

INDEX OF SHEETS

- 1 TITLE SHEET
- 2 PRELIMINARY INFORMATION & NOTES
- 3 QUANTITIES & REINFORCING STEEL SCHEDULE
- 4 PLAN AND PROFILE
- 5 SUBSTRUCTURE DETAILS (1 OF 2)
- 6 SUBSTRUCTURE DETAILS (2 OF 2)
- 7 TYPICAL BRIDGE SECTIONS
- 8 STAIR PLAN & DETAILS
- 9 APPROACH STAIR ROOF FRAMING
- 10 PIER ELEVATION & DETAILS
- 11 LATERAL BRACING & LIGHTING
- 12 TRUSS ELEVATION & DETAILS
- 13 STRUCTURAL DETAILS
- 14 UTILITY RELOCATION PLAN

LIST OF STANDARDS

- T-1 06-01-94
T-2 06-01-94
E-17511-17-93
F2 06-01-94

PROPOSED IMPROVEMENT BRIDGE PROJECT RECORD DRAWINGS OCTOBER 2003 ▲

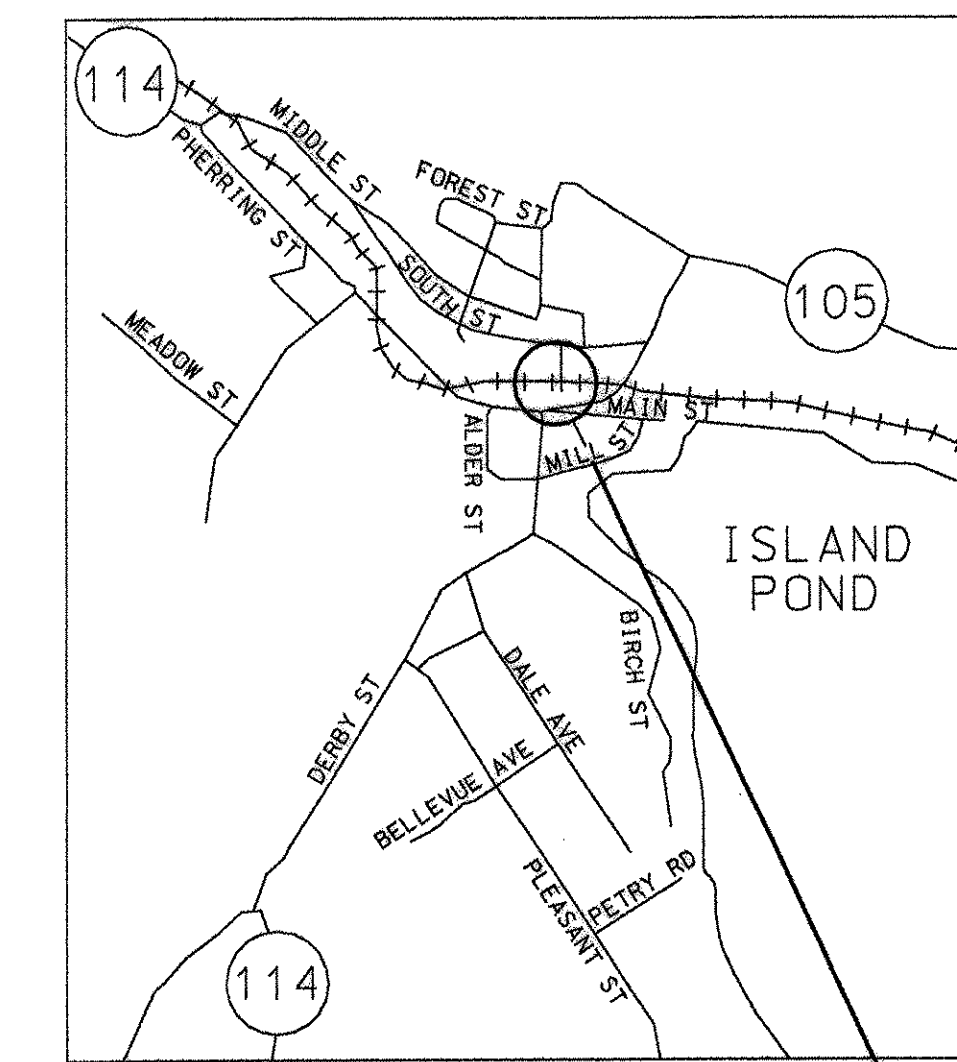
TOWN OF BRIGHTON COUNTY OF ESSEX BRIGHTON COVERED PEDESTRAIN BRIDGE

BRIGHTON STP BIKE (14)S
HTA PROJECT NO. 906801

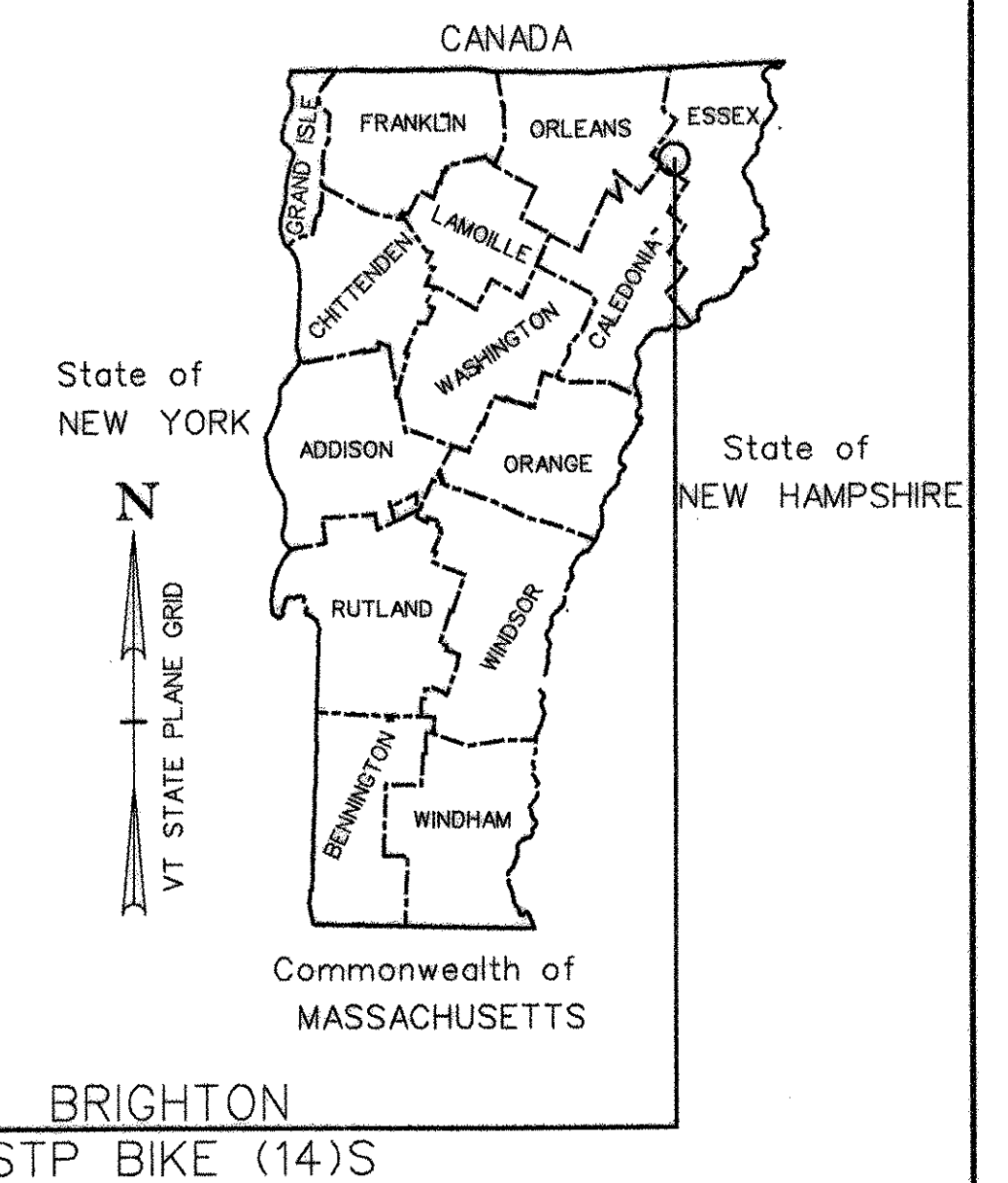
PROJECT LOCATION: FROM A POINT OPPOSITE THE INTERSECTION OF SOUTH STREET
AND MOUNTAIN STREET, TO A POINT ON CROSS STREET IN THE
VILLAGE OF ISLAND POND.

PROJECT DESCRIPTION: CONSTRUCTION OF A NEW PEDESTRIAN TIMBER COVERED BRIDGE,
APPROACH STAIRS, TIMBER PIERS AND FOUNDATIONS.

LENGTH OF STRUCTURE: 230.16 FEET
LENGTH OF ROADWAY: 139.00 FEET
LENGTH OF PROJECT: 369.16 FEET



LOCATION MAP



BRIGHTON
STP BIKE (14)S

CONVENTIONAL SYMBOLS

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

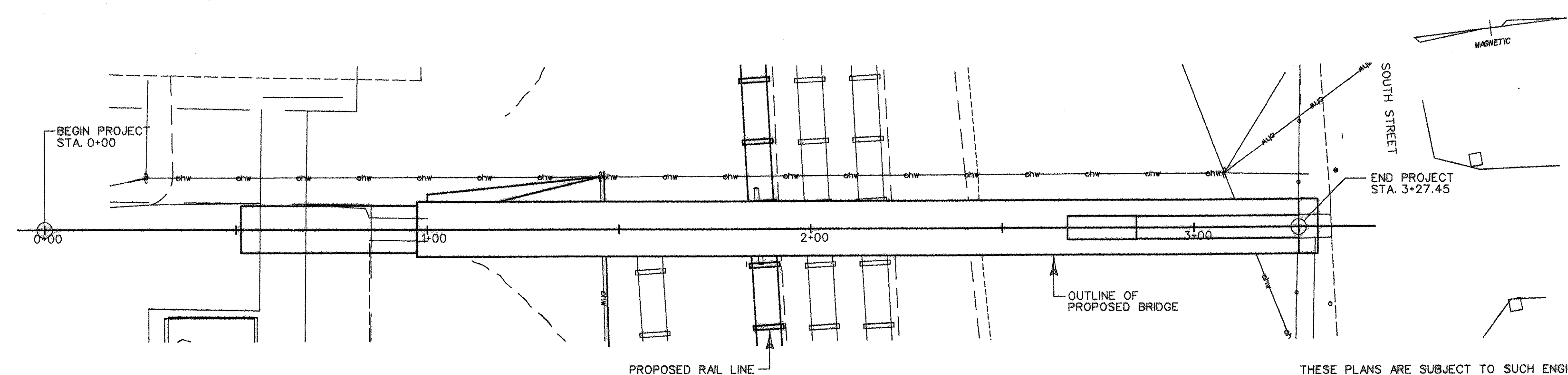
SURVEYED BY : DANIELS SURVEY
SURVEYED DATE : JUNE 1995

DATUM

VERTICAL USGC DATUM (NAVD88)
HORIZONTAL ASSUMED

PLAN

SCALE 1" = 20'-0"



THESE PLANS ARE SUBJECT TO SUCH ENGINEERING
CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY
ADMINISTRATION OR THE DIRECTOR OF PROJECT
DEVELOPMENT.

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

THE "RECORD COPY" NOTATIONS WITHIN THE HTA DRAWINGS
ARE SHOWN FOR GENERAL INFORMATION PURPOSES ONLY.
USERS ARE CAUTIONED TO FIELD VERIFY THE AS-BUILT DATA. ▲

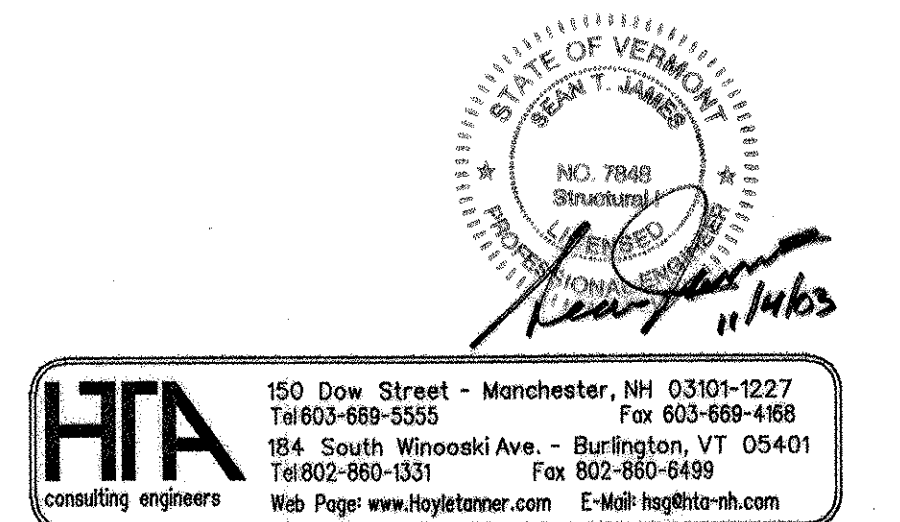
RECORD COPY REVISIONS

DR BY JDG
CHK BY STJ

FUNDING ASSISTANCE HAS BEEN
PROVIDED BY VTRANS AND FHWA

PROJECT NAME : BRIGHTON PEDESTRIAN BRIDGE
PROJECT NUMBER : STP BIKE (14)S

SHEET 1 OF 14 SHEETS



GENERAL NOTES

- G1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION ADOPTED 2001, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 16TH EDITION, DATED 1996, AND THEIR LATEST REVISIONS.
- G2. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS AND COORDINATION OF OTHER TRADES.
- G3. THESE DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. CARE OF ADJACENT PROPERTIES DURING CONSTRUCTION AND COMPLIANCE WITH STATE AND FEDERAL REGULATIONS REGARDING SITE SAFETY SHALL SOLELY BE THE CONTRACTORS RESPONSIBILITY.
- G4. ALL DIMENSIONS, ELEVATIONS AND CONDITIONS MUST BE VERIFIED BY THE GENERAL CONTRACTOR OR RESPONSIBLE TRADES PRIOR TO COMMENCING WITH THE WORK, FABRICATION OR ORDERING MATERIALS. DO NOT SCALE DRAWINGS, USE DIMENSIONS SHOWN.
- G5. ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND AS-BUILT CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY BEFORE PROCEEDING WITH THE WORK.
- G6. THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.
- G7. ALL APPLICABLE UTILITY DEPARTMENTS AND COMPANIES SHALL BE NOTIFIED BEFORE EXCAVATION IS STARTED. UTILITIES WITHIN 50 FEET OF AN EXCAVATION SHALL BE MARKED IN THE FIELD
- G8. HOYLE, TANNER & ASSOCIATES, INC. WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS THAT ARISE DUE TO THE FAILURE OF THE CONTRACTOR:
- TO FOLLOW THESE DRAWINGS AND SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY
 - TO NOTIFY HTA OF ANY DISCREPANCIES, ERRORS, OMISSIONS OR CONFLICTS AND OBTAIN THEIR GUIDANCE TO RESOLVE.
- G9. SPECIFICATIONS:
- THE BOCA NATIONAL BUILDING CODE 1999
 - STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION 2001
 - AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 16TH EDITION, DATED 1996 PLUS INTERIMS THROUGH 2002
 - ATC TIMBER CONSTRUCTION MANUAL, FOURTH EDITION
 - 1997 NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION AND SUPPLEMENT
- G10. IN THE PREPARATION OF THESE DRAWINGS, HTA HAS RELIED UPON INFORMATION OBTAINED FROM THE FOLLOWING REPORTS, DRAWINGS, TESTS OR OTHER DOCUMENTATION AS FOLLOWS:
1. FINAL SCOPING REPORT: BRIGHTON PEDESTRIAN BRIDGE: TOWN OF BRIGHTON, VERMONT; SUBMITTED BY DUFRESNE-HENRY, INC.; JANUARY 1999
2. SURVEY BY DANIELS SURVEY, JUNE 1995
- THIS INFORMATION IS AVAILABLE FOR REVIEW DURING NORMAL BUSINESS HOURS AT THE FOLLOWING LOCATION:
- BRIGHTON TOWN HALL
MAIN STREET P.O. BOX 377
ISLAND POND, VT 05846
TEL. (802) 828-3975

FOUNDATION TRADE NOTES

- F1. THE BOTTOM ELEVATION OF FOOTINGS SHALL BE A MINIMUM OF 5'-0" BELOW OUTSIDE GRADE. LOWER FOOTINGS AS REQUIRED TO REACH GOOD BEARING.
- F2. THE BOTTOM OF EXCAVATIONS SHALL BE THOROUGHLY COMPACTED TO 95% OF MODIFIED PROCTOR PRIOR TO FORMING FOOTINGS.
- F3. ALL CONCRETE SHALL BE PLACED IN DRY EXCAVATIONS. PUMP AWAY WATER AS REQUIRED.

STRUCTURAL STEEL TRADE NOTES

- S1. ALL STRUCTURAL STEEL, INCLUDING VERTICAL RODS, LATERAL BRACING RODS AND MISCELLANEOUS STEEL SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM AASHTO 232M/M232, ASTM A153/A153M (FY-36 KSI) EXCEPT FOR PLATES WHICH SHALL BE GALVANIZED PER AASHTO M 11M/M111 AND PAID FOR UNDER ITEM 506.75. THE USE OF UNGALVANIZED STEEL COMPONENTS WILL NOT BE ALLOWED.
- S2. THE CONTRACTOR SHALL SUBMIT CUT SHEETS FOR ALL CONNECTION HARDWARE TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING.

WOOD NOTES

- W1. ALL WOOD CONSTRUCTION SHALL COMPLY WITH THE LATEST AASHTO SPECIFICATIONS, THE NATIONAL DESIGN SPECIFICATIONS (NDS), SUPPLEMENT FOR WOOD CONSTRUCTION AND THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) SPECIFICATIONS.
- W2. MOISTURE CONTENT OF WOOD USED SHALL NOT EXCEED 16% AT THE TIME OF USE **EXCEPT FOR MEMBERS 5"x5" AND LARGER WHICH SHALL NOT EXCEED 19%.** **Δ** THE MOISTURE CONTENT OF THE WHITE OAK DECKING MAY BE GREEN AT THE TIME OF INSTALLATION.
- W3. EACH PIECE OF WOOD OR TIMBER SHALL BE GRADED, BY A RECOGNIZED LUMBER GRADING AGENCY. A CERTIFICATE OF COMPLIANCE SHALL BE SUBMITTED FOR ALL WOOD.
- W4. ALL NUTS, BOLTS LAG SCREWS, PREMANUFACTURED STEEL CONNECTIONS, WASHERS, SPIKES AND SCREWS SHALL CONFORM TO ASTM 307, AND BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM AASHTO 232M/M232, A153/A153M AND PAID FOR UNDER ITEM 506.75.
- W5. ALL WOOD SHALL BE SOUTHERN PINE No. 1 OR BETTER WHERE THE SPECIES IS NOT NOTED.
- W6. ALL JOB SITE FABRICATION CUTS AND BORINGS OF WOOD TO BE TREATED SHALL HAVE TWO COATS OF AN APPROVED PRESERVATIVE LIBERALLY APPLIED. THE PRESERVATIVE SHALL BE COMPATIBLE WITH THE PRESSURE TREATMENT PRESERVATIVE USED IN ACCORDANCE WITH AWPA STANDARD M4.

CONCRETE AND REINFORCING STEEL TRADE NOTES

- C1. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE "CONCRETE REINFORCING STEEL INSTITUTE" (CRSI).
- C2. REINFORCING PLACEMENT TOLERANCES SHALL BE:
- | | |
|-----------|----------|
| SPACING | +/- 1" |
| CLEARANCE | +/- 1/4" |
- C3. REINFORCING COVER SHALL BE:
- | | |
|--|--------------------|
| CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH | MINIMUM COVER, IN. |
| | 3 |
| CONCRETE EXPOSED TO EARTH OR WEATHER: | |
| *6 THROUGH *18 BARS | 2 |
| *5 BARS, W31 OR D31 WIRE, AND SMALLER | 1/2 |
| CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND: | |
| SLABS, WALLS, JOISTS: | |
| *14 AND * 18 BARS | 1/2 |
| *11 BARS AND SMALLER | 3/4 |
- C4. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2" BY 1/2".
- C5. WATER REPELLENT SHALL BE APPLIED TO ALL NEW AND EXISTING EXPOSED CONCRETE SURFACES.

MINIMUM ALLOWABLE WOOD STRESSES

SPECIES	SIZE	GRADE	F _b (PSI)	F _t (PSI)	F _v (PSI)	F _c (PSI)	E (10 ⁶ PSI)
SOUTHERN PINE	2"-4" THICK, 2"-4" WIDE	No. 1	1850	1050	100	1850	1.7
SOUTHERN PINE	2"-4" THICK, 10" WIDE	No. 1	1300	725	90	1600	1.7
SOUTHERN PINE	5"x5" & LARGER	DS65	2000	1300	115	1500	1.8
SOUTHERN PINE GLULAM	X - X AXIS	A.I.T.C COMB. No. 24F-V5	2400	1150	240	1700	1.7
WHITE OAK	2"-4" THICK, 2" & WIDER	No. 1	875	500	110	900	1.1

TIMBER MATERIALS LIST **Δ**

COMPONENT	PROPOSED (ACTUAL SIZE IN INCHES)	PROPOSED SPECIES & GRADE
BEARING BLOCK	VARIES	BLACK LOCUST No. 1
FLOOR BEAMS	3 1/2 x 9 1/4	SOUTHERN PINE No. 1
FLOOR DECKING	3" THICK BRIDGE	WHITE OAK No. 1
	2 1/2" THICK STAIRS TREADS	
KNEE BRACING	3 1/2 x 3 1/2	SOUTHERN PINE No. 1
PIER COLUMN	12 x 12	P.T. SOUTHERN PINE No. 1
PIER CAP BEAM	12 X 15	P.T. SOUTHERN PINE No. 1
PIER DIAGONAL	4 X 8	P.T. SOUTHERN PINE No. 1
PURLINS	1 1/2 x 3 1/2	SOUTHERN PINE No. 1
RAFTERS	3 1/2 x 9 1/4	SOUTHERN PINE No. 1
RAFTER SUPPORT BEAM	5 1/2 X 11 1/2	SOUTHERN PINE No. 1
RAFTER SUPPORT COLUMN	5 1/2 X 5 1/2	SOUTHERN PINE No. 1
SIDING	1" THICK	EASTERN WHITE PINE No. 1
STAIR STRINGERS	5 x 15 1/8	SOUTHERN PINE A.I.T.C. GLULAM COMB. 24F-V5
TOP CROSS BEAM	5 1/2 X 9 1/2; 7 1/2 X 9 1/2 (TRUSS ONLY)	SOUTHERN PINE No. 1
TOP LATERAL BRACING	4 1/2 x 4 1/2	SOUTHERN PINE No. 1
TRUSS CHORD	8 1/4 X 7 1/2 x 14 1/4	SOUTHERN PINE A.I.T.C. GLULAM COMB. 24F-V5
TRUSS DIAGONALS	6x10, 6x6, 5x8	SOUTHERN PINE No. 1

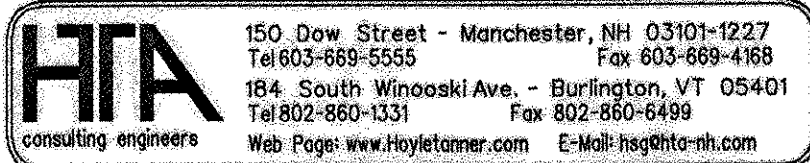
NOTE: P.T. = PRESSURE TREATED

PROPOSED STRUCTURE:

STRUCTURE TYPE: SINGLE SPAN TIMBER COVERED BRIDGE WITH STAIRS
CLEAR SPAN: ~~46.00 FT (14.02 M)~~ 104.09 FT (31.727 M) Δ
VERTICAL CLEARANCE ABOVE RAILROAD TRACKS: 23'-0" (7.010M)
WATERWAY OF FULL OPENING: N/A

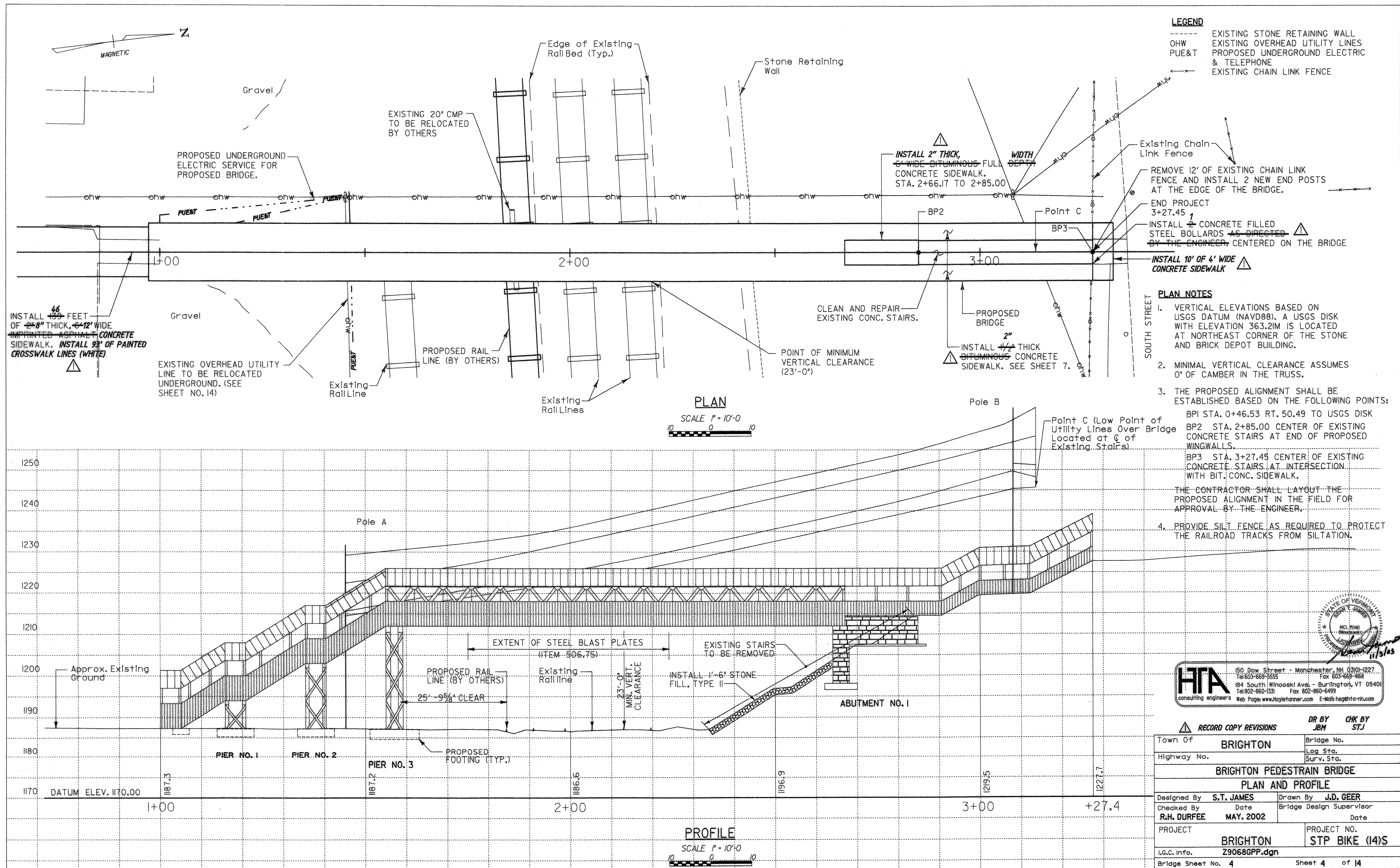
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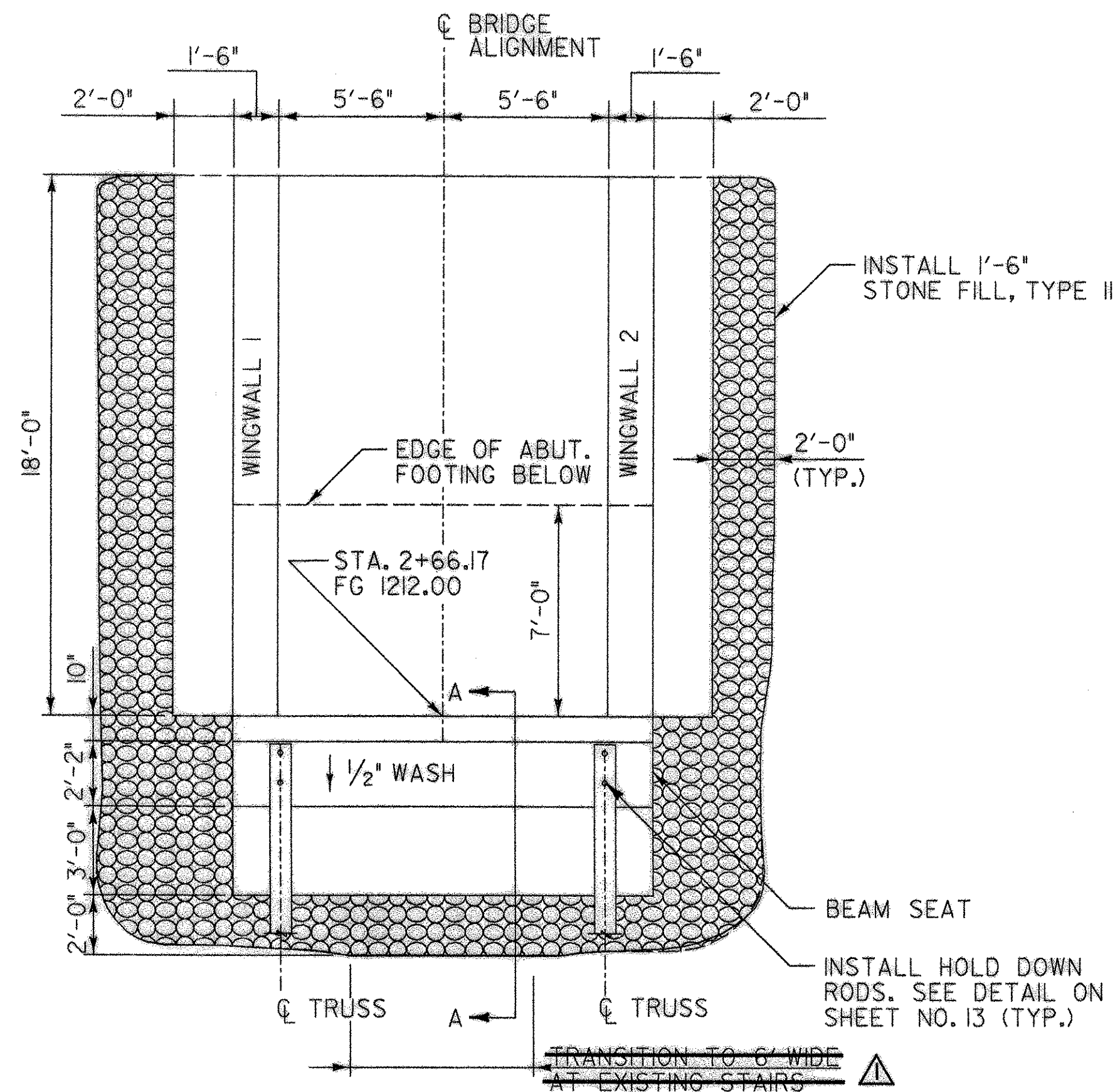
- DESIGN LIVE LOAD AASHTO 85 PSF (PEDESTRIAN)
- DESIGN SNOW LOAD Pg = 60PSF , Pf = 36PSF (ROOF APPLIED)
- DESIGN SPAN 112 FEET
- ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 3500 PSF (ASSUMED) ON LEDGE N/A
- ALLOWABLE LOAD FOR PILING N/A TYPE N/A ESTIMATED LENGTH N/A
- STRUCTURAL STEEL AASHTO GRADE N/A
- REINFORCING STEEL GRADE 60
- CONCRETE CLASS A f_c: 4000 PSI
CONCRETE CLASS B f_c: 3500 PSI
SILICA-FUME CONCRETE f_c: 5000 PSI



RECORD COPY REVISIONS **DR BY** **CHK BY**
JBM **STJ**

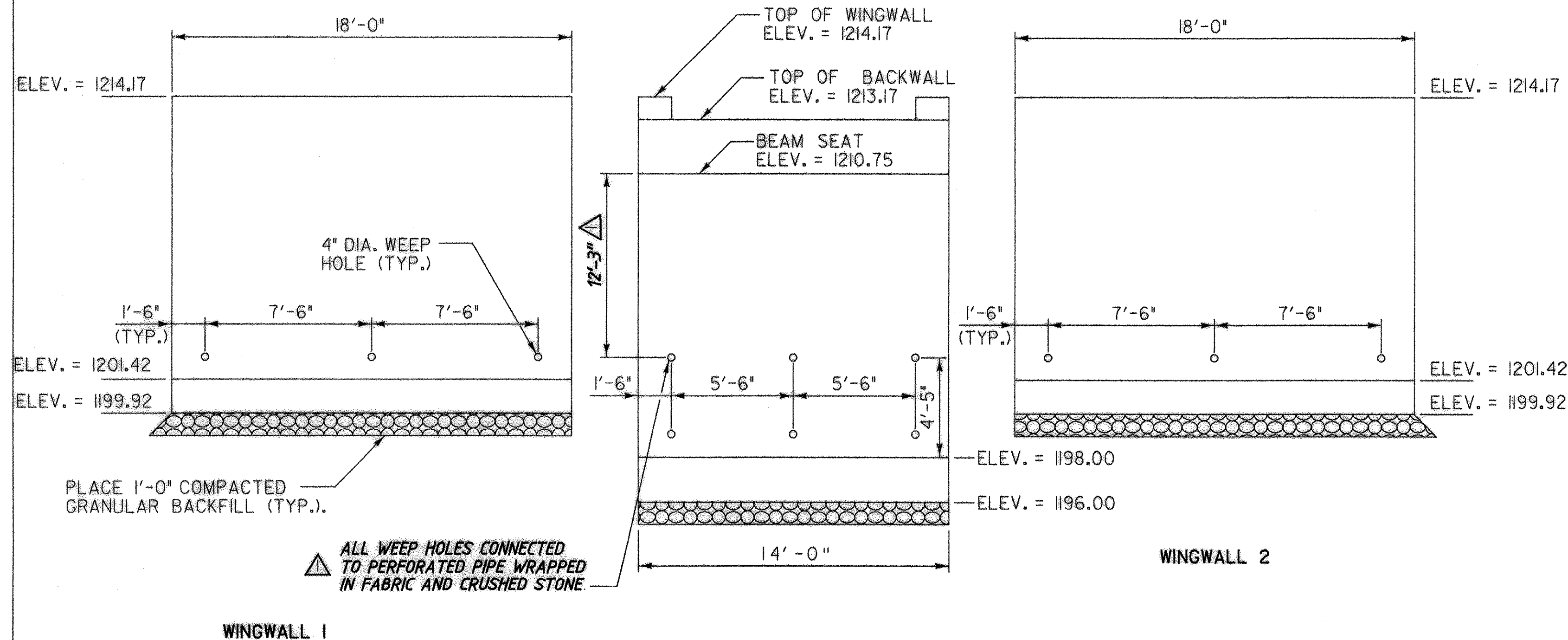
Town Of	BRIGHTON	Bridge No.	
Highway No.		Log Sta.	
		Surv. Sta.	
BRIGHTON PEDESTRIAN BRIDGE			
PRELIMINARY INFORMATION & NOTES			
Designed By	S.T. JAMES	Drawn By	J.D. GEER
Checked By	R.H. DURFEE	Date	MAY. 2002
		Bridge Design Supervisor	
PROJECT	BRIGHTON	PROJECT NO.	STP BIKE (14)S
I.G.C. Info.	Z9068Det.dgn		
Bridge Sheet No.	2	Sheet 2 of	14





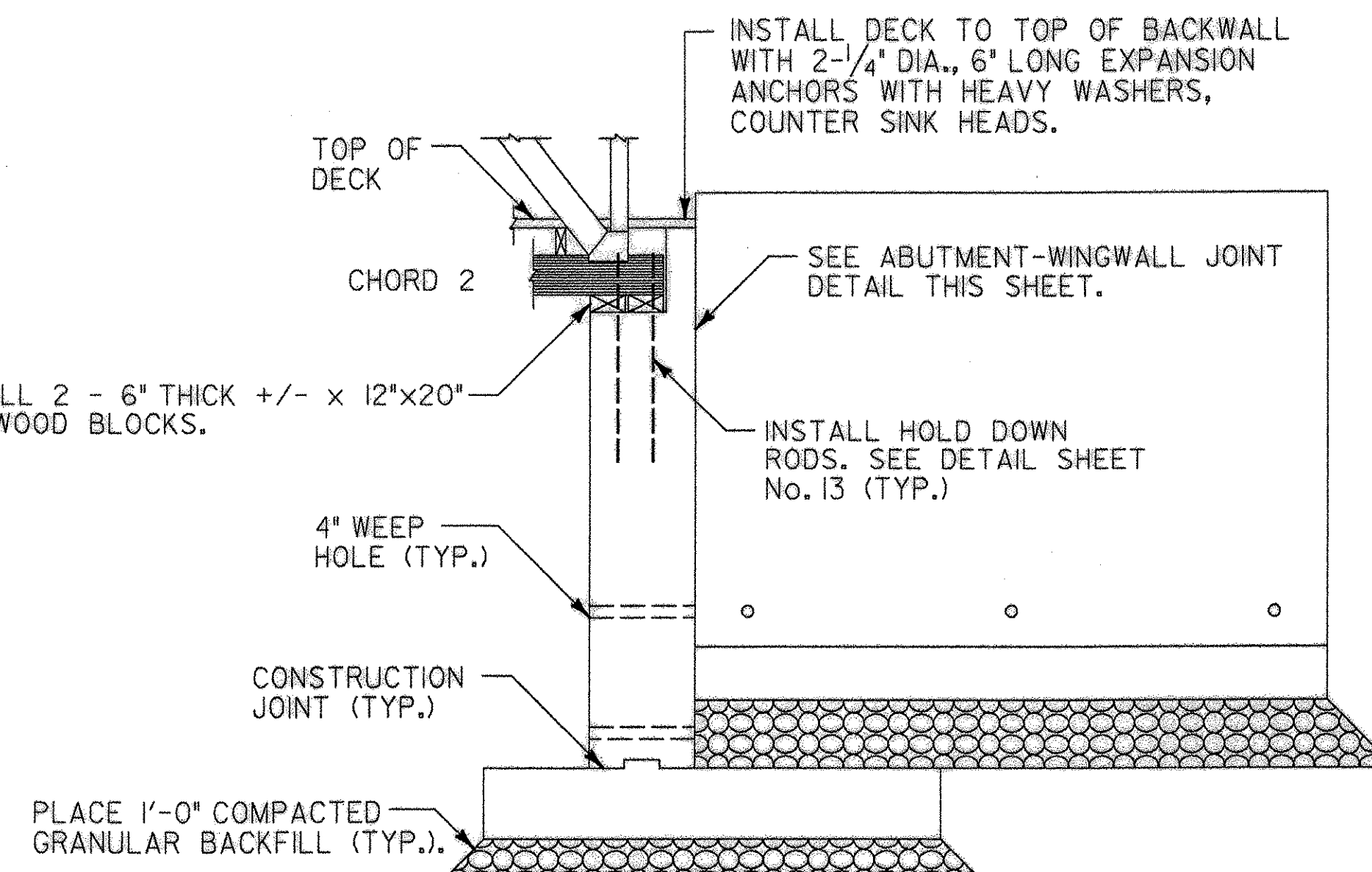
ABUTMENT No. 1 PLAN

SCALE 1/4" = 1'-0"



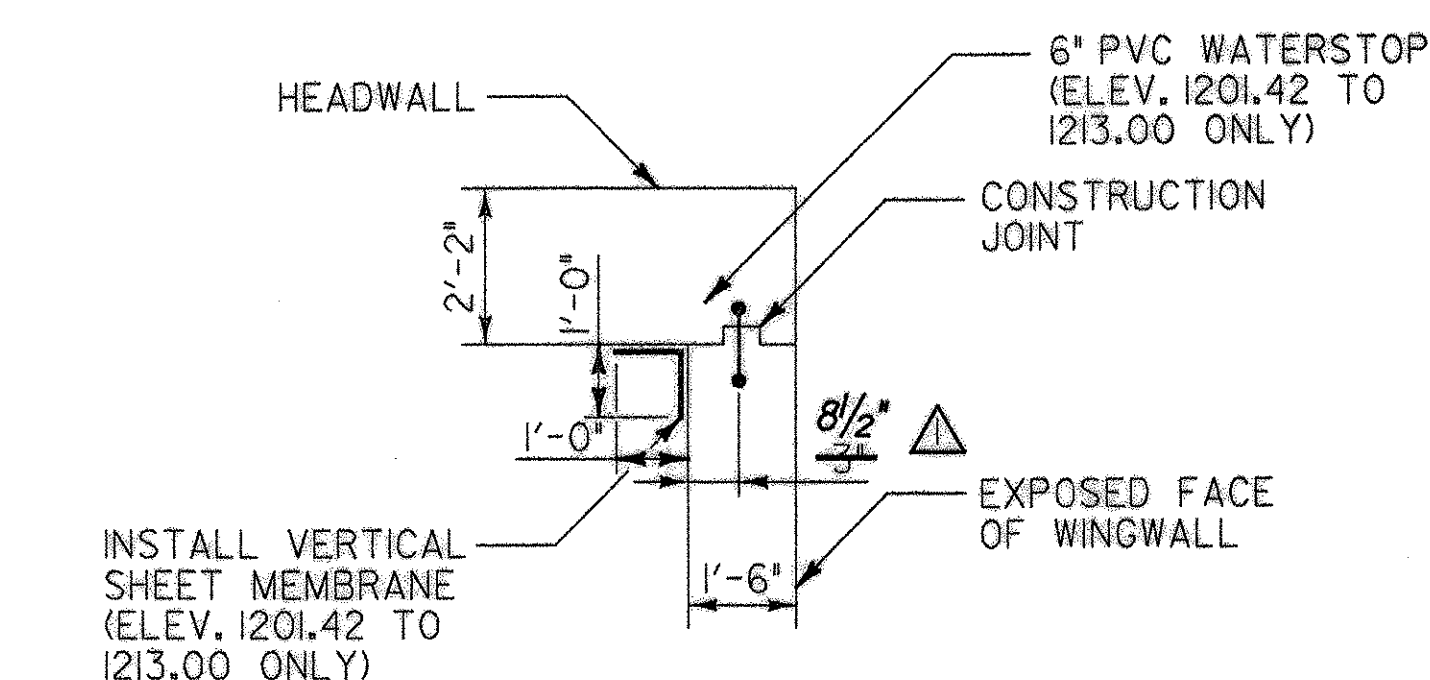
ABUTMENT No. 1 ELEVATION

SCALE 1/4" = 1'-0"



SECTION A-A

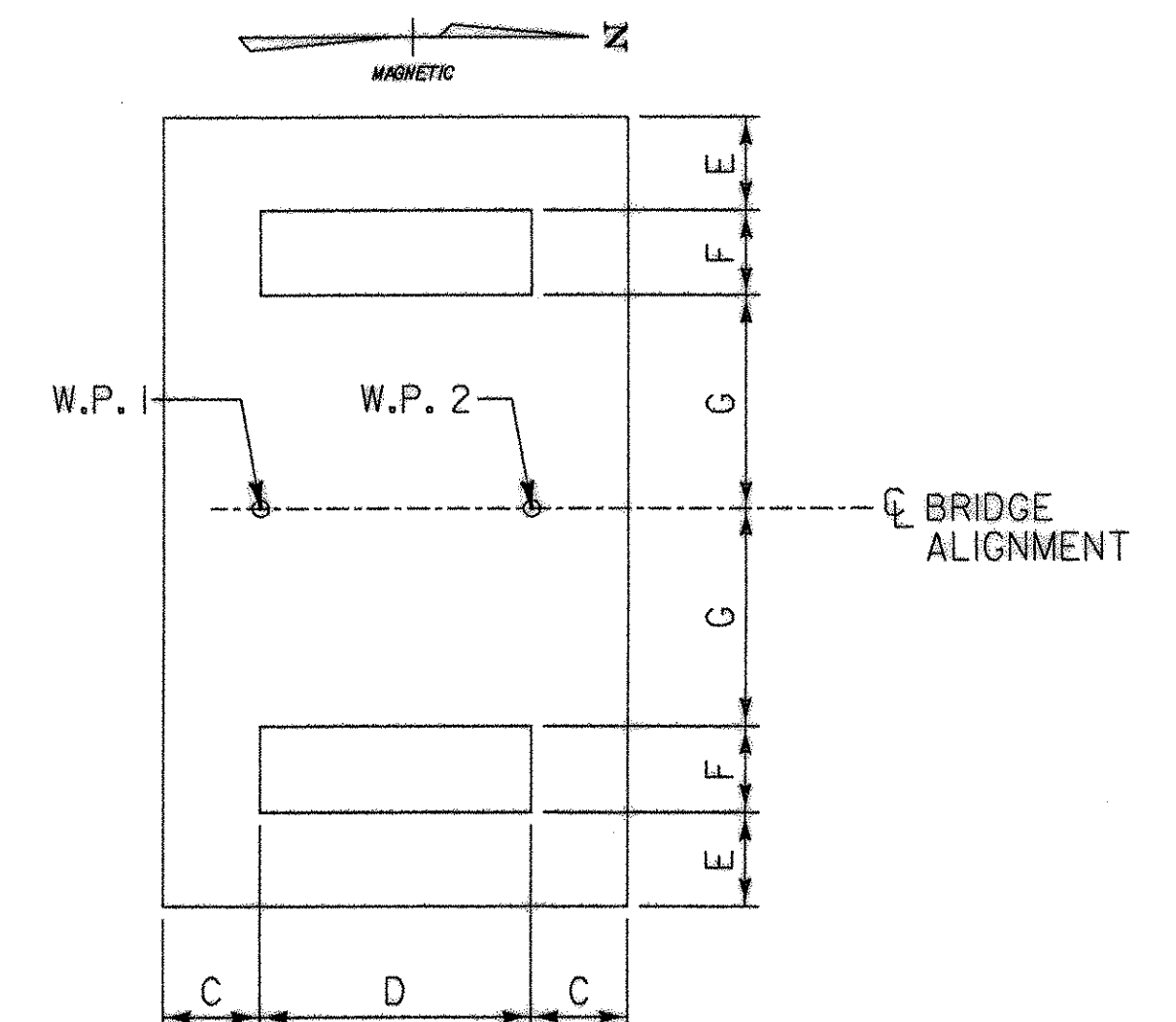
SCALE 1/4" = 1'-0"



ABUTMENT-WINGWALL JOINT DETAIL

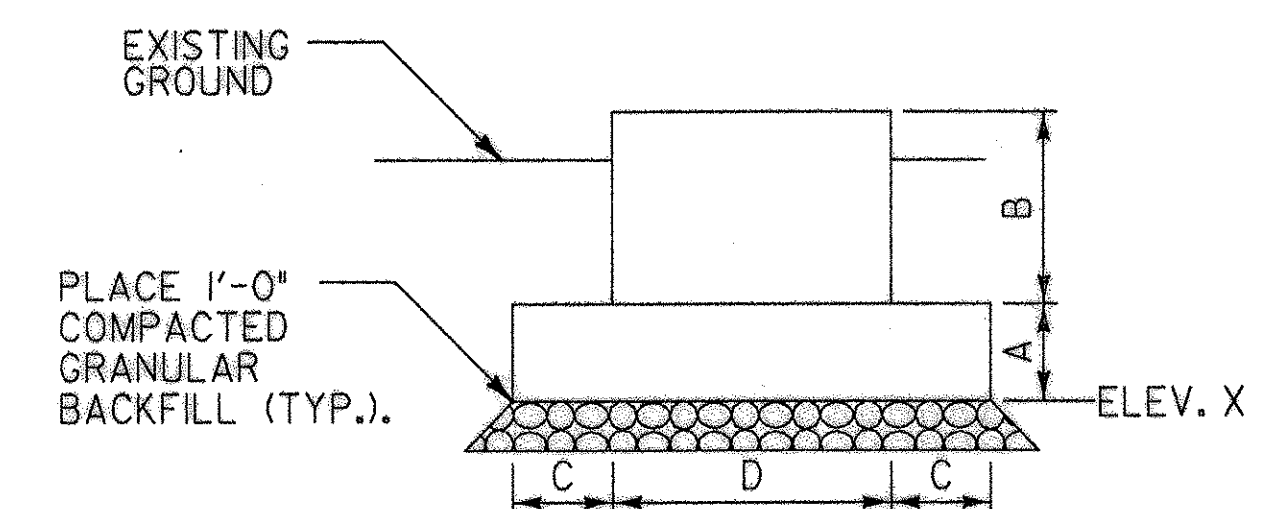
SCALE 3/8" = 1'-0"

NOTE: PVC WATERSTOP AND SHEET MEMBRANE ARE SUBSIDIARY TO ITEM 501.25. REINFORCING STEEL SHALL BE CONTINUOUS THROUGH JOINT. TOP W501BARS MAY BE CUT IN THE FIELD TO FIT.



TYPICAL PIER FOOTING PLAN

SCALE 1/4" = 1'-0"



TYPICAL PIER FOOTING ELEVATION

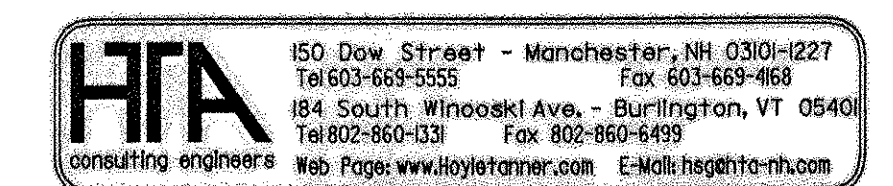
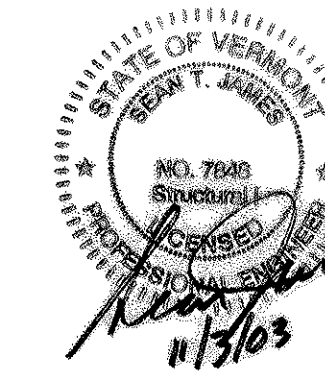
SCALE 1/4" = 1'-0"

PIER FOUNDATION TABLE

LOCATION	A	B	C	D	E	F	G	ELEV. X	WP #1 STA.	WP #2 STA.
PIER 1	2'-0"	4'-0"	2'-1"	5'-10"	2'-0"	1'-10"	4'-8"	1182.00	1+15.75	1+21.58
PIER 2	2'-0"	4'-0"	2'-1"	5'-10"	2'-0"	1'-10"	4'-8"	1182.00	1+34.50	1+40.33
PIER 3	4'-6"	4'-0"	2'-1"	5'-10"	3'-10"	1'-10"	4'-4"	1179.50	1+53.25	1+59.08

PLAN NOTES: A

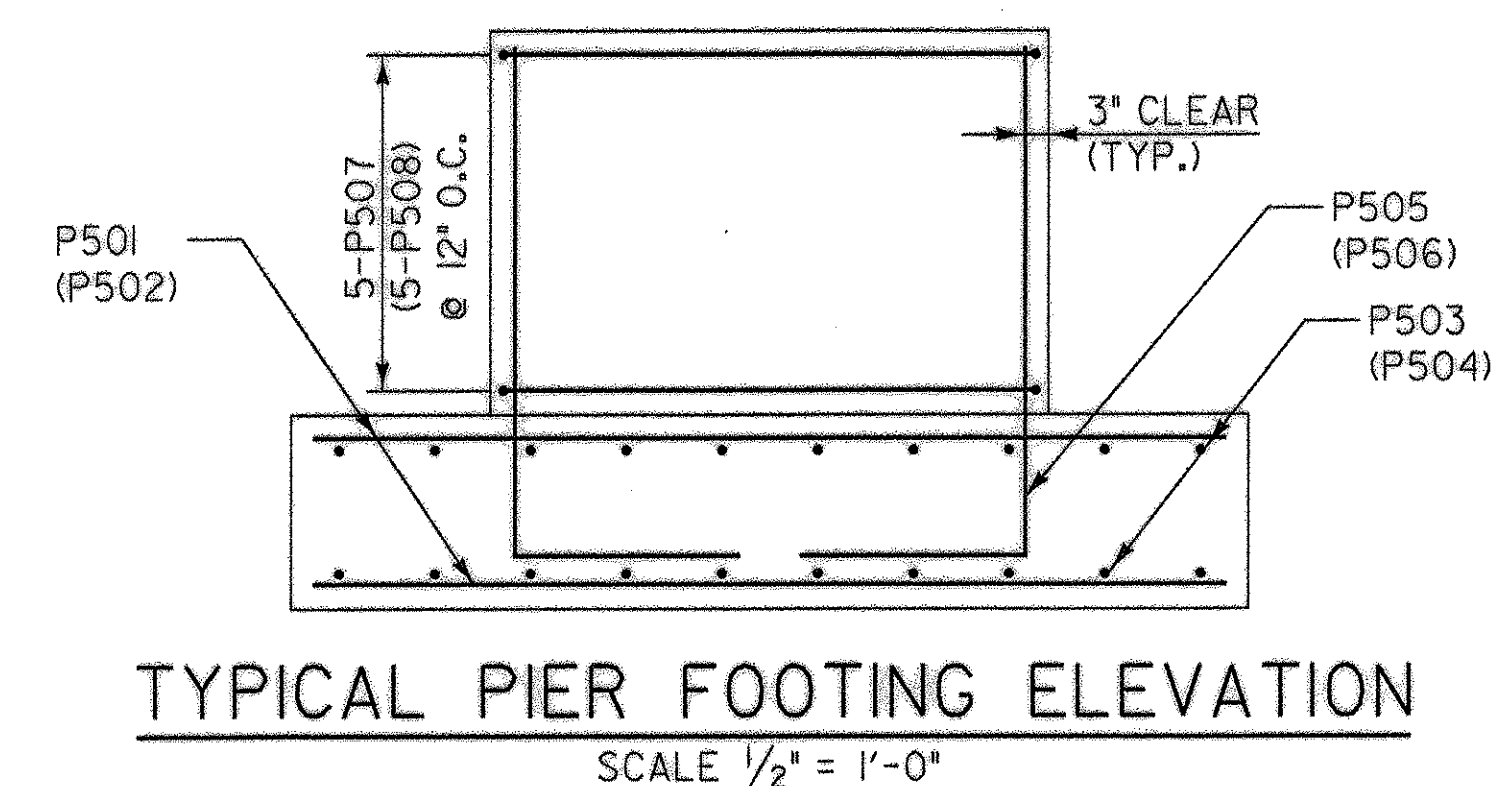
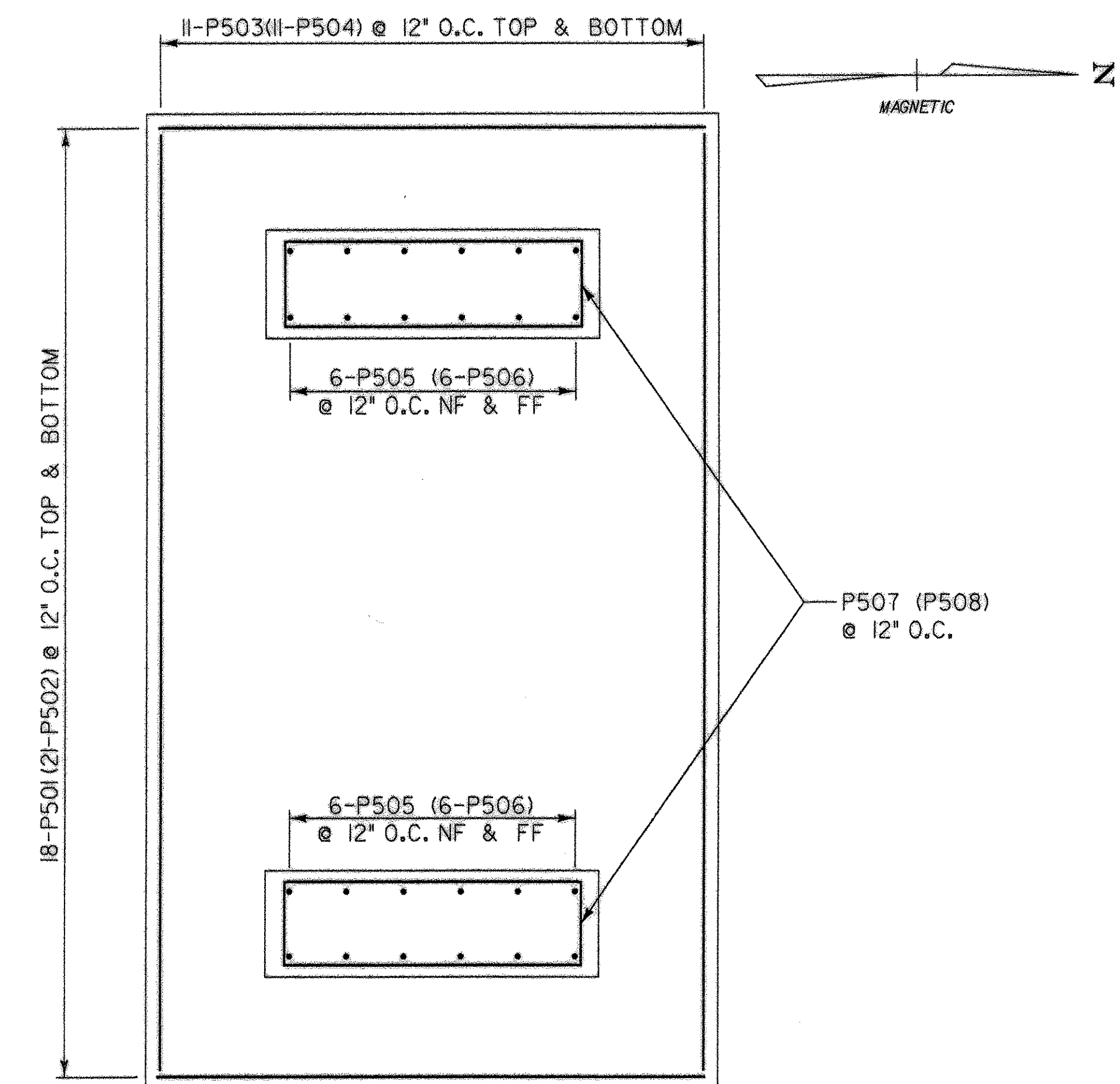
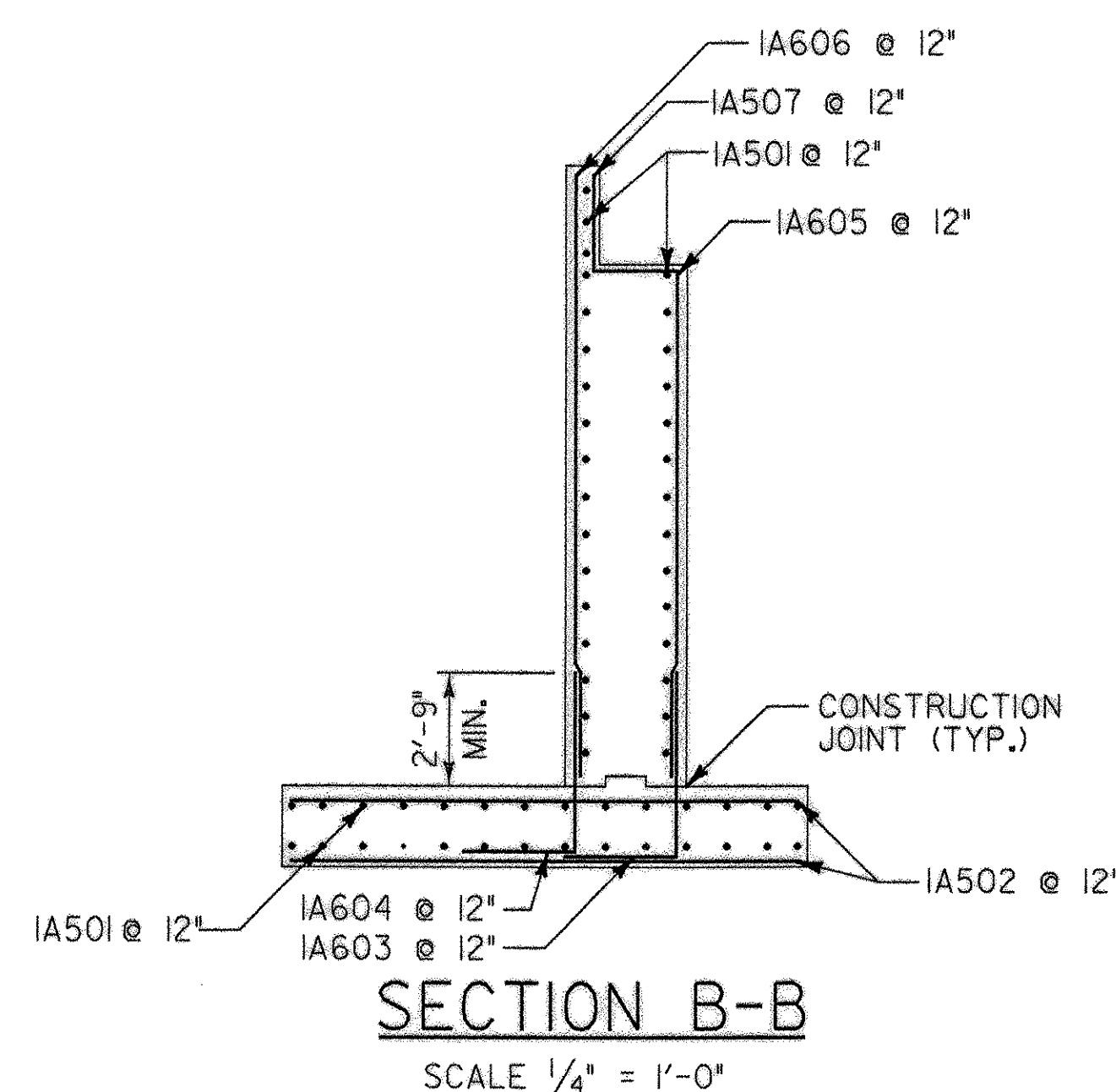
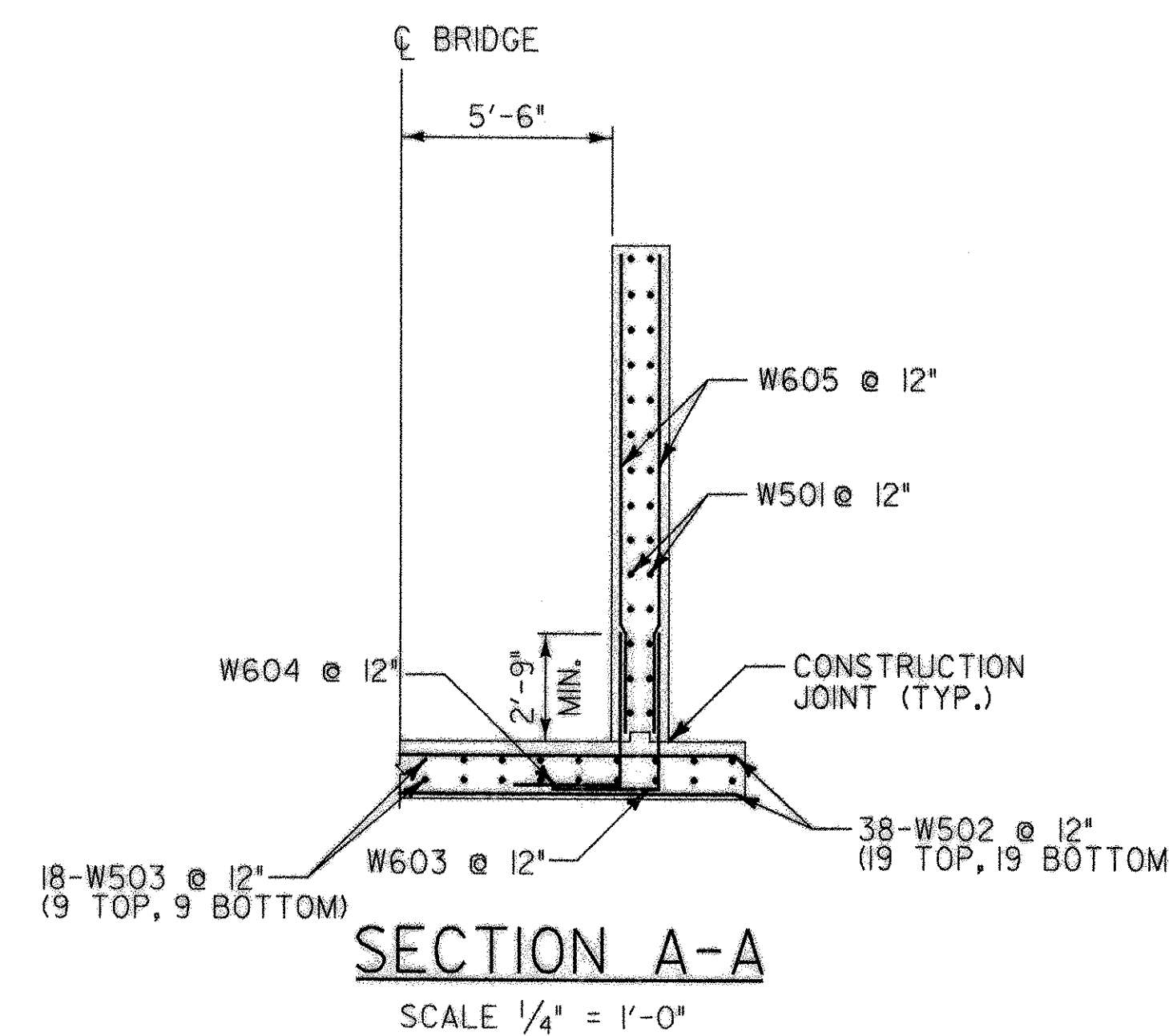
- ABUTMENT NO. 1 SHALL HAVE AN APPROVED FORM LINER USED ON ALL OUTSIDE FACES OF THE ABUTMENT TO PROVIDE A STONE/ASHLAR FINISH. THE FORM LINER SHALL EXTEND TO A MINIMUM DEPTH OF ONE FOOT BELOW EXISTING GRADE. THE CONTRACTOR SHALL SUBMIT THE PROPOSED FORM LINER TO THE ENGINEER FOR APPROVAL.
- THE PIER FOOTINGS SHALL BE BACKFILLED PRIOR TO INSTALLATION OF THE TIMBER PIER MEMBERS.
- SEE SHEET 8 FOR STRINGER BEARING PAD DETAILS.
- A CULTURED STONE FACING, MANUFACTURED BY OWENS CORNING (PRODUCT NUMBER CSU-2025, GRAY COBLE FIELD) WAS ADDED TO THE ABUTMENT IN LIEU OF A FORM LINER.



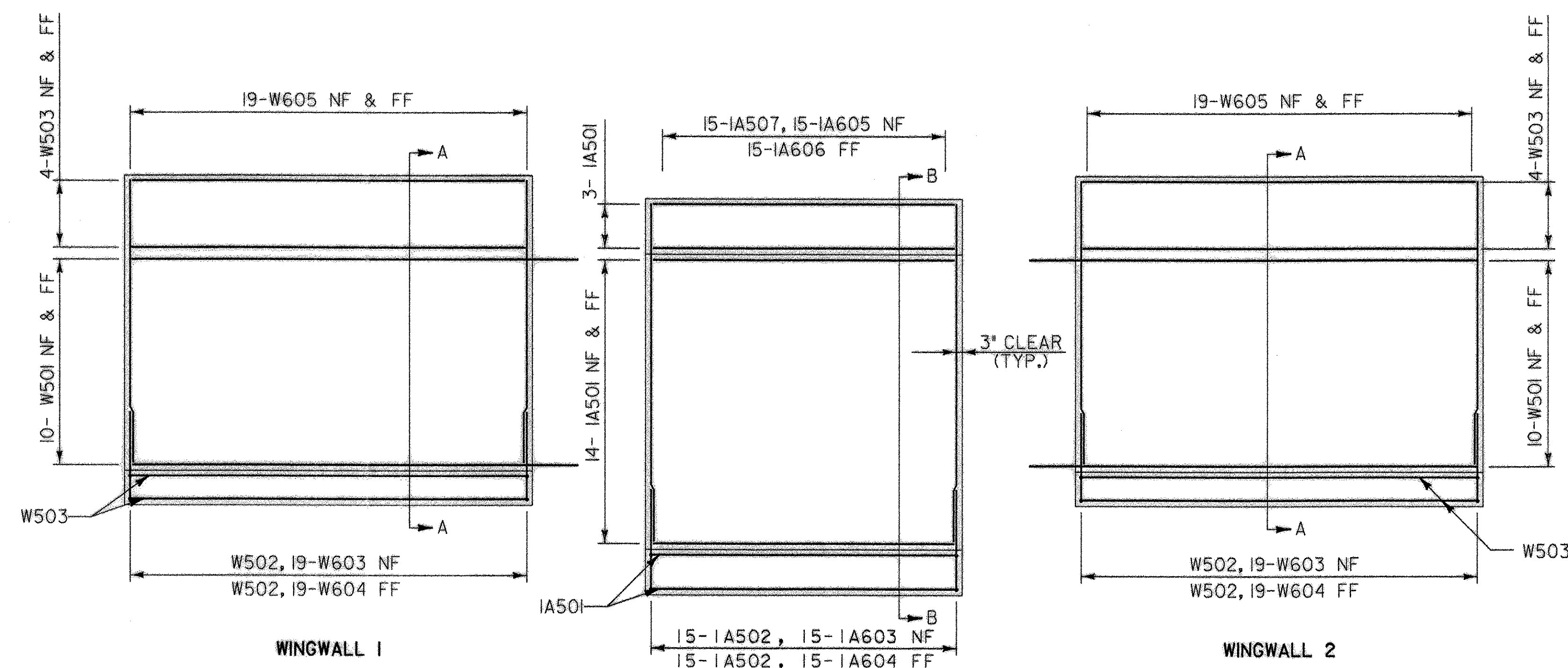
RECORD COPY REVISIONS

DR BY JDG
CHK BY STJ

Town Of	BRIGHTON	Bridge No.	
Highway No.		Log Sta.	
		Surv. Sta.	
BRIGHTON PEDESTRIAN BRIDGE			
SUBSTRUCTURE DETAILS (1 OF 2)			
Designed By	S.T. JAMES	Drawn By	W.A. DRUDING
Checked By	R.H. DURFEE	Date	MAY 2002
PROJECT	BRIGHTON	Bridge Design Supervisor	
I.G.C. Info.	Z9068CF.dgn	PROJECT NO.	STP BIKE (14)S
Bridge Sheet No.	5	Sheet	5 of 14



NOTE: BAR MARKS SHOWN ABOVE ARE FOR PIERS 1&2
WITH PIER 3 MARKS SHOWN IN PARENTHESIS.

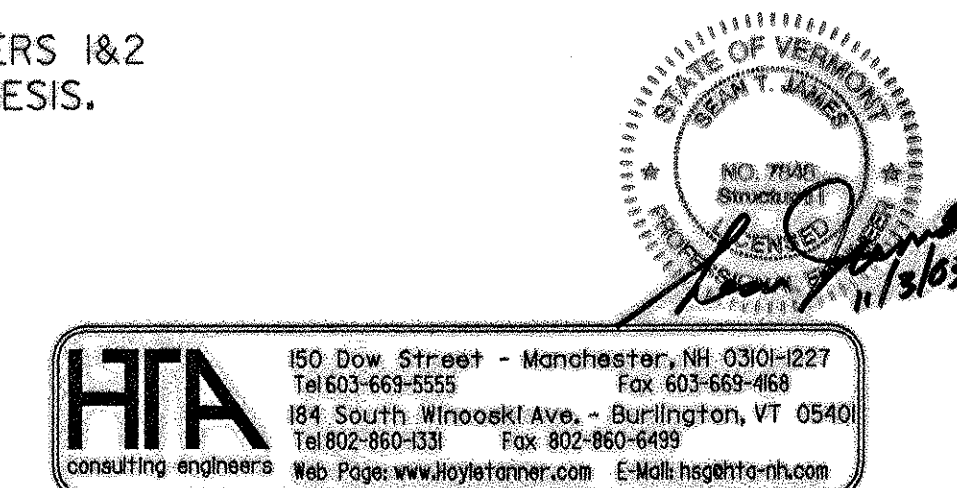


PLAN NOTES:

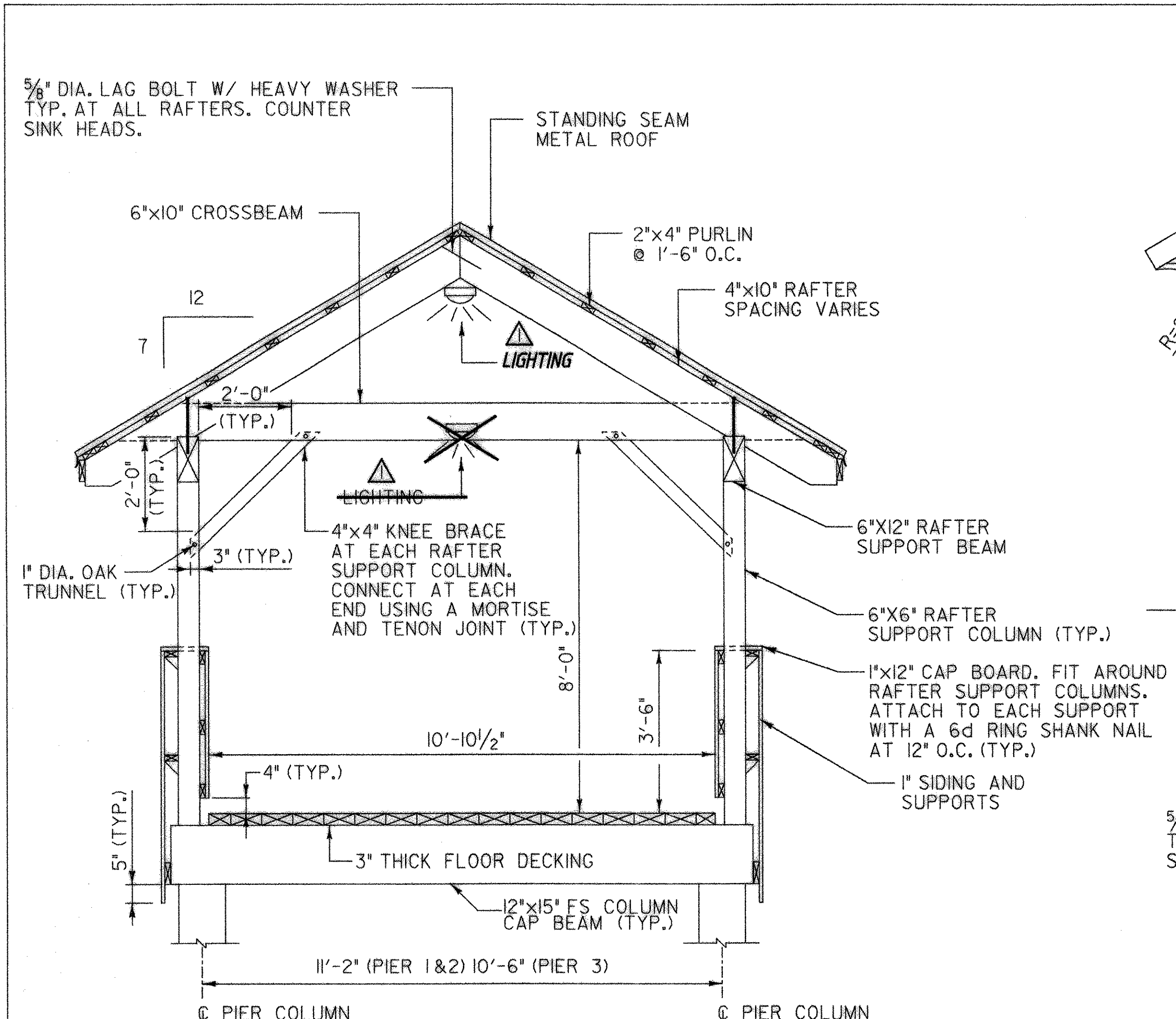
1. WINGWALLS ARE SYMMETRICAL ABOUT
THE CENTERLINE OF THE BRIDGE.

LEGEND

NF = NEAR FACE
FF = FAR FACE
O.C. = ON CENTER

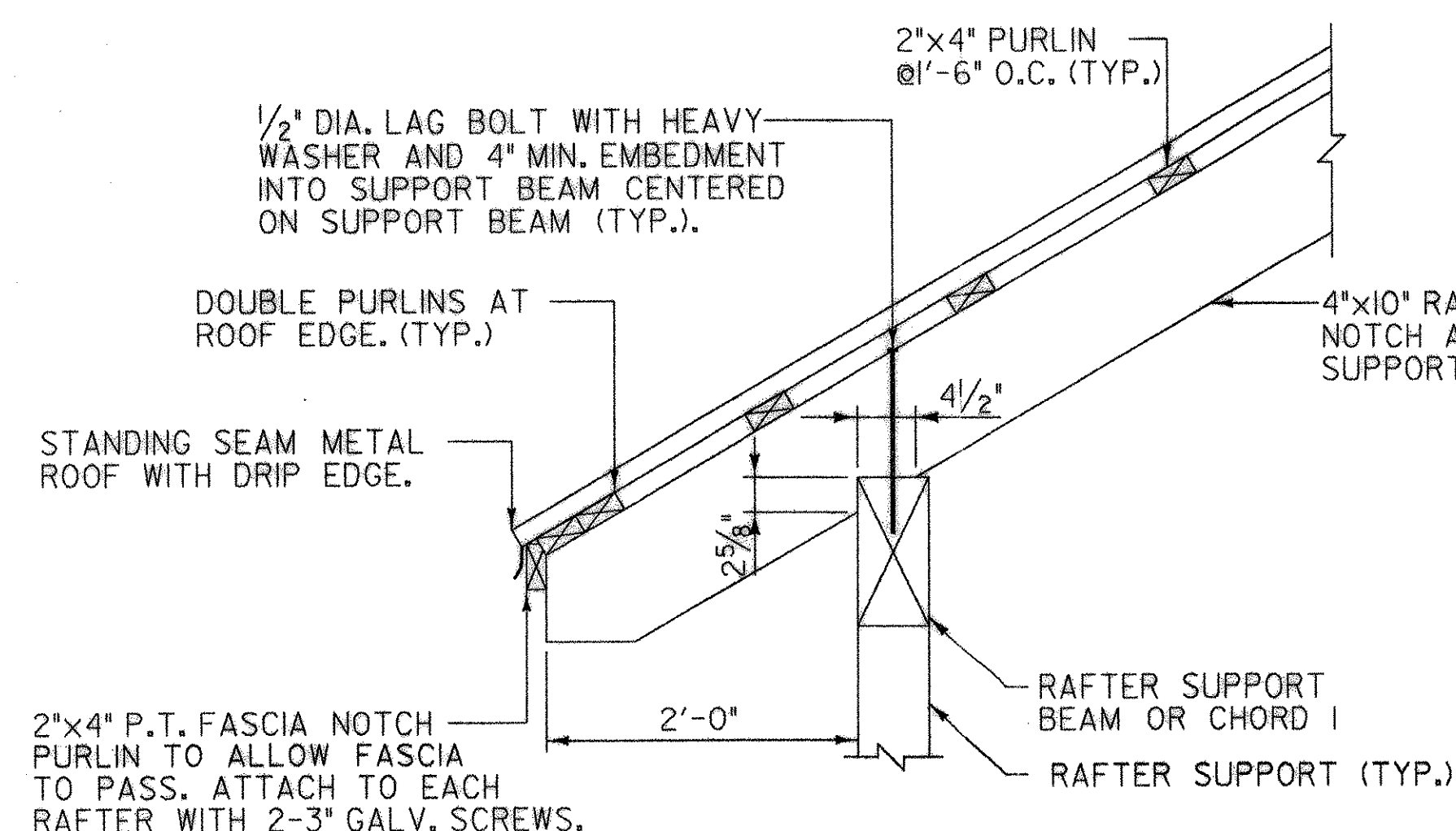


Town Of	BRIGHTON	Bridge No.	
Highway No.		Log Sta.	
		Surv. Sta.	
BRIGHTON PEDESTRIAN BRIDGE			
SUBSTRUCTURE DETAILS (2 OF 2)			
Designed By	S.T. JAMES	Drawn By	W. DRUDING
Checked By	R.H. DURFEE	Date	MAY. 2002
PROJECT	BRIGHTON	PROJECT NO.	STP BIKE (14)S
I.G.C. Info.	Z9068CF2.dgn		
Bridge Sheet No.	6	Sheet	6 of 14



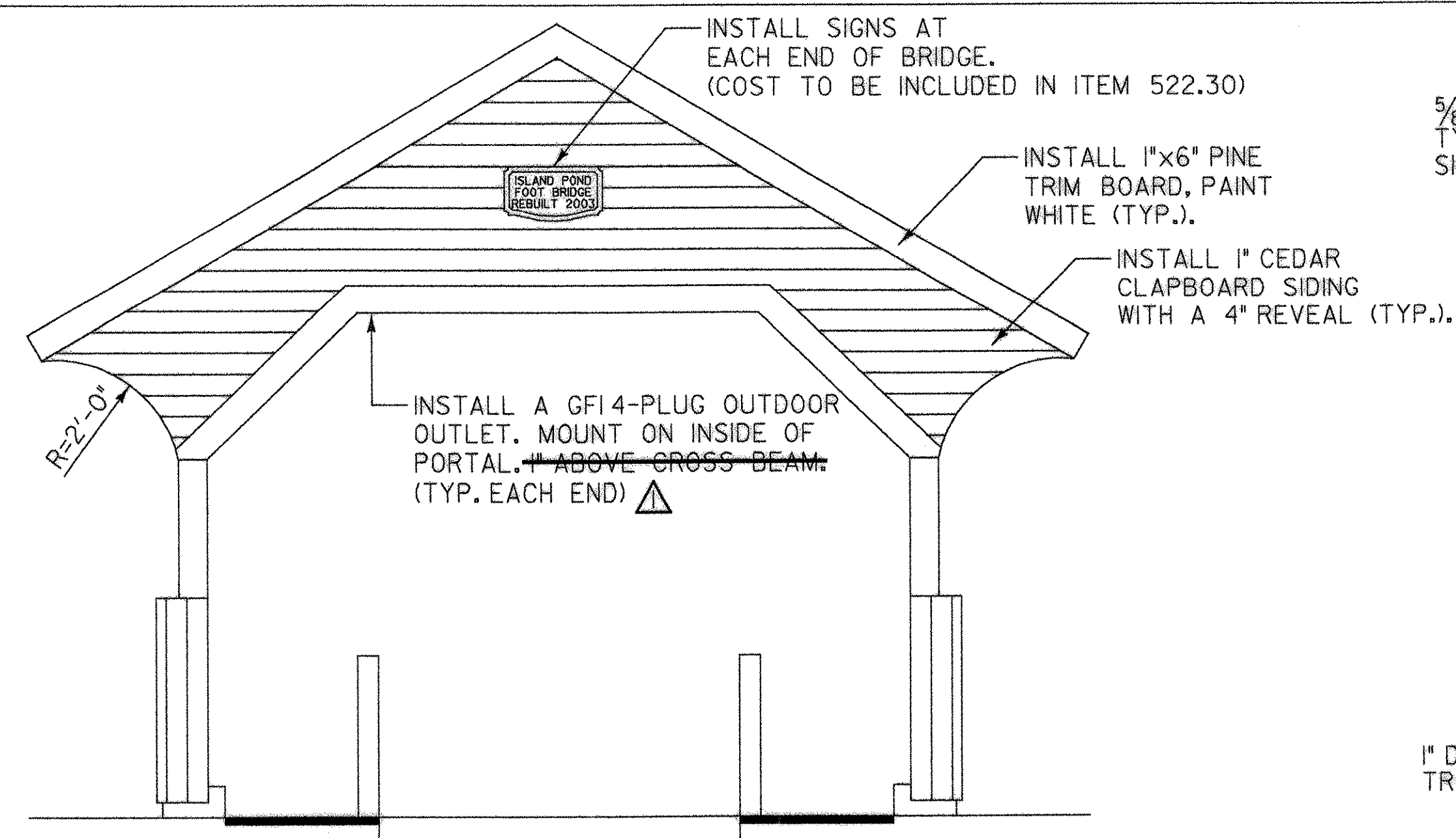
TYPICAL ELEVATED STAIR SECTION

(STA. 1+03.0 TO 1+54.1)
SCALE 1/2" = 1'-0"



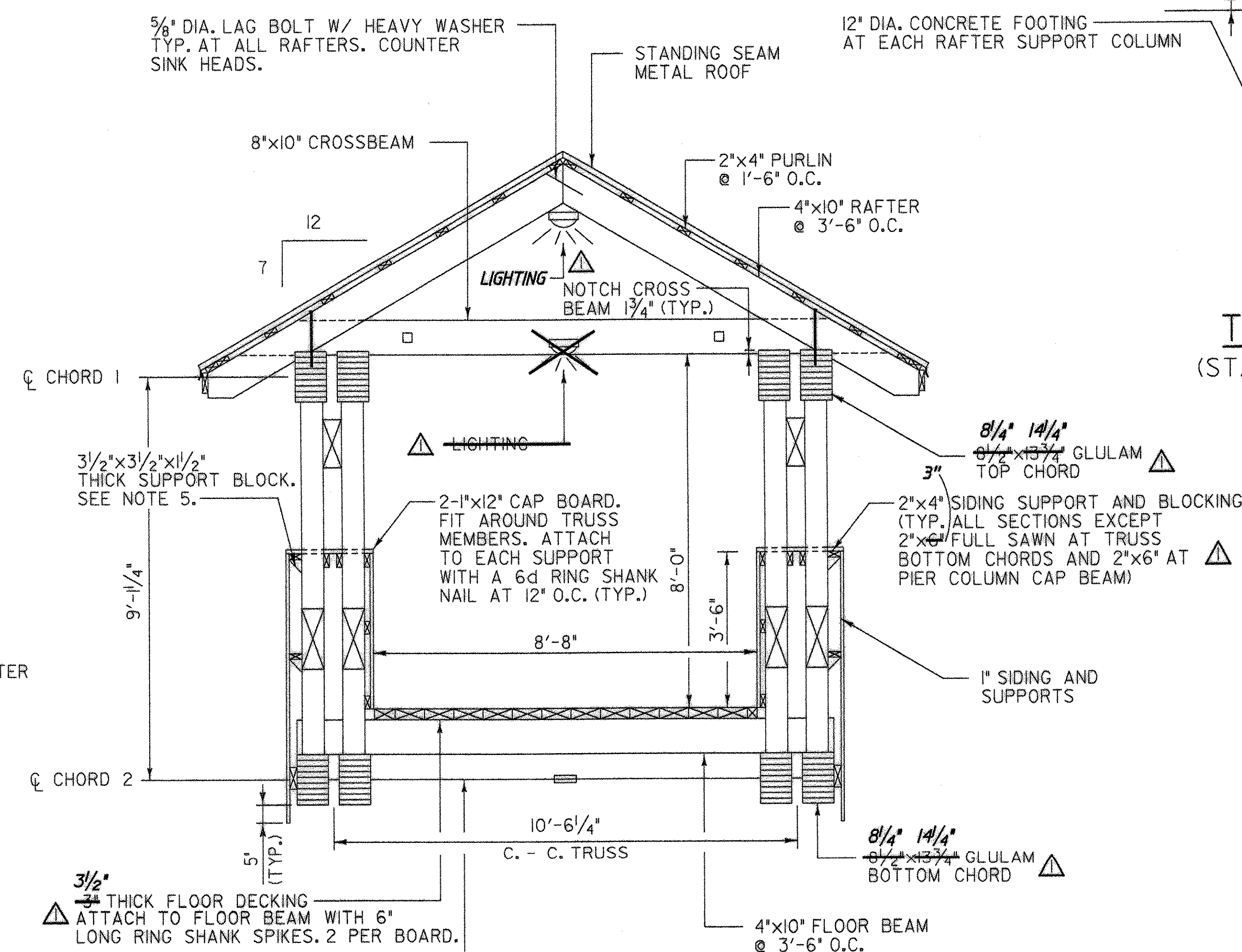
ROOF RAFTER DETAIL

SCALE: 1" = 1'-0"



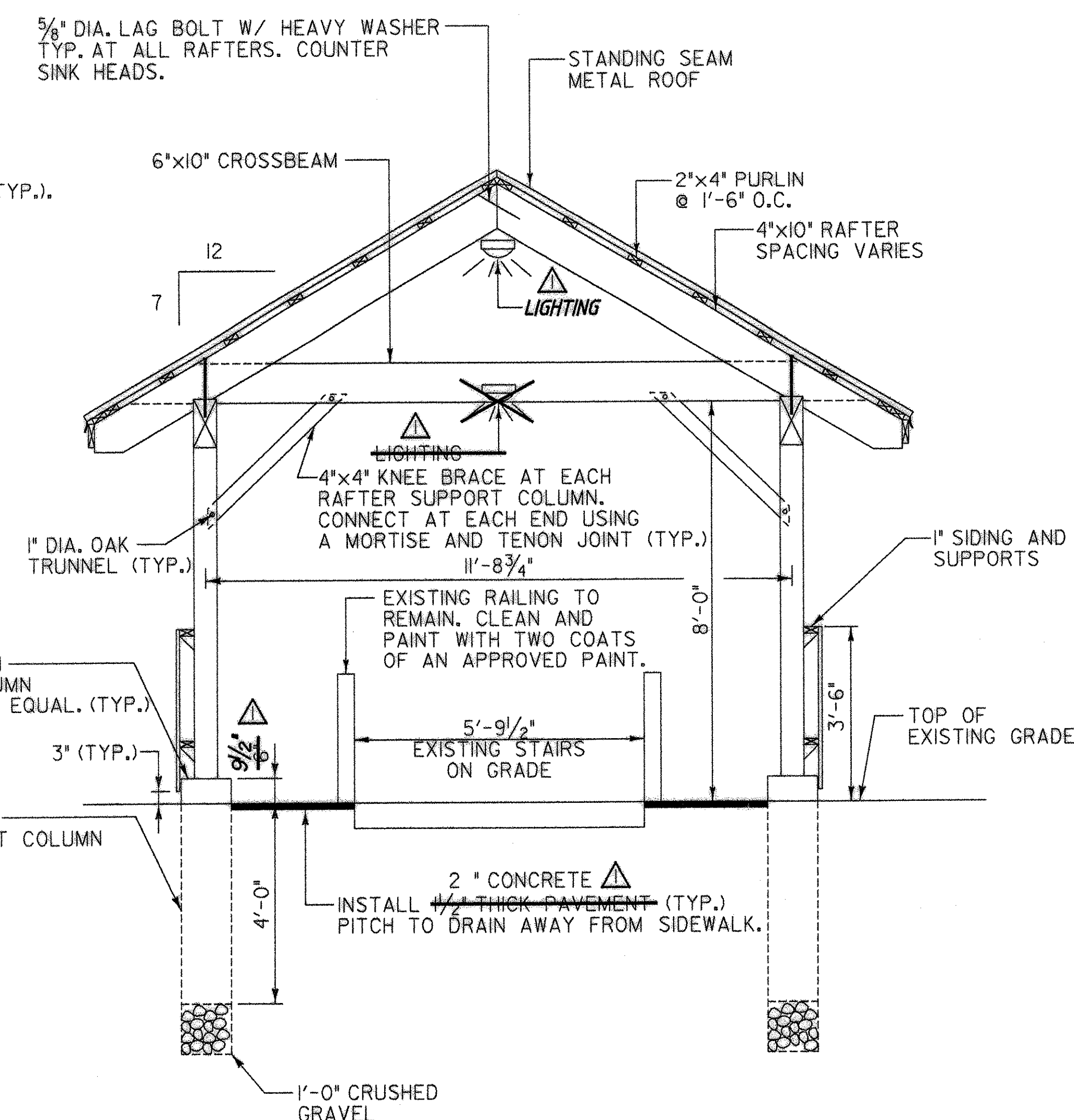
TYPICAL PORTAL SECTION

SCALE 1/2" = 1'-0"



TYPICAL BRIDGE SECTION

(STA. 1+54.1 TO 2+66.17)
SCALE 1/2" = 1'-0"



TYPICAL STAIR ON GRADE SECTION

(STA. 0+97.3 TO 1+03.0 - STA. 2+66.17 TO 3+27.4)
SCALE 1/2" = 1'-0"

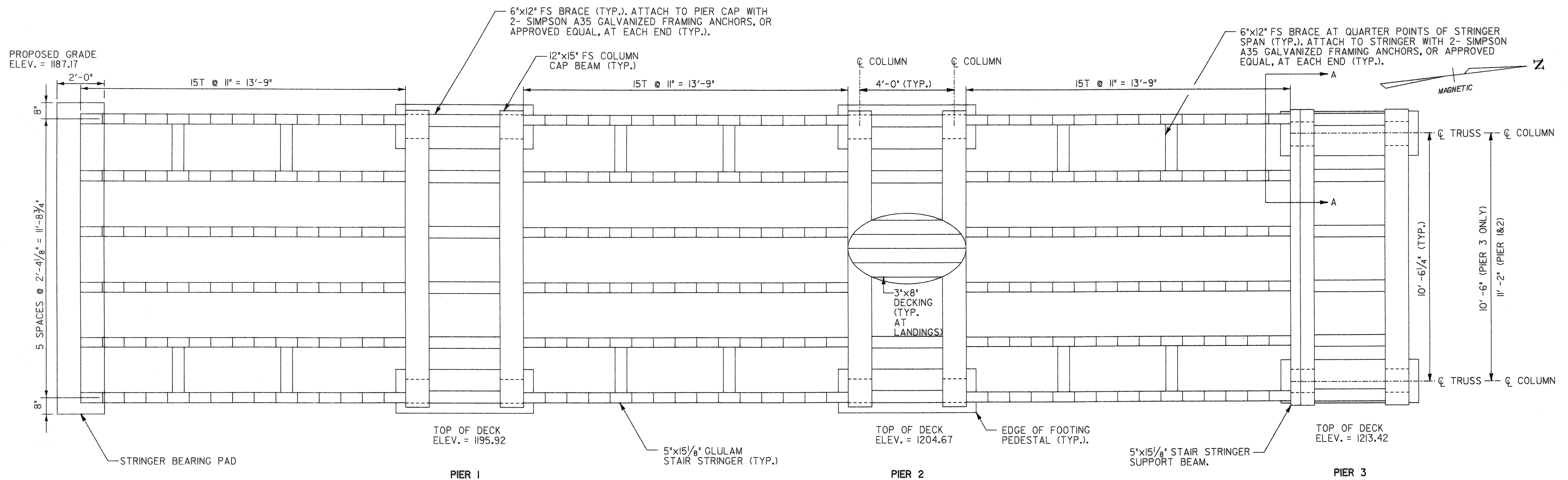
PLAN NOTES

- SEE SHEET 12 FOR FLOOR BEAM AND RAFTER LOCATIONS.
- ROOF SYSTEM SHOWN IS A TYPICAL BRIDGE SECTION USED IN ELEVATED STAIR AND STAIR ON GRADE SECTIONS.
- ATTACH SIDING SUPPORTS AND BLOCKS TO EACH TRUSS MEMBER OR RAFTER SUPPORT BEAM WITH 2-3/2" GALV. SCREWS.
- FLOOR DECKING SHALL EXTEND TO THE BACK FACE OF THE INTERIOR SIDING.
- INSTALL ONE 3/2"x3/2"x1/2" THICK SUPPORT BELOW EXTERIOR 2"x4" SIDING SUPPORTS AT EACH TRUSS MEMBER OR RAFTER SUPPORT COLUMN ATTACH TO 2"x4" AND TO EACH SUPPORT WITH 2-2 1/2" GALVANIZED SCREWS.

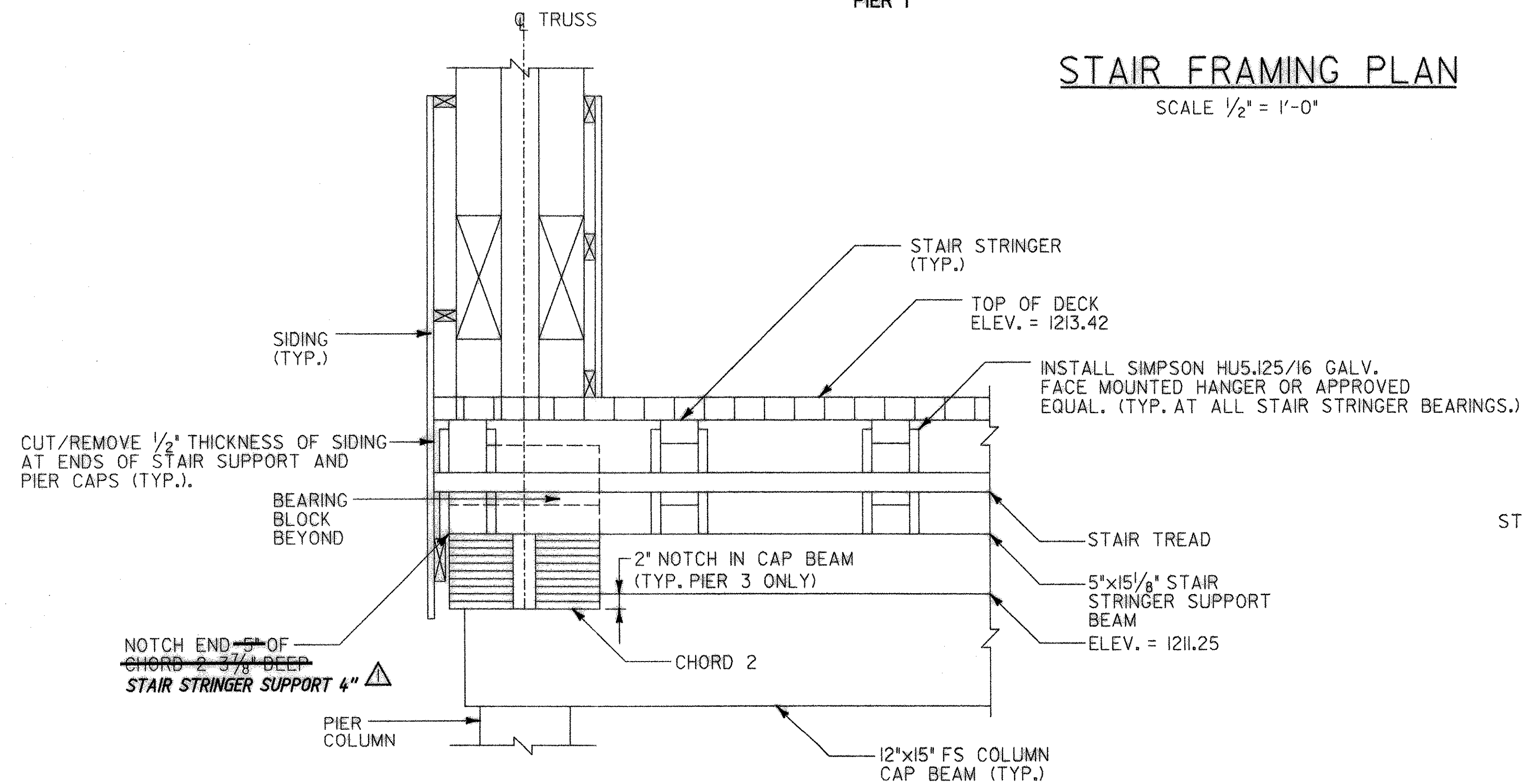
RECORD COPY REVISIONS OR BY JBM CHK BY STJ

Town Of	BRIGHTON	Bridge No.	
Highway No.		Log Sta.	
		Surv. Sta.	
BRIGHTON PEDESTRAIN BRIDGE			
TYPICAL BRIDGE SECTIONS			
Designed By	S.T. JAMES	Drawn By	J.D. GEER
Checked By	R.H. DURFEE	Date	MAY. 2002
PROJECT	BRIGHTON	PROJECT NO.	STP BIKE (14)S
I.G.C. Info.	Z9068DET.dgn		
Bridge Sheet No.	7	Sheet 7	of 14

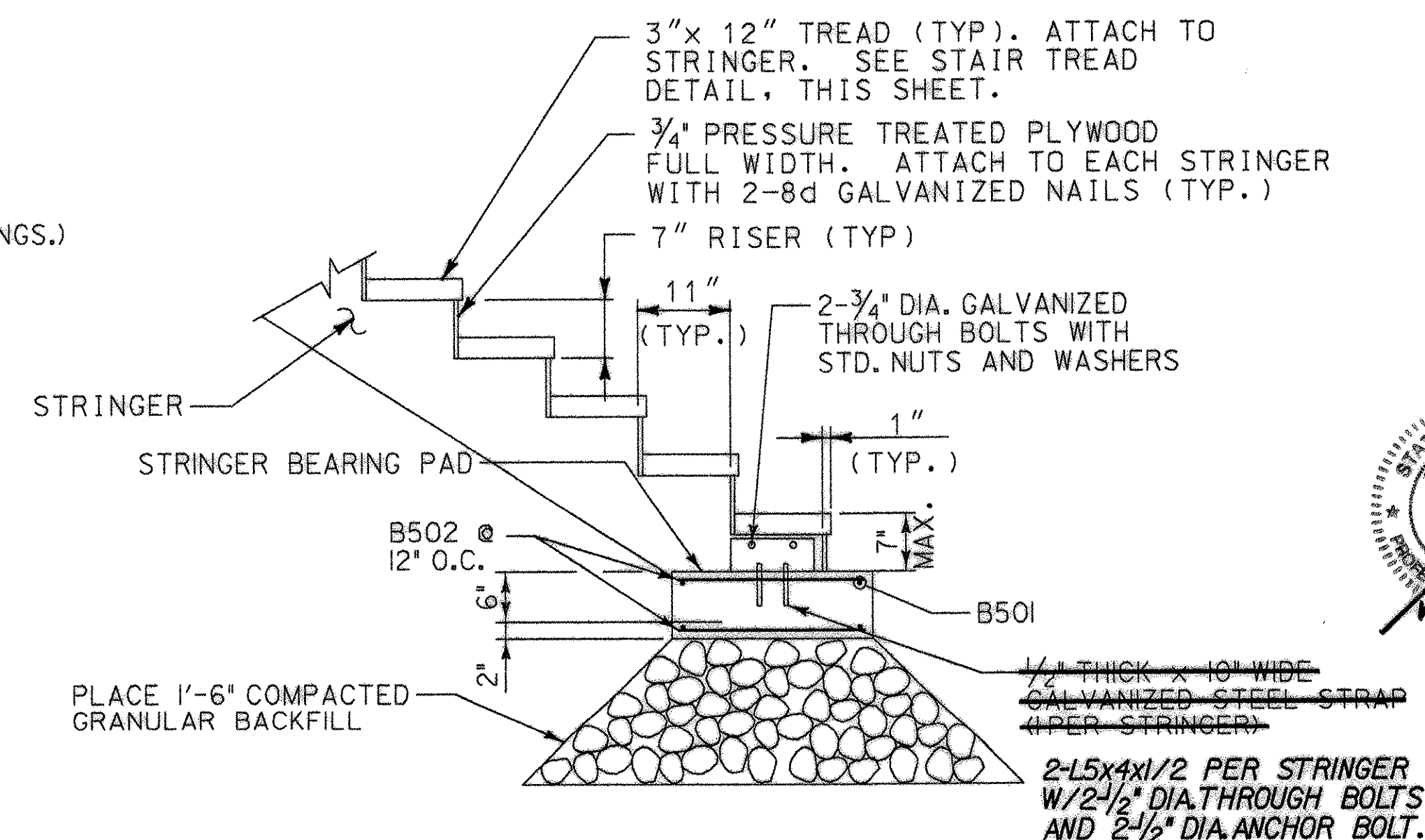
HTA
150 Dow Street - Manchester, NH 03101-1227
Tel 603-669-5555 Fax 603-669-468
184 South Winooski Ave. - Burlington, VT 05401
Tel 802-460-1531 Fax 802-460-5459
Web Page: www.hta-engineers.com E-Mail: hta@hta-nh.com



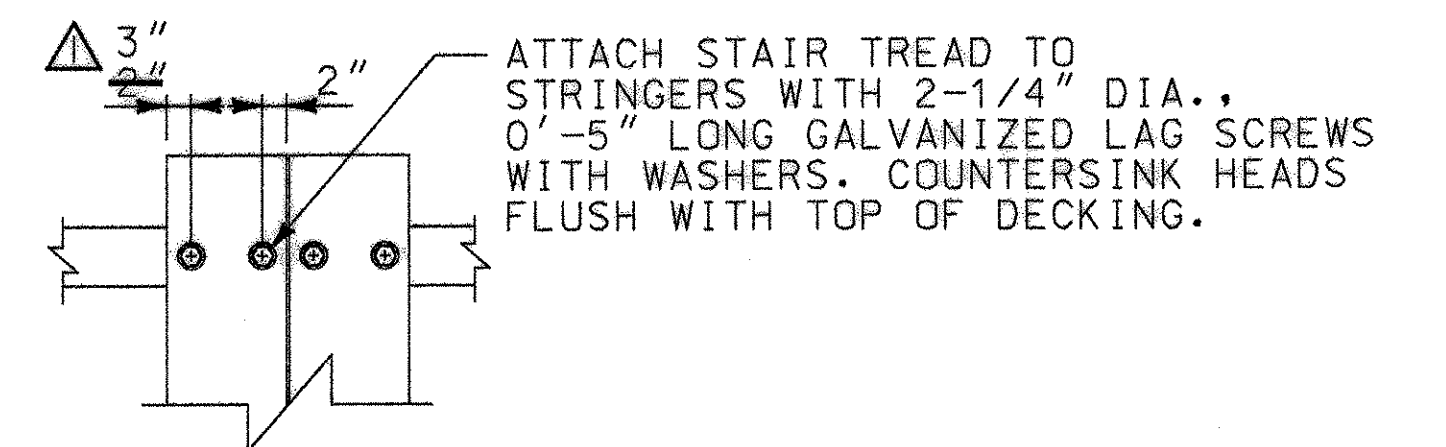
STAIR FRAMING PLAN
SCALE 1/2" = 1'-0"



SECTION A-A
SCALE 1" = 1'-0"

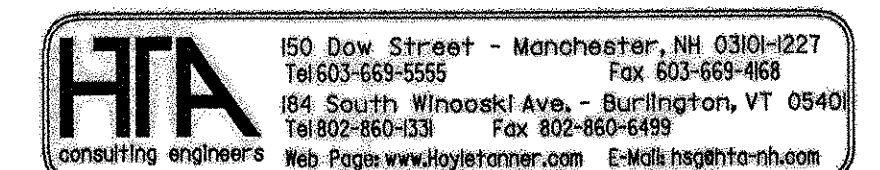
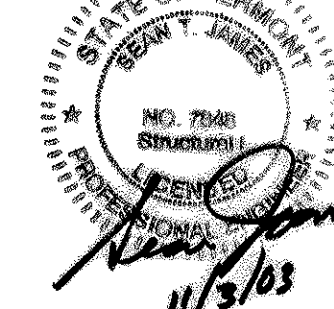


TYPICAL STRINGER ELEVATION
SCALE 3/4" = 1'-0"



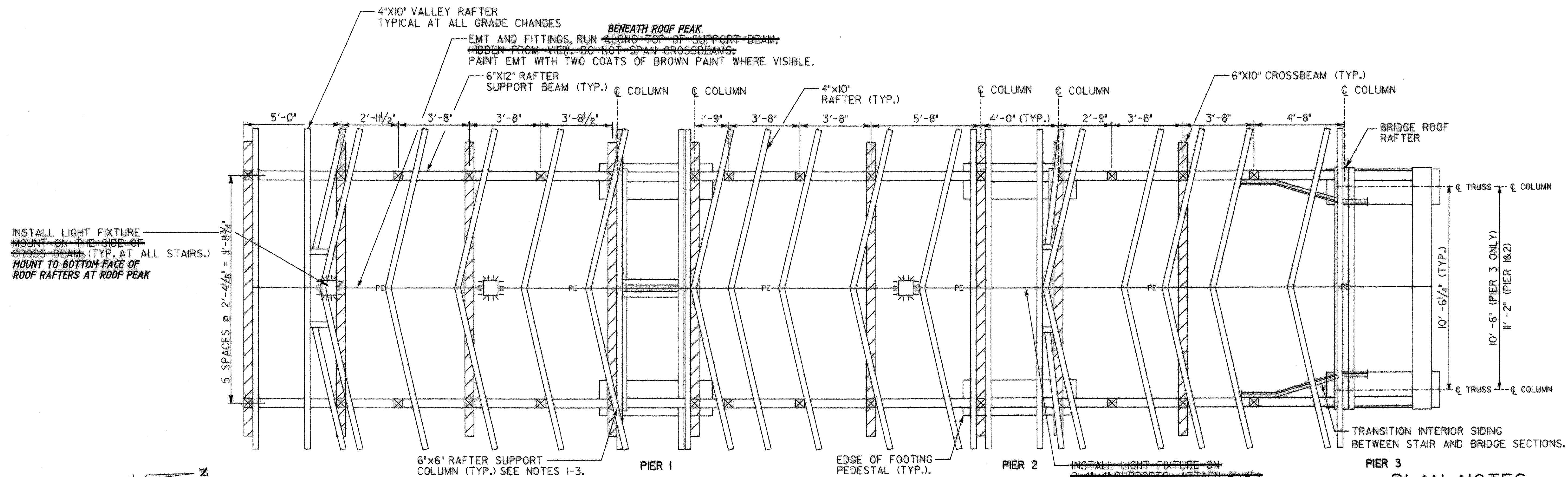
PLAN NOTES

- SEE SHEET 10 FOR PIER DETAILS.
- THE CONTRACTOR SHALL SUBMIT CUT SHEETS FOR ALL CONNECTION HARDWARE TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING.



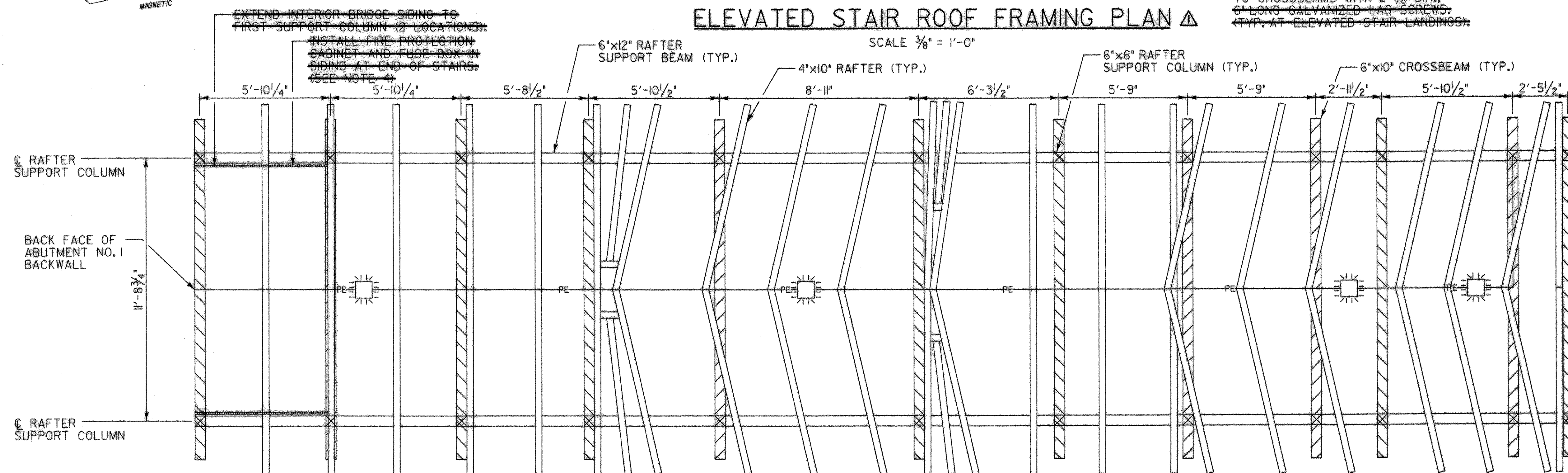
RECORD COPY REVISIONS

Town Of	BRIGHTON	Bridge No.	
Highway No.		Log Sta.	
		Surv. Sta.	
BRIGHTON PEDESTRIAN BRIDGE			
STAIR PLAN & DETAILS			
Designed By	S.T. JAMES	Drawn By	W. DRUDING
Checked By	R.H. DURFEE	Date	MAY 2002
PROJECT	BRIGHTON	PROJECT NO.	STP BIKE (14)S
I.G.C. Info.	Z9068PR2.dgn		
Bridge Sheet No.	8	Sheet	8 of 14



ELEVATED STAIR ROOF FRAMING PLAN Δ

SCALE 3/8" = 1'-0"



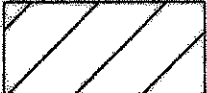
STAIR ON GRADE ROOF FRAMING PLAN Δ

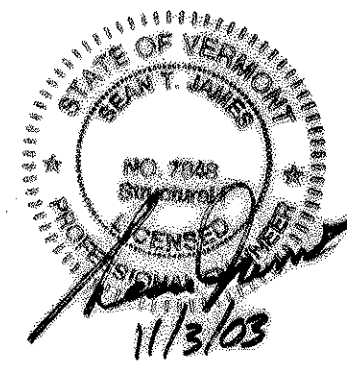
SCALE 3/8" = 1'-0"

PLAN NOTES

1. ATTACH RAFTER SUPPORT COLUMN BASE TO STAIR STRINGER WITH SIMPSON GALVANIZED COLUMN CAP MODEL NO. CC66 OR APPROVED EQUAL. SHIM WITH HARDWOOD BLOCKS AS REQUIRED.
2. ATTACH RAFTER SUPPORT COLUMN BASE TO CONCRETE FOOTING WITH A GALVANIZED SIMPSON COLUMN BASE MODEL CB6-7 OR APPROVED EQUAL.
3. ATTACH RAFTER SUPPORT COLUMN TO RAFTER SUPPORT BEAM IN ALL LOCATIONS WITH SIMPSON GALVANIZED POST CAP MODEL PC66 OR APPROVED EQUAL AT LANDINGS AND WITH A 4" MORTISE AND TENON JOINT AT ALL POSTS ON STAIR INCLINES.
4. THE CONTRACTOR SHALL CONSTRUCT AN INSULATED LOCKABLE CABINET TO HOUSE THE FIRE PROTECTION CONTROL BOX AND FUSE BOX. THE CABINET DOOR SHALL BE CONSTRUCTED FROM SIDING WITH CONCEALED HINGES AND SHALL BLEND INTO THE INTERIOR SIDING. BE LOCATED AT THE WEST FACE OF PIER NO. 3.

LEGEND

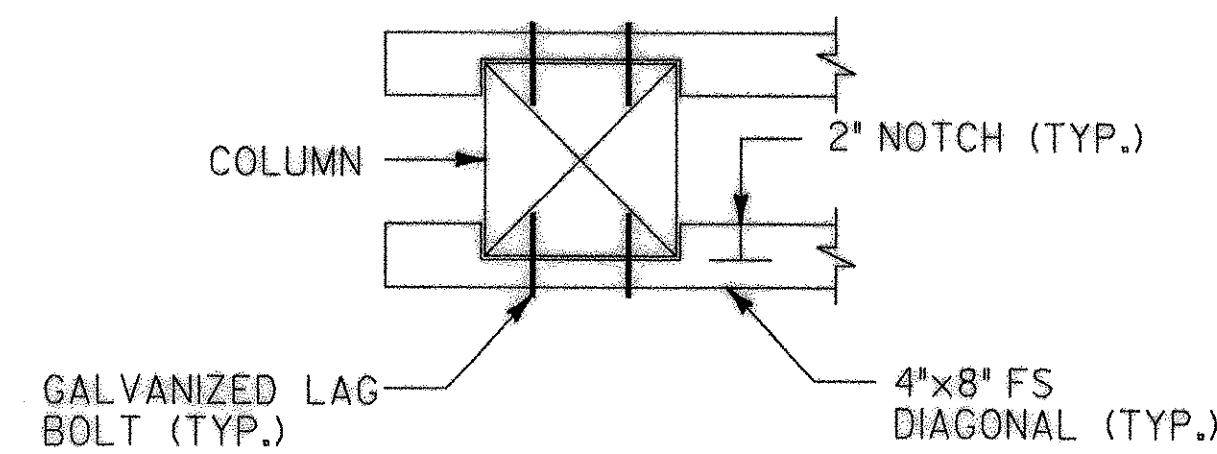
—PE— ELECTRICAL
 CROSSBEAM



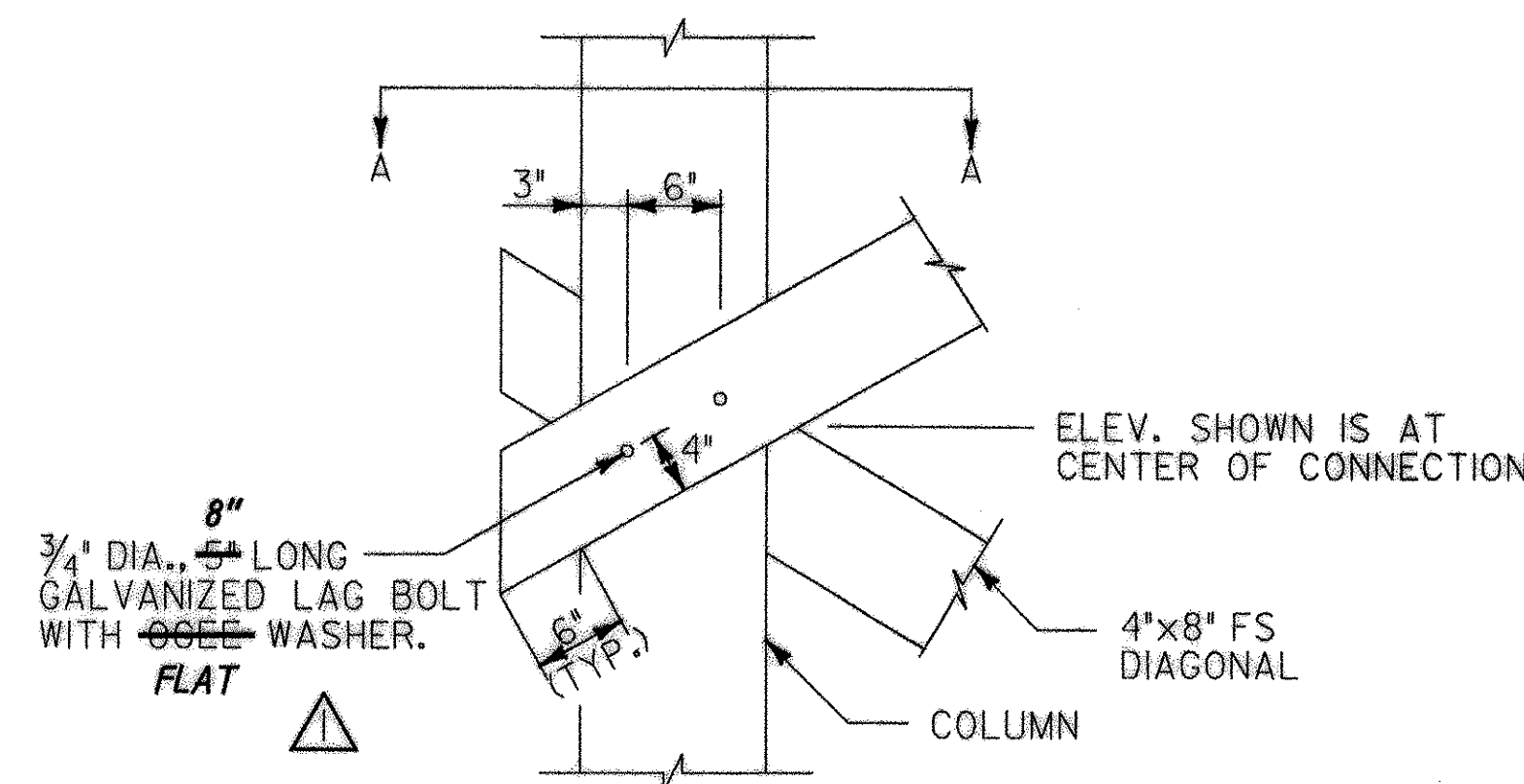
RECORD COPY REVISIONS

Town Of	BRIGHTON	Bridge No.	
Highway No.		Log Sta.	
		Surv. Sta.	
BRIGHTON PEDESTRIAN BRIDGE			
APPROACH STAIR ROOF FRAMING			
Designed By	S.T. JAMES	Drawn By	W. DRUDING
Checked By	R.H. DURFEE	Date	MAY 2002
PROJECT	BRIGHTON	PROJECT NO.	STP BIKE (14)S
I.G.C. Info.	Z9068SRF.dgn		
Bridge Sheet No.	9	Sheet	9 of 14

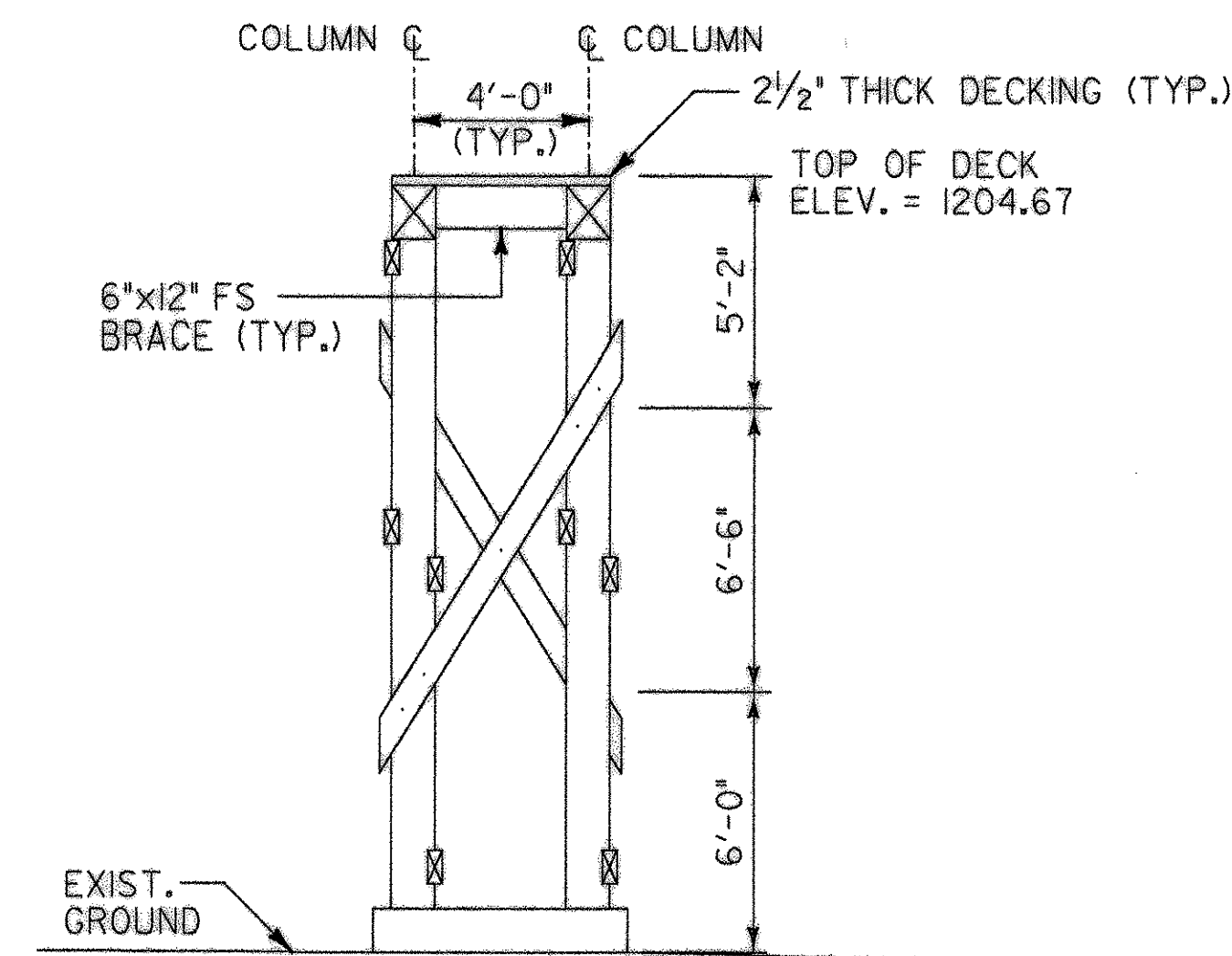




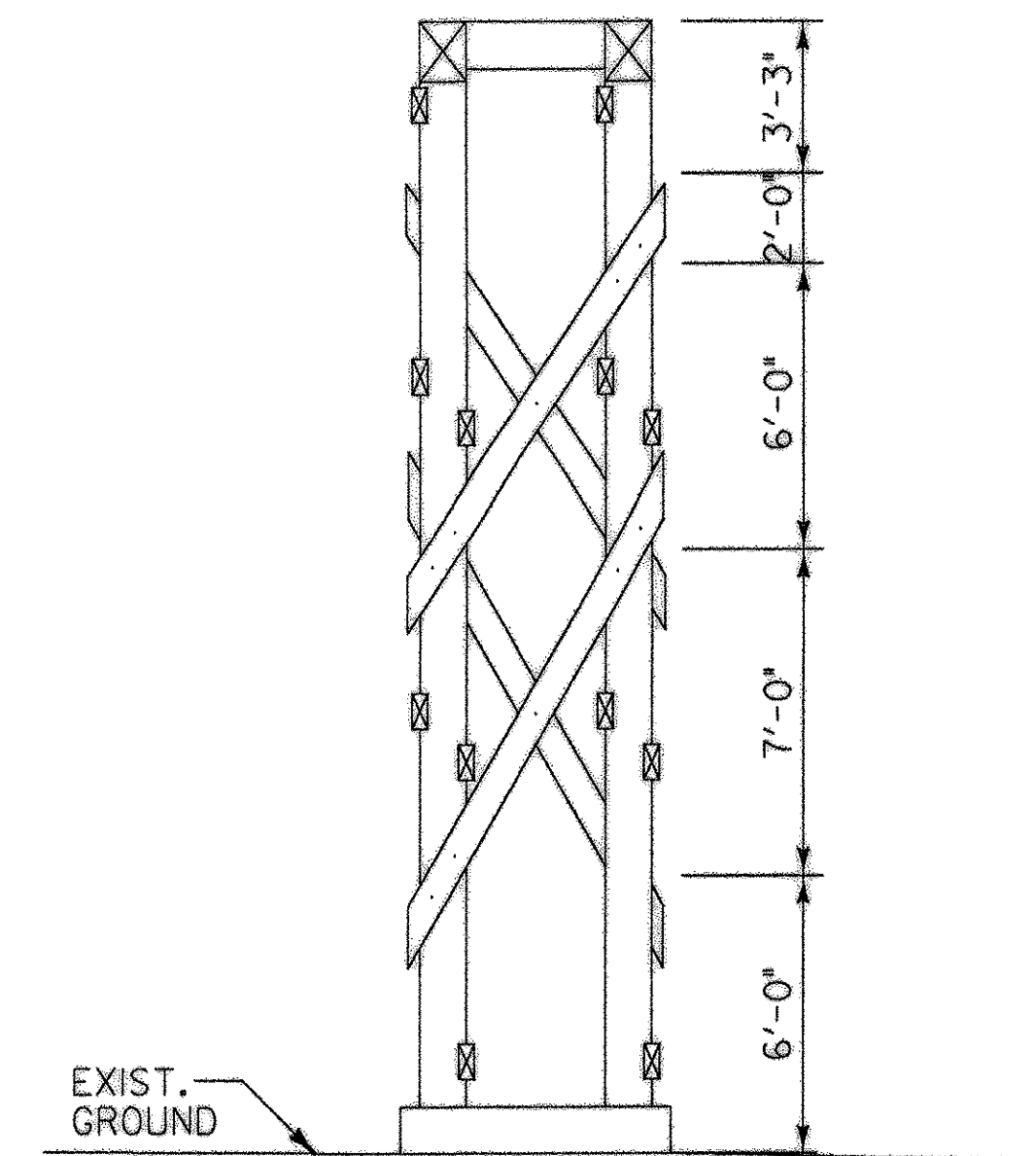
SECTION A-A
SCALE 1" = 1'-0"



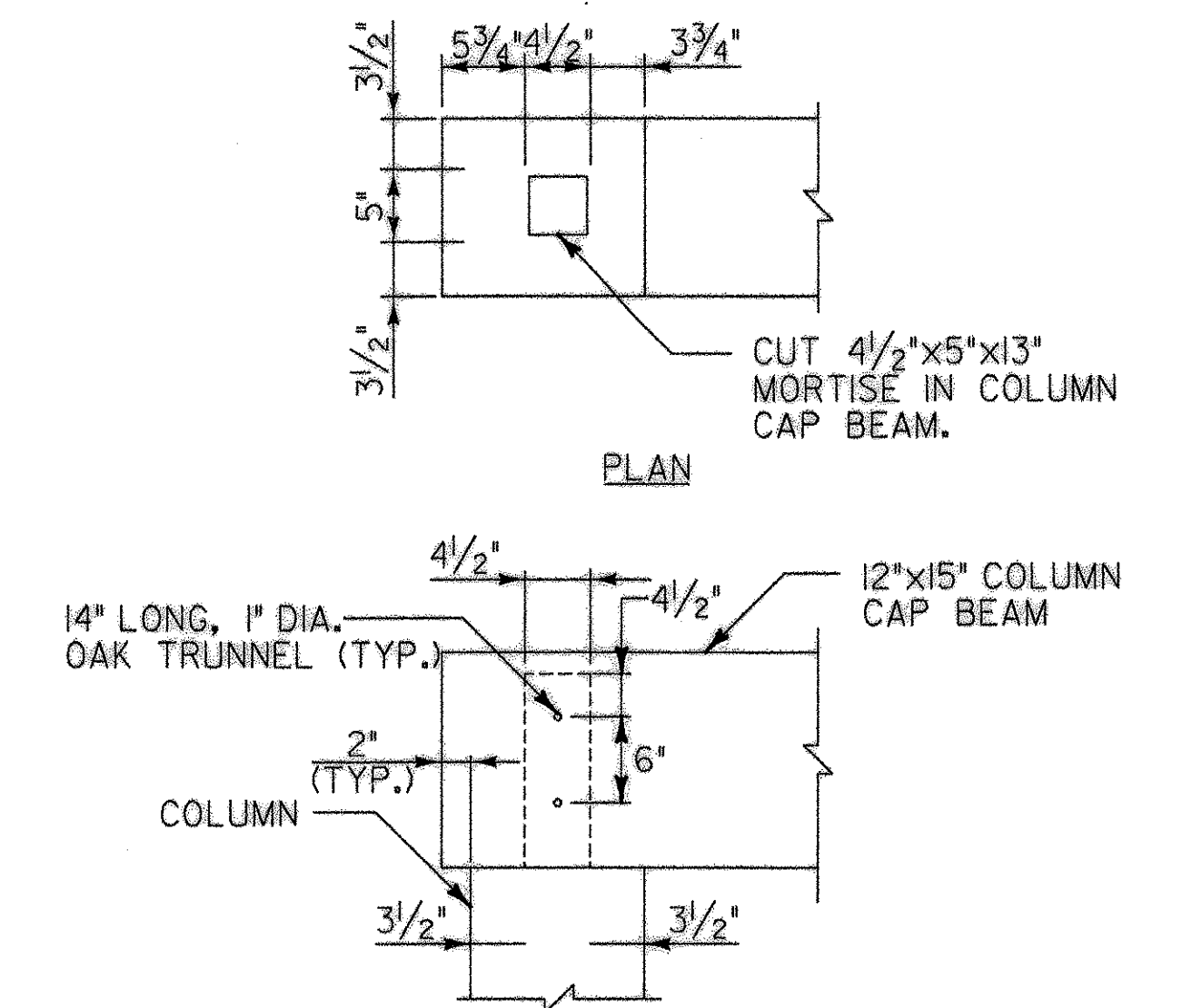
DETAIL "A"
SCALE 1" = 1'-0"



PIER 2 EAST ELEVATION
SCALE 1/4" = 1'-0"



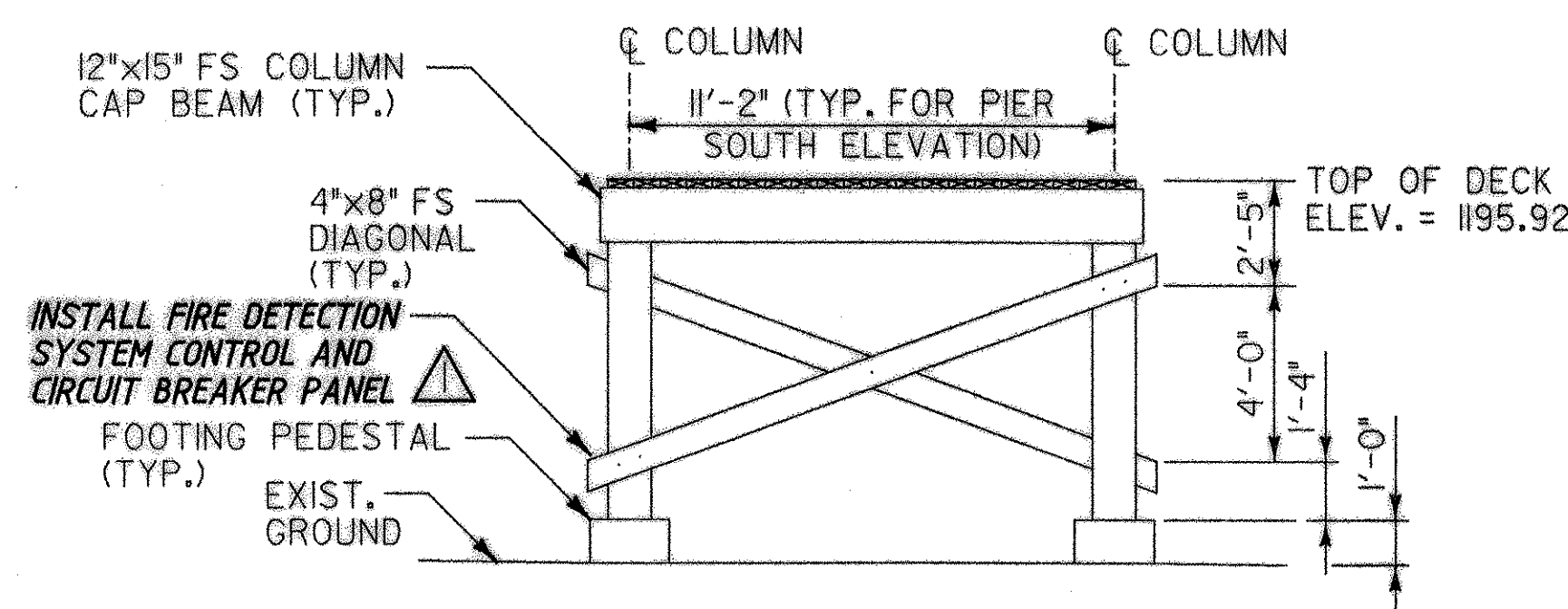
PIER 3 EAST ELEVATION
SCALE 1/4" = 1'-0"



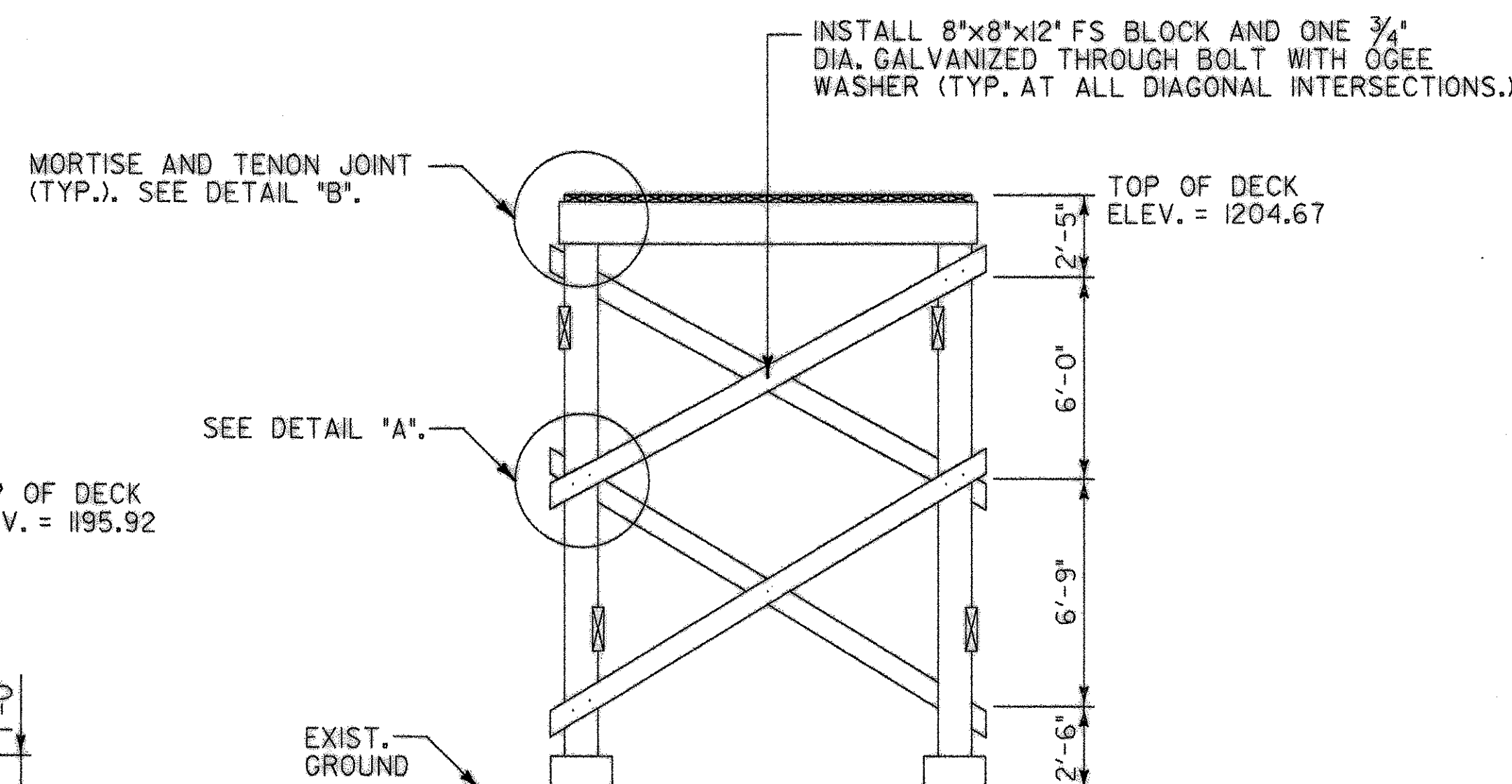
DETAIL "B"
SCALE 1" = 1'-0"

PLAN NOTES:

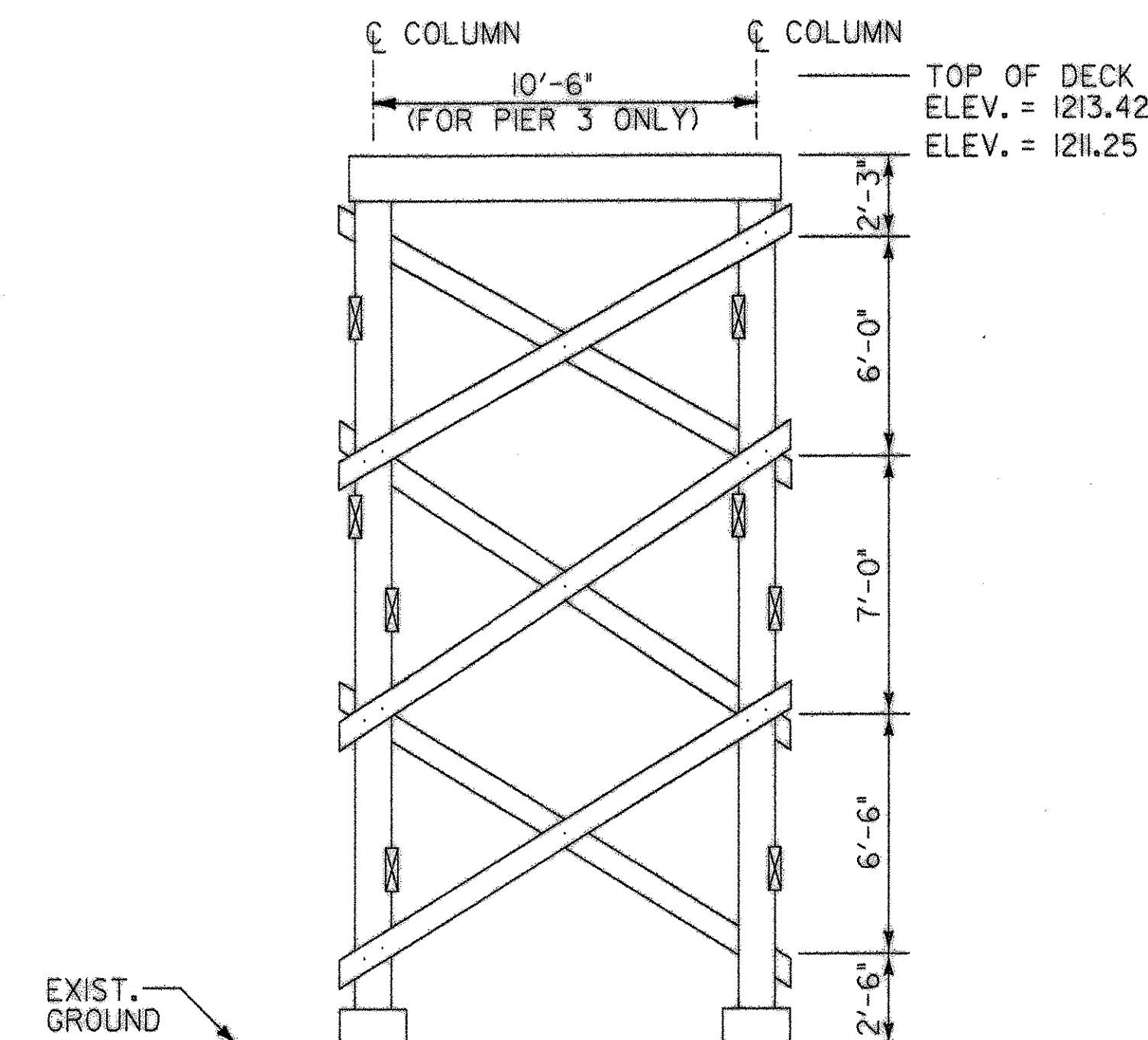
1. EAST AND SOUTH ELEVATIONS SHOWN. WEST AND NORTH SIMILAR.
2. DIAGONAL BRACING IS NOT REQUIRED ON THE EAST AND WEST ELEVATION OF PIER ONE.
3. SEE SHEET 13 FOR COLUMN TO FOOTING PEDESTAL CONNECTION.
4. ALL PIER COLUMN, BRACING AND CAP BEAMS SHALL BE PRESSURE TREATED.



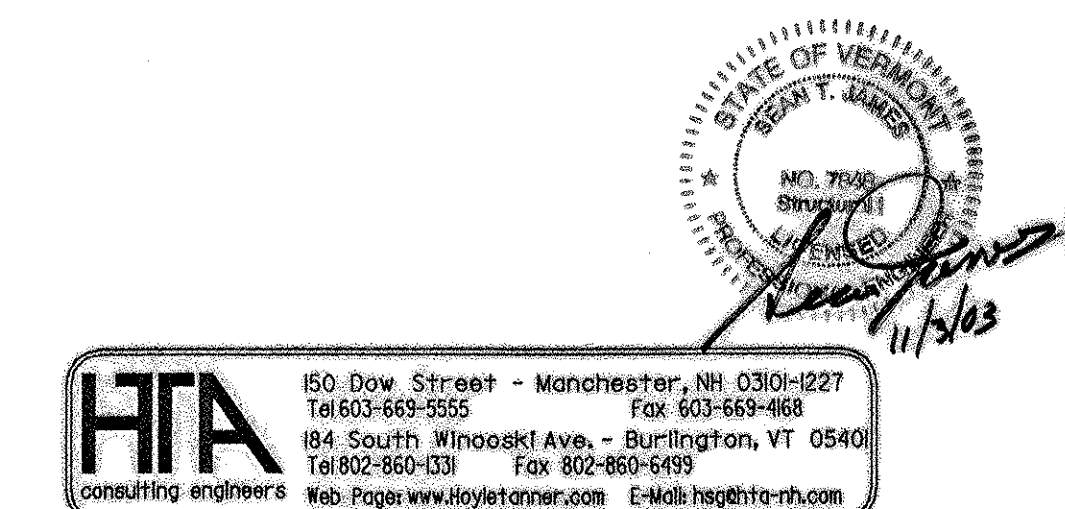
PIER 1 SOUTH ELEVATION
SCALE 1/4" = 1'-0"



PIER 2 SOUTH ELEVATION
SCALE 1/4" = 1'-0"

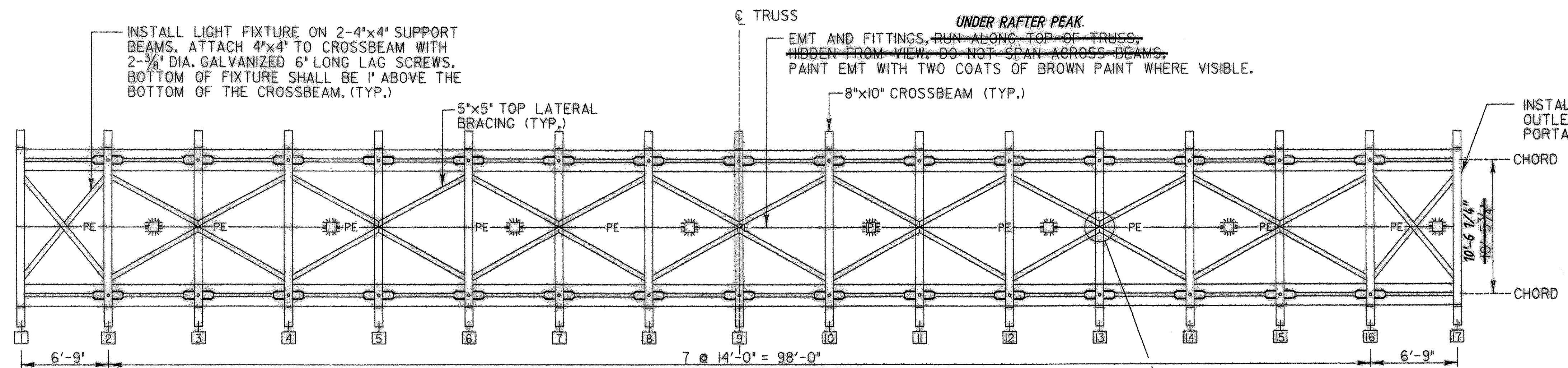


PIER 3 SOUTH ELEVATION
SCALE 1/4" = 1'-0"



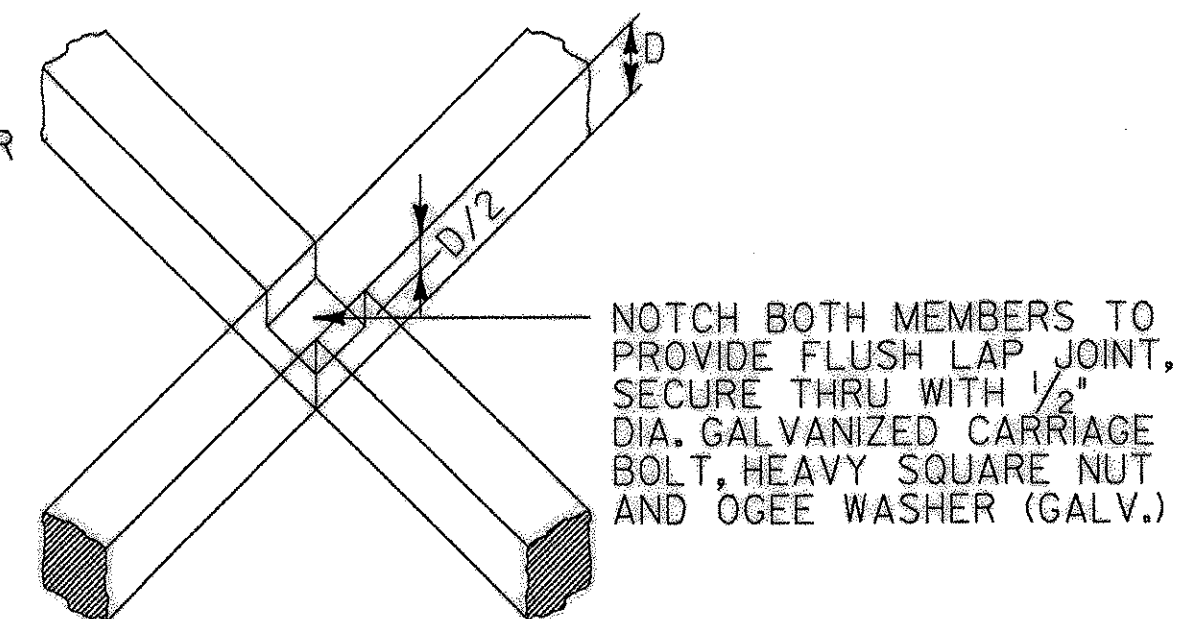
RECORD COPY REVISIONS DR BY JBM CHK BY STJ

Town Of	BRIGHTON	Bridge No.	
Highway No.		Log Sta.	
		Surv. Sta.	
BRIGHTON PEDESTRIAN BRIDGE			
PIER ELEVATION & DETAILS			
Designed By	S.T. JAMES	Drawn By	W. DRUDING
Checked By	R.H. DURFEE	Date	MAY 2002
PROJECT	BRIGHTON	PROJECT NO.	STP BIKE (14)S
I.G.C. Info.	Z9068PRI.dgn		
Bridge Sheet No.	10	Sheet	10 of 14



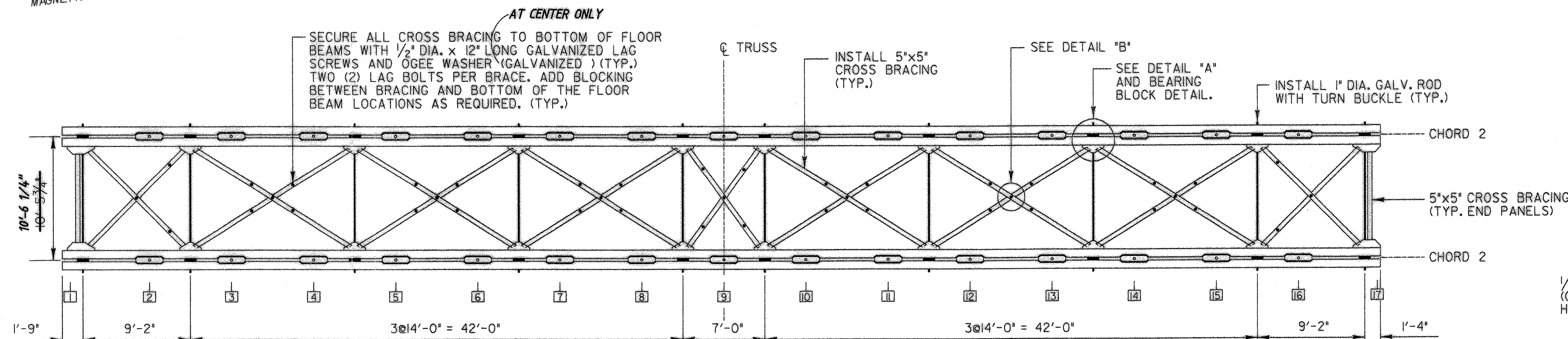
TOP CHORD LATERAL BRACING PLAN

SCALE 3/16" = 1'-0"



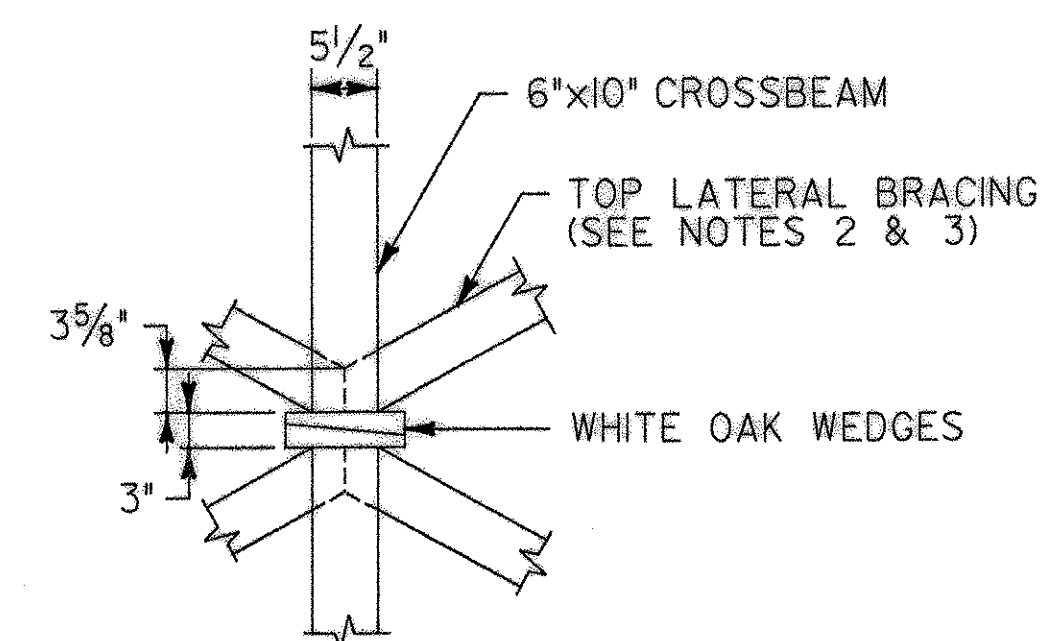
DETAIL "B"

SCALE 3/4" = 1'-0"



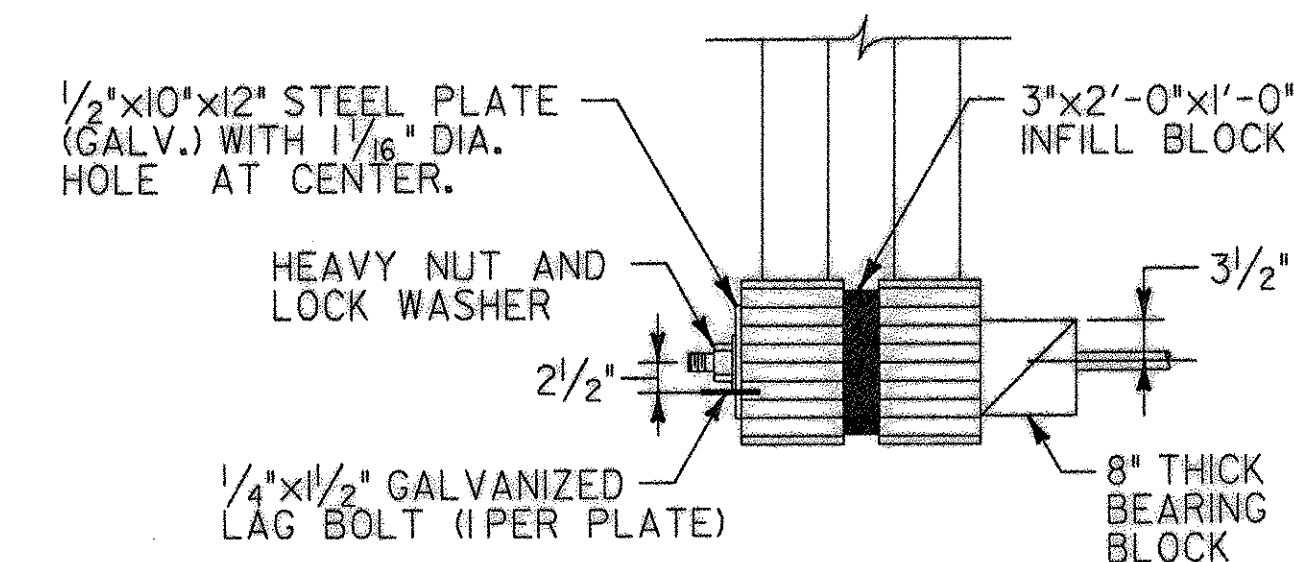
BOTTOM CHORD LATERAL BRACING PLAN

SCALE 3/16" = 1'-0"



DETAIL "C"

SCALE 3/4" = 1'-0"



SECTION B-B

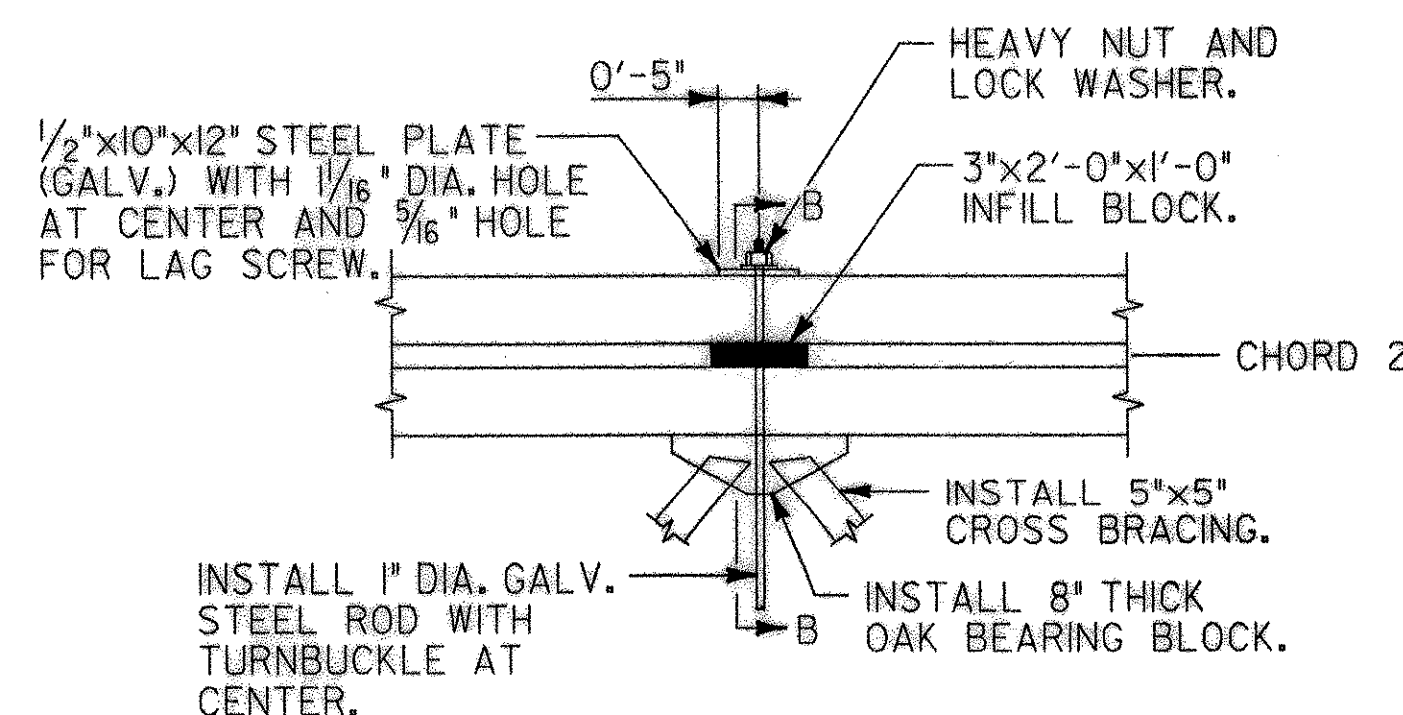
SCALE 3/4" = 1'-0"

LEGEND

- 17 NODE LOCATION (C. OF VERTICAL INTERSECTIONS WITH CHORD 2)
- PE- ELECTRICAL

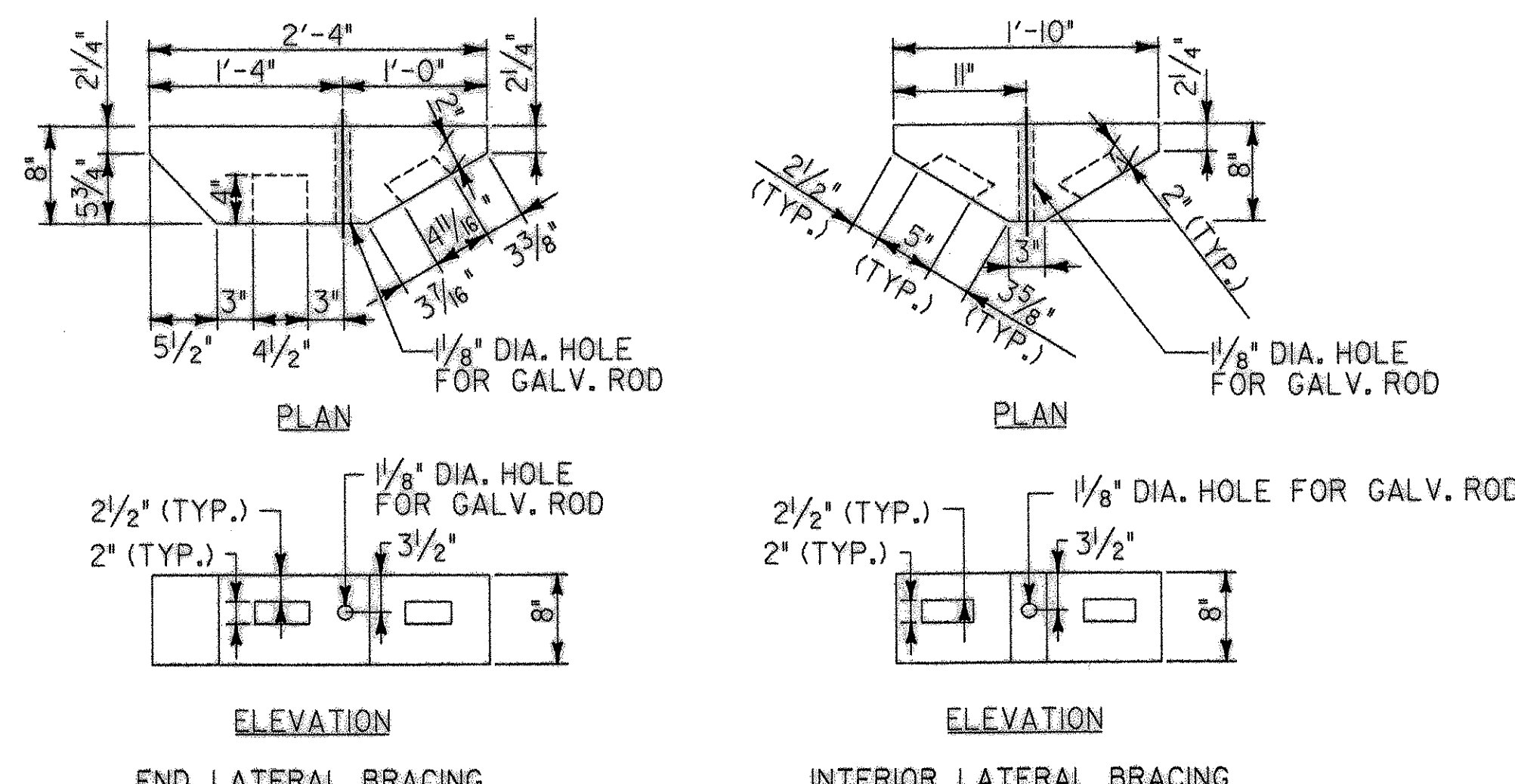
PLAN NOTES

- ALL WORK SHOWN ON THIS DRAWING, WITH THE EXCEPTION OF LIGHTING, STEEL RODS, LAG SCREWS AND PLATES WILL BE PAID FOR UNDER ITEM 522.
- THE TOP LATERAL BRACING TENONS SHALL BE 3" IN DEPTH AND CENTERED VERTICALLY ON THE CROSSBEAM.
- THE TOP LATERAL BRACING JOINT NEAR THE TRUSS CHORDS ARE SIMILAR TO DETAIL "C".



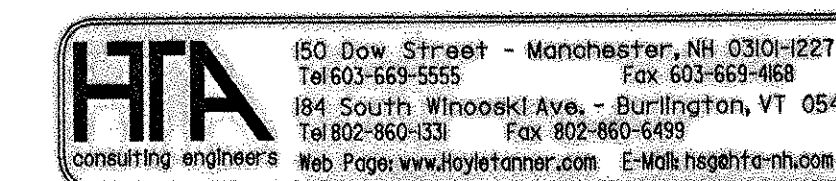
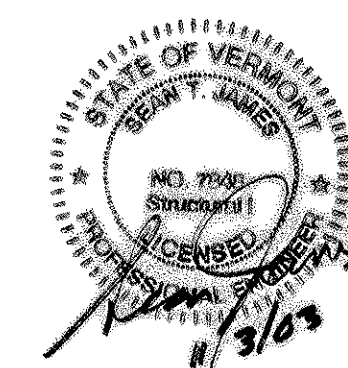
DETAIL "A"

SCALE 1/2" = 1'-0"

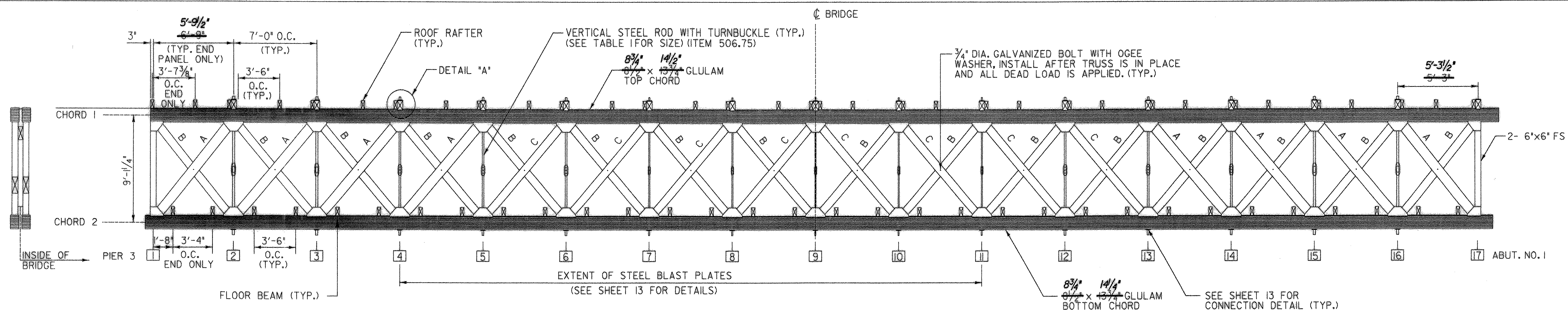


BEARING BLOCK DETAIL

SCALE: 1" = 1'-0"



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		JBM	STJ
Town Of	BRIGHTON	Bridge No.	
Highway No.		Log Sta.	
		Surv. Sta.	
BRIGHTON PEDESTRIAN BRIDGE			
LATERAL BRACING & LIGHTING			
Designed By	S.T. JAMES	Drawn By	W. DRUDING
Checked By	R.H. DURFEE	Bridge Design Supervisor	
Date	MAY 2002	Date	
PROJECT	BRIGHTON	PROJECT NO.	STP BIKE (14)S
I.G.C. Info.	Z9068LTR.dgn		
Bridge Sheet No.	II	Sheet II	of 14



TYPICAL TRUSS ELEVATION (WEST TRUSS LOOKING WEST SHOWN) Δ

SCALE 1/4" = 1'-0"

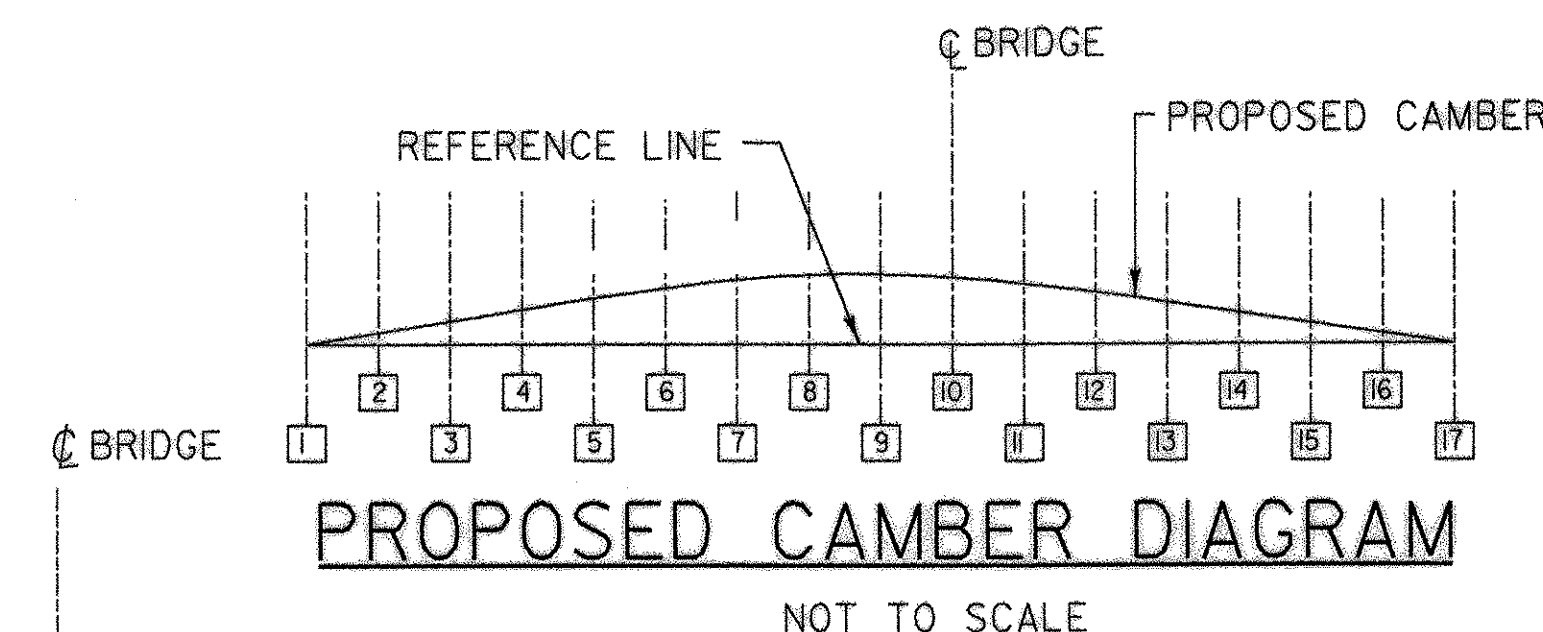
TABLE 1- VERTICAL ROD SIZES

NODES	O.D. (INCH)
2, 3, 15, 16	2 1/4"
4, 5, 6, 12, 13, 14	1 3/4"
7, 8, 9, 10, 11	1"

TABLE 2 - WEB MEMBER SIZES

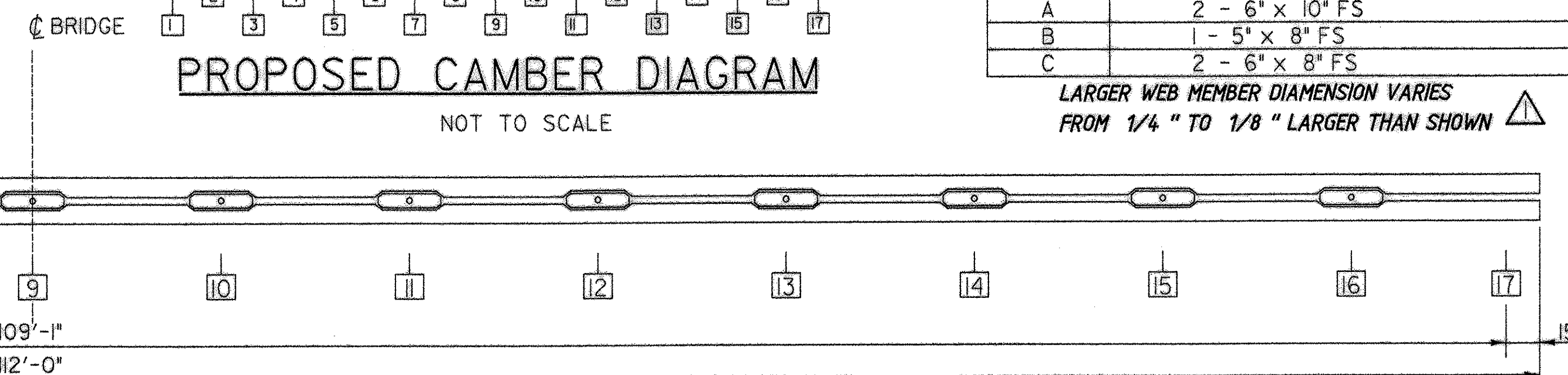
KEY	SIZE
A	2 - 6" x 10" FS
B	1 - 5" x 8" FS
C	2 - 6" x 8" FS

LARGER WEB MEMBER DIMENSION VARIES FROM 1/4" TO 1/8" LARGER THAN SHOWN Δ



PROPOSED CAMBER DIAGRAM

NOT TO SCALE



CHORD 1 & 2 PLAN Δ

SCALE 1/4" = 1'-0"

PLAN NOTES:

- ALL WORK SHOWN ON THIS DRAWING OTHER THAN THE STEEL RODS SHALL BE PAID FOR UNDER ITEM 522 UNLESS OTHERWISE NOTED. SEE SHEET 13 FOR DETAILS THAT APPLY TO THIS SHEET.
- WEST TRUSS SHOWN, EAST TRUSS IS SIMILAR, BUT MIRRORED.
- CHORD DIMENSIONS ARE BASED ON 0" CAMBER IN THE TRUSS. CONTRACTOR SHALL INCREASE THE LENGTH OF THE CHORD AND WEB MEMBERS AS REQUIRED TO MEET THE OVERALL DIMENSIONS SHOWN ABOVE.
- ALL TRUSS MEMBERS TO BE SOUTHERN PINE NO. 1 GRADE EXCEPT CHORDS 1 AND 2.
- ALL LAG BOLTS AND THROUGH BOLTS USED IN THE CONSTRUCTION OF THE TRUSS SHALL BE GALVANIZED.
- HOLES IN SHEAR BLOCKS FOR VERTICAL RODS SHALL BE 1/2" IN DIA. LARGER THAN THE ROD. HOLES IN STEEL PLATES FOR VERTICAL RODS SHALL BE 1/16" IN DIA. LARGER THAN THE ROD.

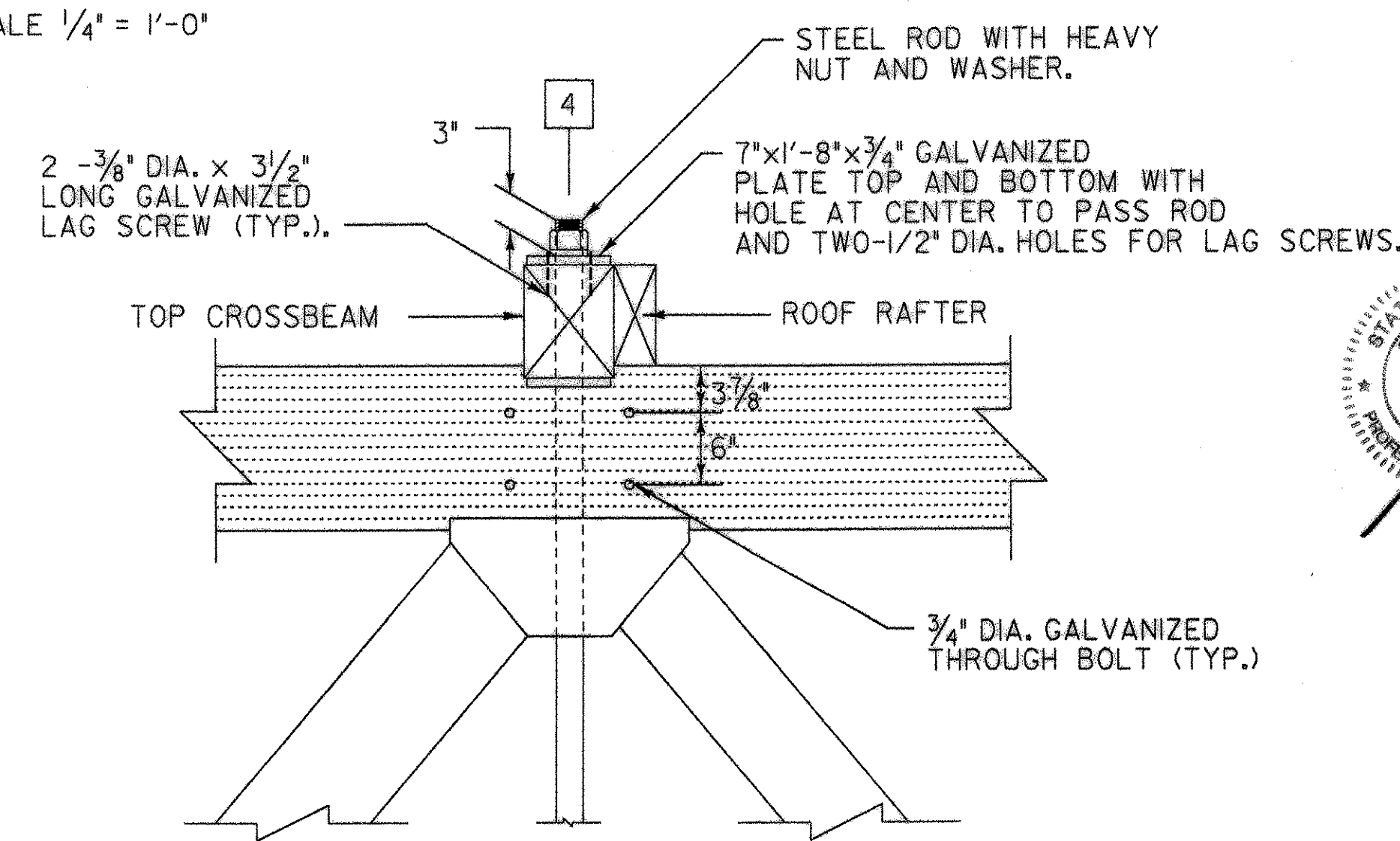
CAMBER NOTES:

- THE REFERENCE LINE IS A STRAIGHT LEVEL LINE CONNECTING POINTS LOCATED AT THE TOP OF CHORD 2.
- PROPOSED TRUSS CAMBER IS GIVEN AT NODE POINTS AT THE TOP OF CHORD 2. ALL VALUES ARE MEASURED FROM THE REFERENCE LINE AS SHOWN ON THE CAMBER DIAGRAM.
- CAMBER SHOWN SHALL BE BUILT INTO EACH TRUSS IN A HORIZONTAL POSITION. SOME LOSSES WILL OCCUR UPON ERECTION OF THE BRIDGE DUE TO VERTICAL DEAD LOADS.

PROPOSED TRUSS CAMBER Δ							
NODES	(1)	(2)	(2)	NODES	(1)	(2)	(2)
1	0.0	0.00	0.00	10	9.8	7.44	6.72
2	1.9	0.48	1.68	11	9.3	7.20	5.88
3	3.8	1.68	3.24	12	8.3	6.48	5.16
4	5.6	3.12	4.56	13	7.1	5.40	3.84
5	7.1	4.32	5.64	14	5.6	3.96	2.88
6	8.3	5.52	6.60	15	3.8	2.64	1.44
7	9.3	6.48	7.20	16	1.9	1.20	0.12
8	9.8	6.96	7.20	17	0.0	0.00	0.00
9	10.0	7.20	7.20				

(1) CONSTRUCTED CAMBER IN INCHES PRIOR TO ERECTION OF THE BRIDGE AND APPLICATION OF DEAD LOAD IN INCHES.

(2) IN PLACE CAMBER OF COMPLETED BRIDGE IN INCHES TAKEN 9/23/03.

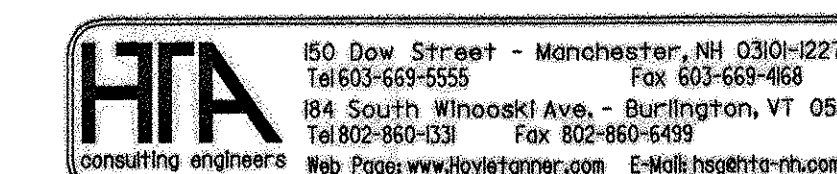
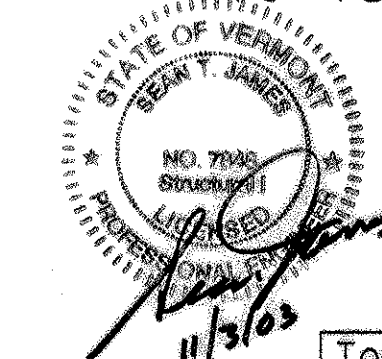


DETAIL "A" Δ

SCALE 1" = 1'-0"

LEGEND

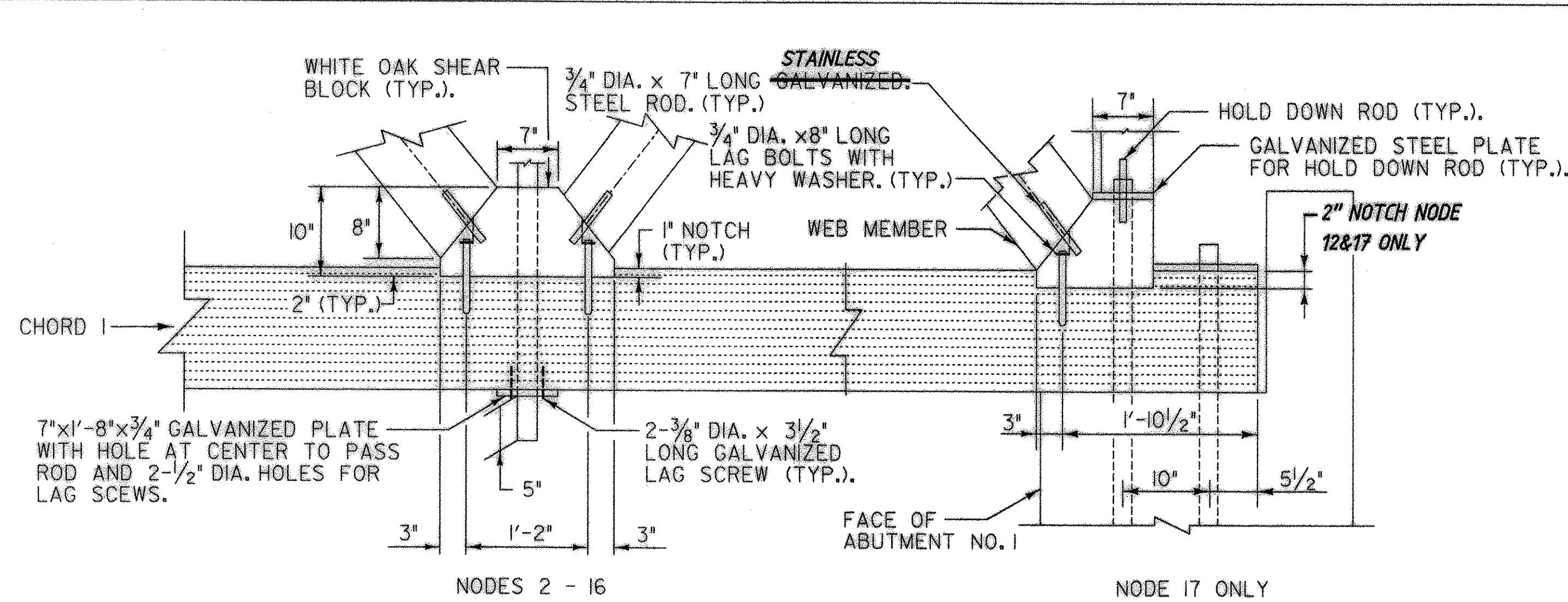
- 1 NODE LOCATION (Q OF VERTICAL TRUSS MEMBER)
FS FULL SAWN



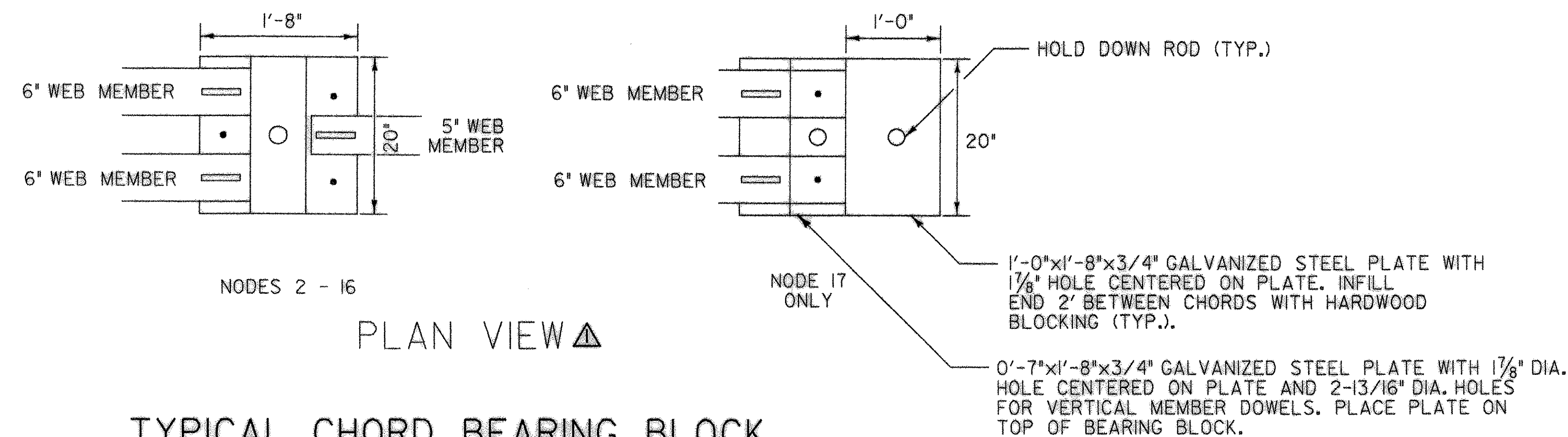
RECORD COPY REVISIONS

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CHK BY STJ

Town of	BRIGHTON	Bridge No.	
Highway No.		Log Sta.	
		Surv. Sta.	
BRIGHTON PEDESTRIAN BRIDGE			
TRUSS ELEVATION & DETAILS			
Designed By	S.T. JAMES	Drawn By	W. DRUDING
Checked By	R.H. DURFEE	Bridge Design Supervisor	
PROJECT	BRIGHTON	PROJECT NO.	STP BIKE (14)S
I.G.C. Info.	Z9068TR.dgn		
Bridge Sheet No.	12	Sheet 12	of 14



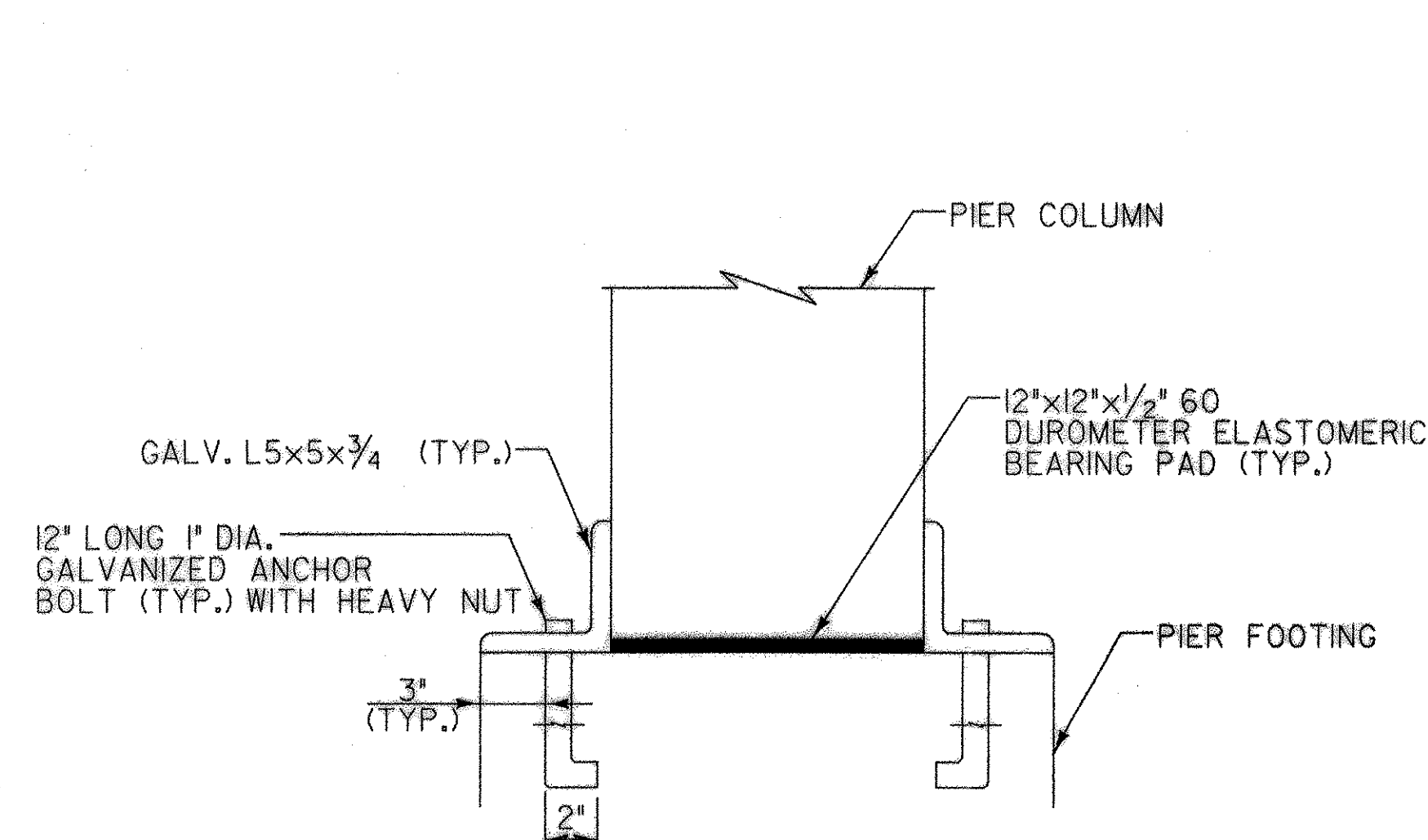
ELEVATION VIEW Δ



PLAN VIEW Δ

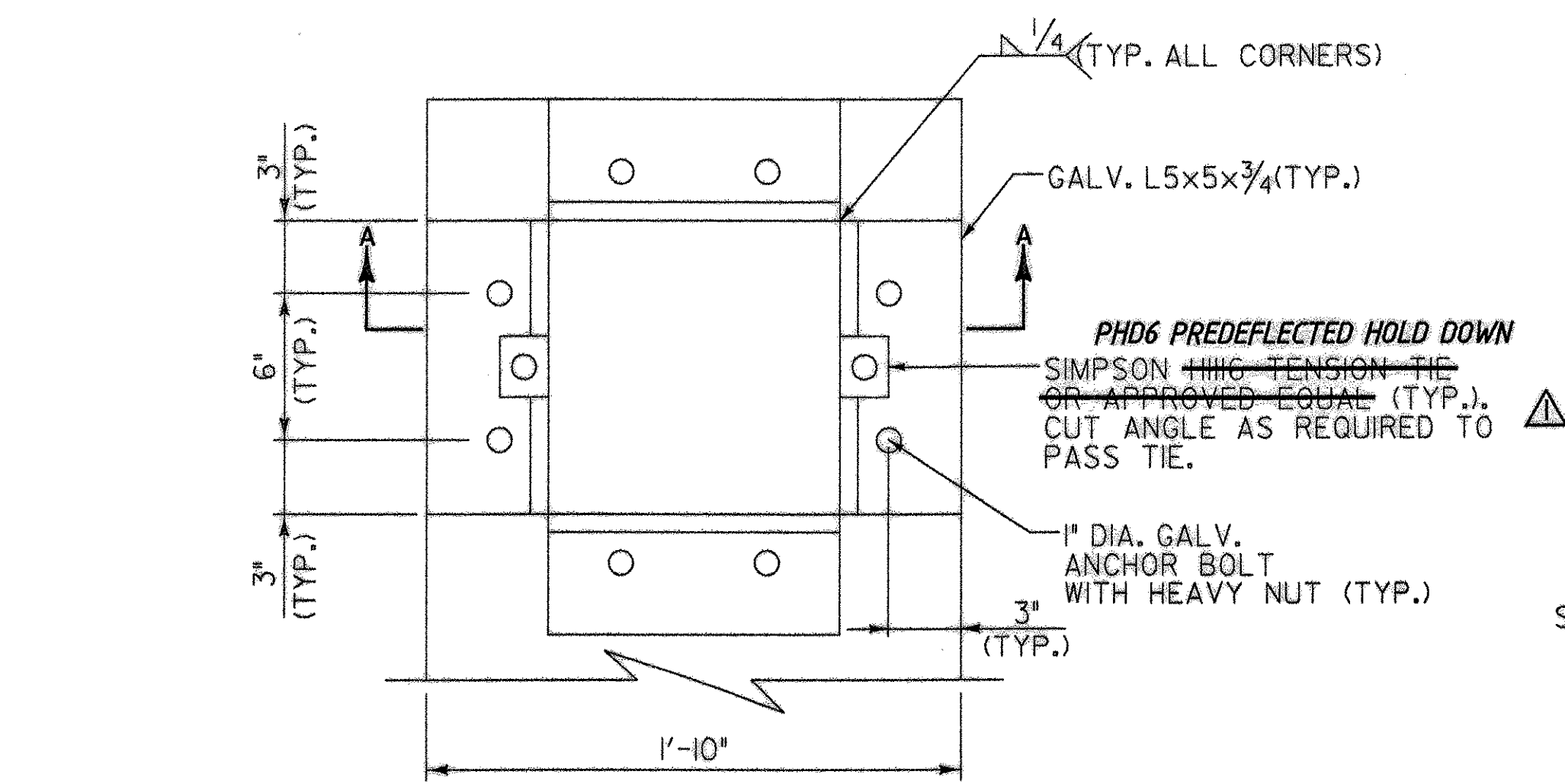
TYPICAL CHORD BEARING BLOCK

SCALE: 1" = 1'-0"



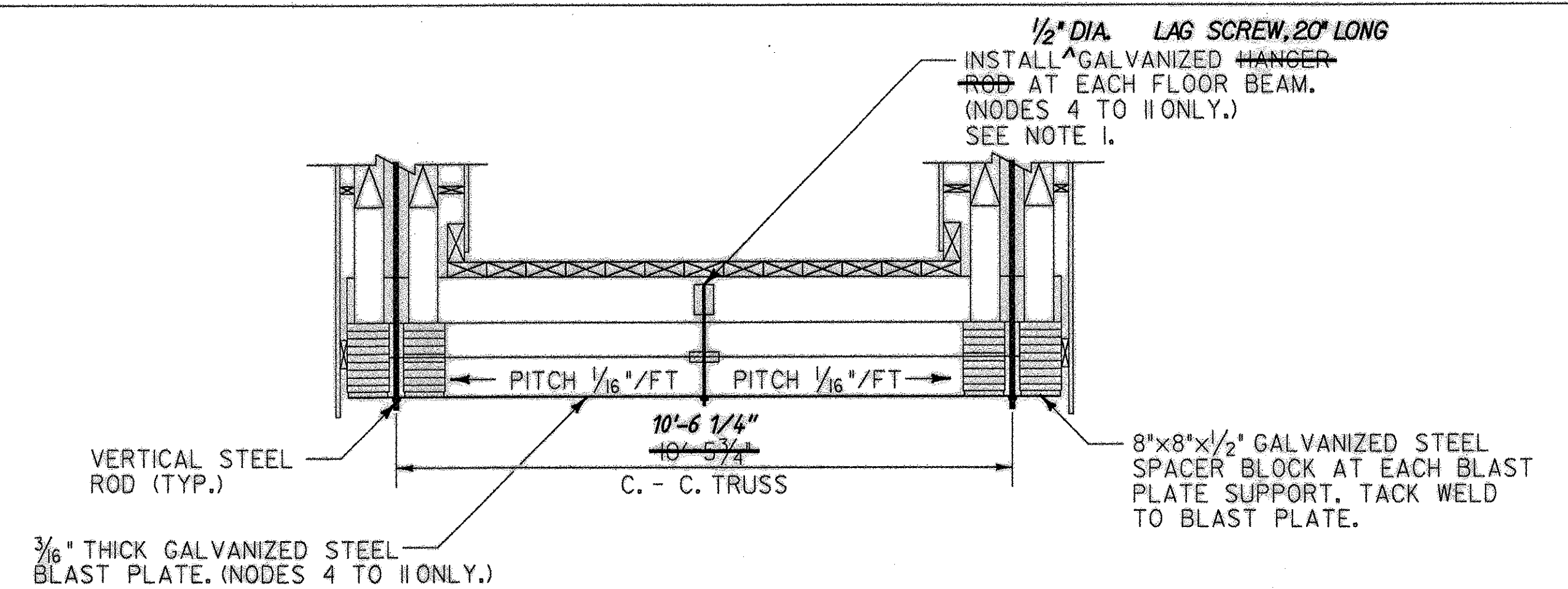
SECTION A-A

SCALE: 2" = 1'-0"



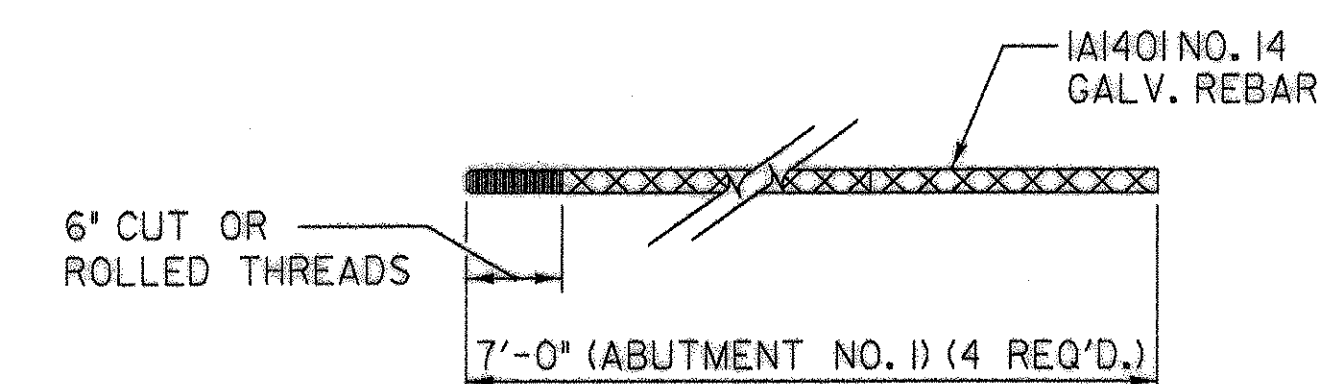
PIER COLUMN-FOOTING PEDESTAL CONNECTION

SCALE: 2" = 1'-0"



TRUSS SECTION AT BLAST PLATES Δ

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

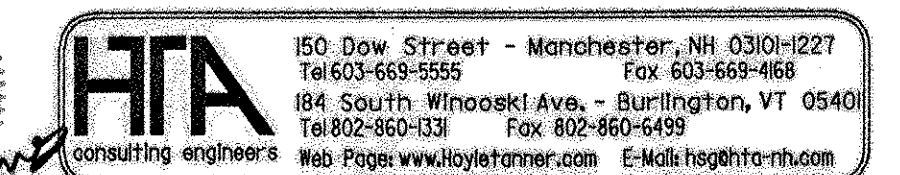
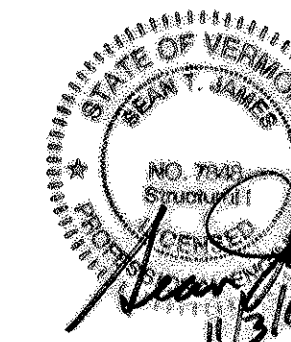


TYPICAL HOLD DOWN ROD (ITEM 506.75)

SCALE: 1" = 1'-0"

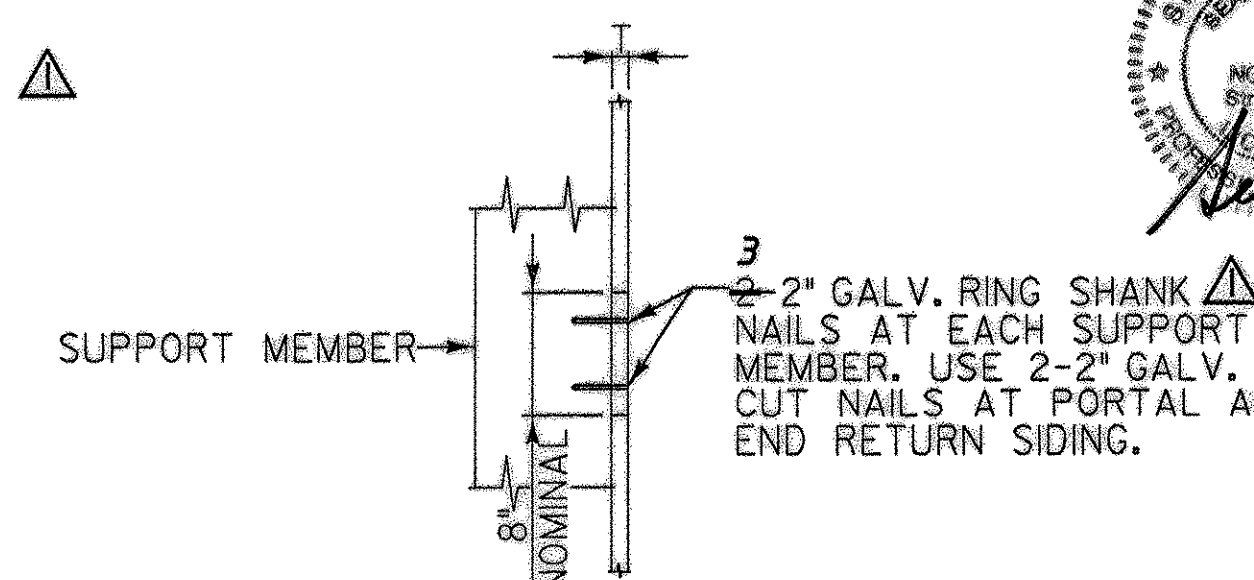
PLAN NOTES:

1. EACH BLAST PLATE HANGER ROD AND CONNECTION SHALL HAVE A MINIMUM ALLOWABLE TENSION CAPACITY OF 150 POUNDS. PROVIDE MANUFACTURERS CUT SHEET OR CALCULATIONS TO THE ENGINEER FOR REVIEW AND APPROVAL.



RECORD COPY REVISIONS

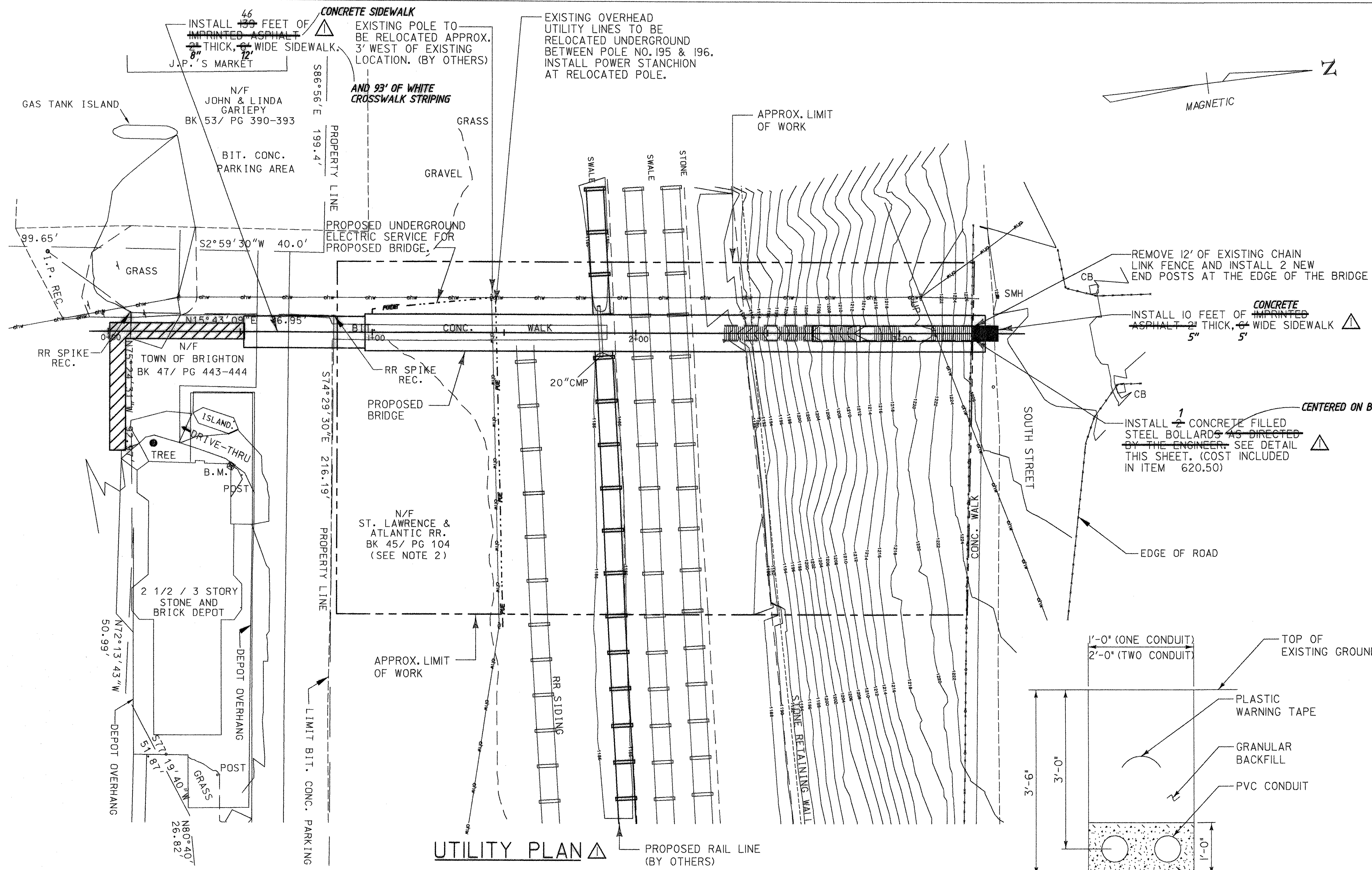
DR BY JBM
CHK BY STJ



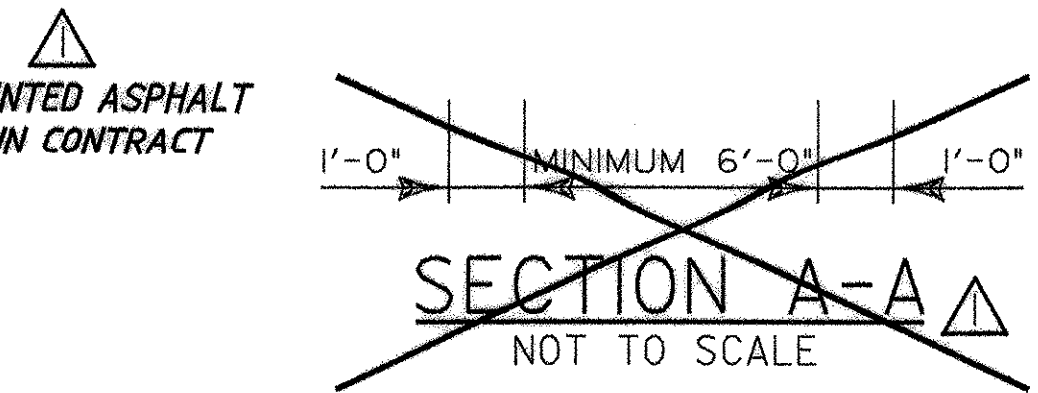
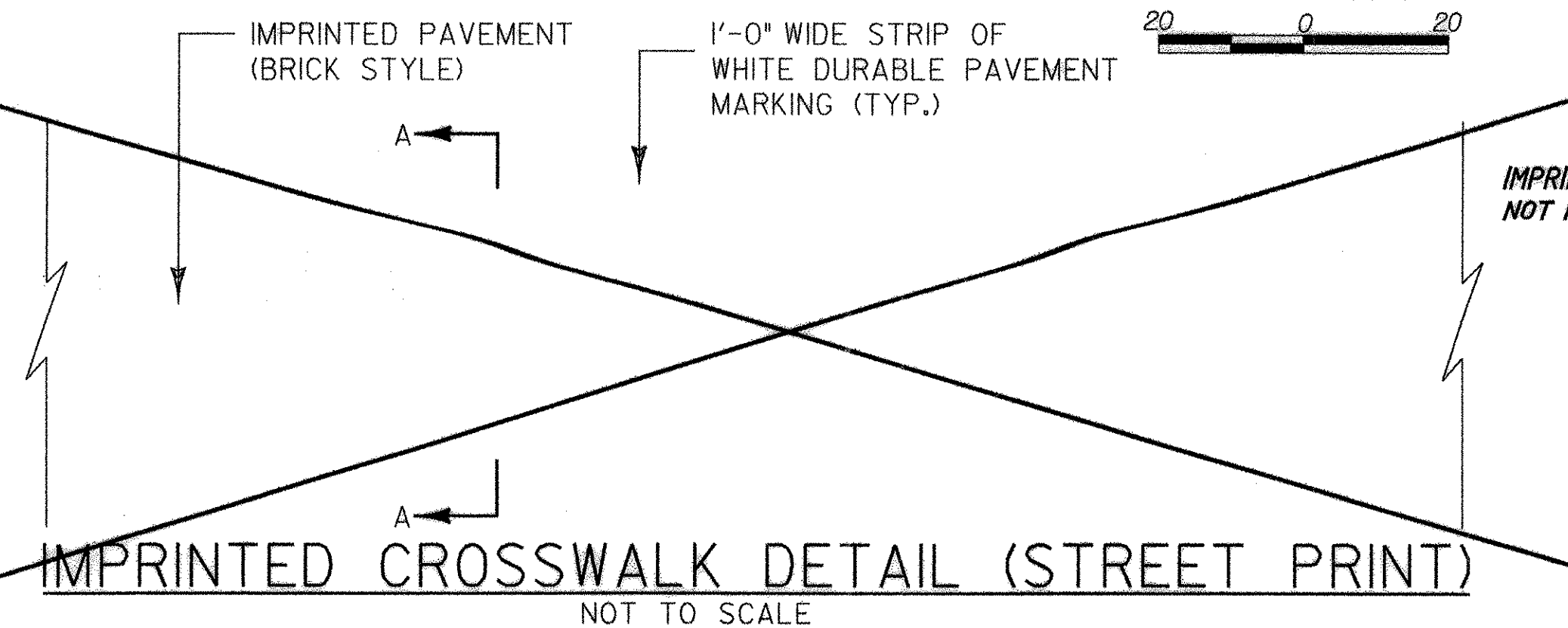
SIDING DETAIL

SCALE: 1" = 1'-0"

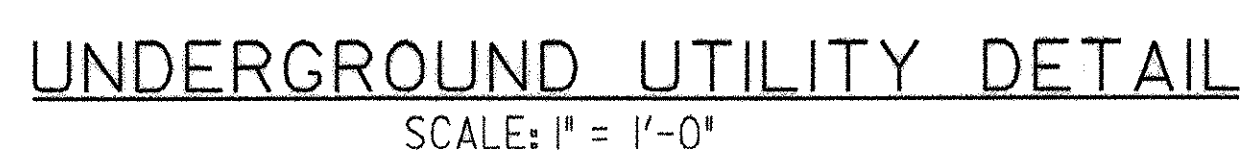
Town Of	BRIGHTON	Bridge No.	
Highway No.		Log Sta.	
		Surv. Sta.	
BRIGHTON PEDESTRIAN BRIDGE			
STRUCTURAL DETAILS			
Designed By	S.T. JAMES	Drawn By	W. DRUDING
Checked By	R.H. DURFEE	Date	MAY 2002
PROJECT	BRIGHTON	Bridge Design Supervisor	
I.G.C. Info.	Z9068TR2.dgn	PROJECT NO.	STP BIKE (14)S
Bridge Sheet No.	13	Sheet	13 of 14



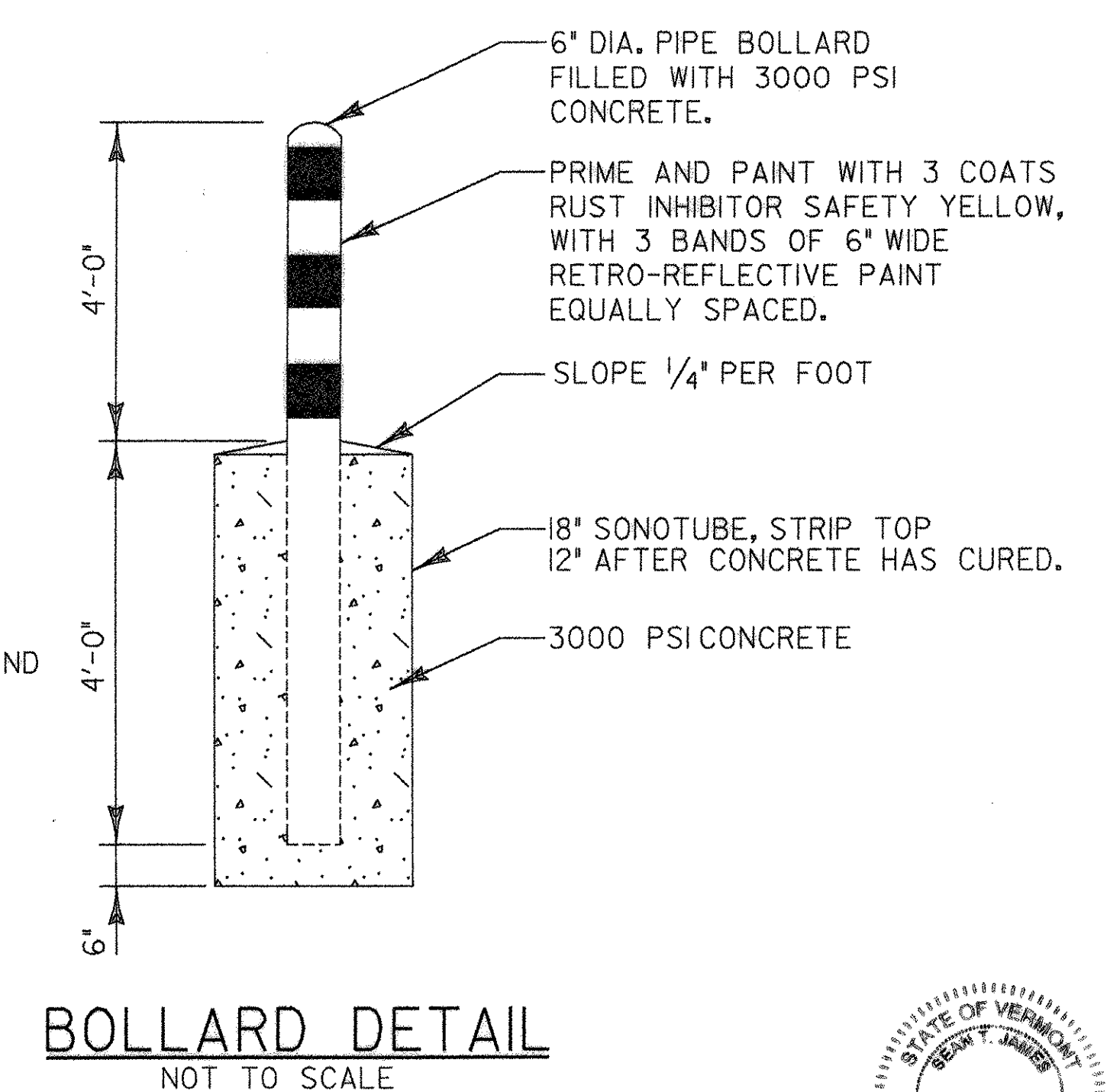
- ### GENERAL NOTES:
1. THE CONTRACTOR SHALL LIMIT ALL CONSTRUCTION ACTIVITIES EXCEPT THE NEW IMPRINTED ASPHALT ~~NOT USED~~ SIDEWALK, TO THE APPROXIMATE LIMITS OF WORK SHOWN ON THIS PLAN. ACCESS TO THE WORK AREA MAY BE GAINED THROUGH PROPERTY OWNED BY THE TOWN OF BRIGHTON AT THE NORTH AND SOUTH OF THE WORK LIMITS.
 2. THE TWO (2) EXISTING RAILROAD LINES ON THE PROJECT SITE ARE ACTIVE. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES ABOVE OR NEAR THESE LINES WITH THE RAILROAD. THE RAILROAD LISTED IN THE DEED IS UNDER NEW OWNERSHIP. THE NEW OWNER OF THE RAILROAD IS GENESEE & WYOMING, INC.
 3. THE INFORMATION SHOWN ON THIS SHEET CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.
 4. ALL APPLICABLE UTILITY DEPARTMENTS AND COMPANIES SHALL BE NOTIFIED BEFORE EXCAVATION IS STARTED. UTILITIES WITHIN 50 FEET OF AN EXCAVATION SHALL BE MARKED IN THE FIELD.



NOTE: CROSSWALKS SHALL BE CONSTRUCTED BY IMPRINTING HOT ASPHALT. THE CROSSWALK SHALL BE PAINTED WITH TWO COATS OF BRICK COLOR WITH 1'-0" WIDE STRIP OF WHITE DURABLE PAVEMENT MARKING.



- ### LEGEND
- EXISTING STONE RETAINING WALL
 - OHW EXISTING OVERHEAD UTILITY LINES
 - PUE PROPOSED UNDERGROUND ELECTRIC
 - X- EXISTING CHAIN LINK FENCE
 - PUE&T PROPOSED UNDERGROUND ELECTRIC & TELEPHONE



HTA
150 Dow Street - Manchester, NH 03101-4227
Tel: 603-669-5555 Fax: 603-669-4668
184 South Winooski Ave. - Burlington, VT 05401
Tel: 802-860-0131 Fax: 802-860-0169
consulting engineers Web Page: www.hta-engineers.com E-Mail: hta@hta-engineers.com

RECORD COPY REVISIONS		DR BY	CHK BY
		JBM	STJ
Town Of	BRIGHTON	Bridge No.	
Highway No.		Log Sta.	
BRIGHTON PEDESTRIAN BRIDGE		Surv. Sta.	
UTILITY RELOCATION PLAN			
Designed By	S.T. JAMES	Drawn By	J.D. GEER
Checked By	R.H. DURFEE	Date	MAY 2002
PROJECT		PROJECT NO.	
BRIGHTON		STP BIKE (14)S	
I.G.C. Info.		9068utl.dgn	
Bridge Sheet No. 14		Sheet 14 of 14	