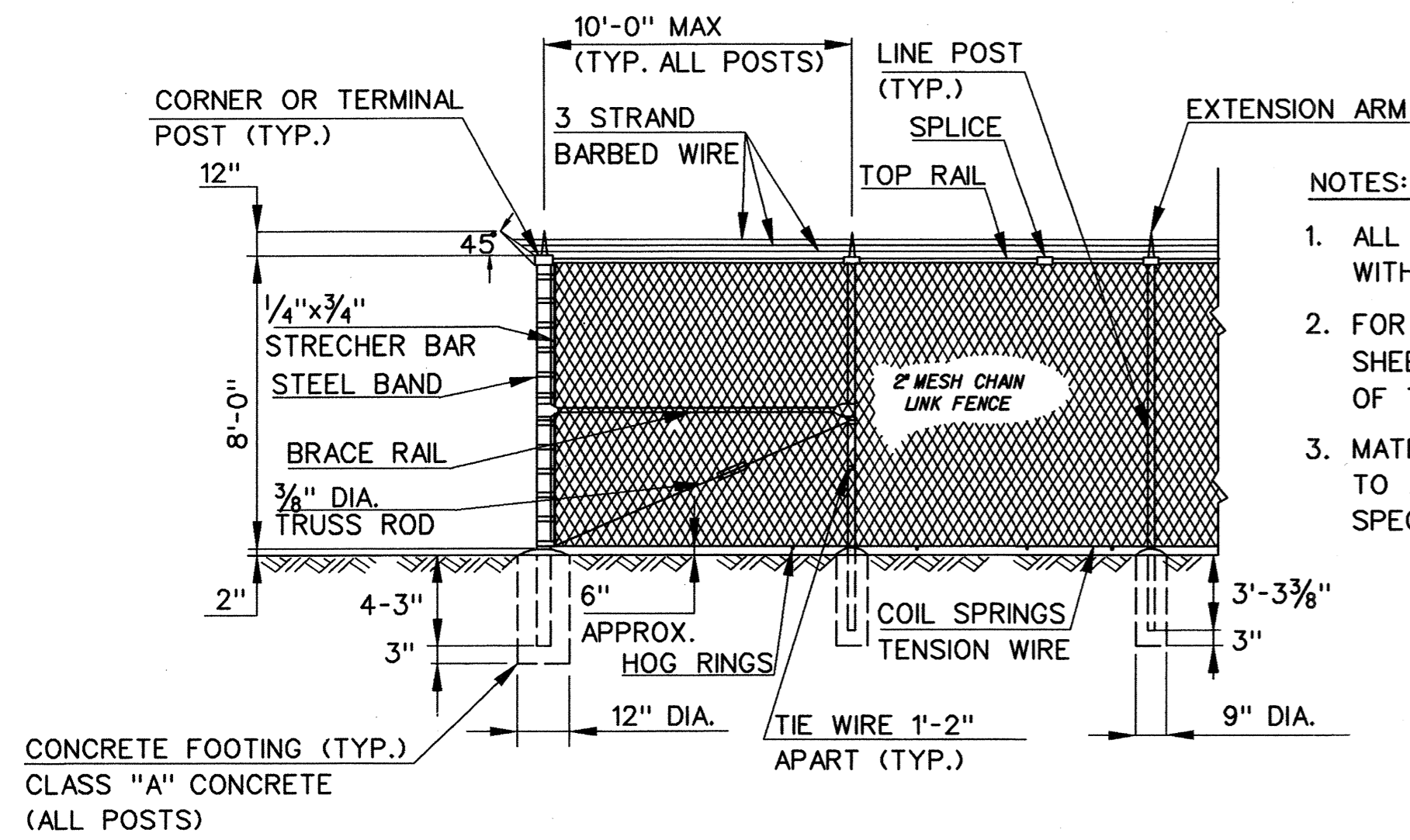
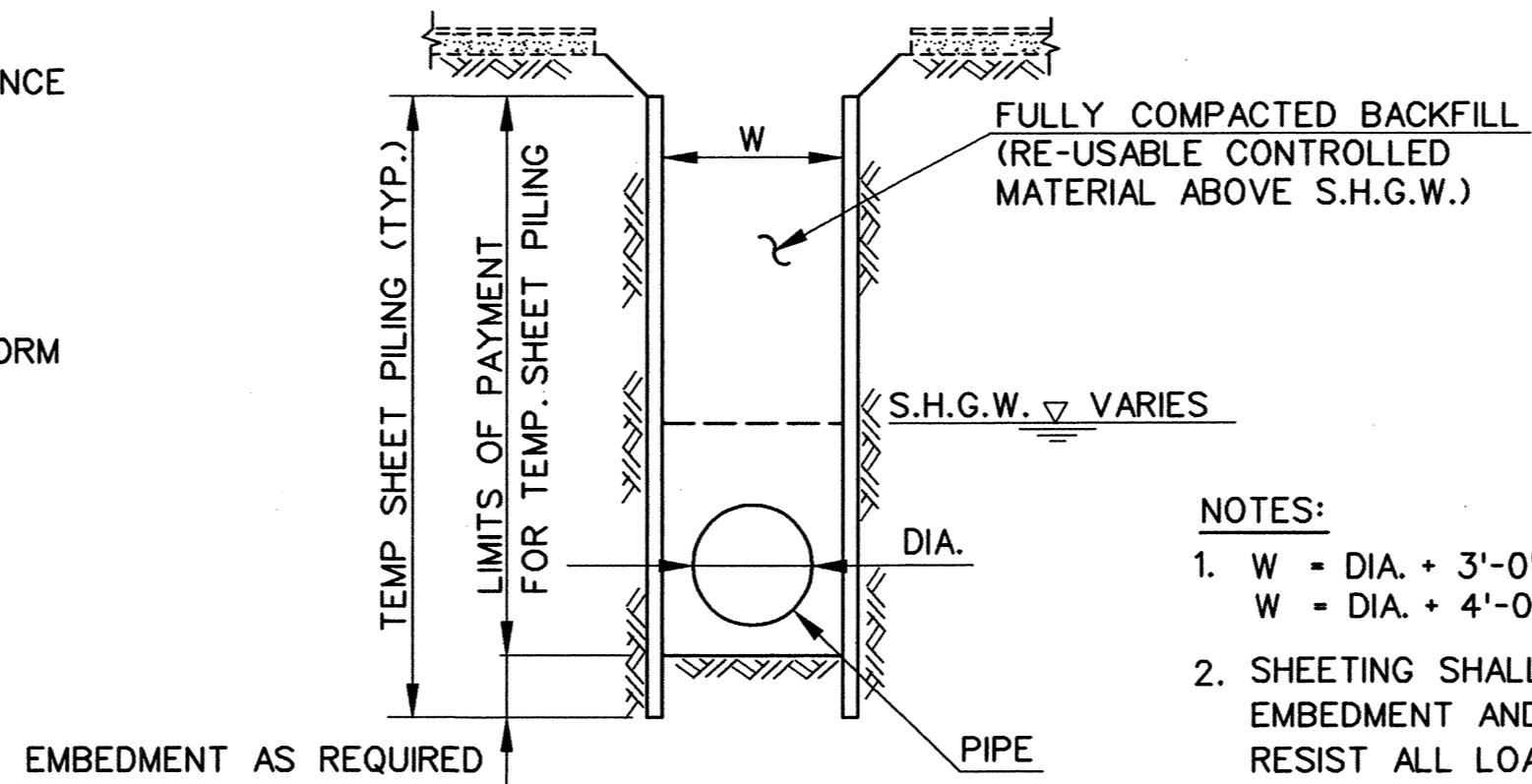


MISCELLANEOUS DETAILS

NOT TO SCALE



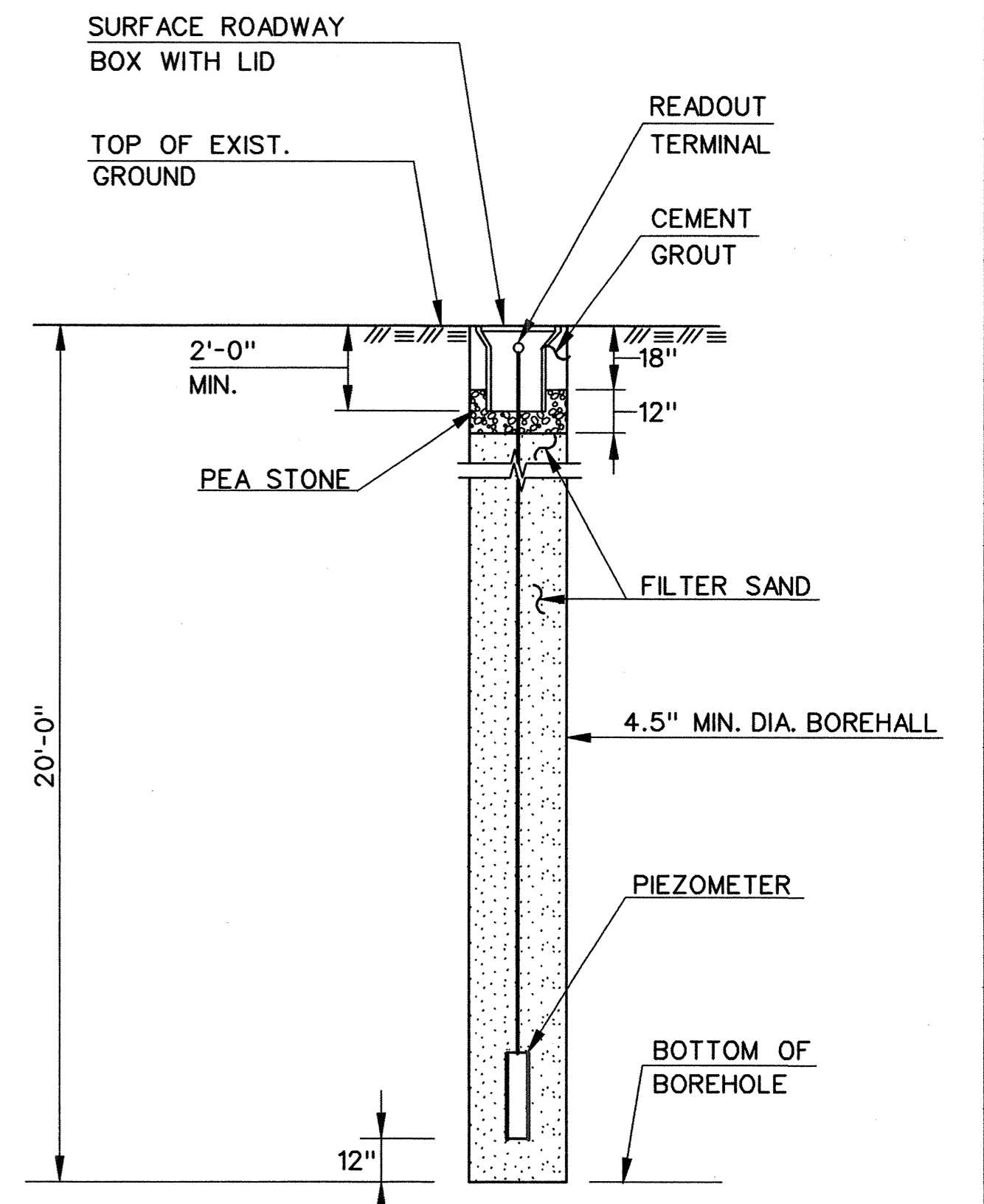
- NOTES:
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH CONDOT SPECIFICATIONS.
 2. FOR HARDWARE DETAILS SEE STANDARD SHEET 913-A CONN. DEPARTMENT OF TRANSPORTATION.
 3. MATERIAL FOR THIS WORK SHALL CONFORM TO ARTICLE M.10.05 OF THE STANDARD SPECIFICATIONS.



- NOTES:
1. $W = \text{DIA.} + 3'-0''$ FOR DIA. LESS THAN 2'-6"
 $W = \text{DIA.} + 4'-0''$ FOR DIA. 2'-6" AND OVER
 2. SHEETING SHALL BE DRIVEN TO SUFFICIENT EMBEDMENT AND BRACED AS REQUIRED TO RESIST ALL LOADS.
 3. UNLESS OTHERWISE DIRECTED, TEMPORARY SHEETING SHALL BE REMOVED.

PIEZOMETER LOCATION TABLE

CHURCH ST. SOUTH @	OFFSET
STA. 23+52	56' RT.
STA. 24+96	52' RT.
STA. 26+52	47' RT.
STA. 28+19	42' RT.



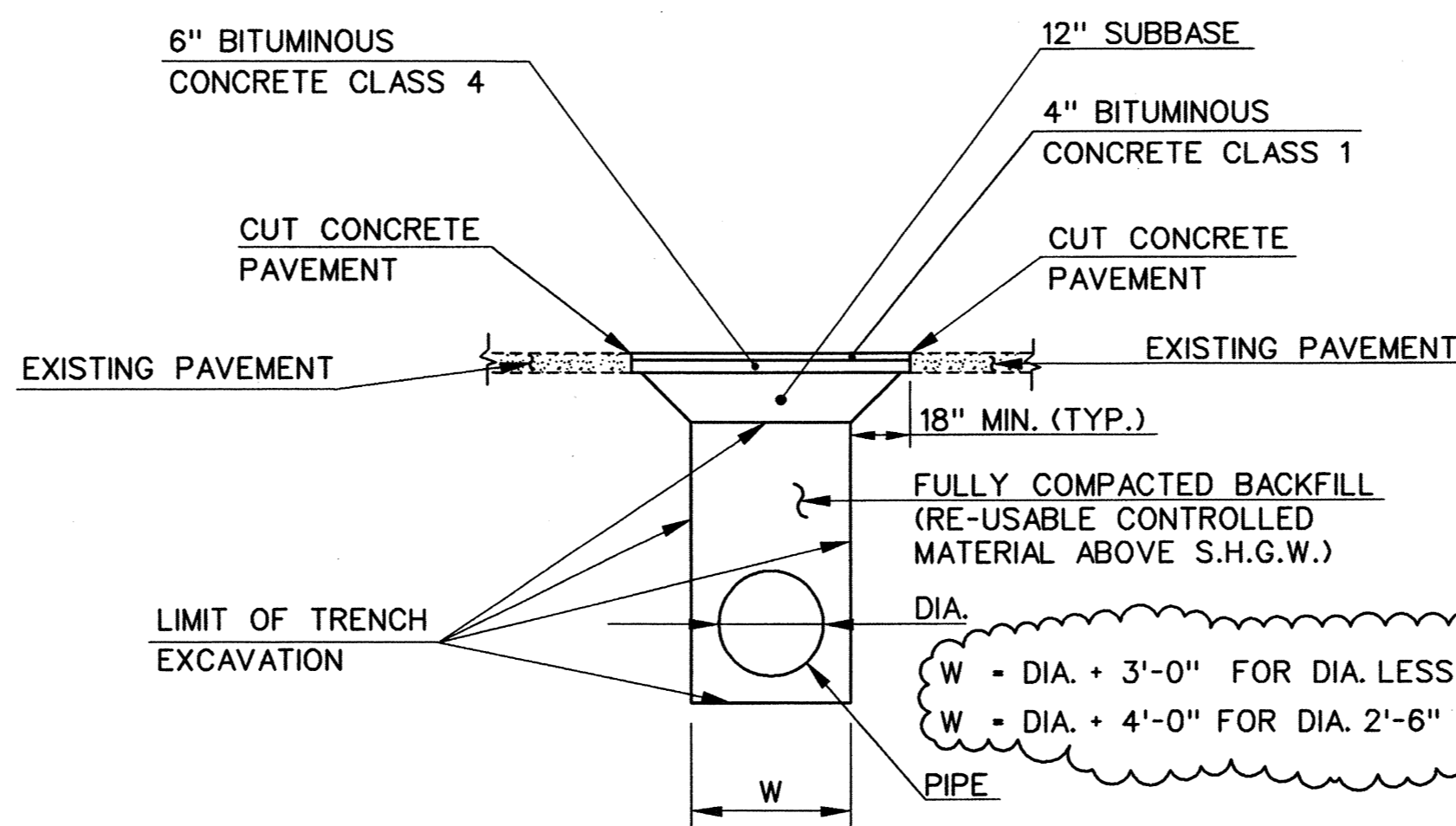
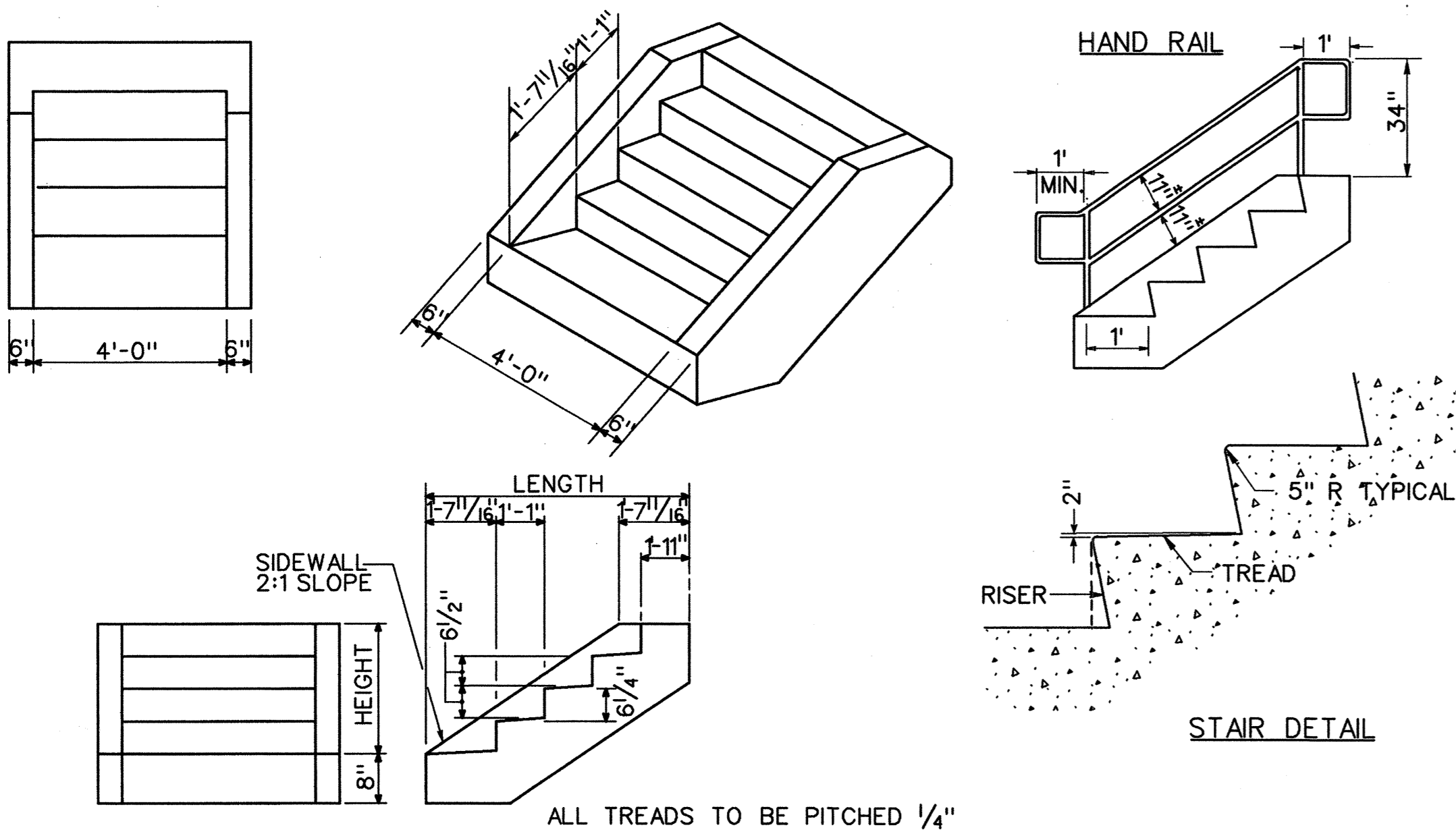
VIBRATING WIRE PIEZOMETER

NOT TO SCALE

8'-0" HIGH CHAIN LINK FENCE WITH BARBED WIRE

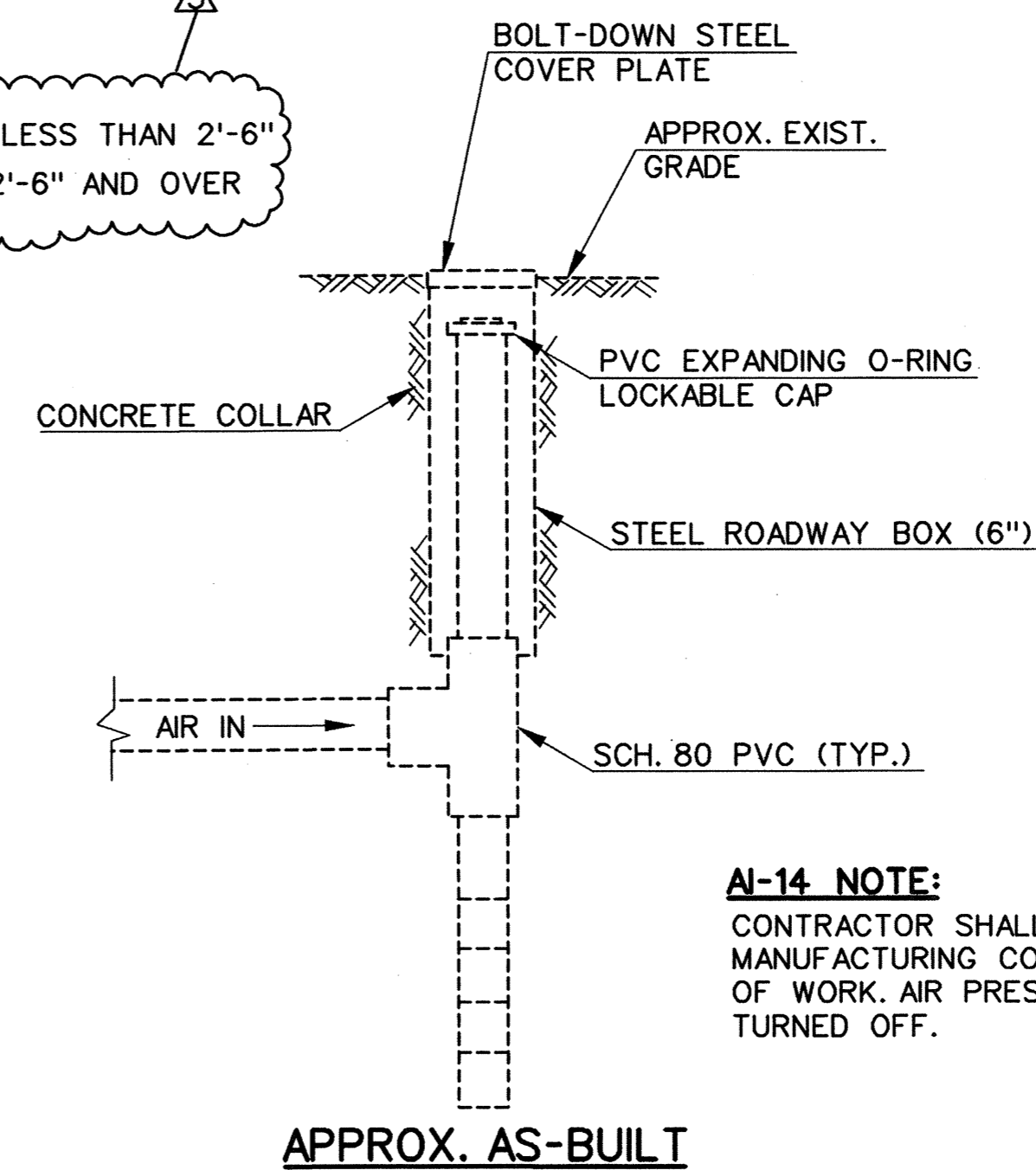
TYPICAL SHEETING DETAIL

LOCATION AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER

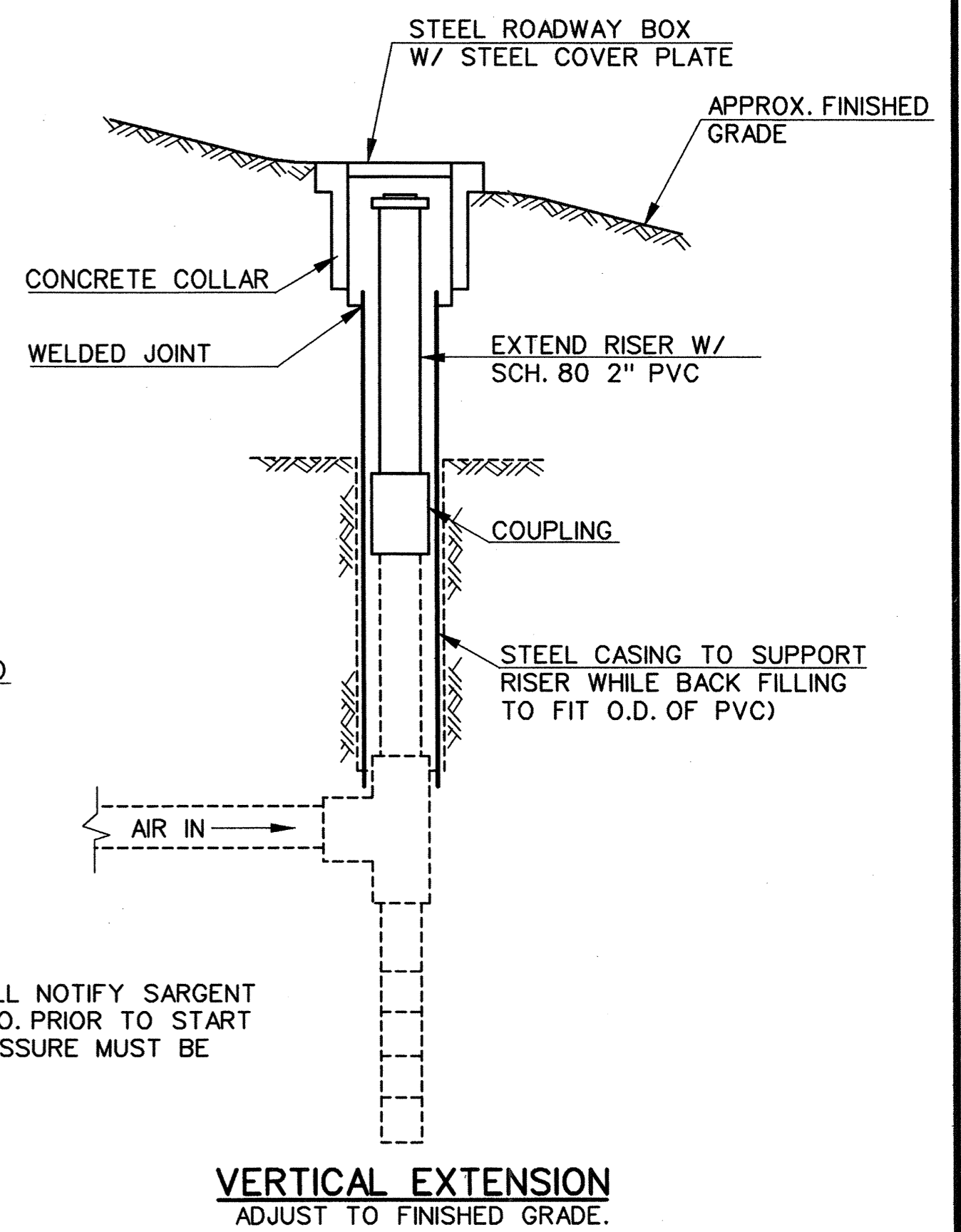


PAVEMENT REPLACEMENT

CONCRETE SLAB CUTOUTS FOR DRAINAGE INSTALLATION



APPROX. AS-BUILT



VERTICAL EXTENSION
ADJUST TO FINISHED GRADE.

AIR INJECTION WELL (AI-14)

CHURCH ST. SOUTH @ STA. 25+16 (39' RT.)
NOT TO SCALE

STEPS CONFORMING TO 2:1 SLOPE							
HEIGHT	LENGTH	NUMBER RISERS	VOLUME OF STEPS-CU. YDS.	HEIGHT	LENGTH	NUMBER RISERS	VOLUME OF STEPS-CU. YDS.
6/2"	2'-8 1/16"	1	0.453	4'-10 1/2"	11'-4 1/16"	9	2.75
1'-1"	3'-9 1/16"	2	0.741	5'-5"	12'-5 1/16"	10	3.037
1'-7 1/2"	4'-10 1/16"	3	1.028	5'-11 1/2"	13'-6 1/16"	11	3.325
2'-2"	5'-11 1/16"	4	1.315	6'-6"	14'-7 1/16"	12	3.612
2'-8 1/2"	7'-11 1/16"	5	1.602	7'-0 1/2"	15'-8 1/16"	13	3.899
3'-3"	8'-11 1/16"	6	1.889	7'-7"	16'-9 1/16"	14	4.186
3'-9 1/2"	9'-11 1/16"	7	2.176	8'-1 1/2"	17'-10 1/16"	15	4.473
4'-4"	10'-11 1/16"	8	2.463	8'-8"	18'-11 1/16"	16	4.76

ADD 0.287 CU.YDS. FOR EACH ADDITIONAL RISER

CONCRETE STEPS

GENERAL NOTES:

1. HAND RAILS ARE REQUIRED ON BOTH SIDES OF ALL RESIDENTIAL STAIRS WITH FOUR OR MORE RISERS.
2. HAND RAILS SHALL BE 1.5" IN DIAMETER, SCHEDULE 40 GALVANIZED PIPE.
3. INTERMEDIATE POSTS SHALL BE NO MORE THAN 6' APART.
4. THE RAILING BASE CONNECTIONS SHALL BE DESIGNED TO PROVIDE STRENGTH FOR AN 200 - POUND FORCE APPLIED IN ANY LOCATION OR DIRECTION ON THE RAIL.

ADDENDUM NO. 5

NOT TO SCALE	DESIGNER: A. MARGIOTTA	STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD	TOWN: NEW HAVEN	PROJECT NO.: 92-526
	DRAFTER: M. OFFENBERG		ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.	DRAWING TITLE: MISCELLANEOUS DETAILS	DRAWING NO.:
1/200	ADDENDUM NO. 5	17	CADD FILE: AD5R703D014.MDS	PLOTTED DATE: 3-4-00	SHEET NO.: 17

07-29-97 04:14:01 P:\adg\1018703\chrchstn\caddendum no. 5\057030104.dgn

GENERAL NOTES

SPECIFICATIONS:

CONNECTICUT DEPARTMENT OF TRANSPORTATION FORM 814A (1995), SUPPLEMENTAL SPECIFICATIONS DATED JULY 1999 AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS:

STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (AASHTO-1996) WITH INTERIM SPECIFICATIONS UP TO AND INCLUDING 1998 AS SUPPLEMENTED BY THE CONNECTICUT DEPARTMENT OF TRANSPORTATION BRIDGE DESIGN MANUAL (1997).

DESIGN STRESSES:

CLASS "A" CONCRETE BASED ON $f'_c = 3,000$ psi
 CLASS "F" CONCRETE BASED ON $f'_c = 4,000$ psi
 HIGH PERFORMANCE CONCRETE BASED ON $f'_c = 4,000$ psi
 REINFORCEMENT (ASTM A615 GRADE 60) $f_y = 60$ ksi
 REINFORCEMENT-CLADDED STAINLESS STEEL (NUOVINOX 316L) $f_y = 75$ ksi
 STRUCTURAL STEEL (AASHTO M270 GRADE 50) $F_y = 50$ ksi
 STRUCTURAL STEEL (AASHTO M270 GRADE 50W) $F_y = 50$ ksi
 STRUCTURAL STEEL (AASHTO M270 GRADE HPS 70W) $F_y = 70$ ksi

DESIGN METHOD:

LOAD FACTOR METHOD (SUBSTRUCTURE AND SUPERSTRUCTURE)

LIVE LOAD:

HS20-44

FUTURE PAVING ALLOWANCE:

30 POUNDS PER SQUARE FOOT.

BITUMINOUS CONCRETE OVERLAY:

AT APPROACH SLABS ONLY, THIS SHALL CONSIST OF TWO LIFTS. THE FIRST SHALL BE BITUMINOUS CONCRETE - (2) (1" THICK) AND THE SECOND SHALL BE BITUMINOUS CONCRETE - CLASS (1) (1/2" THICK).

STRUCTURAL STEEL:

SEE STRUCTURAL STEEL NOTES FOR DESIGNATIONS AND REQUIREMENTS.

PAINT-SEGMENTS 1 AND 3:

PAINTING OF THE STRUCTURAL STEEL IS ONLY REQUIRED AT THE ENDS OF THE GIRDERS. STEEL SURFACES ARE TO BE PREPARED FOR WEATHERING IN ACCORDANCE WITH THE SPECIFICATIONS.

△ GALVANIZING OR METALLIZING - SEGMENT 2:
 ALL STRUCTURAL STEEL SHALL BE EITHER GALVANIZED OR METALIZED. SEE SPECIAL PROVISIONS.

ISOLATION BEARING ASSEMBLIES:

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT THE DIMENSIONS OF THE ISOLATION BEARINGS DETAILED ON THE CONTRACT PLANS ARE OF A CONCEPTUAL NATURE. ANY CHANGE IN BEARING HEIGHT RESULTING FROM THEIR DESIGN WILL REQUIRE ADJUSTMENTS TO THE CONCRETE BEARING PAD ELEVATIONS BY THE CONTRACTOR. SEE SPECIAL PROVISIONS.

FOUNDATION PRESSURES AND PILE LOADS:

THE VARIOUS GROUP LOADINGS NOTED ON THE SUBSTRUCTURE PLAN SHEETS REFER TO THE GROUP LOADS AS GIVEN IN THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

DIMENSIONS:

ALL DIMENSIONS SHOWN ON THE PLANS ARE GIVEN IN U.S. CUSTOMARY UNITS. ALL ELEVATIONS ARE GIVEN IN FEET. WHEN DIMENSIONS ARE GIVEN TO LESS THAN THREE DECIMAL PLACES, THE OMITTED DIGITS SHALL BE ASSUMED TO BE ZERO.

FORMER ROUNDHOUSE:

THE CONTRACTOR SHALL BE AWARE THAT THE FORMER ROUNDHOUSE AREA SHOWN ON DWG. NO. STR-2 HAS BEEN DESIGNATED AS AN ARCHAEOLOGICAL SITE. ANY EXCAVATION WITHIN THIS AREA MUST FOLLOW THE PROCEDURE AS STATED IN THE CONDOT STANDARD SPECIFICATION 814A SECTION 1.10.06 AND IN THE SPECIAL PROVISIONS.

EXISTING CONDITIONS:

EXISTING CONDITIONS ARE BASED ON SURVEY PERFORMED SEPTEMBER 1998 AND UPDATED DECEMBER 1998, OCTOBER 1999, JANUARY 2000 AND FEBRUARY 2000.

RAILROAD COORDINATION:

THE CONTRACTOR SHALL COMPLETELY COORDINATE HIS OPERATIONS WITHIN THE NEW HAVEN RAIL YARD WITH METRO-NORTH RAILROAD, AMTRAK AND THE STATE OF CONNECTICUT, AS REQUIRED. FOR DETAILS, SEE ELSEWHERE ON THESE PLANS AND IN THE SPECIALS PROVISIONS.

THE CONTRACTOR SHALL HAVE ALL EMPLOYEES AND SUBCONTRACTORS ATTEND THE AMTRAK AND METRO-NORTH RAILROAD SAFETY TRAINING COURSES PRIOR TO COMMENCING ANY WORK WITHIN THE RAIL YARD. ANY EMPLOYEE/SUBCONTRACTOR WHO HAS NOT COMPLETED THE SAFETY TRAINING COURSES WILL BE EXCLUDED FROM ALL WORK WITHIN THE RAIL YARD.

ACCESS TO ALL DRIVEWAYS, PARKING AREAS AND LOADING ZONES SHALL BE MAINTAINED AT ALL TIMES UNLESS APPROVED BY AMTRAK AND/OR METRO-NORTH RAILROAD, AS APPLICABLE.

THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING RAILROAD FLAGMEN AND GROUND MEN WITH AMTRAK AND/OR METRO-NORTH RAILROAD, AS APPLICABLE FOR PERFORMING WORK ON AND ADJACENT TO THE RAILROAD RIGHT-OF-WAY.

THE CONTRACTOR SHALL SUBMIT TRACK CLOSURE REQUESTS TO THE ENGINEER AT LEAST 14 DAYS IN ADVANCE. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE ENGINEER PRIOR TO THE CLOSURE OF ANY TRACK. THE WRITTEN APPROVAL WILL INCLUDE THE TRACK CLOSURE DATE AND CLOSURE TIME, AND SUBSEQUENT TRACK RE-OPENING DATE AND TIME.

△ THE CONTRACTOR SHALL REQUEST TEMPORARY GRADE CROSSINGS WHENEVER HE NEEDS TO CROSS TRACKS TO PERFORM HIS WORK. THESE CROSSINGS WILL NOT BE MEASURED FOR PAYMENT. THE CONTRACTOR SHALL MAKE REQUEST TO THE STATE FOR TEMPORARY CROSSINGS IN WRITING. THE NEED FOR A TEMPORARY CROSSING WILL BE DETERMINED BY THE STATE AND METRO-NORTH / AMTRAK RAILROAD. IF A TEMPORARY CROSSING IS FOUND TO BE NEEDED, THE CROSSING WILL BE PROVIDED, INSTALLED AND REMOVED BY THE GOVERNING RAILROAD AT NO EXPENSE TO THE CONTRACTOR. AMTRAK AND/OR METRO-NORTH RAILROAD APPROVAL IS REQUIRED FOR LOCATIONS OF ALL TEMPORARY CROSSINGS, AS WELL AS, ALL ROUTES THE CONTRACTOR PROPOSES TO COMPLETE HIS OPERATIONS. SPECIAL ATTENTION SHALL BE GIVEN TO ROUTES UNDER CATENARY WIRES.

ENVIRONMENTAL:

THE ENTIRE PROJECT AREA IS CONSIDERED AN "AREA OF ENVIRONMENTAL CONCERN". SEE ROADWAY DRAWINGS AND THE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL NOTE THAT ALL DEWATERING EFFLUENT SHALL BE CONVEYED TO THE GROUNDWATER TREATMENT SYSTEM AREA. SEE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL BE AWARE THAT ALL EXCAVATED MATERIALS AND ALL REMOVED EXISTING MASONRY AND RAILROAD TIES MUST BE TAKEN TO THE WASTE STOCKPILE AREA FOR TESTING. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS NOT TO GENERATE MORE MATERIAL THAN THE WASTE STOCKPILE AREA CAN ACCOMMODATE. THE CONTRACTOR SHALL ALLOW SUFFICIENT TIME FOR THE COMPLETE SAMPLING AND TESTING, INCLUDING OBTAINING TEST REPORTS, OF THE MATERIAL DELIVERED TO THE WASTE STOCKPILE AREA. THE CONTRACTOR SHALL NOTE THAT IT IS ANTICIPATED THAT THE RE-USE OF EXCAVATED MATERIAL AS BACKFILL, ETC. MAY BE ALLOWED. SEE ROADWAY PLANS AND THE SPECIAL PROVISIONS.

S.H.G.W. - SEASONAL HIGH GROUNDWATER ELEVATION

NEW HAVEN RAIL YARD PROJECTS:

THE CONTRACTOR IS MADE AWARE THAT SEVERAL NEW HAVEN RAIL YARD PROJECTS WILL BE CONSTRUCTED WITHIN THE SAME TIME FRAME AND WITHIN THE PROJECT LIMITS OF STATE PROJECT NO. 92-526; THOSE PROJECTS INCLUDE BUT ARE NOT NECESSARILY LIMITED TO THE FOLLOWING:

- STATE PROJECT NO. 301-0001, "NEW HAVEN INTERLOCKING RECONFIGURATION"
- STATE PROJECT NO. 301-0039, "NEW HAVEN RAIL YARD COMPLEX FACILITIES IMPROVEMENTS"
- AMTRAK PROJECT RFP NO. UGJP 0026, "LOCOMOTIVE SHOP, OFFICE AND MATERIAL CONTROL BUILDING"
- STATE PROJECT NO. 301-0025, "PLAN FOR CATENARY REPLACEMENT BETWEEN STRUCTURES 1045 AND 73-16(AM)"

THE CONTRACTOR SHALL COMPLETELY COORDINATE HIS OPERATIONS WITH THESE PROJECTS.

TRACK DESIGNATION:

PARCEL 'G' TRACKS: TRACK 11 AND ALL TRACKS NORTH OF TRACK 11
 MAINLINE TRACKS: TRACK 3 SOUTH TO TRACK 10
 YARD TRACKS: INBOUND TRACK AND ALL TRACKS SOUTH OF INBOUND TRACK

CONCRETE NOTES

REMAIN-IN-PLACE FORMS:

THE USE OF REMAIN-IN-PLACE FORMS IS REQUIRED FOR SPANS OVER ELECTRIFIED RAIL LINES. REMAIN-IN-PLACE FORMS SHALL BE USED AT SPANS 2 AND 5. THE GIRDERS, STRINGERS, FLOOR BEAMS AND THE TRUSS HAVE BEEN DESIGNED FOR THE ADDITIONAL WEIGHT OF 15 PSF FOR THE REMAIN-IN-PLACE FORMS. THE USE OF REMAIN-IN-PLACE FORMS WILL NOT BE ALLOWED ELSEWHERE ON THE STRUCTURE.

COMPOSITE CONSTRUCTION:

NO TEMPORARY INTERMEDIATE SUPPORTS SHALL BE USED DURING THE PLACING AND SETTING OF THE CONCRETE DECK SLAB. TEMPORARY SUPPORTS MAY ONLY BE USED FOR STRUCTURAL STEEL ERECTION ONLY AND TEMPORARY SUPPORTS SHALL NOT BE USED BETWEEN PIERS 1 AND 2. CONSTRUCTION LOADS AND DEAD LOADS WILL BE PERMITTED WHEN DIRECTED BY THE ENGINEER BUT ONLY WHEN THE CONCRETE HAS REACHED A STRENGTH OF $f'_c = 3,500$ psi. LIVE LOADS (TRAFFIC) WILL BE PERMITTED ON THE STRUCTURE AFTER THE CONCRETE HAS REACHED A STRENGTH OF $f'_c = 4,000$ psi.

CLASS "A" CONCRETE:

CLASS "A" CONCRETE SHALL BE USED FOR THE ENTIRE SUBSTRUCTURE AND THE PARAPETS OF U-TYPE WINGS WITH THE EXCEPTION OF THE CLASS "F" CONCRETE USED IN THE PIER WALLS AND BEARING PADS.

CLASS "F" CONCRETE:

CLASS "F" CONCRETE SHALL BE USED FOR PIER WALLS, BEARING PADS AND APPROACH SLABS.

HIGH PERFORMANCE CONCRETE:

HIGH PERFORMANCE CONCRETE SHALL BE USED FOR BRIDGE DECKS, INCLUDING SIDEWALKS AND PARAPETS.

JOINT SEAL:

SEE SPECIAL PROVISIONS.

EXPOSED EDGES:

EXPOSED EDGES OF CONCRETE SHALL BE BEVELED 1" x 1" UNLESS DIMENSIONED OTHERWISE.

CONCRETE COVER:

ALL REINFORCEMENT SHALL HAVE 2" COVER UNLESS DIMENSIONED OTHERWISE.

REINFORCEMENT:

ALL REINFORCEMENT SHALL BE ASTM A615 GRADE 60 UNLESS NOTED AS CLADDED STAINLESS STEEL, IN WHICH CASE IT SHALL BE NUOVINOX 316L CLADDED STAINLESS STEEL.

CLADDED STAINLESS STEEL REINFORCING BARS:

ALL REINFORCEMENT IN THE SUPERSTRUCTURE INCLUDING THE CONCRETE DECK SLAB, SIDEWALK AND PARAPETS SHALL BE CLADDED STAINLESS STEEL UNLESS OTHERWISE NOTED. THESE BARS SHALL BE INCLUDED IN THE ITEM "DEFORMED STEEL BARS (CLADDED STAINLESS STEEL)".

EPOXY COATED REINFORCING BARS:

ALL REINFORCEMENT IN THE CONCRETE APPROACH SLABS, INCLUDING THOSE IN THE HEADERS, SHALL BE EPOXY COATED. THESE BARS SHALL BE INCLUDED IN THE ITEM "DEFORMED STEEL BARS (EPOXY COATED)".

PREFORMED EXPANSION JOINT FILLER:

THE COST OF FURNISHING AND INSTALLING PREFORMED EXPANSION JOINT FILLER SHALL BE INCLUDED IN THE COST OF THE ITEM "CLASS 'A' CONCRETE".

CLOSED CELL ELASTOMER:

THE COST OF FURNISHING AND INSTALLING CLOSED CELL ELASTOMER SHALL BE INCLUDED IN THE COST OF THE ITEM "CLASS 'A' CONCRETE".

CONSTRUCTION JOINTS:

CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.

STAIN PROTECTION:

POLYETHYLENE FILM SHALL BE USED TO PROTECT THE ABUTMENTS AND PIER STEMS FROM SUPERSTRUCTURE STAINING AND SHALL EXTEND FROM THE TOP OF THE STEMS TO THE TOP OF THE FOOTINGS. THE FILM SHALL REMAIN IN PLACE UNTIL AFTER THE BRIDGE DECK HAS BEEN PLACED. SEE SPECIAL PROVISION "STAIN PROTECTION".

ADDENDUM
NO. 5

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DESIGNER: D. GEISSERT DRAFTER: D. GEISSERT CHECKED BY: A. MORETTI DATE CHECKED: 4-9-00		STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION		PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD		TOWN: NEW HAVEN		PROJECT NO.: 92-526	
ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. APPROVED BY: Anthony A. Moretti DATE: 1/04/01		CADD FILE: ADSR703S003.DGN PLOTTED DATE: 1-2-01		DRAWING TITLE: GENERAL NOTES		DRAWING NO.: STR-4		SHEET NO.: 138	
REVISIONS 1-2-01 ADDENDUM NO. 5 - METALLIZING OPTION 138 11-22-00 ADDENDUM NO. 3 - TRACK CROSSING NOTE 138									

SEGMENT 2 STRUCTURAL STEEL NOTES

1. ALL GRADE 50 STRUCTURAL STEEL (LOW ALLOY) SHALL CONFORM TO AASHTO M270, GRADE 50T2 UNLESS NOTED AS 'FRACTURE CRITICAL MEMBER' (FCM), IN WHICH CASE THE STRUCTURAL STEEL (LOW ALLOY) SHALL CONFORM TO AASHTO M270, GRADE 50F2.
2. ALL GRADE 70 STRUCTURAL STEEL (LOW ALLOY) SHALL CONFORM TO AASHTO M270, GRADE HPS 70WT2 (ASTM A709 HPS 70W) UNLESS NOTED AS 'FRACTURE CRITICAL MEMBER' (FCM), IN WHICH CASE THE STRUCTURAL STEEL (LOW ALLOY) SHALL CONFORM TO AASHTO M270, HPS 70WF2 (ASTM A709 HPS 70W).
3. ALL STRUCTURAL STEEL SHALL BE EITHER GALVANIZED OR METALLIZED, SEE SPECIAL PROVISIONS. ATTACHEMENTS SHALL BE GALVANIZED OR STAINLESS STEEL.
4. WELDING DETAILS, PROCEDURES AND TESTING METHODS SHALL CONFORM TO THE ANSI/AASHTO/AWS D1.5-98 BRIDGE WELDING CODE, UNLESS OTHERWISE NOTED ON THE PLANS.
5. BOLTED FIELD SPLICES, OTHER THAN THOSE INDICATED ON THE PLANS, WILL NOT BE ALLOWED EXCEPT WITH THE WRITTEN PERMISSION OF THE ENGINEER PRIOR TO THE SUBMISSION OF SHOP PLANS. IF ALLOWED, THESE SPLICES SHALL BE DESIGNED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE COST OF THESE SPLICES, INCLUDING THE COST OF DESIGN, SHALL BE AT NO EXTRA EXPENSE TO THE STATE. WELDED FIELD SPLICES WILL NOT BE ALLOWED.
6. ALL WEB TO FLANGE, WEB TO BEARING STIFFENER AND BEARING STIFFENER TO FLANGE FILLET WELDS SHALL BE INSPECTED IN THEIR ENTIRETY BY THE MAGNETIC PARTICLE METHOD.
7. MULTIPLE PASS WELDS, INSPECTED BY THE MAGNETIC PARTICLE METHOD SHALL HAVE EACH PASS OR LAYER INSPECTED AND ACCEPTED BEFORE PROCEEDING TO THE NEXT PASS OR LAYER, AS DETERMINED BY THE ENGINEER.
8. UNLESS OTHERWISE NOTED, SHOP WEB SPLICES SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF THE SPAN.
9. SHOP FLANGE SPLICES SHALL BE LOCATED A MINIMUM OF SIX INCHES (6") FROM WEB SPLICES.
10. FLANGE OR WEB SPLICES SHALL BE LOCATED A MINIMUM OF SIX INCHES (6") FROM STIFFENERS AND CONNECTION PLATES.
11. BEARING STIFFENERS AND THE ENDS OF STRINGERS AND FLOOR BEAMS SHALL BE VERTICAL AFTER THE APPLICATION OF FULL DEAD LOADS.
12. THE STRUCTURAL STEEL FABRICATORS SHALL BE CERTIFIED UNDER THE AISC QUALITY CONTROL PROGRAM AS NOTED BELOW:
 CATEGORY SBrF - SIMPLE STEEL BRIDGE STRUCTURES: TYPICAL WORK INCLUDES: HIGHWAY SIGN STRUCTURES, INSPECTION PLATFORMS, BRIDGE COMPONENTS SUCH AS CROSS FRAMES AND UN-SPLICED ROLLED BEAM BRIDGES.

 CATEGORY MBrF - MAJOR STEEL BRIDGES: ALL BRIDGE STRUCTURES OTHER THAN UN-SPLICED ROLLED BEAM BRIDGES.
13. THE CONTRACTOR SHALL TAKE THE PROPER PRECAUTIONS TO INSURE THE STABILITY OF ALL STRUCTURAL ELEMENTS UNTIL THE TOTAL STRUCTURE IS IN BEING.
14. ALL GUSSET PLATES ATTACHED TO, AND PLATES MAKING UP MEMBERS NOTED AS 'FRACTURE CRITICAL MEMBERS', SHALL CONFORM TO THE BASE METAL CHARPY V-NOTCH REQUIREMENTS FOR FRACTURE CRITICAL MEMBERS ZONE 2.
15. BOTTOM CHORD MEMBERS ARE CONTINUOUS THROUGH ODD NUMBERED JOINTS.
16. THE CONTRACTOR IS RESPONSIBLE TO CALCULATE CAMBERS OF TRUSS MEMBERS FOR THE ERECTION PROCEDURE USED. THE CONSTRUCTION SHALL BE SUCH THAT AFTER THE TOTAL DEAD LOAD DEFLECTION, THE FINISHED ROADWAY SURFACES WILL CONFORM TO THE FINAL GRADE.


SEGMENT 2 HIGH STRENGTH BOLT NOTES

1. ALL BOLTED CONNECTIONS SHALL BE "SLIP CRITICAL" CONNECTIONS WITH CLASS 'C' SURFACE CONDITIONS UNLESS OTHERWISE NOTED.
2. ALL HIGH STRENGTH BOLTS SHALL BE 7/8"Ø ASTM A325 TYPE 1 BOLTS IN STANDARD HOLES.
3. UNLESS OTHERWISE NOTED, MINIMUM BOLT SPACING SHALL BE THREE INCHES (3").
4. UNLESS OTHERWISE NOTED, MINIMUM EDGE DISTANCE SHALL BE ONE AND ONE-HALF INCHES (1½") TO SHEARED OR THERMALLY CUT EDGES AND ONE AND ONE-QUARTER INCHES (1¼") TO ROLLED OR PLANNED EDGES.
5. UNLESS OTHERWISE NOTED, BOLTS, NUTS AND WASHERS SHALL BE MECHANICALLY GALVANIZED IN ACCORDANCE WITH ASTM B695, CLASS 50.
6. THE NUTS SHALL BE CONCEALED IN THE CONNECTIONS WHENEVER POSSIBLE.

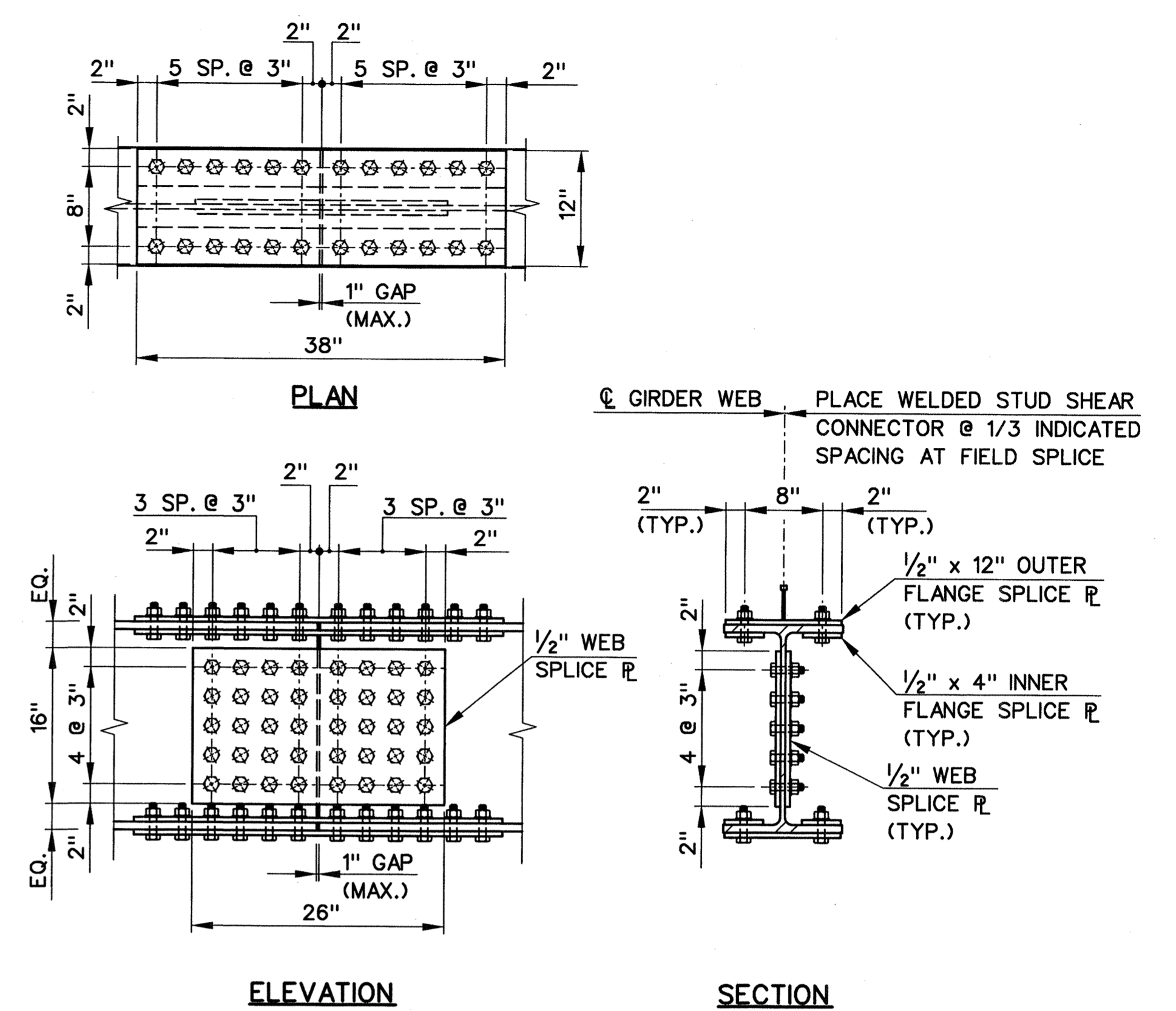
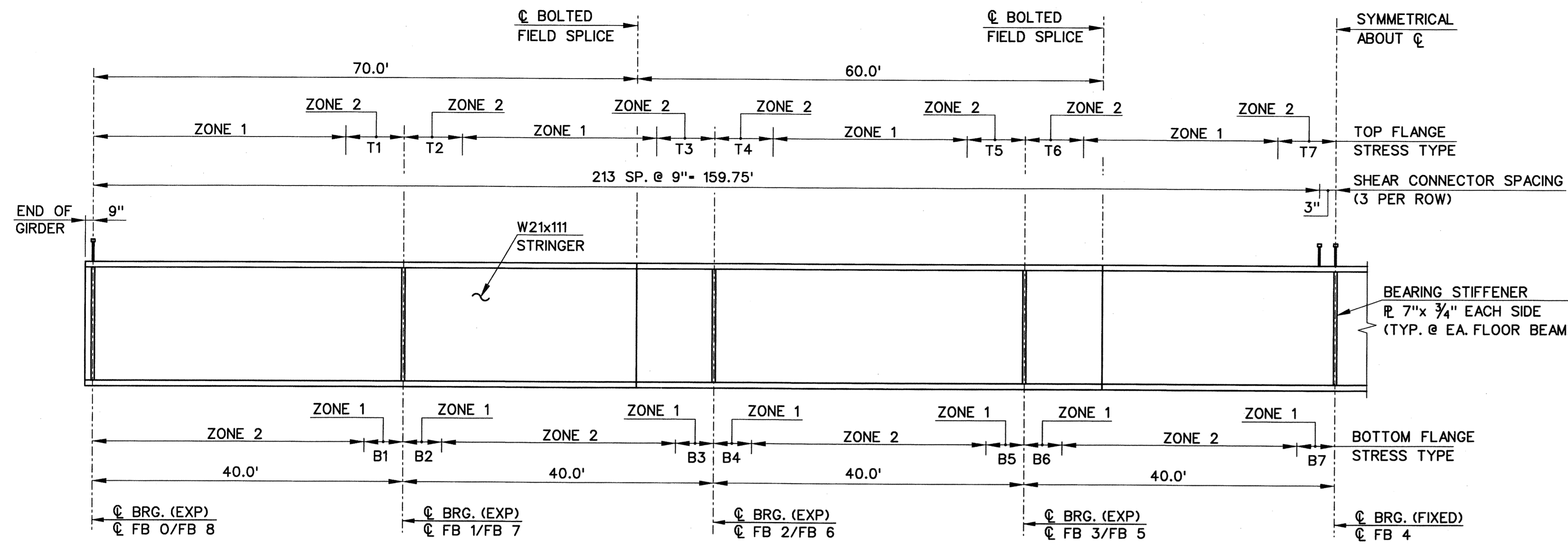
SEGMENT 2 MISCELLANEOUS NOTES

- DRAINAGE HOLES**
 TOP AND BOTTOM CHORDS SHALL HAVE THREE INCH (3") DIAMETER DRAIN HOLES IN THE WEB, CENTERED BETWEEN FLANGES. DRAIN HOLES ARE TO BE SPACED AT FIVE FEET (5') ± CENTER TO CENTER.
- JACKING PROVISIONS**
 PROVISIONS HAVE BEEN MADE FOR JACKING THE FULL DEAD AND LIVE LOAD WITH IMPACT AT FB 0 AND FB 8.

ADDENDUM NO. 5

 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION	DESIGNER: D. GEISSERT DRAFTER: D. GEISSERT CHECKED BY: D. MOOLIN DATE CHECKED: 4-9-00	ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC. APPROVED BY: <i>Anthony A. Marotti</i> DATE: 1/04/01	PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD	TOWN: NEW HAVEN	PROJECT NO.: 92-526	DRAWING NO.: STR-65	SHEET NO.: 199
ADDENDUM NO. 5 - METALLIZING OPTION REV. DATE DESCRIPTION SHEET NO.	1-2-01 199	REVISIONS	CADD FILE: AD5R703S070A.DGN	PLOTTED DATE: 1-2-01			

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GIRDER		INCREMENT LENGTH SPAN 2	CAMBER ORDINATES (ft)																				
			¢ BRG. FB 0	SPAN			¢ BRG. FB 1	SPAN			¢ BRG. FB 2	SPAN			¢ BRG. FB 3	SPAN			¢ BRG. FB 4				
S1 & S6	STEEL DEAD LOAD	10.000	0.000	0.003	0.004	0.002	0.000	0.001	0.001	0.000	0.001	0.002	0.001	0.000	0.001	0.002	0.001	0.000	0.001	0.000	0.001	0.000	
	ADDITIONAL DEAD LOAD		0.000	0.025	0.032	0.017	0.000	0.002	0.008	0.005	0.000	0.008	0.014	0.008	0.000	0.007	0.013	0.007	0.000	0.007	0.013	0.007	0.000
	COMPOSITE DEAD LOAD		0.000	0.007	0.008	0.005	0.000	0.001	0.002	0.001	0.000	0.002	0.004	0.002	0.000	0.002	0.003	0.002	0.000	0.002	0.003	0.002	0.000
	TOTAL DEAD LOAD		0.000	0.035	0.044	0.024	0.000	0.003	0.011	0.006	0.000	0.012	0.020	0.011	0.000	0.010	0.017	0.010	0.000	0.010	0.017	0.010	0.000
	VERT. CURVE ORD.		0.000	0.000	0.000	0.000	0.000	0.005	0.010	0.009	0.000	0.013	0.017	0.013	0.000	0.013	0.017	0.013	0.000	0.013	0.017	0.013	0.000
S2-S3	STEEL DEAD LOAD	10.000	0.000	0.003	0.004	0.002	0.000	0.001	0.001	0.000	0.001	0.002	0.001	0.000	0.001	0.002	0.001	0.000	0.001	0.002	0.001	0.000	
	ADDITIONAL DEAD LOAD		0.000	0.029	0.036	0.020	0.000	0.003	0.009	0.005	0.000	0.010	0.016	0.009	0.000	0.008	0.014	0.008	0.000	0.008	0.014	0.008	0.000
	COMPOSITE DEAD LOAD		0.000	0.006	0.008	0.004	0.000	0.001	0.002	0.001	0.000	0.002	0.003	0.002	0.000	0.002	0.003	0.002	0.000	0.002	0.003	0.002	0.000
	TOTAL DEAD LOAD		0.000	0.039	0.048	0.026	0.000	0.004	0.012	0.007	0.000	0.013	0.021	0.012	0.000	0.011	0.019	0.011	0.000	0.011	0.019	0.011	0.000
	VERT. CURVE ORD.		0.000	0.000	0.000	0.000	0.000	0.005	0.010	0.009	0.000	0.013	0.017	0.013	0.000	0.013	0.017	0.013	0.000	0.013	0.017	0.013	0.000
S4 & S5	STEEL DEAD LOAD	10.000	0.000	0.003	0.004	0.002	0.000	0.001	0.001	0.000	0.001	0.002	0.001	0.000	0.001	0.002	0.001	0.000	0.001	0.002	0.001	0.000	
	ADDITIONAL DEAD LOAD		0.000	0.032	0.039	0.022	0.000	0.003	0.010	0.006	0.000	0.011	0.018	0.010	0.000	0.009	0.016	0.009	0.000	0.009	0.016	0.009	0.000
	COMPOSITE DEAD LOAD		0.000	0.006	0.008	0.004	0.000	0.001	0.002	0.001	0.000	0.002	0.003	0.002	0.000	0.002	0.003	0.002	0.000	0.002	0.003	0.002	0.000
	TOTAL DEAD LOAD		0.000	0.041	0.051	0.028	0.000	0.004	0.013	0.007	0.000	0.014	0.023	0.013	0.000	0.011	0.020	0.012	0.000	0.011	0.020	0.012	0.000
	VERT. CURVE ORD.		0.000	0.000	0.000	0.000	0.000	0.005	0.010	0.009	0.000	0.013	0.017	0.013	0.000	0.013	0.017	0.013	0.000	0.013	0.017	0.013	0.000

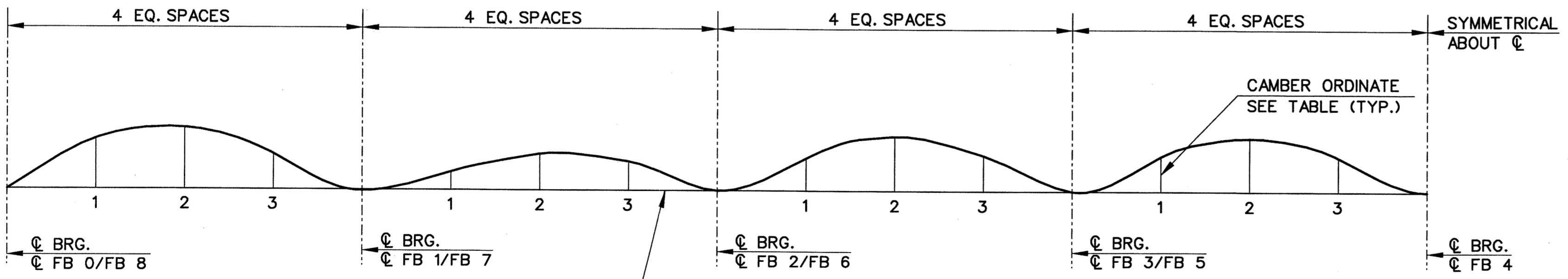
BOLTED FIELD SPLICE NOTES:

- FOR LOCATION OF FIELD SPLICES, SEE STRINGER SCHEDULE.
- ALL BOLTS SHALL BE 7/8" DIAMETER ASTM A325.
- ALL FIELD SPLICES SHALL BE "SLIP CRITICAL" CONNECTIONS WITH CLASS 'C' SURFACE CONDITIONS.
- ALL FASTENERS SHALL HAVE ONE HEAVY HEX NUT AND ONE HARDENED WASHER UNDER THE TURNED ELEMENT.
- ALL BOLT HOLES SHALL BE DRILLED OR PUNCHED TO A FINISHED DIAMETER OF 15/16".
- ALL SPLICE AND FILLER PLATES SHALL CONFORM TO ASTM A709 (GRADE 50), SHALL BE FREE FROM BURRS, NICKS, AND GOUCHES, AND SHALL BE EITHER GALVANIZED OR METALIZED. SEE SPECIAL PROVISIONS.
- BOLT HEADS SHALL FACE DOWNWARD ON FLANGE SPLICES AND SHALL FACE OUTWARD ON FACIA GIRDER WEB SPLICES.

STRESS ZONE DIMENSIONS (FEET)																
MARK	T1	T2	T3	T4	T5	T6	T7	B1	B2	B3	B4	B5	B6	B7		
S1 & S6	9.383	11.979	9.522	9.293	9.483	9.543	9.476	6.003	6.551	5.201	4.963	5.441	5.497	5.342		
S2 & S3	9.313	11.900	9.449	9.211	9.415	9.473	9.407	6.006	6.521	5.221	4.989	5.457	5.513	5.363		
S4 & S5	9.289	11.876	9.429	9.177	9.391	9.455	9.382	6.090	6.642	5.321	5.084	5.555	5.610	5.458		

NOTES:

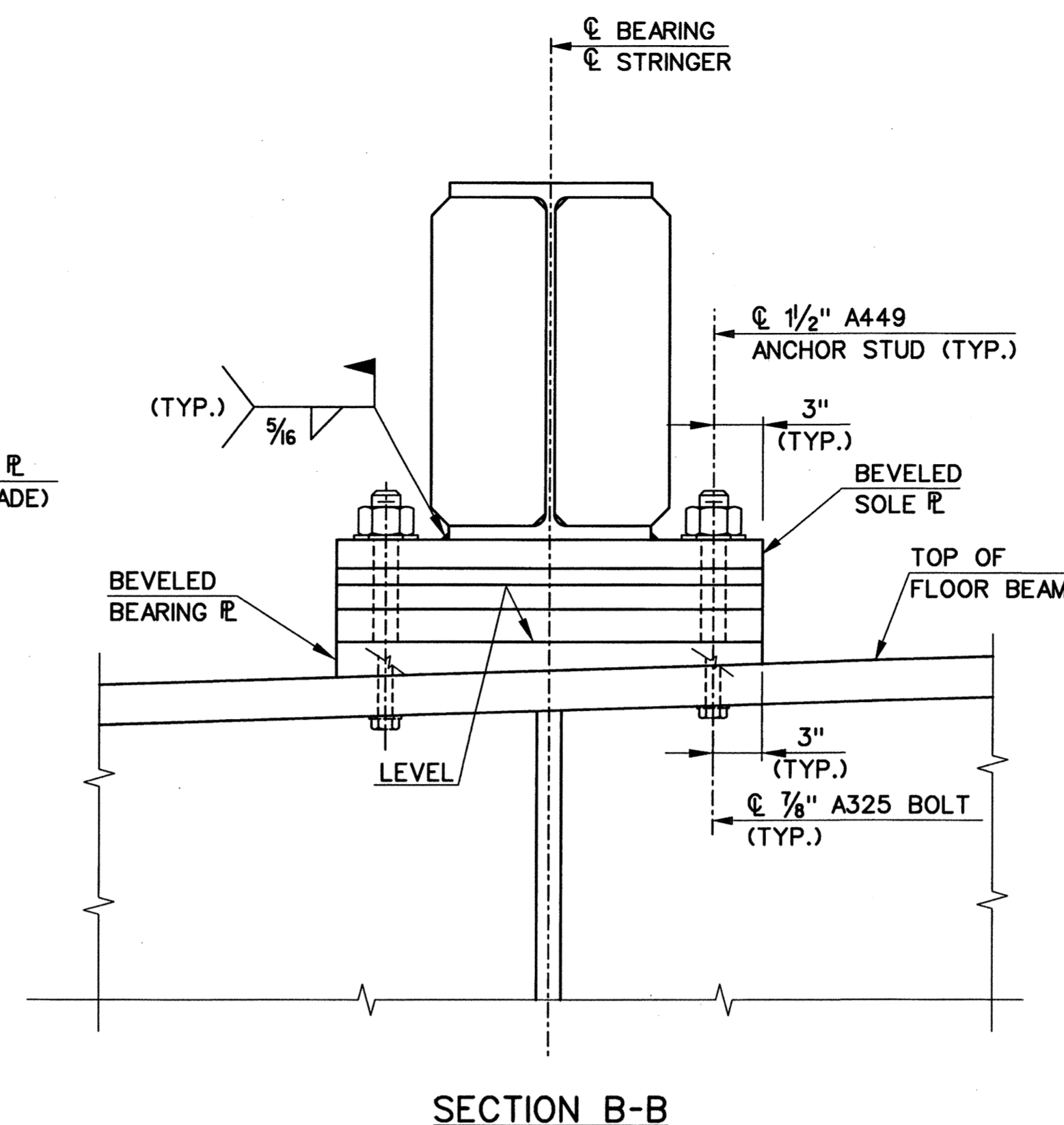
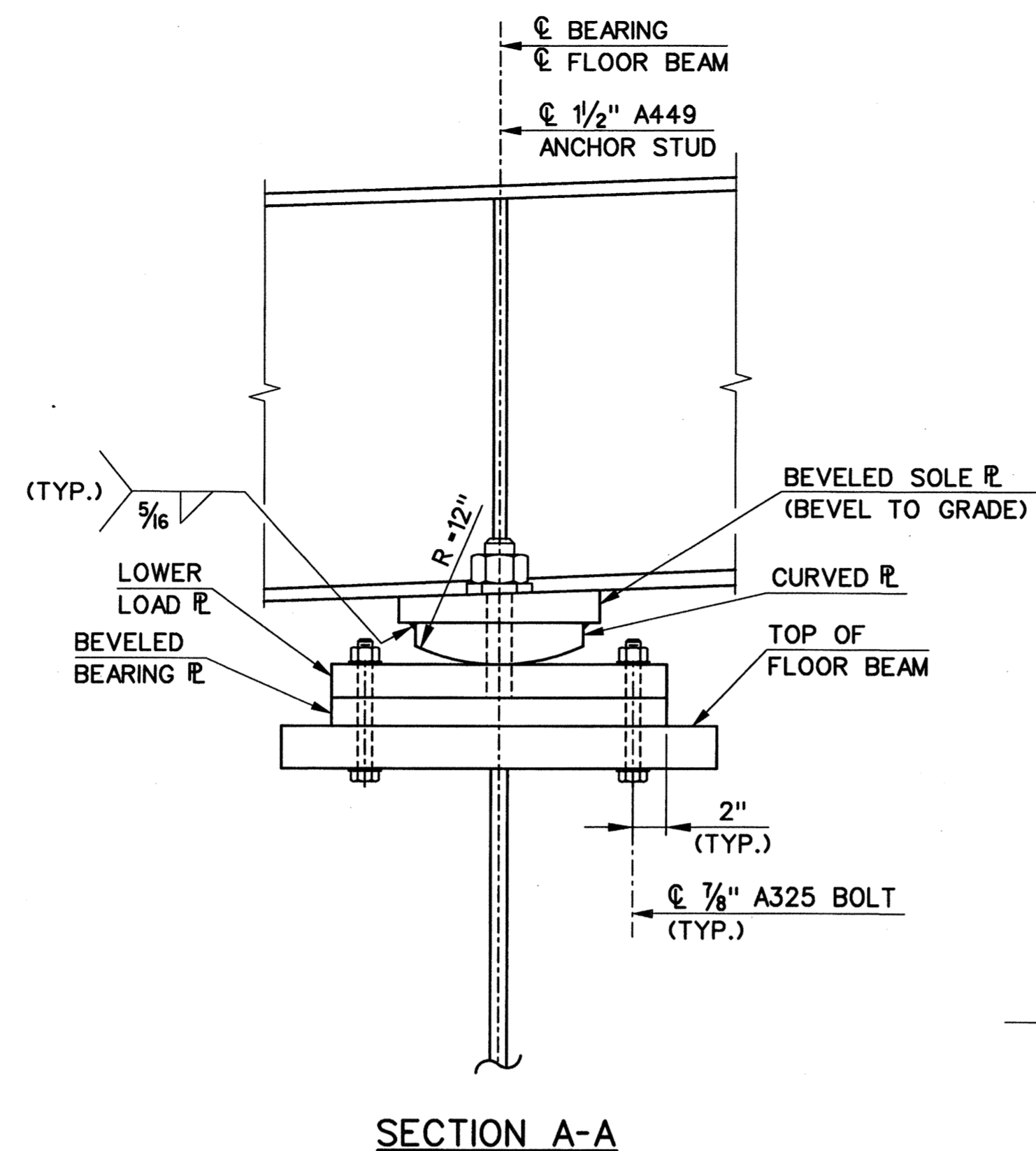
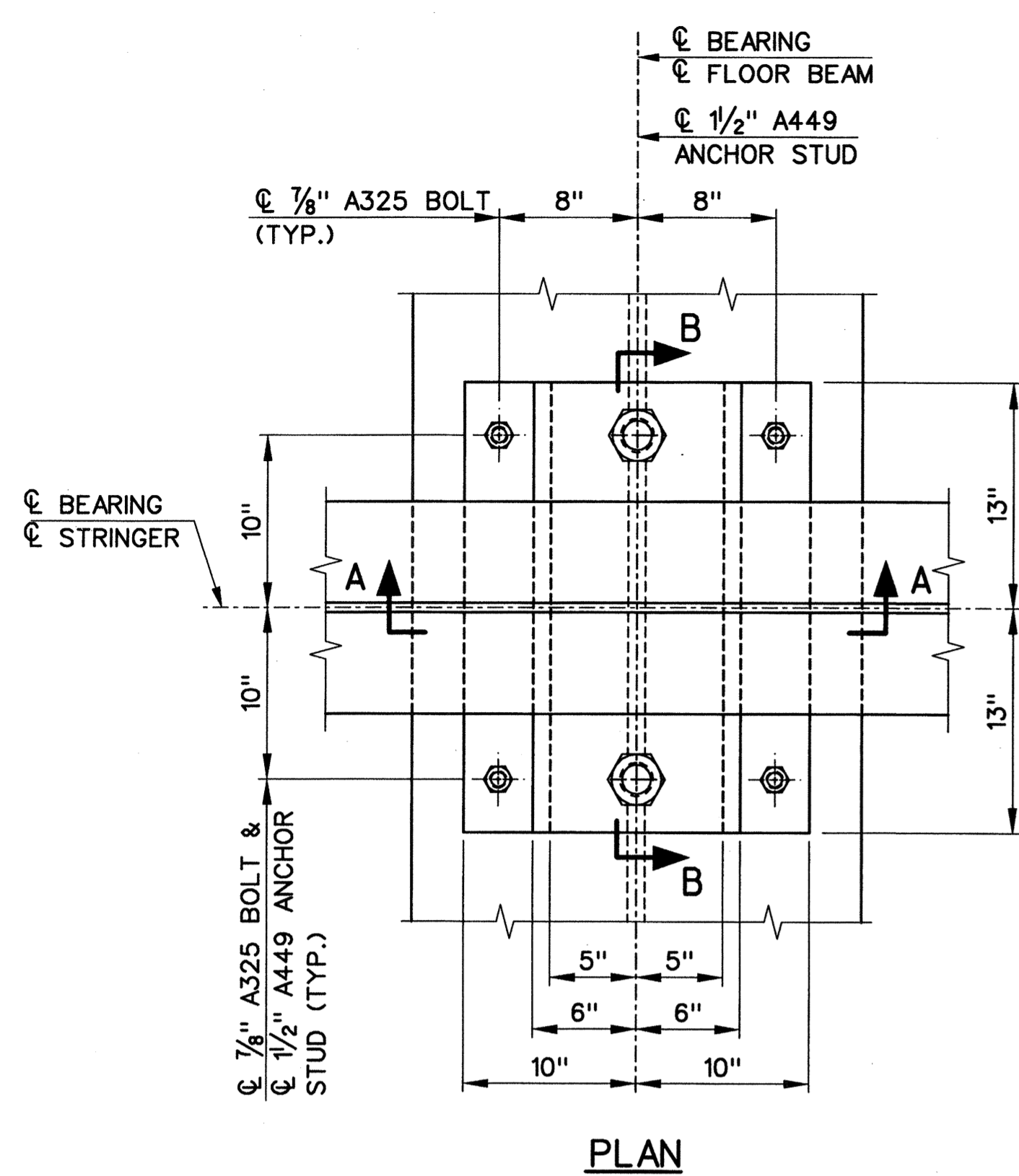
- ALL LENGTH DIMENSIONS ARE HORIZONTAL AND MEASURED ALONG THE ¢ OF THE STRINGER WEB.
- NO ATTACHMENT SHALL BE FILLET WELDED, PLUG WELDED OR TACK WELDED TO THE TENSION OR REVERSAL FLANGES (ZONE 2).
- FOR STRUCTURAL STEEL NOTES, SEE DWG. NO. STR-47.
- FOR BEARING STIFFENERS AND CONNECTION PLATE DETAILS, SEE DWG. NO. STR-57.
- FOR SHEAR CONNECTOR DETAILS, SEE DWG. NO. STR-57.
- STEEL DEAD LOAD INCLUDES STRINGERS AND DIAPHRAGMS.
- ADDITIONAL DEAD LOAD INCLUDES CONCRETE DECK SLAB, HAUNCHES, UTILITIES AND REMAIN-IN-PLACE FORMS.
- COMPOSITE DEAD LOAD INCLUDES PARAPETS, SIDEWALKS, RAILINGS AND FUTURE BITUMINOUS CONCRETE OVERLAY.
- TOTAL DEAD LOAD INCLUDES STEEL DEAD LOAD, ADDITIONAL DEAD LOAD AND COMPOSITE DEAD LOAD.
- TOTAL CAMBER APPLIES TO TOP OF WEB.



ADDENDUM NO. 5

07.32.34 04 JAN 2001 74 dgm\bb8703\chur\chur\addendum no.5\45703s082.dgn

1-2-01 REV. DATE DESCRIPTION REVISIONS 212 SHEET NO.	SCALE AS NOTED	DESIGNER: D. BAGDASARIAN / R. DEVAUX		PROJECT TITLE: CHURCH STREET SOUTH EXTENSION OVER NEW HAVEN INTERLOCKING AND RAIL YARD	TOWN: NEW HAVEN	PROJECT NO.: 92-526
		DRAFTER: A. KILPATRICK		ENGINEER: PARSONS BRINCKERHOFF QUADE & DOUGLAS, INC.	DRAWING TITLE: STRINGER SCHEDULE AND DETAILS	DRAWING NO.: STR-78
		CHECKED BY: M. VIOLANTI	APPROVED BY: Anthony A. Monti	DATE: 1/07/01		SHEET NO.: 212
		DATE CHECKED: 4-9-00		CADD FILE: AD57703S082.DGN	PLOTTED DATE: 1-2-01	



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

BEARING NOTES:

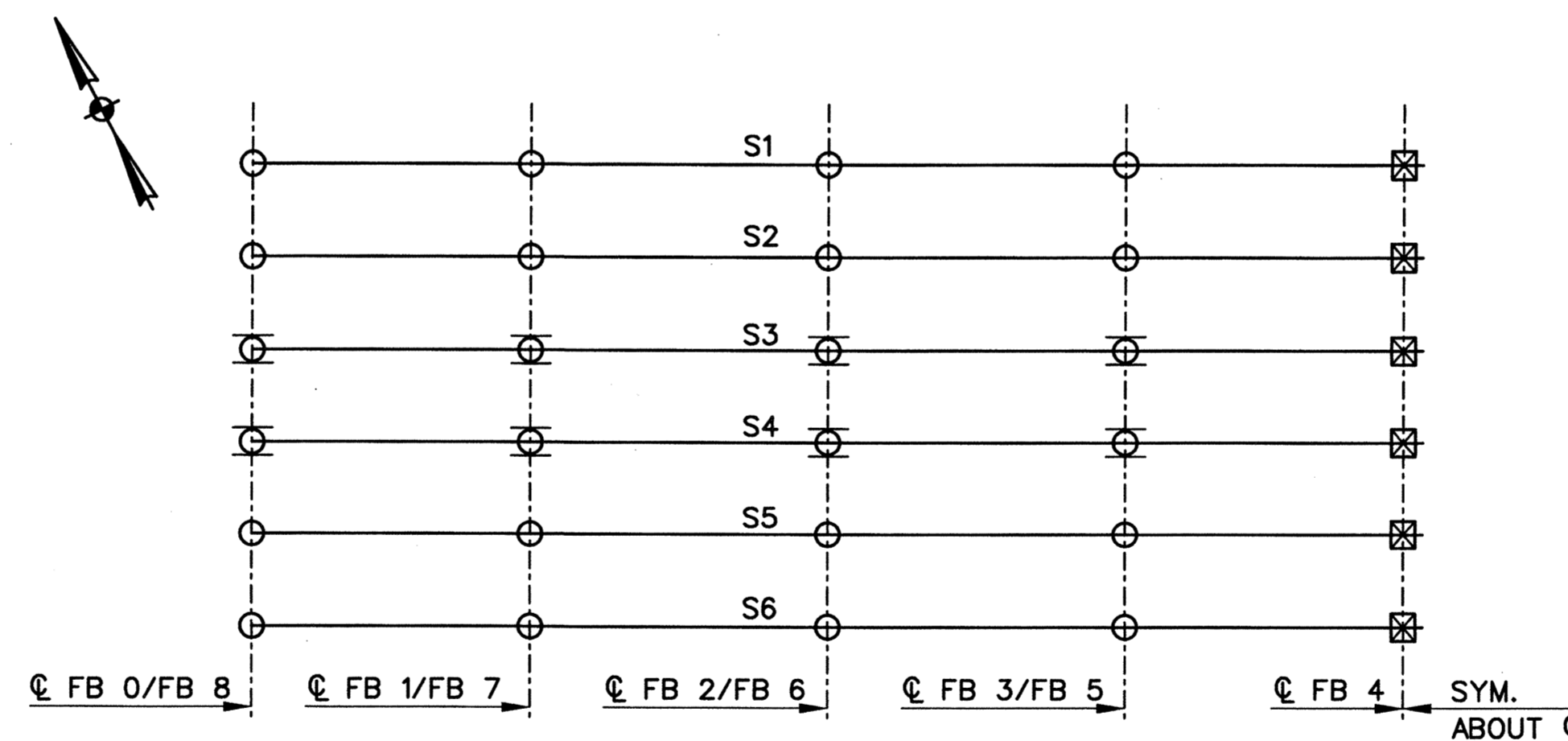
- ELASTOMER SHALL BE GRADE 3 WITH A SHORE "A" DUROMETER HARDNESS - 50 ± 5 POINTS AND A SHEAR MODULUS WITHIN THE RANGE OF 95 PSI TO 135 PSI.
- THE STEEL LAMINAE USED IN THE ELASTOMERIC BEARING SHALL CONFORM TO ASTM A709, GRADE 36 AND SHALL BE PAID FOR UNDER THE ITEM "ELASTOMERIC BEARING PADS".
- THE ANCHOR STUDS SHALL CONFORM TO ASTM A449. THE ANCHOR STUDS, NUTS AND WASHERS SHALL BE MECHANICALLY GALVANIZED IN CONFORMANCE WITH ASTM B695, CLASS 50 AND SHALL BE PAID FOR UNDER THE ITEM "STRUCTURAL STEEL - SEGMENT 2".
- BOLTED CONNECTIONS SHALL BE "SLIP-CRITICAL" CONNECTIONS WITH CLASS "C" SURFACE CONDITION USING 7/8" ASTM A325 HIGH STRENGTH BOLTS AND SHALL BE PAID FOR UNDER THE ITEM "STRUCTURAL STEEL - SEGMENT 2".
- ALL OTHER STEEL IN BEARINGS INCLUDING SOLE PLATES, CURVED PLATES, BEARING PLATES AND LOAD PLATES SHALL CONFORM TO ASTM A709, GRADE 50, SHALL BE PAID FOR UNDER THE ITEM "STRUCTURAL STEEL - SEGMENT 2", AND SHALL BE GALVANIZED OR METALLIZED. SEE SPECIAL PROVISIONS.
- THE LOAD PLATES SHALL BE HOT BONDED TO THE ELASTOMERIC BEARING PAD DURING VULCANIZATION.
- THE SOLE PLATE SHALL BE BEVELED TO MATCH THE SLOPE OF THE GIRDER SO THAT THE BOTTOM SURFACE OF THE PLATE IS LEVEL AFTER THE APPLICATION OF FULL DEAD LOAD.
- ELASTOMERIC BEARINGS SHALL BE INSTALLED AT AN AMBIENT TEMPERATURE BETWEEN 30° AND 70° F. CENTERLINE OF BEARING PAD AND SOLE PLATE TO BE INSTALLED AT THE CENTERLINE OF BEARING.
- AFTER GIRDER ERECTION AND WELDING OF GIRDER TO SOLE PLATE, LOOSEN ANCHOR STUD (APPROX. 1/8 TURN) TO ALLOW FREE MOTION OF THE BEARING PAD, THEN BURR THREAD AT TOP OF NUT.
- IN NO CASE SHALL THE ELASTOMER OR VULCANIZED BOND BE SUBJECTED TO TEMPERATURES HIGHER THAN 400° F.
- THE ELASTOMERIC BEARING PADS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (AASHTO-1996), SECTION 14 (METHOD B).

STRINGER	BEVELED SOLE PLATE	CURVED LOAD PLATE	LOWER LOAD PLATE	BEVELED BEARING PLATE
S1	2"	2 1/2"	2"	2"
S2	2"	2 1/2"	2"	2"
S3	2"	2 1/2"	2"	2"
S4	2 1/2"	2 1/2"	2"	2 1/2"
S5	3/4"	2 1/2"	2 1/2"	3/4"
S6	3/4"	2 1/2"	2 1/2"	3/4"

NOTE: BEVELED PLATE THICKNESS MEASURED AT CL OF BEARING.

LOCATION	STRINGER NO.	MAXIMUM VERTICAL LOADS (KIPS)				
		DL	LL	I	TOTAL	1.5 x TOTAL
FB 0/FB 8	S1, S6	29	39	12	80	120
	S2, S3	32	49	15	96	144
	S4, S5	33	49	15	97	146
FB 1/FB 7	S1, S6	83	48	14	145	218
	S2, S3	91	59	18	168	252
	S4, S5	95	59	18	172	258
FB 2/FB 6	S1, S6	71	45	14	130	195
	S2, S3	77	56	17	150	225
	S4, S5	81	56	17	154	231
FB 3/FB 5	S1, S6	74	45	14	133	200
	S2, S3	81	56	17	154	230
	S4, S5	85	56	17	158	237
FB 4	S1, S6	73	48	14	135	203
	S2, S3	80	59	18	157	234
	S4, S5	84	59	18	161	242

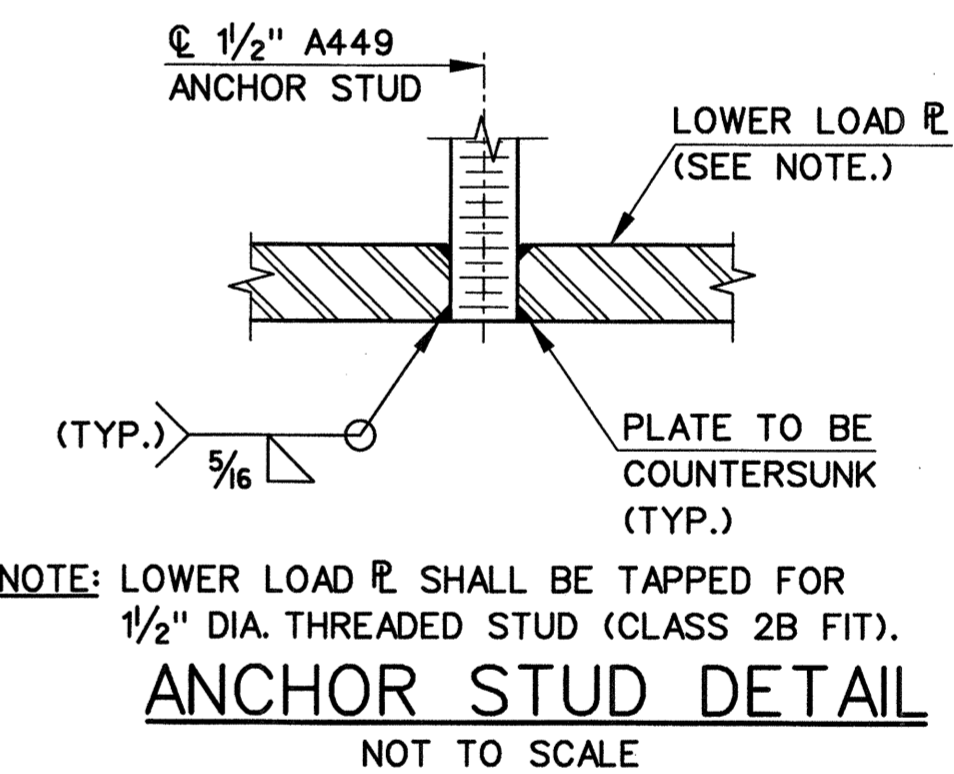
ABBREVIATIONS
DL - DEAD LOAD
LL - LIVE LOAD
I - IMPACT



BEARING LOCATION PLAN
NOT TO SCALE

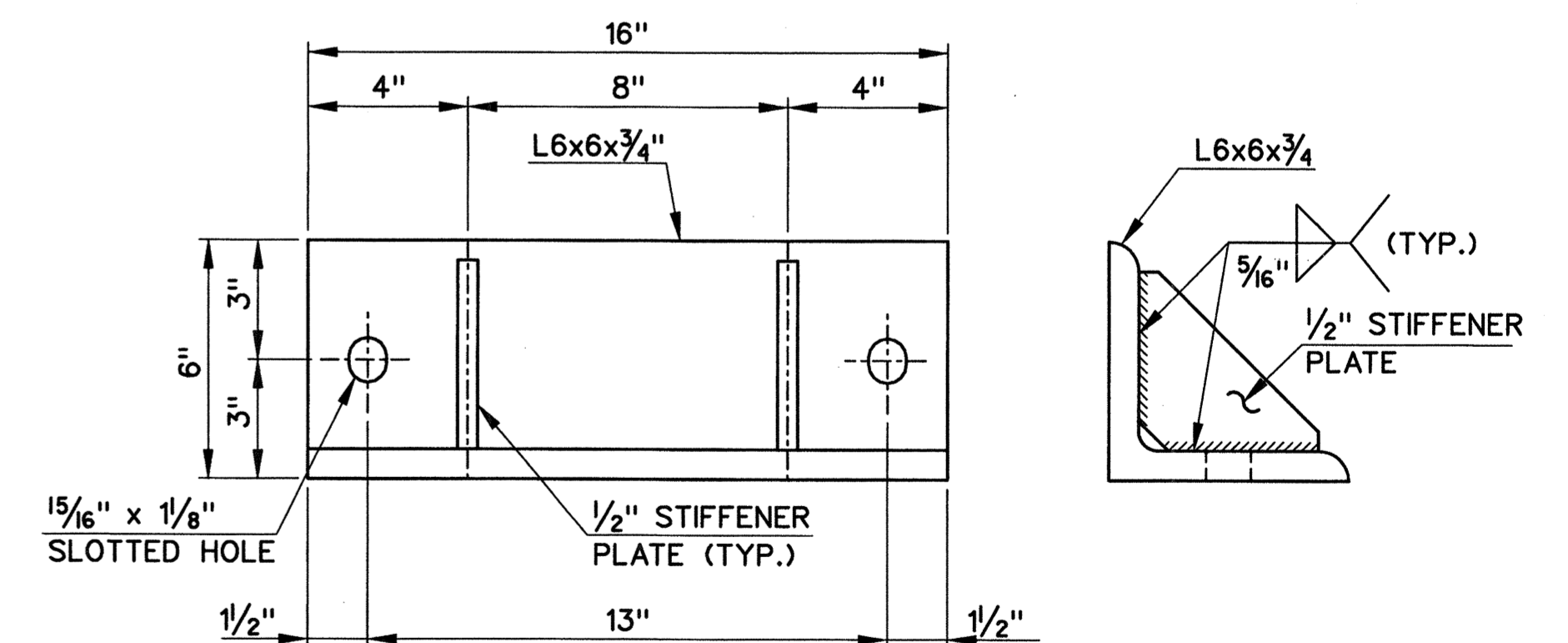
LEGEND

- - EXPANSION BEARING (NON-GUIDED)
- ◌ - EXPANSION BEARING (GUIDED)
- ⊠ - FIXED BEARING



NOTE: LOWER LOAD PLATE SHALL BE TAPPED FOR 1/2" DIA. THREADED STUD (CLASS 2B FIT).

ANCHOR STUD DETAIL
NOT TO SCALE



KEEPER ANGLE DETAIL

SCALE: 3" = 1'-0"

ADDENDUM NO. 5

07-3433 04 JAN 2001 A:\dgn\0703\churchst\addendum no.5\add5r703s089.dgn

REV.	DATE	DESCRIPTION	SHEET NO.
1-2-01		ADDENDUM NO. 5 - METALLIZING OPTION	220

SCALE AS NOTED

DESIGNER: D. BAGDASARIAN
DRAFTER: M. OFFENBERG
CHECKED BY: M. VIOLANTI
DATE CHECKED: 4-9-00

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: PARSONS BRINCKERHOFF, QUADE & DOUGLAS, INC.
APPROVED BY: *Anthony A. Novati*
DATE: 1/04/01

PROJECT TITLE:
CHURCH STREET SOUTH EXTENSION
OVER NEW HAVEN INTERLOCKING
AND RAIL YARD

CADD FILE: A05R703S089.DGN
PLOTTED DATE: 1-2-01

TOWN: NEW HAVEN

DRAWING TITLE:
BEARING DETAILS (SEGMENT 2) -
SHEET 3 OF 3

PROJECT NO.: 92-526
DRAWING NO.: STR-86
SHEET NO.: 220