Special Inspection Program Guide

Based on the Michigan Building Code 2015

City of Novi Community Development

Building Division



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ADDITIONAL SPECIAL INSPECTION PROGRAM DOCUMENTS
(Available online at www.cityofnovi.org)

1. **SPECIAL INSPECTION AND TESTING AGREEMENT (only for large projects)**
   - Statement outlining each party's responsibilities in the Special Inspection process.
   - Required to be submitted with the Building Permit Application.

2. **STATEMENT OF SPECIAL INSPECTIONS**
   - Form used to identify Special Inspections required for a project.
   - Provides a list of designated Special Inspectors and/or Agencies.
   - Required to be submitted with the Building Permit Application.

3. **MINIMUM QUALIFICATIONS FOR SPECIAL INSPECTORS**
   - Provides details of required qualifications for Special Inspectors.

4. **SPECIAL INSPECTION LOG**
   - A form to be used in the field for Special Inspectors to log in and identify their inspections.

The Special Inspection requirements of the Michigan Building Code 2015 (MBC-2015) are detailed and can be a challenge to work with. The City of Novi has developed this Guide to help all parties involved, including Owners, Architects, Engineers, Special Inspection Agencies, Special Inspectors, and the City of Novi Building Division, understand the requirements and provide an efficient process that will allow Building Code requirements outlined in Sections 1704 and 1705 to be satisfied without causing delays in the construction process. The Program is based on a Model Program for Special Inspections developed by the International Code Council (ICC). The Special Inspection Program outlines a partnership between all the parties involved in the construction process. This Guide explains each party's responsibilities in the process and encourages communication and cooperation to ensure that construction is completed in a safe and timely manner.

This Guide provides important information that will help you understand and comply with the Michigan Building Code and City of Novi Special Inspection Program. It contains details of the Special Inspection requirements and other information that can save you valuable time in obtaining your Building Permit and constructing your building. Submitting all the necessary information noted in the Special Inspection Program Guide will help expedite the plan review and inspection process and help you complete your project on schedule. We urge you to use this Guide as a resource throughout the building design and construction process. We hope this Guide is helpful and encourage you to provide us with any suggestions you may have as we continue to work to improve our Special Inspection Program.

Thank you,

The City of Novi
Community Development
Building Division

1. Purpose of Special Inspections:

Special Inspections monitor materials and workmanship that are critical to the structural integrity of the building structure. Special Inspections are a review of the construction to assure that the approved plans, shop drawings, and specifications are being followed and that relevant Codes and referenced standards are being observed by all parties involved. Good communication between all parties, including the Owner, the Registered Design Professional, the Special Inspection Agencies, the Special Inspectors, the Contractor, and the City of Novi Building Division is essential to the safety and quality assurance of a building project.

2. Special Inspection and Testing Agreement:

This document outlines in detail each party's responsibilities when using the Special Inspection Program. This document requires that the Owner, the Registered Design Professional, the Special Inspection Agencies, the Special Inspectors, and the Contractor read the Special Inspection and Testing Agreement and acknowledge their responsibilities by completing each of their designated sections at the end of the form. This agreement will only be used for large or complicated projects.

3. Statement of Special Inspections (SSI):

This form is used by the Registered Design Professional in responsible charge to identify what Special Inspections are required for a project. The City of Novi requires that the Registered Design Professional complete all related entries on the Statement of Special Inspections form and provide documentation indicating the qualifications of each Special Inspection Agency, Special Inspector, Testing Lab, Laboratory Technician, and Fabrication Shop.

4. Minimum Qualification for Special Inspectors:

Please refer to our document titled "Minimum Qualifications for Special Inspectors." This document outlines the education, experience, and certifications each Special Inspector is required to have to perform inspections within the different categories.

5. Special Inspection Log:

The City will issue the log for each project which shall be posted on site. This log is to be used by each Special Inspector for each Special Inspection performed, and will be used by the Building Inspector to monitor the progress and status of Special Inspections.

6. Pre-construction Meeting:

The City of Novi Building Division encourages the Contractor, Owner, and Registered Design Professional to attend a Pre-Construction meeting before starting construction. This is an opportunity for all parties involved in the construction process to coordinate their efforts and develop lines of communication that will help in facilitating a smooth and efficient construction process. This meeting can be scheduled at the time of the Building Permit issuance. The Building Division recommends that a representative from the Special Inspection Agency involved in the construction project attend the Pre-Construction Meeting to discuss the Special Inspection process.

A Special Inspection is the monitoring of materials, installation, fabrication, erection or placement of components and connections that require special expertise that are critical to the structural integrity of the building structure. A Special Inspection is required to ensure compliance with the approved construction documents and standards referenced in the applicable Codes. Special Inspectors or Special Inspection Agencies shall be approved by the Building Official to conduct certain types of inspections and testing. Although Section 1704.2 requires the Owner or the Registered Design Professional acting as the owner's agent to provide qualified Inspectors, the approval of Special Inspectors and Special Inspection Agencies is the responsibility of the Building Official.

A Special Inspector is a person who has been approved by the Building Division to perform certain types of Special Inspections and Testing. A qualified Special Inspector generally has training in a specific area that is more specialized than that of Building Department Inspectors. A Building Inspector is required to have a general knowledge of a great number of Code requirements, whereas Special Inspectors focus mainly on specific areas of structural inspection, material testing, and fabrication. The inspections performed by the Special Inspector often require them to be on the job site for extended periods of time, something the Building Inspector would have difficulty doing with the multitude and variety of inspections they perform each day.

Special Inspection Program

The City of Novi Special Inspection Program consists of the following 5 documents/forms:

1. **Special Inspection Program Guide**
2. **Special Inspection & Testing Agreement**
3. **Special Inspection Log**
4. **Statement of Special Inspections**
5. **Minimum Qualifications for Special Inspectors**; This covers Special Inspectors, Laboratory Technicians, Special Inspection Agencies, Testing Labs, and Fabrication Shops.

Requirement for Special Inspection:

Section 1704 of the Michigan Building Code 2015 (MBC-2015) lists a number of conditions where the employment of Special Inspectors is mandatory.

A. Inspection of Fabricators – Where fabrication of structural load-bearing members and assemblies is being performed on the premises of a fabricator. Note the exception for approved fabricators (see Section 1704.2.5)

B. Structural Steel – Steel elements of building and structures requiring Special Inspection are found in Section 1705.2. See Table 1705.2.3for detailed information regarding inspections, and reference standards. Specific areas listed in Table 1705.2.3 for steel construction other than structural steel are also indicated.

C. Concrete Construction – The Special Inspection and verification for concrete construction is found in Section 1705.3 (see Table 1705.3 for detailed information regarding inspections, testing and reference standards). Specific areas listed in Section 1705.3 for concrete construction are listed under Category C of the Statement of Special Inspection Form.

D. Masonry Construction – The Special Inspection and verification for masonry construction are found in Section 1705.4 and 1705.4.2.

E. Structural Wood Construction – Special Inspection of the fabrication process of prefabricated wood structural elements and assemblies must be in accordance with Section 1704.2.5. Special Inspections of site-built assemblies and other specific areas requiring Special Inspections for wood construction are outlined in Section 1705.5.

F. Soils – Special Inspection for existing site soils conditions, fill placement and load-bearing requirements shall be as outlined in Section 1705.6 and Table 1705.6. The approved geotechnical report (Section 1803.6), and the construction documents prepared by the registered design professional shall be used to determine compliance. During fill placement, the Special Inspector shall determine that proper materials and procedures are used in accordance with the approved geotechnical report.

G. Driven Deep Foundations – Special Inspections shall be performed during installation and testing of driven deep foundation elements as required by Section 1705.7 and Table 1705.7. The approved geotechnical report (Section 1803), and the construction documents prepared by the registered design professional shall be used to determine compliance.

H. Cast-In-Place Deep Foundations - Special Inspections must be performed during installation and testing of cast-in-place deep foundation elements as required by Section 1705.8 and Table 1705.8. The approved geotechnical report (Section 1803), and the construction documents prepared by the registered design professional shall be used to determine compliance.

I. Helical Pile Foundations – Special Inspections must be performed continuously during installation of helical pile foundation as required by Section 1705.9. The approved geotechnical report (Section 1803) and the construction documents prepared by the registered design professional shall be used to determine compliance.

J. Sprayed Fire-Resistant Material (SFRM) – Special Inspections for sprayed fire-resistant material applied to floor, roof and wall assemblies and structural elements shall be in accordance with Sections 1705.14.1 through 1705.14.6. Special Inspections shall be performed after the rough installation of electrical, mechanical, plumbing and automatic sprinkler systems.

K. Mastic and Intumescent Fire-Resistant Coatings – Special Inspections of mastic and intumescent fire-resistant coating applied to structural elements and decks shall be in accordance with AWCI 12-B as indicated in Section 1705.15. Special Inspections shall be based on the fire-resistance design as designated in the approved construction documents.

L. Exterior Insulation and Finish Systems (EIFS) – Special Inspections are required for all EIFS applications in accordance with Section 1705.16. Section 1705.16 provides exceptions to Special Inspections when EIFS is applied over water-resistive barriers with a means for draining excess water, and when EIFS is installed on masonry or concrete walls. The ICC Evaluation Report for the selected EIFS system may require Special Inspections.

M. Fire Resistant Penetrations & Joints – Special Inspections are required in high-rise buildings or in buildings assigned Risk Category III or IV per Section 1604.5. Special Inspections for through-penetrations, membrane penetration fire-stops, fire resistant joint systems, and perimeter fire barrier systems are outlined in Section 1705.17.

N. Smoke Control – Specific areas requiring Special Inspections are listed in Section 1705.18.

O. Special Cases – Special Inspections are required per Section 1705.1.1 for work that is, in the opinion of the Building Official, unusual in its nature, such as, but not limited to the following examples:

1. Construction materials and systems that are alternatives to materials and systems prescribed in the MBC-2015.
2. Unusual design applications of materials described in the MBC-2015.
3. Materials and systems to be installed in accordance with additional manufacturer's instructions that prescribe requirements not contained or referenced in the MBC-2015.

<u>Please Note:</u>

Special Inspections for Wind Resistance – Section 1705.11 describes Special Inspection requirements for the main Wind Force-Resisting System. In Michigan, this does not apply since Vasd, as determined by Section 1609.3.1, is less than 110 mph.

Special Inspection for Seismic Resistance – Sections 1705.12 and 1705.13 describes special requirements for seismic resistance required in construction systems. In Michigan, this applies only to structures that are assigned to Seismic Design Category C.