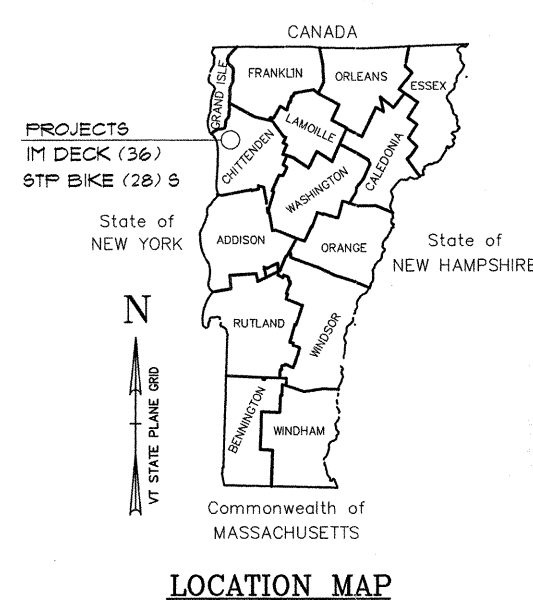


STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT CITY OF SOUTH BURLINGTON COUNTY OF CHITTENDEN



IM DECK (36)

ROUTE NO. : 1-89
PROJECT LOCATION: U.S. 2 (WILLISTON RD.) OVER I-89
PROJECT DESCRIPTION: INSTALL TRAFFIC CONTROL, REHABILITATE STRUCTURE, REMOVE TRAFFIC CONTROL
LENGTH OF STRUCTURE: 261.00'
LENGTH OF PROJECT: 1723.00'

BRIDGE NO. : 68
PROJECT LOCATION: U.S. 2 (WILLISTON RD.) OVER I-89
PROJECT DESCRIPTION: INSTALL TRAFFIC CONTROL, REHABILITATE STRUCTURE, REMOVE TRAFFIC CONTROL

STP BIKE (28) S

PROJECT LOCATION: U.S. 2 (WILLISTON RD.) OVER I-89
PROJECT DESCRIPTION: CONSTRUCT SIDEWALK AND BIKEWAY ALONG U.S. 2 BETWEEN STA. 2100 AND 3646
LENGTH OF PROJECT: 1561.00'



RECORD PLANS

CONTRACTOR: J.A. McDONALD - LYNDON CTR. VT.
RESIDENT ENGINEER: ROBERT SUCKERT
CONSTRUCTION BEGAN: JUNE 12, 2004
CONSTRUCTION COMPLETE: APRIL 23, 2004
RECORD PLANS BY: R. SUCKERT, D. HOSKING & N. GARBARICK

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

BY: *[Signature]* RESIDENT ENGINEER
DATE: 6-2-09

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



APPROVED: *[Signature]* DATE 3/14/09
DIRECTOR OF PROJECT DEVELOPMENT
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: *[Signature]* DATE 3/14/09
DIVISION ADMINISTRATOR

PROJECT: SOUTH BURLINGTON IM DECK(36)
SOUTH BURLINGTON STP BIKE (28)S
SHEET 1 OF 75 SHEETS

CONVENTIONAL SIGNS

COUNTY LINE	---
TOWN LINE	---
LIMITS OF ACCESS	---
POINT OF ACCESS	X
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	---

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 CHIEF ENGINEER. CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 1990, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON MARCH 15, 1990 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

VANASSE HANGEN BRUSTLIN, INC.

LIST OF SHEETS

1. TITLE SHEET
 2. LIST OF SHEETS
 3. COMPOSITE QUANTITIES (1 OF 2)
 4. COMPOSITE QUANTITIES (2 OF 2)
 5. IM DECK(36) QUANTITIES
 6. STP BIKE(28)S QUANTITIES
-
- 6A. EXISTING PLAN & ELEVATION
7. SCOPE OF WORK NOTES
 8. NEW TRANSVERSE SECTION & BRIDGE INFO. SUMMARY
 9. GENERAL NOTES & DECK REHABILITATION NOTES
 10. SIDEWALK & APPROACH SLAB REHABILITATION NOTES
-
11. CONSTRUCTION PHASING (1 OF 2)
 12. CONSTRUCTION PHASING (2 OF 2)
 - 12A. DECK & MEDIAN REHABILITATION DETAILS
 - 12B. SIDEWALK REHABILITATION DETAILS
-
13. ABUTMENT JOINT REPAIR DETAILS
 14. PIER EXPANSION JOINT REPAIR PLAN
 15. PIER EXPANSION JOINT REPAIR SECTIONS
 16. PIER EXPANSION JOINT REPAIR DETAILS & NOTES
 17. DRAIN TROUGH DETAILS
-
18. BEARING REPAIR NOTES
 19. BEARING CONDITION & TREATMENT SUMMARY
 20. BEARING TREATMENT DETAIL 'A'
 21. BEARING TREATMENT DETAIL 'D'
 22. BEARING TREATMENT DETAIL 'X'
 23. BEARING TREATMENT DETAIL 'Y'
-
24. NETC BRIDGE RAIL - 4 RAIL
 25. GUARD RAIL APPROACH SECTION, NETC 4 RAIL
 26. BRIDGE RAIL LAYOUT
 27. SHEET NOT USED
-
28. EXISTING PIER REMOVAL
 29. PIER MASONRY
 30. PIER CAP PLAN
 31. PIER REINFORCEMENT
-
32. ABUTMENT REPAIR AREAS
 33. ABUTMENT REPAIR NOTES
 34. SHEET NOT USED
 35. SHEET NOT USED
 36. SHEET NOT USED
-
37. TRAFFIC CONTROL PLAN NOTES
 38. GENERAL CONSTRUCTION SIGNING
 39. TRAFFIC CONTROL PLAN PHASES 1&2
 40. TRAFFIC CONTROL PLAN PHASES 3&4
 41. TRAFFIC CONTROL PLAN PHASE 5
-
42. NON-STANDARD SIGNS
 43. REINFORCING STEEL SCHEDULE
-
44. APPROACH ROADWAY PLAN (1 OF 2)
 45. APPROACH ROADWAY PLAN (2 OF 2)

IM DECK 36

STP BIKE 28(S)

46. BIKEWAY GENERAL NOTES
 47. BIKEWAY PLAN (1 OF 2)
 48. BIKEWAY PLAN (2 OF 2)
 49. BIKEWAY PLAN RAMP B
 50. BIKEWAY PLAN RAMP D
 51. BIKEWAY PLAN RAMP E
 52. BIKEWAY PLAN RAMP G
 53. BIKEWAY PLAN RAMP A, C, F & H
 54. BIKEWAY TYPICAL SECTIONS
-
- 54A. US 2 & DORSET ST. INTERSECTION (1 OF 3)
 - 54B. US 2 & DORSET ST. INTERSECTION (2 OF 3)
 - 54C. US 2 & DORSET ST. INTERSECTION (3 OF 3)
-
55. BIKEWAY SIGN SUMMARY (1 OF 4)
 56. BIKEWAY SIGN SUMMARY (2 OF 4)
 57. BIKEWAY SIGN SUMMARY (3 OF 4)
 58. BIKEWAY SIGN SUMMARY (4 OF 4)
 59. PEDESTRIAN SIGNAL PLAN

REFERENCE SHEETS FROM EXISTING PLANS

60-69. BRIDGE NO. 68 INFORMATION SHEETS (10 SHEETS)

REFERENCE STANDARD SHEETS

70. SHEET NOT USED
71. SCB-D-60
72. SCB-42-60
73. SB-20-60
74. SB-21-56
75. SB-22-60

STANDARD SHEETS

BR3 - 9T	06-23-98	E - 171A	08-09-95
C - 1	01-03-00	E - 171B	08-09-95
C - 2A	01-03-00	E - 171C	08-09-95
C - 2B	01-03-00	E - 172	08-09-95
C - 3	01-03-00	E - 173	08-09-95
D - 9	06-01-94	E - 175	11-17-93
D - 10	06-01-94	E - 180A	08-09-95
D - 15	06-01-94	E - 180B	08-09-95
E - 100	01-06-97	E - 181	08-09-95
E - 101	03-10-97	E - 191	02-01-99
E - 102	08-08-95	E - 192	12-28-98
E - 102A	08-08-95	E - 193	08-18-95
E - 103	09-23-98	E - 197	08-18-95
E - 104	02-03-99	G - 1	01-03-00
E - 104A	12-27-96	G - 1D	01-03-00
E - 105	04-01-99	G - 18	06-01-94
E - 106	08-08-95	G - 19	10-21-98
E - 107	08-08-95	T - 1	06-01-94
E - 107A	08-08-95	T - 2	06-01-94
E - 108	08-18-95		
E - 110	08-08-95		
E - 119	08-08-95		
E - 120	08-08-95		
E - 121	08-08-95		
E - 131	08-08-95		
E - 136A	08-08-95		
E - 140	08-30-96		
E - 142	09-20-95		
E - 143	09-20-95		
E - 144	03-29-99		
E - 145A	12-23-94		
E - 145B	12-23-94		
E - 146	09-20-95		
E - 150	01-15-97		
E - 151	08-08-95		
E - 152	08-08-95		
E - 154	08-08-95		
E - 155	08-08-95		
E - 160	05-20-99		
E - 161	08-18-95		
E - 162	05-20-99		
E - 163	05-20-99		
E - 164	05-20-99		
E - 170	11-04-99		

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No. U.S.	2	Log Sta.	
		Surv. Sta.	

U.S. 2 OVER I-89

LIST OF SHEETS

Designed By	S.M. HODGDON	Drawn By	B.J. MASSE
Checked By	T.S. BRYANT	Date	1/00
		Bridge Design Supervisor	C.D. BAKER
		Date	1/00

PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)/STP BIKE (28) S
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VHB Cod Drawing No.	50929SHT	Date	1/00
Bridge Sheet No.		Sheet	2 of 75

COMPOSITE QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	EROSION CONTROL		TRAINING		FULL E&C		GRAND TOTAL
			IM DECK(36)	STP BIKE(28)S	IM DECK(36)	STP BIKE(28)S	IM DECK(36)	STP BIKE(28)S	
203.15	COMMON EXCAVATION	C.Y.	330	1500					1830
203.28	EXCAVATION OF SURFACES AND PAVEMENTS	C.Y.		130					130
203.35	GRAVEL BACKFILL FOR SLOPE STABILIZATION	C.Y.	5						5
204.20	TRENCH EXCAVATION OF EARTH	C.Y.	1	15		30			46
204.25	STRUCTURE EXCAVATION	C.Y.	650						650
204.30	GRANULAR BACKFILL FOR STRUCTURES	C.Y.	640						640
210.10	COLD PLANING - BITUMINOUS PAVEMENT	S.Y.	16000						16000
621.90	TEMPORARY TRAFFIC BARRIER (MOD - INNOVATIVE)	LF	4200						4200
219.10	MILLED RUMBLE STRIPS	L.F.		140					140
301.26	SUBBASE OF CRUSHED GRAVEL (FINE GRADED)	C.Y.	340	970	40	130			1480
404.65	EMULSIFIED ASPHALT	CWT	200						200
406.25	BITUMINOUS CONCRETE PAVEMENT (PG 64-28)	TON	2180						2180
501.25	CONCRETE, CLASS B	C.Y.		10					10
501.60	SILICA-FUME CONCRETE (MOD.)	C.Y.	470	5					475
502.10	SHORING SUPERSTRUCTURE	L.S.	1						1
502.10	SHORING SUPERSTRUCTURE (AT PIERS 1, 2, AND 3)	L.S.	1						1
502.11	SHORING SUPERSTRUCTURE BEARINGS (FROM BRIDGE SEAT)	EA.	15						15
505.36	TEMPORARY STEEL SHEET PILING	S.F.	2800						2800
506.60	STRUCTURAL STEEL	LB#.	1200						1200
506.80	DRAIN TROUGH	L.F.	230						230
506.80	DRAIN TROUGH (MOD. DOWNSPOUTS)	L.F.	254						254
507.15	REINFORCING STEEL	LB#.	2500	500					3000
507.16	DRILLING AND GROUTING DOUELS	L.F.	1630						1630
507.17	EPOXY COATED REINFORCING STEEL	LB#.	101044						101044
507.19	MECHANICAL BAR CONNECTOR (NO. 5)	EA.	100						100
513.30	STRUCTURAL PAINTING, FIELD APPLIED (.375 TONS)	L.S.	1						1
513.36	CONTAINMENT AND ENVIRONMENTAL PROTECTION, FIELD (.375 TONS)	L.S.	1						1
513.41	SURFACE PREPARATION, FIELD (.375 TONS)	L.S.	1						1
514.10	WATER REPELLENT	GAL.	120						120
516.10	BRIDGE EXPANSION JOINT (ARMORED JOINT)	L.F.	230						230
519.20	SHEET MEMBRANE WATERPROOFING (MOD. - TORCH APPLIED)	S.Y.	2200						2200
524.20	JOINT SEALER, POLYURETHANE	GAL.	10						10
525.10	REMOVAL OF EXISTING RAILING	L.F.	550						550
525.34	BRIDGE RAILING - NETC 4 RAIL	L.F.	550						550
527.11	TRAFFIC PROTECTION FOR BRIDGE PROJECT	L.S.	1						1
529.10	REMOVAL OF BRIDGE PAVEMENT	S.Y.	2700						2700
529.20	PARTIAL REMOVAL OF STRUCTURE	EA.	1						1
529.25	REMOVAL OF CONCRETE OR MASONRY	C.Y.	110	3					113
531.10	BEARING DEVICE ASSEMBLY (STEEL PLT. EXP. BEARINGS)	EA.	1						1
531.10	BEARING DEVICE ASSEMBLY (STEEL PLT. FIXED BEARINGS)	EA.	13						13
531.10	BEARING DEVICE ASSEMBLY (FABRIC TFE EXP. BEARINGS)	EA.	56						56
531.10	BEARING DEVICE ASSEMBLY (FABRIC FIXED BEARINGS)	EA.	28						28
580.10	REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I	S.Y.	27						27
580.11	REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS II	S.Y.	30						30
580.12	REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III	C.Y.	52						52
580.13	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I	S.Y.	1						1
580.14	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II	S.Y.	6						6
580.15	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III	C.Y.	1						1
580.19	CONCRETE CLASS AA OVERLAY	S.Y.	2450						2450
604.10	CONCRETE CATCH BASIN WITH CAST IRON GRATE	EA.		2					2
604.40	CHANGING ELEVATIONS OF DROP INLETS, CATCH BASINS OR MANHOLES	EA.		6					6
604.41	REHABILITATION OF DROP INLETS, CATCH BASINS OR MANHOLES	EA.		2					2
604.52	CAST IRON GRATE WITH FRAME, TYPE E	EA.		8					8
608.25	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	HR.			1	3			4
613.10	STONE FILL, TYPE I	C.Y.	115	895	10	20			1040
616.20	GRANITE SLOPE EDGING	L.F.		100					100
616.21	VERTICAL GRANITE CURB	L.F.		240					240
616.40	REMOVING AND RESETTING CURB	L.F.	910	900					1810
616.41	REMOVAL OF EXISTING CURB	L.F.	1770	315					2085
616.47	BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS	TON	35						35
618.10	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	S.Y.		1210					1210
618.15	BITUMINOUS CONCRETE SIDEWALK	TON		90					90
620.75	SNOW BARRIER - GALVANIZED	L.F.	340						340
621.21	HEAVY DUTY STEEL BEAM GUARD RAIL	L.F.		595					595
621.57	ENERGY ABSORPTION ATTENUATOR	EA.	9						9
621.73	GUARD RAIL APPROACH SECTION, NETC 4 RAIL	EA.	4						4
621.75	REMOVING AND RESET GUARD RAIL	L.F.	720	155					875
621.80	REMOVAL AND DISPOSAL OF GUARD RAIL	L.F.	520						520
516.10	BRIDGE EXPANSION JOINT (SIDEWALK)	L.F.	47						47

THE ITEM 621.90 "TEMPORARY TRAFFIC BARRIER (MOD - INNOVATIVE)" IS TO BE USED DURING THE PHASE CONSTRUCTION WORK ON WILLISTON ROAD.

NOTE:
1. QUANTITY OF REINFORCING STEEL INCLUDES A NOMINAL AMOUNT ASSUMED FOR CLASS II CONCRETE REPAIRS.

*** ITEM OUT OF ORDER

VANASSE HANGEN BRUSTLIN, INC.

STATE OF VERMONT			
AGENCY OF TRANSPORTATION			
Town Of	SOUTH BURLINGTON	Bridge No.	68
		Log Sta.	
Highway No. U.S.	2	Surv. Sta.	
U.S. 2 OVER I-89			
COMPOSITE QUANTITIES (1 OF 2)			
Designed By	S.M. HODGDON	Drawn By	B.J. MASSE
Checked By	Date	Bridge Design Supervisor	Date
T.S. BRYANT	2/00	C.D. BAKER	Date 2/00
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK(36)
VHB Cad Drawing No.	50929QNT2	Date	2/00
Bridge Sheet No.		Sheet	3 of 75

COMPOSITE QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	EROSION CONTROL		TRAINING		FULL E&C		GRAND TOTAL
			IM DECK(36)	STP BIKE(28)S	IM DECK(36)	STP BIKE(28)S	IM DECK(36)	STP BIKE(28)S	
621.90	TEMPORARY TRAFFIC BARRIER	L.F.	880						880
630.10	UNIFORMED TRAFFIC OFFICERS	HR.	2700	300					3000
630.15	FLAGGERS	HR.	1800	200					2000
631.10	FIELD OFFICE - ENGINEERS	L.S.					1		1
631.16	TESTING EQUIP. - CONCRETE	L.S.					1		1
631.17	TESTING EQUIP. - BITUMINOUS	L.S.					1		1
631.18	TESTING EQUIP. - PROTECTIVE COATINGS	L.S.					1		1
631.25	FIELD OFFICE - TELEPHONE (NOT A BID ITEM)	L.U.					1		1
634.10	EMPLOYEE TRAINEESHIP	HR.				1560			1560
635.10	MOBILIZATION	L.S.	1						1
641.10	TRAFFIC CONTROL	L.S.	0.9	0.1					1
641.10	TRAFFIC CONTROL (MOD. - PUBLIC RELATIONS OFFICER)	L.S.	0.9	0.1					1
641.15	PORTABLE CHANGEABLE MESSAGE SIGN	EA.	4						4
641.16	PORTABLE ARROW BOARD	EA.	1						1
646.27	PAINTED CURB	L.F.	70						70
646.40	DURABLE 4" WHITE LINE (TYPE I TAPE)	L.F.	3690	1310					5000
646.41	DURABLE 4" YELLOW LINE (TYPE I TAPE)	L.F.	3320						3320
646.414	DURABLE 6" WHITE LINE (TYPE I TAPE)	L.F.	110	1720					1830
646.415	DURABLE 6" YELLOW LINE (TYPE I TAPE)	L.F.	110	425					535
646.42	DURABLE 8" WHITE LINE (TYPE I TAPE)	L.F.	40	855					895
646.43	DURABLE 8" YELLOW LINE (TYPE I TAPE)	L.F.	10						10
646.44	DURABLE 12" WHITE LINE (TYPE I TAPE)	L.F.		190					190
646.46	DURABLE 24" STOP BAR (TYPE I TAPE)	L.F.	120	22					142
646.50	DURABLE LETTER OR SYMBOL	EA.		35					35
646.50	DURABLE LETTER OR SYMBOL (TYPE I TAPE)	EA.	31	24					55
646.51	DURABLE CROSSWALK WITH DIAGONAL LINES (TYPE I TAPE)	L.F.	250	190					440
646.60	TEMPORARY 4" WHITE LINE	L.F.	5250						5250
646.60	TEMPORARY 4" WHITE LINE (TAPE-TYPE II)	L.F.	8775						8775
646.61	TEMPORARY 4" YELLOW LINE	L.F.	1280						1280
646.61	TEMPORARY 4" YELLOW LINE (TAPE-TYPE II)	L.F.	7200						7200
646.614	TEMPORARY 6" WHITE LINE	L.F.	210						210
646.615	TEMPORARY 6" YELLOW LINE	L.F.	210						210
646.62	TEMPORARY 8" WHITE LINE	L.F.	80						80
646.62	TEMPORARY 8" WHITE LINE (TAPE-TYPE II)	L.F.	895						895
646.63	TEMPORARY 8" YELLOW LINE	L.F.	20						20
646.66	TEMPORARY 24" STOP BAR	L.F.	240						240
646.66	TEMPORARY 24" STOP BAR (TAPE-TYPE II)	L.F.	20						20
646.70	TEMPORARY LETTER OR SYMBOLS	EA.	22						22
646.71	TEMPORARY CROSSWALK WITH DIAGONAL LINES	L.F.	500						500
646.81	RAISED PAVEMENT MARKERS, TYPE II	EA.	3500						3500
646.82	REMOVAL OF EXISTING PAVEMENT MARKINGS	S.F.	1800	150					1950
646.85	PAINTED ISLAND (MOD-BLUE)	S.F.		6000					6000
649.31	GEOTEXTILE UNDER STONE FILL	S.Y.		1780					1780
649.51	GEOTEXTILE FOR SILT FENCE	S.Y.			30	110			140
651.15	SEED	LBS.			40	60			100
651.18	FERTILIZER	LBS.				400			400
651.20	AGRICULTURAL LIMESTONE	TON				2			2
651.25	HAY MULCH	TON				2			2
651.26	HAY BALES FOR EROSION CONTROL	EA.			10	20			30
651.35	TOPSOIL	C.Y.		480					480
654.10	EROSION MATTING	S.Y.			20	450			470
675.20	TRAFFIC SIGNS, TYPE A	S.F.		159					159
	*** BEGIN OPTION ***								
675.301	FLANGED CHANNEL SIGN POST	L.F.		574					574
675.341	SQUARE TUBE SIGN POSTS AND ANCHOR	L.F.		574					574
	*** END OPTION ***								
675.50	REMOVING SIGNS	EA.		8					8
675.50	REMOVING SIGNS (BRIDGE-MOUNTED SIGNS)	EA.	3						3
675.60	ERECTING SALVAGED SIGNS	EA.		8					8
675.60	ERECTING SALVAGED SIGNS (BRIDGE-MOUNTED SIGNS)	EA.	3						3
676.20	DELINEATORS WITH FLEXIBLE POSTS (MOD.)	EA.	140						140
678.15	TRAFFIC CONTROL SIGNAL SYSTEM - INTERSECTION	EA.		1					1
678.22	VEHICLE LOOP DETECTOR	L.F.	1470	275					1745
678.23	WIRED CONDUIT	L.F.	450	500					950
678.25	FULL BOX - STANDARD	EA.		2					2
678.26	JUNCTION BOX	EA.		4					4
679.15	STREET LIGHTING	L.S.		1					1
679.15	STREET LIGHTING (MOD.)	L.S.	1						1
679.25	REMOVE AND RESETTING LIGHT POLE	EA.	3						3

NOTE:
1. QUANTITY OF REINFORCING STEEL INCLUDES A NOMINAL AMOUNT ASSUMED FOR CLASS II CONCRETE REPAIRS.

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of SOUTH BURLINGTON		Bridge No. 68
Highway No. U.S. 2		Log Sta.
		Surv. Sta.
U.S. 2 OVER I-89		
COMPOSITE QUANTITIES (2 OF 2)		
Designed By S.M. HODGDON	Drawn By B.J. MASSE	
Checked By T.S. BRYANT	Date 2/00	Bridge Design Supervisor C.D. BAKER Date 2/00
PROJECT SOUTH BURLINGTON	PROJECT NO. IM DECK(36)	
VHB Cad Drawing No. 50929QNT2	Date 2/00	
Bridge Sheet No.	Sheet 4 of 75	

IM DECK(36) QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	BRIDGE 68	EROSION CONTROL	TRAINING	FULL E&C	GRAND TOTAL
203.15	COMMON EXCAVATION	C.Y.	330				330
203.35	GRAVEL BACKFILL FOR SLOPE STABILIZATION	C.Y.	5				5
204.20	TRENCH EXCAVATION OF EARTH	C.Y.	1				1
204.25	STRUCTURE EXCAVATION	C.Y.	650				650
204.30	GRANULAR BACKFILL FOR STRUCTURES	C.Y.	640				640
210.10	COLD PLANING - BITUMINOUS PAVEMENT	S.Y.	16000				16000
301.26	SUBBASE OF CRUSHED GRAVEL (FINE GRADED)	C.Y.	340	40			380
404.65	EMULSIFIED ASPHALT	CWT	200				200
406.25	BITUMINOUS CONCRETE PAVEMENT (PG 64-28)	TON	2180				2180
501.60	SILICA-FUME CONCRETE (MOD.)	C.Y.	470				470
502.10	SHORING SUPERSTRUCTURE	L.S.	1				1
502.10	SHORING SUPERSTRUCTURE (AT PIERS 1, 2, AND 3)	L.S.	1				1
502.11	SHORING SUPERSTRUCTURE BEARINGS (FROM BRIDGE SEAT)	EA.	15				15
505.36	TEMPORARY STEEL SHEET PILING	S.F.	2800				2800
506.60	STRUCTURAL STEEL	LBS.	1200				1200
506.80	DRAIN TROUGH	L.F.	290				290
506.80	DRAIN TROUGH (MOD. - DOWNSPOUTS)	L.F.	254				254
507.15	REINFORCING STEEL	LBS.	2500				2500
507.16	DRILLING AND GROUTING DOWELS	L.F.	1630				1630
507.17	EPOXY COATED REINFORCING STEEL	LBS.	101044				101044
507.19	MECHANICAL BAR CONNECTOR (NO. 5)	EA.	100				100
513.30	STRUCTURAL PAINTING, FIELD APPLIED (.375 TONS)	L.S.	1				1
513.36	CONTAINMENT AND ENVIRONMENTAL PROTECTION, FIELD (.375 TONS)	L.S.	1				1
513.41	SURFACE PREPARATION, FIELD (.375 TONS)	L.S.	1				1
514.10	WATER REPELLENT	GAL.	120				120
516.10	BRIDGE EXPANSION JOINT (ARMORED JOINT)	L.F.	230				230
519.20	SHEET MEMBRANE WATERPROOFING (MOD. - TORCH APPLIED)	S.Y.	2200				2200
524.20	JOINT SEALER, POLYURETHANE	GAL.	10				10
525.10	REMOVAL OF EXISTING RAILING	L.F.	550				550
525.34	BRIDGE RAILING - NETC 4 RAIL	L.F.	550				550
527.11	TRAFFIC PROTECTION FOR BRIDGE PROJECT	L.S.	1				1
529.10	REMOVAL OF BRIDGE PAVEMENT	S.Y.	2700				2700
529.20	PARTIAL REMOVAL OF STRUCTURE	EA.	1				1
529.25	REMOVAL OF CONCRETE OR MASONRY	C.Y.	110				110
531.10	BEARING DEVICE ASSEMBLY (STEEL FLT. EXP. BEARINGS)	EA.	1				1
531.10	BEARING DEVICE ASSEMBLY (STEEL FLT. FIXED BEARINGS)	EA.	13				13
531.10	BEARING DEVICE ASSEMBLY (FABRIC TFE EXP. BEARINGS)	EA.	56				56
531.10	BEARING DEVICE ASSEMBLY (FABRIC FIXED BEARINGS)	EA.	28				28
580.10	REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I	S.Y.	27				27
580.11	REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS II	S.Y.	30				30
580.12	REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III	C.Y.	52				52
580.13	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I	S.Y.	1				1
580.14	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II	S.Y.	6				6
580.15	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III	C.Y.	1				1
580.19	CONCRETE CLASS AA OVERLAY	S.Y.	2450				2450
608.25	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	HR.		1			1
613.10	STONE FILL, TYPE I	C.Y.	115	10			125
616.40	REMOVING AND RESETTING CURB	L.F.	910				910
616.41	REMOVAL OF EXISTING CURB	L.F.	1770				1770
616.47	BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS	TON	35				35
620.75	SNOW BARRIER - GALVANIZED	L.F.	340				340
621.57	ENERGY ABSORPTION ATTENUATOR	EA.	9				9
516.10	BRIDGE EXPANSION JOINT (SIDEWALK)	L.F.	47				47
621.90	TEMPORARY TRAFFIC BARRIER (MOD - INNOVATIVE)	LF	4200				4200

ITEM NO.	ITEM DESCRIPTION	UNIT	BRIDGE 68	EROSION CONTROL	TRAINING	FULL E&C	GRAND TOTAL
621.73	GUARD RAIL APPROACH SECTION, NETC 4 RAIL	EA.	4				4
621.75	REMOVING AND RESET GUARD RAIL	L.F.	720				720
621.80	REMOVAL AND DISPOSAL OF GUARD RAIL	L.F.	520				520
621.90	TEMPORARY TRAFFIC BARRIER	L.F.	880				880
630.10	UNIFORMED TRAFFIC OFFICERS	HR.	2700				2700
630.15	FLAGGERS	HR.	1800				1800
631.10	FIELD OFFICE - ENGINEERS	L.S.				1	1
631.16	TESTING EQUIP. - CONCRETE	L.S.				1	1
631.17	TESTING EQUIP. - BITUMINOUS	L.S.				1	1
631.18	TESTING EQUIP. - PROTECTIVE COATINGS	L.S.				1	1
631.25	FIELD OFFICE - TELEPHONE (NOT A BID ITEM)	L.U.				1	1
634.10	EMPLOYEE TRAINEESHIP	HR.			1560		1560
635.10	MOBILIZATION	L.S.	1				1
641.10	TRAFFIC CONTROL	L.S.	0.9				0.9
641.10	TRAFFIC CONTROL (MOD. - PUBLIC RELATIONS OFFICER)	L.S.	0.9				0.9
641.15	PORTABLE CHANGEABLE MESSAGE SIGN	EA.	4				4
641.16	PORTABLE ARROW BOARD	EA.	1				1
646.27	PAINTED CURB	L.F.	70				70
646.40	DURABLE 4" WHITE LINE (TYPE I TAPE)	L.F.	3690				3690
646.41	DURABLE 4" YELLOW LINE (TYPE I TAPE)	L.F.	3320				3320
646.414	DURABLE 6" WHITE LINE (TYPE I TAPE)	L.F.	110				110
646.415	DURABLE 6" YELLOW LINE (TYPE I TAPE)	L.F.	110				110
646.42	DURABLE 8" WHITE LINE (TYPE I TAPE)	L.F.	40				40
646.43	DURABLE 8" YELLOW LINE (TYPE I TAPE)	L.F.	10				10
646.46	DURABLE 24" STOP BAR (TYPE I TAPE)	L.F.	120				120
646.50	DURABLE LETTER OR SYMBOL (TYPE I TAPE)	EA.	31				31
646.51	DURABLE CROSSWALK W/ DIAGONAL LINES (TYPE I TAPE)	L.F.	250				250
646.60	TEMPORARY 4" WHITE LINE	L.F.	5250				5250
646.60	TEMPORARY 4" WHITE LINE (TAPE-TYPE II)	L.F.	8775				8775
646.61	TEMPORARY 4" YELLOW LINE	L.F.	1280				1280
646.61	TEMPORARY 4" YELLOW LINE (TAPE-TYPE II)	L.F.	7200				7200
646.614	TEMPORARY 6" WHITE LINE	L.F.	210				210
646.615	TEMPORARY 6" YELLOW LINE	L.F.	210				210
646.62	TEMPORARY 8" WHITE LINE	L.F.	80				80
646.62	TEMPORARY 8" WHITE LINE (TAPE-TYPE II)	L.F.	895				895
646.63	TEMPORARY 8" YELLOW LINE	L.F.	20				20
646.66	TEMPORARY 24" STOP BAR	L.F.	240				240
646.66	TEMPORARY 24" STOP BAR (TAPE-TYPE II)	L.F.	20				20
646.70	TEMPORARY LETTER OR SYMBOLS	EA.	22				22
646.71	TEMPORARY CROSSWALK WITH DIAGONAL LINES	L.F.	500				500
646.81	RAISED PAVEMENT MARKERS, TYPE II	EA.	3500				3500
646.82	REMOVAL OF EXISTING PAVEMENT MARKINGS	S.F.	1800				1800
649.51	GEOTEXTILE FOR SILT FENCE	S.Y.		30			30
651.15	SEED	LBS.		40			40
651.26	HAY BALES FOR EROSION CONTROL	EA.		10			10
654.10	EROSION MATTING	S.Y.		20			20
675.50	REMOVING SIGNS (BRIDGE-MOUNTED SIGNS)	EA.	3				3
675.60	ERECTING SALVAGED SIGNS (BRIDGE-MOUNTED SIGNS)	EA.	3				3
676.20	DELINEATORS WITH FLEXIBLE POSTS (MOD.)	EA.	140				140
678.22	VEHICLE LOOP DETECTOR	L.F.	1470				1470
678.23	WIRED CONDUIT	L.F.	450				450
679.15	STREET LIGHTING (MOD.)	L.S.	1				1
679.25	REMOVE AND RESETTING LIGHT POLE	EA.	3				3

NOTE:

1. QUANTITY OF REINFORCING STEEL INCLUDES A NOMINAL AMOUNT ASSUMED FOR CLASS II CONCRETE REPAIRS.

*** ITEM OUT OF ORDER

THE ITEM 621.90 "TEMPORARY TRAFFIC BARRIER (MOD - INNOVATIVE)" IS TO BE USED DURING THE PHASE CONSTRUCTION WORK ON WILLISTON ROAD.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No. U.S. 2		Log Sta.	
		Surv. Sta.	

U.S. 2 OVER I-89

IM DECK(36) QUANTITIES

Designed By	S.M. HODGDON	Drawn By	B.J. MASSÉ
Checked By	T.S. BRYANT	Date	2/00
		Bridge Design Supervisor	C.D. BAKER
		Date	2/00

PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK(36)
VHB Cad Drawing No.	50929QNT3	Date	2/00
Bridge Sheet No.		Sheet	5 of 75

VANASSE HANGEN BRUSTLIN, INC.

STP BIKE(28)S QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	BIKEWAY	EROSION CONTROL	TRAINING	FULL E&C	GRAND TOTAL
203.15	COMMON EXCAVATION	C.Y.	1500				1500
203.28	EXCAVATION OF SURFACES AND PAVEMENTS	C.Y.	130				130
204.20	TRENCH EXCAVATION OF EARTH	C.Y.	15	30			45
213.10	MILLED RUMBLE STRIPS	L.F.	140				140
301.26	SUBBASE OF CRUSHED GRAVEL (FINE GRADED)	C.Y.	970	130			1100
501.25	CONCRETE, CLASS B	C.Y.	10				10
501.60	SILICA-FUME CONCRETE (MOD.)	C.Y.	5				5
507.15	REINFORCING STEEL	LBS.	500				500
529.25	REMOVAL OF CONCRETE OR MASONRY	C.Y.	3				3
604.10	CONCRETE CATCH BASIN WITH CAST IRON GRATE	EA.	2				2
604.40	CHANGING ELEVATIONS OF DROP INLETS, CATCH BASINS OR MANHOLES	EA.	6				6
604.41	REHABILITATION OF DROP INLETS, CATCH BASINS OR MANHOLES	EA.	2				2
604.52	CAST IRON GRATE WITH FRAME, TYPE E	EA.	8				8
608.25	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	HR.		3			3
613.10	STONE FILL, TYPE I	C.Y.	895	20			915
616.20	GRANITE SLOPE EDGING	L.F.	100				100
616.21	VERTICAL GRANITE CURB	L.F.	240				240
616.40	REMOVING AND RESETTING CURB	L.F.	900				900
616.41	REMOVAL OF EXISTING CURB	L.F.	315				315
618.10	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	S.Y.	1210				1210
618.15	BITUMINOUS CONCRETE SIDEWALK	TON	90				90
621.21	HEAVY DUTY STEEL BEAM GUARD RAIL	L.F.	595				595
621.75	REMOVING AND RESET GUARD RAIL	L.F.	155				155
630.10	UNIFORMED TRAFFIC OFFICERS	HR.	300				300
630.15	FLAGGERS	HR.	200				200
641.10	TRAFFIC CONTROL	L.S.	0.1				0.1
641.10	TRAFFIC CONTROL (MOD. - PUBLIC RELATIONS OFFICER)	L.S.	0.1				0.1
646.40	DURABLE 4" WHITE LINE (TYPE I TAPE)	L.F.	1310				1310
646.414	DURABLE 6" WHITE LINE (TYPE I TAPE)	L.F.	1720				1720
646.415	DURABLE 6" YELLOW LINE (TYPE I TAPE)	L.F.	425				425
646.42	DURABLE 8" WHITE LINE (TYPE I TAPE)	L.F.	855				855
646.44	DURABLE 12" WHITE LINE (TYPE I TAPE)	L.F.	190				190
646.46	DURABLE 24" STOP BAR (TYPE I TAPE)	L.F.	22				22
646.50	DURABLE LETTER OR SYMBOL	EA.	35				35
646.50	DURABLE LETTER OR SYMBOL (TYPE I TAPE)	EA.	24				24
646.51	DURABLE CROSSWALK WITH DIAGONAL LINES (TYPE I TAPE)	L.F.	190				190
646.82	REMOVAL OF EXISTING PAVEMENT MARKINGS	S.F.	150				150
646.85	PAINTED ISLAND (MOD-BLUE)	S.F.	6000				6000
649.31	GEOTEXTILE UNDER STONE FILL	S.Y.	1780				1780
649.51	GEOTEXTILE FOR SILT FENCE	S.Y.		110			110
651.15	SEED	LBS.		60			60
651.18	FERTILIZER	LBS.		400			400
651.20	AGRICULTURAL LIMESTONE	TON		2			2
651.25	HAY MULCH	TON		2			2
651.26	HAY BALES FOR EROSION CONTROL	EA.		20			20
651.35	TOPSOIL	C.Y.	480				480
654.10	EROSION MATTING	S.Y.		450			450
675.20	TRAFFIC SIGNS, TYPE A	S.F.	159				159
	*** BEGIN OPTION ***						
675.301	FLANGED CHANNEL SIGN POST	L.F.	574				574
675.341	SQUARE TUBE SIGN POSTS AND ANCHOR	L.F.	574				574
	*** END OPTION ***						
675.50	REMOVING SIGNS	EA.	8				8
675.60	ERECTING SALVAGED SIGNS	EA.	8				8
678.15	TRAFFIC CONTROL SIGNAL SYSTEM - INTERSECTION	EA.	1				1
678.22	VEHICLE LOOP DETECTOR	L.F.	275				275
678.23	WIRED CONDUIT	L.F.	500				500
678.25	FULL BOX	EA.	2				2
678.26	JUNCTION BOX	EA.	4				4
679.15	STREET LIGHTING	L.S.	1				1

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

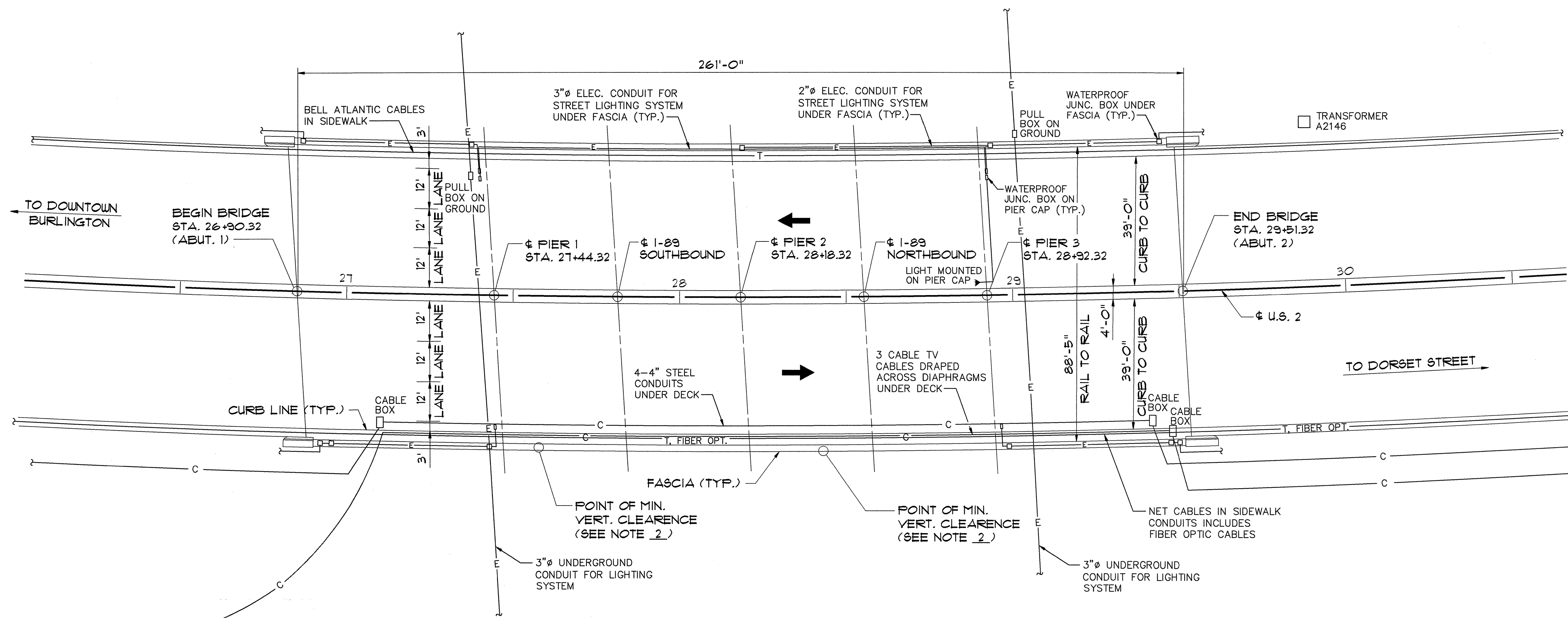
Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No.	U.S. 2	Log Sta.	
		Surv. Sta.	

U.S. 2 OVER I-89

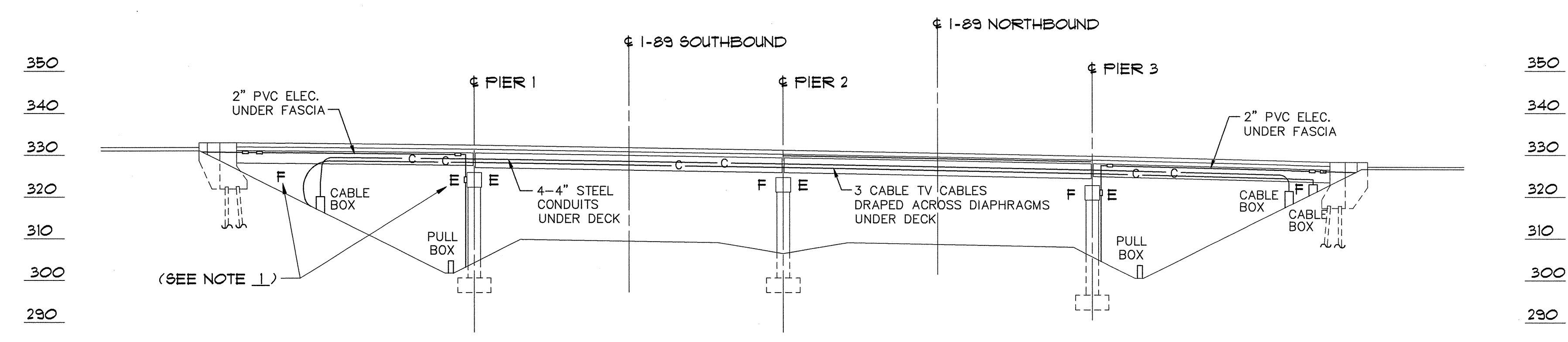
STP BIKE(28)S QUANTITIES

Designed By	A. SETAS	Drawn By	E.J. MASSE
Checked By	T.S. BRYANT	Date	2/00
		Bridge Design Supervisor	C.D. BAKER
		Date	2/00

PROJECT	SOUTH BURLINGTON	PROJECT NO.	STP BIKE (28)S
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EXISTING PLAN
SCALE: 1"=20'



ELEVATION
SCALE: 1"=20'

- NOTES:**
1. ABUTMENT 1 CHANGED FROM EXPANSION TO FIXED. PIER 1 CHANGED FROM FIXED TO EXPANSION.
 2. THE MINIMUM VERTICAL CLEARANCE IN THE PROPOSED CONDITION WILL BE THE SAME AS THE EXISTING.

STATE OF VERMONT AGENCY OF TRANSPORTATION		
Town Of	SOUTH BURLINGTON	Bridge No. 68
Highway No.	U.S. 2	Log Sta.
		Surv. Sta.
U.S. 2 OVER I-89		
EXISTING PLAN & ELEVATION		
Designed By	T.S. BRYANT	Drawn By
Checked By	A. SETAS	Bridge Design Supervisor
Date	1/00	Date
		C.D. BAKER
PROJECT		PROJECT NO.
SOUTH BURLINGTON		IM DECK (36)
VHB Cad Drawing No.	50929FE	Date
Bridge Sheet No.		Sheet
		6A of 75

SCOPE OF WORK NOTES:

- 1A. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE TRAFFIC CONTROL NOTES AND PLANS. THIS PROJECT REQUIRES NIGHTTIME CONSTRUCTION AND INCLUDES CONSTRUCTION TIME RESTRICTIONS FOR BOTH DAY AND NIGHT WORK. SEE THE TRAFFIC CONTROL PLAN NOTES ON SHEET 21.
- 1B. PORTIONS OF THE BRIDGE REHABILITATION SHALL BE PERFORMED IN FIVE CONSTRUCTION PHASES AS SHOWN ON SHEETS 11 AND 12. ALL OTHER PHASED BRIDGE CONSTRUCTION SHALL BE PERFORMED IN A MANNER TO BE APPROVED BY THE ENGINEER.
- 1C. PIER RECONSTRUCTION AND BEARING REHABILITATION AND REPLACEMENTS SHALL BE COMPLETED PRIOR TO SETTING ARMORED JOINTS IN THE DECK. NO JACKING OR SHIMMING OF THE SUPERSTRUCTURE SHALL OCCUR AFTER THE ARMORED JOINTS ARE SET.
2. SUPERSTRUCTURE REHABILITATION SHALL INCLUDE THE FOLLOWING:
 - REMOVING EXISTING PAVEMENT AND SIDEWALK AND MEDIAN GRANITE CURB
 - REMOVING MEDIAN
 - COLD PLANING THE APPROACHES
 - OVERLAYING THE CONCRETE DECK
 - REMOVING ALL EXISTING SCUFFERS
 - REMOVING EXISTING ALUMINUM BRIDGE AND APPROACH RAILING
 - PARTIALLY REMOVING CONCRETE SIDEWALKS
 - OVERLAYING AND WIDENING THE CONCRETE SIDEWALKS
 - INSTALLING NEW NETC 4 RAIL BRIDGE RAILING AND SNOW FENCE
 - INSTALLING NEW NETC 4 RAIL BRIDGE APPROACH RAILING
 - REPLACING DECK JOINTS AT PIERS WITH ARMORED JOINTS
 - INSTALLING NEW DRAIN TROUGHS AND DOWNSPOUTS AT PIERS
 - REPAIRING DECK JOINTS AT ABUTMENTS
 - INSTALLING SHEET MEMBRANE WATERPROOFING
 - REPAVING WITH BITUMINOUS CONCRETE PAVEMENT
 - APPLYING WATER REPELLENT TO SUPERSTRUCTURE
 - CLEANING AND PAINTING EXISTING STRUCTURAL STEEL
3. ALL SPANS OF THE CONCRETE DECK SHALL RECEIVE A CONCRETE OVERLAY. CONCRETE OVERLAY PROCEDURES AND PAYMENT SHALL BE ACCORDING TO THE DECK REHABILITATION NOTES ON SHEET 3.
4. SUBSTRUCTURE REHABILITATION SHALL INCLUDE THE FOLLOWING:
 - REPLACING EACH PIER DOWN TO TOP OF EXISTING FOOTING.
 - SHORING SUPERSTRUCTURE DURING PIER REPLACEMENT.
 - REPLACING ALL PIER BEARINGS AND SELECTED ABUTMENT BEARINGS.
 - REHABILITATING EXISTING ABUTMENT BEARINGS.
 - REPAIRING DETERIORATED CONCRETE AT ABUTMENTS.
 - APPLYING WATER REPELLENT TO SUBSTRUCTURES.
5. THE EXISTING EXPANSION JOINT AT ABUTMENT 1 SHALL BE REPLACED WITH A FIXED JOINT AS SHOWN ON SHEET 13.
6. DECK JOINTS AT PIERS SHALL BE REPLACED WITH ARMORED JOINTS AS SHOWN ON SHEETS 14-16.
- 7A. THE EXISTING FABRIC DRAIN TROUGHS UNDER THE DECK JOINTS AT EACH PIER SHALL BE REPLACED AS SHOWN ON SHEET 17. PAYMENT FOR DRAIN TROUGH REPLACEMENT SHALL BE UNDER ITEM 506.80, "DRAIN TROUGH". ALL DRAIN TROUGHS SHALL BE FLUSHED, USING A METHOD APPROVED BY THE ENGINEER, AFTER ALL DECK AND JOINT WORK IS COMPLETE AND PAVEMENT HAS BEEN PLACED. COST FOR FLUSHING THE TROUGHS SHALL BE SUBSIDIARY TO ITEM 506.80.
- 7B. DOWNSPOUTS SHALL BE INSTALLED AT BOTH ENDS OF EACH PIER TO COLLECT THE DRAINAGE FROM THE FABRIC DRAIN TROUGHS BELOW THE DECK JOINTS. SEE SHEET 17 FOR DETAILS.
8. ALL EXISTING STRUCTURAL STEEL SHALL BE ENCLOSED, 100% CLEANED AND PAINTED PER SUPPLEMENTAL SPECIFICATION SECTION 513, AND GREASED PER SECTION 513.06(d). NOTE THAT THE ENDS OF THE BEAMS AT ABUTMENTS AND PIERS HAVE A GREASE COATING WHICH SHALL BE REMOVED PRIOR TO CLEANING AND PAINTING. THE "BRIDGE INFORMATION SUMMARY" ON SHEET 8 SHOWS WHEN THE STEEL WAS LAST PAINTED, AS WELL AS DATA ON BEAM SIZES AND APPROXIMATE STEEL WEIGHT.
9. BASED ON AN OCTOBER, 1992 PRELIMINARY INSPECTION, EXISTING BEARINGS SHALL BE REPAIRED OR REPLACED IN ACCORDANCE WITH THE "BEARING REPAIR NOTES" ON SHEET 18 AND THE "BEARING CONDITION AND TREATMENT SUMMARY" ON SHEET 19. A THOROUGH INSPECTION BY VERMONT AOT PERSONNEL ASSIGNED TO THE PROJECT WILL BE MADE TO DETERMINE IF ANY OTHER BEARING REPAIRS ARE NECESSARY, WHICH THE CONTRACTOR SHALL BE REQUIRED TO PERFORM.
10. ALL EXISTING PIERS SHALL BE REPLACED DOWN TO THE TOPS OF THE EXISTING FOOTINGS AS SHOWN ON SHEETS 28-31. THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPERSTRUCTURE SHORING FOR REPLACEMENT OF PIERS 1, 2, AND 3. THE SCHEME FOR TEMPORARY SHORING SHALL BE SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL. ALSO, THE CONTRACTOR SHALL SUBMIT DETAILS AND CALCULATIONS PREPARED BY A QUALIFIED REGISTERED PROFESSIONAL ENGINEER TO THE STRUCTURES ENGINEER FOR INFORMATION ONLY AT LEAST TWO WEEKS PRIOR TO PERFORMING WORK. SHORING SHALL BE DESIGNED FOR H20 LOADING. WELDING TO EXISTING STEEL SHALL NOT BE PERMITTED. ALL COSTS SHALL BE INCLUDED IN ITEM 502.10, "SHORING SUPERSTRUCTURE (AT PIERS 1, 2, AND 3)".
11. ABUTMENT CONCRETE REPAIRS SHALL BE PERFORMED IN ACCORDANCE WITH THE NOTES AND DETAILS ON SHEET 32. THE "ABUTMENT REPAIR AREAS" PLAN, SHEET 32 WAS DEVELOPED FROM NOTES OF AN OCTOBER, 1992 PRELIMINARY INSPECTION, AND SHALL BE USED ONLY AS AN INDICATION OF THE GENERAL CONDITION OF THE ABUTMENTS. A THOROUGH INSPECTION BY VERMONT AOT PERSONNEL ASSIGNED TO THE PROJECT WILL BE MADE OF ABUTMENT AREAS AT THE TIME OF CONSTRUCTION, AND THOSE AREAS FOUND TO HAVE SPALLED, DELAMINATED OR OTHERWISE UNSOUND CONCRETE WILL BE REPAIRED.

12. ITEM 514.10, "WATER REPELLENT" SHALL BE APPLIED TO ALL EXPOSED CONCRETE ON BRIDGE SUPERSTRUCTURE AND APPROACH SLABS EXCEPT THE BOTTOM OF THE DECK BETWEEN THE DRIP BEADS. IT SHALL ALSO BE APPLIED TO THE EXPOSED CONCRETE ON ALL ABUTMENTS, WINGWALLS, PIER CAPS AND COLUMNS.
13. ITEM 525.34, "BRIDGE RAIL - NETC 4 RAIL" AND ITEM 620.15, "SNOW BARRIER - GALVANIZED", SHALL BE INSTALLED AS SHOWN ON SHEET 24. ITEM 621.13, "GUARD RAIL APPROACH SECTION, NETC 4 RAIL" SHALL BE INSTALLED AT ALL FOUR CORNERS OF THE BRIDGE AS SHOWN ON SHEET 25.
14. THE CONTRACTOR SHALL CALL "DIG-SAFE" PRIOR TO PERFORMING ANY EXCAVATION, IN ACCORDANCE WITH DIG-SAFE'S RULES OF NOTIFICATION. THE COST OF COORDINATING WITH "DIG-SAFE" AND THE FOLLOWING UTILITY COMPANIES SHALL BE SUBSIDIARY TO ITEM 635.10, "MOBILIZATION".
 - ADELPHIA CABLE COMMUNICATIONS
 - BELL ATLANTIC
 - CHAMPLAIN WATER DISTRICT
 - VERMONT GAS SYSTEMS, INC.
 - GREEN MOUNTAIN POWER CORP.
 ITEM 204.20, "TRENCH EXCAVATION OF EARTH" SHALL BE USED FOR EXPLORATORY TRENCHING WHEN THE LOCATION OF BURIED UTILITIES IS IN DOUBT.
15. EXISTING STATE-OWNED UNDERGROUND STREET LIGHTING CONDUIT AND FULL BOXES ARE LOCATED NEAR PIER 1 & 3 FOOTINGS, AS SHOWN ON SHEET 26A. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT AND TEMPORARILY SUPPORT THESE UTILITIES DURING EXCAVATION. COST TO BE SUBSIDIARY TO ITEM 204.25, "STRUCTURE EXCAVATION".

IN ADDITION, STATE-OWNED STREET LIGHTING, CONDUIT, AND JUNCTION BOXES ARE CURRENTLY MOUNTED ON THE EXISTING PIERS AS SHOWN ON SHEETS 26A AND 28. THESE STREET LIGHTS, CONDUITS, AND JUNCTION BOXES SHALL BE TEMPORARILY REMOVED AND STORED DURING REPLACEMENT OF THE PIERS. A TEMPORARY ILLUMINATION SYSTEM SHALL BE INSTALLED AND OPERATIONAL BEFORE THE EXISTING STREET LIGHTING IS REMOVED. SEE THE SPECIAL PROVISIONS FOR REQUIREMENTS FOR THE TEMPORARY ILLUMINATION SYSTEM. THE TEMPORARY ILLUMINATION SYSTEM SHALL BE PAID UNDER ITEM 673.15, "STREET LIGHTING (MOD.)."

AFTER THE PIER REPLACEMENTS ARE COMPLETED, THE LIGHTING SYSTEM SHALL BE RESTORED TO ITS ORIGINAL CONFIGURATION. THE EXISTING LUMINAIRES MAY BE REUSED IF THEY ARE UNDAMAGED AND MEET THE CURRENT REQUIREMENTS OF SPECIFICATION SECTION 673. ALL ACTIVE CONDUIT, WIRING, AND JUNCTION BOXES THAT ARE TEMPORARILY REMOVED SHALL BE REPLACED IN-KIND. ALL COSTS FOR NEW CONDUIT, WIRING, AND JUNCTION BOXES SHALL BE PAID UNDER ITEM 678.23, "WIRED CONDUIT". EXISTING CONDUIT AND WIRING WHICH IS NOT ACTIVE SHALL BE REMOVED AND CAPPED AT THE NEAREST WATERPROOF JUNCTION BOX, THE COST FOR WHICH SHALL BE SUBSIDIARY TO ITEM 678.23. ALL COSTS FOR REMOVAL, STORAGE, REPLACEMENT, AND REINSTALLATION OF THE PIER STREET LIGHTS SHALL BE PAID UNDER ITEM 673.15, "STREET LIGHTING (MOD.)" UNLESS OTHERWISE NOTED.

THE CONTRACTOR SHALL ENSURE THAT POWER TO OTHER STREET LIGHTS IS NOT INTERRUPTED DUE TO THIS WORK. ALL WORK ASSOCIATED WITH THE STREET LIGHTING SYSTEM SHALL BE COORDINATED WITH GREEN MOUNTAIN POWER. ANY DAMAGE TO THE STREET LIGHTING SYSTEM CAUSED BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
16. ALL EXISTING SCUFFERS SHALL BE REMOVED. ALL COSTS FOR REMOVAL OF EXISTING SCUFFERS SHALL BE INCLUDED IN ITEM 529.20, "PARTIAL REMOVAL OF STRUCTURE". THIS SHALL INCLUDE ANY NECESSARY REMOVAL OF ATTACHMENT ANGLE, ANY GRINDING, OR OTHER INCIDENTAL WORK TO REMOVE THE EXISTING SCUFFERS.
17. SOME OF THE EXISTING STONE SLOPE PROTECTION ON THE SLOPES UNDER SPANS 1 AND 4 WILL BE REMOVED DURING REPLACEMENT OF THE PIERS. ITEM 613.10 "STONE FILL TYPE 1" SHALL BE USED TO REPLACE THE STONE SLOPE PROTECTION THAT IS REMOVED. NEW STONE FILL TYPE 1 SHALL BE PLACED AS DIRECTED BY THE ENGINEER.
18. MINOR CLEARING AND GRUBBING IS REQUIRED AT SOME LOCATIONS IN ORDER TO REMOVE VEGETATION WHICH IS GROWING UP AGAINST SUBSTRUCTURE COMPONENTS, AND MAY BE REQUIRED FOR PLACEMENT OF CONSTRUCTION SIGNS. CLEARING AND GRUBBING FOR THESE PURPOSES SHALL BE AS ORDERED BY THE RESIDENT ENGINEER AND COSTS SHALL BE SUBSIDIARY TO ITEM 635.10, "MOBILIZATION".
19. ITEM 203.35, "GRAVEL BACKFILL FOR SLOPE STABILIZATION" SHALL BE USED ON BRIDGE APPROACHES TO REGRADE AROUND GUARDRAIL POSTS AS ORDERED BY THE RESIDENT ENGINEER.
20. THE ENTIRE SURFACE OF THE BRIDGE DECK AND EACH APPROACH SLAB SHALL BE STRIPPED TO BARE CONCRETE WITHIN THE LIMITS OF THE WORK AREA ESTABLISHED FOR THAT PHASE OF CONSTRUCTION. EXISTING PAVEMENT SHALL NOT BE REMOVED FROM AREAS OUTSIDE OF THE CURRENT PHASE WORK AREA TO ENSURE A SMOOTHER RIDE IN THE LANES OPEN TO TRAFFIC, AND LESS IMPACT DAMAGE TO THE REPAIRS MADE WITHIN THE WORK AREA. IF A COLD FLANER IS USED TO STRIP PAVEMENT FROM THE DECK OR THE APPROACH SLABS, THE FINAL ONE HALF (1/2) INCH SHALL BE REMOVED BY LOADER, GRADER, OR EQUIPMENT APPROVED BY THE ENGINEER. THIS WORK SHALL ALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 529.10, "REMOVAL OF BRIDGE PAVEMENT". IF THE CONTRACTOR DAMAGES AREAS OF THE DECK OR APPROACH SLABS DURING PAVEMENT REMOVAL THAT OTHERWISE WOULD NOT REQUIRE REHABILITATION, THEN THE REQUIRED REPAIRS SHALL BE MADE AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

21. DURING EACH PHASE OF CONSTRUCTION, THE PORTIONS OF THE BRIDGE DECK AND APPROACH SLABS WITHIN THE WORK AREA SHALL BE PAVED WITH TWO COURSES OF BITUMINOUS CONCRETE PAVEMENT ON THE BRIDGE DECK, THE BOTTOM LIFT SHALL BE 1-1/4" MIN. OF TYPE IV MIX AND THE TOP LIFT SHALL BE 1-1/4" OF TYPE III MIX. ON THE APPROACH SLABS THE BOTTOM LIFT SHALL BE 3/4" TO 1 1/4" OF TYPE IV MIX AND THE TOP LIFT SHALL BE 1 1/4" OF TYPE III MIX. THIS PAVING SHALL BE PAID AS ITEM 406.25, "BITUMINOUS CONCRETE PAVEMENT (FG 64-28)".

THE COMBINATION OF THE NEW DECK OVERLAY AND THE NEW THICKER PAVEMENT WILL RESULT IN AN INCREASE IN THE FINISHED GRADE ON THE BRIDGE OF APPROXIMATELY ONE INCH. THE NEW FINISHED GRADE ON THE BRIDGE SHALL BE TEMPORARILY TRANSITIONED INTO THE EXISTING GRADE AT THE ENDS OF THE APPROACH SLABS AS SHOWN IN THE TEMPORARY APPROACH SLAB PAVEMENT TRANSITION DETAIL ON SHEET 12A.

AFTER ALL THE PHASED REHABILITATION OF THE BRIDGE DECK AND APPROACH SLABS IS COMPLETE, THE APPROACH ROADWAYS, BRIDGE DECK, AND APPROACH SLABS SHALL BE COLD PLANED AND REPAVED AS SHOWN ON SHEETS 44 AND 45. ON THE BRIDGE DECK AND APPROACH SLABS, THE TOP 1-1/4" LIFT OF PAVEMENT SHALL BE REMOVED FROM CURB TO CURB. THE GRINDINGS FROM COLD PLANING THIS RECENTLY PLACED TOP LIFT OF PAVEMENT SHALL BE SALVAGED TO VAOT DISTRICT 5 AS DESCRIBED IN THE SPECIAL PROVISIONS. THE NEW FINISHED GRADE ON THE BRIDGE SHALL BE SMOOTHLY TRANSITIONED INTO THE EXISTING GRADE ON THE APPROACHES AS SHOWN IN THE APPROACH PAVEMENT TRANSITION DETAIL ON SHEET 45.

ITEM 404.65, "EMULSIFIED ASPHALT" SHALL BE APPLIED BETWEEN EACH LIFT OF NEW PAVEMENT AND TO ALL COLD PLANED SURFACES AT THE RATE OF 0.05 GALLONS/S.Y.

FINAL PAVING ON THE BRIDGE SHALL NOT BE ALLOWED UNTIL BEARINGS HAVE BEEN REPAIRED OR REPLACED AS DESIGNATED IN THESE PLANS, AND ALL JACKING AND SHORING HAS BEEN COMPLETED AND REMOVED.

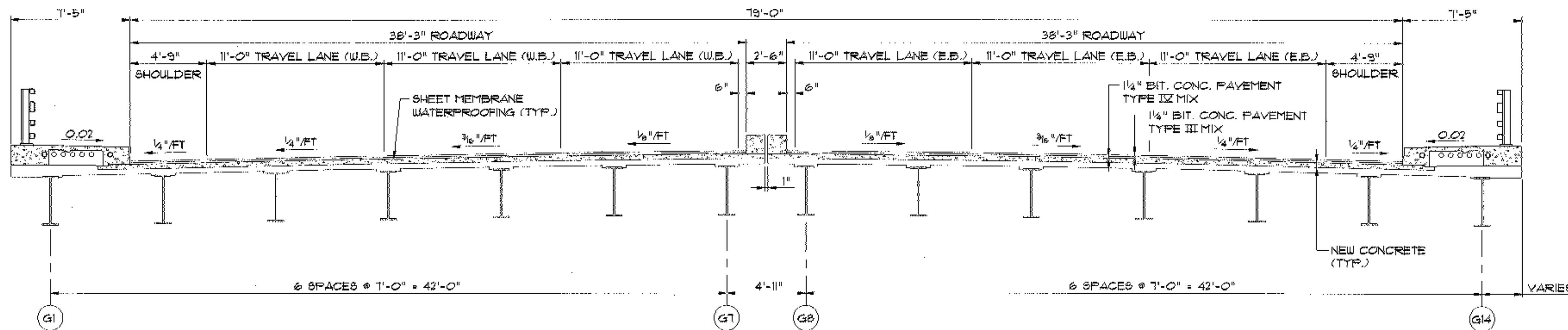
22. FOLLOWING PAVING, ANY BITUMINOUS CONCRETE PAVEMENT THAT BECOMES LODGED IN THE DECK JOINTS, OR ENTERS THE DRAIN TROUGHS OR DOWNSPOUTS, SHALL BE REMOVED BY THE CONTRACTOR AT NO COST TO THE STATE.
23. ITEM 519.20, "SHEET MEMBRANE WATERPROOFING (MOD. - TORCH APPLIED)" SHALL BE INSTALLED ON ALL SPANS OF THE BRIDGE DECK. IT SHALL ALSO BE INSTALLED ON TWO (2) FEET OF EACH APPROACH SLAB AS SHOWN ON SHEET 12. THE MEMBRANE SHALL BE SPICED AT PHASED CONSTRUCTION JOINTS AS RECOMMENDED BY THE MANUFACTURER. BOTH LIFTS OF PAVEMENT SHALL BE INSTALLED ON THE MEMBRANE FOR THE ENTIRE LENGTH OF THE BRIDGE BEFORE TRAFFIC IS ALLOWED ON THAT LANE, UNLESS OTHERWISE SHOWN IN THESE PLANS OR DIRECTED BY THE ENGINEER.
24. SOME OF THE STEEL END DIAPHRAGMS IN THE TWO SOUTHERN-MOST BAYS AT PIER 1 HAVE BEEN DAMAGED DUE TO SHIMMING AND BLOCKING OF THE BEAMS AT THIS LOCATION. AT THE START OF CONSTRUCTION THE ENGINEER SHALL INSPECT THE DIAPHRAGMS IN THESE BAYS AND DETERMINE THE NUMBER TO BE REPLACED. THE CONTRACTOR SHALL REPLACE ALL DAMAGED DIAPHRAGMS IN-KIND. THE NEW DIAPHRAGMS SHALL BE AASHTO M210, GRADE 36, PAINTED. DETAILS OF THE EXISTING DIAPHRAGMS ARE SHOWN IN THE EXISTING PLANS REFERENCE SHEETS THAT ARE INCLUDED IN THIS SET OF PLANS. THE SHIMS AND BLOCKING SHALL BE REMOVED BY THE CONTRACTOR AND RETURNED TO VAOT DISTRICT 5 AS DIRECTED BY THE ENGINEER. ALL COSTS FOR REPLACING THE DIAPHRAGMS SHALL BE INCLUDED IN ITEM 506.60, "STRUCTURAL STEEL".
- ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" DIAMETER TYPE I BOLTS, CONFORMING TO AASHTO M164, (A87M-A325). HOLES SHALL BE 15/16" DIAMETER. CONNECTIONS NOT DESIGNATED SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. THE PAVING SURFACES OF THE EXISTING DIAPHRAGM CONNECTION PLATES SHALL BE CLEANED TO BARE STEEL AND COATED PER SUPPLEMENTAL SPECIFICATION SECTION 513. ALL COSTS ASSOCIATED WITH PREPARING THE PAVING SURFACES SHALL BE INCLUDED IN ITEM 506.60.
25. THE THREE EXISTING STREET LIGHTS THAT ARE MOUNTED TO THE BRIDGE SIDEWALKS MUST BE REMOVED AND RESET IN ORDER TO COMPLETE THE SIDEWALK REHABILITATION. SEE THE BRIDGE SIDEWALK STREET LIGHTING NOTES ON SHEET 10.

DECK REPAIR WAS ELIMINATED.
A COMPLETE NEW DECK WAS PLACED.
SEE THE NEW TYPICALS.
UTILITIES WERE RELOCATED.

STATE OF VERMONT			
AGENCY OF TRANSPORTATION			
Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No. U.S.	2	Log. Sta.	
		Surv. Sta.	
U.S. 2 OVER 1-89			
SCOPE OF WORK NOTES			
Designed By	G.M. HODGDON	Drawn By	B.J. MASSE
Checked By	T.S. BRYANT	Date	2/00
		Bridge Design Supervisor	C.D. BAKER Date 2/00
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK(36)
VHB Cad Drawing No.	50929NOT	Date	2/00
Bridge Sheet No.		Sheet	7 of 75

BRIDGE INFORMATION SUMMARY

BRIDGE NO.	YEAR BUILT	SKEW	SUBSTR. UNIT	SPAN (FEET)	BEARING		SPAN NO.	BEAMS	COVER PLATE SIZE	DIAPH. AT PIERS	NEW DECK JOINTS	% OF DECK > 0.35V	% OF DECK > 0.40V	% DECK TO REPAIR			LAST PAINTED IN	PAINTING REQUIRED	STRUCT. STEEL (TONS)
					2 PLT	3 PLT EXP.								CLASS I	CLASS II	CLASS III			
68WB	1962	VARIES (+ - 86 RT)	ABUT. 1	54	Y		1	7 - 36WF150	5/16" X 9" X 23'-0"	18L42.7	Y		37	23	OVERLAY	6	1976	Y	187
			PIER 1	74	Y	Y	2	7 - 36WF170	1" X 14" X 51'-9"	18L42.7	Y		26	13	OVERLAY	7			
			PIER 2	74	Y	Y	3	7 - 36WF170	1" X 14" X 51'-9"	18L42.7	Y		30	18	OVERLAY	7			
			PIER 3	59	Y		4	7 - 36WF150	1/2" X 10" X 32'-6"	18L42.7	Y		41	22	OVERLAY	6			
			ABUT. 2		Y						Y	WEIGHTED AVE. =	33	19					
68EB	1962	VARIES (+ - 86 RT)	ABUT. 1	54	Y		1	7 - 36WF150	5/16" X 9" X 23'-0"	18L42.7	Y		42	29	OVERLAY	6	1976	Y	187
			PIER 1	74	Y	Y	2	7 - 36WF170	1" X 14" X 51'-9"	18L42.7	Y		32	15	OVERLAY	7			
			PIER 2	74	Y	Y	3	7 - 36WF170	1" X 14" X 51'-9"	18L42.7	Y		24	7	OVERLAY	7			
			PIER 3	59	Y		4	7 - 36WF150	1/2" X 10" X 32'-6"	18L42.7	Y		23	19	OVERLAY	6			
			ABUT. 2		Y						Y	WEIGHTED AVE. =	30	17					



NEW TRANSVERSE SECTION

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

* SEE NEW TYPICAL SECTIONS ON PAGE IIA & IIB

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of **SOUTH BURLINGTON** Bridge No. **68**
 Highway No. **U.S. 2** Log Sta. _____
 Surv. Sta. _____

U.S. 2 OVER I-89

NEW TRANSVERSE SECTION & BRIDGE INFO. SUMMARY

Designed By **T.S. BRYANT** Drawn By **E.J. MASSE**
 Checked By _____ Date _____ Bridge Design Supervisor
A. SETAS 1/00 **C.D. BAKER** Date 1/00

PROJECT **SOUTH BURLINGTON** PROJECT NO. **IM DECK (36)**
 VHB Cad Drawing No. **50929INF** Date 1/00
 Bridge Sheet No. _____ Sheet **8** of **15**

GENERAL NOTES

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT AGENCY OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION", DATED 1990, AND ITS LATEST REVISIONS, AND THE AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 16TH EDITION", AND ITS LATEST REVISIONS.
- ANY REFERENCE TO "LEFT" AND/OR "RIGHT" ON THE PLANS OR NOTES REFERS TO THE DIRECTION OF STATIONING AND NOT THE DIRECTION OF TRAFFIC.
- NO SURVEY WAS TAKEN ON THIS PROJECT FOR BRIDGE RELATED WORK. INFORMATION SHEETS INCLUDED IN THE PLANS WERE TAKEN FROM ORIGINAL PLANS AND ARE FOR INFORMATION ONLY. ALL ELEVATIONS SHOWN IN THESE PLANS ARE BASED ON ELEVATIONS FROM THE ORIGINAL PLANS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD CHECKING ANY AND ALL DIMENSIONS APPLICABLE TO THIS WORK.
- ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68°F, UNLESS SHOWN OTHERWISE.
- DESIGN CRITERIA:
 - DESIGN LIVE LOAD FOR EXISTING STRUCTURE: HS 20
 - DESIGN LIVE LOAD FOR NEW CONCRETE PIERS: HS 25
- UNLESS OTHERWISE NOTED, THE CONCRETE FOR THE VARIOUS ELEMENTS OF THE WORK SHALL BE:
 - BRIDGE DECK OVERLAY AND FULL-DEPTH REPAIRS**
 - CONCRETE CLASS AA, f'c = 4000 PSI
 - PAID AS ITEM 580.19, "CONCRETE CLASS AA OVERLAY" FOR OVERLAY, AND ITEM 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III" FOR CLASS III REPAIRS
 - BRIDGE DECK FASCIA REPAIR**
 - CONCRETE CLASS AA, f'c = 4000 PSI
 - PAID AS ITEM 580.10, 580.11 OR 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I, II OR III"
 - BRIDGE SIDEWALK OVERLAY AND WIDENING**
 - SILICA-FUME CONCRETE, f'c = 5000 PSI
 - PAID AS ITEM 501.60, "SILICA-FUME CONCRETE (MOD.)"
 - BRIDGE AND APPROACH ROADWAY MEDIAN REPLACEMENT**
 - SILICA-FUME CONCRETE, f'c = 5000 PSI
 - PAID AS ITEM 501.60, "SILICA-FUME CONCRETE (MOD.)"
 - APPROACH SLAB REPAIR**
 - CONCRETE CLASS AA, f'c = 4000 PSI
 - PAID AS ITEM 580.10, 580.11 OR 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I, II OR III"
 - NEW PIERS**
 - SILICA-FUME CONCRETE, f'c = 5000 PSI
 - PAID AS ITEM 501.60, "SILICA-FUME CONCRETE (MOD.)"
 - ABUTMENT REPAIR**
 - CONCRETE TYPE USED IS DEPENDENT ON REPAIR DEPTH, SEE ABUTMENT REPAIR NOTES IN THESE PLANS
 - PAID AS ITEM 580.13, 580.14 OR 580.15, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I, II, OR III"
- ALL EXPOSED EDGES OF NEW SUPERSTRUCTURE CONCRETE SHALL HAVE A 3/4" CHAMFER UNLESS OTHERWISE NOTED.
- NEW REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM-A615), GRADE 60 AND SHALL BE EPOXY COATED WHERE INDICATED. REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH AFFICABLE PUBLICATIONS OF THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI). WHEN EPOXY COATED REINFORCING STEEL IS CUT, THE UNCOATED ENDS SHALL BE REPAIRED WITH MATERIALS AND PROCEDURES APPROVED BY THE COATING MANUFACTURER. NO FLAME CUTTING OF NEW REINFORCING STEEL WILL BE ALLOWED.
- REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE:
 - SPACING +/- 1"
 - CLEARANCE +/- 1/4"
- ALL NEW STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270, GRADE 36, UNLESS OTHERWISE NOTED.
- ALL WELDING AND DIMENSIONAL TOLERANCES OF WELDED MEMBERS SHALL CONFORM TO THE LATEST ANSI/AASHTO/AWS BRIDGE WELDING CODE AND ITS LATEST REVISIONS.

DECK REHABILITATION NOTES

- THE EXISTING CONCRETE DECK IN ALL SPANS SHALL BE REHABILITATED BY THE OVERLAY METHOD. IN EACH SPAN THE OVERLAY SHALL EXTEND FROM DECK JOINT TO DECK JOINT IN THE LONGITUDINAL DIRECTION, AND IN THE TRANSVERSE DIRECTION FROM THE JOINT BETWEEN THE EXISTING CURB AND SIDEWALK TO THE SAME JOINT ON THE OPPOSITE SIDE OF THE BRIDGE.
- THE OVERLAY MATERIAL SHALL BE "CONCRETE, CLASS AA", AND SHALL BE OF A SUFFICIENT DEPTH TO GIVE A MINIMUM OF TWO (2) INCHES OF COVER OVER THE TOP MAT OF REINFORCING STEEL. THE FINISHED SURFACE OF THE OVERLAY SHALL HAVE THE CROSS SLOPE SHOWN ON SHEET 2. CONCRETE, CLASS AA USED IN OVERLAYS SHALL BE CURED FOR TEN (10) DAYS IN ACCORDANCE WITH SPECIFICATION SECTION 501.16 AND 501.17 EXCEPT THE USE OF MEMBRANE FORMING CURING COMPOUND WILL NOT BE ALLOWED FOR OVERLAYS.
- THE LIMITS FOR REMOVAL OF CONCRETE UNDER ITEM 580.19, "CONCRETE CLASS AA OVERLAY", SHALL BE FROM THE TOP OF THE EXISTING CONCRETE DECK TO A SURFACE FROM 3/4" (+/- 1/4") MINIMUM DEPTH BELOW THE BOTTOM BAR OF THE TOP MAT OF REINFORCING STEEL, TO A MAXIMUM DEPTH OF THE TOP OF THE TOP BAR OF THE BOTTOM MAT OF REINFORCING STEEL. IF MORE THAN ONE-QUARTER OF THE CIRCUMFERENCE OF THE TOP BAR OF THE BOTTOM MAT IS EXPOSED OR THE BOND BETWEEN THE CONCRETE AND REBAR IS BROKEN, THEN ITEM 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III" SHALL BE USED TO MAKE A FULL DEPTH REPAIR. NO PAYMENT FOR ITEM 580.19, "CONCRETE CLASS AA OVERLAY" SHALL BE MADE WITHIN AREAS OF CLASS III REPAIR. SEE THE DETAIL ON SHEET 12A.
- THE LIMITS FOR REMOVAL OF CONCRETE UNDER ITEM 580.12 "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE CLASS III" WILL BE FROM THE TOP OF EXISTING CONCRETE DECK TO THE BOTTOM OF THE CONCRETE DECK (FULL DEPTH REMOVAL). ANY FULL DEPTH REPAIRS SHALL NECESSITATE THE USE OF FORMS AND FALSEWORK. WHERE CLASS III REPAIRS ARE REQUIRED ADJACENT TO THE BARRIERS SEPARATING THE WORK AREA FROM TRAFFIC, THE ENGINEER SHALL DETERMINE WHETHER TEMPORARY SUPPORT OF THE DECK SLAB IS REQUIRED. IF DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SHORING. ALL SHORING, FORMWORK, "CONCRETE, CLASS AA", FALSEWORK, LABOR, TOOLS, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III".
- THE CONTRACTOR MAY USE A SCARIFIER OR COLD-PLANER TO REMOVE CONCRETE TO WITHIN ONE HALF (1/2) INCH OF THE TOP MAT OF REINFORCING STEEL. THIS WORK SHALL BE SUBSIDIARY TO THE BID PRICE FOR ITEM 580.19, "CONCRETE CLASS AA OVERLAY". THE CONCRETE GRINDINGS SHALL BE DISPOSED OF IN ACCORDANCE WITH SPECIFICATION SECTIONS 105.24 AND 105.25. ANY REINFORCING STEEL DAMAGED BY THIS EQUIPMENT, WHICH WOULD NOT OTHERWISE REQUIRE REPLACEMENT, SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- A MAXIMUM OF 24 HOURS PRIOR TO PLACING THE NEW CONCRETE OVERLAY, THE EXISTING DECK CONCRETE, AND ALL EXPOSED STEEL WHICH WILL HAVE CONCRETE PLACED AGAINST OR AROUND IT (SUCH AS STEEL DECK JOINTS AND REINFORCING STEEL) SHALL BE ABRASIVE BLASTED. THE AREA SHALL BE VACUUMED OR FLUSHED, USING HIGH PRESSURE AIR OR WATER, TO REMOVE ALL LOOSE PARTICLES, DUST AND DEBRIS. AFTER ABRASIVE BLASTING, ONCE THE EXISTING CONCRETE IS WET, WHETHER FROM FLUSHING OR RAIN, THE CONCRETE MUST BE KEPT WET UNTIL THE PLACING OF NEAT CEMENT PASTE AND NEW CONCRETE. IF THE EXISTING CONCRETE IS ALLOWED TO DRY OUT, THE AREA MUST BE ABRASIVE BLASTED AGAIN AND THE ENTIRE AREA VACUUMED OR FLUSHED AGAIN. THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR ITEMS 580.19, "CONCRETE CLASS AA OVERLAY", AND 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III".
- ALL SURFACES OF STEEL DECK JOINTS, WHICH ARE TO HAVE CONCRETE PLACED AGAINST THEM, SHALL BE COATED WITH EPOXY BONDING COMPOUND. THE COST SHALL BE SUBSIDIARY TO ITEM 516.10, "BRIDGE EXPANSION JOINT (ARMORED JOINT)".
- NEAT CEMENT PASTE SHALL BE APPLIED TO THE LONGITUDINAL JOINT (ON THE FACE OF THE NEW CONCRETE) PRIOR TO PLACEMENT OF THE ADJACENT PHASE OVERLAY. ALSO, THE AREA TO BE OVERLAYED SHALL BE THOROUGHLY CLEANED, WETTED, AND COATED WITH NEAT CEMENT PASTE (THOROUGHLY BRUSHED INTO THE SURFACE). THE CEMENT AND WATER SHALL BE MIXED TO A THICK LATEX PAINT CONSISTENCY AND APPLIED AS THE OVERLAY PROGRESSES TO ENSURE THAT THE PASTE DOES NOT DRY OUT. THIS WORK SHALL BE SUBSIDIARY TO ITEMS 580.12 AND 580.19.
- HYDRO-DEMOLITION SHALL BE THE REQUIRED METHOD OF REMOVAL OF CONCRETE FROM THE EXISTING DECK IN ALL AREAS RECEIVING AN OVERLAY. THE SLURRY GENERATED FROM THIS OPERATION SHALL BE DISPOSED OF IN ACCORDANCE WITH SPECIFICATION SECTIONS 105.24 AND 105.25.
 - HYDRO-DEMOLITION EQUIPMENT SHALL BE CAPABLE OF REMOVING ALL CONCRETE TO THE MINIMUM DEPTH REQUIRED FOR ITEM 580.19 REMOVAL AND REMOVE ONLY UNSOUND CONCRETE BELOW THAT DEPTH. THE DECK SHALL BE INSPECTED BY THE ENGINEER TO ENSURE REMOVAL OF ALL UNSOUND CONCRETE.
 - IN ALL CASES, IF ITEM 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III" IS REQUIRED AFTER ITEM 580.19 REMOVAL BY THE HYDRO-DEMOLITION EQUIPMENT, THEN AIR HAMMERS WILL BE USED FOR THIS ADDITIONAL REMOVAL. HOWEVER, THE CONTRACTOR SHALL PROVIDE PROTECTION ABOVE TRAFFIC IN THE EVENT THAT THE WATER JET BLOWS THROUGH THE DECK (SEE TRAFFIC CONTROL PLAN NOTES, SHEET 31).

- AIR HAMMERS, USED FOR THE REMOVAL OF UNSOUND AND DETERIORATED CONCRETE, SHALL BE OPERATED BETWEEN THE HORIZONTAL POSITION AND A FORTY-FIVE (45) DEGREE ANGLE WHEN REMOVING CONCRETE. HOWEVER, THEY MAY BE STARTED IN THE VERTICAL POSITION AND IMMEDIATELY LOWERED. AIR HAMMERS SHALL HAVE A MAXIMUM RATING OF THIRTY (30) POUNDS AND SHALL USE CHISEL POINTS ONLY. IF REINFORCING STEEL IS DAMAGED OR IF CONCRETE IS DEBONDED, DELAMINATED OR OTHERWISE DAMAGED BEYOND THE DEFINED LIMITS OF REMOVAL, BECAUSE OF THE IMPROPER USE OF THE AIR HAMMERS, THEN THE CONTRACTOR SHALL REPAIR THE DAMAGED AREAS BY REMOVING AND REPLACING THE CONCRETE AND/OR REINFORCING STEEL AT HIS OWN EXPENSE.
- NO VEHICLES SHALL BE ALLOWED TO TRAVEL ON THE EXPOSED REINFORCING STEEL ONCE THE EXISTING SUPERSTRUCTURE CONCRETE HAS BEEN REMOVED.
- THE ENGINEER SHALL ORDER REPLACEMENT OF ANY EXISTING REINFORCING STEEL THAT IS DETERIORATED (WITH MORE THAN 25% SECTION LOSS) WITH NEW REINFORCING STEEL OF THE SAME SIZE. ALL REINFORCING STEEL SHALL HAVE A MINIMUM 2'-2" LAP SPLICE IN DECK SLAB. EIGHT (8) FEET OF EACH BAR SIZE SHALL BE SAMPLED FOR TESTING PURPOSES IF NEW REINFORCING STEEL IS USED. REINFORCING STEEL SHALL BE PAID UNDER ITEM 501.15. ESTIMATED QUANTITY OF 2500 LBS. HAS BEEN INCLUDED TO PERFORM ANY REQUIRED REINFORCING STEEL REPLACEMENT.
- MECHANICAL CONNECTORS SHALL BE USED TO SPLICE TRANSVERSE DECK REINFORCING STEEL AT PHASED CONSTRUCTION JOINTS. THE CONTRACTOR SHALL SUBMIT MANUFACTURER'S DATA TO THE ENGINEER FOR APPROVAL. TEST SPLICES SHALL BE SUBMITTED TO THE STATE IN ACCORDANCE WITH SPECIFICATION SECTION 713.02. MECHANICAL CONNECTORS SHALL BE PAID UNDER ITEM 507.19, "MECHANICAL BAR CONNECTOR (NO. 5)".
- IT MAY BE NECESSARY TO PATCH THE DECK SLAB FASCIAS IN SOME AREAS. THE ENGINEER SHALL DETERMINE THE AREAS OF THE DECK FASCIAS THAT REQUIRE REPAIR BY VISUAL INSPECTION, HAMMER SOUNDING, OR OTHER METHODS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH ACCESS TO THE FASCIAS TO ALLOW THE ENGINEER TO DETERMINE THE REPAIR AREAS. ALL COSTS ASSOCIATED WITH REPAIRING THE DECK FASCIAS SHALL BE INCLUDED IN ITEM 580.10, 580.11 OR 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I, II, OR III". THE PROCEDURES USED FOR THE DECK FASCIA REPAIRS SHALL BE AS DESCRIBED FOR APPROACH SLAB REPAIRS ON SHEET 12.

DECK REPAIR WAS ELIMINATED.
A COMPLETE NEW DECK WAS PLACED.
SEE THE NEW TYPICALS.
UTILITIES WERE RELOCATED.

STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No. U.S.	2	Log Sta.	
		Surv. Sta.	
U.S. 2 OVER I-89			
GENERAL NOTES & DECK REHABILITATION NOTES			
Designed By	T.S. BRYANT	Drawn By	E.J. MASSE
Checked By	A. SETAS	Date	1/00
		Bridge Design Supervisor	C.D. BAKER Date 1/00
PROJECT	SOUTH BURLINGTON		PROJECT NO. IM DECK (36)
	VHB Cad Drawing No. 50929N011		Date 1/00
	Bridge Sheet No.		Sheet 9 of 15

SIDEWALK REHABILITATION AND WIDENING NOTES:

1. THE ENTIRE LENGTH OF BOTH SIDEWALKS ON THE BRIDGE AND APPROACH SLABS SHALL BE OVERLAYED AND WIDENED AS SHOWN IN THE SIDEWALK WIDENING AND OVERLAY DETAIL ON SHEET 12B.
2. EXISTING CONCRETE SHALL BE REMOVED TO THE LIMITS SHOWN IN THE SIDEWALK WIDENING AND OVERLAY DETAIL. IN ADDITION ALL UNSOUND CONCRETE IN THE SIDEWALK BELOW THE REMOVAL LIMITS SHOWN IN THE DETAIL SHALL BE REMOVED. THE ENGINEER SHALL DETERMINE THE LIMITS OF THE ADDITIONAL REMOVAL BY VISUAL INSPECTION, HAMMER SOUNDING, OR OTHER METHODS. ALL CONCRETE REMOVAL SHALL BE PAID AS ITEM 529.25, "REMOVAL OF CONCRETE OR MASONRY", UNLESS OTHERWISE NOTED.
3. ALL CONCRETE REMOVAL OPERATIONS SHALL BE PERFORMED CAREFULLY TO AVOID DAMAGING THE TELEPHONE CONDUITS LOCATED WITHIN THE SIDEWALKS. SOME OF THE CONDUITS CONTAIN FIBER OPTIC CABLES. THE ENGINEER MAY REQUIRE THAT REMOVAL OF CONCRETE ABOVE AND AROUND THE CONDUITS BE PERFORMED WITH HAND METHODS, AT NO ADDITIONAL COST TO THE STATE, IF THE ENGINEER DETERMINES THAT OTHER METHODS OF REMOVAL PROPOSED BY THE CONTRACTOR WILL NOT SUFFICIENTLY PROTECT THE CONDUITS FROM DAMAGE.
4. ALL NEW CONCRETE IN THE SIDEWALK, INCLUDING THE OVERLAY, THE WIDENING, AND ALL REPAIR AREAS SHALL BE ITEM 501.60, "SILICA-FUME CONCRETE (MOD.)"
5. CONSTRUCTION JOINTS THROUGH THE CONCRETE CURB AND OVERLAY SHALL BE SPACED AT 15'-0" CENTER TO CENTER MAXIMUM. CONCRETE SHALL BE PLACED IN ALTERNATING SECTIONS TO MATCH EXISTING SIDEWALK JOINTS WITH A MINIMUM OF 48 HOURS DELAY BETWEEN ADJACENT POURS. LONGITUDINAL REINFORCING SHALL PASS THROUGH CONCRETE CURE CONSTRUCTION JOINTS, EXCEPT AT JOINTS OVER PIERS WHICH SHALL REMAIN OPEN. THE SIDEWALK OVERLAY AND ALL FULL-DEPTH SECTIONS OF THE NEW SIDEWALK SHALL BE PLACED IN THE SAME POUR.

BRIDGE SIDEWALK STREET LIGHTING NOTES:

1. THE THREE EXISTING LIGHT POLES THAT ARE MOUNTED TO THE BRIDGE SIDEWALK (1 ON NORTH SIDEWALK, 2 ON SOUTH SIDEWALK) SHALL BE REMOVED AND RESET DURING THE SIDEWALK REHABILITATION. THE LIGHT POLES SHALL BE RESET IN APPROXIMATELY THE SAME LOCATION AS EXISTING.
2. THE EXISTING LIGHT POLES SHALL BE MOUNTED TO THE SIDEWALK FASCIAE AS SHOWN ON VAOT STANDARD E-161.
3. ALL COSTS FOR REMOVING AND RESETTING BRIDGE LIGHT POLES SHALL BE INCLUDED IN ITEM 679.25, "REMOVE AND RESETTING LIGHT POLE", UNLESS OTHERWISE NOTED.
4. ALL JUNCTION BOXES, CONDUIT AND WIRING ATTACHED TO THE SUPERSTRUCTURE THAT SERVICE THE THREE LIGHTS SHALL BE REPLACED. COSTS FOR NEW JUNCTION BOXES, CONDUIT AND WIRING SHALL BE PAID AS ITEM 678.23, "WIRED CONDUIT". THE QUANTITY OF WIRED CONDUIT ESTIMATED FOR THIS WORK IS 300 LF.
5. THE CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTING AT NIGHT AS DIRECTED BY THE ENGINEER DURING ALL PERIODS IN WHICH THE THREE STREET LIGHTS ON THE BRIDGE ARE NOT OPERATIONAL. ALL COSTS FOR ANY TEMPORARY LIGHTING REQUIRED SHALL BE INCLUDED IN ITEM 679.25.

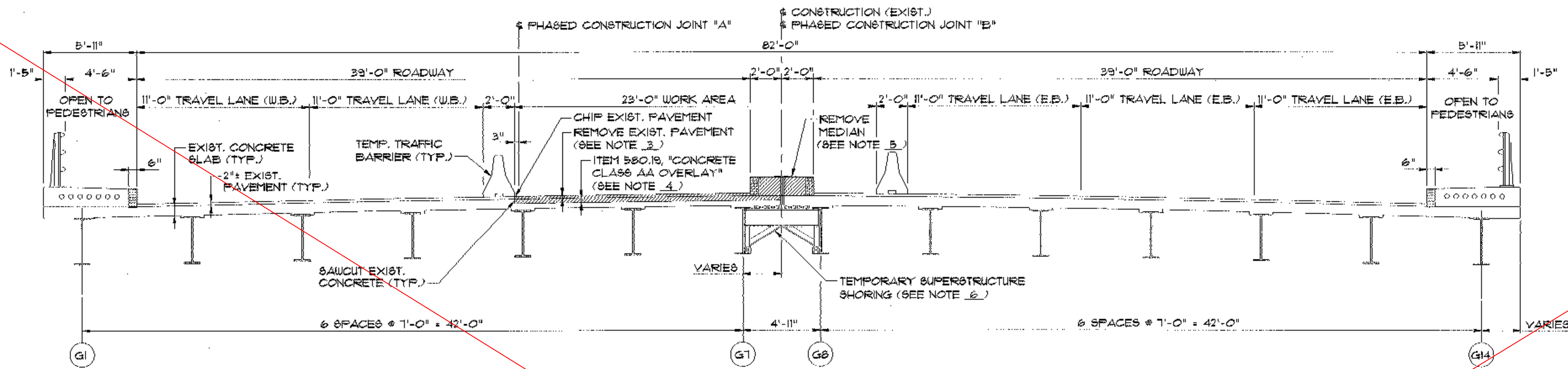
APPROACH SLAB REHABILITATION NOTES:

1. REMOVAL AND REPLACEMENT OF CONCRETE ON APPROACH SLABS SHALL BE PAID AS ITEM 580.10, 580.11 OR 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I, II OR III". SPALLED, DELAMINATED, OR OTHERWISE DETERIORATED AREAS OF THE APPROACH SLABS TO BE REPAIRED SHALL BE MARKED ON THE STRIPPED SLABS BY VERMONT AOT PERSONNEL. THE METHODS USED FOR DEFINING AREAS NEEDING REPAIR MAY BE BY VISUAL INSPECTION, THE CHAIN DRAG METHOD, HAMMER SOUNDING, ETC. ALL NECESSARY CLEANING OF EACH SLAB SURFACE PRIOR TO MARKING OF THE SLAB REPAIR AREAS SHALL BE PERFORMED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. THIS SHALL ALSO INCLUDE ADDITIONAL CLEANINGS AT OTHER TIMES AS THE WORK PROGRESSES. COST FOR THIS WORK SHALL BE SUBSIDIARY TO ITEMS 580.10, 580.11 AND 580.12.
2. THE LIMITS FOR REMOVAL OF APPROACH SLAB CONCRETE UNDER ITEM 580.10, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I" SHALL INCLUDE REMOVAL OF CONCRETE TO A MAXIMUM DEPTH OF TWO (2) INCHES FROM THE TOP OF THE APPROACH SLAB. IF THE REPAIR DEPTH EXCEEDS TWO (2) INCHES, THEN ITEM 580.11, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS II" SHALL BE USED.
3. THE LIMITS FOR REMOVAL OF APPROACH SLAB CONCRETE UNDER ITEM 580.11, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE CLASS II" SHALL BE FROM THE TOP OF THE APPROACH SLAB TO A MAXIMUM DEPTH OF SIX (6) INCHES. IF THE REPAIR DEPTH EXCEEDS SIX (6) INCHES, THEN ITEM 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III" SHALL BE USED.
4. THE LIMITS FOR REMOVAL OF APPROACH SLAB CONCRETE UNDER ITEM 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE CLASS III" SHALL BE FROM THE TOP OF THE APPROACH SLAB TO A DEPTH GREATER THAN SIX (6) INCHES. SEE SHEET 13 FOR LIMITS OF CLASS III REPAIRS REQUIRED FOR REPAIR OF FIXED ABUTMENT JOINTS.
5. DUPLICATE PAYMENT WILL NOT BE MADE FOR REPAIR OF CONCRETE SURFACES IN ANY AREA. FOR EXAMPLE, IF AN AREA IS ORIGINALLY PREPARED AS CLASS I AND THE ENGINEER ORDERS A CHANGE TO CLASS II DEPTH, THE AREA WILL BE PAID AS CLASS II ONLY.
6. UNDER ITEMS 580.10, 580.11 OR 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I, II OR III", ALL EDGES OF REPAIRED AREAS SHALL BE SAWCUT SQUARE AND A MINIMUM OF ONE (1) INCH DEEP. HYDRODEMOLITION OR AIR HAMMERS MAY BE USED TO REMOVE UNSOUND CONCRETE FROM THE APPROACH SLABS.
7. APPROACH SLAB PATCHES SHALL BE MADE WITH "CONCRETE CLASS 4A". THE AREA TO BE PATCHED SHALL BE THOROUGHLY CLEANED, WETTED AND COATED (THOROUGHLY BRUSHED INTO THE SURFACE) WITH NEAT CEMENT PASTE. THE CEMENT (AASHTO M85, TYPE II) AND WATER SHALL BE MIXED TO A THICK LATEX PAINT CONSISTENCY. THE NEAT CEMENT PASTE SHALL NOT BE ALLOWED TO DRY OUT BEFORE IT IS COVERED WITH FRESH CONCRETE. THIS PREPARATION WORK, NEAT CEMENT PASTE AND "CONCRETE, CLASS 4A", SHALL BE INCLUDED IN THE BID PRICE FOR ITEMS 580.10, 580.11 OR 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I, II OR III".
8. A MAXIMUM OF 24 HOURS PRIOR TO PLACING NEW CONCRETE IN REPAIR AREAS, THE EXISTING APPROACH SLAB CONCRETE, AND ALL EXPOSED STEEL WHICH WILL HAVE CONCRETE PLACED AGAINST OR AROUND IT (SUCH AS REINFORCING STEEL) SHALL BE ABRASIVE BLASTED. THE AREA SHALL BE VACUUMED OR FLUSHED, USING HIGH PRESSURE AIR OR WATER TO REMOVE ALL LOOSE PARTICLES, DUST AND DEBRIS. AFTER ABRASIVE BLASTING, ONCE THE EXISTING CONCRETE IS WET, WHETHER FROM FLUSHING OR RAIN, THE CONCRETE MUST BE KEPT WET UNTIL THE PLACING OF NEAT CEMENT PASTE AND NEW CONCRETE. IF THE EXISTING CONCRETE IS ALLOWED TO DRY OUT, THE AREA MUST BE ABRASIVE BLASTED AGAIN AND THE ENTIRE AREA VACUUMED OR FLUSHED AGAIN. THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR ITEMS 580.10, 580.11 AND 580.12.
9. THE CONTRACTOR SHALL PROVIDE AND UTILIZE A TWELVE (12) FOOT STRAIGHT EDGE TO ENSURE THAT PATCHES ARE SMOOTH AND MATCH THE SURROUNDING CONCRETE. THE STRAIGHT EDGE IS TO BE USED PARALLEL TO CENTERLINE ONLY.

10. A MEMBRANE-FORMING CURING COMPOUND MAY BE USED TO CURE THE CONCRETE APPROACH SLAB PATCHES, PROVIDED THE PATCHED AREAS ARE COVERED WITH WHITE POLYETHYLENE SHEETING AFTER THE CURING COMPOUND IS APPLIED. WHITE POLYETHYLENE SHEETING SHALL CONFORM TO SECTION 725.01G. THE TYPE OF CURING COMPOUND SHALL BE APPROVED BY THE ENGINEER PRIOR TO ITS USE. THE CURING PERIOD SHALL BE SEVEN (7) DAYS, REGARDLESS OF WHICH CURING METHOD IS USED. ANY OTHER METHOD OF CURING LISTED IN SPECIFICATION SECTION 501.17(b) 1, 2, 5 OR 7 MAY BE USED TO CURE THESE APPROACH SLAB PATCHES. HOWEVER, IF THE METHOD USED DOES NOT PRODUCE DESIRED RESULTS, ALTERNATE CURING METHODS MAY BE REQUIRED BY THE ENGINEER.
11. IF A LIQUID MEMBRANE CURING COMPOUND IS USED, PRIOR TO THE APPLICATION OF ANY PROTECTIVE COATING OR PRIMER FOR THE SHEET MEMBRANE, THE CURING COMPOUND SHALL BE BLAST CLEANED FROM THE SURFACE. THIS WORK SHALL BE SUBSIDIARY TO ITEM 519.20, "SHEET MEMBRANE WATERPROOFING (MOD. - TORCH APPLIED)".

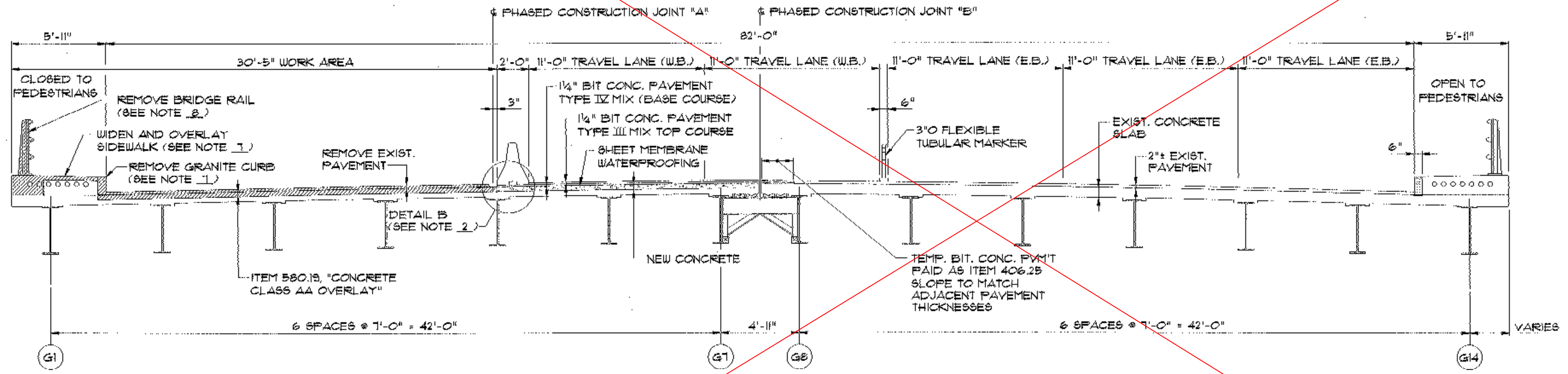
DECK REPAIR WAS ELIMINATED.
A COMPLETE NEW DECK WAS PLACED.
SEE THE NEW TYPICALS.
UTILITIES WERE RELOCATED.

STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of	SOUTH BURLINGTON	Bridge No.	68
		Log Sta.	
Highway No. U.S.	2	Surv. Sta.	
U.S. 2 OVER 1-89			
SIDEWALK & APPROACH SLAB REHABILITATION NOTES			
Designed By	T.S. BRYANT	Drawn By	B.J. MASSE
Checked By	Date	Bridge Design Supervisor	
	A. SETAS	1/00	C.D. BAKER
PROJECT	PROJECT NO.		Date 1/00
	SOUTH BURLINGTON		IM DECK (36)
VHB Cad Drawing No. 50929NOT2		Date 1/00	
Bridge Sheet No.		Sheet 10 of 15	



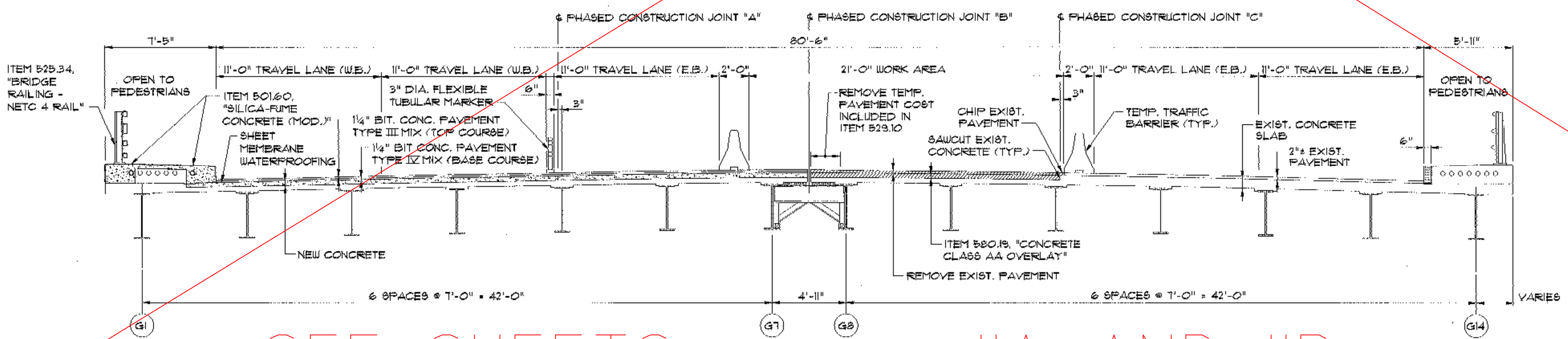
PHASE 1 SECTION

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



PHASE 2 SECTION

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



PHASE 3 SECTION

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

- DENOTES LIMIT OF REMOVAL
- DENOTES LIMIT OF NEW CONCRETE
- DENOTES TEMPORARY PAVEMENT

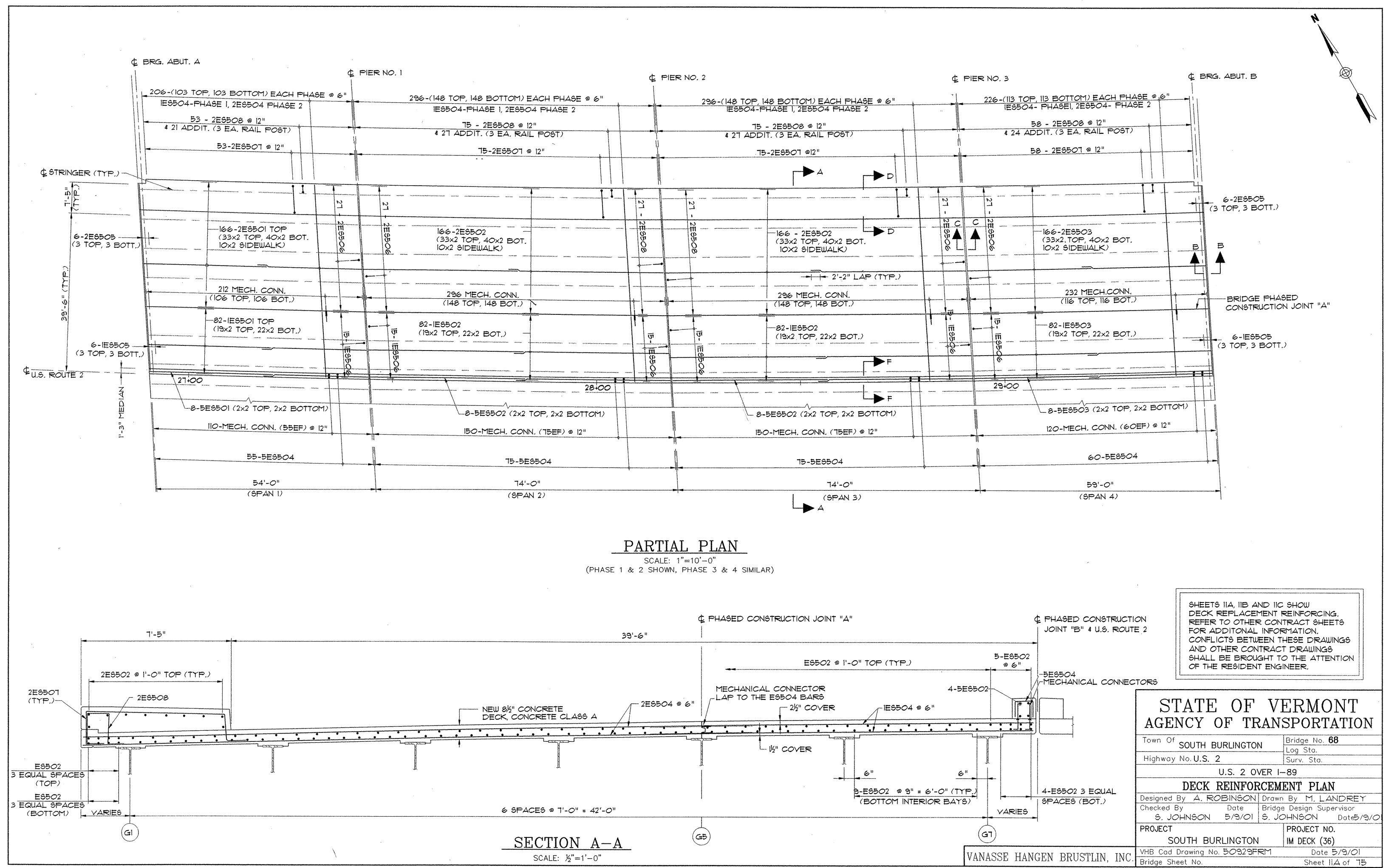
NOTES:

1. SEE TRAFFIC CONTROL PLANS FOR DIRECTION OF TRAFFIC.
2. SEE SHEET 12A FOR DETAIL B.
3. REMOVAL AND DISPOSAL OF EXISTING BRIDGE PAVEMENT SHALL BE PAID UNDER ITEM 529.10, "REMOVAL OF BRIDGE PAVEMENT".
4. THE BRIDGE DECK OVERLAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DECK REHABILITATION NOTES ON SHEET 9 AND THE DETAIL ON SHEET 12A.
5. BRIDGE AND APPROACH SLAB MEDIAN TREATMENT: REMOVAL OF EXISTING MEDIAN GRANITE CURB SHALL BE PAID UNDER ITEM 616.41, "REMOVAL OF EXISTING CURB". REMOVAL OF EXISTING CONCRETE MEDIAN SHALL BE PAID AS ITEM 529.25, "REMOVAL OF CONCRETE OR MASONRY". THE NEW MEDIAN SHALL BE CONSTRUCTED AS SHOWN IN THE MEDIAN REPLACEMENT DETAIL ON SHEET 12A.
6. THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPERSTRUCTURE SHORING BELOW THE MEDIAN FOR THE FULL LENGTH OF BRIDGE NO. 68. THE SCHEME FOR TEMPORARY SHORING SHALL BE SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL. ALSO, THE CONTRACTOR SHALL SUBMIT DETAILS AND CALCULATIONS PREPARED BY A QUALIFIED REGISTERED PROFESSIONAL ENGINEER TO THE STRUCTURES ENGINEER FOR INFORMATION ONLY (TWO WEEKS PRIOR TO PERFORMING WORK). SHORING SHALL BE DESIGNED FOR H20 LOADING. WELDING TO EXISTING STEEL SHALL NOT BE PERMITTED. ALL COSTS TO BE INCLUDED IN ITEM 502.10, "SHORING SUPERSTRUCTURE".
7. BRIDGE AND APPROACH SLAB SIDEWALK TREATMENT: REMOVAL OF EXISTING SIDEWALK GRANITE CURB SHALL BE PAID UNDER ITEM 616.41, "REMOVAL OF EXISTING CURB". CONCRETE REMOVAL SHALL BE PAID UNDER ITEM 529.25, "REMOVAL OF CONCRETE OR MASONRY", UNLESS OTHERWISE NOTED. THE SIDEWALK WIDENING AND OVERLAY SHALL BE CONSTRUCTED AS SHOWN IN THE DETAIL ON SHEET 12B, AND IN ACCORDANCE WITH THE SIDEWALK REHABILITATION AND WIDENING NOTES ON SHEET 10.
8. REMOVAL AND DISPOSAL OF ALL EXISTING ALUMINUM BRIDGE RAILING SHALL BE PAID UNDER ITEM 525.10, "REMOVAL OF EXISTING RAILING".
9. SEE SHEET 13 FOR MEDIAN TREATMENTS BEYOND THE APPROACH SLABS.

SEE SHEETS IIA AND IIB

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log Sta. Surv. Sta.
U.S. 2 OVER I-89	
CONSTRUCTION PHASING (1 OF 2)	
Designed By T.S. BRYANT	Drawn By B.J. MASSE
Checked By A. SETAS	Bridge Design Supervisor
Date 2/00	Date 2/00
PROJECT SOUTH BURLINGTON	PROJECT NO. IM DECK (36)
VHB Cad Drawing No. 50929CPI	Date 2/00
Bridge Sheet No.	Sheet 11 of 15

VANASSE HANGEN BRUSTLIN, INC.

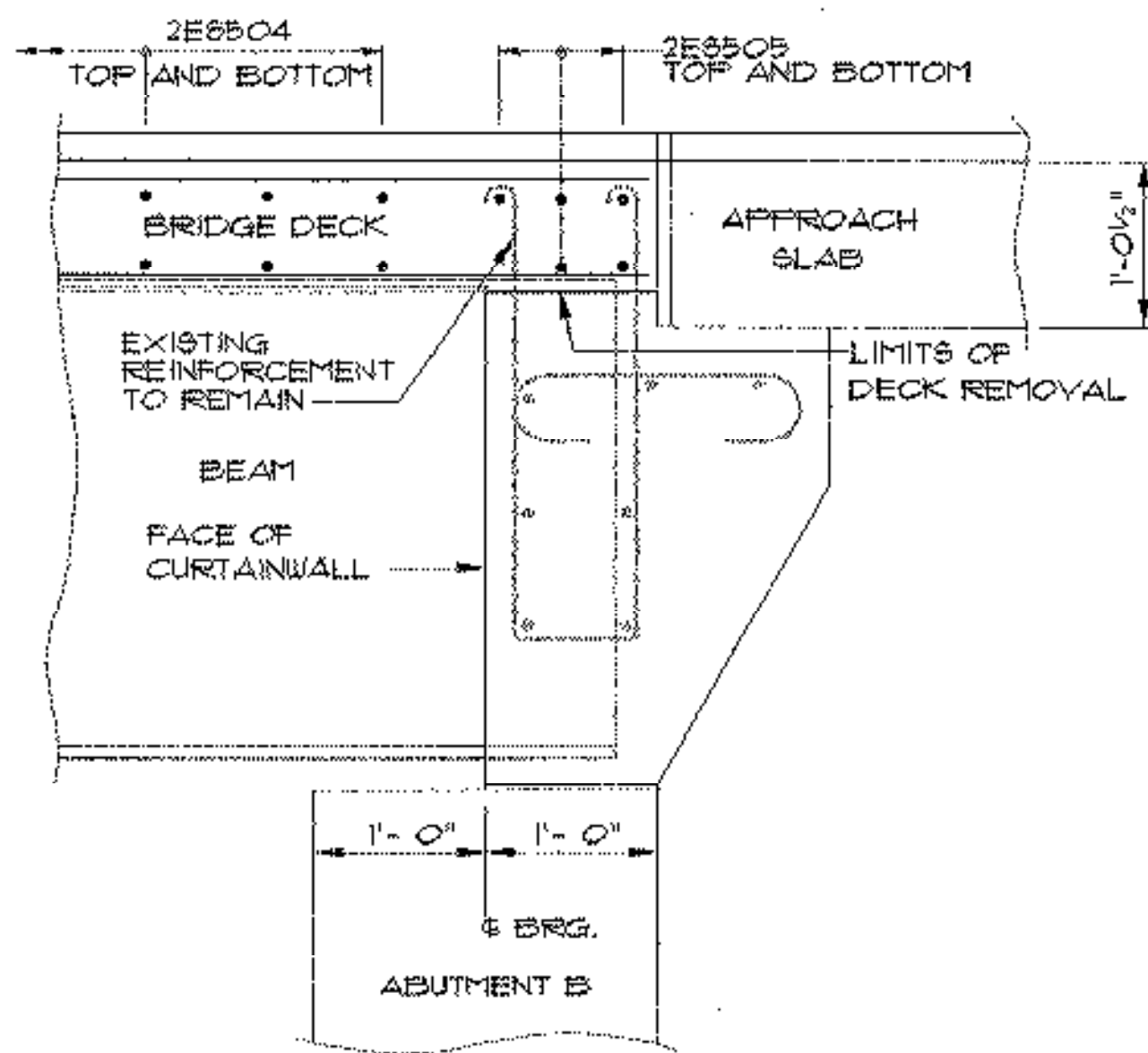


SHEETS 11A, 11B AND 11C SHOW
DECK REPLACEMENT REINFORCING.
REFER TO OTHER CONTRACT SHEETS
FOR ADDITIONAL INFORMATION.
CONFLICTS BETWEEN THESE DRAWINGS
AND OTHER CONTRACT DRAWINGS
SHALL BE BROUGHT TO THE ATTENTION
OF THE RESIDENT ENGINEER.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

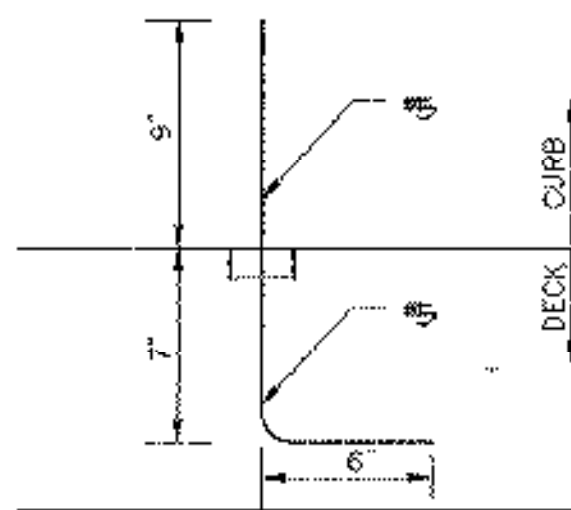
Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No.	U.S. 2	Log. Sta.	
		Con. Sta.	
U.S. 2 OVER I-89			
DECK REINFORCEMENT PLAN			
Designed By	A. ROBINSON	Drawn By	M. LANDREY
Checked By	S. JOHNSON	Date	9/9/02
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
W&E Cos. Drawing No.	50329FR1	Date	9/9/02
Bridge Sheet No.		Sheet	11A of 15

VANASSE HANGEN BRUSTLIN, INC.



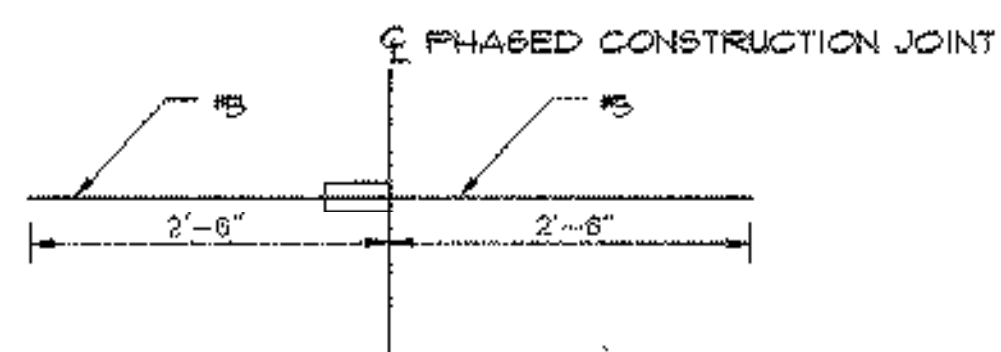
SECTION B-B

SCALE: 1" = 1'-0"



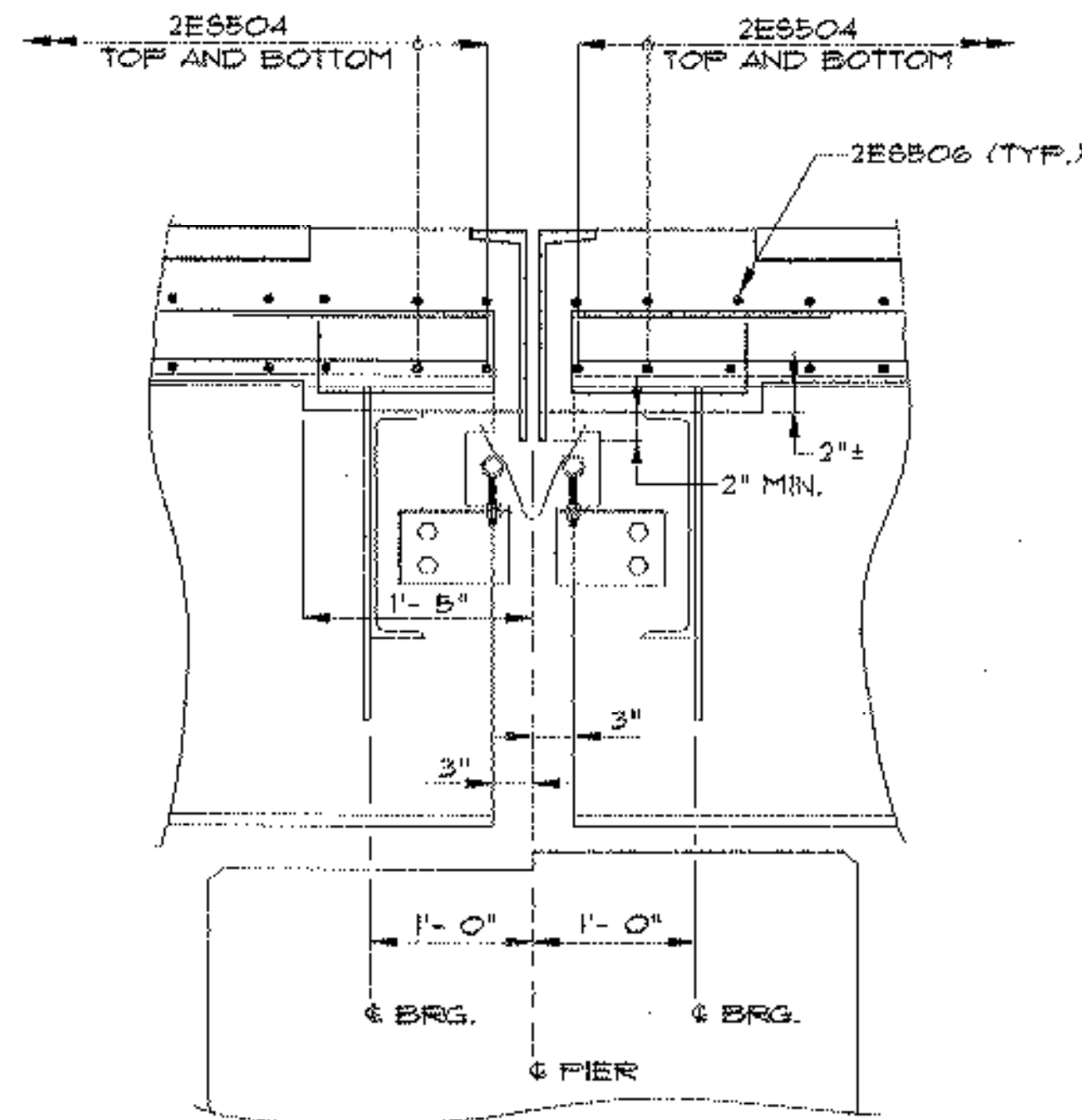
MECHANICAL CONNECTOR AT MEDIAN

N.T.S.



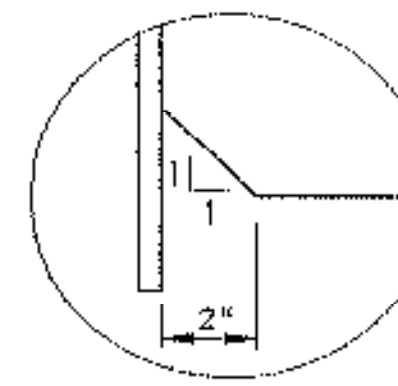
MECHANICAL CONNECTOR AT PHASED CONSTRUCTION JOINT

N.T.S.

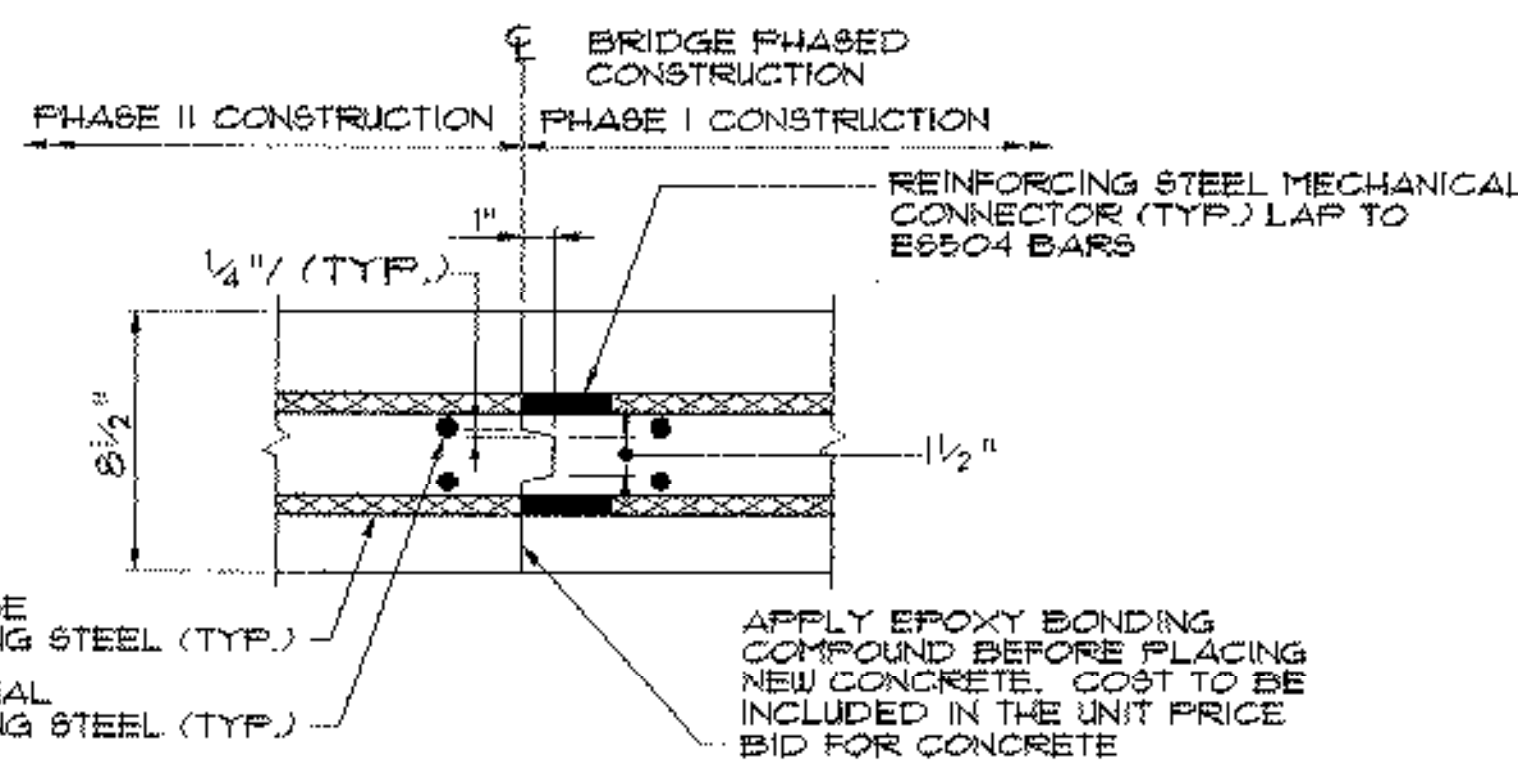


SECTION C-C

SCALE: 1" = 1'-0"



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

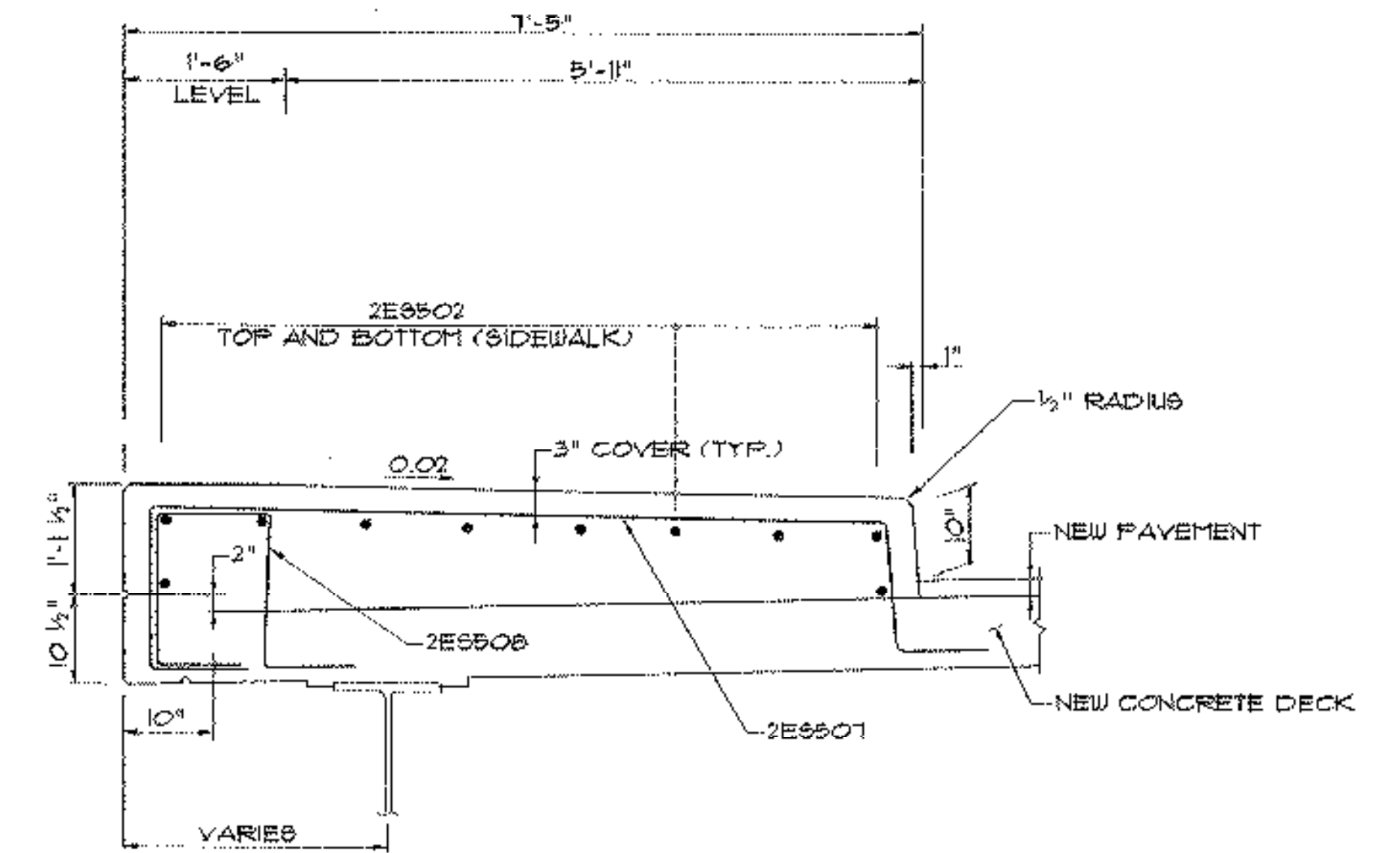


SECTION E-E

PHASED DECK CONSTRUCTION JOINT DETAIL

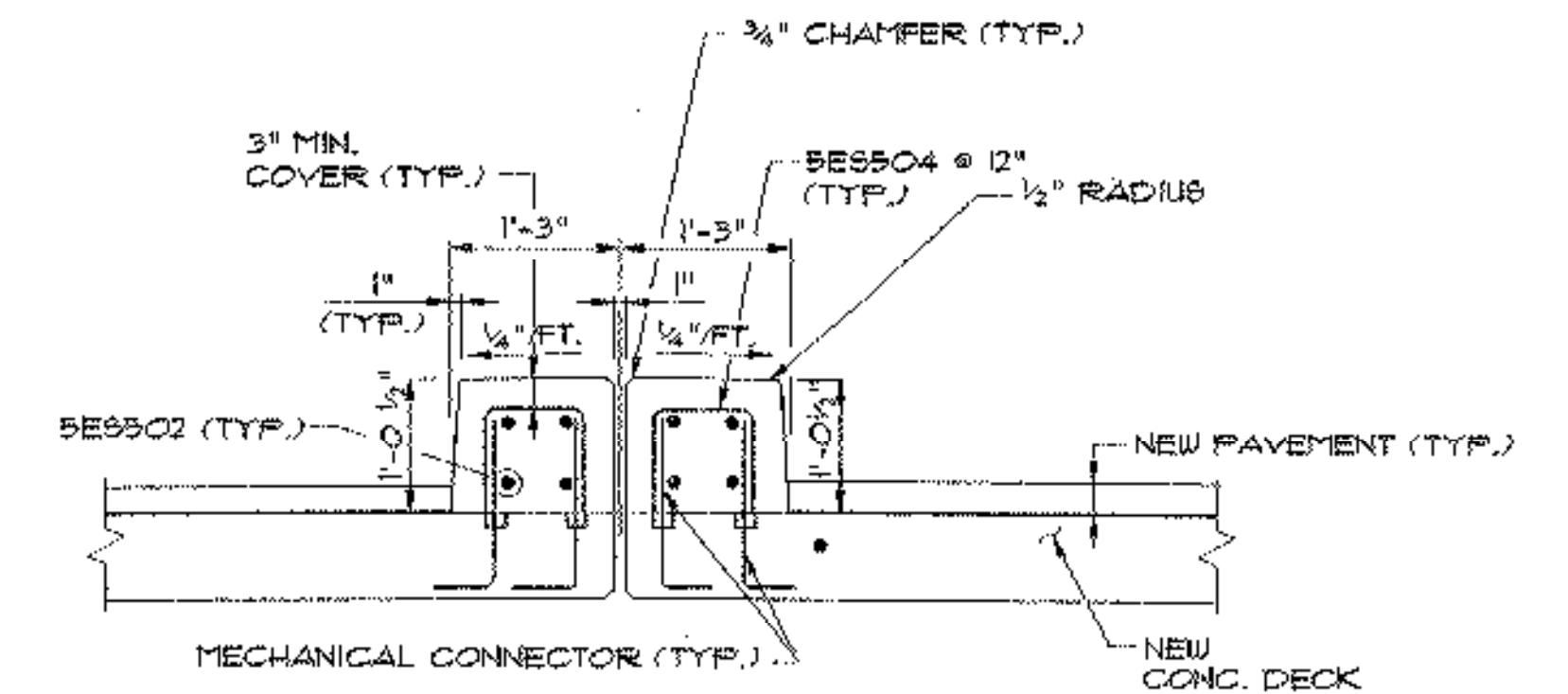
N.T.S.

APPLY EPOXY BONDING COMPOUND BEFORE PLACING NEW CONCRETE. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR CONCRETE



SECTION D-D

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



SECTION F-F

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

SHEETS IIA, IIB AND IIC SHOW DECK REPLACEMENT REINFORCING. REFER TO OTHER CONTRACT SHEETS FOR ADDITIONAL INFORMATION. CONFLICTS BETWEEN THESE DRAWINGS AND OTHER CONTRACT DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log Sta.
	Surv. Sta.

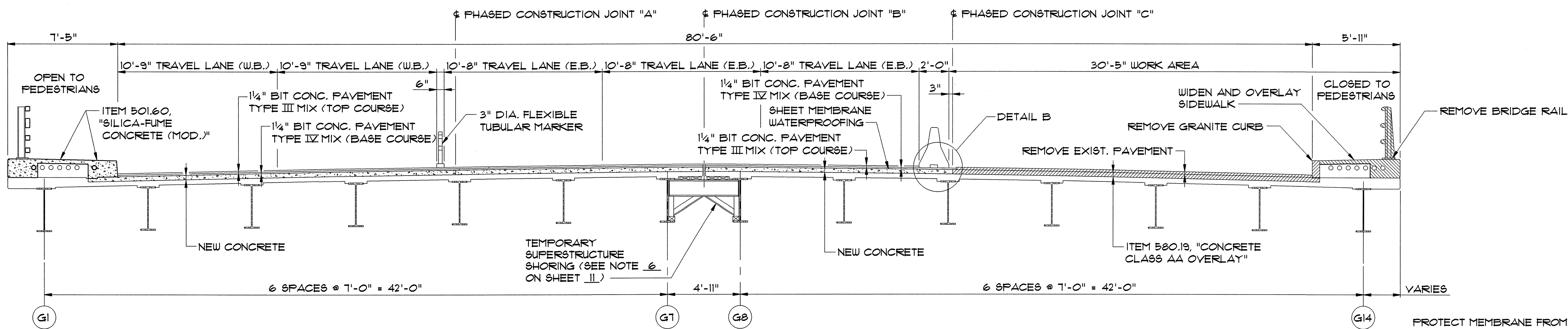
REINFORCEMENT DETAILS

Designed By A. ROBINSON	Drawn By M. LANDREY
Checked By S. JOHNSON	Bridge Design Supervisor S. JOHNSON
Date 5/3/01	Date 5/3/01

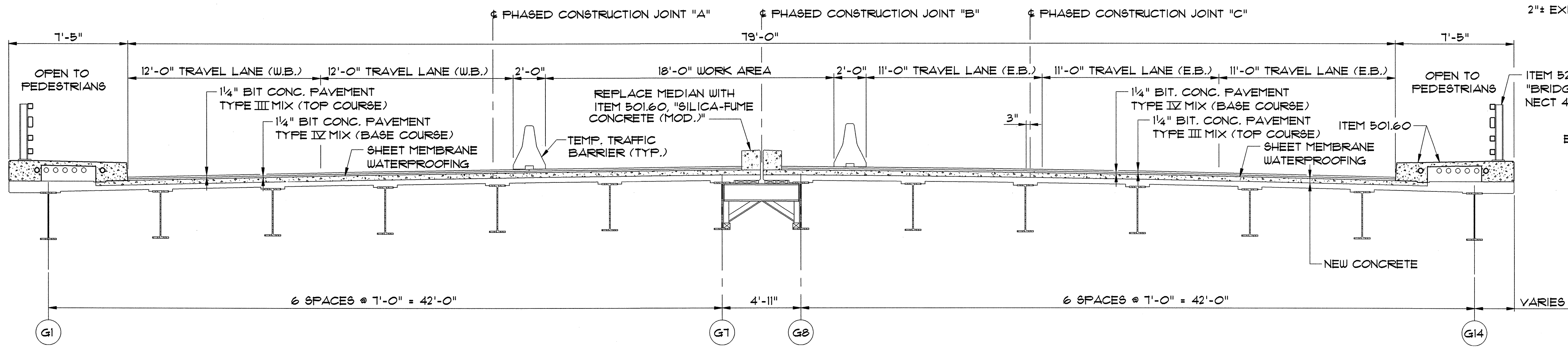
PROJECT SOUTH BURLINGTON	PROJECT NO. IM DECK (36)
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VHB Cad Drawing No. 50929DET2	Date 5/3/01
Bridge Sheet No.	Sheet IIB of 15

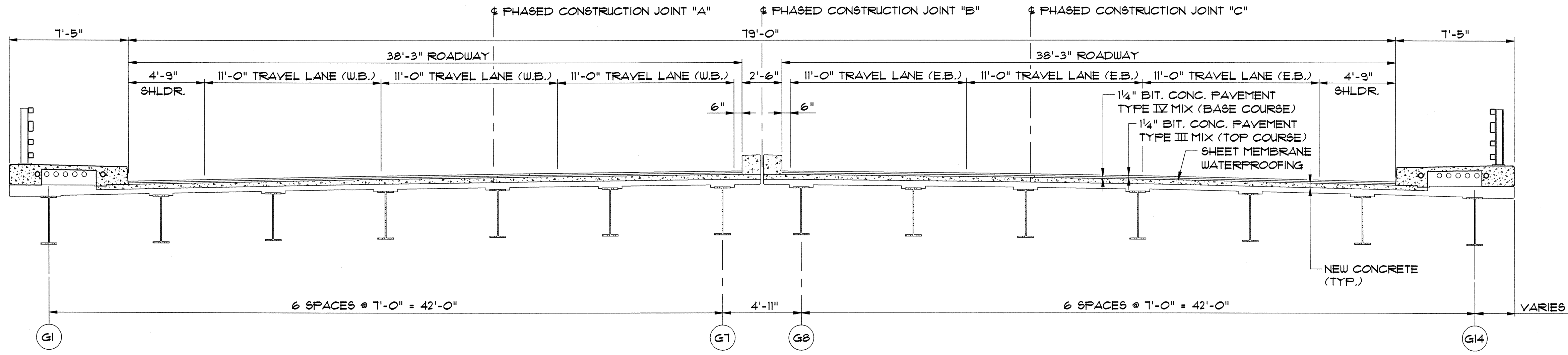
VANASSE HANGEN BRUSTLIN, INC.



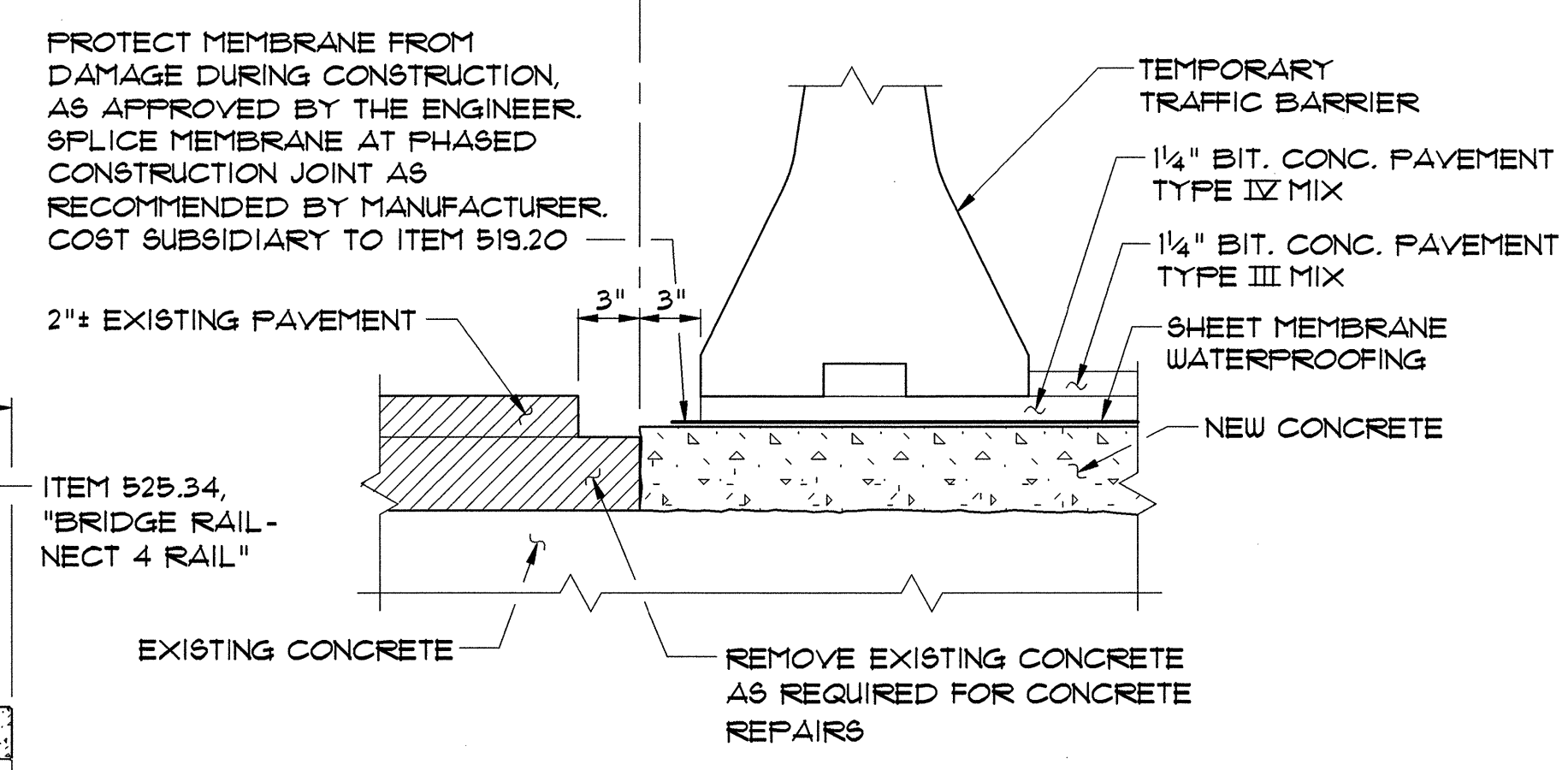
PHASE 4 SECTION
SCALE: 1/4"=1'-0"



PHASE 5 SECTION
SCALE: 1/4"=1'-0"



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

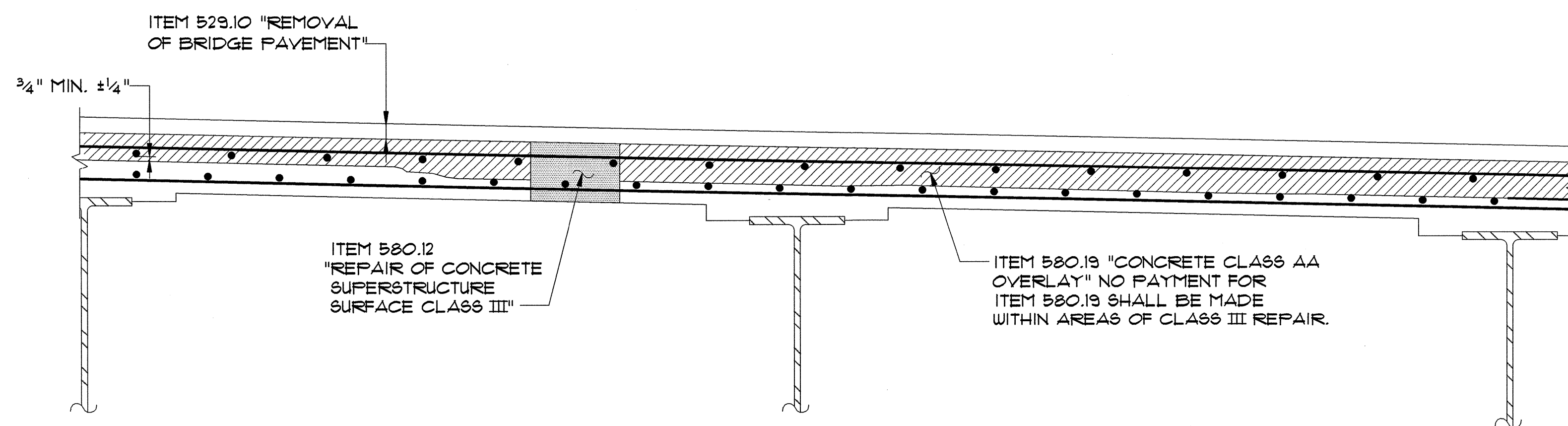


DETAIL B
SCALE: 1 1/2"=1'-0"

- DENOTES LIMIT OF REMOVAL
- DENOTES LIMIT OF NEW CONCRETE

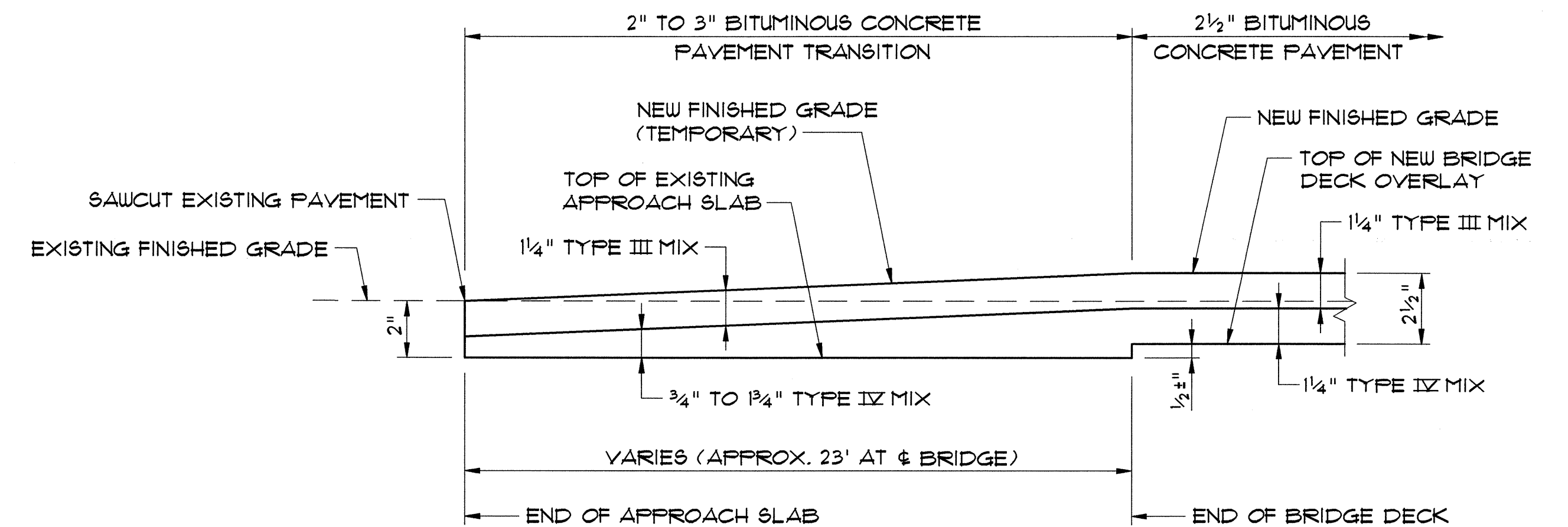
NOTES:
1. SEE NOTES ON SHEET III.

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log Sta. Surv. Sta.
U.S. 2 OVER I-89	
CONSTRUCTION PHASING (2 OF 2)	
Designed By S.M. HODGDON	Drawn By B.J. MASSE
Checked By T.S. BRYANT	Date 2/00 Bridge Design Supervisor
PROJECT	
SOUTH BURLINGTON	PROJECT NO. IM DECK(36)
VHB Cad Drawing No. 50329CF2	Date 2/00
Bridge Sheet No.	Sheet 12 of 15



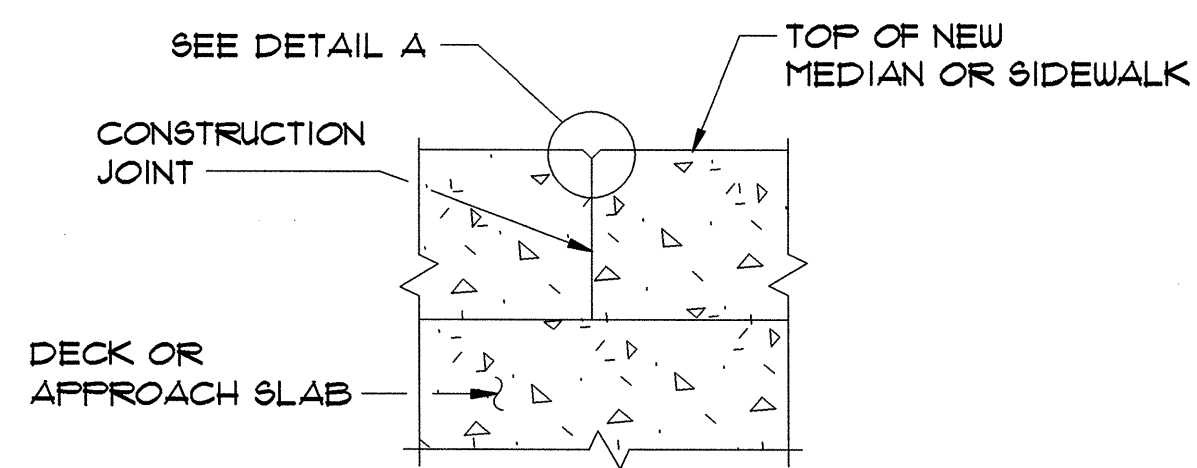
DETAIL SHOWING LIMITS OF 580.12, REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE CLASS III AND 580.19, CONCRETE CLASS AA OVERLAY

NTS



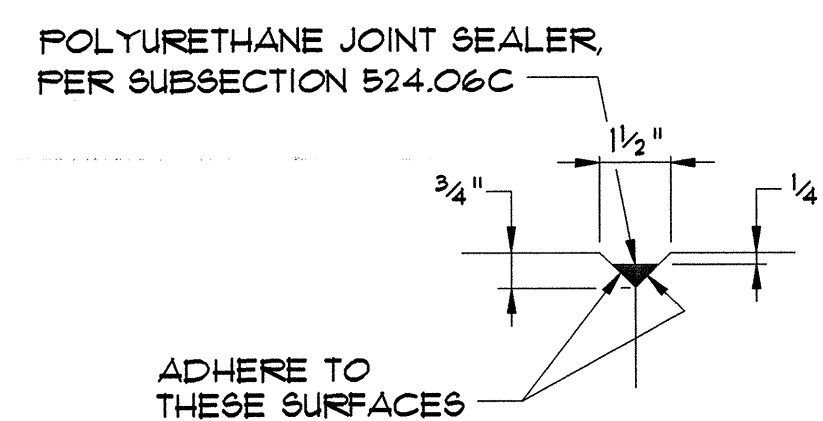
TEMPORARY APPROACH SLAB PAVEMENT TRANSITION DETAIL

NTS



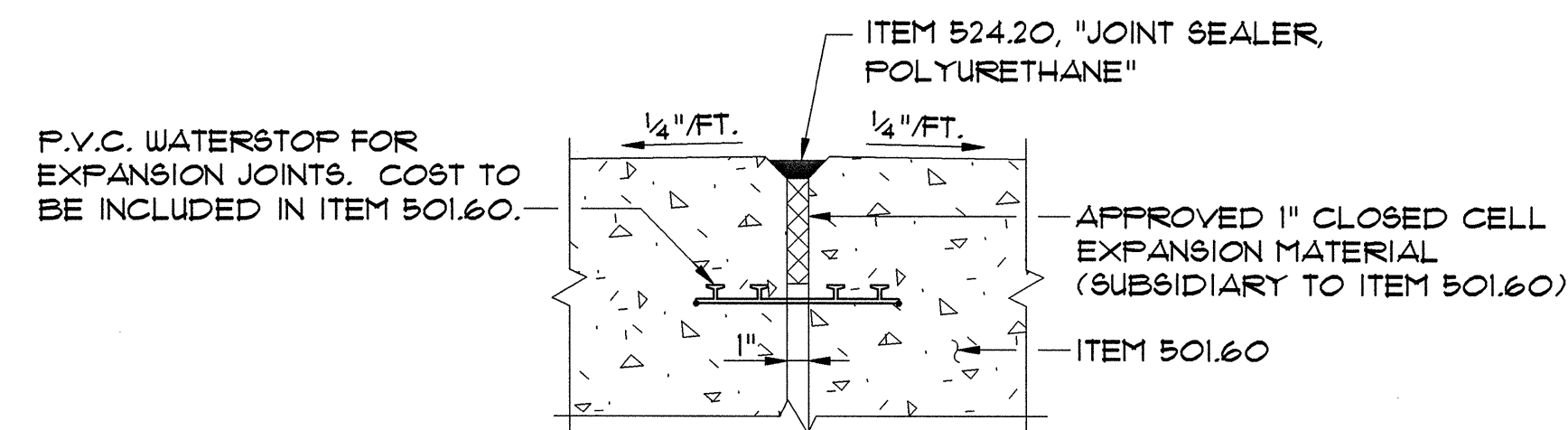
SECTION A-A

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



DETAIL A

SCALE: 3"=1'-0"

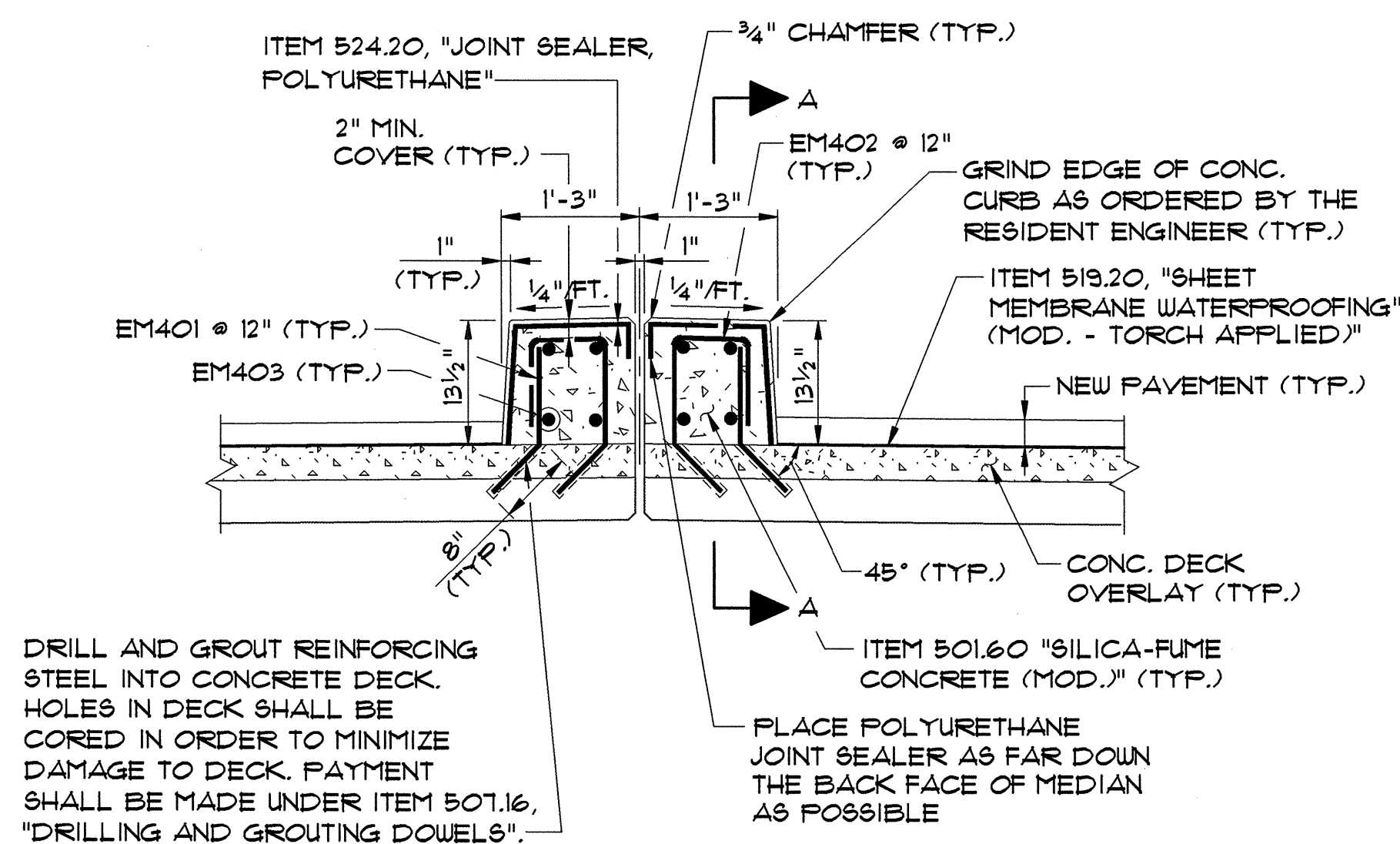


DETAIL B

NTS

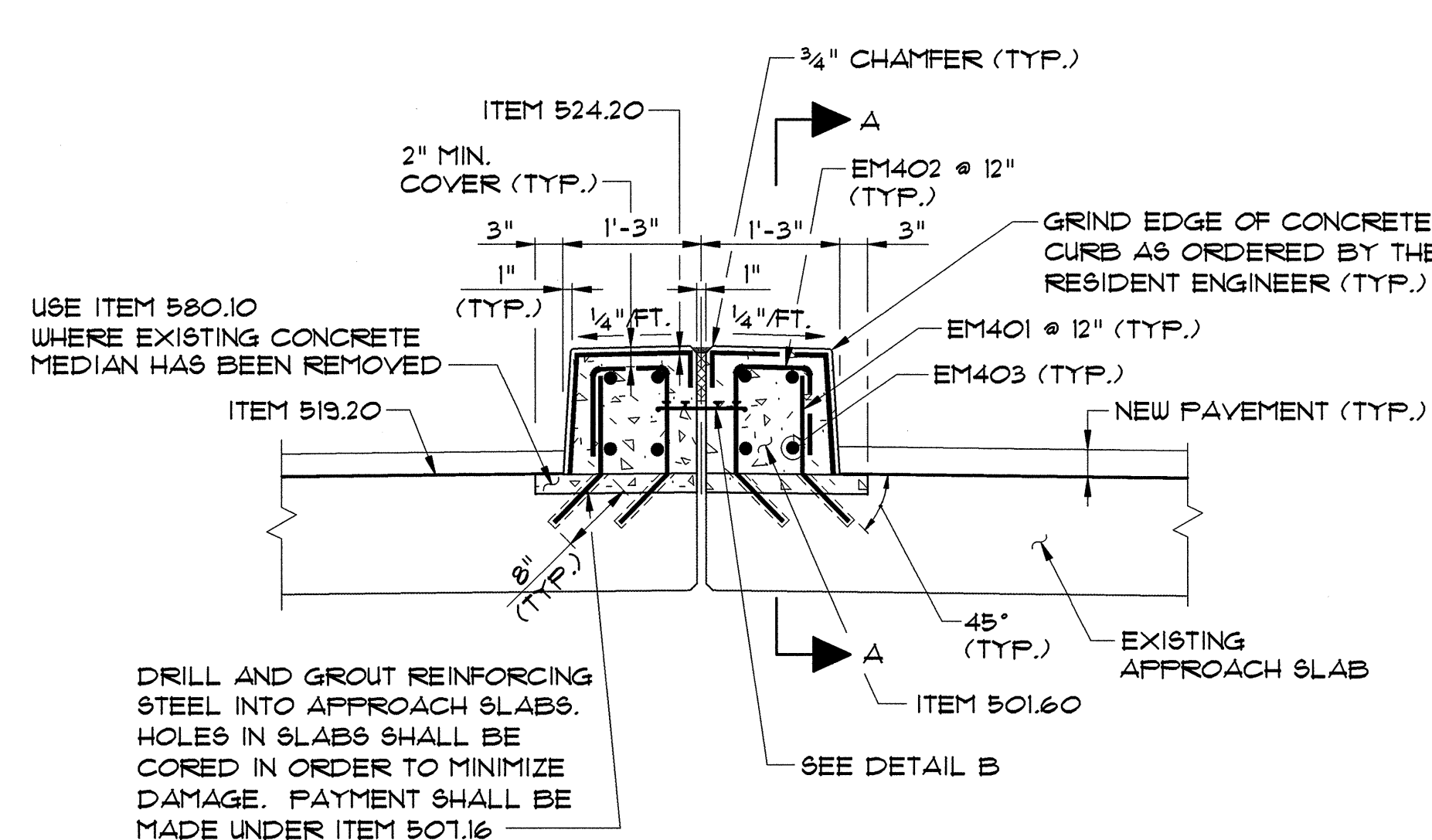
NOTES:

- SEE SHEET 9 FOR DECK REHABILITATION NOTES.
- NOTE USED.
- SEE SHEET 10 FOR APPROACH SLAB REHABILITATION NOTES.
- CONSTRUCTION JOINTS THROUGH CONCRETE MEDIAN SHALL BE SPACED MAXIMUM 15'-0" CENTER TO CENTER. CONCRETE SHALL BE PLACED IN ALTERNATING SECTIONS WITH A MINIMUM OF 48 HOURS DELAY BETWEEN ADJACENT POURS. LONGITUDINAL REINFORCING SHALL PASS THROUGH CONCRETE MEDIAN CONSTRUCTION JOINTS, EXCEPT AT JOINTS OVER PIERS WHICH SHALL REMAIN OPEN.
- NO SEALER SHALL BE USED AT JOINTS OVER PIERS WHICH SHALL REMAIN OPEN. COLOR OF POLYURETHANE JOINT SEALANT SHALL MATCH CONCRETE.



DECK MEDIAN REPLACEMENT DETAIL

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



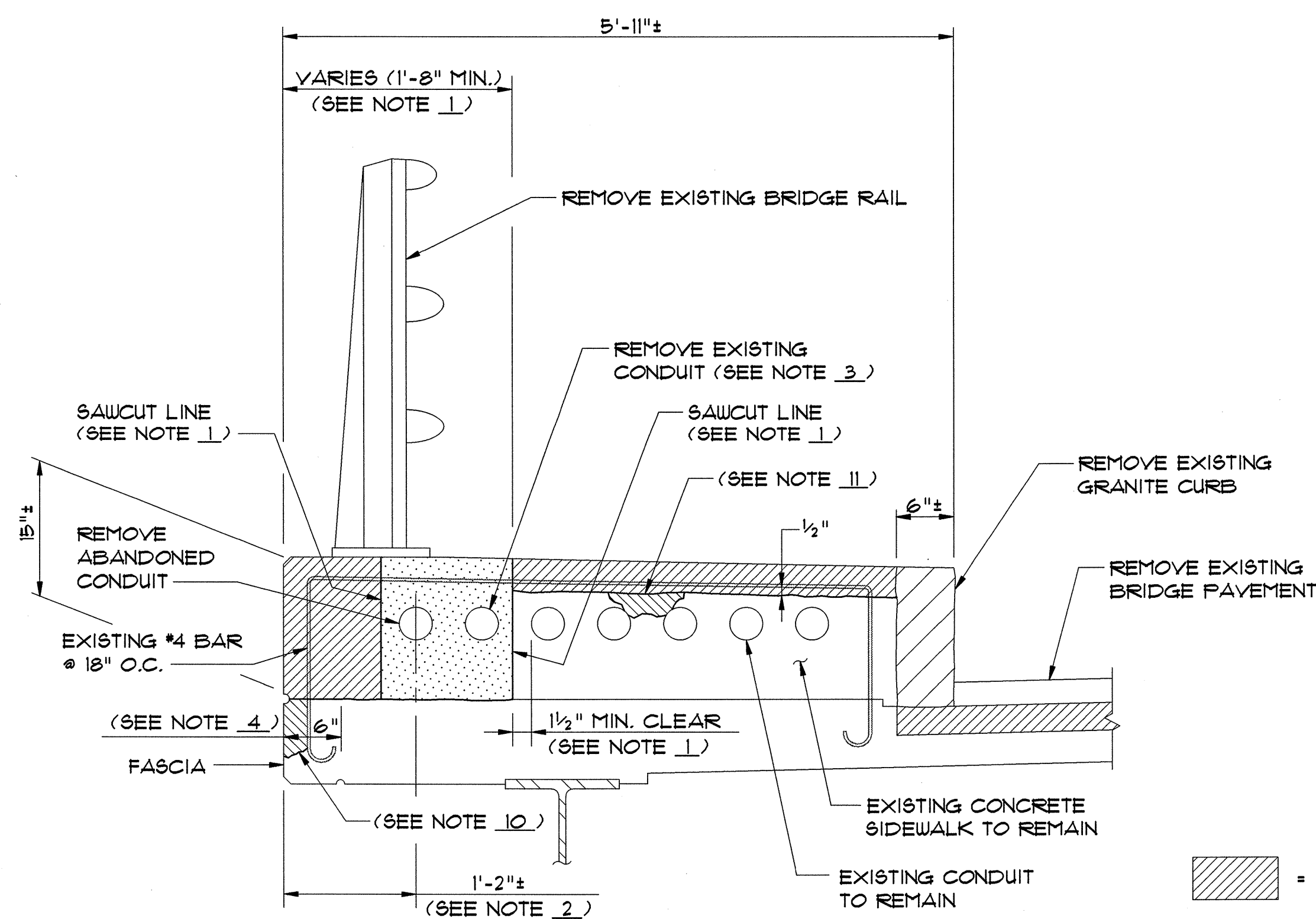
APPROACH SLAB MEDIAN REPLACEMENT DETAIL

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

VANASSE HANGEN BRUSTLIN, INC.

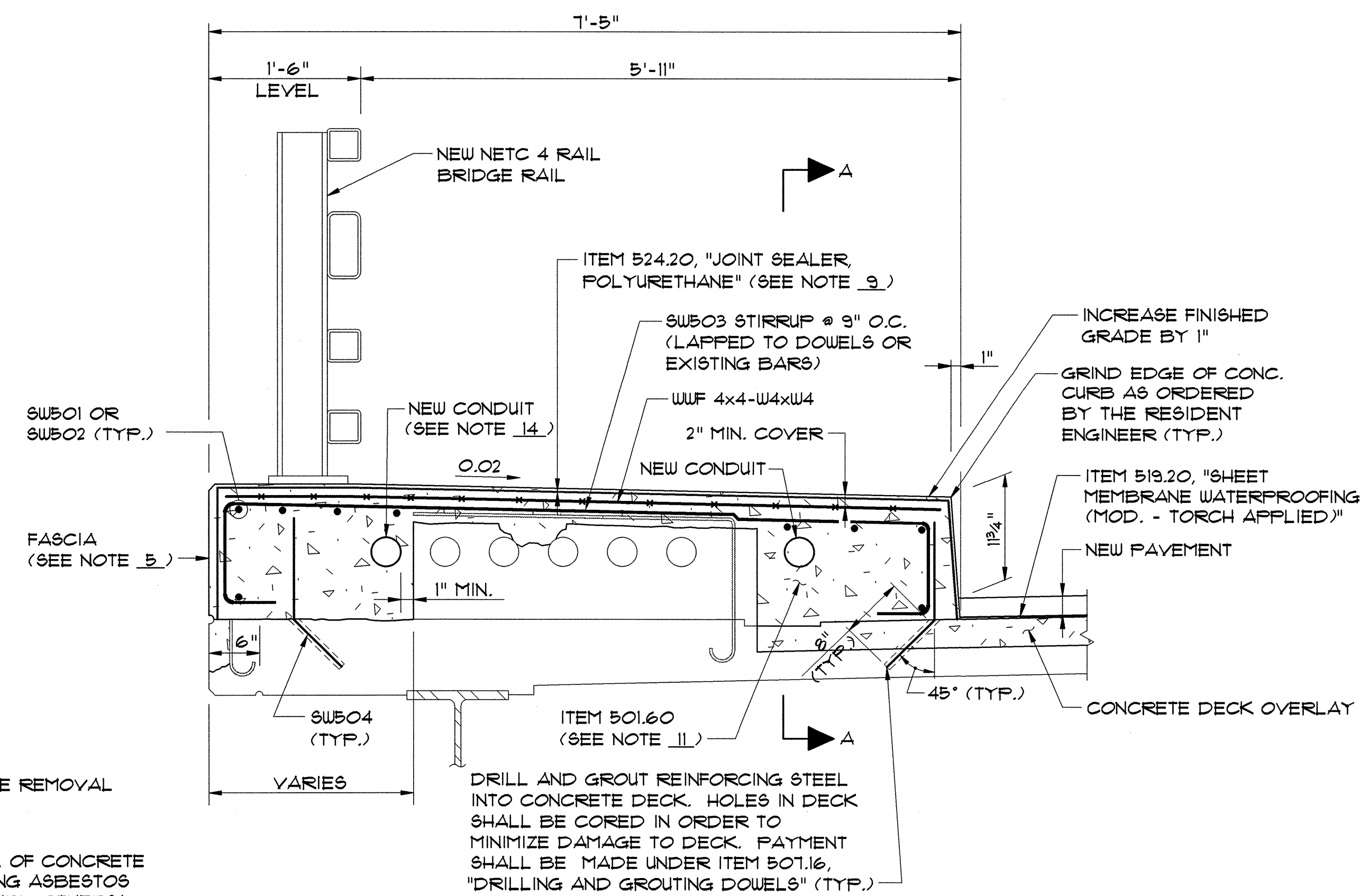
STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No. U.S.	2	Log Sta.	
		Surv. Sta.	
U.S. 2 OVER I-89			
DECK & MEDIAN REHABILITATION DETAILS			
Designed By	S.M. HODGDON	Drawn By	B.J. MASSE
Checked By	T.S. BRYANT	Date	1/00
		Bridge Design Supervisor	C.D. BAKER
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
VHB Cad Drawing No.	50929CPD2	Date	1/00
Bridge Sheet No.		Sheet	12 of 15



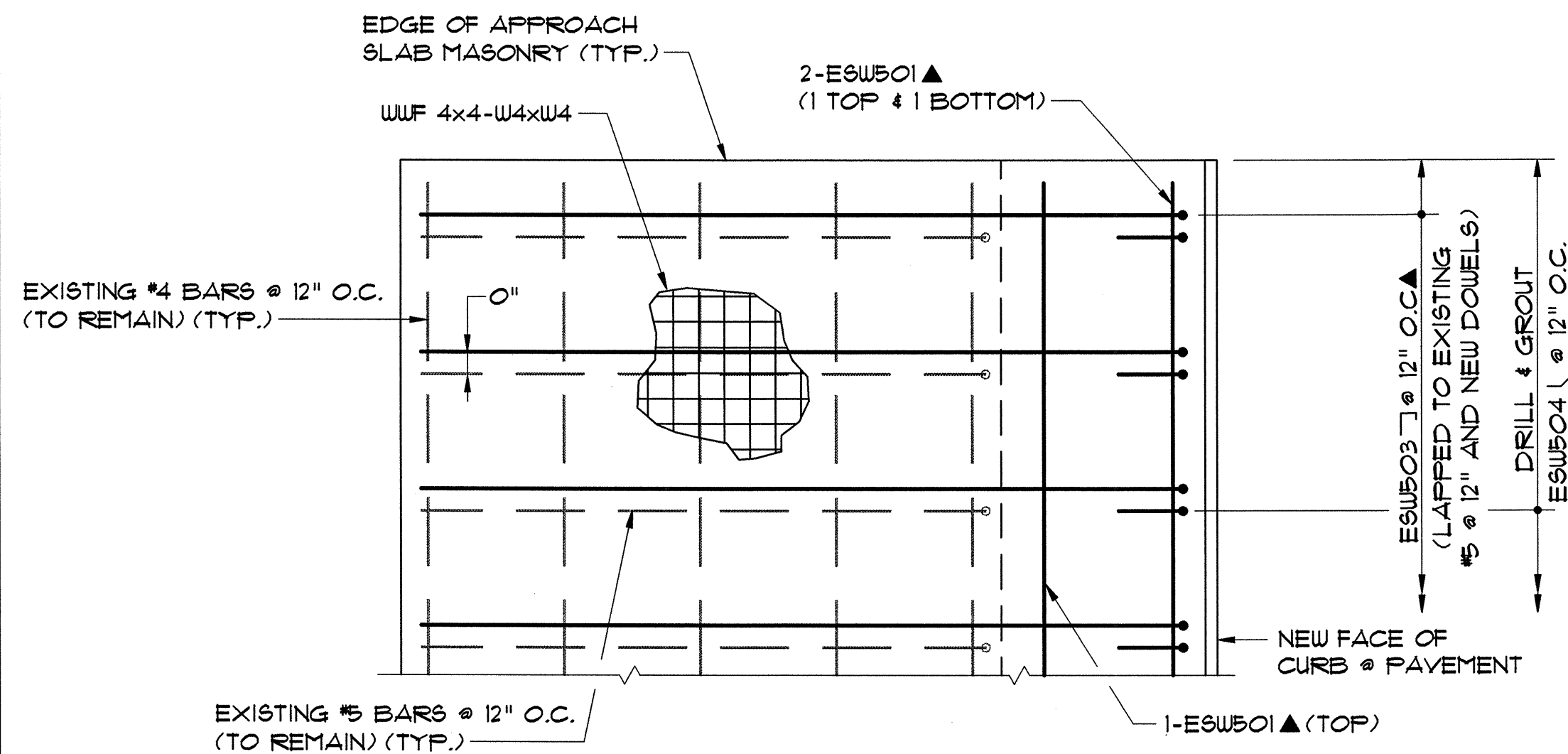
BRIDGE SIDEWALK REMOVAL DETAIL

SCALE: 1"=1'-0"



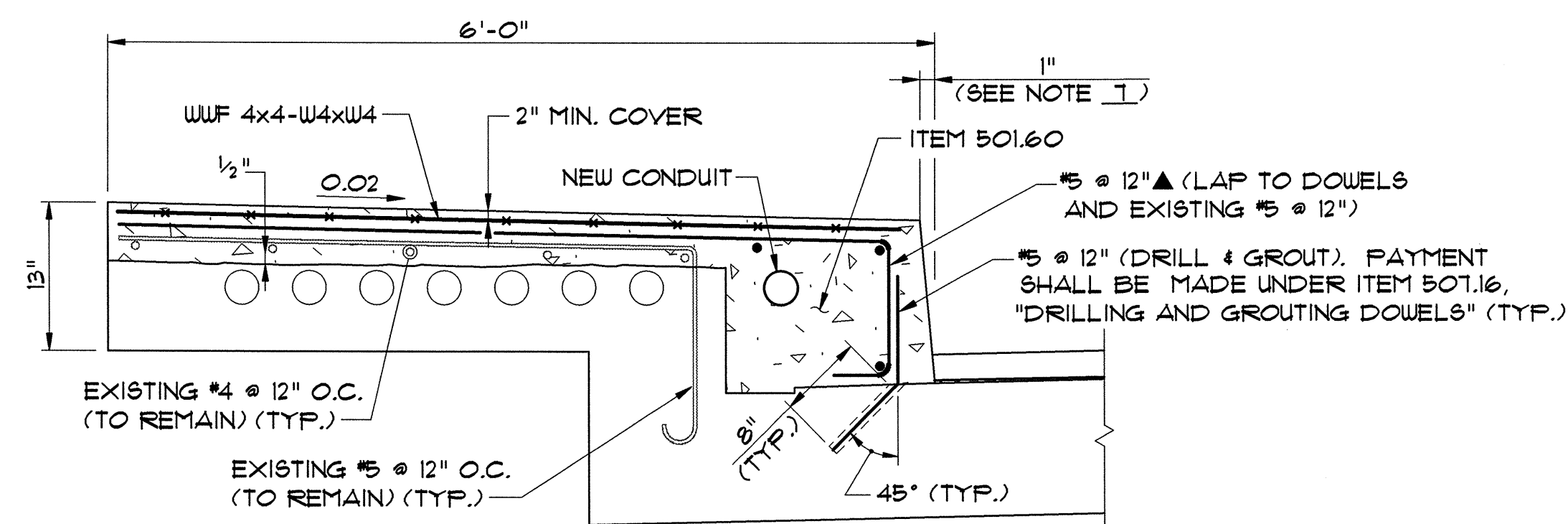
BRIDGE SIDEWALK WIDENING AND OVERLAY DETAIL

SCALE: 1"=1'-0"



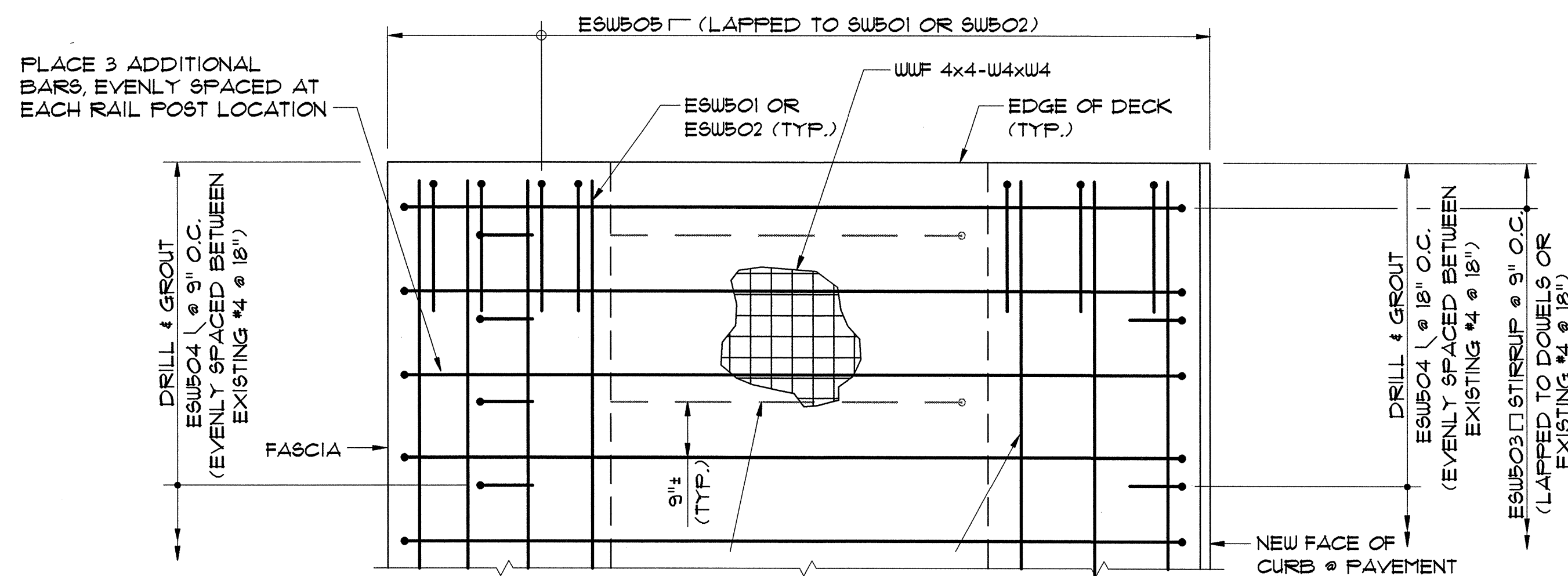
APPROACH SLAB SIDEWALK REINFORCING PLAN

N.T.S.



APPROACH SLAB SIDEWALK WIDENING DETAIL

N.T.S.



BRIDGE SIDEWALK REINFORCING PLAN

N.T.S.

LEGEND:

- N.F. = NEAR FACE
- F.F. = FAR FACE
- ▲ = BARS TO BE CUT IN FIELD

NOTES:

1. SIDEWALK REMOVAL LIMITS SHALL BE BASED ON LOCATIONS OF EXISTING CONDUIT. THE SAWCUT LINE SHALL BE LOCATED A MINIMUM OF 1'-8" FROM THE FASCIA. ALL SAWCUT LINES SHALL BE AT LEAST 1/2" FROM EXISTING CONDUITS.
2. THE LOCATIONS OF UTILITY CONDUITS VARY. DIMENSIONS SHOWN ARE BASED ON FIELD MEASUREMENTS AT THE SOUTH SIDEWALK AT PIER 1.
3. EXISTING BRIDGE PLANS INDICATE THAT CONDUIT IS 3 1/2" INSIDE DIAMETER AND MAY BE CEMENT ASBESTOS. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION ABOUT THE EXISTING CONDUITS. IF THE EXISTING CONDUITS TO BE REMOVED CONTAIN ASBESTOS, THEN THE CONCRETE CONTAINING THE CONDUITS SHALL BE REMOVED BY OTHERS WITHIN THE APPROXIMATE LIMITS SHOWN. SEE SPECIAL PROVISIONS.
4. THE TOP OF THE EXISTING DECK SHALL BE ROUGHENED WITHIN 6" INCHES OF THE DECK FASCIA PRIOR TO PLACING NEW SIDEWALK CONCRETE.
5. SEE SHEET 10 FOR BRIDGE SIDEWALK STREET LIGHTING NOTES.
6. SEE SHEET 24 FOR BRIDGE RAIL DETAILS.
7. THE 1" BATTER AT THE FACE OF CURB SHALL TRANSITION TO 0" OVER THE LAST 10' OF THE APPROACH SLAB TO MATCH THE VERTICAL GRANITE CURBING BEYOND THE APPROACH SLAB.
8. ALL NEW REINFORCING STEEL IN THE BRIDGE AND APPROACH SLAB SIDEWALKS SHALL BE EPOXY COATED.
9. NO SEALER SHALL BE USED AT JOINTS OVER PIERS WHICH SHALL REMAIN OPEN. COLOR OF POLYURETHANE JOINT SEALER SHALL MATCH CONCRETE.
10. SEE DECK REHABILITATION NOTE 14 ON SHEET 3.
11. SEE SIDEWALK REHABILITATION AND WIDENING NOTES ON SHEET 10.
12. SPACE REINFORCEMENT TO CLEAR ANCHOR BOLTS FOR BRIDGE RAIL.
13. BARS USED IN THE SIDEWALK WIDENING ON THE APPROACH SLABS SHALL BE CUT-TO-FIT AND PLACED AS DIRECTED BY THE ENGINEER.
14. NEW CONDUITS IN SIDEWALKS SHALL BE SUBSIDIARY TO ITEM 501.60. THE NEW CONDUITS IN THE SIDEWALKS SHALL EXTEND FROM END OF APPROACH SLAB TO END OF APPROACH SLAB. SEE THE SPECIAL PROVISIONS FOR REQUIREMENTS FOR NEW CONDUITS THAT MAY BE REQUIRED BEYOND THE ENDS OF THE APPROACH SLABS.
15. SEE SHEET 12A FOR SECTION A-A.

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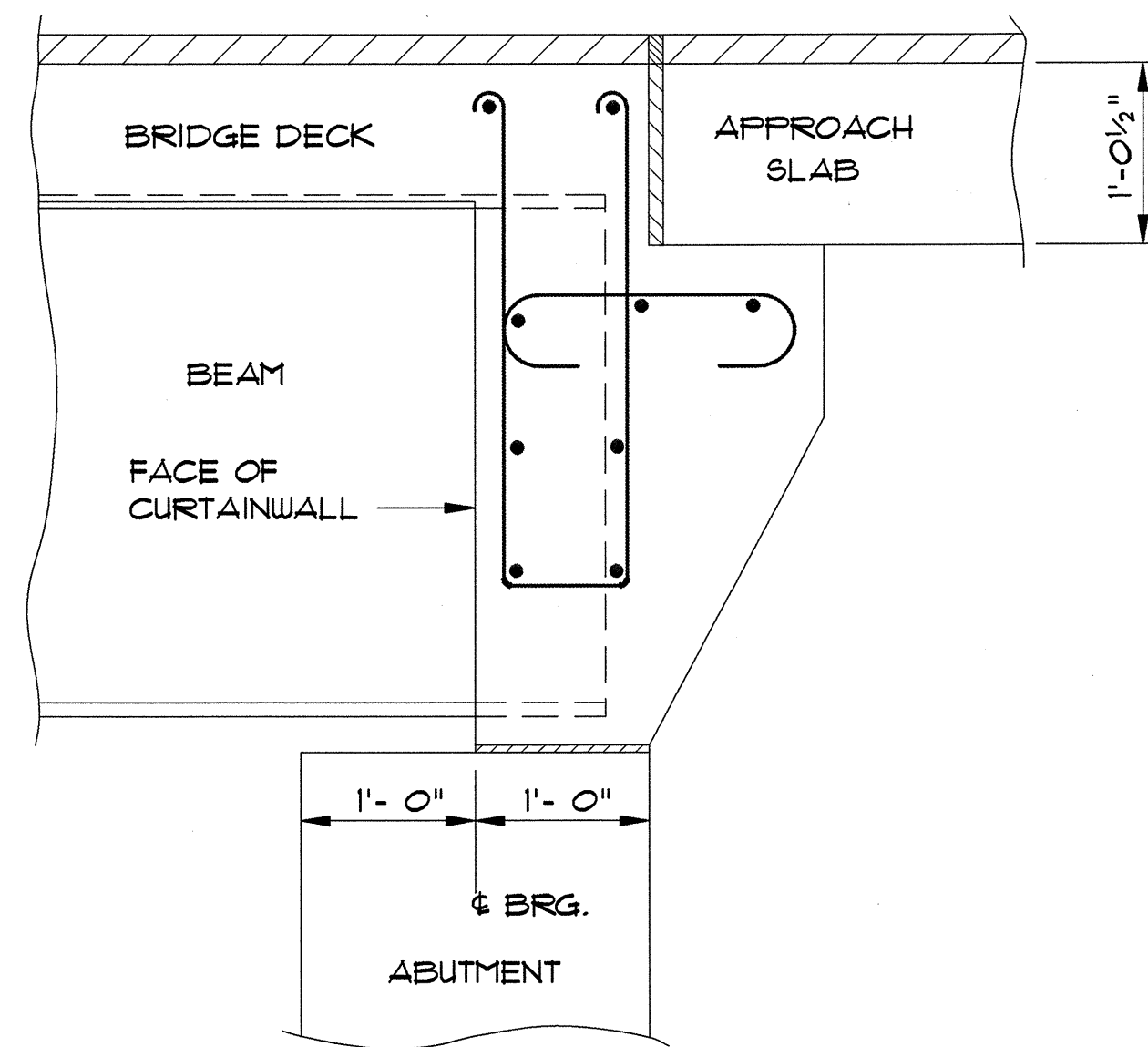
U.S. 2 OVER I-89

SIDEWALK REHABILITATION DETAILS

Designed By	S.M. HODGDON	Drawn By	E.J. MASSE
Checked By	T.S. BRYANT	Date	2/00
		Bridge Design Supervisor	C.D. BAKER Date 2/00

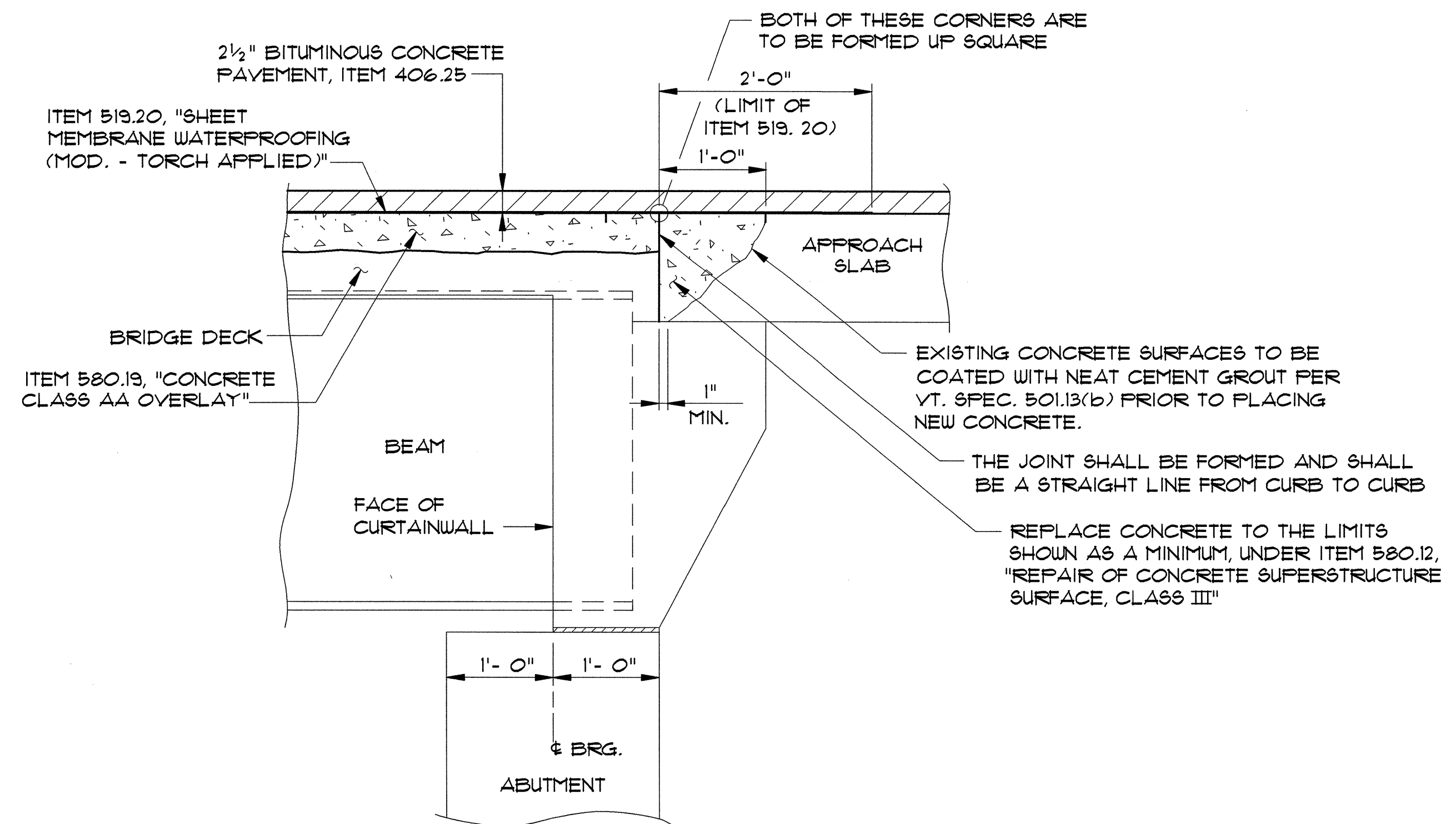
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
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VHB Cad Drawing No.	50929CPD	Date	2/00
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**EXISTING JOINT AT
FIXED AND EXPANSION ENDS**

SCALE: 1" = 1'-0"



REPAIR DETAILS FOR JOINT AT FIXED END

SCALE: 1" = 1'-0"

**STATE OF VERMONT
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		Surv. Sta.	

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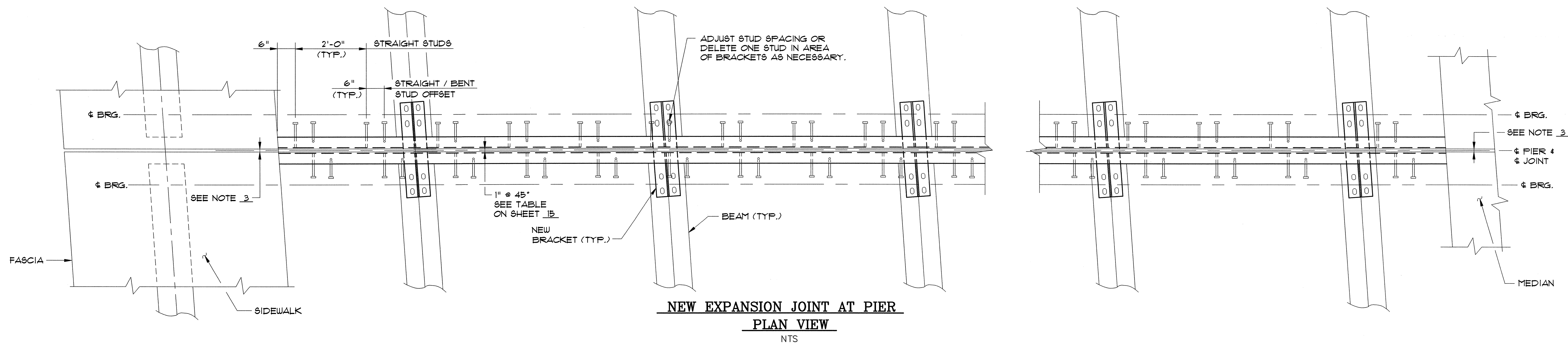
ABUTMENT JOINT REPAIR DETAILS

Designed By	T.S. BRYANT	Drawn By	B.J. MASSE
Checked By	A. SETAS	Bridge Design Supervisor	C.D. BAKER
Date	1/00	Date	1/00

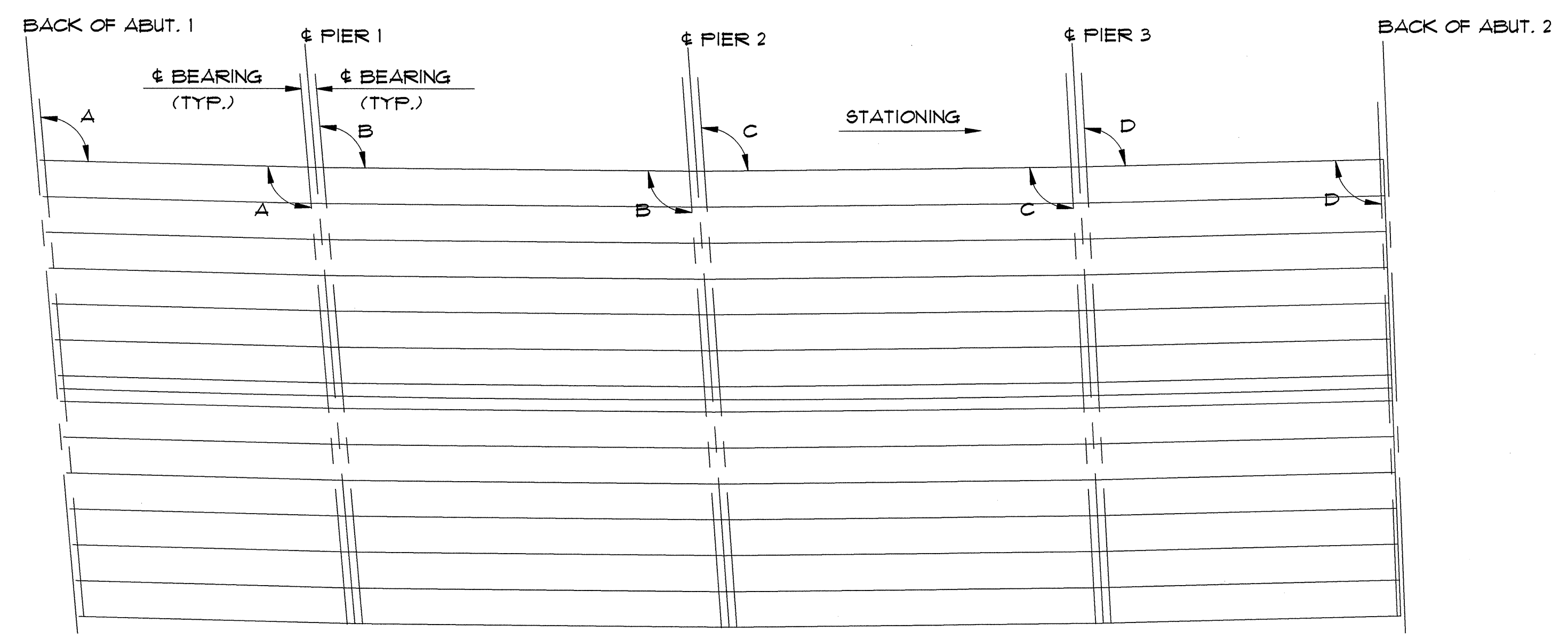
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
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VANASSE HANGEN BRUSTLIN, INC.

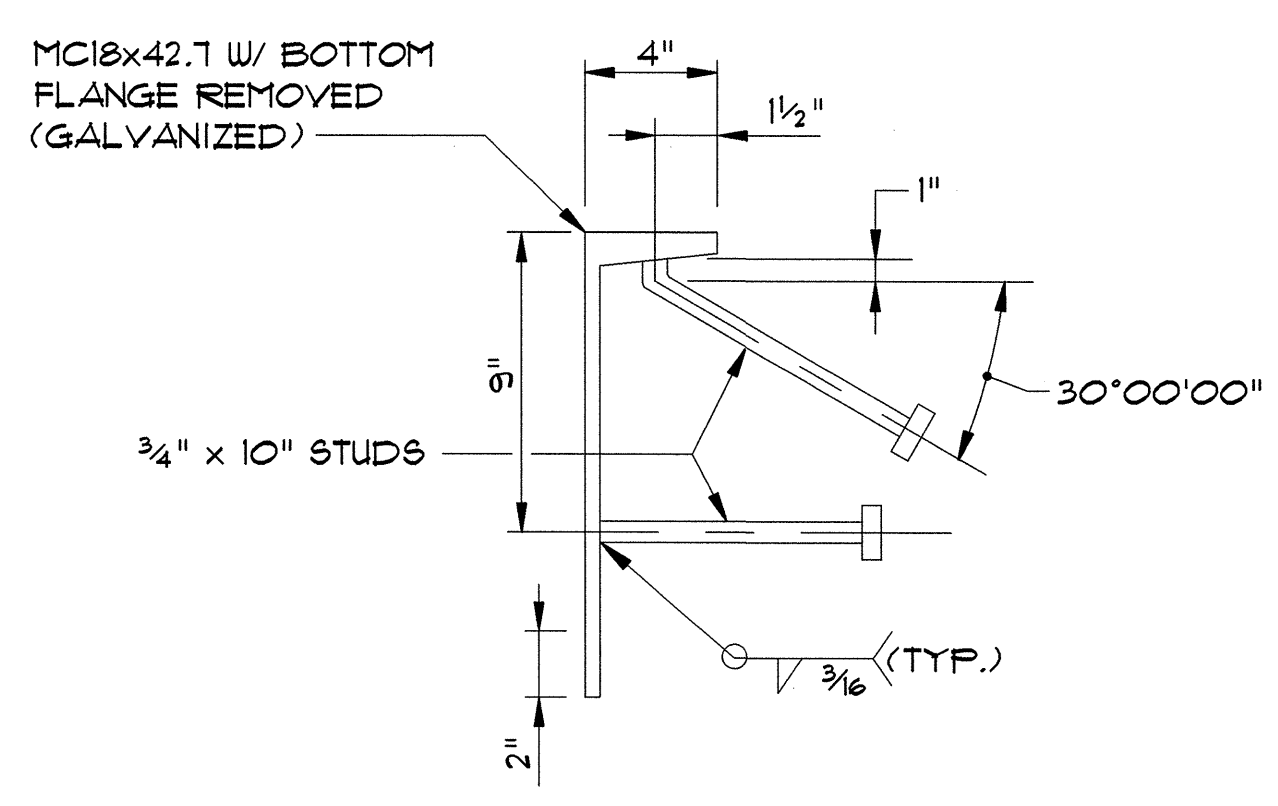
VHB Cad Drawing No.	50929JRD	Date	1/00
Bridge Sheet No.		Sheet	13 of 75



NEW EXPANSION JOINT AT PIER
PLAN VIEW
NTS



BEAM LAYOUT
NTS



STUD DETAIL
NTS

- NOTES:**
1. SEE NEW TRANSVERSE SECTION ON SHEET 2 FOR PROPOSED CROSS SLOPE.
 2. SEE SHEET 15 FOR TYPICAL PIER EXPANSION JOINT SECTIONS.
 3. EXPANSION JOINT SHALL EXTEND FROM CURB TO CURB FOR EASTBOUND AND WESTBOUND STRUCTURES, SIDEWALK AND MEDIAN JOINT SHALL REMAIN OPEN AND EXPOSED. CONCRETE EDGES SHALL HAVE A 3/4" CHAMFER.
 4. THE EXPANSION JOINT REQUIRES A SPLICE AT CHANGES IN CROSS SLOPE AND PHASED CONSTRUCTION JOINTS. SEE SHEETS 11 AND 12 FOR CONSTRUCTION PHASING.

EXISTING GEOMETRIC INFORMATION TABLE

BRIDGE NO.	PIER NO.	SPAN NO.	BEAM SPACING	NO. OF BEAMS	SKEW ANGLE	CURB TO CURB WIDTH (FT.)	BANKING	LENGTH OF JOINT (FT.)
68W	1	1	7'-0"	7	A 94°50'48"	38'-3"	SEE NOTE 1	38'-4 3/8"
		2	7'-0"	7	B 93°59'36"	38'-3"	SEE NOTE 1	
68W	2	2	7'-0"	7	B 93°59'36"	38'-3"	SEE NOTE 1	38'-3 7/8"
		3	7'-0"	7	C 93°00'24"	38'-3"	SEE NOTE 1	
68W	3	3	7'-0"	7	C 93°00'24"	38'-3"	SEE NOTE 1	38'-3 1/2"
		4	7'-0"	7	D 92°01'12"	38'-3"	SEE NOTE 1	
68E	1	1	7'-0"	7	A 94°50'48"	38'-3"	SEE NOTE 1	38'-4 3/8"
		2	7'-0"	7	B 93°59'36"	38'-3"	SEE NOTE 1	
68E	2	2	7'-0"	7	B 93°59'36"	38'-3"	SEE NOTE 1	38'-3 7/8"
		3	7'-0"	7	C 93°00'24"	38'-3"	SEE NOTE 1	
68E	3	3	7'-0"	7	C 93°00'24"	38'-3"	SEE NOTE 1	38'-3 1/2"
		4	7'-0"	7	D 92°01'12"	38'-3"	SEE NOTE 1	

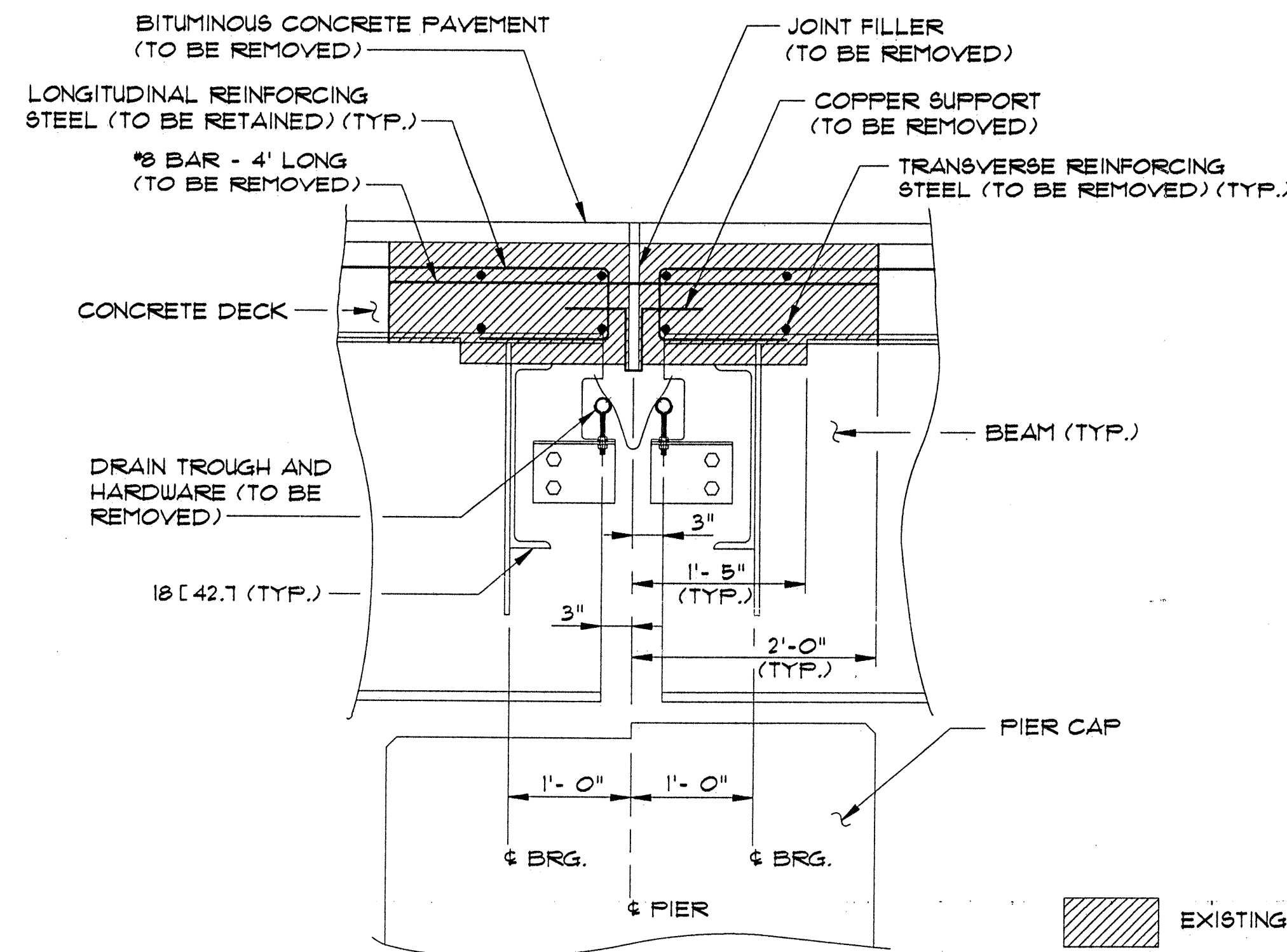
STATE OF VERMONT
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Town Of SOUTH BURLINGTON Bridge No. 68
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U.S. 2 OVER I-89
PIER EXPANSION JOINT REPAIR PLAN

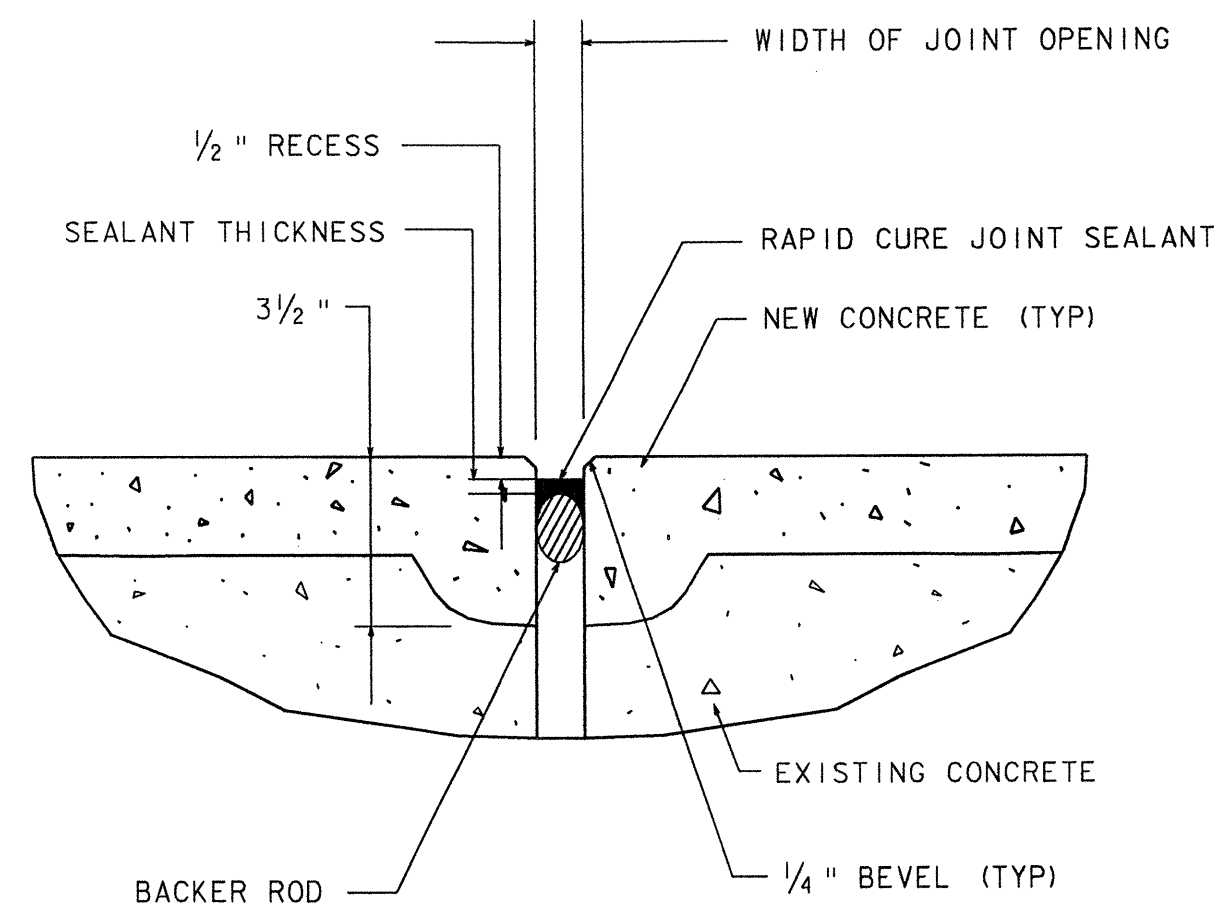
Designed By B.J. MASSE Drawn By B.J. MASSE
Checked By A. SETAS Date 1/00 Bridge Design Supervisor C.D. BAKER Date 1/00

PROJECT SOUTH BURLINGTON PROJECT NO. IM DECK (36)
VHB Cad Drawing No. 50929EXJ Date 1/00
Bridge Sheet No. Sheet 14 of 75



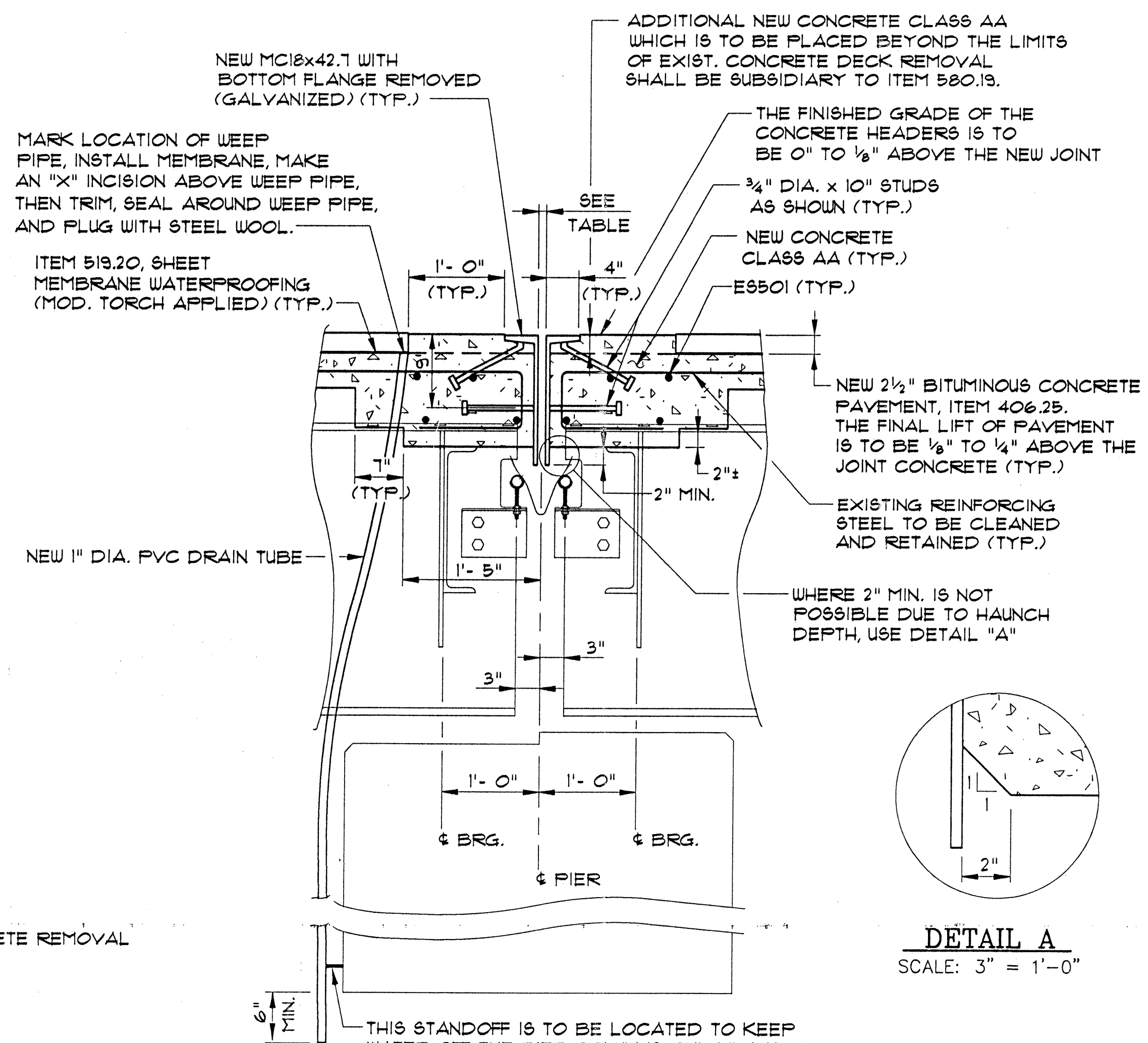
SECTION OF EXISTING EXPANSION JOINT AT PIER

SCALE: 1" = 1'-0"



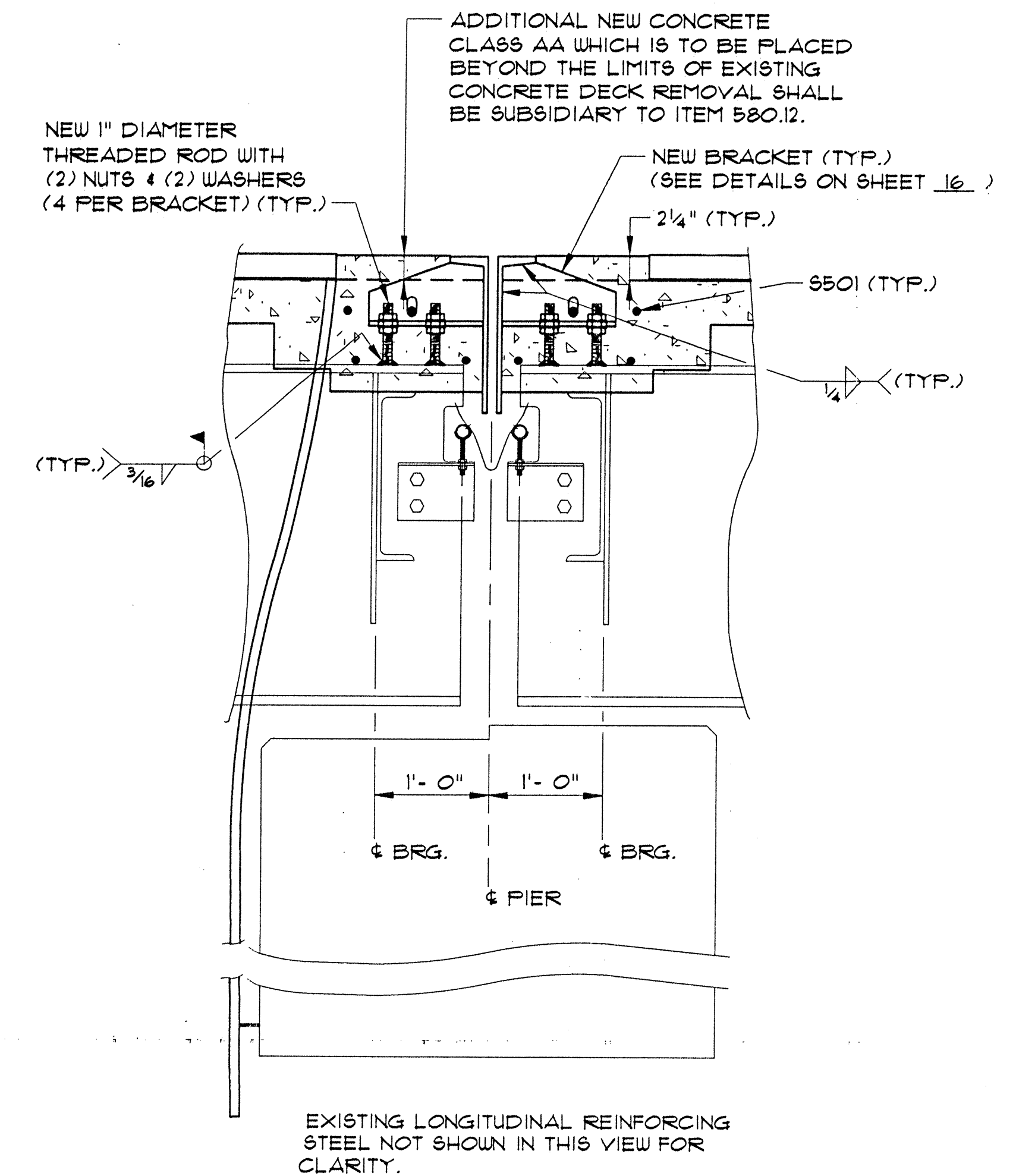
NEW EXPANSION JOINT IN SIDEWALKS AT PIERS

NOT TO SCALE



NEW EXPANSION JOINT AT PIER SECTION BETWEEN BEAMS

SCALE: 1" = 1'-0"



NEW EXPANSION JOINT AT PIER SECTION AT BEAMS

SCALE: 1" = 1'-0"

SIDEWALK JOINT NOTES:

1. THE EXISTING CONCRETE SHALL BE REMOVED A MINIMUM OF SIX INCHES BACK FROM EXISTING SIDEWALK JOINTS AND REPLACED WITH ITEM 516.10 "BRIDGE EXPANSION JOINT (SIDEWALK)".
2. THE JOINT WILL BE A "SILICONE SEALANT WITH BACKER ROD". THE CONTRACTOR IS TO CONTACT VTRANS MATERIALS SECTION AT (802) 828-2561 FOR "APPROVED PRODUCTS LIST".
3. THE SILICONE SEALANT THICKNESS AND WIDTH OF JOINT OPENING SHALL BE AS RECOMMENDED BY SILICONE SEALANT SUPPLIER. THE JOINT SHALL BE INSTALLED AS RECOMMENDED BY SEALANT SUPPLIER.
4. THE "SILICONE SEALANT WITH BACKER ROD" SHALL BE PLACED DOWN THE FASCIA FROM THE TOP SIX INCHES, ACROSS THE TOP OF SIDEWALK, AND DOWN THE CURBSIDE OF SIDEWALK TO TOP OF CONCRETE DECK. THE QUANTITY TO BE MEASURED FOR PAYMENT WILL BE THE SIX INCHES ALONG FASCIA, PLUS DISTANCE ALONG TOP OF SIDEWALK, PLUS DISTANCE DOWN TO TOP OF CONCRETE DECK AT CURBSIDE OF SIDEWALK.

DECK AND MEDIAN JOINT SETTINGS

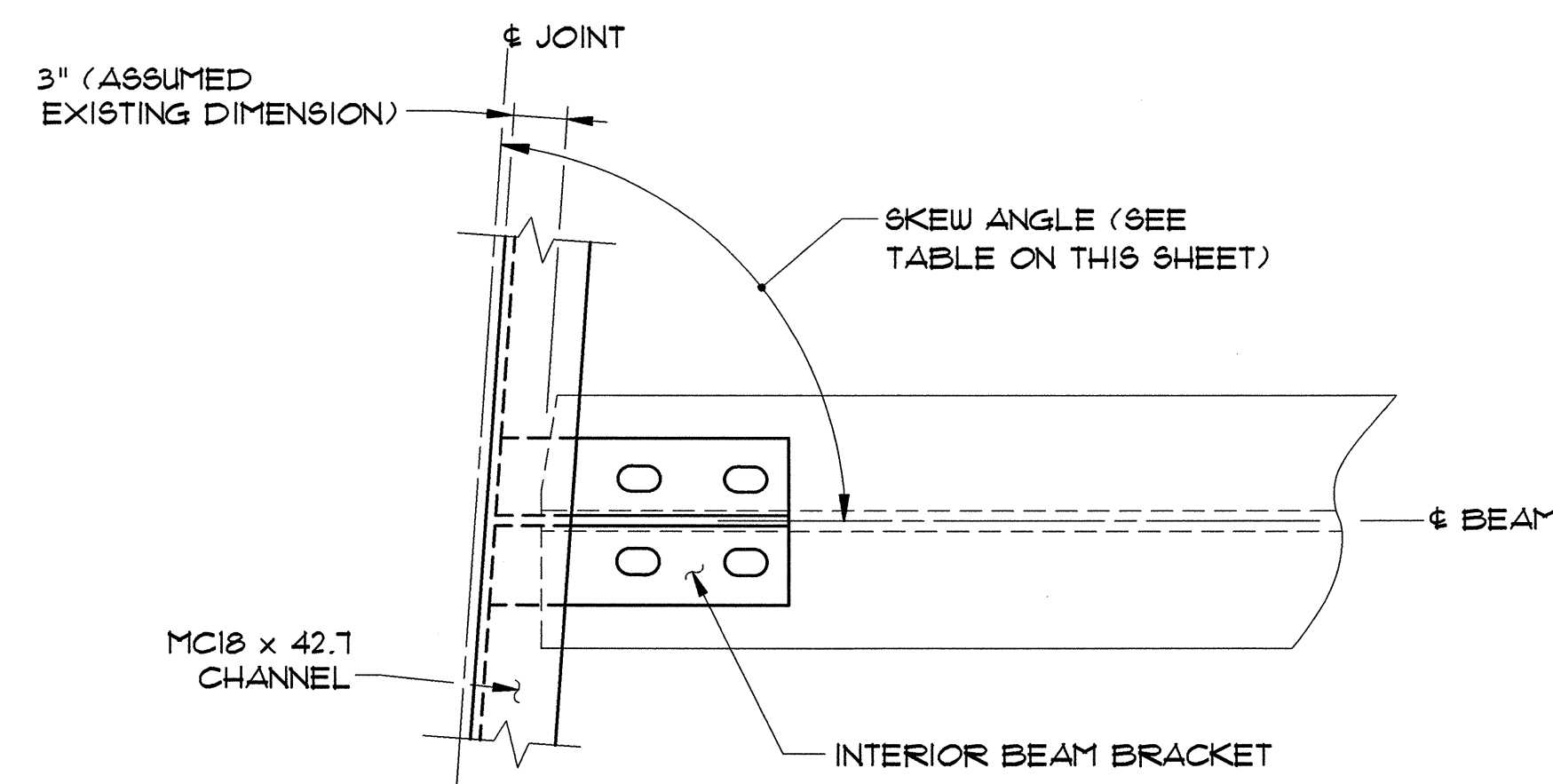
PIER NO.	45' F	60' F	75' F	90' F
1	1 1/4"	1"	7/8"	3/4"
2	1"	7/8"	7/8"	3/4"
3	1"	7/8"	7/8"	3/4"

NOTES:

1. EXISTING CONCRETE AND RELATED JOINT HARDWARE WILL BE REMOVED BACK TO THE BREAK LINE AS SHOWN AND WILL BE PAID FOR UNDER ITEM 580.12, "REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III".
2. SEE SHEET 16 FOR NOTES AND ADDITIONAL DETAILS.

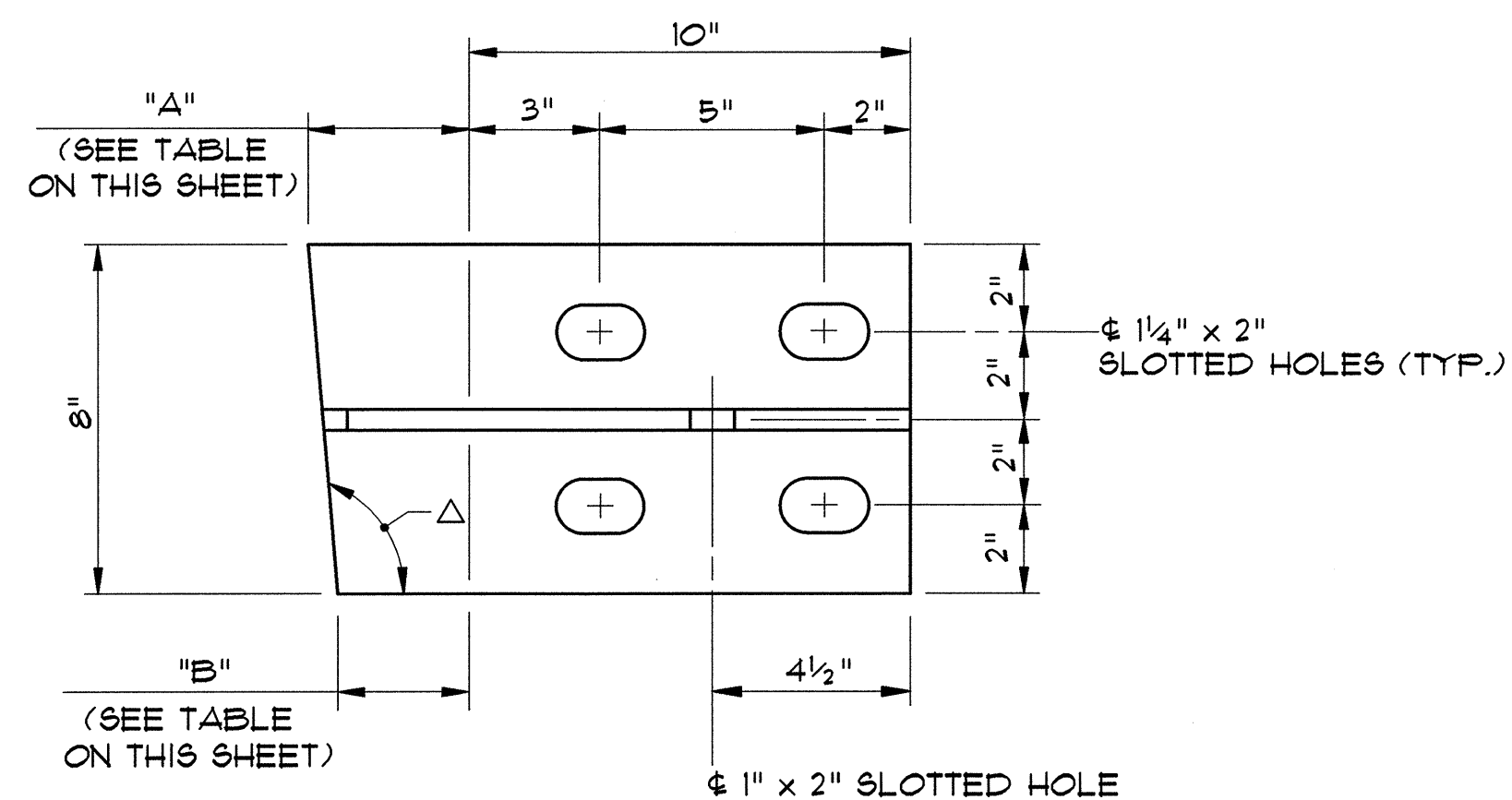
STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log Sta. Surv. Sta.
U.S. 2 OVER I-89	
PIER EXPANSION JOINT REPAIR SECTIONS	
Designed By T.S. BRYANT	Drawn By B.J. MASSE
Checked By A. SETAS	Date 1/00
Bridge Design Supervisor C.D. BAKER	Date 1/00
PROJECT SOUTH BURLINGTON	PROJECT NO. IM DECK (36)
VHB Cad Drawing No. 50929EJR	Date 1/00
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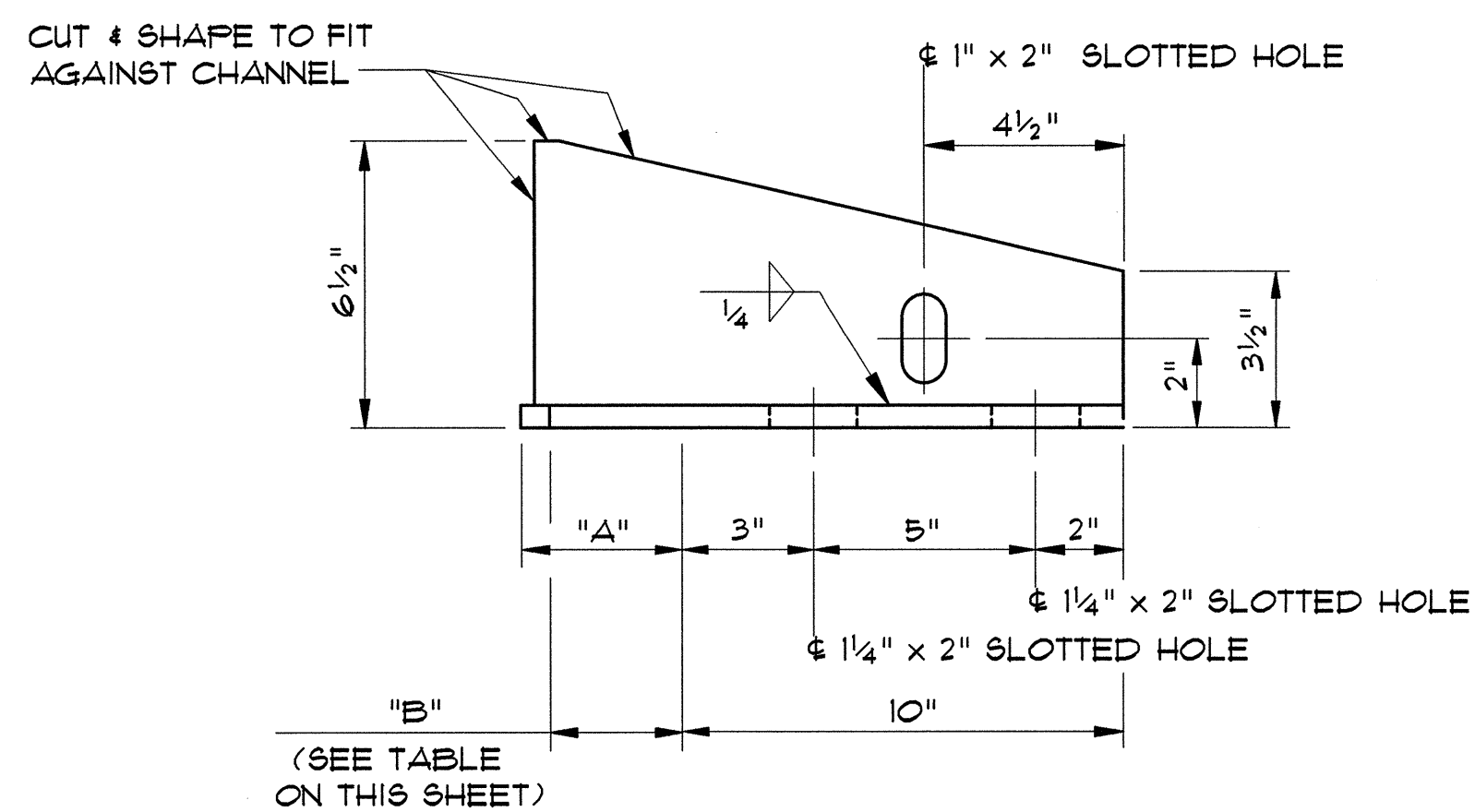
BEAM BRACKET PLAN

NTS



BEAM BRACKET PLAN

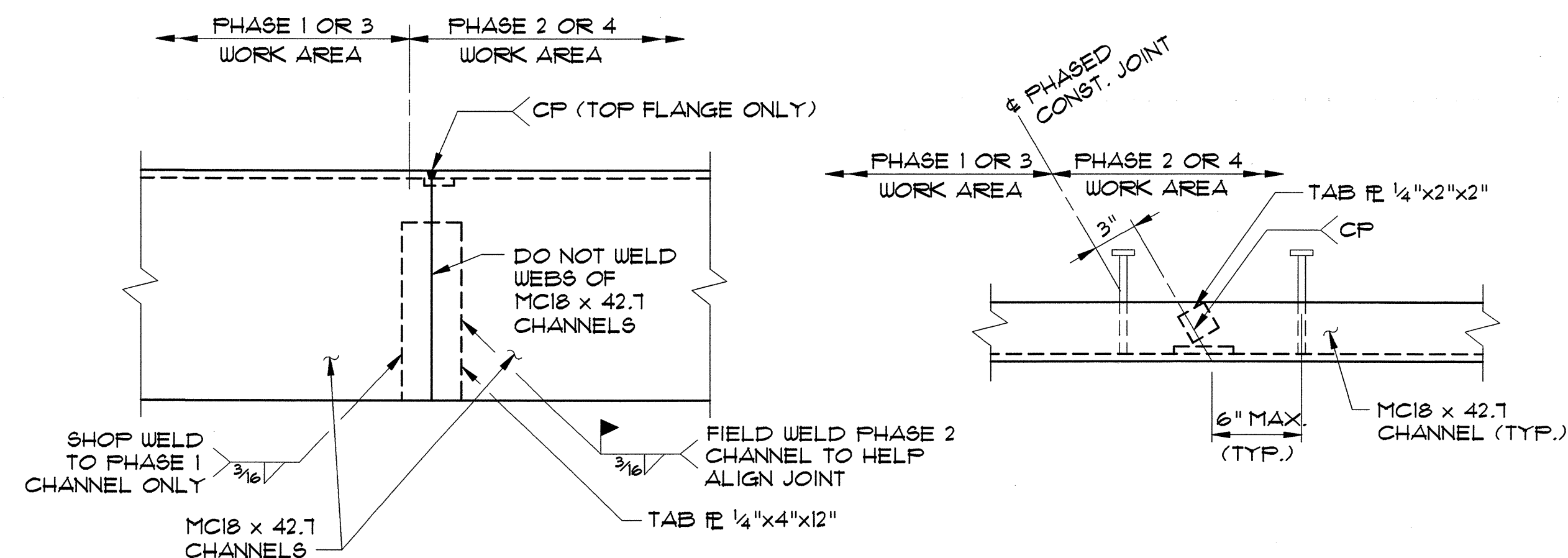
NTS



BEAM BRACKET ELEVATION

NTS

PIER NO.	SPAN NO.	SKEW ANGLE (Δ)	"A" DISTANCE	"B" DISTANCE
1	1	94°50'48"	3 ³ / ₈ "	3"
	2	93°59'36"	3 ³ / ₈ "	3"
2	2	93°59'36"	3 ³ / ₈ "	3"
	3	93°00'24"	3 ³ / ₈ "	3"
3	3	93°00'24"	3 ³ / ₈ "	3"
	4	92°07'12"	3 ¹ / ₄ "	3"



**FIELD SPLICE DETAILS
AT PHASED CONSTRUCTION JOINTS**

NTS

PIER EXPANSION (ARMORED) JOINT NOTES:

1. THE FINAL FINISH OF THE EXPANSION DEVICE SHALL BE COVERED DURING THE PLACING OF THE CONCRETE HEADERS.
2. ALL STEEL COMPONENTS SHALL BE AASHTO M270 GRADE 36 GALVANIZED OR METALIZED PER SUBSECTION 506.15 (a) OR (b) OF THE GENERAL SPECIAL PROVISIONS FOR ALL PROJECTS UNLESS OTHERWISE NOTED.
3. ITEM 516.10, "BRIDGE EXPANSION JOINT (ARMORED JOINT)" SHALL INCLUDE FABRICATION OF THE COMPLETE JOINT ASSEMBLY INCLUDING ALL STEEL CHANNELS, PLATES, WELDED STUDS OR RODS, PVC DRAIN TUBES, AND ANY OTHER MISCELLANEOUS MATERIAL.
4. THE CHANNELS SHALL BE FURNISHED AS ONE CONTINUOUS PIECE (NO SPLICES), EXCEPT AT CHANGES IN CROSS SLOPE AND PHASED CONSTRUCTION JOINTS, WHERE THE CHANNEL FLANGES SHALL BE FIELD SPLICED AS SHOWN. THE CONTRACTOR SHALL GRIND THE FIELD WELD FLUSH AND APPLY COLD ZINC PAINT TO DAMAGED GALVANIZED SURFACES.
5. SEE DECK REHABILITATION NOTE 1 ON SHEET 9.

SHEET NOTES:

1. ALL PLATES SHALL BE 1/2" THICK, UNLESS OTHERWISE NOTED.
2. DIMENSIONS "A" AND "B" ARE BASED ON AN ASSUMED DIMENSION OF 3" FROM Φ PIER TO END OF BEAM. THE CONTRACTOR SHALL FIELD VERIFY THE Φ PIER TO END OF BEAM DIMENSION AND ADJUST DIMENSIONS "A" AND "B" AS NECESSARY.

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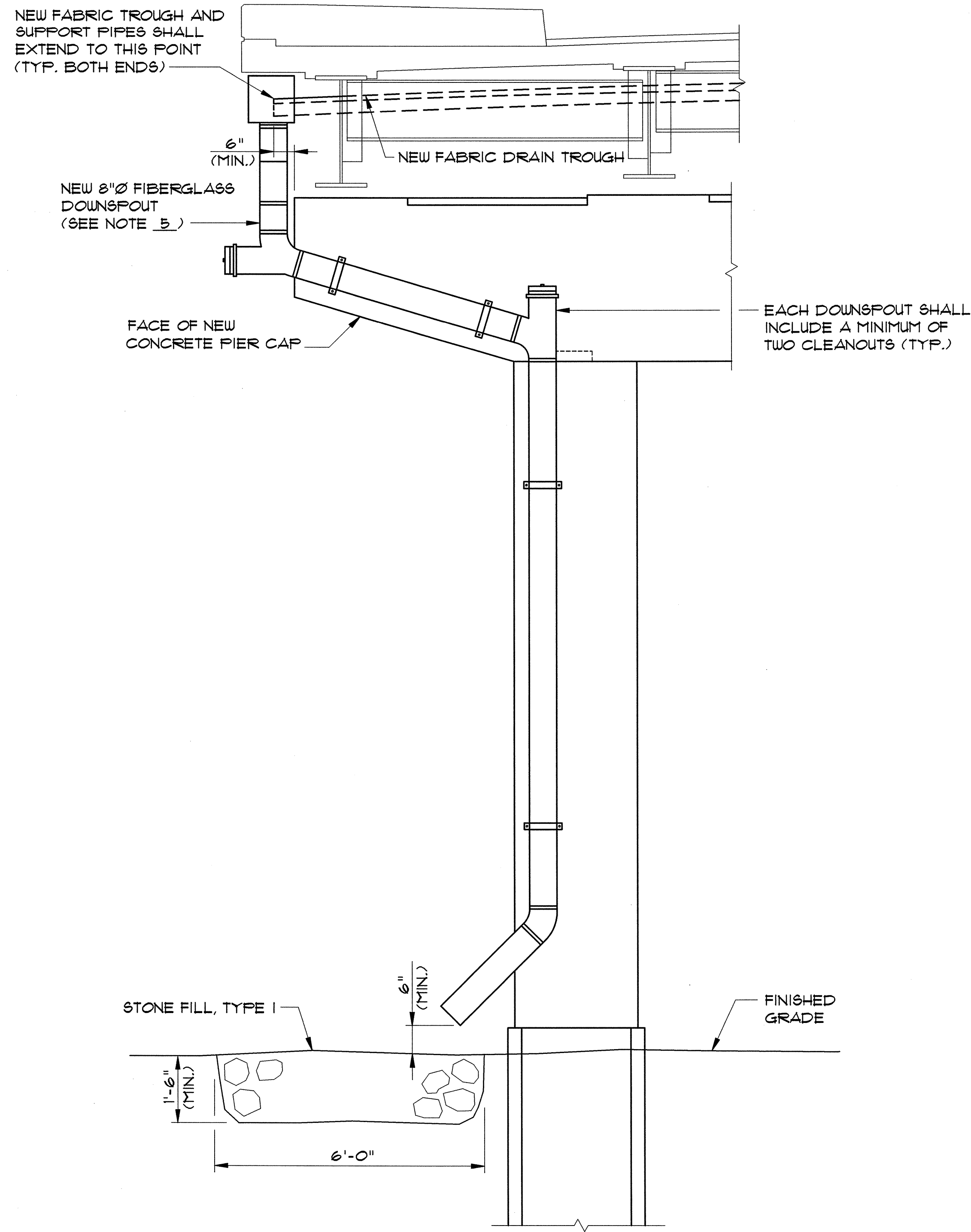
PIER EXPANSION JOINT REPAIR DETAILS & NOTES

Designed By	B.J. MASSE	Drawn By	B.J. MASSE
Checked By	T.S. BRYANT	Date	1/00
		Bridge Design Supervisor	C.D. BAKER
		Date	1/00

PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
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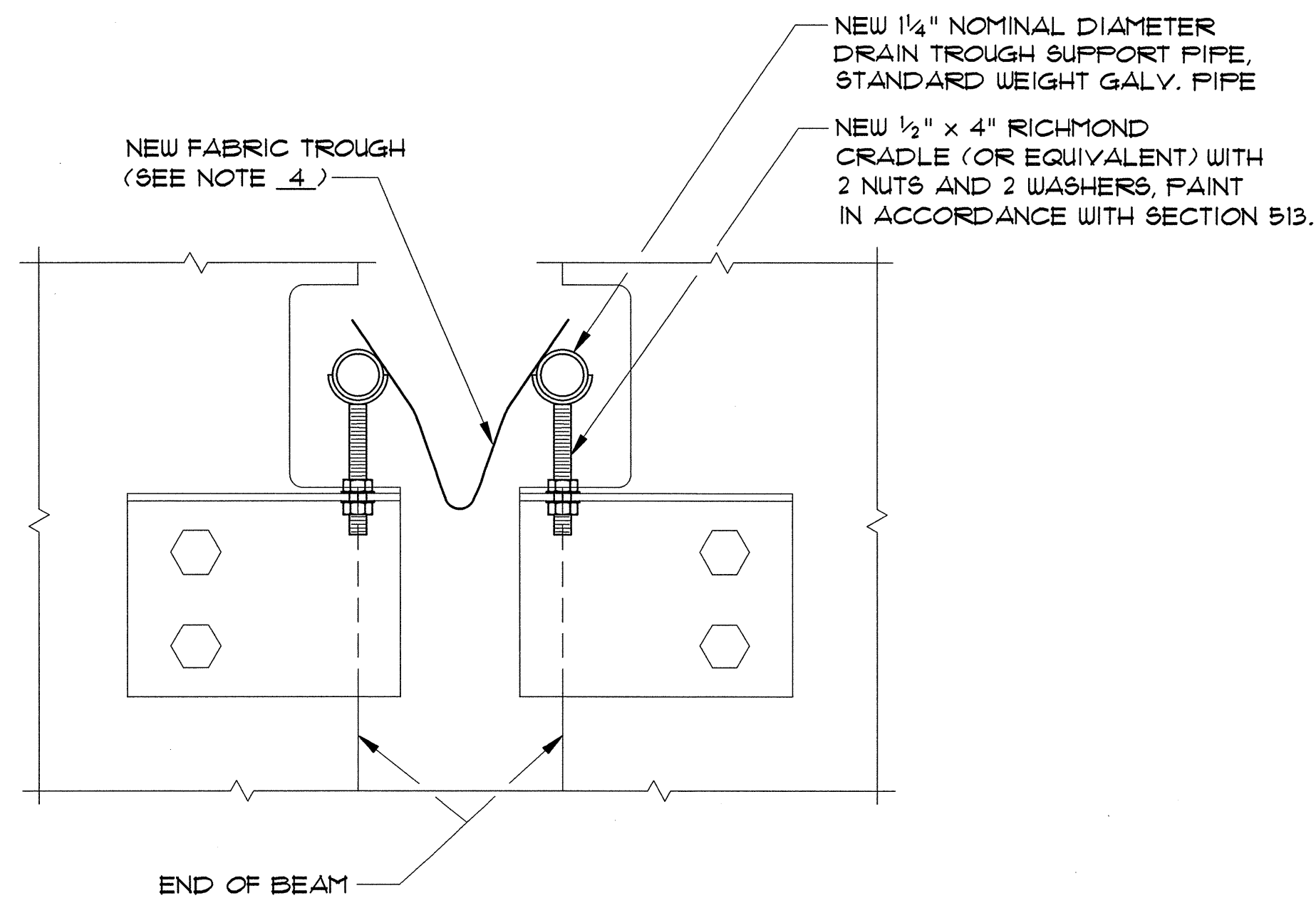
VHB Cad Drawing No.	50929EJRN	Date	1/00
Bridge Sheet No.		Sheet	16 of 15

VANASSE HANGEN BRUSTLIN, INC.



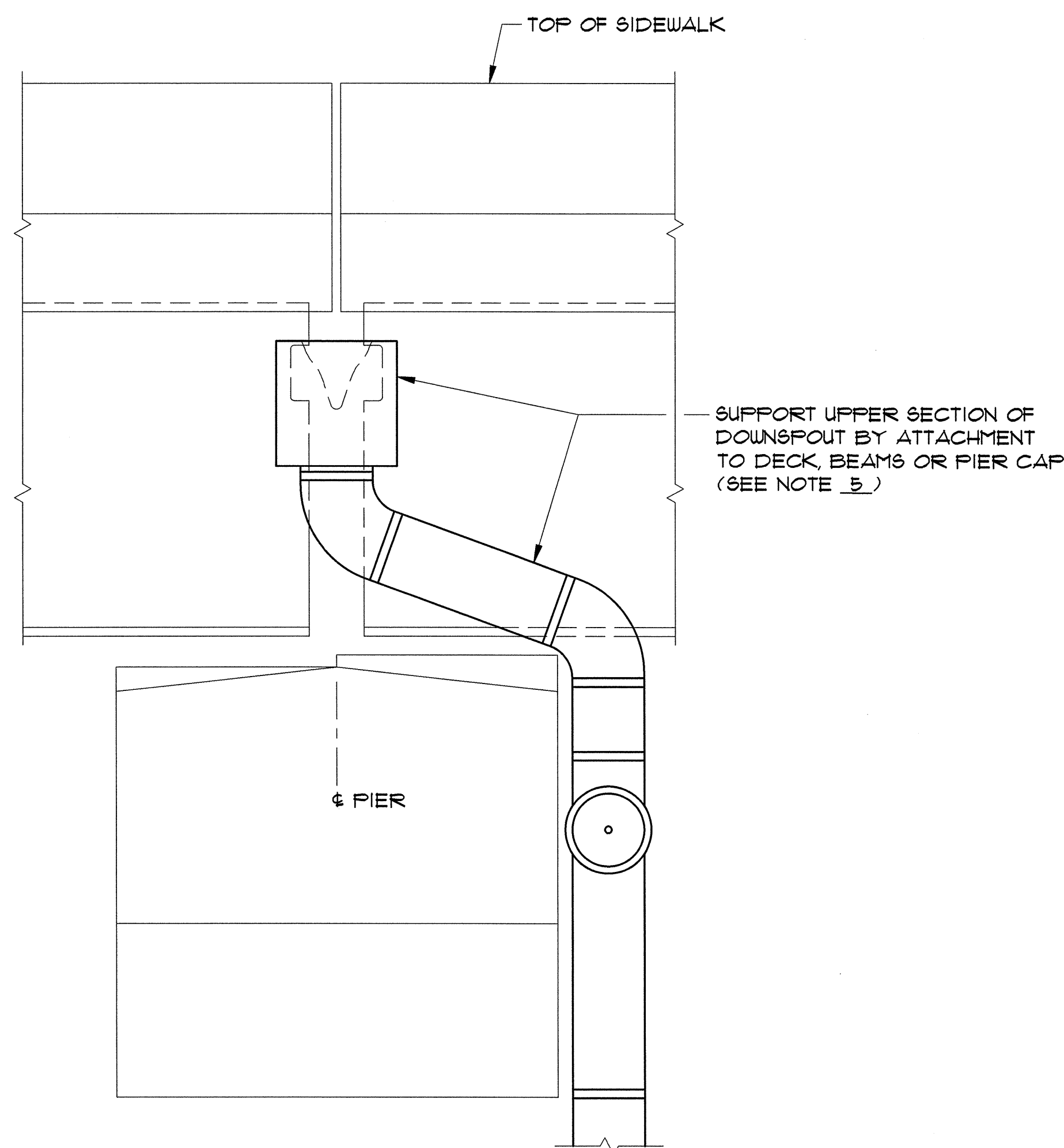
**TYPICAL ELEVATION VIEW OF
NEW DRAIN TROUGH & DOWNSPOUT**

NTS



SECTION AT BEAMS

SCALE: 3" = 1'-0"



**TYPICAL END VIEW OF
NEW DRAIN TROUGH & DOWNSPOUT**

NTS

NOTES:

1. ALL EXISTING FABRIC DRAIN TROUGH, DRAIN TROUGH SUPPORT PIPES, AND PIPE CRADLES SHALL BE REMOVED AT PIERS 1, 2 AND 3. ALL REMOVAL AND DISPOSAL COSTS SHALL BE PAID UNDER ITEM 506.80, "DRAIN TROUGH".
2. NEW FABRIC DRAIN TROUGH, DRAIN TROUGH SUPPORT PIPES, AND PIPE CRADLES SHALL BE INSTALLED AT PIERS 1, 2 AND 3 AS SHOWN ON THIS SHEET. NEW DRAIN TROUGH SUPPORT PIPE SHALL BE 1/4" NOMINAL DIAMETER STANDARD WEIGHT GALVANIZED PIPE.
3. ALL NEW FABRIC DRAIN TROUGH, DRAIN TROUGH SUPPORT PIPES, PIPES, PIPE CRADLES, AND FASTENERS (USED TO ATTACH THE FABRIC TO THE PIPE) SHALL BE PAID UNDER THE ITEM 506.80, "DRAIN TROUGH".
4. THE NEW FABRIC TROUGH SHALL BE ATTACHED TO THE PIPE SUPPORTS WITH 3/8" GALVANIZED HEX HEAD SCREWS, SPACED AT 1'-0" MAXIMUM.
5. SIX (6) NEW FIBERGLASS DOWNSPOUTS SHALL BE INSTALLED, ONE AT EACH END OF THE NEW FABRIC DRAIN TROUGH AT EACH PIER. THE DOWNSPOUT CONFIGURATION SHOWN IS SCHEMATIC ONLY AND IS NOT INTENDED TO INDICATE A PREFERRED CONFIGURATION. BOTH BEARINGS AT PIER 1 ARE EXPANSION. ANY DOWNSPOUT ATTACHMENT TO SUPERSTRUCTURE AT PIER 1 SHALL BE DESIGNED TO ACCOMMODATE THE SUPERSTRUCTURE MOVEMENT. THE ENTIRE SYSTEM, INCLUDING DOWNSPOUT SUPPORTS ATTACHED TO THE PIERS, AND IF NECESSARY, THE SUPERSTRUCTURE SHALL BE DESIGNED AND DETAILED BY THE MANUFACTURER. THE CONTRACTOR SHALL SUBMIT DETAILS OF THE DOWNSPOUT CONFIGURATION TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE ORDERING ANY DOWNSPOUT COMPONENTS. THE NEW FIBERGLASS DOWNSPOUTS SHALL BE PAID AS ITEM 506.80, "DRAIN TROUGH (MOD. - DOWNSPOUTS)". ALL LABOR AND MATERIALS REQUIRED TO DESIGN, DETAIL, AND INSTALL THE NEW FIBERGLASS DOWNSPOUTS AND THEIR SUPPORTS SHALL BE INCLUDED IN ITEM 506.80 "DRAIN TROUGH (MOD. - DOWNSPOUTS)".
6. THE CONTRACTOR SHALL INSTALL A 6' X 4' AREA OF ITEM 613.10 "STONE FILL, TYPE 1" AT EACH PIPE OUTLET, AS SHOWN ON THIS SHEET. EXCAVATION REQUIRED TO PLACE STONE FILL SHALL BE SUBSIDIARY TO ITEM 613.10.

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DRAIN TROUGH DETAILS

Designed By	T.S. BRYANT	Drawn By	E.J. MASSE
Checked By	A. SETAS	Date	1/00
		Bridge Design Supervisor	C.D. BAKER Date 1/00

PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
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VHB Cad Drawing No.	50929DRN	Date	1/00
Bridge Sheet No.		Sheet	17 of 15

BEARING REPAIR NOTES:

- BEARING TREATMENT DETAIL 'A': REPLACE EXISTING EXPANSION BEARINGS AT ABUTMENTS IN KIND, ITEM 531.10, "BEARING DEVICE ASSEMBLY (STEEL FLT. EXP. BRGS.)."
- BEARING TREATMENT DETAIL 'D': MODIFY EXISTING EXPANSION BEARINGS TO FIXED BEARINGS AT ABUTMENTS, ITEM 531.10, "BEARING DEVICE ASSEMBLY (STEEL FLT. FIXED BRGS.)."
- BEARING TREATMENT DETAIL 'X': REPLACE EXISTING EXPANSION AND FIXED BEARINGS AT PIERS WITH FABRIC EXPANSION BEARINGS, ITEM 531.10, "BEARING DEVICE ASSEMBLY (FABRIC TFE EXP. BRGS.)."
- BEARING TREATMENT DETAIL 'Y': REPLACE EXISTING FIXED BEARINGS AT PIERS WITH FABRIC FIXED BEARINGS, ITEM 531.10, "BEARING DEVICE ASSEMBLY (FABRIC FIXED BRGS.)."

THE JACKING AND SHORING REQUIRED FOR BEARING TREATMENT DETAILS 'A' AND 'D' WILL BE PAID UNDER ITEM 502.11, "SHORING SUPERSTRUCTURE BEARINGS (FROM BRIDGE SEAT)".

2. ALL OTHER ABUTMENT BEARINGS REQUIRING REPLACEMENT OR MODIFICATION, AS DETERMINED BY THE RESIDENT ENGINEER WILL BE PAID FOR UNDER ITEM 531.10, BEARING TREATMENT 'A', 'D', 'X' OR 'Y' SHALL BE USED WHERE APPLICABLE.
3. JACKING AND SHORING FOR BEARINGS REQUIRING JCPG (I.E., JACKING, CLEANING, PAINTING AND GREASING) AS SHOWN IN THE BEARING CONDITIONS SUMMARY ON SHEET 19 WILL BE PAID UNDER ITEM 502.11, "SHORING SUPERSTRUCTURE BEARINGS (FROM BRIDGE SEAT)". THESE BEARINGS WILL BE JACKED THE MINIMUM DISTANCE REQUIRED TO CLEAN THE BEARINGS IN PLACE. ALL BEARINGS WHICH REQUIRE ONLY CPG (I.E., CLEANING, PAINTING AND GREASING) AT THE ABUTMENTS WILL NOT BE JACKED UNLESS OTHERWISE ORDERED BY THE RESIDENT ENGINEER. THE COST FOR CPG SHALL BE SUBSIDIARY TO ITEM 513.30, "STRUCTURAL PAINTING, FIELD APPLIED" AND ITEM 513.41, "SURFACE PREPARATION, FIELD". ALL WORK REQUIRED FOR JACKING AND SHORING ADDITIONAL ABUTMENT BEARINGS, AS ORDERED BY THE RESIDENT ENGINEER, SHALL BE PAID UNDER ITEM 502.11, "SHORING SUPERSTRUCTURE BEARINGS (FROM BRIDGE SEAT)". IT SHOULD BE NOTED THAT MANY ENDS OF THE BEAMS AND THE BEARINGS AT THE ABUTMENTS AND PIERS HAVE AN EXISTING GREASE COATING WHICH MUST BE REMOVED PRIOR TO ANY CLEANING AND PAINTING.

4. AFTER REMOVAL OF ALL DIRT, DEBRIS, AND OTHER FOREIGN MATERIAL, AND INSPECTION OF THE BRIDGE SEATS, THE RESIDENT ENGINEER SHALL DETERMINE IF THE CONCRETE UNDER THE EXISTING BEARING DEVICES AT THE ABUTMENTS NEEDS REPAIR. THESE AREAS WILL BE REPAIRED IN ADDITION TO THE ABUTMENT REPAIRS ALREADY NOTED ON THE ABUTMENT REPAIR AREAS SHEET. ALL UNSOUND AND DETERIORATED CONCRETE UNDER THE BEARINGS AT ABUTMENTS SHALL BE REMOVED AND REPLACED WITH CONCRETE, CLASS "AA" OR "A" EITHER UNDER ITEM 580.14, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II" OR ITEM 580.15, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III". THE NEW CONCRETE SURFACES AROUND THE BEARINGS SHALL SLOPE AWAY (TOWARD THE FRONT OF THE ABUTMENT) A MINIMUM OF 1/4" PER FOOT OR AS PRACTICAL. THE CONCRETE UNDER THE BEARINGS SHALL BE LEVEL. "OVERHEAD AND VERTICAL CONCRETE REPAIR MATERIAL" AND OTHER PATCHING MATERIAL WILL NOT BE ALLOWED TO BE USED UNDER THE BEARINGS (I.E., ONLY CONCRETE CLASS "AA" OR "A" WILL BE ALLOWED). ALL WORK AND MATERIAL REQUIRED TO PERFORM THIS WORK (EXCLUDING JACKING AND SHORING) SHALL BE PAID UNDER ITEM 580.14, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II", OR ITEM 580.15 "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III" AS DETERMINED BY THE RESIDENT ENGINEER.
5. THE CONTRACTOR WILL BE PAID ONLY ONCE FOR JACKING AND SHORING ANY ONE ABUTMENT BEARING. ANY SHORING OF ADJACENT BEAMS, REQUIRED ONLY TO REPAIR OR REPLACE THE BEARING OR BRIDGE SEAT IN QUESTION, SHALL BE SUBSIDIARY TO THE UNIT PRICE BID FOR THE SHORING OF THE BEARING OR BRIDGE SEAT BEING REPAIRED OR REPLACED. THE ENTIRE SUPERSTRUCTURE WILL BE JACKED AND SHORED AT EACH PIER TO ALLOW RECONSTRUCTION OF THE PIER AND REPLACEMENT OF ALL PIER BEARINGS, UNDER ITEM 502.10, "SHORING SUPERSTRUCTURE (AT PIERS 1, 2 AND 3)".
6. ALL BEARINGS SHALL CONFORM TO SUBSECTIONS 531 AND 731.
7. SHOP DRAWINGS CONFORMING TO SUBSECTION 531.03 MUST BE SUBMITTED, AND INCLUDE THE WELDING PROCEDURE IF THE STAINLESS STEEL PLATE IS TO BE WELDED TO THE SOLE PLATE, OR THE BONDING PROCEDURE IF THE STAINLESS STEEL PLATE IS TO BE BONDED TO THE SOLE PLATE. BONDING PROCEDURES ARE ALSO REQUIRED FOR BONDING THE TFE TO THE FABRIC PAD OR FOR BONDING LAMINATIONS WITHIN THE PAD.
8. ALL STEEL USED IN THE BEARINGS (EXCEPT STAINLESS STEEL) SHALL BE AASHTO M183 AND GALVANIZED OR METALIZED PER SUBSECTION 531.04 (B) OF THE GENERAL SPECIAL PROVISIONS FOR ALL PROJECTS. THIS INCLUDES ANY SHIM PLATES THAT MAY BE REQUIRED.
9. ANY GALVANIZED AREAS THAT ARE WELDED IN THE FIELD (OR OTHERWISE DAMAGED) MUST BE COATED WITH ZINC RICH COATING AFTERWARDS IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 513 - PROTECTIVE COATINGS.
10. DRILL HOLES (IN CONCRETE AT ABUTMENTS) FOR NEW ANCHOR BOLTS SHALL BE 2-1/2" DIAMETER IF ANCHOR BOLTS ARE TO BE GROUTED, AND 2" DIAMETER IF ANCHOR BOLTS ARE TO BE INSTALLED USING EPOXY MORTAR. ALL COSTS FOR DRILLING AND GROUTING NEW ANCHOR BOLTS SHALL BE INCLUDED IN ITEM 531.10.
11. ALL EXISTING SLOTTED HOLES IN EXPANSION BEARINGS OR BEAM FLANGES WILL BE CLEANED OF FOREIGN MATERIAL (DIRT, RUST, CONCRETE, ETC.) WITH THE COST SUBSIDIARY TO THE COST OF ALL OTHER BEARINGS BEING REPAIRED OR REPLACED.
12. AFTER CLEANING, FILL ALL HOLES IN THE BEAM FLANGES AND BEARING PLATES (WHERE EXISTING ANCHOR BOLTS HAVE BEEN REMOVED) WITH JOINT SEALER, POLYURETHANE, WITH THE COST TO BE SUBSIDIARY TO THE COST OF THE BEARING BEING REPAIRED OR REPLACED.
13. THE WORK REQUIRED TO REMOVE EXISTING ANCHOR BOLTS, BEARINGS AND BEARING PLATES IN ORDER TO INSTALL NEW BEARINGS AS SHOWN IN THESE PLANS, SHALL BE SUBSIDIARY TO ITEM 531.10, "BEARING DEVICE ASSEMBLY".

14. ALL BRIDGE SEATS SHALL BE CLEANED OF ALL FOREIGN MATERIAL (AFTER ALL OTHER WORK AT SEATS IS DONE) WITH THE COSTS SUBSIDIARY TO BEARING ITEMS. PARTICULAR CARE SHALL BE USED TO ENSURE AREAS OF BLOCKOUTS IN CURTAIN WALLS ARE CLEAN.
15. IF EXISTING SHIM PLATES ARE ENCOUNTERED DURING THE REPLACEMENT OF ABUTMENT BEARINGS, THEY SHALL BE REPLACED WITH STEEL SHIMS, WITH THE COST BEING SUBSIDIARY TO ITEM 531.10, "BEARING DEVICE ASSEMBLY". SHIMS SHALL BE GALVANIZED OR METALIZED.
16. NEW PLATES REQUIRED FOR BEARINGS BEING REPLACED IN KIND SHALL BE FABRICATED TO MATCH EXACTLY THE DIMENSIONS (INCLUDING RADIUS IF REQUIRED) OF THE PLATES BEING REPLACED. HOLES ARE ONLY REQUIRED IN THE NEW PLATES AT THE LOCATIONS INDICATED IN THE BEARING TREATMENT DETAILS. THE CONTRACTOR SHALL VERIFY THE DIMENSIONS OF THE EXISTING PLATES BEFORE THE CONTRACTOR ORDERS ANY NEW BEARING PLATES.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	SOUTH BURLINGTON	Bridge No.	68
		Log Sta.	
Highway No. U.S.	2	Surv. Sta.	
U.S. 2 OVER I-89			
BEARING REPAIR NOTES			
Designed By	S.M. HODGDON	Drawn By	B.J. MASSE
Checked By	T.S. BRYANT	Date	1/00
		Bridge Design Supervisor	C.D. BAKER
		Date	1/00
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
VHB Cad Drawing No.	50929BERN	Date	1/00
Bridge Sheet No.		Sheet	18 of 75

BEARING CONDITION AND TREATMENT SUMMARY

BRDG. NO.	LOCATION	BRG. TYPE	CHANGE TO FIXED/EXP.	EXIST. 2 PLT/3 PLT	BEAM LINE 1			BEAM LINE 2			BEAM LINE 3			BEAM LINE 4			BEAM LINE 5			BEAM LINE 6			BEAM LINE 7		
					RECESSED INTO SEAT	TREATMENT	COMMENTS	RECESSED INTO SEAT	TREATMENT	COMMENTS	RECESSED INTO SEAT	TREATMENT	COMMENTS	RECESSED INTO SEAT	TREATMENT	COMMENTS	RECESSED INTO SEAT	TREATMENT	COMMENTS	RECESSED INTO SEAT	TREATMENT	COMMENTS	RECESSED INTO SEAT	TREATMENT	COMMENTS
					DESC.	DETAIL		DESC.	DETAIL		DESC.	DETAIL		DESC.	DETAIL		DESC.	DETAIL		DESC.	DETAIL		DESC.	DETAIL	
68WB	ABUT. 1	EXP.	FIXED	2		J-C-P-G	D		J-C-P-G	D		J-C-P-G	D		J-C-P-G	D		J-C-P-G	D		J-C-P-G	D		J-C-P-G	D
68WB	PIER 1	FIXED	EXP.	2		R-TFE	X	BOLTS SHEARED OFF	R-TFE	X	BOLTS SHEARED OFF	R-TFE	X	BOLTS SHEARED OFF	R-TFE	X	BOLTS SHEARED OFF	R-TFE	X	BOLTS SHEARED OFF	R-TFE	X	BOLTS SHEARED OFF	R-TFE	X
68WB	PIER 1	EXP.		3		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X
68WB	PIER 2	FIXED		2		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y
68WB	PIER 2	EXP.		3		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X
68WB	PIER 3	FIXED		2		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y
68WB	PIER 3	EXP.		2		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X
68WB	ABUT. 2	FIXED		2		C-P-G	N/A		C-P-G	N/A		C-P-G	N/A		C-P-G	N/A		C-P-G	N/A		C-P-G	N/A		C-P-G	N/A

BEAM LINE 8					BEAM LINE 9					BEAM LINE 10					BEAM LINE 11					BEAM LINE 12					BEAM LINE 13					BEAM LINE 14				
RECESSED INTO SEAT	TREATMENT	COMMENTS	RECESSED INTO SEAT	TREATMENT	COMMENTS	RECESSED INTO SEAT	TREATMENT	COMMENTS	RECESSED INTO SEAT	TREATMENT	COMMENTS	RECESSED INTO SEAT	TREATMENT	COMMENTS	RECESSED INTO SEAT	TREATMENT	COMMENTS	RECESSED INTO SEAT	TREATMENT	COMMENTS	RECESSED INTO SEAT	TREATMENT	COMMENTS	RECESSED INTO SEAT	TREATMENT	COMMENTS								
DESC.	DETAIL		DESC.	DETAIL		DESC.	DETAIL		DESC.	DETAIL		DESC.	DETAIL		DESC.	DETAIL		DESC.	DETAIL		DESC.	DETAIL		DESC.	DETAIL									
68EB	ABUT. 1	EXP.	FIXED	2		J-C-P-G	D		J-C-P-G	D		J-C-P-G	D		J-C-P-G	D		J-C-P-G	D		J-C-P-G	D		J-C-P-G	D		R-I-K	A						
68EB	PIER 1	FIXED	EXP.	2		R-TFE	X	BOLTS SHEARED OFF	R-TFE	X	BOLTS SHEARED OFF	R-TFE	X	BOLTS SHEARED OFF	R-TFE	X	BOLTS SHEARED OFF	R-TFE	X	BOLTS SHEARED OFF	R-TFE	X	BOLTS SHEARED OFF	R-TFE	X	BOLTS SHEARED OFF	R-TFE	X						
68EB	PIER 1	EXP.		3		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X						
68EB	PIER 2	FIXED		2		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y						
68EB	PIER 2	EXP.		3		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X						
68EB	PIER 3	FIXED		2		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y		R-FAB	Y						
68EB	PIER 3	EXP.		2		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X		R-TFE	X						
68EB	ABUT. 2	FIXED		2		C-P-G	N/A		C-P-G	N/A		C-P-G	N/A		C-P-G	N/A		C-P-G	N/A		C-P-G	N/A		C-P-G	N/A		C-P-G	N/A						

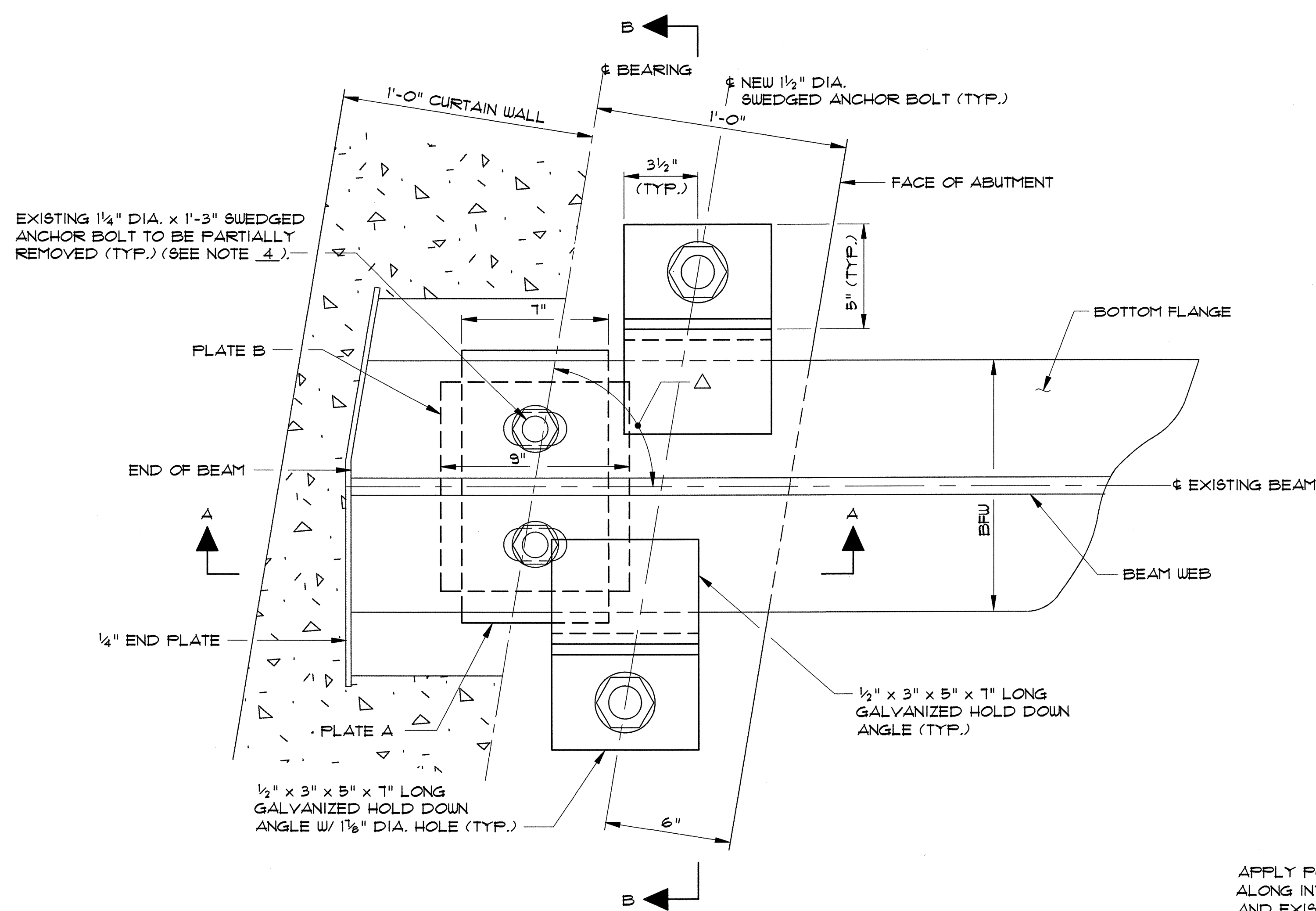
LEGEND:

- C-P-G CLEAN, PAINT AND GREASE
- J-C-P-G JACK, CLEAN, PAINT AND GREASE
- R-I-K REPLACE IN KIND
- R-FAB REPLACE W/ NEW FABRIC FIXED BEARING
- R-TFE REPLACE W/ NEW TFE EXPANSION BEARING

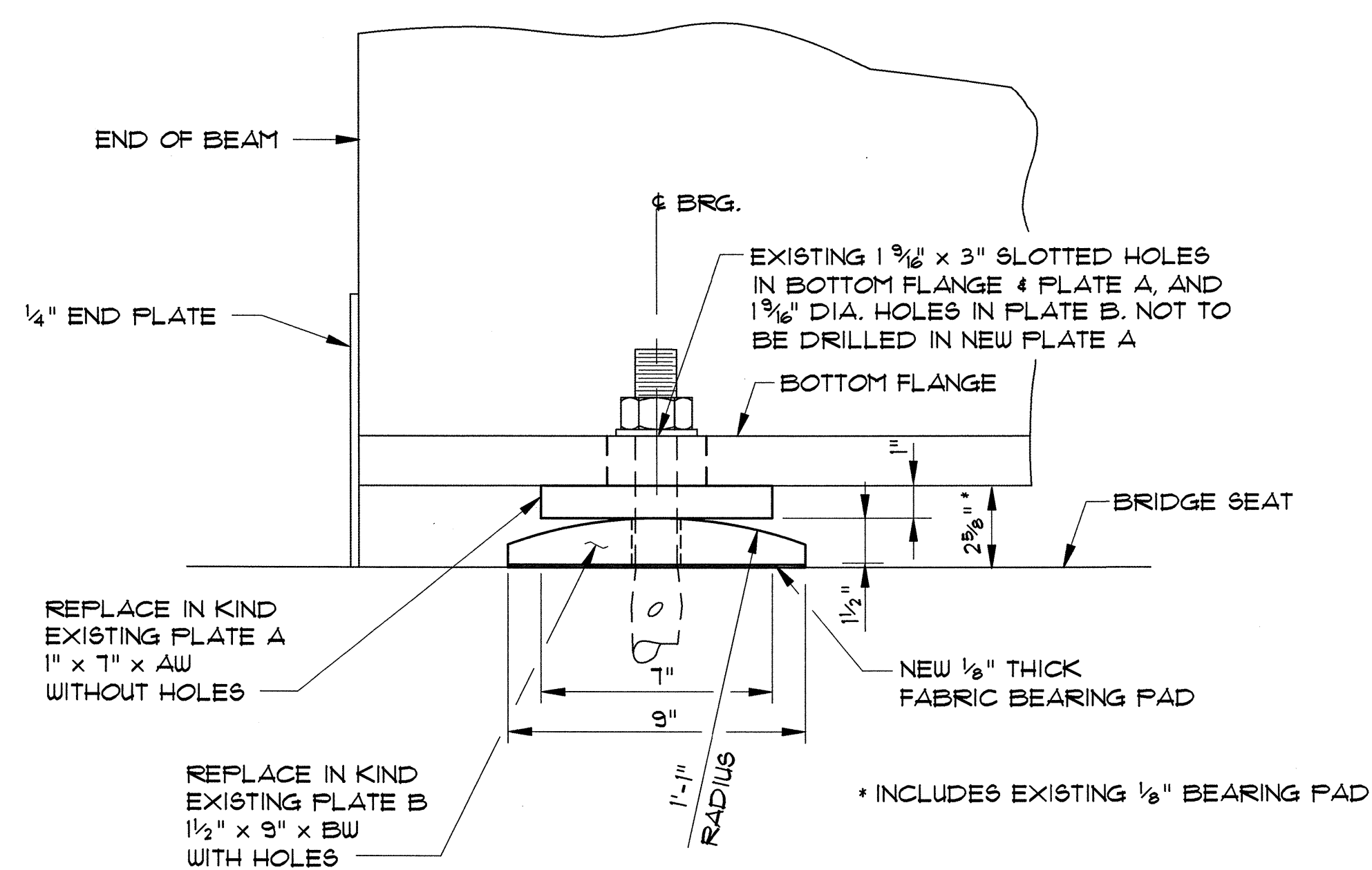
NOTES:

1. BEAM LINES APPLY TO ALL SPANS ON THE BRIDGE, AND ARE LABELED FROM LEFT TO RIGHT WHILE LOOKING UP STATION.
2. TREATMENT DETAIL REFERS TO THE SPECIFIC BEARING REPAIR / REPLACEMENT DETAIL. SEE SHEETS 20 - 23.

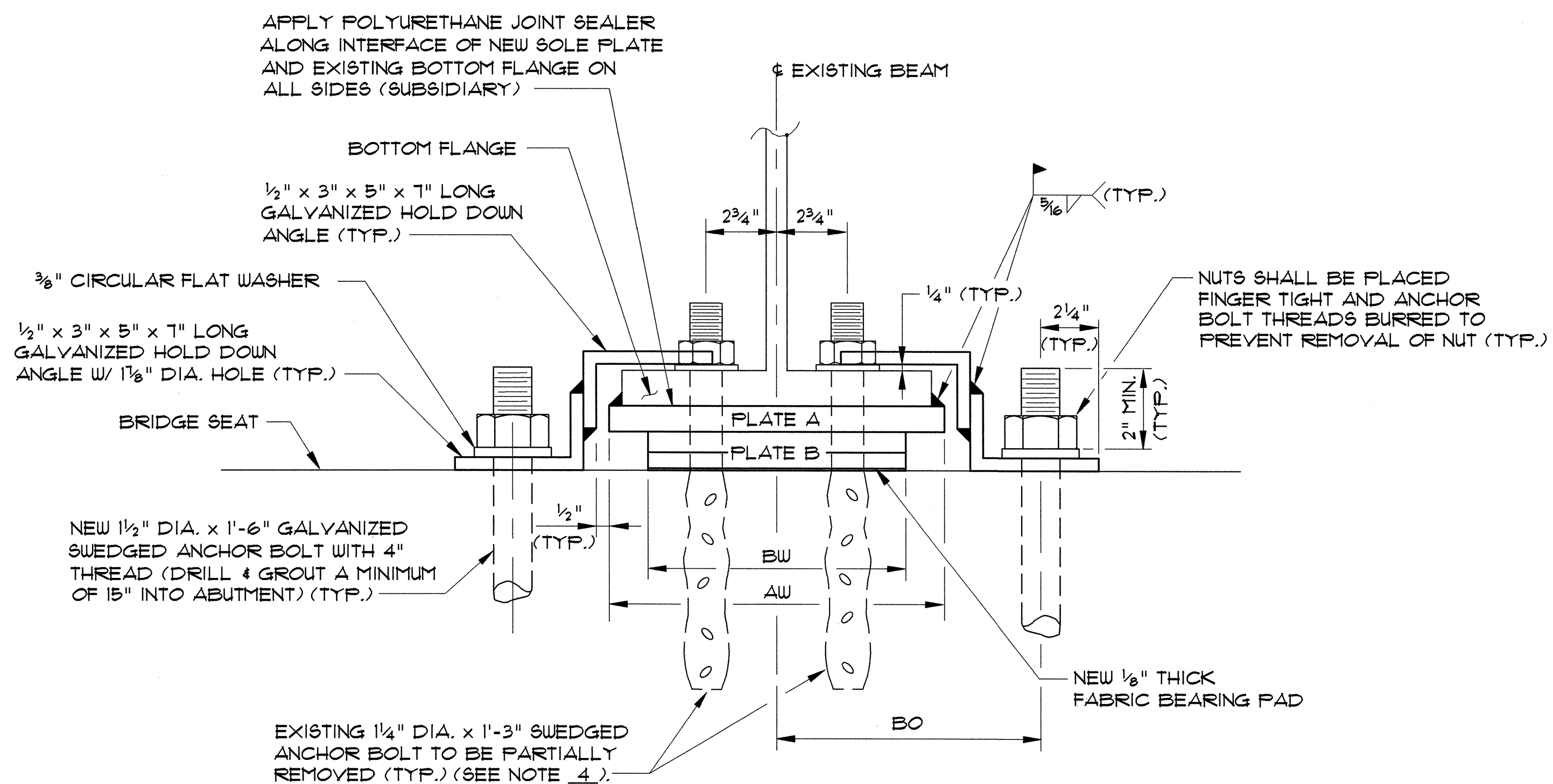
STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No.	U.S. 2	Log Sta.	
		Surv. Sta.	
U.S. 2 OVER I-89			
BEARING CONDITION & TREATMENT SUMMARY			
Designed By	T.S. BRYANT	Drawn By	B.J. MASSE
Checked By	Date	Bridge Design Supervisor	Date
A. SETAS	1/00	C.D. BAKER	Date 1/00
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
VHB Cad Drawing No.	50929BER	Date	1/00
Bridge Sheet No.		Sheet	19 of 75



PLAN VIEW
NTS



SECTION A-A
(HOLD-DOWN ANGLES NOT SHOWN FOR CLARITY)
NTS



SECTION B-B
NTS

BRIDGE NO.	ABUT. NO.	BEAM LINE	BEAM	SPAN LENGTH	BOTT. FLG. WIDTH (BFW)	PLATE A WIDTH (AW)	PLATE B WIDTH (BW)	ANCHOR BOLT OFFSET (BO)	Δ
68	1	14	36WF50	54'	12"	13"	10"	10 1/4"	94'50'48"
TOTAL NO. OF BRGS. = 1									

**DETAILS FOR REPLACING EXISTING EXPANSION BEARINGS
AT ABUTMENTS IN KIND**

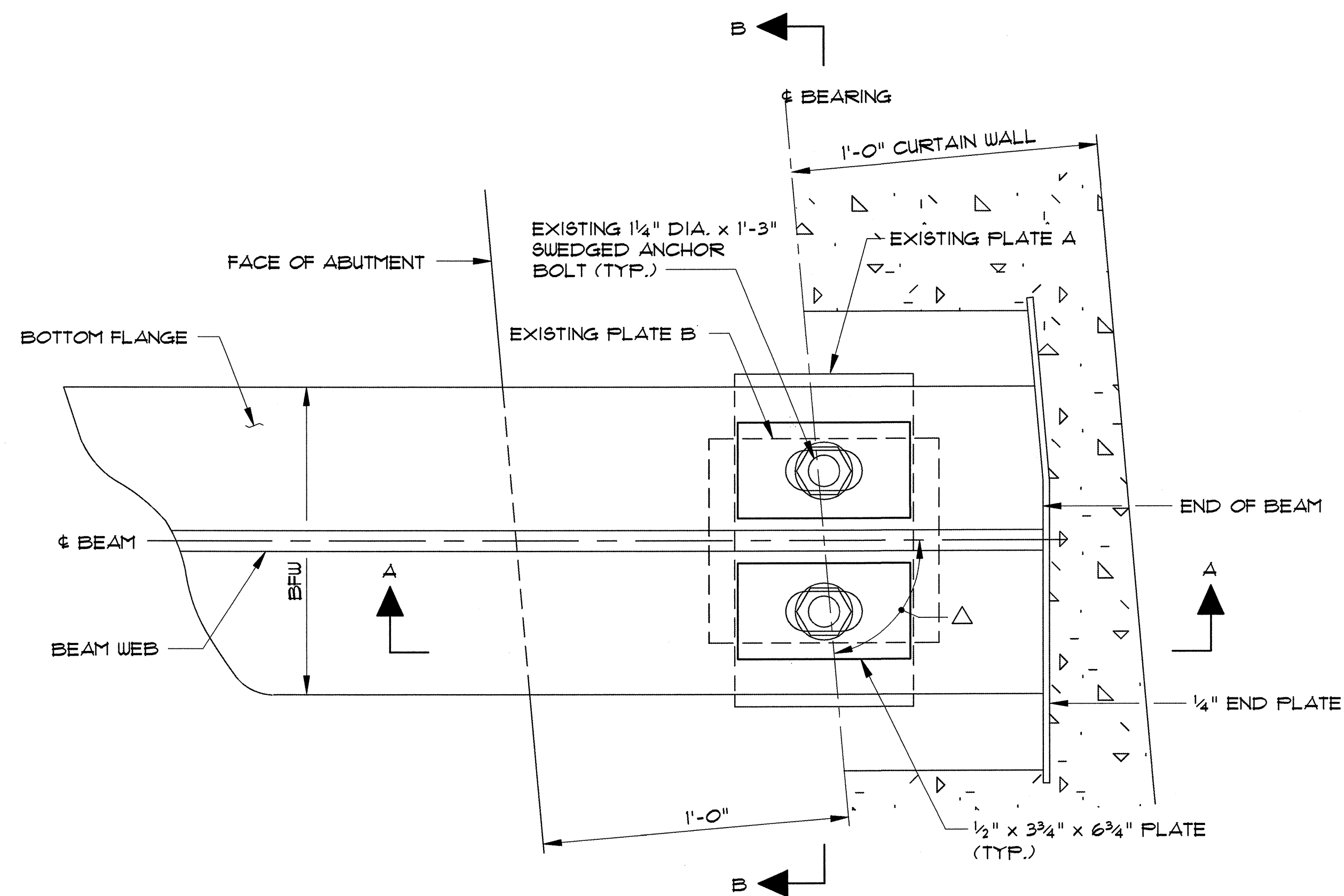
NOTES:

1. PLUG EXISTING HOLES IN BEAM FLANGES WITH POLYURETHANE SEALER (SUBSIDIARY).
2. BURRED THREADS SHALL BE TOUCHED UP WITH ZINC-RICH PAINT AFTER FINAL ASSEMBLY (SUBSIDIARY).
3. BEARING HEIGHT ASSUMES A 3/16" THICK STAINLESS STEEL PLATE.
4. EXISTING ANCHOR BOLTS SHALL BE CUT OFF 1/2" ABOVE THE BRIDGE SEAT. THE 1/2" OF EACH ANCHOR BOLT THAT REMAINS WILL EXTEND INTO THE HOLES IN NEW PLATE B TO KEEP IT FROM SLIDING.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

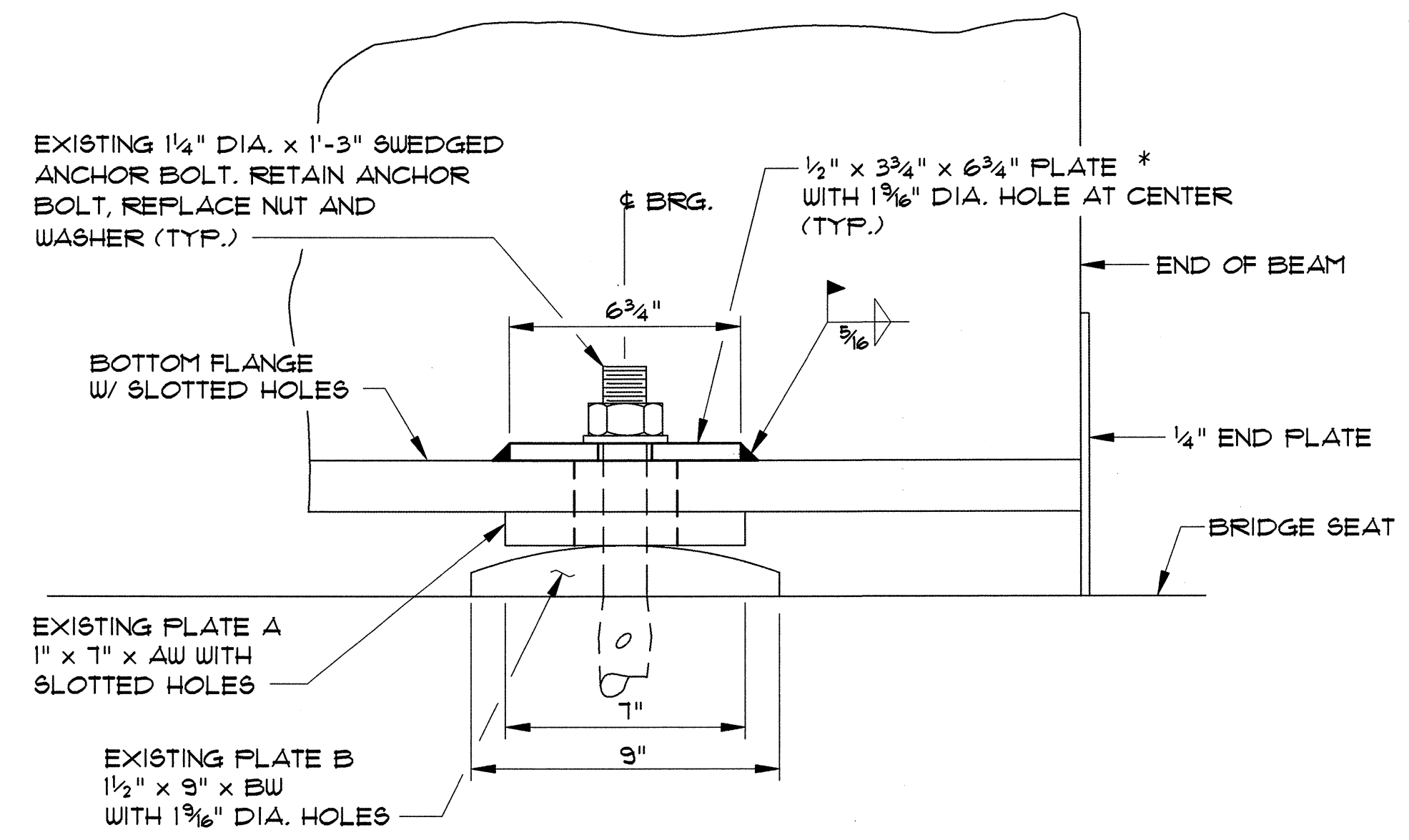
Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No. U.S.	2	Log Sta.	
		Surv. Sta.	

U.S. 2 OVER I-89			
BEARING TREATMENT DETAIL 'A'			
Designed By	T.S. BRYANT	Drawn By	B.J. MASSÉ
Checked By	S.M. HODGDON	Date	1/00
		Bridge Design Supervisor	C.D. BAKER
		Date	1/00
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
VHB Cad Drawing No.	50929BTA	Date	1/00
Bridge Sheet No.		Sheet	20 of 75

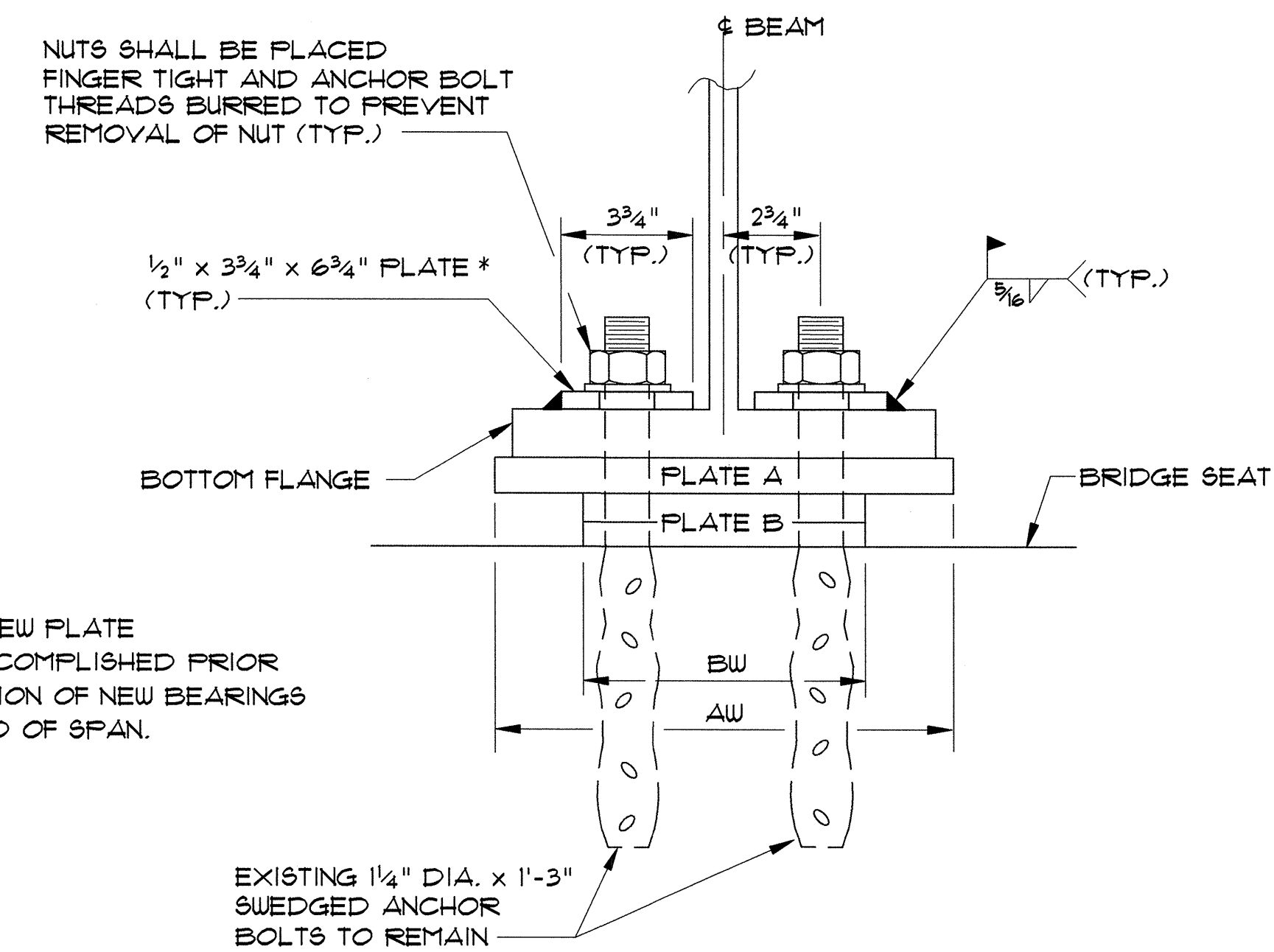


PLAN VIEW
NTS

BRIDGE NO.	ABUT. NO.	BEAM LINE	BEAM	SPAN LENGTH	BOTT. FLG. WIDTH (BRW)	PLATE A WIDTH (AW)	PLATE B WIDTH (BW)	Δ
68	1	1-13	36WF150	54'	12"	13"	10"	85°03'12"
TOTAL NO. OF BRGS. = 13								



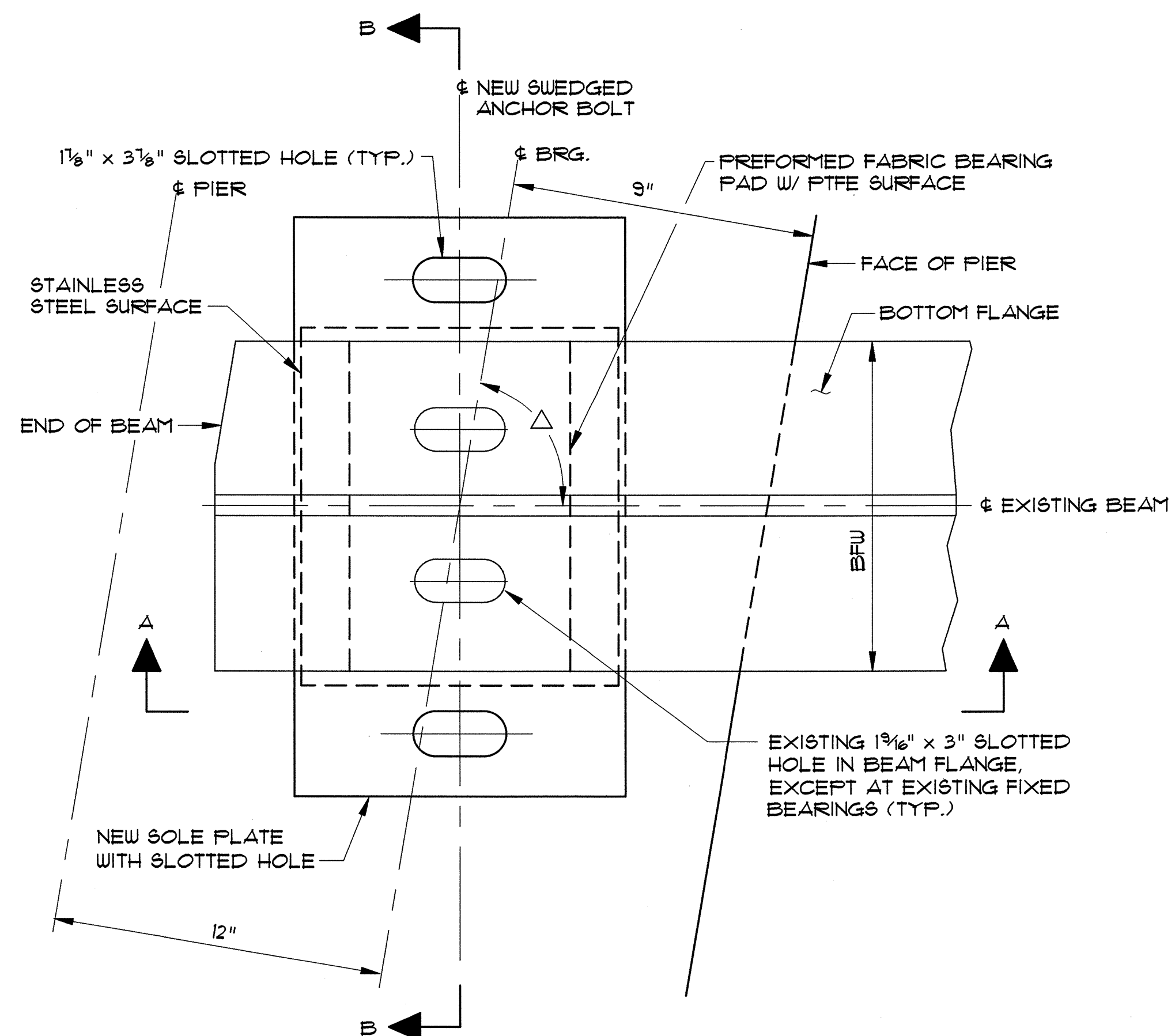
SECTION A-A
NTS



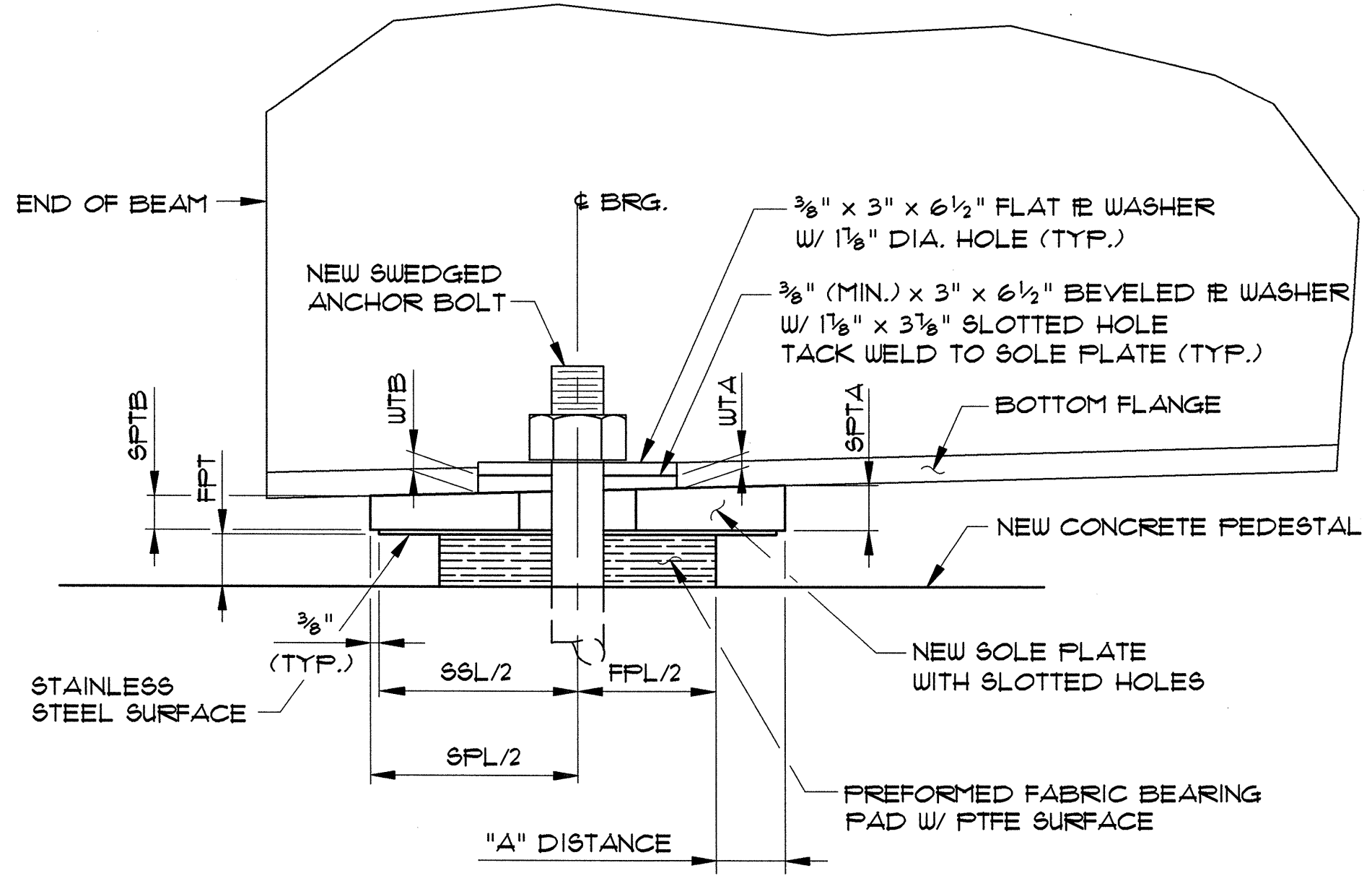
SECTION B-B
NTS

**DETAILS FOR MODIFYING EXISTING EXPANSION BEARINGS
TO FIXED BEARINGS AT ABUTMENTS**

STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of	SOUTH BURLINGTON	Bridge No.	68
Checked By	Date	Bridge Design Supervisor	Log Sta.
S.M. HODGDON	1/00	C.D. BAKER	Date 1/00
U.S. 2 OVER I-89			
BEARING TREATMENT DETAIL 'D'			
Designed By	T.S. BRYANT	Drawn By	E.J. MASSE
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
VHB Cad Drawing No.	50929BTD	Date	1/00
Bridge Sheet No.		Sheet	21 of 15



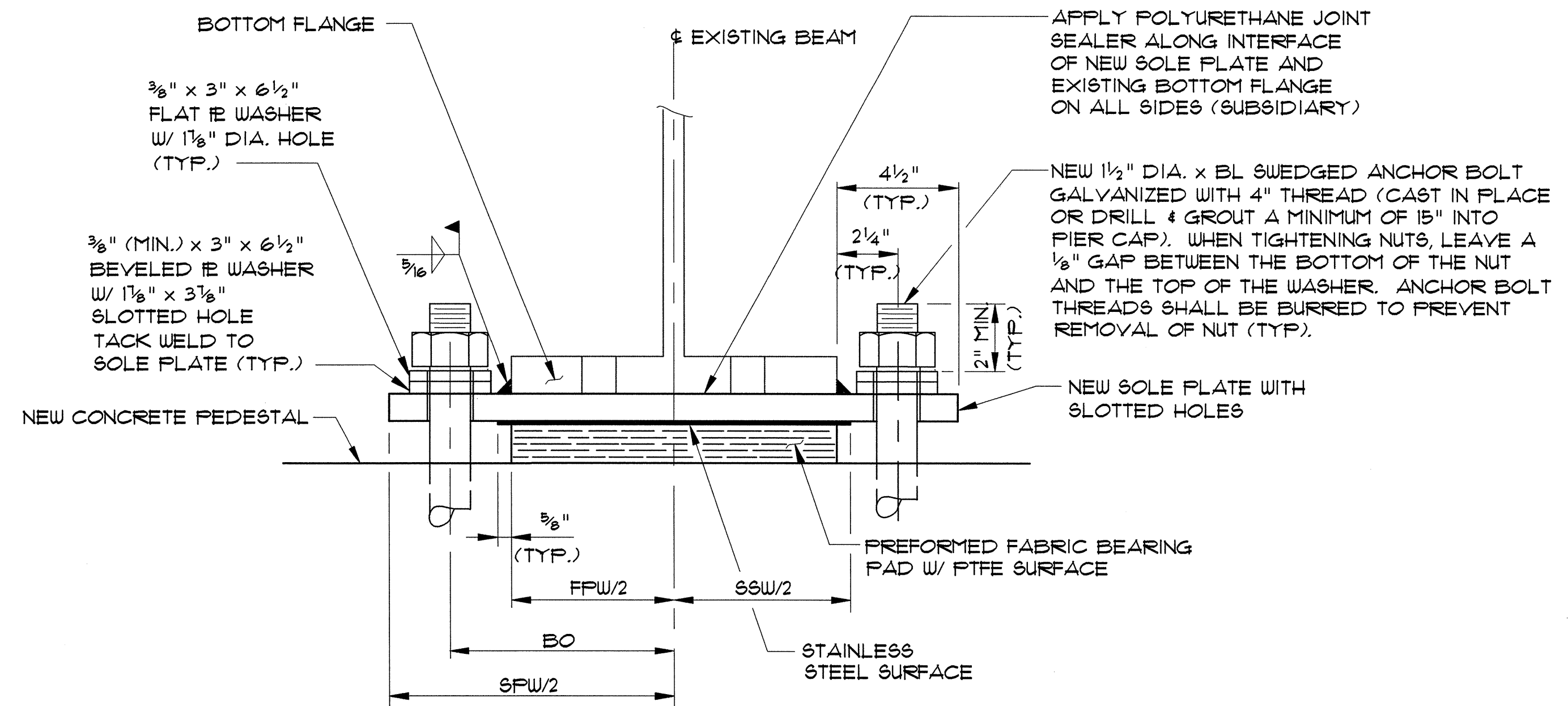
PLAN VIEW
(NEW ANCHOR BOLTS NOT SHOWN FOR CLARITY)
NTS



SECTION A-A
NTS

BRIDGE NO.	PIER NO.	SPAN NO.	EXIST. EXP. / FIXED	BEAM LINE	SPAN LENGTH	BEAM	BOTT. FLG. WIDTH (BFW)	FABRIC BRG. PAD WITH PTFE SURFACE			STAINLESS STEEL		SOLE PLATE		BEVELED WASHER THICK.		NEW BRG. HEIGHT	ANCHOR BOLT OFFSET (BO)	ANCHOR BOLT LENGTH (BL)	Δ	"A" DISTANCE																				
								WIDTH (FFW)	LENGTH (FFL)	THICK. (FFT)	WIDTH (SSW)	LENGTH (SSL)	WIDTH (SPW)	LENGTH (SPL)	THICK. (SPTA)	THICK. (SPTB)					(UTA)	(WTB)	TEMPERATURE (°F)																		
																					0	15	30	45	60	75	90														
68	1	1	FIXED	1-14	54'	36WF10	12"	12"	10"	2 1/2"	13 1/4"	13 1/4"	21"	14"	1"	3/4"	3/8"	1/2"	3 3/16"	8 1/4"	1'-10"	84°50'48"	2 3/8"	2 1/8"	2 1/8"	2"	1 9/16"	1 7/8"	1 3/8"												
68	1	2	EXP.	1-14	74'	36WF10	12"	12"	10"	2 1/2"	13 1/4"	13 1/4"	21"	14"	3/4"	1"	3/8"	3/8"	3 3/16"	8 1/4"	1'-10"	83°58'36"	2 1/4"	2 3/8"	2 1/8"	2"	1 9/16"	1 9/16"	1 3/4"												
68	2	3	EXP.	1-14	74'	36WF10	12"	12"	10"	2 1/2"	13 1/4"	13 1/4"	21"	14"	3/4"	1"	1/2"	3/8"	3 3/16"	8 1/4"	1'-10"	83°00'24"	2 1/4"	2 3/8"	2 1/8"	2"	1 9/16"	1 9/16"	1 3/4"												
68	3	4	EXP.	1-14	59'	36WF10	12"	12"	10"	2 1/2"	13 1/4"	13 1/4"	21"	14"	3/4"	1"	1/2"	3/8"	3 3/16"	8 1/4"	1'-10"	82°07'12"	2 3/8"	2 1/8"	2 1/8"	2"	1 9/16"	1 7/8"	1 3/8"												
TOTAL NO. OF BRGS. = 56																																									

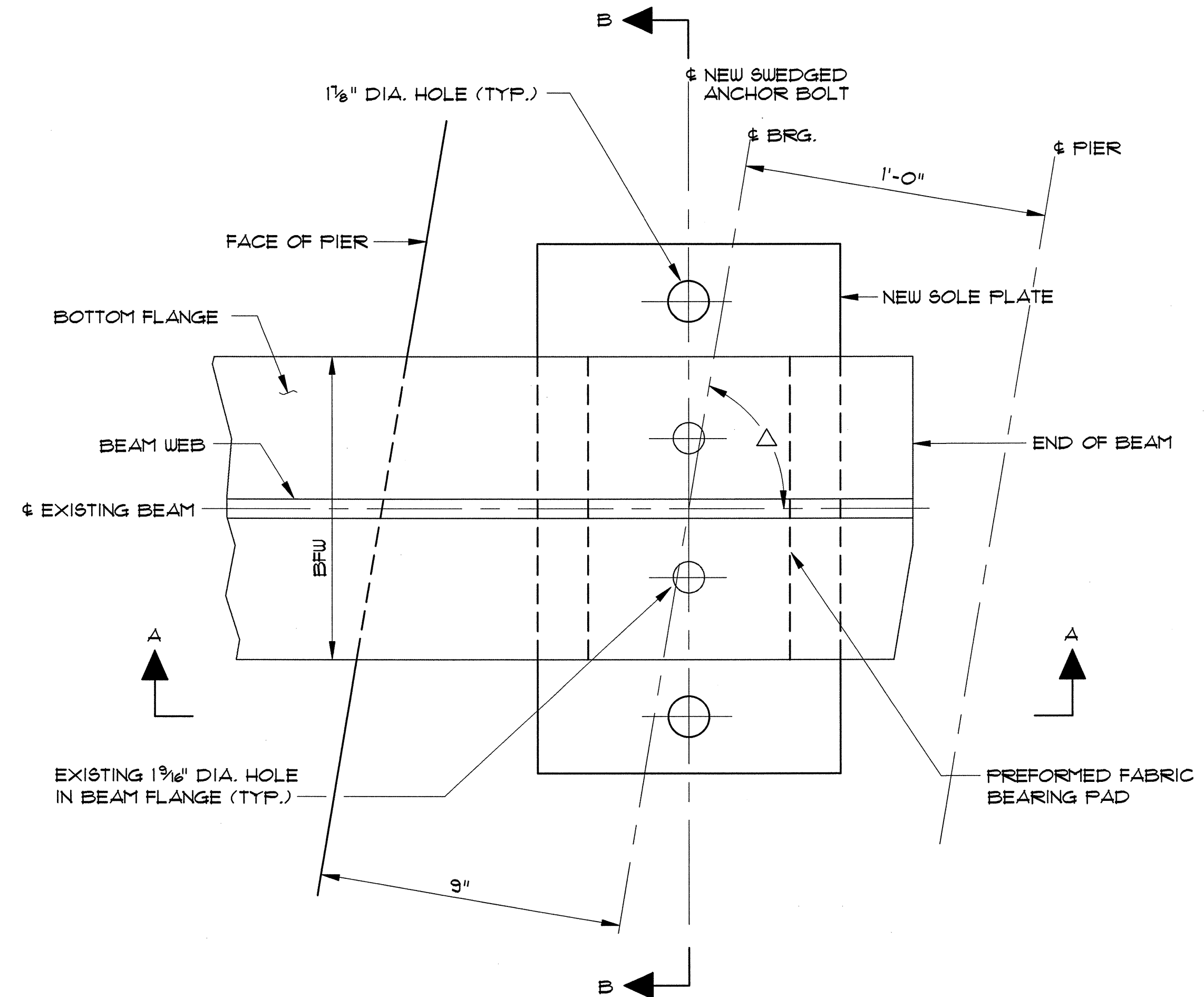
* SEE NOTE 3.



SECTION B-B
NTS

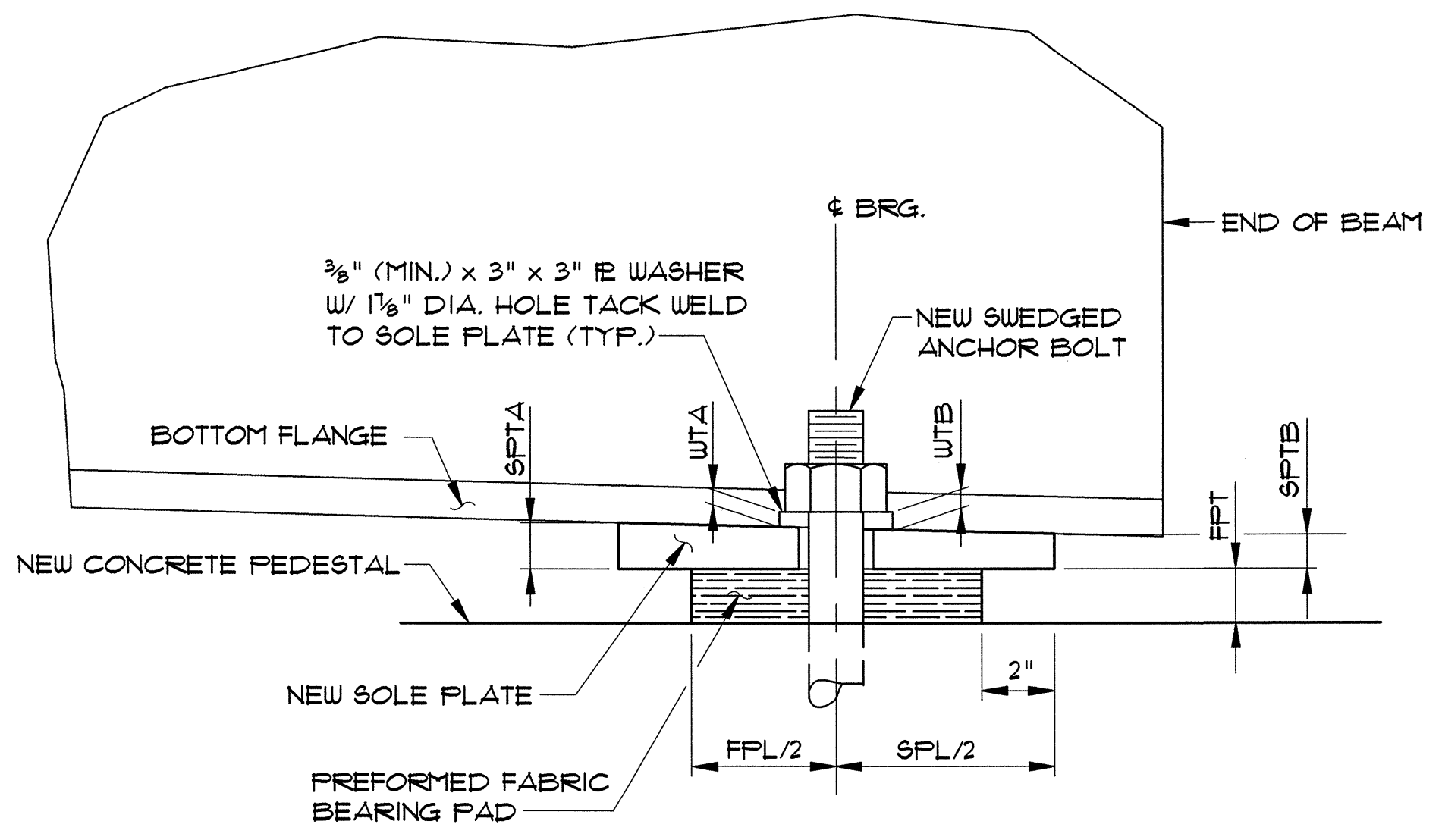
- NOTES:**
1. PLUG EXISTING HOLES IN BEAM FLANGES WITH POLYURETHANE SEALER (SUBSIDIARY).
 2. BURRED THREADS SHALL BE TOUCHED UP WITH ZINC-RICH PAINT AFTER FINAL ASSEMBLY (SUBSIDIARY).
 3. BEARING HEIGHT INCLUDES STAINLESS STEEL PLATE.
 4. ALL BEARING COMPONENTS ARE NEW EXCEPT AS NOTED.

DETAILS FOR REPLACING EXISTING EXPANSION AND FIXED BEARINGS AT PIERS WITH FABRIC BEARING PADS W/ PTFE SURFACE

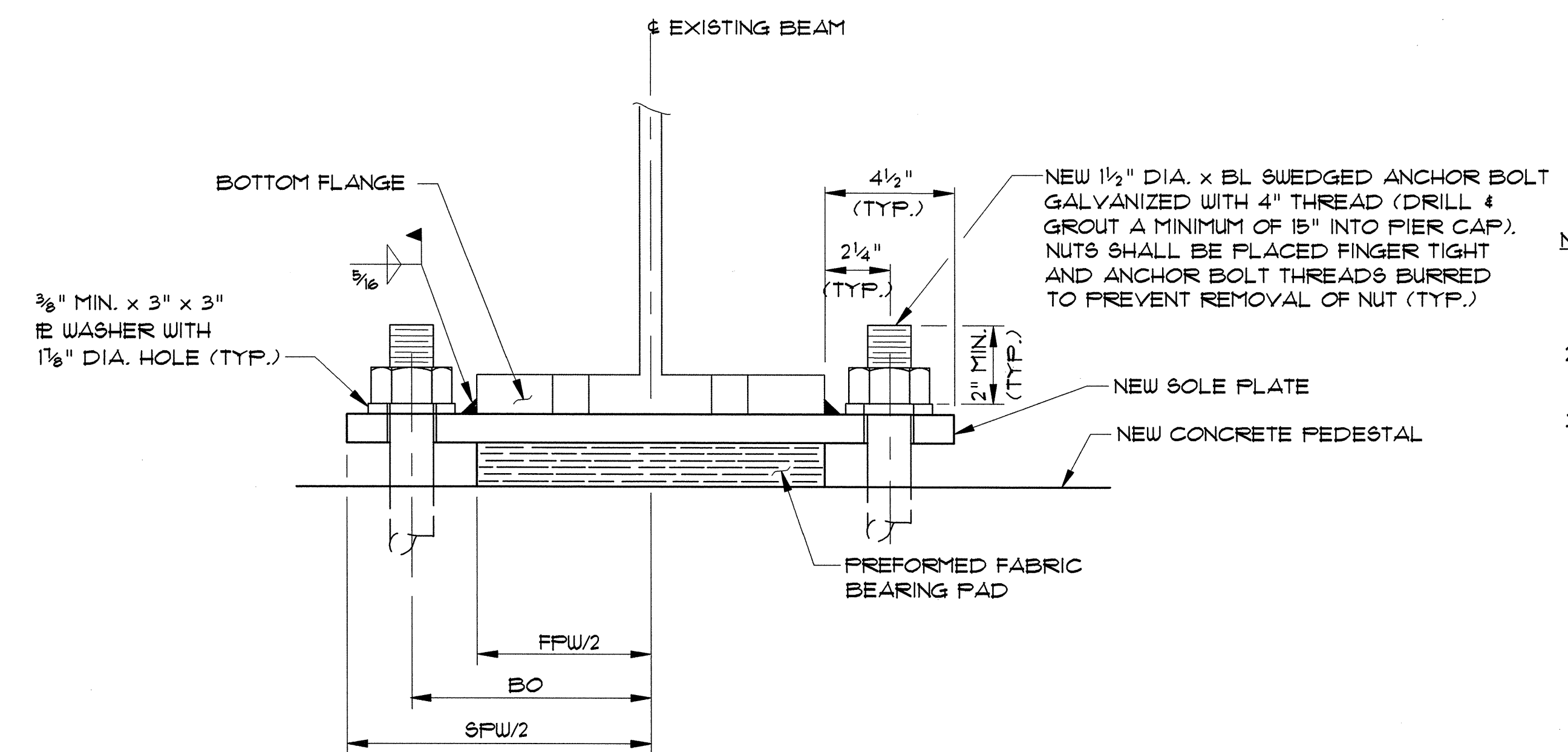


PLAN VIEW
(NEW ANCHOR BOLTS NOT SHOWN FOR CLARITY)
NTS

BRIDGE NO.	PIER NO.	SPAN NO.	BEAM LINE	SPAN LENGTH	BEAM	BOTT. FLG. WIDTH (BFW)	FABRIC BRG. PAD			SOLE PLATE				WASHER THICKNESS		NEW BRG. HEIGHT	ANCHOR BOLT OFFSET (BO)	ANCHOR BOLT LENGTH (BL)	Δ
							WIDTH (FFW)	LENGTH (FPL)	THICK. (FFT)	WIDTH (SPW)	LENGTH (SPL)	THICK.		(WTA)	(WTB)				
68	2	2	1-14	74'	36WF10	12"	12"	10"	2 1/2"	21"	14"	1"	3/4"	3/8"	3/8"	3 3/8"	8 1/4"	1'-10"	93°59'36"
68	3	3	1-14	74'	36WF10	12"	12"	10"	2 1/2"	21"	14"	1"	3/4"	3/8"	3/8"	3 3/8"	8 1/4"	1'-10"	93°00'24"
TOTAL NO. OF BRGS. = 28																			



SECTION A-A
NTS



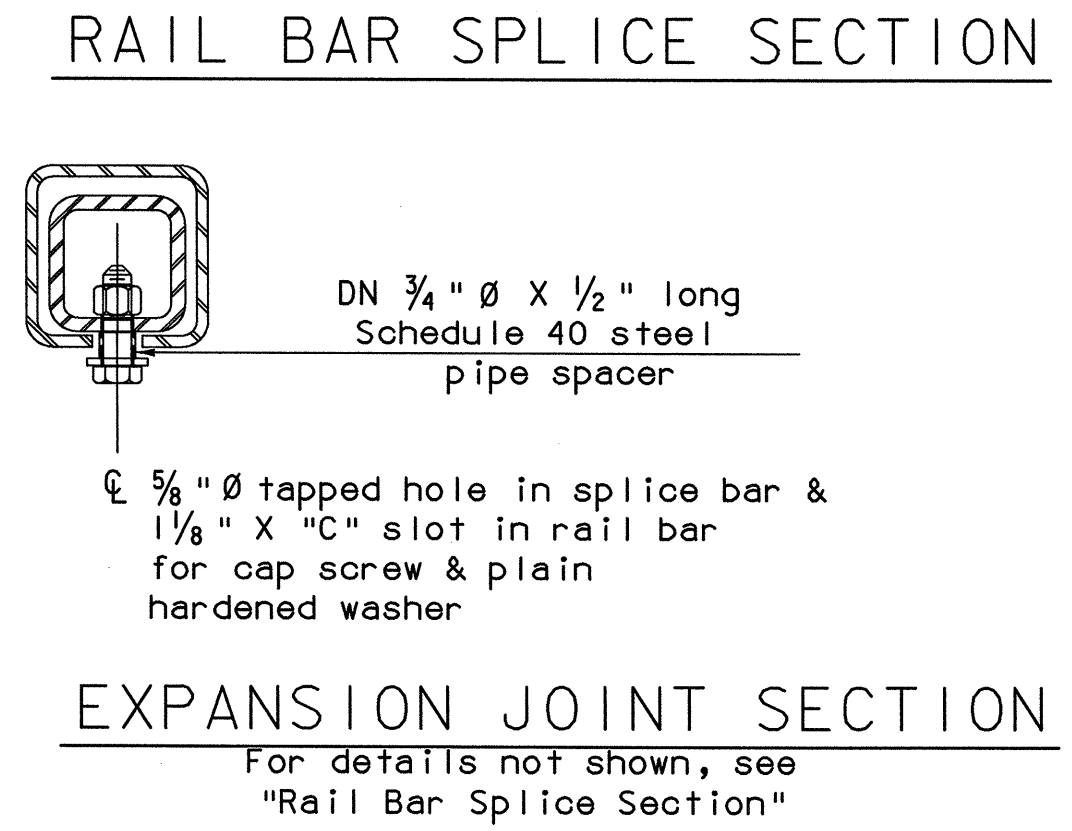
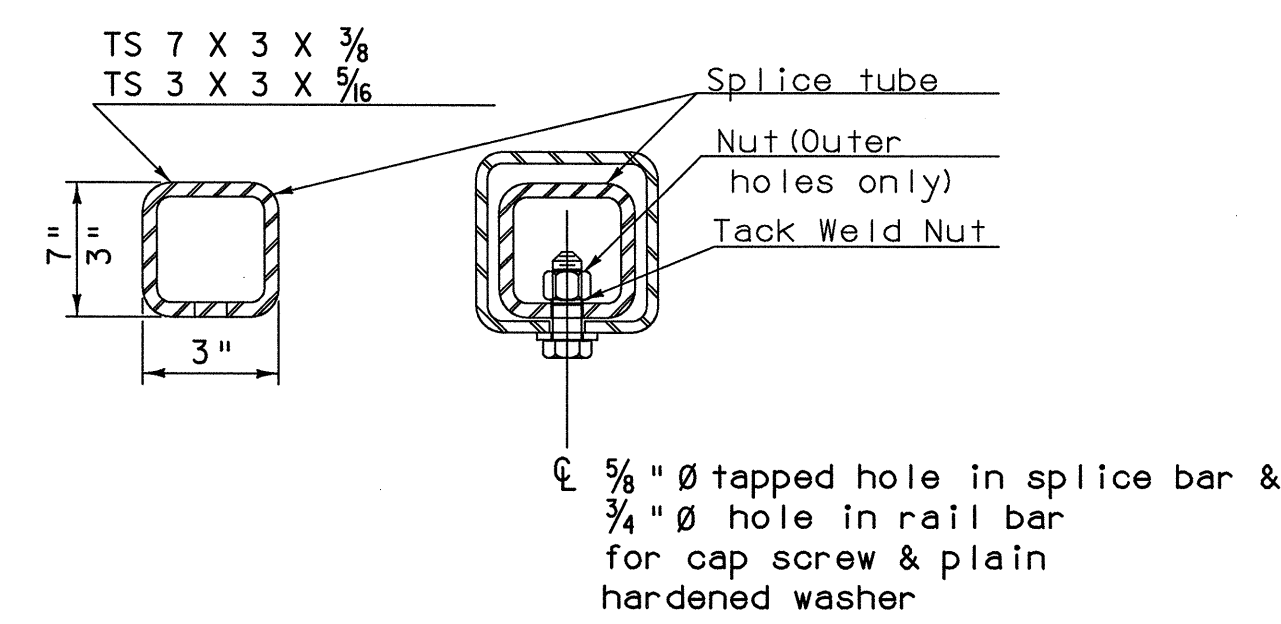
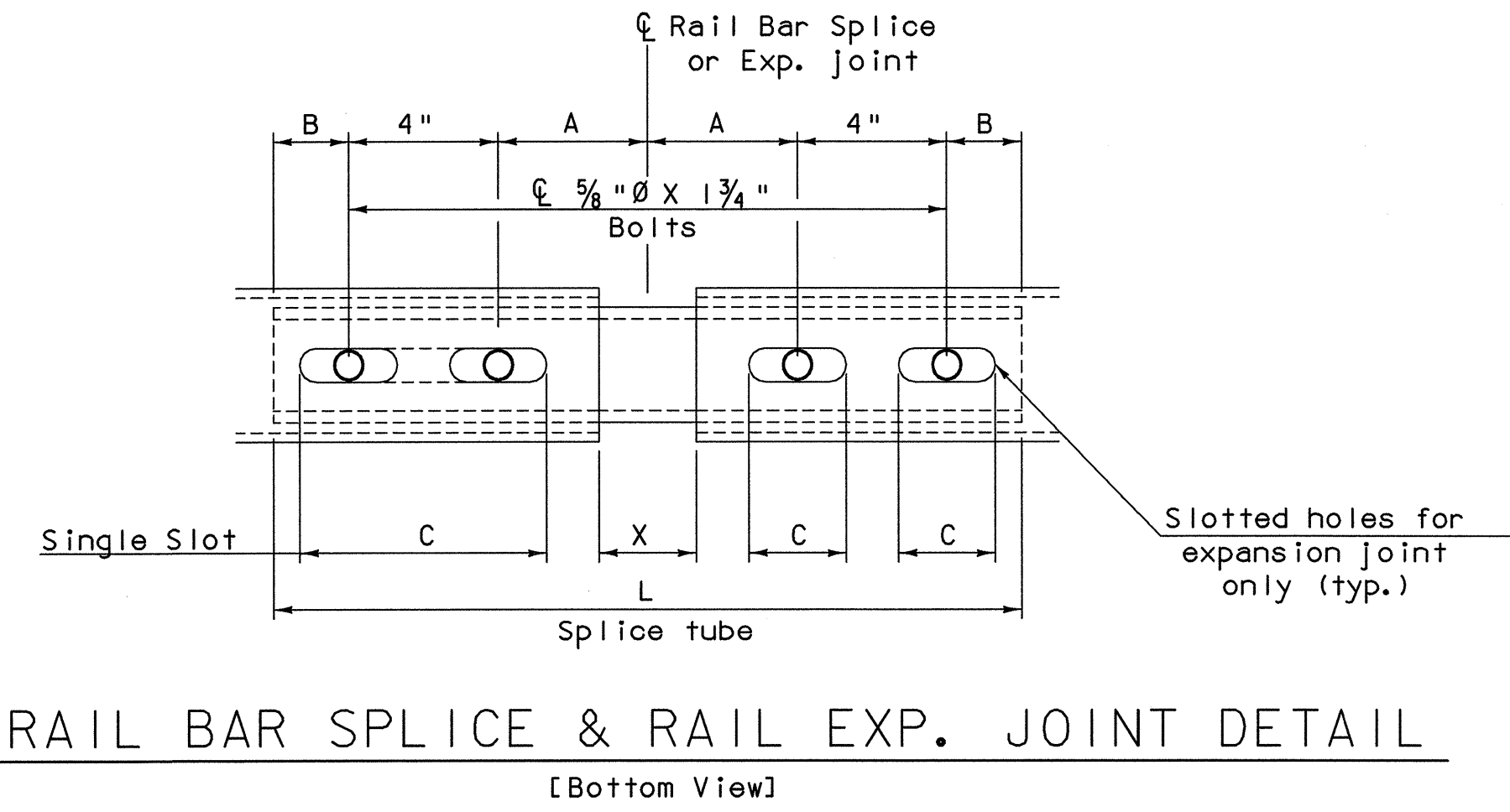
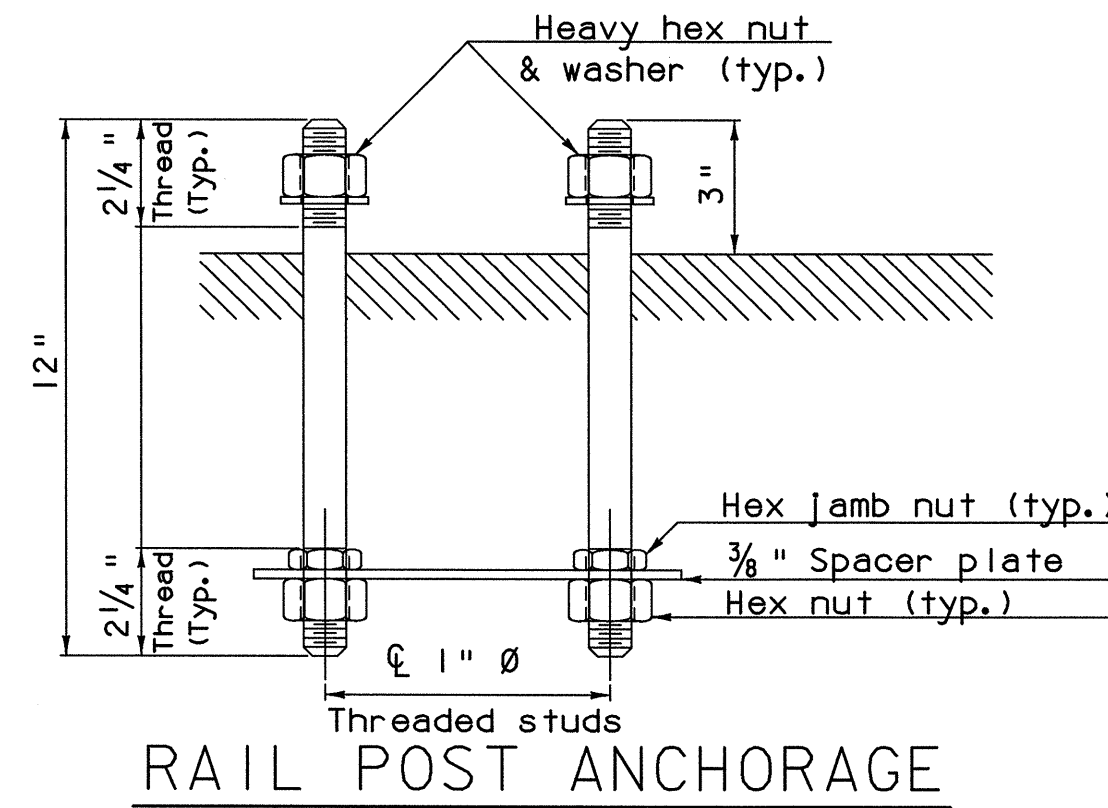
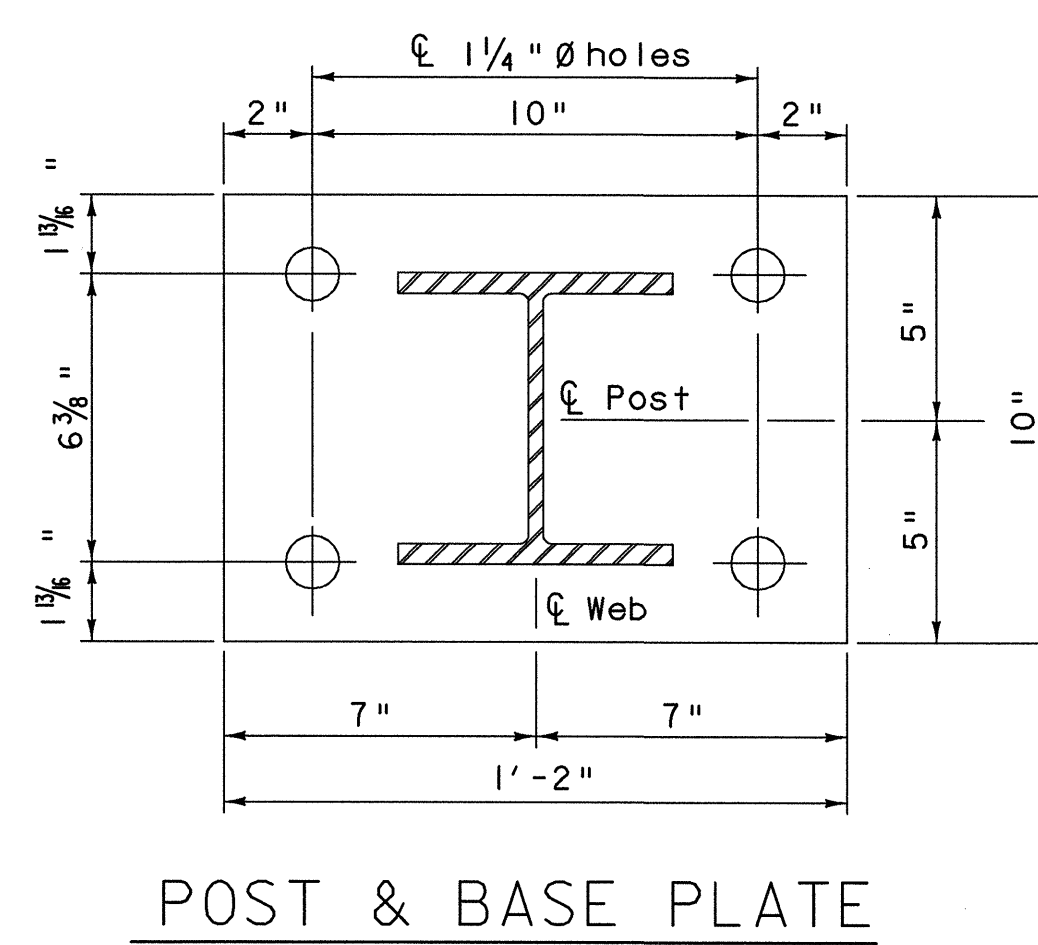
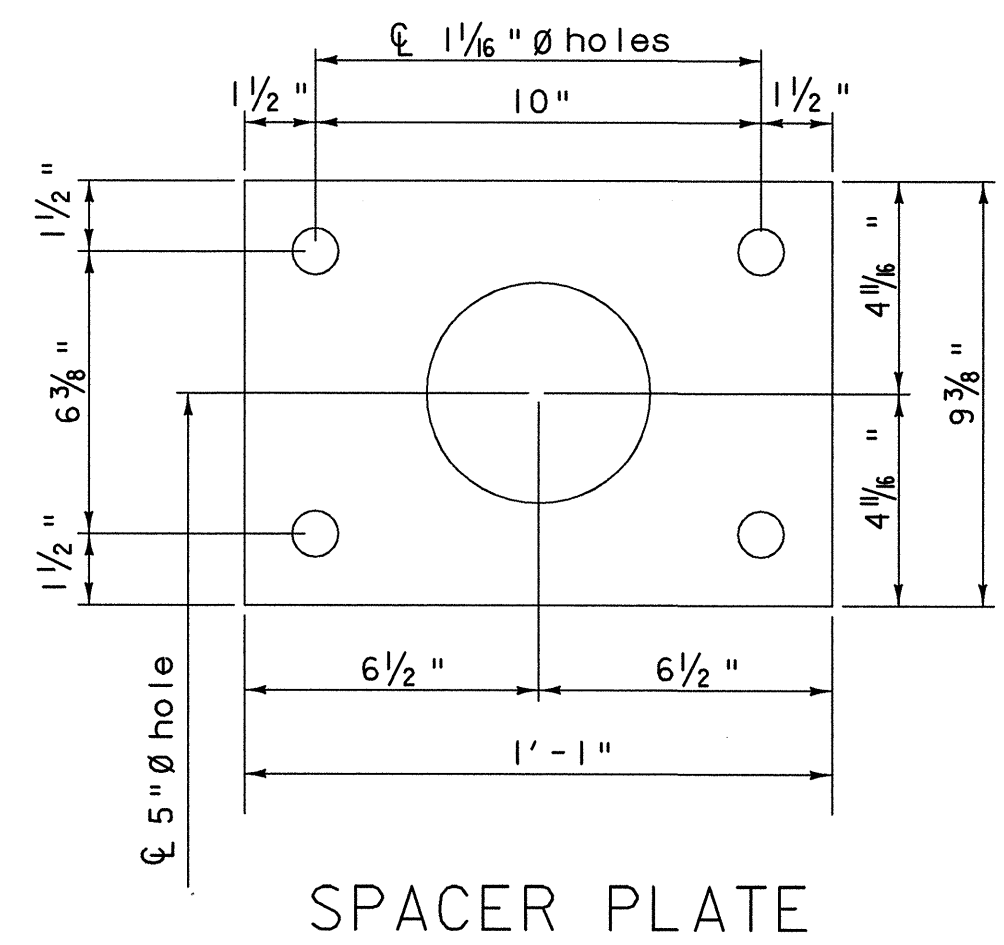
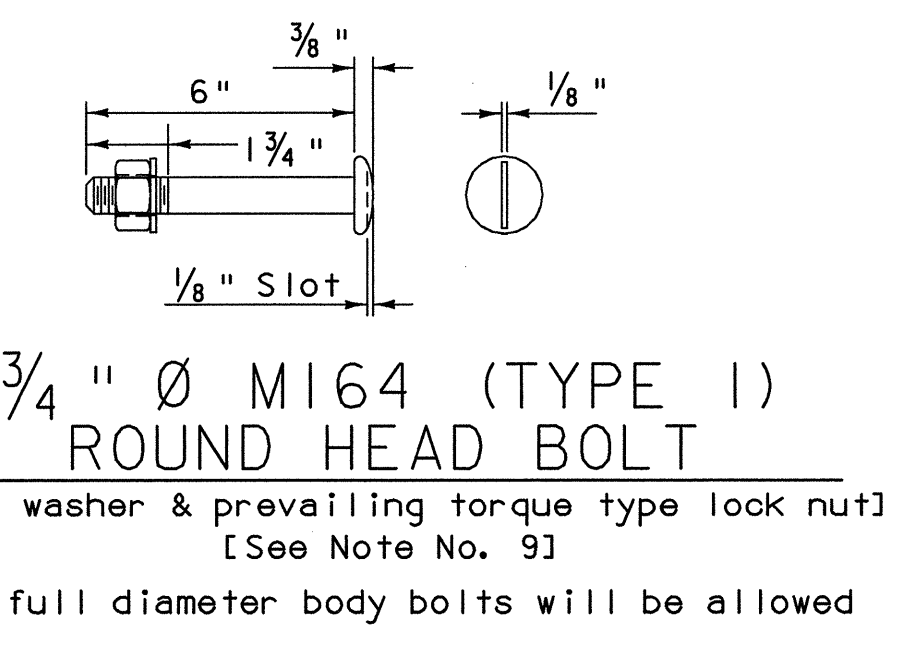
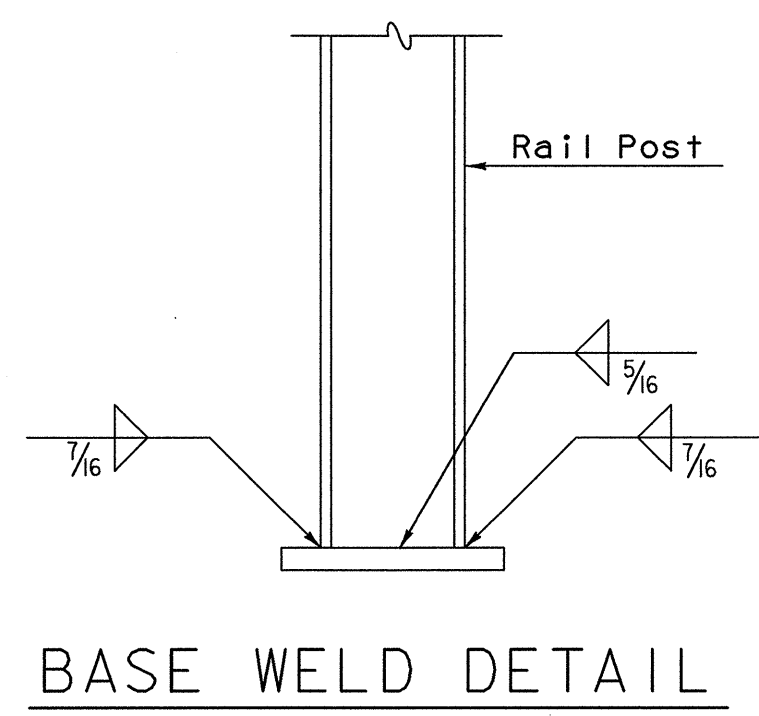
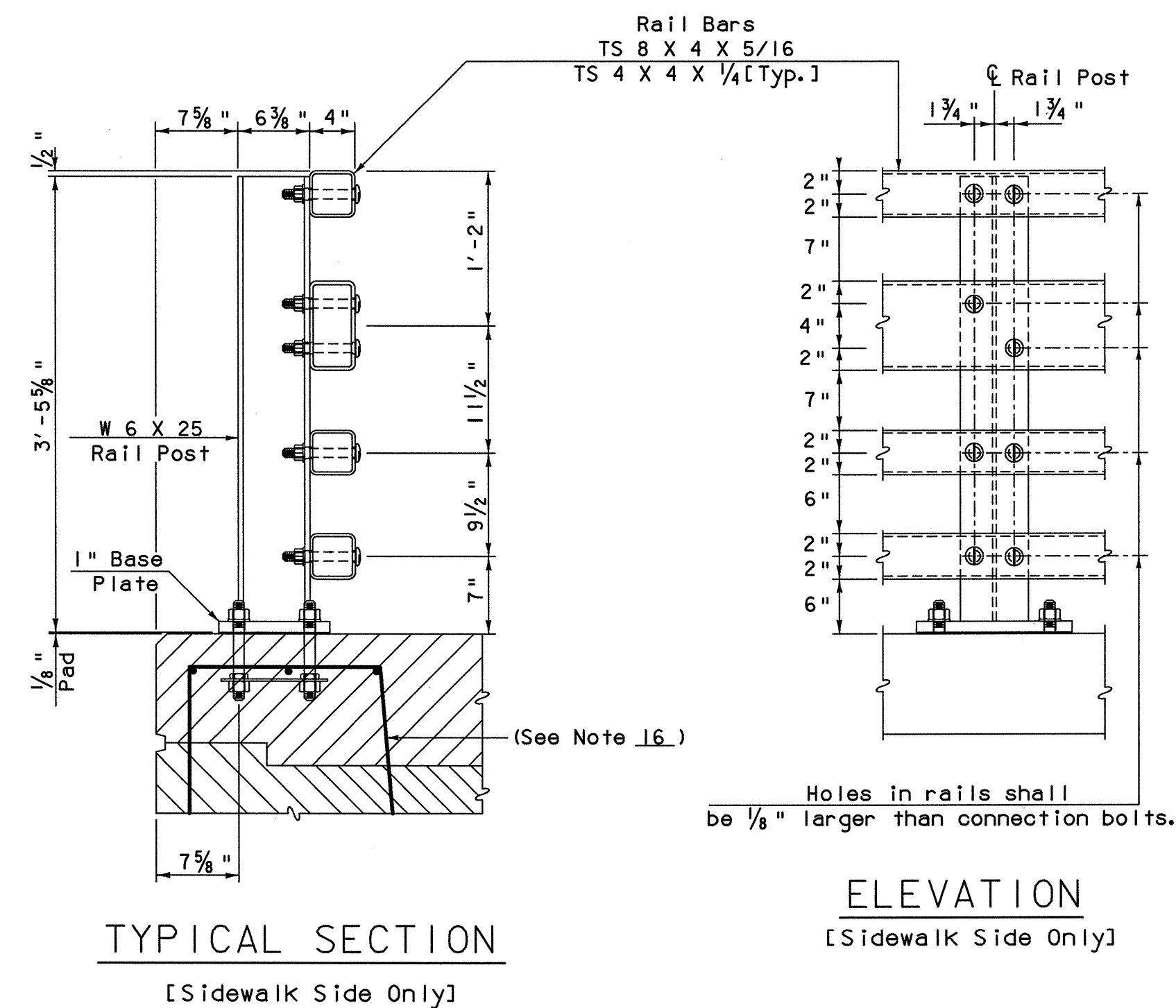
SECTION B-B
NTS

- NOTES:**
1. PLUG EXISTING HOLES IN BEAM FLANGES WITH POLYURETHANE SEALER (SUBSIDIARY).
 2. BURRED THREADS SHALL BE TOUCHED UP WITH ZINC-RICH PAINT AFTER FINAL ASSEMBLY (SUBSIDIARY).
 3. ALL BEARING COMPONENTS ARE NEW EXCEPT AS NOTED.

DETAILS FOR REPLACING EXISTING FIXED BEARINGS AT PIERS WITH FABRIC BEARING PADS

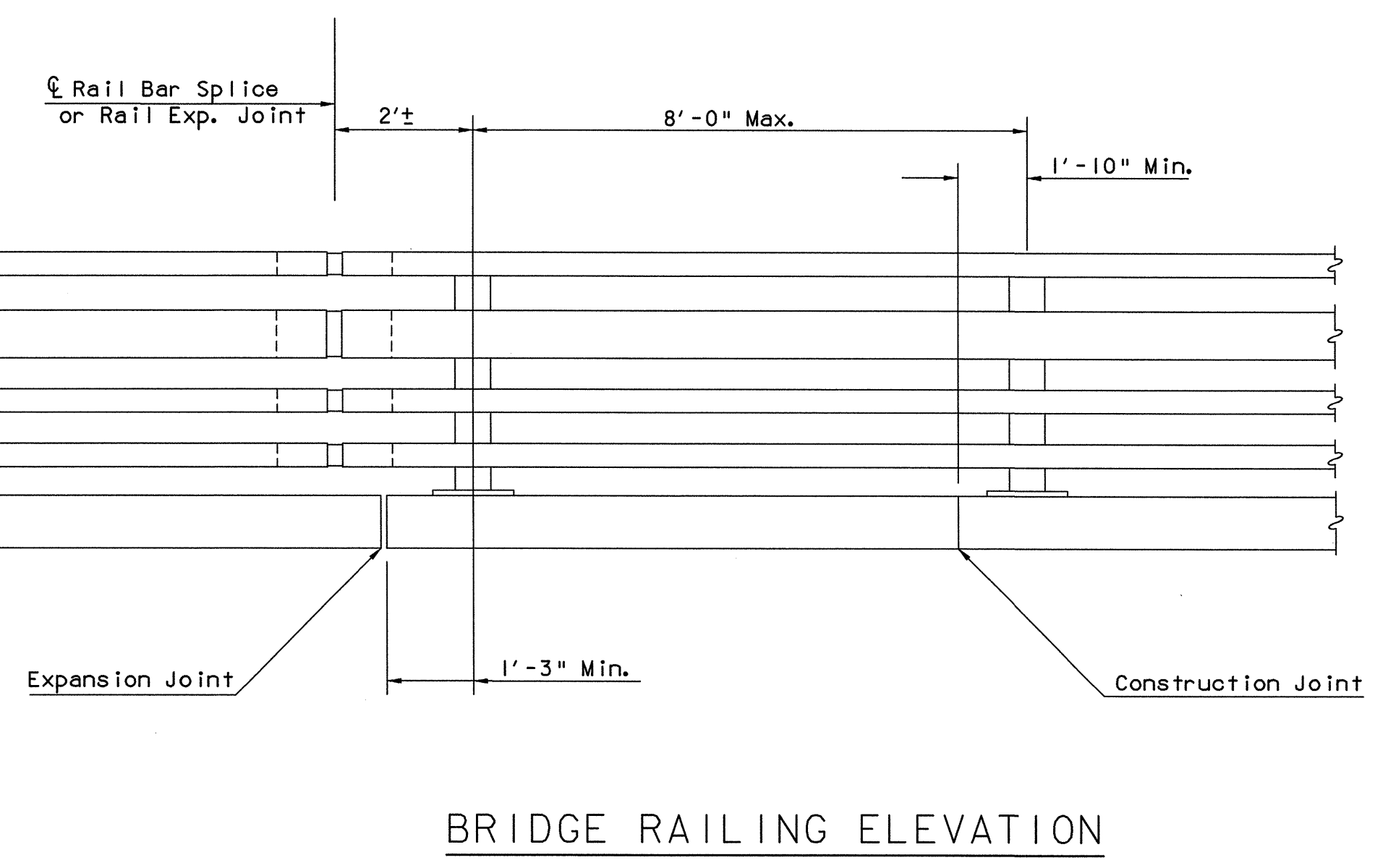
STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log Sta. Surv. Sta.
U.S. 2 OVER I-89	
BEARING TREATMENT DETAIL 'Y'	
Designed By W.M. MOSHER	Drawn By B.J. MASSE
Checked By S.M. HOGDON	Date 1/00 Bridge Design Supervisor C.D. BAKER Date 1/00
PROJECT SOUTH BURLINGTON	PROJECT NO. IM DECK (36)
VHB Cad Drawing No. 50929BTY	Date 1/00
Bridge Sheet No.	Sheet 23 of 75



SPLICE & EXPANSION JOINT TABLE					
T	A	B	C	L	X
Splice	4"	2"	--	20"	3/4"
≤ 4"	4"	2"	2 1/2"	20"	2 1/2"
> 4" ≤ 6 1/2"	5 1/2"	2 3/8"	3 1/2"	23 3/4"	4"
> 6 1/2" ≤ 9"	6 1/2"	3 3/8"	9"	27 3/4"	5"
> 9" ≤ 13"	8 1/2"	4 3/8"	11"	33 3/4"	7"

T = Total Movement * = Single Slot



NOTES

- All work and materials 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.
- All exposed cut or sheared edges shall be rounded to a 1/16" radius and be free of burrs.
- 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 four [4] posts.
- Rail bar expansion joints shall be provided in any rail bay spanning a superstructure expansion joint. Rail expansion joint width shall be "X" at 45 °F 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.
- Rail posts anchoring nuts shall be tightened to a snug fit and given an additional 1/8 turn.
- Rail bars shall be attached using 3/4" Ø full diameter body AASHTO M164 (Type 1) round head bolts inserted through the face of the bar. Holes in posts shall be 1/16" larger than the bolt size.
- Holes in rails for rail bar attachment may be field - drilled. Holes shall be coated with an approved zinc - rich paint prior to erection.
- If there is a conflict between these Standard Details and the Design Drawings, the requirements of the Design drawings shall be followed.
- Any bending of rail shall be by shop procedure only.
- The fabricator shall submit shop drawings including welding procedures to the Structures Section for approval in accordance with the provisions of 506.04, shop drawings. All welding shall conform with section 506.10.
- The drop-weight tear test in section 732 shall not apply to the structural tubing on this standard.
- See Standard BR3-97 for snow fence details. Adjust u-bolt spacing to accommodate 4-bar bridge rail.
- See sheet 12B for reinforcing details in sidewalk.
- See sheet 26 for bridge rail layout and additional notes and details.

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 36
 Anchor studs.....ASTM A449
 All other bolts [unless noted].....ASTM A307

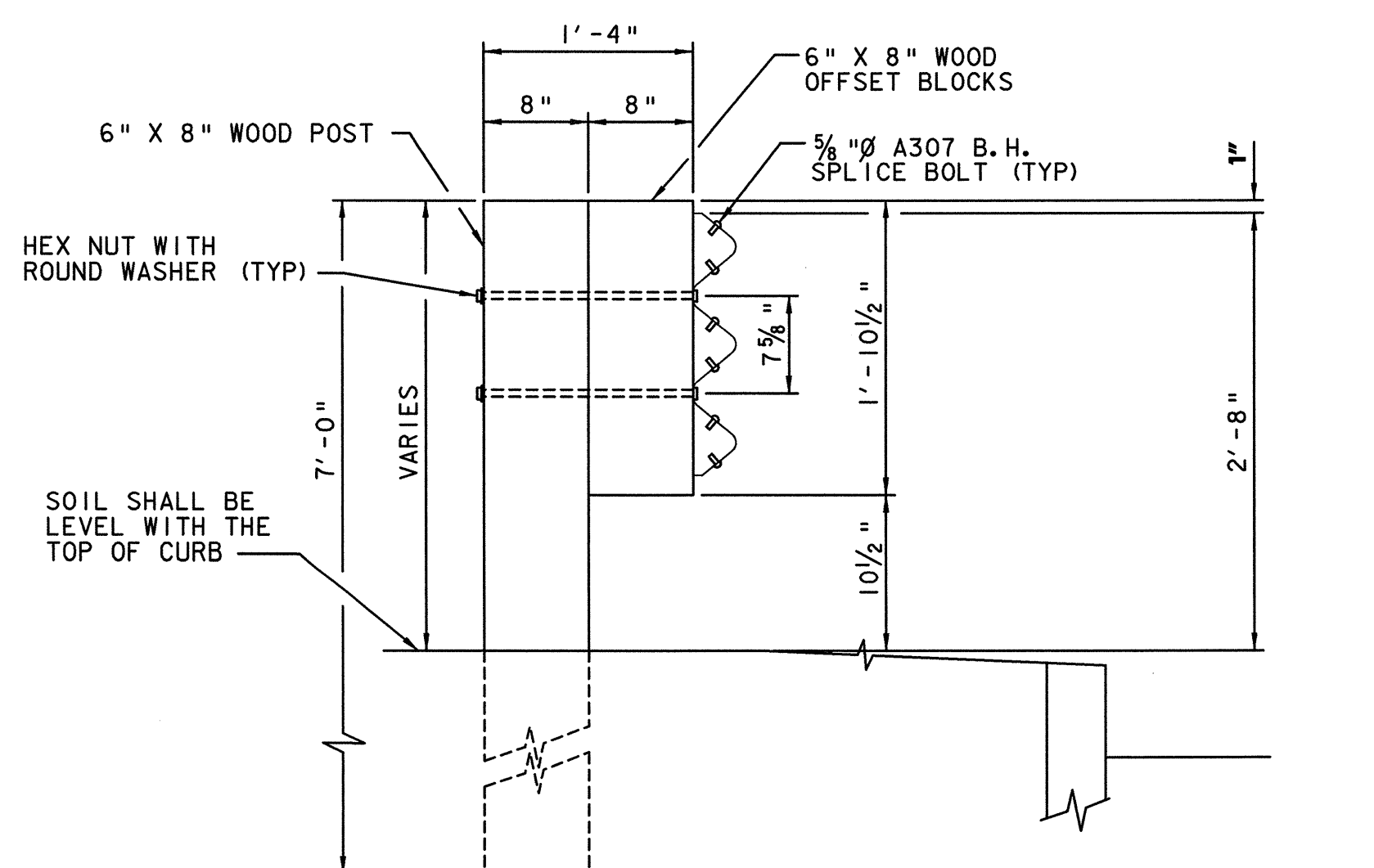
Nuts for AASHTO M164 bolts shall comply with AASHTO M291. Nuts for anchor studs shall comply with ASTM A563.

Washers shall comply with AASHTO M293 (ASTM F436) specification.

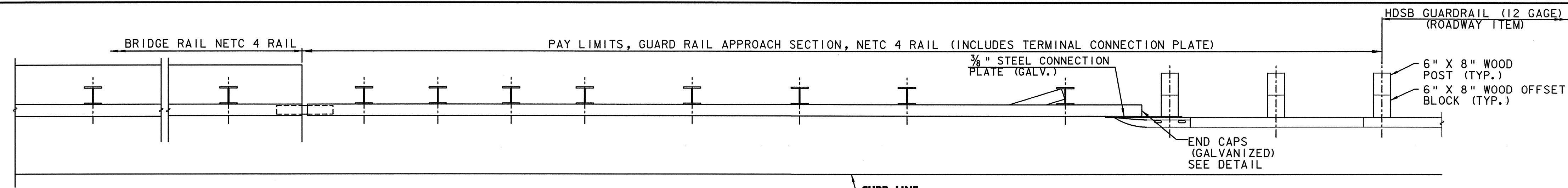
1/8" pad shall comply with standard specification subsection 731.01 or 731.02.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

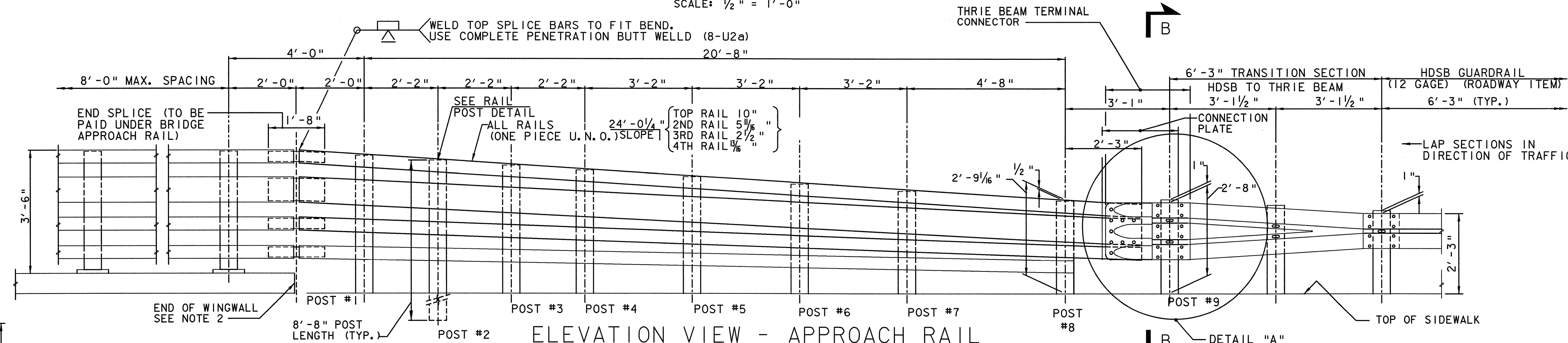
Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log Sta.
Surv. Sta. 	
U.S. 2 OVER I-89	
N.E.T.C. BRIDGE RAIL - 4 RAIL	
Designed By VAOT	Drawn By C. L. CILLEY
Checked By VAOT	Bridge Design Supervisor
Date 1/00	Date
Project SOUTH BURLINGTON	Project No. IM DECK (36)
VHB Cad Drawing No. BR-119	Date 1/00
Bridge Sheet No.	Sheet 24 of 75



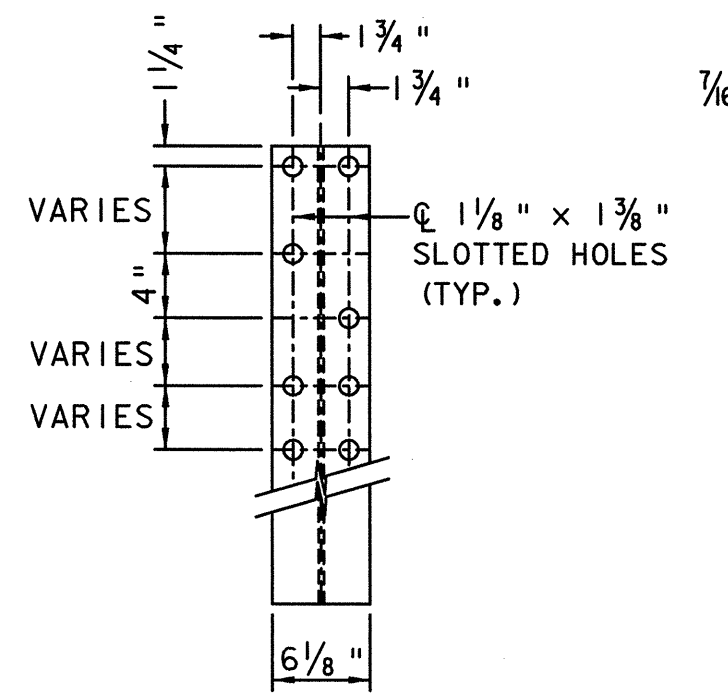
SECTION B-B (POST RAIL ASSEMBLY)
SCALE: 1" = 1'-0"



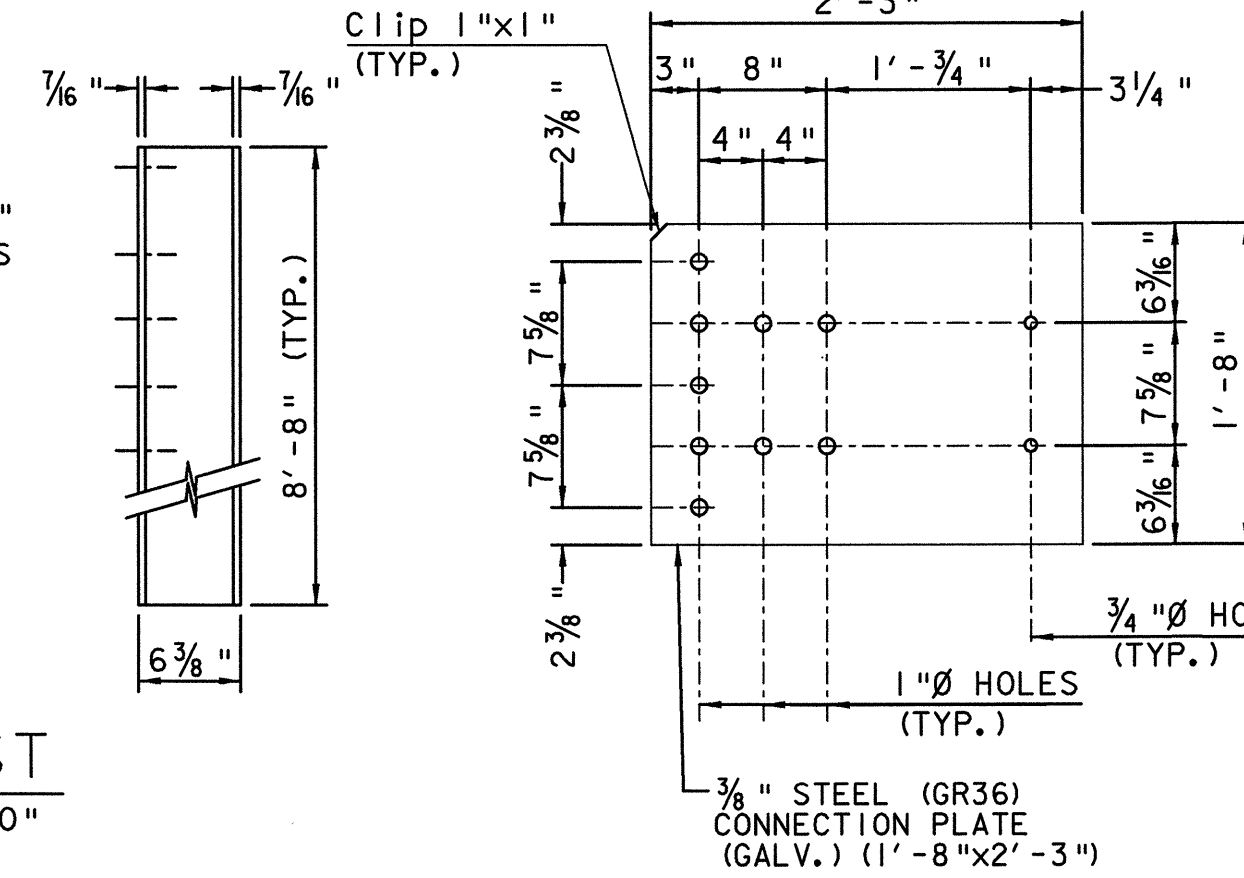
PLAN VIEW - APPROACH RAIL
SCALE: 1/2" = 1'-0"



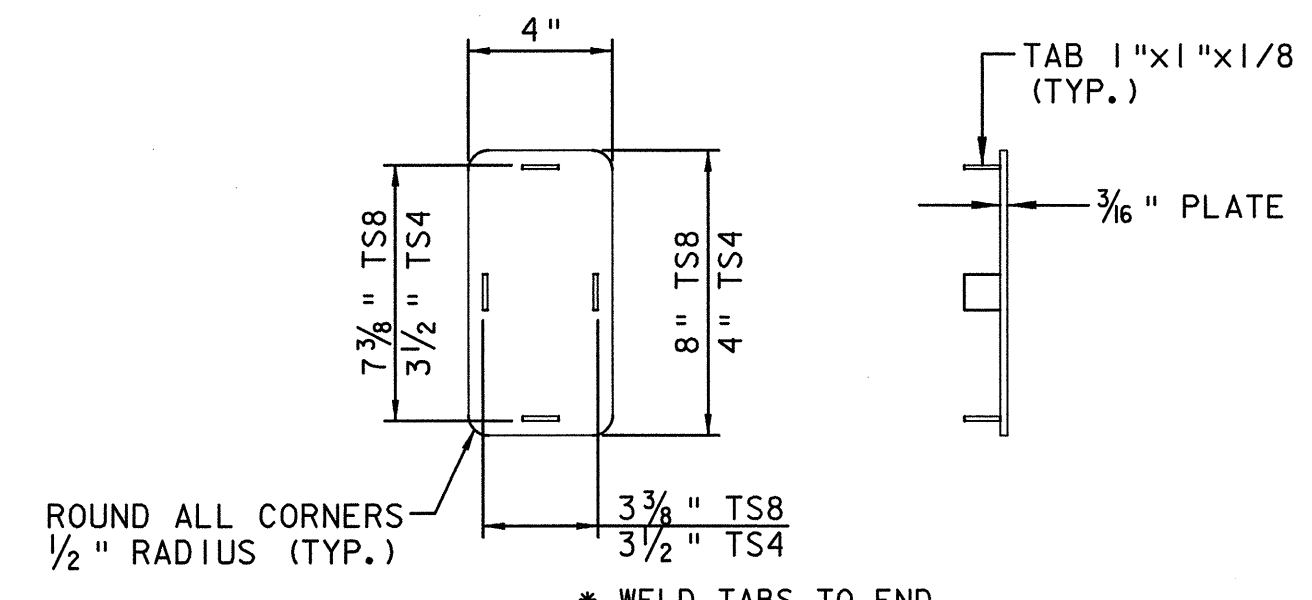
ELEVATION VIEW - APPROACH RAIL
SCALE: 1/2" = 1'-0"



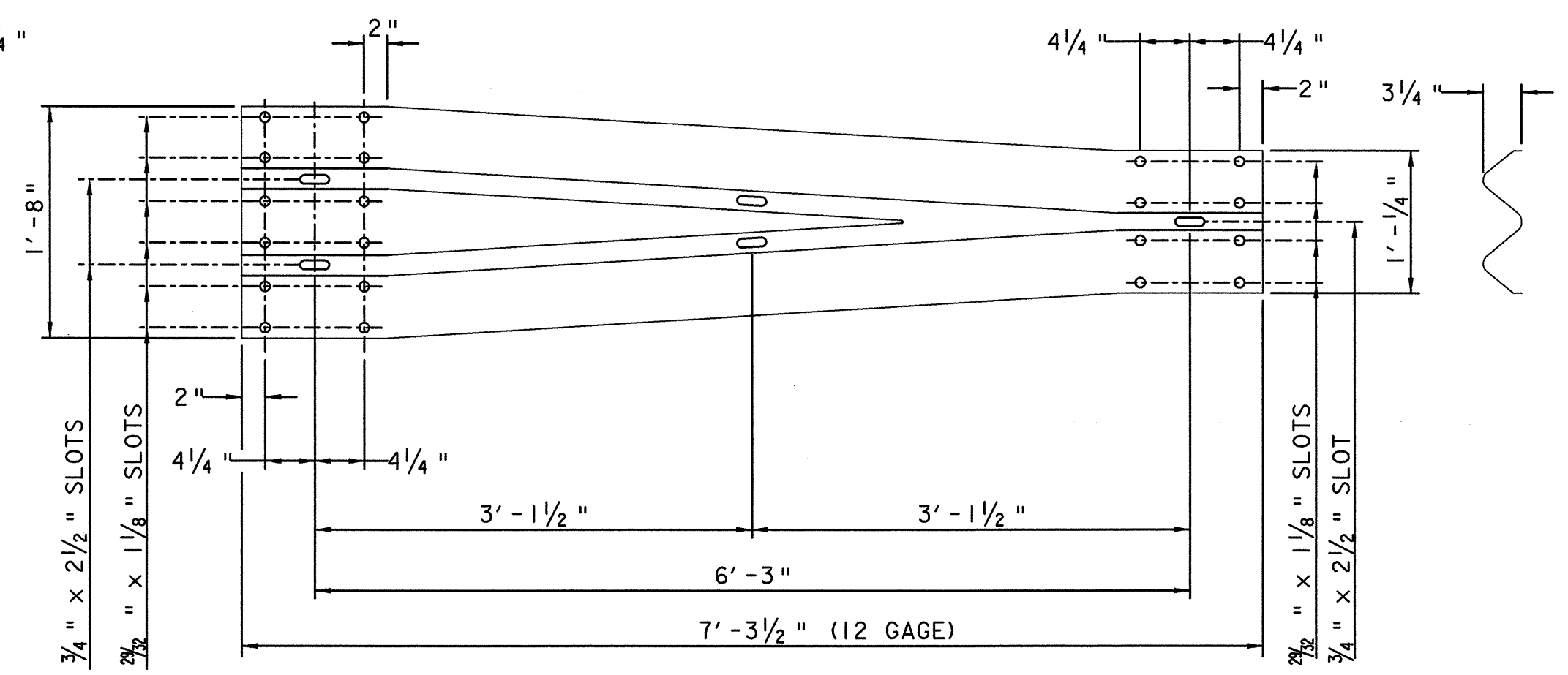
RAIL POST
SCALE: 1" = 1'-0"



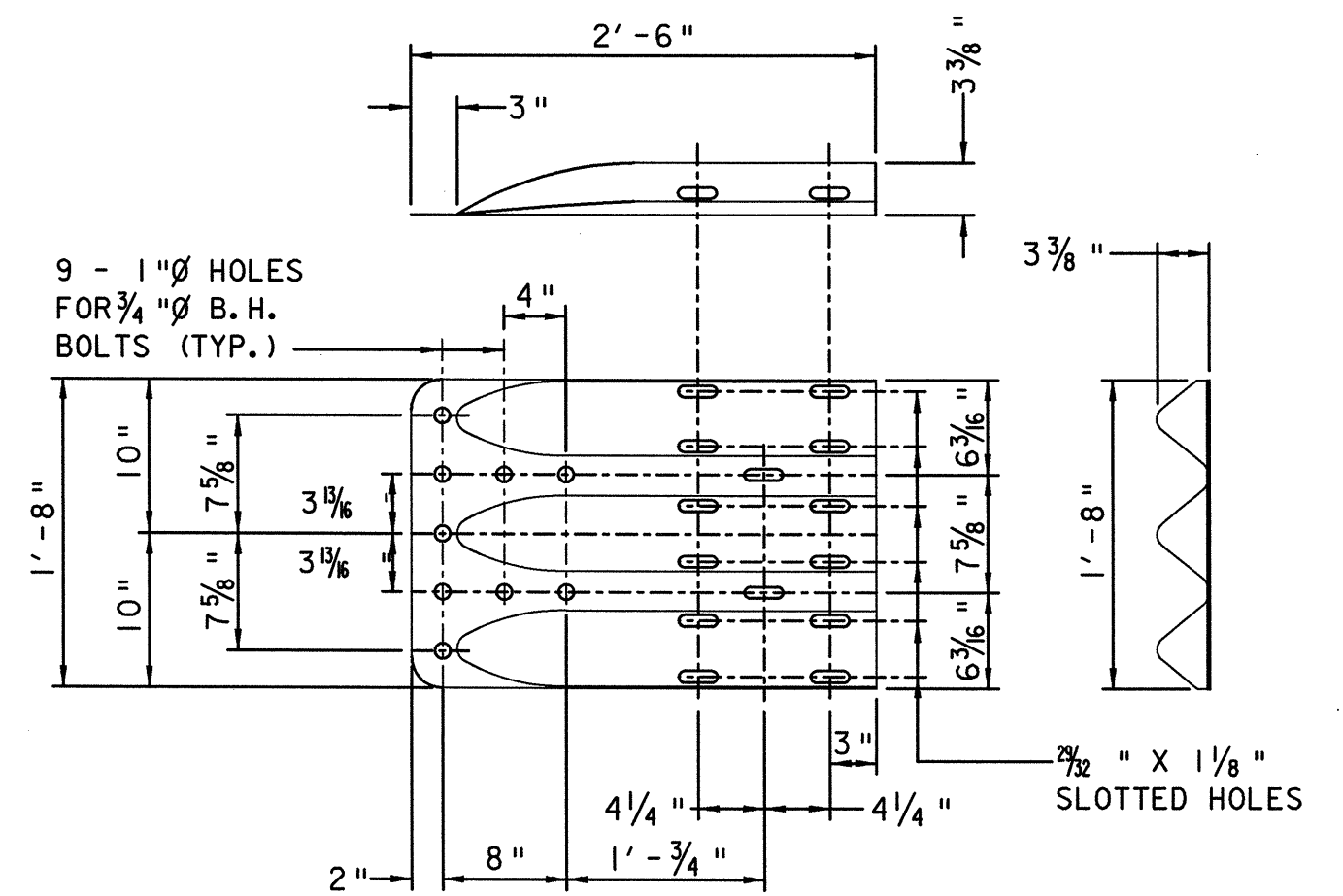
CONNECTION PLATE
SCALE: 1" = 1'-0"



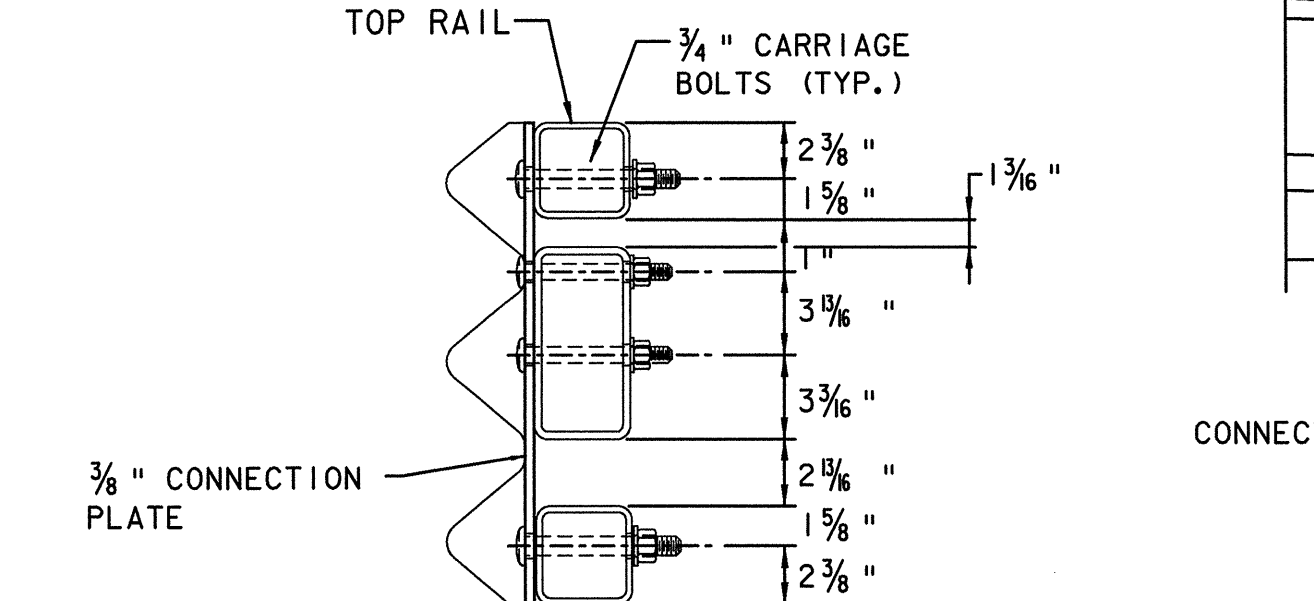
END CAP DETAIL
SCALE: 1 1/2" = 1'-0"



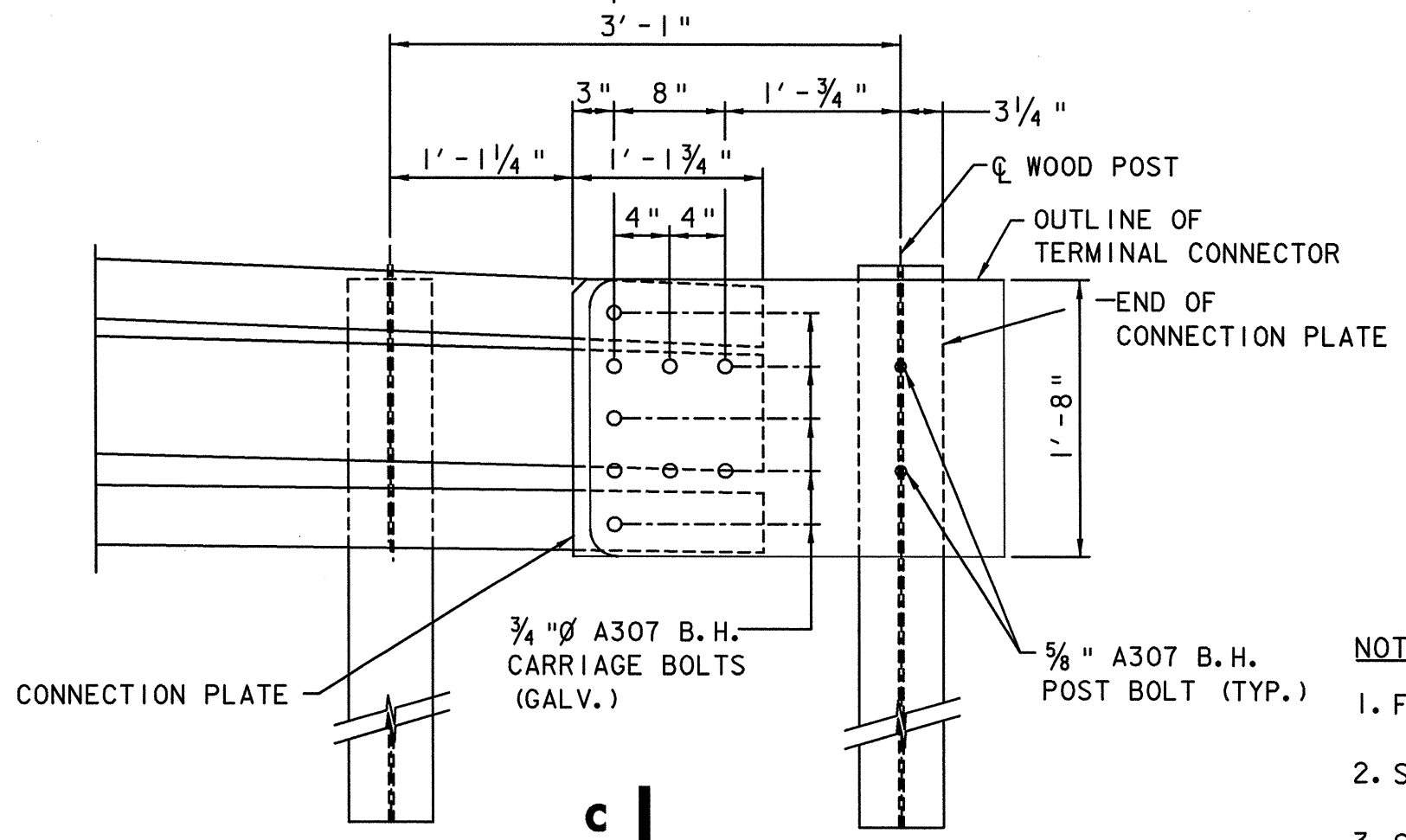
THRIE-BEAM TO HDSB TRANSITION SECTION
SCALE: 1" = 1'-0"



THRIE-BEAM TERMINAL CONNECTOR
SCALE: 1" = 1'-0"



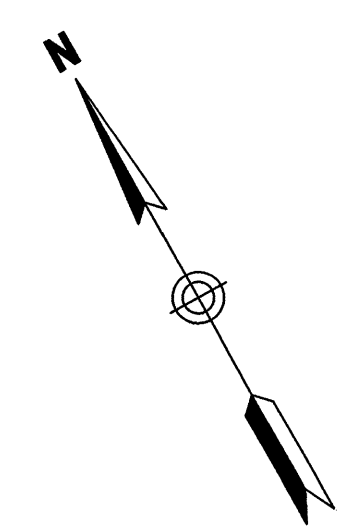
SECTION C-C (CONNECTION PLATE)
SCALE: 1" = 1'-0"



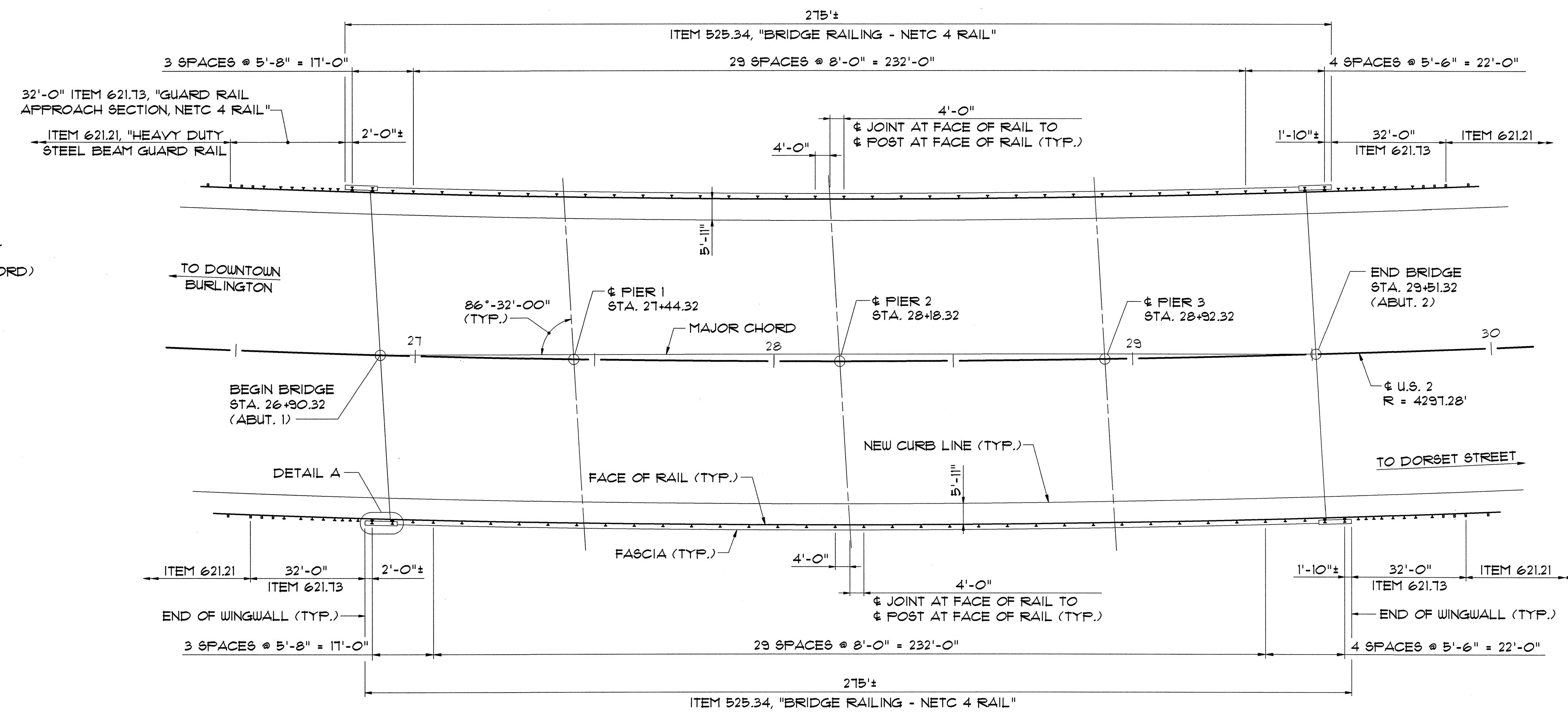
DETAIL A
SCALE: 1" = 1'-0"

- NOTES:
- FOR NOTES SEE SHEET 24.
 - SEE EXISTING PLANS FOR LOCATION OF WINGWALL.
 - SEE SHEET 26 FOR BRIDGE AND APPROACH RAIL LAYOUT.

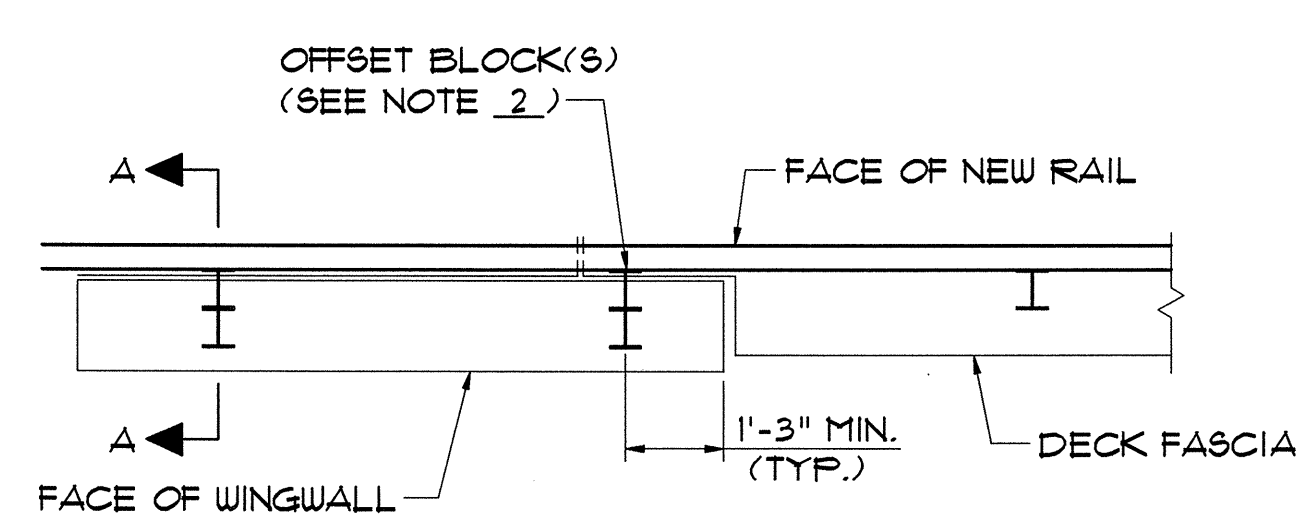
STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log Sta. Surv. Sta.
U.S. 2 OVER I-89	
GUARD RAIL APPROACH SECTION, N.E.T.C. 4 RAIL	
Designed By VAOT	Drawn By C. L. CILLEY
Checked By VAOT	Bridge Design Supervisor Date
Project SOUTH BURLINGTON	Project No. IM DECK (36)
VHB Cad Drawing No. BR-122	Date 1/00
Bridge Sheet No.	Sheet 25 of 75



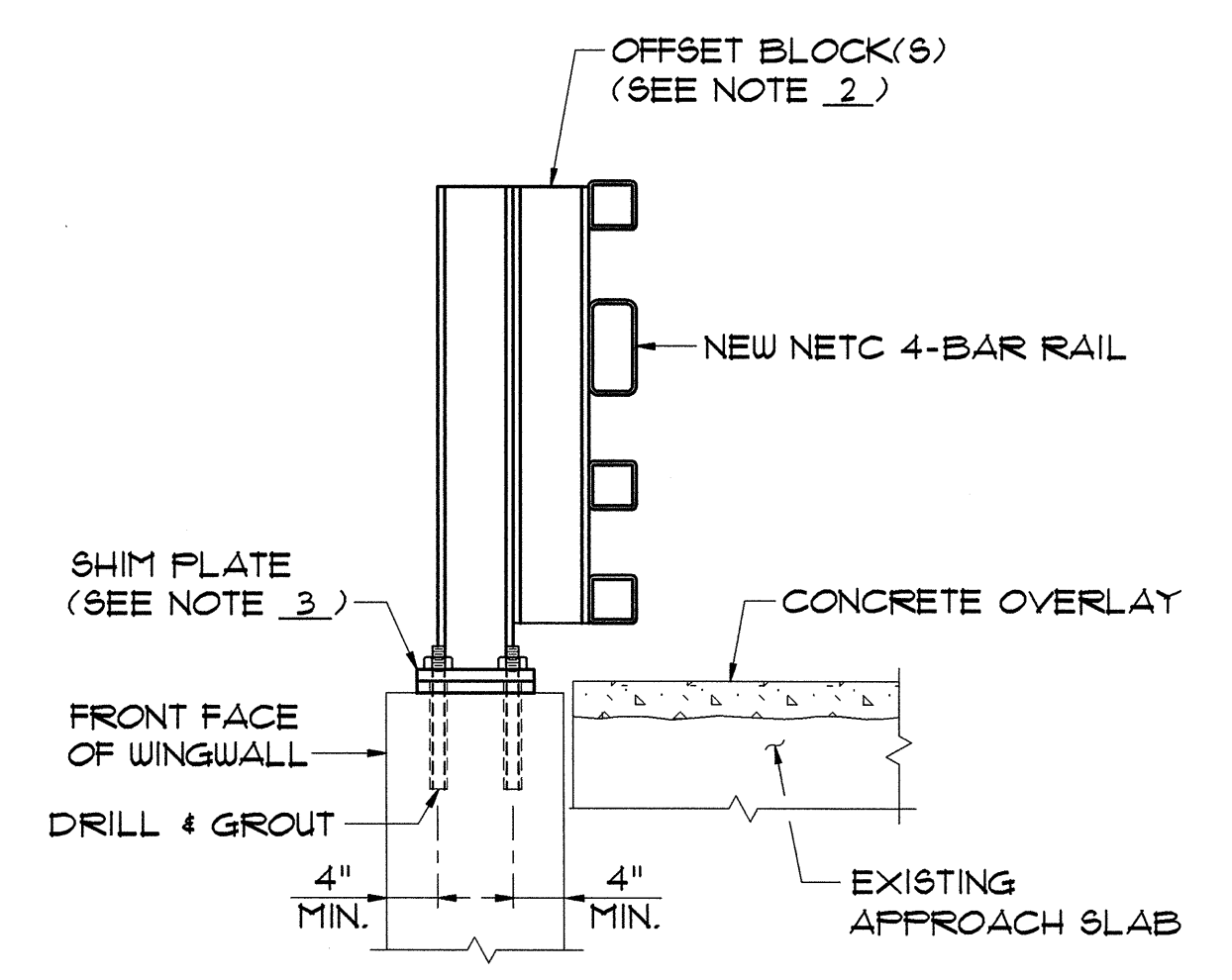
U.S. ROUTE 2
 $\Delta = 9^{\circ}-11'-00''$ LT.
 $D = 1^{\circ}-20'-00''$
 $R = 4297.28'$ (CHORD)
 $T = 345.12'$
 $L = 688.75'$
 $E = 13.84'$



PLAN
 SCALE: 1"=20'



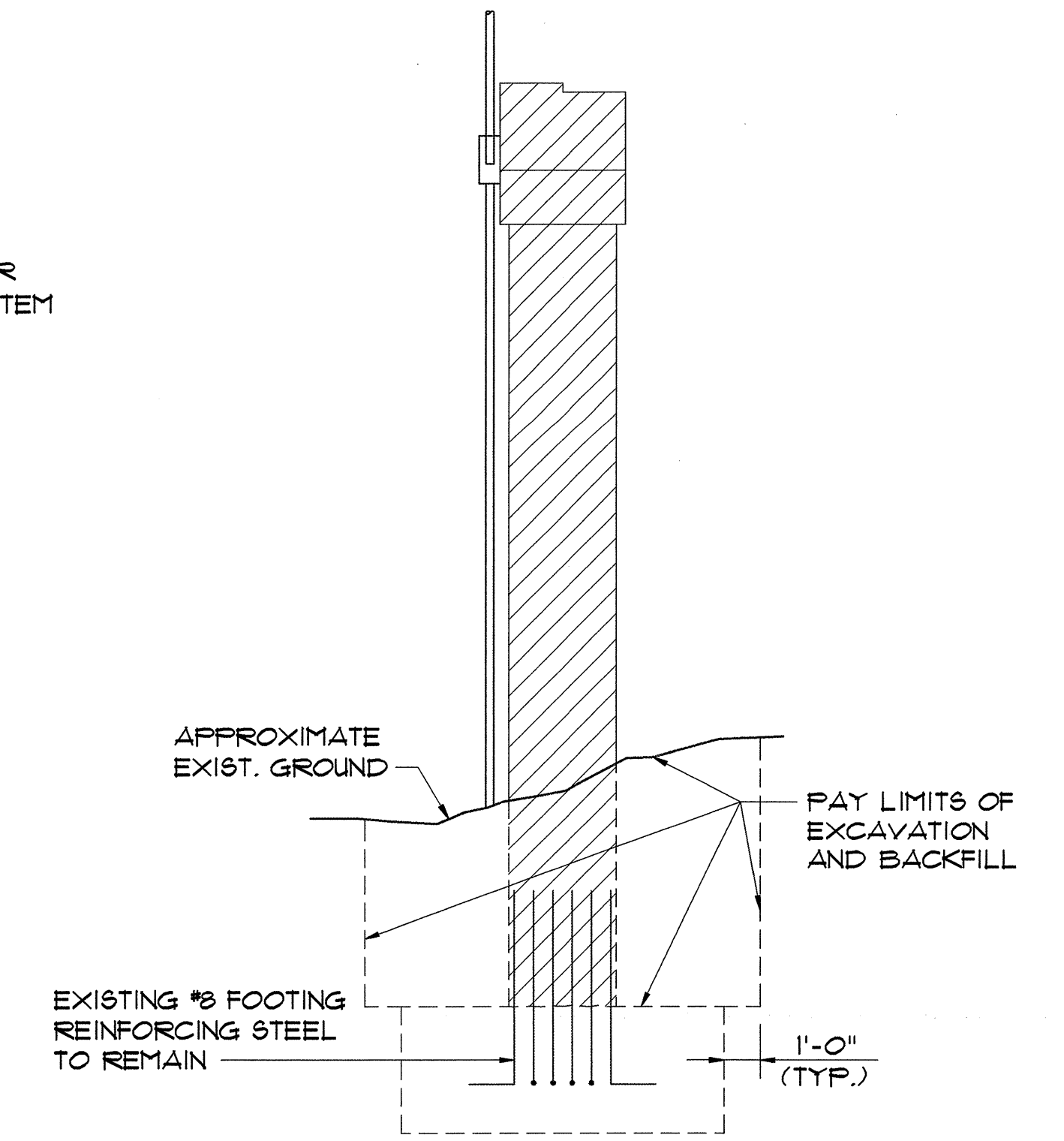
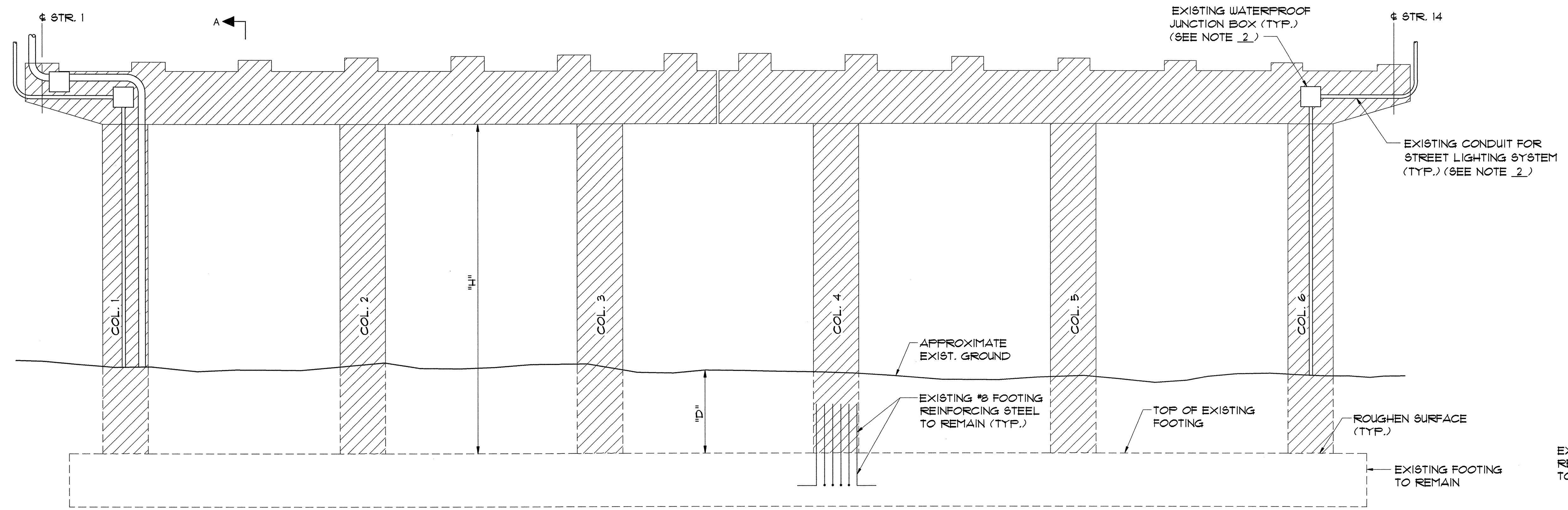
DETAIL A
TYPICAL RAIL TREATMENT AT WINGWALL
 SCALE: 3/8"=1'-0"



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

- NOTES:**
1. THE BRIDGE RAIL LAYOUT SHOWN IS BASED ON INFORMATION FROM EXISTING PLANS. THE CONTRACTOR SHALL VERIFY THE PROPOSED BRIDGE RAIL LAYOUT PRIOR TO THE FABRICATION OF BRIDGE RAIL.
 2. NEW BRIDGE RAIL POSTS ON EXISTING WINGWALLS SHALL INCLUDE OFFSET BLOCKS TO ACCOMMODATE THE PROPOSED FACE OF RAIL. THE CONFIGURATION OF THE OFFSET BLOCK(S) SHALL BE DETERMINED FROM FIELD MEASUREMENTS. DETAILS SHALL BE INCLUDED IN THE BRIDGE RAIL SHOP DRAWINGS. NEW RAIL POSTS SHALL BE POSITIONED ON EXISTING WINGWALLS SO THAT THE RAIL POST ANCHOR BOLTS ARE AT LEAST 4 INCHES AWAY FROM THE FRONT FACE AND BACK FACE OF THE EXISTING WINGWALL MASONRY AS SHOWN ON THIS SHEET.
 3. NEW BRIDGE RAIL POSTS ON EXISTING WINGWALLS REQUIRE A SINGLE SHIM PLATE BETWEEN THE 1/8" BEARING PAD AND THE RAIL POST BASE PLATE. THE SHIM PLATE THICKNESS SHALL BE DETERMINED FROM FIELD MEASUREMENTS BASED ON THE INCREASE IN FINISHED GRADE OF THE SIDEWALK AND THE EXISTING ELEVATION OF THE WINGWALL. ANCHOR BOLT LENGTHS FOR POSTS ON WINGWALLS SHALL BE ADJUSTED TO COMPENSATE FOR SHIM PLATE THICKNESS.
 4. DRILLING AND GROUTING OF ANCHOR BOLTS INTO THE EXISTING WINGWALL MASONRY SHALL BE PAID AS ITEM 507.16, "DRILLING AND GROUTING DOUELS."
 5. SEE SHEET 24 FOR ADDITIONAL NOTES AND DETAILS.

STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No.	U.S. 2	Log Sta.	
		Surv. Sta.	
U.S. 2 OVER I-89			
BRIDGE RAIL LAYOUT			
Designed By	T.S. BRYANT	Drawn By	B.J. MASSE
Checked By	S.M. HODGDON	Date	1/00
		Bridge Design Supervisor	C.D. BAKER
		Date	1/00
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
VHB Cad Drawing No.	50929BRL	Date	1/00
Bridge Sheet No.		Sheet	26 of 15



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

DENOTES REMOVAL

TYPICAL EXISTING PIER REMOVAL
(PIER 1, ABUTMENT 1 SIDE, SHOWN - OTHER PIERS SIMILAR)
SCALE: 1/4"=1'-0"

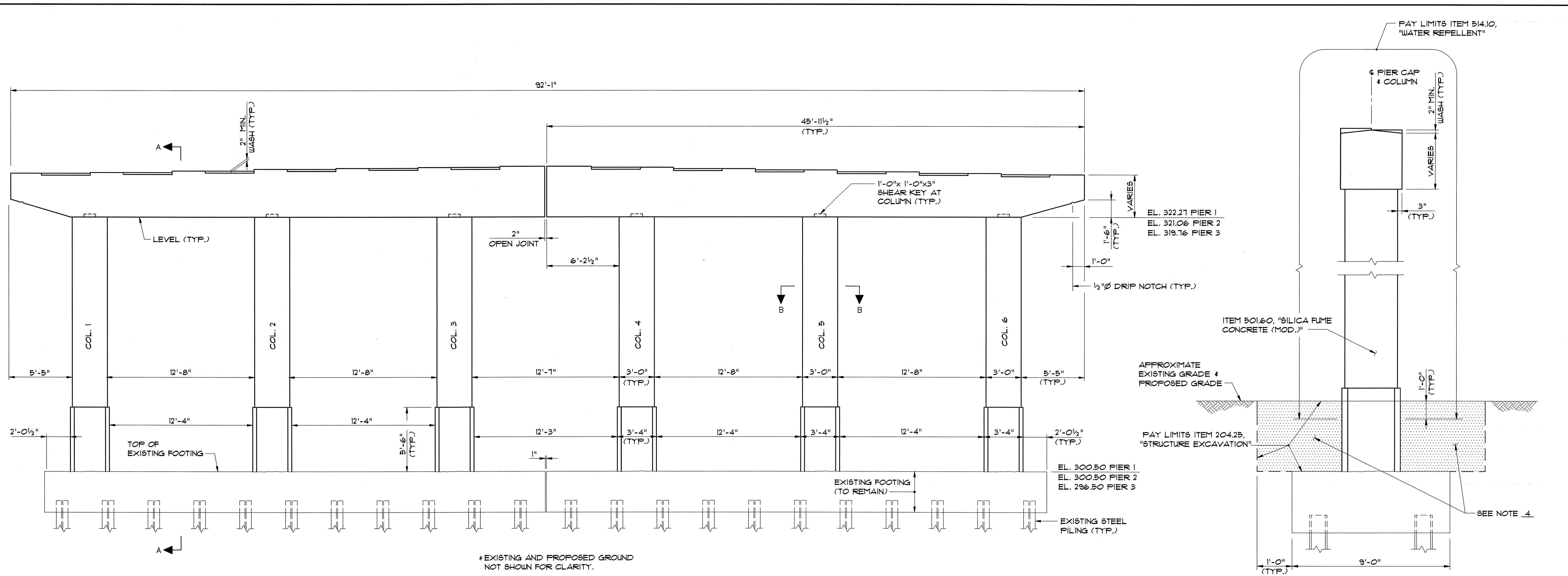
COLUMN HEIGHT "H"	PIER 1	PIER 2	PIER 3
COLUMNS 1 THRU 6	21'-9"	20'-6"	23'-3"
EXISTING GROUND TO TOP OF FOOTING AVERAGE DIMENSION, "D"	6'	4'	9'

NOTES:

- ALL EXISTING PIER CAPS AND COLUMNS SHALL BE REMOVED TO THE TOP OF FOOTING. EXISTING #8 REINFORCING STEEL THAT EXTENDS FROM THE EXISTING FOOTINGS SHALL BE RETAINED AND CLEANED OF ALL CONCRETE, SCALE, PAINT, OIL AND OTHER FOREIGN SUBSTANCES. ALL PIER REMOVAL WORK SHALL BE PAID UNDER ITEM 523.20, "PARTIAL REMOVAL OF STRUCTURE". SEE SCOPE OF WORK NOTE 10 ON SHEET 1 FOR SUPERSTRUCTURE SHORING REQUIREMENTS.
- EXISTING STREET LIGHTING, CONDUIT AND JUNCTION BOXES ON PIERS 1 AND 3 SHALL BE TEMPORARILY RELOCATED DURING REMOVAL AND RECONSTRUCTION OF THE PIERS. SEE SCOPE OF WORK NOTE 15 ON SHEET 1.
- EXCAVATION REQUIRED TO REMOVE THE SECTIONS OF THE EXISTING PIERS AND RECONSTRUCT PIERS SHALL BE PAID AS ITEM 204.25, "STRUCTURE EXCAVATION".
- DRIVE TEMPORARY SHEET PILING 1' MIN. OUTSIDE THE EDGE OF THE PIER 1 AND PIER 3 FOOTINGS ON THE I-89 SIDE TO AVOID DAMAGE TO THE EXISTING GUARDRAIL AND ROADWAY FROM THE EXCAVATION REQUIRED FOR PIER WORK. IN THE EVENT THAT THE REMOVAL OF GUARDRAIL ADJACENT TO THE PIERS IS REQUIRED IN ORDER TO PERFORM THE PIER WORK, THE REMOVAL AND REPLACEMENT OF GUARDRAIL SHALL BE PAID AS ITEM 621.15, "REMOVING AND RESET GUARD RAIL." ITEM 621.90, "TEMPORARY TRAFFIC BARRIER" SHALL BE PLACED AS DIRECTED BY THE ENGINEER TO COMPENSATE FOR REMOVAL OF THE GUARDRAIL. ANOTHER METHOD OF TEMPORARY EXCAVATION SUPPORT MAY BE USED AT THE CONTRACTOR'S OPTION IF APPROVED BY THE ENGINEER. FOR ALL TEMPORARY EXCAVATION SUPPORT METHODS USED, THE CONTRACTOR SHALL SUBMIT DETAILS AND CALCULATIONS PREPARED BY A REGISTERED PROFESSIONAL ENGINEER TO THE STRUCTURES ENGINEER FOR INFORMATION ONLY AT LEAST TWO WEEKS PRIOR TO PERFORMING THE WORK. THE DESIGN LIVE LOAD SHALL BE HS20. ALL COSTS FOR TEMPORARY EXCAVATION SUPPORT AT PIERS 1 AND 3 SHALL BE INCLUDED IN ITEM 505.36, "TEMPORARY STEEL SHEET PILING".
- COLUMN HEIGHTS AND EXISTING GROUND TO TOP OF FOOTING DIMENSIONS SHOWN IN THE TABLE ARE BASED ON EXISTING PLAN INFORMATION AND LIMITED FIELD MEASUREMENTS AND ARE APPROXIMATE.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

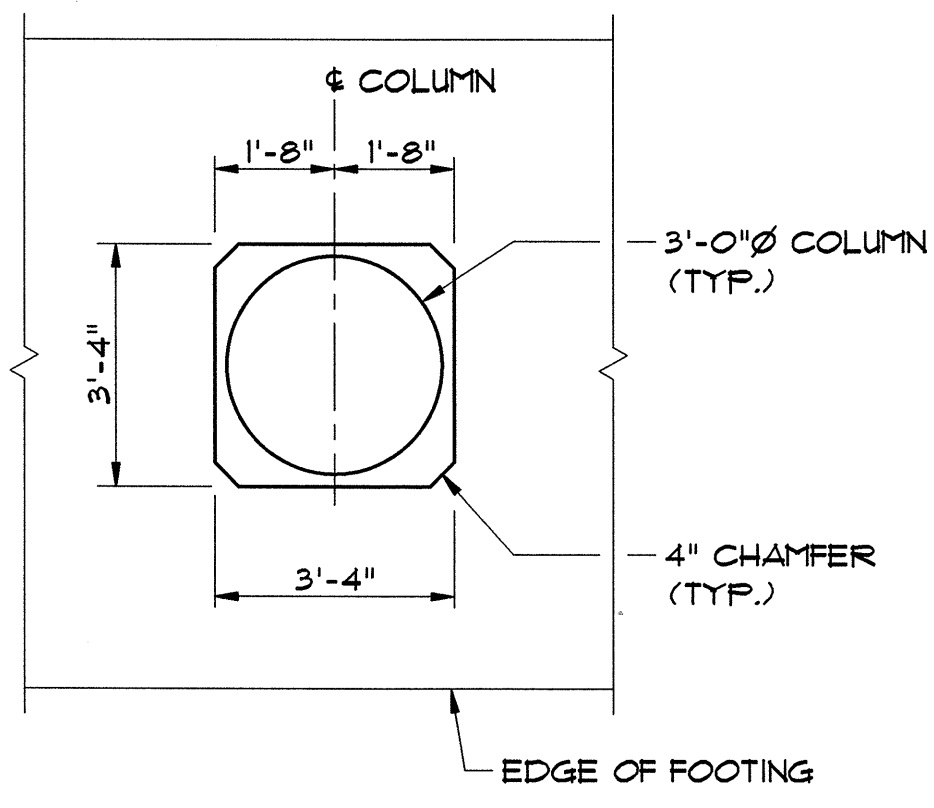
Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log Sta.
	Surv. Sta.
U.S. 2 OVER I-89	
EXISTING PIER REMOVAL	
Designed By A. SETAS	Drawn By B.J. MASSE
Checked By T.S. BRYANT Date 1/00	Bridge Design Supervisor C.D. BAKER Date 1/00
PROJECT SOUTH BURLINGTON	PROJECT NO. IM DECK (36)
VHB Cad Drawing No. 50329PREM	Date 1/00
Bridge Sheet No.	Sheet 28 of 75



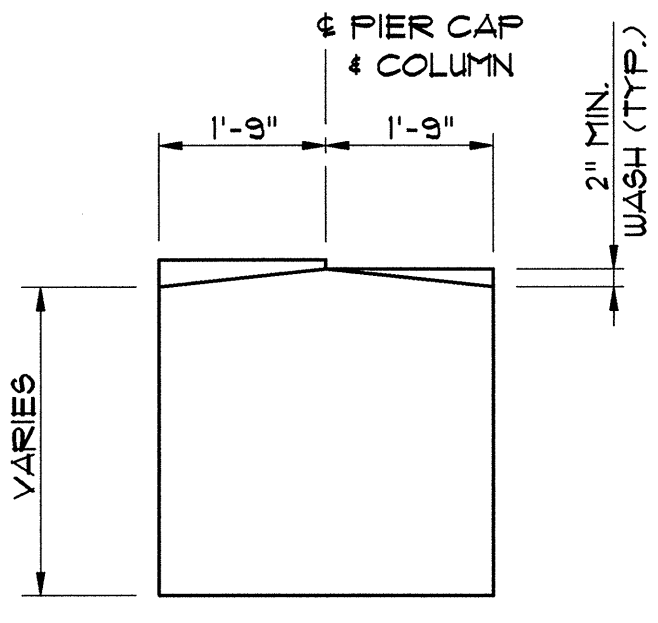
* EXISTING AND PROPOSED GROUND NOT SHOWN FOR CLARITY.

TYPICAL PIER ELEVATION*
(PIER 2, PIER 1 SIDE, SHOWN - OTHER PIERS SIMILAR)
SCALE: 1/4" = 1'-0"

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



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



PIER CAP MASONRY
SCALE: 1/2" = 1'-0"

PIER QUANTITIES

	PIER 1	PIER 2	PIER 3
CONCRETE	85 CY	85 CY	90 CY
REINFORCING STEEL	25385 LBS	25254 LBS	25601 LBS

- NOTES:**
1. REINFORCING STEEL IN THE PIERS SHALL HAVE 4" MINIMUM CLEAR COVER UNLESS OTHERWISE NOTED.
 2. SEE SHEETS 22 AND 23 FOR PIER BEARING ANCHOR BOLT LOCATIONS.
 3. SEE SHEET 30 FOR PIER CAP FLANS.
 4. BACKFILL WITH EXISTING MATERIAL REMOVED (SUBSIDIARY TO ITEM 204.25) UNLESS ORDERED BY THE ENGINEER TO USE ITEM 204.30, "GRANULAR BACKFILL FOR STRUCTURES".

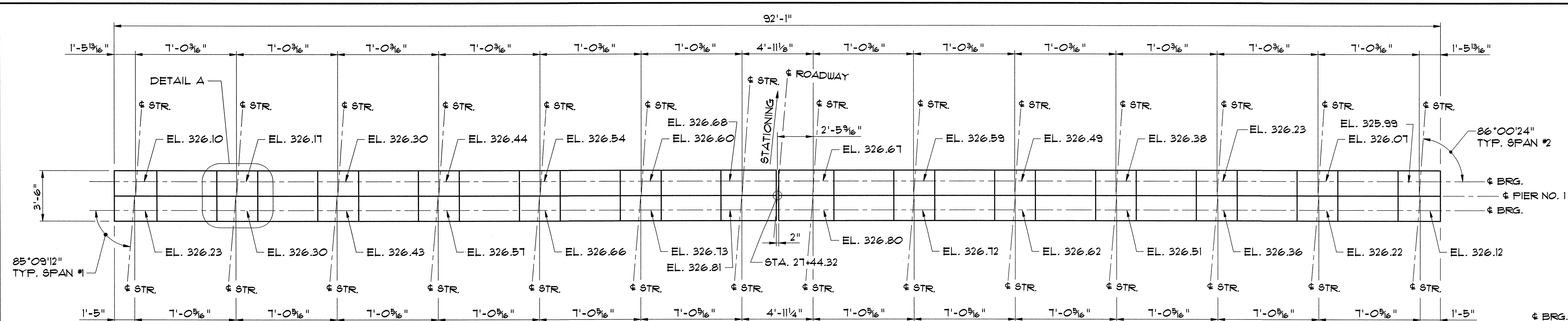
**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of SOUTH BURLINGTON Bridge No. 68
Log Sta.
Highway No. U.S. 2 Surv. Sta.

U.S. 2 OVER I-89
PIER MASONRY

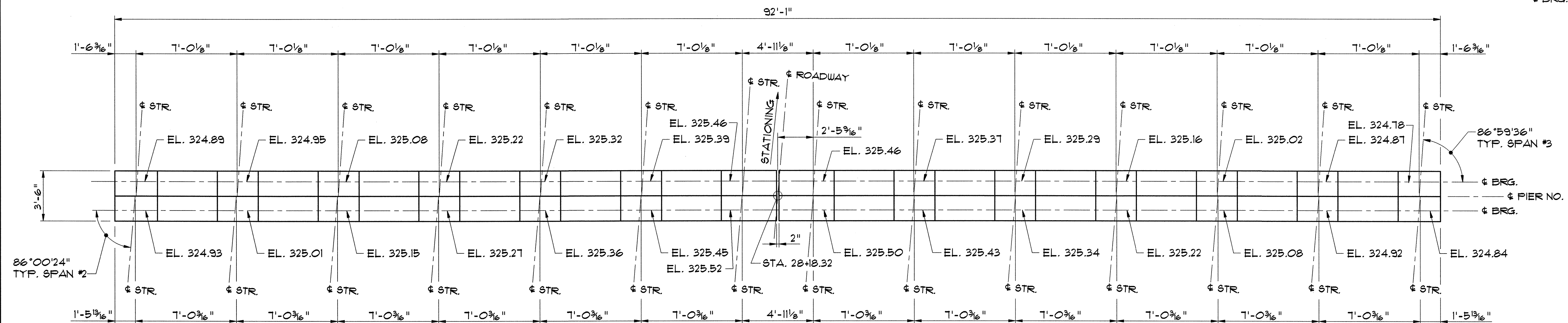
Designed By A. SETAS Drawn By B.J. MASSE
Checked By Date Bridge Design Supervisor
T.S. BRYANT 1/00 C.D. BAKER Date 1/00

PROJECT SOUTH BURLINGTON PROJECT NO. IM DECK (36)
VHB Cad Drawing No. 50929PM Date 1/00
Bridge Sheet No. Sheet 29 of 75



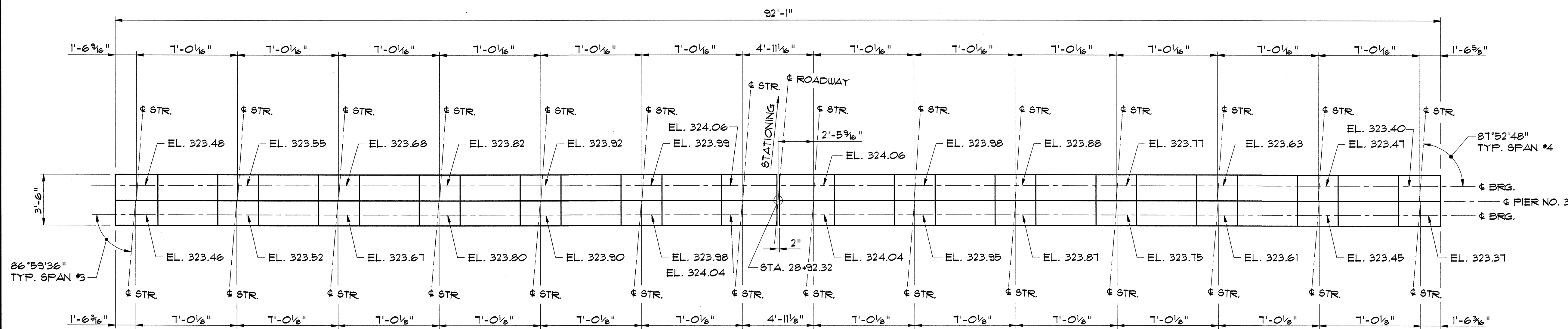
PIER NO. 1 CAP PLAN

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



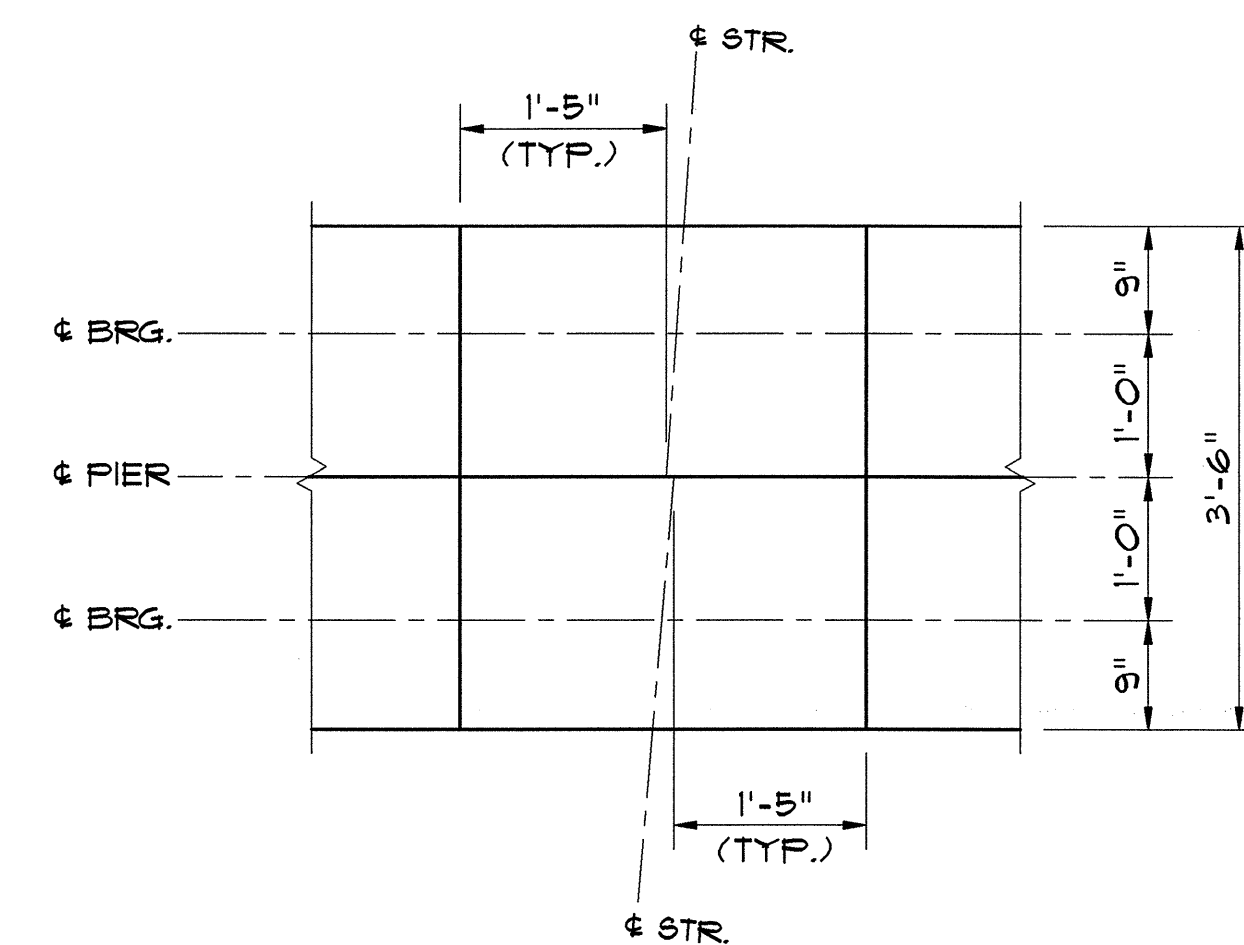
PIER NO. 2 CAP PLAN

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



PIER NO. 3 CAP PLAN

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

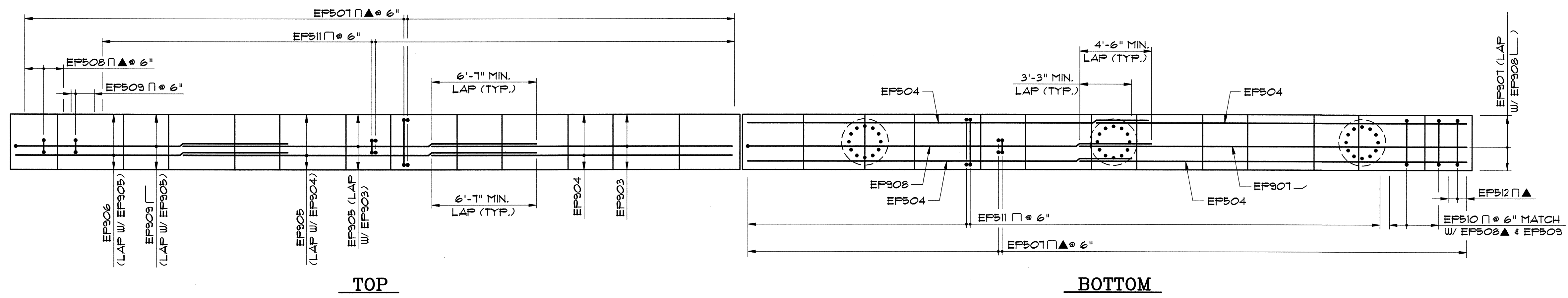


DETAIL A

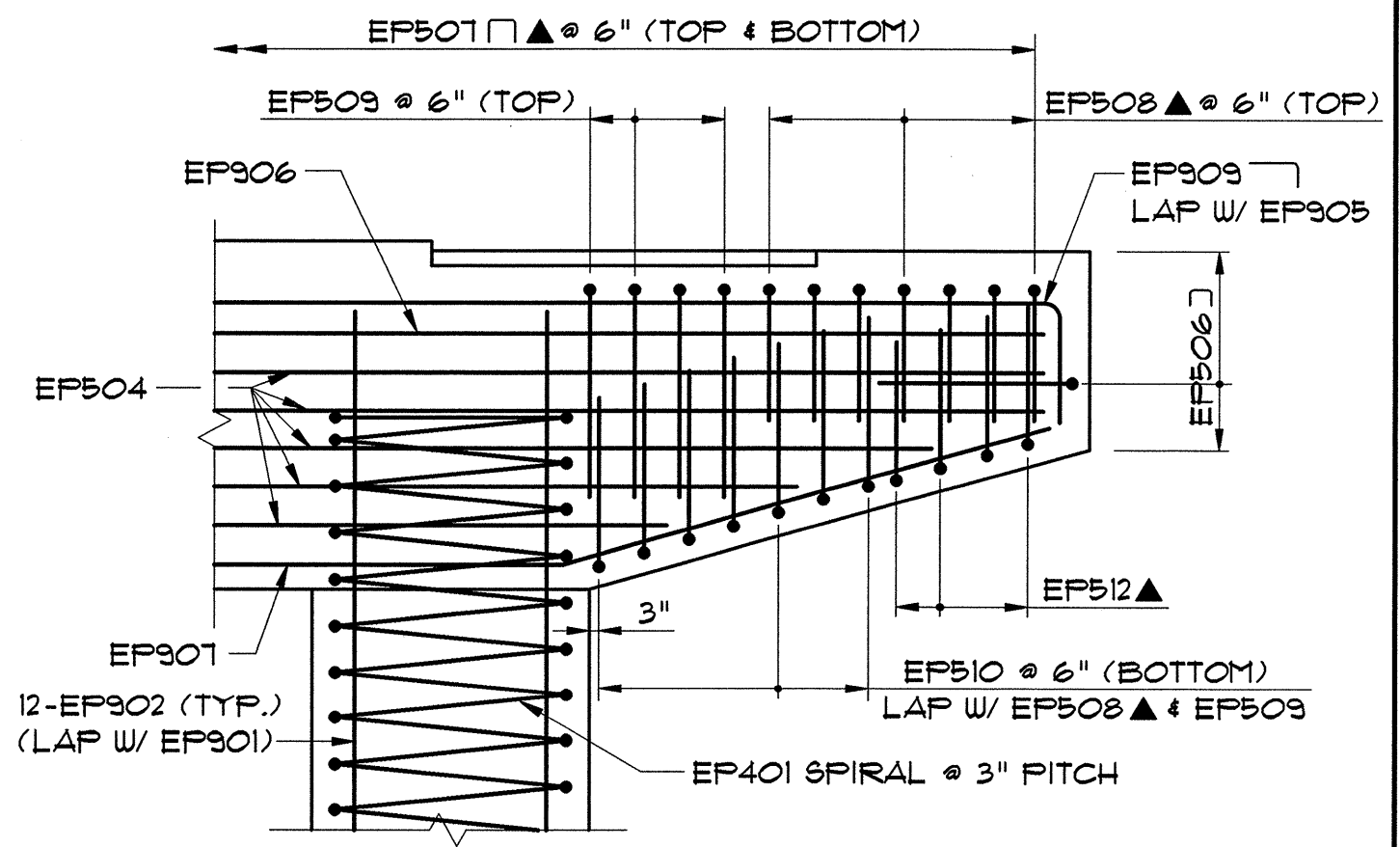
SCALE: 3/4" = 1'-0"

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log Sta. Surv. Sta.
U.S. 2 OVER I-89	
PIER CAP PLAN	
Designed By S.M. HODGDON	Drawn By B.J. MASSE
Checked By T.S. BRYANT	Date 1/00 Bridge Design Supervisor C.D. BAKER Date 1/00
PROJECT SOUTH BURLINGTON	PROJECT NO. IM DECK (36)
VHB Cad Drawing No. 50929FRPL	Date 1/00
Bridge Sheet No.	Sheet 30 of 75

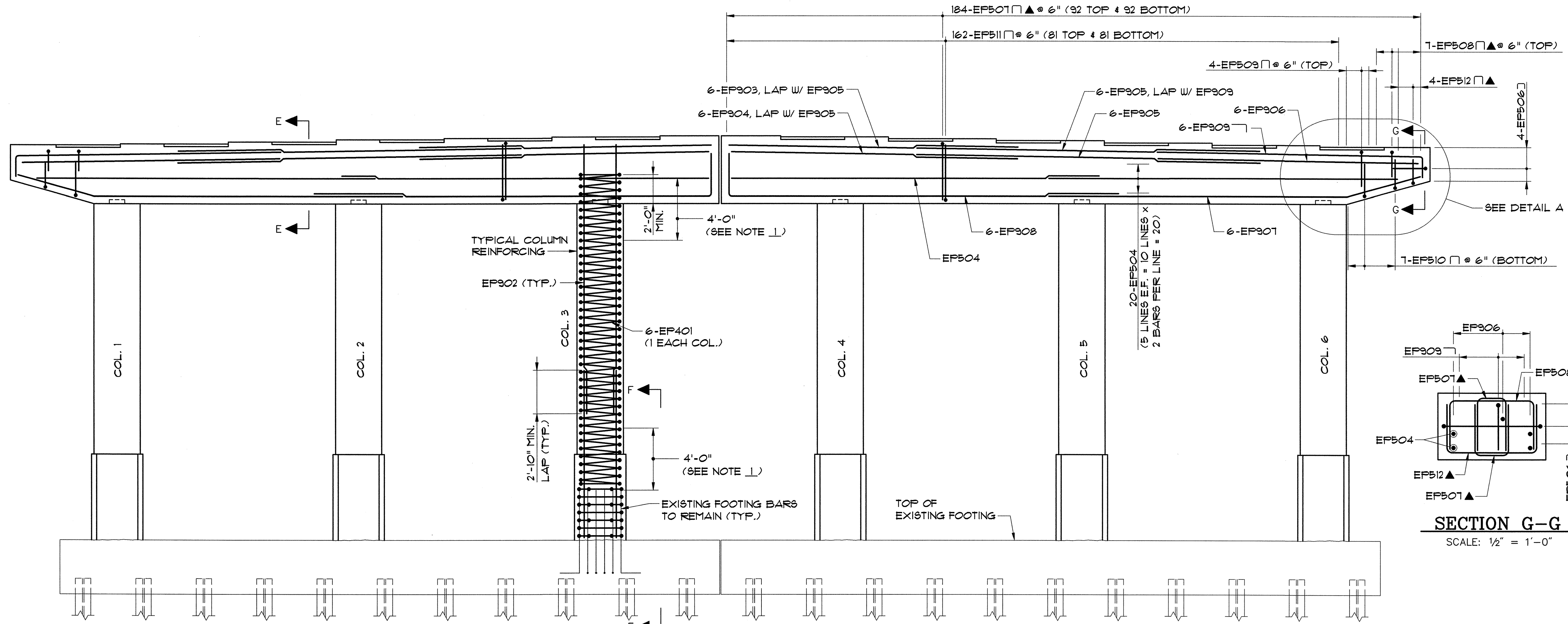
VANASSE HANGEN BRUSTLIN, INC.



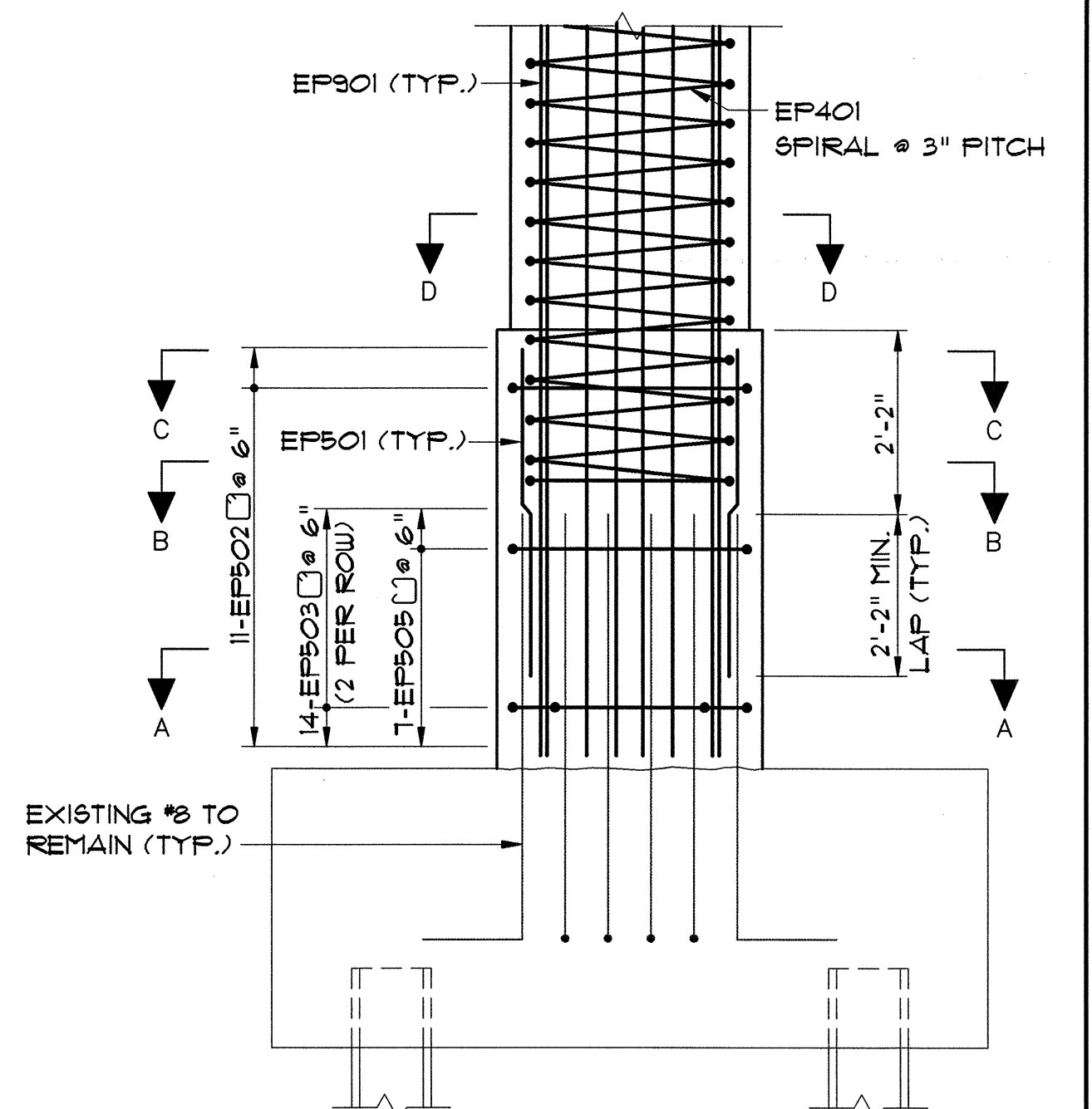
PIER CAP PLAN
SCALE: 1/4" = 1'-0"



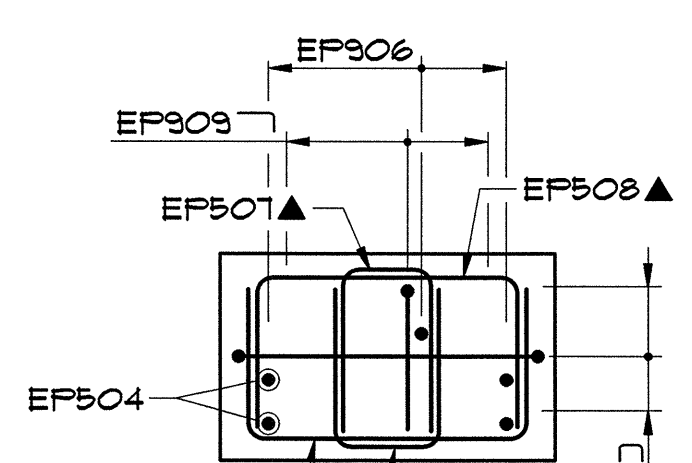
DETAIL A
SCALE: 1/2" = 1'-0"



TYPICAL PIER REINFORCEMENT
SCALE: 1/4" = 1'-0"

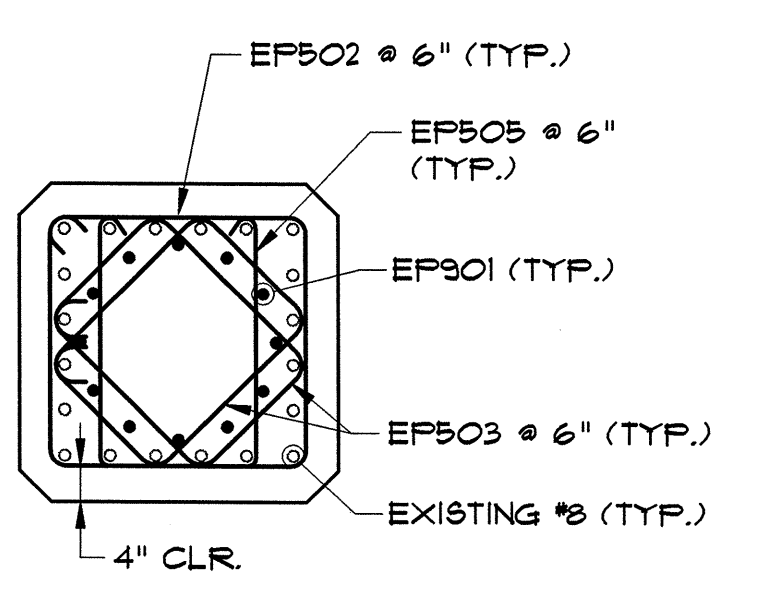


SECTION F-F
SCALE: 1/2" = 1'-0"

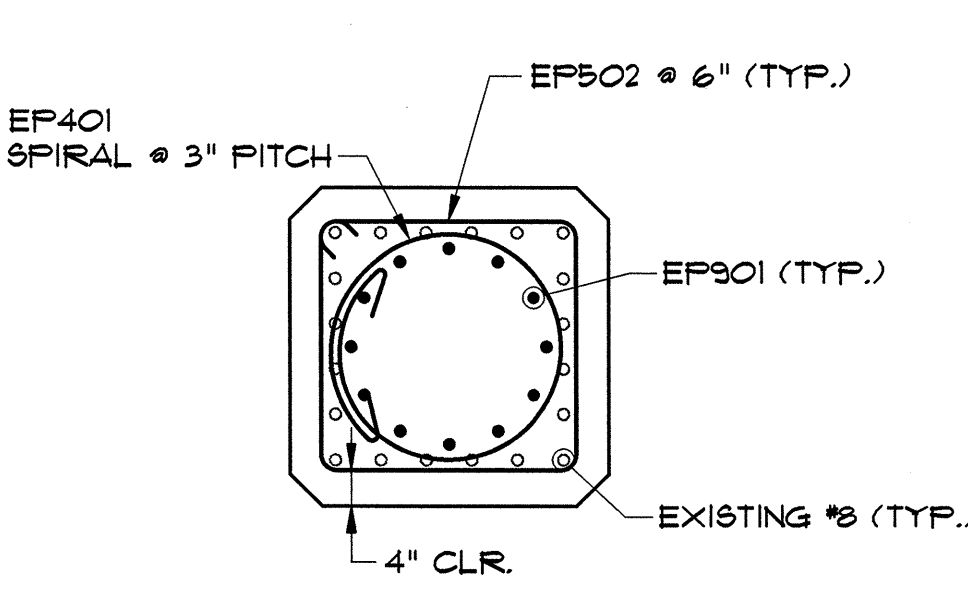


SECTION G-G
SCALE: 1/2" = 1'-0"

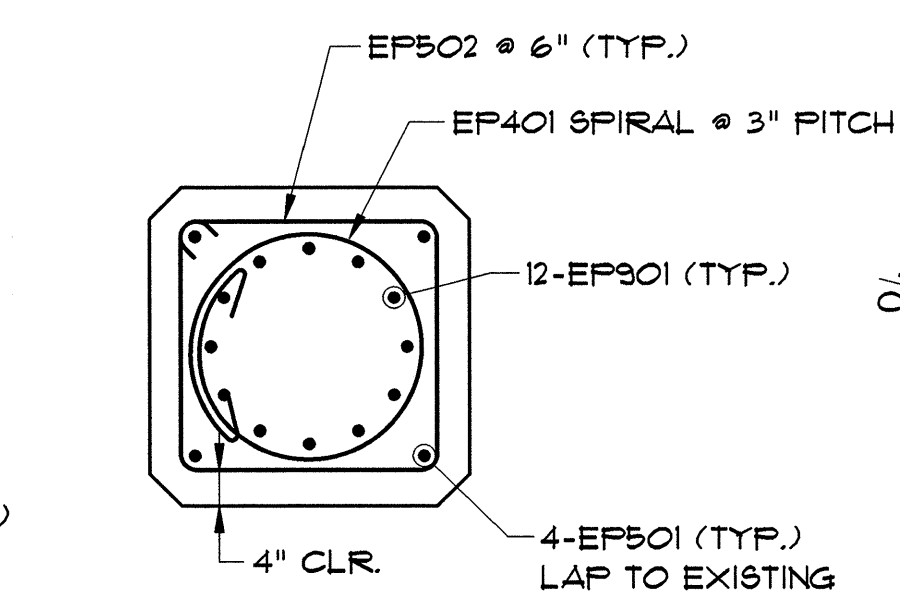
- NOTES:**
1. NO LAP SPLICES IN THE COLUMN SPIRAL REINFORCEMENT SHALL BE ALLOWED WITHIN THE LIMITS SHOWN. ALL COLUMN SPIRAL REINFORCEMENT LAP SPLICES SHALL BE AS SHOWN ON SPIRAL LAP SPLICE DETAIL.
 2. NOTE NOT USED.
 3. SEE BRIDGE SHEET 23 FOR REINFORCEMENT NOTES.
 4. SEE BRIDGE SHEETS 22 AND 23 FOR BEARING ANCHOR BOLT LAYOUT.



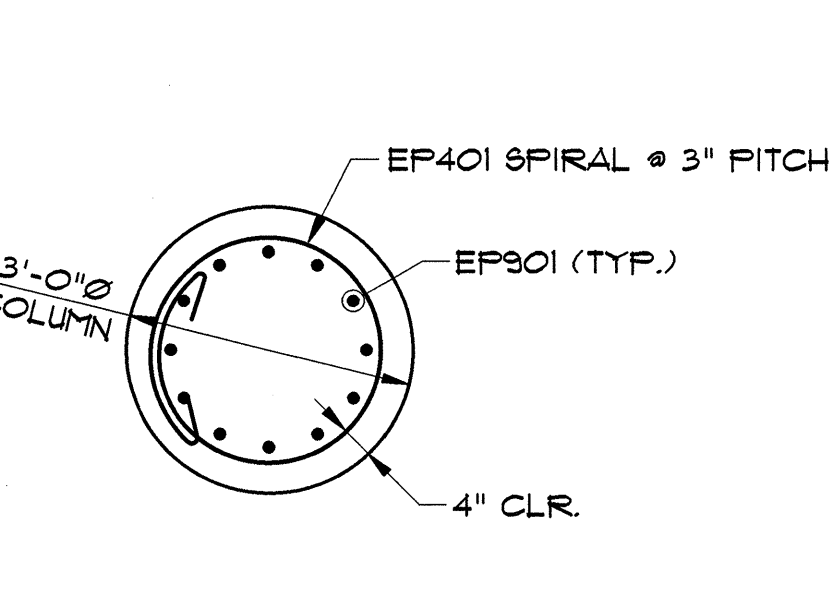
SECTION A-A
SCALE: 1/2" = 1'-0"



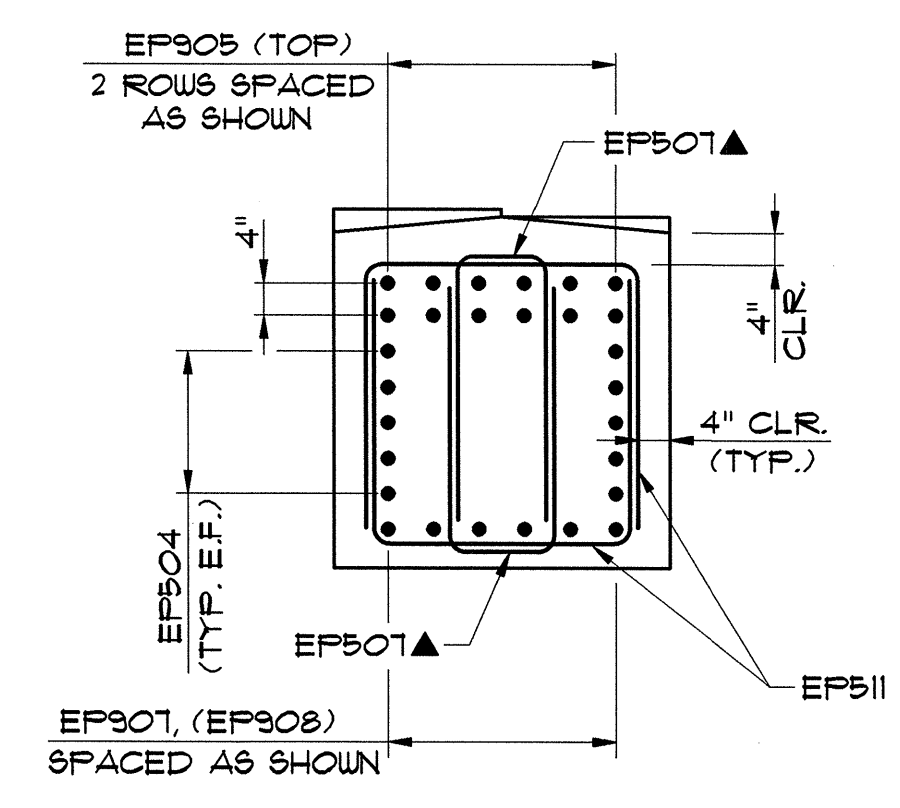
SECTION B-B
SCALE: 1/2" = 1'-0"



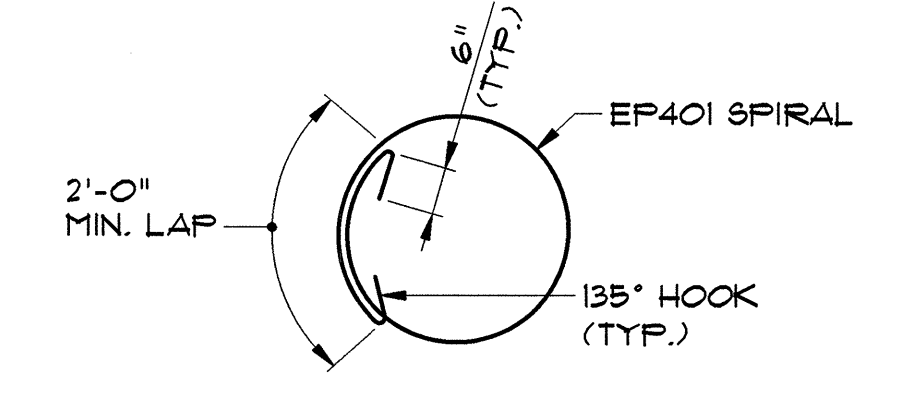
SECTION C-C
SCALE: 1/2" = 1'-0"



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



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

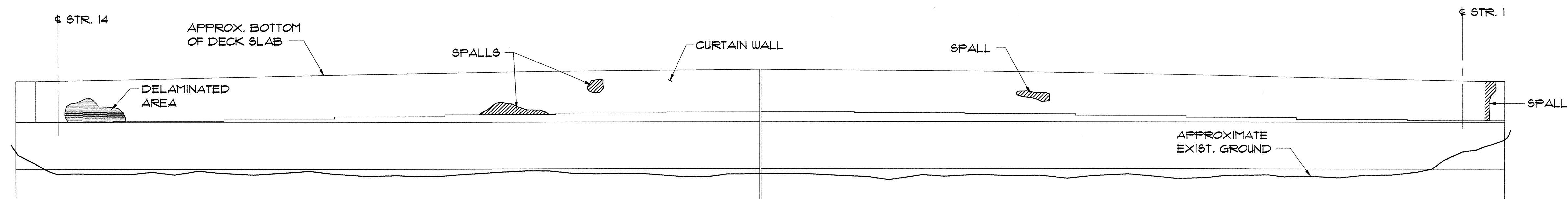


SPIRAL LAP SPLICE DETAIL
SCALE: 1/2" = 1'-0"

▲ = BARS TO BE CUT IN FIELD

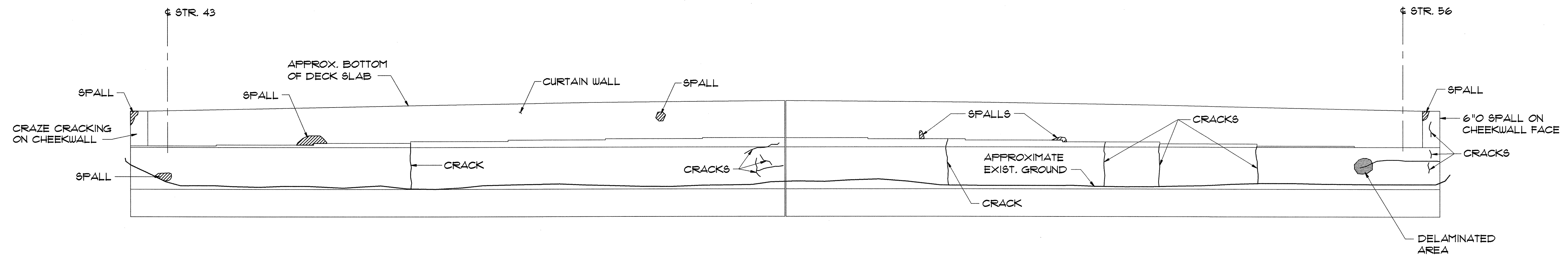
STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No.	U.S. 2	Log Sta.	
		Surv. Sta.	
U.S. 2 OVER I-89			
PIER REINFORCEMENT			
Designed By	A. SETAS	Drawn By	B.J. MASSE
Checked By	T.S. BRYANT	Date	1/00
		Bridge Design Supervisor	C.D. BAKER
		Date	1/00
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK(36)
VHB Cad Drawing No.	50929PREF	Date	1/00
Bridge Sheet No.		Sheet	31 of 15

VANASSE HANGEN BRUSTLIN, INC.



ABUT. 1 ELEVATION



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



ABUT. 2 ELEVATION

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

KEY:

-  DELAMINATED AREAS
-  SPALLED AREAS

NOTES:

1. ALL DIMENSIONS OF REPAIR AREAS ARE ESTIMATED.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No.	U.S. 2	Log Sta.	
		Surv. Sta.	

**U.S. 2 OVER I-89
ABUTMENT REPAIR AREAS**

Designed By	T.S. BRYANT	Drawn By	B.J. MASSE
Checked By	A. SETAS	Date	10/99
		Bridge Design Supervisor	C.D. BAKER Date 10/99

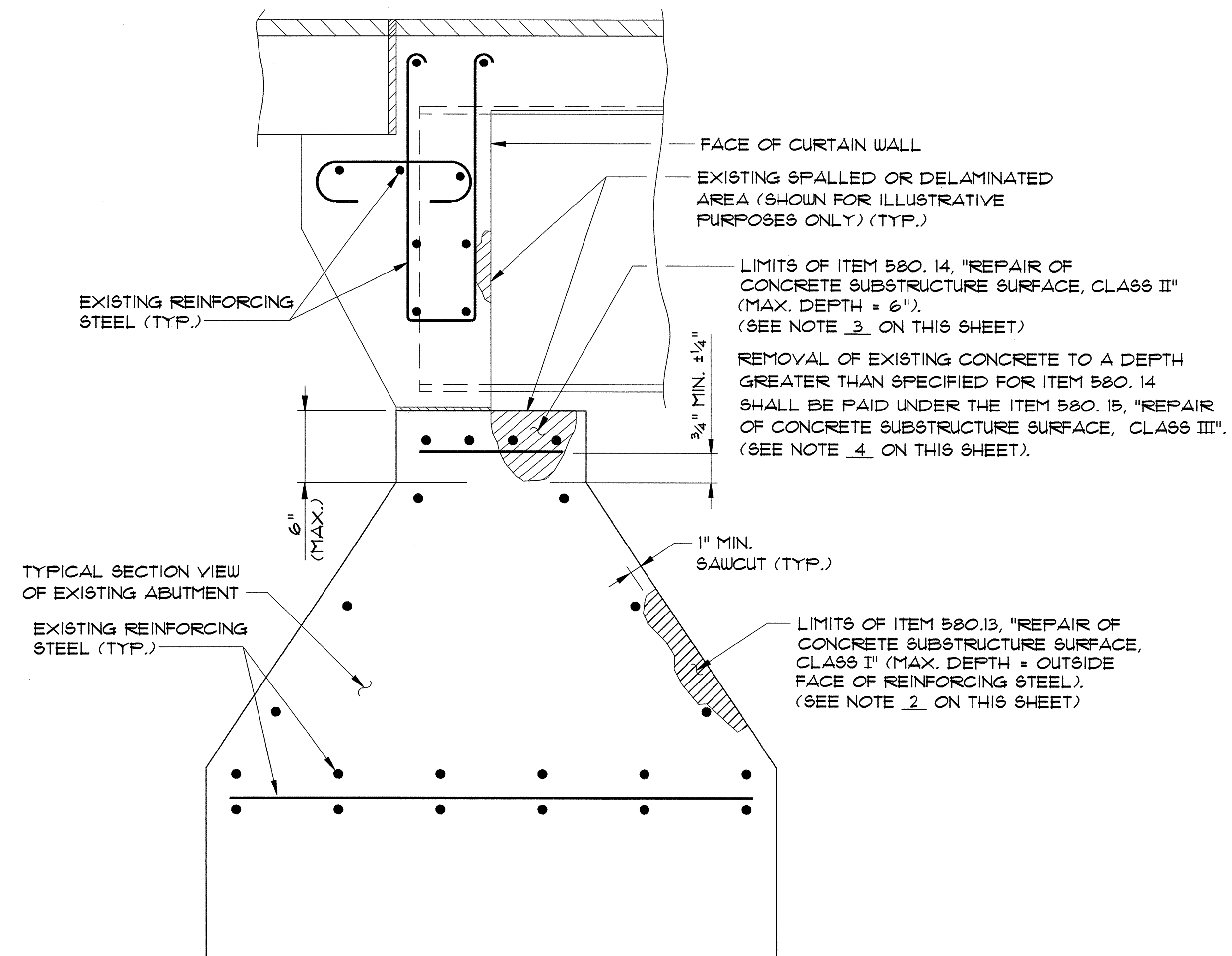
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK(36)
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VANASSE HANGEN BRUSTLIN, INC.

VHB Cad Drawing No.	50929ABR	Date	10/99
Bridge Sheet No.		Sheet	32 of 75

ABUTMENT REPAIR NOTES:

- THIS WORK SHALL INCLUDE REMOVAL AND DISPOSAL OF UNSOUND AND DELAMINATED CONCRETE FROM ALL ABUTMENTS, CURTAIN WALLS AND WINGWALLS AS DIRECTED BY THE ENGINEER. THE PREPARED SURFACES SHALL BE THOROUGHLY ABRASIVE BLASTED TO REMOVE ALL LOOSE MATERIAL AND ANY CONTAMINANTS OR EFFLORESCENCE. THE REINFORCING STEEL (IF EXPOSED), SHALL BE ABRASIVE BLASTED. THE MATERIAL USED TO FILL A PATCH SHALL BE PLACED AND FINISHED OR FORMED SO THAT THE FINAL SURFACE WILL HAVE THE SAME SCORE MARKS AND EXTERIOR FACE APPEARANCE AS THE ORIGINAL SURFACES BEING REPAIRED. THE SURFACE SHALL BE THOROUGHLY WETTED PRIOR TO PLACEMENT OF PATCHING MATERIAL OR NEW CONCRETE. IMMEDIATELY PRIOR TO PLACEMENT, THE SURFACE SHALL BE COATED WITH NEAT CEMENT PASTE, MIXED TO THE CONSISTENCY OF THICK LATEX PAINT, AND THOROUGHLY BRUSHED INTO THE SURFACE. WHEN "OVERHEAD AND VERTICAL CONCRETE REPAIR MATERIAL" CONFORMING WITH SUPPLEMENTAL SPECIFICATION SECTION 180.02 IS USED, THE BONDING AGENT (IF ANY REQUIRED) AND ITS APPLICATION PROCEDURE SHALL COMPLY WITH THE REQUIREMENTS OF THE PATCHING MATERIAL MANUFACTURER. PAYMENT FOR BONDING AGENT WILL BE SUBSIDIARY TO ITEM 580.13, 580.14 OR 580.15.
- THE LIMITS FOR REMOVAL OF CONCRETE UNDER THE ITEM 580.13, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I" SHALL BE FROM THE EXISTING CONCRETE SURFACE TO A MAXIMUM DEPTH OF THE OUTSIDE FACE OF THE REINFORCING STEEL. ALL WORK AND MATERIALS NECESSARY FOR PREPARING A PATCH AND FILLING IT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 580.13, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I". THE FILLING MATERIAL SHALL BE "CONCRETE CLASS AA", OR OVERHEAD AND VERTICAL CONCRETE REPAIR MATERIAL" CONFORMING WITH SUPPLEMENTAL SPECIFICATION SECTION 180.02. THE EDGES OF ALL PATCHES SHALL BE SAW CUT IN STRAIGHT LINES TO A MINIMUM DEPTH OF 1 INCH. IF MORE THAN 1/4 OF THE REBAR IS EXPOSED OR THE BOND BETWEEN THE REINFORCING STEEL AND THE CONCRETE IS BROKEN, THEN PROCEED TO ITEM 580.14, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II".
- THE LIMITS FOR REMOVAL OF CONCRETE UNDER THE ITEM 580.14, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II" SHALL BE FROM THE EXISTING CONCRETE SURFACE TO A MINIMUM DEPTH OF 3/4" +/- 1/4" INSIDE THE INSIDE FACE OF REINFORCING STEEL AND TO A MAXIMUM DEPTH OF 6" FROM THE EXISTING CONCRETE SURFACE. ALL WORK AND MATERIALS NECESSARY FOR PREPARING A PATCH AND FILLING IT, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 580.14, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II". THE FILLING MATERIAL MAY BE EITHER "OVERHEAD AND VERTICAL CONCRETE REPAIR MATERIAL" CONFORMING WITH SUPPLEMENTAL SPECIFICATION SECTION 180.02, OR "CONCRETE CLASS AA", (SEE SPECIAL PROVISIONS). THE EDGES OF ALL PATCHES SHALL BE SAW CUT IN STRAIGHT LINES TO A MINIMUM DEPTH OF 1 INCH.
- THE LIMITS FOR REMOVAL OF CONCRETE UNDER THE ITEM 580.15 "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE CLASS III" SHALL BE FROM THE EXISTING CONCRETE SURFACE TO A DEPTH OF GREATER THAN 6". ALL WORK AND MATERIALS NECESSARY FOR PREPARING A PATCH AND FILLING IT, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 580.15, "REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS III". THE FILLING MATERIAL MAY BE EITHER "CONCRETE CLASS AA", "CONCRETE CLASS A", OR "CONCRETE CLASS B". THE EDGES OF ALL PATCHES SHALL BE SAW CUT IN STRAIGHT LINES TO A MINIMUM DEPTH OF 1 INCH.
- PNEUMATICALLY APPLIED CONCRETE SHALL NOT BE USED FOR REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II OR III.
- SEE THE "BEARING REPAIR NOTES", SHEET 18 FOR OTHER INFORMATION REGARDING REPAIR OF BRIDGE SEAT SURFACES AT ABUTMENTS.
- DUPLICATE PAYMENT WILL NOT BE MADE FOR PREPARATION OF CONCRETE SURFACES IN ANY AREA. FOR EXAMPLE, IF AN AREA IS ORIGINALLY PREPARED AS CLASS I AND THE ENGINEER ORDERS A CHANGE TO CLASS II DEPTH, THE AREA IN QUESTION WILL ONLY BE PAID AS CLASS II.



**DETAIL SHOWING LIMITS OF
ITEMS 580.13, 580.14 AND 580.15,
"REPAIR OF CONCRETE SUBSTRUCTURE SURFACE
CLASS I, CLASS II, OR CLASS III"**

NTS

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No. U.S.	2	Log Sta.	
		Surv. Sta.	

U.S. 2 OVER I-89

ABUTMENT REPAIR NOTES

Designed By	T.S. BRYANT	Drawn By	B.J. MASSE
Checked By	A. SETAS	Bridge Design Supervisor	C.D. BAKER
Date	1/00	Date	1/00

PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
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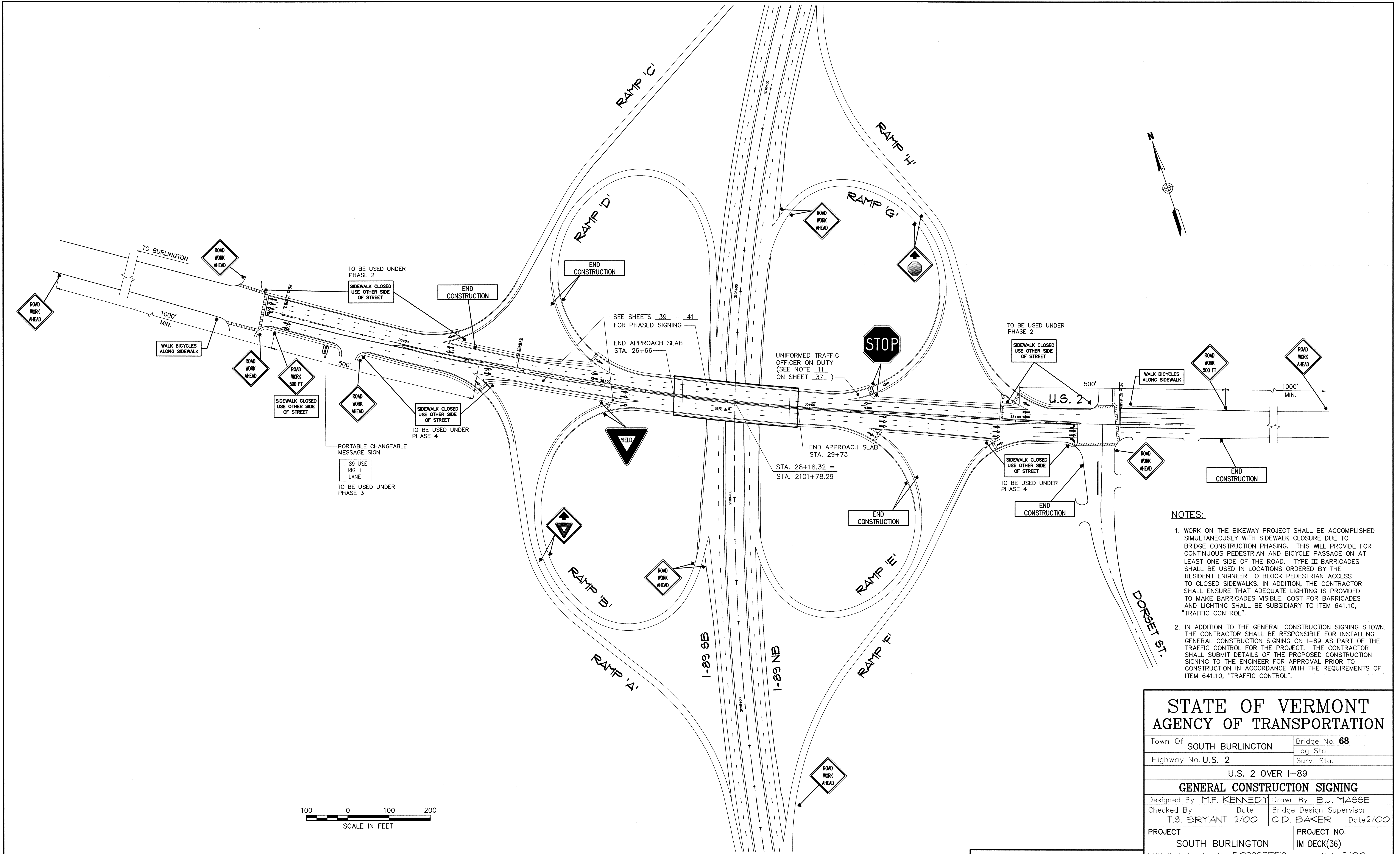
VHB Cad Drawing No.	50929REM1	Date	1/00
Bridge Sheet No.		Sheet	33 of 75

TRAFFIC CONTROL PLAN NOTES

1. TRAFFIC IS TO BE CONTROLLED AND MAINTAINED AT ALL TIMES AS SPECIFIED IN THE TRAFFIC CONTROL PLAN.
2. THE CONTRACTOR SHALL RETAIN A PUBLIC RELATIONS OFFICER TO PROVIDE TRAVEL INFORMATION TO THE PUBLIC THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. SEE SPECIAL PROVISIONS. THIS SHALL BE PAID UNDER ITEM 641.0, "TRAFFIC CONTROL (MOD. - PUBLIC RELATIONS OFFICER)".
3. TRAFFIC CONTROL MEASURES WILL NOT BE PERMITTED BETWEEN NOVEMBER 1 AND APRIL 15, UNLESS OTHERWISE APPROVED BY THE ENGINEER. IN ADDITION, ONCE TRAFFIC CONTROL DEVICES HAVE BEEN INSTALLED THE CONTRACTOR SHALL BEGIN ASSOCIATED CONSTRUCTION WORK IMMEDIATELY, AND PROCEED IN A TIMELY MANNER THROUGH COMPLETION IN ORDER TO MINIMIZE INCONVENIENCE TO THE TRAVELING PUBLIC.
4. ALL PRIVATE VEHICLES BELONGING TO THE CONTRACTOR'S WORK CREWS SHALL NOT BE PARKED ON THE INTERSTATE RIGHT-OF-WAY NOR ON THE TRAVELLED WAY OF ANY OTHER ROAD.
5. SIGNS, BARRICADES, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE CLEANED WEEKLY. ALSO, ALL EXISTING SIGNS WHICH CONTRADICT TEMPORARY TRAFFIC CONTROL SIGNING MUST BE COVERED OR REMOVED (AND REPLACED AFTER CONSTRUCTION COMPLETION). COST FOR THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 641.0, "TRAFFIC CONTROL".
6. FLASHING ARROW PANELS SHALL BE PAID UNDER ITEM 641.16, "PORTABLE ARROW BOARD", AND PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE PAID UNDER ITEM 641.15, "PORTABLE CHANGEABLE MESSAGE SIGN". PAYMENT FOR TRAFFIC CONTROL SIGNS, PLASTIC DRUMS, DELINEATORS, AND TYPE III BARRICADES SHALL BE UNDER 641.0, "TRAFFIC CONTROL". PAYMENT SHALL INCLUDE ALL NECESSARY MAINTENANCE AND REPAIRS TO THESE TRAFFIC CONTROL DEVICES ON A DAILY BASIS. THE ENGINEER MAY ADD TRAFFIC CONTROL SIGNS AS NECESSARY. ADDITIONAL SIGNS, INCLUDING POSTS AND FOUNDATIONS, SHALL BE PAID FOR AS EXTRA WORK, IN ACCORDANCE WITH SECTION 109.06.
7. ENERGY ABSORPTION ATTENUATORS WILL BE REQUIRED AT LOCATIONS INDICATED IN THE TRAFFIC CONTROL PLAN AND AS ORDERED BY THE ENGINEER. ATTENUATORS SHOWN IN THE PLANS ARE SYMBOLIC ONLY AND DO NOT REPRESENT THE ACTUAL CONFIGURATION OF THE ATTENUATORS TO BE USED. THE ATTENUATORS SHALL MEET THE REQUIREMENTS OF THE LATEST VERSION OF THE AASHTO "GUIDE FOR SELECTING, LOCATING AND DESIGNING TRAFFIC BARRIERS" AND THE AASHTO "ROADSIDE DESIGN GUIDE". ATTENUATORS SHALL BE DESIGNED FOR 55 MPH AND A 4500 LB. VEHICLE. ATTENUATORS SHALL BE APPROVED BY THE ENGINEER AND PAID FOR UNDER ITEM 621.57. IF ATTENUATORS ARE DAMAGED BY AN ERRANT VEHICLE, COSTS TO THE CONTRACTOR FOR REPLACEMENT OF ANY PART OR ALL OF THE ATTENUATOR SHALL BE PAID AS "EXTRA WORK" PER SECTION 109.06. THE CONTRACTOR SHALL PROVIDE A SPARE FOR EACH TYPE OF ATTENUATOR USED ON THIS PROJECT, FOR THE PURPOSE OF IMMEDIATE REPLACEMENT OF DAMAGED ATTENUATORS. THE COST OF ON-SITE STORAGE OF EXTRA ATTENUATORS SHALL BE PAID AS SPECIFIED IN THE SPECIAL PROVISIONS.
8. 3" DIAMETER FLEXIBLE TUBULAR MARKERS SHALL BE PAID UNDER ITEM 616.20, "DELINEATORS WITH FLEXIBLE POSTS (MOD.)".
9. ALL TEMPORARY CENTERLINE STRIPING (SEPARATING TWO LANES IN THE SAME DIRECTION) SHALL BE ITEM 646.60, "TEMPORARY 4" WHITE LINE (TAPE TYPE II)". IN ADDITION, RAISED PAVEMENT MARKERS (RPM), TYPE II (WHITE) SHALL BE APPLIED ALONG ALL TEMPORARY CENTERLINE STRIPING (SEPARATING TWO LANES IN SAME DIRECTION) AT THE SAME SPACING AS RPM'S ON ADJACENT EDGE LINES, AND SHALL BE PAID FOR UNDER ITEM 646.81. RPM'S ALONG TEMPORARY CENTERLINE STRIPING ARE NOT SHOWN IN THE TRAFFIC CONTROL PLANS FOR CLARITY.
10. AT BRIDGE APPROACHES WHERE COLD PLANING OF THE ROADWAY SURFACE IS REQUIRED, THE CONTRACTOR SHALL INSTALL THE ADVANCED WARNING SIGN PACKAGE SHOWN IN STANDARD SHEET E-106, AND THE COST SHALL BE INCLUDED UNDER ITEM 641.0, "TRAFFIC CONTROL".
11. THE CONTRACTOR SHALL PROVIDE UNIFORMED TRAFFIC OFFICERS AT THE RAMP G/WILLISTON ROAD JUNCTION AT BRIDGE NO. 68 FROM 6:30 AM TO 7:30 PM 7 DAYS A WEEK FOR THE DURATION OF CONSTRUCTION AT THESE LOCATIONS. THESE HOURS MAY BE REDUCED OR INCREASED BY THE RESIDENT ENGINEER AS NECESSARY. IN ADDITION, THE RESIDENT ENGINEER MAY ORDER THE CONTRACTOR TO PROVIDE TRAFFIC POLICE OFFICERS AT OTHER LOCATIONS AT ANY TIME. PAYMENT FOR UNIFORMED TRAFFIC OFFICERS SHALL BE MADE UNDER ITEM 630.10, "UNIFORMED TRAFFIC OFFICERS".
12. DURING BRIDGE DECK CONCRETE REMOVAL OPERATIONS, THE TRAFFIC LANES UNDER THE BRIDGE SHALL BE PROTECTED BY ENCLOSING THE AREA BELOW THE DECK (WITHOUT REDUCING VERTICAL CLEARANCE). WHERE HYDRO-DEMOLITION IS USED AS THE METHOD OF CONCRETE REMOVAL, THE CONTRACTOR SHALL TEST THE PROTECTIVE ENCLOSURE FOR ITS ABILITY TO PREVENT DEBRIS AND WATER FROM FALLING ONTO TRAFFIC. THE CONTRACTOR SHALL SUBMIT DETAILS OF PROTECTIVE ENCLOSURES TO THE RESIDENT ENGINEER FOR APPROVAL. COSTS FOR PROVIDING PROTECTIVE ENCLOSURES SHALL BE INCLUDED UNDER ITEM 527.11, "TRAFFIC PROTECTION FOR BRIDGE PROJECT".
13. TEMPORARY TRAFFIC CONTROL USING LANE CLOSURES BELOW DECK CONCRETE REMOVAL OPERATIONS WILL ONLY BE ALLOWED DURING INSTALLATION AND REMOVAL OF THE PROTECTIVE ENCLOSURES. TEMPORARY TRAFFIC CONTROL UNDER BRIDGE 68 WILL ALSO BE NECESSARY IN ORDER TO PERFORM SUBSTRUCTURE REHABILITATION WORK AND CLEANING AND PAINTING OF STRUCTURAL STEEL. THE DURATION OF ALL TRAFFIC CONTROL UNDER THE BRIDGE SHALL BE MINIMIZED, PARTICULARLY TEMPORARY LANE CLOSURES. TEMPORARY LANE CLOSURES UNDER THE BRIDGE WILL NOT BE PERMITTED WHEN THE CONTRACTOR IS NOT PERFORMING WORK WHICH REQUIRES THE RESPECTIVE CLOSURE. THE CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS AND SCHEDULES ASSOCIATED WITH INSTALLATION OF PROTECTIVE ENCLOSURES, SUBSTRUCTURE REPAIR WORK AND CLEANING AND PAINTING OF STRUCTURAL STEEL TO THE RESIDENT ENGINEER FOR APPROVAL. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE APPLICABLE STANDARD SHEETS, BUT SHALL BE MODIFIED AS NECESSARY FOR EACH SPECIFIC SITUATION. COSTS SHALL BE INCLUDED UNDER ITEM 641.0, "TRAFFIC CONTROL", EXCEPT THAT FLAGGERS AND/OR UNIFORMED TRAFFIC OFFICERS SHALL BE PAID FOR UNDER ITEMS 630.15 AND 630.10, RESPECTIVELY.

TEMPORARY LANE CLOSURES ON I-89 NORTHBOUND AND SOUTHBOUND UNDER BRIDGE 68 WILL ONLY BE ALLOWED BETWEEN 7:00 PM AND 6:00 AM, REQUIRING NIGHTTIME CONSTRUCTION. ON BOTH I-89 NORTHBOUND AND I-89 SOUTHBOUND TWO LANES OF TRAFFIC SHALL BE OPEN AT ALL TIMES WHEN LANE CLOSURES ARE IN PLACE. ONE LANE SHALL BE FOR THROUGH TRAFFIC AND THE OTHER SHALL BE FOR MERGING TRAFFIC ENTERING AND EXITING THE RAMP. THE CONTRACTOR SHALL PROVIDE UNIFORMED TRAFFIC OFFICERS AT ALL TIMES DURING NIGHTTIME CONSTRUCTION WHEN I-89 LANE AND RAMP CLOSURES ARE IN PLACE.
14. IN ORDER TO PERFORM THE WORK NECESSARY FOR MEDIAN RECONSTRUCTION OFF THE BRIDGE, IT IS ANTICIPATED THE CONTRACTOR MUST WORK DURING NIGHT HOURS, (7 PM TO 6 AM). DURING NIGHT HOURS ONLY, THE CONTRACTOR MAY LIMIT THE EAST AND WESTBOUND TRAFFIC TO ONE LANE IN EACH DIRECTION. TWO LANES IN EACH DIRECTION MUST BE RESTORED BY 6 AM EACH DAY.
15. NIGHTTIME CONSTRUCTION WHICH IS REQUIRED IN THESE PLANS HAS BEEN COORDINATED WITH AND PRE-APPROVED BY THE CITY OF SOUTH BURLINGTON. HOWEVER, THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMIT(S) FOR THE PRE-APPROVED NIGHTTIME CONSTRUCTION FROM THE CITY MANAGER PRIOR TO PROCEEDING WITH THE WORK. ANY OTHER NIGHTTIME CONSTRUCTION WHICH THE CONTRACTOR WISHES TO PERFORM AT HIS CONVENIENCE SHALL BE APPROVED BY THE ENGINEER AND SHALL BE PERMITTED BY THE CITY OF SOUTH BURLINGTON. COMPRESSORS, GENERATORS, AND HYDRO-DEMOLITION ENGINES AND PUMPS SHALL BE OPERATED WITHIN SOUND INSULATED TRAILERS OR BUILDINGS DURING ALL NIGHTTIME CONSTRUCTION. IN ADDITION, CONSTRUCTION LIGHTING SHALL BE INSTALLED IN SUCH A MANNER AS TO MINIMIZE THE IMPACT ON ADJACENT RESIDENCES AND BUSINESSES. COSTS FOR OBTAINING PERMITS AND PERFORMING NIGHTTIME CONSTRUCTION MEASURES SHALL BE SUBSIDIARY TO ITEM 635.10, "MOBILIZATION". NO NIGHT TIME WORK THAT INVOLVES CLOSURE OF A RAMP SHALL BE DONE ON A FRIDAY OR A SATURDAY NIGHT.
16. THE RESIDENT ENGINEER AND THE CONTRACTOR SHALL HOLD A MEETING IN SOUTH BURLINGTON WITH LOCAL EMERGENCY SERVICES PERSONNEL TO COORDINATE EMERGENCY PROCEDURES THROUGH THIS PROJECT. THE CONTRACTOR SHALL BE PREPARED AND SHALL DO HIS UTMOST TO PERMIT EMERGENCY VEHICLES TO PROCEED THROUGH THE CONSTRUCTION ZONE WITHOUT HINDRANCE. COSTS TO BE INCLUDED UNDER ITEM 641.0, "TRAFFIC CONTROL".
17. "STANDARD" SIGN DIMENSIONS ARE TO BE USED ON SECONDARY ROADWAYS. "SPECIAL" SIGN DIMENSIONS ARE TO BE USED ON FREEWAY SECTIONS. THE LAYOUTS OF NON-STANDARD SIGNS TO BE USED ARE SHOWN ON SHEET 42.
18. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE PAID UNDER ITEM 646.82, "REMOVAL OF EXISTING PAVEMENT MARKINGS". THIS ITEM SHOULD NOT BE USED ON NEW PAVEMENT. ALL TEMPORARY PAVEMENT MARKINGS PLACED ON TOP LIFTS OF NEW PAVEMENT OR ON EXISTING PAVEMENT THAT WILL NOT BE REMOVED SHALL BE TAPE TYPE II, SO THAT THE TEMPORARY MARKINGS MAY BE REMOVED WITHOUT SCARRING THE PAVEMENT. IF APPROVED BY THE ENGINEER, PAINT MAY BE USED FOR TEMPORARY PAVEMENT MARKINGS ON PAVEMENT THAT WILL BE SUBSEQUENTLY REMOVED.
19. EXISTING BRIDGE MOUNTED SIGNS OVER I-89 SHALL BE REMOVED TO ACCOMMODATE STEEL PAINTING AND ENCLOSURE OPERATIONS. CONTRACTOR SHALL PROVIDE TEMPORARY MESSAGE BOARD SIGNS TO BE USED DURING THE PERIOD THAT THE EXISTING BRIDGE MOUNTED SIGNS OVER I-89 ARE NOT IN PLACE. COSTS FOR TEMPORARY MESSAGE BOARDS SHALL BE INCLUDED IN ITEM 641.15 "PORTABLE CHANGEABLE MESSAGE SIGN". COST FOR SIGN AND SUPPORT REMOVAL SHALL BE INCLUDED IN ITEM 615.50, "REMOVING SIGNS (BRIDGE MOUNTED SIGNS)". NO SIGNS SHALL BE REMOVED UNTIL PORTABLE CHANGEABLE MESSAGE SIGNS ARE IN PLACE ALONG I-89 AS DIRECTED BY THE ENGINEER. ONCE BRIDGE REHABILITATION OPERATIONS PERMIT, SALVAGED SIGNS SHALL BE REINSTALLED ON THE BRIDGE AT THEIR ORIGINAL LOCATIONS AND SHALL BE PAID AS ITEM 615.60, "ERECTING SALVAGED SIGNS (BRIDGE MOUNTED SIGNS)". PORTABLE CHANGEABLE MESSAGE SIGNS SHALL NOT BE REMOVED UNTIL SALVAGED SIGNS ARE ERECTED AND APPROVED BY THE ENGINEER.
20. FOUR (4) PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE USED ON THE PROJECT FOR THE DURATION OF CONSTRUCTION. TWO (2) SHALL BE PLACED ON U.S. ROUTE 2, ONE IN EACH DIRECTION, AND TWO (2) SHALL BE PLACED ON I-89, ONE IN EACH DIRECTION. SIGNS SHALL BE PLACED AS DIRECTED BY THE ENGINEER.
21. WHEN A RAMP NEEDS TO BE CLOSED FOR PART OF AN EVENING DURING PAVEMENT OPERATIONS, A TOTAL OF TWO (2) TO FOUR (4) ADDITIONAL PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE PLACED. THE ADDITIONAL SIGNS SHALL BE PLACED NEAR THIS PROJECT AND/OR BEFORE OTHER I-89 EXITS SUCH AS EXITS 13, 15, AND 16 AS DIRECTED BY THE ENGINEER. THE COST FOR THESE ADDITIONAL PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE SUBSIDIARY TO ITEMS 210.10 AND 406.25. THE ACTUAL NUMBER OF THESE SHORT TERM PORTABLE CHANGEABLE MESSAGE SIGNS REQUIRED SHALL BE DETERMINED BY THE ENGINEER BASED ON THE CONTRACTOR'S PROPOSED PAVEMENT OPERATIONS.

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log Sta. Surv. Sta.
U.S. 2 OVER I-89	
TRAFFIC CONTROL PLAN NOTES	
Designed By T.S. BRYANT	Drawn By E.J. MASSE
Checked By A. SETAS Date 2/00	Bridge Design Supervisor C.D. BAKER Date 2/00
PROJECT SOUTH BURLINGTON	PROJECT NO. IM DECK (36)
VHB Cad Drawing No. 50329TCP	Date 2/00
Bridge Sheet No.	Sheet 37 of 75

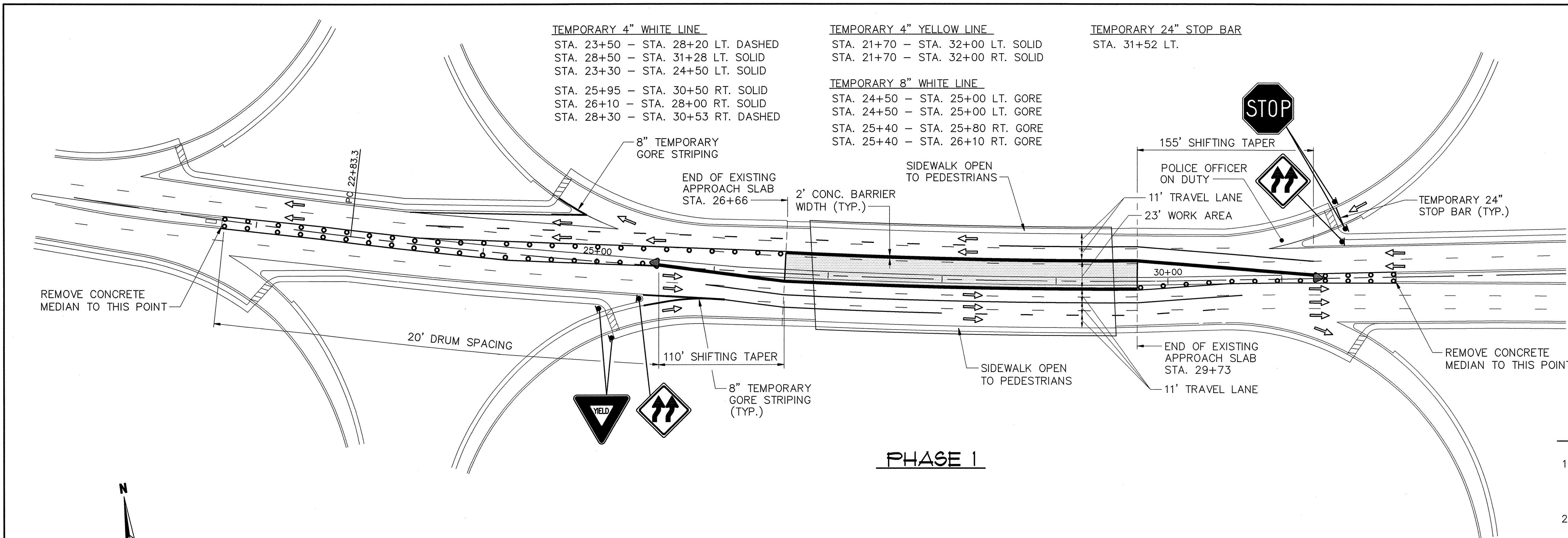


- NOTES:**
1. WORK ON THE BIKEWAY PROJECT SHALL BE ACCOMPLISHED SIMULTANEOUSLY WITH SIDEWALK CLOSURE DUE TO BRIDGE CONSTRUCTION PHASING. THIS WILL PROVIDE FOR CONTINUOUS PEDESTRIAN AND BICYCLE PASSAGE ON AT LEAST ONE SIDE OF THE ROAD. TYPE III BARRICADES SHALL BE USED IN LOCATIONS ORDERED BY THE RESIDENT ENGINEER TO BLOCK PEDESTRIAN ACCESS TO CLOSED SIDEWALKS. IN ADDITION, THE CONTRACTOR SHALL ENSURE THAT ADEQUATE LIGHTING IS PROVIDED TO MAKE BARRICADES VISIBLE. COST FOR BARRICADES AND LIGHTING SHALL BE SUBSIDIARY TO ITEM 641.10, "TRAFFIC CONTROL".
 2. IN ADDITION TO THE GENERAL CONSTRUCTION SIGNING SHOWN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING GENERAL CONSTRUCTION SIGNING ON I-89 AS PART OF THE TRAFFIC CONTROL FOR THE PROJECT. THE CONTRACTOR SHALL SUBMIT DETAILS OF THE PROPOSED CONSTRUCTION SIGNING TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 641.10, "TRAFFIC CONTROL".

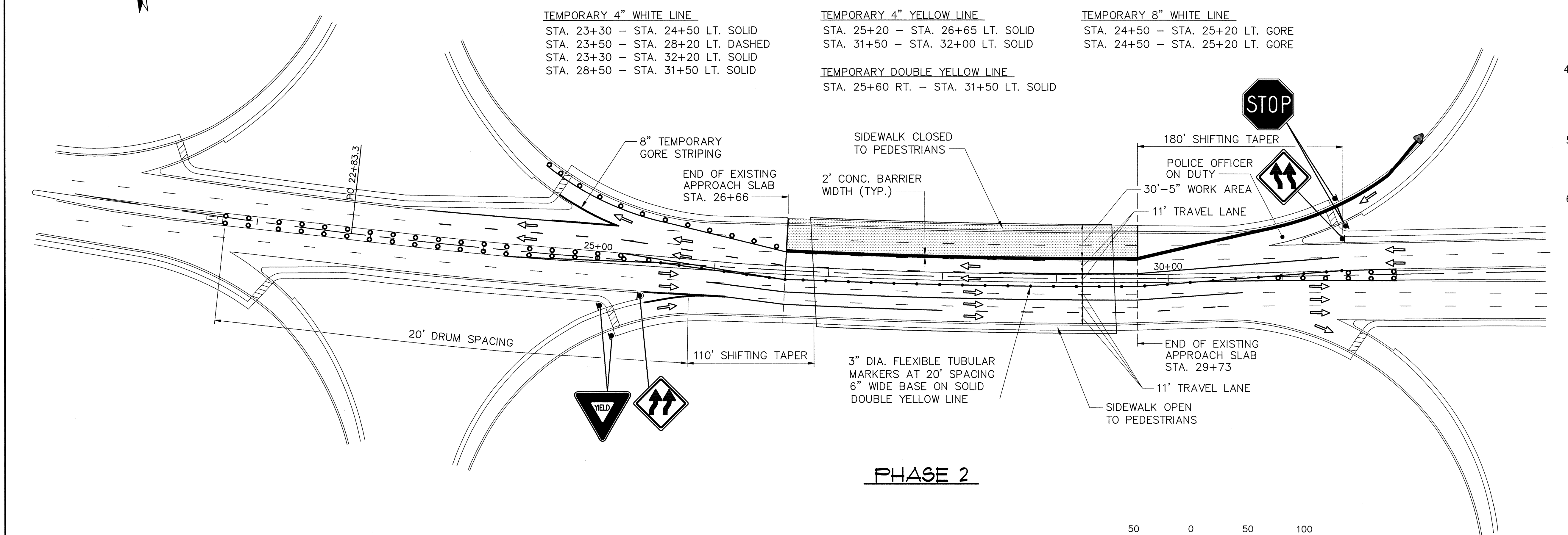
**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No.	U.S. 2	Log Sta.	
		Surv. Sta.	
U.S. 2 OVER I-89			
GENERAL CONSTRUCTION SIGNING			
Designed By	M.F. KENNEDY	Drawn By	B.J. MASSE
Checked By	T.S. BRYANT	Date	2/00
		Bridge Design Supervisor	C.D. BAKER Date 2/00
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK(36)
		VHB Cad Drawing No.	50329TRF12 Date 2/00
		Bridge Sheet No.	Sheet 38 of 75

VANASSE HANGEN BRUSTLIN, INC.



PHASE 1

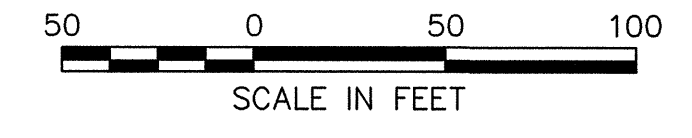
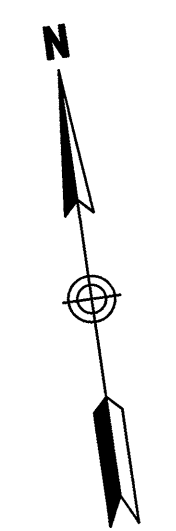


PHASE 2

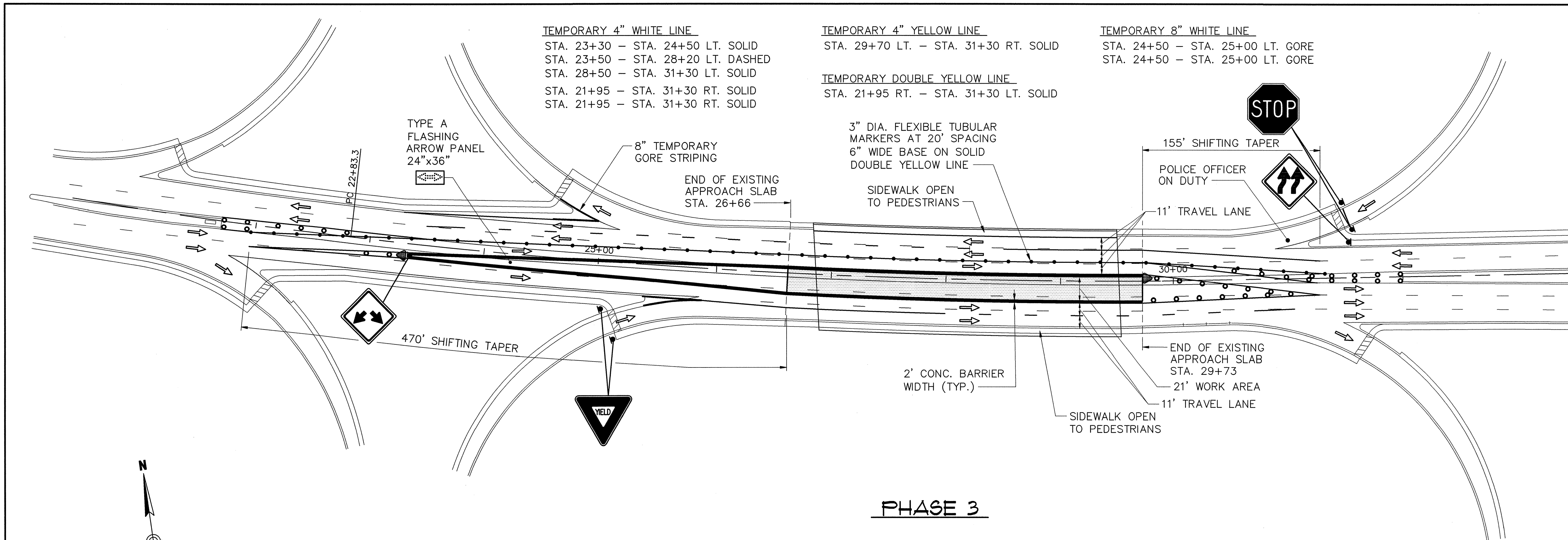
LEGEND

[Symbol]	CONSTRUCTION AREA
[Symbol]	DIRECTIONAL FLOW
[Symbol]	FLASHING ARROW PANEL
[Symbol]	TYPE I DELINEATOR (YELLOW)
[Symbol]	TYPE I DELINEATOR (WHITE)
[Symbol]	REFLECTORIZED DRUM
[Symbol]	RAISED PAVEMENT MARKING (YELLOW)
[Symbol]	RAISED PAVEMENT MARKING (WHITE)
[Symbol]	ENERGY ABSORPTION ATTENUATOR
[Symbol]	EXISTING GUARDRAIL
[Symbol]	CONCRETE BARRIER RAIL
[Symbol]	4" TEMPORARY PAVEMENT STRIPING
[Symbol]	8" TEMPORARY PAVEMENT STRIPING
[Symbol]	3" DIA. TUBULAR FLEXIBLE MARKER
[Symbol]	EXISTING PAVEMENT MARKING
[Symbol]	TYPE III BARRICADE
[Symbol]	PORTABLE CHANGEABLE MESSAGE SIGN

- PHASE 1-5 NOTES:**
- ALL SIGNS, CONES, DRUMS, TYPE III BARRICADES, CONCRETE MEDIAN BARRIERS AND FLASHING ARROW PANELS SHALL CONFORM WITH THEIR APPROPRIATE STANDARD SHEETS.
 - THIS TRAFFIC CONTROL SHEET IS TO BE USED IN CONJUNCTION WITH V.A.O.T. STANDARD SHEETS E-103, E-104 AND E-104A.
 - EDGE LINES AND REFLECTORIZED PAVEMENT MARKERS (R.P.M.'S) ARE NOT SHOWN ON BRIDGES FOR CLARITY. HOWEVER EDGE LINES AND R.P.M.'S ARE TO BE CONTINUED ALONG BRIDGE CURB AND CONCRETE BARRIERS. IN ADDITION WHITE R.P.M.'S SHALL BE INSTALLED ON TEMPORARY STRIPING BETWEEN TRAVEL LANES, AT THE SAME SPACING AS ADJACENT EDGE LINES. ALL R.P.M.'S SHALL BE PAID UNDER ITEM 646.81, "RAISED PAVEMENT MARKERS (TYPE II)."
 - WHEN TUBULAR MARKERS ARE DAMAGED OR VANDALIZED, THEY SHALL BE REPLACED IMMEDIATELY. PAYMENT FOR INITIAL INSTALLATION AND REPLACEMENT OF TUBULAR MARKERS SHALL BE UNDER ITEM 676.20, "DELINEATORS WITH FLEXIBLE POSTS (MOD.)."
 - DETAILS OF STANDARD SIGNS ARE AS SHOWN ON STANDARD SHEETS E-100, E-101, E-102, E-110, E-140, E-142, E-143, E-150, E-151, AND E-152. DETAILS FOR OTHER SIGNS (NON-STANDARD) ARE AS SHOWN ON SHEET 42.
 - PLACE 2" TEMPORARY BITUMINOUS CONCRETE PAVEMENT ITEM 406.25, AS NECESSARY TO PROVIDE A SMOOTH TRAVEL SURFACE IN AREAS WHERE MEDIAN HAS BEEN REMOVED.



STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log Sta. Surv. Sta.
U.S. 2 OVER I-89	
TRAFFIC CONTROL PLAN PHASES 1&2	
Designed By M.F. KENNEDY	Drawn By B.J. MASSE
Checked By T.S. BRYANT	Date 1/00 Bridge Design Supervisor C.D. BAKER
PROJECT SOUTH BURLINGTON	PROJECT NO. IM DECK (36)
VHB Cad Drawing No. 50929TRF57	Date 1/00
Bridge Sheet No.	Sheet 39 of 75



PHASE 3

TEMPORARY 4" WHITE LINE
 STA. 23+30 - STA. 24+50 LT. SOLID
 STA. 23+50 - STA. 28+20 LT. DASHED
 STA. 28+50 - STA. 31+30 LT. SOLID
 STA. 21+95 - STA. 31+30 RT. SOLID
 STA. 21+95 - STA. 31+30 RT. SOLID

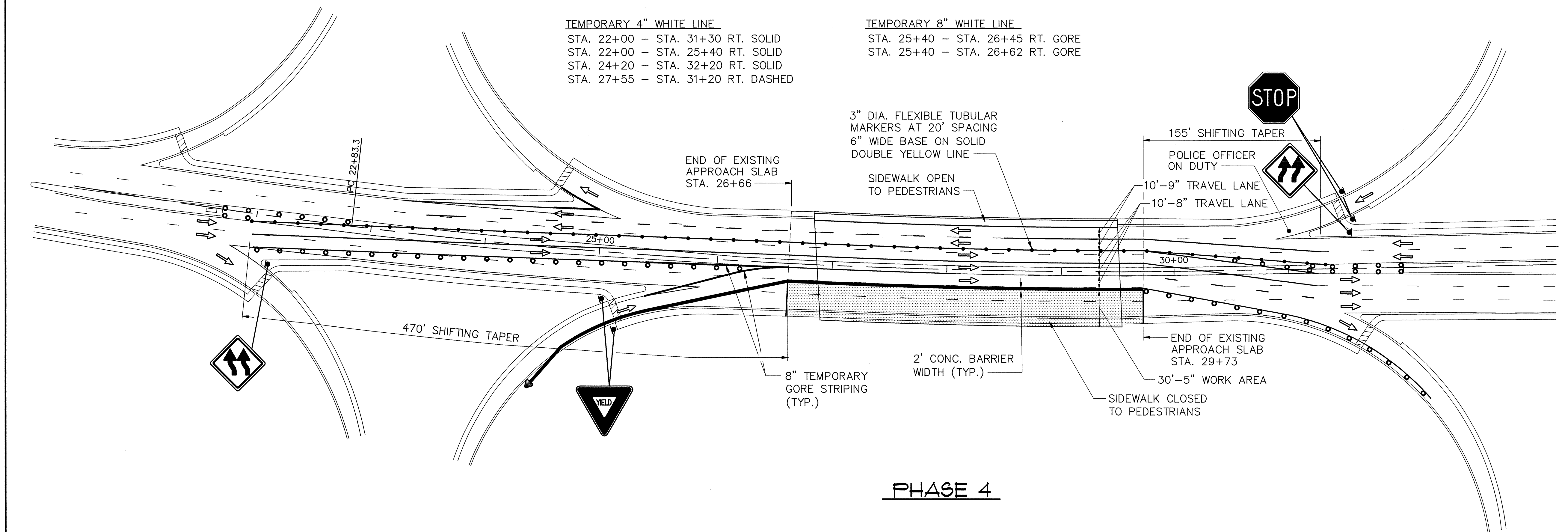
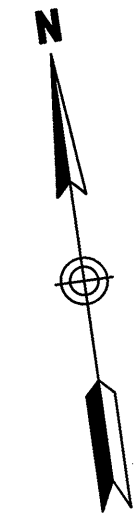
TEMPORARY 4" YELLOW LINE
 STA. 29+70 LT. - STA. 31+30 RT. SOLID

TEMPORARY DOUBLE YELLOW LINE
 STA. 21+95 RT. - STA. 31+30 LT. SOLID

TEMPORARY 8" WHITE LINE
 STA. 24+50 - STA. 25+00 LT. GORE
 STA. 24+50 - STA. 25+00 LT. GORE

LEGEND

- CONSTRUCTION AREA
- DIRECTIONAL FLOW
- FLASHING ARROW PANEL
- TYPE I DELINEATOR (YELLOW)
- TYPE I DELINEATOR (WHITE)
- REFLECTORIZED DRUM
- RAISED PAVEMENT MARKING (YELLOW)
- RAISED PAVEMENT MARKING (WHITE)
- ENERGY ABSORPTION ATTENUATOR
- EXISTING GUARDRAIL
- CONCRETE BARRIER RAIL
- 4" TEMPORARY PAVEMENT STRIPING
- 8" TEMPORARY PAVEMENT STRIPING
- 3" DIA. TUBULAR FLEXIBLE MARKER
- EXISTING PAVEMENT MARKING
- TYPE III BARRICADE
- PORTABLE CHANGEABLE MESSAGE SIGN



PHASE 4

TEMPORARY 4" WHITE LINE
 STA. 22+00 - STA. 31+30 RT. SOLID
 STA. 22+00 - STA. 25+40 RT. SOLID
 STA. 24+20 - STA. 32+20 RT. SOLID
 STA. 27+55 - STA. 31+20 RT. DASHED

TEMPORARY 8" WHITE LINE
 STA. 25+40 - STA. 26+45 RT. GORE
 STA. 25+40 - STA. 26+62 RT. GORE

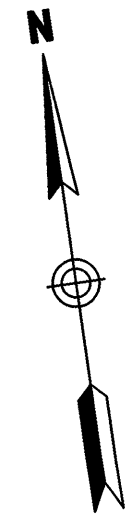
NOTES:

- 1. SEE SHEET 39 FOR PHASE 1-5 NOTES.



VANASSE HANGEN BRUSTLIN, INC.

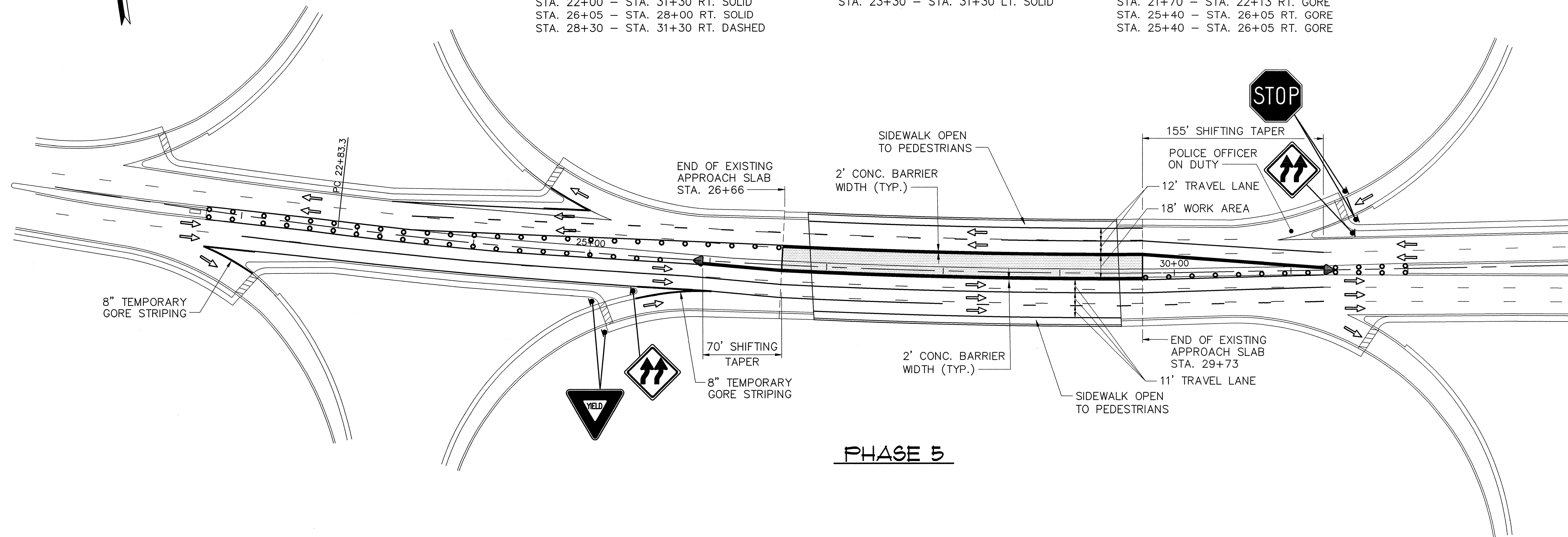
STATE OF VERMONT AGENCY OF TRANSPORTATION		
Town Of	SOUTH BURLINGTON	Bridge No. 68
Highway No.	U.S. 2	Log Sta.
		Surv. Sta.
U.S. 2 OVER I-89		
TRAFFIC CONTROL PLAN PHASES 3&4		
Designed By	M.F. KENNEDY	Drawn By B.J. MASSE
Checked By	T.S. BRYANT	Bridge Design Supervisor
Date	1/00	C.D. BAKER Date 1/00
PROJECT	SOUTH BURLINGTON	PROJECT NO. IM DECK (36)
VHB Cad Drawing No.	50929TRF38	Date 1/00
Bridge Sheet No.		Sheet 40 of 75



TEMPORARY 4" WHITE LINE
 STA. 22+13 - STA. 25+40 RT. SOLID
 STA. 22+00 - STA. 31+30 RT. SOLID
 STA. 26+05 - STA. 28+00 RT. SOLID
 STA. 28+30 - STA. 31+30 RT. DASHED

TEMPORARY 4" YELLOW LINE
 STA. 21+95 - STA. 31+30 RT. SOLID
 STA. 23+30 - STA. 31+30 LT. SOLID

TEMPORARY 8" WHITE LINE
 STA. 21+70 - STA. 22+13 RT. GORE
 STA. 21+70 - STA. 22+13 RT. GORE
 STA. 25+40 - STA. 26+05 RT. GORE
 STA. 25+40 - STA. 26+05 RT. GORE



PHASE 5

LEGEND

- CONSTRUCTION AREA
- DIRECTIONAL FLOW
- FLASHING ARROW PANEL
- TYPE I DELINEATOR (YELLOW)
- TYPE I DELINEATOR (WHITE)
- REFLECTORIZED DRUM
- RAISED PAVEMENT MARKING (YELLOW)
- RAISED PAVEMENT MARKING (WHITE)
- ENERGY ABSORPTION ATTENUATOR
- EXISTING GUARDRAIL
- CONCRETE BARRIER RAIL
- 4" TEMPORARY PAVEMENT STRIPING
- 8" TEMPORARY PAVEMENT STRIPING
- 3" DIA. TUBULAR FLEXIBLE MARKER
- EXISTING PAVEMENT MARKING
- TYPE III BARRICADE
- PORTABLE CHANGEABLE MESSAGE SIGN

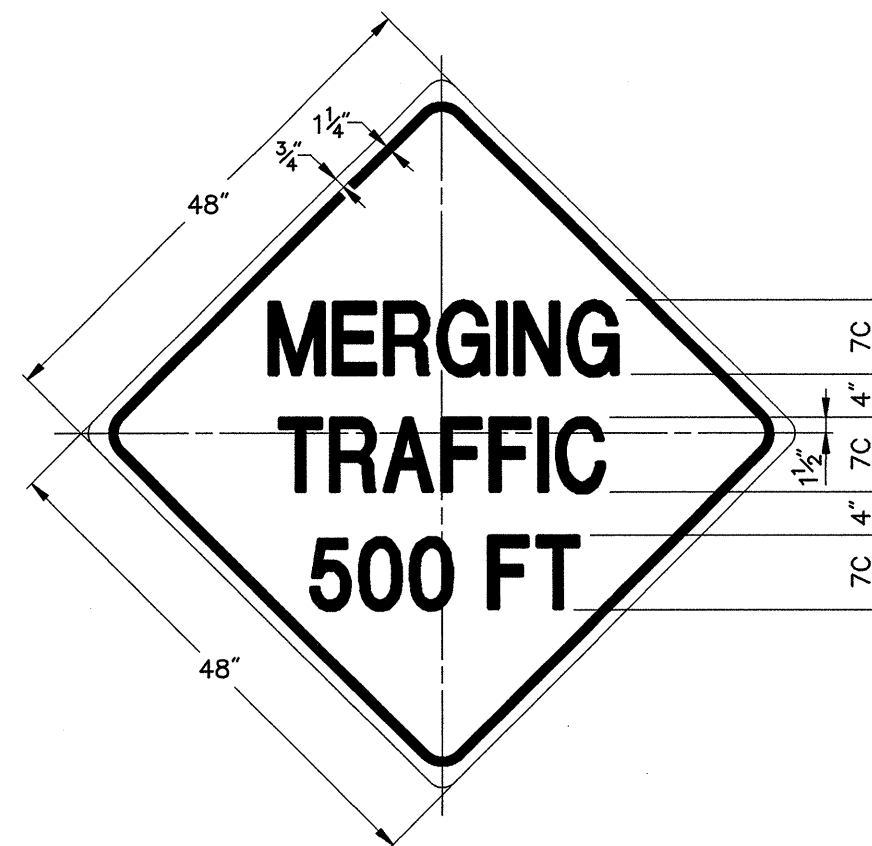
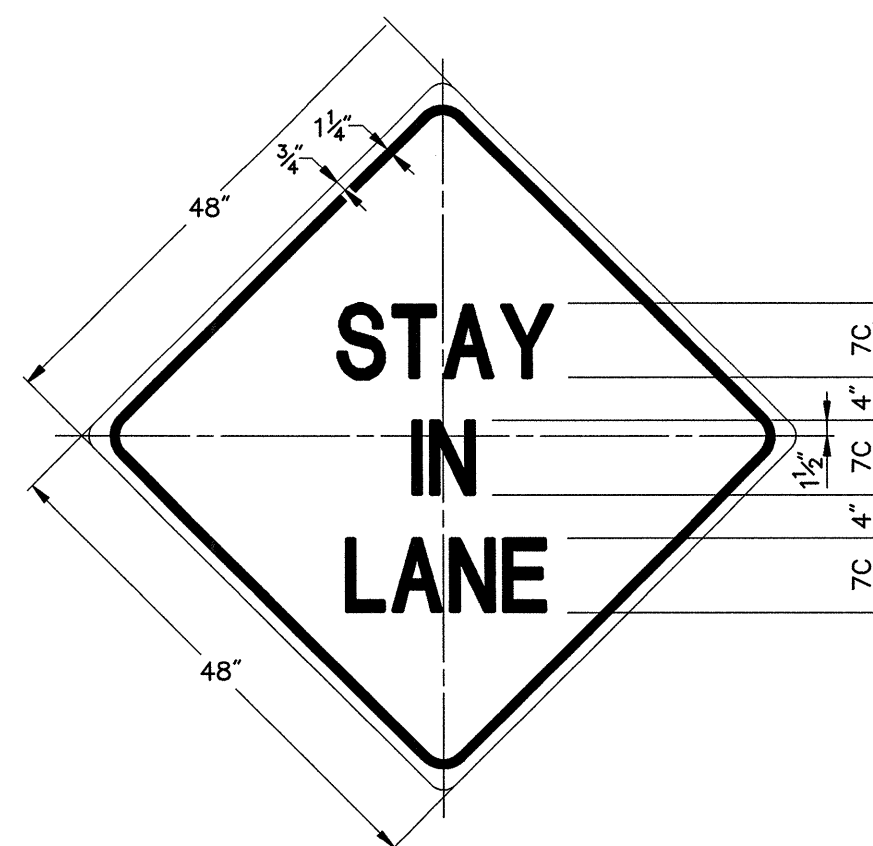
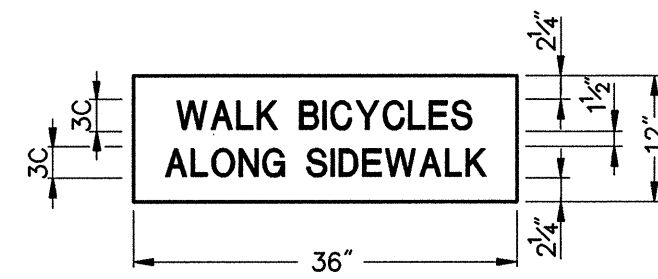
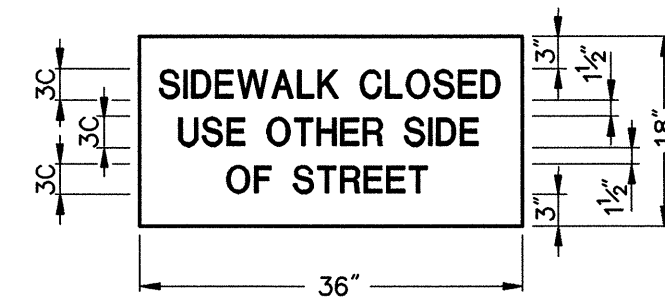
NOTES:

1. SEE SHEET 39 FOR PHASE 1 - 5 NOTES.



STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No.	U.S. 2	Log Sta.	
		Surv. Sta.	
U.S. OVER I-89			
TRAFFIC CONTROL PLAN PHASE 5			
Designed By	M.F. KENNEDY	Drawn By	B.J. MASSE
Checked By	T.S. BRYANT	Date	1/00
		Bridge Design Supervisor	C.D. BAKER
		Date	1/00
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
VHB Cad Drawing No.	50929TRF59	Date	1/00
Bridge Sheet No.		Sheet	41 of 75

VANASSE HANGEN BRUSTLIN, INC.



4 OF EACH OF THESE TWO SIGNS WILL BE REQUIRED ON THIS PROJECT. THE SIGNS WILL BE ERECTED BEHIND THE EXISTING GUARD RAIL AT LOCATIONS SPECIFIED BY THE RESIDENT ENGINEER. COST FOR SIGNS, POSTS, AND ERECTION SHALL BE SUBSIDIARY TO ITEM 641.10, "TRAFFIC CONTROL". COLORS AND MATERIALS SHALL BE PER STANDARD E-100. THESE SIGNS SHALL BE REMOVED AS SOON AS TRAVEL LANES ARE RETURNED TO FULL CAPACITY.

THE CONTRACTOR SHALL INSERT THE TELEPHONE NUMBER FOR THE CONTRACTOR'S PUBLIC RELATIONS OFFICER.

NOTES:

1. GRAPHICAL SYMBOLS ARE SHOWN AS SHADED FOR THE PURPOSE OF CLARITY. ALL SIGNS ARE TO BE BLACK ON ORANGE.
2. "STANDARD" DIMENSIONS ARE TO BE USED ON SECONDARY ROADWAYS. "SPECIAL" DIMENSIONS ARE TO BE USED ON FREEWAY SECTIONS.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log Sta.
	Surv. Sta.

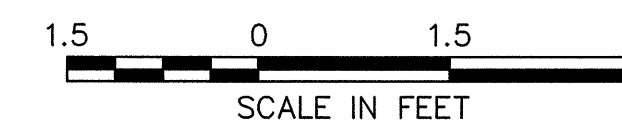
U.S. 2 OVER I-89

NON-STANDARD SIGNS

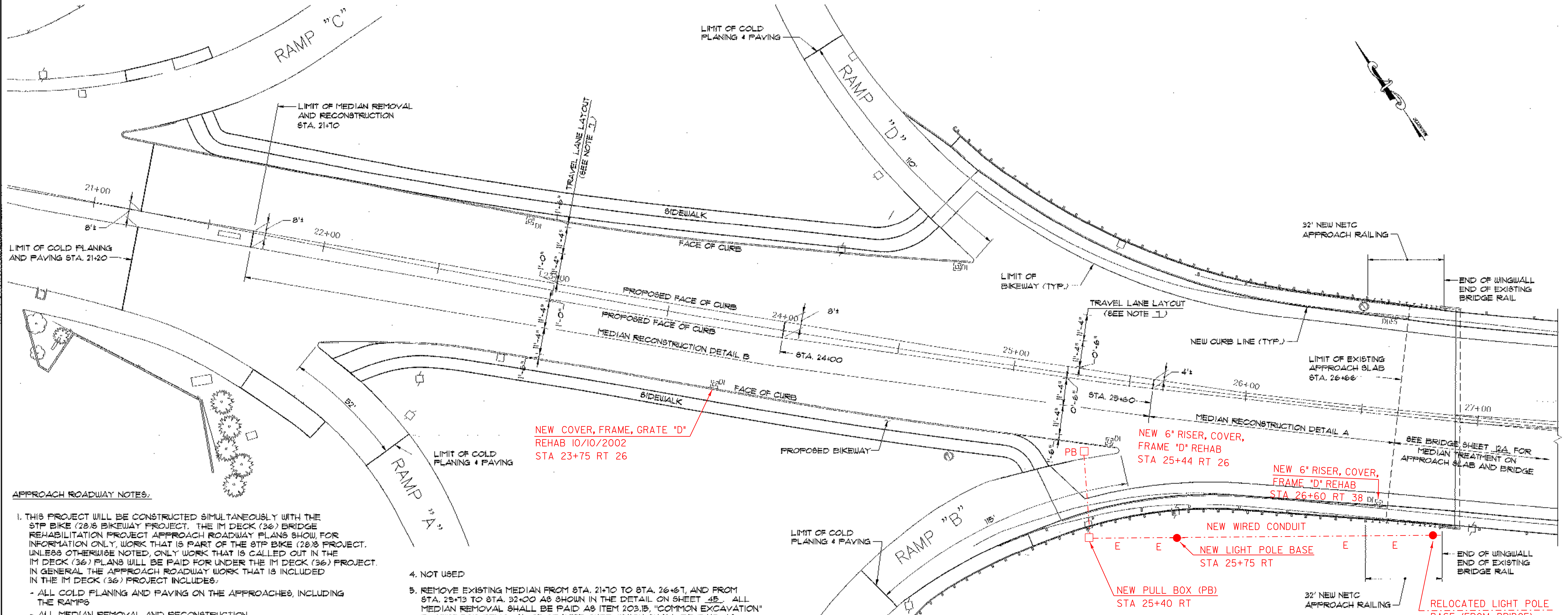
Designed By B.J. MASSE	Drawn By B.J. MASSE
Checked By M.F. KENNEDY	Bridge Design Supervisor C.D. BAKER
Date 1/00	Date 1/00

PROJECT	PROJECT NO.
SOUTH BURLINGTON	IM DECK (36)

VHB Cad Drawing No. 50929SIGN	Date 1/00
Bridge Sheet No.	Sheet 42 of 75



VANASSE HANGEN BRUSTLIN, INC.



APPROACH ROADWAY NOTES:

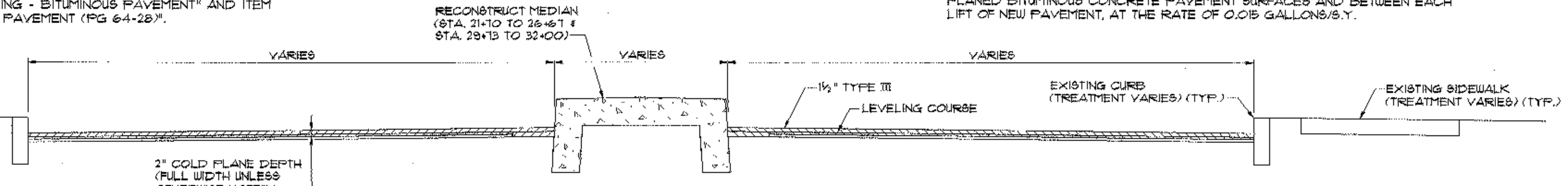
- THIS PROJECT WILL BE CONSTRUCTED SIMULTANEOUSLY WITH THE STP BIKE (28) BIKEWAY PROJECT. THE IM DECK (36) BRIDGE REHABILITATION PROJECT APPROACH ROADWAY PLANS SHOW, FOR INFORMATION ONLY, WORK THAT IS PART OF THE STP BIKE (28) PROJECT. UNLESS OTHERWISE NOTED, ONLY WORK THAT IS CALLED OUT IN THE IM DECK (36) PLANS WILL BE PAID FOR UNDER THE IM DECK (36) PROJECT. IN GENERAL THE APPROACH ROADWAY WORK THAT IS INCLUDED IN THE IM DECK (36) PROJECT INCLUDES:
 - ALL COLD PLANING AND PAVING ON THE APPROACHES, INCLUDING THE RAMPS
 - ALL MEDIAN REMOVAL AND RECONSTRUCTION
 - LANE MARKINGS ADJACENT TO THE MEDIAN AND ALL DASHED WHITE LINE TRAVEL LANE MARKINGS
 - REMOVAL AND DISPOSAL OF ALL EXISTING ALUMINUM BRIDGE APPROACH RAIL AT THE FOUR CORNERS OF THE BRIDGE
 - INSTALLATION OF NEW NETC BRIDGE APPROACH RAIL AT EACH CORNER OF THE BRIDGE
- COLD PLANE AND REPAVE THE APPROACHES AND THE RAMPS BETWEEN ENDS OF THE APPROACH SLABS AND THE LIMITS SHOWN ON SHEETS 44 AND 45. SEE THE COLD PLANE TYPICAL SECTION ON THIS SHEET. THIS WORK SHALL BE PAID UNDER ITEM 210.10, "COLD PLANING - BITUMINOUS PAVEMENT" AND ITEM 406.25, "BITUMINOUS CONCRETE PAVEMENT (PG 64-28)".
- AFTER ALL PHASED DECK REHABILITATION IS COMPLETED, COLD PLANE AND REPAVE THE TOP 1 1/4" TYPE III PAVEMENT ON THE BRIDGE AND APPROACH SLABS FROM CURB TO CURB. THIS WORK SHALL BE DONE SIMULTANEOUSLY WITH THE COLD PLANING AND REPAVING OF THE APPROACHES AND RAMPS. THE GRINDINGS FROM THE COLD PLANING OF THE NEW PAVEMENT IN THIS AREA SHALL BE SALVAGED TO VAOT DISTRICT 5 AS DESCRIBED IN THE SPECIAL PROVISIONS. THIS WORK SHALL BE PAID UNDER ITEM 210.10, "COLD PLANING - BITUMINOUS PAVEMENT" AND ITEM 406.25, "BITUMINOUS CONCRETE PAVEMENT (PG 64-28)".

- NOT USED
- REMOVE EXISTING GRANITE CURB FROM STA. 21+10 TO STA. 26+67, AND FROM STA. 29+13 TO STA. 32+00 AS SHOWN IN THE DETAIL ON SHEET 45. ALL MEDIAN REMOVAL SHALL BE PAID AS ITEM 203.15, "COMMON EXCAVATION" EXCEPT FOR REMOVAL OF GRANITE CURB, WHICH SHALL BE PAID AS FOLLOWS:
 - REMOVAL OF EXISTING GRANITE CURB FROM STA. 21+10 TO STA. 25+60, AND FROM STA. 31+35 TO STA. 32+00, SHALL BE PAID AS ITEM 616.40, "REMOVING AND RESETTING CURB."
 - REMOVAL OF EXISTING GRANITE CURB FROM STA. 25+60 TO STA. 26+66, AND STA. 29+13 TO STA. 31+35, SHALL BE PAID AS ITEM 616.41, "REMOVAL OF EXISTING CURB". ALL SAW CUTTING SHALL BE SUBSIDIARY TO ITEM 616.41, "REMOVAL OF EXISTING CURB".
- RECONSTRUCT THE MEDIAN FROM STA. 21+10 TO STA. 26+67, AND FROM STA. 29+13 TO STA. 32+00 AS SHOWN IN THE DETAILS ON SHEET 45. MEDIAN RECONSTRUCTION DETAIL A SHALL BE USED WHERE THE PROPOSED MEDIAN IS 4 FEET WIDE OR LESS. MEDIAN RECONSTRUCTION DETAIL B SHALL BE USED WHERE THE PROPOSED MEDIAN IS GREATER THAN 4 FEET WIDE.
- LANE AND PAVEMENT MARKINGS NOT SHOWN FOR CLARITY. SEE SHEETS 41 AND 42 FOR PAVEMENT MARKING LAYOUT AND NOTES.

- REMOVE ALL EXISTING ALUMINUM RAIL AT THE FOUR CORNERS OF THE BRIDGE. ~~REMOVE ALL EXISTING ALUMINUM RAIL AT THE FOUR CORNERS OF THE BRIDGE.~~ AT EACH CORNER OF THE BRIDGE THE APPROACH RAIL BEGINS AT THE END OF THE EXISTING WINGWALL. REMOVAL OF EXISTING APPROACH RAIL SHALL BE PAID UNDER ITEM 621.80, "REMOVAL AND DISPOSAL OF GUARD RAIL". THE APPROXIMATE LENGTHS OF REMOVAL ARE:
 - NW CORNER, 115 FEET
 - NE CORNER, 120 FEET
 - SW CORNER, 115 FEET
 - SE CORNER, 110 FEET
- INSTALL NEW NETC APPROACH RAIL AT EACH CORNER OF THE BRIDGE, AS SHOWN ON SHEET 24B. GUARD RAIL SHALL BE INSTALLED UNDER THE STP BIKE (28) PROJECT.
- CARE SHALL BE EXERCISED TO SMOOTHLY TRANSITION THE NEW BRIDGE PAVEMENT INTO THE EXISTING PAVEMENT. ALL COLD PLANING NECESSARY FOR SHAPING BRIDGE APPROACHES FOR FINAL PAVING SHALL BE PAID UNDER ITEM 210.10, "COLD PLANING - BITUMINOUS PAVEMENT". A BUTT PAVEMENT JOINT IS REQUIRED IN LIEU OF FEATHERING NEW PAVEMENT INTO EXISTING. SEE THE APPROACH PAVEMENT TRANSITION DETAIL ON SHEET 4B.
- ITEM 404.65, "EMULSIFIED ASPHALT" SHALL BE APPLIED TO ALL COLD PLANED BITUMINOUS CONCRETE PAVEMENT SURFACES AND BETWEEN EACH LIFT OF NEW PAVEMENT, AT THE RATE OF 0.015 GALLONS/S.Y.



NOTES:
1. SEE SHEET 41 FOR LEGEND.

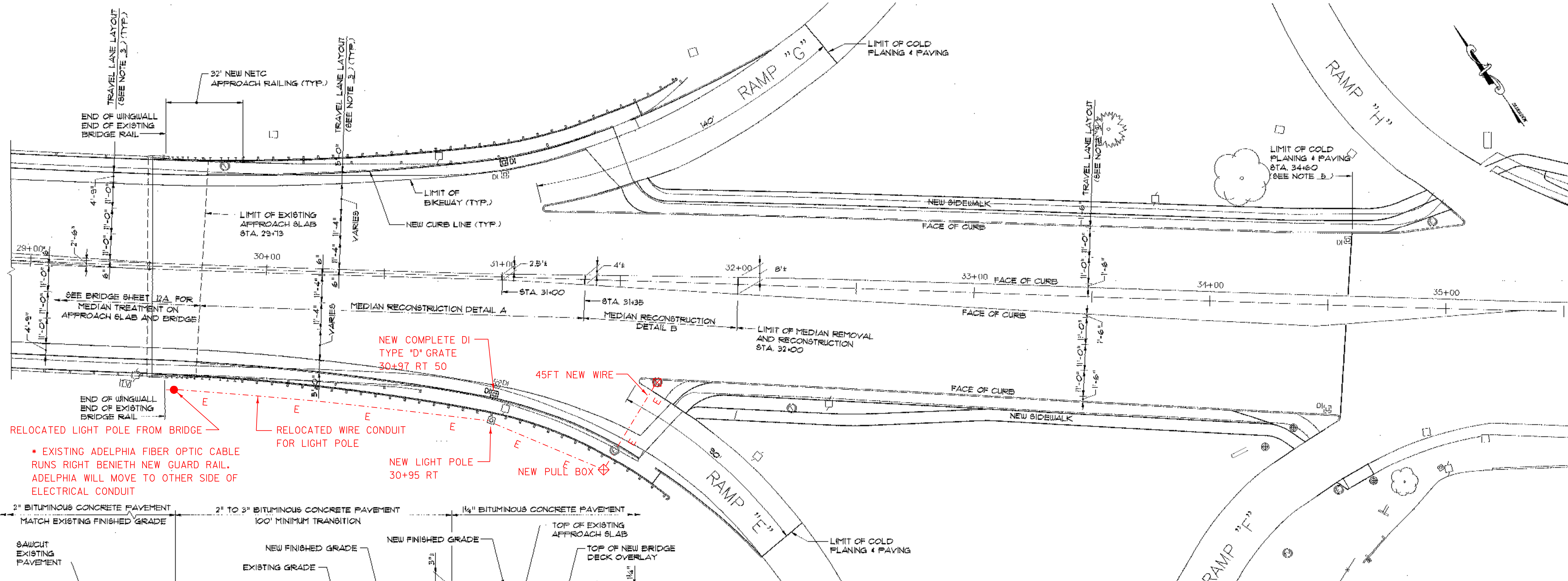


COLD PLANE TYPICAL SECTION - CURBED
(U.S. ROUTE 2 STA. 21+20 TO STA. 26+66 & STA. 29+13 TO STA. 34+60) N.T.S.

VANASSE HANGEN BRUSTLIN, INC.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log. Sta. _____ Surv. Sta. _____
U.S. 2 OVER I-89	
APPROACH ROADWAY PLAN (1 OF 2)	
Designed By A. SETAG	Drawn By E.J. MASSIE
Checked By T.S. BRYANT 2/00	Date Bridge Design Supervisor C.D. BAKER Date 2/00
PROJECT SOUTH BURLINGTON	PROJECT NO. IM DECK (36)
VHB Cad Drawing No. 50323RDP	Date 2/00
Bridge Sheet No. _____	Sheet 44 of 15



NEW COMPLETE DI TYPE "D" GRATE 30+97 RT 50

45FT NEW WIRE

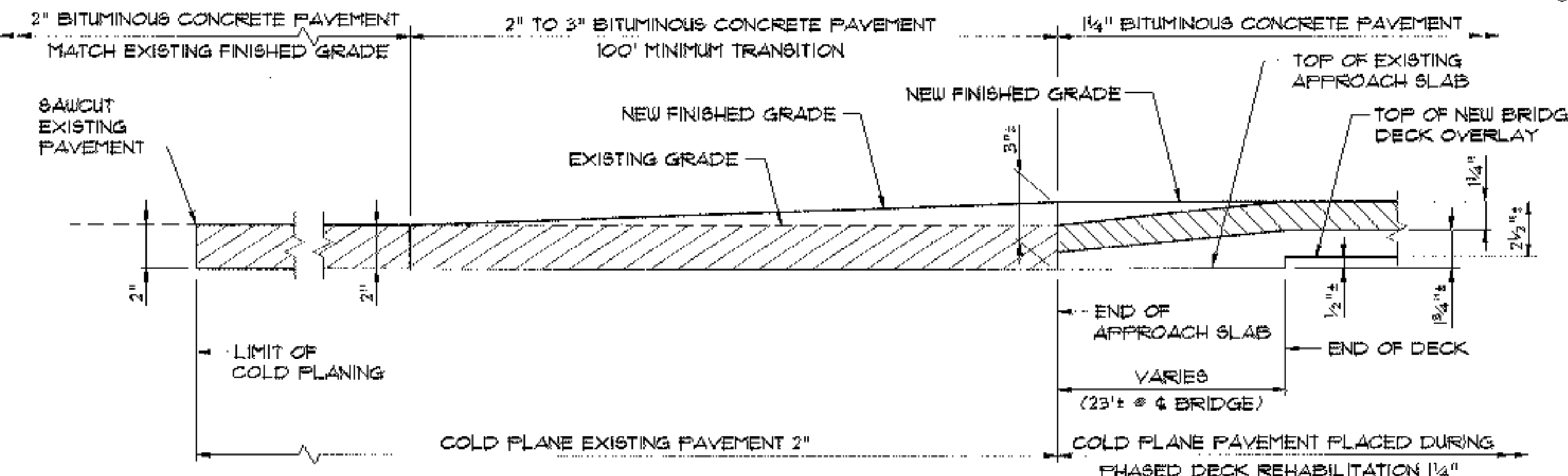
RELOCATED LIGHT POLE FROM BRIDGE

RELOCATED WIRE CONDUIT FOR LIGHT POLE

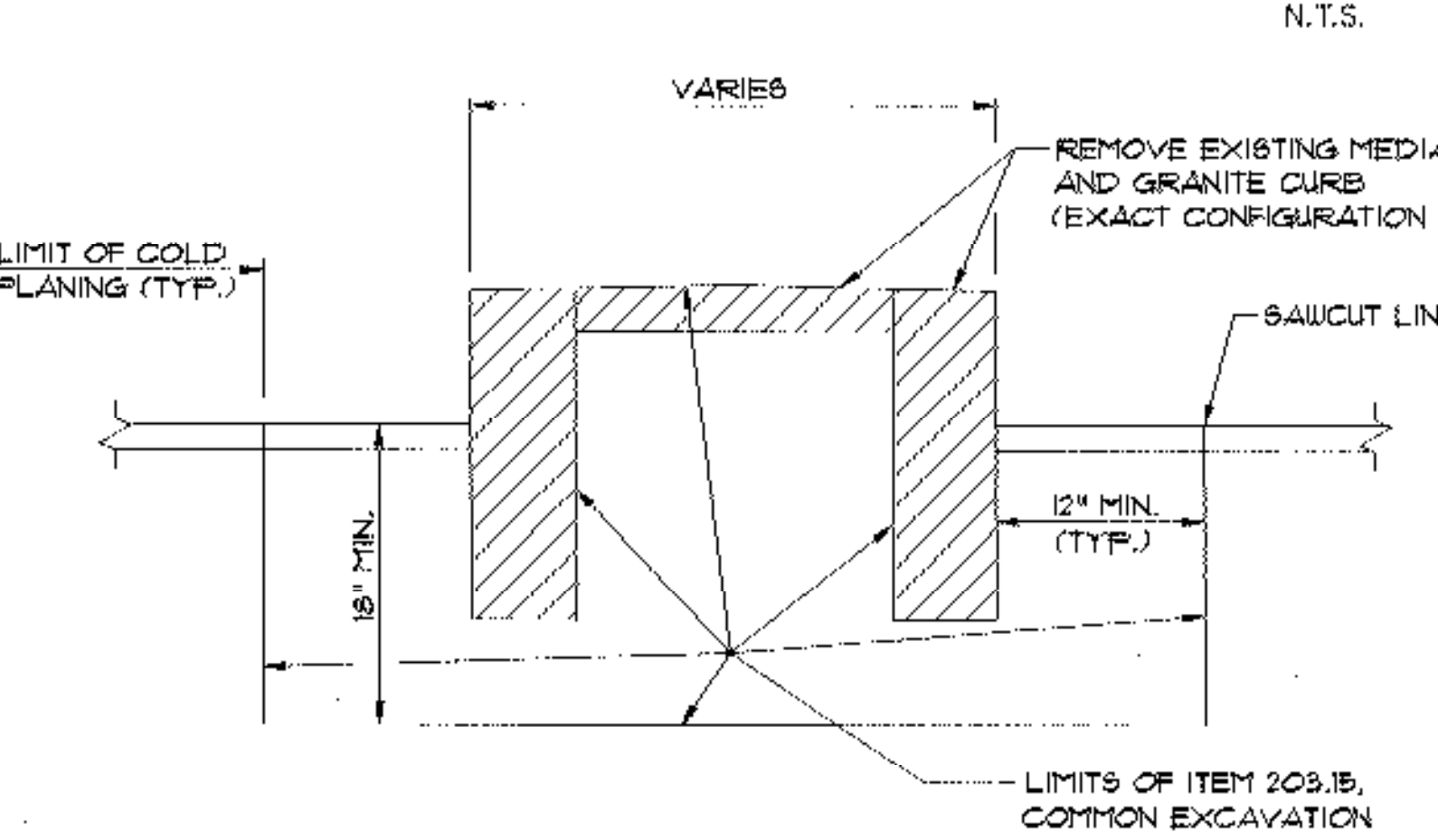
NEW LIGHT POLE 30+95 RT

NEW PULL BOX

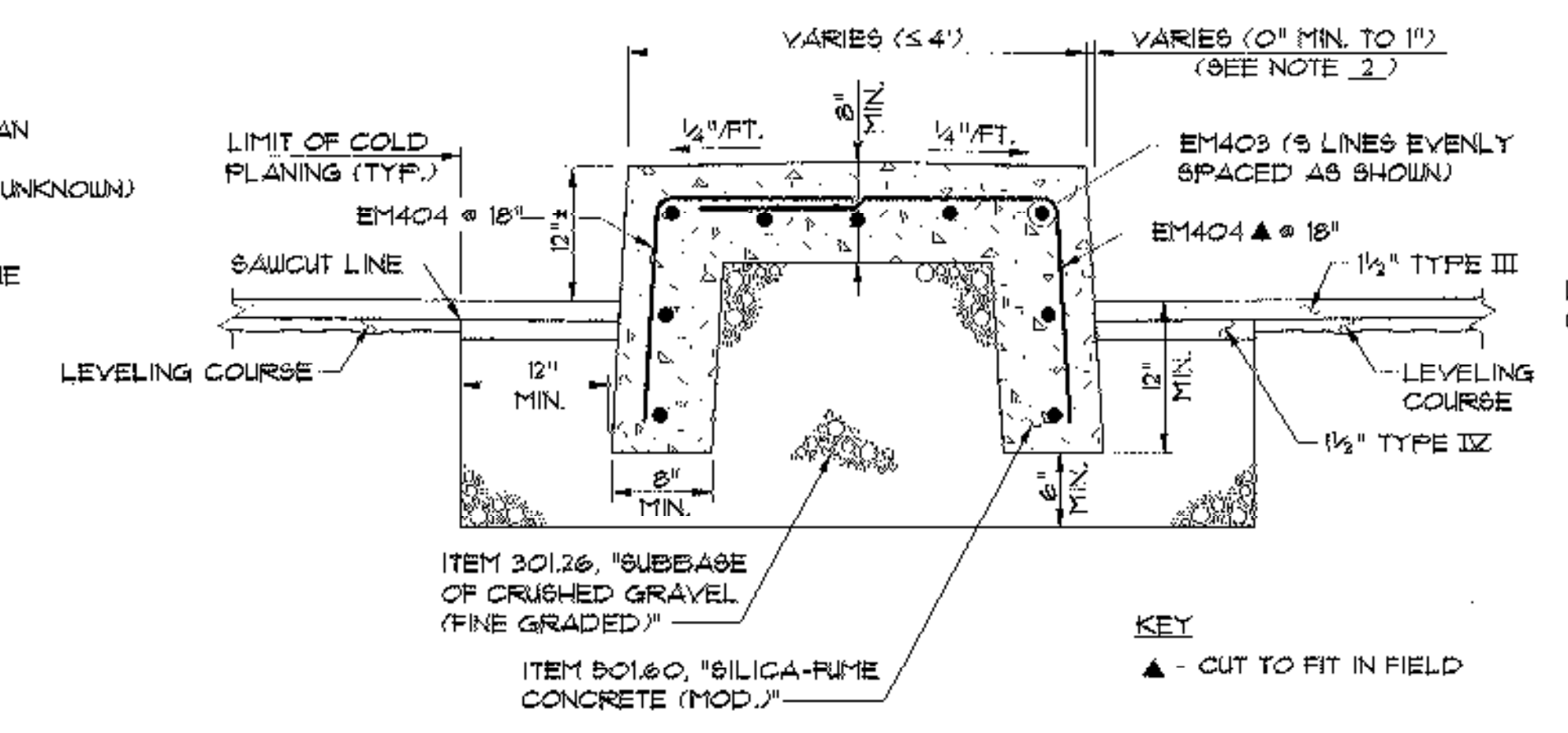
* EXISTING ADELPHIA FIBER OPTIC CABLE RUNS RIGHT BENEATH NEW GUARD RAIL. ADELPHIA WILL MOVE TO OTHER SIDE OF ELECTRICAL CONDUIT



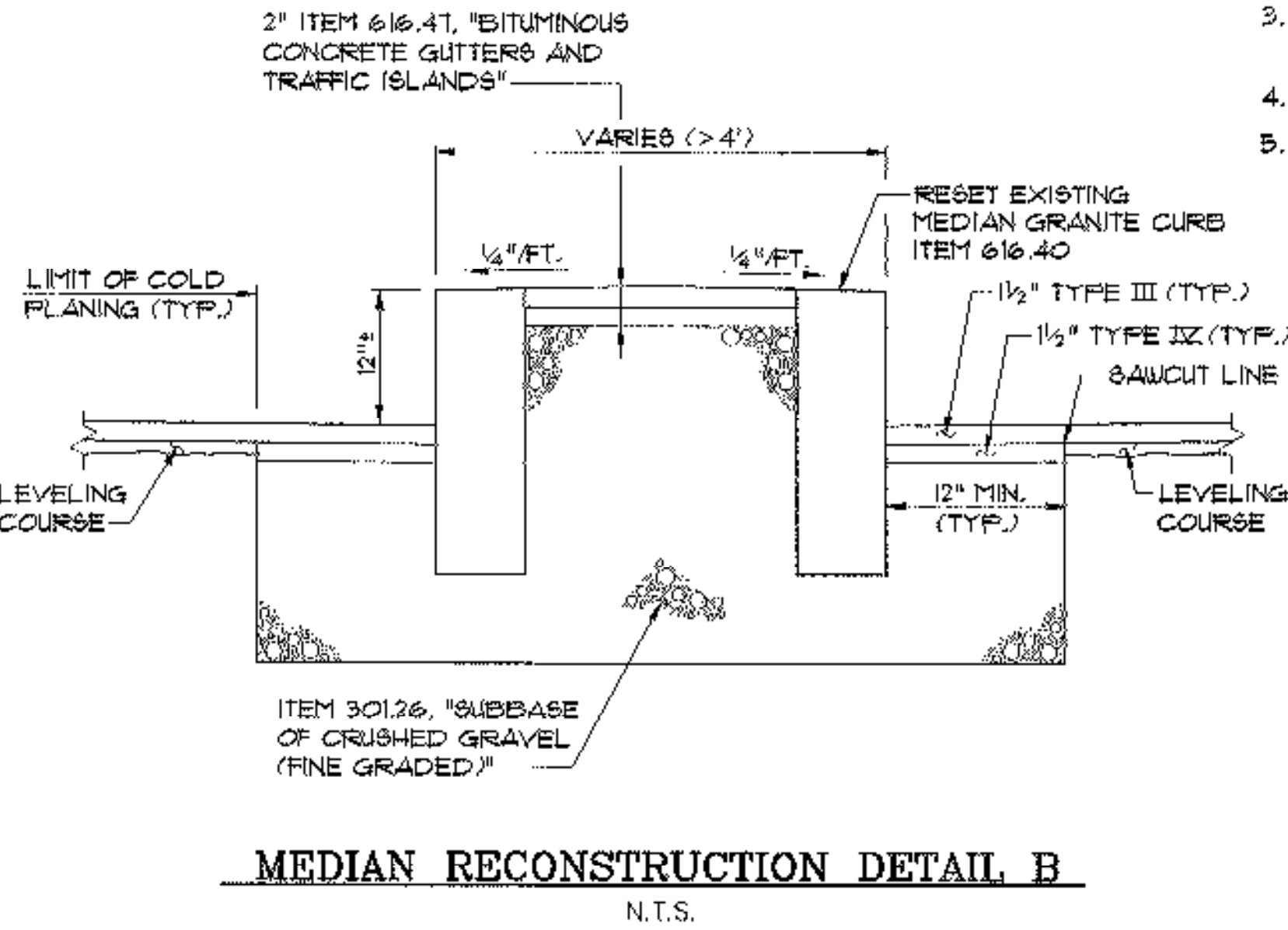
APPROACH PAVEMENT TRANSITION DETAIL
N.T.S.



MEDIAN REMOVAL DETAIL
N.T.S.

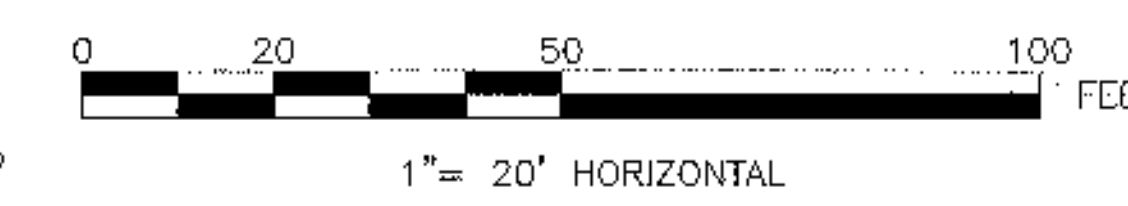


MEDIAN RECONSTRUCTION DETAIL A
N.T.S.



MEDIAN RECONSTRUCTION DETAIL B
N.T.S.

- NOTES:**
- FOR APPROACH ROADWAY NOTES SEE SHEET 44.
 - THE BATTER OF THE CONCRETE MEDIAN CURB SHALL TRANSITION FROM 1" TO 0" WITHIN THE FINAL TEN FEET AT EACH END, IN ORDER TO MATCH TO THE ADJACENT VERTICAL GRANITE CURB.
 - LANE AND PAVEMENT MARKINGS NOT SHOWN FOR CLARITY. SEE SHEETS 41 & 48 FOR PAVEMENT MARKINGS LAYOUT.
 - SEE SHEET 41 FOR LEGEND.
 - COLD PLANING AND PAVING EXTENDS BEYOND THE LIMIT SHOWN AT STA. 34+60. SEE SHEETS 54A, 54B, AND 54C.



**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of SOUTH BURLINGTON Bridge No. 68
Log Sta.
Highway No. U.S. 2 Surv. Sta.

U.S. 2 OVER I-89
APPROACH ROADWAY PLAN (2 OF 2)

Designed By A. SETAS Drawn By B.J. MASSE
Checked By T.S. BRYANT 2/00 Date Bridge Design Supervisor C.D. BAKER Date 2/00

PROJECT SOUTH BURLINGTON PROJECT NO. IM DECK (36)

VHD Cad Drawing No. 50329RDP Date 2/00
Bridge Sheet No. Sheet 45 of 15

VANASSE HANGEN BRUSTLIN, INC.

BIKEWAY GENERAL NOTES:

- THIS PROJECT WILL BE CONSTRUCTED SIMULTANEOUSLY WITH THE IM DECK (36) BRIDGE REHABILITATION PROJECT. THE STP BIKE (28) PROJECT BIKEWAY PLAN SHEETS SHOW, FOR INFORMATION ONLY, WORK THAT IS INCLUDED IN THE IM DECK (36) PROJECT. IN GENERAL, ALL APPROACH ROADWAY WORK AND FINAL PAVEMENT MARKINGS NOT INCLUDED IN APPROACH ROADWAY NOTE 1 ON SHEET 44 ARE INCLUDED IN STP BIKE (28), UNLESS OTHERWISE NOTED.
- THE FOLLOWING GENERAL NOTES FROM SHEET 9 APPLY TO THE STP BIKE (28) PROJECT: 1, 2, AND 3.
- ALL WORK SHALL BE COORDINATED WITH THE UTILITY OWNERS.
- A COMPLETE SURVEY WAS NOT DONE FOR THIS PROJECT. SLOPE LIMITS AND EXTENTS OF THE WORK SHOWN ON THE PLANS ARE APPROXIMATE. EXACT LIMITS OF WORK SHALL BE DETERMINED IN THE FIELD AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL PERFORM ALL BIKEWAY WORK IN CONJUNCTION WITH THE IM DECK(36) TRAFFIC CONTROL PLAN SHEETS 39 - 41.
- STREET LIGHTING AND SIGNAL WORK SHALL BE COORDINATED WITH GREEN MOUNTAIN POWER CORPORATION AND THE CITY OF SOUTH BURLINGTON.
- THERE ARE FIBER OPTIC LINES IN THIS PROJECT WHICH MUST NOT BE COMPROMISED DURING CONSTRUCTION. THE LOCATION AND DEPTH OF THESE LINES ARE UNKNOWN OUTSIDE THE LIMITS OF THE BRIDGE. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH DIGSAFE AND THE UTILITY OWNER TO ENSURE THE FIBER OPTIC LINES ARE NOT DAMAGED.
- ALL EXISTING AND PROPOSED CATCH BASINS AND DROP INLETS WITHIN THE PROJECT LIMITS SHALL BE EQUIPPED WITH BICYCLE COMPATIBLE GRATES, TYPE E. REPLACEMENT OF EXISTING GRATES SHALL BE PAID UNDER ITEM 604.52, "CAST IRON GRATE WITH FRAME, TYPE E".
- ALL PAVEMENT PLACED ON SECTIONS OF THE BIKEWAY THAT ARE NOT ON THE ROADWAY SHALL BE PAID UNDER ITEM 618.15, "BITUMINOUS CONCRETE SIDEWALK".
- ITEM 613.10, "STONE FILL, TYPE 1", SHALL BE USED ON ALL FILL SLOPES BEHIND THE GUARDRAIL AS DIRECTED BY THE ENGINEER.
- A NOMINAL QUANTITY OF ITEM 616.20, "GRANITE SLOPE EDGING" HAS BEEN INCLUDED IN THE CONTRACT TO BE USED AT THE DISCRETION OF THE RESIDENT ENGINEER ON RAMPS "B", "D", "E", AND "G" AS NECESSARY.
- ITEM 616.21, "VERTICAL GRANITE CURB" SHALL BE USED AT CURB CUTS FOR THE PROPOSED SIDEWALK AND BIKEWAY. REMOVAL OF EXISTING VERTICAL GRANITE CURB SHALL BE PAID UNDER ITEM 616.41, "REMOVAL OF EXISTING CURB."
- REMOVAL AND RESETTING OF EXISTING DELINEATORS SHALL BE SUBSIDIARY TO ITEM 615.50, "REMOVING SIGNS."
- UNLESS OTHERWISE NOTED, THE CONCRETE FOR THE VARIOUS ELEMENTS OF THE WORK SHALL BE:
 - SIDEWALK OVERLAY AND WIDENING
 - SILICA-FUME CONCRETE, f'c = 5000 PSI
 - PAID AS ITEM 501.60, "SILICA-FUME CONCRETE (MOD.)"
 - NEW SIDEWALK 5"
 - CONCRETE CLASS B, f'c = 3500 PSI
 - PAID AS ITEM 618.10, "PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH"
 - STRUCTURAL SLAB AT UTILITY BANK
 - CONCRETE CLASS B, f'c = 3500 PSI
 - PAID AS ITEM 501.25, "CONCRETE CLASS B"
- ALL NEW GRASSED AREAS AND DISTURBED AREAS SHALL BE TREATED WITH:
 - ITEM 651.15, "SEED"
 - ITEM 651.18, "FERTILIZER"
 - ITEM 651.20, "AGRICULTURED LIMESTONE"
 - ITEM 651.25, "HAY MULCH"
 - ITEM 651.35, "TOPSOIL"
- PEDESTRIAN TRAFFIC SHALL BE MAINTAINED ON THE SIDEWALKS ON AT LEAST ONE SIDE OF THE ROADWAY AND BRIDGE AT ALL TIMES. WORK ON APPROACH SIDEWALKS SHALL BE COORDINATED WITH THE WORK ON THE BRIDGE SIDEWALKS.
- ALL SIDEWALK RAMPS AND ASSOCIATED CURB CUTS SHALL MEET THE "AMERICANS WITH DISABILITIES ACT" (ADA) GUIDELINES. ANY SIDEWALK RAMP OR CURB CUT INSTALLED AS PART OF THIS PROJECT WHICH DOES NOT MEET ADA GUIDELINES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE PAID UNDER ITEM 646.82, "REMOVAL OF EXISTING PAVEMENT MARKINGS".

APPROACH ROADWAY STREET LIGHTING NOTES:

- THE NEW STREETLIGHTS SHALL BE EQUIPPED WITH 250 WATT, HIGH-PRESSURE SODIUM, TYPE III LUMINAIRE. LUMINAIRE SHALL HAVE CUT-OFF REFRACTORS AND PHOTOELECTRIC CELLS.
- THE NEW LIGHT POLES ARE LOCATED APPROXIMATELY 8 FEET BEHIND THE EXISTING LIGHT POLES BEING REMOVED. REFER TO THE NEW STREETLIGHT INFORMATION TABLE ON THIS SHEET FOR LOCATION AND DETAILS. APPROXIMATE LOCATIONS ARE ALSO SHOWN ON SHEETS 41 AND 48.
- STREET LIGHTING SHALL CONFORM TO SECTION 619 OF THE STANDARD SPECIFICATIONS.
- EXISTING STREETLIGHTS TO BE REMOVED SHALL BE SALVAGED TO THE CITY OF SOUTH BURLINGTON. (SEE SPECIAL PROVISIONS).
- THE CONTRACTOR SHALL PROVIDE CALCULATIONS AND DETAILS, STAMPED BY A LICENSED PROFESSIONAL ENGINEER, TO THE VAOT STRUCTURES ENGINEER FOR THE DESIGN OF THE NEW LIGHT POLE FOUNDATIONS. THE TYPICAL FOUNDATION SIZE SHOWN ON THE VAOT LIGHTING STANDARD SHEET SHALL NOT BE USED WITHOUT SUBMITTING CALCULATIONS STAMPED BY A LICENSED PROFESSIONAL ENGINEER.
- ALL WORK ASSOCIATED WITH THE DESIGN, FABRICATION, AND ERECTION OF NEW STREETLIGHTS AND FOUNDATIONS SHALL BE PAID AS ITEM 619.15, "STREET LIGHTING", UNLESS OTHERWISE NOTED. THIS SHALL ALSO INCLUDE COMPLETE REMOVAL OF THE EXISTING STREETLIGHTS AND FOUNDATIONS BEING REPLACED.
- NEW JUNCTION BOXES SHALL BE INSTALLED IN THE VICINITY OF EACH EXISTING LIGHT POLE BEING REMOVED. NEW CONDUIT AND WIRING SHALL BE INSTALLED FROM THE NEW JUNCTION BOX TO THE NEW LIGHT POLE, AND FROM THE NEW LIGHT POLE TO THE NEAREST JUNCTION BOX AT THE BRIDGE. NEW CONDUIT AND WIRING SHALL BE COMPATIBLE WITH THE EXISTING CONDUIT AND WIRING AND THE NEW STREETLIGHT. ALL COSTS ASSOCIATED WITH REMOVAL AND REPLACEMENT OF EXISTING CONDUIT AND WIRING SHALL BE PAID AS ITEM 618.23, "WIRED CONDUIT". NEW JUNCTION BOXES SHALL BE PAID AS ITEM 618.26, "JUNCTION BOX".

THE CONTRACTOR SHALL DEVELOP A PLAN SHOWING THE PROPOSED LOCATIONS OF NEW JUNCTION BOXES AND CONDUIT REQUIRED FOR THE NEW STREETLIGHTS. THIS PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW ALONG WITH DETAILS OF THE NEW JUNCTION BOXES, CONDUIT, AND WIRING. THIS WORK SHALL BE SUBSIDIARY TO ITEMS 618.23 AND 618.26.
- REMOVAL OF ABANDONED STREETLIGHT FOUNDATIONS AS SHOWN ON THE PLANS OR AS ORDERED SHALL BE SUBSIDIARY TO ITEM 619.15.
- A DECAL SHALL BE APPLIED TO ALL NEW STREETLIGHT POLES ON THE ROADWAY SIDE AT APPROXIMATELY 6 FEET ABOVE FINISH GRADE. FOR DETAILS OF THE DECAL SEE SPECIAL PROVISIONS. COST FOR DECALS SHALL BE SUBSIDIARY TO ITEM 619.15.
- THE CONTRACTOR SHALL ENSURE THAT ALL EXISTING STREET LIGHTING NOT BEING REPLACED REMAINS OPERATIONAL DURING CONSTRUCTION. UNTIL THE NEW STREET LIGHTS ARE OPERATIONAL THE CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTING AS DIRECTED BY THE ENGINEER TO COMPENSATE FOR EXISTING STREET LIGHTS THAT HAVE BEEN REMOVED. ALL COSTS FOR ANY TEMPORARY LIGHTING REQUIRED SHALL BE INCLUDED IN ITEM 619.15.

NEW STREETLIGHT INFORMATION

POLE LOCATION STATION	OFFSET	LENGTH OF POLE (FT)	LENGTH OF ARM (FT)	BREAKAWAY	LUMINAIRE		MOUNTING HEIGHT (FT)	REMARKS
					WATTS	TYPE		
25+42	66' LEFT	38±	15	YES	250	III	40±	
25+18	65' RIGHT	38±	15	YES	250	III	40±	
30+70	60' LEFT	38±	15	YES	250	III	40±	
31+01	69' RIGHT	38±	15	YES	250	III	40±	

ITEM 646.50, "DURABLE LETTER OR SYMBOL (TYPE I TAPE)"		
DESCRIPTION	TOTAL QUANTITY	LOCATION
STOP	4 x 6 = 24	EACH RAMP CROSSING
TOTAL	24	

ITEM 646.50, "DURABLE LETTER OR SYMBOL"		
DESCRIPTION	TOTAL QUANTITY	LOCATION
	7	EACH RAMP CROSSING
	14	EQUALLY SPACED IN BIKEWAY BETWEEN RAMPS D+G AND B+E
	14	EQUALLY SPACED IN BIKEWAY BETWEEN RAMPS D+G AND B+E
TOTAL	35	

SEEDING FORMULA URBAN AREAS

% WT.	LBS./A.	NAME	FUR %	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
100.0	80.0			

SEEDING NOTES:

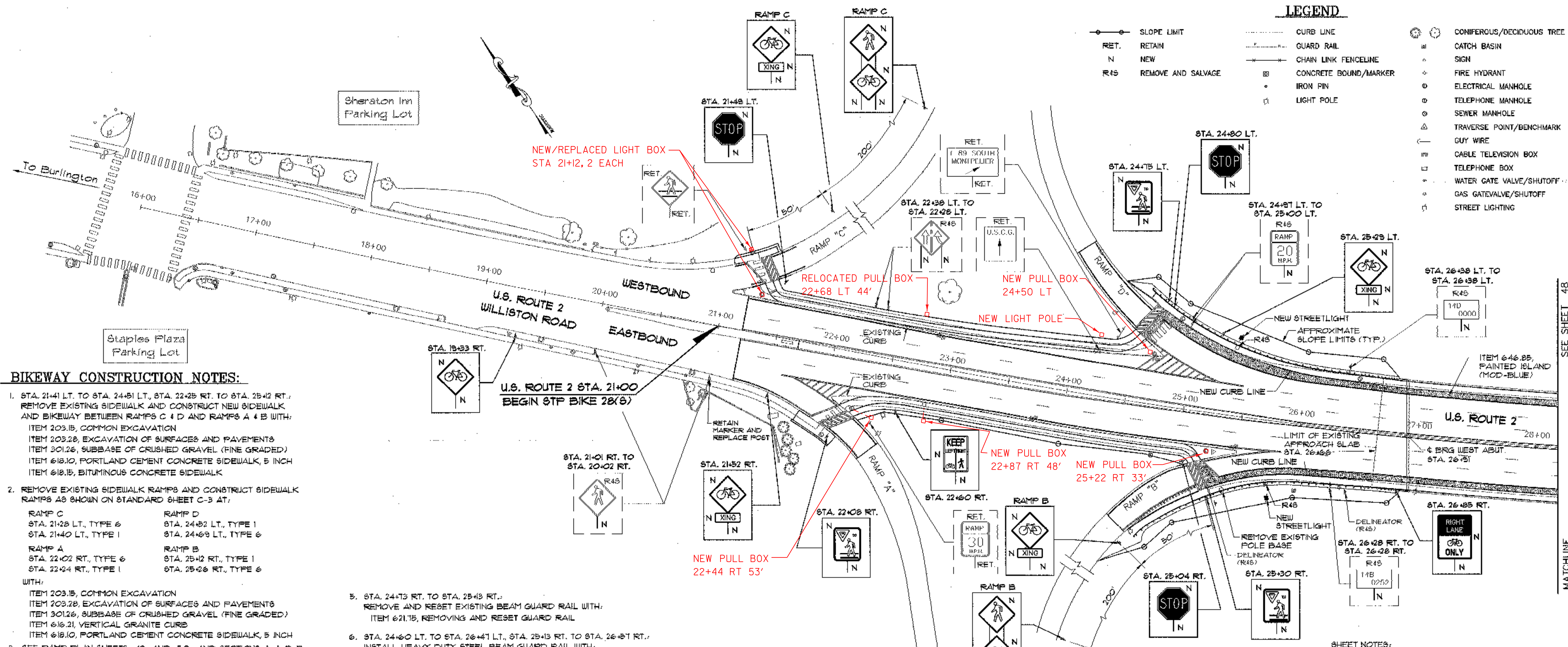
- SEED MIXTURE:**
SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
- SEED:**
TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.
- FERTILIZER:**
FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 500 LBS./ACRE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).
- AGRICULTURAL LIMESTONE:**
TO BE APPLIED AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.
- HAY MULCH:**
TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.
- TOPSOIL:**
TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No. U.S.	2	Log Sta.	
		Surv. Sta.	
U.S. 2 OVER 1-89			
BIKEWAY GENERAL NOTES			
Designed By	S.M. HODGDON	Drawn By	C.L. CILLEY
Checked By	T.S. BRYANT	Date	2/00
		Bridge Design Supervisor	C.D. BAKER Date 2/00
PROJECT	SOUTH BURLINGTON	PROJECT NO.	STP BIKE (28)S
VHB Cad Drawing No.	50963GNT	Date	2/00
Bridge Sheet No.		Sheet	46 of 75

LEGEND

- SLOPE LIMIT
- RET. RETAIN
- N NEW
- R45 REMOVE AND SALVAGE
- CURB LINE
- GUARD RAIL
- CHAIN LINK FENCELINE
- CONCRETE BOUND/MARKER
- IRON PIN
- ⊕ LIGHT POLE
- ⊙ CONIFEROUS/DECIDUOUS TREE
- ⊙ CATCH BASIN
- ⊙ SIGN
- ⊙ FIRE HYDRANT
- ⊙ ELECTRICAL MANHOLE
- ⊙ TELEPHONE MANHOLE
- ⊙ SEWER MANHOLE
- ⊙ TRAVERSE POINT/BENCHMARK
- ⊙ GUY WIRE
- ⊙ CABLE TELEVISION BOX
- ⊙ TELEPHONE BOX
- ⊙ WATER GATE VALVE/SHUTOFF
- ⊙ GAS GATEVALVE/SHUTOFF
- ⊙ STREET LIGHTING



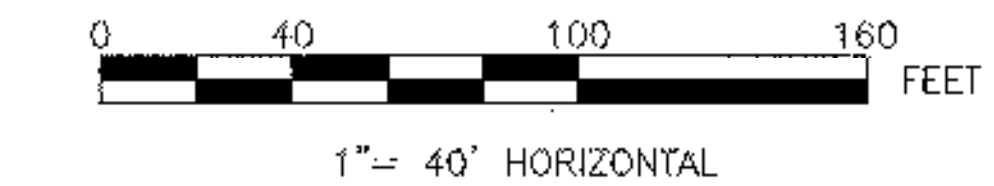
BIKEWAY CONSTRUCTION NOTES:

1. STA. 21+41 LT. TO STA. 24+51 LT., STA. 22+25 RT. TO STA. 25+42 RT.: REMOVE EXISTING SIDEWALK AND CONSTRUCT NEW SIDEWALK AND BIKEWAY BETWEEN RAMP C & D AND RAMP A & B WITH:
 - ITEM 203.15, COMMON EXCAVATION
 - ITEM 203.28, EXCAVATION OF SURFACES AND PAVEMENTS
 - ITEM 301.26, SUBBASE OF CRUSHED GRAVEL (FINE GRADED)
 - ITEM 618.10, PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
 - ITEM 618.15, BITUMINOUS CONCRETE SIDEWALK
2. REMOVE EXISTING SIDEWALK RAMP AND CONSTRUCT SIDEWALK RAMP AS SHOWN ON STANDARD SHEET C-3 AT:

RAMP C STA. 21+28 LT., TYPE 6 STA. 21+40 LT., TYPE 1 RAMP A STA. 22+02 RT., TYPE 6 STA. 22+24 RT., TYPE 1	RAMP D STA. 24+82 LT., TYPE 1 STA. 24+69 LT., TYPE 6 RAMP B STA. 25+42 RT., TYPE 1 STA. 25+26 RT., TYPE 6
--	--
3. SEE RAMP PLAN SHEETS 49 AND 50, AND SECTIONS A-A, B-B, AND C-C ON SHEET 54.
 - ITEM 203.15, COMMON EXCAVATION
 - ITEM 203.28, EXCAVATION OF SURFACES AND PAVEMENTS
 - ITEM 301.26, SUBBASE OF CRUSHED GRAVEL (FINE GRADED)
 - ITEM 618.21, VERTICAL GRANITE CURB
 - ITEM 618.10, PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
4. STA. 26+59 LT. AND STA. 26+61 RT.: RECONSTRUCT EXISTING DROP INLET AS NECESSARY TO RELOCATE GRATE FRAME ADJACENT TO NEW CURB LINE WITH:
 - ITEM 604.41, REHABILITATION OF DROP INLETS, CATCH BASINS OR MANHOLES.
5. STA. 24+73 RT. TO STA. 25+43 RT.: REMOVE AND RESET EXISTING BEAM GUARD RAIL WITH:
 - ITEM 621.15, REMOVING AND RESET GUARD RAIL
6. STA. 24+60 LT. TO STA. 26+47 LT., STA. 25+13 RT. TO STA. 26+87 RT.: INSTALL HEAVY DUTY STEEL BEAM GUARD RAIL WITH:
 - ITEM 621.21, HEAVY DUTY STEEL BEAM GUARD RAIL
7. STA. 24+14 RT.: RESET EXISTING END UNIT
 - COST INCLUDED IN ITEM 621.15, REMOVING AND RESET GUARD RAIL
8. STA. 24+60 LT.: INSTALL G1-D TERMINAL UNIT
 - COST INCLUDED IN ITEM 621.21, HEAVY DUTY STEEL BEAM GUARD RAIL
9. ALL SLOPES BEHIND FACE OF RAIL SHALL BE TREATED WITH THE FOLLOWING AS DIRECTED BY THE ENGINEER:
 - ITEM 203.15, COMMON EXCAVATION
 - ITEM 618.10, STONE FILL, TYPE 1
 - ITEM 649.31, GEOTEXTILE UNDER STONE FILL
 - ITEM 651.35, TOPSOIL
10. STA. 24+75 RT. TO STA. 25+43 RT.: SCORE PAVEMENT TO CREATE RUMBLE STRIP WITH:
 - ITEM 213.10, MILLED RUMBLE STRIPS
11. AN EXISTING RAMP MARKER SIGN IS PRESENTLY AT STA. 21+00 RT. MOUNTED TO A TRAFFIC SIGNPOST THAT IS BEING REMOVED. THE CONTRACTOR SHALL PROVIDE A NEW POST FOR THIS SIGN AND RESECURE THE RAMP MARKER SIGN. THIS WORK SHALL BE SUBSIDIARY TO ITEM 618.50, REMOVING SIGNS.
12. ALL DELINEATORS REMOVED AND SALVAGED SHALL BE PLACED WITHIN 10 FEET OF EXISTING LOCATION OR AS DIRECTED BY THE ENGINEER. REMOVING AND RESETTING EXISTING DELINEATORS SHALL BE SUBSIDIARY TO ITEM 618.50, REMOVING SIGNS.

PAVEMENT MARKING NOTES

- ITEM 646.40, DURABLE 4" WHITE LINE (TYPE I TAPE)
 - STA. 21+21, LT - 24+43, LT
 - * STA. 21+21, LT - 28+20, LT (DASHED)
 - STA. 21+21, RT - 21+81, RT
 - * STA. 21+21, RT - 28+20, RT (DASHED)
 - STA. 22+11, RT - 25+48, RT
 - * STA. 25+80, LT - 28+20, LT (DASHED)
 - * STA. 25+86, RT - 28+20, RT (DASHED)
- ITEM 646.41, DURABLE 4" YELLOW LINE (TYPE I TAPE)
 - * STA. 21+21, LT - 28+20, LT
 - * STA. 21+21, RT - 28+20, RT
- ITEM 646.414, DURABLE 6" WHITE LINE (TYPE I TAPE)
 - STA. 21+83, LT - 21+82, LT
 - STA. 22+08, RT - 22+37, RT
 - STA. 24+04, LT - 24+61, LT
 - STA. 24+64, RT - 25+49, RT
 - STA. 24+60, LT - 28+20, LT
 - STA. 25+37, RT - 28+20, RT
- ITEM 646.415, DURABLE 6" YELLOW LINE (TYPE I TAPE)
 - STA. 21+43, LT - 21+63, LT
 - STA. 22+26, RT - 22+49, RT
 - STA. 23+81, LT - 24+50, LT
 - STA. 24+50, RT - 25+09, RT
- ITEM 646.42, DURABLE 8" WHITE LINE (TYPE I TAPE)
 - STA. 21+17, LT - 21+25, LT
 - STA. 21+60, RT - 22+71, RT
 - STA. 21+73, RT - 22+21, RT (INCL. DIAGONALS)
 - STA. 24+43, LT - 25+48, LT
 - STA. 24+56, LT - 25+26, LT (INCL. DIAGONALS)
 - STA. 24+63, LT - 25+26, LT
 - STA. 25+22, RT - 25+86, RT
 - STA. 25+48, RT - 25+86, RT
- ITEM 646.44, DURABLE 12" WHITE LINE (TYPE I TAPE)
 - STA. 21+19, LT - 21+32, LT
 - STA. 21+42, LT - 21+45, LT
 - STA. 21+91, RT - 22+11, RT
 - STA. 24+60, LT - 24+80, LT
 - STA. 24+63, LT - 24+80, LT
 - STA. 25+43, RT - 25+48, RT
 - STA. 25+41, RT - 25+37, RT
- ITEM 646.51, DURABLE CROSSWALK W/ DIAGONAL LINES (TYPE I TAPE)
 - LOCATED AT EACH RAMP CROSSING AS SHOWN.
- ITEM 646.85, PAINTED ISLAND (MOD-BLUE)
 - RAMP D TO RAMP E, LT
 - RAMP B TO RAMP E, RT
 - SEE DETAIL ON SHEET 54.



**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of SOUTH BURLINGTON		Bridge No. 68
Highway No. U.S. 2		Log Sta. _____
		Surv. Sta. _____
U.S. 2 OVER I-89		
BIKEWAY PLAN (1 OF 2)		
Designed By S.M. HODGSON	Drawn By C.L. CILEY	
Checked By T.S. BRYANT 2/00	Date 2/00	Bridge Design Supervisor C.D. BAKER Date 2/00
PROJECT SOUTH BURLINGTON	PROJECT NO. STP BIKE (28)S	
VHB Cad Drawing No. 50363BIK	Date 2/00	
Bridge Sheet No. _____	Sheet 47 of 75	

VANASSE HANGEN BRUSTLIN, INC.

SEE SHEET 48

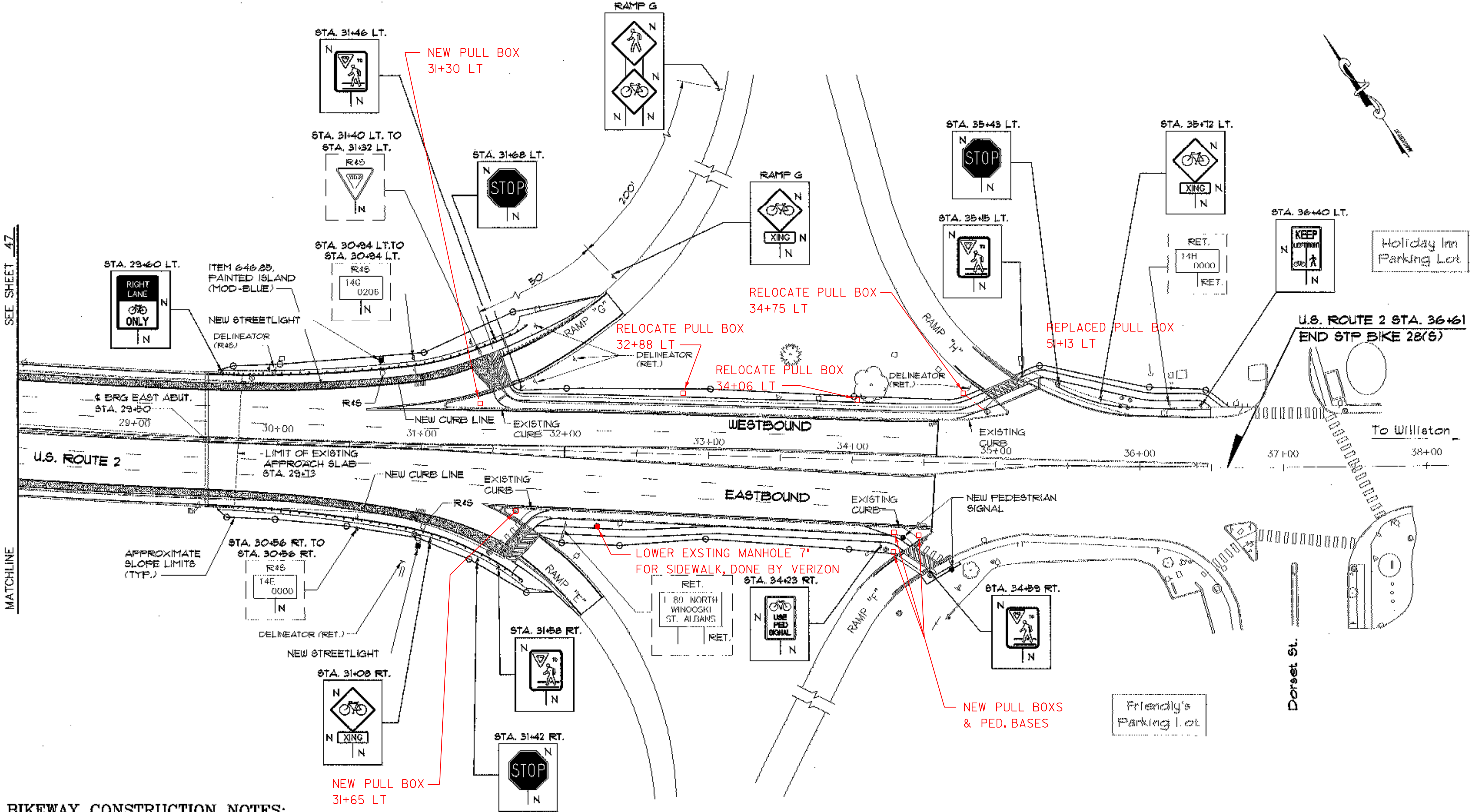
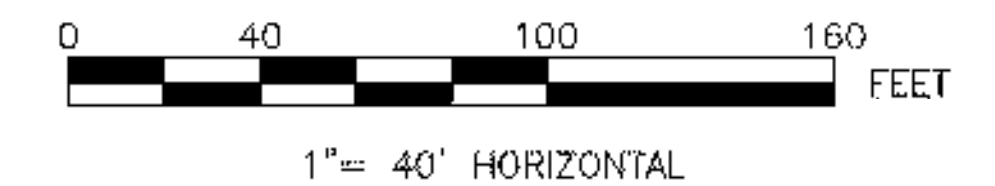
MATCHLINE

PAVEMENT MARKING NOTES:

- ITEM 646.40, DURABLE 4" WHITE LINE (TYPE I TAPE)
 - * STA. 28+20, LT - 30+61, LT (DASHED)
 - * STA. 28+20, RT - 34+58, RT (DASHED)
 - * STA. 28+20, LT - 34+58, LT (DASHED)
 - * STA. 28+20, RT - 34+58, RT (DASHED)
 - STA. 31+16, LT - 34+58, LT
 - STA. 31+60, RT - 34+58, RT
- ITEM 646.41, DURABLE 4" YELLOW LINE (TYPE I TAPE)
 - * STA. 28+20, LT - 34+58, LT
 - * STA. 28+20, RT - 34+58, RT
- ITEM 646.41A, DURABLE 6" WHITE LINE (TYPE I TAPE)
 - STA. 28+20, LT - 31+34, LT
 - STA. 28+20, RT - 31+51, RT
 - STA. 31+55, LT - 32+26, LT
 - STA. 31+72, RT - 32+15, RT
 - STA. 34+31, RT - 34+55, RT
 - STA. 34+82, LT - 35+11, LT
- ITEM 646.41B, DURABLE 6" YELLOW LINE (TYPE I TAPE)
 - STA. 31+62, LT - 32+37, LT
 - STA. 31+84, RT - 32+29, RT
 - STA. 34+17, RT - 34+38, RT
 - STA. 34+69, LT - 34+91, LT
- ITEM 646.42, DURABLE 8" WHITE LINE (TYPE I TAPE)
 - STA. 30+61, LT - 31+16, LT
 - STA. 30+61, LT - 31+17, LT
 - STA. 31+44, RT - 31+60, RT
 - STA. 31+44, RT - 31+60, RT (INCL. DIAGONALS)
 - STA. 31+44, RT - 31+72, RT
 - STA. 34+45, RT - 34+55, RT
 - STA. 34+62, RT - 34+70, RT
- ITEM 646.44, DURABLE 12" WHITE LINE (TYPE I TAPE)
 - STA. 31+34, LT - 31+48, LT
 - STA. 31+56, LT - 31+60, LT
 - STA. 31+57, RT - 31+65, RT
 - STA. 31+57, RT - 31+74, RT
 - STA. 35+02, LT - 35+34, LT
 - STA. 35+33, LT - 35+34, LT
- ITEM 646.46, DURABLE 24" STOP BAR (TYPE I TAPE)
 - STA. 34+32, RT - 34+52, RT
- ITEM 646.51, DURABLE CROSSWALK W/ DIAGONAL LINES (TYPE I TAPE)
 - LOCATED AT EACH RAMP CROSSING AS SHOWN.

SHEET NOTES:

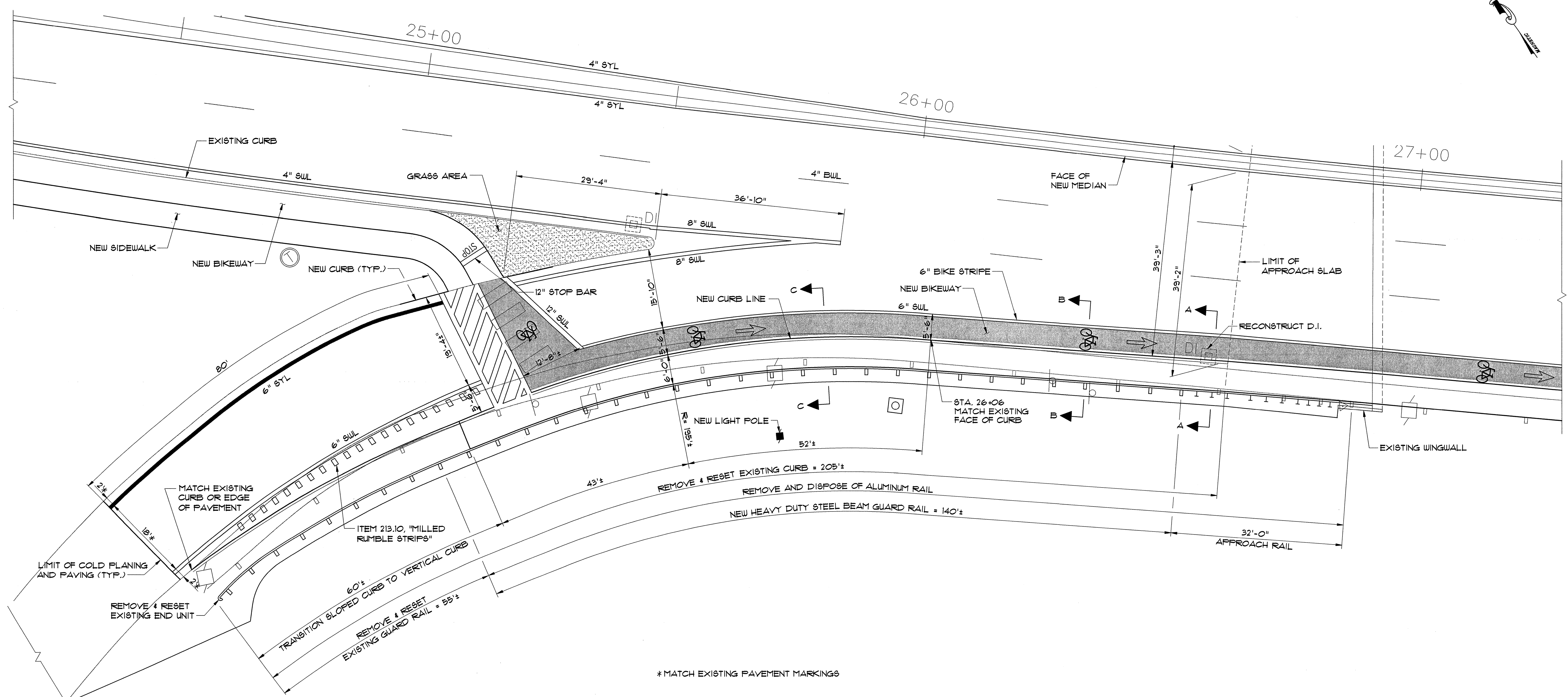
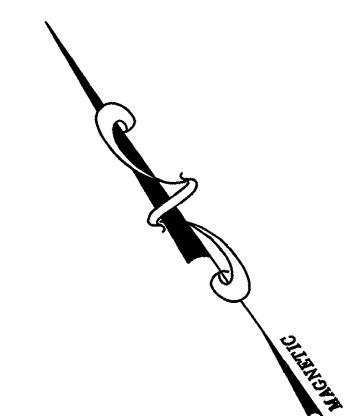
1. PAVEMENT MARKINGS INDICATED WITH AN * SHALL BE PAID FOR UNDER THE 1M DECK (36') BRIDGE REHABILITATION PROJECT.
2. FOR SYMBOLS OR LETTER PAVEMENT MARKINGS SEE SHEETS 49 - 52.
3. COLD PLANING AND PAVING EXTENDS BEYOND THE LIMIT SHOWN ON THIS SHEET. SEE SHEETS 44A, 44B, AND 44C.



BIKEYWAY CONSTRUCTION NOTES:

1. STA. 31+59 LT. TO STA. 34+32 LT., STA. 31+82 RT. TO STA. 34+40 RT. AND STA. 35+18 LT. TO STA. 36+61 LT.: REMOVE EXISTING SIDEWALK AND CONSTRUCT NEW SIDEWALK AND BIKEYWAY BETWEEN RAMP G & H, RAMP E & F, AND BEYOND RAMP H WITH:
 - ITEM 203.15, COMMON EXCAVATION
 - ITEM 203.28, EXCAVATION OF SURFACES AND PAVEMENTS
 - ITEM 301.26, SUBBASE OF CRUSHED GRAVEL (FINE GRADED)
 - ITEM 616.21, VERTICAL GRANITE CURB
 - ITEM 618.10, PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
 - ITEM 618.15, BITUMINOUS CONCRETE SIDEWALK
2. REMOVE EXISTING SIDEWALK RAMP AND CONSTRUCT SIDEWALK RAMP AS SHOWN ON STANDARD SHEET C-3 AT:
 - RAMP G
STA. 31+49, LT, TYPE 6
STA. 31+58, LT, TYPE 1
 - RAMP E
STA. 31+63, RT, TYPE 6
STA. 31+62, RT, TYPE 1
 - WITH:
ITEM 203.15, COMMON EXCAVATION
ITEM 203.28, EXCAVATION OF SURFACES AND PAVEMENTS
ITEM 301.26, SUBBASE OF CRUSHED GRAVEL (FINE GRADED)
ITEM 616.21, VERTICAL GRANITE CURB
ITEM 618.10, PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
 - RAMP F
STA. 34+40, RT, TYPE 1
STA. 34+60, RT, TYPE 6
 - RAMP H
STA. 34+83, LT, TYPE 1
STA. 35+18, LT, TYPE 1
3. STA. 29+73 LT. TO STA. 31+56 LT., STA. 29+73 RT. TO STA. 31+61 RT.: CONSTRUCT SIDEWALK WITH:
 - ITEM 203.15, COMMON EXCAVATION
 - ITEM 203.28, EXCAVATION OF SURFACES AND PAVEMENTS
 - ITEM 301.26, SUBBASE OF CRUSHED GRAVEL (FINE GRADED)
 - ITEM 616.21, VERTICAL GRANITE CURB
 - ITEM 616.40, REMOVING AND RESETTING CURB
 - ITEM 618.10, PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
 CONSTRUCT SIDEWALK WIDENING AND OVERLAY AS NECESSARY WITH:
 - ITEM 529.25, REMOVAL OF CONCRETE OR MASONRY
 - ITEM 501.60, SILICA-FUME CONCRETE (MOD.)
 CONSTRUCT REINFORCED CONCRETE SLAB OVER FIBER OPTIC BANK AS NECESSARY WITH:
 - ITEM 501.25, CONCRETE CLASS B
 - ITEM 501.15, REINFORCING STEEL
 SEE RAMP PLAN SHEETS 49 AND 50, AND SECTIONS A-A, B-B, AND C-C ON SHEET 54.
4. STA. 31+00 LT. AND STA. 31+00 RT.: REPLACE EXISTING DROP INLETS WITH NEW DROP INLETS WITH:
 - ITEM 604.10, CONCRETE CATCH BASIN WITH CAST IRON GRATE
 COSTS FOR ANY NEW PIPE REQUIRED TO CONNECT THE RELOCATED DROP INLETS TO THE EXISTING DRAINAGE SYSTEM SHALL BE INCLUDED IN ITEM 604.10. COSTS FOR REMOVAL OF EXISTING DROP INLETS SHALL BE SUBSIDIARY TO ITEM 604.10.
5. STA. 30+76 LT. TO STA. 31+73 LT.: REMOVE AND RESET EXISTING BEAM GUARD RAIL WITH:
 - ITEM 621.75, REMOVING AND RESET GUARD RAIL
6. STA. 29+87 LT. TO STA. 30+76 LT., STA. 29+91 RT. TO STA. 31+73 RT.: INSTALL HEAVY DUTY STEEL BEAM GUARD RAIL WITH:
 - ITEM 621.21, HEAVY DUTY STEEL BEAM GUARD RAIL
7. STA. 31+71 LT.: RESET EXISTING END UNIT
 - COST INCLUDED IN ITEM 621.75, REMOVING AND RESET GUARD RAIL
8. STA. 31+73 RT. INSTALL G-I-D TERMINAL UNIT
 - COST INCLUDED IN ITEM 621.21, HEAVY DUTY STEEL BEAM GUARD RAIL
9. ALL SLOPES BEHIND FACE OF RAIL SHALL BE TREATED WITH THE FOLLOWING AS DIRECTED BY THE ENGINEER:
 - ITEM 203.15, COMMON EXCAVATION
 - ITEM 613.10, STONE FILL, TYPE 1
 - ITEM 649.31, GEOTEXTILE UNDER STONE FILL
 - ITEM 651.35, TOPSOIL
 SEE RAMP PLAN SHEETS 49 AND 50, AND SECTIONS A-A, B-B, AND C-C ON SHEET 54.
10. STA. 31+55 LT. TO STA. 32+02 LT.: SCORE PAVEMENT TO CREATE RUMBLE STRIP WITH:
 - ITEM 213.10, MILLED RUMBLE STRIPS

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log Sta. Surv. Sta.
U.S. 2 OVER I-89	
BIKEYWAY PLAN (2 OF 2)	
Designed By S.M. HODGDON	Drawn By C.L. CILEY
Checked By T.S. BRYANT 2/00	Bridge Design Supervisor C.D. BAKER Date 2/00
PROJECT SOUTH BURLINGTON	PROJECT NO. STP BIKE (28)S
VHB Cad Drawing No. 50963BIK	Date 2/00
Bridge Sheet No.	Sheet 48 of 13

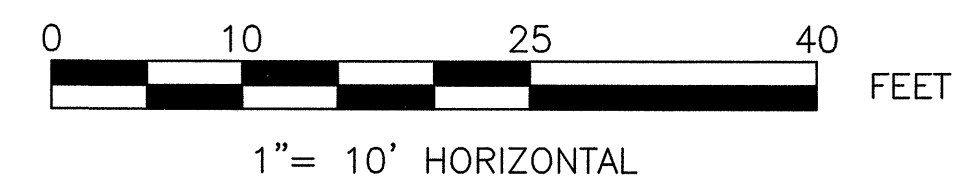


* MATCH EXISTING PAVEMENT MARKINGS

RAMP B
SCALE: 1" = 10'

■ = INDICATES LIMIT OF ITEM 646.50. SEE SHEET 54 FOR TYPICAL DETAIL.

STRIPING LEGEND:
SUL = SOLID WHITE LINE
SYL = SOLID YELLOW LINE
BWL = BROKEN WHITE LINE



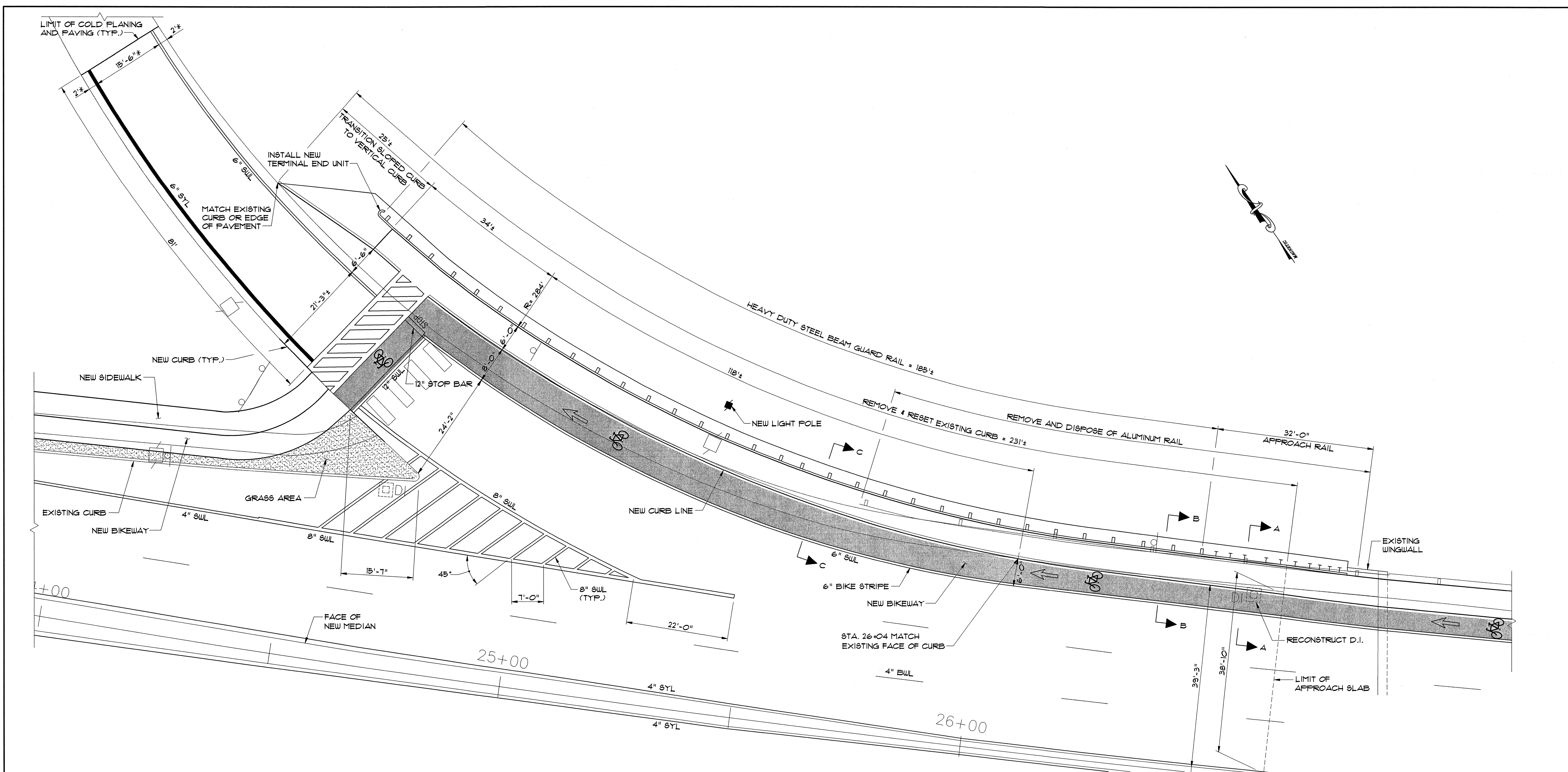
SHEET NOTES:

1. SEE SHEET 41 FOR LEGEND.
2. CURB AND PAVEMENT SHALL BE PLACED AS DIRECTED BY THE ENGINEER FROM LIMIT OF COLD PLANING ON RAMP TO NEW CROSSWALK SO THAT THE ROADWAY WILL DRAIN PROPERLY. THIS WORK SHALL BE SUBSIDIARY TO THE CURB AND PAVEMENT ITEMS.
3. PAVEMENT MARKINGS FOR BIKE SYMBOL AND ARROWS SHALL BE PAID FOR AS ITEM 646.50 "DURABLE LETTER OR SYMBOL. SEE SPECIAL PROVISIONS FOR DETAILS.
4. SEE SHEET 54 FOR SECTIONS A-A, B-B, AND C-C.
5. INFORMATION SHOWN ON THE PLANS IS BASED ON EXISTING DRAWINGS AND LIMITED SURVEY. THE CONTRACTOR SHALL FIELD VERIFY THE LAYOUT OF THE PROPOSED CURB, SIDEWALK AND GUARD RAIL. ANY ADJUSTMENTS TO THE LAYOUT THAT ARE REQUIRED SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO EXCAVATION OR PAVEMENT/CURB REMOVAL. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO ALL OTHER ITEMS IN THE CONTRACT.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No. U.S.	2	Log Sta.	
		Surv. Sta.	
U.S. 2 OVER I-89			
BIKEWAY PLAN RAMP B			
Designed By	S.M. HODGDON	Drawn By	E.J. MASSE
Checked By	T.S. BRYANT	Date	2/00
		Bridge Design Supervisor	C.D. BAKER Date 2/00
PROJECT	SOUTH BURLINGTON	PROJECT NO.	STP BIKE (28)S
VHB Cad Drawing No.	50963RAMP	Date	2/00
Bridge Sheet No.		Sheet	49 of 75

VANASSE HANGEN BRUSTLIN, INC.

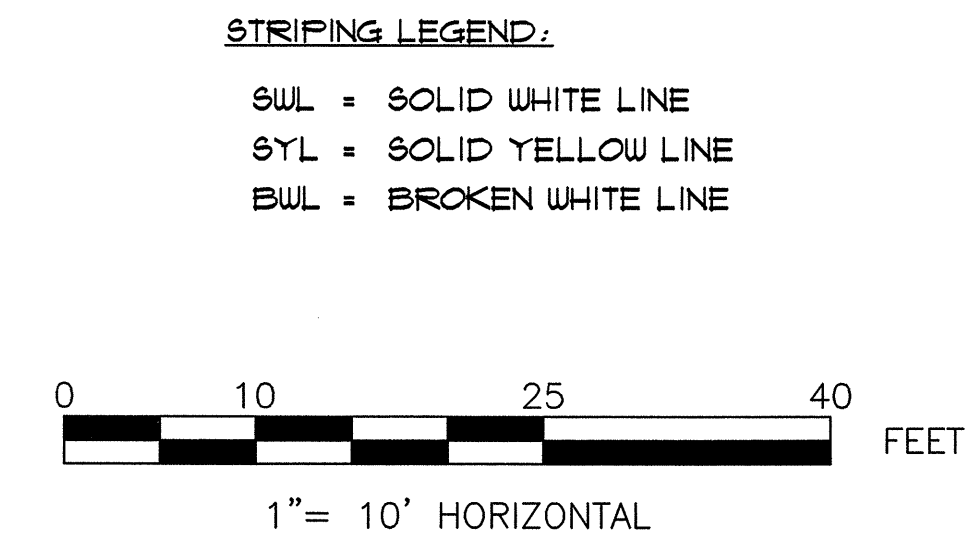


- SHEET NOTES:**
- SEE SHEET 41 FOR LEGEND.
 - CURB AND PAVEMENT SHALL BE PLACED AS DIRECTED BY THE ENGINEER FROM LIMIT OF COLD PLANING ON RAMP TO NEW CROSSWALK SO THAT THE ROADWAY WILL DRAIN PROPERLY. THIS WORK SHALL BE SUBSIDIARY TO THE CURB AND PAVEMENT ITEMS.
 - PAVEMENT MARKINGS FOR BIKE SYMBOL AND ARROWS SHALL BE PAID FOR AS ITEM 646.50, "DURABLE LETTER OR SYMBOL. SEE SPECIAL PROVISIONS FOR DETAILS.
 - SEE SHEET 54 FOR SECTIONS A-A, B-B, AND C-C.
 - INFORMATION SHOWN ON THE PLANS IS BASED ON EXISTING DRAWINGS AND LIMITED SURVEY. THE CONTRACTOR SHALL FIELD VERIFY THE LAYOUT OF THE PROPOSED CURB, SIDEWALK, AND GUARD RAIL. ANY ADJUSTMENTS TO THE LAYOUT THAT ARE REQUIRED SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO EXCAVATION OR PAVEMENT/CURB REMOVAL. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO ALL OTHER ITEMS IN THE CONTRACT.

* MATCH EXISTING PAVEMENT MARKINGS

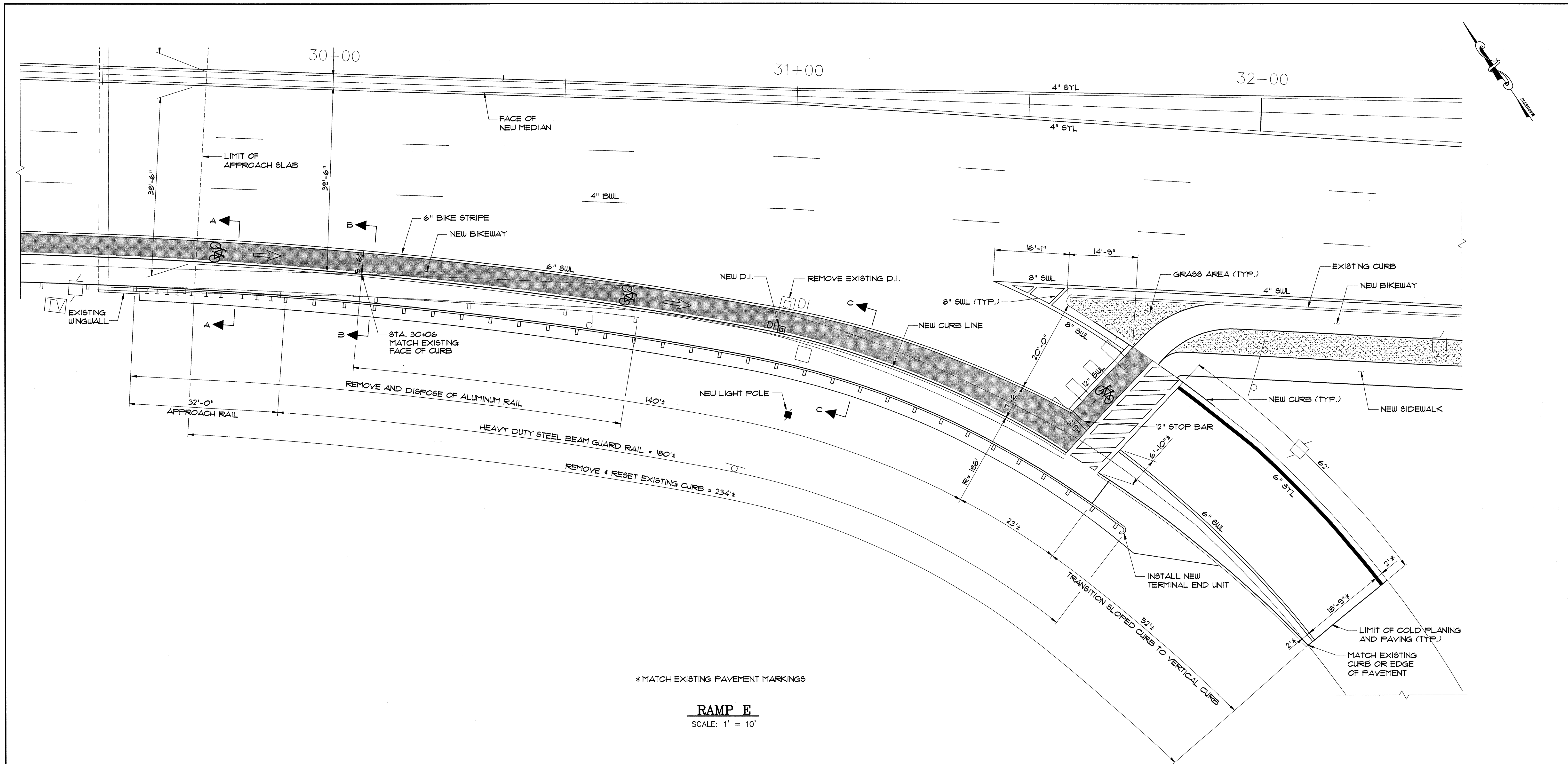
RAMP D
SCALE: 1" = 10'

■ = INDICATES LIMIT OF ITEM 646.50. SEE SHEET 54 FOR TYPICAL DETAIL.



VANASSE HANGEN BRUSTLIN, INC.

STATE OF VERMONT	
AGENCY OF TRANSPORTATION	
Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Log Sta.
	Surv. Sta.
U.S. 2 OVER I-89	
BIKEWAY PLAN RAMP D	
Designed By S.M. HODGDON	Drawn By E.J. MASSE
Checked By T.S. BRYANT Date 2/00	Bridge Design Supervisor C.D. BAKER Date 2/00
PROJECT	PROJECT NO.
SOUTH BURLINGTON	STP BIKE (28)S
VHB Cad Drawing No. 50363RAMP	Date 2/00
Bridge Sheet No.	Sheet 50 of 75



*MATCH EXISTING PAVEMENT MARKINGS

RAMP E

SCALE: 1" = 10'

■ = INDICATES LIMIT OF ITEM 646.85. SEE SHEET 34 FOR TYPICAL DETAIL.

STRIPING LEGEND:

- SWL = SOLID WHITE LINE
- SYL = SOLID YELLOW LINE
- BWL = BROKEN WHITE LINE



SHEET NOTES:

1. SEE SHEET 41 FOR LEGEND.
2. CURB AND PAVEMENT SHALL BE PLACED AS DIRECTED BY THE ENGINEER FROM LIMIT OF COLD PLANING ON RAMP TO NEW CROSSWALK SO THAT THE ROADWAY WILL DRAIN PROPERLY. THIS WORK SHALL BE SUBSIDIARY TO THE CURB AND PAVEMENT ITEMS.
3. PAVEMENT MARKINGS FOR BIKE SYMBOL AND ARROWS SHALL BE PAID FOR AS ITEM 646.90, "DURABLE LETTER OR SYMBOL. SEE SPECIAL PROVISIONS FOR DETAILS.
4. SEE SHEET 34 FOR SECTIONS A-A, B-B, AND C-C.
5. INFORMATION SHOWN ON THE PLANS IS BASED ON EXISTING DRAWINGS AND LIMITED SURVEY. THE CONTRACTOR SHALL FIELD VERIFY THE LAYOUT OF THE PROPOSED CURB, SIDEWALK, AND GUARD RAIL. ANY ADJUSTMENTS TO THE LAYOUT THAT ARE REQUIRED SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO EXCAVATION OR PAVEMENT/CURB REMOVAL. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO ALL OTHER ITEMS IN THE CONTRACT.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2		Log Sta.
		Surv. Sta.

U.S. 2 OVER I-89

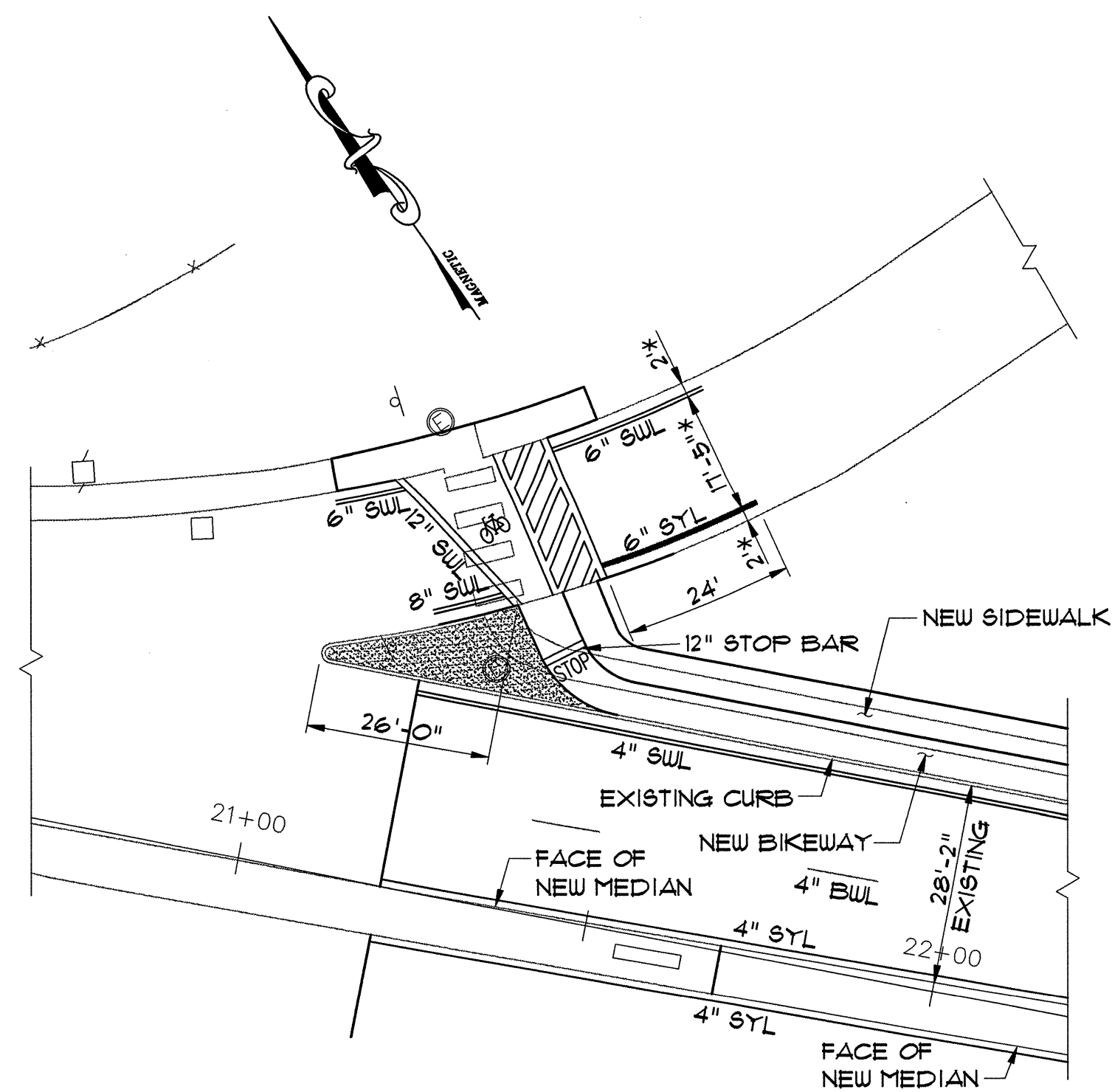
BIKEWAY PLAN RAMP E

Designed By	S.M. HODGDON	Drawn By	B.J. MASSE
Checked By	T.S. BRYANT	Date	2/00
		Bridge Design Supervisor	C.D. BAKER
		Date	2/00

PROJECT	SOUTH BURLINGTON	PROJECT NO.	STP BIKE (28)S
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VHB Cad Drawing No. 50963RAMP	Date 2/00
Bridge Sheet No.	Sheet 51 of 75

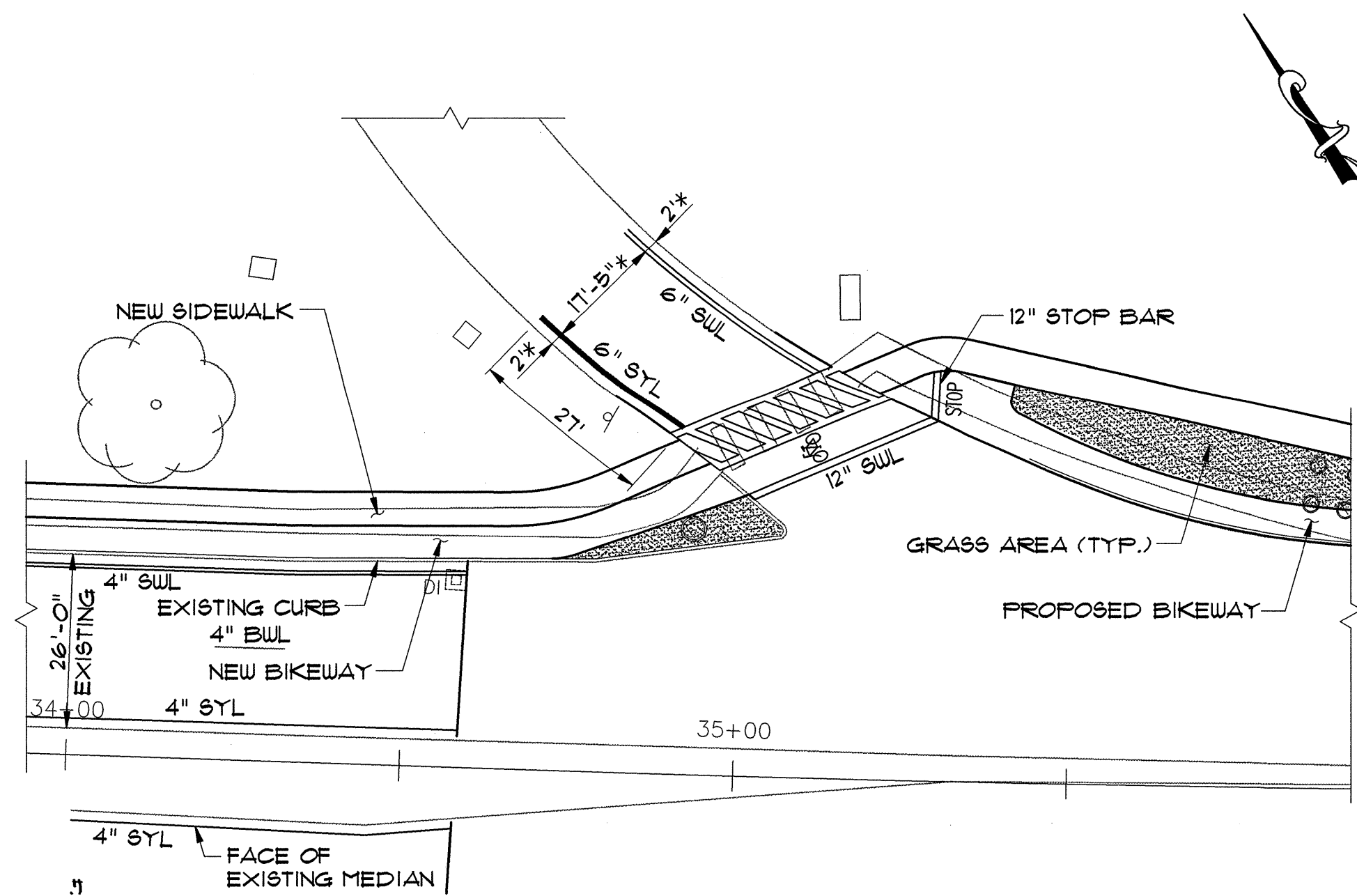
VANASSE HANGEN BRUSTLIN, INC.



* MATCH EXISTING PAVEMENT MARKINGS

RAMP C

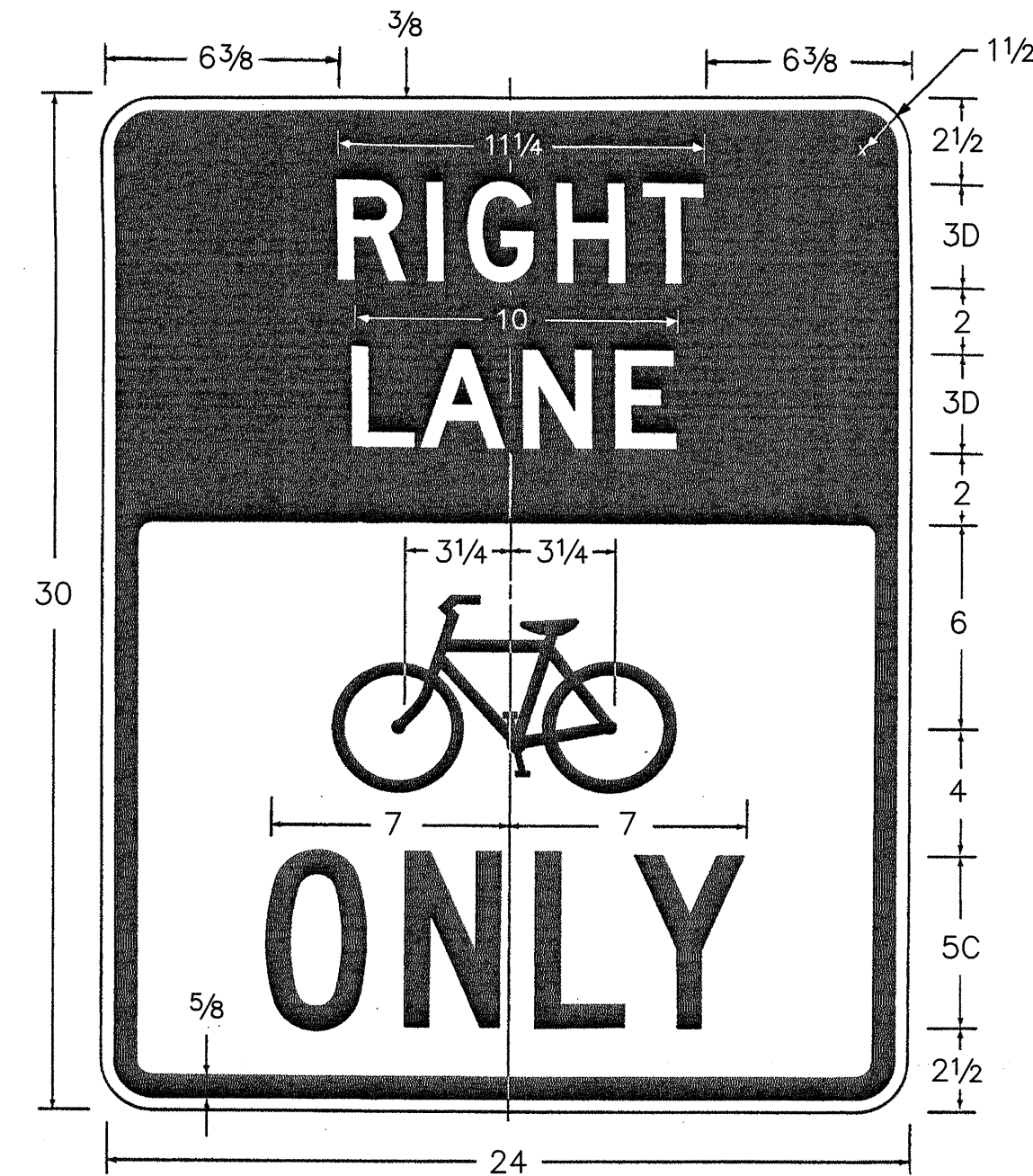
SCALE: 1" = 20'



* MATCH EXISTING PAVEMENT MARKINGS

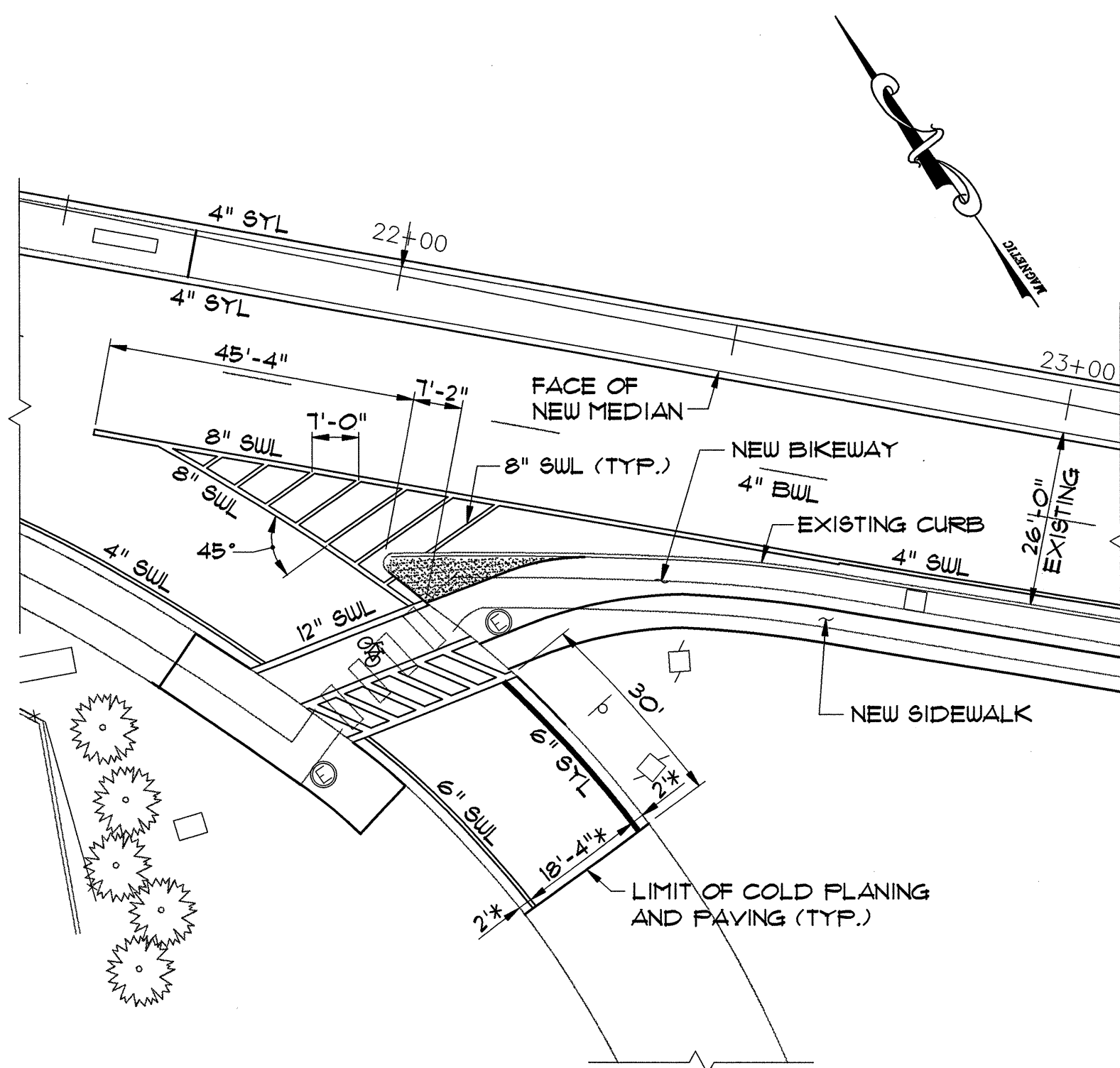
RAMP H

SCALE: 1" = 20'



R3-17 (MOD.)

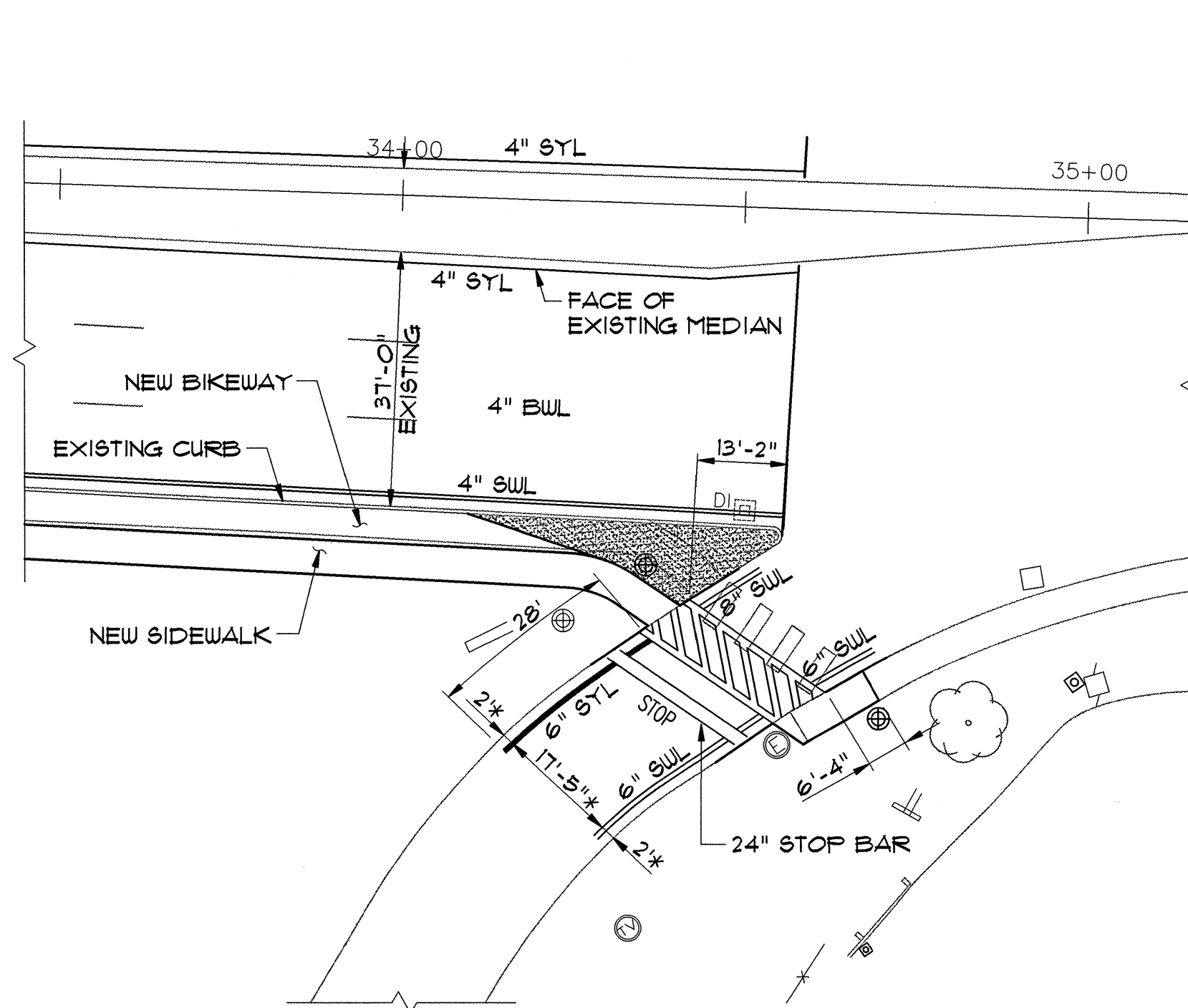
N.T.S.



* MATCH EXISTING PAVEMENT MARKINGS

RAMP A

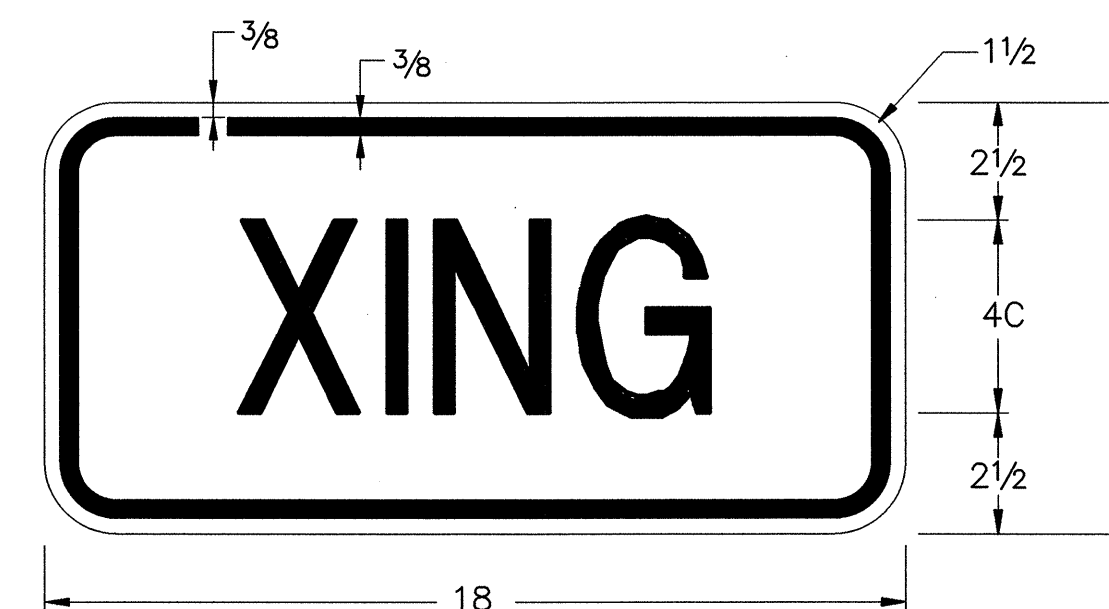
SCALE: 1" = 20'



* MATCH EXISTING PAVEMENT MARKINGS

RAMP F

SCALE: 1" = 20'

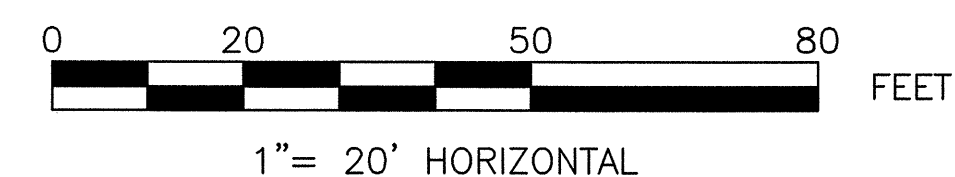


SPECIAL SIGN

N.T.S.

STRIPING LEGEND:

- SWL = SOLID WHITE LINE
- SYL = SOLID YELLOW LINE
- BWL = BROKEN WHITE LINE

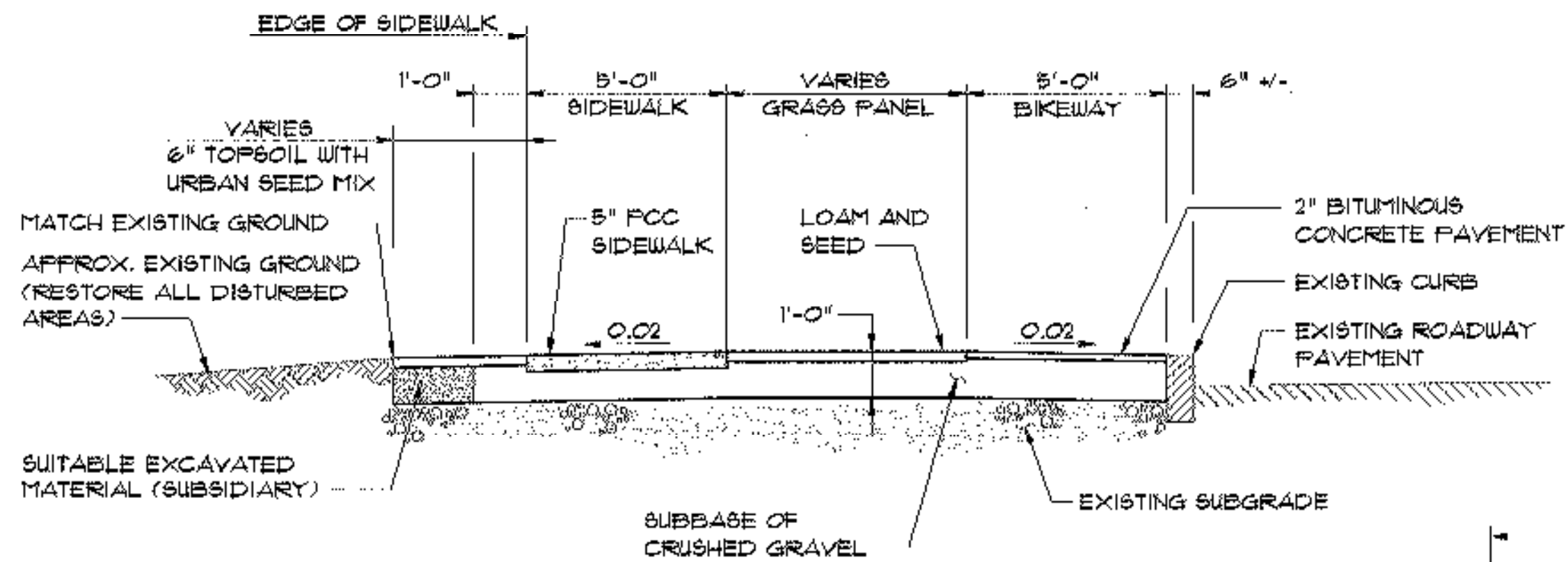


SHEET NOTES:

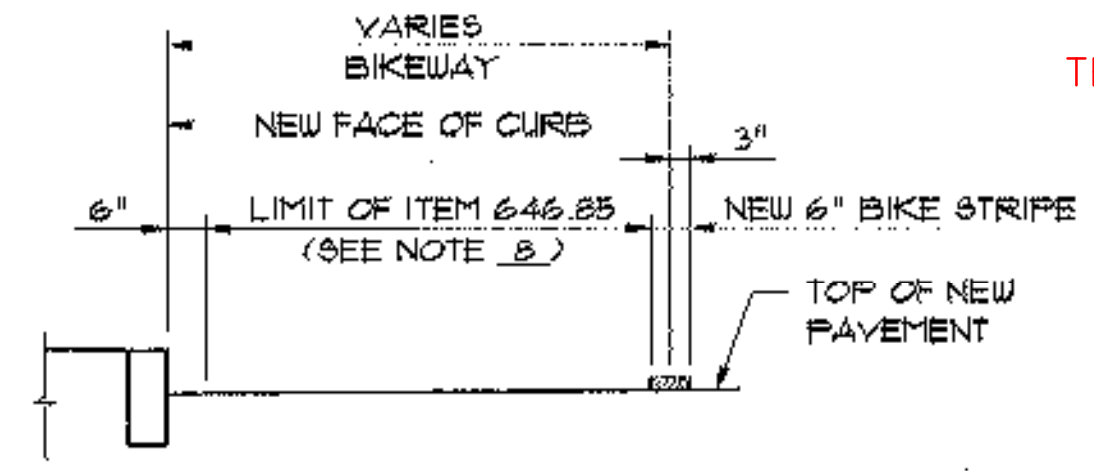
1. SEE SHEET 41 FOR LEGEND.
2. PAVEMENT MARKINGS FOR BIKE SYMBOL AND ARROWS SHALL BE PAID FOR AS ITEM 646.50, "DURABLE LETTER OR SYMBOL. SEE SPECIAL PROVISIONS FOR DETAILS."

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

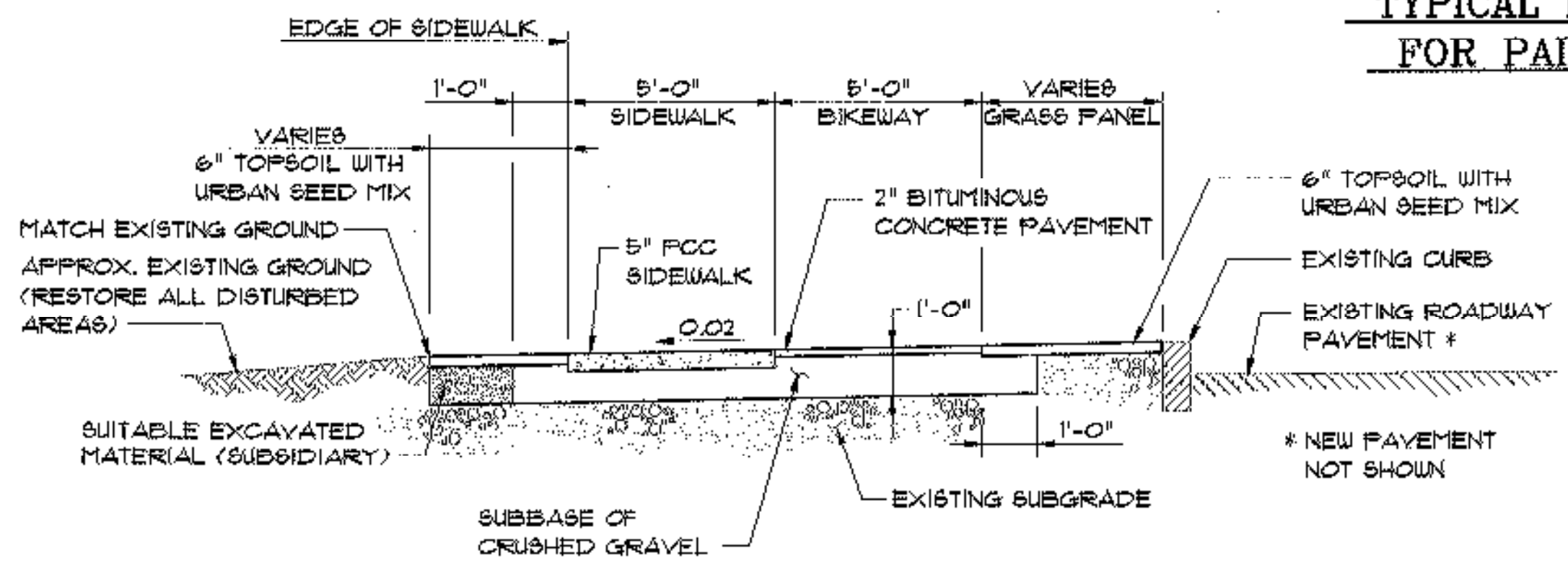
Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No. U.S.	2	Log Sta.	
		Surv. Sta.	
U.S. 2 OVER I-89			
BIKEWAY PLAN RAMPS A, C, F, & H			
Designed By	S.M. HODGDON	Drawn By	E.J. MASSE
Checked By	T.S. BRYANT	Date	2/00
		Bridge Design Supervisor	C.D. BAKER
		Date	2/00
PROJECT	SOUTH BURLINGTON	PROJECT NO.	STP BIKE (28)S
VHB Cad Drawing No.	50963RAMP1	Date	2/00
Bridge Sheet No.		Sheet	53 of 75



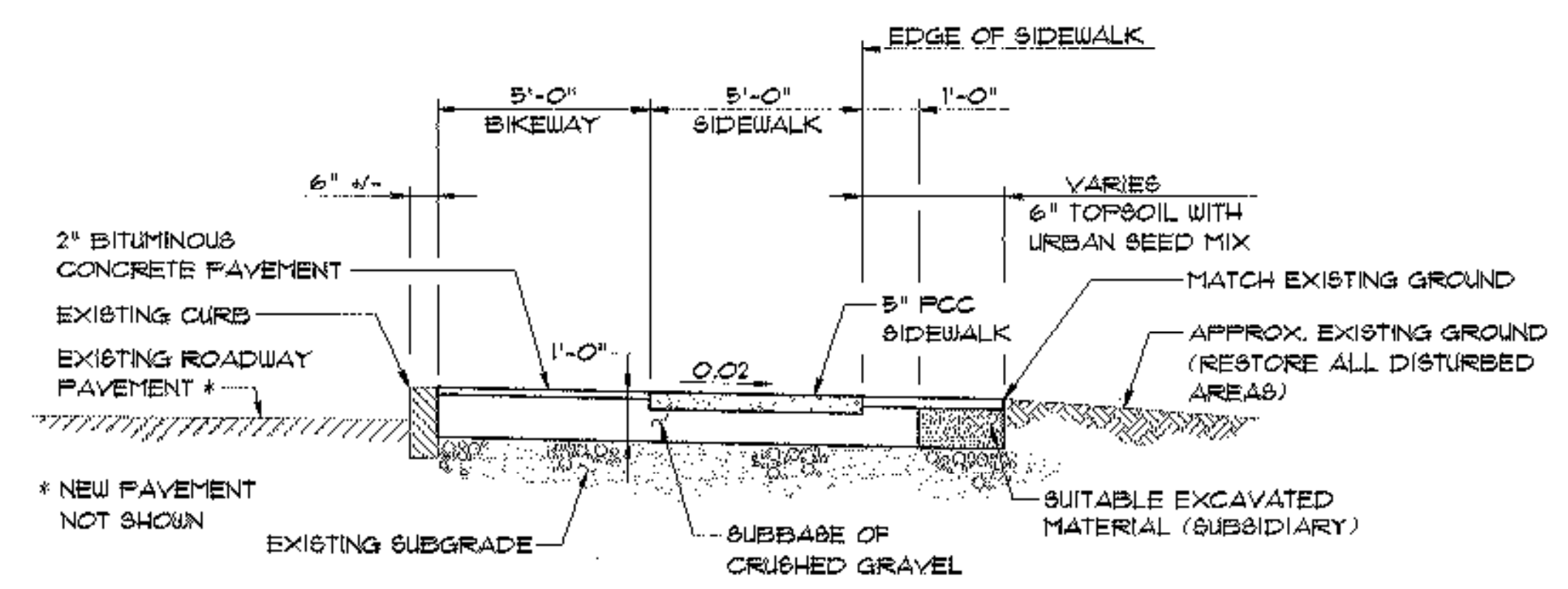
NEW TYPICAL SECTION BEYOND RAMP H
N.T.S.



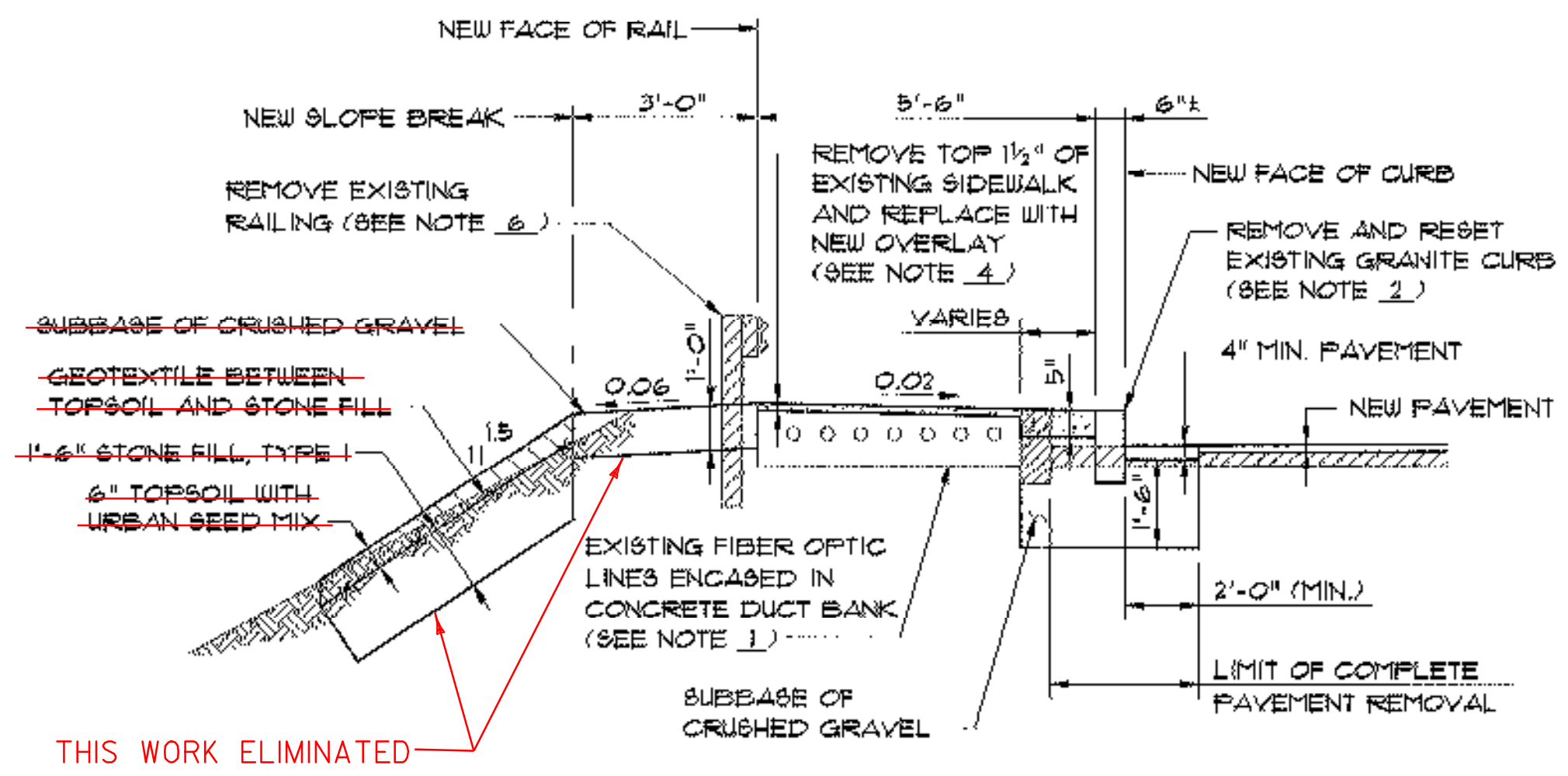
TYPICAL PAVEMENT MARKING DETAIL FOR PAINTED ISLAND (MOD-BLUE)
N.T.S.



NEW TYPICAL SECTION BETWEEN RAMPS C & D
N.T.S.

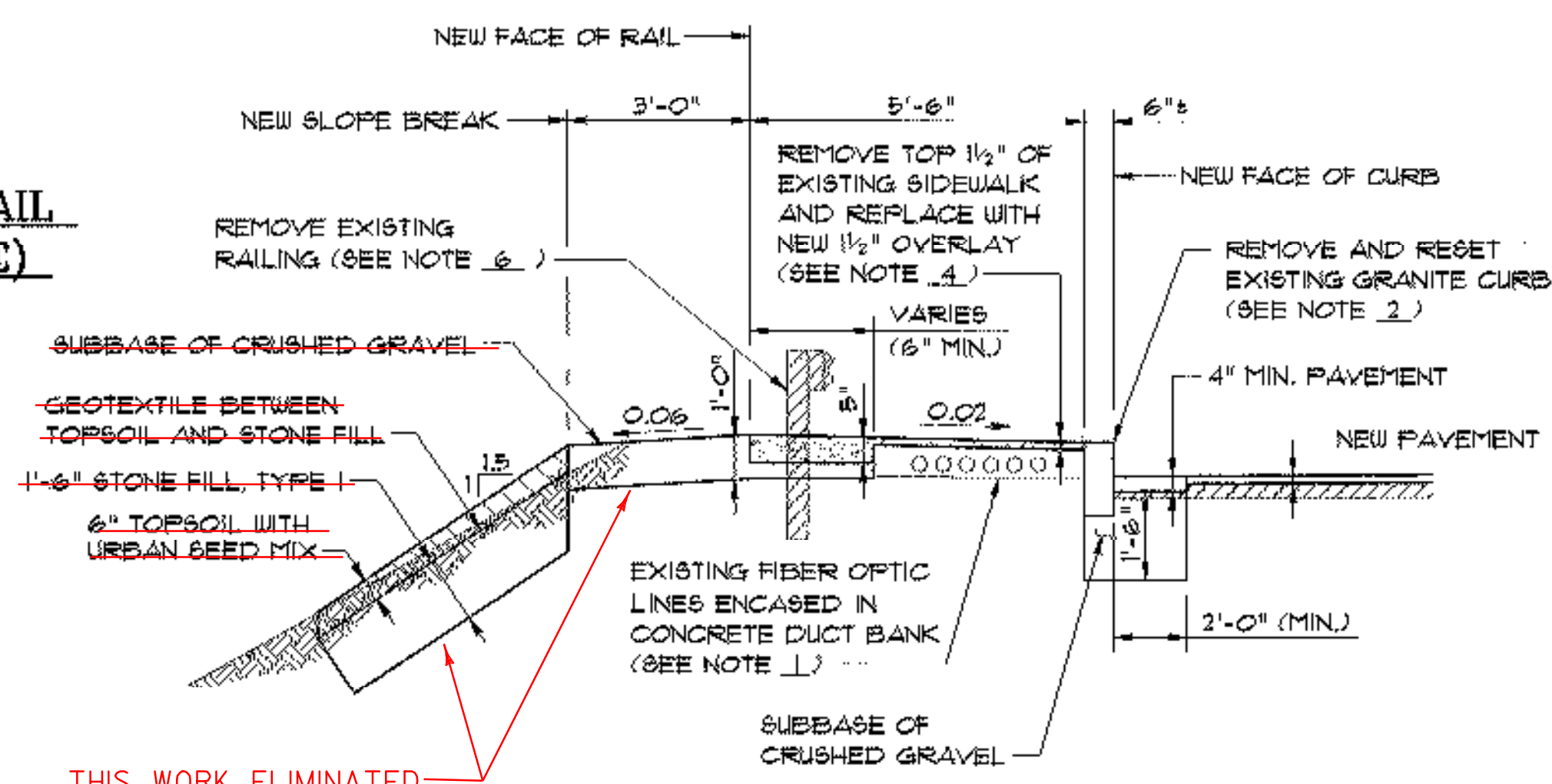


NEW TYPICAL SECTION BETWEEN RAMPS A & B, E & F AND G & H
N.T.S.



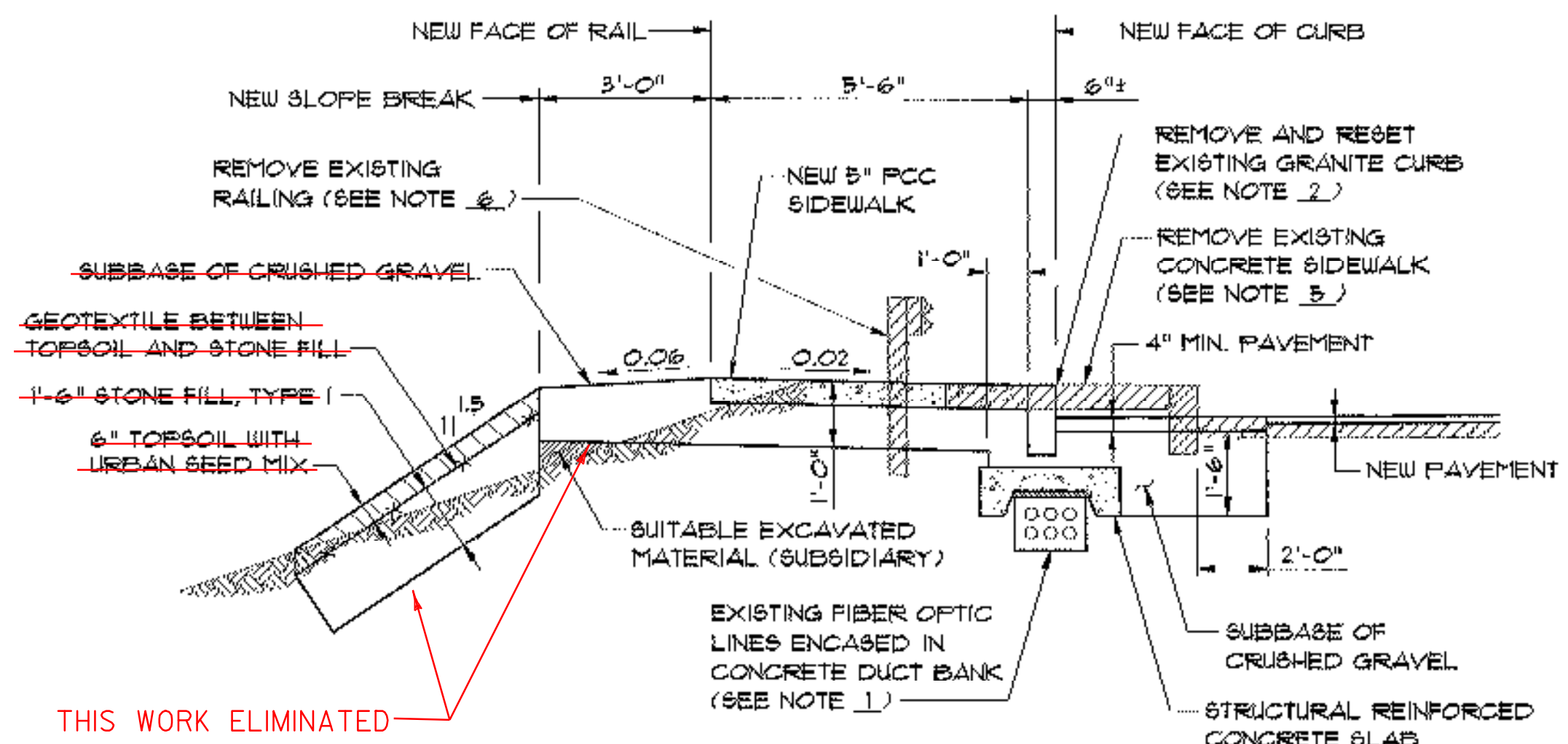
SECTION A-A
N.T.S.

THIS WORK ELIMINATED



SECTION B-B
N.T.S.

THIS WORK ELIMINATED



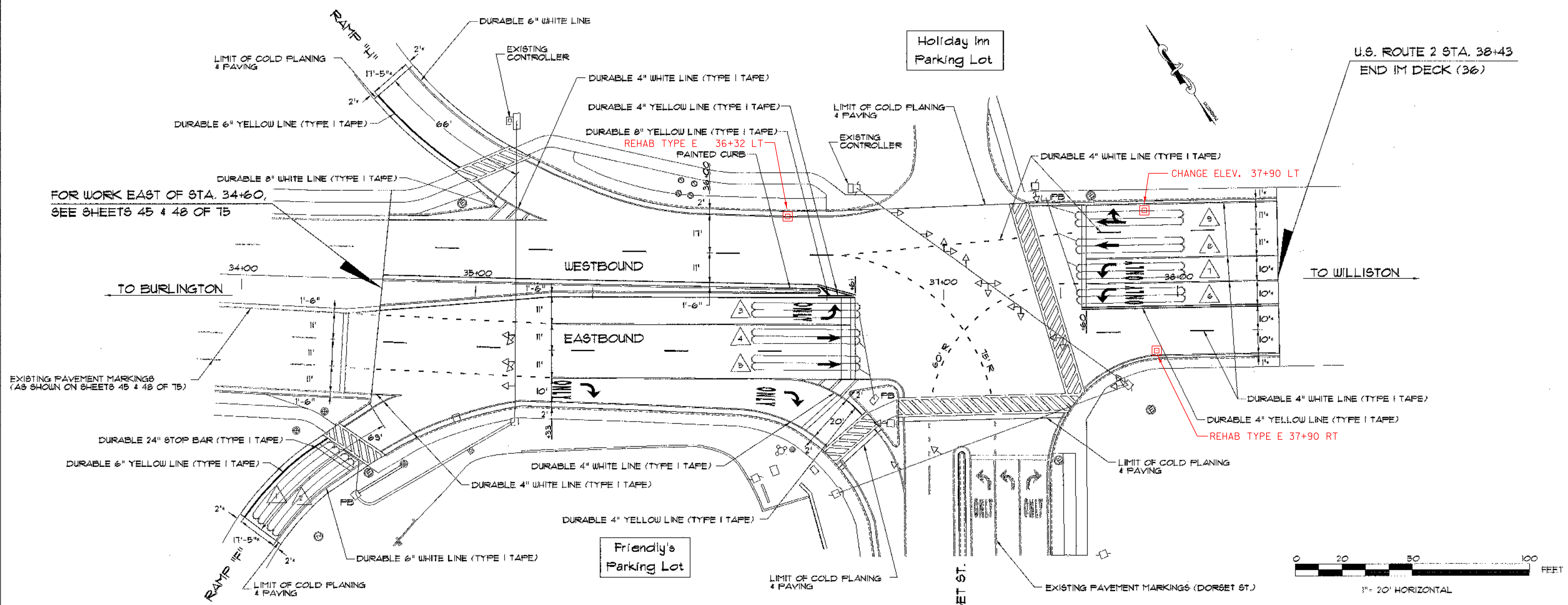
SECTION C-C
N.T.S.

THIS WORK ELIMINATED

- NOTES:
1. THERE ARE FIBER OPTIC LINES IN THIS PROJECT WHICH MUST NOT BE COMPROMISED DURING CONSTRUCTION. THE LOCATION AND DEPTH OF THESE LINES ARE UNKNOWN OUTSIDE THE LIMITS OF THE BRIDGE. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH DIGSAFE AND THE UTILITY OWNER TO ENSURE THE FIBER OPTIC LINES ARE NOT DAMAGED. THE CONTRACTOR SHALL WORK OUT THE EXACT TREATMENTS IN THE VICINITY OF THE FIBER OPTIC LINES WITH THE UTILITY OWNER AND ENGINEER.
 2. SECTIONS A-A, B-B, AND C-C ARE INTENDED TO SHOW THE TYPICAL ANTICIPATED TREATMENTS AT RAMPS "B", "D", "E", AND "G" IN ORDER TO ACCOMMODATE THE NEW CURBLINE LOCATION. SECTIONS A-A AND B-B SHALL BE USED WHERE THE EXISTING UTILITY BANK IS WITHIN THE CONSTRUCTION LIMITS OF THE NEW SIDEWALK AND CURB. SECTION C-C SHALL BE USED WHERE THE EXISTING UTILITY BANK IS OUTSIDE THE CONSTRUCTION LIMITS OF THE NEW SIDEWALK AND CURB.
 3. A STRUCTURAL REINFORCED CONCRETE SLAB SHALL BE PLACED OVER ANY PORTIONS OF THE EXISTING CONCRETE UTILITY BANK WHICH PROJECT BEYOND THE NEW FACE OF CURB AND DO NOT HAVE AT LEAST 3 FEET OF COVER MEASURED FROM THE ROADWAY SURFACE AT THE FACE OF CURB. WHERE A SLAB IS NECESSARY, THE CONTRACTOR SHALL SUBMIT CALCULATIONS AND DETAILS PREPARED AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER TO THE ENGINEER. 1" OF AN APPROVED COMPRESSIBLE FILLER MATERIAL SHALL BE PLACED BETWEEN THE SLAB AND THE DUCT BANK. CONCRETE AND REINFORCING STEEL SHALL BE PAID AS ITEMS 501.25, "CONCRETE, CLASS B", AND ITEM 501.15, "REINFORCING STEEL" RESPECTIVELY. ALL COSTS ASSOCIATED WITH DESIGN AND DETAILING OF ANY STRUCTURAL CONCRETE SLAB REQUIRED SHALL BE SUBSIDIARY TO ITEM 501.25.
 4. IN AREAS WHERE THE EXISTING SIDEWALK CONTAINS UTILITY CONDUITS, THE PARTIAL REMOVAL OF THE EXISTING CONCRETE SIDEWALK SHALL BE PAID AS ITEM 525.25, "REMOVAL OF CONCRETE OR MASONRY". THE SIDEWALK SHALL BE WIDENED AND OVERLAYED WITH ITEM 501.60, "SILICA-FUME CONCRETE, (MOD.)".
 5. IN AREAS WHERE THE EXISTING SIDEWALK DOES NOT CONTAIN UTILITY CONDUITS, THE EXISTING SIDEWALK SHALL BE COMPLETELY REMOVED UNDER ITEM 203.28, "EXCAVATION OF SURFACES AND PAVEMENTS". NEW CONCRETE SIDEWALK SHALL BE PAID AS ITEM 618.10, "PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH".
 6. SEE SHEETS 41 AND 42 FOR INFORMATION AND PAY LIMITS FOR EXISTING GUARD RAIL REMOVAL. REMOVAL OF EXISTING ALUMINUM APPROACH RAIL SHALL BE PAID FOR UNDER THE IM DECK (38) BRIDGE REHABILITATION PROJECT.

1. ITEM 649.31, "GEOTEXTILE UNDER STONEFILL", SHALL BE PLACED BETWEEN TOPSOIL AND STONE FILL, AS SHOWN IN SECTIONS A-A, B-B, AND C-C.
2. SEE SHEETS 41 AND 42 FOR LIMITS OF ITEM 646.25, PAINTED ISLAND (MOD-BLUE).

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of SOUTH BURLINGTON	Bridge No. 68
Highway No. U.S. 2	Toy Sta. Surv. Sta.
U.S. 2 OVER I-89	
BIKEWAY TYPICAL SECTIONS	
Designed By S.M. HODGDON	Drawn By C.L. CALLEY
Checked By T.S. BRYANT	Date 2/00 Bridge Design Supervisor
PROJECT	PROJECT NO.
SOUTH BURLINGTON	STP BIKE (28)S
VIB Cad Drawing No. 50963TYP	Date 2/00
Bridge Sheet No.	Sheet 54 of 73



PAVEMENT MARKING NOTES

- ITEM 646.21 PAINTED CURB
STA. 36+17 TO 36+17, LT. & RT. (ISLAND)
- ITEM 646.40 DURABLE 4" WHITE LINE (TYPE I TAPE)
ITEM 646.60 TEMPORARY 4" WHITE LINE
STA. 34+60, LT. TO STA. 36+55, LT. (DASHED)
STA. 34+60, RT. TO STA. 35+33, RT. (DOTTED)
STA. 34+60, RT. TO STA. 36+60, RT. (DASHED)
STA. 34+45, RT. TO STA. 35+20, RT. (SOLID - RAMP "F")
STA. 34+63, LT. TO STA. 35+30, LT. (SOLID - RAMP "H")
STA. 35+20, RT. TO STA. 36+50 (EDGE LINE)
STA. 35+20, LT. TO STA. 36+74, LT. (EDGE LINE)
STA. 35+33, RT. TO STA. 36+60, RT. (LANE LINE)
STA. 35+33, RT. TO STA. 36+82, RT. (LANE LINE)
STA. 36+55, LT. TO STA. 37+53, LT. (DOTTED)
STA. 36+55, LT. TO STA. 37+20, RT. (DOTTED)
STA. 36+54, RT. TO STA. 37+53, LT. (DOTTED)
STA. 37+37, LT. TO STA. 38+43, LT. (EDGE LINE)
STA. 37+53, RT. TO STA. 38+43, RT. (EDGE LINE)
STA. 37+61, LT. TO STA. 38+43, LT. (LANE LINES X3)
STA. 37+61, RT. TO STA. 38+43, RT. (DASHED)
- ITEM 646.41 DURABLE 4" YELLOW LINE (TYPE I TAPE)
ITEM 646.61 TEMPORARY 4" YELLOW LINE
STA. 34+60 TO STA. 36+62, LT. & RT. (ISLAND)
STA. 36+58, RT. TO STA. 36+71, RT. (ISLAND)
STA. 37+53 TO STA. 38+43, RT. (DOUBLE SOLID CENTERLINE)

- ITEM 646.414 DURABLE 6" WHITE LINE (TYPE I TAPE)
ITEM 646.614 TEMPORARY 6" WHITE LINE
STA. 34+14, RT. TO STA. 34+51, RT. (RAMP "F")
STA. 34+63, LT. TO STA. 35+11, LT. (RAMP "H")
- ITEM 646.415 DURABLE 6" YELLOW LINE (TYPE I TAPE)
ITEM 646.615 TEMPORARY 6" YELLOW LINE
STA. 34+02, RT. TO STA. 34+37, RT. (RAMP "F")
STA. 34+57, LT. TO STA. 34+92, LT. (RAMP "H")
- ITEM 646.42 DURABLE 8" WHITE LINE (TYPE I TAPE)
ITEM 646.62 TEMPORARY 8" WHITE LINE
STA. 35+06, LT. TO STA. 35+23, LT. (DIAGONALS)
STA. 36+46, RT. TO STA. 36+63, RT. (DIAGONALS)
- ITEM 646.43 DURABLE 8" YELLOW LINE (TYPE I TAPE)
ITEM 646.63 TEMPORARY 8" YELLOW LINE
STA. 36+50, LT. (DIAGONALS)
- ITEM 646.46 DURABLE 24" STOP BAR (TYPE I TAPE)
ITEM 646.66 TEMPORARY 24" STOP BAR
STA. 34+40, RT. (RAMP "F")
STA. 36+50, RT.
STA. 36+61, RT.
STA. 37+60, LT.

- ITEM 646.50 DURABLE LETTER OR SYMBOL (TYPE I TAPE)
STA. 35+37, RT. ("ONLY")
STA. 35+43, RT. (ARROW)
STA. 36+24, RT. ("ONLY")
STA. 36+36, RT. (ARROW)
STA. 36+40, RT. ("ONLY")
STA. 36+51, RT. (2-ARROWS)
STA. 36+52, RT. (ARROW)
STA. 37+63, LT. (ARROW)
STA. 37+63, RT. (ARROW)
STA. 37+70, LT. (ARROW)
STA. 37+72, LT. (2-ARROWS)
STA. 37+81, LT. ("ONLY")
STA. 37+81, RT. ("ONLY")
- ITEM 646.51 DURABLE CROSSWALK W/DIAGONAL LINES (TYPE I TAPE)
ITEM 646.71 TEMPORARY CROSSWALK W/DIAGONAL LINES
STA. 34+50, RT. (RAMP "F")
STA. 35+06, LT. (RAMP "H")
STA. 36+61, RT.
STA. 36+81, RT. TO STA. 37+53, RT.
STA. 37+33, LT. TO STA. 37+53, RT.

- ITEM 646.70 TEMPORARY LETTER OR SYMBOL
STA. 35+43, RT. (ARROW)
STA. 36+36, RT. (ARROW)
STA. 36+52, RT. (ARROW)
STA. 37+63, LT. (ARROW)
STA. 37+63, RT. (ARROW)
STA. 37+70, LT. (ARROW)
STA. 37+72, LT. (2-ARROWS)

- NOTES:
- 1: FOR ADDITIONAL STRIPING DETAILS SEE VTRANS STANDARDS E-191, E-192 & E-193
 - 2: FOR VEHICLE DETECTOR-LOOP INFORMATION, SEE SHEET 54B
 - 3: * MATCH EXISTING PAVEMENT MARKINGS



KEY:

	SOLID WHITE LINE
	SOLID YELLOW LINE
	DOTTED WHITE LINE
	DASHED WHITE LINE

STATE OF VERMONT			
AGENCY OF TRANSPORTATION			
Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No.	U.S. 2	Log Sta.	
		Surv. Sta.	
U.S. 2 OVER I-89			
U.S. ROUTE 2 & DORSET ST. INTERSECTION (1 OF 3)			
Designed By	D-H	Drawn By	D-H
Checked By	JLL	Date	1/00
		Bridge Design Supervisor Date	
PROJECT	SOUTH BURLINGTON		PROJECT NO.
			IM DECK (36)
D-H Cad Drawing No. DORSET ST.		Date	1/00
Bridge Sheet No.		Sheet 54A of 75	



VEHICLE DETECTOR LOOPS											
LOOP NO.	LANE	CALL Ø	SIZE (FT)	TYPE & NO. TURNS	DELAY OR PRESENCE	INDUCTANCE		RESISTANCE		LEAKAGE TO GROUND	LOCKING MEMORY
						CALC.	ACT.	CALC.	ACT.		
1	RAMP "F"		6' X 45'	QUAD - 1	PRESENCE	343		1.186			NO
2	RAMP "F"		6' X 45'	QUAD - 1	PRESENCE	334		1.150			NO
3	EASTBOUND LEFT ONLY		6' X 45'	QUAD - 1	PRESENCE	446		1.588			YES
4	EASTBOUND THRU LANE		6' X 45'	QUAD - 1	PRESENCE	439		1.558			YES
5	EASTBOUND THRU LANE		6' X 45'	QUAD - 1	PRESENCE	430		1.523			YES
6	WESTBOUND LEFT ONLY		6' X 45'	QUAD - 1	PRESENCE	229		0.742			YES
7	WESTBOUND LEFT ONLY		6' X 45'	QUAD - 1	PRESENCE	222		0.716			YES
8	WESTBOUND THRU LANE		6' X 45'	QUAD - 1	PRESENCE	215		0.681			YES
9	WESTBOUND THRU & RIGHT TURN LANE		6' X 45'	QUAD - 1	PRESENCE	208		0.661			NO

ALL CALCULATED VALUES ARE AT THE CONTROLLER.
MEASURED VALUES MUST BE FILLED IN PRIOR TO TEST PERIOD.

FOR DETECTOR LOOP LOCATIONS, SEE SHEET 54A.

NOTES

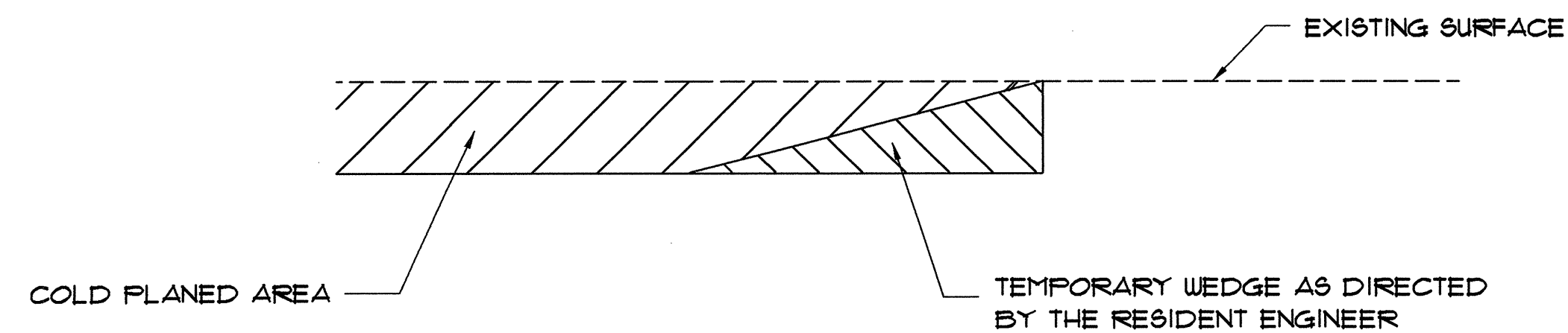
- THE PAVEMENT WEARING COURSE SHALL BE TYPE III. THE ESTIMATED LEVELING COURSE SHALL BE TYPE IV UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ALL ASPHALT CEMENT USED IN THE BITUMINOUS CONCRETE PAVEMENT SHALL BE PG 64-28.
- GRASS GROWING ADJACENT TO PAVEMENT OR THROUGH CRACKS IN THE PAVEMENT WHICH MAY HAMPER 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 406.25 BITUMINOUS CONCRETE PAVEMENT.
- BITUMINOUS CONCRETE PAVEMENT TOLERANCE = $\pm 1/4"$ (TOTAL THICKNESS EXCLUDING LEVELING)
- EMULSIFIED ASPHALT SHALL BE APPLIED ON EXISTING PAVEMENT SURFACES, BETWEEN ALL COURSES OF PAVEMENT AND ON COLD PLANED SURFACES, AT THE RATE OF 0.25 GAL/yd² OR AS DIRECTED BY THE RESIDENT ENGINEER.
- COLD PLANING TO BE COMPLETED ACCORDING TO TYPICAL OR AS NOTED OTHERWISE ON THE PLANS. THE COLD PLANING AND PAVING SHALL MATCH THE EXISTING CONDITIONS AT THE BEGINNING AND END OF CONSTRUCTION AREAS BY THE USE OF A VERTICAL BUTT JOINT. SEE DETAIL ON THIS SHEET.
- PRIOR TO COLD PLANING, ANY VEHICLE DETECTOR LOOPS SHALL BE DISCONNECTED IN THE CONTROLLER CABINET AND CUT AT THE CURB.

ONCE THE LOOP IS DISCONNECTED, THE SIGNAL PHASE THAT IT WAS CALLING SHALL BE PUT ON MAX RECALL OR THE SIGNAL PUT ON FLASH AND TRAFFIC CONTROLLED BY A UNIFORMED TRAFFIC OFFICER.

ALL BITUMINOUS AREAS TO RECEIVE NEW VEHICLE DETECTOR LOOPS SHALL BE LEVELED WITH TYPE IV BITUMINOUS CONCRETE PAVEMENT AS DIRECTED BY THE RESIDENT ENGINEER PRIOR TO THE INSTALLATION OF THE NEW DETECTOR LOOPS.

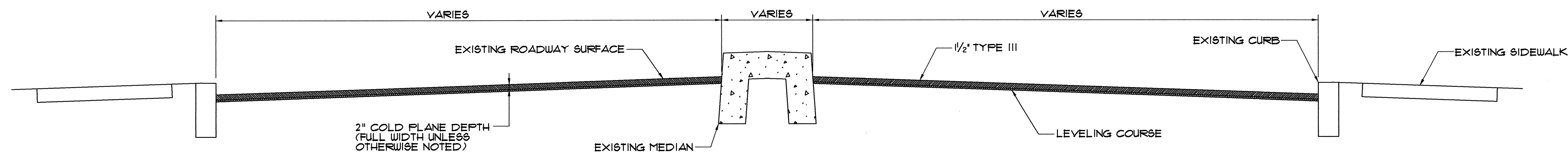
AFTER THE NEW LOOPS ARE INSTALLED, THE INDUCTANCE RESISTANCE AND LEAKAGE TO GROUND SHALL BE TESTED USING PROPERLY CALIBRATED EQUIPMENT. THE TEST RESULTS SHALL BE COMPARED WITH THE CALCULATED VALUES AND RECORDED ON THE PLANS. ALL LOAD TESTING SHALL BE PERFORMED AS PER VTRANS STANDARD E-112.

AFTER ACCEPTANCE OF THE LOOP INSTALLATION BY THE RESIDENT ENGINEER, RETURN THE SIGNAL TO NORMAL OPERATION. ALL WORK REQUIRED SHALL BE SUBSIDIARY TO ITEM 618.22, VEHICLE DETECTOR LOOP.



DETAIL AT VERTICAL COLD PLANE JOINTS

N.T.S.



COLD PLANE TYPICAL SECTION - CURBED

U.S. ROUTE 2 STA. 34+60 TO 38+43

N.T.S.

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town of SOUTH BURLINGTON Bridge No. 68
Highway No. U.S. 2 Log Sta.
U.S. 2 OVER I-89 Surv. Sta.

U.S. ROUTE 2 & DORSET ST. INTERSECTION (2 OF 3)

Designed By D-H Drawn By D-H
Checked By JLL Date 1/00 Bridge Design Supervisor Date

PROJECT SOUTH BURLINGTON PROJECT NO. IM DECK (36)
D-H Cad Drawing No. DORSET ST. Date 1/00
Bridge Sheet No. Sheet 54B of 75



QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITIES TOTALS
210.10	COLD PLANING-BITUMINOUS PAVEMENT	SY	4000
404.65	EMULSIFIED ASPHALT	CWT	170
406.25	BITUMINOUS CONCRETE PAVEMENT (PG 64-28)	T	450
646.21	PAINTED CURB	LF	70
646.40	DURABLE 4" WHITE LINE (TYPE I TAPE)	LF	2620
646.41	DURABLE 4" YELLOW LINE (TYPE I TAPE)	LF	640
646.414	DURABLE 6" WHITE LINE (TYPE I TAPE)	LF	110
646.415	DURABLE 6" YELLOW LINE (TYPE I TAPE)	LF	110
646.42	DURABLE 8" WHITE LINE (TYPE I TAPE)	LF	40
646.43	DURABLE 8" YELLOW LINE (TYPE I TAPE)	LF	10
646.46	DURABLE 24" STOP BAR (TYPE I TAPE)	LF	120
646.50	DURABLE LETTER OR SYMBOL (TYPE I TAPE)	EA	31
646.51	DURABLE CROSSWALK MARKING W/DIAGONAL LINES (TYPE I TAPE)	LF	250
646.60	TEMPORARY 4" WHITE LINE	LF	5250
646.61	TEMPORARY 4" YELLOW LINE	LF	1280
646.614	TEMPORARY 6" WHITE LINE	LF	210
646.615	TEMPORARY 6" YELLOW LINE	LF	210
646.62	TEMPORARY 8" WHITE LINE	LF	80
646.63	TEMPORARY 8" YELLOW LINE	LF	20
646.66	TEMPORARY 24" STOP BAR	LF	240
646.70	TEMPORARY LETTER OR SYMBOL	EA	22
646.71	TEMPORARY CROSSWALK MARKING W/DIAGONAL LINES	LF	500
678.22	VEHICLE DETECTOR LOOP	LF	1470

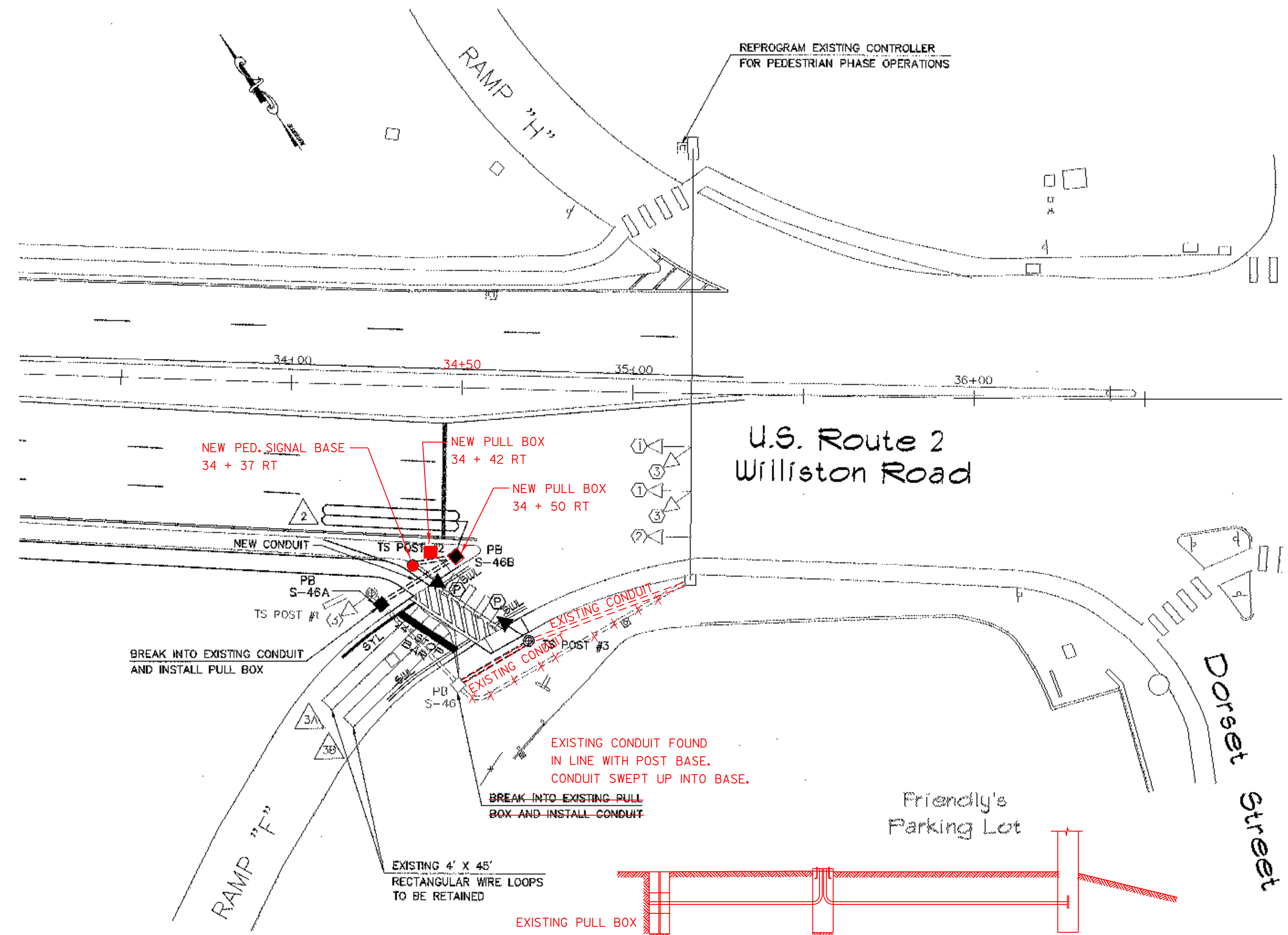
NOTE: THE QUANTITIES SHOWN HERE SUMMARIZE WORK BETWEEN CURBS ONLY, FROM U.S. ROUTE 2 STA. 34+60 TO STA. 38+43, PLUS RAMPS "F" AND "H". THESE ITEMS ARE SUBQUANTITIES FOR PROJECT NO. IM DECK (36)

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	SOUTH BURLINGTON	Bridge No.	68
Highway No.	U.S. 2	Log Sta.	
		Surv. Sta.	
U.S. 2 OVER I-89			
U.S. ROUTE 2 & DORSET ST. INTERSECTION (3 OF 3)			
Designed By	D-H	Drawn By	D-H
Checked By	JLL	Bridge Design Supervisor	
Date	1/00	Date	
PROJECT	SOUTH BURLINGTON	PROJECT NO.	IM DECK (36)
D-H Cad Drawing No.	DORSET ST.	Date	1/00
Bridge Sheet No.		Sheet	54C of 75



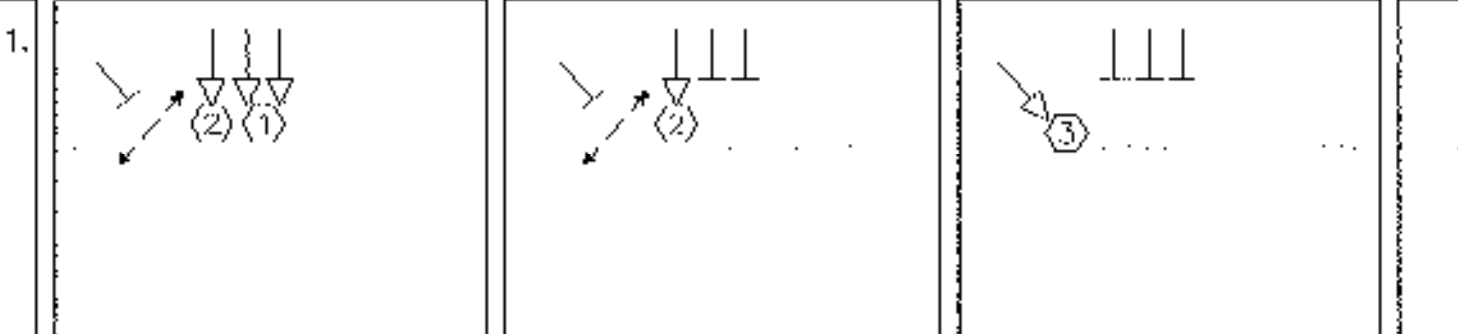
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TIMING AND PHASING

TIME OF DAY PLANS	PHASE 1/EB FIRE (DWELL)			PHASE 2			PHASE 3			FLASH OPERATION 11:00 PM TO 6:00 AM MON-FRI, 12:00 AM TO 6:00 AM SAT/SUN
	R/W	CLEAR TO:		R/W	CLEAR TO:		R/W	CLEAR TO:		
VEHICLE	-			1			1			
MINIMUM	-			8	4 2	4 2	8	4 2		
PLAN 1 (AM MAX.)	36	2 4 2	4 2	35	2 4 2	4 2	47	4 2		
PLAN 2 (NOON MAX.)	34	2 4 2	4 2	37	2 4 2	4 2	57	4 2		
PLAN 3 (OFF PK MAX.)	36	2 4 2	4 2	26	2 4 2	4 2	36	4 2		
PLAN 4 (PM MAX.)	36	2 4 2	4 2	32	2 4 2	4 2	50	4 2		
FACE 1	G	Y	R	R	R	R	R	R	R	FY
FACE 2	G	G	G	G	Y	R	G	Y	R	FY
FACE 3	R	R	R	R	R	R	R	R	R	FR
PED	W	F	D	W	F	D	W	F	D	OUT

* SEE NOTE 1.



- NOTES:**
- IF #2 IS ACTUATED DURING #1, THEN PEDESTRIAN PHASE SHALL REMAIN IN "WALK" MODE THROUGHOUT #1 AND THEN SATISFY THE MINIMUM PEDESTRIAN WALK AND CLEARANCE TIMES DURING #2.
 - MAINTAIN EXISTING COORDINATION PROGRAMMING IN THE ECONOLITE CLOSED LOOP SYSTEM. CONTRACTOR SHALL COORDINATE WITH VAOT TRAFFIC ENG. DEPARTMENT FOR CURRENT SPLITS AND OFFSETS.
 - CONTRACTOR SHALL RETAIN THE EXISTING PRE-EMPTION SETTINGS CURRENTLY IN THE LOCAL CONTROLLER AND CLOSED-LOOP SYSTEM.

EXISTING PROGRAM PERIODS OF OPERATION

	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
	AM												PM												AM
SUNDAY	FLASH												FLASH												3
MONDAY	FLASH	3	1	2	3	4	3	F	FLASH	3	1	2	3	4	3	F	3								
TUESDAY	FLASH	3	1	2	3	4	3	F	FLASH	3	1	2	3	4	3	F	3								
WEDNESDAY	FLASH	3	1	2	3	4	3	F	FLASH	3	1	2	3	4	3	F	3								
THURSDAY	FLASH	3	1	2	3	4	3	F	FLASH	3	1	2	3	4	3	F	3								
FRIDAY	FLASH	3	1	2	3	4	3	F	FLASH	3	1	2	3	4	3	F	3								
SATURDAY	FLASH												FLASH												3

- NOTES:**
- PLAN 1 - AM PEAK (140 SEC CYCLE): 7:00AM TO 9:30AM MON-FRI
 - PLAN 2 - MIDDAY PEAK (150 SEC CYCLE): 9:30AM TO 12:00PM MON-SAT
 - PLAN 3 - OFF-PEAK (120 SEC CYCLE): 06:00AM TO 07:00AM MON-FRI, 12:00PM TO 03:00PM MON-FRI, 06:00PM TO 11:00PM MON-FRI, 06:00AM TO 09:30AM SAT, 12:00PM TO 12:00AM SAT, 06:00AM TO 12:00AM SUN
 - PLAN 4 - PM PEAK (140 SEC CYCLE): 3:00PM TO 6:00PM MON-FRI
 - FLASH OPERATION: 11:00PM TO 6:00AM MON-FRI, 12:00AM TO 6:00AM SAT/SUN

SIGNAL PLAN
SCALE: 1" = 20'

SIGNAL FACE ARRANGEMENT

LIST OF MAJOR EQUIPMENT

EQUIPMENT ITEM 678.15	QUANTITY
PEDESTAL POST - 6'	2
TWO-SECTION WALK/DONT WALK PEDESTRIAN HEADS W/ VISORS & MOUNTING HARDWARE	2 (POST TOP MOUNTED)
6X40 QUADRUPOLE VEHICLE LOOP DETECTOR	1
MISC HARDWARE, EQUIPMENT, ETC. TO COMPLETE INSTALLATION	**
PULL BOX	2
SCH 40 SIGNAL CONDUIT	60 LF

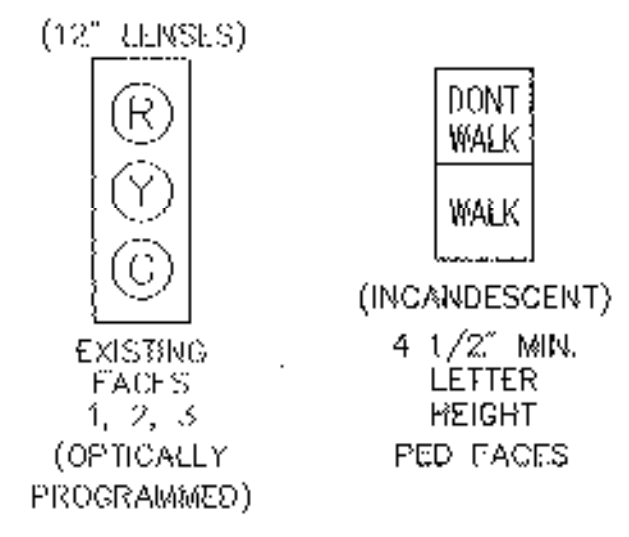
** THE QUANTITIES LISTED ABOVE ARE APPROXIMATE AND ARE FURNISHED FOR INFORMATION ONLY. MISCELLANEOUS (UNLISTED) WIRE, CABLE, HARDWARE, ETC. ARE REQUIRED TO PROVIDE FOR A FUNCTIONING TRAFFIC SIGNAL SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF THE NUMBER OF ITEMS AND THE TYPES OF EQUIPMENT REQUIRED.

VEHICLE DETECTOR LOOPS									
LOOP NO.	LANE	CALL #	SIZE	TYPE & NO. TURNS	DELAY OR PRESENCE	INDUCTANCE CALC.	RESISTANCE ACT. CALC.	LEAKAGE TO GROUND	LOCKING MEMORY
1	EB RT	2	6X40	QUAD-2	PRESENCE				
2	NB RT	3	4X45	RECT	PRESENCE				
3	NB RT	3	4X45	RECT	PRESENCE				

- ALL CALCULATED VALUES ARE AT THE CONTROLLER.
- MEASURED VALUES MUST BE FILLED IN PRIOR TO TEST PERIOD.
- 3A AND 3B ARE EXISTING RECTANGULAR LOOP DETECTORS

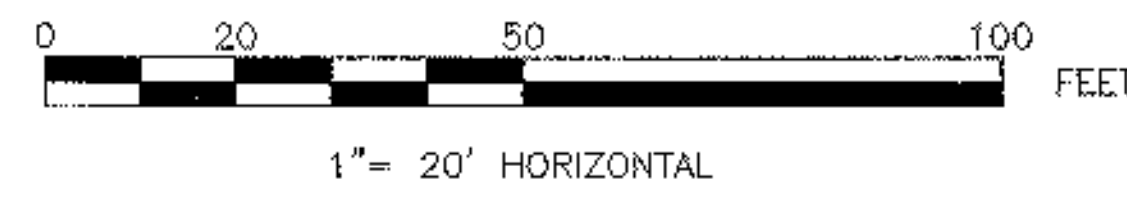
EQUIPMENT LOCATION CRITERIA

- IF THE DISTANCE FROM THE CURB OR EDGE OF SHOULDER TO THE DETECTOR AMPLIFIER IS OVER 25' ±, A SHIELDED CABLE MUST BE MADE IN A JUNCTION BOX, PULL BOX, PEDESTAL BASE, OR POLE BASE. INSTALLATION OF DELEMA ZONE LOOPS MAY REQUIRE ADDITIONAL JUNCTION/PULL BOXES. JUNCTION BOXES MAY BE USED WITH LESS THAN 4 CONDUITS AND WHERE THEY WILL NOT BE RUN OVER BY VEHICULAR TRAFFIC.
- SEE STANDARDS E-170, 171A, 171B, 171C, 172, 173, & 175 FOR ADDITIONAL INFORMATION.



LEGEND

EXISTING	PROPOSED	
[Symbol]	[Symbol]	PULL BOX
[Symbol]	[Symbol]	SIGNAL HEAD
[Symbol]	[Symbol]	CONDUIT
[Symbol]	[Symbol]	PEDESTAL POST
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	VEHICLE LOOPS



STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of **SOUTH BURLINGTON** Bridge No. **68**

Highway No. **U.S. 2** Log Sta. Surv. Sta.

U.S. 2 OVER I-89

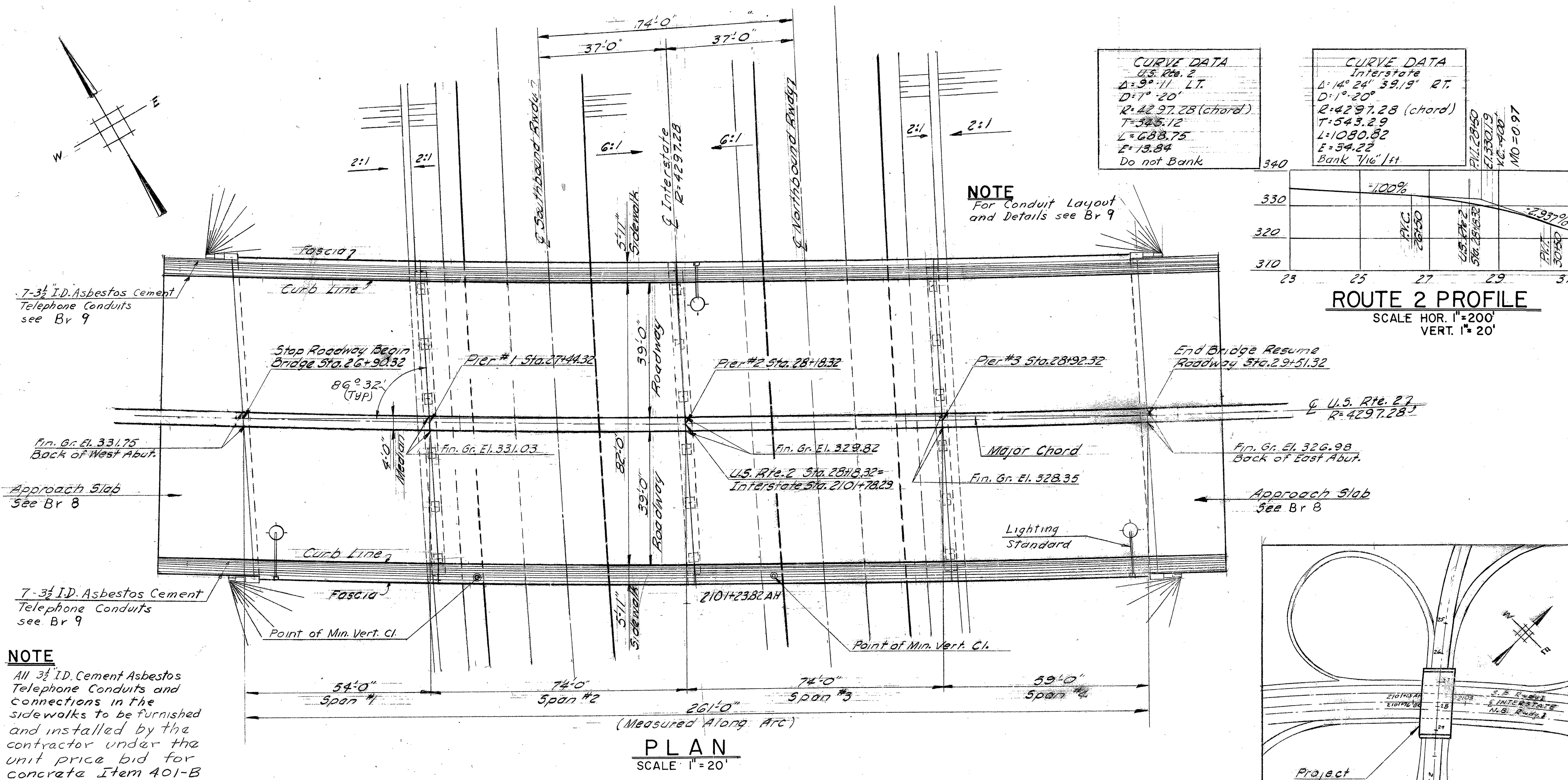
PEDESTRIAN SIGNAL PLAN

Designed By **K. DANDRADE** Drawn By **B.J. MASSF.**

Checked By **C.M. BOBAY** Date **1/00** Bridge Design Supervisor **C.D. BAKER** Date **1/00**

PROJECT **SOUTH BURLINGTON** PROJECT NO. **STP BIKE (28)S**

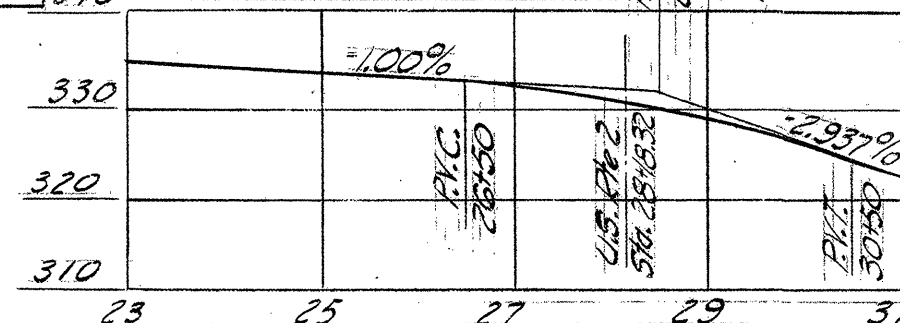
VHB Cad Drawing No. **5096351G** Date **1/00** Sheet **59** of **15**



NOTE
All 3/4 ID. Cement Asbestos Telephone Conduits and connections in the sidewalks to be furnished and installed by the contractor under the unit price bid for concrete Item 401-B

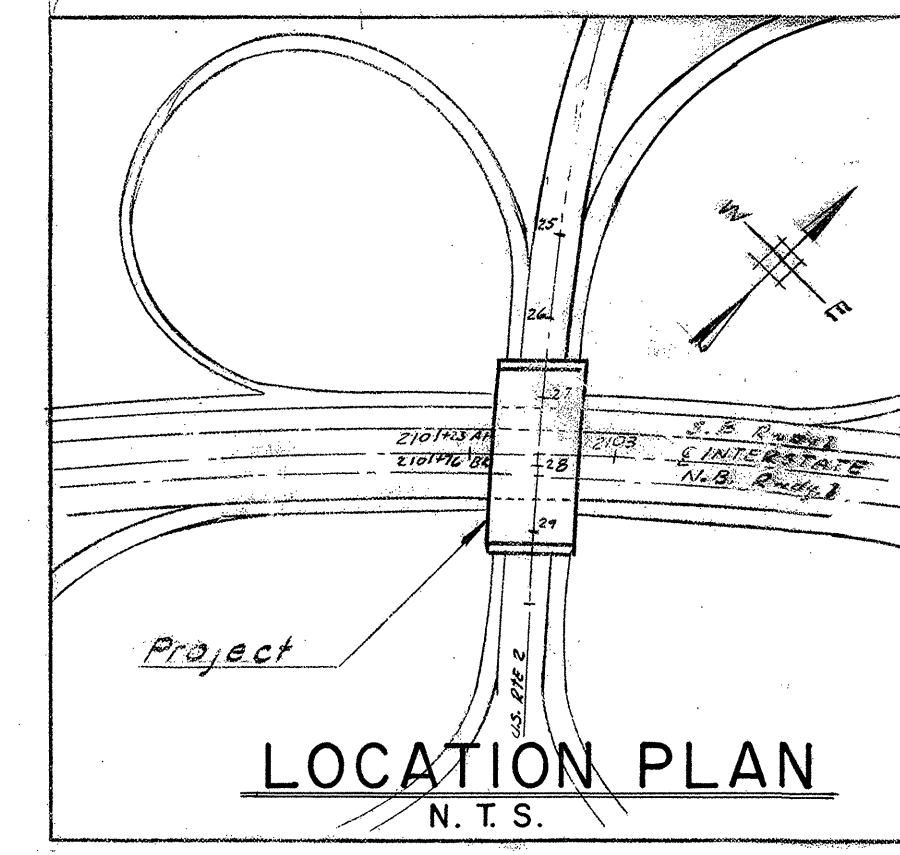
CURVE DATA
U.S. Rte. 2
Δ: 9° 11' LT.
D: 1° 20'
R: 4297.28 (chord)
T: 388.12
L: 688.75
E: 13.84
Do not Bank

CURVE DATA
Interstate
Δ: 14° 24' 55.19' RT.
D: 1° 20'
R: 4297.28 (chord)
T: 543.29
L: 1080.82
E: 54.22
Bank 1/16" ft

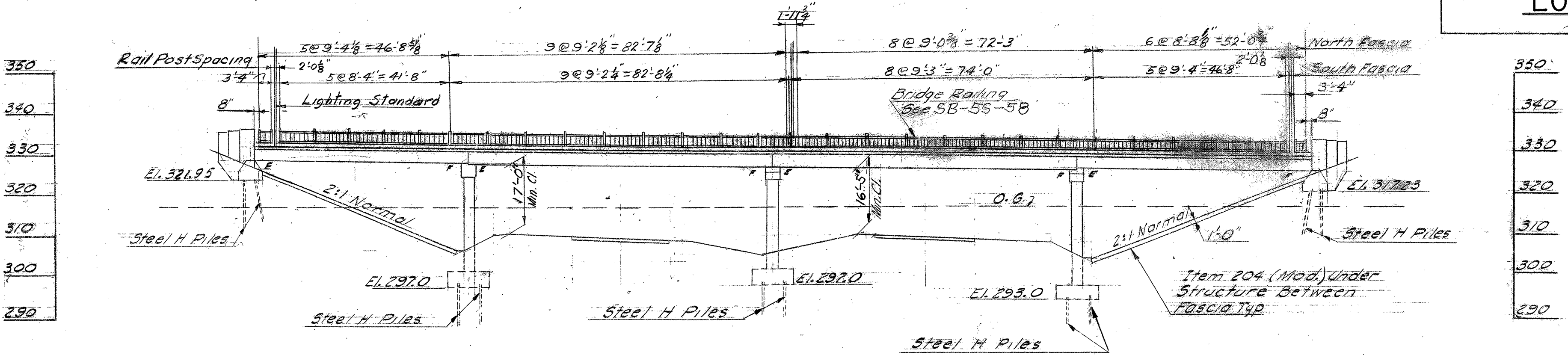


ROUTE 2 PROFILE
SCALE HOR. 1"=200'
VERT. 1"=20'

NOTE
For Conduit Layout and Details see Br 9

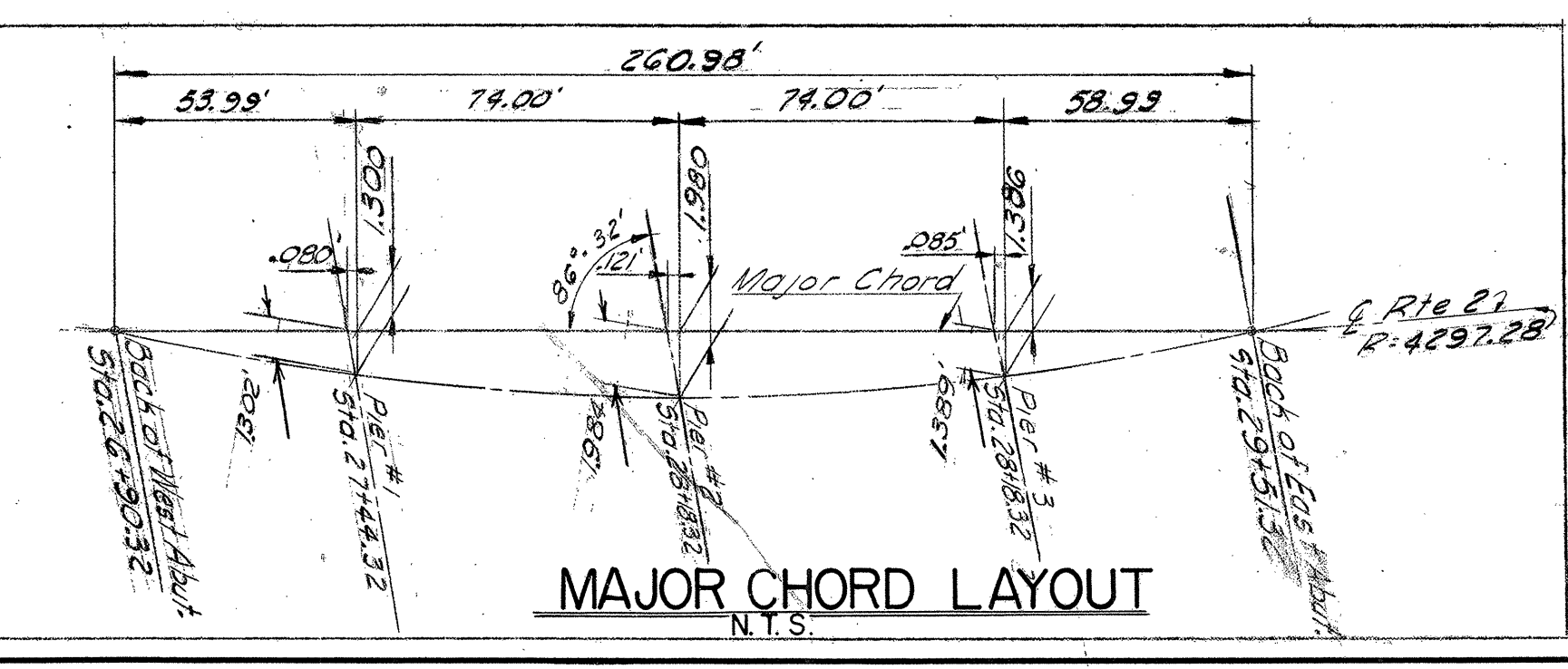


LOCATION PLAN
N.T.S.

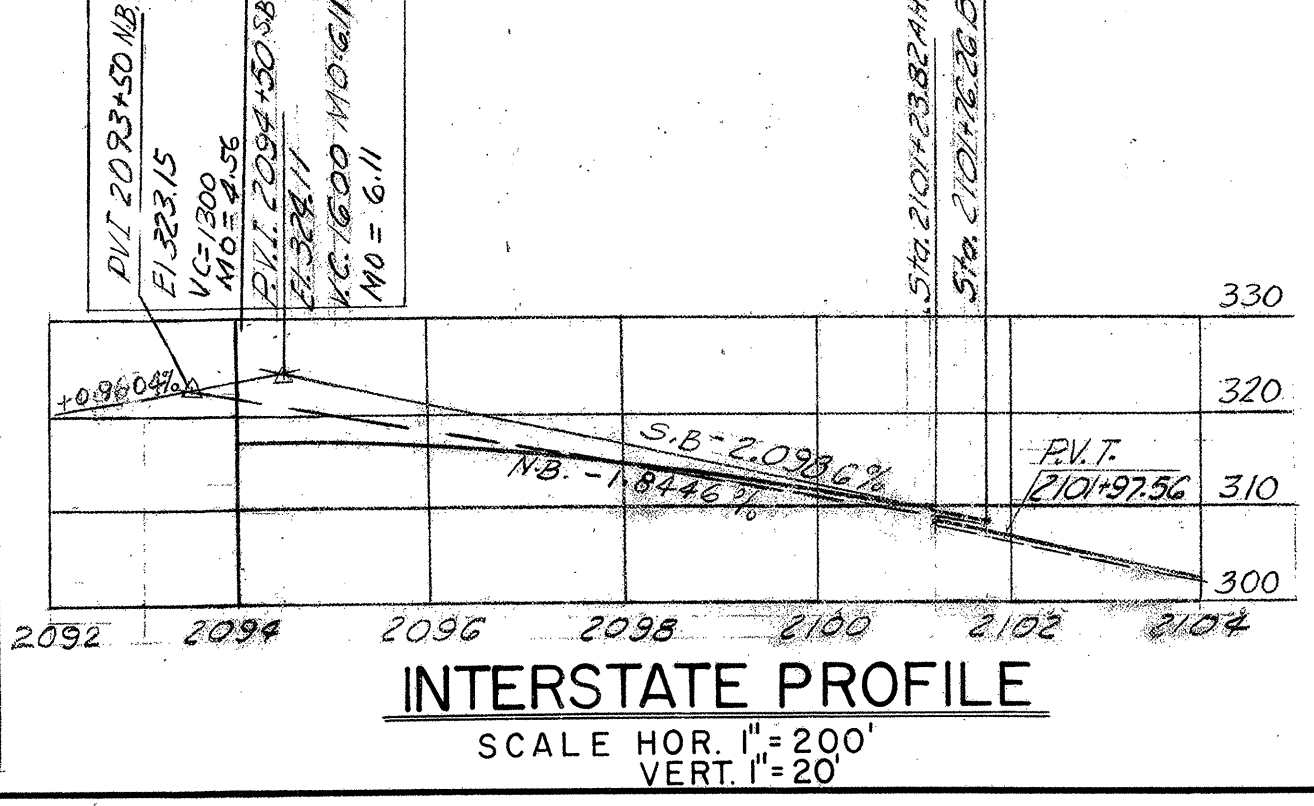


F - Fixed End
E - Exp. End

ELEVATION
SCALE 1"=20'



MAJOR CHORD LAYOUT
N.T.S.



INTERSTATE PROFILE
SCALE HOR. 1"=200'
VERT. 1"=20'

ESTIMATED QUANTITIES						
ITEM #	ITEM	UNIT	NEAT	OVERRUN	TOTAL	FINAL
107	Structure Excavation	C.Y.	826	83	909	889
204	Subbase of Crushed Rock (Mod under Struc)	C.Y.	390	20	410	352
351B	Bit. Conc. Pav't. (Mod)	Ton	300	45	345	* 0
401B	Conc. Class B Mod. (Incl. Appr. Slab)	C.Y.	1,735	86	1,821	1,729
402	Reinforcing Steel (Incl. Appr. Slab)	Lb.	292,950		292,950	293,058
403	Spiral Reinforcement (22,200)	L.S.	1		1	1
404A	Structural Steel	Lb.	750,163	15,003	765,166	748,658
407	Asphaltic Asbestos Coating	S.Y.	168		168	127
501	Furnishing Equipment for Driving Piles	L.S.	1		1	1
503	Splices for Steel Piling	Each	37		37	7
504	Steel H Piling (12.0P.53)	L.F.	8540		8540	8,557
556C	Granite Bridge Curb (Mod)	L.F.	122.4		1,224	1,232
572	Bridge Railing	L.F.	511		511	511
222	Gravel Backfill	C.Y.	104	10	114	0
578	Lighting System (Bridge)	L.S.	1		1	1
318	Emulsion for Bridge Floors	Gal.	1061		1,061	* 0
372	Joint Sealer Hot Roured Elastic Type	L.F.	391		391	* 0
-	Jonastatic Sealant (Supp. Agree. 6-11-62)	Lb.	-		-	170

* Included in Roadway Quantity

GENERAL NOTES

- All materials and construction shall conform to the State of Vermont, Department of Highways, Standard Specifications for Road and Bridge Construction dated Jan. 1956 and the A.A.S.H.O. Standard Specifications dated 1957 designed for H-20-516-44 loading modified for National System of Interstate Highways applied in accordance with the provision of the A.A.S.H.O. Standard Specifications, Article 3, 2, 8.
- Cross Slope of Approach Slab to conform with cross slope of Bridge
- All dimensions given are measured horizontally or vertically unless otherwise noted
- Final coat of field paint shall be green unless otherwise directed by the Engineer
- All dimension given at 68° F
- All reinforcing to have a clear cover of 3" unless noted
- All exposed edges of concrete shall be chamfered 1" unless noted
- Borings indicated on the drawings have been made for design purposes only and are not warranted to show actual subsurface conditions
- Elevation Datum Sea Level based on Bench Line U.S.C.G.S. Survey Level Line Vermont 25 (Second Order)
- Steel Bearing Piles shall be driven to refusal unless otherwise approved by the Engineer. When Piles are driven in fill, the material should be such as to have no stones large enough to interfere with the driving of piles.
- The top surfaces of all piers and abutments shall be sloped 1/4" per foot from front edge of abutment backwall or center lines of piers, except for bearing pads projecting 1" or more above the general area, which surfaces shall be level. The entire exposed top surface of piers and abutments shall be coated with asphaltic asbestos coating 1/2" thick as per Item 407 of specifications.
- Unless otherwise called for all beams shall be rolled to a true circular camber, the middle ordinate being that shown in AISC hand book as being the minimum camber likely to remain permanent

LIST OF DRAWINGS

General Plan & Elevation	Br # 1
Slab Plan & Typical Section	Br # 2
Framing Plan & Details	Br # 3
Pier Elevations	Br # 4
Pier Plans	Br # 5
Pier Details	Br # 6
Abutment Details	Br # 7
Approach Slab Details	Br # 8
Utilities & Details	Br # 9
Boring Logs	Br # 10
Bar Schedule	Br # 11, 12
Preliminary Information Sheet	Br # 13
3CB 42 60	Sh # 163
5B 55 53 1 of 2 f 2 of 2	Sh # 164 & 165
5B 20 60	Sh # 166
5B 21 56	Sh # 167
5B 22 60	Sh # 168
5B 20 60	Sh # 169
5B 58 60 1 of 2	Sh # 170 &

REFERENCE DRAWINGS

Plan Interstate	Sh # 15
Profile Interstate	Sh # 22
Cross Sections Interstate	Sh # 56, 57 & 58
Plan Route #2	Sh # 19 & 20
Cross Sections Route #2	Sh # 94 thru 96
Profile Route #2	Sh # 23

SOUTH BURLINGTON (M DECK) 36
FOR REFERENCE ONLY - BRIDGE 68

SHEET 60 OF 75

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

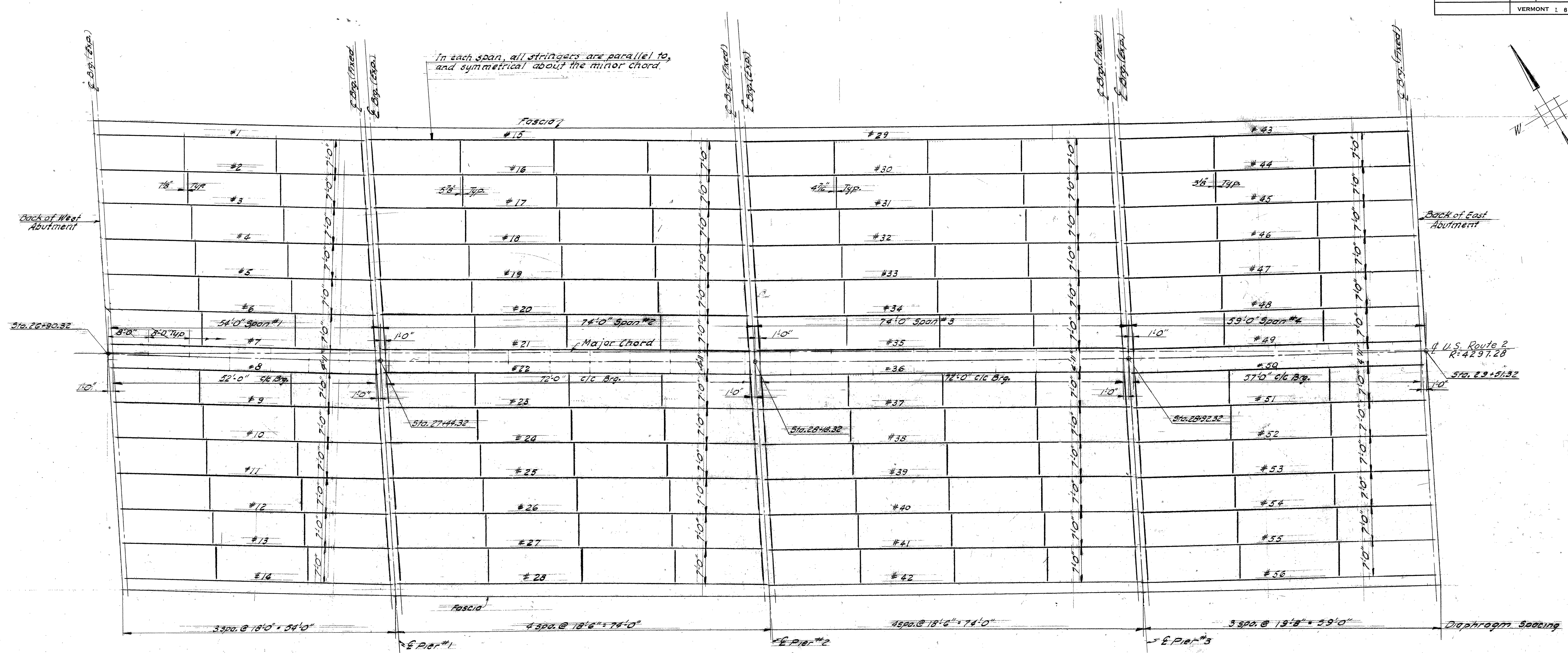
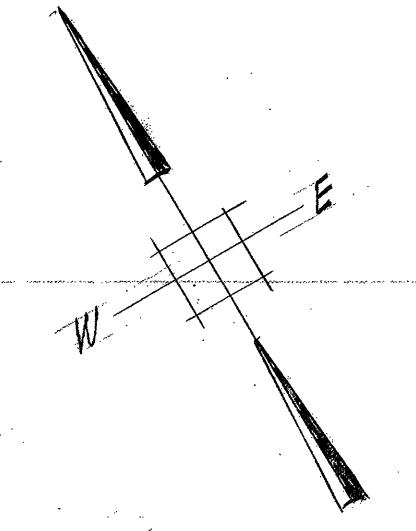
INTERSTATE PROJECT IN THE TOWNS OF
SOUTH BURLINGTON

UNDERPASS STA. 2101+78.29
BURLINGTON INTERCHANGE
GENERAL PLAN & ELEVATION

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

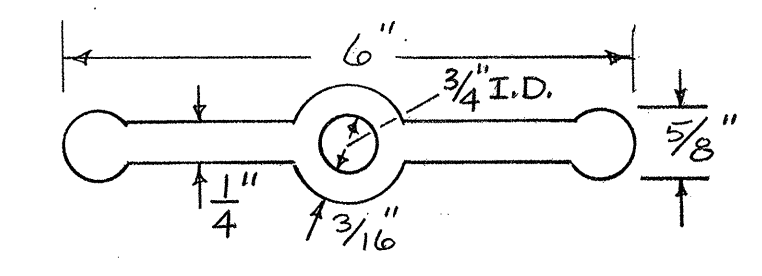
DRAWN BY R.H.E. IN CHARGE A.J.L.
CHECKED BY A.J.L. DATE

PROJECT NO. I 89-3 (12) SHEET 150 OF 175



FRAMING PLAN
SCALE: 1"=10'

- NOTES:**
- For General Notes see Br 1
 - For Typical Section see Br 2
 - For Superstructure Details see Std. Sh. SCB-42-60, SCB-D-60, & SB-20-60.



WATER STOP DETAIL

THE ABOVE SHALL BE MADE OF RUBBER AND SHALL MEET ALL THE REQUIREMENTS IN ACCORDANCE WITH A.S.T.M. SPECIFICATIONS D 395-55 T CONDITION "B" AND D 676-55 T

ESTIMATED QUANTITIES						
ITEM #	ITEM	UNIT	NEAT	OVERRUN	TOTAL	FINAL
403	Spiral Reinforcement (22,200')	L.S.	Required			
404-A	Structural Steel	Lb.	750,163	15,003	765,166	748,658

SOUTH BURLINGTON IM DECK(36)
FOR REFERENCE ONLY - BRIDGE 68
SHEET 62 OF 75

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

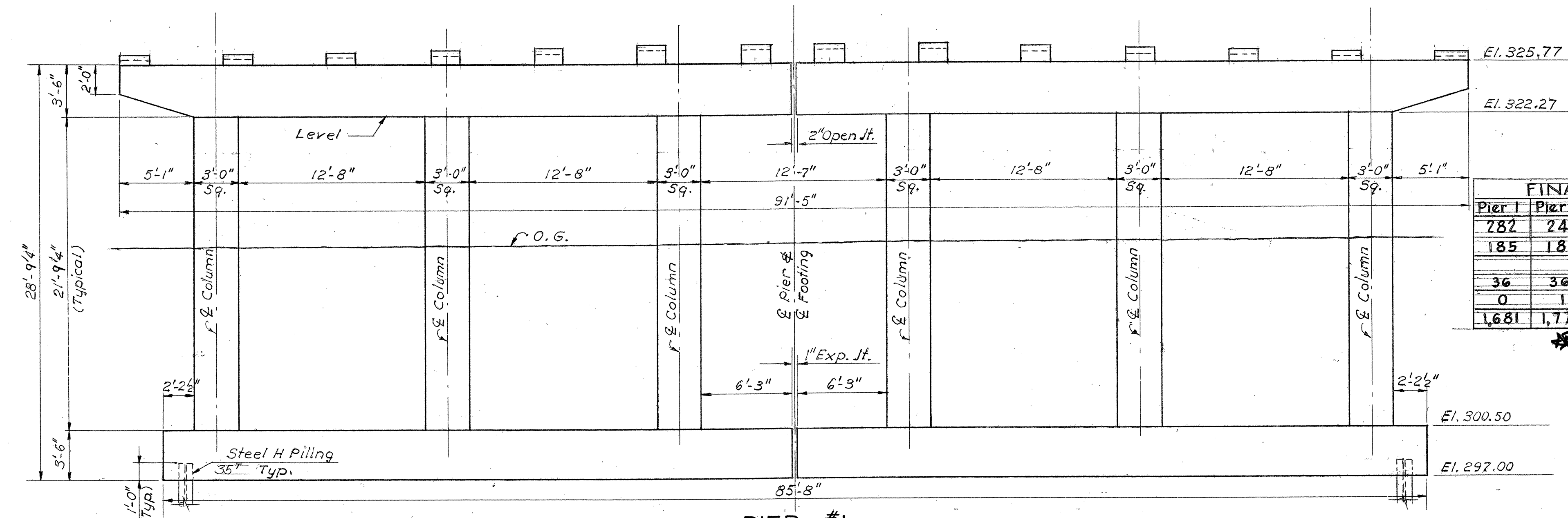
INTERSTATE PROJECT IN THE TOWNS OF
SOUTH BURLINGTON

UNDERPASS STA. 210+78.29
BURLINGTON INTERCHANGE
FRAMING PLAN & DETAILS

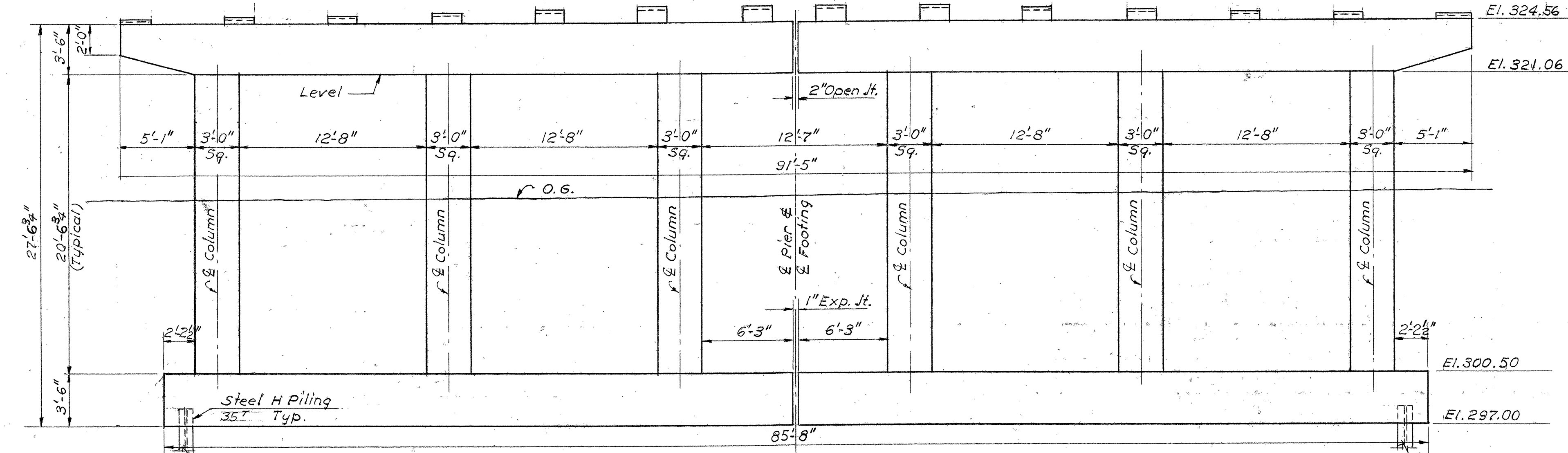
BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

DRAWN BY R.H.E. IN CHARGE A.J.L.
CHECKED BY M.J.C. DATE SCALE AS SHOWN

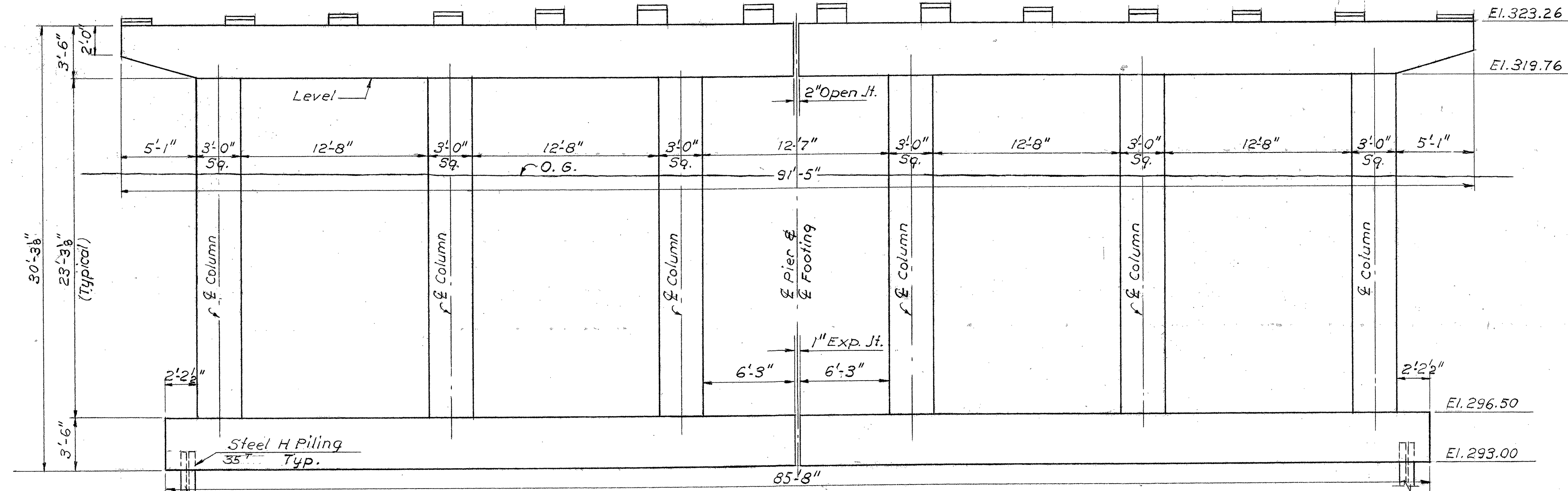
PROJECT NO. 189-3(2) SHEET 15-2 OF 175



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



PIER #2
SCALE: 3/16"=1'-0"



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

FINAL			ITEM #	ITEM	UNIT	PIER #1			PIER #2			PIER #3		
Pier 1	Pier 2	Pier 3				NEAT	OVERRUN	TOTAL	NEAT	OVERRUN	TOTAL	NEAT	OVERRUN	TOTAL
282	249	300	107	Structure Excavation	C.Y.	232	23	255	250	25	275	286	29	315
185	183	188	401B	Class "B" Concrete (Mod.)	C.Y.	186	9	195	183	9	192	189	9	198
			402	Reinforcing Steel	Lb.	See Bar Schedule Sh. #160								
36	36	36	407	Asphaltic-Asbestos Coating	S.Y.	43	-	43	41	-	41	42	-	42
0	1	6	503	Splices for Steel Piling	Ea.	9	-	9	9	-	9	9	-	9
1,681	1,778	1,962	504	Steel H Piling (12.B.P.53)	L.F.	1760	-	1760	1320	-	1320	1980	-	1980

- NOTES**
- For General Notes see Br. 1
 - For Pier Details see Br. 6
 - For Pier Plans & Pile Plan see Br. 5
 - All elevations Looking toward increasing Stations.

SOUTH BURLINGTON IM DECK(36)
FOR REFERENCE ONLY - BRIDGE 68
SHEET 63 OF 75

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

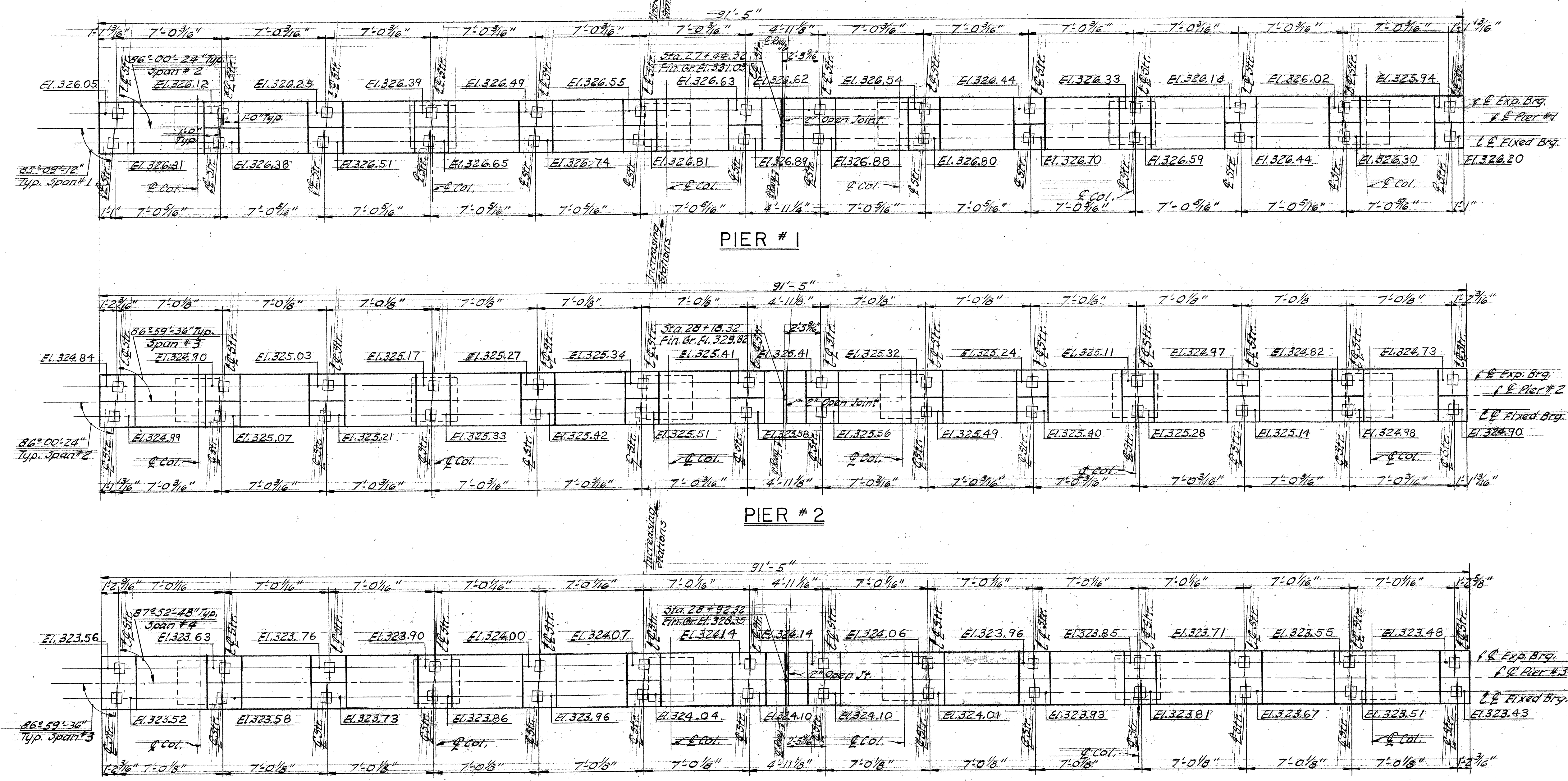
INTERSTATE PROJECT IN THE TOWNS OF
SOUTH BURLINGTON

**UNDERPASS STA. 2101+78.29
BURLINGTON INTERCHANGE
PIER ELEVATIONS**

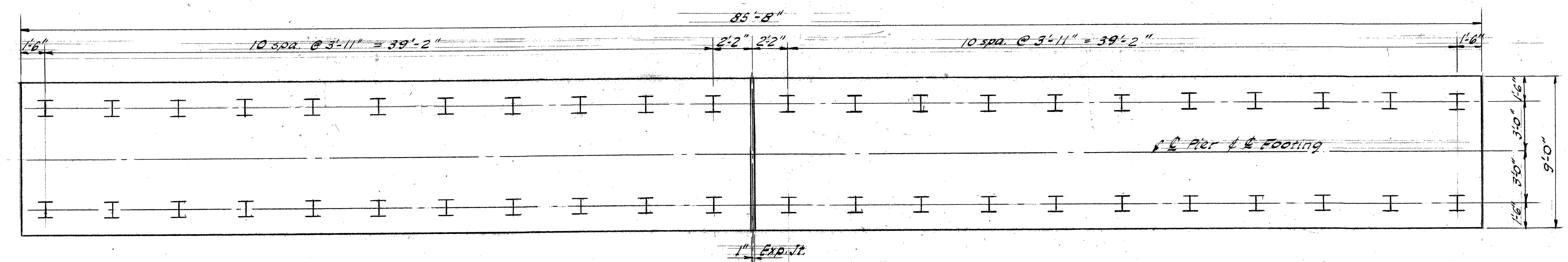
BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N. J.

DRAWN BY D.S. IN CHARGE A.L.L.
CHECKED BY M.L.C. DATE _____ SCALE As Shown

PROJECT NO. 1 89-3 (12) SHEET 153 OF 175



- NOTES:**
1. For General Notes see Br 1.
 2. For pier elevations see Br 4.
 3. For pier details see Br 6.
 4. For estimate of quantities see Br 4.

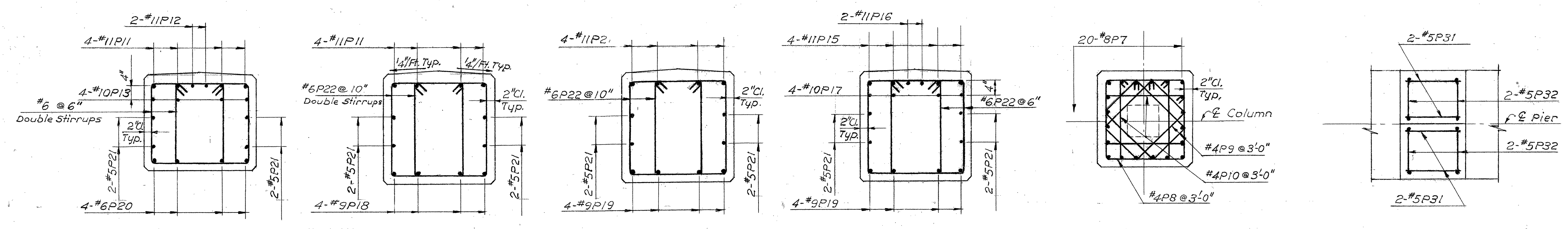
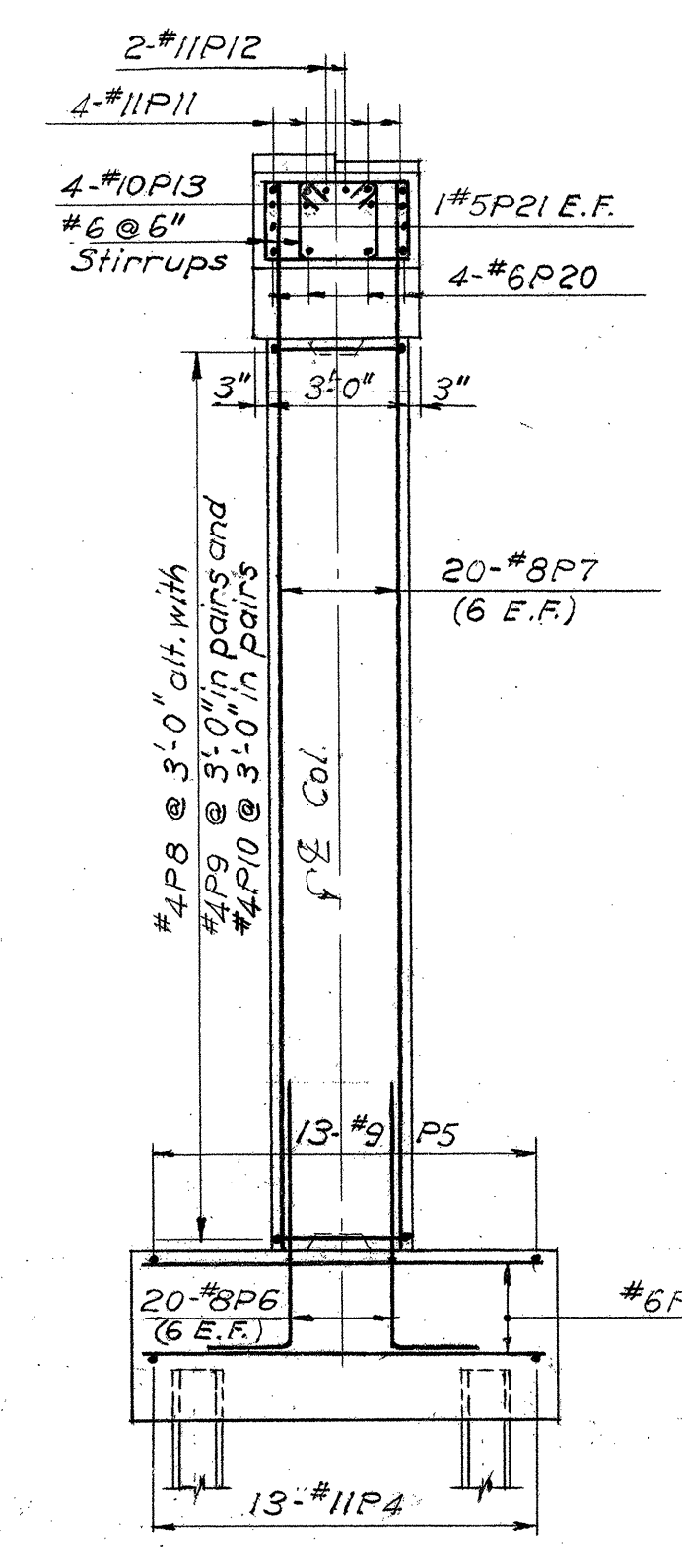
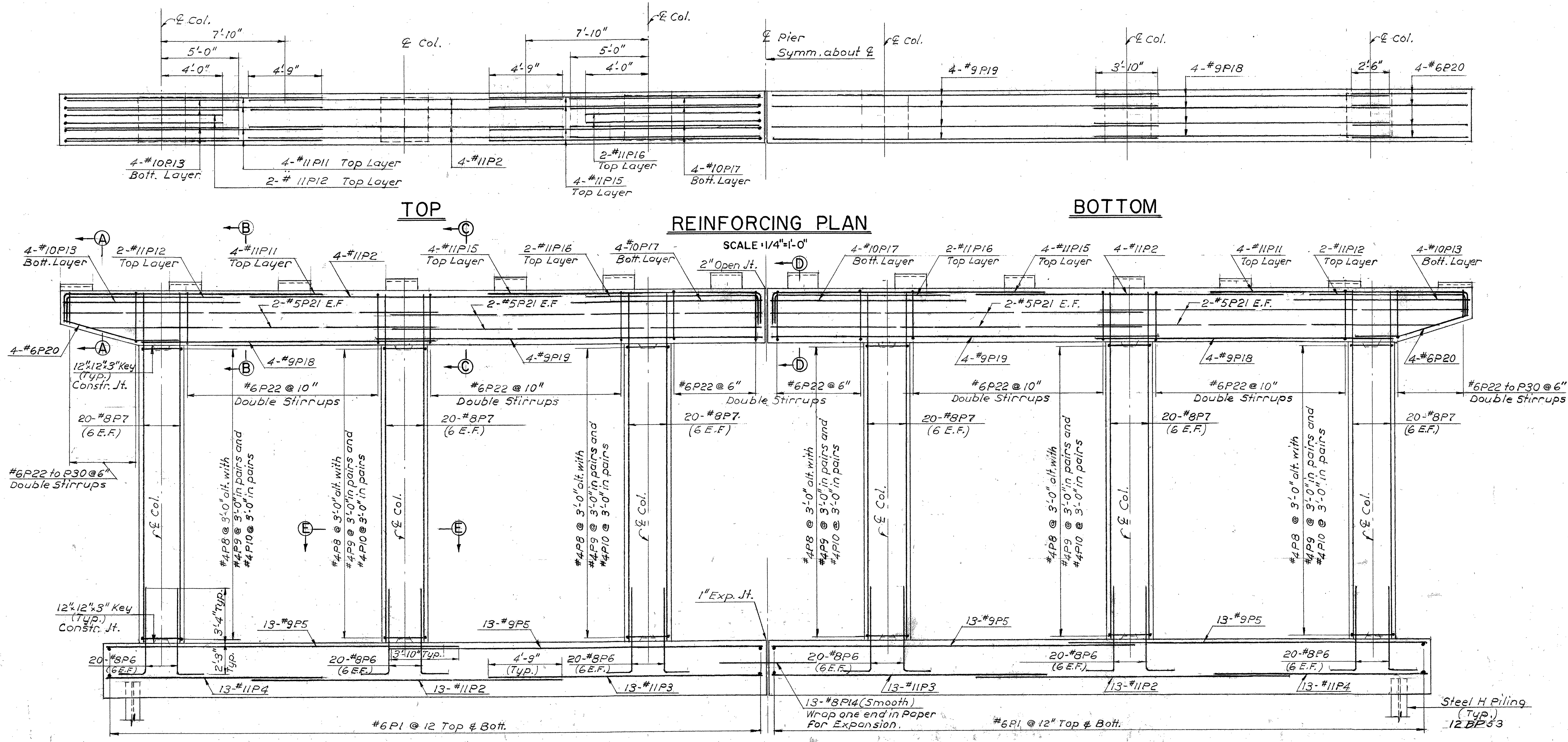


PILE PLAN

44 - 35" Steel H Piles ea Pier
 Estimated av'g Pile Length
 Pier #1 - 40'
 Pier #2 - 30'
 Pier #3 - 45'

SOUTH BURLINGTON IM DECK(56)
 FOR REFERENCE ONLY - BRIDGE 68
 SHEET 64 OF 75

STATE OF VERMONT DEPARTMENT OF HIGHWAYS	
INTERSTATE PROJECT IN THE TOWNS OF SOUTH BURLINGTON	
UNDERPASS STA. 2101+78.29 BURLINGTON INTERCHANGE PIER PLANS	
BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.	
DRAWN BY A.M.	IN CHARGE A.J.L.
CHECKED BY M.J.C.	DATE
PROJECT NO. I 89 - 3 (I2)	SHEET 154 OF 175



- NOTES:**
1. For General Notes see Br 1
 2. For Pier elevations and quantities, see Br 4
 3. For Pier Plans and Pile Plans, see Br 5

SOUTH BURLINGTON IM DECK(36)
FOR REFERENCE ONLY - BRIDGE 68
SHEET 65 OF 75

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

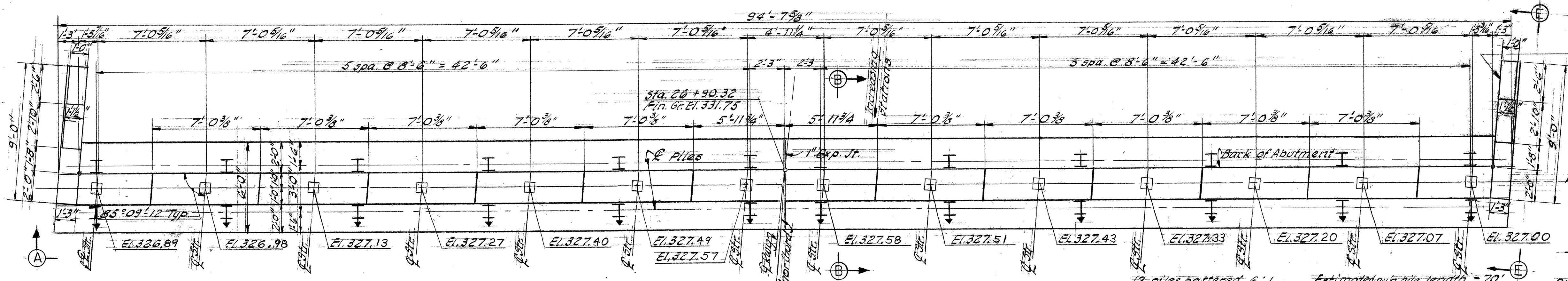
INTERSTATE PROJECT IN THE TOWNS OF
SOUTH BURLINGTON.

UNDERPASS STA.2101+78.29
BURLINGTON INTERCHANGE
PIER DETAILS

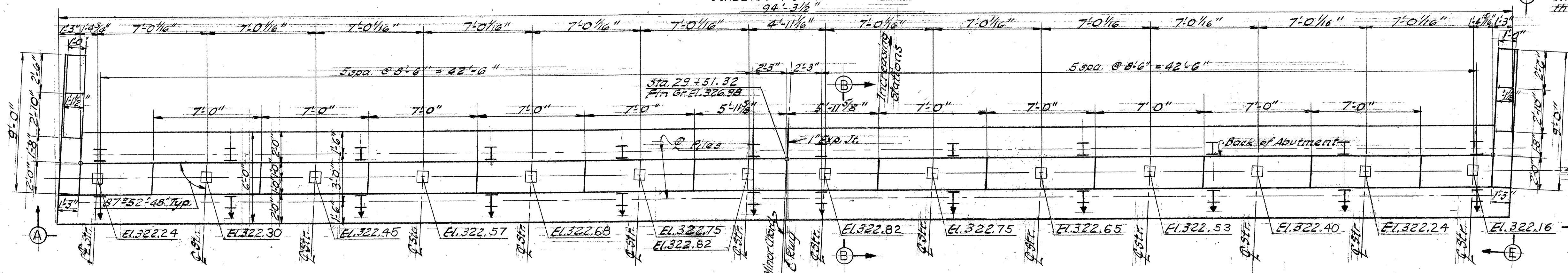
BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

DRAWN BY *D.S.* IN CHARGE *A.L.L.*
CHECKED BY *M.J.C.* DATE _____ SCALE *As Shown*

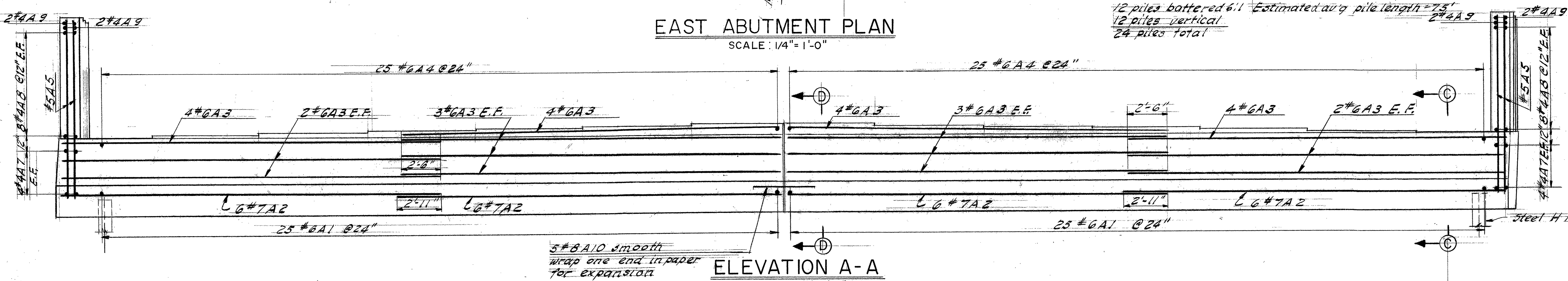
PROJECT NO. I 89-3 (12) SHEET 155 OF 175



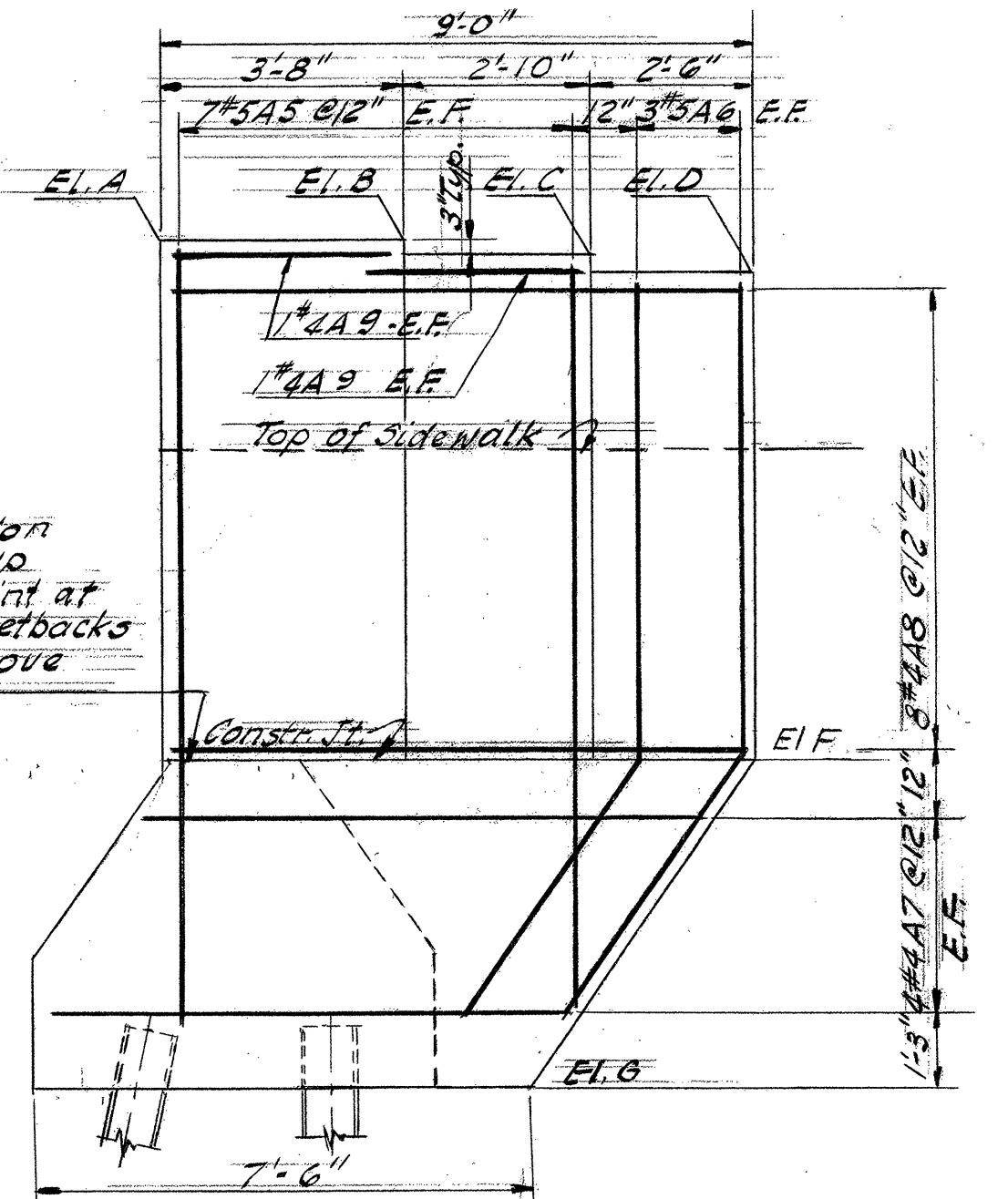
WEST ABUTMENT PLAN
SCALE: 1/4"=1'-0"



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



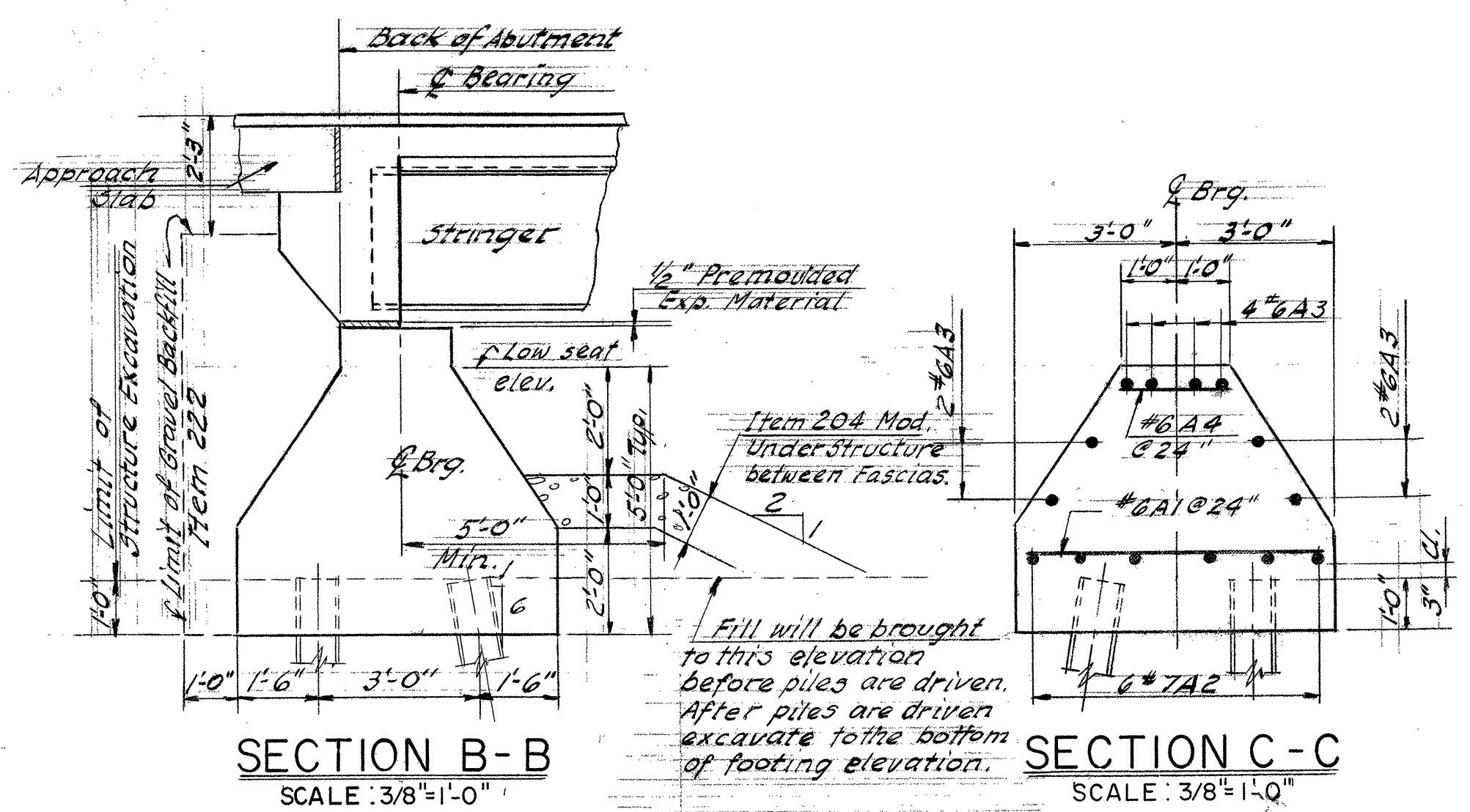
ELEVATION A-A
SCALE: 1/4"=1'-0"



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

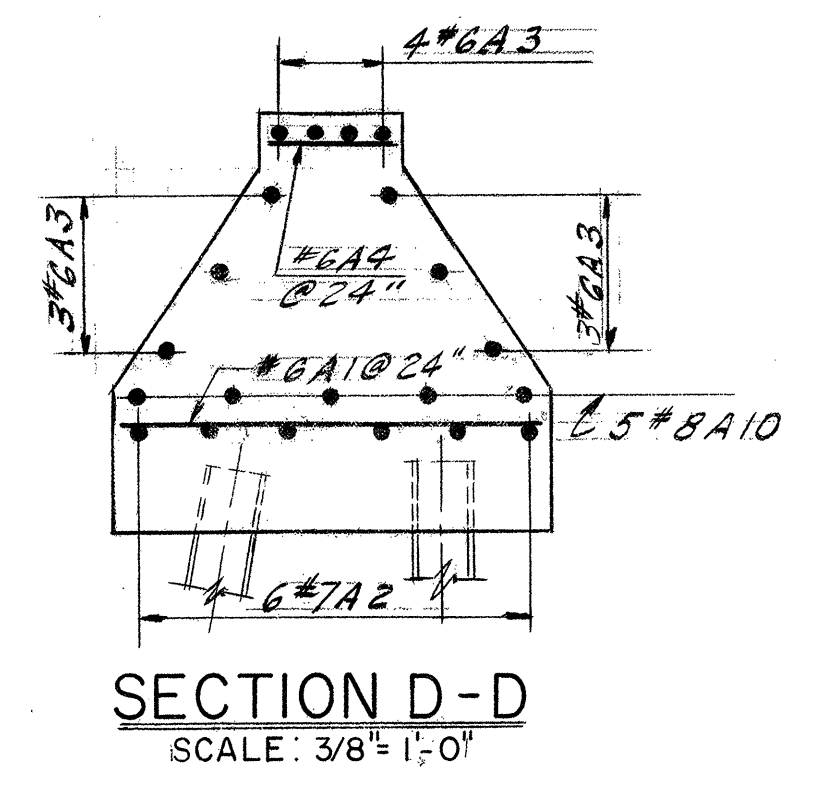
ELEV.	WEST ABUTMENT		EAST ABUTMENT	
	LEFT PYLON	RIGHT PYLON	LEFT PYLON	RIGHT PYLON
A	335.54	335.44	330.83	330.77
B	335.59	335.48	330.74	330.68
C	335.37	335.26	330.42	330.36
D	335.15	335.04	330.16	330.04
E	327.00	326.89	322.24	322.16
G	321.89	321.89	317.16	317.16

- NOTES:**
- For General Notes see B-1
 - For additional details see SB-20-60, SB-21-56
 - I indicates battered pile
 - Left & Right are determined by looking toward increasing stations.



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

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



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

FINAL AD		ITEM #	ITEM	UNIT	WEST ABUTMENT			EAST ABUTMENT		
W. Abut.	E. Abut.				NEAT	OVERRUN	TOTAL	NEAT	OVERRUN	TOTAL
29	107	107	Structure Excavation	C.Y.	29	3	32	29	3	32
0	0	222	Gravel Backfill	C.Y.	52	5	57	52	5	57
94	96	401-B	Class B Concrete (Mod.)	C.Y.	95	5	100	95	5	100
		402	Reinforcing Steel	Lb.	See bar schedule Sh. #			160		
10	10	407	Asphaltic - Asbestos Coating	S.Y.	21		21	21		21
0	0	503	Splices for Steel Piling	Ea.	5		5	5		5
1,410	1,127	504	Steel H Piling (12.8P 53)	L.F.	1,680		1,680	1,800		1,800

SOUTH BURLINGTON IM DECK(66)
FOR REFERENCE ONLY - BRIDGE 68
SHEET 66 OF 75

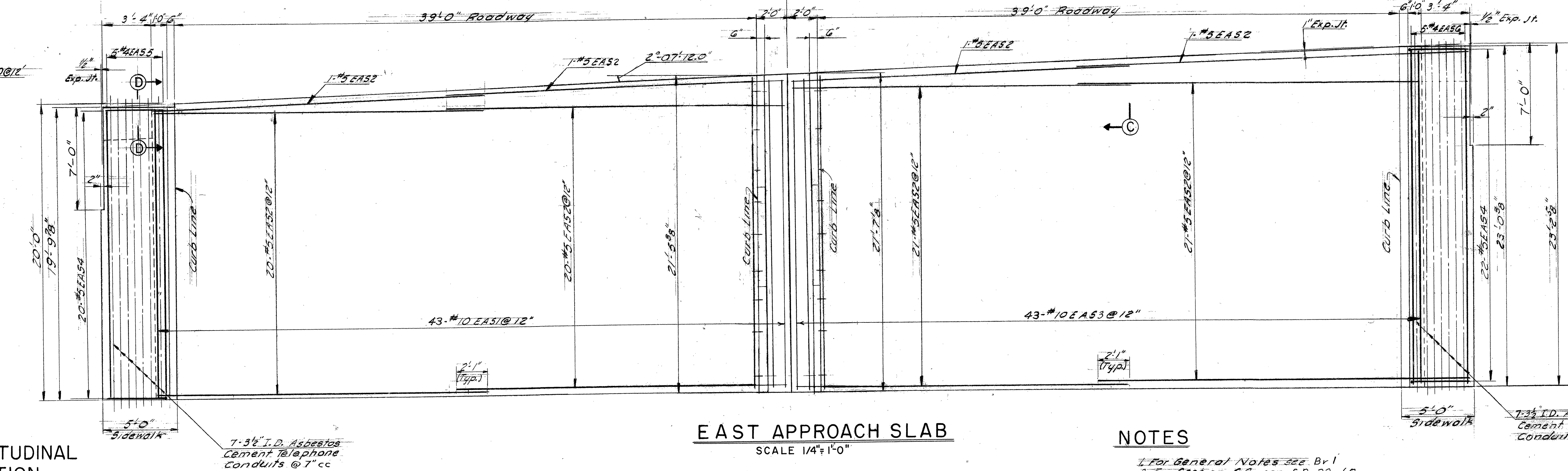
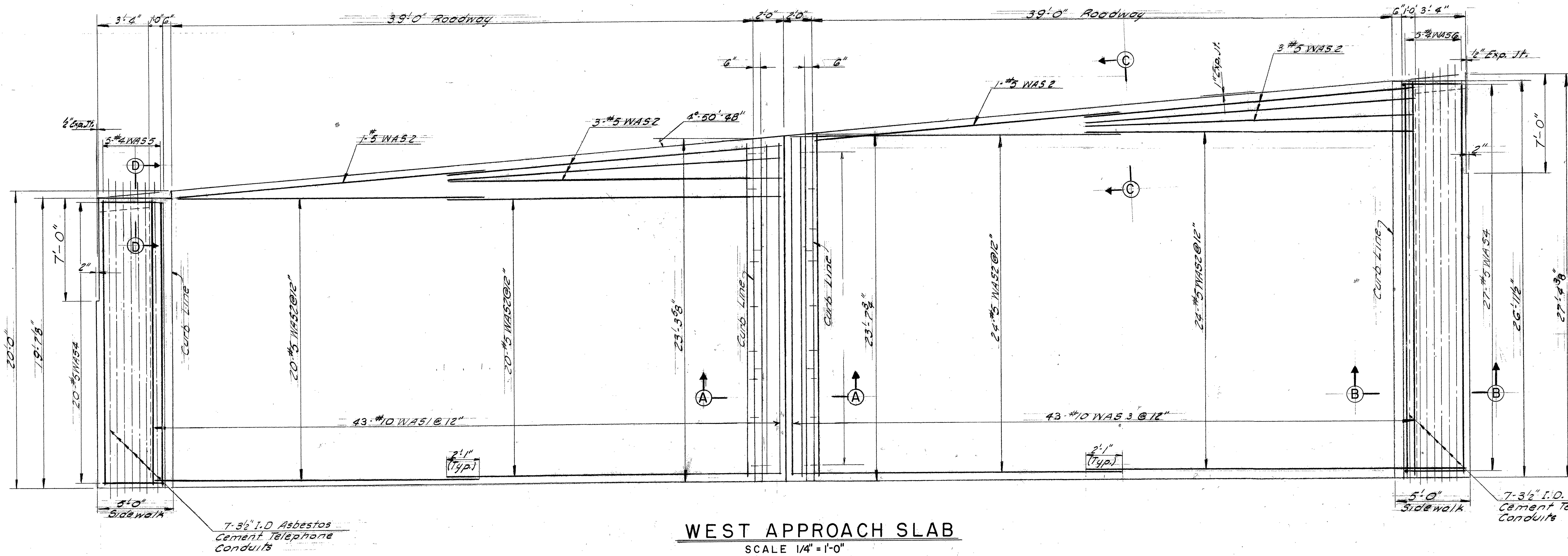
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
SOUTH BURLINGTON

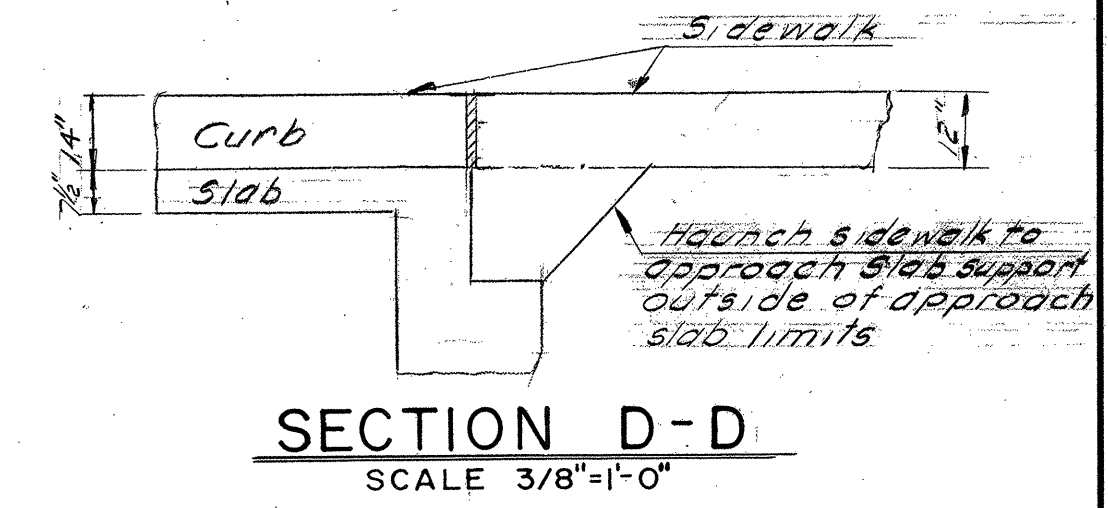
UNDERPASS STA. 2101+78.29
BURLINGTON INTERCHANGE
ABUTMENT DETAILS

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

DRAWN BY A.M. IN CHARGE A.J.L.
CHECKED BY M.J.C. DATE SCALE AS SHOWN
PROJECT NO. I 89 - 3 (12) SHEET 156 OF 175

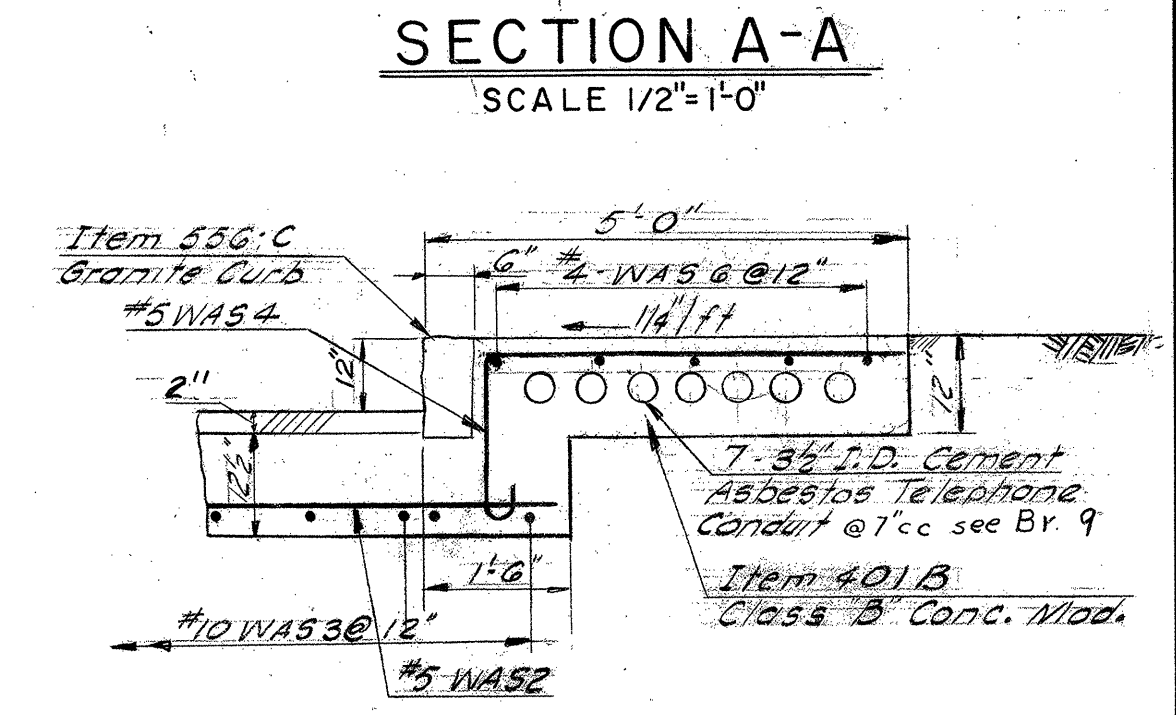
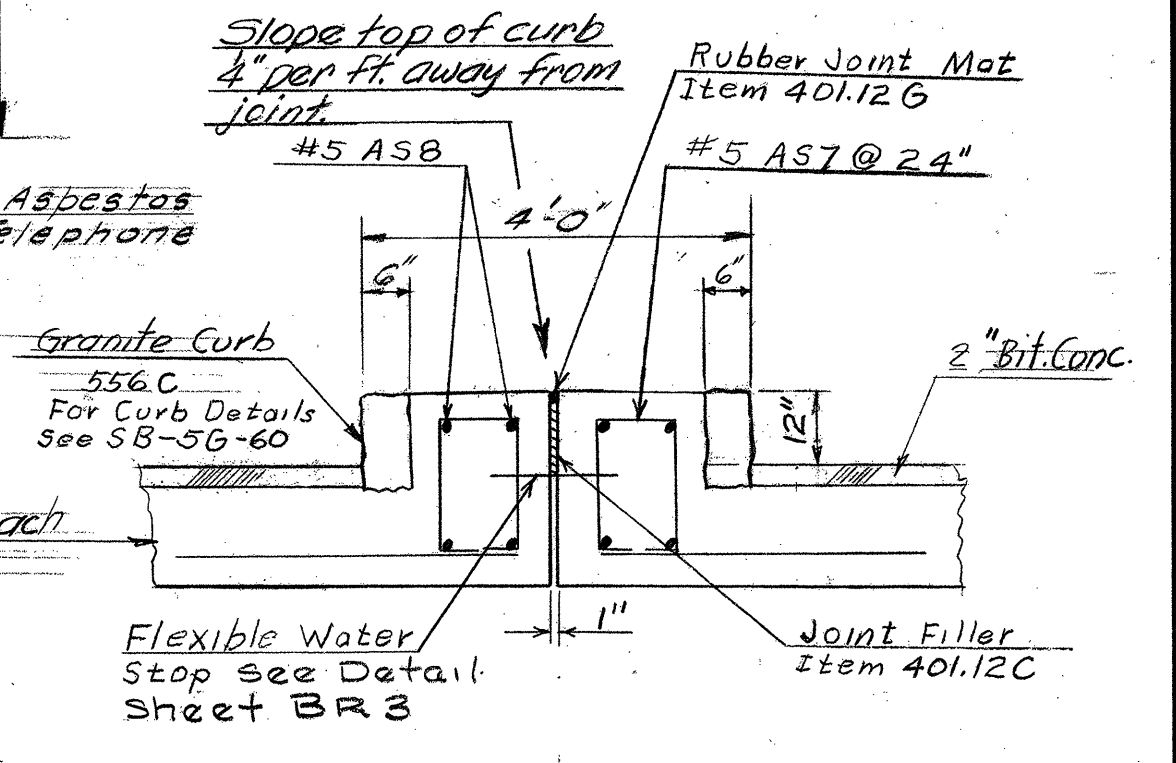


LONGITUDINAL SECTION
SCALE 1/4" = 1'-0"



ESTIMATED QUANTITIES					
EAST APPROACH SLAB					
ITEM#	ITEM	UNIT	NET OVERRUN	TOTAL	
361-B	Bituminous Conc. Pavement	Ton	21	3	24
401-B	Concrete Class B (Mod)	C.Y.	81	4	85
402	Reinforcing Steel	Lb	382	Br #12	
356-C	Granite Bridge Curb Mod	L.F.	86		86

WEST APPROACH SLAB					
ITEM#	ITEM	UNIT	NET OVERRUN	TOTAL	
361-B	Bituminous Conc. Pavement	Ton	23	4	27
401-B	Concrete Class B (Mod)	C.Y.	87	4	91
402	Reinforcing Steel	Lb	362	Br #12	
356-C	Granite Bridge Curb Mod	L.F.	94		94



NOTES

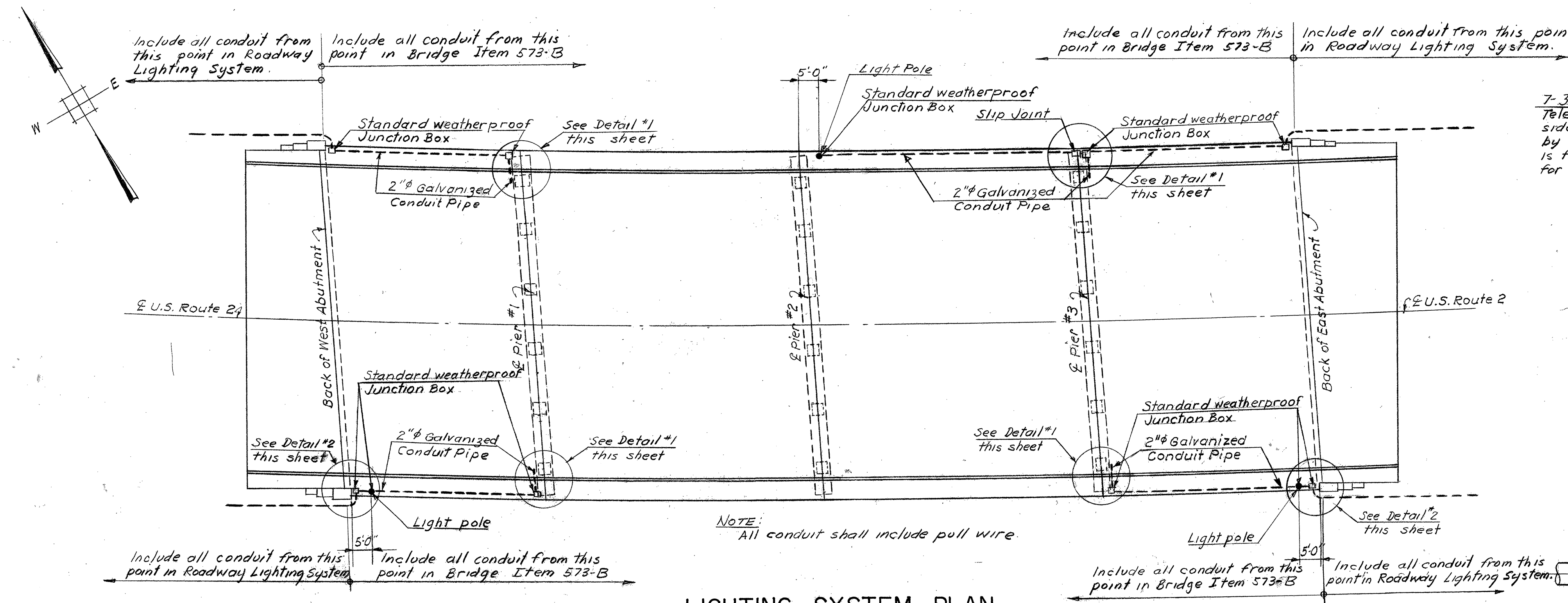
- For General Notes see Br 1
- For Section C-C see SB-22-60
- All 3 1/2" I.D. Cement Asbestos Telephone Conduits and connections in each sidewalk of the Approach Slabs to be furnished by others and the installation is to be paid for in the price for "Concrete Class B Item 401 B"

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
WILLISTON, SOUTH BURLINGTON, WINOOSKI, COLCHESTER

**UNDERPASS STA. 2101+78.29
BURLINGTON INTERCHANGE
APPROACH SLAB DETAILS**

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.
DRAWN BY R.H.E. IN CHARGE A.J.I. SCALE As Shown
CHECKED BY A.G.M. DATE _____
PROJECT NO. I 89-3 (12) SHEET 157 OF 175



LIGHTING SYSTEM PLAN
SCALE: 1" = 20'

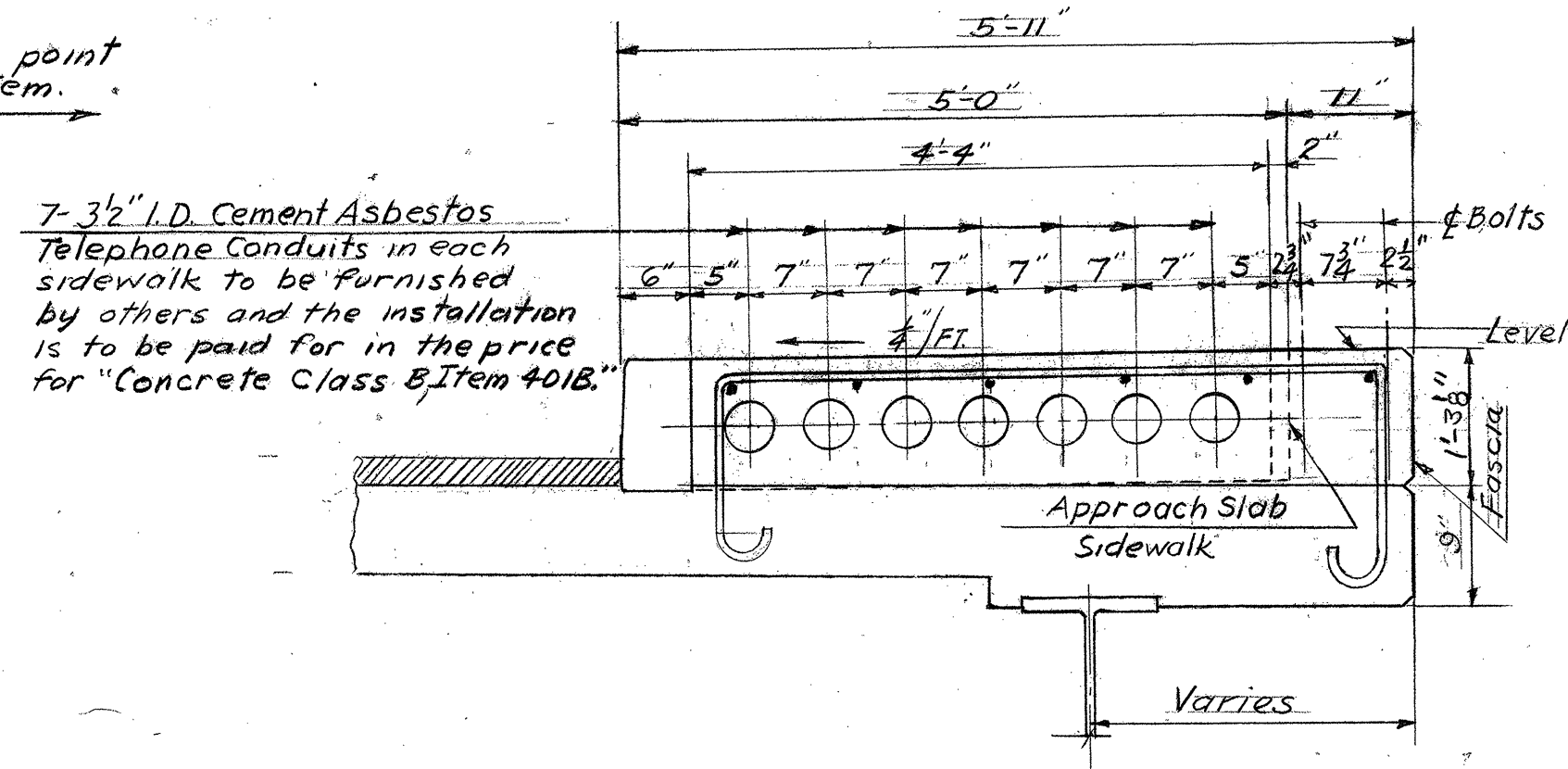
NOTES REGARDING LIGHTING SYSTEM

CONDUIT - The conduit shall be of the rigid steel type galvanized and coated inside and out with backed enamel and shall conform to the requirements of the National Electrical Manufacturers Association and each length shall bear the label of approval of the National Board of Fire Underwriters. Fittings, connections, and junction boxes shall be made of the same material as the conduit. The field cuts on conduit shall be made square and true so that the ends will butt or come together for the full diameter thereof. All couplings shall be screwed up until the ends of the conduit are brought together so that a good electrical connection will be made. All ends of conduit shall be reamed and unless slip joint expansion devices are indicated all connections shall be threaded. Where conduit bends are made in the field, they shall have a radius of not less than six (6) times the inside diameter of the conduit. The conduit shall be bent without crimping or flattening using the longest radius possible. One quarter (1/4) inch holes for drainage of the conduit shall be provided at the low point on each conduit run, or as ordered by the engineer. All holes for drainage shall be reamed thereby leaving no sharp edges on the inside of the conduit.

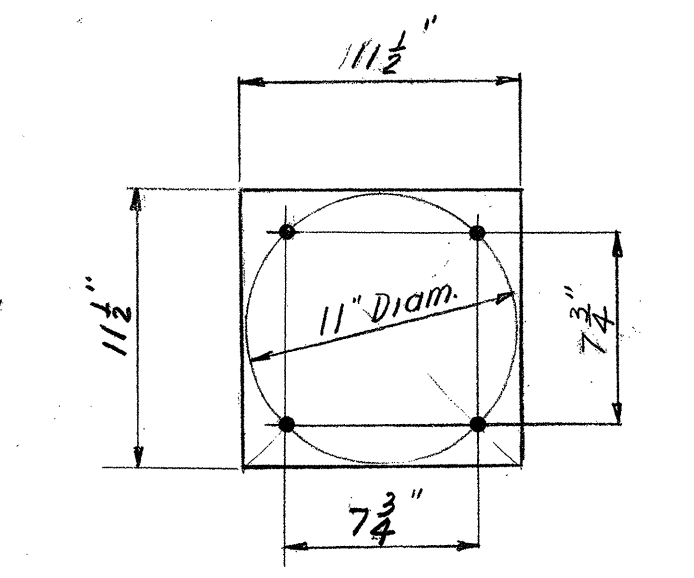
After the conduit lines are completed, the contractor shall, in the presence of the engineer, test the installation by pushing through the entire length, a mandrell of a diameter of one quarter (1/4) inch less than the inside diameter of the conduit. All obstructions, including stones, dirt, etc., shall be removed and any damaged conduit shall be replaced at the expense of the contractor. All exposed conduit ends shall be threaded and capped with standard conduit caps until wiring is started. When the caps are removed, the threaded ends shall be provided with approved conduit bushings.

A number 12 A.W.G. pull wire shall be installed in all conduit after installation and testing has been completed. The pull wire shall terminate beyond the end of the conduit in each pull box.

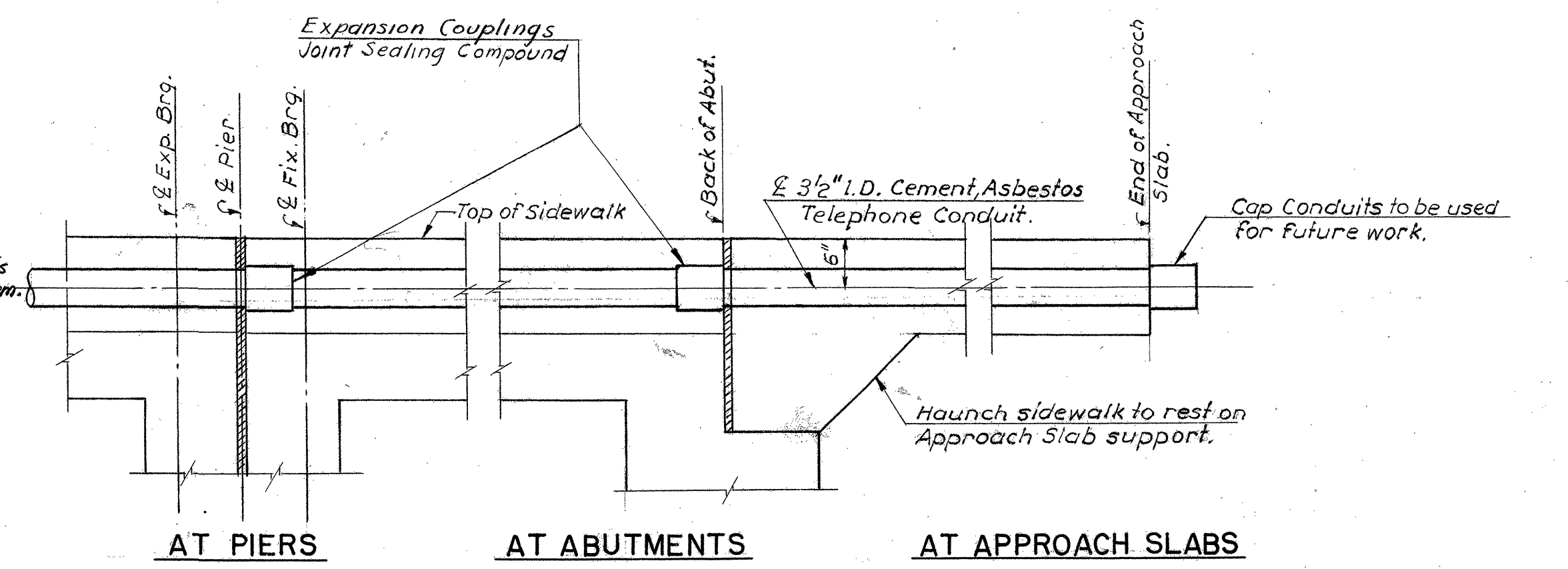
Previous to the pouring of the concrete, the anchor rods, nuts and washers, and a template for the setting of the rods will be furnished to the Contractor, by the Utility Company installing the components necessary to complete the lighting system.



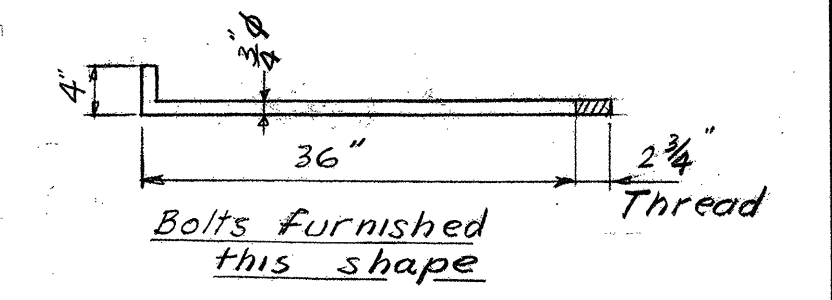
SECTION THRU BRIDGE SIDEWALK
SCALE: 3/4" = 1'-0"



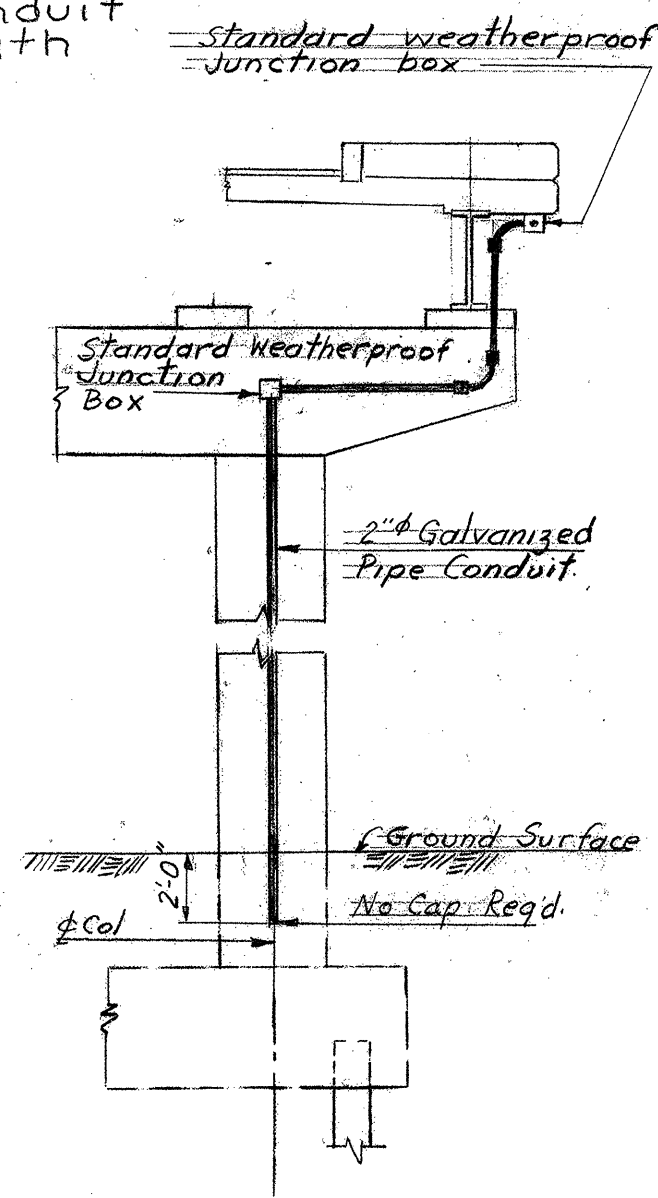
BOLT HOLE POSITION FOR LIGHT STANDARD
SCALE: 1 1/2" = 1'-0"
(Template to be furnished by others)



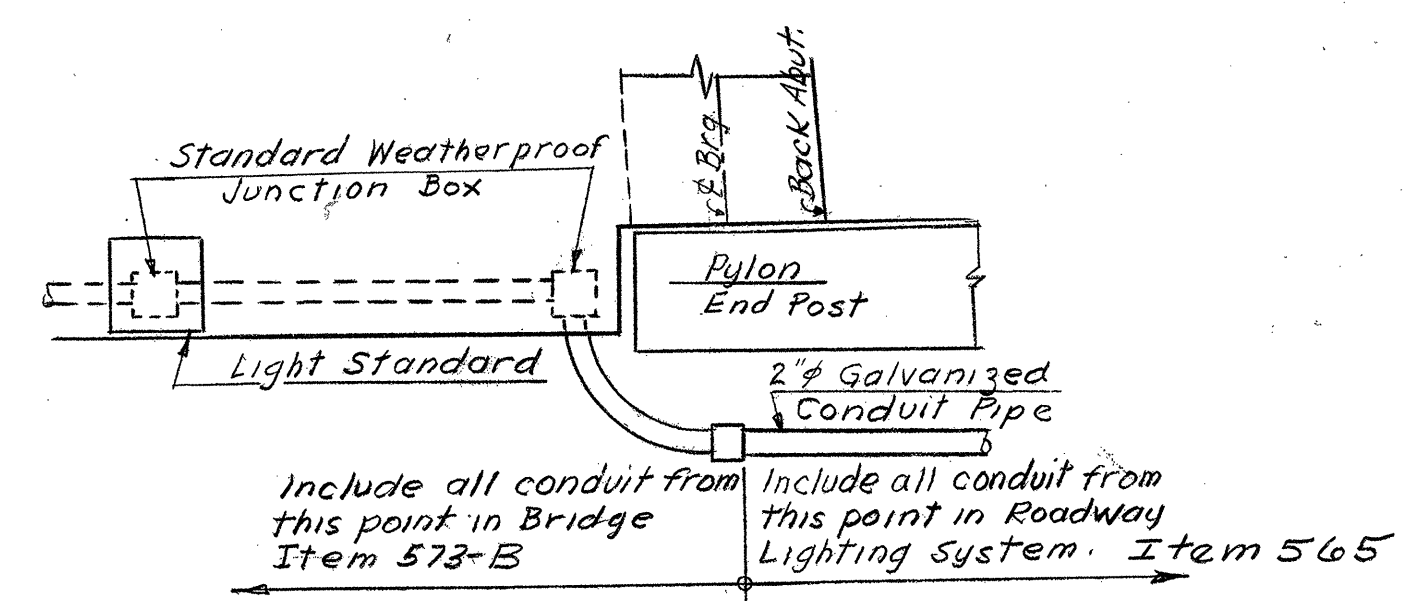
LONGITUDINAL SECTION
SCALE: 3/4" = 1'-0"



BOLT DETAILS FOR LIGHT STANDARD
SCALE: 3/4" = 1'-0"
(Bolts to be furnished by others)



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



DETAIL #2
SCALE N.T.S.

NOTES:
1. For General Notes see Br 1
2. For Lighting System Conduit Details see SB-21-56

SOUTH BURLINGTON IM DECK (36)
FOR REFERENCE ONLY - BRIDGE 68
SHEET 68 OF 75

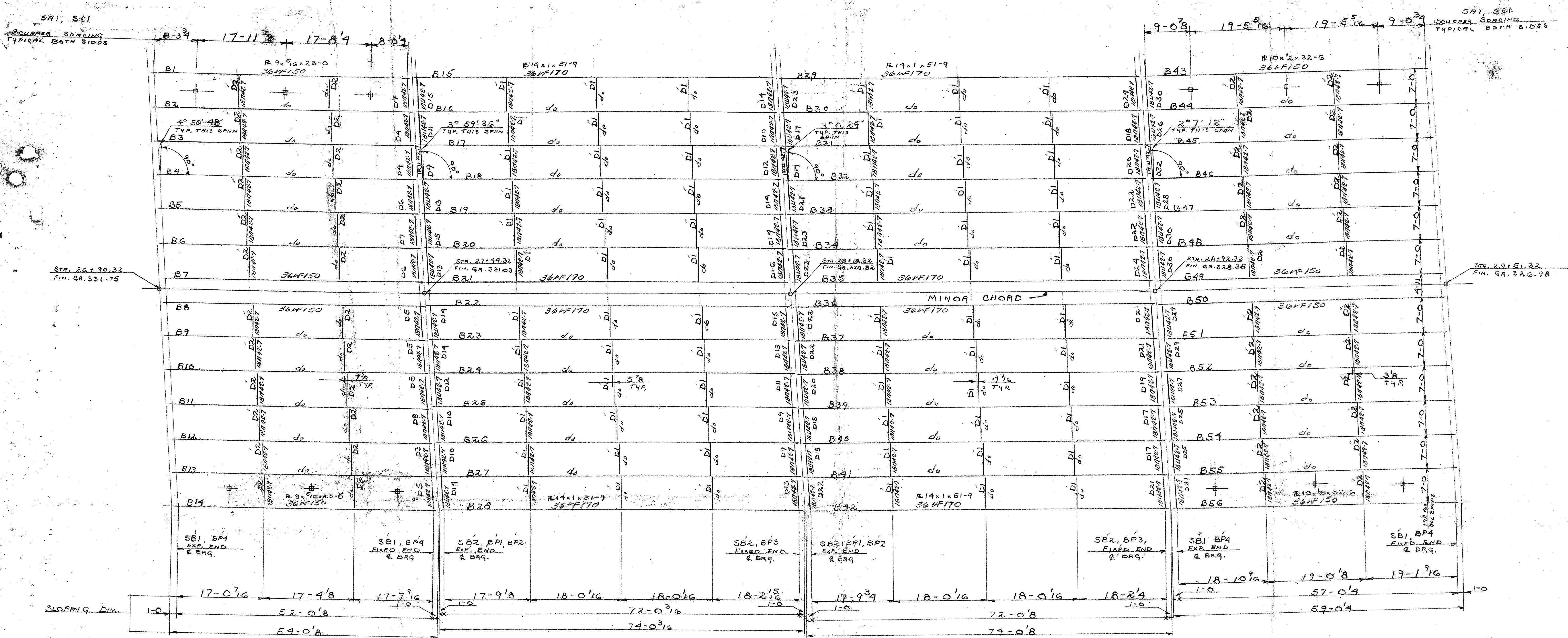
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT IN THE TOWNS OF
SOUTH BURLINGTON

UNDERPASS STA. 2101+78.29
BURLINGTON INTERCHANGE
UTILITIES & DETAILS

BOSWELL ENGINEERING CO. RIDGEFIELD PARK, N.J.

DRAWN BY D.S. IN CHARGE A.J.L. SCALE As Shown
CHECKED BY A.J.L. DATE PROJECT NO. 1 89-3 (12) SHEET 158 OF 175



PLACEMENT PLAN

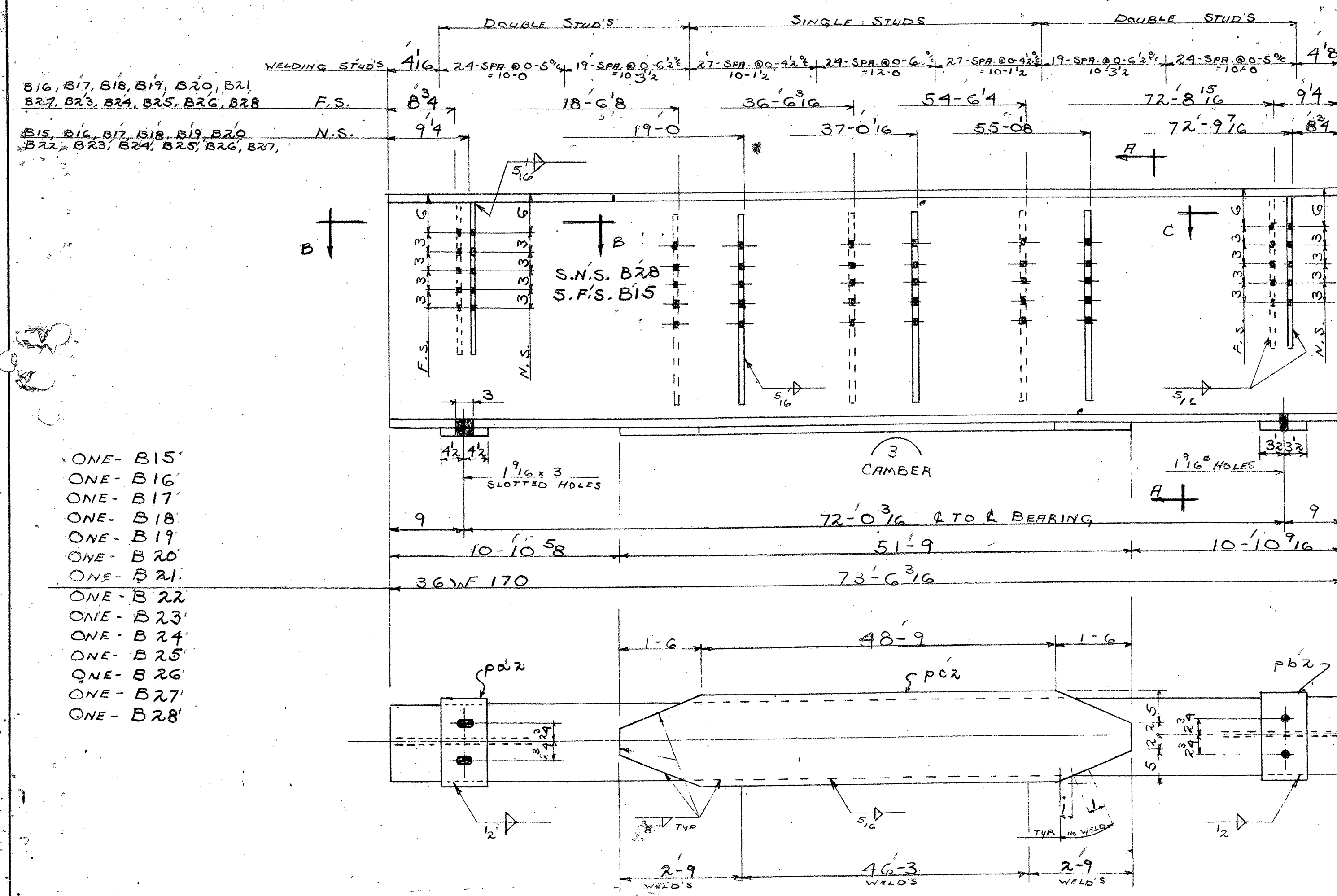
UNDERPASS PROJECT NO. I 89-3 (12)
WILLISTON RD. INTERCHANGE

SOUTH BURLINGTON IM DECK(36)
FOR REFERENCE ONLY - BRIDGE 68

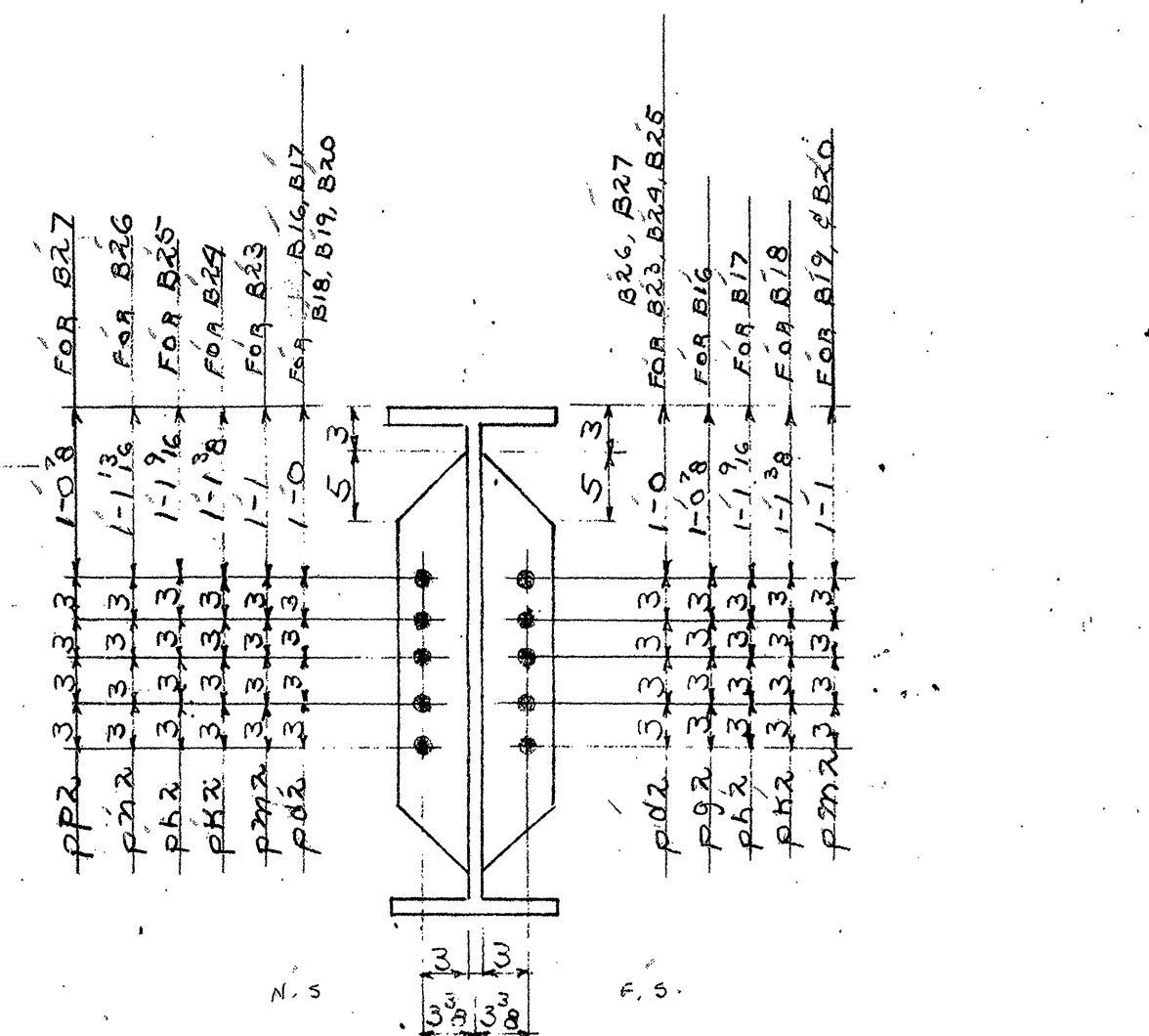
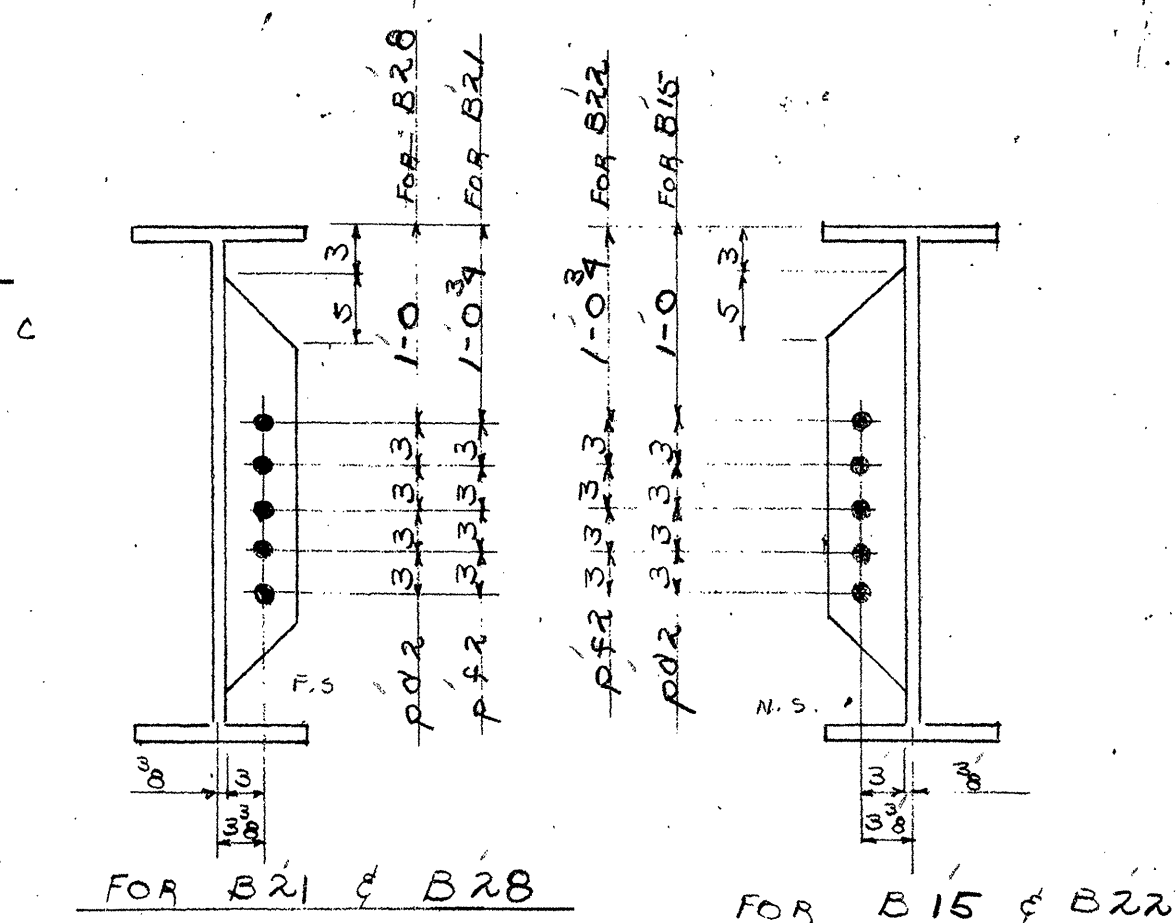
APPROVED BY ARCHITECT 7-29-61

SHEET 68 B OF 75

REV. DR. 7-7-61		VERMONT STRUCTURAL STEEL CORPORATION	
REV. PER. APP. 7-11-61		BURLINGTON, VT.	
DATE	PROJECT INTERSTATE BRIDGE I 89-3 (12)	NO.	PRINT RECORD
DRAWN BY HP	LOCATION WILLISTON RD. INTERCHANGE	3	FOR DATE
C'KD BY K.T. G. 36 W	CUSTOMER ET. O'NEILL & SON CONST. CORP.	3	APP 6-16
	ARCHITECT STATE OF VT. DEPT. OF HIGHWAYS	3	APP 7-7
	JOB NO. G1-382	3	SHOP 7-14
	SHEET NO. P1	3	FIELD 7-29
		1	SHOP 9-27
		1	H.C. 10-1

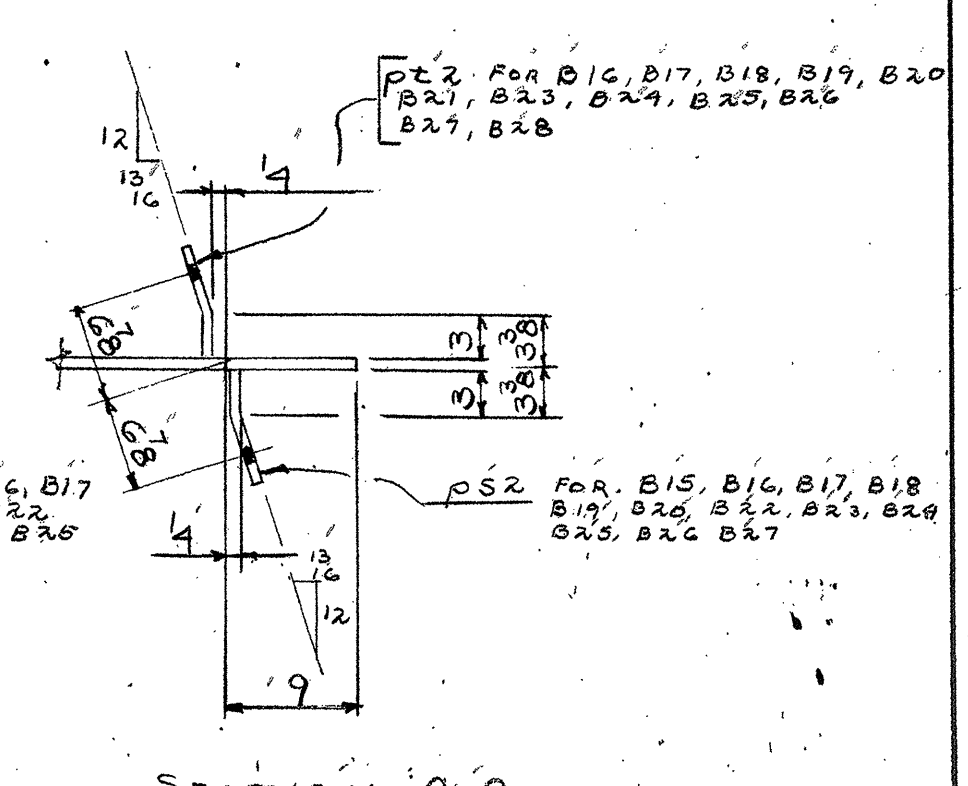
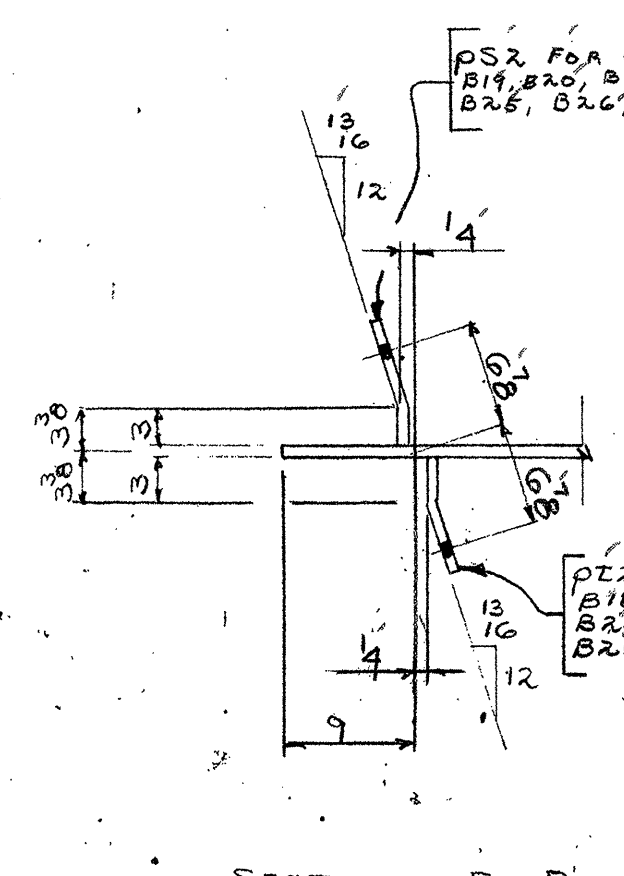
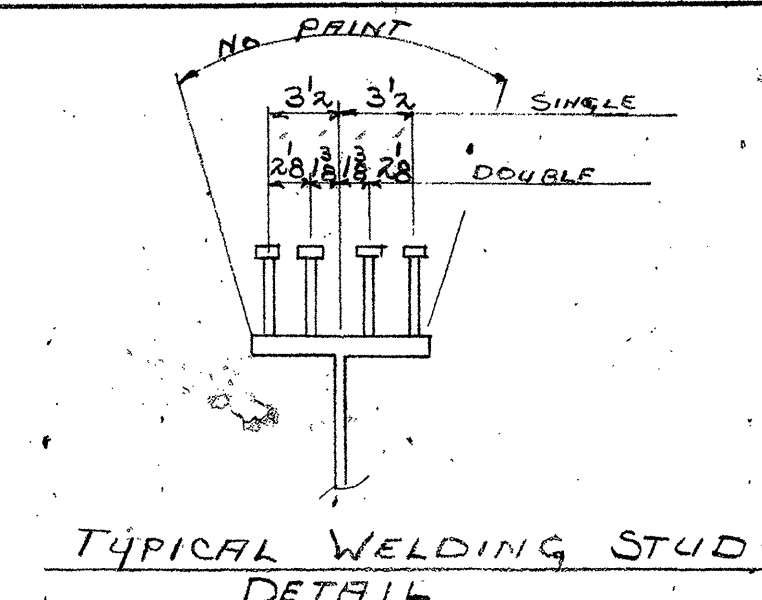


- ONE-B15
- ONE-B16
- ONE-B17
- ONE-B18
- ONE-B19
- ONE-B20
- ONE-B21
- ONE-B22
- ONE-B23
- ONE-B24
- ONE-B25
- ONE-B26
- ONE-B27
- ONE-B28



FOR B16, B17, B18, B19, B20, B23, B24, B25, B26, B27

SECTION A-A



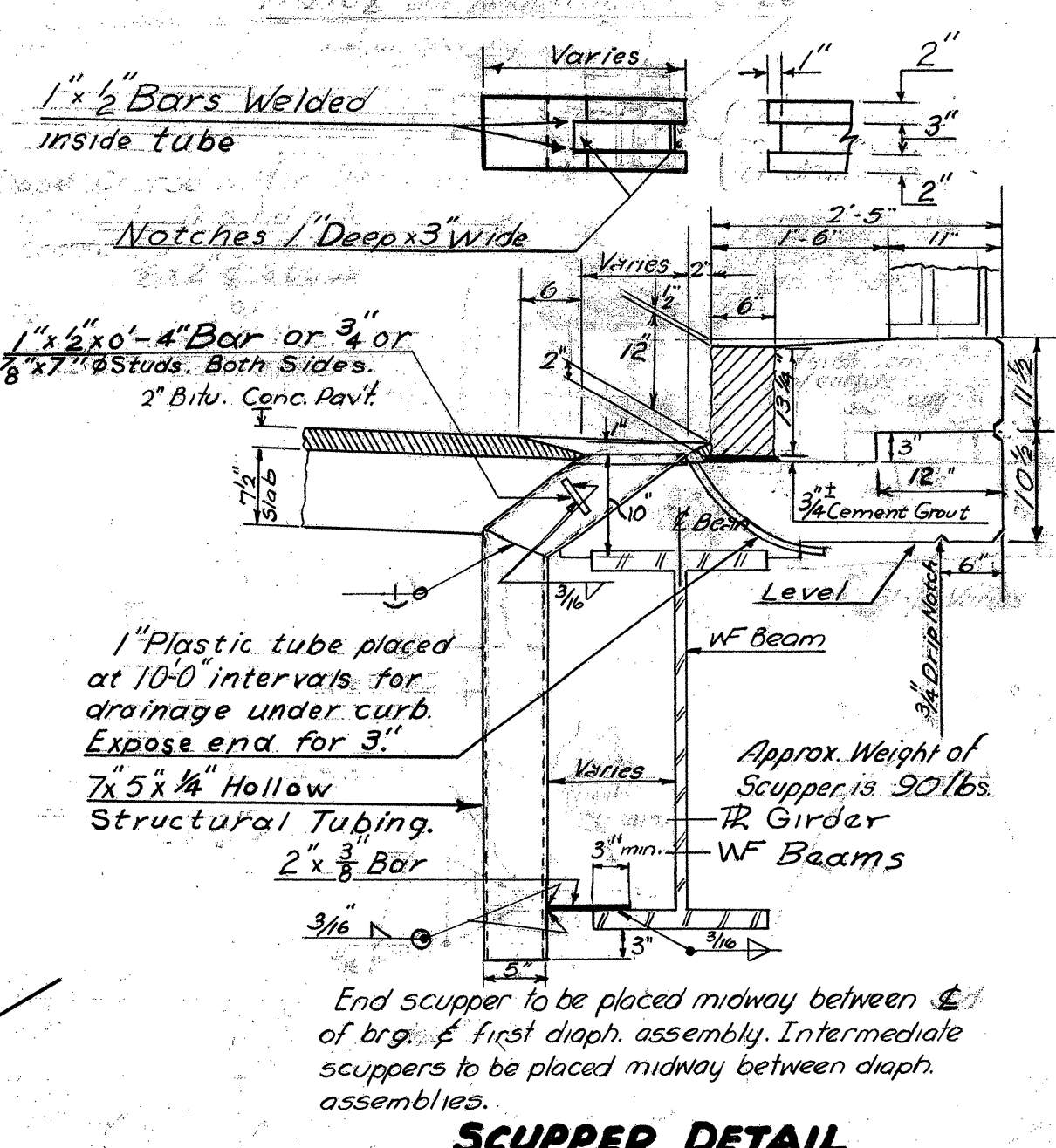
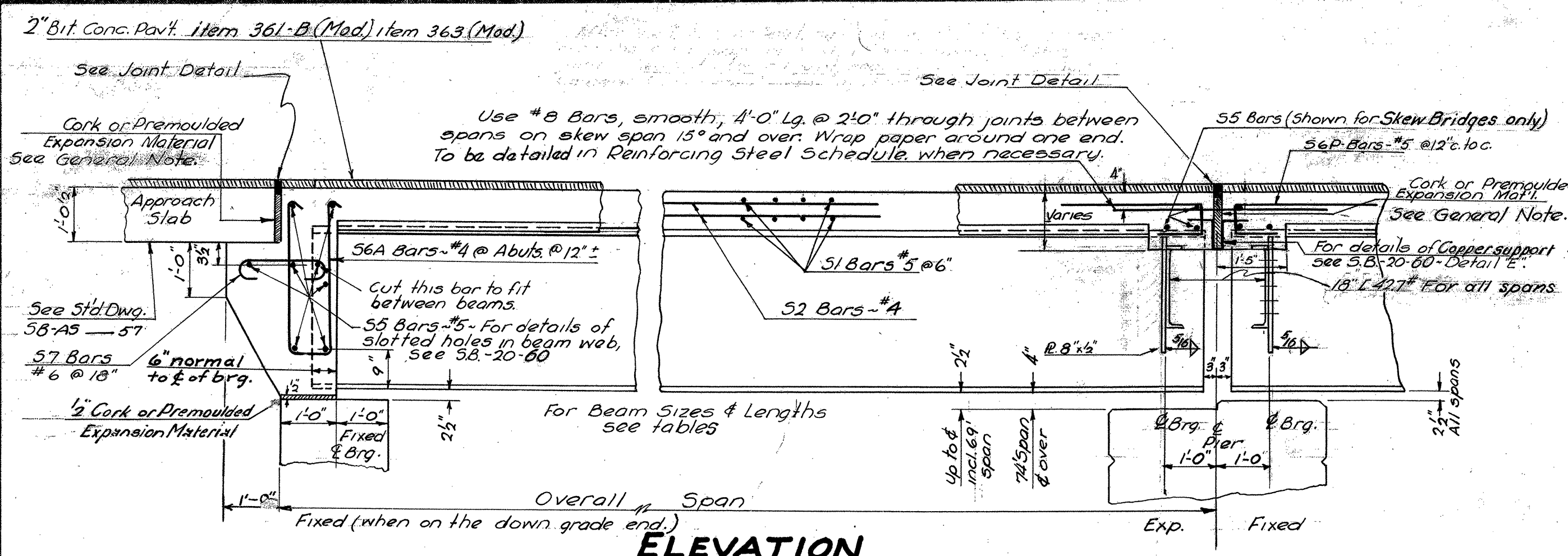
SECTION B-B

SECTION C-C

BILL OF MATERIAL					
NO.	PIECES	MARK	DESCRIPTION	LENGTH FT. IN.	WEIGHT
BEAMS					
14	B15 thru B28	36WF170	73' 6" @ 73'-8"		
14	p02	R 9x1 1/2	1' 1" 1-EN. BM. RES. @ 20-0		
14	p02	R 7x1	1' 1" 1-EN. BM. RES. @ 20-0		
14	p02	R 17x1	51' 9" RES. @ 20-0		
36	p02	BAR 5x3	2' 6" RES. @ 20-0		
6	p02	do.	2' 6" 3-EN. B15, B22		
3	p02	do.	2' 6" 3-EN. B16		
6	p02	do.	2' 6" 3-EN. B17, B25		
6	p02	do.	2' 6" 3-EN. B18, B24		
9	p02	do.	2' 6" 3-EN. B19, B26, B27		
3	p02	do.	2' 6" 3-EN. B20		
3	p02	do.	2' 6" 3-EN. B23		
3	p02	do.	2' 6" 3-EN. B24		
24	p02	BENT R BX 2	2' 0" 1-EN. B15, B21, B22, B28		
24	p02	do.	2' 0" 2-EN. B16, B23, B25, B26, B27		
			1/2" FILLET WELD 37	4	
			5/8" FILLET WELD 1875	0	
			3/8" FILLET WELD 169	0	
			2' OF 1/2" PAINT		
CONT. 61-382-1					
7099			348 YELDING STUDS	0	62

SOUTH BURLINGTON IM DECK(36)
FOR REFERENCE ONLY - BRIDGE 68
SHEET 69 OF 75
APPROVED BY ARCHITECT 7-29-61

VERMONT STRUCTURAL STEEL CORPORATION BURLINGTON, VT.			
DATE	PROJECT INTERSTATE BRIDGE I 89-3 (2)	PRINT RECORD	
DRAWN BY HP 6-22-61	LOCATION WILLISTON RD. INTERCHANGE	NO.	FOR DATE
CHKD BY HT 6-23-61	CUSTOMER E.T. O'NEILL & SON CONST. CORP.	3	APP 6-26
15 P.F. HOLES IN F.S. NOTED	ARCHITECT STATE OF VT. DEPT. OF HIGHWAYS	3	APP 7-13
RIVETS	JOB NO. 61-382 STA. SHEET NO. 2	30	APP 7-14
PAINT R.L. (VT. SPEC)	61-382-1 WELDING STUDS		



GENERAL NOTES

The final coat of field paint shall be green, unless otherwise directed by the Engineer. Quantities given in accompanying standards are for a single span, square bridge. These are net quantities.

For skewed bridges: transverse bars shall be furnished as for square spans; bars shall be cut in the field to fit skewed end and cut-off bars used at opposite end of span; the 55 bars shall be lengthened and the number of 56A and 57 bars increased; the 56P bars are to be used at piers only; increase the beam lengths as indicated on this sheet and S.B.-22-60; for variation in treatment of cut-off for interior and exterior beams see details on this sheet and Standard S.B.-22-60.

All materials and construction shall conform to the State of Vermont, Department of Highways, Standard Specifications for Highway & Bridge Construction, dated January 1956, and the A.A.S.H.O. specifications date 1961. Design is for 140-516-14 loading modified for National System of Interstate Highways, applied in accordance with the provisions of the A.A.S.H.O. Standard Specifications Article 1.2.8.

For location of fixed and expansion bearings, see the Contract Plans. In general the fixed end bearing device is on the down grade end of the span. For details of bearing devices, see standard S.B.-20-60, detail C.

Intermediate diaphragms shall be 15" L x 33" W for 30' beams and 18" L x 42" W for 33' and 36' beams. On skewed spans, the diaphragms shall be spaced at equal intervals between adjacent beams. For details of diaphragms see standard S.B.-20-60, detail F or G.

The welding of cover plates shall be done in such a manner that no internal stresses are introduced into the beam flanges. When a cover plate is wider than a beam flange, the weld is to be omitted one inch (1") either side of the intersection of the cover plate and the edge of the beam flange. All welds on cover plates shall be continuous fillets of size noted.

Scuppers are to be omitted over roadways and sidewalks under a bridge; place the scuppers a minimum of 2'-0" outside of shoulder or back of sidewalk, but not within 4'-0" of face of Abutment or Pier. On Super-elevated bridges, scuppers are placed on the low side only. Payment for scuppers shall be under item #404 - Steel.

All exposed edges of concrete shall be chamfered 1" x 1" unless otherwise indicated on the plans.

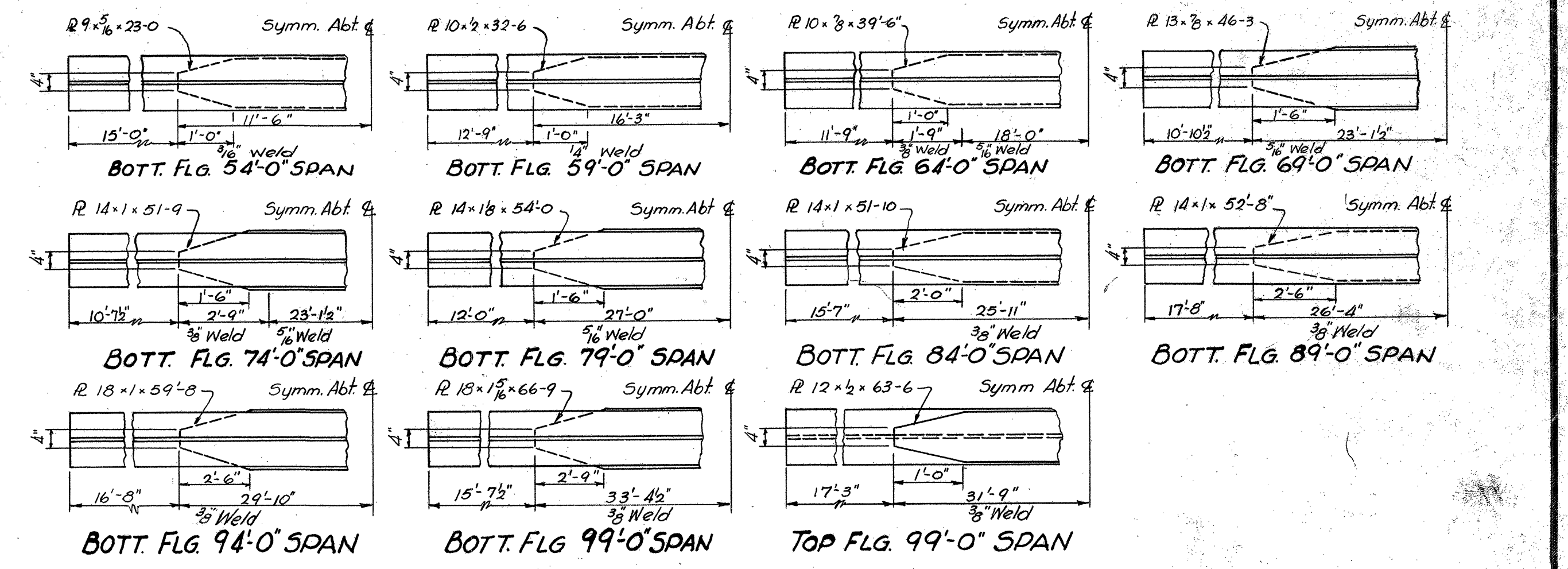
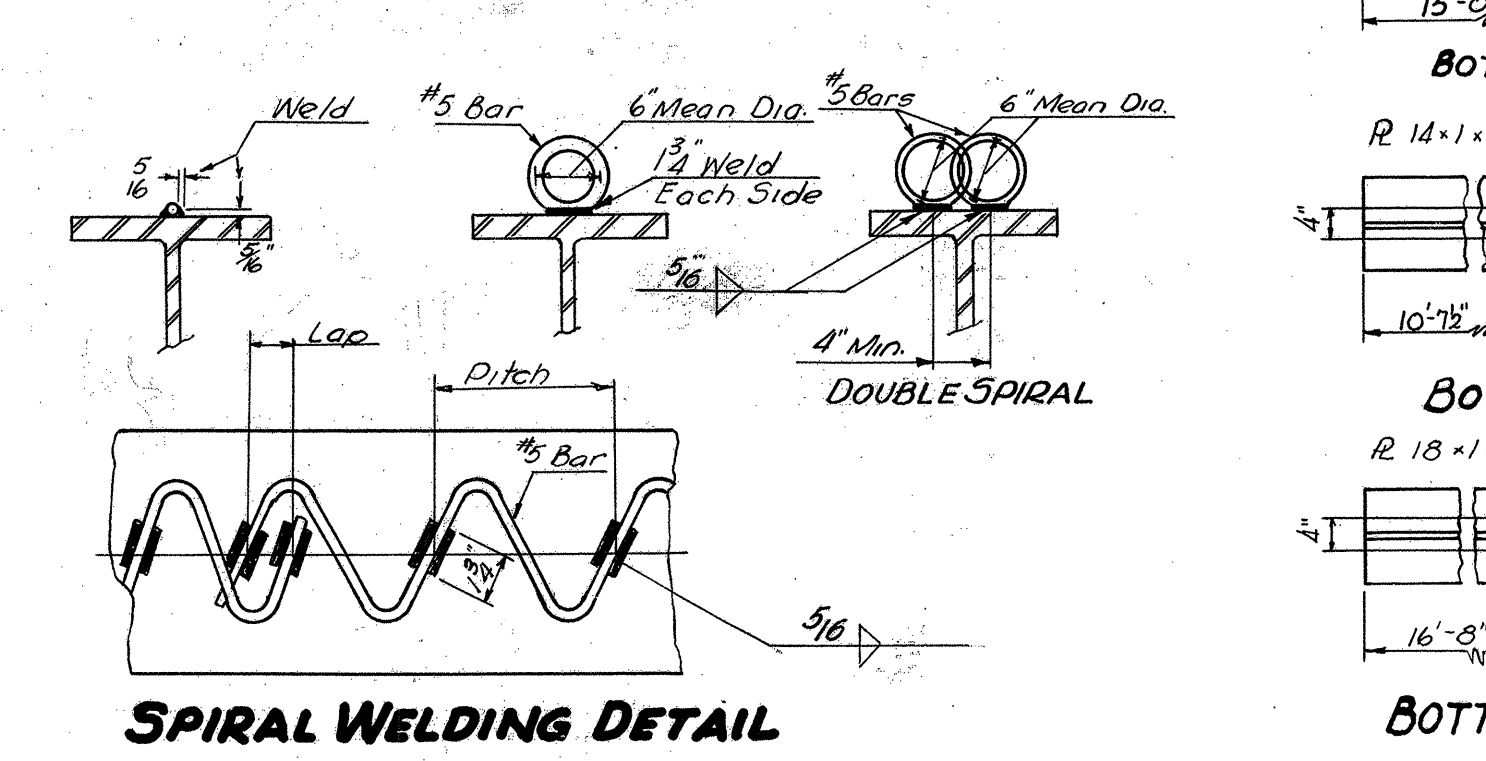
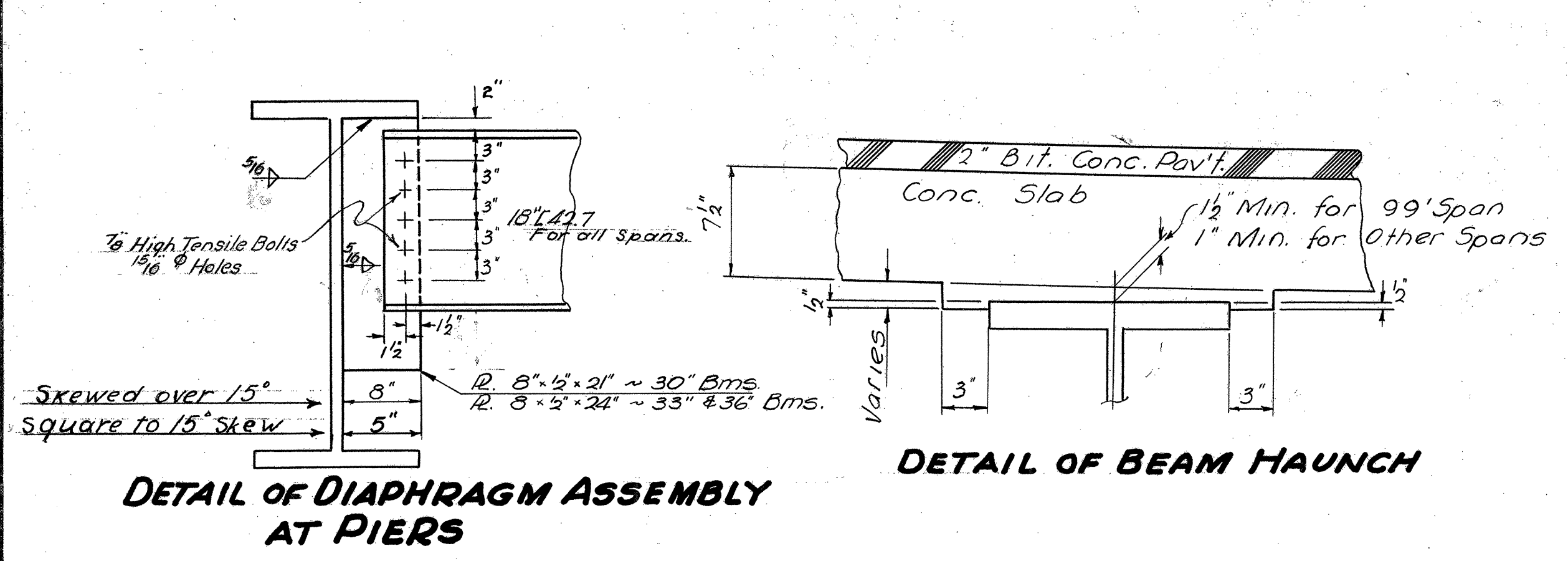
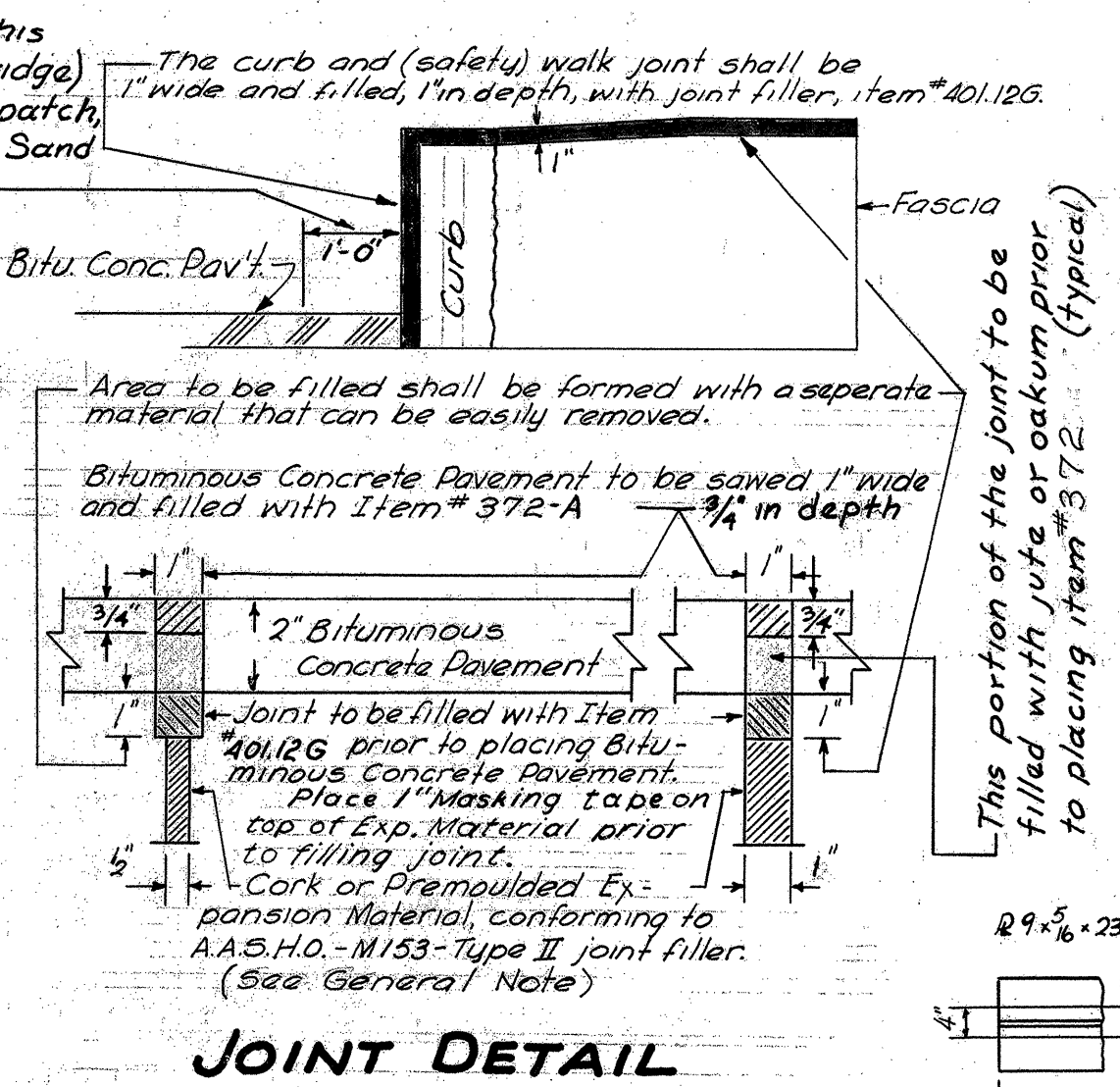
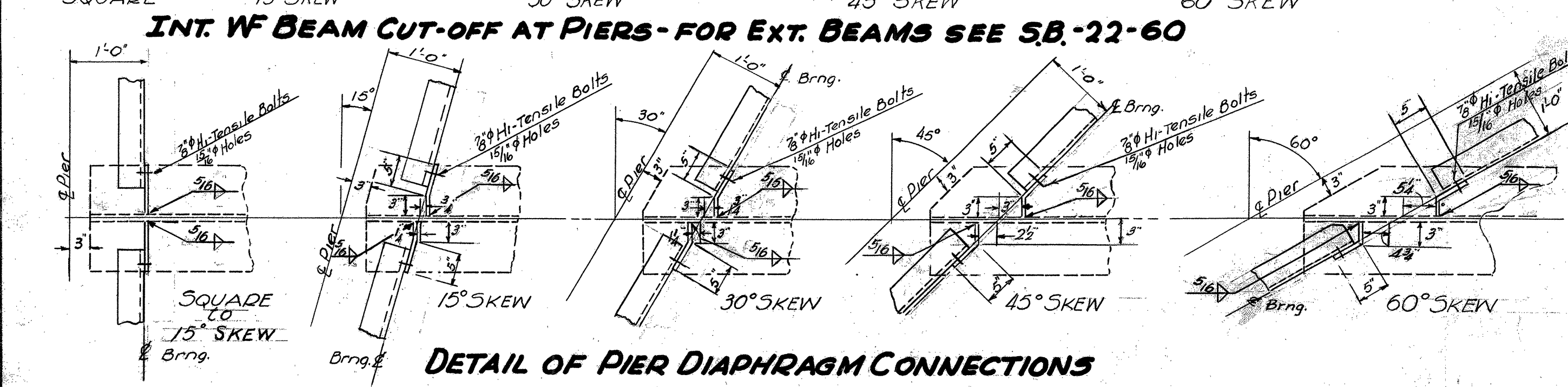
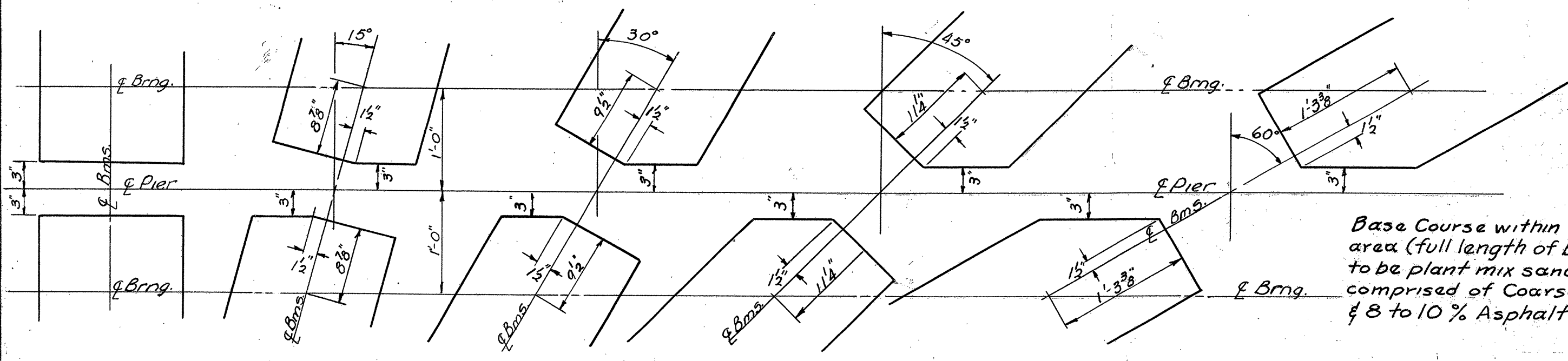
All construction joints to be made as indicated on standard S.B.-20-60, details H & K unless otherwise noted. Details of shear connectors shall be submitted to the State for approval. Either channel or stud connectors may be substituted for the designed spiral steel. The studs shall be substituted on the basis of two (2) 3/4" studs for each pitch of a 3/8" spiral, or on the basis of two (2) 3/8" studs to 1 1/2" times the pitch of a 3/8" spiral.

Abutments (fixed end) use 2" expansion material. Abutments (expansion end) 4" piers; for temperatures less than 60°F, use 1" thick expansion material, & for temperatures over 60°F, use 1/2" thick expansion material. Expansion material to be as noted on this sheet or as indicated on SB-20-60.

After the superstructure steel has been erected, beam profiles shall be taken under the direction of the engineer to determine the final grade.

Unless otherwise called for, beams shall be cambered to the minimum camber likely to remain permanent as indicated in the AISC Handbook. The camber shall approximate a simple regular curve from end to end of beam. Tolerances in camber shall be as indicated in the AISC Handbook.

All Structural Steel shall meet ASTM Designation: A 36-60 T unless specified otherwise.



Revisions & Corrections
Corrected for latest details April 1962

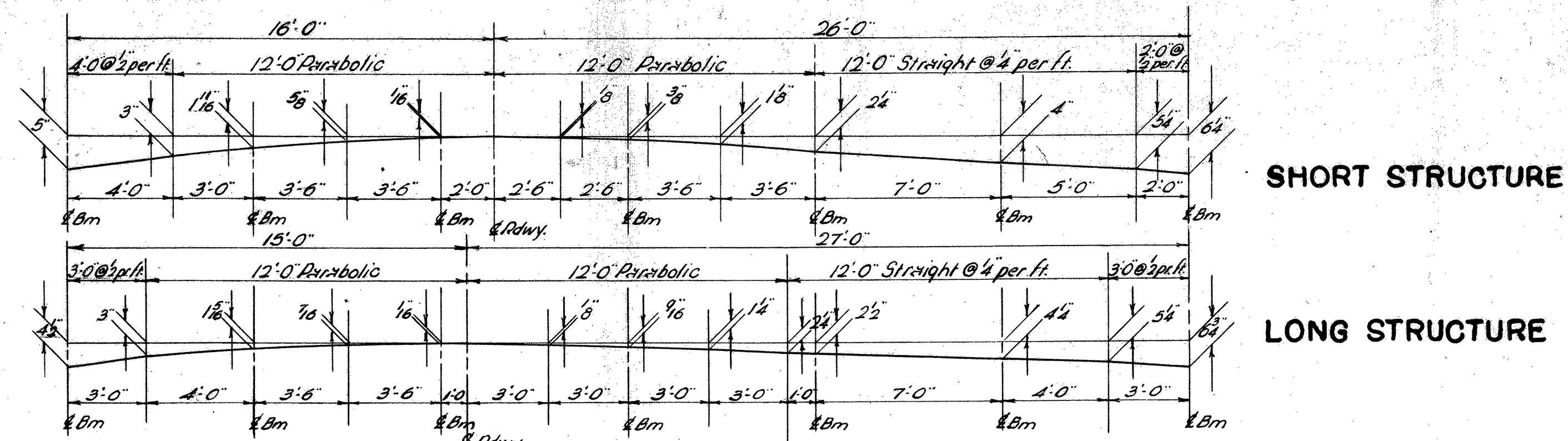
Drawn By: H.W.S. June 1960
Traced By: H.W.S. June 1960
Checked By: R.T.B. & R.S.H. June 1960
Correct: 13 July 1960
Smborn
Bridge Engineer
Approved: 13 July 1960
A. O. Sulph
Chief Engineer

DETAILS OF WF BEAM BRIDGES
34' TO 44' NON COMPOSITE ~ 49' TO 99' COMPOSITE

DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURES
SCB-D-60

SOUTH BURLINGTON IM DECK(36)
FOR REFERENCE ONLY - BRIDGE 68
SHEET 71 OF 75

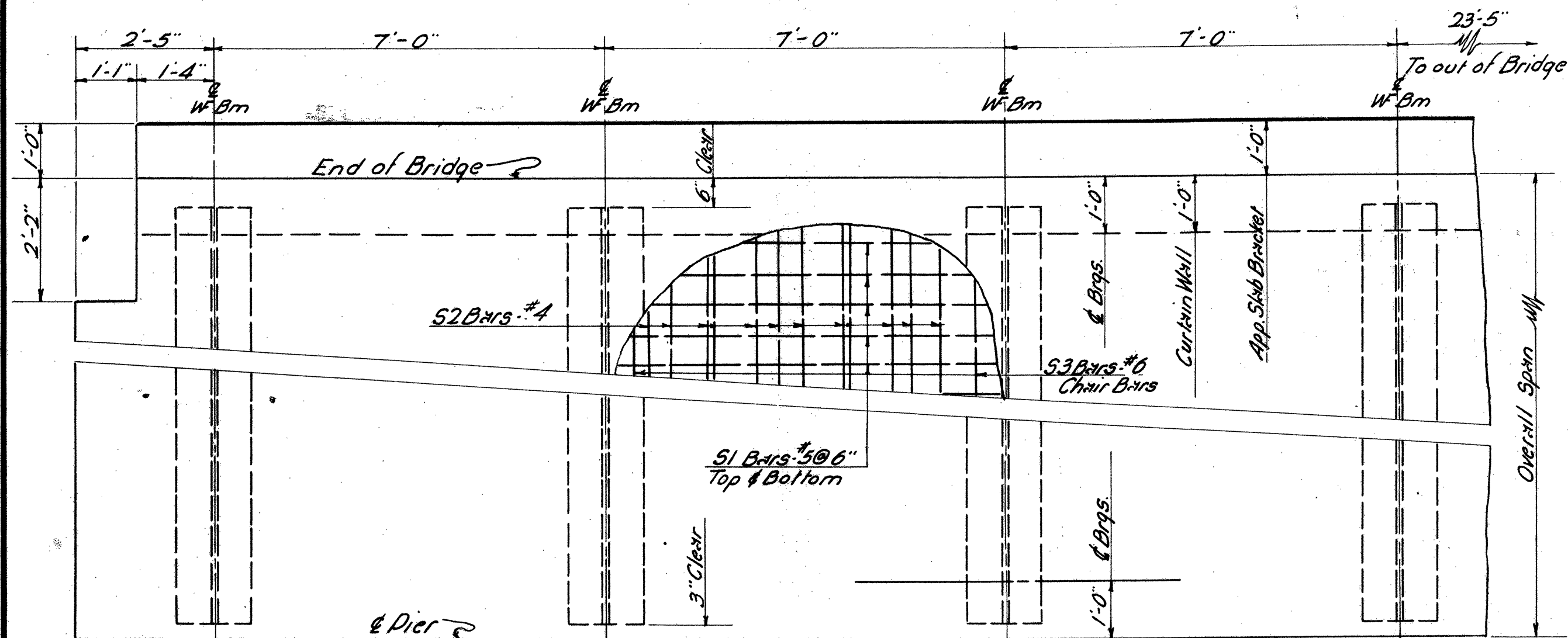
OK PSH July 1962 240



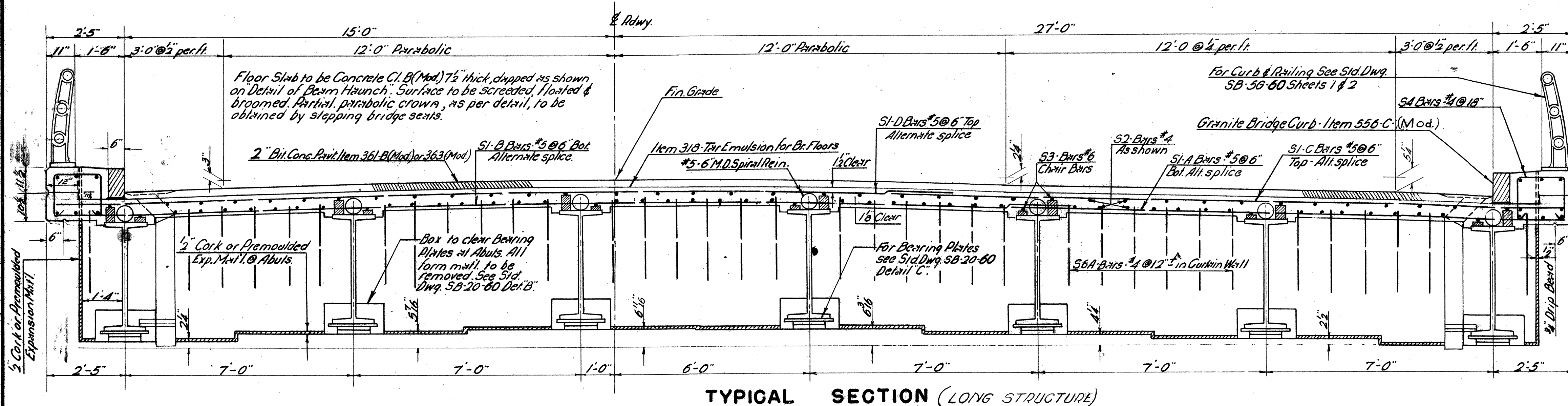
DETAIL OF PARTIAL PARABOLIC CROWN OF SLAB

SHORT STRUCTURE

LONG STRUCTURE



PARTIAL PLAN



TYPICAL SECTION (LONG STRUCTURE)

TABLE OF QUANTITIES FOR SINGLE (SQUARE) SPAN

Span - Out to Out	99'-0"	94'-0"	89'-0"	84'-0"	79'-0"	74'-0"	69'-0"	64'-0"	59'-0"	54'-0"	49'-0"	44'-0"	39'-0"	34'-0"	
Span - ℓ to ℓ Bearings	97'-0"	92'-0"	87'-0"	82'-0"	77'-0"	72'-0"	67'-0"	62'-0"	57'-0"	52'-0"	47'-0"	42'-0"	37'-0"	32'-0"	
Length of Beams	98'-0"	93'-0"	88'-0"	83'-0"	78'-0"	73'-0"	68'-0"	63'-0"	58'-0"	53'-0"	48'-0"	43'-0"	38'-0"	33'-0"	
Size W Beams	36W300	36W300	36W300	36W245	36W194	36W170	36W160	36W150	36W150	36W150	36W150	36W150	36W150	33W130	30W116
Lqth. & Size Bot. Cover R	6'-0" x 18"	5'-0" x 18"	4'-0" x 18"	3'-0" x 18"	2'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"
Lqth. & Size Top Cover R	6'-0" x 18"	5'-0" x 18"	4'-0" x 18"	3'-0" x 18"	2'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"	1'-0" x 18"
Dead Load Deflection	3"	2 1/2"	2 1/8"	2 1/4"	1 7/8"	1 1/2"	1 1/4"	1"	7/8"	5/8"	1/2"	3/8"	1/4"	1/4"	
Diameter of Spiral Bars	3"	2 1/2"	2 1/8"	2 1/4"	1 7/8"	1 1/2"	1 1/4"	1"	7/8"	5/8"	1/2"	3/8"	1/4"	1/4"	
Mean Diameter of Spiral	3"	2 1/2"	2 1/8"	2 1/4"	1 7/8"	1 1/2"	1 1/4"	1"	7/8"	5/8"	1/2"	3/8"	1/4"	1/4"	
Spiral Pitch 0'-10" From Brng.	Double @ 5"	Double @ 5"	Double @ 6"	Double @ 5 1/2"	Double @ 5"	Double @ 5"	Double @ 5"	Double @ 5"	Double @ 5 1/2"	Double @ 5 1/2"	Double @ 5 1/2"	Double @ 5 1/2"	Double @ 5 1/2"	Double @ 5 1/2"	Non Composite
" " 10'-20" or ℓ Span	Double @ 6 1/2"	Double @ 6 1/2"	Double @ 7"	Double @ 6 1/2"	Double @ 6"	Double @ 6 1/2"	Double @ 6 1/2"	Double @ 6 1/2"	Double @ 7"	Double @ 7 1/2"	Double @ 7 1/2"	Double @ 7 1/2"	Double @ 7 1/2"	Double @ 7 1/2"	Non Composite
" " 20'-30" " " "	5 1/2"	5 1/2"	5 1/2"	5 1/2"	5"	5 1/2"	5 1/2"	5 1/2"	5"	5 1/2"	5 1/2"	5 1/2"	5 1/2"	5 1/2"	Non Composite
" " 30'-40" " " "	5 1/2"	5 1/2"	5 1/2"	5 1/2"	5"	5 1/2"	5 1/2"	5 1/2"	5"	5 1/2"	5 1/2"	5 1/2"	5 1/2"	5 1/2"	Non Composite
" " 40'- ℓ Span	7"	7"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	Non Composite
Lqth. of 3/4" Studs (Alt. to Spirals)	6 1/2" Long unless otherwise specified on the Plans.	2 Studs required per Pitch	2 Studs required per Pitch	2 Studs required per Pitch	2 Studs required per Pitch	2 Studs required per Pitch	2 Studs required per Pitch	2 Studs required per Pitch	2 Studs required per Pitch	2 Studs required per Pitch	2 Studs required per Pitch	2 Studs required per Pitch	2 Studs required per Pitch	2 Studs required per Pitch	2 Studs required per Pitch
Total Struct. Steel (lbs)	269,740	237,590	218,700	172,520	138,420	115,910	97,140	82,550	72,740	65,010	58,080	52,730	39,290	30,930	
Reinforcing Bars - SI-A	198	188	178	168	158	148	138	128	118	108	98	88	78	68	
" " SI-B	198	188	178	168	158	148	138	128	118	108	98	88	78	68	
" " SI-C	198	188	178	168	158	148	138	128	118	108	98	88	78	68	
" " SI-D	198	188	178	168	158	148	138	128	118	108	98	88	78	68	
" " S2	264	264	264	264	264	264	264	176	176	176	176	176	176	176	
" " S3	42	42	42	42	42	42	42	28	28	28	28	28	28	14	
" " S4	128	122	114	108	102	94	88	82	74	68	62	54	48	42	
" " S5	32	32	32	32	32	32	32	32	32	32	32	32	32	32	
" " S6A	76	76	76	76	76	76	76	76	76	76	76	76	76	76	
" " S7	62	62	62	62	62	62	62	62	62	62	62	62	62	62	
Total Weight Reinf. Bars (lbs)	30,140	28,710	27,290	25,840	24,400	22,280	21,530	19,900	18,460	17,030	15,600	14,160	12,710	11,080	
Approx. Weight Spiral Reinf. (lbs)	3,570	3,530	3,180	3,310	3,250	3,070	2,920	2,740	2,600	2,360	2,170	Non Composite	Non Composite	Non Composite	
Total Concrete Class B (Cu. yds)	151	144	137	131	124	117	110	103	95	89	82	75	67	59	
Total Weight Bitum. Conc. Pavt. (Tons)	59	56	53	50	47	44	41	38	35	32	29	26	23	20	
Tar Emulsion for Bridge Floors (Gals)	185	176	166	157	148	138	129	120	110	101	92	82	73	64	
Approx. Quantity 3/4" x 6 1/2" Studs	4,150	4,050	3,650	3,800	3,750	3,500	3,300	3,100	3,000	2,700	2,500	Non Composite	Non Composite	Non Composite	

REINFORCING STEEL SCHEDULE

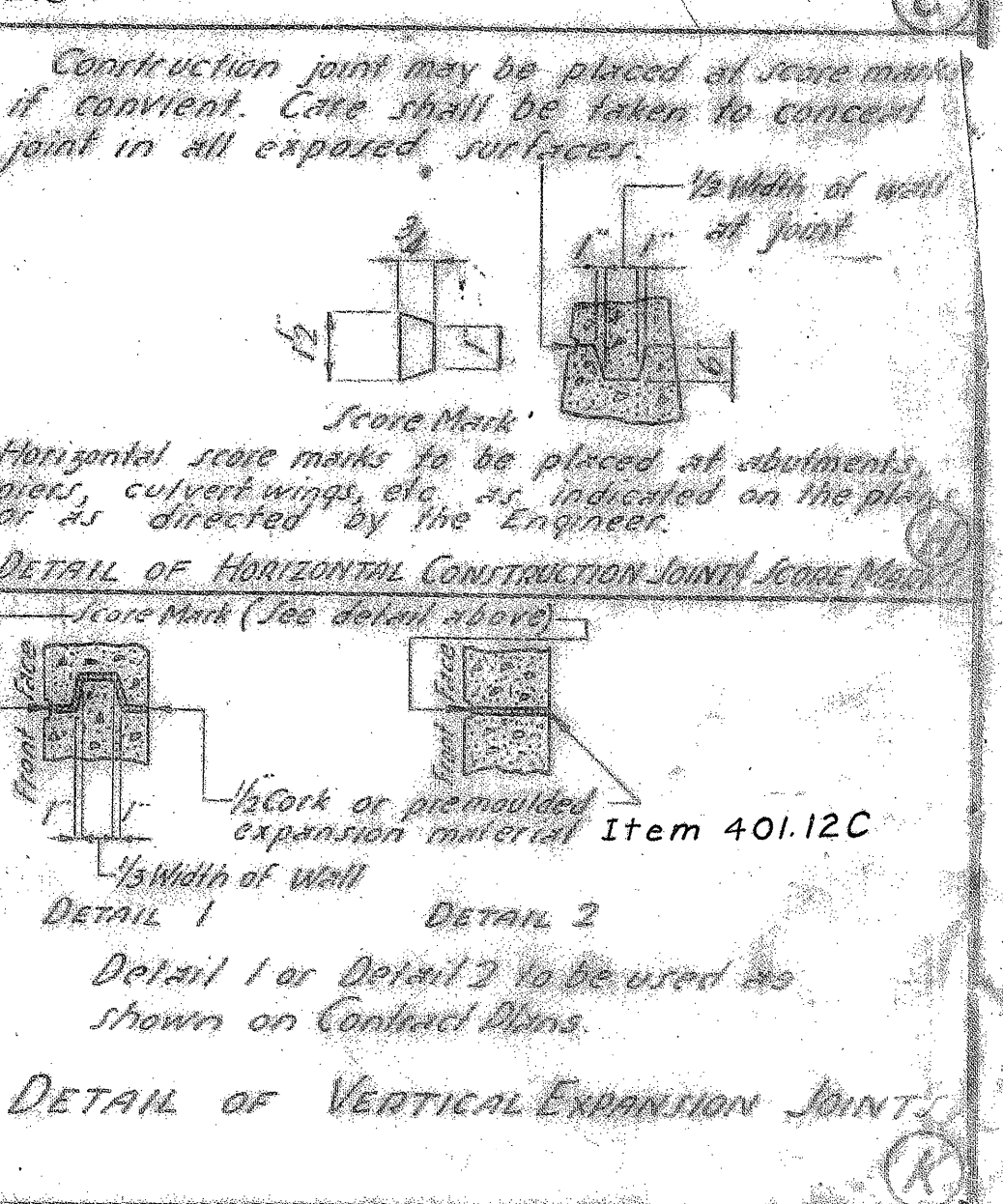
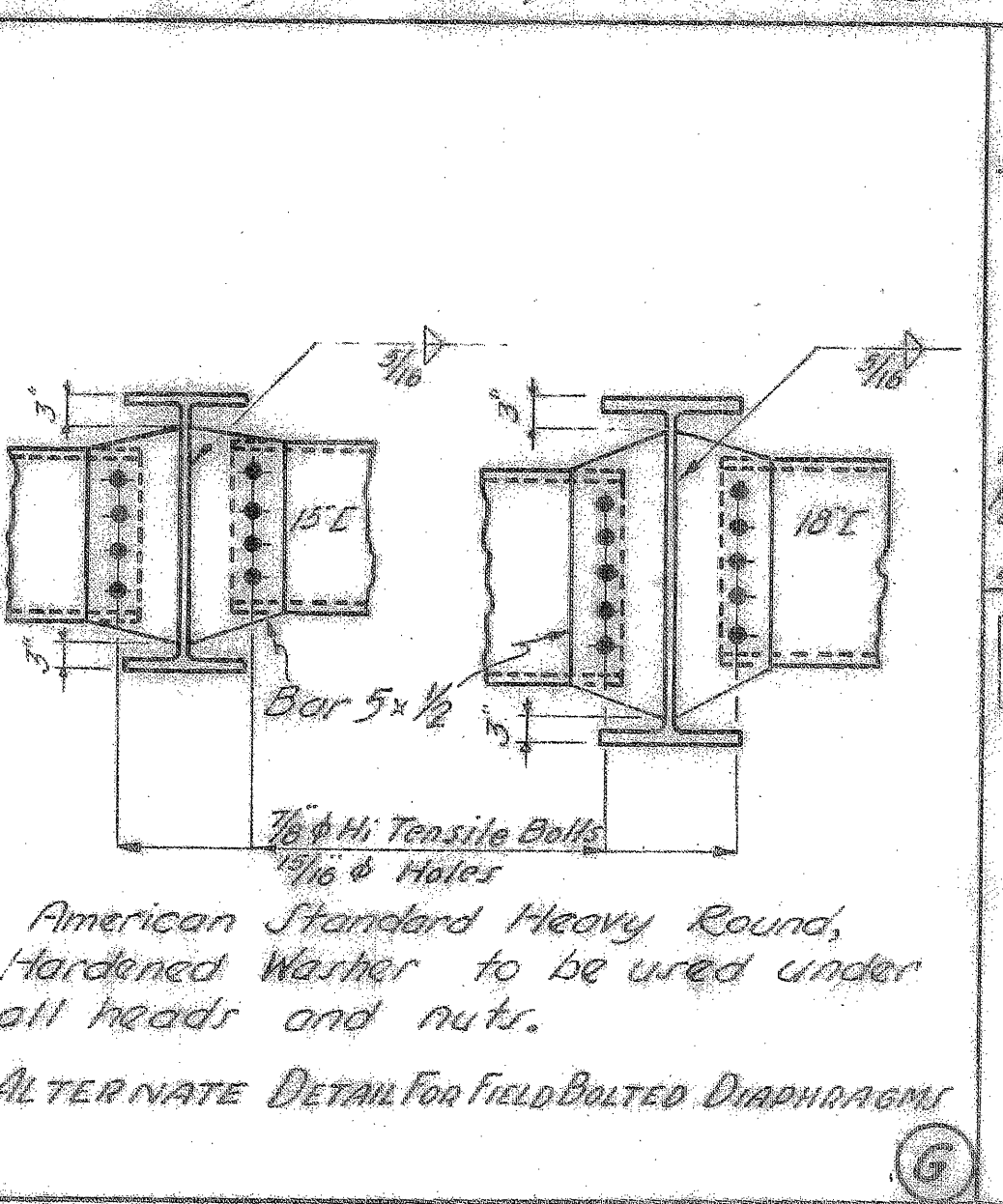
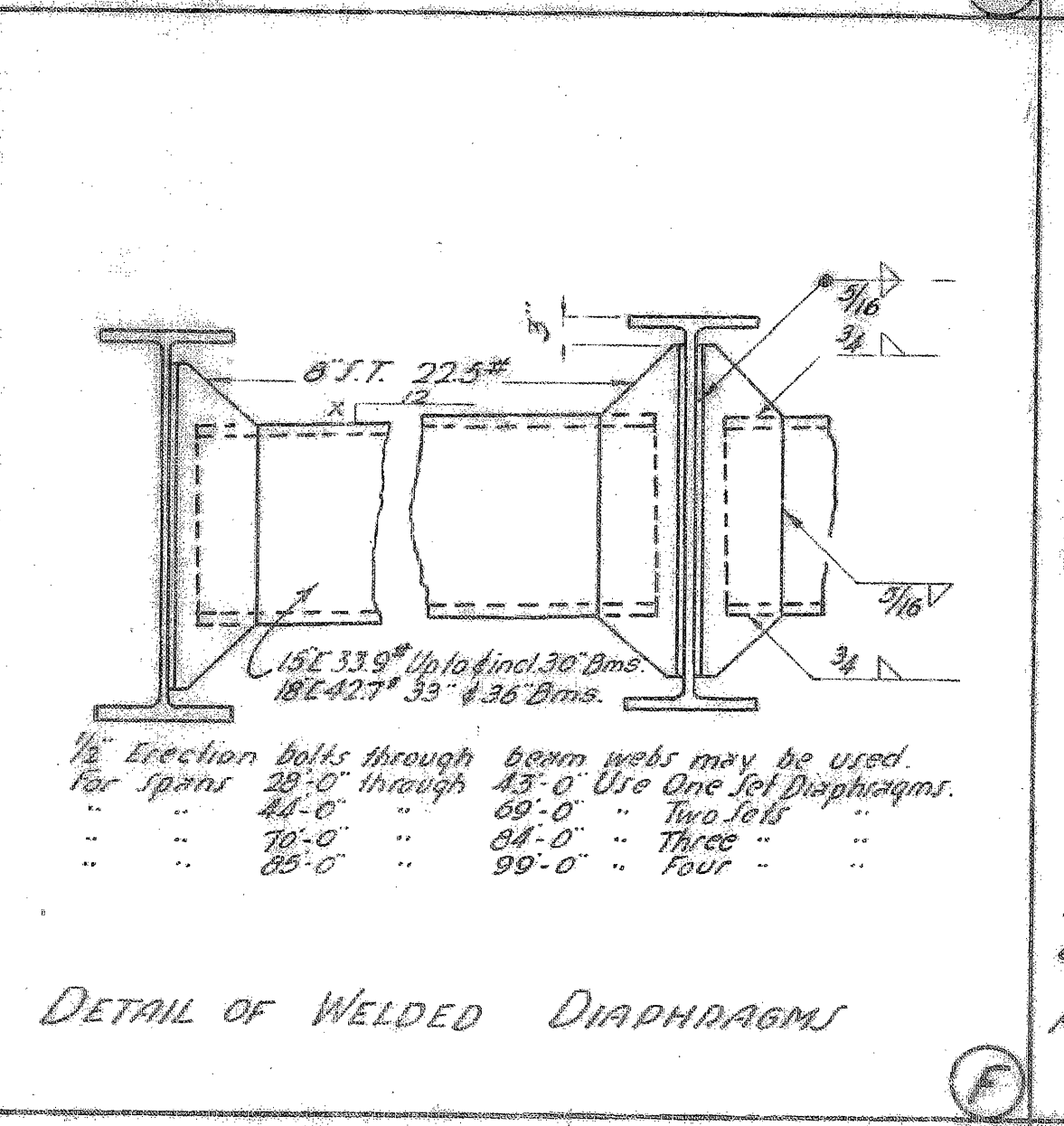
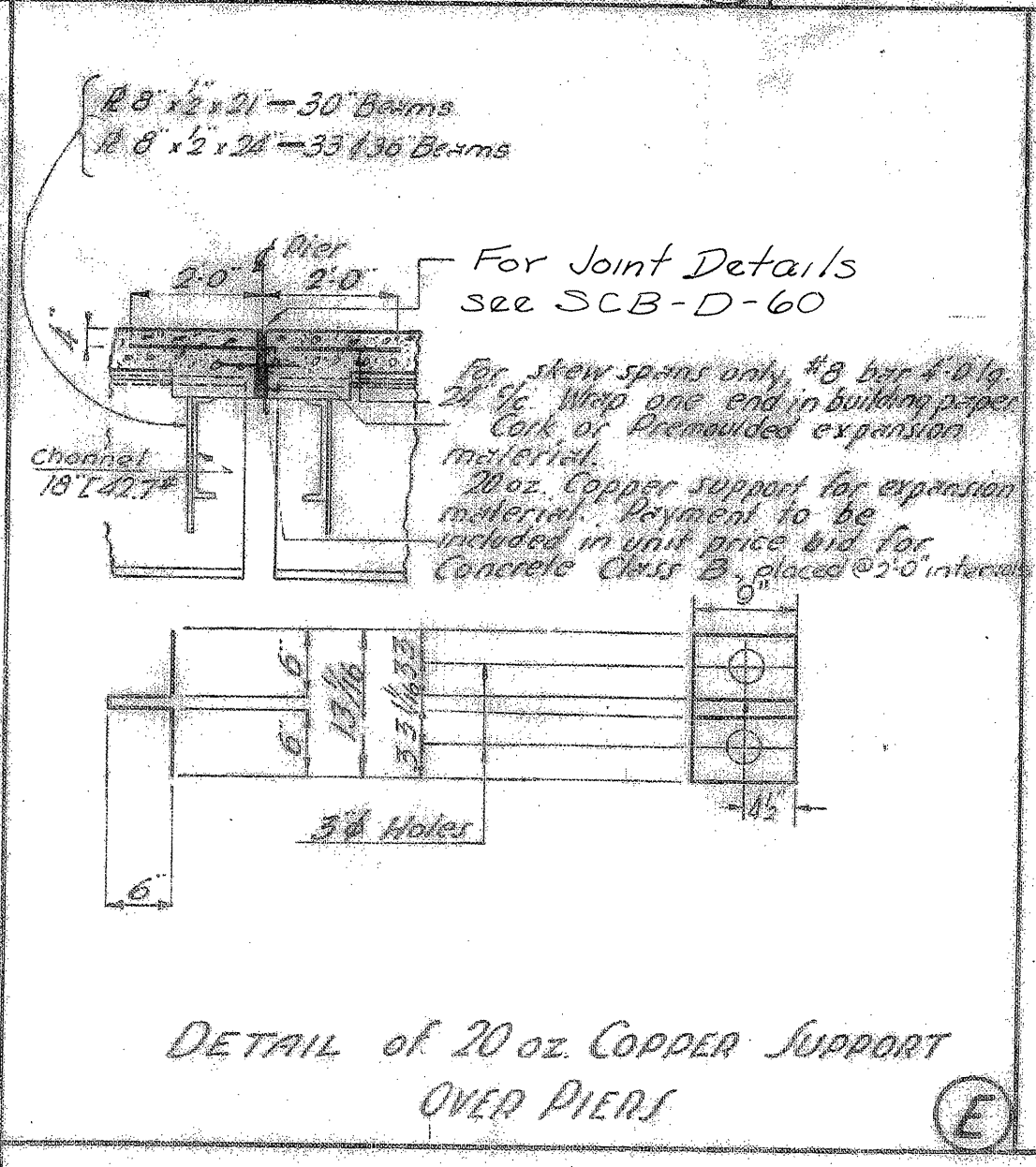
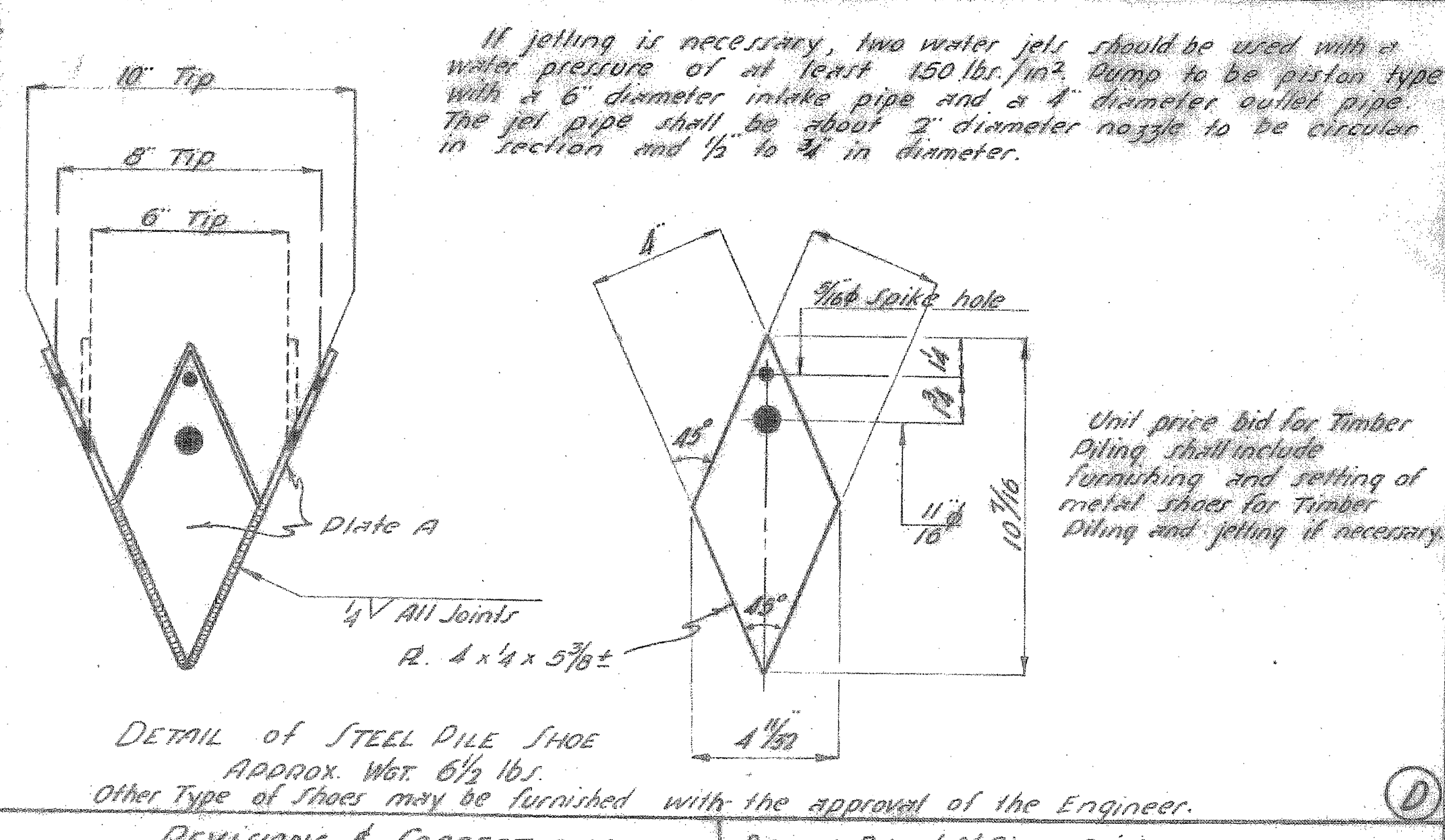
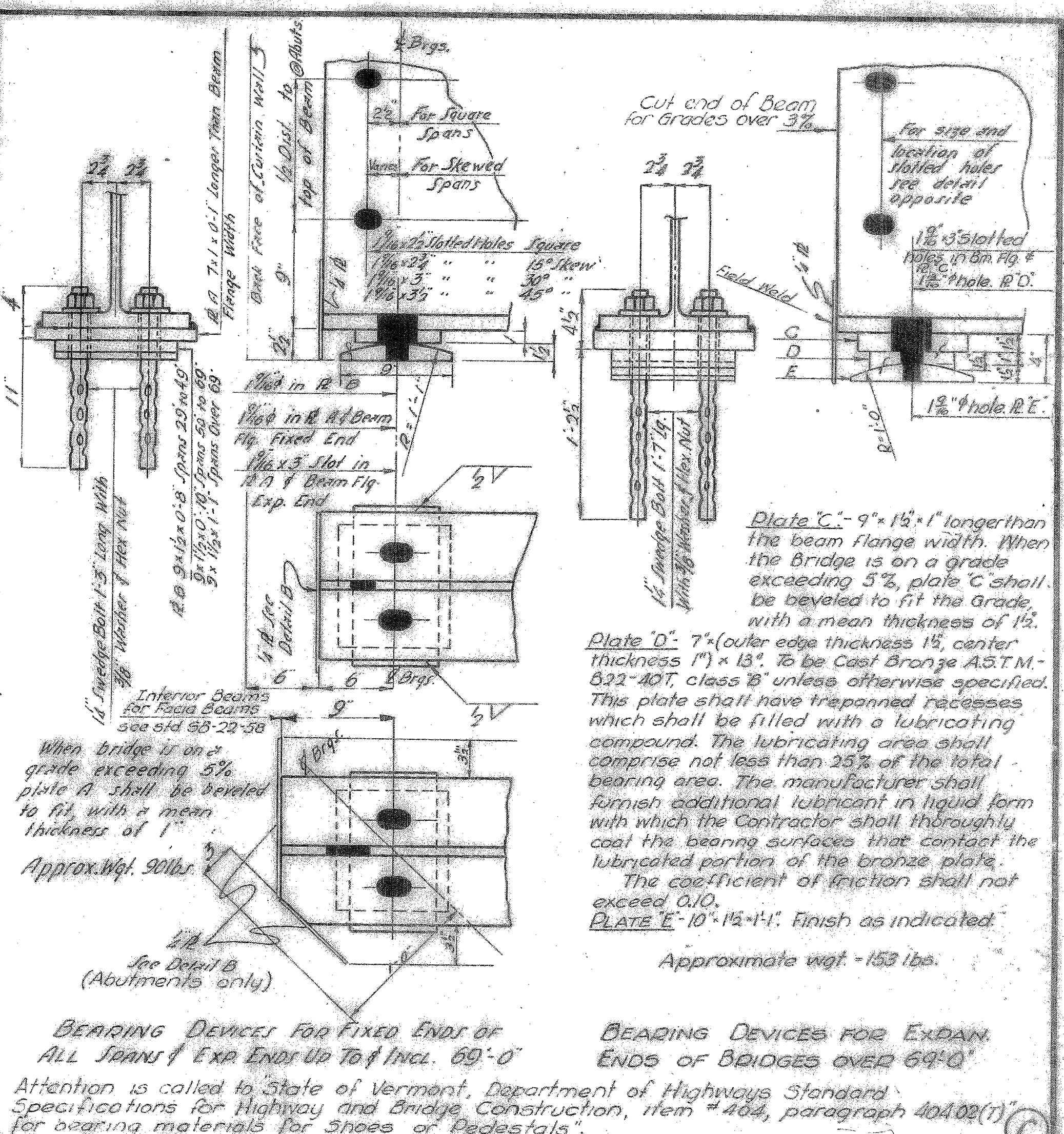
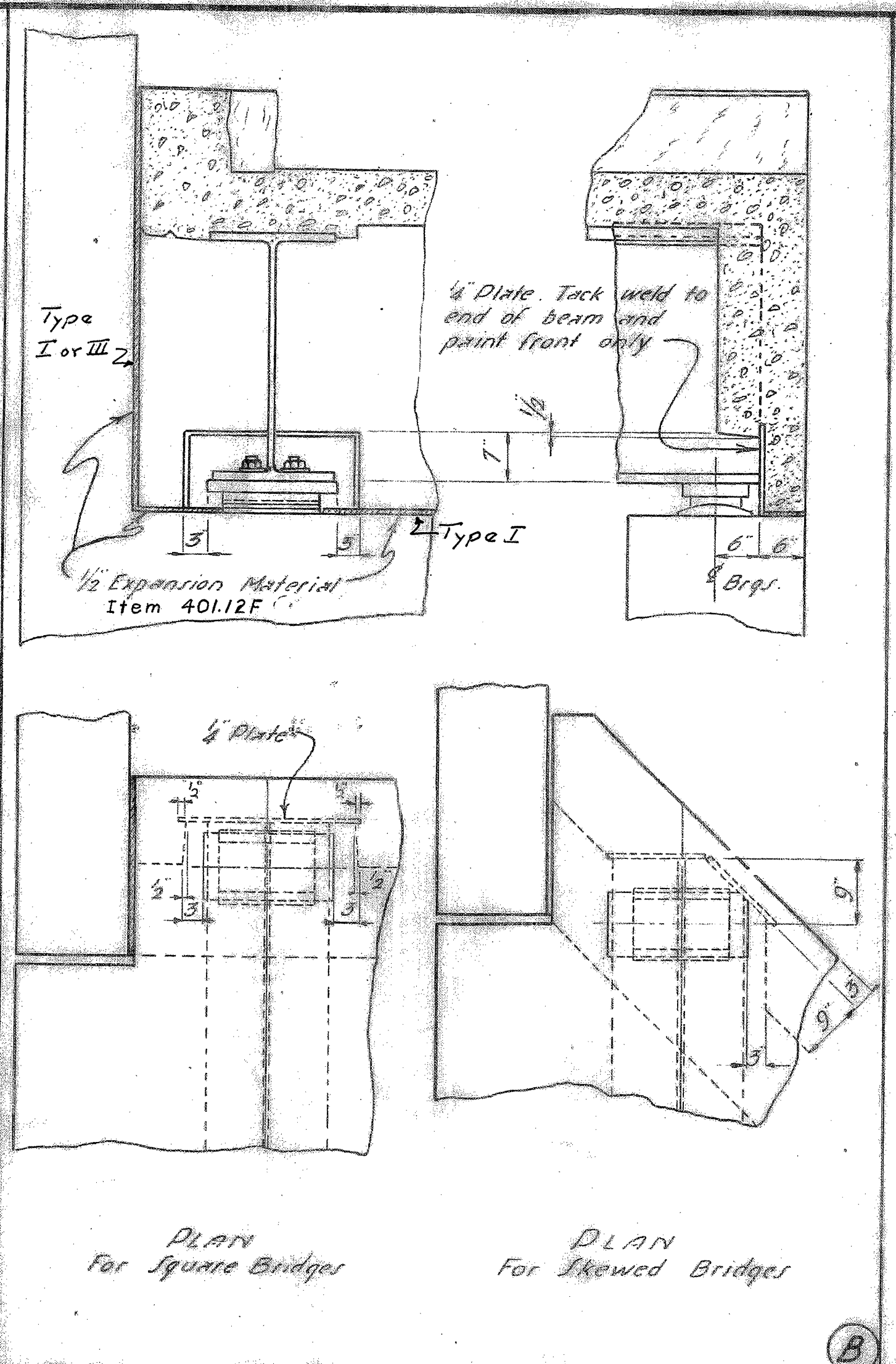
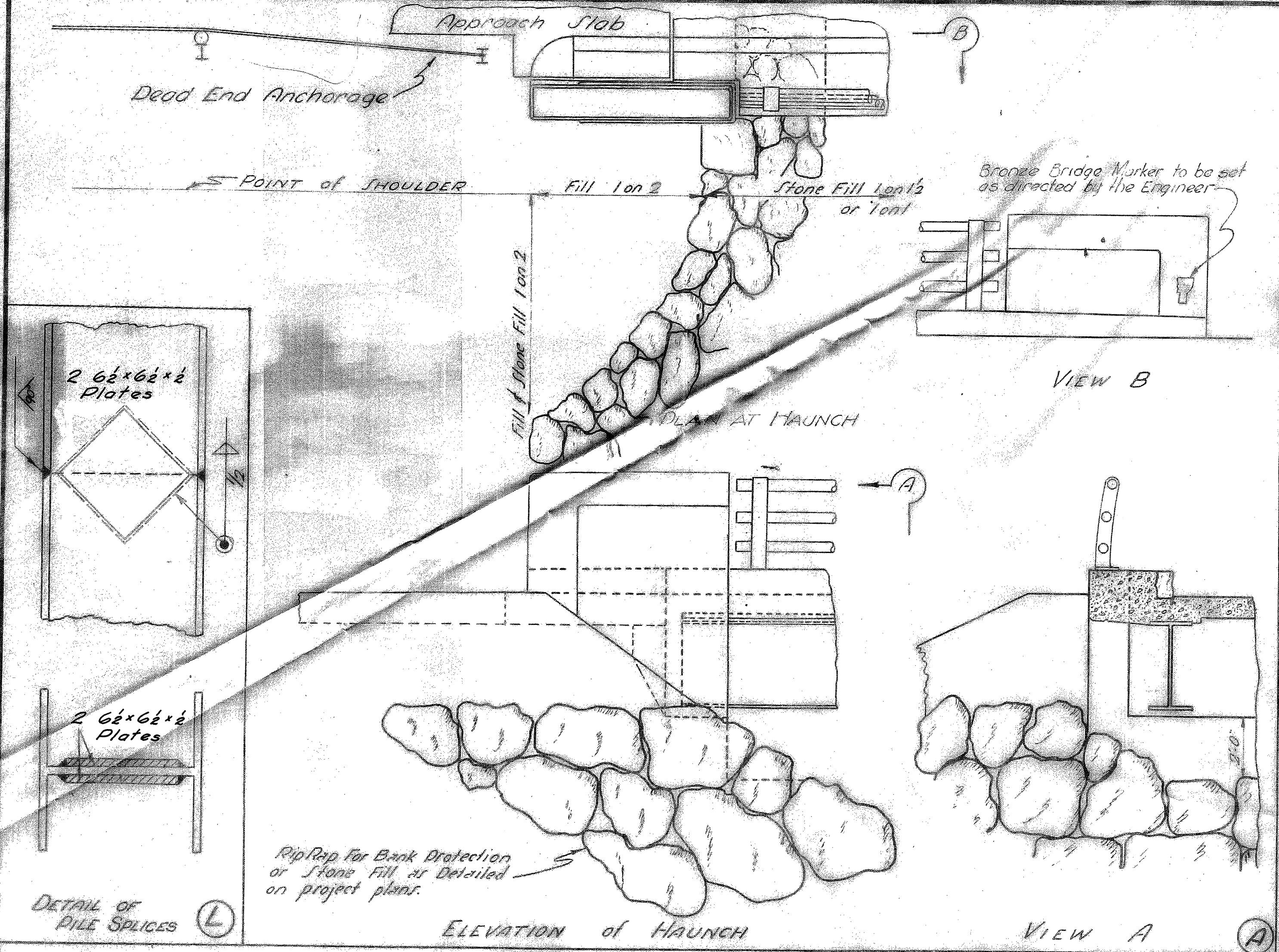
SI-A #5	17'-3" Straight	SI-B #5	31'-3" Straight		
SI-C #5	20'-9" Straight	SI-D #5	27'-9" Straight		
S5 #5	23'-3" Straight				
Span	S2 #4 Straight Length	S3 #6 Straight Length	S6A-#4 B & D Total Length	SA-#4 T.L. = 5'-3" B = 1'-6" D = 1'-6" C = 1'-5"	S6A-#4 T.L. Varies A=5 G=5" A G H=3" B D C=8"
34	33'-6"	33'-6"	2'-6" 6'-6"		
39	20'-3"	20'-6"	2'-9" 7'-0"		
44	22'-9"	23'-0"	3'-0" 7'-6"		
49	25'-3"	25'-6"	3'-0" 7'-6"		
54	27'-9"	28'-0"	3'-0" 7'-6"		
59	30'-3"	30'-6"	3'-0" 7'-6"		
64	32'-9"	33'-0"	3'-0" 7'-6"		
69	24'-3"	24'-6"	3'-2" 7'-0"		
74	26'-0"	26'-3"	3'-2" 7'-0"		
79	27'-6"	28'-0"	3'-3" 8'-0"		
84	29'-3"	29'-6"	3'-3" 8'-0"		
89	31'-0"	31'-3"	3'-3" 8'-0"		
94	32'-6"	33'-0"	3'-4" 8'-2"		
99	34'-3"	34'-6"	3'-4" 8'-2"		

Revisions & Corrections
Revised July 1962

Drawn By: A.B.M. 6-17-60
Traced By: A.B.M. 6-17-60
Checked By: R.T.B. & R.S.H. July 1960
Correct: 13 July 1960
Approved: 13 July 1960

TYPICAL SECTION, PLAN VIEW, & QUANTITIES
42 FOOT ROADWAY W F BEAM BRIDGES
34-44 NON COMPOSITE, 49-99 COMPOSITE
FOR ADDITIONAL DETAILS SEE STANDARD SCB-D-60

DEPARTMENT OF HIGHWAY
STANDARD STRUCTURES
SCB-42-60
SOUTH BURLINGTON IM DECK (36)
FOR REFERENCE ONLY - BRIDGE 68
SHEET 72 OF 75



REVISIONS & CORRECTIONS

Slotted holes in beam web of piers deleted. Pile splice changed. Changed Expansion Material Note

8-26-60

12/2/60

DRAWN BY L.M. Dixon 3-58

TRACED BY R.E. MacDougall 3-58

CHECKED BY J.L. Hubbard 3-58

CORRECT 13 July 1960

BRIDGE ENGINEER

APPROVED 13 July 1960

CHIEF ENGINEER

CONSTRUCTION DETAILS FOR WF BEAM BRIDGES

DEPARTMENT OF HIGHWAYS STANDARD STRUCTURES

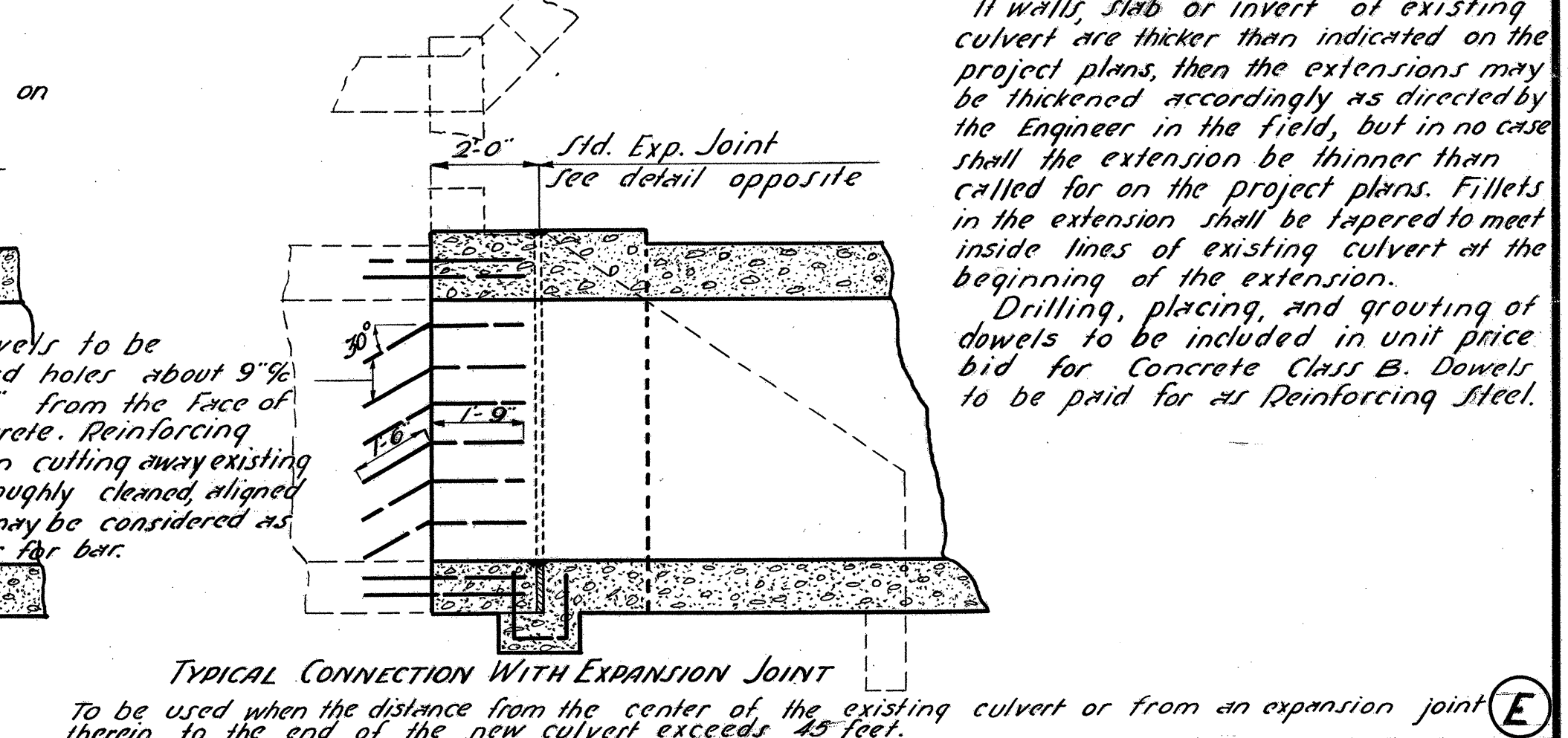
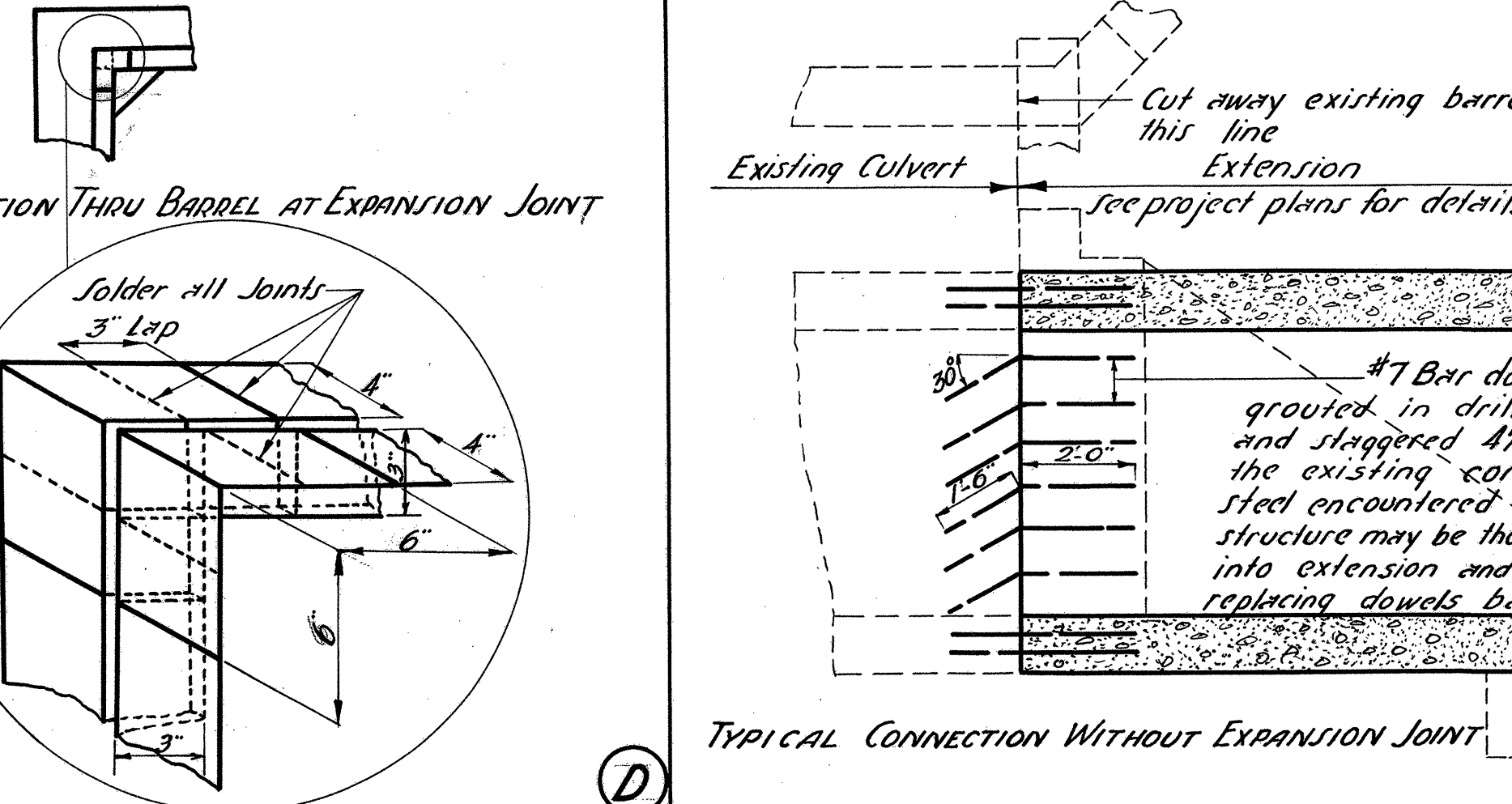
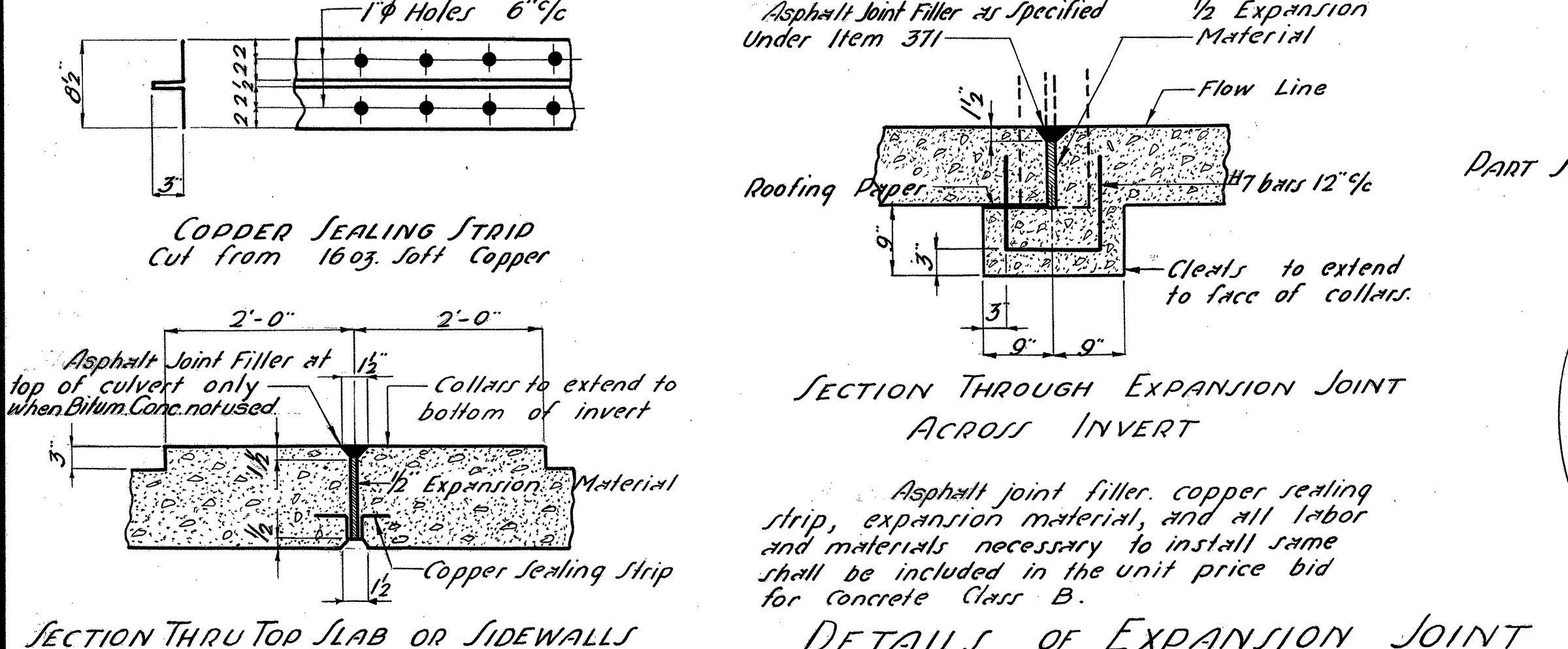
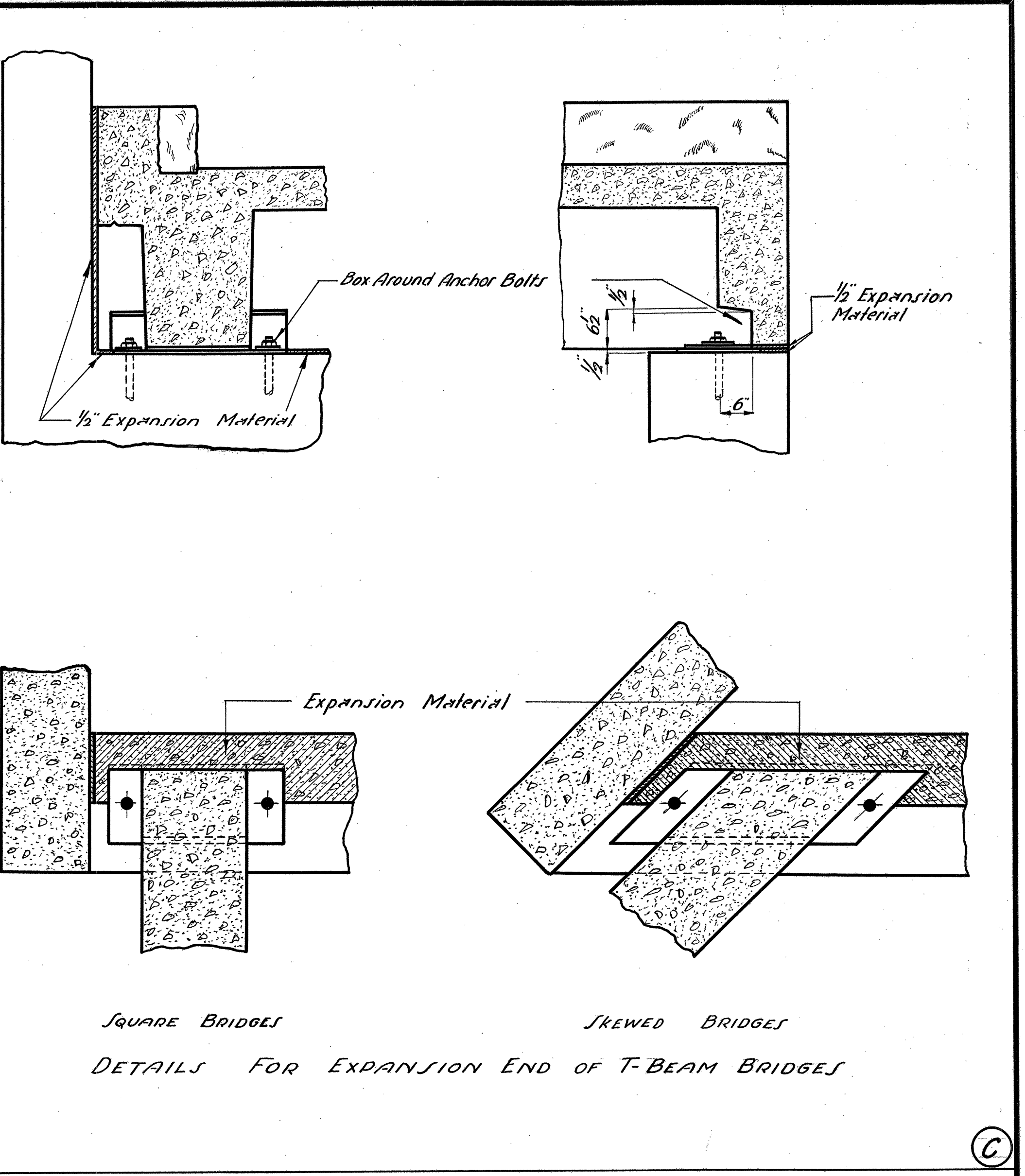
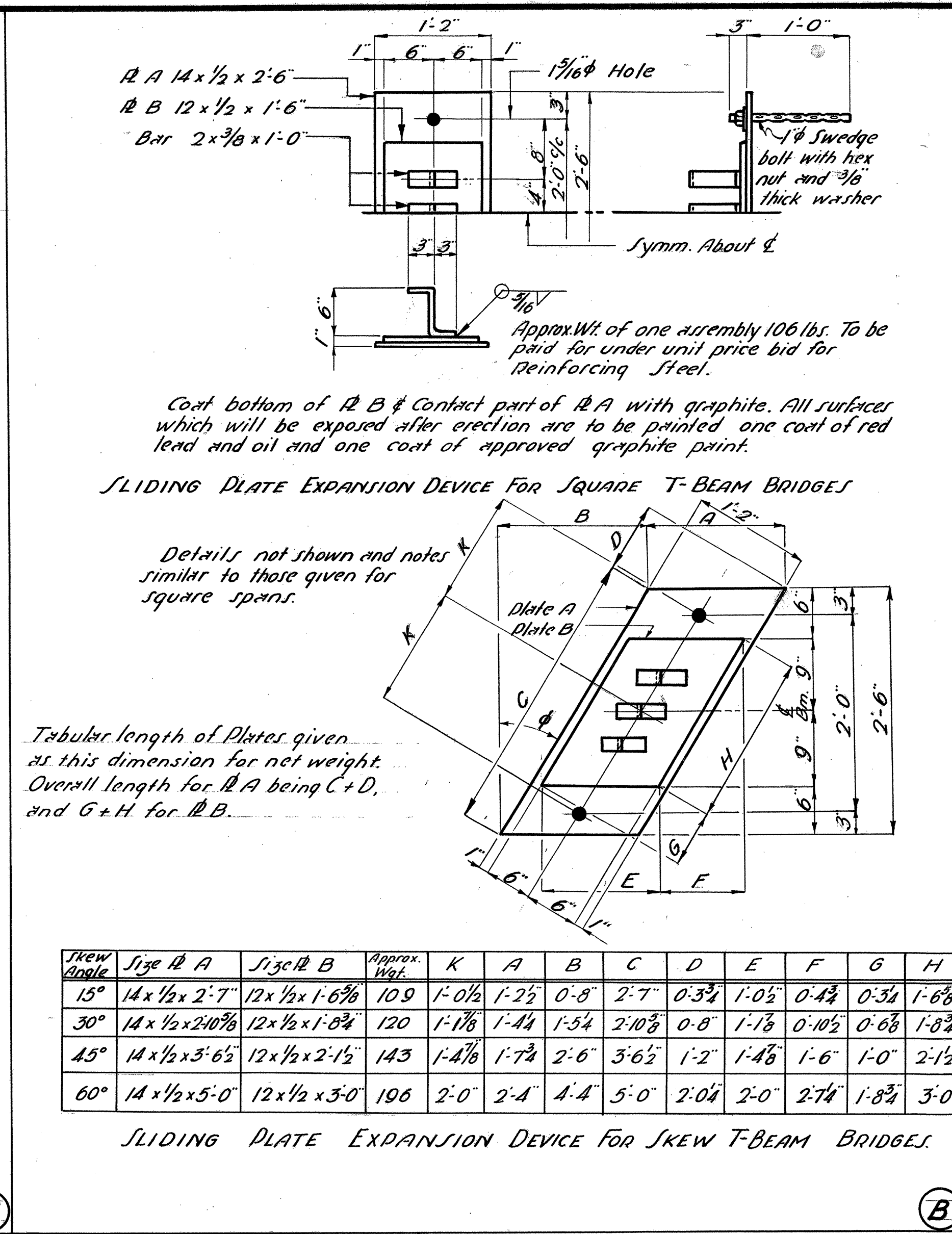
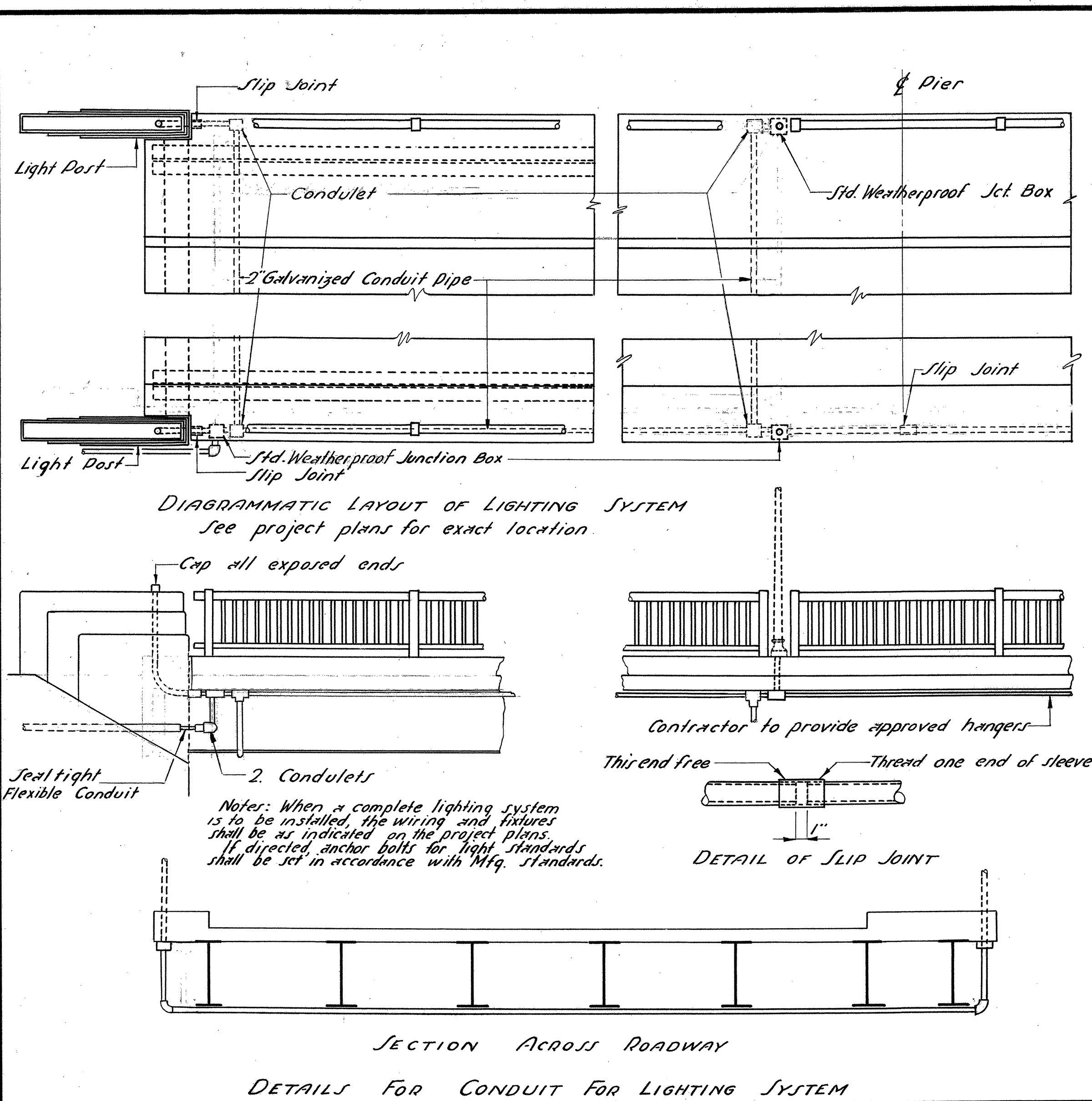
SOUTH BURLINGTON IM DECK(66) FOR REFERENCE ONLY - BRIDGE 68

SHEET 73 OF 75

SB-20-60

234

OFFICE COPY



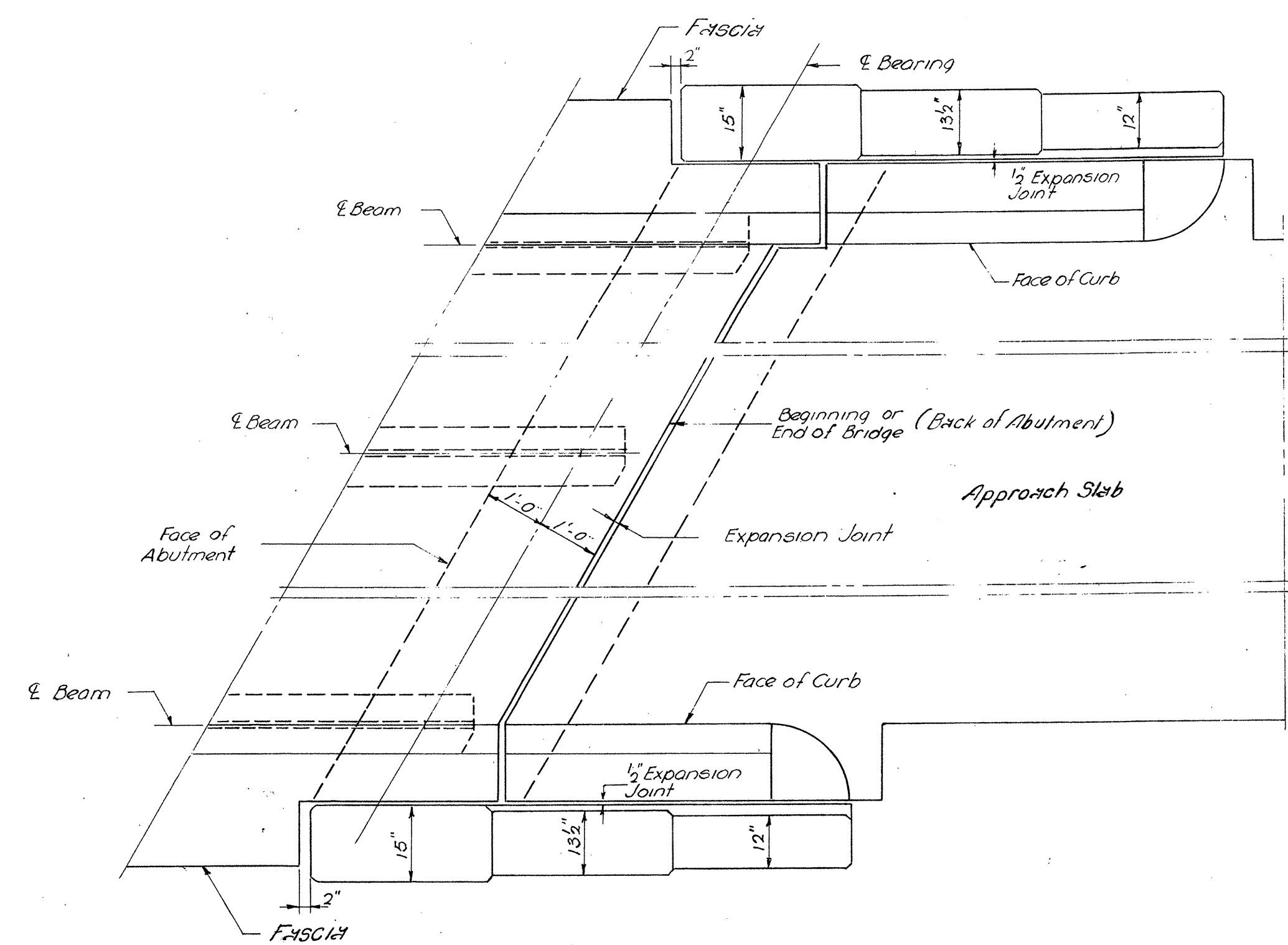
REVISIONS & CORRECTIONS
 Changed Bit Joint Filler to Asphalt Joint Filler 9-16-58

DRAWN BY L.M.B. Jan 5-36
 TRACED BY C.B. McLaughlin 5-36
 CHECKED BY L.L. Hubbard 5-36

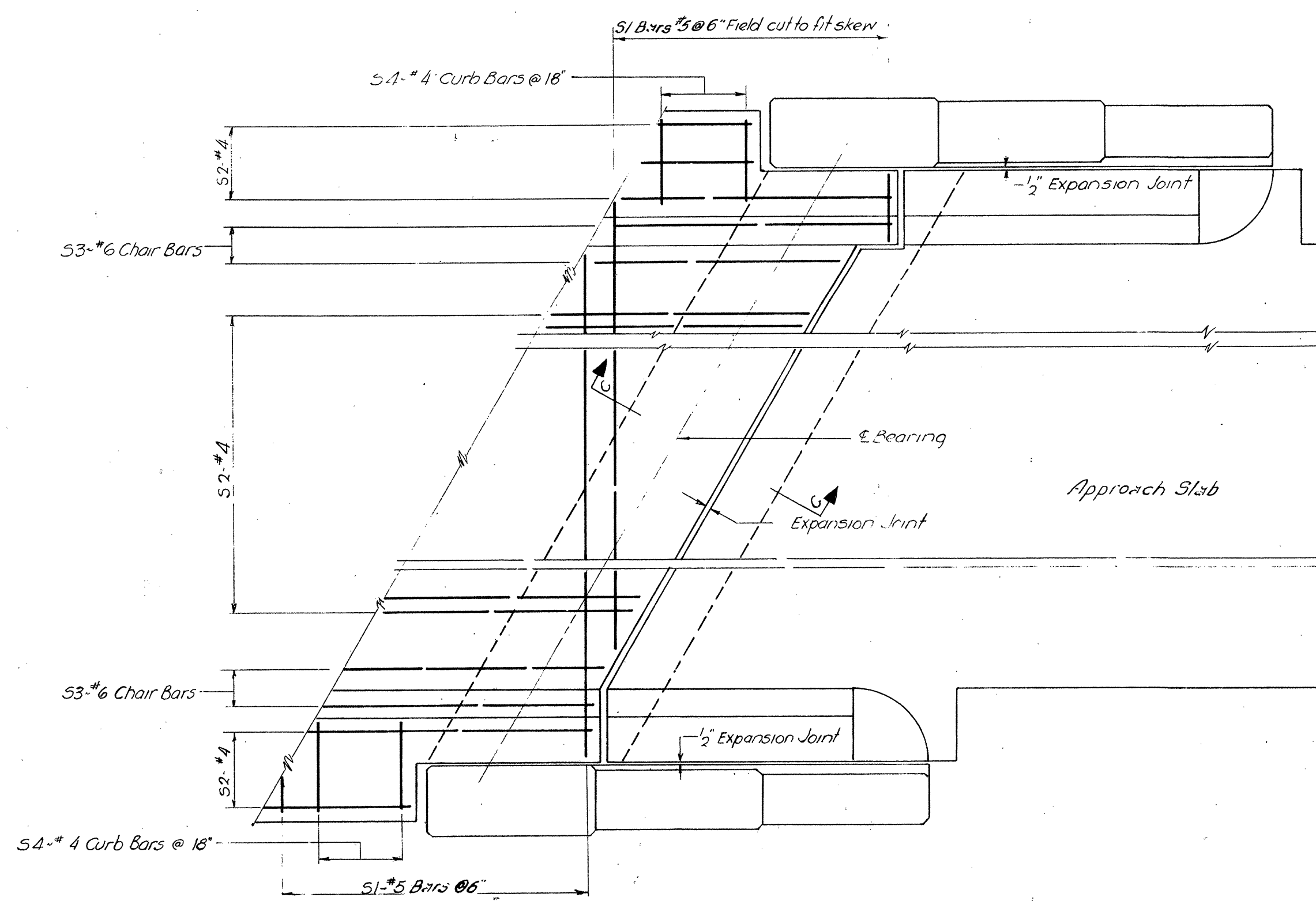
CORRECT June 11, 1936
 A.S. Smith
 BRIDGE ENGINEER

APPROVED June 11, 1936
 H.E. Sargent
 CHIEF ENGINEER

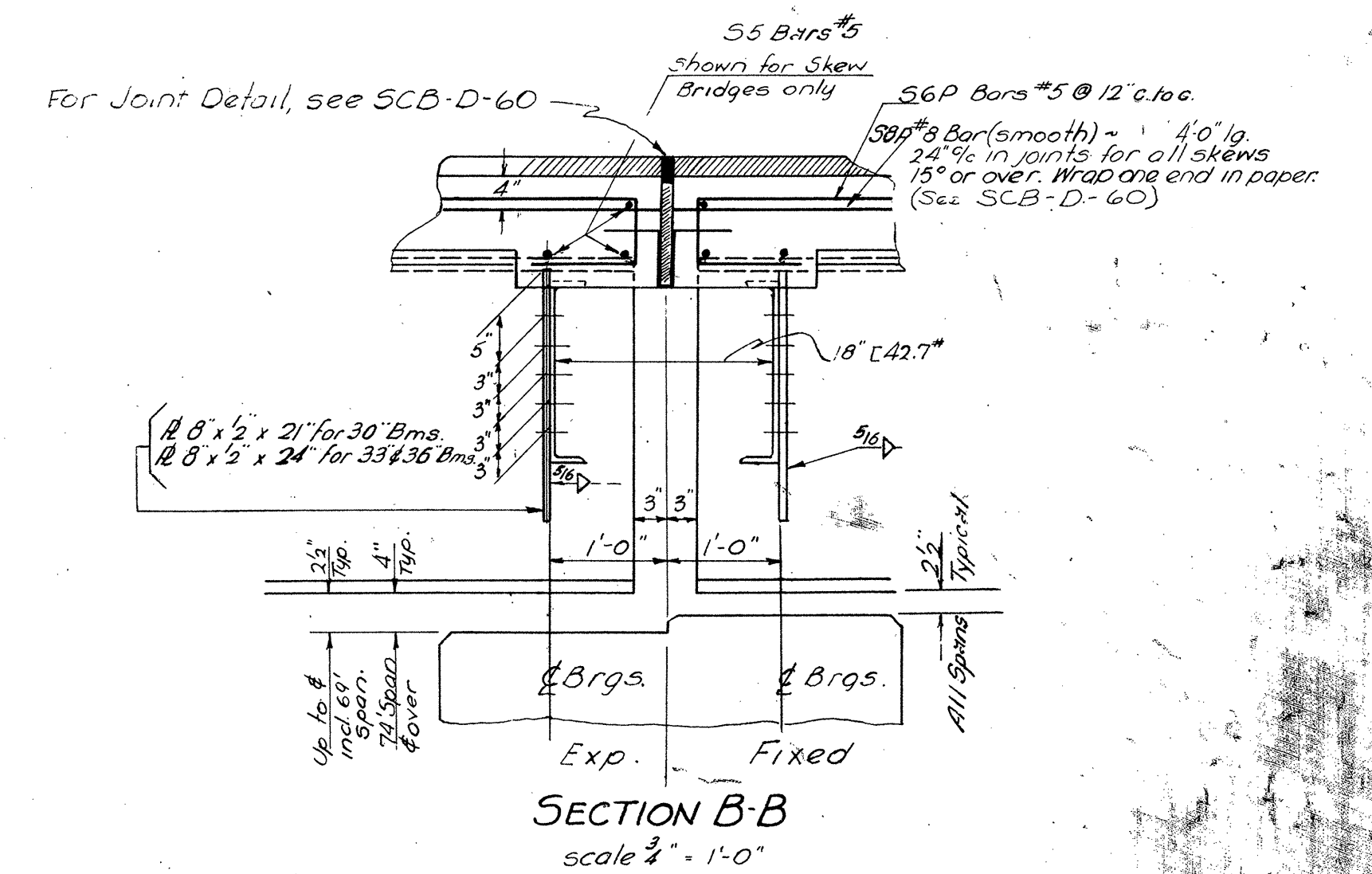
CONSTRUCTION DETAILS FOR T-BEAM BRIDGES
DETAILS FOR CONDUIT FOR LIGHTING SYSTEMS
DETAILS FOR REINFORCED CONCRETE BOXES



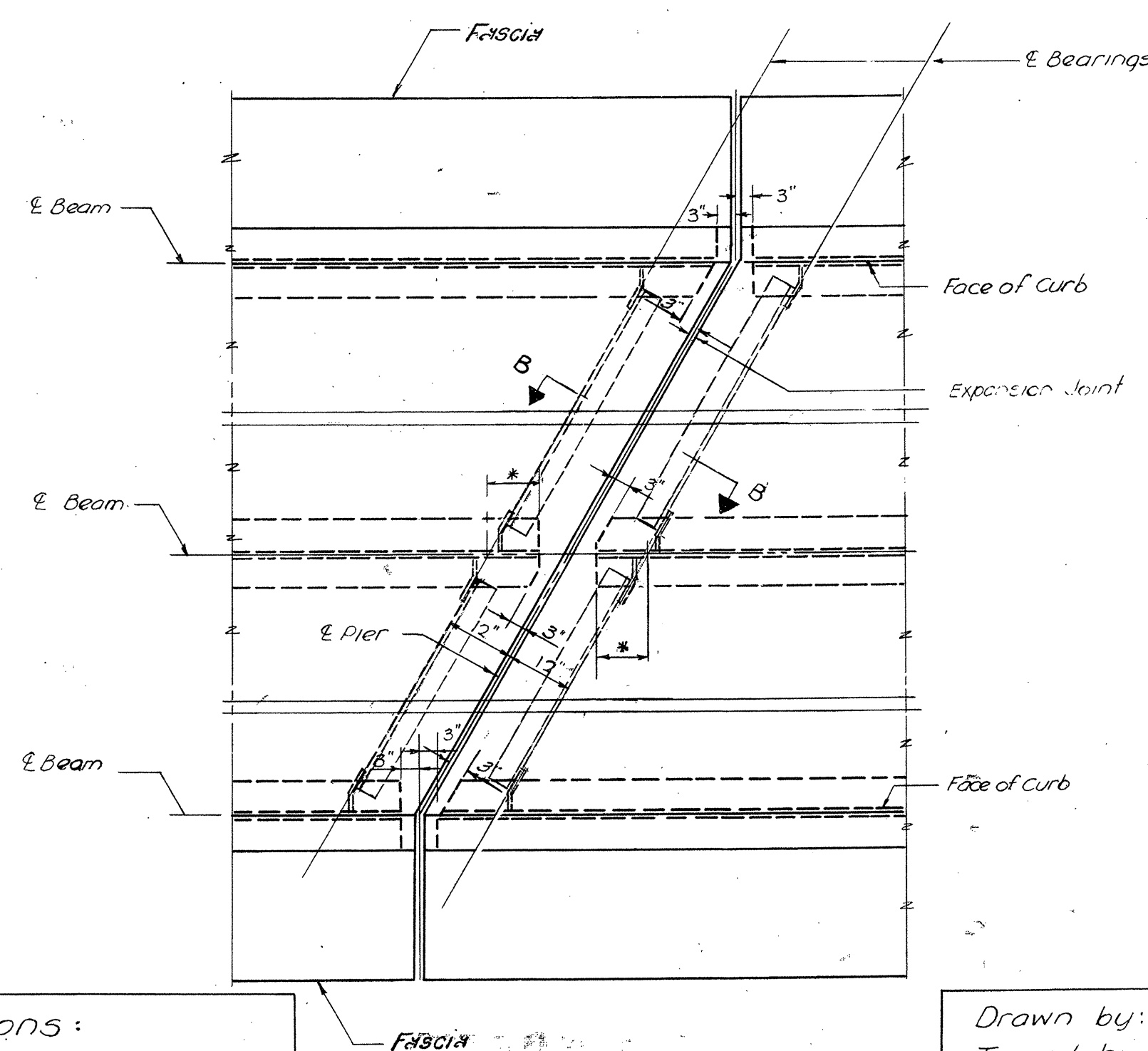
PLAN AT ABUTMENT
Scale 1/2" = 1'-0"



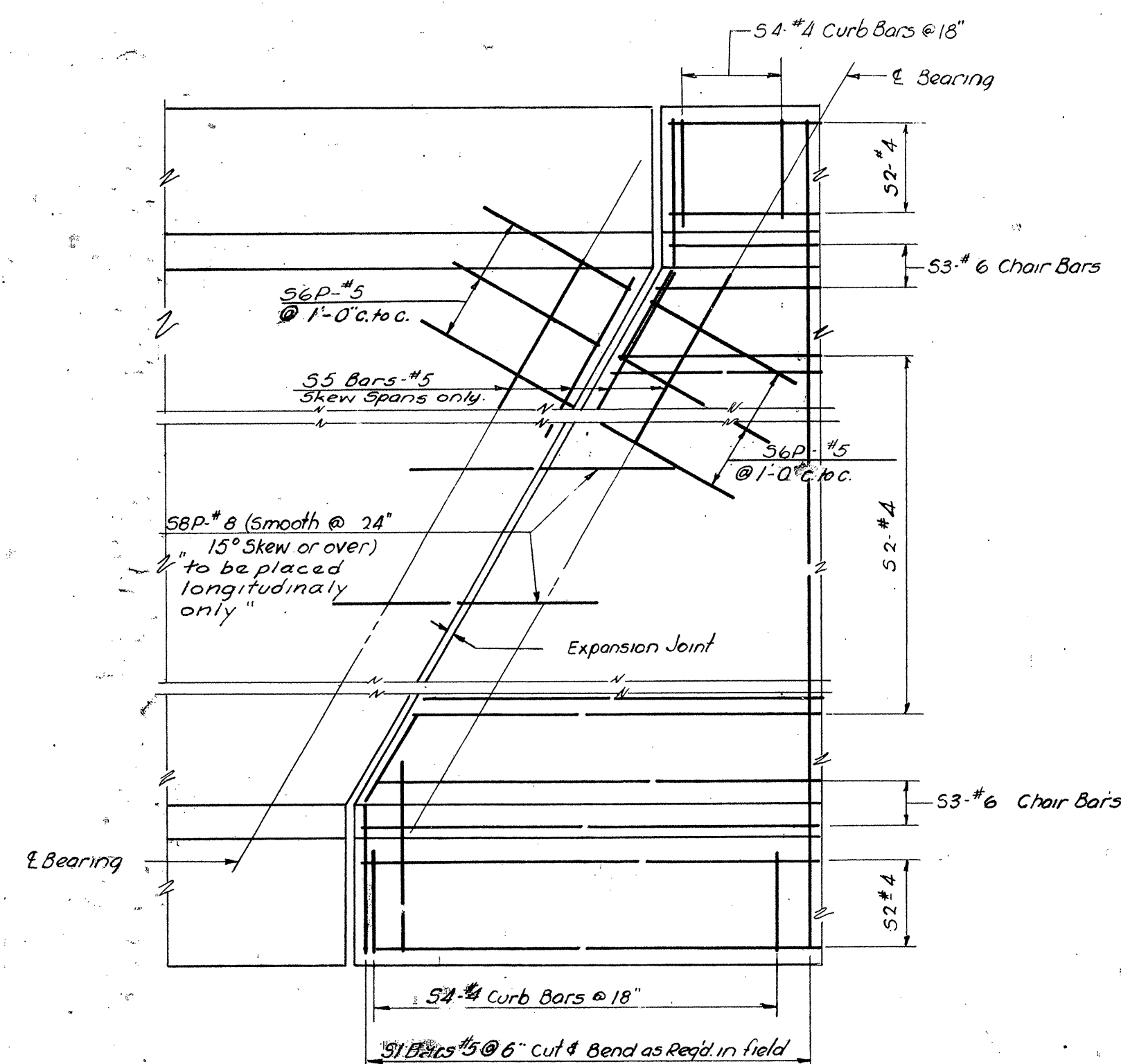
REINFORCEMENT LAYOUT AT ABUTMENT
Scale 1/2" = 1'-0"



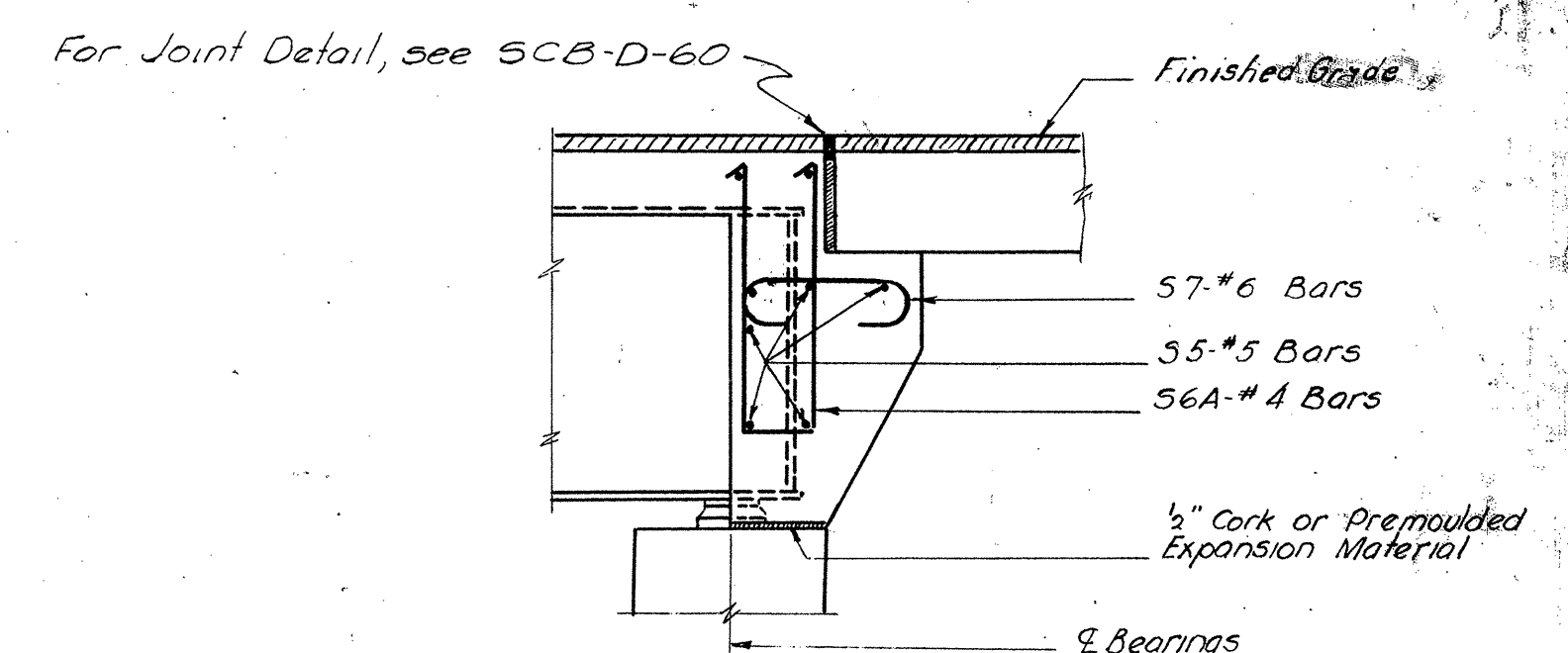
SECTION B-B
Scale 1/4" = 1'-0"



PLAN AT PIER
Scale 1/2" = 1'-0"



REINFORCEMENT LAYOUT AT PIER
Scale 1/2" = 1'-0"



SECTION C-C
Scale 1/2" = 1'-0"

* This dimension varies according to the skew. See Standards SCB-D-60

Revisions & Corrections:
Remove #4 Bar Sec BB 9/26/60
Added General Note 10/6/60
Corrected Joint Detail 12-2-60
Added note to 38 bars 3-22-61

Drawn by: H.W.S. June 1960
Traced by: H.W.S. June 1960
Checked by: R.S.H. & R.T.B. June 1960
Corrected 13 July 1960
Approved: 13 July 1960
Chief Engineer

DETAIL OF EXPANSION JOINT OVER PIERS AND AT ABUTMENTS.

DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURES

SOUTH BURLINGTON IM DECK(36)
FOR REFERENCE ONLY - BRIDGE 68
SHEET 75 OF 75

SB-22-60