

SPECIAL INSPECTIONS:

Required Inspection Verification, or Test	Verification Monitoring Frequency	Type and/or Frequency of Testing	IBC Section & Reference Criteria	Inspector Qualifications
1. SOILS (SLAB-ON-GRADE)		Site Preparation	IBC 1705.6	
A. Sub-Grade	Periodic	1. At the contractors expense, instrument readings shall be taken by a licensed surveyor to verify final subgrade elevations and slopes.	Geotechnical Report; Building Pad General Notes	1. Licensed Surveyor
1. Visual Observation		2. Verify excavations have reached proper material (strata) and subgrade has been properly prepared.		2. * Qualifications based on ASTM D3740
2. Proofrolling Observations	Continuous	Proofrolling shall be monitored by a Geotechnical Engineer. The Geotechnical Engineer shall approve the type of proofrolling equipment and procedures.	Geotechnical Report; Building Pad General Notes	* Qualifications based on ASTM D3740
3. Moisture Conditioning & Recompaction	Continuous or Periodic	Provide (1) one density test for each 3000 sq. ft. (Min. of 3 tests) Refer to Notes on Building Pad for Testing Specifications.	Geotechnical Report; Building Pad General Notes	* Qualifications based on ASTM D3740
B. Select and/or Structural Fill	Prior to Placement	* Perform classification and testing of proposed fill materials	Building Pad General Notes.	* Qualifications based on ASTM D3740
C. During Fill Placement	Continuous or Periodic	Visual Observation: During placement and compaction of fill, special inspector shall determine that the material being used and the maximum lift thickness comply with the project requirements. Pit run materials shall be visually monitored by the testing lab with additional samples tested each day, or more often if material appears to vary.	IBC 1705.6 Geotechnical Report; Building Pad General Notes	* Qualifications based on ASTM D3740
D. Evaluation of In-Place Density of Fill	Continuous or Periodic	For each lift, provide (1) one density test for each 3000 sq. ft. (use 1 test for each 5000 sq. ft. for crushed limestone) (Min. of 3 tests) Refer to Notes on Building Pad for Testing Specifications.	IBC 1705.6 Geotechnical Report; Building Pad General Notes	* Qualifications based on ASTM D3740
E. Trench Backfilling	Continuous or Periodic	Trench Backfilling: Trench backfilling with clay cap and placing of clay plug shall be monitored by Geotechnical Engineer with a written report sent to Structural Engineer.		
2a. PILE FOUNDATIONS		Not Applicable	IBC 1705.7	Licensed Geotechnical Engineer
2b. PIER FOUNDATIONS		Not Applicable		
3. CONCRETE CONSTRUCTION				
A. Reinforcing Steel	Periodic	Provide periodic inspection of reinforcing sizes, spacing, grade of rebar, and placement at a frequency of 20%.	IBC 1705.3 ACI 318: Ch. 3.5, 7.1-7.7; Concrete and Reinforcing General Notes.	* Qualifications based on ASTM E329
B. Form Work	Periodic	Inspect formwork for shape location and dimensions of the concrete member being formed. See "A" above for frequency.	ACI 318: 6.1.1	
C. Verify use of concrete mix design	Periodic	Each Concrete Pour	ACI 318 – Ch. 4, 5.2 – 5.4	* Qualifications based on ASTM C1077
D. Sampling of fresh concrete.	Continuous Each Concrete Pour;	1. All concrete testing is to be made after water, if any, is added at site. 2. Provide a set of cylinders to be taken for every 150 cubic yards of concrete (100 cubic yards for slab-on-grade), or fraction thereof, by testing lab. Sampling & Quantity of cylinders to comply with ACI 318. 3. Monitor slump and air content of concrete and notify delivery driver if slump deviates more than plus or minus 1 inch from recommended value. Contact supplier for further directions.	ACI 318 – Ch. 5.6, 5.8	* Qualifications based on ASTM C1077
E. Placement of concrete.	Continuous	Monitor concrete slump, temp and correct mix design.	ACI 318 – Ch. 5.9, 5.10	* Qualifications based on ASTM C1077
F. Maintenance of specified curing temperature & techniques.	Periodic	Each Concrete Pour	ACI 318 – Ch. 5.11, 5.13.	* Qualifications based on ASTM C1077
G. Removal of shores and forms from beams and structural slabs.	Periodic	Verify in-situ concrete strength prior to removal.	ACI 318: Ch. 6.2; Concrete Joint General Notes.	* Qualifications based on ASTM E329
H. Drilled & Epoxied Anchors. (Adhesive anchors)	Each Application	1. Provide inspections as required by the ICC Evaluation Service Report (ICC ES ESR) 2. Confirm proper installation as required by ICC ES ESR. 3. All drilled and epoxied anchors (rebar, bolts, threaded rods, etc.) shall be pull tested to 10 percent of the ULTIMATE BOND STRENGTH for no less than 3 min. 4. Pull testing of epoxied anchors, unless specifically shown on drawings, shall be paid by contractor.	ACI 318: Ch. 3.8.6.8.1.3, 21.2.8 ACI 355.4, ASTM E488	* Qualifications based on ICC ES ESR
I. Post-Installed Mechanical Anchors (Expansion bolts, screw anchors, etc...)	See Notes	1. Provide inspections as required by the ICC Evaluation Service Report (ICC ES ESR) 2. Confirm proper installation as required by ICC ES ESR. 3. If inspections are not performed, pull test anchors as outlined above (for drilled & epoxied anchors)	ACI 318, ACI 355.2	* Qualifications based on ICC ES ESR
4. STEEL CONSTRUCTION				
A. Material verification of high-strength bolts, nuts, and washers; and cold formed steel deck.	Periodic	1. Identification markings to conform to ASTM standards specified in the approved construction documents.	Structural Steel General Notes	CWI/Associate/Technical Graduate, AWS or CRSI
	Periodic	2. Manufacturer's certificate of compliance or certified test reports required.	Applicable ASTM material specifications: AISC 335, Section A3.4; AISC LRFD, Section A3.3	
B. High-strength bolting:	Periodic	1. Bearing-type connections, & snug tight joints.	AISC 360 Structural Steel General Notes	CWI/Associate/Technical Graduate, AWS or CRSI
	Periodic	2. Slip-critical connections, using twist off bolt or direct tension indicator method of installation.	AISC LRFD Section M2.5	
C. Material verification of structural steel:	Periodic	1. Identification markings to conform to ASTM standards specified in the approved construction documents.	Structural Steel General Notes	CWI/Associate/Technical Graduate, AWS or CRSI
	Periodic	2. Manufacturers' certified mill test reports.	ASTM A 6 or ASTM A 568	
D. Material verification of weld filler materials:	Periodic	1. Identification markings to conform to AWS specification in the approved construction documents.	Structural Steel General Notes	CWI/Associate/Technical Graduate, AWS or CRSI
	Periodic	2. Manufacturer's certificate of compliance required.	AISC, ASD, Section A3.6; AISC LRFD, Section A3.5	
E. Welding: of Structural Steel:	Continuous	1. Complete & partial joint penetration groove welds.	AWS Structural Steel General Notes	CWI and ASNT
	Continuous	2. Multipass fillet welds, plug & slot welds.	AWS D1.1	CWI and ASNT or licensed Engineer
	Continuous	3. Single-pass fillet welds > 5/16"		
	Periodic	4. Single pass fillet welds ≤ 5/16"		
F. Steel frame joint details: Compliance with approved construction documents:	Periodic	5. Floor and roof deck welds.	AWS D1.3	
	Periodic	1. Details such as bracing & stiffening.	Structural Drawings and Details	Project of complex joint details: - Associate CWI - Projects of relatively simple details: - Technician trained in field of work and has at least one year of experience.
	Periodic	2. Member locations.	Structural Drawings	
G. Pre-Engineered Metal Building:	As indicated	1. Check and record proper nut tightening and quantities at all bolted connections of main frame elements, or provide tension indicator connections.	Metal Building Shop Drawings	
	As indicated	2. Metal Building Design Engineer (or member of his staff) to inspect completed metal building frame and components for compliance with design and send Structural Engineer letter confirming erected building is in compliance with the design.		
5. INSPECTION OF FABRICATORS FOR STRUCTURAL STEEL, INCLUDING METAL BLDG				
Fabrication & Implementation Procedures	Periodic	1. Fabrication and implementation procedures. The special inspector shall verify that the fabricator maintains detailed fabrication and quality control procedures that provide a basis for inspection control of the workmanship and the fabricator's ability to conform to approved construction documents and referenced standards. The special inspector shall review the procedures for completeness and adequacy relative to the code requirements for the fabricator's scope of work.  Exception: Special inspections shall NOT be required where the work is done on the premises of a fabricator: 1. that is enrolled in a nationally accepted inspections program acceptable to the registered design professional in responsible charge; or 2. where a special inspection agency has reviewed and approved the fabricators written procedural and quality control manual, and periodic auditing of fabrication practices.  2. At completion of fabrication, all approved fabricators shall submit a certificate of compliance to building official upon request and to the registered design professional in responsible charge stating that the work was performed in accordance with the approved construction documents, & applicable specifications.	IBC 1705.2	CWI, ASNT, Licensed Engineer
6. MASONRY CONSTRUCTION				
Not Applicable				
7. WOOD CONSTRUCTION				
Not Applicable				

GENERAL NOTES:

1. VERIFICATION:

Verify all dimensions and elevations; do not scale drawings for dimensions. Notify Engineer of any discrepancies between Drawings, fabricated items or actual field conditions. Contractor, Subcontractors, and Material Fabricator shall advise the Engineer of any deficiency or discrepancy of which they have knowledge, along with their suggested solution, prior to ordering and/or installing the material in question.

- a. Assumptions have been made by this office regarding existing conditions. Actual conditions may vary from those assumed. The Contractor is to report any such discrepancies to the Engineer for possible modifications needed to the Contract Drawings.
- b. Coordinate structural requirements with Civil, Mechanical, and Architectural to determine conflicts or discrepancies. Notify Architect in writing for direction to resolve conflicts.

2. SITE DRAINAGE:

Site drainage during construction is very important in controlling moisture problems associated with the below slab fill and subgrade soils. It is the responsibility of the Owner to maintain the external site drainage features. The following measures are to be taken by the Contractor:

- a. Installation of berms or swales on the uphill side of the construction area to divert surface runoff away from the fill area during construction;
- b. Sloping of the top of the subgrade with a min. downward slope of 1.5 percent out to the base of a dewatering trench located beyond the building perimeter;
- c. Sloping the surface of the select fill during construction to promote runoff of rain water until the final lift is placed;
- d. During Construction the contractor shall provide any means necessary so as to remove all standing water in the excavation within a 24 hour period. (i.e. dewatering trenches, pumps, etc.) Dewatering shall be maintained until final grading around building has been completed.
- e. At all non-paved areas, provide a Clay "Cap" outside of the foundation. Refer to the Clay "Cap" note in the Building Pad Preparation note for requirements.
- f. Construction of final surface drainage patterns to prevent ponding and limit surface water infiltration at the building perimeter;
- g. Location of water-bearing utilities, roof drainage outlets and irrigation spray heads outside the granular fill and perimeter drain boundaries.

3. BUILDING PAD PREPARATION: (HOLD FOR SOILS)

- a. Limits of Preparation: Limits of preparation shall extend to 3'-0" beyond the building lines, plus overbuild pad as necessary to provide a 1:1 transition slope from top of pad to natural grade. Reference detail.
- b. Strip area of all vegetation (6 inches deep).
- c. Excavate any additional material necessary to provide a minimum of \_\_\_\_ of compacted select fill below the slab(s). Increase fill as necessary for final grade or as indicated on plans.
- d. Proofroll exposed subgrade and replace any soft areas with compacted select fill.
- e. Scarify the exposed subgrade to a depth of 8", moisture condition at optimum to plus four percentage points above optimum moisture and compact to min 95% max dry density as determined by ASTM D 698.
- f. THE SELECT FILL (below the concrete slab) (-OR-) (from the subgrade to 12" below the slab) shall be inert, non-expansive, crushed limestone conforming to TXDOT Standard Specification Manual Item 247, Type A, Grades 1 or 2. Max. particle size shall be 2 ½ inches.
- g. Install the Select Fill in 8" loose lifts and compact to 95% of the maximum dry density as determined by ASTM D 1557 (plus 3% to minus 1%).
- h. THE STABILIZING BASE COURSE directly below the concrete slab shall be 12" thick compacted, inert, non-expansive, flexible base material (crushed limestone) conforming to Texas Highway Department Specification Number 247, Type A. Max. particle size shall be 2 ½ inches. Install the Select Fill in 8" loose lifts and compact to 95% of the maximum dry density as determined by ASTM D 1557 (plus 3% to minus 1%).
- i. Refer to "Geotechnical Engineering Study" for \_\_\_\_ by: \_\_\_\_\_, Project No.: \_\_\_\_\_, dated \_\_\_\_\_, for information on soil strata, groundwater, site preparations, drainage and proof-rolling.

4. TRENCH BACKFILLING:

- a. Trench backfill for utilities shall be properly placed and compacted as required and in accordance with local City Standards, Civil, and Mechanical requirements. Beneath the building structures, backfill within the utility trenches shall meet the same requirements specified under Building Pad Preparation.
- b. CLAY CAPS - Provide clay caps over all trenches in non-paved areas. The top 12 inches of trench backfill shall consist of on-site clays placed in two 8 inch loose lifts and compacted to 85 percent max. dry density as determined by ASTM D 698 at plus or minus 3 percent of optimum moisture content. In the event on-site clays are not readily available, contact Geotechnical Engineer for acceptable material options. At paved areas, CLAY CAPS are not required.
- c. CLAY PLUGS - Provide clay plugs where utility lines cross building lines (and 3'-0" min. beyond extent of building line, or pad, whichever is further) to prevent water traveling in the trench backfill and entering beneath the structure. Clay plugs shall extend the full depth of the trench and granular bedding material shall be omitted at plug locations. Clay plugs shall be free of gravel and a min. of 95 percent of the material shall pass the #4 sieve as determined by washed sieve analysis. Clay shall be placed in 6 inch loose lifts and compacted to 85 percent max. dry density as determined by ASTM D 698 at plus or minus 3 percent of optimum moisture content. Compaction equipment shall be suitable for obtaining the required compaction without damage to mechanical lines.
- d. No utility lines are to run parallel to the building, within 3'-0" clear of the building or 3'-0" clear of the building pad, whichever is furthest. Contractor shall notify Engineer if these guidelines are not met. Verify that conflicts between clay plug requirements, Civil requirements, and Mechanical requirements do not exist. Contact Structural Engineer regarding conflicts, if any.

5. FLOWABLE FILL:

- a. Flowable fill shall be a low strength mixture consisting of Portland cement, fly ash, sand, and water. Other materials may be used upon prior approval by the Engineer. The flowable fill shall meet the following requirements:  
  
Wet Density.....115 to 130 pcf  
Flow.....8 inch min. \*  
Initial bleed time.....5 to 10 minutes  
Initial set.....3 hours max.  
Compressive Strength.....50 to 100 psi @ 28 days  
  
\*As determined by a 3" x 6" open-ended cylinder modified flow test.  
  
Cement shall meet ASTM C150 requirements.  
Fly Ash shall meet ASTM C618 requirements.  
Sand (or sand blends) shall meet ASTM C33 requirements.  
Water shall be potable.

- b. The proposed mix proportions and test results for flowability, bleed time, and compressive strength shall be submitted to the Engineer for review.
- c. Placement of flowable fill shall be in layers not to exceed 4 feet. Where multiple lifts are required, allow 24 hours between placements of each lift.

6. CONCRETE & REINFORCING:

- All concrete and reinforcing shall meet ASTM A615 & ACI 117 (Standard Tolerances for Concrete Construction and Materials), U.N.O.
- a. Strength: Based on 28 days compressive strength tests:
    - 1. Building Slab & Beams.....3,000 psi
    - 2. Walls, Pits & Pit Slabs.....4,000 psi
  - b. Reinforcing: ASTM 615, Grade 60 deformed bars.
  - c. Reinforcing on Drawings shall be lapped 60 dia (U.N.O.)
  - d. Provide 2-#6 corner bars (top, bottom & mid if appropriate) at all corners and "T" intersections, (both interior and exterior). Provide "Z" bars at all beam and slab drops, equal in size and number, to beam or slab reinf. respectively.
  - e. Embed plates, wall dowels, and column anchor bolts shall NOT be "wet set". Use template to set and secure all anchor bolts.
  - f. Welded Wire Fabric (W.W.F.): ASTM A185, or ASTM A497, flat sheets only.
  - g. Unless indicated otherwise:
    - 1. Provide chairs to support concrete reinforcing at 48 inches o.c.
    - 2. For slabs: provide chairs to place reinforcing at mid-depth of slab.
  - h. Provide expansion joint material (1/2 inch min. X depth of walk) between building foundations and adjacent concrete walks/pavement. Seal expansion joints with flexible sealant. Unless noted otherwise, provide 3/8 inch diameter smooth bar dowels x 18 inch long @ 12 inches o.c. along all entries. Locate dowels below top bars of foundation beam.
  - i. Proper curing of all concrete surfaces shall be provided by the Contractor in accordance with ACI 308, latest edition, "Standard Practice for Curing Concrete." If spray-on curing compounds are used, they shall be dissipating, and they need to be compatible with subsequent finish applications.
  - j. All concrete shall be placed in accordance with ACI 302.1R. Finish tolerances shall be in accordance with ACI 117 and shall conform to at least an F number value of FF-25 / FL-20.
  - k. No coring, saw-cutting, or other removal of concrete will be permitted without prior approval of structural engineer.

7. CONCRETE MIX DESIGNS:

- a. Max aggregate size to be lesser of:
  - 1. 1 ½"
  - 2. 1/5 least dimension of forms
  - 3. 1/3 depth of slab (1/4 depth of slab on metal decks)
- b. All mixes to contain a minimum of five (5) sacks of cementitious material per cubic yard.
- c. Ratio of fly ash to total cementitious content shall not exceed 20%.
- d. Water cement ratio shall not exceed 0.50.
- e. Slump (as given in mix design) shall not exceed: 5" ± 1"

8. POST-INSTALLED CONCRETE ANCHORS:

- 1. Post-installed anchors shall only be used where specified on the construction documents. The contractor shall obtain approval from the engineer-of-record prior to installing post-installed anchors in place of missing or misplaced cast-in-place anchors.
- 2. Anchors shall be installed by qualified personnel in strict accordance with the manufacturer specifications and the ICC-ES evaluation report.
- 3. Care shall be taken in placing post-installed anchors to avoid conflicts with existing rebar. Holes shall be drilled and cleaned in accordance with the manufacturer's written instructions.
- 4. Provide continuous or periodic special inspection for all adhesive and mechanical anchors per the product's applicable ICC-ES evaluation report (ICC-ES ESR). Also see Testing and Inspection Requirements.
- 5. Contact manufacturer's representative for initial training, installation, and product related questions. Call Simpson at (800) 999-5099. Call Hill at (800) 879-6000. Call Power Fasteners at (914) 235-6300.
- a) Mechanical anchors shall have been tested and qualified for use in accordance with ACI 355.2 and ICC-ES AC193 for cracked and uncracked concrete recognition. Pre-approved mechanical anchors include:
  - 1) SCREW ANCHORS: Simpson "TITEN-HD" (ICC-ES-ESR-2713), Hill "KWIK HUS-EZ" (ICC-ES ESR-3027), or Power Fasteners "WEDGE-BOLT" (ICC-ES ESR-2526).
  - 2) WEDGE/EXPANSION TYPE ANCHORS: Simpson "STRONG-BOLT TZ" (ICC-ES ESR-3037), Hill "KWIK BOLT TZ" (ICC-ES ESR-1917), or Power Fasteners "POWER-STUD SD-1" (ICC-ES ESR-2818), or "POWER-STUD SD2" (ICC-ES ESR-2502).
- b) Adhesive anchors shall have been tested and qualified for use in accordance with ICC-ES AC308 for cracked and uncracked concrete recognition. Pre-approved adhesive anchors include:
  - 1) Simpson "SET-XP" (ICC-ES ESR-2508), or Hill "HIT-RE-500-SD" (ICC-ES ESR-2322), Hill "HIT-HY 150 MAX-SD" (ICC-ES ESR-3013), or Power Fasteners "PE1000" (ICC-ES ESR-2583).
  - 2) Refer to "Structural Testing and Special Inspections" for pull testing requirements.
- 6. Substitution requested for products other than those specified above shall be submitted by the contractor to the engineer-of-record along with calculations that are prepared and sealed by a registered professional engineer. The calculations shall demonstrate that the substituted product is capable of achieving the pertinent equivalent performance values (minimum) of the specified product using the appropriate design procedure and/or standard(s) as required by the building code.

9. CONCRETE ON GRADE CONSTRUCTION:

- a. Refer to Architectural Drawings for all floor finishes, dimensions and locations of slab drops and depressions.
- b. Lower part of beams may be poured and slab placed later. Hold first pours at least 8 inches below finished floor. Provide clearance for base plate anchors. Contact Engineer for possible additional beam stirrups required.
- c. Fill supported slabs, unless noted otherwise are 5 inches thick with #4 @ 12 inches o.c. each way in top of slab. Support bars on concrete bricks (3,000 psi). Place bricks under LOWER bars of reinforcing mat @ 48 inches o.c. Support bottom beam bars at 4'-0" intervals.
- d. Grade beams are formed by walls and soffit of carefully shaped trench. Wood form exposed faces to a depth of 8 inches below finished grade, U.N.O. (See Architect), or to entire depth of beam if neat excavation is not possible to maintain exterior of beam within 1" of plan dimensions.
- e. All beams soffits shall bear 18 inches min. into final grade or compacted fill. On perimeter, increase scheduled depth as required for soffit to bear 18 inches min. below final grade.
- f. Where beam depth exceeds 36 inches, add #4 at 12 inches o.c. horizontal bars in each face of beam. Provide corner bar for all mid bars.
- g. When mechanical line trenches are to intersect grade beams, they must be approved by the Engineer and pass under or thru @ 90 Deg. to the beam line. Fill and compact all mechanical trenches under the building as noted above. Provide slayees for lines passing thru grade beams with additional #5 bars all around sleeve, each face of beam.
- h. Pipes/Conduit cast into slabs:
  - 1. 1½ inches max. O.D.
  - 2. Conduit placed under slab reinforcing.
  - 3. Min. spacing of conduit: 3 x dia.

10. STRUCTURAL STEEL:

- a. All structural steel WIDE FLANGE shapes shall meet ASTM A992 (60 ksi). Structural steel shop drawings shall include a letter from the steel fabricator, certifying that all wide flange members meet ASTM A992.
- b. Unless noted otherwise: ALL OTHER structural steel shall meet ASTM A36 or ASTM A992, AISC Spec. 1989, and the AISC Code of Standard Practice for Steel Buildings and Bridges, 1986, excluding Section 4.2.1.
- c. Structural Steel Tubes: ASTM A500, Grade B (Fy= 46 ksi). Pipes: ASTM A500 Grade B (Fy=42 ksi) or A53 Grade B (Fy=35 ksi).
- d. Bolts: ASTM A-325 or F1852. All bolted structural connections shall utilize twist-off-type tension control bolt assemblies, or approved equivalent. Bolt sizes to be as follows (unless noted otherwise on drawings):
  - Roof Framing: 3/4 inch diameter.
  - Floor Framing: 1 inch diameter.
  - Anchor Bolts: ASTM F1554
- e. Contractor to provide bracing during construction to resist all wind and construction loads in sufficient quantity to insure stability & plumbness requirements of the components and structure throughout the entire construction period.
- f. Welding shall meet the requirements of the AWS for building construction and work shall be performed by pre-qualified Certified Welders. U.N.O., provide the following minimum welding requirements:
  - 1. E70 series electrodes.
  - 2. 1/4 inch fillet welds.
  - 3. For material 12 inches long or less, fully weld all joints.
  - 4. For material over 12 inches long, weld "4 at 12" o.c.
  - 5. If weld size is shown on details, but length not given, weld the entire length of the joint.
- g. Field welding is to be primed, painted, cold galvanized, or otherwise to match surrounding steel finishes.

11. STRUCTURAL DESIGN LOADS: (Non-Factored)

- a. Building Code 2012 I.B.C.
- b. Metal Building: Refer to Metal Building Shop Drawings.
- c. Pits: Density of Fluids = 80 pcf
- d. Grating over Pits:
  - Vehicle Traffic = H20
  - Foot Traffic = 100 psf

12. SCHEDULE OF SITE OBSERVATIONS BY ENGINEER:

- a. This design shall not be considered valid, and Engineer accepts no responsibility, unless observations are performed by a representative of Persyn Engineering.
- b. Observations made by Engineers Representative are to check for general conformance with the Structural Drawings. The responsibility for insuring accuracy of the construction, and quality control procedures remains with the Contractor.
- c. Prior to the beginning of construction, the contractor shall arrange a meeting with the Structural Engineer to set-up a schedule for the following observations:
  - 1. CONCRETE REINFORCING: Prior to each concrete pour unless noted otherwise by Engineer.
  - 2. STRUCTURAL STEEL (for framing shown on Structural Drawings): Before connections and structural members are hidden by installation of architectural finishes.
  - d. Notify Engineer at least 24 hours before each site observation is required.

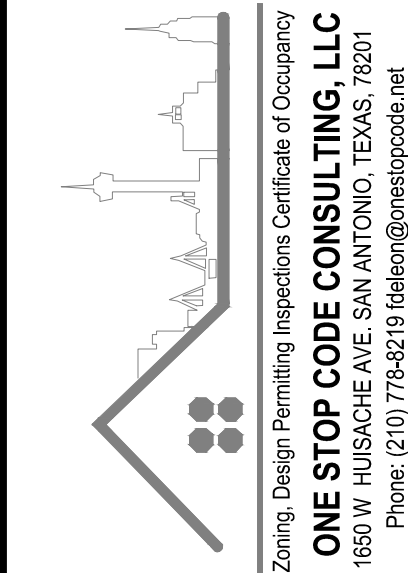
NOTE: These structural observations are the requirements of the Structural Engineer. They are not meant to satisfy the requirements of Section 1704 of the International Building Code, "Special Inspections."

13. SPECIAL INSPECTIONS:

- a. The Registered Design Professional in Responsible Charge (RDP/RC) for this project is the Architect. Submit all special inspection reports directly to the RDP/RC for review. Also submit the structurally related special inspection reports to the structural engineer for review.
- b. As required by code, the Special Inspectors may not be employed by the general contractor, subcontractors or material suppliers. In the case of an owner/contractor, the building official shall specify who employs the Special Inspectors.
- c. Special Inspectors and testing technicians shall be trained and experienced. The list of "Structural Testing and Inspection Requirements" includes the special inspector qualifications.
- d. Each Special Inspector is responsible to verify and inspect the work for compliance with the City of San Antonio approved plans, plan revisions and supporting documents. The Special Inspector shall submit a field report to the Architect/Engineer and to the general contractor for each inspection/test made. Each report shall indicate whether or not, the inspection results were in compliance with the construction documents.
- e. The general contractor is responsible for coordinating all testing, inspections and notifying the Architect/Engineer and Special Inspectors of work ready for inspection. The general contractor must provide access to and means for proper inspection of such work.
- f. Special Inspectors are responsible to prepare, sign and submit to the RDP/RC with a copy to the owner and the general contractor (and to the Building Official if he requests) his "Report of Required Special Inspections" after the general contractor completes his work according to the approved plans. The Special Inspector shall prepare his "Report of Required Special Inspections" using the form approved by and available from the Building Official.
- g. Special Inspectors shall bring noncompliant items to the immediate attention of the general contractor and the RDP/RC. If lack of cooperation to achieve proper construction continues, then the Special Inspector shall submit to the RDP/RC, (with a copy to the owner, the general contractor, subcontractor and the Building Official) a "Notice of Non-Compliance Report" (NNC), thereby advising the Building Official to not allow work to continue. The Special Inspector shall prepare the "Notice of Non-Compliance Report" using the form approved by and available from the Building Official.
- h. Once non-compliant issues are resolved, the Special Inspector shall submit to the RDP/RC, (with a copy to the owner, the general contractor, the subcontractor and the Building Official) his Field Reports indicating that the previously Non-Compliant work has been corrected and is now compliant; thereby advising the Building Official to allow work to continue.
- i. The RDP/RC is responsible to prepare, sign and submit the "Final Report of Required Inspections" for submittal to the City of San Antonio after the general contractor completes his work according to the approved plans. The RDP/RC shall prepare the "Final Report of Required Inspections" using the form approved by and available from the building official.
- j. Special Inspectors shall be employed by an agency, typically a testing laboratory, that complies with the requirements of ASTM E-329, which includes, but not limited to, compliance with ASTM C1077 for concrete inspection and testing, ASTM D-3740 for soils inspection and testing, ASTM C1093 for masonry inspection and testing. The Special Inspector for soils shall be the geotechnical engineer for this project, who is Raba Kistner.
- k. List of IBC Section 109 Structural Inspections, which are to be made by the Building Official. (Note: The Building Official may accept a review by a licensed professional engineer in place of the Building Official conducting the review).
  - 1. Footings and Foundation (IBC Chapter 109.3.1). Inspect after excavating for footings and placement of all reinforcing steel, with formwork in place.
  - 2. Concrete Slab and Underfloor (IBC Chapter 109.3.2). Inspect placement of all reinforcing steel, with formwork in place for the concrete slabs.
  - 3. Frame Inspection (IBC Chapter 109.3.4).

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SAN ANTONIO, TEXAS 78247



date: 07/26/22

drawn by: oscc

drawing title: FOUNDATION DETAILS

drawn number: