

SCHEDULE OF SPECIAL INSPECTION SERVICES						
PROJECT		FIRE STATION 23		APPLICABLE TO THIS PROJECT		
MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED	
4) Fabricator's NDT reports when fabricator performs NDT	Verify reports	N	Each submittal (5)			
4. Structural stainless steel bolting:	Shop (3) and field inspection	N				
a. Inspection tasks Prior to Bolting (Observe, or perform tasks for each bolted connection, in accordance with QA tasks listed in AISC 370, Table N5.6-1)		N	Observe or Perform as noted (4)			
b. Inspection tasks During Bolting (Observe the QA tasks listed in AISC 370, Table N5.6-2)		N	Observe (4)			
1) Pre-tensioned and slip-critical joints		N				
a) Turn-of-nut with matching markings		N	Periodic			
b) Direct tension indicator		N	Periodic			
c) Twist-off type tension control bolt		N	Periodic			
d) Turn-of-nut without matching markings		N	Continuous			
e) Calibrated wrench		N	Continuous			
2) Snug-tight joints		N	Periodic			
c. Inspection tasks After Bolting (Perform tasks for each bolted connection in accordance with QA tasks listed in AISC 370, Table N5.6-3)		N	Perform (4)			
5. Embedments (Verify diameter, grade, type, length, embedment. See 1705.3 for anchors)	Field inspection	N	Periodic			
6. Verify member locations, braces, stiffeners, and application of joint details at each connection comply with construction documents	Field inspection	N	Periodic			
1705.2.3 Cold-Formed Steel Deck						
1. Manufacturer documents (Verify reports and certificates as listed in SDI QA/QC, Section B, Paragraphs B1 and B2 for compliance with construction documents)	Submittal Review	Y	Each submittal			
2. Material verification of steel deck, mechanical fasteners and welding materials.	Shop (3) and field inspection	Y	Periodic			
3. Cold-formed steel deck placement:	Shop (3) and field inspection	Y				
a. Inspection tasks Prior to Deck Placement (Perform the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.1)		Y	Perform (4)			
b. Inspection tasks After Deck Placement (Perform the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.2)		Y	Perform (4)			
4. Cold-formed steel deck welding:	Shop (3) and field inspection	Y				
a. Inspection tasks Prior to Welding (Observe the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.3)		Y	Observe (4)			
b. Inspection tasks During Welding (Observe the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.4)		Y	Observe (4)			
c. Inspection tasks After Welding (Perform the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.5)		Y	Perform (4)			
5. Cold-formed steel deck mechanical fastening:	Shop (3) and field inspection	Y				
a. Inspection tasks Prior to Mechanical Fastening (Observe the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.6)		Y	Observe (4)			
b. Inspection tasks During Mechanical Fastening (Observe the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.7)		Y	Observe (4)			
c. Inspection tasks After Mechanical Fastening (Perform the QA tasks listed in SDI QA/QC, Appendix 1 Table 1.8)		Y	Perform (4)			
1705.2.4 Open-Web Steel Joists and Joist Girders						
1. Installation of open-web steel joists and joist girders.		N				
a. End connections - welding or bolted	per SJI CJ or SJI 100	N	Periodic			
b. Bridging - horizontal or diagonal.		N				
1) Standard bridging.	per SJI CJ or SJI 100	N	Periodic			
2) Bridging that differs from the specifications listed in SJI CJ or SJI 100.		N	Periodic			
1705.2.5 Cold-Formed Steel Trusses Spanning 60 feet or Greater						
Verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection	Y				
1705.2.6 Metal Building Systems						
Inspections as listed above in 1705.2.1, 1705.2.3, 1705.2.4 and 1705.2.5.						
1. Installation of rafter/beam flange braces and column flange braces.		N	Periodic			
2. Installation of purlins and girts, including specified lapping.	Field inspection	N	Periodic			
3. Purlin and girt restraint/bridging/bracing.		N	Periodic			
4. Installation of X-bracing, tightened to remove any sag.		N	Periodic			
1705.3 Concrete Construction						
1. Inspection and placement verification of reinforcing steel and prestressing tendons.	Shop (3) and field inspection	Y	Periodic			
2. Reinforcing bar welding:		Y	Periodic			
a. Verification of weldability of bars other than ASTM A706.	Shop (3) and field inspection	Y	Periodic			
b. Inspection welding of reinforcement for special moment frames, boundary elements of special structural walls and coupling beams.	Shop (3) and field inspection	N	Continuous			
c. Inspect welded reinforcement splices.	Shop (3) and field inspection	N	Continuous			
d. Inspect welding of primary tension reinforcement in corbels.	Shop (3) and field inspection	N	Continuous			
e. Inspection of single-pass fillet welds 5/16 or less in size.	Shop (3) and field inspection	N	Periodic			
f. Inspection of all other welds.	Shop (3) and field inspection	Y	Continuous			
3. Inspection of anchors cast in concrete.	Shop (3) and field inspection	Y	Periodic			
4. Inspection of anchors post-installed in hardened concrete members per research reports, or, if no specific requirements are provided, requirements shall be provided by the registered design professional and approved by the building official, including verification of anchor type, anchor dimensions, hole dimensions, hole cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening torque	Field inspection	Y	Periodic or as required by the research report issued by an approved source			

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a. Adhesive anchors installed in horizontally or upwardly-inclined orientation that resist sustained tension loads.		N	Continuous			
b. Mechanical and adhesive anchors not defined in 4a.		Y	Periodic			
5. Verify use of approved design mix	Shop (3) and field inspection	Y	Periodic			
6.a. Prior to placement, fresh concrete sampling, perform slump and air content tests and determine temperature of concrete and perform any other tests as specified in construction documents.	Shop (3) and field inspection	Y	Continuous			
6.b. Verify that concrete specimens for strength tests are maintained in the required initial curing and laboratory curing environment, and that the maximum and minimum temperatures during the initial curing period are reported.	Shop (3) and field inspection	Y	Continuous			
7. Inspection of concrete and shotcrete placement for proper application techniques	Shop (3) and field inspection	Y	Continuous			
8. Verify maintenance of specified curing temperature and techniques	Shop (3) and field inspection	Y	Periodic			
9. Inspection of prestressed concrete:	Shop (3) and field inspection	N				
a. Application of prestressing force		N	Continuous			
b. Grouting of bonded prestressing tendons		N	Continuous			
10. Inspect erection of precast concrete members	Field inspection	N	Periodic			
11. For precast concrete diaphragm connections or reinforcement at joints classified as moderate or high deformability elements (MDE or HDE) in structures assigned to Seismic Design Category C, D, E, or F, inspect such connections and reinforcement in the field for:	Field inspection	N				
a. Installation of the embedded parts.		N	Continuous			
b. Completion of the continuity of reinforcement across joints.		N	Continuous			
c. Completion of connections in the field.		N	Continuous			
12. Inspect installation tolerances of precast concrete diaphragm connections for compliance with ACI 550.5.	Field inspection	N	Periodic			
13. Verify in-situ concrete strength, prior to stressing of tendons in post tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	Review field testing and laboratory reports	N	Periodic			
14. Inspection of formwork for shape, lines, location and dimensions	Field inspection	Y	Periodic			
15. Concrete strength testing and verification of compliance with construction documents	Field testing and review of laboratory reports	Y	Periodic			
1705.4 Masonry Construction						
MINIMUM VERIFICATION REQUIREMENTS						
(A) Level 1, 2 and 3 Quality Assurance:						
1. Prior to construction, verification of compliance of submittals	Submittal Review	Y	Prior to Construction			
(B) Level 2 & 3 Quality Assurance:						
1. Prior to construction verification of f'm and fAAC except where specifically required by the code	Testing by unit strength method or prism test method	Y	Prior to Construction			
2. During construction, verification of Slump Flow and Visual Stability Index (VSI) when self-consolidating grout is delivered to project site.	Testing by unit strength method or prism test method	Y	Periodic			
(C) Level 3 Quality Assurance:						
1. During construction, verification of f'm and fAAC for every 5,000 SF	Testing by unit strength method or prism test method	Y	Periodic			
2. During construction, verification of proportions of materials as delivered to the project site for premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout.	Field inspection	Y	Periodic			
MINIMUM SPECIAL INSPECTION REQUIREMENTS						
(D) Levels 2 and 3 Quality Assurance:						
1. As masonry construction begins, verify that the following are in:						
a. Proportions of the site-prepared mortar	Field inspection	Y	Periodic			
b. Grade and size of prestressing tendons and anchorages	Field inspection	N	Periodic			
c. Grade, type, and size of reinforcement, anchor bolts, and prestressing tendons and anchorages	Field inspection	Y	Periodic			
d. Prestressing technique	Field inspection	N	Periodic			
e. Properties of thin-bed mortar for AAC masonry		N	Level 2 - Periodic (b)			
(b) Required for the first 5,000 square feet	Field inspection	N	Level 2 - Periodic (c)			
(c) Required after the first 5,000 square feet		N	Level 3 - Continuous			
f. Sample panel construction	Field inspection	Y	Level 3 - Continuous			
2. Prior to grouting, verify that the following are in compliance:						
a. Grout space	Field inspection	N	Level 2 - Periodic			
b. Placement of prestressing tendons and anchorages	Field inspection	N	Level 3 - Continuous			
c. Placement of reinforcement, connectors, and anchor bolts	Field inspection	N	Level 2 - Periodic			
d. Proportions of site-prepared grout and prestressing grout for bonded tendons	Field inspection	Y	Periodic			
3. Verify compliance of the following during construction:						
a. Materials and procedures with the approved submittal	Field inspection	Y	Periodic			
b. Placement of masonry units and mortar joint construction	Field inspection	Y	Periodic			
c. Size and location of structural members	Field inspection	N	Level 2 - Periodic			
d. Type, size, location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction	Field inspection	Y	Level 3 - Continuous			
e. Welding of reinforcement	Field inspection	N	Continuous			
f. Preparation, construction, and protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F)	Field inspection	Y	Periodic			

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g. Application and measurement of prestressing force	Field testing	N	Continuous			
h. Placement of grout and prestressing grout for bonded tendons is in compliance	Field inspection	Y	Continuous			
i. Placement of AAC masonry units and construction of thin-bed mortar joints		N	Level 2 - Continuous (b)			
(b) Required for the first 5,000 square feet	Field inspection	N	Level 2 - Periodic			
(c) Required after the first 5,000 square feet		N	Level 3 - Continuous			
4. Observe preparation of grout specimens, mortar specimens, and/or prisms	Field inspection	N	Level 2 - Periodic			
Y		Y	Level 3 - Continuous			
1705.4.1 Glass Unit Masonry and Masonry Veneer in Risk Category IV.						
Inspect and test in accordance with TWS 602 Level 2	Field inspection	Y	Periodic			
1705.5 Wood Construction						
1. For prefabricated wood structural elements, inspection of the fabrication process and assemblies in accordance with Section 1704.2.5.	In-plant review (3)	Y	Periodic			
2. For high-load diaphragms, verify grade and thickness of structural panel sheathing agree with approved building plans.	Field inspection	N	Periodic			
3. For high-load diaphragms, verify nominal size of framing members at adjoining panel edges, nail or staple diameter and length, number of fastener lines, and that spacing between fasteners in each line and at edge margins agree with approved building plans	Field inspection	N	Periodic			
4. Metal-plate-connected wood		Y				
a. Verification that permanent individual truss member restraint/bracing has been installed in accordance with the approved truss submittal package when the truss height is greater than or equal to 60'	Field inspection	Y	Periodic			
b. For trusses spanning 60 feet or greater, verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection	N	Periodic			
1705.5.3 Mass Timber Construction (Types IV-A, IV-B, and IV-C Construction)						
1. Inspection of anchorage and connection of mass timber construction to timber deep foundation systems.	Field inspection	N	Periodic			
2. Inspect erection of mass timber construction.	Field inspection	N	Periodic			
3. Inspection of connections where installation methods are required to meet design loads.		N				
a. Threaded Fasteners		N				
1) Verify use of proper installation equipment.	Field inspection	N	Periodic			
2) Verify use of pre-drilled holes where required.	Field inspection	N	Periodic			
3) Inspect screws, including diameter, length, head type, spacing, installation angle, and depth.	Field inspection	N	Periodic			
b. Adhesive anchors installed in horizontal or upwardly inclined of components to resist sustained tension loads.	Field inspection	N	Continuous			
c. Adhesive anchors not defined in preceding cell.	Field inspection	N	Periodic			
d. Bolted connections.	Field inspection	N	Periodic			
e. Cease connections	Field inspection	N	Periodic			
1705.6 Soils						
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Field inspection	Y	Periodic			
2. Verify excavations are extended to proper depth and have reached proper	Field inspection	Y	Periodic			
3. Perform classification and testing of controlled fill materials.	Field inspection	Y	Periodic			
4. During fill placement, verify use of proper materials and procedures in accordance with the provisions of the approved geotechnical report. Verify densities and lift thicknesses during placement and compaction of compacted fill.	Field inspection	Y	Continuous			
5. Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly.	Field inspection	Y	Periodic			
1705.7 Driven Deep Foundations						
1. Verify element materials, sizes and lengths comply with requirements	Field inspection	N	Continuous			
2. Determine capacities of test elements and conduct additional load tests, as required.	Field inspection	N	Continuous			
3. Observe diving operations and maintain complete and accurate records for each element	Field inspection	N	Continuous			
4. Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any damage to foundation element	Field inspection	N	Continuous			
5. For steel elements, perform additional inspections per Section 1705.2	See Section 1705.2	N	See Section 1705.2			
6. For concrete elements and concrete-filled elements, perform tests and additional inspections per Section 1705.3	See Section 1705.3	N	See Section 1705.3			
7. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge	Field inspection	N	In accordance with construction documents			
1705.8 Cast-in-Place Deep Foundations						
1. Inspect drilling operations and maintain complete and accurate records for each element	Field inspection	N	Continuous			
2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes.	Field inspection	N	Continuous			
3. For concrete elements, perform additional inspections in accordance with Section 1705.3	See Section 1705.3	N	See Section 1705.3			
1705.9 Helical Pile Foundations						
Verify installation equipment, pile dimensions, tip elevations, final depth, final installation torque and other pertinent installation data as required by construction documents.	Field inspection	N	Continuous			

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1705.11 Fabricated Items						
1. List of fabricated items requiring special inspection during fabrication:	Shop inspection	Y	As noted in each applicable shop activity			
2. List of fabricated items to be fabricated on the premises of a fabricator approved to perform such work without special inspection (including name of approved agency providing periodic auditing):						
Pre-Engineered Canopies	Shop inspection not required where fabricator is approved per IAS	Y	As noted in each applicable shop activity			
1705.12.1 Structural Wood Special Inspections For Wind Resistance						
1. Inspection of field gluing operations of elements of the main windforce-resisting system	Field inspection	N	Continuous			
2. Inspection of nailing, bolting, anchoring and other fastening of components within the main windforce-resisting system	Shop (3) and field inspection	N	Periodic			
1705.12.2 Cold-formed Steel Special Inspections For Wind Resistance						
1. Inspection during welding operations of elements of the main windforce-resisting system	Shop (3) and field inspection	N	Periodic			
2. Inspection of screw attachment, bolting, anchoring and other fastening of components within the main windforce-resisting system, including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs.	Shop (3) and field inspection	N	Periodic			
1705.12.3 Wind-resisting Components						
1. Roof covering, roof deck and roof framing connections.	Shop (3) and field inspection	N	Periodic			
2. Exterior wall covering and wall connections to roof and floor diaphragms.	Shop (3) and field inspection	N	Periodic			
1705.13.1 Structural Steel Special Inspections for Seismic Resistance						
1. Seismic force-resisting systems in SDC B, C, D, E, or F.	Shop (3) and field inspection	N	In accordance with AISC 341			
2. Structural steel elements in SDC B, C, D, E, or F other than those in Item 1, including struts, collectors, chords and foundation elements.	Shop (3) and field inspection	N	In accordance with AISC 341			
1705.13.2 Structural Wood Special Inspections for Seismic Resistance						
1. Field gluing operations of elements of the seismic-force resisting system for SDC C, D, E or F.	Field inspection	N	Continuous			
2. Nailing, bolting, anchoring and other fastening of elements of the seismic-force-resisting system including wood shear walls, wood diaphragms, drag struts, braces shear panels and hold-downs for SDC C, D, E or F.	Shop (3) and field inspection	N	Periodic			
1705.13.3 Cold-formed Steel Light-Frame Construction Special Inspections for Seismic Resistance						
1. During welding operations of elements of the seismic-force-resisting system for SDC C, D, E or F.	Shop (3) and field inspection	N	Periodic			
2. Screw attachment, bolting, anchoring and other fastening of components within the seismic-force-resisting system including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs for SDC C, D, E or F.	Shop (3) and field inspection	N	Periodic			
1705.13.4 Designated Seismic Systems Verification						
For SDC C, D, E or F, inspect and verify that the component label, anchorage or mounting conforms to the certificate of compliance in accordance with ASCE 7 Section 13.2.2	Field inspection	N	Periodic			
1705.13.5 Architectural Components Special Inspections for Seismic Resistance						
1. For SDC D, E, or F, inspection during the erection and fastening of exterior cladding and interior or exterior veneer more than 30 feet above grade or walking surface and weighing more than 5 psf.	Field inspection	N	Periodic			
2. For SDC D, E, or F, inspection during the erection and fastening of interior nonbearing walls more than 30 feet above grade or walking surface and weighing more than 15 psf.	Field inspection	N	Periodic			
3. For SDC D, E, or F, inspection during the erection and fastening of exterior nonbearing walls more than 30 feet above grade or walking surface.	Field inspection	N	Periodic			
4. For SDC D, E, or F, inspection during anchorage of access floors	Field inspection	N	Periodic			
1705.13.6 Mechanical and Electrical Components Special Inspections for Seismic Resistance						
1. Inspection during the anchorage of electrical equipment for emergency or standby power systems in SDC C, D, E or F	Field inspection	Y	Periodic			
2. Inspection during the anchorage of other electrical equipment in SDC E or F	Field inspection	N	Periodic			
3. Inspection during installation and anchorage of piping systems designed to carry hazardous materials, and their associated mechanical units in SDC C, D, E or F	Field inspection	Y	Periodic			
4. Inspection during the installation and anchorage of HVAC ductwork that will contain hazardous materials SDC C, D, E or F	Field inspection	Y	Periodic			
5. Inspection during the installation and anchorage of vibration isolation systems in SDC C, D, E or F where nominal clearance of 1/4 inch or less is required by the approved construction documents	Field inspection	Y	Periodic			
6. Inspection during installation of mechanical and electrical equipment, including duct work, piping systems and their structural supports, where automatic fire sprinkler systems are installed in structures assigned to SDC C, D, E, or F to verify one of the following unless flexible sprinkler hose fittings are used: a. ASCE/SEI 7, Section 13.2.3 minimum required clearances have been provided. b. A three inch or greater nominal clearance has been provided between fire protection sprinkler system drops and springs and structural members not used collectively or independently to support the sprinklers; equipment attached to the building structure; and other systems' piping.	Field inspection	Y	Periodic			
1705.13.7 Storage Racks Special Inspections for Seismic Resistance						
Inspection during the anchorage of storage racks 8 feet or greater in height in structures assigned to SDC D, E or F.	Field inspection	N				
1. Materials used, to verify compliance with one or more of the material test reports in accordance	Field inspection	N	Periodic			