

Statement of Special Inspections

Project: *IMMUCELL*

Location: *Lot 11 Second Tee Business Park, 1039 Riverside Street, Portland , Maine 04103*

Owner: *Immucell*

Design Professional in Responsible Charge: *Eric Hilliard*

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 Special Inspection Coordinator and the identity of other approved agencies to be retained for conducting these inspections and tests. This *Statement of Special Inspections* encompasses the following disciplines:

- Structural Mechanical/Electrical/Plumbing
 Architectural Other: _____

The Special Inspection Coordinator shall keep records of all inspections and shall furnish inspection reports to the Building Official and the Registered Design Professional in Responsible Charge. 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 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 Registered Design Professional in Responsible Charge.

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 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: _____ or per attached schedule.

Prepared by:

(type or print name)

Signature

Date



Owner's Authorization:

Building Official's Acceptance:

Signature

Date

Signature

Date

Schedule of Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Soils and Foundations | <input type="checkbox"/> Spray Fire Resistant Material |
| <input checked="" type="checkbox"/> Cast-in-Place Concrete | <input type="checkbox"/> Wood Construction |
| <input type="checkbox"/> Precast Concrete | <input type="checkbox"/> Exterior Insulation and Finish System |
| <input checked="" type="checkbox"/> Masonry | <input checked="" type="checkbox"/> Mechanical & Electrical Systems |
| <input checked="" type="checkbox"/> Structural Steel | <input type="checkbox"/> Architectural Systems |
| <input checked="" type="checkbox"/> Cold-Formed Steel Framing | <input type="checkbox"/> Special Cases |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Special Inspection Coordinator	<i>SW Cole Engineering, Inc. Roger Domingo</i>	<i>286 Portland Road Gray, ME 04039-9586 207-657-2866 rdomingo@swcole.com</i>
2. Inspector	<i>SW Cole Engineering, Inc. Tim Boyce</i>	<i>286 Portland Road Gray, ME 04039-9586 207-657-2866 tboyce@swcole.com</i>
3. Inspector		
4. Testing Agency	<i>SW Cole Engineering, Inc. Roger Domingo</i>	<i>286 Portland Road Gray, ME 04039-9586 207-657-2866 rdomingo@swcole.com</i>
5. Testing Agency		
6. Other		

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.

Quality Assurance Plan

Quality Assurance for Seismic Resistance

Seismic Design Category *C*

Quality Assurance Plan Required (Y/N) *N*

Description of seismic force resisting system and designated seismic systems:
Structural Steel Systems

Quality Assurance for Wind Requirements

Basic Wind Speed (3 second gust) *118 MPH*

Wind Exposure Category *C*

Quality Assurance Plan Required (Y/N) *N*

Description of wind force resisting system and designated wind resisting components:
Structural Steel Systems including girts.

Statement of Responsibility

Each contractor responsible for the construction or fabrication of a system or component designated above must submit a Statement of Responsibility.

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 if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

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

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

Exterior Design Institute (EDI) Certification

EDI-EIFS	EIFS Third Party Inspector
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Other

Item	Agency #	Scope
1. Shallow Foundations	PE/GE	<p><i>Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report.</i></p> <p><i>Inspect removal of unsuitable material and preparation of subgrade prior to placement of controlled fill</i></p>
2. Controlled Structural Fill	PE/GE	<p><i>Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) of each source of fill material.</i></p> <p><i>Inspect placement, lift thickness and compaction of controlled fill.</i></p> <p><i>Test density of each lift of fill by nuclear methods (ASTM D2922)</i></p> <p><i>Verify extent and slope of fill placement.</i></p>
3. Deep Foundations	N/A	
4. Load Testing	N/A	
4. Other:		

Item	Agency #	Scope
1. Mix Design	ACI-CCI ICC-RCSI	<i>Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.</i>
2. Material Certification		
3. Reinforcement Installation	ACI-CCI ICC-RCSI	<i>Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters</i>
4. Post-Tensioning Operations	N/A	
5. Welding of Reinforcing	N/A	
6. Anchor Rods		<i>Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.</i>
7. Concrete Placement	ACI-CCI ICC-RCSI	<i>Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.</i>
8. Sampling and Testing of Concrete	ACI-CFTT ACI-STT	<i>Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).</i>
9. Curing and Protection	ACI-CCI ICC-RCSI	<i>Inspect curing, cold weather protection and hot weather protection procedures.</i>
10. Other:		

Item	Agency #	Scope
1. Plant Certification / Quality Control Procedures <input type="checkbox"/> Fabricator Exempt	N/A	
2. Mix Design	N/A	
3. Material Certification	N/A	
4. Reinforcement Installation	N/A	
5. Prestress Operations	N/A	
6. Connections / Embedded Items	N/A	
7. Formwork Geometry	N/A	
8. Concrete Placement	N/A	
9. Sampling and Testing of Concrete	N/A	
10. Curing and Protection	N/A	
11. Erected Precast Elements	N/A	
12. Other:		

Item	Agency #	Scope
1. Material Certification		
2. Mixing of Mortar and Grout	ICC-SMSI	<i>Inspect proportioning, mixing and retempering of mortar and grout.</i>
3. Installation of Masonry	ICC-SMSI	<i>Inspect size, layout, bonding and placement of masonry units.</i>
4. Mortar Joints	ICC-SMSI	<i>Inspect construction of mortar joints including tooling and filling of head joints.</i>
5. Reinforcement Installation	ICC-SMSI AWS-CWI	<i>Inspect placement, positioning and lapping of reinforcing steel. Inspect welding of reinforcing steel.</i>
6. Prestressed Masonry	ICC-SMSI	<i>Inspect placement, anchorage and stressing of prestressing bars.</i>
7. Grouting Operations	ICC-SMSI	<i>Inspect placement and consolidation of grout. Inspect masonry clean-outs for high-lift grouting.</i>
7. Weather Protection	ICC-SMSI	<i>Inspect cold weather protection and hot weather protection procedures. Verify that wall cavities are protected against precipitation.</i>
9. Evaluation of Masonry Strength	ICC-SMSI	<i>Test compressive strength of mortar and grout cube samples (ASTM C780). Test compressive strength of masonry prisms (ASTM C1314).</i>
10. Anchors and Ties	ICC-SMSI	<i>Inspect size, location, spacing and embedment of dowels, anchors and ties.</i>
11. Other:		

Item	Agency #	Scope
1. Fabricator Certification/ Quality Control Procedures <input type="checkbox"/> Fabricator Exempt	AWS/AISC- SSI ICC-SWSI	<i>Review shop fabrication and quality control procedures.</i>
2. Material Certification	AWS/AISC- SSI ICC-SWSI	<i>Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes</i>
3. Open Web Steel Joists	N/A	
4. Bolting	AWS/AISC- SSI ICC-SWSI	<i>Inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension control bolts. Verify proper tightening sequence. Continuous inspection of bolts in slip-critical connections.</i>
5. Welding	AWS-CWI ASNT	<i>Visually inspect all welds. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds. Ultrasonic testing of all full-penetration welds.</i>
6. Shear Connectors	AWS/AISC- SSI ICC-SWSI	<i>Inspect size, number, positioning and welding of shear connectors. Inspect suds for full 360 degree flash. Ring test all shear connectors with a 3 lb hammer. Bend test all questionable studs to 15 degrees.</i>
7. Structural Details	PE/SE	<i>Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.</i>
8. Metal Deck	AWS-CWI	<i>Inspect welding and side-lap fastening of metal roof and floor deck.</i>
9. Other:		

Item	Agency #	Scope
1. Member Sizes	<i>ICC-SWSI</i>	<i>Review size, spacing and locations match shop drawings.</i>
2. Material Thickness	<i>ICC-SWSI</i>	<i>Review thickness matches shop drawings.</i>
3. Material Properties		
4. Mechanical Connections	<i>ICC-SWSI</i>	<i>Review connections match shop drawings.</i>
5. Welding	<i>ICC-SWSI</i>	<i>Verify welding size, spacing match shop drawings.</i>
6. Framing Details		
7. Trusses	<i>N/A</i>	
8. Permanent Truss Bracing	<i>N/A</i>	
9. Other:		

Item	Agency #	Scope
1. Material Specifications		
2. Laboratory Tested Fire Resistance Design	ICC-SFSI	<i>Review UL fire resistive design for each rated beam, column, or assembly.</i>
3. Schedule of Thickness	ICC-SFSI	<i>Review approved thickness schedule.</i>
4. Surface Preparation	ICC-SFSI	<i>Inspect surface preparation of steel prior to application of fireproofing</i>
5. Application	ICC-SFSI	<i>Inspect application of fireproofing.</i>
6. Curing and Ambient Condition	ICC-SFSI	<i>Verify ambient air temperature and ventilation is suitable for application and curing of fireproofing.</i>
7. Thickness	ICC-SFSI	<i>Test thickness of fireproofing (ASTM E605). Perform a set of thickness measurements for every 1,000 SF of floor and roof assemblies and on not less than 25% of rated beams and columns.</i>
8. Density	ICC-SFSI	<i>Test the density of fireproofing material (ASTM E605).</i>
9. Bond Strength	ICC-SFSI	<i>Test the cohesive/adhesive bond strength of fireproofing ASTM E736). Perform not less than one test for each 10,000 SF.</i>
10. Other:		

Item	Agency #	Scope
1. Fabricator Certification/ Quality Control Procedures <input type="checkbox"/> Fabricator Exempt		<i>Inspect shop fabrication and quality control procedures for wood truss plant.</i>
2. Material Grading		
3. Connections		
4. Framing and Details		
5. Diaphragms and Shearwalls		<i>Inspect size, configuration, blocking and fastening of shearwalls and diaphragms. Verify panel grade and thickness.</i>
6. Prefabricated Wood Trusses		<i>Inspect the fabrication of wood trusses.</i>
7. Permanent Truss Bracing		
8. Other:		

Item	Agency #	Scope
1. Material Submittals		
2. Condition of Substrate		
3. Application of Foam Plastic Board		
4. Application of Coatings		
5. Application of Mesh		
6. Ambient Condition and Curing		
7. Flashing and Joint Details		
8. Sealants/Caulks		
9. Other:		

Item	Agency #	Scope
1. Smoke Control		
2. Mechanical, HVAC & Piping	AWS/AISC-SSI ICC-SWSI	<p><i>Periodic inspection is required during the installation and anchoring of piping conveying hazardous materials.</i></p> <p><i>Periodic inspection is required during the installation and anchorage of EF-5 ductwork.</i></p> <p><i>Periodic inspection during the installation and anchorage of vibration isolation systems with a nominal clearance between the equipment support frame and restraint of less than or equal to 1/4 inch.</i></p>
3. Electrical System	AWS/AISC-SSI ICC-SWSI ACI-CCI	<p><i>Periodic inspection is required during the anchorage of electrical equipment for emergency and standby power systems.</i></p>
4. Other:		

Item	Agency #	Scope
1. Wall Panels & Veneers		
2. Suspended Ceilings		
3. Access Floors		
4. Other:		

Item	Agency #	Scope

Instructions – Preparation of the Statement of Special Inspections

1. Who Prepares the Form:

The program of inspection and testing for a project should be prepared by the Registered Design Professional (RDP) that is in responsible charge of the building system requiring inspections and testing. The Structural Engineer of Record (SER) should prepare the sections required for the structural elements such as foundations, concrete, structural steel, etc. The Architect and MEP Engineer of Record should prepare the corresponding sections of the SSI for the building systems that they are responsible for. For further explanation, please refer to the “Guide to Special Inspections and Quality Assurance”.

2. The Front Page:

- 2-1. At the top of the page indicate the project name and location as they appear on the Contract Documents, provide the Owner’s name (individual, private company, municipality, government agency, etc.), and indicate the Design Professional In Responsible Charge. This should be the RDP in responsible charge of the building systems for which this Statement of Special Inspections is being prepared. See explanation in item 1 above.
- 2-2. Next, read the first paragraph and check the box below indicating the discipline(s) that this SSI will encompass (Structural, Architectural, Mechanical/Electrical/Plumbing, or Other).
- 2-3. After reading the remaining paragraphs, the RDP must indicate the frequency of “Interim Reports” required from the Special Inspection Coordinator for the project. This can be indicated directly on the page, i.e. ”weekly”, or the adjacent box can be checked to attach a more specific schedule.
- 2-4. Near the bottom of the page, the RDP must print, sign, and date the form, and stamp the form with their professional seal in the box provided.
- 2-5. The Owner or Owner’s agent must sign and date the front page after the SSI has been completed by the RDP.
- 2-6. The Building Official must sign and date the form upon acceptance.

3. Page 2 – Schedule of Inspection and Testing Agencies:

- 3-1. The top of the page lists all of the categories of building systems with a box next to each. The RDP must check the boxes for only the building systems that are going to be covered in this SSI. A completed inspection program page must be attached for each building system that is checked off. (See instruction #5 below.)
- 3-2. The chart below is where the members of the Special Inspection Program are listed. Their names, addresses, telephone numbers, and emails should be filled out in the appropriate boxes. If the Inspectors and Testing Agencies have not been determined yet, the RDP can fill in the boxes with “To Be Determined”.

4. Page 3 – Quality Assurance Plan:

- 4-1. The RDP must review sections 1705 and 1706 in Chapter 17 of the IBC to determine if the project requires a Quality Assurance Plan for the seismic force and wind force resisting systems and components.
- 4-2. The RDP must indicate whether or not a Quality Assurance Plan is required by filling in the information requested on the page. It is only necessary to provide descriptions of the seismic and wind force resisting systems if it is determined that a Quality Assurance Plan is required.

5. Inspection Program Pages For Each Building System:
- 5-1. There is a page attached for each building system where the RDP identifies the inspection requirements of each system. Fill out the pages for only the building systems included in this SSI. Do not include blank pages for building systems not covered under this SSI.
 - 5-2. Indicate the inspection or testing firm (Agency #) that will perform each inspection task. The Agency # is the number listed next to the Inspector or Testing Laboratory on the chart on page 2 of the SSI.
 - 5-3. Indicate the required qualifications of the Inspector for each inspection. A list of qualifications of Inspectors and testing technicians is provided on page 4 of the SSI for reference. The RDP may require additional qualifications beyond the ones listed if they feel it is appropriate. Suggested qualifications have been included for consideration. The RDP must determine what qualifications are appropriate for the particular project and confirm that the selected agency employs individuals with the specified qualifications.
 - 5-4. The scope of each inspection must be filled in by the RDP. The editable text provided in italics reflects the code mandated minimum inspection requirements designated in section 1704 of IBC Chapter 17. The editable text does not include the inspections requirements for seismic and wind resisting systems listed in sections 1705 through 1708. The RDP must determine if the project falls under the requirements of sections 1705 to 1708 and add the required inspections to the building systems. The final scope of the inspections required for the project must be determined by the RDP.
 - 5-5. Descriptions of all inspections must include the required frequency of each inspection or test.