

## Structural Statement of Special Inspections

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Project: *Portland Public Library, Burbank Branch*

Location: *377 Stevens Ave, Portland, ME 04103*

Owner: *City of Portland, Maine*

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This *Statement of Special Inspections* encompass the following discipline: **Structural**

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Structural Special Inspection Coordinator (SSIC) and the identity of other approved agencies to be retained for conducting these inspections and tests.

The Structural Special Inspection Coordinator shall keep records of all Structural inspections and shall furnish inspection reports to the Building Code Official (BCO) and the Structural Registered Design Professional in Responsible Charge (SRDP). 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 Building Official and the Structural Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Structural Registered Design Professional in Responsible Charge at an interval determined by the SSIC and the BCO.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted to the BCO 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.

Interim Report Frequency: *X Upon request of Building Official* \_\_\_\_\_ or  per attached schedule.

Prepared by:

*Carolyn C. Bird, P.E.*

(type or print name of the Structural Registered Design Professional in Responsible Charge)

*Carolyn C. Bird* \_\_\_\_\_  
Signature Date



Owner's Authorization:

Building Code Official's Acceptance:

\_\_\_\_\_  
Signature Date

\_\_\_\_\_  
Signature Date

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## Structural Statement of Special Inspections (Continued)

### List of Agents

Project: *Portland Public Library, Burbank Branch*

Location: *377 Stevens Ave, Portland, ME 04103*

Owner: *City of Portland, ME*

This Statement of Special Inspections encompass the following discipline: **Structural**

(Note: Statement of Special Inspections for other disciplines may be included under a separate cover)

This Statement of Special Inspections includes the following building systems:

- Soils and Foundations
- Cast-in-Place Concrete
- Precast Concrete System
- Masonry Systems
- Structural Steel
- Wood Construction
- Special Cases

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. STRUCTURAL Special Inspections Coordinator (SSIC)	<i>Casco Bay Engineering</i>	<i>424 Fore Street Portland, Maine 04101 207-842-2800 <a href="mailto:carolynb@cascobayengineering.com">carolynb@cascobayengineering.com</a></i>
2. Special Inspector (SI 1)	<i>S.W. Cole Engineering</i>	<i>286 Portland Road Gray, ME 04039 207-657-2866  Timothy Boyce, P.E.</i>
3. Special Inspector (SI 2)		
4. Testing Agency (TA 1)	<i>S.W. Cole Engineering</i>	<i>286 Portland Road Gray, Maine 04039 207-657-2866  Timothy Boyce, P.E.</i>
5. Testing Agency (TA 2)		
6. Other (O1)		

Note: The inspectors and testing agencies shall be engaged by the Owner or 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 Building Official, prior to commencing work.

## Structural Statement of Special Inspections (Continued)

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### Final Report of Special Inspections (SSIC/SI 1)

[To be completed by the Structural Special Inspections Coordinator (SSIC/SI 1). Note that all Agent's Final Reports must be received prior to issuance.]

Project: *Portland Public Library, Burbank Branch*  
Location: *377 Stevens Ave, Portland, ME 04103*  
Owner: *City of Portland, Maine*

Architect of Record: *Scott Simons* *Scott Simons Architects*  
*(name)* *(firm)*

Structural Registered Design  
Professional in Responsible Charge: *Carolyn C. Bird, P.E.* *Casco Bay Engineering*  
*(name)* *(firm)*

To the best of my information, knowledge and belief, the Special Inspections required for this project, and itemized in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved.

Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,  
Structural Special Inspection Coordinator

*Carolyn C. Bird, P.E.*  
*(Type or print name)*

*Casco Bay Engineering*  
*(Firm Name)*

\_\_\_\_\_  
Signature Date



## Structural Statement of Special Inspections (Continued)

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### Special Inspector's/Agent's Final Report

Project: *Portland Public Library, Burbank Branch*

Special Inspector or

Agent:

\_\_\_\_\_

*(name)*

\_\_\_\_\_

*(firm)*

Designation:

To the best of my information, knowledge and belief, the Special Inspections or testing required for this project, and designated for this Inspector/Agent in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved.

Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,  
Special Inspector or Agent:

\_\_\_\_\_

(Type or print name)

\_\_\_\_\_

Signature

\_\_\_\_\_

Date

\_\_\_\_\_  
**Licensed Professional Seal or  
Certification Number**

## Structural Schedule of Special Inspections

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### Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided to the Special Inspector for their records. *NOTE VERIFICATION THAT QUALIFIED INDIVIDUALS ARE AVAILABLE TO PERFORM STIPULATED TESTING AND/OR INSPECTION SHOULD BE PROVIDED PRIOR TO SUBMITTING STATEMENT. AGENT QUALIFICATIONS IN SCHEDULE ARE SUGGESTIONS ONLY; FINAL QUALIFICATIONS ARE SUBJECT TO THE DISCRETION OF THE REGISTERED DESIGN PROFESSIONAL PREPARING THE SCHEDULE.*

#### Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge or Special Inspector of Record deems it appropriate that the individual performing a stipulated test or inspection have a specific certification, license or experience as indicated below, such requirement shall be listed below and shall be clearly identified within the schedule under the Agent Qualification Designation.

PE/SE	Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE	Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT	Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

#### Experienced Testing Technician

ETT	Experienced Testing Technician – An Experienced Testing Technician with a minimum 5 years experience with the stipulated test or inspection
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#### American Concrete Institute (ACI) Certification

ACI-CFTT	Concrete Field Testing Technician – Grade 1
ACI-CCI	Concrete Construction Inspector
ACI-LTT	Laboratory Testing Technician – Grade 1&2
ACI-STT	Strength Testing Technician

#### American Welding Society (AWS) Certification

AWS-CWI	Certified Welding Inspector
AWS/AISC-SSI	Certified Structural Steel Inspector

#### American Society of Non-Destructive Testing (ASNT) Certification

ASNT	Non-Destructive Testing Technician – Level II or III.
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#### International Code Council (ICC) Certification

ICC-SMSI	Structural Masonry Special Inspector
ICC-SWSI	Structural Steel and Welding Special Inspector
ICC-SFSI	Spray-Applied Fireproofing Special Inspector
ICC-PCSI	Prestressed Concrete Special Inspector
ICC-RCSI	Reinforced Concrete Special Inspector

#### National Institute for Certification in Engineering Technologies (NICET)

NICET-CT	Concrete Technician – Levels I, II, III & IV
NICET-ST	Soils Technician - Levels I, II, III & IV
NICET-GET	Geotechnical Engineering Technician - Levels I, II, III & IV

#### Other

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**Structural Schedule of Special Inspections**  
**SOILS & FOUNDATION CONSTRUCTION**

VERIFICATION AND INSPECTION	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
<b>IBC Section 1704.7, 1704.8, 1704.9</b>						
1. Verify existing soil conditions, fill placement and load bearing requirements						
a. Verify soils below footings are adequate to achieve design bearing pressure of 2,000 psf.	Y	P	Table IBC 1704.7	SI1	PE/GE	
b. Verify excavations are extended to proper depth and have reached proper material	Y	P	Table IBC 1704.7	SI1	PE/GE	
c. Prior to placement of foundations, observe subgrade and verify that site has been prepared properly.	Y	p	Table IBC 1704.7	SI1/TA1	PE/GE	
2. Pile foundations:	N					
a. Observe and record procedures for static load testing of piles.		C	IBC 1704.8		PE/GE, EIT or ETT	
b. Observe and record procedures for dynamic load testing of piles.		C			PE/GE, EIT or ETT	
c. Record installation of each pile and results of load test. Include cutoff and tip elevations of each pile relative to permanent reference.		C			PE/GE, EIT or ETT	
d. Test welded splices of steel piles		C	AWS D1.1		AWS-CWI	
3. Pier foundations: Verify installation of pier foundations for buildings assigned to Seismic Design Category C, D, E or F.	N	C	IBC 1704.9		PE/GE, EIT or ETT	
a. Verify pier diameter and length		C			PE/GE, EIT or ETT	
b. Verify pier embedment (socket) into bedrock		P			PE/GE, EIT or ETT	
c. Verify suitability of end bearing strata		P			PE/GE, EIT or ETT	

## Structural Schedule of Special Inspections CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATIO N	TASK COMPLETED
<b>IBC Section 1704.4</b>						
1. Inspection of reinforcing steel, including prestressing tendons, and placement	Y	P	ACI 318: 3.5, 7.1-7.7	SI1	PE/SE or EIT	
2. Inspection of reinforcing steel welding in accordance with Table 1704.3, Item 5B	N		Welding of Reinf Not Allowed		AWS-CWI	
3. Inspect bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased	Y	C	IBC 1912.5	SI1	PE/SE or EIT	
4. Verifying use of required design mix	Y	P	ACI 318: Ch 4, 5.2-5.4	SI1/TA1	PE/SE or EIT	
5. At time fresh concrete is sampled to fabricate specimens for strength test, perform slump and air content test and temperature	Y	C	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	TA1	ACI-CFTT or ACI-STT	
6. Inspection of concrete and shotcrete placement for proper application techniques	Y	C	ACI 318: 5.9, 5.10	SI1/TA1	PE/SE or EIT	
7. Inspection for maintenance of specified curing temperature and techniques	Y	P	ACI 318: 5.11-5.13	TA1	PE/SE or EIT	
8. Inspection of Prestressed Concrete	N					
a. Application of prestressing force.		C	ACI 318: 18.20		PE/SE or EIT	
b. Grouting of bonded prestressing tendons in seismic force resisting system		C	ACI 318: 18.18.4		PE/SE or EIT	
9. Erection of precast concrete members	N	P	ACI 318: Ch 16		PE/SE or EIT	
10. Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms beams and structural slabs	N	P	ACI 318: 6.2		ACI-STT	

### Structural Schedule of Special Inspections - STEEL CONSTRUCTION

VERIFICATION AND INSPECTION	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
<b>IBC Section 1704.3</b>						
1. Material verification of high-strength bolts, nuts and washers:	Y					
a. Identification markings to conform to ASTM standards specified in the approved construction documents.	Y	S	Applicable ASTM material specifications; AISC 335, Section A3.4; AISC LRFD, Section A3.3	SI1/TA1	PE/SE or EIT	
b. Manufacturer's certificate of compliance required.	N	S			PE/SE or EIT	
2. Inspection of high-strength bolting						
a. Bearing-type connections.	Y	P	AISC LRFD Section M2.5	SI1	AWS/AISC-SSI	
b. Slip-critical connections.	Y	C or P (method dependent)	IBC Sect 1704.3.3	SI1	AWS/AISC-SSI	
3. Material verification of structural steel (IBC Sect 1708.4):	N					
a. Identification markings to conform to ASTM standards specified in the approved construction documents.		S	ASTM A 6 or ASTM A 568 IBC Sect 1708.4		PE/SE or EIT	
b. Manufacturers' certified mill test reports.		S	ASTM A 6 or ASTM A 568 IBC Sect 1708.4		PE/SE or EIT	
4. Material verification of weld filler materials:	Y					
a. Identification markings to conform to AWS specification in the approved construction documents.	Y	S	AISC, ASD, Section A3.6; AISC LRFD, Section A3.5	SI1	PE/SE or EIT	
b. Manufacturer's certificate of compliance required.	N	S			PE/SE or EIT	
5. Submit current AWS D1.1 welder certificate for all field welders who will be welding on this project.	Y	S	AWS D1.1	SI1/TA1	PE/SE or EIT	
6. Inspection of welding (IBC 1704.3.1):	Y					
a. Structural steel:						
1) Complete and partial penetration groove welds.	Y	C	AWS D1.1	SI1/TA1	AWS-CWI	
2) Multipass fillet welds.	Y	C		SI1/TA1	AWS-CWI	
3) Single-pass fillet welds > 5/16"	Y	C		SI1/TA1	AWS-CWI	
4) Single-pass fillet welds < 5/16"	N				AWS-CWI	
5) Floor and deck welds.	N		AWS D1.3	SI1/TA1	AWS-CWI	
b. Reinforcing steel (IBC Sect 1903.5.2):						
1) Verification of weldability of reinforcing steel other than ASTM A706.	N	C				
2) Reinforcing steel-resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special reinforced concrete shear walls and shear reinforcement.	N	C	AWS D1.4 ACI 318: 3.5.2		AWS-CWI	
3) Shear reinforcement.	N	C			AWS-CWI	
4) Other reinforcing steel.	N	P			AWS-CWI	
7. Inspection of steel frame joint details for compliance (IBC Sect 1704.3.2) with approved construction documents:	Y			SI1/TA1		



a. Details such as bracing and stiffening.	N			PE/SE or EIT	
b. Member locations.	Y	P		SI1/TA1	PE/SE or EIT
c. Application of joint details at each connection.	Y	P		SI1/TA1	PE/SE or EIT

**Structural Schedule of Special Inspection Services**  
**FABRICATION AND IMPLEMENTATION PROCEDURES – STRUCTURAL STEEL**

VERIFICATION AND INSPECTION  IBC Section 1704.2	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATIO N	TASK COMPLETED
1. Fabrications Procedures: Review of fabricator’s written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. At the completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents. -OR- 2. AISC Certification	N	S	Fabricator shall submit one of the two qualifications		PE/SE or EIT	
3. At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents.	Y	S	IBC 1704.2.2	SI1/TA1	PE/SE or EIT	