



CONSTRUCTION NOTES

- A. GENERAL:**
 1. All construction shall be in accordance with the 2009 International Building Code as per the local Building Authority and with any other codes of applicable regulatory agencies.
 2. Dimensions on these Structural drawings shall be verified with the Architect and resolved prior to construction.
 3. Drawings shall NOT be scaled. Written dimensions shall take precedent over scaled measurements.
 4. If any conflicts exist between this design, the sole report, other requirements and specifications, etc., the most stringent requirement shall be followed.
- B. STEEL:**
 1. Reinforcing must run continuously around the foundation with no interruption, both top and bottom.
 2. All rebar shall conform to ASTM standard A615, grade 60.
 3. Welded wire fabric shall conform to ASTM standard A185.
 4. No splices of reinforcement shall be made and no welding to reinforcing shall be permitted except as detailed or authorized by the foundation engineer. Make all outside bars continuous around corners or provide corner bars of equal size and spacing. Lap all reinforcing steel a minimum of 30 bar diameters.
 5. Provide #3 dowels at exterior slabs #3 x 2'-0" @ 30" o.c.
 6. Provide #4 bars at interior slabs #4 x 2'-0" @ 30" o.c.
 7. Provide #4 bars for all walls and columns. Where no foundation steel exists existing foundation, fill and epoxy grout 6" into existing foundation.
- C. CONCRETE:**
 1. Type II cement should be used in all concrete that contacts the soils. Calcium chloride should not be added to concrete containing Type II cement.
 2. Minimum compressive strength at 28 days:
 A. Slabs..... 4,000 psi
 B. All other..... 3,000 psi
 3. Concrete shall be mixed, placed and cured in accordance with ACI 318, latest edition.
 4. Slabs or formed concrete slabs in slabs on grade shall be no longer than 48 hours.
 5. All grade beams, footings and concrete pads shall rest on undisturbed soils or compacted structural backfill as per soils report.
 6. Minimum clear concrete protection for reinforcement shall be as follows unless otherwise noted:
 a. Concrete placed directly against earth..... 3"
 b. Slabs on grade..... center of slab.
 c. Formed surfaces exposed to weather or earth:
 1. #6 bars or larger..... 2"
 2. #6 bars or smaller..... 1 1/2"
 3. #4 bars..... 1 1/2"
 4. Slabs..... 3/4"
 5. Beams..... 1 1/2"
 6. Slabs..... 3/4"
- D. STRUCTURAL STEEL:**
 1. All structural steel design, materials, fabrication and erection shall conform to the AISC Specifications latest edition and the noted specifications.
 2. All structural and miscellaneous steel shall conform to ASTM A36 unless otherwise noted.
 3. Shop connections shall be welded with E70XX electrodes and ground smooth where exposed. Field connections shall be made with bolts conforming to ASTM A325 unless otherwise noted.
 4. All field welds shall be performed by a certified welder. Field welds shall be made with E70XX electrodes and ground smooth.
 5. All structural steel shall be painted with one shop coat of red oxide primer.
- E. MICROPILES:**
 1. The micropiles supplier shall provide a complete package including, but not limited to, embed plates, brackets, headed studs and bolts, as required to accommodate the design load.
 2. All micropiles shall be installed in approved soil or bedrock as recommended by the soil engineer.
- F. MASONRY:**
 1. All masonry block units shall conform to ASTM C-90, Grade N, Type 1.
 2. Block masonry shall develop a prism compressive strength (fm) of 1500 psi at 28 days.
 3. All mortar for reinforced masonry walls shall conform to ASTM C-270, Type S. Grout for masonry bond beams and embeds shall be made with stone aggregate and shall be placed in the formwork immediately after the masonry units shall be standard Durac-wall, or approved equal, unless otherwise noted.
 5. Vertical reinforcing shall be the size and spacing shown on the drawings and extend the full height of wall.
 6. All dovets from foundation shall match size and location of vertical reinforcing in masonry. Extend dovet a minimum of 30 bar diameters into wall. All vertical wall reinforcing shall be lapped 40 bar diameters at splices.
 7. Fill all void space and block cells solidly with grout for a distance of 24" beneath and 12" each side of beam reactions or other concentrated loads.
 8. Care shall be exercised to minimize the penetration of mortar and grout spacers. Provide dowels at bottom of each wall and extend the height of the grout spacers to the top space and reinforced. Plug dowels with masonry units and brace against group pressure.
- DESIGN LOADS:**
 1. New construction on this project has been designed in accordance with the 2009 International Building Code.
 2. Live Load:
 A. Roof..... 30 psf
 B. Unbalanced Load (U)
 Exposure Factor (C)
 Thermal Factor (C)
 Importance Factor (I)
 1.0
 C. Wind Load..... 100 mph (3-sec gusts)
 D. Floor..... 20 psf minimum
 E. Exposure..... C
 F. Basic wind speed..... 100 mph (3-sec gusts)
 G. Wind Load..... 20 psf minimum
 H. Earthquake Short period spectral response (S₁)..... 0.185
 I. 1-sec spectral response (S₁)..... 0.059
 J. Floor Mezzanine..... 50 psf
 K. Concrete Slab..... 250 psf

