Department of Facilities and Construction Management

SPECIAL INSPECTION, MATERIAL TESTING & STRUCTURAL OBSERVATION ITEMS REQUIRED BY CHAPTER 17 OF THE 2021 IBC

Indicate items requiring special inspection, structural testing, or structural observations by checking the appropriate box. All items not requiring inspection/testing should be removed from the form. For items requiring continuous inspection, a special inspector must be present onsite during the performance of that task. In most cases "periodic" inspections/tests shall be performed prior to commencing the task, intermittently during the task, and at the completion of the task. The "Detailed Instructions & Frequency" provides a description of the presumed requirements for tasks requiring "periodic" inspections. The design professional in responsible should revise the requirements as needed on a project-specific basis.

FABRICATORS (IBC 1704.2.5)

☐ Approved Fabricator	Yes	No

☐ Unapproved Fabricator	Yes	No

Fabricators Name:	
Fabricators plant location	

Required In-plant Inspections	☐ Steel Construction	☐ Concrete Construction	☐ Wood Construction
	☐ Cold-formed Construction	☐ Other: _____	☐ Other: _____

STRUCTURAL STEEL (IBC 1705.2.1, 1705.11.1 & 1705.12.2)

Item			Detailed Instructions and Frequencies
PRIOR TO WELDING (TABLE N5.4-1, AISC 360-10):			
Verify welding procedures (WPS) and consumable certificates	☒ Continuous	☐ Periodic	
Material identification	☐ Continuous	☒ Periodic	Verify type and grade of material.
Welder identification	☐ Continuous	☒ Periodic	A system shall be maintained by which a welder who has welded a joint or member can be identified.
Fit-up groove welds	☐ Continuous	☒ Periodic	Verify joint preparation, dimensions, cleanliness, tacking, and backing.
Access holes	☐ Continuous	☒ Periodic	Verify configuration and finish.
Fit-up of fillet welds	☐ Continuous	☒ Periodic	Verify alignment, gaps at root, cleanliness of steel surfaces, and tack weld quality and location.
DURING WELDING (TABLE N5.4-2, AISC 360-10):			
Use of qualified welders	☐ Continuous	☒ Periodic	Verify that welders are appropriately qualified.
Control and handling of welding consumables	☐ Continuous	☒ Periodic	Verify packaging and exposure control.
Cracked tack welds	☐ Continuous	☒ Periodic	Verify that welding does not occur over cracked tack welds.
Environmental conditions	☐ Continuous	☒ Periodic	Verify win speed is within limits as well as precipitation and temperature.
WPS followed	☐ Continuous	☒ Periodic	Verify items such as settings on welding equipment, travel speed, welding materials, shielding gas type/flow rate, preheat applied, interpass temperature maintained, and proper position.

Welding techniques	☐ Continuous	☒ Periodic	Verify interpass and final cleaning, each pass is within profile limitations, and quality of each pass.
AFTER WELDING (TABLE N5.4-3, AISC 360-10):			
Welds cleaned	☐ Continuous	☒ Periodic	Verify that welds have been propyl cleaned.
Size, length, and location of welds	☒ Continuous	☐ Periodic	
Welds meet visual acceptance criteria	☒ Continuous	☐ Periodic	
Arc strikes	☒ Continuous	☐ Periodic	
k-area	☒ Continuous	☐ Periodic	
Backing & weld tabs removed	☒ Continuous	☐ Periodic	
Repair activities	☒ Continuous	☐ Periodic	
Document acceptance or rejection of welded joint/member	☒ Continuous	☐ Periodic	
NONDESTRUCTIVE TESTING (SECTION N5.5, AISC 360-10):			
CJP welds (Risk Cat. II)	☐ Continuous	☒ Periodic	Ultrasonic testing shall be performed on 10% of CJP groove welds in butt, T- and corner joints subject to transversely applied tension loading in materials 5/16-inch thick or greater. Testing rate must be increased if > 5% of welds tested have unacceptable defects.
CJP welds (Risk Cat. III or IV)	☒ Continuous	☐ Periodic	***A reduction in the rate of ultrasonic testing is allowed per Section N5.5e.***
Access holes (flange > 2”)	☒ Continuous	☐ Periodic	
Welded joints subject to fatigue	☒ Continuous	☐ Periodic	
PRIOR TO BOLTING (TABLE N5.6-1, AISC 360-10): ➢ *Not required if only snug-tight joints are specified [per Section N5.6(1) of AISC 360-10].*			
Certifications of fasteners	☒ Continuous	☐ Periodic	
Fasteners marked	☐ Continuous	☒ Periodic	Verify that fasteners have been marked in accordance with ASTM requirements.
Proper fasteners for joint	☐ Continuous	☒ Periodic	Verify grade, type, and bolt length if threads are excluded from the shear plane.
Proper bolting procedure	☐ Continuous	☒ Periodic	Verify proper procedure is used for the joint detail.
Connecting elements	☐ Continuous	☒ Periodic	Verify appropriate faying surface condition and hole preparation, if specified, meet requirements.
Pre-installation verification testing	☐ Continuous	☒ Periodic	Observe and document verification testing by installation personnel for fastener assemblies and methods used.
Proper storage	☐ Continuous	☒ Periodic	Verify proper storage of bolts, nuts, washers, and other fastener components.
DURING BOLTING (TABLE N5.6-2, AISC 360-10): ➢ *Not required if only snug-tight joints are specified [per Section N5.6(1) of AISC 360-10].* ➢ *Not required for pretensioned joints using turn-of-the-nut method with match-marking, direct-tension-indicators, or twist-off type tension control method [per Section N5.6(2) of AISC 360-10].*			
Fastener assemblies	☐ Continuous	☒ Periodic	Verify that fastener assemblies are of suitable condition, paced in all holes, and washers are positioned as required.
Snug-tight prior to pretensioning	☐ Continuous	☒ Periodic	Verify that joints are brought to snug-tight condition prior to pretensioning operation.
Fastener component	☐ Continuous	☒ Periodic	Verify that fastener component is not turned by wrench prevented from rotating.

Pretensioned fasteners	☐ Continuous	☒ Periodic	Verify that fasteners are Pretensioned in accordance with RCSC Specification, progressing systematically from the most rigid point toward the free edges.
AFTER BOLTING (TABLE N5.6-3, AISC 360-10):			
Document acceptance or rejection of bolted connections	☒ Continuous	☐ Periodic	
OTHER STEEL INSPECTIONS (SECTION N5.7, AISC 360-10; Tables J8-1 & J10-1, AISC 341-10):			
Structural steel details	☐ Continuous	☒ Periodic	All fabricated steel or steel frames shall be inspected to verify compliance with the details shown in the construction documents, such as braces, stiffeners, member locations, and proper application of joint details at each connection.
Anchor rods and other embedments supporting structural steel	☐ Continuous	☒ Periodic	Shall be on the premises during the placement of anchor rods and other embedments supporting structural steel for compliance with construction documents. Verify the diameter, grade, type, and length of the anchor rod or embedded item, and the extent or depth of embedment prior to placement of concrete.
Reduced beam sections (RBS)	☐ Continuous	☒ Periodic	Verify contour and finish as well as dimensional tolerances *(see Table J8-1 of AISC 341-10)*.
Protected zones	☐ Continuous	☒ Periodic	Verify that no holes or unapproved attachments are made within the protected zone *(see Table J8-1 of AISC 341-10)*.
H-piles	☐ Continuous	☒ Periodic	Verify that no holes or unapproved attachments occur within the protected zones of piling *(see Table J10-1 of AISC 341-10)*.
STEEL ELEMENTS OF COMPOSITE CONSTRUCTION (TABLE N6.1, AISC 360-10; TABLES J9-1 thru J9-3, AISC 341-11):			
Placement and installation of steel deck	☒ Continuous	☐ Periodic	
Placement and installation of steel headed stud anchors	☒ Continuous	☐ Periodic	
Document acceptance or rejection of steel elements	☒ Continuous	☐ Periodic	
Reinforcing steel	☐ Continuous	☒ Periodic	Verify appropriate reinforcement size, spacing, and orientation; that it has not been re-bent in field; that it is correctly tied and supported; and that required steel clearances have been provided.
Composite member size	☐ Continuous	☒ Periodic	Verify that composite member is the required size.

STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL (IBC 1705.2.2)

Item			Detailed Instructions and Frequencies
STEEL ROOF AND FLOOR DECKS (IBC TABLE 1705.2.2):			
Material verification of cold-formed steel deck	☐ Continuous	☒ Periodic	Confirm that identification markings are provided to conform to ASTM standards specified on construction documents.
Floor and roof deck welds	☐ Continuous	☒ Periodic	Visual inspection is required to confirm that weld meets acceptance criteria of AWS D1.3. Welder qualifications should also be verified.
WELDING OF REINFORCING STEEL (IBC TABLE 1705.2.2):			

Verification of weldability	☐ Continuous	☒ Periodic	Verify weldability of reinforcing steel based upon carbon equivalent and in accordance with AWS D1.4.

Reinforcing steel in intermediate or special moment fames, and boundary elements of special structural walls	☒ Continuous	☐ Periodic	
Shear reinforcement	☒ Continuous	☐ Periodic	
Other reinforcing steel	☐ Continuous	☒ Periodic	Visually inspect all welds in accordance with AWS D1.4.
COLD-FORMED STEEL CONSTRUCTION (IBC 1705.2.2.1.1, 1705.10.3, and 1705.11.3):			
Trusses spanning > 60-feet	☐ Continuous	☒ Periodic	Verify that temporary and permanent truss bracing is installed in accordance with approved truss package. Performed by code inspection firm.
Wind-force-resisting systems or seismic-force-resisting systems	☐ Continuous	☒ Periodic	Periodic inspections of welding operations. If fastener spacing is < 4"o.c.: Verify that proper screw attachment, bolting, anchoring and other fastening of shear walls, diaphragms, drag struts, braces, shear panels and holdowns has occurred. Performed by code inspection firm.

CONCRETE CONSTRUCTION (IBC 1705.3 & 1705.12.1)

Item			Detailed Instructions and Frequencies
Reinforcing steel, including prestressing tendons	☐ Continuous	☒ Periodic	Verify prior to placing concrete that reinforcing is of specified type, grade and size; that it is free of oil, dirt and rust; that it is located and spaced properly; that hooks, bends, ties, stirrups and supplemental reinforcement are placed correctly; that lap lengths, stagger and offsets are provided; and that all mechanical connections are installed per the manufacturer's instructions and/or evaluation report.
Cast-in bolts & embeds	☐ Continuous	☒ Periodic	Inspection of anchors or embeds cast in concrete is required when allowable loads have been increased or where strength design is used.
Post-installed anchors or dowels	☐ Continuous	☒ Periodic	All post-installed anchors/dowels shall be specially inspected as required by the approved ICC-ES report.
Use of required mix design	☐ Continuous	☒ Periodic	Verify that all mixes used comply with the approved construction documents; ACI 318: Ch. 4, 5.2-5.4; and IBC 1904.3, 1913.2, 1913.3.
Concrete sampling for strength tests, slump, air content, and temperature	☒ Continuous	☐ Periodic	
Concrete & shotcrete placement	☒ Continuous	☐ Periodic	

Curing temperature and techniques	☐ Continuous	☒ Periodic	Verify that the ambient temperature for concrete is kept at > 50°F for at least 7 days after placement. High-early-strength concrete shall be kept at > 50°F for at least 3 days. Accelerated curing methods may be used (see ACI 318: 5.11.3). The ambient temperature for shotcrete shall be > 40°F for the same period of time as noted for concrete. Shotcrete shall be kept continuously moist for at least 24 hours after shotcreting. All concrete materials, reinforcement, forms, fillers, and ground shall be free from frost. In hot weather conditions ensure that appropriate measures are taken to avoid plastic shrinkage cracking and that the specified water/cement ratio is not exceeded.
Pre-stressed concrete	☒ Continuous	☐ Periodic	
Erection of precast concrete	☐ Continuous	☒ Periodic	Verify that all precast elements are lifted, assembled and braced in accordance with the approved construction documents.
Strength verification	☐ Continuous	☒ Periodic	Verify that adequate strength has been achieved prior to the removal of shores and forms or the stressing of post-tensioned tendons.
Formwork	☐ Continuous	☒ Periodic	Verify that the forms are placed plumb and conform to the shapes, lines, and dimensions of the members as required by the approved construction documents.
Reinforcement complying with ASTM A 615 in special moment frames, special structural walls and coupling beams	☐ Continuous	☒ Periodic	Verify that ASTM A 615 reinforcing steel used in these areas complies with ACI 318: 21.1.5.2 by means of certified mill test reports. If this reinforcing steel is to be welded chemical tests shall be performed in accordance with ACI 318: 3.5.2.

MASONRY CONSTRUCTION (IBC 1705.4)

Item			Detailed Instructions and Frequencies
PRIOR TO CONSTRUCTION (ARTICLE 1.15, TMS-602/ACI 530.1-11):			
Review material certificates, mix designs, test results and construction procedures	☐ Continuous	☒ Periodic	Verify that materials conform to the requirements of the approved construction documents. Mix design, test results, material certificates, and construction procedures should be submitted for review. Mortar mix designs shall conform to ASTM C 270 while grout shall conform to ASTM C 476. Material certificates shall be provided for the following: reinforcement; anchors, ties, fasteners, and metal accessories; masonry units; mortar and grout materials. Construction procedures for cold-weather or hot-weather construction shall be reviewed.
AS CONSTRUCTION BEGINS (TABLE 1.19.2, TMS-402/ACI 530-11):			
Proportions of site-prepared mortar	☐ Continuous	☒ Periodic	Verify that mortar is of the type and color specified on the construction documents, that it conforms to ASTM C 270, and that it is mixed in accordance with Article 2.6 A of TMS-602/ACI 530.1-11.
Construction of mortar joints	☐ Continuous	☒ Periodic	Verify that mortar joints comply with Article 3.3 B of TMS-602/ACI 530.1-11.

Grade and size of prestressing tendons and anchorages	☐ Continuous	☒ Periodic	Verify that prestressing tendons comply with Article 2.4 B of TMS-602/ACI 530.1-11 and that anchorages, couplers, and end blocks comply with Article 2.4 H.
Location of reinforcement, connectors, and prestressing tendons and anchorages	☐ Continuous	☒ Periodic	Verify that reinforcement is placed in accordance with Article 3.4 of TMS-602/ACI 530.1-11. Prestressing tendons shall be placed per Article 3.6 A.
Prestressing technique	☐ Continuous	☒ Periodic	Verify that prestressing technique complies with Article 3.6 B of TMS-602/ACI 530.1-11.
Properties of thin-bed mortar for AAC masonry	☐ Continuous	☒ Periodic	Verify that mortar complies with Article 2.1 C of TMS-602/ACI 530.1-11.
PRIOR TO GROUTING (TABLE 1.19.2, TMS-402/ACI 530-11):			
Grout space	☐ Continuous	☒ Periodic	Verify that grout space is free of mortar droppings, debris, loose aggregate, and other deleterious materials and that cleanouts are provided per Article 3.2 D and 3.2 F of TMS-602/ACI 530.1-11. *Continuous inspection is required for Risk Category IV buildings.*
Grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages	☐ Continuous	☒ Periodic	Verify that reinforcement, joint reinforcement, wall ties, anchor bolts and veneer anchors comply with the approved construction documents and Section 1.6 of TMS 402/ACI 530-11.
Placement of reinforcement, connectors, and prestressing tendons and anchorages	☐ Continuous	☒ Periodic	Verify that reinforcement, joint reinforcement, wall ties, anchor bolts and veneer anchors are installed in accordance with the approved construction documents and Articles 3.2 E, 3.4, and 3.6 A of TMS 602/ACI 530.1-11. *Continuous inspection is required for Risk Category IV buildings.*
Proportions of site-prepared grout and prestressing grout for bonded tendons	☐ Continuous	☒ Periodic	Verify that grout is proportioned per ASTM C 476 and has a slump between 8-11 inches. Self-consolidated grout shall not be proportioned onsite. (see Articles 2.6 B and 2.4 G.1.b of TMS 602/ACI 530.1-11. *Continuous inspection is required for Risk Category IV buildings.*
Construction of mortar joints	☐ Continuous	☒ Periodic	Verify that mortar joints are placed in accordance with Article 3.3 B of TMS 602/ACI 530.1-11.
DURING MASONRY CONSTRUCTION:			
Size and location of structural elements	☐ Continuous	☒ Periodic	Verify the locations of structural elements with respect to the approved plans and confirm that tolerances meet the requirements of Article 3.3 F of TMS 602/ACI 530.1-11.
Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction.	☐ Continuous	☒ Periodic	Verify that correct anchorages and connections are provided per the approved plans and Sections 1.16.4.3 and 1.17.1 of TMS 402/ACI 530-11. *Continuous inspection is required for Risk Category IV buildings.*
Welding of reinforcement	☒ Continuous	☐ Periodic	
Preparation, construction, and protection of masonry during cold weather (<40°F) or hot weather (>90°F).	☐ Continuous	☒ Periodic	Verify that cold-weather construction is performed in accordance with Article 1.8 C of TMS 602/ACI 530.1-11 and hot weather construction per Article 1.8 D of TMS 602/ACI 530.1-11.
Application and measurement of prestressing force	☒ Continuous	☐ Periodic	

Placement of grout and prestressing grout for bonded tendons is in compliance	☒ Continuous	☐ Periodic	
Placement of AAC masonry units and construction of thin-bed mortar joints	☐ Continuous	☒ Periodic	Verify that mortar is placed in accordance with Article 3.3 B.8 of TMS-602/ACI 530.1-11.
Observation of grout specimens, mortar specimens, and/or prisms	☐ Continuous	☒ Periodic	Confirm that specimens/prisms are performed as required by Article 1.4 of TMS-602/ACI 530.1-11. *Continuous inspection is required for Risk Category IV buildings.*
MINIMUM TESTING:			
Verification of Slump Flow and Visual Stability Index (VSI) for self-consolidating grout	☐ Continuous	☒ Periodic	Compressive strength tests should be performed in accordance with ASTM C 1019 for slump flow and ASTM C 1611 for VSI.
Verification of f'_m and f'_{AAC}	☐ Continuous	☒ Periodic	Determine the compressive strength for each wythe by the "unit strength method" or by the "prism test method" as specified in Article 1.4 B of TMS 602/ACI 530.1-11 prior to construction. *For Risk Category IV buildings this should be verified at every 5,000ft² of construction.*
Verification of proportions of materials in premixed or pre-blended mortar and grout	☐ Continuous	☒ Periodic	Verify that proportions for mortar meet ASTM C 270 and proportions for grout meet ASTM C 476. This applies to *Risk Category IV buildings only.*

WOOD CONSTRUCTION (IBC 1705.5, 1705.10.1 & 1705.11.2)

Item			Detailed Instructions and Frequencies
High-load diaphragms	☐ Continuous	☒ Periodic	Verify thickness and grade of sheathing, size of framing members at panel edges, nail/staple diameters and length, and the number of fastener lines and fastener spacing per approved plans. ***Performed by code inspection firm.***
Wood trusses spanning > 60-feet	☐ Continuous	☒ Periodic	Verify that temporary and permanent truss bracing is installed in accordance with approved truss package. ***Performed by code inspection firm.***
Structural wood	☐ Continuous	☒ Periodic	If fastener spacing is < 4"o.c.: Verify that proper nailing, bolting, anchoring and other fastening of shear walls, diaphragms, drag struts, braces, and holdowns. ***Performed by code inspection firm.***

SOILS CONSTRUCTION (IBC 1705.6)

Item			Detailed Instructions and Frequencies
Verify subgrade is adequate to achieve design bearing capacity	☐ Continuous	☒ Periodic	Prior to placement of concrete.
Verify excavations extend to proper depth and material	☐ Continuous	☒ Periodic	Prior to placement of compacted fill or concrete.
Verify that subgrade has been appropriately prepared prior to placing compacted fill	☐ Continuous	☒ Periodic	Prior to placement of compacted fill.
Perform classification and testing of compacted fill materials	☐ Continuous	☒ Periodic	All materials shall be checked at each lift for proper classifications and gradations not less than once for each 10,000ft² of surface area.

Verify proper materials, densities and lift thicknesses during placement and compaction.	☒ Continuous	☐ Periodic	

DRIVEN DEEP FOUNDATIONS (IBC 1705.7)

Item			Detailed Instructions and Frequencies
Verify materials, sizes and lengths	☒ Continuous	☐ Periodic	
Determine capacities and conduct necessary load tests	☒ Continuous	☐ Periodic	
Observe drilling operations	☒ Continuous	☐ Periodic	
Verify placement locations & plumbness, confirm type & size of hammer, record number of blows per foot, record tip and butt elevations and document any damage to element	☒ Continuous	☐ Periodic	
Perform additional inspections for steel, concrete or other specialty elements.	☐ Continuous	☐ Periodic	Steel per IBC 1705.2 Concrete per IBC 1705.3 Specialty items per registered design professional

CAST-IN-PLACE DEEP FOUNDATIONS (IBC 1705.8)

Item			Detailed Instructions and Frequencies
Observe drilling operation and reporting	☒ Continuous	☐ Periodic	
Verify placement locations & plumbness, confirm element diameters, lengths, embedment and adequate end-bearing capacity. Record concrete or grout volumes.	☒ Continuous	☐ Periodic	
Perform additional inspections for concrete elements.	☐ Continuous	☐ Periodic	Concrete per IBC 1705.3

HELICAL PILE FOUNDATIONS (IBC 1705.9)

Item			Detailed Instructions and Frequencies
Record installation equipment used, pile dimensions, tip elevations, final depth, and final installation torque	☒ Continuous	☐ Periodic	
Verify that helical piles used match the approved submittal	☒ Continuous	☐ Periodic	

SPRAYED FIRE-RESISTANT MATERIALS (IBC 1705.13)

Item			Detailed Instructions and Frequencies
Surface preparation	☐ Continuous	☒ Periodic	Prior to application confirm that surface has been prepared per the approved fire-resistance design and manufacturer's instructions.
Material thickness	☐ Continuous	☒ Periodic	Samples shall be taken from selected floor, roof and wall assemblies and structural members. No more than 10% of the samples shall be less than the thickness required by the fire-resistance design.

Material density	☐ Continuous	☒ Periodic	Density tests shall be performed in accordance with ASTM E 605 for every 2,500ft² of floor, roof or wall area. One sample must also be provided for each beam, girder, truss or column at each story.
Bonding strength	☐ Continuous	☒ Periodic	Bond strength tests shall be performed in accordance with ASTM E 736 for every 2,500ft² of floor, roof or wall area. One sample must also be provided for each beam, girder, truss or column at each story. The bond strength shall not be less than 150psf.

MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS (IBC 1705.14)

Item			Detailed Instructions and Frequencies
Surface preparation	☐ Continuous	☒ Periodic	Prior to application confirm that surface temperature and substrate are acceptable and that a compatible primer is used in accordance with AWCI 12-B.
Thickness	☐ Continuous	☒ Periodic	Record thickness of primer or other existing coating on substrate prior to application of coating. Final thickness of coating must be verified in multiple locations prior to applying top coat per AWCI 12-B.

EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS) (IBC 1705.15)

Item			Detailed Instructions and Frequencies
Material and installation	☐ Continuous	☒ Periodic	Verify that water-resistive barrier, complying with ASTM E 2570, is installed appropriately over a sheathing substrate. *(Not required if applied over concrete, masonry, or if a means of draining moisture to exterior is provided.)* ***Performed by code inspection firm.***

FIRE-RESISTANT PENETRATIONS AND JOINTS (IBC 1705.16)

- *Only required for high-rise buildings or those assigned to Risk Category III or IV per IBC Table 1604.5.*

Item			Detailed Instructions and Frequencies
Penetration firestops	☐ Continuous	☒ Periodic	Listed systems shall be inspected in accordance with ASTM E 2393.
Fire-resistant joint systems	☐ Continuous	☒ Periodic	Listed systems shall be inspected in accordance with ASTM E 2393.

SMOKE CONTROL (IBC 1705.17)

Item			Detailed Instructions and Frequencies
Verify device locations and perform leakage testing	☐ Continuous	☒ Periodic	During erection of ductwork and prior to concealment. As defined by rational analysis.
Pressure difference testing, flow measurements and detection and control verification	☐ Continuous	☒ Periodic	Prior to occupancy and after sufficient completion. As defined by rational analysis.

ARCHITECTURAL COMPONENTS (IBC 1705.11.5 & 1705.11.7)

- *Only required for buildings located within Seismic Design Category D, E, or F.*

Item			Detailed Instructions and Frequencies
Erection and fastening of exterior cladding or interior and exterior veneers	☐ Continuous	☒ Periodic	Verify appropriate materials, fasteners and attachment at commencement of work and at completion. Performed by code inspection firm. (Not required if < 30 feet or less than 5psf).

Erection and fastening of interior and exterior nonbearing walls	☐ Continuous	☒ Periodic	Verify appropriate materials, fasteners and attachment at commencement of work and at completion. Performed by code inspection firm. (Not required if < 30 feet or for interior walls < 15psf).
Access floors	☐ Continuous	☒ Periodic	Verify that anchorage complies with approved construction documents. Inspection of post-installed anchors shall comply with approved ICC-ES report. ***Performed by code inspection firm.***
Storage racks	☐ Continuous	☒ Periodic	Verify that anchorage complies with approved construction documents. Inspection of post-installed anchors shall comply with approved ICC-ES report. ***Performed by code inspection firm.***

MECHANICAL & ELECTRICAL COMPONENTS (IBC 1705.11.4 & 1705.11.6)

- *Only required for buildings located within Seismic Design Category C, D, E, or F.*

Item			Detailed Instructions and Frequencies
Anchorage of emergency or standby power systems	☐ Continuous	☒ Periodic	Verify that anchorage complies with approved construction documents. ***Performed by code inspection firm.***
Installation of piping systems carrying flammable, combustible or highly toxic materials	☐ Continuous	☒ Periodic	Verify that installation and restraint comply with approved construction documents. ***Performed by code inspection firm.***
Installation of HVAC ductwork containing hazardous materials	☐ Continuous	☒ Periodic	Verify that installation and restraint comply with approved construction documents. ***Performed by code inspection firm.***
Installation of vibration isolation systems having a clearance of ≤¼"	☐ Continuous	☒ Periodic	Verify that installation complies with approved construction documents and manufacturer's recommendations. ***Performed by code inspection firm.***
Designated seismic systems	☐ Continuous	☒ Periodic	Confirm that manufacturer's certificate of compliance conforms to the requirements of Section 13.2 of ASCE 7-10. Verify that the label, anchorage or mounting conforms to the manufacturer's certificate of compliance. ***Performed by code inspection firm.***

SEISMICALLY ISOLATED STRUCTURES (IBC 1705.11.8 & 1705.12.4)

Item			Detailed Instructions and Frequencies
Prototype tests	☐ Continuous	☒ Periodic	Prototype tests shall be performed on selected samples prior to construction in accordance with Section 17.8 of ASCE 7-10.
Fabrication and installation	☐ Continuous	☒ Periodic	Verify that fabrication and installation of isolator units and energy dissipation devices conform to manufacturer's recommendations and approved construction documents.

SPECIAL CASES (IBC 1705.1.1) – material alternatives or unusual design applications

Item			Detailed Instructions and Frequencies
Material and installation	☐ Continuous	☐ Periodic	Per design professional in responsible charge or report from an accepted accreditation agency (i.e. ICC-ES).

MISCELLANEOUS AREAS

- *These inspections may be recommended by the Architect/Engineer and are to be approved by DFCM.*

Item			Detailed Instructions and Frequencies
Suspended Acoustical Ceilings	☐ Continuous	☐ Periodic	***Performed by code inspection firm.***
Soil backfill (specify locations and frequency)	☐ Continuous	☐ Periodic	
Soils for curb and gutter (specify locations and frequency)	☐ Continuous	☐ Periodic	
Soils for parking lots (specify locations and frequency)	☐ Continuous	☐ Periodic	
Soils for utility trench backfill	☐ Continuous	☐ Periodic	
Reinforcement for slab on grade sidewalks and drive approaches (specify locations and frequency)	☐ Continuous	☐ Periodic	
Reinforcement for interior slab on grade (specify locations and frequency)	☐ Continuous	☐ Periodic	
Concrete testing for slab on grade sidewalks and drive approaches (specify locations and frequency)	☐ Continuous	☐ Periodic	
Concrete testing for interior slab on grade (specify locations and frequency)	☐ Continuous	☐ Periodic	
Asphalt inspection (specify locations and frequency)	☐ Continuous	☐ Periodic	
Asphalt testing (specify locations and frequency)	☐ Continuous	☐ Periodic	
Steam and water line welding (specify locations and frequency)	☐ Continuous	☐ Periodic	
Seismic supports for duct work and sealing of joints for duct work	☐ Continuous	☐ Periodic	
Seismic supports for electrical raceways, cable trays and lights	☐ Continuous	☐ Periodic	
Seismic supports for plumbing lines including gas, water and steam and condensation	☐ Continuous	☐ Periodic	
Seismic bracing for mechanical units both on slab and suspended	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	
	☐ Continuous	☐ Periodic	

Special Inspectors Shall:

- Be approved by the Building Official prior to performing any duties;
- Provide proof of licensure as a special inspector by the State of Utah for each type of inspection;
- Inspection reports are to meet the requirements of IBC 1704.2.4 and DFCM standards;
- Inspection reports are to be submitted to the code consultant, architect, DFCM project manager, and the State of Utah Building Official within 48 hours of performing inspections;
- A final inspection report shall be submitted following completion of the project documenting the types of special inspections performed and a statement indicating that the structure is in compliance with the approved construction documents and applicable codes (see IBC 1704.2.4).

STRUCTURAL OBSERVATIONS (IBC 1704.5)

Item		Proposed Frequency	Name of Structural Observer
Footings & Piers	☐ Required		
Mat Foundations	☐ Required		
Deep Foundations	☐ Required		
Grade Beams	☐ Required		
Concrete Walls	☐ Required		
Masonry Walls	☐ Required		
Wood Walls	☐ Required		
Steel Moment Frames	☐ Required		
Steel Braced Frames	☐ Required		
Concrete Moment Frames	☐ Required		
Concrete Diaphragms	☐ Required		
Steel Deck Diaphragms	☐ Required		
Wood Diaphragms	☐ Required		
Post-tensioned Deck	☐ Required		
Other:	☐ Required		
Other:	☐ Required		
Other:	☐ Required		
Other:	☐ Required		

Structural Observer's Shall:

- Provide proof of licensure as a licensed professional/structural engineer by the State of Utah;
- If structural observations are performed by individuals other than the design professional in responsible charge, they should first be approved by the Building Official.
- At the conclusion of work a final structural observation report must be submitted to the Building Official noting any deficiencies which, to the best of the structural observer's knowledge, have not been resolved (see IBC 1704.5).