

Town of Leland- Statement of Special Inspections

Project: _____ Permit No.: _____

Project location/ Address: _____

Project Primary Contact: _____

Phone No.: _____ Email: _____

This Statement of Special Inspections is submitted as a condition for permit issuance in accordance with the Special Inspection requirements of the 2018 North Carolina State Building Code. It includes a Schedule of Special Inspection Services applicable to this project, the name of the Special Inspector, the identity of other approved agencies retained for conducting Special Inspections, and the required inspector qualifications. This Statement of Special Inspections was prepared by the following Designers of Record:

Structural	(Type or print name)	(Signature)	(Date)
Architectural	(Type or print name)	(Signature)	(Date)
Mechanical	(Type or print name)	(Signature)	(Date)
Other	(Type or print name)	(Signature)	(Date)

The Special Inspector shall keep records of all special inspections and tests and shall furnish reports to the Town of Leland and the Designers of Record. Reports shall indicate if the work inspected or tested was or was not completed in conformance with the approved construction documents. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Town of Leland and the Designers of Record. The Special Inspections program does not relieve the Contractor of his or her responsibilities, nor the requirement of municipal inspections.

Interim reports shall be submitted to the Town of Leland, Owner, and the Designers of Record. Upload a copy of reports to your permit monthly, or upon discovery of any discrepancies and the following repairs. These will be reviewed by the Chief Building Official for approval.

Interim Report Frequency: Monthly

A Final Report of Special Inspections documenting completion of all required Special Inspections, testing, and correction of any discrepancies shall be submitted prior to issuance of a Certificate of Use and Occupancy. Final Reports will be reviewed by the Chief Building Official

Job Site safety and means and methods of construction are solely the responsibility of the Contractor.

Owner's Authorization

Accepted for the SCO by:

Signature Date

Signature Date

Schedule of Special Inspection Services^a

The following sheets comprise the required schedule of special inspections for this project. The construction divisions which require special inspections for this project are as follows.

- | | |
|---|---|
| <input type="checkbox"/> Structural Steel & High Strength Bolting | <input type="checkbox"/> Helical Pile Foundations |
| <input type="checkbox"/> Welding of Structural Steel | <input type="checkbox"/> Rammed Aggregate Piers & Stone Columns |
| <input type="checkbox"/> Cold-Formed Steel Deck | <input type="checkbox"/> Sprayed Fire-Resistant Material |
| <input type="checkbox"/> Open-Web Steel Joists & Joist Girders | <input type="checkbox"/> Mastic & Intumescent Fire-Resistant Coatings |
| <input type="checkbox"/> Cold-Formed Steel Framing | <input type="checkbox"/> Exterior Insulation & Finish System |
| <input type="checkbox"/> Concrete Construction | <input type="checkbox"/> Fire-Resistant Penetrations & Joints |
| <input type="checkbox"/> Masonry Construction ^b | <input type="checkbox"/> Smoke Control |
| <input type="checkbox"/> Wood Construction | <input type="checkbox"/> Site Retaining Wall & Systems |
| <input type="checkbox"/> Soils | <input type="checkbox"/> Special Inspections for Wind Resistance |
| <input type="checkbox"/> Driven Deep Foundations | <input type="checkbox"/> Special Inspections for Seismic Resistance |
| <input type="checkbox"/> Cast-in-Place Deep Foundations | <input type="checkbox"/> No Special inspections Required per Section 1705 |

a. The inspection frequency indicated on the following inspection tables are “C” continuous, “P” periodic, & “O” random on a daily basis.

b. Level A is the minimum inspection program for empirically / prescriptively designed masonry in Risk Category I, II or III structures.

Level B is the minimum inspection program for empirically / prescriptively designed masonry in Risk Category IV structures and engineered masonry in Risk Category I, II or III structures.

Level C is the minimum inspection program for engineered masonry in Risk Category IV structures. Engineered masonry structures are designed in accordance with portions of the TMS 402-13 / ACI 530-13/ASCE 5-13 other than Part 4 or Appendix A.

Inspection Agents	Firm Name & Point of Contact	Address / Phone / E-mail
1. Special Inspector (SI-1)		
2. Testing Agency (TA-1)		
3. Testing Agency (TA-2)		
4. Geotechnical Engineer (GE-1)		
5. Other (O-1)		

Note: The inspection and testing agent(s) shall be engaged by the Owner or the Registered Design Professional of Record acting as the Owner’s agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Town of Leland, prior to commencing work.

Seismic Design Category: A B C D

Ultimate Design Wind Speed (V_{ult}): _____

Wind Exposure Category: B C D

Schedule of Special Inspection Services

Structural Steel and High-Strength Bolting

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			AISC 360	NCBC	
1. Fabricator Certification / Verification of Quality Control Procedures					
a. Verify fabricator qualifications	<input type="checkbox"/>	C		1704.2.5.1	
b. Review material test reports & certifications	<input type="checkbox"/>	C	N5.2		
c. Collect certificates of compliance from the steel fabricator at completion of fabrication	<input type="checkbox"/>	C		1704.5	
2. Inspections Prior to High-Strength Bolting at Pretensioned and Slip-Critical Joints					
a. Collect manufacturer's certifications for fastener materials	<input type="checkbox"/>	C	Table (Tbl) N5.6-1		
b. Fasteners are marked per ASTM requirements	<input type="checkbox"/>	P	Tbl N5.6-1		
c. Ensure correct fasteners and bolting procedures are selected for joint details	<input type="checkbox"/>	P	Tbl N5.6-1		
d. Verify connecting elements, including the appropriate faying surface condition and hole preparation when specified, comply with the construction documents	<input type="checkbox"/>	P	Tbl N5.6-1		
e. Observe and document pre-installation verification testing by installation personal for fastener assemblies and methods	<input type="checkbox"/>	P	Tbl N5.6-1		
f. Verify proper storage provided for all fastener components	<input type="checkbox"/>	P	Tbl N5.6-1		
3. Inspections During High-Strength Bolting at Pretensioned and Slip-Critical Joints					
a. Ensure correct fastener assemblies placed in all holes and washers, when specified, are positioned as required	<input type="checkbox"/>	P	Tbl N5.6-2		
b. Verify joint brought to snug-tight condition prior to pretensioning	<input type="checkbox"/>	P	Tbl N5.6-2		
c. Verify fastener components not turned by the wrench prevented from rotating	<input type="checkbox"/>	P	Tbl N5.6-2		
d. Ensure fasteners are pretensioned in accordance with RCSC, progressing from the most rigid point towards free edges	<input type="checkbox"/>	P	Tbl N5.6-2		
4. Document acceptance or rejection of bolted connections after high-strength bolting is complete	<input type="checkbox"/>	C	Tbl N5.6-3		
5. Structural Details					

a. Verify diameter, grade, type and length of anchor rods and other embedded items supporting structural steel	<input type="checkbox"/>	P	N5.7		
b. Inspection of fabricated assemblies & erected steel framing verifying compliance with the construction documents	<input type="checkbox"/>	P	N5.7		
6. Composite Construction					
a. Verify placement & installation of steel deck	<input type="checkbox"/>	P	Tbl N6.1		
b. Observe placement and installation of steel headed stud anchors			Tbl N6.1		
c. Document acceptance or rejection of composite construction elements	<input type="checkbox"/>	P	Tbl N6.1		

Schedule of Special Inspection Services

Welding of Structural Steel

Inspection Task	Task Req'd	Freq	Code Reference		Agent
			AISC 360	NCBC	
1. Inspections Prior to Welding			N5.4		
a. Collect & review welding procedure specification (WPS) and verify manufacturer certifications for welding consumables	<input type="checkbox"/>	C	Table (Tbl) N5.4-1		
b. Confirm weld material type & grade	<input type="checkbox"/>	P	Tbl N5.4-1		
c. Confirm method of welder identification	<input type="checkbox"/>	P	Tbl N5.4-1		
d. Inspection of fit-up for groove & fillet welds including access hole configuration & finish	<input type="checkbox"/>	P	Tbl N5.4-1		
2. Inspections During Welding			N5.4		
a. Verify welder qualifications	<input type="checkbox"/>	P	Tbl N5.4-2		
b. Verify proper control and handling of welding consumables	<input type="checkbox"/>	P	Tbl N5.4-2		
c. Monitor environmental conditions	<input type="checkbox"/>	P	Tbl N5.4-2		
d. Monitor proper implementation of WPS	<input type="checkbox"/>	P	Tbl N5.4-2		
e. Inspection of welding techniques including no welding over cracked tack welds	<input type="checkbox"/>	P	Tbl N5.4-2		
3. Inspections After Welding			N5.4, N5.5		
a. Verify welds have been cleaned	<input type="checkbox"/>	P	Tbl N5.4-3		
b. Confirm the installed size, length and location of welds matches the contract documents	<input type="checkbox"/>	C	Tbl N5.4-3		
c. Verify welds meet visual acceptance criteria	<input type="checkbox"/>	C	Tbl N5.4-3		
d. Confirm arc strikes comply with Part 5.28 of AWS D1.1	<input type="checkbox"/>	C	Tbl N5.4-3		
e. Visually observe web k-area for cracks within 3" of welded doubler plates, continuity plates and stiffeners	<input type="checkbox"/>	C	Tbl N5.4-3		
f. Backing and weld tabs removed per contract documents	<input type="checkbox"/>	C	Tbl N5.4-3		
g. Observe and inspect weld repair activities	<input type="checkbox"/>	C	Tbl N5.4-3		
h. For Risk Category III or IV structures, conduct ultrasonic testing (UT) of CJP groove welds in materials $\geq 5/16"$ at butt, T- and corner joints	<input type="checkbox"/>	C	N.5.5b, N5.5e		

subject to transversely applied tension loading					
i. For Risk Category II structures, conduct ultrasonic testing (UT) of CJP groove welds in materials $\geq 5/16''$ at butt, T- and corner joints subject to transversely applied tension loading	<input type="checkbox"/>	P	N.5.5b, N5.5f		
j. Conduct magnetic particle testing (MT) or liquid penetrant testing (PT) at thermally cut surfaces of access holes for rolled section with $t_f > 2''$ and built-up shape with $t_w > 2''$	<input type="checkbox"/>	C	N5.5c		
k. Radiographic or ultrasonic inspection at joints subject to fatigue	<input type="checkbox"/>	C	N5.5d, Tbl A-3.1		
l. Document acceptance / rejection of welded joints and members	<input type="checkbox"/>	C	Tbl N5.4-3, N5.5g		

Schedule of Special Inspection Services

Cold-Formed Steel Deck

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			SDI QA/QC	NCBC	
1. Prior to deck placement, verify deck and deck accessories comply with the construction documents	<input type="checkbox"/>	C	Table (Tbl) 1.1		
2. Inspection Tasks After Deck Placement					
a. Verify the installation of deck & deck accessories complies with the construction documents	<input type="checkbox"/>	C	Tbl 1.2		
b. Verify that deck materials' mill certifications comply with the construction documents	<input type="checkbox"/>	C	Tbl 1.2		
3. Inspection Tasks Prior to Deck Welding					
a. Collect welding procedure specification (WPS)	<input type="checkbox"/>	P	Tbl 1.3		
b. Collect manufacturer certifications for welding consumables	<input type="checkbox"/>	P	Tbl 1.3		
c. Verify material type and grade	<input type="checkbox"/>	P	Tbl 1.3		
d. Check welding equipment	<input type="checkbox"/>	P	Tbl 1.3		
4. Inspection Tasks During Deck Welding					
a. Verify welder qualifications	<input type="checkbox"/>	P	Tbl 1.4		
b. Verify proper control and handling of welding consumables	<input type="checkbox"/>	P	Tbl 1.4		
c. Monitor environmental conditions	<input type="checkbox"/>	P	Tbl 1.4		
d. Monitor proper implementation of WPS	<input type="checkbox"/>	P	Tbl 1.4		
5. Inspection Tasks After Welding					
a. Verify size and location of welds, including support, sidelap and perimeter welds	<input type="checkbox"/>	C	Tbl 1.5		
b. Verify welds meet visual acceptance criteria	<input type="checkbox"/>	C	Tbl 1.5		
c. Observe weld repair activities	<input type="checkbox"/>	C	Tbl 1.5		
6. Inspection Tasks Prior to Mechanical Fastening					
a. Verify manufacturer installation instructions available for mechanical fasteners	<input type="checkbox"/>	P	Tbl 1.6		
b. Proper tools available for fastener installation	<input type="checkbox"/>	P	Tbl 1.6		
c. Verify proper storage of mechanical fasteners	<input type="checkbox"/>	P	Tbl 1.6		
7. Inspection Tasks During Mechanical Fastening					
a. Observe fastener spacing and position	<input type="checkbox"/>	P	Tbl 1.7		
b. Verify fasteners are installed in accordance with manufacturer's instructions	<input type="checkbox"/>	P	Tbl 1.7		
8. Inspection Tasks After Mechanical Fastening					
a. Check spacing, type and installation of support fasteners	<input type="checkbox"/>	C	Tbl 1.8		
b. Check spacing, type, and installation of sidelap fasteners	<input type="checkbox"/>	C	Tbl 1.8		
c. Check spacing, type, and installation of perimeter fasteners	<input type="checkbox"/>	C	Tbl 1.8		

d. Verify repair activities	<input type="checkbox"/>	C	Tbl 1.8		
9. Document acceptance or rejection of deck & deck accessories for all phases of construction	<input type="checkbox"/>	C	Tbls 1.1 thru 1.8		

Schedule of Special Inspection Services

Open-Web Steel Joists and Joist Girders

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			Standard	NCBC	
1. Fabricator Certification / Verification of Quality Control Procedures					
a. Verify fabricator qualifications	<input type="checkbox"/>	C		1704.2.5.1	
b. Collect certificate of compliance from steel joist producer at completion of manufacture	<input type="checkbox"/>	C		1704.5, 2207.5	
2. Observe bolted and welded joist end connections	<input type="checkbox"/>	P	SJI-K 5.3, 5.6, SJI-LH/DLH 104.4, 104.7, SJI-JG 1004.4, 1004.6, SJI-CJ 104.4, 104.7	Table (Tbl) 1705.2.3	
3. Verify size, spacing and connection of standard horizontal and diagonal bridging	<input type="checkbox"/>	P	SJI-K 5.4, SJI-LH/DLH 104.5, SJI-JG 1004.5, 1004.9, SJI-CJ 104.5	Tbl 1705.2.3	
4. Verify size, spacing and connection of bridging that differs from the SJI specifications listed by Part 2207.1 of the NCBC	<input type="checkbox"/>	P		Tbl 1705.2.3	

Schedule of Special Inspection Services

Cold-Formed Steel Framing

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			Standard	NCBC	
1. Fabricator Certification / Verification of Quality Control Procedures					
a. Verify fabricator qualifications	<input type="checkbox"/>	C		1704.2.5.1	
b. Collect certificates of compliance from the steel fabricator at completion of fabrication	<input type="checkbox"/>	C		1704.5	
2. For trusses clear spanning 60 feet or more, verify that both temporary and permanent restraints and braces are installed in accordance with the approved truss submittal package.	<input type="checkbox"/>	P		1705.2.4	

Schedule of Special Inspection Services

Concrete Construction

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			Standard _a	NCBC	
1. Inspect reinforcement, including prestressing tendons, and verify placement	<input type="checkbox"/>	P	ACI Ch.20, 25.2, 25.3, 26.6.1-26.6.3	1908.4	
2. Reinforcing Bar Welding:			AWS D1.4		
e. Verify weldability of reinforcing bars other than ASTM A706 and collect reports	<input type="checkbox"/>	P	ACI 26.6.4	1704.5	
f. Inspect single-pass fillet welds $\leq 5/16''$	<input type="checkbox"/>	P	ACI 26.6.4		
g. Inspect all welds other than single-pass fillet welds $\leq 5/16''$	<input type="checkbox"/>	C	ACI 26.6.4		
3. Concrete Anchors:					
a. Inspect anchors cast in concrete	<input type="checkbox"/>	P	ACI 17.8.2		
b. Inspect adhesive anchors installed in hardened concrete with horizontally or upwardly inclined orientations that resist sustained tension loads	<input type="checkbox"/>	C	ACI 17.8.2.4		
c. Inspect adhesive anchors installed in hardened concrete with orientations different from Item 3.b	<input type="checkbox"/>	P	ACI 17.8.2		
d. Inspect mechanical anchors installed in hardened concrete	<input type="checkbox"/>	P	ACI 17.8.2		
4. Collect mix designs and verify the correct mix used during installation	<input type="checkbox"/>	P	ACI Ch19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3	
5. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete	<input type="checkbox"/>	C	ASTM C172, ASTM C31, ACI 26.4, 26.12	1908.10	
6. Inspect concrete and shotcrete placement for proper application techniques	<input type="checkbox"/>	C	ACI 26.5	1908.6, 1908.7, 1908.8	
7. Collect reports of preconstruction tests for shotcrete when preconstruction tests are required by NCBC Section 1908.4	<input type="checkbox"/>	C		1704.5, 1908.5	
8. Verify maintenance of specified curing temperature and techniques	<input type="checkbox"/>	P	ACI 26.5.3-26.5.5	1908.9	
9. Inspections for prestressed concrete					
a. Observe application of prestressing force	<input type="checkbox"/>	C	ACI 26.10		
b. Inspect grouting of bonded prestressing tendons	<input type="checkbox"/>	C	ACI 26.10		
10. Verify concrete strength prior to stressing of PT tendons and prior to removal of shores and forms from PT & mild beams and structural slabs	<input type="checkbox"/>	P	ACI 26.11.2		
11. Inspect erection of precast members	<input type="checkbox"/>	P	ACI 26.8		

12. Inspect formwork for shape, location and dimensions of the concrete member being formed	<input type="checkbox"/>	P	ACI 26.11.1.2(b)		
13. Collect mill test reports for ASTM A615 rebar used by SFRS special moment frames, special structural walls or coupling beams	<input type="checkbox"/>	C	ACI 20.2.2.5	1704.5	

a. References to "ACI" in this table are to the ACI 318-14.

Schedule of Special Inspection Services

Masonry – Level A

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			TMS 402 _a	TMS 602 _a	
1. Prior to construction, verify certificates of compliance used in masonry construction	<input type="checkbox"/>	P	Table 3.1.1	Art. 1.5	

a. References to "TMS402" in this table are to the TMS402/ACI530/ASCE5-13. References to "TMS602" are to TMS602/ACI530.1/ASCE6-13.

Schedule of Special Inspection Services

Masonry – Level B

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			TMS 402 _a	TMS 602 _a	
1. Test & verify slump flow & visual stability index as delivered to site for self-consolidating grout	<input type="checkbox"/>	C	Table (Tbl) 3.1.2	Art. 1.5B.1.b.3	
2. Test & verify f'_m & f'_{AAC} prior to construction	<input type="checkbox"/>	C	Tbl 3.1.2	Art. 1.4B	
3. Verify compliance with the approved submittals	<input type="checkbox"/>	P	Tbl 3.1.2	Art. 1.5	
4. As masonry construction begins, verify that the following are in compliance:					
a. Proportions of site-prepared mortar	<input type="checkbox"/>	P		Art. 2.1, 2.6A	
b. Construction of mortar joints	<input type="checkbox"/>	P		Art. 3.3B	
c. Grade and size of prestressing tendons and anchorages	<input type="checkbox"/>	P		Art. 2.4B, 2.4H	
d. Location of reinforcement, connectors and prestressing tendons and anchorages	<input type="checkbox"/>	P		Art. 3.4, 3.6A	
e. Prestressing technique	<input type="checkbox"/>	P		Art. 3.6B	
f. Properties of thin-bed mortar at AAC masonry	<input type="checkbox"/>	C / P _a		Art. 2.1C	
5. Prior to grouting, verify that the following comply:					
a. Grout space is clean, and cleanouts provided when required	<input type="checkbox"/>	P		Art. 3.2D, 3.2F	
b. Grade, type & size of reinforcement & anchor bolts, & prestressing tendons & anchorage	<input type="checkbox"/>	P	Sec. 6.1	Art. 2.4, 3.4	
c. Placement of reinforcement, connectors, and prestressing tendons and anchorage	<input type="checkbox"/>	P	Sec. 6.1, 6.2.1, 6.2.6, 6.2.7	Art.3.2E, 3.4, 3.6A	
d. Proportions of site-prepared grout and prestressing grout for bonded tendons	<input type="checkbox"/>	P		Art. 2.6B, 2.4G.1.b	
e. Construction and size of mortar joints	<input type="checkbox"/>	P		Art. 3.3B	
6. Verify during construction:					
a. Size and location of structural elements	<input type="checkbox"/>	P		Art. 3.3F	
b. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction	<input type="checkbox"/>	P	Sec. 1.2.1(e), 6.1.4.3, 6.2.1		
c. Welding of reinforcement	<input type="checkbox"/>	C	Sec. 8.1.6.7.2, 9.3.3.4(c), 11.3.3.4(b)		
d. Preparation, construction, and protection of masonry during cold weather (temperature < 40°F) or hot weather (temperature > 90°F)	<input type="checkbox"/>	P		Art. 1.8C, 1.8D	
e. Application & measurement of prestress force	<input type="checkbox"/>	C		Art. 3.6B	
f. Verify placement of grout and prestressing grout for bonded tendons	<input type="checkbox"/>	C		Art. 3.5, 3.6C	

g. Placement of AAC masonry units and construction of thin-bed mortar joints	<input type="checkbox"/>	C / P _b		Art. 3.3B.9, 3.3F.1.b	
7. Observe preparation of grout specimens, mortar specimens, and or prisms	<input type="checkbox"/>	P		Art. 1.4.B.2.a.3, 1.4.B.2.b.3, 1.4.B.2.c.3, 1.4.B.3, 1.4.B.4	

a. References to “TMS402” in this table are to the TMS402/ACI530/ASCE5-13. References to “TMS602” are to TMS602/ACI530.1/ASCE6-13.

b. AAC masonry shall be continuously inspected for the first 5000-square feet and periodically inspected afterwards.

Schedule of Special Inspection Services

Masonry – Level C

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			TMS 402 _a	TMS 602 _a	
1. Test & verify f'_m & f'_{AAC} prior to construction & for every 5,000 square feet during construction	<input type="checkbox"/>	C	Table (Tbl) 3.1.3	Art. 1.5	
2. Test & verify proportions of materials in premixed / preblended mortar, prestressing grout, and grout other than self-consolidating, as delivered to site	<input type="checkbox"/>	C	Tbl 3.1.3		
3. Test & verify slump flow & visual stability index as delivered to site for self-consolidating grout	<input type="checkbox"/>	C	Tbl 3.1.3	Art. 1.5B.1.b.3	
4. Verify compliance with the approved submittals	<input type="checkbox"/>	P	Tbl 3.1.3	Art. 1.5	
5. Verify that the following are in compliance:					
a. Proportions of site-mixed mortar, grout and prestressing grout for bonded tendons	<input type="checkbox"/>	P		Art. 2.1, 2.6A, 2.6B, 2.6C, 2.4G.1.b	
b. Grade, type, & size of reinforcement & anchor bolts, & prestressing tendons & anchorage	<input type="checkbox"/>	P	Sec 6.1	Art. 2.4, 3.4	
c. Placement of masonry units and construction of mortar joints	<input type="checkbox"/>	P		Art. 3.3B	
d. Placement of reinforcement, connectors, and prestressing tendons and anchorages	<input type="checkbox"/>	C	Sec 6.1, 6.2.1, 6.2.6, 6.2.7	Art. 3.2E, 3.4, 3.6A	
e. Grout space is clean, and cleanouts provided when required	<input type="checkbox"/>	C		Art. 3.2D, 3.2F	
f. Placement of grout and prestressing grout for bonded tendons	<input type="checkbox"/>	C		Art. 3.5, 3.6C	
g. Size and location of structural elements	<input type="checkbox"/>	P		Art. 3.3F	
h. Type, size, and location of anchors including other details of anchorage of masonry to structural members, frames, or other construction	<input type="checkbox"/>	C	Sec. 1.2.1(e), 6.1.4.3, 6.2.1		
i. Welding of reinforcement	<input type="checkbox"/>	C	Sec 8.1.6.7.2, 9.3.3.4(c), 11.3.3.4(b)		
j. Preparation, construction, and protection of masonry during cold weather (temperature < 40°F) or hot weather (temperature > 90°F)	<input type="checkbox"/>	P		Art. 1.8C, 1.8D	
k. Application and measurement of prestressing force	<input type="checkbox"/>	C		Art. 3.6B	
l. Placement of AAC masonry units and construction of thin-bed mortar joints	<input type="checkbox"/>	C		Art. 3.3B.9, 3.3F.1.b	

m. Properties of thin-bed mortar for AAC masonry	<input type="checkbox"/>	C		Art. 2.1C.1	
6. Observe preparation of grout specimens, mortar specimens, and or prisms	<input type="checkbox"/>	C		Art. 1.4B.2.a.3, 1.4B.2.b.3, 1.4B.2.c.3, 1.4B.3, 1.4B.4	

a. References to "TMS402" in this table are to the TMS402/ACI530/ASCE5-13. References to "TMS602" are to TMS602/ACI530.1/ASCE6-13.

Schedule of Special Inspection Services

Wood Construction

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			Standard	NCBC	
1. Fabricator certification / verification of quality control procedures for prefabricated wood structural elements and assemblies					
a. Verify fabricator qualifications	<input type="checkbox"/>	C		1704.2.5.1, 1705.5	
b. Collect certificates of compliance from the fabricator at completion of fabrication	<input type="checkbox"/>	C		1704.5, 1705.5	
2. High-load diaphragms				2306.2	
a. Verify that wood structural panel sheathing is the correct grade and thickness	<input type="checkbox"/>	P		1705.5.1	
b. Verify nominal size of framing members and blocking at adjoining panel edges	<input type="checkbox"/>	P	AWC- SDPWS 4.2.7.1.2	1705.5.1	
c. Nail and or staple diameter, length, quantity and spacing comply with the contract documents	<input type="checkbox"/>	P		1705.5.1	
3. For metal-plate-connected trusses clear spanning 60 feet or more, verify that both temporary and permanent restraints and braces are installed in accordance with the approved truss submittal package	<input type="checkbox"/>	P		1705.5.2	

Schedule of Special Inspection Services

Soils

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agents
			Standard	NCBC	
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity	<input type="checkbox"/>	P		1705.6	
2. Verify excavations extend to proper depth and have reached the correct soil material	<input type="checkbox"/>	P		1705.6	
3. Perform classification and testing of compacted fill materials	<input type="checkbox"/>	P		1705.6	
4. Verify that materials used, densities, lift thickness and procedures used during placement and compaction of compacted fill are in accordance with the approved soils report and the construction documents	<input type="checkbox"/>	C		1705.6	
5. Prior to placement of compacted fill, verify that the subgrade has been prepared in accordance with the approved soils report and the construction documents	<input type="checkbox"/>	P		1705.6	

Schedule of Special Inspection Services

Driven Deep Foundations _{a b c}

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agents
			Standard	NCBC	
1. Verify that deep foundation materials, sizes and lengths comply with the construction documents	<input type="checkbox"/>	C		1705.7	
2. Observe pile load tests and determine capacities of test elements ensuring compliance with the construction documents.	<input type="checkbox"/>	C		1705.7	
3. Inspect driving operations and maintain complete and accurate records for each element	<input type="checkbox"/>	C		1705.7	
4. Verify placement, location, plumbness, hammer size and type, blow count per foot of penetration, required penetrations to achieve design capacity, tip and butt elevations, damage and anomalies	<input type="checkbox"/>	C		1705.7	

a. For steel elements, perform additional inspections in accordance with Section 1705.2 of the North Carolina Building Code and the applicable Schedules included herein

b. For concrete elements and concrete-filled elements, perform additional inspections in accordance with Section 1705.3 of the North Carolina Building Code and the applicable Schedules included herein

c. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge and the applicable Schedules included herein

Schedule of Special Inspection Services

Cast-in-Place Deep Foundations ^a

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agents
			Standard	NCBC	
1. Observe drilling operations and maintain complete and accurate records	<input type="checkbox"/>	C		1705.8	
2. Verify deep foundation materials comply with the construction documents	<input type="checkbox"/>	C		1705.8	
3. Verify pile placement, location, plumbness, diameters, bell diameter (if applicable), lengths, rock embedment, end-bearing strata capacity, and anomalies	<input type="checkbox"/>	C		1705.8	
4. Record concrete or grout volumes	<input type="checkbox"/>	C		1705.8	

a. For concrete elements and concrete-filled elements, perform additional inspections in accordance with Section 1705.3 of the North Carolina Building Code and the applicable Schedules included herein

Schedule of Special Inspection Services

Helical Pile Foundations

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agents
			Standard	NCBC	
1. Confirm the following are in compliance with the construction documents prepared by the registered design professional in responsible charge: The installation equipment used, pile dimension, pile placement location, tip elevations, final depth, and final installation torque	<input type="checkbox"/>	C		1705.9	

Schedule of Special Inspection Services

Rammed Aggregate Piers & Stone Columns

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			Standard	NCBC	
1. Verify that the pier installation program and soil parameters are in accordance with the approved soils report and the construction documents	<input type="checkbox"/>	C		1705.1.1	
2. During installation, verify the aggregate properties, type and number of lifts of aggregate, pier size, installed depth, top elevation and applied ram energy	<input type="checkbox"/>	P		1705.1.1	
3. Review the modulus load testing, uplift pull-out testing, bottom or crowd stabilization tests and dynamic cone penetration test results from production pier elements and verify that all comply with the design specifications	<input type="checkbox"/>	C		1705.1.1	

Schedule of Special Inspection Services
Sprayed Fire-Resistant Materials ^a

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			Standard	NCBC	
4. Prior to the application of sprayed on fire resistant materials, verify structural member surfaces are prepared in accordance with the approved fire-resistance design and the written instructions of the approved manufacturer	<input type="checkbox"/>	P		1705.14.2	
5. During the application of sprayed on fire resistant materials, verify that the following are in compliance:					
a. Substrate has minimum ambient temperature before and after application as specified by the fire resistance design and approved manufacturer's written instructions	<input type="checkbox"/>	P		1705.14.3	
b. Work area properly ventilated during and after application				1705.14.3	
c. Thickness of sprayed on material conforms with the approved fire resistance design and NCBC minimums	<input type="checkbox"/>	P		1705.14.4, 1705.14.4.4, 1705.14.4.5, 1705.14.4.6, 1705.14.4.7, 1705.14.4.8, 1705.14.4.9	
d. The density of sprayed on materials is not less than the requirements of the approved fire-resistance design	<input type="checkbox"/>	P		1705.14.5	
e. The cohesive / adhesive bond strength is not less than 150 pounds per square foot	<input type="checkbox"/>	P		1705.14.6	

a. Inspections shall be performed after the rough installation of electrical, automatic sprinkler, mechanical and plumbing systems, and suspension systems for ceilings.

Schedule of Special Inspection Services

Mastic and Intumescent Fire-Resistant Coatings

Inspection Task	Task Req'd	Freq(a)	Reference for Criteria		Agents
			Standard	NCBC	
1. Prior to application, verify preparation of substrate and suitability of primers, if present, are in accordance with approved fire resistance design, approved manufacturer's written instructions, and the requirements of AWCI 12-B	<input type="checkbox"/>	P	AWCI 12-B	1705.15	
2. Observe the application of fire-resistant coatings ensuring compliance with approved fire resistance design, approved manufacturer's written instructions, and the requirements of AWCI 12-B	<input type="checkbox"/>	P	AWCI 12-B	1705.15	
3. After adequate drying but prior to the application of any topcoat, measure the final mastic / intumescent material thickness ensuring compliance with the construction documents and approved material / installation submittals. Measurements must consider the thickness of primers or other existing coatings on the surface of the substrate.	<input type="checkbox"/>	P	AWCI 12-B	1705.15	

Schedule of Special Inspection Services
Exterior Insulation and Finish Systems (EIFS)

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			Standard	NCBC	
1. Verify that EIFS is installed in conformance with project specifications	<input type="checkbox"/>	P		1705.16	
2. If a water resistive barrier coating complying with ASTM E2570 is installed over a sheathing substrate, verify that the water-barrier and drainage strip are installed in conformance with the project specifications.	<input type="checkbox"/>	P		1705.16.1	

Schedule of Special Inspection Services

Fire-resistant Penetrations and Joints ^a

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			Standard	NCBC	
1. Inspect through-penetration firestop systems at fire walls, fire barriers, smoke barriers and fire partition walls in accordance with ASTM E2174	<input type="checkbox"/>	P		1705.17.1, 714.3.1.2	
2. Inspect penetration firestop systems at penetrations through membranes that are part of a horizontal assembly in accordance with ASTM E2174	<input type="checkbox"/>	P		1705.17.1, 714.4.2	
3. Inspect fire-resistant joint systems in accordance with ASTM 2393	<input type="checkbox"/>	P		1705.17.2, 715.3, 715.4	

a. The inspection of fire-resistant penetrations and joints applies only to high-rise buildings or buildings assigned to Risk Category III or IV.

Schedule of Special Inspection Services

Retaining Walls Exceeding 5 Feet _{a b c d}

Inspection Task	Task Req'd	Freq(a)	Reference for Criteria		Agent
			Standard	NCBC	
1. Foundation support system is adequate for the intended site conditions	<input type="checkbox"/>	P		1807.2.5.1	
2. Verify that retaining wall materials and installations are in compliance with the construction documents	<input type="checkbox"/>	P		1807.2.5.2	
3. Verify that actual soil conditions are similar to those anticipated by the approved engineered design	<input type="checkbox"/>	P		1807.2.5.3	
4. Examination of backfill materials for compliance with the approved specifications	<input type="checkbox"/>	P		1807.2.5.4	
5. Confirm that all subsoil drainage piping is undamaged, drains freely to the designated outlet or structure, and has been installed per the approved engineered design	<input type="checkbox"/>	P		1807.2.5.4	

- a. All retaining walls exceeding 5 feet in height require special inspections.
- b. For concrete retaining walls and footings, perform additional inspections in accordance with Section 1705.3 of the North Carolina Building Code and the applicable Schedules included herein
- c. For masonry retaining walls, perform additional inspections in accordance with Section 1705.4 of the North Carolina Building Code and the applicable Schedules included herein
- d. For soils, perform additional inspections in accordance with Section 1705.6 of the North Carolina Building Code and the applicable Schedules included herein

Schedule of Special Inspection Services
Smoke Control

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			Standard	NCBC	
1. During erection of ductwork and prior to concealment, perform leakage testing and record device location(s)	<input type="checkbox"/>	P		1705.18.1.1	
2. Upon completion of smoke control system, perform pressure difference testing, flow measurements, and detection and control verification	<input type="checkbox"/>	P		1705.18.1.2	

Schedule of Special Inspection Services
Special Inspections for Wind Resistance

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			Standard	NCBC	
1. Prior to any work taking place, each contractor responsible for the construction of a wind-resisting system or component shall submit a written statement of contractor responsibility	<input type="checkbox"/>	C		1704.4	
2. Structural Wood					
a. Verify field gluing operations pertinent to the main wind force-resisting system	<input type="checkbox"/>	C		1705.11.1	
b. Inspect nailing, anchoring, and fastening of components within the main windforce-resisting system including shear walls, diaphragms, drag struts, braces & hold-downs	<input type="checkbox"/>	P		1705.11.1	
3. Cold-Formed Steel Light Frame Construction					
a. Inspect welding operations at elements of the main windforce-resisting system	<input type="checkbox"/>	P		1705.11.2	
b. Inspect screw attachment, bolting, anchoring, and fastening of elements within the main windforce-resisting system including shear walls, braces, diaphragms collectors, drag struts and hold-downs	<input type="checkbox"/>	P		1705.11.2	
4. Wind-resisting components					
a. Inspect the fastening of roof covering, roof deck and supporting roof framing connections	<input type="checkbox"/>	P		1705.11.3.1	
b. Inspect the fastening of exterior wall coverings & the wall connections to the roof / floor diaphragms & framing members	<input type="checkbox"/>	P		1705.11.3.2	

Structural Wood and Cold-Formed Steel Light-Frame Construction Main Wind-Force Resisting System(s) Subject to Special Inspections:

Roof Cladding Components and Connections Subject to Special Inspections:

Wall Cladding Components and Connections Subject to Special Inspections:

Schedule of Special Inspection Services
Special Inspections for Seismic Resistance

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			Standard	NCBC	
1. Prior to any work taking place, each contractor responsible for the construction of a seismic-resisting system or component shall submit a written statement of contractor responsibility	<input type="checkbox"/>	C		1704.4	
2. Structural Steel (see following tables)	<input type="checkbox"/>	O/C		1705.12.1	
3. Structural Wood					
a. Verify field gluing operations of elements of the seismic force-resisting system (SFRS)	<input type="checkbox"/>	C		1705.12.2.1	
b. Inspect nailing, bolting, anchoring & other fastening at elements of SFRS	<input type="checkbox"/>	P		1705.12.2.2	
4. Cold-Formed Steel Light Frame Construction					
a. Verify welding operations of elements of the SFRS	<input type="checkbox"/>	P		1705.12.3.1	
b. Inspect screw attachment, bolting, anchoring, & fastening used by SFRS	<input type="checkbox"/>	P		1705.12.3.2	
c. Inspect special bolted moment frames	<input type="checkbox"/>	P		1705.12.9	
5. Verify erection & fastening of exterior cladding, non-bearing walls and veneer	<input type="checkbox"/>	P		1705.12.5	
6. Confirm anchorage of access floors	<input type="checkbox"/>	P		1705.12.5.1	
7. Confirm anchorage of storage racks	<input type="checkbox"/>	P		1705.12.7	
8. Collect certificates of compliance for qualifying equipment, supports, attachments & components; verify correctness of labels & installation	<input type="checkbox"/>	C	ASCE7 13.2.2, 13.2.1	1705.12.4, 1705.13.2	
9. Plumbing, Mechanical, Electrical Components					
a. Verify anchorage of elec. equip for emergency & standby power systems	<input type="checkbox"/>	P		1705.12.6	
b. Verify installation & anchorage of pipe & duct systems carrying	<input type="checkbox"/>	P		1705.12.6	

hazardous materials & associated mech units					
c. Confirm the installation & anchorage of vibration isolation systems with nominal clearances $\leq \frac{1}{4}$ "	<input type="checkbox"/>	P		1705.12.6	
d. Inspect & test seismic isolation systems at seismic isolated structures	<input type="checkbox"/>	P	ASCE7 17.8	1705.12.8, 1705.13.4	

Seismic-Force Resisting System(s) subject to Special Inspections:

Seismic-Resisting Components and Connections Subject to Special Inspections:

Schedule of Special Inspection Services
Special Inspections for Seismic Resistance
Structural Steel & High-Strength Bolting

Inspection Task	Task Req'd	Freq _a	Reference for Criteria		Agent
			AISC 341	NCBC	
1. Inspections Prior to Bolting					
a. Proper fasteners selected for the joint detail	<input type="checkbox"/>	O	Table J7-1		
b. Correct bolting procedure selected for joints	<input type="checkbox"/>	O	Table J7-1		
c. Faying surface condition, hole preparation, etc. meet applicable requirements for connecting elements		O	Table J7-1		
d. Pre-installation verification testing by installation personnel observed for fastener assemblies and methods used	<input type="checkbox"/>	O	Table J7-1		
e. Fastener components are stored properly	<input type="checkbox"/>	O	Table J7-1		
2. Inspection Tasks During Bolting					
a. Fastener assemblies placed in all holes and washers are positioned as required	<input type="checkbox"/>	O	Table J7-2		
b. Joint brought to "snug tight" prior to pretensioning operation	<input type="checkbox"/>	O	Table J7-2		
c. Fastener component not turned by the wrench prevented from rotating	<input type="checkbox"/>	O	Table J7-2		
d. Bolt pretensioning progresses systematically from the most rigid point toward the free edge	<input type="checkbox"/>	O	Table J7-2		
3. After bolting activities are complete, document accepted and rejected connections	<input type="checkbox"/>	C	Table J7-3		

4. Verify contour, finish and dimensional tolerances of reduced beam sections (RBS)	<input type="checkbox"/>	C	Table J8-1		
5. Ensure no holes or unapproved attachments made by fabricator or erector in protected zone	<input type="checkbox"/>	C	Table J8-1		
6. Inspection of Composite Structures Prior to Concrete Placement					
a. Verify reinforcing steel type and grade	<input type="checkbox"/>	O	Table J9-1		
b. Determine carbon equivalent for reinforcing steel other than ASTM A706	<input type="checkbox"/>	O	Table J9-1		
c. Verify reinforcing size, spacing & orientation	<input type="checkbox"/>	O	Table J9-1		
d. Verify reinforcing steel not re-bent in field	<input type="checkbox"/>	O	Table J9-1		
e. Reinforcing tied & supported as required	<input type="checkbox"/>	O	Table J9-1		
d. Required reinforcing clearances are provided	<input type="checkbox"/>	O	Table J9-1		
e. Composite member has required size	<input type="checkbox"/>	O	Table J9-1		
7. Inspection of Composite Structures During Concrete Placement					
a. Verify mix design, compressive strength, maximum aggregate size, maximum slump	<input type="checkbox"/>	O	Table J9-2		
b. Limits on water added at the truck or pump	<input type="checkbox"/>	O	Table J9-2		
c. Proper placement to limit segregation	<input type="checkbox"/>	O	Table J9-2		
8. After concrete placement of composite structures, verify specified $f'c$ achieved at specified age	<input type="checkbox"/>	C	Table J9-3		

Schedule of Special Inspection Services
Special Inspections for Seismic Resistance
Welding of Structural Steel

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			AISC 341	NCBC	
1. Visual Inspections Prior to Welding					
a. Verify type & grade of connection materials	<input type="checkbox"/>	O	Table J6-1		
b. Welder identification system established	<input type="checkbox"/>	O	Table J6-1		
c. Fit-up & joint geometry of groove welds <ul style="list-style-type: none"> • Joint preparation • Dimensions including alignment, root opening, root face & bevel • Cleanliness of steel surfaces • Tack weld quality & location • Backing type & fit 		O	Table J6-1		
d. Verify configuration & finish of access holes	<input type="checkbox"/>	O	Table J6-1		
e. Inspect fit-up of fillet welds including dimensions, alignment, root gaps, cleanliness of steel surfaces, tack weld quality, and tack weld location	<input type="checkbox"/>	O	Table J6-1		
2. Visual Inspection Tasks During Welding					
a. Verify welding procedure specification (WPS) followed: Settings on welding equipment, travel speed, welding materials selected, shielding gas type & flow rate, preheat applied, interpass temperature maintained, weld position (F, V, H, OH), and intermix of filler metals avoided unless approved by engineer of record	<input type="checkbox"/>	O	Table J6-2		
b. Verify welder qualifications	<input type="checkbox"/>	O	Table J6-2		
c. Control & handling of welding consumables, including packaging & exposure	<input type="checkbox"/>	O	Table J6-2		
d. Environmental conditions, including wind speed, precipitation & temperature, within defined limits	<input type="checkbox"/>	O	Table J6-2		
e. Verify welding techniques: Interpass & final cleaning, each pass within profile limitations, and each pass meets quality requirements	<input type="checkbox"/>	O	Table J6-2		
f. No welding over cracked tack welds	<input type="checkbox"/>	O	Table J6-2		
3. Visual Inspections Tasks After Welding					
g. Verify welds are cleaned	<input type="checkbox"/>	O	Table J6-3		
h. Confirm correct weld size, length & location	<input type="checkbox"/>	C	Table J6-3		
i. Welds meet visual acceptance criteria: Crack prohibition, weld/base-metal fusion, crater cross section, weld profiles and size, undercut & porosity	<input type="checkbox"/>	C	Table J6-3		
j. Confirm placement of reinforcing or contouring fillet welds	<input type="checkbox"/>	C	Table J6-3		

k. Verify backing removed, weld tabs removed & finished, and fillet welds added	<input type="checkbox"/>	C	Table J6-3		
l. Observe repair activities	<input type="checkbox"/>	C	Table J6-3		

Schedule of Special Inspection Services

Special Inspections for Seismic Resistance**Non-Destructive Testing (NDT) of Welded Joints**

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			AISC 341	Standard	
1. Web base metal tested for cracks using magnetic particle testing (MT) when doubler plates, continuity plates or stiffeners are welded in the k-area. MT inspection shall include k-area metal within 3" of the weld and be performed \geq 48hours	<input type="checkbox"/>	C	Part J6.2a		
2. Inspect complete Joint Penetration (CJP) Groove Welds in materials \geq 5/16" thick					
a. Ultrasonic testing (UT) performed on 100% of CJP groove welds except for ordinary moment frames for which only <i>demand critical welds</i> need be tested	<input type="checkbox"/>	C	Part J6.2b, J6.2g	AWS D1.1 Table 6.2	
b. MT performed on 25% of beam-to-column CJP groove welds except for ordinary moment frames for which only <i>demand critical welds</i> need be tested	<input type="checkbox"/>	P	Part J6.2b, J.6.2h		
c. At the end of welds where weld tabs have been removed (excluding continuity plate weld tabs), MT performed on 100% of beam-to-column joints receiving UT in accordance with Item 2.a above	<input type="checkbox"/>	C	Part J6.2f, J.6.2h		
3. UT check for base metal lamellar tearing & laminations at base metal thickness \geq 1½" loaded in tension in through-thickness direction in tee & corner joints where connected material is \geq ¾" and contains CJP groove welds	<input type="checkbox"/>	C	Part J6.2c	AWS D1.1 Table 6.2	
4. At welded splices & connections, MT or penetrant testing performed at thermally cut surfaces of beam copes and access holes when flange thickness > 1½" (rolled shapes) or web thickness > 1½" (built-up shape)	<input type="checkbox"/>	C	Part J6.2d		
5. MT performed on welds & adjacent areas of reduced beam section (RBS) cut surface repaired by welding or on base metal of RBS cut surfaces if a sharp notch was removed by grinding	<input type="checkbox"/>	C	Part J6.2e		

Schedule of Special Inspection Services
Special Inspections for Seismic Resistance
Steel H-Piles

Inspection Task	Task Req'd	Freq	Reference for Criteria		Agent
			AISC 341	NCBC	
1. Ensure no holes or unapproved attachments made by responsible contractor in protected zone	<input type="checkbox"/>	C	Table J10-1		