



**Health Science Research Building
Schedule of Inspections**

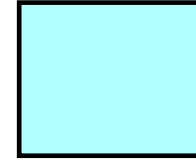
Special Inspection /Test	Specification Section	Reference Standard	Extent	Test Criteria
Concrete				
2021 MBC Required Special Inspections - Tabel 1705.3	Division 03 - Concrete	See attached Appendix-A	As Required	Referenced Standards
Steel				
2021 MBC Required Special Inspections - 1704.2.5	Division 05 - Steel	See attached Appendix-B	As Required	Referenced Standards
Material Verification and Testing				
Adhesion Test	07-1416 - Cold Fluid Applied Waterproofing	None	One (1) test per 1000 sq ft.	TBD during pre-construction meeting
Thickness Verification	07-1800 - Traffic Coatings	None	One (1) test per 1000 sq ft.	TBD during pre-construction meeting
Adhesion Test	07-2119 - Foamed-In_place Insulation	ASTM D 4541	Four (4) locations per major elevation.	TBD during pre-construction meeting
Thickness Verification	07-2119 - Foamed-In_place Insulation	Per manufacturer's recommended thickness control protocol	Four (4) locations per major elevation.	TBD during pre-construction meeting
Installation Inspection	07-2617 - Below Slab Vapor Retarders	None	Per Specifications	TBD during pre-construction meeting
Adhesion Test	07-2716 - Self-Adhering Air and Water Barriers	ASTM D 4541	Four (4) locations per major elevation.	minimum air-barrier adhesion of 16 lbf/sq. in.
Thickness Verification	07-8116 - Sprayed Fire-Resistive Materials (SFRM)	None	As Required	TBD during pre-construction meeting
Thickness Verification	07-8123 - Intumescent Fire Resistive Materials	None	As Required	TBD during pre-construction meeting
Installation Inspection	07-8413 - Penetration Firestopping	ASTM E 2174	As Required	TBD during pre-construction meeting
Installation Inspection	07-8446 - Fire Resistive Joint Firestopping	ASTM E 2393	As Required	TBD during pre-construction meeting
Compatibility - Adhesion Test	07-9200 - Joint Sealants	ASTM C 1087, ASTM C 1193, ASTM C 794	One (1) test for first 1000 ft of joint length for each kind of sealant. One (1) test for each 1000 ft of joint length thereafter or one test per each floor per elevation.	TBD during pre-construction meeting
Anchors and Fasteners	08-4400 - Glazed Aluminum Framing System	ICC - ESR	As Required	TBD during pre-construction meeting
Underlayment and Moisture	09-0565 - Floor Preparation for Renovation Work	None	As Required	TBD during pre-construction meeting
Installation Inspection	09-9600 - High-Performance Coatings	ASTM 3276	As Required	TBD during pre-construction meeting

Special Inspection /Test	Specification Section	Reference Standard	Extent	Test Criteria
Building Envelope Testing				
2021 IECC Building Thermal Envelope Testing	01-4500 - Building Thermal Envelope	ASTM E779, ANSI/RESNET/ICC 380 - ASTM E3158 OR ASTM E1827	Entire Building	Per Specifications
Water Spray Test - Air Leakage	03-4500 Architectural Precast Concrete	AAMA 501.2	Four (4) locations per major elevation.	shall not evidence water penetration.
Air Leakage Volume Testing	07-2716 - Self-Adhering Air and Water Barriers	ASTM E 783 or ASTM E 2357	One (1) test for the first 2500 sq. ft. One (1) subsequent test for every 5000 sq. ft. Test Size: 100 sq. ft. minimum.	0.04 cfm/sq. ft. of surface area at 1.57 lbf/sq. ft.
Water Spray Test - Air Leakage	07-4229 - Terra Cotta Panels 01-4519 - Field Test for Water Leakage	AAMA 501.2	Four (4) locations per major elevation.	shall not evidence water penetration.
Water Spray Test - Air Leakage	07-4243 - Composite Metal Panels 01-4519 - Field Test for Water Leakage	AAMA 501.2	Four (4) locations per major elevation.	shall not evidence water penetration.
Water Spray Test - Air Leakage	07-4263 - Insulated-Core Metal Wall Panels 01-4519 - Field Test for Water Leakage	AAMA 501.2	Four (4) locations per major elevation.	shall not evidence water penetration.
Infrared Thermography	07-5013 - Single-Ply membrane Roofing	ASTM C 1153	100 % of all roof areas	
Water Spray Test - Air Leakage	08-4400 - Glazed Aluminum Framing System 01-4519 - Field Test for Water Leakage	AAMA 501.2	Four (4) locations at 5% completion. Four (4) locations at 50% completion. Four (4) locations at 90% completion.	shall not evidence water penetration.
Field Chamber Air Infiltration and Water Penetration Test	08-4400 - Glazed Aluminum Framing System 01-4519 - Field Test for Water Leakage	ASTM 783 ASTM E 1105	Two (2) locations at 5% completion. Two (2) locations at 50% completion. Two (2) locations at 90% completion.	minimum static air pressure differential specified for laboratory testing in Performance Requirements and shall not evidence water penetration.

Special Inspection /Test	Specification Section	Reference Standard	Extent	Test Criteria
Lab Testing				
Installation Inspection - Air Flow	11-5313 - Laboratory Fume Hoods	ANSI/ASHRAE - 110-1995	As Required	TBD during pre-construction meeting
Installation and Leakage Inspection	13-4900 - Radiation Protection	None	As Required	Criteria as recommended by WSU
Earthwork, Foundations and Paving				
2021 MBC Required Special Inspections - 1705.6 & 1705.8	Division 31	See Attached Appendix C	As Required	Referenced Standards
Installation Inspection	32-1216 - Hot-Mix Asphalt Concrete Paving	AI MS-2	As Required	TBD during pre-construction meeting
Compression Tests	32-1313 - Concrete Pavements, Curbs and Gutters	ASTM C 31/C 31M - ASTM C 39 - ASTM C 42	As Required	TBD during pre-construction meeting

Health Science Research Building - Schedule of Inspections

Appendix -A Division 03 Concrete

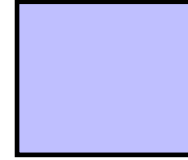


MBC TABLE 1705.3 REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION				
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD (a)	MBC REFERENCE
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	—	X	ACI 318: Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	—
2. REINFORCING BAR WELDING: A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706; B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16", AND C. INSPECT ALL OTHER WELDS.	— — X	X X —	AWS D1.4 ACI 318: 26.6.4	—
3. INSPECT ANCHORS CAST IN CONCRETE.	—	X	ACI 318: 26.13.3.3	—
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.(B) A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.	X — —	— X —	ACI 318: 26.13.3.2 ACI 318: 26.13.3	—
5. VERIFY USE OF REQUIRED DESIGN MIX.	—	X	ACI 318: Ch. 19, 26.4.3 26.4.4	1904.1, 1904.2
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	—	ASTM C31, ASTM C172, ACI 318: 26.5, 26.12	—
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	—	ACI 318: 26.5	—
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	—	X	ACI 318: 26.5.3-26.5.5	—
9. INSPECT PRESTRESSED CONCRETE FOR: A. APPLICATION OF PRESTRESSING FORCES; AND B. GROUTING OF BONDED PRESTRESSING TENDONS.	X X	— —	ACI 318: 26.10	—
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	—	X	ACI 318: 26.9	—
11. FOR PRECAST CONCRETE DIAPHRAGM CONNECTIONS OR REINFORCEMENT AT JOINTS CLASSIFIED AS MODERATE OR HIGH DEFORMABILITY ELEMENTS (MDE OR HDE) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F, INSPECT SUCH CONNECTIONS AND REINFORCEMENT IN THE FIELD FOR: A. INSTALLATION OF THE EMBEDDED PARTS B. COMPLETION OF THE CONTINUITY OF REINFORCEMENT ACROSS JOINTS. C. COMPLETION OF CONNECTIONS IN THE FIELD.	X X X	— — —	ACI 318: 26.13.1.3 ACI 550.5	—
12. INSPECT INSTALLATION TOLERANCES OF PRECAST CONCRETE DIAPHRAGM CONNECTIONS FOR COMPLIANCE WITH ACI 550.5.	—	X	ACI 318: 26.13.1.3	—
13. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	—	X	ACI 318: 26.11.2	—
14. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	—	X	ACI 318: 26.11.1.2(b)	—
A. WHERE APPLICABLE, SEE SECTION 1705.13. B. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 26.13 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF THE WORK.				

SPECIAL INSPECTIONS	
1.	PERFORM SPECIAL INSPECTIONS IN ACCORDANCE WITH THE 2021 MICHIGAN (INTERNATIONAL) BUILDING CODE CHAPTER 17 AND AS MODIFIED IN THE MATERIAL SPECIFIC STATEMENTS OF SPECIAL INSPECTION.
2.	DESIGNATION OF RESPONSIBLE AGENT AND THEIR QUALIFICATIONS SI SPECIAL INSPECTOR QUALIFIED WITH DEMONSTRATED COMPETENCE DOCUMENTED BY CERTIFICATIONS FROM RECOGNIZED AGENCIES SUCH AS AWS, ACI, MASONRY INSTITUTE OF MICHIGAN (MIM), ETC., AS SUBMITTED AND APPROVED BY THE BUILDING OFFICIAL. SPECIAL INSPECTOR MAY BE A FIRM WITH MULTIPLE SPECIALISTS AND A PROJECT MANAGER PROVIDING REPORTS. TA TESTING AGENCY QUALIFIED TO TEST AND INSPECT MATERIALS AND ASSEMBLIES. TESTING AGENCY SHALL BE UNDER THE SUPERVISION OF THE SPECIAL INSPECTOR. GE GEOTECHNICAL ENGINEER WHO PROVIDED THE ORIGINAL PROJECT GEOTECHNICAL SOILS INVESTIGATION REPORT. SE SPECIALTY ENGINEER RESPONSIBLE FOR DESIGNING ASSEMBLIES SUCH AS PRECAST CONCRETE, STEEL JOISTS, COLD FORMED FRAMING ASSEMBLIES, ETC. SPECIALTY ENGINEER SHALL PROVIDE OBSERVATION OF FABRICATED AND INSTALLED ITEMS OF THEIR DESIGN IN ADDITION TO THE SPECIAL INSPECTION.
3.	TA, GE AND SE SHALL SUBMIT RECORDS OF THE INSPECTION RESULTS TO THE SI. THE SI SHALL COMPILER AND SUBMIT INSPECTION RECORDS TO THE ARCHITECT/ENGINEER AND BUILDING OFFICIAL. RECORDS SHALL INCLUDE STATEMENTS OF TESTS, WHETHER INSTALLED/FABRICATED ITEM COMPLIES WITH CONTRACT DOCUMENTS, REMEDIAL WORK PERFORMED, RETESTS.
4.	SI SHALL PROVIDE A DAILY REPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND ON THE SAME DAY OF THE INSPECTION TO THE ENGINEER OF RECORD. FORMAL REPORTS OF COMPLIANCE CAN FOLLOW BY A MAXIMUM OF 2 WEEKS. SI SHALL PROVIDE AND SIGN FINAL REPORT WITH A SUMMARY OF ALL TESTS PERFORMED AND RESULTS TO THE ENGINEER OF RECORD AND BUILDING OFFICIAL, IN ACCORDANCE WITH SECTION 1704.2.4.
5.	SI, TA & GE SHALL BE PAID BY THE OWNER IN COMPLIANCE WITH THE MICHIGAN (INTERNATIONAL) BUILDING CODE.
6.	WHERE FABRICATION OF STRUCTURAL, LOAD-BEARING OR LATERAL LOAD-RESISTING MEMBERS OR ASSEMBLIES IS BEING CONDUCTED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTIONS OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION. SPECIAL INSPECTIONS DURING FABRICATION ARE NOT REQUIRED WHERE THE FABRICATOR MAINTAINS APPROVED DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND THE GOVERNING BUILDING CODE. APPROVAL SHALL BE BASED UPON REVIEW OF FABRICATION AND QUALITY CONTROL PROCEDURES AND PERIODIC INSPECTION OF FABRICATION PRACTICES BY THE BUILDING OFFICIAL. SPECIAL INSPECTIONS ARE NOT REQUIRED WHERE THE FABRICATOR IS REGISTERED AND APPROVED IN ACCORDANCE WITH SECTION 1704.2.5.1.
7.	REFER TO MATERIAL SPECIFIC STATEMENTS OF SPECIAL INSPECTION AND GENERAL STRUCTURAL NOTES FOR ADDITIONAL QUALITY CONTROL TESTING AND INSPECTIONS.

Health Science Research Building - Schedule of Inspections

Appendix - B Division 05 Steel



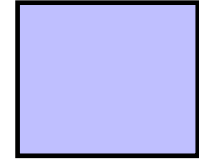
STATEMENT OF SPECIAL INSPECTIONS - STEEL ELEMENTS OF COMPOSITE CONSTRUCTION					
INSPECTION TASK		INSPECTION TYPE		REFERENCED STANDARD	RESPONSIBLE AGENT
		QC	QA		
PRIOR TO CONCRETE PLACEMENT				AISC 360, SECTION N6, TABLE N6.1	SI/TA
1.	PLACEMENT AND INSTALLATION OF STEEL DECK	P	P		
2.	PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	P	P		
3.	DOCUMENT ACCEPTANCE OR REJECTION OF STEEL ELEMENTS	P	P		
QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR. QUALITY ASSURANCE (QA) SHALL BE PROVIDED BY OTHERS WHEN REQUIRED BY THE AUTHORITY HAVING JURISDICTION, APPLICABLE BUILDING CODE, PURCHASER, OWNER, OR ENGINEER OF RECORD.					
O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. P: PERFORM THESE TASKS FOR EACH STEEL ELEMENT.					

STATEMENT OF SPECIAL INSPECTIONS - STRUCTURAL STEEL					
INSPECTION TASK		INSPECTION FREQUENCY		REFERENCED STANDARD	RESPONSIBLE AGENT
		CONTINUOUS	PERIODIC		
1.	INSPECTION OF STEEL FABRICATED ITEMS SHALL BE PERFORMED ON PREMISES DURING FABRICATION.		X	AISC QUALITY CERTIFICATION	SI
	A. EXCEPTIONS: SPECIAL INSPECTIONS DURING FABRICATION NOT REQUIRED WHERE THE FABRICATOR IS REGISTERED AND APPROVED IN ACCORDANCE WITH SECTION 1704.2.5.1.				
2.	SPECIAL INSPECTION AND NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL ELEMENTS IN BUILDINGS, STRUCTURE AND PORTIONS THEREOF SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360.	X	X	AISC QUALITY CERTIFICATION	SI
	A. SPECIAL INSPECTION OF RAILING SYSTEMS COMPOSED OF STRUCTURAL STEEL ELEMENTS SHALL BE LIMITED TO WELDING INSPECTION OF WELDS AT THE BASE OF CANTILEVERED RAIL POSTS.		X	AISC QUALITY CERTIFICATION	SI

SPECIAL INSPECTIONS	
1.	PERFORM SPECIAL INSPECTIONS IN ACCORDANCE WITH THE 2021 MICHIGAN (INTERNATIONAL) BUILDING CODE CHAPTER 17 AND AS MODIFIED IN THE MATERIAL SPECIFIC STATEMENTS OF SPECIAL INSPECTION.
2.	DESIGNATION OF RESPONSIBLE AGENT AND THEIR QUALIFICATIONS
SI	SPECIAL INSPECTOR QUALIFIED WITH DEMONSTRATED COMPETENCE DOCUMENTED BY CERTIFICATIONS FROM RECOGNIZED AGENCIES SUCH AS AWS, ACI, MASONRY INSTITUTE OF MICHIGAN (MIM), ETC., AS SUBMITTED AND APPROVED BY THE BUILDING OFFICIAL. SPECIAL INSPECTOR MAY BE A FIRM WITH MULTIPLE SPECIALISTS AND A PROJECT MANAGER PROVIDING REPORTS.
TA	TESTING AGENCY QUALIFIED TO TEST AND INSPECT MATERIALS AND ASSEMBLIES. TESTING AGENCY SHALL BE UNDER THE SUPERVISION OF THE SPECIAL INSPECTOR.
GE	GEOTECHNICAL ENGINEER WHO PROVIDED THE ORIGINAL PROJECT GEOTECHNICAL SOILS INVESTIGATION REPORT.
SE	SPECIALTY ENGINEER RESPONSIBLE FOR DESIGNING ASSEMBLIES SUCH AS PRECAST CONCRETE, STEEL JOISTS, COLD FORMED FRAMING ASSEMBLIES, ETC. SPECIALTY ENGINEER SHALL PROVIDE OBSERVATION OF FABRICATED AND INSTALLED ITEMS OF THEIR DESIGN IN ADDITION TO THE SPECIAL INSPECTION.
3.	TA, GE AND SE SHALL SUBMIT RECORDS OF THE INSPECTION RESULTS TO THE SI. THE SI SHALL COMPILER AND SUBMIT INSPECTION RECORDS TO THE ARCHITECT/ENGINEER AND BUILDING OFFICIAL. RECORDS SHALL INCLUDE STATEMENTS OF TESTS, WHETHER INSTALLED/FABRICATED ITEM COMPLIES WITH CONTRACT DOCUMENTS, REMEDIAL WORK PERFORMED, RETESTS.
4.	SI SHALL PROVIDE A DAILY REPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND ON THE SAME DAY OF THE INSPECTION TO THE ENGINEER OF RECORD. FORMAL REPORTS OF COMPLIANCE CAN FOLLOW BY A MAXIMUM OF 2 WEEKS. SI SHALL PROVIDE AND SIGN FINAL REPORT WITH A SUMMARY OF ALL TESTS PERFORMED AND RESULTS TO THE ENGINEER OF RECORD AND BUILDING OFFICIAL, IN ACCORDANCE WITH SECTION 1704.2.4.
5.	SI, TA & GE SHALL BE PAID BY THE OWNER IN COMPLIANCE WITH THE MICHIGAN (INTERNATIONAL) BUILDING CODE.
6.	WHERE FABRICATION OF STRUCTURAL, LOAD-BEARING OR LATERAL LOAD-RESISTING MEMBERS OR ASSEMBLIES IS BEING CONDUCTED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTIONS OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION. SPECIAL INSPECTIONS DURING FABRICATION ARE NOT REQUIRED WHERE THE FABRICATOR MAINTAINS APPROVED DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND THE GOVERNING BUILDING CODE. APPROVAL SHALL BE BASED UPON REVIEW OF FABRICATION AND QUALITY CONTROL PROCEDURES AND PERIODIC INSPECTION OF FABRICATION PRACTICES BY THE BUILDING OFFICIAL. SPECIAL INSPECTIONS ARE NOT REQUIRED WHERE THE FABRICATOR IS REGISTERED AND APPROVED IN ACCORDANCE WITH SECTION 1704.2.5.1.
7.	REFER TO MATERIAL SPECIFIC STATEMENTS OF SPECIAL INSPECTION AND GENERAL STRUCTURAL NOTES FOR ADDITIONAL QUALITY CONTROL TESTING AND INSPECTIONS.

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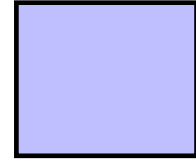
Appendix - B Division 05 Steel



INSPECTION TASK		INSPECTION TYPE		REFERENCED STANDARD	IBC REFERENCE	RESPONSIBLE AGENT
		QC	QA			
INSPECTION OF BOLTING						
1. INSPECTION TASKS PRIOR TO BOLTING:						
A.	MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS.	O	P	AISC 360, SECTION N5, TABLE N5.6-1	1705.2	SI/TA
B.	FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS.	O	O			
C.	CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE).	O	O			
D.	CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL.	O	O			
E.	CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS.	O	O			
F.	PRE-INSTASLLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED.	P	O			
G.	PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS.	O	O			
2. INSPECTION TASKS DURING BOLTING:						
A.	FASTENER ASSMEBLIES, PLACED IN ALL HOLES AND WASHERS ARE POSITIONED AS REQUIRED.	O	O	AISC 360, SECTION N5, TABLE N5.6-2	1705.2	SI/TA
B.	JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION.	O	O			
C.	FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTING FROM ROTATING.	O	O			
D.	FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES.	O	O			
3. INSPECTION TASKS AFTER BOLTING:						
A.	DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.	P	P	AISC 360, SECTION N5, TABLE N5.6-3	1705.2	SI/TA

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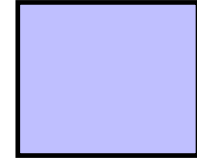
Appendix - B Division 05 Steel



INSPECTION TASK	INSPECTION TYPE		REFERENCED STANDARD	IBC REFERENCE	RESPONSIBLE AGENT
	QC	QA			
INSPECTION OF WELDING					
1. INSPECTION TASKS PRIOR TO WELDING:					
A. WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS	P	O	AISC 360, SECTION N5, TABLE N5.4-1	1705.2	SI/TA
B. WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE.	P	P			
C. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE.	P	P			
D. MATERIAL IDENTIFICATION (TYPE/GRADE).	O	O			
E. WELDER IDENTIFICATION SYSTEM. THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE LOW-STRESS TYPE.	O	O			
F. FIT-UP OF GROOVE WELDS OF HSS T-, T- AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY): - JOINT PREPARATION. - DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL). - TACKING (TACK WELD QUALITY AND LOCATION). - BACKING TYPE AND FIT (IF AVAILABLE).	O	O			
G. FIT-UP OF CJP GROOVE WELDS (INCLUDING JOINT GEOMETRY): - JOINT PREPARATION. - DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL). - CLEANLINESS (CONDITION OF STEEL SURFACES). - TACKING (TACK WELD QUALITY AND LOCATION). - BACKING TYPE AND FIT (IF AVAILABLE).					
H. CONFIGURATION OF FINISH AND ACCESS HOLES.	O	O			
I. FIT-UP OF FILLET WELDS: - DIMENSIONS (ALIGNMENT, GAPS AT ROOT). - CLEANLINESS (CONDITION OF STEEL SURFACES). - TACKING (TACK WELD QUALITY AND LOCATION).	O	O			
J. CHECK WELDING EQUIPMENT.	O	-			
2. INSPECTION TASKS DURING WELDING:					
A. USE OF QUALIFIED WELDERS.	O	O	AISC 360, SECTION N5, TABLE N5.4-2	1705.2	SI/TA
B. CONTROL AND HANDLING OF WELDING CONSUMABLES: - PACKAGING. - EXPOSURE CONTROL.	O	O			
C. NO WELDING OVER CRACKED TACK WELDS.	O	O			
D. WPS FOLLOWED: - SETTINGS ON WELDING EQUIPMENT. - TRAVEL SPEED. - SELECTED WELDING MATERIALS. - SHIELDING GAS TYPE/FLOW RATE. - PREHEAT APPLIED. - INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.) - PROPER POSITION (F, V, H, OH).	O	O			
E. WELDING TECHNIQUES: - INTERPASS AND FINAL CLEANING. - EACH PASS WITHIN PROFILE LIMITATIONS. - EACH PASS MEETS QUALITY REQUIREMENTS.	O	O			

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Appendix - B Division 05 Steel



INSPECTION TASK	INSPECTION TYPE		REFERENCED STANDARD	IBC REFERENCE	RESPONSIBLE AGENT
	QC	QA			
3. INSPECTION TASKS AFTER WELDING:					
A. WELDS CLEANED.	O	O	AISC 360, SECTION N5, TABLE N5.4-3	1705.2	SI/TA
B. SIZE, LENGTH, AND LOCATION OF WELDS.	P	P			
C. WELDS MEET VISUAL ACCEPTANCE CRITERIA: - CRACK PROHIBITION. - WELD/BASE-METAL FUSION. - CRATER CROSS SECTION. - WELD PROFILES. - WELD SIZE. - UNDERCUT....	P	P			
D. ARC STRIKES.	P	P			
E. K-AREA. WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAVE BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA OF CRACKS WITHIN 3 INCHES OF THE WELD.	P	P			
F. WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES. AFTER ROLLED HEAVY SHAPES AND BUILT UP HEAVY SHAPES ARE WELDED, VISUALLY INSPECT THE WELD ACCESS HOLES FOR CRACKS.	P	P			
G. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED).	P	P			
H. REPAIR ACTIVITY.	P	P			
I. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER.	P	P			
QUALITY CONTROL (QC) SHALL BE PROVIDED BY THE FABRICATOR AND ERECTOR. QUALITY ASSURANCE (QA) SHALL BE PROVIDED BY OTHERS WHEN REQUIRED BY THE AUTHORITY HAVING JURISDICTION, APPLICABLE BUILDING CODE, PURCHASER, OWNER, OR ENGINEER OF RECORD.					
O: OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS. P: PERFORM THESE TASKS FOR EACH STEEL ELEMENT.					

Health Science Research Building - Schedule of Inspections

Appendix -C Division 31 Earthwork & Foundations



MBC TABLE 1705.6 REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS AND SHALLOW FOUNDATIONS		
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	—	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	—	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	—	X
4. DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	—
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	—	X

MBC TABLE 1705.8 REQUIRED SPECIAL INSPECTIONS AND TESTS OF CAST-IN-PLACE DEEP FOUNDATION ELEMENTS		
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. INSPECT DRILLING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT.	X	—
2. VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM ELEMENT DIAMETERS, BELL DIAMETERS (IF APPLICABLE), LENGTHS, EMBEDMENT INTO BEDROCK (IF APPLICABLE) AND ADEQUATE END-BEARING STRATA CAPACITY. RECORD CONCRETE OR GROUT VOLUMES.	X	—
3. FOR CONCRETE ELEMENTS, PERFORM TESTS AND ADDITIONAL SPECIAL INSPECTIONS IN ACCORDANCE WITH SECTION 1705.3.	IN ACCORDANCE WITH SECTION 1705.3	

SPECIAL INSPECTIONS	
1.	PERFORM SPECIAL INSPECTIONS IN ACCORDANCE WITH THE 2021 MICHIGAN (INTERNATIONAL) BUILDING CODE CHAPTER 17 AND AS MODIFIED IN THE MATERIAL SPECIFIC STATEMENTS OF SPECIAL INSPECTION.
2.	DESIGNATION OF RESPONSIBLE AGENT AND THEIR QUALIFICATIONS
SI	SPECIAL INSPECTOR QUALIFIED WITH DEMONSTRATED COMPETENCE DOCUMENTED BY CERTIFICATIONS FROM RECOGNIZED AGENCIES SUCH AS AWS, ACI, MASONRY INSTITUTE OF MICHIGAN (MIM), ETC., AS SUBMITTED AND APPROVED BY THE BUILDING OFFICIAL. SPECIAL INSPECTOR MAY BE A FIRM WITH MULTIPLE SPECIALISTS AND A PROJECT MANAGER PROVIDING REPORTS.
TA	TESTING AGENCY QUALIFIED TO TEST AND INSPECT MATERIALS AND ASSEMBLIES. TESTING AGENCY SHALL BE UNDER THE SUPERVISION OF THE SPECIAL INSPECTOR.
GE	GEOTECHNICAL ENGINEER WHO PROVIDED THE ORIGINAL PROJECT GEOTECHNICAL SOILS INVESTIGATION REPORT.
SE	SPECIALTY ENGINEER RESPONSIBLE FOR DESIGNING ASSEMBLIES SUCH AS PRECAST CONCRETE, STEEL JOISTS, COLD FORMED FRAMING ASSEMBLIES, ETC. SPECIALTY ENGINEER SHALL PROVIDE OBSERVATION OF FABRICATED AND INSTALLED ITEMS OF THEIR DESIGN IN ADDITION TO THE SPECIAL INSPECTION.
3.	TA, GE AND SE SHALL SUBMIT RECORDS OF THE INSPECTION RESULTS TO THE SI. THE SI SHALL COMPILE AND SUBMIT INSPECTION RECORDS TO THE ARCHITECT/ENGINEER AND BUILDING OFFICIAL. RECORDS SHALL INCLUDE STATEMENTS OF TESTS, WHETHER INSTALLED/FABRICATED ITEM COMPLIES WITH CONTRACT DOCUMENTS, REMEDIAL WORK PERFORMED, RETESTS.
4.	SI SHALL PROVIDE A DAILY REPORT OF ANY DISCREPANCIES FROM THE CONTRACT DOCUMENTS FOUND ON THE SAME DAY OF THE INSPECTION TO THE ENGINEER OF RECORD. FORMAL REPORTS OF COMPLIANCE CAN FOLLOW BY A MAXIMUM OF 2 WEEKS. SI SHALL PROVIDE AND SIGN FINAL REPORT WITH A SUMMARY OF ALL TESTS PERFORMED AND RESULTS TO THE ENGINEER OF RECORD AND BUILDING OFFICIAL, IN ACCORDANCE WITH SECTION 1704.2.4.
5.	SI, TA & GE SHALL BE PAID BY THE OWNER IN COMPLIANCE WITH THE MICHIGAN (INTERNATIONAL) BUILDING CODE.
6.	WHERE FABRICATION OF STRUCTURAL LOAD-BEARING OR LATERAL LOAD-RESISTING MEMBERS OR ASSEMBLIES IS BEING CONDUCTED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTIONS OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION. SPECIAL INSPECTIONS DURING FABRICATION ARE NOT REQUIRED WHERE THE FABRICATOR MAINTAINS APPROVED DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND THE GOVERNING BUILDING CODE. APPROVAL SHALL BE BASED UPON REVIEW OF FABRICATION AND QUALITY CONTROL PROCEDURES AND PERIODIC INSPECTION OF FABRICATION PRACTICES BY THE BUILDING OFFICIAL. SPECIAL INSPECTIONS ARE NOT REQUIRED WHERE THE FABRICATOR IS REGISTERED AND APPROVED IN ACCORDANCE WITH SECTION 1704.2.5.1.
7.	REFER TO MATERIAL SPECIFIC STATEMENTS OF SPECIAL INSPECTION AND GENERAL STRUCTURAL NOTES FOR ADDITIONAL QUALITY CONTROL TESTING AND INSPECTIONS.