

GENERAL NOTES:

- Do not scale drawings, follow dimensions.
- The design of the bridge superstructure, slope stabilization, scour control, bank protection, evaluation of creek hydrology/hydraulics, development of site grading plans or any other site specific issues shall be the responsibility of the Owner and/or the Contractor.
- Abutment design was based on load reactions for the pedestrian bridge as manufactured by Steadfast Bridges, Fort Payne, AL. Superstructure dimensions and abutment reactions are from plans for Bridge Number 052235A, dated 09/03/05, provided by Steadfast Bridges.
- The design of this abutment has considered only the structural integrity of the abutment itself in conjunction with the net soil bearing pressure. Design is based on an allowable net soil bearing pressure of 2400 pounds per square foot in accordance with the Report of Geotechnical Investigation for Hyland Green Pool House Pedestrian Bridge by Reitz and Jens, Inc., dated August 12, 2005. If upon excavation it is determined that the minimum allowable soil bearing pressure cannot be met, immediately notify the Engineer to determine appropriate design changes.
- All phases of the foundation- and soils-related construction should be tested, and documented by Reitz & Jens to verify that subsurface conditions anticipated are, in fact, those found during construction. Pertinent construction operations include: subgrade preparation, foundation installation (i.e. bearing surface suitability), and fill or backfill placement and compaction. Contractor shall notify Reitz and Jens 48 hours prior to pertinent construction operations to schedule testing and documentation of foundation- and soils-related construction.
- Abutment details shown are for abutments on each side of the crossing. The top of abutment elevations are to be the same on either side of the crossing.
- All construction methods shall be completed in such a manner to protect all adjacent structures and underground utilities.
- The contractor shall perform all trenching and excavation work in strict compliance with all federal, state, and local laws, rules, or regulations encompassing same. The method of compliance shall be the sole responsibility of the contractor.
- If groundwater is evident, the excavation should be pumped dry before placement of formwork and concrete.
- A compacted granular backfill shall be used where shown on the plans. The contractor shall protect the exposed bearing subgrade from construction activity by placing a layer of compacted granular backfill. The Contractor shall direct runoff away from the excavation.
- A free-draining clean granular backfill shall be used where shown on the plans. The clean granular backfill shall be covered by compacted impervious backfill to retard infiltration of surface water. Geotextile filter shall be placed at all interfaces between soil and clean granular backfill. Grade the site to drain away from abutments.
- Material for compacted granular backfill shall be Type 1 or 5 aggregate for base per MoDOT section 1007, of the Missouri Standard Specifications for Highway Construction - 2005, as determined in accordance with ASTM D 422.
- Material for free-draining clean granular backfill shall be Grade 4 aggregate for drainage per MoDOT section 1009, of the Missouri Standard Specifications for Highway Construction - 2005, as determined in accordance with ASTM D 422.
- Fill materials for areas not designated to have granular backfill shall consist of uncontaminated, inert, non-expansive soils classified as silty clay (CL), clayey silt (ML), sand (SP, SM, SW, SC) or gravel (GP, GW, GC). The liquid limit of clayey soils shall be less than 50 percent, and the plasticity index shall be at least 10 percent. Fill material shall not contain roots or other similar organic matter, trash, frozen material, chemical contamination, or rock or concrete fragments larger than 6 inches in the maximum dimension.
- Fill materials shall be placed in uniform, horizontal lifts, and compacted in systematic coverages of the entire lift. The thickness of the loose lift (prior to compaction) shall not exceed 12 inches where large, self-propelled compaction equipment can be used. In confined areas, where manual compactors are required, the lift thickness shall not exceed 6 inches prior to compaction.
- The water content of fine-grained soils shall be adjusted prior to compaction, either by sprinkling additional water, or by scarifying, discing and drying to lower the water content. Normally, the soils on site will have to be dried prior to compaction.
- Where fill is placed below slabs, the fill shall be compacted to a dry unit weight equal to at least 90 percent of the maximum dry unit weight determined by the modified Proctor method (ASTM D-1557). Fill in other areas may be compacted to 85 percent of the maximum dry unit weight. The compaction of granular materials is based on the minimum and maximum densities determined by laboratory tests (ASTM D-4253 and D-4254). Granular fill placed shall be compacted to a relative density of 75 percent.
- Weep holes 3 inches in diameter, shall be constructed in abutments and sidewalks. The lower line of weep holes shall be approximately 4 inches above the top of the footing. Slope drain holes 1/2" per foot to drain. A layer of clean granular backfill, at least 18 inches high shall be placed at the front of each weep hole in abutments and sidewalks and extend to the excavation limits. All form boards or other obstructions shall be removed from the drains before backfill is placed.

19. Geotextile filter shall have the following minimum:

AOS	ASTM D 4751 US Sieve 70 (0.212 mm)
Grab Tensile	ASTM D 4632 120 lbs (0.53 kN)
Trap Tear	ASTM D 4533 50 lbs (0.22 kN)
Water Flow Rate	ASTM D 4491 135 gal/min/ft ² (5500 l/min/m ²)
Punctures	ASTM D 4833 70 lbs (0.31 kN)

CONCRETE CONSTRUCTION NOTES

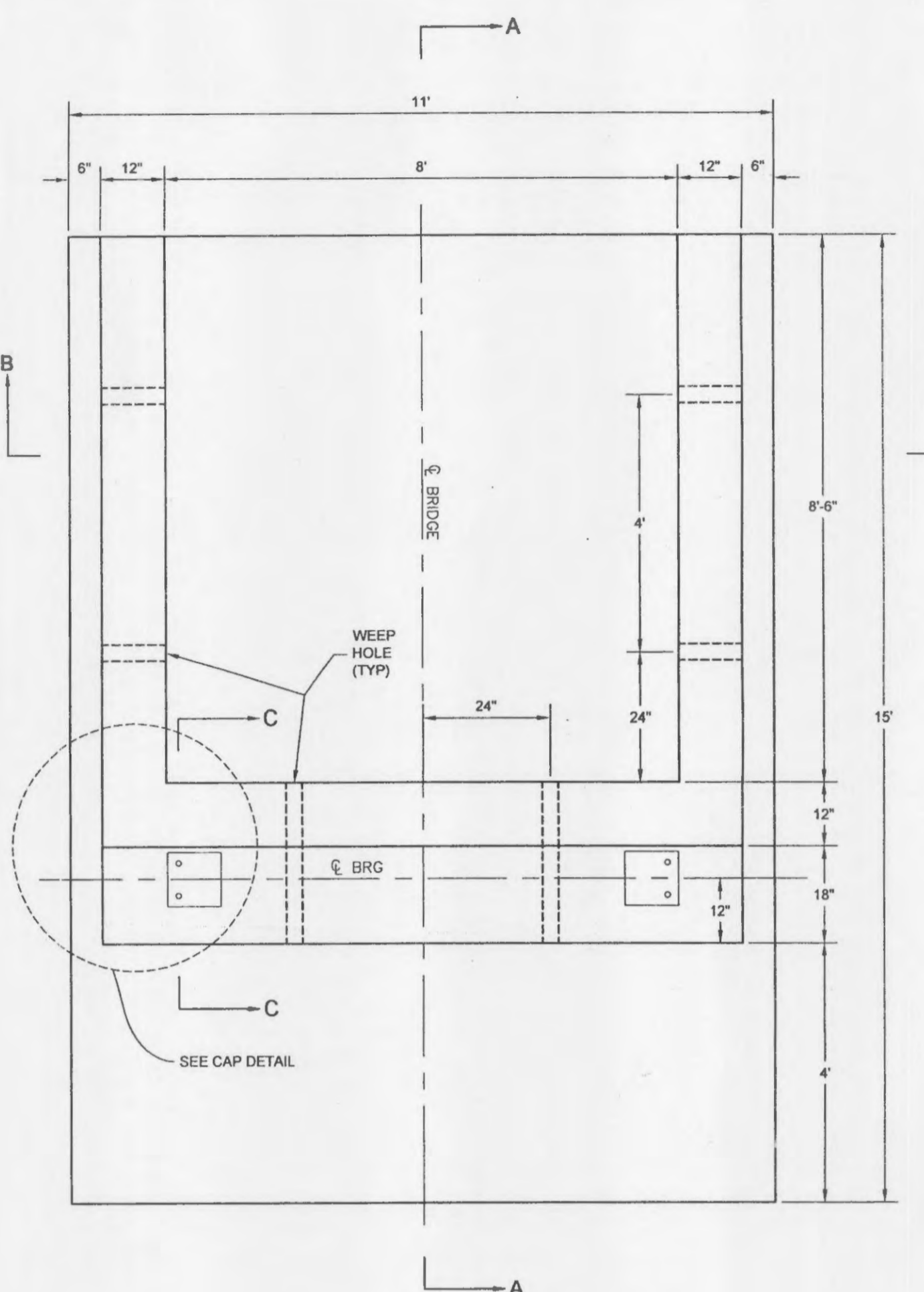
- Mix, design, placement, and procedures and methods of sampling and testing shall conform to ASTM standards and ACI 318.
- Concrete shall be normal weight concrete and shall have a minimum 28-day compressive strength of 4000 psi.
- Concrete shall have a 4" maximum slump.
- Concrete shall be air-entrained. The designated quantity of air by volume shall be 5.5% with an operating tolerance of ±1.5%. There shall be no intentional deviation from the designated air content. Air entrainment shall be obtained by use of an approved air-entraining admixture added in the quantity required to obtain the designated air content.
- The Owner shall employ a testing agency to perform field quality control tests and to submit test reports.

REINFORCING STEEL NOTES

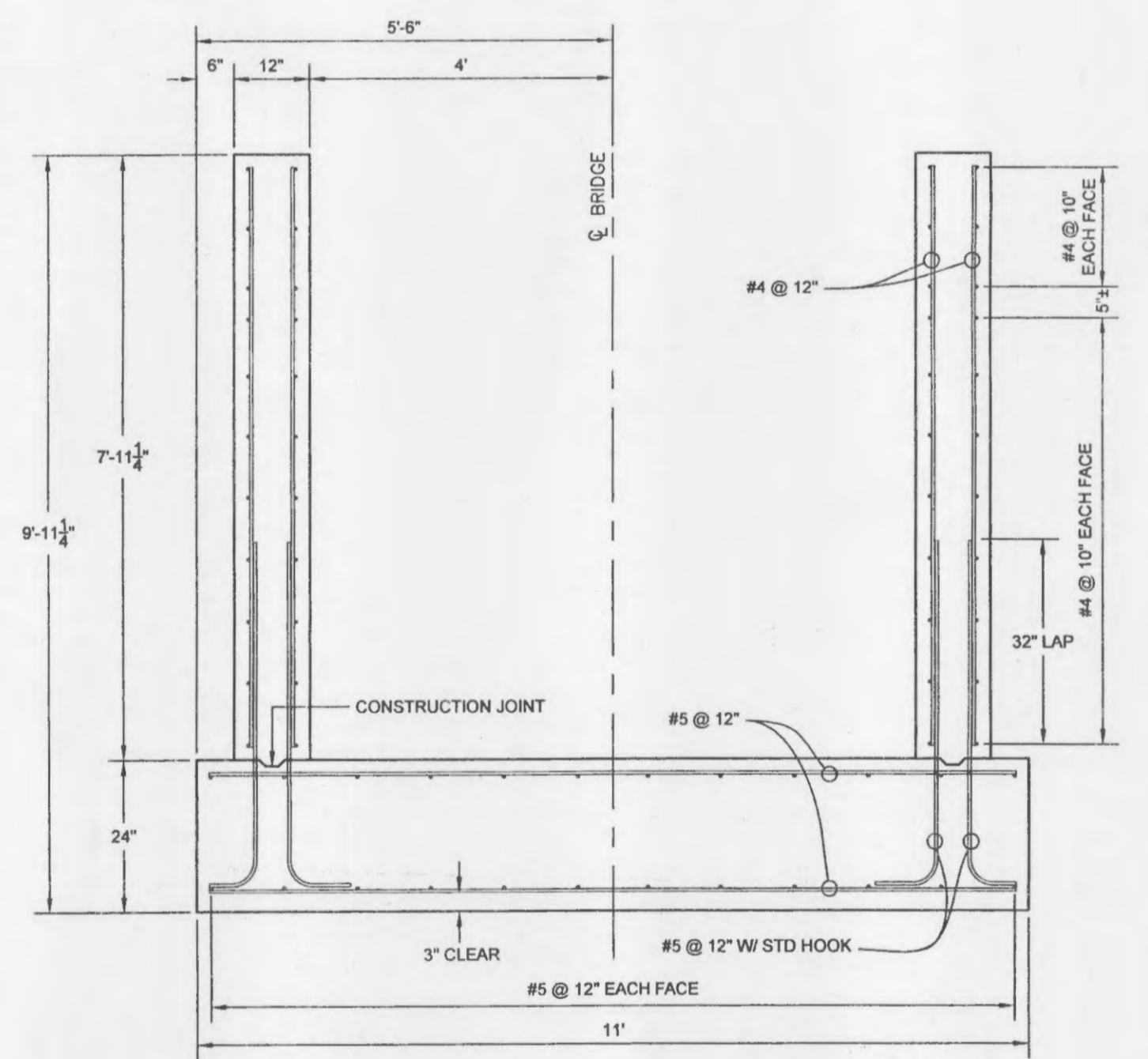
- Reinforcing steel shall be ASTM A-615 Grade 60.
- All reinforcing steel shall be detailed, fabricated, and erected in conformance with the latest edition of ACI 315.
- All reinforcing shall be properly supported in forms, spaced with necessary accessories, and securely wired together.
- Minimum lap shall be 50 bar diameters.
- Provide minimum of 3 inches cover where concrete is cast against earth. Provide minimum of 2 inches cover where concrete is cast against forms.

ANCHORAGE NOTES

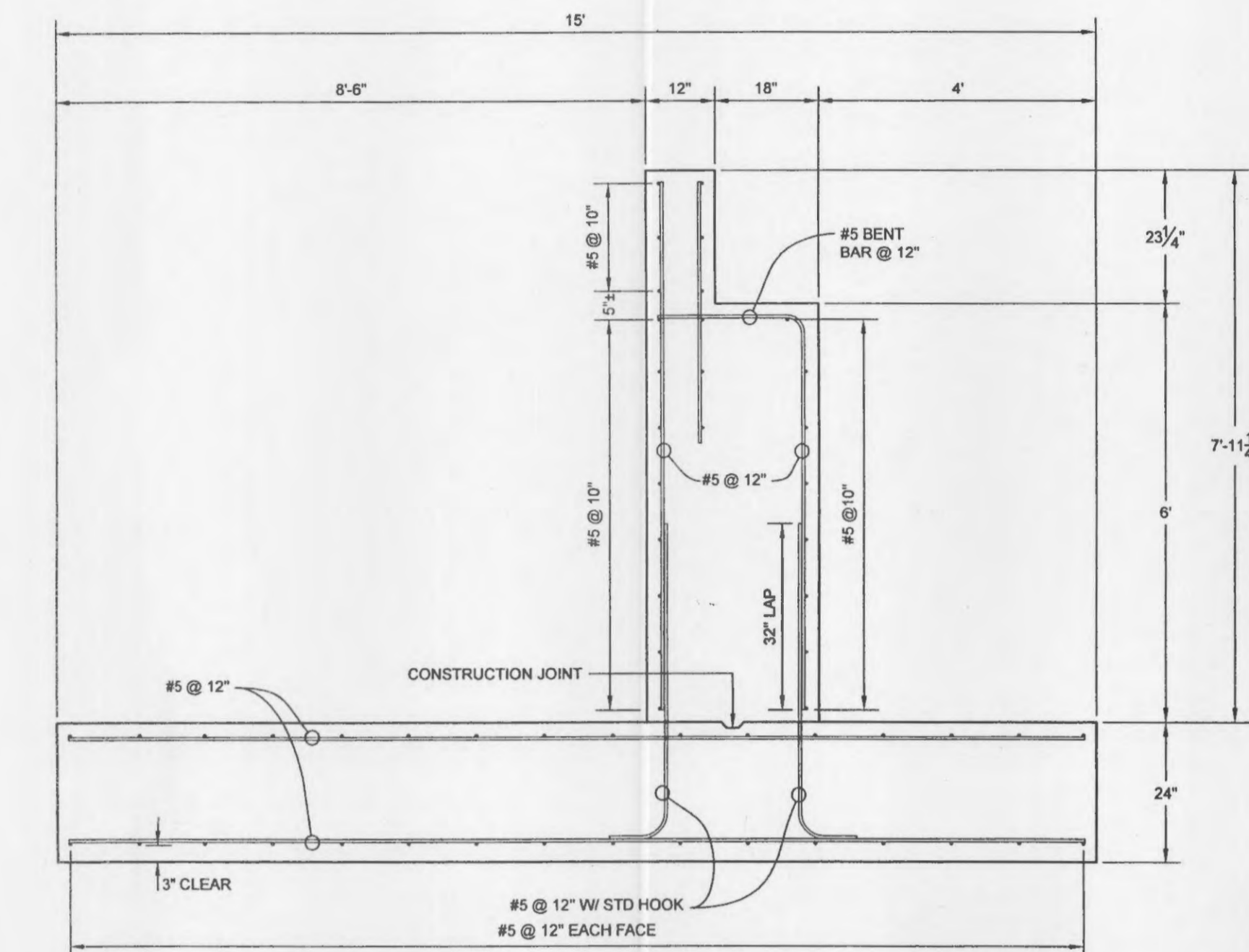
- Anchorages shall be made with cast-in-place ASTM A307, Grade C anchor bolts, 1" diameter, with heads, nuts or washers providing a minimum bearing area of 1.163 inches square.



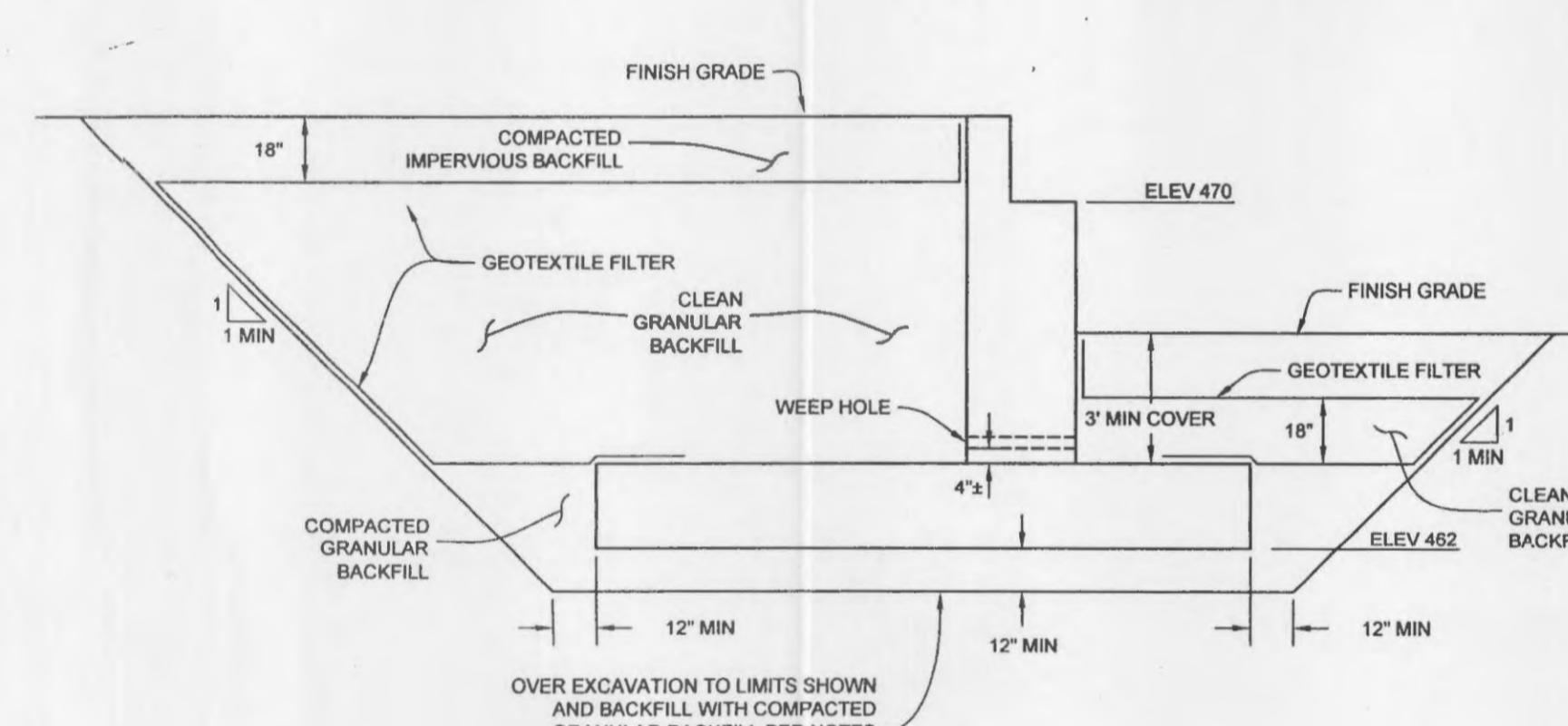
SECTION SYMMETRICAL ABOUT CENTERLINE OF BRIDGE
FOUNDATION PLAN
NO SCALE



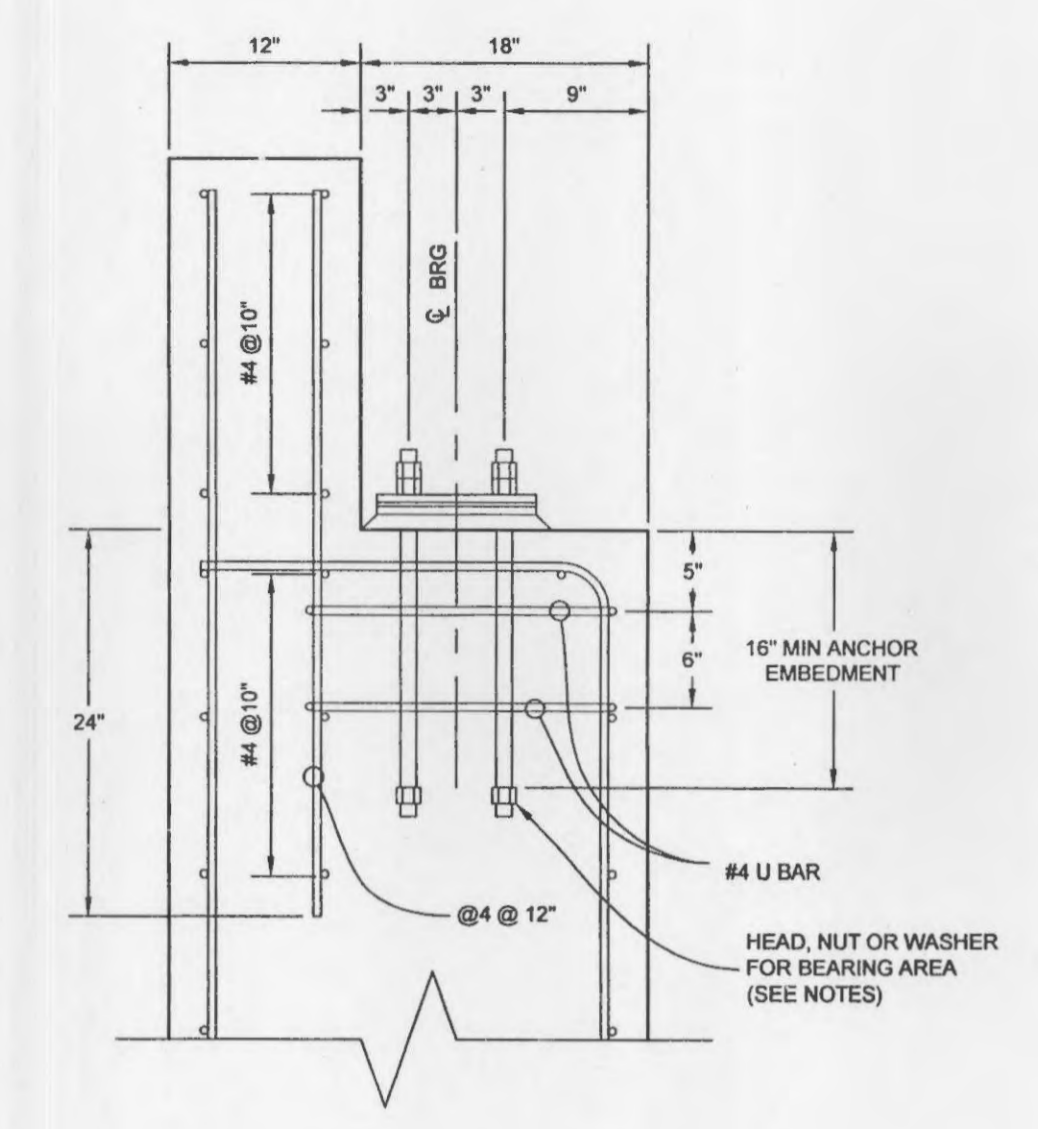
SECTION SYMMETRICAL ABOUT CENTERLINE OF BRIDGE
SECTION B-B
NO SCALE



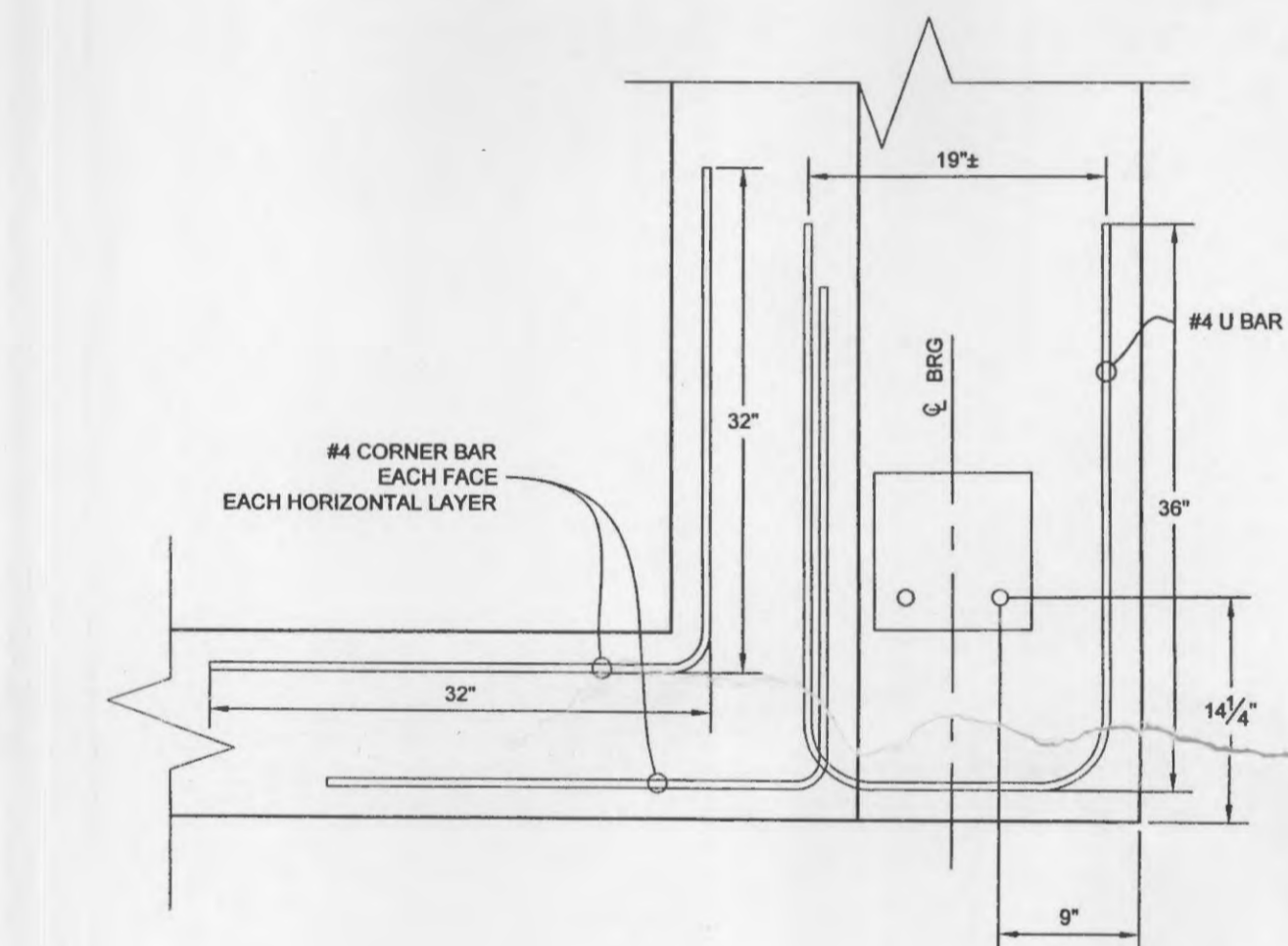
FOUNDATION SECTION A-A
NO SCALE



ABUTMENT SECTION A-A
NO SCALE



SECTION C-C
NO SCALE



CAP DETAIL
NO SCALE



Date: 7-16-05

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