

Soils and Foundations

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Item	Agency # (Qualif.)	Scope
1. Shallow Foundations	PE/GE	Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report. Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill.
2. Controlled Structural Fill	PE/GE	Prior to placement of fill, the special inspector determines if the site has been prepared in accordance of the soil report. Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) of each source of fill material. Inspect placement, lift thickness and compaction of controlled fill. Test density of each lift of fill by nuclear methods (ASTM D2922) Verify extent and slope of fill placement. Special inspection not required for fill less than 12"
3. Deep Foundations	PE/GE	Inspect and log pile driving operations. Record pile driving resistance and verify compliance with driving criteria. Inspect piles for damage from driving and plumbness. Verify pile size, length and accessories. Inspect installation of drilled pier foundations. Verify pier diameter, bell diameter, lengths, embedment into bedrock and suitability of end bearing strata. A special inspector must be present during pile installation and testing. He must submit a record of cutoff and tip elevation of each pile to the building official. Special inspection is required for pier foundations for buildings assigned to Seismic Design Categories C, D, E and F
4. Load Testing		

Cast-in-Place Concrete

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Item	Agency # (Qualif.)	Scope
1. Mix Design	ACI-CCI ICC-RCSI	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.
2. Material Certification		
3. Reinforcement Installation	ACI-CCI ICC-RCSI	Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters.
4. Post-Tensioning Operations	ICC-PCSI	Inspect placement, stressing, grouting and protection of post-tensioning tendons. Verify that tendons are correctly positioned, supported, tied and wrapped. Record tendon elongations.
5. Welding of Reinforcing	AWS-CWI	Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.
6. Anchor Rods		Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.
7. Concrete Placement	ACI-CCI ICC-RCSI	Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.
8. Sampling and Testing of Concrete	ACI-CFTT ACI-STT	Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).
9. Curing and Protection	ACI-CCI ICC-RCSI	Inspect curing, cold weather protection and hot weather protection procedures.

Masonry

Required Inspection Level: 1 2 Page of

Item	Agency # (Qualif.)	Scope
1. Material Certification		
2. Mixing of Mortar and Grout	ICC-SMSI	Inspect proportioning, mixing and retempering of mortar and grout.
3. Installation of Masonry	ICC-SMSI	Inspect size, layout, bonding, and placement of masonry units.
4. Mortar Joints	ICC-SMSI	Inspect construction of mortar joints including tooling and filling of head joints.
5. Reinforcement Installation	ICC-SMSI AWS-CWI	Inspect placement, positioning and lapping of reinforcing steel. Inspect welding of reinforcing steel.
6. Prestressed Masonry	ICC-SMSI	Inspect placement, anchorage and stressing of prestressing bars.
7. Grouting Operations	ICC-SMSI	Inspect placement and consolidation of grout. Inspect masonry clean-outs for high-lift grouting.
7. Weather Protection	ICC-SMSI	Inspect cold weather protection and hot weather protection procedures. Verify that wall cavities are protected against precipitation.
9. Evaluation of Masonry Strength	ICC-SMSI	Test compressive strength of mortar and grout cube samples (ASTM C780). Test compressive strength of masonry prisms (ASTM C1314).
10. Anchors and Ties	ICC-SMSI	Inspect size, location, spacing and embedment of dowels, anchors and ties.
11. Other:		Special inspections not required for: 1. Empirically designed masonry, glass unit masonry, or masonry veneer when designed in accordance with table 1604.5 and 1617.6 2. Masonry foundation walls constructed in accordance with tables 1805.5.1-1805.5.4

Structural Steel

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Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures <input type="checkbox"/> Fabricator Exempt	AWS/AISC-SSI ICC-SWSI	Special inspection of steel fabrication shall not be required if the fabricator does not perform any welding, thermal cutting, or heating. Review shop fabrication and quality control procedures.
2. Material Certification	AWS/AISC-SSI ICC-SWSI	Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes.
3. Open Web Steel Joists		Inspect installation, field welding and bridging of joists.
4. Bolting	AWS/AISC-SSI ICC-SWSI	Inspect installation and tightening of high-strength bolts. Verify that splices have separated from tension control bolts. Verify proper tightening sequence. Continuous inspection of bolts in slip-critical connections. Inspect joints requiring snug-tight bolting are drawn together and properly snugged on a periodic basis. Special inspector shall observe calibration procedures and preinstallation testing for bolts requiring pretensioning. Periodic monitoring of bolt installation for pretensioning when using turn of nut method with matchmarking techniques, direct tension indicator method, or twist off method is used. Continuous monitoring required for installation for pretensioning using the calibrated wrench method or the turn of method without matchmarking.
5. Welding	AWS-CWI ASNT	Visually inspect all welds. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds. Ultrasonic testing of all full-penetration welds. Periodic inspection required for: 1. Single pass fillet welds not exceeding 5/16 of an inch 2. Floor and deck welding 3. Welded studs when used for structural diaphragm 4. Welded sheet steel for cold-formed steel framing 5. Welding of stairs and railing systems All other structural welds require continuous inspection.
6. Shear Connectors	AWS/AISC-SSI ICC-SWSI	Inspect size, number, positioning and welding of shear connectors. Inspect studs for full 360 degree flash. Ring test all shear connectors with a 3 lb hammer. Bend test all questionable studs to 15 degrees.
7. Structural Details	PE/SE	Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.
8. Metal Deck	AWS-CWI	Inspect welding and side-lap fastening of metal roof and floor deck.
9. Other:		

Cold-Formed Steel Framing

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Item	Agency # (Qualif.)	Scope
1. Member Sizes		
2. Material Thickness		
3. Material Properties		
4. Mechanical Connections		Periodic special inspections for screw attachment, bolting, anchoring, and other fastening.
5. Welding		Periodic special inspections during welding operations of elements in seismic-force-resisting system.
6. Framing Details		
7. Trusses		
8. Permanent Truss Bracing		
9. Other:		

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REVISIONS:
Δ CONST. SET 04.25.06 PAC
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LEGAL NOTICE:
DRAWINGS AND SPECIFICATIONS AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE ENGINEER WHETHER THE WORK FOR WHICH THEY ARE MADE BE EXECUTED OR NOT, AND ARE NOT TO BE USED ON OTHER WORK EXCEPT BY AGREEMENT WITH THE ENGINEER.

SPECIAL INSPECTION NOTES

DRAWN BY: J. BOYD
DESIGNED BY: P. CURRY
CHECKED BY: P. CURRY
DATE: 01.06.06
SCALE: AS NOTED
JOB NO.: 25134
SHEET:

S-1.2

CONSTRUCTION SET ONLY