STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED

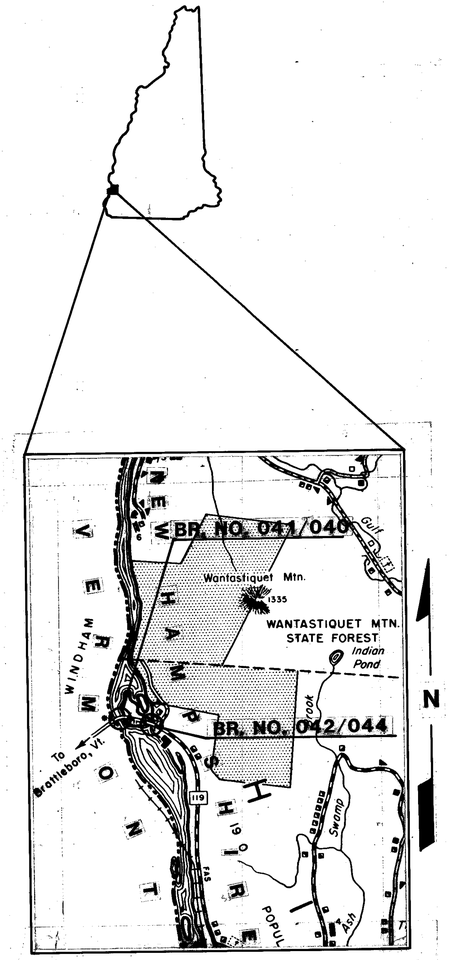
N.H. PROJECT NO. 10603

N.H. 119 OVER CONNECTICUT RIVER (2 BRIDGES)

BRIDGE REHABILITATION

DESIGN DATA		
AVERAGE DAILY TRAFFIC 1985	5800	
AVERAGE DAILY TRAFFIC 2005	7800	
PERCENT OF TRUCKS		%
DESIGN SPEED		M.P.H.
LENGTH OF PROJECT		MILES

INDEX OF SHEETS



LOCATION MAP

0.5 0 0.5 1.0

SCALE IN MILES

THIS PROJECT TO BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS DATED 1983.

TOWNS OF HINSDALE, N.H.-BRATTLEBORO, VT.

COUNTIES OF CHESHIRE, N.H.-WINDHAM, VT.

DRAWN BY K.J. TUCKER DATE 9-16-86

CHECKED BY D.J.B. DATE 2-12-87

BRUNING 44-141 56157

N.H. DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL:

Harland E. Roberts 3/17/87

ACTING DIRECTOR OF PROJECT DEVELOPMENT DATE

APPROVED: W.L. Fletcher

ASSISTANT COMMISSIONER

Robert W. Dow

ADMINISTRATOR, BUREAU OF MUNICIPAL HIGHWAYS

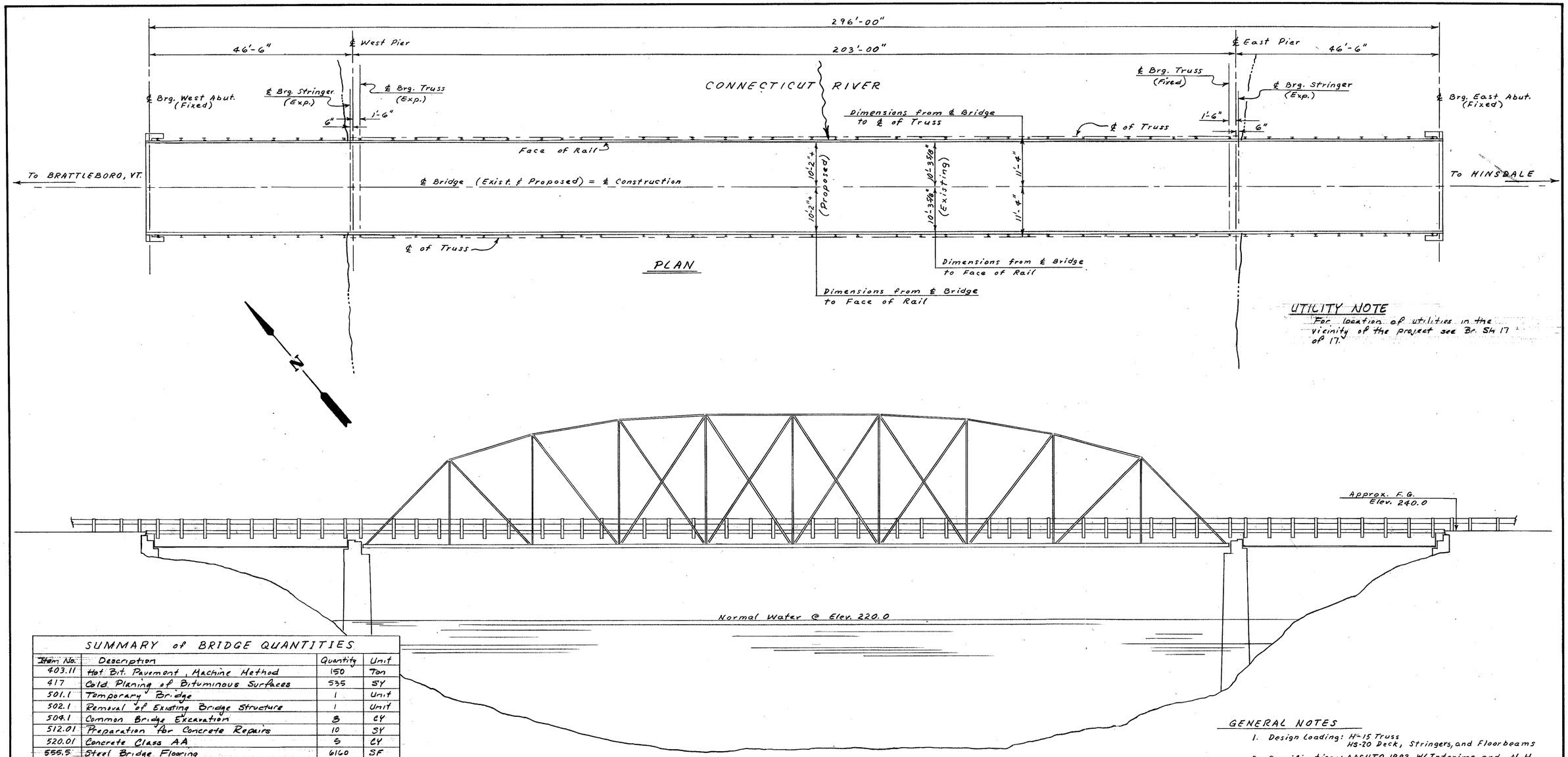
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____ _____

DIVISION ADMINISTRATOR DATE

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
	10603	1	18

1-3-3-3



ELEVATION

UTILITY NOTE

For location of utilities in the vicinity of the project see Br. Sh 17 of 17.

SUMMARY of BRIDGE QUANTITIES

Item No.	Description	Quantity	Unit
403.11	Hot Bit. Pavement, Machine Method	150	Ton
417	Cold Planing of Bituminous Surfaces	535	SY
501.1	Temporary Bridge	1	Unit
502.1	Removal of Existing Bridge Structure	1	Unit
504.1	Common Bridge Excavation	8	CY
512.01	Preparation for Concrete Repairs	10	SY
520.01	Concrete Class AA	5	CY
555.5	Steel Bridge Flooring	6160	SF
534.3	Water Repellent (Silane - Siloxane)	25	Gal
536.11	Epoxy Coating for Concrete	450	SF
544.2	Reinforcing Steel ~ Epoxy Coated	267	Lbs
550.101	Structural Steel (Est. 162000#)	1	Unit
550.201	Bridge Shoes	1	Unit
552.21	Rehabilitation of Expansion Bridge Shoes	2	Each
556.01	Painting Existing Structural Steel	1	Unit
561.11001	Prefabricated Expansion Joint, Type A	1	Unit
563.61	Bridge Railing 6	605	LF
606.140	Beam Guard Rail (Std. Section) GR-140	1550	LF
606.144	Beam Guard Rail, 4'-2" Spacing	50	LF
606.1461	Beam Guard Rail (Terminal Unit Type F, Mod) GR-M61	3	Unit
616.101	Traffic Signals	.5	Unit
618.61	Uniform Officers w/ Vehicle	100	Hour
618.7	Flaggers	750	Hour
619.1	Maintenance of Traffic Incl Dust Laying	.5	Unit
619.2	Construction Signs and Warning Devices	.5	Unit
692	Mobilization	.5	Unit
1002	Repairs or Replacements as Needed	.5	$
1008	Alterations and Additions as Needed	.5	$
209.1	Granular Backfill (Bridge)	8	CY
698.11	Field Offices (Modified)	.5	Ea

REHABILITATION WORK

1. Replace existing concrete deck, concrete curb, and steel curb w/new Asphalt-filled, Galvanized steel Bridge Flooring and steel plate curb.
2. Replace all stringers and floorbeams with new stringers with diaphragms and new floorbeams.
3. Replace existing bridge rail with new galvanized steel beam guard rail with nested channel on new galvanized steel rail posts and rail post diaphragms.
4. Install 2 new expansion joints.
5. Repair existing steel as directed.
6. Clean and paint all existing structural steel.
7. Repair substructure concrete.
8. Install and/or reset as required beam guard rail @ approaches.
9. Cold planing exist. pavement and place new pavement at bridge approaches.

GENERAL NOTES

1. Design Loading: H-15 Truss
   HS-20 Deck, Stringers, and Floorbeams
2. Specifications: AASHTO 1983 w/Interims and N.H. Department of Transportation 1983
3. Structural Steel: Existing: Fy = 33 Ksi
   Proposed: AASHTO M 183 (ASTM A36) Painted
4. Reinforcing Steel: Grade 60 - Epoxy coated
5. Concrete: Class AA, f'c = 4000 psi
6. Deck: Asphalt-filled, Galvanized Steel Bridge Flooring

Sheet Scale: 3/32" = 1'-0"

Δ	DESCRIPTION	BY	DATE
	REVISIONS		

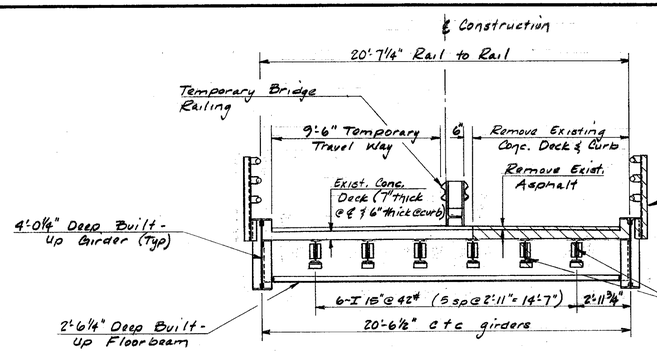
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

TOWN HINSDALE — BRIDGE NO. 042/044
FEDERAL PROJECT — STATE PROJECT 10603
LOCATION N.H. RTE 119 over CONNECTICUT RIVER (SIDE CHANNEL)

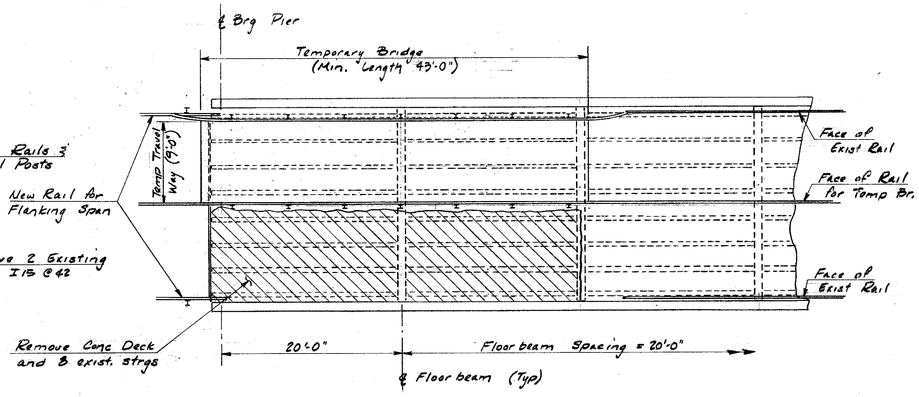
GENERAL PLAN AND ELEVATION

	BY	DATE		BY	DATE	
DESIGNED	DJB	10/86	CHECKED	RAJ	1/87	BRIDGE SHEET NO. 1 OF 17
DRAWN	PJP	12/86	CHECKED	RAJ	1/87	
TRACED			CHECKED			FILE NUMBER 1-3-3-3
QUANTITIES	DAG	2/87	CHECKED	DJB	2/87	
REVIEWED BY			PROJ. NO.			SHEET NO. 2 — TOTAL SHEETS 18

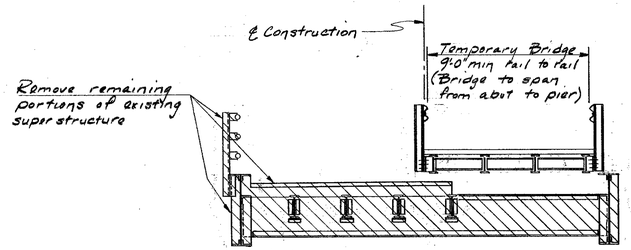
124587



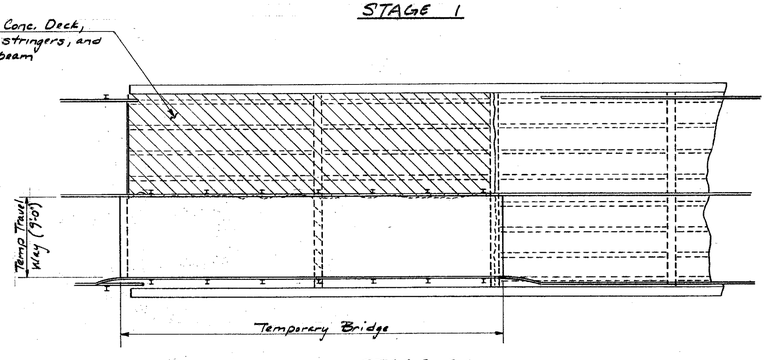
EXISTING FLANKING SPAN SHOWING STAGE 1 REMOVAL



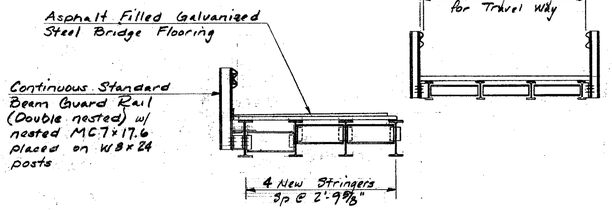
STAGE 1



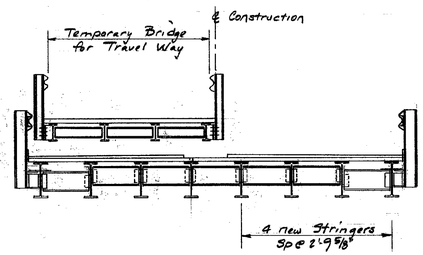
STAGE 2A



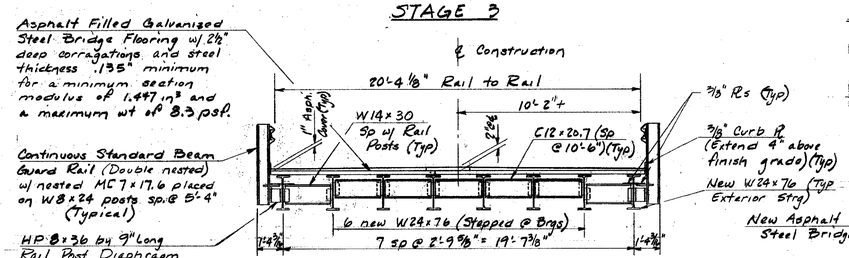
STAGE 2A



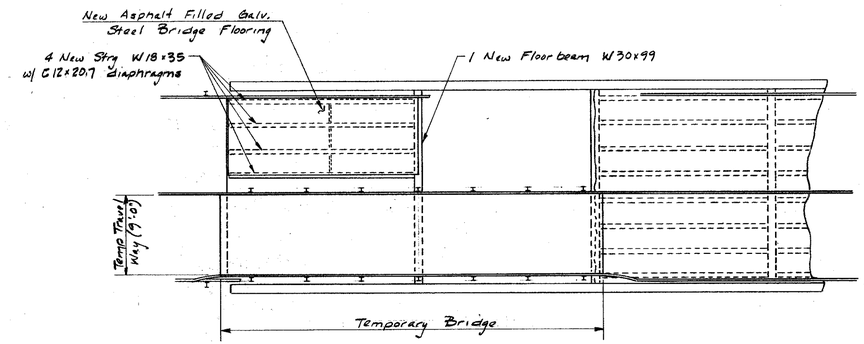
STAGE 2B



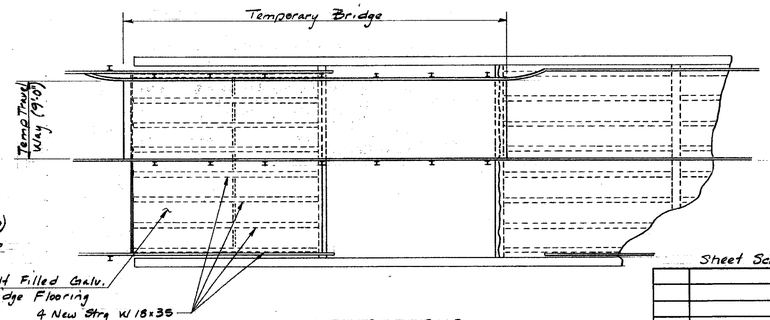
STAGE 3



PROPOSED FLANKING SPAN COMPLETED
Scale : ¼" = 1'-0"

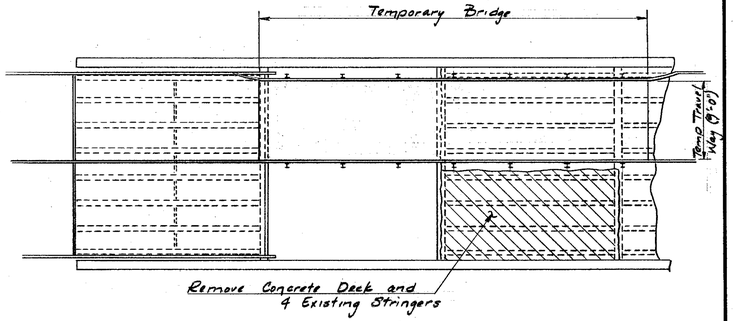


STAGE 2B



STAGE 3

TRUSS DECK CONSTRUCTION SEQUENCE



STAGE 4

Stage 4 is similar to Stage 1 except temporary Bridge is advanced one bay, and removal is confined to one bay. Subsequent Stages are similar to the preceding Stages 2A, 2B, & 3.

CONSTRUCTION AND TEMPORARY BRIDGE NOTES

1. The construction sequence for the redecking of the truss if shown in cross sectional views would be similar to that shown for the flanking spans, except that the temporary bridge would be used in all stages of construction on the truss. See Br Sht 4 (and 11) of 17 for typical cross section views of the truss decking.

2. The Contractor may use a temporary bridge for Stage 1 of the flanking span redeckings instead of using Temporary Bridge Railing. Temporary Bridge Railing shall be placed the entire length of the bridge to separate the construction area from the temporary travel way.

3. The Temporary Bridges shall be designed by a Registered Professional Engineer and shall be paid for under Item 501.1 & 501.2. The 501 Items include all work related to the design, construction, and installations of the temporary bridge, temporary bridge rail, and temporary bridge ramps, for the respective bridges.
   The Temporary Bridges shall be designed to carry a 2 axle, 5 ton vehicle w/ 4 tons on the back axle and 1 ton on the front axle, and axles spaced at 8'-0" c/c. Wheel spacing along the axles shall be 5'-0" c/c. A railing shall be provided on the temporary bridge which is capable of withstanding ½ of the standard AASHTO rail loading and other wise meeting AASHTO Standards. The ramps at the approaches of the temporary bridges shall have inclines that do not exceed a 10% slope, and shall be capable of carrying the 5 ton vehicle.
   The Temporary Bridges may be longer than shown on these plans (ie. capable of spanning 3 truss panels).
   Plans showing the temporary bridges, temporary bridge railing, temporary bridge ramps, and the proposed methods of placing the temporary bridges shall be submitted to the Bridge Engineer for approval prior to construction.

4. The Contractor shall submit drawings showing the method of field erection. These drawings shall be approved by the Bridge Engineer before erection begins.

5. The stage construction on the Main Channel Bridge (Br No 041/040) shall be similar to the stage construction as shown here for the truss span of the Side Channel Bridge (Br No 042/044) except that the existing Main Channel Bridge deck is an open steel grid, and the length of the temporary bridge for the end panels shall be a minimum length of 47'-0".

6. A minimum vertical clearance of 10'-0" shall be maintained above the temporary bridge riding surface.

Sheet Scale : ⅛" = 1'-0" except as noted

△	DESCRIPTION	BY	DATE
	REVISIONS		

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

TOWN HINSDALE — BRIDGE NO. 042/044
FEDERAL PROJECT — STATE PROJECT 10603
LOCATION NH RTE 119 over CONNECTICUT RIVER (SIDE CHANNEL)

CONSTRUCTION SEQUENCE

	BY	DATE		BY	DATE
DESIGNED	DSB	9/86	CHECKED	RAS	1/87
DRAWN	DSB	9/86	CHECKED	RAS	1/87
TRACED			CHECKED		
QUANTITIES	DAS	2/87	CHECKED	DSB	2/87

REVIEWED BY

PROJ. NO.

BRIDGE SHEET NO.	TOTAL SHEETS
2 OF 17	
FILE NUMBER	
1-3-3-3	
SHEET NO. 3	18

1.5492 = 1'-6 9/16
1.3975 = 1'-4 3/16
3 3/16 + ½ + ⅜ = 3 7/16
10.1315 = 10'-1 5/8

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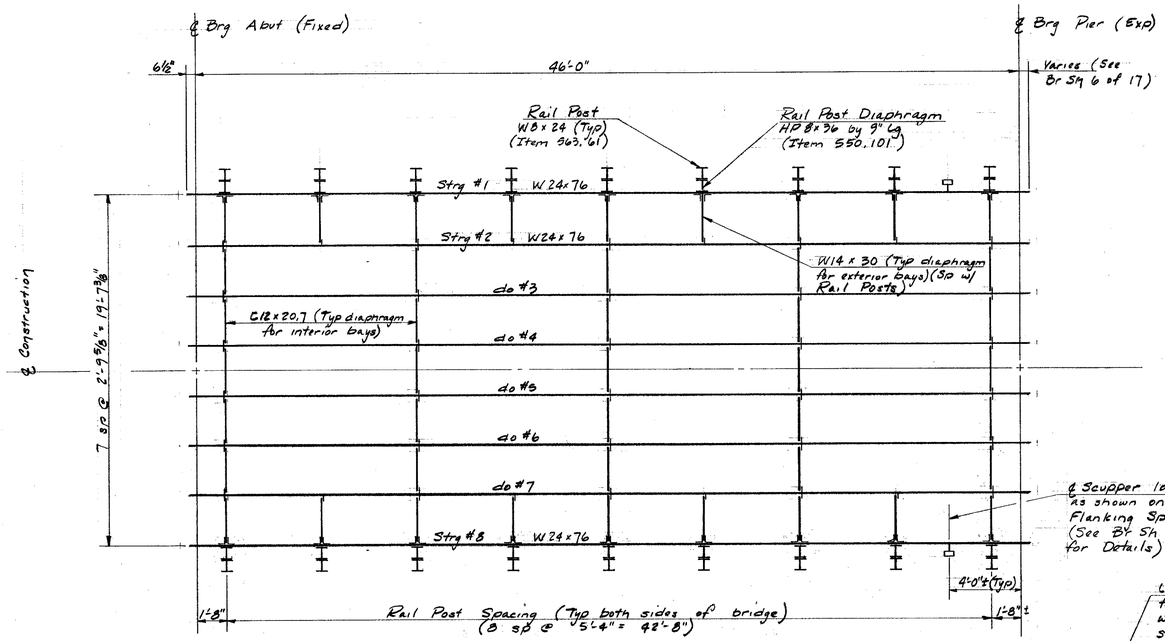
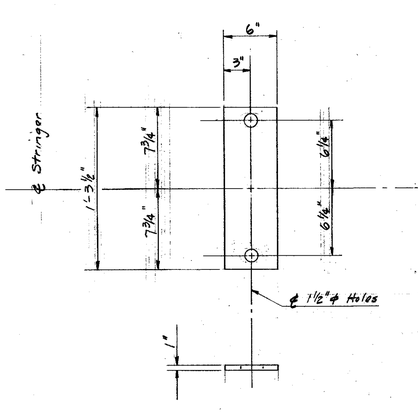
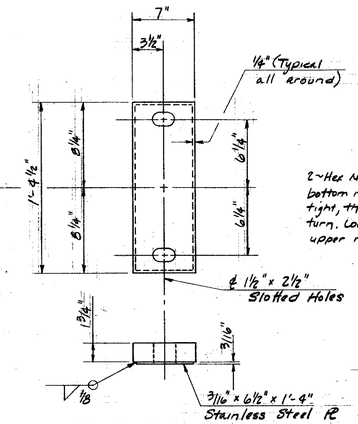


FRAMING PLAN FOR FLANKING SPAN

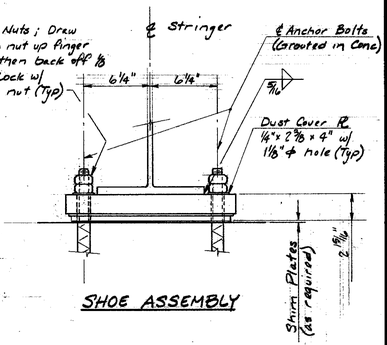
(West Flanking Span shown; East Flanking Span Opposite Hand)
Scale: 1/4" = 1'-0"



PREFORMED FABRIC BEARING PAD WITH PTFE SURFACE



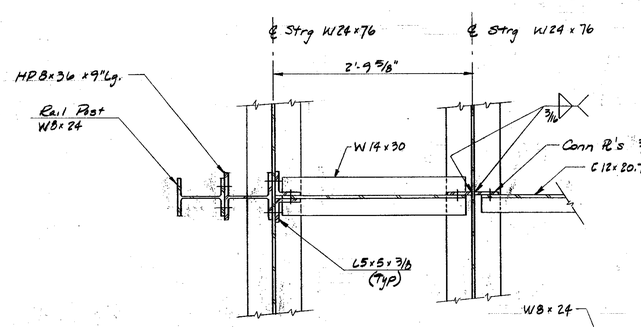
SOLE PLATE WITH STAINLESS STEEL FACING



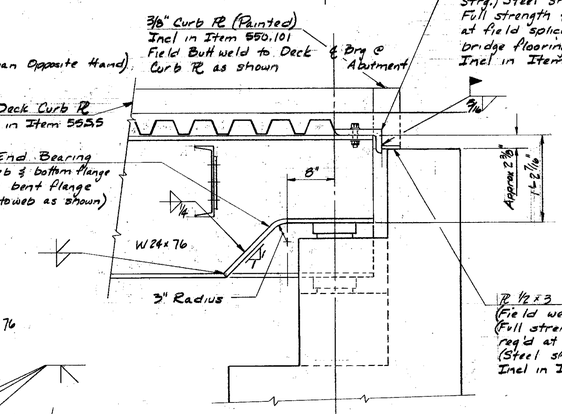
SHOE ASSEMBLY

EXPANSION SHOE AT PIER

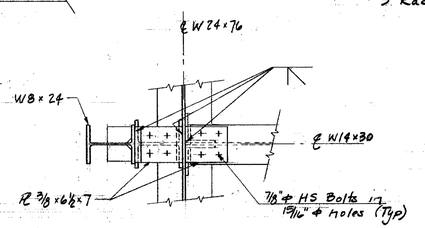
(See Temp. Adjust. Table, Br Sh 6 of 17 for placement of Anchor Bolts in relation to Sole Plate)
Not To Scale



SECTION A-A
Scale: 1" = 1'-0"



SECTION B-B
Scale: 1" = 1'-0"



SECTION C-C
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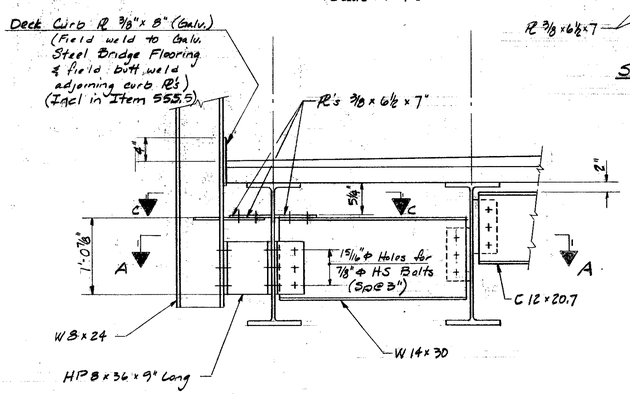
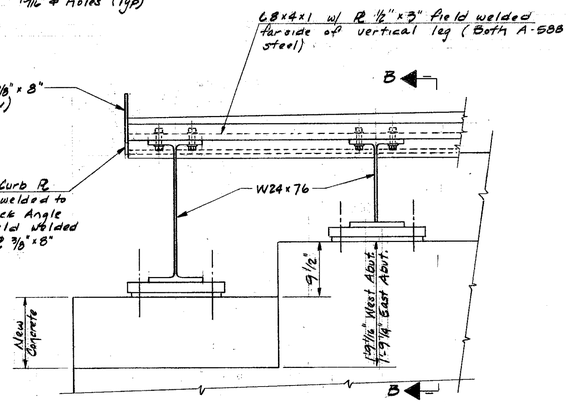
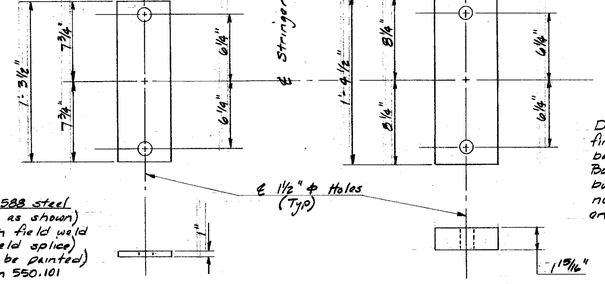


TYPICAL SECTION AT RAIL POST DIAPHRAGMS
Scale: 1" = 1'-0"

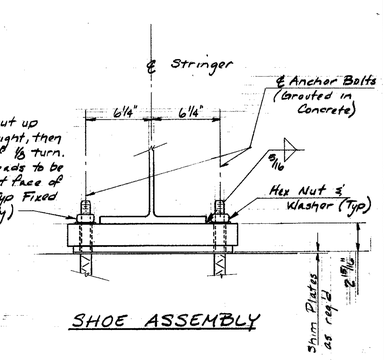


TYPICAL SECTION AT ABUTMENT
Scale: 1" = 1'-0"



PREFORMED FABRIC BEARING PAD

SOLE PLATE



SHOE ASSEMBLY

FIXED SHOE AT ABUTMENT

Not To Scale

NOTE
Bridge Shoe Details shown above are for stringers in the Flanking Spans. See Br Sh 13 of 17 for Bridge Shoe Notes and for Anchor Bolt Detail.

Sheet Scale: As noted

△	DESCRIPTION	BY	DATE
	REVISIONS		

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

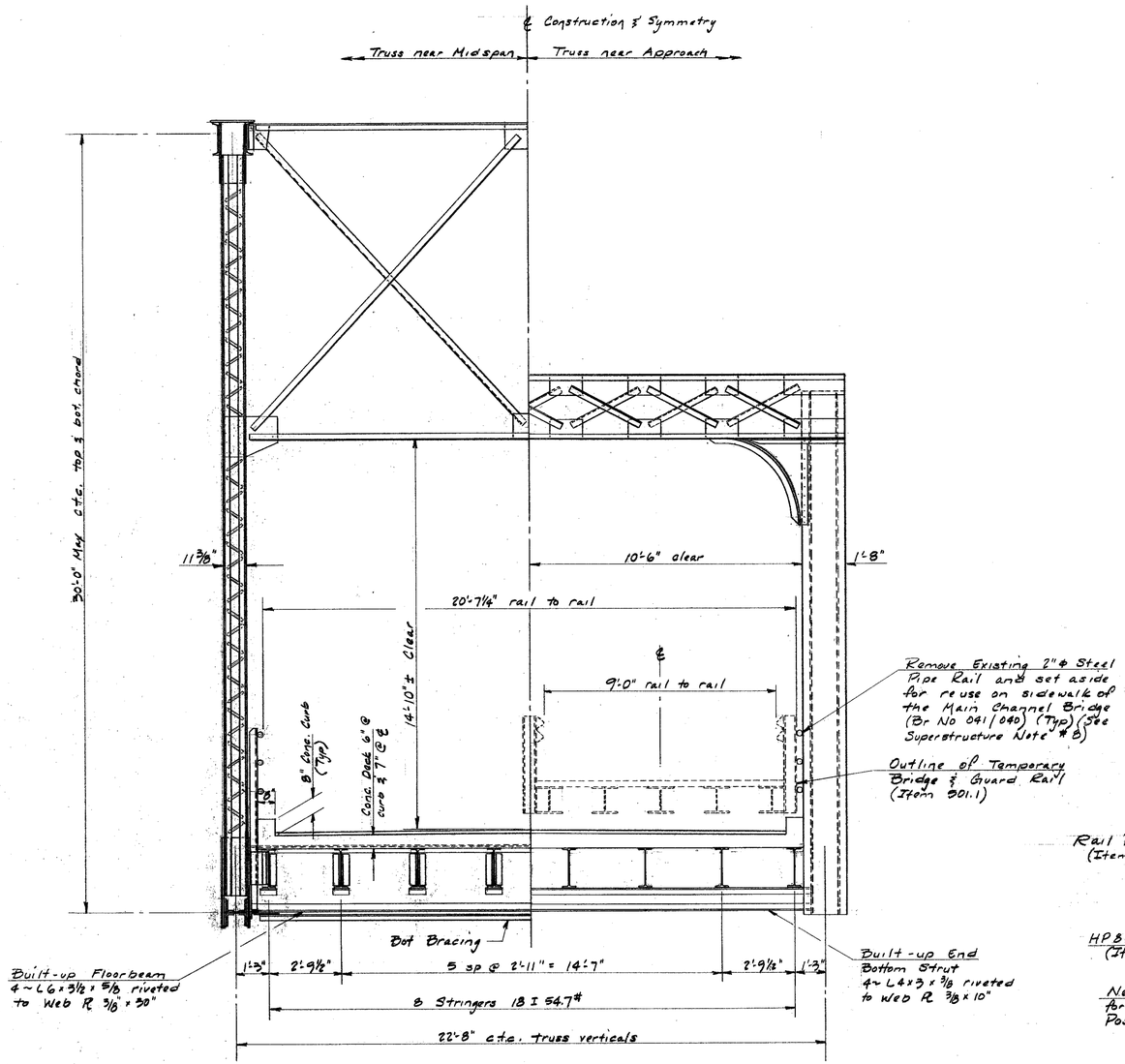
TOWN HINSDALE — BRIDGE NO. 042/044
FEDERAL PROJECT — STATE PROJECT 10603
LOCATION NH RTE 119 OVER CONNECTICUT RIVER (SIDE CHANNEL)

FLANKING SPANS ~ FRAMING PLAN AND DETAILS

	BY	DATE		BY	DATE
DESIGNED	DJB	10/86	CHECKED	RAJ	1/87
DRAWN	DJB	10/86	CHECKED	RAJ	1/87
TRACED			CHECKED		
QUANTITIES	DAG	2/87	CHECKED	DJB	2/87
REVIEWED BY			PROJ. NO.		

BRIDGE SHEET NO. 3 OF 17
FILE NUMBER 1-3-3-3
SHEET NO. 4
TOTAL SHEETS 18

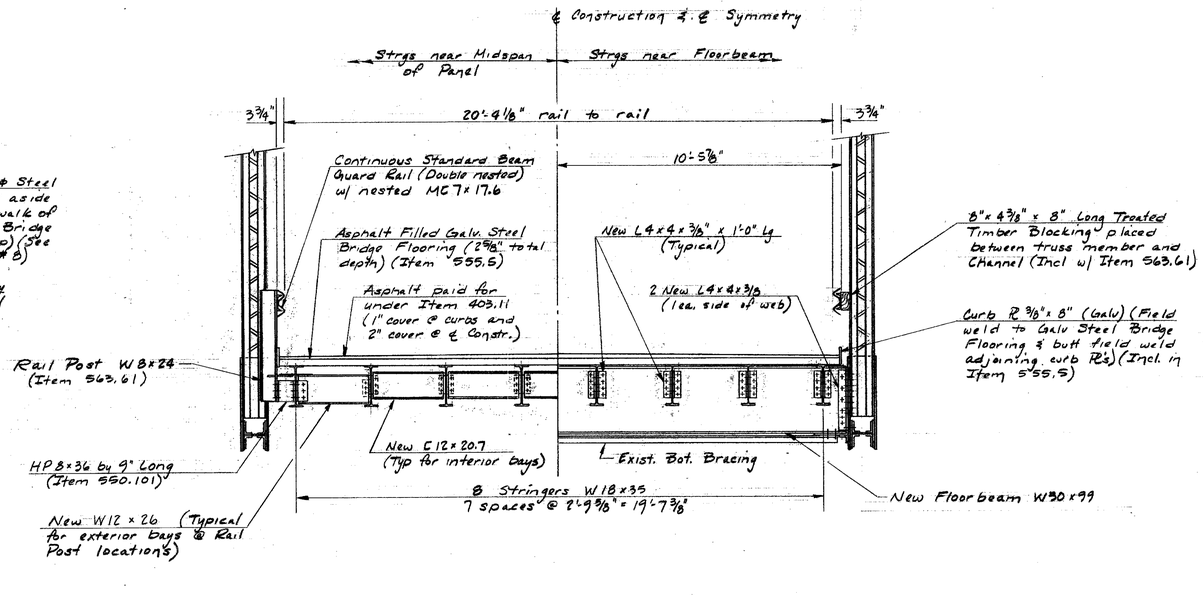
134587



TYPICAL SECTION OF EXISTING TRUSS

SUPERSTRUCTURE NOTES (BR NO. 042/044 & 041/040)

1. Structural steel shall be paid for under Structural Steel, Item 550.101 for the Side Channel Bridge (Br No 042/044) and Structural Steel, Item 550.102 for the Main Channel Bridge (Br No 041/040). The structural steel items shall include new stringers, new floorbeams, new end bottom struts, new diaphragms, new rail post diaphragms, and new connection angles.
2. All new structural steel shall conform to AASHTO M-183 (ASTM A-36) except as noted on plans.
3. New structural steel shall be shop painted according to Sect 550.3.2.9 and then receive two field coats of paint to be paid for under Item 556.01 for the Side Channel Bridge and Item 556.02 for the Main Channel Bridge.
4. The State shall shop inspect the fabrication of the structural steel.
5. All new stringers and new floorbeams shall meet the notch toughness requirements of Article 550.2.2.
6. Camber new stringers and new floorbeam as follows:
   Truss Spans: Stringer camber shall be 0" w/ camber tolerance 0" under and 1/2" over.
   Floorbeam camber shall be 0" w/ camber tolerance 0" under and 1/2" over.
   Flanking Spans: Stringer camber shall be 3/8" w/ camber tolerance 0" under and 1/2" over.
7. Hot Bituminous Pavement, Machine Method, Item 403.11 shall be placed in 2 courses on the bridge deck. The first course shall fill the corrugations in the Steel Bridge Flooring, and the second course shall be 1" thick at the curbs and 2" thick at the ℄ Construction.
8. Welding attachments to stringer or floorbeam flanges shall not be permitted except as allowed by the Bridge Engineer.
9. Removal of existing bridge structure shall be paid for under Item 502.1 for the Side Channel Bridge (Br. No. 042/044) and under Item 502.2 for the Main Channel Bridge (Br No 041/040). Item 502.1 shall include removing the 2½" Irving Open Deck Type V and the 4" C 5.4# Supports as directed by the Engineer and stock piling the materials in a convenient location for pick up by the State. Removal of straight and structurally sound portions of the existing bridge rail for reuse on the sidewalk of the Main Channel Bridge shall be paid for under Item 563.817. Damaged portions of existing bridge rail shall be removed under the respective Items 502.1 and 502.2. Reinstallation of bridge rail for sidewalk rail paid under Item 563.817.
10. The Contractor should be aware that all dimensions shown on these plans are taken from the original Bridge Plans and Fabrication plans and do not necessarily agree with "as built" dimensions. The Contractor should field verify dimensions shown and should be prepared to make any adjustments in Plan dimensions to properly reconstruct the Bridges.
11. The Contractor shall submit drawings showing the method of field erection. These drawings shall be approved by the Bridge Engineer before erection starts.



TYPICAL SECTION OF TRUSS SPAN WITH PROPOSED DECK SYSTEM

SUPERSTRUCTURE NOTES (CONTINUED)

12. The stringers removed from the truss span of the Side Channel Bridge shall be salvaged to the State of New Hampshire. Item 502.1 shall include the removal of the stringers and setting them aside for pick up by State forces.
13. Repairs or replacements for damaged or deteriorated truss members or truss member connections as directed by the Engineer shall be paid for under Item 1002 for both bridges, except for the replacement of the Upstream Midspan Lower Vertical Truss Member as shown on Br Sh 16 of 17. Cleaning and painting of repaired work shall be paid for under Item 556.01 or 556.02.
14. Steel Bridge Flooring Item 555.5 shall include:
   A) Steel Flooring
      1) Steel sheets as per ASTM A 446, galvanized as per ASTM A 525
      2) Corrugations 2½" deep w/ steel thickness of .135 in for Section Modulus of 1.447 in³ (minimum) and Max weight of 8.3 psf.
      3) Shop punch w/ 15/16" ϕ fastener holes and weep holes. Weep holes shall be placed at quarter points between stringers.
      4) Attach flooring to stringers with ½" threaded studs field welded to top flange of stringers (Incl Washer R 1 1/8" x 1 1/8" x 1/4" w/ 3/16" ϕ hole.)
      5) All longitudinal splices shall occur over ℄ of stringers. All transverse splices shall be lapped, and welded with 3" minimum weld placed half way between stringers. Transverse joints with exp. jt. steel or fixed end steel shall be accomplished with continuous welds.
   B) Curb Plates
      1) Continuous (butt welded) 3/8" x 8" A-36 steel plates, galvanized as per ASTM A 123.
      2) Curb Plate shall have 4" reveal and shall be field welded to the steel flooring with continuous Fillet weld.
   C) Drainage Scuppers
      1) See Br Sh 11 of 17 for Scupper Notes and Details.

NOTE: In all cases, Galvanized Surfaces damaged by welding or otherwise shall be repaired as specified in Sect. 550.3.5.7.3

SUBSTRUCTURE NOTES (BR NO 042/044 & 041/040)

1. The piers on the Side Channel Bridge (Br No 042/044) shall be inspected for deteriorated concrete. Deteriorated concrete shall be removed. The exposed removal surfaces shall be blast cleaned and coated with an approved bonding agent just prior to placing new concrete Class AA, Item 520.01. Cost of removal, cleaning, and bonding agent included in Item 512.01.
2. Coat the entire pier surface with Item 534.3, Water Repellent (Silane - Siloxane) except coat top horizontal and vertical surfaces with Item 536.11 Epoxy Coating for Concrete.
3. See Br Sh 8 of 17 for Abut. & Pier Notes for Side Channel Bridge.
4. See Br Sh 16 of 17 for Abutment Notes for Main Channel Bridge. (Br No 041/040)

Sheet Scale: 3/8" = 1'-0"

Δ	DESCRIPTION	BY	DATE
	REVISIONS		

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

TOWN HINSDALE — BRIDGE NO. 042/044
FEDERAL PROJECT — STATE PROJECT 10603
LOCATION NH RTE 119 over CONNECTICUT RIVER (SIDE CHANNEL)

TYPICAL TRUSS SECTIONS

	BY	DATE		BY	DATE
DESIGNED	DJB	9/86	CHECKED	RAJ	1/87
DRAWN	DJB	9/86	CHECKED	RAJ	1/87
TRACED			CHECKED		
QUANTITIES	DAG	2/87	CHECKED	DJB	2/87

REVIEWED BY

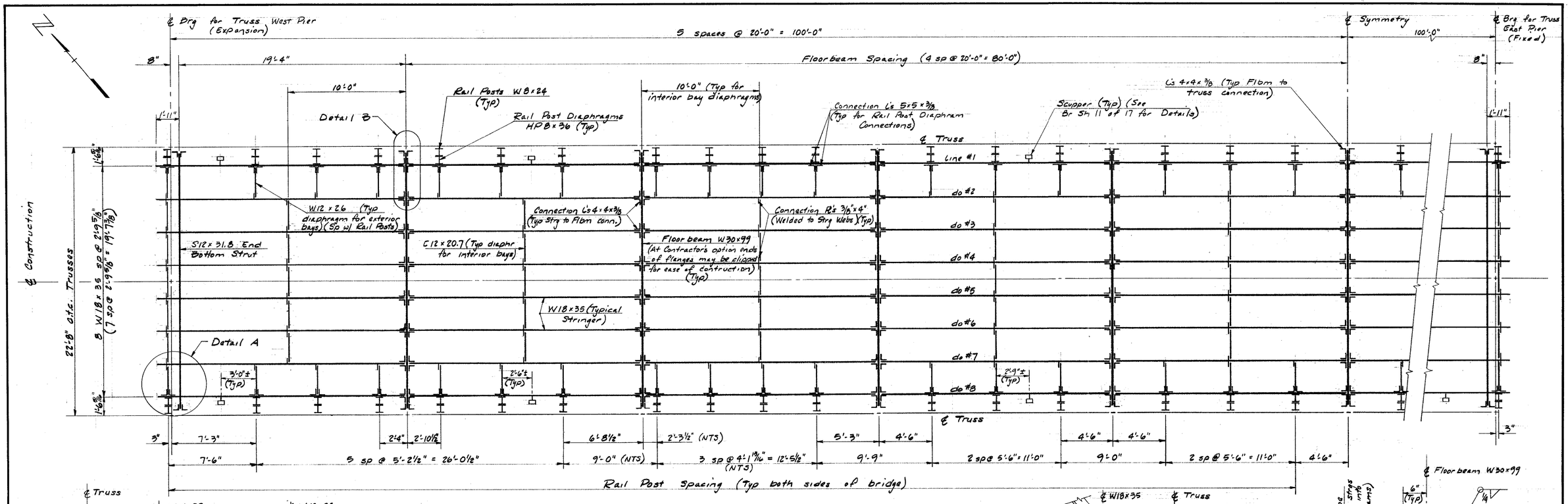
PROJ. NO.

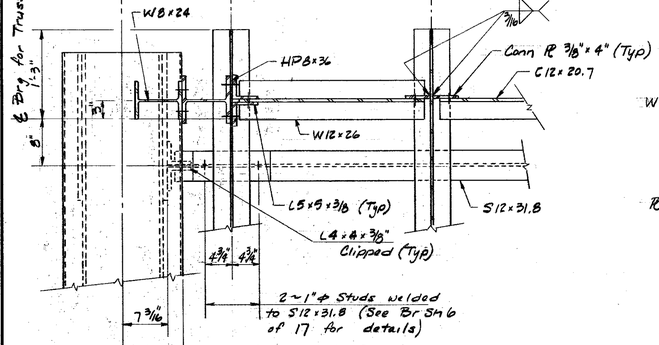
BRIDGE SHEET NO. 4 OF 17
FILE NUMBER 1-3-3-3
SHEET NO. 5
TOTAL SHEETS 18

124287

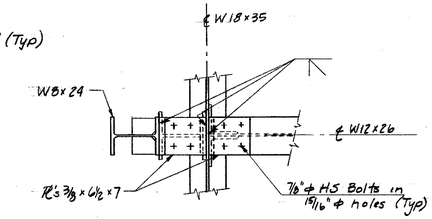
FRAMING PLAN

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





SECTION C-C



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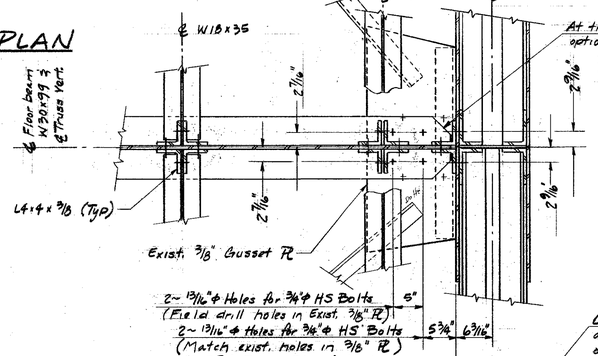
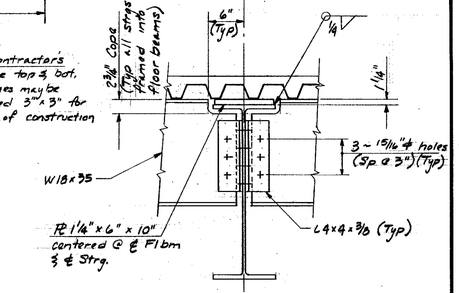
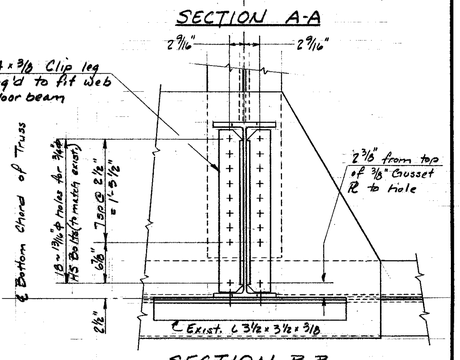


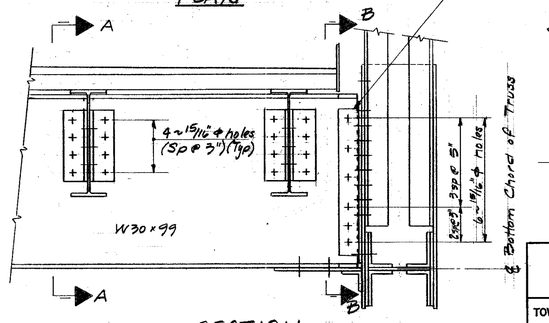
PLAN



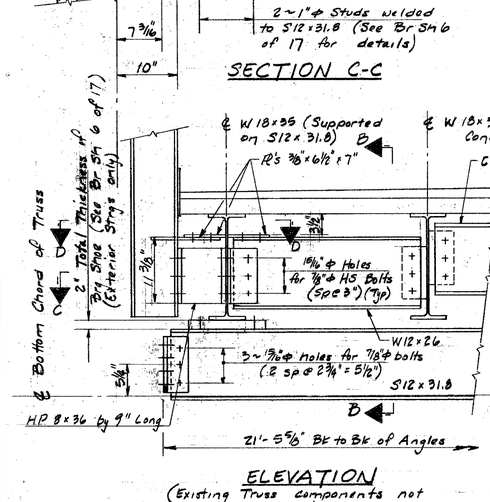
SECTION A-A



SECTION B-B



SECTION DETAIL B



ELEVATION
(Existing Truss components not shown)

DETAIL A

SECTION B-B

Sheet Scale : 1" = 1'-0" except as noted

△	DESCRIPTION	BY	DATE

REVISIONS

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

TOWN HINSDALE — BRIDGE NO. 092/094
FEDERAL PROJECT — STATE PROJECT 10603
LOCATION NH RTE 119 over CONNECTICUT RIVER (SIDE CHANNEL)

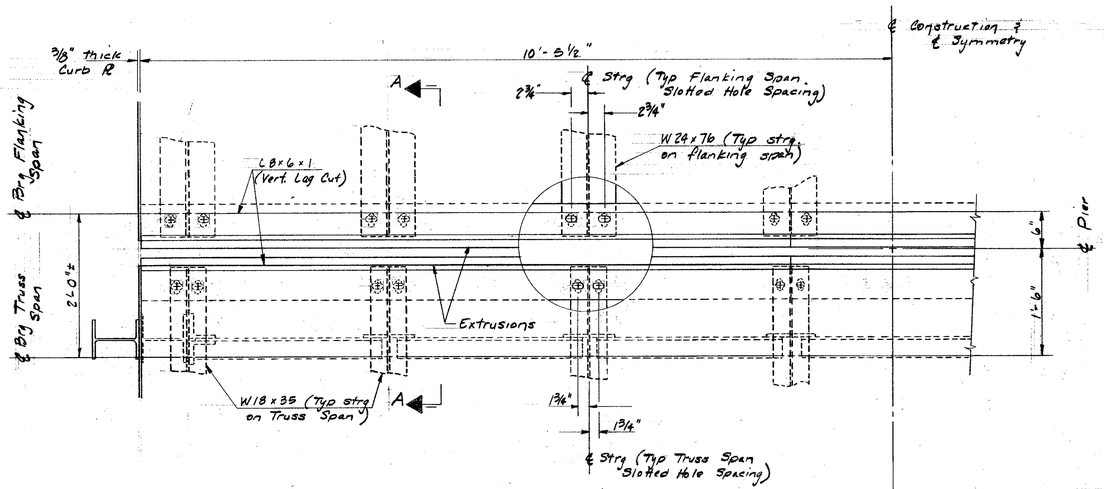
DECK FRAMING PLAN FOR TRUSS WITH DETAILS

	BY	DATE		BY	DATE
DESIGNED	DJB	9/86	CHECKED	RAJ	1/87
DRAWN	DJB	9/86	CHECKED	RAJ	1/87
TRACED			CHECKED		
QUANTITIES	DAG	2/87	CHECKED	DJB	2/87

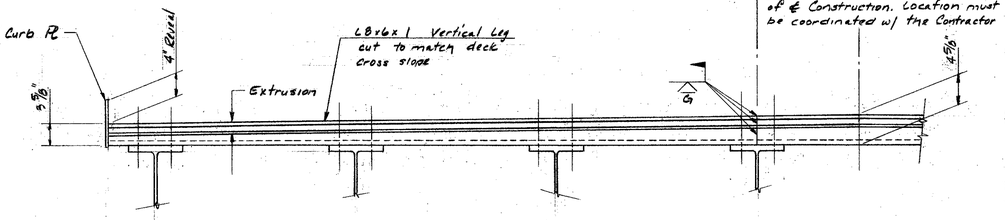
REVIEWED BY

PROJ. NO.

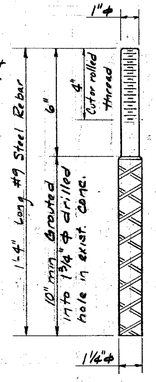
BRIDGE SHEET NO.	
6 OF 17	
FILE NUMBER	
1-3-3-3	
SHEET NO.	TOTAL SHEETS
6	18



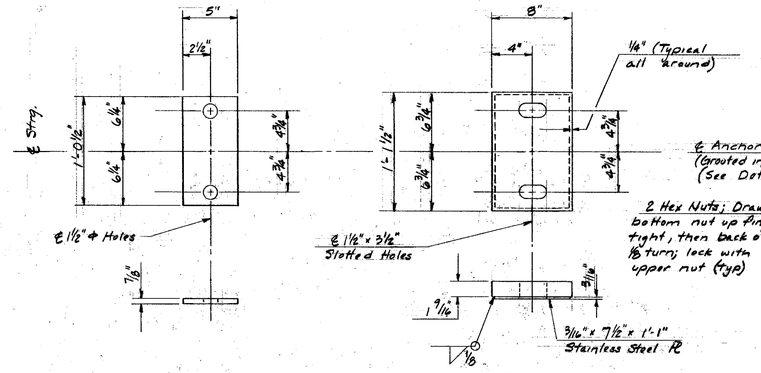
PLAN
Scale : 1" = 1'-0"



ELEVATION
Scale : 1" = 1'-0"



ANCHOR BOLT DETAIL
(Typical Anchor Bolt for Truss and Flanking Span Stringers)
Scale : 3" = 1'-0"



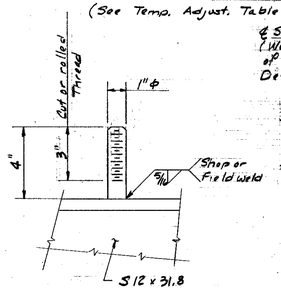
PREFORMED FABRIC BEARING PAD WITH PTFE SURFACE

SOLE PLATE WITH STAINLESS STEEL FACING

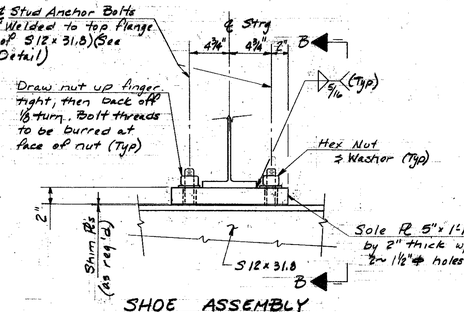
SHOE ASSEMBLY FOR INTERIOR STRINGERS

EXPANSION SHOE FOR INTERIOR TRUSS STRINGERS BEARING ON WEST PIER

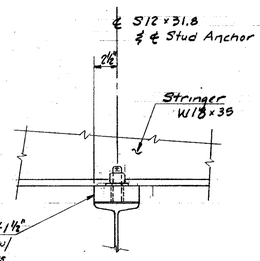
(See Temp. Adjust. Table for placement of Anchor Bolts in relation to Sole Pl)



STUD ANCHOR BOLT DETAIL
Scale: 3" = 1'-0"

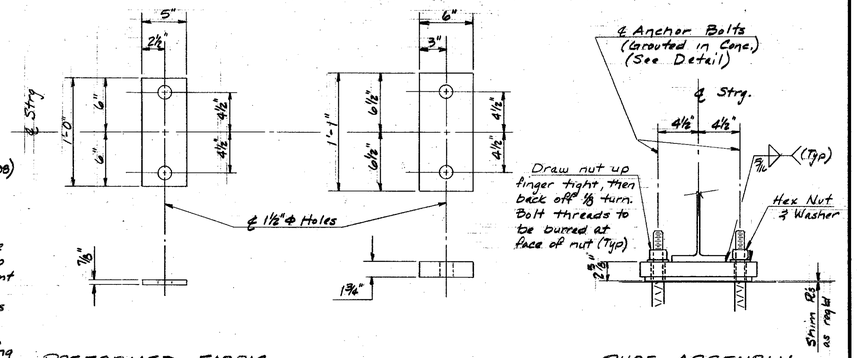


SHOE ASSEMBLY FOR EXTERIOR STRINGERS



SECTION B-B

BEARING SHOE FOR EXTERIOR TRUSS STRINGERS NEAR EAST AND WEST PIERS

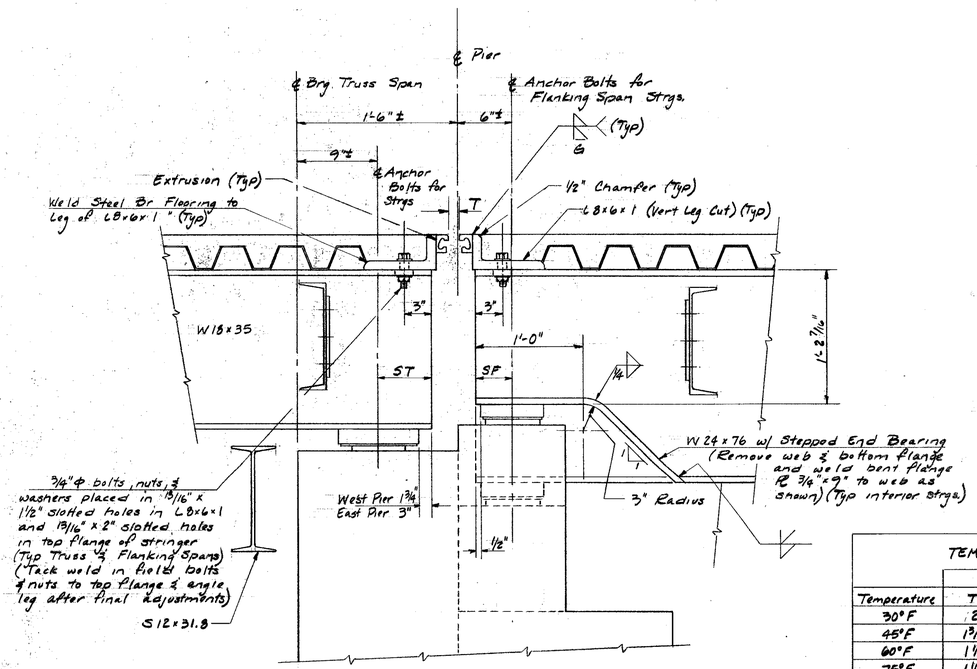


PREFORMED FABRIC BEARING PAD

SOLE PLATE

SHOE ASSEMBLY FOR INTERIOR STRINGERS

FIXED SHOE FOR INTERIOR TRUSS STRINGERS BEARING ON EAST PIER



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

EXPANSION JOINT NOTES

1) Expansion Joint Steel shall be AASHTO M-222 (ASTM A 588) All steel shall be painted. There shall be two assemblies, one at each pier which shall be of similar construction and both paid for under Item 561.11001, Prefabricated Expansion Joint, Type A.
2) Elastomeric Strip Seals shall have a minimum range of 3" and shall be furnished in continuous lengths (no splices shall be allowed) Install with an approved lubricant adhesive.
3) Splices for expansion joint steel, including field splices at the construction joint, shall develope full strength.
4) All welds shall conform to NH Standard Specs. and AASHTO Specs. Care shall be taken when field welding Galv Steel Bridge Flooring to leg of L8 x 6 x 1".

TEMPERATURE ADJUSTMENT TABLE

	WEST PIER			EAST PIER		
Temperature	T	ST	SF	T	ST	SF
30°F	2"	5 1/2"	3 15/16"	1 9/16"	6"	3 15/16"
45°F	1 3/4"	5 3/4"	4"	1 1/2"	6"	4"
60°F	1 1/2"	6"	4 1/16"	1 7/16"	6"	4 1/16"
75°F	1 1/16"	6 1/4"	4 1/8"	1 3/8"	6"	4 1/8"

(Dimensions ST & SF are given to allow the Contractor to set the anchor bolts relative to the holes in the Br. Shoe Sole Pl)

NOTE
See Br Sh 13 of 17 for Bridge Shoe Notes

Sheet Scale: 1 1/2" = 1'-0" except as noted

△	DESCRIPTION	BY	DATE
	REVISIONS		

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

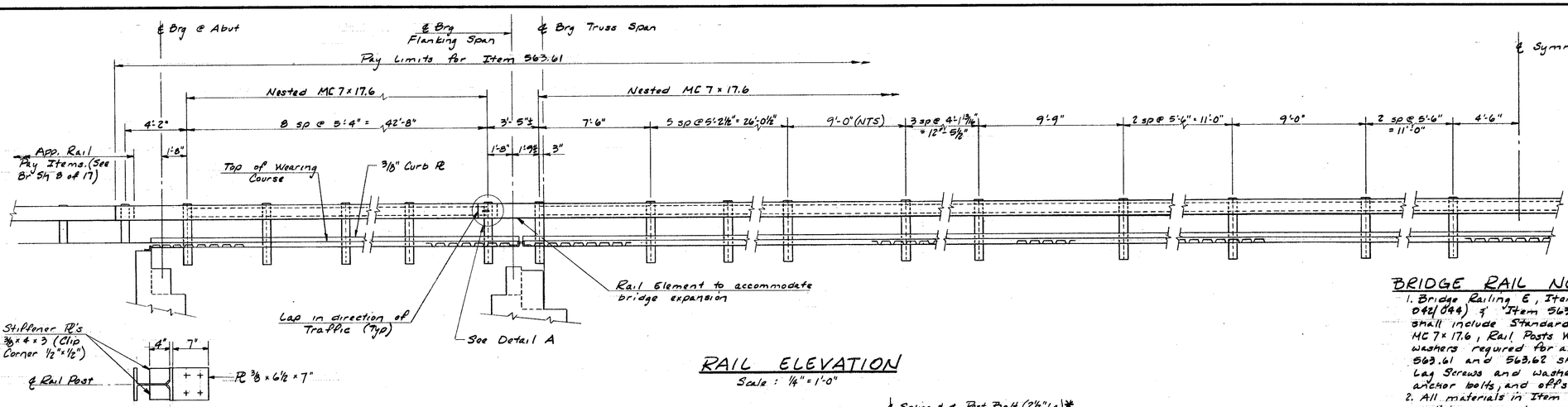
TOWN HINSDALE — BRIDGE NO. 042/044
FEDERAL PROJECT — STATE PROJECT 10603
LOCATION NH RTE 119 over CONNECTICUT RIVER (SIDE CHANNEL)

EXPANSION JOINT DETAILS AND TRUSS SPAN BRIDGE SHOES

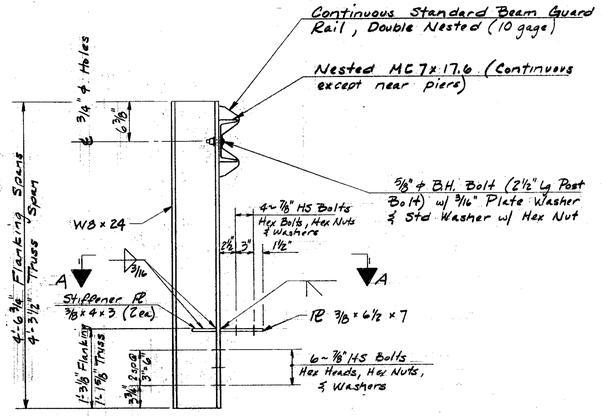
	BY	DATE		BY	DATE
DESIGNED	DJB	10/86	CHECKED	RAJ	1/87
DRAWN	DJB	10/86	CHECKED	RAJ	1/87
TRACED			CHECKED		
QUANTITIES	DAG	2/87	CHECKED	DJB	2/87

REVIEWED BY — PROJ. NO.

BRIDGE SHEET NO. 6 OF 17
FILE NUMBER 1-3-3-3
SHEET NO. 7 — TOTAL SHEETS 18

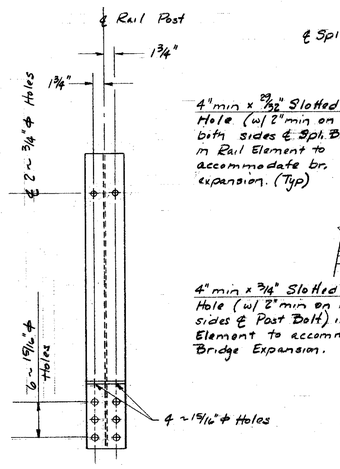


SECTION A-A
Scale: 1"=1'-0"

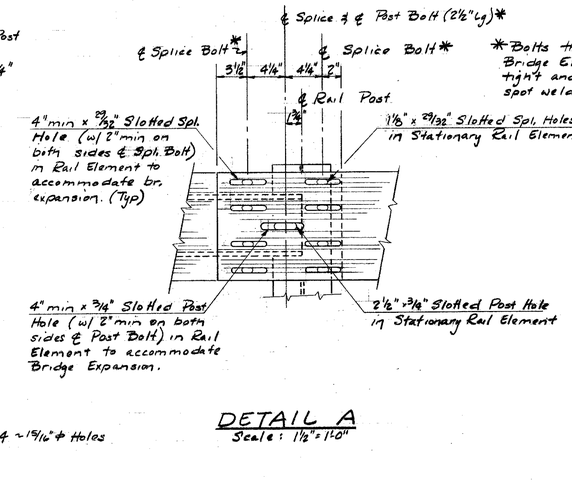


TYPICAL SECTION OF RAIL POST WITH RAIL
Scale: 1"=1'-0"

RAIL ELEVATION
Scale: ¼"=1'-0"

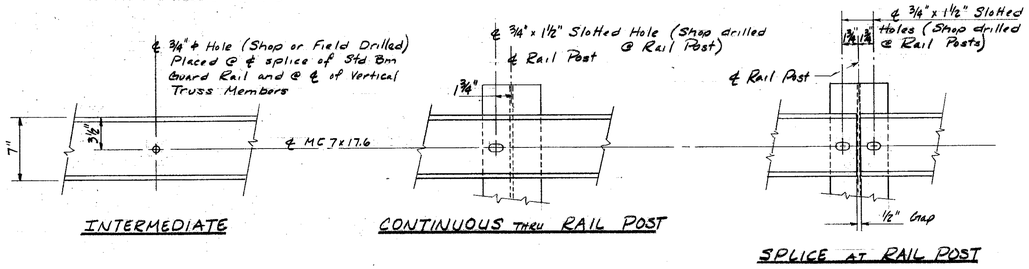


FRONT ELEVATION OF RAIL POST
Scale: 1"=1'-0"

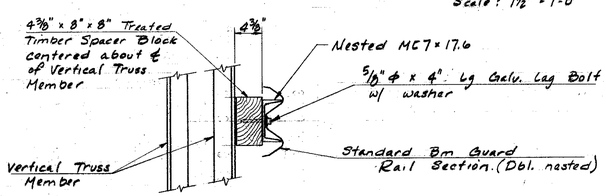


*Bolts thru Rail Element to accommodate Bridge Expansion shall be drawn up finger tight and then the nuts and bolts shall be spot welded together to prevent loosening

DETAIL A
Scale: 1½"=1'-0"



FRONT ELEVATIONS of NESTED MC 7 x 17.6
Scale: 1½"=1'-0"



TYPICAL SECTION OF GUARD RAIL AT VERTICAL TRUSS MEMBER
Scale: 1"=1'-0"

BRIDGE RAIL NOTES (BR NO. 042/044 & 041/040)

1. Bridge Railing E, Item 563.61 for Side Channel Bridge (Br No 042/044) & Item 563.62 for Main Channel Bridge (Br No 041/040) shall include Standard Beam Guard Rail (Double Nested), Nested MC 7 x 17.6, Rail Posts W 8 x 24, and splice bolts, post bolts, nuts, and washers required for attaching rail to rail and rail to posts. Items 563.61 and 563.62 shall also include Timber Blocking and Lag Screws and washers. Item 563.62 shall also include base plates anchor bolts, and offset blocks.
2. All materials in Item 563.61 and 563.62 shall be galvanized. Galvanizing shall be in accordance with Sect 563.2.3. Timber Spacer Blocks shall be treated per Section 606.2.2.
3. The Standard Beam Guard Rail (Double Nested) shall be of standard shape, dimensions, and materials as specified in Sect. 606.2.3 and Sect. 606.3.2. Field drilled ¾"℄ holes shall be permitted for attaching rail at rail posts and at vertical truss members.
4. The nested MC 7 x 17.6 rail elements, rail posts, base plates, and offset blocks shall be AASHTO M-183 (ASTM A-36).
5. The shapes and dimensions of splice bolts, rail post bolts, required washers, and slotted holes, as well as the shape and dimensions of the beam guard rail are shown on NH DOT Standard Sheet No 606-A, Note: Post Bolts shall be 2½" Long.
6. The Standard Beam Guard Rail (Double Nested) shall be attached to the nested MC 7 x 17.6 at all rail posts and at vertical truss members and at intermediate points where the above mentioned connections are greater than 6'-0". Therefore the maximum spacing between connections of beam guard rail to nested MC 7 x 17.6 shall be 6'-0".
7. Timber spacing blocks shall be as specified in Sect 606.2.1
8. Nested MC 7 x 17.6 shall be attached to a minimum of 4 rail posts.
9. Cut ends of all rail & post elements shall be ground smooth.
10. Anchor Bolts, nuts, & washers for rail posts placed on concrete for the Main Channel Bridge shall be HS Steel, galvanized as specified on Br Sh 15 of 17.

BRIDGE SIDEWALK RAIL NOTES (BR NO. 041/040)

1. Bridge Sidewalk Railing, Item 563.3 for the Main Channel Bridge (Br No 041/040) as shown on Br. Sh 15 of 17 shall include Rail Posts W 4 x 13, Base Plates, anchor bolts, support angles, 3" ℄ standard steel pipe rails, pipe rail couplings for splices, and ⅝" ℄ U bolts.
2. All materials in Item 563.3 shall be galvanized. Galvanizing shall be in accordance with Sect. 563.2.3. Anchor bolts, nuts, and washers for posts placed on concrete shall be High Strength steel (galv.) as specified on Br Sh 15 of 17. Other anchor bolts, nuts, and washers for posts placed on existing sidewalk brackets shall be ASTM A 325 (galv). The U Bolts, nuts, and washers shall conform to ASTM A 307 (galv). All rail posts, base plates, and rails shall be AASHTO M-183 (ASTM A-36).
3. Cut ends of all rail and post elements shall be ground smooth.
4. Rail splices shall be accomplished with a threaded coupling capable of developing the full bending and tensile strength of the rail.
5. The rail placed against the truss shall be 2"℄ steel pipe railing salvaged from the Main Channel & Side Channel Bridge Traffic rail. Rail shall be cleaned and painted. 1¼"℄ U-bolts, nuts, and washers shall be supplied and shall conform to ASTM A307 (galv). Splices shall be accomplished by welding a pipe coupling between salvaged rail pieces. Railing shall end at Truss End Post as directed by the Engineer. All cost associated with salvaging, storing and erecting this rail shall be included in Item 563.817, Rehabilitation of Bridge Sidewalk Railing except that the cost for cleaning and painting shall be included in Item 556.

Sheet Scale: As noted

Δ	DESCRIPTION	BY	DATE
	REVISIONS		

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

TOWN HINSDALE — BRIDGE NO. 042/044
FEDERAL PROJECT — STATE PROJECT 10603
LOCATION NH RTE 119 over CONNECTICUT RIVER (SIDE CHANNEL)

BRIDGE RAIL

	BY	DATE		BY	DATE
DESIGNED	DJB	10/86	CHECKED	RAJ	1/87
DRAWN	DJB	10/86	CHECKED	RAJ	1/87
TRACED			CHECKED		
QUANTITIES	DAG	2/87	CHECKED	DJB	2/87

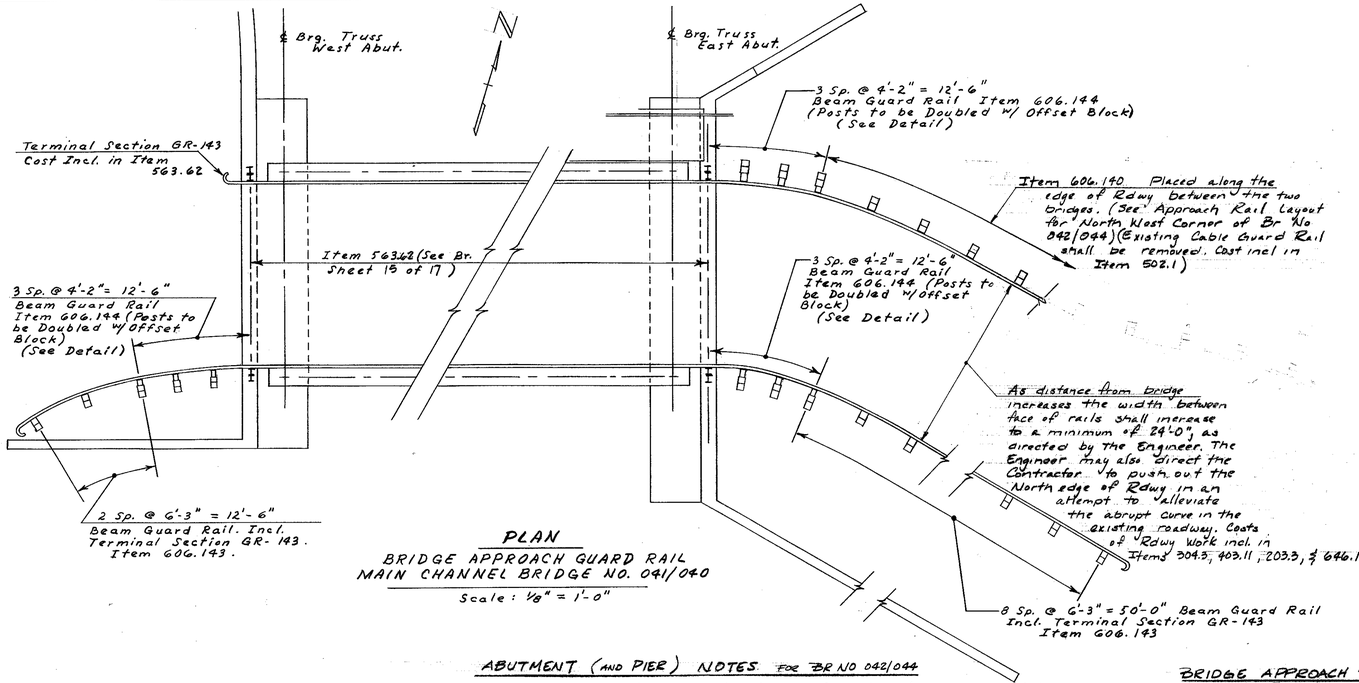
REVIEWED BY

PROJ. NO.

BRIDGE SHEET NO.	FILE NUMBER
7 OF 17	1-3-3-3

SHEET NO.	TOTAL SHEETS
8	18

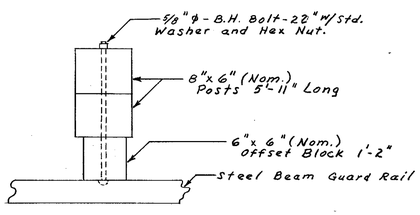
124687



PLAN

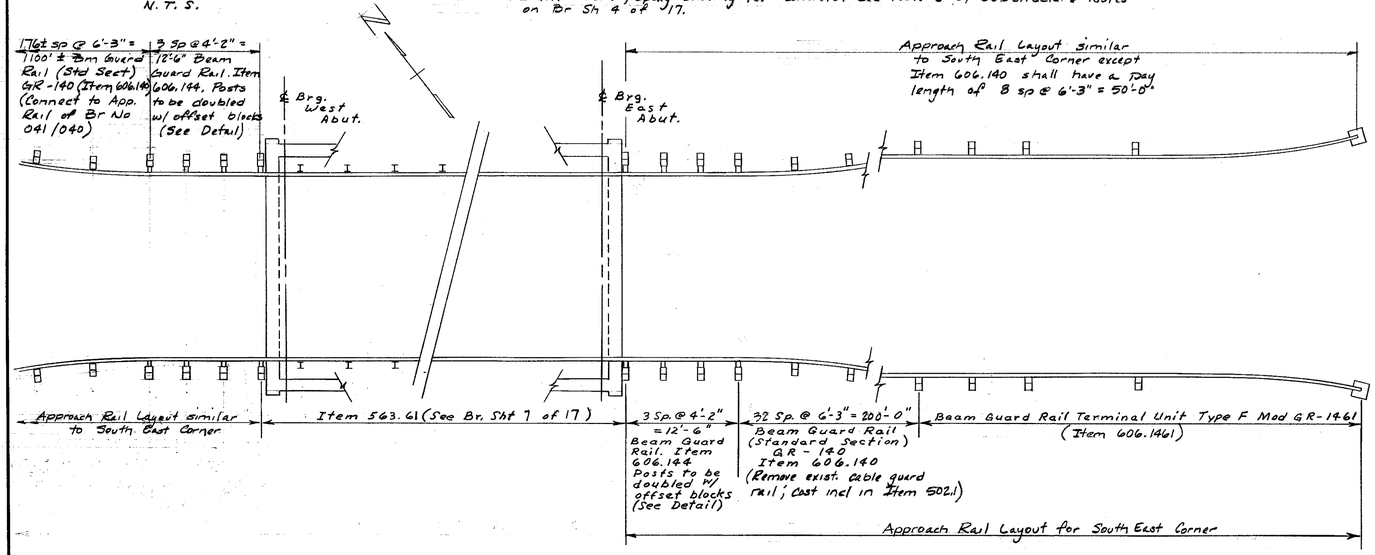
BRIDGE APPROACH GUARD RAIL
MAIN CHANNEL BRIDGE NO. 041/040

Scale: 1/8" = 1'-0"



DOUBLE POST DETAIL

N. T. S.



PLAN

BRIDGE APPROACH GUARD RAIL
SIDE CHANNEL BRIDGE NO. 042/044

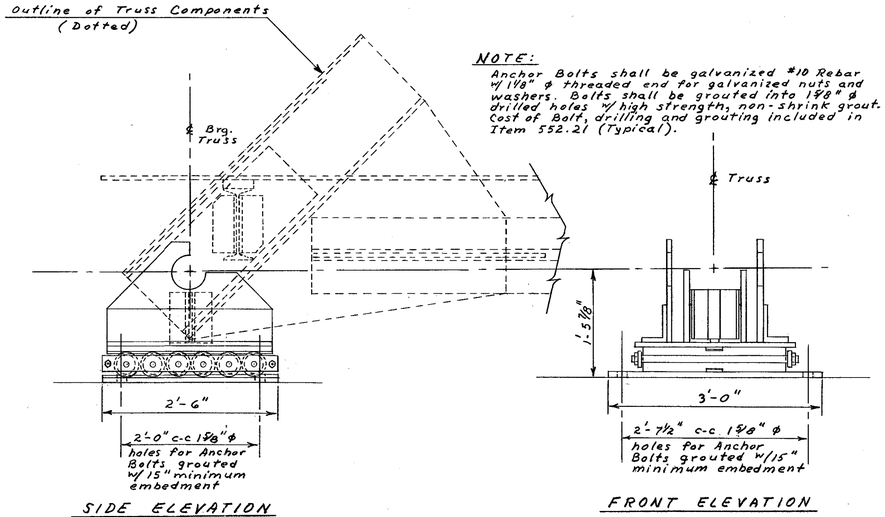
Scale: 1/8" = 1'-0"

ABUTMENT (AND PIER) NOTES FOR BR NO 042/044

1. Contractor shall reconstruct ends of abutments and connected wings as proposed to properly protect exterior stringer and its bearing. Bearing Pedestals for exterior stngs. of Flanking Spans shall also be constructed at both abutments 4 pieces. Pier pedestals shall be similar to those shown for abutments.
2. New concrete shall be Class AA, Item 520.01.
3. Before placing new concrete the existing concrete shall be cleaned as directed by the Engineer. An approved bonding agent shall be applied just prior to placing new concrete. Cost of cleaning and bonding agent shall be included in Item 520.01.
4. See Bridge Sheet 16 of 17 for Reinforcing Schedule and the Reinforcing Notes.
5. Removal of existing boards and debris shall be paid for under Item 502.1.
6. All new and existing exposed Abutment concrete surfaces shall be coated with Item 534.3, Water Repellent (Silane - Siloxane).
7. New (as well as existing) Pier pedestal concrete surfaces shall be coated with Item 536.11, Epoxy Coating for Concrete. See Note 2 of Substructure Notes on Br Sh 4 of 17.

BRIDGE APPROACH PAVEMENT WORK AT BR. NO 042/044

Cold Planing of Bituminous surfaces Item 417, shall include scarifying the existing approach pavement beginning at 100' from the backwall of each abutment to allow for a 1" minimum thickness of Hot Bituminous Pavement, Machine Method, Item 403.11. The Existing pavement shall be saw cut 1" deep at the match lines of the existing and overlay pavements. Cost of the saw cuts included in Item 417. Scarifying shall be 1" deep at the match lines and approximately 2½" deep at the back of the backwalls.



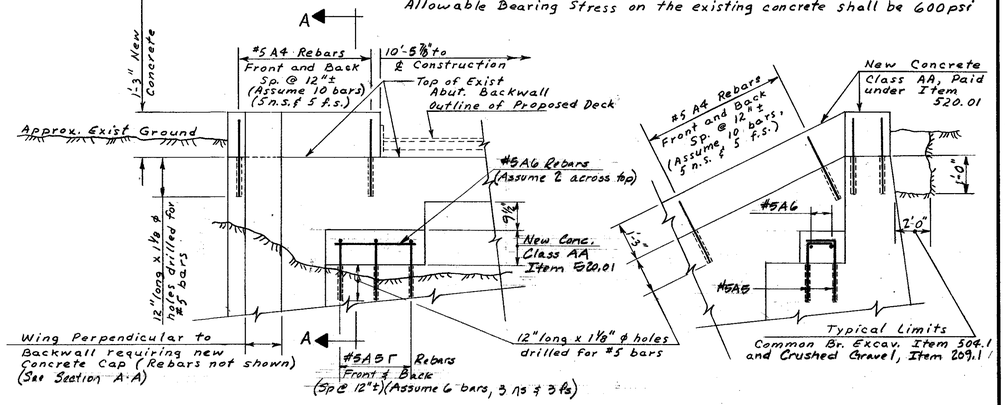
WEST PIER TRUSS EXPANSION SHOE
FOR BR NO 042/044

Scale: 1"=1'-0"

TRUSS SHOE NOTES FOR BR NO 042/044

1. The Truss Expansion Shoes on the West Pier shall be rehabilitated as required to allow for proper movement of the truss. Worn, broken, or missing components of the existing shoes shall be replaced in kind as required by the Engineer. Existing parts that are structurally sound shall be cleaned and painted. New steel shall be shop painted. Materials and labor shall be paid for under Item 552.21, Rehabilitation of Expansion Bridge Shoes.
2. In order to accomplish the desired shoe rehabilitation the bridge shall be jacked. The Contractor shall submit a jacking scheme and calculations designed by a Registered Professional Engineer to the Bridge Engineer for approval prior to the start of shoe rehabilitation.

Est. Total Deadload of Truss with existing deck is 648,000 #
Est. Total Deadload of Truss with new deck is 467,000 #
Allowable Bearing Stress on the existing concrete shall be 600psi



FRONT ELEVATION
TYPICAL ABUTMENT at WING

SECTION A-A

ABUTMENT RECONSTRUCTION SIDE CHANNEL BRIDGE
(BR NO 042/044)

(See Abutment Notes this sheet)
Scale: ½" = 1'-0"

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

TOWN HINSDALE, N.H. & BRATTLEBORO, VT. BRIDGE NO. 041/040 & 042/044
FEDERAL PROJECT
STATE PROJECT 10603
LOCATION N.H. ROUTE 119 OVER CONNECTICUT RIVER

APPROACH RAIL AND DETAIL FOR BR NO 042/044 & 041/040

	BY	DATE
DESIGNED	DJB	12/86
DRAWN	PJP	12/86
TRACED		
QUANTITIES	DAG	2/87

	BY	DATE
CHECKED	RAT	1/87
CHECKED	RAJ	1/87
CHECKED		
CHECKED	DJB	2/87

BRIDGE SHEET NO. 8 OF 17
FILE NUMBER 1-3-3-3

REVIEWED BY
PROJ. NO.
SHEET NO. 9
TOTAL SHEETS 18

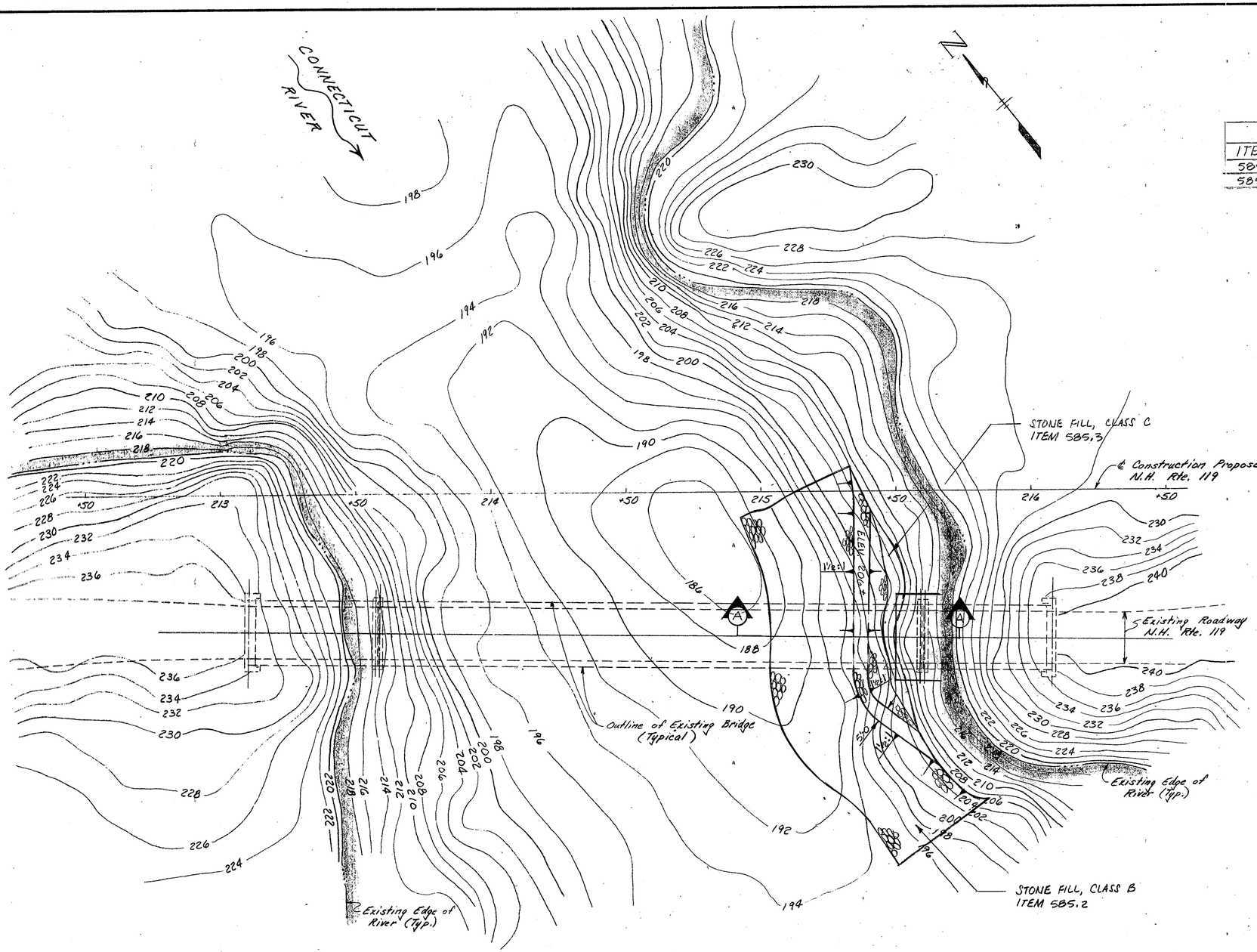
Sheet Scale: As Noted

△	DESCRIPTION	BY	DATE
	REVISIONS		

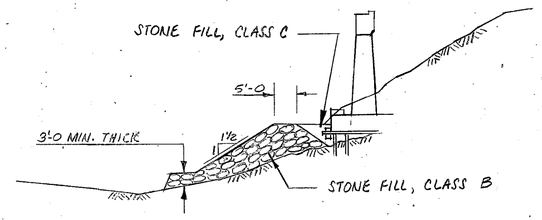
124587

FED. ROAD DIV. NO.	STATE	PROJ.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	N.H.				

ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	QUANTITY	UNIT
585.2	STONE FILL, CLASS B	1000	CY
585.3	STONE FILL, CLASS C	100	CY



SITE PLAN
Scale: 1"=20'



SECTION A-A
SCALE: 1"=20'

Sheet Scale: As Noted

	DESCRIPTION	BY	DATE
	ADDED PROPOSED BERM	MLH	7-87
Δ	REVISIONS		

STATE OF NEW HAMPSHIRE
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BRIDGE DESIGN DIVISION

TOWN HINSDALE — BRIDGE NO. 042/044
FEDERAL PROJECT — STATE PROJECT 10603
LOCATION N.H. Rte. 119 over Connecticut River (Side Channel)

SITE PLAN

	BY	DATE
DESIGNED		
DRAWN	JFM	10/82
TRACED		
QUANTITIES		

	BY	DATE
CHECKED		
CHECKED		
CHECKED		
CHECKED		

REVIEWED BY

PROJ. NO. BRS-270(6)

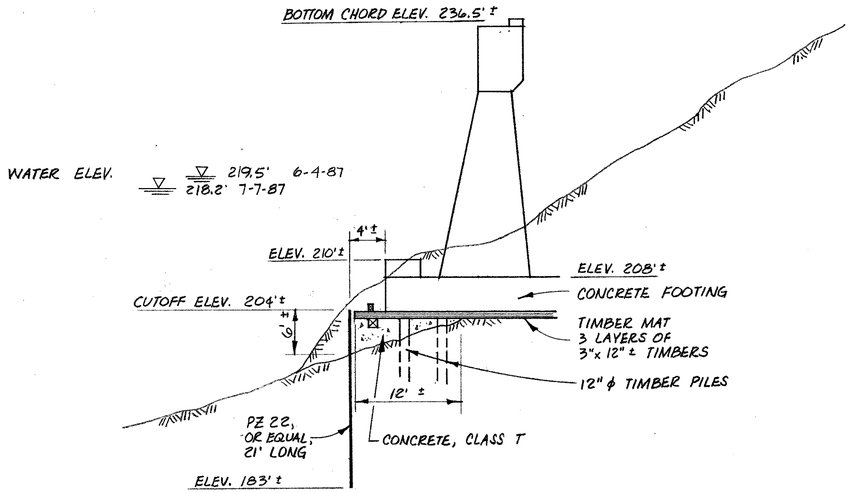
BRIDGE SHEET NO. 8a OF 17
FILE NUMBER 1-3-3-3
SHEET NO.
TOTAL SHEETS

BRUNING 40-107 55232

ESTIMATED QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
506.2	STEEL SHEET PILING	26,796	LBS.
520.6	CONCRETE, CLASS T	25	CY.

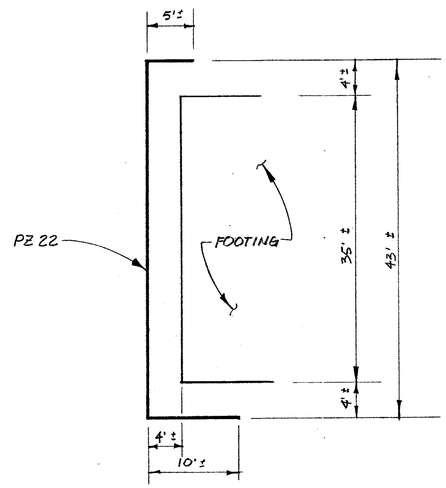
NOTES:

1. TIMBER PILES SHALL BE WRAPPED OR COATED, WHERE PRACTICABLE, TO PREVENT BOND WITH CONCRETE.
2. CONCRETE SHALL BE PUMPED TO FILL THE ENTIRE VOID.
3. STEEL SHEET PILING TO BE CUT OFF AT TOP OF TIMBER MAT (EL. 204±) OR AT EXISTING STREAMBED ABOVE TIMBER MAT.
4. STEEL SHEET PILING SHALL BE DRIVEN TO FINAL DEPTH (EL. 183'±) BEFORE CONCRETE IS POURED.



DOWNSTREAM ELEVATION

SCALE: 1/8"=1'-0



PLAN

SCALE: 1/8"=1'-0

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

TOWN HINSDALE — BRIDGE NO. 042/044
FEDERAL PROJECT — STATE PROJECT 10603
LOCATION NH RTE. 119 OVER CONNECTICUT RIVER

ELEVATION & PLAN

△	DESCRIPTION	BY	DATE
	REVISIONS		

	BY	DATE
DESIGNED		
DRAWN	MLH	8-87
TRACED		
QUANTITIES		

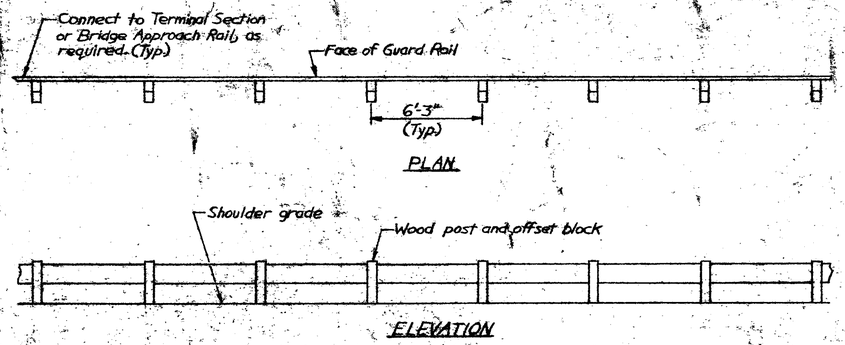
	BY	DATE
CHECKED		
CHECKED	DEP	8-87
CHECKED		
CHECKED		

BRIDGE SHEET NO. 8b OF 17
FILE NUMBER 1-3-3-3

REVIEWED BY | PROJ. NO. | SHEET NO. | TOTAL SHEETS

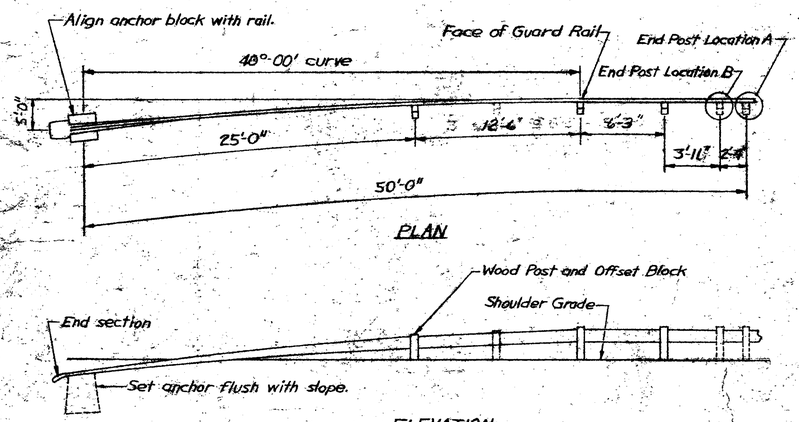
124687

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	N.H.				



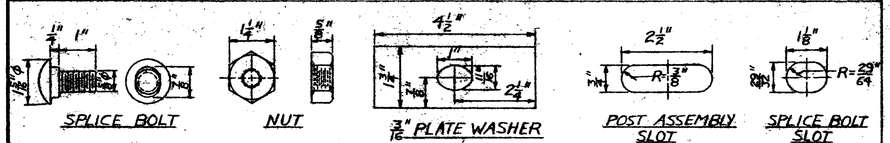
STANDARD SECTION
Scale: $\frac{1}{4}$"=1'-0"

Notes: 1. Beam guard rail shall be installed where shown on the Roadway Plan or Rail Layout sheet.
2. Where it is to be connected to bridge approach rail, the end of the beam guard rail shall be modified as shown on the Bridge Approach Rail sheet.
3. Pay items: 606.140, Beam Guard Rail (Standard Section) GR-140
606.143, Beam Guard Rail including Terminal Sections, GR-143
4. Payment shall be by the linear foot, from center to center of rail posts.



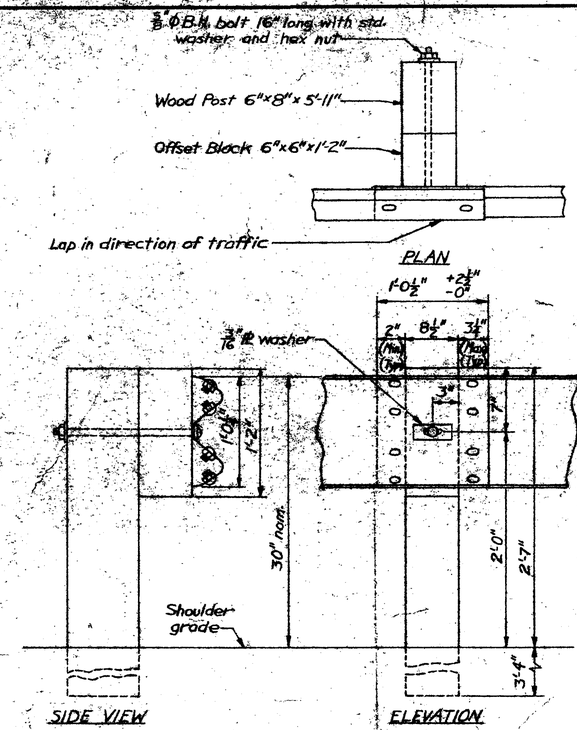
TERMINAL UNIT, TYPE F (MODIFIED)
Scale: $\frac{3}{16}$"=1'-0"

Notes: 1. Terminal units shall be installed where shown on the Roadway Plan or Rail Layout sheet.
2. End rail post to be installed in Location A when Terminal Unit is to be connected to beam guard rail, and in Location B when Terminal Unit is to be connected to bridge approach rail.
3. Payment for Beam Guard Rail (Terminal Unit Type F, Modified) GR-1461, Item 606.1461 shall be as a lump sum to include rail, posts, end section, and anchor.

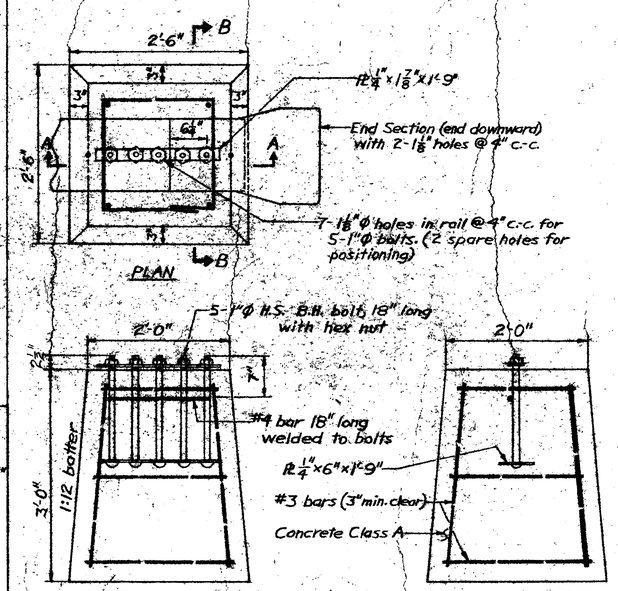


HARDWARE DETAILS
Scale: 6"=1'-0"

Note: Post bolt similar to splice bolt except for length.
All hardware shall be galvanized.

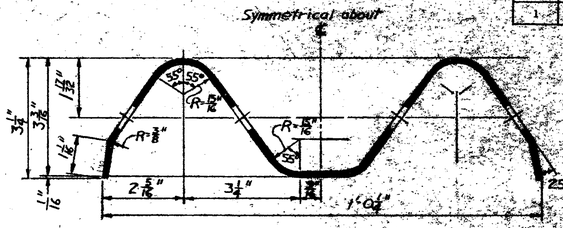


TYPICAL RAIL POST
Scale: 1½"=1'-0"



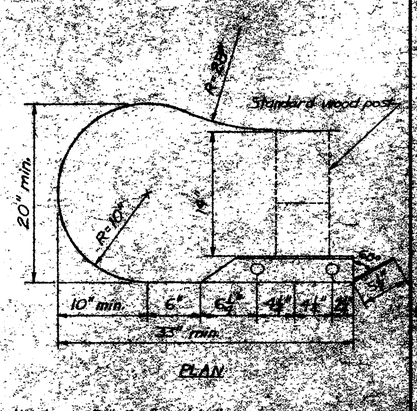
CONCRETE ANCHOR DETAIL
Scale: 1"=1'-0"

Note: Anchor to be used with Terminal Unit, Type F (Modified)



TYPICAL SECTION OF GUARD RAIL
Scale: 6"=1'-0"

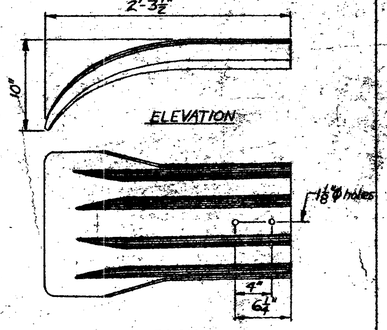
Note: Beam guard rail to be 10 gage. See Hardware Details for slot dimensions.



ELEVATION

TERMINAL SECTION
Scale: 1½"=1'-0"

Note: Terminal section to be used with Beam Guard Rail (including Terminal Sections), Item 606.143. Length of terminal section shall not be included in the pay length.



END SECTION
Scale: 1½"=1'-0"

Note: End section to be used with Terminal Unit, Type F (Modified)

Δ	DESCRIPTION	BY	DATE
	REVISIONS		

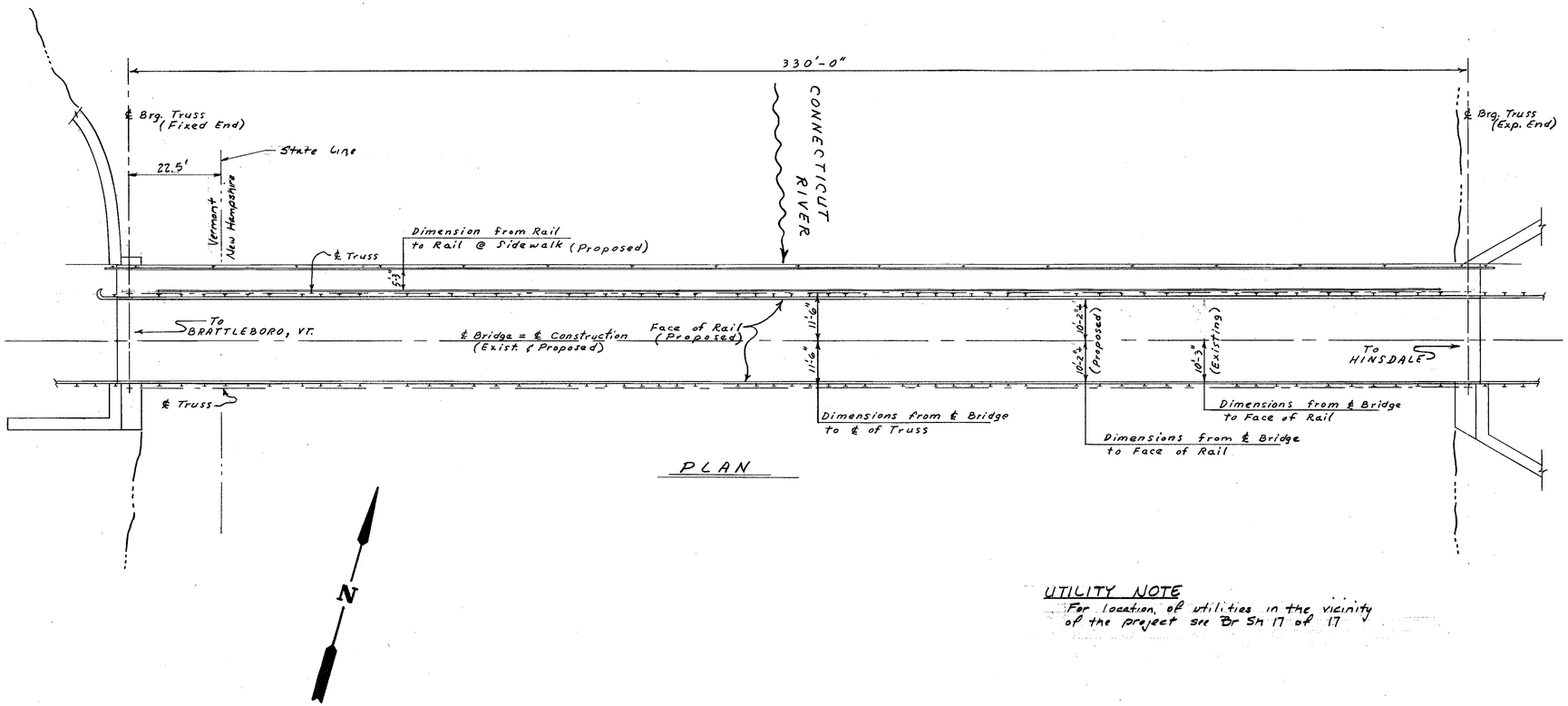
STATE OF NEW HAMPSHIRE
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
BRIDGE DESIGN DIVISION

TOWN HINSDALE, NH; BRATTLEBORO, VT. BRIDGE NO. 041/040 - 042/044
FEDERAL PROJECT ____ STATE PROJECT 10603
LOCATION NH RTE 19 OVER CONNECTICUT RIVER (MAIN AND SIDE CHANNELS)

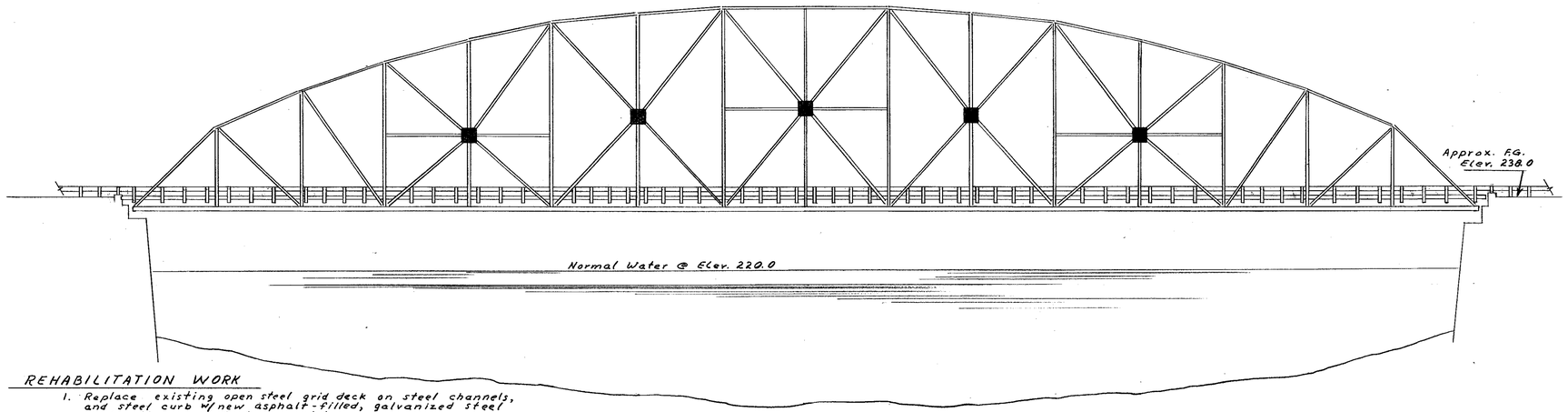
BEAM GUARD RAIL

	BY	DATE		BY	DATE
DESIGNED			CHECKED		
DRAWN			CHECKED		
TRACED	RBS	5-74	CHECKED	WAB	7-74
QUANTITIES	DAG	2/81	CHECKED	DAG	2/81
REVIEWED BY			PROJ. NO.		

BRIDGE SHEET NO. 9 OF 17
FILE NUMBER 1-3-3-3
SHEET NO. 10 TOTAL SHEETS 18



PLAN



ELEVATION

SUMMARY of BRIDGE QUANTITIES

Item No	Description	N H	Vermont	Unit
403.11	Hot Bit. Pavemt Machine Method	117.4	12.4	Ton
417	Cold Planing of Bituminous Surfaces	267	67	SY
501.2	Temporary Bridge	.93	.07	Unit
502.2	Removal of Exist. Bridge Structure	.93	.07	Unit
504.1	Common Bridge Excavation	4	—	CY
512.01	Preparation of Concrete Repairs	10	—	SY
520.01	Concrete Class AA	3	—	CY
536.11	Epoxy Coating for Concrete	1025	—	SF
544.2	Reinforcing Steel - Epoxy Coated	275	—	Lbs
550.102	Structural Steel (Est 160000#)	.93	.07	Unit
550.202	Bridge Shoes (8 each Exp.)	1	—	Unit
552.22	Rehab. of Expansion Bridge Shoes	2	—	Each
556.02	Painting Existing Structural Steel	.93	.07	Unit
561.11002	Prefab Expansion Joint Type A	1	—	Unit
563.3	Bridge Sidewalk Rail	313.8	28.5	LF
563.62	Bridge Railing E	624.1	54.3	LF
550.103	Bridge Shoes (8 each Fixed)	—	1	Unit
568	Structural Timber	4.2	.4	MBM
595	Retaining Wall	1	—	Unit
606.143	Bm Guard Rail Incl Terminal Sect. GR-143	50	12.5	LF
606.144	Beam Guard Rail, 9'-2" Spacing	25	12.5	LF
616.101	Traffic Signals	.46	.04	Unit
618.61	Uniform Officers w/ Vehicle	92	8	Hour
618.7	Flaggers	690	60	Hour
619.1	Maintenance of Traffic Incl Dust Laying	.46	.04	Unit
619.2	Construction Signs and Warning Devices	.46	.04	Unit
692	Mobilization	.46	.04	Unit
1002	Repairs or Replacements As Needed	.46	.04	$
1008	Alterations and Additions As Needed	.46	.04	$
203.3	Unclassified Excavation	20	—	CY
555.3	Steel Bridge Flooring	6490	524	SF
563.817	Rehab. of Bridge Sidewalk Railing	300.5	16.5	LF
646.11	Turf Establishment w/ Mulch	50	—	SY
698.11	Field Offices (Modified)	.46	.04	Each
304.3	Crushed Gravel	24	—	CY

UTILITY NOTE

For location of utilities in the vicinity of the project see Br Sh 17 of 17

REHABILITATION WORK

1. Replace existing open steel grid deck on steel channels, and steel curb w/ new asphalt-filled, galvanized steel bridge flooring w/ steel curb plates.
2. Replace all stringers and floorbeams with new stringers, diaphragms, and new floorbeams.
3. Replace existing bridge rail with new galvanized steel beam guard rail with nested channel on new galvanized steel rail posts and post diaphragms.
4. Install new expansion joint.
5. Repair or replace existing steel as shown or directed.
6. Clean and paint all existing structural steel.
7. Repair substructure concrete @ East Abutment.
8. Replace timber sidewalk deck with new timbers and replace sidewalk rail with new pipe rail and existing pipe rail as shown.
9. Install new beam guard rail at approaches.
10. Cold planing exist. pavement and place new pavement at East and West Approaches.
11. Repairs to truss members as shown on Br Sh 16 of 17 shall be done at the same time as the replacement of the floor beam in the vicinity of the damaged truss member.

GENERAL NOTES

1. Design Loading: H-15 Truss
   HS-20 Deck, Stringers, and Floorbeams
2. Specifications: AASHTO 1983 w/ Interims and N.H. Department of Transportation 1983
3. Structural Steel: Existing: Fy = 33 KSI
   Proposed: AASHTO M 183 (ASTM A36) Painted
4. Reinforcing Steel: Grade 60 - Epoxy coated
5. Concrete: Class AA, f'c = 4000 psi
6. Deck: Asphalt-filled, Galvanized Steel Bridge Flooring
7. Sidewalk: Timber deck on existing stringers and brackets. Timber shall be treated.
8. State of Vermont Maintenance Forces will rehabilitate the bearing seats for the truss shoes at the West Abutment. The Contractor shall perform all other work at the western end of the bridge as shown in in these Plans or as directed by the Engineer.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

TOWN HINSDALE NH & BRATTLEBORO VT. BRIDGE NO. 091/040
FEDERAL PROJECT _____ STATE PROJECT 10603
LOCATION ROUTE 119 OVER CONNECTICUT RIVER (MAIN CHANNEL)

Sheet Scale: 1/16" = 1'-0"

GENERAL PLAN AND ELEVATION

Δ	DESCRIPTION	BY	DATE
	REVISIONS		

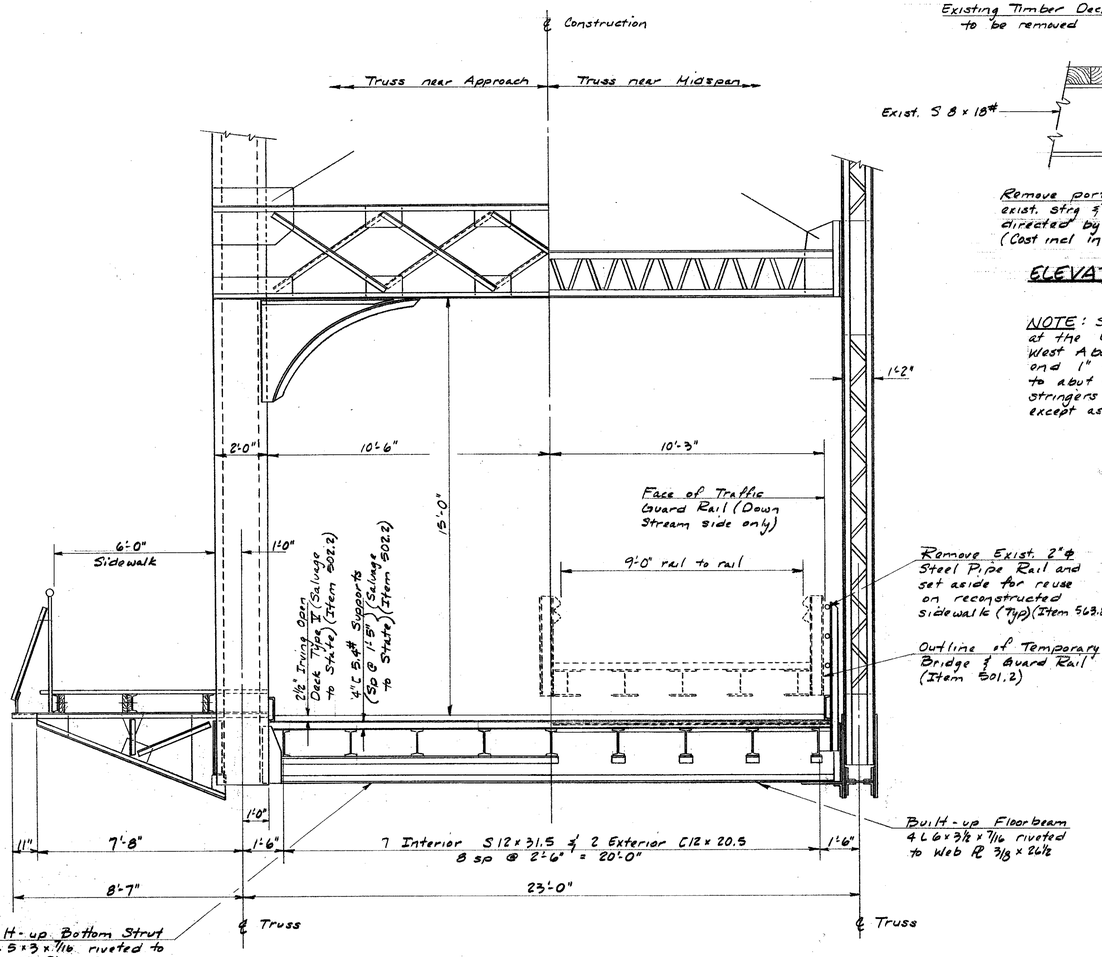
	BY	DATE
DESIGNED DJB		10/86
DRAWN PJP		12/86
TRACED		
QUANTITIES DAH		2/87

	BY	DATE
CHECKED RAT		1/87
CHECKED RAT		1/87
CHECKED		
CHECKED DJB		2/87

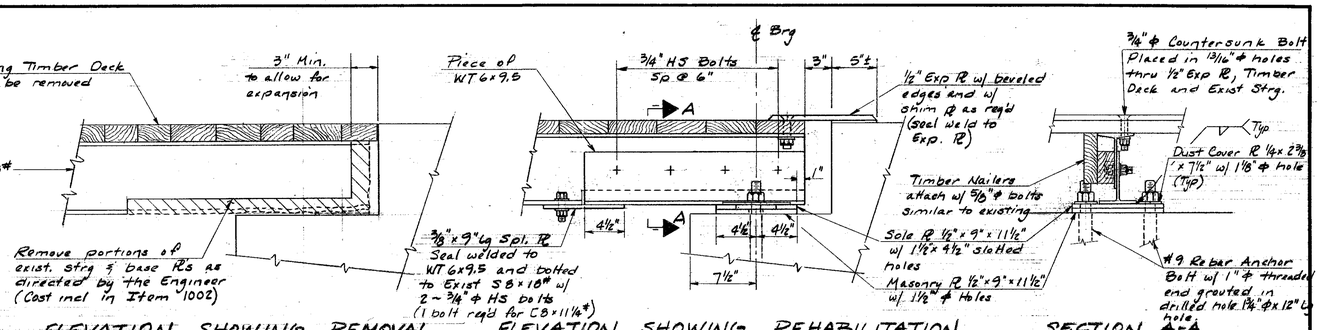
BRIDGE SHEET NO. 10 OF 17
FILE NUMBER 1-3-3-3

REVIEWED BY _____ PROJ. NO. _____ SHEET NO. 11 TOTAL SHEETS 18

124587



TYPICAL SECTION OF EXISTING TRUSS



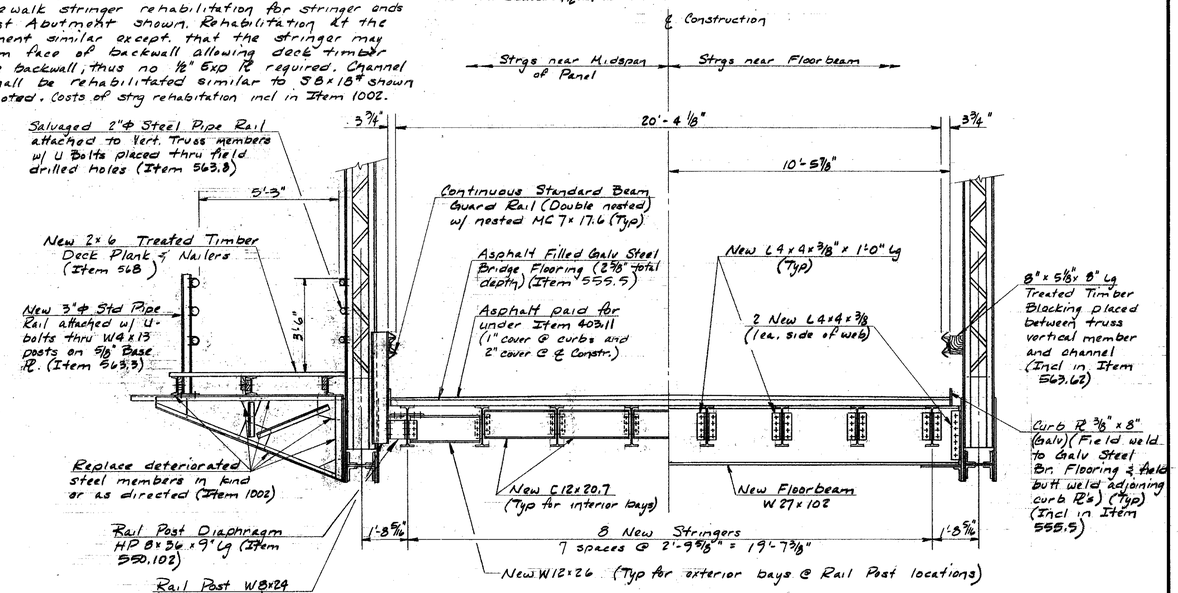
ELEVATION SHOWING REMOVAL & SIDEWALK STRINGER SHOWING PROPOSED REHABILITATION

ELEVATION SHOWING REHABILITATION

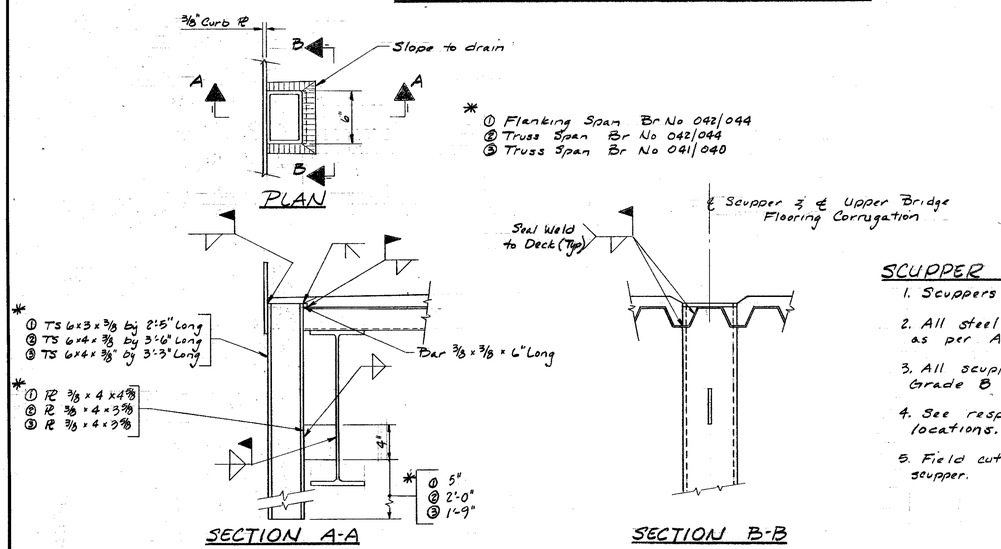
SECTION A-A

Scale : 1½"=1'-0"

NOTE: Sidewalk stringer rehabilitation for stringer ends at the East Abutment shown. Rehabilitation at the West Abutment similar except that the stringer may end 1" from face of backwall allowing deck timber to abut the backwall, thus no ½" Exp PL required. Channel stringers shall be rehabilitated similar to S 8x18# shown except as noted. Costs of strg rehabilitation incl in Item 1002.



TYPICAL SECTION OF TRUSS WITH PROPOSED DECK SYSTEM



SCUPPER DETAILS

Scale: 1½"=1'-0"

NOTES

1. See Br Sh 4 of 17 for Superstructure Notes
2. The Construction Sequence for the Main Channel Bridge (Br No 041/040) is similar to that shown for the truss span of the Side Channel Bridge (Br No 042/044). See Br Sh 2 of 17.
3. The Sidewalk Treated Timber Deck shall be paid for under Item 568, Structural Timber, which shall include the timber planking, timber nailers, ⅝" ϕ bolts to bolt timber nailers, and 20d galv common wire nails.
4. The timber deck planking and the timber nailers shall be nominal 2x6 No 1 West Coast Region Douglas Fir or No 1 Southern Pine, and shall be treated with Chromated Copper Arsenate (CCA).

SCUPPER NOTES

1. Scuppers shall be paid for under Item 555.5
2. All steel to be galvanized after all shop welding as per ASTM A123.
3. All scupper steel to be A36 or ASTM A500, Grade B for tubing.
4. See respective Framing Plans for Scupper locations.
5. Field cut Bridge Flooring to provide opening for scupper.

Sheet Scale : ⅜" = 1'-0" except as noted

Δ	DESCRIPTION	BY	DATE
	REVISIONS		

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

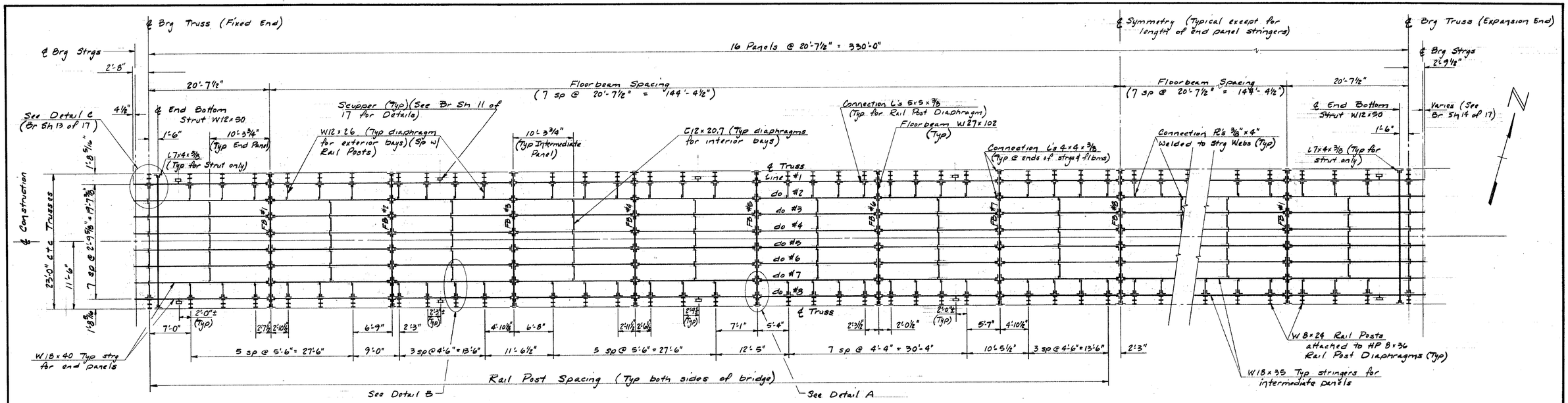
TOWN HINSDALE, NH & BRATTLEBORO, VT BRIDGE NO. 041/040
FEDERAL PROJECT ____ STATE PROJECT 10603
LOCATION N.H. RTE 119 OVER CONNECTICUT RIVER (MAIN CHANNEL)

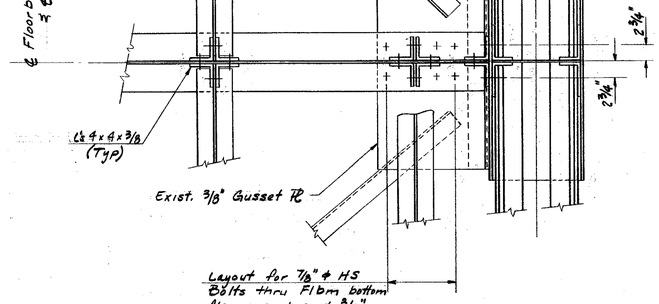
TYPICAL TRUSS SECTIONS

	BY	DATE		BY	DATE
DESIGNED	DJB	10/86	CHECKED	RAJ	1/87
DRAWN	DJB	10/86	CHECKED	RAJ	1/87
TRACED			CHECKED		
QUANTITIES	DAG	2/87	CHECKED	DJB	2/87

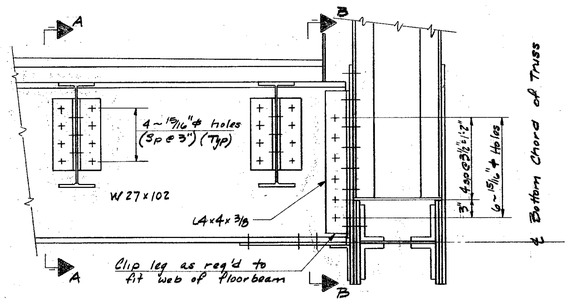
REVIEWED BY ____ PROJ. NO. ____

BRIDGE SHEET NO.	
11	OF 17
FILE NUMBER	
1-3-3-3	
SHEET NO.	TOTAL SHEETS
12	18





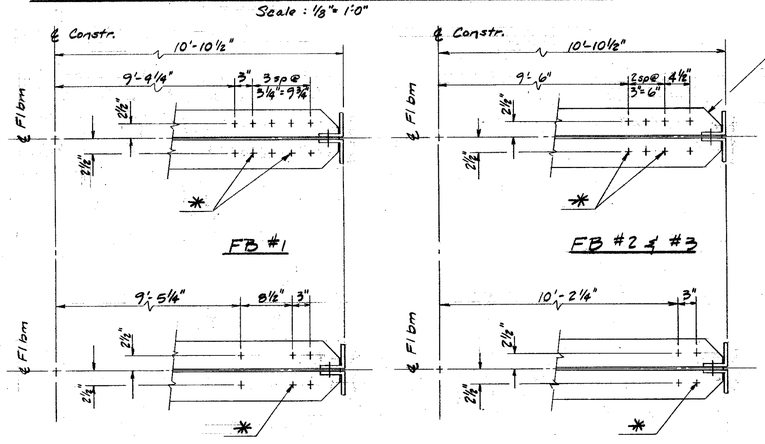
PLAN



SECTION DETAIL A

FRAMING PLAN FOR PROPOSED DECK SYSTEM

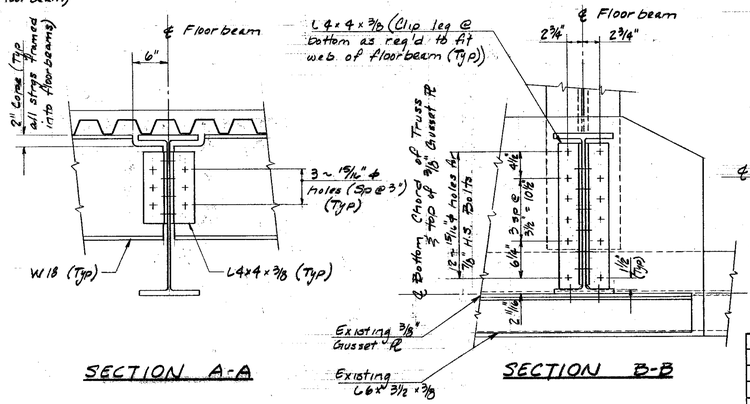
Scale : 1⅛" = 1'-0"



* These holes shall be shop drilled thru bottom flange of new flbm, but will need to be field drilled thru the existing ⅜" Gusset PL (Typ, both sides of web of floorbeam)

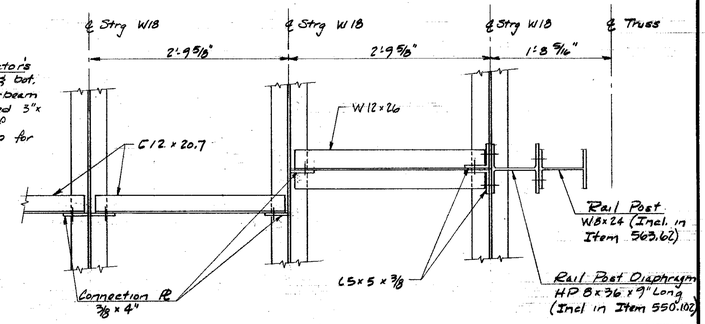
BOLT HOLE LAYOUT DETAIL
(FOR CONNECTION OF FLOORBEAM TO EXISTING ⅜" GUSSET PLATE)

At the Contractor's option the top & bot. flanges of floorbeam may be clipped 3"x 3" for ease of construction (Typ for all floor beams)

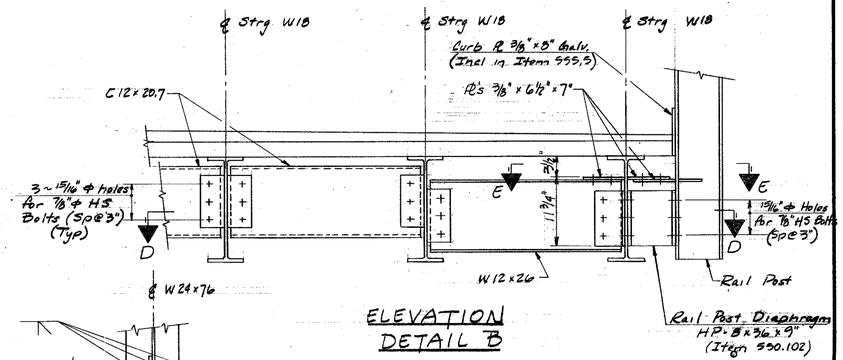


SECTION A-A

SECTION B-B



SECTION D-D



ELEVATION DETAIL B

SECTION E-E

Sheet Scale : 1" = 1'-0" except as noted

△	DESCRIPTION	BY	DATE
	REVISIONS		

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

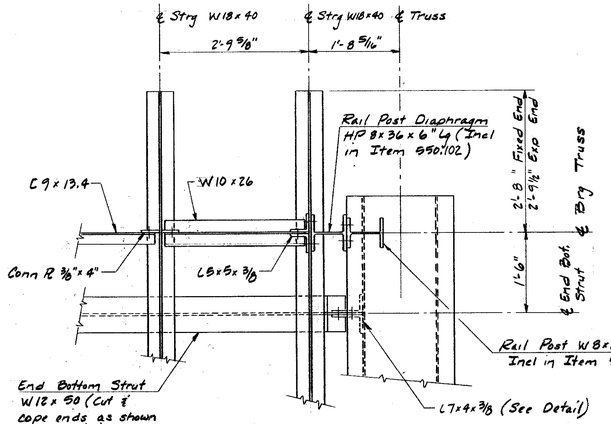
TOWN HINSDALE, NH & BRATTLEBORO, VT BRIDGE, NO. 041/040
FEDERAL PROJECT ____ STATE PROJECT 10603
LOCATION NH RTE 119 over CONNECTICUT RIVER (MAIN CHANNEL)

DECK FRAMING PLAN AND DETAILS

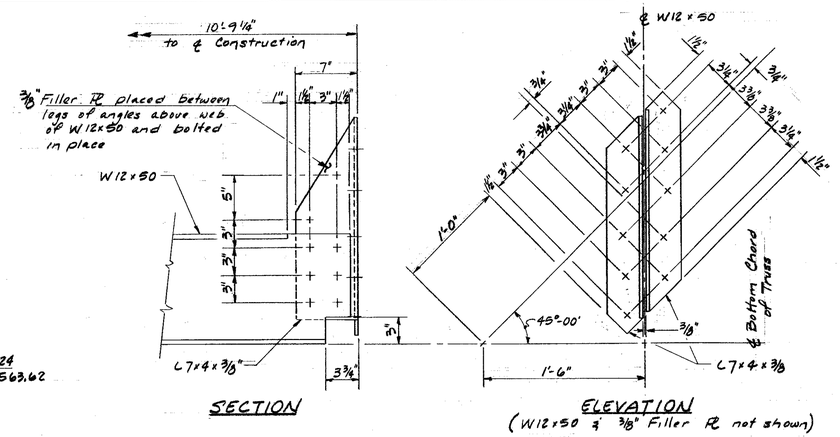
	BY	DATE		BY	DATE	BRIDGE SHEET NO.
DESIGNED	DJB	10/86	CHECKED	RAJ	1/87	12 OF 17
DRAWN	DJB	10/86	CHECKED	RAJ	1/87	
TRACED			CHECKED			FILE NUMBER
QUANTITIES	DAG	2/87	CHECKED	DJB	2/87	1-3-3-3

REVIEWED BY	PROJ. NO.	SHEET NO.	TOTAL SHEETS
	"	13	18

134587

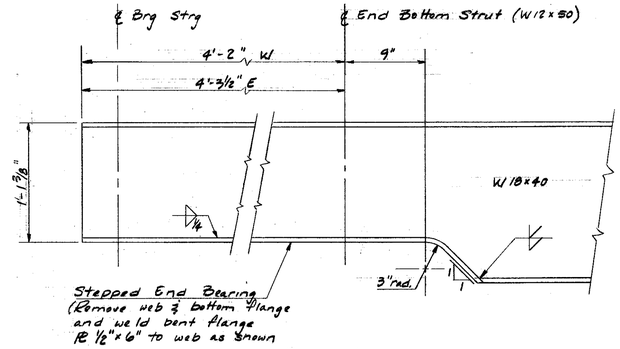


SECTION B-B

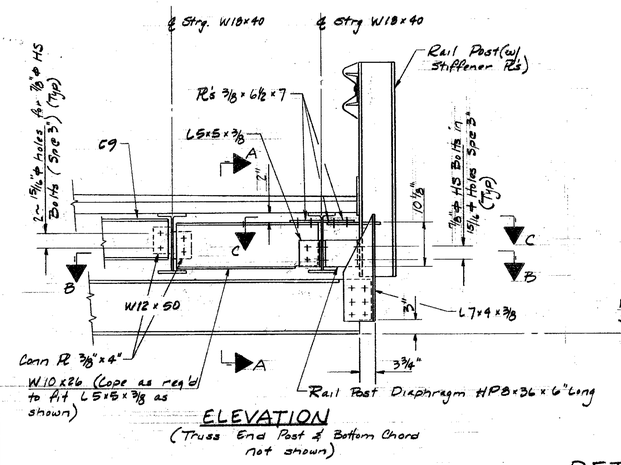


DETAIL END BOTTOM STRUT AND CONNECTION ANGLES
Scale : 1 1/2" = 1'-0"

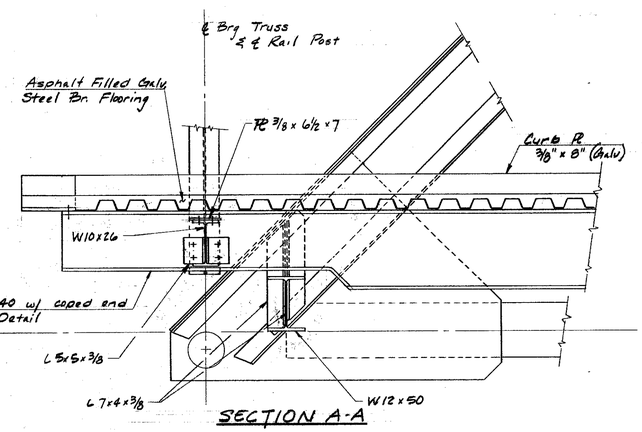
ELEVATION
(W12x50 & 3/8" Filler PL not shown)



DETAIL OF STRINGER WITH COPED WEB AT ABUTMENT
("E" signifies East Abut. & "W" signifies West Abut.)
Scale : 1 1/2" = 1'-0"

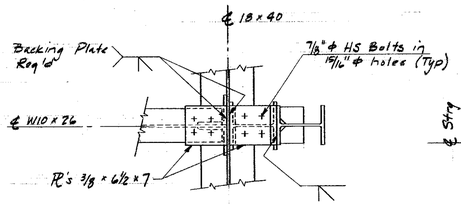


ELEVATION
(Truss End Post & Bottom Chord not shown)

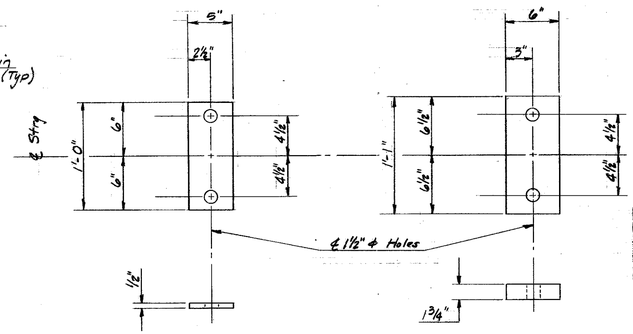


SECTION A-A

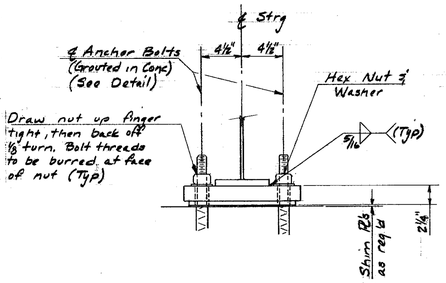
DETAIL C
(See Br Sh 12 of 17 for location)
Scale : 3/4" = 1'-0"



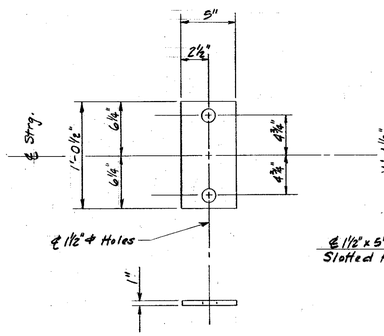
SECTION C-C
Scale : 1" = 1'-0"



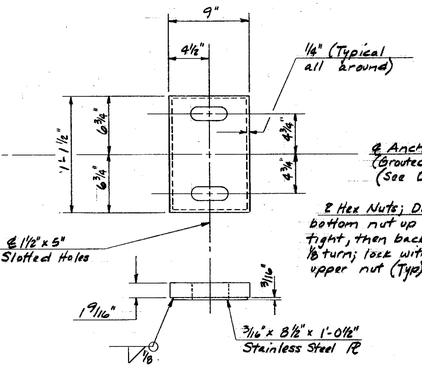
PREFORMED FABRIC BEARING PAD



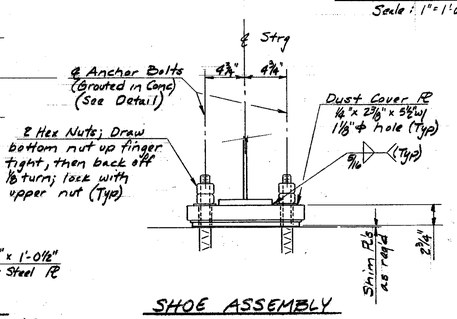
SHOE ASSEMBLY



PREFORMED FABRIC BEARING PAD WITH PTFE SURFACE

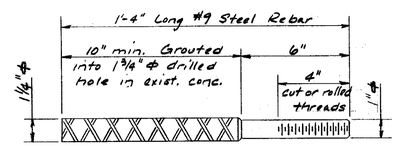


SOLE PLATE WITH STAINLESS STEEL FACING



SHOE ASSEMBLY

EXPANSION SHOE FOR STRINGERS BEARING ON EAST ABUTMENT
Scale : 1 1/2" = 1'-0"
(See Temp. Adjust. Table, Br. Sh 14 of 17 for placement of Sole PL in relation to ℄ Anchor Bolts)
(Item 550.202)



ANCHOR BOLT DETAIL
Scale : 3" = 1'-0"

BRIDGE SHOE NOTES BR NO 041/040 AND 042/044

1) Bridge Shoes, Item 550.201 shall include expansion and fixed shoe assemblies with anchor bolts and stud anchors for both truss and flanking spans for the Side Channel Bridge (Br No 042/044). Bridge Shoes, Item 550.202 shall include expansion shoe assemblies w/ anchor bolts at East Abutment, and Bridge Shoes, Item 550.203 shall include fixed shoe assemblies with anchor bolts at West Abutment for the Main Channel Bridge (Br No. 041/040).
2) All steel plates shall conform to AASHTO M-183 (ASTM A-36) except for Stainless Steel shall conform to AISI Type 304 (ASTM A-240).
3) Steel in shoes is to be furnished in accordance w/ AASHTO 2.10.24.
4) The Stainless Steel shall be 3/16" thick and the sliding surface shall have a 2B finish. Weld the stainless steel plate to the bottom of the expansion sole plate. The weld shall not protrude beyond the plate thickness (3/16").
5) All plates shall be flat and true after welding.
6) Anchor bolts and stud anchor bolts shall be fabricated in accordance with Sect. 550.2.5 and shall be galvanized. Care shall be taken when welding Stud Anchors to S12x31.8.
7) Anchor bolts shall be grouted into 1 3/4"ø drilled holes in existing abutment and pier concrete. Grout shall be a high strength, fast-setting, non-shrink grout as specified in Sect. 550.3.4.5.1. Drilling and grouting shall be paid for under the respective Items 550.201, 550.202, & 550.203
8) The Preformed Fabric Bearing Pads and the Stainless steel Plates shall be those manufactured by an approved supplier, one with proven experience in the field.
9) The Preformed Fabric Pads shall comply with AASHTO Div. II Specification 10.3.12, "Preformed Bearing Pads", and shall meet the requirements of MIL-C 882D. A certificate of compliance shall be furnished for the above.

Sheet Scale : As noted

△	DESCRIPTION	BY	DATE
	REVISIONS		

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

TOWN HINSDALE, NH & BRATTLEBORO, VT BRIDGE NO. 041/040
FEDERAL PROJECT ____ STATE PROJECT 10603
LOCATION NH RTE 119 OVER CONNECTICUT RIVER (MAIN CHANNEL)

STRUCTURAL STEEL DETAILS & BRIDGE SHOES

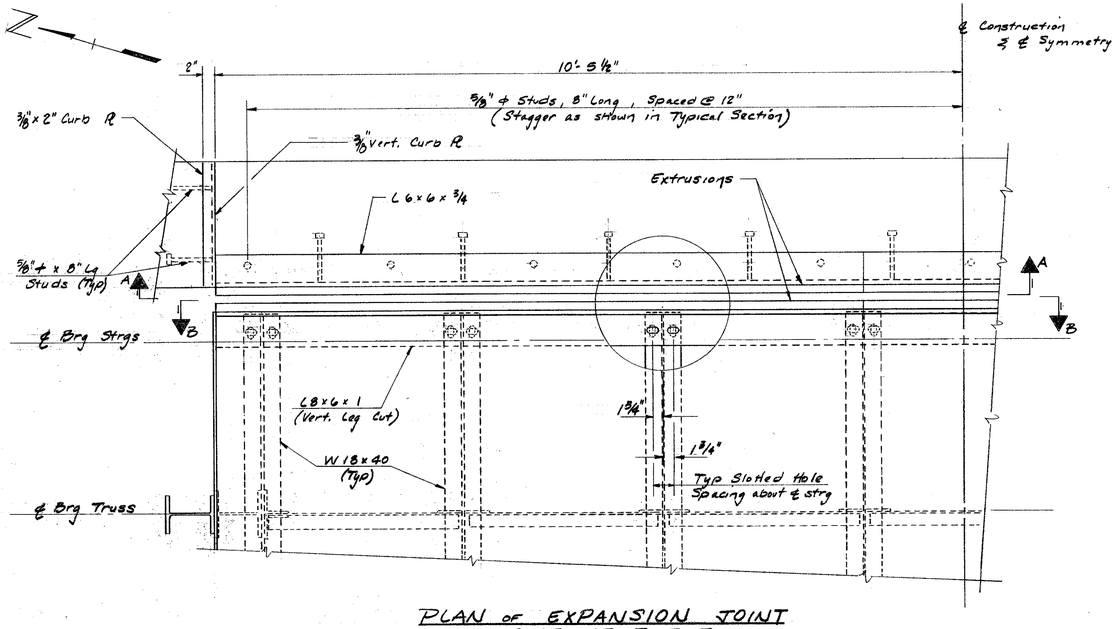
	BY	DATE		BY	DATE
DESIGNED	DJB	10/86	CHECKED	RAJ	1/87
DRAWN	DJB	11/86	CHECKED		1/87
TRACED			CHECKED		
QUANTITIES	DAG	2/87	CHECKED	DJB	2/87

REVIEWED BY ____

PROJ. NO.	SHEET NO.	TOTAL SHEETS
	14	18

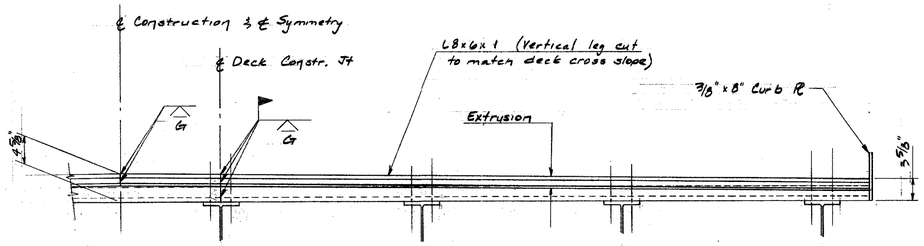
BRIDGE SHEET NO. 13 OF 17
FILE NUMBER 1-3-3-3

124587



PLAN OF EXPANSION JOINT AT EAST ABUTMENT

Scale : 1"= 1'-0"



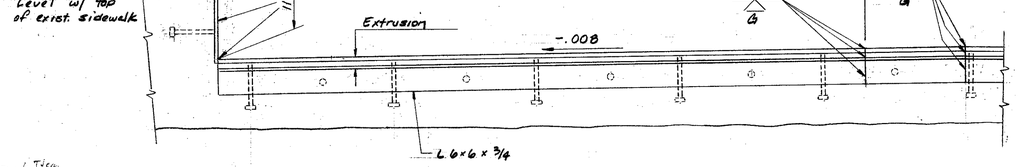
SECTION B-B

Scale : 1"= 1'-0"

W	C
2 1/8	2 1/4
13 1/8	13 3/8
3 3/8	3 5/8
18 1/4	18 3/8

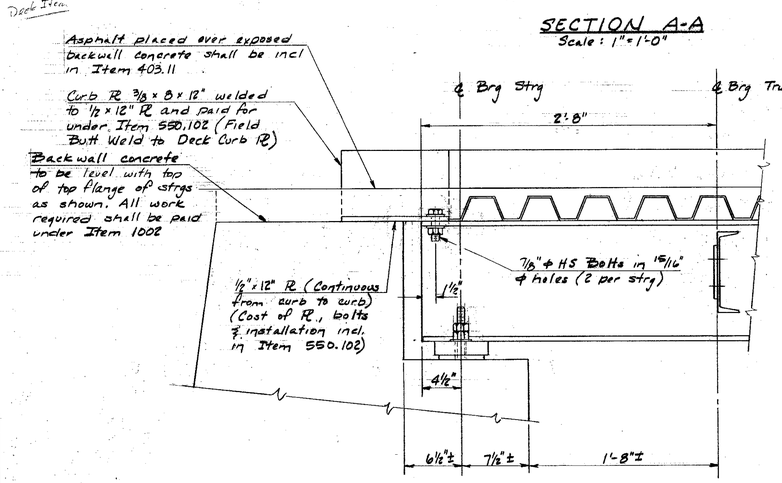
2'-6" vs 2'-7"

Curb .9375 Curb .9375



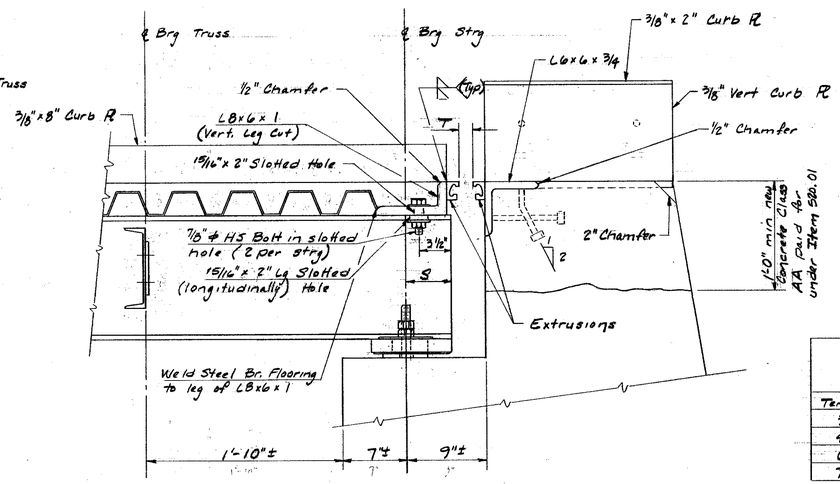
SECTION A-A

Scale : 1"= 1'-0"



TYPICAL SECTION OF FIXED END JOINT AT WEST ABUTMENT

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



TYPICAL SECTION OF EXPANSION JOINT AT EAST ABUTMENT

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

℄ Construction Joint (Located North or South Side of ℄ Construction. Location must be coordinated w/ the Contractor)

EXPANSION JOINT NOTES

1. Expansion Joint Steel shall be AASHTO M-222 (ASTM A-588). There shall be one assembly at the East Abutment which shall be paid for under Item 541.11002, Prefabricated Expansion Joint, Type A. All steel shall be painted.
2. Elastomeric Strip Seal shall have a minimum range of 4" and shall be furnished in a continuous length (no splices shall be allowed). Install with an approved lubricant adhesive.
3. Splices for expansion joint steel including field splices at the construction joint, shall develope full strength.
4. All welds shall conform to NH Standard Specs. and AASHTO Specs. Care shall be taken when field welding Galv. Steel Bridge Flooring to the leg of the L 8 x 6 x 1.
5. Shop Plans shall show the proposed method of securing the expansion joint angle to the backwall prior to placing new backwall concrete.

TEMPERATURE ADJUSTMENT TABLE

Temperature	T	S
30° F	2 5/8"	4 1/8"
45° F	2 1/4"	4 1/2"
60° F	1 7/8"	4 7/8"
75° F	1 1/2"	5 1/4"

Sheet Scale: As noted

Δ	DESCRIPTION	BY	DATE
	REVISIONS		

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

TOWN HINSDALE, NH & BRATTLEBORO, VT BRIDGE NO. 041/040
FEDERAL PROJECT ____ STATE PROJECT 10603
LOCATION NH RTE 119 over CONNECTICUT RIVER (MAIN CHANNEL)

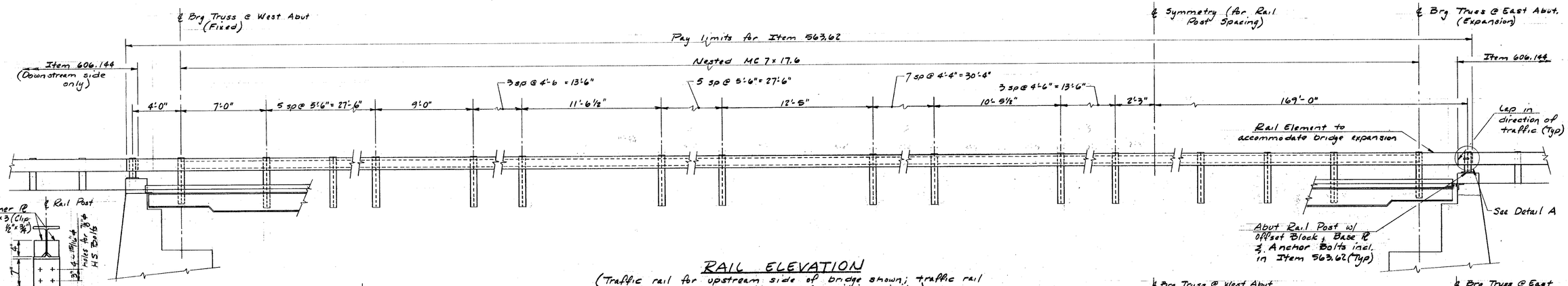
EXPANSION JOINT AND FIXED END DETAILS

	BY	DATE
DESIGNED	DJB	10/86
DRAWN	DJB	11/86
TRACED		
QUANTITIES	DAL	2/87
CHECKED	RAJ	1/87
CHECKED	RAJ	1/87
CHECKED		
CHECKED	DJB	2/87

REVIEWED BY ____ PROJ. NO. ____

BRIDGE SHEET NO. 14 OF 17
FILE NUMBER 1-3-3-3
SHEET NO. 15 TOTAL SHEETS 18

45° 2" 4" 2'-9"

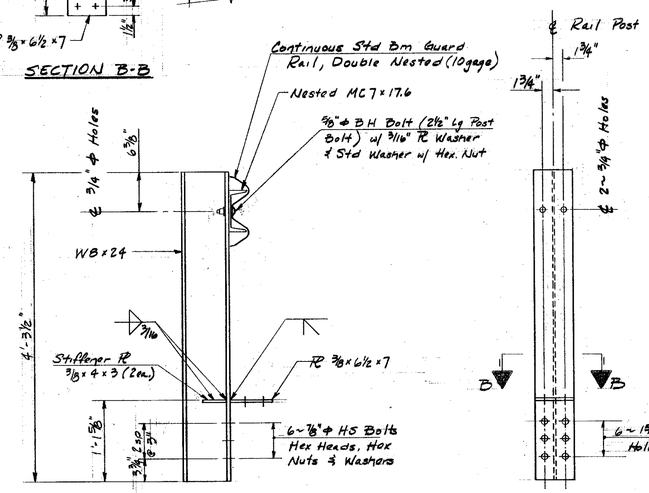


RAIL ELEVATION

(Traffic rail for upstream side of bridge shown; traffic rail downstream side of bridge similar)

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

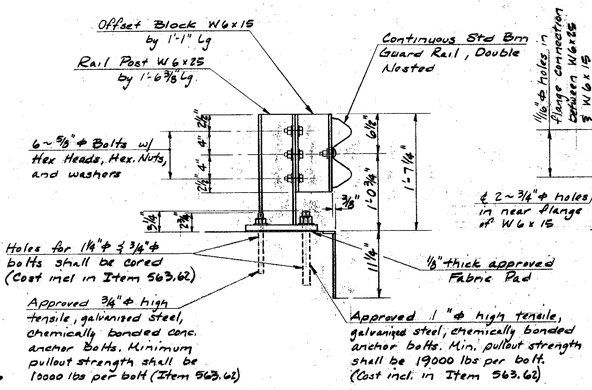
SECTION B-B



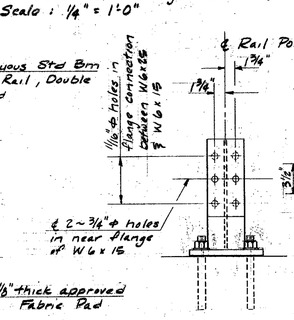
TYPICAL SECTION OF RAIL POST WITH RAIL

FRONT ELEVATION OF RAIL POST

INTERMEDIATE RAIL POST

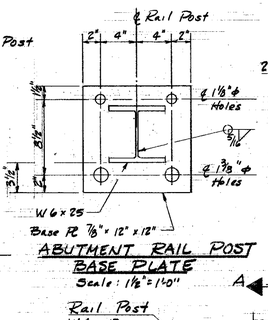


SIDE ELEVATION



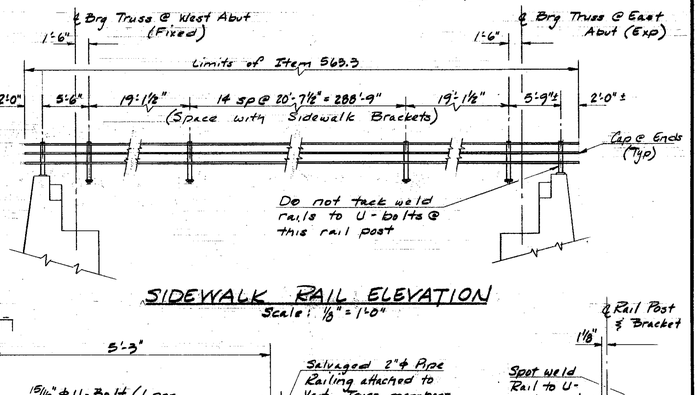
FRONT ELEVATION

ABUTMENT RAIL POST



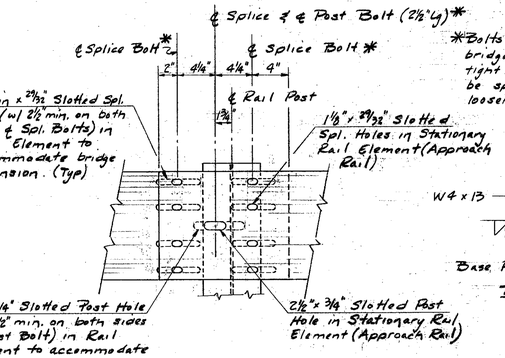
ABUTMENT RAIL POST BASE PLATE

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



SIDEWALK RAIL ELEVATION

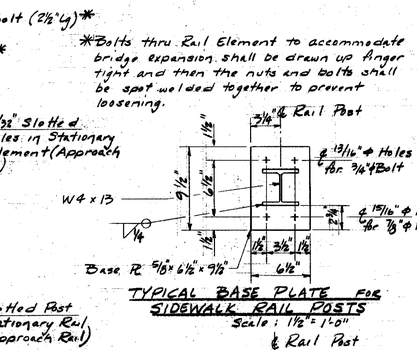
Scale : 1/8" = 1'-0"



*Bolts thru Rail Element to accommodate bridge expansion shall be drawn up Anger tight and then the nuts and bolts shall be spot welded together to prevent loosening.

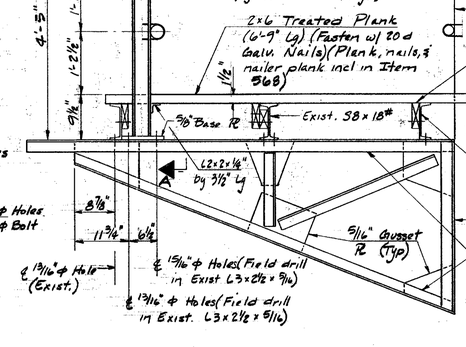
DETAIL A

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



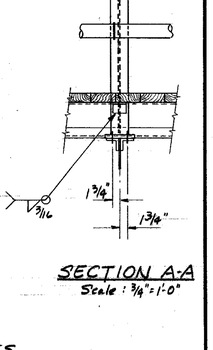
TYPICAL BASE PLATE FOR SIDEWALK RAIL POSTS

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



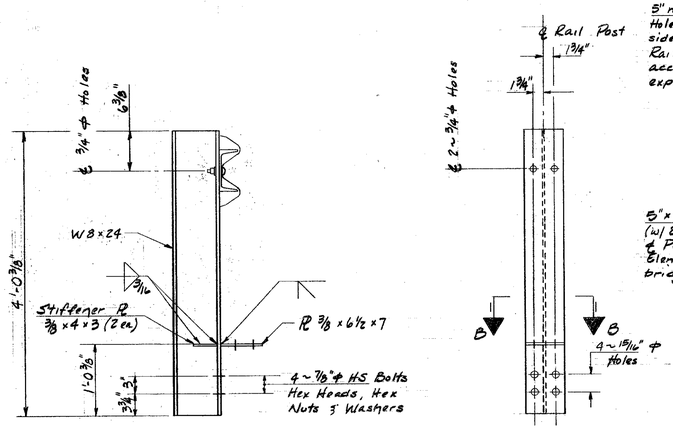
TYPICAL SECTION OF RECONSTRUCTED SIDEWALK

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



SECTION A-A

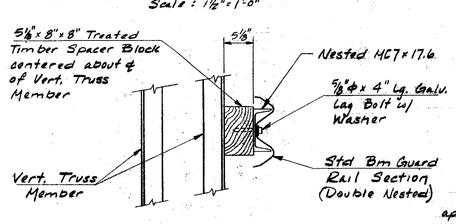
Scale : 3/4" = 1'-0"



TYPICAL SECTION OF RAIL POST WITH RAIL

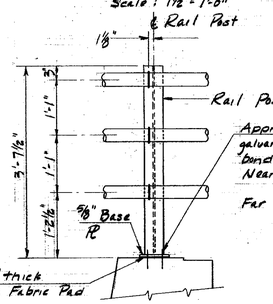
FRONT ELEVATION OF RAIL POST

RAIL POST AT ℄ BEARING OF TRUSS



TYPICAL SECTION OF GUARD RAIL AT VERTICAL TRUSS MEMBER

Scale : 1" = 1'-0"



SIDEWALK RAIL POST AT ABUTMENT

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

RAIL NOTES

See Br. Sh 7 of 17 for Rail Notes pertaining to Bridge Railing & Item 563.62, Bridge Sidewalk Rail, Item 563.3 and 563.817.

See Br Sh 11 of 17 for notes pertaining to sidewalk decking incl in Item 568

Sheet Scale : 1" = 1'-0" except as noted

△	DESCRIPTION	BY	DATE
	REVISIONS		

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

TOWN HINSDALE, NH & BRATTLEBORO, VT BRIDGE NO. 041 / 040
FEDERAL PROJECT ____ STATE PROJECT 10603
LOCATION NH RTE 119 over CONNECTICUT RIVER (MAIN CHANNEL)

BRIDGE RAIL AND SIDEWALK RAIL

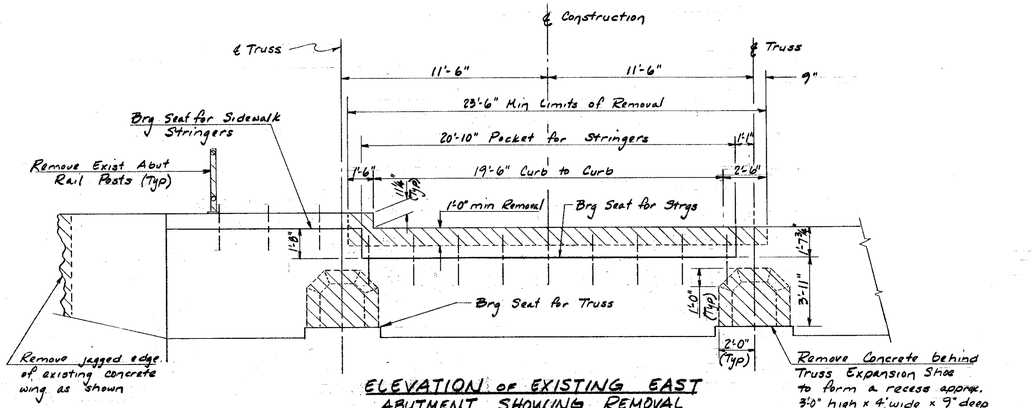
	BY	DATE		BY	DATE
DESIGNED	DJB	11/86	CHECKED	RAJ	1/87
DRAWN	DJB	11/86	CHECKED	RAJ	1/87
TRACED			CHECKED		
QUANTITIES	DALG	2/87	CHECKED	DJB	2/87

REVIEWED BY ____ PROJ. NO. ____

BRIDGE SHEET NO.	FILE NUMBER
15 OF 17	1-3-3-3

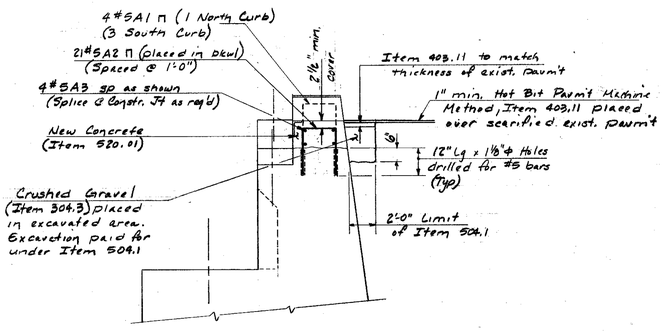
SHEET NO.	TOTAL SHEETS
16	18

12457



ELEVATION of EXISTING EAST ABUTMENT SHOWING REMOVAL

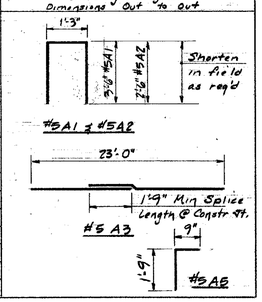
Scale: 1/4" = 1'-0"



SECTION A-A

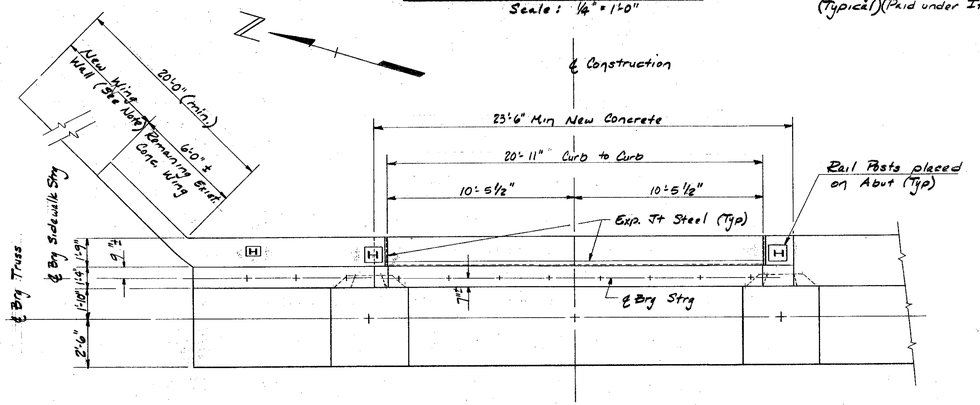
Scale: 3/16" = 1'-0"

REINFORCING BAR SCHEDULE FOR ESTIMATING ONLY						
Mark	Size	Total Number	Unbent Length	Type	Location	Bending Diagram Dimensions Out to Out
MAIN CHANNEL BRIDGE (NO. 041/040)						
A1	#5	4	8'-3"	⊓	Curb	
A2	#5	21	6'-3"	⊓	Bkwl	
A3	#5	4	24'-9"	—	Bkwl	
SIDE CHANNEL BRIDGE (NO 042/044)						
A4	#5	40	2'-6"	—	Bkwl & Wing	
A5	#5	48	2'-6"	⌐	Brg Seats	
A6	#5	16	2'-3"	—	Brg Seats	
Grade 60, Epoxy Coated						



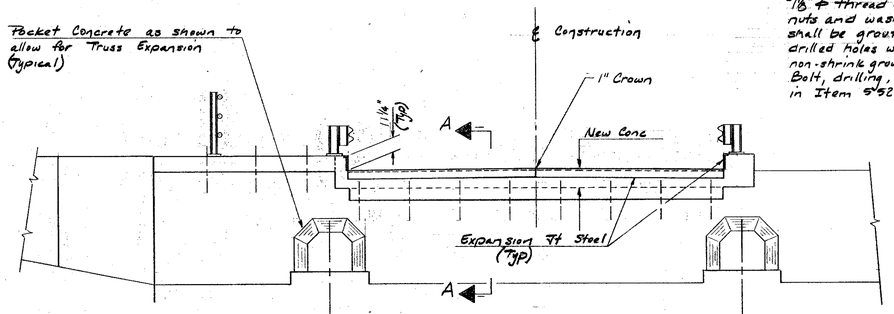
REINFORCING NOTES

1. Minimum cover from exposed concrete surfaces shall be 2½".
2. Reinforcing doweled into existing concrete shall be done so using a high strength - non shrink grout placed in a drilled hole. Cost of drilling and grouting shall be included in Item 544.2
3. All abutment reinforcement shall be paid for under Item 544.2



PLAN of EXISTING EAST ABUTMENT SHOWING RECONSTRUCTION

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



ELEVATION of EXISTING EAST ABUTMENT SHOWING RECONSTRUCTION

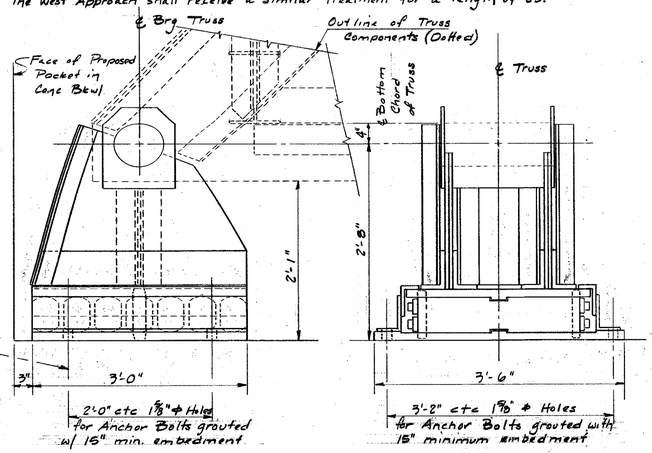
Scale: 1/4" = 1'-0"

EAST ABUTMENT NOTES

1. The Contractor shall field verify concrete dimensions to properly rehabilitate the abutment. Dimensions shown are based on original plan dimensions and are not necessarily those which actually exist in the field.
2. The NE Wing Wall shall be saw cut to create a smooth vertical edge. The wing shall then be lengthened using an acceptable engineering design submitted by the Contractor for approval by the Bridge Engineer. The design shall be by a Registered Professional Engineer. Possible alternatives include mass concrete wall, sheet piling retaining wall, gabion wall, tie back wall. Dimensions based on the Contractors survey, drawings, and calculations shall be submitted to the Bridge Engineer. Cost of wall extension, including design, materials, and construction shall be paid for under Item 598, Retaining Wall.
3. In areas where concrete has been removed and reinforcing has been exposed and in which no new concrete will be placed, the reinforcing shall be burned off 1" below the new surface, and then painted with an approved epoxy paint. Then fill with an approved epoxy grout. Costs included in Item 502.2.
4. All new and existing exposed concrete surfaces shall be coated with Item 536.11, Epoxy Coating for Concrete.
5. Concrete placed in East Abutment backwall shall be Concrete Class AA, Item 520.01. Reinforcing shall be Grade 60 and shall be epoxy coated. Minimum concrete cover for reinforcing steel shall be 2½".
6. Prior to placing new concrete on abutment backwall, the removal surfaces of the existing concrete shall be blast cleaned and coated with an approved bonding agent. Cost to be included in Item 520.01.
7. Remove any deteriorated concrete as directed by the Engineer. Clean concrete removal surfaces; paid for under Item 512.01, "Preparation for Concrete Repairs. Coat cleaned surfaces with an approved bonding agent just prior to patching with Concrete Class AA, Item 520.01. Cost of bonding agent included in Item 520.01.
8. Removal of concrete to form pockets behind truss expansion shoes shall be of sufficient size as to allow for bridge expansion & contraction. Should the size of the pockets be larger than shown on these plans, the Bridge Engineer shall be notified.

WEST ABUTMENT NOTES

1. All work pertaining to the West Abutment except that involving bridge rail, sidewalk rail, and ℄ of backwall deck transition is not part of this contract.



Anchor Bolts shall be galvanized #10 Rebar w/ 1⅛" ϕ thread and for galv. nuts and washers. Bolts shall be grouted into 1⅝" ϕ drilled holes w/ high strength, non-shrink grout. Cost of Bolt, drilling, & grouting incl. in Item 552.22 (Typical)

SIDE ELEVATION — FRONT ELEVATION

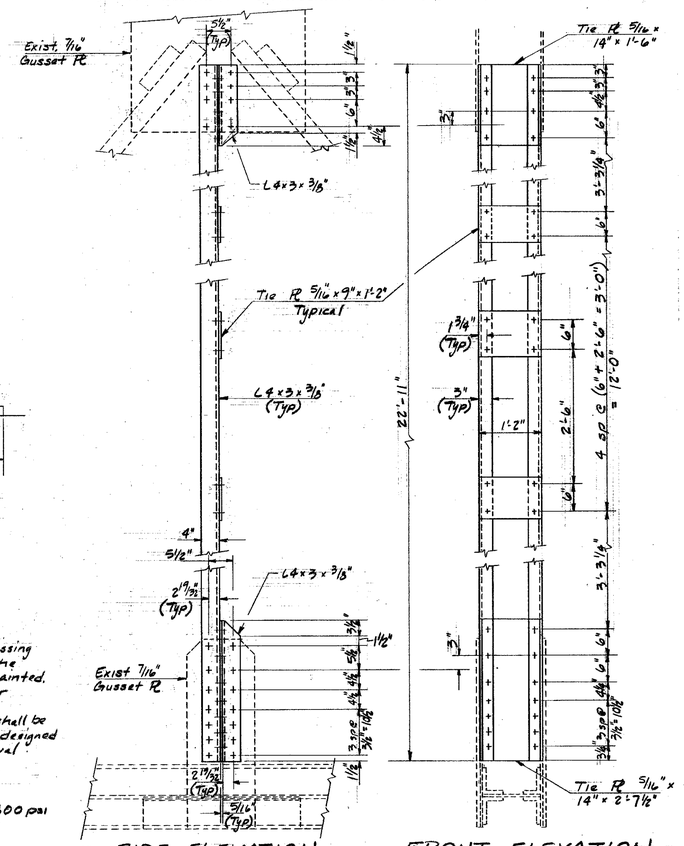
EAST ABUTMENT TRUSS EXPANSION SHOE

Scale: 1" = 1'-0"

TRUSS SHOE NOTES

1. The Truss Expansion Shoes on the East Abutment shall be rehabilitated as required to allow for proper movement of the truss. Worn, broken, or missing components of the existing shoes shall be replaced in kind as required by the Engineer. Existing parts that are structurally sound shall be cleaned and painted. New steel shall be shop painted. Materials and labor shall be paid for under Item 552.22, Rehabilitation of Expansion Bridge Shoes.
2. In order to accomplish the desired shoe rehabilitation the bridge shall be jacked. The Contractor shall submit a jacking scheme and calculations designed by a Registered Professional Engineer to the Bridge Engineer for approval prior to the start of shoe rehabilitation.
   Est. Total Deadload of Bridge with existing deck is 758000#.
   Est. Total Deadload of Bridge with new deck is 952000#.
   Allowable Bearing Stress on the existing concrete shall be 600 psi

BRIDGE APPROACH WORK NOTE: Cold Planing of Bituminous Surfaces Item 417 shall include scarifying the existing approach pavement beginning at 100' from the backwall of the East Abutment, to allow for a 1" minimum thickness of Hot Bit. Pavmt Machine Method, Item 403.11. The existing pavement shall be saw cut 1" deep at the match line of the existing and overlay pavements. Cost of saw cut included in Item 417. Scarified area shall be 1" deep. The West Approach shall receive a similar treatment for a length of 85'



SIDE ELEVATION — FRONT ELEVATION

UPSTREAM MIDSPAN LOWER VERTICAL TRUSS MEMBER

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

NOTE: Replace Upstream Midspan Lower Vertical Truss Member. Cost of removing the existing steel included in Item 502.2. Cost of new member included in Item 550.102.

Sheet Scale: As noted

Δ	DESCRIPTION	BY	DATE
	REVISIONS		

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

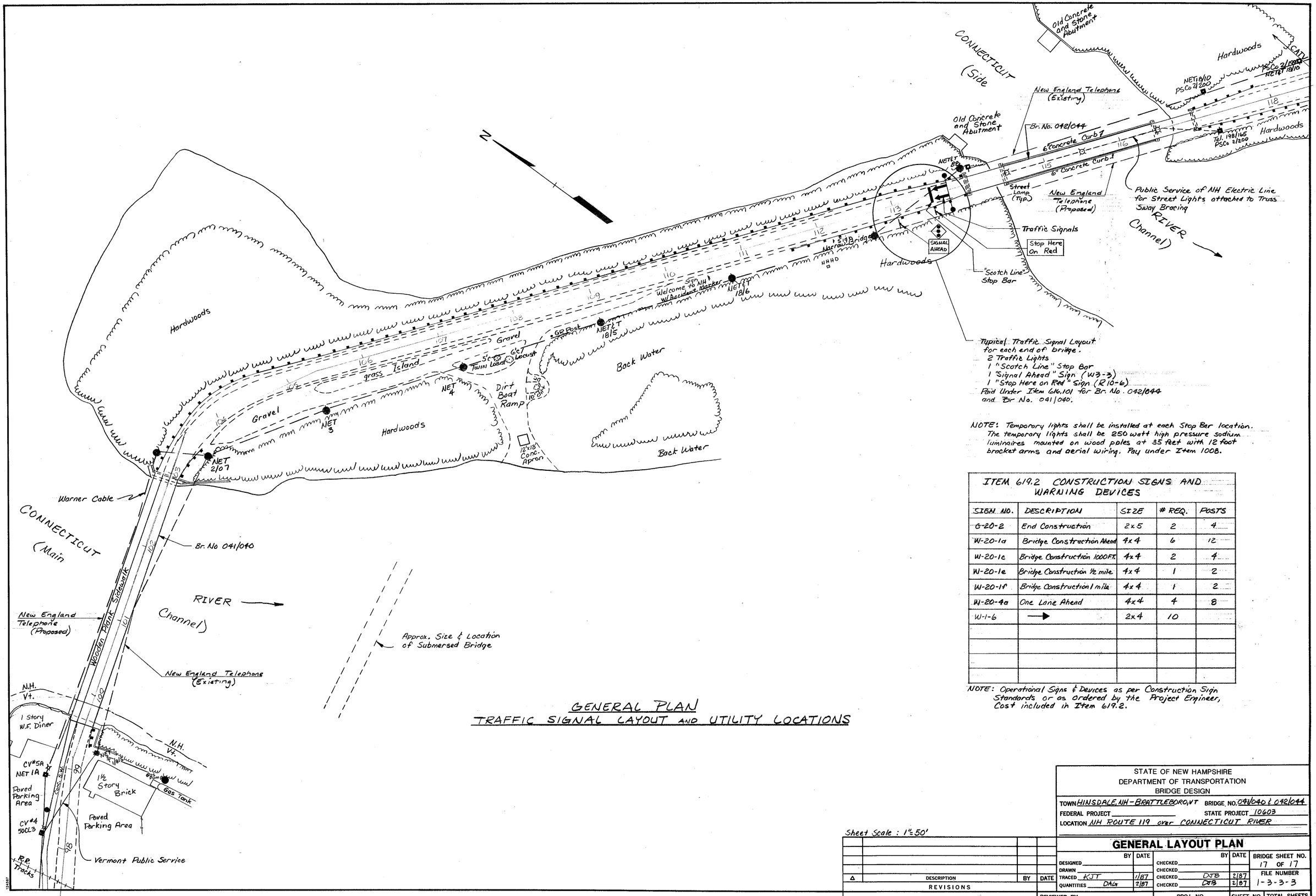
TOWN HINSDALE, NH & BRATTLEBORO, VT BRIDGE, NO. 041/040
FEDERAL PROJECT ____ STATE PROJECT 10603
LOCATION NH RTE 119 over CONNECTICUT RIVER (MAIN CHANNEL)

EAST ABUTMENT DETAILS & TRUSS REPAIRS

	BY	DATE
DESIGNED	DJB	11/86
DRAWN	DJB	11/86
TRACED		
QUANTITIES	DAG	2/87
CHECKED	RAJ	1/87
CHECKED	RAJ	1/87
CHECKED	DJB	2/87

BRIDGE SHEET NO. 16 OF 17
FILE NUMBER 1-3-3-3

REVIEWED BY ____ PROJ. NO. ____ SHEET NO. 17 TOTAL SHEETS 18



Typical Traffic Signal Layout for each end of bridge.
2 Traffic Lights
1 "Scotch Line" Stop Bar
1 "Signal Ahead" Sign (W3-3)
1 "Stop Here on Red" Sign (R10-6)
Paid Under Item 616.101 for Br. No. 042/044 and Br No. 041/040.

NOTE: Temporary lights shall be installed at each Stop Bar location. The temporary lights shall be 250 watt high pressure sodium luminaires mounted on wood poles at 35 feet with 12 foot bracket arms and aerial wiring. Pay under Item 1008.

ITEM 619.2 CONSTRUCTION SIGNS AND WARNING DEVICES

SIGN NO.	DESCRIPTION	SIZE	# REQ.	POSTS
G-20-2	End Construction	2x5	2	4
W-20-1a	Bridge Construction Ahead	4x4	6	12
W-20-1c	Bridge Construction 1000FT.	4x4	2	4
W-20-1e	Bridge Construction ½ mile	4x4	1	2
W-20-1f	Bridge Construction 1 mile	4x4	1	2
W-20-4a	One Lane Ahead	4x4	4	8
W-1-6	→	2x4	10	

NOTE: Operational Signs & Devices as per Construction Sign Standards or as ordered by the Project Engineer, Cost included in Item 619.2.

GENERAL PLAN
TRAFFIC SIGNAL LAYOUT AND UTILITY LOCATIONS

Sheet Scale : 1"=50'

Δ	DESCRIPTION	BY	DATE
	REVISIONS		

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

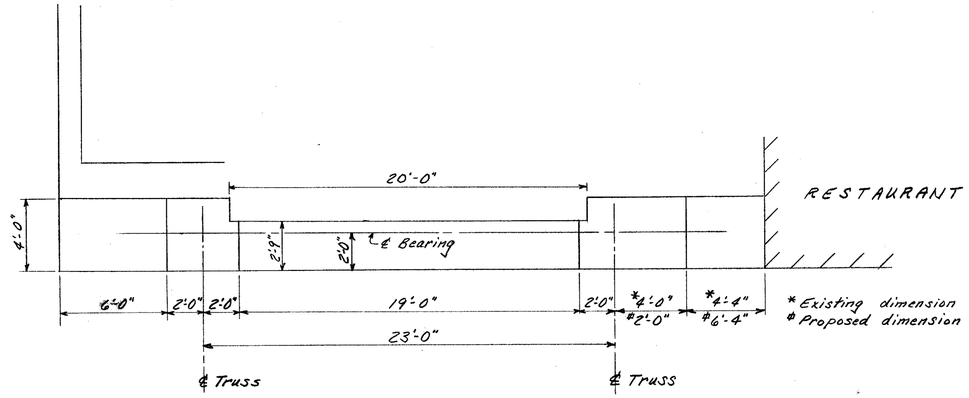
TOWN HINSDALE, NH - BRATTLEBORO, VT BRIDGE NO. 041/040 & 042/044
FEDERAL PROJECT _____ STATE PROJECT 10603
LOCATION NH ROUTE 119 over CONNECTICUT RIVER

GENERAL LAYOUT PLAN

	BY	DATE		BY	DATE
DESIGNED			CHECKED		
DRAWN			CHECKED		
TRACED KJT		1/87	CHECKED	DJB	2/87
QUANTITIES DAG		2/87	CHECKED	DJB	2/87

REVIEWED BY _____

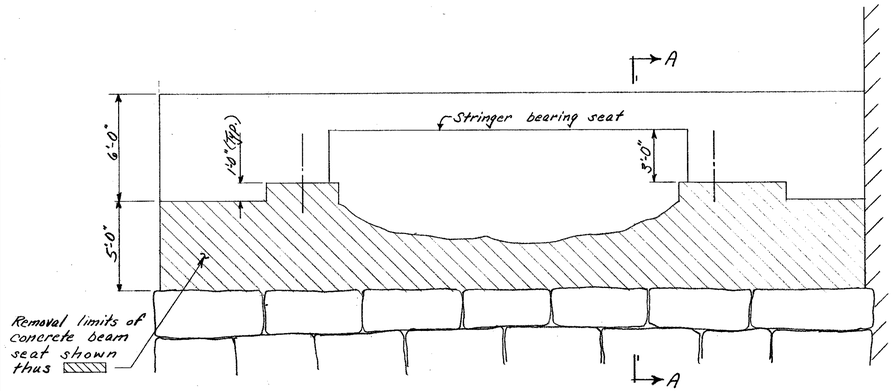
BRIDGE SHEET NO. 17 OF 17
FILE NUMBER 1-3-3-3
PROJ. NO.
SHEET NO. 18
TOTAL SHEETS 18



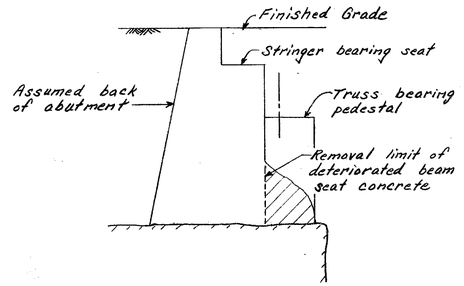
PLAN - EXISTING & PROPOSED

SUMMARY OF ESTIMATED QUANTITIES			
Item No.	Description	Quantity	Unit
510.605	Temporary Pile Bent	1	Unit
512	Preparation for Concrete Repairs	24	Cu. Yds.
520.1	Concrete Class A	29	Cu. Yds.
544	Reinforcing Steel	900	Lbs.

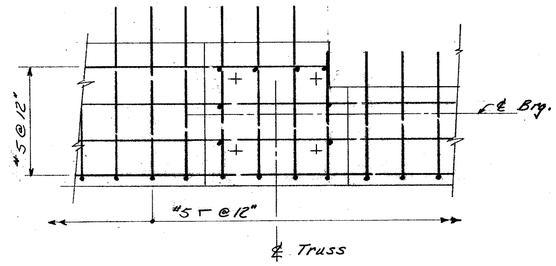
NOTES:
1. Item 510.605, Temporary Pile Bent, shall include all materials, equipment and labor to design, construct and remove a support structure at the face of the west abutment. The temporary bent shall be designed and constructed to carry the dead load and live load truss reactions. The design live load shall be an AASHTO H5 lane loading. Maintenance of passenger car only traffic will be required at all times. The temporary bent shall be in place prior to removal of any abutment concrete and shall not be removed until the new concrete has attained a compressive strength of 2400 psi.
2. Prior to placing new concrete all surfaces of existing concrete to be in contact with new concrete shall be thoroughly cleaned, including sand blasting if necessary, and coated with an approved bonding agent. Cost of the bonding agent is included in Item 520.1.
3. The cost of drilling holes and grouting rebars in existing concrete shall be included in Item 544.



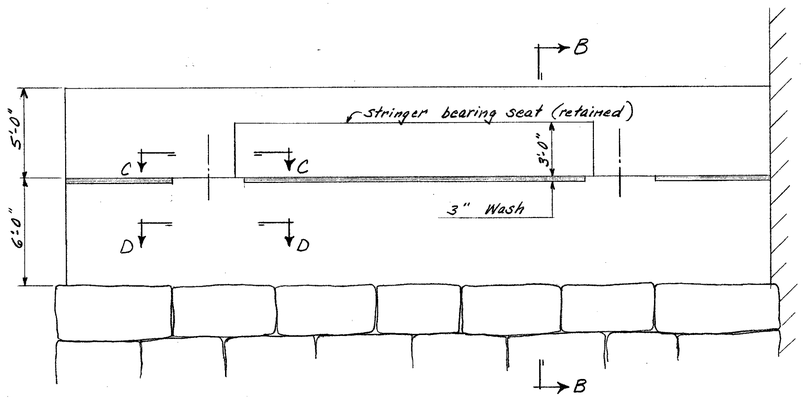
ELEVATION - EXISTING



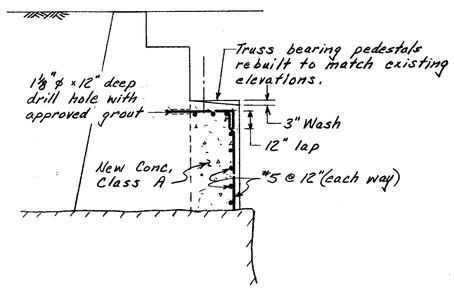
SECTION A-A



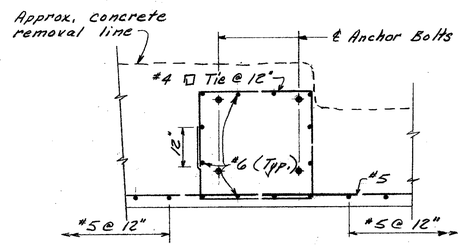
SECTION C-C
Scale: ½"=1'-0"



ELEVATION - PROPOSED



SECTION B-B



SECTION D-D
Scale: ½"=1'-0"

WORK DONE BY THE BRIDGE CONSTRUCTION CO., AUGUSTA, ME. IN 1987 AS NEGOTIATED EXTRA WORK.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN

TOWN Hinsdale, N.H.- Brattleboro, Vt. BRIDGE NO. 041/040
FEDERAL PROJECT _____ STATE PROJECT _____
LOCATION N.H. RTE. 119 over CONNECTICUT RIVER (MAIN CHANNEL)

WEST ABUTMENT REPAIR

△	DESCRIPTION	BY	DATE
	REVISIONS		

	BY	DATE
DESIGNED		
DRAWN	JFM	6/87
TRACED		
QUANTITIES		

	BY	DATE
CHECKED		
CHECKED		
CHECKED		
CHECKED		

BRIDGE SHEET NO. OF
FILE NUMBER 1-3-3-3
REVIEWED BY _____ PROJ. NO. _____ SHEET NO. _____ TOTAL SHEETS _____

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