

**GENERAL NOTES:**

- The notes on the drawings are not intended to replace specifications. In addition to general notes. See specifications for requirements.
- Structural drawings shall be used in conjunction with job specifications and architectural, mechanical, electrical, plumbing, and site drawings. Consult, openings, chases, inserts, reglets, sleeves, depressions, and other details not shown on structural drawings.
- All dimensions and conditions must be verified in the field. Any discrepancies shall be brought to the attention of the engineer before proceeding with the affected part of the work.
- Do not scale plans.
- Sections and details shown on any structural drawings shall be considered typical for similar conditions.
- All proprietary products shall be installed in accordance with the manufacturers written instructions.
- The structure is designed to be self supporting and stable after the erection is complete. It is the contractor's sole responsibility to determine erection procedures and sequencing to ensure the safety of the building and its components during erection. This includes the addition of necessary shoring, sheeting temporary bracing, guys or tie-downs. Such material shall remain the property of the contractor after completion of the project.
- All applicable federal, state, and municipal regulations shall be followed, including the federal department of labor occupational safety and health act.

**DESIGN LOADS:**

- Building code: IBC (2009) International Building Code.
- Design Live Loads: (Ground Snow Load = 50 psf)  
Roof ..... 40 psf + drift as applicable
- Design wind loads are based on exposure C using 100 mph basic wind speed.
- Seismic Design per IBC 2009.

**FOUNDATION NOTES:**

- Foundations have been designed with a presumptive soil bearing capacity of 2000 psf to be verified by the general contractor in the field.
- Interior spread footings and exterior strip footings shall be founded on undisturbed native soil or compacted structural fill.
- Exterior strip and spread footings shall be founded a minimum of 4'-0" below finished site grade. Typical unless otherwise noted.
- Structural fill shall be used at all locations below footings and adjacent to the foundation walls. Prior to placement of structural fill, remove all topsoil and other unsuitable material. Compacted structural fill shall consist of clean granular material free of organics, loam, trash, snow, ice, frozen soil or any other objectionable material. It shall be well graded within the following limits:  

SCREEN OR SIEVE SIZE	PERCENT FINER BY WEIGHT
6 INCH	100
3 INCH	70-100
NO. 4	35-70
NO. 40	5-35
NO. 200	0-5
- Structural fill (or 3/8" crushed stone) beneath pavement shall be placed in layers not exceeding 6 inches in loose measure and compacted by self-propelled compaction equipment at approximate optimum moisture content to a dry density of at least 95% of the maximum in place dry density as determined by the modified proctor test (ASTM D-1557). For structural fill or 100% of the rodded unit weight as determined by ASTM C-29 for 3/8" crushed stone.
- Underdrains shall be installed to positively drain to a suitable discharge point away from the structure.
- Backfill both sides of foundation walls simultaneously.

**CONCRETE NOTES:**

- All concrete work shall conform to ACI 318-Latest Edition.
- Concrete strength at 28 days shall be:  
a) 4000 psi for retaining walls.  
b) 4000 psi for footings, frost walls & piers.
- All concrete shall be air entrained 4% to 6% per the specifications.
- Concrete shall not be placed in water or on frozen ground.
- Concrete materials:  
A. Portland Cement: ASTM C 150, Type I or Type II unless otherwise acceptable to Architect. Use one brand of cement throughout project, unless otherwise acceptable to Architect.  
B. Normal Weight Aggregates: ASTM C 33. Provide from a single source for exposed concrete. Do not use aggregates containing soluble salts or other substances such as iron sulfides, pyrite, marcasite, or ochre which can cause stains on exposed concrete surfaces.  
C. Light Weight Aggregates: ASTM C 330.  
D. Water: Potable.  
E. Air-Entraining Admixture: ASTM C 260.  
F. High-Range Water-Reducing Admixture (Super Plasticizer): ASTM C 494, Type F or Type G containing not more than 1% chloride ions.  
1. Fiber reinforcement shall be added and distributed prior to incorporation of Super Plasticizer.  
G. Normal range water reducing admixture: ASTM C 494 Type A containing no calcium chloride.  
H. Accelerating Admixture: ASTM C 494 Type C or E.  
I. Calcium Chloride not permitted.
- Provide PVC sleeves where pipes pass through concrete walls or slabs.
- Reinforcing bars shall conform to ASTM A615 Grade 60 deformed bars, and shall be detailed, fabricated and erected in accordance with ACI 318-Latest edition.
- Welded wire fabric shall be provided in flat sheets.
- Fiber reinforced concrete shall conform to ASTM C-1116.
- Splices of reinforcing bars shall be in accordance with ACI 318. Splices of WWF shall be 6" minimum.
- Concrete finishes:  
• Walls: Grout cleaned
- Anchor bolts shall conform to ASTM A307 or ASTM A36 hot dipped galvanized unless noted otherwise on plan.
- Provide control/construction joints in foundation walls at a maximum spacing of 15 ft. from any corner or 30 ft. along length of wall. At control joints, discontinue every other horizontal bar. At construction joints all reinforcing shall be continuous through the joint.

