Statement of Special Inspections

Project: COA Health Sciences Building Location: Elizabeth City, NC Owner's Representative: Owner's Address:

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	Lynch Mykins Structural Engineers	alleny	04/24/2024
	(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 State Construction Office 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 State Construction Office and the Designers of Record. The Special Inspections program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the State Construction Office, Owner, and the Designers of Record.

Interim Report Frequency: Monthly

A Final Report of Special Inspections documenting completion of all required Special Inspections, testing, and correction of any discrepancies should be submitted prior to issuance of a Certificate of Use and Occupancy.

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.

- Structural Steel & High Strength Bolting **Helical Pile Foundations** \boxtimes Welding of Structural Steel Rammed Aggregate Piers & Stone Columns Cold-Formed Steel Deck \boxtimes Sprayed Fire-Resistant Material Open-Web Steel Joists & Joist Girders Mastic & Intumescent Fire-Resistant Coatings Cold-Formed Steel Framing **Exterior Insulation & Finish System** Concrete Construction \boxtimes **Fire-Resistant Penetrations & Joints** Masonry Construction b Smoke Control Wood Construction Retaining Wall & Systems > 5 Feet Soils Special Inspections for Wind Resistance **Driven Deep Foundations** Special Inspections for Seismic Resistance **Cast-in-Place Deep Foundations**
- 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 those 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)	TBD	TBD
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 State Construction Office, prior to commencing work.

Seismic Design Category:	□ A ⊠ B □ C	□ D	
Basic Wind Speed (Vasd):	90-109mph	🛛 110-119mph	☐ ≥120mph
Wind Exposure Category:	⊠ B □ C □ D		

Schedule of Special Inspection Services Structural Steel and High-Strength Bolting

	Inspection Task	Task	Freq	Reference	erence for Criteria	
		Req'd		AISC 360	NCBC	_
1.	Fabricator Certification / Verification of Quality Control Procedures					
	a. Verify fabricator qualifications		С		1704.2.5.1	
-	b. Review material test reports & certifications		С	N5.2		
	c. Collect certificates of compliance from the		С		1704.5	
	steel fabricator at completion of fabrication					
2.	Inspections Prior to High-Strength Bolting at Pretensioned and Slip-Critical Joints					
	 Collect manufacturer's certifications for fastener materials 		С	Table (Tbl) N5.6-1		
	b. Fasteners are marked per ASTM		Р	Tbl N5.6-1		
	requirements					
	c. Ensure correct fasteners and bolting procedures are selected for joint details		P	Tbl N5.6-1		
	d. Verify connecting elements, including the		Р	Tbl N5.6-1		
	preparation when specified comply with the					
	construction documents					
	e. Observe and document pre-installation		Р	Tbl N5.6-1		
	verification testing by installation personal for					
	fastener assemblies and methods		D			
	components		Г	101103.0-1		
3.	Inspections During High-Strength Bolting at					
	Pretensioned and Slip-Critical Joints					
	a. Ensure correct fastener assemblies placed in		P	Tbl N5.6-2		
	all holes and washers, when specified, are					
	b Verify joint brought to snug-tight condition		P	ThI N5 6-2		
	prior to pretensioning		•	151110.0 2		
	c. Verify fastener components not turned by the		Р	Tbl N5.6-2		
	d. Ensure fasteners are pretensioned in		Р	Tbl N5.6-2		
	accordance with RCSC, progressing from the		-			
	most rigid point towards free edges					
4.	Document acceptance or rejection of bolted		С	Tbl N5.6-3		
	connections after high-strength boiling is					
5.	Structural Details					
	a. Verify diameter, grade, type and length of		Р	N5.7		
	anchor rods and other embedded items		•			
	supporting structural steel					
	b. Inspection of fabricated assemblies & erected		P	N5.7		
	steel framing verifying compliance with the					
6.	Composite Construction					
<u> </u>	a. Verify placement & installation of steel deck	M	P	Tbl N6 1		
	b Observe placement and installation of steel		•	Thi N6 1		
	headed stud anchors					
	c. Document acceptance or rejection of		Р	Tbl N6.1		
	composite construction elements					

Schedule of Special Inspection Services Welding of Structural Steel

Inspection Task		Inspection Task	Task	ask Freq Code Re	eference	Agent	
		·	Req'd	-	AISC 360	NCBC	
1.	Ins	pections Prior to Welding	-		N5.4		
	a.	Collect & review welding procedure specification (WPS) and verify manufacturer certifications for welding consumables		С	Table (Tbl) N5.4-1		
	b.	Confirm weld material type & grade		Р	Tbl N5.4-1		
	C.	Confirm method of welder identification		Р	Tbl N5.4-1		
	d.	Inspection of fit-up for groove & fillet welds including access hole configuration & finish		Р	Tbl N5.4-1		
2.	Ins	pections During Welding			N5.4		
	a.	Verify welder qualifications		Р	Tbl N5.4-2		
	b.	Verify proper control and handling of welding consumables		Р	Tbl N5.4-2		
	C.	Monitor environmental conditions		Р	Tbl N5.4-2		
	d.	Monitor proper implementation of WPS		Р	Tbl N5.4-2		
	e.	Inspection of welding techniques including no welding over cracked tack welds		Р	Tbl N5.4-2		
3.	Ins	pections After Welding			N5.4, N5.5		
	a.	Verify welds have been cleaned		Р	Tbl N5.4-3		
	b.	Confirm the installed size, length and location of welds matches the contract documents		С	Tbl N5.4-3		
	C.	Verify welds meet visual acceptance criteria		С	Tbl N5.4-3		
	d.	Confirm arc strikes comply with Part 5.28 of AWS D1.1		С	Tbl N5.4-3		
	e.	Visually observe web k-area for cracks within 3" of welded doubler plates, continuity plates and stiffeners		С	Tbl N5.4-3		
	f.	Backing and weld tabs removed per contract documents		С	Tbl N5.4-3		
	g.	Observe and inspect weld repair activities	\boxtimes	С	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 subject to transversely applied tension loading		С	N.5.5b, N5.5e		
	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		Ρ	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 tf > $2^{"}$ and built-up shape with tw > $2^{"}$	⊠	С	N5.5c		
	k.	Radiographic or ultrasonic inspection at joints subject to fatigue		С	N5.5d, Tbl A-3.1		
	I.	Document acceptance / rejection of welded joints and members		С	Tbl N5.4-3, N5.5g		

Schedule of Special Inspection Services Cold-Formed Steel Deck

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

Schedule of Special Inspection Services Open-Web Steel Joists and Joist Girders

	Inspection Task	Task	Freq	Reference	e for Criteria	Agent
		Req'd		Standard	NCBC	
1.	Fabricator Certification / Verification of Quality Control Procedures					
	a. Verify fabricator qualifications		С		1704.2.5.1	
	 b. Collect certificate of compliance from steel joist producer at completion of manufacture 		С		1704.5, 2207.5	
2.	Observe bolted and welded joist end connections		Ρ	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	X	Ρ	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		Р		Tbl 1705.2.3	

Schedule of Special Inspection Services Concrete Construction

	Inspection Task	Task	Freq	Reference	for Criteria	Agent
	· · · · · · · · · · · · · · · · · · ·	Req'd	-	Standard _a	NCBC	
1.	Inspect reinforcement, including prestressing tendons, and verify placement	×	Р	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		Р	ACI 26.6.4	1704.5	
	f. Inspect single-pass fillet welds ≤ 5/16"		P	ACI 26.6.4		
	g. Inspect all welds other than single-pass fillet welds ≤ 5/16"		С	ACI 26.6.4		
3.	Concrete Anchors:					
	a. Inspect anchors cast in concrete		Р	ACI 17.8.2		
	 Inspect adhesive anchors installed in hardened concrete with horizontally or upwardly inclined orientations that resist sustained tension loads 	⊠	С	ACI 17.8.2.4		
	 Inspect adhesive anchors installed in hardened concrete with orientations different from Item 3.b 		Р	ACI 17.8.2		
	 Inspect mechanical anchors installed in hardened concrete 		Р	ACI 17.8.2		
4.	Collect mix designs and verify the correct mix used during installation		Р	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		С	ASTM C172, ASTM C31, ACI 26.4, 26.12	1908.10	
6.	Inspect concrete and shotcrete placement for proper application techniques		С	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		С		1704.5, 1908.5	
8.	Verify maintenance of specified curing temperature and techniques		Р	ACI 26.5.3- 26.5.5	1908.9	
9.	Inspections for prestressed concrete					
	a. Upserve application of prestressing force			ACI 26.10		
	b. Inspect grouting of bonded prestressing tendons		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		Р	ACI 26.11.2		
11.	Inspect erection of precast members		P	ACI 26.8		
12.	Inspect formwork for shape, location and dimensions of the concrete member being formed		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		С	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 B

	Inspection Task	Task	Task Freq	Reference	eference for Criteria	
		Req'd		TMS 402 _a	TMS 602 _a	
1.	Test & verify slump flow & visual stability index as delivered to site for self-consolidating grout		С	Table (Tbl) 3.1.2	Art. 1.5B.1.b.3	
2.	Test & verify f'm & f'AAC prior to construction		С	Tbl 3.1.2	Art. 1.4B	
3.	Verify compliance with the approved submittals		Р	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		Р		Art. 2.1, 2.6A	
	b. Construction of mortar joints		P		Art. 3.3B	
	 Grade and size of prestressing tendons and anchorages 		Р		Art. 2.4B, 2.4H	
	d. Location of reinforcement, connectors and prestressing tendons and anchorages		P		Art. 3.4, 3.6A	
	e. Prestressing technique		P		Art. 3.6B	
	f. Properties of thin-bed mortar at AAC masonry		C / P _b		Art. 2.1C	
5.	Prior to grouting, verify that the following comply:					
	a. Grout space is clean, and cleanouts provided when required		Р		Art. 3.2D, 3.2F	
	b. Grade, type & size of reinforcement & anchor bolts, & prestressing tendons & anchorage		Р	Sec. 6.1	Art. 2.4, 3.4	
	c. Placement of reinforcement, connectors, and prestressing tendons and anchorage		Р	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		Р		Art. 2.6B, 2.4G.1.b	
	e. Construction and size of mortar joints		Р		Art. 3.3B	
6.	Verify during construction:					
	a. Size and location of structural elements		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		Ρ	Sec. 1.2.1(e), 6.1.4.3, 6.2.1		
	c. Welding of reinforcement		С	Sec. 8.1.6.7.2, 9.3.3.4(c), 11.3.3.4(b)		
	 Preparation, construction, and protection of masonry during cold weather (temperature < 40°F) or hot weather (temperature > 90°F) 		Р		Art. 1.8C, 1.8D	
	e. Application & measurement of prestress force		C		Art. 3.6B	
	f. Verify placement of grout and prestressing grout for bonded tendons		С		Art. 3.5, 3.6C	
	g. Placement of AAC masonry units and construction of thin-bed mortar joints		C / P _b		Art. 3.3B.9, 3.3F.1.b	
7.	Observe preparation of grout specimens, mortar specimens, and or prisms		Р		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 **Soils**

Inspection Task		Task	Freq	Reference	for Criteria	Agents
		Req'd		Standard	NCBC	
1.	Verify materials below shallow foundations are adequate to achieve the design bearing capacity		Р		1705.6	
2.	Verify excavations extend to proper depth and have reached the correct soil material		Р		1705.6	
3.	Perform classification and testing of compacted fill materials		Р		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	X	С		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		Р		1705.6	

Schedule of Special Inspection Services **Sprayed Fire-Resistant Materials** _a

	Inspection Task	Task	Freq	Reference	for Criteria	Agent
		Req'd		Standard	NCBC	
1.	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	⊠	Ρ		1705.14.2	
2.	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		Р		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	×	Ρ		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		Р		1705.14.5	
	e. The cohesive / adhesive bond strength is not less than 150 pounds per square foot		Р		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	Freq _(a)	Reference	for Criteria	Agents
		Req'd		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	X	Ρ	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	×	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.		Р	AWCI 12-B	1705.15	

Schedule of Special Inspection Services **Fire-resistant Penetrations and Joints** a

Inspection Task		Task	Freq	Reference for Criteria		Agent
		Req'd		Standard	NCBC	
1.	Inspect through-penetration firestop systems at fire walls, fire barriers, smoke barriers and fire partition walls in accordance with ASTM E2174		Р		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		Р		1705.17.1, 714.4.2	
3.	Inspect fire-resistant joint systems in accordance with ASTM 2393	\boxtimes	Р		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 **Smoke Control**

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