



## REQUEST FOR PROPOSALS

Special Inspection and Testing Services

Bid Number: 1114

DUE DATE: October 19, 2021

DUE TIME: 2:00 pm (local)

## INTRODUCTION

The Gerald R Ford International Airport Authority (GFIAA) is requesting proposals for Special Inspection and Structural Testing as part of a quality assurance program intended to ensure that the work is performed in accordance with the Contract Documents for the construction of Project Elevate Concourse A Expansion and widening.

Project funding will include state and federal funding sources including the FAA AIP Program. All federal regulations related to the use of federal funding, including federal wage rates, must be adhered to under the contract resulting from this RFQ.

The Gerald R. Ford International Airport (GFIA) is the second busiest airport in Michigan. The Airport served over 3.58 million passengers in 2019 with over 9,000 travelers passing through GFIA each day. The Gerald R. Ford International Airport offers nonstop service to 34 major market destinations with more than 140 daily nonstop flights. The Gerald R. Ford International Airport is managed and operated by the Gerald R. Ford International Airport Authority. GFIA generates over \$3.2 billion in annual economic output throughout West Michigan and employs over 2,000 people.

## SOLICITATION AND PROJECT SCHEDULE

ACTIVITY	DATE
RFP Issue Date	September 30, 2021
Question Deadline	October 14, 2021
Submission Due Date	October 19, 2021 at 2 pm
Contract Start Date	November 1, 2021

GFIAA reserves the right to modify the deadline set forth in the above table in its sole discretion. Any such modifications will be stated in an addendum.

## WORK SCOPE

### GENERAL

Special Inspection and Structural Testing shall be in accordance Chapter 17 of the Building Code of Michigan 2015. The program of Special Inspection and Structural Testing is a quality assurance program intended to ensure that the work is performed in accordance with the Contract Documents.

### SPECIAL INSPECTION AND TESTS

Required inspections and tests are described in the attached Statement of Special Inspections and Tests and the individual specification Sections for the items to be inspected or tested.

The Special Inspector, his agents, and the Independent Testing Laboratory (ITL) shall perform, but not be limited to, the project testing and inspection services as indicated in the attached Statement of Special Inspection and Tests.

### QUALIFICATIONS

The Special Inspector shall be a licensed Professional or Structural Engineer or International Code Council (ICC) Certified Special Inspector who is approved by the Owner, Structural Engineer of Record (SER) and Building Code Enforcement Official (BCEO). The Special Inspector may be an employee of the Testing Laboratory or an independent firm in a joint venture. Special Inspections shall be performed by inspectors qualified as per the Michigan Building code section 1704.2.1.

The Testing Laboratory and individual technicians shall be approved by the Owner, SER, and BCEO. The Testing Laboratory shall maintain a full-time ICC Certified Special Inspector on staff who shall certify all test reports. This individual shall be responsible for the training of the testing technicians and shall be in responsible charge of the field and laboratory testing operations.

The Special Inspector and Testing Laboratory shall submit, to the Owner, SER and BCEO, for review a copy of their qualifications, which shall include the names and qualifications of each of the individual inspectors and technicians who will be performing inspections or tests.

The Special Inspector and Testing Laboratory shall disclose any past or present business relationship or potential conflict of interest with the Architect (Mead & Hunt), Contractor (The Christman Company), or any of the Subcontractors whose work will be inspected or tested.

### **SPECIAL INSPECTION TESTING**

Specific items to be tested and the frequency as to which the tests are to be performed are as noted in this document and on the Statement of Special Inspections and Tests.

The Testing Laboratory shall make tests necessary to assure compliance with the plans and specifications and local building codes and label all test samples and cylinders with identifying marks. Testing Laboratory shall inspect and/or test assemblies, specimens, work performed, and techniques as specified.

Testing Laboratory shall coordinate scheduling and cooperate with Contractor and provide qualified personnel. Testing Laboratory shall promptly notify Contractor and SER of observed irregularities, deficiencies in work, and report any test results that fail to comply with the requirements of the Contract Documents.

Testing Laboratory shall promptly process and distribute all copies of test reports and related instructions to ensure all necessary retesting and/or replacement of materials with the least possible delay to the progress of the work. When laboratory testing or inspections suggest materials are not in conformance with the project documentation, the Architect and Contractor shall be notified within 24 hours. The testing laboratory shall provide a written report within three days related to every project test and inspection except daily reports are required for concrete testing. Electronic distribution of reports shall include each of the following:

- Owner
- Contractor
- Engineer/Architect
- Building Code Official, as requested

Each report shall include:

- Date issued.
- Project title and number.
- Testing Laboratory name, address, and telephone number.
- Name of Special Inspector and/or Testing Laboratory inspector and job number.
- Date and time of sampling or inspection.
- Record of temperature and weather conditions.
- Date of test.

- Identification of specification section.
- Location of sample or test in the project.
- Type of inspection or tests.
- Interpretation of test results.
- Each report shall have testing laboratory written comments stating that the test results comply with the specified requirements and/or identify retest instructions given to the Contractor and require follow-up test reports that are identified as the retest reports. The retest reports shall identify the original test report.

The Testing Laboratory is not authorized to release, revoke, alert or enlarge on requirements of Contract Documents. The Testing Laboratory is not authorized to perform any duties of the Contractor.

The Testing Laboratory shall not have control over the Contractor's means and methods of construction. The Testing Laboratory shall not be responsible for construction site safety. The Testing Laboratory has no authority to stop the work.

#### **TESTING LABORATORY INSURANCE REQUIREMENTS**

Provide comprehensive and general liability insurance with limits of liability of not less than five hundred thousand dollars (\$500,000) for property damage per occurrence.

Provide statutory worker's compensation insurance and employer's liability insurance with applicable maximum coverage as required by governing law.

Provide excess liability insurance, umbrella form, in the amount of five hundred thousand dollars (\$500,000).

Provide errors and omissions professional liability insurance in the amount of one million dollars (\$1,000,000).

#### **REPORT OF SPECIAL INSPECTIONS**

The special inspector shall notify the Architect / Engineer of nonconforming items observed within 24 hours of the observation.

Submit a biweekly Special Inspection Report until all inspections are complete. A report is required for each biweekly period in which Special Inspections activity occurs, and must include the following:

- A summary of the work performed during the reporting time frame.
- Changes and/or discrepancies with the drawings and specifications that were observed during the reporting period.
- Discrepancies which were resolved or corrected
- A list of nonconforming items requiring resolution.
- All applicable test results including nondestructive testing.

The Special Inspector shall not have control over the Contractor's means and methods of construction. The Special Inspector shall not be responsible for construction site safety. The Special Inspector has no authority to stop the work.

#### **FINAL REPORT OF SPECIAL INSPECTIONS**

The Final Report of Special Inspections shall be completed by the Special Inspector and /or the Testing Laboratory and be submitted to the Owner, SER, and BCEO prior to issuance of a Certificate of Use and Occupancy.

## CONSTRUCTION DOCUMENTS

Access project schedule and Construction Project Manual documents at the following Dropbox Link:

[https://www.dropbox.com/sh/701exncebrkr4sz/AAAcu\\_1fUpS-bsITUi5X8QXia?dl=0](https://www.dropbox.com/sh/701exncebrkr4sz/AAAcu_1fUpS-bsITUi5X8QXia?dl=0)

## EVALUATION CRITERIA

- Qualifications
- Cost
- Relevant Experience

## SUBMISSION FORMAT

Submissions should be submitted in the format outlined below:

### 1. Company overview:

Summarize your firm's strong points and describe how your experience, particularly with similar projects, will benefit GFIAA in its construction of the Project Elevate Concourse A expansion and widening. State the full name and address of the organization and, if applicable, the branch office, consultants, or other subordinate elements that will provide or assist in providing the service. Include phone number(s), email address(s) and Respondent's website address. Provide information regarding the DBE status of your firm or any sub-contractors.

### 2. Cost:

Provide hourly rate schedule and a total budgeted Not-To-Exceed price for all testing on your standard form (not to exceed 6 pages).

Not to Exceed price shall consider general working hours of 7a.m. to 5 p.m. Monday through Friday.

Time and Expense will serve as the basis of payment for this contract.

### 3. Experience:

Provide a minimum of three (3) relevant references, preferably for projects of similar scope and complexity. Include the names of the projects, location, completion date, project cost, and specific challenges; identify project team members and references for each project including telephone numbers and email addresses.

## REQUEST FOR PROPOSAL SUBMISSION

Responses may be delivered physically or electronically. To be considered, complete submissions must be received in the Gerald R. Ford International Airport Authority office located on the second floor of the terminal building prior to the due date and time specified (local time).

- Hard copy responses can be mailed or otherwise delivered to the address below.

Submission address:

Attn: Tom Cizauskas, Purchasing Manager  
Gerald R Ford International Airport Authority  
5500 44<sup>th</sup> St SE  
Grand Rapids, MI 49512

- Electronic responses can be securely uploaded as a single pdf document to:  
<https://www.dropbox.com/request/bwDe5ueaHNFAQXRY5HuC>

Late responses will NOT be considered.

Hard copy submissions shall be submitted in an envelope clearly labeled with the solicitation number, Respondent's name, telephone number, and company name.

Electronic submissions shall be named with a form or portion of the firm's name as part of the document name.

The Respondent certifies that the response submitted has not been made or prepared in collusion with any other Respondent and the prices, terms or conditions thereof have not been communicated by or on behalf of the Respondent to any other Respondent prior to the official opening of this request. This certification may be treated for all purposes as if it were a sworn statement made under oath, subject to the penalties for perjury. Moreover, it is made subject to the provisions of 18 U.S.C. Section 1001, relating to the making of false statements.

Sales and Marketing material beyond the scope of this request will not be used to determine the award and is not desired. Each submission should be simply and economically prepared, providing a concise description of the Respondent's ability to perform the product or services requested. Emphasis should be on completeness and clarity of content.

Submissions may be withdrawn by written request only if the request is received on or before the opening date and time.

Submissions not meeting these criteria may be deemed non-responsive.

GFIAA is not liable for any costs incurred by any prospective Respondent prior to the awarding of a contract, including any costs incurred in addressing this solicitation.

Each submission must be signed by a person authorized to sign contracts on the behalf of the Respondent. The name of the person signing must be followed by title.

## **REQUESTS FOR INFORMATION**

Questions regarding this solicitation are to be submitted in writing to [purchasing@grr.org](mailto:purchasing@grr.org) prior to 2 pm on October 14, 2021.

GFIAA reserves the right to publish and respond to an inquiry, respond directly to the inquirer without publishing, or not respond to the inquiry at its sole discretion.

It is the Respondent's responsibility to become familiar with and fully informed regarding the terms, conditions, and specifications of this solicitation. Lack of understanding or misinterpretation of any portions of this solicitation shall not be cause for withdrawal after opening or for subsequent protest of award.

Addendums will only be published by the GFIAA Purchasing Department and available for review at [www.flyford.org](http://www.flyford.org).

## **TERMS AND CONDITIONS**

GFIAA reserves the right to require that its standard terms and conditions apply to any actual order placed in response to a Respondent's submission. No attempt to modify GFIAA's Standard Terms and Conditions shall be binding, absent agreement on such modification in writing and signed by GFIAA.

No payment shall be made to the Respondent for any extra material or services, or of any greater amount of money than stipulated to be paid in the contract, unless changes in or additions to the contract requiring additional outlay by the Respondent shall first have been expressly authorized and ordered in writing by contract amendment or otherwise furnished by the GFIAA.

The intent of these specifications is to promote a properly designed and all-inclusive response. Any requirements not

in the specifications, but which are needed for such a response, are to be included in the submission.

The Respondent shall not discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status, or disability that is unrelated to the individual's ability to perform the duties of a particular job or position.

The Respondent shall observe and comply with all applicable federal, state, and local laws, ordinances, rules and regulations at all times during the completion of any contract with the GFIAA.

The terms of this request shall be interpreted, construed and enforced pursuant to the laws of the State of Michigan, and the Parties irrevocably consent to the jurisdiction of the federal and state courts presiding in Michigan.

The GFIAA is tax exempt and a regional airport authority organized under 2015 P.A. 95, being MCL 259.137 et. seq.

Vendor Representation and Warranty Regarding Federal Excluded Parties List: The Respondent acknowledges that the GFIAA may be receiving funds from or through the Federal Government; such funds may not be used to pay any Respondent on the Federal Excluded Parties List (EPLS). The Respondent represents and warrants to the GFIAA that it is not on the Federal EPLS. If the Respondent is in non-compliance at any time during execution or term of this agreement (including any extensions thereof), the Respondent shall be in breach and the GFIAA shall be entitled to all remedies available to it at law or equity, specifically including but not limited to recovery of all moneys paid to the Respondent, all consequential damages (including the loss of grant funding or the requirement that grant funding be returned), and attorney fees (including the costs of in-house counsel) sustained as a result of the Respondent's non-compliance with this warranty and representation.

Pursuant to the Michigan Iran Economic Sanctions Act, 2012 P.A. 517, by submitting a bid, proposal or response, Respondent certifies, under civil penalty for false certification, that it is fully eligible to do so under law and that it is not an "Iran linked business," as that term is defined in the Act.

Insurance requirements are posted on the Documents and Forms page of the GFIAA website within the Purchasing Terms and Conditions document

Termination For Cause: Should the respondent fail to perform the Work as required by and in accordance with the schedule or time requirements, or otherwise violate any of the terms set forth in the Solicitation Request, it shall constitute breach of the Contract. Other than in force majeure situations, Respondent shall have five (5) calendar days to cure a breach of the Contract (the "Cure Period") following issuance of GFIAA written notice. Failure to cure a breach of the Contract within said Cure Period shall allow the GFIAA to, without further notice to the Respondent, declare the Contract terminated and proceed with the replacement of the Respondent and the GFIAA shall be entitled to all remedies available to it at law or in equity including a claim against any required payment/performance bonds.

Termination Without Cause: Notwithstanding any other provision, at any time and without cause, GFIAA shall have the right, in its sole discretion, to terminate the contract by giving sixty (60) days written notice.

Although it is the intent to contract with one provider, the GFIAA reserves the right to contract with alternate sources if the Respondent is unable or unwilling to service its obligation, or it is deemed by GFIAA to be in its best interest to use alternate sources.

Assignment: Neither party shall assign or delegate any of its rights or obligations under this Agreement without the prior written consent of the other party.

Respondent warrants that they are an authorized provider of products or services of his/her submission.

## FEDERAL PROVISIONS

### NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION to ENSURE EQUAL EMPLOYMENT OPPORTUNITY

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

#### Timetables

Goals for minority participation for each trade: 8%

Goals for female participation in each trade: 6.9%

These goals are applicable to all of the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a) and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is Michigan, Kent County, Grand Rapids.

#### Title VI Solicitation Notice:

The **Gerald R. Ford International Airport Authority**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

#### BUY AMERICAN PREFERENCE

The Contractor agrees to comply with 49 USC § 50101, which provides that Federal funds may not be obligated unless all steel and manufactured goods used in AIP funded projects are produced in the United States, unless the Federal Aviation Administration has issued a waiver for the product; the product is listed as an Excepted Article, Material Or Supply in Federal Acquisition Regulation subpart 25.108; or is included in the FAA Nationwide Buy American Waivers Issued list.

#### TRADE RESTRICTION CERTIFICATION

By submission of an offer, the Offeror certifies that with respect to this solicitation and any resultant contract, the Offeror –



- 1) is not owned or controlled by one or more citizens of a foreign country included in the list of countries that discriminate against U.S. firms as published by the Office of the United States Trade Representative (USTR);
- 2) has not knowingly entered into any contract or subcontract for this project with a person that is a citizen or national of a foreign country included on the list of countries that discriminate against U.S. firms as published by the USTR; and
- 3) has not entered into any subcontract for any product to be used on the Federal project that is produced in a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18 USC Section 1001.

The Offeror/Contractor must provide immediate written notice to the Owner if the Offeror/Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The Contractor must require subcontractors provide immediate written notice to the Contractor if at any time it learns that its certification was erroneous by reason of changed circumstances.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to an Offeror or subcontractor:

- 1) who is owned or controlled by one or more citizens or nationals of a foreign country included on the list of countries that discriminate against U.S. firms published by the USTR or
- 2) whose subcontractors are owned or controlled by one or more citizens or nationals of a foreign country on such USTR list or
- 3) who incorporates in the public works project any product of a foreign country on such USTR list.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The Offeror agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in all lower tier subcontracts. The Contractor may rely on the certification of a prospective subcontractor that it is not a firm from a foreign country included on the list of countries that discriminate against U.S. firms as published by USTR, unless the Offeror has knowledge that the certification is erroneous.

This certification is a material representation of fact upon which reliance was placed when making an award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration (FAA) may direct through the Owner cancellation of the contract or subcontract for default at no cost to the Owner or the FAA.

#### **CERTIFICATION OF OFFERER/BIDDER REGARDING DEBARMENT**

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

#### **FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE)**

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers.

The [Contractor / Consultant] has full responsibility to monitor compliance to the referenced statute or regulation. The [Contractor / Consultant] must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

### **MICHIGAN FREEDOM OF INFORMATION ACT**

Information submitted in this solicitation is subject to the Michigan Freedom of Information Act and may not be held in confidence after the Respondent's submission is opened. A submission will be available for review after the project has been awarded.

GFIAA cannot assure that all of the information submitted as part of or peripheral to the Respondent's submission will be kept confidential. Any Respondent submission language designated as confidential is considered automatically invalid and void. GFIAA is subject to the Michigan Freedom of Information Act, which prohibits it from concealing information on or associated with responses, successful or unsuccessful, once they are opened.

### **EVALUATION, STATUS UPDATES/AWARD NOTIFICATION**

The Authority reserves the right to request additional information it may deem necessary after the submissions are received.

As part of the evaluation process, Respondents may be requested to make an oral presentation, at the Respondent's expense, to an evaluation committee. Key staff to be assigned to this project must participate in this presentation unless otherwise waived by the Authority. The presentation may be followed by a question and answer session.

The Authority reserves the right at its discretion to waive irregularities of this solicitation process.

In the event of extension errors, the unit price shall prevail and the Respondent's total offer will be corrected accordingly. In the event of addition errors, the extended totals will prevail and the Respondent's total will be corrected accordingly. Respondent must check their submission where applicable. Failure to do so will be at the Respondent's risk. Submissions having erasures or corrections must be initialed in ink by the Respondent. Respondents are cautioned to recheck their submissions for possible errors.

The Respondent shall not be allowed to take advantage of error, omissions or discrepancies in the specifications.


The Authority, at its sole discretion, reserves the right to award to the Respondent whose response is deemed most advantageous to the Authority. The Authority, at its sole discretion, shall select the most responsive and responsible Respondent and evaluate all responses based on the requirements and criterion set forth in this solicitation while reserving the right to weigh specifications and other factors in the award. The Authority reserves the right to reject any and all submissions as a result of this solicitation.

The Authority reserves the right to award by line item when applicable and to accept or reject any or all parts of a submission.

Accelerated discounts should be so stated at the time of submission. If quick-pay discounts are offered, The Authority reserves the right to include that discount as part of the award criterion. Prices must, however, be based upon payment in thirty (30) days after receipt, inspection, and acceptance. In all cases, quick-pay discounts will be calculated from the date of the invoice or the date of acceptance, whichever is later.

Award notifications are posted on the Authority website. It is the Respondent's responsibility to monitor the website for status updates.

PROJECT ELEVATE  
GERALD R. FORD INTERNATIONAL AIRPORT  
CONCOURSE A - GRAND RAPIDS, MICHIGAN

	<b>C&amp;S ENGINEERS, INC.</b> <b>499 COL. EILEEN COLLINS BLVD.</b> <b>Syracuse, NY 13212</b>	<b>STATEMENT OF SPECIAL INSPECTIONS &amp; TESTS</b> As Required by the 2015 Building Code of Michigan Supplement and 2015 International Building Code.
BC § 1704.3 requires that the project Registered Design Professional in responsible charge to complete the Statement of Special Inspections. Completion of this Statement of Special Inspections and submission to the Code Compliance Unit with the Construction Permit Application is a condition for issuance of the Construction Permit.		
<b>Project: Project Elevate</b>		<b>Project #: K19.003.001</b>
<b>Project Title: Concourse A Addition</b>		<b>Project Manager: J. Obleman</b>
<b>Architect/Engineer: C&amp;S Engineers</b>		
<b>Name of Person Completing this Statement: John W. Obleman</b>		<b>Date: 08/06/2021</b>
<b>Comments:</b>		

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BC)	CONTINUOUS	PERIODIC	BC REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES	COMMENTARY/NOTES and REFERENCE STANDARDS
<b>A. Special Cases (Add requirements under Part S as necessary)</b>			1705.1.1			Special Inspections and Tests shall be required for proposed work that is, in the opinion of the building official, unusual in its nature.
<b>B. Steel Construction.</b>			1705.2			
<b>1. Structural Steel</b>			1705.2.1			
<b>a. Inspection tasks prior to welding;</b>			1705.2.1			AISC 360 Table N5.4-1
i. Welding procedure specifications (WPSs) available	X		1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-1
ii. Manufacturer certifications for welding consumables available	X		1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-1
iii. Material identification (type/grade)		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-1
iv. Welder identification system		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-1 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 the low-stress type.
v. Fit up of groove welds (including joint geometry)		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-1

PROJECT ELEVATE  
GERALD R. FORD INTERNATIONAL AIRPORT  
CONCOURSE A - GRAND RAPIDS, MICHIGAN

INSPECTIONS AND TESTS (Continuous & Periodic is as defined by the BC)	CONTINUOUS	PERIODIC	BC REFERENCE	CHECK IF REQUIRED	SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP) <sup>1</sup>	COMMENTARY/NOTES and REFERENCE STANDARDS
vi. Configuration and finish of access holes		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-1
vii. Fit-up of fillet welds		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-1
viii. Check Welding equipment		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-1
<b>b. Inspection Tasks During Welding</b>			1705.2.1			AISC 360 Table N5.4-2
i. Use of qualified welders.		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-2
ii. Control and Handling of welding consumables.		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-2
iii. No welding over cracked tack welds.		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-2
iv. Environmental Conditions		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-2
v. Verify WPS followed		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-2
vi. Verify Welding Techniques		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-2
<b>c. Inspection Tasks after Welding</b>			1705.2.1			AISC 360 Table N5.4-3
i. Welds cleaned		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-3
ii. Size, length, and location of welds	X		1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-3
iii. Welds meet visual acceptance criteria	X		1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-3
iv. Arc strikes	X		1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-3
v. K-area			1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-3; When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3 in. (75mm) of the weld.
vi. Backing removed and weld tabs removed (if required)	X		1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-3
vii. Repair activities	X		1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-3
viii. Document acceptance or rejection of welded joint or member	X		1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.4-3
<b>d. Inspection Tasks Prior to Bolting</b>			1705.2.1			AISC 360 Table N5.6-1
i. Manufacturer's certification available for fastener materials	X		1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.6-1
ii. Fasteners marked in accordance with ASTM requirements		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.6-1
iii. Proper fasteners selected for the joint detail (grade, type, bolt		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.6-1

PROJECT ELEVATE  
GERALD R. FORD INTERNATIONAL AIRPORT  
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length if threads are to be excluded from shear plane)						
iv. Proper bolting procedure selected for joint detail		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.6-1
<b>INSPECTIONS AND TESTS (Continuous &amp; Periodic is as defined by the BC)</b>	<b>CONTINUOUS</b>	<b>PERIODIC</b>	<b>BC REFERENCE</b>	<b>CHECK IF REQUIRED</b>	<b>SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP)<sup>1</sup></b>	<b>COMMENTARY/NOTES and REFERENCE STANDARDS</b>
v. Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements.		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.6-1
vi. Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used.		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.6-1
vii. Proper storage provided for bolts, nuts, washers and other fastener components.		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.6-1
<b>e. Inspection Tasks During Bolting</b>			1705.2.1			AISC 360 Table N5.6-2
i. Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required.		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.6-2
ii. Joint brought to the snug-tight condition prior to the pretensioning operation.		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.6-2
iii. Fastener component not turned by the wrench prevented from rotating.		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.6-2
iv. Fasteners are pretensioned in accordance with the RCSC Specification, progressing systematically from the most rigid point toward the free edges.		X	1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.6-2
<b>f. Inspection Tasks After Bolting</b>			1705.2.1			AISC 360 Table N5.6-3
i. Document acceptance or rejection of bolted connections.	X		1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N5.6-3
<b>g. Inspection of Steel Elements of Composite Construction Prior to Concrete Placement</b>			1705.2.1			AISC 360 Table N6.1
i. Placement and installation of steel deck.	X		1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N6.1
ii. Placement and installation of steel headed stud anchors.	X		1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N6.1

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iii. Document acceptance or rejection of steel elements	X		1705.2.1	<input checked="" type="checkbox"/>		AISC 360 Table N6.1
<b>2. Cold-Formed Steel Deck</b>			1705.2.2	<input checked="" type="checkbox"/>		
<b>a. Inspection or Execution Tasks prior to Deck Placement</b>			1705.2.2			SDI QA/QC Table 1.1
<b>INSPECTIONS AND TESTS (Continuous &amp; Periodic is as defined by the BC)</b>	<b>CONTINUOUS</b>	<b>PERIODIC</b>	<b>BC REFERENCE</b>	<b>CHECK IF REQUIRED</b>	<b>SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP)<sup>1</sup></b>	<b>COMMENTARY/NOTES and REFERENCE STANDARDS</b>
i. Verify compliance of materials (deck and all deck accessories) with construction documents, including profiles, material properties, and base metal thickness.	X		1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.1
ii. Document acceptance or rejection of deck and deck accessories.	X		1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.1
<b>b. Inspection or Execution Tasks after Deck Placement</b>						SDI QA/QC Table 1.2
i. Verify compliance of deck and all deck accessories installation with construction documents.	X		1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.2
ii. Verify deck materials are represented by the mill certifications that comply with the construction documents.	X		1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.2
iii. Document acceptance or rejection of installation of deck and deck accessories.	X		1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.2
<b>c. Inspection or Execution Tasks Prior to Welding</b>			1705.2.2			SDI QA/QC Table 1.3
i. Welding Procedure Specifications (WPS) available.		X	1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.3
ii. Manufacturer certifications for welding consumables available		X	1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.3
iii. Material identification (type/grade).		X	1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.3
iv. Check welding equipment.		X	1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.3
<b>d. Inspection or Execution Tasks during Welding</b>			1705.2.2			SDI QA/QC Table 1.4
i. Use of qualified welders.		X	1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.4
ii. Control and handling of welding consumables.		X	1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.4
iii. Environmental conditions (wind speed, moisture, temperature).		X	1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.4

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iv. Verify WPS followed.		X	1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.4
<b>e. Inspection or Execution Tasks after Welding</b>			1705.2.2			SDI QA/QC Table 1.5
i. Verify size and location of welds, including support, sidelap, and perimeter welds.	X		1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.5
ii. Welds meet visual acceptance criteria.	X		1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.5
<b>INSPECTIONS AND TESTS (Continuous &amp; Periodic is as defined by the BC)</b>	<b>CONTINUOUS</b>	<b>PERIODIC</b>	<b>BC REFERENCE</b>	<b>CHECK IF REQUIRED</b>	<b>SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP)<sup>1</sup></b>	<b>COMMENTARY/NOTES and REFERENCE STANDARDS</b>
iii. Verify repair activities.	X		1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.5
iv. Document acceptance or rejection of welds.	X		1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.5
<b>f. Inspection or Execution Tasks prior to Mechanical Fastening</b>			1705.2.2			SDI QA/QC Table 1.6
i. Manufacturer installation instructions available for mechanical fasteners.		X	1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.6
ii. Proper tools available for fastener installation.		X	1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.6
iii. Proper storage for mechanical fasteners.		X	1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.6
<b>g. Inspection or Execution Tasks during Mechanical Fastening</b>			1705.2.2			SDI QA/QC Table 1.7
i. Fasteners are positioned as required.		X	1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.7
ii. Fasteners are installed in accordance with manufacturer's instructions.		X	1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.7
<b>h. Inspection or Execution Tasks after Mechanical Fastening</b>			1705.2.2			SDI QA/QC Table 1.8
i. Check spacing, type, and installation of support fasteners.	X		1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.8
ii. Check spacing, type, and installation of sidelap fasteners.	X		1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.8
iii. Check spacing, type, and installation of perimeter fasteners.	X		1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.8
iv. Verify repair activities.	X		1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.8
v. Document acceptance or rejection of mechanical fasteners.	X		1705.2.2	<input checked="" type="checkbox"/>		SDI QA/QC Table 1.8
<b>3. Open-Web Steel Joists and Joist Girders</b>			1705.2.3			
a. Installation of open-web			Table 1705.2.3	<input type="checkbox"/>		

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steel joists and joist girders						
i. End connections – welded or bolted.		X	Table 1705.2.3	<input type="checkbox"/>		SJI Specifications listed in Section 2207.1.
ii. Bridging – Horizontal or diagonal.			Table 1705.2.3			
a. Standard bridging.		X	Table 1705.2.3	<input type="checkbox"/>		SJI Specifications listed in Section 2207.1.
b. Bridging that differs from the SJI specifications listed in Section 2207.1		X	Table 1705.2.3	<input type="checkbox"/>		
<b>INSPECTIONS AND TESTS (Continuous &amp; Periodic is as defined by the BC)</b>	<b>CONTINUOUS</b>	<b>PERIODIC</b>	<b>BC REFERENCE</b>	<b>CHECK IF REQUIRED</b>	<b>SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP)<sup>1</sup></b>	<b>COMMENTARY/NOTES and REFERENCE STANDARDS</b>
<b>4. Cold-Formed Steel Trusses spanning 60 feet or Greater</b>		X	1705.2.4	<input type="checkbox"/>		The Special Inspector shall verify that the temporary restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the approved truss submittal package.
<b>C. Concrete Construction</b>			1705.3			
1. Inspect reinforcement, including prestressing tendons, and verify placement.		X	Table 1705.3	<input checked="" type="checkbox"/>		ACI 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3 IBC 1908.4
2 Reinforcing Bar Welding:			Table 1705.3 1705.3.1			AWS D1.4, ACI 318: 26.6.4
a. Verify weldability of reinforcing bars other than ASTM A706:		X	Table 1705.3	<input type="checkbox"/>		AWS D1.4 ACI 318: 26.6.4
b. Inspect single pass fillet welds, maximum 5/16"; and		X	Table 1705.3	<input type="checkbox"/>		AWS D1.4 ACI 318: 26.6.4
c. Inspect all other welds	X		Table 1705.3	<input type="checkbox"/>		AWS D1.4 ACI 318: 26.6.4
3. Inspect anchors cast in concrete.		X	Table 1705.3	<input checked="" type="checkbox"/>		ACI 318: 17.8.2
4. Inspect anchors post-installed in hardened concrete members.		X	Table 1705.3	<input checked="" type="checkbox"/>		
a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	X		Table 1705.3	<input checked="" type="checkbox"/>		ACI 318: 17.8.2.4
b. Mechanical anchors and adhesive anchors not defined in item 4a.		X	Table 1705.3	<input checked="" type="checkbox"/>		ACI 318: 17.8.2
5. Verify use of required design mix		X	Table 1705.3	<input checked="" type="checkbox"/>		ACI 318: Ch. 19, 26.4.3, 26.4.4 IBC 1904.1, 1904.2, 1908.2,



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						1908.3
6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of concrete.	X		Table 1705.3	<input checked="" type="checkbox"/>		ASTM C172, ASTM C31; ACI 318: 26.4, 26.12; IBC 1908.10
7. Inspect concrete and shotcrete placement for proper application techniques.	X		Table 1705.3	<input checked="" type="checkbox"/>		ACI 318: 26.5; IBC 1908.6, 1908.7, 1908.8
8. Verify maintenance of specified curing temperature and techniques.		X	Table 1705.3	<input checked="" type="checkbox"/>		ACI 318: 26.5.3-26.5.5 IBC: 1908.9
<b>INSPECTIONS AND TESTS (Continuous &amp; Periodic is as defined by the BC)</b>	<b>CONTINUOUS</b>	<b>PERIODIC</b>	<b>BC REFERENCE</b>	<b>CHECK IF REQUIRED</b>	<b>SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP)<sup>1</sup></b>	<b>COMMENTARY/NOTES and REFERENCE STANDARDS</b>
9. Inspect Prestressed concrete for:			Table 1705.3	<input type="checkbox"/>		
a. Application of prestressing forces; and	X		Table 1705.3	<input type="checkbox"/>		ACI 318: 26.10
b. Grouting of bonded prestressing tendons	X		Table 1705.3	<input type="checkbox"/>		ACI 318: 26.10
10. Inspect erection of precast concrete members		X	Table 1705.3	<input type="checkbox"/>		ACI 318: Ch. 26.8
11. Verify in-situ concrete strength, prior to stressing tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.		X	Table 1705.3	<input type="checkbox"/>		ACI 318: 26.11.2
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.		X	Table 1705.3	<input type="checkbox"/>		
<b>D. Masonry Construction (Check LA, LB or LC below)</b> <input type="checkbox"/> LA = Level A Quality Assurance <input checked="" type="checkbox"/> LB = Level B Quality Assurance <input type="checkbox"/> LC = Level C Quality Assurance			1705.4			TMS 402/ACI530/ASCE5 TMS 602/ACI530.1/ASCE6
<b>Level A Quality Assurance: Minimum Verification</b>			1705.4			
A1. Prior to construction, verify certificates of compliance used in masonry construction.		X	1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.1

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<b>Level B Quality Assurance: Minimum Special Inspections</b>			1705.4			
<b>INSPECTIONS AND TESTS (Continuous &amp; Periodic is as defined by the BC)</b>	<b>CONTINUOUS</b>	<b>PERIODIC</b>	<b>BC REFERENCE</b>	<b>CHECK IF REQUIRED</b>	<b>SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP)<sup>1</sup></b>	<b>COMMENTARY/NOTES and REFERENCE STANDARDS</b>
B1. Verify Compliance with approved submittals.		X	1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B2: As masonry construction begins, verify that the following are in compliance:			1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B2a: Proportions of site-prepared mortar.		X	1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B2b: Construction of Mortar Joints.		X	1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B2c: Grade and size of prestressing tendons and anchorage.		X	1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B2d: Location of reinforcement, connectors, and prestressing tendons and anchorage.		X	1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B2e: Prestressing technique.		X	1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B2f: Properties of thin bed mortar for AAC masonry.	X	X	1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2 Continuous inspection required for the first 5000sf of AAC Masonry, Periodic inspection is required after the first 5000sf of AAC masonry.
B3. Prior to grouting, verify that the following are in compliance:		X	1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B3a: Grout space.		X	1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B3b: Grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorage.		X	1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B3c: Placement of reinforcement, connectors, and prestressing tendons and anchorage.		X	1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B3d: Proportions of site-prepared grout for bonded tendons.		X	1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B3e: Construction of mortar joints.		X	1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B4: Verify during construction:		X	1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2

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B4a: Size and location of structural elements.		X	1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B4b: Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction.		X	1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B4c: Welding of reinforcement.	X		1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B4d: Preparation, construction, and protection of masonry during cold weather (temperature below 40dF) or hot weather (temperature above 90dF)		X	1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B4e: Application and measurement of prestressing force.	X		1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
<b>INSPECTIONS AND TESTS (Continuous &amp; Periodic is as defined by the BC)</b>	<b>CONTINUOUS</b>	<b>PERIODIC</b>	<b>BC REFERENCE</b>	<b>CHECK IF REQUIRED</b>	<b>SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP)<sup>1</sup></b>	<b>COMMENTARY/NOTES and REFERENCE STANDARDS</b>
B4f: Placement of grout and prestressing grout for bonded tendons is in compliance.	X		1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B4g: Placement of AAC masonry units and construction of thin-bed mortar joints.	X	X	1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2 Continuous inspection required for the first 5000sf of AAC Masonry, Periodic inspection is required after the first 5000sf of AAC masonry.
B5: Observe preparation of grout specimens, mortar specimens, and/or prisms.		X	1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
<b>Minimum Tests</b>			1705.4			
B6: Verification of Slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with Specification Article 1.5B1.b.3 for self-consolidating grout.			1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
B7: Verification of f'm and f'ac in accordance with Specification Article 1.4B prior to construction, except where specifically exempted by this Code.			1705.4	<input checked="" type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.2
<b>Level C Quality Assurance: Minimum Special Inspections</b>			1705.4			
C1. Verify compliance with the		X	1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5

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approved submittals.						Table 3.1.3
C2. Verify that the following are in compliance:			1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2a. Proportions of site mixed mortar, grout and prestressing grout for bonded tendons.		X	1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2b. Grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages.		X	1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2c. Placement of masonry units and construction of mortar joints.		X	1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2d. Placement of reinforcement, connectors, and prestressing tendons and anchorages.	X		1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2e. Grout spacing prior to grouting.	X		1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2f. Placement of grout and prestressing grout for bonded tendons.	X		1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
<b>INSPECTIONS AND TESTS (Continuous &amp; Periodic is as defined by the BC)</b>	<b>CONTINUOUS</b>	<b>PERIODIC</b>	<b>BC REFERENCE</b>	<b>CHECK IF REQUIRED</b>	<b>SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP)<sup>1</sup></b>	<b>COMMENTARY/NOTES and REFERENCE STANDARDS</b>
C2g. Size and location of structural elements.		X	1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2h. Type, size, and location of anchors including other details of anchorage of masonry to structural members, frames, or other construction.	X		1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2i. Welding of reinforcement.	X		1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2j. Preparation, construction, and protection of masonry during cold weather (temperature below 40dF) or hot weather (temperature above 90dF).		X	1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2k. Application and measurement of prestressing force.	X		1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2l. Placement of AAC masonry units and construction of thin-bed mortar joints.	X		1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C2m. Properties of thin-bed mortar for AAC masonry.	X		1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
C3. Observe preparation of grout specimens, mortar	X		1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3

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specimens, and/or prisms.						
<b>Minimum Tests</b>			1705.4			
D1. Verification of f'm and f' AAC in accordance with Specification Article 1.4B prior to construction and for every 5,000sf during construction.			1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
D2. Verification of proportions of materials in premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout, as delivered to the project site.			1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
D3. Verification of Slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with Specification Article 1.5B.1.b.3 for self-consolidating grout.			1705.4	<input type="checkbox"/>		TMS 402/ACI530/ASCE5 Table 3.1.3
<b>E. Wood Construction</b>			1705.5			
1. High Load Diaphragms		X	1705.5.1	<input type="checkbox"/>		
2. Metal Plate Connected Wood Trusses spanning 60 feet or Greater		X	1705.5.2	<input type="checkbox"/>		
<b>F. Soils</b>			1705.6			
<b>INSPECTIONS AND TESTS (Continuous &amp; Periodic is as defined by the BC)</b>	<b>CONTINUOUS</b>	<b>PERIODIC</b>	<b>BC REFERENCE</b>	<b>CHECK IF REQUIRED</b>	<b>SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP)<sup>1</sup></b>	<b>COMMENTARY/NOTES and REFERENCE STANDARDS</b>
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.		X	Table 1705.6	<input checked="" type="checkbox"/>		
2. Verify excavations are extended to a proper depth and have reached proper material.		X	Table 1705.6	<input checked="" type="checkbox"/>		
3. Perform classification and testing of compacted fill materials.		X	Table 1705.6	<input checked="" type="checkbox"/>		
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.	X		Table 1705.6	<input checked="" type="checkbox"/>		
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.		X	Table 1705.6	<input checked="" type="checkbox"/>		
<b>G. Driven Deep Foundations</b>			1705.7			

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1. Verify element materials, sizes and lengths, comply with the requirements.	X		Table 1705.7	<input type="checkbox"/>		
2. Determine capacities of test elements and conduct additional load tests, as required.	X		Table 1705.7	<input type="checkbox"/>		
3. Inspect driving operations and maintain complete and accurate records for each elements.	X		Table 1705.7	<input type="checkbox"/>		
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 damage to foundation element.	X		Table 1705.7	<input type="checkbox"/>		
5. For steel elements, perform additional special inspections in accordance with Section 1705.2.	-	-	Table 1705.7	<input type="checkbox"/>		
6. For concrete elements and concrete-filled elements, perform tests and additional special inspections in accordance with Section 1705.3.	-	-	Table 1705.7	<input type="checkbox"/>		
<b>INSPECTIONS AND TESTS (Continuous &amp; Periodic is as defined by the BC)</b>	<b>CONTINUOUS</b>	<b>PERIODIC</b>	<b>BC REFERENCE</b>	<b>CHECK IF REQUIRED</b>	<b>SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP)<sup>1</sup></b>	<b>COMMENTARY/NOTES and REFERENCE STANDARDS</b>
7. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge.	-	-	Table 1705.7	<input type="checkbox"/>		
<b>H. Cast-in-place Deep Foundations</b>			1705.8			
1. Inspect drilling operations and maintain complete and accurate records for each element.	X		Table 1705.8	<input checked="" type="checkbox"/>		
2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata	X		Table 1705.8	<input checked="" type="checkbox"/>		

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capacity. Record concrete or grout volumes.						
3. For concrete elements, perform tests and additional special inspections in accordance with Section 1705.3.	-	-	Table 1705.8	<input checked="" type="checkbox"/>		
<b>I. Helical Pile Foundations</b>	X		1705.9			
<b>J. Fabricated Items</b>			1705.10 1704.2.5			Where fabrication of structural, load-bearing, or lateral load resisting members or assemblies is being conducted on the premises of a fabricators shop
1. Structural Steel		X		<input type="checkbox"/>		
2. Steel Joists		X		<input type="checkbox"/>		
3. Precast Concrete		X		<input type="checkbox"/>		
4. Wood Construction		X		<input type="checkbox"/>		
<b>K. Special Inspections for Wind Resistance</b>			1705.11			RDP to identify the main windforce-resisting systems and wind-resisting components that are subject to special inspection per BC Section 1704.3.3.
1. Structural Wood	X	X	1705.11.1	<input type="checkbox"/>		
2. Cold Formed steel light framed Construction		X	1705.11.2	<input type="checkbox"/>		
3. Wind-resisting Components		X	1705.11.3	<input type="checkbox"/>		
<b>L. Special Inspections for Seismic Resistance</b>			1705.12			RDP to identify the designated seismic systems and seismic force-resisting systems that are subject to special inspection per BC Section 1704.3.2.
<b>INSPECTIONS AND TESTS (Continuous &amp; Periodic is as defined by the BC)</b>	<b>CONTINUOUS</b>	<b>PERIODIC</b>	<b>BC REFERENCE</b>	<b>CHECK IF REQUIRED</b>	<b>SPECIFICATION REFERENCE AND CLARIFYING NOTES (by RDP)<sup>1</sup></b>	<b>COMMENTARY/NOTES and REFERENCE STANDARDS</b>
1. Structural Steel		X	1705.12.1	<input type="checkbox"/>		AISC 341 Section J
2. Structural Wood	X	X	1705.12.2	<input type="checkbox"/>		
3. Cold Formed steel light framed Construction		X	1705.12.3	<input type="checkbox"/>		
4. Designated seismic systems	X	X	1705.12.4	<input type="checkbox"/>		ASCE 7 Section 13.2.2
5. Architectural Components		X	1705.12.5	<input type="checkbox"/>		
6. Plumbing, Mechanical, and Electrical Components		X	1705.12.6	<input type="checkbox"/>		
7. Storage Racks		X	1705.12.7	<input type="checkbox"/>		
8. Seismic Isolation Systems		X	1705.12.8	<input type="checkbox"/>		
9. Cold Formed steel special bolted moment frames		X	1705.12.9	<input type="checkbox"/>		

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<b>M. Testing for Seismic Resistance</b>			1705.13		
1. Structural Steel		X	1705.13.1	<input type="checkbox"/>	
2. Nonstructural Components		X	1705.13.2	<input type="checkbox"/>	
3. Designated Seismic Systems		X	1705.13.3	<input type="checkbox"/>	
4. Seismic Isolation Systems		X	1705.13.4	<input type="checkbox"/>	
<b>N. Sprayed Fire-Resistant Materials</b>			1705.14		
1. Physical and visual tests		X	1705.14.1	<input checked="" type="checkbox"/>	
2. Structural Member Surface Conditions		X	1705.14.2	<input checked="" type="checkbox"/>	
3. Application		X	1705.14.3	<input checked="" type="checkbox"/>	
4. Thickness		X	1705.14.4	<input checked="" type="checkbox"/>	
5. Density		X	1705.14.5	<input checked="" type="checkbox"/>	
6. Bond Strength		X	1705.14.6	<input checked="" type="checkbox"/>	
<b>O. Mastic and Intumescent Fire Resistant Coatings</b>		X	1705.15	<input checked="" type="checkbox"/>	
<b>P. Exterior Insulation and Finish Systems (EIFS)</b>			1705.16		
1. Exterior Insulation and Finish Systems (EIFS)		X	1705.16	<input type="checkbox"/>	
2. Water Resistive Barrier Coating		X	1705.16.1	<input type="checkbox"/>	
<b>Q. Fire-Resistant Penetrations and Joints</b>			1705.17		
1. Penetration Firestops		X	1705.17.1	<input checked="" type="checkbox"/>	
2. Fire-resistant joint systems		X	1705.17.2	<input checked="" type="checkbox"/>	
<b>R. Testing for Smoke Control</b>			1705.18		
1. Testing Scope		X	1705.18.1	<input type="checkbox"/>	
2. Qualifications		X	1705.18.2	<input type="checkbox"/>	
<b>S. Additional Special Inspections/Tests</b>			The registered design professional of record shall identify if additional tests and inspection defined by BC Section 1705.1.1 are required and provide specific requirements below.		
1.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
2.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
3.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
4.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
5.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
6.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
7.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
8.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
9.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
10.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	



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**NOTES:**

1. RDP to provide reference specification section detailing the requirements for inspections and/or tests and other clarifying notes, as necessary.
2. Commentary/Notes are provided for information only and are not intended to provide complete details of the required tests and inspections. Refer to the Building Code of Michigan for complete and detailed requirements.