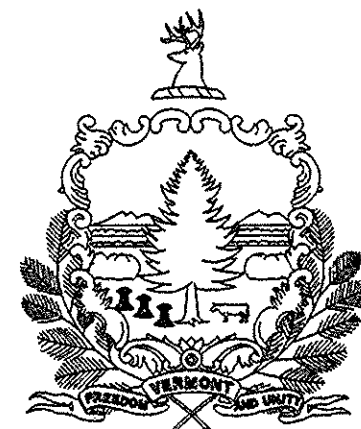


BHF 1000 (17)

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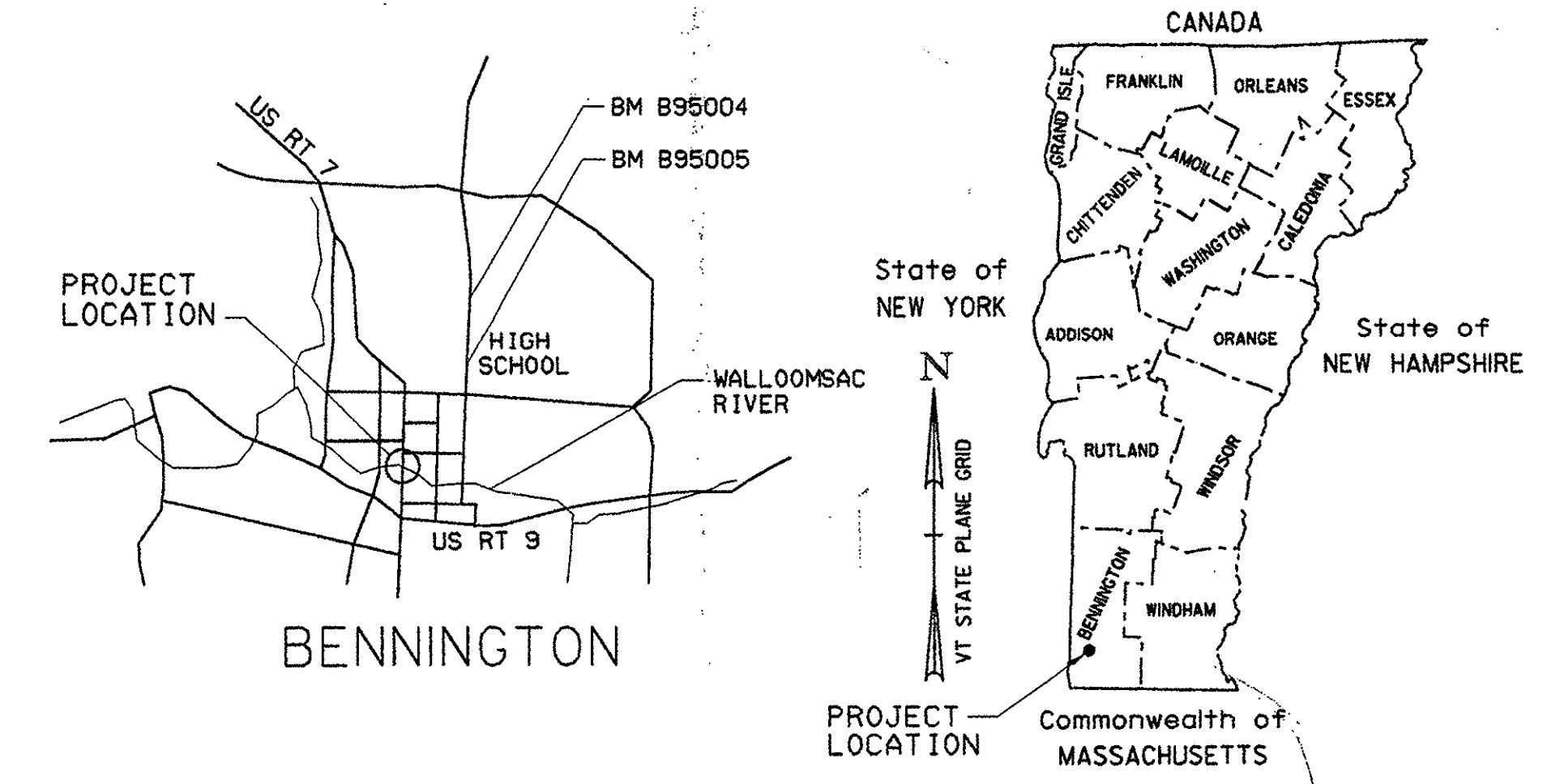
IN CHARGE OF J. STEVENS  
DESIGNED BY J. RIZZO  
DRAFTED BY K. COLE  
CHECKED BY J. STEVENS  
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# STATE OF VERMONT AGENCY OF TRANSPORTATION



## PROPOSED IMPROVEMENT BRIDGE PROJECT

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SHEET NO.	SHEET TITLE	DWG. NO.
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11	JOINT DETAILS	JD-1
12	SIDEWALK DETAILS 1	SW-1
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19	MAINTENANCE AND PROTECTION OF TRAFFIC DETAILS	MPT-4
20	MAINTENANCE OF TRAFFIC	MT-1



TOWN OF BENNINGTON  
 COUNTY OF BENNINGTON  
 ROUTE NO : TH #1 (U.S. ROUTE 7) BRIDGE NO : 10

PROJECT LOCATION : LOCATED ON NORTH STREET (U.S. ROUTE 7), IN THE TOWN OF BENNINGTON,  
 APPROXIMATELY 2/10THS OF A MILE NORTH OF THE INTERSECTION WITH ROUTE 9.

PROJECT DESCRIPTION : REHABILITATE A DEFICIENT SUPERSTRUCTURE WITH MINOR ROADWAY  
 APPROACH WORK.

LENGTH OF STRUCTURE 53.08 FEET  
 LENGTH OF ROADWAY 86.92 FEET  
 LENGTH OF PROJECT 140.00 FEET

### LIST OF STANDARDS

C-3	06-01-94
E-101	08-08-95
E-102A	08-08-95
E-106	08-08-95
E-120	04-01-88
E-136A	08-08-95
E-140	09-20-95
E-143	09-20-95
E-144	09-20-95
E-152	08-08-95
E-160	08-18-95
E-171A	08-09-95
E-171C	08-09-95
E-172	08-09-95
E-193	08-18-95

### CONVENTIONAL SIGNS

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

DATUM	_____
VERTICAL	_____
HORIZONTAL	_____

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.

PROJECT NO. THI-9914

BHF 1000 (17)S

Greenman-Pederson CONSULTING ENGINEERS <b>GPI</b> 55 Monument Ave. Bennington, VT. 05201	BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER		
	<b>TITLE SHEET</b>		
DRAWING NO. T-1	SCALE: AS SHOWN	DATE: DEC., 1999	SHEET NO. 1 OF 20

*[Signature]* 12/9/99  
 TH #1 TRAFFIC DATA  
 1994 ADT = 9180  
 TRUCKS = 7%

DESIGNED BY J. STEVENS

DRAFTED BY M. BORGEL

CHECKED BY K. COLE

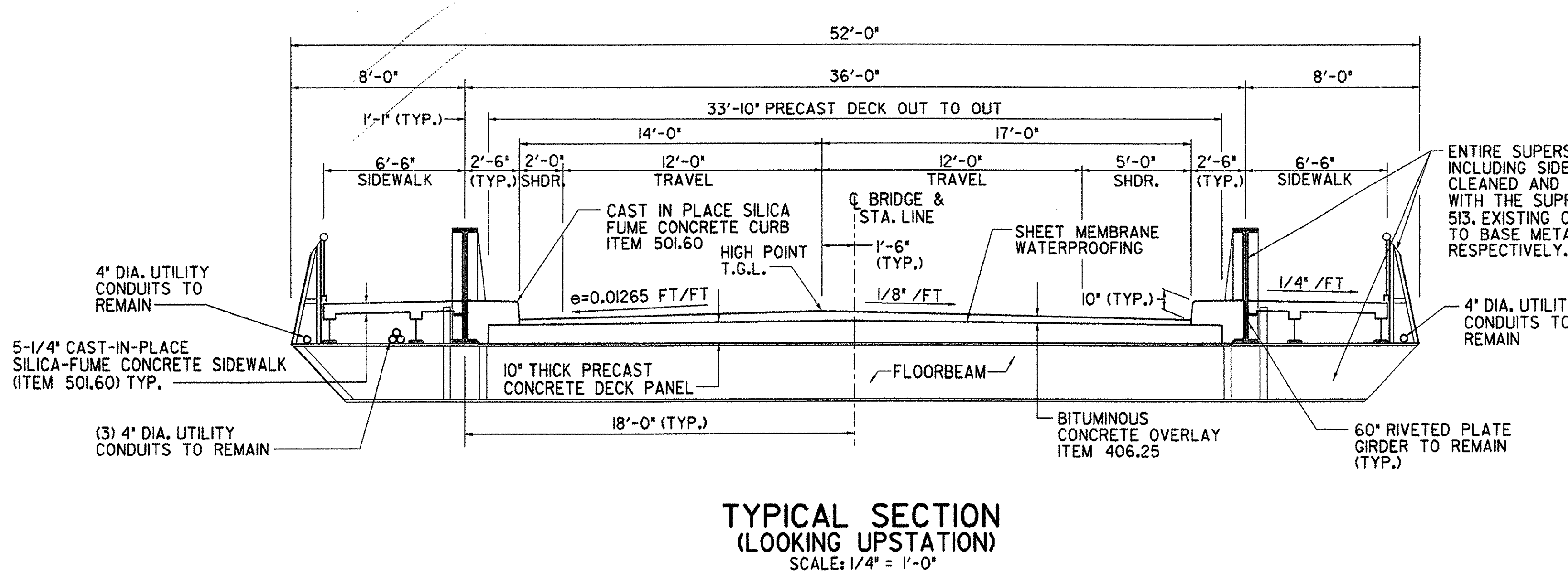
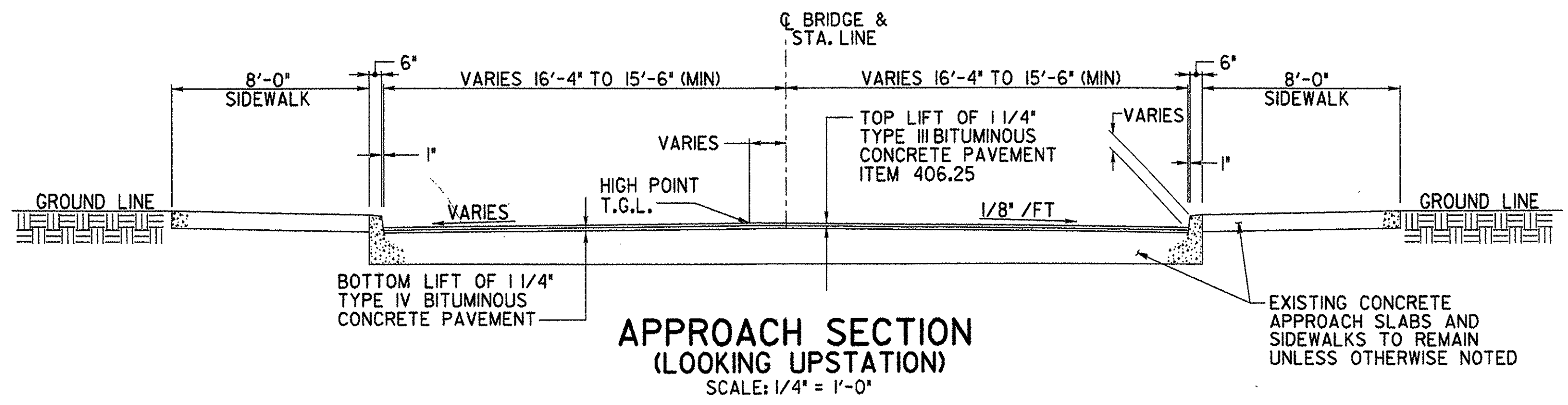
DESIGNED BY J. STEVENS

DRAFTED BY M. BORGEL

CHECKED BY K. COLE

DESIGNED BY J. STEVENS

DRAFTED BY M. BORGEL



**EXISTING STRUCTURE**

- STRUCTURE TYPE RIVETED THRU PLATE GIRDER WITH CONCRETE DECK ON CONCRETE ABUTMENTS
- OVERALL LENGTH 53'-1" INVENTORY RATING 48'-0"
- SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 48'-0"
- CLEAR SPAN LENGTH(S) NORMAL TO STREAM 45'-8"
- DISPOSITION OF STRUCTURE REMOVE EXISTING CONCRETE DECK AND SIDEWALKS, EXISTING STEEL GIRDERS AND FLOORBEAMS TO BE REHABILITATED, AND THE EXISTING ABUTMENTS ARE TO REMAIN

**NEW STRUCTURE**

- STRUCTURE GEOMETRY:
- STRUCTURE TYPE NEW CONCRETE DECK AND SIDEWALKS ON REHABILITATED EXISTING STEEL GIRDERS AND FLOORBEAMS
  - OVERALL LENGTH 53'-1"
  - SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 48'-0"
  - CLEAR SPAN LENGTH(S) NORMAL TO STREAM 45'-8"
  - ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? CONDUITS ALONG THE UPSTREAM/DOWNSTREAM FASCIA AND BETWEEN THE UPSTREAM SIDEWALK STRINGERS ARE TO REMAIN IN PLACE.

**HYDRAULIC DATA:**

HYDRAULIC DATA OF NEW STRUCTURE IS SIMILAR TO THE EXISTING STRUCTURE

**ALLOWABLE STRESSES:**

- DESIGN LIVE LOAD AASHTO HS-20-44
- ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24,000 PSI COMPRESSION 20,000 PSI
- ALLOWABLE STRESS FOR PRECAST CONCRETE  $f_c'$  6,000 PSI  $f_c$  2,400 PSI  
SILICA FUME  $f_c'$  5,000 PSI  $f_c$  2,000 PSI

**TRAFFIC MAINTENANCE:**

- TRAFFIC TO BE MAINTAINED NORTHBOUND - ONE LANE BRIDGE DURING STAGED CONSTRUCTION, DETOUR ROUTE DURING TEMPORARY CLOSURES AND STAGE 3 SOUTHBOUND - DETOUR ROUTE

**LOAD FACTOR LOAD RATING (TONS)**  
**CONTROLLING MEMBER- 60" PLATE GIRDERS**

STRENGTH  $RF = \frac{\phi M_n - 1.3M_{uL}}{A \times M_{uL}}$

\*SERVICEABILITY  $RF = B \left[ \frac{.95F_y S_{LLH} - M_{DL} \frac{S_{LLH}}{S_{DL}} - M_{SKL} \frac{S_{LLH}}{S_{SKL}}}{1.67 M_{uLH}} \right]$

LOADING LEVELS (LOAD FACTORS)	TRUCK						
	H	HS	3S2	6 AXLE	3ASTR	4ASTR	5A SEMI
INVENTORY A=2.17; B=1.00	24	31					
POSTED A=1.55; B=1.40	34	43	56		35	37	48
OPERATING A=1.30; B=1.67		52	67	76	42	44	

**APPROACH ROADWAY SECTIONS**

- 1 1/4" BITUMINOUS CONCRETE PAVEMENT (TYPE III)
- 1 1/4" BITUMINOUS CONCRETE PAVEMENT (TYPE III)

**BRIDGE DECK/APPROACH SLAB PAVEMENT**

- TOP LIFT = 1 1/4" TYPE III
- BOTTOM LIFT = 1 1/4" TYPE IV
- EMULSIFIED ASPHALT BETWEEN LIFTS

**NOTES:**

- FOR EXISTING PLAN AND ELEVATION SEE DWG. PE-1
- FOR FRAMING AND DECK PLAN SEE DWG. FP-1
- FOR PAVEMENT MARKINGS PLACEMENT DETAILS SEE DWG. SP-1

PROJECT NO. TH1-9914 BHF 1000 (17)S

BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER

**PRELIMINARY INFORMATION SHEET**

Greenman-Pedersen CONSULTING ENGINEERS  
**GPI**  
55 Monument Ave., Bennington, VT. 05201

DRAWING NO. PJ-1 SCALE: AS SHOWN DATE: DEC ., 1999 SHEET NO. 2 OF 20

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CHECKED BY M. BORGEL

DRAFTED BY K. COLE

DESIGNED BY J. RIZZO


IN CHARGE OF J. STEVENS

### QUANTITY BREAKDOWN

ITEM NO.	ITEM	UNIT	ROADWAY	SUPER-STRUCT	TOTAL	FINAL
210.10	COLD PLANING - BITUMINOUS PAVEMENT	SY	171		171	150
406.25	BITUMINOUS CONCRETE PAVEMENT	TON	37	26	63	76
501.25	CONCRETE CLASS B	CY		1	1	1.0
501.60	SILICA-FUME CONCRETE	CY	1	25	26	26
502.11	SHORING SUPERSTRUCTURE BEARINGS	EACH		4	4	4
506.60	STRUCTURAL STEEL (BOLTS)	LB		954	954	954
506.60	STRUCTURAL STEEL (REPAIR PLATE)	LB		1000	1000	1000
507.16	DRILLING AND GROUTING DOWELS	LF	24		48	72
507.17	EPOXY COATED REINFORCING STEEL	LB	93	2268	2361	2361
510.20 - MOD	PRESTRESSED CONCRETE MEMBER - MODIFIED	EACH		1	1	1.0
513.30	STRUCTURAL PAINTING, FIELD APPLIED, (52 TONS, 5,200 SF)	LS		1	1	1.0
513.36	CONTAINMENT AND ENVIRONMENTAL PROTECTION, (52 TONS, 5,200 SF)	LS		1	1	1.0
513.41	SURFACE PREPARATION, - FIELD, (52 TONS, 5,200 SF)	LS		1	1	1.0
514.10	WATER REPELLENT	GALLON	3.5	4.5	8	8
516.10	BRIDGE EXPANSION JOINT	LF		52	52	52
519.20	SHEET MEMBRANE WATERPROOFING	SY	144	183	327	303
527.10	MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS	LS	1		1	1.0
529.10	REMOVAL OF BRIDGE PAVEMENTS	SY	146	201	347	350
529.20	PARTIAL REMOVAL OF STRUCTURE	EACH		1	1	1.0
529.25	REMOVAL OF CONCRETE OR MASONRY	CY		1	1	1.0
529.26	REMOVAL OF CONCRETE OR MASONRY	SY	53		53	80
580.11	REPAIR OF CONCRETE SUPERSTRUCTURE, CLASS I	SY	145		145	12
580.13	REPAIR OF CONCRETE SUBSTRUCTURE, CLASS I	SY		22	22	0
580.16	SURFACE PREPARATION FOR MEMBRANE	SF	1296	1647	2943	2719
608.25	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	HOUR	2		2	0
616.41	REMOVAL OF EXISTING CURB	LF	45		45	79
618.10	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SY	53		53	72
621.90	TEMPORARY TRAFFIC BARRIER	LF	802		802	820
631.16	TESTING EQUIPMENT - CONCRETE	LS	.40	.60	1.0	1.0
631.17	TESTING EQUIPMENT - BITUMINOUS	LS	.59	.41	1.0	1.0
631.18	TESTING EQUIPMENT - PROTECTIVE COATINGS	LS		1	1	1.0
635.10	MOBILIZATION	LS	1		1	1.0
641.15	PORTABLE CHANGEABLE MESSAGE SIGNS	EACH	2		2	2
646.27	PAINTED CURB	LF	74	106	180	177
646.40	DURABLE 4" WHITE LINE	LF	20		20	37
646.41	DURABLE 4" YELLOW LINE	LF	844	106	950	920
646.51	DURABLE CROSSWALK WITH DIAGONAL LINES	LF	33		33	33
646.60	TEMPORARY 4" WHITE LINE	LF	50		50	24
646.71	TEMPORARY CROSSWALK WITH DIAGONAL LINES	LF	33		33	34
646.82	REMOVAL OF EXISTING PAVEMENT MARKINGS	SF	224		224	171
675.20	TRAFFIC SIGNS (TYPE A)	SF	6		6	6
675.30	FLANGED CHANNEL SIGN POSTS	LB	42		42	40

PROJECT NO. TH1-9914

BHF 1000 (17)S

<b>Greenman-Pederson</b> CONSULTING ENGINEERS  <small>55 Monument Ave. Bennington, VT. 05201</small>	BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER		
	<h2>QUANTITY SHEET</h2>		
DRAWING NO. ES-1	SCALE: AS SHOWN	DATE: DEC ., 1999	SHEET NO. 3 OF 20

## GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, 1990 STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, AND ALL STANDARD SUPPLEMENTALS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 1996, AND ITS LATEST REVISIONS.
2. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT, DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION INFORMATION AND AS-BUILT DETAILS FROM THE 1935 DRAWINGS AVAILABLE FROM THE V.A.O.T. STRUCTURES DIVISION. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO THE CONSTRUCTION DETAILS AND EXTENT OF WORK EFFORTS. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH THE FIELD CONDITIONS.
3. THE CONTRACTOR SHALL EXAMINE AND VERIFY IN THE FIELD ALL EXISTING CONDITIONS AND DIMENSIONS WITH THOSE SHOWN ON THE PLANS. IF FIELD CONDITIONS OR DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL USE THE FIELD CONDITIONS AND DIMENSIONS AND MAKE THE APPROPRIATE CHANGES TO THE PLANS AT THE APPROVAL OF THE ENGINEER.
4. AS DIRECTED BY THE ENGINEER AND THE STANDARD SPECIFICATIONS, SECTION 105, THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT SILTATION OR POLLUTION, ESPECIALLY RAW CONCRETE AND PAINT, FROM ENTERING THE WALLOOMSAC RIVER.
5. AFTER REMOVAL OF ALL DIRT, DEBRIS, AND OTHER FOREIGN MATERIAL, AND INSPECTION OF THE BRIDGE SEATS, THE RESIDENT ENGINEER SHALL DETERMINE IF THERE ARE ANY AREAS OF NEEDED REPAIRS ALONG THE BRIDGE SEATS. THESE AREAS WILL BE REPAIRED IN ADDITION TO THE AREAS ASSOCIATED WITH THE BEARING ANCHOR BOLT REPLACEMENTS AS DETAILED IN THE PLANS. ALL UNSOUND, DETERIORATED CONCRETE DISCOVERED SHALL BE REMOVED AND REPLACED WITH CONCRETE, CLASS B IN ACCORDANCE WITH THE SPECIFICATIONS.
6. ANCHOR BOLT REPLACEMENTS WILL OCCUR AT ALL SUPERSTRUCTURE BEARINGS, BOTH FIXED AND EXPANSION. THE COSTS FOR THE NEW ANCHOR BOLTS SHALL BE INCLUDED UNDER THE PRICE BID FOR ITEM 501.25, CONCRETE CLASS B, AS REQUIRED.
7. JACKING AND SHORING OF THE SUPERSTRUCTURE BEARINGS, ITEM 502.11, IS REQUIRED IN ORDER TO REPLACE THE EXISTING BEARING ANCHOR BOLTS. DETAILS OF THE CONTRACTOR'S PROPOSED SHORING METHODS AND CALCULATIONS SHALL BE CREATED BY A QUALIFIED REGISTERED PROFESSIONAL ENGINEER LICENSED AS A CIVIL OR STRUCTURAL ENGINEER. THE DETAILS AND CALCULATIONS SHALL BE SIGNED, STAMPED AND DATED BY THE PROFESSIONAL ENGINEER AND SUBMITTED TO THE RESIDENT ENGINEER, FOR HIS INFORMATION ONLY, AT LEAST 2 WEEKS PRIOR TO PERFORMING THE WORK AND SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 502.11.
8. THE CONTRACTOR WILL BE PAID ONLY ONCE FOR JACKING AND SHORING ANY ONE BEARING (I. e. A MAXIMUM OF TWO (2) PER ABUTMENT). ANY SHORING OF ADJACENT BEAMS, REQUIRED TO REPAIR OR REPLACE THE BEARING OR BRIDGE SEAT IN QUESTION, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE SHORING OF THE BEARING OR BRIDGE SEAT BEING REPAIRED OR REPLACED.
9. ALL NEW ANCHOR RODS, M-183, ASTM A-36, SHALL HAVE THE PROPOSED DIAMETER FIELD VERIFIED.
10. THE WORK REQUIRED TO REMOVE EXISTING ANCHOR BOLTS IN ORDER TO INSTALL NEW ANCHOR RODS AS SHOWN IN THE PLANS, SHALL BE INCLUDED UNDER THE ITEM FOR REMOVAL OF CONCRETE OR MASONRY, ITEM 529.25.
11. ALL STEEL REPAIRS SHALL BE AS SHOWN ON THE PLANS. ANY ADDITIONAL REPAIRS DISCOVERED BEFORE, DURING OR AFTER CLEANING OF THE SUPERSTRUCTURE SHALL BE APPROVED BY THE ENGINEER PRIOR TO WORK EFFORTS BY THE CONTRACTOR.
12. AFTER REMOVAL OF THE EXISTING BRIDGE DECK DURING STAGES 1 AND 2, THE EXISTING BACKWALLS SHALL BE INSPECTED BY THE ENGINEER TO DETERMINE AREAS OF REPAIR, ITEM 580.13, REPAIR OF CONCRETE SUBSTRUCTURE. REPAIRS SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION SECTION 580. THE QUANTITIES OF ITEM 580.13 SHALL BE FIELD DETERMINED BY THE ENGINEER, THOSE SHOWN IN THE PLANS ARE FOR ESTIMATING ONLY.
13. THE EXISTING STRUCTURE CONTAINS MANY LOCATIONS WHERE RIVET REPLACEMENTS ARE REQUIRED AS SHOWN IN THE PLANS. THESE LOCATIONS AS WELL AS FIELD DISCOVERED LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO REMOVAL EFFORTS BY THE CONTRACTOR. RIVET HEADS SHALL BE SHEAR CUT USING A PNEUMATIC RIVET BREAKER AND DRIVEN OUT WITH A HAND HELD PUNCH. OPTIONAL METHODS OF REMOVAL SHALL BE SUBMITTED FOR APPROVAL BY THE ENGINEER. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS SO AS TO NOT DAMAGE EXISTING STEEL THAT IS TO REMAIN. ANY DAMAGED AREAS THAT ARE TO REMAIN SHALL BE REPAIRED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
14. ALL RIVET REPLACEMENTS SHALL OCCUR WITH NEW ASTM A-325, TYPE I, H.S. BOLTS OF EQUIVALENT DIAMETER. BOLTS USED FOR REPLACEMENT WILL BE PAID FOR BY THE POUND AS ITEM 506.60 - STRUCTURAL STEEL (BOLTS). COSTS FOR THE REMOVAL OF EXISTING RIVETS OR FASTENERS SHALL BE SUBSIDIARY TO ITEM 506.60, STRUCTURAL STEEL (BOLTS).
15. ALL STEEL SUPERSTRUCTURE REPAIR LOCATIONS SHALL BE FIELD DETERMINED BY THE ENGINEER AFTER REMOVAL OF THE EXISTING PAINT SYSTEM. REPAIR WORK SHALL NOT COMMENCE UNTIL THE ENGINEER HAS APPROVED THE CONTRACTOR'S PROPOSED REPAIR PROCEDURE. THE COST TO PRODUCE SHOP DRAWINGS AND PERFORM THE REPAIR(S), INCLUDING ALL MATERIAL, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY SHALL BE PAID FOR UNDER ITEM 506.60-MOD, STRUCTURAL STEEL (REPAIR PLATE). REPAIRS SHALL BE MADE USING NEW ASTM A-36 STEEL AND 7/8" DIA. ASTM A-325, TYPE I, H.S. BOLTS UNLESS OTHERWISE NOTED.
16. ALL EXISTING STRUCTURAL STEEL SHALL HAVE COMMERCIAL BLAST CLEANING PERFORMED IN ACCORDANCE WITH SSPC-SP6, NO. 6, COMMERCIAL BLAST CLEANING
17. WELDING TO PERFORM STRUCTURAL STEEL REPAIRS IS PROHIBITED IN THIS PROJECT.
18. THE ASPHALT OVERLAY ON THE APPROACH SLABS AND EXISTING BRIDGE DECK SHALL BE REMOVED AND DISPOSED, ITEM 529.10, THEREAFTER, THE EXISTING CONCRETE APPROACH SLABS SHALL BE INSPECTED BY THE ENGINEER TO DETERMINE AREAS OF REPAIR, ITEM 580.11, REPAIR OF CONCRETE SUPERSTRUCTURE, CLASS I, REPAIRS SHALL BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION SECTION 580. THE QUANTITIES OF ITEM 580.11 SHALL BE FIELD DETERMINED BY THE ENGINEER, THOSE SHOWN IN THE PLANS ARE FOR ESTIMATING ONLY.
19. THE EXISTING BRIDGE SUPERSTRUCTURE SHALL HAVE THE CONCRETE DECK SYSTEM REMOVED AND REPLACED WITH A PRECAST CONCRETE DECK SYSTEM, ITEM 510.20-MOD. THE PRECAST DECK SYSTEM SHALL NOT BE REQUIRED TO ACT COMPOSITELY WITH THE STEEL FLOORBEAMS AND GIRDERS. A MECHANICAL CONNECTION WILL BE REQUIRED TO FASTEN THE DECK PANELS TO THE STEEL FLOORBEAMS. THE PANELS SHALL BE ARRANGED TO CORRESPOND WITH THE STAGED BRIDGE RECONSTRUCTION AS DEPICTED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE DESIGN AND SHOP DRAWINGS FOR THE PRECAST DECK SYSTEM. THE DRAWINGS AND CALCULATIONS PERFORMED BY A PROFESSIONAL ENGINEER, STAMPED AND SEALED, SHALL BE SUBMITTED TO THE ENGINEER FOR INFORMATION ONLY. COSTS FOR THE DESIGN AND DEVELOPMENT OF SHOP DRAWINGS FOR THE DECK SYSTEM SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 510.20-MOD. SEE SPECIAL PROVISIONS FOR DETAILS OF MODIFIED ITEM 510.20.
20. THE EXISTING CONCRETE DECK SHALL BE REMOVED UNDER ITEM 529.20, PARTIAL REMOVAL OF STRUCTURES.
21. DUE TO THE CAMBER OF THE EXISTING FLOORBEAMS, THE HAUNCH DIMENSION OF THE NEW PRECAST DECK WILL VARY ALONG THE LENGTH OF EACH FLOORBEAM TO MEET THE DESIGNED ROADWAY PROFILE. THE CONTRACTOR SHALL SURVEY THE TOP FLANGE PROFILE OF THE EXISTING TRANSVERSE FLOORBEAMS BEFORE AND AFTER REMOVAL OF THE EXISTING CONCRETE DECK. THESE SURVEYS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO THE PLACEMENT OF THE NEW PRECAST CONCRETE DECK. THE PRECAST DECK PANELS SHALL BE LEVELLED TO THE ELEVATIONS SHOWN IN THE PLANS TO ENSURE THE PROPOSED PROFILE.
22. ANY PROPOSED WELDING ASSOCIATED WITH AND OR REQUIRED FOR THE MANUFACTURING AND INSTALLATION OF THE PRE-CAST DECK PANELS SHALL CONFORM TO THE LATEST ANSI/ AWS CODES AND LATEST REVISIONS.
23. THE EXISTING CONCRETE SIDEWALKS ON THE BRIDGE, AS SHOWN IN THE PLANS, SHALL BE REMOVED AND REPLACED WITH SILICA-FUME CONCRETE SIDEWALKS, ITEM 501.60.
24. THE COST TO REMOVE AND DISPOSE OF EXISTING APPROACH SIDEWALKS AND BRICK SIDEWALK RAMPS, AS DEPICTED IN THE PLANS, SHALL BE PAID UNDER ITEM 529.26, REMOVAL OF CONCRETE OR MASONRY. THE NEW APPROACH SIDEWALKS AND SIDEWALK RAMPS SHALL BE PORTLAND CEMENT CONCRETE, ITEM 618.10.
25. THE NEW BRIDGE AND APPROACH SIDEWALKS SHALL RECEIVE A BROOMED FINISH IN ACCORDANCE WITH STANDARD SPECIFICATION 618.03(d). AREAS OF THE SIDEWALK RAMPS TO RECEIVE AN EXPOSED AGGREGATE FINISH SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND ACCEPTABLE FINISHING TECHNIQUES.
26. THE BRIDGE AND APPROACHES, AS SHOWN IN THE PLANS, SHALL RECEIVE NEW SILICA-FUME CONCRETE CURBS, ITEM 501.60.
27. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE "CONCRETE REINFORCING STEEL INSTITUTE".
28. FABRICATION DRAWINGS FOR THE STEEL REINFORCING SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL TWO WEEKS PRIOR TO FABRICATION.
29. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" BY 1" EXCEPT WHERE NOTED.
30. THE CONTRACTOR SHALL PLACE CURBS IN 15'-0" MAXIMUM LENGTH SECTIONS. THE POUR SEQUENCE SHALL BE IN ALTERNATING SECTIONS FOR SIDEWALKS AND CURBS.
31. THE CONCRETE BRIDGE SIDEWALKS SHALL BE PLACED IN ALTERNATING SEQUENCE WITH THE CONSTRUCTION JOINTS BEING LOCATED ABOVE THE CENTERLINE OF EACH INTERIOR FLOORBEAM. THE CONCRETE SHALL BE PLACED IN ALTERNATING SECTIONS WITH A MINIMUM OF 48 HOURS DELAY BETWEEN ADJACENT POURS.
32. MINIMUM COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:  
BRIDGE SIDEWALKS-----1 INCH CLEAR TO BOTTOM REBAR, 3 INCH CLEAR TO TOP REBAR  
CURBS-----3 INCH CLEAR EVERYWHERE  
PRECAST DECK PANELS-----2 1/2 INCH CLEAR TO TOP REBAR, 1 1/2 INCH CLEAR TO BOTTOM REBAR  
REINFORCING PLACEMENT TOLERANCES SHALL BE:  
SPACING +/- 1"  
CLEARANCE +/- 1/4"
33. FLAME CUTTING OF EPOXY COATED REINFORCING STEEL SHALL NOT BE PERMITTED.
34. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED NEW BRIDGE AND APPROACH SIDEWALK SURFACES, ITEM 514.10.
35. JOINTS AND SCORE MARKS IN THE CONCRETE SIDEWALKS AND CURBS SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO SCORE SIDEWALK PANELS IN EQUAL INCREMENTS TO PRODUCE EVENLY SIZED SIDEWALK PANELS.
36. POLYURETHANE JOINT SEALER SHALL BE USED IN CURB CONSTRUCTION JOINTS OR AT EXPANSION OR FIXED END CURB JOINTS AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
37. THE FOLLOWING ALLOWABLE STRESSES AND WEIGHTS APPLY TO THESE PLANS FOR DESIGN PURPOSES.  
CAST IN PLACE CONCRETE: F'c=5000 psi Fc=2000 psi SILICA-FUME  
PRECAST DECK PANELS: F'c=6000 psi Fc=2400 psi  
REINFORCING STEEL: F+24,000 psi Fy=60,000 psi GRADE 60
38. THERE ARE UNDERGROUND UTILITY CONDUITS THAT ARE ATTACHED TO THE BRIDGE SUPERSTRUCTURE. THE EXACT NATURE, WHETHER ACTIVE OR ABANDONED, OF EACH UTILITY DUCT IS UNKNOWN AT THIS TIME, THEREFORE ALL DUCTS SHALL BE CONSIDERED LIVE. THESE UTILITY DUCTS SHALL BE MAINTAINED AND NOT DISTURBED. THE CONTRACTOR SHALL USE CAUTION WHEN WORKING AROUND THESE UTILITIES AND/OR COORDINATE TEMPORARY RELOCATION WITH THE UTILITY COMPANY, AFTER DISCUSSION WITH THE ENGINEER. SEE CONTRACT SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
39. ACCESS SHALL BE MAINTAINED TO DRIVEWAY AND BUSINESS ENTERANCES, AS SHOWN IN THE PLANS, DURING THE CONSTRUCTION OF THIS PROJECT UNDER ITEM 527.10, MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS. THE CONTRACTOR SHALL PROVIDE SAFE PEDESTRIAN PASSAGE THROUGH THE SITE AND SURROUNDING AREA. PEDESTRIANS SHALL HAVE CLEAR, UNINTRUDED PASSAGE ALONG THE SIDEWALK AND TEMPORARY CROSSWALK AS DESIGNATED IN THE STAGING PLANS.
40. THE CONTRACTOR SHALL COORDINATE WITH THE TOWN, ADJACENT PROPERTY OWNERS AND BUSINESSES TO OBTAIN A SUITABLE STAGING AREA, AND SUBMIT THE PROPOSAL TO THE ENGINEER FOR CONCURRENCE.
41. THE CONTRACTOR SHALL UTILIZE AND MAINTAIN, 24 HRS. A DAY OVER THE DURATION OF THE PROJECT, THE CHANGEABLE MESSAGE SIGNS TO PROVIDE INFORMATION TO TRAVELING MOTORISTS. THE CONTRACTOR SHALL DISPLAY ALL ANTICIPATED BRIDGE CLOSURES ON THE WORK ZONE MESSAGE SIGN, A MINIMUM OF 2 DAYS PRIOR TO CLOSURE. THE CHANGEABLE MESSAGE SIGNS SHALL BE PLACED TO CLEARLY DISPLAY MESSAGES TO MOTORIST WITH NO OBSTRUCTIONS. IT IS PAID FOR UNDER ITEM 641.15 AS "EACH".
42. TACK COAT: EMULSIFIED ASPHALT IS TO BE APPLIED AT THE RATE OF 0.015 GAL./SY BETWEEN SUCCESSIVE COURSES OF PAVEMENT AS DIRECTED BY THE ENGINEER. COSTS ARE INCLUDED UNDER ITEM 406.25, BITUMINOUS CONCRETE PAVEMENT.
43. ALL DIMENSIONS ARE EITHER HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES F, EXCEPT AS NOTED.

PROJECT NO. TH1-9914

BHF 1000 (17)S

Greenman-Pederson  
CONSULTING ENGINEERS

BENNINGTON BRIDGE #10 (U.S. ROUTE 7)  
OVER THE WALLOOMSAC RIVER

**GPI**

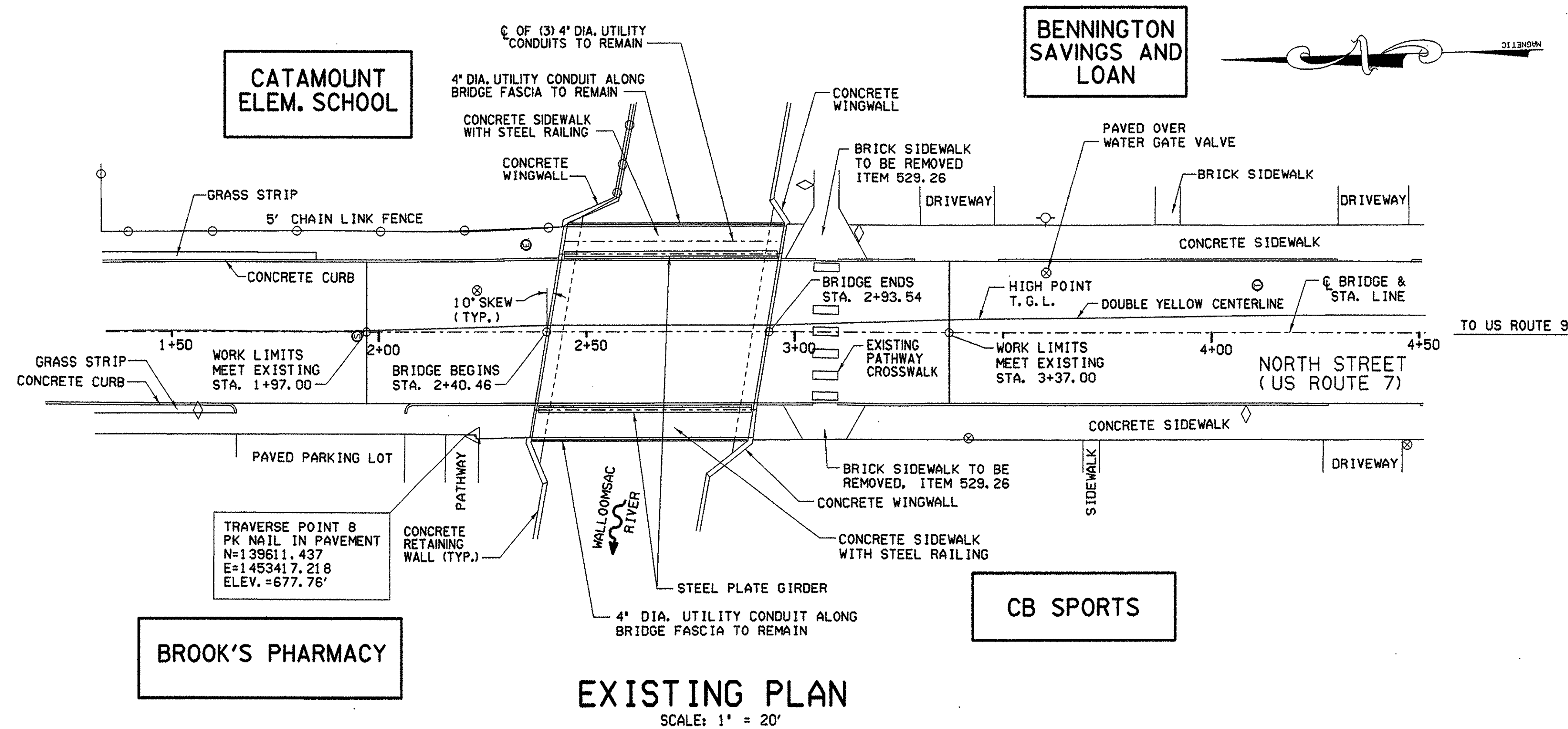
GENERAL NOTES

55 Monument Ave.  
Bennington, VT. 05201

DRAWING NO. GN-1	SCALE: AS SHOWN	DATE: DEC ., 1999	SHEET NO. 4 OF 20
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IN CHARGE OF J. STEVENS  
 DESIGNED BY J. RIZZO  
 DRAFTED BY K. COLE  
 CHECKED BY J. STEVENS  
 01/19/99 08:00 AM

DESIGNED BY J. RIZZO  
 DRAWN BY J. SIMKULET  
 CHECKED BY K. COLE  
 IN CHARGE OF J. STEVENS

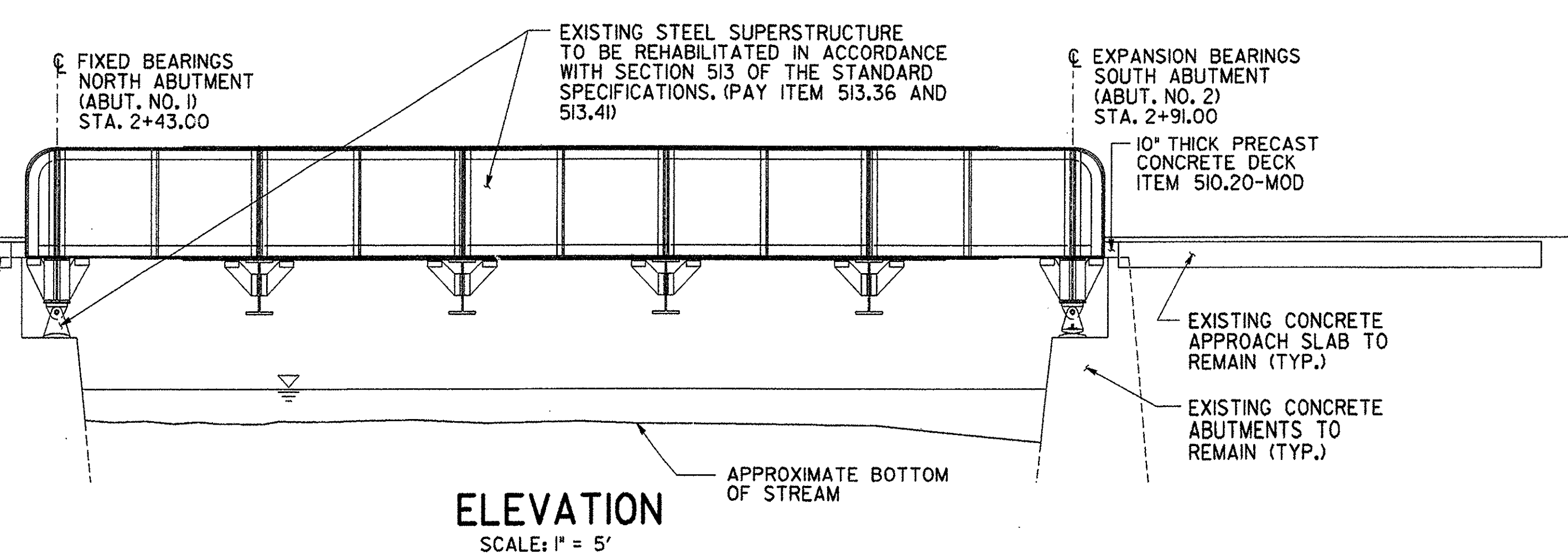


**NOTES**

- ALL HORIZONTAL COORDINATES ARE BASED ON NAD 83 (1992) AND ELEVATIONS ARE NAVD 88 FROM BENCHMARKS B95004 AND B95005. THE HORIZONTAL COORDINATES OF THESE BENCHMARKS WERE ESTABLISHED FROM GPS OBSERVATIONS AND ADJUSTED BY THE VERMONT GEODETIC SURVEY.
- |              |  |   |
|--------------|--|---|
| BM 'B95004': | VT GEODETIC GPS<br>NAD 83(1992)<br>NAVD 88 | N= 142604.912 (FT)<br>E= 1454662.588 (FT)<br>EL = 675.41 (FT) |
| BM 'B95005': | VT GEODETIC GPS<br>NAD 83(1992)<br>NAVD 88 | N= 141126.688 (FT)<br>E= 1454564.049 (FT)<br>EL = 682.71 (FT) |

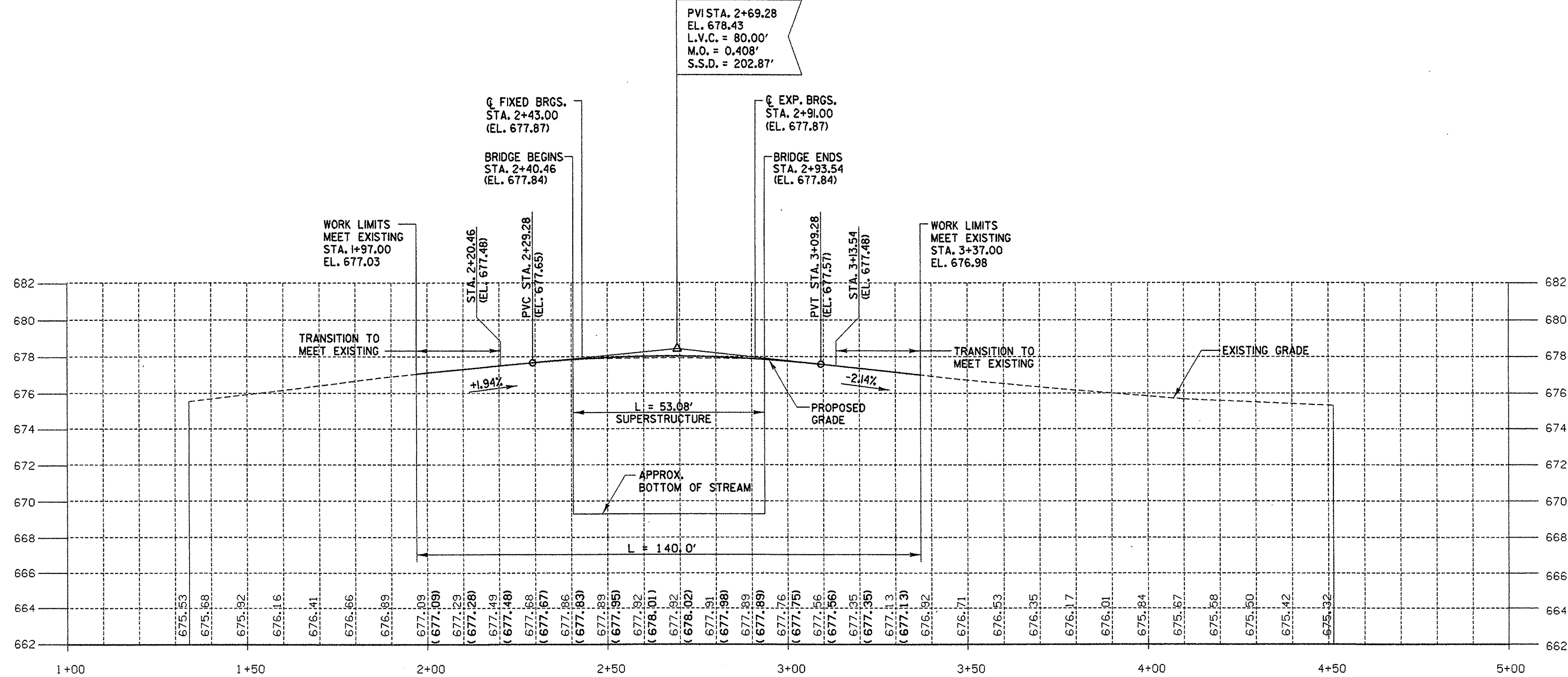
**LEGEND**

- CONSTRUCTION SIGN
- ORANGE SAFETY FENCING
- TYPE III CONSTRUCTION BARRICADES
- ORANGE SAFETY BARRELS
- TEMPORARY CONCRETE BARRIER
- TEMPORARY CONCRETE BARRIER WITH LIGHTING
- EXISTING CONCRETE BARRIER WITH LIGHTING
- CHANGEABLE MESSAGE SIGN
- M.U.T.C.D. SIGN DESIGNATION
- TYPE III CONSTRUCTION BARRICADES WITH LIGHTING
- CHAIN LINK FENCE
- UTILITY POLE
- STREET LIGHT POLE
- CATCH BASIN
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- SEWER MANHOLE
- FIRE HYDRANT
- WATER GATE VALVE OR SHUTOFF



PROJECT NO. THI-9914		BHF 1000 (17)S	
Greenman-Pedersen CONSULTING ENGINEERS		BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER	
<b>GPI</b>		<b>PLAN AND ELEVATION</b>	
55 Monument Ave. Bennington, VT, 05201	DRAWING NO. PE-1	SCALE AS SHOWN	DATE DEC ., 1999
		SHEET NO. 5 OF 20	

IN CHARGE OF J. STEVENS  
 DESIGNED BY J. RIZZO  
 DRAFTED BY K. COLE  
 CHECKED BY B. FARMST  
 d:\1999\99008\vw\pr\lban



**NOTES**

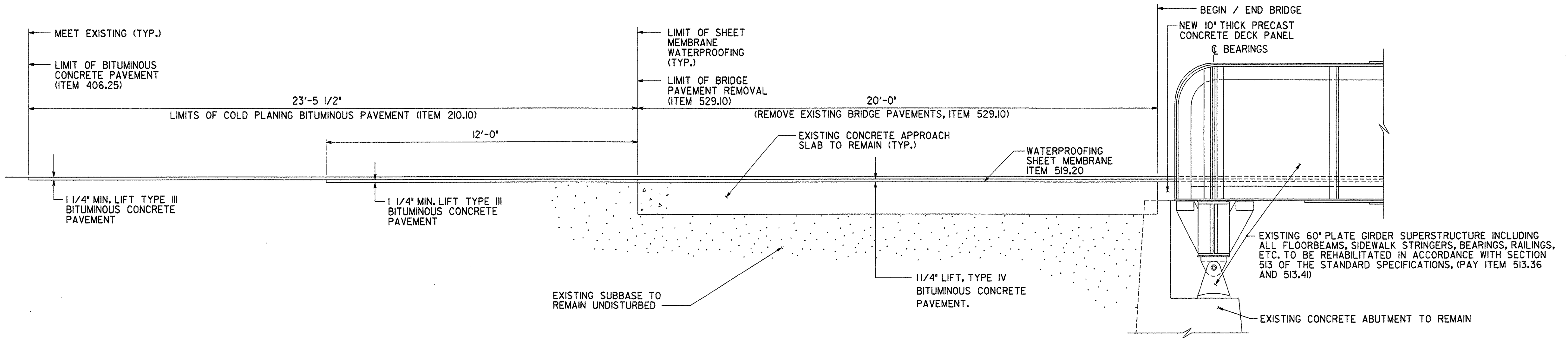
1) ALL HORIZONTAL COORDINATES ARE BASED ON NAD 83(1992) AND ELEVATIONS ARE NAVD 88 FROM BENCHMARKS B95004 AND B95005. THE HORIZONTAL COORDINATES OF THESE BENCHMARKS WAS ESTABLISHED FROM GPS OBSERVATIONS AND ADJUSTED BY THE VERMONT GEODETIC SURVEY.

BM 'B95004':	VT GEODETIC GPS NAD 83(1992) NAVD 88	N = 142604.912 (FT) E = 1454662.588 (FT) EL = 675.41 (FT)
BM 'B95005':	VT GEODETIC GPS NAD 83(1992) NAVD 88	N = 141126.688 (FT) E = 1454564.049 (FT) EL = 682.71 (FT)

**LEGEND**

STA. XX+XX.XX EL. XXXX.XX	EXISTING
STA. XX+XX.XX (EL. XXXX.XX)	PROPOSED

NOTE: ALL ELEVATIONS ARE GIVEN ALONG T.G.L.

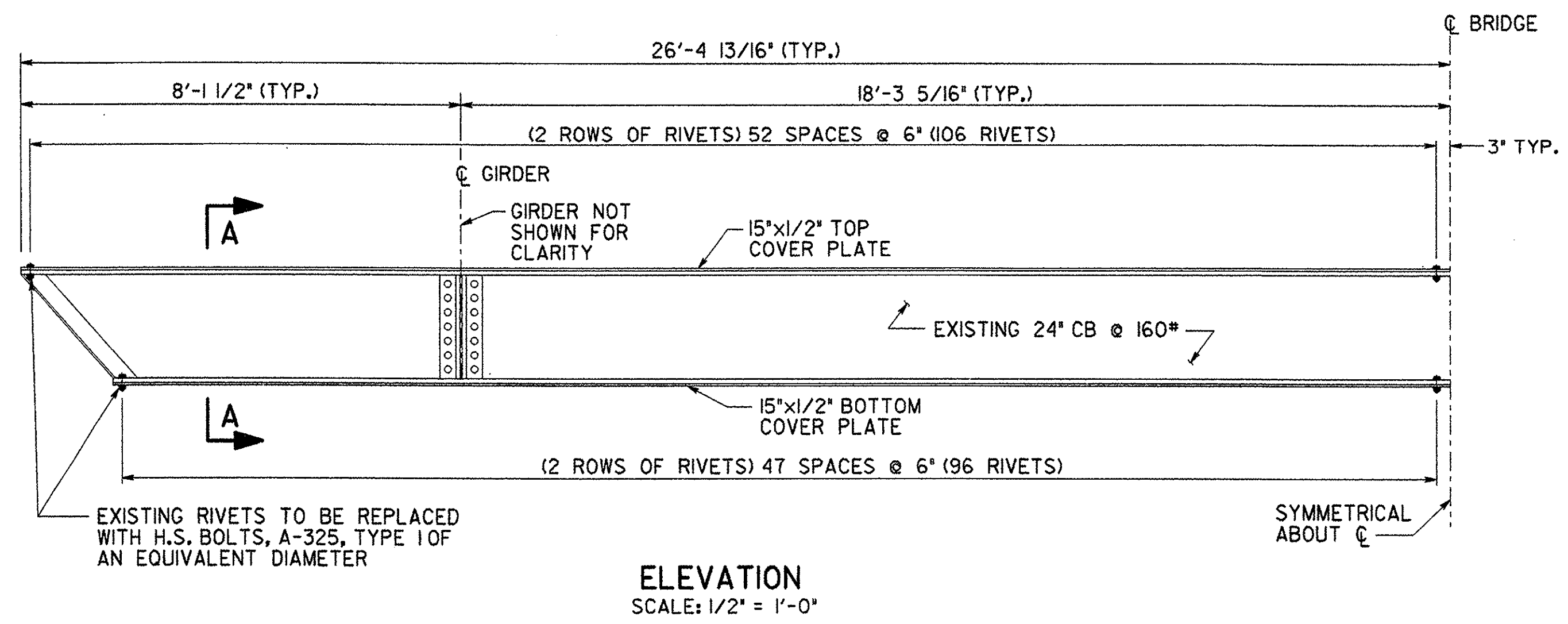
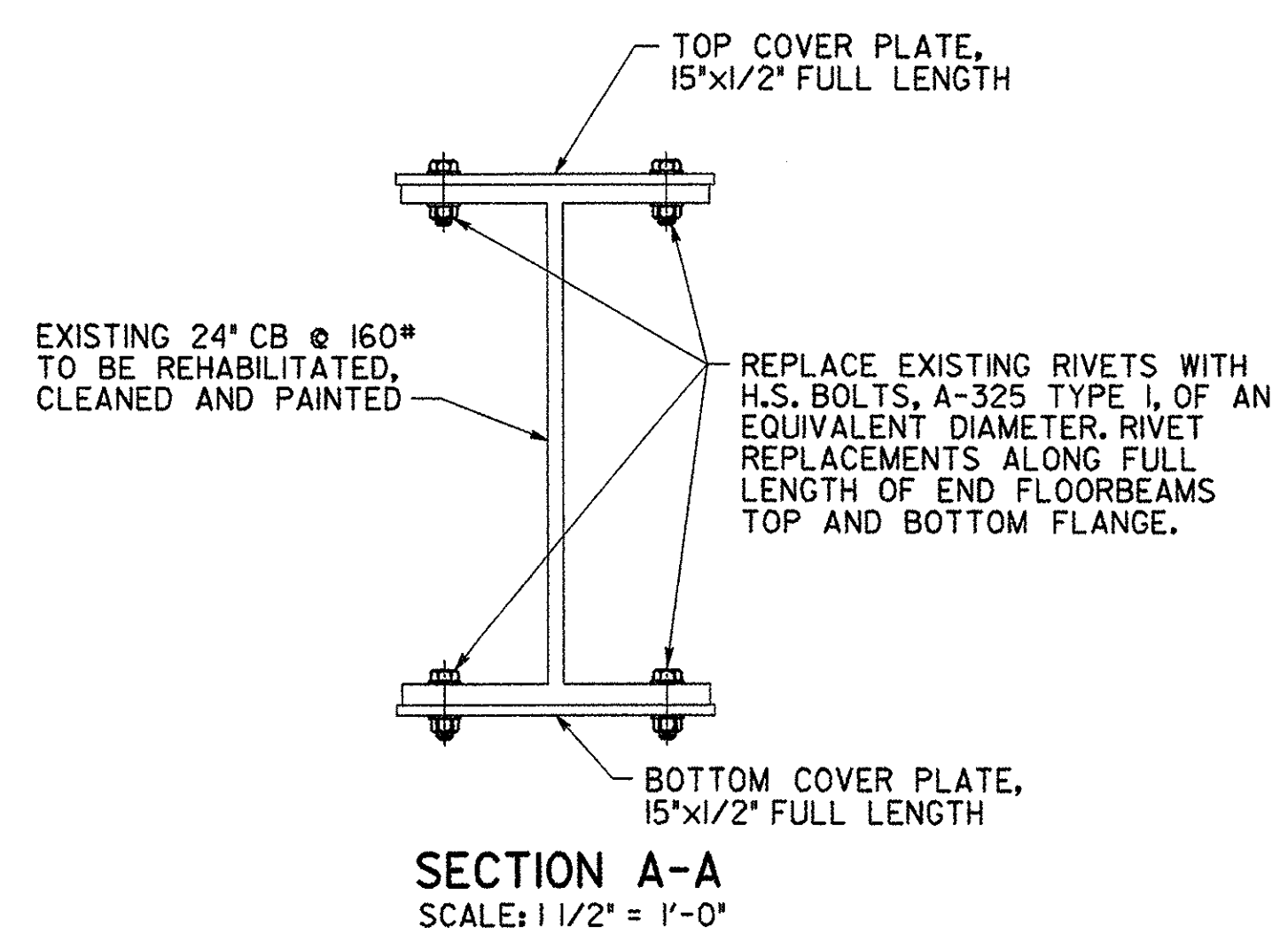


**TRANSITION TO MEET EXISTING**  
SCALE: 1/2" = 1'-0"

PROJECT NO. THI-9914 BHF 1000 (17)S

<b>Greenman-Podorsen</b> CONSULTING ENGINEERS <b>GPI</b> 55 Monument Ave. Bennington, VT. 05201	BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER		
	<b>PROFILE</b>		
DRAWING NO. PR-1	SCALE: AS SHOWN	DATE: DEC ., 1999	SHEET NO. 6 OF 20

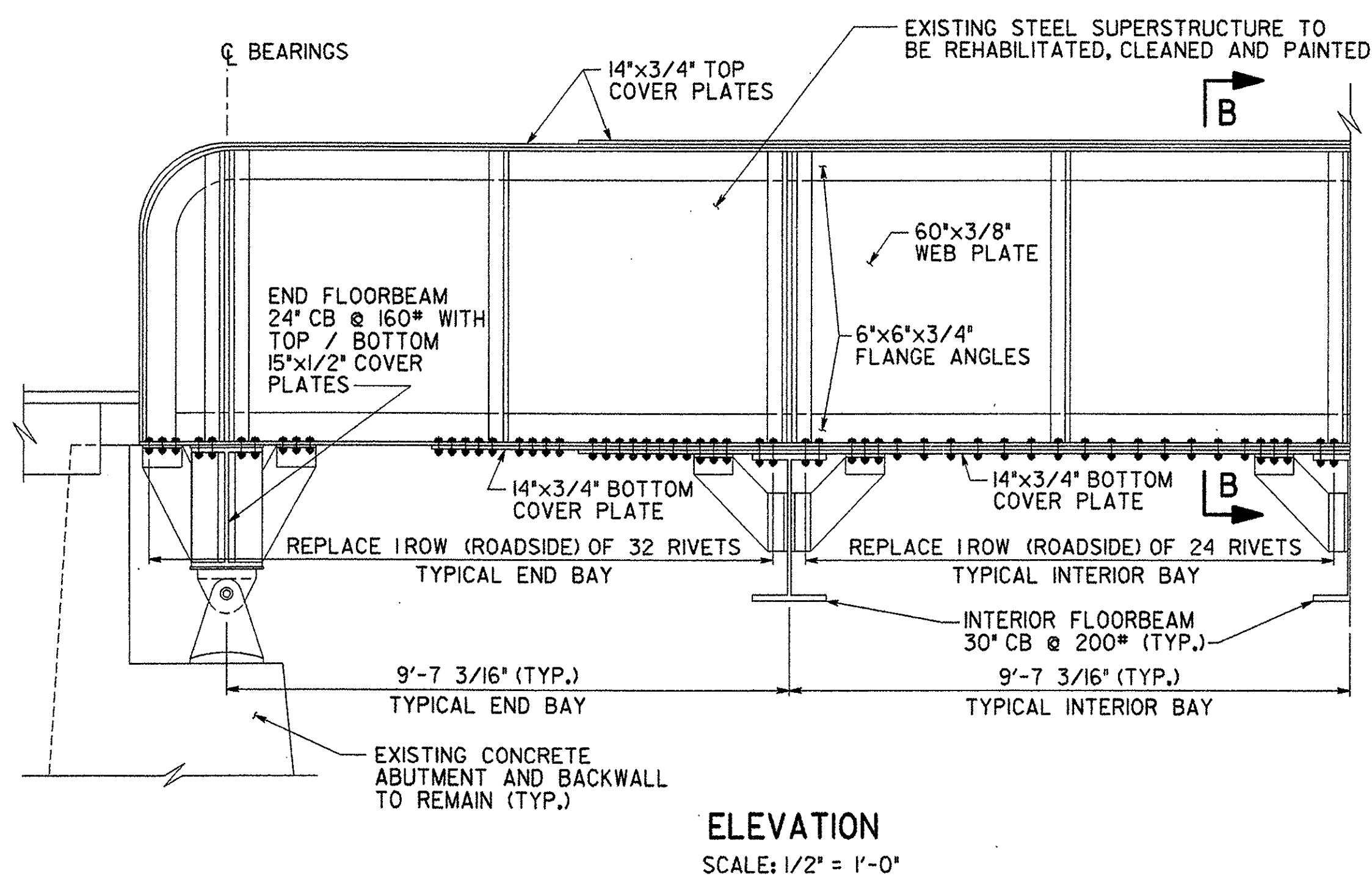
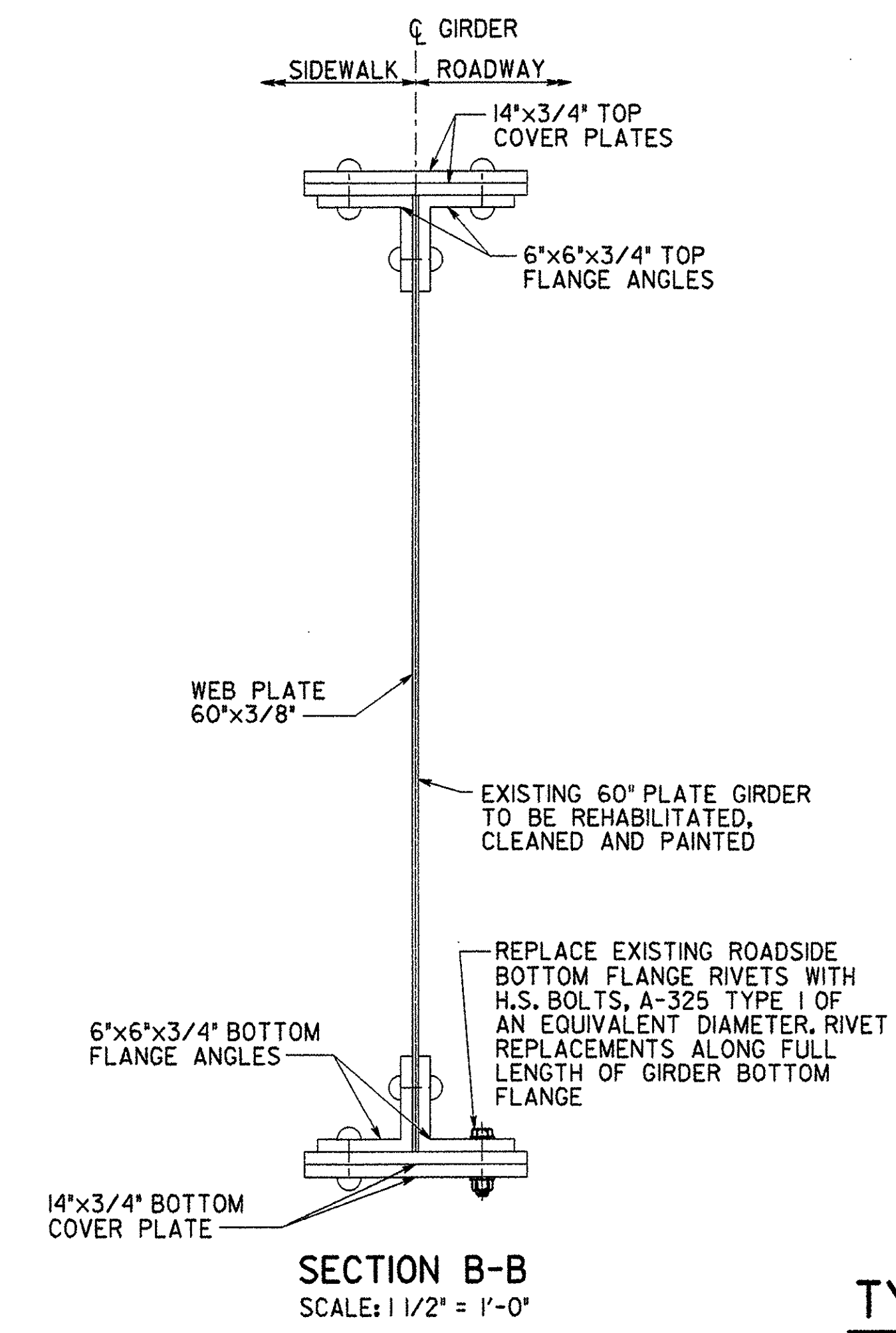
IN CHARGE OF J. STEVENS  
 DESIGNED BY J. RIZZO  
 DRAFTED BY K. COLE  
 CHECKED BY M. BORGEL  
 d:\1999\98008\sr1\sr1.dwg



**TYPICAL END FLOORBEAM  
RIVET REPLACEMENTS**

RIVET REPLACEMENTS		
LOCATION	FLANGE	QUANTITY
WEST GIRDER	BOTTOM	136
EAST GIRDER	BOTTOM	136
NORTH END FLOORBEAM	TOP	212
NORTH END FLOORBEAM	BOTTOM	192
SOUTH END FLOORBEAM	TOP	212
SOUTH END FLOORBEAM	BOTTOM	192

- NOTES:**
- RIVET REPLACEMENTS TO THE WEST GIRDER AND THE WEST HALF OF THE END FLOOR BEAMS SHALL OCCUR DURING STAGE 1 AFTER THE REMOVAL OF THE EXISTING CONCRETE DECK AND SIDEWALK.
  - RIVET REPLACEMENTS TO THE EAST GIRDER AND THE EAST HALF OF THE END FLOOR BEAMS SHALL OCCUR DURING STAGE 2 AFTER THE REMOVAL OF THE EXISTING CONCRETE DECK AND SIDEWALK.
  - ALL RIVETS AS DETAILED IN THE PLANS SHALL BE REPLACED WITH H.S. BOLTS, A-325 TYPE 1 OF EQUAL DIAMETER. NEW H.S. BOLTS SHALL BE PAID FOR UNDER ITEM 506.60, STRUCTURAL STEEL (BOLTS).
  - ALL RIVET REPLACEMENT LOCATIONS, IN ACCORDANCE WITH THE PLANS OR FIELD DISCOVERED AFTER BLASTING AND CLEANING, SHALL BE APPROVED AND RECORDED BY THE ENGINEER PRIOR TO ANY ATTEMPT OF RIVET REMOVAL BY THE CONTRACTOR.
  - THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS SO AS TO NOT DAMAGE EXISTING STEEL TO REMAIN IN PLACE. IF THE CONTRACTOR'S OPERATIONS DAMAGE THE EXISTING STEEL THAT IS TO REMAIN, THE DAMAGED AREAS SHALL BE REPAIRED AND/OR REPLACED IN ACCORDANCE WITH THE SPECIFICATIONS AND CODES FOR STRUCTURAL STEEL, SECTION 506 OF THE STANDARD SPECIFICATIONS. ALL STEEL REPAIRS ARE SUBJECT TO THE APPROVAL OF THE RESIDENT ENGINEER.
  - RIVET REMOVAL AND REPLACEMENT SHALL OCCUR ONE RIVET AT A TIME OR AS ORDERED BY THE ENGINEER. COSTS FOR REMOVAL OF EXISTING RIVETS OR FASTENERS SHALL BE SUBSIDIARY TO ITEM 506.60, STRUCTURAL STEEL, (BOLTS).
  - QUANTITIES OF RIVET REPLACEMENTS SHOWN ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. ACTUAL QUANTITIES SHALL BE FIELD VERIFIED AND APPROVED BY THE ENGINEER.
  - THE ENGINEER SHALL INSPECT ALL SUPERSTRUCTURE STEEL AFTER REMOVAL OF THE EXISTING PAINT SYSTEM TO DETERMINE AREAS OF NECESSARY STRUCTURAL REPAIRS, ITEM 506.60-MOD, STRUCTURAL STEEL (REPAIR PLATE).
  - FOR FRAMING PLAN SEE DWG. FP-1.



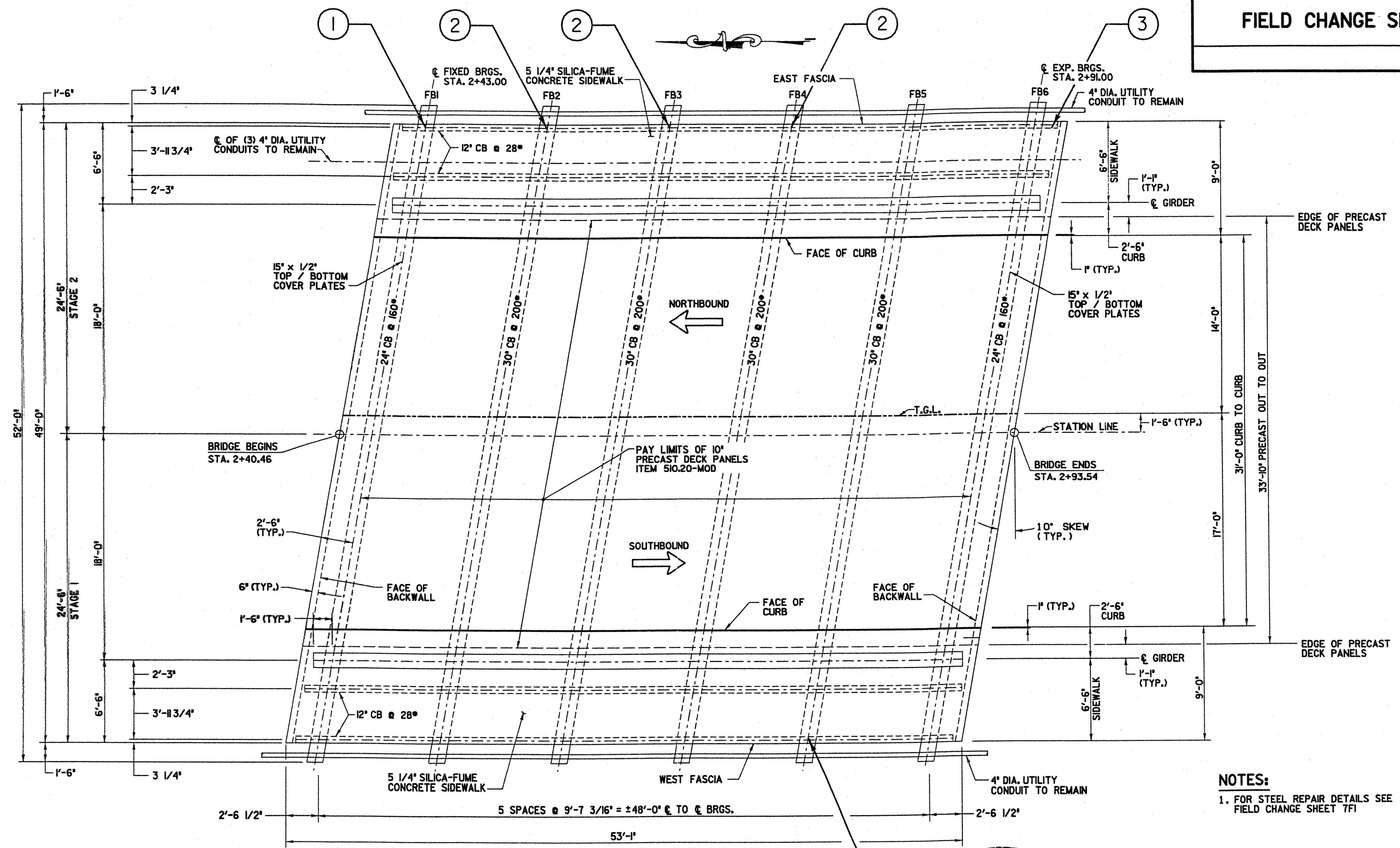
**TYPICAL PLATE GIRDER  
RIVET REPLACEMENTS**

PROJECT NO. THI-9914 BHF 1000 (17)S

<b>Greenman-Pederson</b> CONSULTING ENGINEERS <b>GPI</b> 55 Monument Ave. Bennington, VT. 05201	BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER			
	<b>STEEL REPAIRS</b>			
DRAWING NO. SR-1	SCALE: AS SHOWN	DATE: DEC ., 1999	SHEET NO. 7 OF 20	

THIS SHEET, 9F1, SUPPLEMENTS SHEET 9

**FIELD CHANGE SHEET**

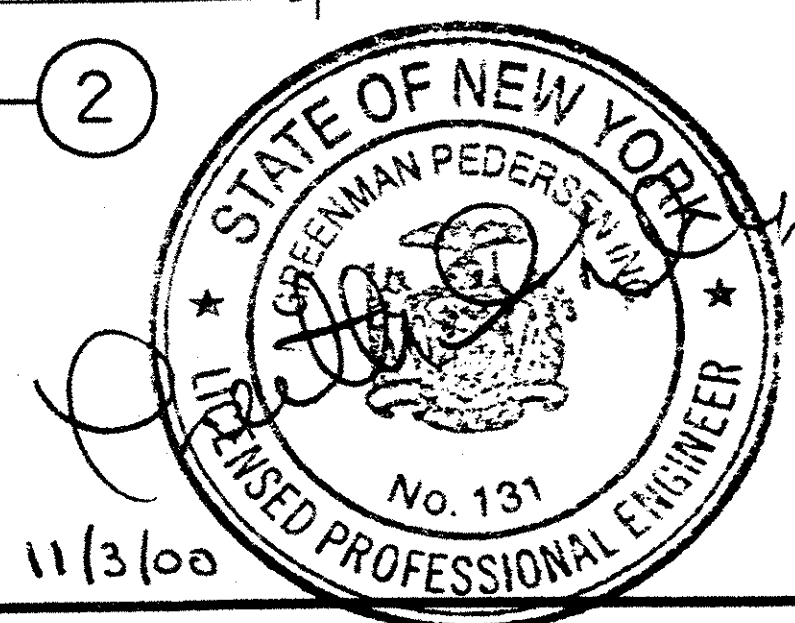


DESIGNED BY J. STEVENS  
 IN CHARGE OF J. RIZZO  
 DRAFTED BY J. COLLEY  
 CHECKED BY J. SIMKULET  
 04/19/99 9:00:08 AM \SFR2.dwg

- LEGEND:**
- ① --- STRINGER WEB REPAIR (INSTALLATION OF BENT PLATES)
  - ② --- STRINGER WEB REPAIR (INSTALLATION OF WEB PLATES)
  - ③ --- STRINGER WEB REPAIR (INSTALLATION OF WEB PLATES)

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

**NOTES:**  
1. FOR STEEL REPAIR DETAILS SEE FIELD CHANGE SHEET 7F1



PROJECT NO. TH-9914 BHF 1000 (17)S

BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER

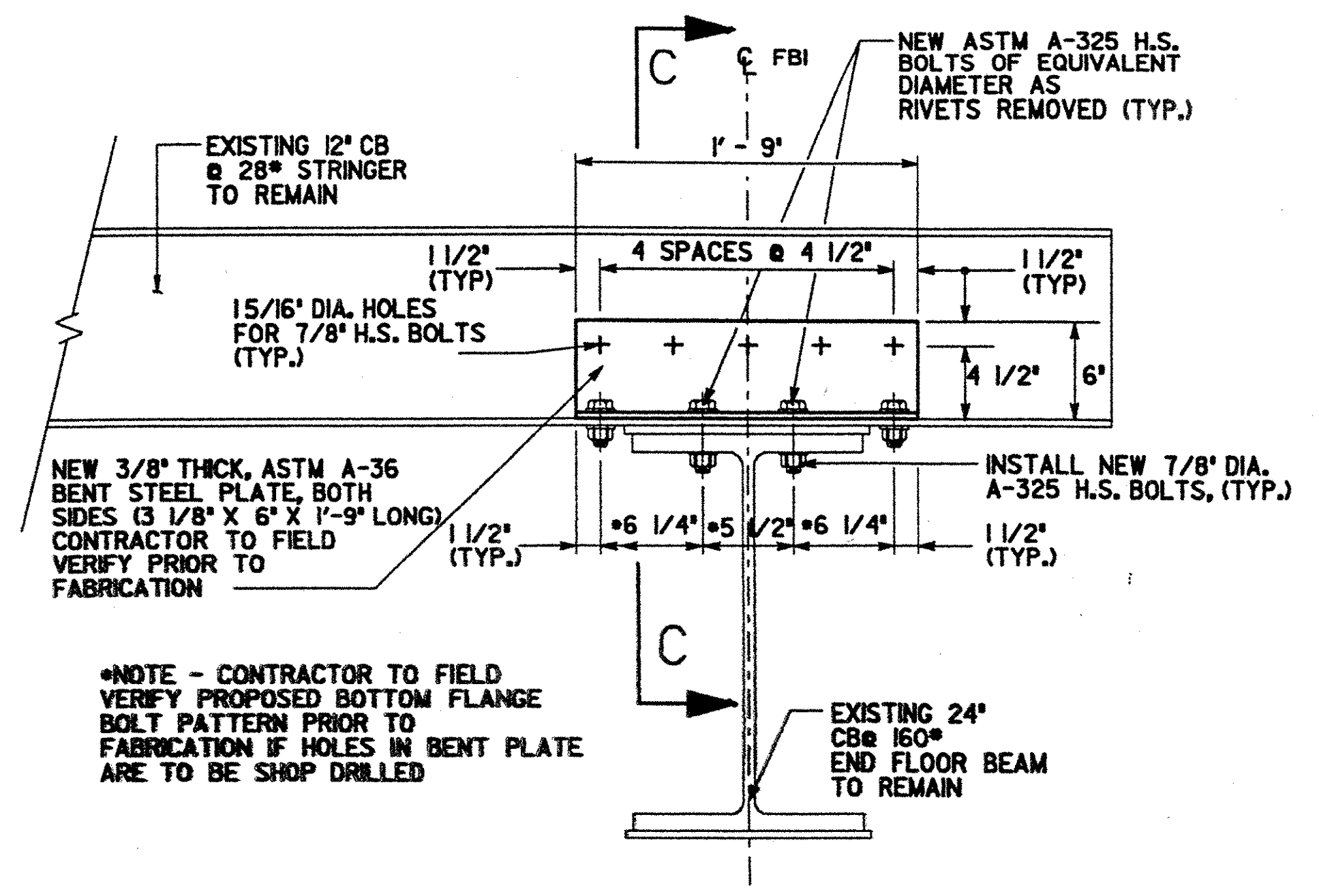
**GPI** GREENMAN-PEDERSEN CONSULTING ENGINEERS

55 Monument Ave., Bennington, VT, 05201

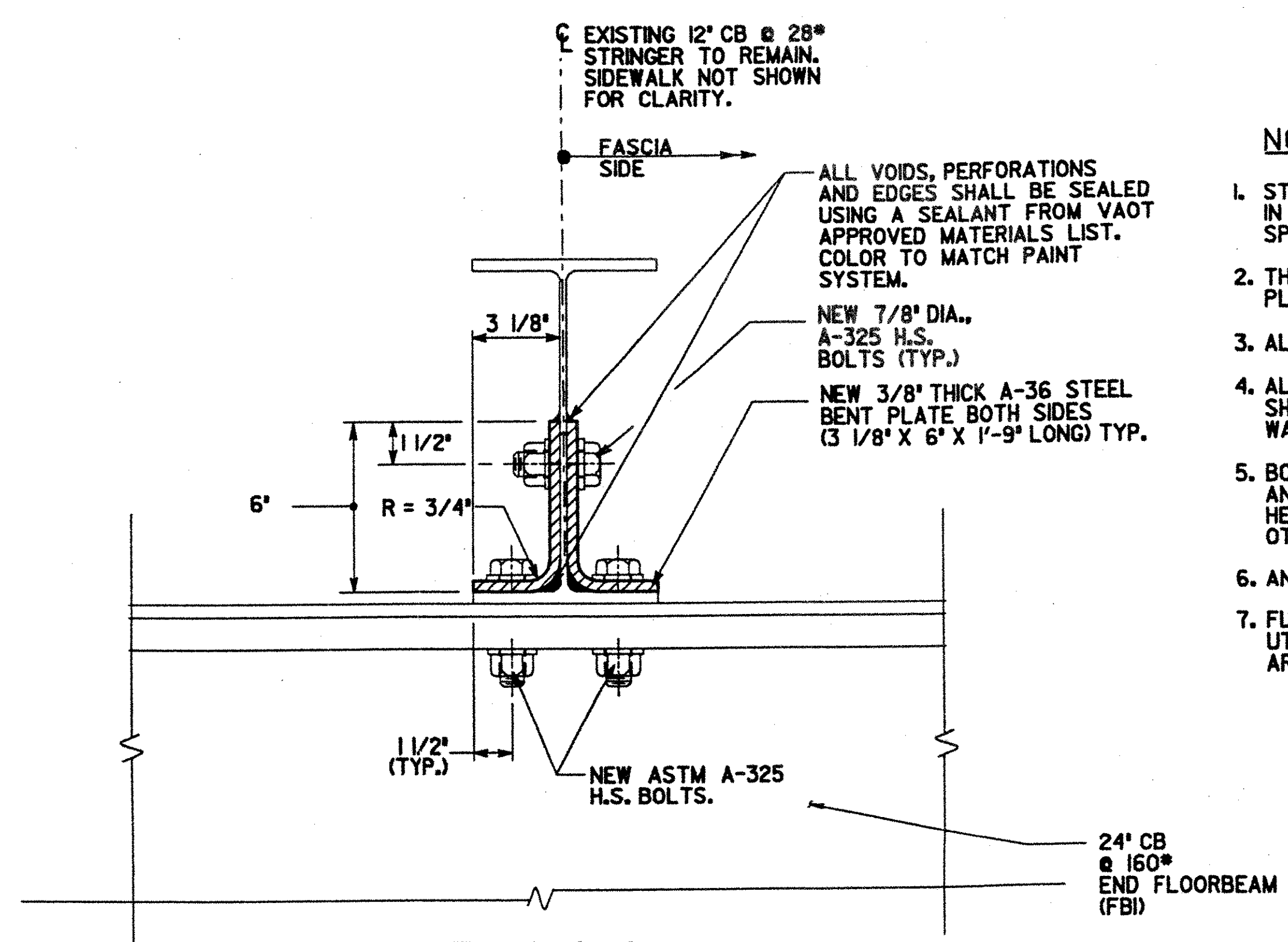
DRAWING NO. SR-2 SCALE: AS SHOWN DATE: NOV., 2000 SHEET NO. 9F1 OF 20

**FIELD CHANGE SHEET**

DESIGNED BY J. STEVENS  
 DRAWN BY J. RIZZO  
 CHECKED BY C. COLLEY  
 J. SIMKULET  
 01/19/2000 11:30 AM



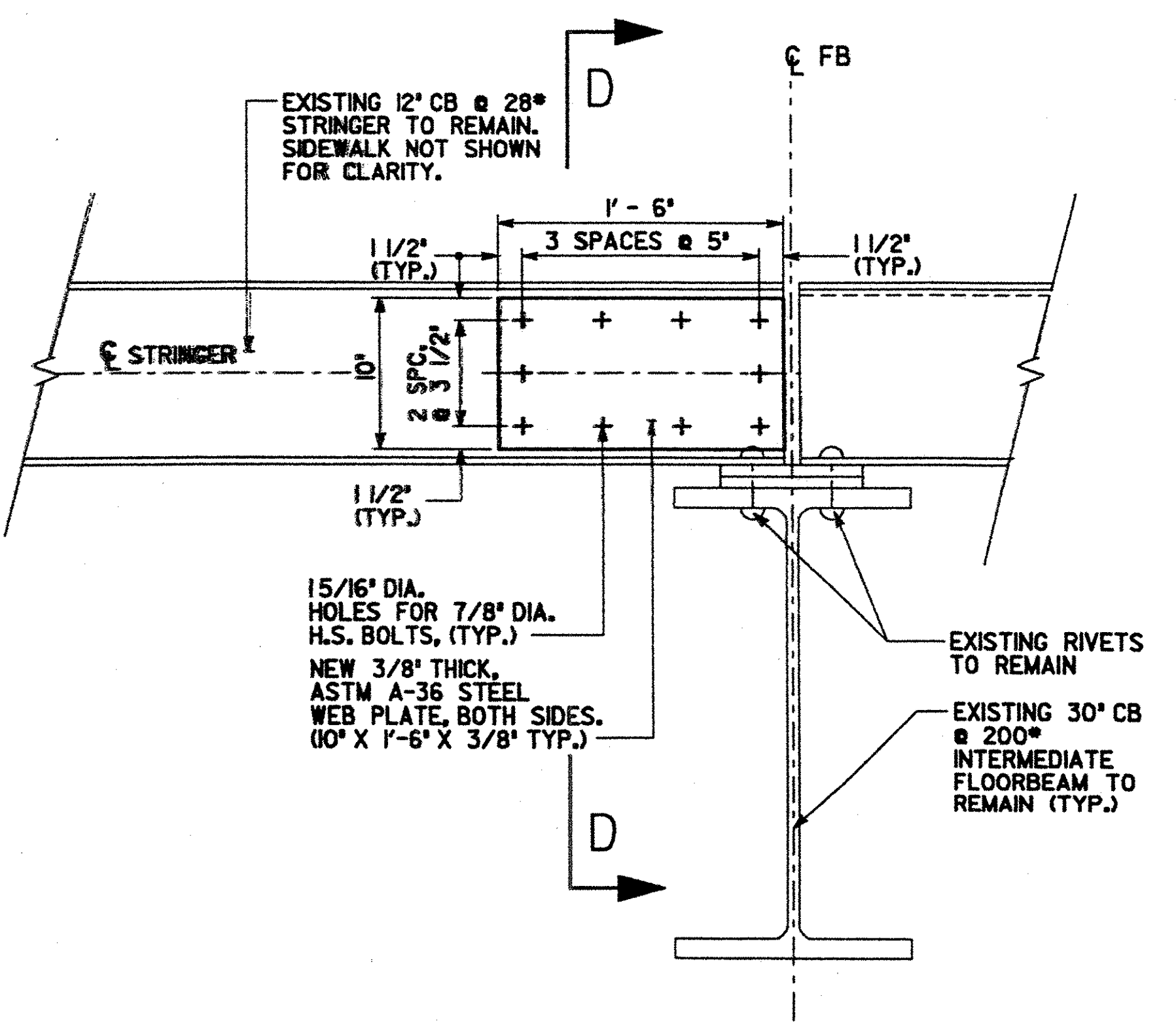
**REPAIR DETAIL 1**  
(1 REQUIRED)  
SCALE: 1 1/2" = 1'-0"



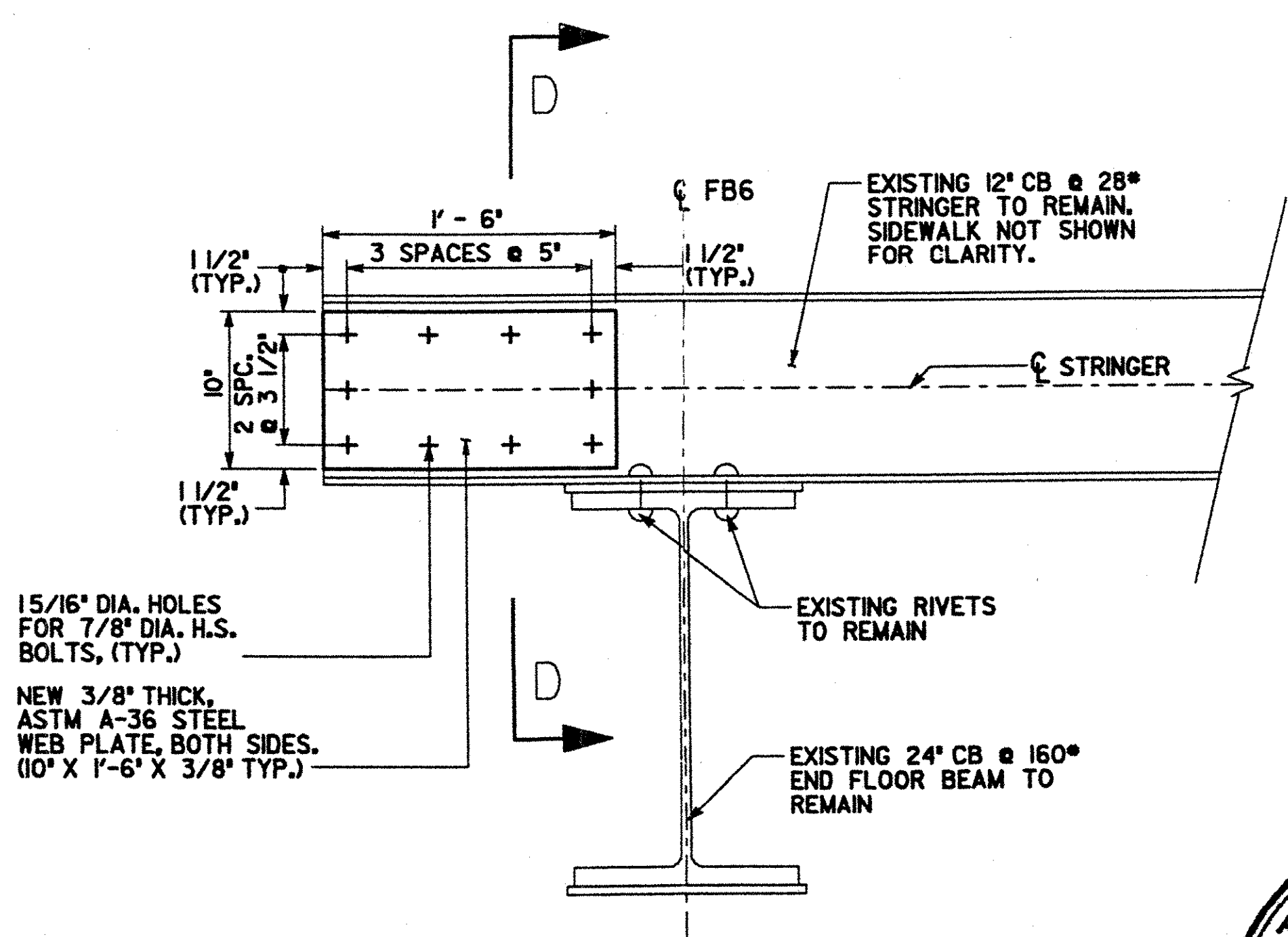
**SECTION C-C**  
SCALE: 3" = 1'-0"

**NOTES**

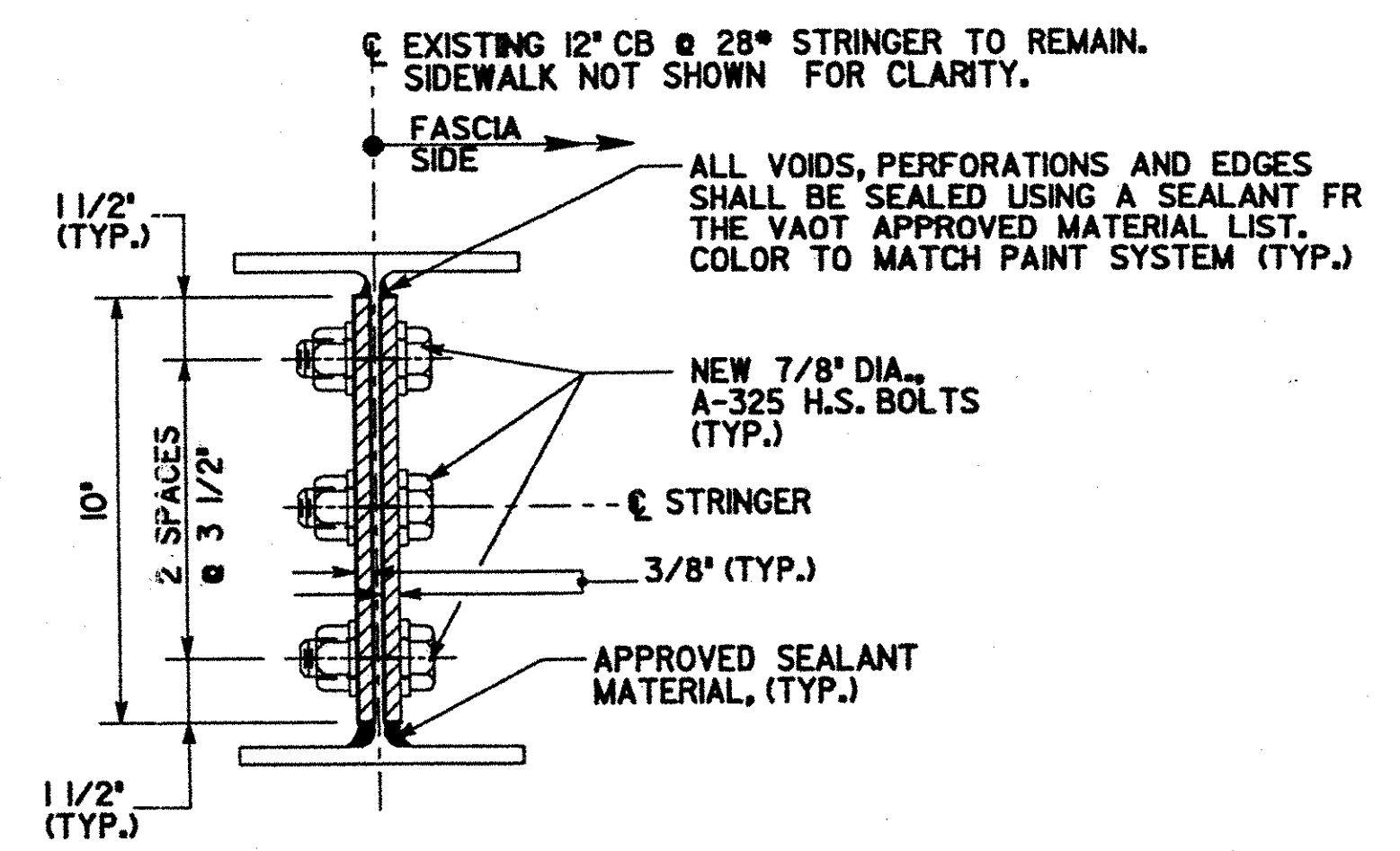
1. STRINGER WEB REPAIRS SHALL BE PERFORMED UNDER FORCE ACCOUNT IN ACCORDANCE WITH ARTICLE 109.06 OF THE VERMONT STANDARD SPECIFICATIONS.
2. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS OF PROPOSED REPAIR PLATES PRIOR TO FABRICATION.
3. ALL NEW REPAIR STEEL SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED.
4. ALL FASTENERS SHALL BE NEW, 7/8" DIA., HS A-325 BOLTS. FASTENERS SHALL BE OF EQUIVALENT RIVET DIA. WHEN BEING PLACED IN EXISTING HOLES. WASHERS SHALL BE USED ON BOTH THE HEAD AND NUT SIDES OF THE FASTENER.
5. BOLTS INSTALLED WITH THE STEM VERTICAL SHALL HAVE THE HEADS UP AND THE BOLTS INSTALLED WITH THE STEM HORIZONTAL SHALL HAVE THE HEAD TOWARDS THE WEATHER UNLESS CLEARANCE RESTRICTIONS DICTATE OTHERWISE.
6. ANY WELDING OF REPAIR PLATES TO EXISTING STEEL IS PROHIBITED.
7. FULL SIZE BOLT HOLES IN NEW AND EXISTING STEEL MEMBERS CAN BE MADE UTILIZING ONE COMPONENT AS A TEMPLATE PROVIDING ALL THE FOLLOWING CRITERIA ARE MET:
  - A. ALL HOLES MUST BE DRILLED WITH HOUGEN OR JANCY BITS. TWIST DRILLS WILL NOT BE ALLOWED.
  - B. ALL COMPONENTS OF AN ASSEMBLY MUST BE DRILLED, MATCHED MARKED AND MATCHED DRILLED USING ONE COMPONENT AS A TEMPLATE.
    - 1.) WHEN MAKING HOLES IN THE FIELD, HOLES IN EXISTING STEEL MUST BE USED AS THE TEMPLATE FOR THE NEW STEEL.
    - 2.) WHEN MAKING NEW HOLES IN THE EXISTING STEEL, ONE COMPONENT OF THE MATCHED MARKED REPAIR ASSEMBLY MUST BE USED AS THE TEMPLATE.
8. ALL VOIDS AND PERFORATIONS IN EXISTING STEEL, INCLUDING THE EDGES OF THE REPAIR PLATES, SHALL BE SEALED USING A SEALANT FROM THE VAOT APPROVED LIST OF MATERIALS. COLOR TO MATCH PAINT SYSTEM.
9. ALL PAINT DAMAGED DURING THE STEEL REPAIRS SHALL BE REPAINTED UPON COMPLETION. ALL NEW STEEL REPAIR PLATES AND FASTENERS SHALL BE PAINTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR ITEM 513.30
10. THE CONTRACTOR HAS THE OPTION TO UTILIZE GALVANIZE COATED FASTENERS AND PERFORM FIELD PAINTING. SHOP PAINTING OF STEEL REPAIR IS PERMITTED.
11. FOR STEEL REPAIR LOCATIONS SEE DWG. SR-2 SHEET 9FL.



**REPAIR DETAIL 2**  
(4 REQUIRED)  
SCALE: 1 1/2" = 1'-0"



**REPAIR DETAIL 3**  
SCALE: 1 1/2" = 1'-0"



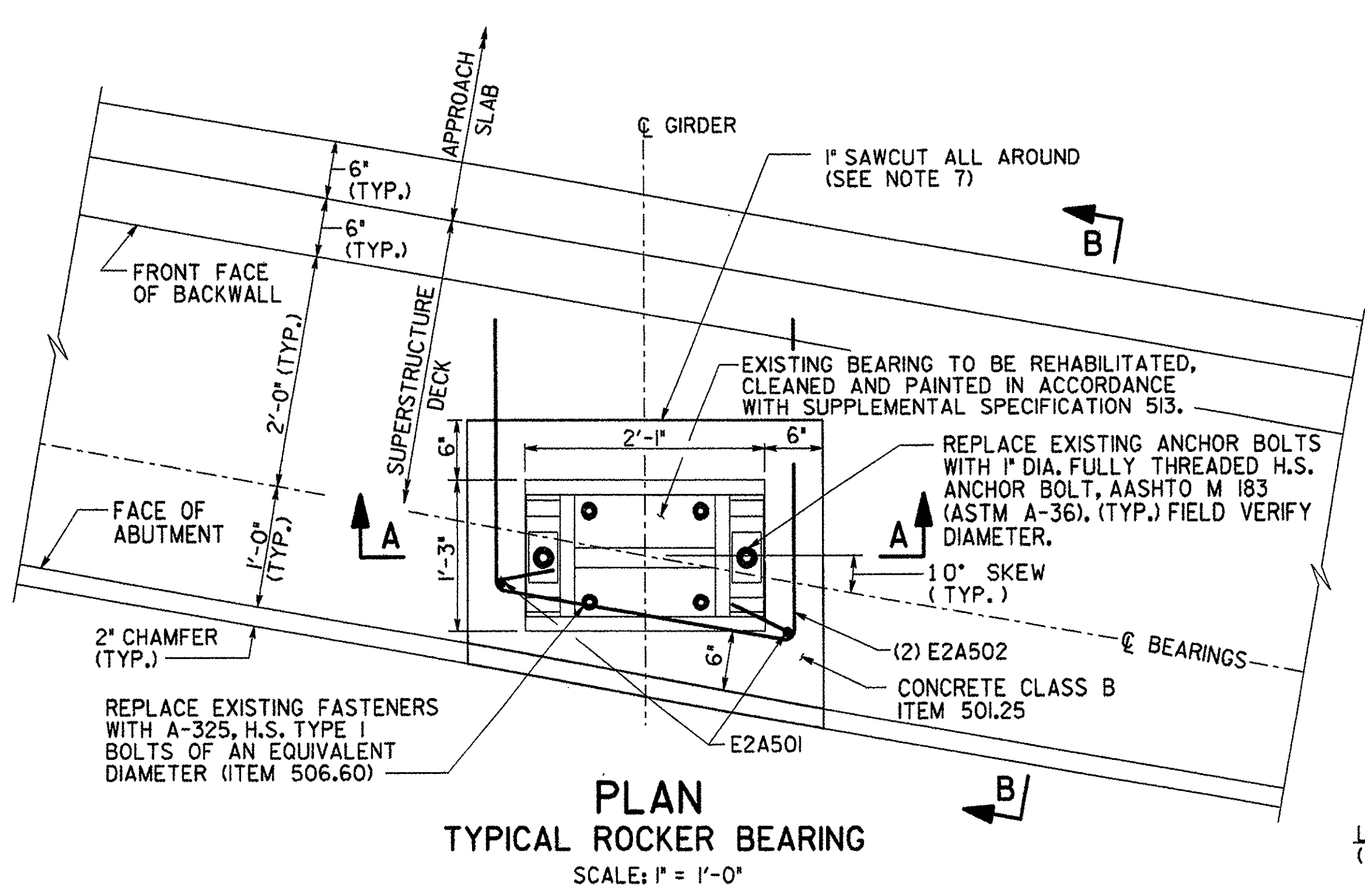
**SECTION D-D**  
SCALE: 3" = 1'-0"



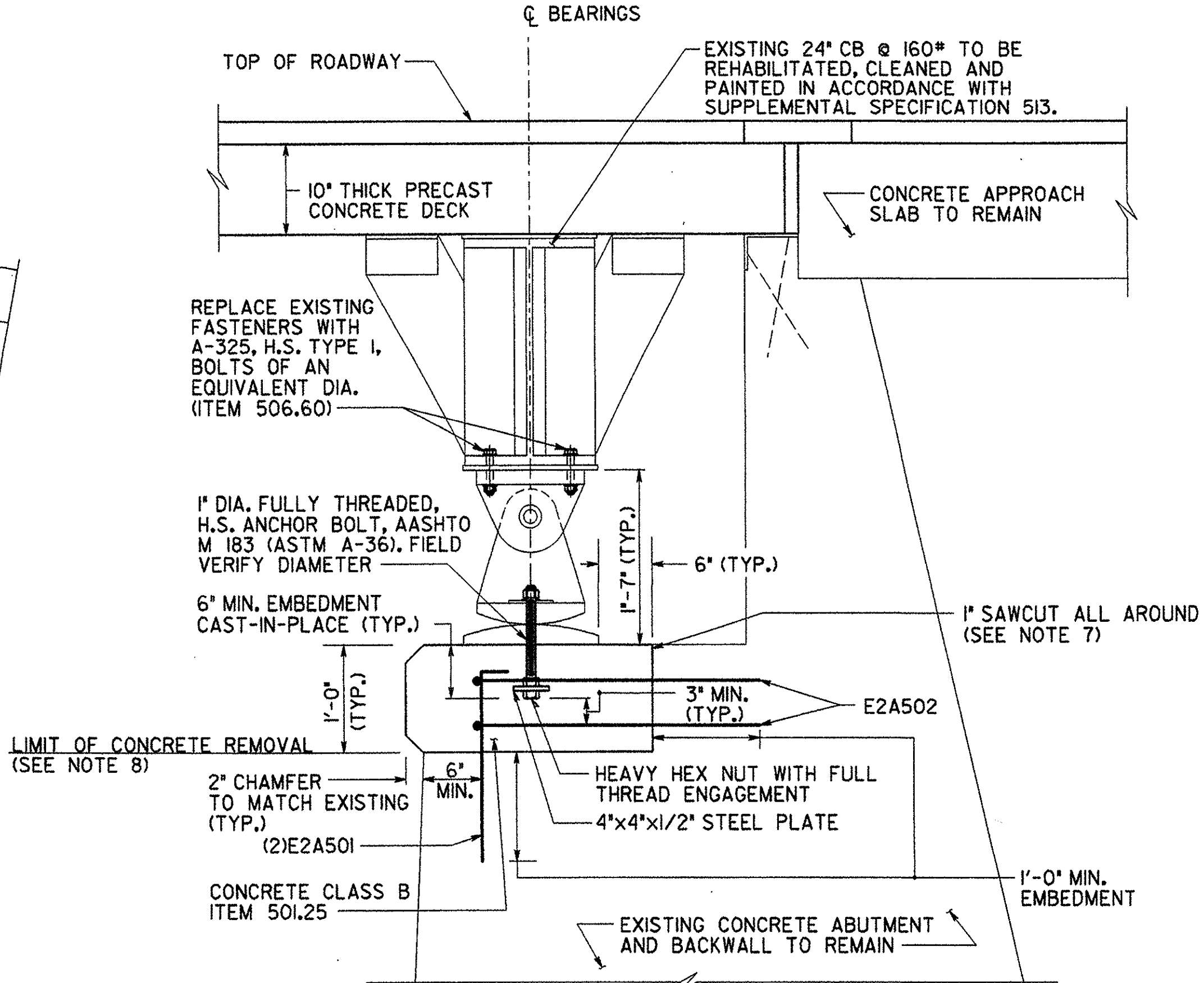
PROJECT NO. THI-9914		BHF 1000 (17)S	
Greenman-Pedersen CONSULTING ENGINEERS		BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER	
<b>GPI</b>		<b>STEEL REPAIR DETAILS</b>	
55 Monument Ave. Bennington, VT. 05201		DRAWING NO. SR-3	SHEET NO. 7F1 OF 20
DATE NOV., 2000		SCALE AS SHOWN	

11/3/00

IN CHARGE OF J. STEVENS  
 DESIGNED BY J. RIZZO  
 DRAFTED BY K. COLE  
 CHECKED BY J. STEVENS  
 04/1999/99088 VERT. D. B. B.



**PLAN  
TYPICAL ROCKER BEARING**  
SCALE: 1" = 1'-0"



**SECTION B-B  
(EXPANSION BRGS. SHOWN,  
FIXED BRGS. SIMILAR)**  
SCALE: 1" = 1'-0"

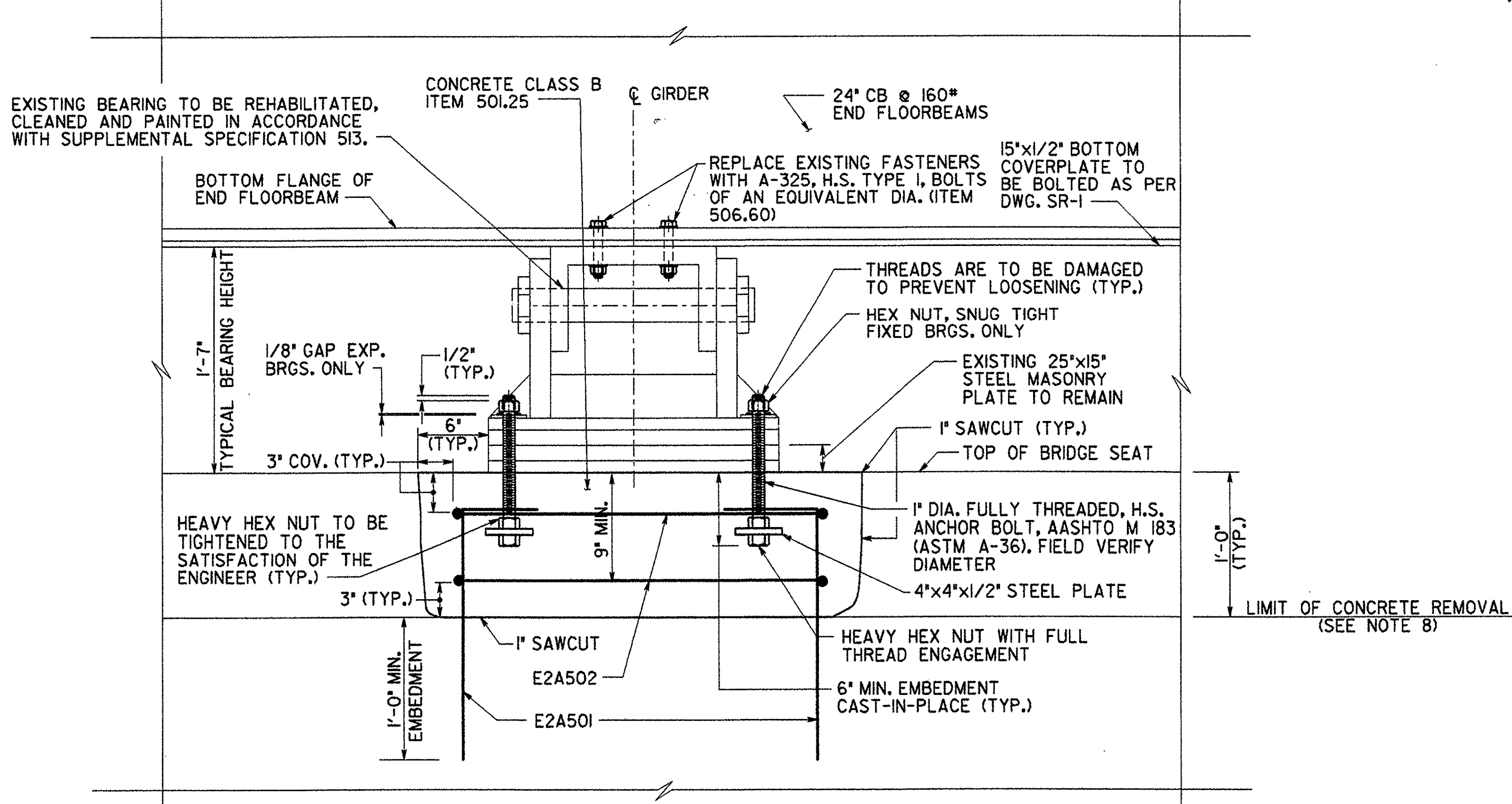
**NOTES:**

1. THE ANCHOR BOLTS AND FASTENERS OF ALL 4 BEARINGS, BOTH FIXED AND EXPANSION, SHALL BE REPLACED IN ACCORDANCE WITH THE PLANS.
2. SHORING OF THE SUPERSTRUCTURE BEARINGS, ITEM 502.11 IS REQUIRED IN ORDER TO REPLACE THE EXISTING ANCHOR BOLTS AND REHABILITATE THE BEARINGS.
3. THE CONTRACTOR SHALL SUBMIT, AS REQUIRED, PLANS AND CALCULATIONS FOR THE PROPOSED SHORING PROCEDURES TO THE ENGINEER FOR INFORMATION ONLY. THE PLANS AND COMPUTATIONS SHALL BE SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER.
4. UNDER NO CIRCUMSTANCES SHALL THE BRIDGE MOVE VERTICALLY OR TRANSVERSELY FROM ITS PRESENT LOCATION.
5. BEARINGS SHALL BE REHABILITATED TO A WORKING CONDITION WITH ALL PACK RUST AND SURFACE SCALE BEING REMOVED.
6. THE COST TO REMOVE EXISTING RIVETS OR FASTENERS FOR REPLACEMENT WITH NEW H.S. BOLTS SHALL BE SUBSIDIARY TO ITEM 506.60.
7. THE EXISTING CONCRETE BRIDGE SEAT BENEATH THE BEARINGS SHALL BE REMOVED AND DISPOSED, ITEM 529.25. SAW CUTTING OF THE EXISTING BRIDGE SEATS, AS SHOWN IN THE PLANS, SHALL BE SUBSIDIARY TO ITEM 529.25.
8. THE CONTRACTOR SHALL RETAIN ALL REINFORCEMENT AS DISCOVERED DURING THE CONCRETE REMOVAL EFFORTS. IF EXISTING REINFORCEMENT IS RETAINED, THEN THE PROPOSED REINFORCEMENT, AS SHOWN IN THE PLANS, SHALL BE USED AS ORDERED BY THE ENGINEER. ALL REINFORCEMENT IS SUBJECT TO THE APPROVAL OF THE ENGINEER PRIOR TO THE PLACEMENT OF CLASS B CONCRETE.
9. FOR REINFORCEMENT NOTES AND BAR BENDING DETAILS SEE DWG. SW-1.

**SHORING LOADS (KIPS)**

DEAD LOAD	103
LIVE LOAD (4ASTR)	115
TOTAL	218

\*NOTE: THE LOADS SHOWN ARE THE MAXIMUM CALCULATED LOADS AT EACH EXPANSION AND FIXED BEARING.



**SECTION A-A  
(EXPANSION BRGS. SHOWN,  
FIXED BRGS. SIMILAR)**  
SCALE: 1 1/2" = 1'-0"

**BAR LIST**

ITEM	NO. PIECES	SIZE	LENGTH	WT.	MARK	TYPE	A	B	C	D	E	G	H	K	COMMENT
ABUTMENT NO.1 (NORTH)															
WEST BEARING															
	2	5	2'-4"	5	EIA501	2	7"	1'-9"							
	4	5	7'-10"	33	EIA502	T4	0"	0"	2'-10"	2'-7"	2'-5"	0"	3'-6"	3'-10"	Δ SEE NOTE 8, DWG. SW-1
	SUBTOTAL = 38														
EAST BEARING															
	2	5	2'-4"	5	EIA501	2	7"	1'-9"							
	2	5	7'-10"	17	EIA502	T4	0"	0"	2'-10"	2'-7"	2'-5"	0"	3'-6"	3'-10"	
	SUBTOTAL = 22														
ABUTMENT NO.2 (SOUTH)															
WEST BEARING															
	2	5	2'-4"	5	E2A501	2	7"	1'-9"							
	4	5	7'-10"	33	E2A502	T4	0"	0"	2'-10"	2'-7"	2'-5"	0"	3'-6"	3'-10"	Δ SEE NOTE 8, DWG. SW-1
	SUBTOTAL = 38														
EAST BEARING															
	2	5	2'-4"	5	E2A501	2	7"	1'-9"							
	2	5	7'-10"	17	E2A502	T4	0"	0"	2'-10"	2'-7"	2'-5"	0"	3'-6"	3'-10"	
	SUBTOTAL = 22														

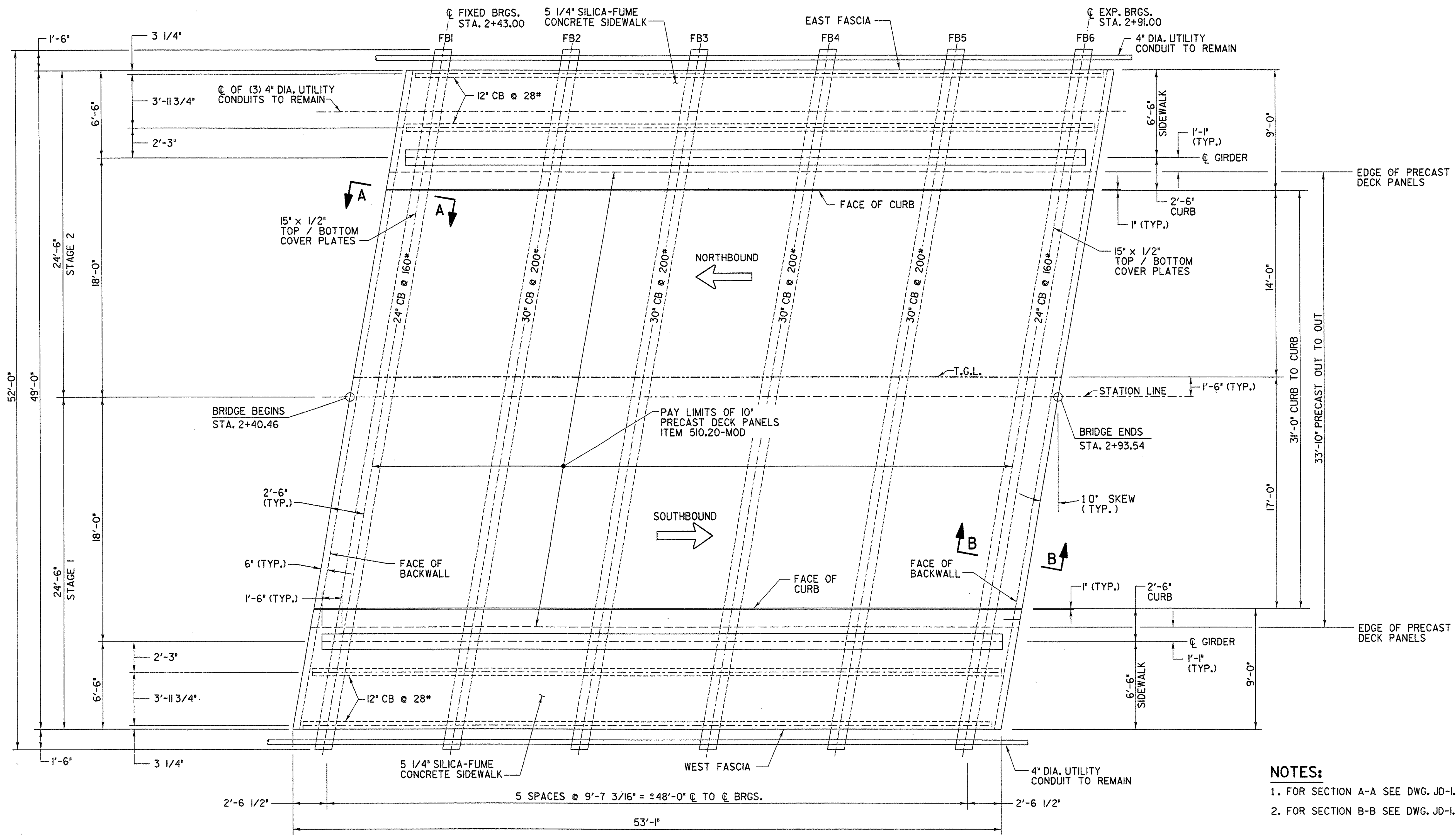
NOTE: ALL PROPOSED REINFORCEMENT SHALL BE USED AS ORDERED BY ENGINEER.

PROJECT NO. THI-9914

BHF 1000 (17)S

**Greenman-Pedersen**  
CONSULTING ENGINEERS  
**GPI**  
55 Monument Ave.  
Bennington, VT. 05201

BENNINGTON BRIDGE #10 (U.S. ROUTE 7)  
OVER THE WALLOOMSAC RIVER  
**BEARING DETAILS**  
DRAWING NO. BD-1  
SCALE: AS SHOWN  
DATE: DEC., 1999  
SHEET NO. 8 OF 20



- NOTES:**
1. FOR SECTION A-A SEE DWG. JD-1.
  2. FOR SECTION B-B SEE DWG. JD-1.

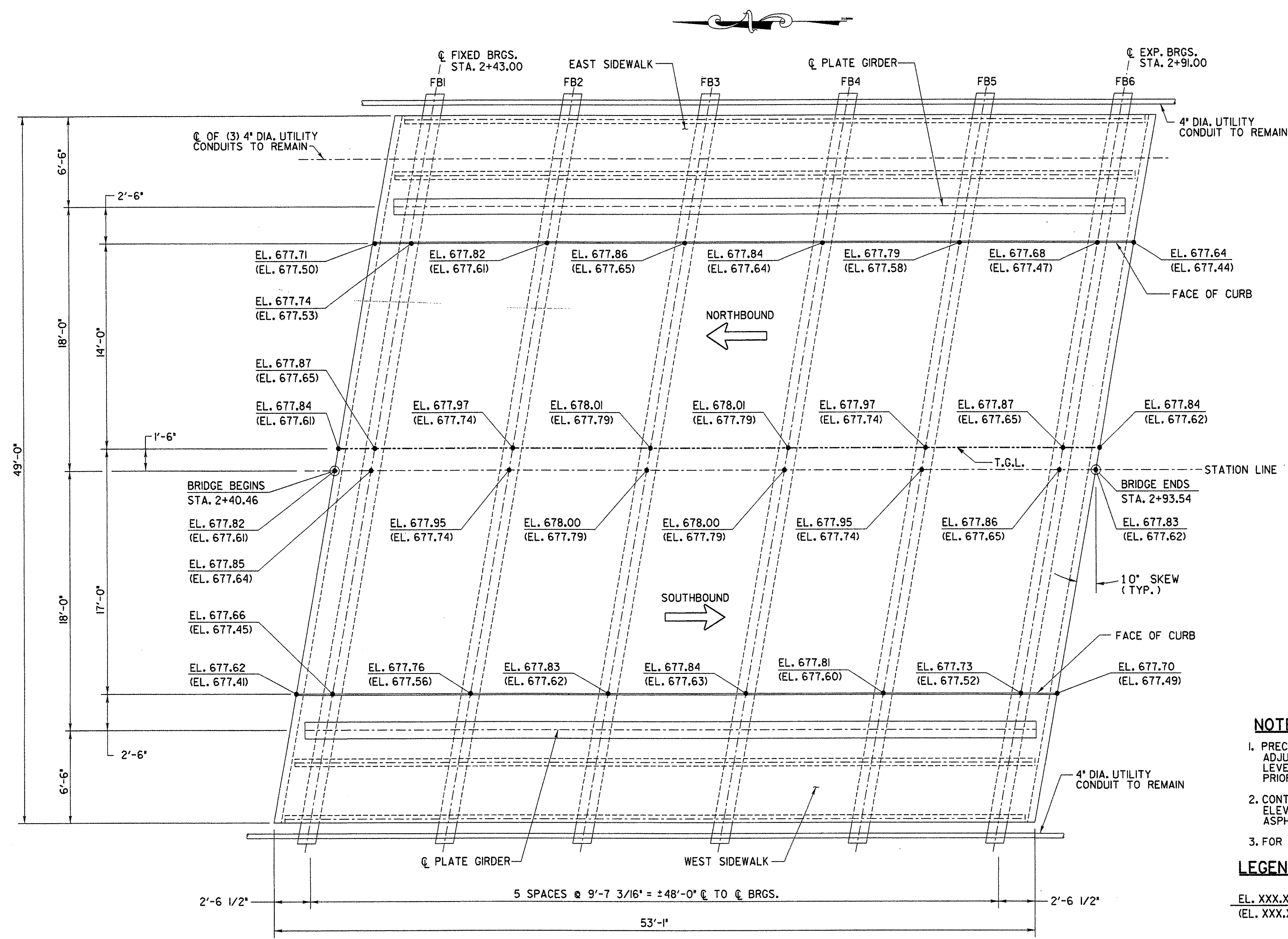
**PLAN**  
SCALE: 1/4" = 1'-0"

PROJECT NO. THI-9914

BHF 1000 (17)S

<b>Greenman-Pederson</b> CONSULTING ENGINEERS <b>GPI</b> <small>55 Monument Ave.          Bennington, VT, 05201</small>	BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER		
	<b>FRAMING AND DECK PLAN</b>		
DRAWING NO. FP-1	SCALE: AS SHOWN	DATE: DEC ., 1999	SHEET NO. 9 OF 20

IN CHARGE OF J. STEVENS  
 DESIGNED BY J. RIZZO  
 DRAFTED BY K. COLE  
 CHECKED BY J. SIMKULET  
 d:\9995\99008\hwy\delben



**NOTES:**

1. PRECAST CONCRETE DECK PANELS SHALL BE LEVELED AND ADJUSTED IN ACCORDANCE WITH MANUFACTURER'S REQUIRED LEVELING PROCEDURES. LEVELING AND ADJUSTING SHALL OCCUR PRIOR TO FINAL GROUTING OF THE PANEL.
2. CONTRACTOR SHALL FIELD VERIFY THE THE DECK SLAB ELEVATIONS PRIOR TO GROUTING TO CONFIRM PROPOSED ASPHALT THICKNESS AND PROFILES.
3. FOR FRAMING AND DECK PLAN SEE DWG. FP-1.

**LEGEND**

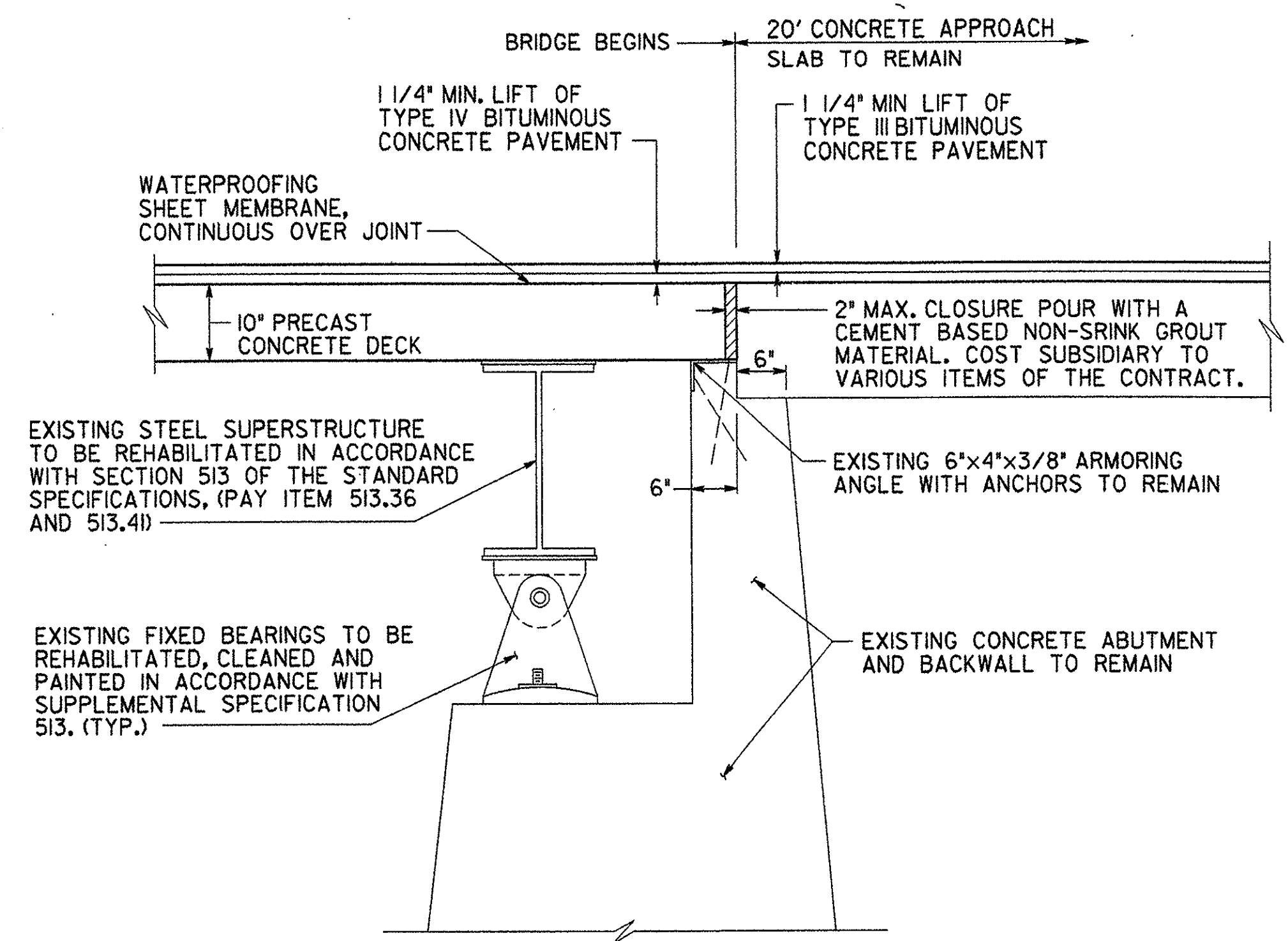
EL. XXX.XX ---- TOP OF ROADWAY ELEVATION  
 (EL. XXX.XX) --- TOP OF PRECAST CONCRETE DECK ELEVATION

PROJECT NO. THI-9914

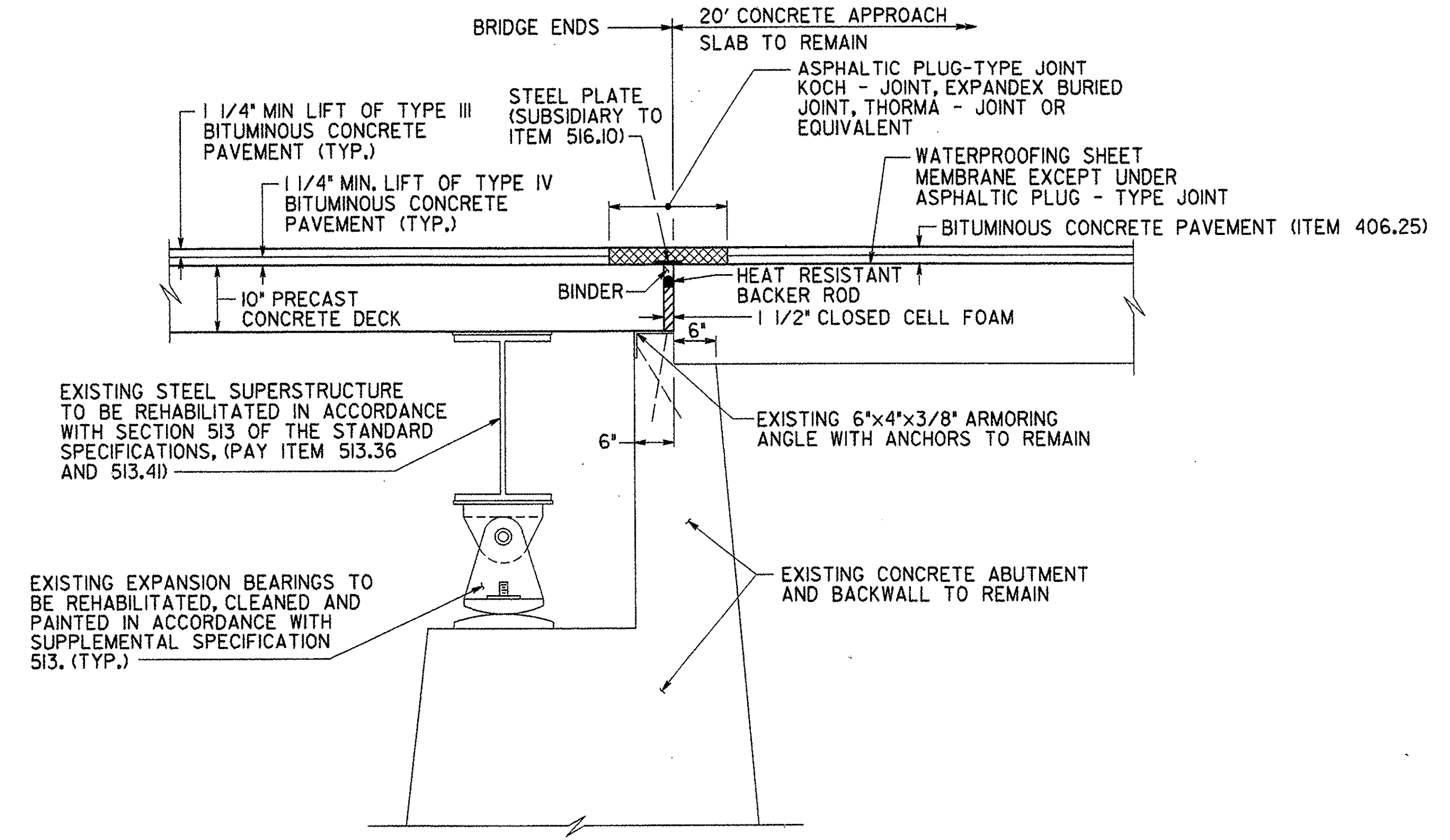
BHF 1000 (17)S

<b>Greenman-Pedersen</b> CONSULTING ENGINEERS  <small>55 Monument Ave. Bennington, VT. 05201</small>	BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER		
	<b>DECK ELEVATIONS</b>		
DRAWING NO. DE-1	SCALE: AS SHOWN	DATE: DEC ., 1999	SHEET NO. 10 OF 20

IN CHARGE OF J. STEVENS  
 DESIGNED BY J. RIZZO  
 DRAFTED BY K. COLE  
 CHECKED BY J. SIMKULET  
 04/1999A/99008/STV/VJL/ben



**SECTION A-A  
(FIXED)**  
SCALE: 3/4" = 1'-0"



**SECTION B-B  
(EXPANSION)**  
SCALE: 3/4" = 1'-0"

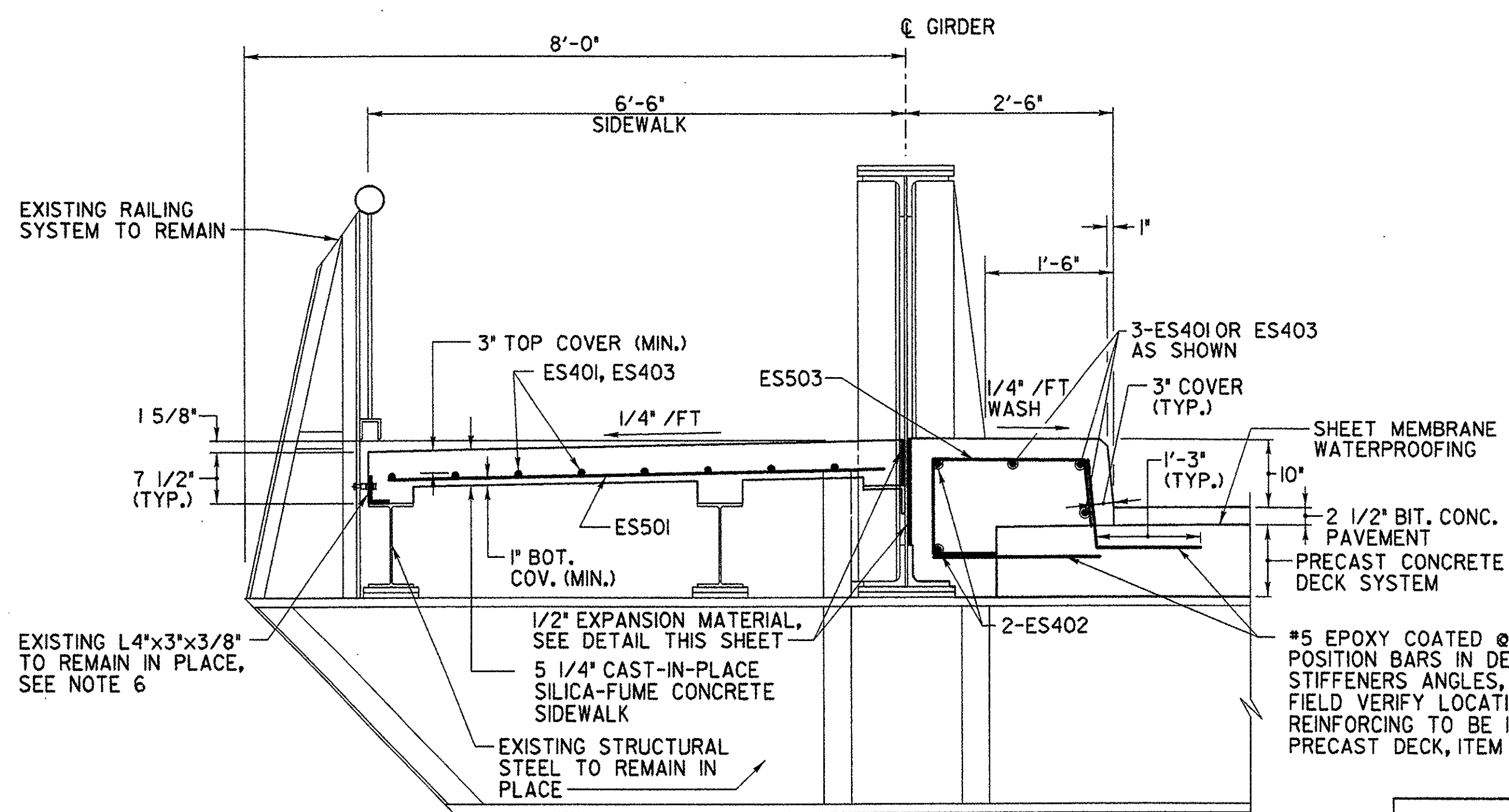
**NOTES:**

1. FOR FRAMING AND DECK PLAN SEE DWG. FP-1.
2. FOR BEARING REHABILITATION DETAILS SEE DWG. BD-1.
3. EXPANSION JOINTS AND GROUTED CLOSURE POURS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER. JOINT TREATMENTS ARE UNIQUE TO EACH INDIVIDUAL PRECAST DECK MANUFACTURER. JOINT DETAILS WILL BE REVIEWED FOR ACCEPTANCE DURING THE SHOP DRAWING REVIEW. MANUFACTURERS SHALL PROVIDE AN EXPANSIVE JOINT SYSTEM AT BRIDGE ENDS AND A GROUTED CLOSURE POUR SYSTEM AT BRIDGE BEGINS.

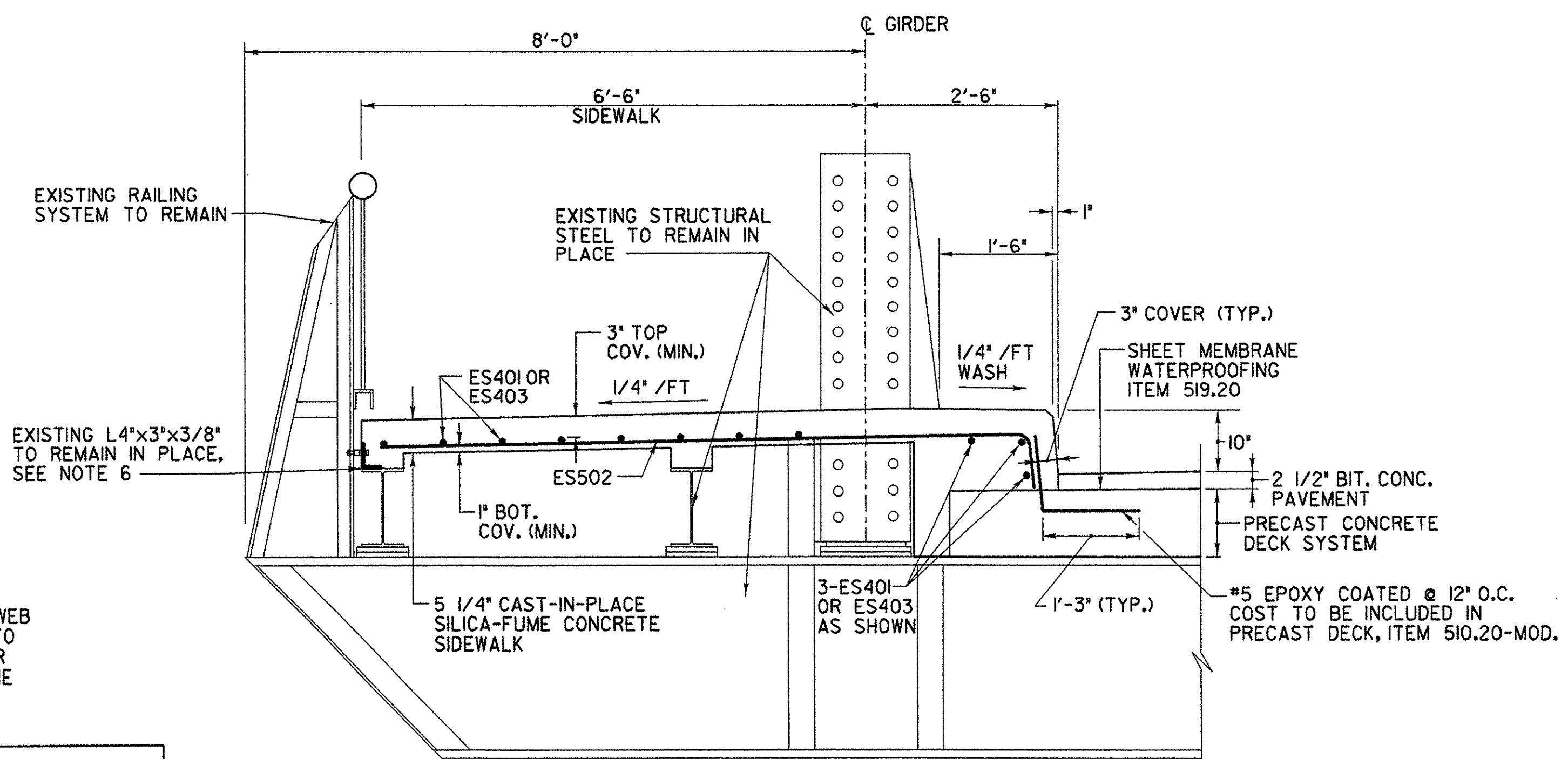
PROJECT NO. THI-9914		BHF 1000 (17)S	
Greenman-Pedersen CONSULTING ENGINEERS		BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER	
<b>GPI</b>		<b>JOINT DETAILS</b>	
55 Monument Ave. Bennington, VT. 05201	DRAWING NO. JD-1	SCALE: AS SHOWN	DATE: DEC ., 1999
		SHEET NO. 11 OF 20	



DESIGNED BY J. STEVENS  
 IN CHARGE OF J. STEVENS  
 DESIGNED BY J. RIZZO  
 DRAFTED BY K. COLE  
 CHECKED BY M. BORGEL  
 4819931990081919902.dwg

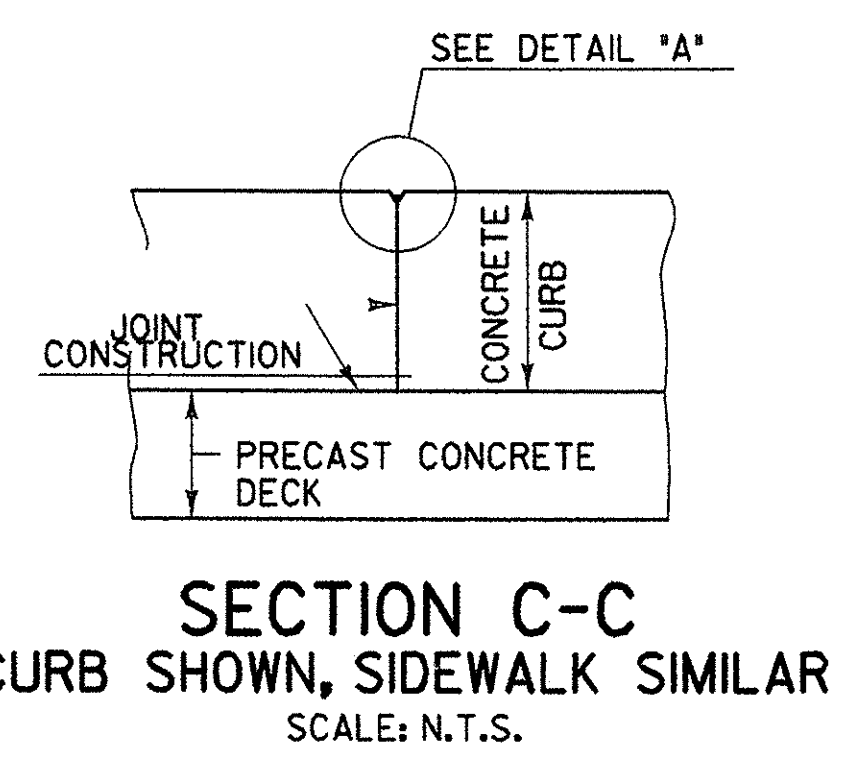


**SECTION A-A**  
SCALE: 3/4" = 1'-0"



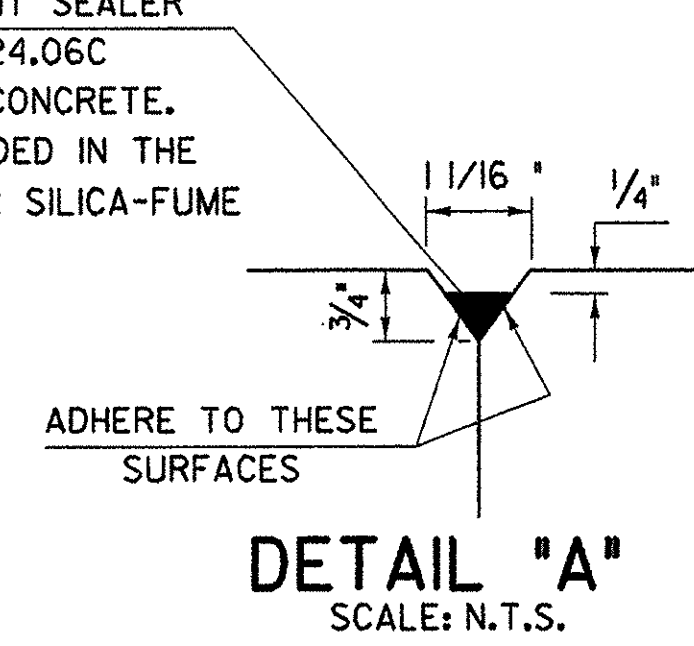
**SECTION B-B**  
SCALE: 3/4" = 1'-0"

**NOTE:**  
ENTIRE SUPERSTRUCTURE STEEL TO BE REHABILITATED, CLEANED AND PAINTED.

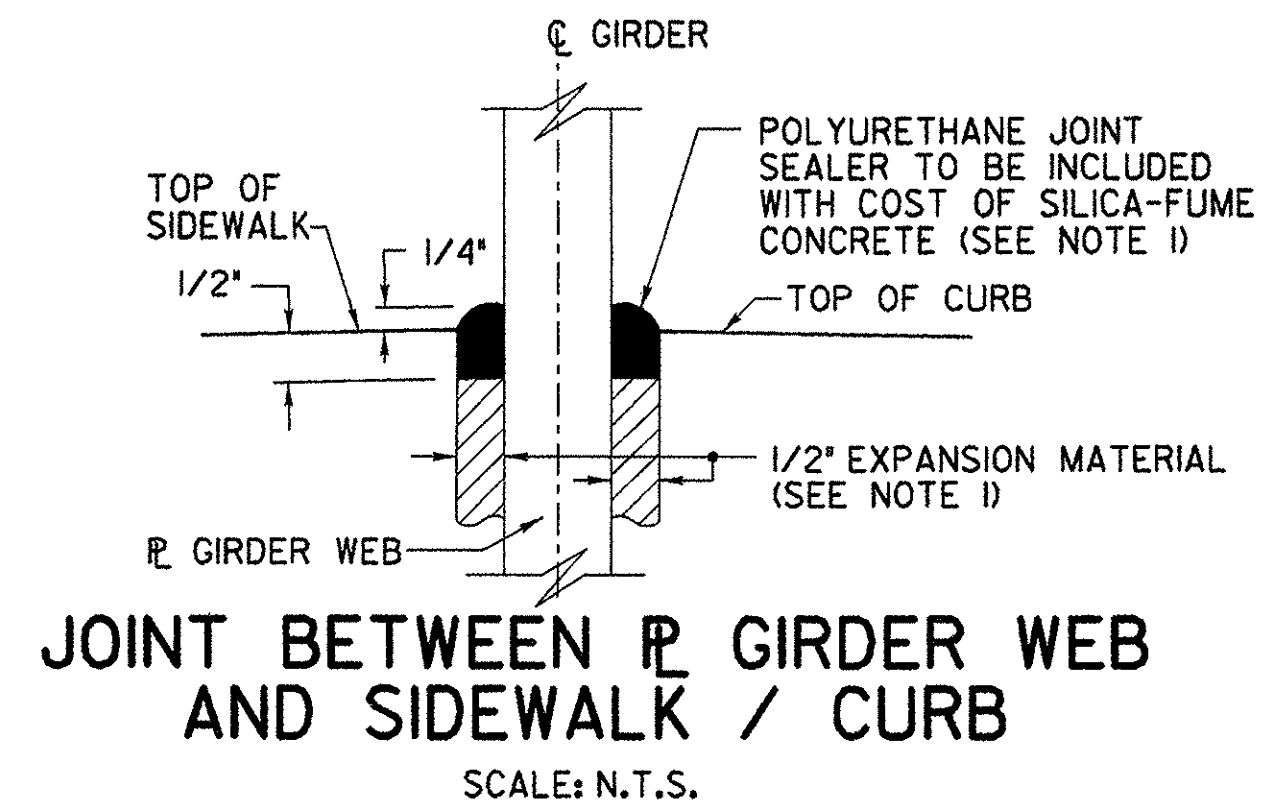


**SECTION C-C**  
CURB SHOWN, SIDEWALK SIMILAR  
SCALE: N.T.S.

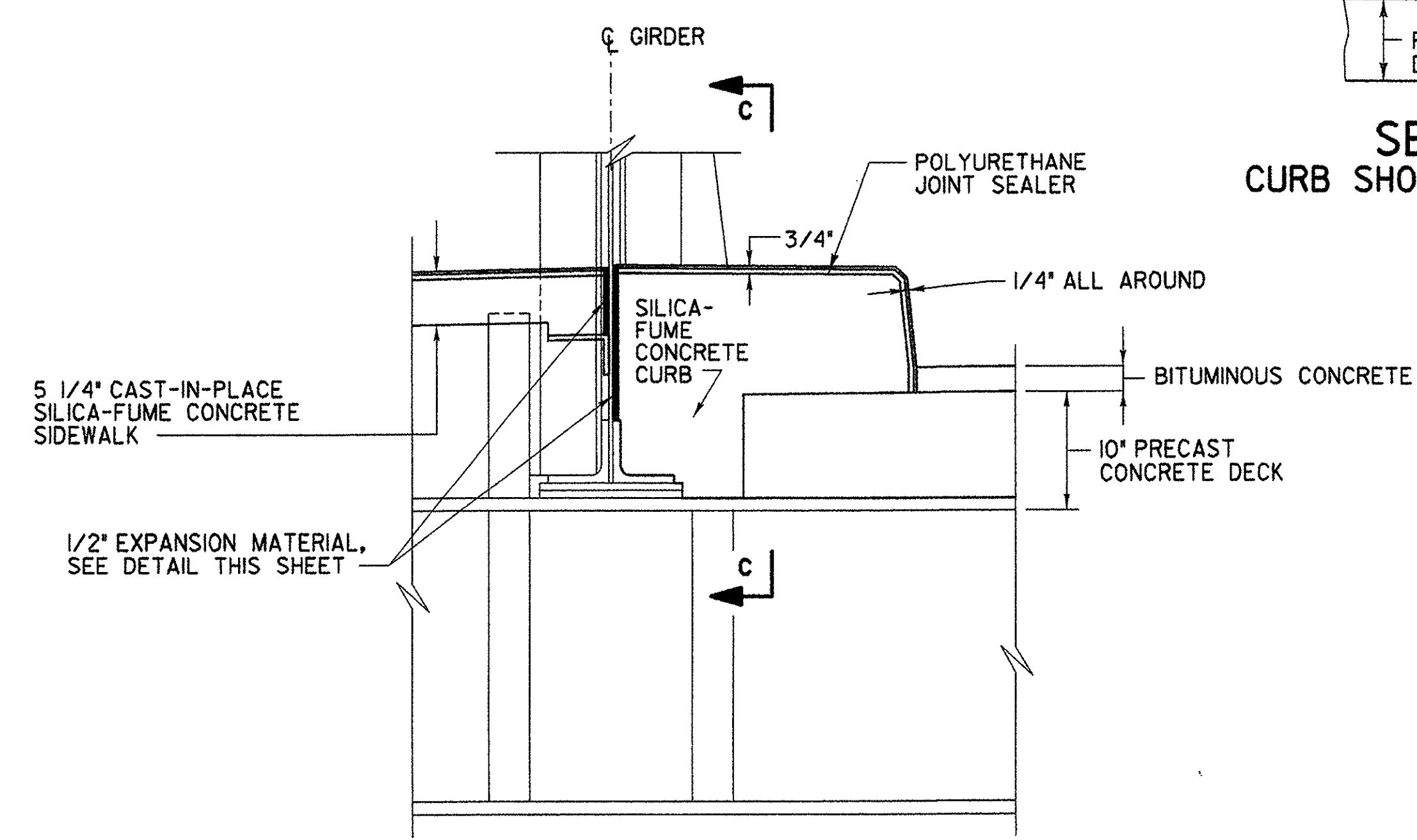
POLYURETHANE JOINT SEALER  
PER SUBSECTION 524.06C  
COLOR TO MATCH CONCRETE.  
COST TO BE INCLUDED IN THE  
UNIT PRICE BID FOR SILICA-FUME  
CONCRETE.



**DETAIL 'A'**  
SCALE: N.T.S.



**JOINT BETWEEN R GIRDER WEB  
AND SIDEWALK / CURB**  
SCALE: N.T.S.



**TYPICAL SECTION THROUGH  
SIDEWALK AND CURB CONSTRUCTION JOINT**  
SCALE: N.T.S.

**NOTES:**

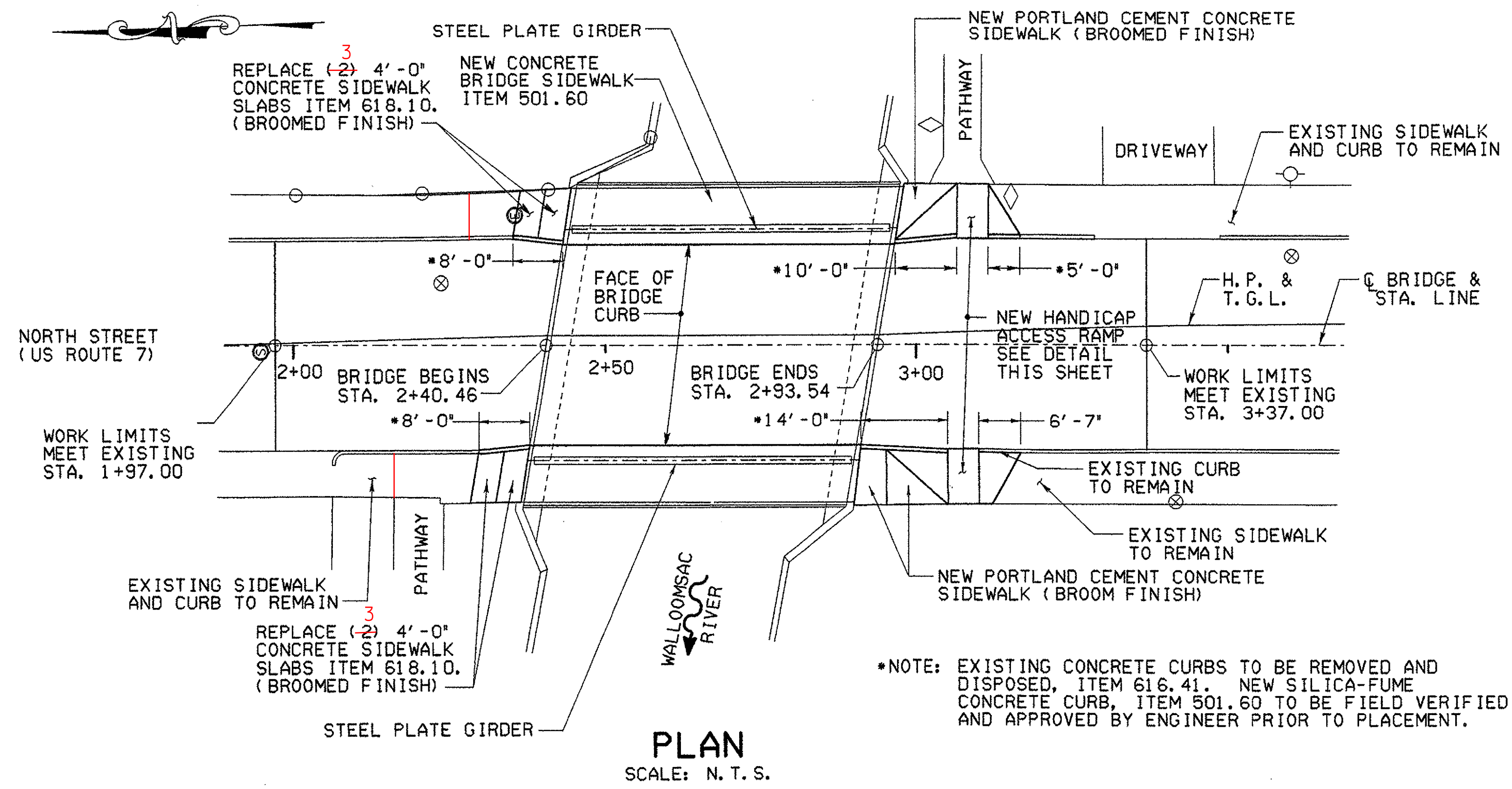
1. POLYURETHANE JOINT SEALER AND 1/2" EXPANSION MATERIAL SHALL BE INCLUDED IN THE UNIT PRICE PRICE BID FOR SILICA-FUME CONCRETE, ITEM 501.60.
2. SHEET MEMBRANE WATERPROOFING SHALL EXTEND TO FACE OF CURB.
3. "E" DENOTES EPOXY COATED BARS.
4. CONSTRUCTION JOINTS IN THE CURBS AND SIDEWALKS SHALL BE PROVIDED AS SHOWN ABOVE. JOINTS SHALL BE LOCATED ABOVE THE CENTERLINE OF EACH INTERIOR TRANSVERSE FLOORBEAM. CONCRETE SHALL BE PLACED IN ALTERNATING SECTIONS WITH A MINIMUM OF 48 HOURS DELAY BETWEEN ADJACENT POURS.
5. LONGITUDINAL REINFORCING SHALL PASS THROUGH CONCRETE CURB AND SIDEWALK CONSTRUCTION JOINTS.
6. IF THE EXISTING ANGLE IS SEVERELY DETERIORATED OR DAMAGED AFTER THE REMOVAL OF THE EXISTING SIDEWALK, AS DETERMINED BY THE ENGINEER, THEN MECHANICAL ANCHORS SHALL BE UTILIZED TO SECURE THE RAILING. THE EXISTING ANGLE SHALL BE REMOVED AND DISPOSED OF AT NO ADDITIONAL COST TO THE OWNER. THE NEW MECHANICAL ANCHORS SHALL HAVE A MINIMUM EMBEDMENT OF 4" AND THE COST SHALL BE INCLUDED IN THE PRICE BID FOR SILICA-FUME CONCRETE, ITEM 501.60.
7. FOR SIDEWALK AND CURB PLAN, SEE DWG. SW-1.
8. SIDEWALKS SHALL RECEIVE A BROOM FINISH SURFACE IN ACCORDANCE WITH S.S. 618.03 (d).
9. ALL NEW APPROACH AND BRIDGE SIDEWALKS SHALL HAVE WATER REPELLENT, ITEM 514.10, APPLIED TO ALL EXPOSED SURFACES.

PROJECT NO. TH1-9914

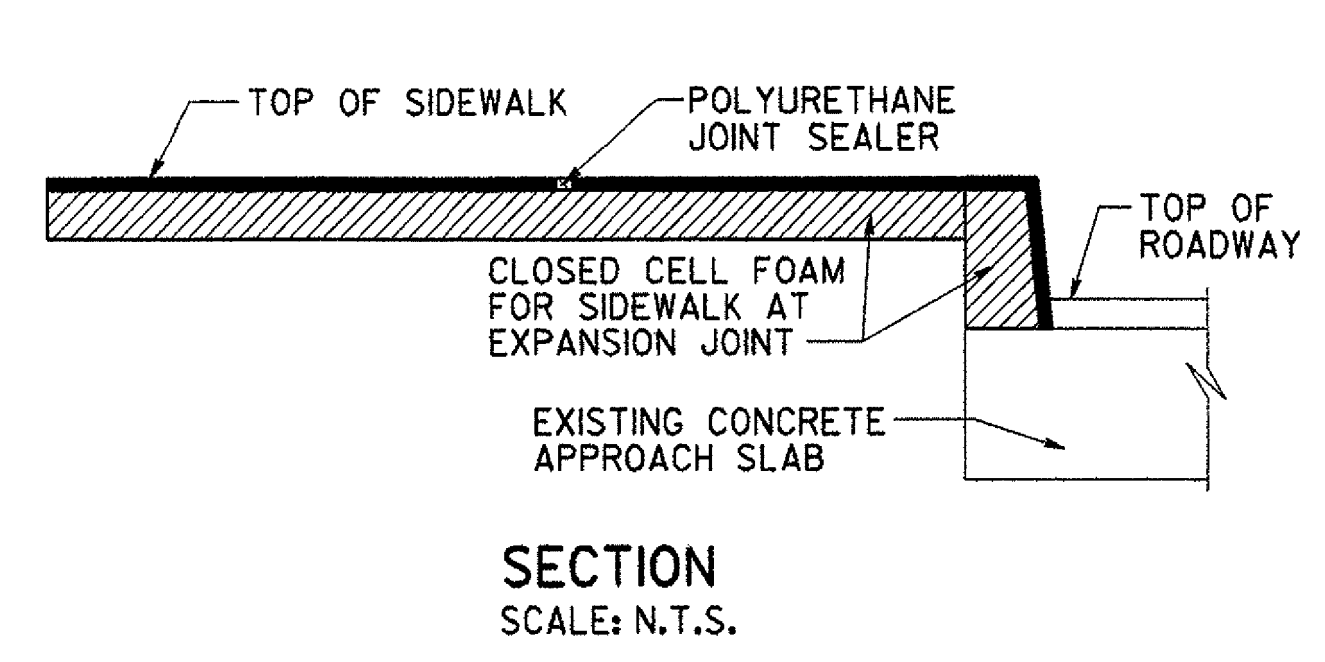
BHF 1000 (17)S

<b>Greenman-Pedersen</b> CONSULTING ENGINEERS <b>GPI</b> 55 Monument Ave. Bennington, VT. 05201	BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER		
	<b>SIDEWALK DETAILS 2</b>		
DRAWING NO. SW-2	SCALE: AS SHOWN	DATE: DEC ., 1999	SHEET NO. 13 OF 20

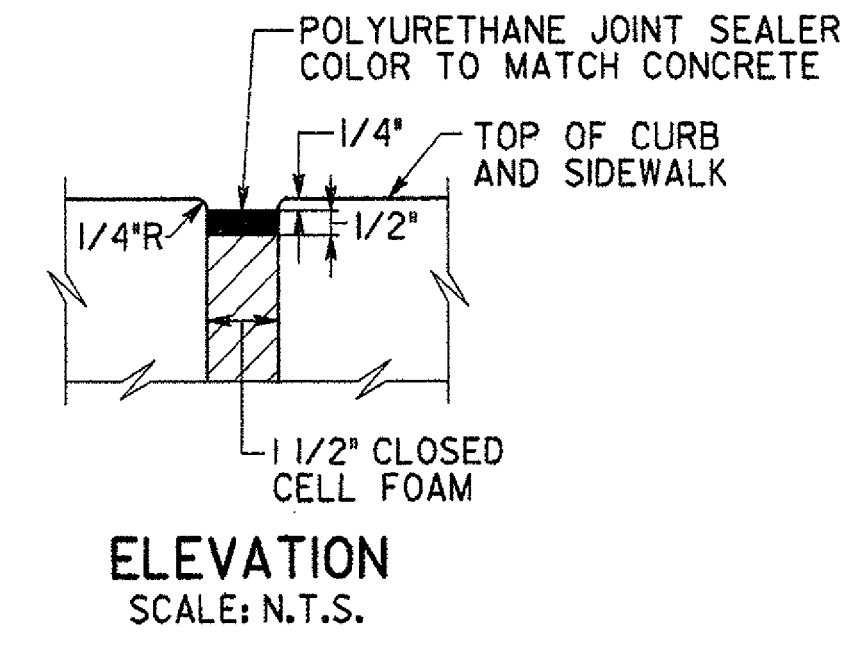
DESIGNED BY J. RIZZO  
 CHECKED BY J. SHUKULET  
 DRAFTED BY K. COLE  
 IN CHARGE OF J. STEVENS



**PLAN**  
SCALE: N. T. S.



**SECTION**  
SCALE: N.T.S.

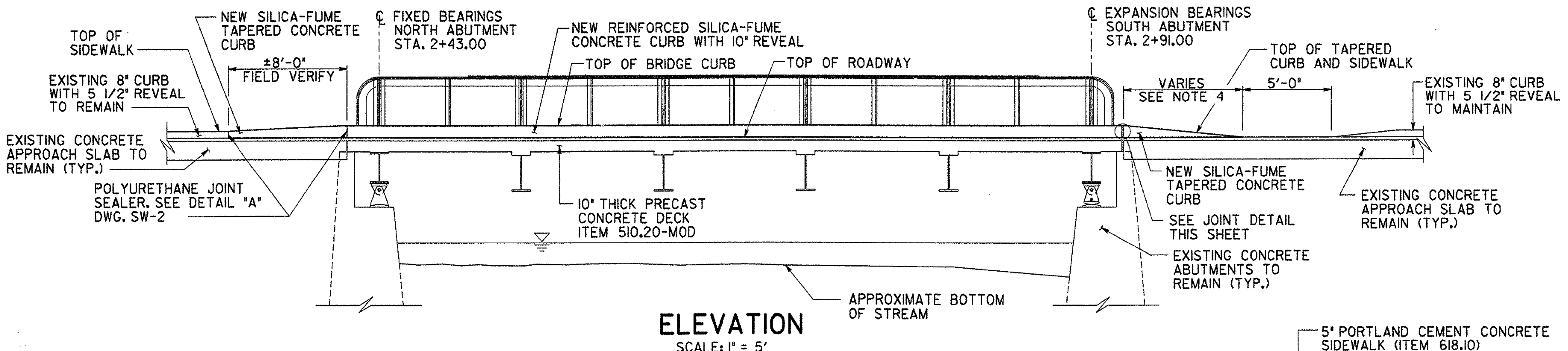


**ELEVATION**  
SCALE: N.T.S.

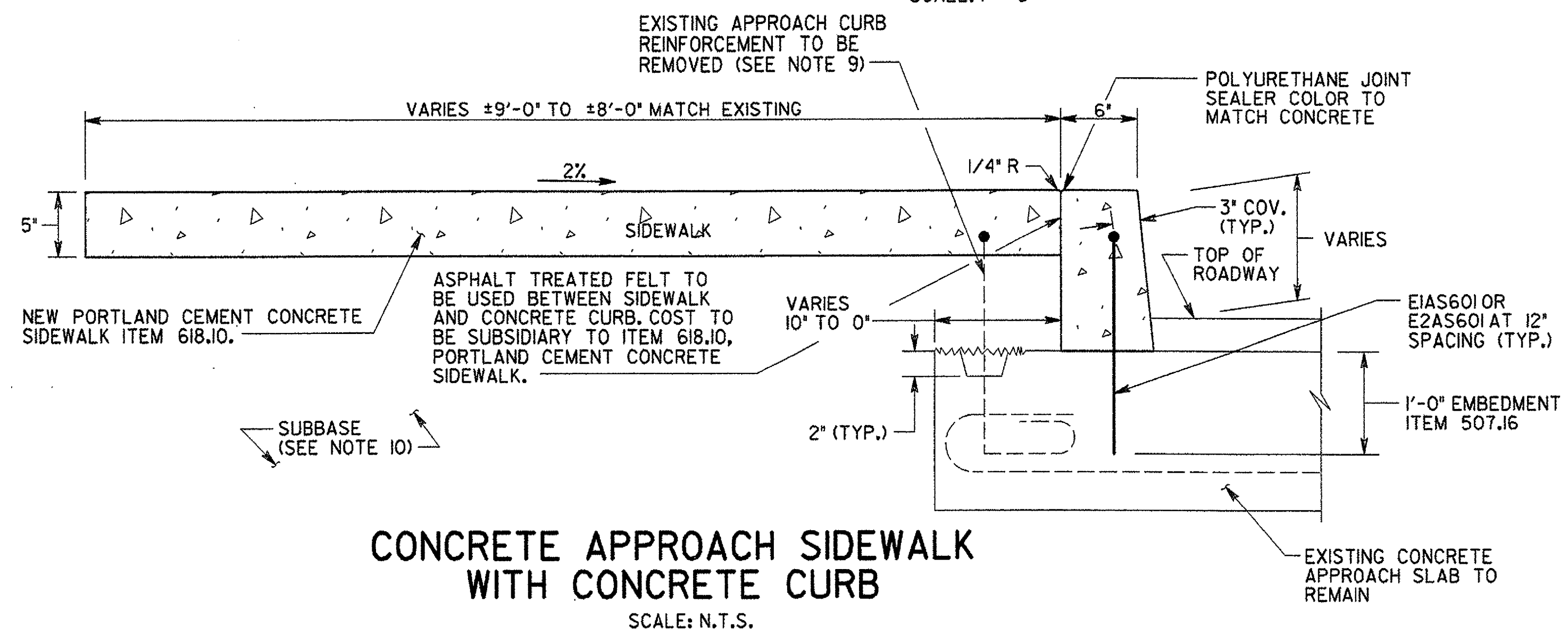
**SIDEWALK EXPANSION JOINT DETAILS**

**NOTES:**

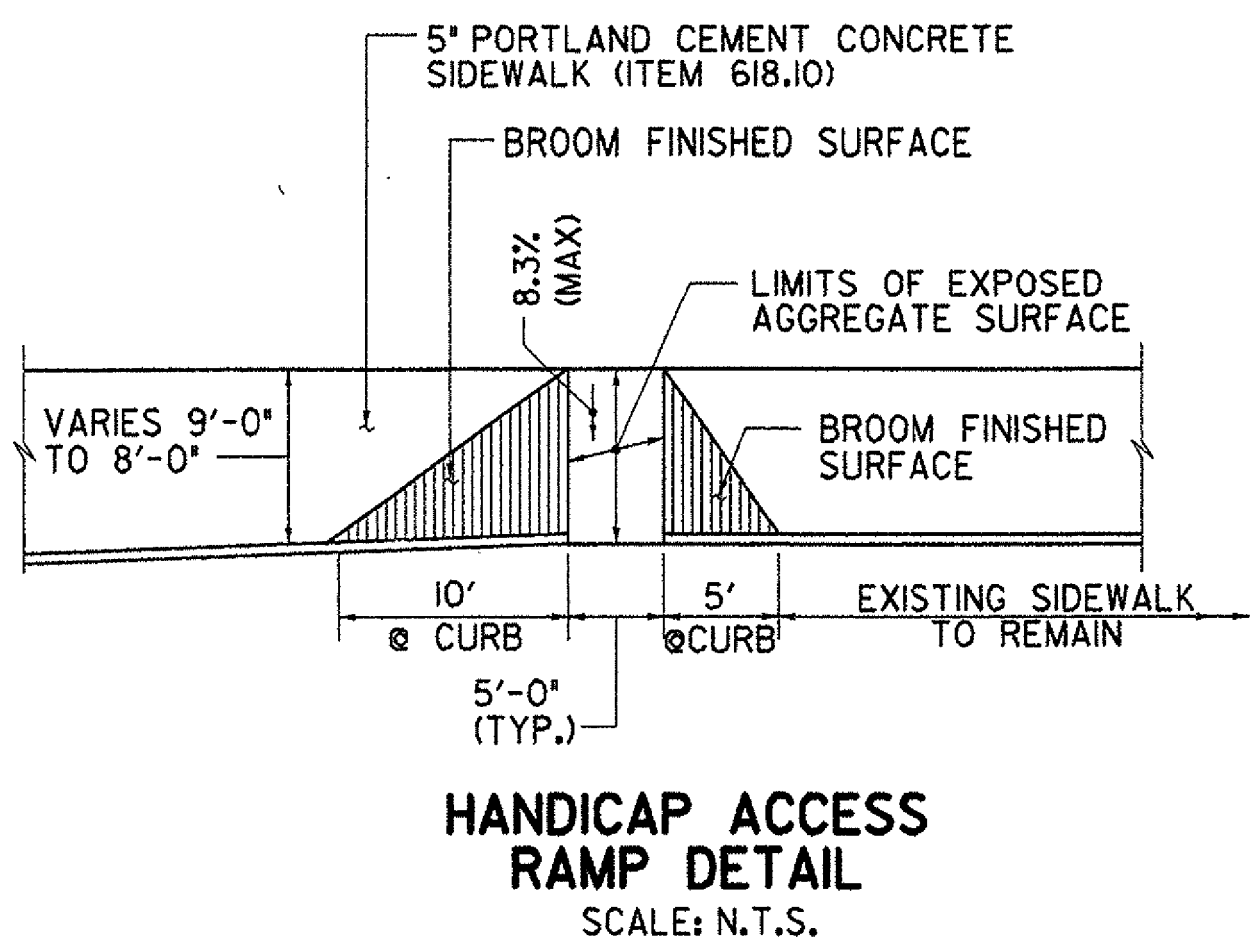
1. APPROACH SIDEWALKS WILL BE OF PORTLAND CEMENT CONCRETE, ITEM 618.10. ALL APPROACH CURBS WILL BE SILICA-FUME CONCRETE ITEM 501.60 WITH THE REINFORCEMENT FROM THE EXISTING CURBS BEING RETAINED.
2. THE APPROACH SIDEWALKS AND CURBS SHALL BE REPLACED ENTIRELY BETWEEN THE BRICK PATHWAY ENTRANCES AND THE BRIDGE SIDEWALKS. THE SIDEWALK SLABS SHALL MATCH THE EXISTING GEOMETRIC CONFINES.
3. APPROXIMATELY 8'-0", (2) 4'-0" SIDEWALK PANELS, SHALL BE REPLACED WITH CURBS ADJACENT TO THE NORTH END OF THE BRIDGE AT THE EAST AND WEST SIDEWALKS.
4. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO REMOVAL OF EXISTING SIDEWALK SLABS. LIMITS OF APPROACH SIDEWALK SLAB REMOVAL SHALL BE APPROVED BY THE ENGINEER.
5. THE COSTS FOR ALL CLOSED CELL FOAM EXPANSION JOINT MATERIAL AND ASSOCIATED POLYURETHANE JOINT SEALER SHALL BE INCLUDED UNDER THE UNIT PRICE BID FOR ITEM 516.10, BRIDGE EXPANSION JOINT.
6. THE APPROACH SIDEWALKS SHALL INCREASE IN THICKNESS TO A MIN. OF 5/4" AT THE BACKWALLS OF THE ABUTMENTS SO AS TO MATCH THE BRIDGE SIDEWALKS AND BEAR ON THE BACKWALLS.
7. SIDEWALKS SHALL RECEIVE A BROOM FINISHED SURFACE IN ACCORDANCE WITH S.S.618.03(d).
8. ATTENTION IS BROUGHT TO THE CONTRACTOR THAT THERE SHALL BE NEW OBJECT MARKER SIGNS INSTALLED AT 2 CORNERS OF THE BRIDGE. SEE SIGNING AND PAVEMENT MARKING DWG. SP-1.
9. THE REINFORCING OF EXISTING APPROACH SLAB CURBS SCHEDULED TO BE REPLACED SHALL BE REMOVED AND DISPOSED OF TO A DEPTH OF 2" (MIN.) BELOW THE TOP SURFACE OF THE APPROACH SLABS AND FILLED WITH AN APPROVED NON-SHRINK GROUT. COSTS TO PERFORM THIS WORK SHALL BE SUBSIDIARY TO ITEM 616.41, LIMITS OF CURB AND REINFORCEMENT REMOVAL SHALL BE APPROVED PRIOR TO COMMENCEMENT OF WORK.
10. MINOR AMOUNTS OF GRAVEL SUBBASE AND REGRADING OF EXISTING SIDEWALK SUBBASE WILL BE REQUIRED PRIOR TO PLACEMENT OF THE NEW APPROACH SIDEWALKS. COSTS FOR MATERIAL, LABOR AND TOOLS NECESSARY TO COMPLETE THIS WORK SHALL BE SUBSIDIARY TO ITEM 618.10.
11. FOR BAR LIST, REINFORCEMENT NOTES AND BAR BENDING DETAILS SEE DRAWING SW-1.
12. FOR PROPOSED STRIPING AND CROSSWALK MARKINGS SEE DWG. SP-1.
13. FOR DETAIL 'A' SEE DWG. SW-2.
14. FOR LEGEND SEE DWG. PE-1.



**ELEVATION**  
SCALE: 1" = 5'



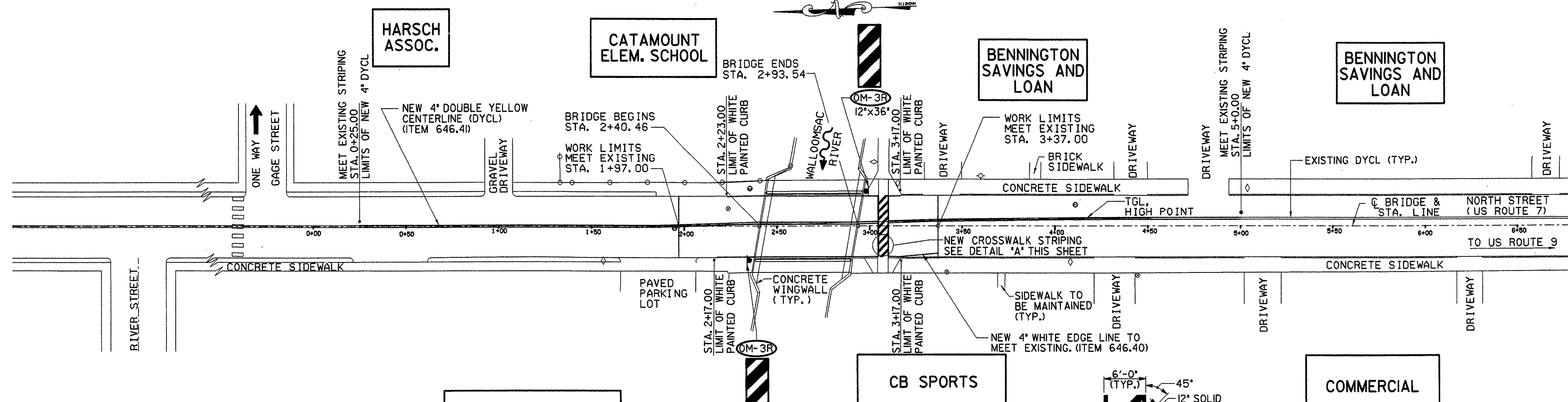
**CONCRETE APPROACH SIDEWALK WITH CONCRETE CURB**  
SCALE: N.T.S.



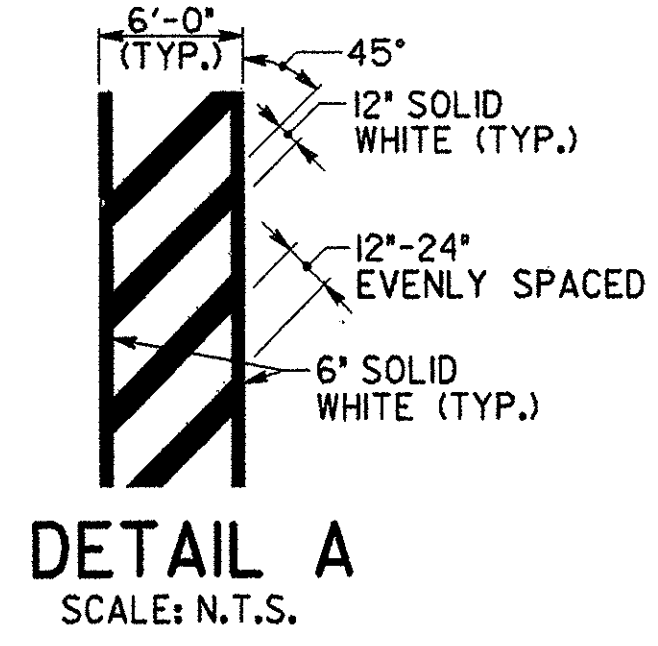
**HANDICAP ACCESS RAMP DETAIL**  
SCALE: N.T.S.

PROJECT NO. THI-9914		BHF 1000 (17)S	
<b>Greenman-Pedersen</b> CONSULTING ENGINEERS <b>GPI</b> <small>55 Monument Ave.          Bennington, VT. 05201</small>		BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER	
		<b>SIDEWALK DETAILS 3</b>	
DRAWING NO. SW-3	SCALE: AS SHOWN	DATE: DEC ., 1999	SHEET NO. 14 OF 20

IN CHARGE OF J. STEVENS  
 DESIGNED BY J. RIZZO  
 DRAFTED BY K. COLE  
 CHECKED BY M. CHEVALIER  
 d:\1999\99008\Twy\Aspl200



**PLAN**  
SCALE: 1" = 30'

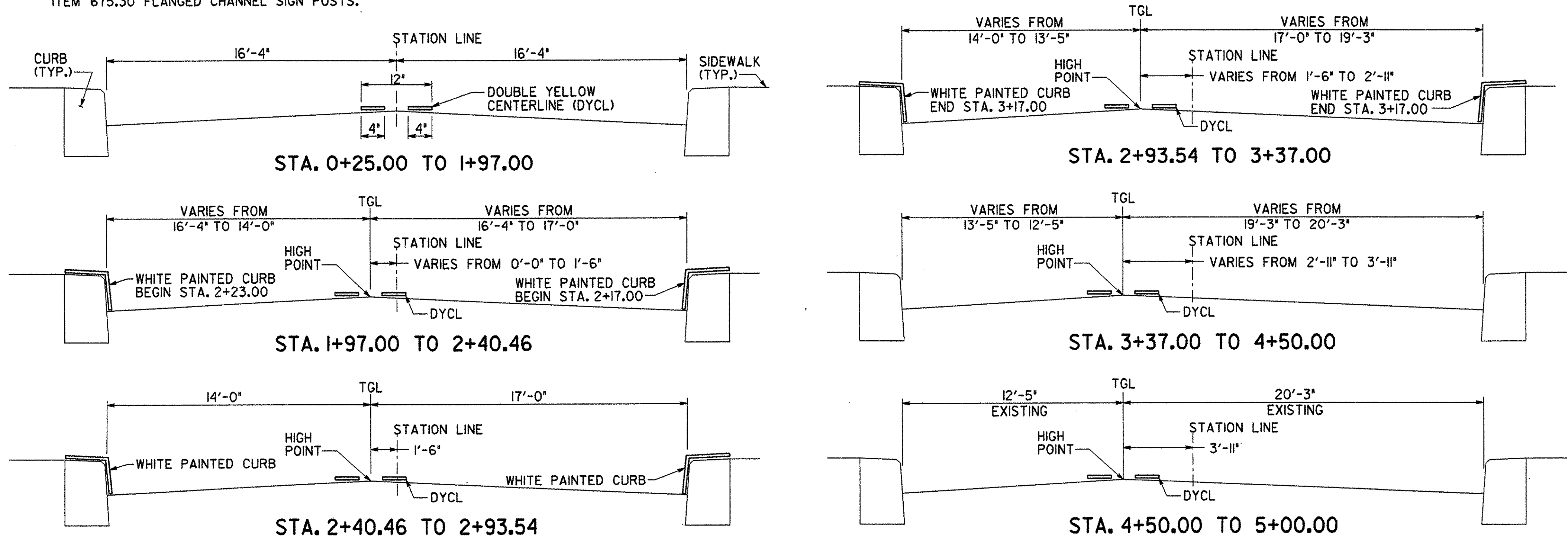


**DETAIL A**  
SCALE: N.T.S.

**LEGEND**

- CONSTRUCTION SIGN
- ORANGE SAFETY FENCING
- TYPE III CONSTRUCTION BARRICADES
- ORANGE SAFETY BARRELS
- TEMPORARY CONCRETE BARRIER
- TEMPORARY CONCRETE BARRIER WITH LIGHTING
- EXISTING CONCRETE BARRIER WITH LIGHTING
- CHANGEABLE MESSAGE SIGN
- M.U.T.C.D. SIGN DESIGNATION
- TYPE III CONSTRUCTION BARRICADES WITH LIGHTING
- CHAIN LINK FENCE
- UTILITY POLE
- STREET LIGHT POLE
- CATCH BASIN
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- SEWER MANHOLE
- FIRE HYDRANT
- WATER GATE VALVE OR SHUTOFF

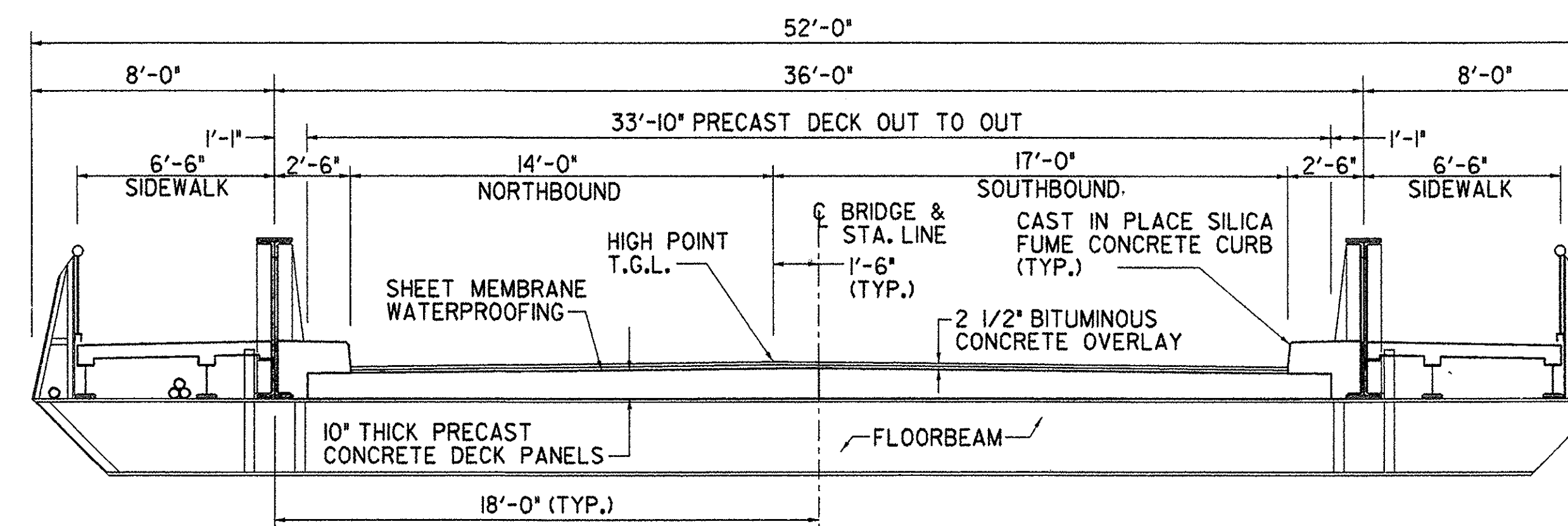
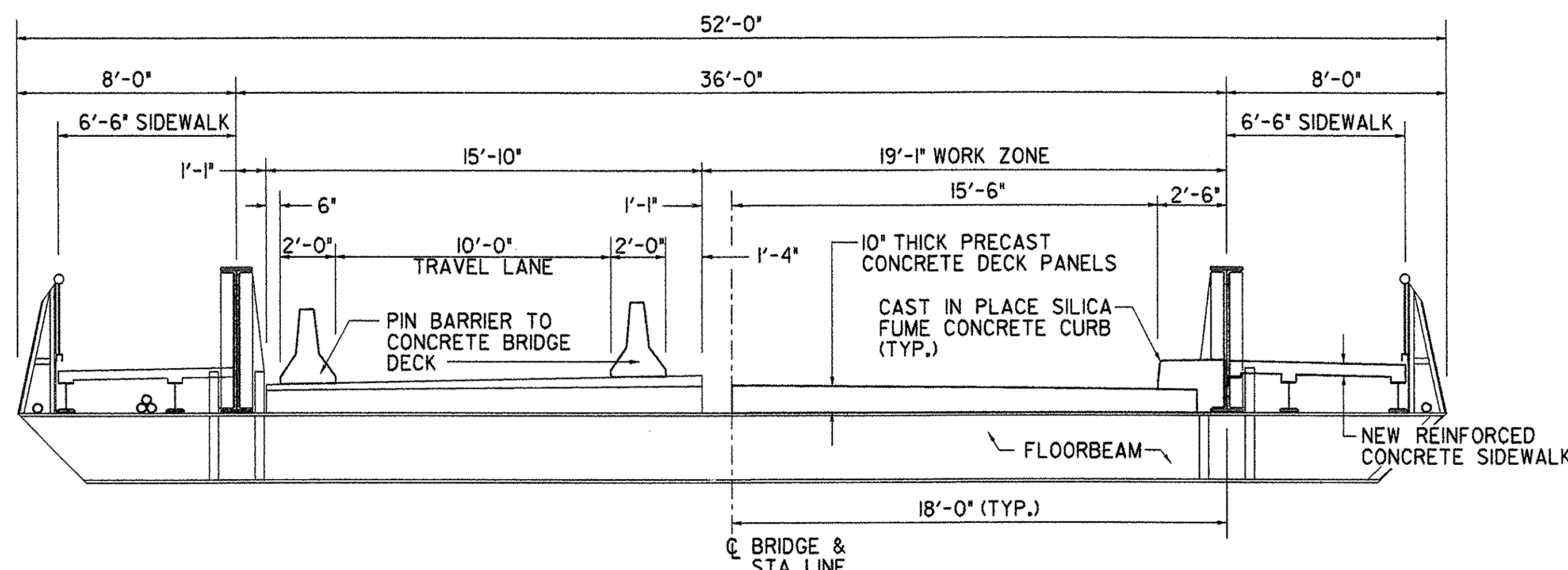
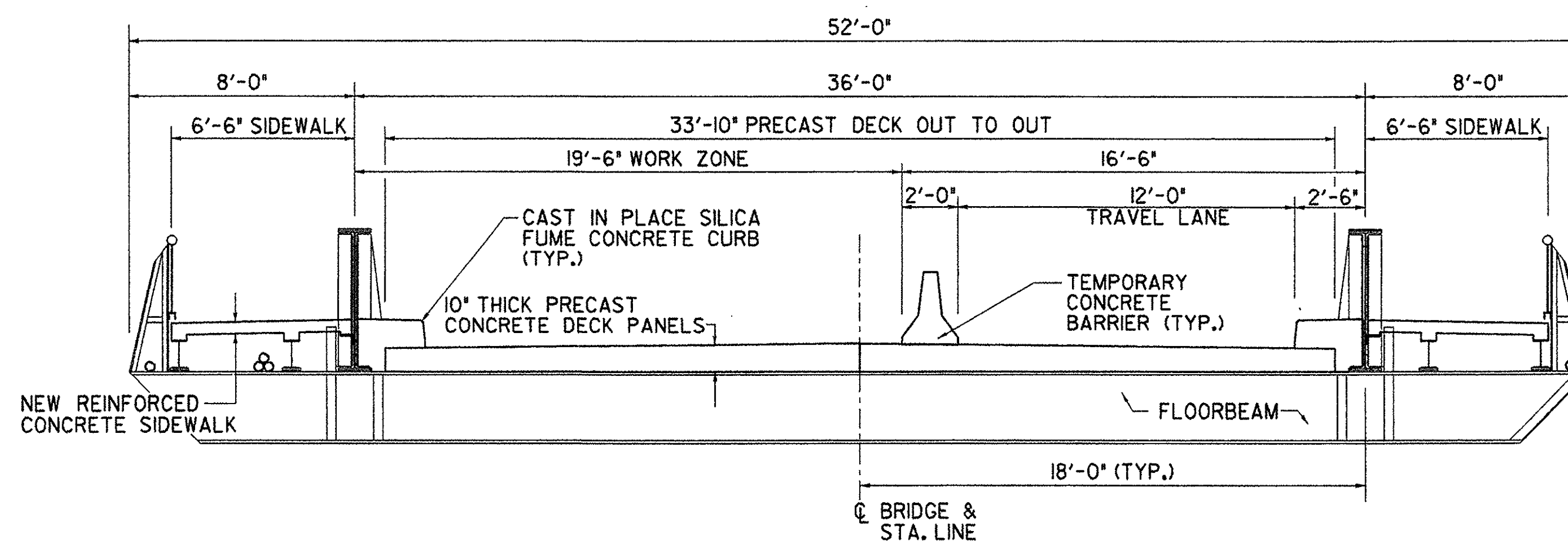
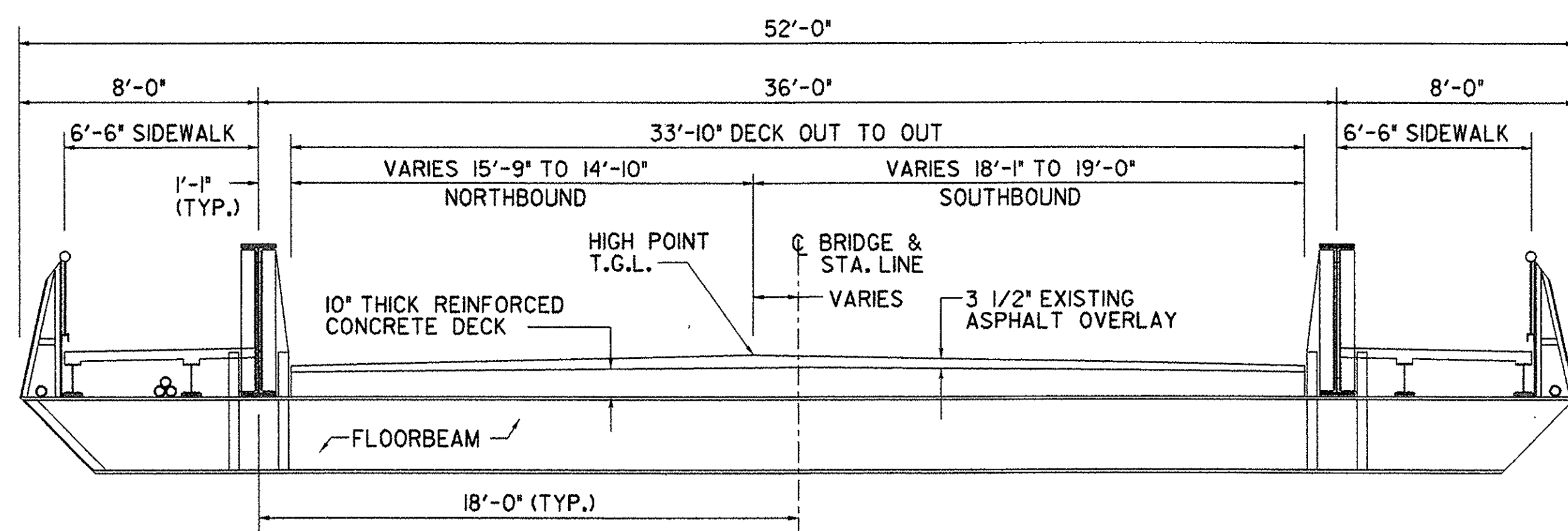
- NOTES**
1. THE WHITE PAINTED CURB LINES AND THE DOUBLE YELLOW CENTERLINE (DYCL) SHALL NOT BE CONTINUOUS OVER THE CROSSWALK MARKINGS.
  2. THE LOCATION OF THE DOUBLE YELLOW CENTERLINE SHALL FOLLOW THE PROPOSED AND EXISTING HIGH POINT, (TGL) OF THE ROADWAY AND BRIDGE.
  3. LOCATIONS OF THE APPROACH ROADWAY DOUBLE YELLOW CENTERLINES ARE APPROXIMATE AND THE CONTRACTOR SHALL MAINTAIN THE EXISTING LANE STRIPING CONFIGURATIONS.
  4. PERMANENT OBJECT MARKER SIGNS TO BE INSTALLED AT THE NORTH WEST AND SOUTH EAST CORNERS OF THE BRIDGE SHALL BE PAID FOR UNDER ITEM 675.20, TRAFFIC SIGNS (TYPE A), AND ITEM 675.30 FLANGED CHANNEL SIGN POSTS.



**PAVEMENT MARKING PLACEMENT DETAILS**  
SCALE: N.T.S.

PROJECT NO. THI-9914		BHF 1000 (17)S	
Greenman-Pederson CONSULTING ENGINEERS		BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER	
<b>GPI</b>		<b>SIGNING AND PAVEMENT MARKINGS</b>	
DRAWING NO. SP-1	SCALE: AS SHOWN	DATE: DEC ., 1999	SHEET NO. 15 OF 20

IN CHARGE OF J. STEVENS  
 DESIGNED BY J. RIZZO  
 DRAFTED BY K. COLE  
 CHECKED BY J. SIMKULET  
 04/1999 139008.thy/upt.lbn



**SEQUENCE OF CONSTRUCTION:**

**STAGE 1**

1. REMOVE THE WEST SIDEWALK AND DECK TO THE LIMITS SHOWN ON THE PLANS.
2. PERFORM BEARING ANCHOR BOLT REPLACEMENTS.
3. SANDBLAST AND PAINT ALL STEEL WITHIN THE WORK ZONE.
4. PERFORM ALL STEEL REPAIRS WITHIN THE WORK ZONE AS NOTED IN THE PLANS AND FIELD DISCOVERED.
5. INSTALL NEW PRECAST DECK PANELS, CAST IN PLACE CURBS AND WEST SIDEWALKS.
6. RE-APPLY PAINT SYSTEM TO THE STEEL REPAIR LOCATIONS.

**STAGE 2**

1. SHIFT TRAFFIC TO THE WEST SIDE.
2. REMOVE THE EAST SIDEWALK AND DECK TO THE LIMITS SHOWN ON THE PLANS.
3. SANDBLAST AND PAINT ALL STEEL WITHIN THE WORK ZONE.
4. PERFORM ALL STEEL REPAIRS WITHIN THE WORK ZONE AS NOTED IN THE PLANS AND FIELD DISCOVERED.
5. INSTALL NEW PRECAST DECK PANELS, CAST IN PLACE CURBS AND EAST SIDEWALKS.
6. RE-APPLY PAINT SYSTEM TO THE STEEL REPAIR LOCATIONS.

**STAGE 3**

1. CLOSE BRIDGE TO ALL TRAFFIC.
2. REMOVE ALL CONCRETE BARRIERS.
3. INSTALL WATERPROOFING MEMBRANE AND ASPHALT WEARING SURFACE.

**NOTES:**

1. FOR STAGE 1 PLAN SEE DWG. MPT-2.
2. FOR STAGE 2 PLAN SEE DWG. MPT-3.
3. FOR STAGE 3 PLAN SEE DWG. MPT-4.

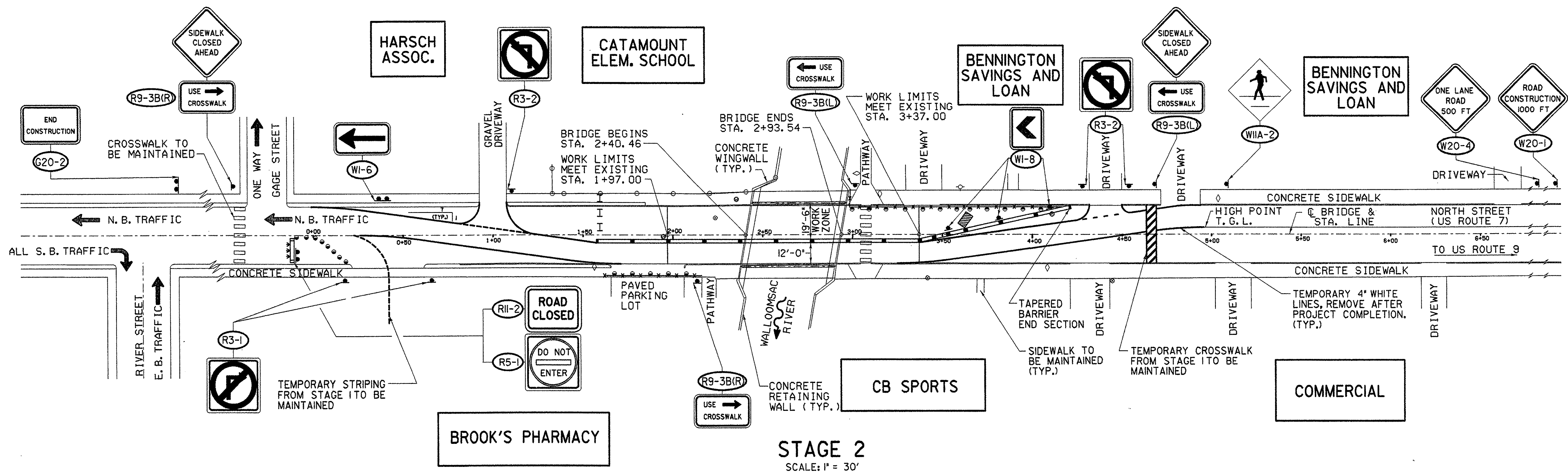
PROJECT NO. THI-9914

BHF 1000 (17)S

<b>Greenman-Pedersen</b> CONSULTING ENGINEERS <b>GPI</b> 55 Monument Ave. Bennington, VT. 05201	BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER		
	<b>MAINTENANCE &amp; PROTECTION          OF TRAFFIC DETAILS</b>		
DRAWING NO. MPT-1	SCALE: AS SHOWN	DATE: DEC ., 1999	SHEET NO. 16 OF 20



IN CHARGE OF J. STEVENS  
 DESIGNED BY J. RIZZO  
 DRAFTED BY K. COLE  
 CHECKED BY M. CHEVALIER  
 01/1995/99008/vhw/vmp13.dwg



**STAGE 2**  
SCALE: 1" = 30'

**LEGEND**

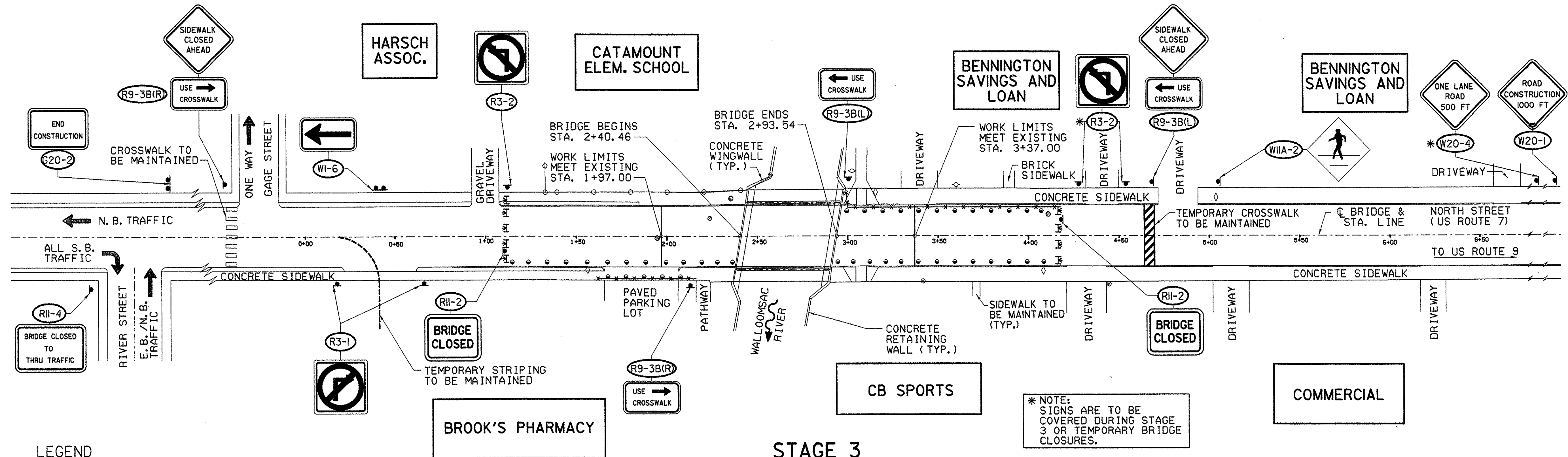
- CONSTRUCTION SIGN
- ✕ ORANGE SAFETY FENCING
- I TYPE III CONSTRUCTION BARRICADES
- ORANGE SAFETY BARRELS
- ▬ TEMPORARY CONCRETE BARRIER
- ▬ TEMPORARY CONCRETE BARRIER WITH LIGHTING
- ▬ EXISTING CONCRETE BARRIER WITH LIGHTING
- ▬ CHANGEABLE MESSAGE SIGN
- ⊗ M.U.T.C.D. SIGN DESIGNATION
- ⊗ TYPE III CONSTRUCTION BARRICADES WITH LIGHTING
- CHAIN LINK FENCE
- UTILITY POLE
- ◇ STREET LIGHT POLE
- CATCH BASIN
- ⊙ TELEPHONE MANHOLE
- ⊙ ELECTRIC MANHOLE
- ⊙ SEWER MANHOLE
- FIRE HYDRANT
- ⊙ WATER GATE VALVE OR SHUTOFF

**NOTES:**

1. FOR ADDITIONAL NOTES SEE DWG. MPT-2.
2. FOR STAGE 2 TRANSVERSE SECTION SEE DWG. MPT-1.

PROJECT NO. TH1-9914		BHF 1000 (17)S	
Greenman-Pedersen CONSULTING ENGINEERS		BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER	
<b>GPI</b>		<b>MAINTENANCE &amp; PROTECTION OF TRAFFIC</b>	
55 Monument Ave. Bennington, VT. 05201	DRAWING NO. MPT-3	SCALE: AS SHOWN	DATE: DEC ., 1999
		SHEET NO. 18 OF 20	

IN CHARGE OF J. STEVENS  
 DESIGNED BY J. RIZZO  
 DRAFTED BY K. COLE  
 CHECKED BY M. CHEVALIER  
 dt:1999.09.08\hwy\mpt4.dwg



**LEGEND**

- CONSTRUCTION SIGN
- ✱ ORANGE SAFETY FENCING
- I TYPE III CONSTRUCTION BARRICADES
- ORANGE SAFETY BARRELS
- ▬ TEMPORARY CONCRETE BARRIER
- ▬▬▬ TEMPORARY CONCRETE BARRIER WITH LIGHTING
- ▬▬▬ EXISTING CONCRETE BARRIER WITH LIGHTING
- ▨ CHANGEABLE MESSAGE SIGN
- ⓧ M.U.T.C.D. SIGN DESIGNATION
- Ⓜ TYPE III CONSTRUCTION BARRICADES WITH LIGHTING
- ⊕ CHAIN LINK FENCE
- ⊙ UTILITY POLE
- ◇ STREET LIGHT POLE
- CATCH BASIN
- ⊙ TELEPHONE MANHOLE
- ⊙ ELECTRIC MANHOLE
- ⊙ SEWER MANHOLE
- ⊙ FIRE HYDRANT
- ⊙ WATER GATE VALVE OR SHUTOFF

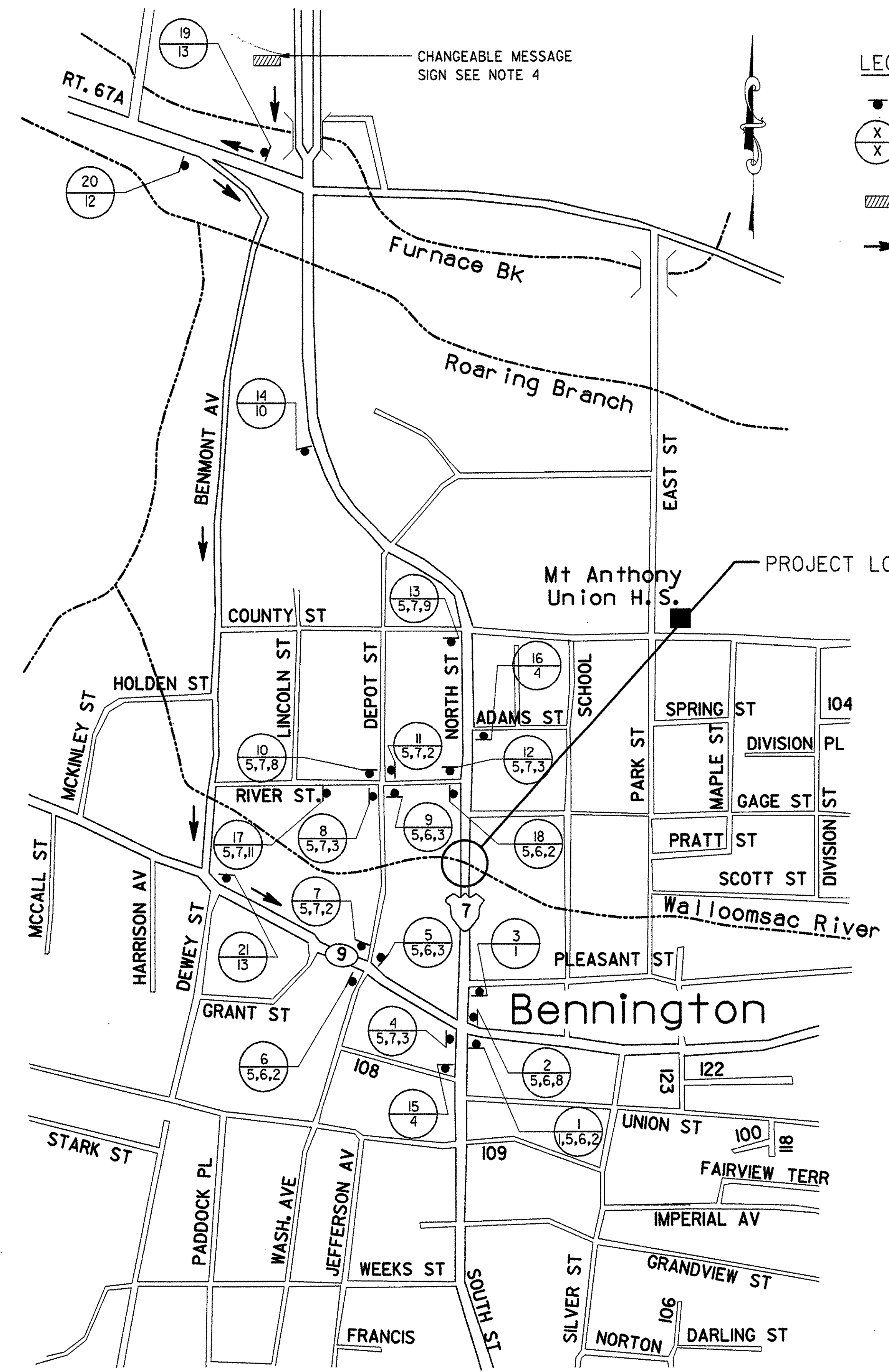
**STAGE 3**  
**(AND TEMPORARY BRIDGE CLOSURES)**  
 SCALE: 1" = 30'

**NOTES:**

1. FOR ADDITIONAL NOTES SEE DWG. MPT-2.
2. FOR STAGE 3 TRANSVERSE SECTION SEE DWG. MPT-1.
3. BARRELS AND ORANGE SAFETY FENCING MAY NEED TO BE REPOSITIONED DURING STAGE 3 PAVING OPERATIONS.
4. THE STAGE 3 PLAN VIEW DEPICTS A PROTECTION SCHEME FOLLOWING STAGE 2 CONSTRUCTION. SIMILAR MEASURES ARE REQUIRED FOR TEMPORARY CLOSURES DURING STAGE 1. TEMPORARY CLOSURE SCHEMES SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER FOR APPROVAL PRIOR TO THE SCHEDULED CLOSURE.

PROJECT NO. THI-9914		BHF 1000 (17)S	
Greenman-Pedersen CONSULTING ENGINEERS		BENNINGTON BRIDGE #10 (U.S. ROUTE 7) OVER THE WALLOOMSAC RIVER	
<b>GPI</b>		<b>MAINTENANCE &amp; PROTECTION OF TRAFFIC</b>	
55 Monument Ave. Bennington, VT. 05201	DRAWING NO. MPT-4	SCALE: AS SHOWN	DATE: DEC ., 1999
		SHEET NO. 19 OF 20	

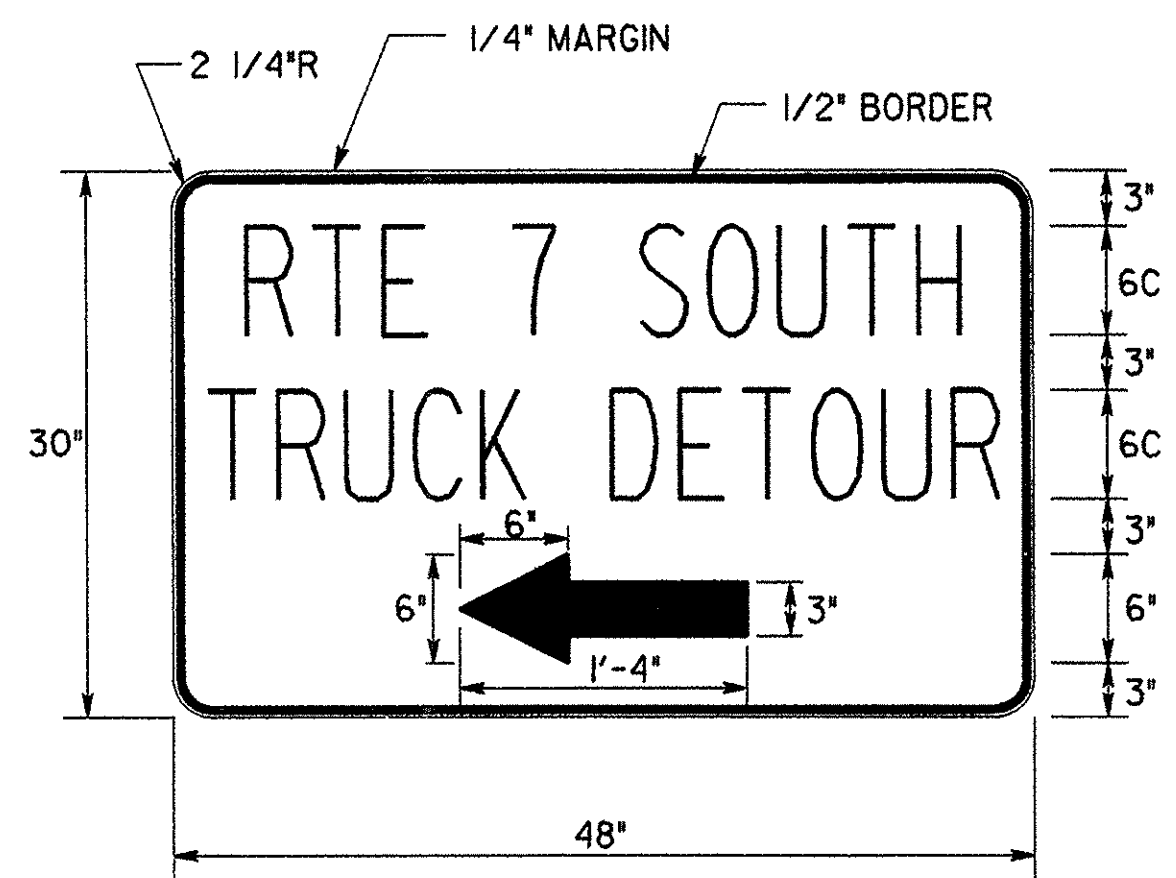
DESIGNED BY J. STEVENS  
 DRAWN BY J. RIZZO  
 CHECKED BY K. COLE  
 M. CHEVALIER  
 DATE: 12/15/99



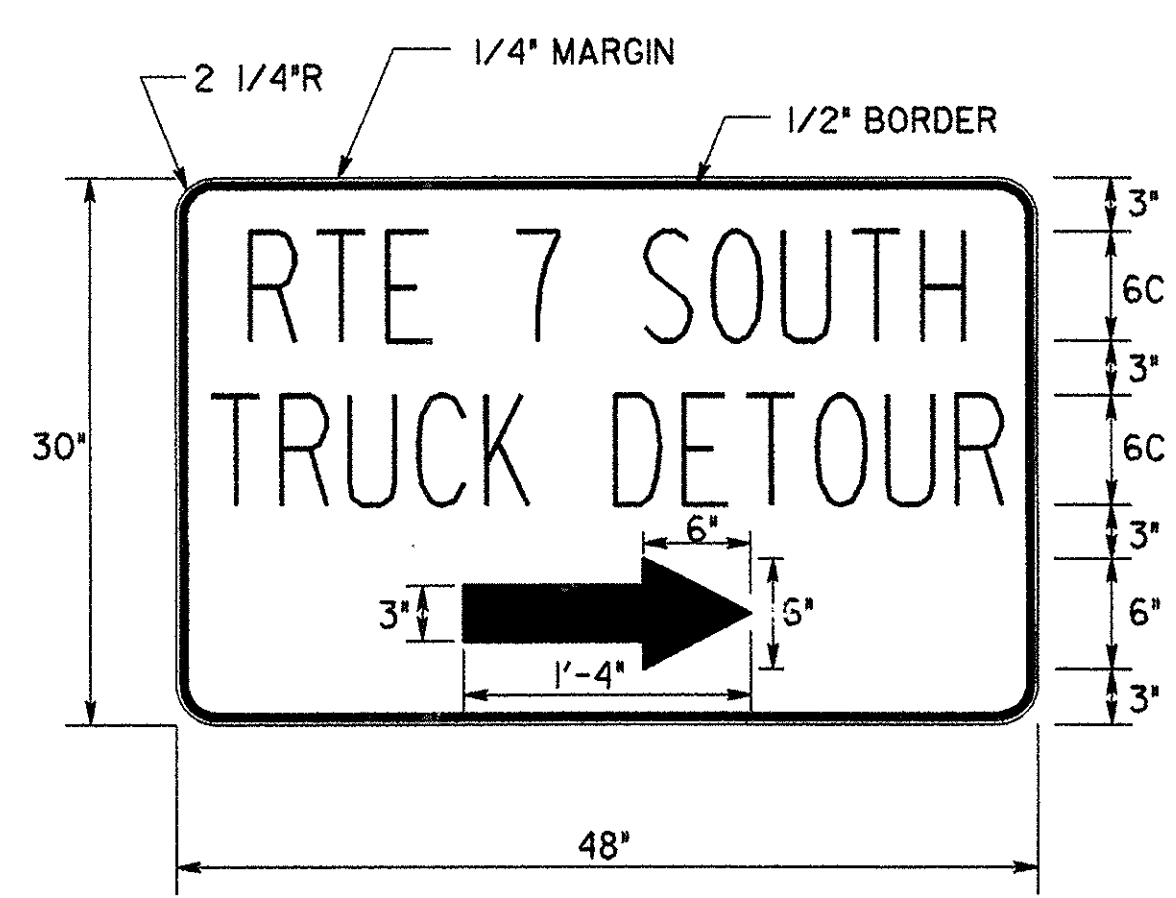
**DETOUR PLAN**  
SCALE: N.T.S.

**LEGEND**

- CONSTRUCTION SIGN
- LOCATION NO. TEXT NO.
- CHANGEABLE MESSAGE SIGN
- TRUCK DETOUR



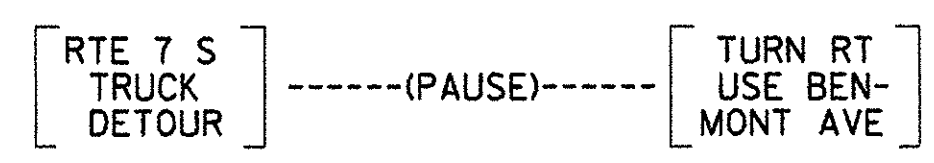
COLORS: BLACK TEXT AND BORDER WITH ORANGE REFLECTORIZED BACKGROUND



COLORS: BLACK TEXT AND BORDER WITH ORANGE REFLECTORIZED BACKGROUND

**NOTES:**

1. ALL TRAFFIC SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) WITH LATEST REVISIONS.
2. ALL ORANGE SIGNS SHALL BE FABRICATED USING REFLECTORIZED FLUORESCENT ORANGE COLORED SHEETING.
3. SIGN LOCATIONS 1,2,3,5,6,9,16 AND 18 SHALL BE UTILIZED ONLY IN STAGE 3 AND ALL TEMPORARY CLOSURES.
4. THE CHANGEABLE MESSAGE SIGN, ITEM 64.15 SHALL BE USED TO SUPPLY INFORMATION TO ROUTE 7 SOUTH BOUND MOTORIST. THE MESSAGE SIGN SHALL READ AS FOLLOWS:



MESSAGE TEXT MAY BE CHANGED AS REQUIRED WITH THE APPROVAL OF THE ENGINEER.

**SIGN DATA TABLE**

LOCATION NO.	TEXT NO.	TEXT	LETTER		APPROX. SIZE	M.U.T.C.D. NO.	COLOR	
			SIZE	TYPE			BACKGROUND	CHARACTER
1,3	1	BRIDGE CLOSED AHEAD LOCAL TRAFFIC ONLY	6" 5" 4"	C C C	60' x 30'	R11-3	W	B
1,6,7,11,18	2	DETOUR	6"	D	48' x 18'	M4-10L	O	B
4,5,8,9,12	3	DETOUR	6"	D	48' x 18'	M4-10R	O	B
15,16	4	END DETOUR	5" 5"	D D	30' x 24'	M4-8A	O	B
1,2,4,5,6,7,8,9,10,11,12,13,17,18	5	7	12"	D	24' x 24'	M1-4	W	B
1,2,5,6,9,18	6	NORTH	6"	C	24' x 12'	M3-1	W	B
4,7,8,10,11,12,13,17	7	SOUTH	6"	C	24' x 12'	M3-3	W	B
2,10	8	DETOUR	5"	D	30' x 24'	M4-9	O	B
13	9	DETOUR 500 FT	5" 5"	D D	36' x 36'	W20-2	O	B
14	10	ROAD CONSTRUCTION 1000 FT	5" 5" 5"	D D D	36' x 36'	W20-1	O	B
17	11	ROAD CONSTRUCTION AHEAD	5" 5" 5"	D D D	36' x 36'	W20-1 MOD.	O	B
20	12	RTE 7 SOUTH TRUCK DETOUR	6" 6" 6"	C C C	48' x 30'	SPECIAL (SEE DETAIL)	O	B
19,21	13	RTE 7 SOUTH TRUCK DETOUR	6" 6" 6"	C C C	48' x 30'	SPECIAL (SEE DETAIL)	O	B

PROJECT NO. THI-9914

BHF 1000 (17)S

**Greenman-Pederson**  
CONSULTING ENGINEERS  
**GPI**  
55 Monument Ave.  
Bennington, VT. 05201

BENNINGTON BRIDGE #10 (U.S. ROUTE 7)  
OVER THE WALLOOMSAC RIVER  
**MAINTENANCE OF TRAFFIC**

DRAWING NO. MT-1  
SCALE: AS SHOWN  
DATE: DEC., 1999  
SHEET NO. 20 OF 20