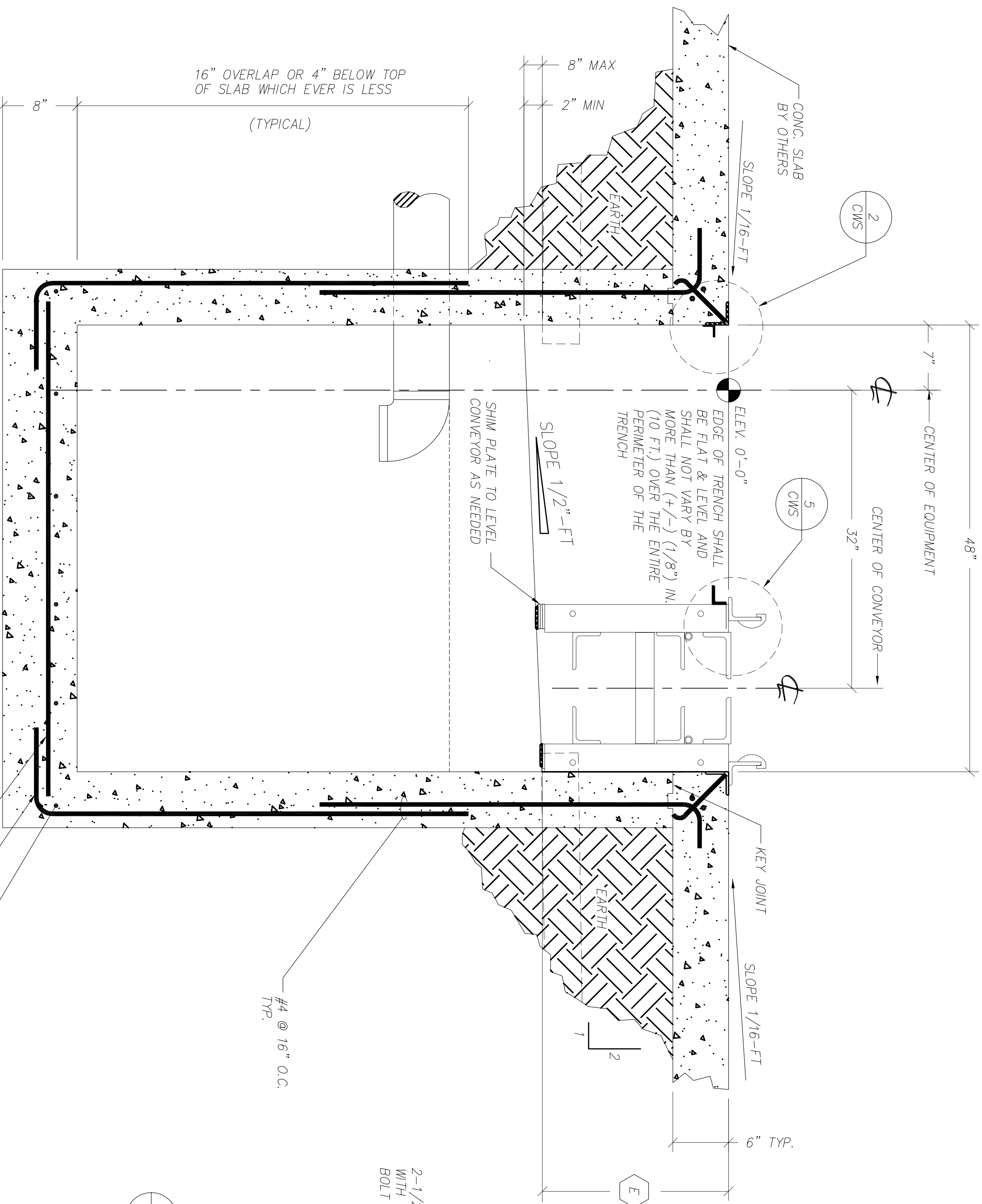
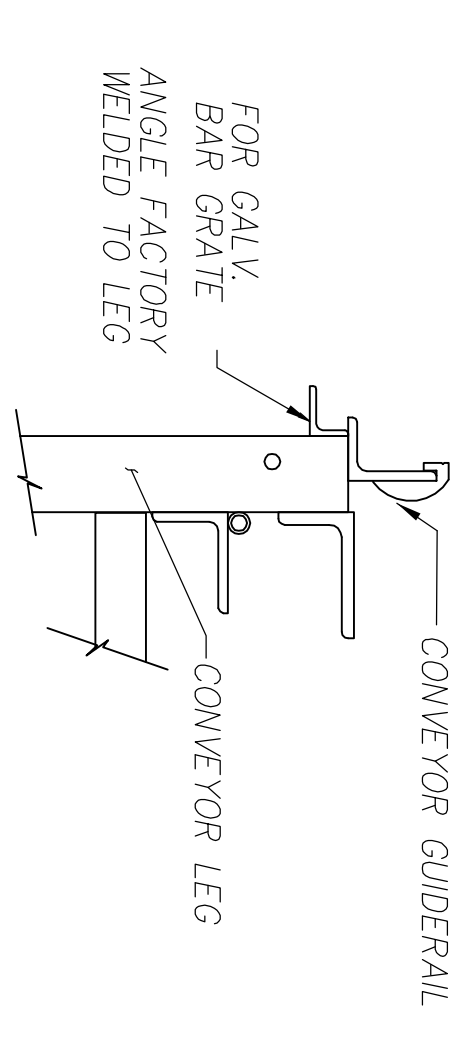


STRUCTURAL NOTES

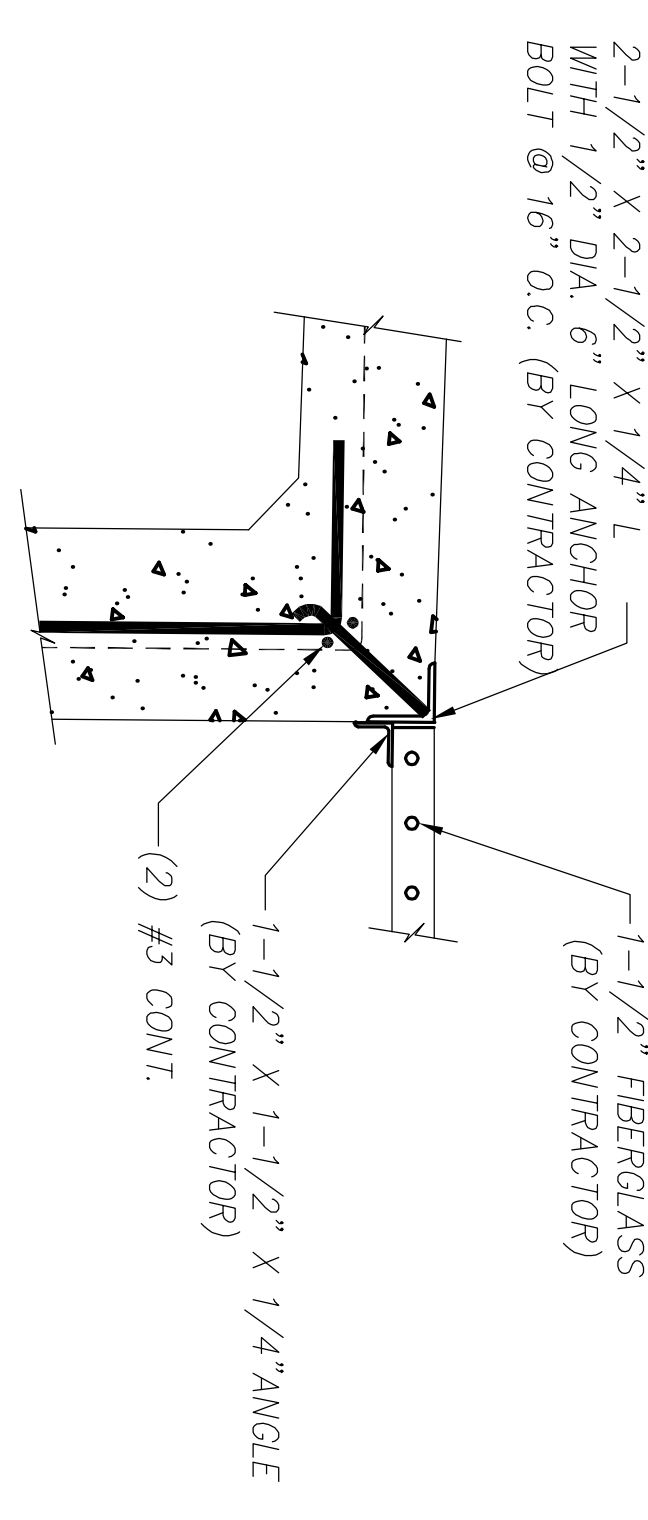
- DESIGN: Dimensions and tolerance shown are required for proper installation of car wash equipment. Structure shown is suggested construction. The Architect and/or Engineer of record shall verify that the structure shown is appropriate for the project and that the design is required to satisfy the requirements of the project.
- SOIL: Design shown assumes that the soil conditions at the site are satisfactory and have adequate bearing capacity for the loads to be imposed, with minimal differential settlement of the trench, slab, and car wash structures. If it is found that the soil on the site contains organics, and can not be used for structural purposes, the design shall be revised. The trench shall be redesigned for support on a piling foundation. The Architect and/or Engineer of record shall verify the soil conditions at the site.
- CONVEYOR TRENCH CONSTRUCTION: Excavate trench to a point at or just below the bottom of trench slab shown. Slope excavation to match slope of trench. Compact soil under trench bottom with soil. Compact soil under trench bottom Form and pour trench bottom slab coordinating placement of vert. reinf. with placement of block so that vert. reinf. is centered in the block cells. Lay block and fill cells and the columns with concrete to a point just below the slab over pour shown. After adequate curing time, back fill and compact clean soil behind trench walls in accordance with soils Engineer's direction. Complete trench by forming and pouring conveyor shell, conductor pit bottom, and surrounding slab.
- SLAB FINISHES: All car wash vehicular slabs shall be finished with rough non-slip surface (Broom Finish). Brush lines in the finish shall be parallel to the direction of slope.
- APPROACH & EXIT SLABS: Concrete approach and exit slabs extending a minimum of 20 feet from either end of the trench shall be finished with rough non-slip surface. Slope shall be done along the direction of travel through the car wash. Slight sloping of the slabs perpendicular to the direction of travel to allow drainage is acceptable.
- CONCRETE STRENGTH: All concrete shall be normal weight unless noted otherwise and shall attain a 28 day compressive strength of $f_c = 3000$ psi.
- MIXES: All concrete mixes shall be designed by the supplier to meet the requirements set forth herein.
- SLUMP: Unless noted or approved otherwise, the maximum slump allowable for concrete shall be four (4) inches. If higher slump is desired to increase workability, the Contractor should consult with the concrete supplier about using a flowable concrete. The Contractor shall verify the concrete strength by testing. The Contractor shall verify that any concrete additives shall not have any detrimental effects on embedded items, finishes indicated on the plans or likely future finishes.
- VIBRATION: All cast in place concrete shall be consolidated by means of mechanical vibrators. The contractor shall use approved methods to ensure that the concrete is not over vibrated resulting in over consolidation of the concrete.
- FINISHING: Finishing of concrete shall be in accordance with ACI 301 (Latest Edition).
- CURING: Beginning immediately after placement, concrete shall be protected from rapid drying, and shall be maintained at a temperature for the period necessary for hydration of the cement and hardening of the concrete. The materials and methods of curing shall conform to ACI 301.
- REINFORCING STEEL STRENGTH: All conventional reinforcing steel shall have a minimum yield strength of 60,000 psi and shall conform to ASTM designation A-615 Grade 60.
- STRENGTH OF MASONRY UNITS: All hollow concrete masonry units shall be grade N-1 normal weight units that conform to the Standard Specifications for Hollow Load Bearing Concrete Masonry Units ASTM C-90 (Latest Edition). The minimum compressive strength of the hollow concrete masonry units at 28 days shall be 2500 psi (wet area) with a minimum compressive strength of the masonry assembly $f_m = 1500$ psi.
- MORTAR: All masonry shall be laid with full mortar coverage of the face shells and webs and full end joints using Type M or S mortar. All mortar used in the hollow concrete masonry unit walls shall conform to ASTM 270 (Latest Edition).
- CONCRETE GROUT: All filled cells of masonry units shall be filled with concrete and shall have a minimum compressive strength of 2000 psi and a maximum slump of 9".
- BLOCK PLACEMENT: All cells to be filled with concrete shall be as straight as possible. The block should not be staggered so as to construct the flow of concrete in any way. This shall be done by strategically picking pieces of block vertically between filled cells in non modular sections of wall and above and below non modular masonry openings.
- STRUCTURAL STEEL SHAPES: All structural steel hot rolled shapes and plates shall be ASTM A36 with a minimum yield stress of 36 ksi. All steel shall conform to AISC Standards and Specifications for the Design, Fabrication, and Erection of Structural Steel.
- BOLTS: All bolts shall conform to "Specifications for Low Carbon Steel Externally and Internally Threaded Standard Fasteners" ASTM A307 or "High Strength Bolts for Structural Steel Joints, Including Suitable Nuts and Plain Hardened Washers" ASTM A325.



SECTION THRU TRENCH



DETAIL



BAR GRATE DETAIL

NOT FOR CONSTRUCTION UNTIL APPROVED BELOW.

APPROVED BY: _____ DATE _____

DISCLAIMER
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SCALE: 3/4"=1'

Sheet Rev.
S.1 -+-