLEARING AND GRUBBING (PLUS INDIVIDUAL TREES AND STUMPS)	LS								1	1		531.10	BEARING DEVICE ASSEMBLY (TRUSS BEARING)	EA	4						4	
203.15	COMMON EXCAVATION	CY									540	540	531.10	BEARING DEVICE ASSEMBLY (DECK EXP. BEARING)	EA	8						8	
203.27	UNCLASSIFIED CHANNEL EXCAVATION	CY		170	320						490	490	531.10	BEARING DEVICE ASSEMBLY (UNREINFORCED ELASTOMERIC PAD AT FIXED END)	EA	1						1	
203.30	EARTH BORROW	CY									50	50	531.10	BEARING DEVICE ASSEMBLY (FOR VOIDED SLABS)	EA	24						24	
203.31	SAND BORROW	CY									225	225											
204.25	STRUCTURE EXCAVATION	CY		45	415						460	460	613.13	STONE FILL, TYPE IV	CY		830					830	
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY		25	325					90	440	440	621.20	STEEL BEAM GUARD RAIL	LF					463		463	
204.30	GRANULAR BACKFILL FOR STRUCTURES (UNDERCUT REPLACEMENT AT PIER)	CY								40	40	40	621.21	HEAVY DUTY STEEL BEAM GUARD RAIL	LF					100		100	
208.30	COFFERDAM EXCAVATION, EARTH	CY								300	300	300	621.505	MANUFACTURED TERMINAL SECTION (FLARED)	EA					4		4	
208.30	COFFERDAM EXCAVATION, EARTH (UNDERCUT AT PIER)	CY								40	40	40											
208.40	COFFERDAM	LS								1	1	1	621.80	REMOVAL AND DISPOSAL OF GUARD RAIL	LF					250		250	
301.15	SUBBASE OF GRAVEL	CY									310	310	631.10	FIELD OFFICE - ENGINEERS	LS							1	1
404.65	EMULSIFIED ASPHALT	CWT									1.5	1.5	631.16	TESTING EQUIPMENT - CONCRETE	LS							1	1
406.27	MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT (PG 58-34)	TON									105	105	631.17	TESTING EQUIPMENT - BITUMINOUS	LS							0.1	0.1
501.32	CONCRETE, HIGH PERFORMANCE CLASS AA	CY	16								16	16	631.18	TESTING EQUIPMENT - PROTECTIVE COATINGS	LS							1	1
501.33	CONCRETE, HIGH PERFORMANCE CLASS A	CY	4								4	4	631.25	FIELD OFFICE TELEPHONE (NOT A BID ITEM)	LU							1	1
501.34	CONCRETE HIGH PERFORMANCE CLASS B	CY		20	115	10	10	205			360	360	634.10	EMPLOYEE TRAINEESHIP	HR							520	520
504.10	FURNISHING EQUIPMENT FOR DRIVING PILING	LS		1							1	1	635.10	MOBILIZATION	LS					0.9		0.9	0.9
505.17	STEEL PILING (HP 14 X 73)	LF		560				1870			2430	2430	646.40	DURABLE 4" WHITE LINE	LF					620		620	620
505.45	DYNAMIC PILE LOADING TESTS	EA		1				1			2	2	646.46	DURABLE 4" YELLOW LINE	LF					450		450	450
506.50	STRUCTURAL STEEL (ROLLED BEAM) (MOD.)	LB	15000								15000	15000	646.46	DURABLE 24" STOP BAR	LF					20		20	20
506.60	STRUCTURAL STEEL	LB	2300								2300	2300	649.31	GEOTEXTILE UNDER STONE FILL	SY		625					625	625
507.15	REINFORCING STEEL	LB		1180	15670			21280			38130	38130	649.51	GEOTEXTILE FOR SILT FENCE	SY					160		160	160
507.17	EPOXY COATED REINFORCING STEEL	LB	2899	198	43	1038	1038	139			5355	5355	649.61	GEOTEXTILE FOR FILTER CURTAIN	SY					250		250	250
508.15	SHEAR CONNECTORS (68 - 7/8" X 6")	LS						1			1	1	651.15	SEED	LB					30		30	30
510.20	PRESTRESSED CONCRETE MEMBER (18" X 36" VOIDED SLAB)	EA	6								6	6	651.20	AGRICULTURAL LIMESTONE	TON					1		1	1
513.30	STRUCTURAL PAINTING, FIELD APPLIED	LS	1								1	1	651.25	HAY MULCH	TON					1		1	1
513.36	CONTAINMENT & ENVIRONMENTAL PROTECTION, FIELD	LS	1								1	1	651.26	HAY BALES FOR EROSION CONTROL	EA					50		50	50
513.41	SURFACE PREPARATION, FIELD	LS	1								1	1	651.35	TOPSOIL	CY					110		110	110
514.10	WATER REPELLENT	GAL		1	3			3			7	7	651.40	GRUBBING MATERIAL	SY		150					150	150
516.10	BRIDGE EXPANSION JOINT	LF	15.5								15.5	15.5	652.10	EROSION & SEDIMENT CONTROL PLAN	LS					0.5		1	1
519.20	SHEET MEMBRANE WATERPROOFING	SY				30	30				60	60	652.20	MONITORING EROSION & SEDIMENT CONTROL PLAN	HR					40		40	40
522.25	STRUCTURAL LUMBER & TIMBER - TREATED	MFBM	1.9								1.9	1.9	652.30	FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN	LU					0.5		0.5	0.5
522.35	NON-STRUCTURAL LUMBER - TREATED	MFBM	3.9								3.9	3.9	675.20	TRAFFIC SIGNS, TYPE A	SF					112		112	112
522.40	STRUCTURAL GLUED LAMINATED TIMBER	LS	1								1	1		BEGIN OPTION SIGN POSTS									
524.13	JOINT SEALER, COLD POURED	LF		19.5				16			35.5	35.5	675.301	FLANGED CHANNEL SIGN POST	LF					90		90	90
525.33	BRIDGE RAILING-NETC 2 RAIL (MODIFIED)	LF	426								426	426	675.341	SQUARE TUBE SIGN POST AND ANCHOR	LF					90		90	90
529.15	REMOVAL OF STRUCTURE (MODIFIED)	EA	1								1	1		END OPTION SIGN POSTS									
529.20	PARTIAL REMOVAL OF STRUCTURE (MODIFIED, EXISTING TRUSS)	EA	1								1	1											
529.20	PARTIAL REMOVAL OF STRUCTURE (MODIFIED, EXISTING ABUTMENTS)	EA		1							1	1											
529.20	PARTIAL REMOVAL OF STRUCTURE (MODIFIED, EXISTING ABUTMENTS)	EA			1						1	1											

BRIDGE AT STATION STA. 101+04.46 TO STA. 102+99.97
LOCATION _____

PREPARED BY: T. STRNAD
CHECKED BY: J. MESSIER
SUPERVISOR: _____

PROJECT: MAIDSTONE, VT STRATFORD, NH
PROJECT NO: BHO 1447 (24)
BR: 1 OF 1 SHEET NO: 23 OF 65

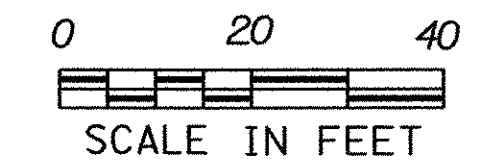
PARCEL NO.	GRANTOR	BEGINNING STATION	ENDING STATION	RIGHTS	REMARKS
1	LAMOUREUX, LOUIS C. & NANCY J.	98+65 RT.	101+15 RT.	EASE. (T) 0.1665A± (7253 SF)	STAGING AREA FOR BRIDGE REHABILITATION
2	TOWN OF STRATFORD, NH	102+84 LT.	103+23 LT.	EASE. (P) 0.0138A± (601 SF)	STONE FILL MAINTENANCE EASEMENT
3	TOWN OF STRATFORD, NH	102+83 RT.	103+18 RT.	EASE. (P) 0.0148A± (645 SF)	STONE FILL MAINTENANCE EASEMENT
4	TOWN OF STRATFORD, NH	103+01 LT.	104+00 LT.	EASE. (T) 0.0669A± (2914 SF)	STAGING AREA FOR BRIDGE REHABILITATION
5	TOWN OF STRATFORD, NH	102+88 RT.	104+00 RT.	EASE. (T) 0.0552A± (2405 SF)	STAGING AREA FOR BRIDGE REHABILITATION

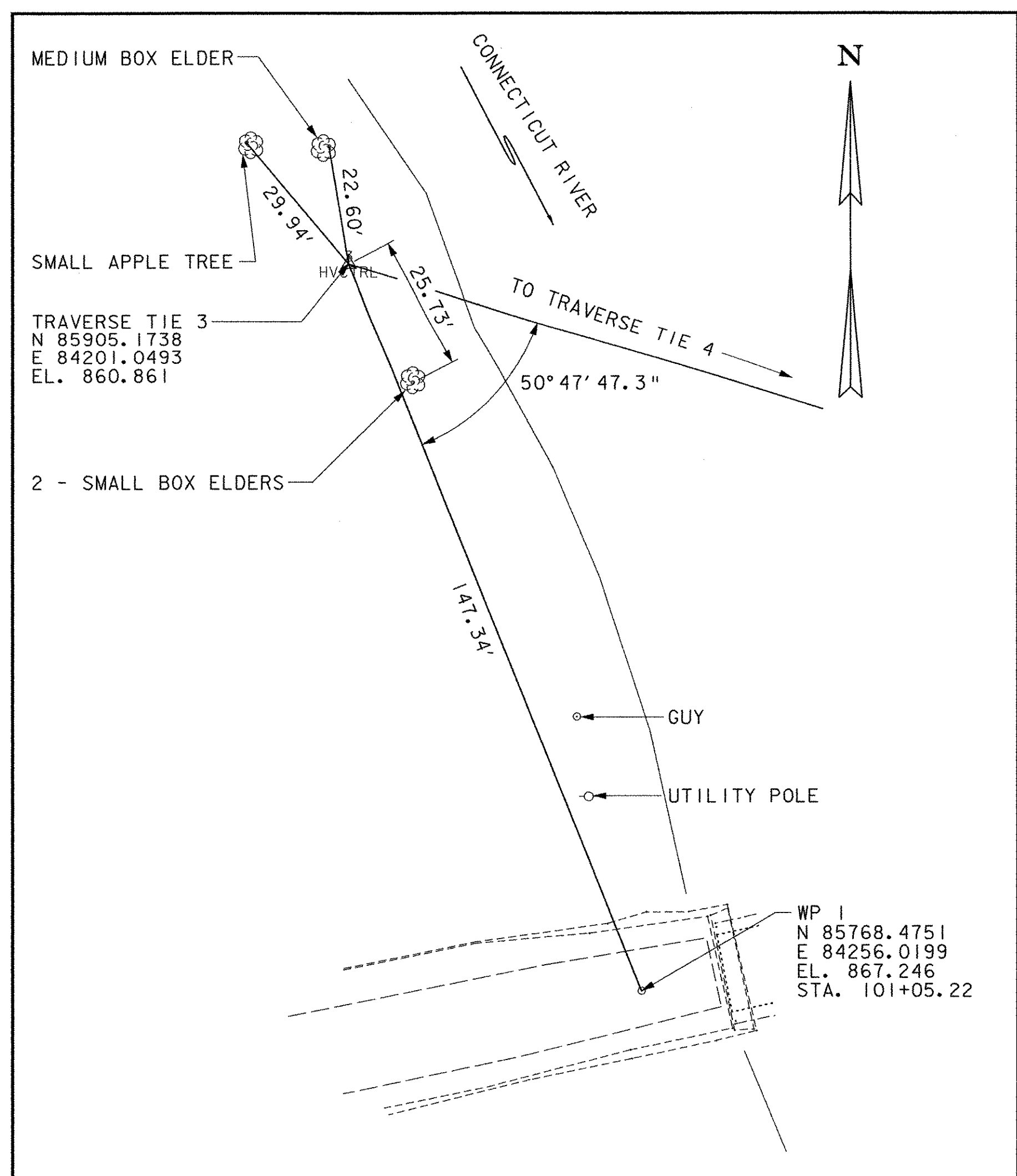


LINES SHOWN ON THIS PLAN AS EXISTING PROPERTY LINES (P/L) ARE BELIEVED TO BE ACCURATE BUT SHOULD NOT BE RELIED UPON FOR PURPOSES UNRELATED TO THE ACQUISITION OF LAND AND RIGHTS FOR THIS PROJECT.

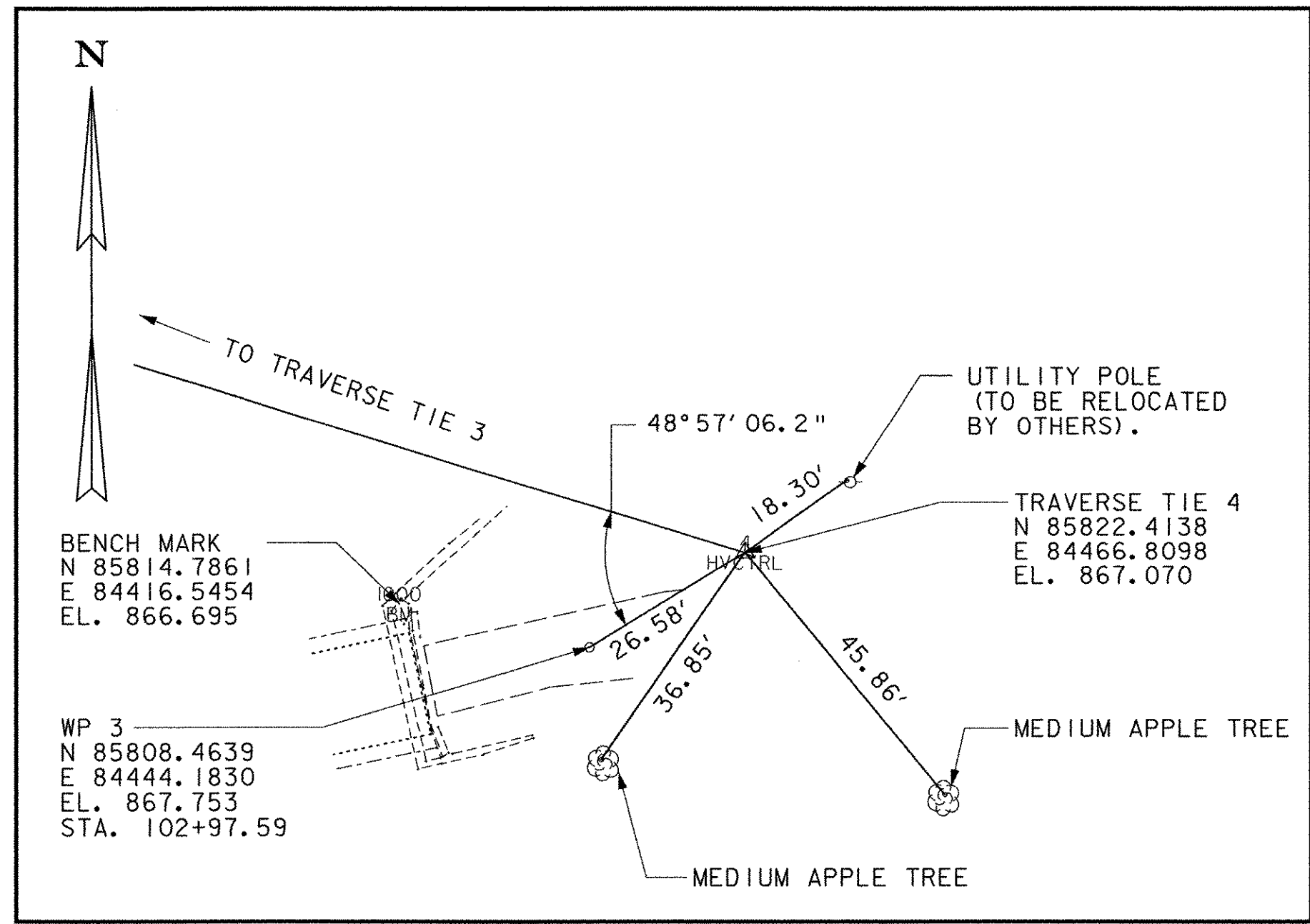
ROW DETAIL SHEET

PROJECT NAME:	Maidstone - Stratford, NH
PROJECT NUMBER:	BHO 1447(24)
FILE NAME:	str5/99e054/rownh.dgn
PROJECT LEADER:	Craig Keller
DESIGNED BY:	
PLOT DATE:	18-AUG-2003
DRAWN BY:	
CHECKED BY:	
SHEET 24 OF 65 SHEETS	

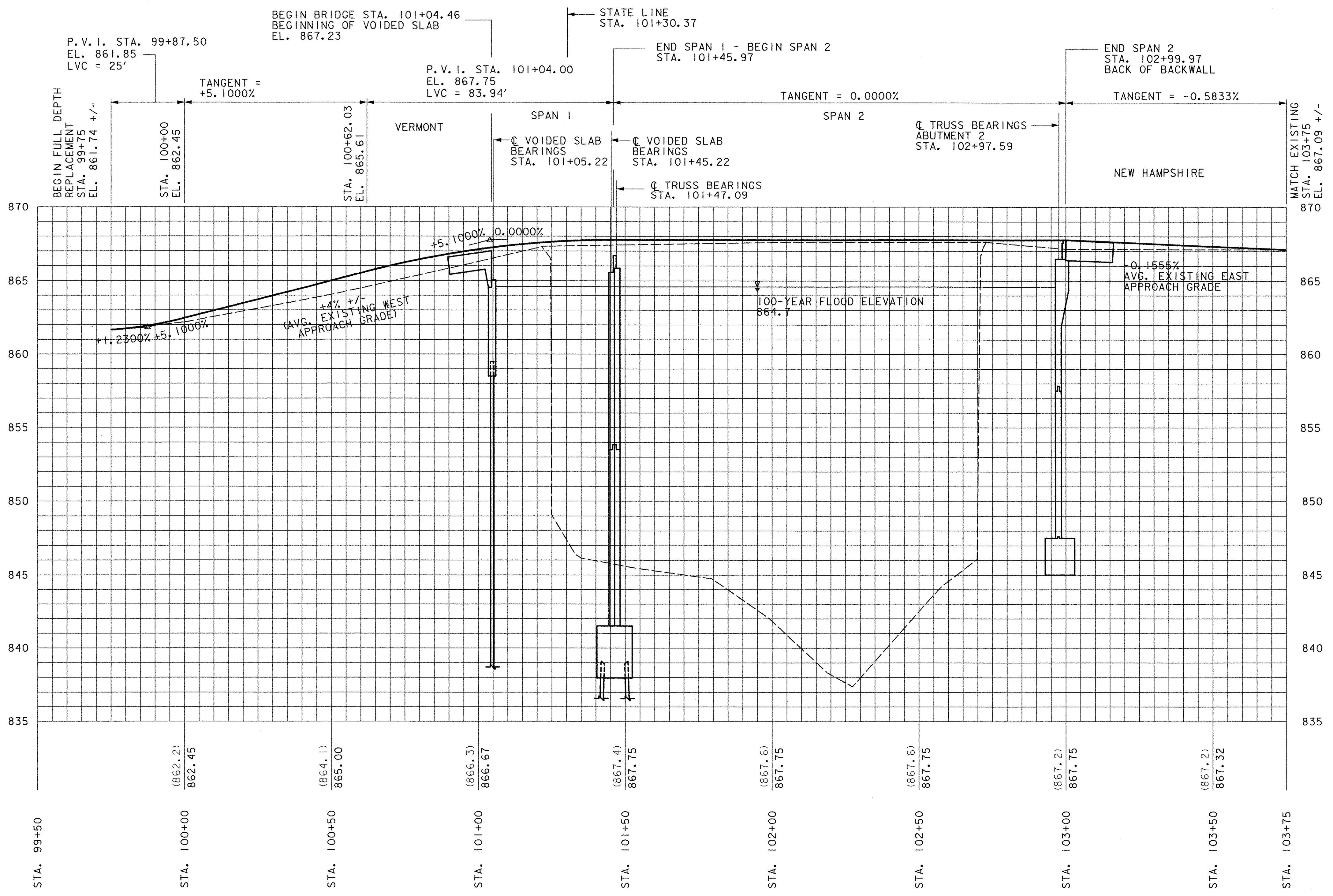




TRAVERSE TIE #3
SCALE: 1" = 20'



TRAVERSE TIE #4
SCALE: 1" = 20'



PROFILE
HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 4'

NOTE:
ELEVATIONS SHOWN IN PARENTHESIS
(0.00) ARE EXISTING ELEVATIONS

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
		Surv. Sta.	

TIE SHEET AND PROFILE

Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
D.B. SULLIVAN 08/01/03			
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
I.G.C. Info.			
Bridge Sheet No.	Sheet 26 of 65		



13 AUG 2003 Pt: 20771\cadd\sgn\ze054file.dgn

MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT (PG 58-34)

STA 98+70 - 101+04
STA 103+00 - 103+75

HEAVY DUTY STEEL BEAM GUARD RAIL

STA 100+45.5 - 100+95.5 LT
STA 100+45.5 - 100+95.5 RT

STEEL BEAM GUARD RAIL

STA 98+20.5 - 100+45.5 LT
STA 98+07.5 - 100+45.5 RT

MANUFACTURED TERMINAL SECTION (FLARED)

STA 97+83 - 98+20.5 LT
STA 97+70 - 98+07.5 RT
STA 103+09 - 103+46.5 LT
STA 103+09 - 103+46.5 RT

REMOVAL AND DISPOSAL OF GUARD RAIL

STA 99+90 - 101+05 LT
STA 99+70 - 101+05 RT

DURABLE 24" STOP BAR

STA 100+62 RT (10' LONG)
STA 103+45 LT (10' LONG)

DURABLE 4" WHITE LINE

STA 98+70 - 101+04.5 SOLID LT & RT
STA 103+00 - 103+75 SOLID LT & RT

DURABLE 4" YELLOW LINE

STA 98+70 - 100+62 DOUBLE SOLID LT & RT
STA 103+45 - 103+75 DOUBLE SOLID LT & RT

UNCLASSIFIED CHANNEL EXCAVATION

ALL EXCAVATION FOR THE INSTALLATION OF STONE FILL, TYPE IV EXCLUDING THAT REQUIRED FOR "PARTIAL REMOVAL OF STRUCTURE (MODIFIED, EXISTING ABUTMENTS)"

PARTIAL REMOVAL OF STRUCTURE (MODIFIED, EXISTING TRUSS)

AS DESCRIBED IN NOTE 8 SHEET 38 (1 EA)

COMMON EXCAVATION

ALL EXCAVATION REQUIRED TO REMOVE STONE WALLS STA 99+90 - 101+00 LT AND STA 100+50 - 101+00 RT
ALL REMAINING EXCAVATION FOR THE CONSTRUCTION OF THE ROADWAY

PARTIAL REMOVAL OF STRUCTURE (MODIFIED, EXISTING ABUTMENTS)

EXISTING WEST ABUTMENT (1 EA)
STA. 101+06 (14' LEFT, 12' RIGHT) TO 101+25 (14' LEFT, 12' RIGHT)
REMOVE STONES AND GRANULAR MATERIAL TO A DEPTH NECESSARY TO INSTALL STONE FILL
SEE SHEETS 62 AND 63
EXISTING EAST ABUTMENT (1 EA)
STA. 102+70 (12' LEFT, 12' RIGHT) TO 102+87 (12' RIGHT) AND 102+96 (27' LEFT)
REMOVE STONES AND GRANULAR MATERIAL TO A DEPTH NECESSARY TO INSTALL STONE FILL
SEE SHEETS 62 AND 63

GUARD RAIL NOTES:

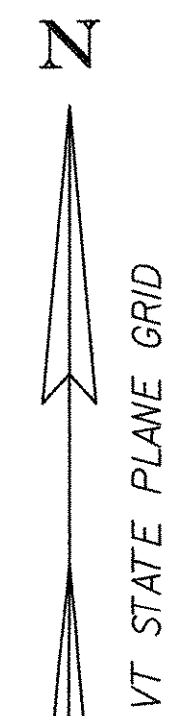
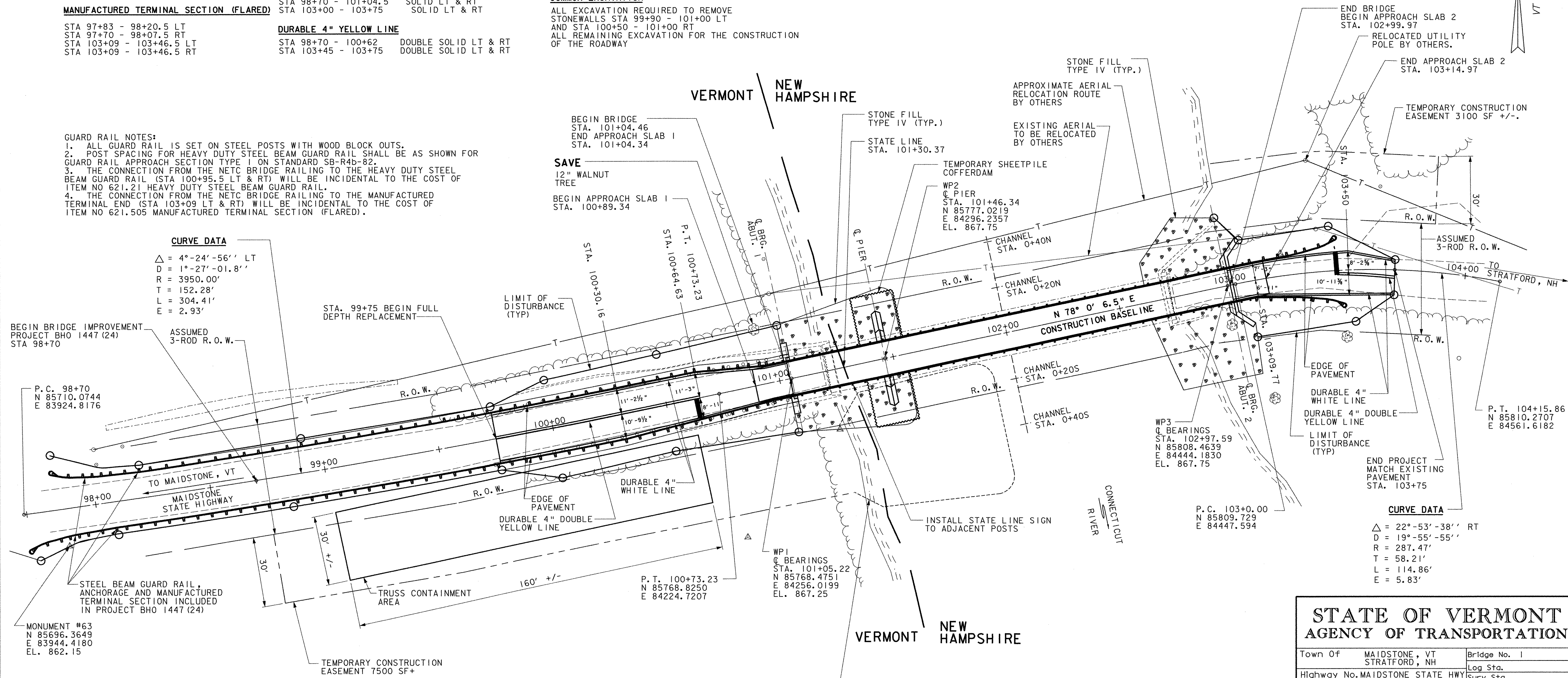
- ALL GUARD RAIL IS SET ON STEEL POSTS WITH WOOD BLOCK OUTS.
- POST SPACING FOR HEAVY DUTY STEEL BEAM GUARD RAIL SHALL BE AS SHOWN FOR GUARD RAIL APPROACH SECTION TYPE 1 ON STANDARD SB-R4b-82.
- THE CONNECTION FROM THE NETC BRIDGE RAILING TO THE HEAVY DUTY STEEL BEAM GUARD RAIL (STA 100+95.5 LT & RT) WILL BE INCIDENTAL TO THE COST OF ITEM NO 621.21 HEAVY DUTY STEEL BEAM GUARD RAIL.
- THE CONNECTION FROM THE NETC BRIDGE RAILING TO THE MANUFACTURED TERMINAL END (STA 103+09 LT & RT) WILL BE INCIDENTAL TO THE COST OF ITEM NO 621.505 MANUFACTURED TERMINAL SECTION (FLARED).

CURVE DATA

$\Delta = 4^{\circ}-24'-56''$ LT
 $D = 1^{\circ}-27'-01.8''$
 $R = 3950.00'$
 $T = 152.28'$
 $L = 304.41'$
 $E = 2.93'$

CURVE DATA

$\Delta = 22^{\circ}-53'-38''$ RT
 $D = 19^{\circ}-55'-55''$
 $R = 287.47'$
 $T = 58.21'$
 $L = 114.86'$
 $E = 5.83'$



BEGIN BRIDGE IMPROVEMENT PROJECT BHO 1447 (24) STA 98+70

P.C. 98+70
N 85710.0744
E 83924.8176

MONUMENT #63
N 85696.3649
E 83944.4180
EL. 862.15

STA. 99+75 BEGIN FULL DEPTH REPLACEMENT

LIMIT OF DISTURBANCE (TYP.)

BEGIN BRIDGE STA. 101+04.46
END APPROACH SLAB 1 STA. 101+04.34

SAVE 12" WALNUT TREE

BEGIN APPROACH SLAB 1 STA. 100+89.34

STONE FILL TYPE IV (TYP.)

STATE LINE STA. 101+30.37

TEMPORARY SHEETPILE COFFERDAM

WP2
Q BEARINGS
STA. 101+46.34
N 85777.0219
E 84296.2357
EL. 867.75

STONE FILL TYPE IV (TYP.)

APPROXIMATE AERIAL RELOCATION ROUTE BY OTHERS

EXISTING AERIAL TO BE RELOCATED BY OTHERS

CHANNEL STA. 0+40N

CHANNEL STA. 0+20N

CHANNEL STA. 0+20S

CHANNEL STA. 0+40S

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

R.O.W.

P.C. 103+0.00
N 85809.729
E 84447.594

WP3
Q BEARINGS
STA. 102+97.59
N 85808.4639
E 84444.1830
EL. 867.75

WP2
Q BEARINGS
STA. 101+46.34
N 85777.0219
E 84296.2357
EL. 867.75

WP1
Q BEARINGS
STA. 101+05.22
N 85768.4751
E 84256.0199
EL. 867.25

WP2
Q BEARINGS
STA. 101+46.34
N 85777.0219
E 84296.2357
EL. 867.75

WP2
Q BEARINGS
STA. 101+46.34
N 85777.0219
E 84296.2357
EL. 867.75

WP2
Q BEARINGS
STA. 101+46.34
N 85777.0219
E 84296.2357
EL. 867.75

WP2
Q BEARINGS
STA. 101+46.34
N 85777.0219
E 84296.2357
EL. 867.75

WP2
Q BEARINGS
STA. 101+46.34
N 85777.0219
E 84296.2357
EL. 867.75

WP2
Q BEARINGS
STA. 101+46.34
N 85777.0219
E 84296.2357
EL. 867.75

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N 85777.0219
E 84296.2357
EL. 867.75

WP2
Q BEARINGS
STA. 101+46.34
N 85777.0219
E 84296.2357
EL. 867.75

WP2
Q BEARINGS
STA. 101+46.34
N 85777.0219
E 84296.2357
EL. 867.75

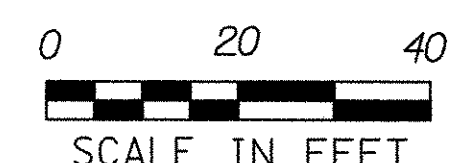
WP2
Q BEARINGS
STA. 101+46.34
N 85777.0219
E 84296.2357
EL. 867.75

WP2
Q BEARINGS
STA. 101+46.34
N 85777.0219
E 84296.2357
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E 84296.2357
EL. 867.75

WP2
Q BEARINGS
STA. 101+46.34
N 85777.0219
E 84296.2357
EL. 867.75



STATE OF VERMONT AGENCY OF TRANSPORTATION		
Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No. 1
Highway No.	MAIDSTONE STATE HWY	Log Sta. Surv. Sta.
PLAN SHEET		
Designed By	J. MESSIER	Drawn By C. DONOHUE
Checked By	Date	Bridge Design Supervisor
D.B. SULLIVAN	08/01/03	Date
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO. BHO 1447 (24)
I.G.C. Info.		
Bridge Sheet No.		Sheet 27 of 65

13 AUG 2003 13:20:17 \\cadd\vgm\zoe054gpl.dgn

SOIL CLASSIFICATION

AASHTO

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

ROCK QUALITY DESIGNATION

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

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
250-500	Soft
500-1000	Med. Stiff
1000-2000	Stiff
2000-4000	Very Stiff
>4000	Hard

CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

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

COMMONLY USED SYMBOLS

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

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

DEFINITIONS (AASHTO)

- BEDROCK (LEDGE)** - Rock in its native location of indefinite thickness.
- BOULDER** - A rock fragment with an average dimension > 12 inches.
- COBBLE** - Rock fragments with an average dimension between 3 and 12 inches.
- GRAVEL** - Rounded particles of rock < 3" and > 0.075" (#10 sieve).
- SAND** - Particles of rock < 0.075" (#10 sieve) and > 0.0029" (#200 sieve).
- SILT** - Soil < 0.0029" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.
- CLAY** - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.
- VARVED** - Alternate layers of silt and clay.
- HARDPAN** - Extremely dense soil, cemented layer, not softened when wet.
- MUCK** - Soft organic soil (containing > 10% organic material).
- MOISTURE CONTENT** - Weight of water divided by dry weight of soil.
- FLOWING SAND** - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.
- STRIKE** - Angle from magnetic north to line of intersection of bed with a horizontal plane.
- DIP** - Inclination of bed with a horizontal plane.

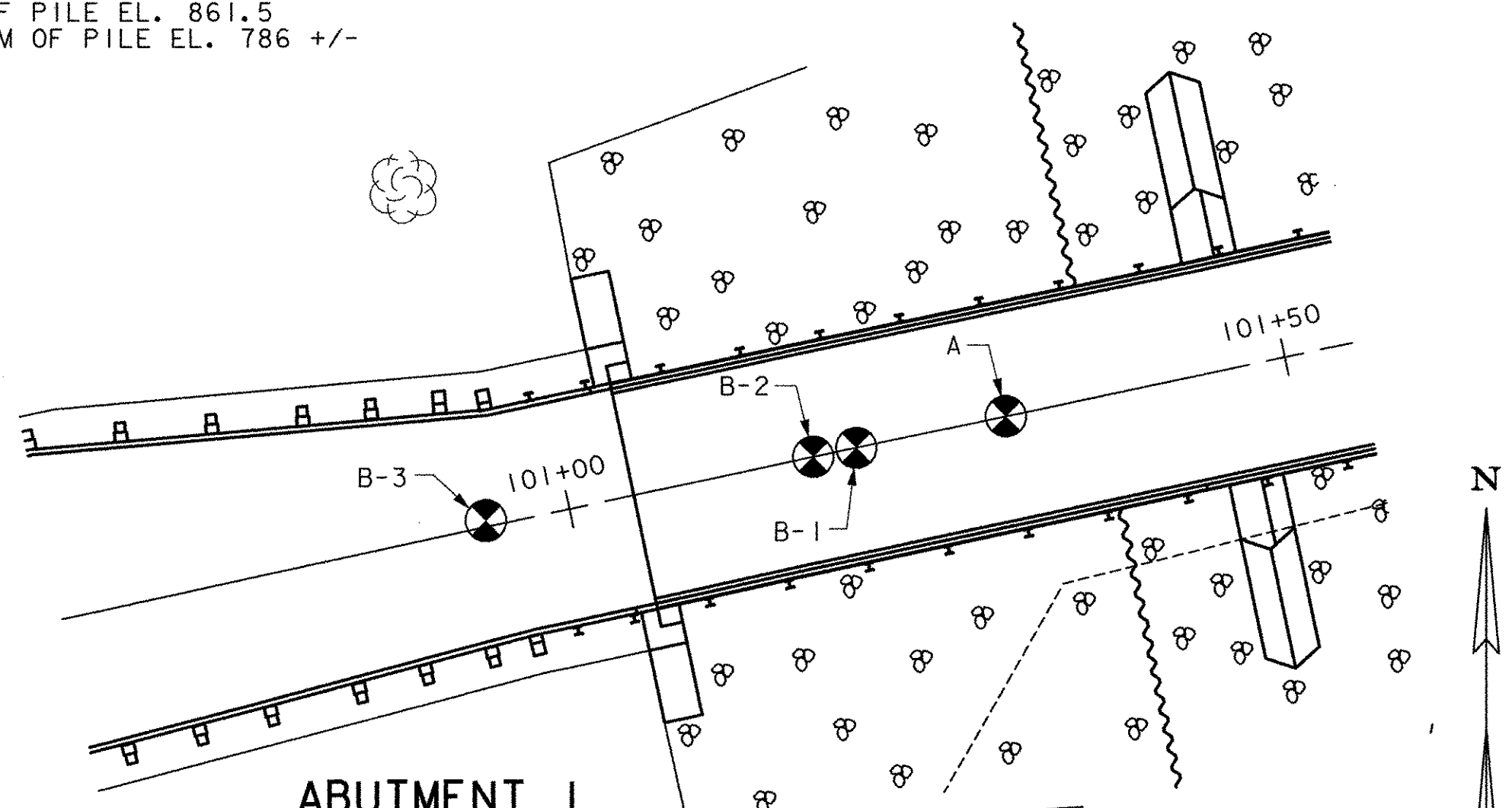
STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION		HOLE NO. 1 B-1	SHEET 1 OF 2	DATE STARTED 3/21/00	DATE COMPLETED 3/30/00
PROJECT NAME: MAIDSTONE SITE NAME: Maidstone-Stratford, NH Bridge SITE NO. 1 Rod Road STATION: 4.2' Behind West Abut. Face OFFSET: 0.00 GROUND EL.: 867.65 G.W. DEPTH: 3.8'					
BORING CREW CREW CHIEF: YOUNG DRILLER: YOUNG LOGGER: RUSSELL					
DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS	BLOW FOOT	M.C. %	GRAVEL SAND %
0					
3	BXDC 3.0'-5.0'	Cleaned-out casing. No Sample-Granite b'cks.			
5	BXDC 5.0'-7.0'	Cored ahead.			
9	BXDC 9.0'-11.0'	Granite blocks.			
12	BXDC 12.0'-14.0'	Granite blocks.			
15	BXDC 15.0'-17.0'	Granite blocks.			
19	BXDC 19.0'-21.0'	Granite blocks.			
23		Broke through granite blocks at 23.0'			
25		No Recovery - Wood.	18		
27	A-2.4, Si, MTW, gry, rec. = 1.15'		17	27	14.6 65.2 20.2
29					
31	A-4, Si, MTW, gry, rec. = 1.05'		24	29.9	2.1 97.9
35					
37	A-4, Si, MTW, gry, rec. = 0.90'		15	29.8	1.9 98.1
41					
43	A-4, Si, MTW, gry, rec. = 1.0'		9	34.2	2.8 97.2
47					

STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION		HOLE NO. 1 B-1	SHEET 2 OF 2	DATE STARTED 3/21/00	DATE COMPLETED 3/30/00
PROJECT NAME: MAIDSTONE SITE NAME: Maidstone-Stratford, NH Bridge SITE NO. 1 Rod Road STATION: 4.2' Behind West Abut. Face OFFSET: 0.00 GROUND EL.: 867.65 G.W. DEPTH: 3.8'					
BORING CREW CREW CHIEF: YOUNG DRILLER: YOUNG LOGGER: RUSSELL					
DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS	BLOW FOOT	M.C. %	GRAVEL SAND %
55		A-4, Si, MTW, gry, rec. = 0.85'	13	33.3	1.3 98.7
59		A-4, Si, MTW, gry, rec. = 1.30'	18	29.6	2 98
63		No Sample			
67		No Recovery	14		
71		Field Classifications Gravel w/5 tones, rec. = 0.25'	23		
75		BXDC 74.0'-75.5' appear to be in Gr./Rock Ref. Advanced casing to 78.0'			
79		BXDC 78.0'-79.0' Same to be in Gr./Rock Ref.			
83		No recovery	32		
APPROX. BOTTOM OF PILE EL. 786 ABUT 1 Hole stopped at 82.0'					

STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION		HOLE NO. 1 B-2	SHEET 1 OF 2	DATE STARTED 3/30/00	DATE COMPLETED 3/30/00
PROJECT NAME: MAIDSTONE SITE NAME: Maidstone-Stratford, NH Bridge SITE NO. 1 Rod Road STATION: 7.2' Behind West Abut. Face OFFSET: 0.00 GROUND EL.: 867.29 G.W. DEPTH: 13.20'					
BORING CREW CREW CHIEF: YOUNG DRILLER: YOUNG LOGGER: RUSSELL					
DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS	BLOW FOOT	M.C. %	GRAVEL SAND %
55		No recovery, stone in sampler.	55		
59		A-4, Si, MTW, gry, rec. = 1.25'	24	23.3	0.8 58 41.2
63		BXDC 11.5'-13.0'-Granite blocks.			
67		BXDC 14.0'-16.0'-Granite blocks.			
71		BXDC 17.0'-19.0'-Granite blocks.			
75		BXDC 19.5'-21.5'-Granite end Wood.			
79		A3, Se, M, gry, rec. = 1.25'	22	20.4	10.1 83.3 6.6
83		A3, Se, M, gry, rec. = 1.90'	30	16.7	12.7 78.7 8.6
87		A4, Si, MTW, gry, rec. = 1.50'	14	32.7	1 99
91		A4, Si, MTW, gry, rec. = 1.25'	13	33.5	0.7 99.3
95		A4, Si, MTW, gry, rec. = 1.50'	9	33.7	0.8 99.2

STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION		HOLE NO. 1 B-2	SHEET 2 OF 2	DATE STARTED 3/30/00	DATE COMPLETED 3/30/00
PROJECT NAME: MAIDSTONE SITE NAME: Maidstone-Stratford, NH Bridge SITE NO. 1 Rod Road STATION: 7.2' Behind West Abut. Face OFFSET: 0.00 GROUND EL.: 867.29 G.W. DEPTH: 13.20'					
BORING CREW CREW CHIEF: YOUNG DRILLER: YOUNG LOGGER: RUSSELL					
DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS	BLOW FOOT	M.C. %	GRAVEL SAND %
55		A4, Si, MTW, gry, rec. = 0.80'	13	32.3	1.1 98.9
59		A4, Si, MTW, gry, rec. = 1.00'	14	30.5	0.9 99.1
Hole Stopped at ST. 0'					
APPROX. BOTTOM OF PILE EL. 786 ABUT 1					

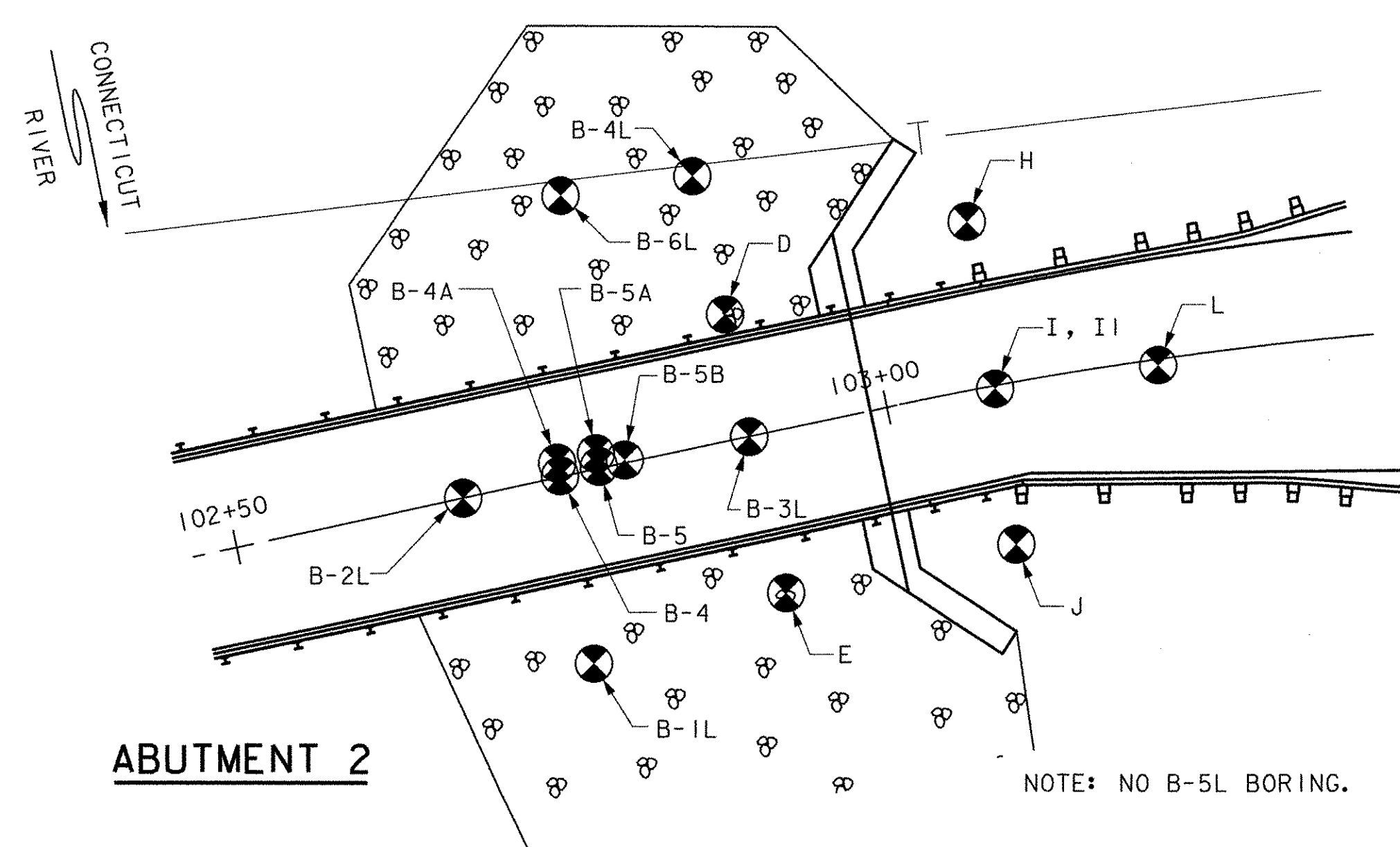
ABUTMENT 1
BOTTOM OF FOOTING EL. 858.5
TOP OF PILE EL. 861.5
BOTTOM OF PILE EL. 786 +/-



BORINGS B-1, B-2, B-3, B-4, B-4A, B-5, B-5A, & B-5B DONE ON 03/27/01 - 04/12/01.
BORINGS B-1L, B-2L, B-3L, B-4L, & B-6L DONE ON 03/12/01 - 04/05/01.
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NOTE: NO B-5L BORING.

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of MAIDSTONE, VT
STRAFORD, NH
Highway No. MAIDSTONE STATE HWY

Bridge No. 1
Log Sta.
Surv. Sta.

BORING SHEET 1	
Designed By J. MESSIER	Drawn By C. DONOHUE
Checked By Date	Bridge Design Supervisor
D.B. SULLIVAN 08/01/03	Date
PROJECT MAIDSTONE-STRATFORD	PROJECT NO. BHO 1447 (24)
I.G.C. Info.	
Bridge Sheet No.	Sheet 28 of 65



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
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ROCK QUALITY DESIGNATION

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

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
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2000-4000	Very Stiff
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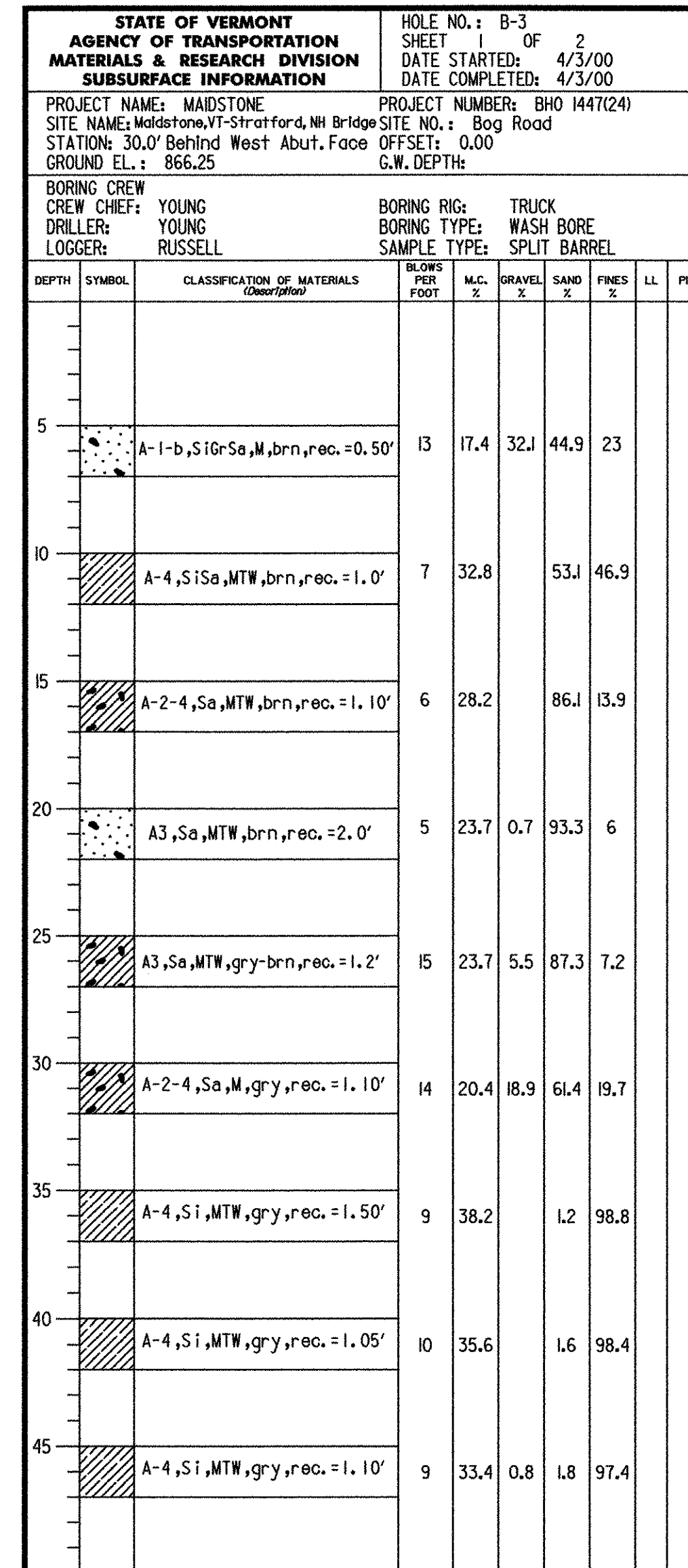
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DENSITY (GRANULAR SOILS)	CONSISTENCY (COHESIVE SOILS)
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5-10	Loose
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25-50	Dense
>50	Very Dense
N	DESCRIPTIVE TERM
<2	Very Soft
2-4	Soft
5-8	Med. Stiff
9-15	Stiff
16-30	Very Stiff
31-60	Hard
>60	Very Hard

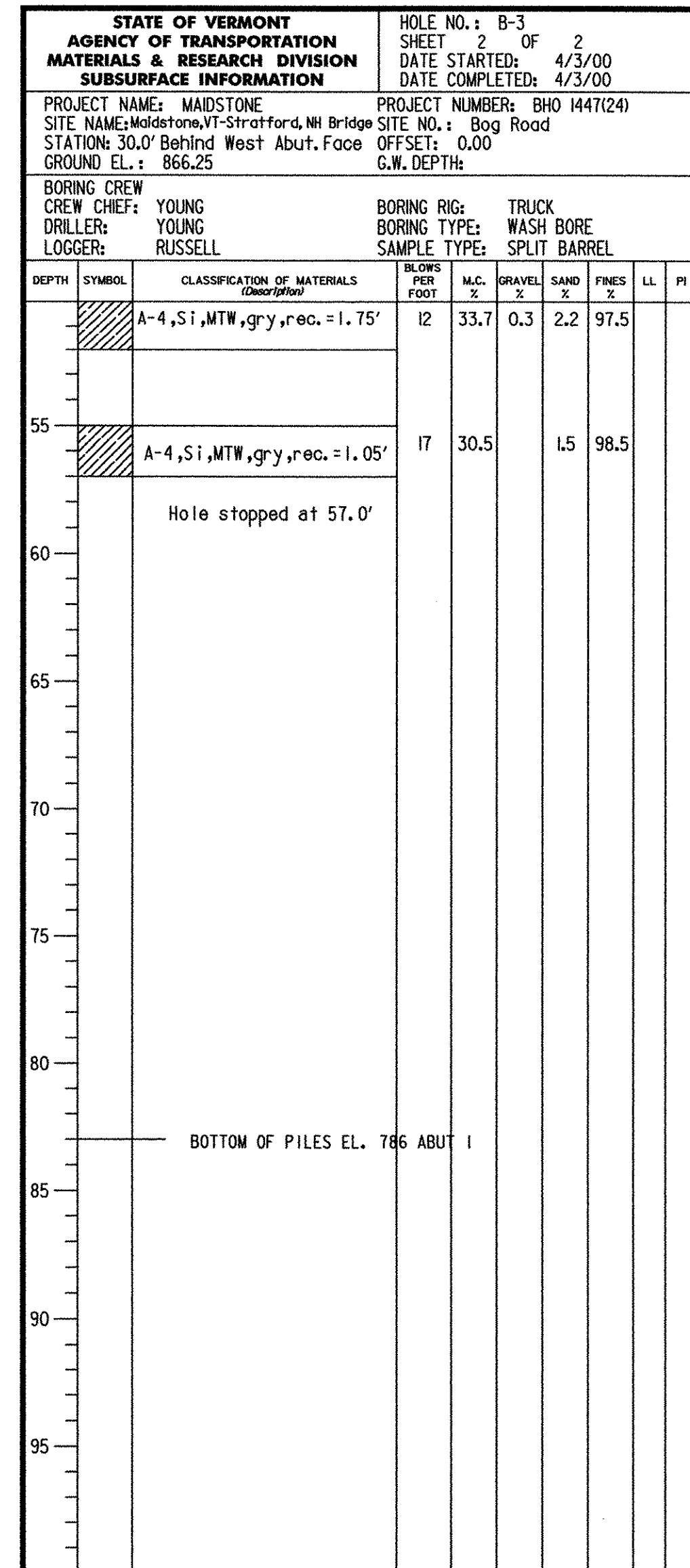
COMMONLY USED SYMBOLS

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

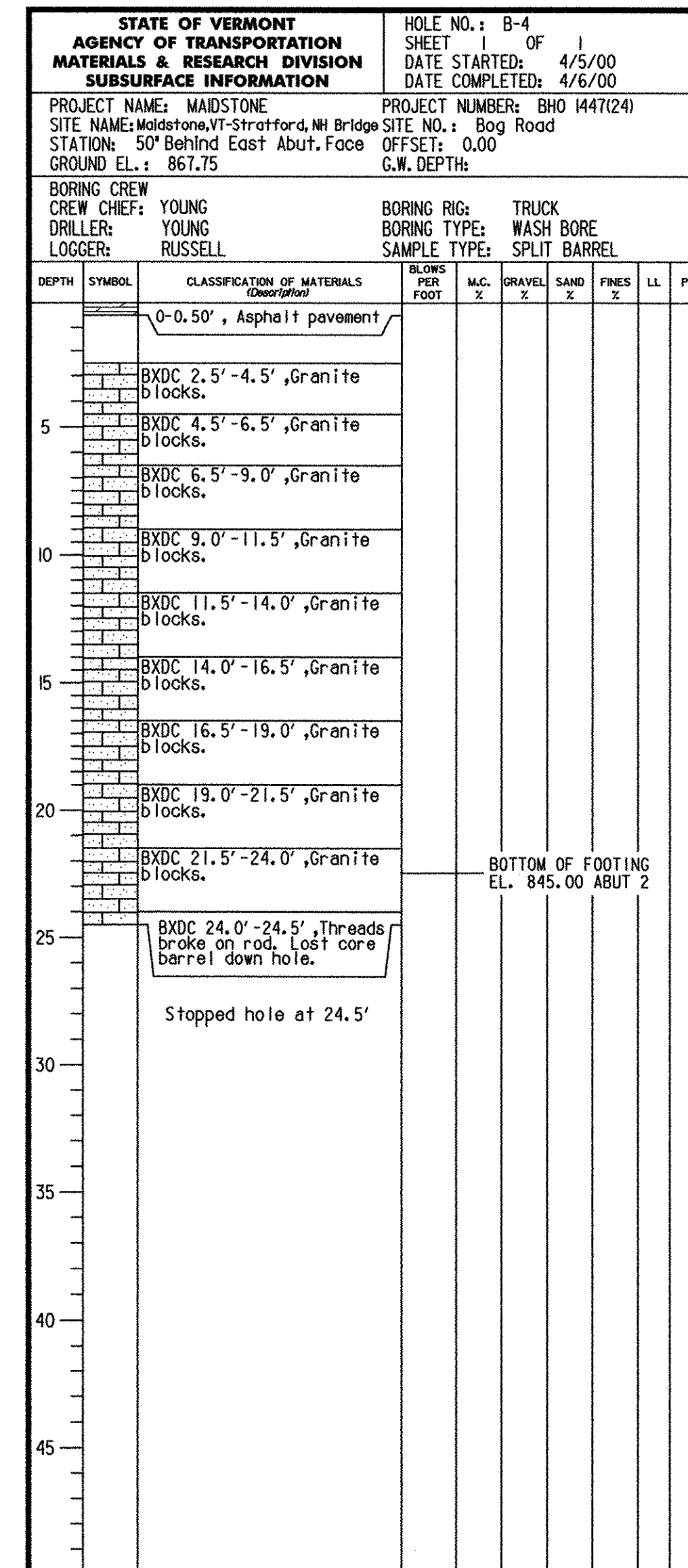
COLOR	
bk	Black
bl	Blue
brn	Brown
dk	Dark
gry	Gray
gn	Green
lt	Light
or	Orange
pnk	Pink
pu	Purple
rd	Red
tn	Tan
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yel	Yellow
mtc	Multicolored



ABUTMENT 1
 BOTTOM OF FOOTING EL. 858.5
 TOP OF PILE EL. 861.5
 BOTTOM OF PILE EL. 786 +/-



ABUTMENT 2, WW3 & WW4
 BOTTOM OF FOOTING EL. 845.00



ABUTMENT 2, WW3 & WW4
 BOTTOM OF FOOTING EL. 845.00

BORING	STA.	OFFSET	BORING	STA.	OFFSET
B1	101+20	CL	B-4L	102+90	20' LT
B2	101+17	CL	B-6L	102+78	20' LT
B3	101+94	CL	A	101+30	CL
B4	102+75	CL	D	102+90	10' LT
B5	102+75	CL	E	102+90	12' RT
B-4A	102+75	1' LT	H	103+08	13' LT
B-5A	102+78	1' LT	I, II	103+08	CL
B-5B	102+80	CL	J	103+08	13' RT
B-1L	102+75	14' RT	L	103+20	CL
B-2L	102+68	CL			
B-3L	102+90	CL			

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- SAND** - Particles of rock < 0.075" (#10 sieve) and > 0.0025" (#200 sieve).
- SILT** - Soil < 0.0025" (#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.
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STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	MAIDSTONE, VT	Bridge No.	1
	STRATFORD, NH	Log Sta.	
Highway No.	MAIDSTONE STATE HWY	Surv. Sta.	
BORING SHEET 2			
Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
D. B. SULLIVAN	08/01/03		
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
I.G.C. Info.			
Bridge Sheet No.		Sheet	29 of 65



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R.O.D. (%)	ROCK DESCRIPTION
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SHEAR STRENGTH

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COMMONLY USED SYMBOLS

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⊕	Auger Boring
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gry	Gray
gn	Green
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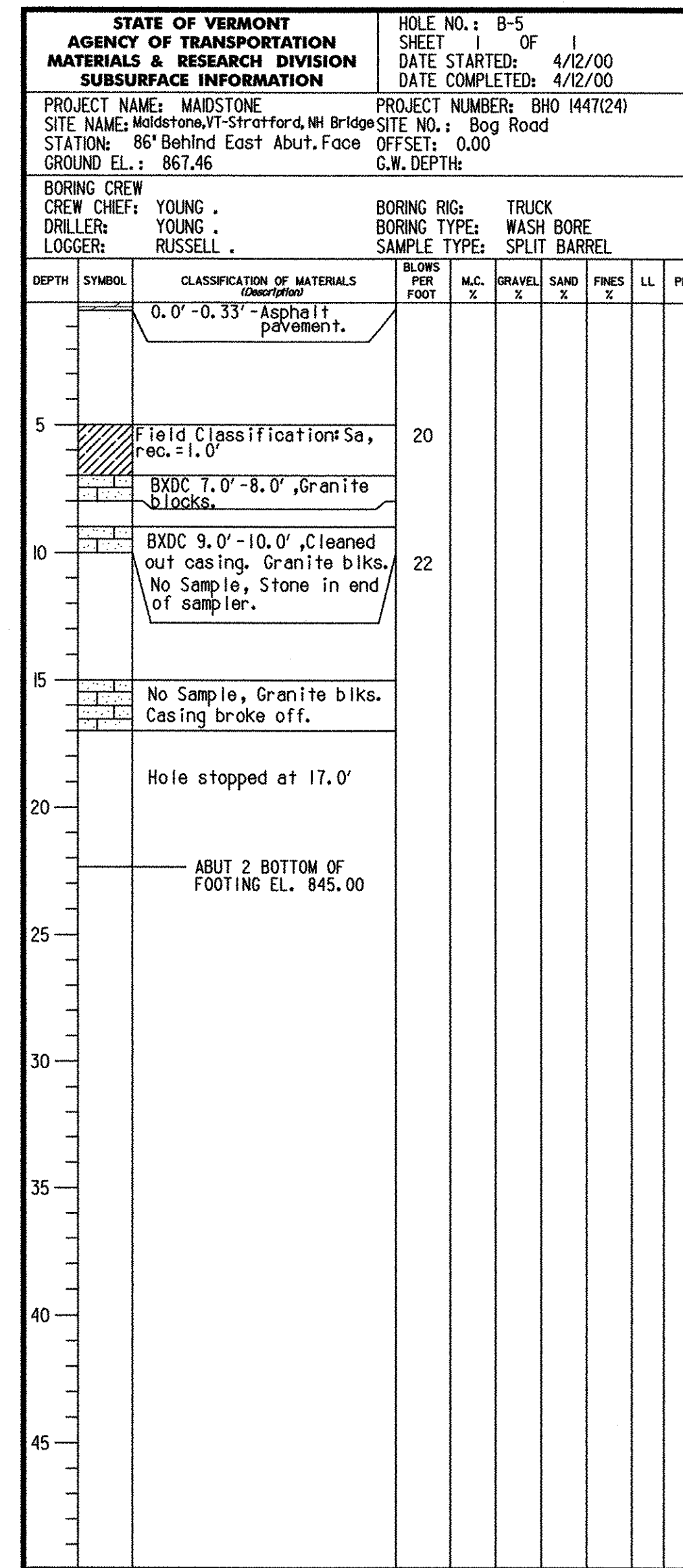
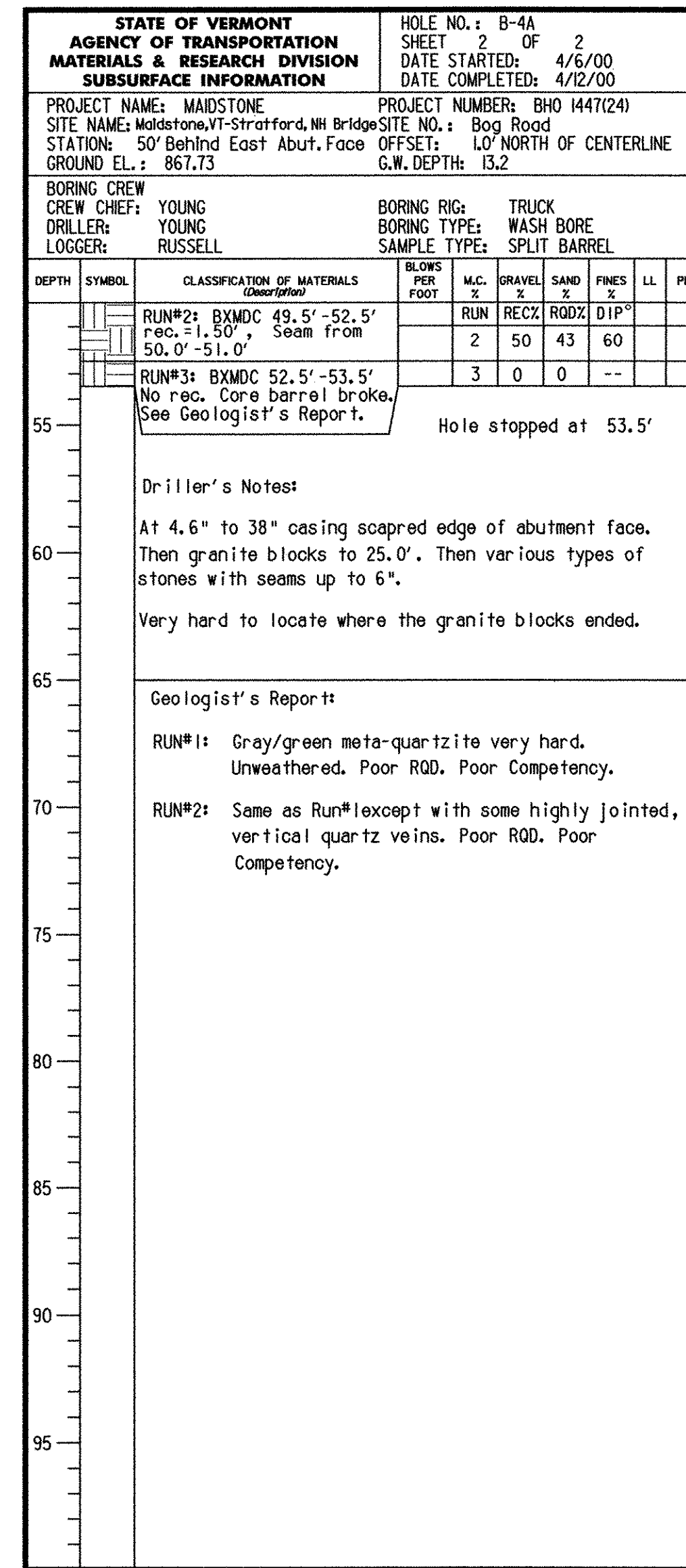
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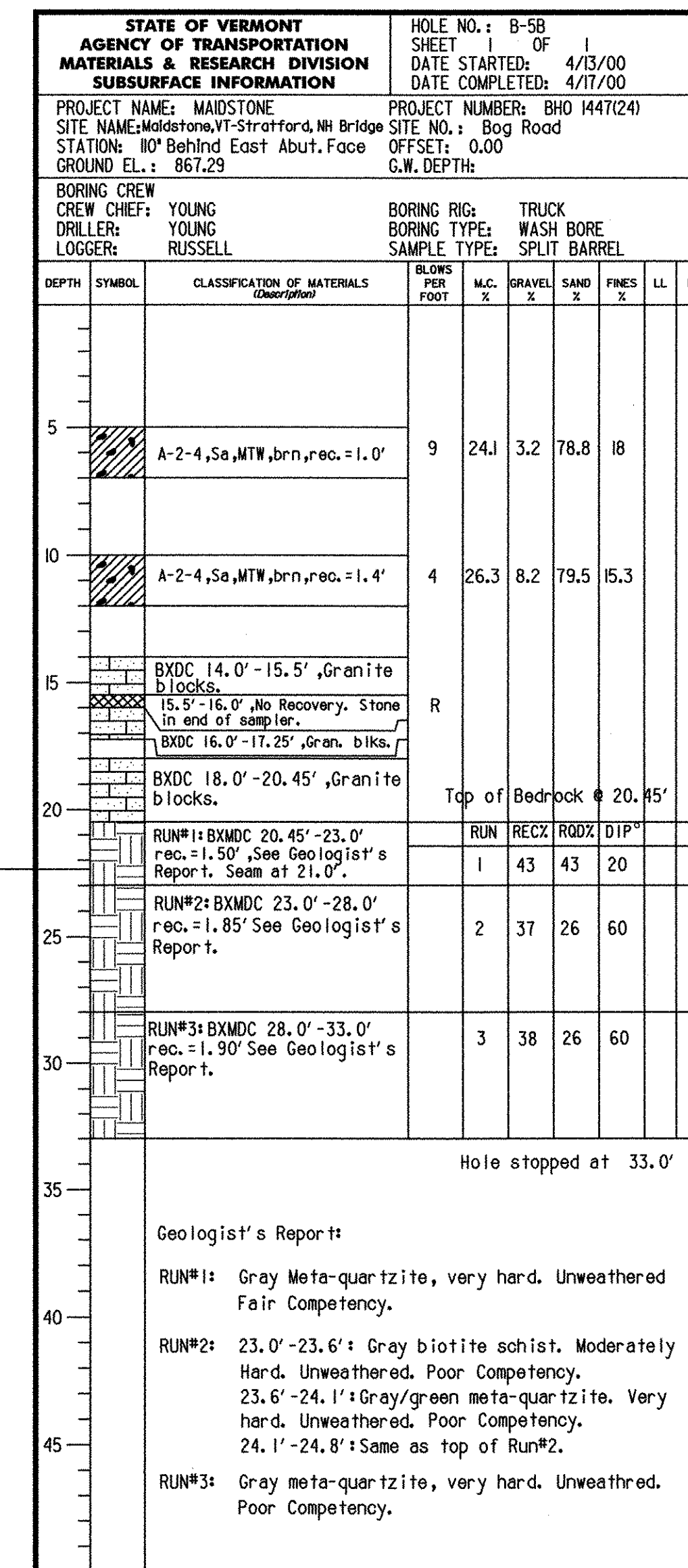
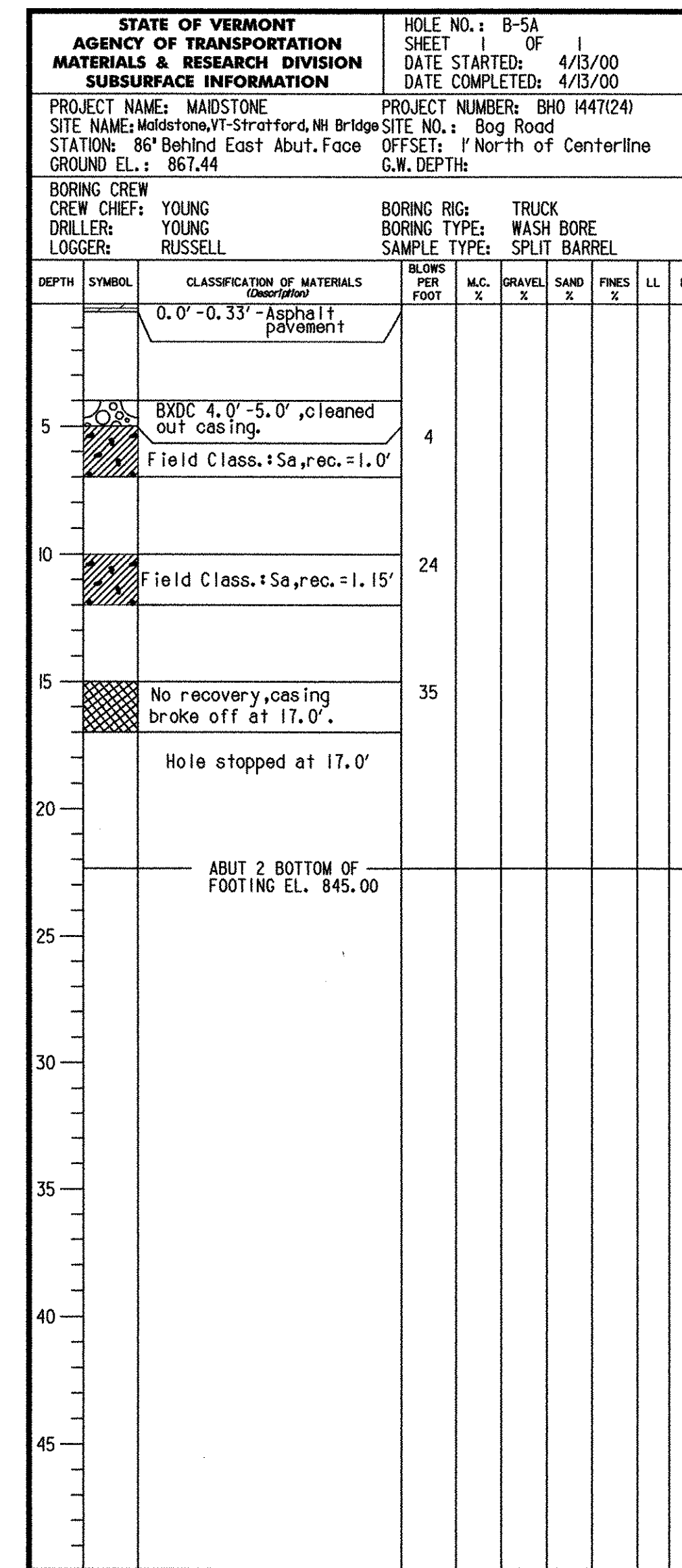
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ABUTMENT 2, WW3 & WW4
BOTTOM OF FOOTING EL. 845.00



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STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	MAIDSTONE, VT	Bridge No.	1
	STRATFORD, NH	Log Sta.	
Highway No.	MAIDSTONE STATE HWY	Surv. Sta.	

BORING SHEET 3

Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
D. B. SULLIVAN	08/01/03		

PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
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I.G.C. Info.	
Bridge Sheet No.	Sheet 30 of 65



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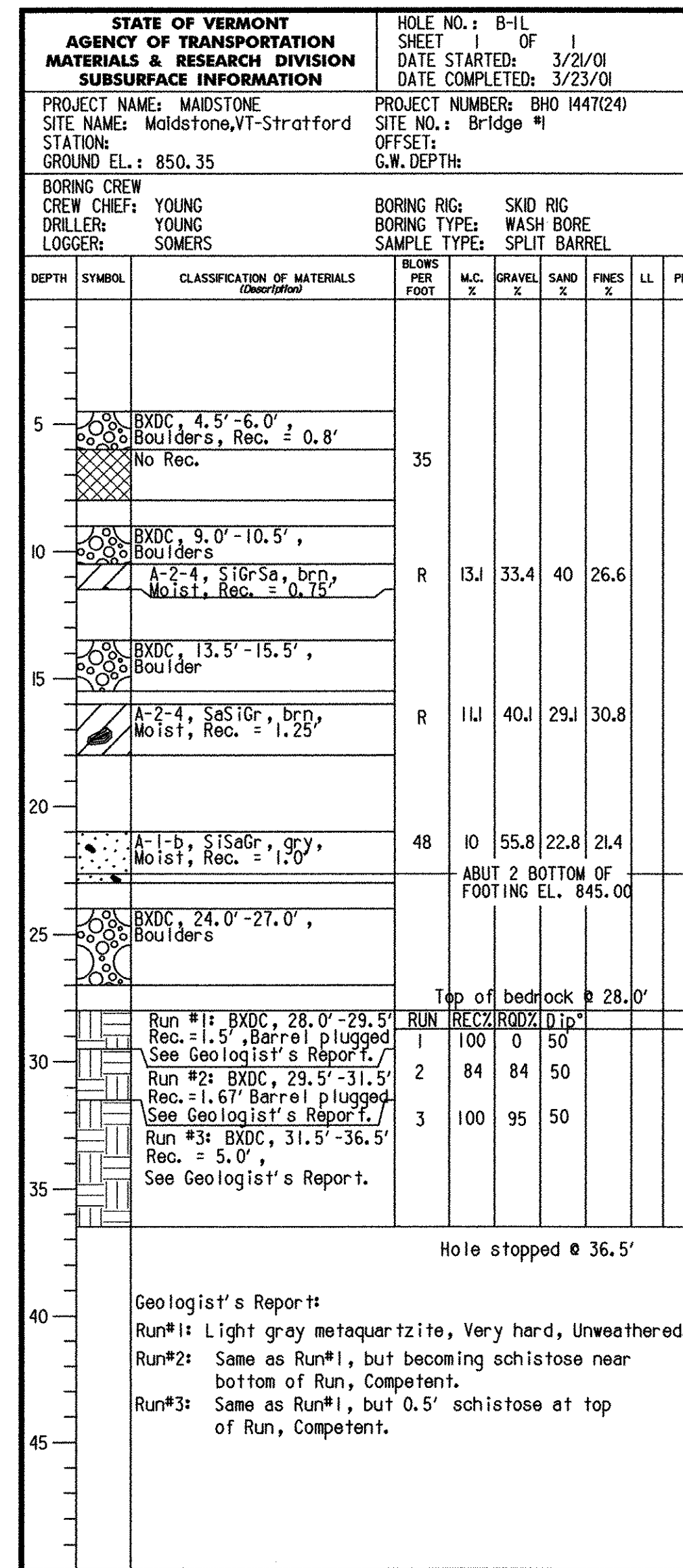
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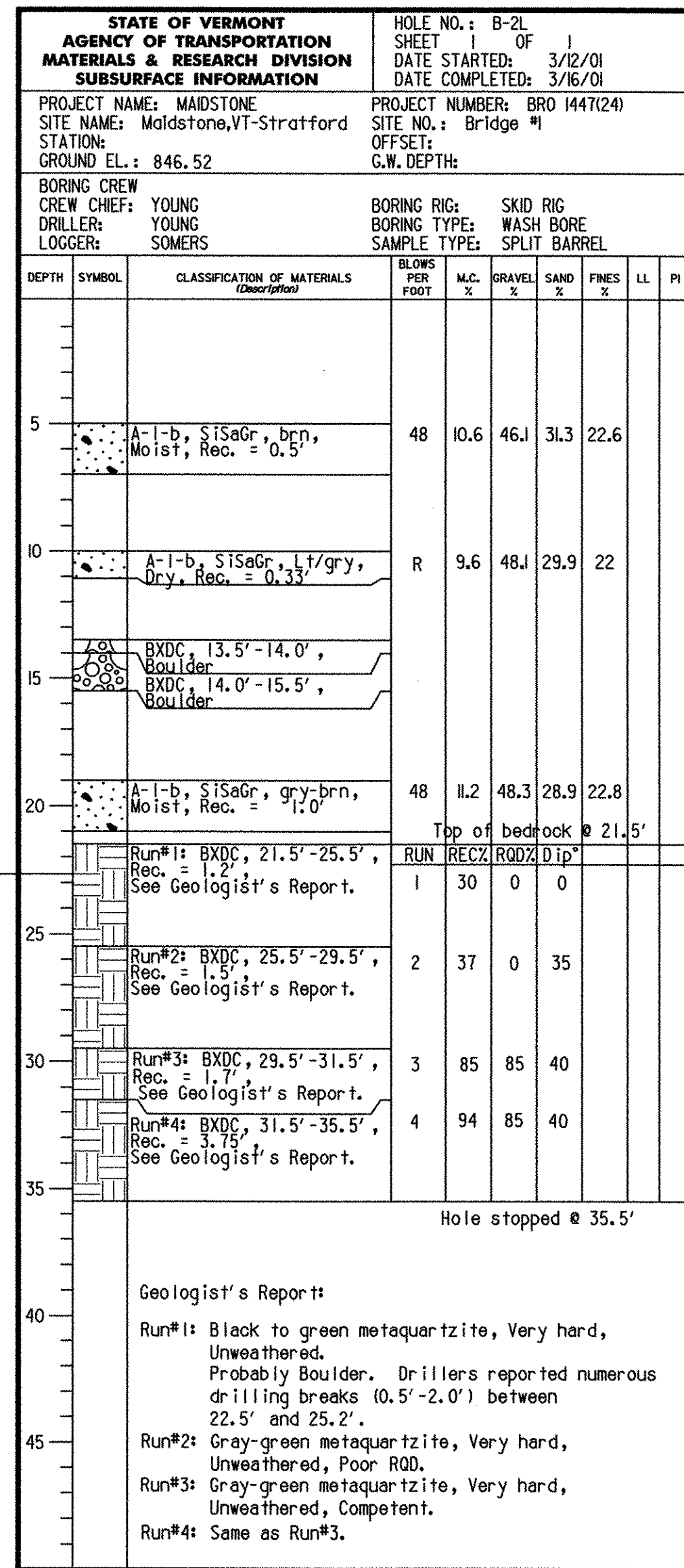
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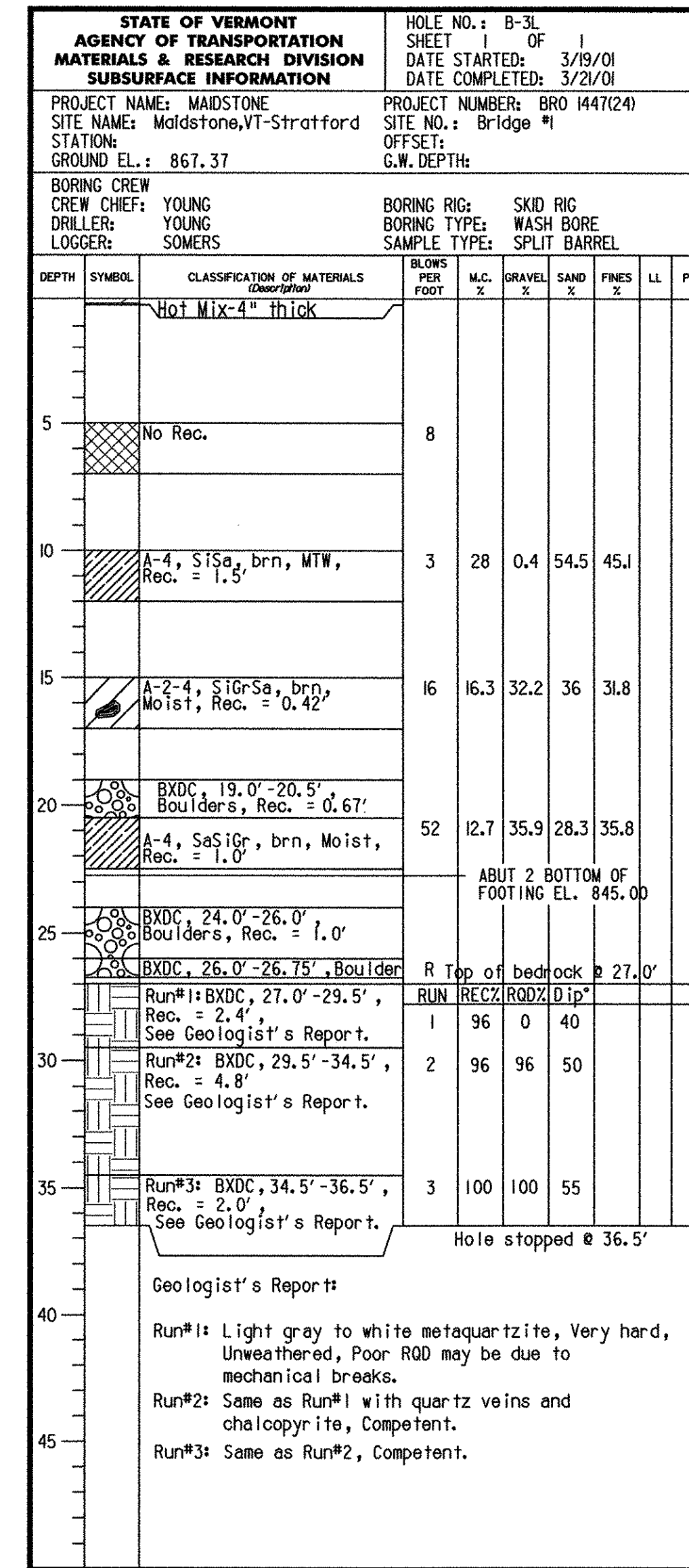
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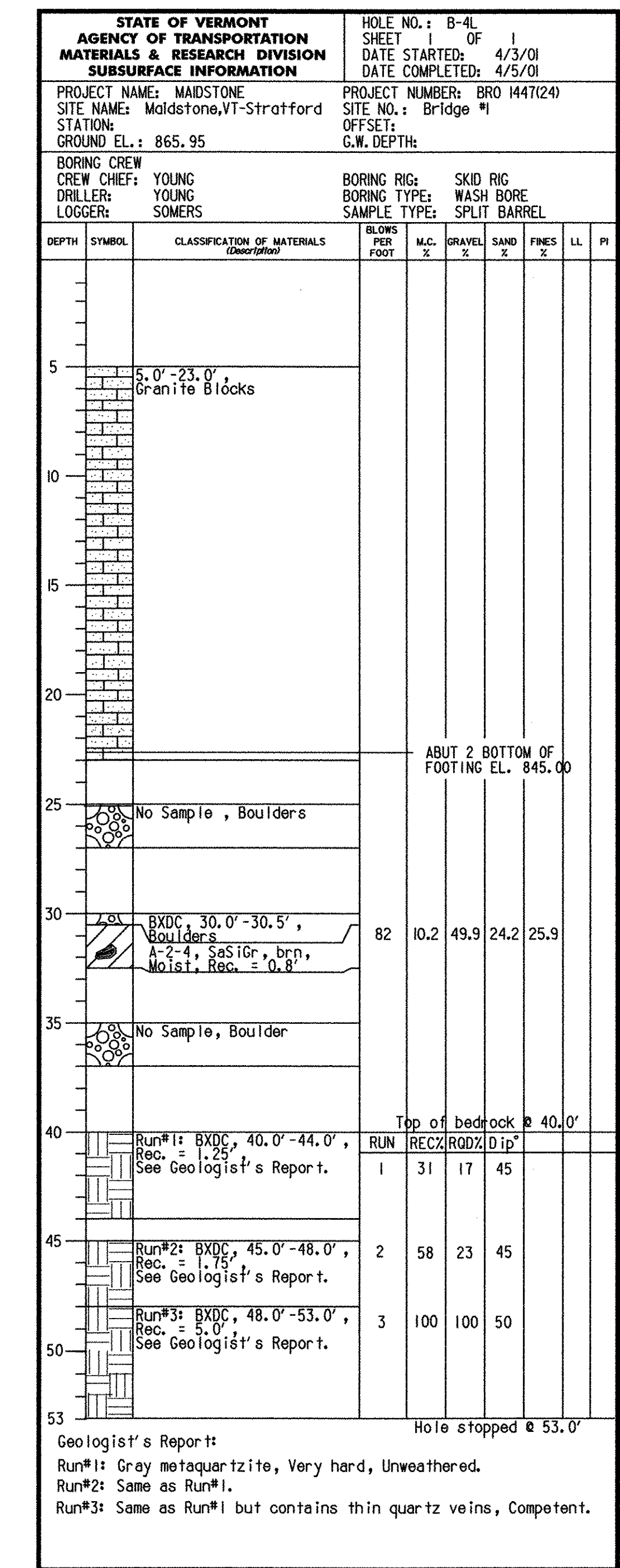
ABUTMENT 2, WW3 & WW4
 BOTTOM OF FOOTING EL. 845.00



Geologist's Report:
 Run#1: Black to green metaquartzite, Very hard, Unweathered.
 Run#2: Same as Run#1, but becoming schistose near bottom of Run, Competent.
 Run#3: Same as Run#1, but 0.5' schistose at top of Run, Competent.
 Run#4: Gray-green metaquartzite, Very hard, Unweathered, Poor RQD.
 Run#5: Gray-green metaquartzite, Very hard, Unweathered, Competent.
 Run#6: Same as Run#3.



Geologist's Report:
 Run#1: Light gray to white metaquartzite, Very hard, Unweathered, Poor RQD may be due to mechanical breaks.
 Run#2: Same as Run#1 with quartz veins and chalcocopyrite, Competent.
 Run#3: Same as Run#2, Competent.



Geologist's Report:
 Run#1: Gray metaquartzite, Very hard, Unweathered.
 Run#2: Same as Run#1.
 Run#3: Same as Run#1 but contains thin quartz veins, Competent.

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of	MAIDSTONE, VT	Bridge No.	1
	STRATFORD, NH	Log Sta.	
Highway No.	MAIDSTONE STATE HWY	Surv. Sta.	

BORING SHEET 4

Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
D.B.	SULLIVAN	08/01/03	

PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
I.G.C. Info.			

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2000-4000	Very Stiff
>4000	Hard

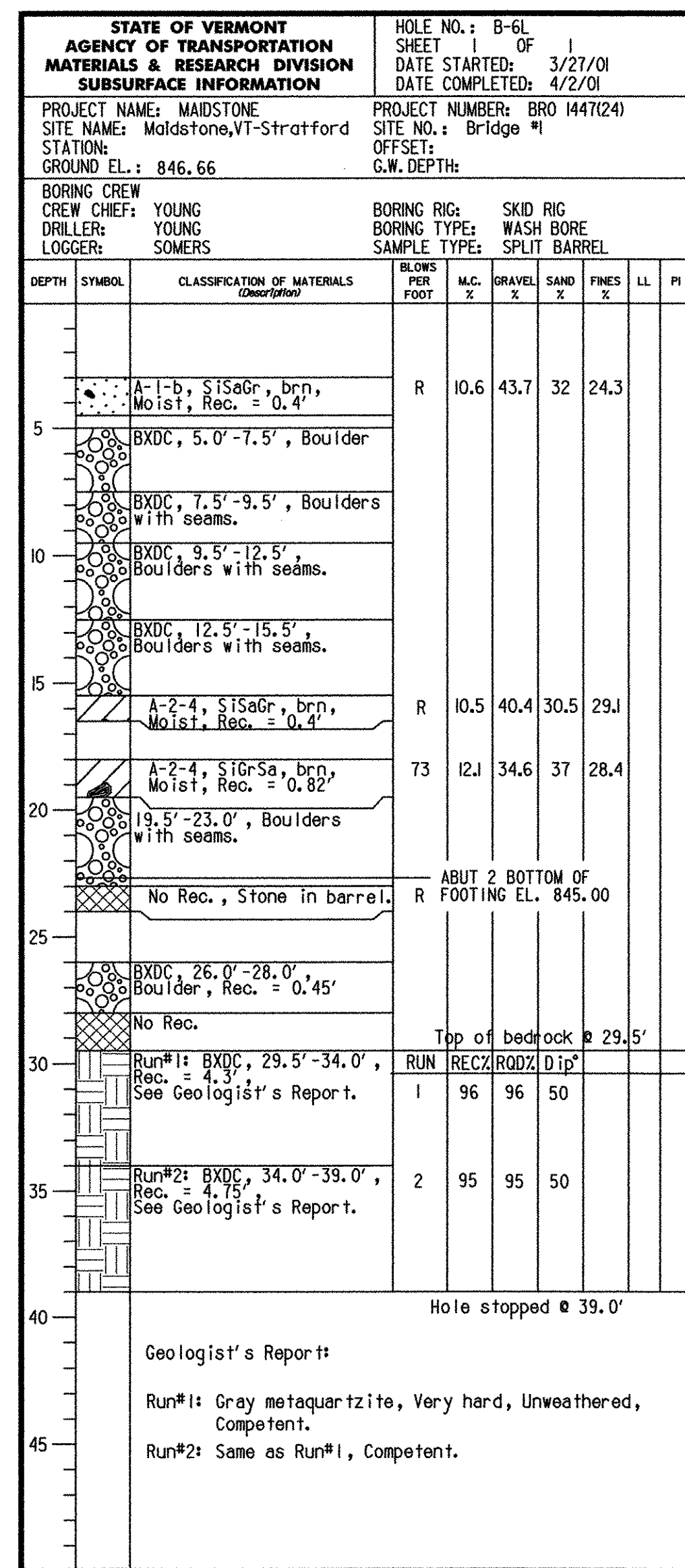
CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

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

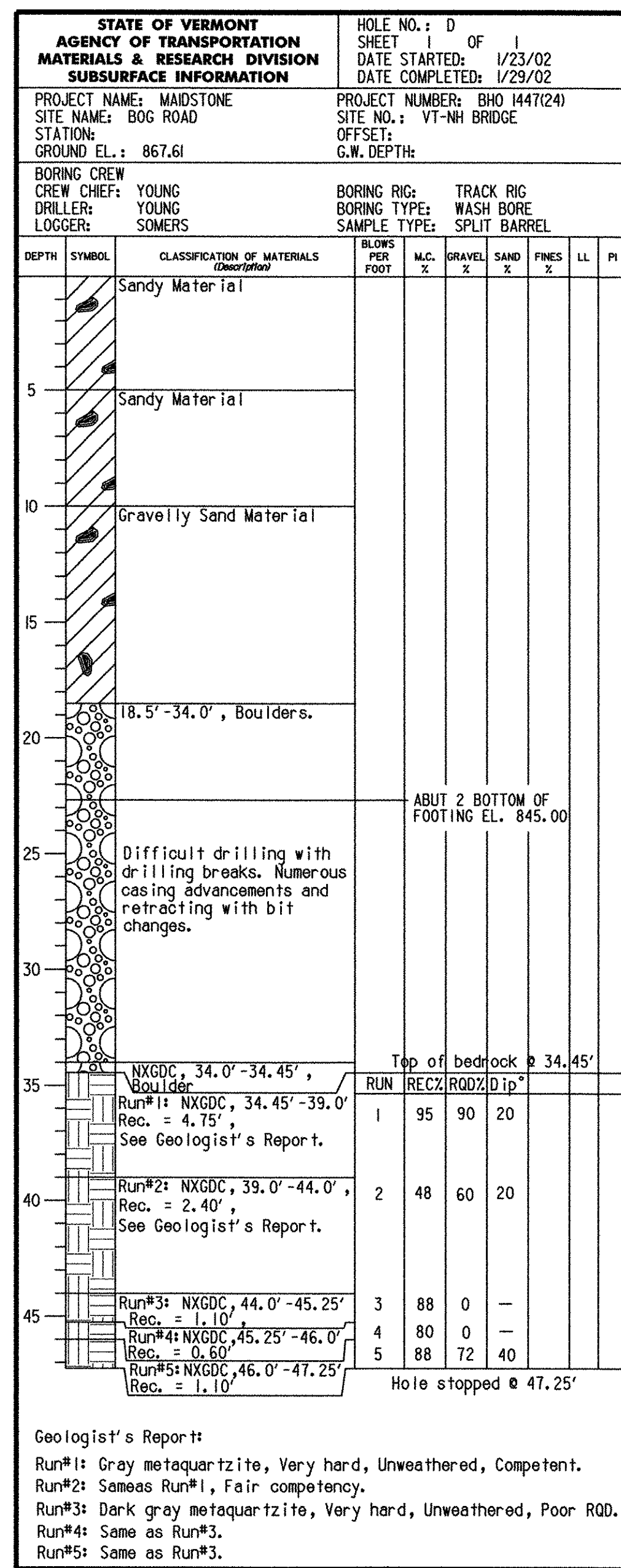
COMMONLY USED SYMBOLS

▼	Water Elevation
⊙	Standard Penetration Boring
⊕	Auger Boring
⊖	Rod Sounding
○	Sample
S	Standard Penetration Test
N	Blow Count Per Foot For: 2" O.D. Sampler 1 1/8" I.D. Sampler Hammer Weight Of 140 Lbs. Hammer Fall Of 30"
VS	Field Vane Shear Test
US	Undisturbed Soil Sample
B	Blast
DC	Diamond Core
MD	Mud Drill
WA	Wash Ahead
HTA	Hollow Stem Auger
AX	Core Size 1 1/8"
BX	Core Size 1 1/4"
NX	Core Size 2 1/8"
M	Double Tube Core Barrel Used
LL	Liquid Limit
PL	Plastic Limit
PI	Plasticity Index
NP	Non Plastic
w	Moisture Content (Dry Wgt. Basis)
D	Dry
M	Moist
MTW	Moist To Wet
W	Wet
Sat	Saturated
Bo	Boulder
Gr	Gravel
Sa	Sand
Sl	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
RQD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than
R	Refusal (N > 100)

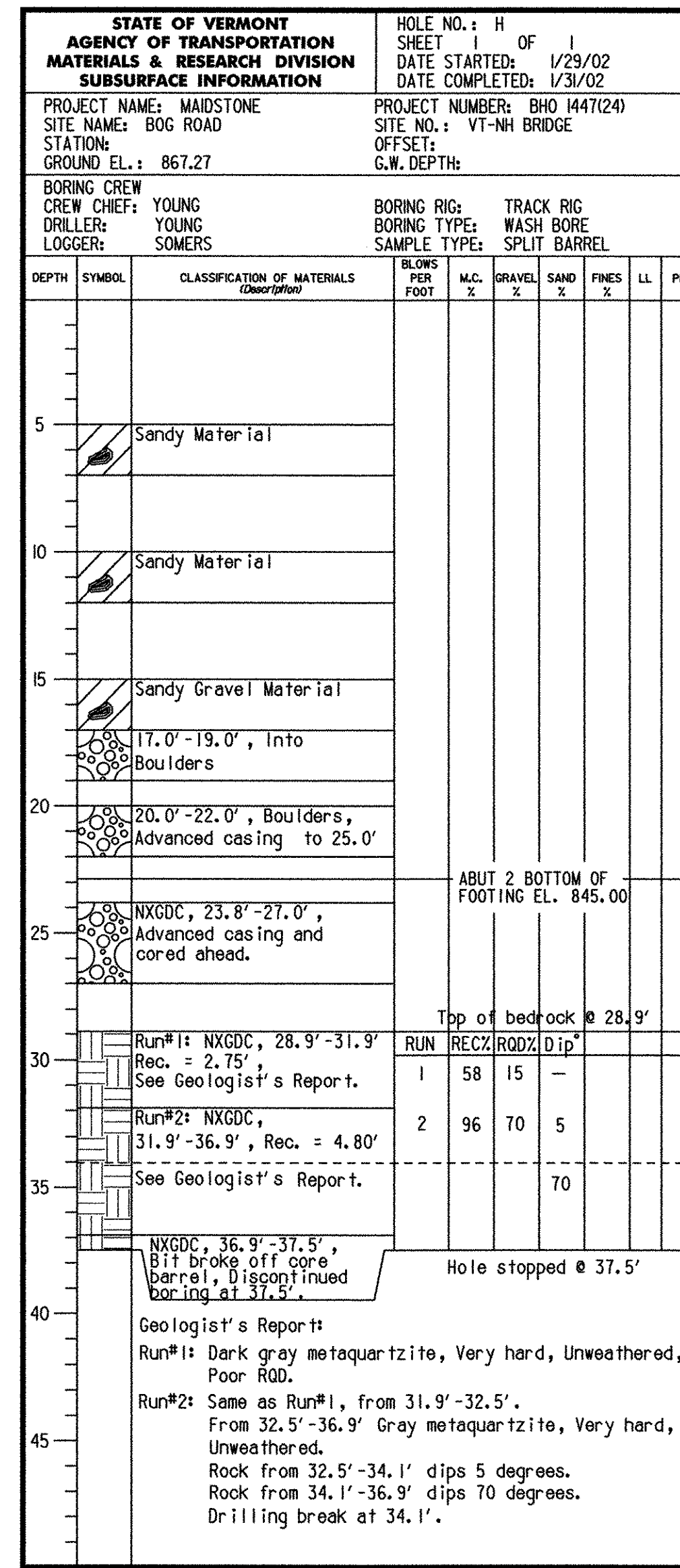
COLOR	
bkl	Black
bl	Blue
brn	Brown
dk	Dark
gry	Gray
gn	Green
lt	Light
or	Orange
pnk	Pink
pu	Purple
rd	Red
tn	Tan
wh	White
yel	Yellow
mitc	Multicolored



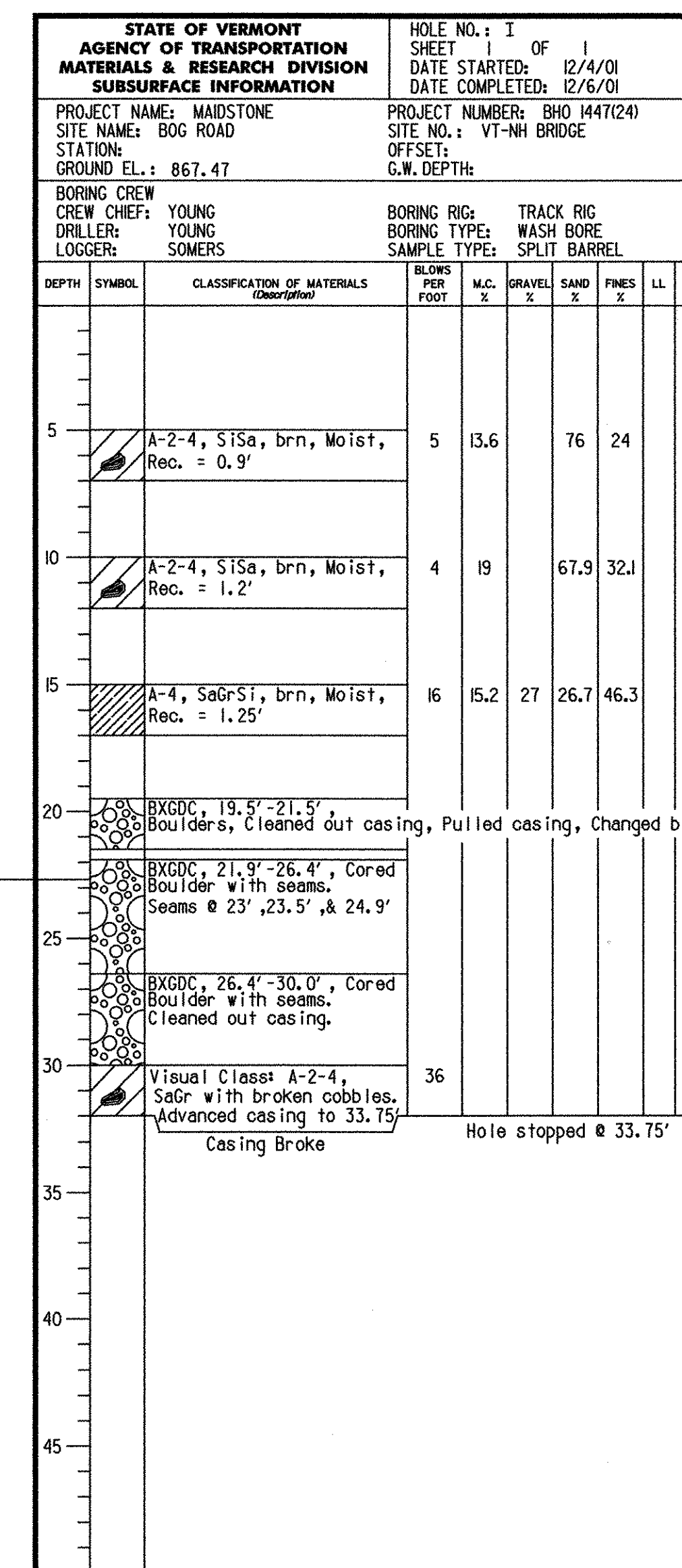
ABUTMENT 2, WW3 & WW4
BOTTOM OF FOOTING EL. 845.00



Geologist's Report:
Run#1: Gray metaquartzite, Very hard, Unweathered, Competent.
Run#2: Same as Run#1, Fair competency.
Run#3: Dark gray metaquartzite, Very hard, Unweathered, Poor RQD.
Run#4: Same as Run#3.
Run#5: Same as Run#3.



Geologist's Report:
Run#1: Dark gray metaquartzite, Very hard, Unweathered, Poor RQD.
Run#2: Same as Run#1, from 31.9'-32.5'. From 32.5'-36.9' Gray metaquartzite, Very hard, Unweathered.
Rock from 32.5'-34.1' dips 5 degrees.
Rock from 34.1'-36.9' dips 70 degrees.
Drilling break at 34.1'.



Hole stopped @ 33.75'

DEFINITIONS (AASHTO)

BEDROCK (LEDGE) - Rock in its native location of indefinite thickness.
BOULDER - A rock fragment with an average dimension > 12 inches.
COBBLE - Rock fragments with an average dimension between 3 and 12 inches.
GRAVEL - Rounded particles of rock < 3" and > 0.075" (#10 sieve).
SAND - Particles of rock < 0.075" (#10 sieve) and > 0.0029" (#200 sieve).
SILT - Soil < 0.0029" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.
CLAY - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.

VARVED - Alternate layers of silt and clay.
HARDPAN - Extremely dense soil, cemented layer, not softened when wet.
MUCK - Soft organic soil (containing > 10% organic material).
MOISTURE CONTENT - Weight of water divided by dry weight of soil.
FLOWING SAND - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.
STRIKE - Angle from magnetic north to line of intersection of bed with a horizontal plane.
DIP - Inclination of bed with a horizontal plane.

GENERAL NOTES

1. The subsurface explorations shown herein were made between SEE ABOVE and SEE ABOVE by the Agency.
 2. Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
 3. Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.

4. Engineering judgment was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgment by the Contractor.

5. Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.
 6. Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
		Surv. Sta.	

BORING SHEET 5

Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
D.B.	SULLIVAN	08/01/03	

PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
---------	---------------------	-------------	---------------

I.G.C. Info.	
Bridge Sheet No.	Sheet 32 of 65



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

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
250-500	Soft
500-1000	Med. Stiff
1000-2000	Stiff
2000-4000	Very Stiff
>4000	Hard

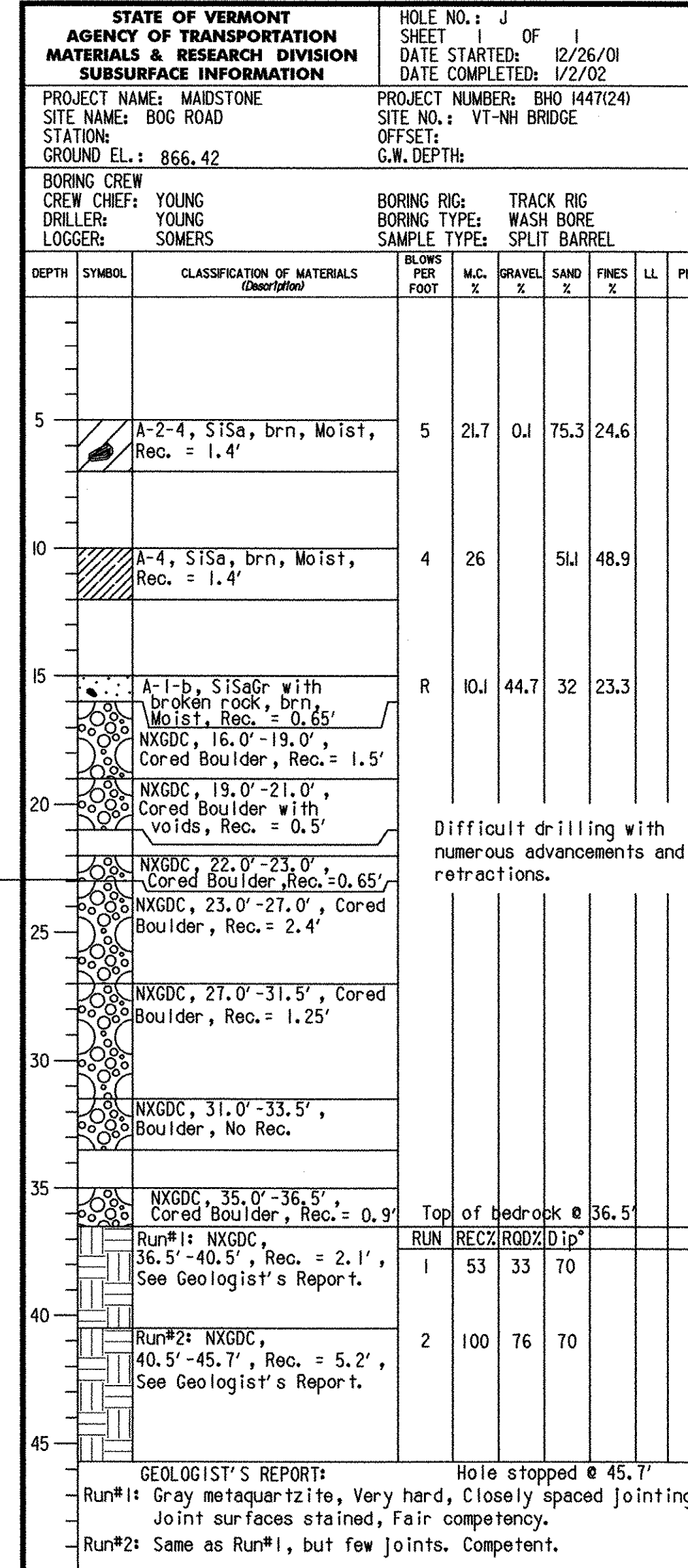
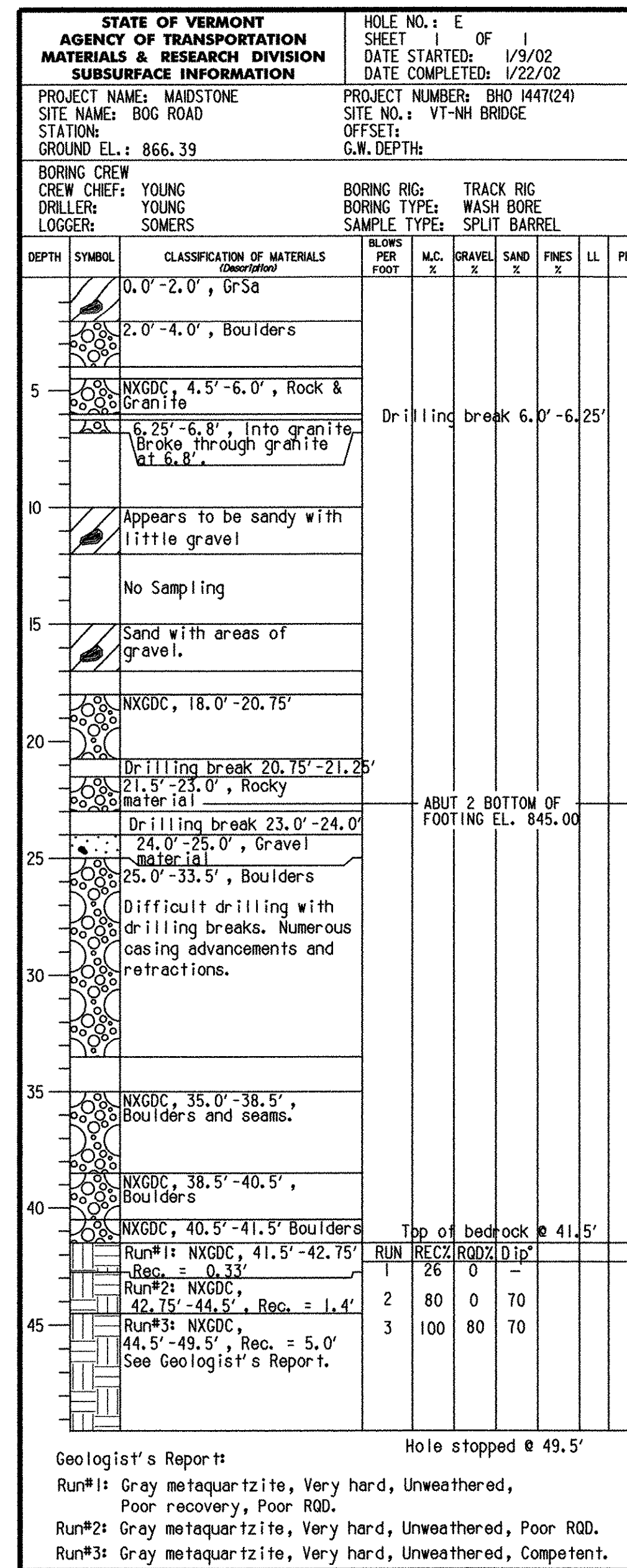
CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

DENSITY (GRANULAR SOILS)	CONSISTENCY (COHESIVE SOILS)		
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
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25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
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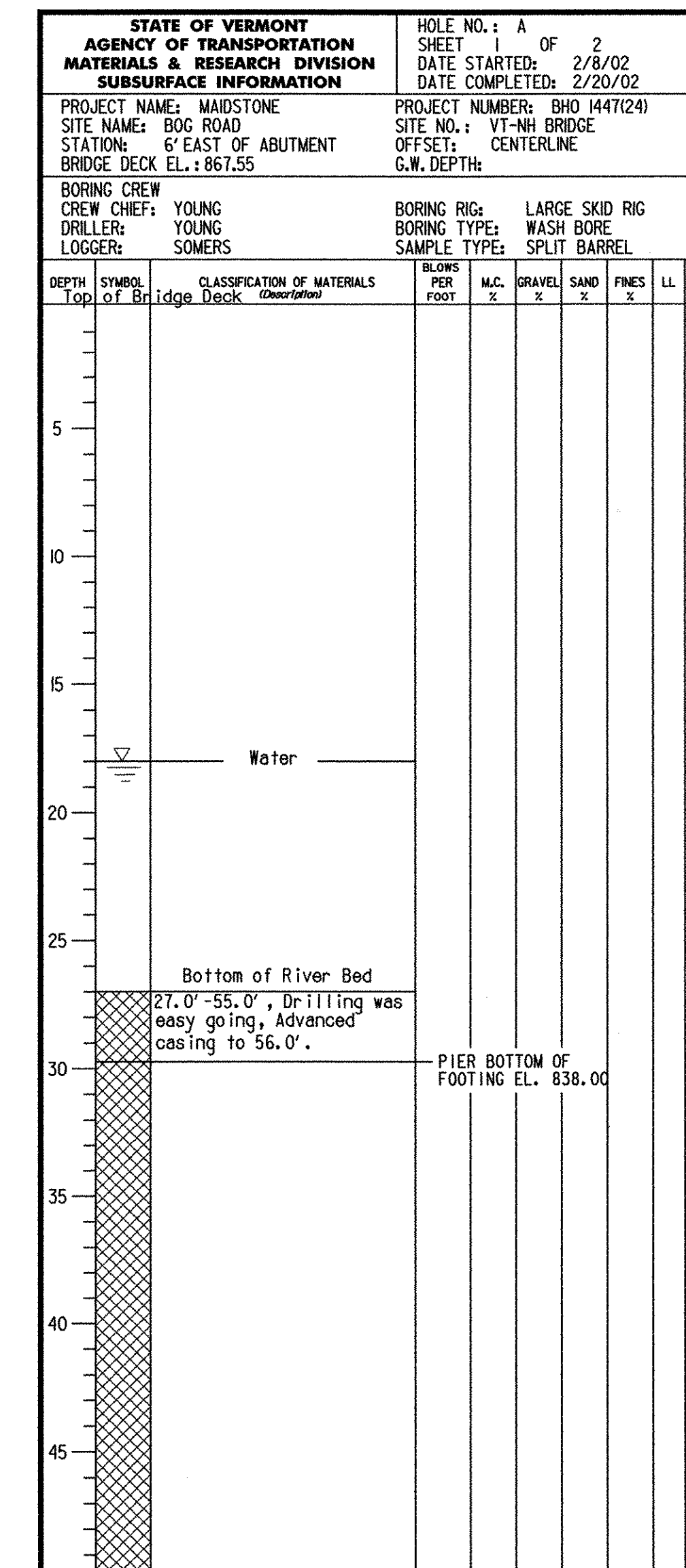
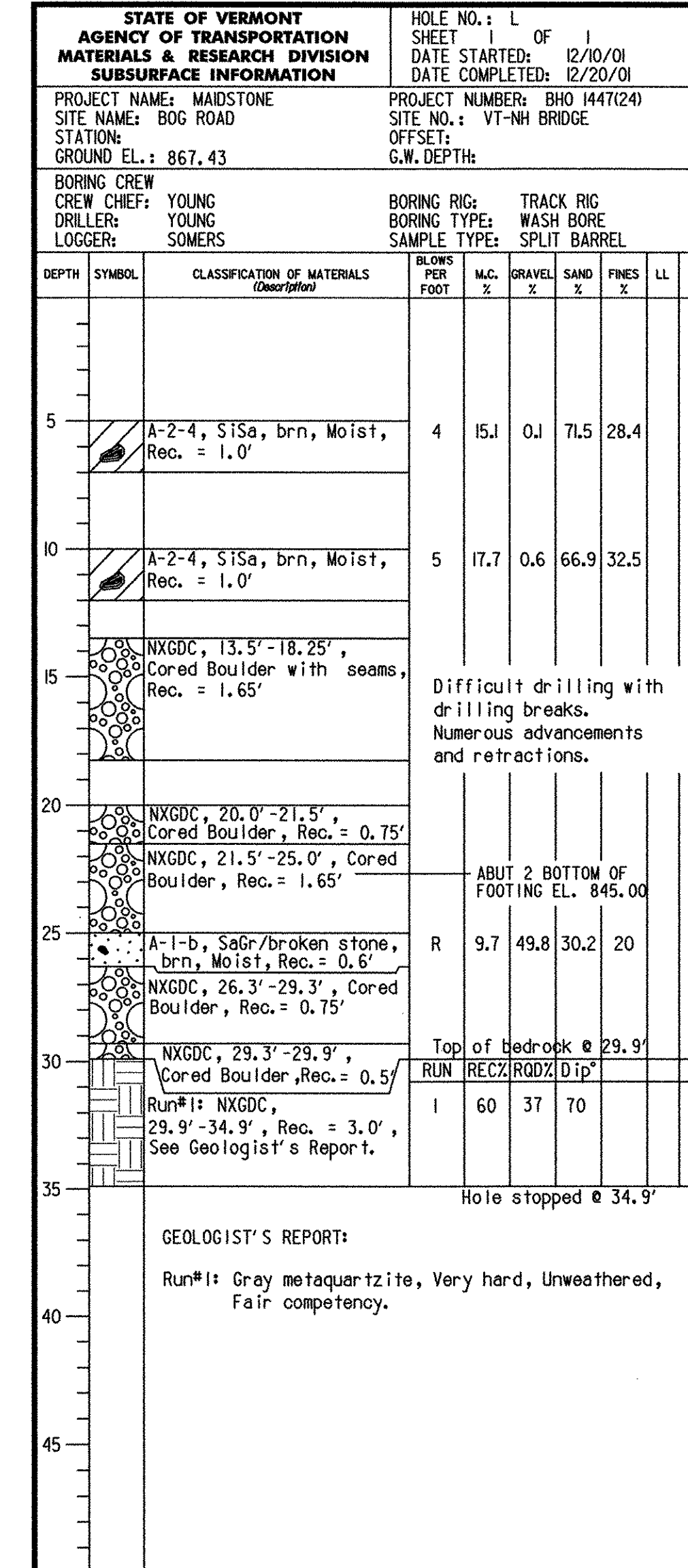
COMMONLY USED SYMBOLS

▼	Water Elevation
⊙	Standard Penetration Boring
⊕	Auger Boring
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○	Sample
S	Standard Penetration Test
N	Blow Count Per Foot For: 2" O.D. Sampler 1 1/8" I.D. Sampler Hammer Weight Of 140 Lbs. Hammer Fall Of 30"
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B	Blast
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WA	Wash Ahead
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CNPF	Can Not Penetrate Further To Ledge Or Boulder
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NR	No Recovery
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%Rec.	Percent Recovery
RQD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than
R	Refusal (N > 100)

COLOR			
bk	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	mtc	Multicolored
or	Orange		



ABUTMENT 2, WW3 & WW4
BOTTOM OF FOOTING EL. 845.00



BOTTOM OF PIER FOOTING
EL. 838.00

BORINGS B-1, B-2, B-3, B-4, B-4A, B-5, B-5A, & B-5B DONE ON 03/27/01 - 04/12/01.
BORINGS B-1L, B-2L, B-3L, B-4L, & B-6L DONE ON 03/12/01 - 04/05/01.
BORINGS D, H, I, E, J, L, & A DONE ON 12/4/01 - 02/20/02.

GENERAL NOTES

- The subsurface explorations shown herein were made between SEE ABOVE and SEE ABOVE by the Agency.
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**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	MAIDSTONE, VT	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
		Surv. Sta.	

BORING SHEET 6

Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
D.B. SULLIVAN	08/01/03		
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
I.G.C. Info.			
Bridge Sheet No.		Sheet	33 of 65

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SOIL CLASSIFICATION

AASHTO

A1	Gravel and Sand
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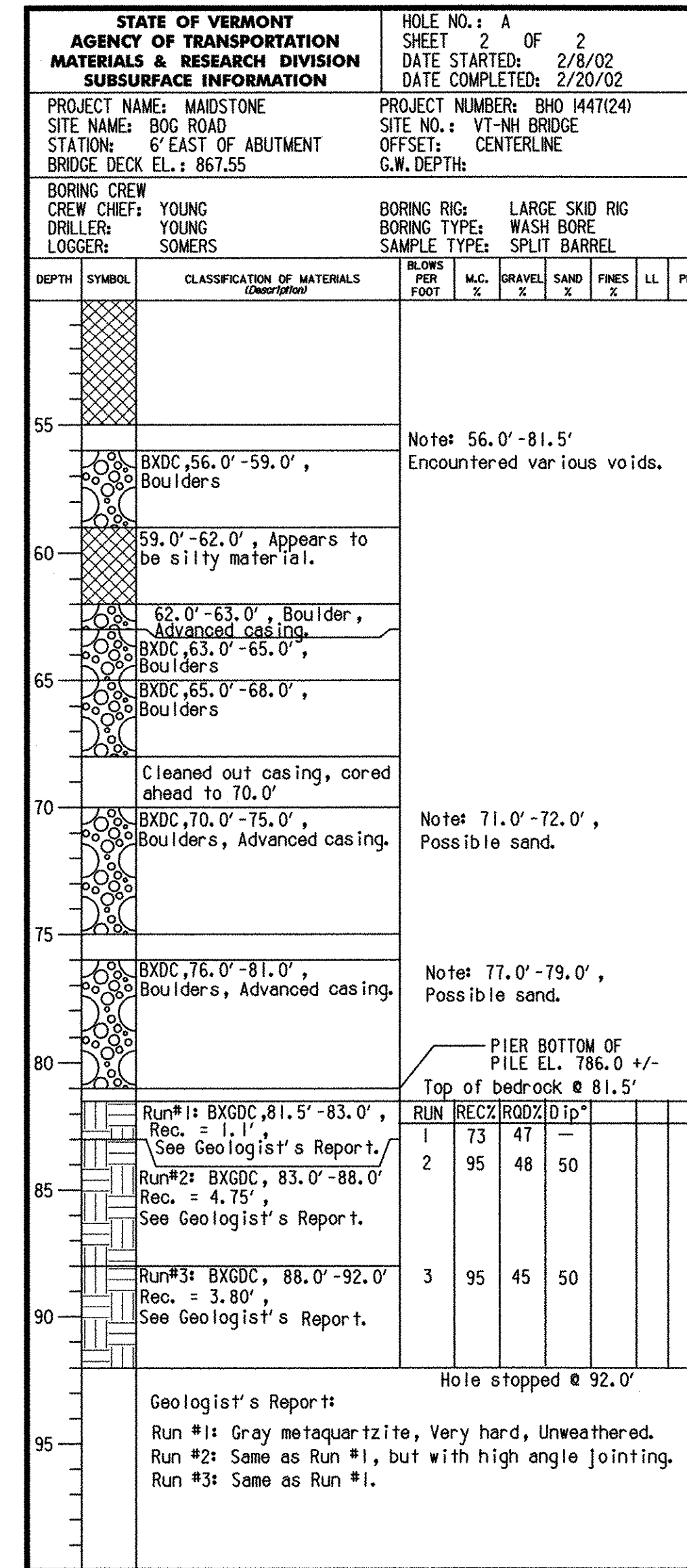
CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

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S	Sample
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	Blow Count Per Foot For:
	2" O.D. Sampler
	1 1/8" I.D. Sampler
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	Hammer Fall Of 30"
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HP	Hardpan
Le	Ledge
NLTD	No Ledge To Depth
CNPF	Can Not Penetrate Further
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<	Less Than
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R	Refusal (N > 100)

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



BORINGS B-1, B-2, B-3, B-4, B-4A, B-5, B-5A, & B-5B DONE ON 03/27/01 - 04/12/01.
 BORINGS B-1L, B-2L, B-3L, B-4L, & B-6L DONE ON 03/12/01 - 04/05/01.
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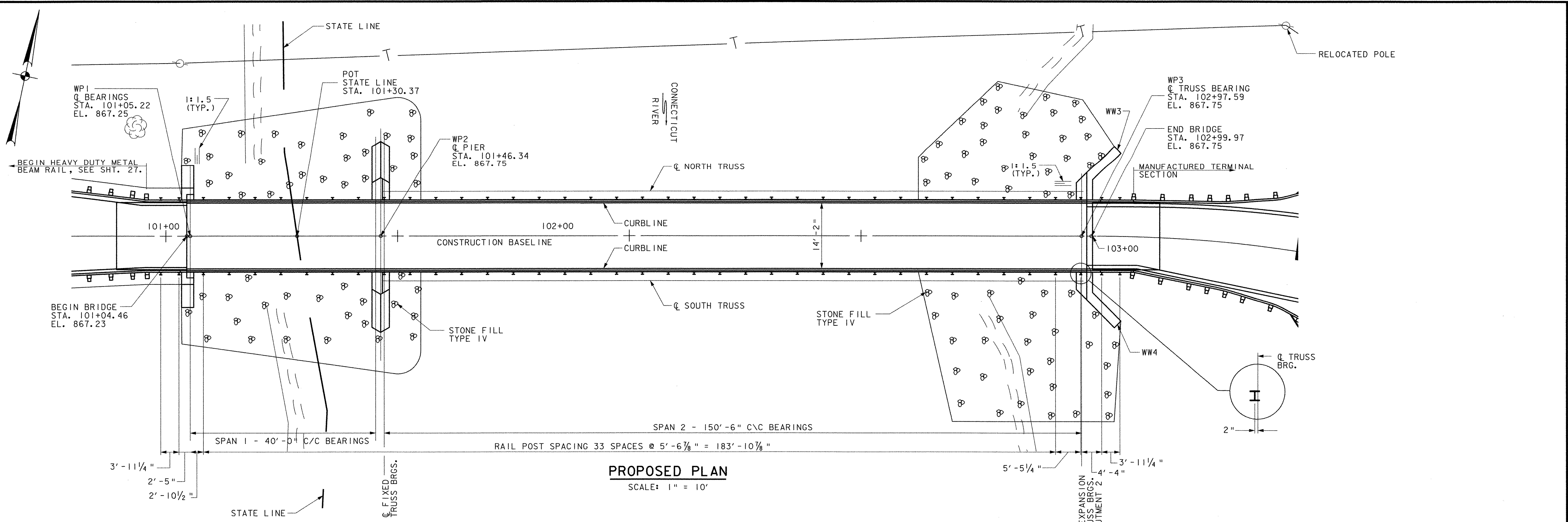
STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
		Surv. Sta.	

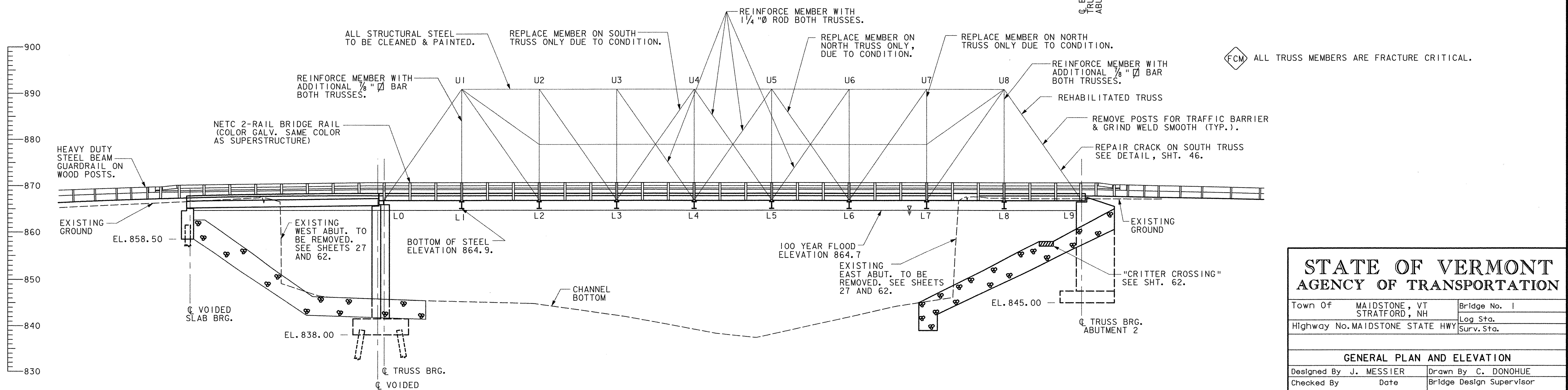
BORING SHEET 7

Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	
D.B.	SULLIVAN	08/01/03	Date
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
I.G.C. Info.			
Bridge Sheet No.		Sheet	34 of 65

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PROPOSED PLAN
SCALE: 1" = 10'

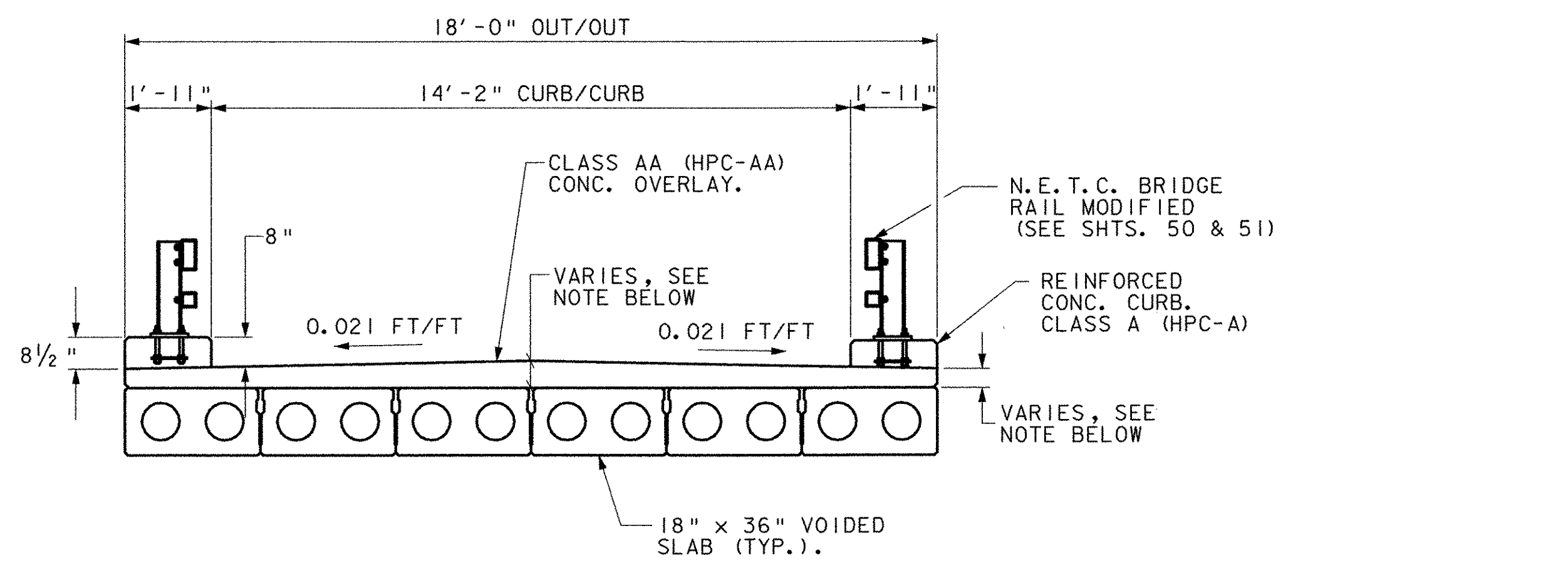


PROPOSED ELEVATION
SCALE: 1" = 10'

STATE OF VERMONT AGENCY OF TRANSPORTATION		
Town Of MAIDSTONE, VT STRATFORD, NH	Bridge No. 1	Log Sta.
Highway No. MAIDSTONE STATE HWY	Surv. Sta.	
GENERAL PLAN AND ELEVATION		
Designed By J. MESSIER	Drawn By C. DONOHUE	
Checked By Date	Bridge Design Supervisor	Date
D. B. SULLIVAN	08/01/03	
PROJECT MAIDSTONE-STRATFORD	PROJECT NO. BHO 1447 (24)	
I.G.C. Info.		
Bridge Sheet No.	Sheet 35 of 65	

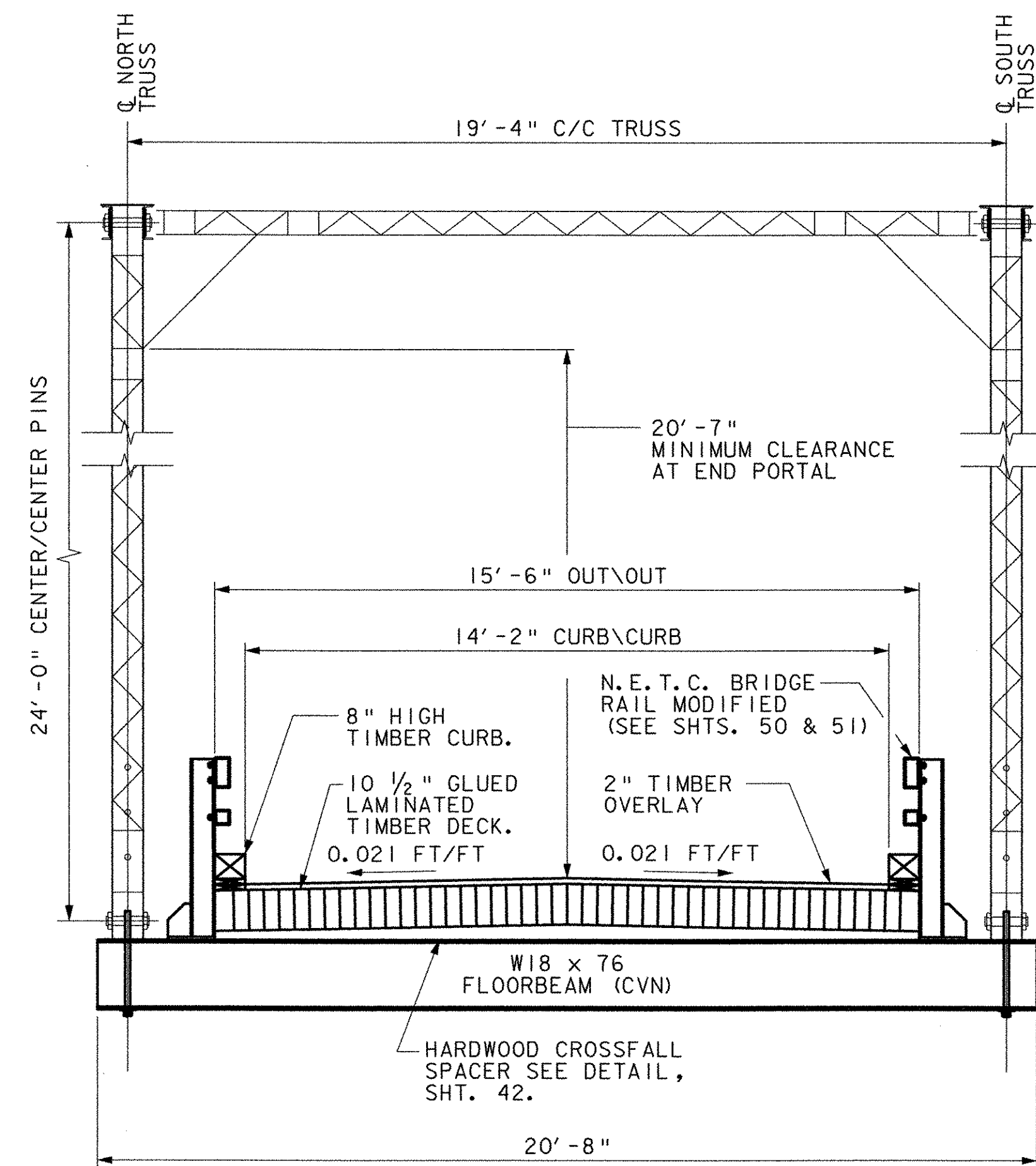


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CROSS SECTION SPAN 1

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



CROSS SECTION SPAN 2

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

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
		Surv. Sta.	

BRIDGE CROSS SECTIONS

Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
	D. B. SULLIVAN		08/01/03

PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
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I.G.C. Info.	Bridge Sheet No.	Sheet	36 of 65
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**SEEDING FORMULA
URBAN AREAS**

% WT.	LBS./A.	NAME	PUR %	GERM %
42.5	34.0	CREeping RED FESCUE	98	85
10.0	8.0	PERENNIAL RYE GRASS	95	90
42.5	34.0	KENTUCKY BLUE GRASS	85	85
5.0	4.0	ANNUAL RYE GRASS	95	85
100.00	80.0			

GENERAL NOTES

SEED MIXTURE: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE RESIDENT ENGINEER.

FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 500 LBS./ACRE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).

AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE RESIDENT ENGINEER.

HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE RESIDENT ENGINEER.

TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE RESIDENT ENGINEER.

MARKER POSTS: TO BE PLACED AS INDICATED OR AS DIRECTED BY THE RESIDENT ENGINEER.

SLOPE ROUNDING: ALL CUT SLOPES TO BE ROUNDED IN ACCORDANCE WITH STANDARD SHEET B - 5.

PAY LIMITS OF SAND BORROW: WHEN USED IN CONJUNCTION WITH UNDERDRAIN - SEE STANDARD SHEET D - 2.

EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT SILTATION OR POLLUTION, ESPECIALLY THE DISCHARGE OF RAW CONCRETE, INTO ANY BROOK, STREAM OR RIVER.

ALL WATER PUMPED FROM COFFERDAMS SHALL BE FILTERED THROUGH SOME TYPE OF SEDIMENT TRAP, BEFORE IT IS ALLOWED TO RUN INTO THE RIVER.

THE SEDIMENT TRAPS SHALL BE DESIGNED BY THE CONTRACTOR AND APPROVED BY THE RESIDENT ENGINEER. THE CONTRACTOR MAY PROVIDE ADDITIONAL SEDIMENT POOLS WITHIN THE RIGHT-OF-WAY IF REQUIRED TO CONTROL THE RATE OF DRAW-DOWN. ADDITIONAL SEDIMENT POOLS MUST BE APPROVED BY THE RESIDENT ENGINEER.

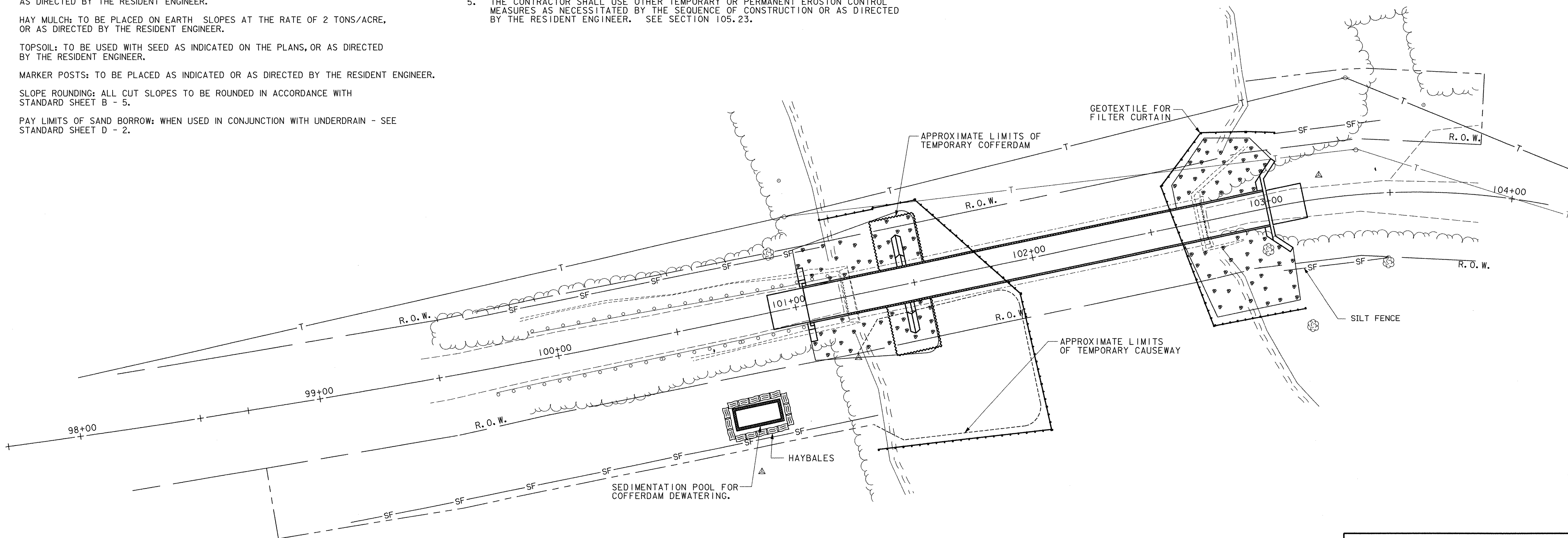
AFTER COMPLETION OF THE SUBSTRUCTURE THE SEDIMENT IN THE POOL SHALL BE REMOVED AND PROPERLY DISPOSED OF AND THE GROUND SHALL BE RESTORED TO ITS ORIGINAL, OR GRADED TO ITS FINAL, CONDITION.

2. AN ALTERNATE EROSION CONTROL PLAN MAY BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE RESIDENT ENGINEER AND THE STREAM ALTERATION ENGINEER.

3. SPECIAL CONSIDERATION MUST BE GIVEN TO THE FIRST PUMP-DOWN OF THE COFFERDAMS. THIS WILL CONTAIN THE GREATEST VOLUME OF WATER WITH A HIGH SEDIMENT LOAD.

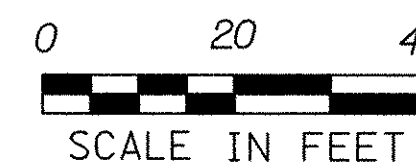
4. SEE STANDARDS T1 AND T2 FOR ADDITIONAL EROSION CONTROL DETAILS.

5. THE CONTRACTOR SHALL USE OTHER TEMPORARY OR PERMANENT EROSION CONTROL MEASURES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION OR AS DIRECTED BY THE RESIDENT ENGINEER. SEE SECTION 105.23.



- R. O. W. — RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT
- EXISTING STONE ABUTMENT/WINGWALL
- T— TELEPHONE LINES
- SF— SILT FENCE
- ▨ HAYBALES
- ~~~~~ SHEET PILING FOR COFFERDAM
- — — — — FILTER CURTAIN

NOTE: THIS SHEET TO BE USED FOR EROSION CONTROL MEASURES ONLY.

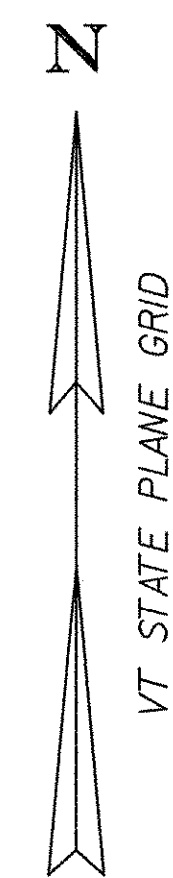


**STATE OF VERMONT
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Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
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EROSION CONTROL SHEET

Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
D. B. SULLIVAN	08/01/03		
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
I.G.C. Info.			
Bridge Sheet No.		Sheet	37 of 65



GENERAL NOTES:

- EXISTING DIMENSIONS: DIMENSIONS, ANGLES, AND ELEVATIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM LIMITED FIELD INVESTIGATION AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL VERIFY THE EXISTING MEASUREMENTS PRIOR TO STARTING THE WORK. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR APPROVAL, THE FIELD MEASUREMENTS SHALL ALSO BE SUBMITTED FOR REFERENCE BY THE REVIEWER. NO EXTRA PAYMENT WILL BE MADE FOR OBTAINING THE NECESSARY MEASUREMENTS.
- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2001, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 2002, AND ITS LATEST INTERIMS.
- THIS IS AN HISTORIC BRIDGE. ALL REPAIRS HAVE BEEN DESIGNED IN ACCORDANCE WITH STRICT STANDARDS FOR REHABILITATION OF HISTORIC STRUCTURES. ANY TEMPORARY WORK THAT MAY EFFECT THE EXISTING TRUSSES MUST BE APPROVED IN ADVANCE BY THE RESIDENT ENGINEER. THE EXISTING SUPERSTRUCTURE MEMBERS INCLUDING THE TRUSS MEMBERS, BRACING, FLOORBEAMS AND STRINGERS ARE WROUGHT IRON. NO WELDING OR FLAME CUTTING FOR THE PURPOSE OF REPAIR OR FOR ATTACHING TEMPORARY SUPPORT/SHORING WILL BE ALLOWED.
- ITEM 201.10 "CLEARING AND GRUBBING" SHALL INCLUDE ALL TREES, SHRUBS, BRUSH, BUSHES, STUMPS, ETC., EXCEPT AS NOTED, BETWEEN STATIONS 97+50 AND 103+60 WITHIN THE RIGHT-OF-WAY AND WITHIN THE AREAS OF TEMPORARY CONSTRUCTION EASEMENT. ALL STUMPS SHALL BE REMOVED.
- ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68° F, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL ERECT AND MAINTAIN ALL ON-PROJECT SIGNS AND BARRICADES. THE COST OF ALL CONSTRUCTION SIGNS AND BARRICADES, ERECTION AND MAINTENANCE AS WELL AS REMOVAL AND/OR RESETTING OF THE SAME SHALL BE CONSIDERED SUBSIDIARY TO MOBILIZATION.
- ANY EXISTING SIGNS NOT REUSED SHALL REMAIN THE PROPERTY OF EITHER NHDOT OR THE VERMONT AGENCY OF TRANSPORTATION. THE OWNERSHIP SHALL BE DETERMINED BY THE CURRENT LOCATION OF THE SIGNS.
- ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURES (MODIFIED, EXISTING TRUSS)" SHALL INCLUDE REMOVAL AND DISPOSAL OF THE FOLLOWING:
 - BRIDGE DECK, CURBS, RUNNING BOARDS, EXISTING BRIDGE RAILING INCLUDING RAIL ELEMENTS, CABLES AND POSTS, BARRICADES AND POSTS, CLEARANCE SIGNS.
 - EXISTING LOWER LATERAL BRACING.
 - EXISTING FLOORBEAMS, FLOORBEAM HANGERS AND STRINGERS.
 - ANY TEMPORARY ANGLES, PLATES, OR STRUCTURAL SECTIONS NECESSARY TO MAKE SPECIFIED REPAIRS OR ANY REPAIRS ORDERED BY THE RESIDENT ENGINEER.
- ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURES (MODIFIED, EXISTING ABUTMENTS)" SHALL INCLUDE REMOVAL AND DISPOSAL OF THE STONE ABUTMENTS AND WINGWALLS AND GRANULAR MATERIAL WITHIN THE LIMITS CALLED OUT ON SHEET 27. THE LOWER LIMIT FOR THE REMOVAL SHALL BE THE BOTTOM OF THE EXCAVATION REQUIRED FOR THE INSTALLATION OF THE STONE FILL AS SHOWN ON SHEETS 62 AND 63. ALSO SEE NOTE 19 ON THIS SHEET.
- ITEM 529.15 "REMOVAL OF STRUCTURE (MODIFIED)" - INCLUDES ALL WORK AND EQUIPMENT NECESSARY TO SAFELY RELOCATE THE STRUCTURE TO AN ON-SITE LOCATION WHERE THE CLEANING, PAINTING AND REPAIRING CAN BE COMPLETED AND TO RESET THE STRUCTURE ON THE NEW SUBSTRUCTURES. THIS ITEM WILL ALSO INCLUDE ANY DISASSEMBLY AND REASSEMBLY OF THE STRUCTURE MADE NECESSARY BY THE CONTRACTORS METHOD OF RELOCATING THE TRUSSES. ADDITIONALLY, THIS ITEM SHALL INCLUDE ALL TEMPORARY SUPPORT AND SHORING OF THE STRUCTURE WHILE IT IS OFF THE SUBSTRUCTURES. SEE SHEET 43 FOR APPROXIMATE WEIGHTS OF SUPERSTRUCTURE.
- THE MEANS AND METHODS FOR REMOVING AND RESETTING THE TRUSSES WILL BE LEFT UP TO THE CONTRACTOR. PLANS AND DETAILS SHALL BE SUBMITTED TO THE RESIDENT ENGINEER, FOR REVIEW, AT LEAST ONE MONTH PRIOR TO THE COMMENCEMENT OF THIS OPERATION. THE PLANS SHALL BE PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANALYZING THE SUPERSTRUCTURE AND SUBSTRUCTURE FOR ANY OPERATION THAT MAY AFFECT THE LOADING AND OR CAPACITY OF AN ELEMENT. SPECIFICALLY THE CONTRACTOR SHALL ENSURE THAT THE EXISTING ABUTMENTS ARE ADEQUATE TO SUPPORT LOADS OF CONSTRUCTION EQUIPMENT AND MATERIALS USED IN ANY OPERATIONS PRIOR TO THEIR REMOVAL. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE PERMITS AND APPROVALS FOR ANY WORK THAT MAY PERMANENTLY OR TEMPORARILY EFFECT THE WATERWAY OR ADJACENT PROPERTIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO THE TRUSSES INCURRED AS A RESULT OF CONSTRUCTION RELATED ACTIVITIES (ALSO SEE NOTE 3).
- ITEM 531.10 "BEARING DEVICE ASSEMBLY (TRUSS BEARING)" SHALL CONSIST OF THE REMOVAL AND DISPOSAL OF THE ROLLER NESTS ON THE TRUSS EXPANSION BEARINGS AND THE FABRICATION AND PLACEMENT OF THE NEW FIXED AND EXPANSION BEARING ASSEMBLIES DETAILED ON SHEET 47.
- COFFERDAM SHALL CONSIST OF STEEL SHEET AND ASSOCIATED BRACING. CONSTRUCTION WITHIN SUCH COFFERDAM MAY PROCEED AT ANY TIME OF THE YEAR.
- ALL IN-STREAM EXCAVATION AND EARTHWORK SHALL BE RESTRICTED TO THE PERIOD OF JUNE 1 - OCTOBER 1. CONTRACTOR PROPOSALS FOR CONSTRUCTION ACTIVITIES IN OR ADJACENT TO FLOWING WATER DURING THE RESTRICTED PERIOD MUST BE ISOLATED FROM THE STREAM FLOW AND RECEIVE PRIOR APPROVAL FROM THE STREAM ALTERATION ENGINEER (VERMONT) AND MAY REQUIRE ADDITIONAL PERMITS AND/OR APPROVALS FROM THE APPROPRIATE AGENCIES IN NEW HAMPSHIRE.
- THE CONTRACTOR SHOULD BE AWARE THAT PERMITS AND APPROVALS MAY BE REQUIRED FROM AGENCIES OF EITHER OR BOTH STATES DEPENDING ON THE LOCATION AND NATURE OF THE PROPOSED OPERATIONS. IT WILL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS ARE OBTAINED FROM THE PROPER AGENCY.
- TEMPORARY CONSTRUCTION FILLS WITHIN THE WATERCOURSE FOR ANY PURPOSE SHALL CONSIST OF CLEAN STONE FILL ONLY. NO OTHER FILLING IN THE STREAM SHALL OCCUR WITHOUT THE APPROVAL FROM THE VERMONT STREAM ALTERATION ENGINEER. ADDITIONAL PERMITS AND/OR APPROVALS MAY BE REQUIRED FROM THE APPROPRIATE AGENCIES IN NEW HAMPSHIRE.

- THE BACKFILL BEHIND ABUTMENT 2 SHALL BE LIMITED TO 2 FEET BELOW THE BRIDGE SEAT UNTIL THE TRUSS HAS BEEN PLACED ONTO THE NEW SUBSTRUCTURES.
- THE TWO EXISTING BRIDGE PLAQUES MOUNTED ON THE PORTALS SHALL BE REMOVED AND CAREFULLY CLEANED AND PAINTED. THEY SHALL BE PAINTED WITH THE SAME PAINT SYSTEM AS THE REST OF THE STEEL. THEY SHALL BE REMOUNTED AFTER THE TRUSSES ARE RESET ON THE NEW SUBSTRUCTURES. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO ITEM 513.20 STRUCTURE PAINTING.
- GRANITE BLOCKS FROM THE EXISTING EAST ABUTMENT SHALL BE REMOVED AND DELIVERED TO A LOCATION TO BE DETERMINED BY NHDOT. GRANITE BLOCKS REMOVED FROM THE EXISTING WEST ABUTMENT AND THE STONES THAT MAKE UP THE STONEWALLS SHALL BE REMOVED AND DELIVERED TO A SITE CHOSEN BY THE ADJACENT PROPERTY OWNER. THIS WORK WILL BE PAID FOR UNDER ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE (MODIFIED, EXISTING ABUTMENTS)."
- CONTRACTOR MUST CONTACT ST. LAWRENCE & ATLANTIC RAILROAD TWO WEEKS PRIOR TO ACCESSING THE PROJECT AREA FROM US ROUTE 3. THE RAILROAD WILL OPEN THE CROSSING AND INSTALL LIGHTS WITH TWO WEEKS PRIOR NOTICE.
- EXISTING "PRIVATE BRIDGE OWNERS" SIGN TO BE REMOVED AND GIVEN TO THE VERMONT AGENCY OF TRANSPORTATION PROJECT MANAGER. THIS WORK IS CONSIDERED SUBSIDIARY TO ITEM 635.10 "MOBILIZATION."

CONCRETE NOTES:

- ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE "CONCRETE REINFORCING INSTITUTE."
- REINFORCING PLACEMENT TOLERANCES SHALL BE:
 - SPACING +/- 1"
 - CLEARANCE +/- 1/4"
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" x 1".
- WATER REPELLENT SHALL BE APPLIED TO THE CURBS AND ROADWAY SURFACE OF SPAN 1 AND ALL EXPOSED CONCRETE SURFACES OF THE SUBSTRUCTURES.
- JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER.
- THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. ANY UPWARD KEY SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.
- ALL CONCRETE FOR THE SUBSTRUCTURE SHALL BE CONCRETE, HIGH PERFORMANCE CLASS B, UNLESS OTHERWISE NOTED.
- ALL REINFORCING STEEL IN THE APPROACH SLABS, AND CURBS AND OVERLAY OF SPAN 1, SHALL BE EPOXY COATED AND PAID UNDER ITEM 507.17. WHEN EPOXY COATED REINFORCING STEEL IS CUT THE DAMAGED END SHALL BE REPAIRED WITH MATERIALS AND PROCEDURES APPROVED BY THE COATING MANUFACTURER. FLAME CUTTING OF REINFORCING STEEL WILL NOT BE PERMITTED.
- INTENTIONALLY LEFT BLANK.
- INTENTIONALLY LEFT BLANK.

PAINT NOTES:

- THE CONTRACTOR IS HEREBY NOTIFIED THAT THE COATING SYSTEM ON THE EXISTING STEEL MAY CONTAIN LEAD BASED PAINT. THE CONTAINMENT, REMOVAL, HANDLING AND DISPOSAL OF THE EXISTING PAINT AND ABRASIVE MATERIAL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS, AND ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS.
- THE SURFACE PREPARATION FOR THE REHABILITATION OF THE EXISTING STEEL SHALL INCLUDE 100% REMOVAL OF THE EXISTING PAINT SYSTEM.
- THE COLOR OF THE FINAL COAT OF PAINT SHALL BE BLACK AND SHALL CONFORM WITH FEDERAL STANDARD NO. 595, COLOR CHIP #27038.
- THE FOLLOWING ITEMS SHALL BE GALVANIZED PRIOR TO PAINTING. THE GALVANIZING AND PAINTING SHALL BE DONE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS AND AS MODIFIED IN THE SPECIAL PROVISIONS. THE COLOR OF THE PAINT SHALL BE THE SAME AS STATED ABOVE. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THE GALVANIZING AND PAINTING PROCEDURE. THE COST SHALL BE INCLUDED IN THE ITEMS. THE FOLLOWING ITEMS ARE TO BE GALVANIZED AND PAINTED
 - ITEM NO. 525.33 "BRIDGE RAILING - NETC 2 RAIL (MODIFIED)"
 - THE BRIDGE RAIL INCLUDING THE RAIL ELEMENTS, POSTS, CONNECTION PLATES, BOLTS, NUTS, WASHERS, ETC.
 - ITEM NO 506.50 "STRUCTURAL STEEL (ROLLED BEAM) (MODIFIED, GALVANIZED)"
 - FLOORBEAM HANGER ASSEMBLIES INCLUDING THE NUTS AND WASHERS
 - THE FLOORBEAMS
 - THE LOWER LATERAL BRACING (RODS, CLEVISES, CROSSOVER CLAMPS, ETC)

STEEL NOTES:

- ALL STRUCTURAL STEEL PAID FOR UNDER THE ITEM 506.50 "STRUCTURAL STEEL (ROLLED BEAM) (MOD.)", SHALL CONFORM TO AASHTO M270M/M270 GRADE 50, EXCEPT AS NOTED IN GENERAL NOTE 38 AND ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A-500 GRADE B.
- ALL THE STRUCTURAL STEEL PAID FOR UNDER THE ITEM 506.60 "STRUCTURAL STEEL" SHALL CONFORM TO AASHTO M270M/M270 GRADE 50, UNLESS OTHERWISE SPECIFIED ON THE PLANS OR AS NOTED IN GENERAL NOTE 38, AND SHALL BE PAINTED AS PER VTRANS SUPPLEMENTAL SPECIFICATION 513.
- THE FLOORBEAM HANGER ASSEMBLIES AND U-BOLT TRUSS CONNECTION ASSEMBLIES SHALL CONFORM TO AASHTO M314 GRADE 55 MATERIAL. THESE ITEMS SHALL BE FABRICATED USING ROUND OR SQUARE STOCK MILLED TO THE SPECIFIED DIMENSIONS. AFTER FABRICATION THESE ITEMS SHALL HAVE MINIMUM STRENGTH PROPERTIES OF AASHTO M314 GRADE 55 MATERIAL. THE FLOORBEAM HANGER ASSEMBLY SHALL BE GALVANIZED (SEE NOTE 35) AND THE U-BOLT TRUSS CONNECTION ASSEMBLIES SHALL BE FIELD PAINTED ALONG WITH THE REST OF THE TRUSS.
- ALL STRUCTURAL STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE "AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)."
- ITEM 506.50 "STRUCTURAL STEEL (ROLLED BEAM) (MOD.)", SHALL INCLUDE THE FOLLOWING:
 - REPLACEMENT OF FLOORBEAMS WITH W 18 x 76 AS DETAILED ON SHEETS 36 & 46.
 - REPLACEMENT OF LOWER LATERAL BRACING (CLEVISES, PINS, CLAMPS, ETC.).
 - REPLACEMENT OF THE FLOORBEAM HANGER ASSEMBLY.
- ITEM 506.60 "STRUCTURAL STEEL", SHALL INCLUDE THE FOLLOWING:
 - ALL NEW STEEL FOR REPAIR AND REPLACEMENT OF TRUSS MEMBERS.
- ALL NEW STRUCTURAL STEEL ELEMENTS SUBJECT TO TENSION SHALL BE CHARPY V-NOTCH TESTED. THESE MEMBERS ARE DESIGNATED BY (CVN) IN THE APPLICABLE DETAILS. ANY REPAIRS ORDERED BY THE RESIDENT ENGINEER SUBJECT TO TENSION WILL ALSO REQUIRE CHARPY V-NOTCH TESTING. SEE SECTION 714 OF THE VTRANS STANDARD SPECIFICATIONS. THE TRUSS MEMBERS ARE FRACTURE CRITICAL MEMBERS (FCM) INCLUDING U-BOLTS FOR MEMBER CONNECTIONS AND FLOORBEAM HANGERS.
- THE REMOVAL OF EXISTING RIVETS SHALL BE CONSIDERED INCIDENTAL TO THE ITEM FOR WHICH THE RIVET REMOVAL IS REQUIRED. PNEUMATIC OR MECHANICAL TOOLS USED TO REMOVE RIVETS SHALL NOT DAMAGE THE UNDERLYING MATERIAL THAT IS TO REMAIN. FLAME CUTTING METHODS SHALL NOT BE USED WITHOUT PRIOR APPROVAL OF THE RESIDENT ENGINEER. EXISTING RIVETS THAT ARE REMOVED FOR REPAIRS SHALL BE REPLACED WITH ASTM A325 HIGH STRENGTH BOLTS OF THE SAME DIAMETER AS THE RIVET BEING REMOVED. THE HOLE SHALL BE REAMED IF NECESSARY TO FACILITATE THE INSTALLATION OF THE NEW BOLT. WHERE RIVET HOLE DIAMETERS ARE INCREASED BY THE REMOVAL OF OXIDIZED MATERIAL OR CORRODED MATERIAL, THE RESULTING HOLE SHALL NOT BE MORE THAN 1/8" GREATER IN DIAMETER THAN THE HIGH STRENGTH BOLT THAT REPLACES THE RIVET. IF THIS CONDITION IS NOT MET A LARGER DIAMETER BOLT SHALL BE USED AS DIRECTED BY THE RESIDENT ENGINEER. SEE SECTION 506.19 OF VERMONT AGENCY OF TRANSPORTATION'S STANDARD SPECIFICATIONS.
- REQUIRED STRUCTURAL STEEL REPAIRS NOT DETAILED ON THE PLANS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND FOR ITEM 506.60 "STRUCTURAL STEEL".
- CONNECTIONS NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE RESIDENT ENGINEER FOR REVIEW.
- ALL BOLTS SHALL BE COATED IN ACCORDANCE WITH AASHTO M-298. BOLTS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED SUBSIDIARY TO THE STRUCTURAL STEEL ITEMS IN THE CONTRACT. FASTENERS SHALL RECEIVE INTERMEDIATE AND FINAL COATS OF PAINT AFTER INSTALLATION. NUTS FOR GALVANIZED CONNECTIONS SHALL BE OVERTAPPED A MINIMUM AMOUNT TO ENSURE FASTENER ASSEMBLY.
- THE EXISTING STEEL THAT IS TO BE REPLACED IS PAINTED WITH A MATERIAL THAT MAY CONTAIN LEAD. ANY STEEL REMOVED IS THE PROPERTY OF THE CONTRACTOR AND THE CONTRACTOR MAY DISPOSE OF IT OR RETAIN IT FOR FUTURE USE. THE CONTRACTOR SHALL INFORM THE RESIDENT ENGINEER OF THE PLANS FOR THE DISPOSAL OR RETAINAGE OF THE STEEL PRIOR TO ITS REMOVAL.
- CONTRACTOR SHALL SUBMIT, FOR REVIEW, PLANS AND DETAILS FOR THE INSTALLATION OF NEW TRUSS MEMBERS. THIS SHALL INCLUDE TENSIONING REQUIREMENTS AND A PROCEDURE TO ENSURE MEMBERS ARE PROPERLY ENGAGED BUT NOT OVERSTRESSED. THE PLANS SHALL BE PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER.
- UPON COMPLETION OF THE ASSEMBLY OF THE TRUSS SPAN, INCLUDING THE INSTALLATION OF ALL COMPONENTS THAT COMPRISE DEAD LOAD AND PROPER TENSIONING OF ALL TRUSS MEMBERS, ALL NEW THREADED FASTENERS (U-BOLTS, FLOORBEAM HANGERS, LOWER LATERAL BRACING, ETC.) SHALL BE TREATED WITH A TWO PART EPOXY ADHESIVE APPROPRIATE FOR USE OUTDOORS. THE ADHESIVE SHOULD BE APPLIED TO THE THREADS TO PREVENT THE NUT FROM LOOSENING. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL OF THE RESIDENT ENGINEER THE MANUFACTURERS SPECIFICATIONS FOR THE PRODUCT. THE EPOXY ADHESIVE SHALL HAVE THE MINIMUM PROPERTIES AS FOLLOWS, PEEL STRENGTH 20 PIW AND OVERLAP SHEAR STRENGTH 2000 PSI.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

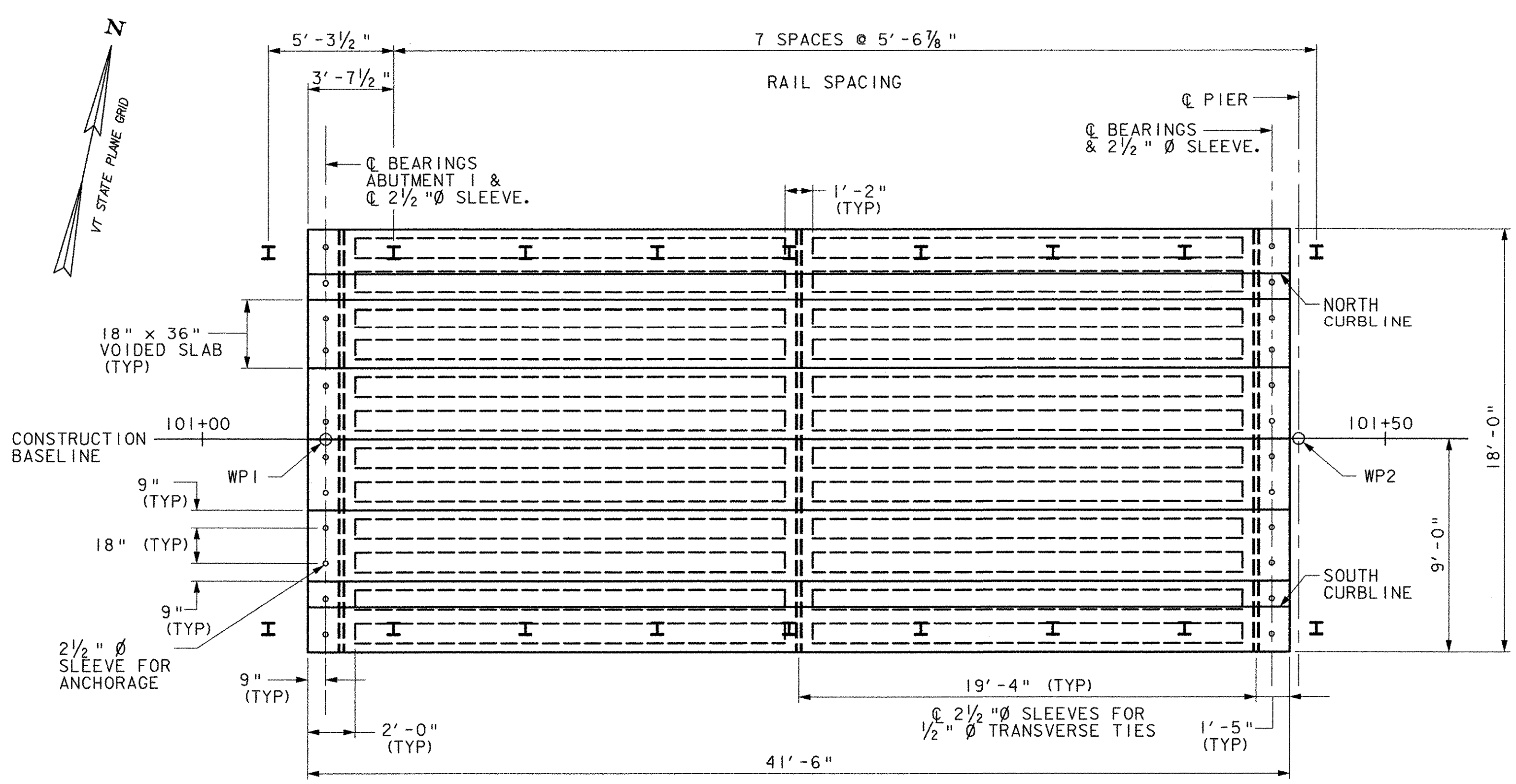
Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
		Surv. Sta.	

GENERAL NOTES SHEET

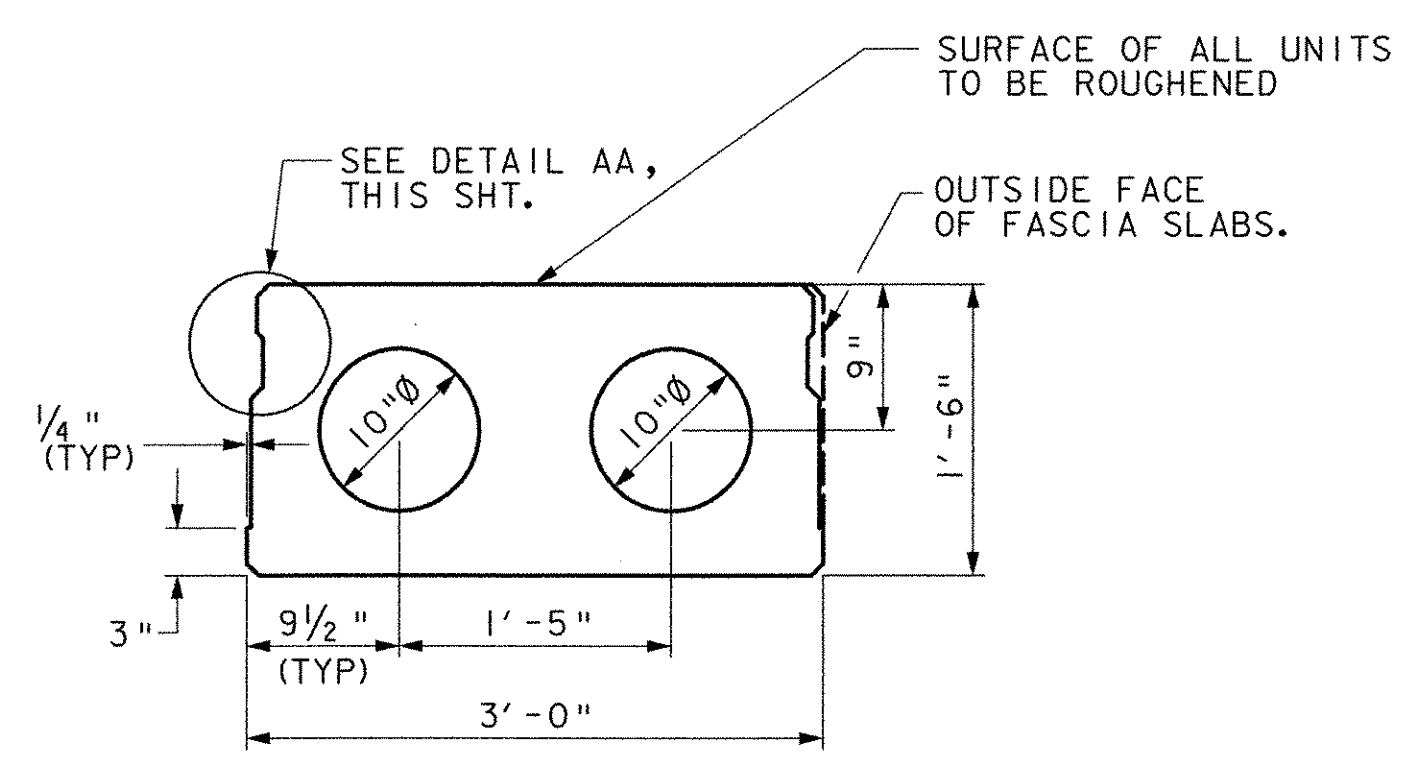
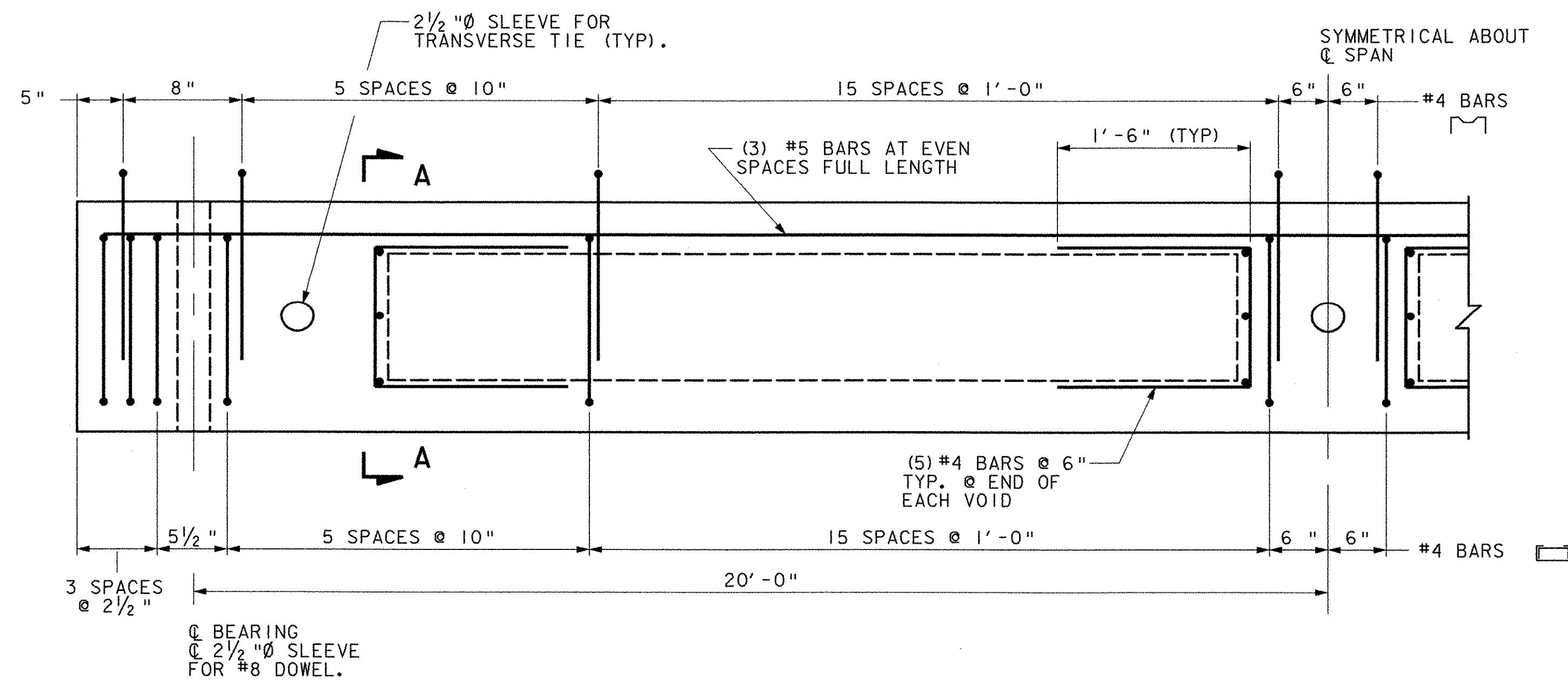
Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
D. B. SULLIVAN	08/01/03		
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
I.G.C. Info.			
Bridge Sheet No.		Sheet	38 of 65



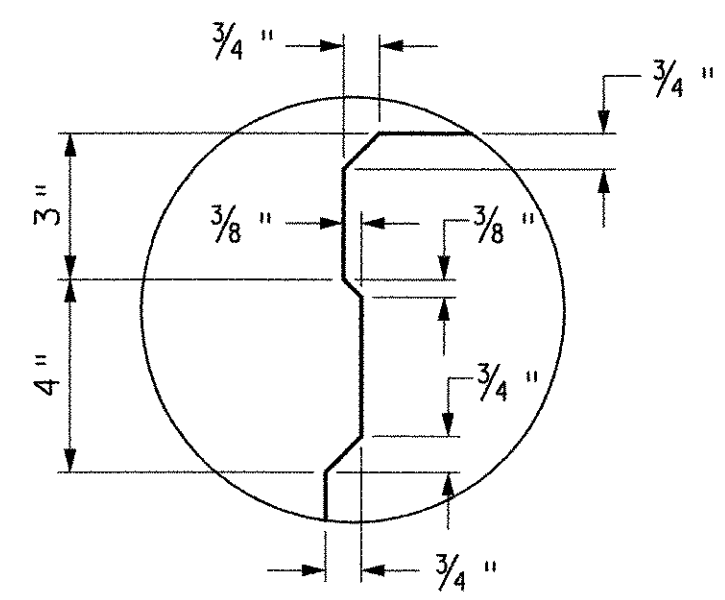
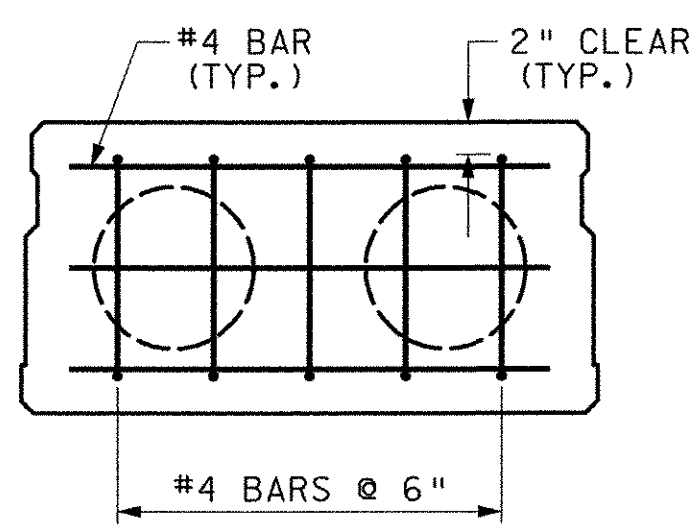
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NOTE:
SEE SHT. 47,
FOR BEARING DETAILS.



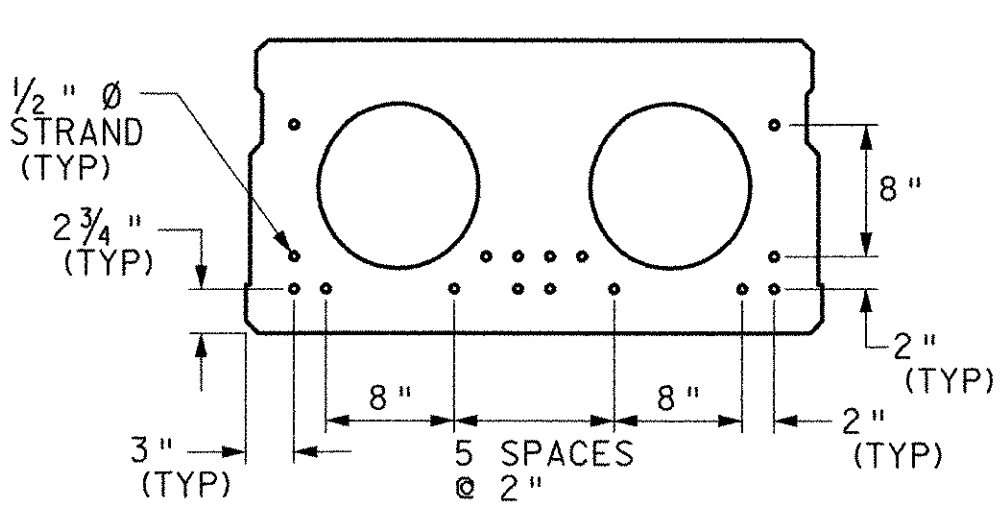
18" x 36" VOIDED SLAB
SCALE: 1" = 1'-0"



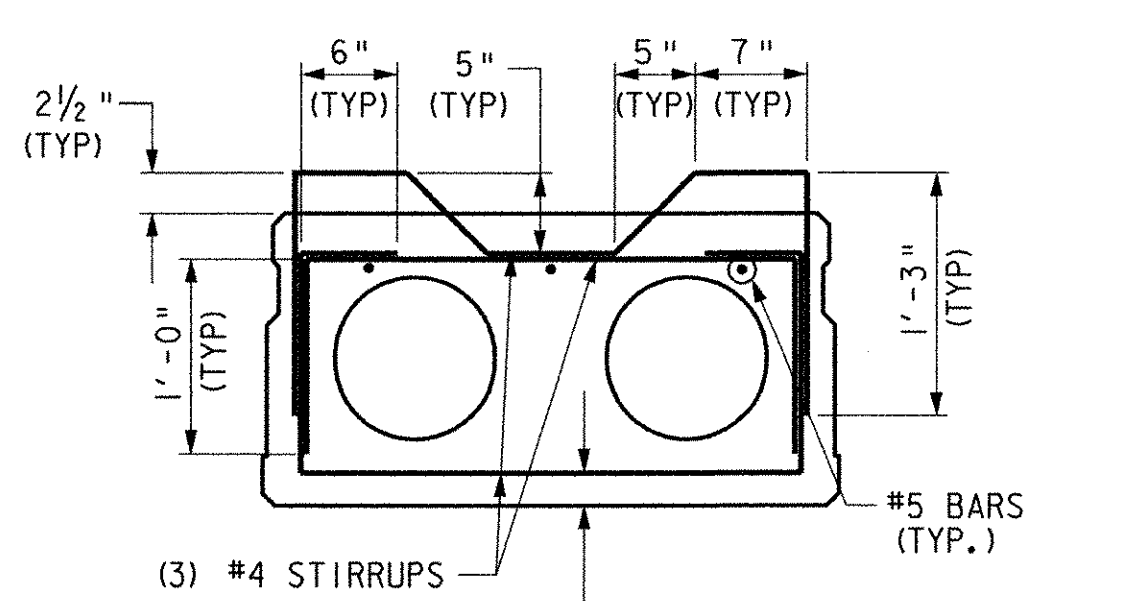
APPROXIMATE WEIGHT PER BEAM 21,900 lbs.

REACTIONS PER BEAM		
DL	SDL	LL+I
15.1 k	1.6 k	32.5 k

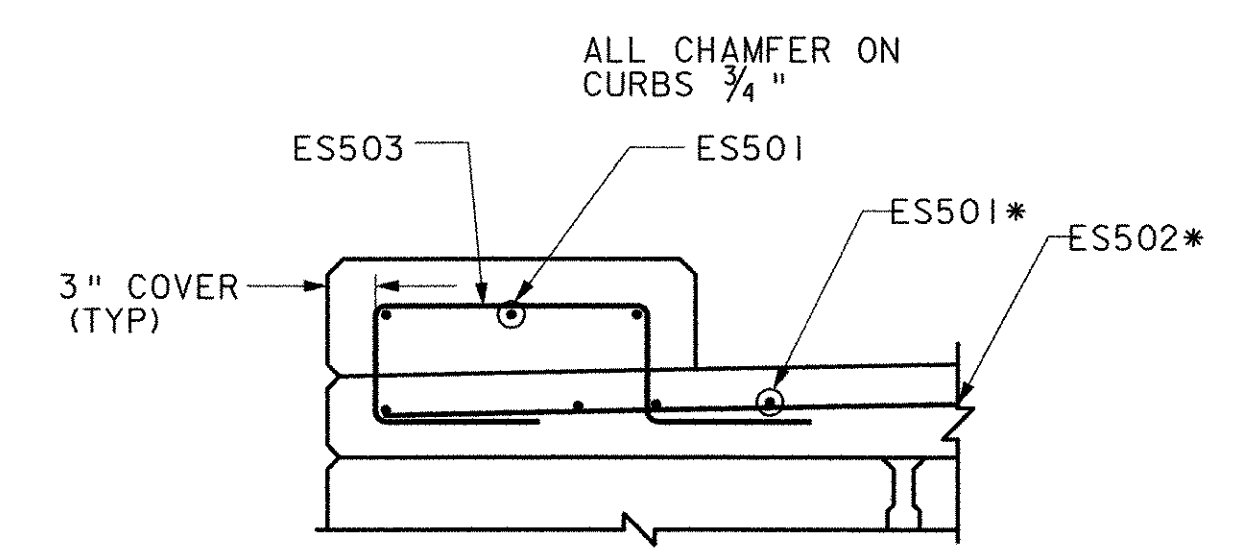
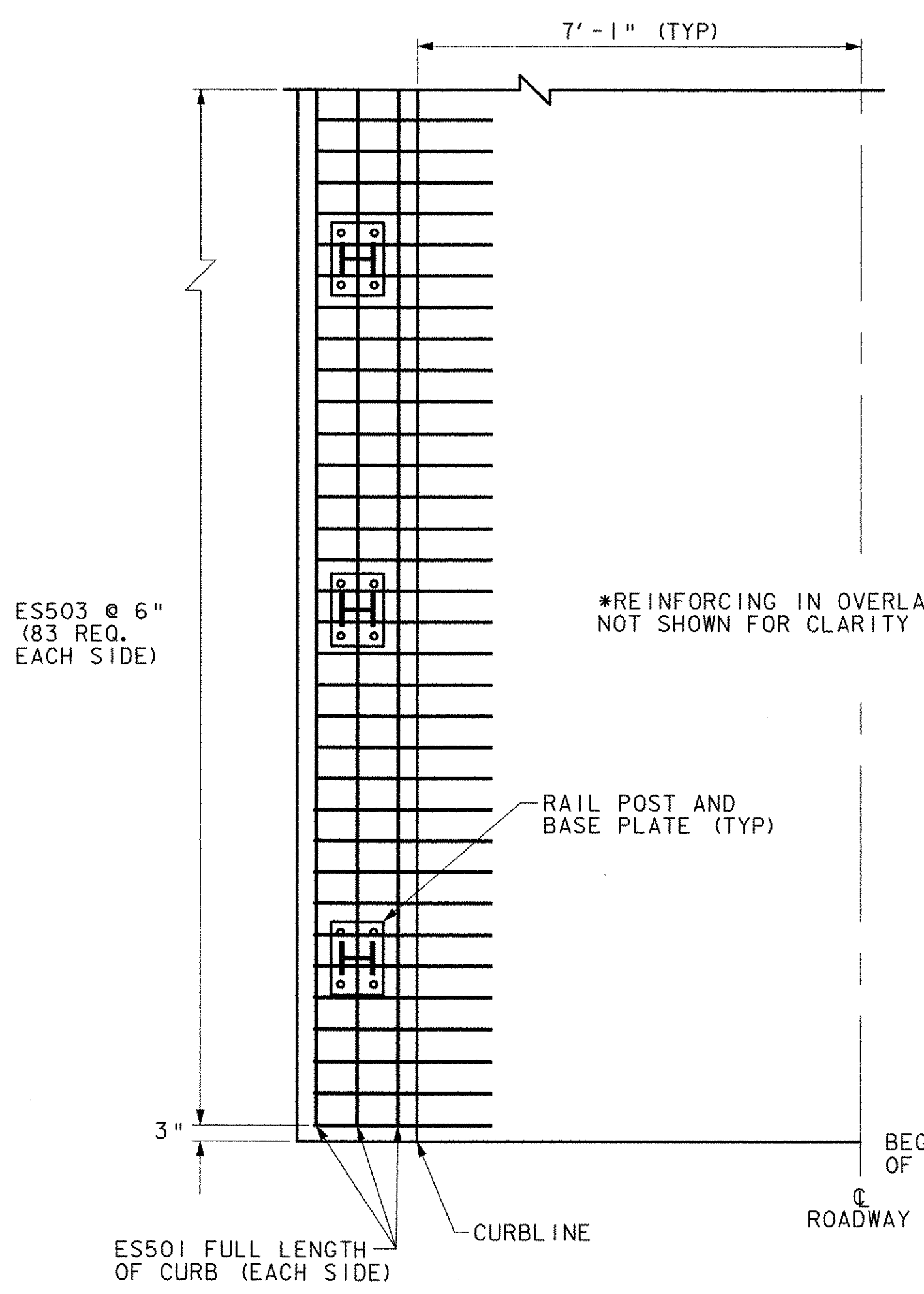
MOMENTS PER BEAM		
DL	SDL	LL+I
151 ft-k	16 ft-k	177 ft-k



18" x 36" VOIDED SLAB
STRAND LAYOUT
SCALE: 1" = 1'-0"



18" x 36" VOIDED SLAB
REINFORCEMENT LAYOUT
SCALE: 1" = 1'-0"



STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of MAIDSTONE, VT
STRATFORD, NH
Highway No. MAIDSTONE STATE HWY

Bridge No. 1
Log Sta.
Surv. Sta.

DECK PLAN - SPAN I
Designed By J. MESSIER
Checked By D.B. SULLIVAN
PROJECT MAIDSTONE-STRATFORD
I.G.C. Info.
Bridge Sheet No.

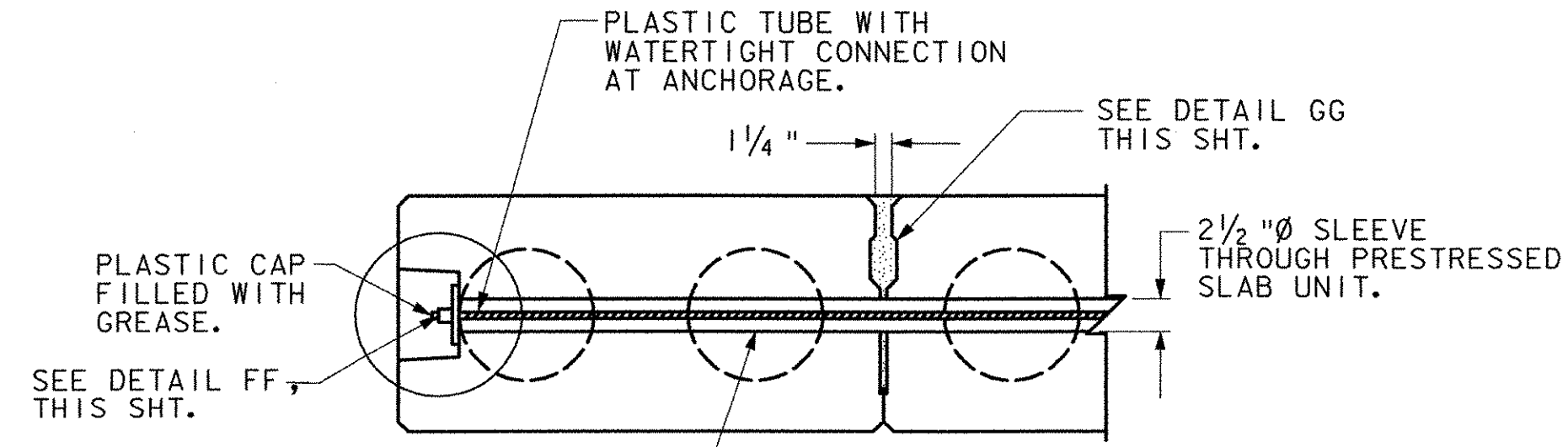
Drawn By C. DONOHUE
Bridge Design Supervisor
Date 08/01/03
Date
PROJECT NO. BHO 1447 (24)
Sheet 39 of 65



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PRESTRESSED CONCRETE NOTES

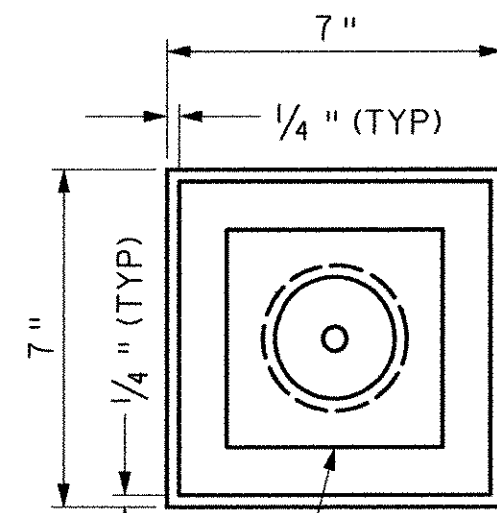
- SLABS ARE DETAILED WITH NOMINAL DIMENSIONS AND NOMINAL 1/2" JOINTS BETWEEN UNITS TO ACCOUNT FOR CONSTRUCTION TOLERANCES AND TO PROVIDE FOR AN EXACT OVERALL STRUCTURE WIDTH.
- LIFTING DEVICES ARE THE RESPONSIBILITY OF THE PRECASTER.
- THE CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 6000 PSI. THE MINIMUM REQUIRED COMPRESSIVE STRENGTH AT STRESS TRANSFER SHALL NOT BE LESS THAN 4000 PSI.
- PRESTRESSING STRANDS SHALL CONSIST OF UNCOATED HIGH STRENGTH SEVEN WIRE LOW-RELAXATION STRANDS HAVING A NOMINAL DIAMETER OF 1/2" CONFORMING TO THE REQUIREMENTS OF AASHTO STANDARD SPECIFICATION M 203 (ASTM DESIGNATION A 416) GRADE 270.
- ALL STRANDS SHALL BE PRETENSIONED TO A FORCE OF 30.9 K BEFORE CASTING OF CONCRETE. THE EFFECTIVE PRESTRESSING FORCE IN EACH STRAND AFTER LOSSES SHALL NOT BE LOWER THAN 24.8 K.
- LATERAL TIES SHALL CONSIST OF SEVEN WIRE HIGH STRENGTH UNCOATED LOW-RELAXATION PRESTRESSING STRANDS HAVING A NOMINAL DIAMETER OF 1/2" CONFORMING TO AASHTO DESIGNATION M 203 (ASTM DESIGNATION A 416) GRADE 270. LATERAL TIES SHALL BE INCLUDED IN THE UNIT PRICE FOR PRESTRESSED CONCRETE DECK UNITS. CORROSION PROTECTION OF THE LATERAL TIES SHALL BE AS DETAILED ON THE DRAWINGS.
- NON-PRESTRESSED REINFORCEMENT SHALL CONFORM TO AASHTO DESIGNATION M 31 (ASTM DESIGNATION A 615) GRADE 60 AND SHALL BE EPOXY COATED.
- ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4-INCH.
- ANY STRUCTURAL MEMBERS DAMAGED DURING FABRICATION, SHIPPING OR ERECTION, SUCH THAT THEIR STRUCTURAL INTEGRITY IS COMPROMISED, SHALL BE REJECTED AND REPLACED AT THE CONTRACTOR'S OWN EXPENSE. THE RESIDENT ENGINEER SHALL BE THE SOLE JUDGE IN DETERMINING THE STRUCTURAL INTEGRITY OF DAMAGED PRESTRESSED MEMBERS.
- DURING HANDLING, THE BEAMS MUST BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND MUST BE PICKED ONLY BY MEANS OF APPROVED LIFTING DEVICES AT THEIR APPROVED SUPPORT POINTS.
- DIMENSIONAL TOLERANCES SHALL NOT EXCEED THOSE RECOMMENDED IN THE LATEST EDITION OF THE PCI MANUAL FOR QUALITY CONTROL FOR PLANTS AND OF PRECAST PRESTRESSED CONCRETE PRODUCTS.
- ALL SHOP DRAWINGS SHALL BE SUBMITTED TO THE RESIDENT ENGINEER IN SUFFICIENT TIME TO PERMIT CAREFUL CHECKING.
- ALL PRESTRESSING STEEL AND EPOXY COATED REINFORCING BARS SHALL BE SECURELY TIED TO PREVENT DISLOCATION. TIES USED FOR THE EPOXY COATED REINFORCING STEEL SHALL ALSO BE COATED.
- THE DETAILS OF ALL INSERTS, ANCHORS, AND ANY OTHER ITEMS REQUIRED TO BE CAST INTO THE PRECAST PRESTRESSED UNITS (WHETHER DETAILED ON THE CONTRACT DRAWINGS OR PROVIDED FOR THE CONTRACTOR'S CONVENIENCE) SHALL BE SHOWN ON THE SHOP DRAWINGS. PRECAST UNITS SHALL NOT BE FIRED OR DRILLED INTO FOR ATTACHMENT PURPOSES. ALL HARDWARE SHALL BE GALVANIZED.
- THE NON-SHRINK GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 10,000 PSI AFTER 28 DAYS AS DETERMINED BY TESTING UNDER ASTM DESIGNATION C-109 AND SHALL NOT EXHIBIT ANY MEASURABLE DECREASE IN VOLUME AFTER CURING. THE CONTRACTOR SHALL STRICTLY FOLLOW THE MANUFACTURER'S RECOMMENDATIONS. NO TRAFFIC OR EQUIPMENT SHALL BE PERMITTED ON THE STRUCTURE UNTIL THE GROUT HAS CURED FOR AT LEAST 72 HOURS OR AS DIRECTED BY THE RESIDENT ENGINEER. GROUTING SHALL BE PERFORMED IN ACCORDANCE WITH THE DETAILS SHOWN. THE COST OF THE GROUT SHALL BE SUBSIDIARY TO THE COST OF THE PRESTRESSED CONCRETE UNITS.
- ALLOWANCES FOR FABRICATION TOLERANCES SHALL BE PERMITTED IN ACCORDANCE WITH AASHTO AND PCI.
- CONTRACTOR SHALL PERFORM SURVEY OF TOP OF THE VOIDED SLAB SECTIONS PRIOR TO SHIPPING AND REPORT CAMBER TO ENGINEER. THE RESULTS OF THIS SURVEY WILL BE USED TO CREATE BEAM PROFILES AND TO ADJUST ABUTMENT SEAT ELEVATIONS IF NECESSARY.
- VOID DRAIN HOLES SHALL BE 3/4" DIAMETER, NONFERROUS AND THE DRAINS WILL BE CLEANED AFTER ERECTION.
- THE FABRICATOR MAY SUBMIT ALTERNATE MEMBERS (VARIATION IN THE SECTION GEOMETRIES) FOR APPROVAL PROVIDED THE OVERALL DEPTH AND WIDTH OF THE TYPICAL SECTION ARE NOT GREATER THAN THAT DETAILED.
- TWO WEEKS PRIOR TO THE START OF THE WORK NOTIFICATION SHALL BE GIVEN TO THE RESIDENT ENGINEER AND VTRANS MATERIAL AND RESEARCH STRUCTURAL CONCRETE UNIT'S SUPERVISOR FOR SCHEDULING AN INSPECTION OF THE UNITS. FIVE WORKING DAYS PRIOR TO STARTING WORK, THE FABRICATOR SHALL CONFIRM THE START DATE WITH THE VTRANS MATERIAL AND RESEARCH STRUCTURAL CONCRETE UNIT'S SUPERVISOR.



7-WIRE STRAND WITH CORROSION PREVENTIVE PLASTIC SLEEVE COMPLETELY FILLED WITH ANTICORROSIVE GREASE

LATERAL TIE DETAIL

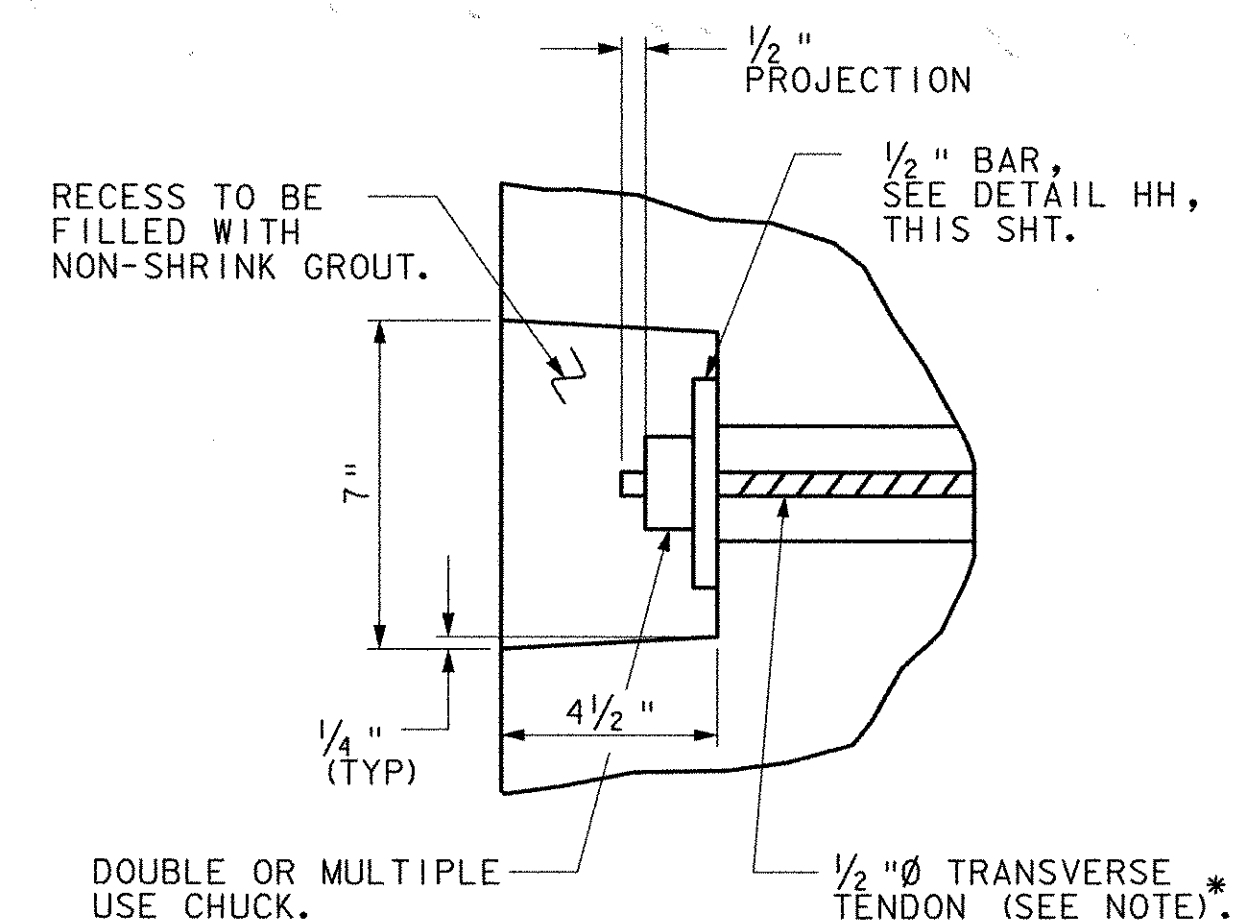
SCALE: 1" = 1'-0"



1/2" x 4 1/2" x 4 1/2" AASHTO M 270 GRADE 50 STEEL BAR

DETAIL HH

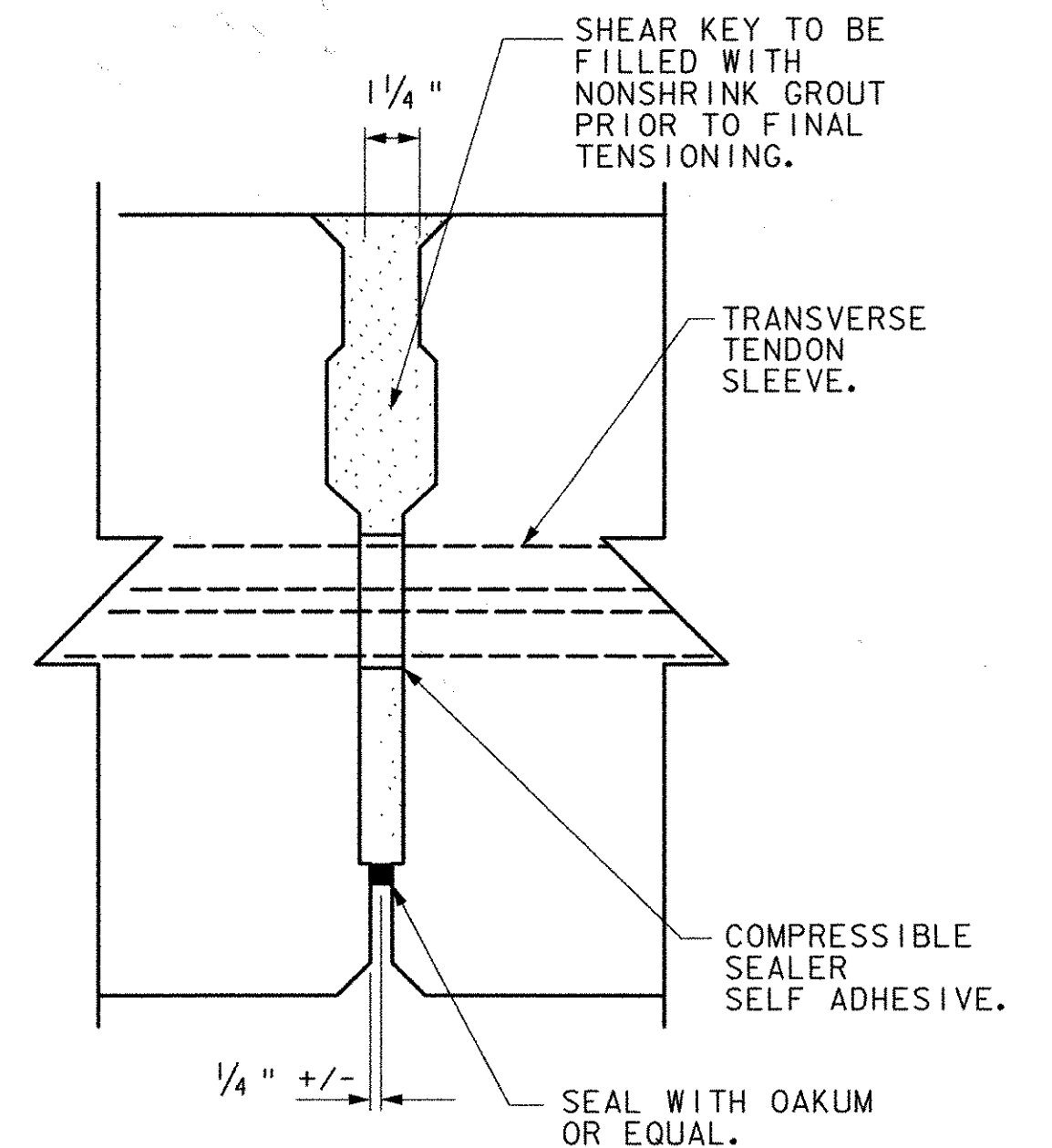
SCALE: 3" = 1'-0"



DETAIL FF

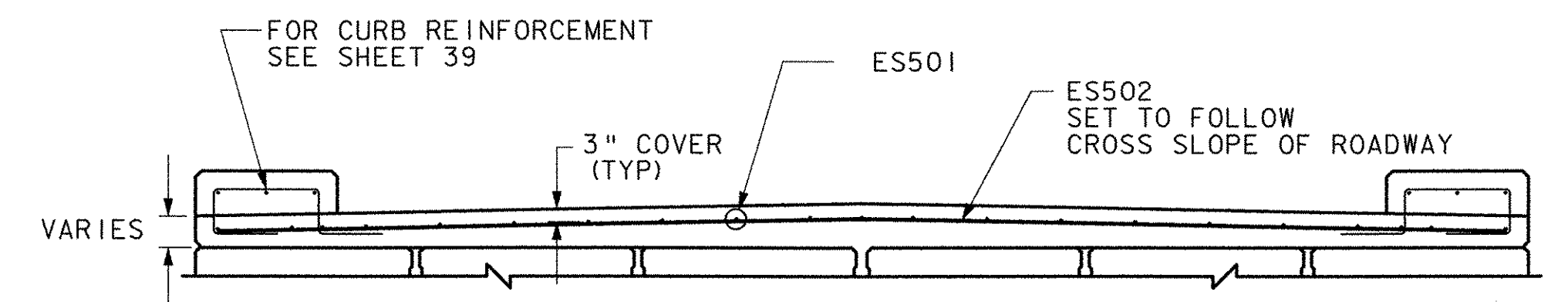
SCALE: 3" = 1'-0"

* TRANSVERSE TIES SHALL BE COVERED BY SEAMLESS POLYPROPYLENE SHEATH (WITH CORROSION INHIBITOR GREASE BETWEEN SHEATH AND STRAND) FOR THE LENGTH OF STRAND, EXCEPT AT ANCHORAGE LOCATIONS. TENSION TIE TO 5,000 LBS PRIOR TO GROUTING JOINTS. AFTER GROUT IS CURED, TENSION TIE TO 30,000 LBS.



DETAIL GG

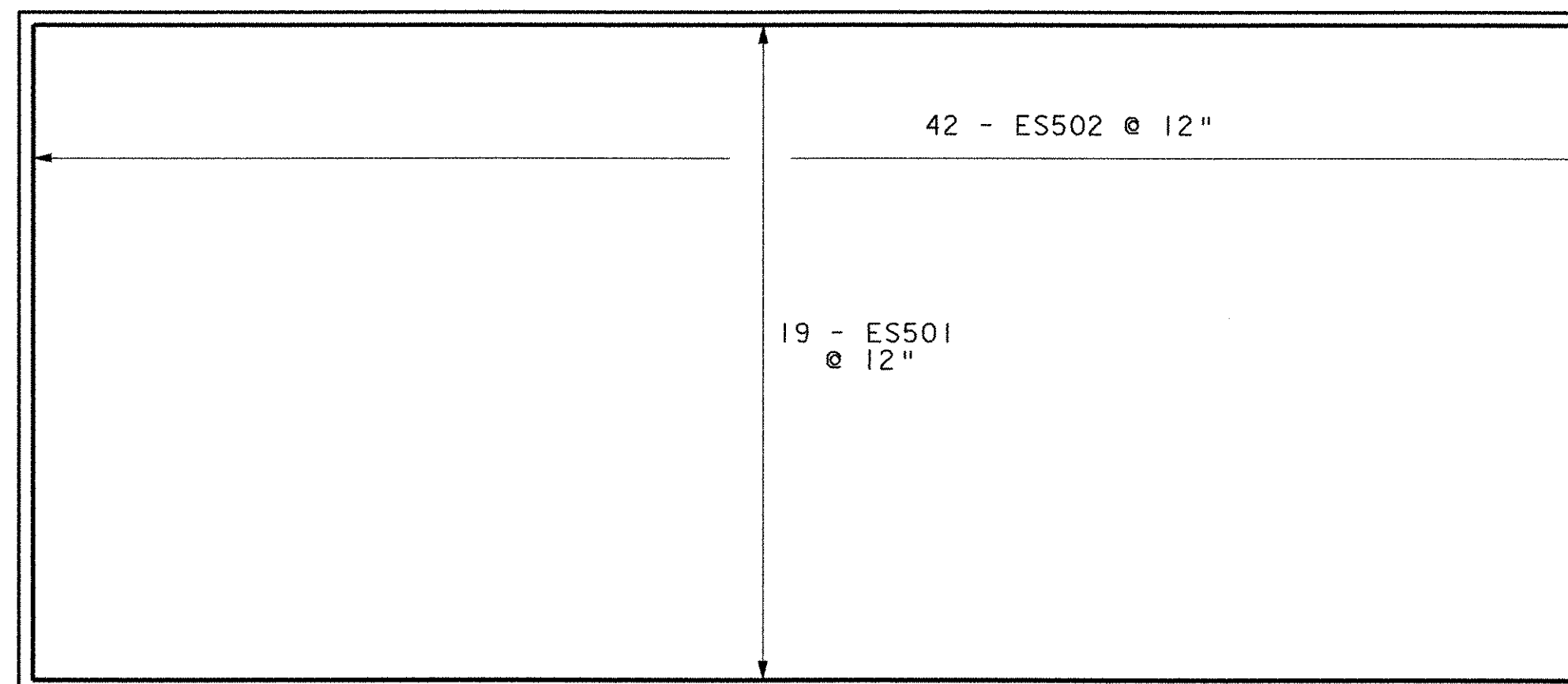
SCALE: 3" = 1'-0"



CROSS SECTION

CONCRETE OVERLAY REINFORCING

1/4" = 1'



PLAN

CONCRETE OVERLAY REINFORCING

1/4" = 1'



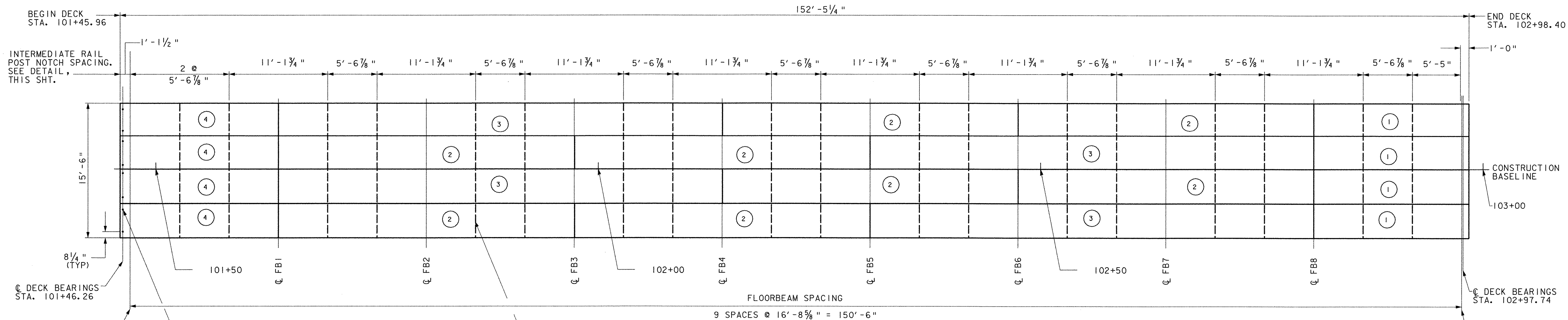
STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
		Surv. Sta.	

DECK DETAILS - SPAN 1

Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
D.B.	SULLIVAN	08/01/03	
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
I.G.C. Info.			
Bridge Sheet No.		Sheet	40 of 65

13 AUG 2003 10:20:17\cadd\qgn\ze054rk2.dgn

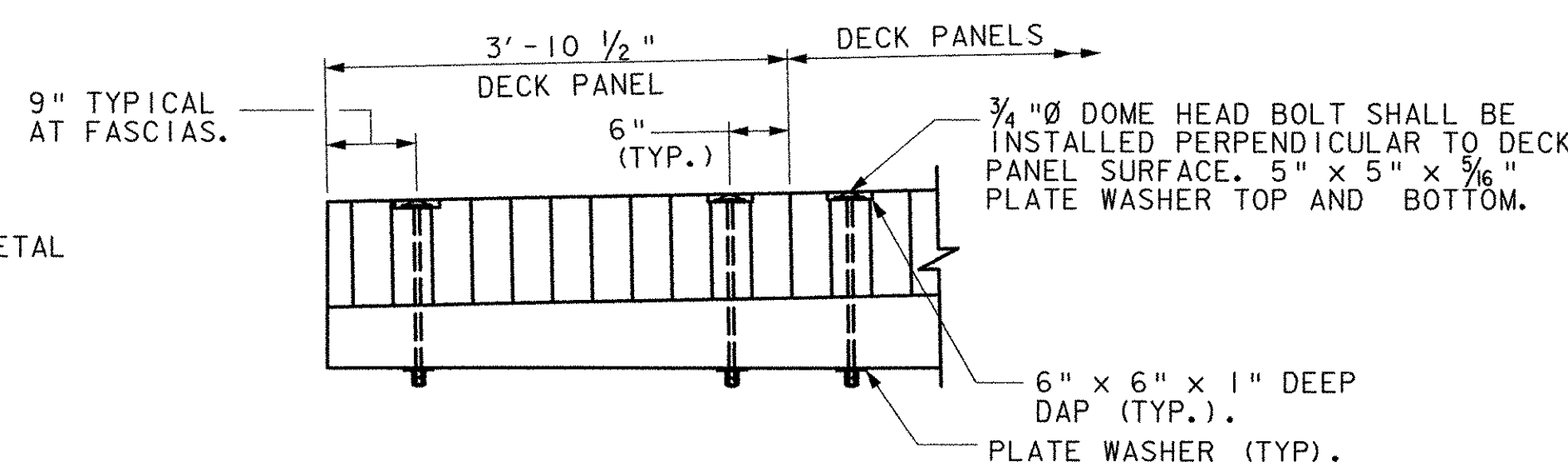


DECK PANEL LAYOUT
SCALE: 3/16" = 1'

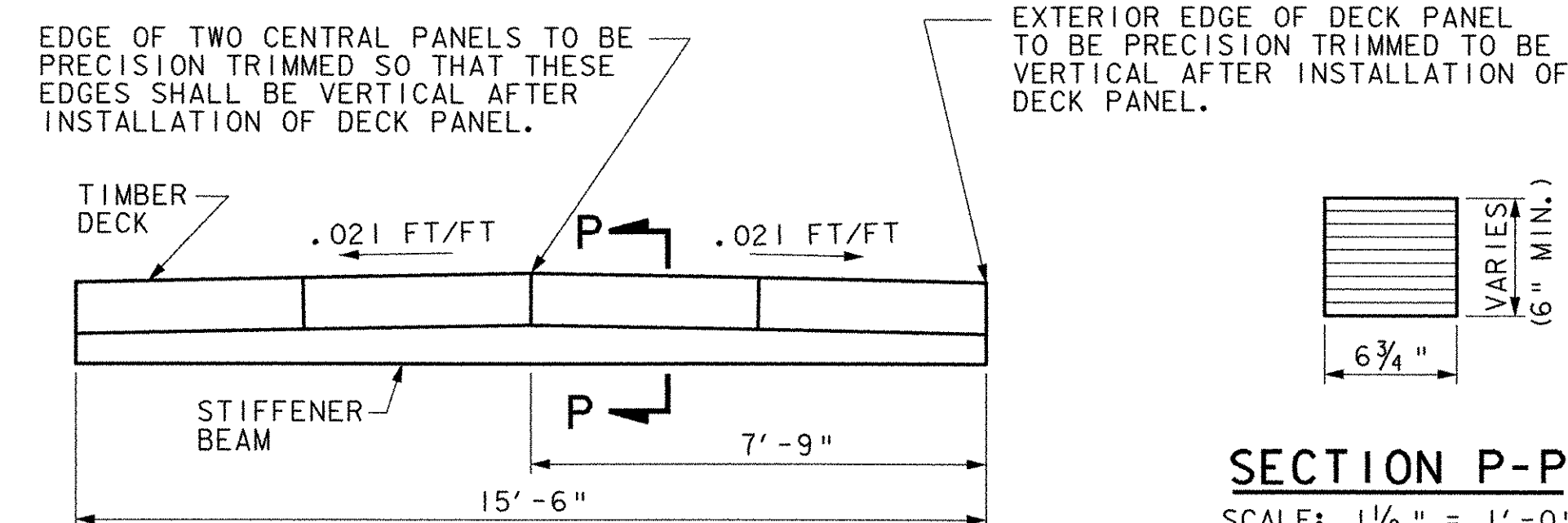
- ① 4 EA L=17'-6 1/2"
- ② 8 EA L=33'-5 1/8"
- ③ 4 EA L=50'-1 3/4"
- ④ 4 EA L=17'-10" (PANEL LENGTHS INCLUDE -1/8" FOR TOLERANCE)

TIMBER DECK NOTES:

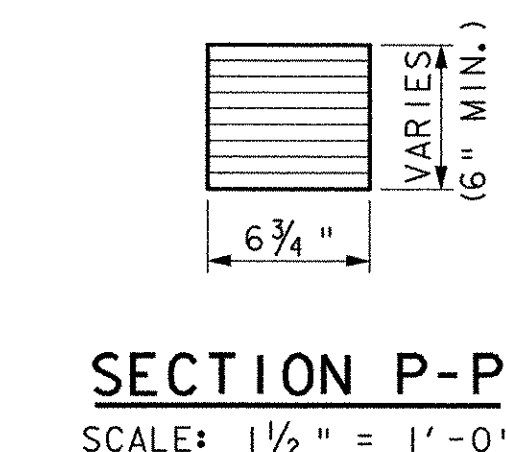
1. ITEM 522.40 "STRUCTURAL GLUED LAMINATED TIMBER" SHALL INCLUDE DECK PANELS, STIFFENER BEAMS, AND ALL HARDWARE REQUIRED TO ATTACH THESE ELEMENTS AND HARDWARE TO ATTACH THE DECK TO THE FLOORBEAMS. THIS ITEM SHALL ALSO INCLUDE ALL DRILLED HOLES, NOTCHES, AND DAPS REQUIRED TO INSTALL THE INTERMEDIATE RAIL POSTS, ANCHORAGE PLATES, DECK ANCHORS, CURBS AND JOINT PLATES ETC. ALL METAL PARTS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 111M/M 111 OR AASHTO M 232M/M 232.
2. PROVIDE 1/2" x 1/2" CHAMFER OR 1/2" DIAMETER RADIUS AT TOP EDGE UNIT 1 AT END OF DECK UNITS TO FACILITATE INSTALLATION OF DECK JOINT.
3. ITEM 522.25 "STRUCTURAL LUMBER AND TIMBER - TREATED" SHALL INCLUDE THE CROSSFALL SPACER, CURBS, CURB RISERS AND ALL HARDWARE REQUIRED TO ATTACH THESE ELEMENTS AS SHOWN ON THE PLANS.
4. ITEM 522.35 "NON-STRUCTURAL LUMBER - TREATED" SHALL INCLUDE THE TIMBER OVERLAY AND ALL HARDWARE REQUIRED TO ATTACH THE OVERLAY TO THE DECK.
5. THE DECK PANELS AND STIFFENER BEAMS SHALL BE GLUED LAMINATED. ALL OTHER TIMBER SHALL BE ROUGH SAWN DIMENSIONAL LUMBER OR TIMBER EXCEPT AS NOTED.
6. ALL GLUED LAMINATED PANELS TO BE 10 1/2" THICK X 46 1/2" WIDE AND SHALL BE SOUTHERN PINE MEETING THE REQUIREMENTS OF THE AMERICAN NATIONAL STANDARD ANSI/AITC A190.1.
MIN. Fb' = Fby * Cf * Cm = 1450 psi MIN. Fc = Fc * Cm * Cb = 400 psi
7. THE ROUGH SAWN DIMENSIONAL LUMBER SHALL BE NO. 1 SOUTHERN PINE EXCEPT THE HARDWOOD CROSSFALL SPACER. THE HARDWOOD CROSS FALL SPACER SHALL BE ANY NORTHERN HARDWOOD SPECIES MEETING THE MINIMUM TABULATED DESIGN VALUES LISTED FOR NORTHERN RED OAK NO. 2 POST AND TIMBERS IN TABLE 13.5.1A OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
8. DECK PANELS, STIFFENER BEAMS, HARDWOOD CROSSFALL SPACERS, CURBS AND CURB RISERS SHALL BE FORMED AND DRILLED WITH ALL HOLES, NOTCHES AND DAPS PREFORMED PRIOR TO THE APPLICATION OF PRESERVATIVE TREATMENT. NO ASSEMBLY SHALL BE ALLOWED PRIOR TO THE PRESERVATIVE TREATMENT. ANY CUTS, DRILL HOLES, NOTCHES, ETC. MADE IN THE FIELD SHALL BE RETREATED WITH COPPER NAPHTHENATE SOLUTION AS APPROVED BY THE RESIDENT ENGINEER.
9. THE AREA WHERE THE DECK AND BEARINGS INTERFACE SHALL HAVE AN ADHESIVE, APPROVED BY THE ENGINEER, APPLIED IMMEDIATELY PRIOR TO THE PLACEMENT OF THE PANELS.
10. THE TIMBER OVERLAY IS ROUGH SAWN 2" NOMINAL THICKNESS, ACTUAL THICKNESS IS 1 5/8".
11. THE OVERLAY ATTACHMENT FASTENERS SHALL BE PLACED IN FIELD DRILLED HOLES THAT ARE A MAXIMUM OF 75% OF THE SPIKE DIAMETER. THE SPIKES SHALL BE DRIVEN AT AN ANGLE OF 10° - 20°. ALTERNATE DIRECTION TO OPPOSITE PLANK ENDS ON SUCCESSIVE SPIKES. THE HOLES SHALL BE TREATED WITH COPPER NAPHTHENATE SOLUTION PRESERVATIVE PRIOR TO PLACING THE SPIKE.
12. PLANKS FOR THE OVERLAY SHALL BE CONTINUOUS OVER THE PANEL END JOINTS. MINIMUM OF 2' ATTACHED TO EACH DECK PANEL.
13. THE SEALANT USED AT THE DECK PANEL END JOINTS SHALL BE CONSIDERED SUBSIDIARY TO ITEM 522.40 "STRUCTURAL GLUED LAMINATED TIMBER".
14. PRESERVATIVE TREATMENTS, TYPE II FOR GLULAM AND TYPE IV FOR SAWN LUMBER, SHALL BE IN ACCORDANCE WITH SECTION 709 OF THE STANDARD SPECIFICATIONS AND IN ACCORDANCE WITH THE BEST MANAGEMENT PRACTICES FOR THE USE OF PRESERVATIVE TREATED WOOD IN AQUATIC ENVIRONMENTS.



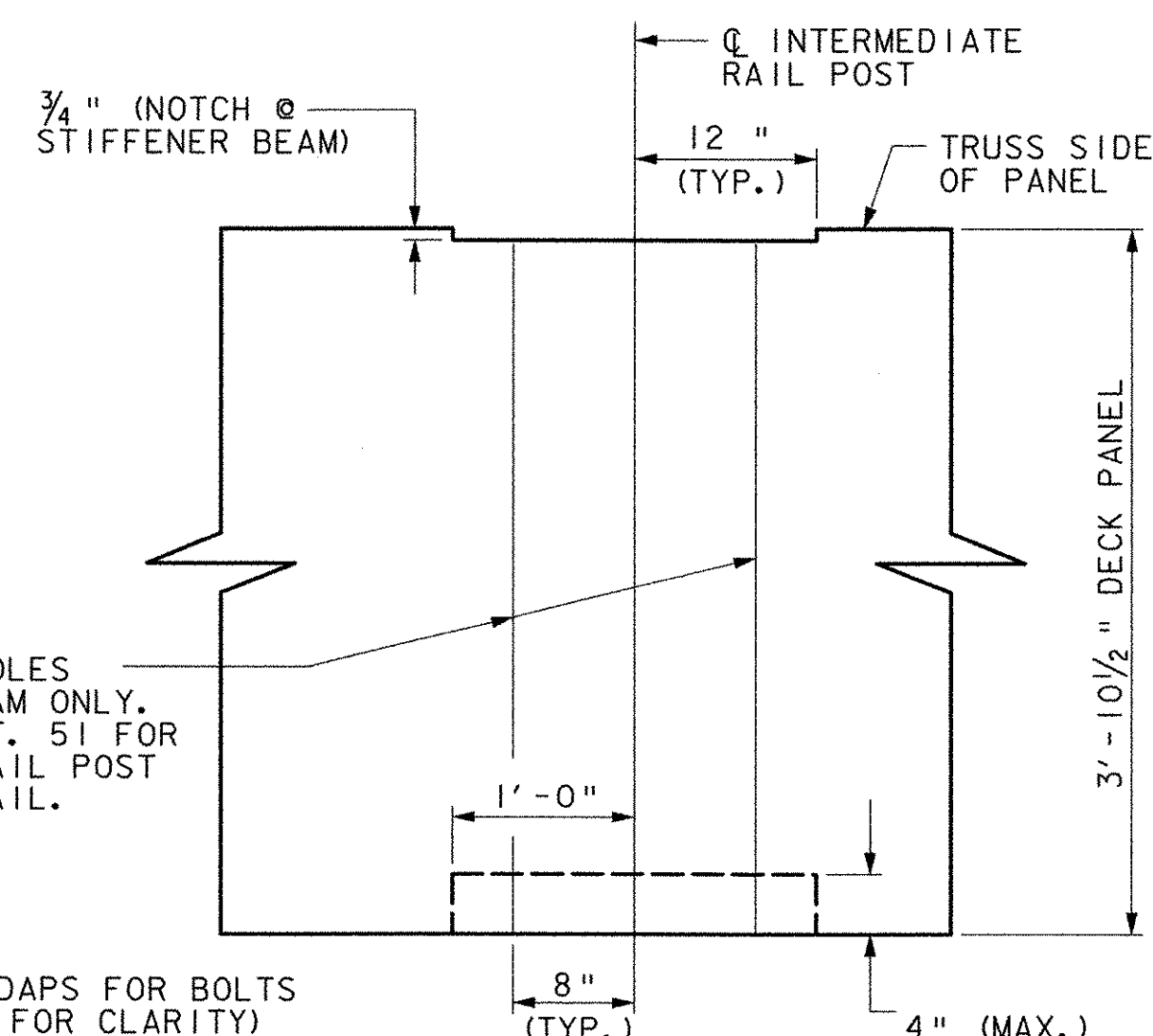
PANEL ATTACHMENT TO STIFFENER BEAM
SCALE: 3/4" = 1'-0"



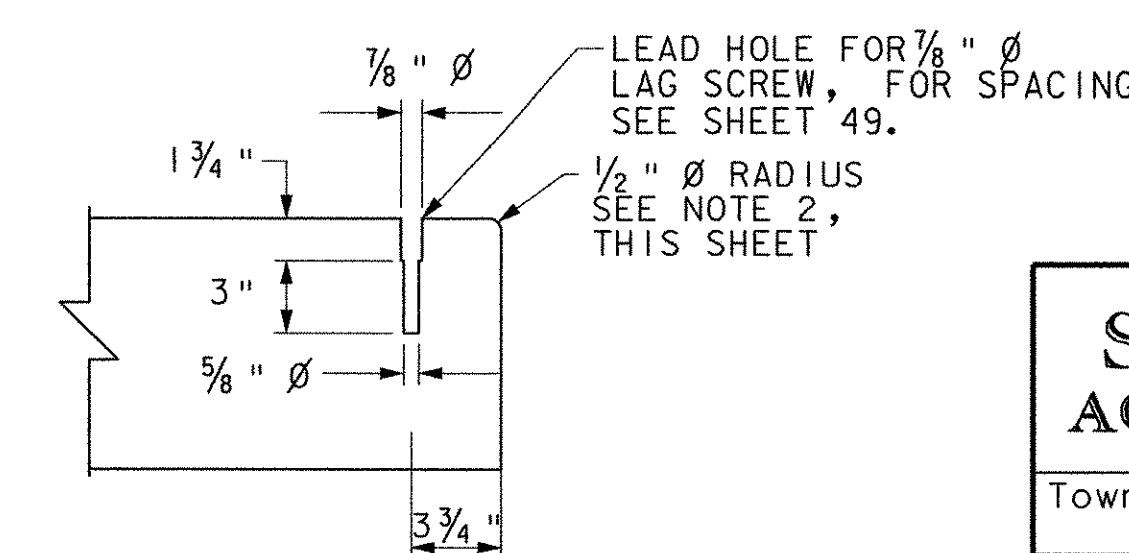
TRANSVERSE STIFFENER BEAM
SCALE: 3/8" = 1'-0"



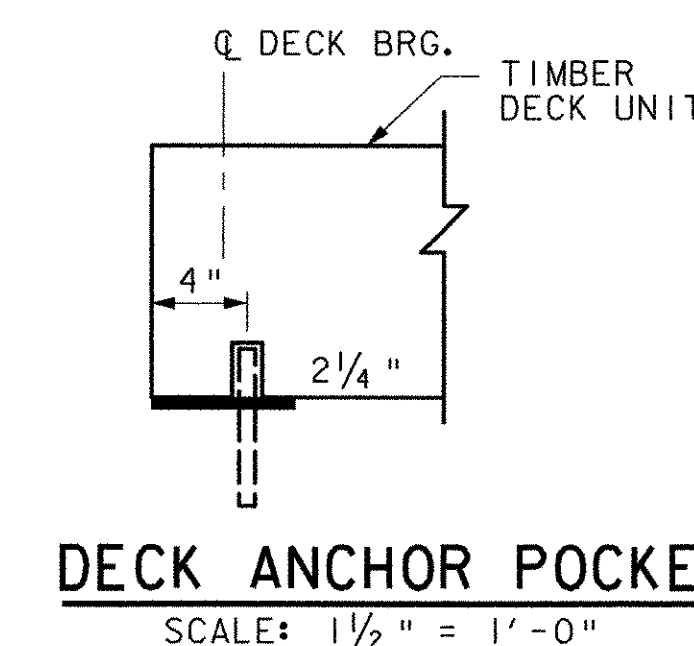
SECTION P-P
SCALE: 1/2" = 1'-0"



PARTIAL PLAN OF DECK EDGE PANEL
SCALE: 1" = 1'-0"

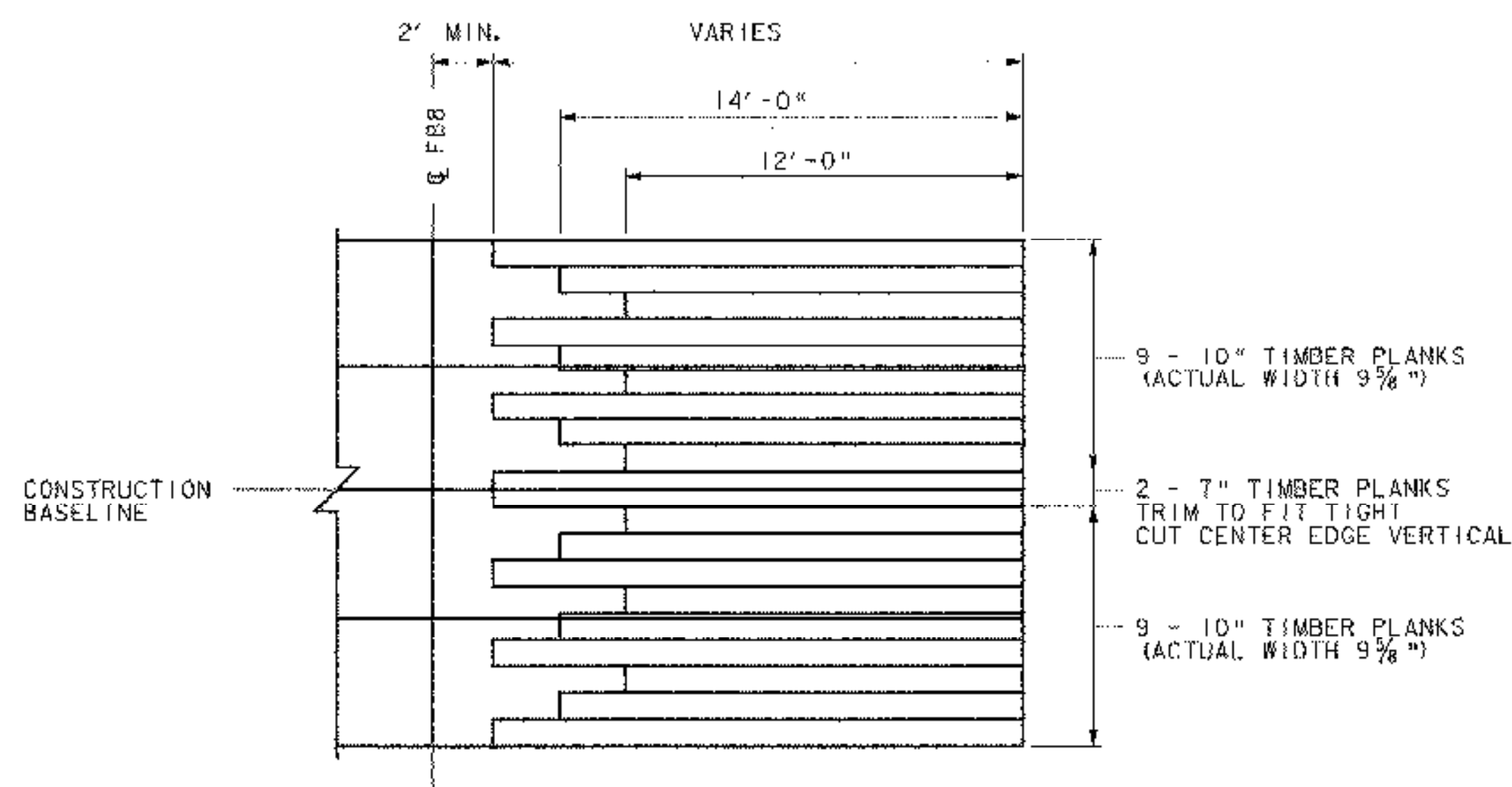


END OF DECK UNIT 1 AT ABUTMENT 2
SCALE: 1 1/2" = 1'-0"



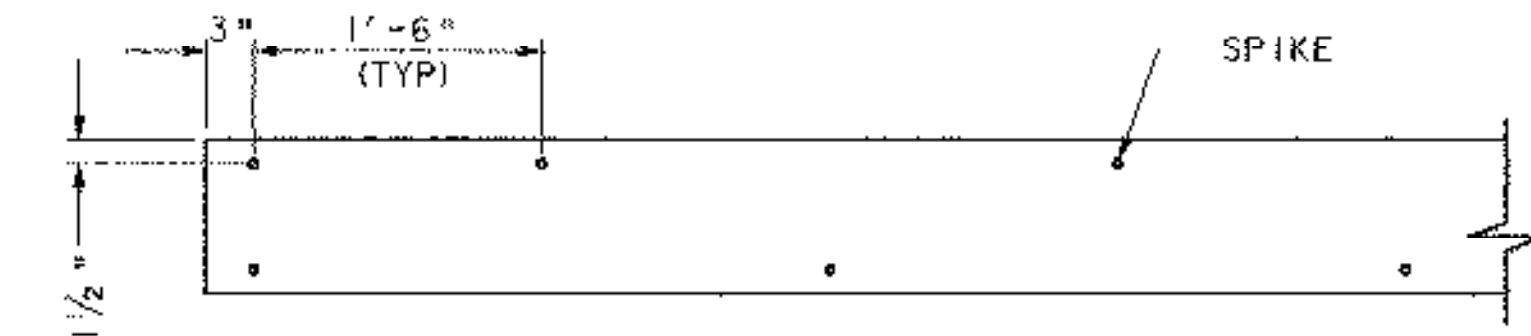
DECK ANCHOR POCKET
SCALE: 1 1/2" = 1'-0"

STATE OF VERMONT AGENCY OF TRANSPORTATION		
Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No. 1
Highway No.	MAIDSTONE STATE HWY	Log Sta. Surv. Sta.
DECK PLAN - SPAN 2		
Designed By	J. MESSIER	Drawn By C. DONOHUE
Checked By	Date	Bridge Design Supervisor
D.B. SULLIVAN	08/01/03	Date
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO. BHO 1447 (24)
I.G.C. Info.		
Bridge Sheet No.		Sheet 41 of 65



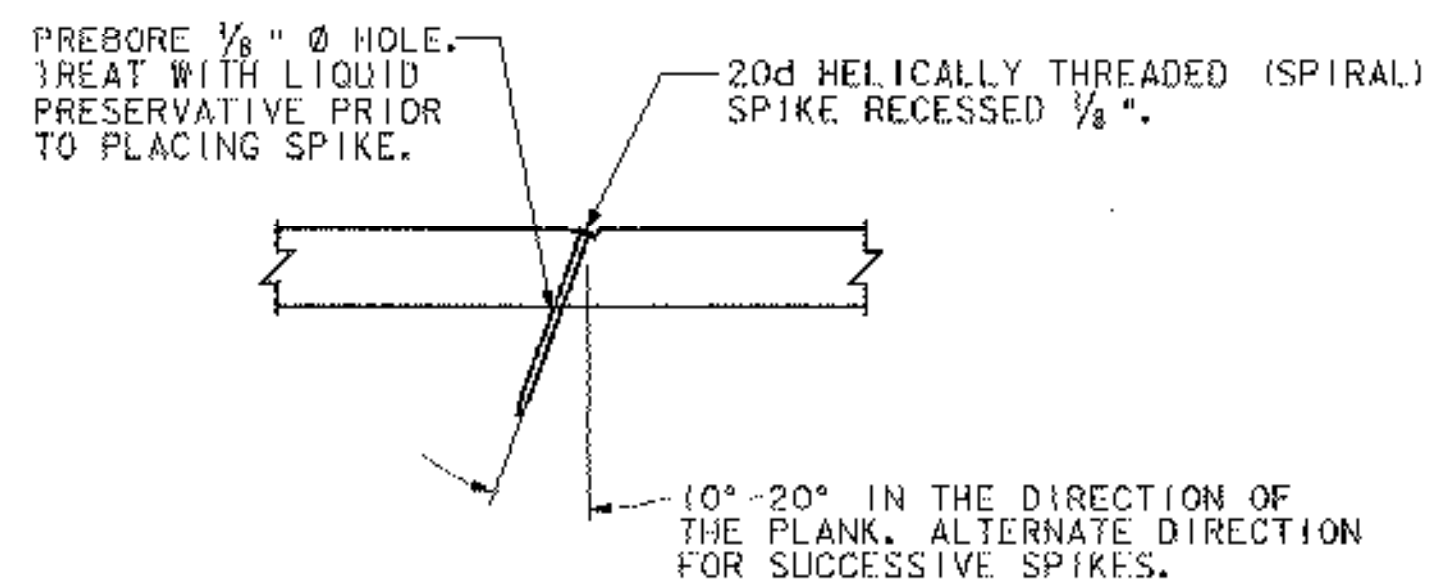
TIMBER OVERLAY LAYOUT

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



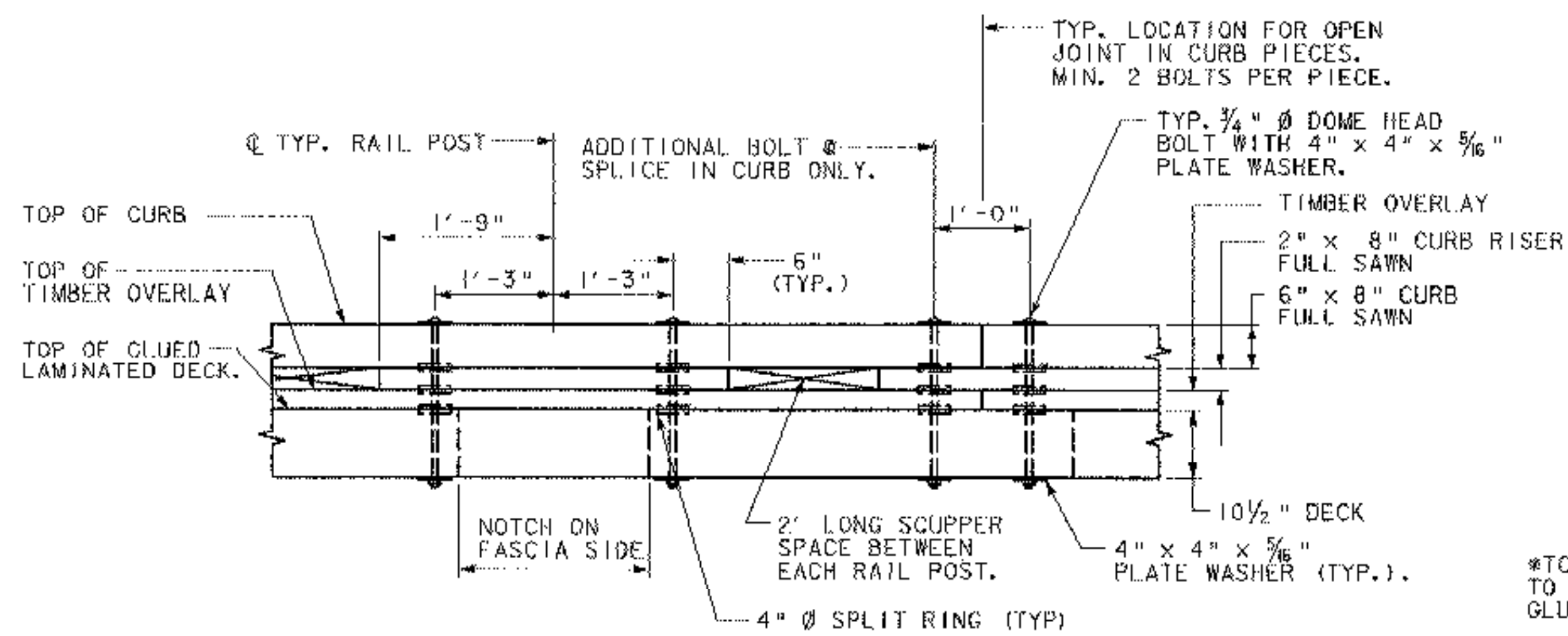
TIMBER OVERLAY ATTACHMENT PLAN

SCALE: 1" = 1'-0"



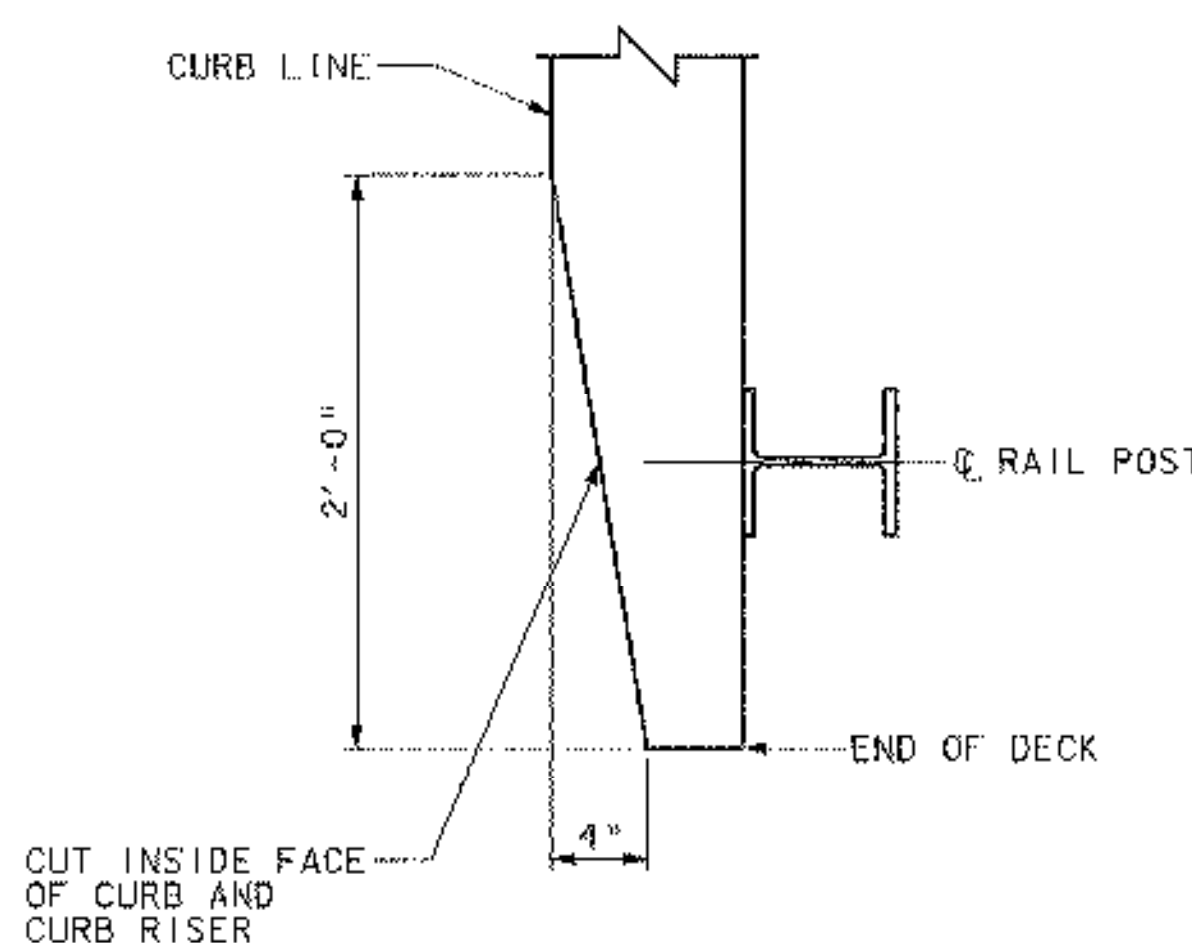
TIMBER OVERLAY ATTACHMENT DETAIL

SCALE: 3" = 1'-0"



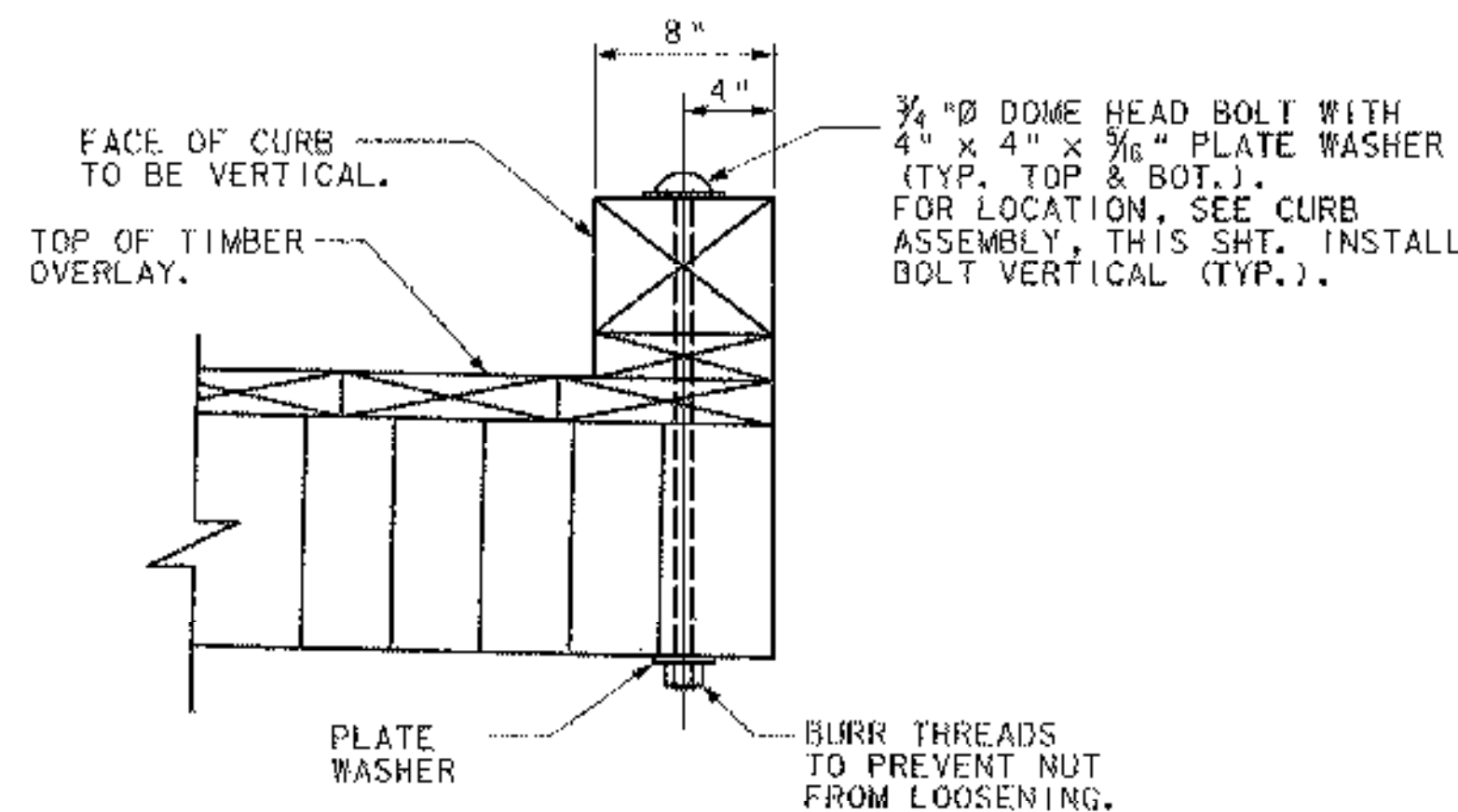
ELEVATION OF CURB ASSEMBLY

N. T. S.



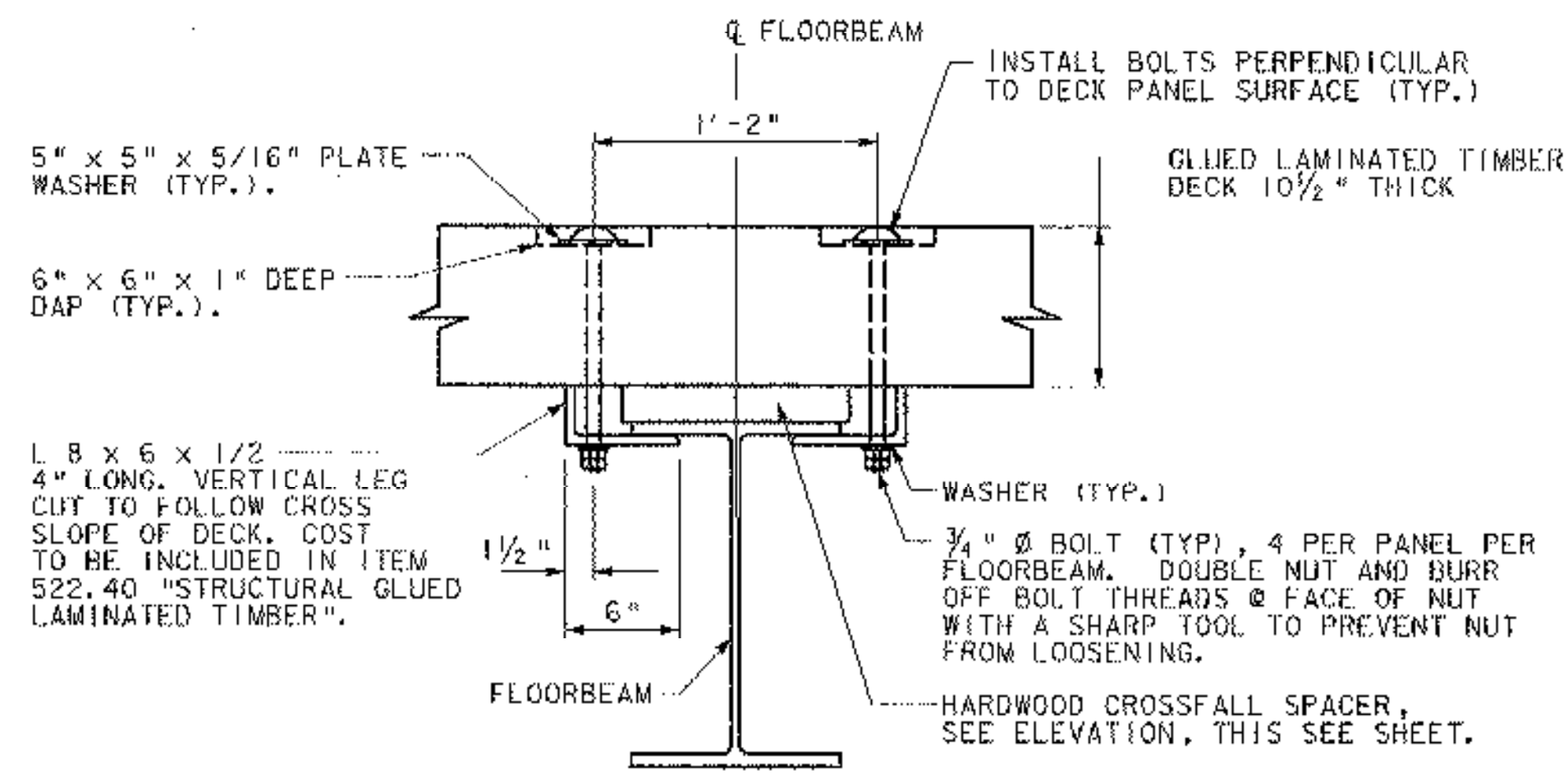
CURB TREATMENT AT ABUTMENT 2

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



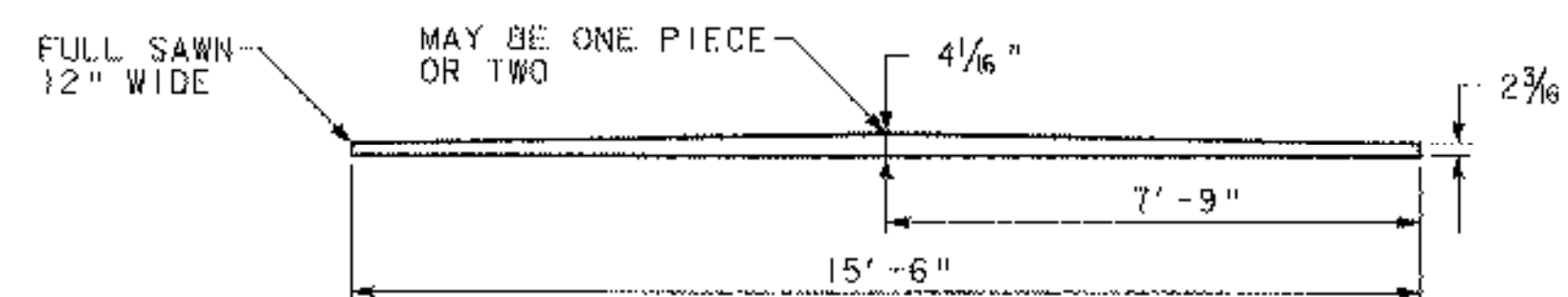
CURB TO DECK ATTACHMENT

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



DECK TO FLOORBEAM CONNECTION

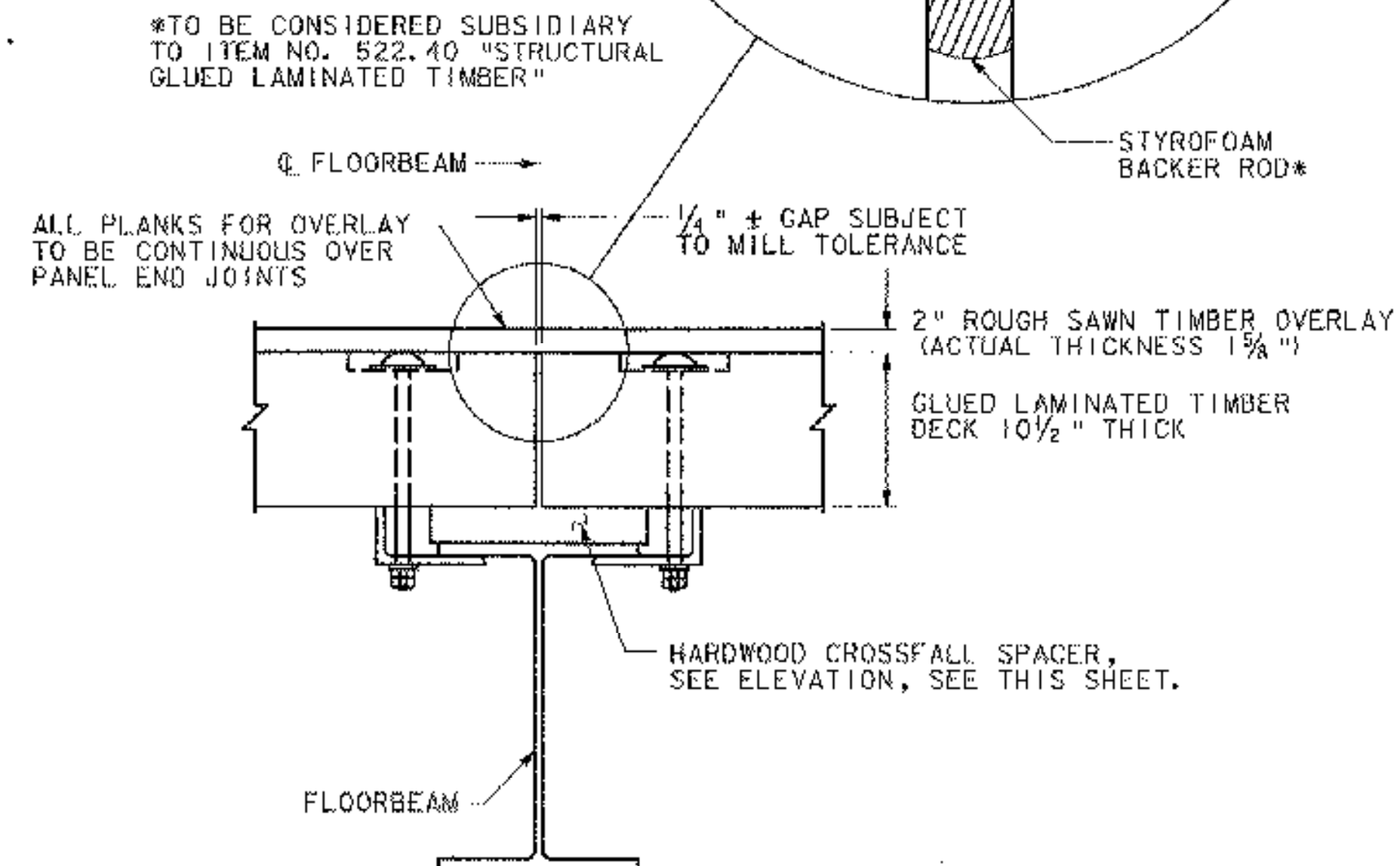
N. T. S.



HARDWOOD CROSSFALL SPACER

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

BOLTED TO FLOOR BEAMS W/ 6 1/2" CARRIAGE BOLTS



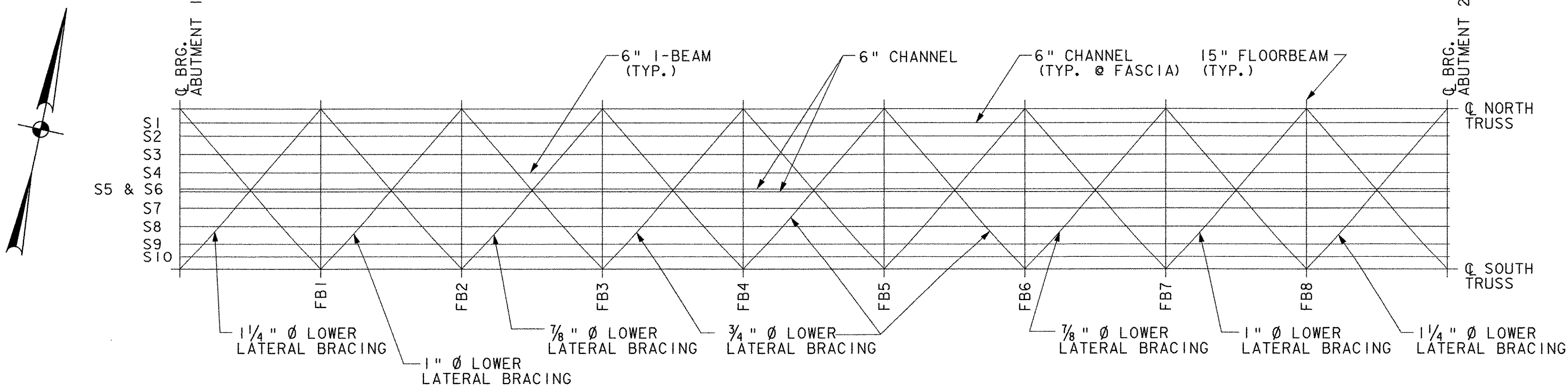
DECK PANEL END JOINT DETAIL

N. T. S.

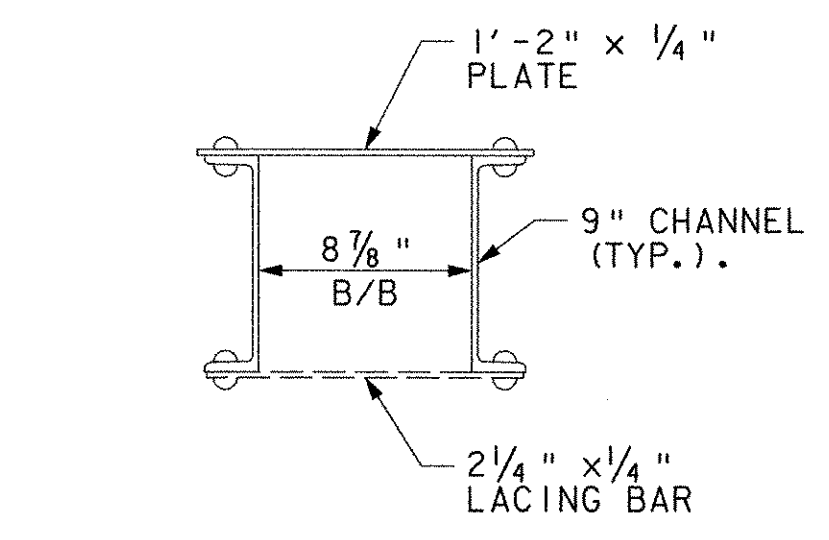
STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No. 1	
Highway No.	MAIDSTONE STATE HWY	Log Sta. Surv. Sta.	
DECK DETAILS - SPAN 2			
Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	D. B. SULLIVAN	Date	08/01/03
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BRO 1447 (24)
I.C.C. Info.		Bridge Sheet No.	Sheet 42 of 65



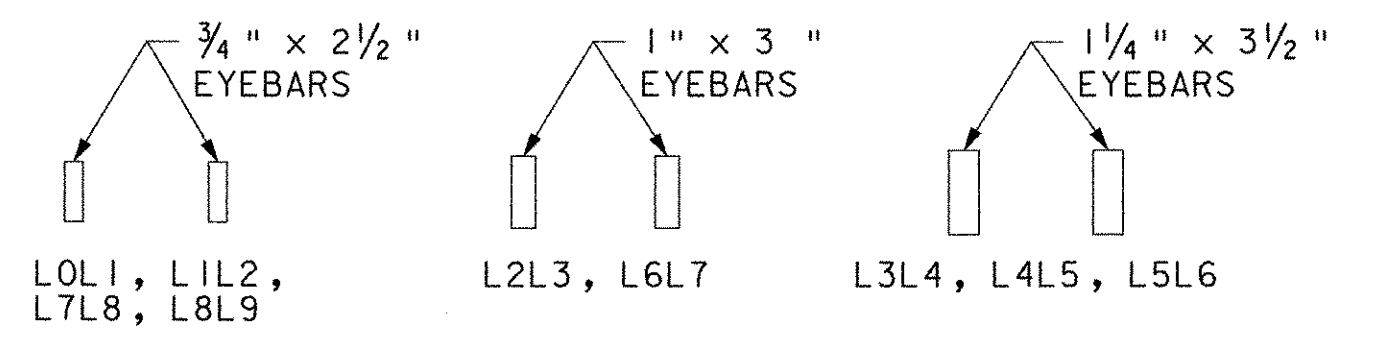
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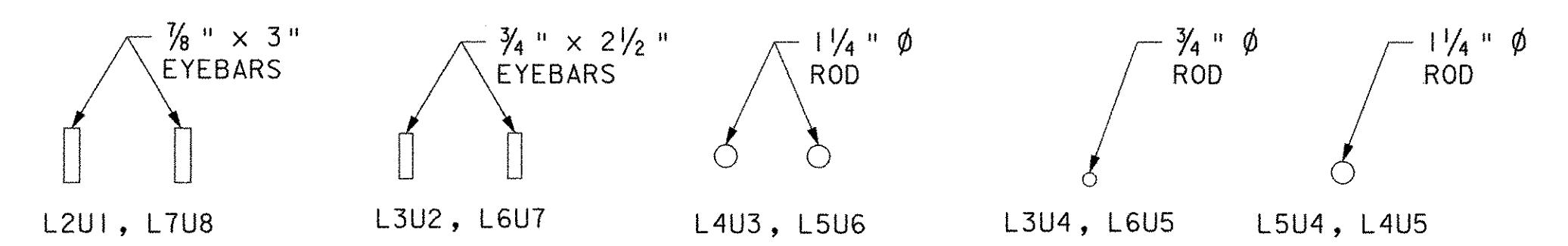
FRAMING PLAN
SCALE: 1" = 10'



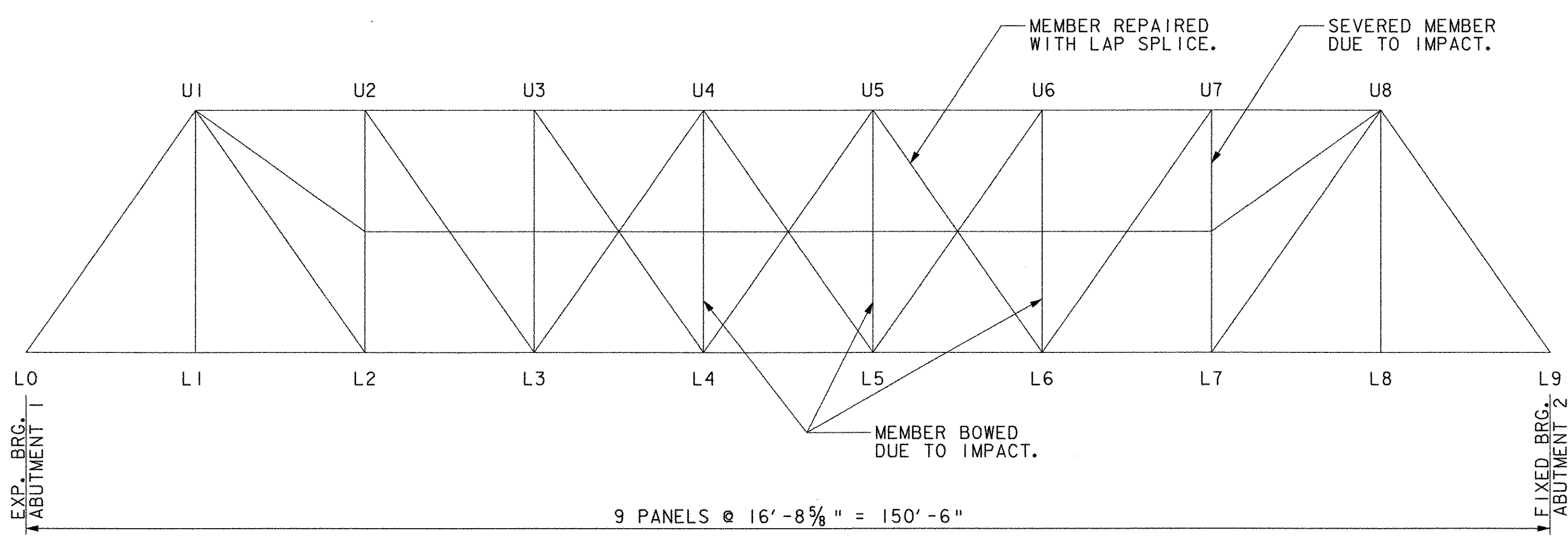
TOP CHORD AND INCLINED END POSTS
SCALE: 1/2" = 1'-0"



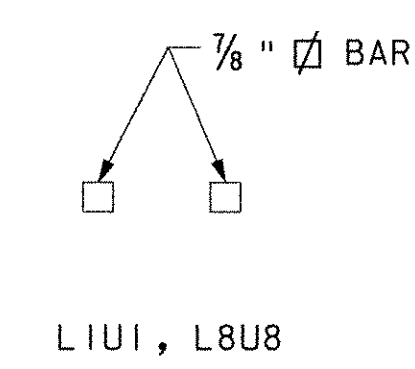
BOTTOM CHORD
SCALE: 1/2" = 1'-0"



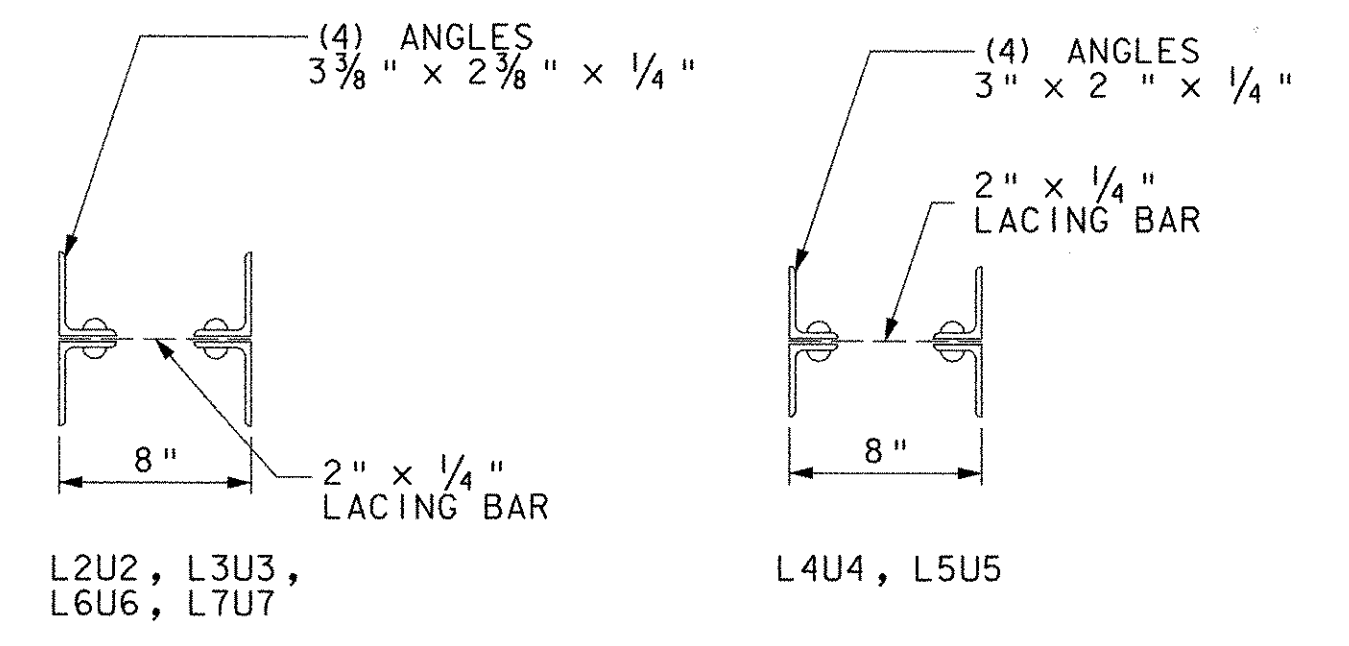
DIAGONALS
SCALE: 1/2" = 1'-0"



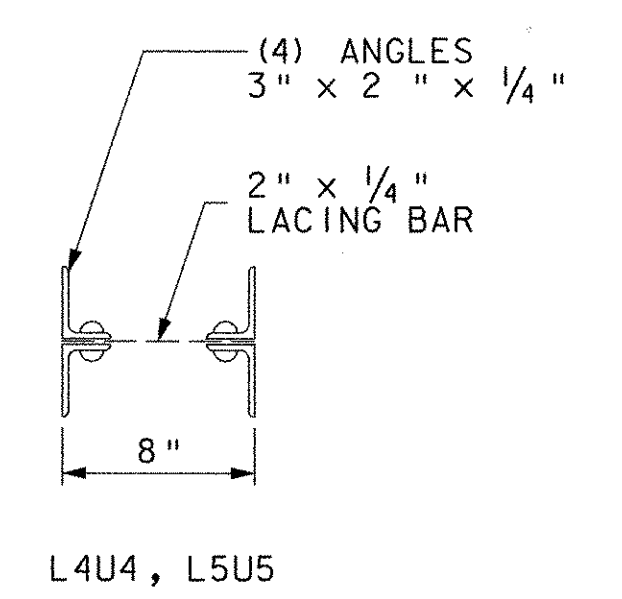
NORTH TRUSS ELEVATION
SCALE: 1" = 10'



LIU1, L8U8

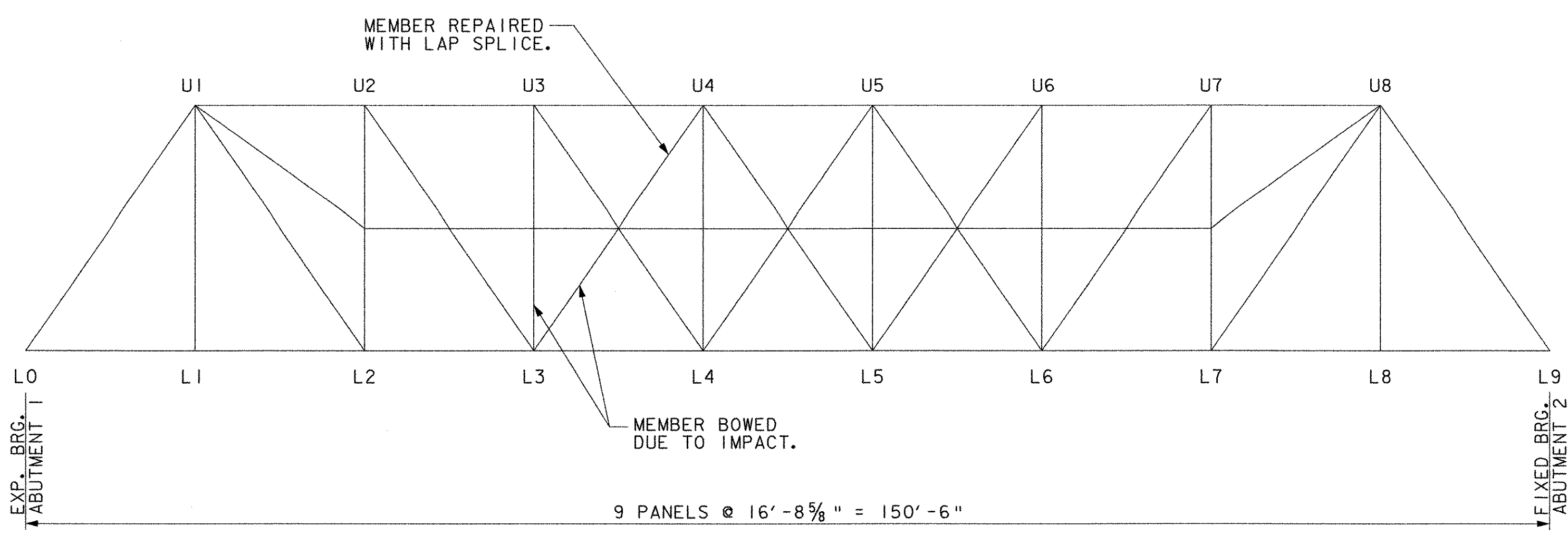


L2U2, L3U3, L6U6, L7U7



L4U4, L5U5

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



SOUTH TRUSS ELEVATION
SCALE: 1" = 10'

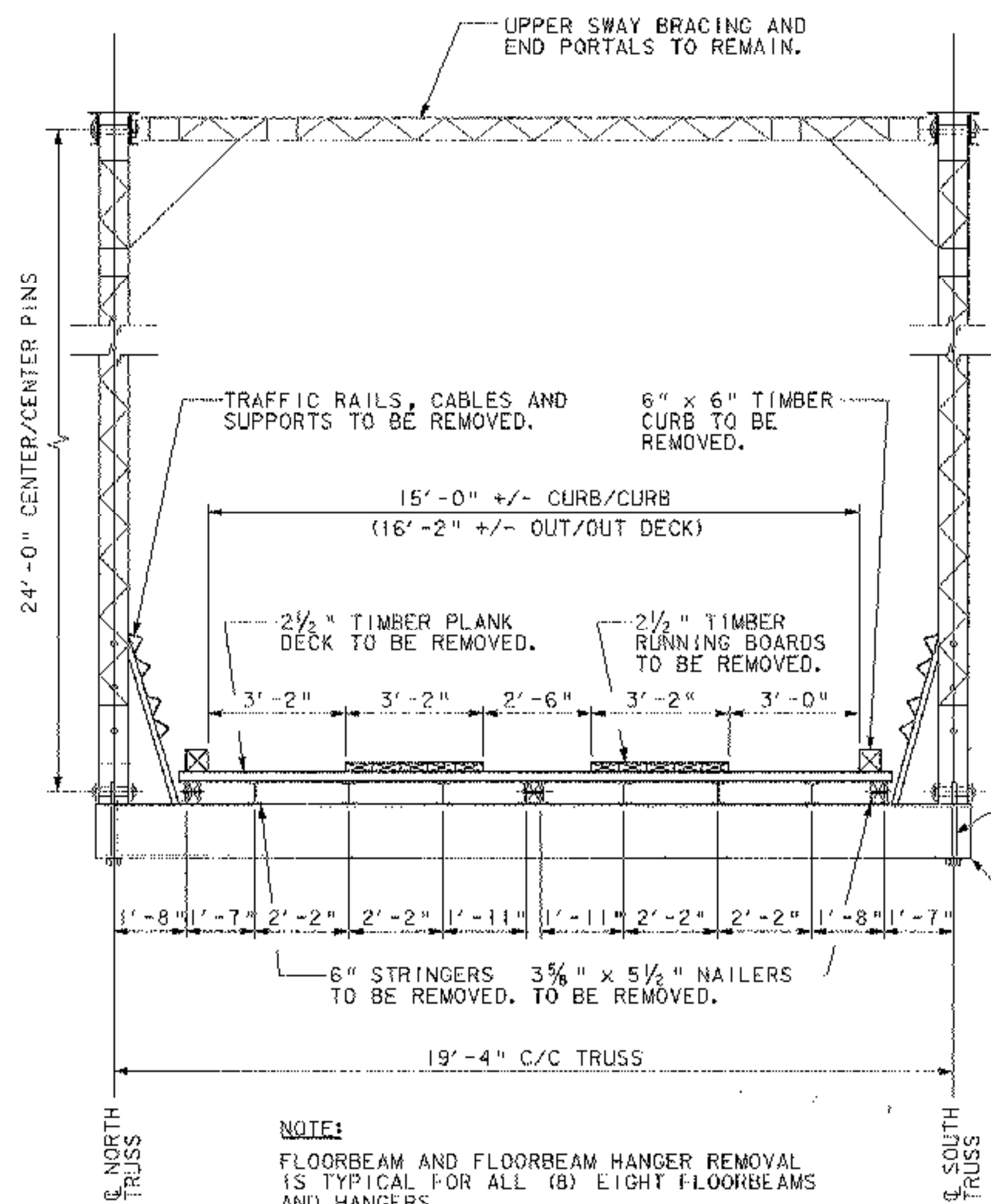
APPROXIMATE EXISTING STRUCTURE WEIGHTS:
 1 TRUSS - 16 KIPS
 PORTALS AND UPPER SWAY BRACING - 3 KIPS
 FLOOR BEAMS - 10 KIPS
 STRINGERS - 20 KIPS
 LOWER SWAY BRACING - 2 KIPS

NOTE: ALL INFORMATION SHOWN IS FOR EXISTING STRUCTURE. DIMENSIONS, ANGLES, AND ELEVATIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM LIMITED FIELD INVESTIGATION AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL VERIFY THE EXISTING MEASUREMENTS PRIOR TO STARTING THE WORK. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY.

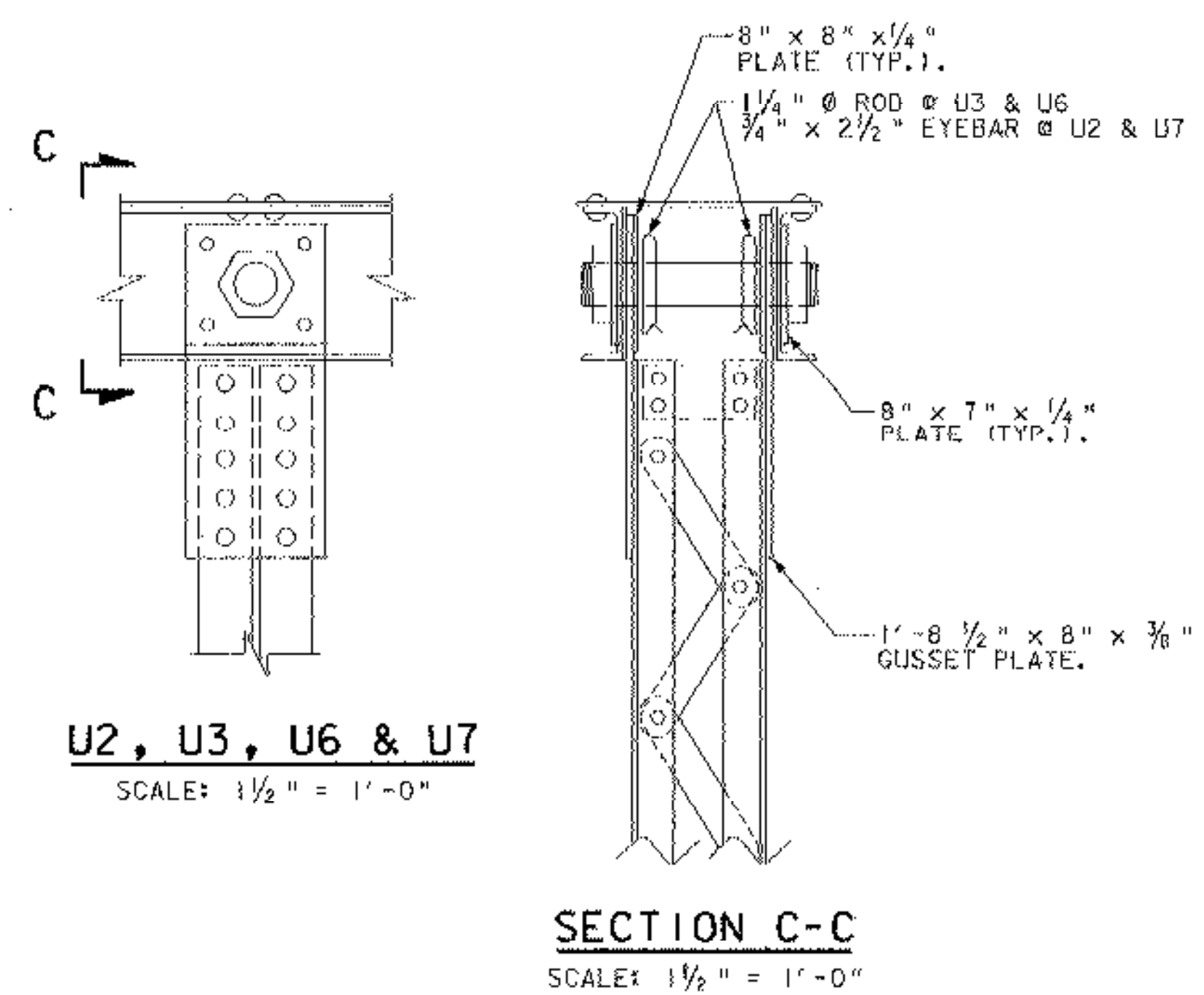
STATE OF VERMONT AGENCY OF TRANSPORTATION		
Town Of MAIDSTONE, VT STRATFORD, NH	Bridge No. 1	Log Sta.
Highway No. MAIDSTONE STATE HWY	Surv. Sta.	
EXISTING STRUCTURE I		
Designed By J. MESSIER	Drawn By C. DONOHUE	
Checked By Date	Bridge Design Supervisor	Date
D.B. SULLIVAN 08/01/03		
PROJECT MAIDSTONE-STRATFORD	PROJECT NO. BHO 1447 (24)	
I.G.C. Info.		
Bridge Sheet No.	Sheet 43 of 65	



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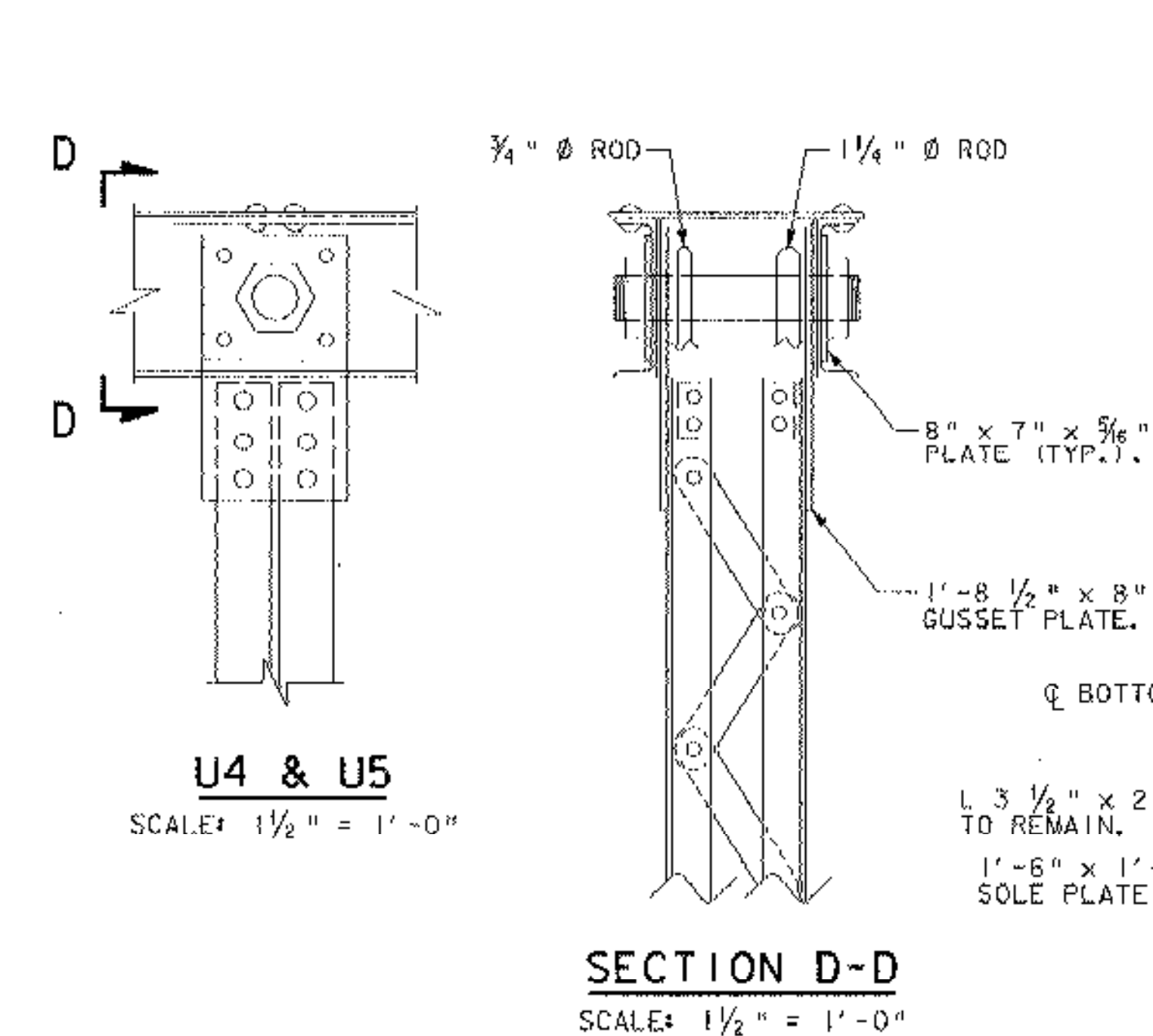


EXISTING CROSS SECTION
SCALE: 3/8" = 1'-0"



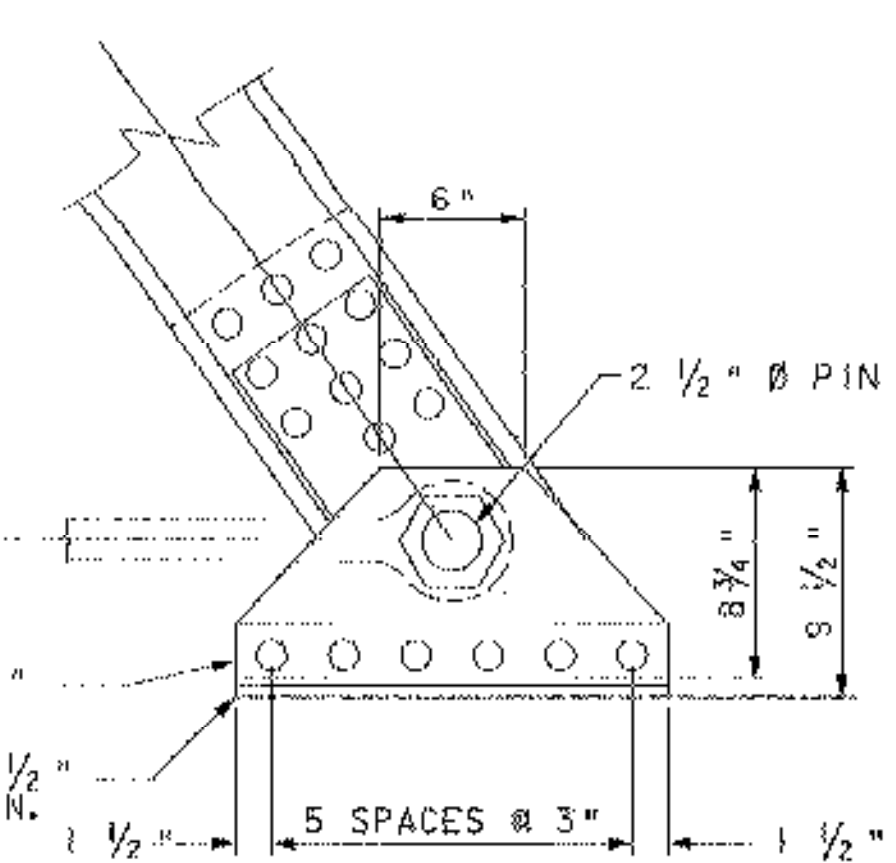
U2, U3, U6 & U7
SCALE: 1/2" = 1'-0"

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

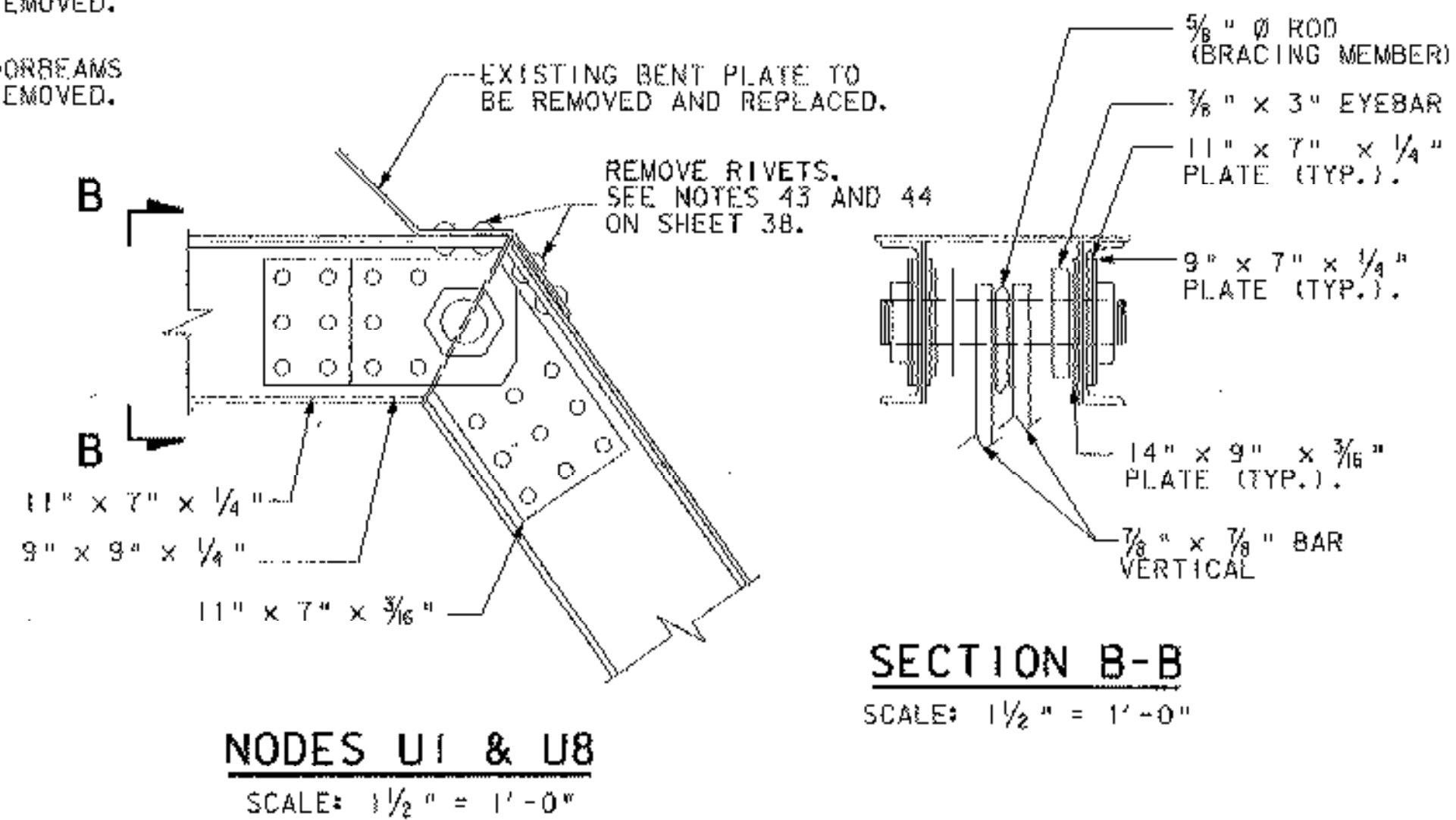


U4 & U5
SCALE: 1/2" = 1'-0"

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

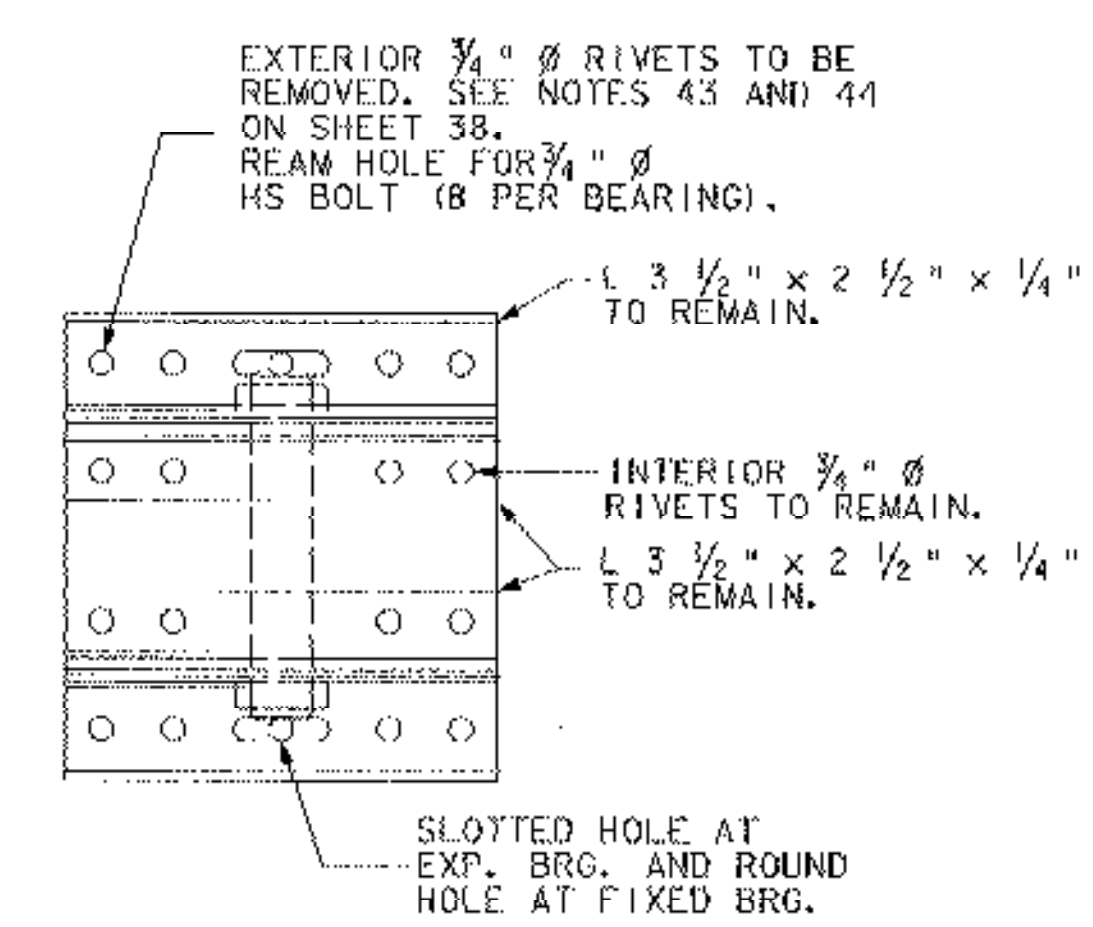


FIXED BEARING @ L9
SCALE: 1/2" = 1'-0"

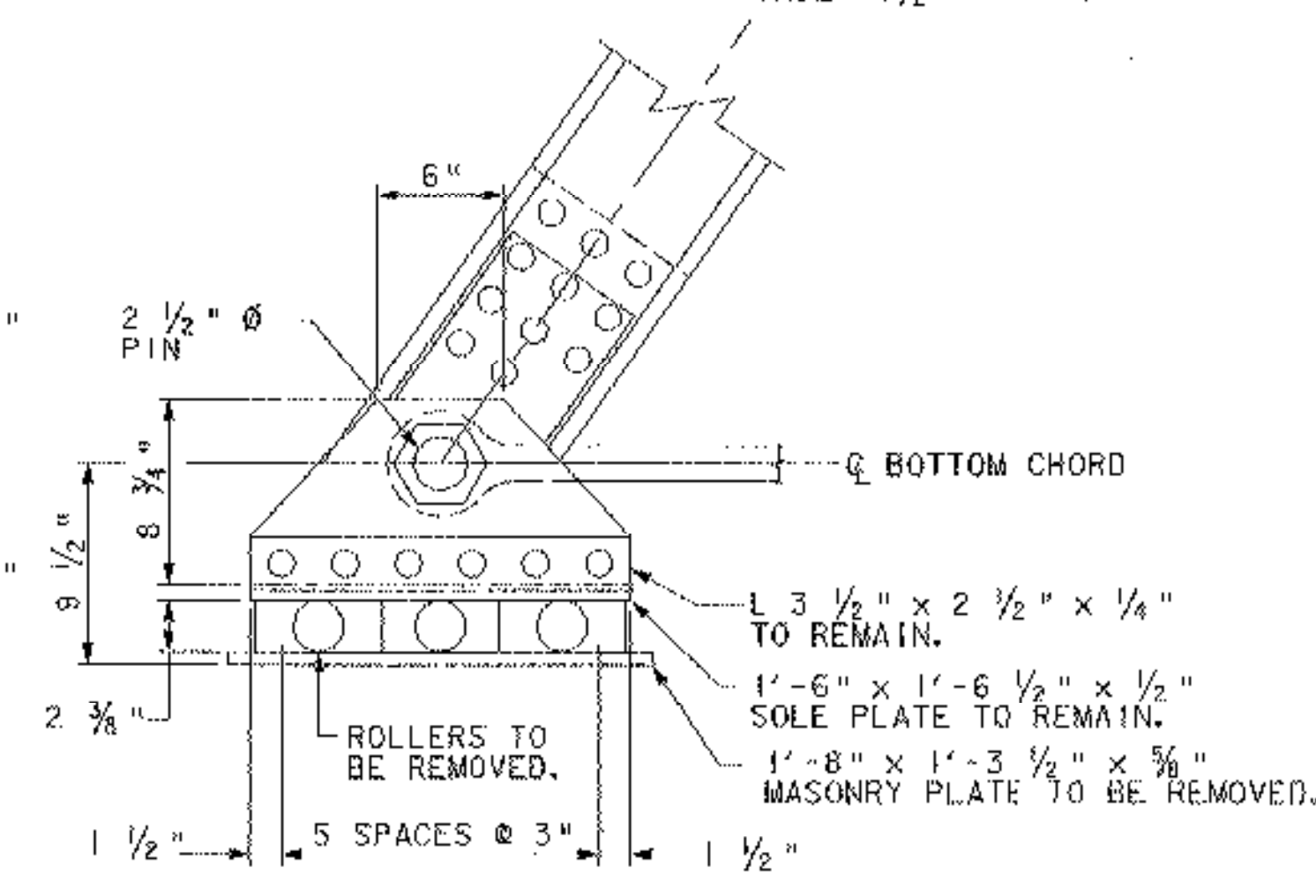


NODES U1 & U8
SCALE: 1/2" = 1'-0"

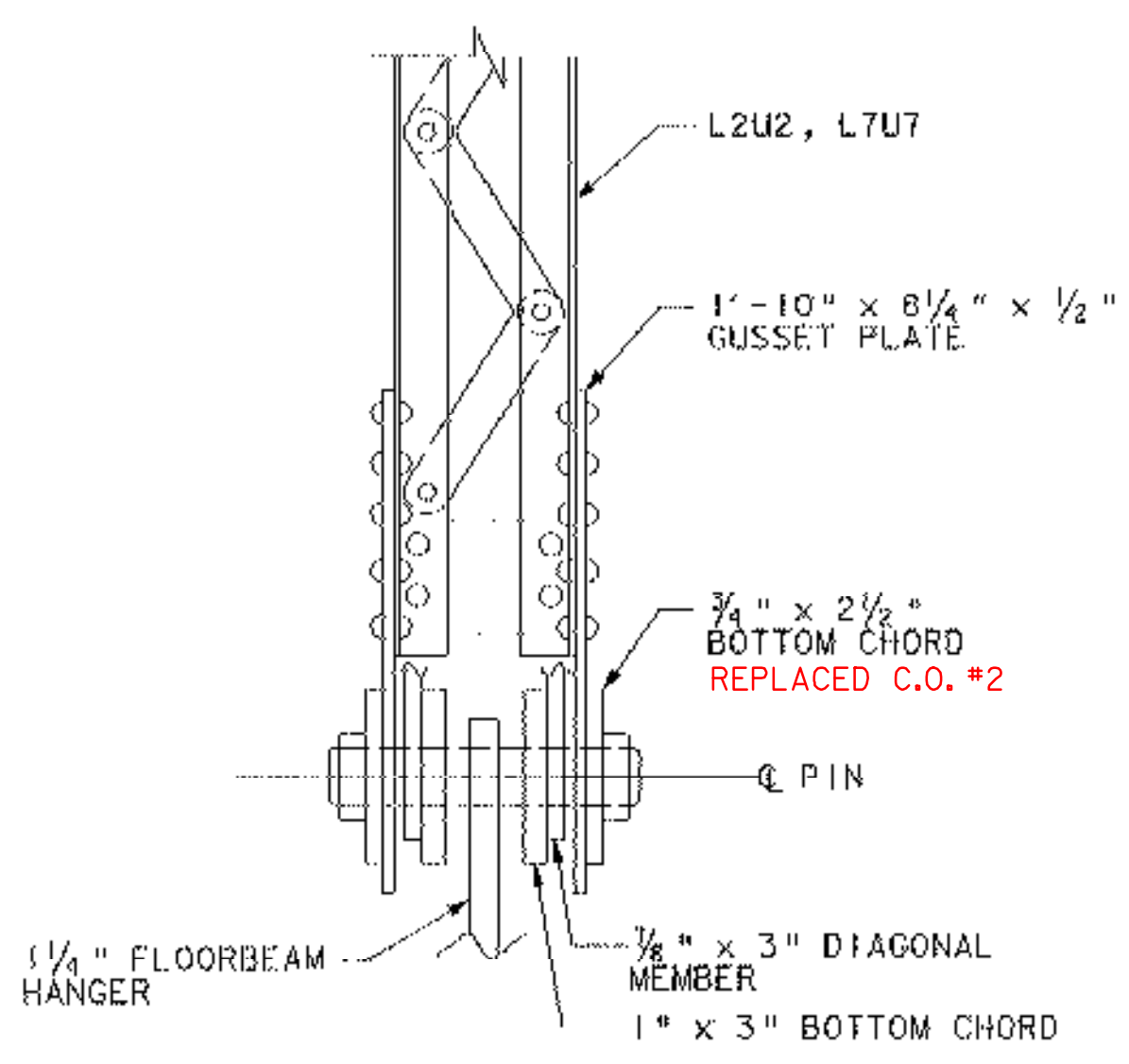
SECTION B-B
SCALE: 1/2" = 1'-0"



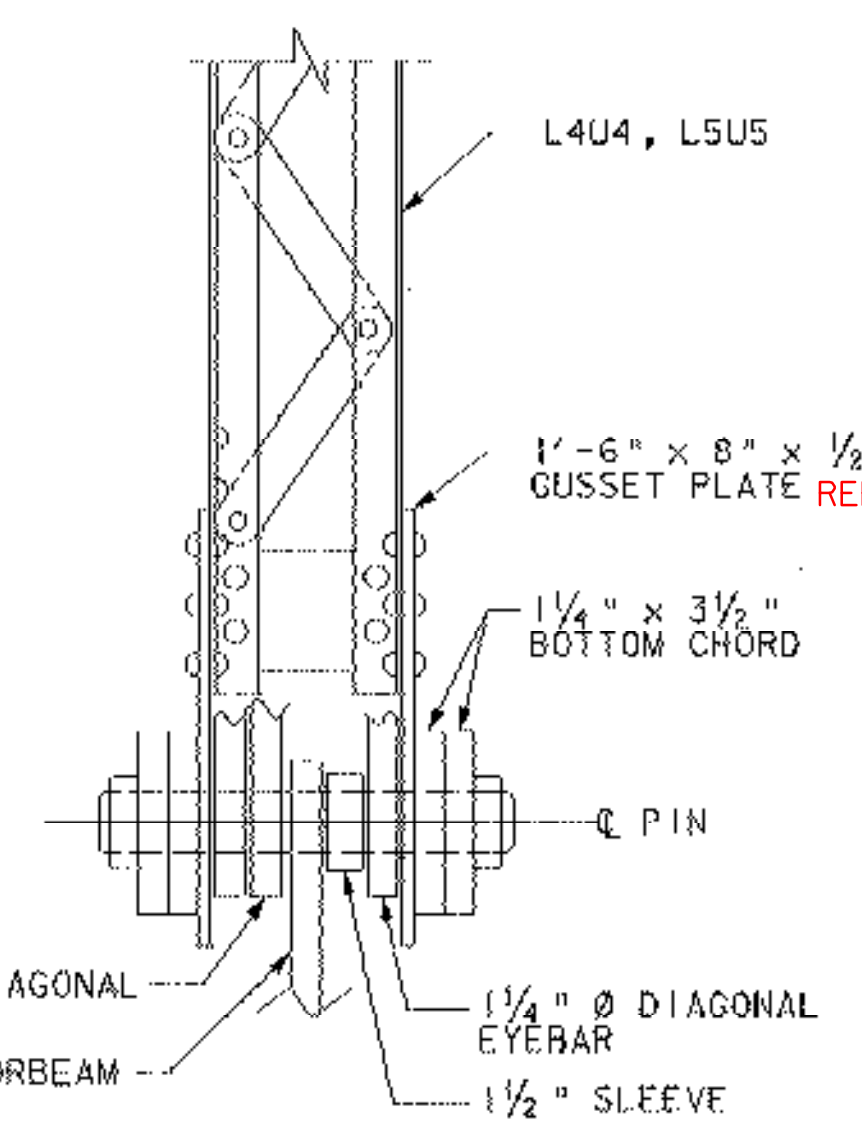
PLAN VIEW OF BEARING
SCALE: 1/2" = 1'-0"



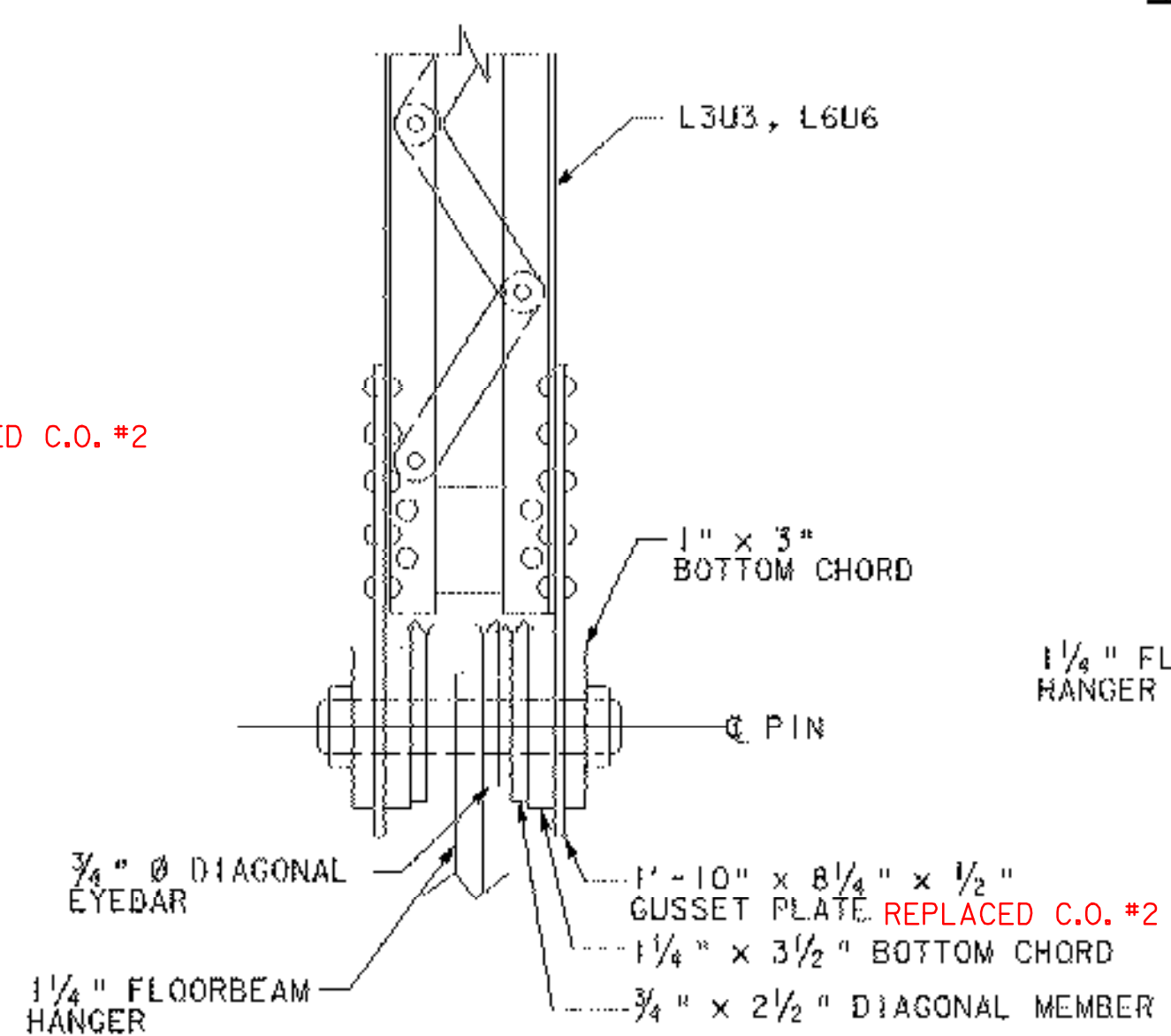
EXPANSION BEARING @ L0
SCALE: 1/2" = 1'-0"



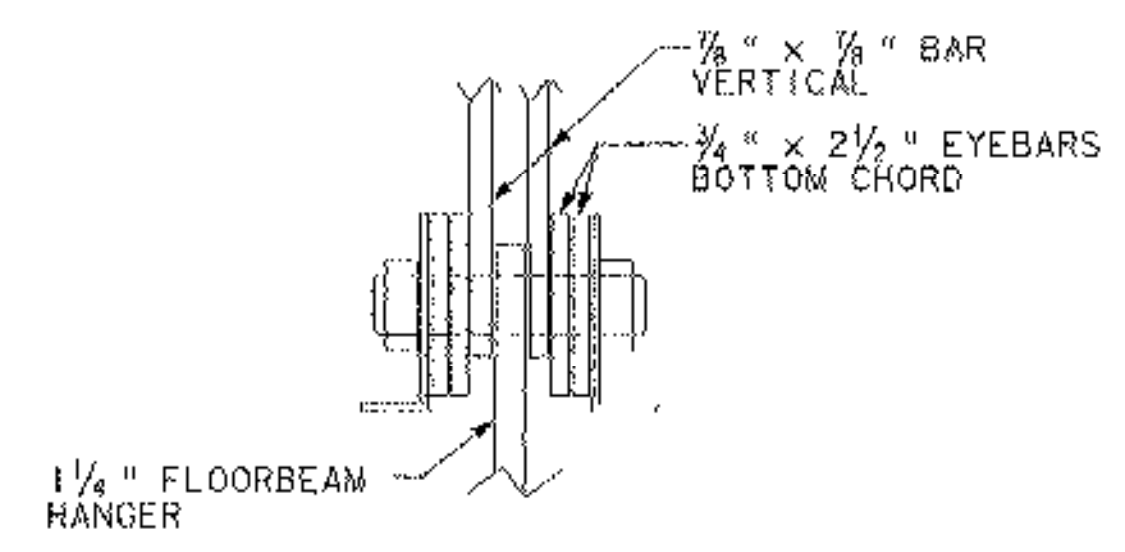
NODES L2 & L7
SCALE: 1/2" = 1'-0"



NODES L4 & L5
SCALE: 1/2" = 1'-0"



NODES L3 & L6
SCALE: 1/2" = 1'-0"



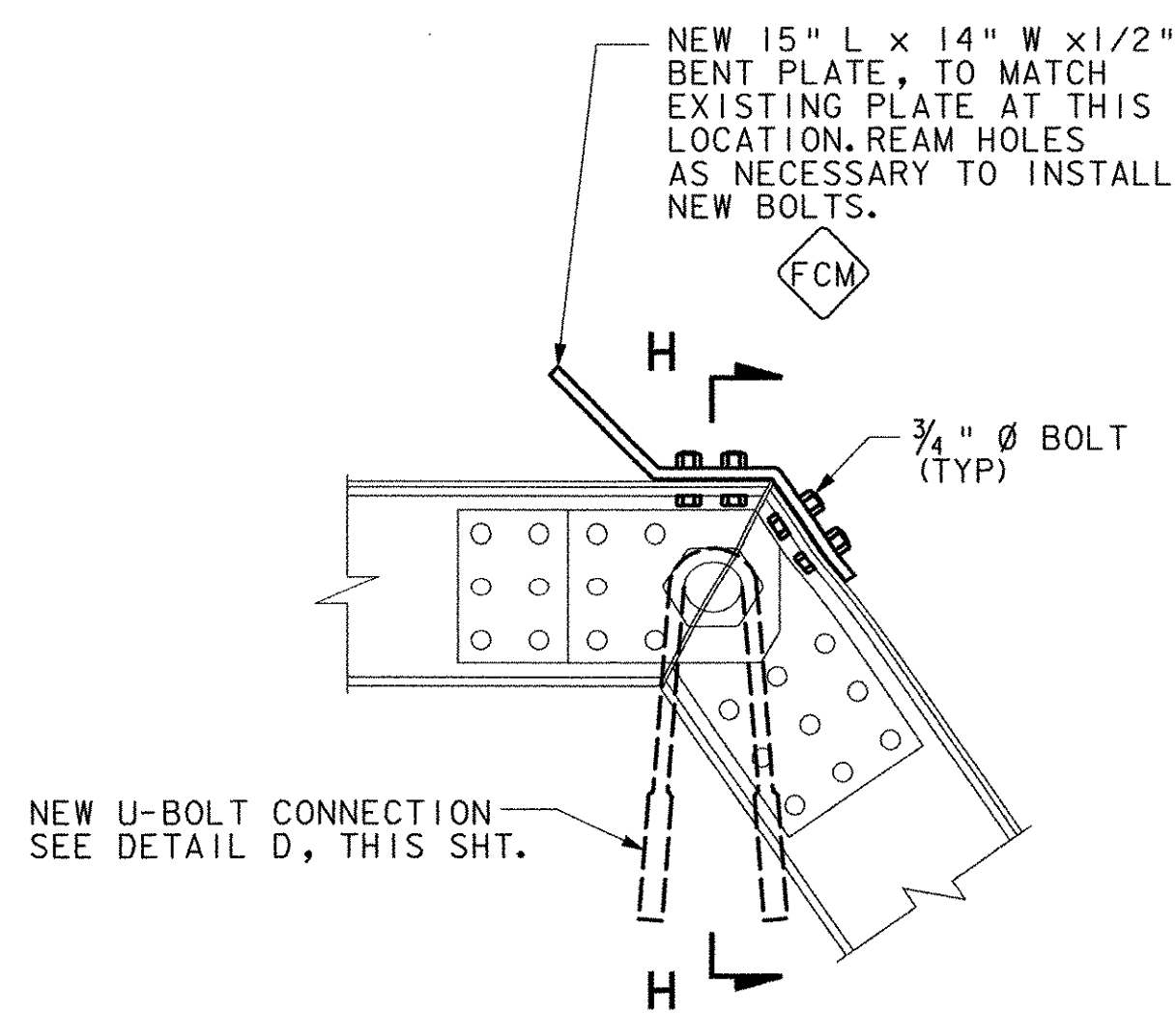
NODES L1 & L8
SCALE: 1/2" = 1'-0"

NOTE: ALL INFORMATION SHOWN IS FOR EXISTING STRUCTURE. DIMENSIONS, ANGLES, AND ELEVATIONS OF THE EXISTING STRUCTURE SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM LIMITED FIELD INVESTIGATION AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL VERIFY THE EXISTING MEASUREMENTS PRIOR TO STARTING THE WORK. THE CONTRACTOR SHALL TAKE ALL FIELD MEASUREMENTS NECESSARY TO ASSURE PROPER FIT OF THE FINISHED WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY.

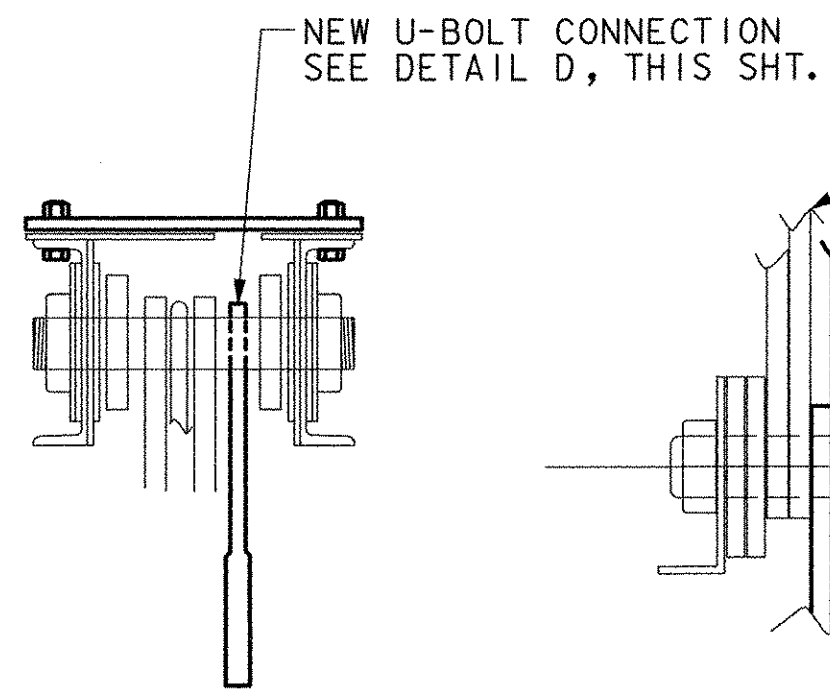
STATE OF VERMONT AGENCY OF TRANSPORTATION		
Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No. 1
Highway No.	MAIDSTONE STATE HWY	Log Sta. Surv. Sta.
EXISTING STRUCTURE 2		
Designed By	J. MESSIER	Drawn By C. DONOHUE
Checked By	D.B. SULLIVAN	Bridge Design Supervisor
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO. BHQ 1447 (24)
I.G.C. Info.		Bridge Sheet No.
		Sheet 44 of 65



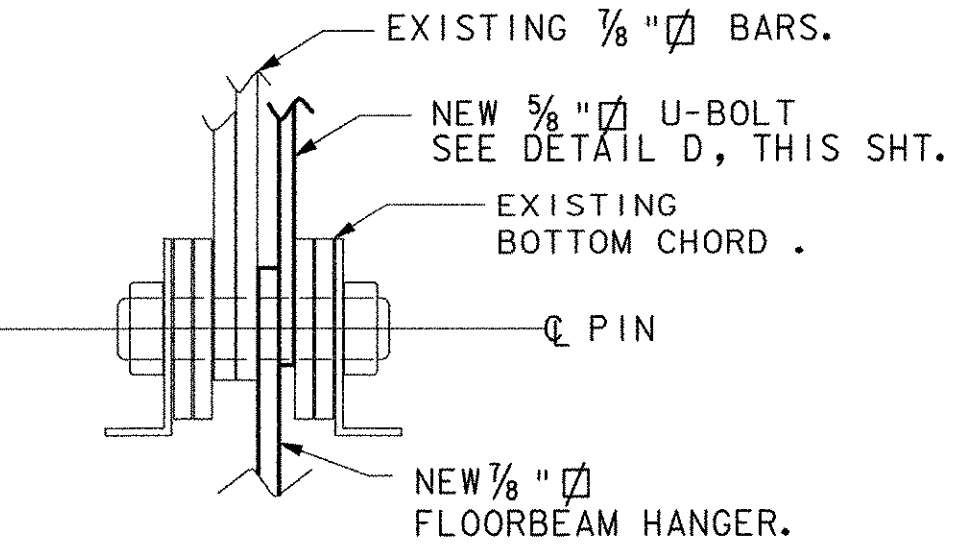
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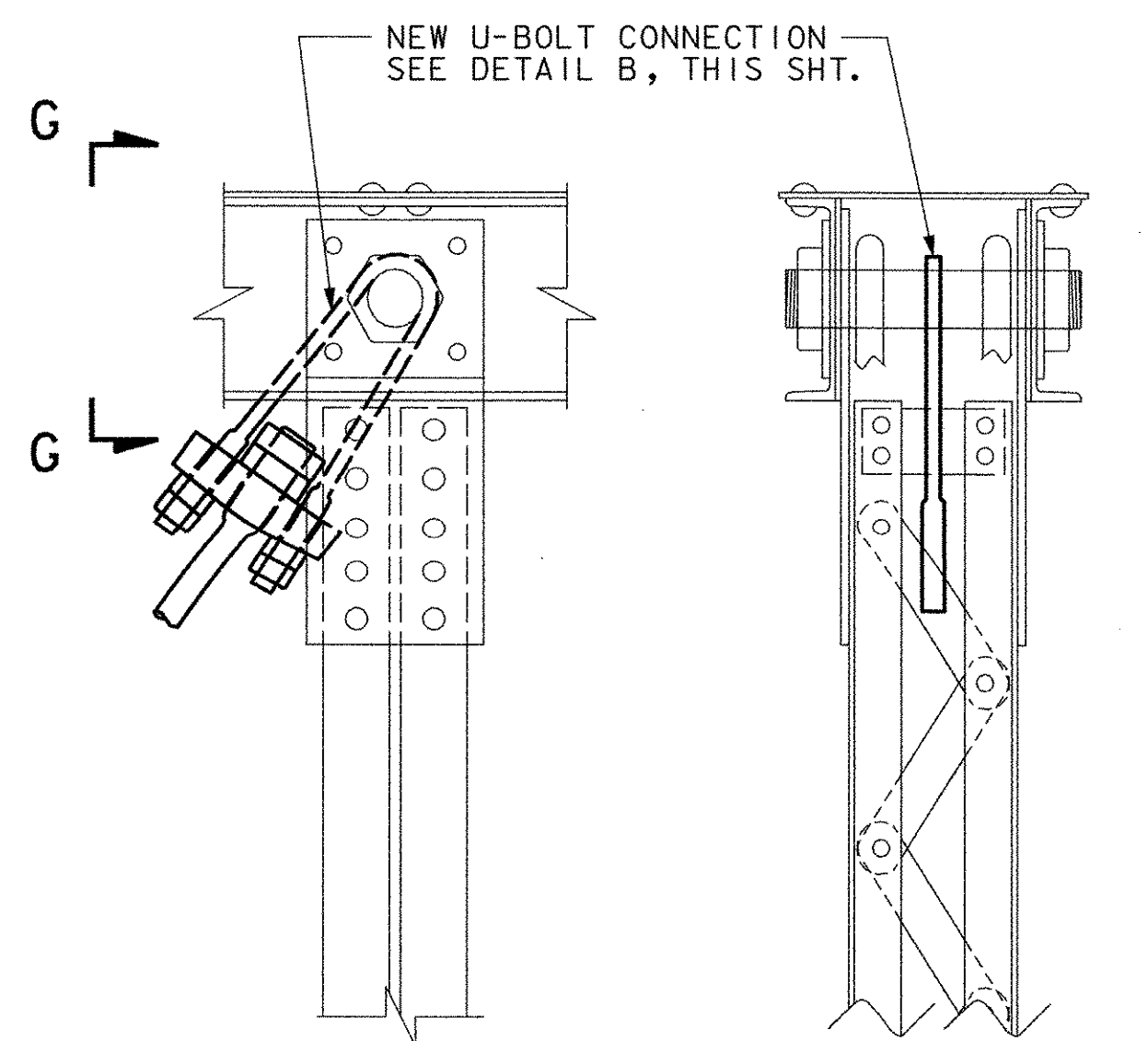
UI & U8
SCALE: 1/2" = 1'-0"



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

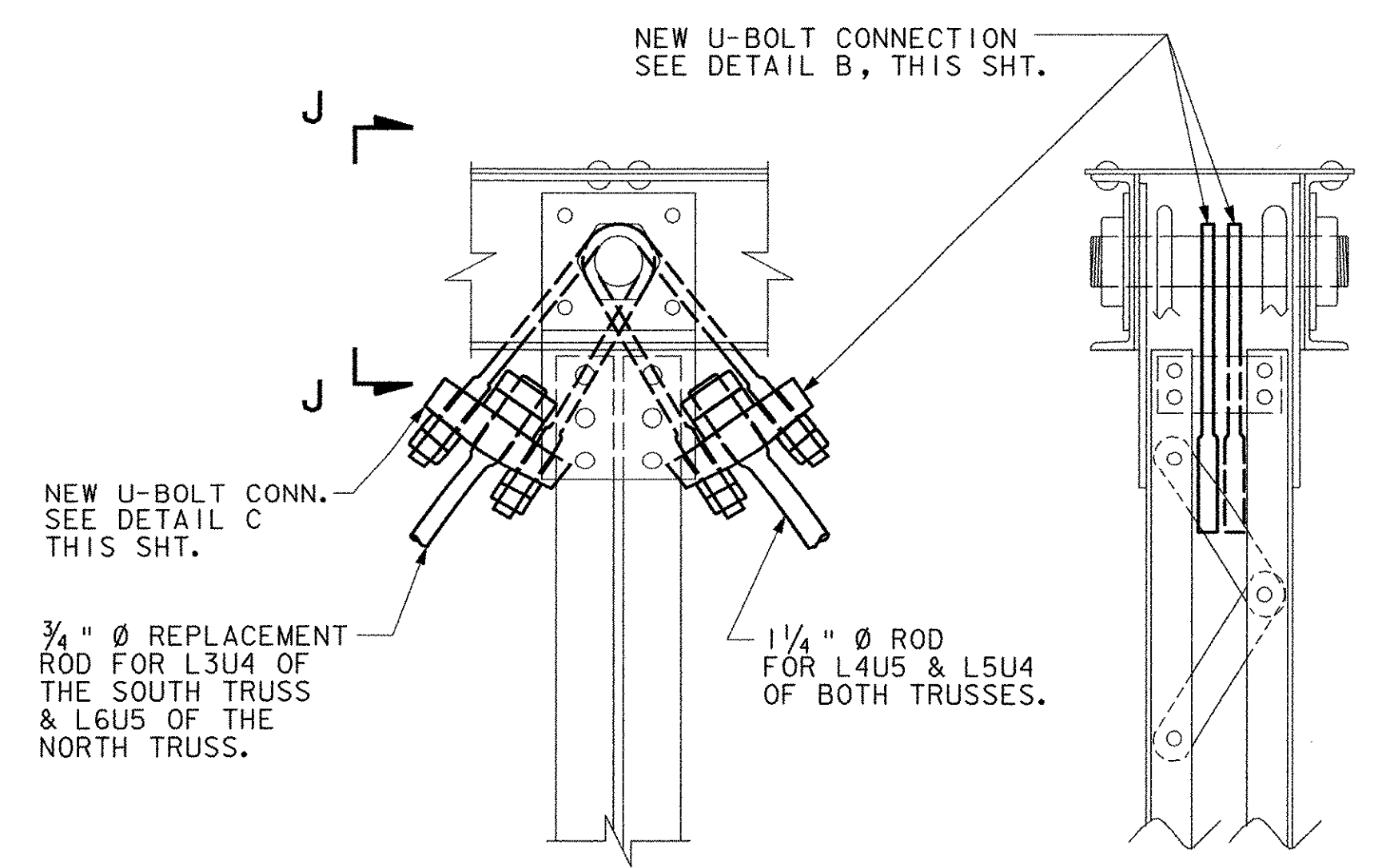


LI & L8
SCALE: 1/2" = 1'-0"



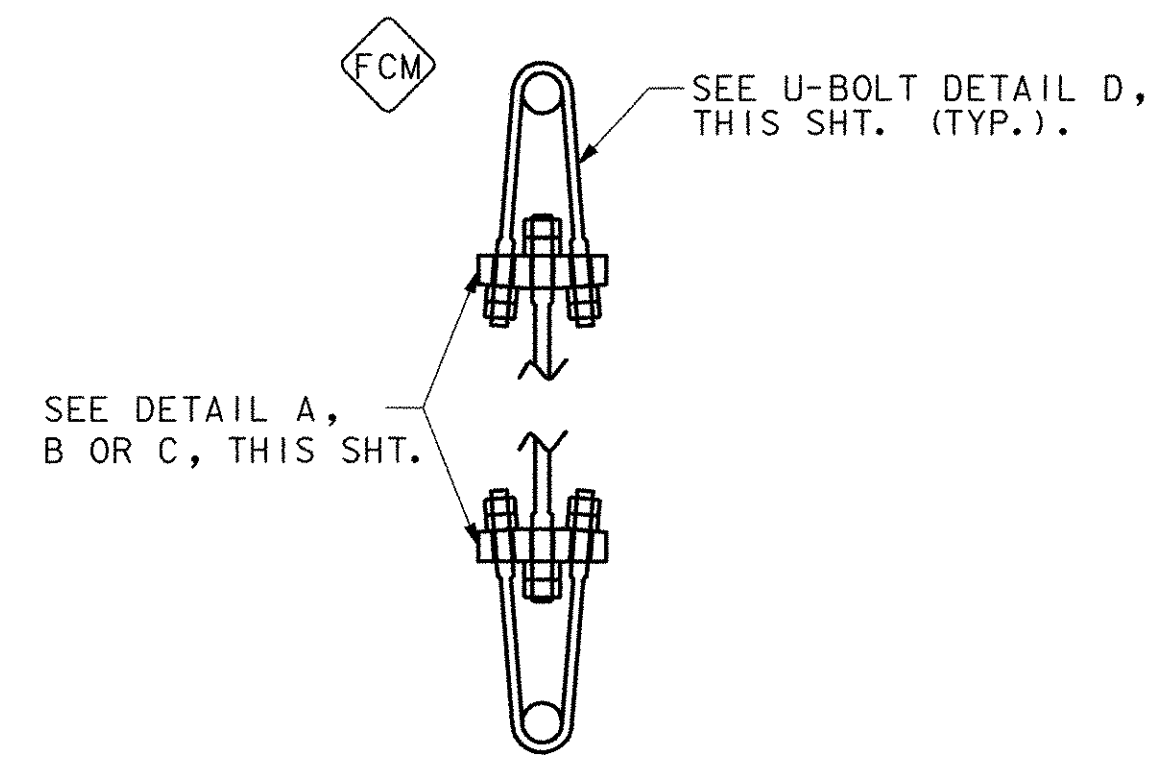
U3 & U6
SCALE: 1/2" = 1'-0"

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

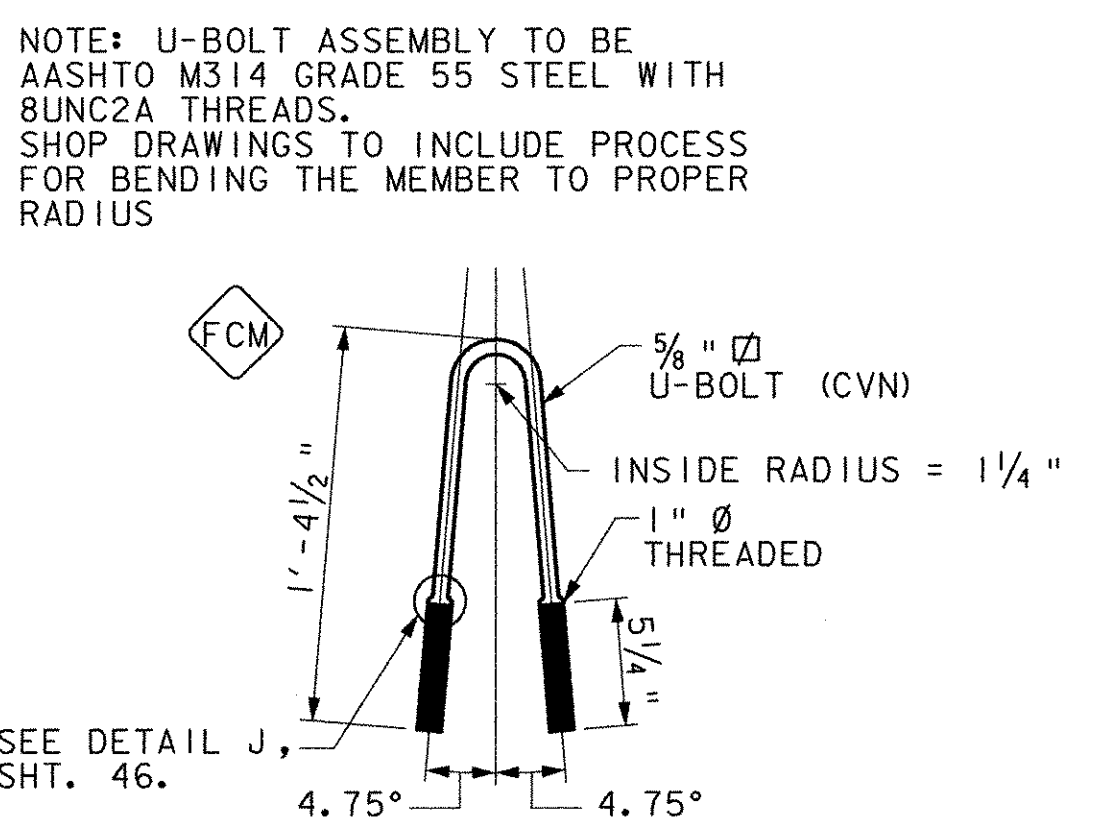


U4 & U5
SCALE: 1/2" = 1'-0"

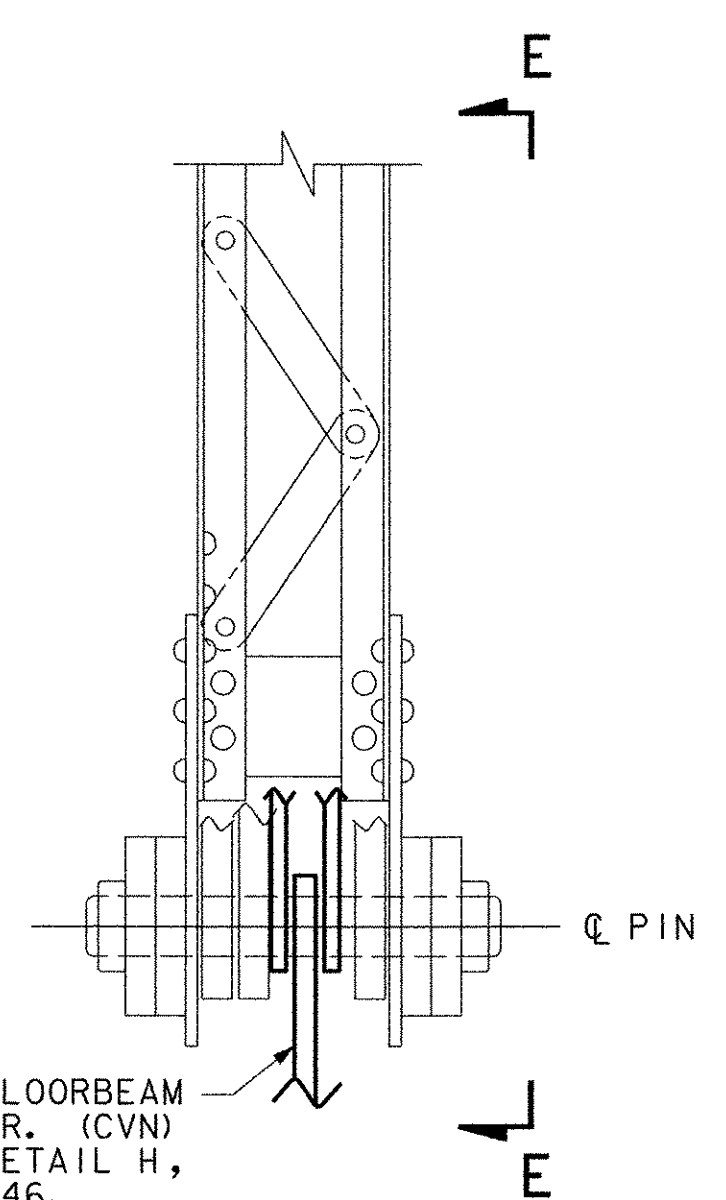
SECTION J-J
SCALE: 1/2" = 1'-0"



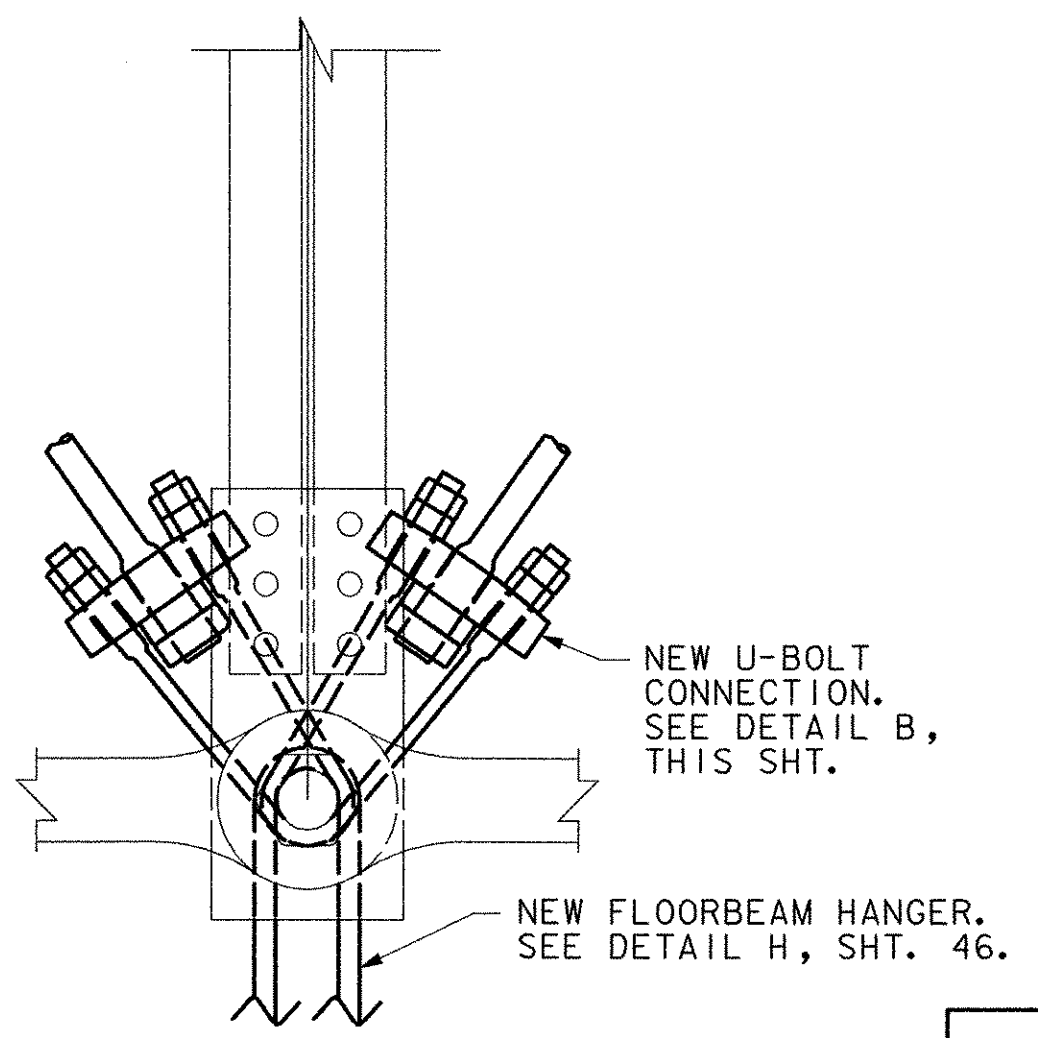
TYPICAL CONNECTION FOR MEMBER REINFORCEMENT
SCALE: 1" = 1'-0"



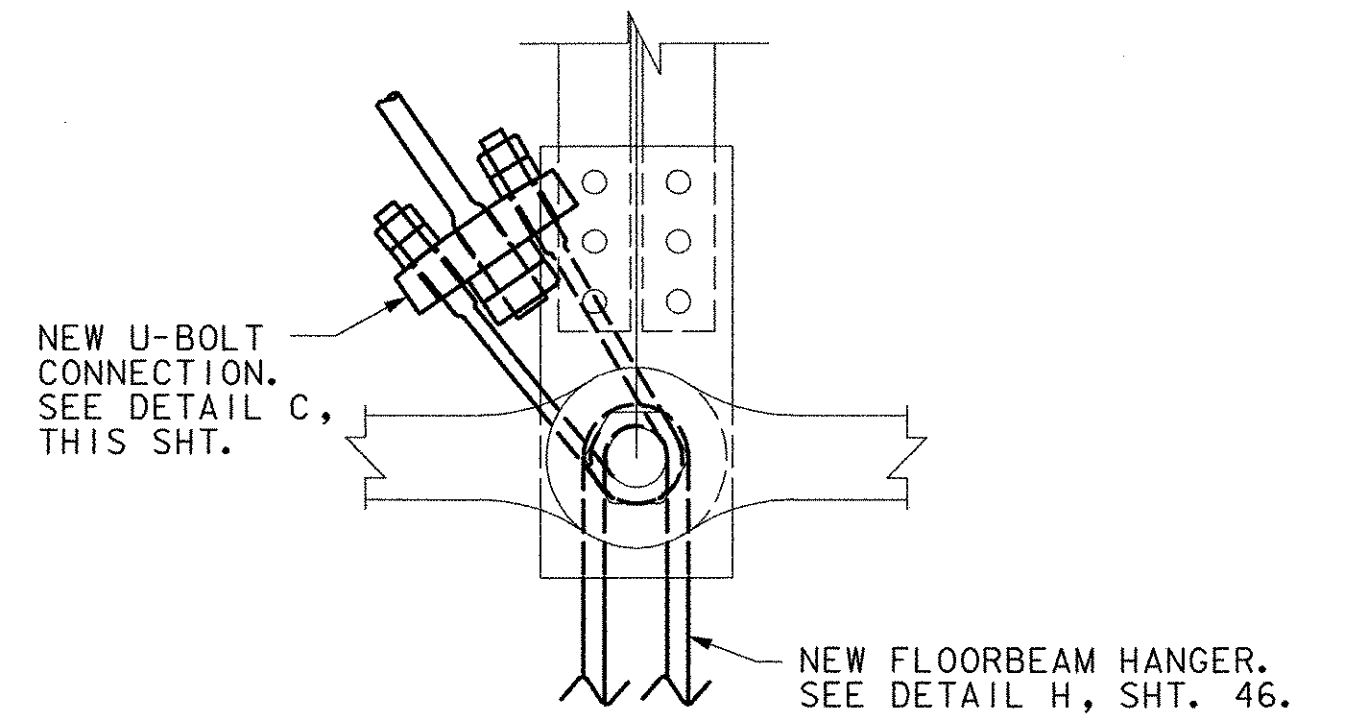
U-BOLT DETAIL D
SCALE: 1/2" = 1'-0"



L4 & L5
SCALE: 1/2" = 1'-0"



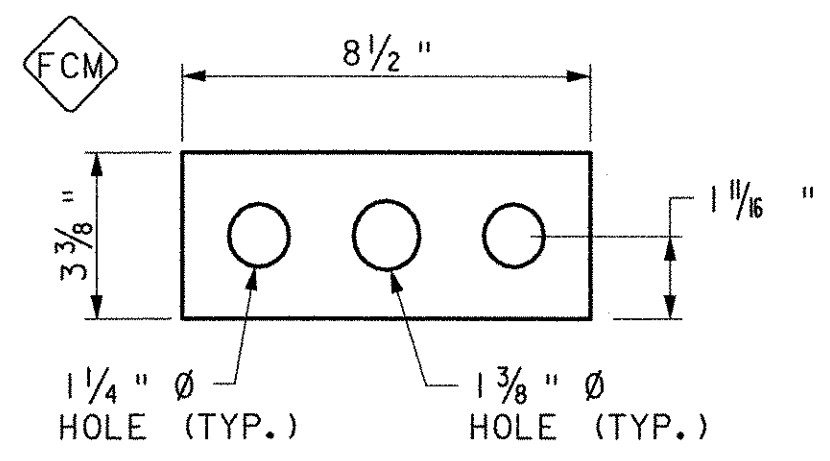
SECTION E-E
SCALE: 1/2" = 1'-0"



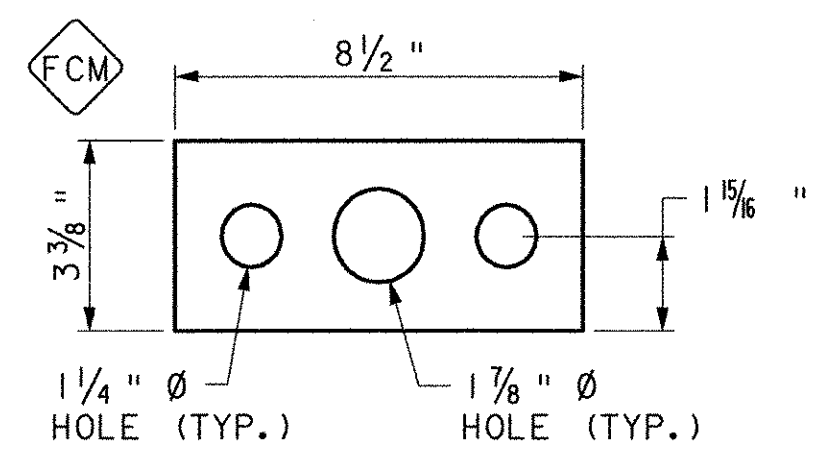
CONNECTION OF NORTH TRUSS @ L3 & SOUTH TRUSS @ L6
SCALE: 1/2" = 1'-0"

	MEMBER*	SIZE	TOTAL LENGTH	NOMINAL DIAMETER OF UPSET THREADS	THREAD LENGTH	THREAD
NEW	L1U1, L8U8	7/8" □	22'-10 1/2"	1 1/4"	4"	1 1/4" - 7UNC2A
	L4U3, L5U6	1 1/4" Ø	28'-3"	1 3/4"	6"	1 3/4" - 5UNC2A
	L5U4, L4U5	1 1/4" Ø	28'-3"	1 3/4"	6"	1 3/4" - 5UNC2A
REPLACEMENT	L7U7 NORTH TRUSS		SEE DETAIL L7U7, SHEET 46.			
	L3U4 SOUTH TRUSS	3/4" Ø	28'-2"	1"	6"	1 - 8UNC2A
	L6U5 NORTH TRUSS	3/4" Ø	28'-2"	1"	6"	1 - 8UNC2A

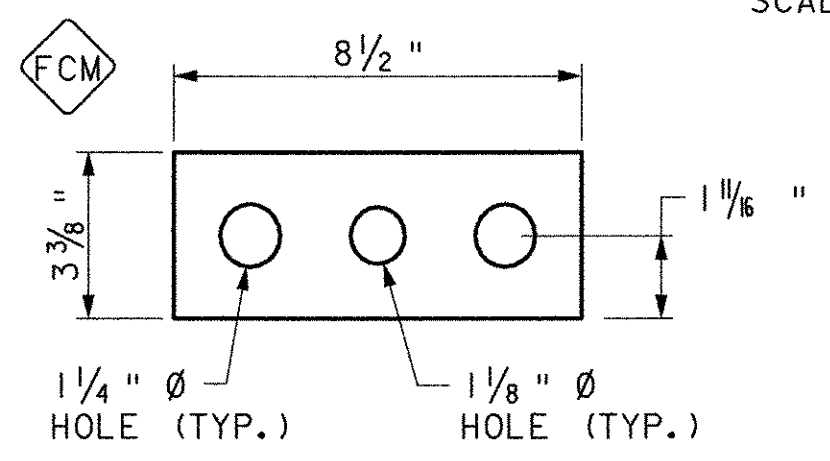
*ALL MEMBERS TRUSS MEMBERS ARE FRACTURE CRITICAL MEMBERS (FCM)



DETAIL A
SCALE: 3" = 1'-0"



DETAIL B
SCALE: 3" = 1'-0"



DETAIL C
SCALE: 3" = 1'-0"

LEGEND

- - SQUARE BAR
- Ø - ROUND BAR

AT TOP CHORD NODE UI AND U8

1. REMOVE RIVETS AND DISCARD BENT PLATE ON TOP OF TOP CHORD AT UI AND U8.
2. CUT 2" WIDE x 7" LONG HOLE IN TOP PLATE OF TOP CHORD
3. MOVE EXISTING VERTICAL MEMBERS TOWARD THE INSIDE ON THE PIN
4. INSTALL U-BOLT THROUGH HOLE ONTO TOP CHORD PIN
5. INSTALL NEW BENT PLATE

AT BOTTOM CHORD NODE LI AND L8

1. REMOVE EXISTING FLOOR BEAM HANGER
2. MOVE EXISTING VERTICAL MEMBERS TOWARD THE INSIDE ON THE PIN
3. INSTALL U-BOLT AND FLOOR BEAM HANGER ONTO BOTTOM CHORD PIN
4. ADJUST TENSION IN NEW MEMBER BY TIGHTENING NUTS ON U-BOLT.



STATE OF VERMONT AGENCY OF TRANSPORTATION

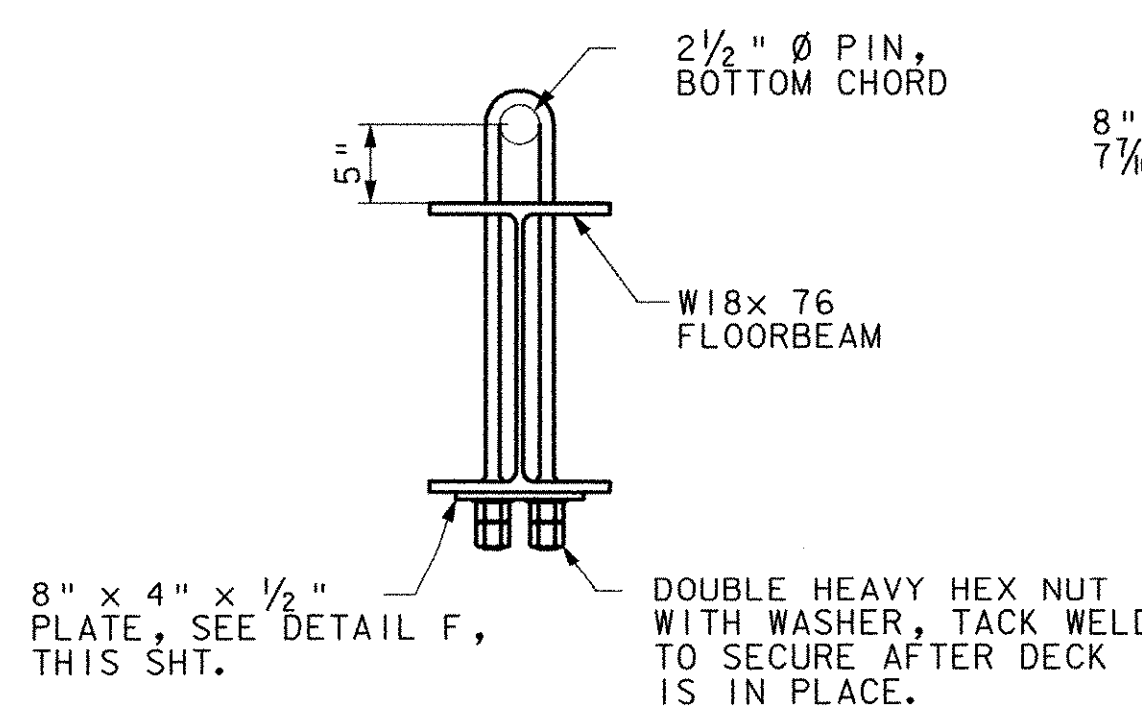
Town Of MAIDSTONE, VT STRATFORD, NH Bridge No. 1
Highway No. MAIDSTONE STATE HWY Log Sta. Surv. Sta.

STEEL DETAILS I

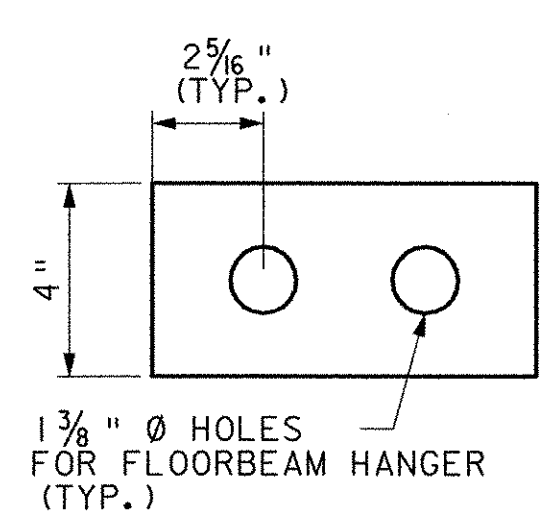
Designed By J. MESSIER Drawn By C. DONOHUE
Checked By Date Bridge Design Supervisor
D. B. SULLIVAN 08/01/03 Date

PROJECT MAIDSTONE-STRATFORD PROJECT NO. BHO 1447 (24)

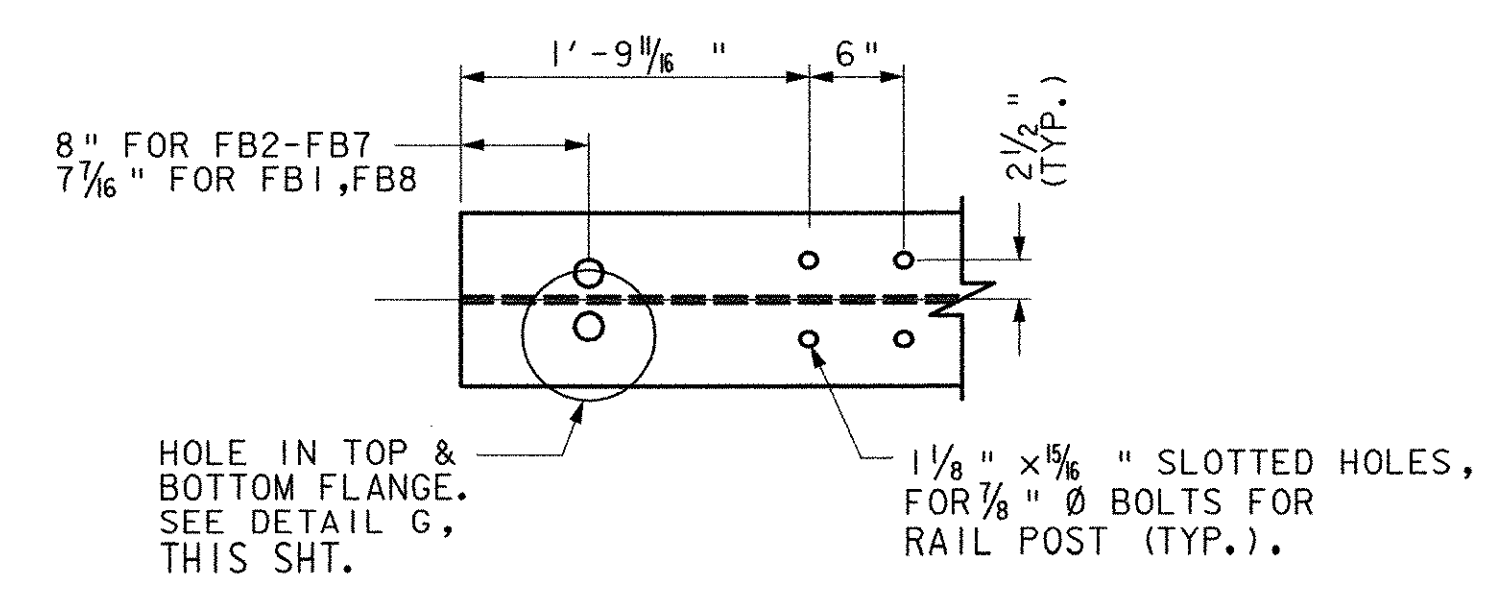
I.G.C. Info. Bridge Sheet No. Sheet 45 of 65



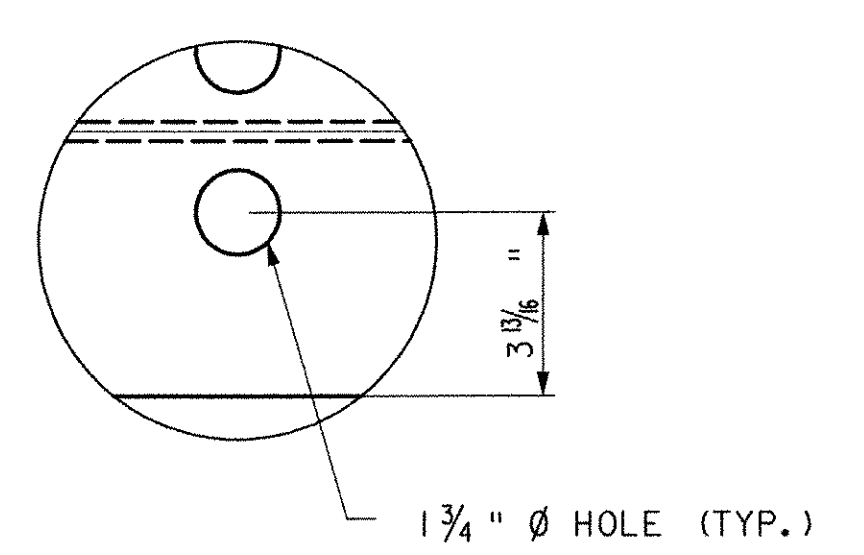
TYPICAL FLOORBEAM CONNECTION
SCALE: 1" = 1'-0"



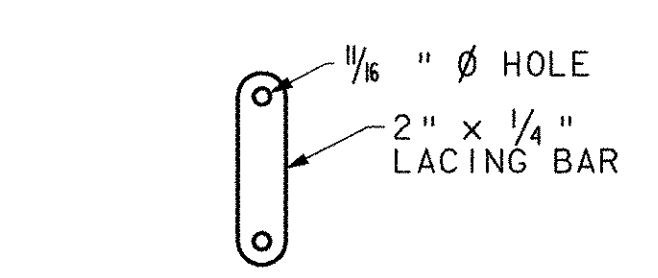
DETAIL F
SCALE: 3" = 1'-0"



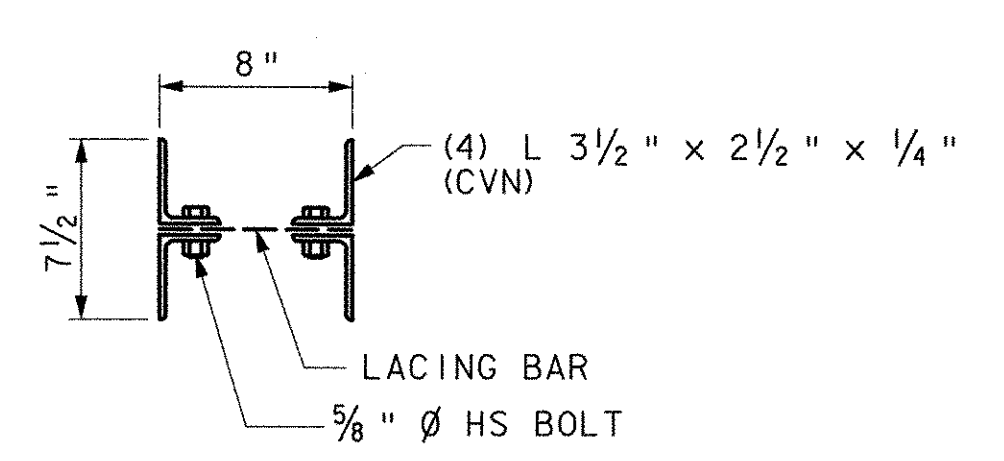
END OF FLOORBEAM
SCALE: 1" = 1'-0"



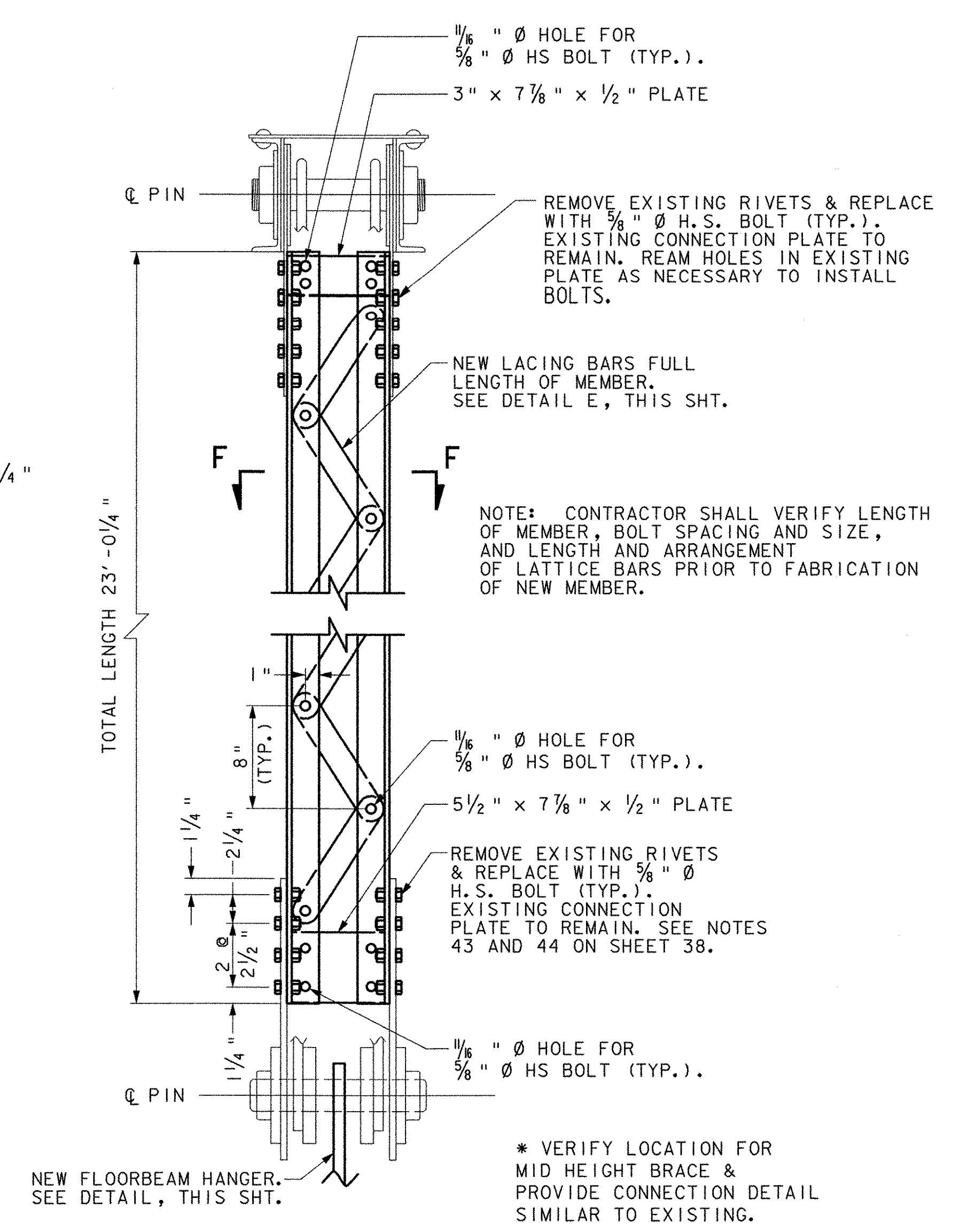
DETAIL G
SCALE: 3" = 1'-0"



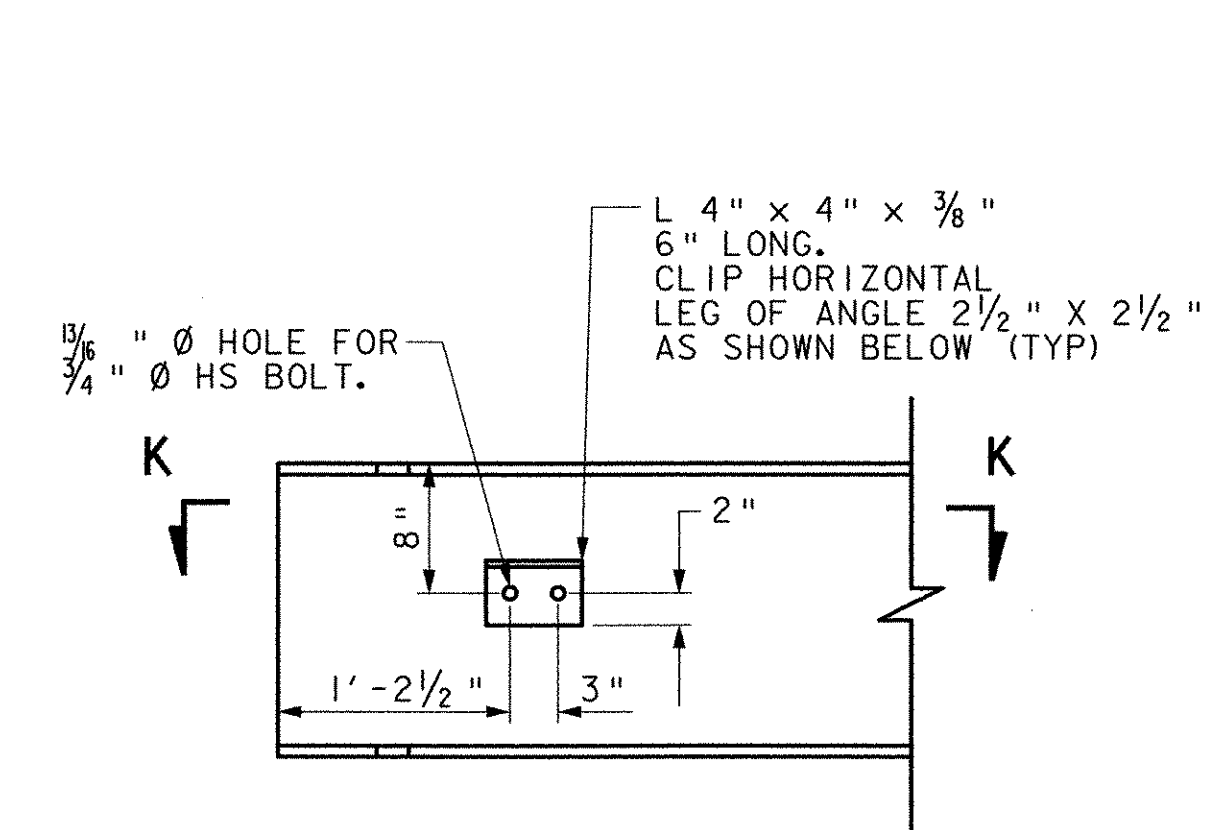
DETAIL E
SCALE: 1 1/2" = 1'-0"



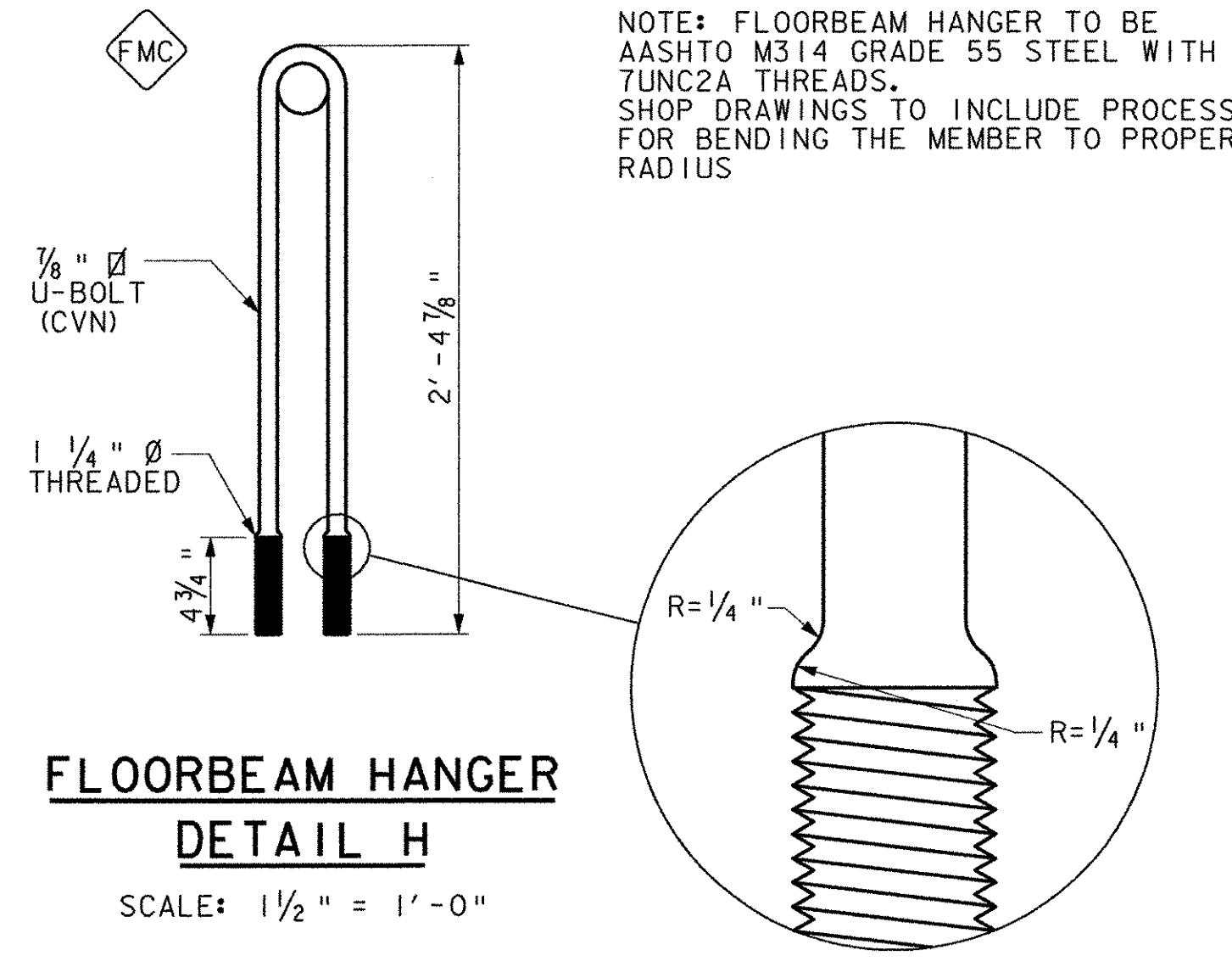
SECTION F-F
SCALE: 1 1/2" = 1'-0"



NEW L7U7
SCALE: 1 1/2" = 1'-0"
(NORTH TRUSS)



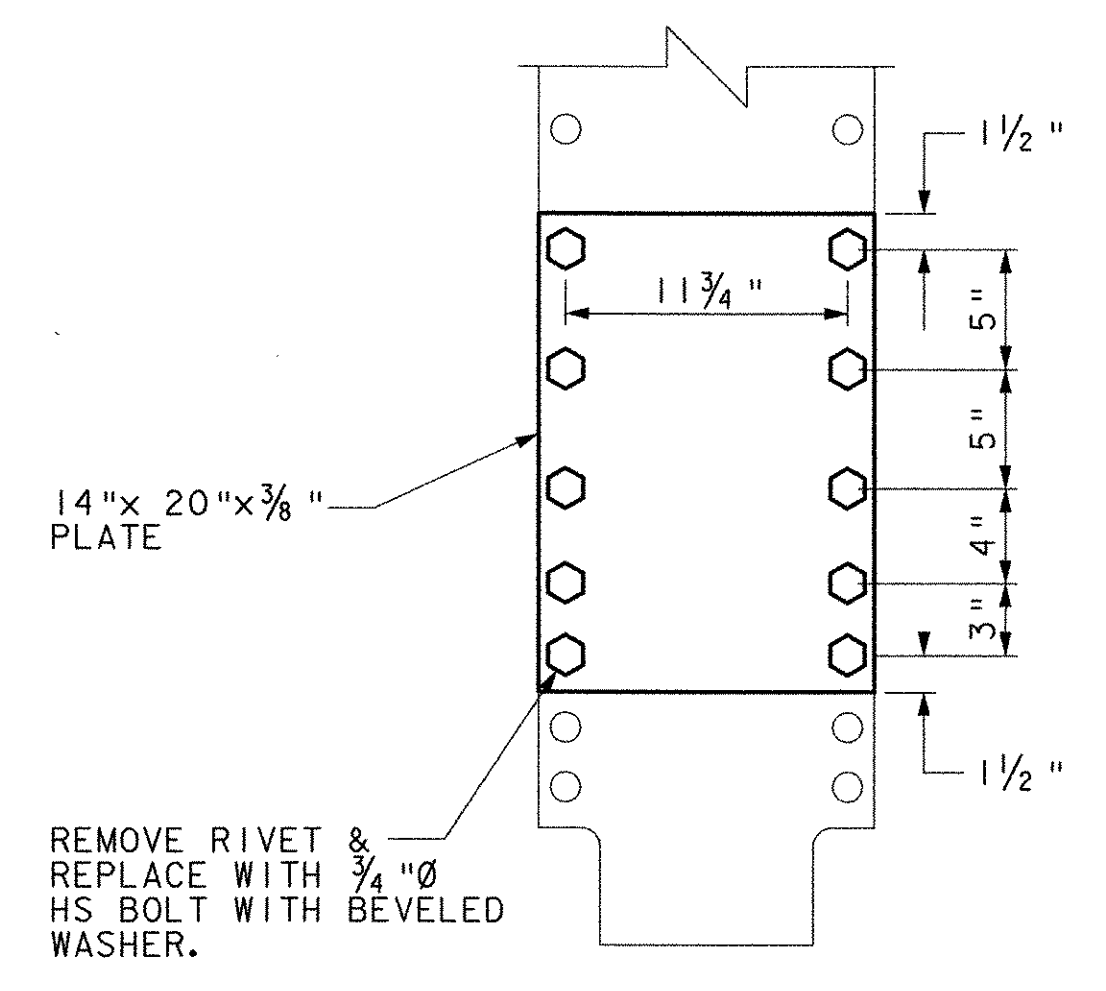
TYPICAL LOWER LATERAL BRACING CONNECTION
SCALE: 1" = 1'-0"



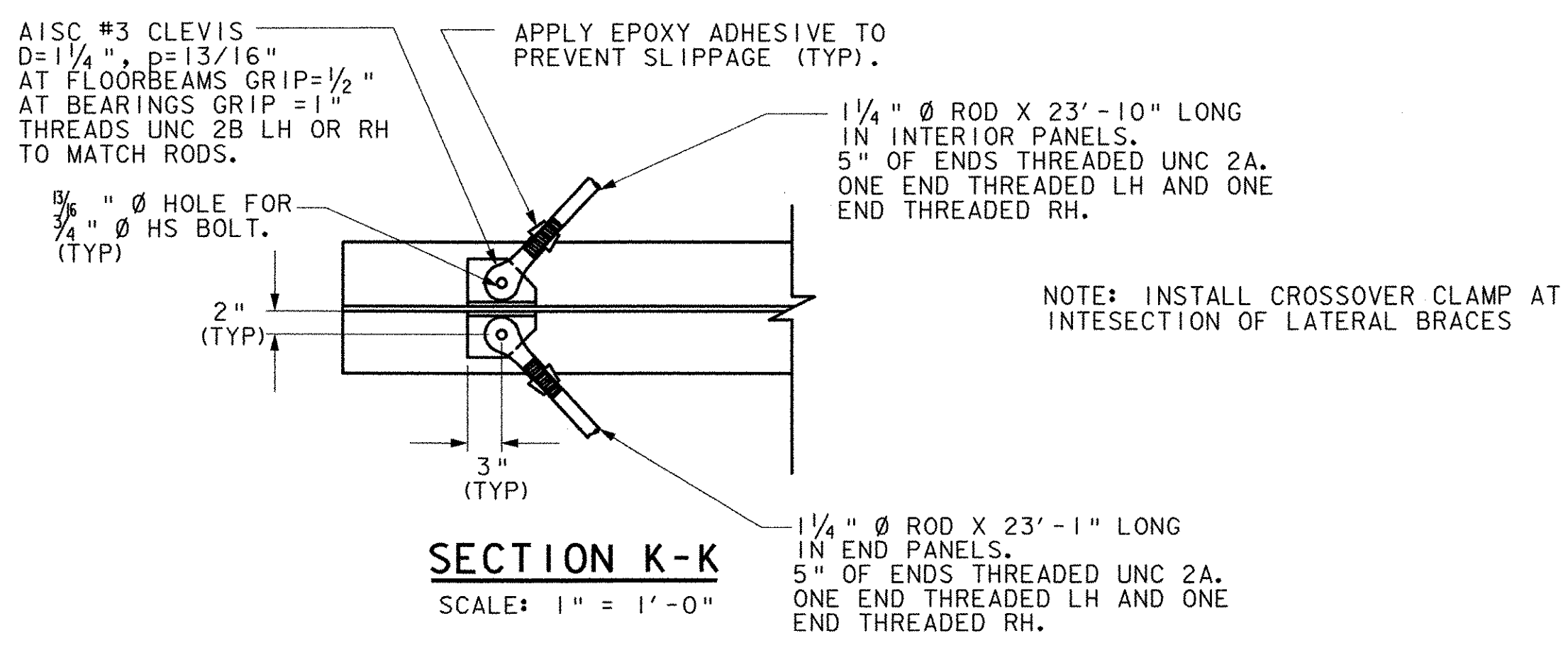
FLOORBEAM HANGER
DETAIL H
SCALE: 1 1/2" = 1'-0"

NOTE: FLOORBEAM HANGER TO BE AASHTO M314 GRADE 55 STEEL WITH 7UNC2A THREADS. SHOP DRAWINGS TO INCLUDE PROCESS FOR BENDING THE MEMBER TO PROPER RADIUS

DETAIL J
SCALE: 6" = 1'-0"

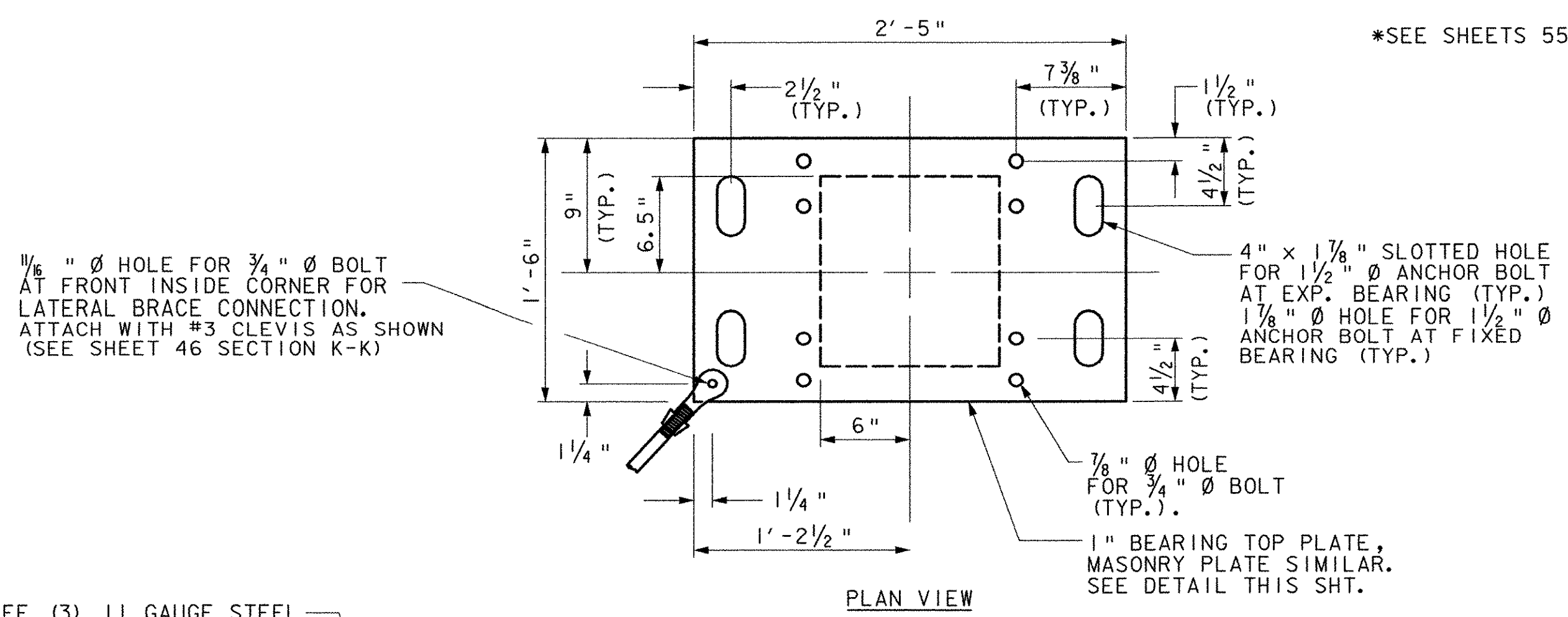


CRACK REPAIR DETAIL
MEMBER U8L9 SOUTH TRUSS
SCALE: 1 1/2" = 1'-0"

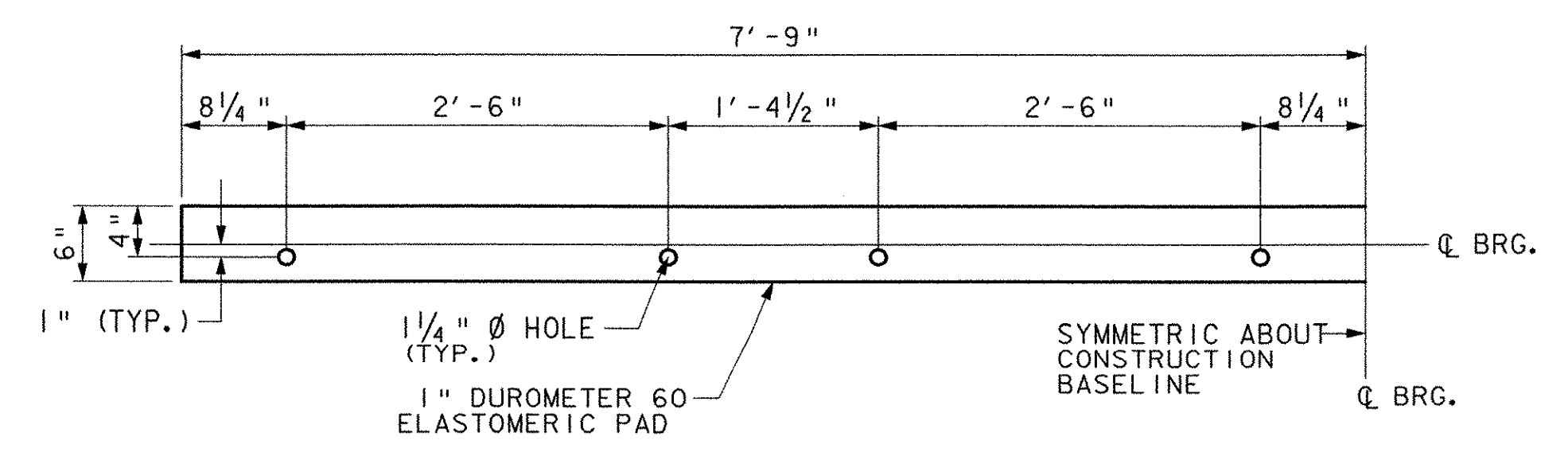
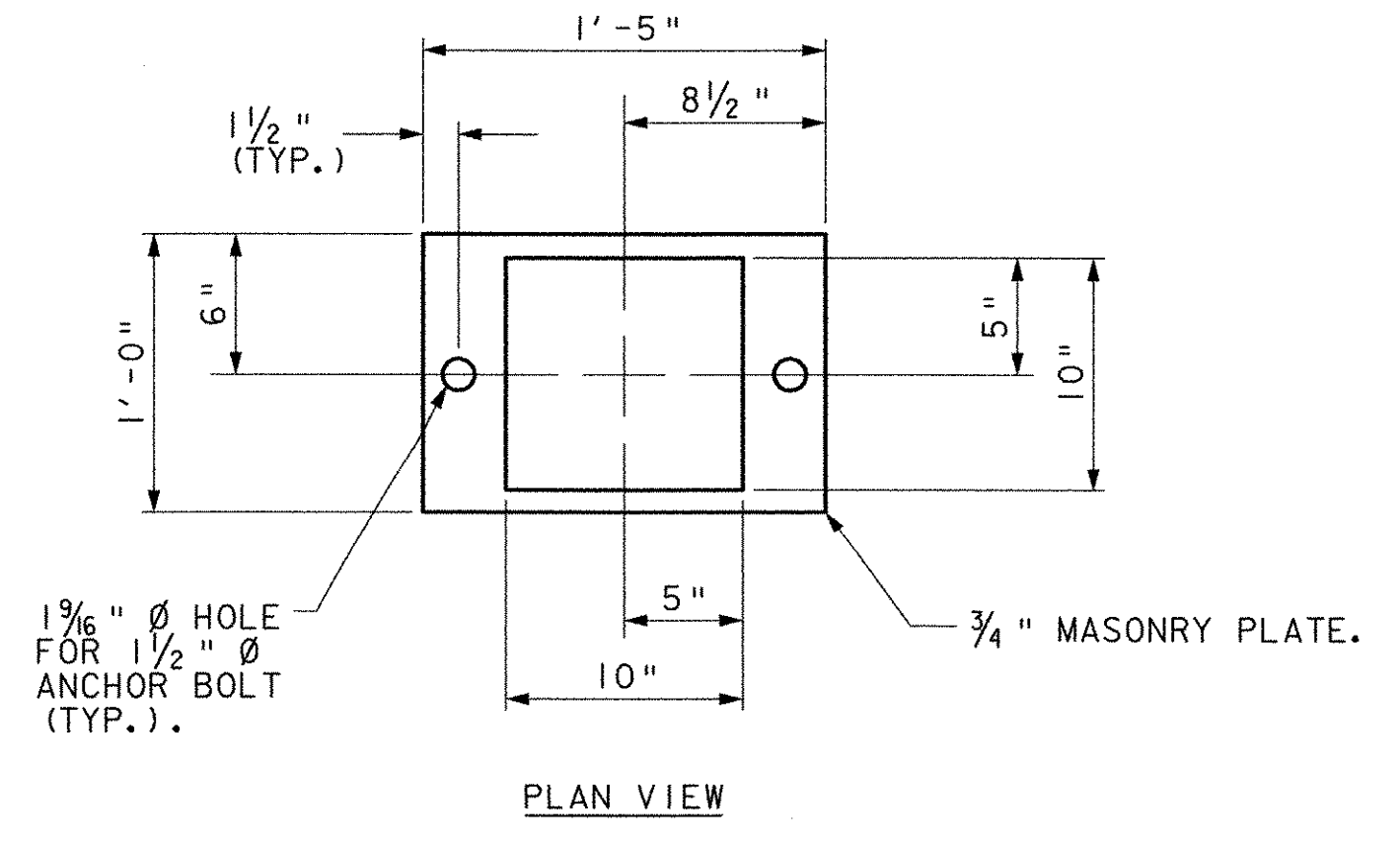


SECTION K-K
SCALE: 1" = 1'-0"

STATE OF VERMONT AGENCY OF TRANSPORTATION		
Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No. 1
Highway No.	MAIDSTONE STATE HWY	Log Sta. Surv. Sta.
STEEL DETAILS 2		
Designed By	J. MESSIER	Drawn By C. DONOHUE
Checked By	Date	Bridge Design Supervisor
	D. B. SULLIVAN	08/01/03
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO. BHO 1447 (24)
I.G.C. Info.		
Bridge Sheet No.		Sheet 46 of 65

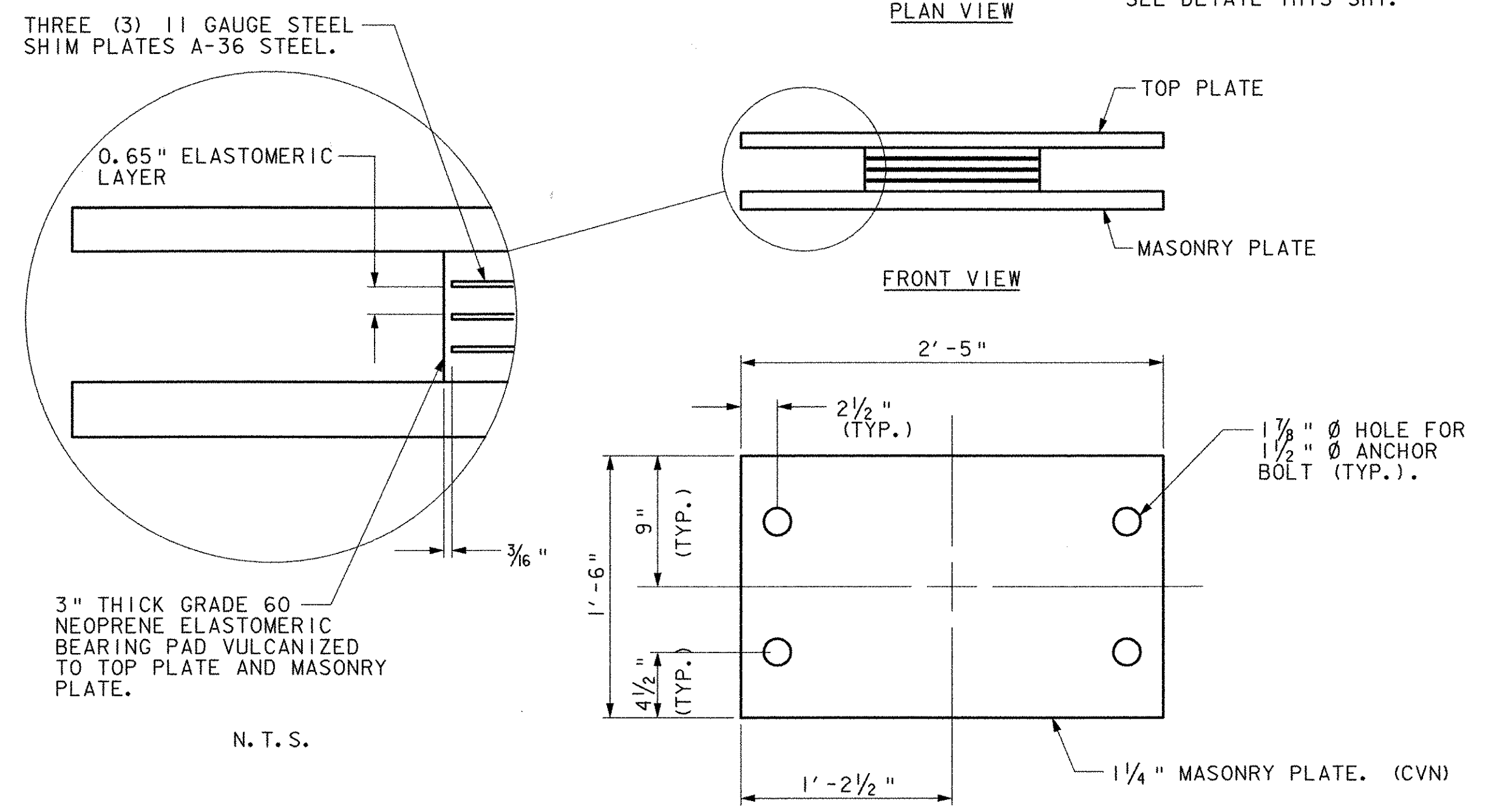


*SEE SHEETS 55 AND 58 FOR ANCHOR BOLTS.



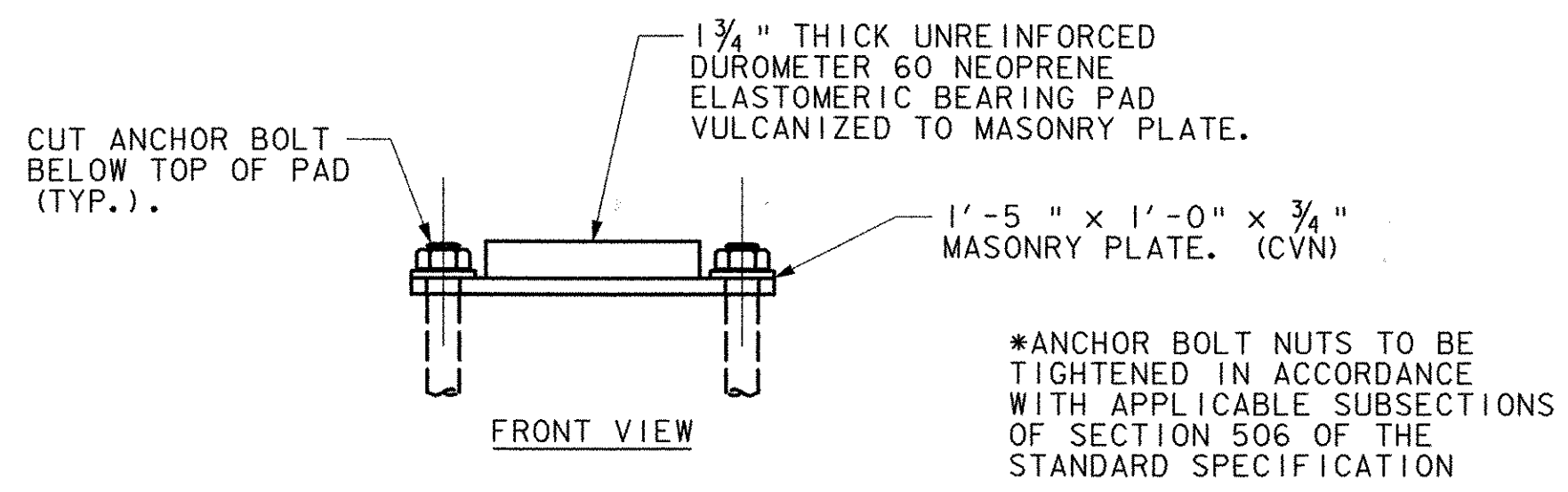
TIMBER DECK FIXED BEARING DETAILS

SCALE: 1" = 1'-0"



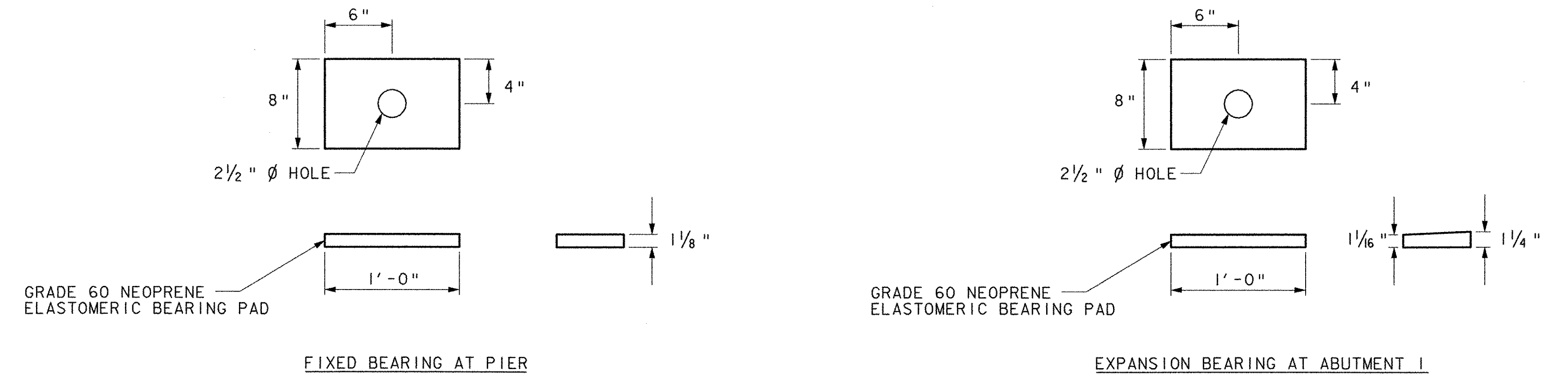
TRUSS BEARING DETAILS

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



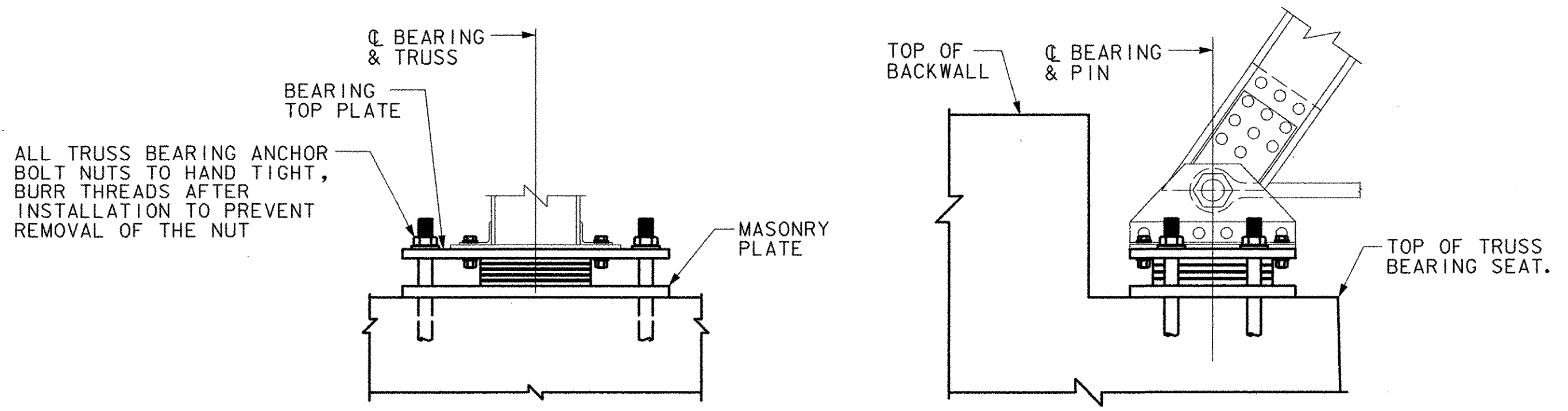
DECK EXPANSION BEARING DETAILS

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



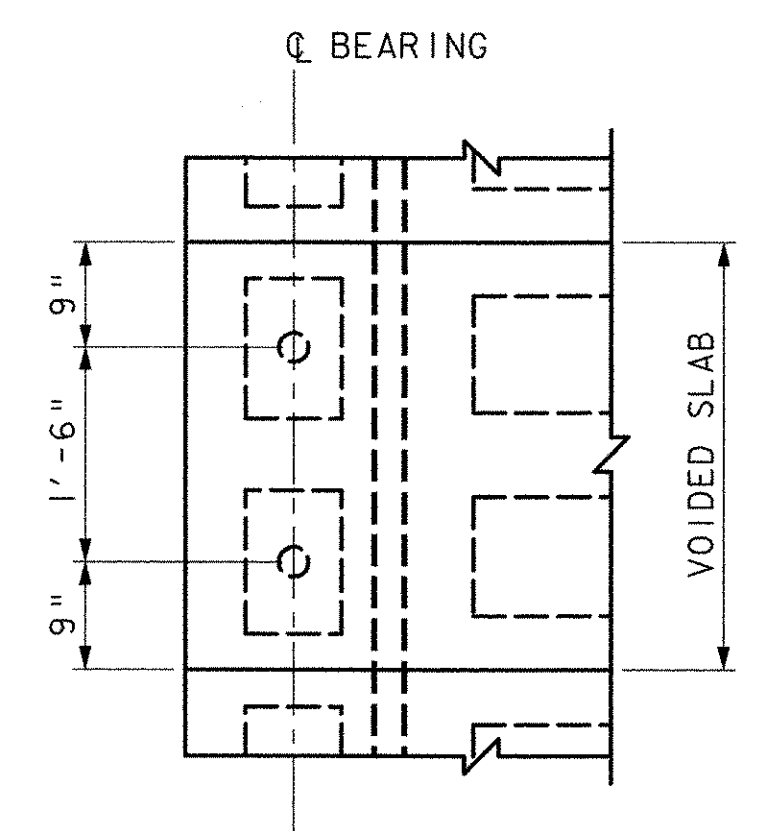
VOIDED SLAB BEARING DETAILS

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



TRUSS BEARING INSTALLATION

SCALE: 1" = 1'-0"



VOIDED SLAB BEARING INSTALLATION

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

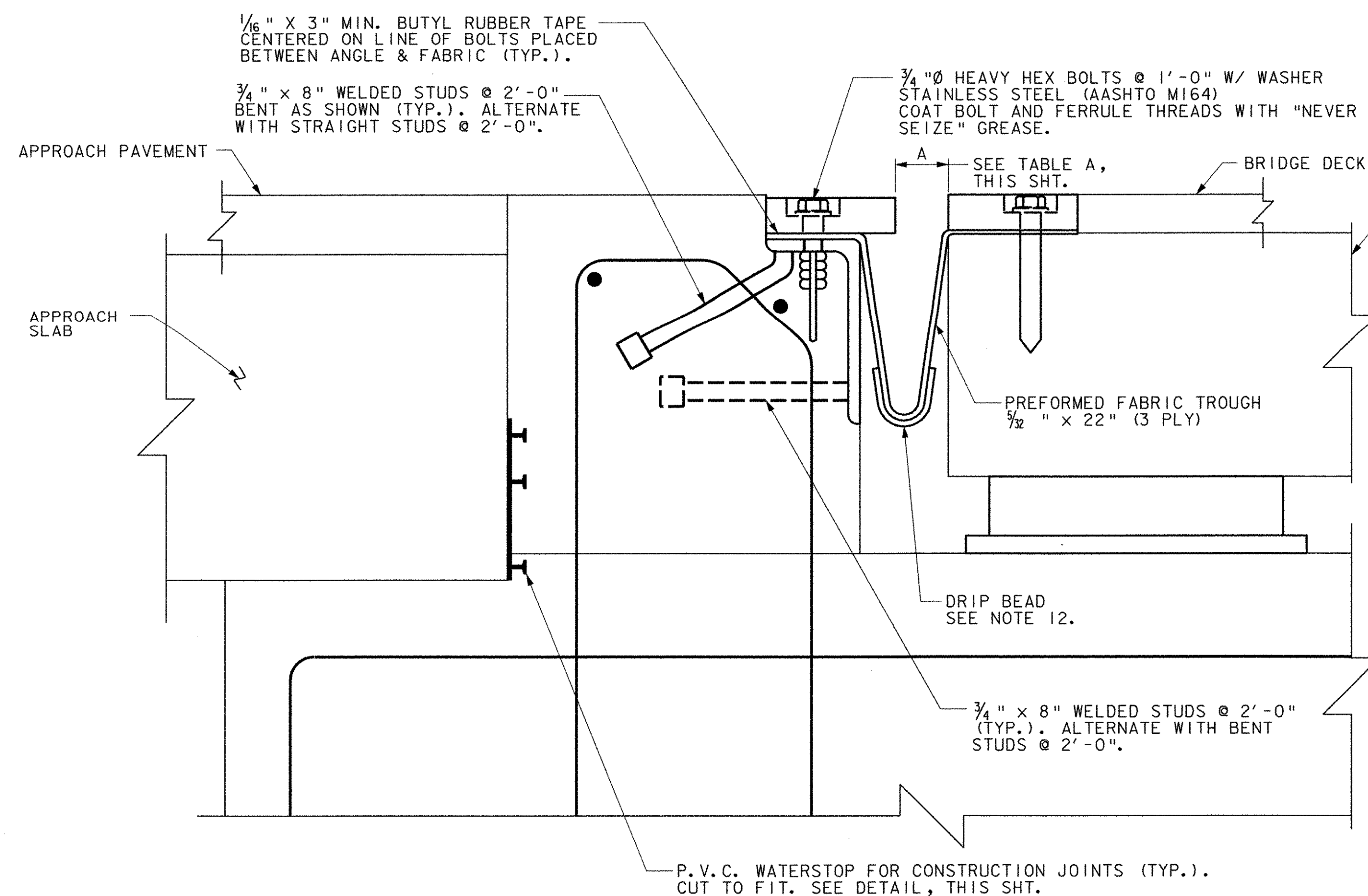
STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
		Surv. Sta.	

BEARING DETAILS			
Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
	D. B. SULLIVAN		08/01/03
PROJECT	MAIDSTONE-STRATFORD		PROJECT NO.
			BHO 1447 (24)
I.G.C. Info.			
Bridge Sheet No.			Sheet 47 of 65

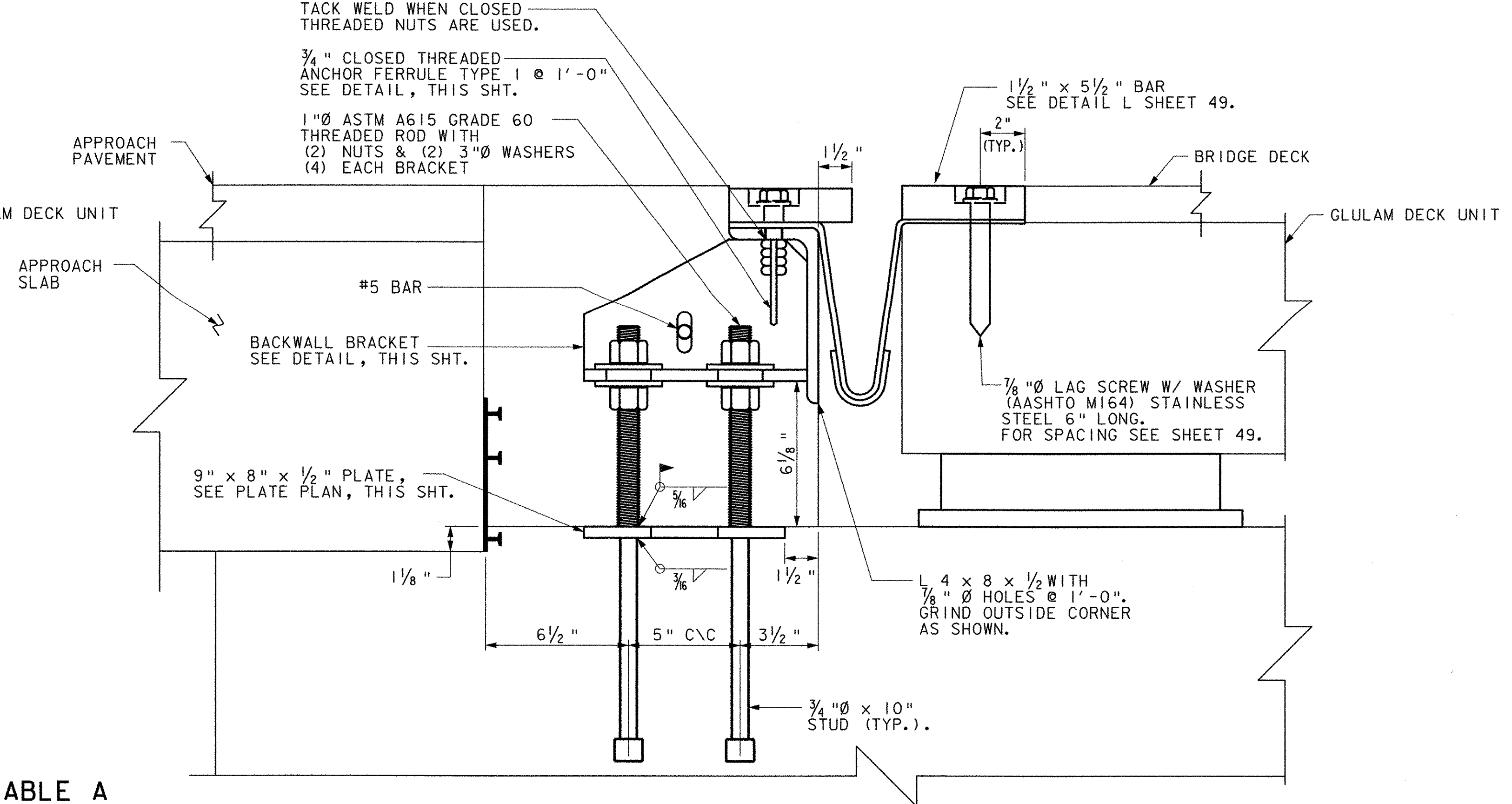


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TYPICAL SECTION BETWEEN BRACKETS

SCALE: 3" = 1'-0"



TYPICAL SECTION @ BRACKETS

SCALE: 3" = 1'-0"

TABLE A

TEMP	"A" DIST
0° F	3"
15° F	2 3/4"
30° F	2 3/8"
45° F	2 3/16"
60° F	2 3/16"
75° F	2"
90° F	1 11/16"
105° F	1 1/8"

EXPANSION JOINT NOTES

1. DETAILS ON THIS SHEET ARE FOR ITEM 516.10 "BRIDGE EXPANSION JOINT".
2. DECK UNITS TO BE PLACED PRIOR TO INSTALLING THE JOINT AND POURING THE BACKWALL SO THAT CROSS SLOPE OF DECK UNITS CAN BE MATCHED BY THE CROSS SLOPE OF THE BACKWALL.
3. PREFORMED FABRIC MATERIAL SHALL BE CONTINUOUS AND SHALL CONFORM TO SUBSECTION 707.07.
4. BUTYL RUBBER TAPE SHALL CONFORM TO AASHTO SPECIFICATION M-198, TYPE 11.
5. THE FINAL FINISH OF THE EXPANSION DEVICE SHALL BE COVERED DURING THE PLACEMENT OF ADJACENT CONCRETE.
6. ALL STEEL EXP. JOINT COMPONENTS SHALL BE AASHTO M270 GRADE 36 GALVANIZED OR METALIZED AS PER SUBSECTION 506.15 (B) OR (C) UNLESS OTHERWISE SPECIFIED.
7. THE ITEM 516.10 "BRIDGE EXPANSION JOINT" SHALL INCLUDE THE FABRICATION AND ERECTION OF THE COMPLETE JOINT ASSEMBLY INCLUDING ALL STEEL PLATES, CURB PLATES, BRACKETS, ANGLES, WELDED STUDS OR RODS, PREFORMED FABRIC DRAIN TROUGH MATERIAL AND PLASTIC DRAIN TUBES, BUTYL RUBBER TAPE AND ANY OTHER MISCELLANEOUS MATERIAL NECESSARY TO INSTALL JOINT.
8. THE 4" x 8" x 1/2" ANGLES SHALL BE FURNISHED AS ONE CONTINUOUS PIECE. THE 1 1/2" x 5 1/2" BARS EACH SIDE OF THE JOINT SHALL BE PROVIDED IN TWO EQUAL LENGTHS.
9. COAT CONCRETE CONTACT SURFACES WITH EPOXY BONDING COMPOUND MEETING THE REQUIREMENTS OF SUBSECTION 719.02. PAYMENT FOR THE WORK SHALL BE CONSIDERED SUBSIDIARY TO ITEM 516.10 "BRIDGE EXPANSION JOINT".
10. FILL COUNTERBORED HOLES WITH HOT POURED JOINT SEALER AFTER BOLT INSTALLATION. PAYMENT FOR THE WORK SHALL BE SUBSIDIARY TO ITEM 516.10 "BRIDGE EXPANSION JOINT".
11. PAYMENT FOR WATERSTOP SHALL BE SUBSIDIARY TO ITEM 501.34 "CONCRETE CLASS B (HPC-B)".
12. A DRIP BEAD OF 1/4 x 7" STRIP OF PREFORMED MATERIAL SHALL BE CEMENTED TO THE BOTTOM OF THE FABRIC TROUGH USING AN ADHESIVE APPROVED BY THE MANUFACTURER. THE DRIP BEAD SHALL BE APPLIED 1" FROM THE END OF THE TROUGH.
13. FABRIC TROUGH SHALL BE THOROUGHLY CLEANED AND FLUSHED AFTER PAVING OPERATION.
14. THE EXPANSION JOINT SHALL BE SHOP ASSEMBLED AND SHIPPED AS ONE UNIT.
15. FOR FIXED END JOINT DETAILS, SEE SHT. 54.

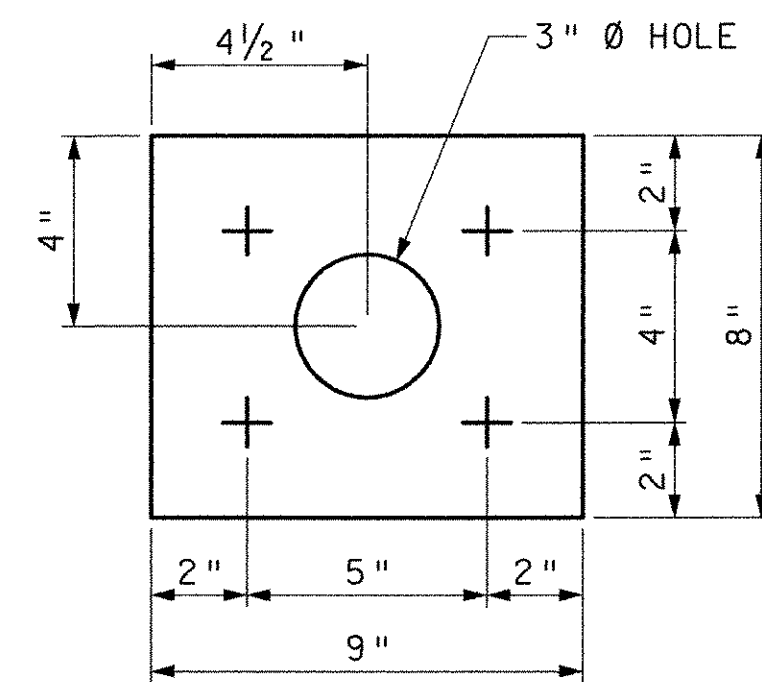
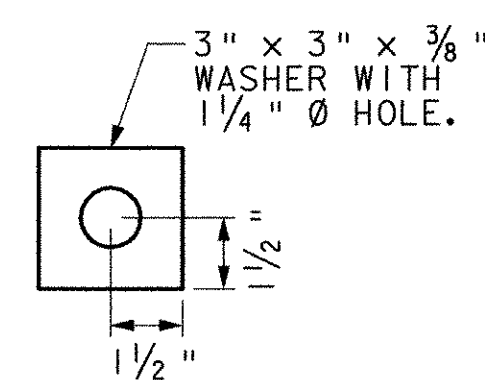


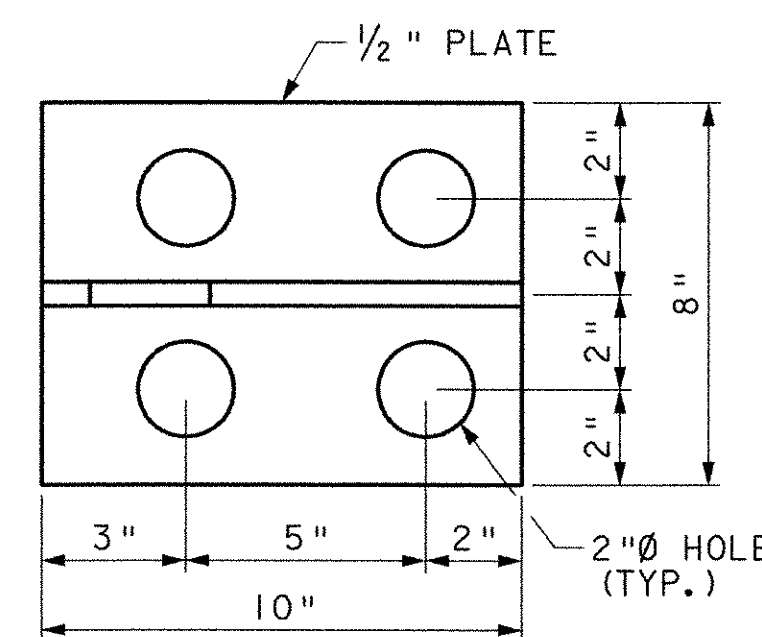
PLATE PLAN

SCALE: 3" = 1'-0"



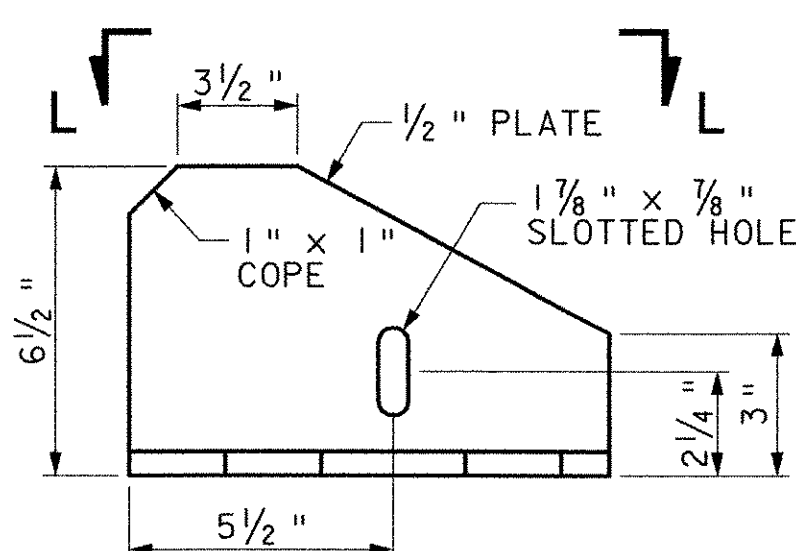
WASHER FOR BRACKET

SCALE: 3" = 1'-0"



SECTION L-L

SCALE: 3" = 1'-0"



BACKWALL BRACKET ELEVATION

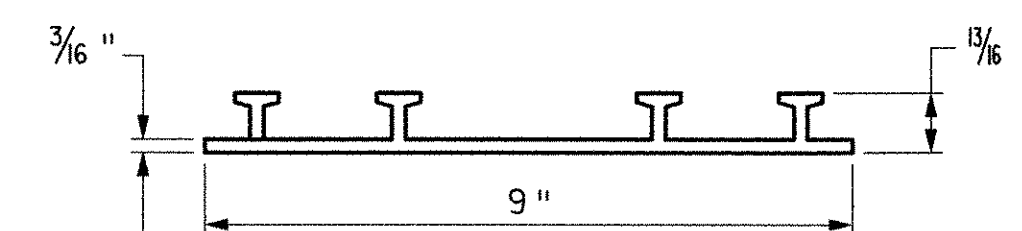
SCALE: 3" = 1'-0"



ANCHOR FERRULE DETAIL

SCALE: 3" = 1'-0"

NOTE: CLOSE THREADED FERRULE NUTS WITHOUT ANCHOR LOOPS MAY BE USED.



P.V.C. WATERSTOP FOR CONSTRUCTION JOINTS

N. T. S.

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
		Surv. Sta.	

EXPANSION JOINT DETAILS

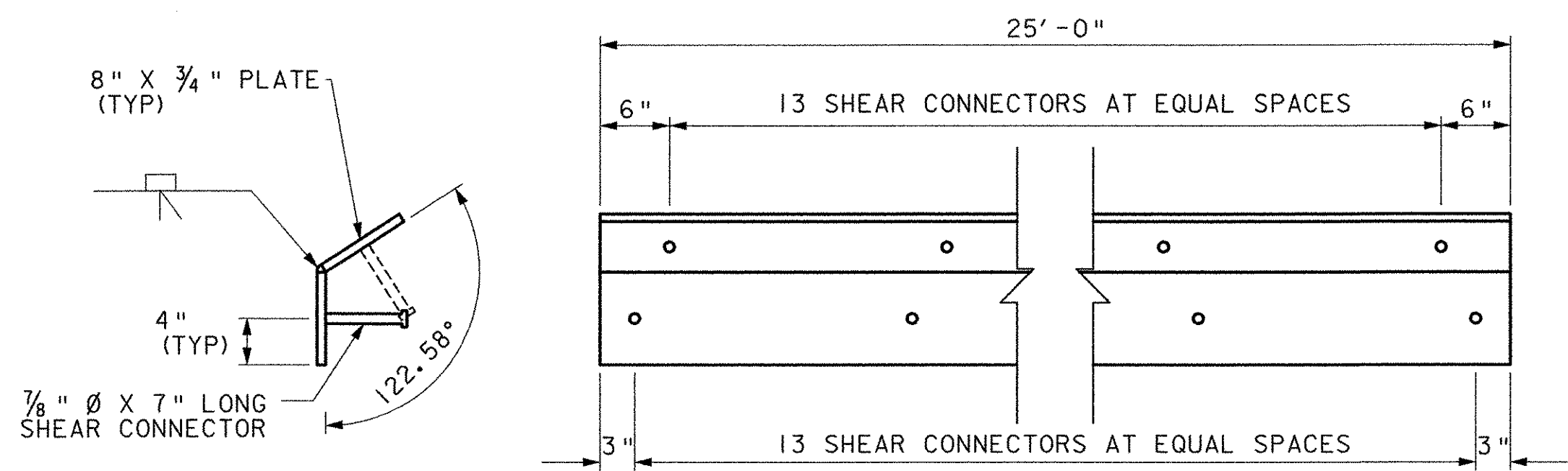
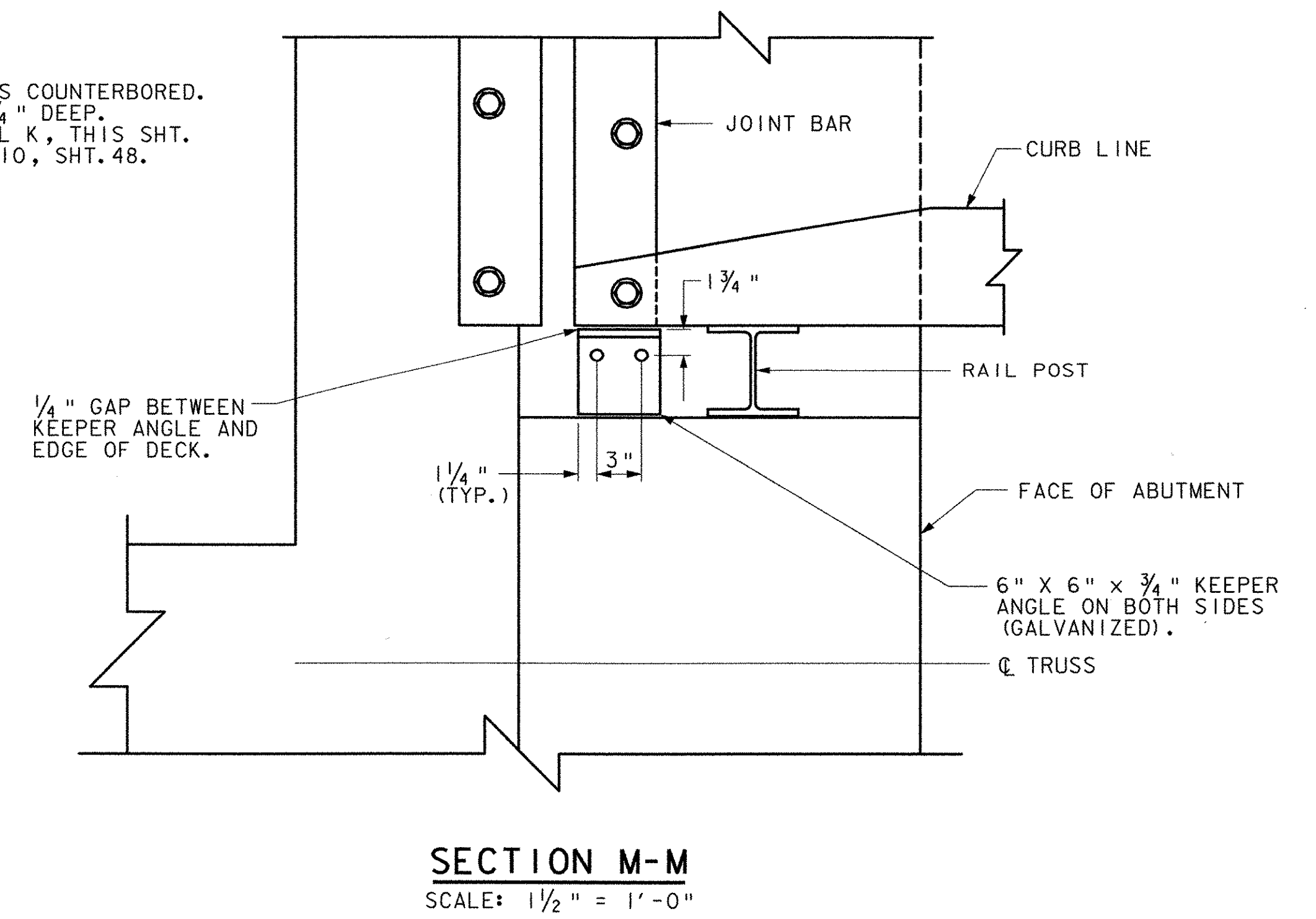
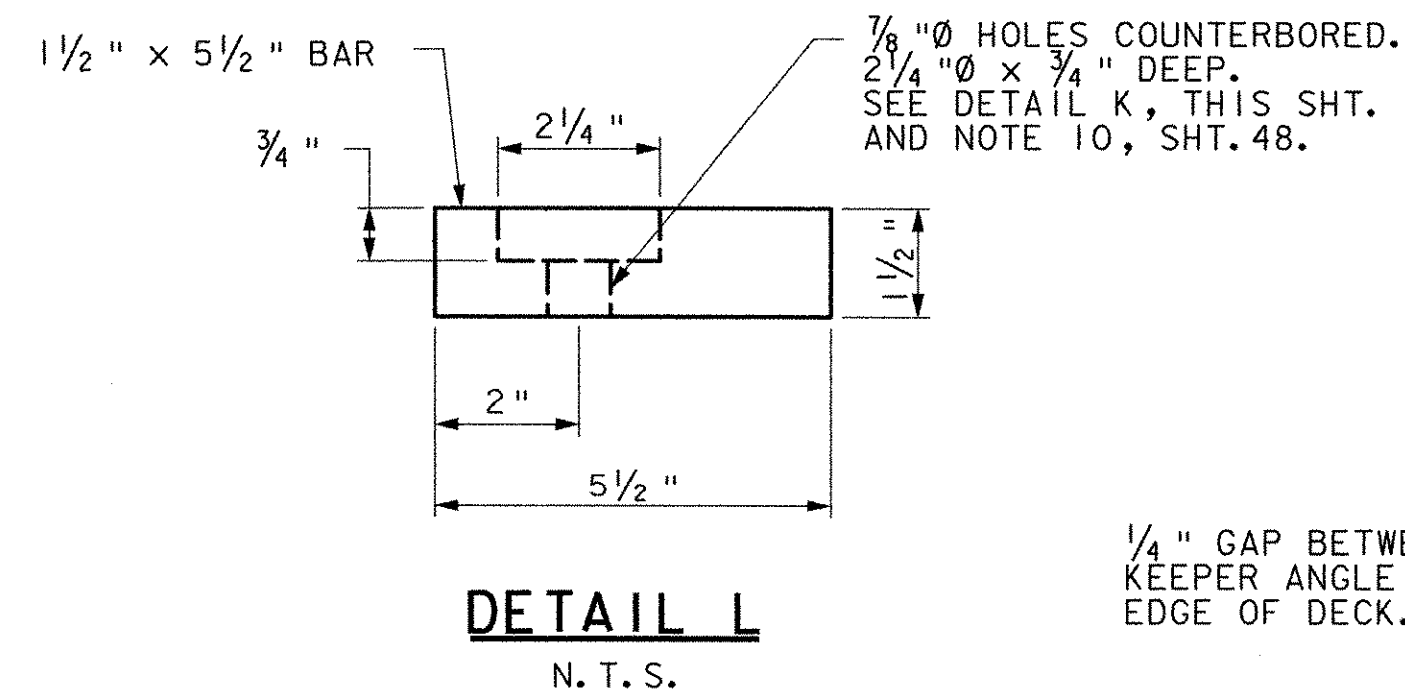
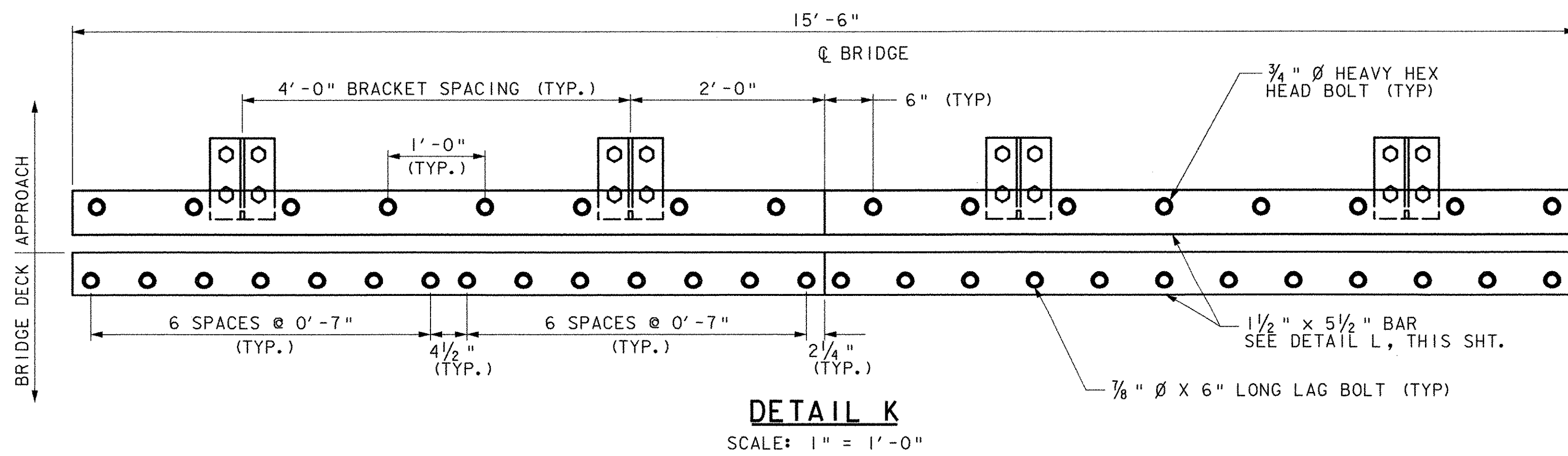
Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
	D. B. SULLIVAN		08/01/03

PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
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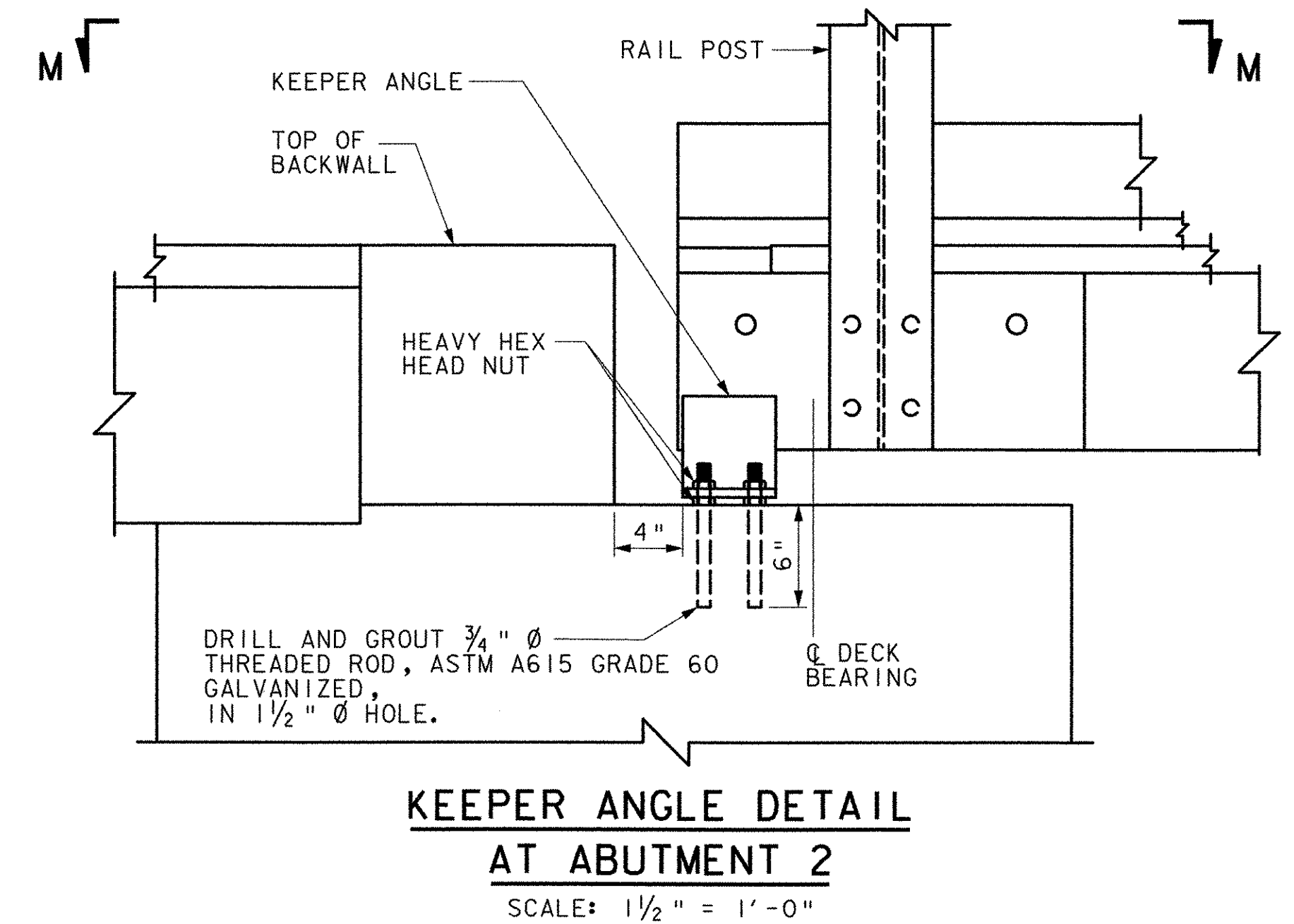
I.G.C. Info.	Bridge Sheet No.	Sheet 48 of 65
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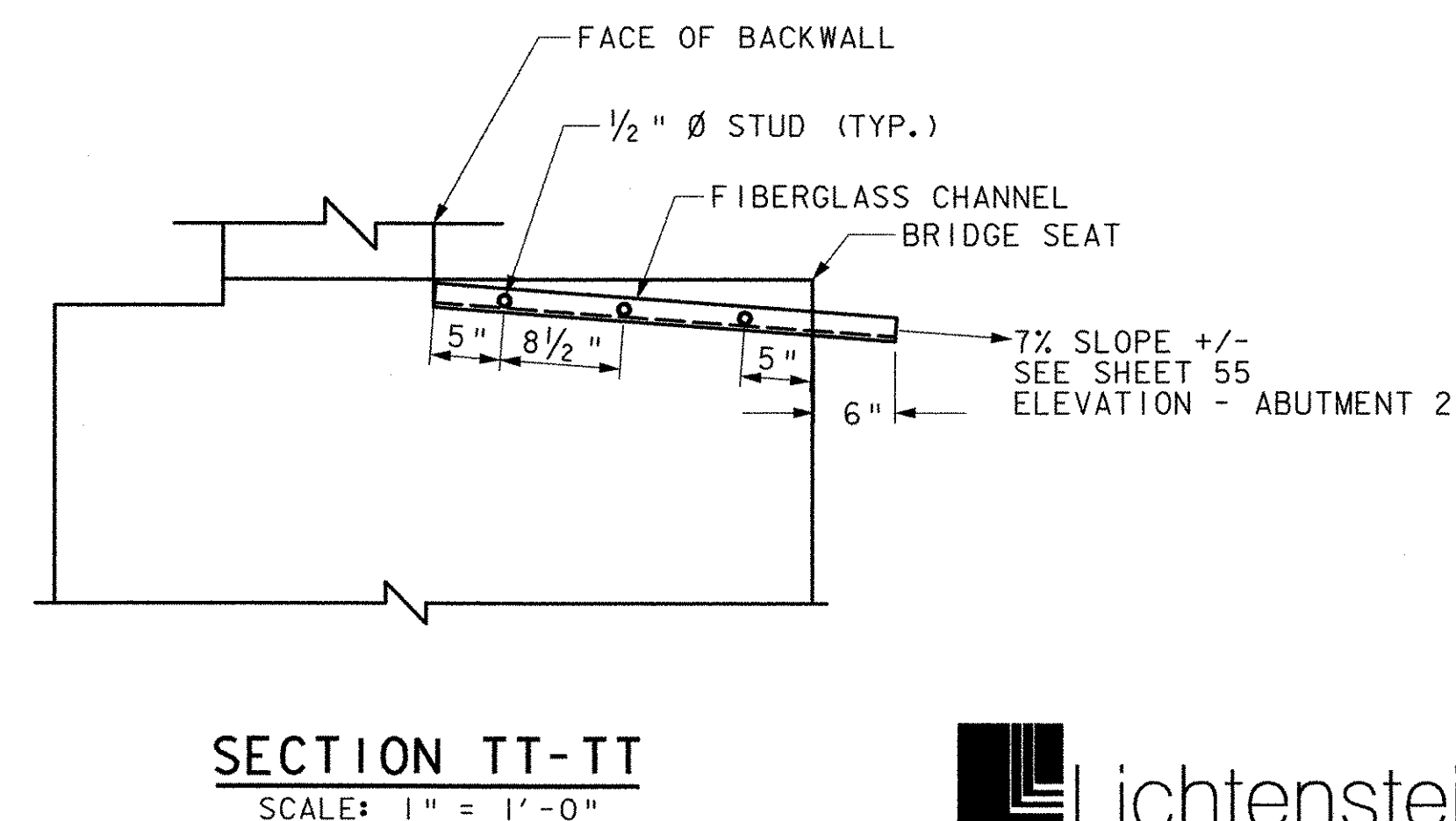
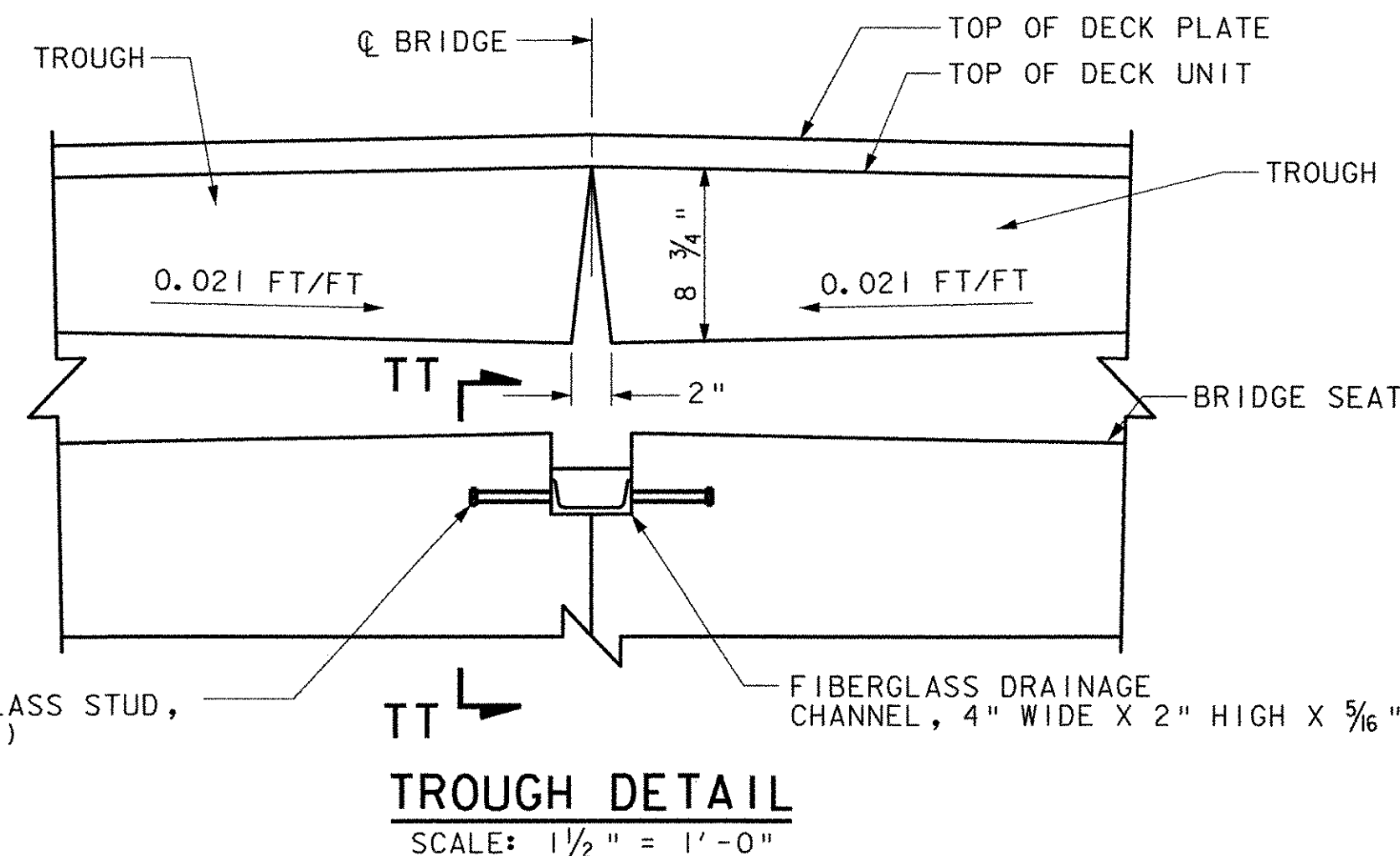
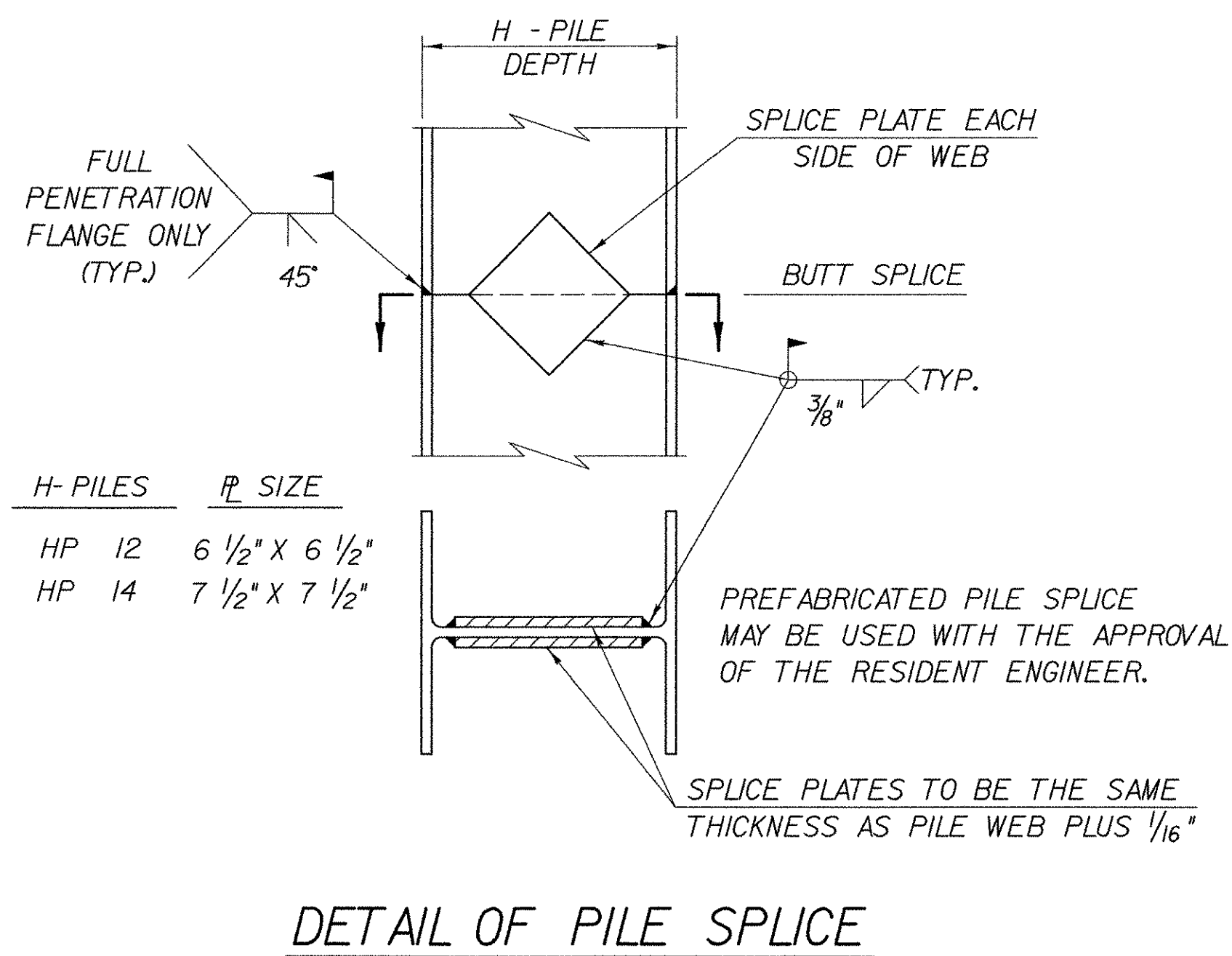
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- PIER NOSE ANGLE NOTES:**
1. THE WORK, MATERIAL AND LABOR TO FABRICATE AND INSTALL THE PIER NOSE ANGLE SHALL BE SUBSIDIARY TO ITEM 501.34 "CONCRETE, HIGH PERFORMANCE CLASS B".
 2. THE SHEAR CONNECTORS SHALL CONFORM TO SECTION 508 OF THE VTRANS STANDARD SPECS.
 3. THE STEEL PLATES SHALL BE AASHTO M270M/M270 GRADE 50.
 4. AFTER FABRICATION THE ENTIRE PIECE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123/A123M.

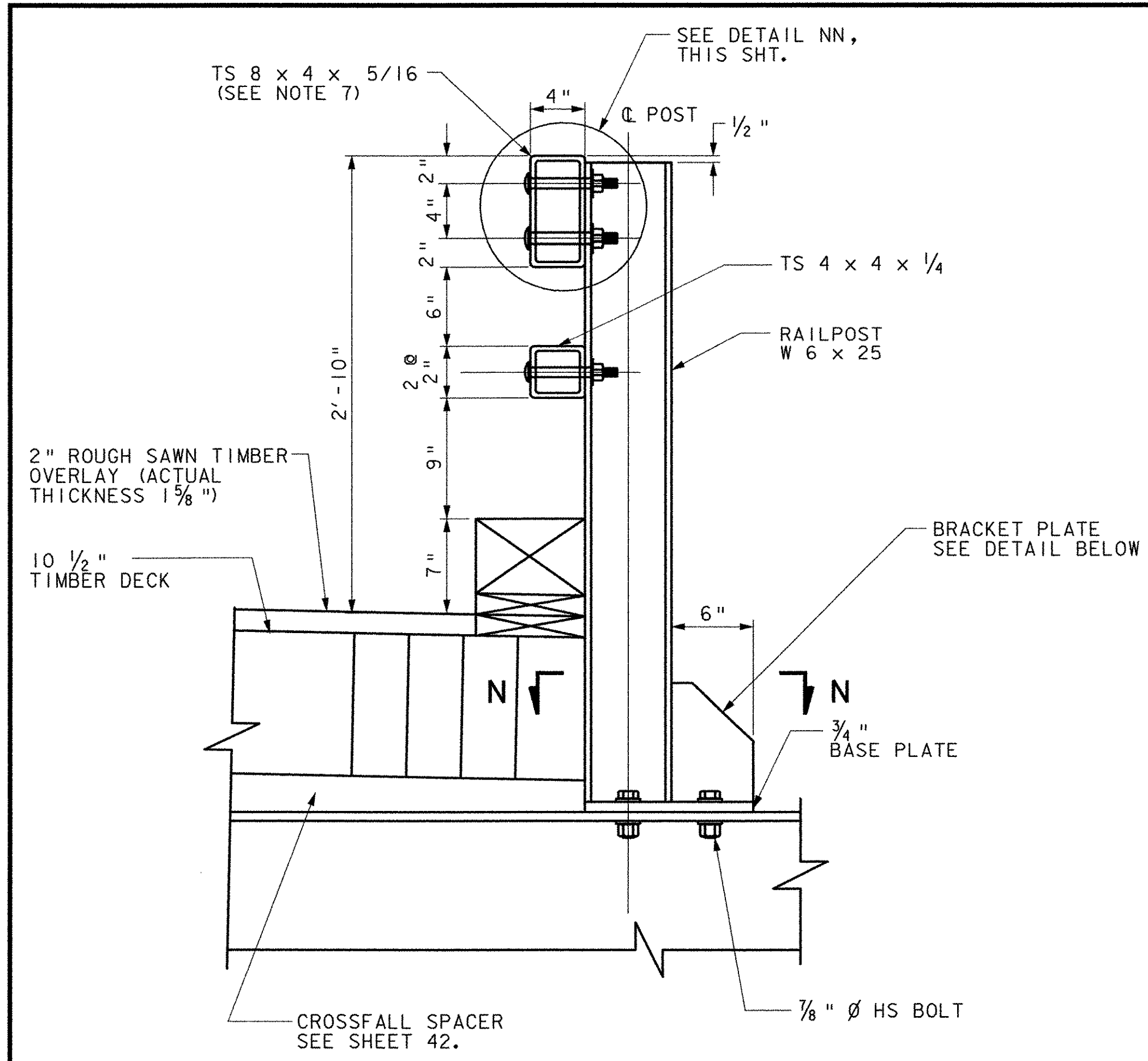


- NOTES:**
1. THE MATERIALS, WORK, EQUIPMENT AND LABOR TO FORM THE CONCRETE, AND FABRICATE AND INSTALL THE FIBERGLASS CHANNEL WITH FIBERGLASS SHEAR STUDS SHALL BE CONSIDERED SUBSIDIARY TO ITEM 501.34 "CONCRETE, HIGH PERFORMANCE CLASS B".
 2. THE SHEAR STUDS SHALL BE INSTALLED WITH A HIGH STRENGTH EPOXY BONDING COMPOUND SUITABLE FOR USE WITH FIBERGLASS.

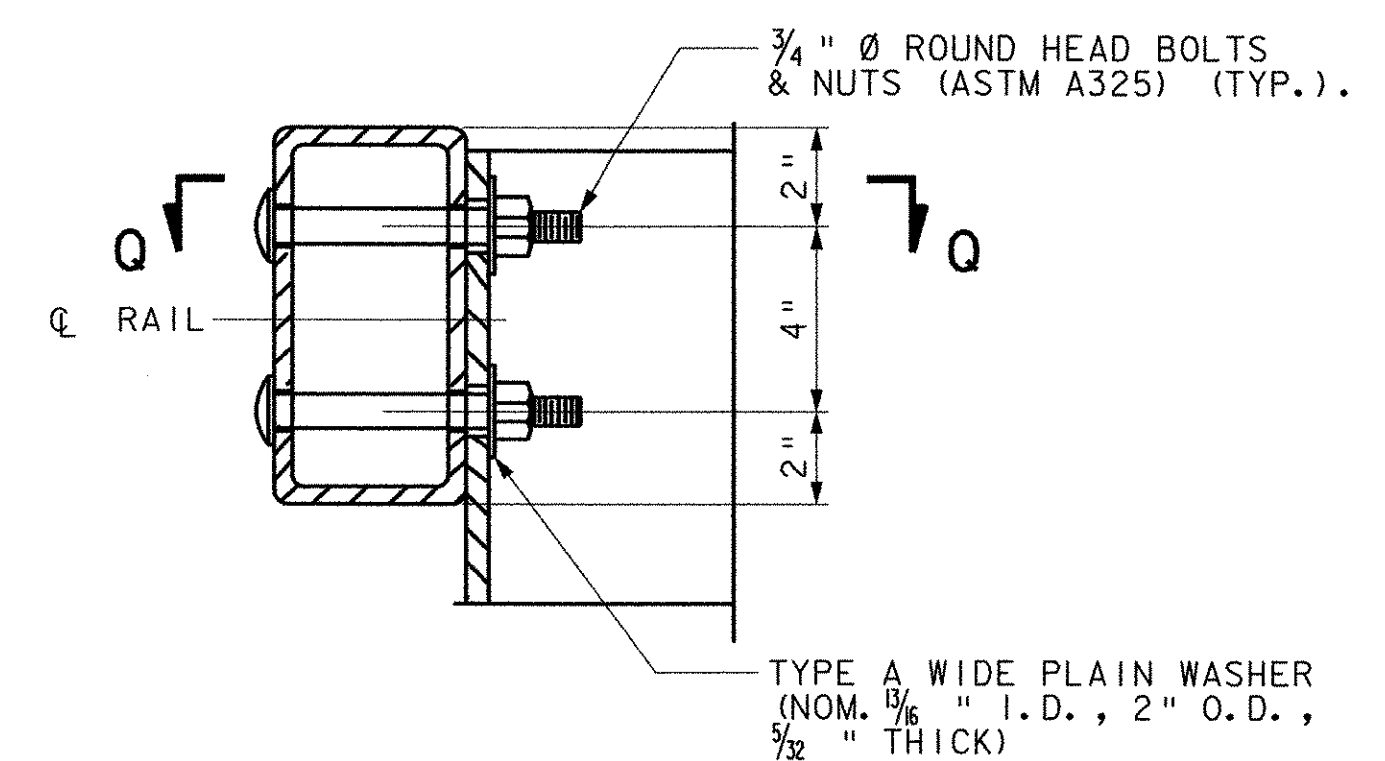


NOTE: KEEPER ANGLE, THREADED RODS, GROUT & INSTALLATION SHALL BE CONSIDERED SUBSIDIARY TO ITEM 522.40 "STRUCTURAL GLUED LAMINATED TIMBER".

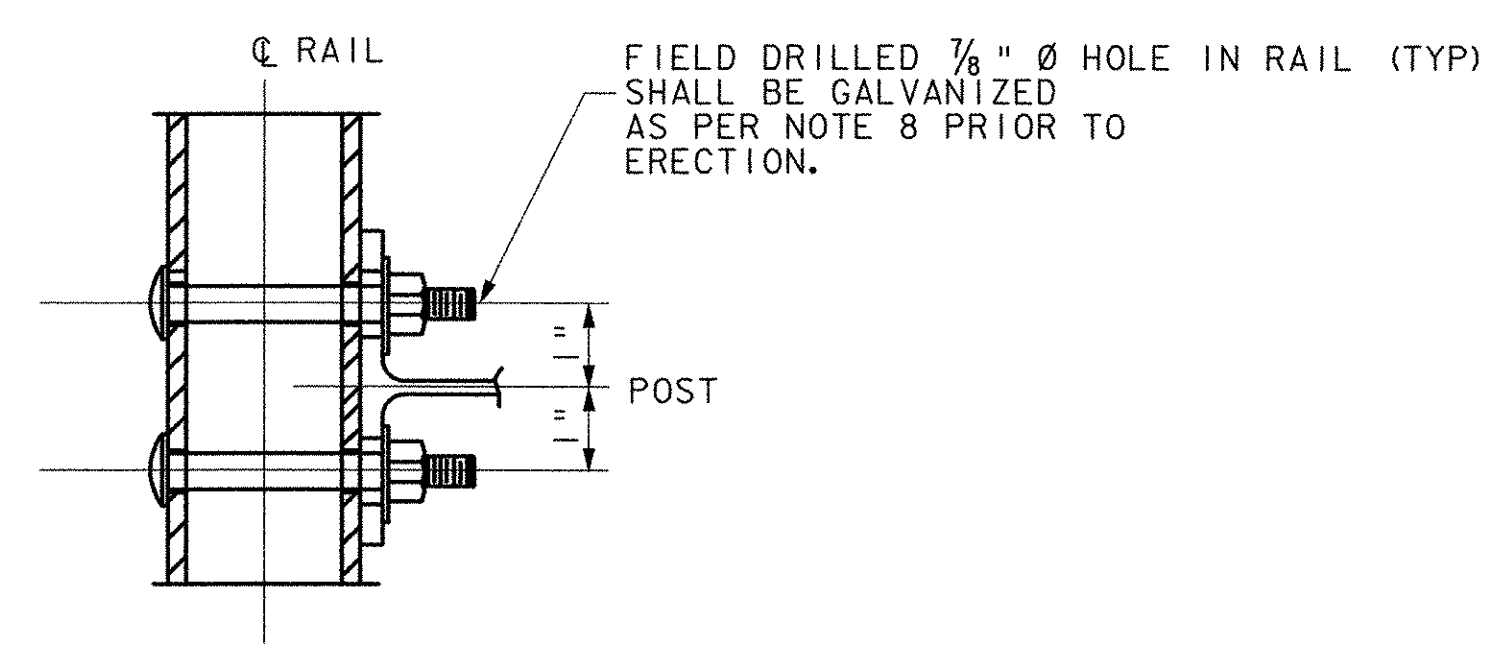
STATE OF VERMONT AGENCY OF TRANSPORTATION		
Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No. 1
Highway No.	MAIDSTONE STATE HWY	Log Sta.
		Surv. Sta.
MISCELLANEOUS DETAILS		
Designed By	J. MESSIER	Drawn By C. DONOHUE
Checked By	Date	Bridge Design Supervisor
D. B. SULLIVAN	08/01/03	Date
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO. BHO 1447 (24)
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Bridge Sheet No.		Sheet 49 of 65



BRIDGE RAIL SECTION AT FLOORBEAM
SCALE: 1 1/2" = 1'-0"



DETAIL NN
SCALE: 3" = 1'-0"



SECTION Q-Q
SCALE: 3" = 1'-0"

RAIL NOTES

- BRIDGE RAIL SHALL INCLUDE POSTS, BASE PLATES, ANCHOR PLATES, CONNECTION PLATES, ANCHOR RODS, RAIL ASSEMBLY BOLTS, NUTS, WASHERS, STUDS, STRUCTURAL TUBING, SPLICE BARS, PIPE SPACERS, ALL APPURTENANCES AND GALVANIZING. ALL WORK AND MATERIAL SHALL CONFORM TO THE PROVISIONS OF SECTION 525 - RAILINGS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION. TUBING AND POSTS SHALL MEET THE REQUIREMENTS OF SECTION 732 - RAILING MATERIALS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- BRIDGE RAIL POSTS SHALL BE SET NORMAL (90 DEGREES) TO THE PROFILE GRADE.
- ENDS OF RAIL TUBE SECTIONS SHALL BE SAWED OR MILLED AND SHALL BE TRUE AND SMOOTH. ALL CUT EDGES OF ALL MATERIAL SHALL BE GROUND SMOOTH. ALL CUT OR SHEARED EDGES SHALL BE ROUNDED TO A 1/16" RADIUS AND BE FREE OF ALL BURRS. BOLT HOLES SHALL BE DRILLED OR PUNCHED. FLAME CUTTING MAY BE USED TO FINISH SLOTTED HOLES IF MECHANICALLY GUIDED. ALL BENDING OF RAIL ELEMENTS SHALL BE BY SHOP PROCEDURE ONLY.
- EACH PIECE OF RAIL TUBING SHALL BE ATTACHED TO A MINIMUM OF TWO POSTS AND PREFERABLY TO AT LEAST FOUR POSTS. RAIL BARS MAY ALTERNATIVELY BE ATTACHED USING 3/4" DIAMETER AASHTO M164 (TYPE 1) OR 3/4" DIAMETER ASTM F568, CLASS 4.6 ROUND HEAD BOLTS INSERTED THROUGH THE FACE OF THE BAR. HOLES SHALL BE 1/16" LARGER THAN THE BOLT SIZE.
- RAIL BAR EXPANSION JOINTS SHALL BE PROVIDED IN ANY RAIL BAR SPANNING A SUPERSTRUCTURE EXPANSION JOINT. EXPANSION JOINT WIDTH SHALL BE 2 1/2" AT 45 DEGREES FAHRENHEIT AND WILL BE ADJUSTED IN THE FIELD BY THE RESIDENT ENGINEER.
- AT INTERIOR SPLICES, PIPE SPACERS SHALL BE USED ON ONLY ONE SIDE OF THE SPLICE TO ALLOW MOVEMENT ON THAT SIDE. THE TOP AND BOTTOM RAIL SHALL RECEIVE THE SAME TREATMENT. AT END SPLICES, PIPE SPACERS SHALL BE USED ON BOTH SIDES OF THE SPLICE TO ALLOW MOVEMENT ON EACH SIDE.
- THE BRIDGE RAILING SHALL BE CONTINUOUS ACROSS THE PIER. A SPLICE MAY BE INSTALLED AT THIS LOCATION PROVIDED THAT THE RAIL ELEMENTS ARE ATTACHED TO THE PROPER NUMBER OF POSTS ON EITHER SIDE OF THE SPLICE.
- ALL PARTS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123/A123M OR ASTM A153/A153M. THE COLOR OF THE FINISHED SURFACE SHALL MATCH THE COLOR OF THE SUPERSTRUCTURE PAINT. (SEE PAINT NOTES SHEET 38).
- HOLES IN RAILS FOR RAIL BAR ATTACHMENT MAY BE FIELD DRILLED. FIELD DRILLED HOLES AND DAMAGED AREAS OF GALVANIZING SHALL BE THOROUGHLY CLEANED AND COATED WITH AN APPROVED SEALANT TO A THICKNESS EQUAL TO THE ORIGINAL COATING.
- IF THERE IS A CONFLICT BETWEEN THE STANDARDS AND THE DESIGN DRAWINGS, THE REQUIREMENTS OF THE DESIGN DRAWINGS SHALL BE FOLLOWED.

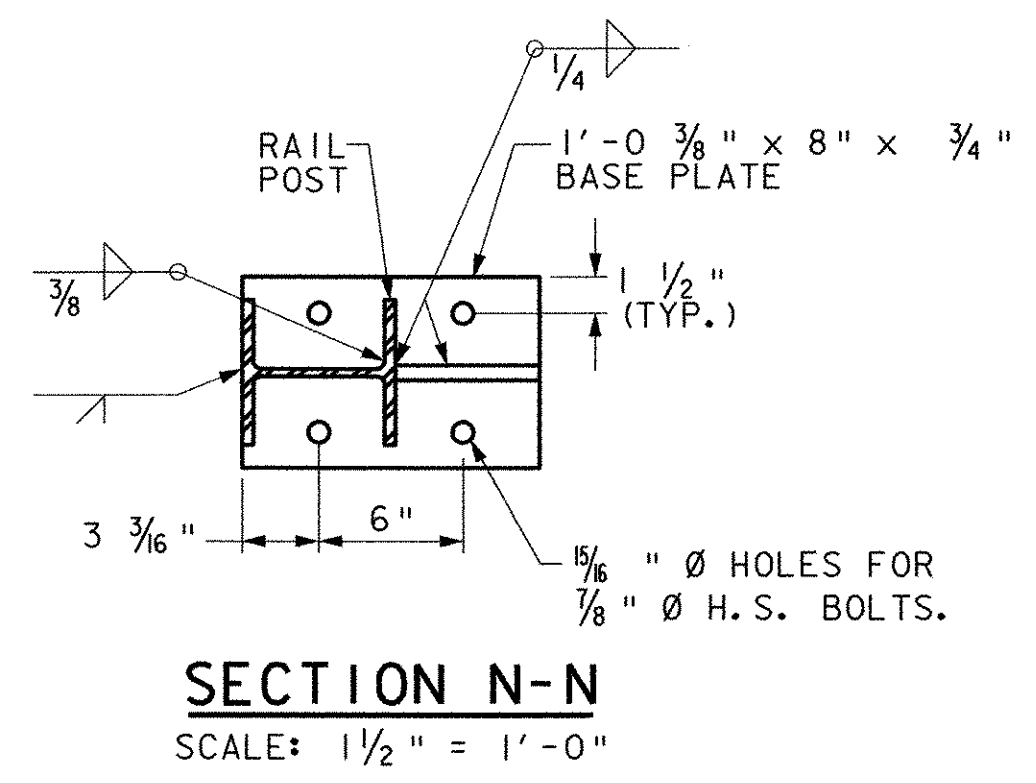
MATERIALS

RAIL BARS.....ASTM A500, GRADE B OR ASTM A501
 RAIL POSTS.....ASTM A709/A709M, GRADE 50
 ALL OTHER SHAPES & PLATES.....ASTM A709/A709M, GRADE 50
 ANCHOR STUDS.....ASTM A449
 ALL OTHER BOLTS (UNLESS NOTED).....AASHTO M164, TYPE 1
 NUTS FOR ASTM A307 BOLTS AND AASHTO M164 BOLTS SHALL COMPLY WITH AASHTO M291. NUTS FOR ANCHOR STUDS SHALL COMPLY WITH ASTM A563.
 WASHER SHALL COMPLY WITH ASTM F436 SPECIFICATION.

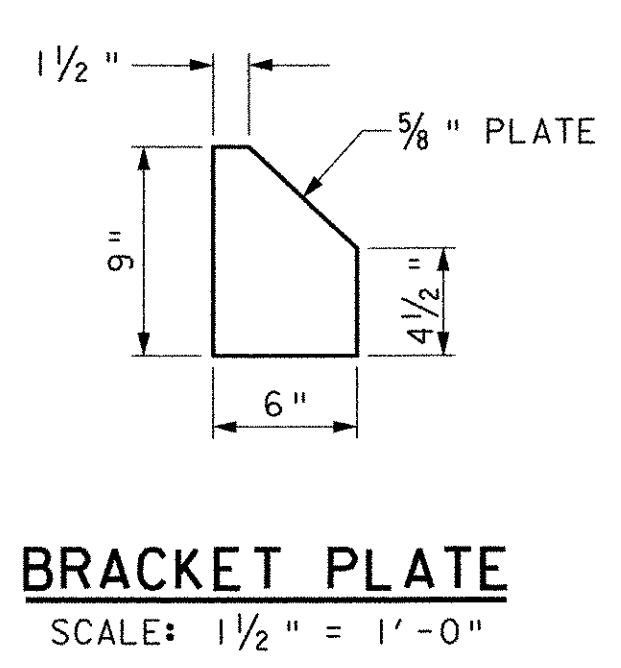
SPLICE BAR DIMENSION TABLE

T	A	B	C	X	L
SPLICE	4"	2"	---	3/4"	1'-8"
4"	4"	2"	2 1/2"	2 1/2"	1'-8"

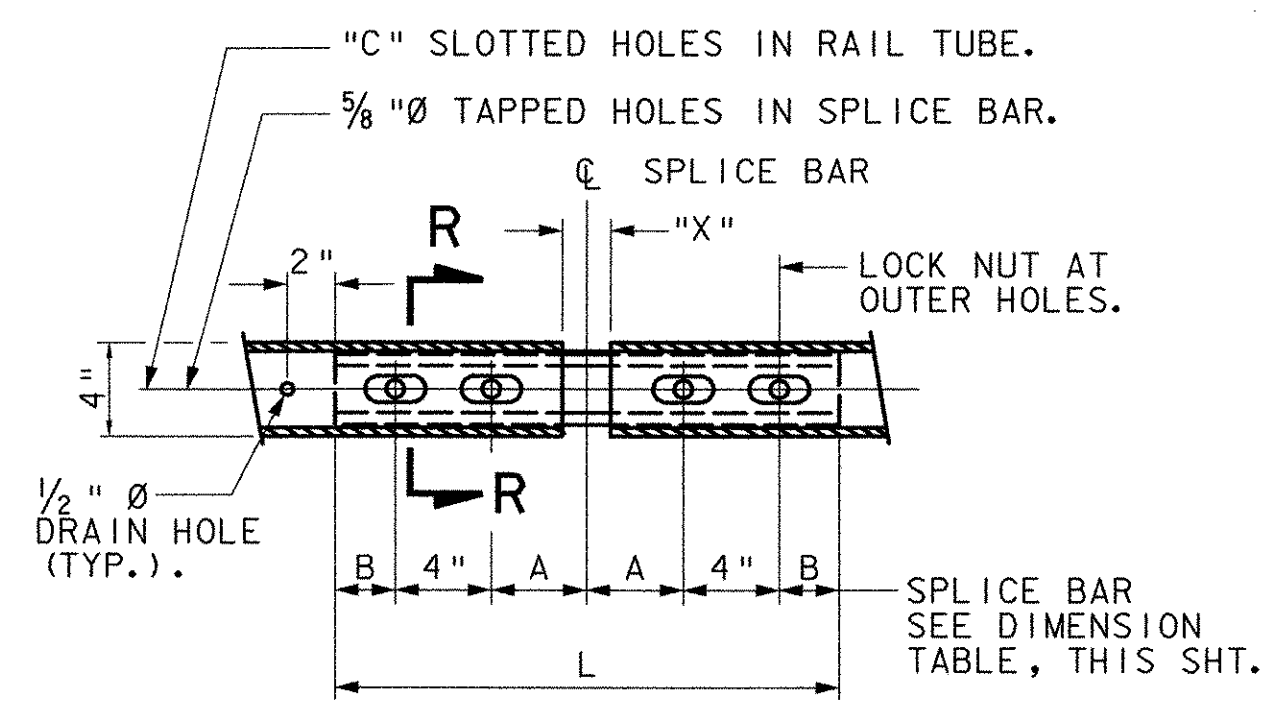
T = TOTAL MOVEMENT OF BRIDGE



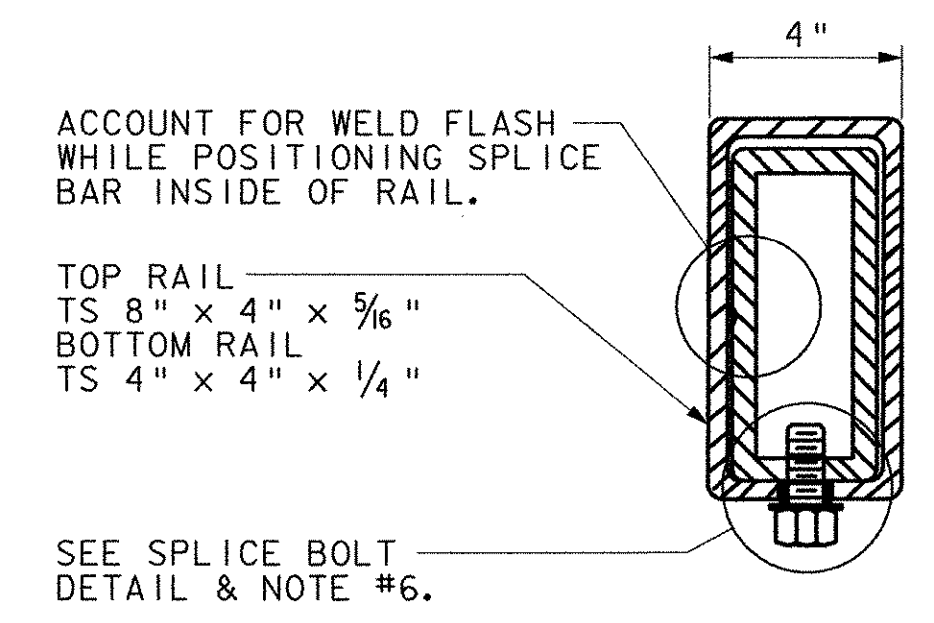
SECTION N-N
SCALE: 1 1/2" = 1'-0"



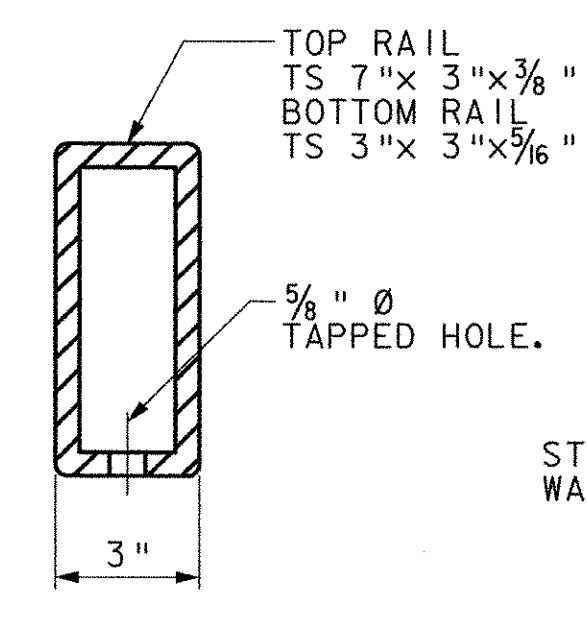
BRACKET PLATE
SCALE: 1 1/2" = 1'-0"



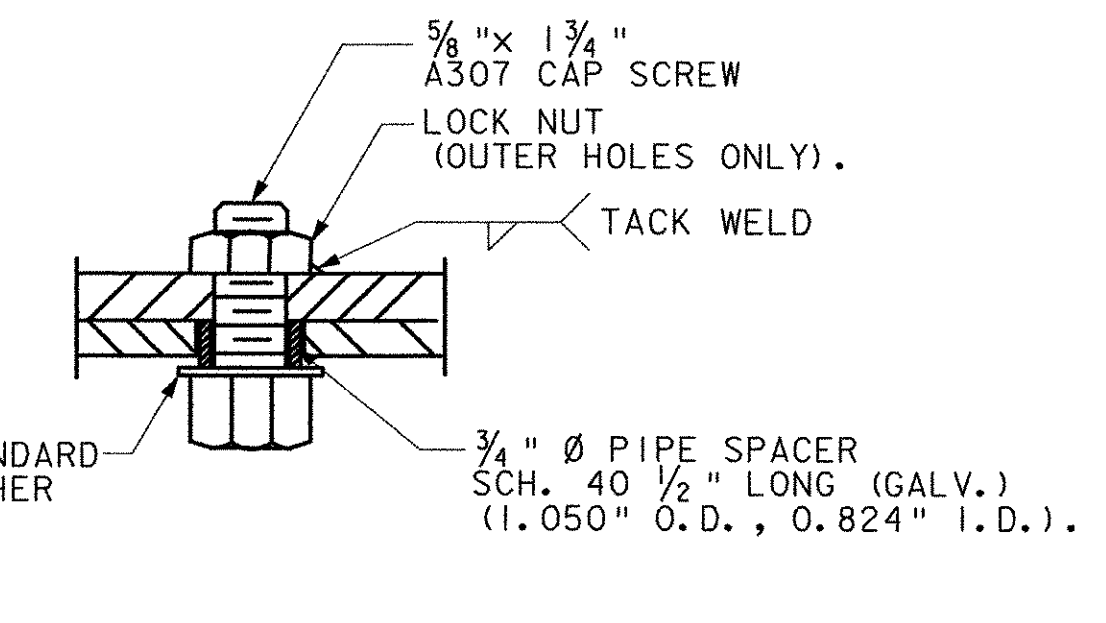
RAIL SPLICE
SCALE: 1 1/2" = 1'-0"



SECTION R-R
SCALE: 3" = 1'-0"



SPLICE BAR SECTION
SCALE: 3" = 1'-0"



SPLICE BOLT DETAIL
SCALE: 6" = 1'-0"

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
		Surv. Sta.	

BRIDGE RAIL DETAILS I

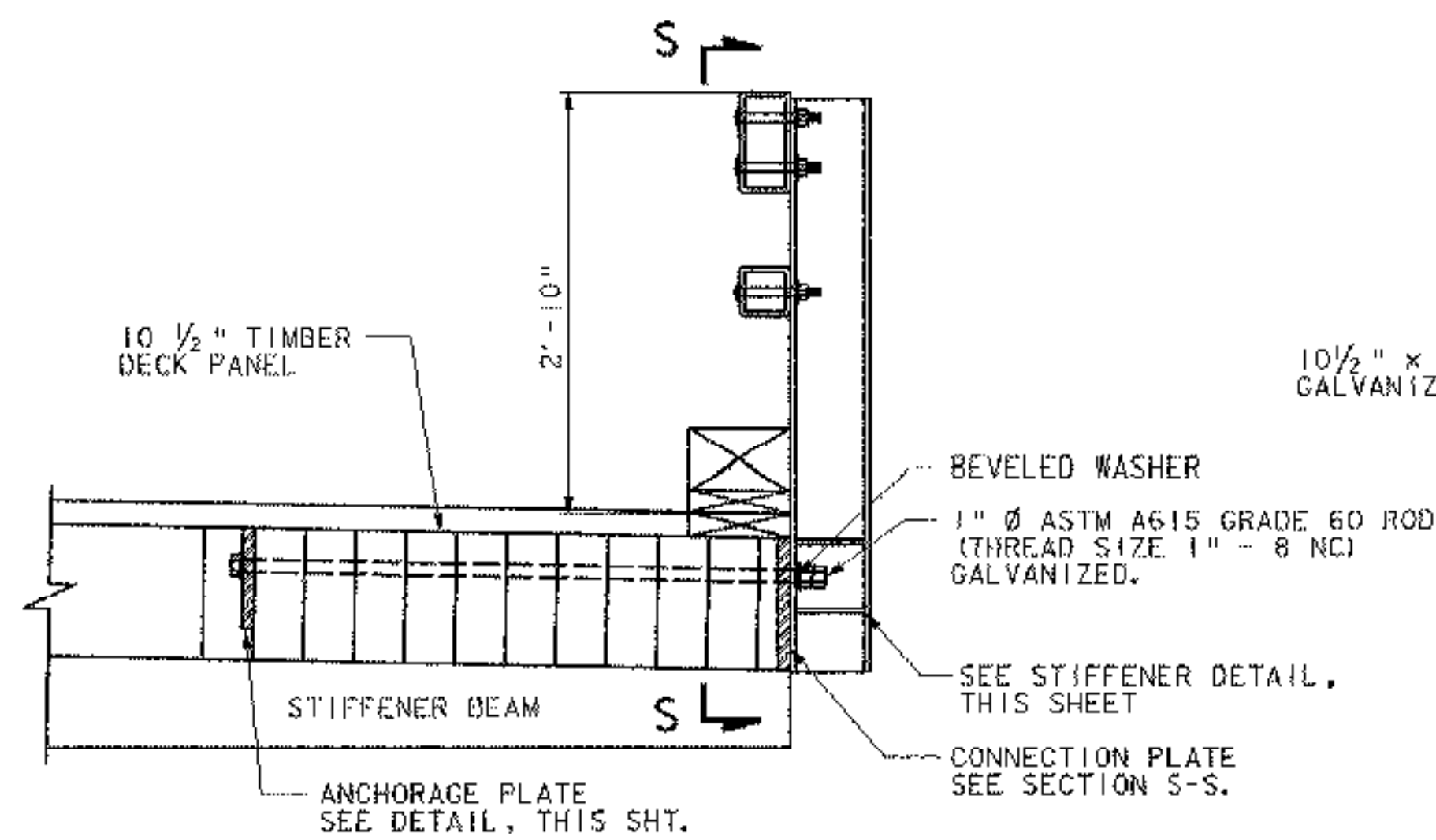
Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
	D. B. SULLIVAN	08/01/03	

PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
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I.G.C. Info.
 Bridge Sheet No. _____ Sheet 50 of 65

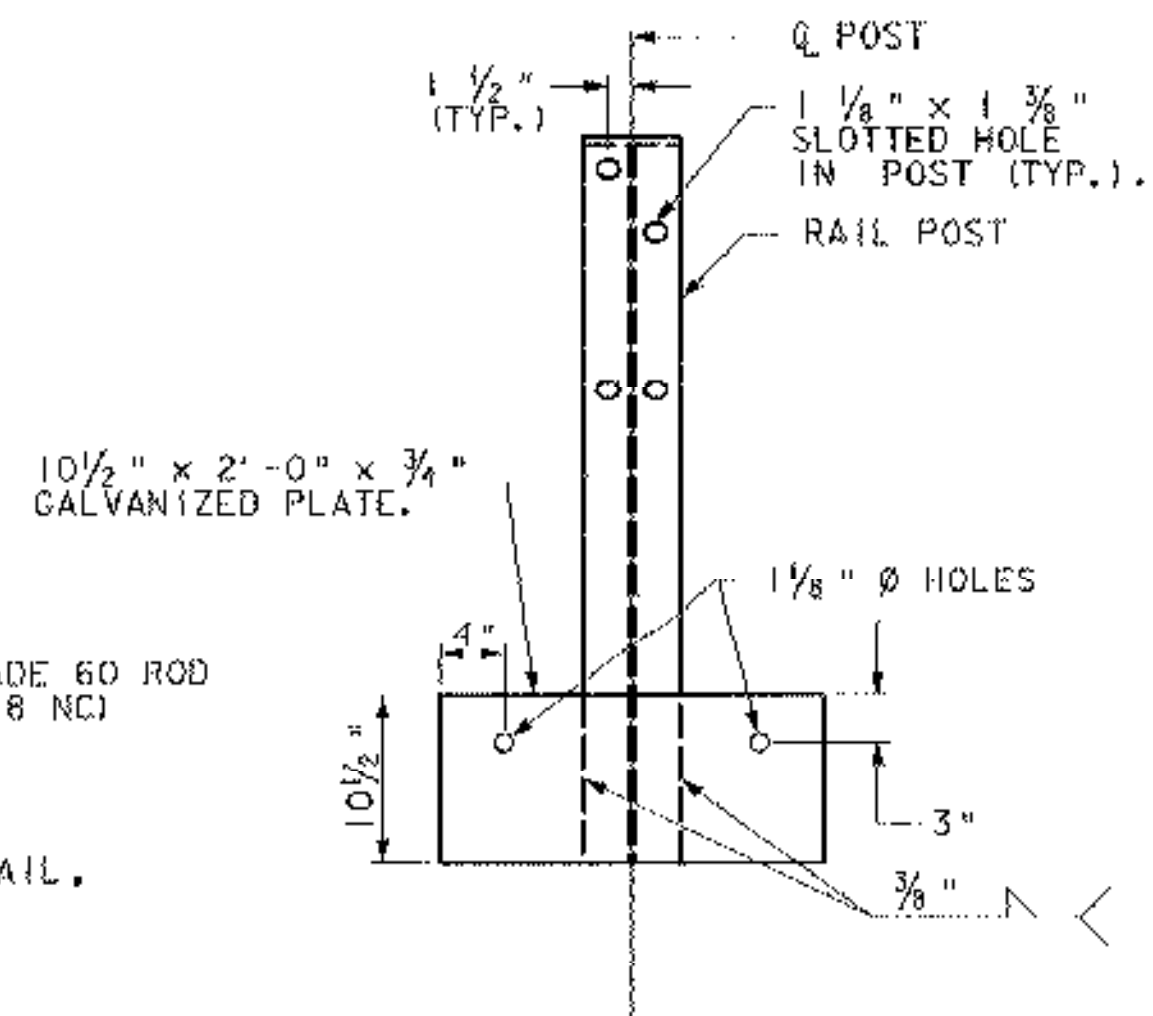


13 AUG 2003 10:20:17 cad3d\gpn\ze054r1.dgn



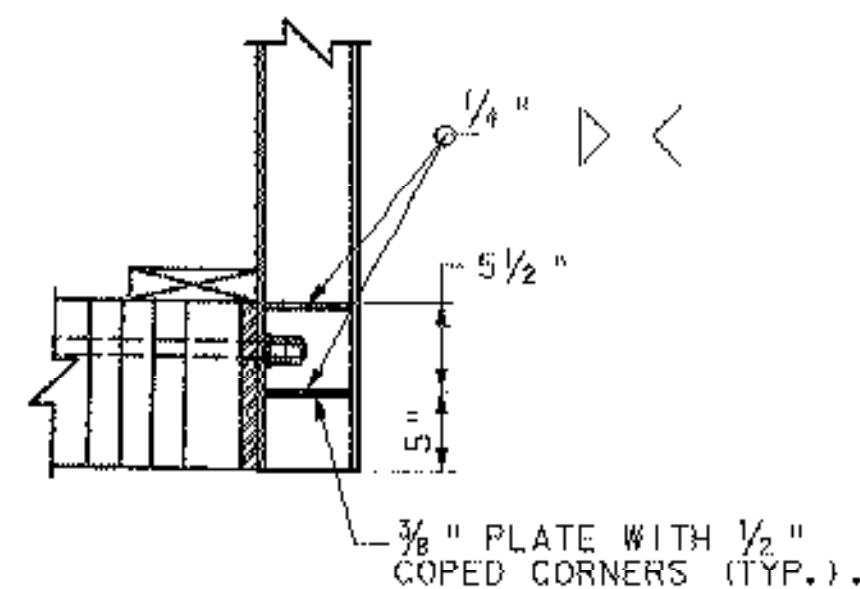
NOTES:

1. ANCHORAGE PLATE, CONNECTION PLATE, THREADED RODS, & MISCELLANEOUS HARDWARE ARE TO BE INCLUDED IN THE COST OF ITEM 525.33 "BRIDGE RAILING - NETC 2 RAIL (MODIFIED)".
2. FOR INTERMEDIATE RAIL POST SPACING SEE SHEET 41.



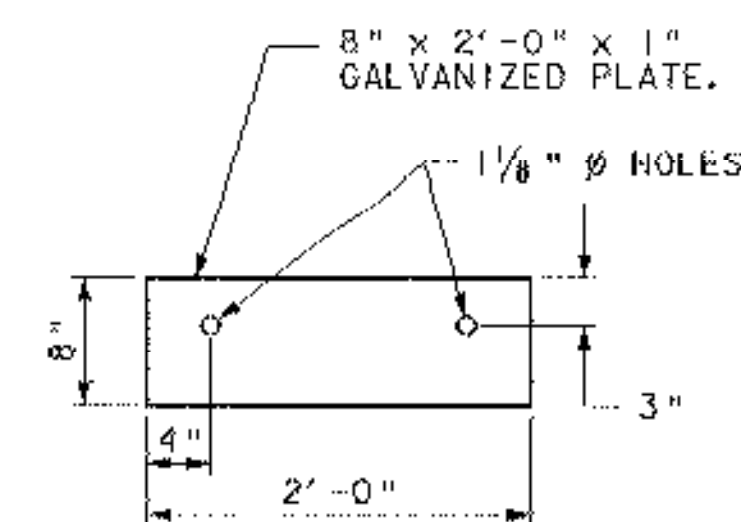
SECTION S-S

SCALE: 1" = 1'-0"



STIFFENER DETAIL

SCALE: 1" = 1'-0"

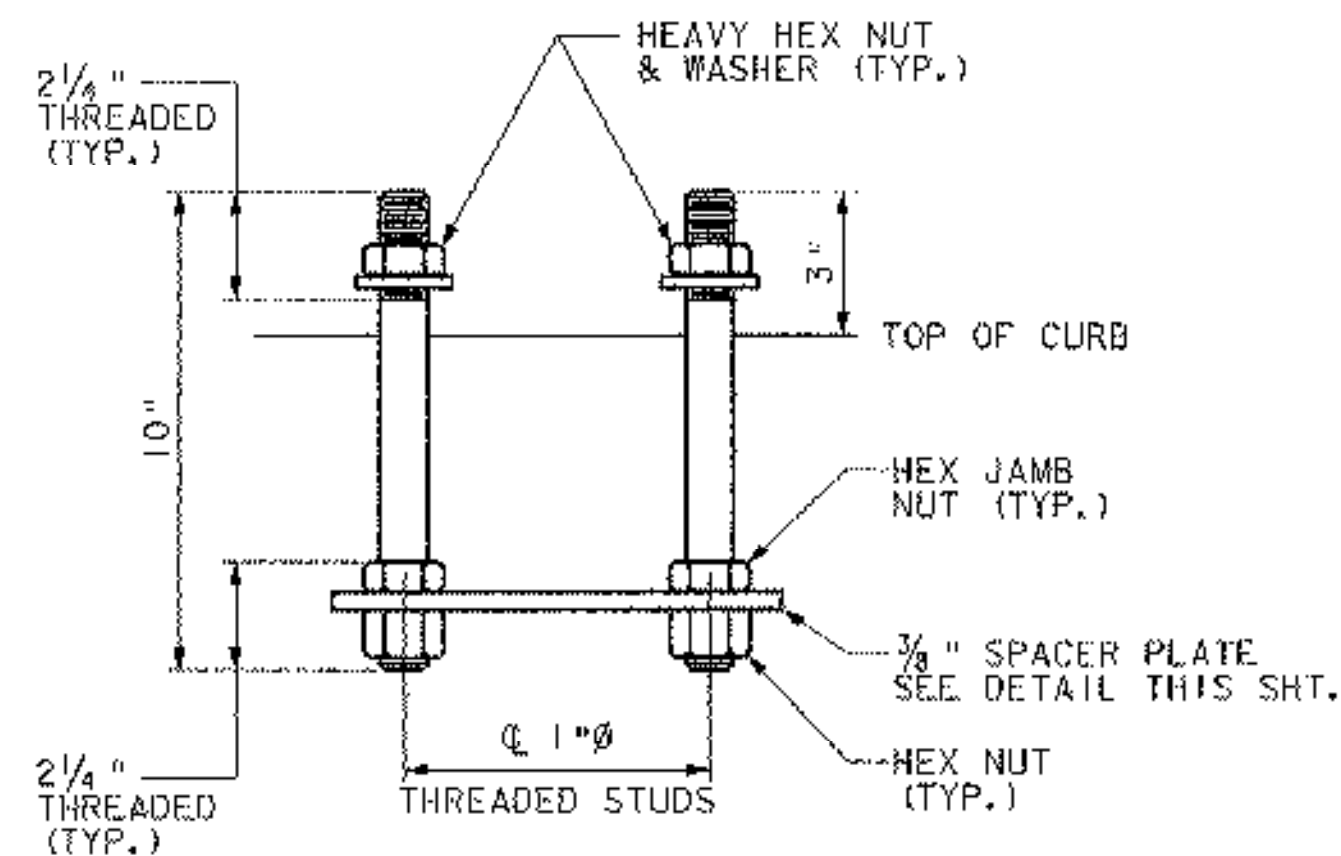


ANCHORAGE PLATE

SCALE: 1" = 1'-0"

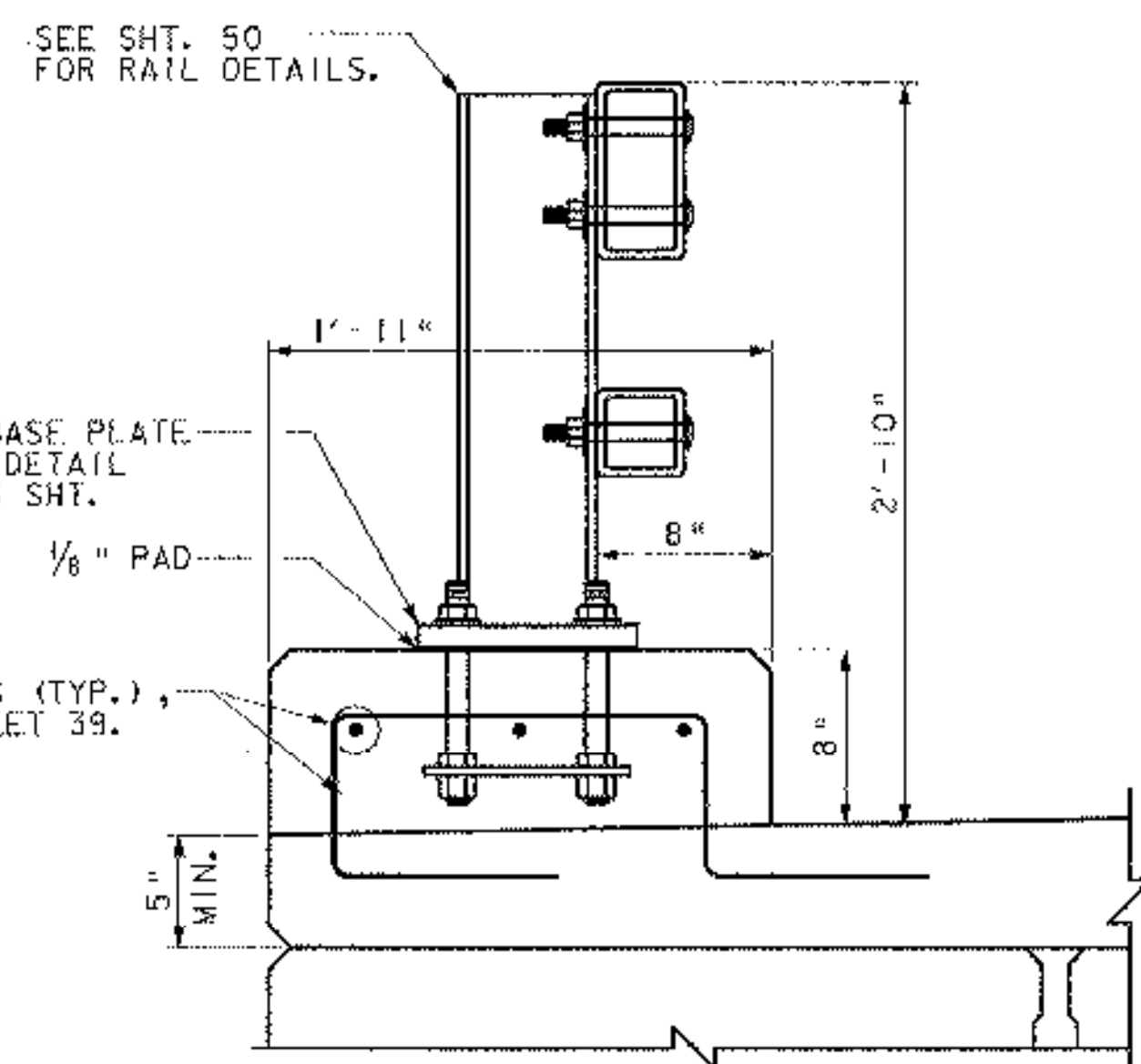
BRIDGE RAIL CONNECTION @ INTERMEDIATE POST

SCALE: 1" = 1'-0"



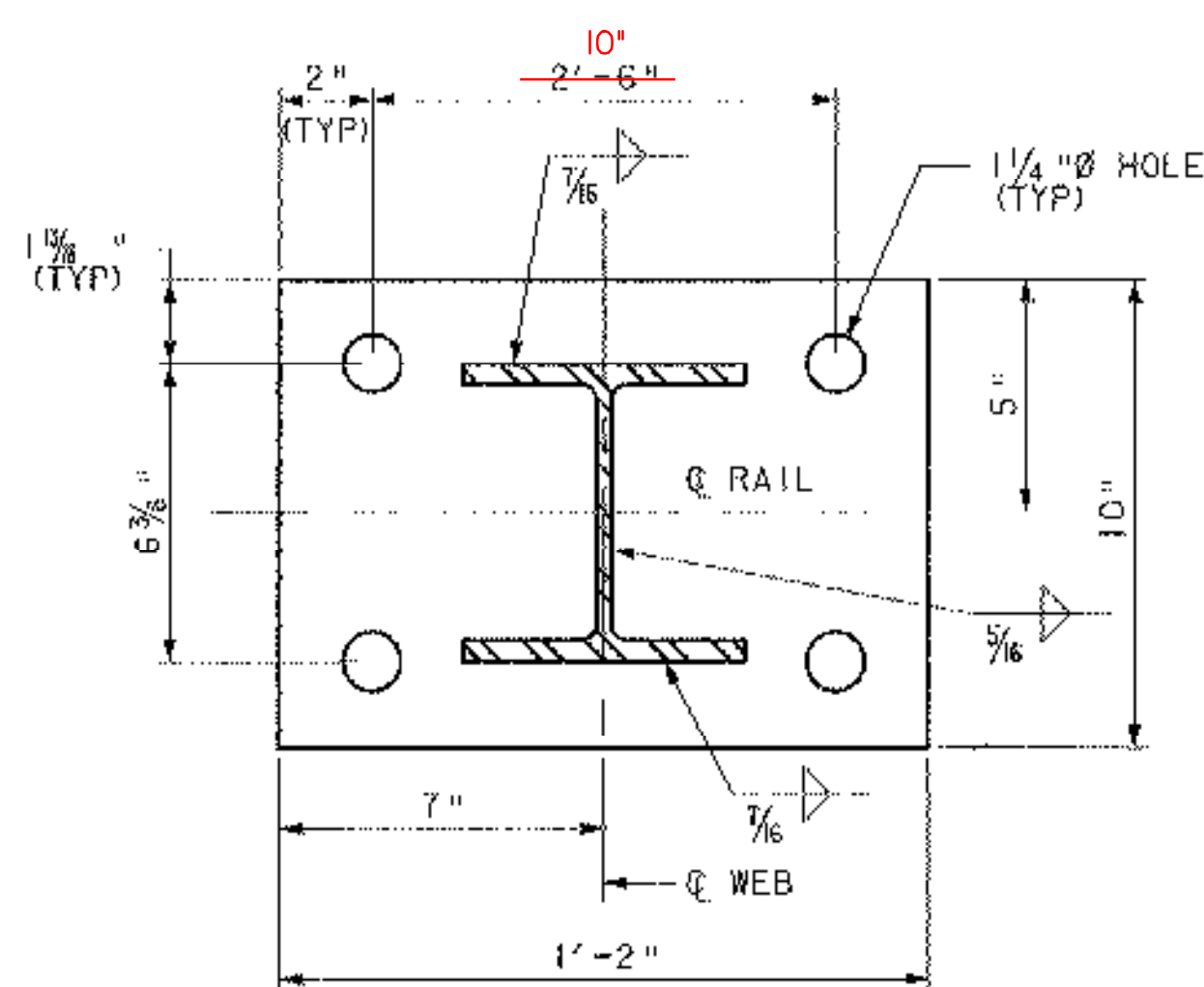
RAIL POST ANCHORAGE

SCALE: 3" = 1'-0"



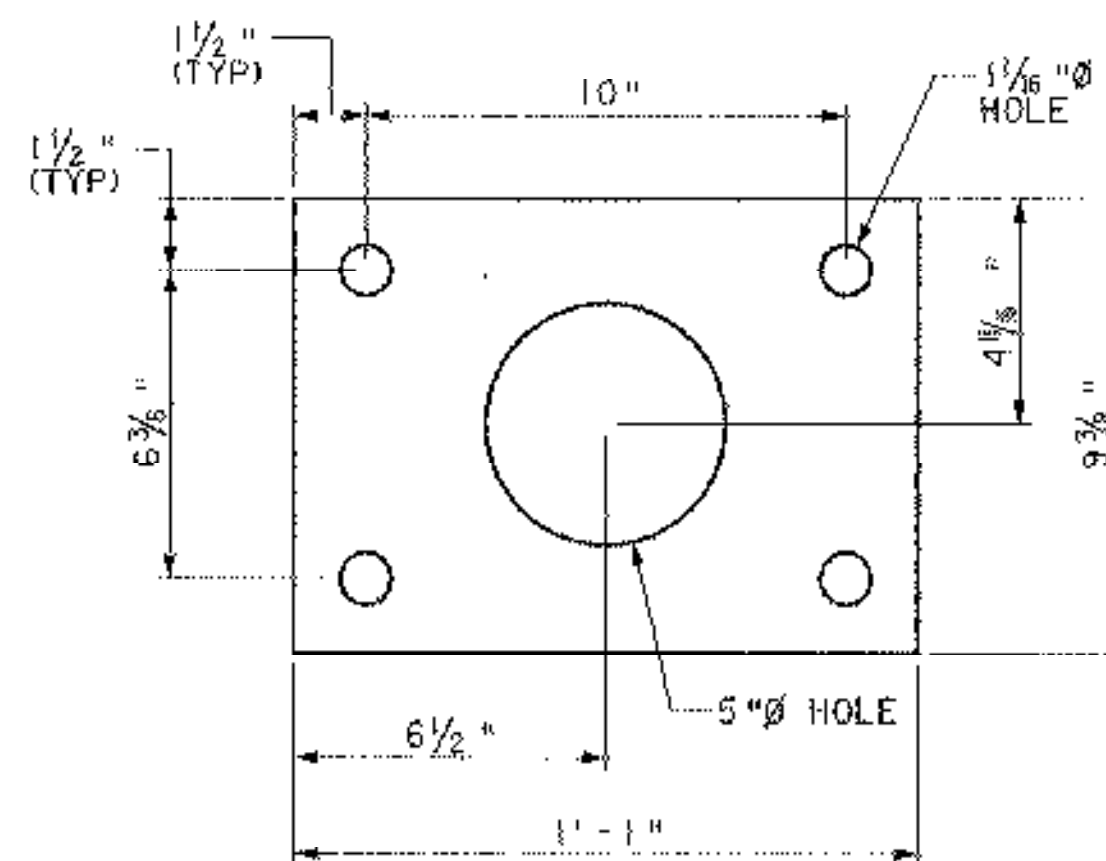
SPAN 1 RAIL POST

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



POST & BASE PLATE

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



SPACER PLATE

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

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

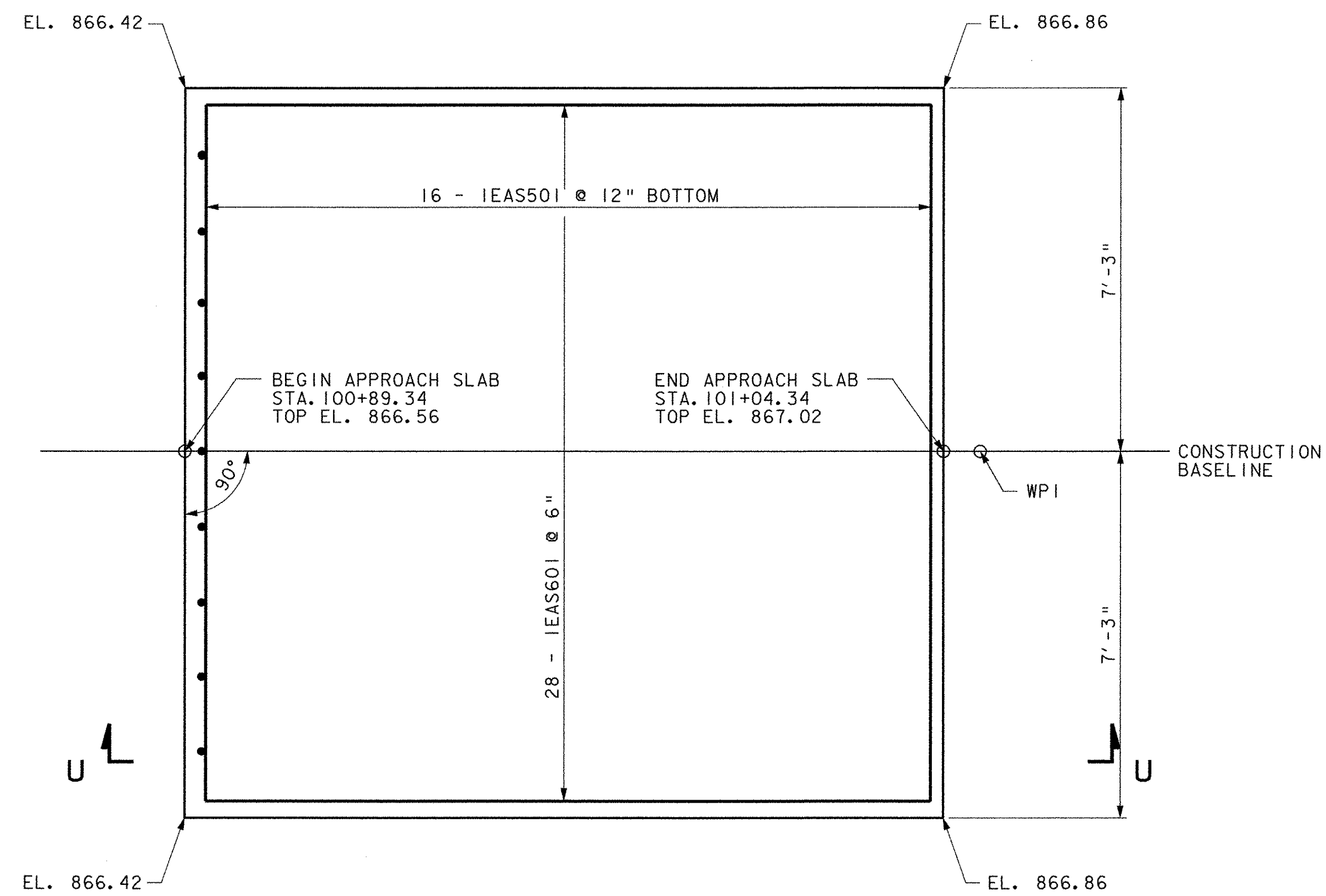
Town Of	MAIDSTONE, VT	Bridge No.	1
	STRATFORD, NH	Log Sta.	
Highway No.	MAIDSTONE STATE HWY	Surv. Sta.	

BRIDGE RAIL DETAILS 2

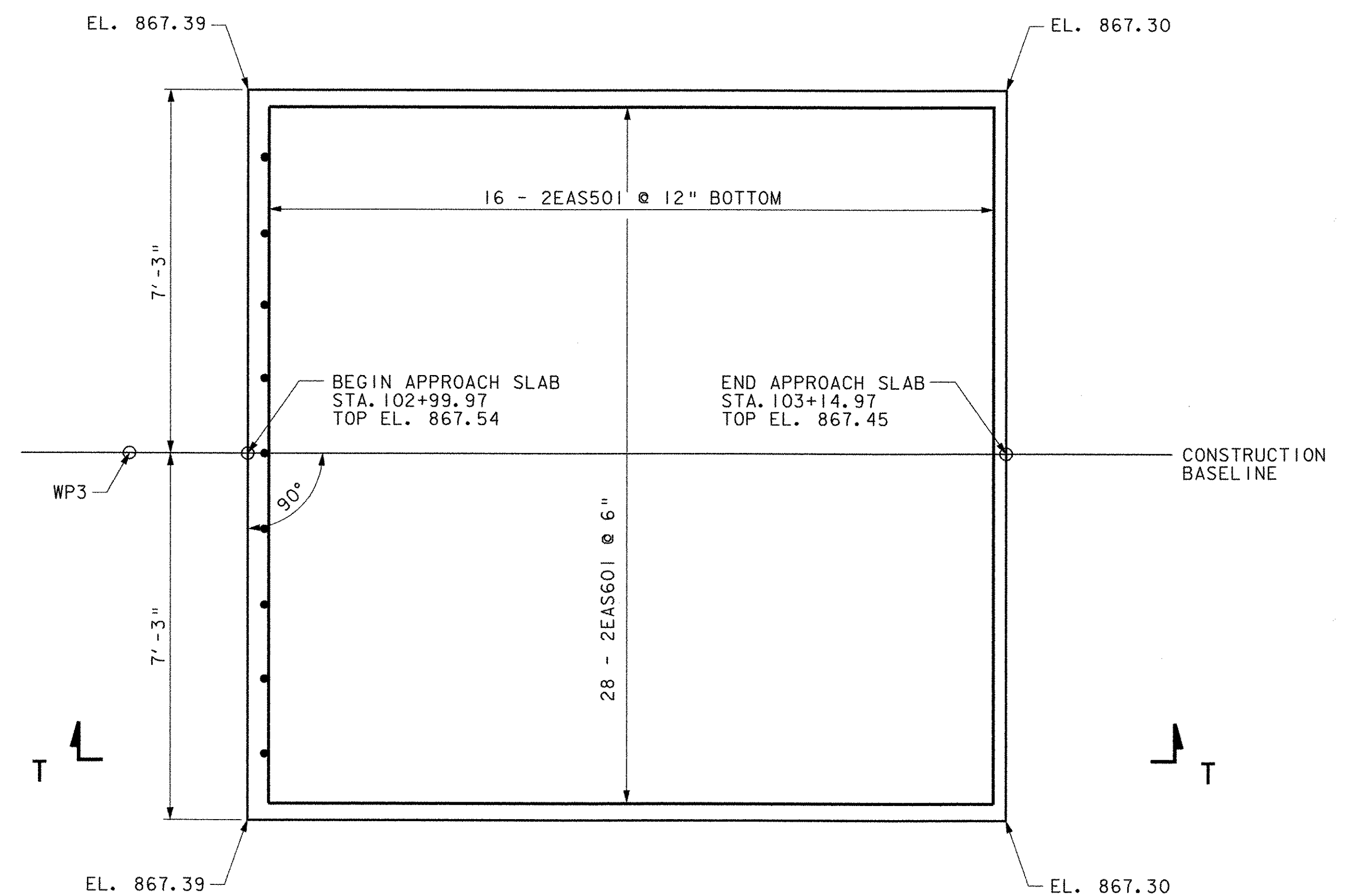
Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	D. B. SULLIVAN	Date	08/01/03
		Bridge Design Supervisor	

PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
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I.G.C. Info.	
Bridge Sheet No.	Sheet 51 of 65

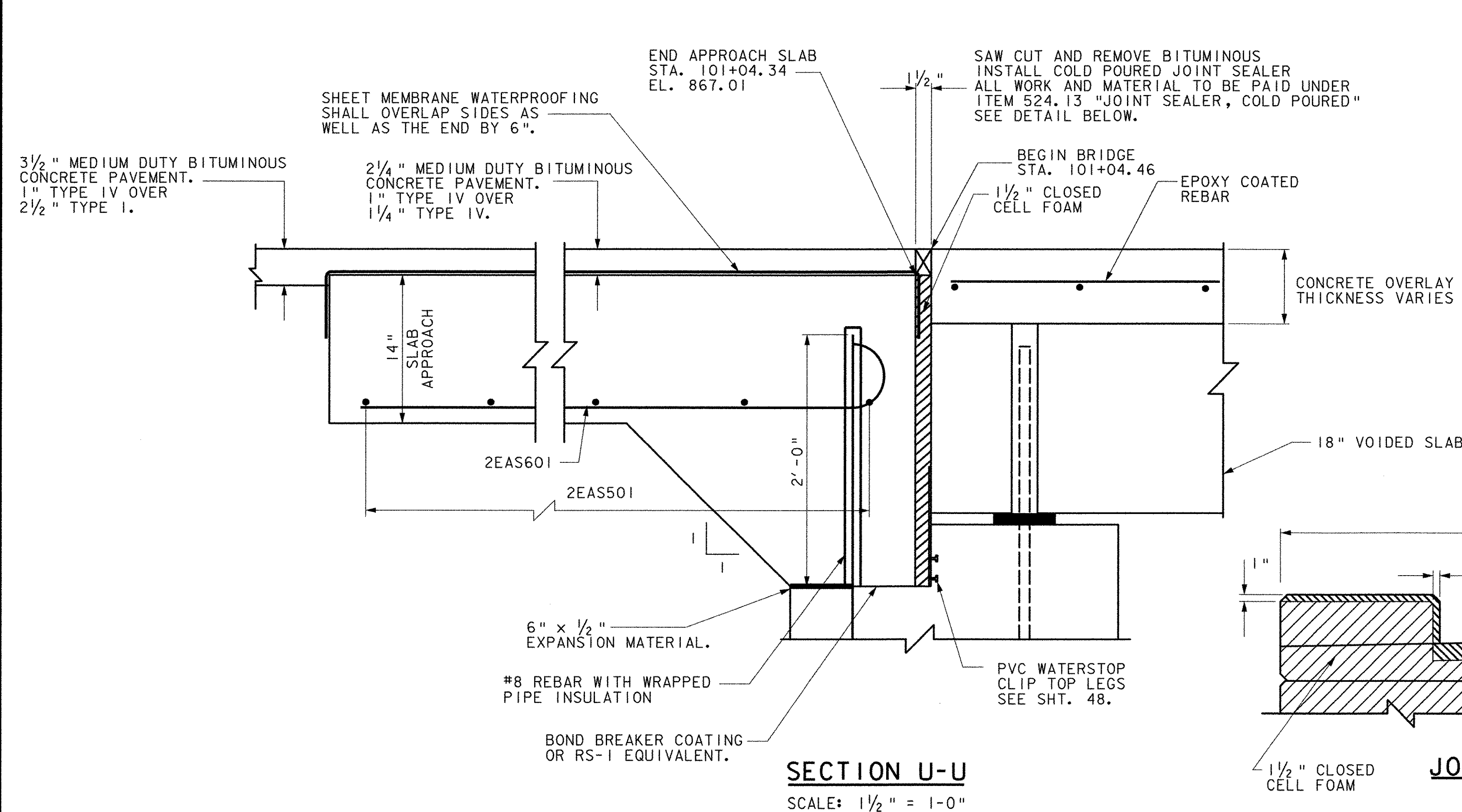


APPROACH SLAB NO. 1 PLAN
SCALE: 1/2" = 1'-0"

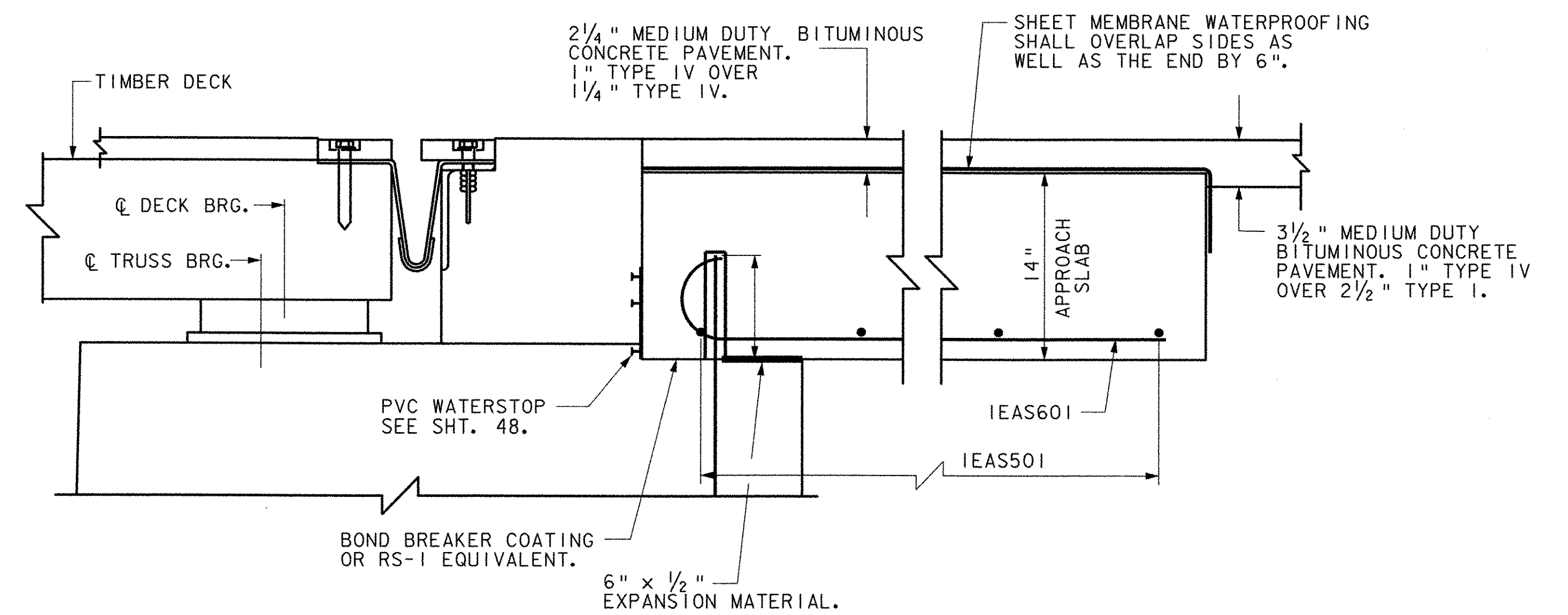


APPROACH SLAB NO. 2 PLAN
SCALE: 1/2" = 1'-0"

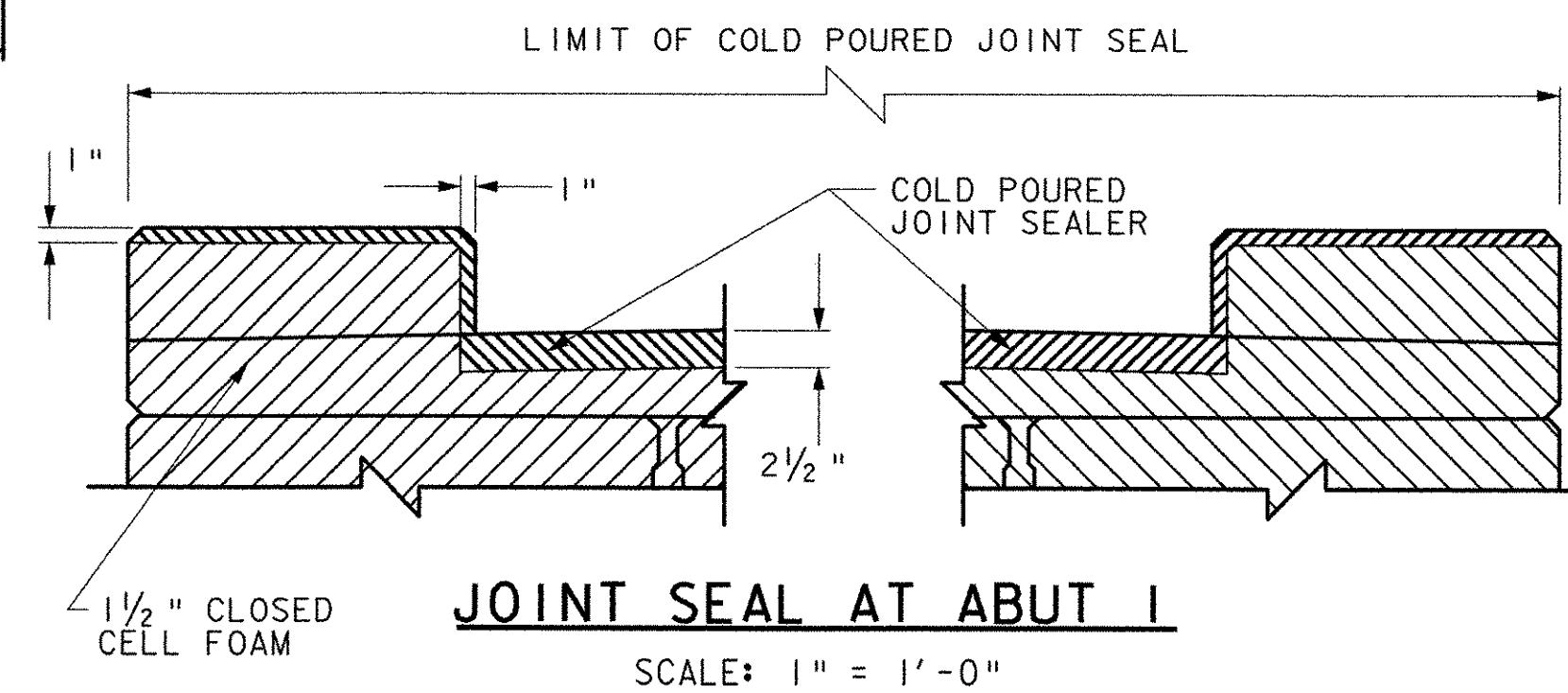
NOTE:
6" x 1/2" EXPANSION MATERIAL, PIPE INSULATION,
1/2" CLOSED CELL FOAM AND PVC WATERSTOP
ARE SUBSIDIARY TO ITEM 501.34 "CONCRETE,
HIGH PERFORMANCE CLASS B."



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



SECTION T-T
SCALE: 1 1/2" = 1'-0"



JOINT SEAL AT ABUT 1
SCALE: 1" = 1'-0"

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

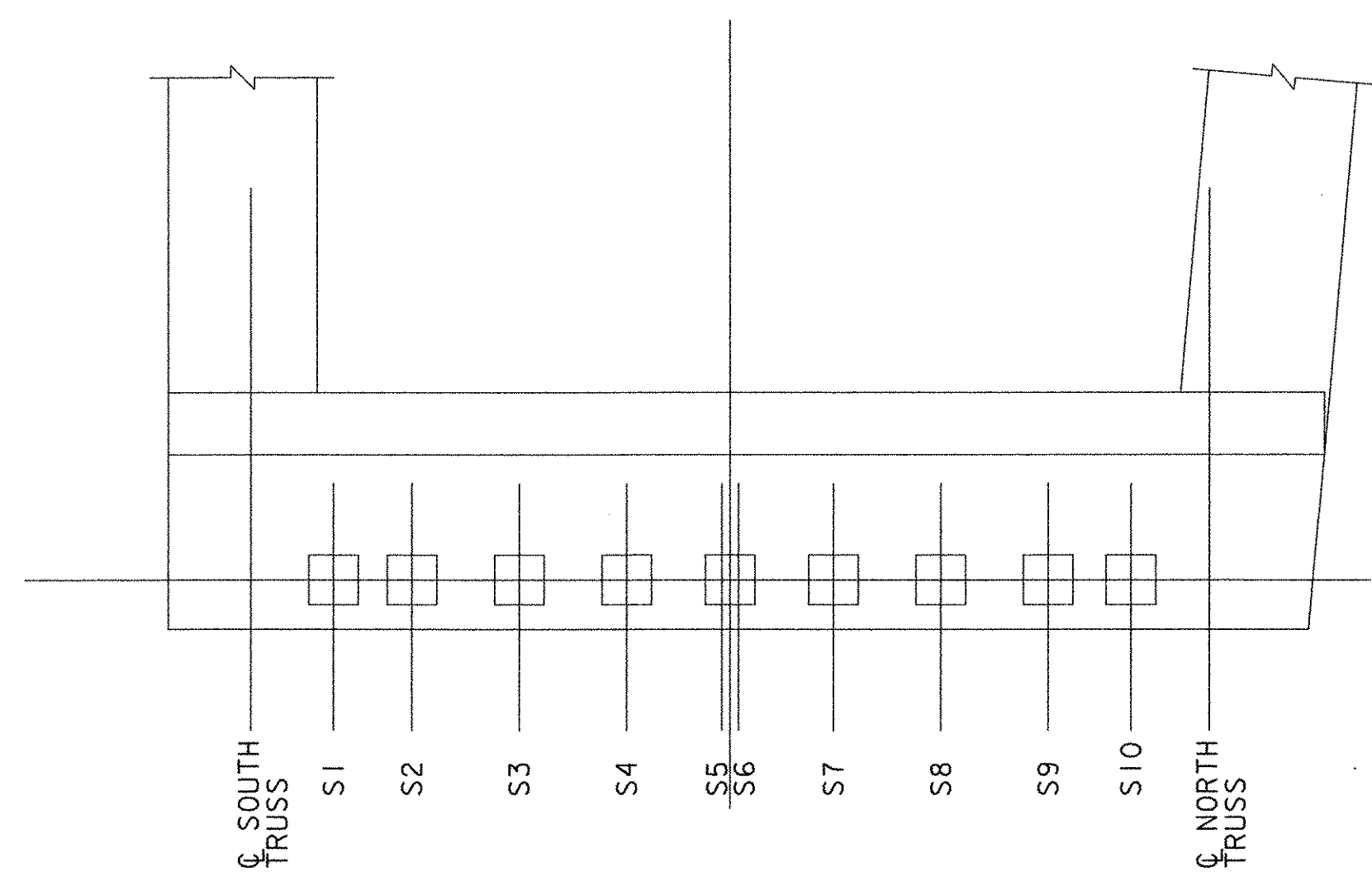
Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
		Surv. Sta.	

APPROACH SLAB DETAILS

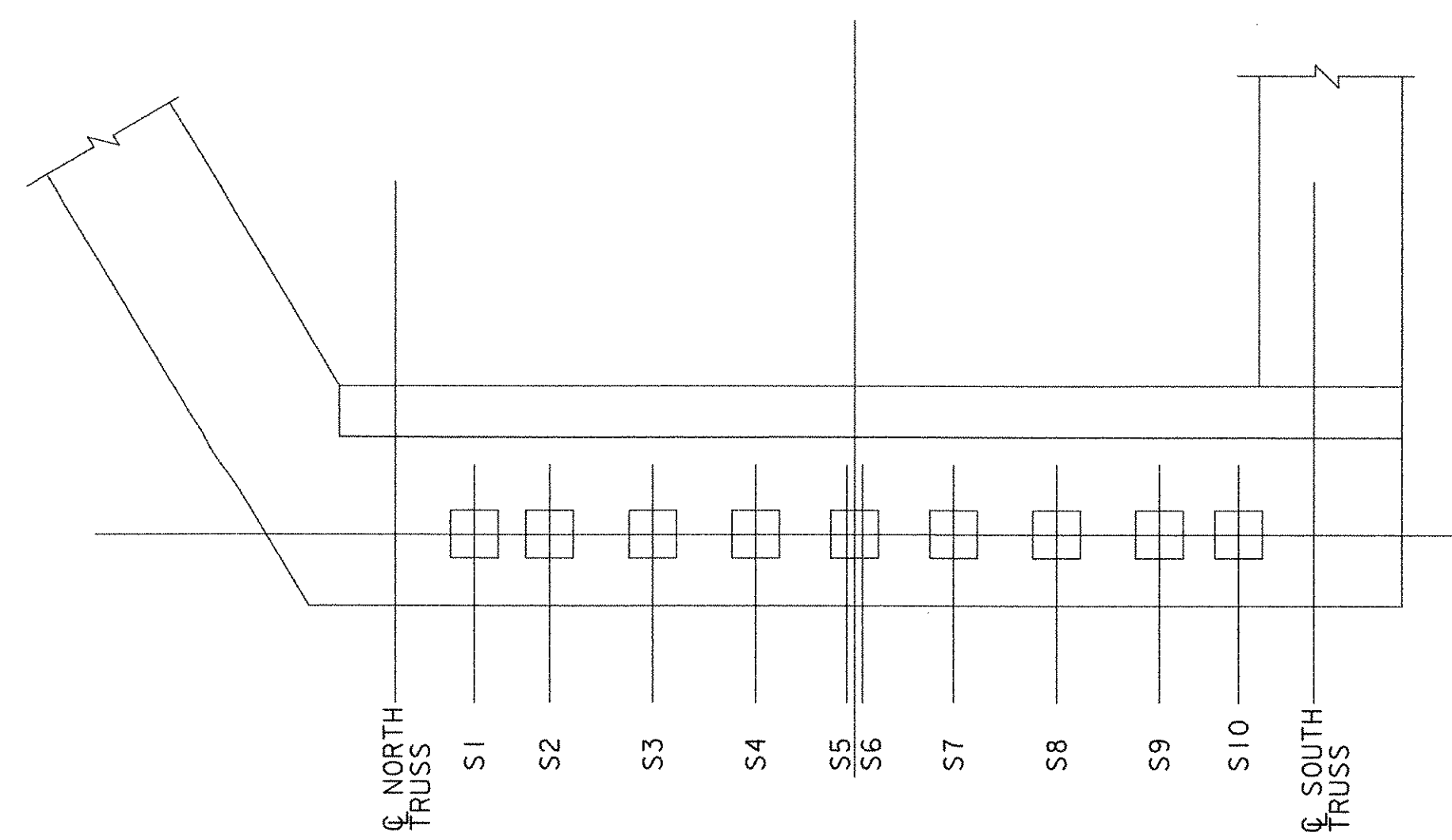
Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
D.B. SULLIVAN	08/01/03		

PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
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I.G.C. Info.	
Bridge Sheet No.	Sheet 52 of 65

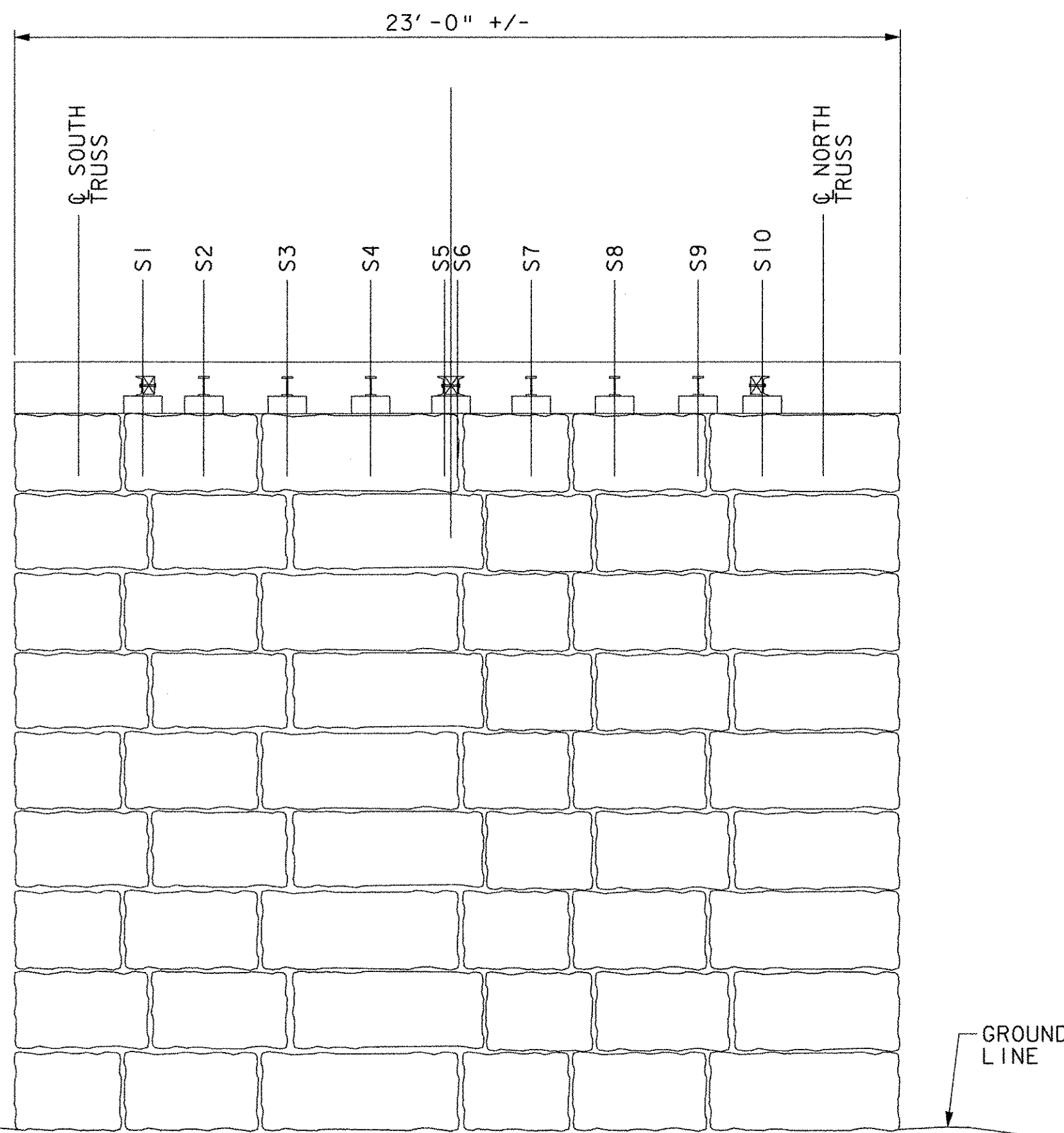


PLAN
EXISTING WEST ABUTMENT
N. T. S.

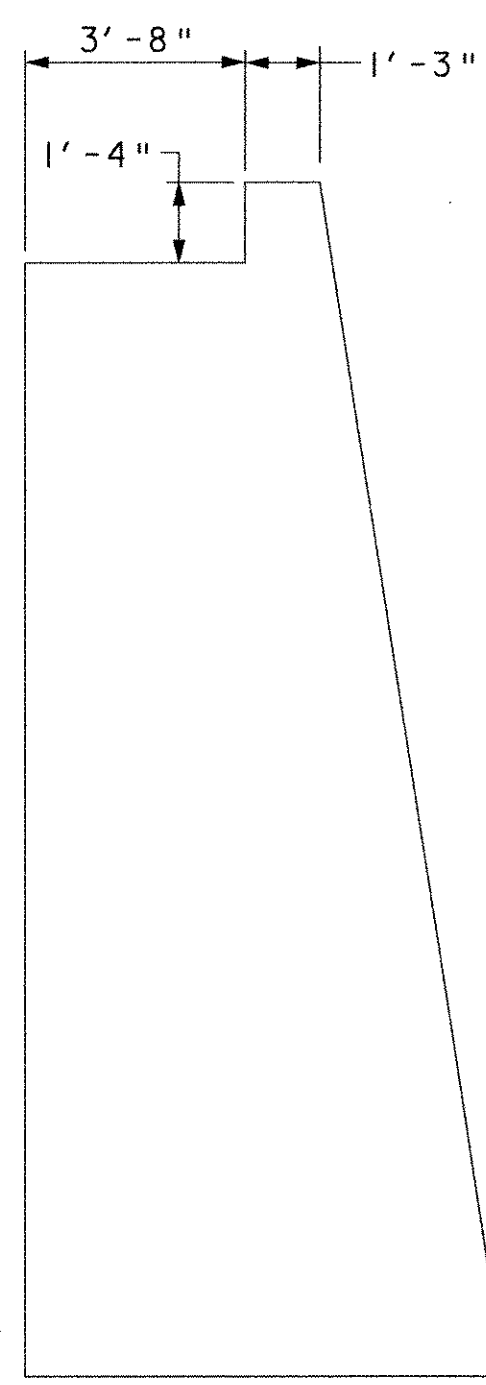


PLAN
EXISTING EAST ABUTMENT
N. T. S.

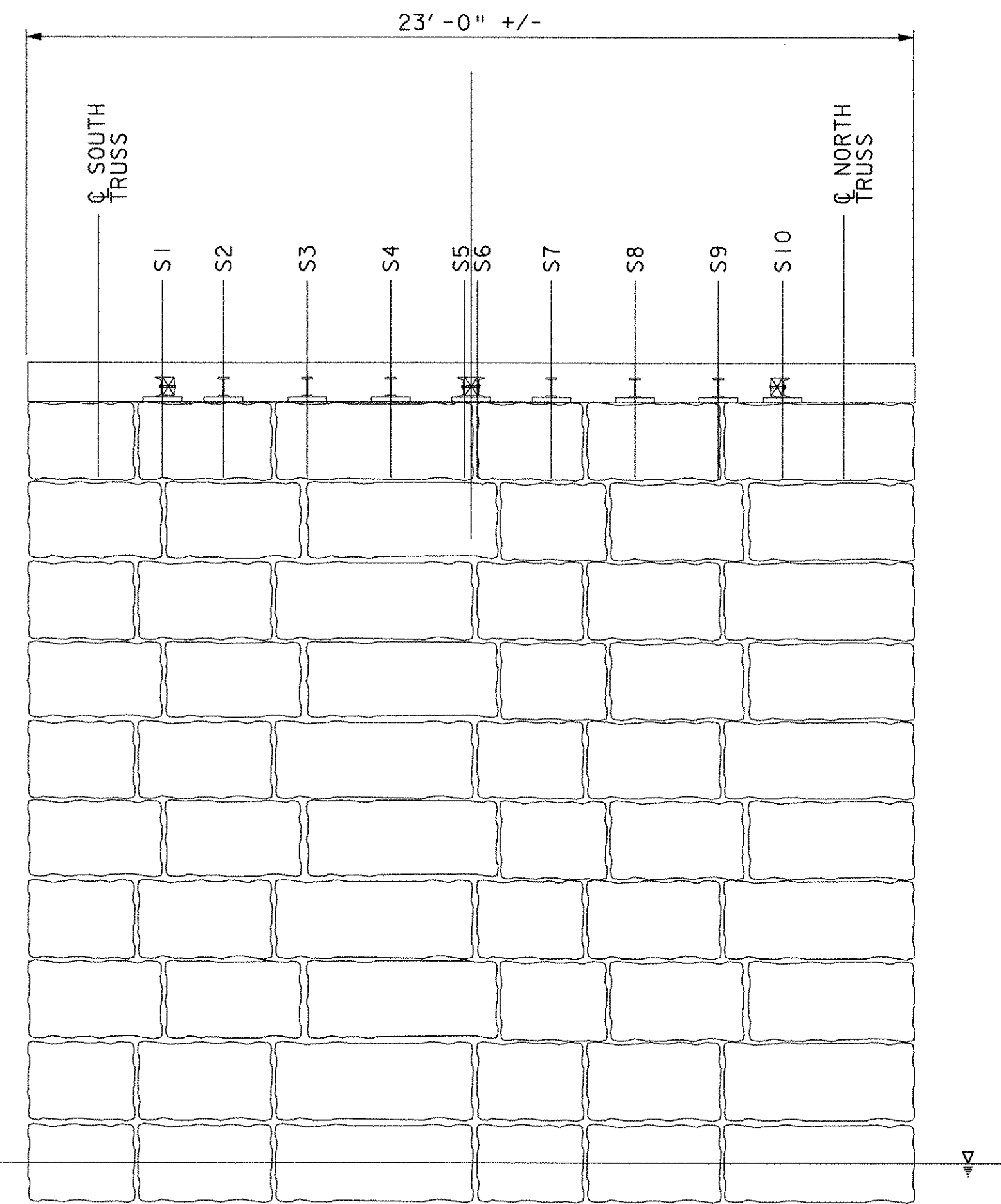
EXISTING SUBSTRUCTURE TO BE REMOVED.
SEE SHEETS 27 AND 62 FOR ADDITIONAL INFORMATION.



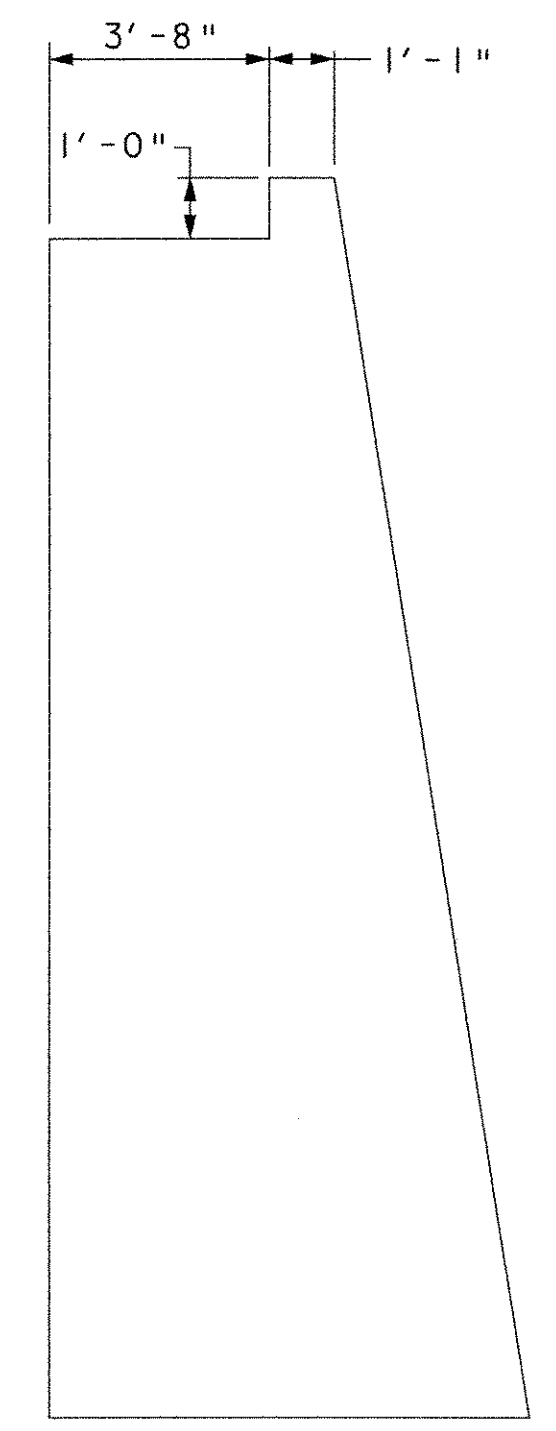
ELEVATION
EXISTING WEST ABUTMENT
N. T. S.



CROSS SECTION
EXISTING WEST ABUTMENT
N. T. S.



ELEVATION
EXISTING EAST ABUTMENT
N. T. S.



CROSS SECTION
EXISTING EAST ABUTMENT
N. T. S.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
		Surv. Sta.	

APPROXIMATE EXISTING SUBSTRUCTURE

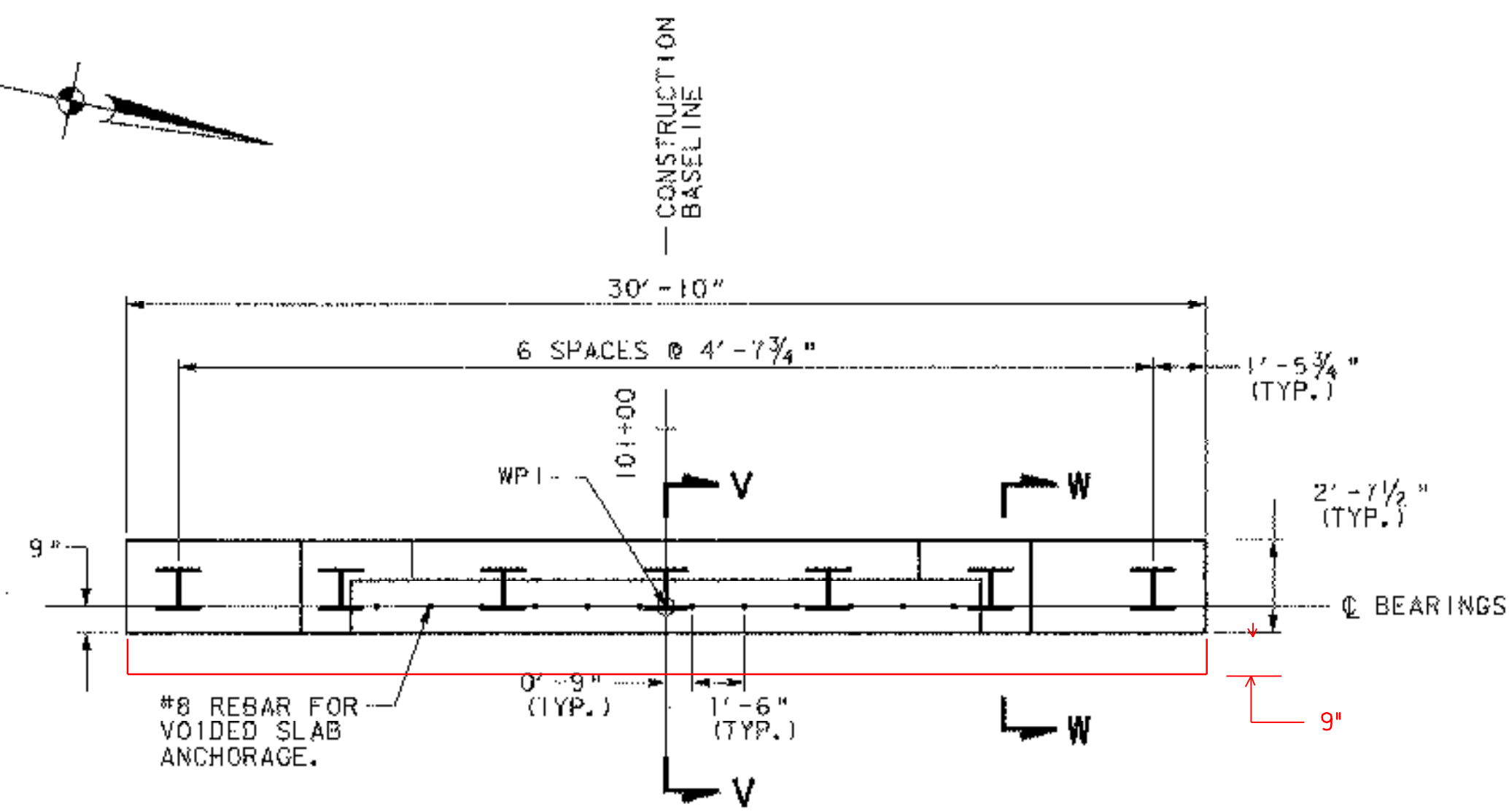
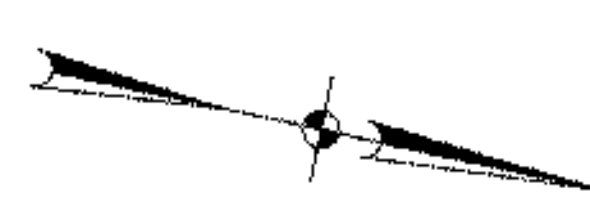
Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
	D. B. SULLIVAN		08/01/03

PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
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I.G.C. Info.	
Bridge Sheet No.	Sheet 53 of 65

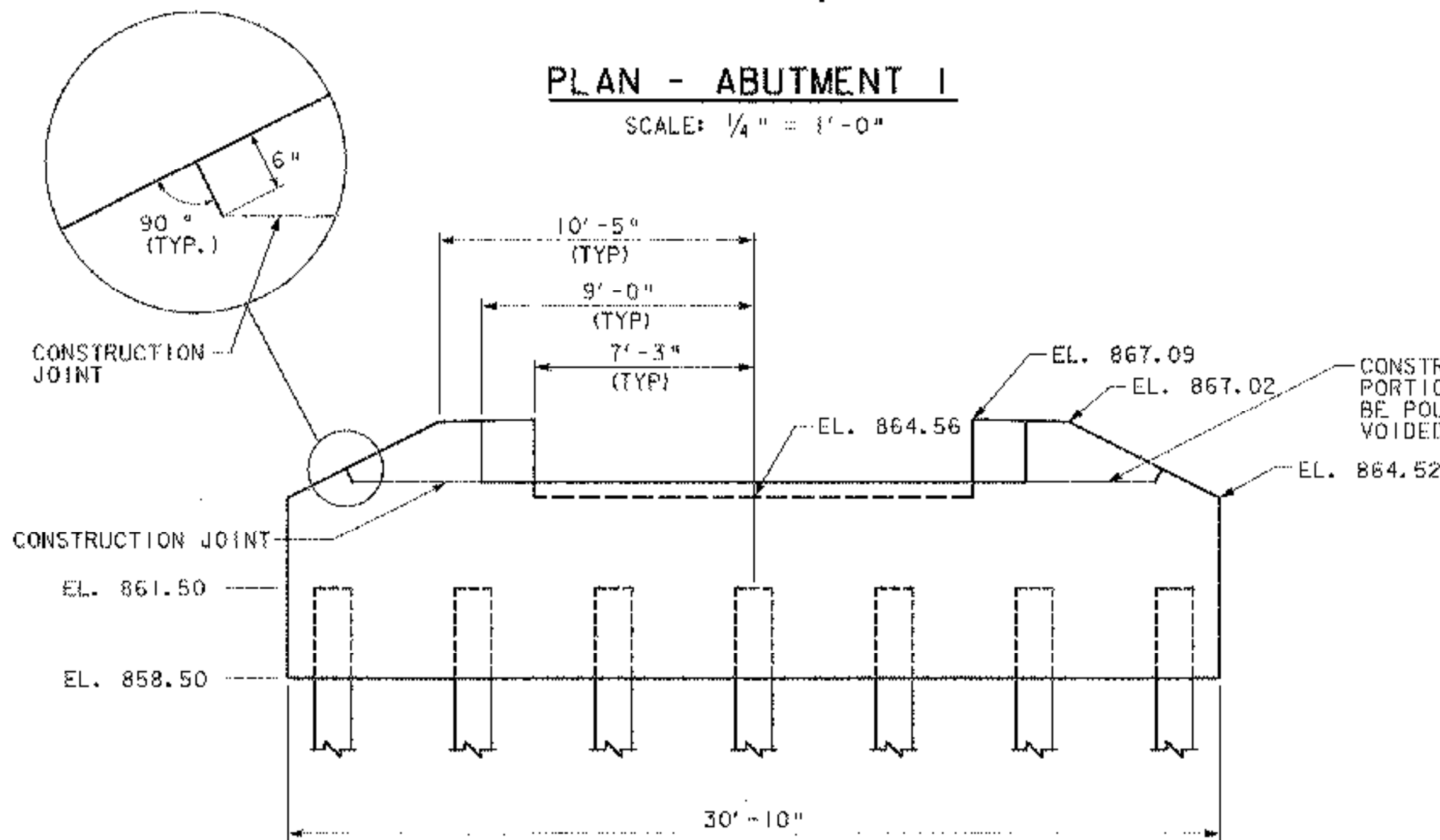


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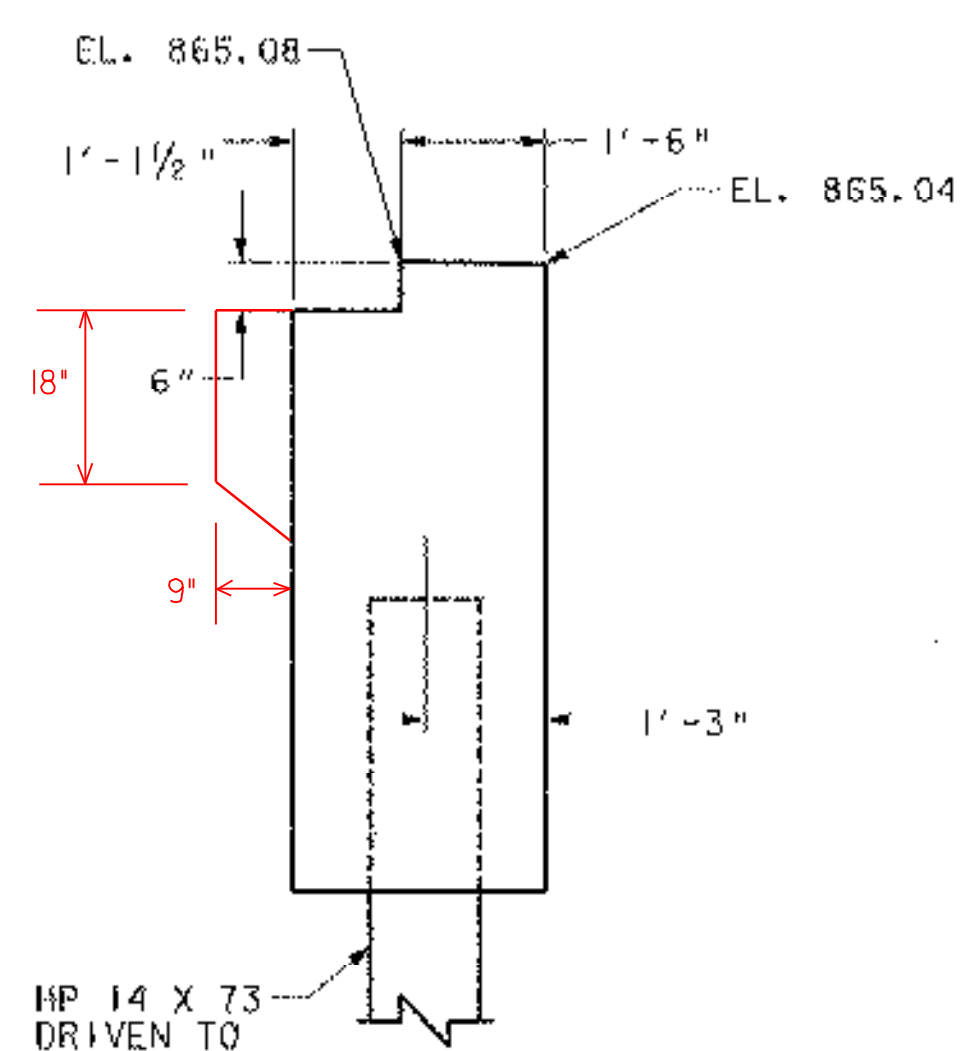
PLAN - ABUTMENT I

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



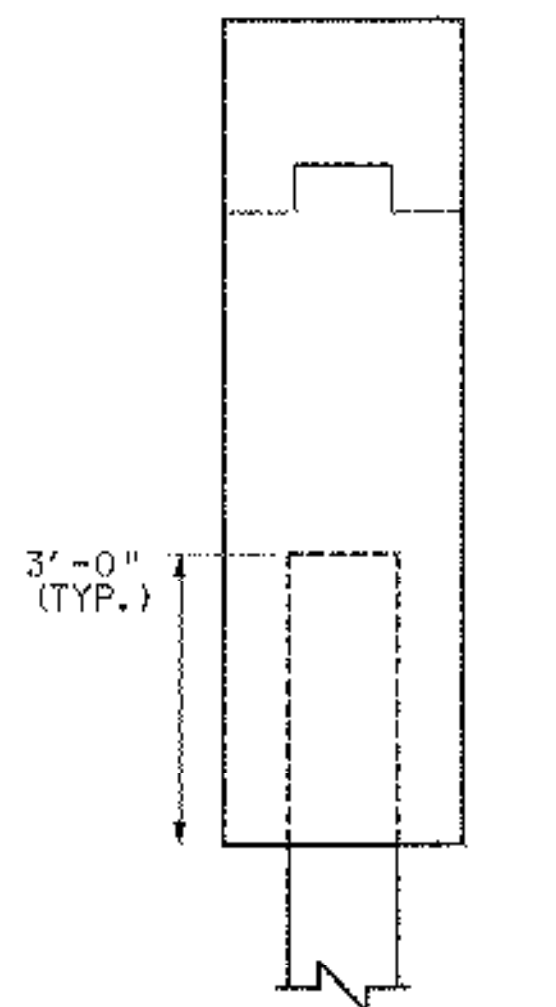
ELEVATION - ABUTMENT I

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



SECTION V-V

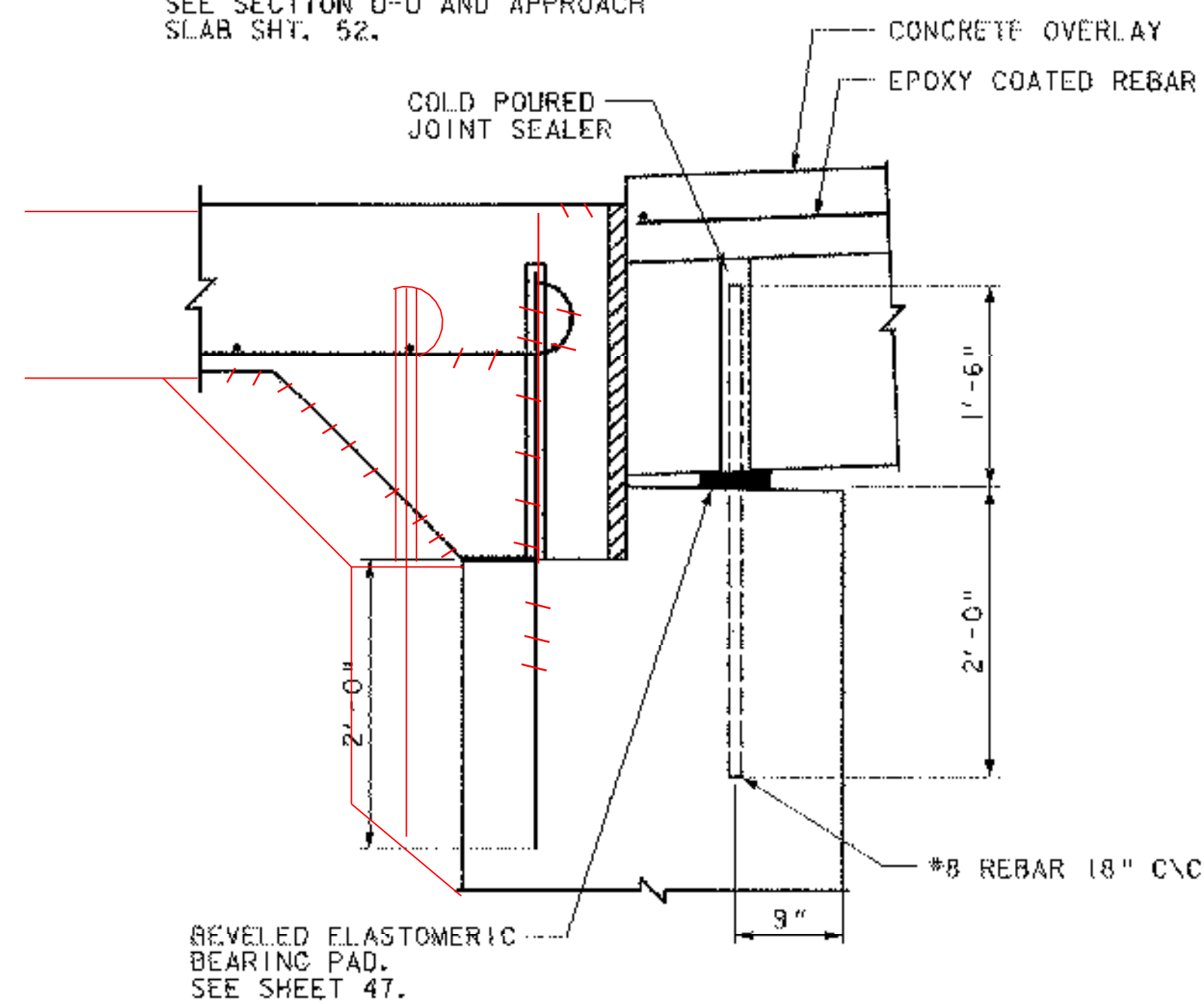
SCALE: 1/2" = 1'-0"



SECTION W-W

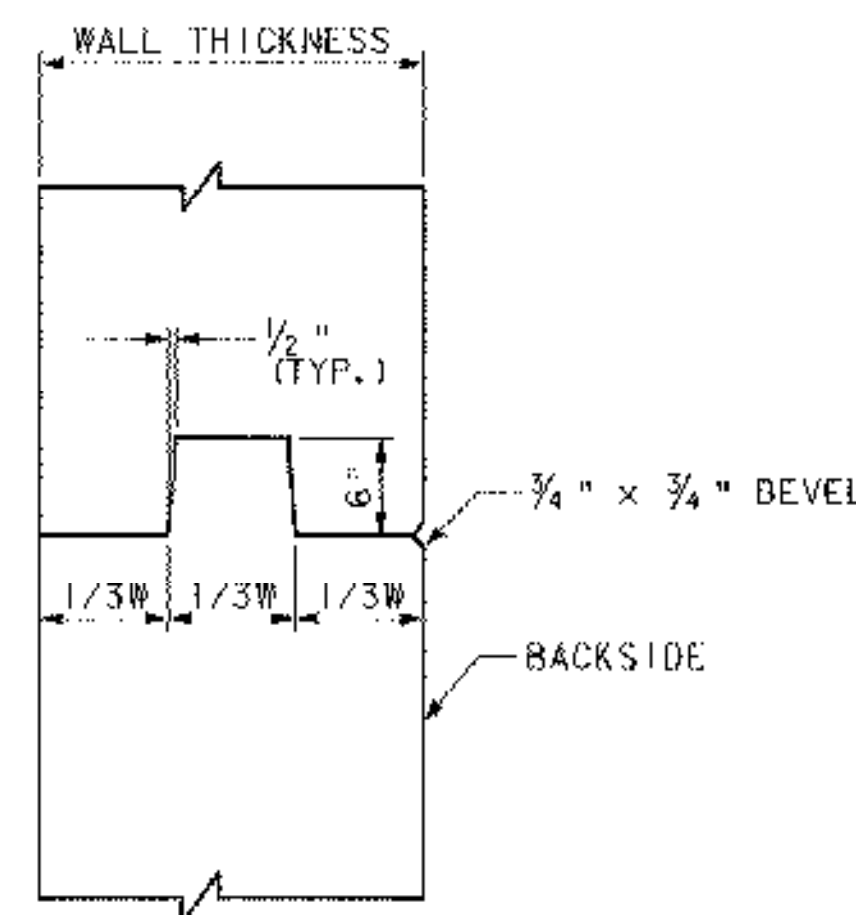
SCALE: 1/2" = 1'-0"

FOR DETAILS OF FIXED JOINT, SEE SECTION U-U AND APPROACH SLAB SHY. 52.



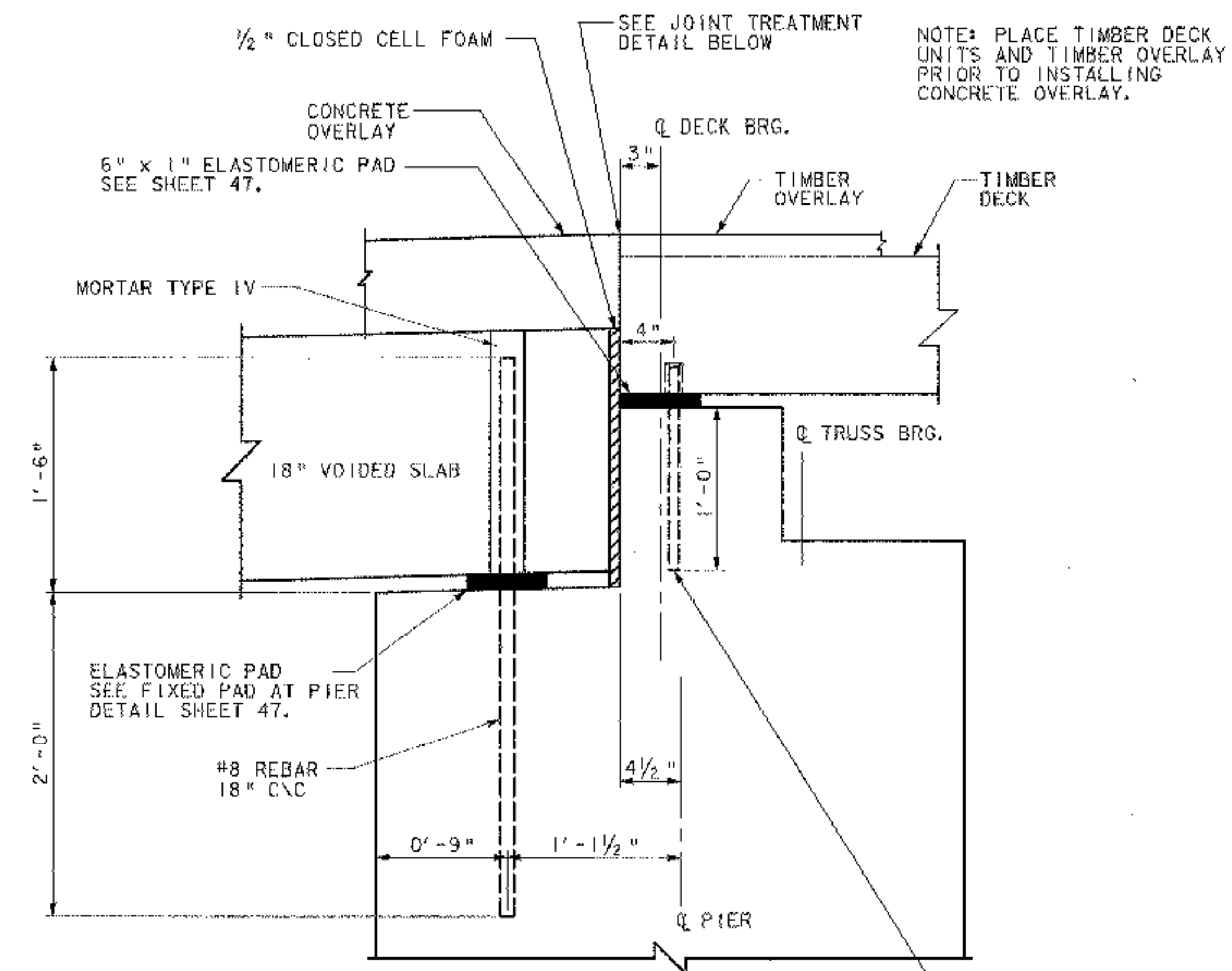
VOIDED SLAB ANCHORAGE DETAILS AT ABUTMENT I

SCALE: 1" = 1'-0"



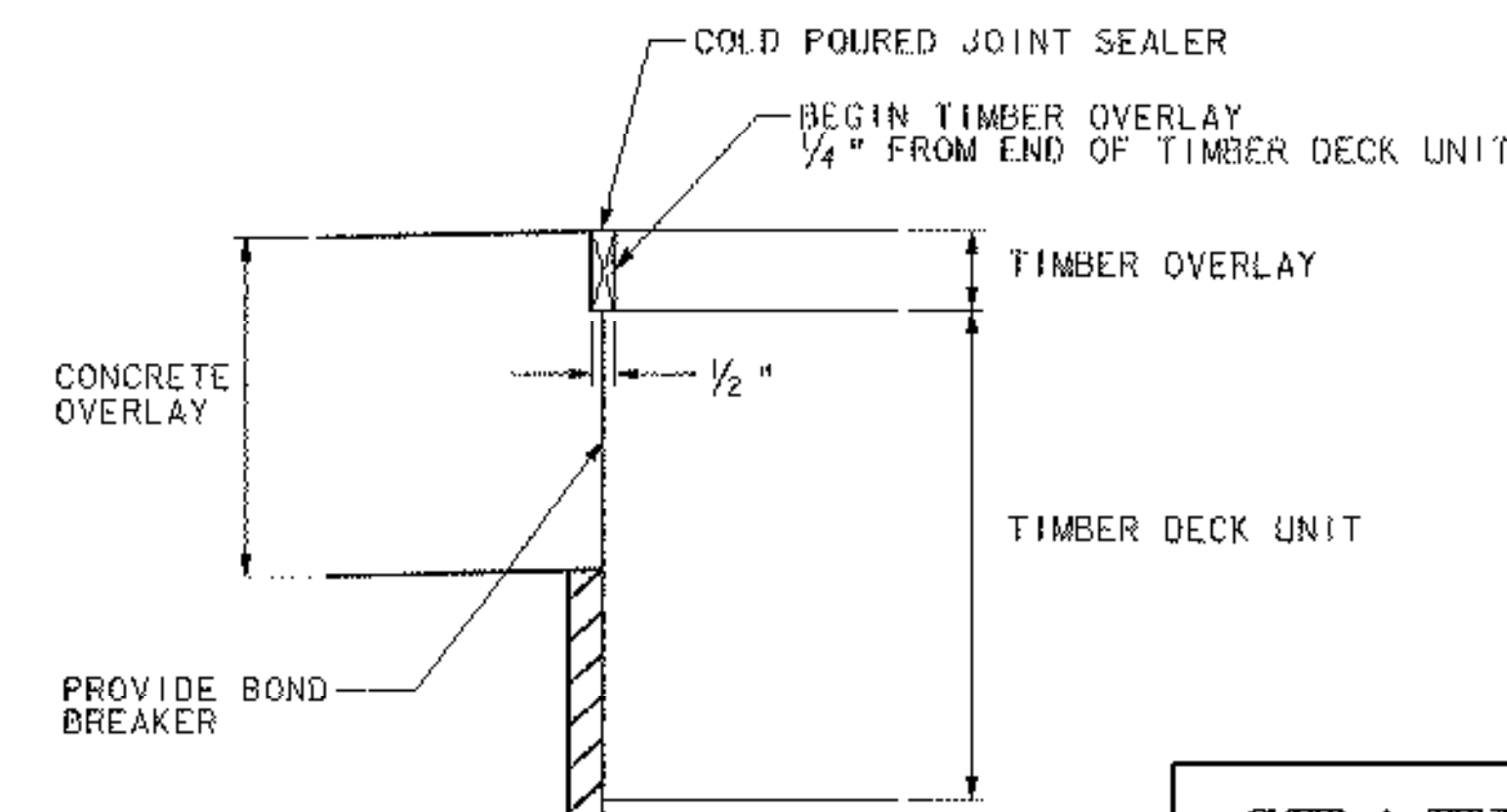
TYPICAL CONCRETE CONSTRUCTION JOINT

N. T. S.



FIXED JOINT AT PIER

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



JOINT TREATMENT DETAIL

SCALE: 3" = 1'

- PILE NOTES:**
1. THE CONTRACTOR SHALL PERFORM A DYNAMIC LOAD TEST ON THE FIRST PILE DRIVEN. THIS TEST SHALL BE IN CONFORMANCE WITH SECTION 505 OF THE VTRANS STANDARD SPECIFICATIONS. THE TEST WILL BE PAID FOR UNDER ITEM NO. 505.45 DYNAMIC PILE LOADING TEST.
 2. THE ULTIMATE PILE RESISTANCE IS 200 KIPS.
 3. TOP OF PILE EL. 861.50
 4. APPROXIMATE TOP OF ROCK EL. 786.0
 5. FOR SPLICE DETAIL SEE SHY. 49.

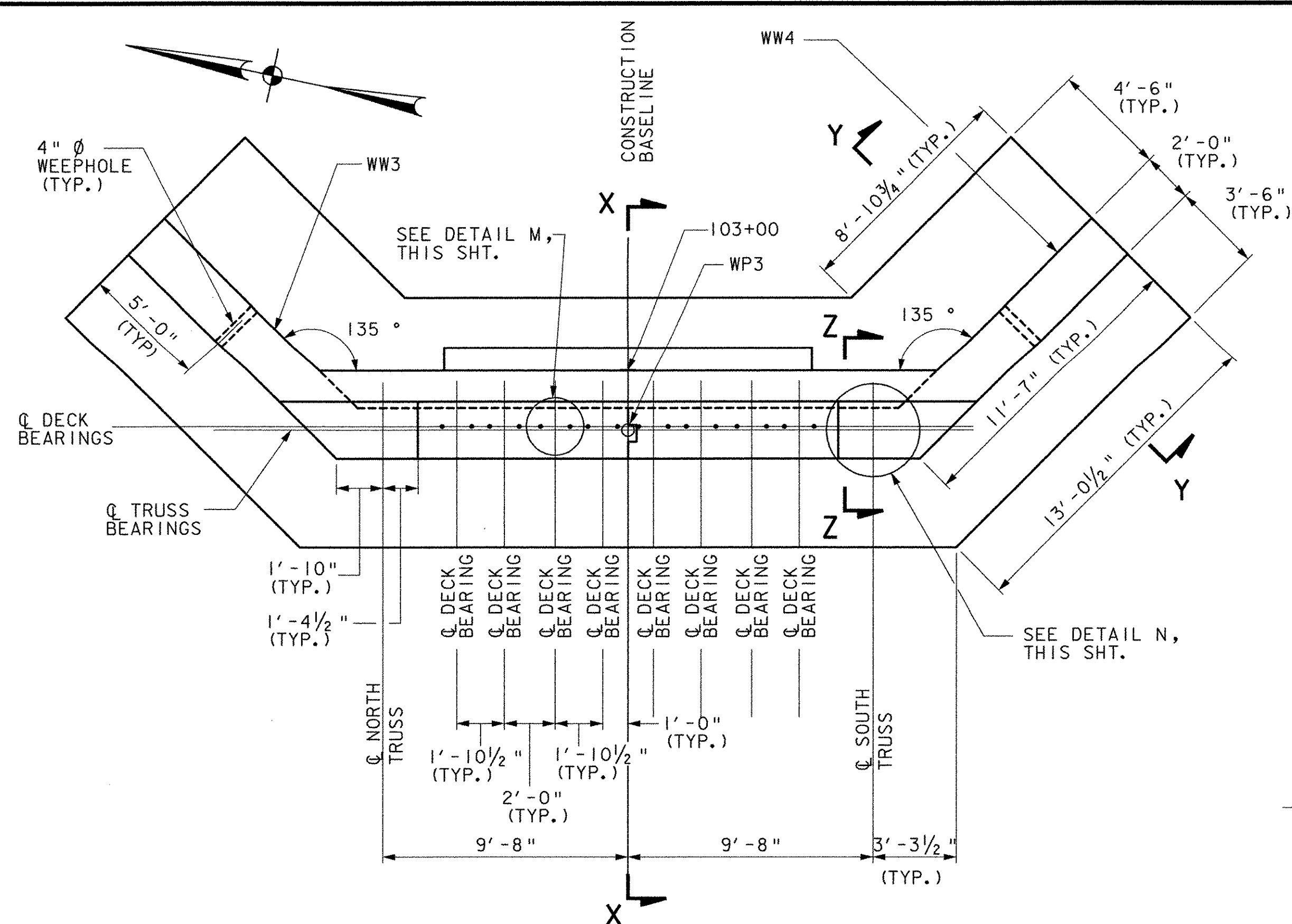


STATE OF VERMONT AGENCY OF TRANSPORTATION

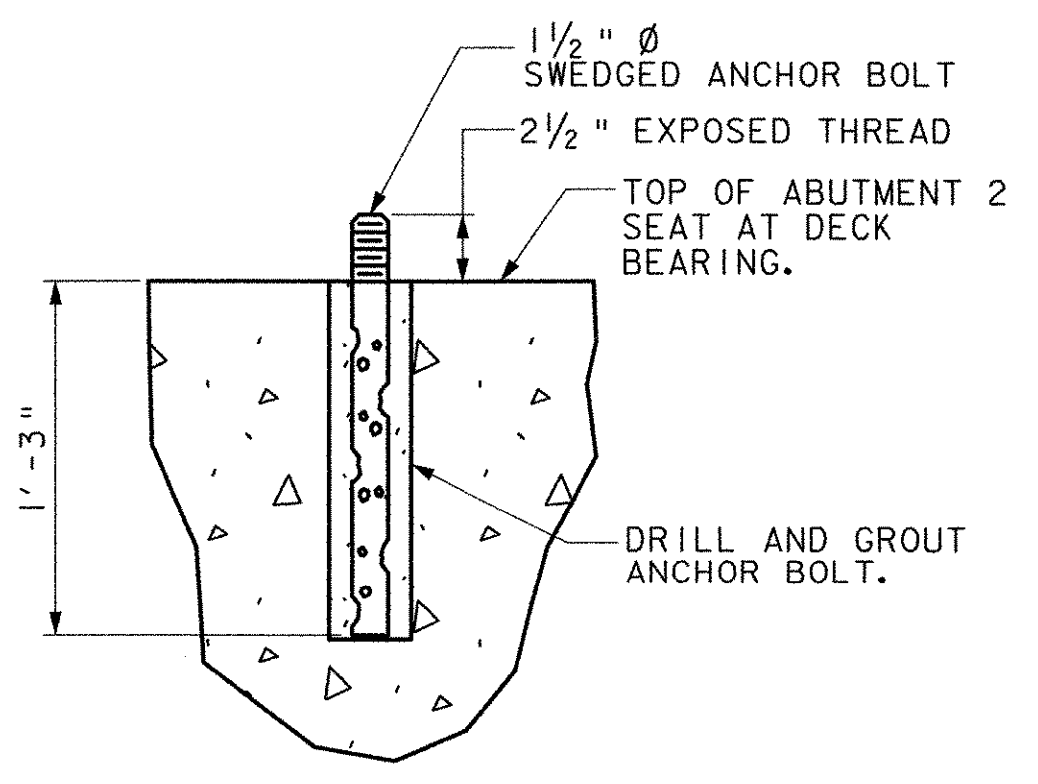
Town Of	MAIDSTONE, VT	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
		Surv. Sta.	

ABUTMENT I DETAILS			
Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
D.B. SULLIVAN	08/01/03		
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
I.G.C. Info.		Bridge Sheet No.	Sheet 54 of 65

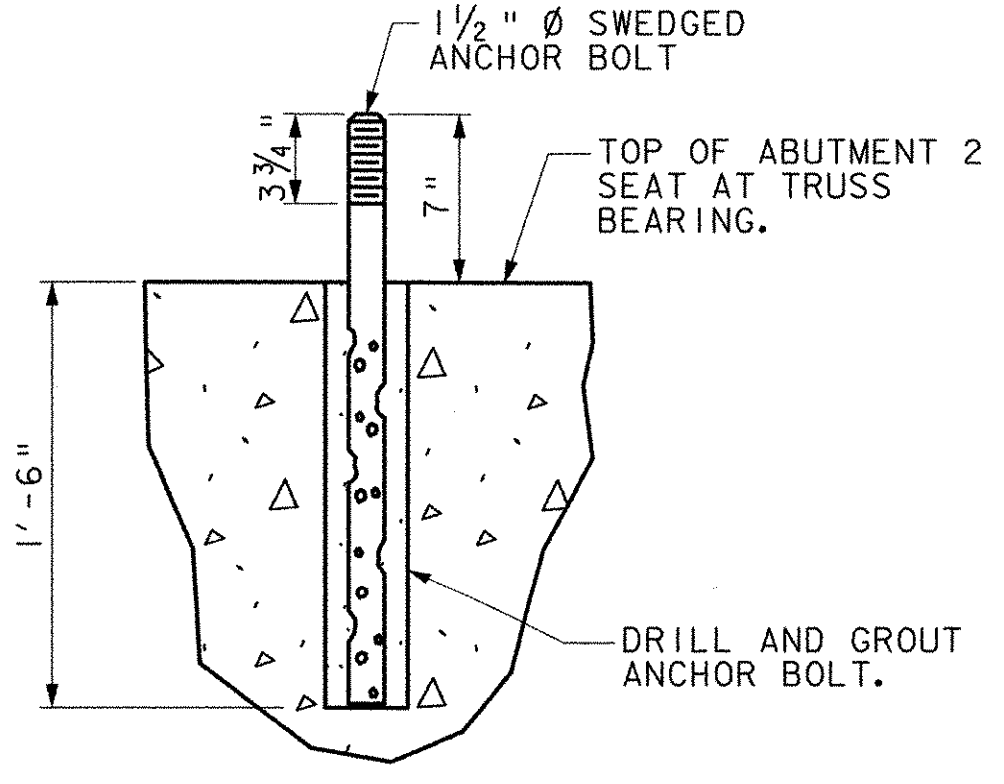
12 AUG 2003 10:00:00 AM C:\p0006\p0006\p0006.dwg



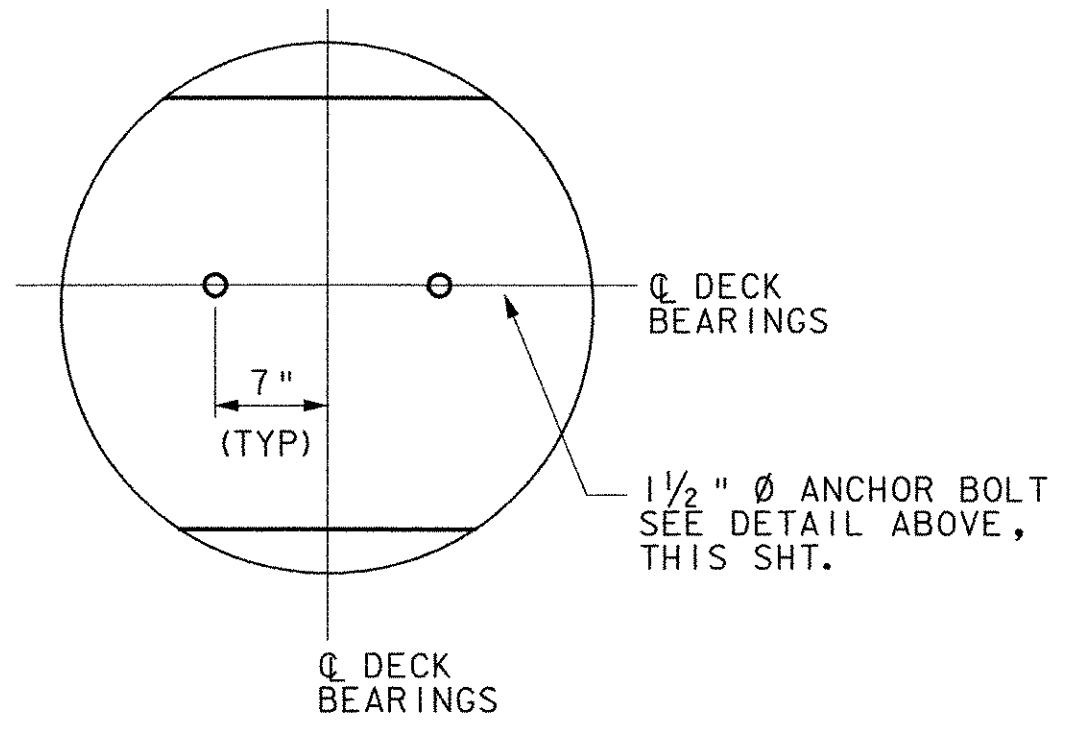
PLAN - ABUTMENT 2
SCALE: 1/4" = 1'-0"



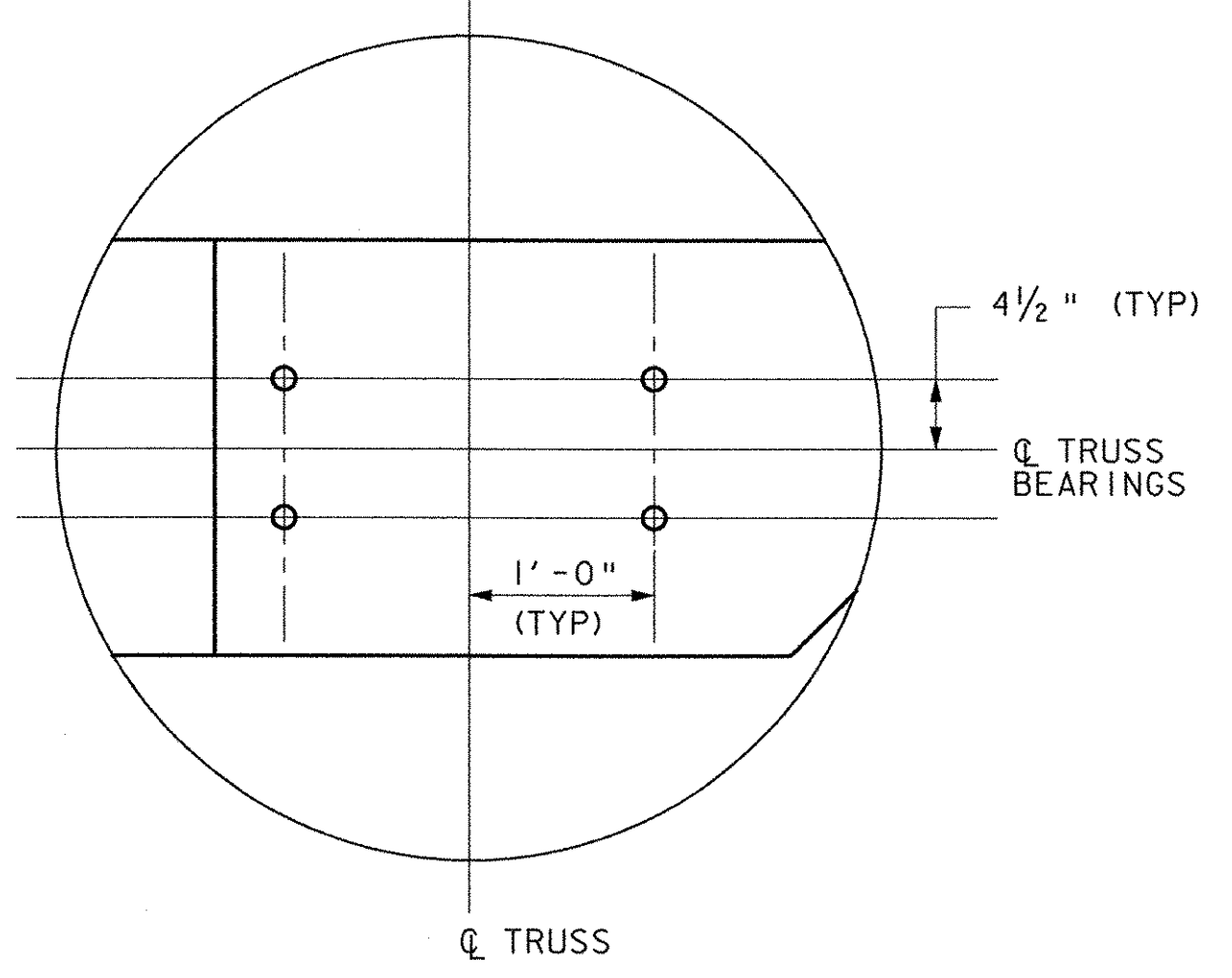
DECK EXPANSION BEARING ANCHOR BOLT SETTING
SCALE: 1/2" = 1'-0"



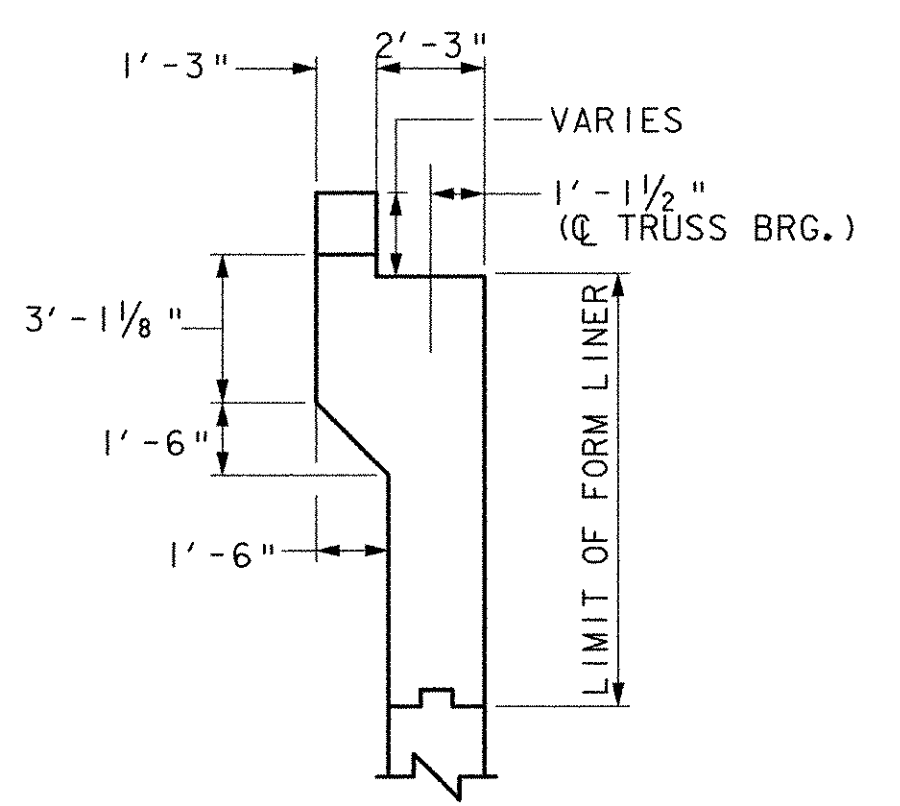
TRUSS EXPANSION BEARING ANCHOR BOLT SETTING
SCALE: 1/2" = 1'-0"



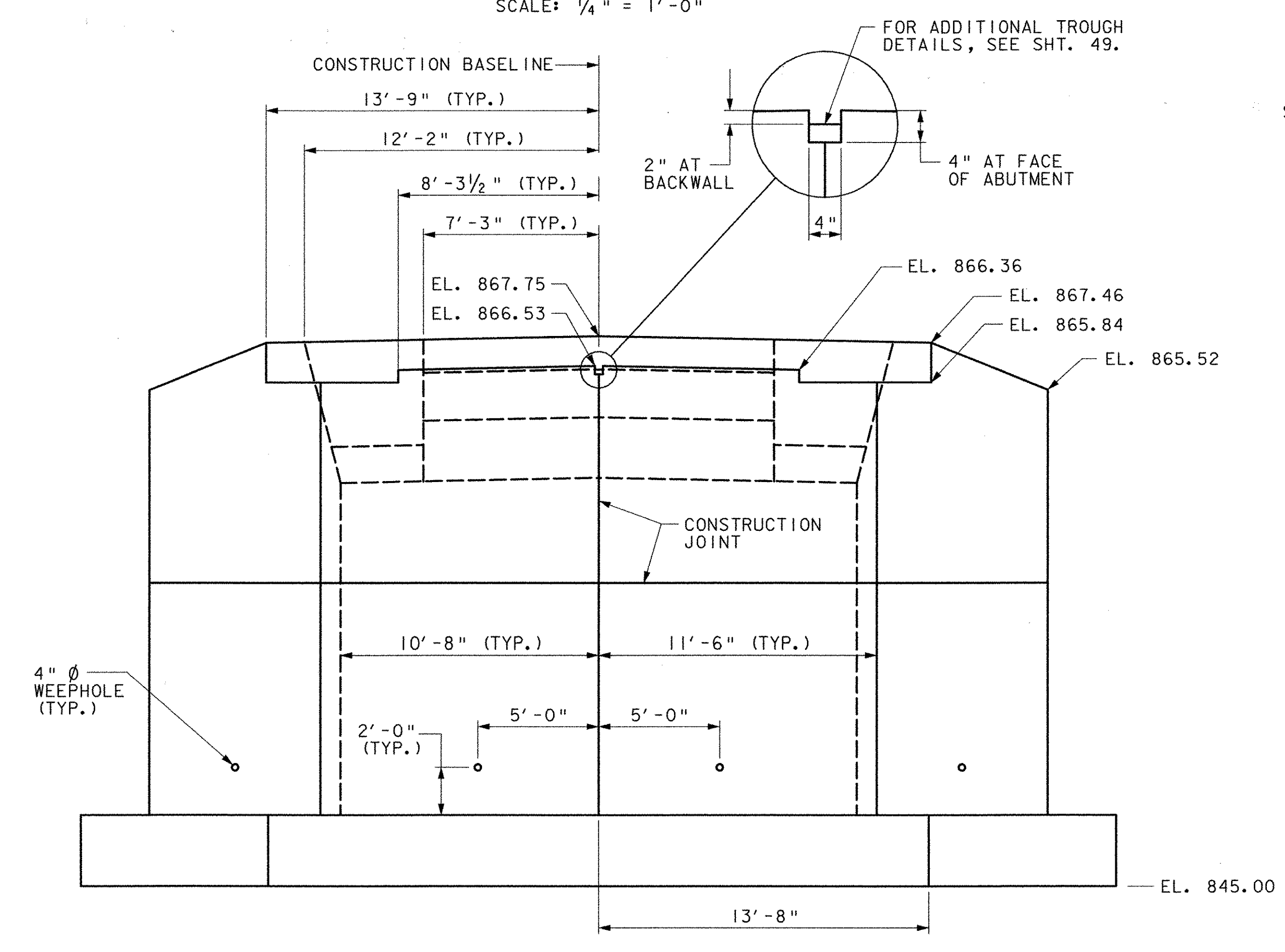
DETAIL M
SCALE: 1" = 1'-0"



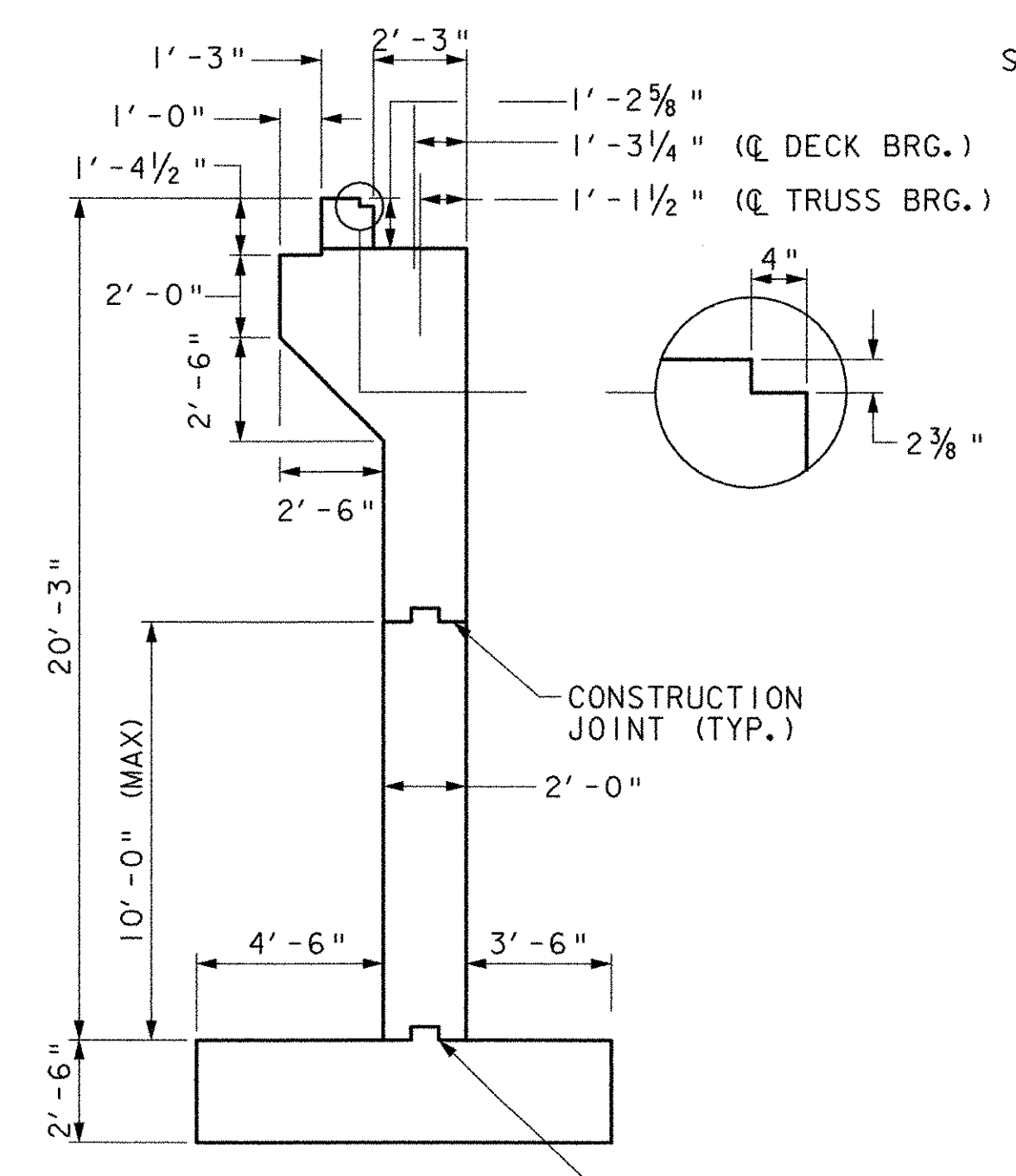
DETAIL N
SCALE: 1" = 1'-0"



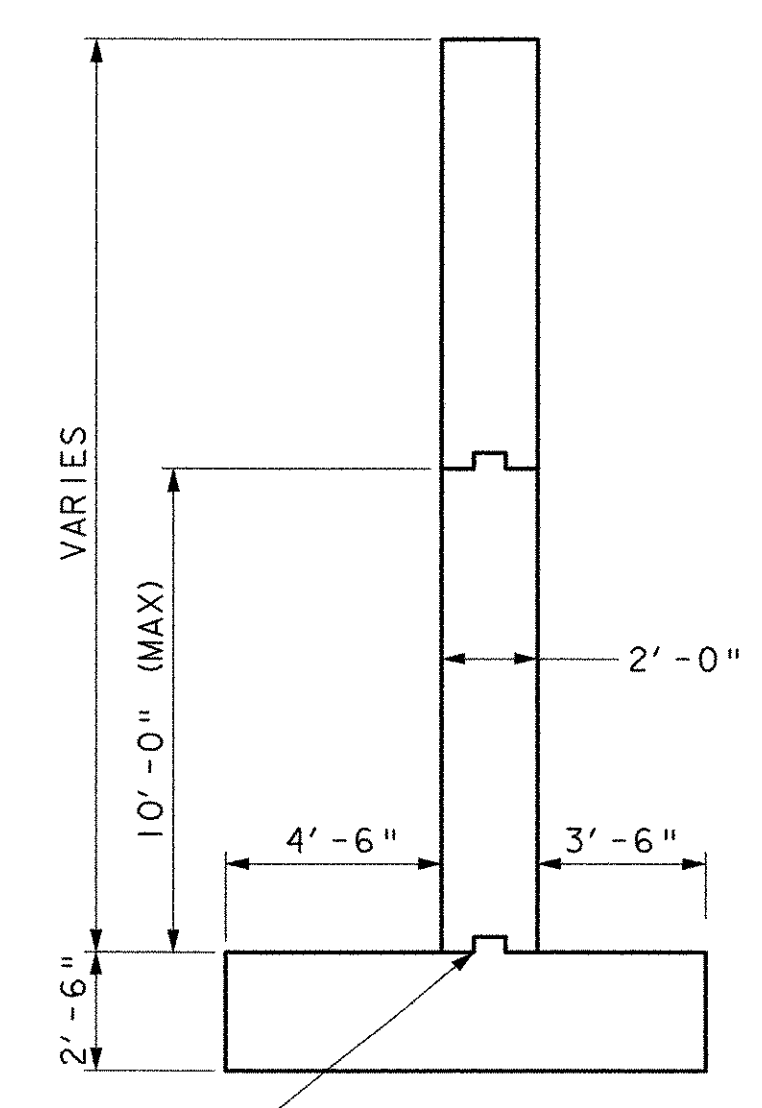
SECTION Z-Z
SCALE: 1/4" = 1'-0"



ELEVATION - ABUTMENT 2
SCALE: 1/4" = 1'-0"



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



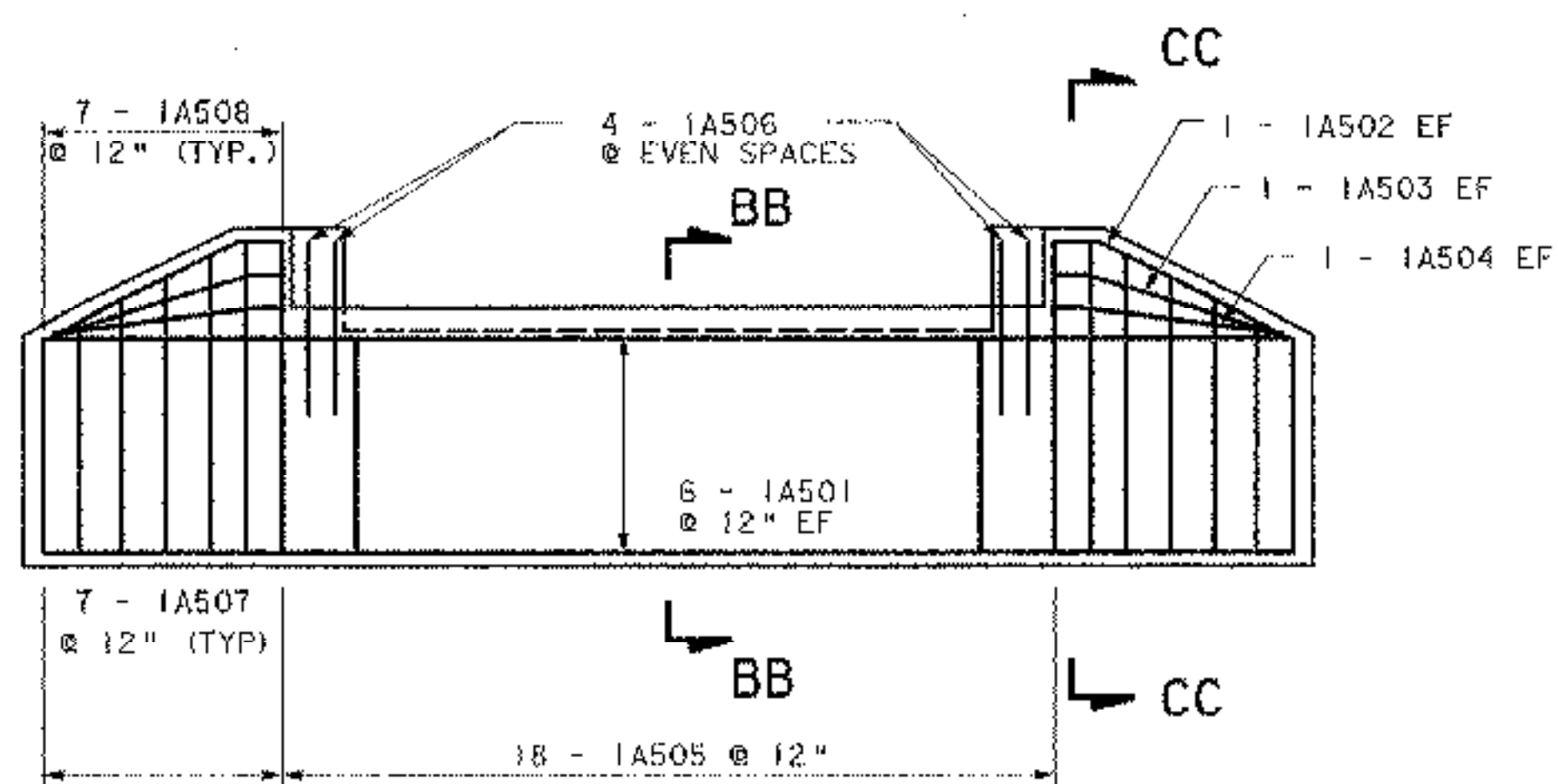
SECTION Y-Y
SCALE: 1/4" = 1'-0"

- NOTES**
- FOR REINFORCEMENT DETAILS, SEE SHTS. 56, 57, 59 & 60.
 - ANCHOR BOLTS AND ALL WORK AND MATERIALS TO INSTALL THE ANCHOR BOLTS SHALL BE CONSIDERED SUBSIDIARY TO ITEM 531.10 BEARING DEVICE ASSEMBLY, (TRUSS BEARING) AND ITEM 531.10 BEARING ASSEMBLY DEVICE, (DECK EXPANSION BEARING). THE BOLTS SHALL CONFORM TO ALL APPLICABLE MATERIAL SPECIFICATIONS AND PROPERTIES EXCEPT THAT THE ANCHOR BOLTS SHALL CONFORM TO AASHTO M270M/M270 A36.
 - SEE SHT. 54 FOR TYPICAL CONCRETE CONSTRUCTION JOINT.

STATE OF VERMONT AGENCY OF TRANSPORTATION		
Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No. 1
Highway No.	MAIDSTONE STATE HWY	Log Sta. Surv. Sta.
ABUTMENT 2 DETAILS		
Designed By	J. MESSIER	Drawn By C. DONOHUE
Checked By	Date	Bridge Design Supervisor
	D. B. SULLIVAN	08/01/03
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO. BHO 1447 (24)
I.G.C. Info.		
Bridge Sheet No.		Sheet 55 of 65

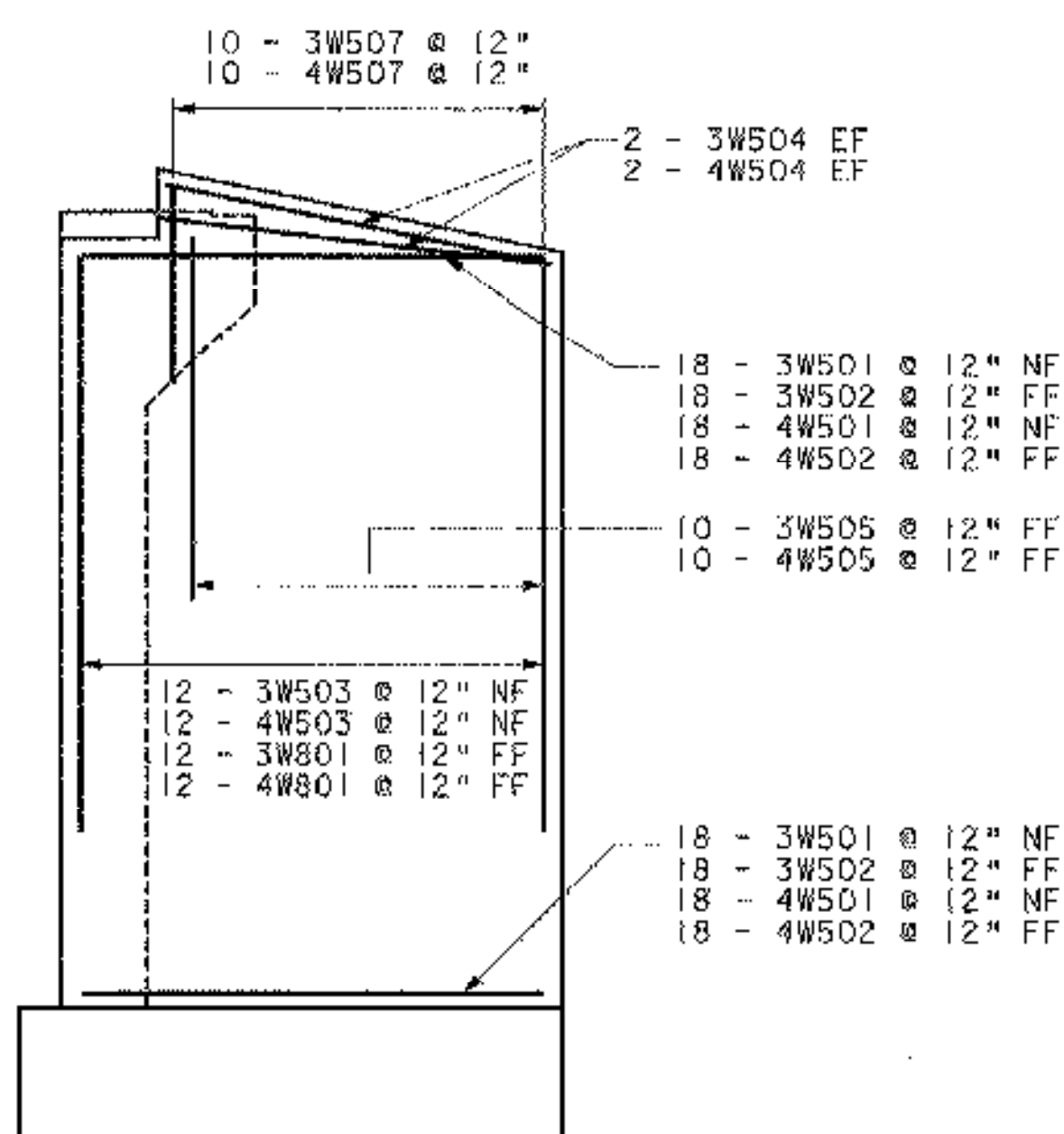


2 AUG 2003 p:\207\accad\cgm\z05402.dgn



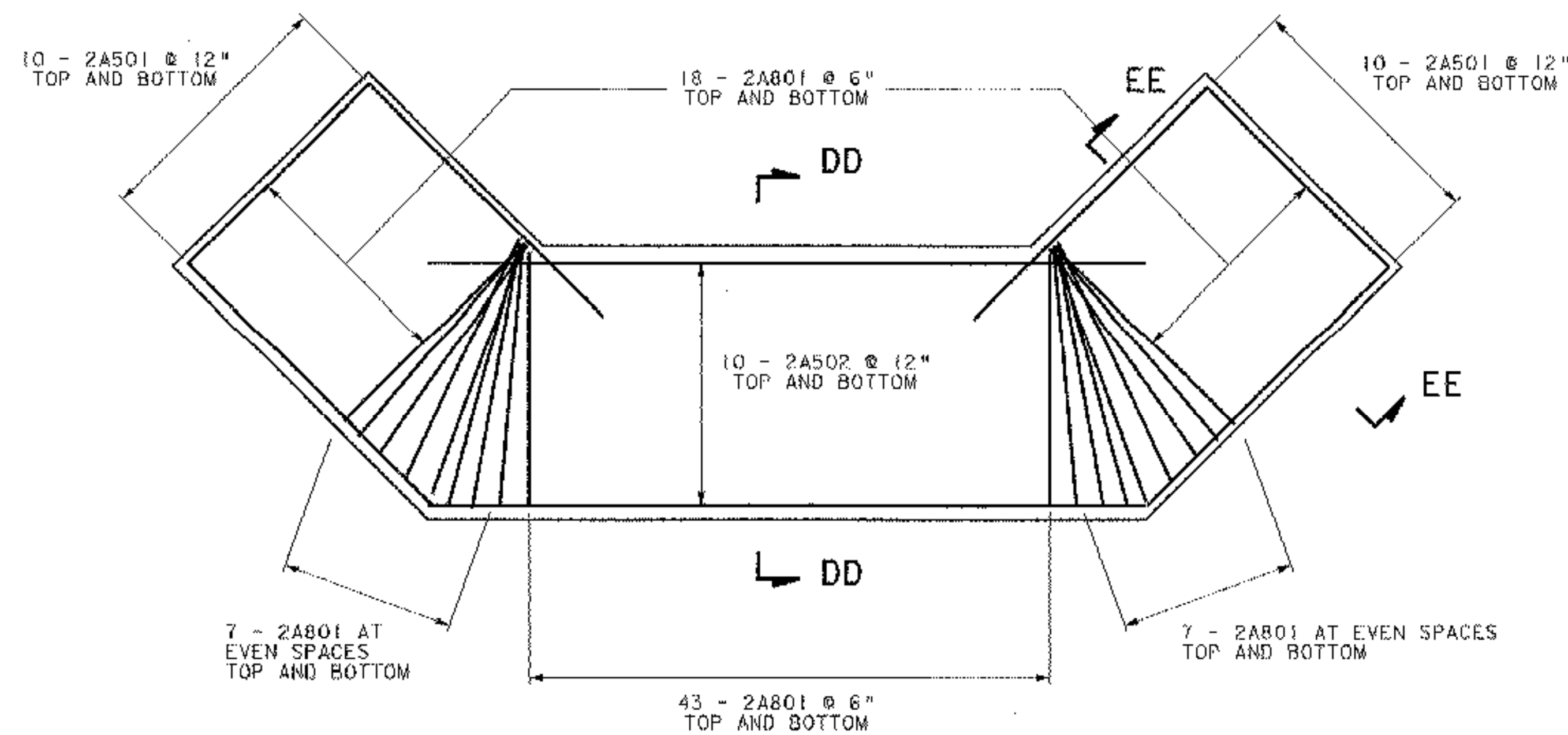
ELEVATION - ABUTMENT 1

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



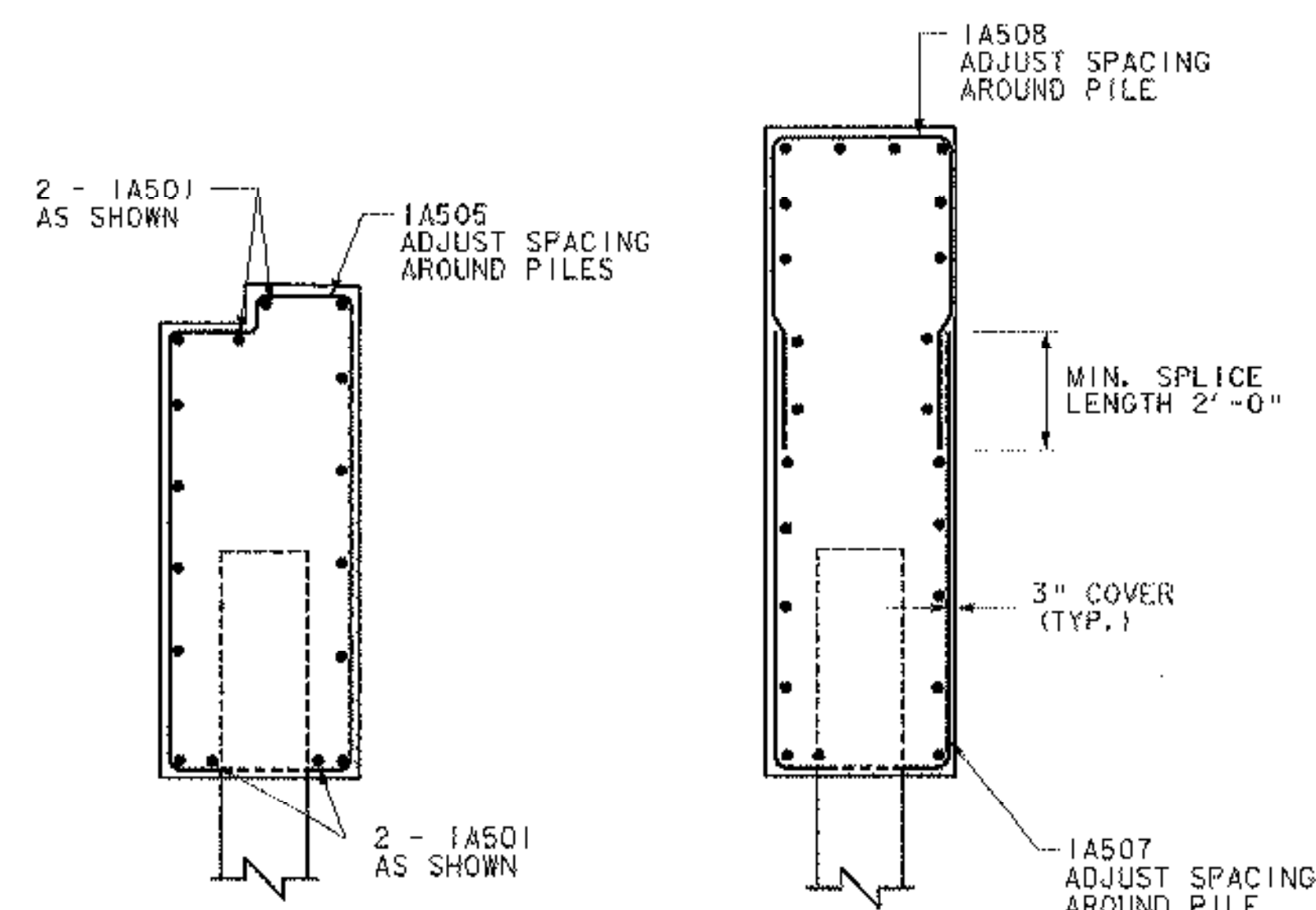
ELEVATION - WINGWALLS 3 & 4

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



PLAN FOOTING AT ABUTMENT 2

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



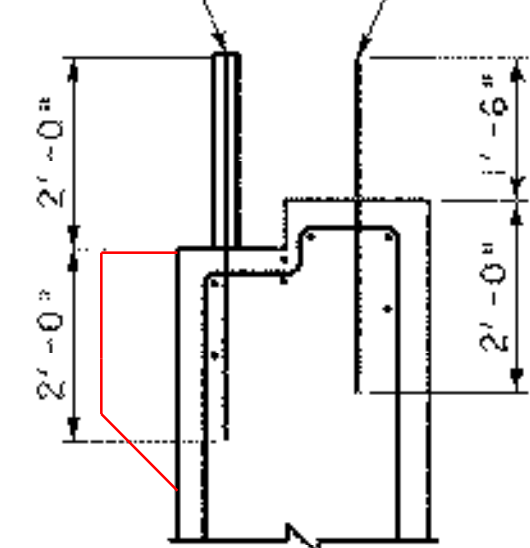
SECTION BB-BB

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

SECTION CC-CC

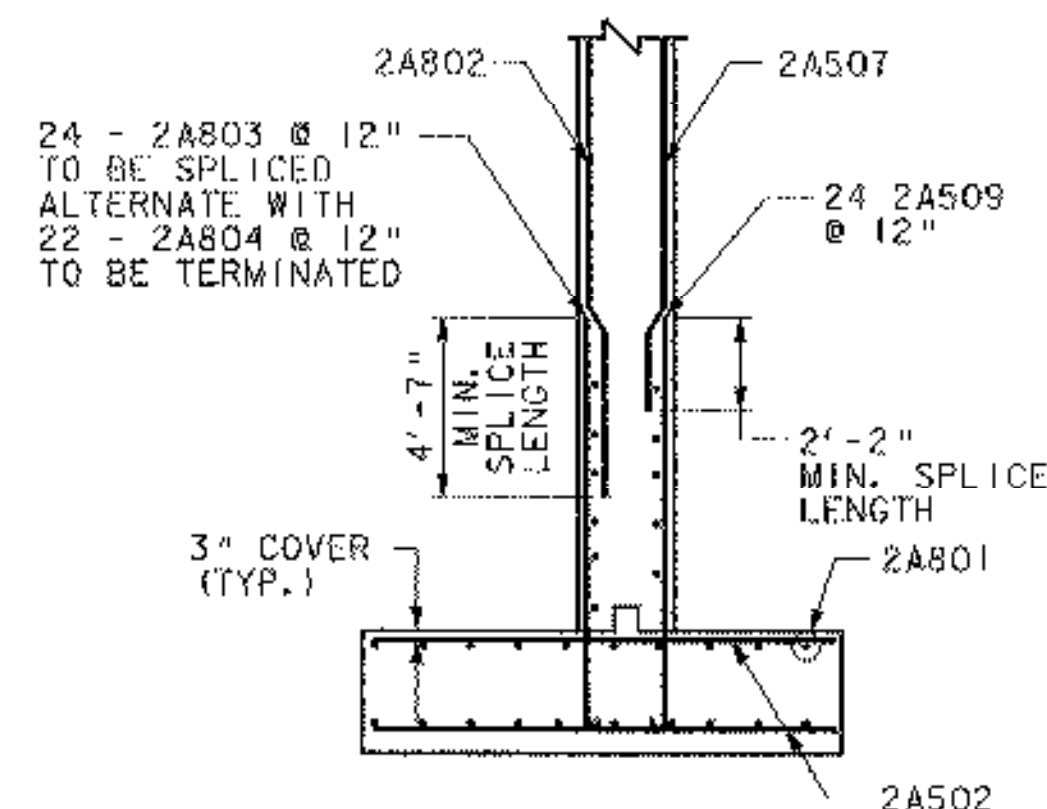
SCALE: 1/2" = 1'-0"

8 - 1EA801 @ 24" EPOXY COATED. WRAP END WITH PIPE INSULATION.
12 - 1EA802 FOR VOIDED SLAB ANCHORAGE



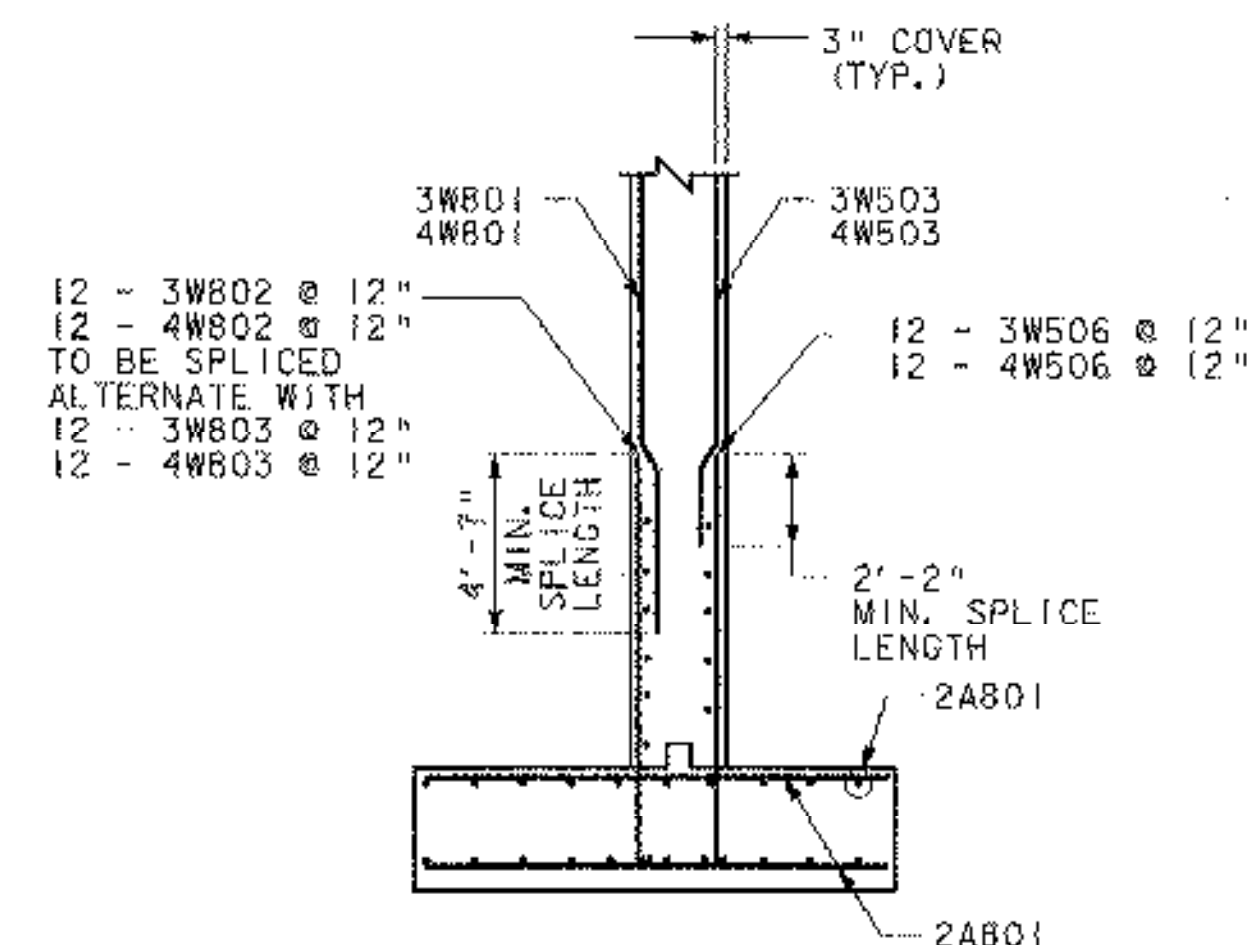
APPROACH SLAB 1 ANCHORAGE DETAIL

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



SECTION DD-DD

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



SECTION EE-EE

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

NOTES:

- EF = EACH FACE
- FF = FAR FACE
- NF = NEAR FACE
- BF = BACK FACE

STATE OF VERMONT AGENCY OF TRANSPORTATION

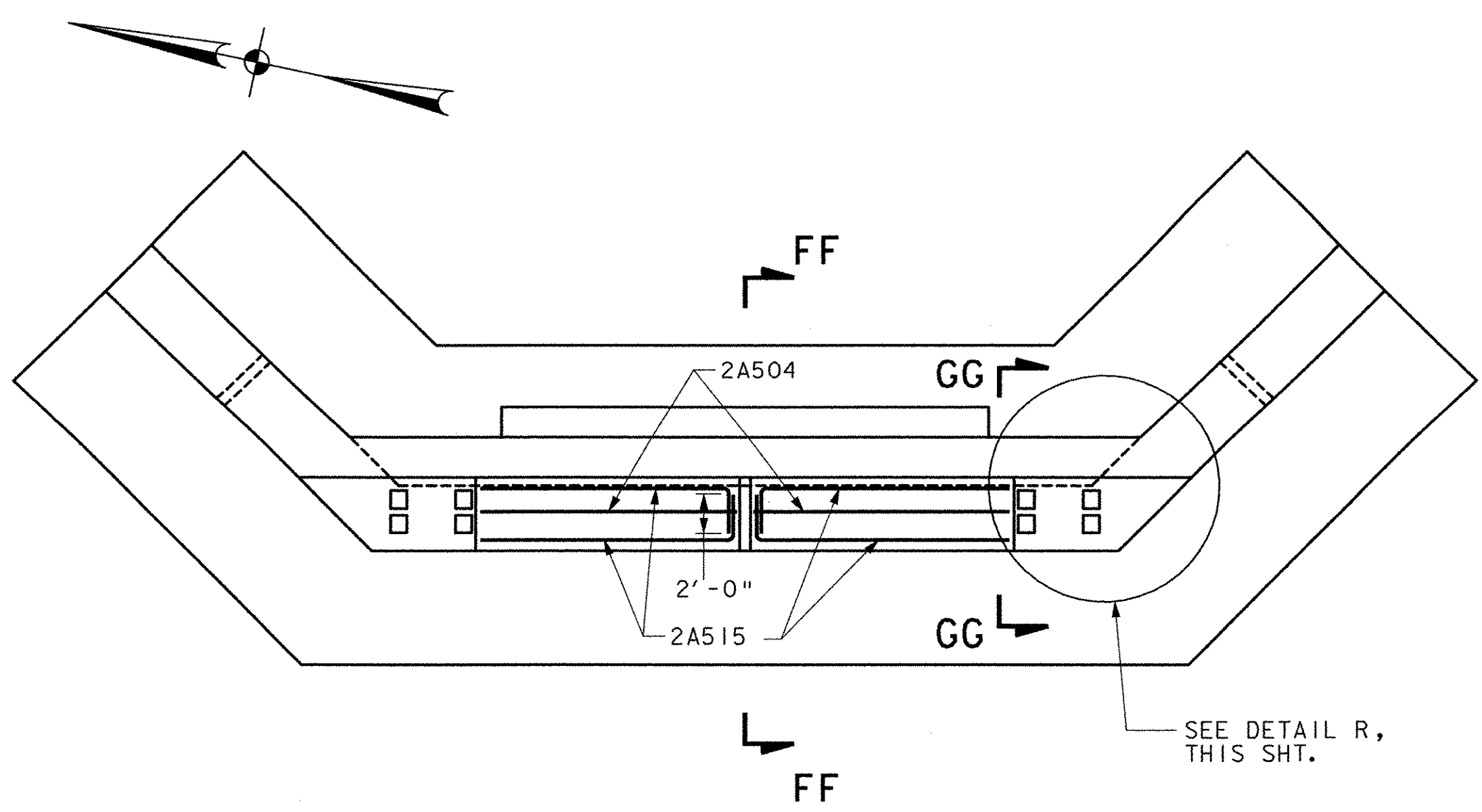
Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No.	1
Highway No.	MAIDSTONE STATE HWY	Log Sta.	
		Surv. Sta.	

ABUTMENTS 1 & 2 REINFORCING DETAILS

Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	D.B. SULLIVAN	Date	08/01/03
		Bridge Design Supervisor	

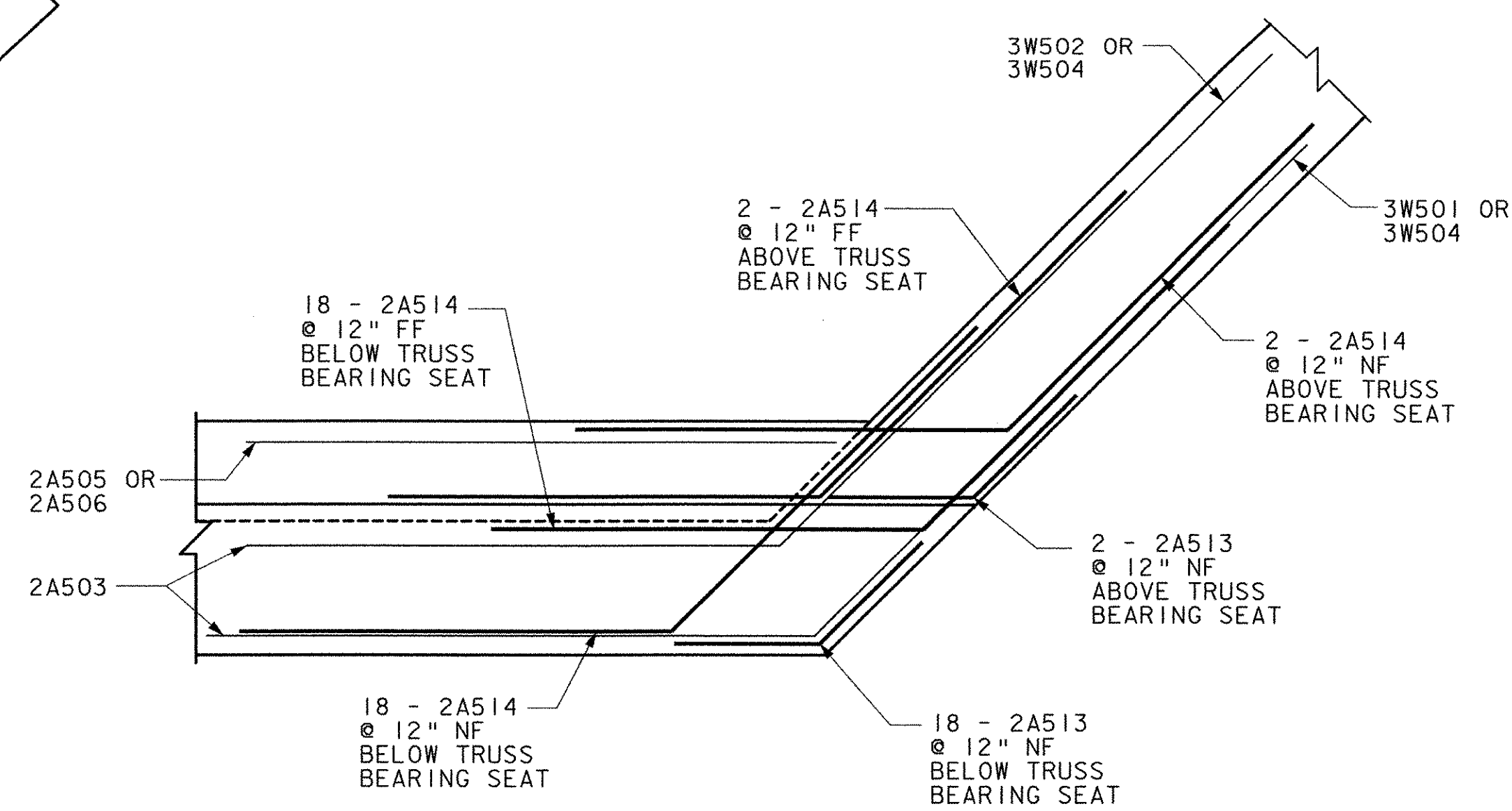
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
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LG.C. Info.	
Bridge Sheet No.	Sheet 56 of 65

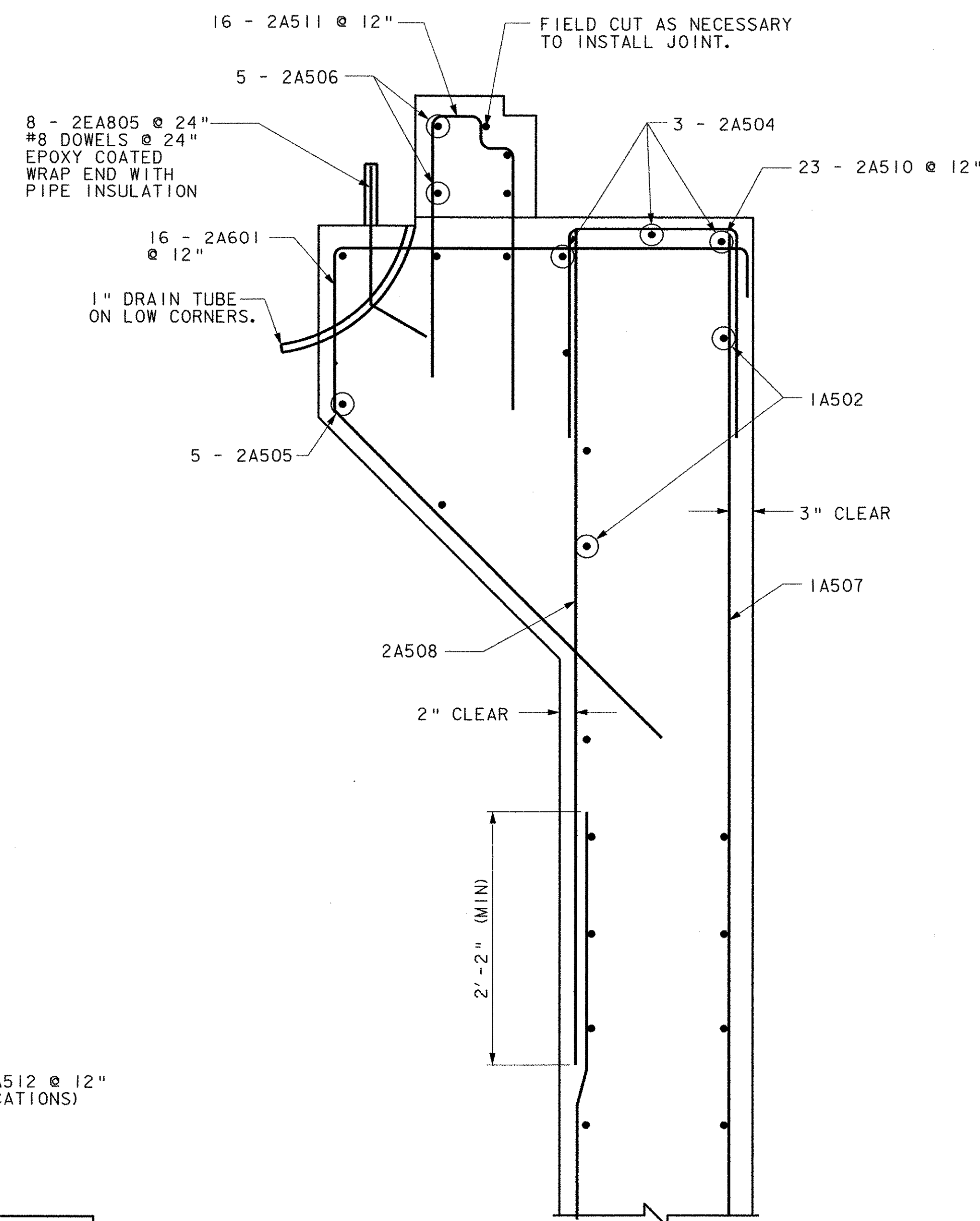


PLAN - ABUTMENT 2
SCALE: 1/4" = 1'-0"

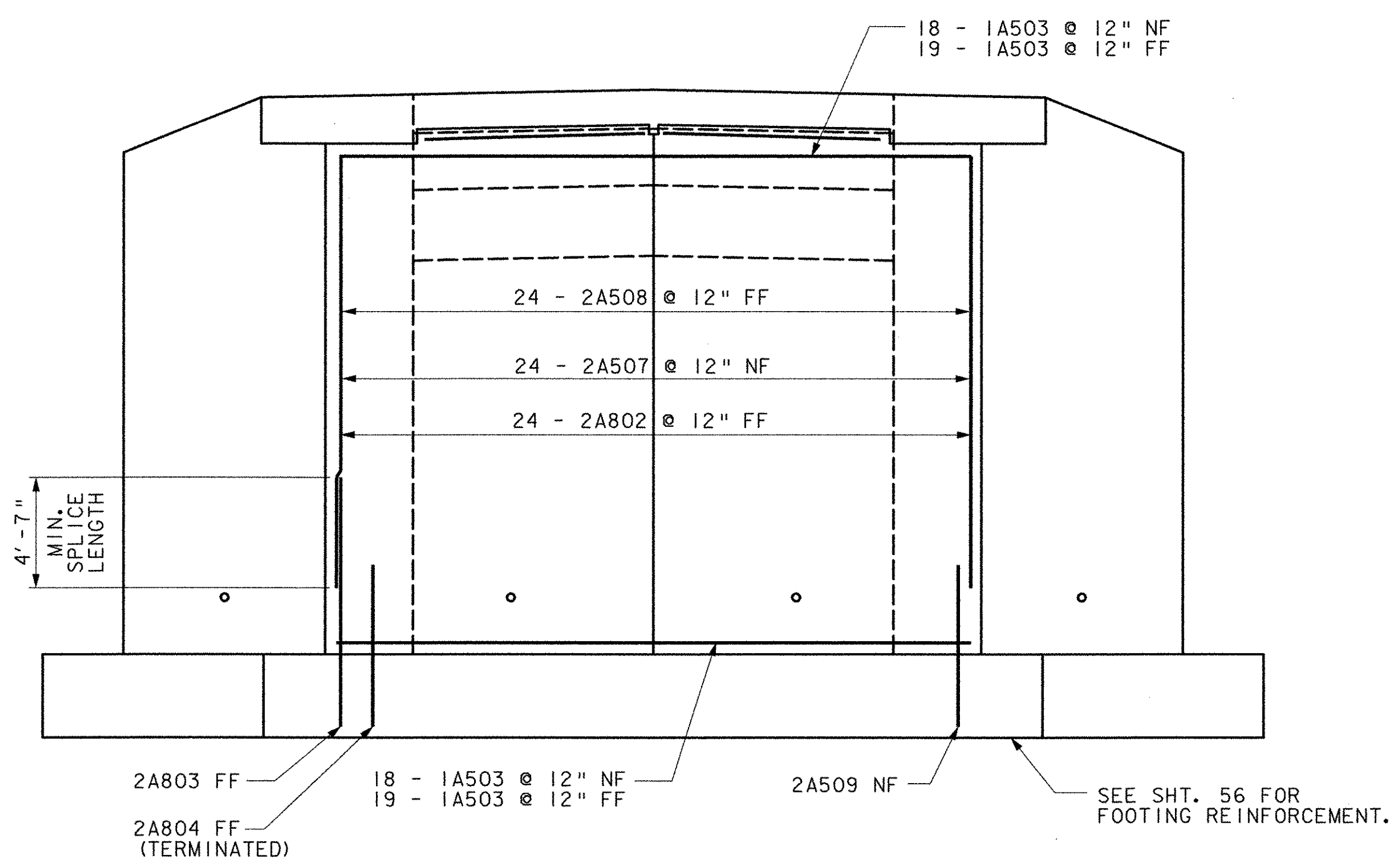
NOTES:
EF = EACH FACE
FF = FAR FACE
NF = NEAR FACE
BF = BACK FACE



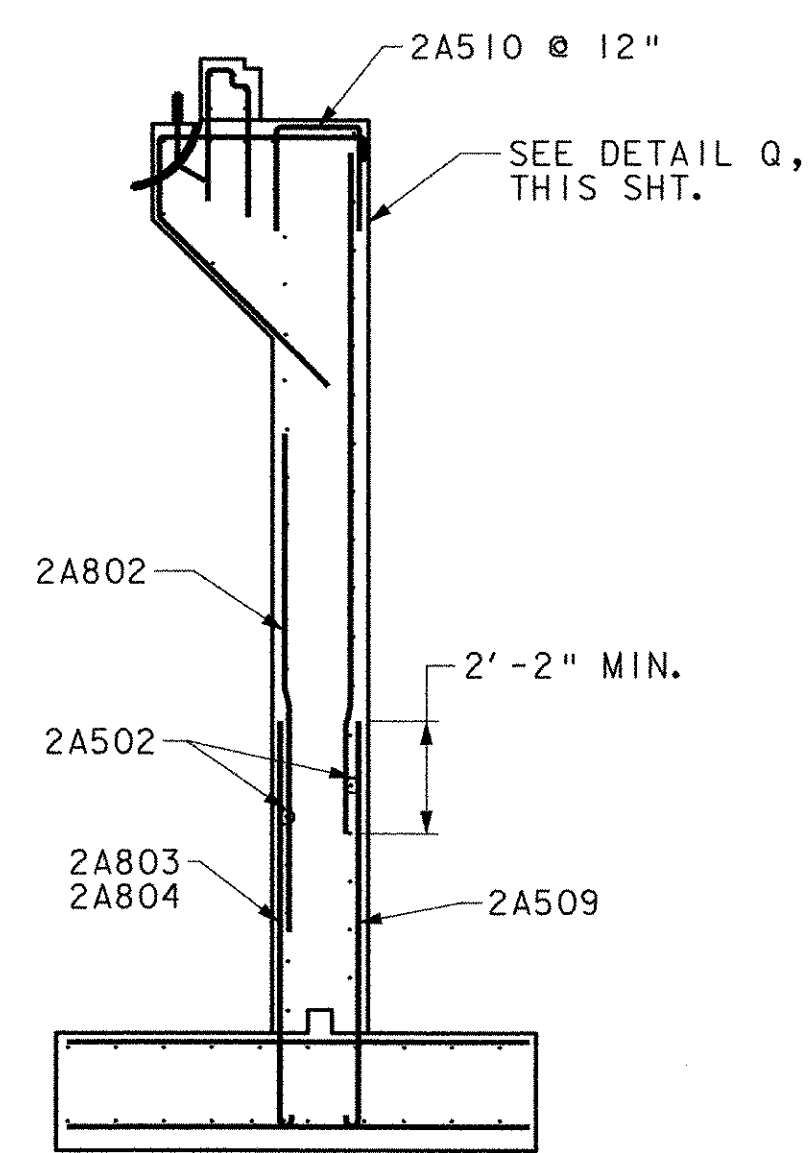
DETAIL R
CORNER REINFORCING
SCALE: 1/2" = 1'-0"



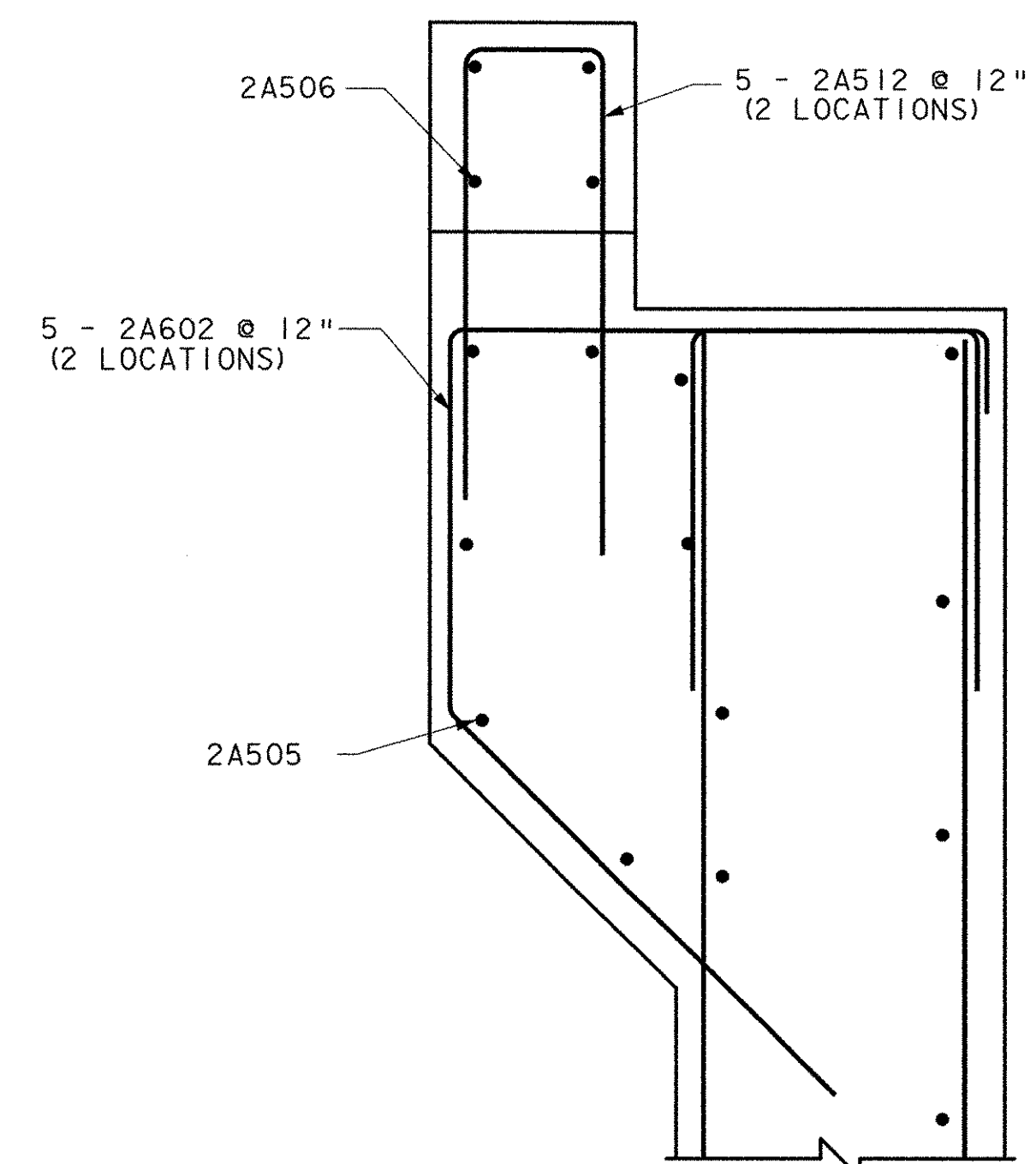
DETAIL Q
SCALE: 1" = 1'-0"



ELEVATION - ABUTMENT 2
SCALE: 1/4" = 1'-0"



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

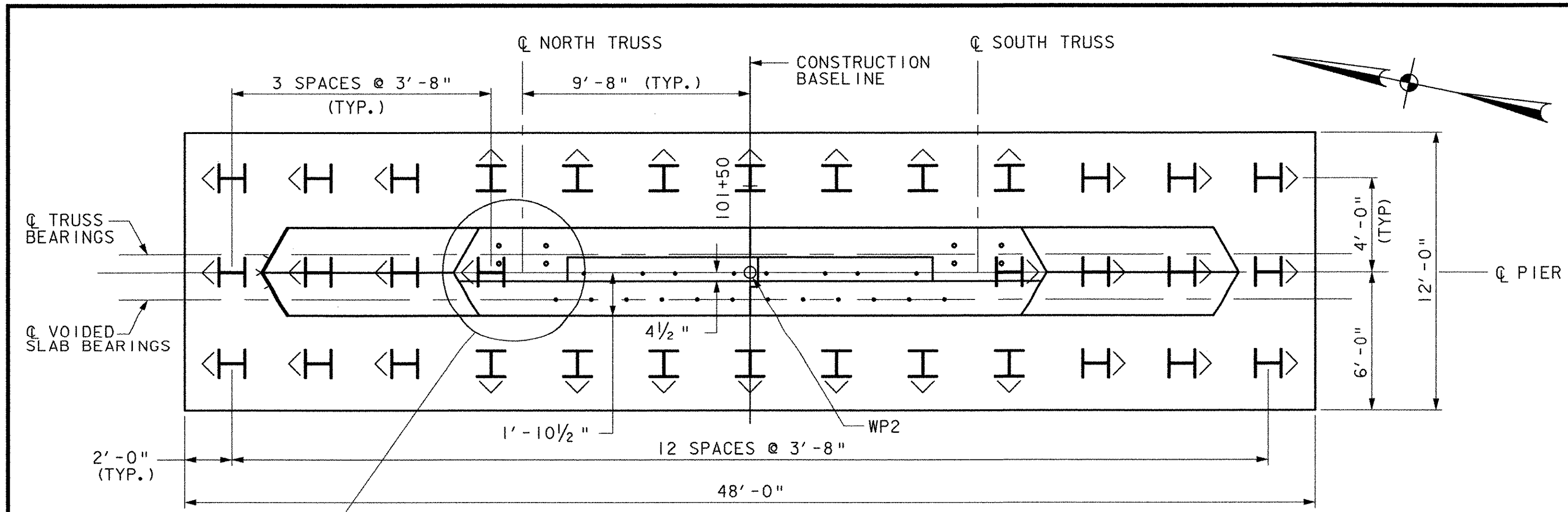


SECTION GG-GG
SCALE: 1/4" = 1'-0"

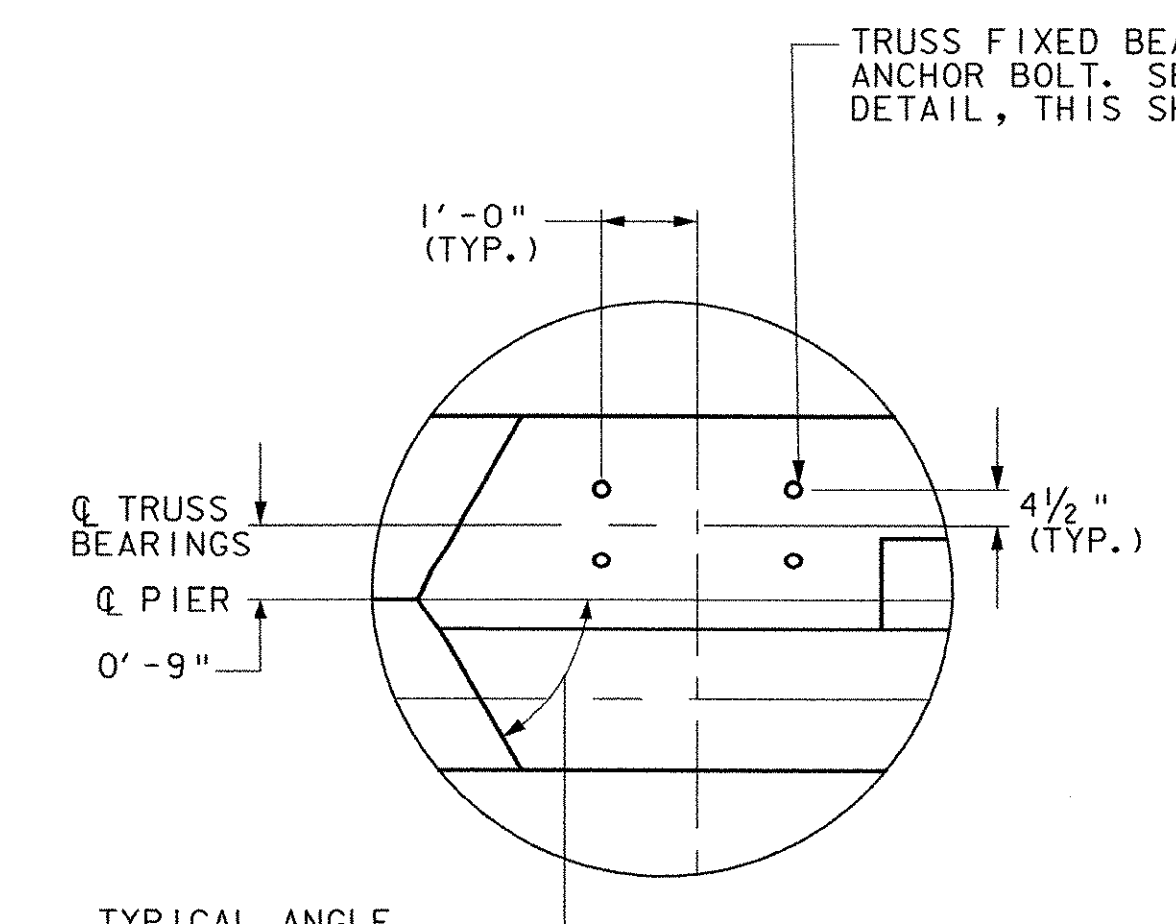
STATE OF VERMONT AGENCY OF TRANSPORTATION		
Town of MAIDSTONE, VT STRATFORD, NH	Bridge No. 1	Log Sta.
Highway No. MAIDSTONE STATE HWY	Surv. Sta.	
ABUTMENT 2 REINFORCING DETAILS		
Designed By J. MESSIER	Drawn By C. DONOHUE	
Checked By Date	Bridge Design Supervisor	Date
D. B. SULLIVAN	08/01/03	
PROJECT MAIDSTONE-STRATFORD	PROJECT NO. BHO 1447 (24)	
I.G.C. Info.		
Bridge Sheet No.	Sheet 57 of 65	



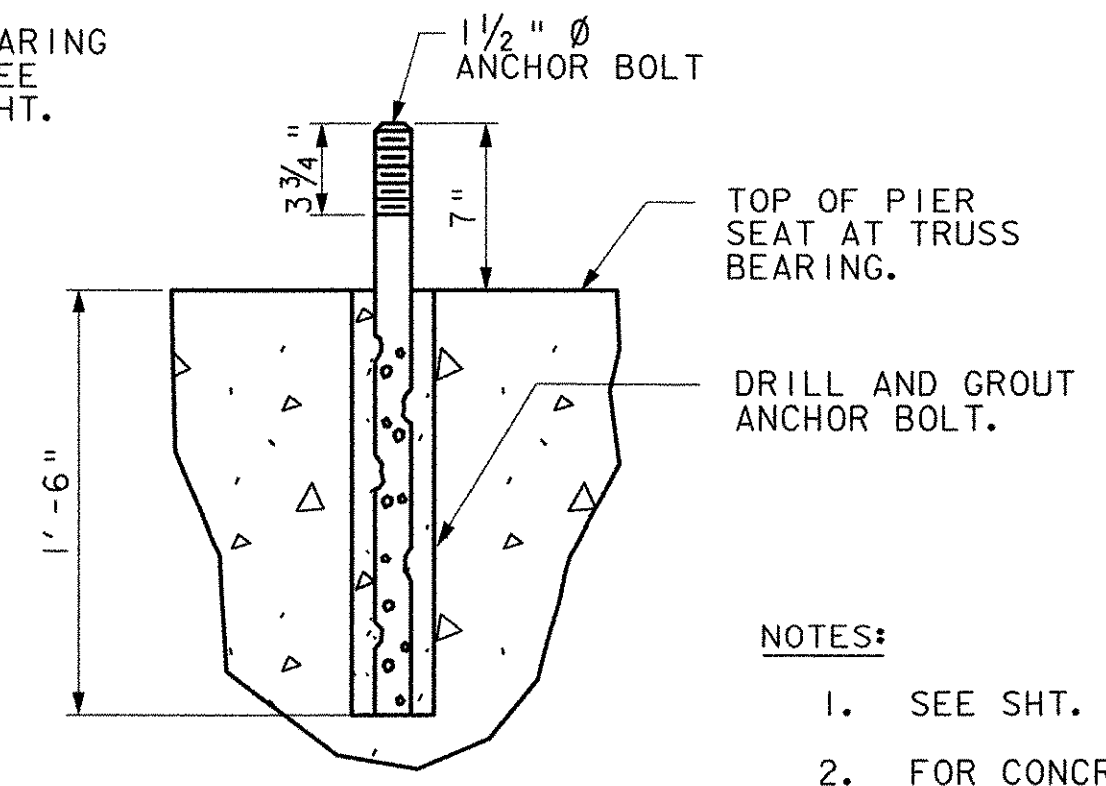
12 AUG 2003 12:20:17A cadat.dgn vze054r.sz.dgn



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

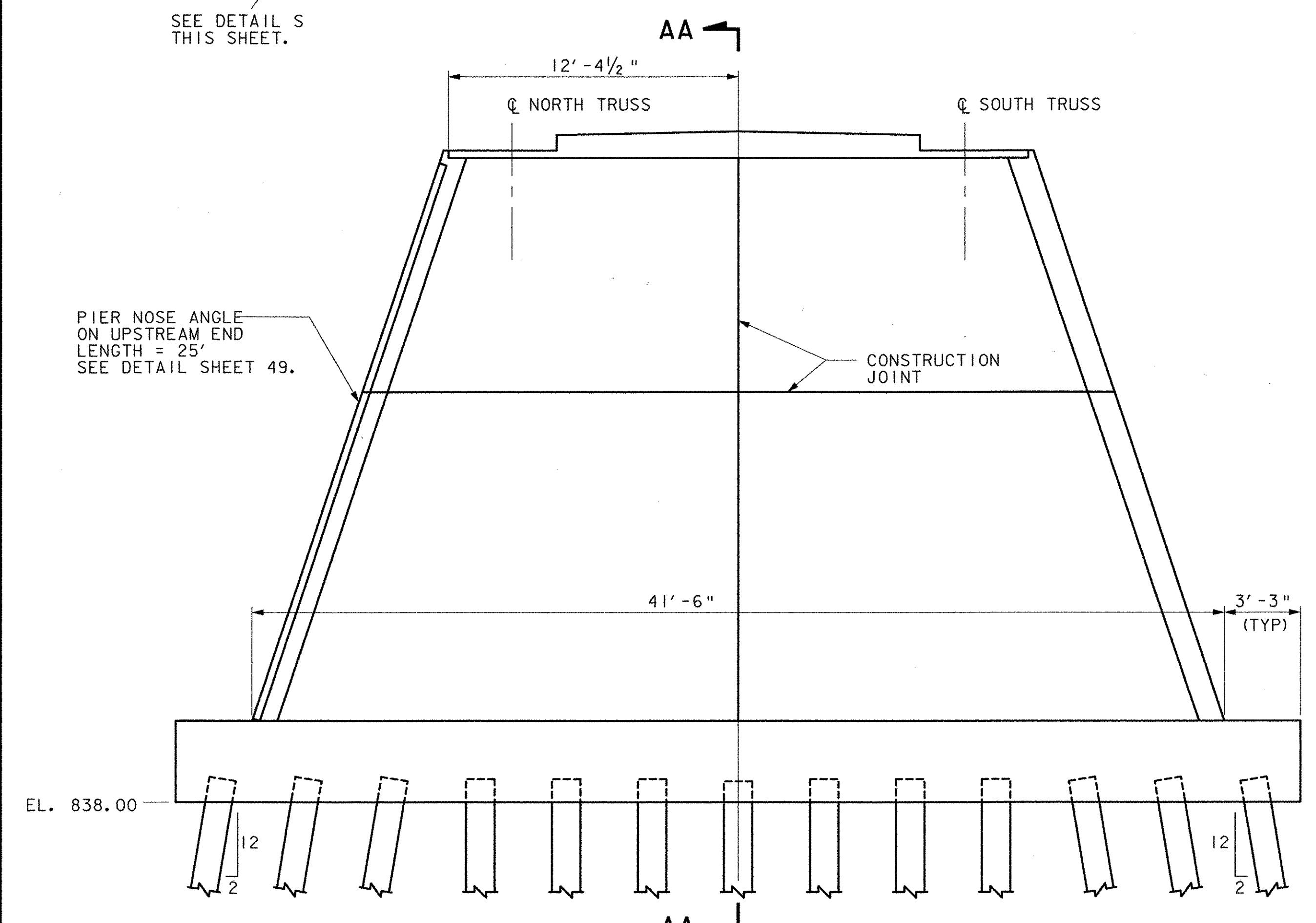


DETAIL S
SCALE: 1/2" = 1'-0"

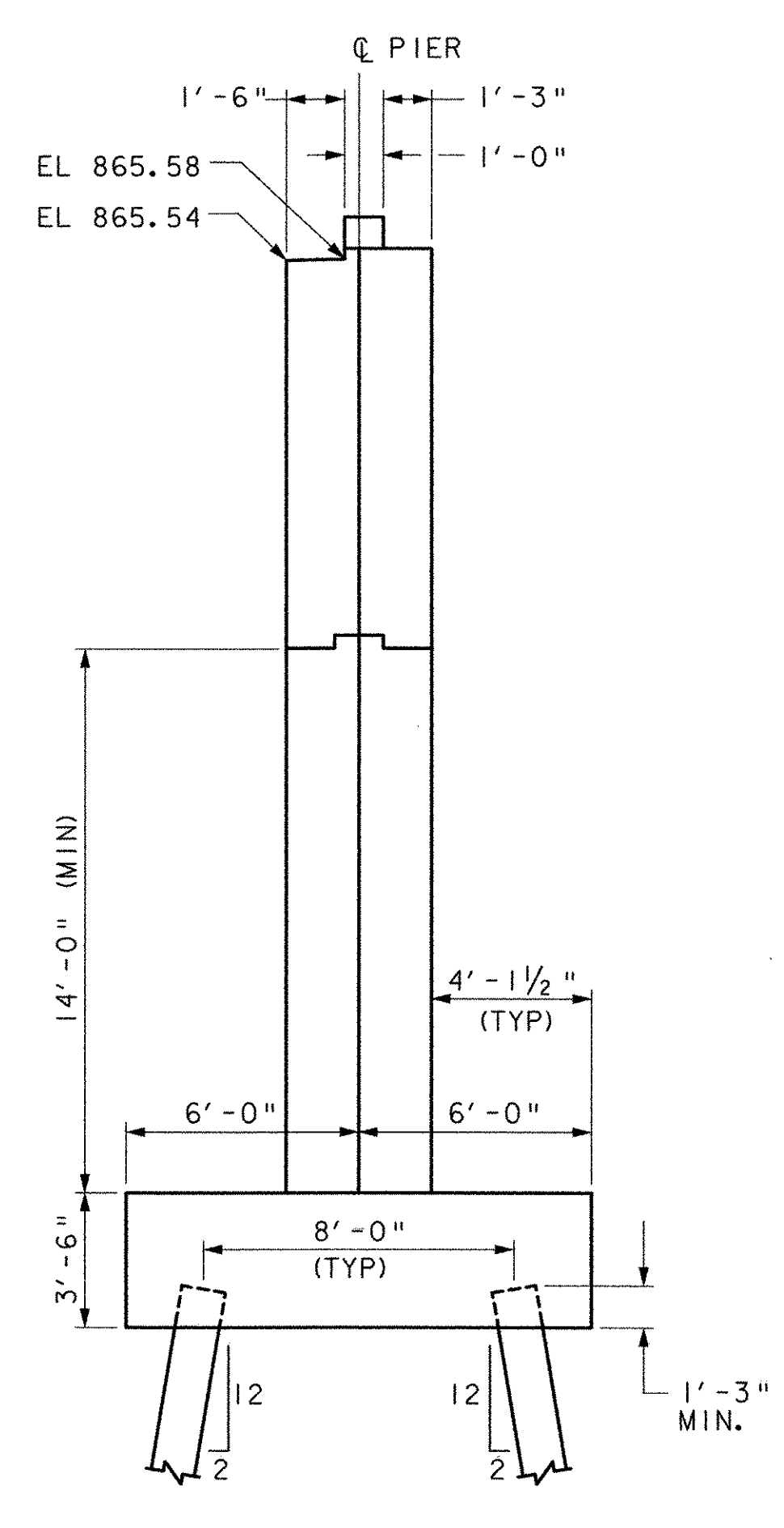


TRUSS FIXED BEARING ANCHOR BOLT SETTING
SCALE: 1 1/2" = 1'-0"

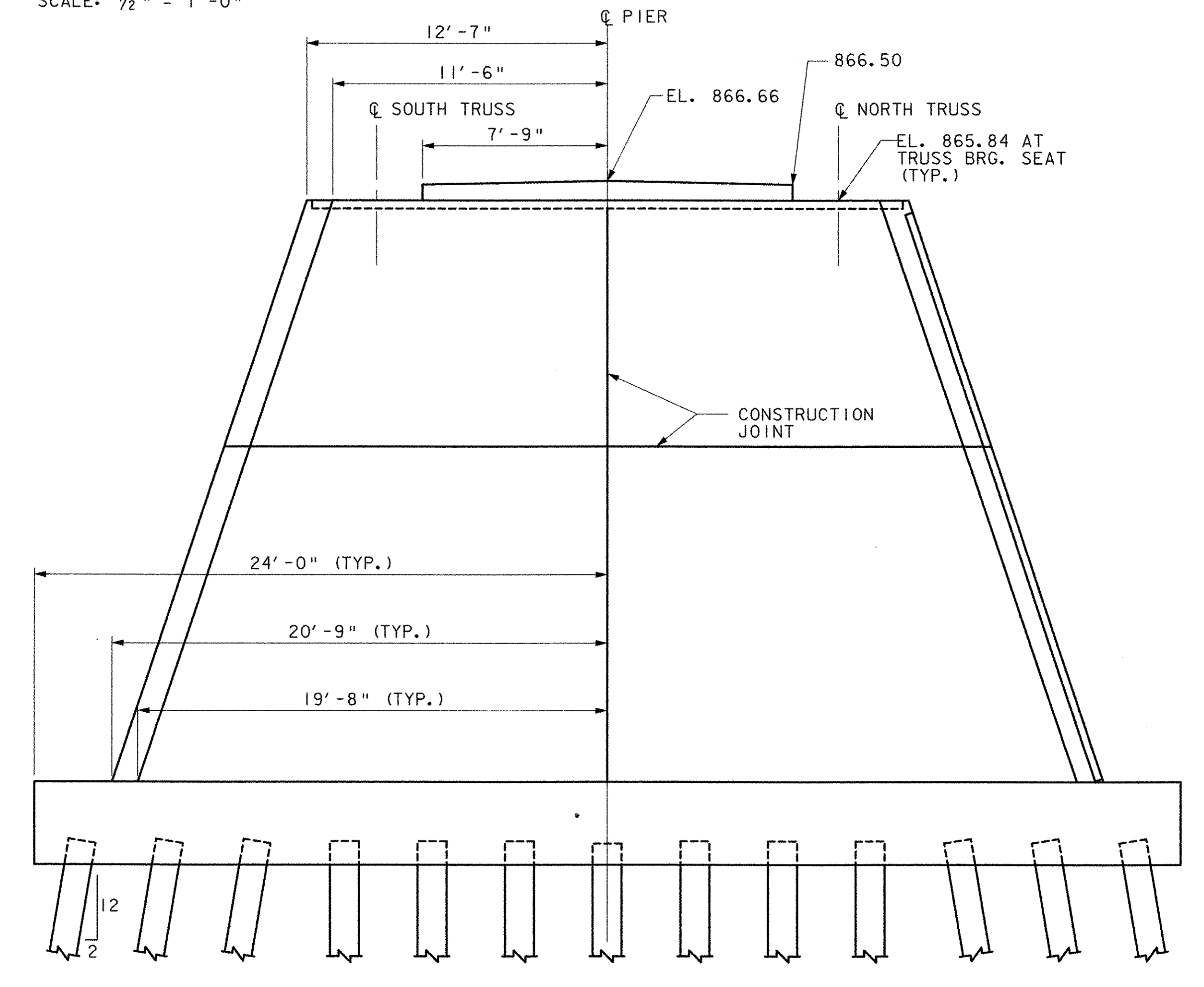
- NOTES:**
- SEE SHT. 54 FOR FIXED JOINT @ PIER DETAIL.
 - FOR CONCRETE NOTES SEE SHTS. 38 & 55.



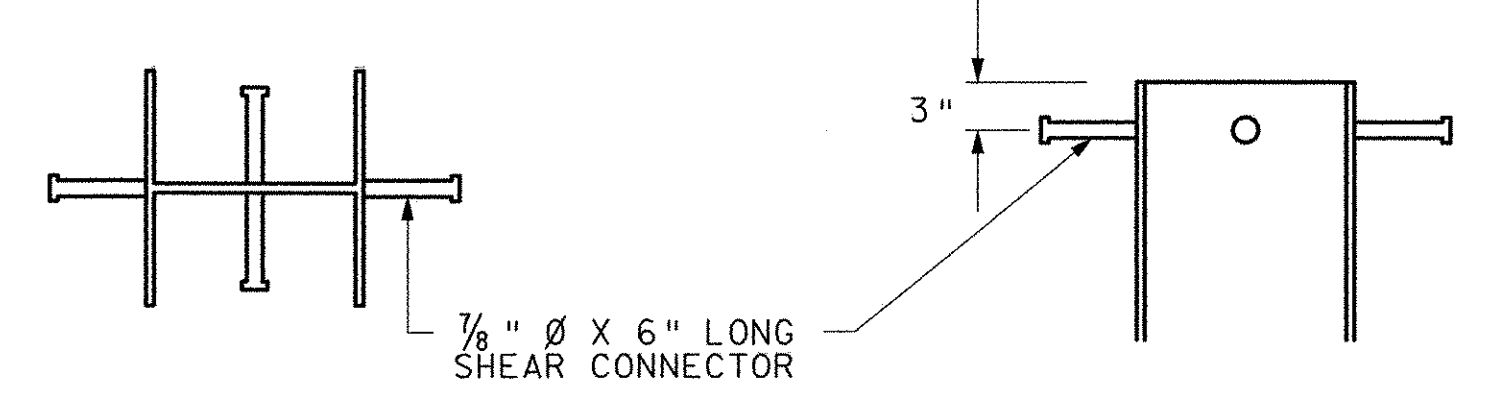
WEST ELEVATION
SCALE: 1/4" = 1'-0"



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



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



SHEAR CONNECTOR AT TOP OF PILE
SCALE: 1" = 1'-0"

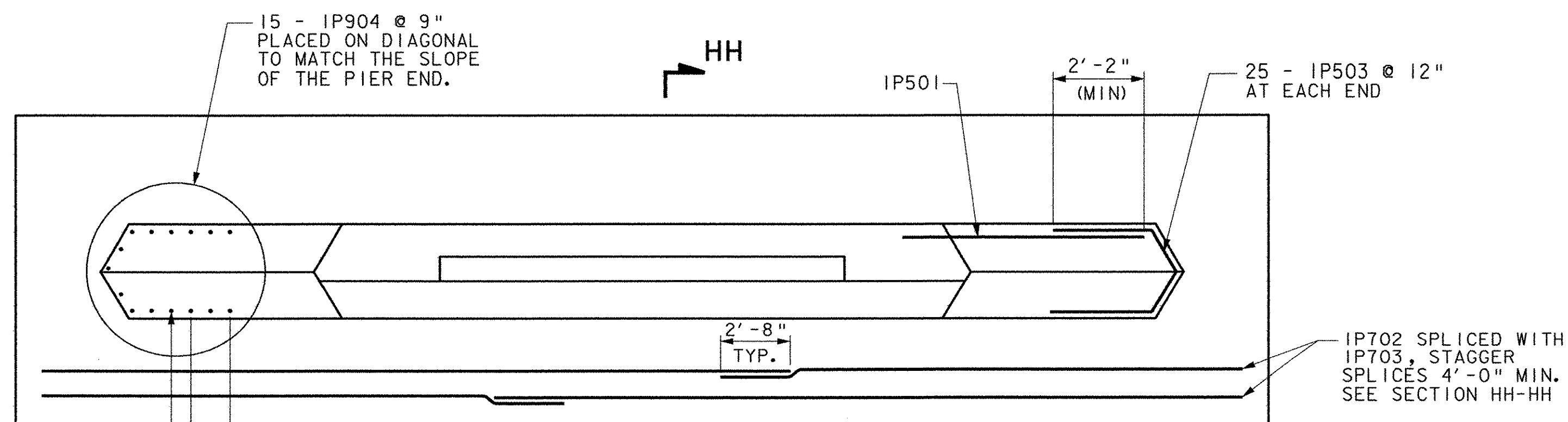
- SHEAR CONNECTOR NOTES:**
- THE SHEAR CONNECTOR SHALL CONFORM TO SECTION 508 OF THE VTRANS STANDARD SPECS.
 - THE SHEAR CONNECTORS SHALL BE PAID FOR UNDER ITEM 508.15 "SHEAR CONNECTOR (68 - 7/8" X 6")". THIS ITEM SHALL INCLUDE ALL WORK, MATERIALS, AND TESTING REQUIREMENTS TO COMPLETE THE INSTALLATION OF ALL SHEAR STUDS.
 - FOR ADDITIONAL PILE INFORMATION SEE SHEET 49.
- 4 SHEAR STUDS, AS SHOWN, AT PILES IN THE TWO ROWS AT EACH END OF THE PIER (24 STUDS)
ALL OTHER PILES 2 SHEAR STUDS, ONE ON EACH SIDE OF THE WEB (44 STUDS)

- PILE NOTES:**
- THE CONTRACTOR SHALL PERFORM A DYNAMIC LOAD TEST ON THE FIRST PILE DRIVEN. THIS TEST SHALL BE IN CONFORMANCE WITH SECTION 505 OF THE VTRANS STANDARD SPECIFICATIONS. THE TEST WILL BE PAID FOR UNDER ITEM NO. 505.45 DYNAMIC PILE LOADING TEST.
 - THE ULTIMATE PILE RESISTANCE IS 200 KIPS.
 - TOP OF PILE EL. 839
 - APPROXIMATE TOP OF ROCK EL. 786.0
 - FOR SPLICE DETAIL SEE SHT. 49.

STATE OF VERMONT AGENCY OF TRANSPORTATION		
Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No. 1
Highway No.	MAIDSTONE STATE HWY	Log Sta. Surv. Sta.
PIER DETAILS		
Designed By	J. MESSIER	Drawn By C. DONOHUE
Checked By	Date	Bridge Design Supervisor
D.B. SULLIVAN	08/01/03	Date
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO. BHO 1447 (24)
I.G.C. Info.		
Bridge Sheet No.		Sheet 58 of 65



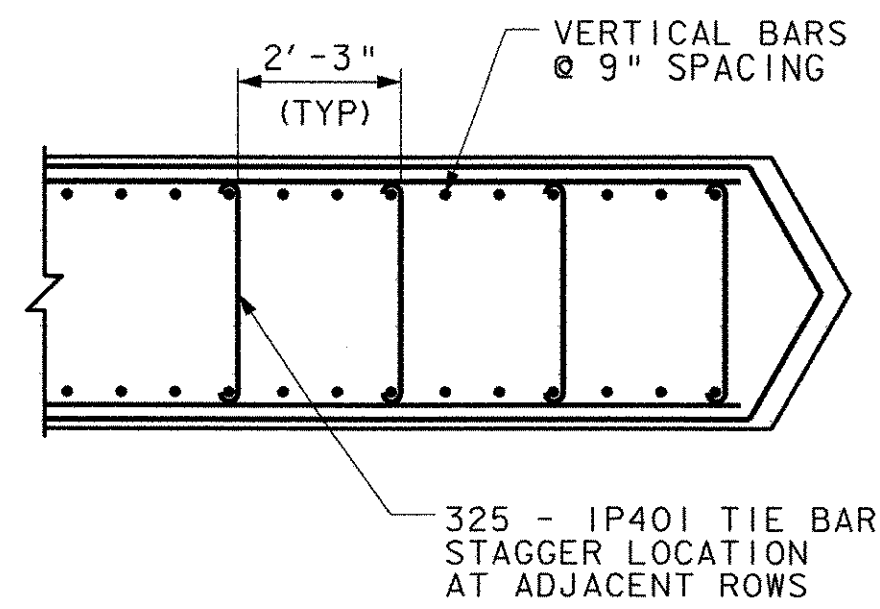
12 AUG 2003 12:20:17Acadd\gdn\zse054pr.dgn



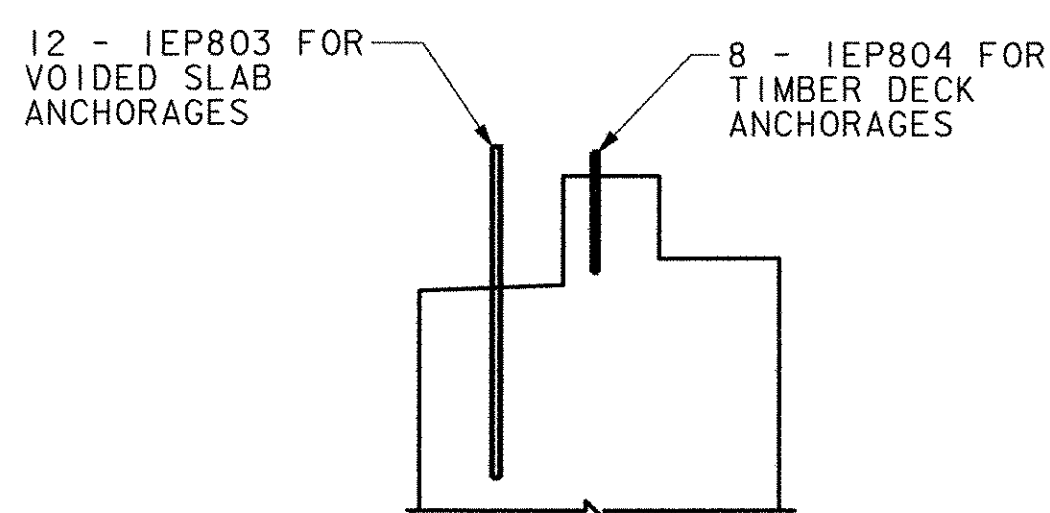
TERMINATE 1 - IP802 EF SPLICE THE REMAINING WITH 7 - IP601 SPLICE LENGTH 2'-7" MIN.

TERMINATE 3 - IP904 EF SPLICE THE REMAINING WITH 9 - IP802 SPLICE LENGTH 4'-7" MIN.

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

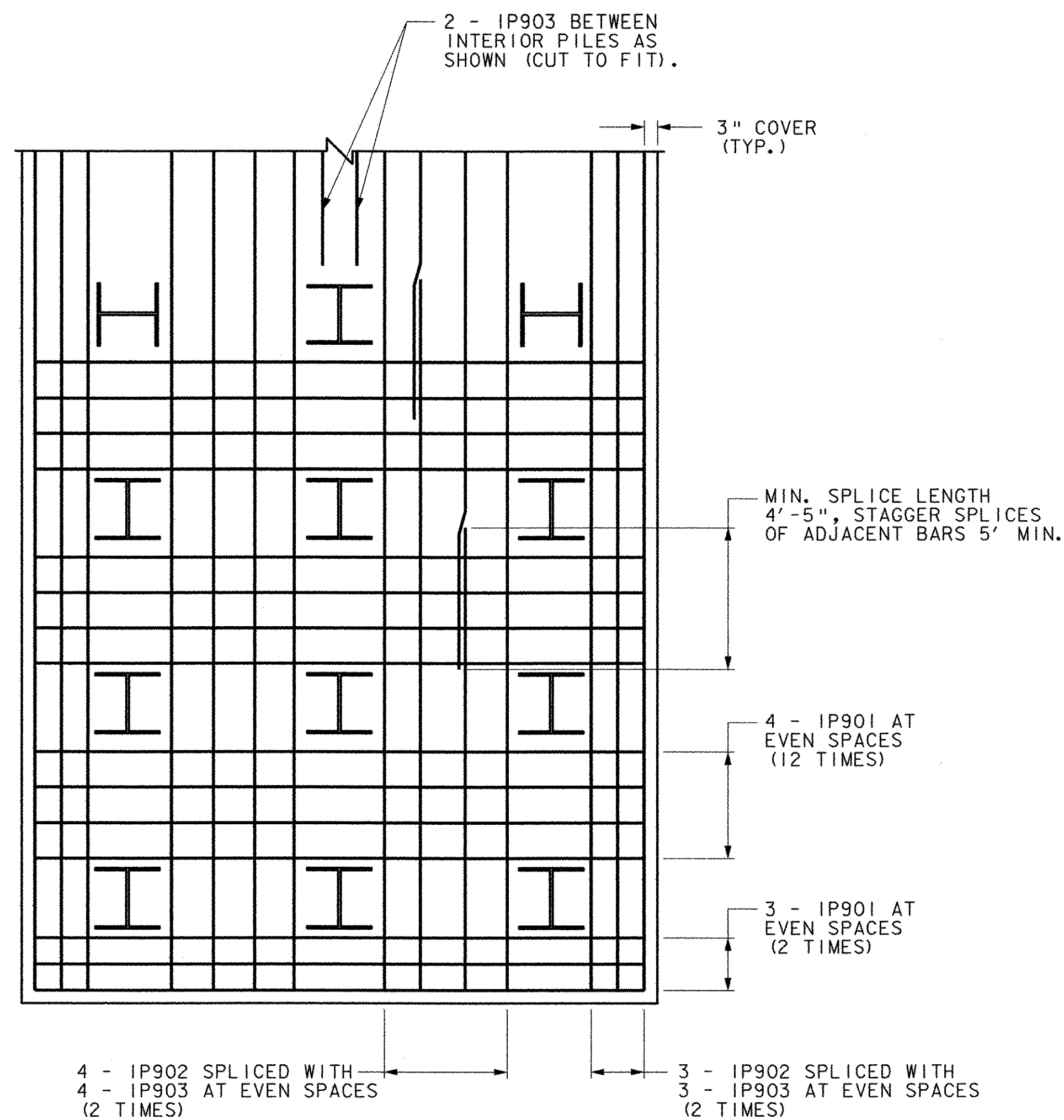


DETAIL T
SCALE: 1/2" = 1'-0"

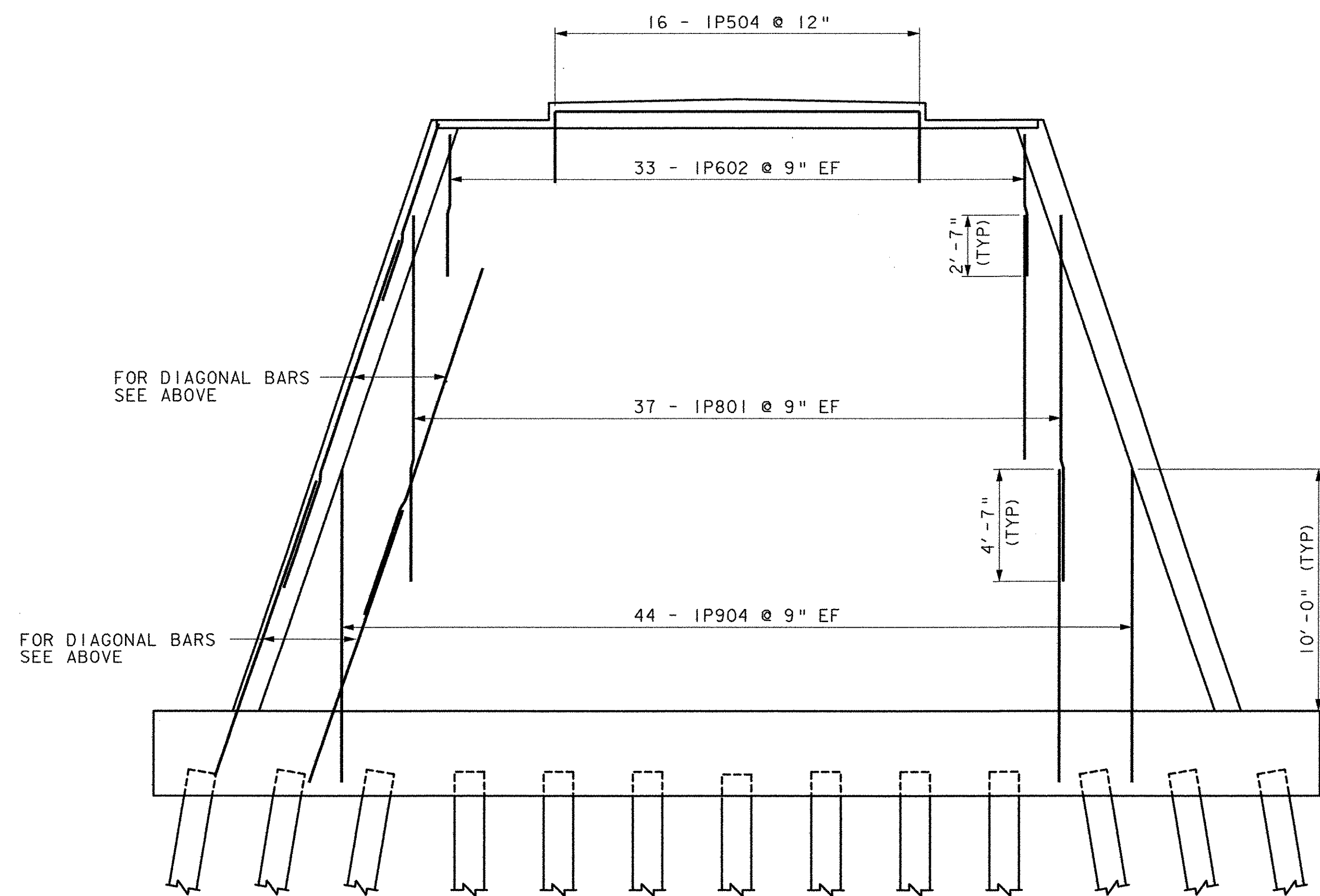


REBAR FOR ANCHORAGES
SCALE: 1/2" = 1'-0"

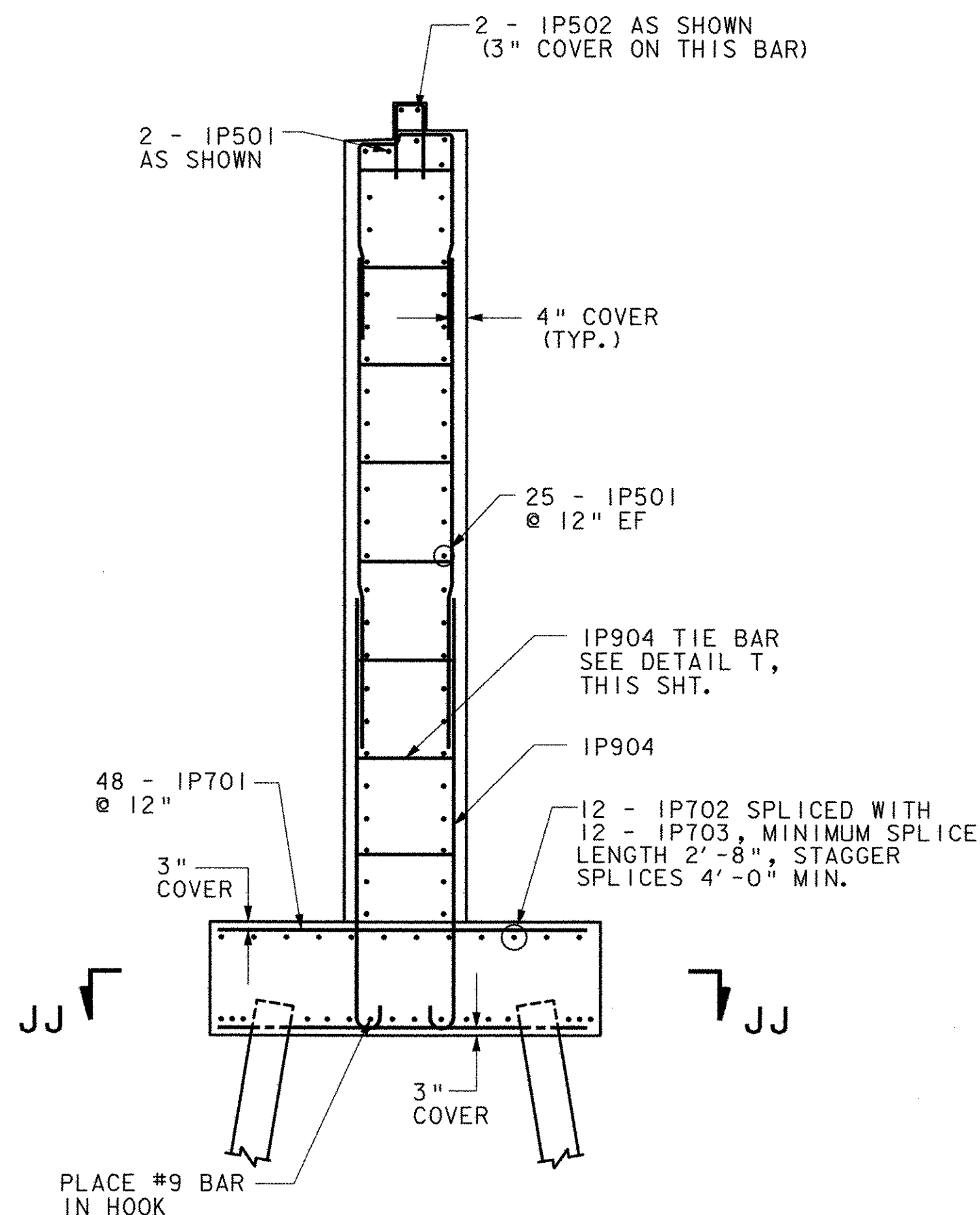
NOTES:
EF = EACH FACE
FF = FAR FACE
NF = NEAR FACE
BF = BACK FACE



SECTION JJ-JJ
BOTTOM MAT REINFORCING STEEL
SCALE: 1/2" = 1'-0"



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



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

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of	MAIDSTONE, VT STRATFORD, NH	Bridge No. 1
Highway No.	MAIDSTONE STATE HWY	Log Sta. Surv. Sta.

PIER REINFORCING DETAILS

Designed By	J. MESSIER	Drawn By	C. DONOHUE
Checked By	Date	Bridge Design Supervisor	Date
	D. B. SULLIVAN		08/01/03

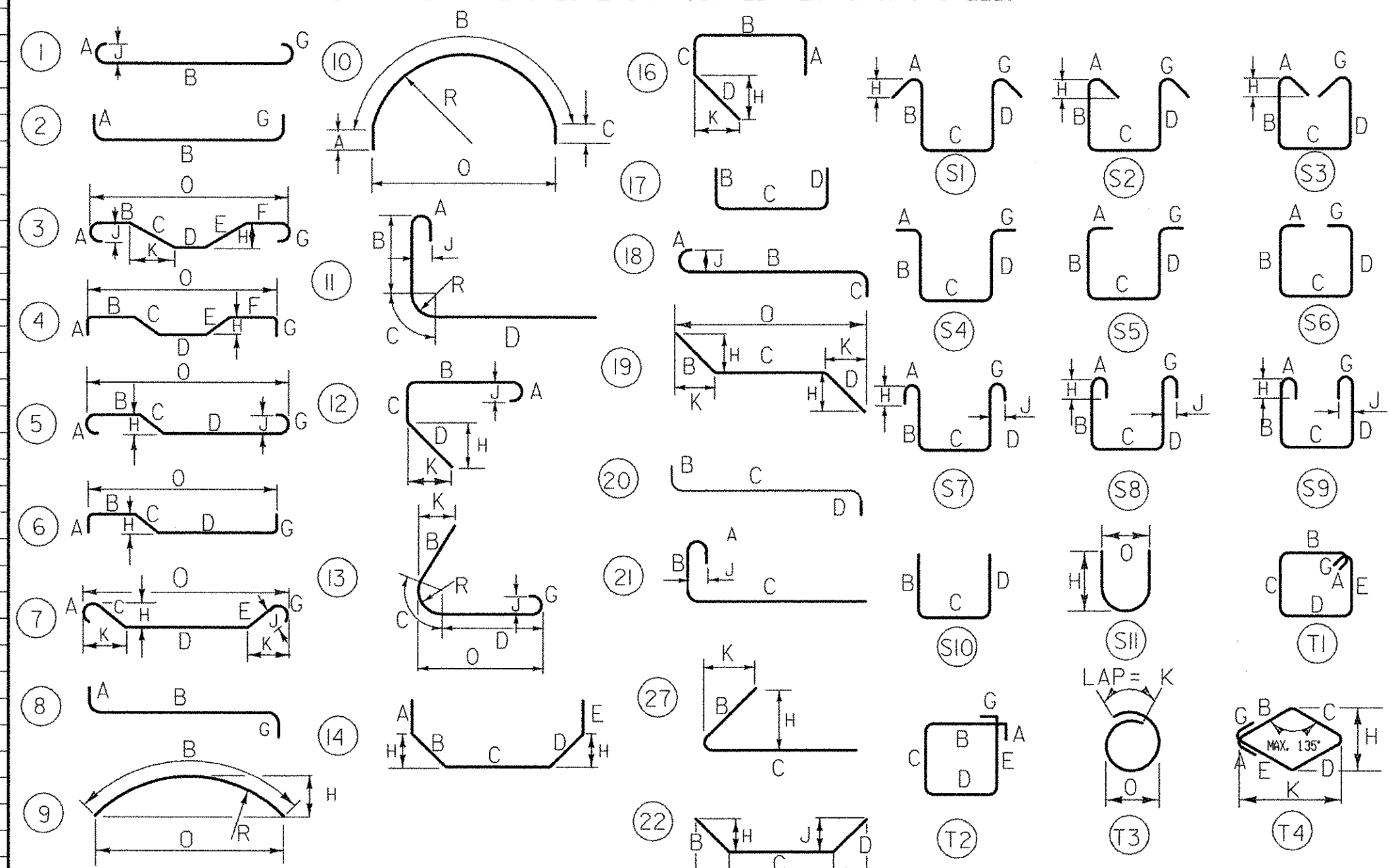
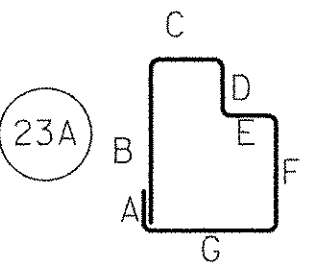
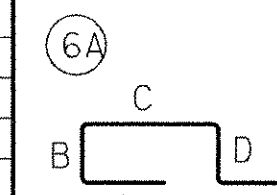
PROJECT	MAIDSTONE-STRATFORD	PROJECT NO.	BHO 1447 (24)
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I.G.C. Info.	Bridge Sheet No.	Sheet 59 of 65
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ITEM NO.	PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O	ITEM NO.	PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
APPROACH SLAB NO. 1																		WINGWALL NO. 3																	
17	5	14-0	1EAS501															19	5	11-4	3W501														
29	6	15-7	1EAS601	I	I-1	14-6												32	5	10-6	3W502														
APPROACH SLAB NO. 2																		WINGWALL NO. 4																	
17	5	14-0	2EAS501															12	5	12-1	3W506	I	I-1	11-0											
29	6	15-7	2EAS601	I	I-1	14-6												10	5	6-0	3W507	2	2-3	1-6				2-3							
ABUTMENT NO. 1																		WINGWALL NO. 4																	
14	5	30-3	1A501															12	8	10-7	3W802	I	I-1	9-6											
9	8	4-0	1EA801															12	8	7-9	3W803	I	I-1	6-8											
12	8	3-6	1EA802															WINGWALL NO. 4																	
4	5	8-0	1A502	22▲		2-5	5-7						1-1 1/4		2-2 1/4			19	5	11-4	4W501														
4	5	7-9	1A503	22▲		2-5	5-4						0-9		2-3			32	5	10-6	4W502														
4	5	7-6	1A504	22▲		2-5	5-1						0-5		2-4			12	5	16-1	4W503▲														
SPAN 1 OVERLAY AND CURB																		PIER NO. 1																	
18	5	12-9	1A505	23A	2-0	5-11	1-1 1/2	0-6	1-0	5-6	2-1 1/2							54	5	39-4	1P501▲														
4	5	10-5 1/2	1A506	2	4-11	0-7 1/2												2	5	14-6	1P502														
14	5	11-3 1/2	1A507	2	4-7	2-1 1/2												8	6	6-1	1P601														
14	5	13-1 1/2	1A508	2▲	5-6	2-1 1/2												50	7	11-6	1P701														
ABUTMENT NO. 2																		PIER NO. 1																	
27	5	41-0	ES501															12	7	30-0	1P702														
42	5	17-6	ES502															12	7	20-2	1P703														
168	5	5-7	ES503	6A	1-6	0-7 1/2	1-5	0-7 1/2	1-6									76	8	15-0	1P801														
ABUTMENT NO. 2																		PIER NO. 1																	
40	5	12-6	2A501															9	8	16-8	1P802														
22	5	27-4	2A502															12	8	3-6	1EP803														
37	5	23-0	2A503															8	8	1-3	1EP804														
2	5	7-8	2A504															56	9	11-6	1P901														
5	5	24-10	2A505	▲														20	9	21-11	1P902														
5	5	24-10	2A506															22	9	30-0	1P903														
24	5	16-1	2A507	▲														325	4	4-1	1P401	2	0-6	3-1				0-6							
24	5	12-10	2A508															50	5	8-2	1P503	14	2-2	1-11	0-0	1-11	2-2								
188	8	9-6	2A801															15	5	7-6	1P504	2	3-6	0-6				3-6							
24	8	9-4	2A802															118	9	14-4	1P904	I	I-1	13-3											
ABUTMENT NO. 2																		PIER NO. 1																	
24	5	12-1	2A509	I	I-1	11-0												PIER NO. 1																	
24	5	6-0	2A510	2	2-3	1-6												PIER NO. 1																	
16	5	6-8	2A511	23	2-9	0-6	0-4	0-4	2-9				2-3					PIER NO. 1																	
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40	5	4-6	2A513	22		2-3												PIER NO. 1																	
80	5	9-0	2A514	22		4-6												PIER NO. 1																	
4	5	9-8	2A515	2	2-0	7-8	0-0											PIER NO. 1																	
17	6	10-1	2A601	16	0-6	4-0	1-9	3-10					2-8		2-8		PIER NO. 1																		
10	6	10-1	2A602	16	0-6	3-0	3-0	2-10					2-0		2-0		PIER NO. 1																		
ABUTMENT NO. 2																		PIER NO. 1																	
25	8	10-7	2A803	I	I-1	9-6												PIER NO. 1																	
22	8	7-9	2A804	I	I-1	6-8												PIER NO. 1																	
8	8	2-0	2EA805	22		1-6	0-6											PIER NO. 1																	

~ NOTES ~

- UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M 31 (ASTM A 615-S1). ALL BARS SHALL BE GRADE 60, UNLESS OTHERWISE DESIGNATED.
- 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" IN PREFIX DENOTES EPOXY COATED REINFORCING STEEL.



BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09



STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of MAIDSTONE, VT STRATFORD, NH Bridge No. 1
 Highway No. MAIDSTONE STATE HWY Log Sta. _____
 Date 08/01/03 Bridge Design Supervisor _____

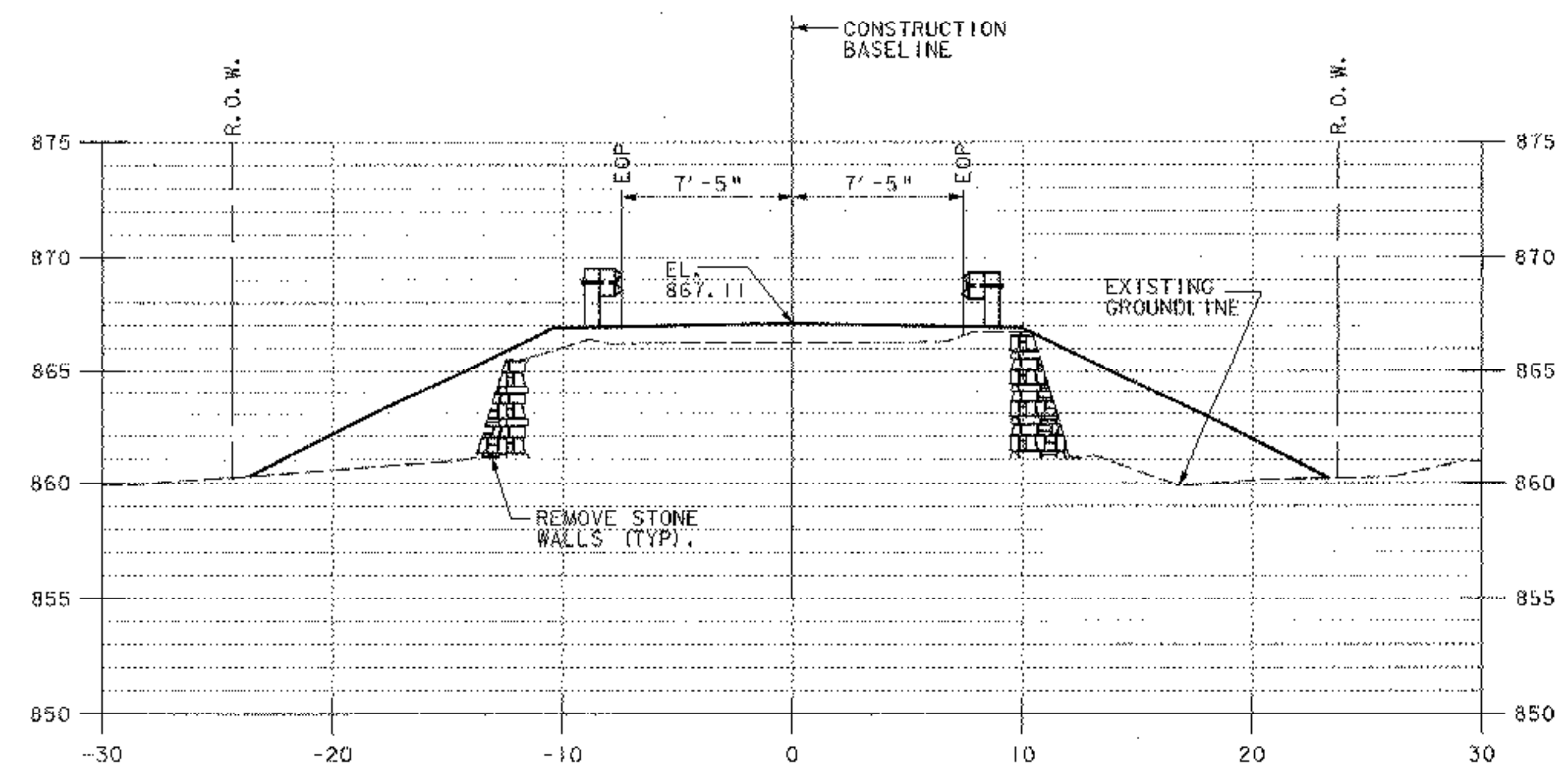
REINFORCING STEEL SCHEDULE

Designed By J. MESSIER Drawn By C. DONOHUE
 Checked By D.B. SULLIVAN Date 08/01/03 Bridge Design Supervisor _____

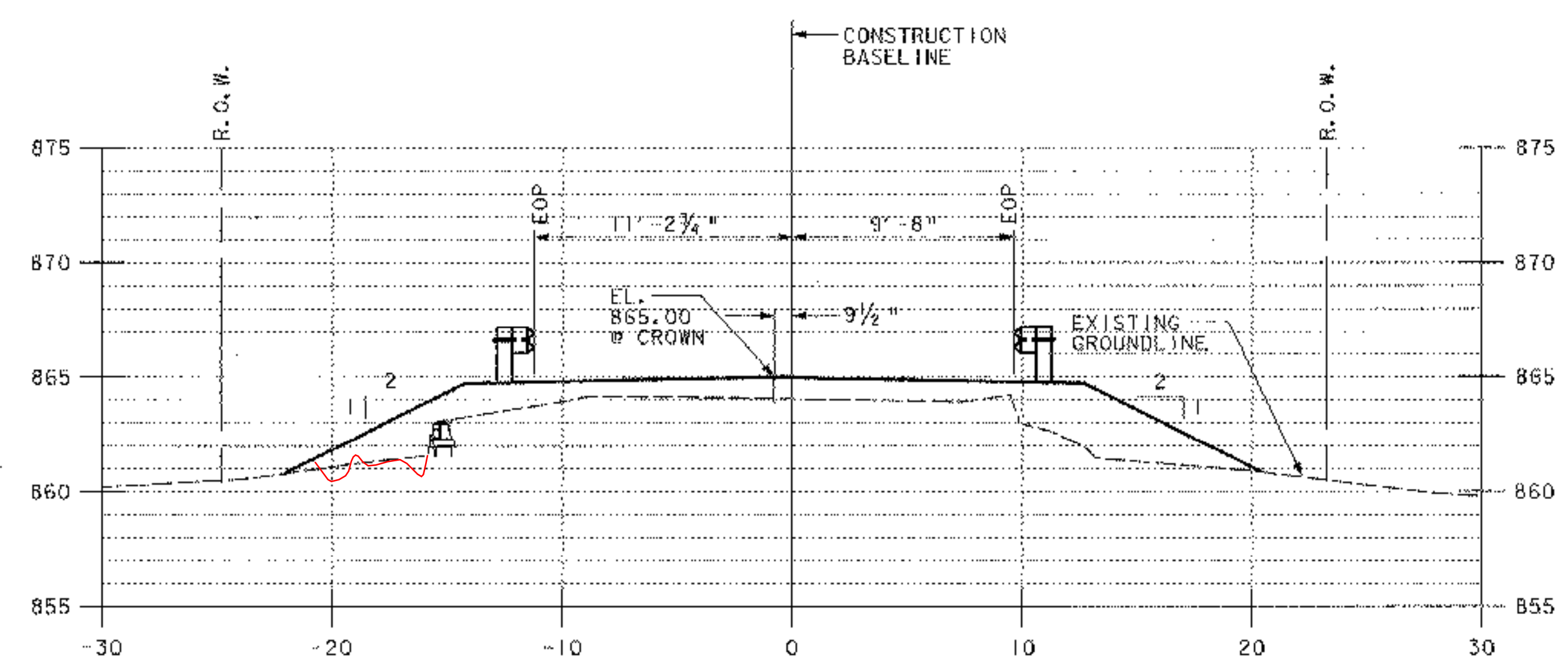
PROJECT MAIDSTONE-STRATFORD PROJECT NO. BHO 1447 (24)
 I.G.C. Info. _____

Bridge Sheet No. _____ Sheet 60 of 65

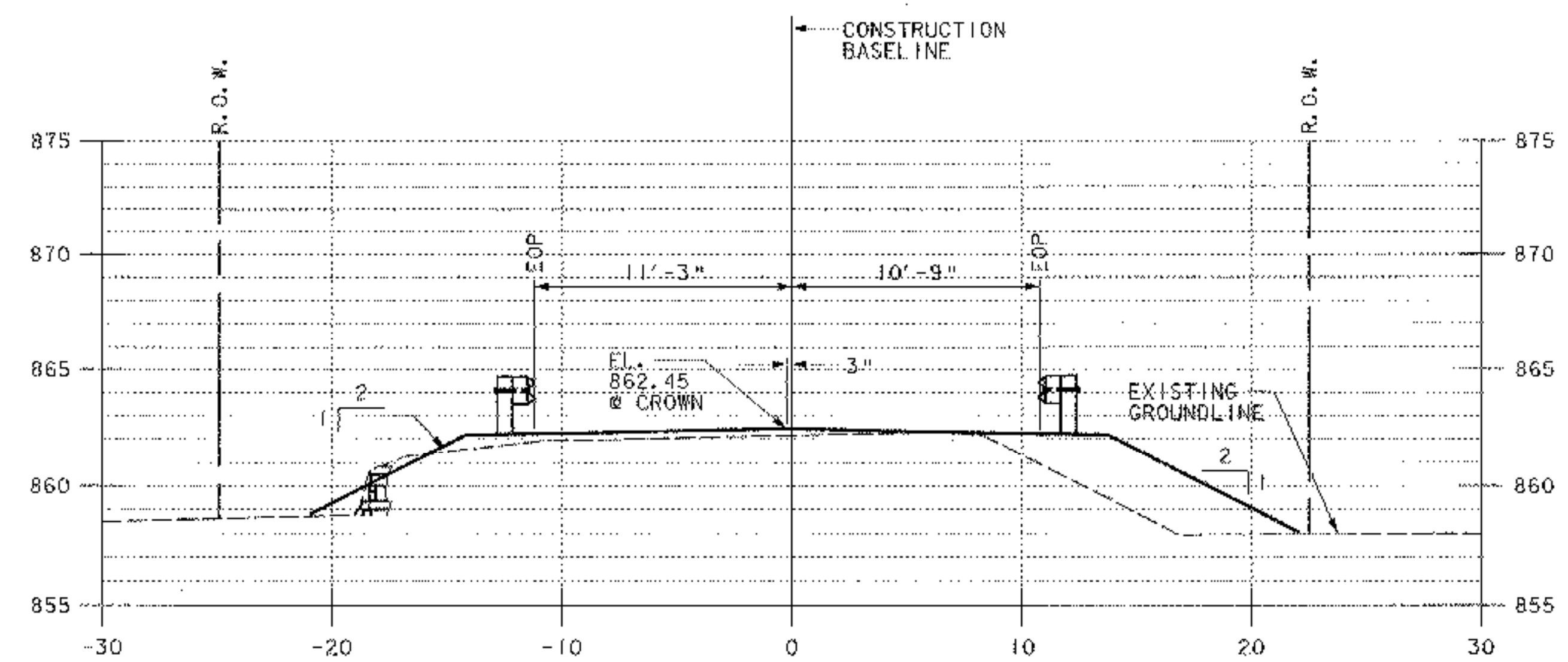
12 AUG 2003 p:\2077\cccd\qgn\ze054r-sf.dgn



STA. 101+00

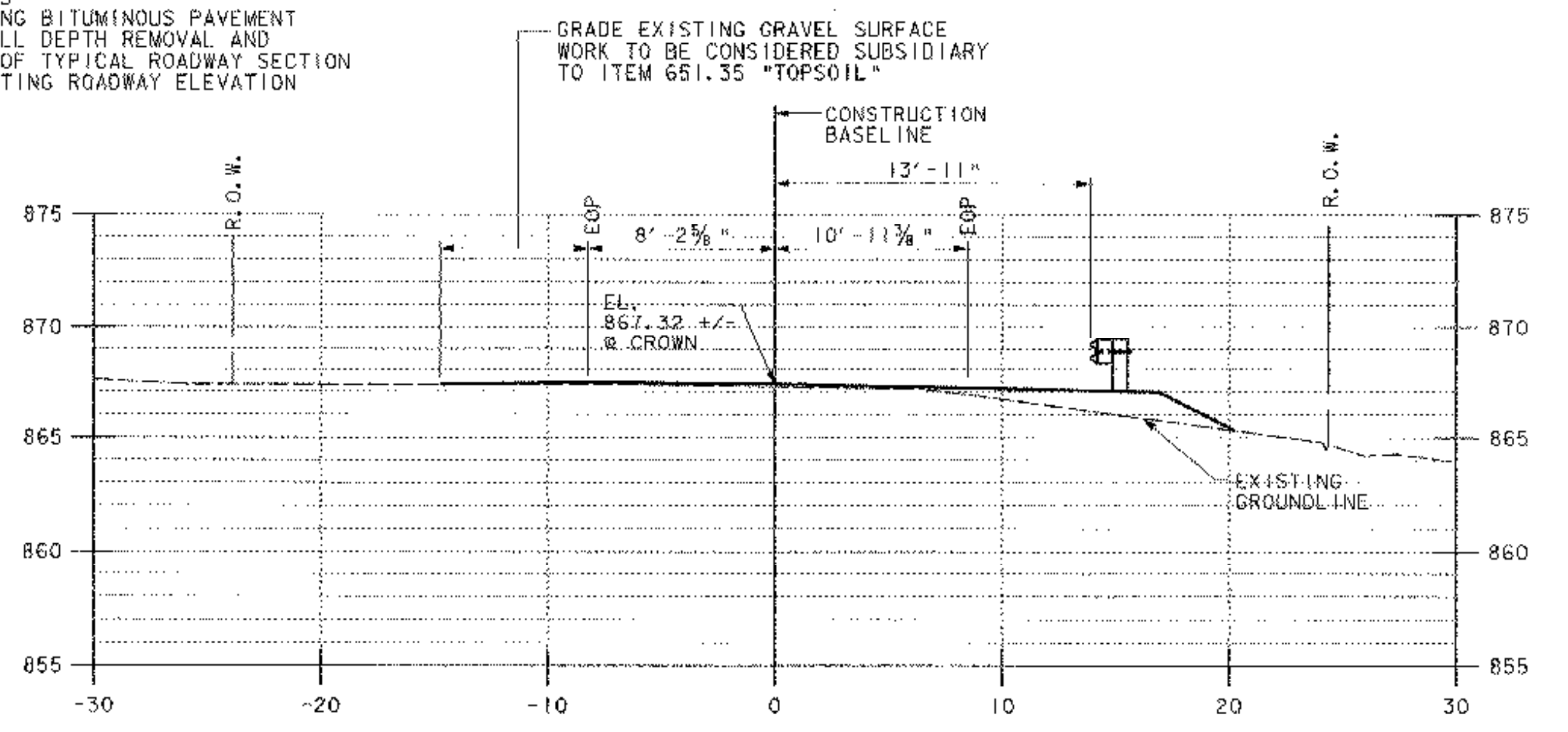


STA. 100+50

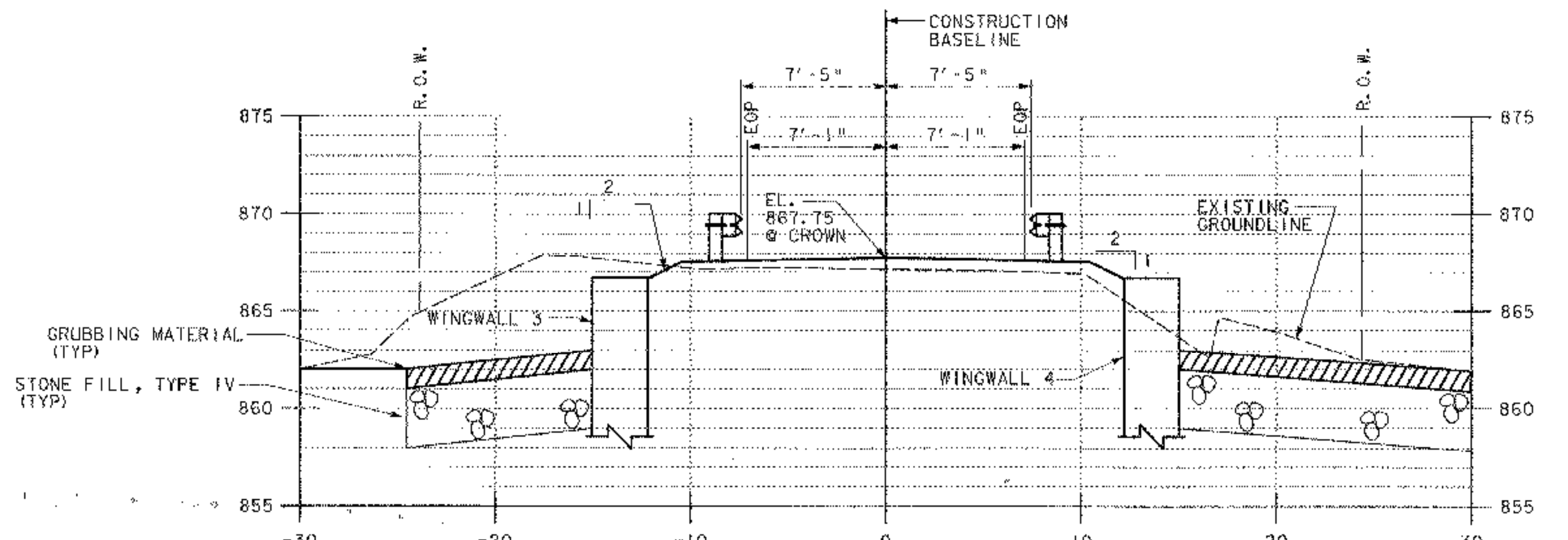


STA. 100+00

STA. 103+75
 CUT EXISTING BITUMINOUS PAVEMENT
 AND END FULL DEPTH REMOVAL AND
 PLACEMENT OF TYPICAL ROADWAY SECTION
 MATCH EXISTING ROADWAY ELEVATION
 AND WIDTH.



STA. 103+50



STA. 103+00

NOTE:
 ASSUMED 3-ROD RIGHT-OF-WAY.

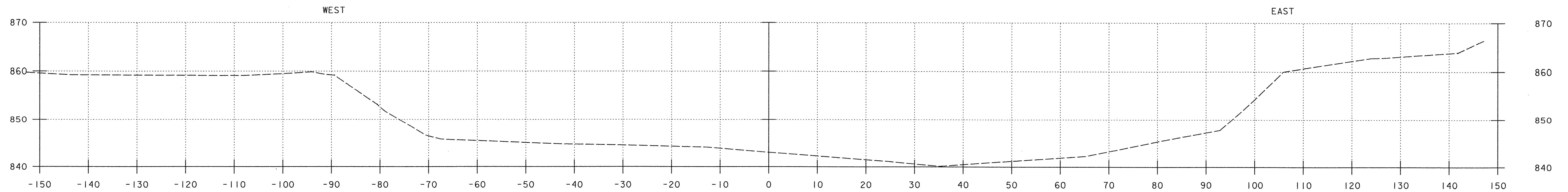
STA. 98+70 TO STA. 99+75 USE OVERLAY TYPICAL SECTION AS SHOWN ON SHEET 6 OF 65, TO BE INCLUDED IN BRIDGE QUANTITIES.
 AT STA. 99+75 BEGIN FULL DEPTH REPLACEMENT AS SHOWN IN TYPICAL APPROACH SECTION ON SHEET 22 OF 65.



5
0
5

SCALE 1" = 5'

X-Section Sheet	
PREPARED BY J. MESSIER DATE 8/03	CHECKED BY D.B. SULLIVAN DATE 8/03
DESIGN SUPERVISOR _____ DATE _____	
PROJ. MAIDSTONE-STRATFORD	
TRAFFIC SHEET NO. _____ OF _____	
SHEET 61 OF 65 SHEETS	

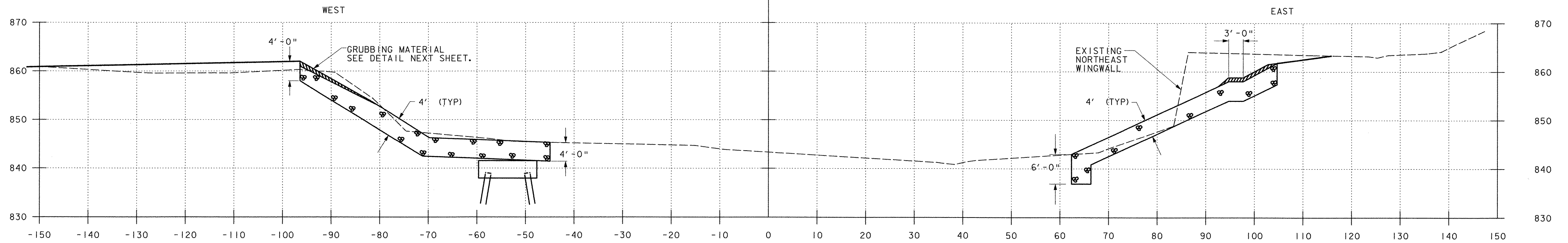


0+40.00 NORTH

ABUTMENT 1
CHANNEL STA 0+23 N
BEGIN STONE FILL TYPE IV
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
BEGIN GRUBBING MATERIAL
BEGIN GEOTEXTILE UNDER STONE FILL

PIER
CHANNEL STA 0+20 N
BEGIN STONE FILL TYPE IV
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
BEGIN GRUBBING MATERIAL
BEGIN GEOTEXTILE UNDER STONE FILL

ABUTMENT 2
CHANNEL STA 0+34 N
BEGIN STONE FILL TYPE IV
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
BEGIN GRUBBING MATERIAL
BEGIN GEOTEXTILE UNDER STONE FILL



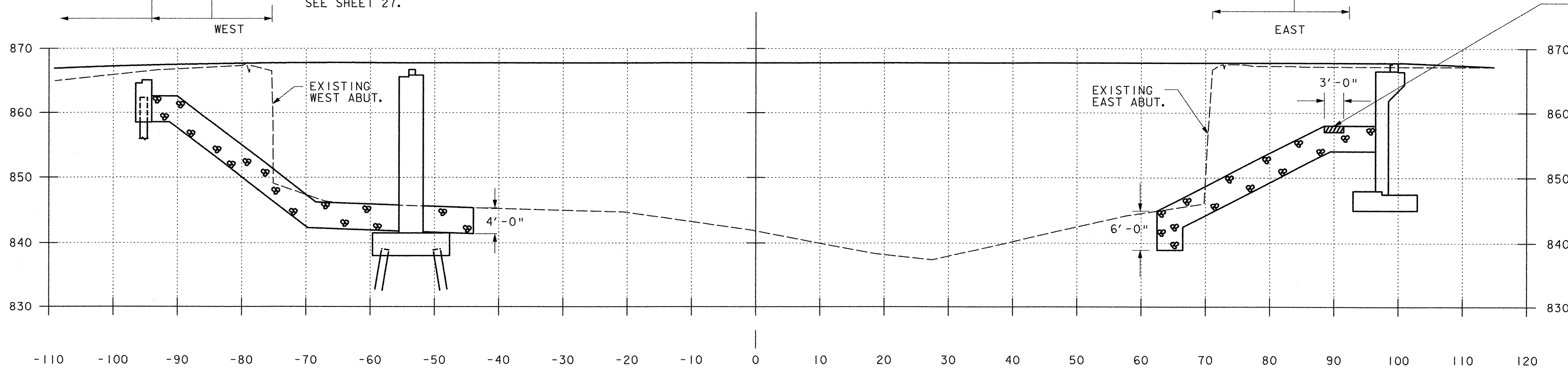
0+20.00 NORTH

REMOVAL OF STONE WINGWALLS PAID UNDER ITEM 203.15 "COMMON EXCAVATION" SEE SHEET 27.

REMOVE STONES AND GRANULAR MATERIAL FOR EXISTING ABUTMENT AND WINGWALLS AS NECESSARY TO THE BOTTOM OF STONE FILL. TO BE PAID AS ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE (MODIFIED, EXISTING ABUTMENTS)" SEE SHEET 27.

REMOVE STONES AND GRANULAR MATERIAL FOR EXISTING ABUTMENT AND WINGWALLS AS NECESSARY TO THE BOTTOM OF STONE FILL. TO BE PAID AS ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE (MODIFIED, EXISTING ABUTMENTS)" SEE SHEET 27.

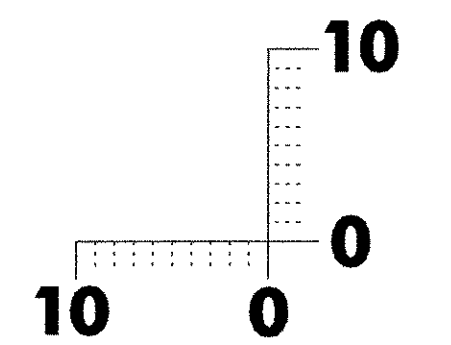
"CRITTER CROSSING" (TYP) PREPARE A LEVEL AREA AND PLACE GRUBBING MATERIAL AT APPROXIMATE ELEVATION 858' FOR THE FULL LENGTH OF THE STONE FILL. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO ITEM 613.13 STONE FILL, TYPE IV.



STATION 102+00
ALONG BASELINE



CHANNEL CROSS SECTIONS I



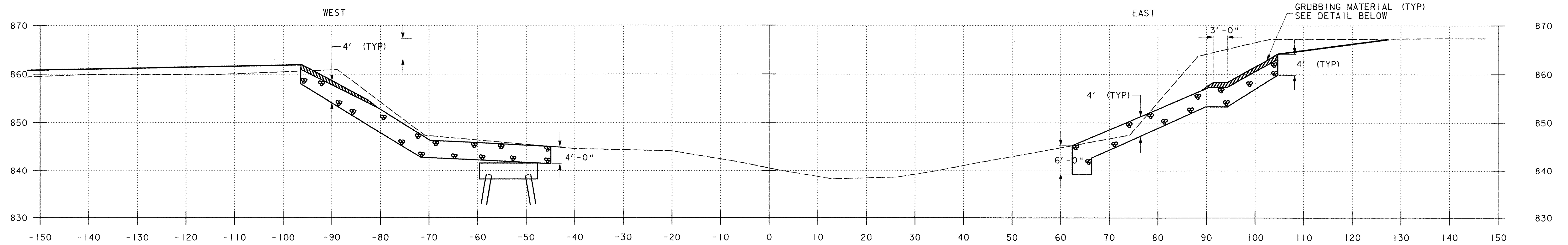
SCALE 1" = 10'

X-Section Sheet

CHANNEL CROSS SECTION I

PREPARED BY J. MESSIER DATE 8/03
CHECKED BY D.B. SULLIVAN DATE 8/03
DESIGN SUPERVISOR DATE
PROJ. MAIDSTONE-STRATFORD
TRAFFIC SHEET NO. OF
SHEET 62 OF 65 SHEETS

12 AUG 2003 P:\2071\cadd\gdn\ze054xcl.dgn

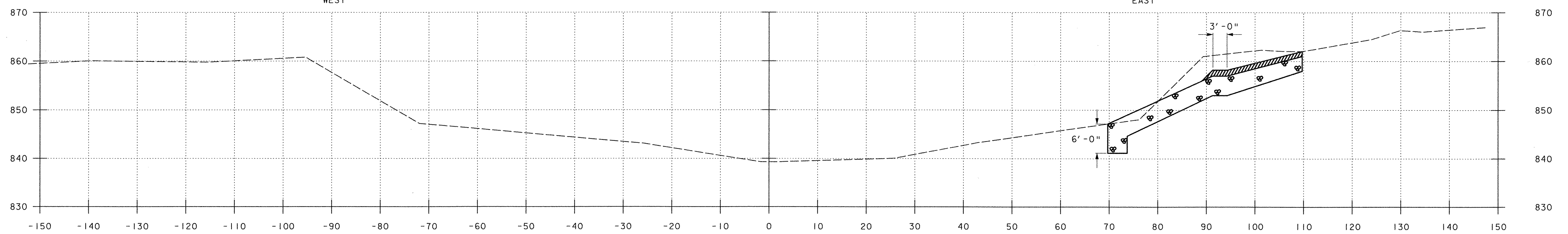


ABUTMENT 1
CHANNEL STA 0+23 S
END STONE FILL TYPE IV
END UNCLASSIFIED CHANNEL EXCAVATION
END GRUBBING MATERIAL
END GEOTEXTILE UNDER STONE FILL

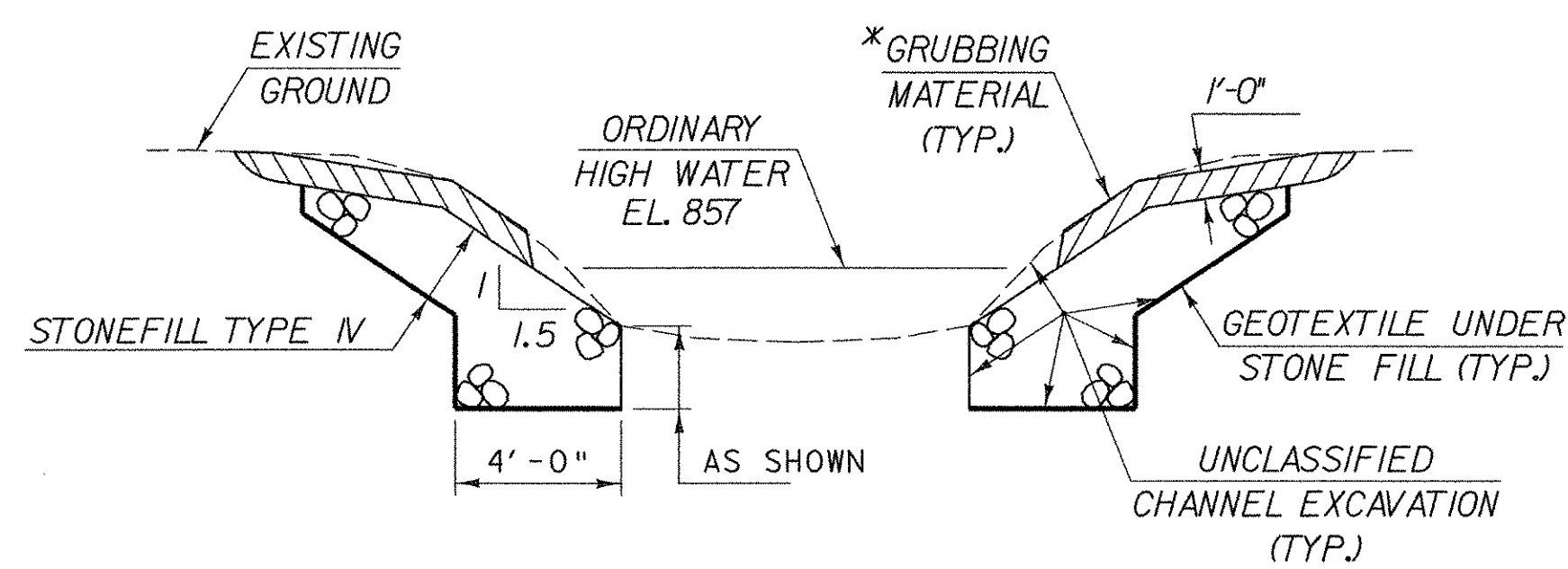
PIER
CHANNEL STA 0+20 S
END STONE FILL TYPE IV
END UNCLASSIFIED CHANNEL EXCAVATION
END GRUBBING MATERIAL
END GEOTEXTILE UNDER STONE FILL

0+20.00 SOUTH

ABUTMENT 2
CHANNEL STA 0+40 S
END STONE FILL TYPE IV
END UNCLASSIFIED CHANNEL EXCAVATION
END GRUBBING MATERIAL
END GEOTEXTILE UNDER STONE FILL



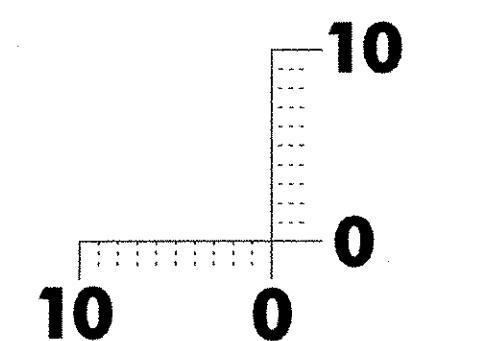
0+40.00 SOUTH



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.

CHANNEL CROSS SECTIONS 2



X-Section Sheet

CHANNEL CROSS SECTION 2

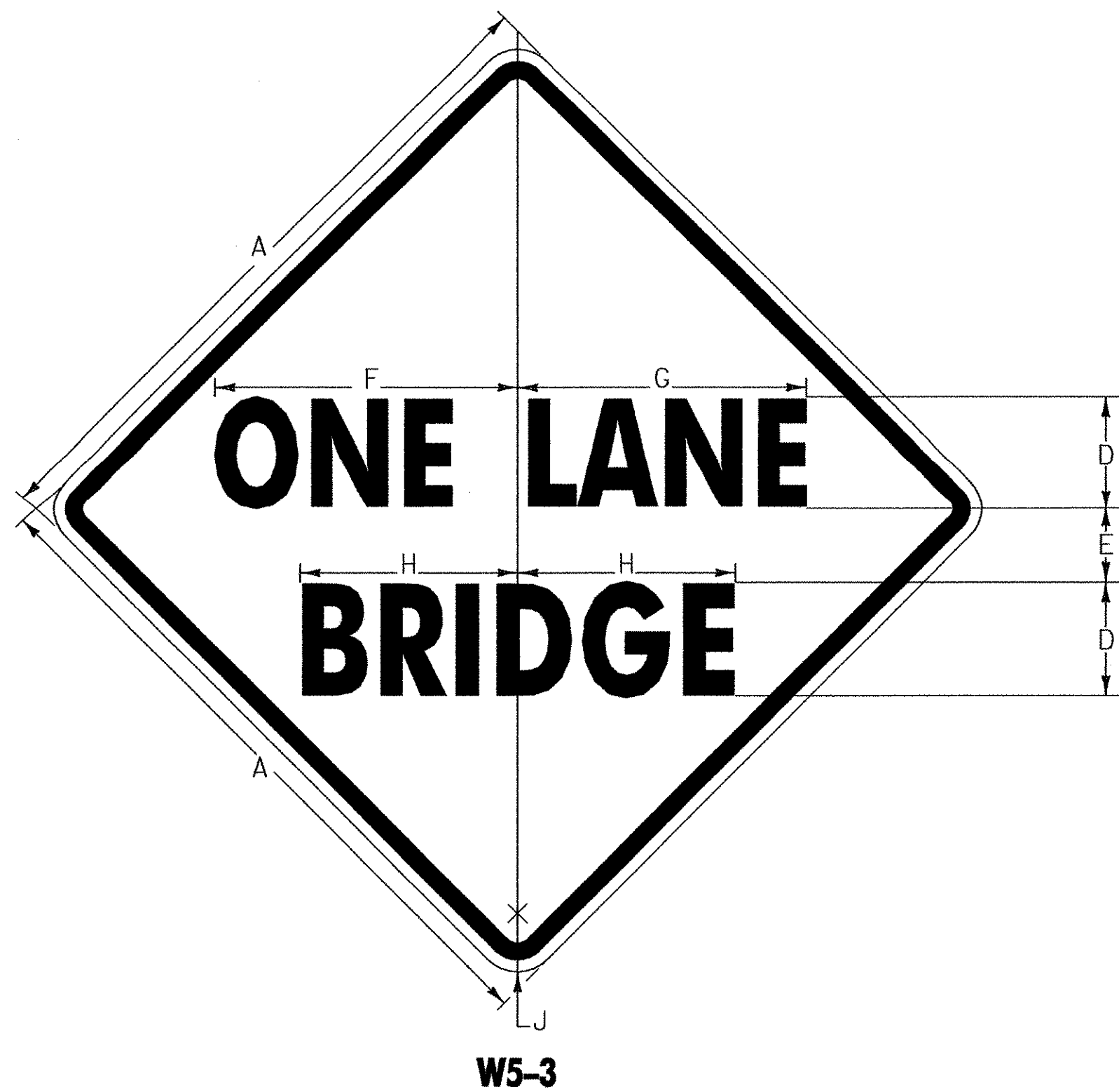
PREPARED BY J. MESSIER DATE 8/03
CHECKED BY D.B. SULLIVAN DATE 8/03
DESIGN SUPERVISOR _____ DATE _____
PROJ. _____

MAIDSTONE-STRATFORD

TRAFFIC SHEET NO. _____ OF _____
SHEET 63 OF 65 SHEETS

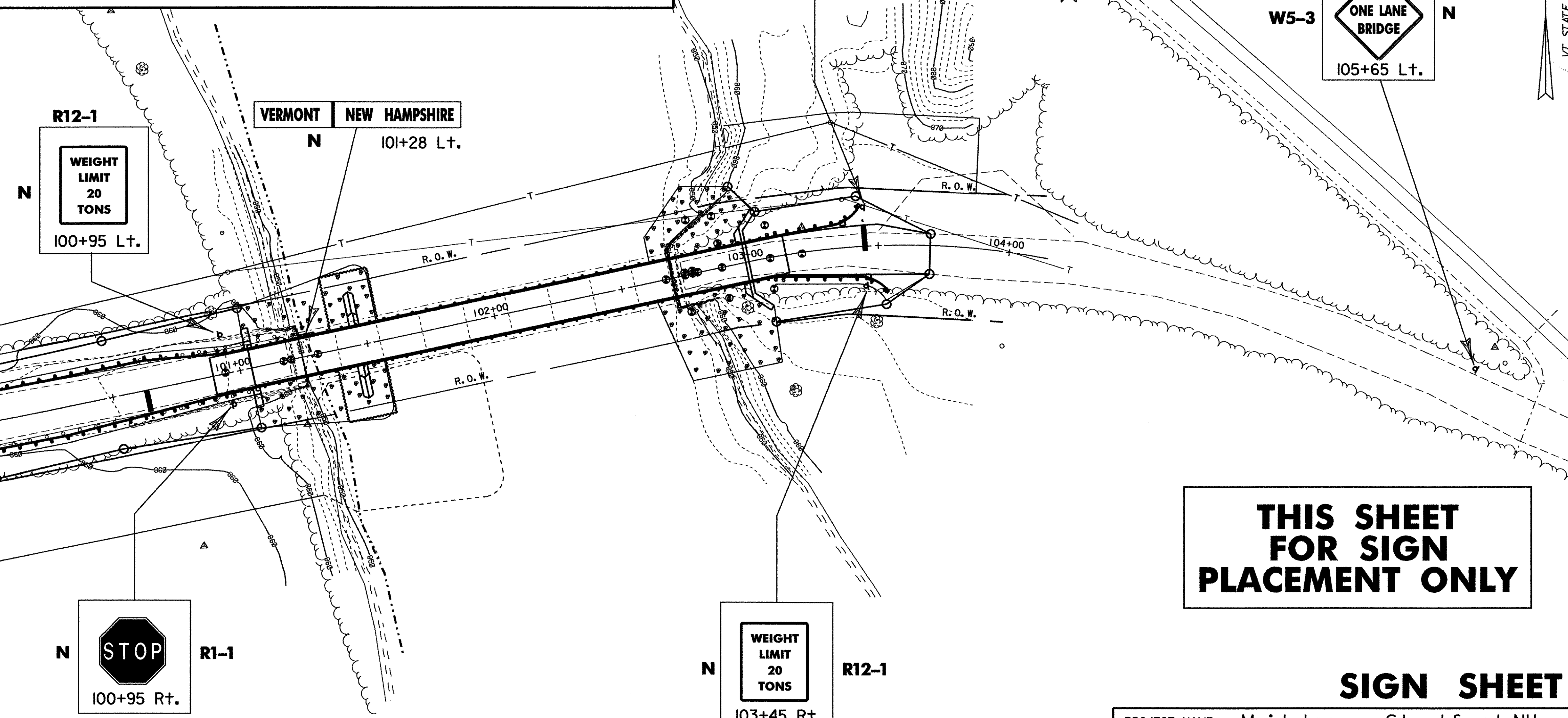
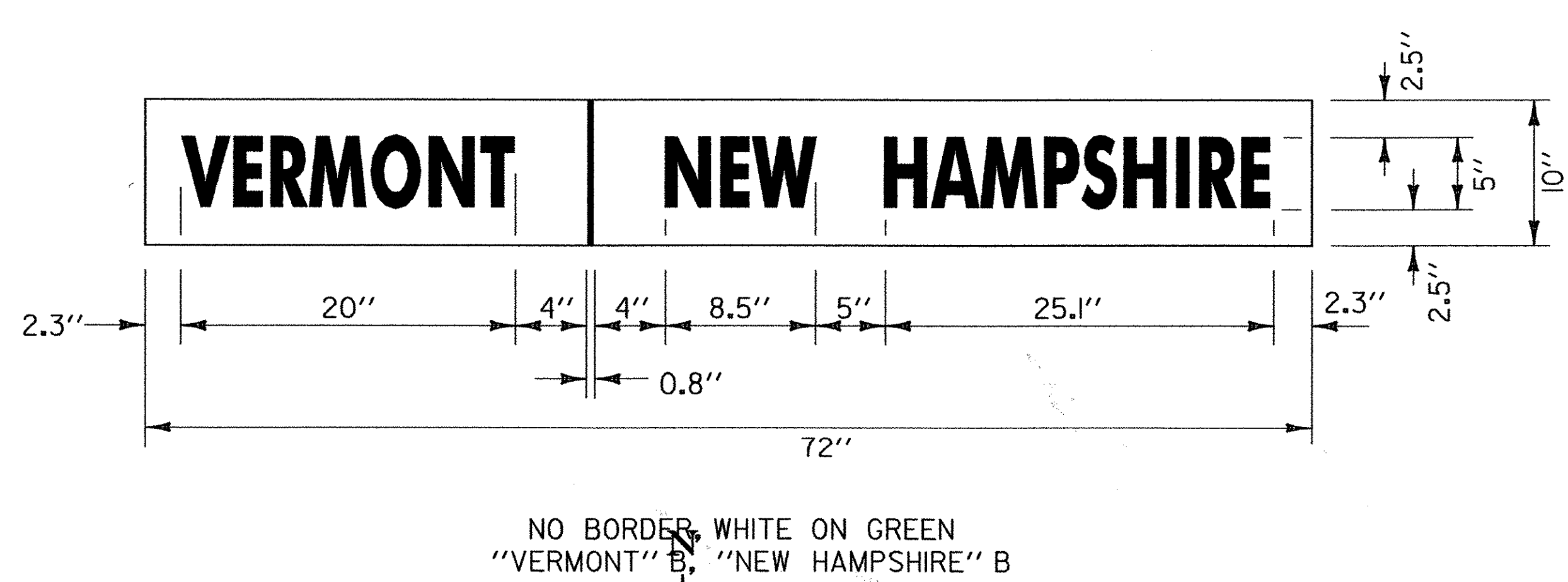
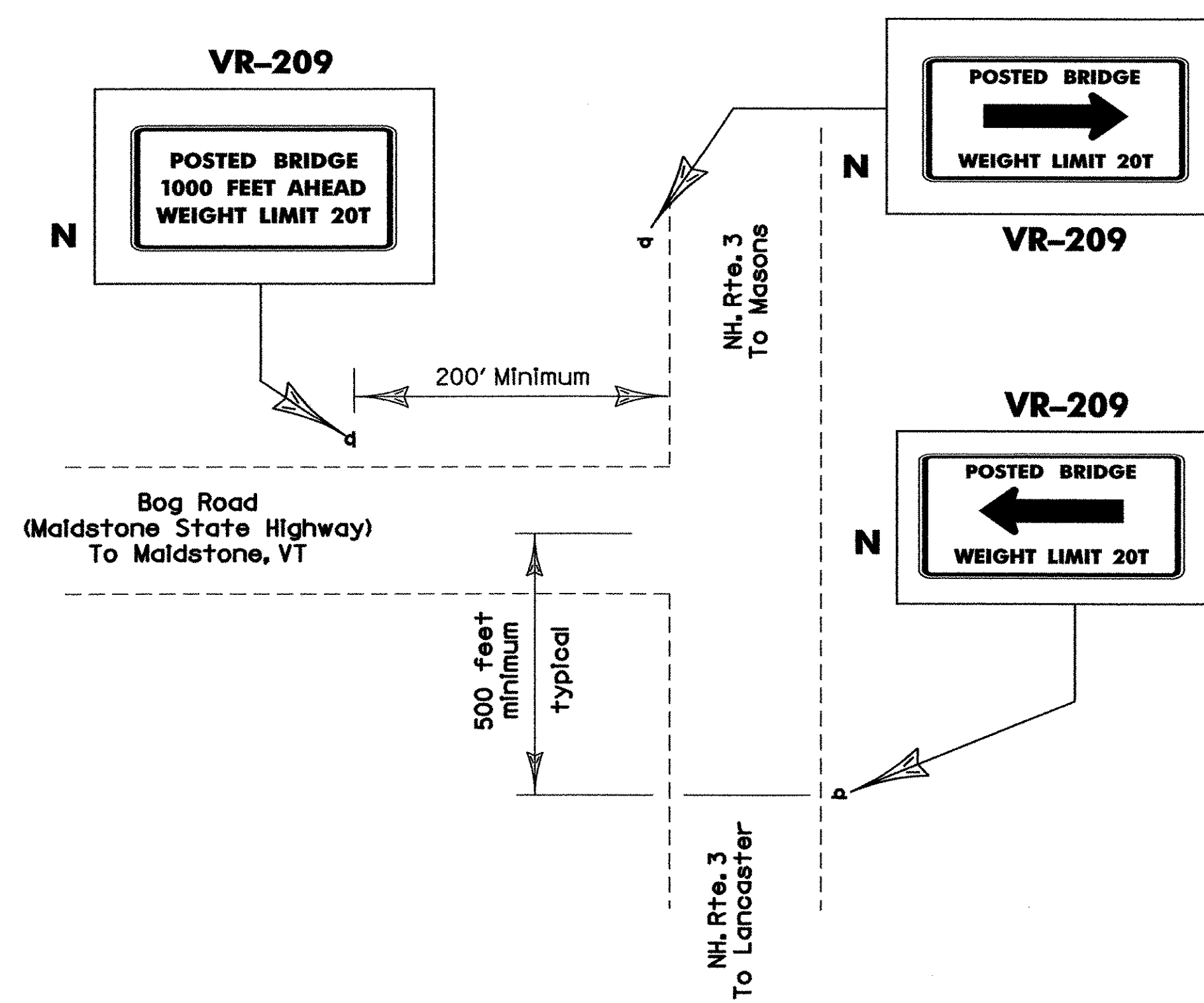


12 AUG 2003 12:20:17 c:\pdd\pdd\pdd\zoe054x2.dgn



SIGN	DIMENSIONS (INCHES)									
	A	B	C	D	E	F	G	H	J	
MIN.	30	1/2	3/4	5C	3/4	13 3/16	12 1/16	9/8	1 1/8	
STD.	36	5/8	7/8	6C	4	16	15 1/4	1 1/2	2 1/4	
SPECIAL	48	3/4	1 1/4	8C	5	21 1/4	20 1/4	15 3/8	3	

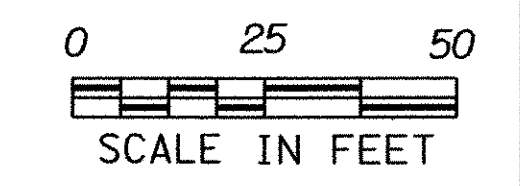
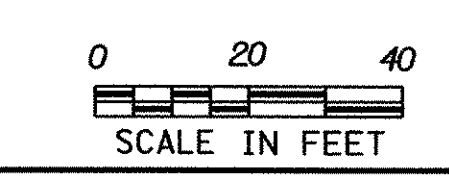
COLORS
 LEGEND-BLACK (NON - REFL)
 BACKGROUND - YELLOW (REFL)



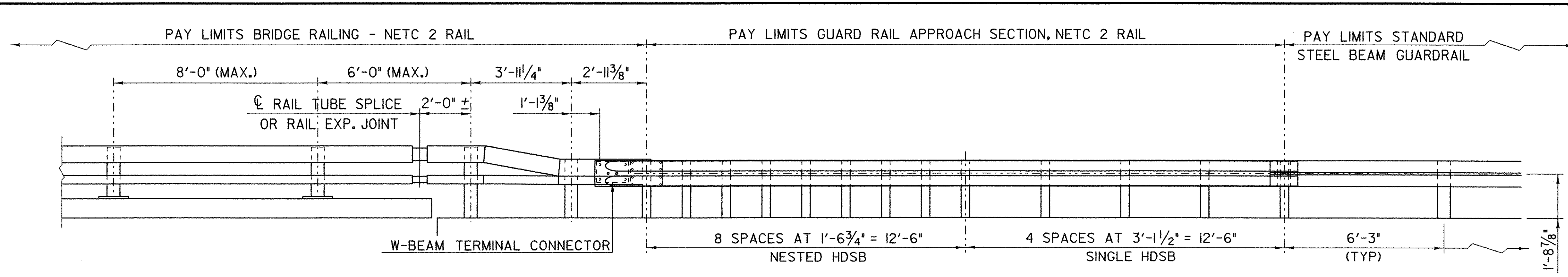
THIS SHEET FOR SIGN PLACEMENT ONLY

SIGN SHEET

PROJECT NAME: Maidstone - Stratford, NH
 PROJECT NUMBER: BHO 1447(24)
 FILE NAME: str5/99e054/se054bdr.dgn
 PROJECT LEADER: Craig Keller
 DESIGNED BY: se054sgn.l
 PLOT DATE: 18-AUG-2003
 DRAWN BY:
 CHECKED BY:
 SHEET 65a OF 65



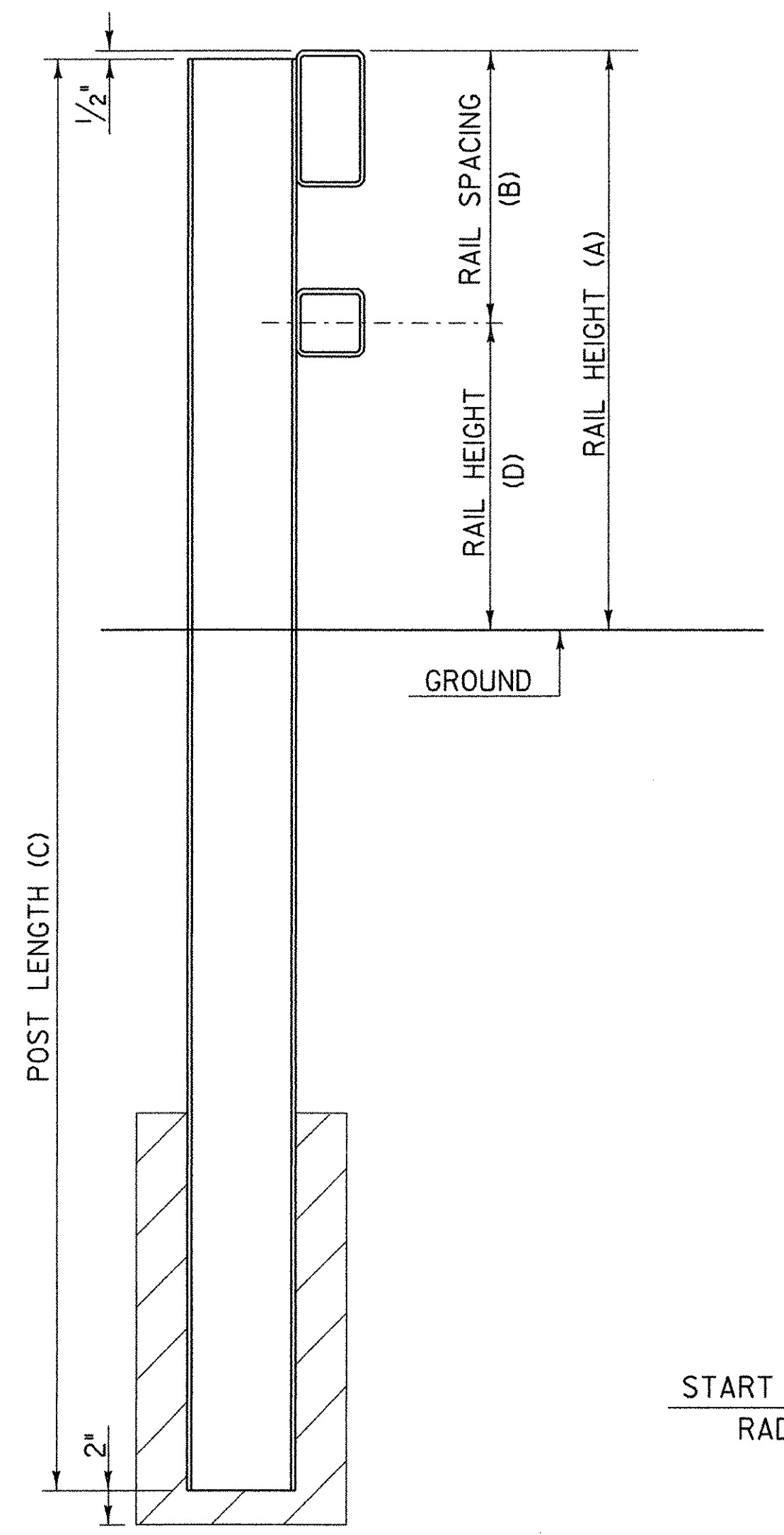
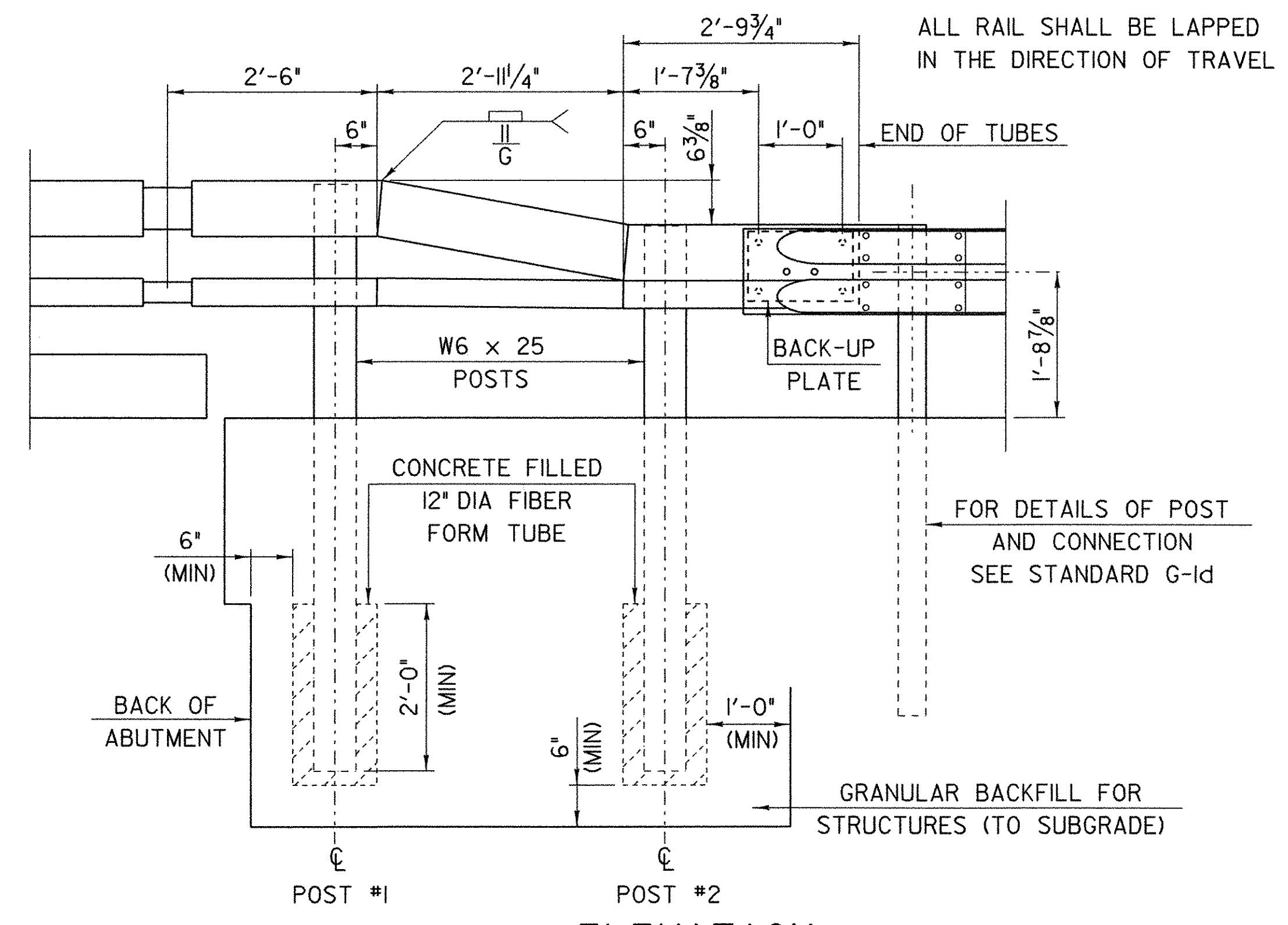
N=New Sign & Post



Notes:

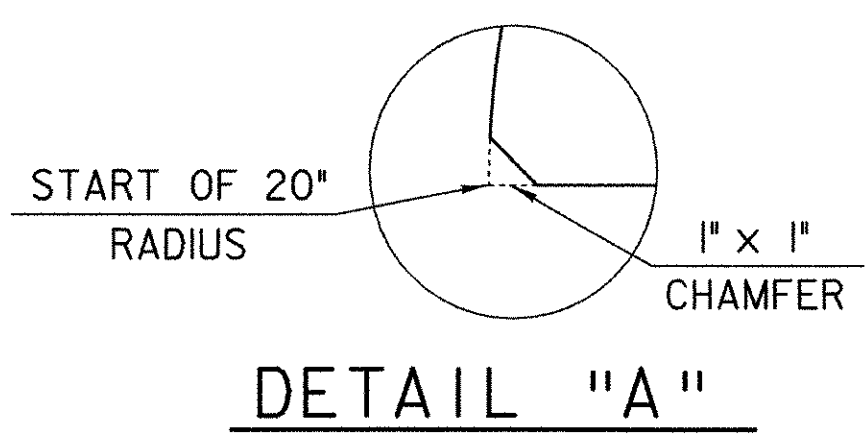
1. REFER TO STANDARD DETAIL BRI-97 FOR ADDITIONAL DETAILS, NOTES AND MATERIAL SPECIFICATIONS.
2. TO FACILITATE FIELD FIT - UP OF THE TRANSITION RAILING, POSTS SHALL BE SET LOOSELY INTO FIBER FORM TUBES WHILE TRANSITION PARTS ARE BEING ASSEMBLED. POST HOLES SHALL BE BACKFILLED WITH A CONCRETE MIX APPROVED BY THE ENGINEER. PAYMENT FOR COMPONENTS, INCLUDING BACKUP PLATE AND END TERMINAL CONNECTOR FOR GUARD RAIL, AUGERING, FIBER FORM TUBES AND CONCRETE, AND INSTALLATION SHALL BE CONSIDERED INCIDENTAL TO BRIDGE RAILING, N.E.T.C. 2 RAIL.
3. THE REFLECTORIZED ALUMINUM DELINEATION IS TO BE ERECTED EVERY 30' (OR CLOSEST POST) WITH A 5/8" DIAMETER BOLT. DELINEATORS SHALL MEET SPECIFICATION REQUIREMENTS FOR ASTM B209 ALLOY 5052-H32.
4. REFLECTIVE MATERIAL SHALL MEET 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.
5. 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 ON THE CURB SIDE). PAYMENT SHALL BE SUBSIDIARY TO ALL OTHER ITEMS.
6. ALL APPROACH RAIL SPLICES SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW.
7. SEE STANDARD G-1 AND G-1d FOR ADDITIONAL INFORMATION.

RAILING TRANSITION ELEVATION



TYPICAL SECTION

POST NUMBER	RAIL HEIGHT (A)	RAIL SPACING (B)	POST LENGTH (C)	RAIL HEIGHT (D)
1	2'-10"	1'-4"	7'-0"	1'-6"
2	2'-3 5/8"	10"	6'-5"	1'-5 5/8"

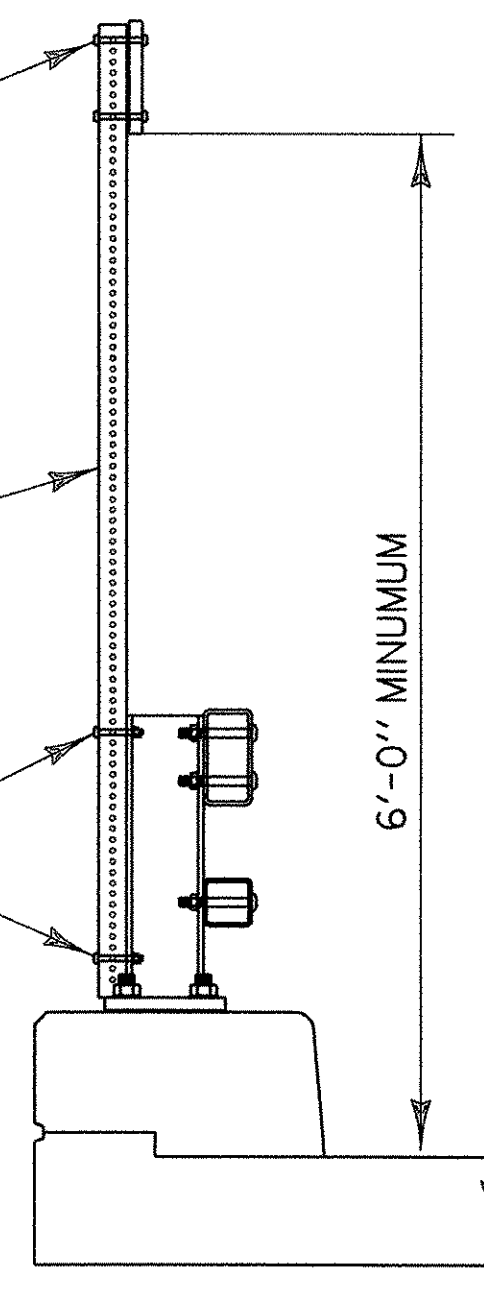


ELEVATION

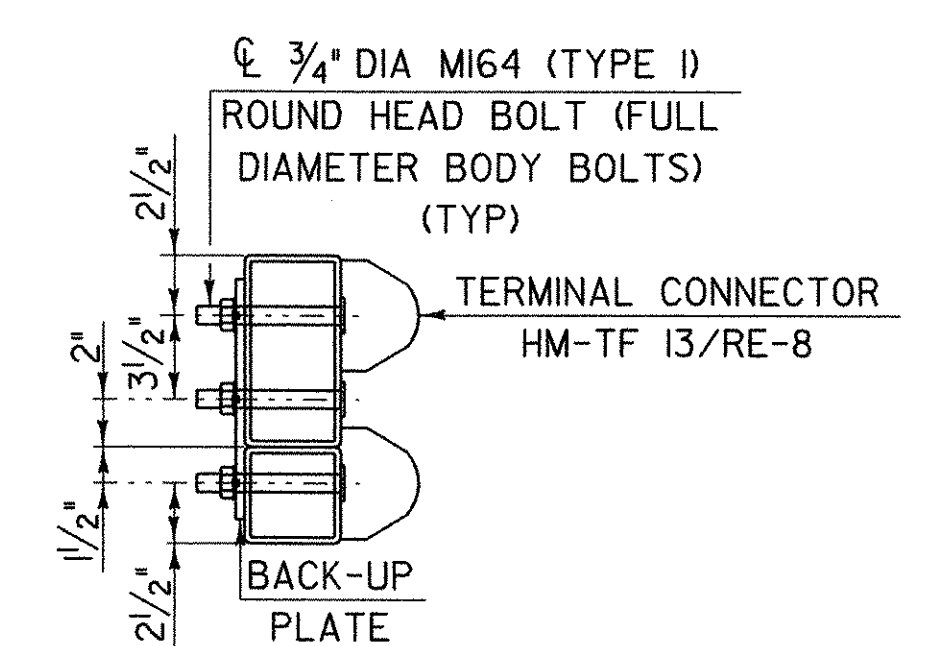
FASTEN SIGN TO POSTS USING RIVETS OR OTHER VANDAL PROOF HARDWARE

2 1/2" SQUARE STEEL SIGN POST - TWO REQUIRED

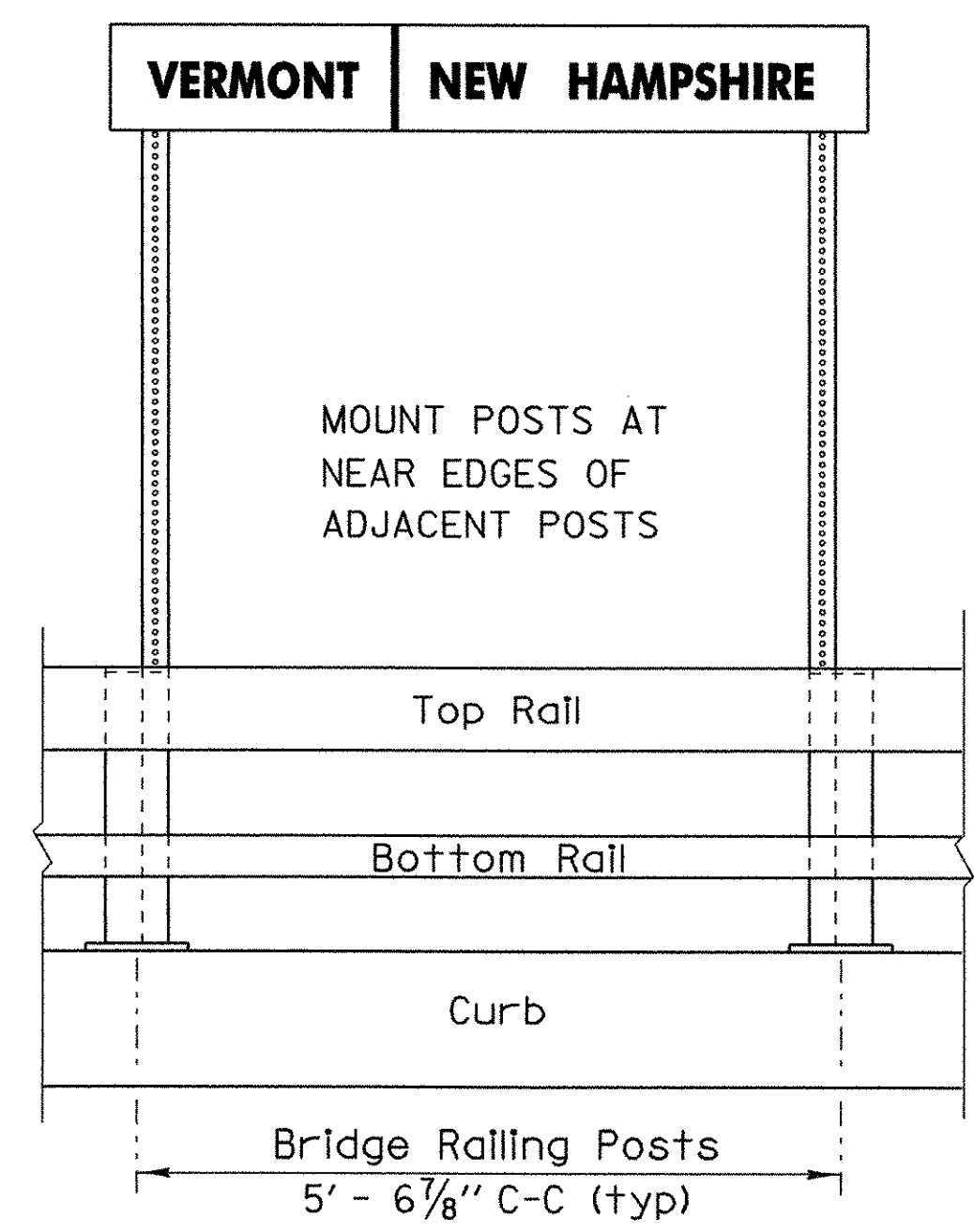
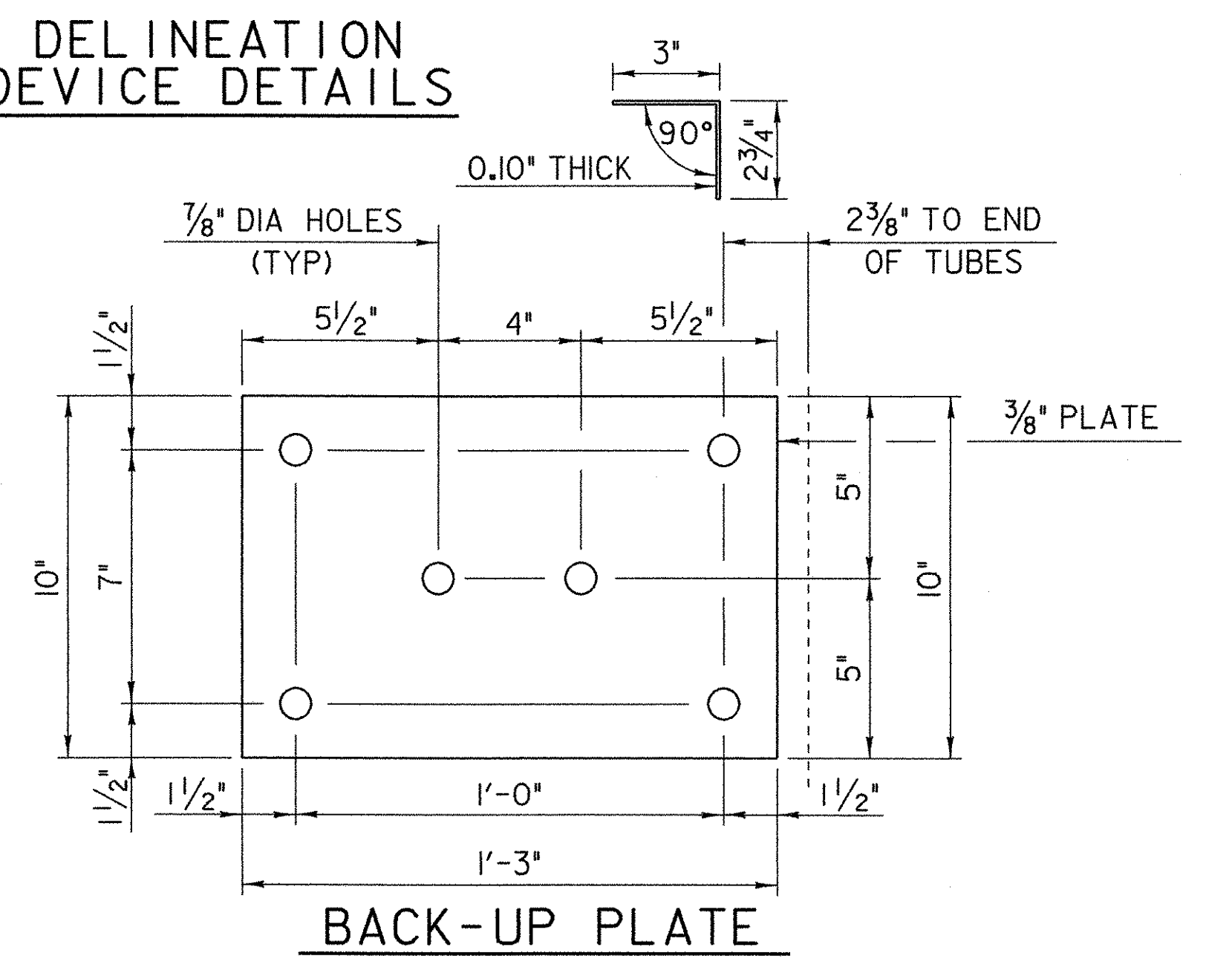
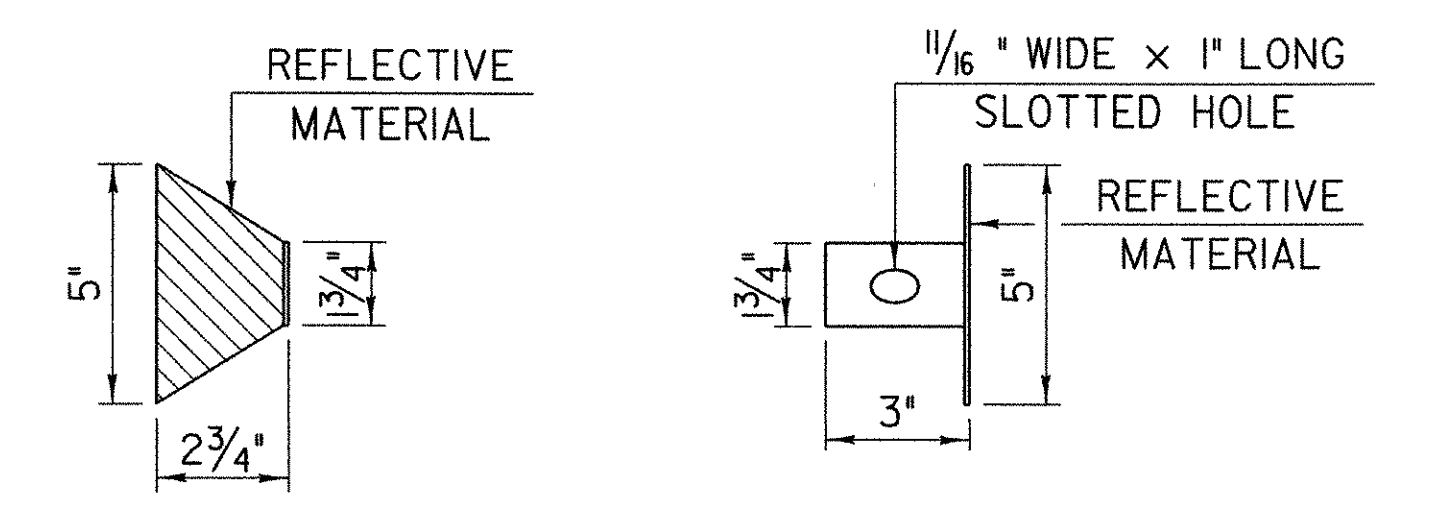
FASTEN STEEL POSTS TO BACK FLANGE OF BRIDGE POSTS WITH TWO BOLTS. HOLES ON BRIDGE POSTS TO BE FIELD DRILLED.



SECTION THROUGH GUARD RAIL CONNECTION AT TERMINAL CONNECTOR



DELINEATION DEVICE DETAILS



STATE LINE SIGN INSTALLATION DETAILS

NETC RAIL DETAILS

PROJECT NAME: MAIDSTONE-STRATFORD, NH

PROJECT NUMBER: BHO 1447(24)

FILE NAME: str5/99e054/netcrail.dgn

PLOT DATE: 24-JUL-2003

PROJECT LEADER: C. Keller

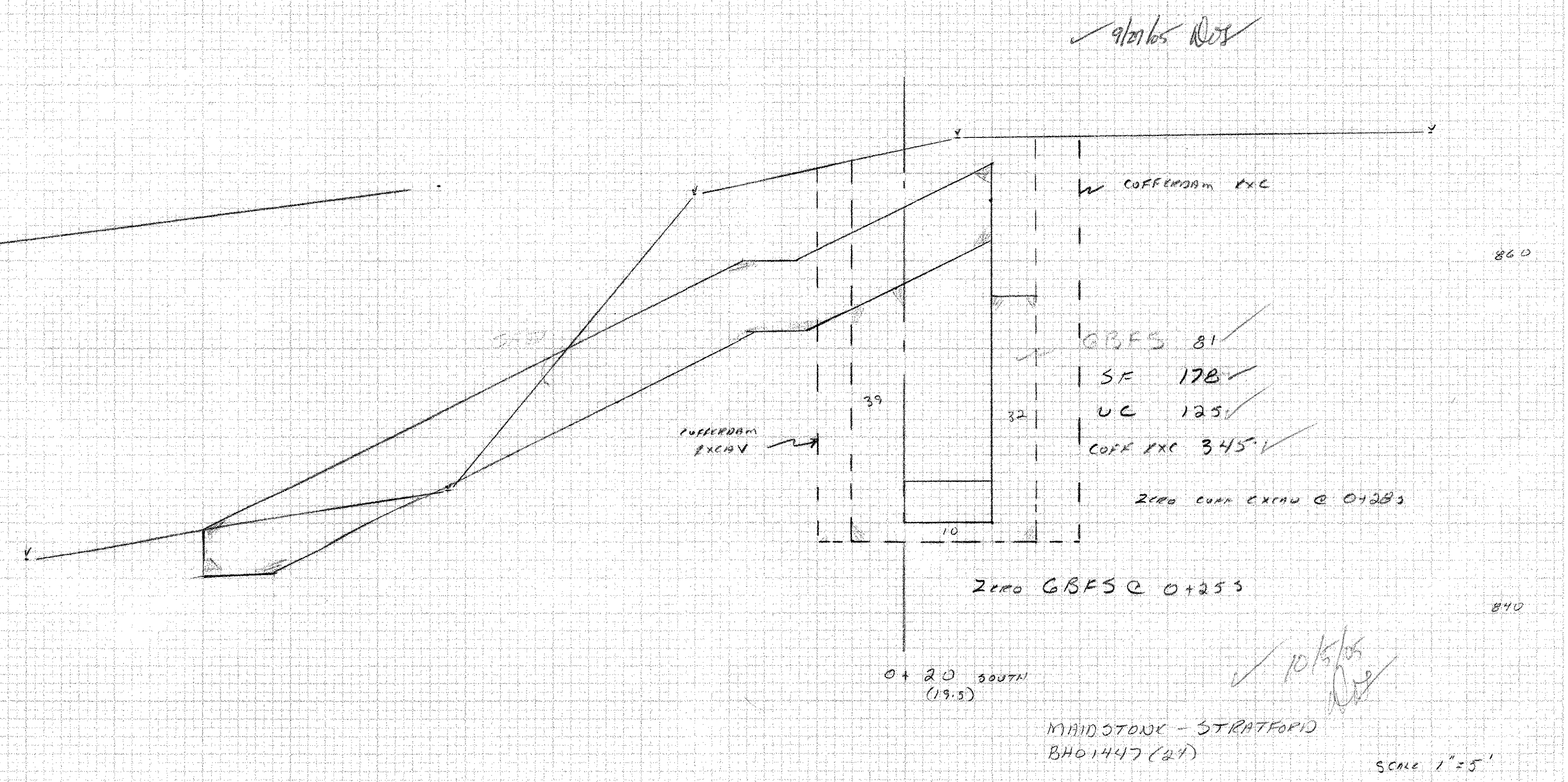
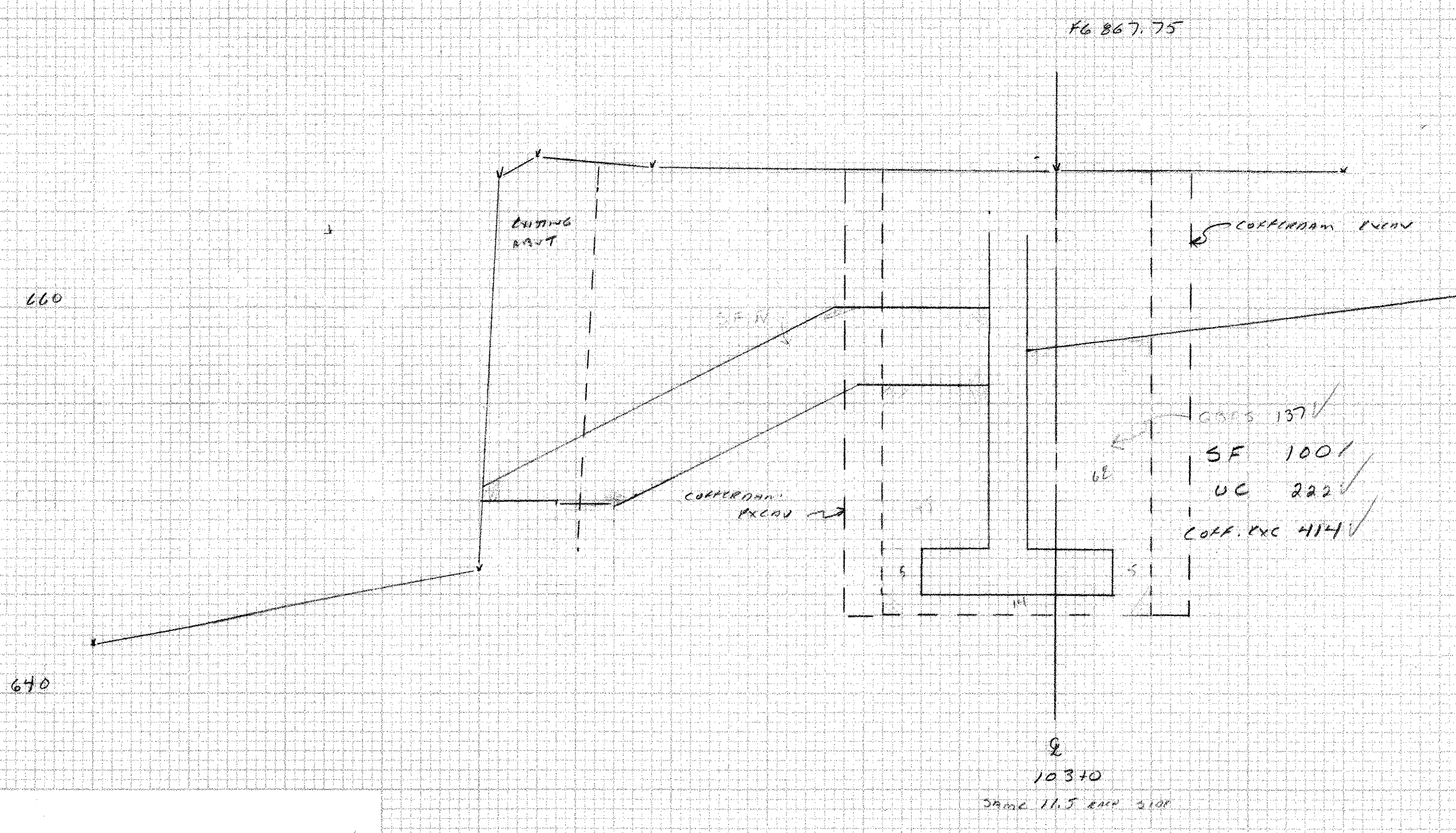
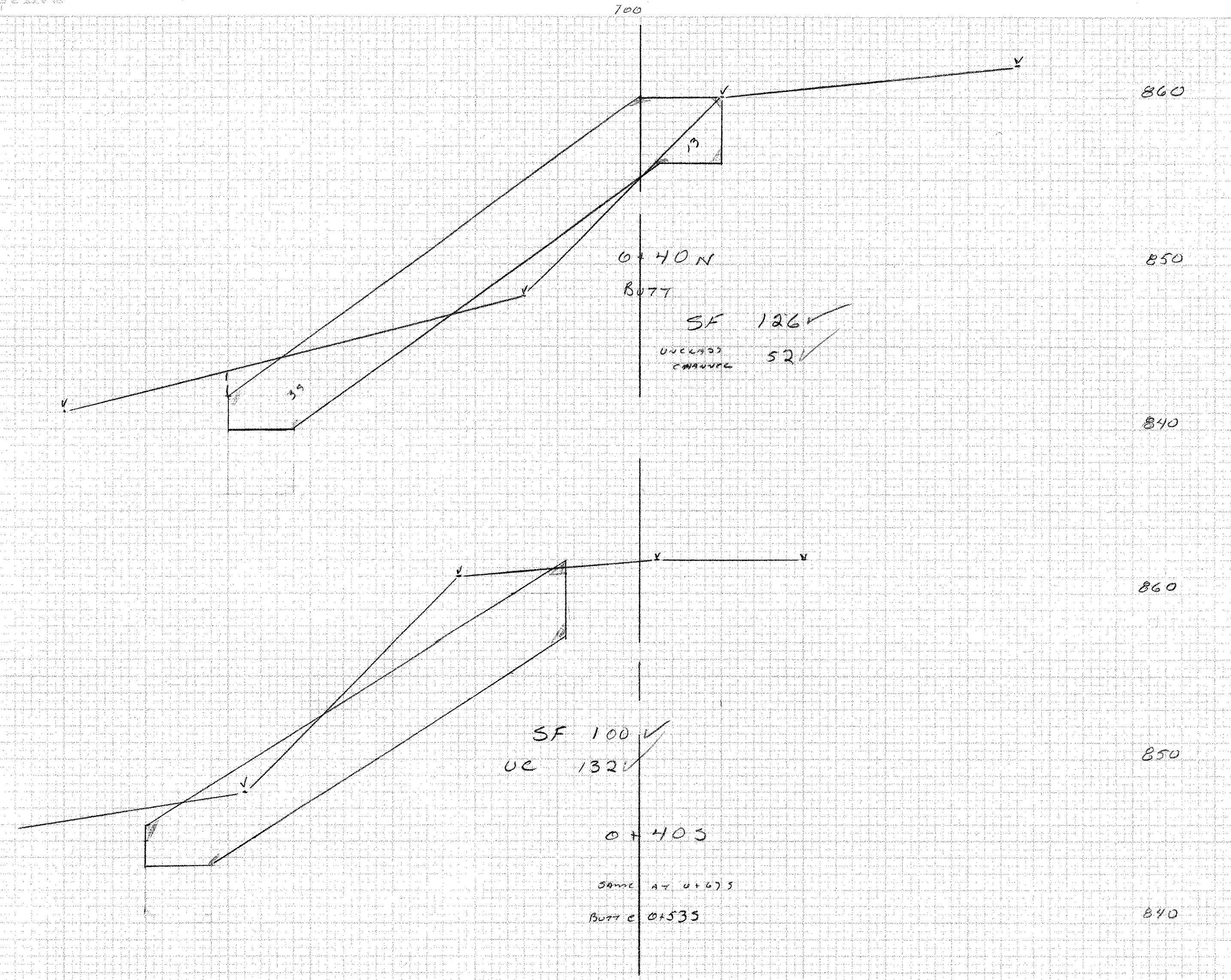
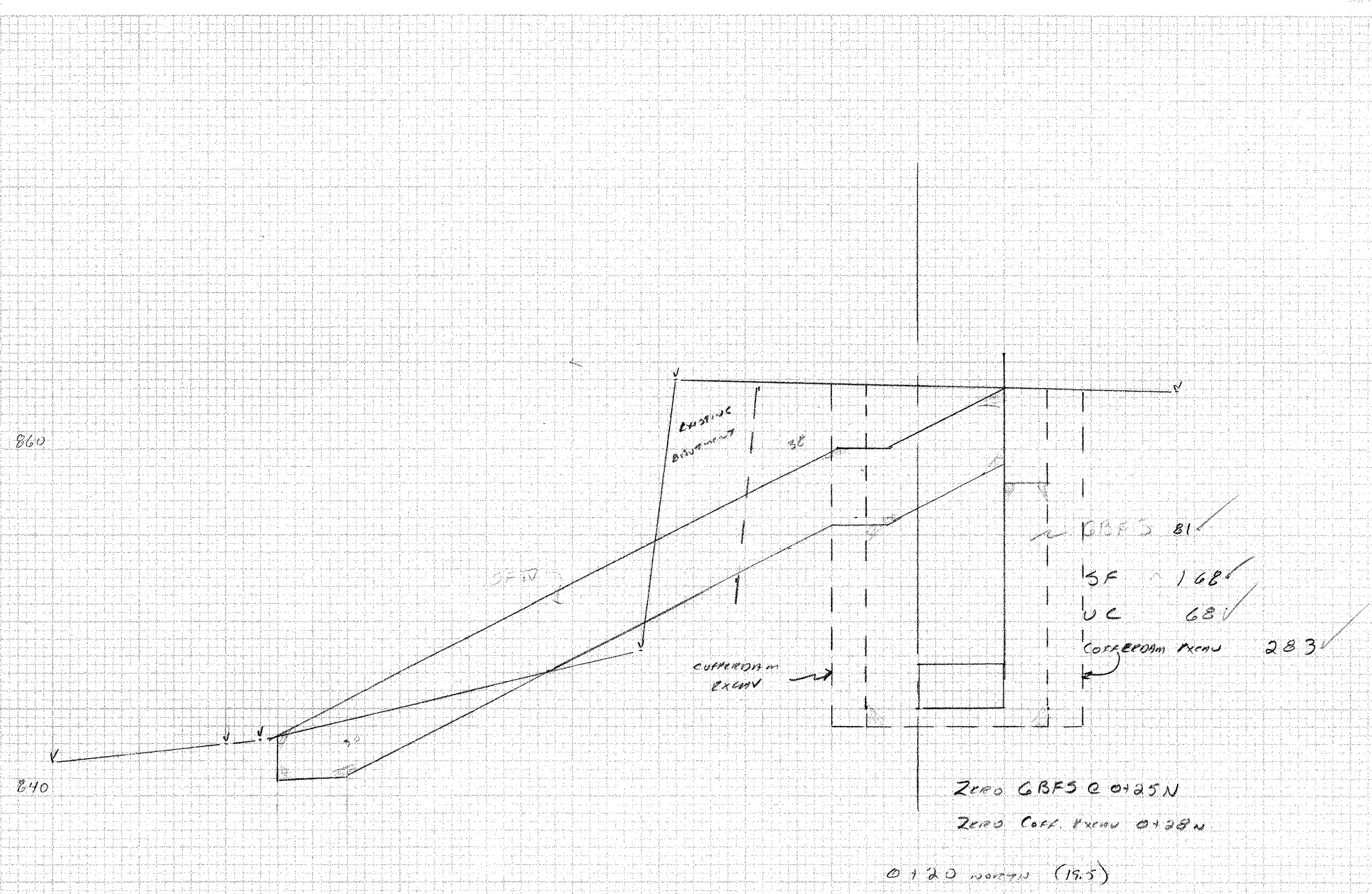
DRAWN BY: G. Shangraw

DESIGNED BY: VAOT Structures

CHECKED BY:

netcrail.i

SHEET 65b OF 65



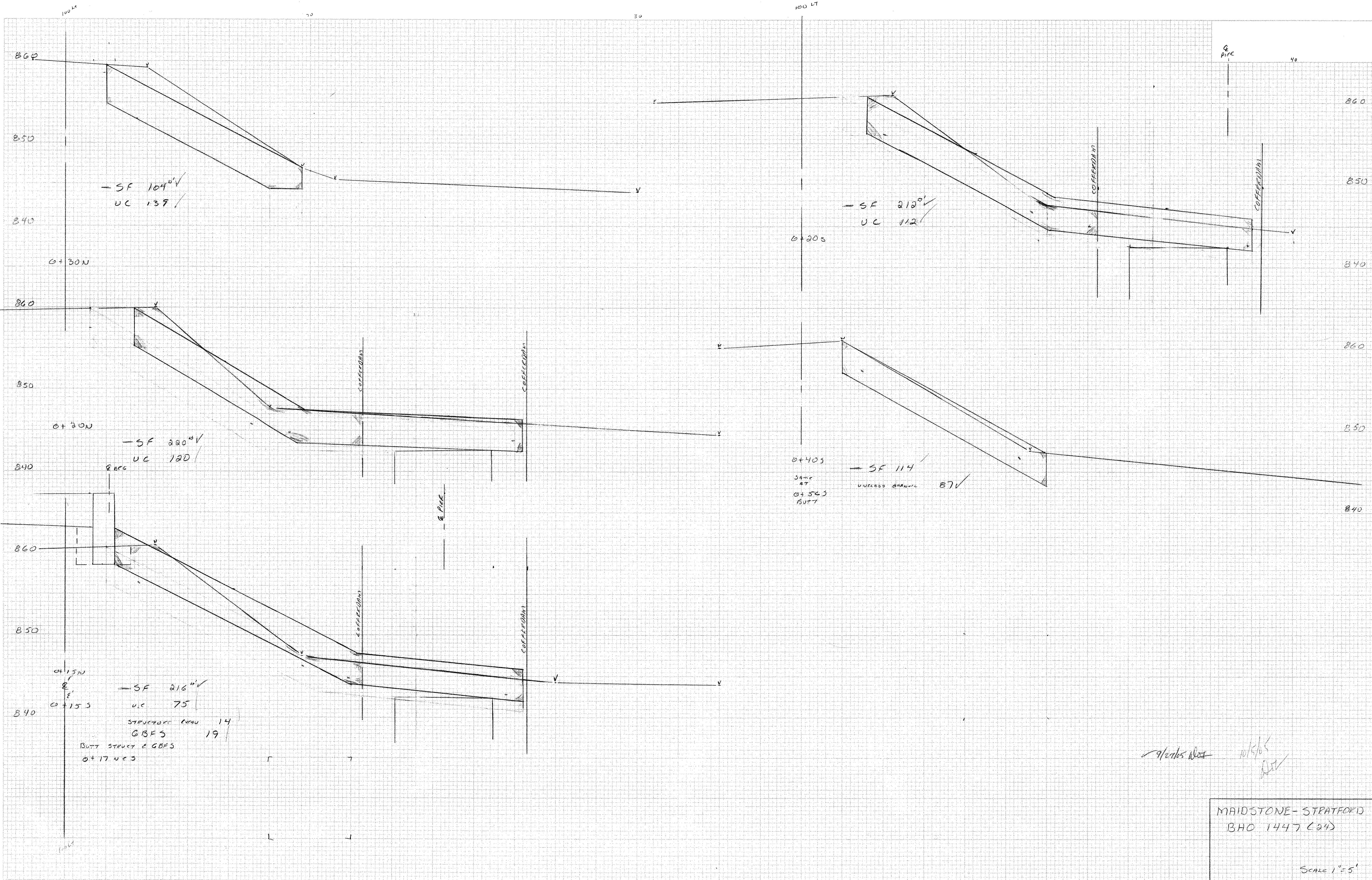
MADSTONE - STRATFORD
 BHD 1447 (24)
 SCALE 1"=5'

ORIGINAL SURVEY SHEET
 NOT TO BE REPRODUCED
 WITHOUT PERMISSION OF THE SURVEYOR

ORIGINAL SURVEY SHEET
 NOT TO BE REPRODUCED
 WITHOUT PERMISSION OF THE SURVEYOR

ORIGINAL SURVEY
 DATE: 10/15/53
 DRAWN BY: [unclear]
 CHECKED BY: [unclear]

ORIGINAL SURVEY
 DATE: 10/15/53
 DRAWN BY: [unclear]
 CHECKED BY: [unclear]



- SF 104 ✓
 UC 139 ✓

- SF 210 ✓
 UC 112 ✓

- SF 220 ✓
 UC 120 ✓

- SF 114 ✓
 UNLESS OTHERWISE NOTED 87 ✓

- SF 216 ✓
 UC 75 ✓

STRUCTURE EXCISE 14
 GBFS 19
 BUTT STRUCT & GBFS
 0+170 ✓

✓ 9/20/53 [unclear] 10/15/53 [unclear]

MAIDSTONE - STRATFORD
 BHO 1447 (24)

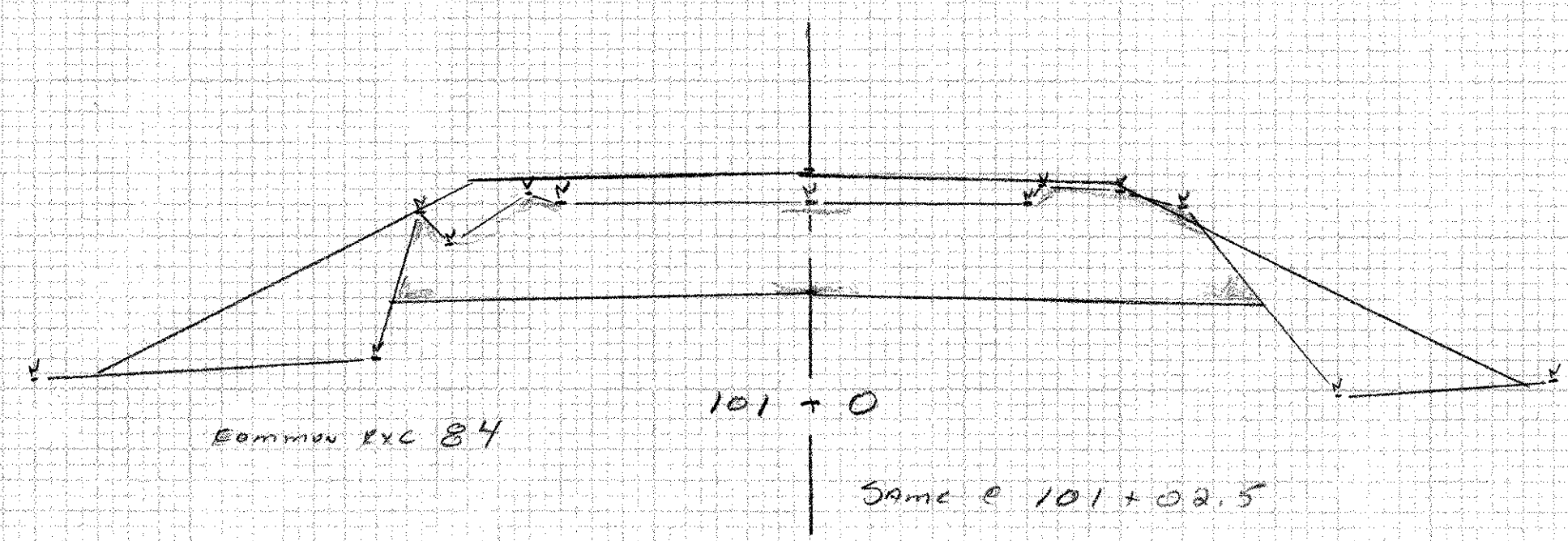
Scale 1" = 5'

ORIGINAL SURVEY
 REVISIONS
 DATE
 BY
 CHECKED
 DATE
 BY

ORIGINAL SURVEY
 REVISIONS
 DATE
 BY
 CHECKED
 DATE
 BY

870

860

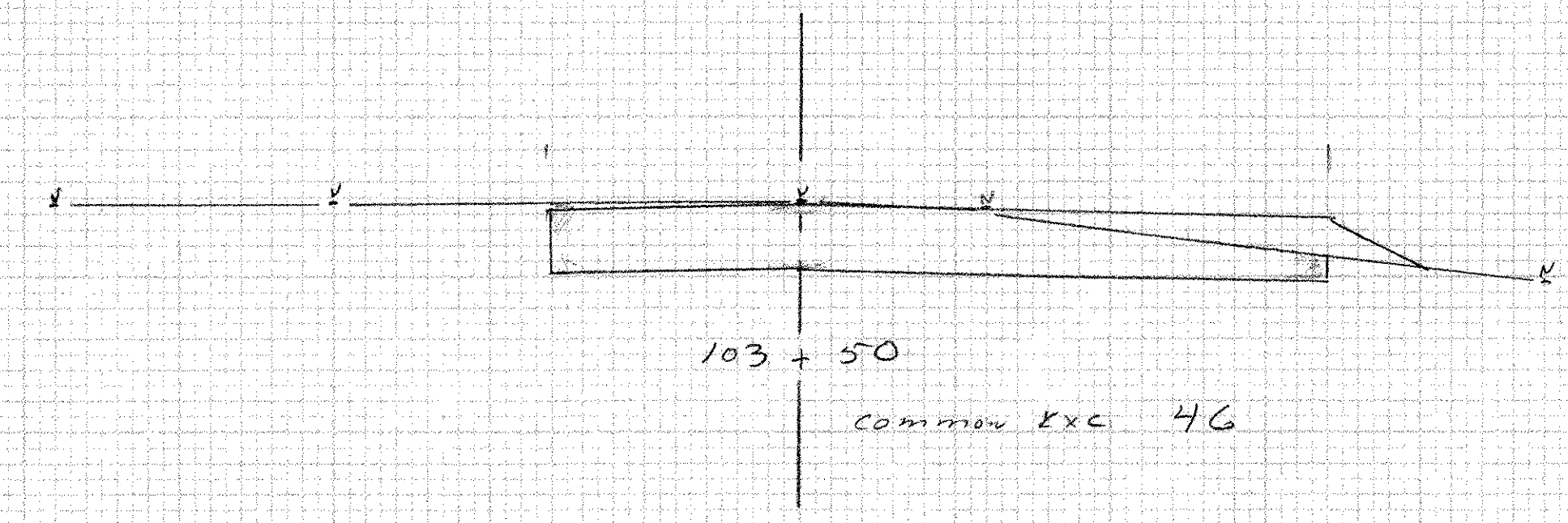


103+75
 Common Exc 40
 $2.0 \times 22 = 44$

103+50
 Common Exc 46

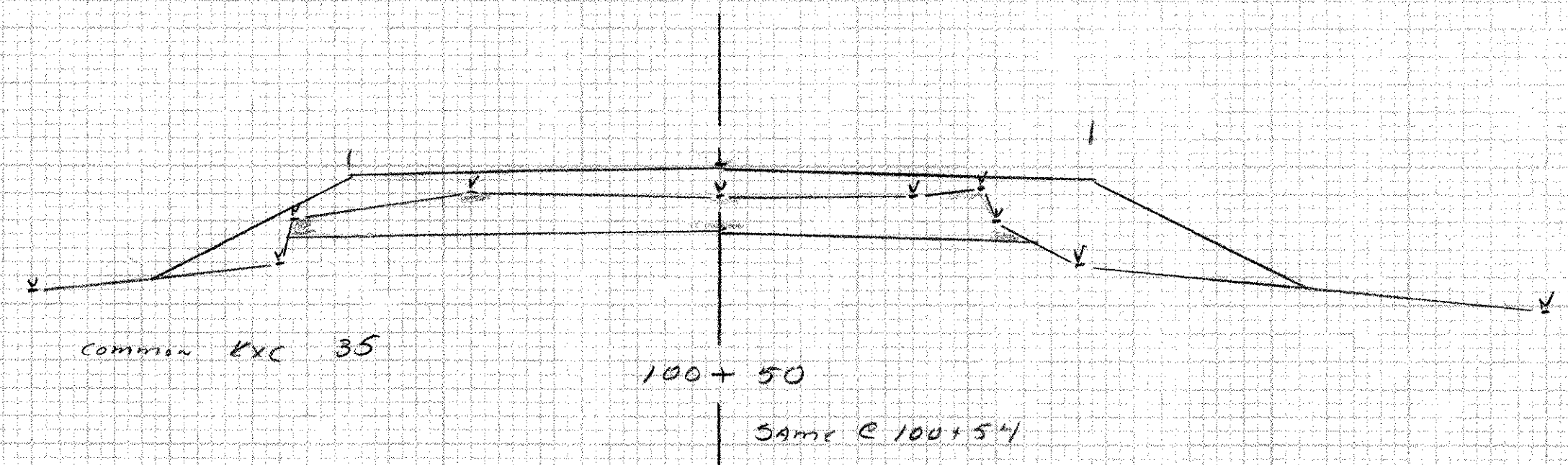
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860



870

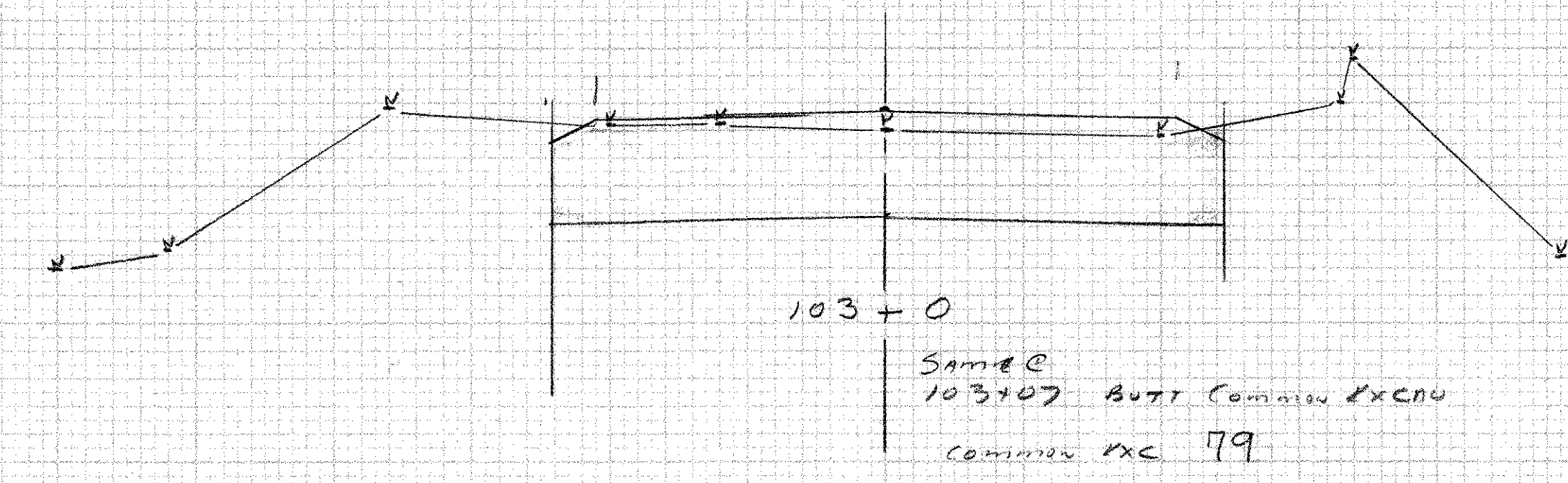
860



103+0
 Same @ 103+07 BUT Common Exc 40
 Common Exc 79

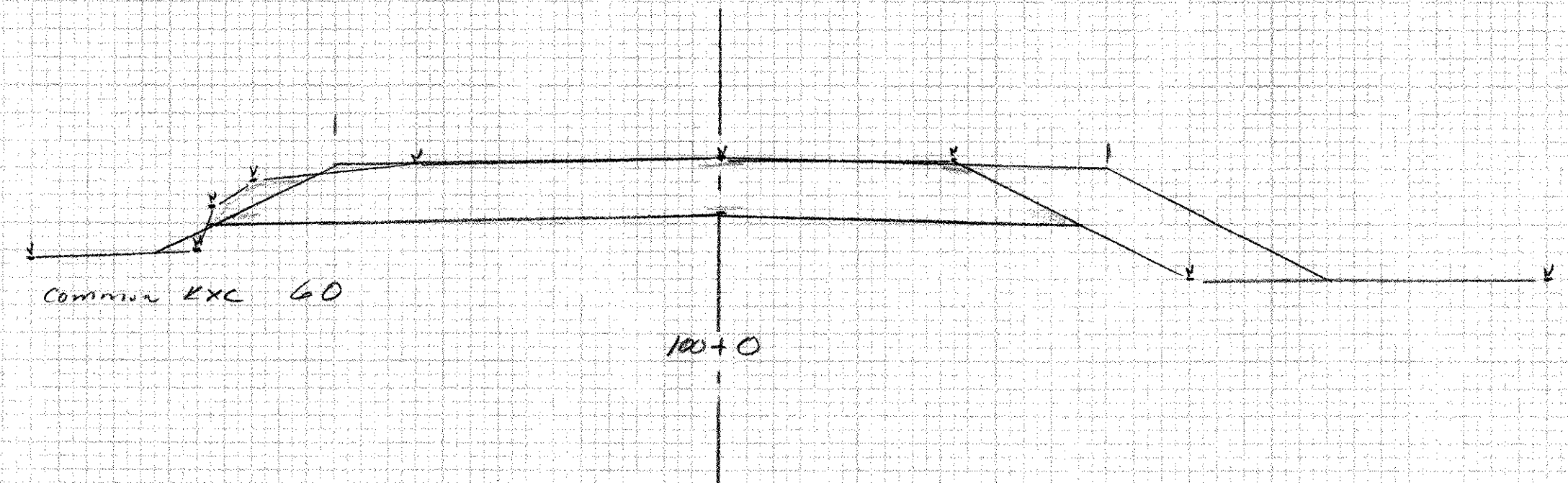
870

860



870

860



99+75
 Common Exc 40
 $0.5 \times 22 = 11$

MAIDSTONE-STRATFORD
 BHO 1447 (24)
 ROADWAY X-SECTIONS
 COMMON EXCAVATION

SCALE 1" = 5' HORIZ & VERT

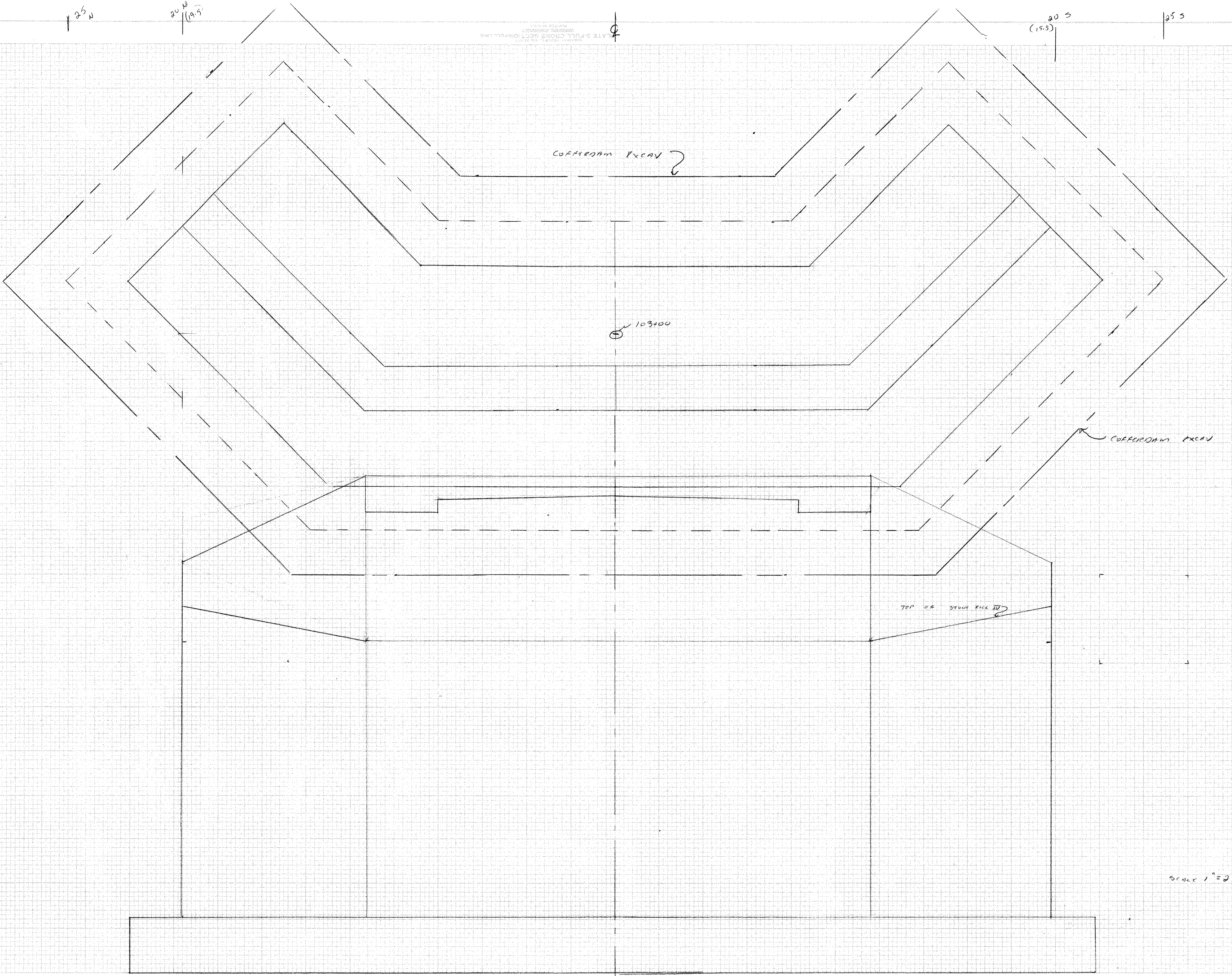
25 N

20 W
(19.5)

20 S
(19.5)

25 S

DATE: 11/11/2011
DRAWN BY: [illegible]
CHECKED BY: [illegible]
SCALE: 1" = 20'



COFFERDAM EXCAV

103100

COFFERDAM EXCAV

TOP OF STONE RICE IV

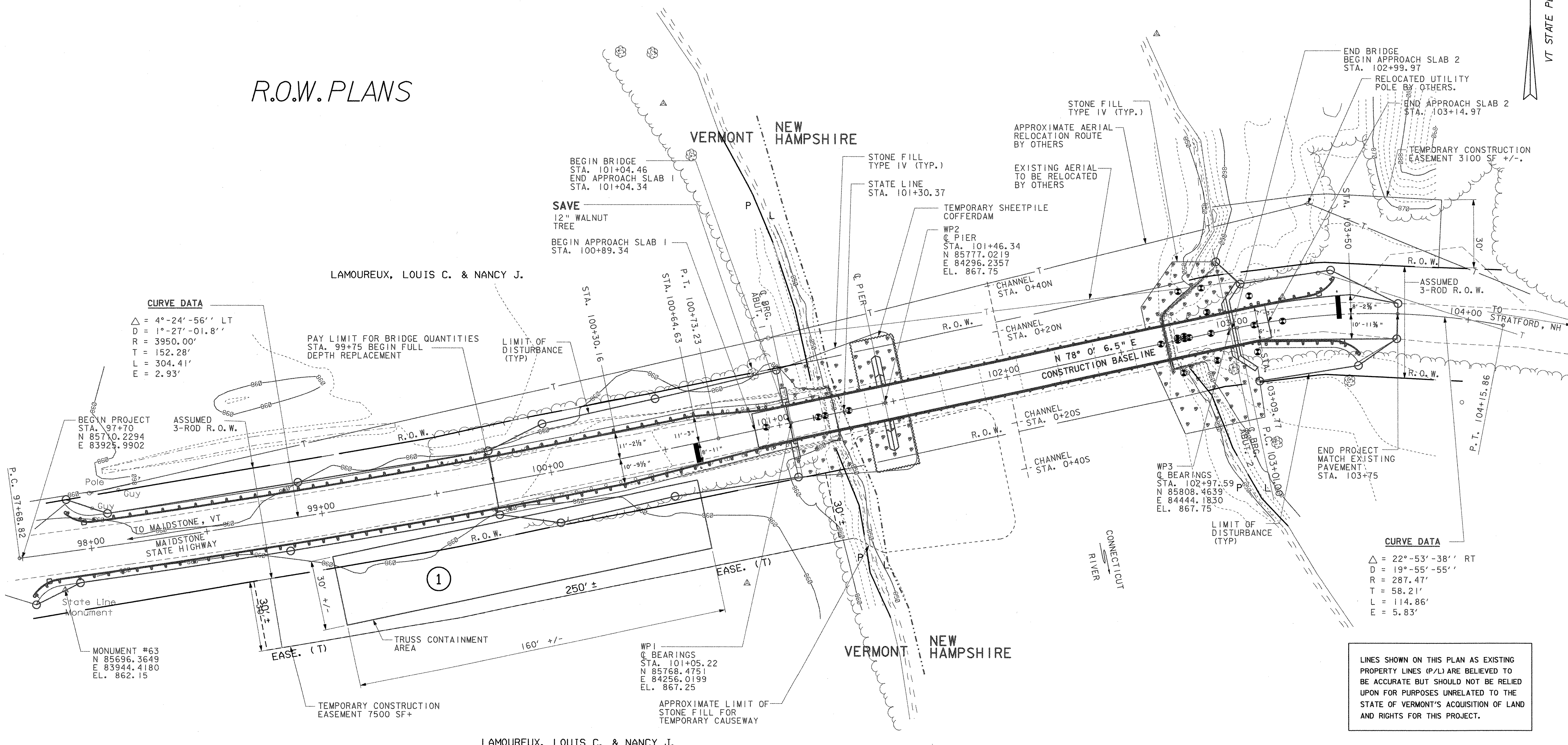
Scale 1" = 20'

PROJECT	...
DATE	...
DRAWN BY	...
CHECKED BY	...
SCALE	...

PROJECT	...
DATE	...
DRAWN BY	...
CHECKED BY	...
SCALE	...

PARCEL NO.	GRANTOR	BEGINNING STATION	ENDING STATION	RIGHTS	REMARKS
1	LAMOUREUX, LOUIS C. & NANCY J.	98+65 RT.	101+15 RT.	EASE. (T) 0.17A±	STAGING AREA FOR BRIDGE REHABILITATION

R.O.W. PLANS

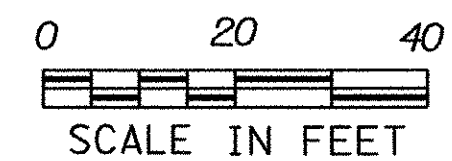


CURVE DATA
 $\Delta = 4^{\circ}-24'-56''$ LT
 $D = 1^{\circ}-27'-01.8''$
 $R = 3950.00'$
 $T = 152.28'$
 $L = 304.41'$
 $E = 2.93'$

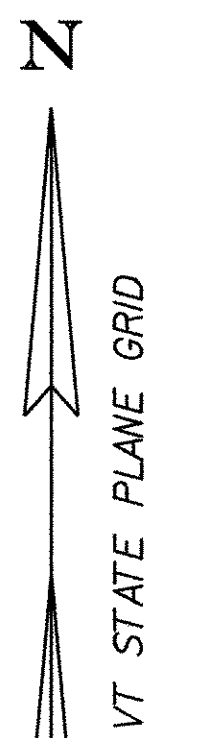
CURVE DATA
 $\Delta = 22^{\circ}-53'-38''$ RT
 $D = 19^{\circ}-55'-55''$
 $R = 287.47'$
 $T = 58.21'$
 $L = 114.86'$
 $E = 5.83'$

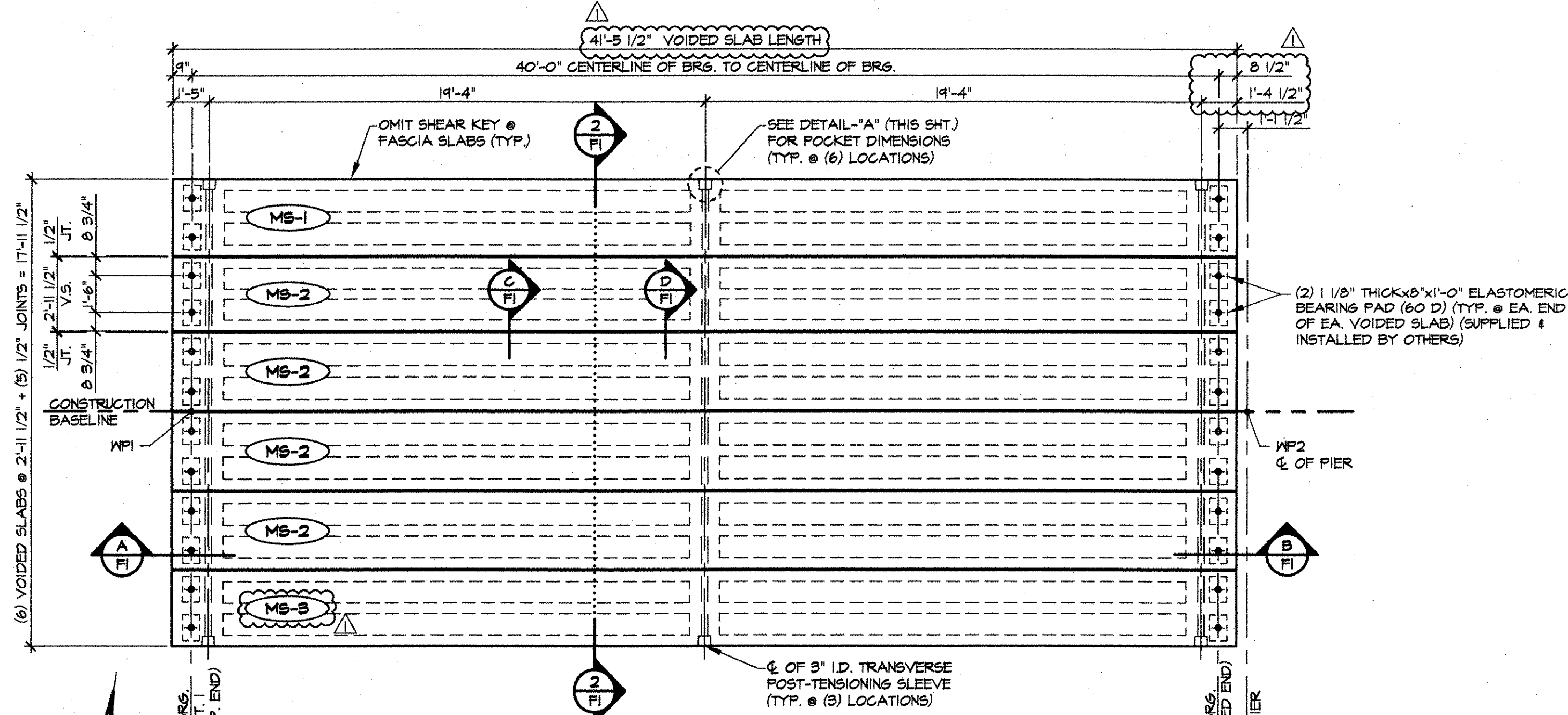
LINES SHOWN ON THIS PLAN AS EXISTING PROPERTY LINES (P/L) ARE BELIEVED TO BE ACCURATE BUT SHOULD NOT BE RELIED UPON FOR PURPOSES UNRELATED TO THE STATE OF VERMONT'S ACQUISITION OF LAND AND RIGHTS FOR THIS PROJECT.

LAMOUREUX, LOUIS C. & NANCY J.

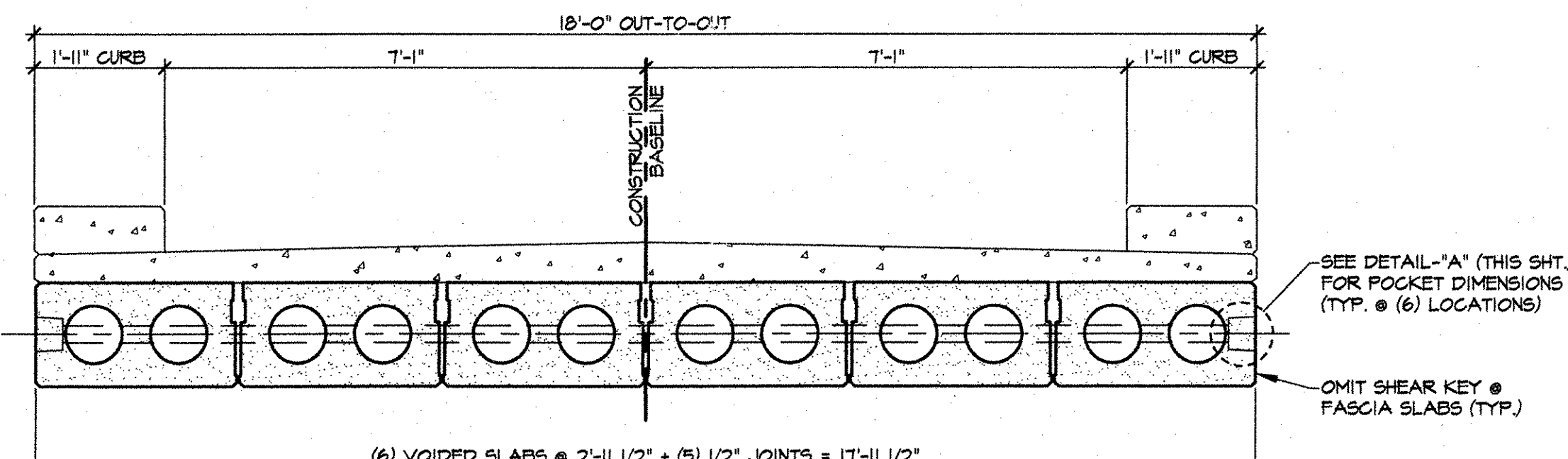


PROJECT NAME: Maidstone - Stratford, NH	
PROJECT NUMBER: BHO 1447(24)	
FILE NAME: str5/99e054/se054bdr.dgn	PLOT DATE: 09-JAN-2004
PROJECT LEADER: Craig Keller	DRAWN BY:
DESIGNED BY:	CHECKED BY:
ROW SHEET 1 OF 1 SHEET 070 Row	

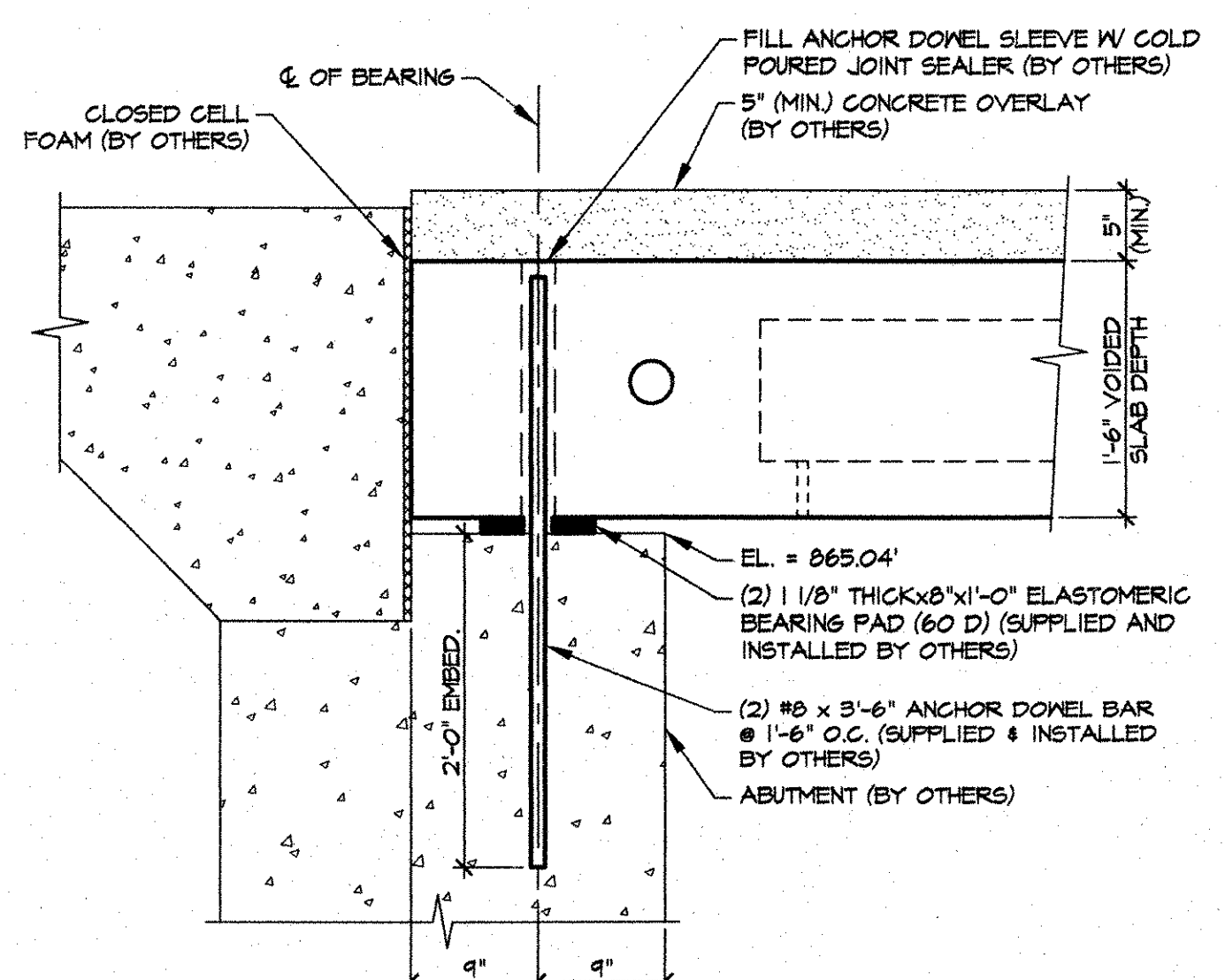




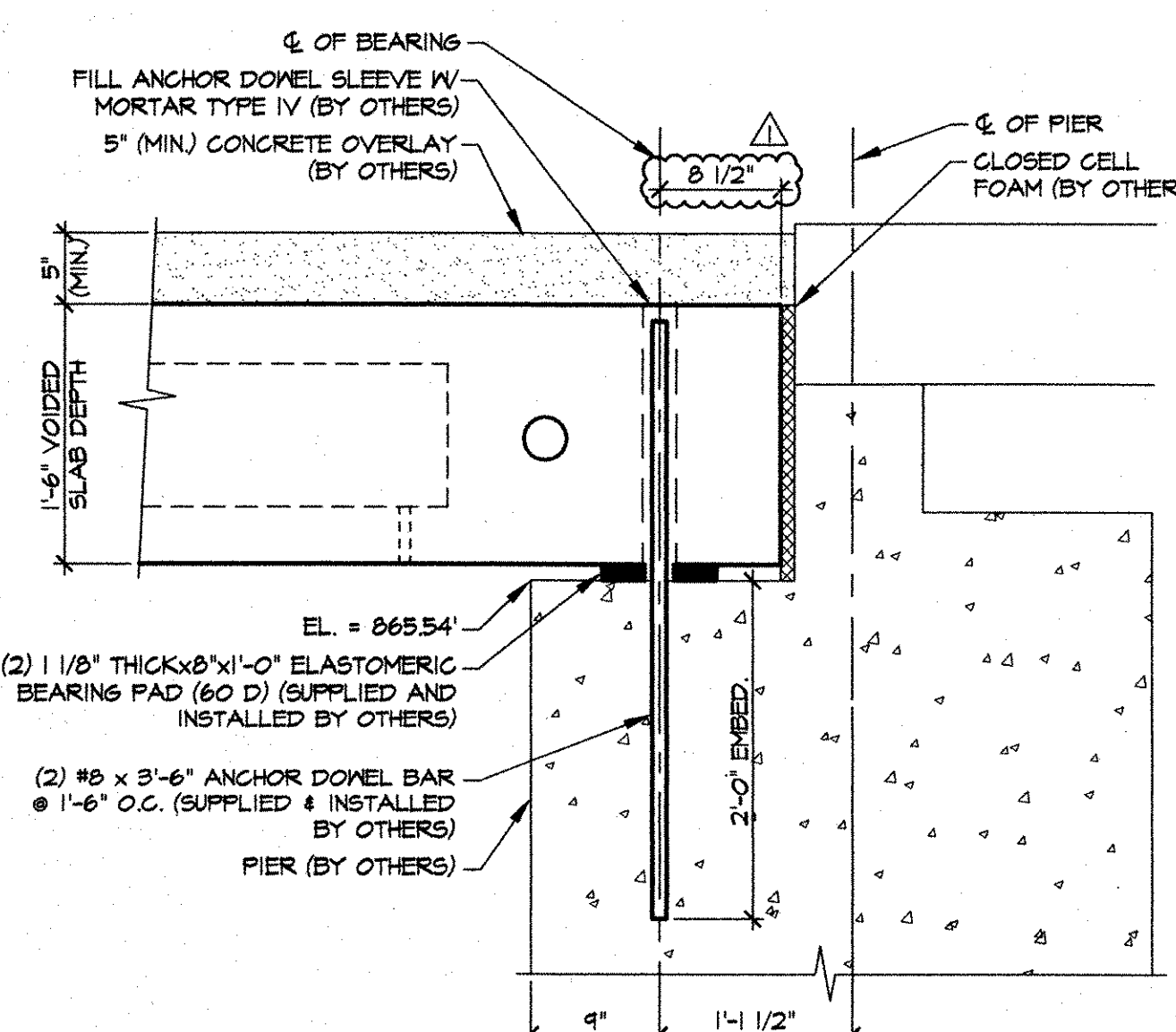
1 PRESTRESSED VOIDED SLAB LAYOUT
1/4" = 1'-0"



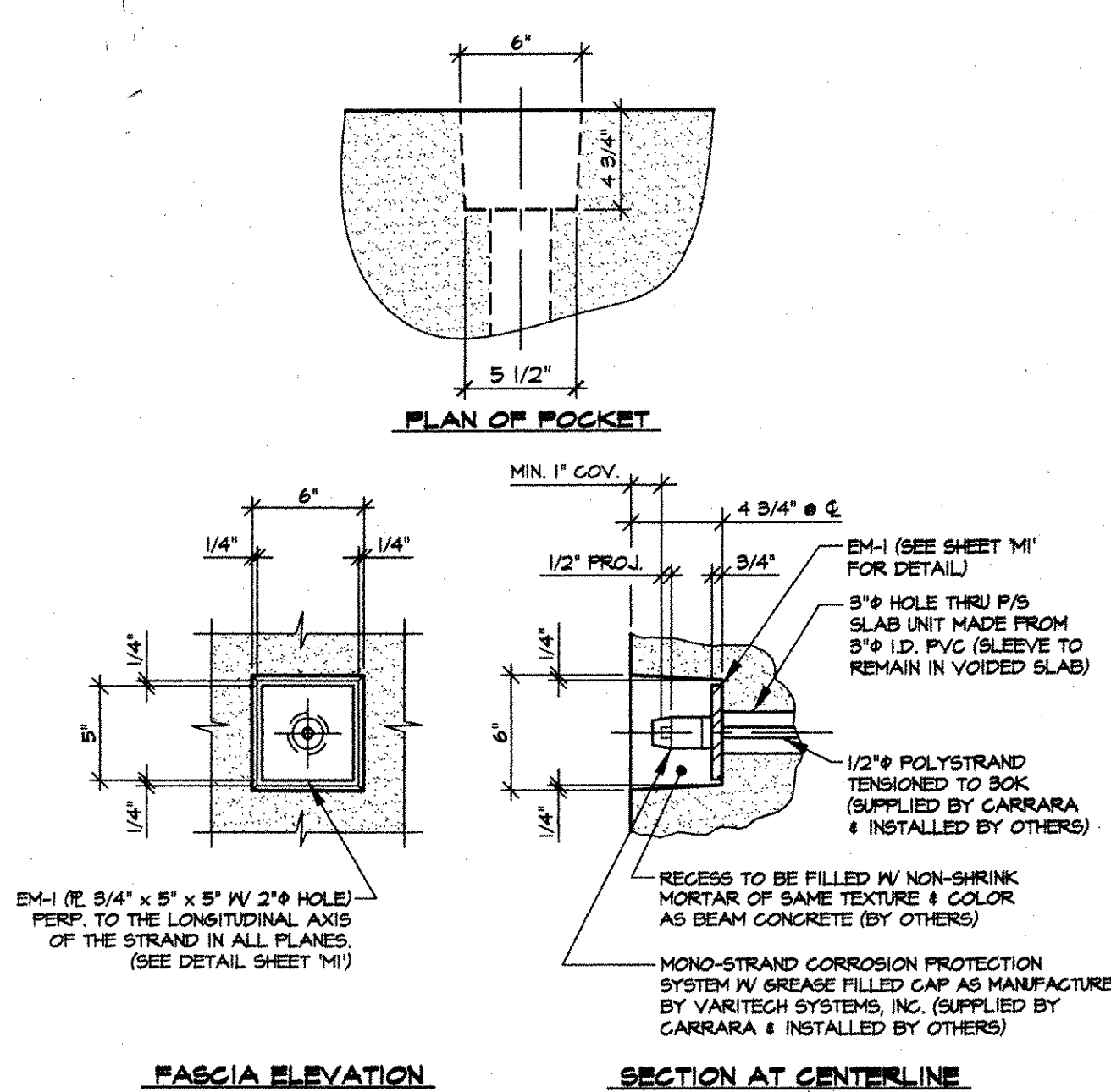
2 TRANSVERSE SECTION
1/2" = 1'-0"



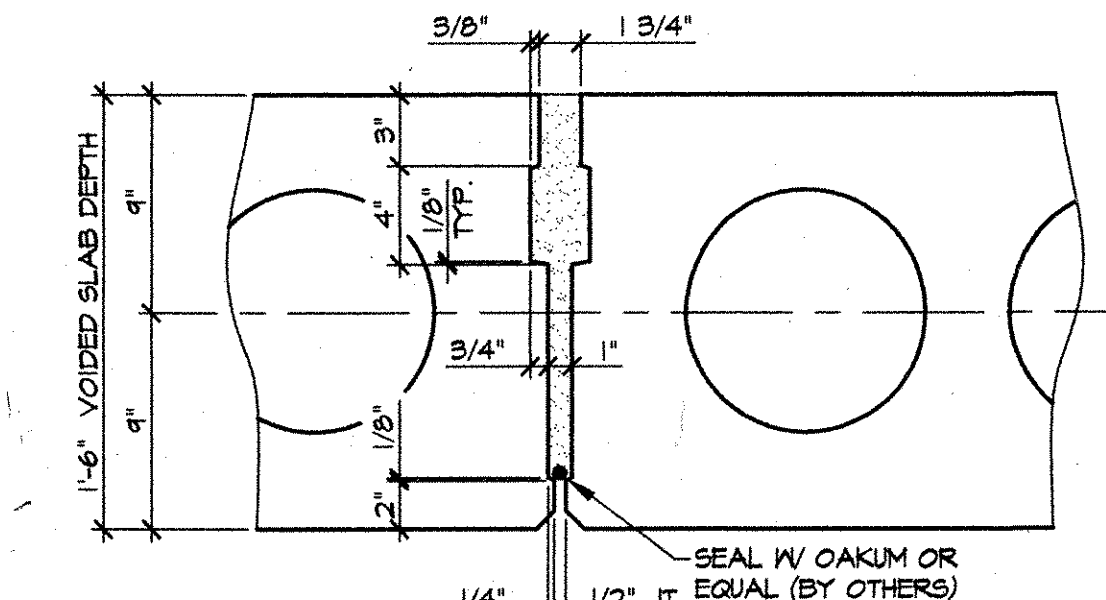
A SECTION AT BEARING
EXPANSION END 1" = 1'-0"



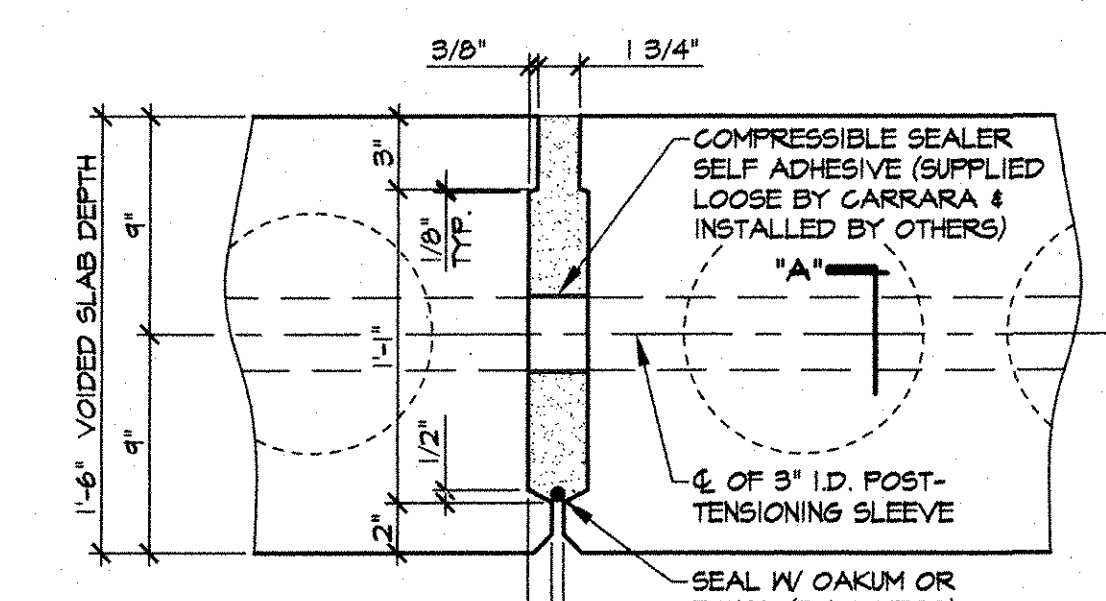
B SECTION AT BEARING
FIXED END 1" = 1'-0"



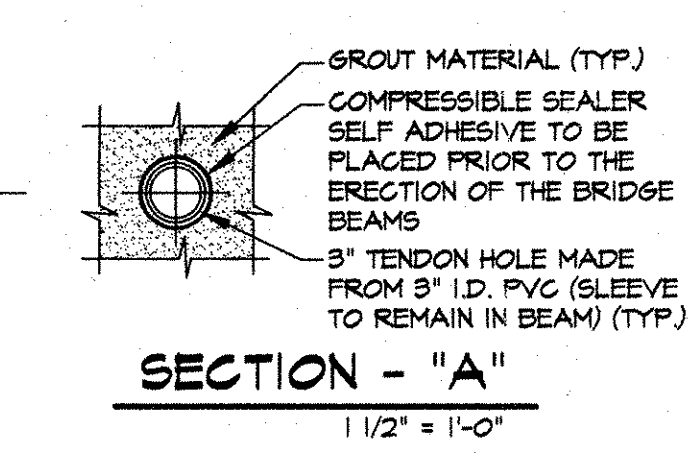
DETAIL - "A"
1 1/2" = 1'-0"



C TYP. SHEAR KEY SECTION
1 1/2" = 1'-0"



D SHEAR KEY SECTION @ P.T. SLEEVE
1 1/2" = 1'-0"



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

GENERAL NOTES

- MIN. CONCRETE STRENGTH AT 28 DAYS SHALL BE 6,000 PSI.
- MIN CONCRETE STRENGTH AT STRESS TRANSFER SHALL BE 4,000 PSI.
- REINFORCING STEEL SHALL BE GR-60, ASTM A-615 (AASHTO M31) AND SHALL BE EPOXY COATED.
- PRESTRESSING STRANDS SHALL CONFORM TO ASTM A-416 (AASHTO M205) AND SHALL CONSIST OF 1/2" x 270 KSI 7 WIRE LOW RELAXATION STRANDS.
- PRESTRESSING STRANDS SHALL EACH BE PULLED TO HAVE A NET TENSION OF 30.9 K AFTER ACCOUNTING FOR CHUCK SLIPPAGE. TENSION SHALL BE VERIFIED BY MEASURING STRAND ELONGATION. SEE EXAMPLE ELONGATION CALCULATION AND TENSIONING PROCEDURE, THIS SHEET.
- ENDS OF PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH END OF VOIDED SLABS AND EPOXY PAINTED.
- THE TOPS OF THE SLABS SHALL RECEIVE A TRANSVERSE RAKE FINISH ROUGHENED TO 1/4" AMPLITUDE.
- SHEAR KEY SURFACES SHALL BE BLASTED CLEAN.
- SLABS SHALL BE HANDLED AND ERECTED USING THE LIFTING LOOPS ONLY. THE MINIMUM SLING ANGLE FROM THE HORIZONTAL SHALL BE 60°. SLABS SHALL BE STORED AND TRANSPORTED WITH TIMBER SUPPORTS WITHIN 2'-0" OF THE SLAB ENDS, UNLESS APPROVED BY J.P. CARRARA & SONS INC.
- MATERIAL SPECIFICATION AND MIX DESIGN SHALL CONFORM TO VERMONT SPEC. F510.02 AND F510.05 RESPECTIVELY.
DESIGN MIX: J.P.C. BRIDGE MIX #450
152 LBS. TYPE III CEMENT - GLENS FALLS CEMENT
1215 LBS. FINE AGGREGATE
1650 LBS. COARSE AGGREGATE
28 GAL. WATER - 233 LBS.
7% (± 2%) AIR CONTENT (5.5 OZ. DAREX II) ADJUST AS REQUIRED
6.0 OZ. ADVA PER 100 LBS. CEMENT, MAX. 7" SLUMP
3 OZ. DARACEM PER 100 LBS. CEMENT
512 OZ. DC1
- QUALITY CONTROL PROCEDURES ARE IN ACCORDANCE WITH PCI REQUIREMENTS. J.P. CARRARA & SONS INC. IS A PCI CERTIFIED PLANT.
- THE VOIDS MUST BE VENTED DURING CURING PERIOD.
- CURING METHOD: AS SOON AS THE TOP OF THE SLAB IS FINISHED, A COVER OF POLY AND A LAYER OF HOMOSOTE (OR BLUE BOARD) WILL BE PLACED OVER THE SLAB. THE DESIRED CURING TEMPERATURE RANGE SHALL NOT DROP BELOW TO DEGREES F. THE TEMPERATURE SHALL BE RECORDED BY AUTOMATIC SENSOR INSTRUMENTS ON GRAPH CHARTS, SPACED NOT MORE THAN 100' APART AND WILL CONTINUE UNTIL RELEASE STRENGTH IS ACHIEVED (NATURAL CURE WITH NO EXTERNAL HEAT APPLIED). EACH CHART SHALL BE MARKED.
- TRANSVERSE POST-TENSIONING SEQUENCE.
A. ONCE VOIDED SLABS ARE ERECTED, POST-TENSION TENDONS TO APPROXIMATELY 5,000 LBS.
B. GROUT SHEAR KEYS.
C. ONCE SHEAR KEY GROUT HAS ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 1500 PSI, POST-TENSION TENDONS TO 30,000 LBS.

EXAMPLE PRESTRESSING STRAND ELONGATION CALC. AND TENSIONING

(NOT TO BE USED FOR CONSTRUCTION)
SIZE & GRADE: 1/2" x 270 KSI
AREA: 0.153 IN²
TENSION: 31,000 LB EACH STRAND
GRIP TO GRIP: 142'-4 3/4" = 142.813'
E_s = 28,600,000 PSI (ASSUMED FOR THESE CALCULATIONS; VALUE TO BE OBTAINED FOR STRAND SPOOL ACTUALLY USED)
EXAMPLE: $\Delta = \frac{PL}{AE} = \frac{(31,000 - 3,000) \times 142.813 \times 12}{0.153 \times 28,600,000} = 14.81"$
TOLERANCES: ± 5%
THEREFORE Δ UPPER LIMIT = 1.05 x 14.81" = 15.55" = 15 9/16"
 Δ LOWER LIMIT = 0.95 x 14.81" = 14.07" = 14 1/16"
EXTRA FORCE REQUIRED TO COMPENSATE FOR 1/2" CHUCK SLIPPAGE.
 $\Delta P = 0.5 \times \frac{28,000}{14.81} = 945$ LB
TOTAL TENSIONING FORCE = 31,000 + 945 = 31,945 LB

STRAND TENSIONING PROCEDURE:

- PULL EACH STRAND INITIALLY TO 3,000* LB AND MARK STRAND.
 - THEN PULL EACH STRAND TO A TOTAL TENSION OF 31,945* LB AND MEASURE ELONGATION AFTER SEATING. IT MUST BE BETWEEN 14 1/16" & 15 9/16"
- *NOTE: FORCES READ ON STRESSING JACK GAUGES MUST BE MADE TO CORRESPOND TO ABOVE VALUES BASED ON CALIBRATION DATA FOR SPECIFIC JACK USED.

12-15-03 REVISED FIXED END BEARING

APPROVAL STAMP:

APPROVED
LEE 11/3/04 JM

RECEIVED
JAN 12 2004
LICHTENSTEIN

CK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE 1/2/04

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 CASE STR., MIDDLEBURY, VERMONT 05753 Phone: (802)388-6361 Fax: (802)388-9010

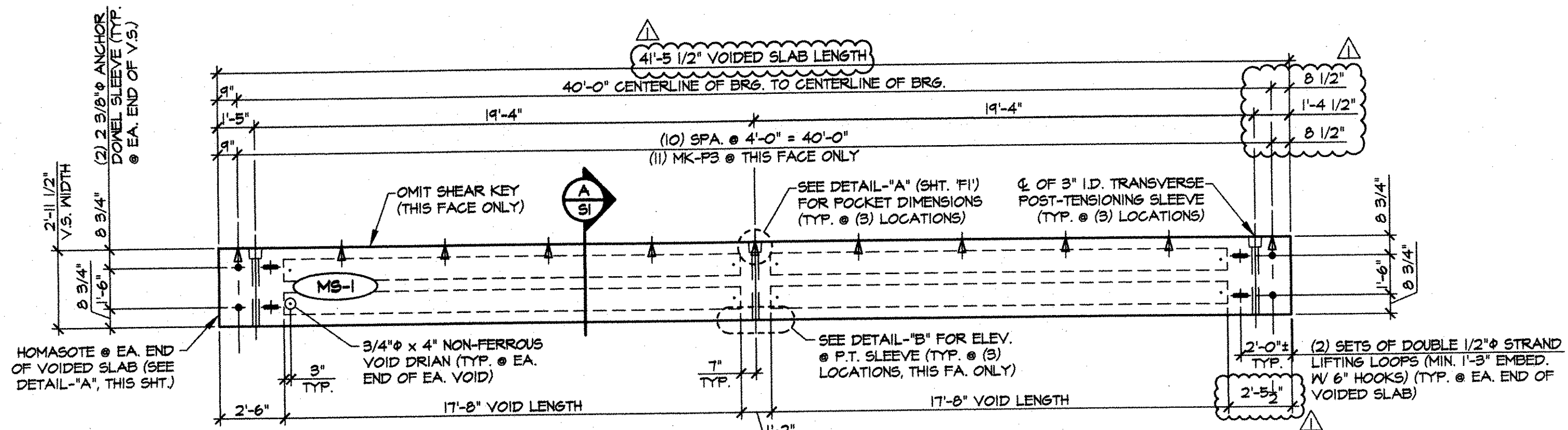
WINTERSET, INC.
CONTRACTOR
LYNDONVILLE, VERMONT

STATE OF VERMONT
AGENCY OF TRANSPORTATION

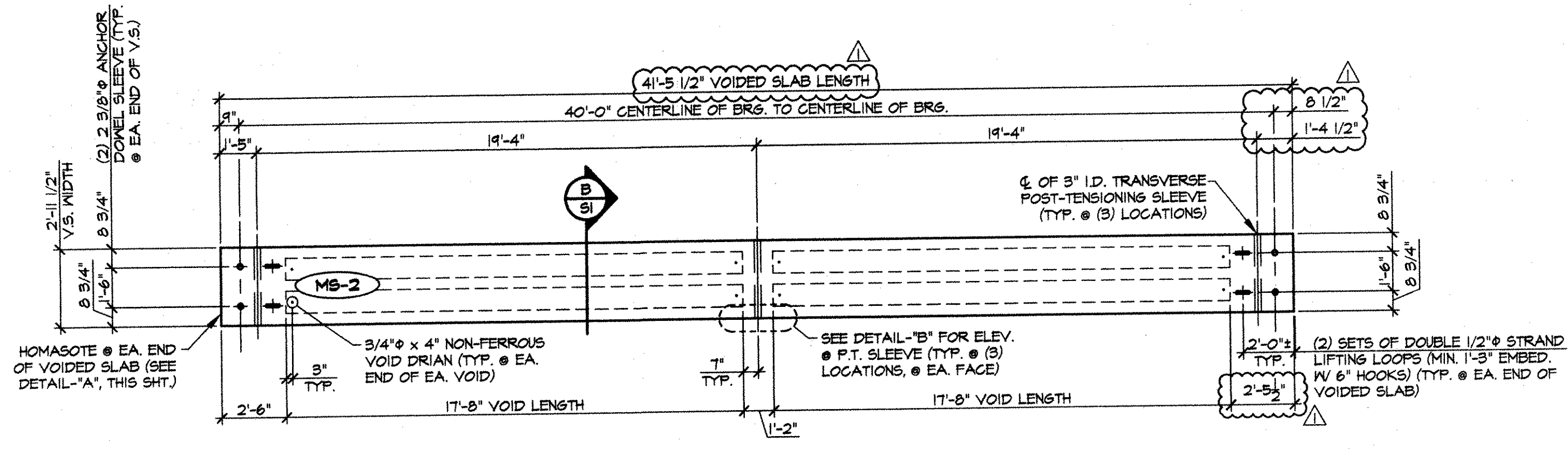
TOWN OF MAIDSTONE
MAIDSTONE STP 2134(1)S and
MAIDSTONE-STRATFORD, NH BHO 1447(24)

DATE: NOV. 14, 2003
SCALE: NOTED
CHKD: DFM: BL.
JOB NO: 23188-03
DWG. NO: F1

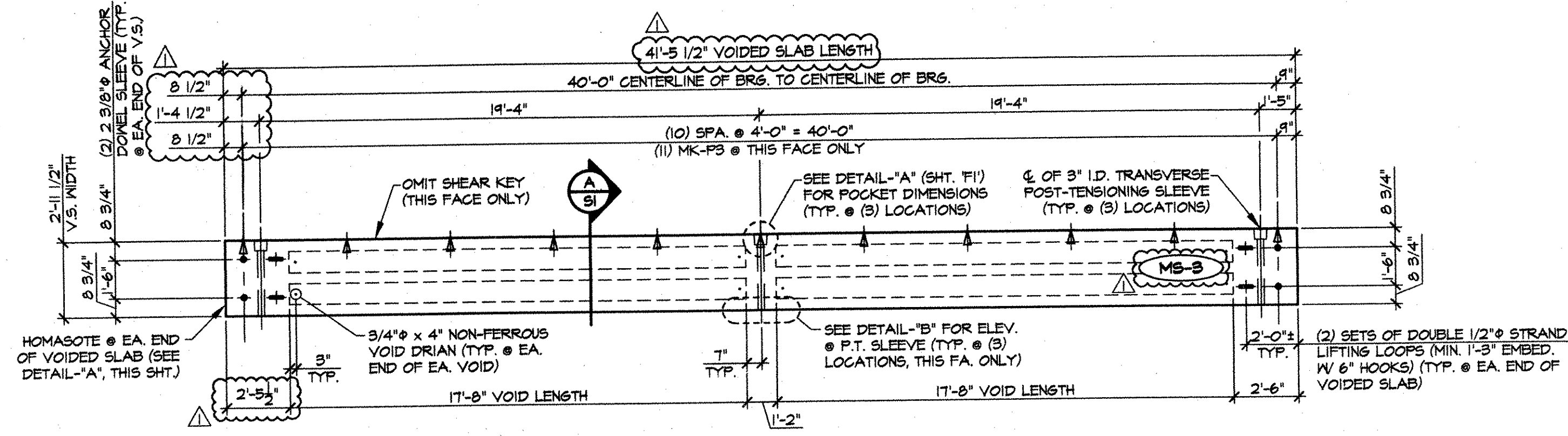
SUPERSTRUCTURE PLAN & DETAILS



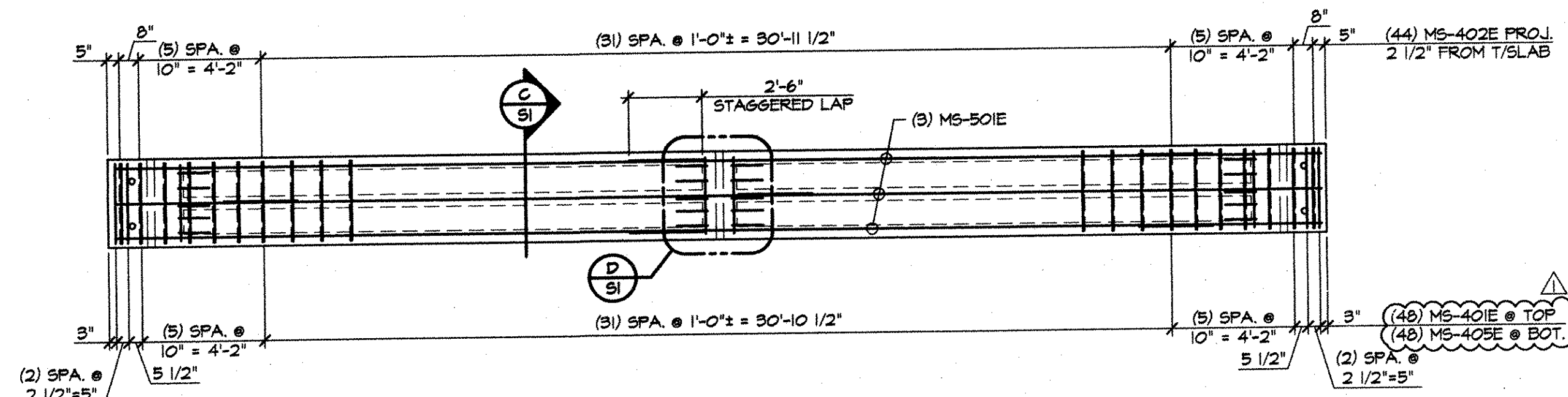
1 DIMENSIONAL PLAN VIEW IN FORM
1/4" = 1'-0"



2 DIMENSIONAL PLAN VIEW IN FORM
1/4" = 1'-0"

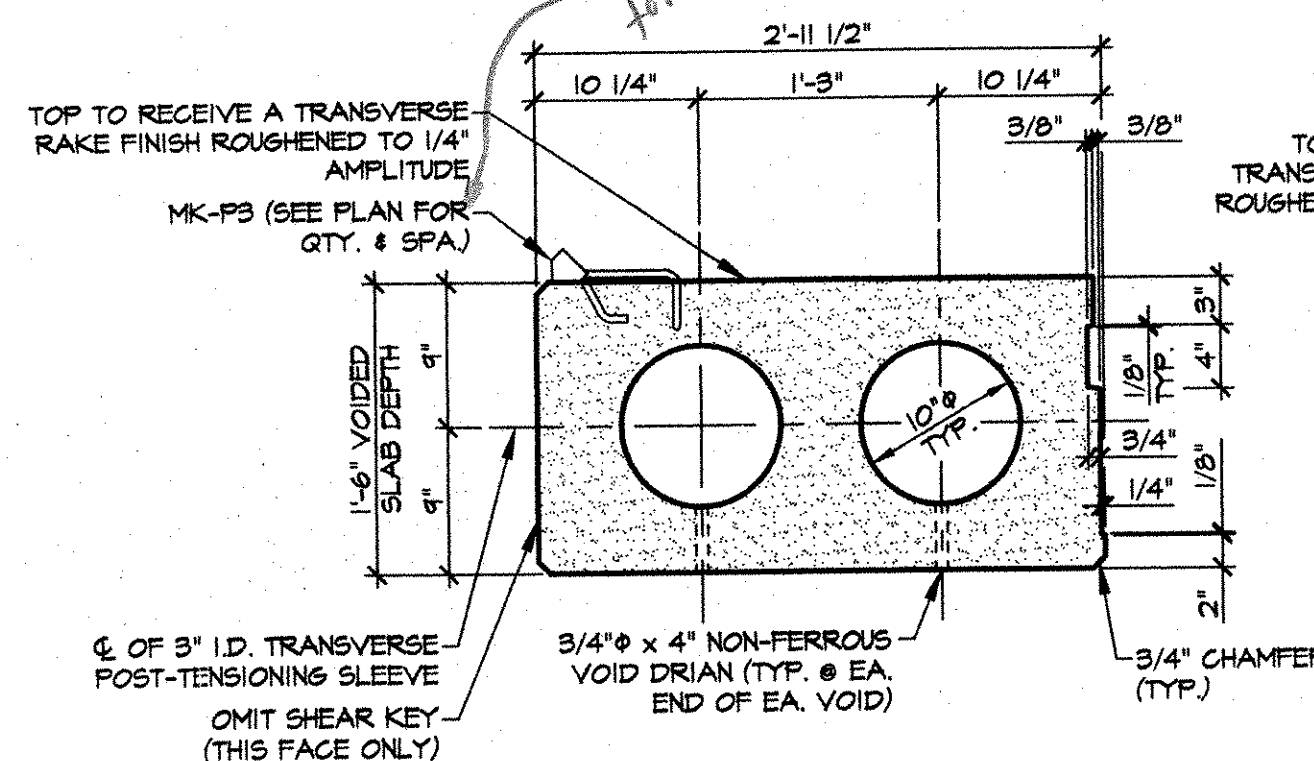


3 DIMENSIONAL PLAN VIEW IN FORM
1/4" = 1'-0"

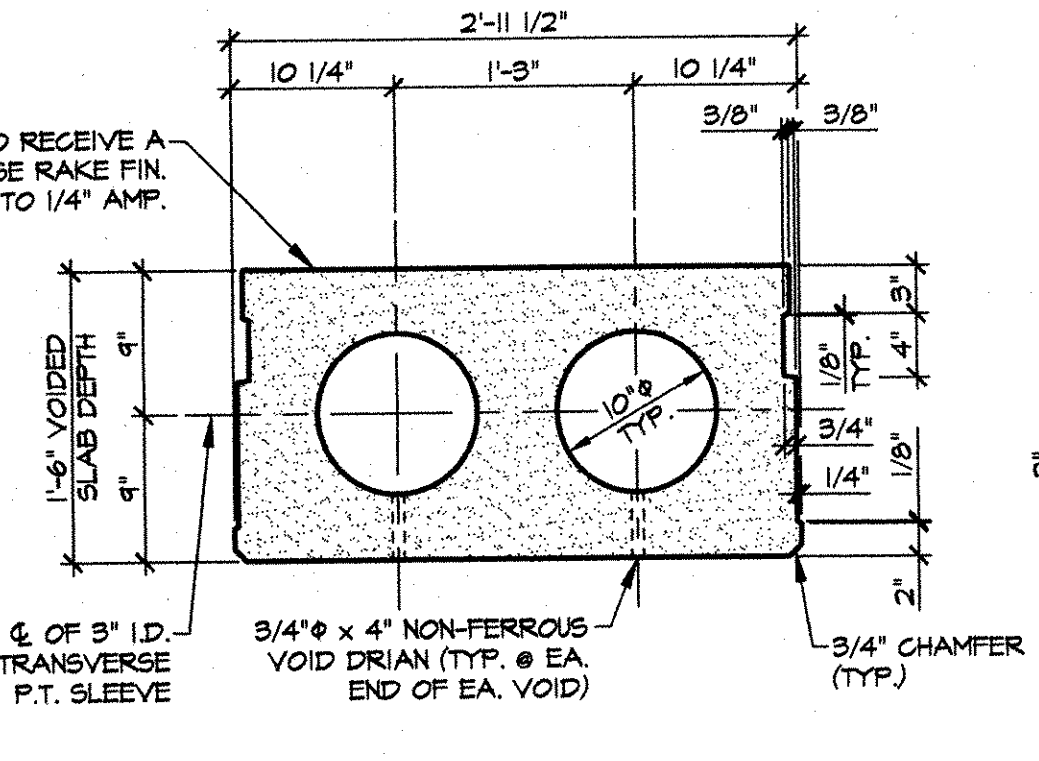


4 REINFORCING PLAN VIEW IN FORM
1/4" = 1'-0"

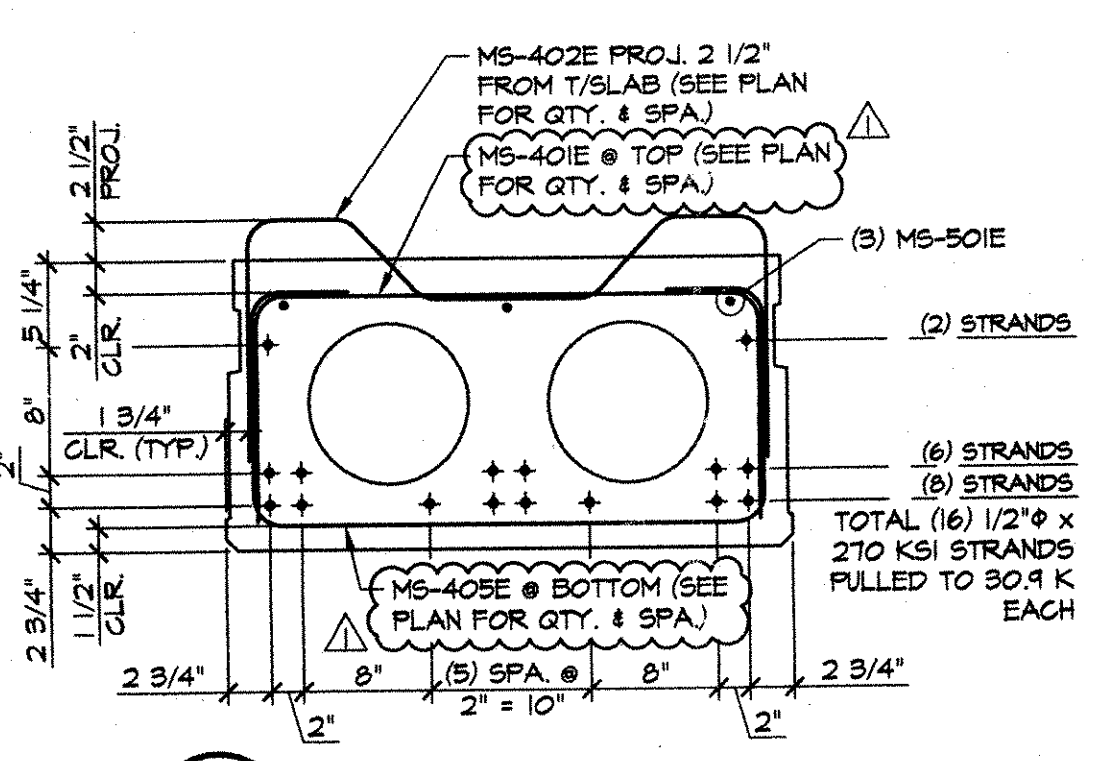
These are to be printed after the concrete curing is completed and the forms removed (if others).



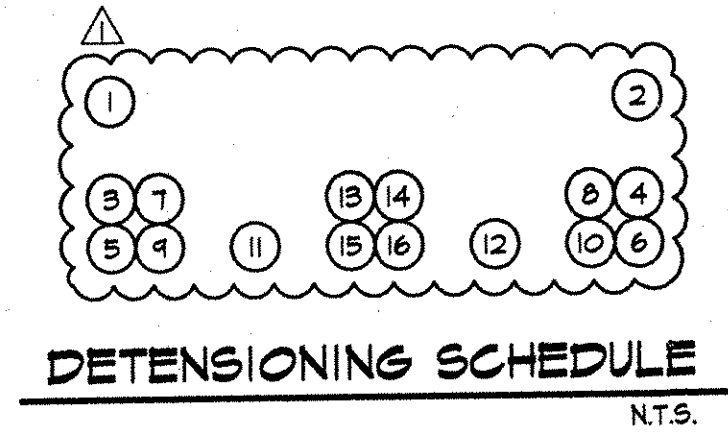
A DIMENSIONAL SECTION
1" = 1'-0"



B DIMENSIONAL SECTION
1" = 1'-0"



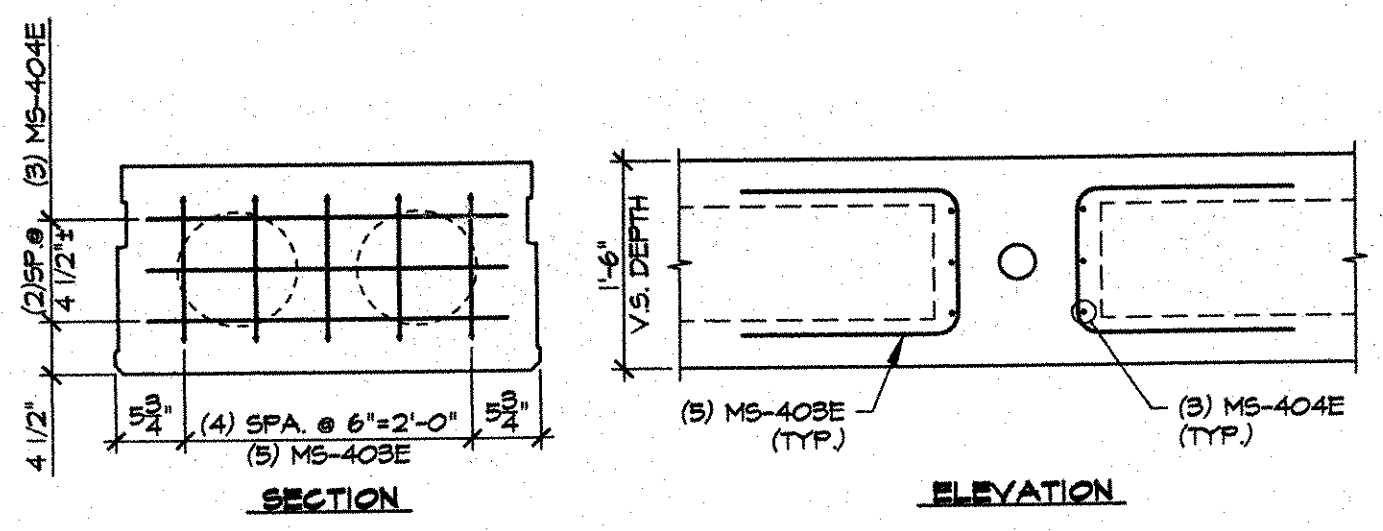
C REINFORCING SECTION
1" = 1'-0"



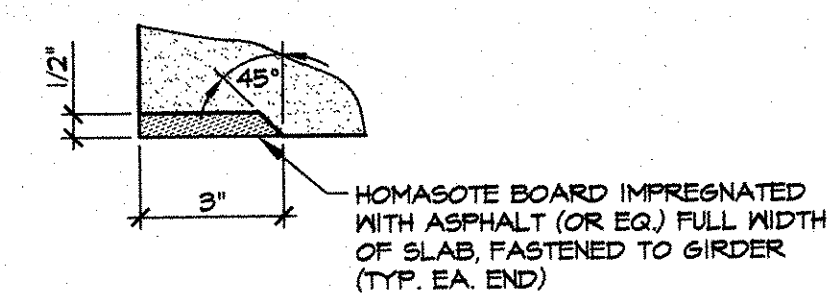
DETENSING SCHEDULE
N.T.S.

MARK: MS-1	QTY.: 1	WT.: 10.75 T	VOL.: 5.31 cy	f'c = 4,000 PSI f'c = 6,000 PSI
MARK: MS-2	QTY.: 4	WT.: 10.58 T	VOL.: 5.22 cy	
MARK: MS-3	QTY.: 1	WT.: 10.58 T	VOL.: 5.22 cy	

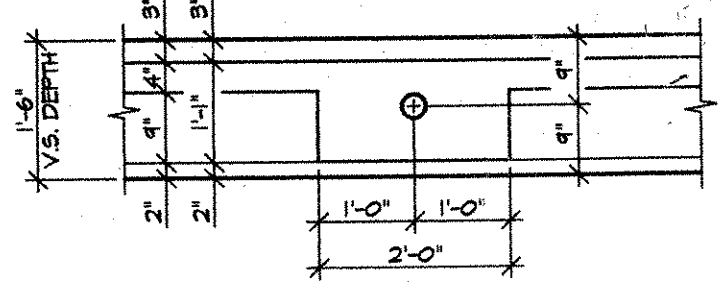
MATERIAL LIST / VOIDED SLAB					
ITEM	MARK	DESCRIPTION	QTY./SLAB		
			MS-1	MS-2	MS-3
1	401E	#4 BENT BAR (EPOXY COATED)	48	48	48
2	402E	#4 BENT BAR (EPOXY COATED)	44	44	44
3	403E	#4 BENT BAR (EPOXY COATED)	20	20	20
4	404E	#4 x 2'-6" (EPOXY COATED)	12	12	12
5	405E	#4 BENT BAR (EPOXY COATED)	48	48	48
6					
7	501E	#5 CONTINUOUS (W/ (2) 2'-6" STAGGERED LAPS) (E.C.)	3	3	3
8					
9	MK-P3	MEADOW BURKE HF-42 PRECAST EMBED HANGER (GALV.)	11		11
10		10" x 17'-8" VOID	4	4	4
11		3/4" x 4" NON-FERROUS VOID DRAIN	8	8	8
12		DOUBLE 1/2" x 5" STRAND LIFTING LOOPS	4	4	4



D END BLOCK REINFORCING DETAILS
3/4" = 1'-0"



DETAIL - "A"
3" = 1'-0"



DETAIL - "B"
1/2" = 1'-0"

APPROVAL STAMP:

APPROVED
LCE 1/13/04 JM

RECEIVED
JAN 05 2004

CKD BY: _____ OKD BY: _____

RESUBMIT: _____ APPROVED: _____ DATE: 1/20/04

BY: _____ DATE: 1/20/04

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2864 CASE ST., MIDDLEBURY, VERMONT 05753 Phone: (802)388-6361 Fax: (802)388-8010

WINTERSSET, INC.
CONTRACTOR
LYNDONVILLE, VERMONT

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF MAIDSTONE
MAIDSTONE STP 2134(1)S and
MAIDSTONE-STRATFORD, NH BHO 1447(24)

P/S VOIDED SLAB DETAILS

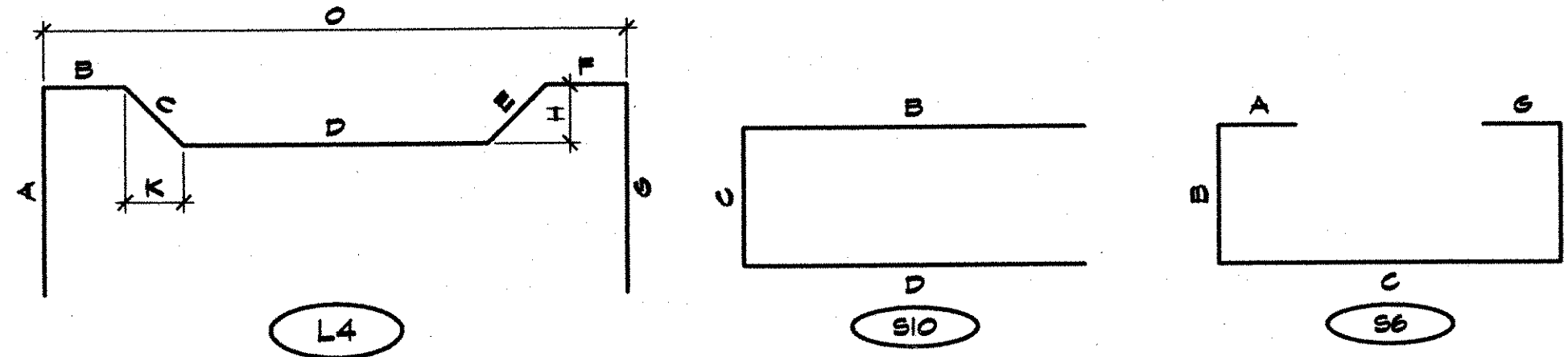
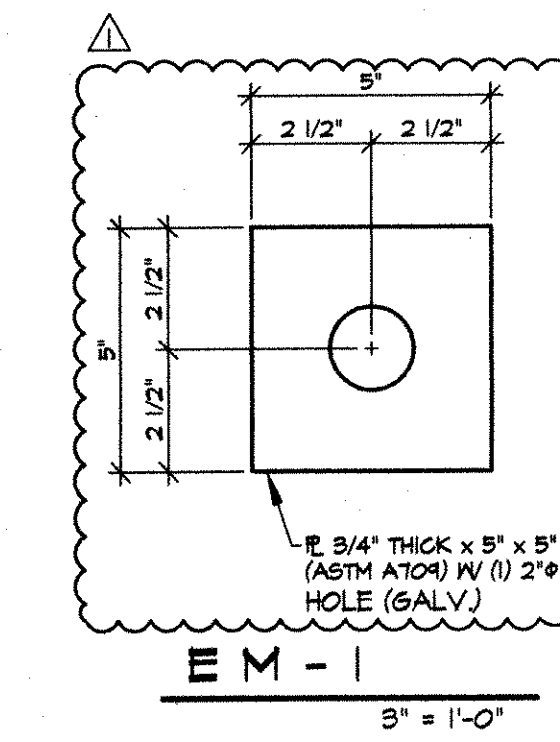
DATE: NOV. 14, 2003
SCALE: NOTED
CHKD: _____ DFTM: B.L.
JOB NO: 25188-03
DWG. NO: S1

BENT BARS, TIES, & STIRRUPS

ITEM	MARK	QTY.	SIZE	LENGTH	TYPE	A	B	C	D	E	F/R	G	H	J	K	O	GRADE	REMARKS
1	401E	(288)	#4	4'-10"	S10		1'-2"	2'-8"	1'-2"								60	EPOXY COATED
2	402E	264	#4	5'-2"	L4	1'-3"	6"	6 3/8"	11"	6 3/8"	6"	1'-3"	4 1/2"		4 1/2"	2'-8"	60	EPOXY COATED
3	403E	120	#4	3'-10 1/2"	S10		1'-6"	1'-0 1/2"	1'-6"								60	EPOXY COATED
4	404E	72	#4	2'-6"	STR.												60	EPOXY COATED
5	405E	288	#4	5'-4"	S6	6"	1'-2 1/2"	2'-8"	1'-2 1/2"			6"					60	EPOXY COATED
6																		
7	501E	18	#5	CONTINUOUS	STR.												60	E.C. IV (2) 2'-6" STAGGERED LAPS
8																		
9																		
10																		

MISCELLANEOUS MATERIALS

ITEM	MARK	QTY.	DESCRIPTION	REMARKS
1	EM-1	6	2 3/4" x 5" x 5" IV (1) 2" HOLE (GALV.)	FOR ERECTION, SEE DETAIL THIS SHEET
2		6	SINGLE USE STRESSING CHUCK	FOR ERECTION
3		3	1/2" x 20'-4" POLYSTRAND	FOR ERECTION
4				
5	MK-P3	22	MEADOW BURKE HF-42 PRECAST EMBED HANGER	GALVANIZED
6		24	10" x 17'-8" VOID	
7		48	3/4" x 4" NON-FERROUS VOID DRAIN	
8		24	DOUBLE 1/2" STRAND LIFTING LOOPS	
9				
10				



12-15-03 REVISED AS NOTED

APPROVAL STAMP:

APPROVED
LCE 1/13/04 JM

RECEIVED
JAN 09 2004

CHK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE 1/13/04

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturer
2464 GAGE STR., WOODBURY, VERMONT 05753 Phone:(802)388-6361 Fax:(802)388-9010

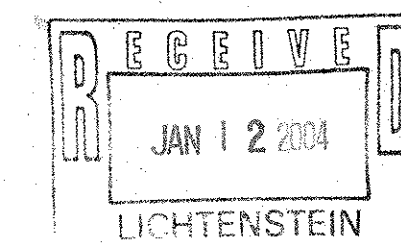
WINTERSET, INC.
CONTRACTOR
LYNDONVILLE, VERMONT

STATE OF VERMONT
AGENCY OF TRANSPORTATION

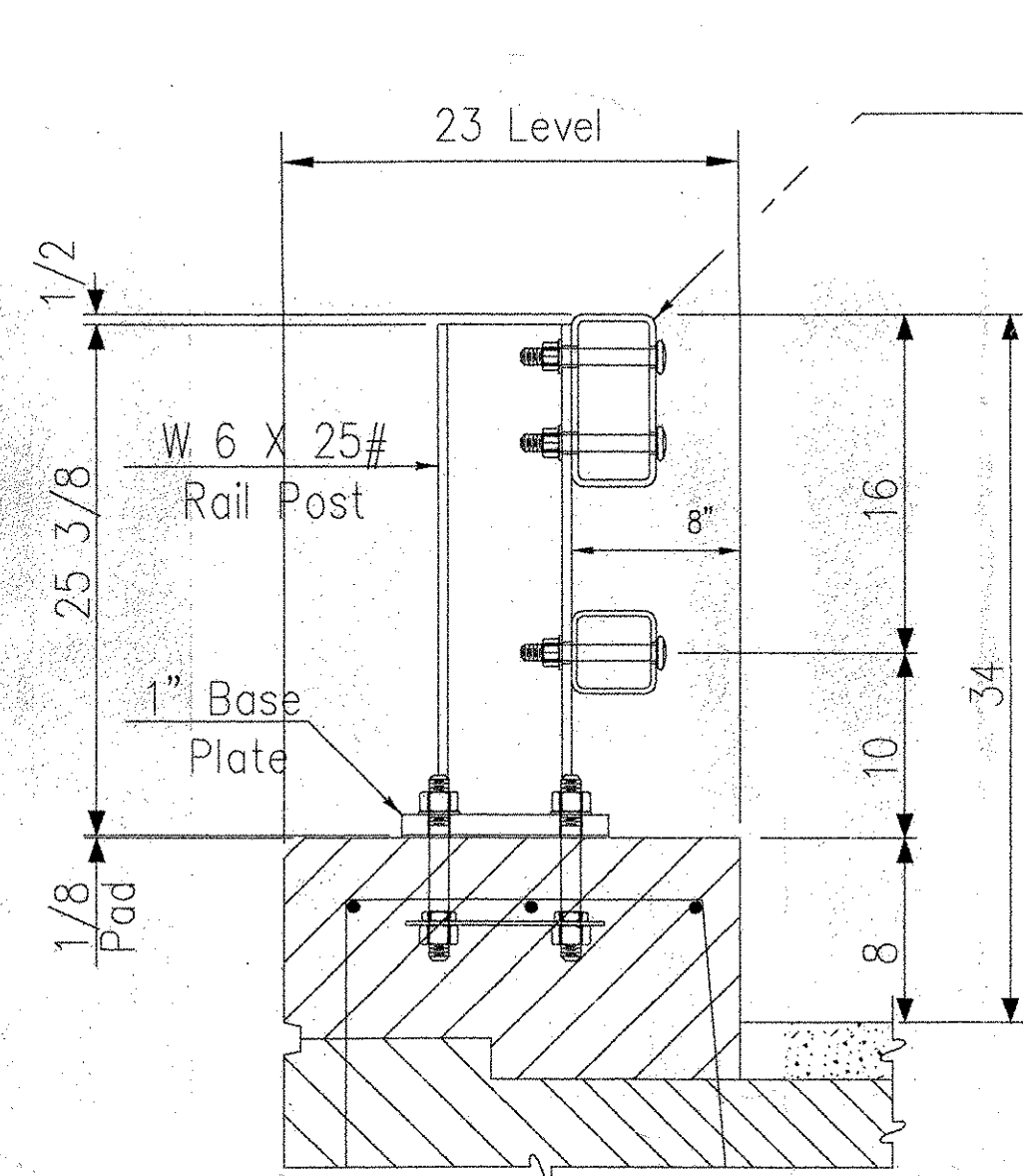
TOWN OF MAIDSTONE
MAIDSTONE STP 2134(1)S and
MAIDSTONE-STRATFORD, NH BHO 1447(24)

MATERIALS LIST

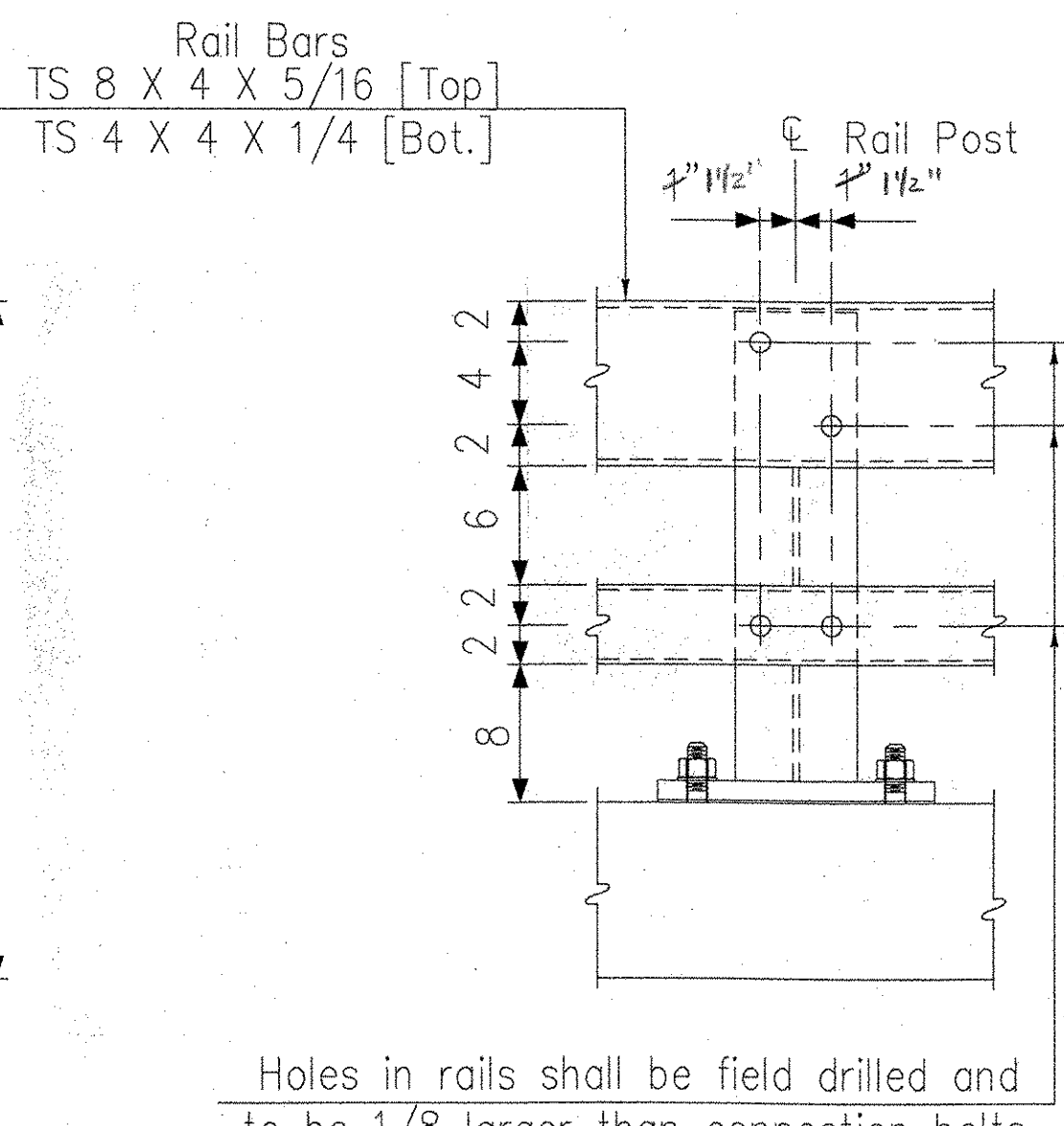
DATE: NOV. 14, 2003
SCALE: NOTED
CHKD: _____ DFTM: B.L.
JOB NO: 23188-03
DWG. NO: M1



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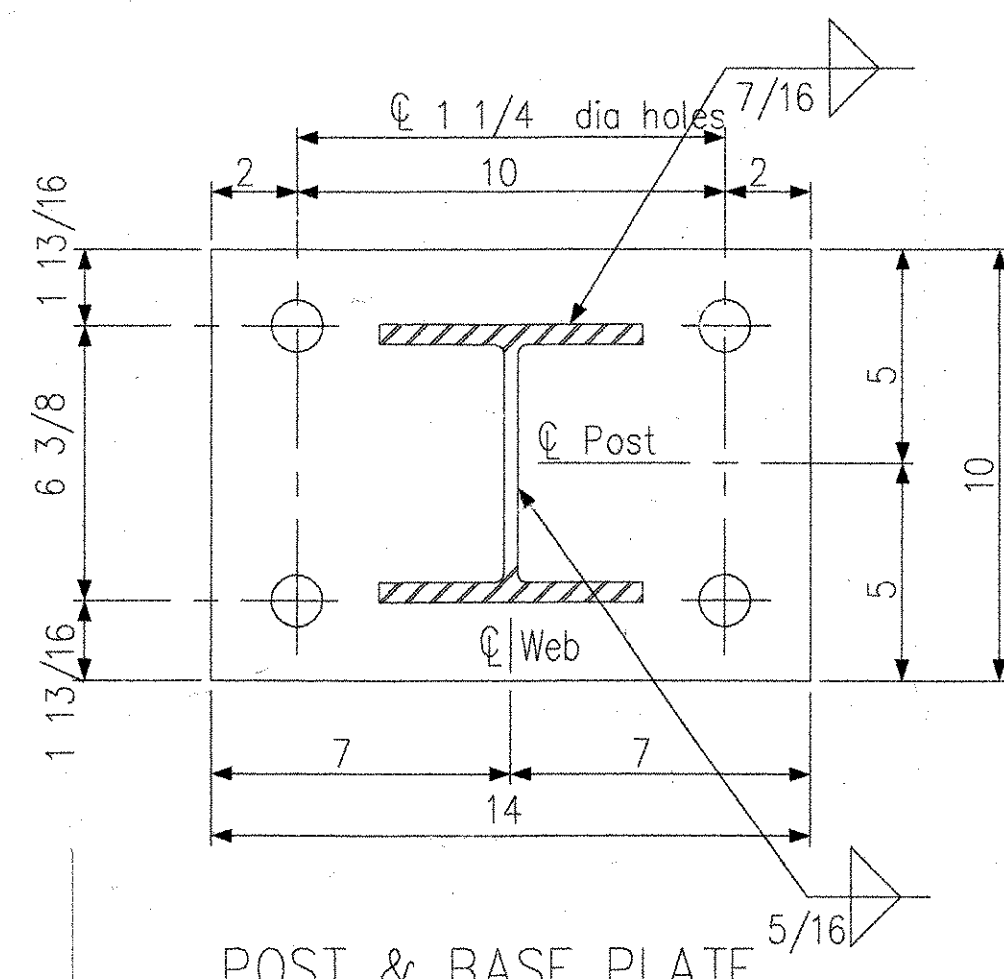


SPAN 1 RAIL POST

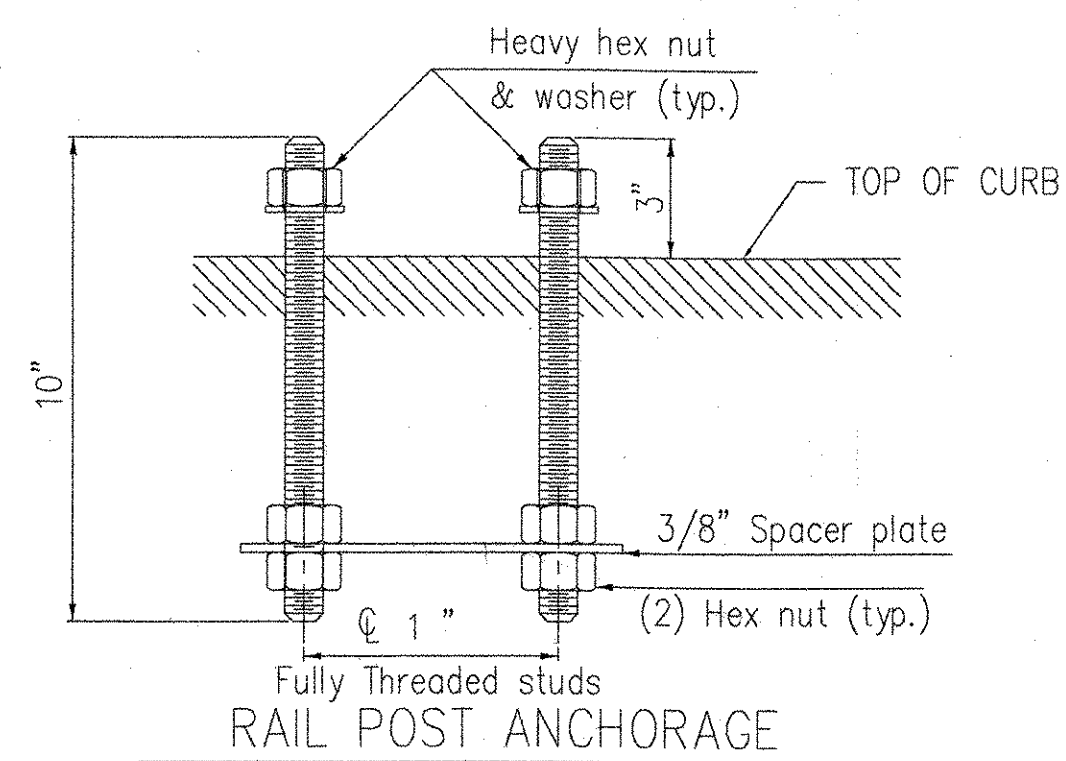


Holes in rails shall be field drilled and to be 1/8 larger than connection bolts.
3/4 dia x 6" round head bolt w/ washer & locknut

ELEVATION



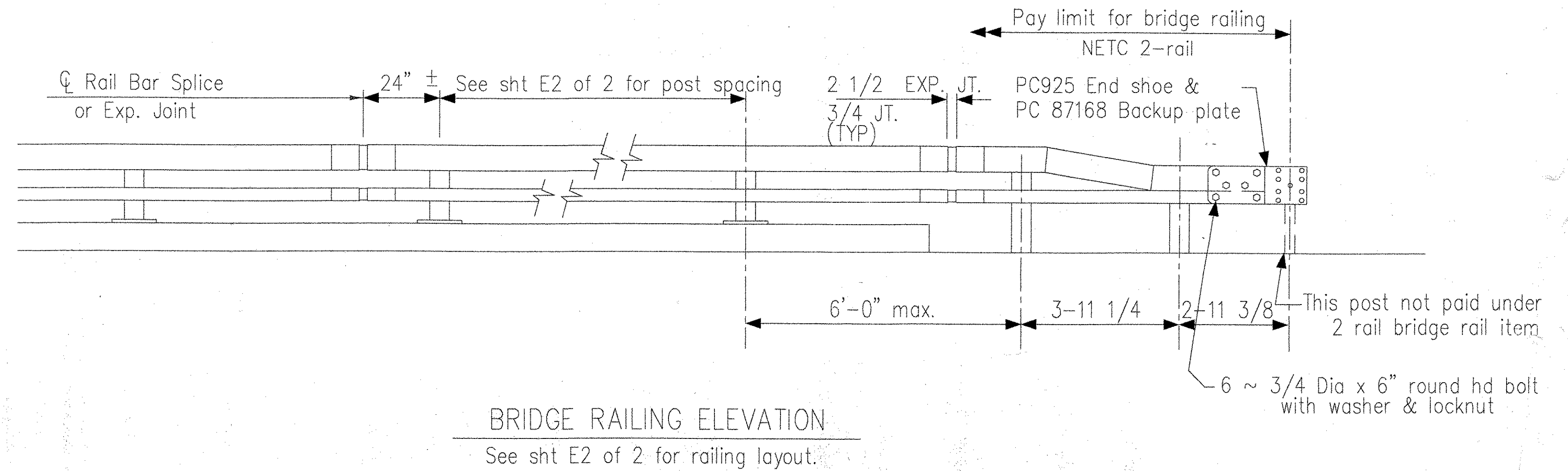
POST & BASE PLATE



RAIL POST ANCHORAGE

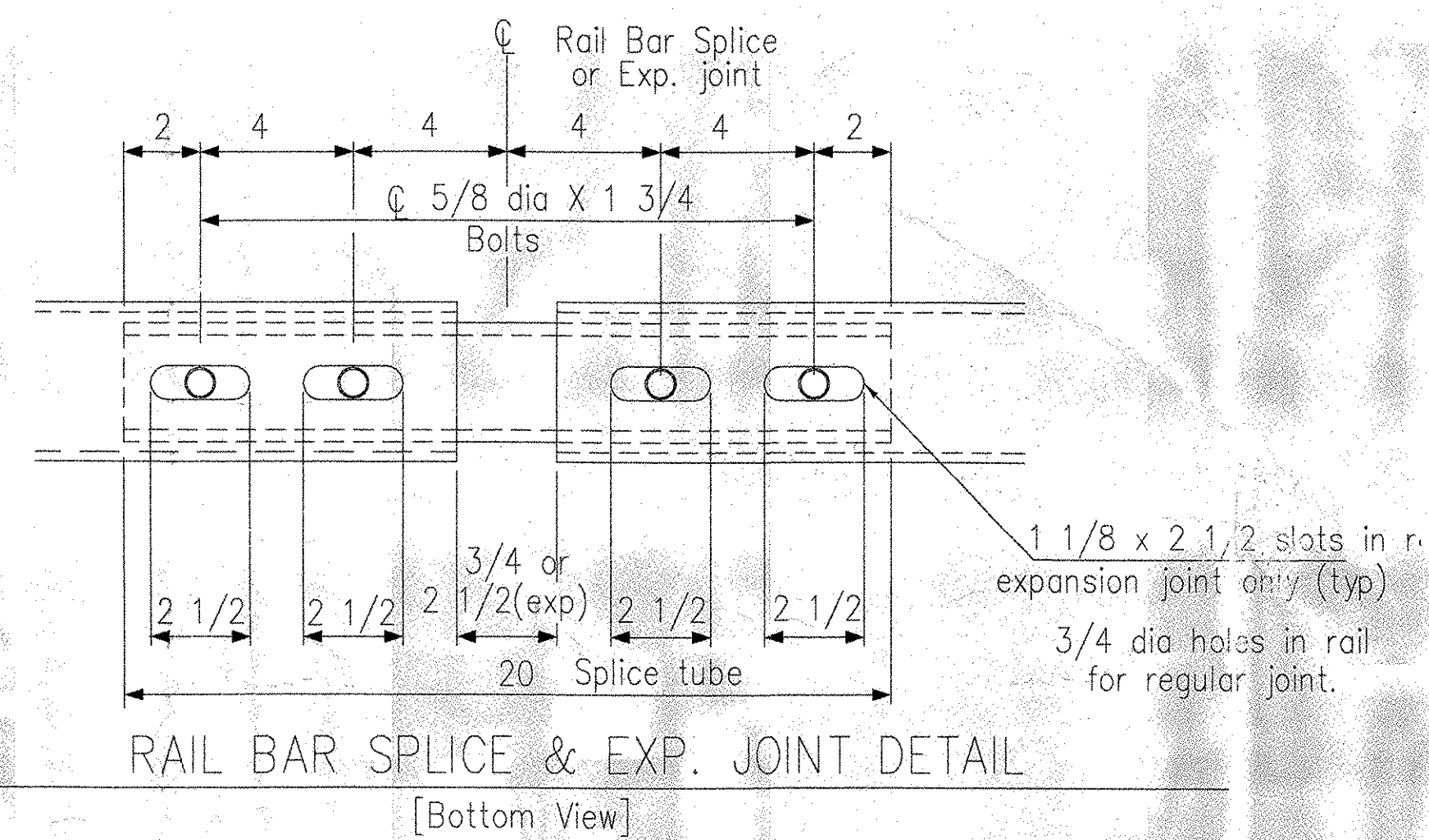
APPROVED EXCEPT AS NOTED

LICHTENSTEIN CONSULTING ENGINEERS, INC.
This drawing has only been checked for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and validated at the job site, for information that pertains only to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.
By M.T.W. Date 01/09/04



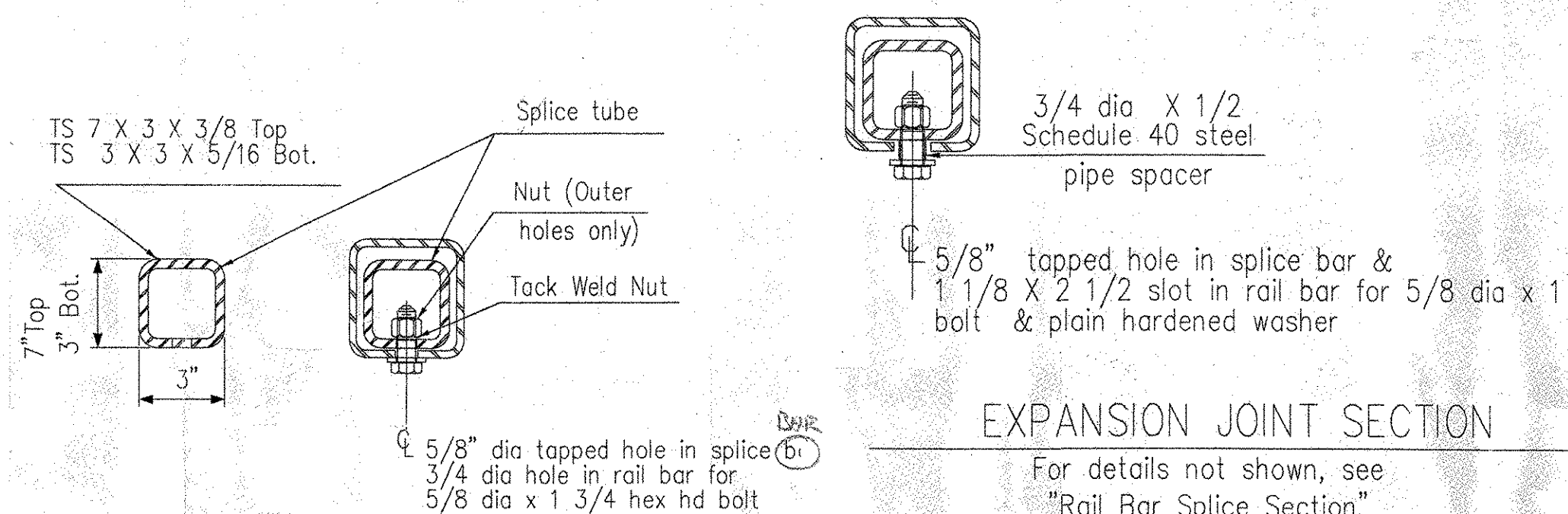
BRIDGE RAILING ELEVATION

See sht E2 of 2 for railing layout.



RAIL BAR SPICE & EXP. JOINT DETAIL

[Bottom View]



RAIL BAR SPICE SECTION

EXPANSION JOINT SECTION

For details not shown, see "Rail Bar Splice Section"

APPROVAL DRAWING

GIRARD ENGINEERING DEPT. ISSUED
Wednesday, March 24, 2004
TRINITY INDUSTRIES, INC.
1170 N. STATE STREET
GIRARD, OHIO 44420

NOTES

- All work and materials shall conform to the provisions of Section 525 - Railings of the Standard Specifications for Construction.
- Rail posts shall be set normal to grade.
- Sections of rail bar shall be attached to a minimum of two [2] rail posts and preferably to at least four [4] posts.
- Rail bar expansion joints shall be provided in any rail bay spanning a superstructure expansion joint. Expansion joint width shall be 65mm at 7 °C and will be adjusted in the field by the Engineer.
- All parts shall be galvanized after fabrication in accordance with AASHTO M111, except that hardware shall meet the requirements of AASHTO M232. Prior to galvanizing, all corners and edges of steel plates shapes, etc., shall be ground to a 1.6 mm radius.
- Rail posts anchoring nuts shall be tightened to a snug fit and given an additional 45 degree turn.
- Any bending of rail shall be by shop procedure, only.
- Holes in rails for rail bar attachment may be field drilled. Holes shall be coated with an approved zinc-rich paint prior to erection.
- Shop inspection is required.

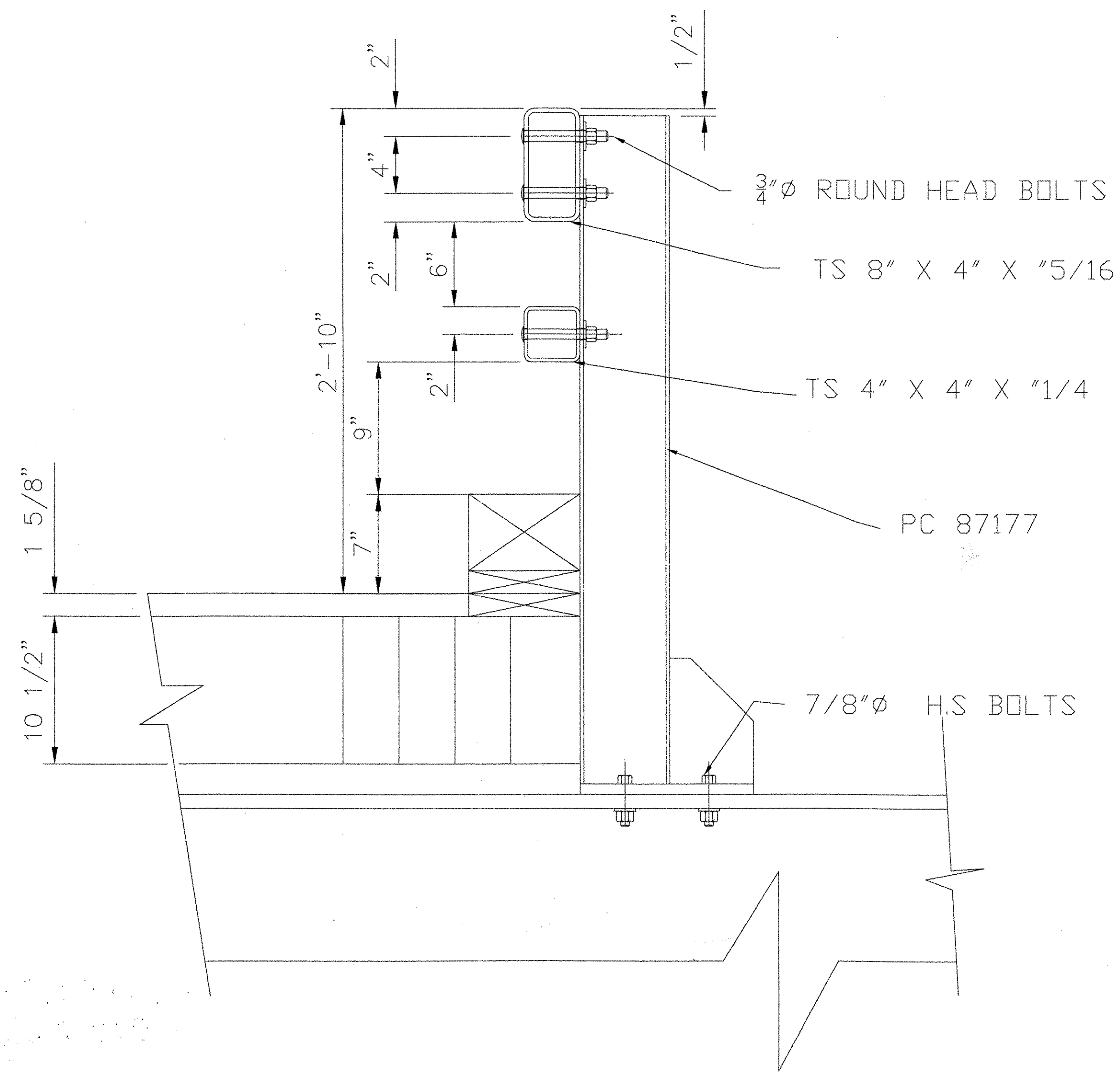
SHOP DETAILS ARE ON D1 D2 AND D3 OF 3

V.A.O.T. RECEIVED
OK'D BY JWC
APR 01 2004
RESUBMIT APPROVED
BY DATE 04-23-04

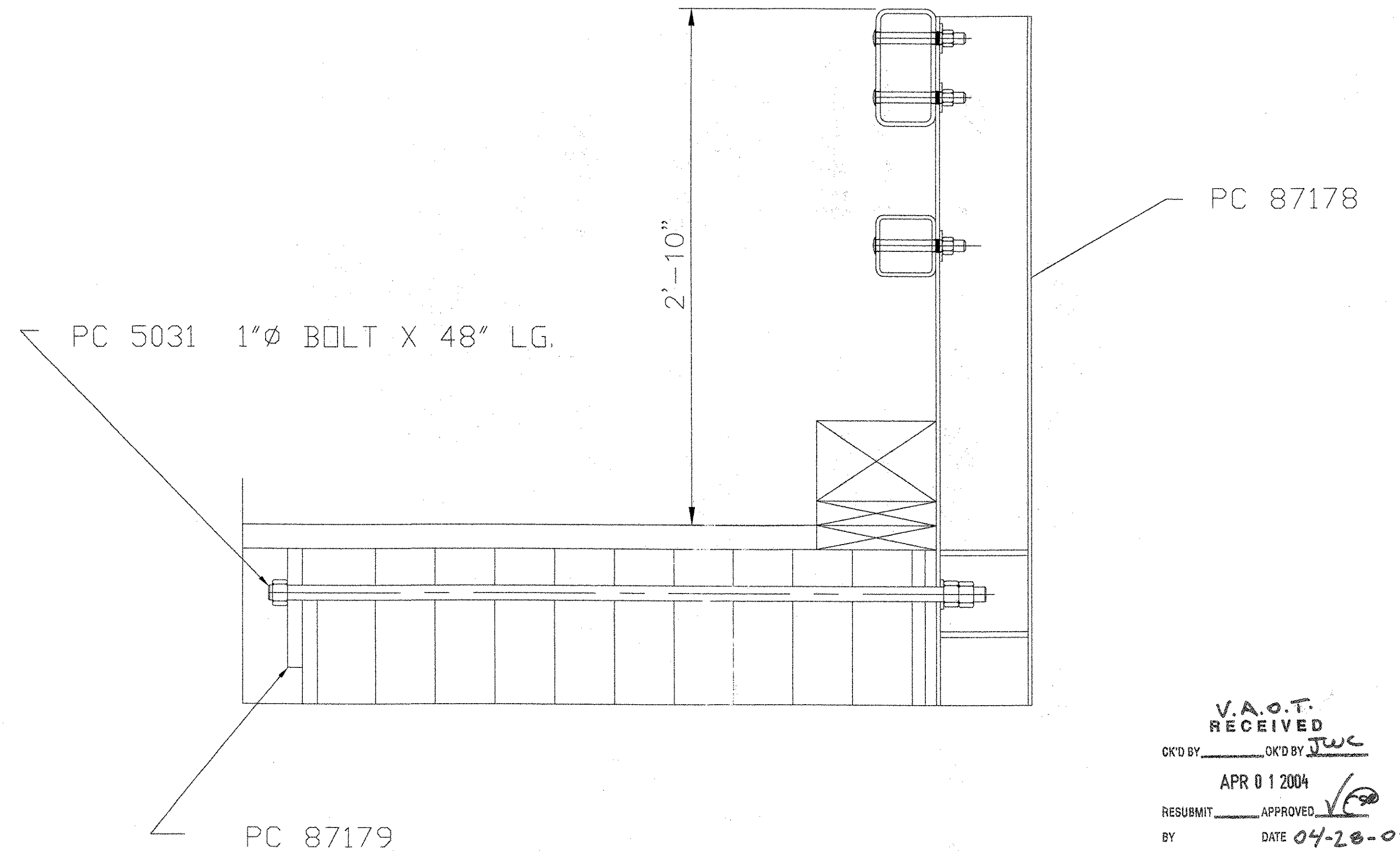
RECEIVED
APR 7 2004
LICHTENSTEIN

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REV.	CHK'D	BY	DATE	REMARKS
PAY ITEM 525.33 NETC-2-RAIL				
STATE OF VERMONT AGENCY OF TRANSPORTATION TOWN OF MADISON, VT STRATFORD, NH PROJECT NO. NH BHO-1447-(24)				DRAWN MARLEY CHECKED SAR APPROVED
CUSTOMER WINTERSET INC		P.O. No. C-1308		DATE 3/4/04
TRINITY INDUSTRIES, INC. HIGHWAY SAFETY PRODUCTS 2525 STEMMONS FREEWAY, DALLAS, TX 75207				ENG. FILE # 22-1032196 SHT. No. E1 OF 3 TRINITY SALES ORDER NO. (22)1032196 REV. 0



BRIDGE RAIL SECTION AT FLOOR BEAM



BRIDGE RAIL CONNECTION AT INTERMEDIATE POST

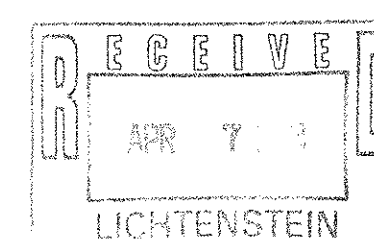
V.A.O.T. RECEIVED
 CK'D BY _____ OK'D BY *JWC*
 APR 01 2004
 RESUBMIT _____ APPROVED *[Signature]*
 BY _____ DATE 04-28-04

APPROVED EXCEPT AS NOTED

LICHTENSTEIN CONSULTING ENGINEERS, INC.
 This drawing has only been checked for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.
 By *R.S.W.* Date *04/08/04*

APPROVAL DRAWING

GIRARD ENGINEERING DEPT. ISSUED
 Wednesday, March 24, 2004
TRINITY INDUSTRIES, INC.
 1170 N. STATE STREET
 GIRARD, OHIO 44420

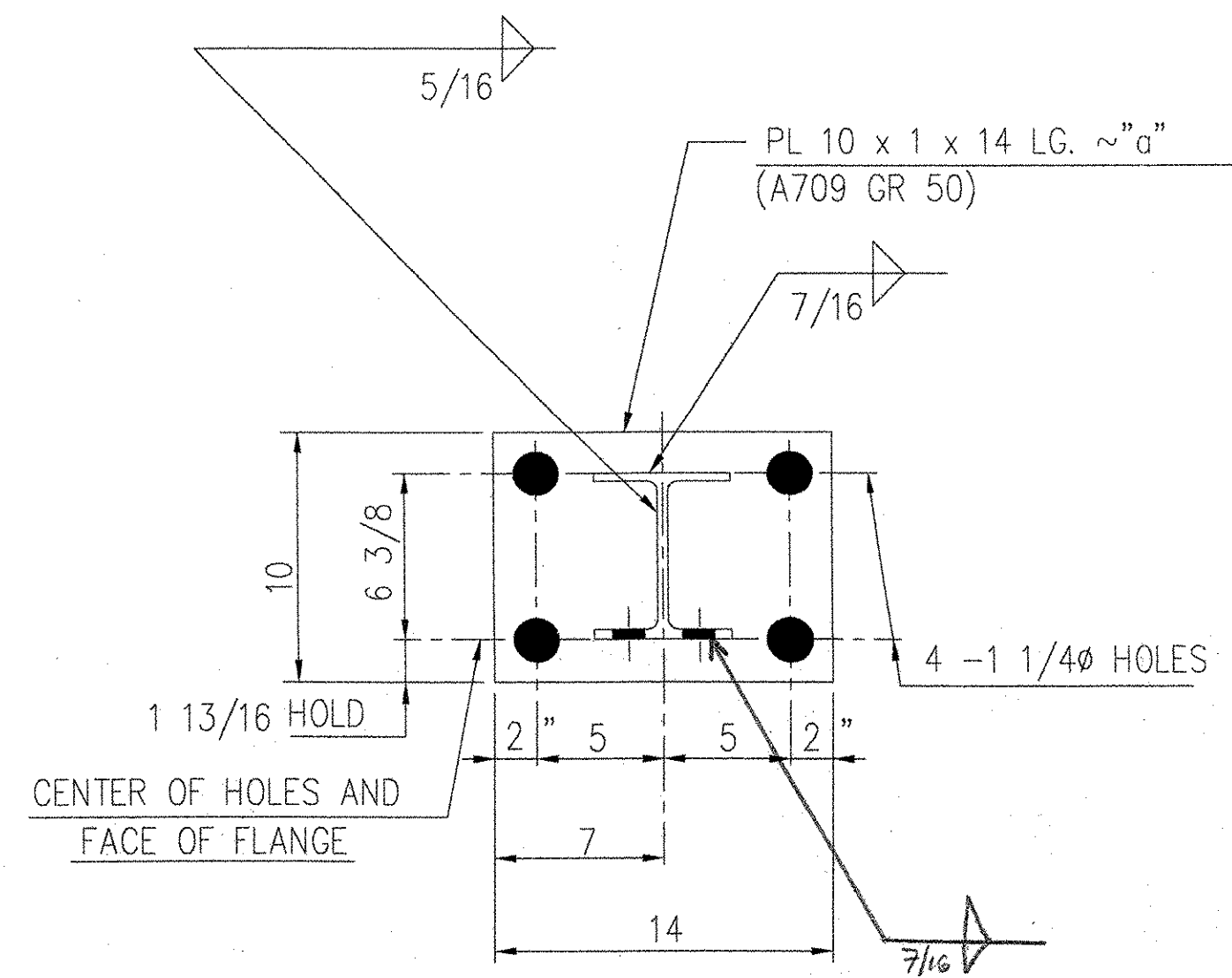


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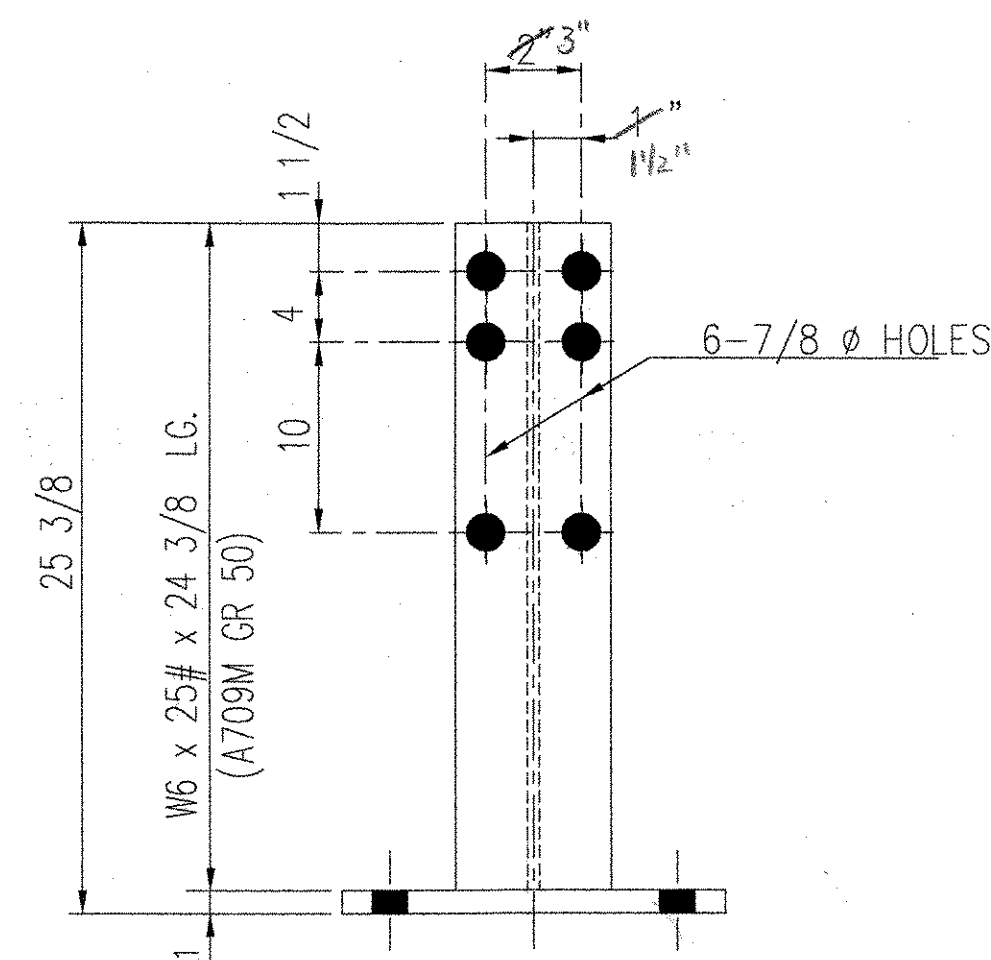
SHOP DETAIL ARE ON D1 D2 AND D3 OF 3

REV.	CHK'D	BY	DATE	REMARKS
PAY ITEM 525.33 NETC 2-RAIL				
STATE OF VERMONT AGENCY OF TRANSPORTATION TOWN OF MADISON, VT STRATFORD, NH PROJECT NO. NH BHO-1447-(24)				DRAWN MARLEY CHECKED SAR SCALE:
CUSTOMER WINTERSET INC.		P.O. No. C-1308		DATE 3/18/04
TRINITY INDUSTRIES, INC. HIGHWAY SAFETY PRODUCTS 2525 STEMMONS FREEWAY, DALLAS, TX 75207				ENG. FILE # 22-1032193 SHT. No. E3 OF 3 TRINITY SALES ORDER NO. (22) 1032196
				REV. 0

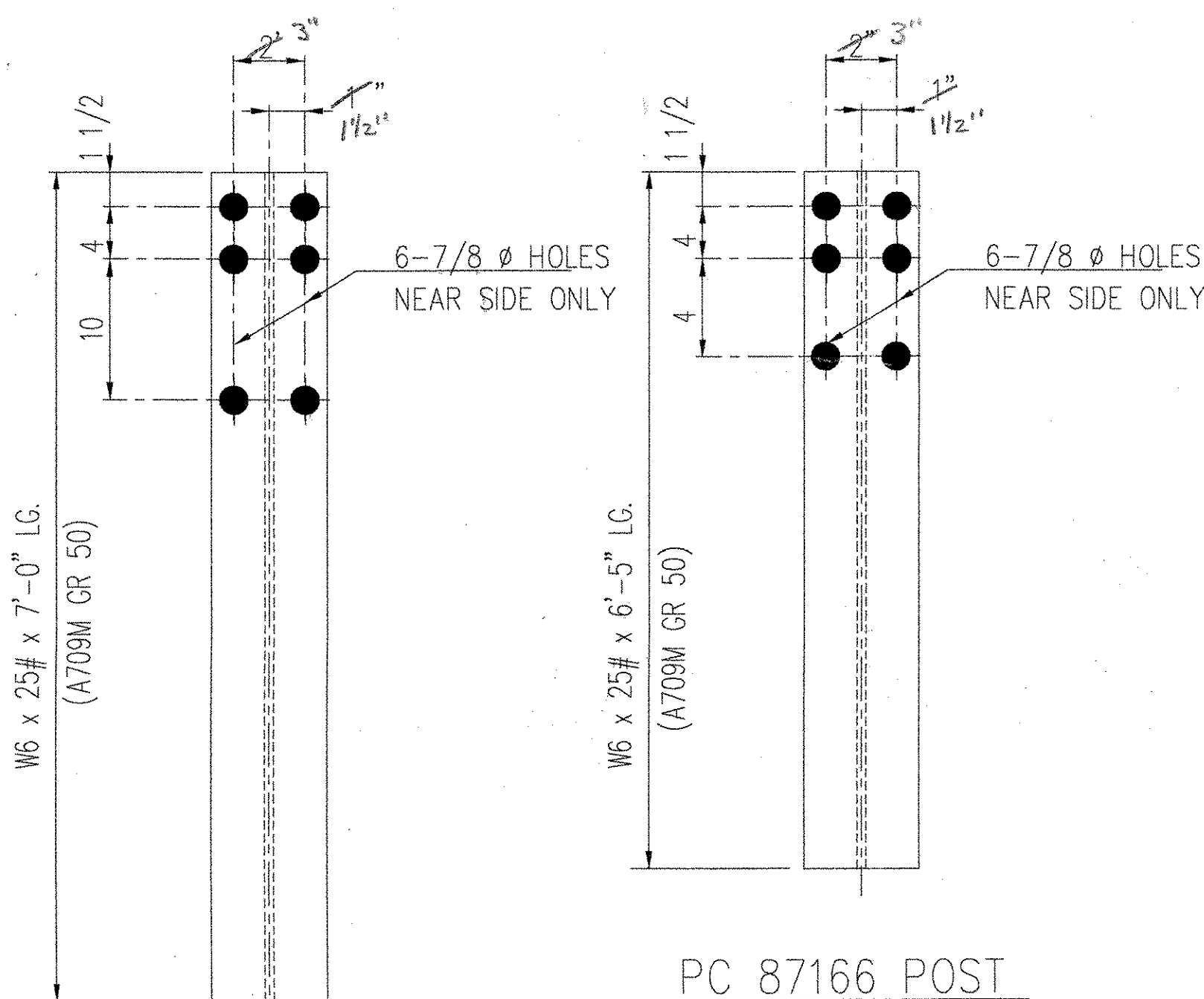
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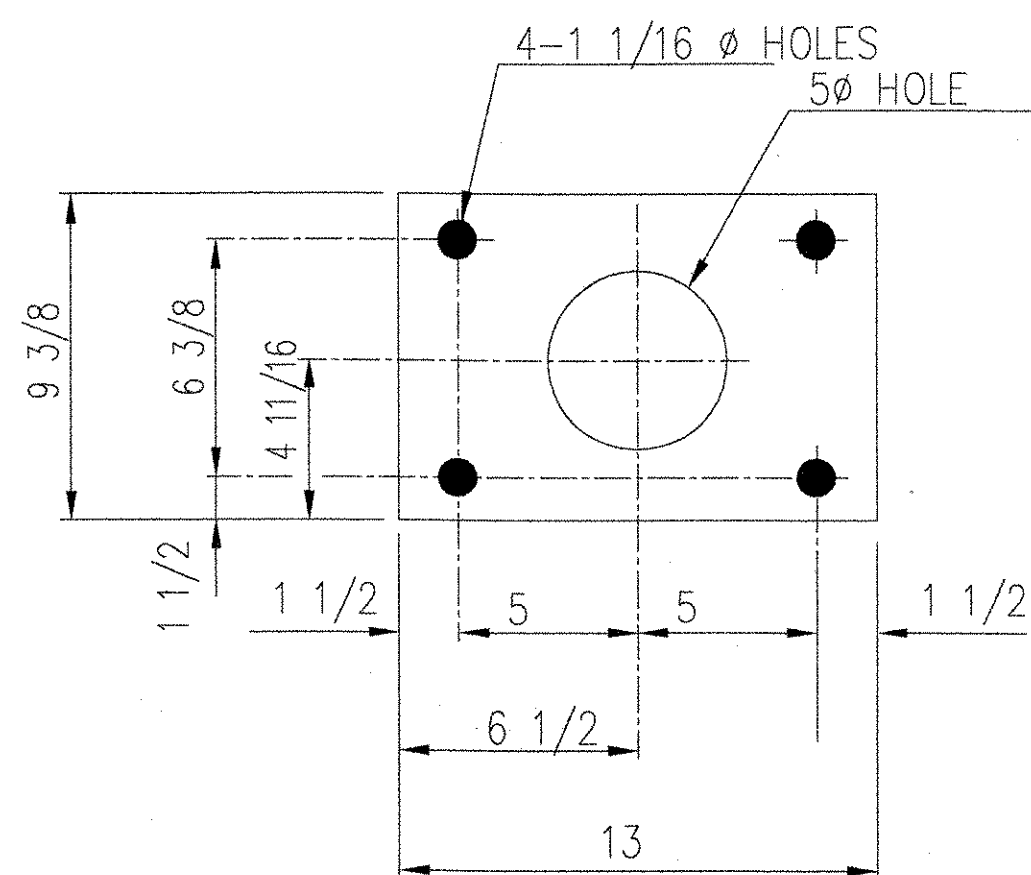
PC 87164 POST



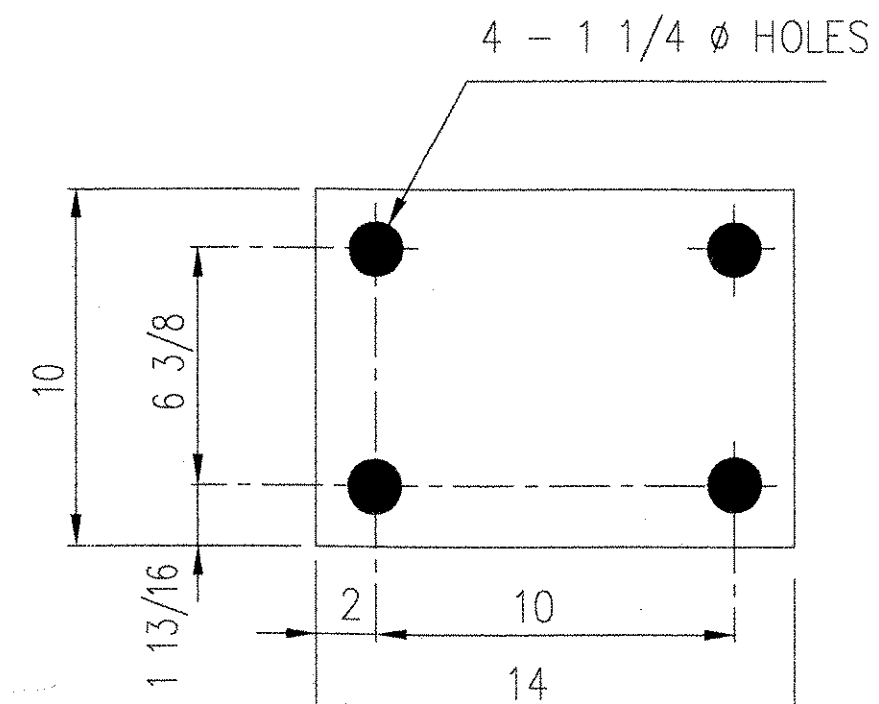
PC 87165 POST



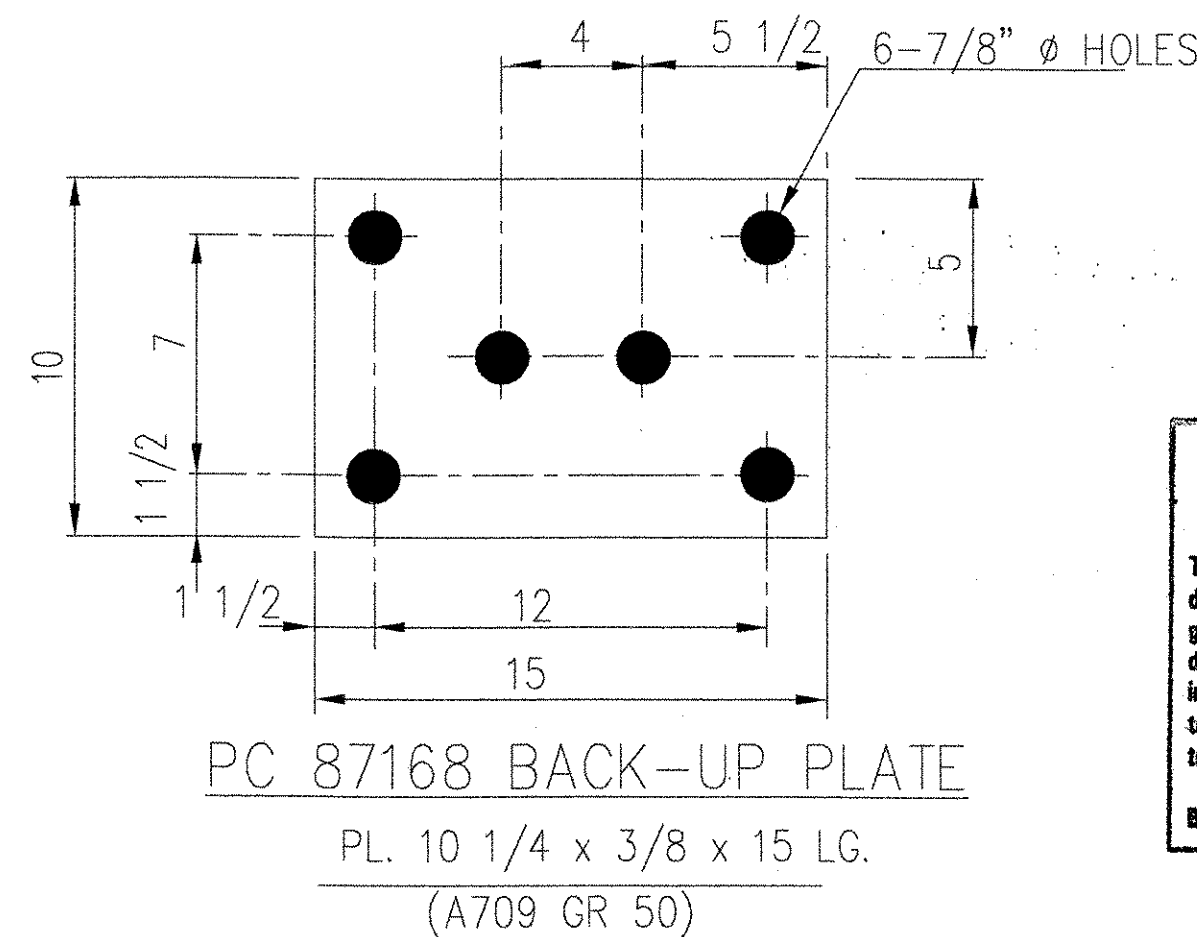
PC 87166 POST



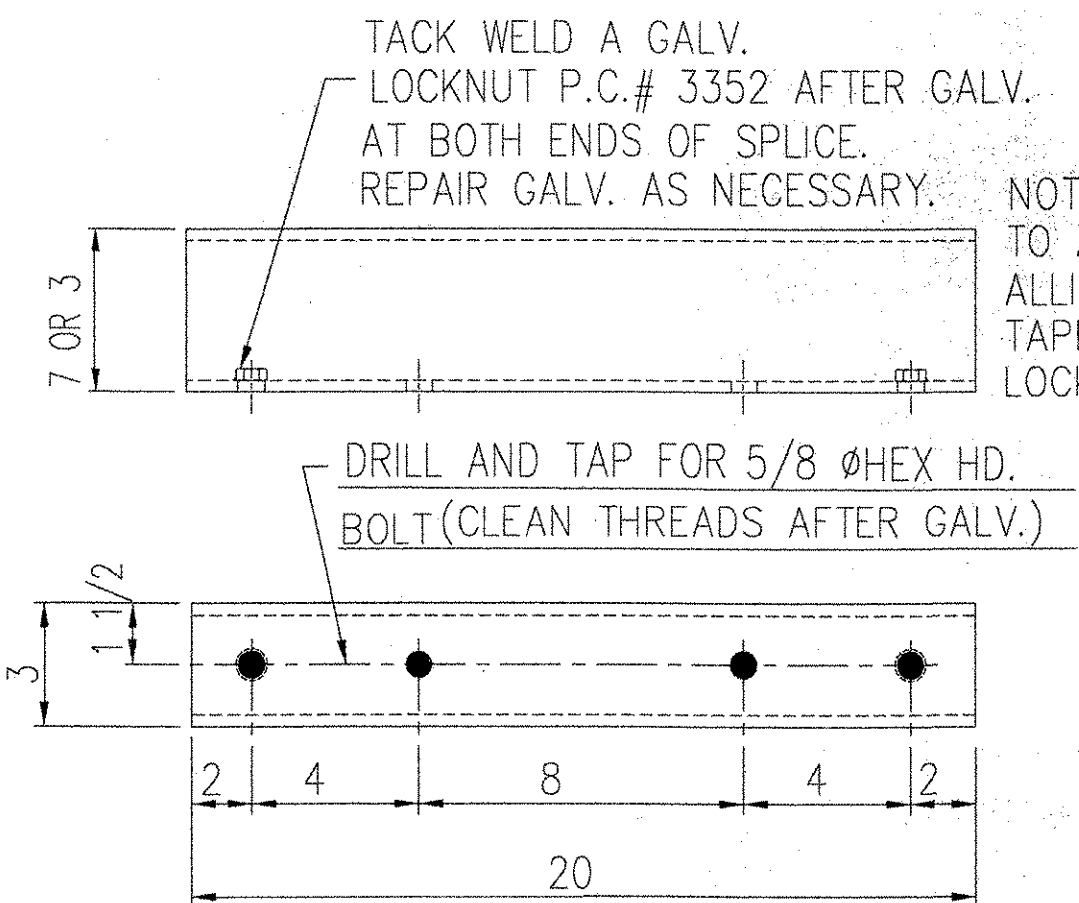
PC 87167 ANCHOR PLATE
PL 9 3/8 x 3/8 x 13 LG.
(A 709 GR.50)



PC 3619 BEARING PAD
1/8 THICK ELASTOMERIC PAD



PC 87168 BACK-UP PLATE
PL. 10 1/4 x 3/8 x 15 LG.
(A709 GR 50)



PC 925 END SHOE
(AASHTO M180)

PC- 35107 SPLICE TS 7 x 3 x 3/8 x 20 (A500 GR B)
PC- 35103 SPLICE TS 3 x 3 x 5/16 x 20 (A500 GR B)

APPROVED EXCEPT AS NOTED

LICHTENSTEIN CONSULTING ENGINEERS, INC.
This drawing has only been checked for conformance with the design intent of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and completed at the job site for information that pertains only to the fabrication process or to technique of construction; and for coordination of the work of all trades.
By: *[Signature]* Date: 04/08/04

APPROVAL DRAWING
GIRARD ENGINEERING DEPT. ISSUED
Wednesday, March 24, 2004
TRINITY INDUSTRIES, INC.
1170 N. STATE STREET
GIRARD, OHIO 44420

V.A.O.T. RECEIVED
CR'D BY: *[Signature]* OK'D BY: *[Signature]*
APR 0 1 2004
RESUBMIT: *[Signature]* APPROVED: *[Signature]*
BY: DATE: 04-28-04

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APR 1 2004
LICHTENSTEIN

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BILL OF MATERIAL

PRODUCT CODE	QTY.	DESCRIPTION	WT./EA.	REMARKS
87164G	14	POST x 2'-1 3/8"	96#	
87165G	4	POST x 7'-0"	185.5#	
87166G	4	POST x 6'-5"	170#	
87167G	14	ANCHOR PLATE	13.7#	
3619B	14	BEARING PAD	2.2#	
87168G	4	BACK-UP PLATE	16.9#	
35107A	14	SPLICE 7 x 3 x 3/8	39#	
35103A	14	SPLICE 3 x 3 x 5/16	18.7#	
925G	4	END SHOE (10 GA.)	22#	GUARDRAIL TERMINAL CONNECTOR
HARDWARE				
3390H	112	(5/8" x 1 3/4") HEX. HD. BOLT		A325 GRA A153
3300H	112	(5/8" WASHER, 1 3/4" O.D.)	TYPE A HARDENED	F436 A153
3352H	56	(5/8") LOCK HEX NUT		A153
3310H	112	(5/8") LOCK WASHER		
6984H	336	(3/4" x 6") SLOTTED RD. HD. BOLT		A325 A153
3702G	336	(3/4") PLAIN WASHER, 2" O.D.	TYPE A HARDENED	F436 A153
4682G	336	(3/4") LOCK HEX NUT		A194 GR. 2H A153
35209G	32	(3/4" SCH 40 PIPE x 1/2" LG.)	0.1#	A53 NOT DETAILED
5021H	56	(1" x 10") ANCHOR STUD	FULLY THREADED	A449 A153
4902H	136	(1") PLAIN WASHER		F436 A153
3908H	296	(1") HVY HEX NUT		A563 GR DH A153
3910H	112	(1") HEX NUT		A194 A153
5031G	80	(1" x 48") rod 8nc	THREADED 3" EACH END	ASTM A615 GR 60
PAY QUANTITY				
414'- 0 1/4"		ITEM NO. 525.33		STEEL BRIDGE RAIL (NETC)

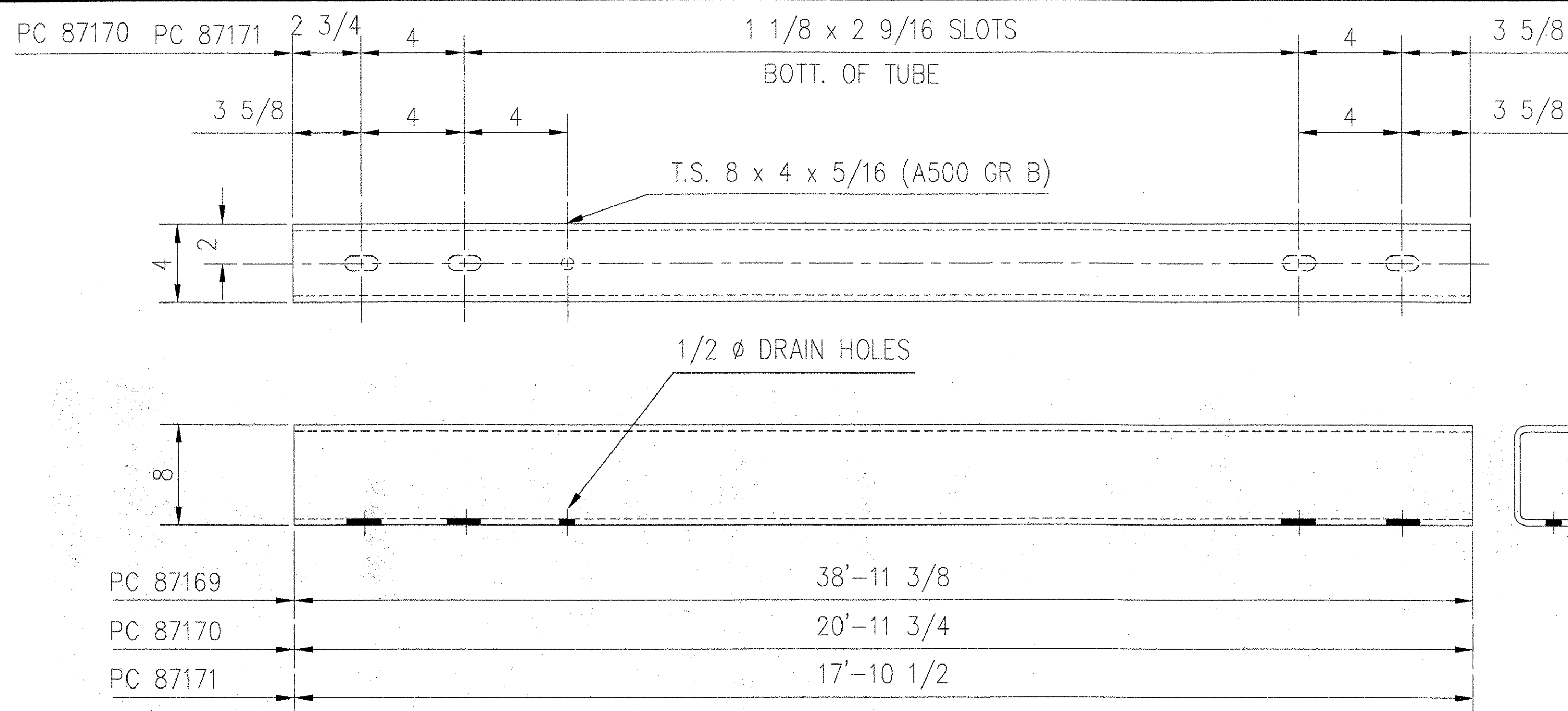
NOTES:

- TUBING AND POSTS SHALL MEET THE REQUIREMENTS OF SECTION 732 - RAILING MATERIALS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION, EXCEPT THE DROP WEIGHT TEAR TEST IN SECTION 732 SHALL NOT APPLY TO THE STRUCTURAL TUBING IN THIS STANDARD.
- ALL EXPOSED CUT OR SHEARED EDGES SHALL BE ROUNDED TO A 1/16" RADIUS AND BE FREE OF BURRS.
- GALVANIZED SURFACES SHALL HAVE A UNIFORM APPEARANCE AND GALVANIZED MATERIAL SHALL BE PROPERLY STORED WITH WOOD BLOCKING BETWEEN PIECES.
- RAIL POSTS.....ASTM A709, GRADE 50 SEE SECTION 732.03, SUBSECTION 2 BEARING PAD SHALL COMPLY WITH 731.01 OR 731.02.
- SHOP INSPECTION IS REQUIRED. CALL VERMONT AGENCY OF TRANSPORTATION TO SCHEDULE SHOP INSPECTION.
- RAIL POSTS & BASE PLATES SHALL BE TESTED FOR IMPACT PROPERTIES IN ACCORDANCE WITH ASTM A-370 CHARPY IMPACT TESTING USING TYPE A SPECIMEN.

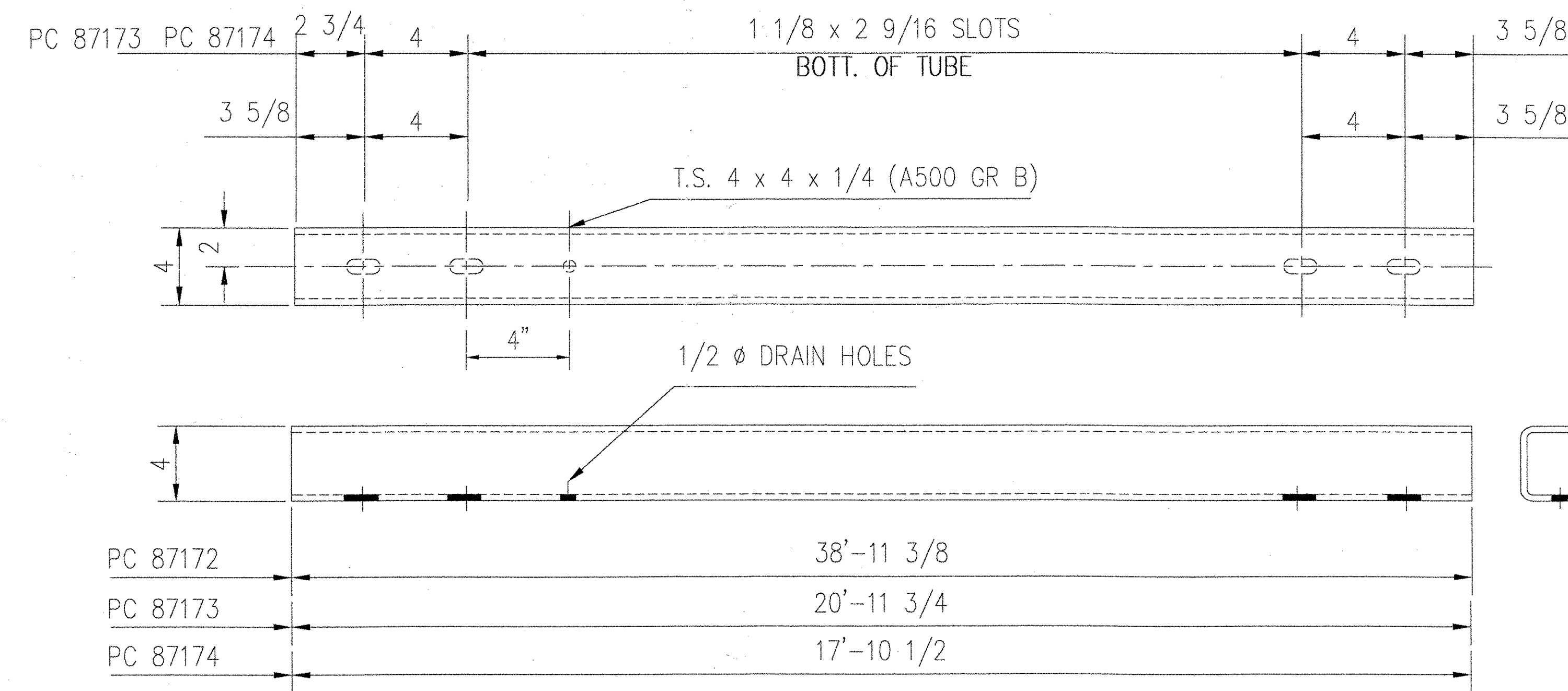
ERECTION DETAILS ARE ON E1, E2 AND E3 OF 3

REV.	CHK'D	BY	DATE	REMARKS
PAY ITEM 525.33 NETC 2-RAIL				
STATE OF VERMONT AGENCY OF TRANSPORTATION TOWN OF MADISON, VT STRATFORD, NH PROJECT NO. NH BHO-1447-(24)				DRAWN MARLEY CHECKED SAR APPROVED
CUSTOMER WINTERSET INC		P.O. No. C-1308		DATE 3/4/04
TRINITY INDUSTRIES, INC. HIGHWAY SAFETY PRODUCTS 2525 STEMMONS FREEWAY, DALLAS, TX 75207				ENG. FILE # 22-1032196 SHT. No. D1 OF 3 TRINITY SALES ORDER NO. (22)1032196 REV. 0

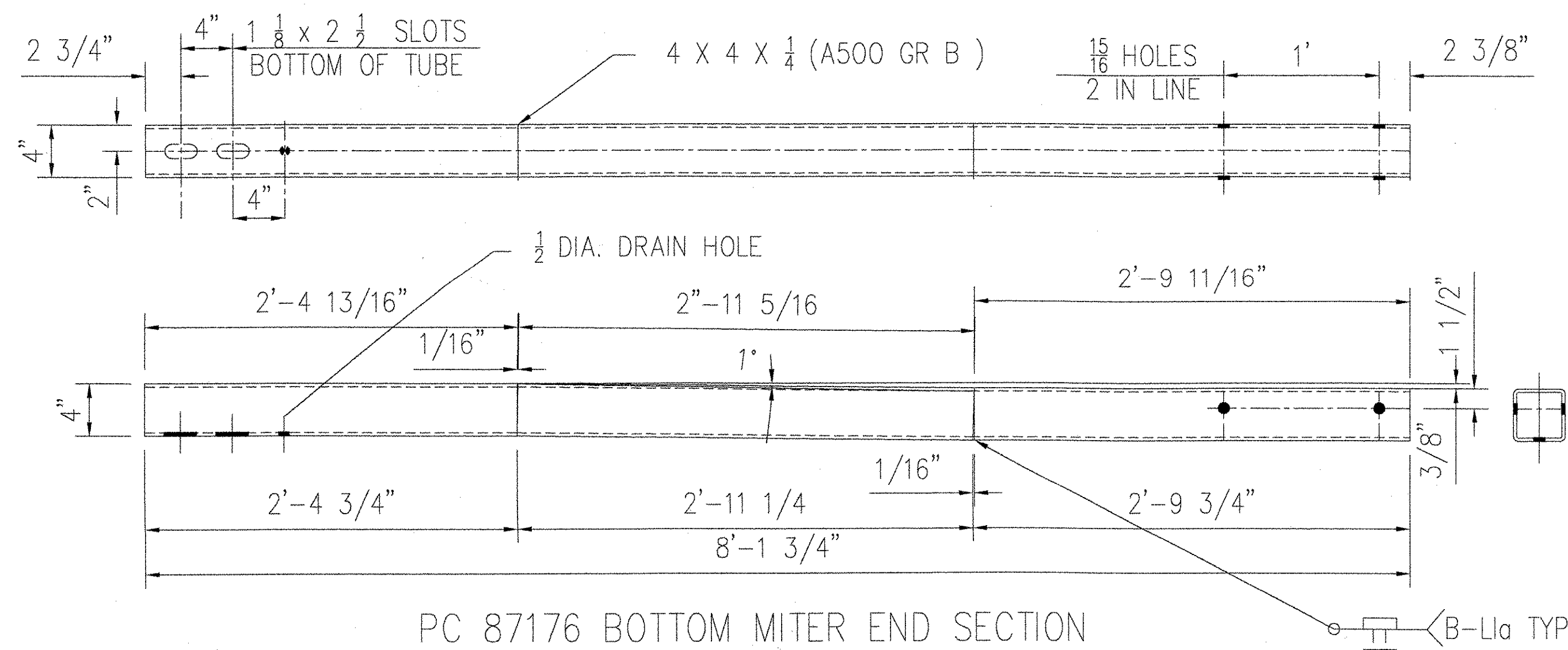
F:\R\Share\Engineering\STATE\VT\1032196\22-1032196-D002.dwg 11:44:27 3/24/04



PC 87169	38'-11 3/8"
PC 87170	20'-11 3/4"
PC 87171	17'-10 1/2"

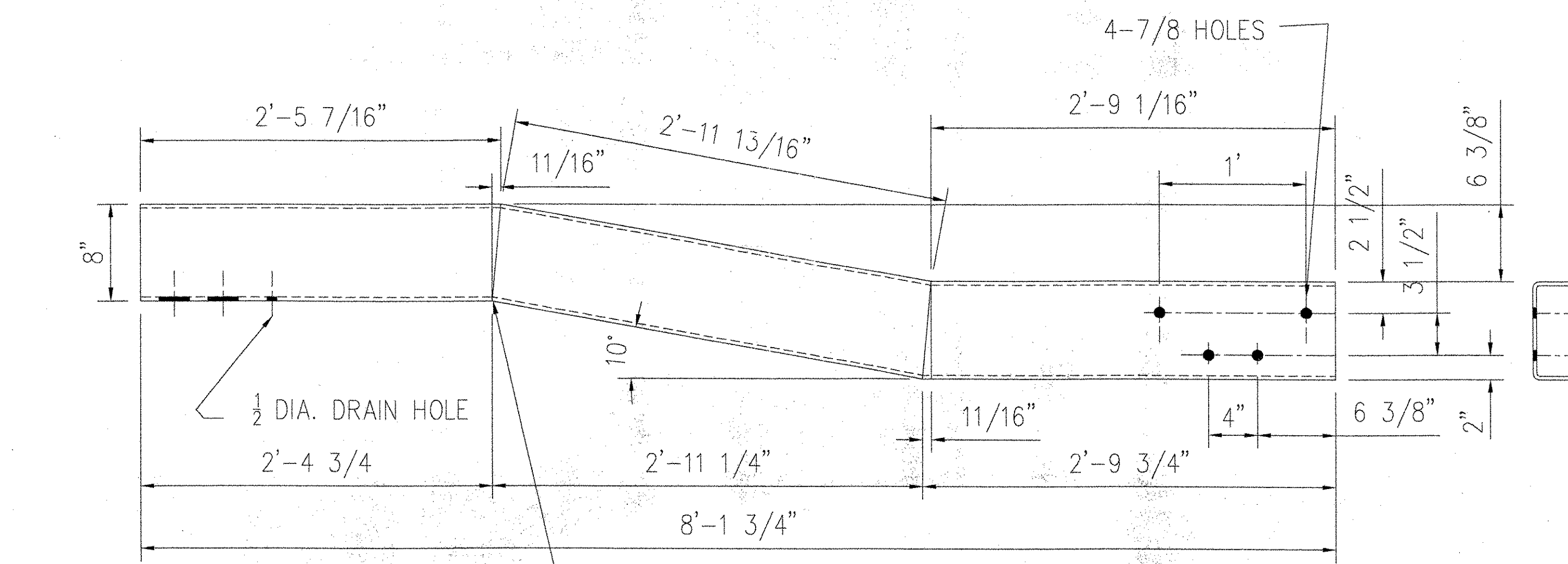
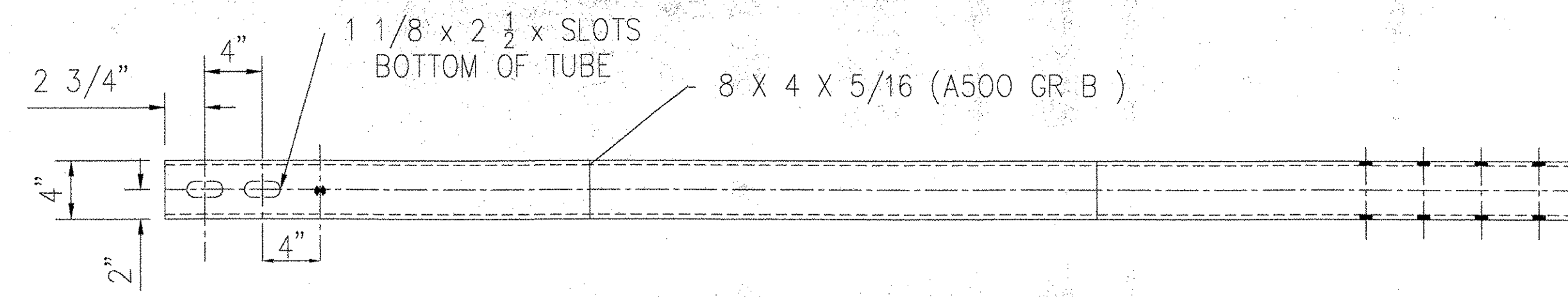


PC 87172	38'-11 3/8"
PC 87173	20'-11 3/4"
PC 87174	17'-10 1/2"



PC 87176 BOTTOM MITER END SECTION

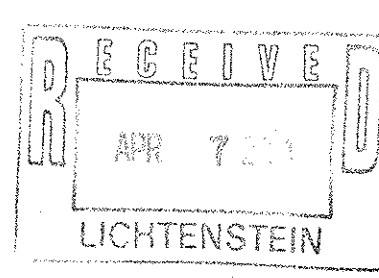
BILL OF MATERIAL				
PRODUCT CODE	QTY.	DESCRIPTION	WT./EA.	REMARKS
87169G	8	TS 8 x 4 x 5/16 x 38' 11 3/8	931.9#	
87170G	2	TS 8 x 4 x 5/16 x 20' 11 3/4	514.5#	
87171G	2	TS 8 x 4 x 5/16 x 17' 10 1/2	442.8#	
87172G	8	TS 4 x 4 x 1/4 x 38' 11 3/8	503.5#	
87173G	2	TS 4 x 4 x 1/4 x 20' 11 3/4	260#	
87174G	2	TS 4 x 4 x 1/4 x 17' 10 1/2	231.3#	
87175G	4	TS 8 x 4 x 5/16 x 8'-2 5/16"	198.2#	MITERED
87176G	4	TS 4 x 4 x 1/4 x 8' 1 13/16"	106.2#	MITERED



PC 87175 TOP MITER END SECTION

APPROVED EXCEPT AS NOTED

LICHTENSTEIN CONSULTING ENGINEERS, INC.
 This drawing has only been checked for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and corrected at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades.
 By: *[Signature]* Date: 04/08/04



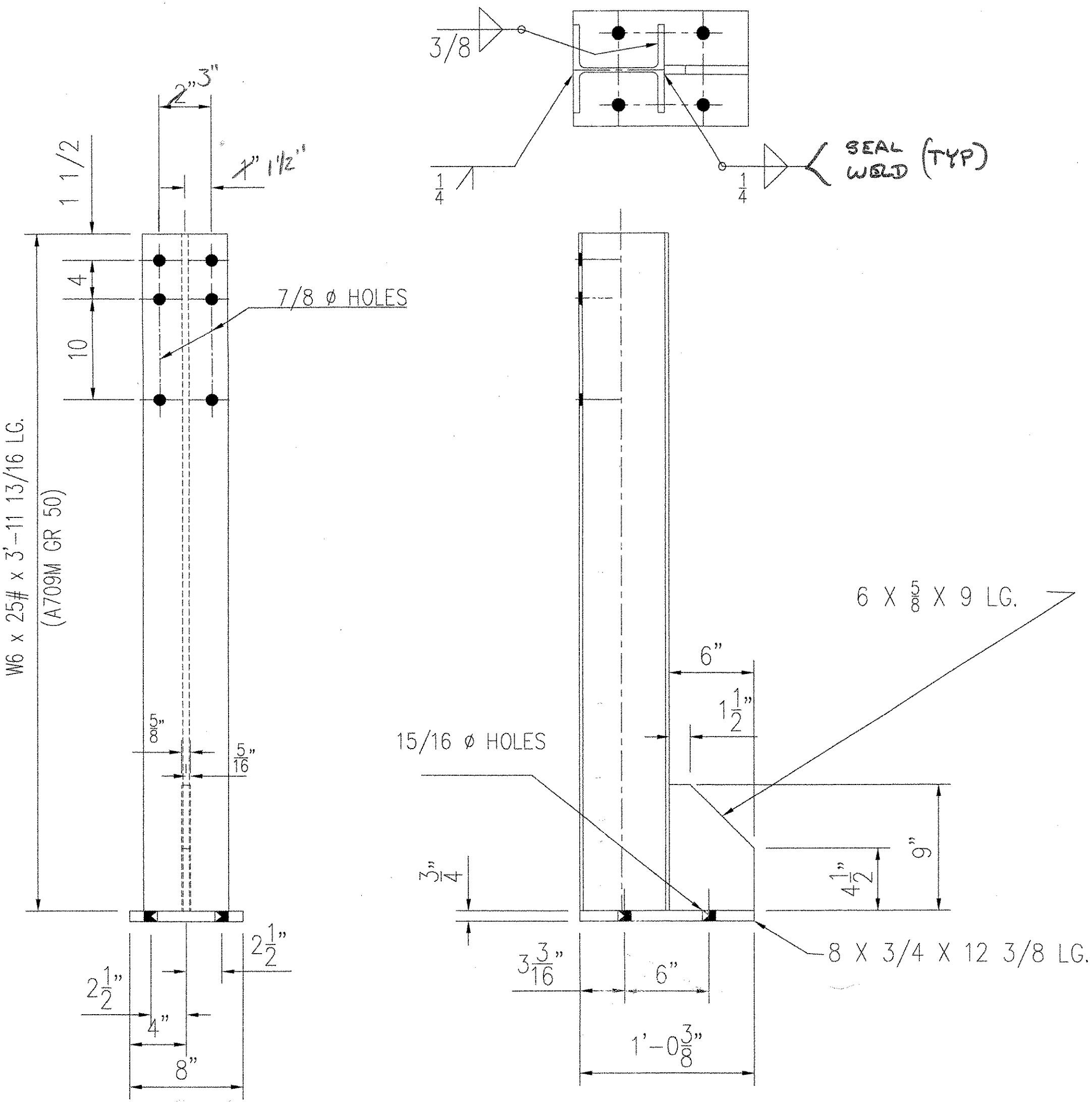
APPROVAL DRAWING
GIRARD ENGINEERING DEPT.
ISSUED
Wednesday, March 24, 2004
TRINITY INDUSTRIES, INC.
1170 N. STATE STREET
GIRARD, OHIO 44420

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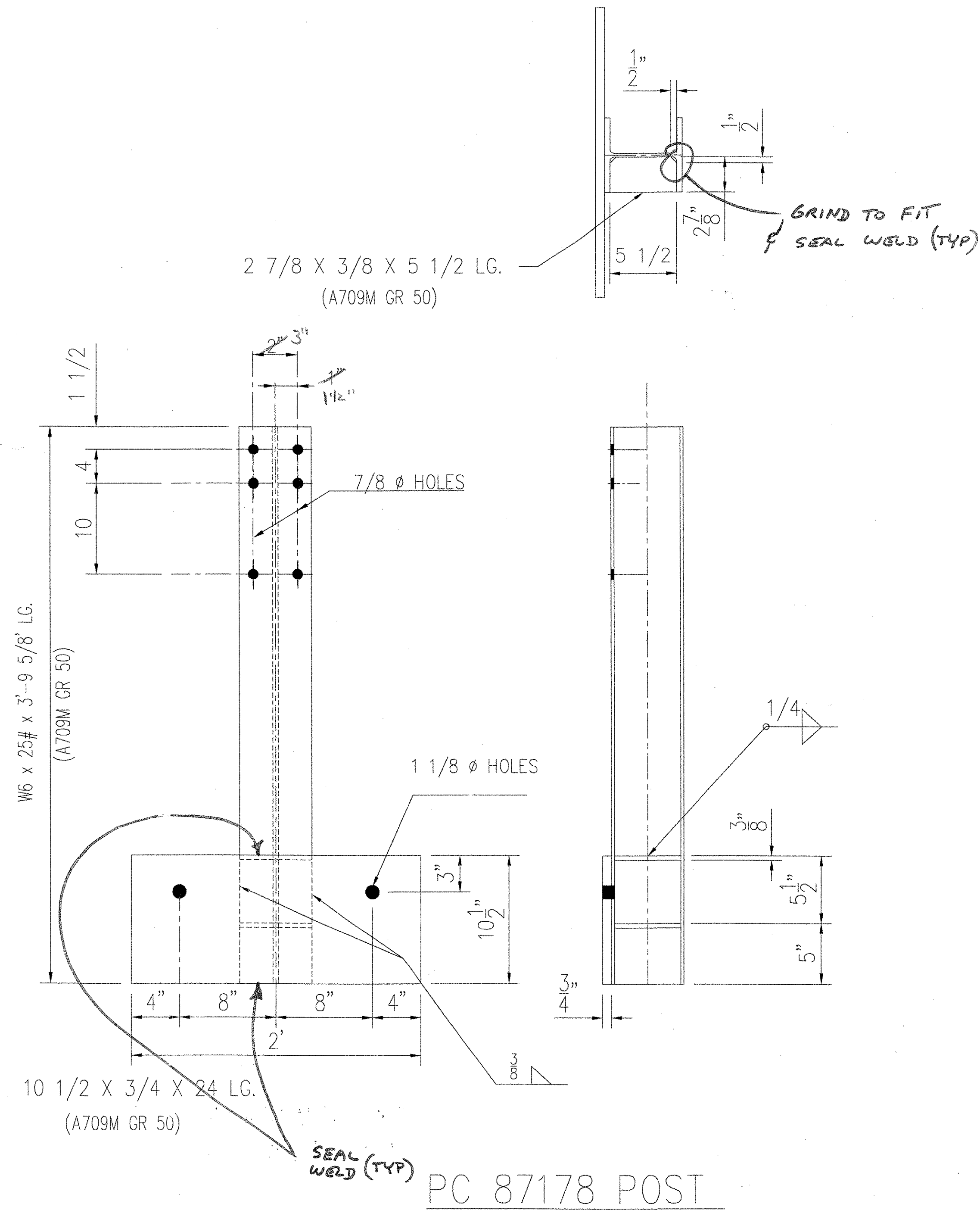
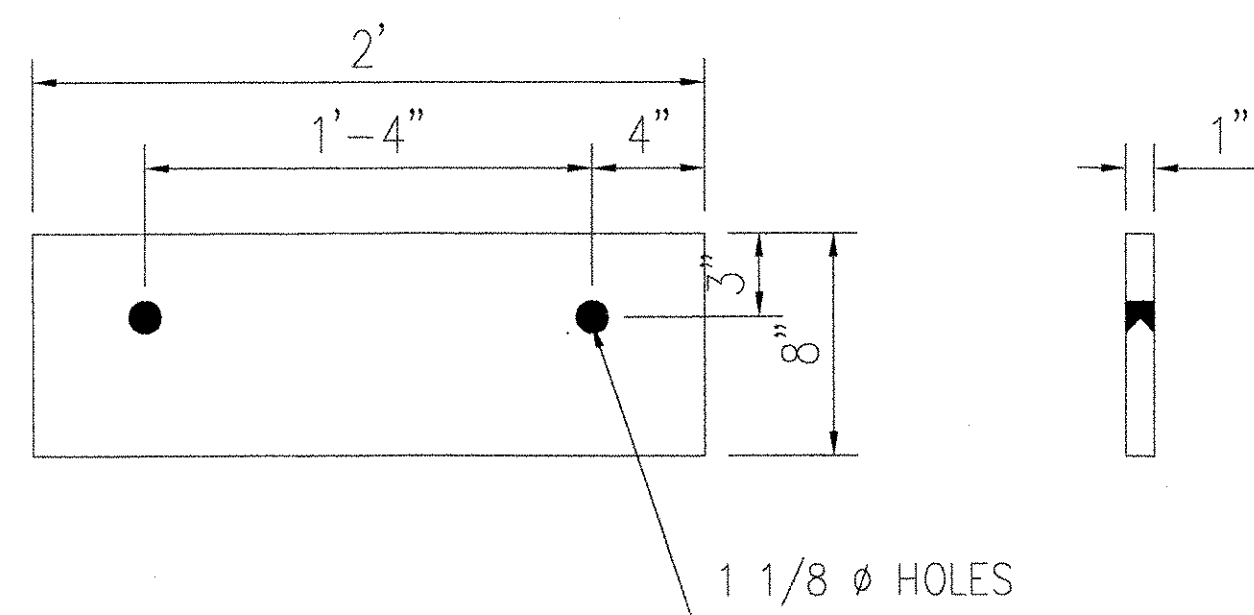
VA NOT RECEIVED
 OK'D BY: *[Signature]*
 APR 01 2004
 RESUBMIT APPROVED *[Signature]*
 BY: *[Signature]* DATE 04-28-04

ERECTION DETAILS ARE ON E1 AND E2 AND E3 OF 3

REV.	CHK'D	BY	DATE	REMARKS
PAY ITEM 525.33 NETC 2--RAIL				
STATE OF VERMONT AGENCY OF TRANSPORTATION TOWN OF MADISON, VT STRATFORD, NH PROJECT NO. NH BHO-1447-(24)				DRAWN: MARLEY CHECKED: SAR APPROVED:
CUSTOMER: WINTERSET INC	P.O. No. C-1308	DATE: 3/4/04	ENG. FILE # 22-1032196	SHT. No. D2 OF 3
TRINITY INDUSTRIES, INC. HIGHWAY SAFETY PRODUCTS 2525 STEMMONS FREEWAY, DALLAS, TX 75207				TRINITY SALES ORDER NO. (22)1032196



PC 87177 POST



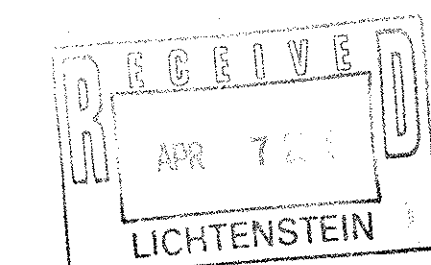
BILL OF MATERIAL				
PRODUCT CODE	QTY.	DESCRIPTION	WT./EA.	REMARKS
87177G	16	POST x 3'-11 13/16"	129#	
87178G	40	POST x 3' 9 5/8"	164#	
87179G	40	PLATE	57.6#	

V.A.O.T. RECEIVED
OK'D BY JWC
APR 01 2004
RESUBMIT APPROVED AS NOTED
DATE 04-28-04

APPROVAL DRAWING
GIRARD ENGINEERING DEPT. ISSUED
Wednesday, March 24, 2004
TRINITY INDUSTRIES, INC.
1170 N. STATE STREET
GIRARD, OHIO 44420

APPROVED EXCEPT AS NOTED

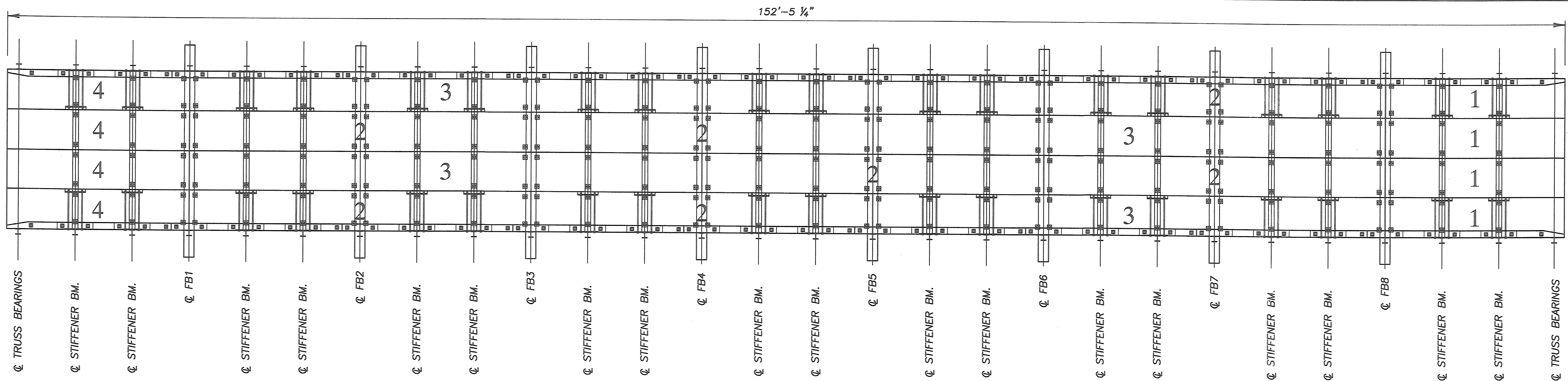
LICHTENSTEIN CONSULTING ENGINEERS, INC.
This drawing has only been checked for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and corrected at the job site; for information that pertains solely to the fabrication process or to techniques of construction; and for coordination of the work of all trades.
By: [Signature] Date: 04/08/04



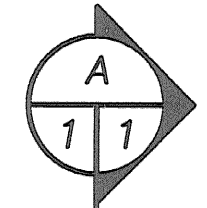
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ERECTION DETAILS ARE ON E1, E2 AND E3 OF 3

REV.	CHK'D BY	DATE	REMARKS
PAY ITEM 525.33 NETC 2-RAIL			
STATE OF VERMONT AGENCY OF TRANSPORTATION TOWN OF MADISON, VT STRATFORD, NH PROJECT NO. NH BHO-1447-(24)			DRAWN MARLEY CHECKED SAR APPROVED
CUSTOMER	WINTERSET INC	P.O. No. C-1308	DATE 3/4/04
TRINITY INDUSTRIES, INC. HIGHWAY SAFETY PRODUCTS 2525 STEMMONS FREEWAY, DALLAS, TX 75207			ENG. FILE # 22-1032196 SHT. No. D3 OF 3 TRINITY SALES ORDER NO. (22)1032196



SPAN 2 LAYOUT

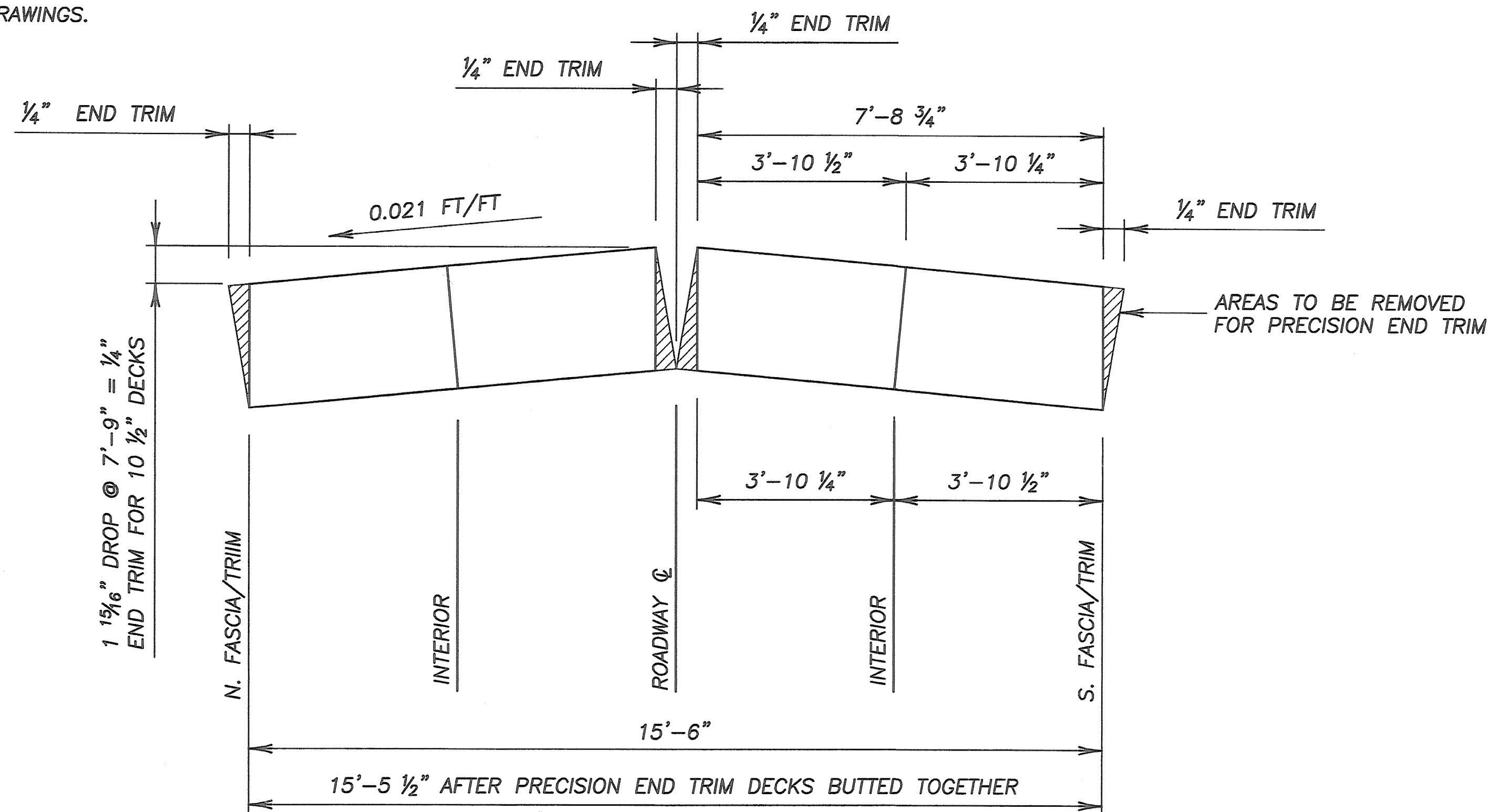


N. FASCIA/TRIM

INTERIOR	4	3	2	2	1
ROADWAY CL	4	2	2	3	1
INTERIOR	4	3	2	2	1
S. FASCIA/TRIM	4	2	2	3	1

GLU-LAM DECK LAYOUT

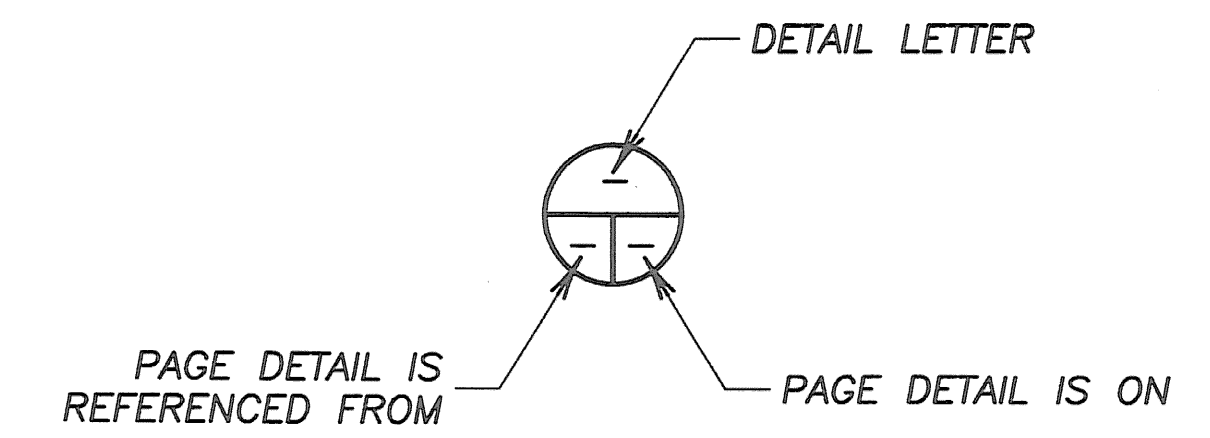
NOTES:
SEE SHEETS 2 - 6 FOR COMPLETE GLU-LAM DECK PREFRAMING DRAWINGS.



SECTION A-A

(SCALE EXAGGERATED FOR CLARITY)

APPROVED



CALLOUT LEGEND

DO NOT SCALE DRAWINGS

Maidstone-Stratford
(Consultant) BHO 1447(24)

RECEIVED
LICHTENSTEIN

PREFRAMING SHEET INDEX		
SHEET	DESCRIPTION	DATE
1	SPAN 2 LAYOUT, GLU-LAM DECK LAYOUT	12/17/03
2	PANEL 1 PREFRAMING	12/17/03
3	PANEL 2 PREFRAMING	12/11/03
4	PANEL 2 & 3 PREFRAMING	12/17/03
5	PANEL 3 PREFRAMING	12/17/03
6	PANEL 4 PREFRAMING	12/17/03
7	OVER-LAYMENT PLANK LAYOUT	12/17/03
8	CURB & SCUPPER LAYOUT	12/17/03
9	CURB PREFRAMING	12/31/03
10	SCUPPER/CROSSFALL PREFRAMING	12/31/03

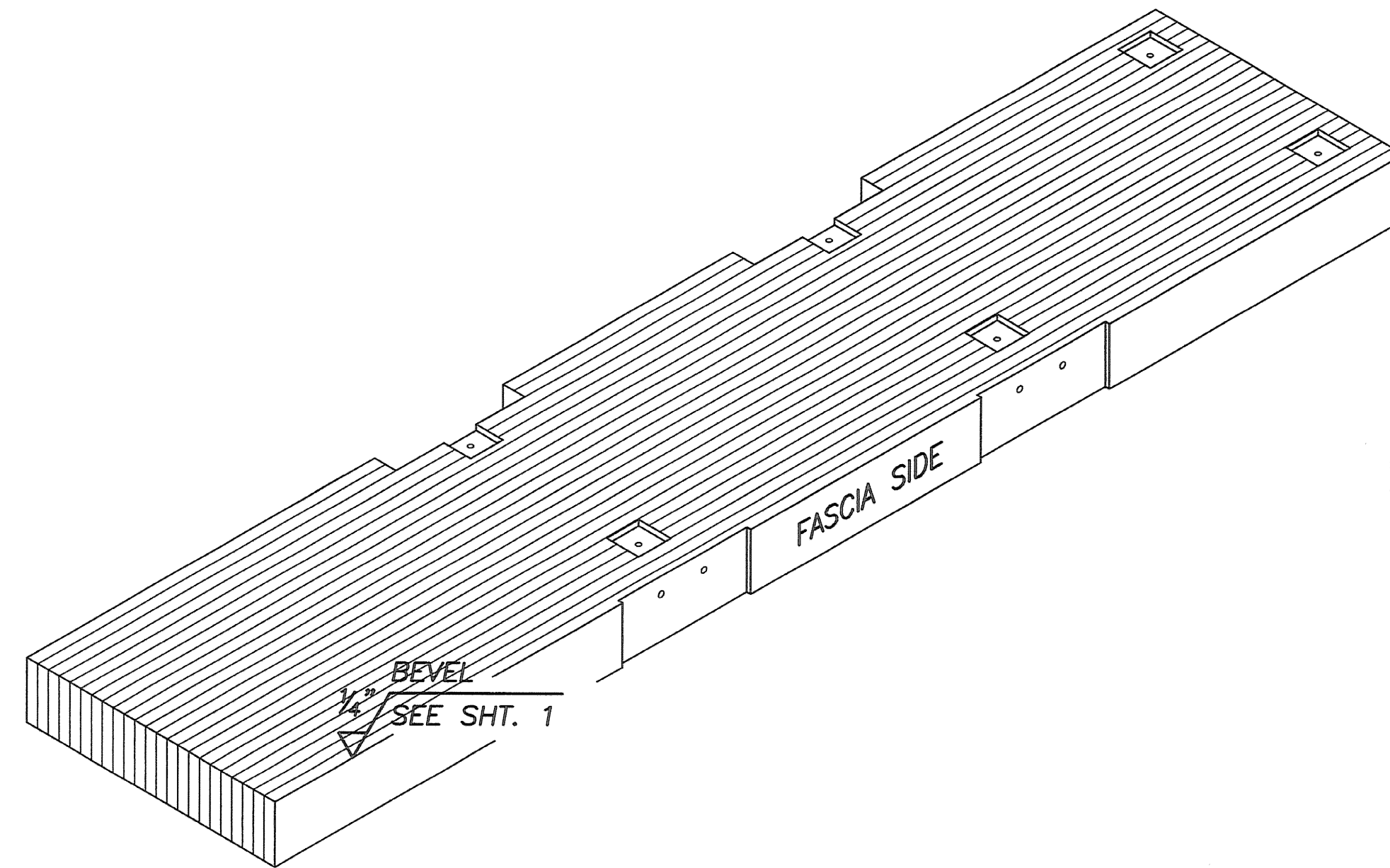
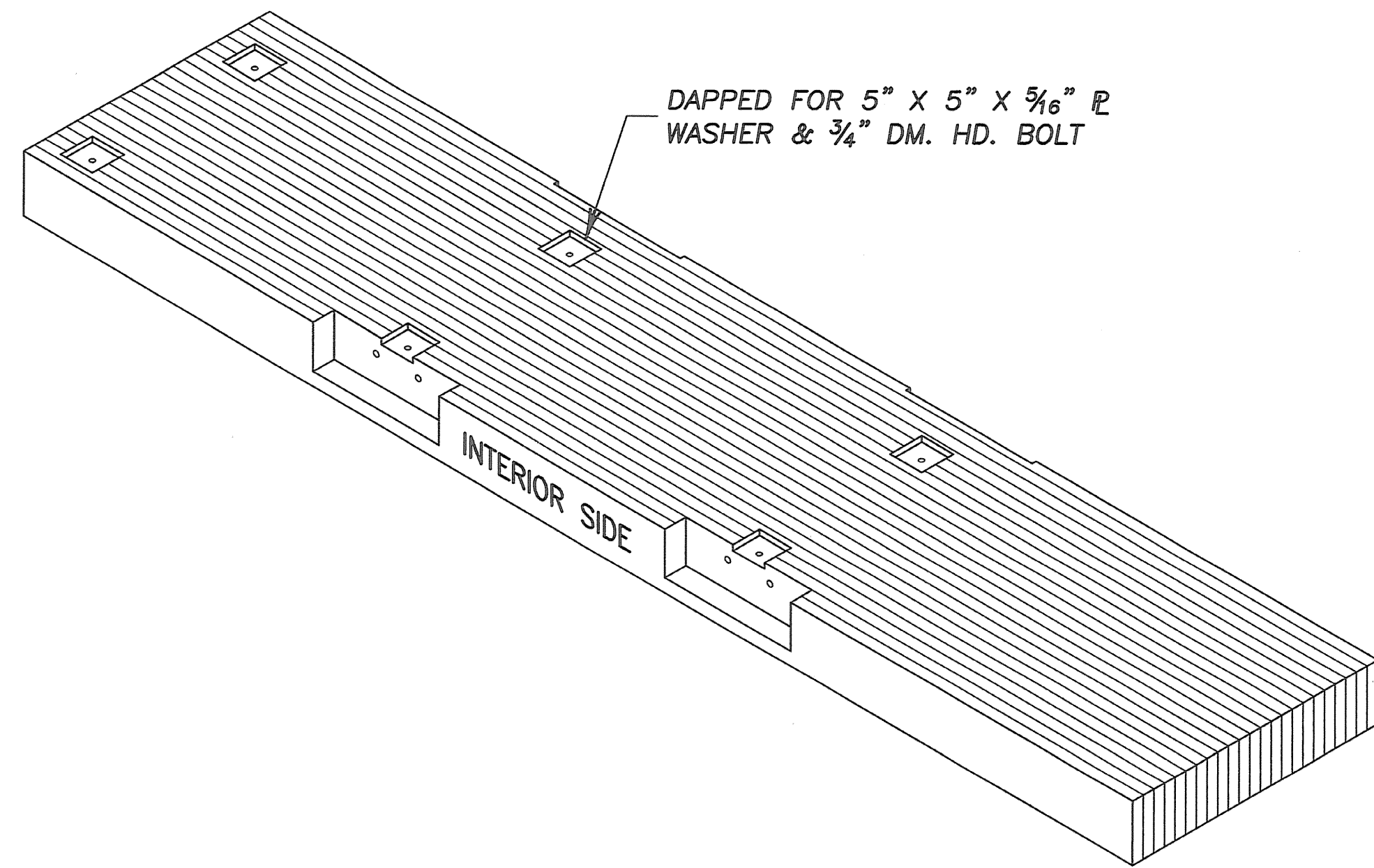
STATE OF VERMONT
AGENCY OF TRANSPORTATION
PROPOSED IMPROVEMENT BRIDGE PROJECT

SPAN 2 LAYOUT, GLU-LAM DECK LAYOUT

SHOPS PREPARED BY:
WHEELER CONSOLIDATED
12127 WHITEWOOD SERVICE ROAD
WHITEWOOD, SD 57793 (605) 269-2372

TRACKING NO.: T11547	ORDER NO.: 11245
DATE: 1/20/04	DWN: LAF
CHKD. MAC	SHEET 1 OF 10

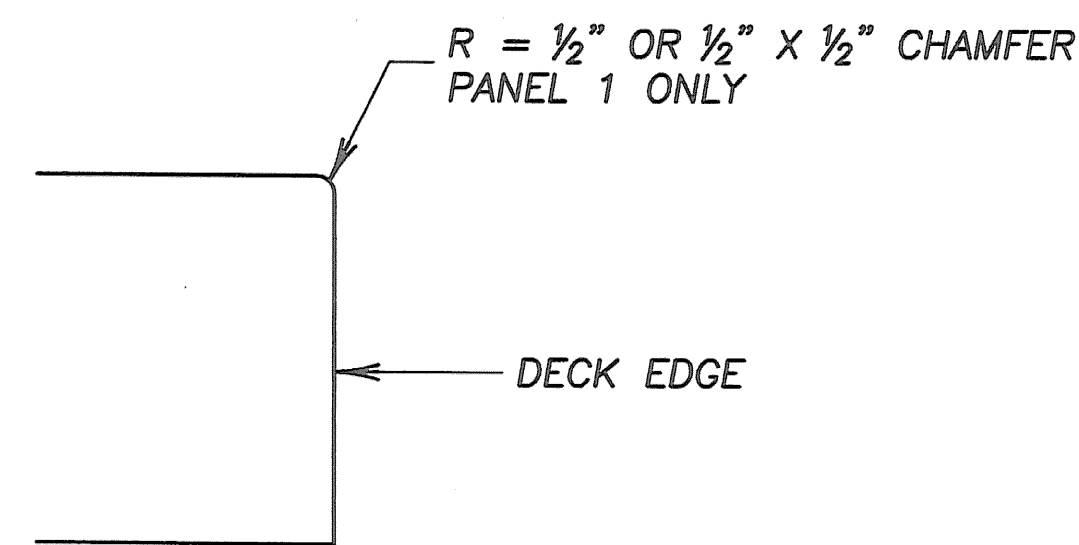
RECEIVED
OK'D BY: _____ OK'D BY: _____
MAY 19 2004
RESUBMIT _____ APPROVED _____
BY _____ DATE _____



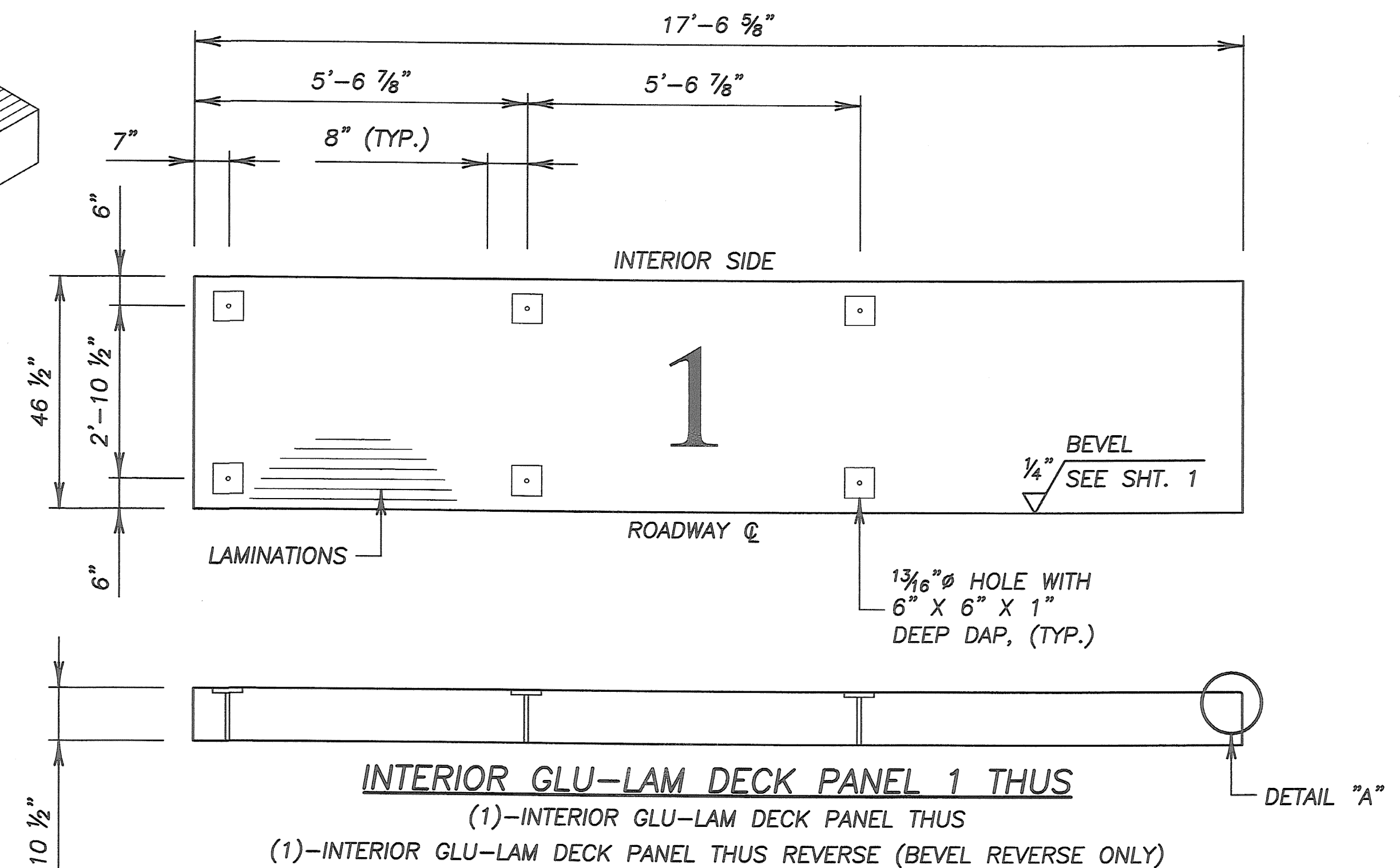
FASCIA GLU-LAM DECK PANELS
PANEL 1 SHOWN OTHER PANELS SIMILAR

NOTE:

SEE GLU-LAM DECK LAYOUT, SHT. 1, FOR CORRECT PLACEMENT OF GLU-LAM DECKS.



DETAIL "A"



INTERIOR GLU-LAM DECK PANEL 1 THUS

(1)-INTERIOR GLU-LAM DECK PANEL THUS
 (1)-INTERIOR GLU-LAM DECK PANEL THUS REVERSE (BEVEL REVERSE ONLY)
 (SEE SHT. 1 FOR 1/4" BEVEL ORIENTATION)
 10 1/2" X 46 1/2" X 17'-6 5/8"
 SYP. COMB. SYMBOL #2, PENTA

SPECIFICATIONS:

GLU-LAM BEAMS TO BE SOUTHERN YELLOW PINE, COMB. SYMB. 2, SP/SP.

GLU-LAMS TO BE INDUSTRIAL IN APPEARANCE, FILL ALL VOIDS.

GLU-LAMS ARE NOT TO BE END SEALED, SURFACE SEALED, OR WRAPPED.

GLU-LAMS TO BE PENTA TREATED AFTER FABRICATION IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO M133.

ENDS OF GLU-LAMS TO BE PLUMB.

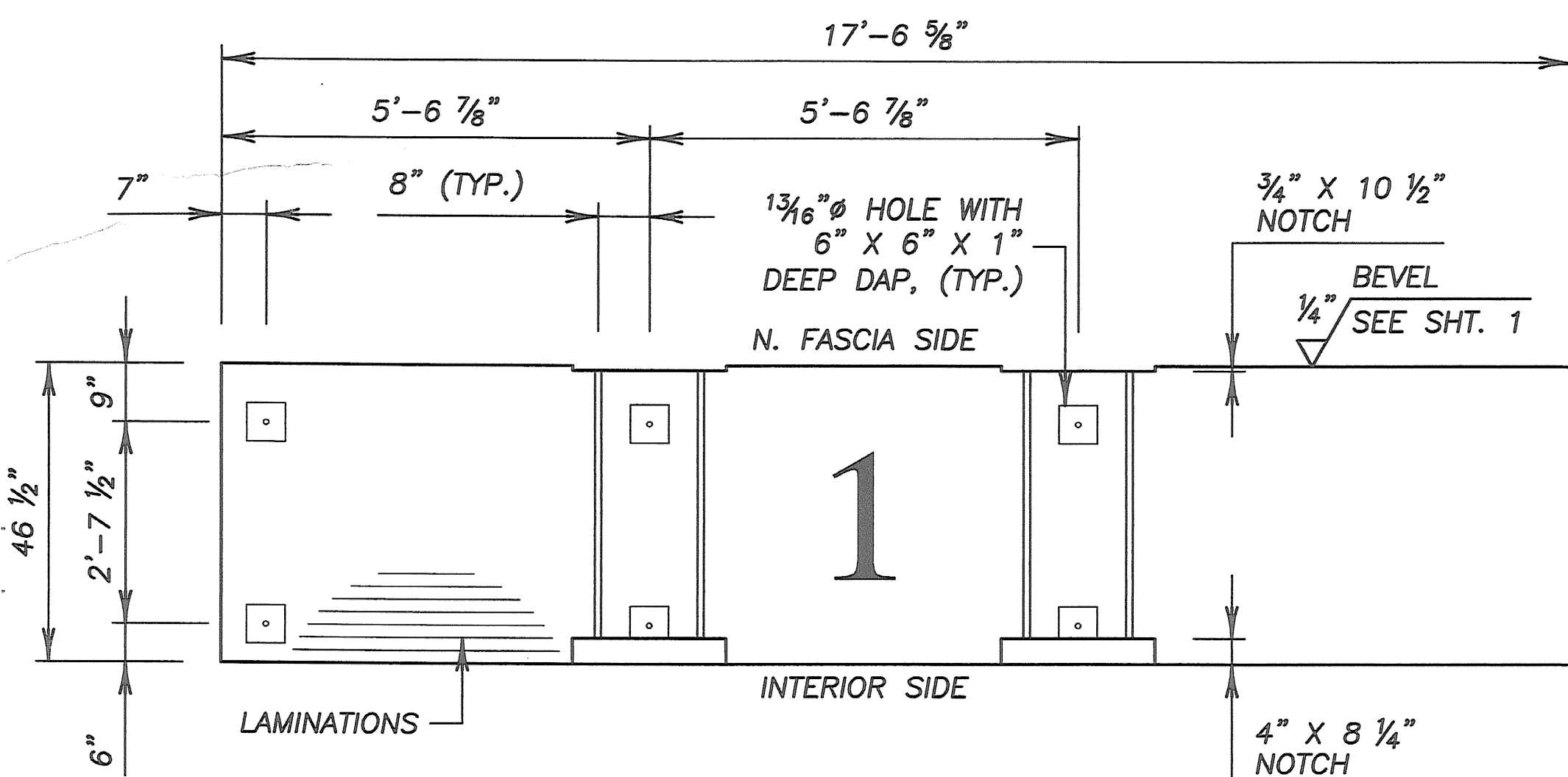
GLU-LAMS SHALL BE INCISED FOR TREATING.

GLU-LAMS SHALL BE MANUFACTURED USING WET-USE ADHESIVES.

GLU-LAMS SHALL BE MARKED WITH A QUALIFIED INSPECTION & TESTING AGENCY MARK PRIOR TO TREATMENT & A CERTIFICATE & TEST RESULTS INDICATING CONFORMANCE TO ANSI/AITC A190.1 SHALL BE PROVIDED.

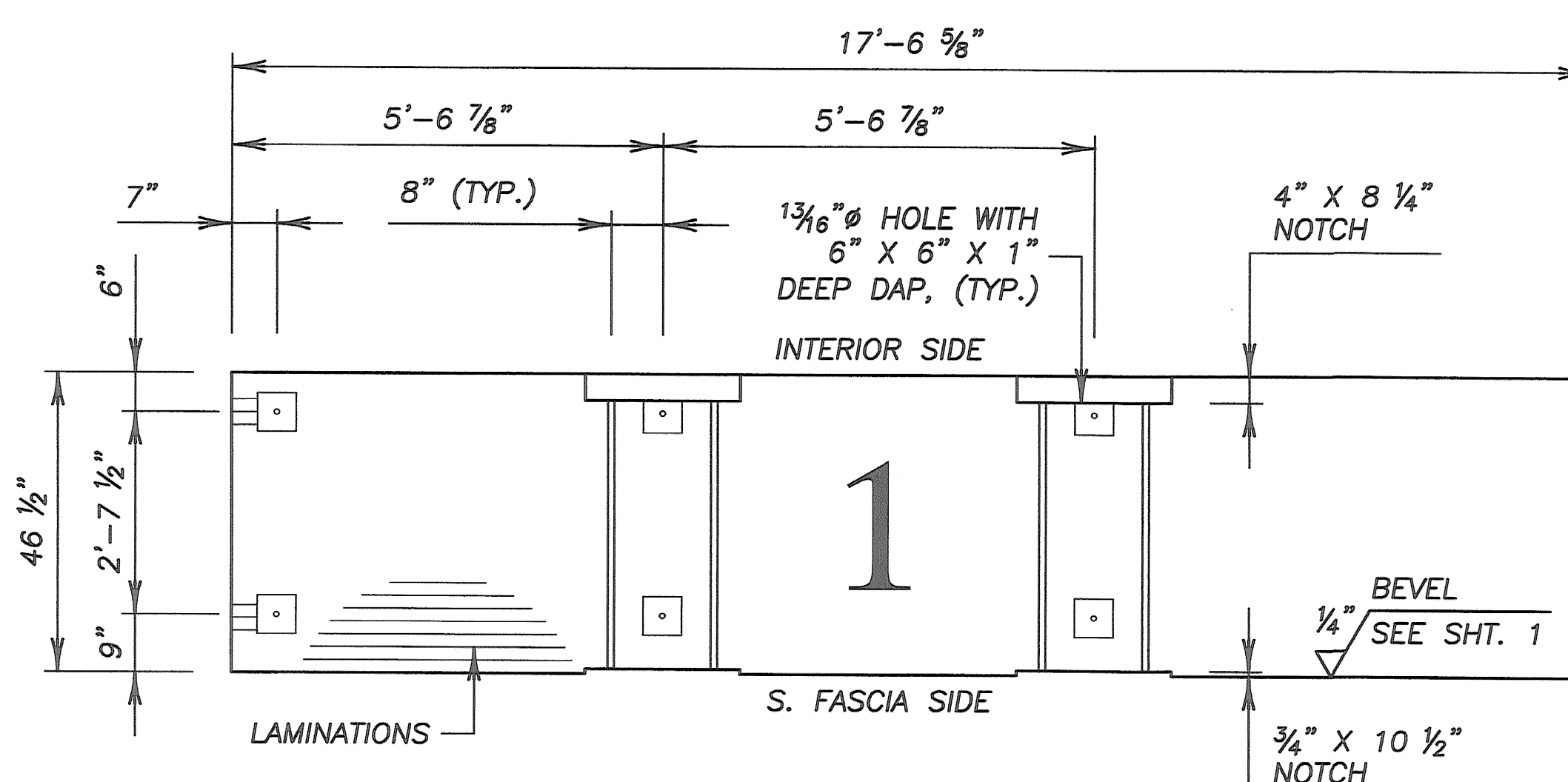
ALL HOLES SHALL BE DRILLED PERPENDICULAR TO SURFACE SHOWN TO ASSURE FIELD PLACEMENT OF BEAMS, DIAPHRAGMS, ATTACHING STEEL, ETC...

DO NOT SCALE DRAWINGS



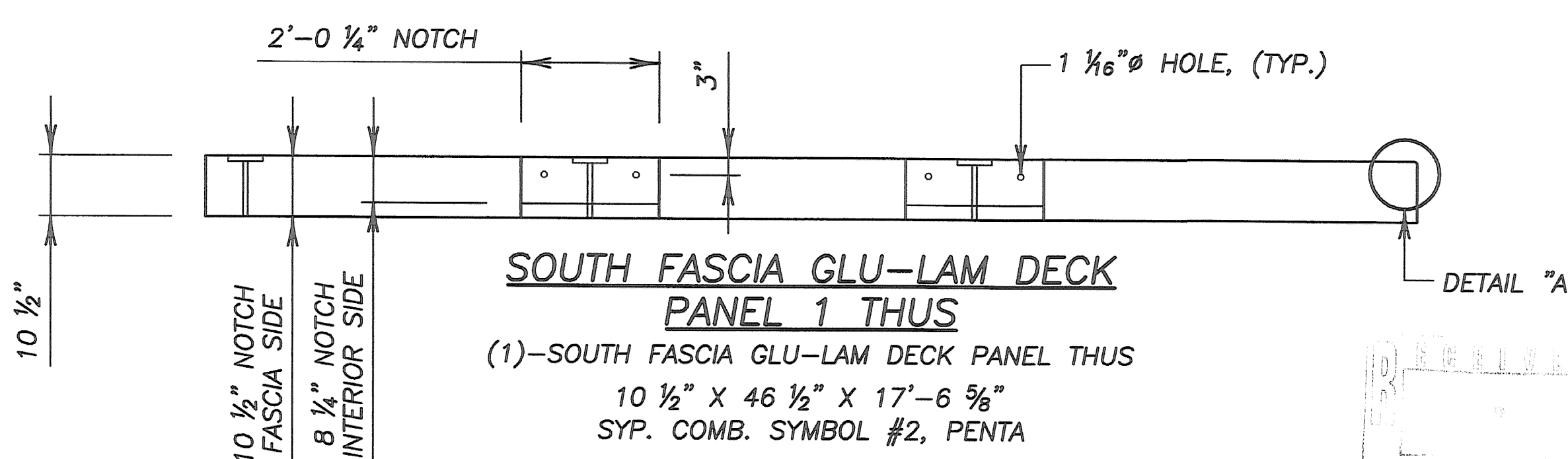
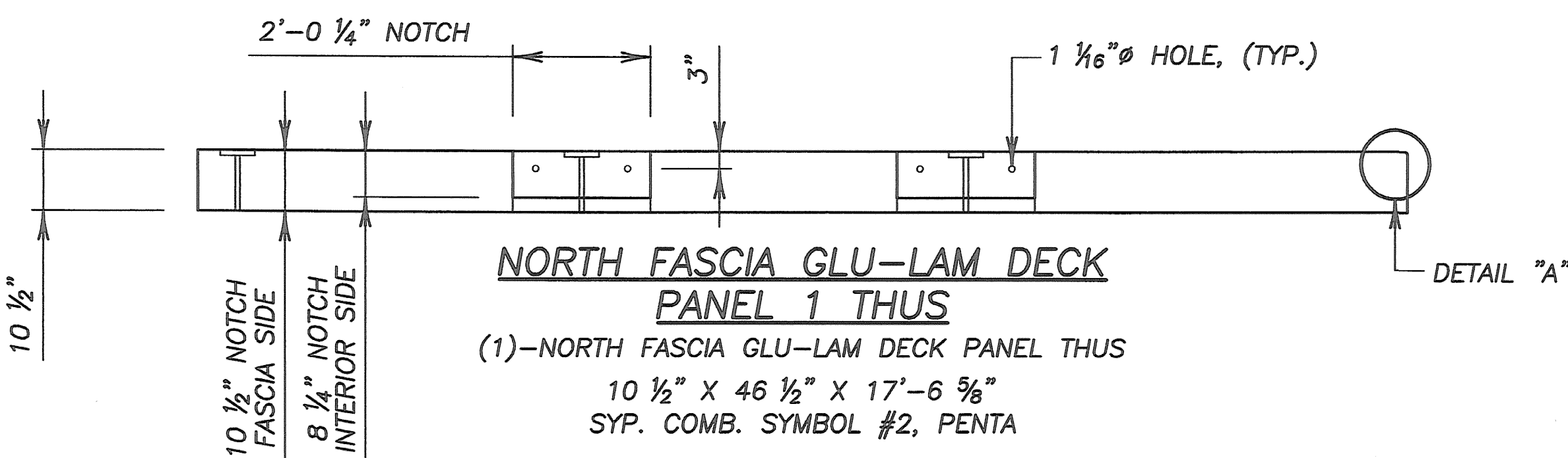
NORTH FASCIA GLU-LAM DECK PANEL 1 THUS

(1)-NORTH FASCIA GLU-LAM DECK PANEL THUS
 10 1/2" X 46 1/2" X 17'-6 5/8"
 SYP. COMB. SYMBOL #2, PENTA



SOUTH FASCIA GLU-LAM DECK PANEL 1 THUS

(1)-SOUTH FASCIA GLU-LAM DECK PANEL THUS
 10 1/2" X 46 1/2" X 17'-6 5/8"
 SYP. COMB. SYMBOL #2, PENTA



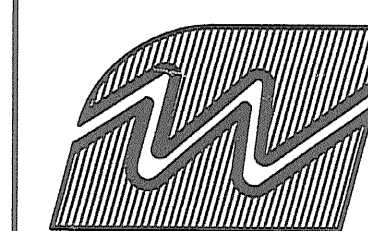
APPROVED

RECEIVED
 OK'D BY: _____
 MAY 19 2004
 RESUBMIT APPROVED _____
 BY DATE

DISCLAIMER:
 PLANS ARE FOR FABRICATION PURPOSED ONLY.
 SIZE OF DECKS GIVEN.
 WHEELER NOT RESPONSIBLE FOR DESIGN LOADS.

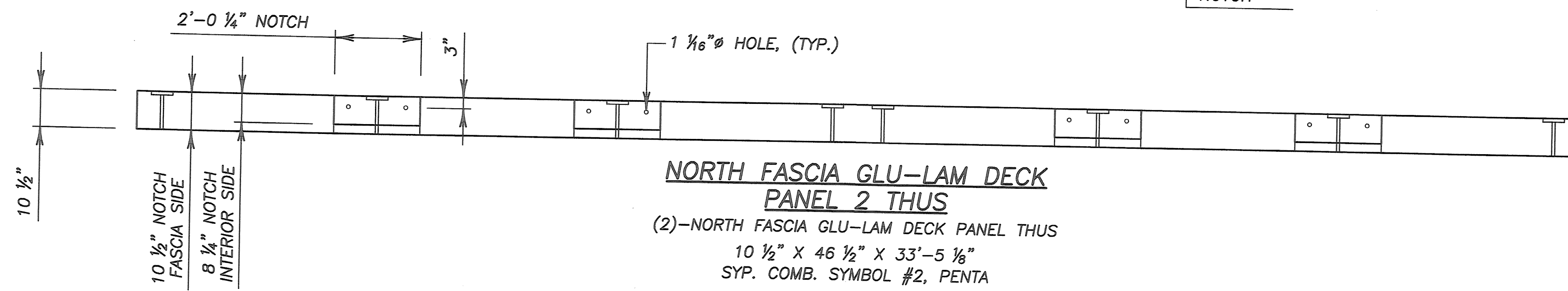
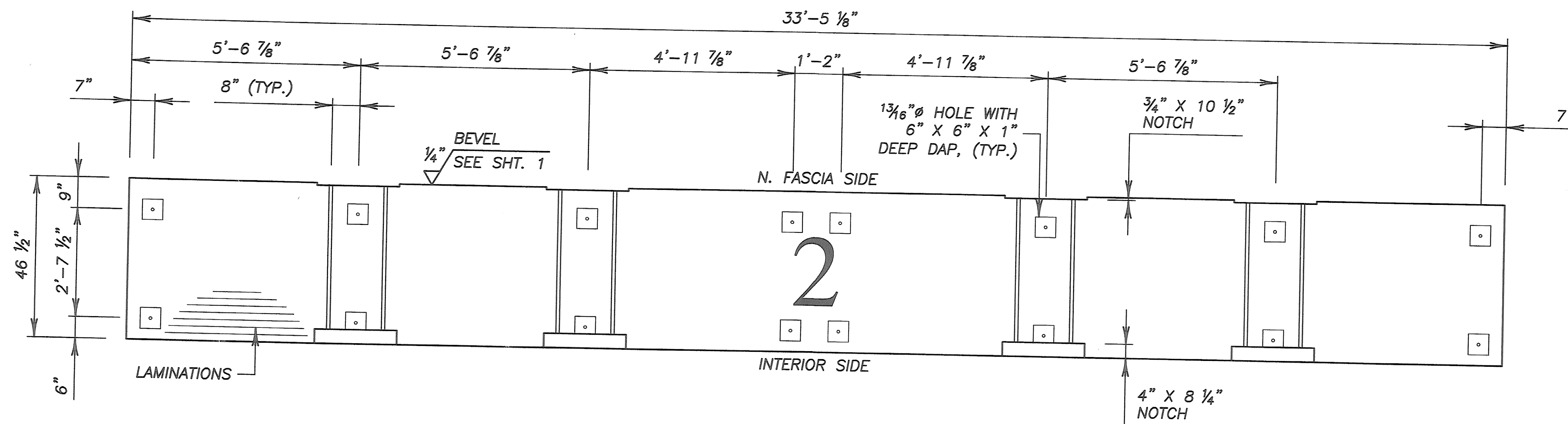
STATE OF VERMONT
 AGENCY OF TRANSPORTATION
 PROPOSED IMPROVEMENT BRIDGE PROJECT

PANEL 1 PREFRAMING

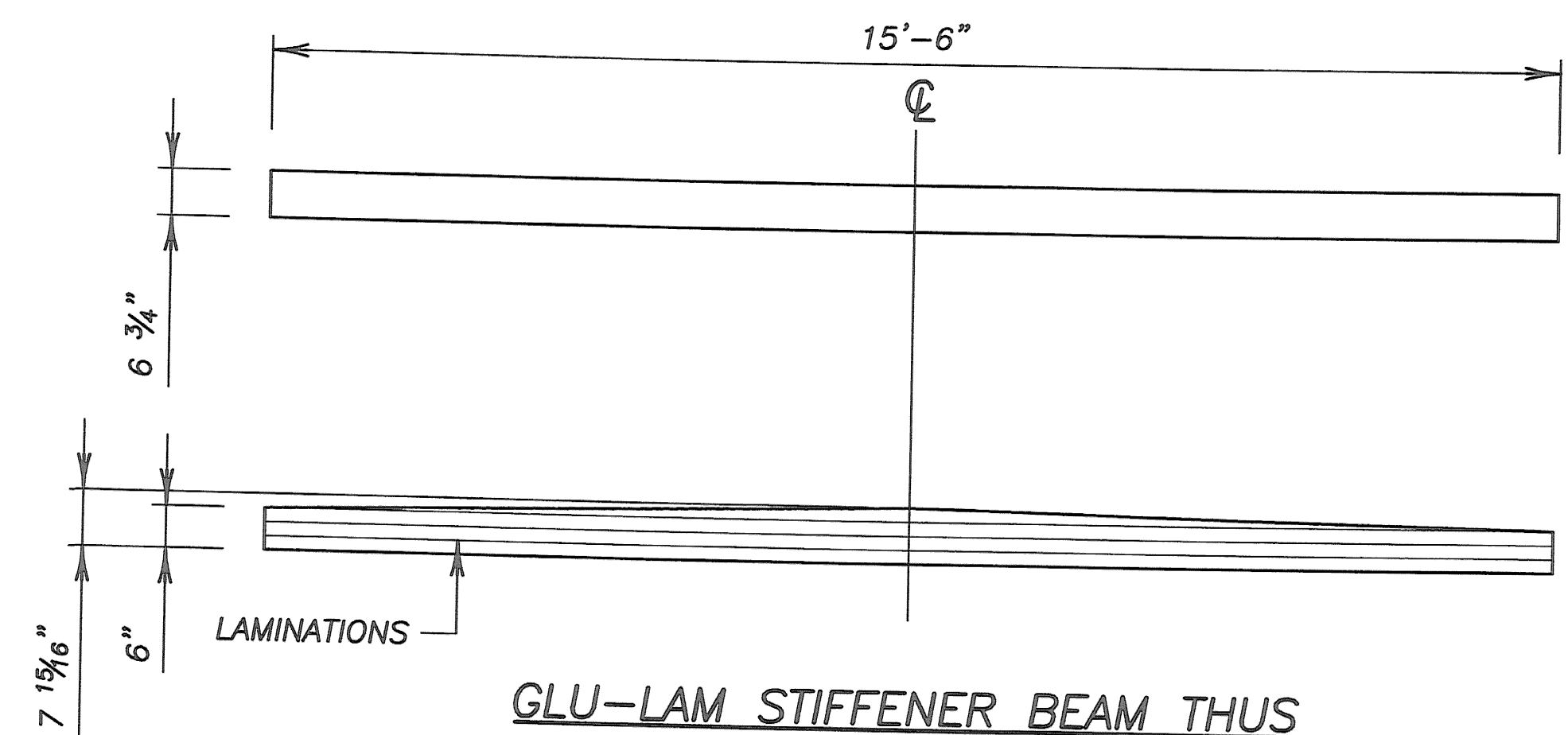


SHOPS PREPARED BY:
WHEELER CONSOLIDATED
 12127 WHITEWOOD SERVICE ROAD
 WHITEWOOD, SD 57793 (605) 269-2372

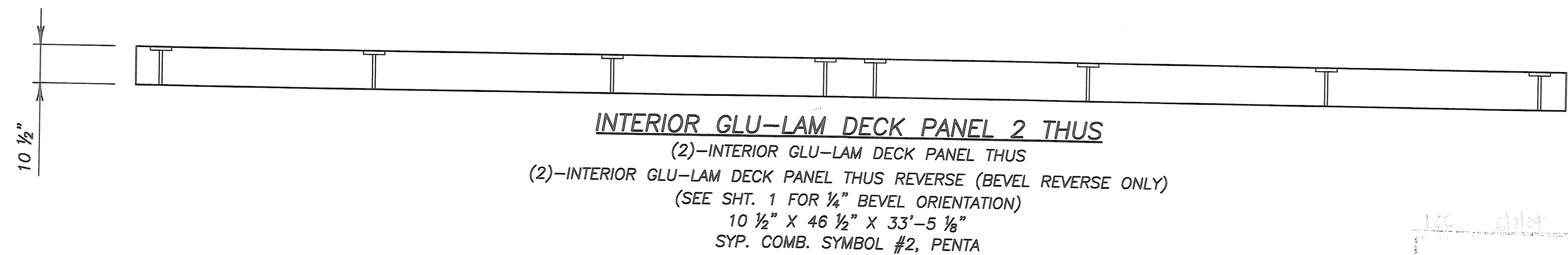
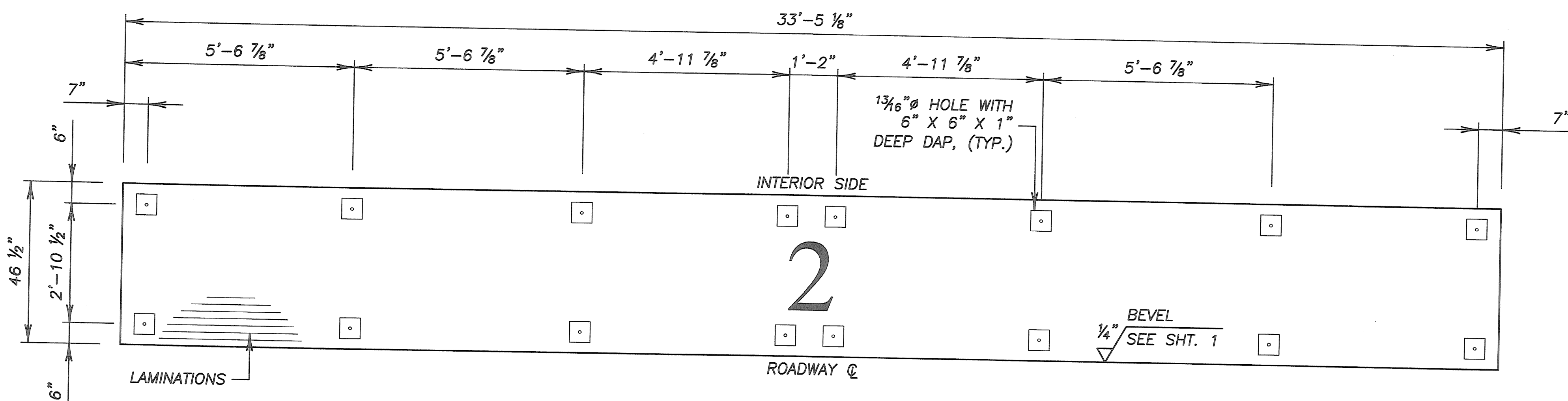
TRACKING NO.: T11547 ORDER NO.: 11245
 DATE: 1/20/04 DWN: LAF CHKD. MAC SHEET 2 OF 10



**NORTH FASCIA GLU-LAM DECK
PANEL 2 THUS**
(2)-NORTH FASCIA GLU-LAM DECK PANEL THUS
10 1/2" X 46 1/2" X 33'-5 1/8"
SYP. COMB. SYMBOL #2, PENTA



GLU-LAM STIFFENER BEAM THUS
(18)-GLU-LAM STIFFENER BEAM THUS
6 3/4" X 7 15/16" X 15'-6"
SYP. COMB. SYMBOL #2, PENTA

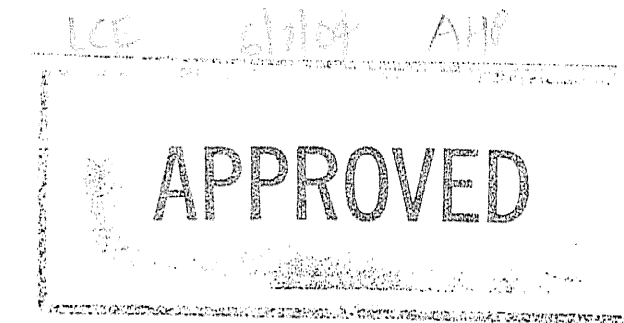


INTERIOR GLU-LAM DECK PANEL 2 THUS
(2)-INTERIOR GLU-LAM DECK PANEL THUS
(2)-INTERIOR GLU-LAM DECK PANEL THUS REVERSE (BEVEL REVERSE ONLY)
(SEE SHT. 1 FOR 1/4" BEVEL ORIENTATION)
10 1/2" X 46 1/2" X 33'-5 1/8"
SYP. COMB. SYMBOL #2, PENTA

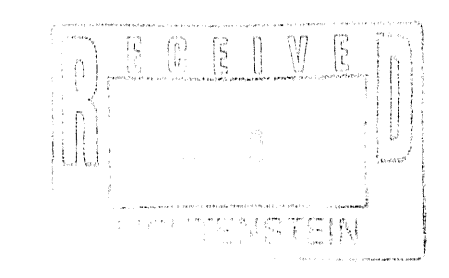
SPECIFICATIONS:

- GLU-LAM BEAMS TO BE SOUTHERN YELLOW PINE, COMB. SYMB. 2, SP/SP.
- GLU-LAMS TO BE INDUSTRIAL IN APPEARANCE, FILL ALL VOIDS.
- GLU-LAMS ARE NOT TO BE END SEALED, SURFACE SEALED, OR WRAPPED.
- GLU-LAMS TO BE PENTA TREATED AFTER FABRICATION IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO M133.
- ENDS OF GLU-LAMS TO BE PLUMB.
- GLU-LAMS SHALL BE INCISED FOR TREATING.
- GLU-LAMS SHALL BE MANUFACTURED USING WET-USE ADHESIVES.
- GLU-LAMS SHALL BE MARKED WITH A QUALIFIED INSPECTION & TESTING AGENCY MARK PRIOR TO TREATMENT & A CERTIFICATE & TEST RESULTS INDICATING CONFORMANCE TO ANSI/AITC A190.1 SHALL BE PROVIDED.
- ALL HOLES SHALL BE DRILLED PERPENDICULAR TO SURFACE SHOWN TO ASSURE FIELD PLACEMENT OF BEAMS, DIAPHRAGMS, ATTACHING STEEL, ETC...

DO NOT SCALE DRAWINGS



RECEIVED
OK'D BY _____ OK'D BY _____
MAY 19 2004
RESUBMIT _____ APPROVED _____
BY _____ DATE _____



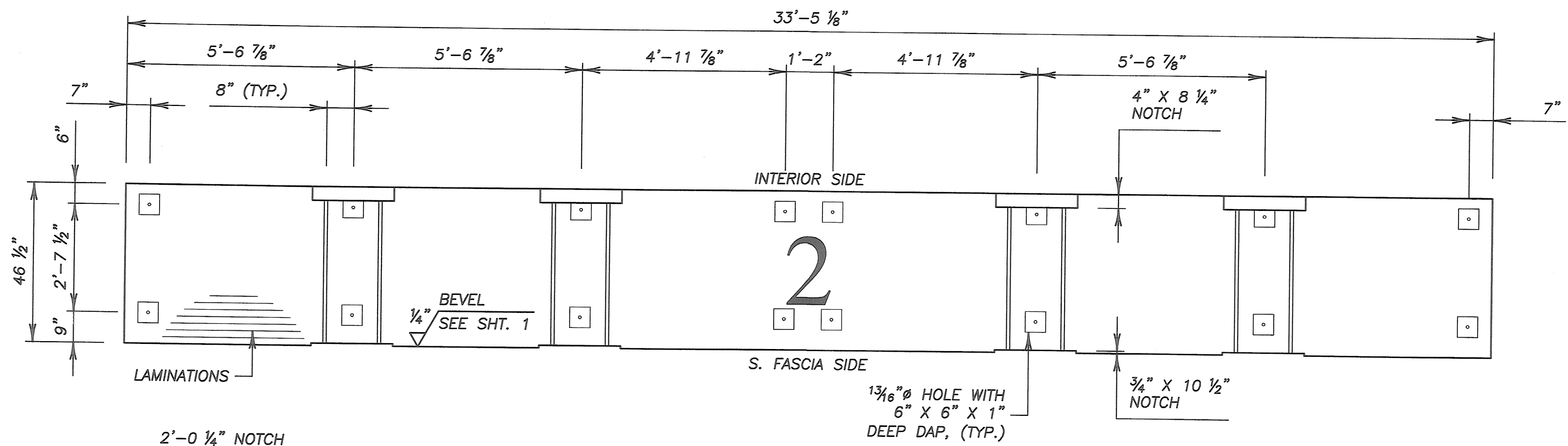
DISCLAIMER:
PLANS ARE FOR FABRICATION PURPOSED ONLY.
SIZE OF DECKS GIVEN.
WHEELER NOT RESPONSIBLE FOR DESIGN LOADS.

STATE OF VERMONT
AGENCY OF TRANSPORTATION
PROPOSED IMPROVEMENT BRIDGE PROJECT

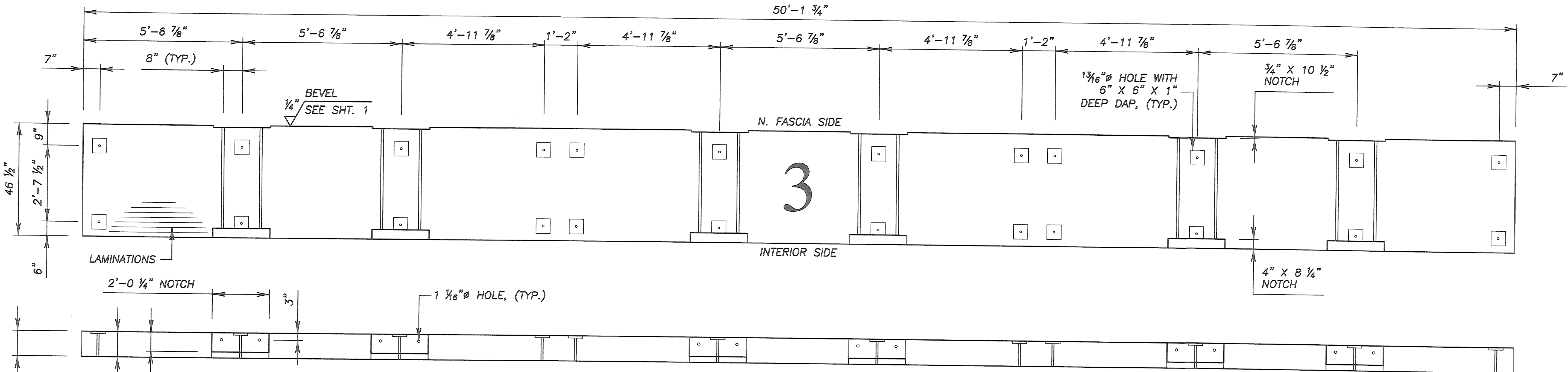
PANEL 2 PREFRAMING

SHOPS PREPARED BY:
WHEELER CONSOLIDATED
12127 WHITEWOOD SERVICE ROAD
WHITEWOOD, SD 57793 (605) 269-2372

TRACKING NO.: T11547 ORDER NO.: 11245
DATE: 1/20/04 DWN: LAF CHKD. MAC SHEET 3 OF 10



**SOUTH FASCIA GLU-LAM DECK
PANEL 2 THUS**
(2)-SOUTH FASCIA GLU-LAM DECK PANEL THUS
10 1/2" X 46 1/2" X 33'-5 1/8"
SYP. COMB. SYMBOL #2, PENTA



**NORTH FASCIA GLU-LAM DECK
PANEL 3 THUS**
(1)-NORTH FASCIA GLU-LAM DECK PANEL THUS
10 1/2" X 46 1/2" X 50'-1 3/4"
SYP. COMB. SYMBOL #2, PENTA

SPECIFICATIONS:
 GLU-LAM BEAMS TO BE SOUTHERN YELLOW PINE, COMB. SYMB. 2, SP/SP.
 GLU-LAMS TO BE INDUSTRIAL IN APPEARANCE, FILL ALL VOIDS.
 GLU-LAMS ARE NOT TO BE END SEALED, SURFACE SEALED, OR WRAPPED.
 GLU-LAMS TO BE PENTA TREATED AFTER FABRICATION IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO M133.
 ENDS OF GLU-LAMS TO BE PLUMB.
 GLU-LAMS SHALL BE INCISED FOR TREATING.
 GLU-LAMS SHALL BE MANUFACTURED USING WET-USE ADHESIVES.
 GLU-LAMS SHALL BE MARKED WITH A QUALIFIED INSPECTION & TESTING AGENCY MARK PRIOR TO TREATMENT & A CERTIFICATE & TEST RESULTS INDICATING CONFORMANCE TO ANSI/AITC A190.1 SHALL BE PROVIDED.
 ALL HOLES SHALL BE DRILLED PERPENDICULAR TO SURFACE SHOWN TO ASSURE FIELD PLACEMENT OF BEAMS, DIAPHRAGMS, ATTACHING STEEL, ETC...

DO NOT SCALE DRAWINGS

APPROVED

RECEIVED
 OK'D BY _____
 DATE MAY 19 2004
 RESUBMIT _____ APPROVED _____
 BY _____ DATE _____

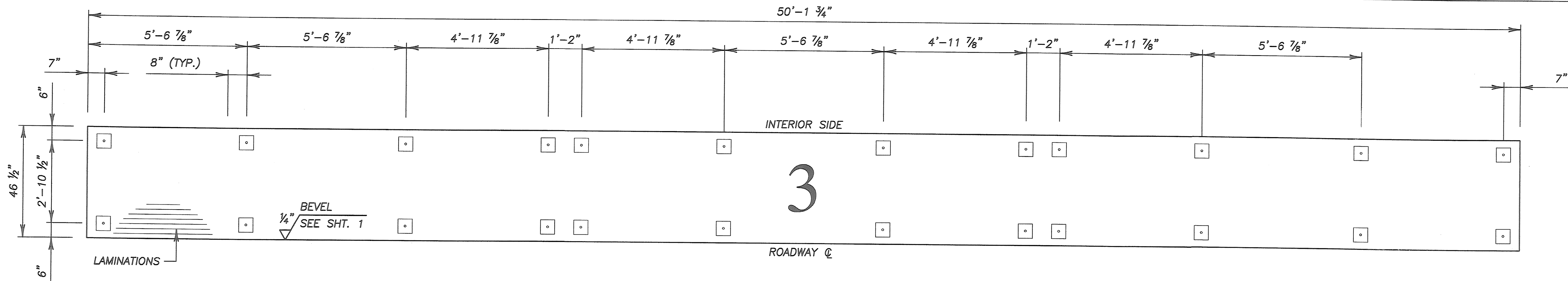
DISCLAIMER:
 PLANS ARE FOR FABRICATION PURPOSED ONLY.
 SIZE OF DECKS GIVEN.
 WHEELER NOT RESPONSIBLE FOR DESIGN LOADS.

STATE OF VERMONT
 AGENCY OF TRANSPORTATION
 PROPOSED IMPROVEMENT BRIDGE PROJECT

PANEL 2 & PANEL 3 PREFRAMING

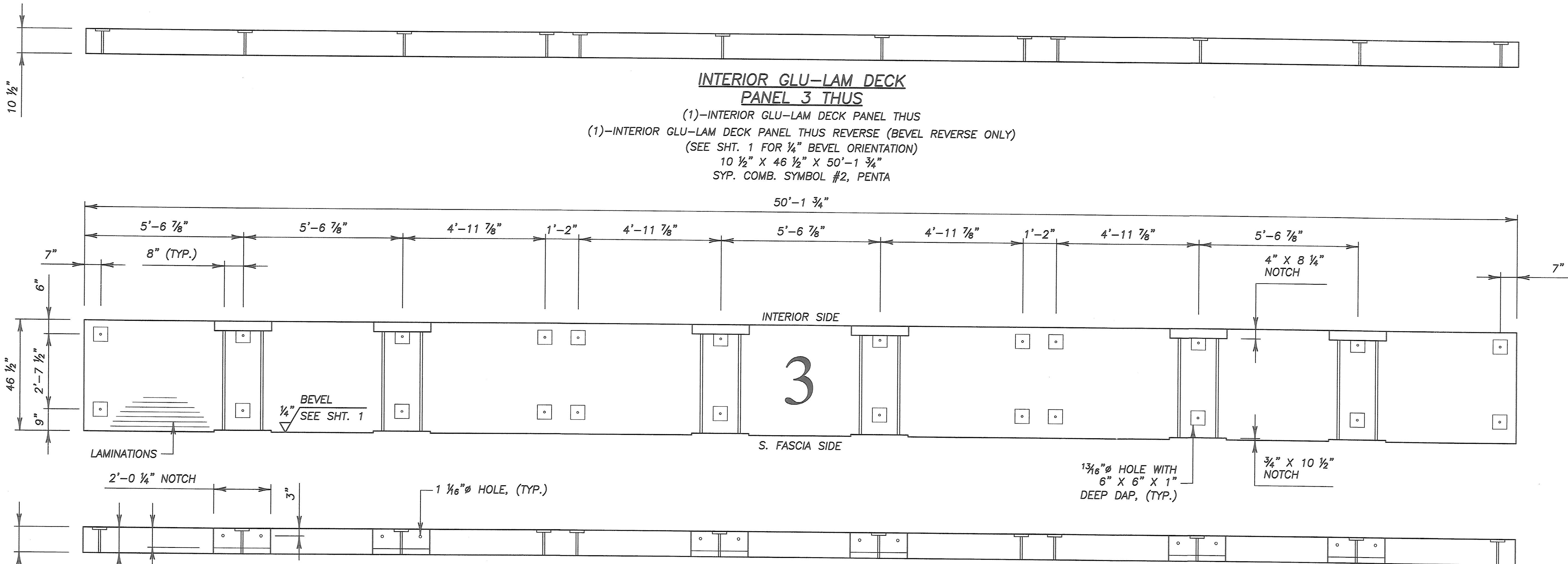
SHOPS PREPARED BY:
WHEELER CONSOLIDATED
 12127 WHITEWOOD SERVICE ROAD
 WHITEWOOD, SD 57793 (605) 269-2372

TRACKING NO.: T11547 ORDER NO.: 11245
 DATE: 1/20/04 DWN: LAF CHKD: MAC SHEET 4 OF 10



**INTERIOR GLU-LAM DECK
PANEL 3 THUS**

- (1)-INTERIOR GLU-LAM DECK PANEL THUS
 - (1)-INTERIOR GLU-LAM DECK PANEL THUS REVERSE (BEVEL REVERSE ONLY)
(SEE SHT. 1 FOR 1/4" BEVEL ORIENTATION)
- 10 1/2" X 46 1/2" X 50'-1 3/4"
SYP. COMB. SYMBOL #2, PENTA



**SOUTH FASCIA GLU-LAM DECK
PANEL 3 THUS**

- (1)-SOUTH FASCIA GLU-LAM DECK PANEL THUS
- 10 1/2" X 46 1/2" X 50'-1 3/4"
SYP. COMB. SYMBOL #2, PENTA

SPECIFICATIONS:

- GLU-LAM BEAMS TO BE SOUTHERN YELLOW PINE, COMB. SYMB. 2, SP/SP.
- GLU-LAMS TO BE INDUSTRIAL IN APPEARANCE, FILL ALL VOIDS.
- GLU-LAMS ARE NOT TO BE END SEALED, SURFACE SEALED, OR WRAPPED.
- GLU-LAMS TO BE PENTA TREATED AFTER FABRICATION IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO M133.
- ENDS OF GLU-LAMS TO BE PLUMB.
- GLU-LAMS SHALL BE INCISED FOR TREATING.

GLU-LAMS SHALL BE MANUFACTURED USING WET-USE ADHESIVES.

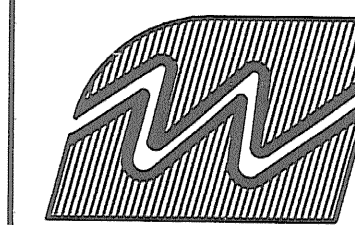
GLU-LAMS SHALL BE MARKED WITH A QUALIFIED INSPECTION & TESTING AGENCY MARK PRIOR TO TREATMENT & A CERTIFICATE & TEST RESULTS INDICATING CONFORMANCE TO ANSI/AITC A190.1 SHALL BE PROVIDED.

ALL HOLES SHALL BE DRILLED PERPENDICULAR TO SURFACE SHOWN TO ASSURE FIELD PLACEMENT OF BEAMS, DIAPHRAGMS, ATTACHING STEEL, ETC...

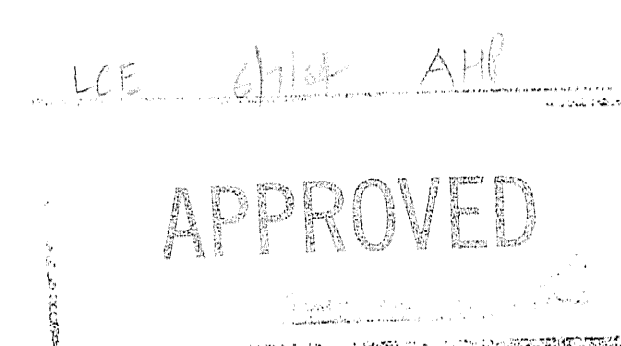
DO NOT SCALE DRAWINGS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
PROPOSED IMPROVEMENT BRIDGE PROJECT

PANEL 3 PREFRAMING



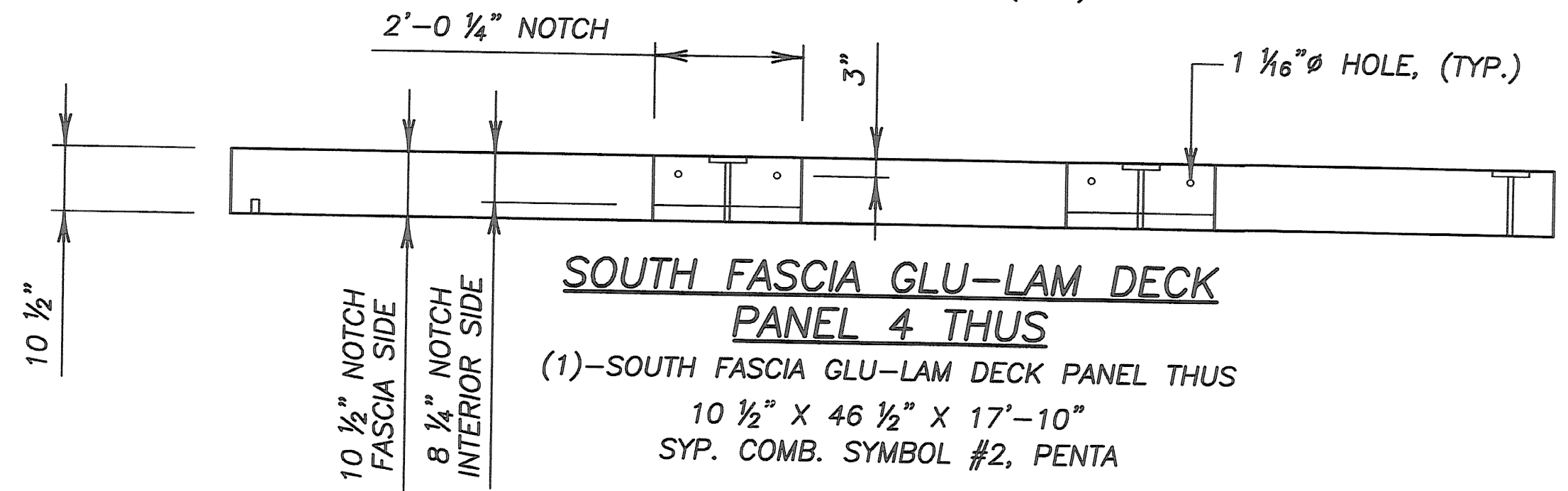
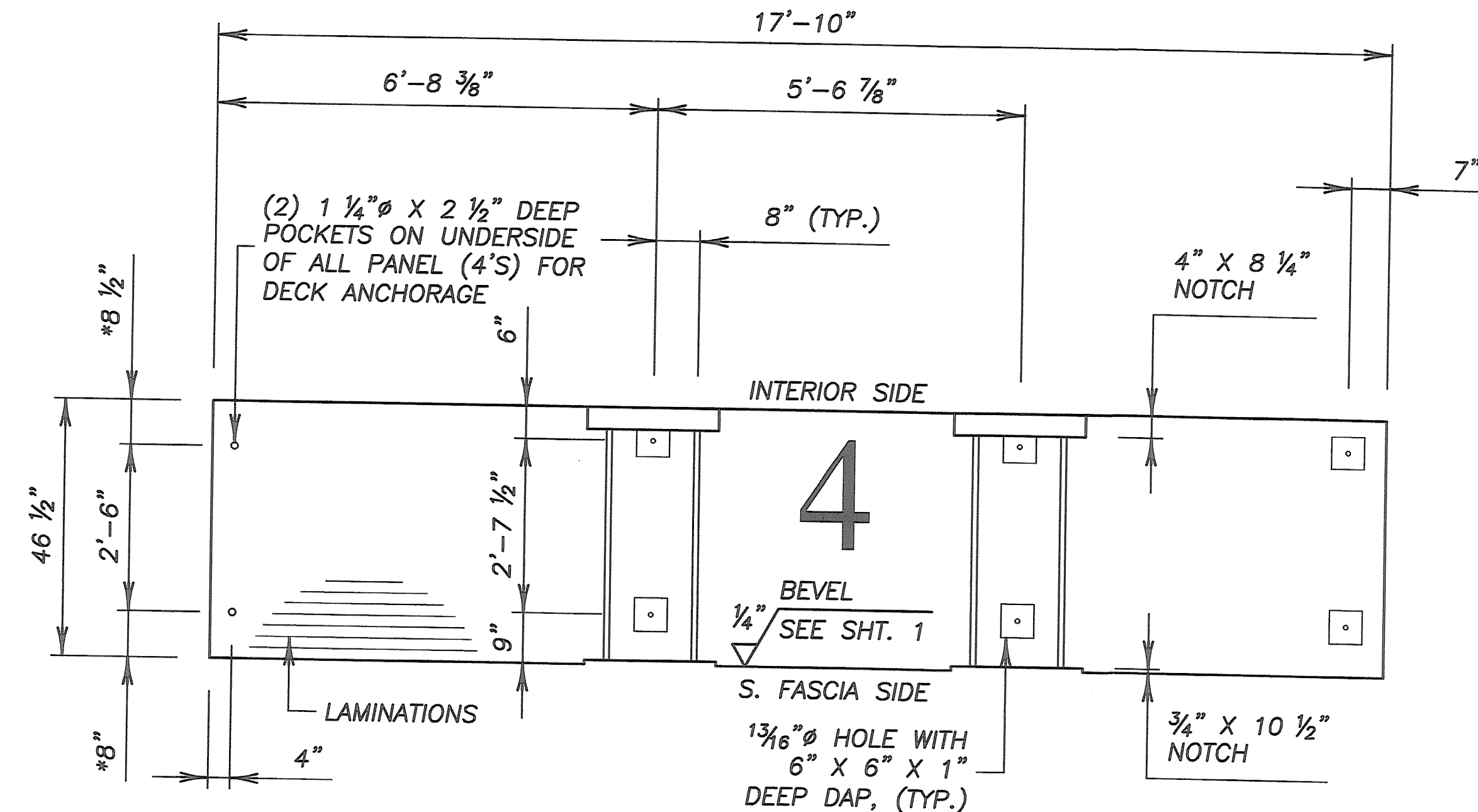
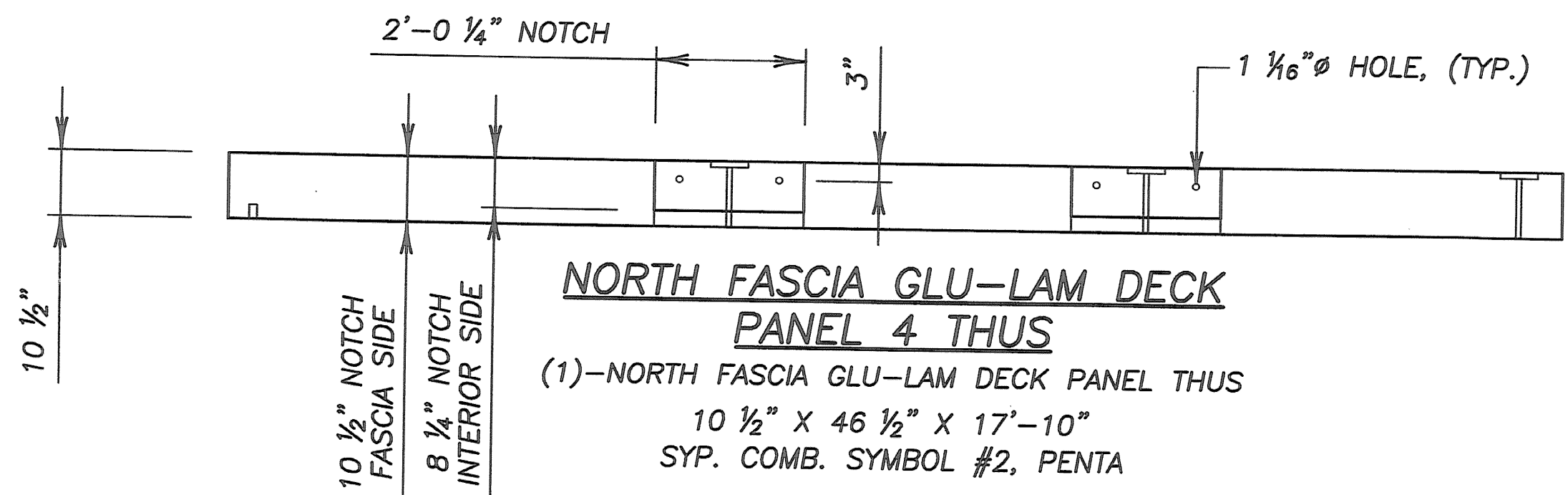
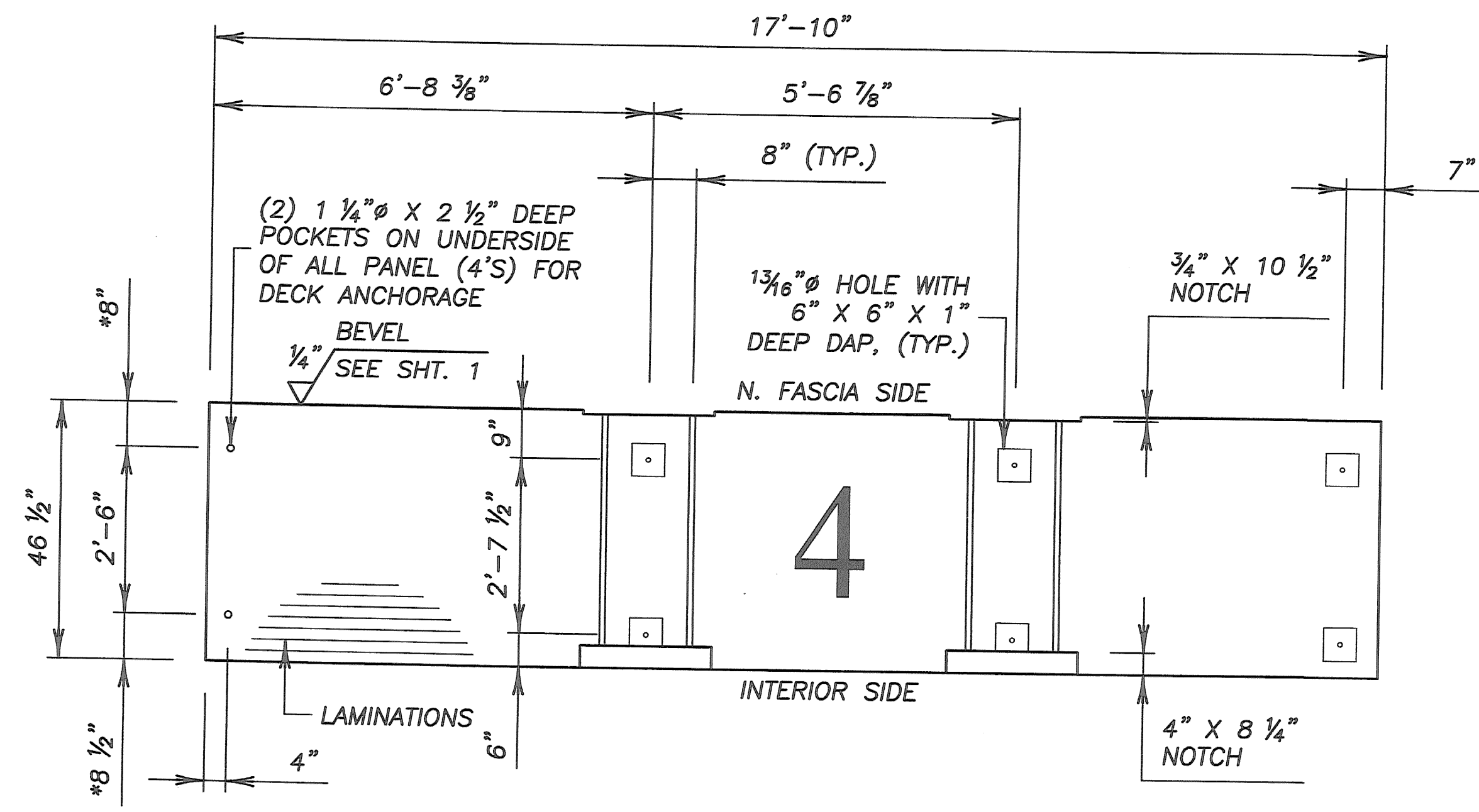
SHOPS PREPARED BY:
WHEELER CONSOLIDATED
12127 WHITEWOOD SERVICE ROAD
WHITEWOOD, SD 57793 (605) 269-2372



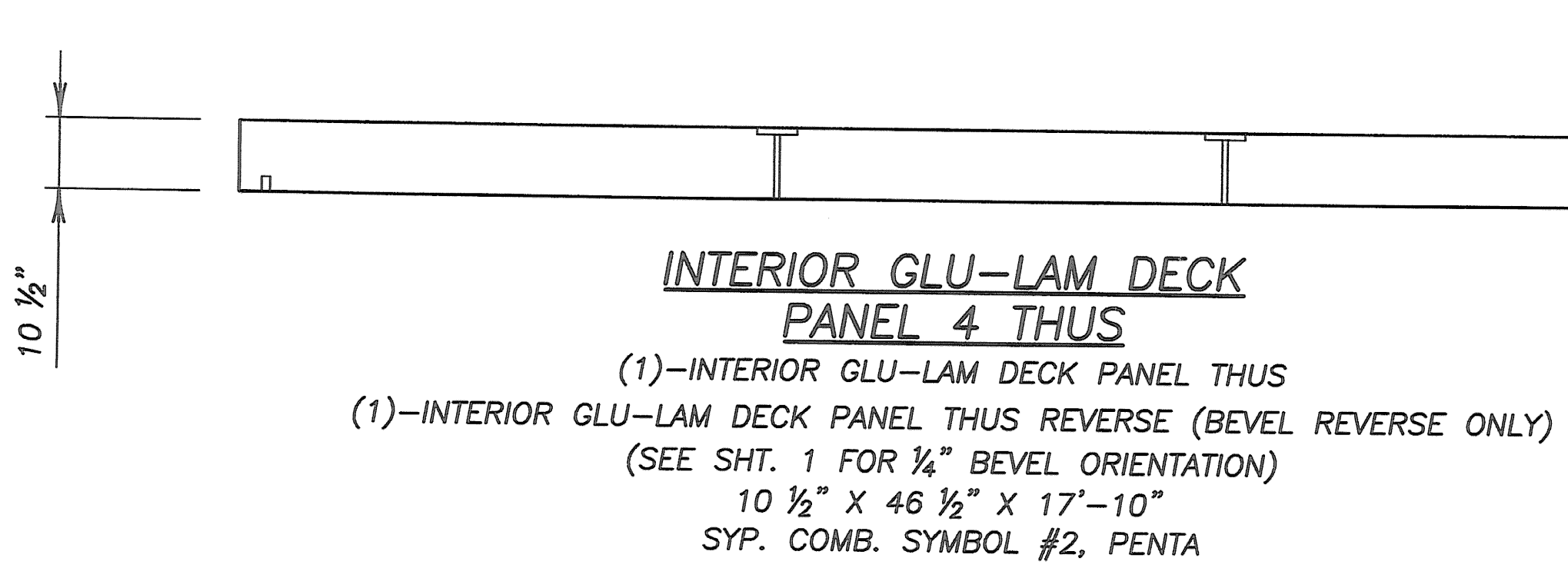
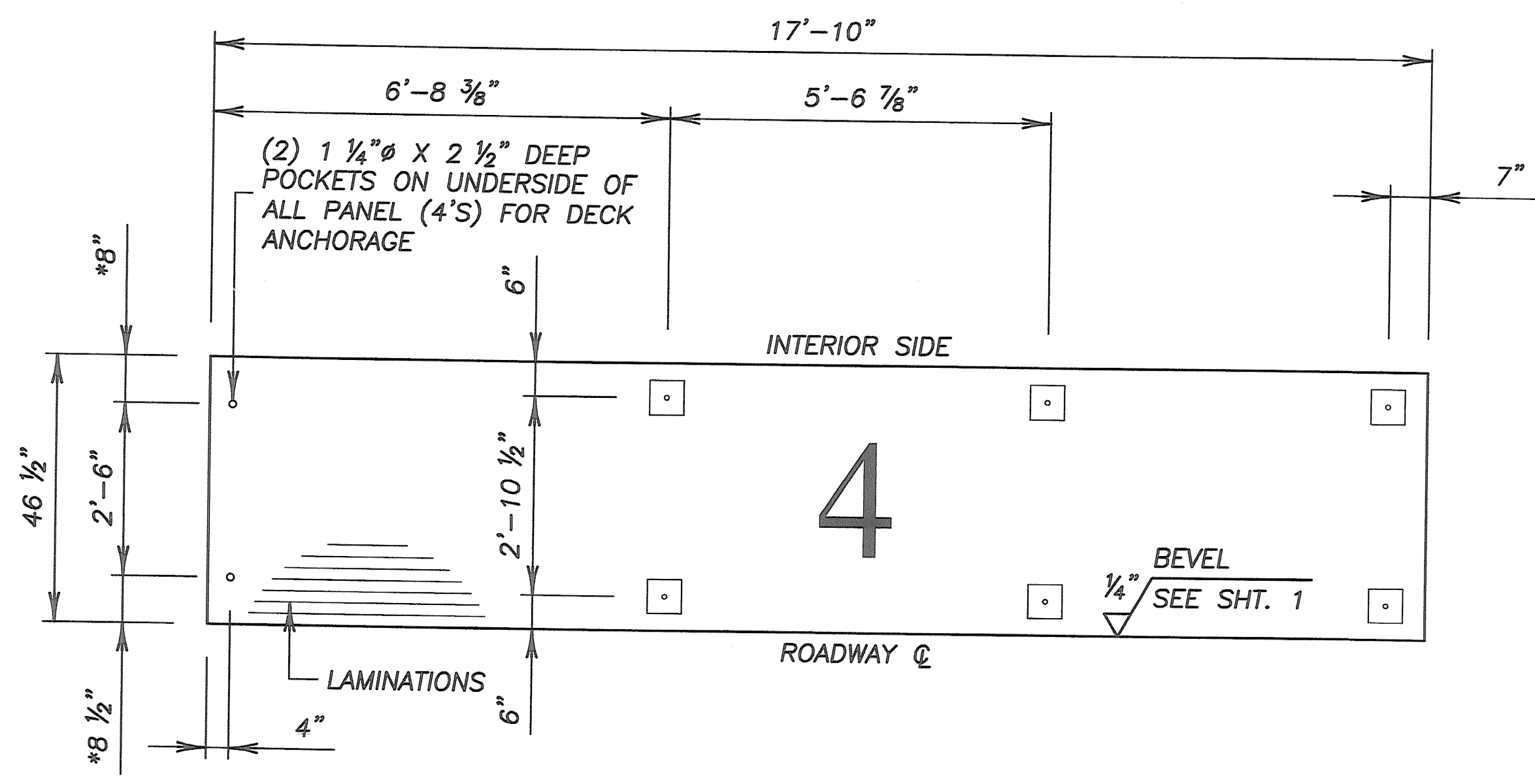
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MAY 19 2004
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

DISCLAIMER:
PLANS ARE FOR FABRICATION PURPOSED ONLY.
SIZE OF DECKS GIVEN.
WHEELER NOT RESPONSIBLE FOR DESIGN LOADS.

TRACKING NO.: T11547	ORDER NO.: 11245
DATE: 1/20/04	DWN: LAF
CHKD. MAC	SHEET 5 OF 10



* MEASURED PRIOR TO PRECISION TRIM ON BOTTOM OF PANEL



DISCLAIMER:
 PLANS ARE FOR FABRICATION PURPOSED ONLY.
 SIZE OF DECKS GIVEN.
 WHEELER NOT RESPONSIBLE FOR DESIGN LOADS.

SPECIFICATIONS:
 GLU-LAM BEAMS TO BE SOUTHERN YELLOW PINE, COMB. SYMB. 2, SP/SP.
 GLU-LAMS TO BE INDUSTRIAL IN APPEARANCE, FILL ALL VOIDS.
 GLU-LAMS ARE NOT TO BE END SEALED, SURFACE SEALED, OR WRAPPED.
 GLU-LAMS TO BE PENTA TREATED AFTER FABRICATION IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO M133.
 ENDS OF GLU-LAMS TO BE PLUMB.
 GLU-LAMS SHALL BE INCISED FOR TREATING.
 GLU-LAMS SHALL BE MANUFACTURED USING WET-USE ADHESIVES.
 GLU-LAMS SHALL BE MARKED WITH A QUALIFIED INSPECTION & TESTING AGENCY MARK PRIOR TO TREATMENT & A CERTIFICATE & TEST RESULTS INDICATING CONFORMANCE TO ANSI/AITC A190.1 SHALL BE PROVIDED.

ALL HOLES SHALL BE DRILLED PERPENDICULAR TO SURFACE SHOWN TO ASSURE FIELD PLACEMENT OF BEAMS, DIAPHRAGMS, ATTACHING STEEL, ETC...

DO NOT SCALE DRAWINGS

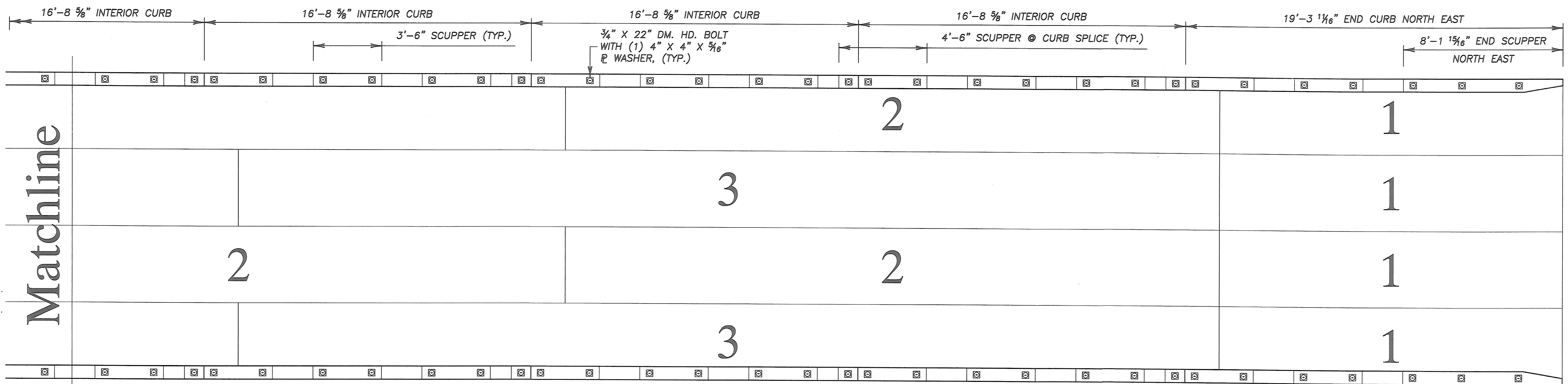
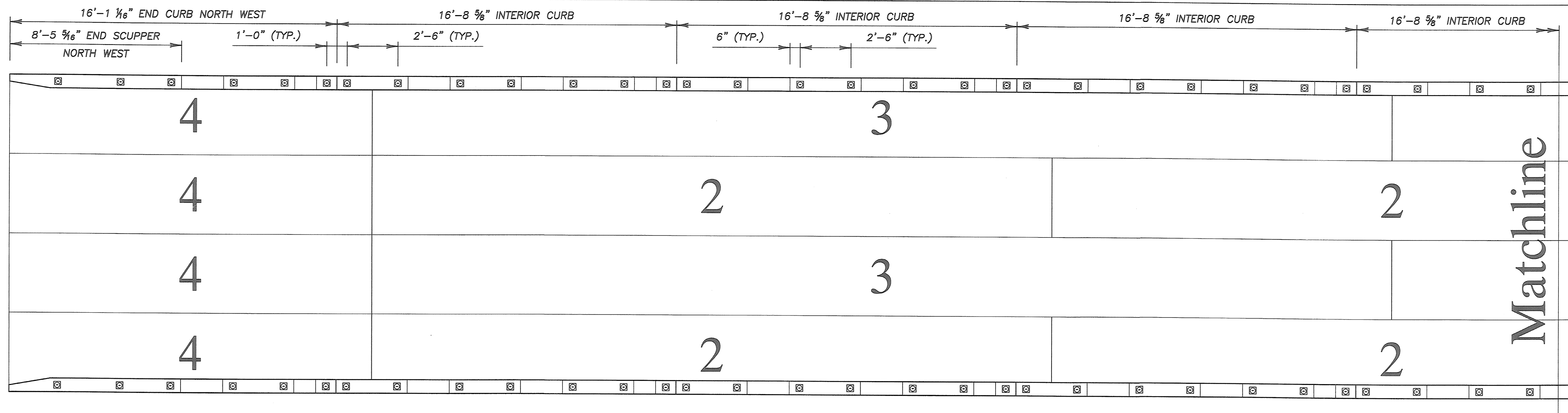
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 MAY 19 2004
 RESUBMIT APPROVED
 BY DATE

STATE OF VERMONT
 AGENCY OF TRANSPORTATION
 PROPOSED IMPROVEMENT BRIDGE PROJECT

PANEL 4 PREFRAMING

SHOPS PREPARED BY:
 WHEELER CONSOLIDATED
 12127 WHITEWOOD SERVICE ROAD
 WHITEWOOD, SD 57793 (605) 269-2372

TRACKING NO.: T11547 ORDER NO.: 11245
 DATE: 1/20/04 DWN: LAF CHKD. MAC SHEET 6 OF 10

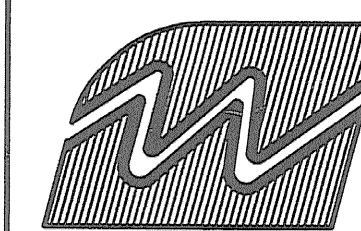


CURB & SCUPPER LAYOUT

NOTE:
SEE CURB & SCUPPER PREFRAMING DETAILS SHEETS 9 & 10.

STATE OF VERMONT
AGENCY OF TRANSPORTATION
PROPOSED IMPROVEMENT BRIDGE PROJECT

CURB & SCUPPER LAYOUT



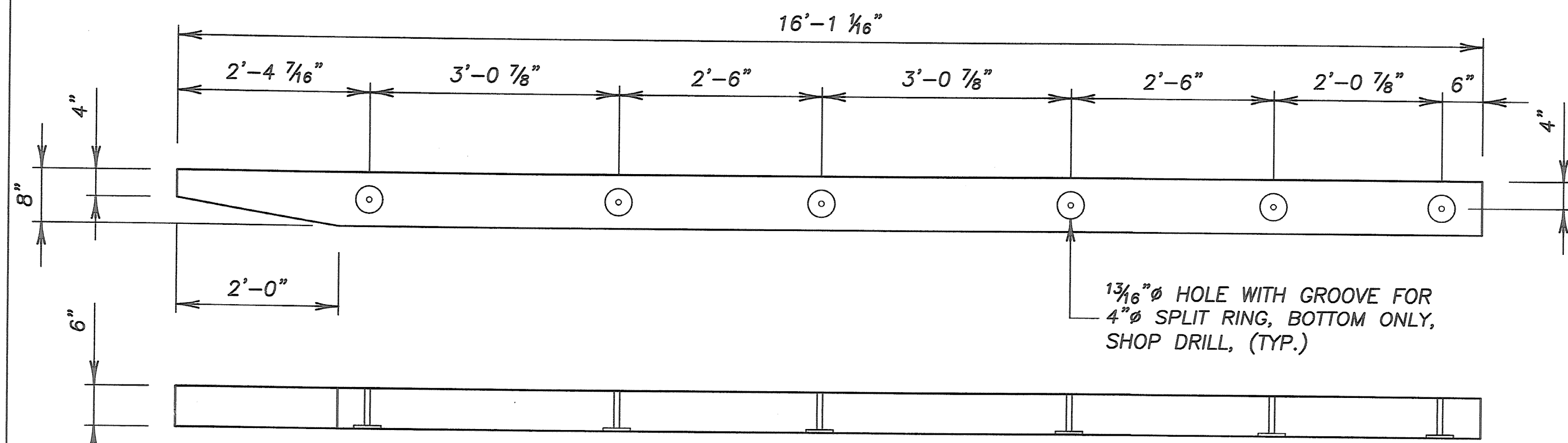
SHOPS PREPARED BY:
WHEELER CONSOLIDATED
12127 WHITEWOOD SERVICE ROAD
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TRACKING NO.: T11547	ORDER NO.: 11245
DATE: 1/20/04	DWN: LAF CHKD. MAC SHEET 8 OF 10



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BY _____ DATE _____

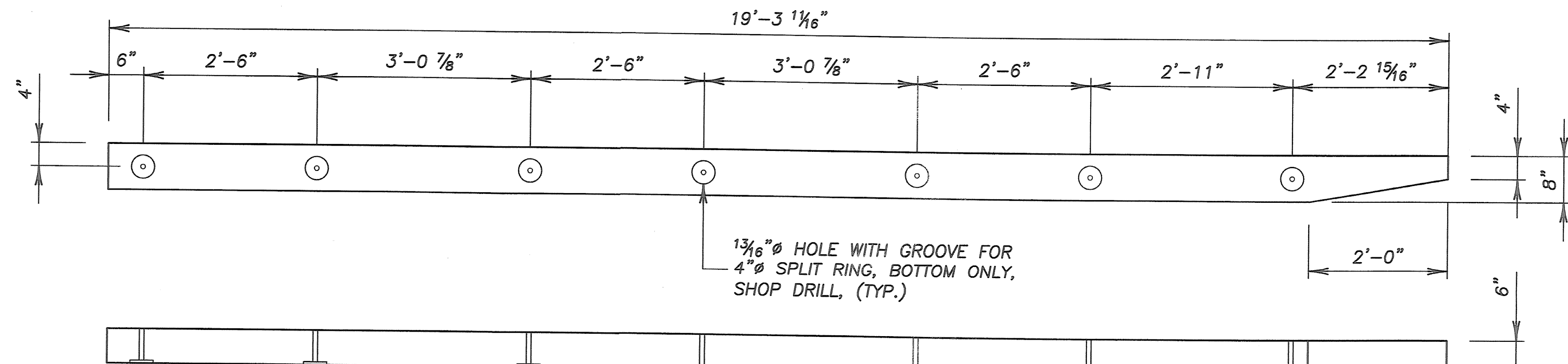
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NORTH WEST END CURB THUS

(1)-NORTH WEST END CURB THUS

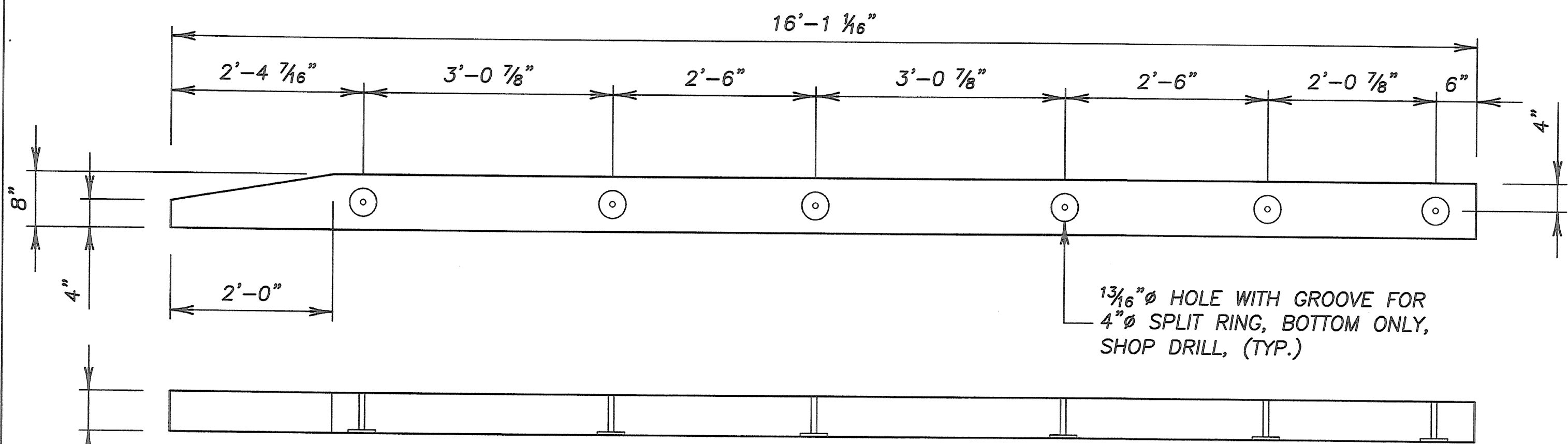
6" X 8" X 16'-1 1/8"
FULL SAWN, CCA



NORTH EAST END CURB THUS

(1)-NORTH EAST END CURB THUS

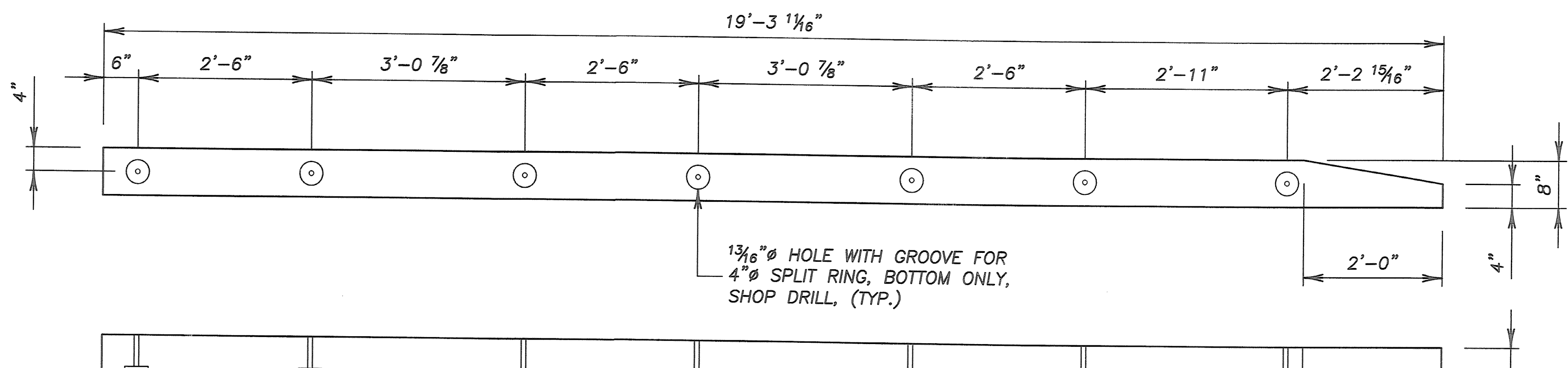
6" X 8" X 19'-3 1/8"
FULL SAWN, CCA



SOUTH WEST END CURB THUS

(1)-SOUTH WEST END CURB THUS

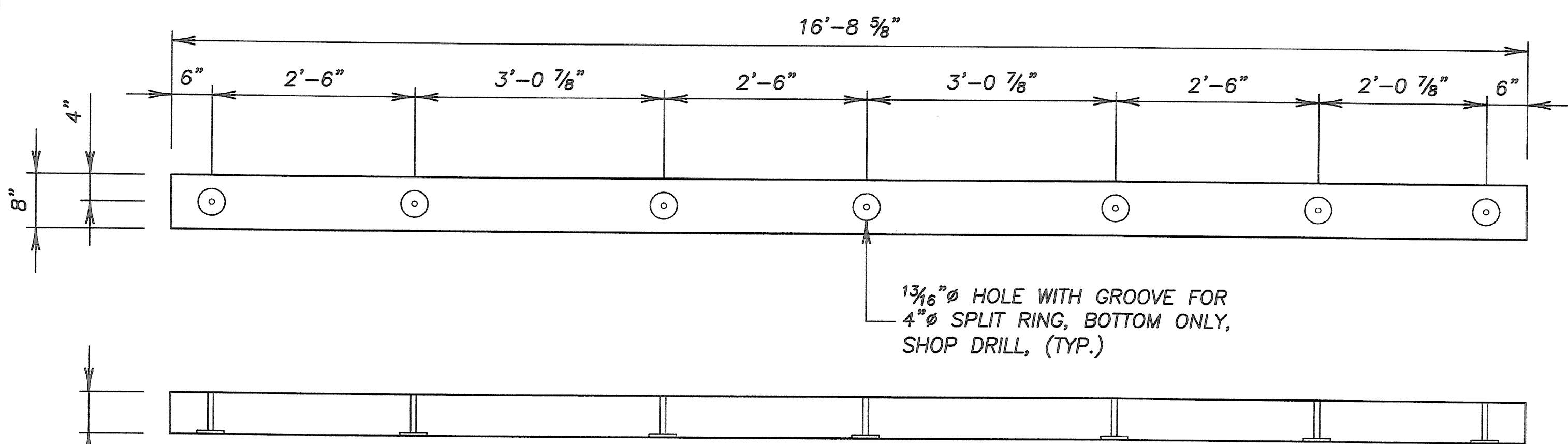
6" X 8" X 16'-1 1/8"
FULL SAWN, CCA



SOUTH EAST END CURB THUS

(1)-SOUTH EAST END CURB THUS

6" X 8" X 19'-3 1/8"
FULL SAWN, CCA



INTERIOR CURB THUS

(14)-INTERIOR CURB THUS

6" X 8" X 16'-8 5/8"
FULL SAWN, CCA

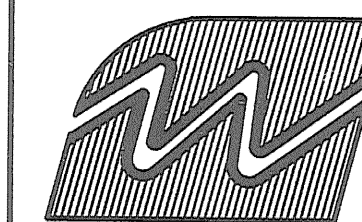
MATCHMARK

MATCHMARK CORRESPONDING
CURBS & SCUPPERS

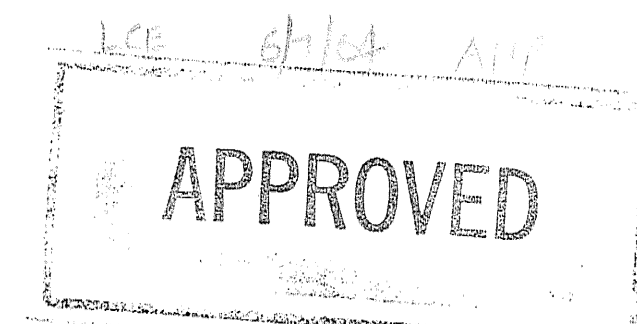
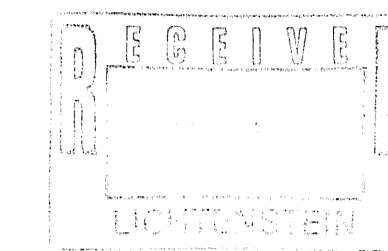
DO NOT SCALE DRAWINGS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
PROPOSED IMPROVEMENT BRIDGE PROJECT

CURB PREFRAMING

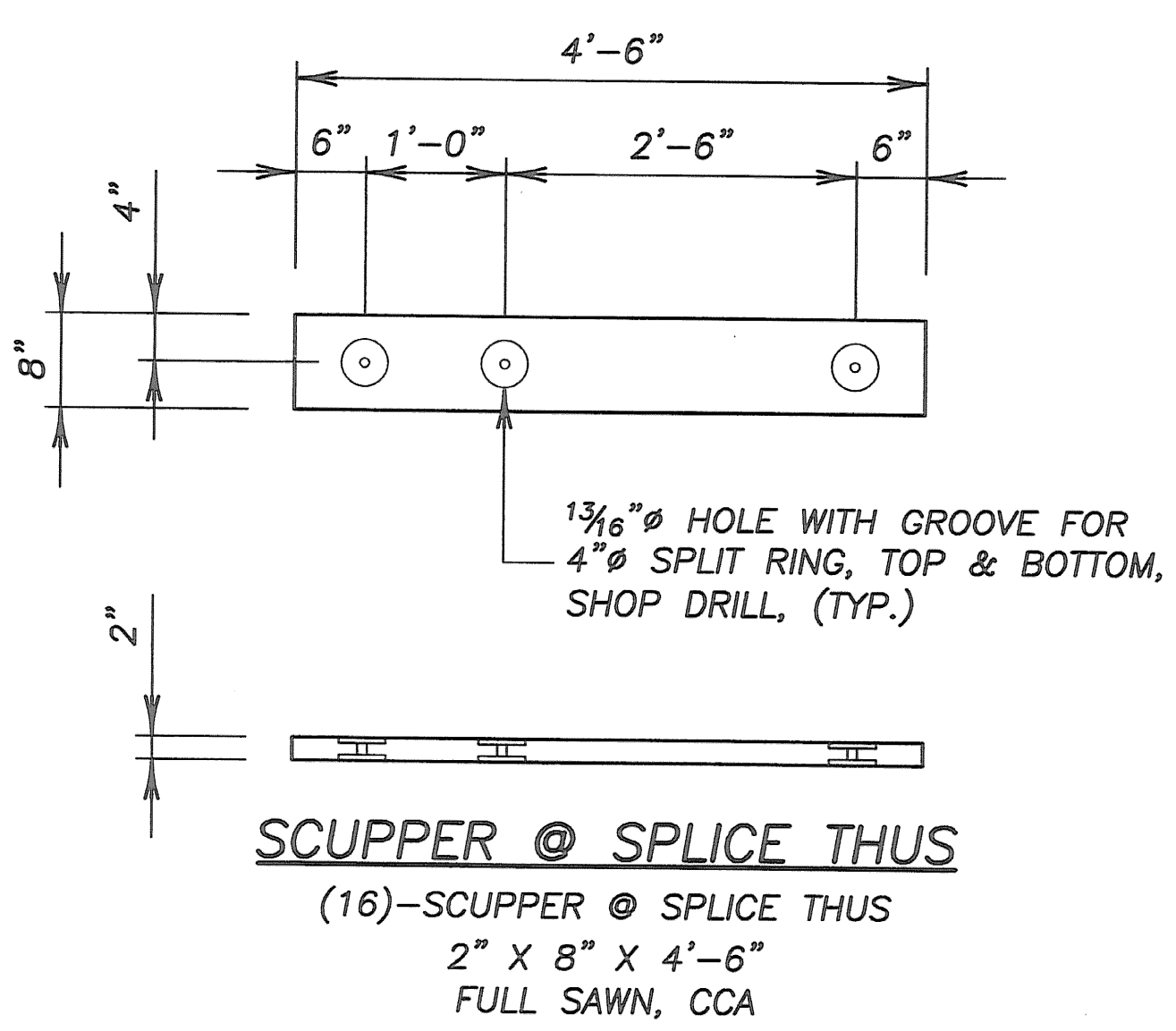
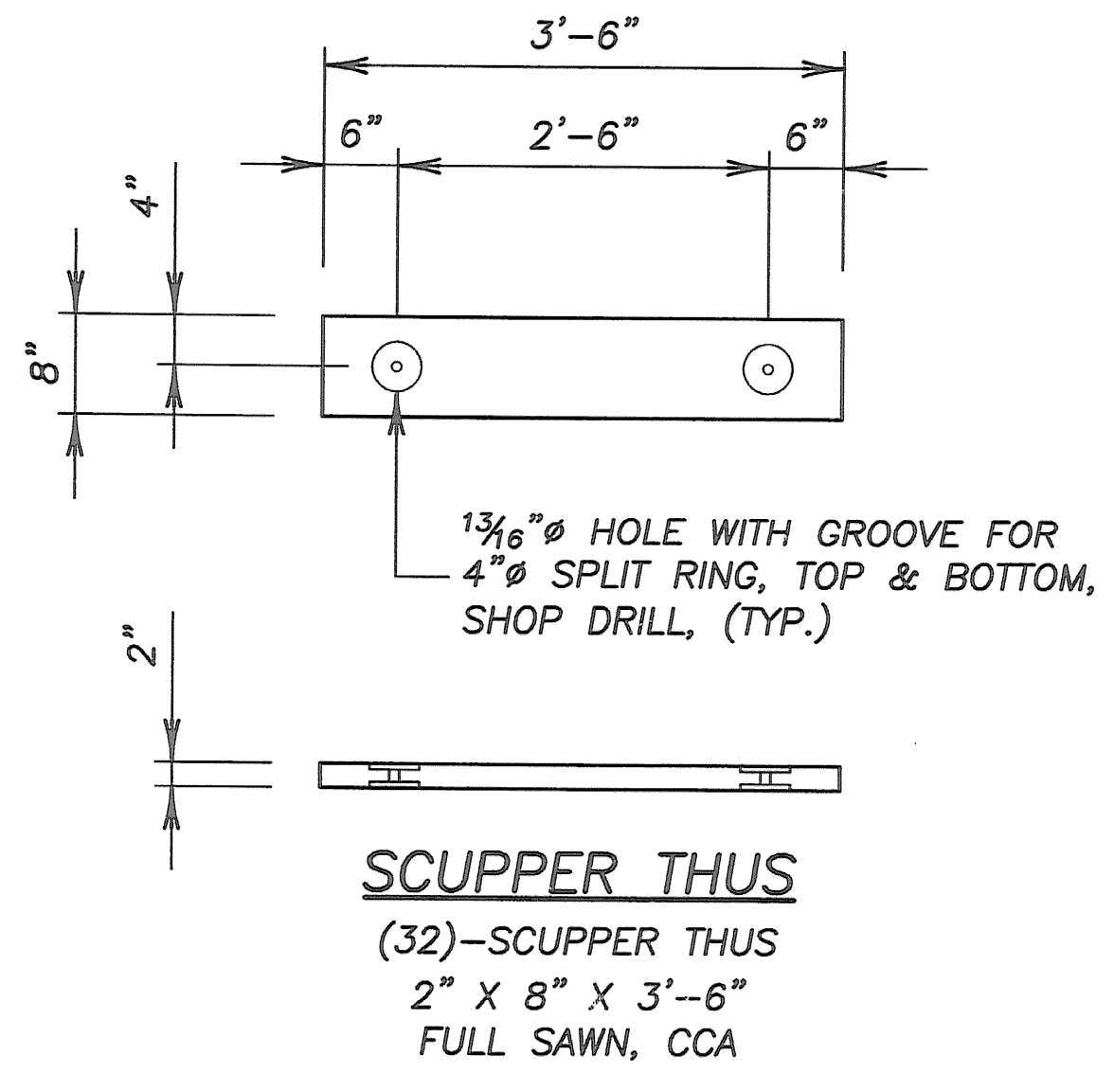
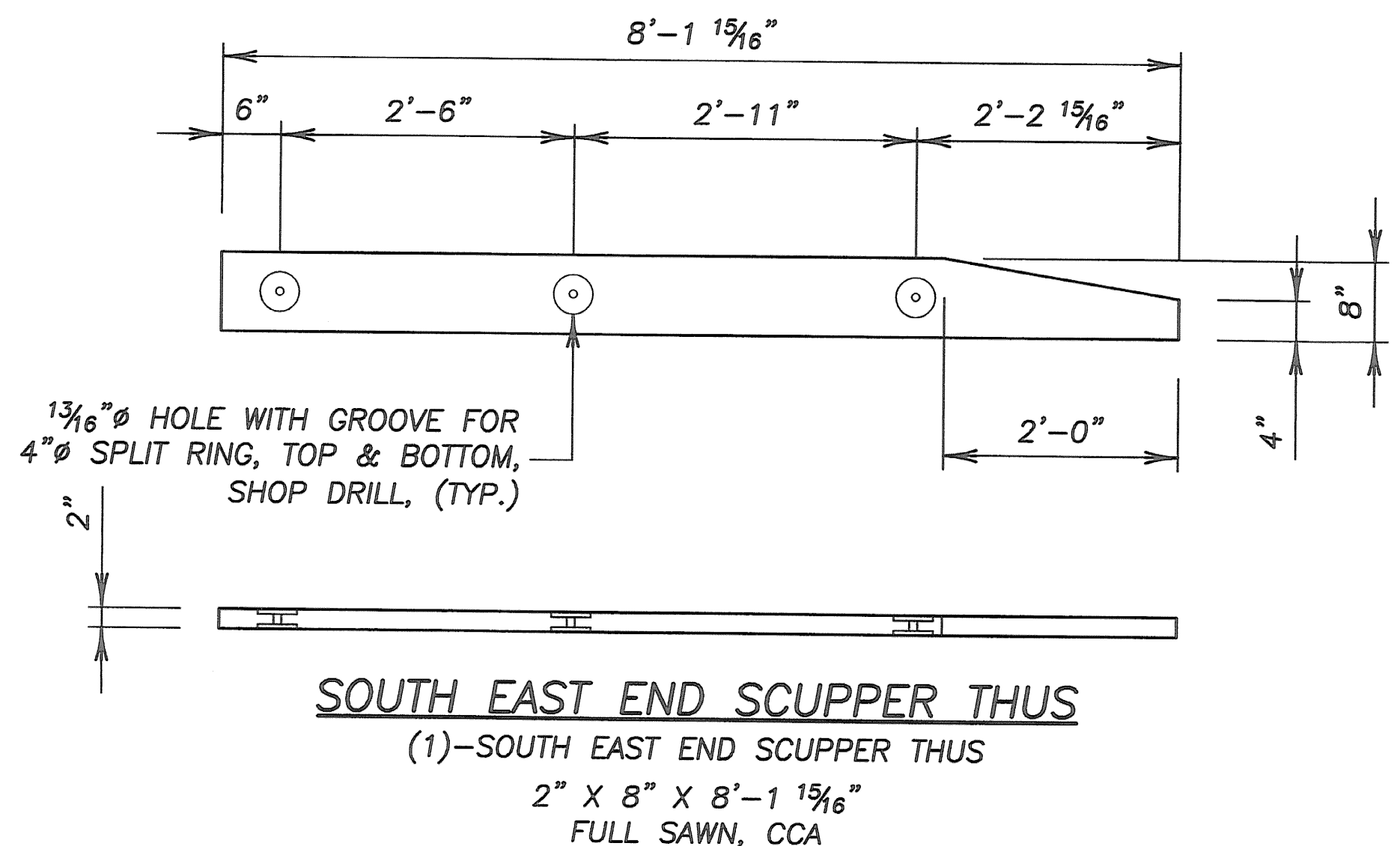
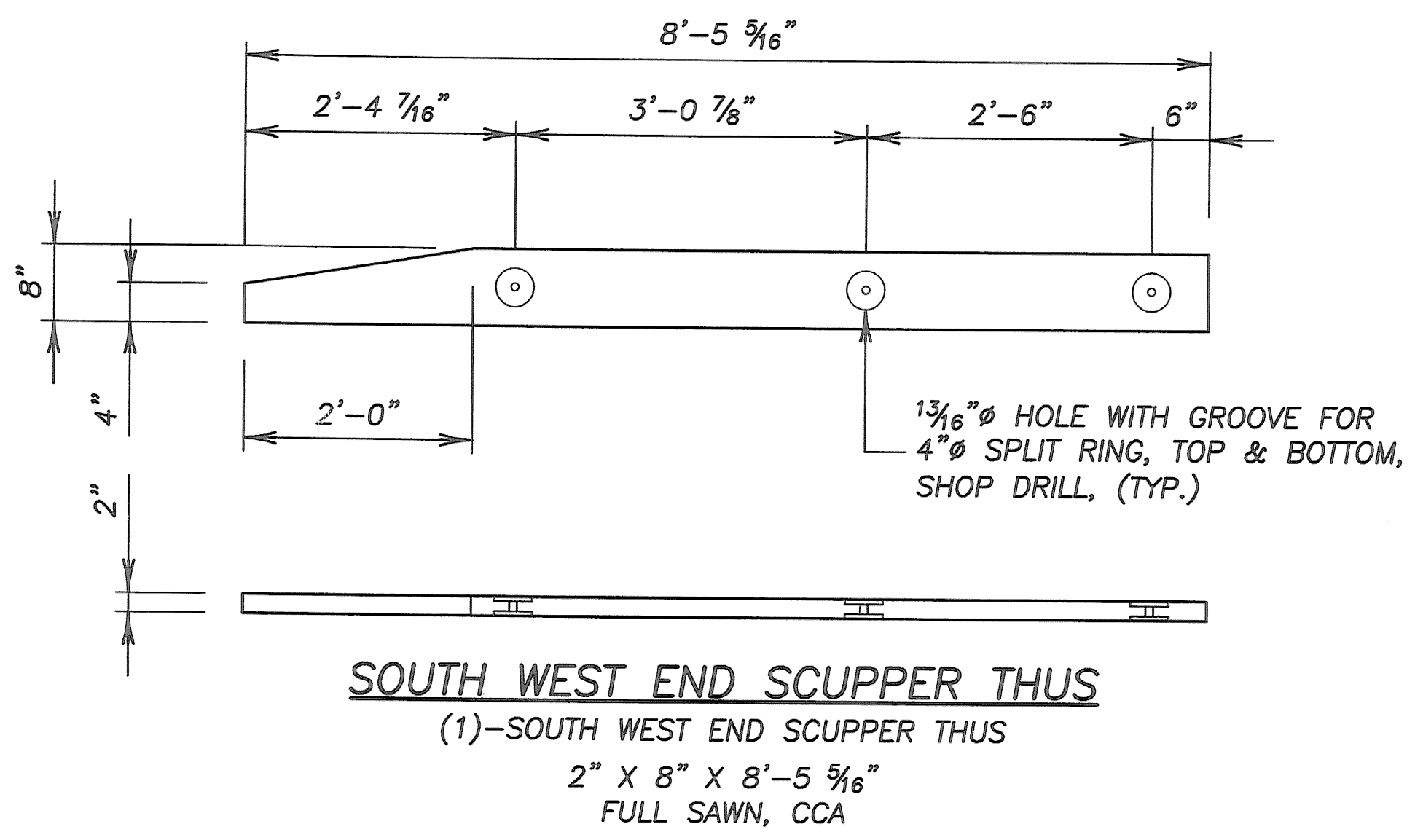
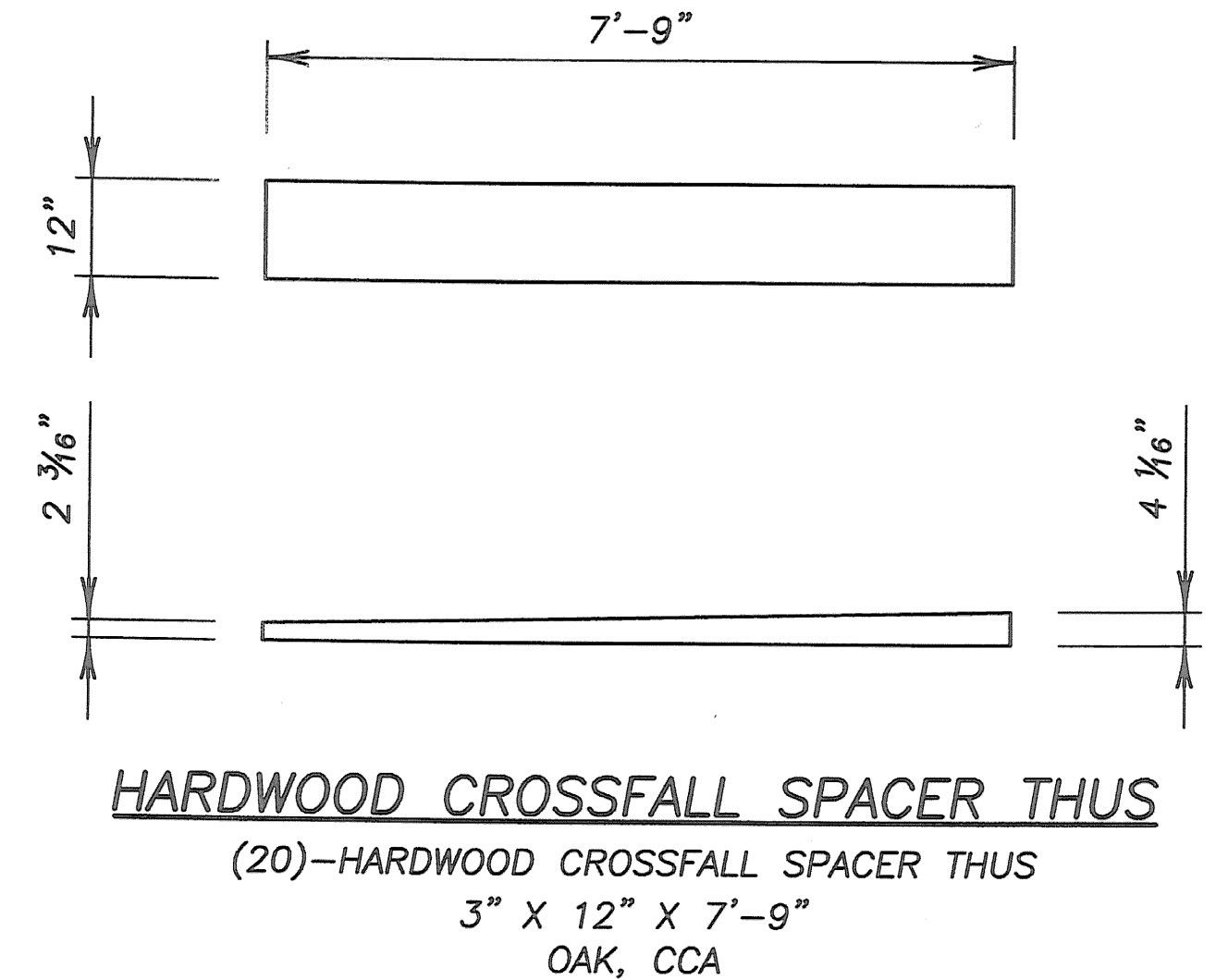
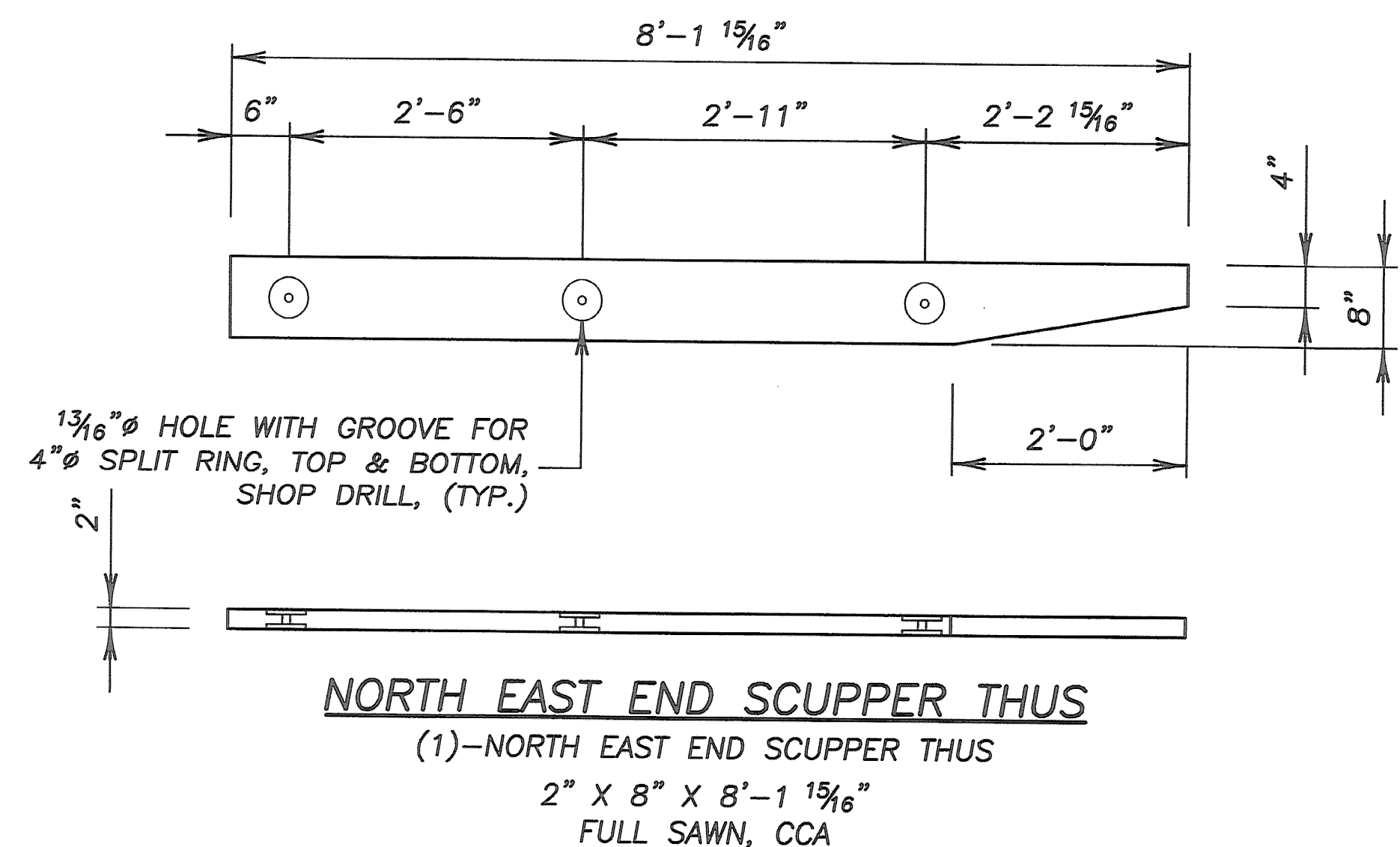
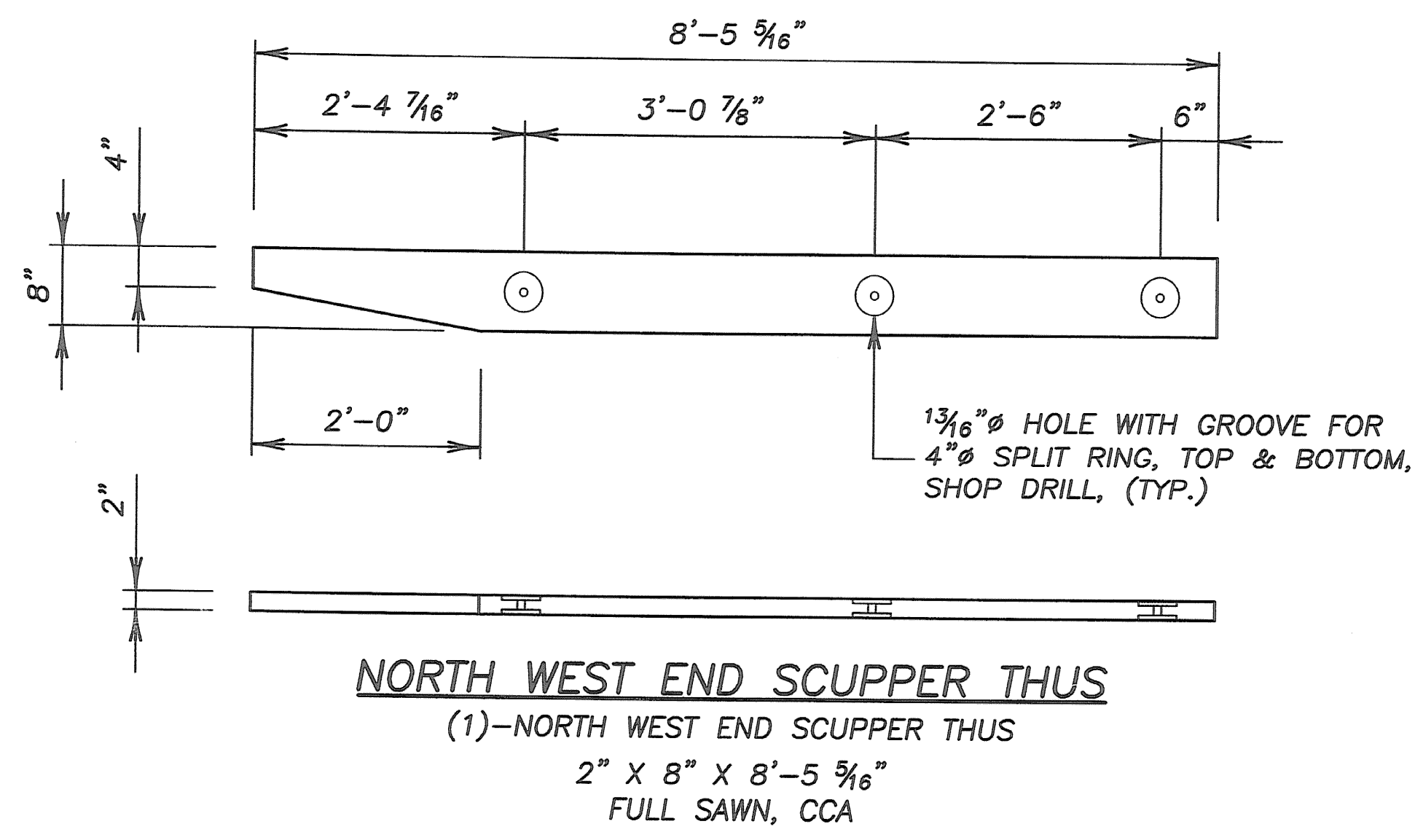


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BY: _____ DATE: _____

TRACKING NO.: T11547	ORDER NO.: 11245
DATE: 1/20/04	DWN: LAF
CHKD: MAC	SHEET 9 OF 10



MATCHMARK
 MATCHMARK CORRESPONDING
 CURBS & SCUPPERS

DO NOT SCALE DRAWINGS

STATE OF VERMONT
 AGENCY OF TRANSPORTATION
 PROPOSED IMPROVEMENT BRIDGE PROJECT
 SCUPPER/CROSSFALL SPACER PREFRAMING

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RECEIVED
 LICHTENSTEIN

APPROVED

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 MAY 19 2004
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 BY: _____ DATE: _____

TRACKING NO.: T11547 ORDER NO.: 11245
 DATE: 1/20/04 DWN: LAF CHKD. MAC SHEET 10 OF 10