Division of Finance and Business Operations

Wayne State University

Stadium Structural Stabilization

WSU Project Number 079-241292

Prevailing Wage Work

FOR:
Board of Governors
Wayne State University
Detroit, Michigan

Owner's Representative:
Nancy Milstein, Project Manager
Facilities Planning & Management
Design & Construction Services
5454 Cass
Wayne State University
Detroit, Michigan 48202

Owner's Agent:
Kimberly Tomaszewski, **Senior Buyer**
WSU – Procurement & Strategic Sourcing
5700 Cass, Suite 4200
Detroit, Michigan 48202
313-577-3757 / 313-577-3747 fax
ac9934@wayne.edu and copy **rfpteam1@wayne.edu**

Consultant:
NiagaraMurano
2215 Cole Street
Birmingham, MI 48009

January 20, 2014

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INFORMATION FOR BIDDERS

OWNER:	Board of Governors Wayne State University
PROJECT:	**Stadium Structural Stabilization** Project No. **079-241292**
LOCATION:	Wayne State University **1401 Edsel Ford Service Drive** Detroit, Michigan 48202
OWNER'S AGENT:	**Kimberly Tomaszewski**, **Senior Buyer** WSU – Procurement & Strategic Sourcing 5700 Cass, Suite 4200 Detroit, Michigan 48202 **313-577-3757** / 313-577-3747 fax **ac9934@wayne.edu** & copy **rfpteam1@wayne.edu**
OWNER'S REPRESENTATIVE:	**Nancy Milstein, Project Manager** Facilities Planning & Management Design & Construction Services Wayne State University 5454 Cass Avenue Detroit, Michigan 48202
Architect:	**NiagaraMurano** **2215 Cole Street** **Birmingham, MI 48009**

SPECIAL NOTE: Right to reject any and all proposals, either in whole or in part and to waive any irregularities therein is reserved by the Owner.

BIDS ADVERTISED: January 20, 2014

BIDDING: Bidding documents may be obtained by vendors from the University Purchasing Web Site at **http://www.forms.purchasing.wayne.edu/Adv_bid/Adv_bid.html** beginning **January 20, 2014**. When visiting the Web Site, click on the "**Construction**" link in green. Copies of the RFP will not be available at the pre-proposal meeting.

MANDATORY Pre-Bid Conference: 10:00 a.m., local time, Monday January 27, 2014 to be held at Wayne State University – **5454 Cass**, **Conference Room 3,** Detroit, MI, 48202. Late Arrivals may not be permitted to submit bids.

OPTIONAL Second Walk Through: (if needed) **To be determined at the conclusion of the pre-bid conference, by those in attendance.**

DUE DATE FOR QUESTIONS: Due Date for questions shall be **January 29, 2014 at 12:00 Noon.** All questions must be reduced to writing and emailed to the attention of **Kimberly Tomaszewski**, **Senior Buyer** at **ac9934@wayne.edu**, copy to **Loretta McClary**, **Senior Buyer** at: **rfpteam1@wayne.edu**.

Bids Due: Sealed proposals for lump-sum General Contract will be received at the office of the Procurement & Strategic Sourcing located at 5700 Cass Avenue, Suite 4200, Detroit, MI 48202 on **February 07, 2013,** until 2:00 p.m. (local time).

No public bid opening will be held.

Bid Qualification Meeting: Bidders must be available for bid prequalification meeting the day following the bid opening. The lowest qualified bidder will be contacted and requested to meet with Facilities Planning & Management at their office located at 5454 Cass Avenue, Detroit, MI 48202. During the prequalification, the Vendor must provide a Project Schedule and a Schedule of Values, including a list of Contractor's suppliers, subcontractors and other

qualifications.

An unsigned contract will be given to the successful Contractor at the conclusion of the Pre Award meeting, if all aspects of the bid are in order. The Contractor has 5 business days to return the contract to the Project Manager for University counter signature. The contractor must also submit a Performance Bond as outlined above and a Certificate of Insurance in the same 5 business day period. In the event the Contractor fails to return the documents in this 5 day period, the University reserves the right to award the contract to the next most responsive bidder.

All available information pertaining to this project will be posted to the Purchasing web site at
http://www.forms.purchasing.wayne.edu/Adv_bid/Adv_bid.html.
Information that is not posted to the website is not available/not known

INSTRUCTIONS TO BIDDERS

OWNER: Board of Governors
Wayne State University

PROJECT: **Stadium Structural Stabilization**
Project No. **079-241292**

LOCATION: Wayne State University
1401 Edsel Ford Service Drive,
Detroit, Michigan 48202

OWNER'S AGENT: **Kimberly Tomaszewski**, **Senior Buyer**
WSU – Procurement & Strategic Sourcing
5700 Cass, Suite 4200
Detroit, Michigan 48202
313-577-3757 / 313-577-3747 fax
ac9934@wayne.edu & copy **rfpteam1@wayne.edu**

1. PROPOSALS

A. The Purchasing Agent will receive sealed Proposals for the work as herein set forth at the place and until the time as stated in the "Information for Bidders", a copy of which is bound herewith in theses specifications. **No public bid opening will be held.**

B. Proposals shall be for a **lump-sum General Contract for the entire work of the Project as provided in the Form of Proposal.**

C. Proposals shall be submitted in duplicate on forms furnished with the Bidding documents. The forms must be fully filled out in ink or typewritten with the signature in longhand, and the completed forms shall be without alterations, interlineations, or erasures. Forms shall contain no recapitulations of the work to be done. Each proposal shall be delivered in an opaque sealed envelope, marked **"PROPOSAL"** AND SHALL BEAR THE NAME OF THE PROJECT AND THE NAME OF THE BIDDER. Proposals submitted by telephone or telegraph will not be accepted. Modifications by telephone or telegraph to previously submitted proposals will not be accepted.

D. (***revised 5-29-2009***) All base bids must be conforming to the detailed specifications and drawings provided by the University, including any Addenda issued. Voluntary Alternates will only be considered if the Contractor has also submitted a conforming base bid. Any stipulation of voluntary alternates or qualifications contrary to the Contract requirements made by the Bidder in or accompanying his proposal as a condition for the acceptance of the Contract will not be considered in the award of the Contract and will cause the rejection of the entire Proposal.

E. **The competency and responsibility of Bidders will be considered in making the award. The Owner does not obligate himself to accept the lowest or any other bids. The Owner reserves the right to reject any and all bids and to waive any informalities in the Proposals**.

2. PROPOSAL GUARANTEE *(revised 3-22-2012)*

A. A certified check or bank draft payable to the Owner, or satisfactory Bid Bond executed by the Bidder and Surety Company, in an amount equal to not less than five percent (5%) of the maximum proposal amount shall be submitted with each Proposal, which amount may be forfeited to the Board of Governors, Wayne State University, if the successful Bidder refuses to enter into a Contract within ninety (90) days from receipt of Proposals.

B. Bond must be issued by a Surety Company with an "A rating as denoted in the AM Best Key Rating Guide"

C. The bid deposit of all bidders except the lowest three will be returned within three (3) days after the bids are opened. After the formal Contract and bonds are approved, the bid deposit will be returned to the lowest three bidders, except when forfeited.

D. Bid bonds shall be accompanied by a Power of Attorney authorizing the signer of the bond to do so on behalf of the Surety Company.

E. Withdrawal of Proposals is prohibited for a period of ninety (90) days after the actual date of opening thereof.

3. CONTRACT SECURITY *(revised 3-22-2012)*

A. The successful Bidder will be required to furnish a Performance Bond and Labor and Material Payment bond in an amount equal to 100% of the contract award amount, and include such cost in the Proposal, complying with the laws of the State of Michigan. The graduated formula no longer applies.

B. Performance Bond and Labor and Material Payment Bond shall be from a surety company acceptable to the Owner and made payable as follows:

(1) A bond for 100% of the contract award amount to the Board of Governors of Wayne State University, and guaranteeing the payment of all subcontractors and all indebtedness incurred for labor, materials, or any cause whatsoever on account of the Contractor in accordance with the laws of the State of Michigan relating to such bonds.

(2) A bond for 100% of the contract award amount to the Board of Governors of Wayne State University to guarantee and insure the completion of work according to the Contract.

C. The only acceptable Performance Bond shall be the AIA A312 – 2010.

D. Bond must be issued by a Surety Company with an “A rating as denoted in the AM Best Key Rating Guide”.

4. BOND CLARIFICATION

For bids below $50,000.00,

A. Bid bond will not be required.
B. Performance Bond will not be required.

5. INSPECTION

A. Before submitting his Proposal, each Bidder shall be held to have visited the site of the proposed work and to have familiarized himself as to all existing conditions affecting the execution of the work in accordance with the Contract Documents. No allowance or extra consideration on behalf of the Contractor will subsequently be made by reason of his failure to observe the Conditions or on behalf of any subcontractor for the same reason.

6. EXPLANATION TO BIDDERS AND ADDENDA

A. Neither the Owner nor Representative nor Purchasing Agent will give verbal answers to any inquiries regarding the meaning of drawings and specifications, and any verbal statement regarding same by any person, previous to the award, shall be unauthoritative.

B. Any explanation desired by Bidders must be requested of the Purchasing Agent in writing, and if explanation is necessary, a reply will be made in the form of an Addendum, a copy of which will be forwarded to each Bidder registered on the Bidders' List maintained by Procurement & Strategic Sourcing.

C. All addenda issued to Bidders prior to date of receipt of Proposals shall become a part of these Specifications, and all proposals are to include the work therein described.

7. INTERPRETATION OF CONTRACT DOCUMENTS

A. If any person contemplating submitting a bid for the proposed Contract is in doubt as to the true meaning of any part of the drawings, specifications, or other Contract Documents, he may submit to the Purchasing Agent, a written request for an interpretation thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation of the Contract Documents will be made by an addendum duly issued. A copy of such addendum will be mailed and delivered to each registered Bidder. Each proposal submitted shall list all addenda, by numbers, which have been received prior to the time scheduled for receipt of proposal.

8. SUBSTITUTION OF MATERIALS AND EQUIPMENT*

A. Whenever a material, article or piece of equipment is identified on the Drawings or in the Specifications by reference to manufacturers' or vendors' names, trade names, catalog numbers, or the like, it is so identified for the purpose of establishing a standard, and any material, article, or piece of equipment of other manufacturers or vendors which will perform adequately the duties imposed by the general design will be considered equally acceptable provided that the material, article, or piece of equipment so proposed is, in the opinion of the Architect, of equal substance, appearance and function. It shall not be purchased or installed by the Contractor without the Architect's written approval.

9. TAXES

A. The Bidder shall include in his lump sum proposal and make payment of all Federal, State, County and Municipal taxes, including Michigan State Sales and Use Taxes, now in force or which may be enacted during the progress and completion of the work covered.

10. REQUIREMENTS FOR SIGNING PROPOSALS AND CONTRACTS

A. The following requirements must be observed in the signing of proposals that are submitted:

(1) Proposals that are not signed by individuals making them shall have attached thereto a Power of Attorney, evidencing the authority to sign the Proposal in the name of the person for whom it is signed.

(2) Proposals that are signed for partnership shall be signed by all of the partners or by an Attorney-in-Fact. If signed by an Attorney-in-Fact, there must be attached to the Proposal a Power of Attorney evidencing authority to sign the Proposal, executed by the partners.

(3) Proposals that are signed for a corporation shall have the correct corporate name thereof and the signature of the President or other authorized officer of the corporation, manually written in the line of the Form of Proposal following the words "signed by". If such a proposal is signed by an official other than the President of the Corporation, a certified copy of resolution of the Board of Directors, evidencing the authority of such official to sign the bid, shall be attached to it. Such proposal shall also bear the attesting signature of the Secretary of the Corporation and the impression of the corporate seal.

11. QUALIFICATIONS OF BIDDERS

A. The Owner may request each of the three (3) low bidders to submit information necessary to satisfy the Owner that the Bidder is adequately prepared to fulfill the Contract. Such information may include past performance records, list of available personnel, plant and equipment, description of work that will be done simultaneously with the Owner's Project, financial statement, or any other pertinent information. This information and such other information as may be requested will be used in determining whether a Bidder is qualified to perform the work required and is responsible and reliable.

12. SPECIAL REQUIREMENTS

A. The attention of all Bidders is called to the General Conditions, Supplementary General Conditions, and Special Conditions, of which all are a part of the Specifications covering all work, including Subcontracts, materials, etc. Special attention is called to those portions dealing with Labor Standards, including wages, fringe benefits, Equal Employment Opportunities, and Liquidated Damages.

B. Prior to award of the project, the apparent low bidder will be required to produce a schedule of values which will include the proposed subcontractors for each division of work and whether the subcontractor is signatory or non-signatory. A contract will not be issued to the apparent low bidder until this document is provided. A contractor will have one week to produce this document. If the required document is not received within this time, the bidder will be disqualified.

13. NOTICE OF AWARD/ACCEPTANCE OF BID PROPOSAL *(revised 12-15-2009)*

A. The Proposal shall be deemed as having been accepted when a copy of the Contract (fully executed by both the vendor and the appropriate signatory authority for the University), with any/all Alternates, Addenda, and Pre-Contract Bulletins, as issued by the office or agent of the Owner has been duly received by the Contractor. After signing the Contracts, the Contractor shall then return all copies, plus any required bonds and certificates of insurance, to the office of the Owner's Representative, at 5454 Cass, Wayne State University, Detroit, MI 48202. Construction will begin when the fully-executed contract has been returned to the Contractor.

14. TIME OF STARTING AND COMPLETION

A. It is understood that the work is to be carried through to substantial completion with the utmost speed consistent with good workmanship and to meet the established start and completion dates.

B. The Contractor shall begin work under the Contract without delay, upon receipt of a fully-executed contract from the Owner, and shall substantially complete the project ready for unobstructed occupancy and use of the Owner for the purposes intended within the completion time stated in the Contract.

C. The Contractor shall, immediately upon receipt of fully-executed contract, schedule his work and expedite deliveries of materials and performance of the subcontractors to maintain the necessary pace for start and completion on the aforementioned dates.

15. BIDDING DOCUMENTS

A. Bid specifications are not available at the University, but are available beginning **January 20, 2014** through Wayne State University Procurement & Strategic Sourcing's Website for Advertised Bids: **http://www.forms.purchasing.wayne.edu/Adv_bid/Adv_bid.html**. The plans for this project can be viewed in advance and/or printed from the above website. Copies of the RFP will not be available at the pre-proposal meeting.

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B. **DOCUMENTS ON FILE *(revised 12-2007)***

(1) *Wayne State University Procurement & Strategic Sourcing's Website.*
All available information pertaining to this project will be posted to the Purchasing web site at **http://www.forms.purchasing.wayne.edu/Adv_bid/Adv_bid.html**.
Information that is not posted to the website is not available/not known.

(2) Notification of this Bid Opportunity has been sent to *DUNN BLUE (for purchase of Bid Documents only), DODGE REPORTS, REED CONSTRUCTION, CONSTRUCTION NEWS and the CONSTRUCTION ASSOCIATION OF MICHIGAN (CAM).*

(3) Please note: Effective December 1, 2007, bid notices will be sent only to those Vendors registered to receive them via our Bid Opportunities list serve. To register, to

http://www.forms.purchasing.wayne.edu/Adv_bid/Adv_bid.html, and click on the "Join our Listserve" link at the top of the page.

NOTICE OF MANDATORY PRE-BID CONFERENCE

PROJECT: **Stadium Structural Stabilization**

PROJECT NOS.: **WSU PROJECT NO. 079-241292**

It is **MANDATORY** that each Contractor proposing to bid on this work must attend a pre-bid conference at the following location:

Wayne State University
5454 Cass, Conference Room 3
Detroit MI 48202

10:00 a.m., local time, Monday, January 27, 2014

The purpose of this conference is to clarify the procedures, scope of work, and to identify any omissions and/or inconsistencies that may impede preparation and submission of representative competitive bids.

An attendance list shall be prepared and minutes of the conference shall be furnished to all those attending.

Any clarifications or corrections that cannot be made at the conference will be by Addendum.

For your convenience a map of the University and appropriate parking lots can be downloaded and printed from: **http://campusmap.wayne.edu/**. Guest parking in any of the University student and guest lots is **$6.50**. A detailed list of Cash & Coin operated lots can be viewed at **http://purchasing.wayne.edu/cash_and_credit_card_lots.php**. Cash lots dispense change in quarters. Due to time constraints, Vendors are encouraged to avoid parking at meters on the street (especially blue "handicapped" meters).

All available information pertaining to this project will be posted to the Purchasing web site at
http://www.forms.purchasing.wayne.edu/Adv_bid/Adv_bid.html.
Information that is not posted to the website is not available/not known.

AGENDA

I. Welcome and Introductions
   A. Wayne State University Representatives
   B. Vendor Representatives
   C. Sign in Sheet- be sure to include your fax number and email address (LEGIBLY) on the sign in sheet.

II. Brief Overview of Wayne State University
   A. Purpose and Intent of RFP.
   B. Detailed review of the RFP and the requirements for a qualified response.
   C. Review of all pertinent dates and forms that are REQUIRED for a qualified response.

III. Vendor Questions/Concerns/Issues
   A. Questions that can be answered directly by the appropriate person in this meeting will be answered and both question and answer will be recorded in the minutes of the meeting.
   B. Questions that need to be researched will be answered and a nature of clarification will be emailed to the appropriate ListServ. See **http://www.forms.purchasing.wayne.edu/Adv_bid/Adv_Bid_Listserve.html** for a list of ListServ Bid Lists.
   C. Minutes will be emailed to all participants of the meeting within a reasonable amount of time. (be sure to include your email address/addresses on the sign in sheet)
   D. Questions and concerns that come up after this meeting are to be addressed to **Kimberly Tomaszewski**, Procurement & Strategic Sourcing. Discussion with other University members is seriously discouraged and could lead to disqualification from further consideration. All questions and answers will be recorded and emailed to all participants of the RFP.
   E. Due date for questions is **January 29, 2014, 12:00 noon**.

IV. Proposal Due Date- **February 07, 2013, 2:00 p.m.**

V. Final Comments

VI. Adjourn

VENDOR NAME_____

GENERAL CONTRACT - PROPOSAL FORM *(revised 1 - 2011)*

Please Note – Vendors must Pre-qualify themselves when responding to this bid opportunity. Our Prequalification questions can be found on page 4 of this section.

OWNER:	Board of Governors Wayne State University
PROJECT:	**Stadium Structural Stabilization**
PROJECT NO.:	WSU PROJECT NO. **079-241292**
PROJECT TYPE:	**General Construction Work**
PURCHASING AGENT:	**Kimberly Tomaszewski**, **Senior Buyer** WSU – Procurement & Strategic Sourcing 5700 Cass, Suite 4200 Detroit, Michigan 48202 **313-577-3757**/ 313-577-3747 fax **ac9934@wayne.edu** & copy **rfpteam1@wayne.edu**
OWNER'S REPRESENTATIVE:	**Nancy Milstein, Project Manager** Design & Construction Services Facilities Planning & Management Wayne State University 5454 Cass Avenue Detroit, Michigan 48202
TO:	Board of Governors Wayne State University Detroit, Michigan

BASE PROPOSAL:

The undersigned agrees to enter into an Agreement to complete the entire work of the **Stadium Structural Stabilization project** (WSU Project No. **079-241292**) including owner's allowance of $2,000 for Additional Stainless Steel Shim plates, to be used only upon owner's final approval in accordance with the Bidding Documents for the following amounts:

_____ $ _____ Dollars

LAWN REPLACEMENT:

The undersigned agrees that, in the event of existing lawn or landscaping damage, due to the Contractor's work, that has not been properly addressed and repaired to the satisfaction of the University, the University may repair/replace the lawn and/or landscaping, and that the expense will be at a **unit cost of $10.00 per square yard for lawn, and landscaping at a rate of 1.5 times the cost of said repairs**, the full cost of which shall be reimbursed by the contractor.

CONTRACT CHANGE ORDERS: *(revised 4-01-2011)*

The undersigned agrees to the following pricing formula and rates for changes in the contract work:

1. For subcontract work, Contractor's markup for handling, overhead, profit and bonding on subcontractors sell price, shall not exceed **5%.**

1.1. For subcontract work that is provided on a time and material basis, the subcontractor shall be permitted a single markup for handling, overhead, profit and bonding of 5%. When a markup is identified in the subcontractor's hourly labor rate, additional markup on labor is not permitted.

1.1.1 For changes that are based upon a lump sum value, subcontractor shall provide all labor and material back-ups to ensure that duplicative charges are avoided and authorized mark-ups for OH&P can be confirmed

2. For work by his own organization, Contractor's markup for job* and general overhead, profit and bonding shall not exceed **5%** of the net labor** and material costs.

Within 14 days of the project's contract execution Contractor shall provide to the Owner; Subcontractor's hourly labor rate breakdown details. This requirement shall extend to the lowest level of subcontractor participation.

* Job and general overhead includes supervision and executive expenses; use charges on small tools, scaffolding, blocking, shores, appliances, etc., and other miscellaneous job expenses.

** Net labor cost is the sum of the base wages, fringe benefits established by governing trade organizations, applicable payroll taxes, and increased expense for contractor's liability insurance (Workman's Compensation, P.L. and P.D.).

TIME OF COMPLETION:

(revised 4-01-2011)
The Contract is expected to be fully executed on or about 25 calendar days after successful bidder qualification and recommendation of award. The undersigned agrees to start construction **immediately after** receipt of a fully executed contract, and to complete the work as follows:

Substantial Completion will be completed no later than **July 18, 2013.**

LIQUIDATED DAMAGES:

It is understood and agreed that, if project is not completed within the time specified in the contract plus any extension of time allowed pursuant thereto, the actual damages sustained by the Owner because of any such delay, will be uncertain and difficult to ascertain, and it is agreed that the reasonable foreseeable value of the use of said project by Owner would be the sum of **$500.00, Five hundred Dollars per day**, and therefore the contractor shall pay as liquidated damages to the Owner the sum of **$500.00, Five hundred Dollars per day** for each day's delay in substantially completing said project beyond the time specified in the Contract and any extensions of time allowed thereunder.

TAXES:

The undersigned acknowledges that prices stated above include all applicable taxes of whatever character or description. Michigan State Sales Tax is applicable to the work. Bidder understands that the Owner reserves the right to reject any or all bids and to waive informalities or irregularities therein.

ADDENDA:

The undersigned affirms that the cost of all work covered by the following Addenda are included in the lump sum price of this proposal.

Addendum No._____Date_____ Addendum No._____Date_____

Addendum No._____Date_____ Addendum No._____Date_____

Addendum No._____Date_____ Addendum No._____Date_____

Addendum No._____Date_____ Addendum No._____Date_____

Addendum No._____Date_____ Addendum No._____Date_____

CONTRACTOR'S PREQUALIFICATION STATEMENT & QUESTIONNAIRE:

Our Minimum Requirements for Construction Bids are:

WSU considers this project: General Construction Work.

Criteria	Small Project bid less than $50,000	Medium Project bid between $50,001 and $250,000	Large Project bid between $250,001 and $2 million	Very Large Project bid greater than $2 million
EMR Rating (Experience Modification Rating)	1.0 or Less	1.0 or Less	1.0 or Less	1.0 or Less
Bondable Vendor	N.A.	Required	Required	Required
Length of Time in Construction Business	2 Years	3 Years	5 Years	5 Years
Demonstrated Experience in Projects Similar in Scope and Price in the last 3 years	1 or more	1 or more	2 or more	3 or more
Unsuccessful Projects on Campus in last 3 years	None Allowed	None Allowed	None Allowed	None Allowed
Failure to comply with Prevailing Wage and/or Project Labor requirements	None Allowed	None Allowed	None Allowed	None Allowed
Withdrawn University Bid (with or without Bond forfeiture) within the last 3 years **	2 or less	2 or less	1 or less	1 or less
Company currently not in Chapter 11 of the US Bankruptcy Code	1 Year	2 Years	3 Years	3 Years

** Withdrawal of a bid is subject to the University suspension policy, for a period up to one year.

Contractors must complete the following information to determine their eligibility to participate in this bid. This information is required with your Bid to the University

Failure to complete this form in its entirety will result in your bid being disqualified.

Check one of the following on the makeup of your company:

_____ Corporation _____ Individual

_____ Partnership _____ Joint Venture

_____ Other (Explain)

_____

_____

1. How many years has your organization been in business as a contractor? _____
2. How many years has your organization been in business under its present business name? _____

3. List states in which your organization is legally qualified to do business. _____

_____

4. Provide the Name and Address of your Liability Insurance Carrier. _____

_____

5. What is your current EMR Rating? _____
   The minimum requirement is an EMR Rating of 1.0 or less for all projects. Bidders with a rating higher than 1.0 understand that their bid may be disqualified, at the sole discretion of the University.

6. What percentage of work performed on projects are by company employees; excluding any hired subcontracting and outsourced relationships, for the bid submitted? _____ %

7. What percentage of work performed on your companies behalf are by subcontracted business relationships; disallowing 1099 contracting work forces, for the bid submitted? _____ %

8. Have you ever failed to complete any work awarded to you? If so, attach a separate sheet of explanation. Include the name of the Project, the customer, the dates of the work, and the amount of the contract?

_____

9. Have you withdrawn a bid after a University bid opening and/or refused to enter into a contract with the University upon notification of award within the last 3 years? If so, state the Project Name and Number, and the date of bid submission below.

_____

10. Has any officer or partner of your organization ever been an officer or partner of another organization that failed to complete a construction contract? If so, attach a separate sheet of explanation.

_____

11. List the construction experience of the principals and superintendents of your company.

Name: _____ Title: _____

_____

_____

Name: _____ Title: _____

_____

_____

Name: _____ Title: _____

_____

_____

12. List the construction Projects, and approximate dates, when you performed work similar in Scope to this project.

Project: _____ Owner: _____

Contract Amount: _____ Date Completed: _____

Project: _____ Owner: _____

Contract Amount: _____ Date Completed: _____

Project: _____ Owner: _____

Contract Amount:_____ Date Completed: _____

13. List the construction Projects, and approximate dates, when you performed work similar in Dollar Amount to this project.

Project:_____ Owner:_____

Contract Amount: _____ Date Completed: _____

Project: _____ Owner: _____

Contract Amount: _____ Date Completed: _____

Project: _____ Owner: _____

Contract Amount: _____ Date Completed: _____

14. Is your Company "bondable"? Yes _____ No_____

15. What is your present bonding capacity? $ _____

16. Who is your bonding agent?

NAME: _____

ADDRESS: _____

PHONE: (_____) _____

CONTACT: _____

17. Does your company agree to provide financial reports to the University upon request? Failure to agree may result in disqualification of your bid. Yes _____ No_____

18. Does your company agree that all of the Terms and Conditions of this RFP and Vendor's Response Proposal become part of any ensuing agreement? Yes _____ No_____

19. Does your company agree to execute a contract containing the clauses shown in Section 00500 "Agreement Between Contractor and Owner for Construction"? Yes _____ No_____

If "No", clearly note any exceptions to any information contained in the contract documents and include with your proposal.

20. Did your company quote based upon **Project Labor Requirements**? Yes _____ No_____

Note: Contractors submitting proposals for this project may, at the discretion of the University, be required to submit references including contact information to be used to assist in the post bid evaluation process for the subject project

ACKNOWLEDGEMENT OF MINIMUM QUALIFICATIONS:

The undersigned has read and understands the minimum qualifications for University construction projects, and has completed the Prequalification section completely and accurately. The undersigned understands that a contractor, who fails to meet the minimum qualifications **in the category identified for this project, will be disqualified from consideration for the project**.

ACCEPTANCE OF PROPOSAL: The undersigned agrees to execute a Contract, being the Wayne State University standard form titled "Agreement Between Contractor and Owner for Construction" (see section 00500 of the bid documents), provided that we are notified of the acceptance of our Proposal within sixty (60) days of the date set for the opening thereof.

The undersigned below understands that the bid will be disqualified if the Prequalification information above is not completed in its entirety.

NAME OF COMPANY: _____

OFFICE ADDRESS: _____

PHONE NUMBER: _____ DATE _____

FAX NUMBER: _____

SIGNED BY: _____
Signature

_____
(Please print or type name here)

TITLE _____

EMAIL ADDRESS: _____@_____

PREVAILING WAGE RATE SCHEDULE *(revised 4-05-2010)*

A. See also Page 00100-4 Section 12.B

B. Wayne State University requires all project contractors, including subcontractors, who provide labor on University projects to compensate at a rate no less than prevailing wage rates.

C. The rates of wages and fringe benefits to be paid to each class of laborers and mechanics by each VENDOR and subcontractor(s) (if any) shall be not less than the wage and fringe benefit rates prevailing in Wayne County, Michigan, as determined by the United States Secretary of Labor. Individually contracted labor commonly referred to as "1099 Workers" and subcontractors using 1099 workers are not acceptable for work related to this project.

D. To maintain compliance with State of Michigan Ordinances, Certified Payroll must be provided for each of the contractor's or subcontractor's payroll periods for work performed on this project. Certified Payroll should accompany all Pay Applications. Failure to provide certified payroll will constitute breach of contract, and pay applications will be returned unpaid, and remain so until satisfactory supporting documents are provided.

A Prevailing Wage Rate Schedule has been issued from the State of Michigan that is enclosed in this section

Additional information can be found on the University Procurement & Strategic Sourcing's web site at the following URL address:

http://purchasing.wayne.edu/vendors/wage-rates.php

If you have any questions, or require rates for additional classifications, please contact:

Michigan Department of Consumer & Industry Services,
Bureau of Safety and Regulation, Wage and Hour Division,
7150 Harris Drive,
P.O. Box 30476,
Lansing, Michigan 48909-7976

http://www.michigan.gov/dleg/0,1607,7-154-27673_27706---,00.html

F. **Wayne State University's Prevailing Wage Requirements:**

When compensation will be paid under prevailing wage requirements, the University shall require the following:

A. The contractor shall obtain and keep posted on the work site, in a conspicuous place, a copy of all current prevailing wage and fringe benefit rates.

B. The contractor shall obtain and keep an accurate record showing the name and occupation of and the actual wages and benefits paid to each laborer and mechanic employed in connection with this contract.

C. The contractor shall submit a completed certified payroll document [U.S. Department of Labor Form WH 347] verifying and confirming the prevailing wage and benefits rates for all employees and subcontractors for each payroll period for work performed on this project. The contractor shall include copies of pay stubs for all employee or contract labor payments related to Wayne State University work. The certified payroll form can be downloaded from the Department of Labor website at **http://www.dol.gov/whd/forms/wh347.pdf**.

D. A properly executed sworn statement is required from all tiers of contractors, sub-contractors and suppliers which provide services or product of $1,000.00 or greater. Sworn statements must accompany applications for payment. All listed parties on a sworn statement and as a subcontractor must submit Partial or Full Conditional Waivers for the amounts invoiced on the payment application. A copy of the acceptable WSU Sworn Statement and Waiver will be provided to the awarded contractor.

E. Apprentices for a skilled trade must provide proof of participation in a Certified Apprenticeship Program and the level of hours completed in the program.

F. Daily project sign-in sheets and field reports for the project must be turned in weekly.

Note: Contractor invoices WILL NOT be processed until all listed certified payroll documents are received.

G. If the VENDOR or subcontractor fails to pay the prevailing rates of wages and fringe benefits and does not cure such failure within 10 days after notice to do so by the UNIVERSITY, the UNIVERSITY shall have the right, at its option, to do any or all of the following:

1. Withhold all or any portion of payments due the VENDOR as may be considered necessary by the UNIVERSITY to pay laborers and mechanics the difference between the rates of wages and fringe benefits required by this contract and the actual wages and fringe benefits paid;

2. Terminate this contract and proceed to complete the contract by separate agreement with another vendor or otherwise, in which case the VENDOR and its sureties shall be liable to the UNIVERSITY for any excess costs incurred by the UNIVERSITY.

3. Propose to the Director of Purchasing that the Vendor be considered for Debarment in accordance with the University's Debarment Policy, found on our website at **http://purchasing.wayne.edu/docs/appm28.pdf**

Terms identical or substantially similar to this section of this RFP shall be included in any contract or subcontract pertaining to this project.

H. The current applicable prevailing wage rates as identified by the State of Michigan Department of Consumer & Industry Services, Bureau of Safety and Regulation, Wage and Hour Division are attached. Refer to item C above if additional information is required.

I. Prior to award of the project, the apparent low bidder will be required to produce a schedule of values which will include the proposed subcontractors for each division of work and whether the subcontractor is signatory or non-signatory. A letter of intent or **contract will not** be issued to the apparent low bidder until this document is provided. The apparent low bidder will have one week to produce this document. If the required document is not received within this time, the bidder will be disqualified, and the next low bidder will be required to provide this schedule of values.

SEE ATTACHED STATE PREVAILING WAGE INFORMATION

State of Michigan

WHPWRequest@michigan.gov

Official Request #: 1371
Requestor: Wayne State University
Project Description: Stadium - Structural Repairs To Steel/Precast Concrete
Project Number: 079-241292

Wayne County

Official 2013 Prevailing Wage Rates for State Funded Projects

Issue Date: 12/12/2013
Contract must be awarded by: 3/12/2014

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Asbestos & Lead Abatement Laborer						
Asbestos & Lead Abatement Laborer	MLDC		$39.75	$53.04	$66.32	H H H X X X X D Y
4 ten hour days @ straight time allowed Monday-Saturday, must be consecutive calendar days		8/14/2013				
Asbestos & Lead Abatement, Hazardous Material Handler						
Asbestos and Lead Abatement, Hazardous Material Handler	AS207		$39.75	$53.08	$66.40	H H H X X X X D Y
4 ten hour days @ straight time allowed Monday-Saturday,		9/16/2013				
Boilermaker						
Boilermaker	BO169		$54.70	$81.08	$107.45	H H H H H H H D Y
		8/14/2009				
	Apprentice Rates:					
	1st 6 months		$40.31	$59.49	$78.67	
	2nd 6 months		$41.45	$61.21	$80.95	
	3rd 6 months		$42.57	$62.88	$83.19	
	4th 6 months		$43.69	$64.57	$85.43	
	5th 6 months		$44.81	$66.24	$87.67	
	6th 6 months		$49.53	$73.40	$97.26	
	7th 6 months		$49.32	$73.01	$96.69	
	8th 6 months		$51.58	$76.40	$101.21	

Official 2013 Prevailing Wage Rates for State Funded Projects

Issue Date: 12/12/2013
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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Bricklayer						
Bricklayer, stone mason, pointer, cleaner, caulker	BR1	9/3/2013	$51.93	$77.90	$103.86	H H D H D D D D N
Between October 1 and April 30, if lost time occurs due to inclement weather, Saturday may be worked as a make-up day @ straight time until forty hours are worked.						
Apprentice Rates:						
First 6 months			$31.54	$47.32	$63.08	
2nd 6 months			$33.39	$50.10	$66.78	
3rd 6 months			$35.24	$52.87	$70.48	
4th 6 months			$37.09	$55.64	$74.18	
5th 6 months			$38.94	$58.42	$77.88	
6th 6 months			$40.79	$61.20	$81.58	
7th 6 months			$42.64	$63.97	$85.28	
8th 6 months			$44.49	$66.74	$88.98	
Carpenter						
Diver	CA 687 D	10/9/2013	$63.30	$91.30	$119.29	X X H X X H H D Y
Four 10s allowed M-Sat; double time due when over 12 hours worked per day						
Carpet and Resilient Floor Layer, (does not include installation of prefabricated formica & parquet flooring which is to be paid carpenter rate)	CA1045	11/6/2013	$48.14	$68.71	$89.27	X X H X X X X D Y
Apprentice Rates:						
1st 6 months			$23.56	$31.84	$40.11	
2nd 6 months			$27.57	$37.85	$48.13	
3rd 6 months			$29.64	$40.96	$52.27	
4th 6 months			$31.69	$44.03	$56.37	
5th 6 months			$33.75	$47.12	$60.49	
6th 6 months			$35.80	$50.20	$64.59	
7th 6 months			$37.86	$53.28	$68.71	
8th 6 months			$39.91	$56.36	$72.81	

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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Carpenter-four 10s allowed Mon-Sat; double time due when over 12 hours worked per day	CA687Z1	10/1/2013	$53.89	$77.19	$100.49	X X H X X H H D Y
Apprentice Rates:						
1st year			$32.92	$45.74	$58.55	
3rd 6 months			$35.26	$49.25	$63.23	
4th 6 months			$37.58	$52.73	$67.87	
5th 6 months			$39.92	$56.23	$72.55	
6th 6 months			$42.24	$59.72	$77.19	
7th 6 months			$44.57	$63.22	$81.85	
8th 6 months			$46.91	$66.72	$86.53	
Piledriver Four 10s allowed Monday-Saturday; double time due when over 12 hours worked per day	CA687Z1P	10/1/2013	$53.89	$77.19	$100.49	X X H X X H H D Y
Apprentice Rates:						
1st 6 months			$32.92	$45.74	$58.55	
2nd 6 months			$37.58	$52.73	$67.87	
3rd 6 months			$42.24	$59.72	$77.19	
4th 6 months			$46.91	$66.72	$86.53	
Cement Mason						
Cement Mason	br1cm	9/3/2013	$49.30	$70.06	$90.81	X X H H H H H D N
Apprentice Rates:						
1st 6 months			$28.71	$38.90	$49.09	
2nd 6 months			$30.74	$41.93	$53.12	
3rd 6 months			$34.79	$47.99	$61.19	
4th 6 months			$38.85	$54.05	$69.23	
5th 6 months			$40.88	$57.07	$73.25	
6th 6 months			$44.93	$63.11	$81.30	
Cement Mason	CE514	11/10/2011	$46.30	$64.89	$83.48	H H D H H H H D N
Apprentice Rates:						
1st 6 months			$26.77	$36.07	$45.36	
2nd 6 months			$28.68	$38.91	$49.13	
3rd 6 months			$32.50	$44.59	$56.66	
4th 6 months			$36.32	$50.26	$64.19	
5th 6 months			$38.24	$53.11	$67.98	
6th 6 months			$42.06	$58.79	$75.51	

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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Drywall						
Drywall Taper	PT-22-D		$43.16	$56.14	$69.11	H H D H D D D D Y
Four 10s allowed Monday-Thursday		7/3/2012				
	Apprentice Rates:					
	First 3 months		$30.19	$36.68	$43.17	
	Second 3 months		$32.78	$40.57	$48.35	
	Second 6 months		$35.37	$44.45	$53.53	
	Third 6 months		$37.97	$48.35	$58.73	
	4th 6 months		$39.27	$50.30	$61.33	
Electrician						
Road Way Electrical Work	EC-17		$50.53	$73.30	$96.06	H H H H H H H D Y
Double time due after 16 hours on any calendar day and all hours Sunday.		8/6/2013				
	Apprentice Rates:					
	1st 6 months		$32.32	$45.98	$59.64	
	2nd 6 months		$34.59	$49.39	$64.18	
	3rd 6 months		$36.88	$52.82	$68.76	
	4th 6 months		$39.15	$56.23	$73.30	
	5th 6 months		$41.43	$59.65	$77.86	
	6th 6 months		$45.97	$66.46	$86.94	
Inside Wireman	EC-58-IW		$57.73	$75.80	$93.86	H H H H H H H D N
		6/26/2013				
	Apprentice Rates:					
	0-1000 hours		$36.05	$43.27	$50.50	
	1000-2000 hours		$37.86	$45.99	$54.12	
	2000-3500 hours		$39.67	$48.71	$57.74	
	3500-5000 hours		$41.47	$51.41	$61.34	
	5000-6500 hours		$45.08	$56.82	$68.56	
	6500-8000 hours		$48.70	$62.25	$75.80	
Sound and Communication Installer/Technician	EC-58-SC		$36.12	$48.25	$60.37	H H H H H H H D Y
4 consecutive 10s allowed M-TH		9/16/2013				
	Apprentice Rates:					
	Period 1		$23.99	$30.06	$36.11	
	Period 2		$25.21	$31.88	$38.55	
	Period 3		$26.41	$33.68	$40.95	
	Period 4		$27.63	$35.51	$43.39	
	Period 5		$28.84	$37.33	$45.81	
	Period 6		$30.06	$39.16	$48.25	

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Official 2013 Prevailing Wage Rates for State Funded Projects

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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Elevator Constructor						
Elevator Constructor	EL 36		$56.46		$94.99	D D D D D D D D Y
Elevator Constructor		8/7/2007				
	Apprentice Rates:					
	1st Year Apprentice		$37.74		$58.93	
	2nd Year Apprentice		$41.90		$66.94	
	3rd Year Apprentice		$43.98		$70.95	
	4th Year Apprentice		$48.14		$78.96	
Glazier						
Glazier	GL-357		$46.21	$64.51	$82.80	H H H H H H H D Y
If a four 10 hour day workweek is scheduled, four 10s must be consecutive, M-F.		7/3/2012				
	Apprentice Rates:					
	1st 6 months		$31.63	$42.64	$53.64	
	2nd 6 months		$33.09	$44.83	$56.56	
	3rd 6 months		$36.00	$49.19	$62.38	
	4th 6 months		$37.46	$51.39	$65.30	
	5th 6 months		$38.92	$53.57	$68.22	
	6th 6 months		$40.38	$55.77	$71.14	
	7th 6 months		$41.84	$57.95	$74.06	
	8th 6 months		$44.75	$62.32	$79.88	
Heat and Frost Insulator						
Spray Insulation	AS25S		$20.14	$29.14		H H H H H H H H N
		3/5/2007				
Heat and Frost Insulator and Asbestos Worker						
Heat and Frost Insulators and Asbestos Workers	AS25		$53.15	$68.54	$83.92	H H H H H H H D Y
Four 10s must be worked for a minimum of 2 weeks consecutively, Monday thru Thursday. All hours worked in excess of 10 will be paid at double time. All hours worked on the fifth day, Monday thru Friday will paid at time and one-half.		8/14/2009				
	Apprentice Rates:					
	1st Year		$39.30	$47.76	$56.22	
	2nd Year		$42.38	$52.38	$62.38	
	3rd Year		$43.92	$54.69	$65.46	
	4th Year		$47.00	$59.31	$71.62	

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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Ironworker						
Fence, Sound Barrier & Guardrail erection/installation and Exterior Signage work Four ten hour work days may be worked during Monday-Saturday.	IR-25-F1	4/2/2013	$33.15	$45.15	$57.15	X X H X X X H D Y
	Apprentice Rates:					
	60% Level		$22.75	$29.95	$37.15	
	65% Level		$24.05	$31.85	$39.65	
	70% Level		$25.36	$33.76	$42.16	
	75% Level		$26.65	$35.65	$44.65	
	80% Level		$27.95	$37.55	$47.15	
	85% Level		$29.25	$39.45	$49.65	
Siding, Glazing, Curtain Wall 4 tens may be worked Monday thru Thursday @ straight time.	IR-25-GZ2	4/11/2013	$44.11	$55.52	$66.93	X X H H H H D D Y
	Apprentice Rates:					
	Level 1		$27.18	$33.53	$39.88	
	Level 2		$29.29	$36.27	$43.25	
	Level 3		$31.41	$39.03	$46.64	
	Level 4		$33.53	$41.78	$50.02	
	Level 5		$35.64	$44.53	$53.40	
	Level 6		$37.76	$47.28	$56.78	
Pre-engineered Metal Work	IR-25-PE-Z1	6/3/2013	$44.59	$54.71	$64.83	X X H X X X X D Y
	Apprentice Rates:					
	1st Year		$25.46	$30.77	$36.08	
	3rd 6 month period		$27.58	$33.64	$39.70	
	4th 6 month period		$29.71	$36.53	$43.35	
	5th 6 month period		$31.83	$39.40	$46.97	
	6th 6 month period		$33.96	$42.29	$50.61	
Reinforced Iron Work	IR-25-RF	6/25/2013	$54.61	$81.78	$108.95	H H D H D D D D N
	Apprentice Rates:					
	Level 1		$34.66	$51.56	$68.45	
	Level 2		$37.11	$55.23	$73.35	
	Level 3		$39.54	$58.70	$77.84	
	Level 4		$42.16	$62.80	$83.45	
	Level 5		$44.76	$66.71	$88.65	
	Level 6		$47.38	$70.64	$93.89	

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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Rigging Work	IR-25-RIG	6/25/2013	$60.28	$90.26	$120.24	H H H H H H H D N
Apprentice Rates:						
Level 1& 2			$34.93	$52.39	$69.86	
Level 3			$37.80	$56.71	$75.60	
Level 4			$40.66	$60.99	$81.32	
Level 5			$43.53	$65.29	$87.06	
Level 6			$46.41	$69.62	$92.82	
Decking 4 tens may be worked Monday thru Thursday @ straight time. If bad weather, Friday may be a make up day. If holiday celebrated on a Monday, 4 10s may be worked Tuesday thru Friday. Work in excess of 12 hours per day must be paid @ double time.	IR-25-SD	6/25/2013	$52.24	$78.08	$103.92	X X H H H H D D Y
Structural, ornamental, conveyor, welder and pre-cast 4 tens may be worked Monday thru Thursday @ straight time. If bad weather, Friday may be a make up day. If holiday celebrated on a Monday, 4 10s may be worked Tuesday thru Friday. Work in excess of 12 hours per day must be paid @ double time.	IR-25-STR	6/25/2013	$60.41	$90.34	$120.26	H H H H H H D D Y
Apprentice Rates:						
Levels 1 & 2			$35.06	$52.64	$69.98	
Level 3			$37.89	$56.52	$75.14	
Level 4			$40.71	$60.74	$80.78	
Level 5			$43.54	$65.37	$86.94	
Level 6			$46.37	$69.24	$92.10	
Level 7			$49.19	$73.47	$97.74	
Level 8			$52.02	$77.71	$103.40	
Industrial Door erection & construction	IR-25-STR-D	6/27/2013	$40.97	$61.13	$81.29	H H H H H H D D Y

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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Laborer						
Construction Laborer, Demolition Laborer, Mason Tender,Carpenter Tender, Drywall Handler, Concrete Laborer, Cement Finisher Tender, Concrete Chute, and Concrete Bucket Handler	L33401-A-CC	7/15/2013	$43.54	$61.94	$80.33	H H H H H H H D Y
If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.						
	Apprentice Rates:					
	0-1,000 work hours		$37.60	$53.03	$68.45	
	1,001 - 2,000 work hours		$38.79	$54.81	$70.83	
	2,001 - 3,000 work hours		$39.98	$56.60	$73.21	
	3,001 - 4,000 work hours		$42.35	$60.15	$77.95	
Signal Man (on sewer & caisson work), Air, Electric or Gasoline Tool Operator, Concrete Vibrator Operator, Acetylene Torch & Air Hammer Operator; Scaffold Builder, Caisson Worker	L33401-B-SB	7/16/2013	$43.80	$62.33	$80.85	H H H H H H H D Y
If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.						
Furnace Battery Heater Tender, Burning Bar & Oxy-Acetylene Gun	L33401-D-HH	7/16/2013	$44.04	$62.69	$81.33	H H H H H H H D Y
If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.						

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Classification Name Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Expediter Man, Top Man and/or Bottom Man (Blast Furnace Work or Battery Work)	L33401-E-EX	7/16/2013	$44.79	$63.81	$82.83	H H H H H H H D Y
If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.						
Cleaner/Sweeper Laborer; Furniture Laborer	L33401-F-CL	7/16/2013	$38.09	$53.76	$69.43	H H H H H H H D Y
If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.						
Lansing Burner, Blaster & Powder Man; Air, Electric or Gasoline Tool Operator (Blast Furance Work or Battery Work)	L334C	7/16/2013	$44.29	$63.06	$81.83	X X H X H H H D Y
Plasterer Tender, Plastering Machine Operator	LPT-1	10/25/2013	$43.54	$61.94	$80.33	X X H H H H H D Y
If conditions beyond the employer/employee's control prevent one or more hours of working during Mon-Fri, the employer may choose to work up to 10 hour straight time weekdays. Work may be scheduled up to 10 hours per Mon-Fri for the purpose of reaching 40 hours @ straight time. Make up days may also include 8 hours of work on Saturdays @ straight time.						
Apprentice Rates:						
0 - 1,000 hours			$37.60	$53.03	$68.45	
1,001 - 2,000 hours			$38.79	$54.81	$70.83	
2,001 - 3,000 hours			$39.98	$56.60	$73.21	
3,001 - 4,000 hours			$42.35	$60.15	$77.95	

Official Request #: 1371

Requestor: Wayne State University
Project Description: Stadium - Structural Repairs To Steel/Precast Concrete

Project Number: 079-241292
County: Wayne

Official Rate Schedule

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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Laborer - Hazardous						
Class A performing work in conjunction with site preparation and other preliminary work prior to actual removal, handling, or containment of hazardous waste substances not requiring use of personal protective equipment required by state or federal regulations; or a laborer performing work in conjunction with the removal, handling, or containment of hazardous waste substances when use of personal protective equipment level "D" is required.	LHAZ-Z1-A	11/1/2013	$43.54	$61.94	$80.33	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$37.60	$53.03	$68.45	
1,001-2,000 work hours			$38.79	$54.81	$70.83	
2,001-3,000 work hours			$39.98	$56.60	$73.21	
3,001-4,000 work hours			$42.35	$60.15	$77.95	
Class B performing work in conjunction with the removal, handling, or containment of hazardous waste substances when the use of personal protective equipment levels "A", "B" or "C" is required.	LHAZ-Z1-B	11/4/2013	$44.54	$63.44	$82.33	H H H H H H H D Y
Apprentice Rates:						
0-1,000 work hours			$38.36	$54.17	$69.97	
1,001-2,000 work hours			$39.59	$56.01	$72.43	
2,001-3,000 work hours			$40.83	$57.87	$74.91	
3,001-4,000 work hours			$43.30	$61.58	$79.85	
Laborer Underground - Tunnel, Shaft & Caisson						
Class I - Tunnel, shaft and caisson laborer, dump man, shanty man, hog house tender, testing man (on gas), and watchman.	LAUCT-Z1-1	9/6/2013	$37.87	$48.66	$59.44	X X X X X X X D Y
Apprentice Rates:						
0-1,000 work hours			$33.05	$41.43	$49.80	
1,001-2,000 work hours			$34.02	$42.88	$51.74	
2,001-3,000 work hours			$34.98	$44.32	$53.66	
3,001-4,000 work hours			$36.91	$47.21	$57.52	

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Classification Name Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Class II - Manhole, headwall, catch basin builder, bricklayer tender, mortar man, material mixer, fence erector, and guard rail builder.	LAUCT-Z1-2	9/6/2013	$37.98	$48.82	$59.66	X X X X X X X D Y
Apprentice Rates:						
0-1,000 work hours			$33.14	$41.56	$49.98	
1,001-2,000 work hours			$34.10	$43.00	$51.90	
2,001-3,000 work hours			$35.07	$44.45	$53.84	
3,001-4,000 work hours			$37.01	$47.37	$57.72	
Class III - Air tool operator (jack hammer man, bush hammer man and grinding man), first bottom man, second bottom man, cage tender, car pusher, carrier man, concrete man, concrete form man, concrete repair man, cement invert laborer, cement finisher, concrete shoveler, conveyor man, floor man, gasoline and electric tool operator, gunnite man, grout operator, welder, heading dinky man, inside lock tender, pea gravel operator, pump man, outside lock tender, scaffold man, top signal man, switch man, track man, tugger man, utility man, vibrator man, winch operator, pipe jacking man, wagon drill and air track operator and concrete saw operator (under 40 h.p.).	LAUCT-Z1-3	9/6/2013	$38.04	$48.91	$59.78	X X X X X X X D Y
Apprentice Rates:						
0-1,000 work hours			$33.18	$41.62	$50.06	
1,001-2,000 work hours			$34.15	$43.07	$52.00	
2,001-3,000 work hours			$35.12	$44.53	$53.94	
3,001-4,000 work hours			$37.07	$47.45	$57.84	
Class IV - Tunnel, shaft and caisson mucker, bracer man, liner plate man, long haul dinky driver and well point man.	LAUCT-Z1-4	9/6/2013	$38.22	$49.18	$60.14	X X X X X X X D Y
Apprentice Rates:						
0-1,000 work hours			$33.32	$41.83	$50.34	
1,001-2,000 work hours			$34.30	$43.30	$52.30	
2,001-3,000 work hours			$35.28	$44.77	$54.26	
3,001-4,000 work hours			$37.24	$47.71	$58.18	
Class V - Tunnel, shaft and caisson miner, drill runner, keyboard operator, power knife operator, reinforced steel or mesh man (e.g. wire mesh, steel mats, dowel bars)	LAUCT-Z1-5	9/6/2013	$38.47	$49.56	$60.64	X X X X X X X D Y
Apprentice Rates:						
0-1,000 work hours			$33.50	$42.10	$50.70	
1,001-2,000 work hours			$34.50	$43.60	$52.70	
2,001-3,000 work hours			$35.49	$45.09	$54.68	
3,001-4,000 work hours			$37.48	$48.07	$58.66	

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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Class VI - Dynamite man and powder man.	LAUCT-Z1-6	9/6/2013	$38.80	$50.05	$61.30	X X X X X X X D Y
Apprentice Rates:						
0-1,000 work hours			$33.75	$42.47	$51.20	
1,001-2,000 work hours			$34.76	$43.99	$53.22	
2,001-3,000 work hours			$35.77	$45.51	$55.24	
3,001-4,000 work hours			$37.79	$48.53	$59.28	
Class VII - Restoration laborer, seeding, sodding, planting, cutting, mulching and topsoil grading and the restoration of property such as replacing mail boxes, wood chips, planter boxes and flagstones.	LAUCT-Z1-7	9/6/2013	$32.08	$39.97	$47.86	X X X X X X X D Y
Apprentice Rates:						
0-1,000 work hours			$28.71	$34.91	$41.12	
1,001-2,000 work hours			$29.38	$35.92	$42.46	
2,001-3,000 work hours			$30.06	$36.94	$43.82	
3,001-4,000 work hours			$31.41	$38.97	$46.52	
Landscape Laborer Landscape Specialist includes air, gas, and diesel equipment operator, skidsteer (or equivalent), lawn sprinkler installer on landscaping work where seeding, sodding, planting, cutting, trimming, backfilling, rough grading or maintenance of landscape projects occurs. Sundays paid at time & one half. Holidays paid at double time.	LLAN-Z1-A	7/5/2013	$28.18	$38.91	$49.64	X X H X X X H D Y
Skilled Landscape Laborer: small power tool operator, lawn sprinkler installers' tender, material mover, truck driver when seeding, sodding, planting, cutting, trimming, backfilling, rough grading or maintaining of landscape projects occurs Sundays paid at time & one half. Holidays paid at double time.	LLAN-Z1-B	7/5/2013	$23.96	$32.58	$41.20	X X H X X X H D Y

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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Marble Finisher						
Marble Finisher	BR1-MF		$42.94	$53.65	$64.35	H H D H D D D D Y
A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru Friday.		9/5/2013				
	Apprentice Rates:					
	Level 1		$18.80	$24.77	$30.73	
	Level 2		$19.99	$26.55	$33.11	
	Level 3		$26.67	$33.52	$40.36	
	Level 4		$28.12	$35.69	$43.26	
	Level 5		$29.62	$37.37	$45.13	
	Level 6		$31.22	$39.37	$47.51	
	Level 7		$32.89	$41.08	$49.26	
	Level 8		$34.36	$42.95	$51.54	
Marble Mason						
Marble Mason	BR1-MM		$49.67	$63.74	$77.81	H H D H D D D D Y
A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru Friday.		9/5/2013				
	Apprentice Rates:					
	Level 1		$24.83	$32.24	$39.65	
	Level 2		$27.85	$36.04	$44.23	
	Level 3		$33.00	$41.45	$49.90	
	Level 4		$35.70	$45.09	$54.49	
	Level 5		$37.94	$47.57	$57.21	
	Level 6		$41.55	$52.91	$64.27	
	Level 7		$42.21	$53.72	$65.22	
	Level 8		$43.13	$55.10	$67.06	
Operating Engineer						
Crane with boom & jib or leads 120' or longer	EN-324-A120		$56.01	$73.30	$90.58	X X H H D D D D Y
Work in excess of 12 per day shall be paid at double time.		8/2/2013				
Crane with boom & jib or leads 140' or longer	EN-324-A140		$56.83	$74.53	$92.22	X X H H D D D D Y
Work in excess of 12 per day shall be paid at double time.		8/2/2013				
Crane with boom & jib or leads 220' or longer	EN-324-A220		$57.13	$74.98	$92.82	X X H H D D D D Y
Work in excess of 12 per day shall be paid at double time.		8/2/2013				

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Project Description: Stadium - Structural Repairs To Steel/Precast Concrete

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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Crane with boom & jib or leads 300' or longer Work in excess of 12 per day shall be paid at double time.	EN-324-A300	8/2/2013	$58.63	$77.23	$95.82	X X H H D D D D Y
Crane with boom & jib or leads 400' or longer Work in excess of 12 per day shall be paid at double time.	EN-324-A400	8/2/2013	$60.13	$79.48	$98.82	X X H H D D D D Y
Compressor or welding machine Work in excess of 12 per day shall be paid at double time.	EN-324-CW	8/2/2013	$45.16	$57.02	$68.88	X X H H D D D D Y
Forklift, lull, extend-a-boom forklift Work in excess of 12 per day shall be paid at double time.	EN-324-FL	8/2/2013	$52.47	$67.99	$83.50	X X H H D D D D Y
Fireman or oiler Work in excess of 12 per day shall be paid at double time.	EN-324-FO	8/2/2013	$44.13	$55.48	$66.82	X X H H D D D D Y
Regular crane, job mechanic, concrete pump with boom Work in excess of 12 per day shall be paid at double time.	EN-324-RC	8/2/2013	$55.15	$72.01	$88.86	X X H H D D D D Y
Regular engineer, hydro-excavator, remote controlled concrete breaker Work in excess of 12 per day shall be paid at double time.	EN-324-RE	8/2/2013	$54.18	$70.55	$86.92	X X H H D D D D Y
Apprentice Rates:						
0-999 hours			$43.51	$54.98	$66.43	
1,000-1,999 hours			$45.14	$57.41	$69.69	
2,000-2,999 hours			$46.79	$59.89	$72.99	
3,000-3,999 hours			$48.42	$62.34	$76.25	
4,000-4,999 hours			$50.05	$64.78	$79.51	
5,000-5,999 hours			$51.70	$67.26	$82.81	
Operating Engineer - Marine Construction						
Diver/Wet Tender, Engineer (hydraulic dredge)	GLF-1	3/1/2013	$63.00	$82.35	$101.70	X X H H H H H D Y

Holiday pay= $121.05 per hour, wages & fringes

Subdivision of county all Great Lakes, islands therein, & connecting & tributary waters

Official Request #: 1371
Requestor: Wayne State University
Project Description: Stadium - Structural Repairs To Steel/Precast Concrete

Project Number: 079-241292
County: Statewide

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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Crane/Backhoe Operator, 70 ton or over Tug Operator, Mechanic/Welder, Assistant Engineer (hydraulic dredge), Leverman (hydraulic dredge), Diver Tender	GLF-2	3/1/2013	$61.50	$80.10	$98.70	X X H H H H H D Y
Holiday pay = $117.30 per hour, wages & fringes						
Subdivision of county	All Great Lakes, islands therein, & connecting & tributary waters					
Friction, Lattice Boom or Crane License Certification	GLF-2B	3/1/2013	$62.50	$81.60	$100.70	X X H H H H H D Y
Holiday pay = $119.80						
Subdivision of county	All Great Lakes, islands, therein, & connecting & tributary waters					
Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs or more), Tug/Launch Operator, Loader, Dozer on Barge, Deck Machinery	GLF-3	3/1/2013	$57.40	$73.95	$90.50	X X H H H H H D Y
Holiday pay = $107.05 per hour, wages & fringes						
Subdivision of county	All Great Lakes, islands therein, & connecting & tributary waters					
Deck Equipment Operator, (Machineryman/Fireman), (4 equipment units or more), Off Road Trucks, Deck Hand, Tug Engineer, & Crane Maintenance 50 ton capacity and under or Backhoe 115,000 lbs or less, Assistant Tug Operator	GLF-4	3/1/2013	$51.85	$65.63	$79.40	X X H H H H H D Y
Holiday pay = $93.17 per hour, wages & fringes						
Subdivision of county	All Great Lakes, islands therein, & connecting & tributary waters					
Operating Engineer Hazardous Waste Class I						
Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye protection.	EN-324-HWCI-Z1A	1/20/2012	$51.84	$67.86	$83.87	H H H H H H H D Y
Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.						
Apprentice Rates:						
1st 6 months			$41.63	$52.85	$64.05	
2nd 6 months			$43.23	$55.25	$67.25	
3rd 6 months			$44.83	$57.64	$70.45	
4th 6 months			$46.43	$60.04	$73.65	
5th 6 months			$48.03	$62.44	$76.85	
6th 6 months			$49.64	$64.86	$80.07	

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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing.	EN-324-HWCI-Z1B	1/20/2012	$50.89	$66.43	$81.97	H H H H H H H D Y
Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.						
	Apprentice Rates:					
	1st 6 months		$40.97	$51.85	$62.73	
	2nd 6 months		$42.52	$54.17	$65.83	
	3rd 6 months		$44.07	$56.50	$68.93	
	4th 6 months		$45.64	$58.86	$72.07	
	5th 6 months		$47.19	$61.19	$75.17	
	6th 6 months		$48.74	$63.51	$78.27	
Level D - Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWCI-Z1D	1/20/2012	$49.59	$64.48	$79.37	H H H H H H H D Y
Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.						
	Apprentice Rates:					
	1st 6 months		$40.06	$50.49	$60.91	
	2nd 6 months		$41.54	$52.71	$63.87	
	3rd 6 months		$43.04	$54.96	$66.87	
	4th 6 months		$44.53	$57.19	$69.85	
	5th 6 months		$46.02	$59.42	$72.83	
	6th 6 months		$47.50	$61.65	$75.79	
Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats.	EN-324-HWCI-Z1DCL	1/20/2012	$49.34	$64.11	$78.87	H H H H H H H D Y
Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.						
	Apprentice Rates:					
	1st 6 months		$39.89	$50.23	$60.57	
	2nd 6 months		$41.36	$52.44	$63.51	
	3rd 6 months		$42.83	$54.64	$66.45	
	4th 6 months		$44.31	$56.86	$69.41	
	5th 6 months		$45.79	$59.08	$72.37	
	6th 6 months		$47.27	$61.30	$75.33	

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Classification Name / Description	Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Operating Engineer Hazardous Waste Class II					
Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye protection. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HWCII-Z1A 1/20/2012	$47.61	$61.51	$75.41	H H H H H H H D Y
Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HWCII-Z1B 1/20/2012	$46.66	$60.09	$73.51	H H H H H H H D Y
Level D - Coveralls, safety boots, glasses or chemical splash goggles and hard hats. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HWCII-Z1D 1/20/2012	$45.36	$58.14	$70.91	H H H H H H H D Y
Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HWCII-Z1DCL 1/20/2012	$45.11	$57.76	$70.41	H H H H H H H D Y
Operating Engineer Hazardous Waste Crane w/ Boom & Jib leads 140' or longer					
Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye protection. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HW140-Z1A 1/20/2012	$54.49	$71.83	$89.17	H H H H H H H D Y

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Classification Name Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HW140-Z1B	1/20/2012	$53.54	$70.41	$87.27	H H H H H H H D Y
Level D Coveralls, safety boots, glasses or chemical splash goggles and hard hats. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HW140-Z1D	1/20/2012	$52.24	$68.46	$84.67	H H H H H H H D Y
Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HW140-Z1DCL	1/20/2012	$51.99	$68.08	$84.17	H H H H H H H D Y
Operating Engineer Hazardous Waste Crane w/ Boom & Jib leads 220' or longer						
Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye protection. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HW220-Z1A	1/20/2012	$54.79	$72.28	$89.77	H H H H H H H D Y
Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HW220-Z1B	1/20/2012	$53.84	$70.86	$87.87	H H H H H H H D Y
Level D Coveralls, safety boots, glasses or chemical splash goggles and hard hats. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HW220-Z1D	1/20/2012	$52.54	$68.91	$85.27	H H H H H H H D Y

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Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HW220-Z1DCL	1/20/2012	$52.29	$68.53	$84.77	H H H H H H H D Y
Operating Engineer Hazardous Waste Regular Crane, Job Mechanic, Dragline Operator, Boom Truck Operator, Power Shovel Operator and Concrete Pump with boom						
Level D When Capping Landfill Coveralls, safety boots, glasses or chemical splash goggles and hard hats. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HWRC-Z1DCL	1/20/2012	$49.69	$64.63	$79.57	H H H H H H H D Y
Operating Engineer Hazardous Waste Regular Crane, Job Mechanic, Dragline Operator, Boom Truck Operator, Power Shovel Operator and Concrete Pump with Boom Operator						
Level D - Coveralls, safety boots, glasses or chemical splash goggles and hard hats. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HWRC-Z1D	1/20/2012	$50.56	$65.94	$81.31	H H H H H H H D Y
Operating Engineer Hazardous Waste Regular Crane, Job Mechanic, Dragline Operator, Boom Truck Operator, Power Shovel Operator and Concrete Pump with booms						
Level B & C protection. B - Pressure demand, full face SCBA or pressure demand supplied air respirator w/ escape SCBA w/chemical resistant clothing. C - Full face piece, air purifying canister-equipped respirator w/chemical resistant clothing. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HWRC-Z1B	1/20/2012	$51.86	$67.89	$83.91	H H H H H H H D Y
Operating Engineer Hazardous Waste Regular Crane, Job Mechanic, Dragline Operator, Boom Truck Operator, Power Shovel Operators and Concrete Pump with booms						
Level A - Fully encapsulating chemical resistant suit w/ pressure demand, full face piece SCBA or pressure demand supplied air respirator w/ escape SCBA. The highest available level of respiratory, skin and eye protection. Four 10 hour days may be worked Monday-Thursday with Friday as a straight-time make up day.	EN-324-HWRC-Z1A	1/20/2012	$52.81	$69.31	$85.81	H H H H H H H D Y

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Classification Name	Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Operating Engineer Steel Work							
Forklift, 1 Drum Hoist		EN-324-ef	6/17/2013	$57.11	$75.12	$93.13	H H D H H H D D Y
Crane w/ 120' boom or longer		EN-324-SW120	6/14/2013	$59.81	$79.17	$98.53	H H D H H H D D Y
Crane w/ 120' boom or longer w/ Oiler		EN-324-SW120-O	6/14/2013	$60.81	$80.67	$100.53	H H D H H H D D Y
Crane w/ 140' boom or longer		EN-324-SW140	6/14/2013	$60.99	$80.94	$100.89	H H D H H H D D Y
Crane w/ 140' boom or longer W/ Oiler		EN-324-SW140-O	6/14/2013	$61.99	$82.44	$102.89	H H D H H H D D Y
Boom & Jib 220' or longer		EN-324-SW220	6/14/2013	$61.26	$81.35	$101.43	H H D H H H D D Y
Crane w/ 220' boom or longer w/ Oiler		EN-324-SW220-O	6/14/2013	$62.26	$82.85	$103.43	H H D H H H D D Y
Boom & Jib 300' or longer		EN-324-SW300	6/14/2013	$62.76	$83.60	$104.43	H H D H H H D D Y
Crane w/ 300' boom or longer w/ Oiler		EN-324-SW300-O	6/14/2013	$63.76	$85.10	$106.43	H H D H H H D D Y
Boom & Jib 400' or longer		EN-324-SW400	6/14/2013	$64.26	$85.85	$107.43	H H D H H H D D Y
Crane w/ 400' boom or longer w/ Oiler		EN-324-SW400-O	6/14/2013	$65.26	$87.35	$109.43	H H D H H H D D Y
Crane Operator, Job Mechanic, 3 Drum Hoist & Excavator		EN-324-SWCO	6/17/2013	$59.45	$78.63	$97.81	H H D H H H D D Y
	Apprentice Rates:						
	0-999 hours			$47.09	$60.51	$73.94	
	1,000-1,999 hours			$49.01	$63.40	$77.78	
	2,000-2,999 hours			$50.93	$66.28	$81.62	
	3,000-3,999 hours			$52.85	$69.16	$85.46	
	4,000-4,999 hours			$54.76	$72.02	$89.28	
	5,000 hours			$56.68	$74.91	$93.12	

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Crane w/ Oiler		EN-324-SWCO-O	6/17/2013	$60.45	$80.13	$99.81	H H D H H H D D Y
Compressor or Welder Operator		EN-324-SWCW	6/17/2013	$52.00	$67.46	$82.91	H H D H H H D D Y
Hoisting Operator, 2 Drum Hoist, & Rubber Tire Backhoe		EN-324-SWHO	6/17/2013	$58.81	$77.67	$96.53	H H D H H H D D Y
Oiler		EN-324-SWO	6/17/2013	$50.59	$65.34	$80.09	H H D H H H D D Y
Tower Crane & Derrick where work is 50' or more above first level		EN-324-SWTD50	6/14/2013	$60.54	$80.27	$99.99	H H D H H H D D Y
Tower Crane & Derrick 50' or more w/ Oiler where work station is 50' or more above first level		EN-324-SWTD50-O	6/14/2013	$61.54	$81.77	$101.99	H H D H H H D D Y
Operating Engineer Underground							
Class I Equipment		EN-324A1-UC1	9/13/2013	$50.34	$65.33	$80.32	H H H H H H H D Y
	Apprentice Rates:						
	0-999 hours			$40.75	$51.25	$61.74	
	1,000-1,999 hours			$42.24	$53.48	$64.72	
	2,000-2,999 hours			$43.75	$55.75	$67.74	
	3,000-3,999 hours			$45.24	$57.98	$70.72	
	4,000-4,999 hours			$46.74	$60.23	$73.72	
	5,000-5,999 hours			$48.25	$62.50	$76.74	
Class II Equipment		EN-324A1-UC2	9/13/2013	$45.61	$58.24	$70.86	H H H H H H H D Y
Class III Equipment		EN-324A1-UC3	9/13/2013	$44.88	$57.14	$69.40	H H H H H H H D Y
Class IV Equipment		EN-324A1-UC4	9/13/2013	$44.31	$56.29	$68.26	H H H H H H H D Y
Master Mechanic		EN-324A1-UMM	9/13/2013	$50.59	$65.71	$80.82	H H H H H H H D Y

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Painter						
Painter (8 hours of repaint work performed on Sunday shall be paid time & one half rate)	PT-22-P	6/18/2012	$41.32	$53.78	$66.23	H H D H D D D Y
Four 10s allowed Monday-Thursday with Friday makeup day if job down due to weather, holiday or other conditions beyond the control of the employer.						
	Apprentice Rates:					
	First 6 months		$28.87	$35.10	$41.33	
	Second 6 months		$32.60	$40.69	$48.79	
	Third 6 months		$33.85	$42.57	$51.29	
	Fourth 6 months		$35.09	$44.43	$53.77	
	Fifth 6 months		$36.34	$46.31	$56.27	
	Final 6 months		$37.58	$48.17	$58.75	
Pipe and Manhole Rehab						
General Laborer for rehab work or normal cleaning and cctv work-top man, scaffold man, CCTV assistant, jetter-vac assistant	TM247	10/15/2012	$27.20	$36.70		H H H H H H H H N
Tap cutter/CCTV Tech/Grout Equipment Operator: unit driver and operator of CCTV; grouting equipment and tap cutting equipment	TM247-2	10/15/2012	$31.70	$43.45		H H H H H H H H N
CCTV Technician/Combo Unit Operator: unit driver and operator of cctv unit or combo unit in connection with normal cleaning and televising work	TM247-3	10/15/2012	$30.45	$41.57		H H H H H H H H N
Boiler Operator: unit driver and operator of steam/water heater units and all ancillary equipment associated	TM247-4	10/15/2012	$32.20	$44.20		H H H H H H H H N
Combo Unit driver & Jetter-Vac Operator	TM247-5	10/15/2012	$32.20	$44.20		H H H H H H H H N
Pipe Bursting & Slip-lining Equipment Operator	TM247-6	10/15/2012	$33.20	$45.70		H H H H H H H H N

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Classification Name	Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Pipefitter							
Pipefitter		PF-636	6/26/2013	$65.63	$86.83	$104.03	H H D H D D D Y
	Apprentice Rates:						
	1st & 2nd periods			$26.93	$35.28	$42.28	
	3rd period			$28.93	$38.28	$46.28	
	4th period			$30.18	$40.16	$48.78	
	5th period			$31.43	$42.03	$51.28	
	6th period			$32.68	$43.90	$53.78	
	7th period			$33.93	$45.78	$56.28	
	8th period			$34.93	$47.28	$58.28	
	9th period			$35.93	$48.78	$60.28	
	10th period			$37.36	$50.92	$63.14	
Plasterer							
Plasterer		BR1P	11/1/2012	$45.04	$67.56	$90.08	H H H H H H H D N
	Apprentice Rates:						
	1st 6 months			$32.11	$48.17	$64.22	
	2nd 6 months			$33.40	$50.10	$66.80	
	3rd 6 months			$34.69	$52.04	$69.38	
	4th 6 months			$37.28	$55.92	$74.56	
	5th 6 months			$39.87	$59.81	$79.74	
	6th 6 months			$42.45	$63.68	$84.90	
Plasterer		PL67	9/8/2010	$44.72	$60.11	$75.50	H H H X D D D D N
	Apprentice Rates:						
	1st 6 months			$29.33	$37.02	$44.72	
	2nd 6 months			$30.87	$39.34	$47.80	
	3rd 6 months			$32.41	$41.64	$50.88	
	4th 6 months			$35.49	$46.26	$57.04	
	5th 6 months			$38.56	$51.16	$63.76	
	6th 6 months			$41.64	$55.49	$69.34	

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Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Plumber						
Plumber	PL-98	7/18/2013	$64.45	$84.87	$101.29	H H D H D D D D Y
	Apprentice Rates:					
	Period 1		$19.93	$26.43	$32.93	
	Period 2		$23.90	$31.40	$38.90	
	Period 3		$30.60	$39.19	$47.77	
	Period 4		$31.23	$40.13	$49.03	
	Period 5		$32.39	$41.87	$51.35	
	Period 6		$33.54	$43.59	$53.65	
	Period 7		$34.69	$45.32	$55.95	
	Period 8		$35.86	$47.07	$58.29	
	Period 9		$37.01	$48.80	$60.59	
	Period 10		$38.16	$50.53	$62.89	
Roofer						
Commercial Roofer Straight time is not to exceed ten (10) hours per day or forty (40) hours per week.	RO-149-WOM	8/18/2008	$48.46	$62.29	$76.62	H H D H H H D D N
	Apprentice Rates:					
	Apprentice 1		$32.62	$39.86	$48.04	
	Apprentice 2		$36.80	$44.80	$53.30	
	Apprentice 3		$38.22	$46.93	$56.14	
	Apprentice 4		$39.25	$48.48	$58.20	
	Apprentice 5		$40.47	$50.30	$60.64	
	Apprentice 6		$41.87	$52.40	$63.44	
Sewer Relining						
Class I-Operator of audio visual CCTV system including remote in-ground cutter and other equipment used in conjunction with CCTV system.	SR-I	3/27/2013	$42.07	$56.90	$71.72	H H H H H H H D N
Class II-Operator of hot water heaters and circulation system; water jetters; and vacuum and mechanical debris removal systems and those assisting.	SR-II	3/27/2013	$40.54	$54.60	$68.66	H H H H H H H D N

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Sheet Metal Worker						
Sheet Metal Worker	SHM-80		$60.77	$77.68	$94.59	H H D X H H H D Y
A 4 10 schedule may be worked, 4 consecutive days Monday thru Friday.		8/1/2013				
	Apprentice Rates:					
	1st & 2nd Periods Indentured after 6-1-11		$38.12	$45.73	$53.34	
	3rd & 4th Periods Indentured after 6-1-11		$39.82	$48.28	$56.74	
	5th & 6th Periods Indentured after 6-1-11		$41.50	$50.80	$60.10	
	7th & 8th Periods Indentured after 6-1-11		$43.19	$53.34	$63.48	
	9th & 10th Periods Indentured before 6-1-11		$50.86	$63.38	$75.90	
Architectural Sheet Metal Worker	SHM-80-SD	2/15/2012	$40.85	$53.00	$65.15	H H H H H H H D Y
Sprinkler Fitter						
Sprinkler Fitter	SP 704		$63.42	$84.38	$105.33	H H D H D D D D Y
4 ten hour days allowed Monday-Friday		8/8/2013				
Double time pay due after 12 hours worked M-F						
	Apprentice Rates:					
	1st Period		$27.77	$36.15	$44.53	
	2nd Period		$40.37	$49.80	$59.23	
	3rd Period		$42.47	$52.95	$63.43	
	4th Period		$44.56	$56.09	$67.61	
	5th Period		$46.66	$59.23	$71.81	
	6th Period		$48.75	$62.37	$75.99	
	7th Period		$50.85	$65.52	$80.19	
	8th Period		$52.94	$68.65	$84.37	
	9th Period		$55.04	$71.81	$88.57	
	10th Period		$57.13	$74.94	$92.75	

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Terrazzo						
Terrazzo Finisher	BR1-TRF		$43.43	$54.38	$65.33	H H D H D D D Y
A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru Friday.		9/5/2013				
Apprentice Rates:						
Level 1			$18.80	$24.77	$30.73	
Level 2			$19.99	$26.55	$33.11	
Level 3			$26.67	$33.52	$40.36	
Level 4			$28.12	$35.69	$43.26	
Level 5			$29.62	$37.37	$45.13	
Level 6			$31.22	$39.37	$47.51	
Level 7			$32.89	$41.08	$49.26	
Level 8			$34.36	$42.95	$51.54	
Terrazzo Worker	BR1-TRW		$49.11	$62.90	$76.69	H H D H D D D Y
A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru Friday.		9/5/2013				
Apprentice Rates:						
Level 1			$24.83	$32.24	$39.65	
Level 2			$27.85	$36.04	$44.23	
Level 3			$33.00	$41.45	$49.90	
Level 4			$35.70	$45.09	$54.49	
Level 5			$37.94	$47.57	$57.21	
Level 6			$41.55	$52.91	$64.27	
Level 7			$42.21	$53.72	$65.22	
Level 8			$43.13	$55.10	$67.06	
Tile						
Tile Finisher	BR1-TF		$42.96	$53.68	$64.39	H H D H D D D Y
A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru Friday.		9/5/2013				
Apprentice Rates:						
Level 1			$18.80	$24.77	$30.73	
Level 2			$19.99	$26.55	$33.11	
Level 3			$26.67	$33.52	$40.36	
Level 4			$28.12	$35.69	$43.26	
Level 5			$29.62	$37.37	$45.13	
Level 6			$31.22	$39.37	$47.51	
Level 7			$32.89	$41.08	$49.26	
Level 8			$34.36	$42.95	$51.54	

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Tile Layer A 4 ten workweek may be worked Monday thru Thursday or Tuesday thru Friday.	BR1-TL	9/5/2013	$49.06	$62.83	$76.59	H H D H D D D D Y
Apprentice Rates:						
Level 1			$24.83	$32.24	$39.65	
Level 2			$27.85	$36.04	$44.23	
Level 3			$33.00	$41.45	$49.90	
Level 4			$35.70	$45.09	$54.49	
Level 5			$37.94	$47.57	$57.21	
Level 6			$41.55	$52.91	$64.27	
Level 7			$42.21	$53.72	$65.22	
Level 8			$43.13	$55.10	$67.06	
Truck Driver on all trucks of 8 cubic yard capacity or less (except dump trucks of 8 cubic yard capacity or over, tandem axle trucks, transit mix and semis, euclid type equipment, double bottoms and low boys)	TM-RB1	8/8/2013	$41.92	$37.85		H H H H H H H H Y
of all trucks of 8 cubic yard capacity or over	TM-RB1A	8/8/2013	$41.30	$38.00		H H H H H H H H Y
on euclid type equipment	TM-RB1B	8/8/2013	$41.45	$38.23		H H H H H H H H Y
Underground Laborer Open Cut, Class I Construction Laborer	LAUC-Z1-1	9/5/2013	$37.72	$48.43	$59.14	X X X X X X X D Y
Apprentice Rates:						
0-1,000 work hours			$32.94	$41.26	$49.58	
1,001-2,000 work hours			$33.90	$42.70	$51.50	
2,001-3,000 work hours			$34.85	$44.13	$53.40	
3,001-4,000 work hours			$36.76	$46.99	$57.22	

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Underground Laborer Open Cut, Class II						
Mortar and material mixer, concrete form man, signal man, well point man, manhole, headwall and catch basin builder, guard rail builders, headwall, seawall, breakwall, dock builder and fence erector.	LAUC-Z1-2	10/25/2013	$37.83	$48.60	$59.36	X X X X X X X D Y
	Apprentice Rates:					
	0-1,000 work hours		$33.02	$41.38	$49.74	
	1,001-2,000 work hours		$33.98	$42.82	$51.66	
	2,001-3,000 work hours		$34.95	$44.27	$53.60	
	3,001-4,000 work hours		$36.87	$47.15	$57.44	
Underground Laborer Open Cut, Class III						
Air, gasoline and electric tool operator, vibrator operator, drillers, pump man, tar kettle operator, bracers, rodder, reinforced steel or mesh man (e.g. wire mesh, steel mats, dowel bars, etc.), cement finisher, welder, pipe jacking and boring man, wagon drill and air track operator and concrete saw operator (under 40 h.p.), windlass and tugger man, and directional boring man.	LAUC-Z1-3	9/5/2013	$37.88	$48.67	$59.46	X X X X X X X D Y
	Apprentice Rates:					
	0-1,000 work hours		$33.06	$41.44	$49.82	
	1,001-2,000 work hours		$34.02	$42.88	$51.74	
	2,001-3,000 work hours		$34.99	$44.33	$53.68	
	3,001-4,000 work hours		$36.92	$47.23	$57.54	
Underground Laborer Open Cut, Class IV						
Trench or excavating grade man.	LAUC-Z1-4	9/5/2013	$37.96	$48.79	$59.62	X X X X X X X D Y
	Apprentice Rates:					
	0-1,000 work hours		$33.12	$41.53	$49.94	
	1,001-2,000 work hours		$34.09	$42.99	$51.88	
	2,001-3,000 work hours		$35.06	$44.44	$53.82	
	3,001-4,000 work hours		$36.99	$47.33	$57.68	
Underground Laborer Open Cut, Class V						
Pipe Layer	LAUC-Z1-5	9/5/2013	$38.02	$48.88	$59.74	X X X X X X X D Y
	Apprentice Rates:					
	0-1,000 work hours		$33.16	$41.59	$50.02	
	1,001-2,000 work hours		$34.14	$43.06	$51.98	
	2,001-3,000 work hours		$35.11	$44.51	$53.92	
	3,001-4,000 work hours		$37.05	$47.43	$57.80	

Official Request #: 1371
Requestor: Wayne State University
Project Description: Stadium - Structural Repairs To Steel/Precast Concrete

Project Number: 079-241292
County: Wayne

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

Official 2013 Prevailing Wage Rates for State Funded Projects

Issue Date: 12/12/2013

Contract must be awarded by: 3/12/2014

Classification Name / Description		Last Updated	Straight Hourly	Time and a Half	Double Time	Overtime Provision
Underground Laborer Open Cut, Class VI						
Grouting man, top man assistant, audio visual television operations and all other operations in connection with closed circuit television inspection, pipe cleaning and pipe relining work and the installation and repair of water service pipe and appurtenances.	LAUC-Z1-6	9/5/2013	$35.47	$45.06	$54.64	X X X X X X X D Y
	Apprentice Rates:					
	0-1,000 work hours		$31.25	$38.73	$46.20	
	1,001-2,000 work hours		$32.10	$40.00	$47.90	
	2,001-3,000 work hours		$32.94	$41.26	$49.58	
	3,001-4,000 work hours		$34.63	$43.79	$52.96	
Underground Laborer Open Cut, Class VII						
Restoration laborer, seeding, sodding, planting, cutting, mulching and topsoil grading and the restoration of property such as replacing mail boxes, wood chips, planter boxes, flagstones etc.	LAUC-Z1-7	9/5/2013	$32.09	$39.99	$47.88	X X X X X X X D Y
	Apprentice Rates:					
	0-1,000 work hours		$28.72	$34.93	$41.14	
	1,001-2,000 work hours		$29.39	$35.93	$42.48	
	2,001-3,000 work hours		$30.07	$36.95	$43.84	
	3,001-4,000 work hours		$31.42	$38.98	$46.54	

Official Request #: 1371
Requestor: Wayne State University
Project Description: Stadium - Structural Repairs To Steel/Precast Concrete

Project Number: 079-241292
County: Wayne

Official Rate Schedule

Every contractor and subcontractor shall keep posted on the construction site, in a conspicuous place, a copy of all prevailing wage and fringe benefit rates prescribed in a contract.

WAYNE STATE UNIVERSITY
PAYMENT PACKAGE DOCUMENT REQUIREMENTS *(Revised 5-06-2011)*:

Review and comply with Section 410 of Bid Front End Documents.
Review and comply with Article 15 of the Supplemental General Conditions.

AIA DOCUMENT G702 & G703 – (or facsimile thereof) Payment Application Checklist:

- o Correct Project Name – Found on your contract.
- o Correct Project Number – Found on your contract.
- o Purchase Order Number – Required prior to beginning work.
- o Correct Application Number. (i.e. 1, 2, 3, etc.)
- o Correct Period Reporting Dates – Applications support docs must be sequential and within application range.
- o Approved & Executed Change Orders must be listed. (Cannot invoice for unapproved changes.)
- o Schedule of values percentages and amounts match the approved Pencil Copy Review – Signed by the Architect, Contractor, and University Project Manager.
- o Correct Dates – Back dating not accepted.
- o Signed and Notarized.

SWORN STATEMENT – Checklist:

- o List all contractors, sub-contractors, suppliers… ≥ $1000.00
- o Contractor's Sworn Statement amounts must coincide with Column "C" of the schedule of values document. Any unassigned or uncommitted value of contract shall be shown on an entry "Contractor – Unassigned" followed by the amount necessary to cause the „contracted to date" column of the sworn statement to equate with the schedule of value column totals.
- o Current Date – Back dating not accepted.
- o Signed and Notarized.
  A Sworn Statement is required from every Sub Contractor on the job with a material purchase or sub-subcontract of $1,000 or more. (all the way down to the bottom tier)

DEPT. of LABOR FORM WH-347 – Certified Payroll Checklist:
(Union and Non-Union)

- o For every contractor & sub-contractors work, for each week within the application for payment reporting period. (For every „boot" on the floor representing the weeks within the application period)
- o Wayne State University Project Number – Found on your contract.
- o List ALL workers who have worked on the project site.
- o Make sure workers addresses are listed.
- o NO Social Security Numbers, if present they MUST be blackened out or listed in XXX-XX-1234 format.
- o Work classifications based on the job specific Prevailing Wage Schedule descriptions. If you require rates for additional classifications, contact the Michigan Department of Consumer & Industry Services. (Refer to Section 410 of Bid Front End Documents.)
  http://www.cis.state.mi.us/bwuc/bsr/wh/revised_rates/whc_tbl.htm
- o Apprenticeship program status – proof of enrolled program and current completion required for any workers paid at Apprenticeship rates.
- o Rate of Pay verified against the Prevailing Wage Schedule with an hourly costs breakdown of fringes paid. (Refer to attachment for State of Michigan instructions and example)
- o Authorized signatures on affidavit.

APPLICATION PACKAGE SUPPORTING DOCUMENTATION –
Must accompany all package reporting periods: (Union and Non-Union)

- o Copies of Pay Stubs may be required for each Certified Payroll period reported – (Social Security Numbers MUST be blackened out or listed in XXX-XX-1234 format. Pay stubs need to reflect claimed participation of fringes like Medical, Dental, Retirement or 1099 classification.)
- o Proof of Ownership for any „Owner Operator" (Sole Proprietor) contractors not claiming their time under prevailing wage act. – (Must list their hours and dates worked on the WH-347 Form and enter EXEMPT on the income brackets.). The Owner Operator must provide copies of "DBA" registration form confirming status as exempt from prevailing wage requirements.

- o Proof of Stored Materials – (Detailed Bill of Sale, certificate of insurance or endorsement page specifically insuring the stored materials, pictures, when large value. WSU reserves the right to on site verification of material. Stored material must be separated from ordinary inventory and labeled for WSU project.
- o Partial Unconditional Waivers – Must release the accumulated amount paid for work and be immediately provided, or provided with the subsequent application for payment. Waivers shall be provided for contractors, sub-contractors, and suppliers listed on the Sworn Statements. (This is required at all tiers)
- o Full Unconditional Waivers – Prime Contractor must deliver fully executed Full Unconditional Waiver upon receipt of final payment. Full Unconditional waivers may be required of sub-contractors and suppliers in advance of final Contractor payment on bonded projects This requirement shall be determined on a project-by-project basis. Full Unconditional waivers shall be required in advance of or at the time of final payment on all non-bonded projects from all subcontractors and suppliers listed on Sworn Statements, or who have provided a notice of furnishing.
- o Partial Conditional Waivers – The Contractor shall provide a Partial Conditional Waivers covering the entire amount of the application for payment. For non-bonded Projects – A partial conditional waiver from all subcontractors must accompany any application for payment within which a subcontractor draw is included.
- o Sworn Statements – Required for all Sub Contractors, and Sub-subcontractors (etc.) with any contracts or purchases exceeding $1,000.

FINAL PAYMENT EXCHANGE – Checklist:

- o Clear and concise As-Built drawings.
- o Operation and Maintenance Manuals.
- o Required training must be completed (if applicable).
- o Warranty of work in accordance with project documents.
- o Certificate of Substantial Completion.
- o Full Unconditional Waiver

The Project Manager may provide additional requirements as may apply to individual jobs

Revised 5-6-2011

WAYNE STATE UNIVERSITY

AGREEMENT BETWEEN THE UNIVERSITY AND CONTRACTOR FOR CONSTRUCTION SERVICES (rev 6-2013)

Executed as of the _____ day of _____, 2013 by and between:

The Board of Governors, Wayne State University
Detroit, Michigan 48202
(The University)

and

CONTRACTOR'S_NAME
CONTRACTOR'S_ADDRESS

regarding

Stadium Structural Stabilization
1401 Edsel Ford Service Drive
WSU Project No. 079-241292

In consideration of the mutual covenants and conditions contained herein, the Parties agree as follows:

Article 1 - Scope of Work

1.1 This Agreement provides for **Structural Repairs to steel/precast concrete**, located at **1401 Edsel Ford Service Drive.** The documents listed in Article 4 fully define the scope of work.

1.2 The Contractor shall furnish all the labor, materials, equipment, services, and supervision to perform all the work shown on the drawings and specifications listed in Article 18, including any addenda issued during the bid phase, and approved change orders issued during the construction phase.

1.3 The Contractor shall notify the University in writing within five (5) calendar days when the Contractor discovers any condition that will affect the contract amount or the completion date.

Article 2 - Time of Completion

2.1 The work to be performed under this Agreement shall commence upon the Contractor's receipt of a fully-executed Agreement, and substantial completion shall be achieved by **July 18, 2013**.

Article 3 - The Contract Sum

3.1 The University shall pay the Contractor a "lump sum/not-to-exceed (pick one)" amount of $$$$$$ ("Amount in words 00" /100 dollars) for the performance of all work associated with the Contractor's Base Bid "and Alternates (List)".

3.2 The University may, at its sole discretion, during the life of the contract, award the following alternates at the amounts indicated: "(If section 3.2 is not used, delete all text and enter_Deleted"

	Description	Amount
Alternate #1	**Refer to Structural Sheet S-201, Alternate Details E3/S201 (Side Elevation), E6/S201 (Plan) and E9/S201(Cross-section). (27 locations)** **a) Details may be used ni locations that are difficult to access. Field verify conditions prior to bidding work** **b) The Alternate is t provide restoration repairs at locations indicated.**	

3.3 In the event additional work becomes necessary, the following unit prices will apply: (If section 3.3 is not used, delete all text and enter_Deleted)

Work Item	Unit Price
A. Excess Pack Rust At Bearing Connection – Repair A	**A. _____**
B. Spall at corner of Precast Seat Unit – Repair B	**B._____**
C. Large spall (12" or greater in one dimension) at precast seat – Repair C	**C._____**
D. Deep Spall at precast seat unit (1" or greater)–Repair D	**D._____**
E. Crack in precast seat unit – Repair E	**E._____**
F. Remove existing delaminated precast concrete – PRE4 CAS 1	**F._____/square inch**

G.	**Repair existing precast crack/spall – PRE CAS 2**	**G.____/square inch**
H.	**Install coninumous sealant – SEAL 1**	**H._____/inch**
I.	**Restoration of Attachment (BASE BID) RESTO BASE BID**	**I._____**
J.	**Restoration of Attachment (BASE BID) RESTO ALT BID**	**J._____**

Article 4 - The Contract Documents

4.1 The Contract Documents shall consist of this Agreement, the drawings and specifications as listed in Article 18, the General Conditions of the Contract for Construction as defined by AIA Document A201 1970 Edition, except as otherwise provided herein, and Wayne State University's Supplementary General Conditions 1997 Edition.

4.2 For any inconsistencies found among or between these Contract Documents, the language contained in this Agreement shall prevail over all other documents and the Supplementary General Conditions shall prevail over the General Conditions. In the event of a conflict between the Drawings and Specifications, the requirement for the higher quantity and/or higher quality shall prevail.

Article 5 – Examination of Premises

5.1 The Contractor acknowledges that the University provided the opportunity for a thorough examination of the project site and its surroundings and that the Contractor knows of no conditions preventing accomplishment of the full scope of work within the time and for the amount specified in this Agreement.

5.2 The University will deny all claims for additional time and/or cost for conditions that could have been reasonably discovered during such an examination.

Article 6 - The Architect/Engineer

6.1 The Architect/Engineer for this project is:

NiagaraMurano
2215 Cole Street
Birmingham, MI 48009

6.2 The University will appoint a Project Manager who will be the University's point of contact for all matters of contract administration including, but not limited to, interpretation of documents, defining the scope of work, approving work schedules, and approving contract payments.

Article 7 - Additional Work

7.1 The University reserves the right to let other Agreements in connection with this work. The Contractor will afford other Contractors or the University's own workforce reasonable opportunity for the delivery and storage of their material and for the performance of their work and shall properly connect and coordinate its work with theirs.

7.2 If any part of the Contractor's work depends for proper execution or results upon the work of another Contractor or the University's own workforce, the Contractor shall inspect and promptly report to the University's Project Manager any defects in such work that render it unsuitable for such proper execution and results. The Contractor's failure to so inspect and report shall constitute an acceptance of the work of others as fit and proper for reception of the Contractor's work and as a waiver of any claim or defense against the University or other contractor which relies in whole or in part upon the contention that such work was unsuitable for proper execution and resolution.

Article 8 – Dispute Resolution

8.1 Jurisdiction over all claims, disputes, and other matters in question arising out of or relating to this contract or the breach thereof, shall rest in the Court of Claims of the State of Michigan. No provision of this agreement may be construed as Wayne State University's consent to submit any claim, dispute or other matter in question for dispute resolution pursuant to any arbitration or mediation process, whether or not provisions for dispute resolution are included in a document which has been incorporated by reference into this agreement. Specifically, all references to Arbitration contained in the General Conditions are superceded by this Article.

8.2 In any claim or dispute by the Contractor against the University, which cannot be resolved by negotiation, the Contractor shall submit the dispute in writing for an administrative decision by the University's Vice President for Finance and Administration, within 30 days of the end of negotiations. Any decision of the Vice President shall be made within 45 days of receipt from the Contractor and is final unless it is challenged by the Contractor by filing a lawsuit in the Court of Claims of the State of Michigan within one year of the issuance of the decision. The Contractor agrees that appeal to the Vice President is a condition precedent to filing suit in the Michigan Court of Claims.

8.3 For purposes of this section, the "end of negotiations" shall be deemed to have occurred when:

8.3.1 Either party informs the other that pursuant to this section, negotiations are at an impasse; or

8.3.2 The Contractor submits the dispute in writing to the Vice President.

8.4 Unless otherwise agreed by the University in writing, and notwithstanding any other rights or obligations of either of the parties under any Contract Documents or Agreement, the Contractor shall continue with the performance of its services and duties during the pendency of any negotiations or proceedings to resolve any claim or dispute, and the University shall continue to make payments in accordance with the Contract Documents; however, the University shall not be required or obligated to make payments on or against any such claims or disputes during the pendency of any proceeding to resolve such claims or disputes.

Article 9 - Termination for Convenience

9.1 Upon thirty days written notice to the Contractor, the University may, without cause and without prejudice to any other right or remedy of the University, elect to terminate the contract. In such case, the Contractor shall only be paid (without duplication of any items), using a Close out Change Order, for the following:

9.1.1 For completed and acceptable work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

9.1.2 For expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted work, including fair and reasonable sums for overhead and profit on such expenses.

9.2 The Contractor shall not be paid on account of loss of anticipated profits or revenue, delay or disruption, or other economic loss arising out of or resulting from such termination. For purposes of this section, "fair and reasonable sums for overhead and profit" shall be determined by reference to Michigan law, without reference to principles used for such determinations in arbitration.

Article 10 - Progress Payments

10.1 On or before the 20th day of each month, the Contractor shall submit a written application for payment, using form AIA G702, to the Architect/Engineer and the University's Project Manager for review. The Architect/Engineer shall have ten (10) calendar days to accept or reject the Contractor's application for payment. Acceptable applications for payment shall then be submitted to the University for Payment of

authorized amount(s) within thirty (30) calendar days of receipt by the University's Project Manager.

10.2 The application for payment shall contain a full schedule of values organized and sorted by subcontractor, by Construction Specifications Institute standard work categories, or in another format acceptable to the University.

10.3 Monthly progress payments shall show the percentage of work installed as of the date of the application, less amount previously installed and the amount due for the application period. The Contractor shall deduct a 10% retainage from the balance due for each progress payment and indicate the net amount due on each application.

10.4 When 50% of the work associated with this Agreement is installed, the Contractor shall not deduct additional retainage from the balance due from the University. When substantial completion is achieved and acknowledged by the Architect/Engineer, the Contractor and the University in writing, the University shall remit to the Contractor all but 2% of the retainage. The remaining 2% shall be retained by the University until the final payment is authorized and remitted to the Contractor.

Article 11 - Acceptance and Final Payments

11.1 Final payment shall be due thirty (30) days after the completion of the work, including all punch list items, provided the work is fully completed and the Agreement fully performed.

11.2 Upon receipt of written notice that the work is ready for final inspection and acceptance, the Architect/Engineer shall promptly inspect the work. When the Architect/Engineer concludes that the work is acceptable and the Agreement to be fully performed, the Architect/Engineer shall promptly issue a final certificate with an original signature, stating that the work provided is complete and acceptable and that the entire remaining balance found to be due the Contractor shall be remitted by the University once the final application for payment is received.

11.3 If, after the work has been substantially completed, full completion thereof is materially delayed through no fault of the Contractor, and the Architect/Engineer so certifies, the University shall, upon certificate of the Architect/Engineer, and without terminating the Contract, make payments of the balance due for that portion of the work fully completed and accepted. Such payments shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

Article 12 - Non-Discrimination

12.1 The Contractor agrees that it will not discriminate against any employee or applicant for employment, to be employed in the performance of this Agreement, with respect to hire, tenure, terms, conditions or privileges of employment or any matter directly or indirectly related to employment, because of race, color, religion, sex, age, national origin, or ancestry. Breach of this covenant may be regarded as material breach of this Agreement.

12.2 The Contractor further agrees that it will, in all subcontracts relating to the performance of the work under this Agreement, provide in its subcontracts that the subcontractor will not discriminate against any employee or applicant for employment, to be employed in the performance of such contract, with respect to hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment because of race, sex, age, color, religion, national origin or ancestry. Breach of this covenant may also be regarded as a material breach of this Agreement.

Article 13 – Laborers and Mechanics

13.1 All laborers and mechanics must be covered by Worker's Compensation and Employer's Liability Insurance as required by Federal and Michigan law. The Contractor shall also require all of its Subcontractors to maintain this insurance coverage.

13.2 The Contractor acknowledges and shall abide by the University's prohibition on use of 1099 independent contractors and owner / operator business entities. The Contractor shall ensure that all classifications of laborers and construction mechanics performing Work on the Project job site are employees of the Contractor or any Trade Contractor for any tier thereof, and that each worker is covered by workers compensation insurance.

Article 14 - Prevailing Wages

14.1 The Contractor and each subcontractor shall pay to each class of mechanics and laborers not less than the wage and fringe benefit rates prevailing in the Detroit Metropolitan Area, as determined by the United States Department of Labor. The Contractor shall post on site, in a conspicuous place, a copy of all applicable wage and benefit rates, and shall provide the University with a copy of the applicable wage and benefit rates.

14.2 The Contractor and each subcontractor shall keep an accurate record showing the name and occupation of and the actual benefits and wages paid to each laborer and mechanic employed in connection with this contract. The Contractor and each subcontractor shall make certified payroll records available to the University's representatives upon request.

14.3 If a Contractor or subcontractor fails to pay the prevailing rates of wages and fringe benefits and does not cure such failure within ten (10) days after notice to do so by the University, the University shall have the right, at its option, to do any or all of the following:

14.3.1 Withhold all or any portion of payments due the Contractor as may be considered necessary by the University to pay laborers and mechanics the difference between the rates of wages and fringe benefits required by this Agreement and the actual wage and fringe benefits paid.

14.3.2 Terminate part or all of this Agreement or any subagreement and proceed to complete the Agreement or subagreement by separate agreement with another Contractor or otherwise, in which case the Contractor and its sureties shall be liable to the University for any excess costs incurred by the University.

14.4 The Contractor shall include terms identical or substantially similar to this section in any Agreement or subagreement pertaining to the project.

Article 15 - Save Harmless

15.1 The Contractor shall indemnify, defend and hold harmless the University, its agents and employees from any and all loss, damage, claims, and causes of action whatsoever, including all costs, expenses and attorneys' fees arising out of Contractor's performance of obligations under the terms and conditions of this agreement. Such responsibility shall not be construed as liability for damage caused by or resulting from the negligence of the University, its agents other than the Contractor, or its employees.

Article 16 - Liquidated Damages

16.1 It is understood and agreed that, if the project is not completed within the time specified in the Agreement plus any extension of time allowed pursuant thereto, the actual damages sustained by the University because of any such delay will be uncertain and difficult to ascertain, and it is agreed that the reasonable foreseeable value of the use of said project by the University would be the sum of **$500.00, Five hundred Dollars** per day. Therefore, the Contractor shall pay as liquidated damages to the University the sum of **$500.00, Five hundred Dollars** per day for each day's delay in substantially completing said project beyond the time specified in this Agreement and any extensions of time allowed thereunder.

Article 17- Interpretation

17.1 This Agreement shall be interpreted and construed according to the laws of the State of Michigan.

17.2 If one part of this Agreement is found to be void by legal or legislative action, the remainder of the contract

remains in full effect.

Article 18 - Drawings and Specifications

18.1 The Technical Specifications and the Project Manual dated **January 20, 2014,** and the following List of Drawings represents the scope of work as defined in the Contract Documents from Article 4.

DRAWINGS

Drawing No.:	Description	dated
T-1	Title Sheet, Location Plan & Code Review	January 20, 2014
A-100	Existing "X" Bracing Location	January 20, 2014
S-001	General Structural Notes	January 20, 2014
S-100	Stadium Bleacher Repair Plans	January 20, 2014
S-101	Existing Drawings	January 20, 2014
S-201	Bleacher Repair Details	January 20, 2014
S-202	Representative Photos	January 20, 2014

IN WITNESS WHEREOF the parties to these presents have hereunto set their hands as of the day and year first written above.

Signed, sealed and delivered
in the presence of:

CONTRACTOR'S NAME GOES HERE

By_____
signature

_____
Please print name here

_____
Date signed

_____
Title

_____
Witness

THE BOARD OF GOVERNORS of
WAYNE STATE UNIVERSITY

By_____
Richard J. Nork, Vice President for
Finance and Facilities

_____
Date signed

Form Contract Approved by OGC 06/13 – LG
File_reference_here

FORM OF GUARANTEE

PROJECT: Stadium Structural Stabilization

OWNER: BOARD OF GOVERNORS, WAYNE STATE UNIVERSITY

CONTRACTOR: _____

DATE: _____

Know all men by these presents that, in consideration of my (our) having been awarded the Contract or Subcontract for complete furnishing and installation of:

Stadium Structural Stabilization (**079-241292**)

For: **Board of Governors, Wayne State University**

In conformity with drawings and specifications prepared by Architect or Engineer, **NiagaraMurano**, and known as the buildings indicated above, I (we) do hereby agree that, should I (we) be notified that the said work has proved faulty, etc., that I (we) will return to the buildings within three (3) working days of the receipt of such notice, and will furnish the necessary labor and material to repair such work to the satisfaction of the Owner and without cost to the Owner.

The Agreement shall remain in full force and effect **for a one year period (DATE TBD)**

WITNESS:

signed:_____
Subcontractor

by:_____

address:_____

city/state/zip:_____

signed:_____
General Contractor

by:_____

(THIS FORM TO BE FILED IN DUPLICATE.)

GENERAL CONDITIONS (Revised 10-2009)

A. Although AIA Document A201 - Twelfth Edition (April 1970) - "General Conditions of the Contract for Construction" is not bound herein, it forms a part of these construction documents.

B. A reference copy of AIA Document A201 - Twelfth Edition (April 1970) - "General Conditions of the Contract for Construction" is on file at the following location:

Wayne State University
Finance & Facilities Management
Procurement & Strategic Sourcing
Academic / Administrative Services Building
5700 Cass Avenue
Detroit Michigan 48202

SUPPLEMENTARY GENERAL CONDITIONS

OF

THE CONTRACT FOR CONSTRUCTION

Facilities Planning & Management - Design & Construction Services

Wayne State University

WSU SUPPLEMENTARY GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

NOTE: The following items related to A.I.A. General Conditions, A.I.A. Document A-201 - Twelfth Edition (April 1970), by specific number being amended to. These items, as amendments, shall have precedence over the article being amended.

ARTICLE 1 - CONTRACT DOCUMENTS

1.1 DEFINITIONS

1.1.5 The Agreement

The Agreement executed by the Contractor and the Owner.

1.2 EXECUTION, CORRELATION, INTENT, AND INTERPRETATIONS

1.2.6 "General Conditions and "Supplementary General Conditions" apply with equal force to all Contractors, Subcontractors work, and extra work required under this Contract.

1.2.7 Precedence of Drawings and Specifications.
The Agreement has precedence over WSU Supplementary General Conditions.

WSU Supplementary General Conditions have precedence over A.I.A. A-201 General Conditions of the Contract.

Specifications have precedence over drawings. Full-size drawings have precedence over scale drawings. Large-scale plans and details have precedence over small-scale plans and details. Figured dimensions have precedence over plans and elevations.

ARTICLE 2 - ARCHITECT

2.1 DEFINITION

2.1.1.1 The term Architect or Architect/Engineer as used in these specifications refers to Facilities Planning and Management - Design Services, and/or Consulting Architect/Engineer.

2.2 ADMINISTRATION OF THE CONTRACT

2.2.16 The Architect will assign Field Representatives to make periodic visits to the project for the purpose of assisting the Architect in carrying out his field responsibilities at the site. The duties, responsibilities and limitations of authority of any such Field Representative shall be as follows:

a. Explain Contract Documents: Assist the Contractor via the Contractor's Superintendent to understand the intent of the Contract Documents.

b. Observations: Conduct on-site observations and spot checks of the work in progress as a basis for determining conformance of the work, material, and equipment with the Contract Documents.

c. Additional Information: Obtain from the Architect, additional details or information, if and when required, at the job site for proper execution of the work.

d. Modifications: Consider and evaluate suggestions or modifications that may be submitted by the Contractor and report them with recommendations to the Architect for final decision.

e. Construction Schedule and Completion: Be alert to the completion, and report same to the Architect. When the construction work has been completed in accordance with the Contract Documents, advise the Architect that the work is ready for general inspection and

acceptance.

f. Job Conferences: Attend and report to the Architect on all required conferences held at the job site.

g. Observe Tests: See that tests which are required by the Contract Documents are actually conducted; observe, record and report to the Architect all details relative to the test procedures; and advise the architect's office in advance of the schedules of tests.

h. Inspection by Others: If inspectors, representing local, state or federal agencies having jurisdiction over the project, visit the job site, accompany such inspectors during their trips through the project, record the outcome of these inspections, and report same to the Architect's office.

i. Shop Drawings: Do not permit the installation of any materials and equipment for which shop drawings are required unless such drawings have been duly approved and issued by the Architect.

j. Contractor's Requisitions for Payment: Review and make recommendations to the Architect for disposition.

k. List of Items for Correction: After substantial completion, make a list of items for correction before final inspection and check each item as it is corrected.

l. Owner's Occupancy of the Building: If the Owner occupies (to any degree) the building prior to actual completion of the work by the Contractor, be especially alert to possibilities of claims for damage to completed work prior to the acceptance of the building.

m. Owner Existing Operation: In the case of additions to or Demolitions of an existing facility, which must be maintained as an operational unit, be alert to conditions on the job site which may have an effect on the Owner's existing operation.

n. Limitations of Authority: Do not become involved in any of the following areas of responsibility unless specific exceptions are established by written instructions issued by the Architect.

aa. Do not authorize deviations from the Contract Documents.

bb. Avoid conducting any test personally.

cc. Do not enter into the area of responsibility of the Contractor's field superintendent.

dd. Do not expedite job for Contractor unless so instructed by the Architect.

ee. Do not advise on or issue directions relative to any aspect of the building technique or sequence unless a specific technique or sequence is called for in the Specifications or by written instructions from the Architect.

ff. Do not approve shop drawings or samples.

gg. Do not authorize or advise the Owner to occupy the Project, in whole or in part, prior to the final acceptance of the building.

hh. Do not issue a Certificate for Payment.

ARTICLE 3 - OWNER

3.5 OWNER'S RIGHT TO DO WORK

3.5.1 The Owner may exercise his right, which is hereby acknowledged by the Contractor, to let independent of the Contract for the work herein specified, any other work on the premises even if of

like character and trades, and the Owner shall not be liable for any damage, loss or expense incurred by the Contractor through the fault of any other Contractor so employed by the Owner. The Contractor acknowledges the necessity of work by others, to be performed at approximately the same time as the work hereunder, and agrees to perform his work in full cooperation with the work of such other trades and/or Contractors, partially or entirely completed, by such other trades and/or Contractors, or by the Owner, when, in the opinion of the Architect, such access or use is necessary for the performance and completion of any portion or all of the work of others or of any work on the site.

3.6 OWNER'S ACCESS AND PARTIAL OCCUPANCY

3.6.1 The Owner shall have access to the work at all times, and at his election, may from time to time (prior to the stipulated contract completion date) occupy any of the units or parts of the project as the work in connection therewith is complete to such a degree as will, in the opinion of the Owner, permit their temporary or permanent use. The Owner will, prior to any such partial occupancy, give notice to the Contractor thereof and such occupancy shall be upon the following terms:

a. Such occupancy shall not constitute an acceptance of work not performed in accordance with the Contract nor shall such occupancy relieve the Contractor of liability to perform any work by the Contract by not complete at the time of occupancy.

b. Except as otherwise provided by an agreement at the time of such partial occupancy, the Contractor shall be relieved of all maintenance costs on units or parts so occupied.

c. The Contractor shall not be responsible for wear and tear or damage resulting from partial occupancy.

d. The Owner shall assume risk of loss with respect to any unit or part so occupied.

e. The Contractor shall, if required by the Owner, furnish heat, light, water, or other such services to the units or parts occupied and the Owner shall make proper remuneration therefore to the Contractor.

3.6.2 The Contractor agrees that the Owner shall have the right, after seven (7) days' written notice to the Contractor, to place and install as much equipment and machinery during the progress of the work as is possible before the completion of the various parts of the work; and further agrees that such placing and installation of equipment shall not in any way evidence the completion of the work or any portion thereof, nor signify the Owner's acceptance of the work or any portion thereof. Should the Owner place or install such equipment and machinery with his own forces he shall be responsible for any damage to work of the Contractor caused by the Owner's work or workmen. Should the Owner have such placement or installation performed by another Contractor, then the Owner shall require said Contractor to be responsible for all such damage caused by his work, his workers, or his subcontractors.

ARTICLE 4 - CONTRACTOR

4.4 LABOR AND MATERIALS

4.4.3 All materials shall be so delivered, stored and handled to prevent the inclusion of foreign materials and the damage of materials by water or breakage. Packaged materials shall be delivered and stored in original packages until ready for use. Packages or materials showing evidence of water or other damage shall be rejected. All materials shall be of the respective qualities specified herein.

4.4.4 The Contractor shall be responsible for the proper care and protection of all his materials, equipment, etc., delivered at the site. Building materials, equipment, etc., may be stored on the premises subject to the approval of the Architect.

4.4.5 To insure timely availability of critical materials in case of national emergency, the Contractor may order his subcontractors to proceed with fabrication of the same earlier than required by normal sequence of construction. In the event storage facilities are not available on the site or at the source of fabrication, the Owner will endeavor to provide such storage space as may be available to care for same. Where this is necessary, the Contractor shall be paid for all stored material on the

Owner's property or on the properties approved by the Owner upon approval of certified invoices. It shall be the Contractor's obligation to pay for all handling costs and damage to this material. The Contractor shall protect this property against damage.

4.6 TAXES

4.6.1 The Bidder shall include in his proposal and make payment of all Federal, State, County and Municipal taxes including Michigan State Sales and Use Taxes, now in force or which may be enacted during the progress and completion of the work covered.

4.7 PERMITS, FEES AND NOTICES

4.7.3 The Contractor shall pay highway or DPW fees for damages to sidewalks, streets, or other public property or to any public utilities.

4.7.4 Permits and licenses of a temporary nature necessary for the execution of the work shall be secured and paid for by the Contractor.

4.7.5 **Except for the General Building Permit (which is not required), the Contractor shall secure and pay for all other required permits, including the following:**

Electrical - State of Michigan
Plumbing - State of Michigan
Mechanical - State of Michigan
Elevator- City of Detroit

4.7.6 The Contractor shall secure certificates of inspection and of occupancy that may be required by authorities having jurisdiction over the work. These certificates shall be delivered to the Architect upon completion of the work.

4.9 SUPERINTENDENT

4.9.2 The Contractor shall give sufficient supervision to the work, using his best skill and attention. He shall carefully study and compare all drawings, specifications, and other instructions, and shall at once report to the Architect any error, inconsistency, or omission which he may discover, but he shall not be held responsible for their existence or discovery.

4.9.3 The Contractor's superintendent shall periodically inspect the entire project to make certain that all of the stipulations of all of the articles of the General Conditions are being observed.

4.12 DRAWINGS AND SPECIFICATIONS AT THE SITE

4.12.1.1 Refer to Paragraph 4.12.1, of A.I.A. General Conditions of the Contract for Construction. Modify the last sentence of this paragraph to read:

> "The Drawings, marked to record all changes made during construction, shall be incorporated in the Contractor's 'Informational Package'."

4.12.2 As a basic and interim step for the fulfillment of the "Informational Package", accurate records of all non-structural underground and concealed work shall be kept, including, but not limited to, all piping, conduit, equipment, and drainage and tunnel work. In addition, such records shall be available for review during various steps of the project.

4.13 SHOP DRAWINGS AND SAMPLES

4.13.9 Immediately before and as a condition of substantial completion, the Contractor shall provide the Owner an "Informational Package" and instructional sessions on the operation, maintenance, and service of the facility. The "Informational Package" shall include:

1. One (1) set of transparency (sepia) of the approved shop drawings and

descriptive material submitted during construction. Any shop documents unobtainable in sepia shall be supplied in three (3) sets.

2. One (1) set of transparency (sepia) of constructional shop drawings with all installation revisions incorporated to reflect the as-built condition. Examples of constructional shop drawings are dimensioned conduit, piping and ductwork layout drawings.

3. Three (3) sets of instructional manuals on the installation, operation, maintenance and service of equipment and systems, including parts lists.

Examples of Specific Information Required:

1. Electrical

   a. Conduit layout of light, power, and special systems, indicating dimensionally the locations and size of runs; circuit grouping and conductor size and number in conduit runs.
   b. System description and elementary diagrams, connection and interconnection diagrams, and device internal diagrams.

2. Mechanical

   a. Piping and ductwork layout indicating dimensionally the location and size of the runs.

   b. Description and diagrams of control systems.

Following the submittal of the "Informational Package", the Contractor shall schedule and provide, at the Owner's convenience, instructional sessions for Owner's personnel to acquaint them with the operation, maintenance, and service of the system.

3. Elevators

   a. Elementary diagrams and description of sequence of operation of the system control components, connection and interconnection diagrams, and device internal diagrams.

ARTICLE 5 - SUBCONTRACTORS

5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

5.2.3 Delete Article 5.2.3 in its entirety.

5.2.4 Delete Article 5.2.4 in its entirety.

ARTICLE 7 - MISCELLANEOUS PROVISIONS *(Revised 6-13-2011)*

7.5 PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

7.5.1 The successful Bidder will be required to furnish a Performance Bond and Labor and Material Payment bond in an amount equal to 100% of the contract award amount, and include such cost in the Proposal, complying with the laws of the State of Michigan. The graduated formula no longer applies.

A. Performance Bond and Labor and Material Payment Bond shall be from a surety company acceptable to the Owner and made payable as follows:

   (1) A Labor and Material Payment bond for 100% of the contract award amount to the Board of Governors of Wayne State University, and guaranteeing the payment of all subcontractors

and all indebtedness incurred for labor, materials, or any cause whatsoever on account of the Contractor in accordance with the laws of the State of Michigan relating to such bonds.

(2) A Performance bond for 100% of the contract award amount to the Board of Governors of Wayne State University to guarantee and insure the completion of work according to the Contract.

B. The only acceptable Performance Bond shall be the AIA A312 – 2010.

C. The Contractor shall include with his bid evidence of his ability to obtain a Performance Bond in the amount of 100% of the bid amount, and in accordance with the terms and conditions outlined in this section, Such evidence shall be project specific and shall be submitted on a form provided by the Surety or Agent thereof.

7.7 ROYALTIES AND PATENTS

7.7.1 The Contractor hereby agrees to indemnify, protect and save harmless the Architect and the Owner from and against any and all liability, loss or damage, and to reimburse the Owner and the Architect for any expenses, including legal fees and disbursements to which the Owner or the Architect may be put because of claims of litigation on account of infringement or alleged infringement of any letters patent or patent rights by reason of the work or materials, equipment, or other items used by the Contractor in its performance.

7.9 INTEREST

7.9.1 Delete Article 7.9 in its entirety.

ARTICLE 8 - TIME

8.1 DEFINITIONS

8.1.3 The Date of Substantial Completion of the Work is the Date certified by the Architect when construction of the entire work is sufficiently complete, in accordance with the Contract Documents, so the Owner may occupy the Work for the use for which it is intended. It is the beginning date for the guarantees on all the Project Work.

8.3.5 LIQUIDATED DAMAGES

It is understood that if said Contract is not completed within the time specified in the Contract plus any extension of time thereto, the Contractor shall pay Liquidated Damages to the Owner as set forth in Article 11 of the Agreement between Contractor and Owner for Construction.

ARTICLE 9 - PAYMENT AND COMPLETION

9.3 PROGRESS PAYMENTS

9.3.1 On or before the 20th day of each month, the Contractor shall submit to the Architect on the Owner's Standard Form, a written application for payment showing the proportionate value of the work installed to date from which shall be deducted, a reserve of 10% and all previous payments, and the balance of the amount as approved by the Architect shall be due and payable to the Contractor on or about the 15th day of the succeeding month.

9.3.2.2 No payments will be made because of materials or equipment stored off the site, except as provided for in Subparagraph 4.4.5 of the Supplementary General Conditions or other special cases the Owner may approve.

9.6 FAILURE OF PAYMENT

9.6.1 Delete Article 9.6 in its entirety.

ARTICLE 11 - INSURANCE *(Revised 3-22-2012)*

11.1 CONTRACTOR'S LIABILITY INSURANCE

11.1.2 The insurance required by Subparagraph 11.1.1 shall be written for not less than any limits of liability specified herein, or required by law, whichever is greater, and shall include contractual liability insurance as applicable to the Contractor's obligations under Paragraph 4.18.

During the life of the Contract, the Contractor shall maintain the following types of insurance:

A. General Requirements

Type of Insurance	Minimum Requirement	
1.Comprehensive General Liability	Bodily Injury	$ 500,000 each person $1,000,000 aggregate
	Property Damage	$ 500,000 each occurrence $1,000,000 aggregate or $2,000,000 combined single limit (CSL)
2.Fire Legal Liability		$ 100,000
3.Comprehensive Automobile Liability (including Hired and non-owned vehicles)	Bodily Injury	$ 500,000 each person $1,000,000 each accident
	Property Damage	$ 500,000 each accident or $2,000,000 combined single limit (CSL)
4.Workers'Compensation (Employer's Liability)	Statutory - Michigan $100,000	
5.Property - All Risk	In an amount sufficient to cover the total value of the contractor's property in the care, custody or control of WSU.	

B. Maximum Acceptable Deductibles

Type of Insurance	Maximum Deductible
Comprehensive General Liability	$5,000
Fire Legal Liability	$5,000
Comprehensive Automobile Liability	-0-
Workers' Compensation	-0-
Property - All Risk	$ 500

11.1.3 The Board of Governors, Wayne State University, shall be named as an additional insured but only with respect to accidents arising out of the performance of said contract. The contractor shall prepare a certificate of insurance which shall name the “Office of Risk Management; 5700 Cass Avenue” as the Wayne State University certificate holder.

11.1.3.1 The Contractor shall either 1) require each of his Subcontractors to procure and to maintain during the life of his subcontract, Subcontractors' Comprehensive General Liability, Automobile Liability and Property Damage Liability Insurance of the type and in the same amounts as specified in the Subparagraph, or 2) insure the activity of his subcontractors in his own policy.

11.2 OWNER'S LIABILITY INSURANCE

Delete Article 11.2 in its entirety.

11.3 PROPERTY INSURANCE

Delete Article 11.3 in its entirety and replace with the following:

11.3.1 The Contractor shall purchase and maintain property insurance upon the entire work at the site to the full insurable value thereof. This insurance shall include the interests of the Owner, the Contractor, Subcontractors, and sub-subcontractors in the work and shall insure against the perils of Fire, Extended Coverage, Vandalism, and Malicious Mischief.

11.3.2 The Owner and Contractor waive all rights against each other for damages caused by fires or other perils to the extent covered by insurance provided under Subparagraph 11.3.1. The Contractor shall require similar waivers by Subcontractors and sub-subcontractors in accordance with Clause 5.3.1.5.

11.3.3 Insurance must be issued by an insurance company with an “A rating as denoted in the AM Best Key Rating Guide”.

ARTICLE 12 - CHANGES IN THE WORK

12.1 CHANGE ORDERS

12.1.8 Percentage markups in pricing under Subparagraphs 12.1.3.1, 12.1.3.3, and 1.2.4 shall be as limited in the Contract Documents. Unit price of Subparagraph 12.1.3.2 shall represent total unit cost to the Owner and shall include the Contractor's markup for overhead and profit.

ARTICLE 14 - TERMINATION OF THE CONTRACT

14.1 TERMINATION BY THE CONTRACTOR

14.1.1 If the work is stopped for a period of thirty days under any order of any court or other public authority having jurisdiction, or as a result of any act of government, such as a declaration of a national emergency making materials unavailable, through no act or fault of the contract or a subcontractor or their agents or employees or other persons performing any of the Work under a contract with the contractor, then the contractor may, upon seven days' written notice to the Owner and the Architect, terminate the contract and recover from the Owner payment for all Work executed and for any proven loss sustained upon any materials, equipment, tools, construction equipment, and machinery, including reasonable profit and damages.

ARTICLE 15 - ADDITIONAL CONDITIONS

15.1 SUBSTITUTION OF MATERIALS AND EQUIPMENT

15.1.1 Whenever a material, article, or piece of equipment is identified on the Drawings or in the Specifications by reference to manufacturers' or vendors' names, trade names, catalog numbers, or the like, it is so identified for the purpose of establishing a standard, and any material, article, or piece of equipment of other manufacturers or vendors, which will perform adequately the duties imposed by the general design will be considered equally acceptable provided the material, article, or piece of equipment so proposed is, in the opinion of the Architect, of equal substance, appearance, and function. It shall not be purchased or installed by the Contractor without the Architect's written approval.

15.2 NON-DISCRIMINATION PROVISION AND WAGE AND HOUR ACT

15.2.1 During the performance of this contract, the Contractor agrees as follows:

15.2.1.1 The Contractor shall not discriminate against any employee or applicant for employment because of sex, race, creed, color, age, or national origin. The Contractor will take affirmative action to insure that applicants are employed, and that employees are treated during employment without regard to their sex, race, age, creed, color, or national origin.

15.2.1.2 Such action shall include but not be limited to, the following: employment; upgrading; demotion; or transfer; recruitment or recruitment advertising; layoff or terminations; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post

in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this non-discrimination clause.

15.2.1.3 The Contractor will, in all solicitations, or advertisements for employees, placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to sex, race, creed, color, age or national origin.

15.2.1.4 The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice advising the labor union or worker's representative of the Contractor's commitments under Section 202 of Executive Order No. 11246 of October 27, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

15.2.1.5 The Contractor will comply with all provisions of the Executive Order No. 11246 of October 27, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor or other government agency or authority having jurisdiction.

15.2.1.6 The Contractor will furnish all information and reports required by Executive Order No. 11246 of October 27, 1965, and by the rules, regulations, and orders of the Secretary of Labor or other government agency or authority having jurisdiction, and will permit access to his books, records, and accounts by the administrative agency and the Secretary of Labor for the purposes of investigation to ascertain compliance with such rules, regulations and orders.

15.2.1.7 In the event of the Contractor's noncompliance with the non-discrimination clauses of this contract, or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated or suspended in whole or in part, and the Contractor may be declared ineligible for further University contracts or federally-assisted contracts in accordance with procedure authorized in Executive Order No. 11246 of October 27, 1965, or by rule, regulation, or order of the Secretary of Labor or other government agency or authority having jurisdiction.

15.2.1.8 The Contractor will include in the provisions of Subparagraph 15.2.1.1 through 15.2.1.8 in every subcontract or purchase order unless exempted by rules, regulations or orders of the President's Committee on Equal Employment Opportunity issued pursuant to Section 204 of Executive Order No. 11246 of September 14, 1965, so that provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the Contractor becomes involved as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interest of the United States.

15.3 COMPLIANCE WITH COPELAND ANTI-KICKBACK ACT AND REGULATIONS

15.3.1 The Contractor shall comply with the Copeland Anti-Kickback Act and Regulations of the Secretary of Labor (29CFR, Part 3) which are herein incorporated by reference.

15.4 PREVAILING WAGES

15.4.1 Contractors and subcontractors shall pay all mechanics and laborers, including apprentices and trainees, no less than the wage and fringe benefit rates prevailing in the locality in which the work is performed. Wage and fringe benefit rates are determined by the Federal Government Department of Labor.

15.4.2 Classifications not provided in the schedule shall be determined prior to the award of the contract and shall be no less than the wage and fringe benefit rates determined by the Federal Department of Labor.

15.4.3 Contractors and subcontractors shall adhere to the ratios of apprentices to journey workers as determined by the Federal Department of Labor.

15.4.4 Contractors and subcontractors shall keep a copy of the prescribed wage and benefit rates posted at the construction site in a conspicuous place.

15.4.5 Contractors and subcontractors shall keep an accurate record of the name, occupation, and the actual benefits paid to each mechanic or laborer for the contract. This record shall be made available for reasonable inspection by the Federal Department of Labor and the Owner.

DRAWINGS

The Technical Specifications dated **January 20, 2014** and the following List of Drawings represent the scope of work as defined in the Contract Documents from Article 4.

DRAWINGS

Drawing No.: Description

Drawing No.:	**Description**	**dated**
T-1	**Title Sheet, Location Plan & Code Review**	**January 20, 2014**
A-100	Existing “X” Bracing Location	January 20, 2014
S-001	General Structural Notes	January 20, 2014
S-100	Stadium Bleacher Repair Plans	January 20, 2014
S-101	Existing Drawings	January 20, 2014
S-201	Bleacher Repair Details	Janaury 20, 2014
S-202	Representative Photos	January 20, 2014

GENERAL REQUIREMENTS

GENERAL

A. **CONTRACTOR'S RESPONSIBILITY**

It is not the responsibility of the Architect/Engineer or Owner's Representative to notify the Contractor or subcontractors when to commence, to cease, or to resume work; nor in any way to superintend so as to relieve the Contractor of responsibility or of any consequences of neglect or carelessness by him or his subordinates. All material and labor shall be furnished at times best suited for all Contractors and subcontractors concerned, so that the combined work of all shall be properly and fully completed on the date fixed by the Contract.

The Contractor shall be responsible for all items contained in both the specifications and on the drawings for all trades. He shall be responsible for the proper division of labor according to current labor union agreements regardless of the division of responsibility implied in the contract documents.

B. **CODES AND STANDARDS**

Reference to standard specifications for workmanship, apparatus, equipment and materials shall conform to the requirements of latest specifications of the organization referenced, i.e., American Society for Testing Materials (ASTM), Underwriters Laboratories, Inc. (UL), American National Standards Institute, Inc. (ANSI), and others so listed in the Technical Specifications.

C. **PERMITS, FEES AND NOTICES**

See Supplementary General Conditions.

D. **MEASUREMENTS**

Before proceeding with each Work Item, Contractor shall locate, mark and measure any quantity or each item and report quantities to Engineer. If measured quantities exceed Engineer's estimate, Contractor shall obtain written authorization to proceed from Owner before executing Work required for that Work Item.

Measurement of quantities for individual Work Items will be performed by Contractor and reviewed by Engineer. Coordinate measurements with inspection as required in Section "Coordination."

Cost of Work included in Work Item for quantities as indicated in Contract Documents shall be included in Base Bid.

1. Additions to or deductions from lump sum price for quantities of each Work Item added to or deducted from Work respectively shall be at unit prices indicated in Bid Form and shall constitute payment or deductions in full for all material, equipment, labor, supervision and incidentals necessary to complete Work.

E. **CONTRACTOR'S MEASUREMENTS**

Before ordering material, preparing Shop Drawings, or doing any work, each Contractor shall verify, at the building, all dimensions which may affect his work. He assumes full responsibility for the accuracy of his figures. No allowance for additional compensation will be considered for minor discrepancies between dimensions on the drawings and actual field dimensions.

F. **CONTINUITY OF SERVICE *(Revised 3-26-2012)***

Continuity of all existing services in the building shall be maintained throughout the construction period. Where it is necessary to tie into the existing electrical service, water or waste systems, it shall be done as directed by the Architect/Engineer. This Contract shall also provide temporary lines or bypasses that may be required to maintain continuous service in the building. All utility shutdowns must be approved by the Owners Representative / Project Manager, not less than **7 business days** prior to the event, so that proper notification can be posted.

G. **SUBMITTALS**

All submittals (except Shop Drawings) and samples required by the Specifications shall be submitted in triplicate unless otherwise specified for a particular item under an individual Specification Section.

Each sample shall be clearly identified on a tag attached, showing the name of the Project Consultant, the project number and title, the names of the Contractor, manufacturer (and supplier if same is not the manufacturer), the brand name or number identification, pattern, color, or finish designation and the location in the work.

Each submittal shall be covered by a transmittal letter, properly identified with the project title and number and a brief description of the item being submitted.

Contractor shall be responsible for all costs of packing, shipping and incidental expenses connected with delivery of the samples to the Project Consultant or other designated address.

If the initial sample is not approved, prepare and submit additional sets until approval is obtained.

Materials supplied or installed which do not conform to the appearance, quality, profile, texture or other determinant of the approval samples will be rejected, and shall be replaced with satisfactory materials at the Contractor's expense.

H. GENERAL/STANDARD ELECTRONIC EQUIPMENT AND INFRASTRUCTURE REQUIREMENTS *(Revised 11-2008)*

1. Compliance with WSU Standards for Communications Infrastructure

   A. All applicable work, products, materials and methods shall comply with the latest version of the "WSU Standards for Communications Infrastructure" except as where noted.

   B. This document is available at the following website/URL: **http://networks.wayne.edu/WSU-Communications-Standards.pdf**

2. Automation System Program Code

   A. All automation system uncompiled and compiled program codes, source codes, custom modules, graphical user interface screen shots and any other automation system programming data and material (Program Code) shall be provided to the UNIVERSITY in hard copy and on CD Rom in an unencrypted format acceptable to the UNIVERSITY.

   B. Copyright for the Program Code shall be assigned to the UNIVERSITY for purposes of system maintenance.

PROTECTION OF OCCUPANCY *(Revised 3-2006)*

A. **FIRE PRECAUTIONS**

Take necessary actions to eliminate possible fire hazards and to prevent damage to construction work, building materials, equipment, temporary field offices, storage sheds, and other property.
During the construction, provide the type and quantity of fire extinguishers and fire hose to meet safety and fire prevention practices by National Fire Protection Association (NFPA) Codes and Standards (available at http://www.nfpa.org/)

In the event that construction includes "hot work", the contractor shall provide the Owner's Representative with a copy of their hot work policy, procedures, or permit program. No hot work activity (temporary maintenance, renovation, or construction by operation of a gas or electrically powered equipment which produces flames, sparks or heat that is sufficient to start a fire or ignite combustible materials) shall be performed until such documents are provided. During such operations, all highly combustible or flammable materials shall be removed from the immediate working area, and if removal is impossible, same shall be protected with flame retardant shield.

Not more than one-half day's supply of flammable liquids such as gasoline, spray paint and paint solvent shall be brought into the building at any one time. Flammable liquids having a flash point of 100 degrees F. or below which must be brought into the building shall be confined in an Underwriters Laboratories (UL) labeled safety cans. The bulk supply of flammables shall be stored at least 75 feet from the building and other combustible materials. Spigots on drums containing flammable liquids are prohibited on the project site. Drums shall be equipped with approved vented pumps, and be grounded and bonded.

Only a reasonable working supply of combustible building materials shall be located inside the building.

All oil-soaked rags, papers, and other similar combustible materials shall be removed from the building at the close of each day's work, or more often if necessary, and placed in metal containers, with self-closing lids.

Materials and equipment stored in cardboard cartons, wood crates or other combustible containers shall be stored in an orderly manner and accessibly located, fire-fighting equipment of approved types shall be placed in the immediate vicinity of any materials or equipment stored in this type of crate or carton.

No gasoline, benzene, or like flammable materials shall be poured into sewers, manholes, or traps.

All rubbish shall be removed from the site and legally disposed of. Burning of rubbish, waste materials or trash on the site shall not be permitted.

The contractor shall be responsible for the conduct of employees relative to smoking and all smoking shall be in the area designated by the Architect/Engineer.

B. **GENERAL SAFETY AND BUILDING PRECAUTIONS**

Provide and maintain in good repair barricades, railings, etc., as required by law for the protection of the Public. All exposed material shall be smoothly dressed.

At dangerous points throughout the work environment provide and maintain colored lights or flags in addition to above guardrails.

Isolate Owner's occupied areas from areas where demolition and alteration work will be done, with temporary, dustproof, weatherproof, and fireproof enclosures as conditions may require and as directed by the Architect/Engineer.

Cover and protect furniture, equipment and fixtures to remain from soiling, dust, dirt, or damage when demolition work is performed in rooms or areas from which such items have not been removed.

Protect openings made in the existing roofs, floors, and other construction with weatherproof coverings, barricades, and temporary fire rated partitions to prevent accidents.

Repair any damage done to existing work caused by the construction and removal of temporary partitions, coverings, and barricades.

The Contractor will be held responsible for all breakage or other damage to glass up to the time the work is completed.

Provide protection for existing buildings, interior and exterior, finishes, walls, drives, landscaping, lawns (see below), etc. All damages shall be restored to match existing conditions to the satisfaction of the Architect/Engineer.

The Contractor and Owner will define the anticipated area of lawn damage at the project Pre-Construction Meeting. Whether the lawn is sparse or fully developed, any lawn damaged due to the Contractor's work will be replaced with sod by the University. The University's unit cost of $10.00 per square yard and landscaping at a rate of 1.5 times the cost of the sod repairs, the full cost of which will be assessed against the Contractor. At the completion of the project, a deductive Change Order reflecting this cost will be issued.
The Contractor is to include an allowance in his bid for this corrective work.

C. **INTERFERENCE WITH OWNER'S OPERATIONS**

The Owner will be utilizing the Building Facilities to carry on his normal business operation during construction. The Contractor shall schedule performance of the work necessary to complete the project in such a way as to interfere as little as possible with the operation during construction. The Contractor shall schedule performance of the work necessary to complete the project in such a way as to interfere as little as possible with the operation of the Owner.

Work which will interfere with the Owner's occupancy, including interruptions to the Owner's mechanical and electrical services, and essentially noisy operations (such as jackhammering) shall be scheduled in advance. The schedule of alterations shall be approved by the Architect/Engineer and the work shall be done in accordance with the approved schedule.

It is understood that the work is to be carried through to completion with the utmost speed consistent with good workmanship and to meet the construction schedule.

The Contractor shall begin work under the Contract without delay upon receipt of the fully-executed contract and shall substantially complete the project ready for unobstructed occupancy and use of the Owner for the purposes intended within the completion time stated in the contract.

The Contractor shall, immediately upon award of contract, schedule his work and expedite deliveries of materials and performance of subcontractors to maintain the necessary pace to meet the construction schedule.

CONTRACTOR'S REPRESENTATION AND COORDINATION

A. **FIELD SUPERINTENDENT**

Contractor shall assign a full time project manager/superintendent for the duration of the project. This person shall be experienced and qualified in all phases of the work and shall be present at the site during Contractor’s working hours. The project manager shall have Contractor’s full authority to represent Contractor in all routine operations including payment, changes to the work, and scheduling. Contractor shall not re-assign this individual without prior written permission of the Owner.

B. **MEETINGS**

When directed by the Architect/Engineer, meetings shall be held for the purpose of coordinating and expediting the work. The invited contractors or subcontractors will be required to have qualified representatives at these meetings, empowered to act in their behalf.

C. **COORDINATION**

The Contractor shall also provide a staff adequate to coordinate and expedite the work properly and shall at all times maintain competent supervision of its own work and that of its subcontractors to insure compliance with contract requirements.

The Contractor shall be solely responsible for all construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the work under the Contractor.

D. **CONSTRUCTION SCHEDULE**

The Construction Schedule shall be prepared after the award of contract. Soon after, a pre-construction meeting is held with the Owner and the Architect/Engineer to determine the areas to which the Contractor will be allowed access at any one time.

The Contractor is alerted to the fact that areas in which he will be working will be occupied by students and employees of the University as well as the general public. The Contractor's access, to and from the project site, will be confined to limited areas so as not to unduly disrupt the normal activities of the University.

TEMPORARY FACILITIES

A. **GENERAL**

The following temporary facilities descriptions represent standard conditions. Verify accuracy with Architect/Engineer at time of bids.

B. **CONTRACTOR'S OFFICE**

Provide field offices as required. Locate temporary field offices on site where directed by Architect/Engineer.

Appearance and location of field offices shall be approved by the Architect/Engineer.

Provide for all other administrative facilities and storage off the Owner's property.

C. **STORAGE OF MATERIALS**

All materials shall be stored in areas designated by the Architect/Engineer. All stored materials shall be arranged for the minimum disruption to occupants and to allow full access to and throughout the building. Materials stored outdoors shall be neat and orderly and covered to prevent damage or vandalism.

D. **PARKING**

1. **GENERAL**

University parking regulations will be strictly enforced.

Maintain Owner's parking areas free of dirt and debris resulting from operations under the contract.

2. **STANDING AND UNLOADING/LOADING VEHICLES**

All Contractors are to call Wayne State University Public Safety at 577-2222, and give at least 24 hours advance notice that they have vehicles that must be at the job site.

Vehicles will be permitted at the project site only as long as the vehicles are needed for loading/unloading, and must be immediately moved upon completion.

All unauthorized and/or unattended standing vehicles will be subject to ticketing and removal by University Police. Towed vehicles may be reclaimed by calling 577-2222, and paying any assessed charges.

3. COMPLIMENTARY PARKING

There is no complimentary parking for Contractor's employee vehicles.

4. **WAYNE STATE UNIVERSITY PUBLIC/STUDENT PARKING AREAS**

Public Parking, on a first-come first-served basis is available. Contact the office of the One Card System, at 313.577.9513 for information on availability of parking on a contractual basis.

E. **TOILET FACILITIES**

The Owner's designated existing toilet facilities may be used by workers on the project. Contractor shall maintain such facilities in a neat and sanitary condition.

F. **TELEPHONE USE**

If required, the Contractor shall provide and pay for a temporary telephone within the building for his use and that of his subcontractors.

No use of the Owner's telephone (except pay telephones) will be permitted.

G. **ACCESS DEVICES**

The Contractor shall furnish and maintain temporary hoists, ladders, railings, scaffolds, runways, and the like as required for safe, normal access to the permanent construction until the permanent facilities are complete. Each trade shall furnish such additional means of access as may be required for the progress and completion of the work. Such temporary access devices shall meet all applicable local, state, and federal codes and regulations.

H. **HEAT AND VENTILATION**

Provide cold weather protection and temporary heat and ventilation as required during construction to protect the work from freezing and frost damage.

Provide adequate ventilation as required to maintain reasonable interior building air conditions and temperatures, to prevent accumulation of excess moisture, and to remove construction fumes.

Tarpaulins and other materials used for temporary enclosures. Coverings and protection shall be flameproofed.

I. **WATER SERVICE**

Sources of water are available at the site. The Owner will pay for reasonable amounts of water used for construction purposes.

The Contractor shall provide, at the earliest possible date, temporary connections to the water supply sources and maintain adequate distribution for all construction requirements. The Contractor shall protect sources against damage.

Methods of conveying this water shall be approved by the Architect/Engineer and shall not interfere with the Owner's operations.

J. **ELECTRICAL SERVICES**

All charges for reasonable amounts of electrical power energy used for temporary lighting and power required for this work will be paid by the Owner.

The Contractor shall provide and maintain any temporary electrical lighting and power required for this work. At the completion of the work, all such temporary electrical facilities shall be removed and disposed of by the Contractor.

Temporary lighting and power shall comply with the regulations and requirements of the National Electrical Code

INSPECTIONS AND TESTS

The Architect/Engineer shall at all times have access to the work wherever it is in preparation or in progress and the Contractor shall provide proper facilities for such access and for observation.

No failure of the Architect/Engineer, during the progress of the work, to discover or reject materials or work not in accordance with the Contract Specifications and Drawings shall be deemed an acceptance thereof nor a waiver of defects therein. Likewise, no acceptance or waiver shall be inferred or implied due to payments made to contractor or by partial or entire occupancy of the work, or installation of materials that are not strictly in accordance with the Contract Specifications and Drawings.

Where tests are specifically called for in the Specifications, the Owner shall pay all costs of such tests and engineering services unless otherwise stated in the contract.

Where tests are not specifically called for in the Specifications, but are required by the Architect/Engineer or Consultant, the Owner shall pay all costs of such tests and engineering services unless the tests reveal that the workmanship or materials used by the Contractor are not in conformity with the Drawings, Specifications, and/or approved shop drawings. In such event, the Contractor shall pay for the tests, shall remove all work and materials so failing to conform and replace with work and materials that are in full conformity.

CLEAN-UP

The Contractor shall at all times keep the Owner's premises and the adjoining premises, driveways and streets clean of rubbish caused by the Contractor's operations and at the completion of the work shall remove all the rubbish, all of his tools, equipment, temporary work and surplus materials, from and about the premises, and shall leave the work clean and ready for use. If the contractor does not attend to such cleaning immediately upon request, the Architect/Engineer may cause such cleaning to be done by others and charge the cost of same to the Contractor.

The Contractor will be responsible for all damage from fire that originates in, or is propagated by, accumulations of rubbish or debris.

All rubbish and debris shall be disposed of off the Owner's property in an approved sanitary landfill site. No open burning of debris or rubbish will be permitted. Job site shall be left neat and clean at the completion of each day's operation.

PROJECT CLOSE-OUT

A. RECORD DRAWINGS

At beginning of job, provide one copy of Working Drawings, and record changes, between Working Drawings and "As Builts", including changes made by Addenda, Change Orders, Shop Drawings, etc. These shall be kept up to date. Update to indicate make of all mechanical and electrical equipment and fixtures installed. Keep these Record Prints in good condition and available for inspection by the Architect/Engineer.

Upon completion of the job, turn over to the Architect/Engineer Record Prints of Working Drawings showing all job changes.

B. OPERATING AND MAINTENANCE DATA

Prepare and furnish to the Architect/Engineer three (3) bound copies of "Operating and Maintenance Manual" on all equipment installed under this Contract.

Manual shall include copies of all Manufacturers' "Operating and Service Instructions", including Parts List, Control Diagrams, Description of Control Systems, Operating, Electrical Wiring, and any other information needed to understand, operate and maintain the equipment. The names and addresses of all subcontractors shall be included. These instructions shall be custom-prepared for this job -- catalog cuts will **not** be accepted. Equipment shall be cross-referenced to Section of Specifications and to location shown and scheduled on drawings.

Include Test-Adjust-Balance Report in the Manual.

C. FINAL INSPECTION

Secure final inspections from the State of Michigan as soon as the work is completed and immediately submit such Certificates to the Architect/Engineer.

D. GUARANTEES (See Sections 00510 and 01781)

Guarantees on material and labor from the General Contractor and his subcontractors shall be as required in Sections 00510 and 01781.

E. SWORN STATEMENT AND WAIVER OF LIENS *(revised 4-11-2012)*

Prior to final payment, the General Contractor shall provide a Contractor's Sworn Statement and Full Unconditional Waivers of Liens from all subcontractors for material and labor and from all suppliers who provide materials exceeding $1,000. Sworn Statements and signed waivers from all Subcontractors must accompany Pay Applications or they will be returned for such documentation prior to approval.

ASBESTOS HAZARD

A. The contractor shall not start any work in any area that has not been inspected for asbestos by the Owner's Industrial Hygiene Department, or a qualified representative of the Owner and approval is given for work to be done. If asbestos is found, safety measures as recommended by the Owner's Industrial Hygiene Department, or a qualified representative of the Owner, shall be completed, or approval given for work to be done before work is started. The contractor shall not perform any asbestos removal or containment work under the contract.

KEYS

A. The Owner shall provide the contractor keys on loan to have access to the various spaces in order to complete the contract. Contractor will sign for and be responsible for each key on loan, returnable to Owner upon completion of the contract. In case of any lost keys, the Owner will back-charge the contract $250.00 for each core change. In the event that a Contractor wants access to a secured area, he shall give the Owner a minimum 48-hour notice.

SUMMARY OF WORK

SUMMARY OF WORK

PROJECT: Stadium Structural Stabilization

WSU PROJECT NO.: 079-241292

PROJECT MANAGER: Nancy Milstein

1. EXAMINATION

   The Contractor shall visit the site and become familiar with conditions under which he will be working. Also meet with the project manager and review site access, storage areas, etc.

2. Description of Work – Project includes **Structural Repairs to steel/precast concrete**.

3. The building is located at

   Wayne State University
   1401 Edsel Ford Service Drive
Detroit, Michigan 48202

WAYNE STATE UNIVERSITY

ADAMS FIELD STADIUM STRUCTURAL REPAIRS

1401 Edsel Ford Service Drive
Detroit, MI 48202

WSU Project No.: 079-241292

A R C H I T E C T
Niagara Murano

2215 Cole Street
Birmingham, MI 48009
(248) 646-5765 (T)
(248) 646-5813 (F)

NM Project No.: 13149.0

O W N E R
Wayne State University

5045 Cass Avenue
Detroit, MI 48201
(313) 577-4301 (T)
(313) 577-1817 (F)

Owner Proj. No.: 079-241292

E N G I N E E R
Desai Nasr Consulting Engineers

Structural Engineers
6765 Daly Road
West Bloomfield, MI 48322
(248) 932-2010 (T)
(248) 932-3088 (F)

DNCE Project No.: 8426-00

E N G I N E E R
Soil & Materials Engineers Inc.

Consulting Engineers
The Kramer Building
43980 Plymouth Oaks Blvd.
Plymouth, MI 48170-2584
(734) 454-9900 (T)
(734) 454-0629 (F)

SME Project No. 066239-03

ISSUED: FOR BIDS **DATE: January 20, 2014**

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DIVISION 7 – THERMAL AND MOISTURE PROTECTION

APPENDIX – FOR REFERENCE ONLY

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ARCHITECTURAL:

T-1 TITLE SHEET, DRAWING INDEX & LOCATION & VICINITY MAPS
A-100 EXISTING "X" BRACING LOCATIONS

STRUCTURAL:

S-001 GENERAL STRUCTURAL NOTES
S-100 STADIUM BLEACHER REPAIR PLANS
S-101 EXISTING DRAWINGS
S-201 BLEACHER REPAIR DETAILS
S-202 REPRESENTATIVE PHOTOS

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SECTION 01100
SUMMARY

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including the Standard and Supplementary Conditions and other Division 1 Specification Sections, apply to this section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: The Project consists of repairing and restoring portions of the precast seating units and structural steel bearing connections in Adams Field Stadium located at the Wayne State University Main Campus in Detroit, Michigan.

1. Project Location: Wayne State University
Adams Field Stadium
1401 Edsel Ford Service Drive
Detroit, Michigan 48202

2. Owner: Wayne State University
and the Board of Governors

B. Architect Identification: The Bid Documents, dated **January 20, 2014**, were prepared for the Project by:

Niagara Murano Architecture
2215 Cole Street
Birmingham, Michigan 48009

Desai Nasr Consulting Engineers – Structural
6765 Daly Road
West Bloomfield, MI 48322

Soil and Materials Engineers Inc – Consulting Engineers
The Kramer Building
43980 Plymouth Oaks Blvd.
Plymouth, MI 48170

C. Project Coordinator: **Nancy Milstein** of Wayne State University Facilities Planning and Management Office has been appointed by Owner to serve as Project Manager.

D. The Work consists of renovations to portions of Adams Field Stadium on the Wayne state University Main Campus.

1. The Work includes selective demolition, re-building existing structural steel supports, cutting and patching existing precast concrete seating, replacement of existing support angles, sealant, and steel frame repair**.**

2. The Work also includes providing barricades and signage in work areas to prevent public access to construction zones.

3. Major aspects of the work include:
   a. Contractor shall visit the site and be familiar with existing conditions.
   b. Contractor to provide WSU and Consultant Team workplan identifying difficult details and showing an understanding for means, method sequences and procedures for carrying out construction.
   c. Repairing existing precast units.
   d. Repairing existing structural steel.
   e. Installing structural support assemblies per the structural drawings.
   f. Removing and replacing existing sealants at precast seating units.

1.3 CONTRACT

A. Contract Type: A single prime contract based on a Stipulated Price as described in Owner's Bidding Instructions.

1.4 WORK SEQUENCE

A. The Work shall be conducted in one phase.

1.5 SCHEDULE

A. The Work shall be Start April 2014.

B. The Work shall be completed July 18, 2014.

C. Refer to WSU Front End Documents for **Penalty Clause.**

1.6 DATES OF CONSTRUCTION WORK STOPAGE

A. Spring Football: March 19 to April 13, 2014.
B. Flag Football Tournament: May 16 to May 17, 2014.
C. WSU Football Camp: June 19, 2014 – (7 on 7 Camp).
D. WSU Youth Camp: June 24, 2014.
E. WSU Skills Camp: June 25, 2014.
F. WSU Football Camp: June 26, 2014 – (7 on 7 Camp).
G. WSU Football Practice: August 7, 2014. (Football Season begins).

1.7 USE OF PREMESIS

A. General: Contractor shall have full use of premises for construction operations, including use of Project site, during construction period. Contractor's use of premises is limited only by Owner's right to perform work or to retain other contractors on portions of Project.

B. Owner intends to continue to occupy adjacent portions of the existing Stadium during the entire construction period. Owner intends to occupy the Project upon Substantial Completion. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.

C. Construction Operations: Limited to areas noted on Drawings.

D. Arrange use of site and premises to allow:
1. Owner occupancy.
2. Work by Owner.
3. Use of site and premises by the public.

E. Provide access to and from site as required by law and by Owner:
1. Emergency Building and Site Circulation and Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
2. Do not obstruct roadways, sidewalks, or other public ways without permit.

F. Utility Outages and Shutdown:
1. Coordinate shutdowns and outages with Owner per Owner's General, Supplemental and Special Conditions.

1.8 SPECIFICATION FORMATS AND CONVENTIONS

A. Specification Format: The Specifications are organized into Divisions and Sections using the 16-division format and CSI/CSC's "MasterFormat" numbering system.

1. Section Identification: The Specifications use section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of sections in the Contract Documents.

B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.

2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

a. The words "shall", "shall be", or "shall comply with", depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION 01100

SECTION 01230
ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements governing Alternates.

1.3 DEFINITIONS

A. Definition: An alternate is an amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
   1. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate the Alternate into the Work. No other adjustments are made to the Contract Sum.
   2. The cost or credit of each alternate includes the cost of premiums for Labor and Material Payment Bonds and Performance Bonds.

1.4 PROCEDURES

A. Coordination: Modify or adjust affected adjacent Work as necessary to completely and fully integrate that Work into the Project.
   1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.

B. Notification: Immediately following the award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate whether alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

C. Execute accepted alternates under the same conditions as other Work of this Contract.

D. Schedule: A "Schedule of Alternates" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials necessary to achieve the Work described under each alternate.

PART 2 - PRODUCTS (NOT APPLICABLE TO THIS SECTION)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate No. 1: Restoration of Attachment between existing structural steel and existing precast seat units and supports.

1. Base Bid: Restoration of Attachment (Base Bid): Refer to Detail B1/ S-201. (**27** Locations.)
2. Reference Details: E3/S-201 (Side Elevation), E6/ S-201 (Plan), E9/S-201 (Cross-section).
3. Field verify conditions and existing bracing prior to starting work.

Alternate No. 1: Refer to Structural Sheet S-201, Alternate Details E3/S-201 (Side Elevation), E6/ S-201 (Plan), and E9/S-201 (Cross-section). (**27** Locations.)

a. Details may be used in locations that are difficult to access. Field verify conditions prior to bidding work.

b. The Alternate is to provide restoration repairs at locations indicated.

END OF SECTION 01230

SECTION 01270
UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for unit prices.

B. Related Sections include the following:
1. Division 1 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
2. Division 1 Section "Quality Requirements" for general testing and inspecting requirements.

1.3 DEFINITIONS

A. Unit price is an amount proposed by bidders, stated on the Bid Form, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

D. List of Unit Prices: A list of unit prices is included at the end of this Section. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

E. Contractor to **ASSUME** Unit Price Repairs are at **12 FEET** above grade.

F. Provision for lifts to be excluded in Unit Price Repairs.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 LIST OF UNIT PRICES

A. Unit Price No. 1 – EXCESS PACK RUST AT BEARING CONNECTION: **REPAIR A**
1. Description: PROVIDE according to Specification Sections and drawings.
Existing pack rust to be cleaned and removed per detail G6/ S-201.

$_____

B. Unit Price No. 2 – SPALL AT CONRNER OF PRECAST SEAT UNIT: **REPAIR B**
1. Description: PROVIDE according to Specification Sections or drawings.
Existing spall to be repaired and patched per detail E1/ S-201.

$_____

C. Unit Price No. 3 – LARGE SPALL AT PRECAST SEAT (12” or greater)-**REPAIR C**:
1. Description: PROVIDE according to Specification Sections or drawings.
Existing large spall to be repaired and patched per detail E1-S-201.

$_____

D. Unit Price No.4 – DEEP SPALL AT PRECAST SEAT UNIT (1” or greater).-**REPAIR D**:
a. Description: PROVIDE according to Specification Sections or drawings.
Deep spall and delaminated precast concrete repair per detail H1/S-201.

$_____

E. Unit Price No. 5 – CRACK IN PRECAST SEAT UNIT-**REPAIR E:**
a. Description: PROVIDE according to Specification Sections or drawings.
Crack in precast concrete repair per detail H3/S-201.

$_____

F. Unit Price No. 6 – REMOVE EXIST'G DELAMINATED PRECAST CONCRETE-**PRE CAS 1**:
   a. Description: PROVIDE according to Specification Sections or drawings.
      Remove existing precast concrete per specifications.

      $_____per square inch.

G. Unit Price No. 7 –REPAIR EXISTING PRECAST CRACK/ SPALL-**PRE CAS 2**:
   a. Description: PROVIDE according to Specification Sections or drawings.
      Provide continuous structural welds as indicated on the drawing.

      $_____per square inch.

H. Unit Price No.8 –INSTALL CONTINUOUS SEALANT-**SEAL 1**:
   a. Description: PROVIDE according to Specification Sections or drawings.
      Install continuous sealant as indicated on the drawings and specifications.

      $_____per inch.

I. Unit Price No. 9– RESTORATION OF ATTACHMENT (BASE BID): **RESTO BASE BID**
   1. Description: PROVIDE according to Specification Sections and drawings.
      Restore attachment of Structural steel and precast per detail B1/ S-201.
      Reference Details B3/S-201 (Side Elevation), B6/ S-201 (Plan),
      B9/S-201 (Cross-section).

      $_____

J. Unit Price No. 9– RESTORATION OF ATTACHMENT (BASE BID): **RESTO ALT BID**
   1. Description: PROVIDE according to Specification Sections and drawings.
      Restore attachment (Alt) of Structural steel and precast per detail B1/ S-201.
      Reference Details E3/S-201 (Side Elevation), E6/ S-201 (Plan),
      E9/S-201 (Cross-section).

      $_____END OF SECTION 01270

END OF SECTION 01270

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SECTION 01305
ADMINISTRATIVE REQUIREMENTS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Standard and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes.

1. Preconstruction meeting.
2. Site Usage and mobilization meeting with **WSU Facilities** & **Athletics Department**.
3. Construction progress meetings.
4. Submittals for review, warranty and project close-out.
5. Copies of submittals.

1.3 PROJECT COORDINATION

A. Product Data: Surface preparation materials.

1. Discrepancies between this Project Manual and WSU's Front End Documents (General, Supplemental, and Special Conditions, etc.) shall be resolved referencing the WSU Front End Documents.
2. Project Coordinator: **Nancy Milstein**, WSU Project Manager, acting as Owner's Representative.
3. Cooperate with the Project Coordinator in allocation of mobilization areas of site; for field offices and sheds, for public/private/contractor access, traffic, and parking facilities.
4. During construction, coordinate use of site and facilities through the Project Coordinator.
5. Comply with Project Coordinator's procedures for intra-project communications; submittals, reports and records, schedules, coordination of drawings, and recommendations; and resolution of conflicts.

B. Comply with instructions of the Project Coordinator for use of temporary utilities and construction facilities.

C. Coordinate field engineering and layout work under instructions of the Project Coordinator.

D. The following types of submittals to Architect through the Project Coordinator:
1. Requests for interpretation.
2. Requests for substitution.
3. Shop drawings, product data, and samples.
4. Test and inspection reports and Design Data.
6. Manufacturer's instructions and field reports.
7. Applications for payment and change order requests.
8. Progress schedules.
9. Coordination drawings.
10. Closeout submittals.

PART 2- PRODUCTS - NOT USED

PART 3 - EXECUTION

3.1 PRECONSTRUCTION MEETING

A. Owner will schedule a meeting after Notice of Award.

B. Attendance Required to Preconstruction Meeting.
1. Owner.
2. Contractor.

C. Agenda:
1. Execution of Owner-Contractor Agreement.
2. Submission of executed bonds and insurance certificates.
3. Distribution of Contract Documents.
4. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule.
5. Designation of personnel representing the parties to Contract and Architect.
6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
7. Scheduling.

D. Record minutes and distribute copies within two days after meeting to participants, with copies to Architect, Owner, participants, and those affected by decisions made.

3. 2 SITE MOBILIZATION MEETING

A. Owner will schedule a meeting at the Project site prior to Contractor occupancy.

B. Attendance Required:
1. Contractor.
2. Owner.
3. Architect.
4. Special Consultants.
5. Contractor's Superintendent.
6. Major Subcontractors.

C. Agenda:
1. Use of premises by Owner and Contractor.
2. Owner's requirements and occupancy prior to completion.
3. Construction facilities and controls provided by Owner.
4. Temporary utilities provided by Owner.
5. Security and housekeeping procedures.
6. Schedules.
7. Application for payment procedures.
8. Procedures for testing.
9. Procedures for maintaining record documents.
10. Requirements for start-up of equipment.
11. Inspection and acceptance of equipment put into service during construction period.

D. Record minutes and distribute copies within two days after meeting to participants, with copies to Architect, Owner, participants, and those affected by decisions made.

3.3 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the Work at maximum weekly intervals.

B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.

C. Attendance Required: Job superintendent, major Subcontractors and suppliers, Owner, Architect, as appropriate to agenda topics for each meeting.

D. Agenda:
1. Review minutes of previous meetings.
2. Review of Work progress.
3. Field observations, problems, and decisions.
4. Identification of problems that impede, or will impede, planned progress.
5. Review of submittals schedule and status of submittals.
6. Review of off-site fabrication and delivery schedules.
7. Maintenance of progress schedule.
8. Corrective measures to regain projected schedules.
9. Planned progress during succeeding work period.
10. Coordination of projected progress.
11. Maintenance of quality and work standards.
12. Effect of proposed changes on progress schedule and coordination.
13. Other business relating to Work.

E. Record minutes and distribute copies within two days after meeting to participants, with copies to Architect, Owner, participants, and those affected by decisions made.

3.4 CONSTRUCTION PROGRESS SCHEDULE

A. Within 7 days after date of the Agreement, submit preliminary schedule defining planned operations for the first 60 days of Work, with a general outline for remainder of Work.

B. If preliminary schedule requires revision after review, submit revised schedule within 7 days.

C. Within 7 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
1. Include written certification that major contractors have reviewed and accepted proposed schedule.

D. Within 7 days after joint review, submit complete schedule.

E. Submit updated schedule at each Progress Meeting.

3.5 SUBMITTALS FOR REVIEW

A. When the following are specified in individual sections, submit them for review:
1. Product data.
2. Shop drawings.
3. Samples for selection.
4. Samples for verification.

B. Submit to Architect for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.

C. Samples will be reviewed only for compliance with specifications and details.

D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below.

3.6 SUBMITTALS FOR INFORMATION

A. When the following are specified in individual sections, submit them for information:
1. Design data.
2. Certificates.
3. Test reports.
4. Inspection reports.
5. Manufacturer's instructions.
6. Manufacturer's field reports.
7. Material Safety Data Sheets (MSDS).
8. Other types indicated.

B. Submit for Architect's knowledge as contract administrator or for Owner. No action will be taken.

3.7 SUBMITTALS FOR PROJECT CLOSEOUT

A. When the following are specified in individual sections, submit them at project closeout:
1. Project record documents.
2. Operation and maintenance data.
3. Warranties.
4. Bonds.
5. Inspection Reports.
6. Permits and Certificates of Occupancy.
7. Extra parts, attic stock.
8. Other types as indicated.

B. Submit for Owner's benefit during and after project completion.

3.8 NUMBER OF COPIES OF SUBMITTALS

A. Documents: Submit one electronic copy in PDF format; an electronically-marked up file will be returned. Create PDFs right-side up. Copies that are illegible will be rejected.

B. Documents for Project Closeout (WSU Copy): Make three reproductions of submittals reviewed and one of submittals for information.

C. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.
1. After review, produce duplicates.
2. Retained samples will not be returned to Contractor unless specifically so stated.

3.9 SUBMITTAL PROCEDURES

A. Transmit each submittal with AIA Form G810 or Architect approved equivalent.

B. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.

C. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy.

D. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.

E. Deliver submittals to Architect at business address.

F. Schedule submittals to expedite the Project, and coordinate submission of related items
.

G. For each submittal for review, allow 14 days excluding delivery time to and from the Contractor.

H. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.

I. Provide space for Contractor and Architect review stamps.

J. When revised for resubmission, identify all changes made since previous submission.

K. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.

L. Submittals not requested will not be recognized or processed.

3.10 ARCHITECT'S ACTION

A. Except for submittals for the record or for information, where action and return of submittals is required, the Architect will review each submittal, mark to indicate the action taken, and return.

1. Compliance with specified characteristics is the Contractor's responsibility and not considered part of the Architect's review and indication of action taken.

B. Action Stamp: The Architect will stamp each submittal with a uniform, action stamp. The Architect will mark the stamp appropriately to indicate the action taken, as follows:

1. Final Unrestricted Release: Where submittals are marked "Reviewed," the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final acceptance will depend on that compliance.

2. Final-but-Restricted Release: When submittals are marked "Furnish As Corrected," the Work covered by the submittal may proceed provided it complies with both the Architect's notations or corrections on the submittal and requirements of the Contract Documents. Final
acceptance will depend on that compliance.

3. Returned for Re-submittal: When submittal is marked "Revise and Re-Submit" do not proceed with the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the Architect's notations. Resubmit without delay. Repeat if necessary to obtain a different action mark.

    a. Do not permit submittals marked "Rejected" or “Revise and Re-Submit” to be used at the Project Site or elsewhere where construction is in progress.

END OF SECTION 01305

SECTION 01400
QUALITY REQUIREMENTS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including the Standard and Supplementary Conditions and other Division 1 Specification Sections, apply to this section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements for quality assurance and quality control.

B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.

1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.

2. Specified tests, inspections, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with the Contract Document requirements.

3. Requirements for Contractor to provide quality-control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

1.3 DEFINITIONS

A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and ensure that proposed construction complies with requirements.

B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction complies with requirements. Services do not include contract enforcement activities performed by Architect.

C. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

1.4 DELEGATED DESIGN

A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.

1.5 SUBMITTALS

A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualification in the form of a recent report on the inspection of the testing agency by a recognized authority.

B. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by design professional, indicating that products and systems are in compliance with performance and design criteria indicated. Include list of codes, loads, and other factors used in performing these services.

C. Schedule of Tests and Inspections: Prepare in tabular form and include the following:

1. Specification Section number and title.

2. Description of test and inspection.

3. Identification of applicable standards.

4. Identification of test and inspection methods.

5. Number of tests and inspections required.

6. Time schedule or time span for tests and inspections.

7. Entity responsible for performing tests and inspections.

8. Requirements for obtaining samples.

9. Unique characteristics of each quality-control service.

D. Reports: Prepare and submit certified written reports that include the following:

1. Date of issue.

2. Project title and number.

3. Name, address, and telephone number of testing agency.

4. Dates and locations of samples and tests or inspections.

5. Names of individuals making tests and inspections.

6. Description of the Work and test and inspection method.

7. Identification of product and Specification Section.

8. Complete test or inspection data.

9. Test and inspection results and an interpretation of test results.

10. Ambient conditions at time of sample taking and testing and inspecting.

11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.

12. Name and signature of laboratory inspector.

13. Recommendations on retesting and reinspecting.

E. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.6 QUALITY ASSURANCE

A. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

B. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

C. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

D. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance.

E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installation of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.

F. Specialists: Certain sections of the Specifications require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.

1. Requirement for specialists shall not supersede building codes and similar regulations governing the Work, not interfere with local trade-union jurisdictional settlements and similar conventions.

G. Testing Agency Qualifications: An agency with the experience and capability to conduct testing and inspecting indicated, as documented by ASTM E 548, and that specializes in types of tests and inspections to be performed.

H. Preconstruction Testing: Testing agency shall perform preconstruction testing for compliance with specified requirements for performance and test methods.

1. Contractor responsibilities include the following:

a. Provide test specimens and assemblies representative of proposed materials and construction. Provide sizes and configurations of assemblies to adequately demonstrate capability of product to comply with performance requirements.

b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.

c. Fabricate and install test assemblies using installers who will perform the same tasks.

d. When testing is complete, remove assemblies; do not reuse materials on Project.

2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

1.7 QUALITY CONTROL

A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.

1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of the types of testing and inspecting they are engaged to perform.

2. Payment for these services will be made from testing and inspecting allowances, as authorized by Change Orders.

3. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor.

B. Contractor Responsibilities: Unless otherwise indicated, provide quality-control services specified and required by authorities having jurisdiction.

1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.

a. Contractor shall not employ the same entity engaged by Owner, unless agreed to in writing by Owner.

2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.

3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.

4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.

5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

C. Special Tests and Inspections: Owner will engage a testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner.

1. Testing agency will notify Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.

2. Testing agency will submit a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.

3. Testing agency will submit a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.

4. Testing agency will interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

5. Testing agency will retest and reinspect corrected work.

D. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.

E. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that revised or replaced Work that failed to comply with requirements established by the Contract Documents.

F. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.

2. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.

3. Do not release, revoke, alter, or increase requirements of the Contract Documents or approve or accept any portion of the Work.

G. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.

2. Incidental labor and facilities necessary to facilitate tests and inspections.

3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.

4. Facilities for storage and field-curing of test samples.

5. Delivery of samples to testing agencies.

H. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

I. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Submit schedule within 30 days of date established for commencement of the Work.

1. Distribution: Distribute schedule to Owner, Architect, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Sections of these Specifications. Restore patched areas and extend restoration into adjoining areas in a manner that eliminates evidence of patching.

2. Comply with Contract Document requirements for Division 1 Section “Cutting and Patching”.

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor’s responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01400

SECTION 01420
REFERENCES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including the Standard and Supplementary Conditions and other Division 1 Specification Sections, apply to this section.

1.2 DEFINITIONS

A. General: Basic Contract definitions are included in the Conditions of the Contract.

B. "Approved": The term "approved", when used in conjunction with Architect's action on Contractor's submittals, applications, and requests, is limited to Architect's duties and responsibilities as stated in the Conditions of the Contract.

C. "Directed": Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean directed by Architect, requested by Architect, and similar phrases.

D. "Indicated": The term "indicated" refers to graphic representations, notes, or schedules on Drawings; or to other paragraphs or schedules in Specifications and similar requirements in the Contract Documents. Terms such as "shown", "noted", "scheduled", and "specified" are used to help the user locate the reference.

E. "Regulations": The term "regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.

F. "Furnish": The term "furnish" means to supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.

G. "Install": The term "install" describes operations at Project site including unloading, temporary storage, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

H. "Provide": The term "provide" means furnish and install, complete and ready for the intended use.

I. "Installer": An installer is Contractor or another entity engaged by Contractor, as an employee, subcontractor, or contractor of lower tier, to perform a particular construction operation, including installation, erection, application, and similar operations.

J. The term "experienced", when used with the term "installer", means having successfully completed a minimum of five previous projects similar in size and scope to this Project; being familiar with the special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter". It also does not imply that requirements specified apply exclusively to tradespeople of the corresponding generic name.

K. "Project site" is the space available for performing construction activities, either exclusively or in conjunction with others performing other work as part of Project. The extent of Project site is shown on the Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.3 INDUSTRY STANDARDS

A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

B. Publication Dates: Comply with standards in effect as of the date of the Contract Documents, unless otherwise indicated.

C. Conflicting Requirements: Where compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.

1. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of the requirements. Refer uncertainties to Architect for a decision before proceeding.

D. Copies of Standards: Each entity engaged in construction on Project must be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from the publication source and make them available on request.

E. Abbreviations and Names: Abbreviations and acronyms are frequently used in the Specifications and other Contract Documents to represent the name of a trade association, standards-developing organization, authorities having jurisdiction, or other entity in the context of referencing a standard or publication. Where abbreviations and acronyms are used in the Specifications or other Contract Documents, they mean the recognized name of these entities. Refer to Gale Research's "Encyclopedia of Associations" or Columbia Books' "National Trade & Professional Associations of the U.S.", which are available in most libraries.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION 01420

SECTION 01500
TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including the Standard and Supplementary Conditions and other Division 1 Specification Sections, apply to this section.

1.2 SUMMARY

A. This Section includes requirements for temporary facilities and controls, including temporary utilities, support facilities, and security and protection facilities.

B. Temporary utilities include, but are not limited to, the following:

1. Sanitary facilities.
2. Temporary utilities.
3. Lighting.
4. Telephone service.
5. Security requirements.
6. Waster removal facilities and services.
7. Field Office.
8. Vehicular access and parking.

C. The Owner will include, but are not limited to, the following:

1. Electrical power, consisting of connection to existing facilities.
2. Water supply, consisting of connection to existing facilities.

D. Security and protection facilities include, but are not limited to, the following:

1. Barricades and warning signs.
2. Fire protection.

1.3 USE CHARGES

A. General: Cost or use charges for temporary facilities are not chargeable to Owner or Architect and shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, the following:

1. Owner’s construction forces.
2. Occupants of Project.
3. Architect.
4. Testing Agencies.
5. Personnel of authorities having jurisdiction.

B. Water Service: Use water from Owner's existing water system without metering and without payment of use charges. Use trigger-operated nozzles for water hoses, to avoid waste of water.

C. Electric Power Service: Use electric power from Owner's existing system without metering and without payment of use charges.

1.4 QUALITY ASSURANCE

A. Standards: Comply with ANSI A10.6, NECA's "Temporary Electrical Facilities," and NFPA 241.

1.5 PROJECT CONDITIONS

A. Conditions of Use: The following conditions apply to use of temporary services and facilities by all parties engaged in the Work:

1. Keep temporary services and facilities clean and neat.

2. Relocate temporary services and facilities as required by progress of the Work.

PART 2 – PRODUCTS

2.1 MATERIALS

A. General: Provide new materials. Undamaged, previously used materials in serviceable condition may be used if approved by Architect. Provide materials suitable for use intended.

B. Lumber and Plywood: Comply with requirements in Division 6 Section "Rough Carpentry."

C. Water: Potable.

2.2 EQUIPMENT

A. General: Provide equipment suitable for use intended.

B. Fire Extinguishers: Hand carried, portable, UL rated. Provide class and extinguishing agents as indicated or a combination of extinguishers of NFPA-recommended classes for exposures.

1. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.

C. Drinking Water Fixtures: Containerized, tap-dispenser, bottled-water drinking water units, including paper cup supply.

D. Electrical Outlets: Properly configures, NEMA-polarized outlets to prevent insertion of 110 to 120 V plugs into higher-voltage outlets; equipped with ground fault circuit interrupters, reset button, and pilot light.

E. Power Distribution System Circuits: Where permitted and overhead and exposed for surveillance, wiring circuits, not exceeding 125-v ac, 20-A rating, and lighting circuits may be nonmetallic sheathed cable.

PART 3 – EXECUTION

3.1 INSTALLATION, GENERAL

A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.

B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

A. Water Service: Use of Owner's existing water service facilities will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
   1. Provide rubber hoses as necessary to serve Project site. Use trigger-operated nozzles for water hoses, to avoid waste of water.

B. Sanitary Facilities:

   1. Toilets: Use of Owner's existing toilet facilities will be permitted, as long as facilities are cleaned and maintained in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.

   2. Drinking-Water Facilities: Provide bottle-water, drinking water units.

C. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment from that specified that will not have a harmful effect on completed installations or elements being installed.

D. Electric Power Service: Use of Owner's existing electric power service will be permitted, as long as equipment is maintained in a condition acceptable to Owner.

E. Electric Distribution: Provide receptacle outlets adequate for connection of power tools and equipment.

F. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations and traffic conditions.

G. Telephone Service shall include:

   1. Windows-based personal computer dedicated to project telecommunications, with necessary software and laser printer throughout construction period for common-use facilities used by all personnel engaged in construction activities.

   2. At telephone, post a list of important telephone numbers.

      a. WSU Security Office.
      b. Ambulance services.

c. Contractor's home office.
d. Architect's office.
e. Engineer's office.
f. Owner's office.
g. Principal subcontractors' field and home offices.

2. Provide an answering machine on superintendent's telephone.

3.3 PROTECTION FACILITIES INSTALLATION

A. Avoid using tools and equipment that produce harmful noise. Restrict use of noisemaking tools and equipment to hours that will minimize complaints from persons or firms near Project site.

B. Temporary Fire Protection:

1. Locate fire extinguishers where convenient and effective for their intended purpose; provide not less than one extinguisher.

2. Store combustible materials in containers in fire-safe locations.

3. Maintain unobstructed access to fire extinguishers, temporary fire-protection facilities, stairways and other access routes for firefighting. Prohibit smoking in hazardous fire-exposure areas.

3.4 OPERATION, TERMINATION, AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Maintenance: Maintain facilities in good operating condition until removal.

1. Materials and facilities that constitute temporary facilities are the property of Contractor. Owner reserves the right to take possession of Project identification signs.

2. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements in Division 1 Section "Closeout Procedures."

END OF SECTION 01500

SECTION 01600
PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including the Standard and Supplementary Conditions and other Division 1 Specification Sections, apply to this section.

1.2 SUMMARY

A. This Section includes the following administrative and procedural requirements: selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.

B. Related Sections including the following:

1. Division 1 Section "References" for applicable industry standards for products specified.

2. Division 1 Section "Closeout Procedures" for submitting warranties for contract closeout.

3. Division 2 through 16 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.3 DEFINITIONS

A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material", "equipment", "system", and terms of similar intent.

1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation, shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.

2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.

3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

C. **Basis-of-Design Product Specification:** Where a specific manufacturer's product is named and accompanied by the words "basis of design", including make or model number or other designations, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties,

appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

D. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.

E. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.

1.4 SUBMITTALS

A. Product List: Submit a list, in tabular form, showing specified products. Include generic names of products required. Include manufacture's name and proprietary product names for each product.

1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.

2. Form: Tabulate information for each product under the following column headings:

a. Specification Section number and title.

b. Generic name used in the Contract Documents.

c. Proprietary name, model number, and similar designations.

d. Manufacturer's name and address.

e. Supplier's name and address.

f. Installer's name and address.

g. Projected delivery date or time span of delivery period.

h. Identification of items requiring early submittal approval for scheduled delivery date.

3. Initial Submittal: Within 30 days after date of commencement of the Work, submit 3 copies of initial product list. Include a written explanation for omissions of data and for variations from Contract requirements.

a. At Contractor's option, initial submittal may be limited to product selections and designations that must be established early in Contract period.

4. Completed List: Within 60 days after date of commencement of the Work, submit 3 copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.

5. Architect's Action: Architect will respond in writing to Contractor within 15 days of receipt of completed product list. Architect's response will include a list of unacceptable product selections and a brief explanation of reasons for this action. Architect's response, or lack of response, does not constitute a waiver of requirement that products comply with the Contract Documents.

B. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Substitution Request Form: Use CSI Form 13.1A.

2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:

a. Statement indicating why specified material or product cannot be provided.

b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.

c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.

d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.

e. Samples, where applicable or requested.

f. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.

g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.

h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.

i. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.

j. Cost information, including a proposal of change, if any, in the Contract Sum.

k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.

l. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.

a. Form of Acceptance: Change Order.

b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.

C. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 1 Section "Submittal Procedures". Show compliance with requirements.

1.5 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.

1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.

2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.

2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.

3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.

4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.

5. Store products to allow for inspection and measurement of quantity or counting of units.

6. Store materials in a manner that will not endanger Project structure.

7. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.

8. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.

9. Protect stored products from damage.

B. Storage: Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.

2. Refer to Divisions 2 through 16 Sections for specific content requirements and particular requirements for submitting special warranties.

C. Submittal Time: Comply with requirements in Division 1 Section "Closeout Procedures".

PART 2 – PRODUCTS

2.1 PRODUCT OPTIONS

A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged, and unless otherwise indicated, that are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.

2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.

3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.

4. Where products are accompanied by the term "as selected", Architect will make selection.

5. Where products are accompanied by the term "match sample", sample to be matched is Architect's.

6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.

7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved", comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.

B. Product Selection Procedures: Procedures for product selection include the following:

1. Product: Where Specification paragraphs or subparagraphs titled "Product" name a single product and manufacturer, provide the product named.

    a. Substitutions may be considered, unless otherwise indicated.

2. Manufacturer/Source: Where Specification paragraphs or subparagraphs titled "Manufacturer" or "Source" name single manufacturers or sources, provide a product by the manufacturer or from the source named that complies with requirements.

    a. Substitutions may be considered, unless otherwise indicated.

3. Products: Where Specification paragraphs or subparagraphs titled "Products" introduce a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.

4. Manufacturers: Where Specification paragraphs or subparagraphs titled "Manufacturers" introduce a list of manufacturer's names, provide a product by one of the manufacturers listed that complies with requirements.

    a. Substitutions may be considered, unless otherwise indicated.

5. Available Products: Where Specification paragraphs or subparagraphs titled "Available Products" introduce a list of both products and manufacturers, provide one of the products listed or another product that complies with requirements. Comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.

6. Available Manufacturers: Where Specification paragraphs or subparagraphs titled "Available Manufacturers" introduce a list of manufacturers' names, provide a product by one of the manufacturers listed or another manufacturer that complies with requirements. Comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.

7. Product Options: Where Specification paragraphs titled "Product Options" indicate that size, profiles, and dimensional requirements on Drawings are based on specific product or system, provide either the specific product or system indicated or a comparable product or system by another manufacturer. Comply with provisions in "Product Substitutions" Article.

8. Basis-of-Design Products: Where Specification paragraphs or subparagraphs titled "Basis-of-Design Product" are included and also introduce or refer to a list of manufacturers' names, provide either the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in "Comparable Products" Article to obtain approval for use of an unnamed product.

    a. Substitutions may be considered, unless otherwise indicated.

9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product (and manufacturer) that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches satisfactorily.

    a. If no product available within specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents on "substitutions" for selection of a matching product.

10. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product (and manufacturer) that complies with other specified requirements.

    a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, or texture from manufacturer's product line that does not include premium items.

    b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, or texture from manufacturer's product line that includes both standard and premium items.

2.2 PRODUCT SUBSTITUTIONS

A. Timing: Architect will consider requests for substitution if received within 60 days after commencement of the Work. Requests received after that time may be considered or rejected at discretion of Architect.

B. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:

1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.

2. Requested substitution does not require extensive revisions to the Contract Documents.

3. Requested substitution is consistent with the Contract Documents and will produce indicated results.

4. Substitution request is fully documented and properly submitted.

5. Requested substitution will not adversely affect Contractor's Construction Schedule.

6. Requested substitution has received necessary approvals of authorities having jurisdiction.

7. Requested substitution is compatible with other portions of the Work.

8. Requested substitution has been coordinated with other portions of the Work.

9. Requested substitution provides specified warranty.

10. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

2.3 COMPARABLE PRODUCTS

A. Where products or manufacturers are specified by name, submit the following, in addition to other required submittals, to obtain approval of an unnamed product:

1. Evidence that the proposed product does not require extensive revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.

2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.

3. Evidence that proposed product provides specified warranty.

4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.

5. Samples, if requested.

PART 3 – EXECUTION (Not Used)

END OF SECTION 01600

SECTION 01610
REQUEST FOR SUBSTITUTION FORM

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Standard and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 CONTRACT:

A. To: _____ Date: _____
Project / Contract:_____
Specified Item: _____
Provide Description:_____
_____
_____
_____
_____
_____
_____

Proposed Substitution: _____
Provide Description:_____
_____
_____
_____
_____
_____
_____
_____

PART 2 – PRODUCTS

2.1 SUBSTITION

A. The undersigned proposes the above listed substitution in accordance with the provisions of Section 01600.

1. The data attached includes product description, specifications, drawings, performance and test data, certifications and product guarantees for evaluation of the proposed substitution. Applicable portions of the data are clearly identified. The product description includes composition and materials, basic use, applicable properties and standards, and limitations on its use.

2. Also, attached is a description of the changes to the Work required if the proposed substitution is accepted.

3. Also, attached a description of the differences between the proposed substitution and the specified or drawn item; and fully describe how the acceptance of the substitution will affect the project due to dimensional differences or differences in the relationship with architectural items / assemblies or differences in the relationship with the structural, mechanical, and electrical systems.

B. The undersigned declares that the following statements, except as may be modified on the attachments, are correct:

1. The proposed substitution does not affect dimensions on the Drawings.

2. The proposed substitution will have no adverse effect on other work of the Contract or the construction schedule.

3. The guarantee, maintenance and service provisions for the proposed substitution are the same, or better than the specified item.

C. The Contractor will declare that the use of the proposed substitution:

1. (___) Will result in a credit to the Owner of $_____.

2. (___) Will result in no change (monetarily or in time) to the Contract with the Owner.

D. The Contractor understands that they shall pay for the Architect’s reviewing time and all the extra time required to modify the drawings should new drawings or changes to the existing contract drawings be required due to the substitution.

E. The Contractor understands that:

1. The Architect's Recommendation below does not modify the Contract.

2. The Owner's Comments below do not modify the Contract.

F. The completion of a properly executed Change Order shall ONLY modify the CONTRACT.

PART 3 – EXECUTION

3.1 SUBMITTAL

A. Submitted by: _____

Signature of Officer

_____

Print Name and Title

_____

Company

_____

Company Address

_____

City and State

_____

Telephone Number

_____

Fax Number

B. Manufacturer of proposed substitution materials: _____

_____

Signature of Officer

_____

Print Name and Title

_____

Company

_____

Company Address

_____

City and State

_____

Telephone Number

_____

Fax Number

C. Architectural Recommendation:
(___) Accept (___) Accept As Noted (___) Not Accept
Firm: _____
Representative of Firm: _____
Remarks: _____
_____

D. Owner's Comments:
Remarks: _____
_____
_____

E. Owner’s remarks, including apparent acceptance, do not modify the Contract

END OF SECTION 01610

SECTION 01770
CLOSEOUT PROCEDURES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including the Standard and Supplementary Conditions and other Division 1 Specification Sections, apply to this section.

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

1. Inspection procedures.
2. Warranties.
3. Final cleaning.

B. Related Sections include the following:

1. Division 1 Section "Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.
2. Division 1 Section "Photographic Documentation" for submitting Final Completion construction photographs and negatives.
3. Division 1 Section "Execution Requirements" for progress cleaning of Project site.
4. Division 1 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
5. Division 1 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
6. Division 1 Section "Demonstration and Training" for requirements for instructing Owner's personnel.
7. Divisions 2 through 16 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.2 SUBSTANTIAL COMPLETION

A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.

1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
2. Advise Owner of pending insurance changeover requirements.
3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

5. Prepare and submit Project Record Documents, operation and maintenance manuals, Final Completion construction photographs **and photographic negatives**, damage or settlement surveys, property surveys, and similar final record information.
6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
8. Complete startup testing of systems.
9. Submit test/adjust/balance records.
10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
11. Advise Owner of changeover in heat and other utilities.
12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
13. Complete final cleaning requirements, including touchup painting.
14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for Final Completion.

1.3 FINAL COMPLETION

A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:

1. Submit a final Application for Payment according to Division 1 Section "Payment Procedures."
2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Submit pest-control final inspection report and warranty.
5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.

B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.4 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Preparation: Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. **Use CSI Form 14.1A.**

1. Organize list of spaces in sequential order.
2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
3. Include the following information at the top of each page:

a. Project name.
b. Date.
c. Name of Architect.
d. Name of Contractor.
e. Page number.

1.5 WARRANTIES

A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.

C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.

1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.

D. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:

a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
d. Remove tools, construction equipment, machinery, and surplus material from Project site.
e. Remove snow and ice to provide safe access to building.
f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
h. Sweep floors broom clean in unoccupied spaces.
i. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials.
j. Remove labels that are not permanent.
k. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
l. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
m. Leave Project clean and ready for occupancy.

C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 01770

SECTION 02222
SELECTIVE DEMOLITION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Demolition and removal of selected portions of **Stadium.**
   2. Salvage of existing items to be reused or recycled.

1.3 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.

B. Remove and Salvage: Detach items from existing construction and deliver them to Owner.

C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.

D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 SUBMITTALS

A. Pre-demolition Photographs or Videotapes: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by demolition operations.

B. Landfill Records: Indicate receipt and acceptance of wastes by a landfill facility licensed to accept wastes.

1.5 QUALITY ASSURANCE

A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.

B. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.

C. Standards: Comply with ANSI A10.6 and NFPA 241.

1.6 PROJECT CONDITIONS

A. Owner will occupy portions of building immediately adjacent to demolition area. Conduct demolition so Owner's operations will not be disrupted.
   1. Comply with requirements specified in **WSU** Supplemental General Conditions.

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with demolition.

D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
   1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Owner will remove hazardous materials under a separate contract.

E. Owner has the right of first refusal for all salvageable items to be demolished. Items, which the Owner declines shall be promptly removed form site.

F. Storage or sale of removed items or materials on-site is not permitted.

G. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during demolition operations.

PART 2 - PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 EXAMINATION

A. Survey existing conditions and correlate with requirements indicated to determine extent of demolition required.

B. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.

C. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly report to Architect.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during demolition operations.
   1. Comply with requirements for existing services/systems interruptions specified in **WSU** Supplemental General Conditions.

3.3 PREPARATION

A. Site Access and Temporary Controls: Conduct demolition and debris-removal operations to ensure minimum interference with roads, walks, and other adjacent occupied and used facilities.
   1. Do not close or obstruct roads, walks, or other adjacent occupied or used facilities without permission from Owner.
   2. Protect existing site improvements, appurtenances, and landscaping to remain.

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent areas to remain.
   1. Provide protection to ensure safe passage of people around demolition area and to and from occupied portions of building.
   2. Protect existing finish work that are to remain or that are exposed during demolition operations.
   3. Cover and protect items that have not been removed.

C. Temporary Partitions: Erect and maintain partitions and temporary enclosures to limit dust and dirt migration and to separate occupied areas from construction areas.

3.4 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work as follows:
   1. Proceed with demolition systematically.
   2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
   3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
   4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
   5. Maintain adequate ventilation when using cutting torches.
   6. Dispose of demolished items and materials promptly.

B. Removed and Salvaged Items:
   1. Clean salvaged items.
   2. Pack or crate items after cleaning. Identify contents of containers.
   3. Store items in a secure area until delivery to Owner.
   4. Transport items to Owner's storage area on-site.
   5. Protect items from damage during transport and storage.

C. Removed and Reinstalled Items:
   1. Clean and repair items to functional condition adequate for intended reuse.
   2. Pack or crate items after cleaning and repairing. Identify contents of containers.
   3. Protect items from damage during transport and storage.
   4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during demolition.

3.6 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

A. Remove all miscellaneous fasteners, anchors, and brackets, not required for the structural integrity of the precast seating units.

E. Remove all existing joint sealants at locations of new work.

3.7 PATCHING AND REPAIRS

A. General: Promptly repair damage to adjacent construction caused by demolition operations.

B. Repairs: Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.

1. Completely fill holes and depressions in existing precast seating units that are to remain with and approved patching material applied according to manufacturer's written recommendations.

C. Finishes: Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.

3.8 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.9 CLEANING

A. Clean adjacent areas, surfaces and improvements of dust, dirt, and debris caused by demolition operations. Return adjacent areas to condition existing before demolition operations began.

END OF SECTION 02222

SECTION 03325
REPAIR OF CAST IN PLACE CONCRETE

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including the Standard and Supplementary Conditions and other Division 1 Specification Sections, apply to this section.

SUMMARY

A. Section Includes:
   1. Removal of deteriorated concrete and subsequent patching.
   2. Epoxy crack injection.

1.02 UNIT PRICES

A. General: Unit prices include the cost of preparing existing construction to receive the work indicated.
B. Concrete Removal and Patching: Work will be paid for by the cubic foot (cubic meter) computed on the basis of rectangular solid shapes approximating the actual shape of concrete removed and patched with average depths, widths, and lengths, measured to the nearest inch (centimeter).
C. Epoxy Crack Injection: Work will be paid for by the linear foot (linear meter) of crack injected.

1.03 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.04 ACTION SUBMITTALS

A. Product Data: For each type of product.
B. Samples: Cured samples for each exposed product and for each color and texture specified.

1.05 INFORMATIONAL SUBMITTALS

A. Material certificates.
B. Product test reports.
C. Field quality-control reports.

1.06 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer to apply packaged patching-mortar materials, epoxy crack injection materials, corrosion-inhibiting treatments and polymer sealers.

B. Mockups: Build mockups to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Deck removal and patching.
2. Epoxy crack injection.
3. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

A. Source Limitations: Obtain each color, grade, finish, type, and variety of product from single source with resources to provide products of consistent quality in appearance and physical properties.

B. VOC Content: Provide materials that comply with VOC limits of authorities having jurisdiction.

2.02 BONDING AGENTS

A. Epoxy-Modified, Cementitious Bonding and Anticorrosion Agent: Manufactured product that consists of water-insensitive epoxy adhesive, Portland cement, and water-based solution of corrosion-inhibiting chemicals that forms a protective film on steel reinforcement.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    a. BASF Construction Chemicals - Building Systems; Emaco P24.
    b. Euclid Chemical Company (The), an RPM company; Duralprep A.C.
    c. Kaufman Products, Inc.; Surepoxy HM EPL.
    d. Sika Corporation, Construction Product Division; Armatec 110 EpoCem.
    e. Sto Corp., Concrete Restoration Division; Sto Bonding and Anti-Corrosion Agent.

B. Epoxy Bonding Agent: ASTM C 881/C 881M, Type V and free of VOCs.

1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
    a. BASF Construction Chemicals - Building Systems.
    b. Dayton Superior Corporation.
    c. Euclid Chemical Company (The); an RPM company.
    d. Sika Corporation; Construction Product Division.
    e. US SPEC; Division of US MIX Products Company.

f. W. R. Meadows, Inc.

2.03 PATCHING MORTAR

A. Patching Mortar, General:

1. Only use patching mortars that are recommended by manufacturer for each applicable horizontal, vertical, or overhead use orientation.
2. Color and Aggregate Texture: Provide patching mortar and aggregates of colors and sizes necessary to produce patching mortar that matches existing, adjacent, exposed concrete.
3. Coarse Aggregate for Patching Mortar: ASTM C 33, washed aggregate, Size No. 8, Class 5S. Add to patching-mortar mix only as permitted by patching-mortar manufacturer.

B. Cementitious Patching Mortar: Packaged, dry mix for repair of concrete.

1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
   a. BASF Construction Chemicals - Building Systems.
   b. Dayton Superior Corporation.
   c. Euclid Chemical Company (The); an RPM company.
   d. Sika Corporation; Construction Product Division.
   e. US SPEC; Division of US MIX Products Company.
   f. W. R. Meadows, Inc.
2. Compressive Strength: Not less than 5000 psi (27.6 MPa) at 28 days when tested according to ASTM C 109/C 109M.

C. Rapid-Strengthening, Cementitious Patching Mortar: Packaged, dry mix, ASTM C 928 for repair of concrete.

1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
   a. BASF Construction Chemicals - Building Systems.
   b. Dayton Superior Corporation.
   c. Euclid Chemical Company (The); an RPM company.
   d. Sika Corporation; Construction Product Division.
   e. US SPEC; Division of US MIX Products Company.
   f. W. R. Meadows, Inc.
2. Compressive Strength: Not less than 1000 psi within three hours when tested according to ASTM C 109/C 109M.

D. Polymer-Modified, Cementitious Patching Mortar: Packaged, dry mix for repair of concrete and that contains a non-redispersible latex additive as either a dry powder or a separate liquid that is added during mixing.

1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
   a. AQUAFIN, Inc.
   b. BASF Construction Chemicals - Building Systems.
   c. CGM, Incorporated.

d. Cortec Corporation.
e. Dayton Superior Corporation.
f. Euclid Chemical Company (The); an RPM company.
g. Fox Industries, Inc.
h. Kaufman Products, Inc.
i. Sika Corporation; Construction Product Division.
j. Sto Corp.; Concrete Restoration Division.
k. US SPEC; Division of US MIX Products Company.
l. W. R. Meadows, Inc.

2. Compressive Strength: Not less than 5000 psi (27.6 MPa) at 28 days when tested according to ASTM C 109/C 109M.

2.04 JOINT FILLER

A. Epoxy Joint Filler: Two-component, semirigid, 100 percent solids, epoxy resin with a Type A Shore durometer hardness of at least 80 according to ASTM D 2240.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

a. BASF Construction Chemicals - Building Systems; Masterfill 300i.
b. Dayton Superior Corporation; PoxyFil (J-52).
c. Euclid Chemical Company (The), an RPM company; Euco 700 or 800.
d. Sika Corporation, Construction Product Division; Sikadur 51 NS.
e. US SPEC, Division of US MIX Products Company; SR 50 - EJF.
f. W. R. Meadows, Inc.; Sealtight Rezi-Weld Flex.

B. Color: Matching existing joint filler.

2.05 EPOXY CRACK-INJECTION MATERIALS

A. Epoxy Crack-Injection Adhesive: ASTM C 881/C 881M, Type IV; free of VOCs.

1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:

a. BASF Construction Chemicals - Building Systems.
b. Dayton Superior Corporation.
c. Euclid Chemical Company (The); an RPM company.
d. Sika Corporation; Construction Product Division.
e. US SPEC; Division of US MIX Products Company.
f. W. R. Meadows, Inc.

2. Capping Adhesive: Product manufactured for use with crack injection adhesive by same manufacturer.

2.06 OTHER MATERIALS

A. Portland Cement: ASTM C 150, Type I or III unless otherwise indicated.

2.07 MIXES

A. General: Mix products, in clean containers, according to manufacturer's written instructions.

B. Dry-Pack Mortar: Mix patching-mortar dry ingredients with just enough liquid to form damp cohesive mixture that can be squeezed by hand into a ball but is not plastic.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Notify Structural Engineer seven (7) days in advance of dates when areas of deteriorated or delaminated concrete and deteriorated reinforcing bars will be located.

B. Locate areas of deteriorated or delaminated concrete using hammer or chain-drag sounding and mark boundaries. Mark areas for removal by simplifying and squaring off boundaries. At columns and walls make boundaries level and plumb unless otherwise indicated.

C. Pachometer Testing: Locate at least three reinforcing bars using a pachometer, and drill test holes to determine depth of cover. Calibrate pachometer using depth of cover measurements, and verify depth of cover in removal areas using pachometer.

D. Perform surveys as the Work progresses to detect hazards resulting from concrete-maintenance work.

3.02 PREPARATION

A. Ensure that supervisory personnel are on-site and on duty when concrete maintenance work begins and during its progress.

B. Preparation for Removal of Deteriorated Concrete: Make explorations, probes, and inquiries as necessary to determine condition of construction to be removed in the course of repair.

1. Verify that affected utilities have been disconnected and capped.

2. Provide and maintain shoring, bracing, and temporary structural supports as required to preserve stability and prevent unexpected or uncontrolled movement, settlement, or collapse of construction being demolished and construction and finishes to remain.

C. Protect persons, motor vehicles, surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm resulting from concrete maintenance work.

1. Comply with each product manufacturer's written instructions for protections and precautions.

2. Contain dust and debris generated by concrete maintenance work and prevent it from reaching the public or adjacent surfaces.

3. Protect floors and other surfaces along haul routes from damage, wear, and staining.

4. Neutralize and collect alkaline and acid wastes for disposal off Owner's property.

D. Existing Drains: Prior to the start of work in an area, test drainage system to ensure that it is functioning properly. Notify Architect immediately of inadequate drainage or blockage. Do not begin work in an area until the drainage system is in working order.

1. Prevent solids such as aggregate or mortar residue from entering the drainage system. Clean out drains and drain lines that become sluggish or blocked by sand or other materials resulting from concrete maintenance work.

2. Protect drains from pollutants. Block drains or filter out sediments, allowing only clean water to pass.

E. Concrete Removal:

1. Provide shoring, bracing, and supports as necessary. Strengthen or add new supports when required during progress of removal work. Do not overload structural elements with debris.
2. Saw-cut perimeter of areas indicated for removal to a depth of at least 3/4 inch. Make cuts perpendicular to concrete surfaces and no deeper than cover on reinforcement.
3. Remove deteriorated and delaminated concrete by breaking up and dislodging from reinforcement.
4. Remove additional concrete if necessary to provide a depth of removal of at least 3/4 inch over entire removal area.
5. Where half or more of the perimeter of reinforcing bar is exposed, bond between reinforcing bar and surrounding concrete is broken, or reinforcing bar is corroded, remove concrete from entire perimeter of bar and to provide at least a 3/4-inch (19-mm) clearance around bar.
6. Test areas where concrete has been removed by tapping with hammer, and remove additional concrete until unsound and disbonded concrete is completely removed.
7. Provide surfaces with a fractured profile of at least 1/8 inch (3 mm) that are approximately perpendicular or parallel to original concrete surfaces. At columns and walls, make top and bottom surfaces level unless otherwise directed.
8. Thoroughly clean removal areas of loose concrete, dust, and debris.

F. Reinforcing-Bar Preparation: Remove loose and flaking rust from reinforcing bars by high-pressure water cleaning, needle scaling or wire brushing until only tightly adhered light rust remains.

1. Where section loss of reinforcing bar is more than 25 percent, or 20 percent in two or more adjacent bars, cut bars and remove and replace as directed by Structural Engineer. Remove additional concrete as necessary to provide at least 3/4-inch (19-mm) clearance at existing and replacement bars. Splice replacement bars to existing bars according to ACI 318 (ACI 318M) by lapping, welding, or using mechanical couplings.

3.03 APPLICATION

A. General: Comply with manufacturer's written instructions and recommendations for application of products, including surface preparation.

B. Epoxy-Modified, Cementitious Bonding and Anticorrosion Agent: Apply to reinforcing bars and concrete according to manufacturer's written instructions. Apply to reinforcing bars in two coats, allowing first coat to dry two to three hours before applying second coat. Allow to dry before placing patching mortar.

C. Epoxy Bonding Agent: Apply to reinforcing bars and concrete according to manufacturer's written instructions, leaving no pinholes or other uncoated areas. Apply to reinforcing bars in at least two coats, allowing first coat to dry before applying second coat. Place patching mortar while epoxy is still tacky. If epoxy dries, recoat before placing patching mortar.

D. Placing Patching Mortar: Place as follows unless otherwise recommended in writing by manufacturer:

1. Provide forms where necessary to confine patch to required shape.
2. Wet substrate and forms thoroughly and then remove standing water.
3. Pretreatment: Apply specified bonding agent.
4. General Placement: Place patching mortar by troweling toward edges of patch to force intimate contact with edge surfaces. For large patches, fill edges first and then work toward center, always

troweling toward edges of patch. At fully exposed reinforcing bars, force patching mortar to fill space behind bars by compacting with trowel from sides of bars.

5. Lifts: Place material in lifts of not more nor less than thickness recommended by manufacturer. Do not feather edge.
6. Consolidation: After each lift is placed, consolidate material and screed surface.
7. Multiple Lifts: Where multiple lifts are used, score surface of lifts to provide a rough surface for placing subsequent lifts. Allow each lift to reach final set before placing subsequent lifts.
8. Finishing: Allow surfaces of lifts that are to remain exposed to become firm and then finish to a surface matching adjacent concrete.
9. Curing: Wet-cure cementitious patching materials, including polymer-modified cementitious patching materials, for not less than seven days by water-fog spray or water-saturated absorptive cover.

E. Dry-Pack Mortar: Use for deep cavities and where indicated. Place as follows unless otherwise recommended in writing by manufacturer:

1. Provide forms where necessary to confine patch to required shape.
2. Wet substrate and forms thoroughly and then remove standing water.
3. Pretreatment: Apply specified bonding agent.
4. Place dry-pack mortar into cavity by hand, and compact tightly into place. Do not place more material at a time than can be properly compacted. Continue placing and compacting until patch is approximately level with surrounding surface.
5. After cavity is filled and patch is compacted, trowel surface to match profile and finish of surrounding concrete.
6. Wet-cure patch for not less than seven days by water-fog spray or water-saturated absorptive cover.

F. Epoxy Crack Injection:

1. Clean areas to receive capping adhesive of oil, dirt, and other substances that would interfere with bond, and clean cracks with oil-free compressed air or low-pressure water to remove loose particles.
2. Place injection ports as recommended by epoxy manufacturer, spacing no farther apart than thickness of member being injected. Seal injection ports in place with capping adhesive.
3. Seal cracks at exposed surfaces with a ribbon of capping adhesive at least 1/4 inch (6 mm) thick by 1 inch (25 mm) wider than crack.
4. Inject cracks wider than 0.003 inch (0.075 mm) to a depth of 8 inches (200 mm).
5. Inject epoxy adhesive, beginning at widest part of crack and working toward narrower parts. Inject adhesive into ports to refusal, capping adjacent ports when they extrude epoxy. Cap injected ports and inject through adjacent ports until crack is filled.
6. After epoxy adhesive has set, remove injection ports and grind surfaces smooth.

G. Corrosion-Inhibiting Treatment: Apply in two coats at manufacturer's recommended application rate. Remove film of excess treatment before patching treated concrete or applying a sealer.

3.04 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.

B. Perform the following tests and inspections:

1. Packaged, Cementitious Patching Mortar: three randomly selected sets of samples for each type of mortar required, tested according to ASTM C 928.
2. Joint Filler: Core-drilled samples to verify proper installation.
    a. Testing Frequency: One sample for each 100 feet (30 m) of joint filled.
    b. Where samples are taken, refill holes with joint filler.
3. Epoxy Crack Injection: Core-drilled samples to verify proper installation.
    a. Testing Frequency: 3 samples from mockup and 1 sample for each 100 feet (30 m) of crack injected.
    b. Where samples are taken, refill holes with epoxy mortar.

C. Product will be considered defective if it does not pass tests and inspections.

D. Prepare test and inspection reports.

END OF SECTION 03325

SECTION 05120
STRUCTURAL STEEL

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Standard and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Steel framing and supports for stadium precast seating units.
2. Stainless steel pins and rods.
3. Welding existing and new steel.
4. Temporary bracing of existing structure.
5. Shop and field testing welds and bolts
6. Steel framing and supports for applications where framing and supports are not specified in other Sections, including channels, angles and plates.

B. Related Sections include the following:

1. Division 6 Section “Rough Carpentry”.

1.3 SUBMITTALS

A. Shop Drawings: Detail fabrication and erection of each metal fabrication indicated. Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items.

1. Provide templates for anchors and bolts specified for installation under other Sections.

B. Mill Certificates: Signed by Manufacturers of stainless-steel sheet certifying that products furnished comply with requirements.

C. Welding Certificates: Copies of certificates for welding procedures and personnel.

D. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

1.4 QUALITY ASSURANCE

A. Fabricator Qualifications: A firm experienced in producing metal fabrications similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

B. Welding: Qualify procedures and personnel according to the following:

1. ANSI/ AWS D1.1, "Structural Welding Code—Steel".

2. ANSI/ AWS D1.3, "Structural Welding Code—Sheet Steel".

3. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and, if pertinent, has undergone recertification. Each welder to by qualified in accordance with the requirements of the current "Structural Welding Code" of the American Welding society ANSI/AWS D1.1.

1.5 PROJECT CONDITIONS

A. Field Measurements: Where metal fabrications are indicted to fit with other construction, verify dimensions by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1. Establish Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating metal fabrications without field measurements. Coordinate construction to ensure that actual dimensions correspond to established dimensions. Allow for trimming and fitting.

1.6 COORDINATION

A. Coordinate installation of anchorages for metal fabrications. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in precast concrete. Deliver such items to Project site in time for installation.

PART 2 – PRODUCTS

2.1 METALS, GENERAL

A. Metal Surfaces, General: For metal fabrications exposed to view in the completed Work, provide materials with smooth, flat surfaces without blemishes. Do not use materials with exposed pitting, seam marks, roller marks, rolled trade names, or roughness.

2.2 FERROUS METALS

A. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M, FY+36 KSI.

B. Stainless-Steel Sheet, Strip, Plate, and Flat Bars: ASTM A 666, Type 304.

C. Stainless-Steel Bars and Shapes: ASTM A 276, Type 304.

D. Threaded Rods: ASTM F 1554 Grade 36, U.N.O.

E. Cast-in-Place Anchors in Concrete: Anchors of type indicted below, fabricated from corrosion-resistant materials capable of sustaining, without failure, the load imposed within a safety factor of 4, as determined by testing per ASTM E 488, conducted by a qualified independent testing agency.

F. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal allow welded.

2.3 FASTENERS

A. General: Provide Type 304 stainless-steel fasteners for exterior use. Select fasteners for type, grade, and class required.

B. Bolts and Nuts: Regular hexagon-head bolts, ASTM A 307, Grade A; with hex nuts, ASTM A 563; and, where indicated, flat washers.

C. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, with failure, a load equal to six times the load imposed when installed in unit masonry, and equal to four times the load imposed when installed in concrete, as determined by testing per ASTM E 488, conducted by a qualified independent testing agency.

1. Material: Alloy Group 1 or 2 stainless-steel bolts complying with ASTM F 593 and nuts complying with ASTM F 594.

D. Toggle Bolts: FS FF-B-588, tumble-wing type, class and style as needed.

2.4 FABRICATION, GENERAL

A. Shop Assembly: Preassemble items in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.

B. Shear and punch metals cleanly and accurately. Remove burrs.

C. Ease exposed edges to a radius of approximately 1/32 inch, unless otherwise indicted. Form bend-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.

D. Weld corners and seams continuously to comply with the following:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.

2. Obtain fusion without undercut or overlap.

3. Remove welding flux immediately.

4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

E. Provide for anchorage of type indicated; coordinate with supporting structure. Fabricate and space anchoring devices to secure metal fabrications rigidly in place and to support indicted loads.

F. Cut, reinforce, drill, and tap metal fabrications as indicated to receive hardware, screws, and similar items.

G. Allow for thermal movement resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening up of joints, overstressing of components, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.

H. Form exposed work true to line and level with accurate angles and surfaces and straight sharp edges.

I. Remove sharp or rough areas on exposed surfaces.

2.5 MISCELLANEOUS FRAMING AND SUPPORTS

A. General: Provide steel framing and supports that are not a part of structural-steel framework as necessary to complete the Work.

B. Fabricate units from structural-steel shapes, plates, and bars of welded construction, unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as necessary to receive adjacent construction retained by framing and supports. Cut, drill, and tap units to receive hardware, hangers, and similar items.

1. Fabricate units from slotted channel framing where indicted.

2. Where units are indicated to be cast into precast concrete, equip with integrally welded steel strap anchors 1-1/4 inches wide by 1/4 inch thick by 8 inches long at 24 inches o.c., unless otherwise indicated.

C. Fabricate supports for operable partitions as follows:

1. Beans: Continuous steel shapes of sizes indicated with attached bearing plates, anchors, and braces as indicated. Drill bottom flanges of beams to receive partition track hanger rods; locate holes where indicated on operable partition Shop Drawings.

D. Galvanize miscellaneous framing and supports where indicted.

2.6 FINISHES, GENERAL

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Finish metal fabrications after assembly.

2.7 STEEL AND IRON FINISHES

A. Galvanizing: Hot-dip galvanize items as indicated to comply with applicable standard listed below:

1. ASTM A 123, for galvanizing steel and iron products.

2. ASTM A 153/A 153M, for galvanizing steel and iron hardware.

B. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with minimum requirements indicated below for SSPC surface-preparation specifications and environmental exposure conditions of installed metal fabrications:

1. Interiors (SSPC Zone 1A): SSPC-SP 3, "Power Tool Cleaning".

2.8 STAINLESS-STEEL FINISHES

A. Remove tool and die marks and stretch lines or blend into finish.

B. Grind and polish surfaces to produce uniform, directionally textured, polished finish indicated, free of cross scratches. Run grain with long dimension of each piece.

C. Bright, Directional Polish: No. 4 finish.

D. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.

PART 3 – EXECUTION

3.1 INSTALLATION, GENERAL

A. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing metal fabrications to in-place construction. Include threaded fasteners for concrete and masonry inserts, toggle bolts, through-bolts, lag bolts, wood screws, and other connectors.

B. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.

C. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.

D. Fit exposed connections accurately together to form hairline joints. Weld connections that are not be to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.

E. Field Welding: Comply with the following requirements:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.

2. Obtain fusion without undercut or overlap.

3. Remove welding flux immediately.

4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

F. Corrosion Protection: Coat concealed surfaces of aluminum that will come into contact with grout, concrete, masonry, wood, or dissimilar metals with a heavy coat of bituminous paint.

3.2 INSTALLING MISCELLANEOUS FRAMING AND SUPPORTS

A. General: Install framing and supports to comply with requirements of items being supported, including manufacturers' written instructions and requirements indicated on Shop Drawings, if any.

3.3 ADJUSTING AND CLEANING

A. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.

1. Apply by brush or spray to provide a minimum 2.0-mil dry film thickness.

B. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A 780.

END OF SECTION 05120

SECTION 06100
ROUGH CARPENTRY

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Standard and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Wood blocking.
2. Traffic Barriers.
3. Scaffolding.

1.3 DEFINITIONS

A. Rough Carpentry: Carpentry work not specified in other Sections and not exposed, unless otherwise indicated.

B. Lumber grading agencies, and the abbreviations used to reference them, include the following:

1. NELMA – Northeastern Lumber Manufacturers Association.

2. NLGA – National Lumber Grades Authority.

3. RIS Redwood Inspection Service.

4. SPIB – Southern Pine Inspection Bureau.

5. WCLIB – West Coast Lumber Inspection Bureau.

6. WWPA – Western Wood Products Association.

1.4 SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

B. Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the American Lumber Standards Committee Board of Review.

1.5 QUALITY ASSURANCE

A. Testing Agency Qualifications: An independent testing agency, acceptable to authorities having jurisdiction, with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548.

B. Source Limitations for Fire-Retardant-Treated Wood: Obtain each type of fire-retardant-treated wood product through one source from a single producer.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Stack lumber, plywood, and other panels; place spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

PART 2 – PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of lumber grading agencies certified by the American Lumber Standards Committee Board of Review.

1. Factory mark each piece of lumber with grade stamp of grading agency.

2. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.

3. Provide dressed lumber, S4S, unless otherwise indicated.

B. Wood Structural Panels:

1. Plywood: Either DOC PS 1 or DOC PS 2, unless otherwise indicated.

2. Oriented Strand Board: DOC PS 2.

3. Thickness: As needed to comply with requirements specified by not less than thickness indicated.

4. Comply with “Code Plus” provisions in APA Form No. E30K, “APA Design/Construction Guide: Residential & Commercial”.

5. Factory mark panels according to indicated standard.

2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

A. Preservative Treatment by Pressure Process: AWPA C2 (lumber) and AWPA C9 (plywood), except that lumber that is not in contact with the ground and is continuously protected from liquid water may be treated according to AWPA C31 with inorganic boron (SBX).

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and one of the following:

   a. Chromated copper arsenate (CCA).

   b. Ammoniacal copper zinc arsenate (ACZA).

   c. Ammoniacal, or amine, copper quat (ACQ).

   d. Copper bis (dimenthyldithiocarbamate) (CDDC).

   e. Ammoniacal copper citrate (CC).

   f. Copper azole, Type A (CBA-A).

   g. Oxine copper (copper-8-quinolinolate) in a light petroleum solvent.

B. Kiln-dry material after treatment to maximum moisture content of 19 percent for lumber and 15 percent for plywood. Do not use material that is warped or does not comply with requirements for untreated material.

C. Mark each treated item with the treatment quality mark of an inspection agency approved by the American Lumber Standards Committee Board of Review.

D. Application: Treat items indicated on Drawings, and the following:

1. Wood cants, nailers, support bases, blocking, stripping, and similar members in connection with structural repair work

2.3 MISCELLANEOUS LUMBER

A. General: Provide lumber for support or attachment of other construction, including the following:

1. Blocking.

2. Nailers.

B. For items of dimension lumber size, provide Construction, Stud, or No. 2 grade lumber with 19 percent maximum moisture content and any of the following species:

1. Mixed southern pine; SPIB.

2. Hem-fir or Hem-fir (north); NLGA, WCLIB, or WWPA.

3. Spruce-pine-fir (south) or Spruce-pine-fur; NELMA, NLGA, WCLIB, or WWPA.

4. Eastern softwoods; NELMA.

5. Northern species; NLGA.

6. Western woods; WCLIB or WWPA.

2.4 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for materials and manufacturer

B. Nails and Staples: ASTM F 1667.

C. Power-Driven Fasteners: CABO NER-272.

D. Screws for Fastening to Cold-Formed Metal Framing: ASTM C 954, except with wafer heads and reamer wings, length as recommended by screw manufacturer for material being fastened.

E. Bolts: Steel bolts complying with ASTM A 307, grade A; with ASTM A 563 hex nuts and, where indicted, flat washers.

F. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.

1. Material: Stainless steel with bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2.

PART 3 – EXECUTION

3.1 INSTALLATION, GENERAL

A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, grounds, and similar supports to comply with requirements for attaching other construction.

B. Do not use materials with defects that impair quality of rough carpentry or pieces that are too small to use with minimum number of joints or optimum joint arrangement.

C. Apply field treatment complying with AWPA M4 to cut surfaces of preservative-treated lumber and plywood.

D. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. Table 2305.2, “Fastening Schedule”, in the BOCA National Building Code.

E. Use common wire nails, unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood; predrill as required.

END OF SECTION 06100

SECTION 07920

JOINT SEALANTS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Removal of all existing joint sealants. Placing of new horizontal and vertical sealants above all steel support beams and within three feet in each direction perpendicular.

2. Preparation of concrete substrate to receive sealant.

3. Application of urethane joint sealants.

1.3 PRECONSTRUCTION TESTING

A. Preconstruction Field-Adhesion Testing: Before installing sealants, Contractor and Sealant Manufacturer shall field test sealant adhesion to Project joint substrates as follows:

1. Locate test joints where indicated on Project or, if not indicated, as directed by Owner's Representative.

2. Conduct field tests for each kind of sealant and joint substrate indicated.

3. Notify Owner's Representative seven days in advance of dates and times when test joints will be applied.

4. At 14 days after sealant application, or as approved in writing by the sealant manufacturer, arrange for tests to take place with Owner's Representative and joint-sealant manufacturer's technical representative present, as required by joint-sealant manufacturer.

a. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193.

5. Report whether sealant failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of joint substrate.

6. For sealants that fail adhesively, Manufacturer shall resubmit recommended joint preparation and primer with a retest until satisfactory adhesion is obtained

7. Evaluation of Preconstruction Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing, in absence of other indications of noncompliance with requirements, will be considered satisfactory. Do not use sealants that fail to adhere to joint substrates during testing.

1.4 SUBMITTALS

A. Product Information: For each kind of joint sealant and accessory, from sealant manufacturer, provide certificate that based on evaluation of comprehensive tests, the sealants comply with the project requirements.

1. Provide written recommendations for primers and substrate preparation needed for sealant adhesion to substrate.

2. Sealant, Waterproofing, and Restoration Institute (SWRI) Validation Certificate: For each sealant specified to be validated by SWRI's Sealant Validation Program.

B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.

C. Preconstruction Field-Adhesion Test Reports: Indicate which sealants and joint preparation methods resulted in optimum adhesion to joint substrates based on testing specified in "Preconstruction Testing" Article.

D. Warranties: Sample of special warranties.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.

B. Source Limitations: Obtain each kind of joint sealant from single source from single manufacturer.

C. The Owner may employ and pay for the services of a Consultant to perform quality control and testing during installation to determine if materials and methods conform to the Specifications. Retesting of materials failing to pass the designated specifications will be paid for by the Contractor.

D. The Consultant and the Owner's Representative shall not act as foreman or perform other duties for the Contractor. Work will be checked as it progresses, but failure to detect any defective work or materials shall not in any way prevent later rejections when such defect is discovered, nor shall it obligate the Owner for final acceptance.

E. The Consultant’s field staff and the Owner's Representative are not authorized to revoke, alter, relax, enlarge, or release any requirements of the specifications, nor to approve or accept any portion of the work. The presence or absence of the Consultant or the Owner's Representative shall in no way relieve the Contractor of his responsibility to furnish materials and construction in full compliance with the plans and specifications.

F. The Contractor shall furnish such labor as is necessary to perform pre-construction testing, and obtain and handle samples at the project or at other sources of materials.

G. The Contractor is responsible to advise the Consultant and the Owner's Representative sufficiently in advance of operations (at least 24 hours) to allow performance of quality assurance activities and for the assignment of personnel.

1.6 PROJECT CONDITIONS

A. Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F.

2. When joint substrates are wet.

3. Where joint widths are less than 1/4 inches or less than those allowed by joint-sealant manufacturer for applications indicated.

4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.7 WARRANTY

A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Two (2) years from date of Substantial Completion.

B. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:

1. Movement of the structure caused by structural settlement or errors attributable to design or construction resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.

2. Disintegration of joint substrates from natural causes exceeding design specifications.

3. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.

B. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.

C. Colors of Exposed Joint Sealants: Match existing construction.

2.2 URETHANE JOINT SEALANTS

A. Single-Component, Nonsag, Urethane Joint Sealant: ASTM C 920, Type S, Grade NS, Class 25 (minimum), for Use T, M.

1. Products: Subject to compliance with requirements, provide one of the following:

a. Sika Corporation, Construction Products Division; Sikaflex - 1a.

b. Tremco Incorporated; Vulkem 116.

c. Pecora Corporation; DynaTred.

2.3 JOINT SEALANT BACKING

A. General: Provide sealant backings of material that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.

B. Cylindrical Sealant Backings: ASTM C 1330, Type C closed-cell material with a surface skin or as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable. This is only required where gaps are ¼" inch or less.

2.4 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.

1. All joints shall be a minimum of 3/8 inches wide and allow for a minimum sealant depth of 1/4 inches and minimum sealant contact area of 3/8 inches.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Remove old sealant to be replaced from indicated joints.

B. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:

1. Remove foreign material from joint substrates that could interfere with adhesion of joint sealant, including old joint sealant, dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), oil, grease, waterproofing, water repellents, water, surface dirt, and frost.

2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air. Porous joint substrates include the following:

C. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

D. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply. Manufacturer recommendations and procedures shall be strictly followed.

B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

1. Backer rods shall be sized 33% larger than the joint opening to be sealed. Twisting two backer rods together is not acceptable.

2. Do not leave gaps between ends of sealant backings.

3. Do not stretch, twist, puncture, or tear sealant backings.

4. Position backer rods in the joints consistently to prevent sealant thickness variations.

D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.

E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:

1. Push the gun nozzle along the joint rather than pulling it to avoid entrapped air and thin sealant application.

2. Place sealants so they directly contact and fully wet joint substrates.

3. Completely fill recesses in each joint configuration.

4. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.

1. Remove excess sealant from surfaces adjacent to joints.

2. Do not use tooling agents.

3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.

G. Do not apply a polyurethane sealant in the vicinity of a curing silicone sealant. Silicone sealants shall be fully cured prior to polyurethane sealant application or silicone sealants shall be applied after the polyurethane sealants have cured.

3.4 FIELD QUALITY CONTROL

A. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:

1. Extent of Testing: Test completed and cured sealant joints as follows:

a. Perform 3 tests for the first 200 feet of joint length (or 10 10.1 ounce sealant cartridges) for each kind of sealant and joint substrate.

b. Perform 1 test for each 1000 feet of joint length (or 50 10.2 ounce sealant cartridges) thereafter or 1 test per each floor per elevation.

2. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193.

3. Inspect tested joints and provide written reports on the following:

a. Whether sealants filled joint cavities and are free of voids.

b. Whether sealant dimensions and configurations comply with specified requirements.

c. Whether sealants in joints connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. Compare these results to determine if adhesion passes sealant manufacturer's field-adhesion hand-pull test criteria.

4. Record test results in a field-adhesion-test log. Include dates when sealants were installed, names of persons who installed sealants, test dates, test locations, whether joints were primed, adhesion results and percent elongations, sealant fill, sealant configuration, and sealant dimensions.

5. Repair sealants pulled from test area by applying new sealants following same procedures used originally to seal joints. Ensure that original sealant surfaces are clean and that new sealant contacts original sealant.

B. Evaluation of Field-Adhesion Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered “passing”. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

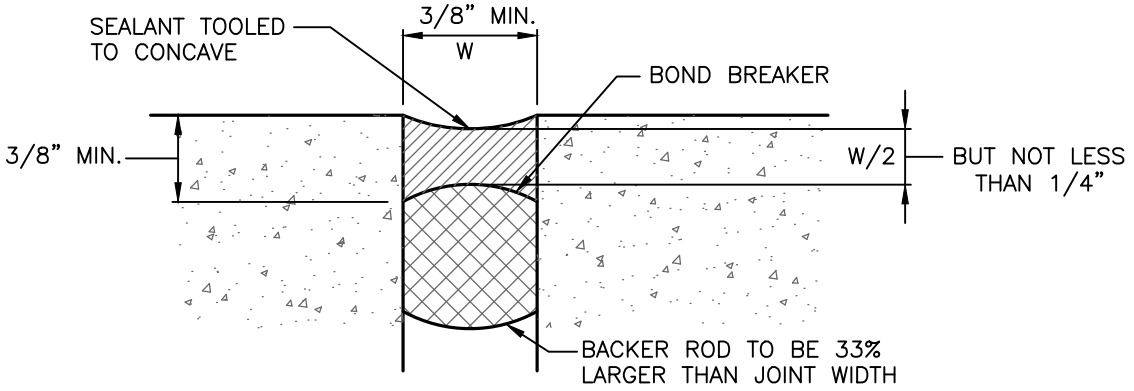
3.5 CLEANING

A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.6 PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

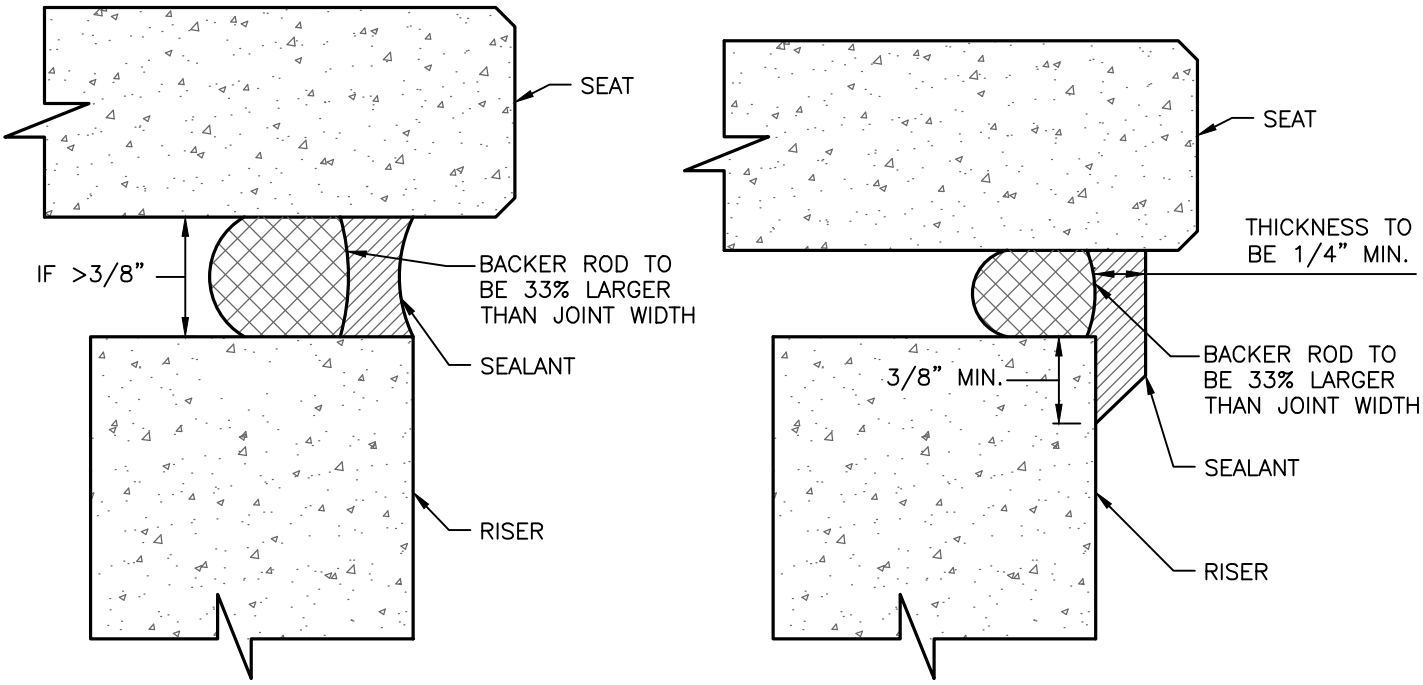
END OF SECTION 07920



SEALANT BUTT JOINT

NOT TO SCALE

NOTE:
1. COMPLETELY REMOVE FAILED SEALANTS AND CLEAN TO BARE SUBSTRATE.



SEALANT FILLET JOINT

NOT TO SCALE

NOTE:
1. COMPLETELY REMOVE FAILED SEALANTS AND CLEAN TO BARE SUBSTRATE.

Dec 12, 2013 - 8:29am - kurdi \\Smefile\work in progress\066239.03\CAD\DWGS\rev0\066239.03-01.dwg

www.sme-usa.com

Date	12/12/13
Drawn By	GBK
Designed By	RB
Scale	NOT TO SCALE
Project	066239.01

STRUCTURAL REPAIR DETAILS
WSU ADAMS FIELD STADIUM
DETROIT, MICHIGAN

No.	Revision Date

APPENDIX A - FOR REFERENCE ONLY

A..... SME Bleacher Review (July 8, 2013)

Soil and Materials Engineers, Inc.
The Kramer Building
43980 Plymouth Oaks Blvd.
Plymouth, MI 48170-2584

tel (734) 454-9900
fax (734) 454-0629

www.sme-usa.com

July 8, 2013

Mrs. Nancy Milstein
Project Manager
Wayne State University
Space Inventory / Facilities Planning & Management
/ Design & Construction Services
5454 Cass Avenue
Detroit, Michigan 48202

Transmitted via Email: *ew3361@wayne.edu*

RE: Professional Consulting Services
WSU Bleacher Review—Below Row 1
Wayne State University
Detroit, Michigan
SME Project No. 066239.02

Dear Nancy:

Soil and Materials Engineers, Inc. (SME) has completed the review of the precast concrete bleachers for the football stadium, located at Wayne State University in Detroit, Michigan. SME staff, trained in the fundamentals of concrete evaluation, performed the review. The objective of this report is to summarize our findings.

BACKGROUND INFORMATION

The precast concrete bleachers consist of thirty-six (36) rows of precast concrete, prestressed steel bleachers. The concrete panels are supported by steel angles that are welded to diagonal steel beams. The steel beams are supported by eleven (11) steel columns. Two ¾" expansion joints are located on the structure—at columns lines four and eight. Temporary repairs were performed in 2012 to the top row of concrete bleachers and permanent repairs were performed to the same row of bleachers in 2013.

During our review of the top row of bleachers, we noticed that other rows of concrete panels had begun to exhibit signs of distress and, as a result, a review was performed by us on for the second row of bleachers from the

top. Based on our visual review, we found four (4) panels that required concrete restoration, or restoration of the bearing areas.

We were asked by WSU to carry out a visual review of the remaining concrete bleachers in order to determine any additional concrete distress. For our review, we referenced the following drawings:

- *Grandstand Development Wayne State University* by Ralph Calder and Associates, Inc. and dated Oct. 16, 1967.
- *WSU Stadium Temporary Restoration of Highest Precast Seating Panels* by Desai/Nasr Consulting Engineers and dated Aug. 13, 2012.

REVIEW METHODS

The review services included performing an overall visual assessment of the current condition of the concrete bleachers. Our overall visual assessment was performed in general accordance with the methodology presented in ACI 201.1R "Guide for Making a Condition Survey of Concrete in Service". The review was also used to identify factors contributing to the failures. Our visual evaluation of the concrete bleachers was performed on June 26, 2013. We utilized a 60-foot manlift as well as a 120-foot manlift for the assessment.

FINDINGS

Based on our visual assessment of the precast concrete bleachers, it appears that the majority of the distress observed was located at the bearings of the concrete panels—that is, the north and south ends of the bleachers. The distress observed can be broken down into three categories: steel distress, concrete distress, and sealants.

Steel Distress

The south end of each concrete panel contains one embedded 5" x 5" steel plate that is welded to the steel angle. The fillet weld is located on the west side of the plate (backside of the bleacher). The distress observed on the steel is pack rust, which forms between pieces of connecting steel. The north end of each concrete panel contains one embedded plate with a stainless steel pin. The stainless steel pin is fitted onto a longitudinally slotted hole in the seated angle.

Pack rust was observed at nearly all of the bearing locations and has formed between the two steel plates as well as between the embedded plate and the concrete panel. Pack rust, in some areas, was observed to be as much as 1 inch in thickness.

Pack rust between the embedded plate and the seated angle produces stresses on the fillet weld and may have, in some cases, reduced the size of that weld. Pack rust between the embedded plate and the concrete panel likely indicates that the headed studs, which would typically act as the mechanical hold between the plate and concrete, have deteriorated and longer function as the mechanism securing the embedded plate to the concrete.

Concrete Distress

Due to the pack rust formation, and the continuous cycles of freeze-thaw, the concrete has delaminated and spalled at the bearings. The delaminations and spalls are typically less than ½" thick and vary in size, but are usually less than 10" by 10". The spalls are located on the underside of the concrete panel and are around the embedded plates. It appears that further degradation of the concrete, after the spall on the underside has occurred, results in the cracking and spalling of the corner in a triangular fashion.

Sealant Deterioration

The sealants between the concrete panels have generally failed. The sealants include the horizontal and vertical joints between the panels at their intersections. The sealants appear to have failed in cohesion as well as adhesion—that is, the sealants have split down the middle in some areas and have disbonded from the concrete substrate at other areas. The horizontal joint between the concrete panel riser and the seating portion for the concrete panel above does not contain sealant.

Table

A typical (Typ.) marking indicates pack rust formation anywhere from ¼" to ½" between the embedded plate and concrete as well as between the embedded plate and seated angle. Furthermore, concrete spalling and delamination is observed but generally less than ½" thick and 10" by 10" in size. The following table summarizes our findings.

Column / Row	1	2	3	4	5	6	7	8	9	10	11
1	Typ.	4" by 10" failed repair	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ
2	Typ.	3" by 10" corner spall	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ
3	Typ.		Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ
4	Typ.	3" by 3" corner spall	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ
5	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ
6	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ
7	Typ.	4" by 3" corner spall-north	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	3" by 8" corner spall-north	Typ.	Typ
8	Typ.	4" by 6" corner spall-north	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ
9	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ
10	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ
11	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ
12	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ
13	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ
14	Typ.	14" by 16" surface spall	14" by 6" surface spall-	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ

			north								
15	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
16	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
17	Typ.	Typ.	1" surface spall	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	1" pack rust north side	Typ.
18	Typ.	Typ.	1" surface spall	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
19	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
20	Typ.	Typ.	1" surface spall + 1" pack rust	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
21	Typ.	Typ.	1" surface spall + 1" pack rust	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
22	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
23	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
24	Typ.	Typ.	3" by 3" corner spall-north	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
25	4" crack	Typ.	Typ.	Typ.	Typ.	Typ.	25" long crack bott. of north panel	Typ.	Typ.	Typ.	Typ.
26	Typ.	¾" pack rust	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
27	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
28	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
29	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
30	Up to 1-1/2" spall around embed. plate	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
31	Typ.	5" by 6" corner spall-north + 1" pack rust	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
32	Typ.	Typ.	Typ.	2" by 10" corner crack-north	Typ.	Typ.	Typ.	Typ.	Typ.	3" by 4" corner spall-north	Typ.
33	8" by 4" by 1-1/2" deep spall on panel back	Typ.	3" by 6" corner crack on north panel	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.
34	Typ.	Typ.	6" by 8" corner spall-north	2" by 6" corner spall-north	Typ.	Typ.	Typ.	Typ.	2" by 6" corner spall-north	4" by 8" corner crack-south	Typ.
35	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.	Typ.

CONCLUSION AND RECOMMENDATIONS

The formation of pack rust on the bearing plates creates aesthetically undesirable conditions because one panel may be lifted up higher than the other. Furthermore, pack rust pushes the panel up, potentially damaging the original headed studs that secure the plate to the concrete. When a panel moves up due to pack rust, the sealants at the joints also tear apart because a

typical polyurethane sealant is able to accommodate up to 50% contraction and expansion. This elasticity of the sealant is intended to accommodate thermal expansion and contraction of the panels and may not be able to expand the additional movement produced by the pack rust.

Since the only way to remove the pack rust is by abrasive blasting or mechanical grinding, it is not practical to lift each panel and properly clean and coat the steel. The concrete panels noted on the table above as having concrete spalls on the corner should be repaired via the previously detailed retrofit designed by Desai/Nasr Consulting Engineers (DNCE).

The sealants at the horizontal and vertical joints at the column lines should be removed and replaced. The horizontal joint between the risers and bleacher seat for the row above should be sealed at least two feet on each side of the joint so to reduce moisture intrusion at the bearing plates.

GENERAL COMMENTS

This report has been prepared in accordance with generally accepted engineering practices used to aid in the evaluation of concrete structures. In the process of performing the analysis for this report, procedures are followed that represent reasonable and accepted practice in the field of construction engineering. If the reported application or design criteria is found to have changed or new information discovered, the conclusions and recommendations contained in this report shall not be considered valid unless these items are reviewed and the conclusions of this report are modified or approved in writing by our office. The conclusions contained within this report are based upon the data obtained from our site review, review of project documents, and information provided by your office.

The recommendations described herein are general in nature, and are intended to provide guidance for the project team to develop specific repair plans and conceptual detailing. If requested, SME can provide assistance to the project team in preparing more descriptive repair protocols and details for this project. Should WSU wish to retain our services to assist with this project, or have any questions regarding the information provided, please contact us.

Very truly yours,

SOIL AND MATERIALS ENGINEERS, INC.

Roland Bogdani, EIT
Senior Engineer

Tiffany D. Vorhies, NACE CIP-2
Senior Materials Consultant

Attachments: Appendix A – Photographic Documentation

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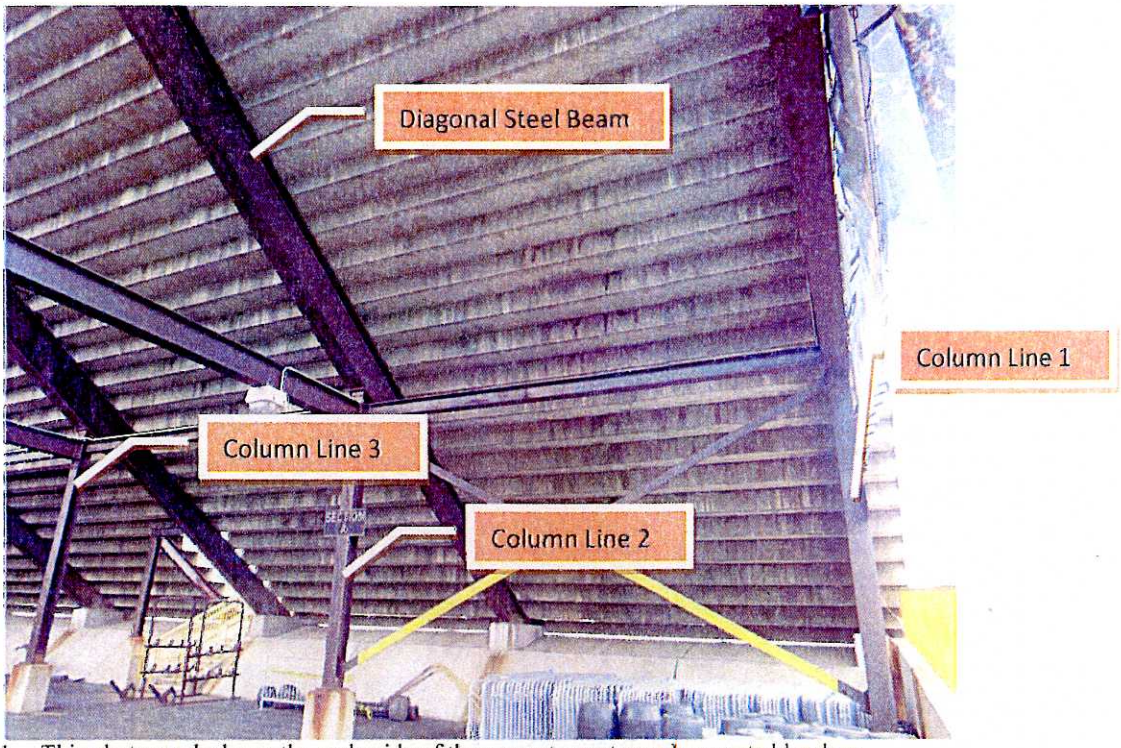
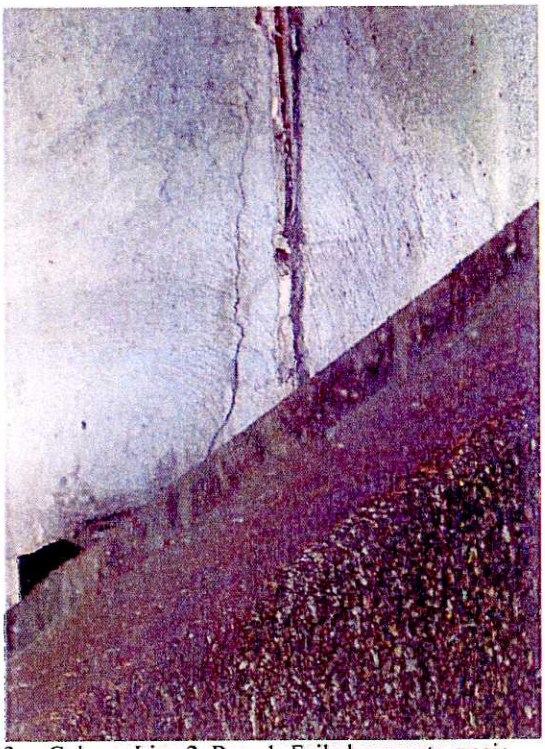
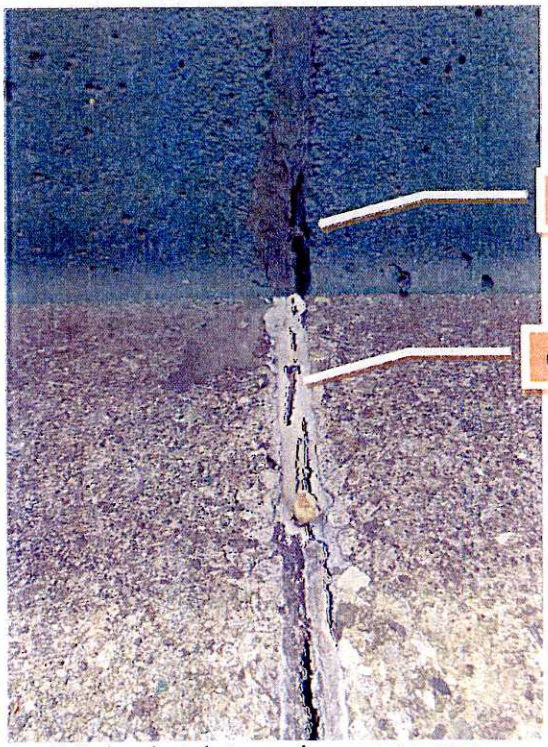


1. This photograph shows the underside of the precast, prestressed concrete bleachers.

2. Column Line 2, Row 4: The north bleacher contains a minor concrete spall.

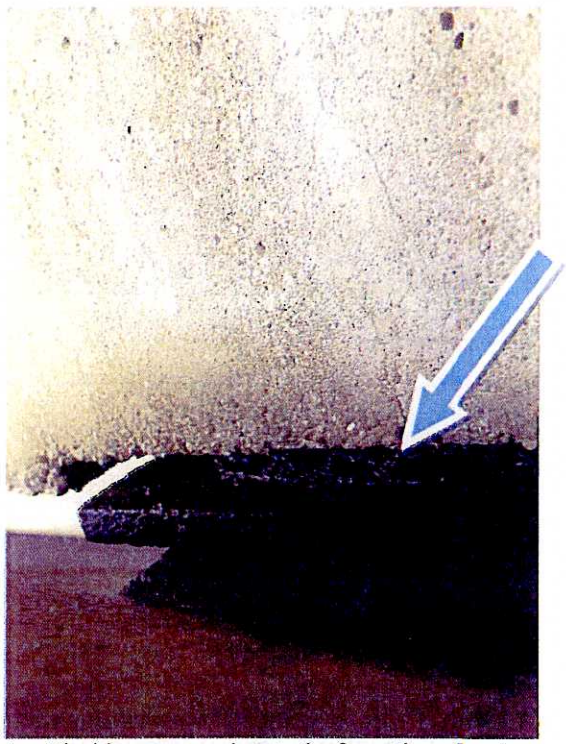


3. Column Line 2. Row 1: Failed concrete repair.

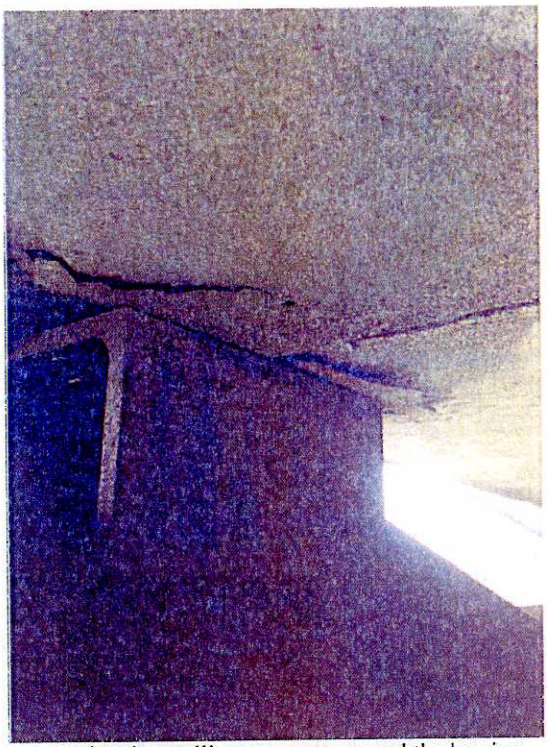


4. Failed sealants between the precast concrete panels.

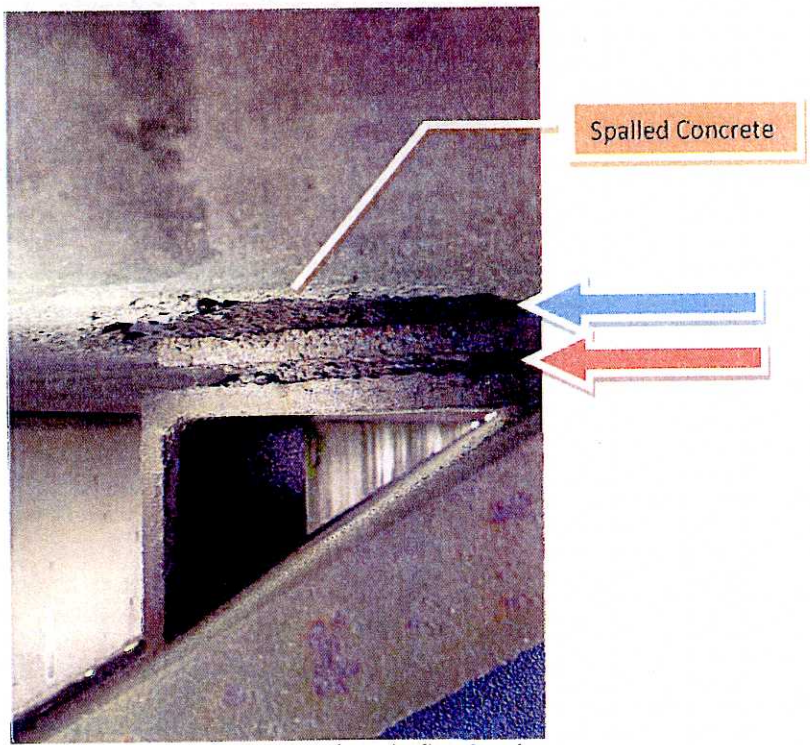
5. The north bleacher has been raised due to formation of pack rust at the bearing plates.



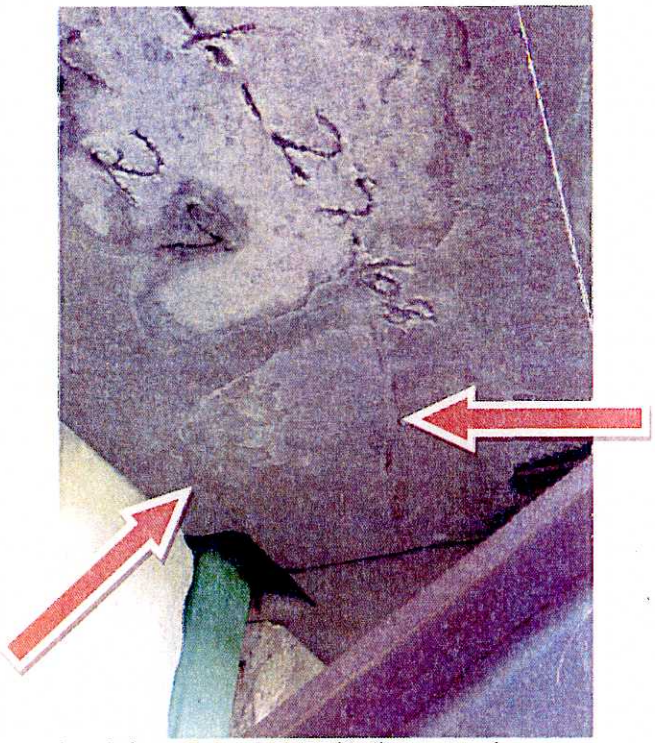
6. The blue arrow points to the formation of pack rust between the embedded plate and concrete.



7. Notice the spalling concrete around the bearing plate. Typ.



8. Pack rust between the two plates (red) and pack rust between the plate and concrete (blue)



9. Column 7, Row 25: notice the two cracks, approximately 25" total length.

10. Column 3, Row 34: 6" (white) by 8" (black) corner spall.