STATEMENT OF SPECIAL INSPECTIONS - MBC-2009

City of Bloomfield Hills Building Department

PROJECT INFORMATION:	
Project Name:	Project Address:
Owner Name:	Building Permit #:
Architect/Engineer Name:	City Job #:
FORM PREPARED BY:	
Company Name:	Telephone #:
Company Address:	Fax #:
	Cell Phone #:
Architect/Engineer Name:	E-Mail Address:
Architect/Engineer Signature:	Date:

INSTRUCTIONS FOR COMPLETING THIS FORM:

1. The City of Bloomfield Hills Special Inspection Inspection Program has been developed based on the requirements of the 2009 Michigan Building Code (MBC-2009). All references in this document refer to that Code Document.

2. The Registered Design Professional (Architect/Engineer) in responsible charge of the Project must complete this form and submit it with the Building Permit Application. This form will be reviewed by the Building Department and must be accepted prior to the issuance of a Building Permit for the Project (MBC - 2009, Sections 106.1, 1704.1.1, and 1705).

3. Please be advised that the Project Owner is responsible for providing Special Inspection services (MBC - 2009, Sections 109.3.9 and 1704.1).

4. Information detailing the qualifications including copies of all current certifications and accreditations of each Special Inspector, Special Inspection Agency, and Fabricator Shop, to be used for the Project must be submitted by the Registered Design Professional (Architect/Engineer) in responsible charge with this completed form (MBC - 2009, Sections 1703 and 1704.1). Information must also be provided outlining the qualifications of any Testing Labs (soils, concrete, masonry, steel, and others) being used for the project. This includes information about the Accreditation of the Testing Lab, names and qualifications of each designated Laboratory Technician, and verification of the calibration of each piece of equipment used in the testing.

5. Included in this document are the QUALIFICATION STANDARDS FOR SPECIAL INSPECTIONS. Each party involved with the Project must meet these minimum qualification standards. (MBC - 2009, Sections 1701, 1702, 1703, & 1704)

6. This form is not intended for buildings classified as Essential Facilities. The Building Department will provide a modified Statement of Special Inspection for Essential Facilities.

SPECIAL INSPECTION CATEGORIES (1701.1, 1702,1704 & 1705):

Special inspections are required for materials, installation, fabrication, erection or placement of components and connections requiring special expertise to insure compliance with approved construction documents and applicable referenced standards.

Please check the approprate boxes below that apply to your project and enter the name of each individual responsible for the Special Inspection you have checked in the space provided to the right of each category. Please provide the appropriate documents that verify the qualifictaions of each individual or firm listed.

	A	**INSPECTION OF FABRICATORS (1704.2):** Where fabrication of structural load-bearing members and assemblies is being performed on the premises of a fabricator's shop, special inspection of the fabricated items shall be made as required by this section. See Category A.1 or A.2 below.		
	A.1	**FABRICATION & IMPLEMENTATION PROCEDURES (1704.2.1):** When fabrication is done on the premises of a shop that has not been accepted by the Building Department.		
	CHECK BOX IF REQ'D.	LIST BELOW All STRUCTURAL LOAD-BEARING MEMBERS & ASSEMBLIES THAT ARE BEING ASSEMBLED ON THE PREMISES OF A FABRICATOR'S SHOP THAT IS NOT ACCEPTABLE TO THE BUILDING DEPARTMENT PER SECTION 1704.2.2.		PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
	☐	**1. Structural Steel**	The designated Special Inspector and/or Special Inspection Agency shall perform the following in-plant periodic reviews and verification of any Fabricator Shop that is not accepted by the Building Department per Section 1704.2.2 - please see Category A.2 below for accepted Fabricator Shops. * Verify that the fabricator maintains detailed fabrication and quality control procedures that provide a basis for inspection control of the workmanship and the fabricator's ability to conform to approved construction documents and referenced standards. * Review the procedures for completeness and adequacy relative to the code requirements for the fabricator's scope of work.	
	☐	**2. Steel Joists & Girders**		
	☐	**3. Pre-cast Concrete**		
	☐	**4. Prestressed Concrete**		
	☐	**5. Wood Construction (Section 1704.6) - Prefabricated Structural Elements covering:**		
	☐	**5.1. Manufactured Wood Trusses**		
	☐	**5.2. Walls**		
	☐	**5.3. Floors**		
	☐	**5.4. Roof Assemblies**		

36	**A.2**	**FABRICATOR APPROVAL (1704.2.2):** When fabrication is done on the premises of shop that is accepted by the Building Department.		
37	CHECK BOX IF REQ'D.	LIST BELOW All STRUCTURAL LOAD-BEARING MEMBERS & ASSEMBLIES THAT ARE BEING ASSEMBLED ON THE PREMISES OF FABRICATOR'S SHOP THAT IS ACCEPTABLE TO THE BUILDING DEPARTMENT PER SECTION 1704.2.2.	Special inspections are not required where the work is done on the premises of a Fabricator accepted to perform such work without special inspections. * Acceptance shall be based upon review of the fabricator's written procedural and quality control manuals and periodic auditing of their fabrication practices by an accepted Special Inspection Agency that is recognized by the Building Department. * At the completion of fabrication of each of the listed and marked items, the Special Inspector /Special Inspection Agency shall obtain from the accepted fabricator a certificate of compliance and submit to the Building Department stating that the work was performed in accordance with the approved construction documents. **A copy of the fabricator's accreditation/certification must be provided to the Building Department.**	**Note:** Fabricator's acceptance by the Building Department must be done by either: **1)** Accepting an IAS-accredited fabricator that is listed on the IAS web site (www.iasonline.org). The IAS fabricators accredited is based on the IAS Fabrication Accreditation Standards (IAS Fabricator Accreditation Program currently offers accreditation services for reinforced concrete, precast concrete, structural steel and wood panel assemblies). **2)** Accepting a professional equivalent accreditation by a nationally recognized body that includes a third-party oversight of the fabricators facility (including processes and final products) as defined by the MBC. This option is subject to the review and acceptance by the Building Department.
38	☐	**1. Structural Steel**		
39	☐	**2. Steel Joists & Girders**		
40	☐	**3. Pre-cast Concrete**		
41	☐	**4. Prestressed Concrete**		
42	☐	**5. Wood Construction (Section 1704.6) - Prefabricated Structural Elements covering:**		
43	☐	**5.1. Manufactures Wood Trusses**		
44	☐	**5.2. Walls**		
45	☐	**5.3. Floors**		
46	☐	**5.4. Roof Assemblies**		
47				
48				
49				
50				
51				

B	STEEL CONSTRUCTION (1704.3 & TABLE 1704.3):			
CHECK BOX IF REQ'D.	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
			1. Material verification of high-strength bolts, nuts and washers.	
☐	–	X	**a. Identification markings to conform to ASTM standards specified in the approved construction documents.** Referenced Standard: Applicable ASTM material specifications; AISC 360, Section A3.3	
☐	–	X	**b. Manufacturer's certificate of compliance required.**	
			2. Inspection of high-strength bolting. Referenced Standard: AISC 360, Section M2.5 MBC-2009, 1704.3.3	
☐	–	X	**a. Bearing-type connections.**	
☐	X	X	**b. Slip-critical connections.**	
			3. Material verification of structural steel. Referenced Standards: ASTM A 6 or ASTM A 568 MBC-2009 , 1708.4	
☐	–	–	**a. Identification marking to conform to ASTM standards specified in the approved construction documents.**	
☐	–	–	**b. Manufacturer's certified mill test reports.**	
			4. Material verification of weld filler materials.	
☐	–	–	**a. Identification marking to conform to AWS specifications in the approved construction documents.** Referenced Standard: AISC 360, Section A3.5	
☐	–	–	**b. Manufacturer's certificate of compliance required.**	
			5. a. Inspection of welding for structural steel. Referenced Standards: AWS D1.1 & MBC-2009, 1704.3.1 (for Item 5.a, 1-4 below)	
☐	X	–	**1) Complete and partial penetration groove welds.**	
☐	X	–	**2) Multipass fillet welds.**	
☐	X	–	**3) Single-pass fillet welds greather than 5/16".**	
☐	–	X	**4) Single-pass fillet welds less than or equal to 5/16".**	
☐	–	X	**5) Floor and roof deck welds.** Referenced Standard: AWS D1.3	

	B (con't)	STEEL CONSTRUCTION (1704.3 & TABLE 1704.3):			
	CHECK BOX IF REQ'D.	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
				5. b. Inspection of welding for reinforcing steel. Referenced Standards: AWS D1.4 ; ACI 318: 3.5.2	
	☐	–	X	**1) Verification of weldability of reinforcing steel other than ASTM A 706.**	
	☐	X	–	**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.**	
	☐	X		**3) Shear reinforcement.**	
	☐	–	X	**4) Other reinforcing steel.**	
				6. Inspection of steel frame joint details for compliance with approved construction documents. Referenced Standard: MBC-2009, 1704.3.2	
	☐	–	X	**a. Details including bracing and stiffening.**	
	☐	–	X	**b. Member locations.**	
	☐	–	X	**c. Applications of joint details at each connection.**	

C	CONCRETE CONSTRUCTION (1704.4 & Table 1704.4):			
CHECK BOX IF REQ'D.	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
☐	–	X	**1. Inspection of reinforcing steel, including prestressing tendons, and placement.** Referenced Standards: ACI 318: 3.5, 7.1-7.7, MBC-2009 Reference: 1913.4	
☐	–	–	**2. Inspection of reinforcing steel welding in accordance with Table 1704.3, Item 5b (see Category B above).** Referenced Standards: AWS D1.4; ACI 318: 3.5.2	
☐	X	–	**3. Inspect bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased.** Referenced Standard: MBC-2009, 1911.5	
☐	–	X	**4. Verify use of required design mix.** Referenced Standards: ACI 318: Ch. 4, 5.2-5.4 MBC-2009: 1904.2.2, 1913.2, 1913.3	
☐	X	–	**5. Perform slump and air content tests, and determine the temperature of the concrete at the time the fresh concrete is sampled to fabricate specimens for strength tests.** Referenced Standards: ASTM C 172; ASTM C 31; ACI 318: 5.6, 5.8 MBC-2009, 1913.10	
☐	X	–	**6. Inspection of concrete and shortcrete placement for proper application techniques.** Rererenced Standards: ACI 318: 5.9, 5.10 MBC-2009, 1913.6, 1913.7, 1913.8	
☐	–	X	**7. Inspection for maintenance of specified curing temperature and techniques.** Referenced Standards: ACI 318: 5.11-5.13 MBC-2009, 1913.9	
☐	–	–	**8. Inspection of prestressed concrete.**	
☐	X	–	**a. Application of prestressing force.** Referenced Standard: ACI 318: 18.20	
☐	X	–	**b. Grouting of bonded prestressing tendons in the seismic-force-resisting system.** Referenced Standard: ACI 318: 18.18.4	

C (con't)	CONCRETE CONSTRUCTION (1704.4 & Table 1704.4):			
CHECK BOX IF REQ'D.	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
☐	–	X	**9. Erection of precast concrete members.** Referenced Standard: ACI 318: Ch. 16	
☐	–	X	**10. Verification of in-situ concrete strength, prior to stressing of tendons in posttensioned concrete and prior to the removal of shores and forms from beams and structural slabs.** Referenced Standard: ACI 318: 6.2	
☐	–	X	**11. Inspect formwork for shape, location and dimensions of the concrete members being formed.** Referenced Standard: ACI 318: 6.1.1	

100	**D**	**MASONRY CONSTRUCTION (1704.5):** Masonry construction shall be inspected and evaluated in accordance with the requirements of Sections 1704.5.1 through 1704.5.3, depending on the classification of the building or structure or nature of the occupancy, as defined by MBC-2009.			
101		**D.1**	**LEVEL #1 SPECIAL INSPECTION (1704.5.1 & TABLE 1704.5.1) FOR EMPIRICAL DESIGNED MASONRY, GLASS UNIT MASONRY AND MASONRY VENEER IN OCCUPANCY CATEGORY IV (ESSENTIAL FACILITIES):** The minimum special inspection program for empirically designed masonry, glass unit masonry, or masonry veneer designed by Section 2109, 2110 or Chapter 14, respectively, or by Chapter 5, 6, or 7 of ACI 530/ASCE 5 /TMS 402, respectively, in structures classified as Occupancy Category IV, in accordance with Section 1604.5, shall comply with Table 1704.5.1		
102		**D.1**	**LEVEL #1 SPECIAL INSPECTION (1704.5.2 & Table 1704.5.1) FOR ENGINEERED MASONRY IN OCCUPANCY CATEGORY I, II, OR III (NONESSENTIAL FACILITIES):** The minimum special inspection program for masonry designed by Section 2107 or 2108 or by chapters other than Chapter 5, 6 or 7 of ACI 530/ASCE 5 /TMS 402 in structures classified as Occupancy Category I, II or III, in accordance with Section 1604.5, shall comply with Table 1704.5.1.		
103	CHECK BOX IF REQ'D.	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
104				**1. As masonry construction begins, the following shall be verified to ensure compliance.**	
105	☐	–	X	**a. Proportions of site-prepared mortar.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 2.6A	
106	☐	–	X	**b. Construction of mortar joints.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.3B	
107	☐	–	X	**c. Location of reinforcement, connectors, prestressing tendons and anchorages**. Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.4, 3.6A	
108	☐	–	X	**d. Prestressing technique.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.6B	
109	☐	–	X	**e. Grade and size of prestressing tendons and anchorages.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 2.4B, 2.4H	
110				**2. The inspection program shall verify.**	
111	☐	–	X	**a. Size and location of structural elements.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.3G	
112	☐	–	X	**b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction.** Reference for Criteria: ACI 530/ASCE 5/TMS 402: Sec. 1.2.2(e), 2.1.4, 3.1.6	

	D.1 (con't)	LEVEL #1: SPECIAL INSPECTION (1704.5.1, 1704.5.2 &Table 1704.5.1):		
CHECK BOX IF REQ'D.	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
☐	_	X	**c. Specified size, grade and type of reinforcement.** Reference for Criteria:ACI 530/ASCE 5/TMS 402: Sec. 1.13, ACI 530.1/ASCE 6/TMS 602: Art. 2.4, 3.4	
☐	X	_	**d. Welding of reinforcing bars.** Reference for Criteria: ACI 530/ASCE 5/TMS 402: Sec. 2.1.10.7.2, 3.3.3.4(b)	
☐	_	X	**e. Protection of masonry during cold weather (temperature below 40 deg. F) or hot weather (temperature above 90 deg. F).** Reference for Criteria: MBC-2009: Sec. 2104.3, 2104.4, ACI 530.1/ASCE 6/TMS 602: Art. 1.8C, 1.8D	
☐	_	X	**f. Application and measurement of prestressing steel.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.6B	
			3. Prior to grouting, the following shall be verified to insure compliance.	
☐	_	X	**a. Grout space is clean.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.2D	
☐	_	X	**b. Placement of reinforcement, connectors and prestressing tendons and anchorages.** Reference for Criteria: ACI 530/ASCE 5/TMS 402: Sec. 1.13, ACI 530.1/ASCE 6/TMS 602: Art. 3.4	
☐	_	X	**c. Proportion of site-prepared grout and prestressing grout for bonded tendons.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 2.6B	
☐	_	X	**d. Construction of mortar joints.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.3B	
☐	X	_	**4. Grout placement shall be verified to ensure compliance with code and construction document provisions.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.5	
☐	X	_	**a. Grouting of prestressing bonded tendons.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.6C	
☐	X	_	**5. Preparation of any required grout specimens, mortar specimens and/or prisms shall be observed.** Reference for Criteria: MBC-2009: Sec. 2105.2.2, 2105.3, ACI 530.1/ASCE 6/TMS 602: Art. 1.4	
☐	_	X	**6. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 1.5	

128		**D.2**	**LEVEL #2 SPECIAL INSPECTION (1704.5.3 & TABLE 1704.5.3) FOR ENGINEERED MASONRY IN OCCUPANCY CATEGORY IV (ESSENTIAL FACILITIES):** The minimum special inspection program for masonry designed by Section 2107 or 2108 or by chapters other than Chapters 5, 6 or 7 of ACI 530/ASCE 5/TMS 402 in structures classified as Occupancy Category IV, in accordance with Section 1604.5, shall comply with Table 1704.5.3.		
129	CHECK BOX IF REQ'D.	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
130				**1. As masonry construction begins, the following shall be verified to ensure compliance.**	
131	☐	–	X	**a. Proportions of site-prepared mortar, grout and prestressing grout for bonded tendons.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 2.6A	
132	☐	–	X	**b. Placement of masonry units and construction of mortar joints.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.3B	
133	☐	–	X	**c. Placement of reinforcement, connectors and prestressing tendons and anchorages.** Reference for Criteria: ACI 530/ASCE 5/TMS 402: Sec. 1.13, ACI 530.1/ASCE 6/TMS 602: Art. 3.4, 3.6A	
134	☐	X	–	**d. Grout space prior to grouting.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.2D	
135	☐	X	–	**e. Placement of grout.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.5	
136	☐	X	–	**f. Placement of prestressing grout.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.6C	
137				**2. The inspection program shall verify.**	
138	☐	–	X	**a. Size and location of structural elements.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.3G	
139	☐	X	–	**b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction.** Reference for Criteria: ACI 530/ASCE 5/TMS 402: Sec. 1.2.2(e), 2.1.4, 3.1.6	
140	☐		X	**c. Specified size, grade and type of reinforcement.** Reference for Criteria: ACI 530/ASCE 5/TMS 402: Sec. 1.13, ACI 530.1/ASCE 6/TMS 602: Art. 2.4, 3.4	
141	☐	X	–	**d. Welding of reinforcing bars.** Reference for Criteria: ACI 530/ASCE 5/TMS 402: Sec. 2.1.10.7.2, 3.3.3.4(b)	
142	☐	–	X	**e. Protection of masonry during cold weather (temperature below 40 deg. F) or hot weather (temperature above 90 deg. F).** Reference for Criteria: MBC-2009: Sec. 2104.3, 2104.4, ACI 530.1/ASCE 6/TMS 602: Art. 1.8C, 1.8D	
143	☐	X	–	**f. Application and measurement of prestressing steel.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 3.6B	

144		**D.2 (con't)**	**<u>LEVEL #2</u> SPECIAL INSPECTION (1704.5.3 & TABLE 1704.5.3) FOR ENGINEERED MASONRY IN OCCUPANCY CATEGORY IV (ESSENTIAL FACILITIES):** The minimum special inspection program for masonry designed by Section 2107 or 2108 or by chapters other than Chapters 5, 6 or 7 of ACI 530/ASCE 5/TMS 402 in structures classified as Occupancy Category IV, in accordance with Section 1604.5, shall comply with Table 1704.5.3.		
145	CHECK BOX IF REQ'D.	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
146	☐	**X**	**–**	**3. Preparation of any required grout specimens, mortar specimens and/or prisms shall be observed.** Reference for Criteria: MBC-2009: Sec. 2105.2.2, 2105.3, ACI 530.1/ASCE 6/TMS 602: Art. 1.4	
147	☐	**–**	**X**	**4. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.** Reference for Criteria: ACI 530.1/ASCE 6/TMS 602: Art. 1.5	

148	**E**	**STRUCTURAL WOOD CONSTRUCTION (1704.6):** > Special inspections of the fabrication process of prefabricated wood structural elements and assemblies (covering: walls, floors, or roof assemblies along with manufactured roof trusses) shall be in accordance with Section 1704.2 (see Category A above). > Special inspections of site-built assemblies shall be in accordance with Section 1704.6 as indicated below:			
149	CHECK BOX IF REQ'D.		REQUIRED VERIFICATION AND INSPECTION:		PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
150		**Fabrications of high-load diaphragms designed in accordance with Table 2306.3.2 shall be installed with special inspections as indicated in Sections 1704.1 & 1704.6.1 covering the following:**			
151	☐		**1. Verify structural panel grade and thickness as indicated on the approved Construction Documents.**		
152	☐		**2. Verify nominal size of the framing members at adjoining panel edges as indicated on the approved Construction Documents.**		
153	☐		**3. Verify nail or staple diameter and length, number of fastener lines and spacing between fasteners in each line and at edge margins as indicated on the Construction Documents.**		
154	☐	**Prefabricated wood shear panels (Sections 1703.4 & 1704.13.3) covering the following:**			
155	☐		**1. Holdown anchor size and placement, including embedment length, spacing and edge distance.**		
156	☐		**2. The connection of the structure to the shear panels.**		

157	**F**	**SOILS (1704.7 & TABLE 1704.7):** > Perform special inspections of existing site soil conditions, fill placement and load-bearing requirements as required by Section 1704.7 and Table 1704.7. > Determine compliance using the approved soils report (required by Section 1802.2) and the Construction Documents prepared by the Registered Design Professional. > Determine that proper materials and procedures are used during fill placement and in accordance with the provisions of the approved soils report, as specified in Section 1803.5. **Exception:** Special inspections are not required during placement of controlled fill having a total depth of 12 inches or less.				
158	CHECK BOX IF REQ'D.	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTION:		PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
159	☐	–	**X**	**1. Verify materials below footings are adequate to achieve the design bearing capacity.**		
160	☐	–	**X**	**2. Verify excavations are extended to proper depth & have reached proper material.**		
161	☐	–	**X**	**3. Perform classification and testing of controlled fill materials.**		
162	☐	**X**	–	**4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill.**		
163	☐	–	**X**	**5. Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly.**		

164	**G**	**PILE FOUNDATIONS (1704.8 & TABLE 1704.8):** > Perform special inspections during installation and testing of pile foundations as required by Table 1704.8. > Determine compliance using the approved soils report (required by Section 1802.2) and the Construction Documents prepared by the Registered Design Professional.			
165	☐	X	–	**1. Verify pile materials, size and lengths comply with the requirements.**	
166	☐	X	–	**2. Determine capacities of test piles and conduct additional load tests, as required.**	
167	☐	X	–	**3. Observe driving operation and maintain complete accurate records for each pile.**	
168	☐	X	–	**4. Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any pile damage. Required penetration is usually determined by the RDP for this work.**	
169	☐	–	–	**5. For steel piles, perform additional inspections in accordance with 1704.3 & Table1704.3 (see Category B above).**	
170	☐	–	–	**6. For concrete piles and concrete-filled piles, perform additional inspections in accordance with Section 1704.4 & Table 1704.4 (see Category C above).**	
171	☐	–	–	**7. For specialty piles, perform additional inspections as determined by the Registered Design Professional.**	
172	☐	–	–	**8. For augered uncased piles and caission piles, perform inspections in accordance with Section 1704.9 (see Category H below).**	

173	**H**	**PIER FOUNDATIONS (1704.9 & TABLE 1704.9):** > Perform special inspections during installation and testing of pier foundations as required by Table 1704.9. > Determine compliance using the approved soils report (required by Section1802.2) and the Construction Documents prepared by the Registered Design Professional.			
174	CHECK BOX IF REQ'D.	CONTINUAL	PERIODIC	REQUIRED VERIFICATION AND INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
175	☐	X	–	**1. Observe drilling operations and maintain complete and accurate records for each pier.**	
176	☐	X	–	**2. Verify placement locations and plumbness, confirm pier diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end bearing strata capacity.**	
177	☐	–	–	**3. For concrete piers, perform additional inspections in accordance with Section 1704.4 and Table 1704.4 (see Category C above).**	
178	☐	–	–	**4. For masonry piers, perform additional inspections in accordance with Section 1704.5 and Tables 1704.5.1 or 1704.5.3 (see Category D above).**	

179	I	**SPRAY-APPLIED FIRE-RESISTANT MATERIALS (SFRM) {1704.10):** > Special inspections for sprayed fire-resistant materials (SFRM) applied to structural members and decks shall be in accordance with Sections 1704.10.1 through 1704.10.5 (see below). > Special inspections shall be based on the fire-resistance design as indicated in the approved construction documents.	
180	CHECK BOX IF REQ'D.	REQUIRED VERIFICATION AND INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
181	☐	**Structural Member Surface Conditions (1704.10.1):** **1.** The surface shall be prepared in accordance with the approved fire-resistance design and the approved manufacturer's written instructions. **2.** The prepared surface of structural members to be sprayed shall be inspected before the applications of the sprayed fire-resistant material.	
182	☐	**Application (1704.10.2):** **1.** The substrate shall have a minimum ambient temperature before and after application as specified in the approved manufacturer's written instructions. **2.** The area for application shall be ventilated during and after the application as required by the approved manufacturer's written instructions.	
183	☐	**Thickness (1704.10.3):** **1.** The average thickness of the SFRM applied to structural elements shall not be less than the thickness required by the approved fire-resistant design. **2.** The thickness shall be determined in accordance with ASTM E 605. **3.** Samples of the SFRM shall be selected in accordance with Sections 1704.10.3.1 and 1704.10.3.2 (see below).	
184	☐	**Floor, Roof and Wall Assemblies (1704.10.3.1):** The thickness of the SFRM applied to floor, roof and wall assemblies shall be determined in accordance with ASTM E 605 by taking the average of not less than four measurements for each 1,000 square feet of the sprayed area on each floor or part thereof.	
185	☐	**Structural Framing Members (1704.10.3.2):** **1.** The thickness of the SFRM applied to structural members shall be determined in accordance with ASTM E 605. **2.** Thickness testing shall be performed on not less than 25% of the structural members on each floor.	
186	☐	**Density (1704.10.4):** **1.** The density of the SFRM shall not be less than the density specified in the approved fire-resistant design. **2.** The density of the SFRM shall be determined in accordance with ASTM E 605.	
187	☐	**Bond Strength (1704.10.5):** **1.** The cohesive/adhesive bond strength of the cured SFRM applied to structural members shall not be less than 150 pounds per square foot. **2.** The cohesive/adhesive bond strength shall be determined in accordance with the field test specified in ASTM E 736 by testing in-place samples of the SFRM selected in accordance with Sections 1704.10.5.1 and 1704.10.5.2 (see below).	

188	**I (con't)**	**SPRAY-APPLIED FIRE-RESISTANT MATERIALS (SFRM) {1704.10):** **>** Special inspections for sprayed fire-resistant materials (SFRM) applied to structural members and decks shall be in accordance with Sections 1704.10.1 through 1704.10.5 (see below). **>** Special inspections shall be based on the fire-resistance design as indicated in the approved construction documents.	
189	CHECK BOX IF REQ'D.	REQUIRED VERIFICATION & INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
190	☐	**Floor, Roof and Wall Assemblies (1704.10.5.1):** The test samples for determining the cohesive/adhesive bond strength of the SFRM shall be selected from each floor, roof and wall assemblies at the rate of not less than one sample for every 10,000 square feet or part thereof of the sprayed area in each story.	
191	☐	**Structural Framing Members (1704.10.5.2):** The test samples for determining the cohesive/adhesive bond strength of the SFRM shall be selected from beams, girders, joists, trusses and columns at the rate of not less than one sample for each type of structural framing member for each 10,000 square feet of floor or part thereof in each story.	

192	**J**	**MASTIC & INTUMESCENT FIRE-RESISTANT COATINGS (1704.11):**	
193	CHECK BOX IF REQ'D.	REQUIRED VERIFICATION & INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
194	☐	Special inspections for mastic and intumescent fire-resistant coatings applied to structural elements and decks shall be in accordance with AWCI 12-B and shall be based on the fire-resistant design as designated in the approved construction documents.	

195	**K**	**EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS) {1704.12}:**	
196	CHECK BOX IF REQ'D.	REQUIRED VERIFICATION & INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
197	☐	Special inspections are required for all EIFS applications unless one of the following exceptions apply. **Exception 1:** EIFS applications installed over a water-resistive barrier with a means of draining moisture to the exterior (unless the special inspection is required by ICC report of approval for the selected EIFS). **Exception 2:** EIFS applications installed over masonry or concrete walls. Note**:** The Registered Design Professional shall indicate on the plans the ICC Report of approval number for the selected EIFS.	

198	**L**	**SPECIAL CASES AS DETERMINED BY THE BUILDING DEPARTMENT (1704.13):** Special inspections shall be required for proposed work that is, in the opinion of the Building Department, unusual in its nature, such as, but not limited to, the following examples:	
199	CHECK BOX IF REQ'D.	REQUIRED VERIFICATION & INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
200	☐	**1.** Construction materials and systems that are alternatives to materials and systems prescribed by the MBC-2009.	
201	☐	**2.** Unusual design applications of materials described in the MBC-2009.	
202	☐	**3.** Materials and systems required to be installed in accordance with additional manufacturer's instructions that prescribe requirements not contained in the MBC-2009 or in the referenced standards.	

203	**M**	**SPECIAL INSPECTIONS FOR SMOKE CONTROL (1704.14):** Smoke control systems shall be tested by special inspector.	
204	CHECK BOX IF REQ'D.	REQUIRED VERIFICATION & INSPECTION:	PLEASE PROVIDE THE NAME AND PHONE NUMBER OF THE SPECIAL INSPECTION AGENCY AND INDIVIDUAL PERFORMING THE SPECIAL INSPECTION IN THE SPACE BELOW.
205	☐	**Testing Scope (1704.14.1):** The test scope shall be as follows: **1.** During erection of ductwork and prior to concealment for the purpose of leakage testing and recording of device location. **2.** Prior to occupancy and after sufficient completion for the purposes of pressure difference testing, flow measurements and detection and control verification.	

QUALIFICATION STANDARDS FOR SPECIAL INSPECTIONS

SPECIAL INSPECTORS, LABORATORY TECHNICIANS, SPECIAL INSPECTION AGENCIES, TESTING LABS and FABRICATOR SHOPS

GENERAL NOTES:

NOTE 1. These requirements were formulated based on Model Program for Special Inspection (Based on 2009 IBC Chapter 17) published by the International Code Council (ICC) and the International Accreditation Services (IAS) and reflect the following:

- **a)** Applicable provisions of Chapter 17 of MBC-2009;
- **b)** Applicable portions of the following IAS Accreditation Criteria:
  - **b.1)** AC89 - Accreditation Criteria for Testing Laboratories;
  - **b.2)** AC98 - Accreditation Criteria for Inspection Agencies;
  - **b.3)** AC157 **-** Accreditation Criteria for Fabrication Inspection Programs for Reinforced Concrete;
  - **b.4)** AC172 - Accreditation Criteria for Fabrication Inspection Programs for Structural Steel;
  - **b.5)** AC196 - Accreditation Criteria for Fabrication Inspection Programs for Wood Wall Panels;
  - **b.6)** AC204 - Accreditation Criteria for Calibration Laboratories;
  - **b.7)** AC291 - Accreditation Criteria for IBC Special Inspection Agencies;
  - **b.8)** AC370 - Accreditation Criteria for Product Certification Agencies;
  - **b.9)** AC472 - Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems; and/or
- **c)** Applicable portions of the following Standards by International Organization for Standardization/International Electrotechnical Commission (ISO/IEC):
  - **c.1)** ISO/IEC 17011:2004(E), Conformity Assessment - General Requirements for Accreditation Bodies Accrediting Conformity Assessment Bodies;
  - **c.2)** ISO/IEC 17020:1998(E), General Criteria for the Operation of Various Types of Bodies Performing Inspection;
  - **c.3)** ISO/IEC 17025: 2005(E), General Requirements for the Competence of Testing and Calibration Laboratories;
  - **c.4)** ISO/IEC 17025: 2005/Cor.1:2009(E), General Requirements for the Competence of Testing and Calibration Laboratories;
  - **c.4)** ISO/IEC Guide 65: General Requirements for Bodies Operating Product Certification Systems.

NOTE 2. This information will be used as a guideline by the Building Department to verify compliance with applicable provisions of Sections 1704.1 and 1703.1 of MBC-2009 in determining the competence of each designated Special Inspector **,** Laboratory Technician**,** Special Inspection Agency**,** Testing Laboratories and/or Fabricator Shop in this Statement of Special Inspections.

NOTE 3. The minimum qualifications listed below are from the International Accreditation Service's "Accreditation Criteria for the IBC Special Inspection Agencies" AC 291, May 1, 2008. Some of the requirements have been modified to give local Special Inspection Agencies, Special Inspectors, Testing Labs, Laboratory Technicians, and Fabricator Shops time (January 1, 2010) to meet the new IAS criteria.

NOTE 4. This information shall be used by the Registered Design Professional in responsible charge of the project and/or the Responsible Professional Engineer representing the Special Inspection Agency &/or Testing Laboritory to measure the qualification of each designated Special Inspector, Laboratory Technician, Special Inspection Agency, Testing Laboratory and Fabricator Shop in this Statement of Special Inspections. The Building Department will consider equivalent criteria for the qualification of any designated party, if submitted by the Registered Design Professional &/or Responsible Professional Engineer. The Registered Design Professional &/or Responsible Professional Engineer must provide the Building Department with sufficient documentation to substantiate the equivalency request.

NOTE 5. SPECIAL INSPECTION AGENCY QUALIFICATION STANDARDS:

Each designated Special Inspection Agency must be:

- **a)** An agency that maintains IAS current accreditation with the scope of accreditation covering the disciplines for which the agency is designated; OR
- **b)** An agency that meets the requirements of Section 1703.1 of MBC-2009. The Registered Design Professional &/or Responsible Professional Engineer of the agency must provide all documentation as necessary for the Building Department to determine if the agency meets the applicable code requirements; OR
- **c)** An agency that has been accredited by an approved Inspection Agency in accordance with ISO/IEC 17020.

QUALIFICATION STANDARDS FOR SPECIAL INSPECTIONS
(GENERAL NOTES - con't)

NOTE 6. SPECIAL INSPECTOR QUALIFICATION STANDARDS:

Each designated Special Inspector and Laboratory Technician must meet the **MINIMUM QUALIFICATIONS FOR SPECIAL INSPECTORS** and related criteria.

NOTE 7. SPECIAL INSPECTOR IN TRAINING:

1. The intent of this provision is to provide practical opportunities for a Special Inspector in Training to gain the needed experience to qualify as a Special Inspector.

2. An inspector who does not meet the qualifications for a Special Inspector may be allowed to perform a "Special Inspection" at the discretion of the Special Inspection Agency's Registered Design Professional, provided one or more of the following conditions are met:

a) The individual is working under the direct and continuous supervision of a Special Inspector fully qualified for the type of work involved.

b) The individual is working under the inderect or periodic supervision of a Special Inspector, and the scope of work is minor and/or routine and within the capabilities of the individual.

c) The individual is specifically approved by the Building Department. The individual shall be declared in the Statement of Special Inspection and the Special Inspector in Training will be given until January 1, 2010, to obtain all requirements to qualify as a Special Inspector in the category of special inspection or testing involved.

NOTE 8. TESTING LABS QUALIFICATION STANDARDS:

Each designated Testing Lab must be accredited by one the following major acceptable accreditation authorities **:**

a) IAS Accreditation with the scope of accreditation covering the discipline's for which the Testing Lab is designated.

b) AASHTO Accreditation Program per either AASHTO R18 or ISO/IES 17250.

c) American Association of Laboratory Accreditation.

d) National Voluntary Laboratory Accreditation Program.

e) Other Accreditation Authority Program. The Testing Lab must be accredited by a third party and must meet the requirements of Section 1703.1 of MBC-2009.

NOTE 9. LABORATORY TECHNICIAN QUALIFICATION STANDARDS:

a) Each Laboratory Technician must have certification in the appropriate category and one year minimum experience.

NOTE 10. EXPERIENCE:

1. For experience to count toward qualifications, it must be based on verifiable work directly related to the category or type of inspection involved.

2. An Engineering degree (BS) plus appropriate in-house training may be substituted for not more than one year of experience. An engineering technology degree plus appropriate in-house training may be substituted for not more than six months experience.
Note: Degree experience may not be substituted for more than half of the experience requirements in any category.

3. Five or more years experience as a qualified Special Inspector in one or more categories of work may fulfill up to half the experience requirements in any category, at the discretion of the Special Inspection Agency's designated Responsible Professional Engineer.

Note 11. CERTIFICATION:

1. Certification, when specified, is intended to mean the successful completion of:

a) An ICC examination appropriate to the category of work involved; and/or

b) Having other specific certification obtained from a Nationally recognized certifying organization that is appropriate to the category of work involved and is accepatble to the Building Department.

Note: The Building Department will consider equivalent certifications from a Nationally recognized organization obtained by written examination when sufficient documentation to substantiate the equivalency is provided by the Registered Design Professional of the Special Inspection Agency.

MINIMUM QUALIFICATIONS FOR SPECIAL INSPECTORS

Based on IAS AC291 (May 2008) Accreditation Criteria for Special Inspection Agencies

A.1. Fabrication & Implementation (1704.2.1)

Each Special Inspector and/or Special Inspection Agency inspecting a Fabricator Shop for compliance with Section 1704.2.1 must be pre-approved by the Building Department for the specified category of construction prior to Building Permit issuance. See the specific category below for minimum qualification criteria.

1. For Structural Steel Construction: See Category B below.
2. For Precast/Prestressed Concrete: See Category C below.
3. For Wood Construction: See Category E below.

A.2. Fabricator Approval (1704.2.2)

Special Inspections are not required for work done on the premise of a fabricator that has a current accreditation from the International Accreditation Service (IAS), a current certification from a Nationally recognized organization, or equivalent (see Note below).

The following National Fabricator Certifying Organizations are recognized by the Building Department:

1. American Institute of Steel Construction (AISC) for Fabricators of Structural Steel.
2. American Steel Joist Institute (SJI) for Fabricators of Steel Joists.
3. Precast/Prestressed Concrete Institute for Fabricators of Precast and prestressed Concrete.
4. Truss Plate Institute (TPI) for Fabricators of Wood Trusses.

Note: Equivalencies are subject to review and acceptance by the Building Department and must be performed by an approved Special Inspection Agency in accordance with the MBC-2009, Section 1704.2.2.

B: Steel Construction

B.1: High Strength Bolting

1. Current ICC certification as a Structural Steel and Bolting Special Inspector and a minimum one year of experience; OR
2. Michigan Professional Engineer and a minimum one year of direct experience in structural steel and bolting construction (Inspector must be qualified under Item #1 above by January 1, 2010); OR
3. American Welding Society Welding Certified Inspector and has a minimum of one year of experience (Inspector must be qualified under Item #1 above by January 1, 2010).

Note: ICC certifications for Structural Steel and Welding Special Inspectors are valid for the Bolting Special Inspector until the date of expiration.

B.2: Welding

1. Current ICC certification as a Structural Steel and Welding Special Inspector and a minimum one year of experience; OR
2. American Welding Society Certified Welding Inspector and a minimum of one year of experience (Inspector must be qualified under Item #1 above by January 1, 2010); OR
3. American Welding Society Certified Associate Welding Inspector working under the direct on-site supervision of a Certified Welding Inspector and a minimum one year of experience (Inspector must be qualified under Item #1 above by January 1, 2010); OR
4. American Society of Nondestructive Testing Level II certification or Level III certification previously certified as Level II specific to structural steel material and testing methodology and a minimum of three years experience (Inspector must be qualified under Item #1 above by January 1, 2010).

B.3: Nondestructive Testing (NDT)

1. Personnel qualified in accordance with nationally-recognized Nondestructive Testing personnel qualifications practice or standard, such as ANSI/ANST-CP-189 or SNT-TC-1A; OR
2. American Society of Nondestructive Testing Level II and a minimum one year of direct testing experience as determined and approved by an in-house ASNT Level III person.

C: Concrete Construction

C.1: Reinforced Concrete:

1. Current ICC certification in reinforced concrete special inspection and one year experience; OR
2. Michigan P.E. and minimum one year of direct experience in reinforced concrete construction (Inspector must be qualified under Item #1 above by January 1, 2010*)* ; OR
3. Bachelor's degree in Civil or Structural Engineering from an accredited institution and a minimum of two years of experience (Inspector must be qualified under Item #1 above by January 1, 2010); OR
4. ACI Concrete Construction Special Inspector or ACI Concrete Field Testing Technician Grade 1 and a minimum one year of experience (Inspector must be qualified under Item #1 above by January 1, 2010) .

C.2: Pre-stressed / Pre-cast / Cast-in-Place / Poured-in-Place Concrete:

1. Current ICC certification in prestressed concrete inspection and one year experience; OR
2. Michigan Professional Engineer and minimum one year of direct experience in prestressed concrete construction (Inspector must be qualified under Item # 1 above by January 1, 2010); OR
3. Bachelors degree in Civil or Structural Engineering from an accredited institution and a minimum of one year of experience (Inspector must be qualified under Item #1 above by January 1, 2010); OR
4. ACI Concrete Construction Special Inspector or ACI Concrete Field Testing Technician Grade 1and a minimum two years of experience (Inspector must be qualified under Item #1 above by January 1, 2010).

C.3: Post-installed Structural Anchors in Concrete:

1. Current ICC Certification in Reinforced Concrete Special Inspection and one year of experience; OR
2. Current ICC certification as a Residential or Commercial Building Inspector, as applicable, and a minimum two years of experience related to the activity being inspected (Inspector must be qualified under Item #1 above by January 1, 2010); OR
3. Michigan Professional Engineer and minimum one year of experience related to the activity being inspected (Inspector must be qualified under Item #1 above by January 1, 2010); OR
4. Bachelors degree in Civil or Structural Engineering from an accredited institution and a minimum two years of experience related to the activity being inspected (Inspector must be qualified under Item #1 above by January 1, 2010).

D: Masonry Construction:

1. Current ICC Certification in masonry and a minimum one year experience; OR
2. Michigan Professional Engineer and minimum one year of relevant experience (Inspector must be qualified under Item #1 above by January 1, 2010); OR
3. Bachelors degree in Civil or Structural Engineering from an accredited institution and a minimum two years of experience (Inspector must be qualified under Item #1 above by January 1, 2010).

E: Structural Wood Construction:

1. Michigan Professional Engineer and minimum one year of experience related to the activity being inspected; OR
2. Bachelors degree in Civil or Structural Engineering from an accredited institution and a minimum two years of experience related to the activity being inspected; OR
3. Current ICC Certification as a Commercial or Residential Building Inspector, as applicable, AND
- **a)** A minimum two years of related experience in engineered wood products; OR
- **b)** A minimum five years of related experience as a journeyman carpenter.

243	**F:Soils**
244	**1.** NICET III or IV and a minimum two years of experience; OR **2.** Professional Engineer in Geotechnical engineering; OR **3.** Michigan Professional Engineer and a minimum one year of experience (Inspector must be qualified under Item #1 above by January 1, 2010); OR **4.** Bachelors degree in Civil or Structural Engineering/Geotech/ Geologist from an accredited institution and a minimum of one year of experience (Inspector must be qualified under Item #1 above by January 1, 2010); OR **5.** Technician with a minimum three years of documented experience directly related to soils testing and inspection under a licensed Michigan Professional Engineer (Inspector must be qualified under Item #1 above by January 1, 2010).
245	**G & H: Pile & Pier Foundations**
246	**1.** Michigan Professional Engineer and a minimum one year of experience (Inspector must obtain ICC certification in Concrete Special Inspection by January 1, 2010); OR **2.** NICET III or IV (geotechnical/construction or construction material testing/soils) and a minimum of five years of experience (Inspector must obtain ICC certification in Concrete Special Inspection by January 1, 2010); OR **3.** NICET CT Certified Engineering Technologist and a minimum of five years of experience (Inspector must obtain ICC certification in Concrete Special Inspection by January 1, 2010); OR **4.** Bachelors Degree in civil or structural engineering from an accredited institution, American Concrete Institute Concrete Field Testing Technician Grade 1, and a minimum of three years experience (Inspector must obtain ICC certification in Concrete Special Inspection by January 1, 2010).
247	**I: Spray-applied Fire-resistive Materials**
248	**1.** Current ICC certification as a Spray-applied Fireproofing Special Inspector and a minimum of one year experience; OR **2.** Michigan Professional Engineer and a minimum one year of experience in fireproofing applications (Inspector must be qualified under Item # 1 above by January 1, 2010*)* ; OR **3.** Bachelors degree in Civil or Structural Engineering from an accredited institution and a minimum two years of experience in fireproofing applications (Inspector must be qualified under Item #1 above by January 1, 2010); OR **4.** American Concrete Institute Concrete Field Testing Technician Grade 1 or American Welding Society Certified Welding Inspector and a minimum of one year experience (Inspector must be qualified under Item #1 above by January 1, 2010).
249	**J: Mastic & Intumescent Fire-Resistant Coating**
250	Same as Category I, Spray-applied Fire-resistive Materials.
251	**K: Exterior Insulation and Finish Systems (EIFS)**
252	**1.** Current ICC certification as a Reinforced Concrete Special Inspector and a minimum of one year of related experience; OR **2.** Current ICC Certification as a Commercial or Residential Building Inspector, and a minimum two years of experience related to the activity being inspected (Inspector must be qualified under Item #1 above by January 1, 2010); OR **3.** Michigan Professional Engineer and minimum one year of relevant experience (Inspector must be qualified under Item #1 above by January 1, 2010); OR **4.** Bachelors degree in Civil or Structural Engineering from an accredited institution and a minimum two years of experience related to the activity being inspected (Inspector must be qualified under Item #1 above by January 1, 2010); OR **5.** NICET CT Certified Engineering Technologist and a minimum of five years of experience (Inspector must be qualified under Item #1 above by January 1, 2010); OR

253	**K: Exterior Insulation and Finish Systems (EIFS) - Continued**
254	**6.** Michigan Licensed Architect and minimum one year of relevant experience (Inspector must be qualified under Item #1 above by January 1, 2010); OR
255	**7.** A graduate of accredited architecture/architecture technology program under the direction of a Michigan Licensed Architect and a minimum two years of experience related to the activity being inspected (Inspector must be qualified under Item #1 above by January 1, 2010); OR
256	**8.** EIFS Third Party Inspector with certification from Exterior Design Institute and a minimum two years of experience related to the activity being inspected (Inspector must be qualified under Item #1 above by January 1, 2010); OR **9.** American Concrete Institue Concrete Field Testing Technician Grade 1 and a minimum of one year of related experience (Inspector must be qualified under Item #1 above by January 1, 2010).
257	**L: Special Cases as Determined by the Building Department**
258	**1.** Current ICC certification as a Special Inspector and a minimum two years of experience related to the activity being inspected; OR **2.** Michigan Professional Engineer and a minimum one year of experience related to the activity being inspected (Inspector must be qualified under Item #1 above by January 1, 2010); OR **3.** Bachelor's degree in Civil or Structural Engineering from an accredited institution and a minimum two years of experience related to the activity being inspected (Inspector must be qualified under Item #1 above by January 1, 2010).
259	**M. Smoke Control**
260	Special inspection agencies for smoke control shall have expertise in fire protection engineering, mechanical engineering and certification as air balancers. Documentation of qualifications shall be submitted to the Building Department for review and approval.