**Project: 62 India**
**Date Prepared: 11/09/16**

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 04/11/17

# Structural Statement of Special Inspections

Project: *62 India Apartments*

Location: *62 India St. Portland, ME*

Owner: *India/Newbury residences, LLC*

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: ☐ *Upon request of Building Official* _____ or ☐ per attached schedule.

Prepared by:

*Aaron C Jones, P.E.*
(type or print name of the Structural Registered Design Professional in Responsible Charge)

Signature

*11-9-16*
Date

STATE OF MAINE
AARON C. JONES
No. 10968
LICENSED PROFESSIONAL ENGINEER

**Design Professional Seal**

Owner's Authorization:

Signature Date

Building Code Official's Acceptance:

Signature Date

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# Structural Statement of Special Inspections (Continued)

## *List of Agents*

Project: *62 India Apartments*

Location: *62 India St. Portland, ME*

Owner: *India/Newbury residences, LLC*

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 / Quality Assurance Plan 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)** | *Structural Integrity Consulting Engineers, Inc.* | *77 Oak St. Portland Maine 207-774-4614* |
| 2. Special Inspector (SI 1) | *S.W. Cole Engineering. Inc.* | *286 Portland Rd, Gray, ME 04039 207-657-2866* |
| 3. Special Inspector (SI 2) | | |
| 4. Testing Agency (TA 1) Spray Applied Fire Resistive Material | S.W. Cole Engineering. Inc. | 286 Portland Rd, Gray, ME 04039 207-657-2866 |
| 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.

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# Structural Schedule of Special Inspections

## 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 |

### 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. |

### 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

**Project: 62 India**
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# Structural Schedule of Special Inspections
## SOILS & FOUNDATION CONSTRUCTION

| VERIFICATION AND INSPECTION<br>IBC Section 1704.7, 1704.8, 1704.9 | Y/N | EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE | COMMENTS | AGENT | AGENT QUALIFICATION | TASK COMPLETED |
|---|---|---|---|---|---|---|
| 1. Verify existing soil conditions, fill placement and load bearing requirements | | | | | | |
| a. Prior to placement of prepared fill, determine that the site has been prepared in accordance with the approved soils report. | | P | IBC 1704.7.1 | | PE/GE, EIT or ETT | |
| b. During placement and compaction of fill material, verify material being used and maximum lift thickness comply with the approved soils report. | | P | IBC 1704.7.2 | | PE/GE, EIT or ETT | |
| c. Test in-place dry density of compacted fill complies with the approved soils report. | | P | IBC 1704.7.2 | | PE/GE, EIT or ETT | |
| 2. Geopier foundations: | | | | | | |
| c. Review of the (RAP) Reinforced Aggregate Pier designer's use of soil parameters as presented in the project soils report | | P | | | PE/GE, EIT or ETT | |
| d. Verification of aggregate properties, type and number of lifts of aggregate, pier size and depths and top elevations of constructed RAP elements, and applied rammer energy. | | P | | | PE/GE, EIT or ETT | |
| e. Per the Geopier Foundation and Soil Reinforcement Manual, dated September 1998 and the RAP specifications, such as modulus load testing, uplift pullout testing, bottom or crowd stabilization tests and dynamic cone penetration tests, must be performed as required by the design specifications | | P | | | PE/GE, EIT or ETT | |

# Structural Schedule of Special Inspections
## CONCRETE CONSTRUCTION

| VERIFICATION AND INSPECTION<br>IBC Section 1704.4 | Y/N | EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE | COMMENTS | AGENT | AGENT QUALIFICATION | TASK COMPLETED |
|---|---|---|---|---|---|---|
| 1. Inspection of reinforcing steel welding in accordance with Table 1704.3, Item 5B | | | Welding of Reinf Not Allowed | | AWS-CWI | |
| 2. Verifying use of required design mix | | P | ACI 318: Ch 4, 5.2-5.4 | | PE/SE or EIT | |
| 3. At time fresh concrete is sampled to fabricate specimens for strength test, perform slump and air content test and temperature | | C | ASTM C 172<br>ASTM C 31<br>ACI 318: 5.6, 5.8 | | ACI-CFTT or ACI-STT | |
| 5. Inspection for maintenance of specified curing temperature and techniques | | P | ACI 318: 5.11-5.13 | | PE/SE or EIT | |

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# Structural Schedule of Special Inspections

## MASONRY CONSTRUCTION – LEVEL 1 (NON-ESSENTIAL FACILITY)

| VERIFICATION AND INSPECTION<br><br>IBC Section 1704.5 | Y/N | EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE | COMMENTS | AGENT | AGENT QUALIFICATION | TASK COMPLETED |
|---|---|---|---|---|---|---|
| 1. As masonry construction begins, the following shall be verified to ensure compliance: | | | | | | |
| a. Proportions of site-prepared mortar. | | P | ACI530.1, 2.6A | | PE/SE or EIT | |
| b. Construction of mortar joints. | | P | ACI530.1, 3.3B | | PE/SE or EIT | |
| c. Location of reinforcement and connectors. | | P | ACI530.1, 3.4, 3.6A | | PE/SE or EIT | |
| 2. The inspection program shall verify: | | | | | | |
| a. Size and location of structural elements. | | P | ACI530.1, 3.3G | | PE/SE or EIT | |
| b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction. | | P | ACI530, 1.2.2(e), 2.1.4, 3.1.6 | | PE/SE or EIT | |
| c. Specified size, grade and type of reinforcement. | | P | ACI530, 1.12, ACI530.1, 2.4, 3.4 | | PE/SE or EIT | |
| d. Welding of reinforcing bars. | | C | AC530, 2.1.10.6.2, 3.2..4 (b) | | AWS-CWI | |
| e. Protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F). | | P | IBC 2104.3, 2104.4; ACI530.1, 1.8C, 1.8D | | PE/SE or EIT | |
| 3. Prior to grouting, the following shall be verified to ensure compliance: | | | | | | |
| a. Grout space is clean. | | P | ACI530.1, 3.2D | | PE/SE or EIT | |
| b. Placement of reinforcement and connectors. | | P | ACI530, 1.12, ACI530.1, 3.4 | | PE/SE or EIT | |
| c. Proportions of site-prepared grout. | | P | ACI530.1, 2.6B | | PE/SE or EIT | |
| d. Construction of mortar joints. | | P | ACI530.1, 3.3B | | PE/SE or EIT | |
| 4. Grout placement shall be verified to ensure compliance with code and construction document provisions. | | C | ACI530.1, 3.5 | | PE/SE or EIT | |
| 5. Preparation of any required grout specimens, mortar specimens and/or prisms shall be observed. | | C | IBC 2105.2.2, 2105.3; ACI530.1, l.4 | | PE/SE or EIT | |
| 6. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified. | | P | ACI530.1, 1.5 | | PE/SE or EIT | |

**Project: 62 India**
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CITY OF PORTLAND, MAINE RESURGAM
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# Structural Schedule of Special Inspections - STEEL CONSTRUCTION

| VERIFICATION AND INSPECTION<br>IBC Section 1704.3 | Y/N | EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE | COMMENTS | AGENT | AGENT QUALIFICATION | COMPLETED |
|---|---|---|---|---|---|---|
| 1. Material verification of high-strength bolts, nuts and washers: | | | | | | |
| a. Identification markings to conform to ASTM standards specified in the approved construction documents. | | S | Applicable ASTM material specifications; AISC 335, Section A3.4; AISC LRFD, Section A3.3 | | PE/SE or EIT | |
| b. Manufacturer's certificate of compliance required. | | S | | | PE/SE or EIT | |
| 2. Inspection of high-strength bolting | | | | | | |
| a. Bearing-type connections. | | P | AISC LRFD Section M2.5 IBC Sect 1704.3.3 | | AWS/AISC-SSI | |
| b. Slip-critical connections. | | C or P (method dependent) | | | AWS/AISC-SSI | |
| 3. Material verification of structural steel (IBC Sect 1708.4): | | | | | | |
| 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: | | | | | | |
| a. Identification markings to conform to AWS specification in the approved construction documents. | | S | AISC, ASD, Section A3.6; AISC LRFD, Section A3.5 | | PE/SE or EIT | |
| b. Manufacturer's certificate of compliance required. | | S | | | PE/SE or EIT | |
| 5. Submit current AWS D1.1 welder certificate for all field welders who will be welding on this project. | | S | AWS D1.1 | | PE/SE or EIT | |
| 6. Inspection of welding (IBC 1704.3.1):<br>a. Structural steel: | | | | | | |
| 1) Complete and partial penetration groove welds. | | C | AWS D1.1 | | AWS-CWI | |
| 2) Multipass fillet welds. | | C | | | AWS-CWI | |
| 3) Single-pass fillet welds> 5/16” | | C | | | AWS-CWI | |
| 4) Single-pass fillet welds< 5/16” | | P | | | AWS-CWI | |
| 5) Floor and deck welds. | | P | AWS D1.3 | | AWS-CWI | |
| b. Reinforcing steel (IBC Sect 1903.5.2): | | | | | | |
| 1) Verification of weldability of reinforcing steel other than ASTM A706. | | 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. | | C | AWS D1.4 ACI 318: 3.5.2 | | AWS-CWI | |
| 3) Shear reinforcement. | | C | | | AWS-CWI | |
| 4) Other reinforcing steel. | | P | | | AWS-CWI | |
| 7. Inspection of steel frame joint details for compliance (IBC Sect 1704.3.2) with approved construction documents: | | | | | | |
| a. Details such as bracing and stiffening. | | P | | | PE/SE or EIT | |
| b. Member locations. | | P | | | PE/SE or EIT | |
| c. Application of joint details at each connection. | | P | | | PE/SE or EIT | |

**Project: 62 India**
**Date Prepared: 11/09/16**

CITY OF PORTLAND, MAINE RESURGAM
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# Structural Schedule of Special Inspection Services

## FABRICATION AND IMPLEMENTATION PROCEDURES – STRUCTURAL STEEL

| VERIFICATION AND INSPECTION<br><br>IBC Section 1704.2 | Y/N | EXTENT:<br>CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE | COMMENTS | AGENT | AGENT QUALIFICATION | 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.<br>-OR-<br>2. AISC Certification | | 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. | | S | IBC 1704.2.2 | | PE/SE or EIT | |

## WOOD CONSTRUCTION

| VERIFICATION AND INSPECTION<br><br>IBC Section 1704.6 | Y/N | EXTENT:<br>CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE | COMMENTS | AGENT | AGENT QUALIFICATION | TASK COMPLETED |
|---|---|---|---|---|---|---|
| 1. Fabrication of high-load diaphragms | | | | | | |
| a. Verify wood structural panel sheathing for grade and thickness | | P | IBC 1704.6 | | PE/SE or EIT | |
| b. Verify the nominal size of framing members at adjoining panel edges | | P | IBC 1704.6 | | PE/SE or EIT | |
| b. Verify the nail or staple diameter and length | | P | IBC 1704.6 | | PE/SE or EIT | |
| b. Verify the number of fastener lines | | P | IBC 1704.6 | | PE/SE or EIT | |
| b. Verify the spacing between fasteners in each line and at edge margins | | P | IBC 1704.6 | | PE/SE or EIT | |
| 2. Load Tests for Joist Hangers: Provide evidence of manufacturer's load test in accordance with ASTM D1761 including the vertical load bearing capacity, torsional moment capacity, and deflection characteristics when there is no calculated procedure recognized by the code. | | S | IBC 1715 [submit ICBO reports] | | PE/SE or EIT | |

**Project: 62 India**
**Date Prepared: 11/09/16**

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Date: 04/11/17

# Structural Schedule of Special Inspection Services

## FABRICATION AND IMPLEMENTATION PROCEDURES – WOOD TRUSSES

| VERIFICATION AND INSPECTION<br><br>IBC Section 1704.2 | Y/N | EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE | COMMENTS | AGENT | AGENT QUALIFICATION | 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.<br>-OR-<br>2. TPI Inspection Program: Fabricator shall participate in the TPI Quality Assurance Inspection Program, and maintain a copy of the Quality Assurance Procedures Manual, QAP-90. Submit copy of certificate. All trusses shall bear the TPI Registered Mark. | Y | 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 | | PE/SE or EIT | |

**Project: 62 India**
**Date Prepared: 11/09/16**

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# Quality Assurance Plan – Seismic and Wind

## QUALITY ASSURANCE FOR SEISMIC RESISTANCE CHECK LIST [IBC 1705]

**Seismic Design Category B**

**FOR SEISMIC DESIGN CATEGORY C OR HIGHER:**

**Structural:**

The seismic-force-resisting systems

- ☐ Steel Braced Frames and associated connections/anchorage
- ☐ Steel Moment Frames and associated connections
- ☐ Shear walls: ☐ CMU ☐ Wood ☐ Concrete ☐ Diaphragms: ☐ Floor ☐ Roof
- ☐ Other: Ordinary Brick Masonry Shear Walls

## QUALITY ASSURANCE FOR WIND RESISTANCE CHECK LIST [IBC 1706]

**Wind Exposure Category C**

| REQUIRED | NOT REQUIRED | NOT APPLICABLE | QUALITY ASSURANCE PLAN REQUIREMENTS (A Quality Assurance Plan is required where indicated below) |
|---|---|---|---|
| ☐ | ☒ | ☐ | In wind exposure Categories A and B, where the 3-second-gust basic wind speed is 120 miles per hour (mph) (52.8 *m/sec)* or greater. |
| ☐ | ☐ | ☒ | In wind exposure Categories C and D, where the 3-second-gust basic wind speed is 110 mph (49 *m/sec)* or greater. |

Prepared by:

Aaron C — 11/9/16

Signature Date

Building Code Official's Acceptance:

Signature Date

**Project: 62 India**
**Date Prepared: 11/09/16**

# Contractor's Statement of Responsibility

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 04/11/17

Each contractor responsible for the construction or fabrication of a system or component designated in the Quality Assurance Plan must submit a Statement of Responsibility. The Statement of Responsibility is required for Seismic Design Category C or higher. Make additional copies of this form as required.

Project: *62 India Apartments*

Location: *62 India st. Portland, ME*

Owner: *India/Newbury residences, LLC*

Contractor's Name:

Address:

License No.:

Description of designated building systems and components included in the Statement of Responsibility:

## Contractor's Acknowledgment of Special Requirements

I hereby acknowledge that I have received, read, and understand the Quality Assurance Plan and Special Inspection program.

I hereby acknowledge that control will be exercised to obtain conformance with the construction documents approved by the Building Official.

_____ _____
Signature Date

## Contractor's Provisions for Quality Control

Procedures for exercising control within the contractor's organization, the method and frequency of reporting and the distribution of reports is attached to this Statement.

Identification and qualifications of the person(s) exercising such control and their position(s) in the organization are attached to this Statement.