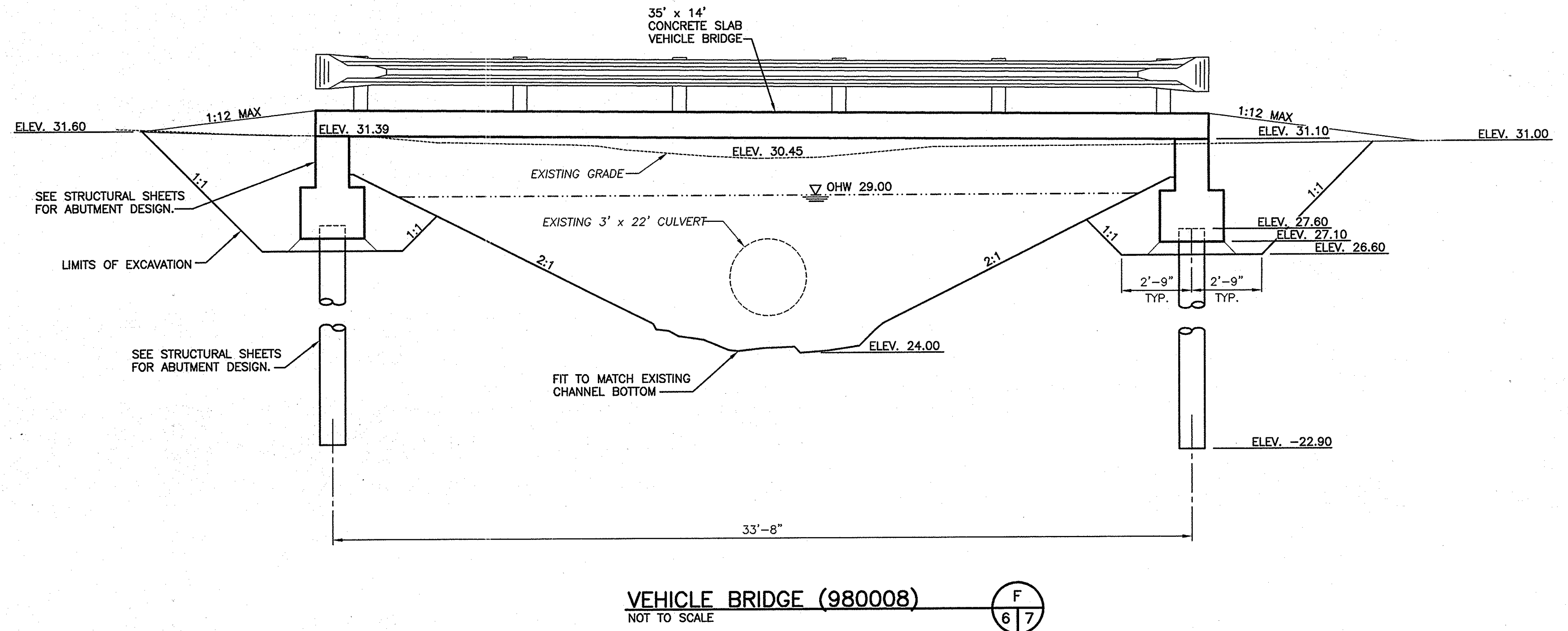
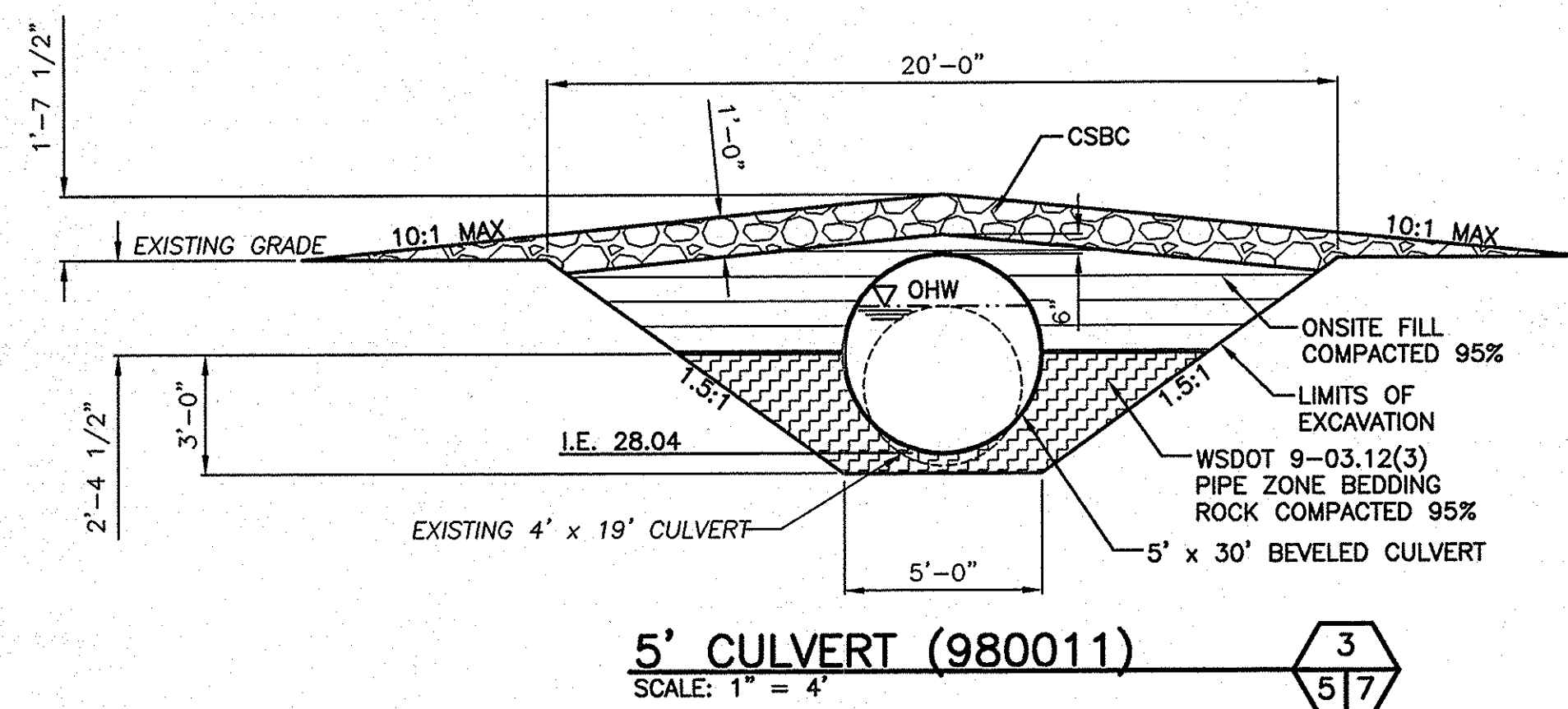
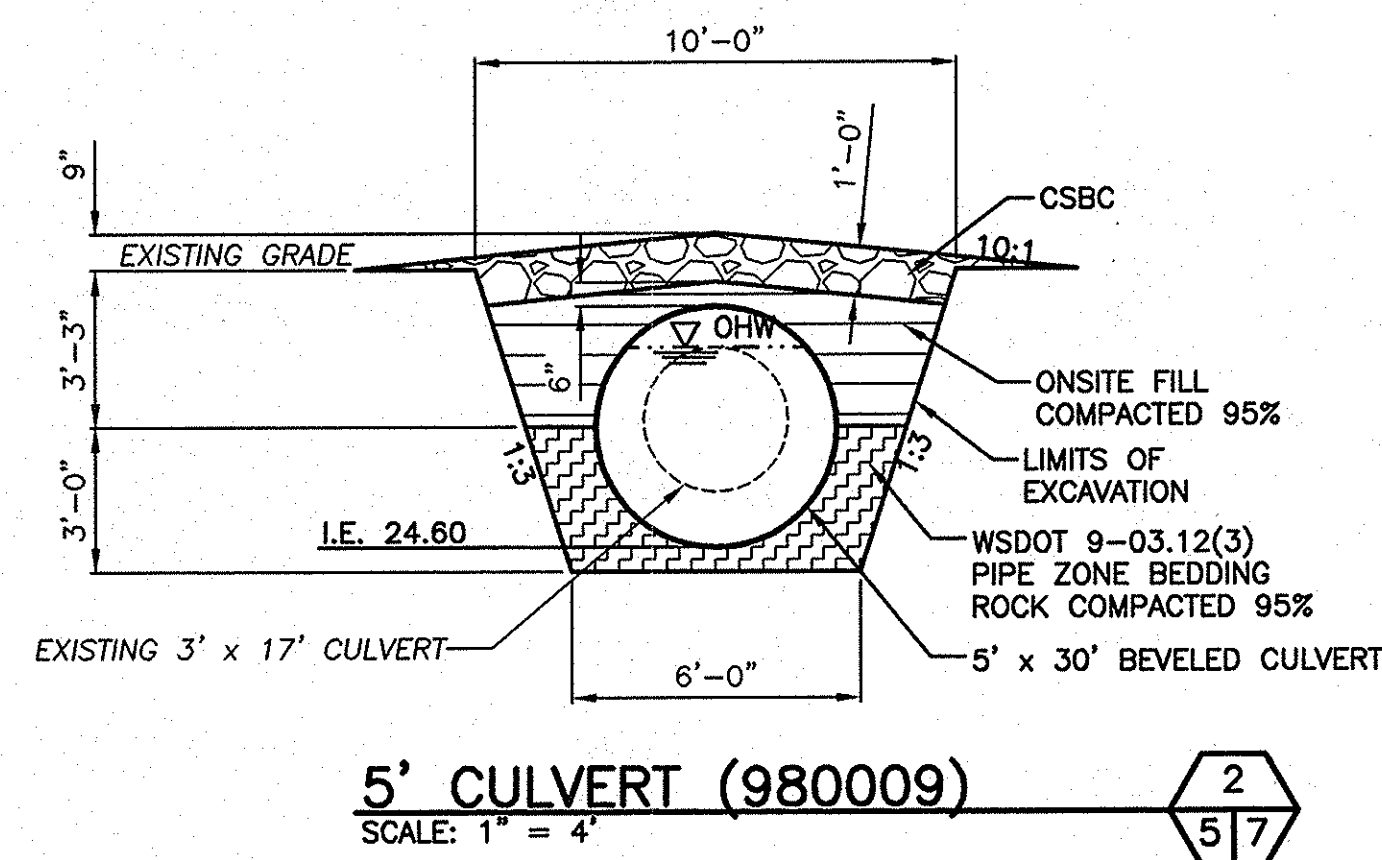
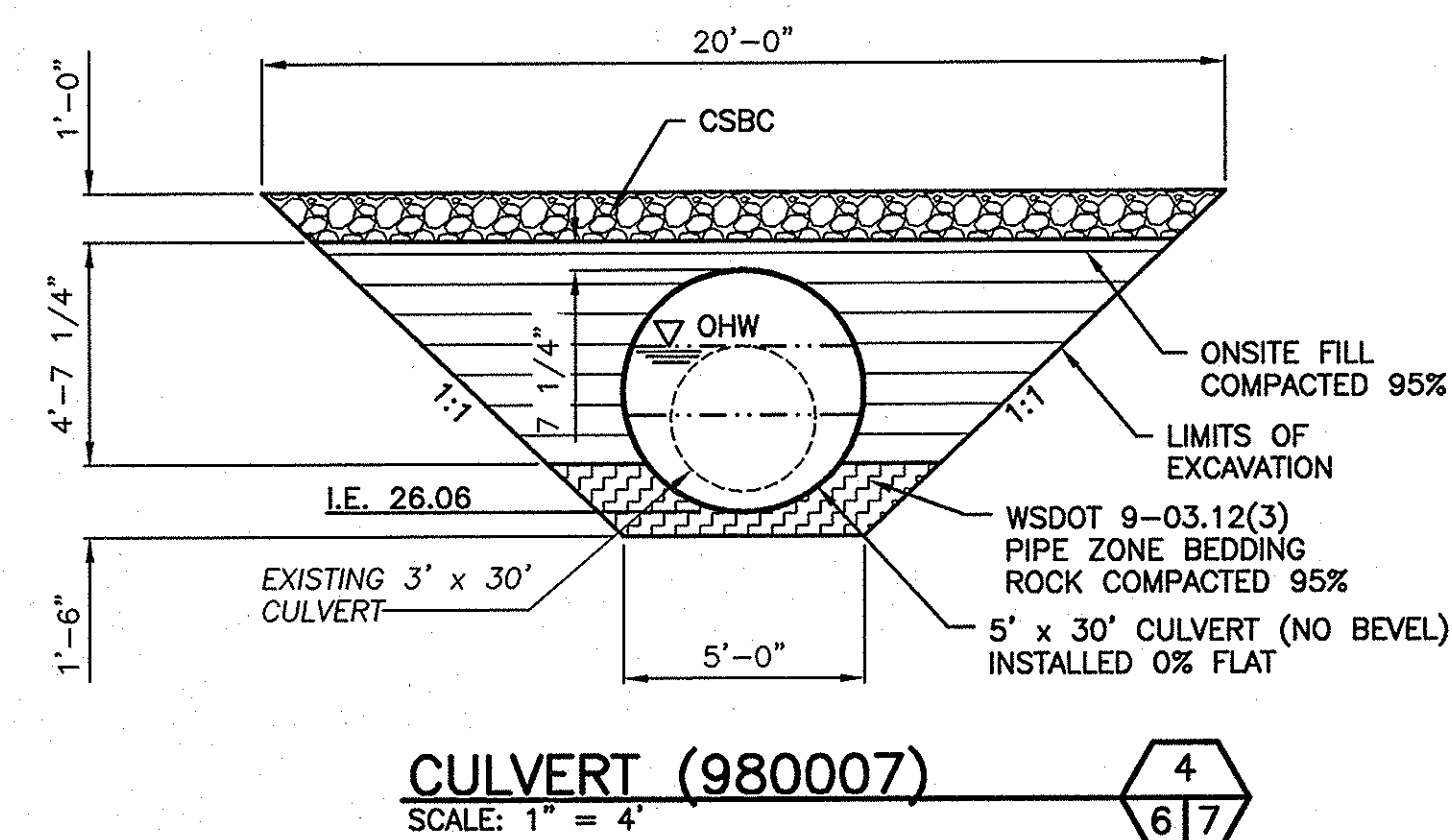




NOTE:

MATERIALS NOT SHOWN (FOR CLARITY)
SEE SHEET 22, TYPICAL BRIDGE SECTION
FOR CHANNEL AND BRIDGE MATERIALS.

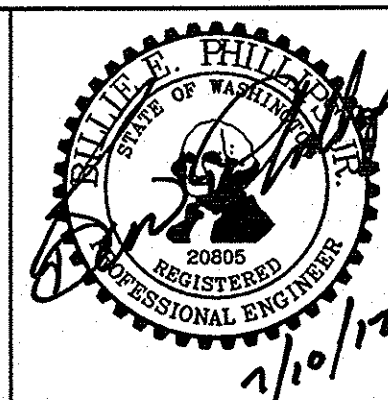


NOTE:

SEE TYPICAL EXCAVATION DETAIL FOR
SITES 980010 & W ON SHEET 12.

QUANTITIES			
SITE #	CUT	FILL	NET
980007	-89.97cy	82.86cy	-7.11cy
980008	-157.43cy	44.27cy	-113.16cy
W	-64.81cy	0cy	-64.81cy
980009	-25.91cy	25.50cy	-.41cy
980010	-90.58cy	0cy	-90.58cy
980011	-38.04cy	54.11cy	16.07cy

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE

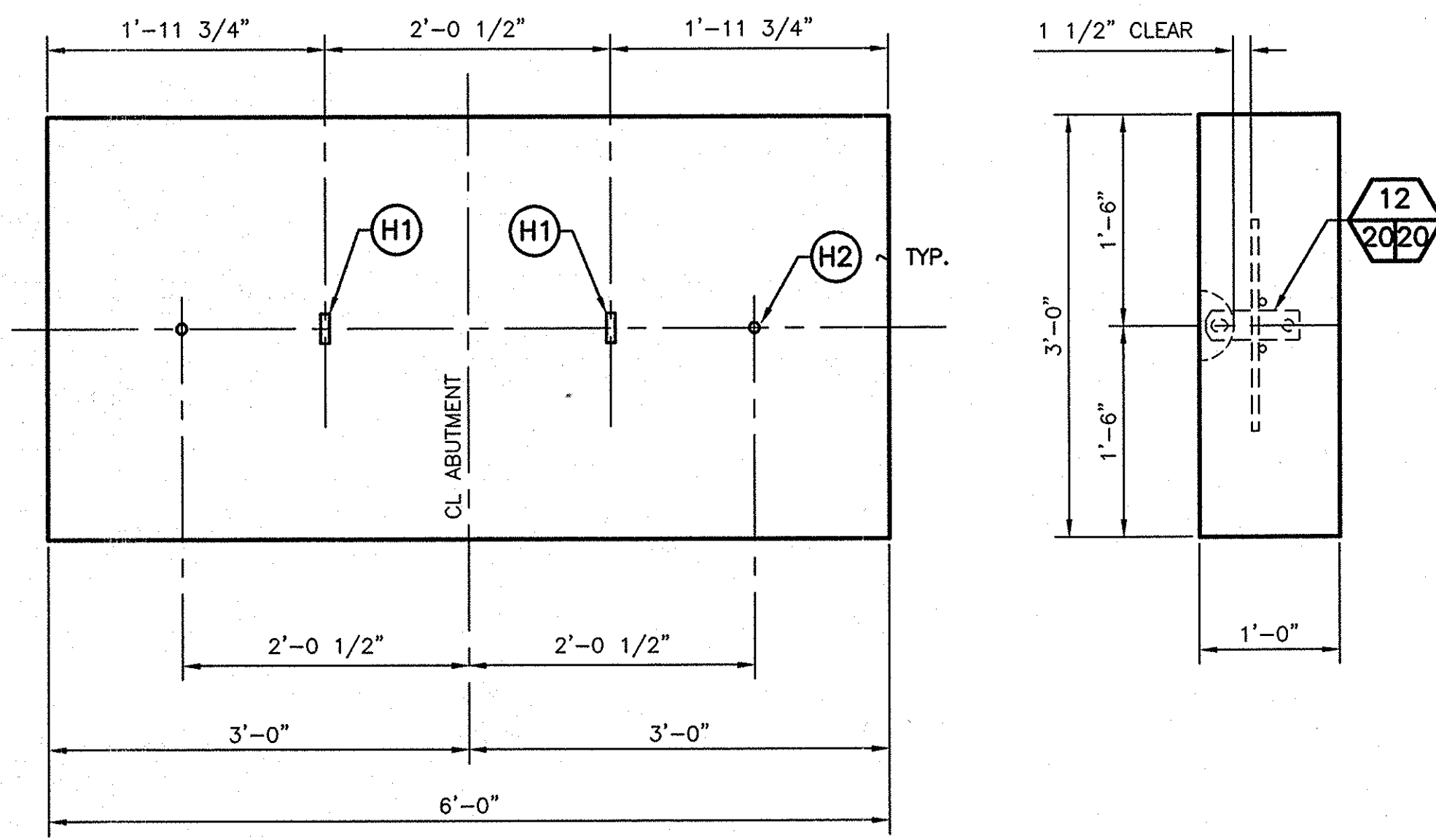


SYM	DATE	REVISION DESCRIPTION	BY
		APPROVED AND RELEASED FOR CONSTRUCTION	
CHIEF ENGINEER		DESIGNED BY K. KUYKENDALL	
PROGRAM		CHECKED BY A. JOHNSON	
		DRAWN BY A. JOHNSON	
		DATE 07/09/2012	

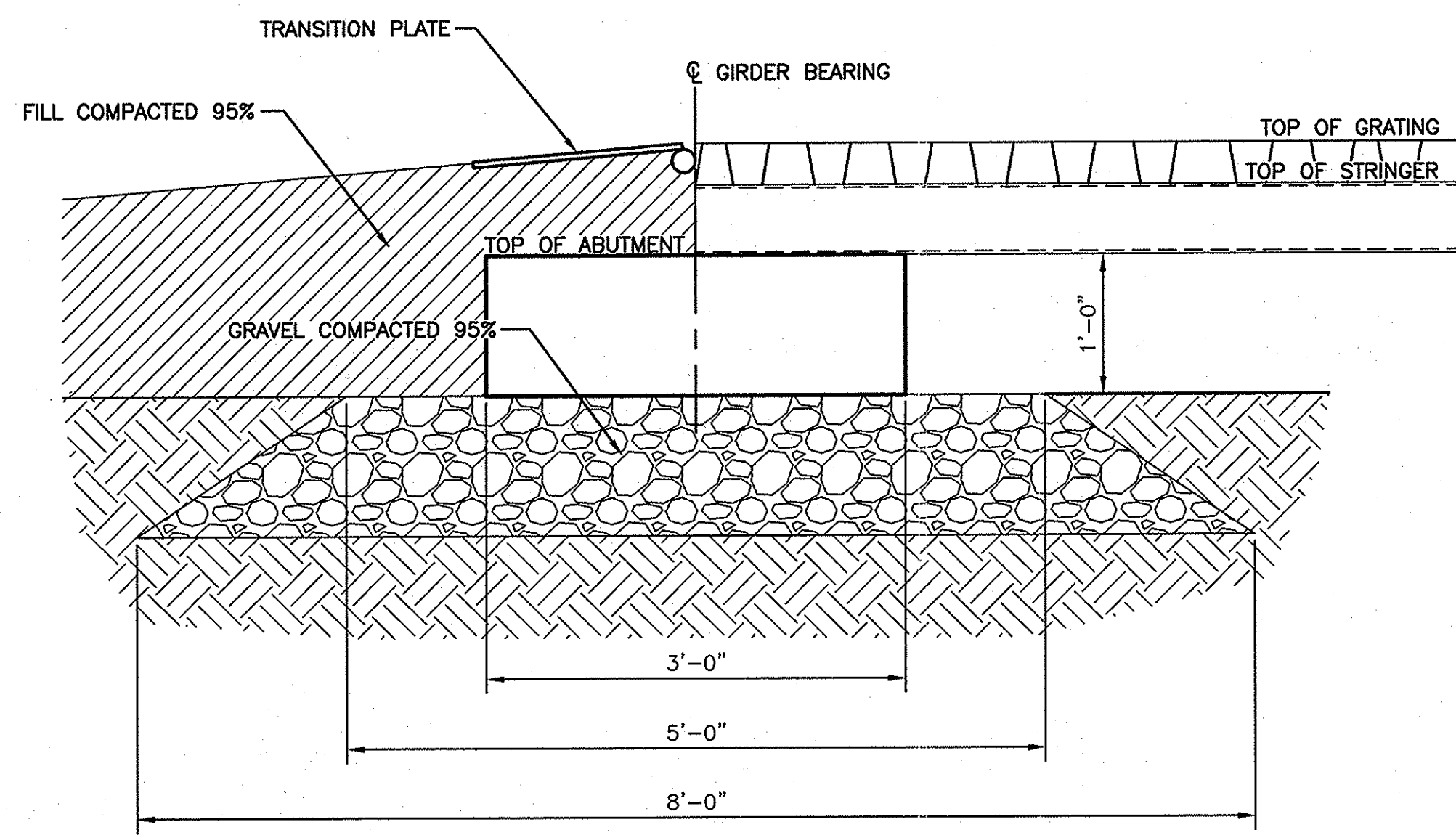
CHERRY VALLEY WILDLIFE AREA
FISH PASSAGE RESTORATION
WORK AREA 2 & 3 (980007, 08, 09, 10, 11, & W)
SECTION & DETAILS

PROJECT NO.
KG:R37:11-1

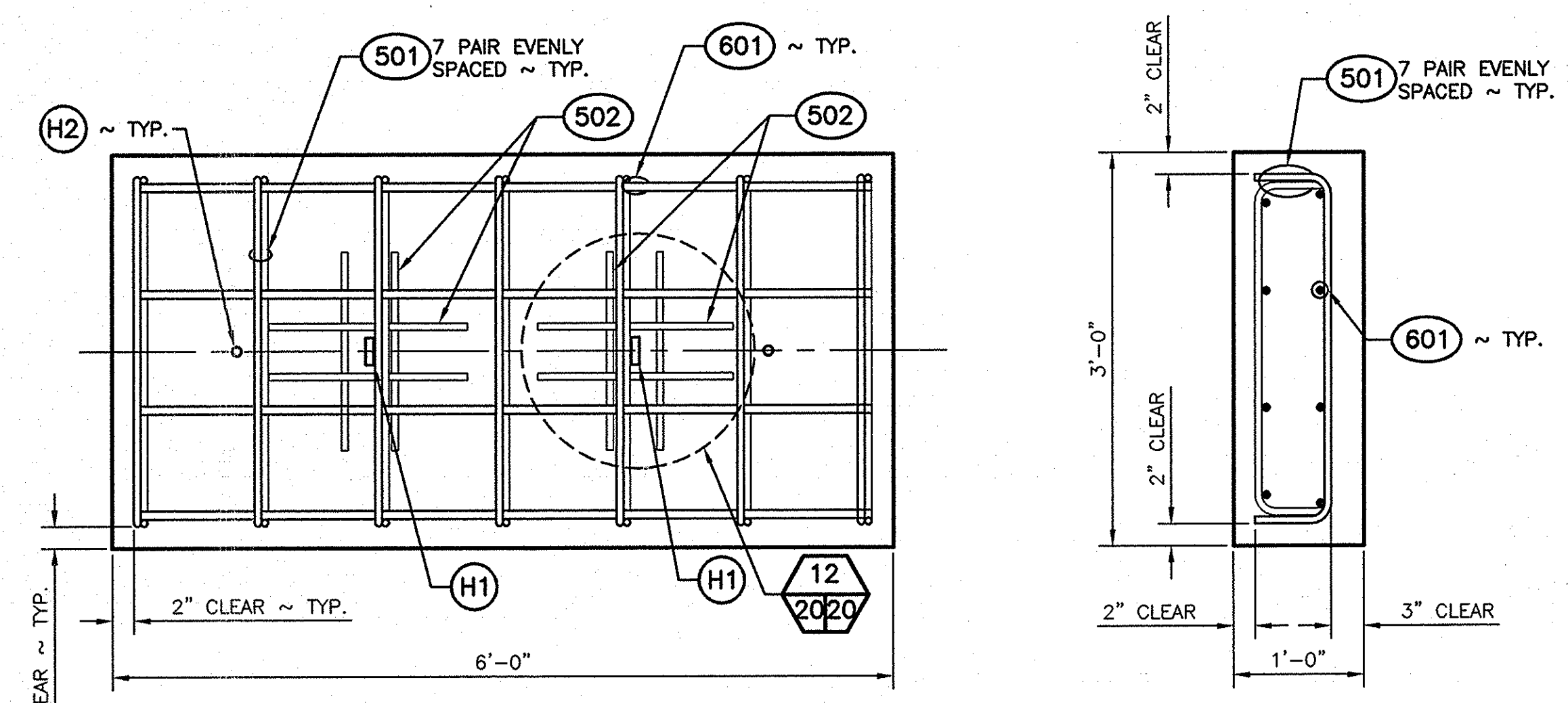
SHEET OF
7 22



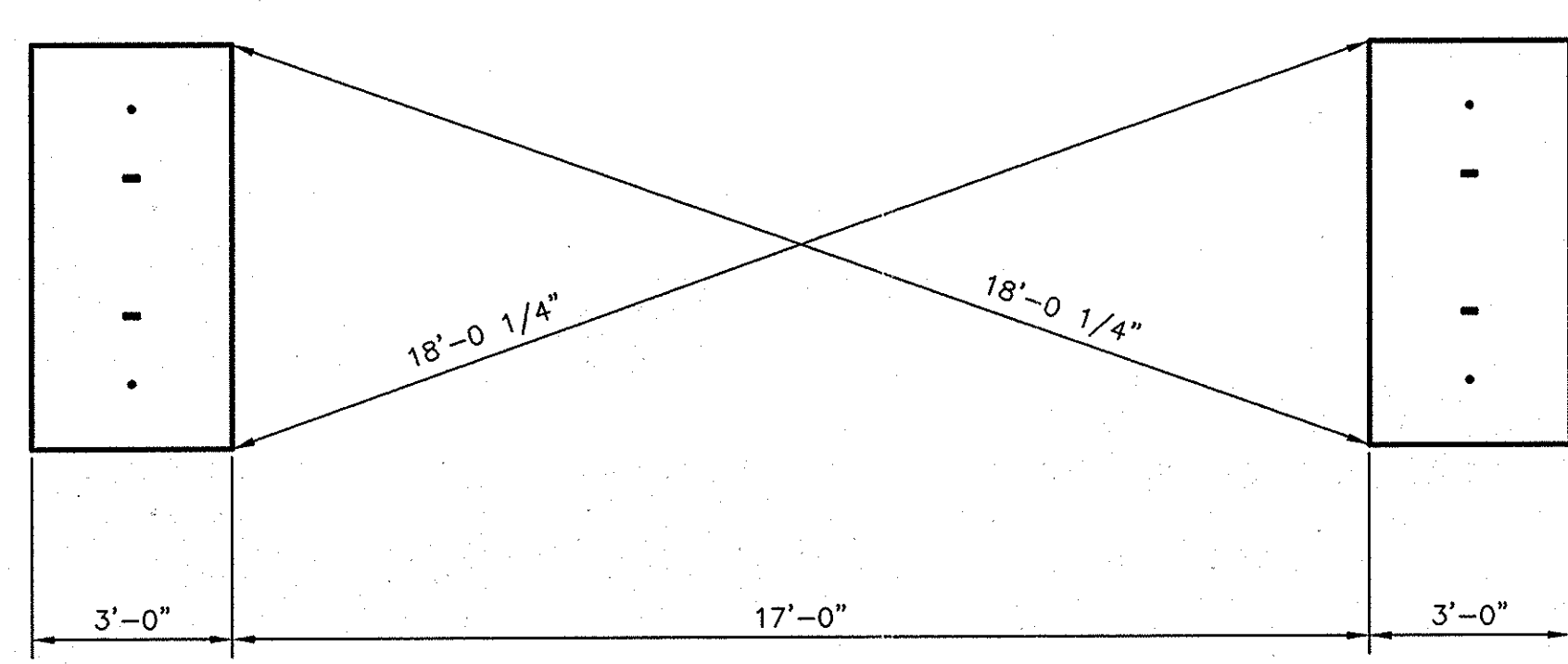
ABUTMENT PLAN
SCALE: 1" = 1'-0" **C1**



TYPICAL BEARING DETAIL
SCALE: 1" = 1'-0"



ABUTMENT REINFORCEMENT PLAN
SCALE: 1" = 1'-0" **C1**



ABUTMENT LAYOUT DETAIL
SCALE: 3/8" = 1'-0"

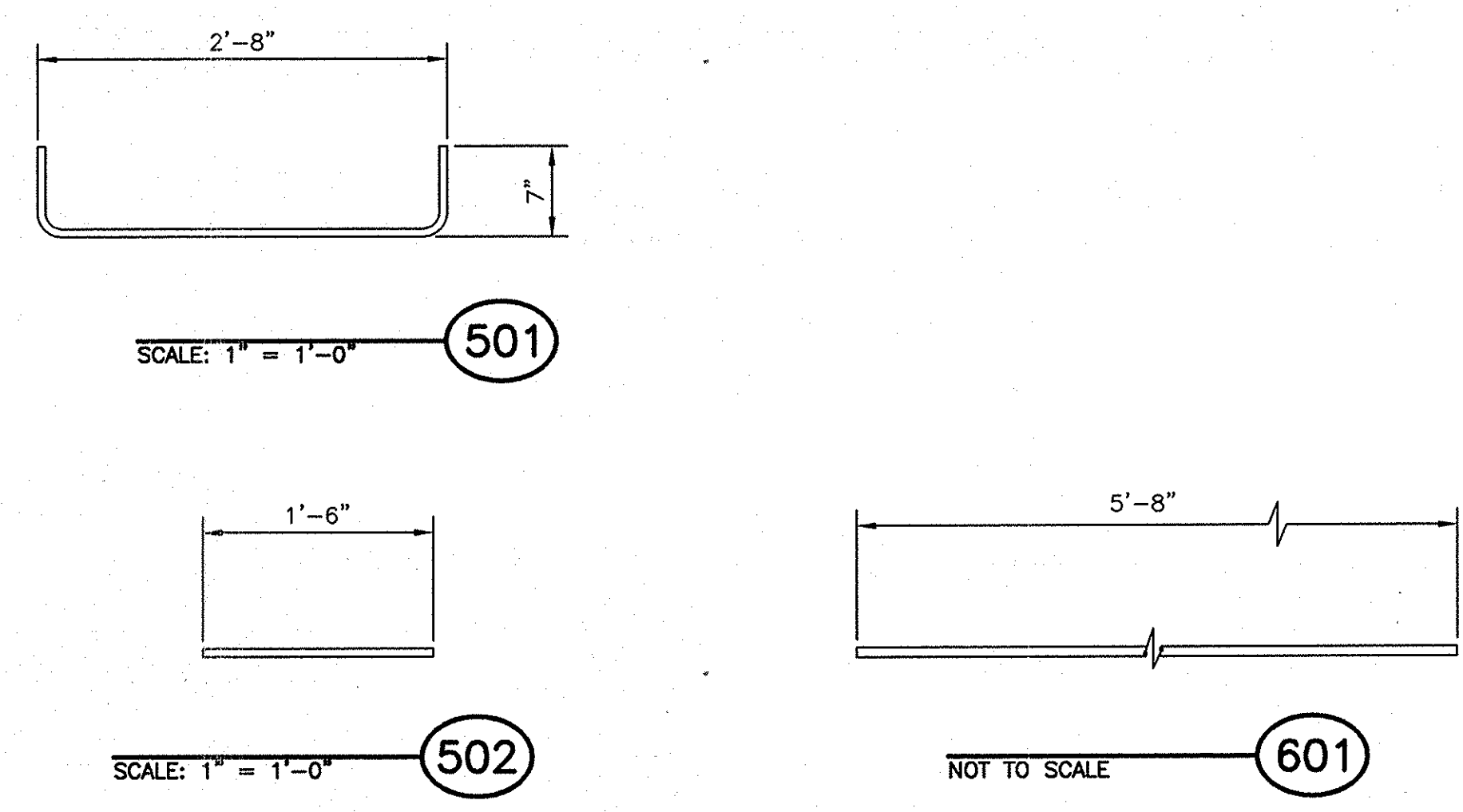
CONCRETE FABRICATION			
MARK	MATERIAL	QUANTITY	REMARKS
C1	CONCRETE~4000 PSI 28 DAY COMPRESSIVE STRENGTH WITH 6% AIR ENTRAINMENT. SUBMIT CONCRETE MIX DESIGN FOR APPROVAL PRIOR TO POUR. CALL ENGINEERING FOR INSPECTION PRIOR TO POUR. FORMS TO REMAIN IN PLACE A MINIMUM OF 7 DAYS AFTER POUR. CONCRETE SHALL REACH THE 4000 PSI 28 DAY COMPRESSIVE STRENGTH PRIOR TO TRANSPORT. SMOOTH FINISH. CYLINDER TESTS REQUIRED (3).	AS REQUIRED	FABRICATE 2 ABUTMENTS FORWARD CYLINDER TEST RESULTS TO ENGINEERING
H1	FACE INSERT~DAYTON RICHMOND P-94 FLEET-LIFT T-ANCHOR 2 TON CAPACITY ~ 8 INCH LENGTH (PRODUCT CODE FLO47)	4	SEND COPY OF INVOICE TO ENGINEERING
H2	FIELD INSTALLED ANCHOR BOLTS, 3/4 INCH DIAMETER x 8 INCH LONG ASTM A36 THREADED ROD (BEVELED END AS DETAILED) WITH 2 NUTS AND 2 1/2 INCH OD WASHER GALVANIZED. EMBED 12 INCHES MINIMUM WITH HILTI HIT-RE 500-SD ADHESIVE. MAINTAIN 2 INCH CLEARANCE TO ALL STEEL.	-	
REINFORCEMENT	SEE BENDING DIAGRAM AND BAR LIST.	-	

BAR LIST				
MARK	SIZE	GRADE	PER ABUTMENT	TOTAL
501	5	60	14	28
502	5	60	8	16
601	6	60	8	16

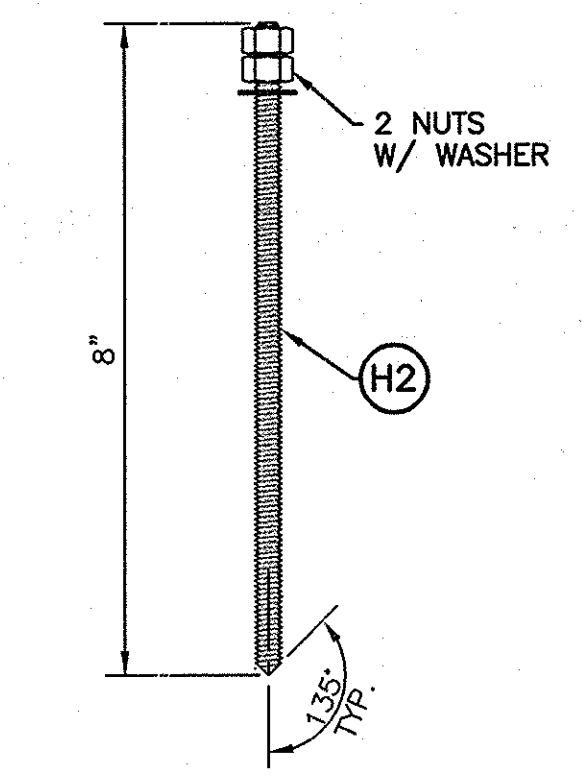
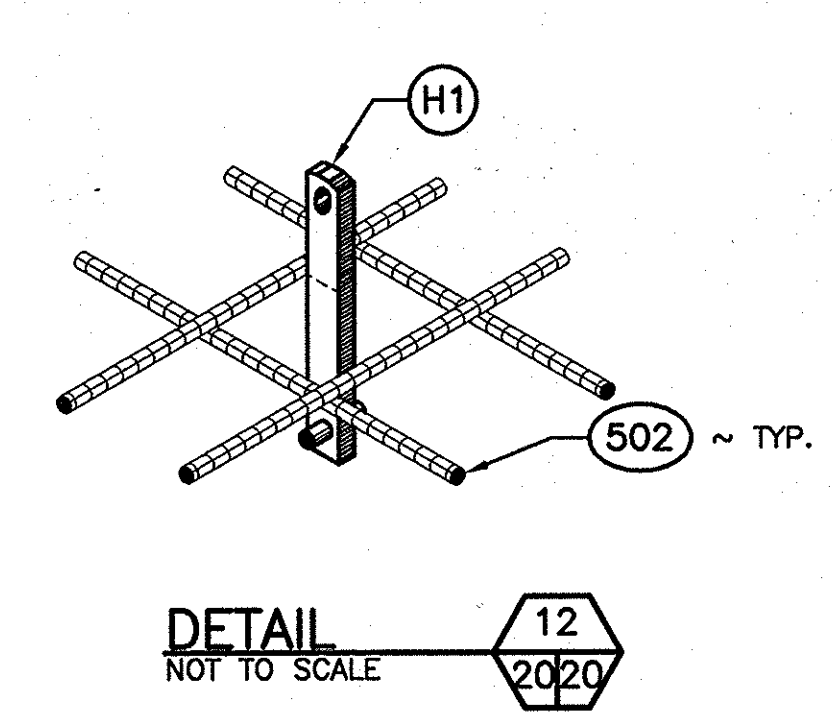
MINIMUM BEND DIAMETERS	
SIZE	BEND DIAMETERS MEASURED TO THE INSIDE OF BAR
	PRIMARY STIRRUPS AND TIES
4	3 INCHES 2 INCHES
5	3 3/4 INCHES 2 1/2 INCHES
6	4 1/2 INCHES 4 1/2 INCHES

1. LIFTING INSERTS NOT INTENDED FOR REPETITIVE USE.
2. DO NOT USE RIGGING FOR TRAVEL OVER ROUGH GROUND.

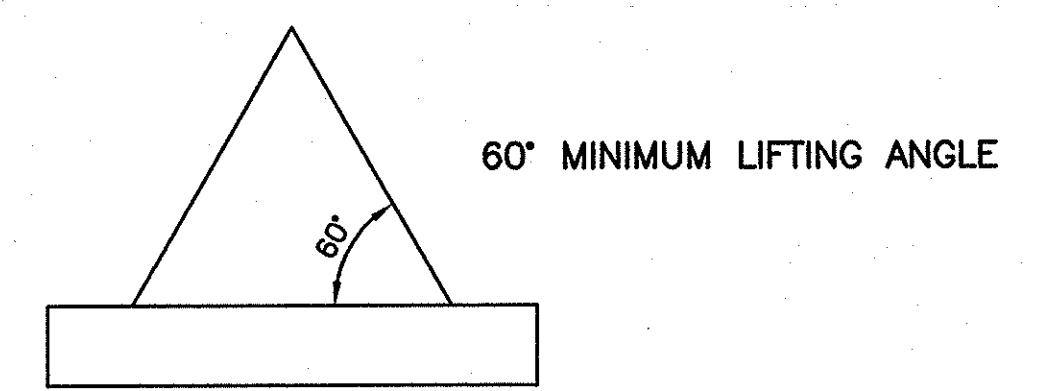
LIFTING WEIGHT = 2700 POUNDS PER ABUTMENT



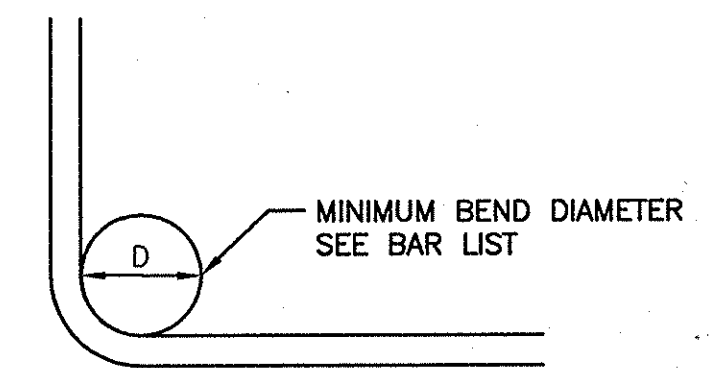
BENDING DIAGRAMS
SCALE: AS NOTED



ANCHOR BOLT
NOT TO SCALE

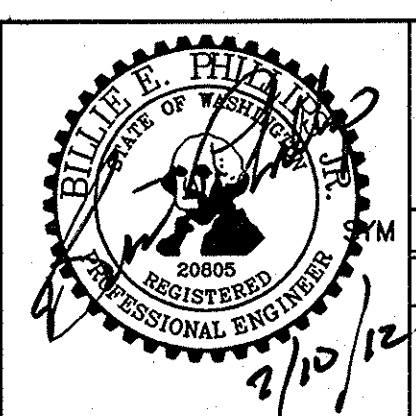


LIFTING DIAGRAM
NOT TO SCALE



MINIMUM BEND DIAMETERS
NOT TO SCALE

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE

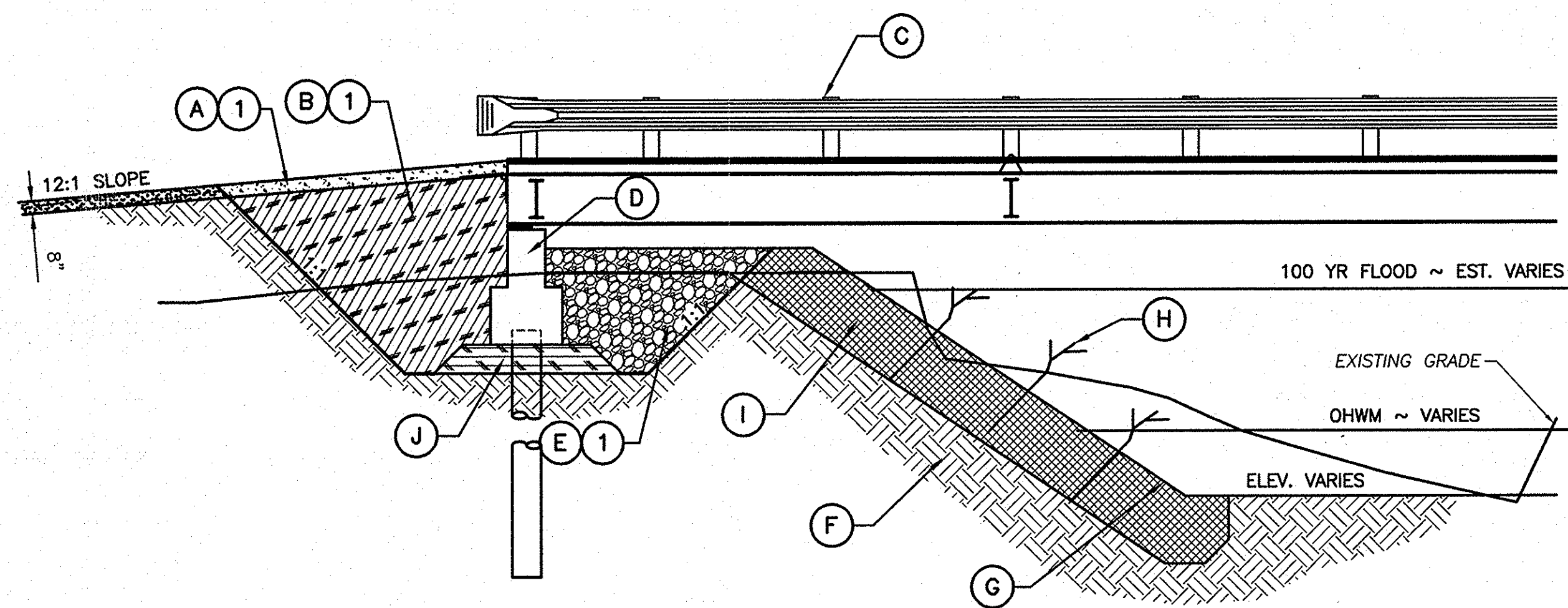


DATE	REVISION DESCRIPTION	BY
7/10/12	APPROVED AND RELEASED FOR CONSTRUCTION	
	CHIEF ENGINEER <i>[Signature]</i>	DATE: 7/10/12
	PROGRAM	DATE:

DESIGNED BY: K. KUYKENDALL
CHECKED BY:
DRAWN BY: A. JOHNSON
DATE: 07/09/2012

CHERRY VALLEY WILDLIFE AREA
FISH PASSAGE RESTORATION
PEDESTRIAN BRIDGE ABUTMENT
ABUTMENT FABRICATION

PROJECT NO. KG:R37:11-1
SHEET 21
OF 22



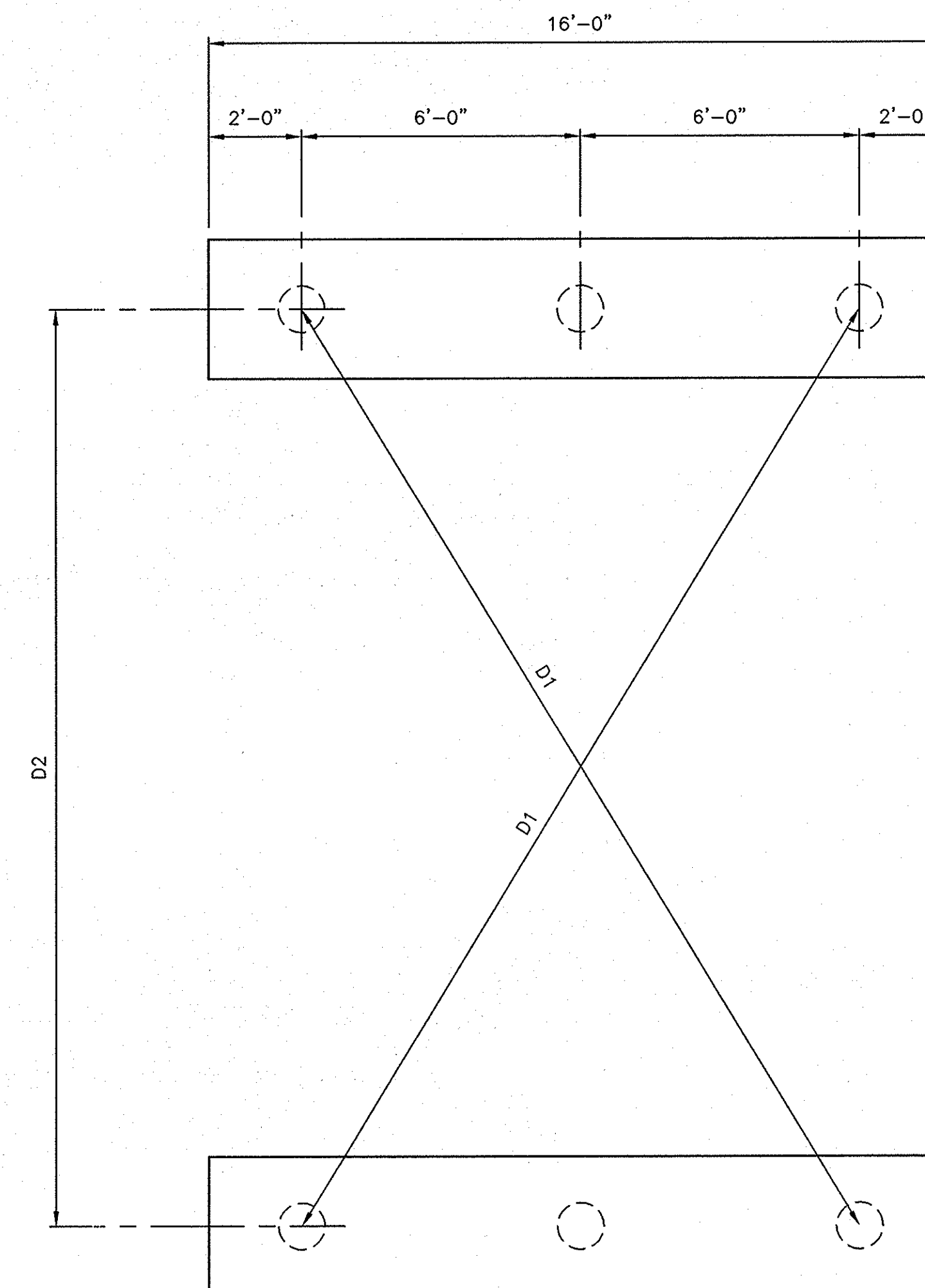
TYPICAL BRIDGE SECTION
NOT TO SCALE

LEGEND:

- A. CRUSHED SURFACING TOP COURSE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION 2012.
- B. BALLAST ROCK IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION 2012.
- C. W-BEAM GUARDRAIL.
- D. ABUTMENTS CAST IN PLACE.
- E. NATIVE SOILS COMPACTED IN 8" LIFTS 95%.
- F. EXISTING GROUND RE-SLOPED AT 1-1/2:1 OR 2:1 AS SHOWN ON SITE PLAN.
- G. DEKOWE 400 JUTE MAT.
- H. WILLOW CUTTING TAKEN ON SITE TO BE PLANTED IN FALL.
- I. IN SITU SOILS, BUCKET COMPACTED.
- J. BALLAST PAD 6" TYPICAL FOR FORMING PILECAP.

NOTES:

- 1. ALL MATERIALS TO BE COMPACTED IN MAX. 8" LIFTS TO 95%.
- 2. STOCKPILES OR WASTE MATERIAL SHALL NOT BLOCK ACCESS ACROSS ROAD.
- 3. MATERIAL MAY BE TEMPORARILY PLACED AT WIDE SPOTS ALONG THE ROAD AS NOT TO INTERFERE WITH TURNAROUNDS.
- 4. PLACEMENT OF BOULDERS AND QUARRY SPALLS SHALL BE BY ZERO DROP HEIGHT METHOD.
- 5. ANY LOOSE MATERIAL ENTERING CHANNEL SHALL BE IMMEDIATELY RETRIEVED.
- 6. ROCK MATERIAL SHALL MEET REQUIREMENTS IN STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION 2012.
- 7. ALL EXPOSED SOIL TO BE PLANTED AND MULCHED ACCORDING TO WLA APPROVED PLANTING SCHEDULE.

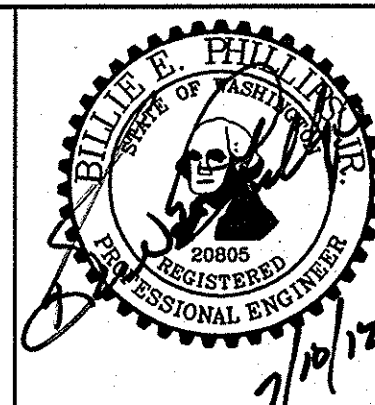


VEHICLE BRIDGE ABUTMENT LAYOUT
NOT TO SCALE

VEHICLE BRIDGE ABUTMENT SCHEDULE

BRIDGE WORK AREA	D1	D2
1	23'-0 1/2"	19'-8"
2	31'-1"	28'-8"
3	35'-9"	33'-8"
9	50'-1 1/2"	48'-8"

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE



SYM	DATE	REVISION DESCRIPTION	BY
		APPROVED AND RELEASED FOR CONSTRUCTION	
CHIEF ENGINEER		DATE: 7/10/12	
PROGRAM		DATE:	

0	1"
BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS	
DESIGNED BY K. KUYKENDALL	
CHECKED BY	
DRAWN BY A. JOHNSON	
DATE 07/09/2012	

CHERRY VALLEY WILDLIFE AREA
FISH PASSAGE RESTORATION
TYPICAL BRIDGE SECTION & DETAIL

PROJECT NO.
KG:R37:11-1

SHEET OF
22 22

GENERAL STRUCTURAL NOTES

GENERAL

BUILDING CODE: ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, 2012 WASHINGTON STATE DOT (WSDOT) STANDARD SPECIFICATION SAND THE 2010 ASSHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

STANDARDS: REFERENCE TO ASTM AND OTHER STANDARDS SHALL MEAN THE LATEST EDITION IN EFFECT ON THE BID DATE, UNLESS NOTED IN THESE DOCUMENTS OR DESIGNATED BY THE GOVERNING CODE.

GENERAL: VOIDED SLAB GIRDER SHALL BE A BIDDER – DESIGNED ITEM. THESE NOTES CONTAIN GENERAL INFORMATION AND ARE NOT COMPLETE FOR CONSTRUCTION PURPOSES. THE CONTRACTOR SHALL VERIFY INFORMATION (INCLUDING ALL DIMENSIONS) PROVIDED IN THE DRAWINGS WITH THE PROJECT SPECIFICATIONS AND BRING ANY CONFLICTS TO THE ATTENTION OF THE OWNERS REPRESENTATIVE BEFORE BEGINNING THE AFFECTED WORK. THE OWNERS REPRESENTATIVE WILL RESOLVE ANY SUCH CONFLICT.

LOADS

IN ADDITION TO THE BRIDGE SELF WEIGHT, THE FOLLOWING LOADS ARE USED FOR DESIGN:

10 TON SERVICE TRUCK

CONTRACTOR RESPONSIBILITIES: DRAWINGS REPRESENT DESIGN OF STRUCTURE IN COMPLETED FORM. CONTRACTOR SHALL BE RESPONSIBLE FOR METHODS, SEQUENCES, AND SAFETY PRECAUTIONS REQUIRED TO PERFORM WORK.

CONTRACTOR SHALL PROVIDE TEMPORARY SHORING AND BRACING OF STRUCTURAL MEMBERS AS REQUIRED. SHORING AND BRACING SHALL NOT BE REMOVED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE DRAWINGS, AND MATERIALS HAVE ACHIEVED DESIGN STRENGTH.

DISCREPANCIES: IN CASE OF DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS, REFERENCE STANDARDS, OR GOVERNING CODE, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN. CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER OF DISCREPANCIES AND OBTAIN DIRECTION PRIOR TO PROCEEDING. NOTES ON INDIVIDUAL STRUCTURAL DRAWINGS SHALL TAKE PRIORITY OVER STRUCTURAL NOTES. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.

SCALING OF DRAWINGS: DRAWINGS ARE NOT TO BE SCALED.

SPECIFICATIONS: REFER TO SPECIFICATIONS FOR INFORMATION IN ADDITION TO THESE NOTES AND DRAWINGS.

GEOTECHNICAL

FOUNDATION DESIGN IS BASED ON THE SOIL PARAMETERS OF THE FOLLOWING GEOTECHNICAL REPORT.

GEOTECHNICAL REPORT REFERENCE: TITLE: GEOTECHNICAL DESIGN RECOMMENDATIONS
CHERRY VALLEY CULVERT REPLACEMENT PROJECT
DUVALL, WA

PREPARED BY: LANDAU ASSOCIATES
DATE: FEBRUARY 24, 2012

SUBMITTALS

SHOP DRAWINGS SHALL BE SUBMITTED TO THE OWNERS REPRESENTATIVE FOR REVIEW PRIOR TO FABRICATION OR CONSTRUCTION OF THESE ITEMS:

CONCRETE MIX DESIGN
CONCRETE REINFORCING
BRIDGE SUPER STRUCTURE

CONTRACTOR SHALL REVIEW AND STAMP SUBMITTALS PRIOR TO SUBMISSION. IF SHOP DRAWINGS DIFFER FROM DESIGN SHOWN ON STRUCTURAL DRAWINGS, THEY SHALL BE SEALED BY THE WASHINGTON STATE REGISTERED PROFESSIONAL, ENGINEER RESPONSIBLE FOR THE DESIGN. DIMENSIONS AND QUANTITIES ARE CONTRACTOR'S RESPONSIBILITY AND WILL NOT BE REVIEWED. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS PLACED PRIOR TO RECEIPT OF REVIEWED SHOP DRAWINGS. CONTRACTOR SHALL ALLOW A MINIMUM OF 10 WORKING DAYS FOR REVIEW.

DEFERRED SUBMITTALS: DRAWINGS AND CALCULATIONS FOR BIDDER-DESIGNED COMPONENTS, SEALED BY THE WASHINGTON STATE REGISTERED PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN, SHALL BE SUBMITTED TO THE OWNERS REPRESENTATIVE FOR REVIEW OF GENERAL CONFORMANCE WITH THE DESIGN OF THE BRIDGE. DEFERRED SUBMITTALS INCLUDE:

VOIDED SLAB GIRDER
MICROPILE, IF USED

SUBMITTALS OF BIDDER-DESIGNED COMPONENTS SHALL INCLUDE LOCATIONS, MAGNITUDES, AND DIRECTIONS OF ALL FORCES TRANSFERRED TO THE STRUCTURE. CALCULATIONS SUBMITTED FOR BIDDER-DESIGNED COMPONENTS ARE FOR INFORMATION ONLY AND WILL NOT BE REVIEWED.

EXISTING CONDITIONS: CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. THIS IS CRITICAL FOR FABRICATION AND INSTALLATION OF NEW ELEMENTS AND MODIFICATIONS TO EXISTING ELEMENTS. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED. EXISTING CONDITIONS SHOWN ON DRAWINGS ARE BASED EITHER ON SITE OBSERVATIONS, ORIGINAL DRAWINGS, OR WERE ASSUMED BASED ON EXPECTED CONDITIONS. ACTUAL CONDITIONS MAY VARY DUE TO CONSTRUCTION ERRORS AND TOLERANCES, ERRORS IN THE RECORD DRAWINGS, DAMAGE, DETERIORATION, UNDOCUMENTED MODIFICATIONS OR OTHER FACTORS. IF EXISTING CONDITIONS DO NOT CLOSELY MATCH CONDITIONS SHOWN ON DRAWINGS, OR IF EXISTING MATERIALS ARE OF QUESTIONABLE OR SUBSTANDARD QUALITY, NOTIFY OWNERS REPRESENTATIVE PRIOR TO COMMENCING ANY WORK.

ANCHORAGE

POST-INSTALLED ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS AND NOTED ICC-ES REPORTS. ANCHORS SHALL BE THE FOLLOWING TYPES.

ADHESIVE ANCHORS ICBO APPROVED, ASTM C881 TYPE IV, GRADE 3, CLASS B/C, TWO-COMPONENT, NON-SAG, EPOXY TYPE ADHESIVE. MIX AND INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND SPECIFICATIONS. CONCRETE DRILL BITS SHALL CONFORM TO ANSI B212.15.

NO REINFORCING BARS SHALL BE CUT TO INSTALL ANCHORS IF EXISTING REINFORCING IS ENCOUNTERED. ANCHOR HOLES SHALL BE FILLED WITH EPOXY ADHESIVE AND A NEW HOLE DRILLED A MINIMUM OF 3 BOLT DIAMETERS AWAY.

CONCRETE

CONCRETE SHALL BE PROPORTIONED TO ACHIEVE A WORKABLE MIX THAT CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER. MIX DESIGNS SHALL BE SUBMITTED FOR REVIEW PRIOR TO USE. COMPLY WITH IBC SECTION 1905. MIXES SHALL MEET OR EXCEED THE FOLLOWING CRITERIA:

TYPE OF CONSTRUCTION	COMPRESSIVE STRENGTH (f'c)	TEST AGE	MAXIMUM WATER/CEMENT RATIO
CONCRETE ABUTMENT	4,000 PSI	28 DAYS	0.40

EMBEDDED ITEMS: CONDUIT AND SLEEVES SHALL NOT BE EMBEDDED IN OR PASS THROUGH CONCRETE WITHOUT APPROVAL. ALUMINUM ITEMS SHALL NOT BE EMBEDDED IN CONCRETE. SUBMIT CONDUIT LAYOUT AND EMBEDDED ITEM PLANS FOR REVIEW PRIOR TO PLACING CONCRETE.

CONCRETE CAST AGAINST EXISTING CONCRETE: THE SURFACE OF THE EXISTING CONCRETE SHALL BE PREPARED IN ACCORDANCE WITH THE FOLLOWING:

- SURFACE OF JOINT SHALL BE SAND BLASTED OR ROUGHENED WITH A CHIPPING HAMMER TO EXPOSE AGGREGATE EMBEDDED IN PREVIOUS POUR.
- EXPOSED AGGREGATE SHALL PROTRUDE 1/4" MINIMUM.
- JOINT SURFACE SHALL BE CLEANED AND LAITANCE REMOVED.
- JOINT SHALL BE WETTED AND STANDING WATER REMOVED IMMEDIATELY BEFORE NEW CONCRETE IS PLACED.

CONCRETE REINFORCEMENT

REINFORCING STEEL SHALL BE PLACED AND SUPPORTED IN ACCORDANCE WITH CRSI MSP-1. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH ACI SP-86. NO BENDING OR STRAIGHTENING OF REINFORCEMENT WILL BE PERMITTED AFTER PARTIAL EMBEDMENT IN CONCRETE.

LAP ALL CONTINUOUS REINFORCEMENT IN ACCORDANCE WITH REINFORCEMENT SPLICE AND DEVELOPMENT LENGTH SCHEDULE BELOW, PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 1 CROSS WIRE SPACING + 2" OR 8" WHICHEVER IS GREATER.

F'c = 4,000 PSI				
SIZE	LA (L _a) ^(2,3,4) & LD (L _d) ^(2,3,4)	LB (L _b) ^(2,3,4)	LDH (L _{dh})	
3	15	19	8	
4	19	25	10	
5	24	31	12	
6	29	37	15	
7	42	54	17	
8	48	62	19	
9	54	70	22	
10	61	79	25	
11	67	87	27	

NOTES:

- USE THE LENGTHS IN THIS SCHEDULE, UNLESS NOTED OTHERWISE.
- FOR BARS WITH LOW COVER OR SPACING, INCREASE LENGTH BY 50%. IF BARS ARE ENCLOSED IN STIRRUPS OR TIES, INCREASE APPLIES WHEN BAR COVER OR CLEAR BAR SPACING IS LESS THAN db. IF BARS ARE NOT ENCLOSED IN STIRRUPS OR TIES, INCREASE APPLIES WHEN BAR COVER IS LESS THAN db OR CLEAR BAR SPACING IS LESS THAN 2db.
- FOR TOP BARS INCREASE LENGTH BY 30%. A TOP BAR IS A HORIZONTAL BAR WITH MORE THAN 12 INCHES OF FRESH CONCRETE CAST BELOW IT.

ABBREVIATIONS:

DB (db) BAR DIAMETER
LD (L_d) TENSION DEVELOPMENT LENGTH
LA (L_a) CLASS A LAP SPLICE LENGTH
LB (L_b) CLASS B LAP SPLICE LENGTH
LDH (L_{dh}) TENSION DEVELOPMENT LENGTH FOR A STANDARD HOOK

CONCRETE COVER: UNLESS NOTED OTHERWISE, MINIMUM COVER FOR REINFORCING SHALL BE:

ABUTMENT 3" (EXCEPT 2" TOP AND FORMED SIDES)

BRIDGE INSTALLATION

- PRIOR TO TENSIONING BRIDGE SECTIONS TOGETHER, CONTACT ENGINEERING FOR STRUCTURAL OBSERVATION.
- PLACE SLAB GIRDER SECTIONS ALIGNING DOWEL HOLES AND DIAPHRAGM TIE ROD HOLES. USE LEVELING BEAM AND LEVELING INSERTS TO VERTICALLY ALIGN ALL UNITS PRIOR TO TENSIONING.
- TENSION ALL TIE RODS PER SLAB UNITS TO ONE HALF OF SPECIFIED TENSION BEFORE PROCEEDING WITH FINAL TENSION. TIGHTEN ALL TIE RODS TO A MINIMUM TENSION OF 30 KIPS (DO NOT EXCEED 35 KIPS) USING MECHANICALLY GALVANIZED LOAD INDICATOR WASHERS CONFORMING TO ASTM F959. THERE SHOULD BE .005 INCH MAXIMUM AVERAGE GAP UNDER LOAD INDICATOR WASHER AFTER TENSIONING (WASHER PROTRUSIONS TOWARD NUT).
- WELD TIE CONNECTIONS AS DETAILED.
- GROUT KEYWAY WITH NON-SHRINK GROUT. ALL NON-SHRINK GROUT SHALL BE IN ACCORDANCE WITH SECTION 9-20.3(2) OF THE STANDARD SPECIFICATIONS.
- GROUT TIE ROD OPENINGS, AND LIFTING STRAP POCKETS WITH NON-SHRINK GROUT.
- PLACE SLAB GIRDER DOWEL BARS AND GROUT WITH NON-SHRINK GROUT AFTER TIE ROD TENSIONING AND KEYWAY GROUTING.
- PLACE VAPOR BARRIER AS DETAILED.
- PLACE UNDERDRAIN AND BACKFILL AROUND ABUTMENT AREA PER CIVIL.
- INSTALL GUARDRAIL AS DETAILED.

SLAB GIRDER NOTES

- PLAN LENGTH SHALL BE INCREASED AS NECESSARY TO COMPENSATE FOR SHORTENING DUE TO PRESTRESS AND SHRINKAGE.
- ALL PRETENSIONED AND TEMPORARY STRANDS SHALL BE AASHTO M203 GRADE 270 LOW RELAXATION STRANDS.
- CUT ALL STRANDS FLUSH WITH THE VOIDED SLAB GIRDER ENDS AND PAINT WITH AN APPROVED EPOXY RESIN, EXCEPT FOR EXTENDED STRANDS AS SHOWN.
- THE TOP SURFACE OF THE VOIDED SLAB GIRDER SHALL BE A ROADWAY FINISH TEXTURED SIMILAR TO SECTION 6-02.3(10)D OF THE STANDARD SPECIFICATIONS.
- LIFTING EMBEDMENTS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 6-02.3(25)L OF THE STANDARD. SPECIFICATIONS.
- ALL REINFORCING STEEL SPLICES SHALL BE 2'-0" MINIMUM, UNLESS SHOWN OTHERWISE.
- STRUCTURAL STEEL SHAPES AND ASSEMBLIES SHALL BE ASTM A36. THEY SHALL BE PAINTED WITH A PRIMER COAT IN ACCORDANCE WITH STD. SPEC. 6-07.3(9). WELD TIES SHALL BE PAINTED WITH A FIELD PRIMER COAT OF AN ORGANIC ZINC PAINT AFTER FIELD WELDING.
- NO VEHICLE TRAFFIC SHALL BE ALLOWED UNTIL THE BRIDGE DECK CONCRETE HAS ATTAINED A MINIMUM STRENGTH OF 3000 PSI.
- TEMPORARY STRANDS SHALL BE UNBONDED OVER ALL BUT THE ENDS OF THE SLAB LENGTH AS INDICATED ON SHEET 4. TEMPORARY STRANDS SHALL BE CUT AFTER ALL VOIDED SLABS ARE ERECTED.
- GIRDER CAMBER IN VOIDED SLAB GIRDERS SHALL BE PROVIDED TO OFFSET DELECTIONS DUE TO THE SELF WEIGHT OF THE GIRDERS AND ALL PERMANENT SUPER IMPOSED DEAD LOADS.

BRIDGE SCHEDULE

BRIDGE WORK AREA	BRIDGE SUPER STRUCTURE TYPE	SPAN CL BRG TO CL BRG (FT)	LENGTH OUT TO OUT (FT)	SKEW (DEG)	DECK WIDTH (FT)	WEARING SURFACE
1	VOIDED SLAB GIRDER	19'-8"	21	0	14	T/ CONC SLAB
2	VOIDED SLAB GIRDER	28'-8"	30	0	14	T/ CONC SLAB
3	VOIDED SLAB GIRDER	33'-8"	35	0	14	T/ CONC SLAB

1

ReidMiddleton

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www.reidmiddleton.com

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE



7/5/12

ADDENDUM #1-BEARING TO BEARING DISTANCE REVISION

LKL

0 1"
BAR MEASURES
ONE INCH ON
ORIGINAL DRAWINGS

CHERRY VALLEY WILDLIFE AREA

FISH PASSAGE RESTORATION
WORK AREA 1,2 & 3

STRUCTURAL NOTES

PROJECT NO.
KG: R3: 11-1

SHEET OF
S1 5

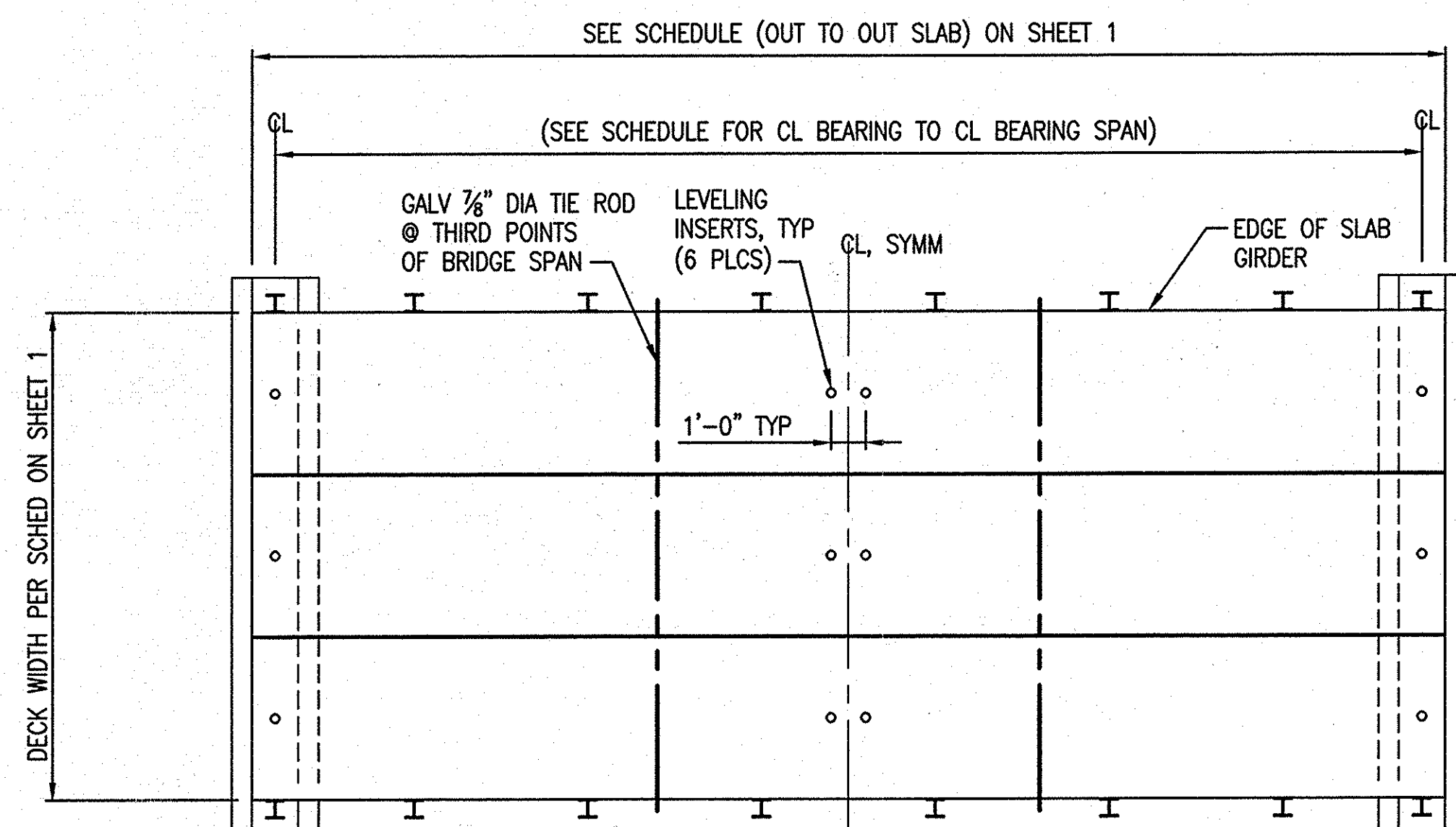
SYN DATE
CHIEF ENGINEER
PROGRAM

APPROVED AND RELEASED FOR CONSTRUCTION

DATE 12/11/12

DATE

DESIGNED BY LKL
CHECKED BY BCM
DRAWN BY RLC
DATE 06/19/12

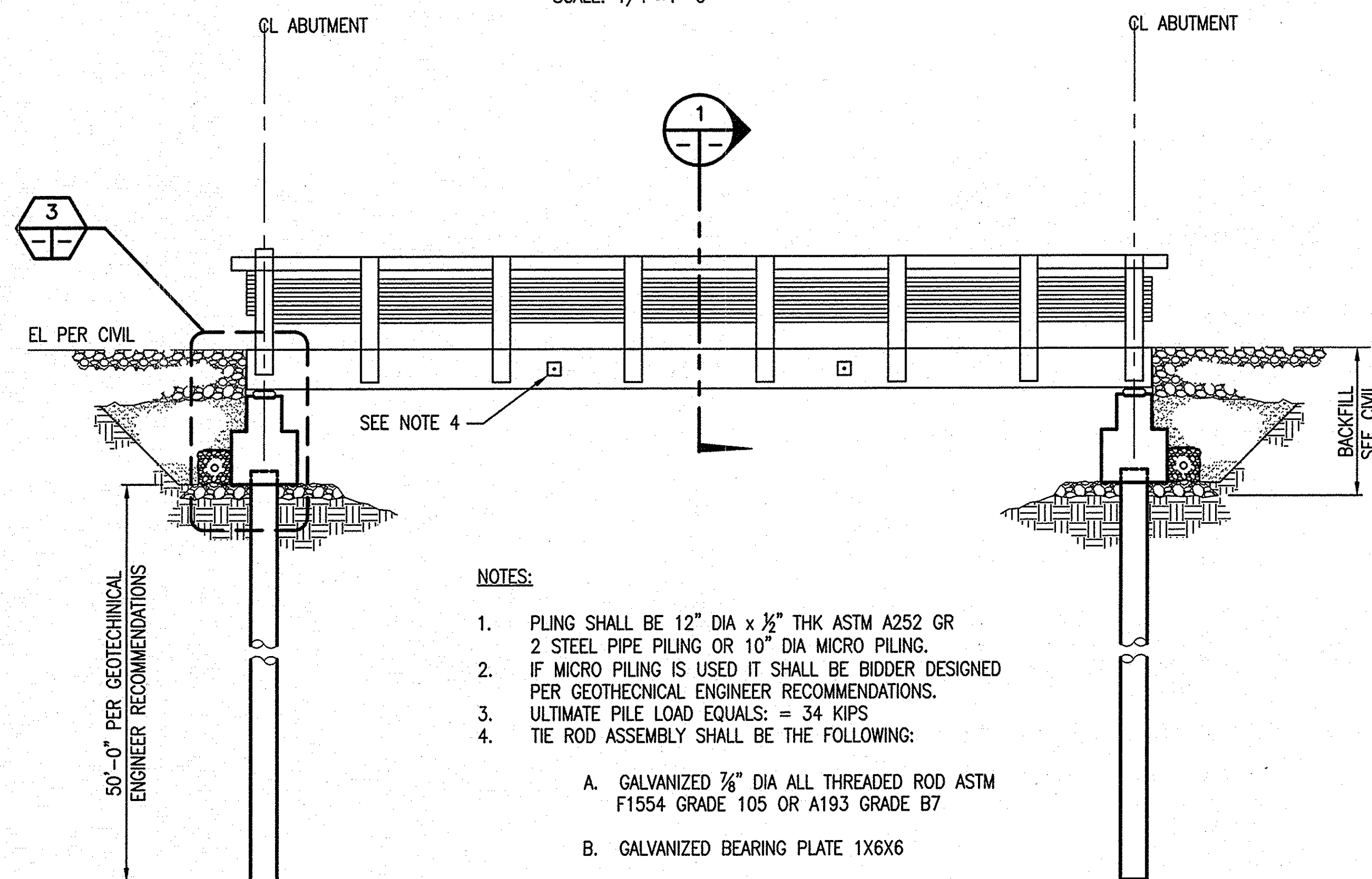


NOTES:

1. SEE SHEET 3 FOR SLAB GIRDER DETAILS.
2. SEE SHEET 4 FOR GROUT PAD AND WELD TIE DETAILS.
3. SEE SHEET 5 FOR RAILING DETAILS.

BRIDGE PLAN

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

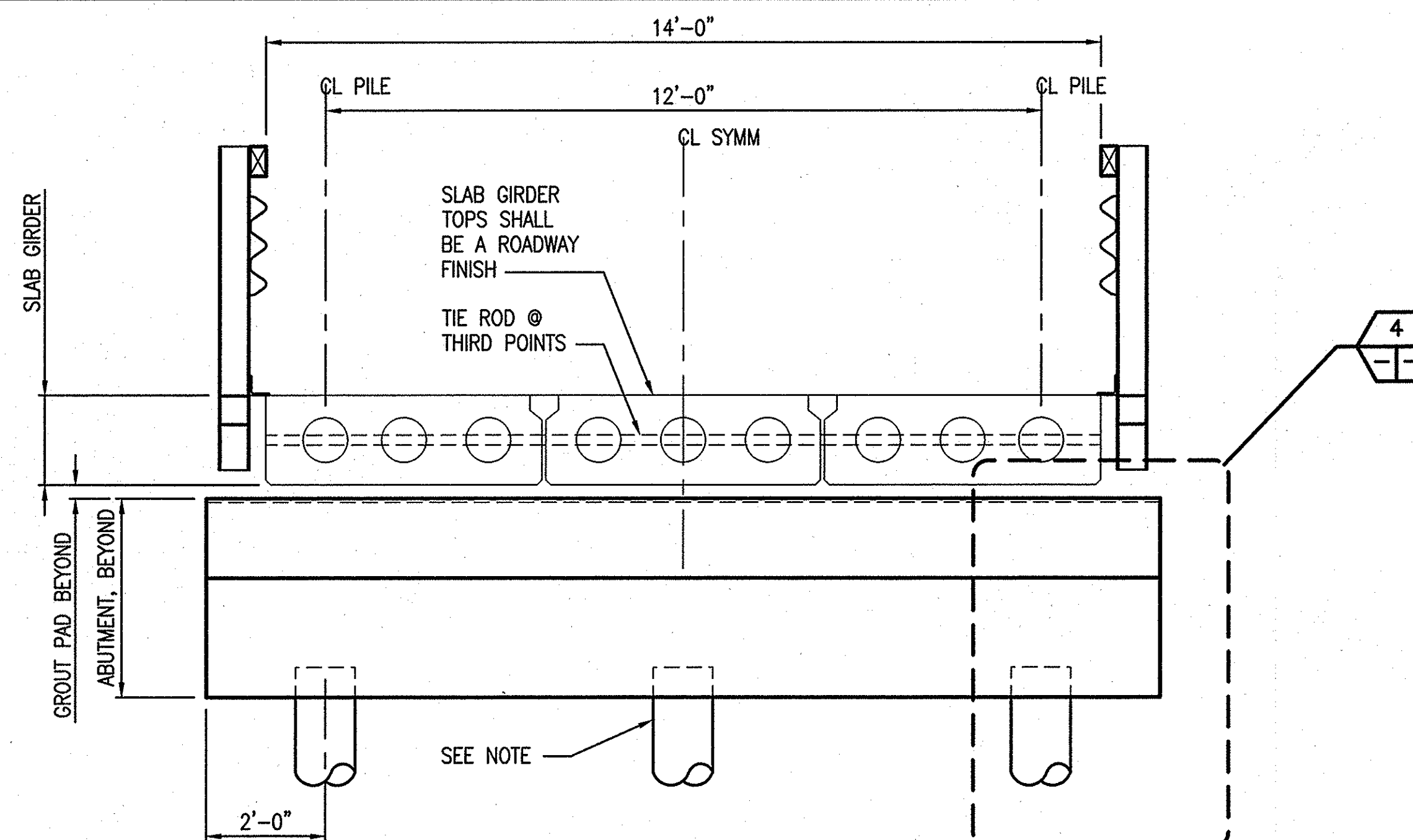


NOTES:

1. PILING SHALL BE 12" DIA x $\frac{1}{2}$ " THK ASTM A252 GR 2 STEEL PIPE PILING OR 10" DIA MICRO PILING.
2. IF MICRO PILING IS USED IT SHALL BE BIDDER DESIGNED PER GEOTECHNICAL ENGINEER RECOMMENDATIONS.
3. ULTIMATE PILE LOAD EQUALS: = 34 KIPS
4. TIE ROD ASSEMBLY SHALL BE THE FOLLOWING:
 - A. GALVANIZED $\frac{7}{8}$ " DIA ALL THREADED ROD ASTM F1554 GRADE 105 OR A193 GRADE B7
 - B. GALVANIZED BEARING PLATE 1X6X6
 - C. GALVANIZED NUT
 - D. GALVANIZED LOAD INDICATOR WASHER

BRIDGE ELEVATION

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

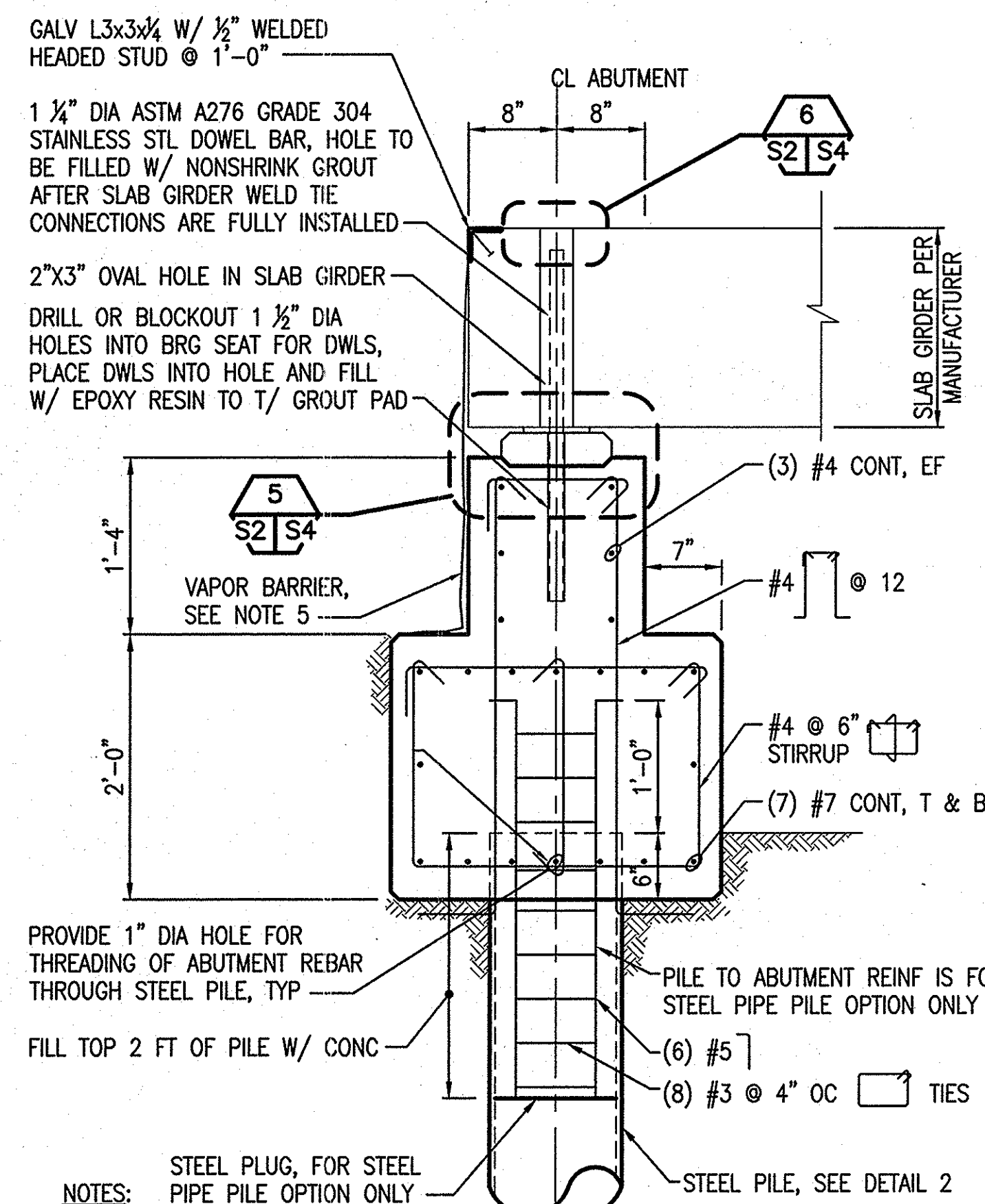


NOTE:

1. FOR BRIDGE IN WORK AREA 1, MIDDLE PILE NOT REQUIRED.

BRIDGE SECTION

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

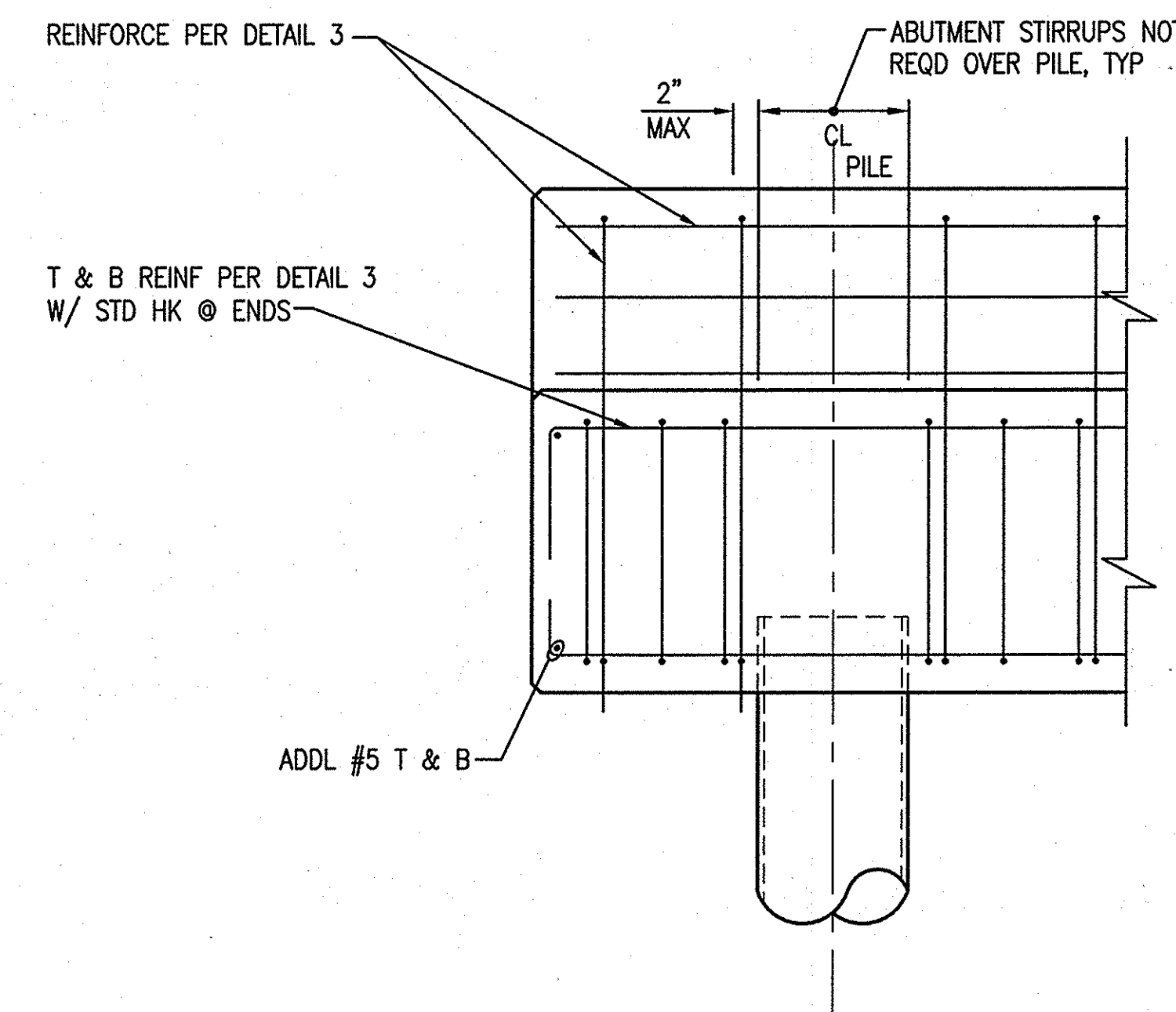


NOTES:

1. PILE TO ABUTMENT REINFORCEMENT SHOWN IS FOR STEEL PIPE PILE OPTION ONLY.
2. MICRO PILING IS USED, PILE TO ABUTMENT REINFORCEMENT SHALL BE BIDDER DESIGNED.
3. 10" FROM TOP OF RUBBER SHEETING TO TOP OF CONCRETE.
4. EPOXY RESIN SHALL BE FOR LOAD BEARING APPLICATIONS IN ACCORDANCE WITH SECTION 9-26.1 OF THE STANDARD SPECIFICATIONS.
5. VAPOR BARRIER SHALL BE ASTM E 1745 CLASS A, 10 MIL MIN. USE CONCRETE ANCHORS TO FASTEN TO SLAB GIRDER AND ABUTMENT, AND STOP 2" FROM THE TOP OF THE GIRDER.

ABUTMENT DETAIL

SCALE: 1"=1'-0"



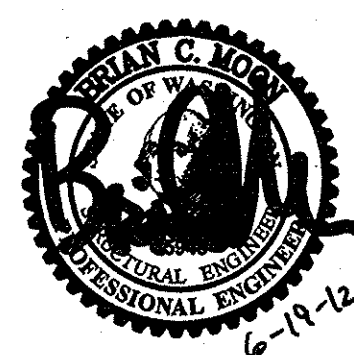
ABUTMENT END

SCALE: 1"=1'-0"

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SYM	DATE	REVISION DESCRIPTION	BY
APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER		DATE:	
PROGRAM		DATE:	
DESIGNED BY LKL		CHECKED BY BCM	
DRAWN BY RLC		DATE 06/19/12	

0 1"
BAR MEASURES
ONE INCH ON
ORIGINAL DRAWINGS

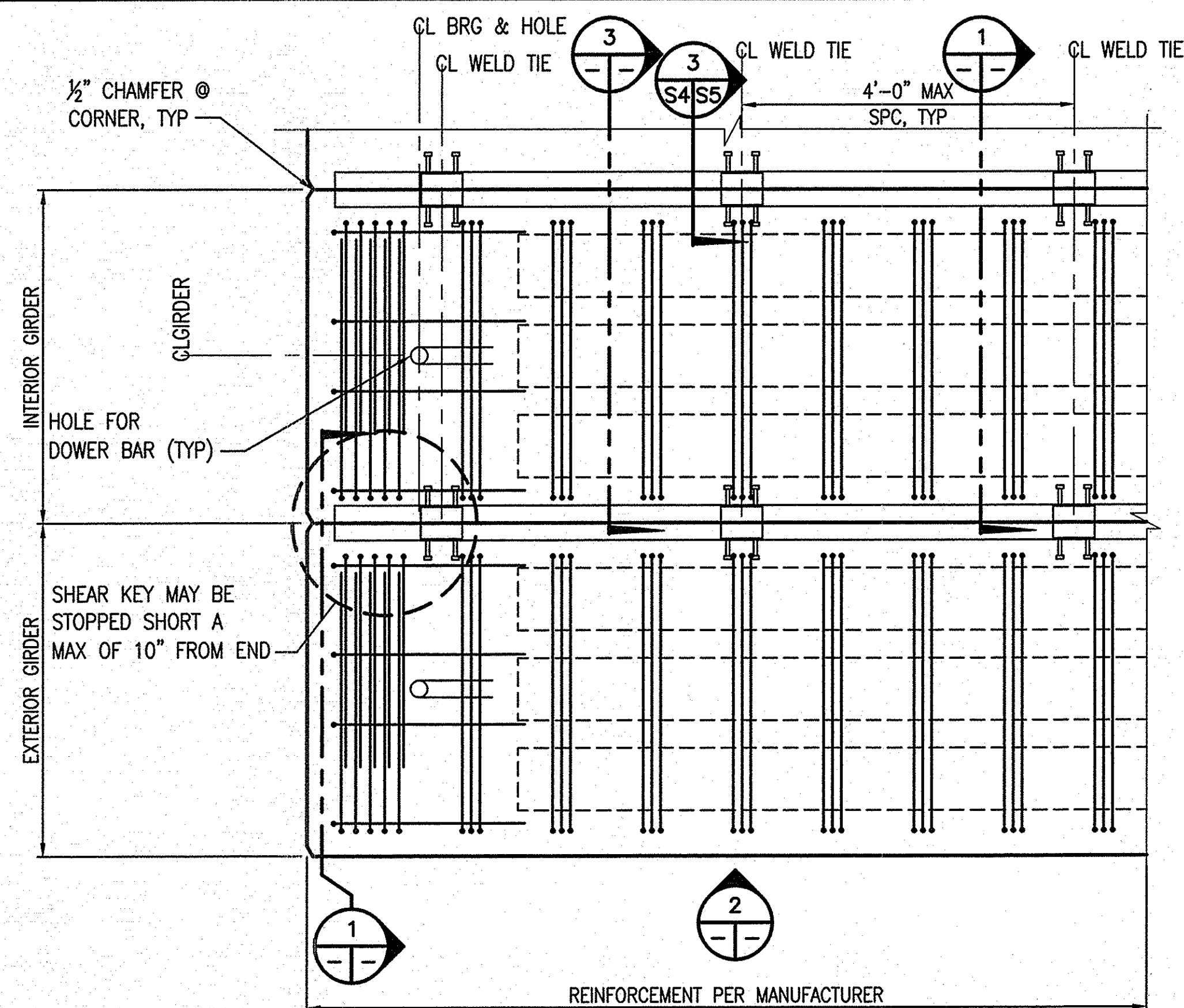
CHERRY VALLEY WILDLIFE AREA
FISH PASSAGE RESTORATION
WORK AREA 1,2 & 3

TYP BRIDGE PLAN, EL & ABUTMENT DETAILS

PROJECT NO.
KG:R3:11-1

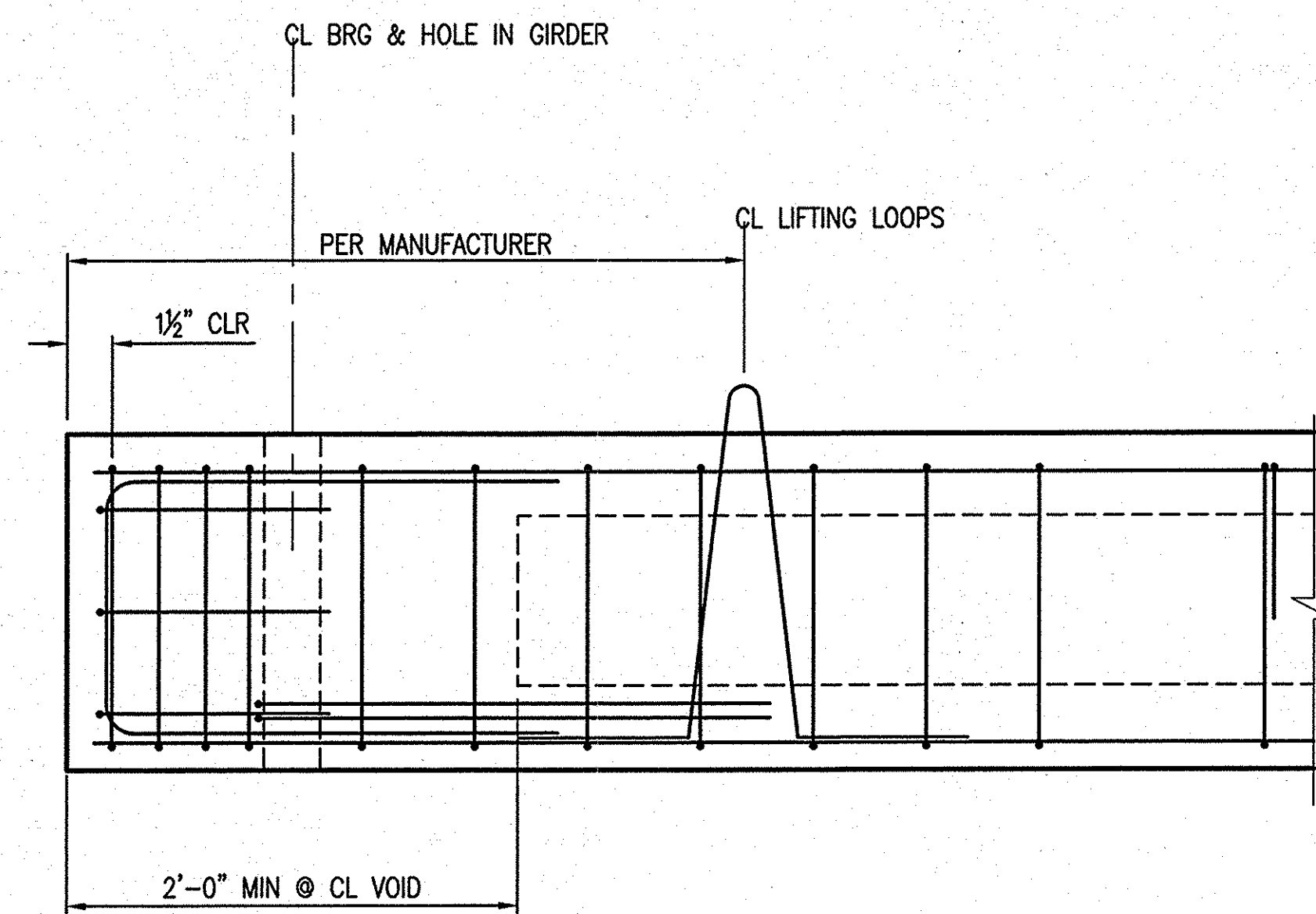
SHEET OF

S2 5

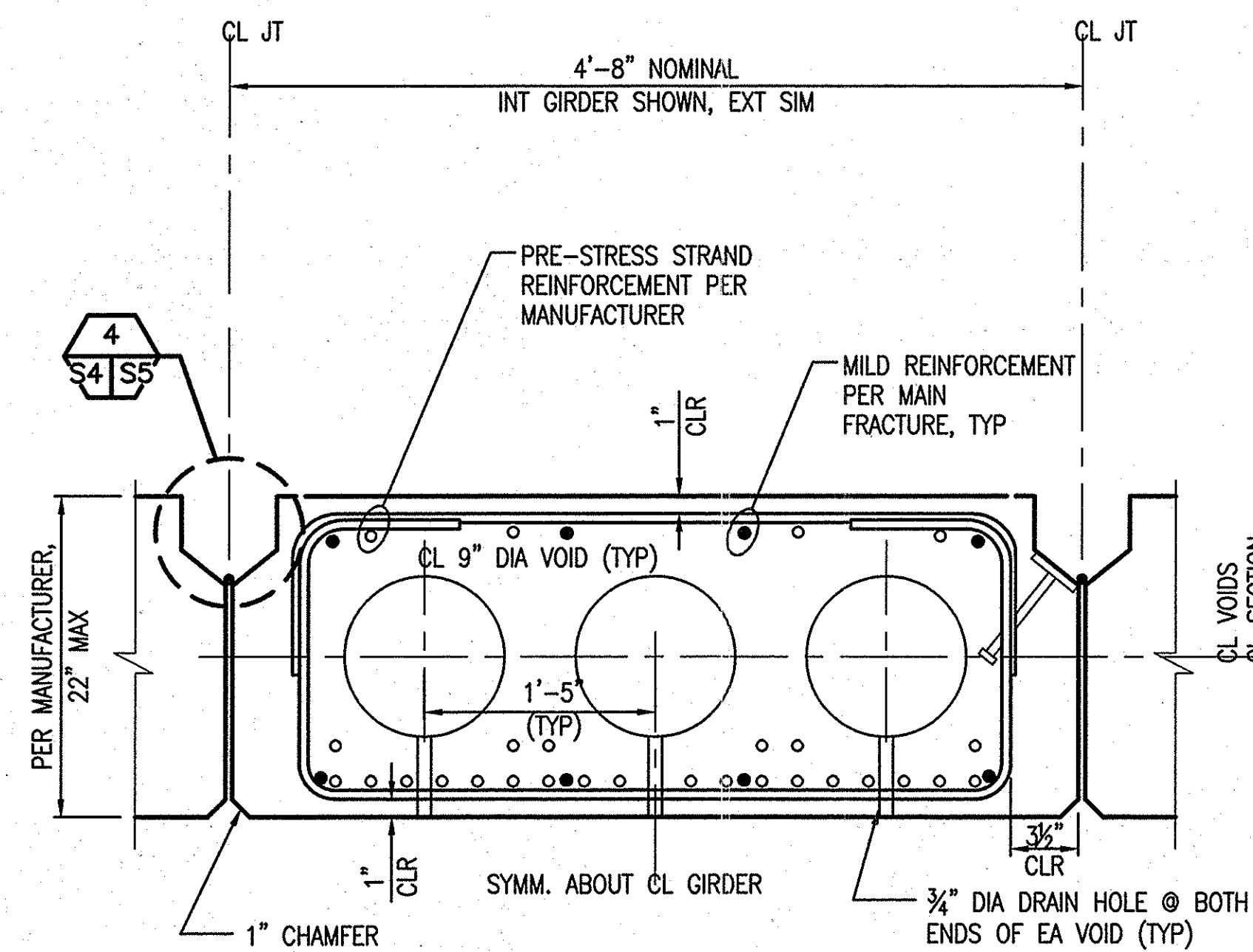


- NOTES:
1. VOIDED SLAB GIRDER SHALL BE BIDDER - DESIGNED SIMILAR TO THE WSDOT STANDARD PRESTRESSED CONCRETE SLAB GIRDER DRAWINGS EXCEPT THAT NO TOPPING SLAB IS REQUIRED.
 2. RAILING POST CONNECTIONS NOT SHOWN FOR CLARIFY, SEE SHEET 5 FOR RAILING DETAILS.
 3. LONGITUDINAL REINFORCEMENT NOT SHOWN FOR CLARITY.

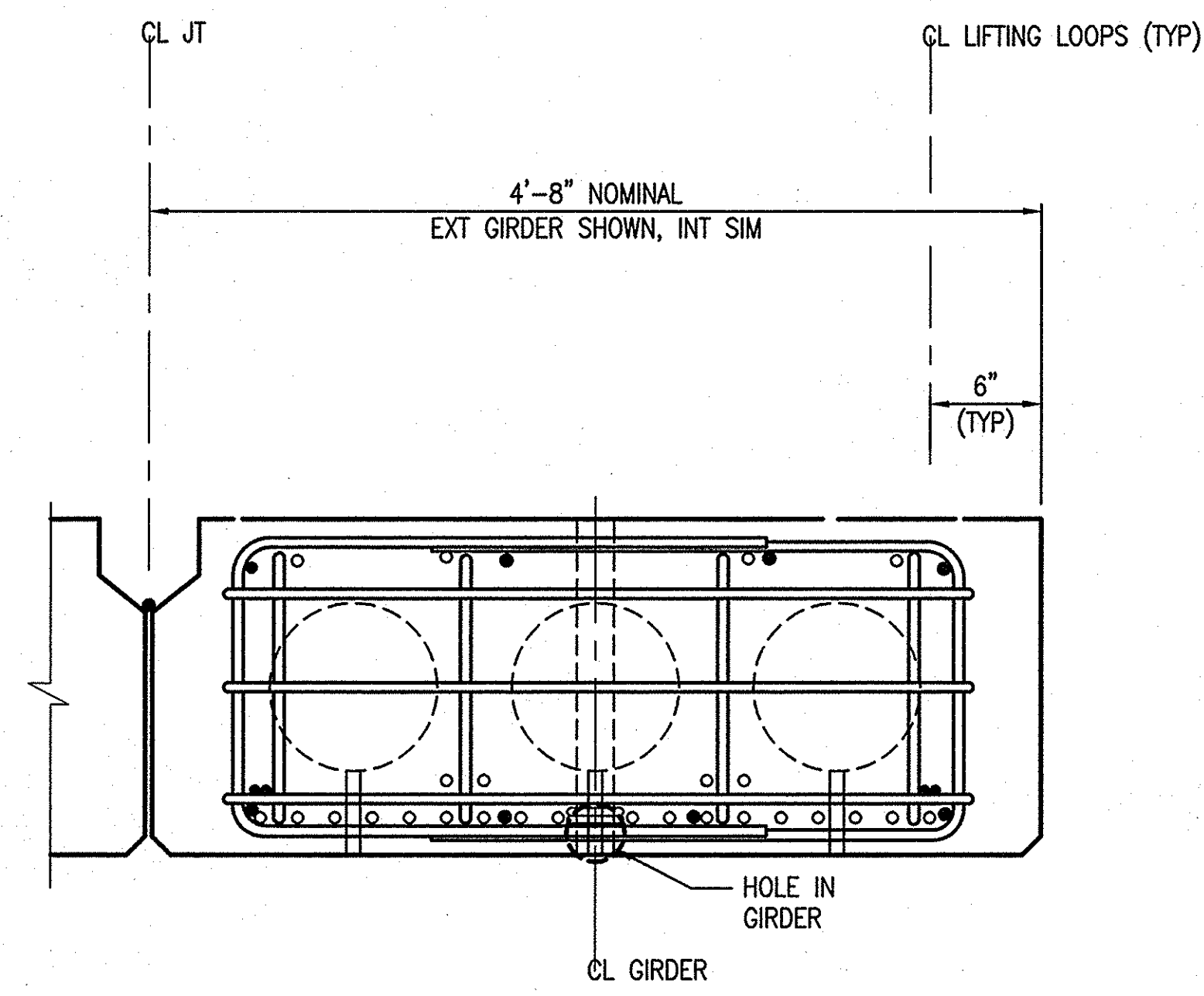
PLAN



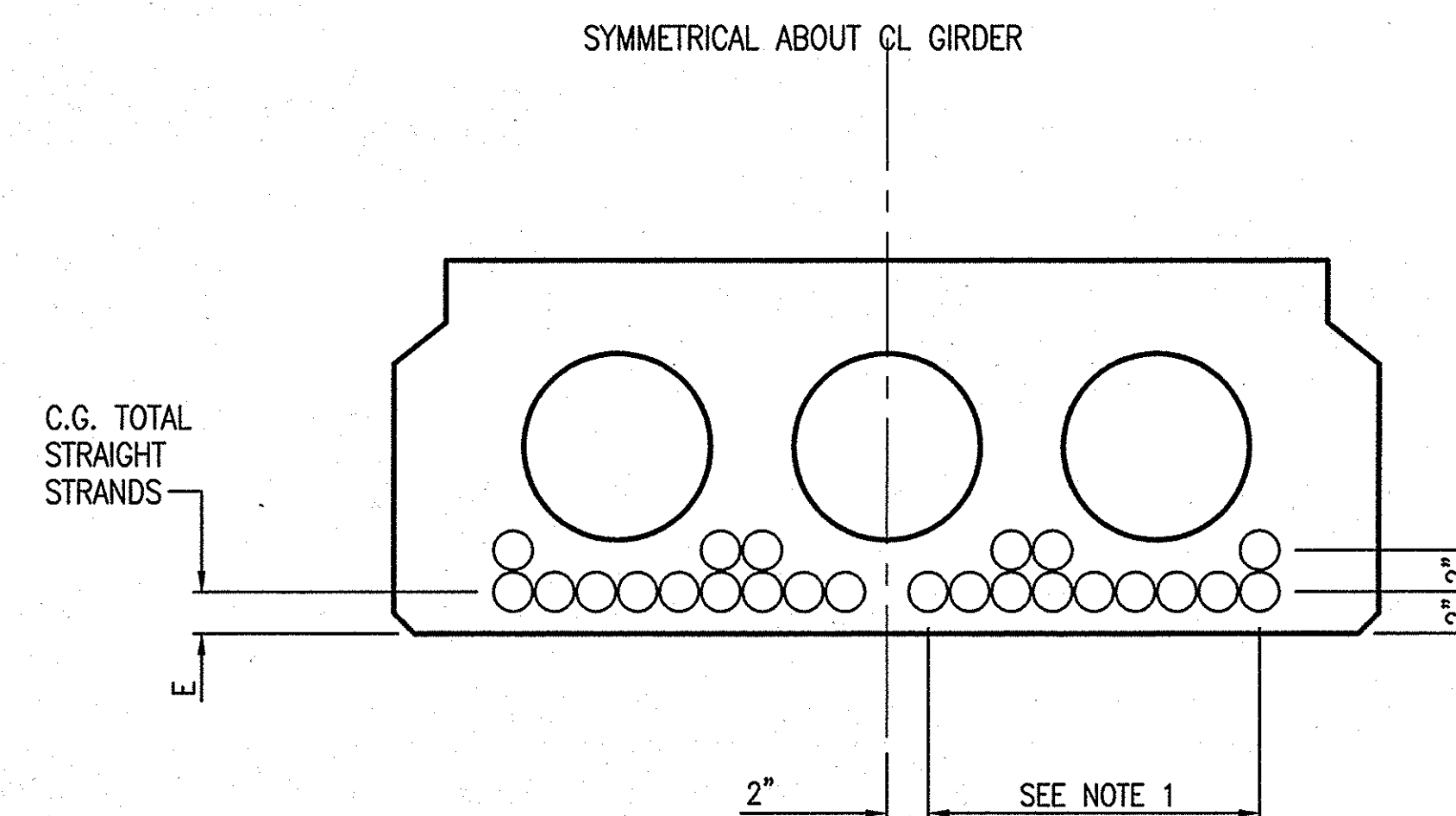
ELEVATION
SCALE: NTS



SECTION
SCALE: NTS



SECTION
SCALE: NTS



NOTES:

1. STRAIGHT STRAND QUANTITY, LOCATION AND SEQUENCE SHALL BE PER MANUFACTURER.
2. MILD REINFORCEMENT NOT SHOWN.

STRAND PATTERN SECTION

SCALE: NTS

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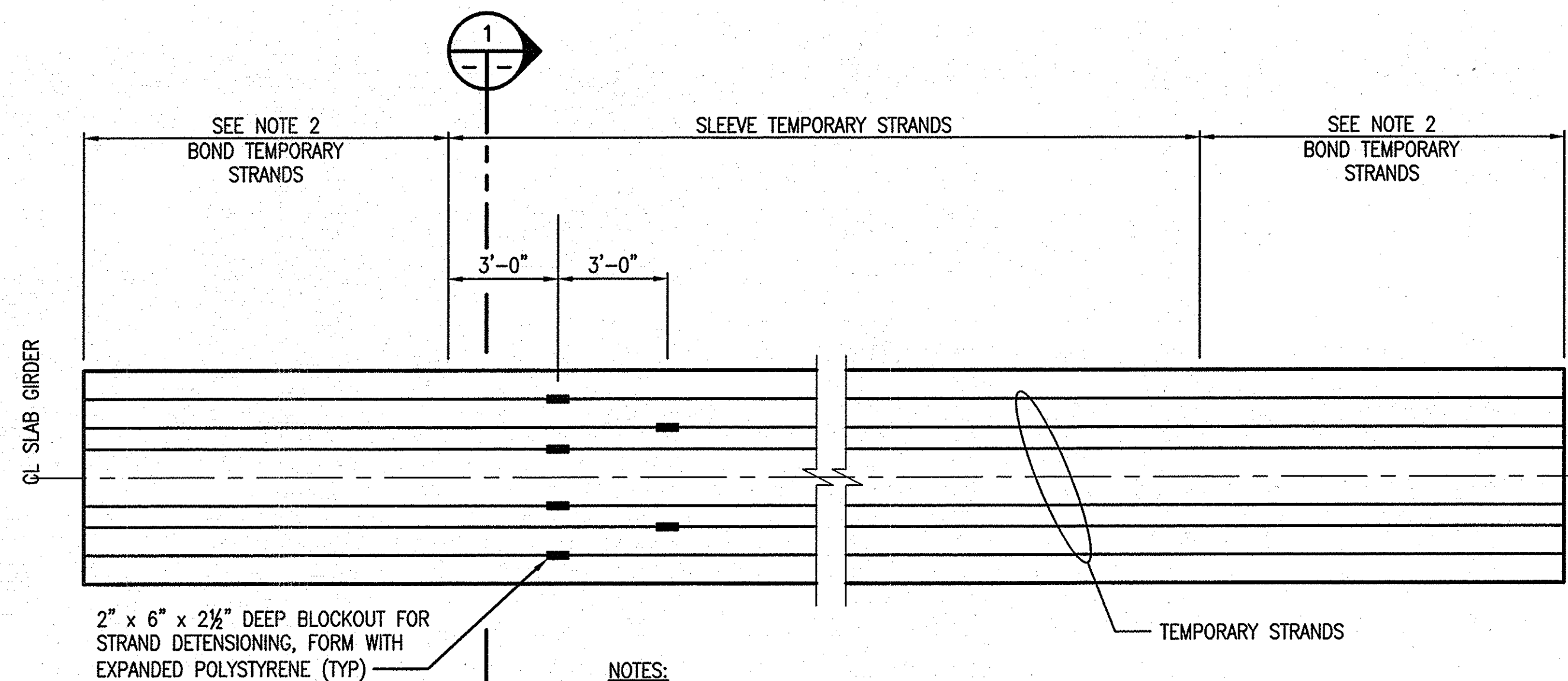
SYM	DATE	REVISION DESCRIPTION	BY
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CHIEF ENGINEER		DATE:	
PROGRAM		DATE:	
DESIGNED BY LKL		CHECKED BY BCM	
DRAWN BY RLC		DATE 06/19/12	

0 1"
BAR MEASURES
ONE INCH ON
ORIGINAL DRAWINGS

CHERRY VALLEY WILDLIFE AREA
FISH PASSAGE RESTORATION
WORK AREA 1,2 & 3
SLAB GIRDER SECTIONS AND DETAILS

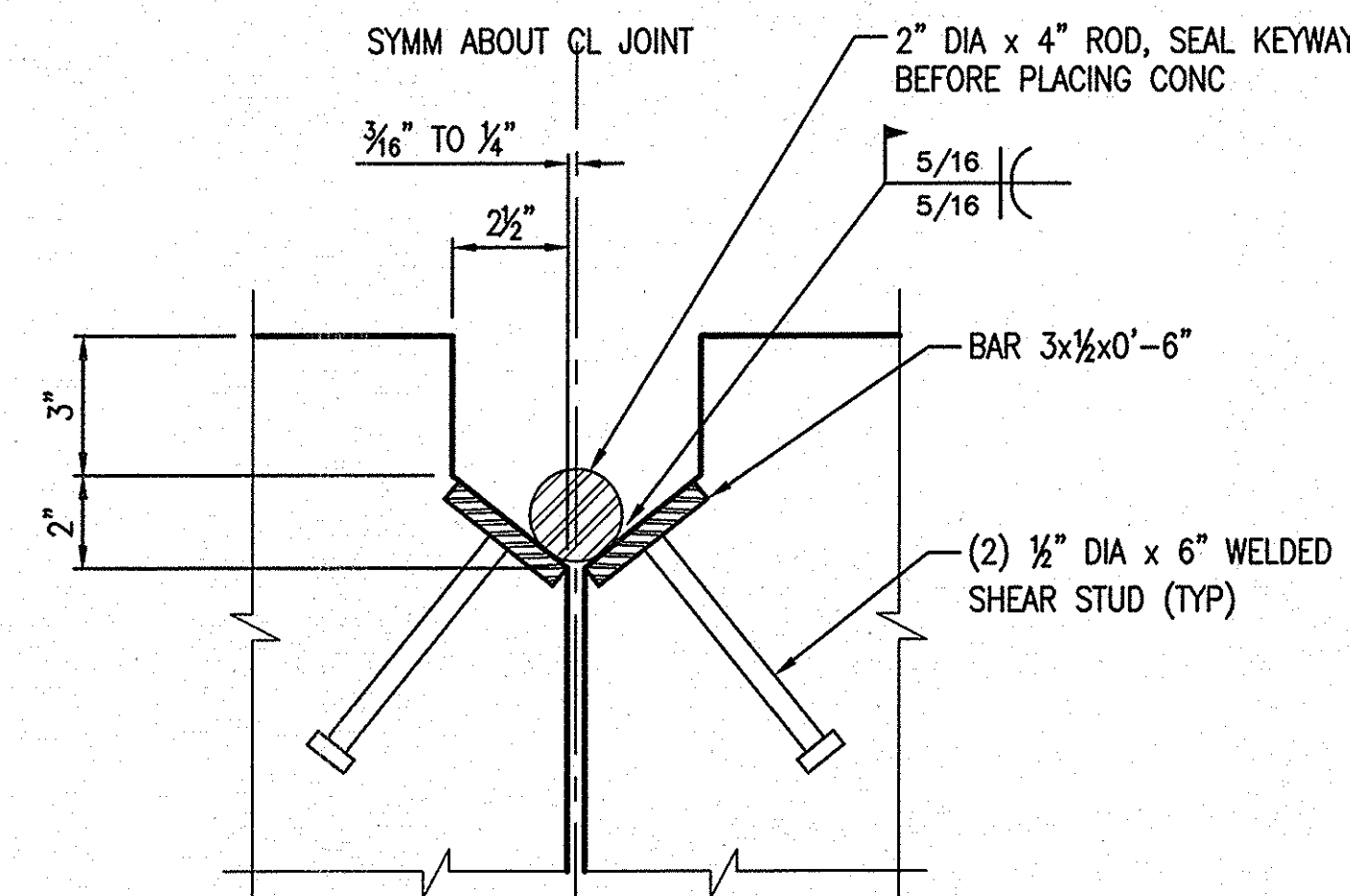
PROJECT NO.
KG:R3:11-1

SHEET OF
S3 5



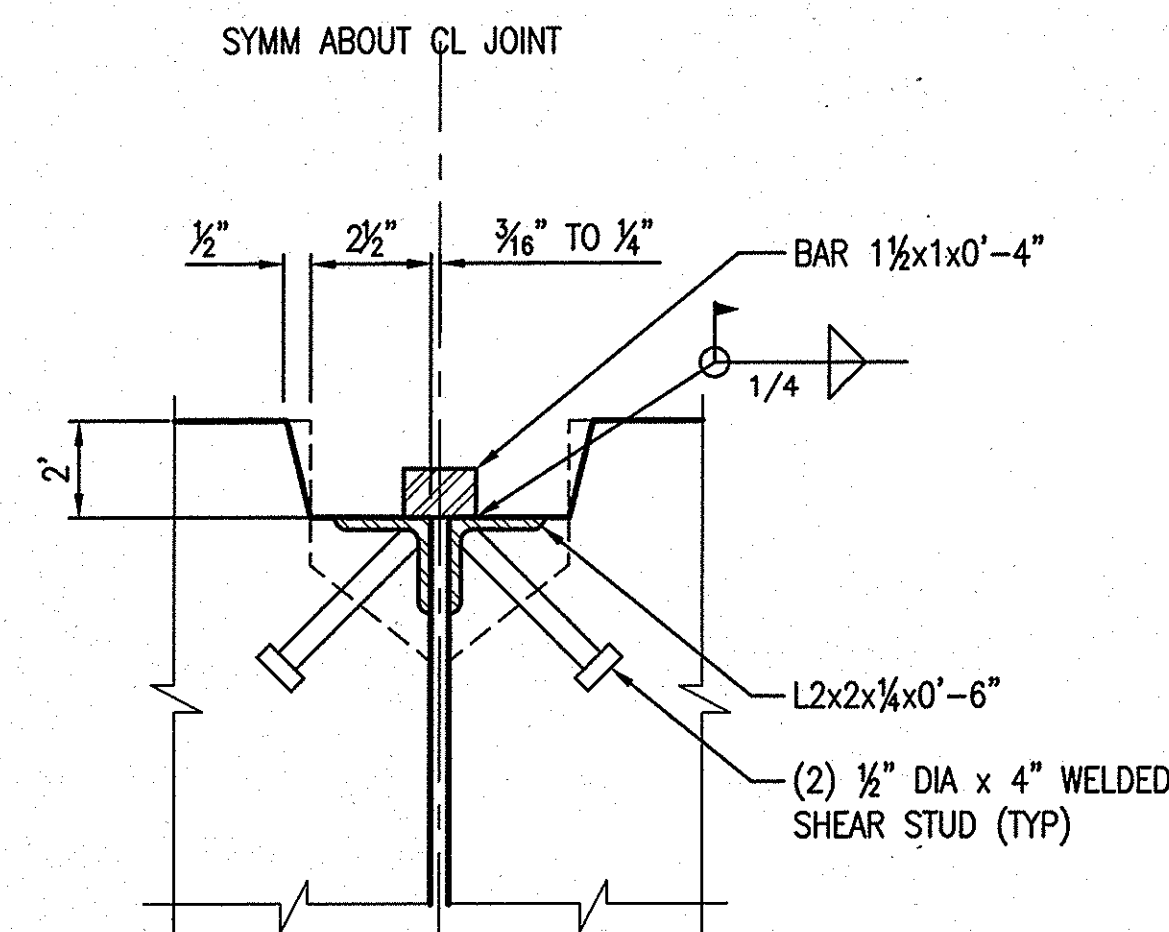
- NOTES:
1. TEMPORARY STRANDS PER MANUFACTURER.
 2. BONDED LENGTH TO BE DETERMINED BY MANUFACTURER.

PLAN
PRETENSIONED TEMPORARY TOP STRANDS



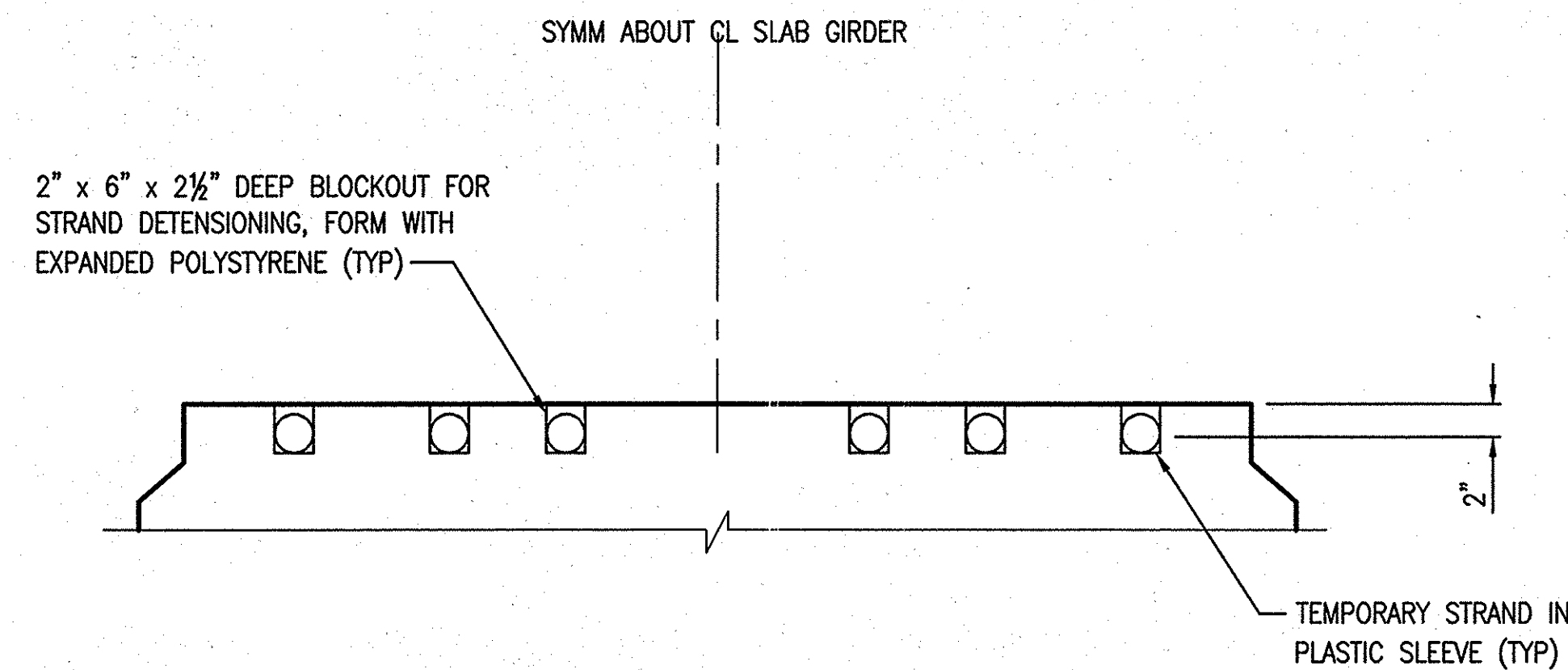
- NOTE:
1. WELD TIE ALTERNATE #1.

SECTION
SCALE: NTS



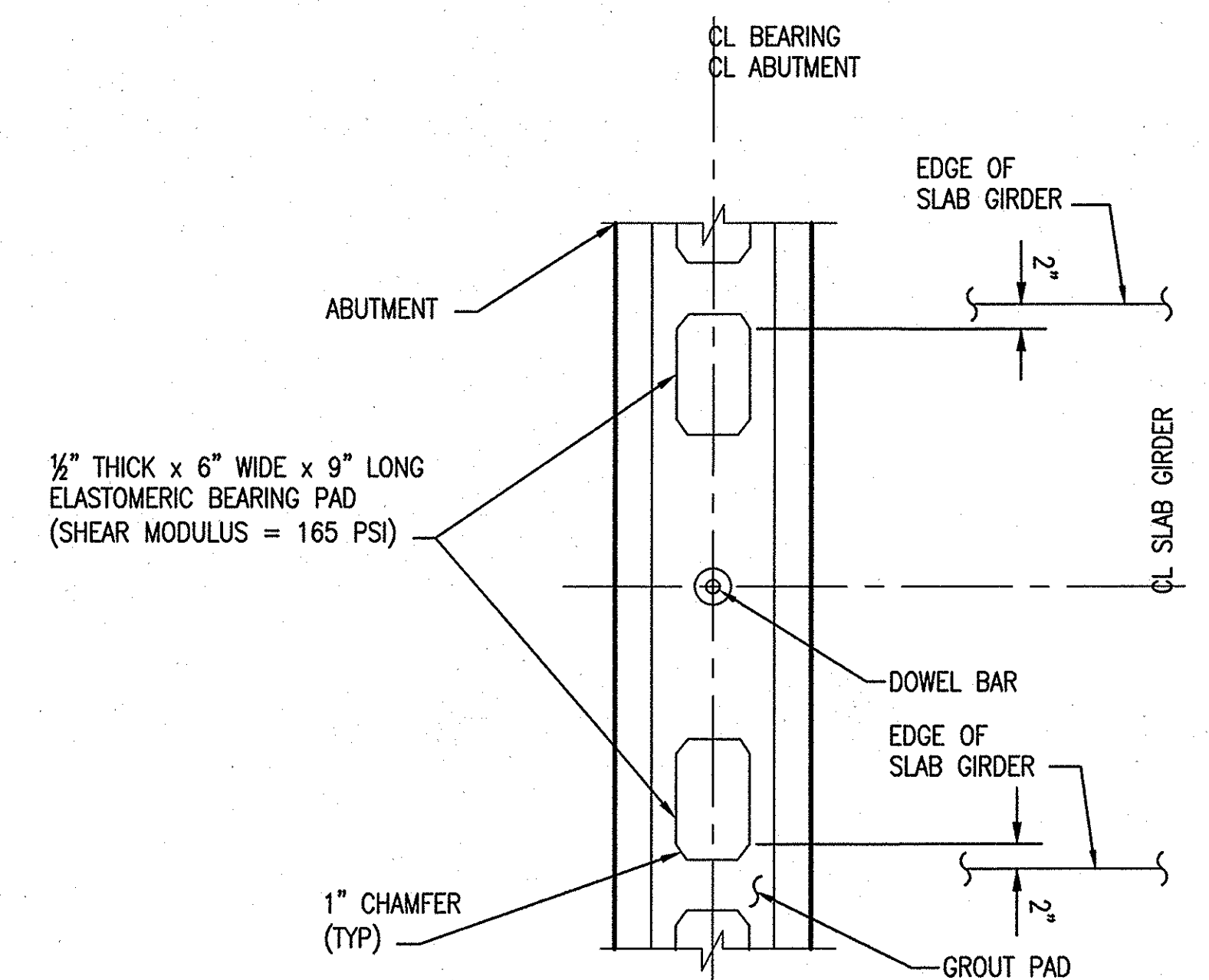
- NOTE:
1. WELD TIE ALTERNATE #2.

SECTION
SCALE: NTS



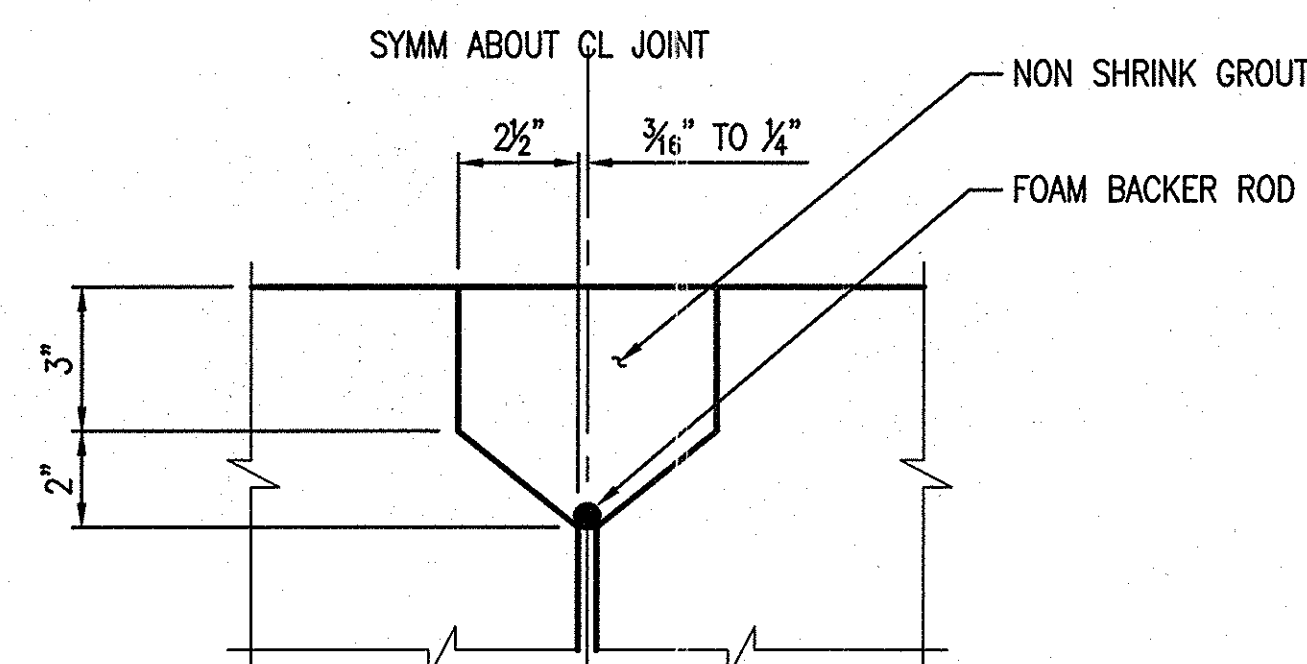
- NOTE:
1. TEMPORARY STRAND QUANTITY, LOCATION AND SEQUENCE SHALL BE PER MANUFACTURER.

SECTION
SCALE: NTS

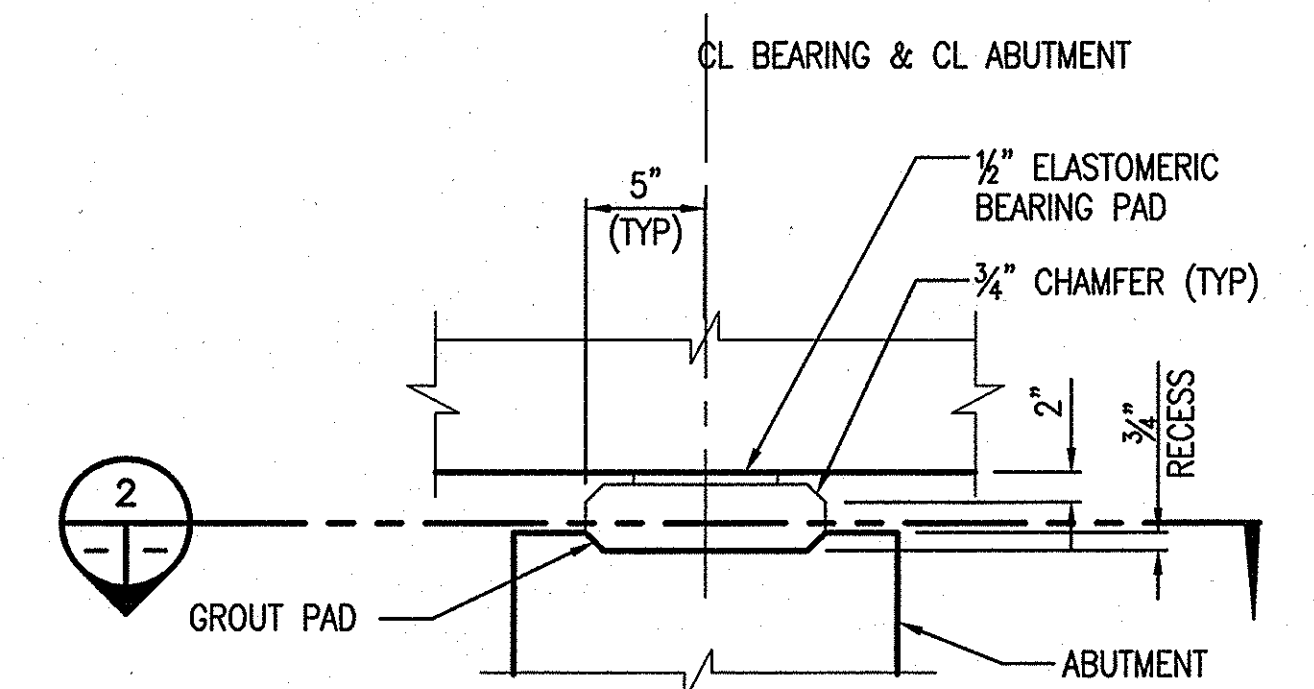


- NOTE:
1. FULL BEARING OF SLAB UNIT IS REQUIRED AT EACH ELASTOMERIC BEARING.

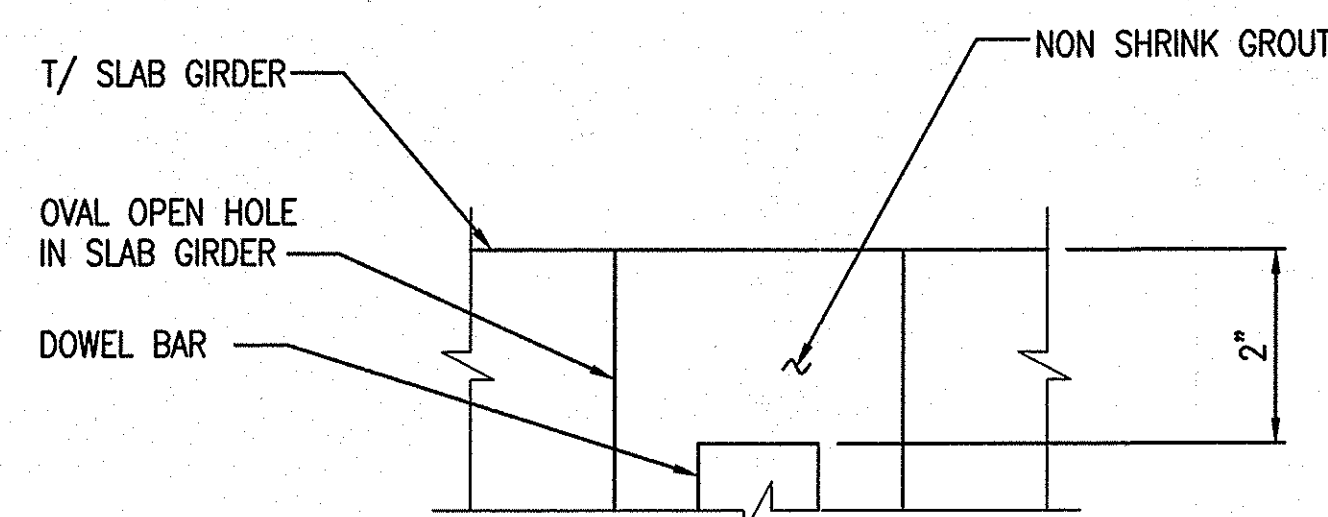
SECTION
SCALE: NTS



SHEAR KEY SECTION
SCALE: NTS



GROUT PAD DETAIL
SCALE: NTS

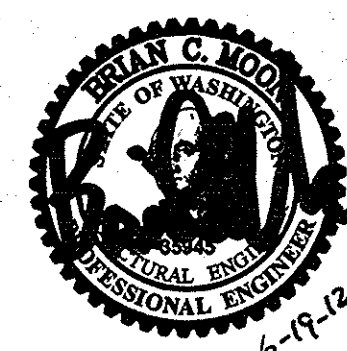


DETAIL
SCALE: NTS

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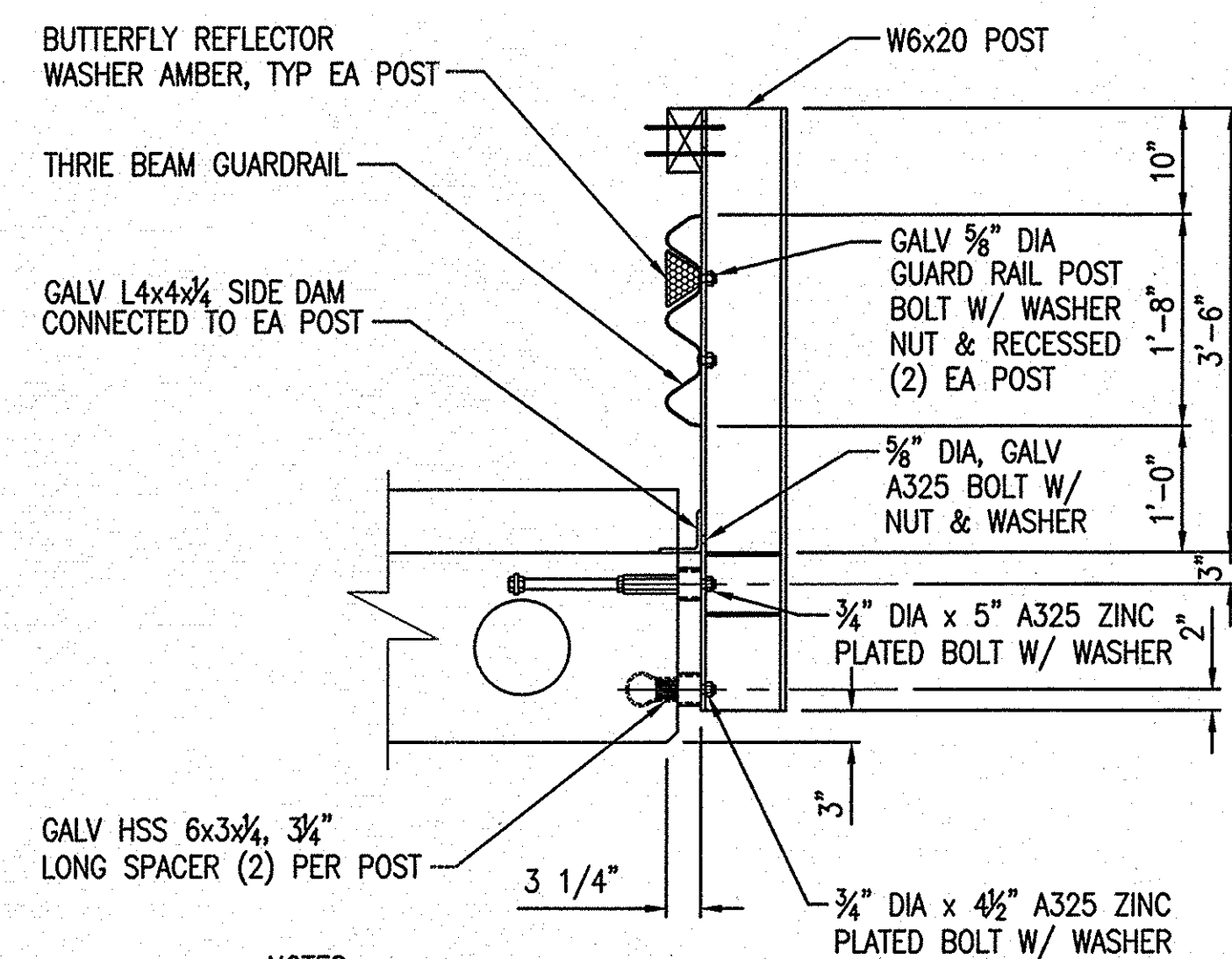


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CHERRY VALLEY WILDLIFE AREA
FISH PASSAGE RESTORATION
WORK AREA 1,2 & 3
SECTIONS AND DETAILS

PROJECT NO.
KG:R3:11-1

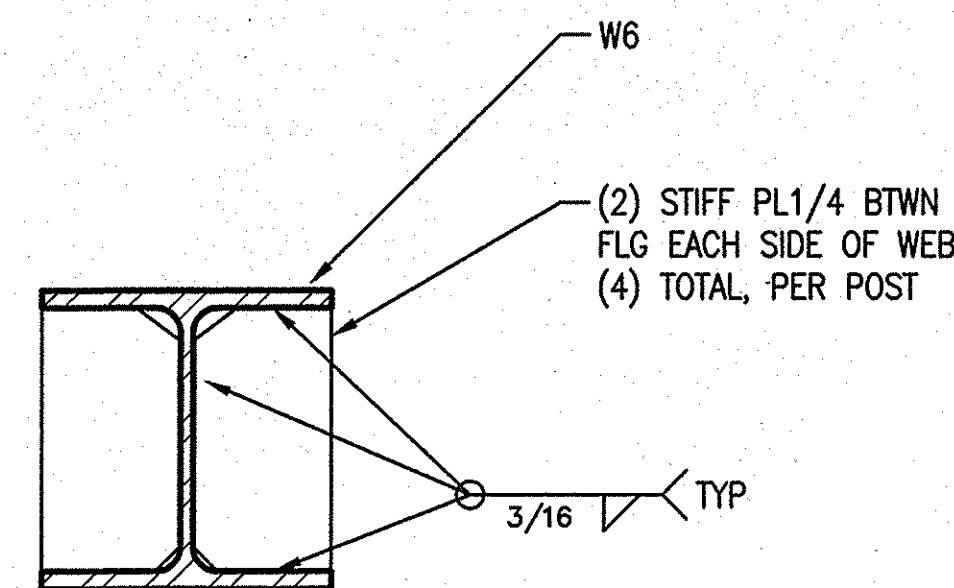
SHEET OF
S4 5



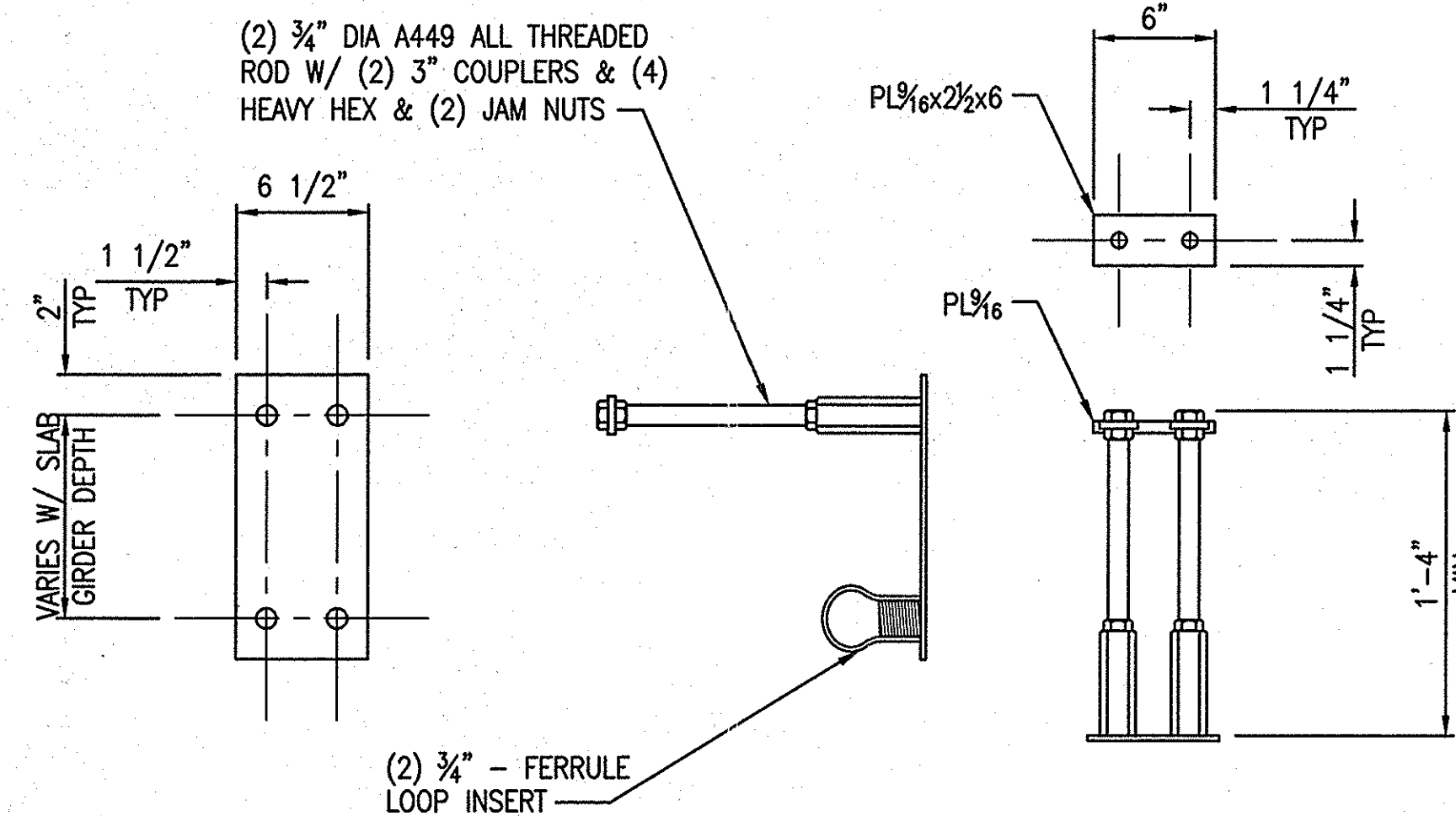
NOTES:

1. ALL RAIL CONNECTIONS SHALL BE TIGHTENED MEETING SNUG TIGHT CRITERIA PER AISC AND DO NOT OVERTIGHTEN.
2. SEE DETAIL 3 FOR ANCHOR SYSTEM.

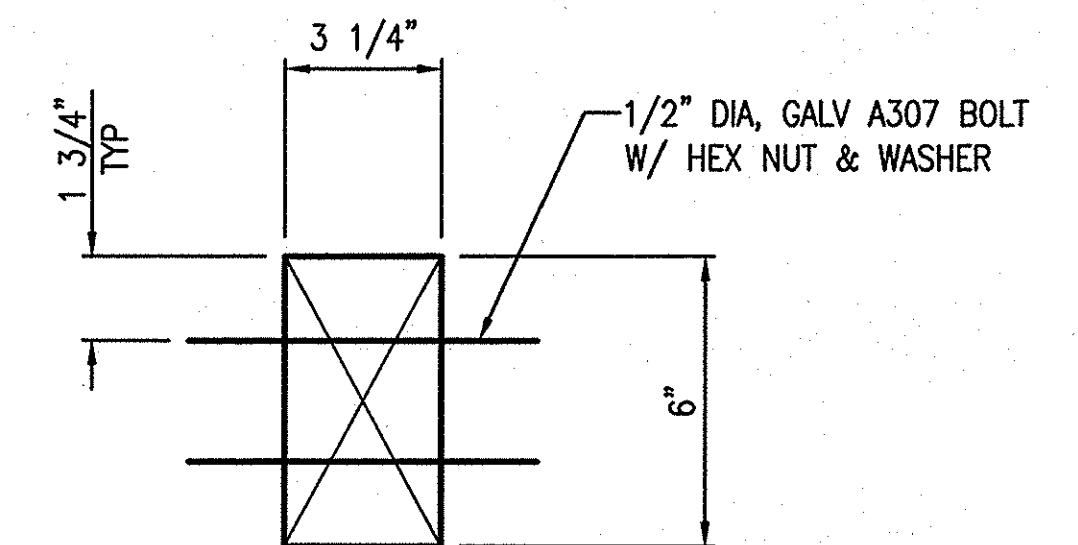
TYPICAL POST CONNECTION 1
SCALE: 3/4"=1'-0"



DETAIL 2
SCALE: 3"=1'-0"



ANCHOR SYSTEM 3
SCALE: 1 1/2"=1'-0"



NOTE:

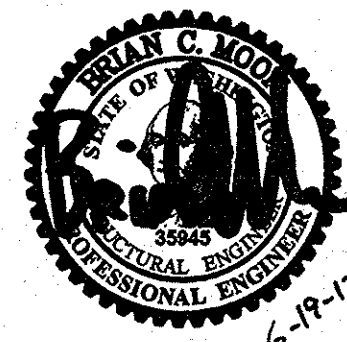
1. TOP RAIL SHALL BE GLULAM (22 F-V POC).

TOP RAIL DETAIL 4
SCALE: 3"=1'-0"

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SYM	DATE	REVISION DESCRIPTION	BY
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PROGRAM		DATE:	

0	1"
BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS	
DESIGNED BY	LKL
CHECKED BY	BCM
DRAWN BY	RLC
DATE	06/19/12

CHERRY VALLEY WILDLIFE AREA
FISH PASSAGE RESTORATION
WORK AREA 1,2 & 3
RAILING SECTIONS AND DETAILS

PROJECT NO.
KG:R3:11-1

SHEET OF
S5 5