This is the March 2020 edition of the general requirements. These are the standard bidding documents to be prepared by the Consultant and approved by the Project Manager.

Preparation of the general requirements, or Division 1, of the project manual will follow format shown on the following pages. **This is presented only as a guide.** Notations enclosed by bold parentheses **[ ]** indicate general information which will be inserted by the consultant.

General Conditions outline the commercial conditions under which the University performs construction contracts. Consultant will make no modifications to the General Requirements unless directed by the Project Manager.

The University will supply the Advertisement for bid and other preprinted forms noted on the Table of Contents when time of the advertisement is established by the Project Manager.

PROJECT MANUAL FOR: \_\_\_\_\_\_

[Write project title and University project number. Also, use this as a header or footer on every page.]

PROJECT NUMBER: \_\_\_\_\_\_\_\_\_\_

**[Edit Table of Contents below to suit project. Some documents listed below are pre-printed forms that may or may not be used on your project depending on size and type of project. Pre-printed forms are available from the University Project Manager.]**

AT

UNIVERSITY OF MISSOURI - **[Campus]**

**[Campus]**, MISSOURI

FOR:

THE CURATORS OF THE UNIVERSITY OF MISSOURI

PREPARED BY:

**[Write Consultant firm name, contact person's name, address, city, state, and phone and fax number in spaces below.]**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**[Write date of advertisement. Coordinate same date throughout document.]**

DATE:

I hereby certify that these Drawings and/or Specifications have been prepared by me, or under my supervision. I further certify that to the best of my knowledge these Drawings and/or Specifica­tions are as required by and in compliance with Building Codes of the University of Missouri.

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**[Affix professional seal. Use separate page for certifications and professional seals if required.]**

PROJECT MANUAL FOR: \_\_\_\_\_\_

[Write project title and University project number. Also, use this as a header or footer on every page.]

PROJECT NUMBER: \_\_\_\_\_\_\_\_\_\_

**[Edit Table of Contents below to suit project. Some documents listed below are pre-printed forms that may or may not be used on your project depending on size and type of project. Pre-printed forms are available from the University Project Manager.]**

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1.B Bidder's Statement of Qualifications [**preprinted]** BSQ/1-2

1.B.1 Bidder’s Statement of Qualifications for Asbestos Abatement

**[preprinted, insert if applicable]** BSQAA/1-3

**[MBE/WBE forms below are preprinted and used on all contracts greater than $100,000]**

1.B.2 Supplier Diversity Compliance Evaluation SD 1-2

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1.B.4 Affidavit for Affirmative Action SD 5-6

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1.E.1 Scheduling Specification SS 1- 4 or 5

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**END OF SECTION**

SECTION 1.A

BID FOR LUMP SUM CONTRACT

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

BID OF

(hereinafter called "Bidder") a corporation\* organized and existing under laws of the State of ,

a partnership\* consisting of ,

an individual\* trading as ,

a joint venture\* consisting of

.

\*Insert Corporation(s), partnership or individual, as applicable.

TO: Curators of the University of Missouri

**[Address as identified in Appendix C1]**

**[Write Consultant firm name, project title (in all capitals), University project number, and date of advertisement in spaces below.]**

1. Bidder, in compliance with invitation for bids for construc­tion work in accordance with Drawings and Specifications prepared by , entitled "\_\_", project number \_\_, dated \_\_\_\_ having examined Contract Documents and site of proposed work, and being familiar with all conditions pertaining to construction of proposed project, including availability of materials and labor, hereby proposes to furnish all labor, materials and supplies to construct project in accordance with Contract Documents, within time set forth herein at prices stated below. Prices shall cover all expenses, including taxes not covered by the University of Missouri’s tax exemption status, incurred in performing work required under Contract documents, of which this Bid is a part.

Bidder acknowledges receipt of following addenda:

Addendum No. Dated

Addendum No. Dated

Addendum No. Dated

Addendum No. Dated

2. In following Bid(s), amount(s) shall be written in both words and figures. In case of discrepancy between words and figures, words shall govern.

3. BID PRICING

**[Describe basic scope of work included in Base Bid in space below.]**

a. Base Bid:

The Bidder agrees to furnish all labor, materials, tools, and equipment required to \_\_; all as indicated on the Drawings and described in these Specifications for sum of:

DOLLARS ($ ).

**[Retain Alternate paragraphs below, if applicable. All Alternates shall be additive. Briefly describe work included in each Alternate. If not used, then delete.]**

1. Additive Alternate Bids:

Above Base Bid may be changed in accordance with following Alternate Bids as Owner may elect. Alternates are as described in Section 1.H of Project Manual. Alternates are written in a priority order, but Owner is not required to accept or reject in order listed. This is a one (1) contract project, therefore, Alternates shall be studied by each Bidder to determine effect on Bids of Contractor and each Subcontractor and/or Material supplier.

(1) Additive Alternate No. 1:**[Briefly describe work included in Alternate.]**

(Briefly describe work included in Alternate) All for sum of:

DOLLARS ($ ).

(2) Additive Alternate No. 2:**[Briefly describe work included in Alternate.]**

(Briefly describe work included in Alternate) All for sum of:

DOLLARS ($ ).

[Retain Unit Prices below, if applicable. Prepare unit price schedule as required. Examples below are unit prices for excavation. State cubic yard quantity in Base Bid for each type of rock excavation.]

c. Unit Prices:

**[All items for unit pricing will have an associated quantity given in the description of the unit price for the base bid quantity.]**

(1) For changing specified quantities of work from those indicated by Contract Drawings and Specifications, upon written instructions of Owner, the following Unit Prices shall prevail in accordance with General Conditions.

(2) The following Unit Prices include all labor, overhead and profit, materials, equipment, appliances, bailing, shoring, shoring removal, etc., to cover all work.

(3) The following Unit Prices are required where applicable to particular Base Bid and/or Alternate being submitted.

(4) Only a single Unit Price shall be given and it shall apply for either MORE or LESS work than that indicated on Drawings and called for in Specifications as indicated to be included in Base Bid and/or Alternates. In the event that more or less units than so indicated is actually furnished, Change Orders will be issued for increased or decreased amounts as approved by the Owner.

(5) Bidder understands that the Owner will not be liable for any Unit Price or any amount in excess of Base Bid and any Alternate(s) accepted at time of award of Contract, except as expressed in written Change Orders duly executed and delivered by Own­er's Representative.

FILL IN ONLY ONE PRICE PER LINE **[(6) and (7) below are examples, add or delete unit pricing as appropriate. Be specific on quantities, ie. give a base bid quantity for every unit price, and list the unit for each unit price to be given.]**

(6) Rock Excavation in addition to soil excavation, as defined in

Division 2, per cu. yd.

(a) General Excavation,

Base Bid quantity = cu. yd. $ /cu. yd.

(b) Trenching,

Base Bid quantity = cu. yd. $ /cu. yd.

(7) Drilled Pier Excavation/l.f.

Base Bid quantity = l.f. $ /l.f.

**[Consultant to insert the following allowance paragraph when directed by Project Manager.]**

d. Allowance:

Bidder shall include in the base bid sum an allowance of for **(brick, security system, etc)**. This allowance amount shall not include contractor's overhead and profit. The Contractor shall include overhead and profit on the allowance amount in his bid.

4. PROJECT COMPLETION **[Write calendar days in words and (numbers) below. Paragraphs must be identical to paragraphs in Special Conditions.]**

**[Except in special cases, we prefer all contract periods to be based on calendar days, not dates. If dates are used, use only dates. Do not mix calendar days and dates.]**

a. Contract Period - Contract period begins on the day the Contrac­tor receives unsigned Contract, Perfor­mance Bond, Payment Bond, and "Instructions for Execution of Con­tract, Bonds, and Insurance Certificates." Bidder agrees to complete project within ( ) calendar days from receipt of aforemen­tioned docu­ments. Fifteen (15) calendar days have been allocated in construction schedule for receiving aforemen­tioned documents from Bidder.

b. Commencement - Contractor agrees to commence work on this project after the "Notice to Proceed" is issued by the Owner. "Notice to Proceed" will be issued within seven (7) calendar days after Owner receives properly prepared and executed Contract documents listed in paragraph 4.a. above.

**[Retain liquidated damages paragraph below as directed by the Project Manager. Write dollar amounts in words and (numbers).]**

c. Liquidated Damages - In event that Contractor shall fail to substantially complete the work as defined in Contract Documents within time fixed for such completion set forth in Contract Documents, Contractor shall pay to Owner as damages for each calendar day of delay in completing work, sum of ($ ) dollars. In view of difficulty of accurately ascertaining loss that Owner will suffer by reason of delay in completion of work, said sum is hereby fixed and agreed as liqui­dated damages that Owner will suffer by reason of such delay and not as penalty.

[Use the following paragraph where paragraph (d) is used and whenever any special scheduling requirements exist, ie., work that must be completed by Nov. 1, etc.]

d. Special scheduling requirements:

**[Retain subcontractor list below for projects over $500,000 construction cost.]**

5. SUBCONTRACTOR LIST:

Bidder hereby certifies that the following subcontractors will be used in performance of Work:

NOTE: Failure to list subcontractors for each category of work identified on this form or listing more than one subcon­tractor for any category of work without designating the portion of work performed by each shall be grounds for rejection of bid. List name, city, and state of designated subcon­tractor, for each category of work listed in Bid For Lump Sum Contract. If work within a category will be performed by more than one subcontractor, Bidder shall provide name, city, and state of each subcontractor and specify exact portion of work to be performed by each. If acceptance/non-acceptance of Alter­nates will affect designation of a subcontractor, Bidder shall provide information, for each affected category, with this bid form. If Bidder intends to perform any designated subcontract work by using Bidder's own employees, then Bidder shall list their own name, city, and state. The bidder may petition the Owner to change a listed subcontractor only within 48 hours of the bid opening. See Information For Bidders Section 16 List of Subcontractors for requirements.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Work to be performed Subcontractor Name, City, State

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**[List major subcontracted divisions of work below as directed by the Project Manager. Do not attempt to divide work or group work together for bidder. Leave ample blank space for bidders to list information required. Limit to subcontractors only--not suppliers.]**

**[Subcontractor 1]**

**[Subcontractor 2]**

**[Subcontractor 3]**

**[Retain Supplier Diversity paragraphs below for projects under $100,000 construction cost.]**

6. SUPPLIER DIVERSITY PARTICIPATION GOALS

a. The Contractor shall have as a goal, subcontracting with Service Disabled Veteran Owned Business (SDVE) of three percent (3%) of awarded contract price for work to be performed.

b. Requests for waiver of this goal shall be submitted on the attached Application For Waiver form. A determination by the UM Executive Director of Facilities Planning & Development, that a good faith effort has not been made by Contractor to achieve above stated goal may result in rejection of bid.

c. The Undersigned proposes to perform work with following Supplier Diversity participation level:

SDVE PERCENTAGE PARTICIPATION: \_\_\_\_\_\_\_\_\_\_\_\_\_ percent ( %)

1. A Supplier Diversity Compliance Evaluation form shall be submitted with this bid for each diverse subcontractor to be used on this project.

**[Retain Supplier Diversity paragraphs below for projects over $100,000 construction cost.]**

6. SUPPLIER DIVERSITY PARTICIPATION GOALS

a. The Contractor shall have as a goal, subcontracting with Minority Business Enterprise (MBE) of \_\_\_\_\_\_ (\_\_\_)**[Write out goal in words (numbers)]**,withService Disabled Veteran Owned Business (SDVE) of three percent (3%); and with Women Business Enterprise (WBE), Disadvantage Business Enterprise (DBE), and/or Veteran Owned Business of \_\_\_\_\_\_ (\_\_\_)**[Write out goal in words (numbers)]** of awarded contract price for work to be performed.

b. Requests for waiver of this goal shall be submitted on the attached Application For Waiver form. A determination by the UM Executive Director of Facilities Planning & Development, that a good faith effort has not been made by Contractor to achieve above stated goal may result in rejection of bid.

c. The Undersigned proposes to perform work with following Supplier Diversity participation level:

MBE PERCENTAGE PARTICIPATION: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ percent ( %)

SDVE PERCENTAGE PARTICIPATION: \_\_\_\_\_\_\_\_\_\_\_\_\_ percent ( %)

WBE, DBE, and/or VETERAN PERCENTAGE PARTICIPATION:\_\_\_\_\_\_\_\_\_\_\_ percent ( %)

1. A Supplier Diversity Compliance Evaluation form shall be submitted with this bid for each diverse subcontractor to be used on this project.

7. BIDDER'S ACKNOWLEDGMENTS

a. Bidder declares that he has had an opportunity to examine the site of the work and he has examined Contract Documents therefore; that he has carefully prepared his bid upon the basis thereof; that he has carefully examined and checked bid, materi­als, equip­ment and labor required thereunder, cost thereof, and his figures therefore. Bidder hereby states that amount, or amounts, set forth in bid is, or are, correct and that no mistake or error has occurred in bid or in Bidder's computa­tions upon which this bid is based. Bidder agrees that he will make no claim for reformation, modifica­tions, revisions or correction of bid after sched­uled closing time for receipt of bids.

b. Bidder agrees that bid shall not be withdrawn for a period of ( ) days after sched­uled closing time for receipt of bids.

**[Note to Consultant: Allow a maximum of 90 days for projects $500,000 or more, otherwise 60 days or as directed by Project Manager.]**

c. Bidder understands that Owner reserves right to reject any or all bids and to waive any informalities in bidding.

d. Accompanying the bid is a bid bond, or a certified check or a cashier's check payable without condition to "The Curators of the University of Missouri" which is an amount at least equal to five percent (5%) of amount of largest possible total bid herein submitted, including consider­ation of Alternates.

e. Accompanying the bid is a Bidder's Statement of Qualifica­tions. Failure of Bidder to submit the Bidder's State­ment of Qualifications with the bid may cause the bid to be rejected. Owner does not maintain Bidder's Statements of Qualifica­tions on file.

f. It is understood and agreed that bid security of two (2) lowest and responsive Bidders will be retained until Contract has been executed and an acceptable Perfor­mance Bond and Payment Bond has been furnished. It is understood and agreed that if the bid is accepted and the undersigned fails to execute the Contract and furnish acceptable Performance/Payment Bond as required by Contract Documents, accompanying bid security will be realized upon or retained by Owner. Otherwise, the bid security will be returned to the undersigned.

8. BIDDER'S CERTIFICATE

Bidder hereby certifies:

a. His bid is genuine and is not made in interest of or on behalf of any undisclosed person, firm or corporation, and is not submitted in conformity with any agreement or rules of any group, association or corporation.

b. He has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid.

c. He has not solicited or induced any person, firm or corporation to refrain from bidding.

d. He has not sought by collusion or otherwise to obtain for himself any advantage over any other Bidder or over Owner.

e. He will not discriminate against any employee or appli­cant for employment because of race, color, religion, sex or national origin in connection with performance of work.

f. By virtue of policy of the Board of Curators, and by virtue of statutory authority, a preference will be given to materials, products, supplies, provisions and all other articles produced, manufactured, mined or grown within the State of Missouri. By virtue of policy of the Board of Curators, preference will also be given to all Missouri firms, corporations, or individuals, all as more fully set forth in "Information For Bidders."

9. BIDDER'S SIGNATURE

Note: All signatures shall be original; not copies, photocopies, stamped, etc.

|  |  |
| --- | --- |
| Authorized Signature | Date |
| Printed Name | Title |
| Company Name | |
| Mailing Address | |
| City, State, Zip | |
| Phone No. | Federal Employer ID No. |
| Fax No. | E-Mail Address |
| Circle one: Individual Partnership Corporation Joint Venture | |
| If a corporation, incorporated under the laws of the State of\_\_\_\_\_\_\_\_\_\_ | |
| Licensed to do business in the State of Missouri? \_\_\_\_yes \_\_\_\_\_no | |

(Each Bidder shall complete bid form by manually signing on the proper signature line above and supplying required information called for in connection with the signature. Information is necessary for proper preparation of the Contract, Performance Bond and Payment Bond. Each Bidder shall supply information called for in accompanying "Bidder's Statement of Qualifications.")

**END OF SECTION**

SECTION 1.E

SPECIAL CONDITIONS

1. DEFINITIONS

a. "Drawings"

Drawings referred to in and accompanying Project Manual consist of Drawings prepared by and bearing name of below defined Architect, bearing **[Write date of advertisement and project title.]**

[Write consultant firm’s name, address, city, state, telephone, and fax number in spaces below.]

b. Architect

\_\_

\_\_

\_\_

\_\_

c. Mechanical & Electrical Engineer

\_\_

\_\_

\_\_

\_\_

d. Structural Engineer

\_\_

\_\_

\_\_

\_\_

e. Civil Engineer

\_\_

\_\_

\_\_

\_\_

1. Other Definitions: See Article 1., General Conditions.

**[Include additional definitions of terms as required.]**

1. SPECIAL SCHEDULING REQUIREMENTS **[used if applicable to project and as approved by the Project Manager. Describe Special Scheduling requirements supplemental to the PROJECT COMPLETION section of the Bid Form]**

a. Special scheduling requirements supplemental to the bid form **[Examples follow.]**

Contractor shall perform all work in the designated areas between **[MM/DD/YY]** and **[MM/DD/YY].**

Contractor shall perform all work in the designated areas outside of regular working hours, which are **[H:MM]** a.m. to **[H:MM]** p.m., Monday through Friday.

Contractor may not begin work in the designated areas until [**MM/DD/YY].**

Contractor shall coordinate installation of **\_\_\_\_\_\_\_\_** by a separate contract.

3. SCOPE OF WORK

1. The Contractor shall furnish all labor, materials, tools, equipment necessary for, and incidental to, construction of this project as indicated on Drawings and specified herein.
2. Work shall include everything requisite and necessary to finish work properly, notwithstanding that every item of labor or materials or accessories required to make project complete may not be specifically mentioned.
3. General Description of Work: **[Write brief project description as required.]**
4. Project consists of \_\_\_\_\_\_\_.
5. Demolition shall consist of \_\_\_.
6. Architectural work shall consist of \_\_\_\_\_.
7. Structural work shall consist of \_\_\_\_\_.
8. Mechanical work shall consist of \_\_\_\_.
9. Electrical work shall consist of \_\_\_\_\_.

4. LOCATION

Work shall be performed under this Contract on campus of the University of Missouri - **[Campus]**, at **[Write building name and general location.]**

1. NUMBER OF CONSTRUCTION DOCUMENTS
2. The Owner's Representative will furnish the Contractor a copy of executed Contract and **\_\_ (\_\_)** complete sets of Drawings and Specifications. **[Write number of sets. Number of sets is project specific. Five is minimum. Ask Project Manager.]**
3. Additional sets may be obtained from the architect at cost of reproduction.
4. The Owner will furnish five (5) sets of explanatory and changed Drawings at no cost to Contractor as issued during project.

**[Use the following additional paragraphs if electronic documents are to be provided for the contractor’s convenience.]**

1. The Owner will provide electronic data files to the Contractor for their convenience and use in progressing the Work and the preparation of shop drawings or other submittal requirements required for construction of the referenced project. The electronic data files shall reflect Construction Documents and Bid Addenda only. These files will be transmitted subject to the following terms and conditions:
2. The Owner makes no representation as to the compatibility of these files with the Contractor’s hardware or software.
3. Data contained on these electronic files shall not be used by the Contractor or anyone else for any purpose other than as a convenience in progressing the Work or in the preparation of shop drawings or other required submittals for the referenced project. Any other use or reuse by the Contractor or by others will be at their own sole risk and without liability or legal exposure to Owner. The Contractor agrees to make no claim and hereby waive, to the fullest extent permitted by law, any claim or cause of action of any nature against the Owner and its consultants, contractors, agents, employees, and representatives that may arise out of or in connection with the use of the electronic files transmitted.
4. Furthermore, the Contractor shall, to the fullest extent permitted by law, indemnify and hold harmless the Owner and its consultants, contractors, agents, employees, and representatives, against all damages, liabilities or costs, including reasonable attorney’s fees and defense costs, arising out of or resulting from the use of these electronic files.
5. These electronic files are not contract documents. Differences may exist between these electronic files and corresponding hard-copy construction documents. The Owner makes no representation regarding the accuracy or completeness of the electronic files you receive. In the event that a conflict arises between the signed or sealed hard-copy construction documents prepared by the Consultant and the electronic files, the signed and sealed hard-copy construction documents shall govern. The Contractor is responsible for determining if any conflict exists. By use of these electronic files, the Contractor is not relieved of their duty to fully comply with the contract documents.
6. Because information presented on the electronic files can be modified, unintentionally or otherwise, the Owner reserves the right to remove all indications of ownership and/or involvement from each electronic display.
7. Under no circumstances shall delivery of the electronic files be deemed a sale by the Owner and no warranties are made, either expressed or implied, of merchantability and fitness for any particular purpose. In no event shall the Owner be liable for any loss of profit, or any consequential damages as a result of use or reuse of these electronic files.

6. SUBMITTALS

1. The Contractor shall submit for approval to the Architect, equipment lists and Shop Drawings, as expediently as possible. Failure of the Contractor to submit Shop Drawings in a timely manner will result in the Owner holding back Contractor payments. (See General Conditions)
2. The material and equipment lists shall be submitted and approved before any material or equipment is purchased and shall be corrected to as-built conditions before the completion of the project.
3. The Contractor shall submit to the Architect **[Write out in words (numbers) as directed by the Project Manager.] \_\_\_\_\_**(\_\_\_\_\_) copies of all required Shop Drawings, material and equipment lists for the Architect’s and the Owner’s sole use. The Contractor shall submit additional copies required for his own use. Additional copies will be reviewed by the Architect and returned to the Contractor marked accordingly.

**[For Columbia Projects use this paragraph c. For Rolla, St. Louis, and Kansas City projects revise as directed by the Project Manager]**

1. The Contractor shall submit electronic versions of all required Shop Drawings, material and equipment lists. The Contractor shall upload all Shop Drawings to a secure information sharing website determined by the Owner notifying the Owner and Consultant that these shop drawings are available for review. Each submittal shall have the General Contractors digital stamp affixed to the first page signifying their review and acceptance. Review comments, approvals, and rejections will be posted on this same site with notification to the contractor. Submittals requiring a professional seal shall be submitted hard copy with a manual seal affixed.
2. The Contractor shall identify each submittal item with the following:
3. Project Title and Location
4. Project Number
5. Supplier’s Name
6. Manufacturer’s Name
7. Contract Specification Section and Article Number
8. Contract Drawing Number
9. **[For Columbia projects ]**Acrobat file name: Spec Section\_Times Submitted-Spec Title: 033000 \_01-Cast In Place Concrete.pdf
10. Reference the accompanying Shop Drawing and Submittal Log at the end of this section (1.E.3) for required submittal information.

d. The Contractor shall submit to the Architect four (4) bound copies of all required Operating Instructions and Service Manuals for the Architect’s and the Owner’s sole use prior to completing 50% of the adjusted contract. Payments beyond 50% of the contract amount may be withheld until all Operating Instructions and Service Manuals are received as referenced in the accompanying Operating Instructions and Service Manual Log at the end of this section (1.E.4).

e. The Contractor shall submit to the Owner’s Representative all items referenced in the accompanying Closeout Log (1.E.5) within 30 days following substantial completion of the work. The Owner’s Representative will maintain the closeout log and include as an agenda item at all coordination meetings.

7. NOTIFICATION

Before beginning Demolition Work or service outages, the Contractor shall provide, at minimum, seventy-two (72) hours advance notice to Owner’s Representative for purpose of verifying utility locations including, but not limited to, gas, telecommunications, electric, water, steam, sewer, and nitrogen. Contractor shall minimize the number of outages, minimize the length of outages and related work shall be continuous until the utility is restored.

8. USE OF PREMISES

**[Describe any special access requirements below.]**

1. Access: Access to construction site shall be as indicated on Drawings and as directed by the Owner's Representative.

**[Use the parking requirements below as directed by the Project Manager. Number of parking permits is project specific.]**

1. Parking: Contractor shall be issued parking permits for **\_\_\_(\_\_\_)** service vehicles to park in location directed by the Owner’s Representative. Employee parking shall be on public streets or where directed by the Owner’s Representative. The contractor parking lot (if available), may also be utilized for employee parking.
2. Parking:
3. The Owner will issue Contractor \_\_\_\_ (\_\_) service vehicle parking permits for use in University Parking lot \_\_\_\_\_(\_\_). The permits will be issued at no cost to the contractor up to the contract completion date. After the contract completion date, the permits will be re-issued on an as available basis at the contractors expense. These permits are to be used for general contractor or subcontractor owned and labeled vehicles only. Personal vehicles are prohibited from use of these permits. Violation of this requirement may result in ticketing and/or towing at the vehicle owner’s expense and suspension of progress payments.
4. Parking of personal vehicles within project access/lay down/staging areas is prohibited. Violation of this requirement may result in ticketing and/or towing at the vehicle owner’s expense and suspension of progress payments.
5. Parking or driving on sidewalks, landscaped areas, within fire and service lanes or generally in areas not designated for vehicular traffic is prohibited except as allowed in the contract documents. Violation of this requirement may result in ticketing and/or towing at the vehicle owner’s expense and suspension of progress payments.

**[Use the following additional paragraphs for Columbia Campus projects.]**

1. Sidewalk(s) and Hardscape – Parking/driving on hardscapes is strictly prohibited unless specifically directed by the Owner’s Representative through the MU sidewalk permitting process.  Restricted use permits will be limited to activities that are constrained by an absolute need to access from a sidewalk.  Such activities shall be considered the exception and not the norm.  Adequate signage, fencing and alternate routes must be provided in the immediate and adjacent areas.
2. Free parking for contractor employees is available in the Ashland Road Contractor lot on an as available basis. This space is for use by contractor employees for parking their personal vehicles only and is not to be used for staging or storage.
3. Vendor Permits may be purchased by contractor management personnel on an as available basis by contacting the Parking and Transportation office in the General Services Building. These permits will allow contractor management personnel to park in various University lots while conducting business on University construction projects.
4. Temporary University parking permits may be purchased by contractor employees for use with their personal vehicles on an as available basis by contacting the Parking and Transportation office in the General Services Building.
5. Conley Avenue between Missouri Avenue and University Avenue and Hitt Street between University Avenue and the Memorial Union are designated for pedestrian use only during the work week between the hours of 8:15 AM and 3:45 PM. Unless otherwise indicated in the contract documents, this area is strictly off limits to vehicular traffic without authorization from the Owner’s Representative.
6. Storage of materials: The Contractor shall store all materials within project limits. The Contractor shall confine apparatus, materials, and operation of workers to location established by the Owner's Representative. The Contractor shall not unreasonably encumber premises with materials. **[For Columbia Campus projects add: In addition, storage trailer locations may be available within 1-1/2 miles of project site as directed by the Owner’s Representative.]**Storage trailer locations shall be subject to approval by the Owner's Representative and are available to the Contractor without cost.

d. Utilities: Drinking water, water required to carry on work, and 120 volt electrical power required for small tool operation may be obtained without cost to the Contractor from existing utilities at locations designated by the Owner's Representative. Provisions for obtaining power, including temporary extensions, shall be furnished and maintained by the Contractor. Upon completion of work such extensions shall be removed and any damage caused by use of such extensions shall be repaired to satisfaction of the Owner's Representative, at no cost to the Owner.

**[Use the following paragraph for Columbia Campus projects as directed by the Project Manager, when the building or major parts of a building will be turned over to the Contractor.]**

d. Utilities: Steam, water, sewer, and electricity can be obtained from existing utilities at locations designated by the Owner's Representative at the following rates:

Provisions for obtaining power, including temporary extensions, shall be furnished and maintained by the Contractor. Upon completion of the work, such extensions shall be removed and any damage caused by use of such extensions shall be repaired to the satisfaction of the Owner's Representative, at no cost to the Owner.

**[Insert Current UMC Utility Rates From Appendices]**

**[Retain one applicable restroom paragraph below.]**

e. Restroom: The Contractor shall provide and maintain, in a sanitary condition, chemical type portable toilet facilities at work site for use by his personnel. Toilets and toilet location shall be subject to approval by the Owner's Representative.

e. Restroom: Existing toilet facilities within Project Limits or Restrooms designated by the Owner's Representative for use by the Contractor will be available. Failure of the Contractor to maintain restrooms in a clean condition will be cause for the Contractor's discontinued use of the restroom.

[**Retain one applicable Smoking Policy paragraph below.]**

f. Smoking is prohibited at the University of Missouri and all properties owned, operated, leased or controlled by the University of Missouri. Violation of the policy is defined as smoking any tobacco products, including e-cigarettes.

**[Use the following paragraphs g and i below for Columbia Campus projects. Consult with the Project Manager for which landfill clause to use.]**

g. Landfill: The Contractor shall not use the Owner’s landfill. Dumping or disposal of excavated or demolition materials on Owner’s property shall not be permitted. The Contractor shall remove and legally dispose of excavated or demolished materials off the Owner’s property.

h. Care of Project Work Site: The contractor shall be responsible for maintaining the construction site in a reasonably neat and orderly condition by regular cleaning and mowing of the premises as determined by the Owner’s Representative.

i. Discharge to Sewer Request:   The University of Missouri’s MS4 permit and NPDES Storm Water Discharge Permits along with the City of Columbia’s POTW Operating Permit as well as local ordinances, and state and federal environmental regulations prohibit hazardous materials from being disposed into either the storm water or sanitary sewer systems.  Unless specifically approved, all chemical products such as paints, dyes, lawn care products, maintenance products, and oil ~~is~~ are prohibited from drain disposal.   Any product, including contaminated water, being discarded into the storm water or sanitary sewer systems requires written approval from the Owner through a formal “Discharge to Sewer Request” form obtained at [Discharge to Sewer Request Form](https://www.cf.missouri.edu/cf/sites/cf/files/PlanningFile/Discharge_to_Sewer_Request.pdf).  The contractor should submit the form to the Owner’s Representative, not to the Department of Environmental Health and Safety as the form indicates.

j. All concrete waste material including washout water shall be totally contained and removed from the Owner’s property.

k. Artifacts Found During Construction: Contractor shall immediately notify the Owner’s Representative when artifacts are uncovered or found during the demolition or construction process.   Artifacts include, but are not limited to, tools, drawings (construction or other), photographs, books and other objects/devices which may hold historical importance/significance.   Do not remove or disturb the object(s) in question.   Artifacts are not considered part of demolished materials and shall remain the property of the University of Missouri.

**[Note to Consultants: The University wants to communicate certain information on “permit confined spaces” to the construction contractors performing university work. The below language shall be included in the Special Conditions for all projects. Use the language that applies for 1) projects which do include known “permit required confined spaces”; or 2) projects which do not include known “permit required confined spaces”. This information shall be provided by the University’s Project Manager. The consultant shall request this information at least four weeks prior to submission of final review documents.}**

1. **“Permit Required Confined Space” Entry Communication and Coordination**

(See OSHA 1926 subpart aa – Construction Confined Space for the definition of “permit required confined spaces” - Note: OSHA does not apply to the University. However, the University will provide a list of all known “permit required confined spaces”)

The following are the known locations of “permit required confined spaces” currently identified within the project limits:

(1) **List and enumerate permit required confined spaces and their locations here.**

The hazards or potential hazards in each “permit required confined space” or the reason it is a “permit required confined space”:

1. **List and enumerate hazards, potential hazards or reasons here.**

Any precautions that the owner or previous contractors have implemented for the protection of employees in the “permit required controlled space”:

1. **List and enumerate previous precautions here.**

The above list of known confined spaces within the project limits may not be a complete listing. Each contractor shall survey the project to identify all confined spaces. It is incumbent upon each contractor to list all “permit required spaces”.

The Contractor shall notify the Owner’s Representative if 1) conditions change resulting in a non-permit required confined space being reclassified to a “permit required confined space” after evaluation of the space by a competent person; 2) a space previously thought to be non-permit required space is classified as a “permit required confined space” after evaluation by a competent person; or 3) during the course of construction a “permit required confined space” is created after evaluation by a competent person.

The Contractor shall submit to the Owner’s Representative a copy of the cancelled confined space entry permit and a written report summarizing the permit space program followed and all hazards confronted or created during entry operations. This information shall be submitted within one week of cancelling the permit.

**Or;**

1. **“Permit Required Confined Space” Entry Communication and Coordination**

(See OSHA 1926 subpart aa – Construction Confined Space for the definition of “permit required confined spaces” - Note: OSHA does not apply to the University. However, the University will provide a list of all known “permit required confined spaces”)

There are no known “permit required confined spaces” within the project limits. Each contractor shall conduct a survey to confirm whether or not any confined spaces exist within the project limits. It is incumbent upon each contractor to list all “permit required spaces”.

The Contractor shall notify the Owner’s Representative if 1) conditions change resulting in a non-permit required confined space being reclassified to a “permit required confined space” after evaluation of the space by a competent person; 2) a space previously thought to be non-permit required space is classified as a “permit required confined space”; or 3) during the course of construction a “permit required confined space” is created after evaluation by a competent person.

The Contractor shall submit to the Owner’s Representative a copy of the cancelled confined space entry permit and a written report summarizing the permit space program followed and all hazards confronted or created during entry operations. This information shall be submitted within one week of cancelling the permit.

9. PROTECTION OF OWNER'S PROPERTY

a. The Contractor shall be responsible for repair of damage to building exterior and interior, drives, curbs, streets, walks, grass, shrubbery and trees, which was caused by workmen or equipment employed during progress of work. All such repairs shall be made to satisfaction of the Owner's Representative, at no cost to the Owner, or reimburse the Owner if the Owner elects to make repairs. **[For Columbia projects add]** For landscape damage, the Owner shall make such repairs. Compensation for these repairs shall be determined by the Owner's Representative using the "Valuation of Landscape Trees, Shrubs, and other Plants" as published by the International Society of Arboriculture, as last revised.

**[Use one of fencing options below as directed by the Project Manager and edit to suit project if necessary. Indicate the project fencing limits on the site plans]**

b. Construction Project Fencing:

(1) Fencing requirements, as indicated on Drawings, shall be constructed of 9 or 11-gauge chain link not less than six (6) feet in height and not more than 2-inch mesh with posts spaced not more than ten (10) feet apart and all corner and gate posts imbedded in concrete. All other posts shall be sufficiently secured in ground to maintain proper and adequate support of fence. Fenced in area shall have at least two (2) access gates and all gates shall be lockable.

**[Include paragraph (2) below on highly visible projects as directed by the Project Manager.]**

(2) Fence screening fabric shall be used on all perimeter fencing. Fabric shall be green **[check the color with the Project Manager]** in color, full height of the project fence, securely attached and properly maintained throughout the duration of the project.

(1) Fencing requirements, as indicated on Drawings and/or described in Specifications and where neces­sary to protect public and Owner's property shall be constructed of woven wire or plastic woven fencing not less than five (5) feet in height and supported by metal tee posts anchored securely in ground at not more than ten (10) foot intervals.

(1) Project worksite shall be kept continuously protected with, at minimum, a temporary portable fence constructed of woven wire or plastic woven fencing not less than five (5) feet in height and supported by metal tee posts spaced not more than ten (10) feet apart and imbedded in five (5) gallon buckets of concrete or an equivalent method of support. In lieu of five gallon buckets of concrete, metal posts may be driven into ground or asphalt. Fencing shall have reflective devices, such as, tape, ribbon, and/or be painted in a bright fluorescent color. Portions of fence shall be reinstalled when work activities cease and during all non-work periods.

**[Retain paragraph below for all projects not requiring fencing.]**

(1) Fencing will not be required as a part of work.

**[Retain four paragraphs below for all fencing.]**

1. Using existing landmarks, lamp posts, trees or other Owner property for support of fencing is strictly prohibited unless a written waiver is obtained from Owner's Representative.
2. Use of ribbon, snow fence, chicken wire, rope, and wooden barricades as fencing is prohibited.
3. Fencing shall be maintained in an "as-installed" condition throughout the life of the project.
4. The Contractor may use used fencing provided it is in good condition and is satisfactory to the Owner's Representative.

c. Preserving and Protecting Existing Vegetation:**[add as required]**

1. Protection and compensation for damages:
2. Trees and shrubs within work area designated to remain shall be protected from damage during construction by fixed chain link fencing or armoring as indicated on Drawings or specified herein. Plant protection devices shall be installed before work has begun and shall be maintained for duration of work unless otherwise directed by Owner's Representative.

**[For Kansas City, Rolla and St. Louis projects add paragraph (2) below]**

1. In the event that damage(s) to the Owner's trees, shrubs or vegetation occurs as a result of the Contractor's unauthorized operations, the Contractor shall pay or allow to the Owner compensation for said damage(s). Compensation shall be determined by the Owner's Representative using the "Valuation of Landscape Trees, Shrubs, and other Plants" as published by the International Society of Arboriculture, as last revised.

**[For Columbia projects delete paragraphs 4, 5, and 8 below]**

1. Plants within work area designated for removal shall be removed by Contractor.
2. To prevent compaction of soil over tree roots, vehicles or equipment shall not at any time park or travel over, nor shall any materials be stored within drip line of trees designated to remain.
3. Area within drip line of trees and shrubs shall be protected from work area by use of a standard 60" high woven plastic or woven wire fence mounted on standard steel posts set not more than 10‘ apart. Tree protection shall be removed during work in area of protection only when necessary to perform grading and other work required by Drawings and only as authorized by Owner's Representative.
4. Only minimal grading or disturbance will be allowed to area within and adjacent to drip line of trees or shrubs designated to remain. Contractor shall obtain approval from Owner's Representative prior to starting any grading work in these areas. Unnecessary cutting of plant roots shall not be permitted. The Contractor shall stop work immediately and shall notify Owner’s Representative immediately if root system is exposed or if any roots over 1 ½” in diameter are encountered. Roots exposed and/or damaged during construction shall be immediately cut off cleanly behind exposed or damaged area, and cut surface treated in accordance with established horticultural standards and covered with top soil.
5. Owner's Representative will stop work immediately when proper measures are not being employed to protect trees and shrubs. Contractor will be notified to resume work after required protection measures are implemented.
6. Pruning of limbs necessary to repair damage or provide clearance for work shall be **[for Columbia Campus projects insert - done by the MU Landscape Services Department]** done by approved, trained tree maintenance personnel at the direction of the Owner’s Representative. Limbs shall be cut off cleanly and cut surfaces treated according to established horticultural standards.
7. Contractor shall repair tire ruts and other damages to existing lawn areas. Repairs shall match surrounding area.

10. SUBSTITUTIONS and EQUALS

**[Choose one of the following sections and allow a minimum of 4 weeks if limiting substitutions to the bid phase only.]**

a. Substitutions are defined in General Conditions article 3.11.8 for and Equals are defined General Conditions Article 3.12 .

b. Substitutions and/or Equals of the item(s) listed below will be allowed only prior to receipt of bids provided that a written request for approval has been received by both the Architect and the Owner at least ten calendar days prior to the date for receipt of Bids. All other substitution and/or Equals items shall follow the procedures set forth in the General Conditions.

Item Specification Section

To be considered, bidder’s proposal shall include a complete description of the proposed substitution and/or equal and a comparison of significant qualities of the proposed substitution and/or equal with those specified including drawings, performance and test data, and other information necessary for an evaluation. The Architect's decision on the approval or disapproval of a proposed substitution and/or equal shall be final.

b. Use of materials, products or equipment other than those named and described in the Contract Documents are substitutions and/or equal. Substitutions and/or equals of any item described in the Contract Documents will be allowed only prior to the receipt of bids provided that a request for approval has been received by both the Architect and the Owner at least ten calendar days prior to the date for receipt of Bids. To be considered, bidder’s proposal shall include a complete description of the proposed substitution and/or equal and a comparison of significant qualities of the proposed substitution and/or equal with those specified including drawings, performance and test data, and other information necessary for an evaluation. The Architect's decision on the approval or disapproval of a proposed substitution and/or equal shall be final.

1. Use of materials, products or equipment other than those named and described in the Contract Documents are substitutions and/or equal. Substitutions and/or equals submitted during the bidding period shall be received by both the Architect and the Owner at least ten calendar days prior to the date for receipt of bids. To be considered, bidder’s proposal shall include a complete description of the proposed substitution and/or equal and a comparison of significant qualities of the proposed substitution and/or equal with those specified including drawings, performance and test data, and other information necessary for an evaluation. The Architect's decision on the approval or disapproval of a proposed substitution and/or equal shall be final.
2. If the Architect and Owner approve a proposed substitution prior to receipt of Bids, such approval will be set forth in an Addendum. Bidders shall not rely upon approval made in any other manner.

**[Use the following paragraph if any sole source items are incorporated into the design. Renumber paragraph as appropriate.]**

c. No substitutions and/or equal will be allowed for the following items:

Item Specification Section

Lock Cylinders [Best] 08710

**[List of items as approved by the Project Manager.]**

11. CODES AND STANDARDS

The Contractor shall comply with applicable codes and standards as listed in General Conditions. The following codes and standards shall also apply:

**[Use a. Where applicable.]**

a. City of Columbia - Sewer Line Installation Standards - Department of Public Works

“All sanitary sewer construction shall be in accordance with the City of Columbia Specifications and Standards and in conformance with the rules and regulations of the Missouri Clean Water Commission.”

a. City of Kansas City - Water, Storm, and Sanitary Sewer Standards - Department of Public Works.

a. City of Rolla - Water, Storm, and Sanitary Sewer Standards - Department of Public Works.

1. St. Louis County - Storm and Sanitary Sewer Standards - Metropolitan Sewer District.
2. St. Louis County - Water Standards - St. Louis County Water Division.

**[List additional codes and standards below that project may require in addition to those listed in the General Conditions Article 13. Delete paragraph if no additional codes and standards apply.]**

1. PERMITS

[Permits for work on UM property are typically not required. However, permits are necessary for work on or along other Owner’s property and for installation of boilers and pressure vessels. Ask the Project Manager if applicable.]

Before commencement of Boilers, Water Heaters or Pressure Vessels the Contractor must obtain an installation permit from the State of Missouri, Division of Fire Safety, Boiler and Pressure Unit as required by 11 CSR 40-2.010 through 11 CSR 40-2.065. The permit applications are available at <http://www.dfs.dps.mo.gov/programs/bpv/> .

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13. SPECIALTIES

**[List anything particular about the project, such as Owner furnished materials, closing public streets, specialty requirements, or items not germane to other Special Conditions paragraphs. Delete if not applicable.]**

**[On Columbia Campus, Retain one applicable topsoil paragraph below.**]

a. Owner furnished topsoil: **[Default, include as directed by the Project Manager]** The contractor shall place Owner provided topsoil and grade to the finish elevation as indicated in the contract. The Owner will deliver the topsoil to the project site in the quantity required.  The contractor is required to notify the Owner a minimum of five working days in advance of the needed topsoil.  Topsoil shall be placed with rubber tracked equipment to minimize compaction. Placement shall be sequenced to minimize compaction and damage to the topsoil. Topsoil or subsoil damaged, contaminated, or compacted during topsoil placement shall be repaired or replaced as directed by the Owner’s Representative. Hand work shall be required next to adjacent structures and around utilities. Erosion control measures shall be maintained throughout and after topsoil placement.

1. The sub-grade is to be left at minus six inches (6”) in all areas unless indicated otherwise.  All planting bed sub-grades are to be left a minus eighteen inches (18”).  The contractor is to remove all deleterious material from the sub-grade prior to placing topsoil.   All subgrade areas shall contain at least 6” of subsoil, (ie. cover clean rock backfilled areas). All subgrade areas shall be “ripped” a minimum of 6” deep and a maximum of 12” apart in opposite directions with minimal tire traffic to follow. All exposed deleterious material and unacceptable rock shall be removed.
2. The contractor shall adjust all yard boxes valve boxes, pull boxes, cleanouts, and manhole lid rings etc. (includes irrigation, sewers, water and electric), to the indicated finish grade.
3. Final plantings will be by the Owner.  The Owner will water and maintain all seed, sod and landscaping.

a. Owner furnished topsoil:  The contractor shall place Owner provided topsoil and grade to the finish elevation as defined in the contract.  The contractor will load and haul topsoil from the Owner’s stockpile located within two (2) miles of the project site. The contractor is required to notify the Owner a minimum of five working days in advance of the needed topsoil.  Topsoil shall be placed with rubber tracked equipment to minimize compaction. Placement shall be sequenced to minimize compaction and damage to the topsoil. Topsoil or subsoil damaged, contaminated, or compacted during topsoil placement shall be repaired or replaced as directed by the Owner’s Representative. Hand work shall be required next to adjacent structures and around utilities. Erosion control measures shall be maintained throughout and after topsoil placement.

1. The sub-grade is to be left at minus six inches (6”) in all areas unless indicated otherwise.  All planting bed sub-grades are to be left a minus eighteen inches (18”).  The contractor is to remove all deleterious material from the sub-grade prior to placing topsoil. All subgrade areas shall contain at least 6” of subsoil, (ie. cover clean rock backfilled areas). All subgrade areas shall be “ripped” a minimum of 6” deep and a maximum of 12” apart in opposite directions with minimal tire traffic to follow. All exposed deleterious material and unacceptable rock shall be removed.
2. The contractor shall adjust all yard boxes valve boxes, pull boxes, cleanouts, and manhole lid rings etc. (includes irrigation, sewers, water and electric), to the indicated finish grade.
3. Final plantings will be by the Owner.  The Owner will water and maintain all seed, sod and landscaping.

a. Owner furnished topsoil:  The Owner will place the topsoil and provide final grade.  The contractor shall rough grade to the following specification:

1. The sub-grade is to be left at minus six inches (6”) in all areas unless indicated otherwise.  All planting bed sub-grades are to be left a minus eighteen inches (18”).  The contractor is to remove all deleterious material from the sub-grade prior to placing topsoil. All subgrade areas shall contain at least 6” of subsoil, (ie. cover clean rock backfilled areas). All subgrade areas shall be “ripped” a minimum of 6” deep and a maximum of 12” apart in opposite directions with minimal tire traffic to follow. All exposed deleterious material and unacceptable rock shall be removed.
2. The contractor shall adjust all yard boxes valve boxes, pull boxes, cleanouts, and manhole lid rings etc. (includes irrigation, sewers, water and electric), to the indicated finish grade.
3. Final plantings will be by the Owner.  The Owner will water and maintain all seed, sod and landscaping.

14. PRE-BID INSPECTION

All pre-bid inspections of work areas shall be scheduled with pre-bid inspection guide, telephone: **[Insert as directed by the Project Manager, for Columbia Campus projects use (573) 882-2228]**.

1. ROOF WARRANTY REQUIREMENT
2. The Contractor shall submit, before issuance of the "Notice to Proceed", a copy of University of Missouri Roof System Manufacturer's Certification, which shall be manually signed by an authorized representative of Manufacturer of each proposed roofing system. Certification shall have original signature. **[Use for roofing installation projects. Not applicable for new buildings and major renovation projects. As Project Manager for clarification.]**
3. The Contractor shall submit, before the first progress payment, a copy of University of Missouri Roof System Manufacturer's Certification, which shall be manually signed by an authorized representative of Manufacturer of each proposed roofing system. Certification shall have original signature. **[Use for new buildings and major renovation projects. As Project Manager for clarification.]**
4. Following final inspection and acceptance of the roofing system(s) by the Owner and the roofing system manufacturer(s), the Contractor shall submit a manually signed standard warranty agreement provided and executed by the roofing system manufacturer for each roofing system provided. Standard warranty agreement(s) shall be of the duration specified in Division 7.
5. University of Missouri three (3) year Contractor’s Roofing/Flashing/ Sheetmetal Guarantee shall be signed by the roofing contractor after final inspection and acceptance of each roofing system by Manufacturer and by Owner.
6. The Roofing contractor or subcontractor shall provide the Owner with an Application for a Roof Warranty.

**[Or use for existing roofs.]**

1. Owner has an existing roof warranty on roof of \_\_\_\_\_\_ and is included at the end of this section. The Contractor shall verify roofing manufacturer and warranty provider. The Contractor shall use a licensed applicator of existing roofing system to make and repair roof penetrations in order for the Owner's existing warranty to remain in full force and effect.

Roof System Manufacturer:

Name

Roof Type:

Installer:

Manufacturer’s Warranty:

Substantial Completion:

Expiration Date:

16. MODIFICATIONS TO INFORMATION TO BIDDERS

a. Information to Bidders:

**[Insert 1 below on projects greater than $500,000]**

(1) Referenced Information to Bidders, Page IFB/5.

Add new Article 15.8.5 as follows:

**15.8.5** Within 48 hours of the receipt of bids, the apparent low bidder shall submit to the UM Executive Director of Facilities Planning and Development an “Affidavit of Supplier Diversity Participation” for every diverse subcontractor or supplier the bidder intends to award work to on the contract. The affidavit will be signed by both the bidder and the diverse firm.

17. MODIFICATION TO INFORMATION FOR BIDDERS: BIDDERS STATEMENT OF QUALIFICATIONS

**[Include on Major and Complex projects as directed by the Project Manager]**

a. Information For Bidders

(1) Reference: Information for Bidders, Article 8.4

Insert new Article 8.4 to read as follows:

In addition to the Bidder’s Statement of Qualifications, the Bidder must also submit evidence and meet the following qualifications:

The project requires the services of a prime contractor who has demonstrated success in completing process/power plant work in an operating plant environment with little or no interruption of plant operations.

(a) MINIMUM QUALIFICATIONS

(i) The schedule for the project is aggressive and requires a contractor with a successful track record of managing projects with average monthly expenditures of more than $1-million **[Adjust dollar total as necessary/applicable]**

(ii) Successful completion of one project of similar type and scope.

(iii) Successful completion of at least three projects of $15-million or greater value. Submit references for the three most recent projects over $15-million in value. **[Adjust dollar total as applicable]**

(iv) Mechanical Contractor must have carried a PP (Power Piping) Stamp for the last three years. **[Applicable for Power Plant work. Adjust for individual project]**

(v) Electrical Contractor must have extensive experience installing 13.8-kV equipment and cable. **[Applicable for High Voltage work. Adjust for individual project]**

(vi) Successful and sustained track record of effectively utilizing project/schedule management software for at least the last two years.

(b) QUALIFICATION SUBMITTALS

(i) Submitted qualification packages should include the following information:

* Project and Schedule

- Management Experience managing projects with equal or greater schedule demands.

- Demonstrated and consistent on-time completion success

* Project Organization / Personnel

- Key project team members and their resume

- Project team roles and responsibilities of team members

- Reporting/accountability procedures

- Quality control program and procedures

* Organizational Support

- Home office support

- Labor and subcontractor relations

- Submittal processing procedures

- Material ordering/tracking/delivery

Procedures

- Cost accounting support

- Financial stability/capacity

- Record of mentoring and supporting Supplier Diversity Subcontractor Participation

(ii) Packages must include the following items:

* Corporate Organizational Charts
* Project Organizational Charts
* Summary of Similar Projects
* Client References
* Resumes – resumes for each key individual proposed for the project, include: position in the firm, project responsibility, education, license or registration and relevant experience over the last five years.
* Financial Statements and/or Evidence of Bonding Capacity
* Sample progress reports and schedules
* Brief Narratives indicating how the Contractor intends to manage this project, including subcontractors.

(c) QUALIFICATION PROCEDURE

(i) All qualification information and supporting materials must be submitted with your bid. Following the bid date, the Owner reserves the right to request additional information material to evaluate qualifications. Failure of the Contractor to demonstrate their ability to comply with these qualifications may be grounds for the Owner not recommending aware of the Contract.

18. MODIFICATIONS TO GENERAL CONDITIONS

a. General Conditions:

[Use following for projects less than $100,000 construction cost or if project schedule is less than ninety (90) calendar days as directed by the Project Manager.]

(1) Reference: General Conditions, Article 3.13.5

DELETE last three sentences of existing article 3.13.5. INSERT the following sentence to read as follows:

No payments will be made until all submittals have been received and approved by Architect.

**[Use following for projects less than $100,000 construction cost and project schedule is less than ninety (90) calendar days; and the project isn’t a new building or addition as directed by the Project Manager.]**

1. In lieu of the requirements of General Conditions Article 11.6. to provide All Builder’s Risk, the Contractor may provide an Installation Floater.

**[For a project were Asbestos work is specified, Asbestos Liability Insurance is required. Add the following as approved by the Project Manager]**

(1) Add to the Insurance Requirements in General Conditions Article 11, Asbestos Liability Coverage, for specified asbestos abatement in the contract documents, in a limit no less than $1,000,000 combined single limit, per occurrence and aggregate, for both bodily injury and property damage combined. The Owner will accept coverage from the Asbestos Removal Subcontractor in lieu of the General Contractor subject to all requirements set forth in article 11.

**[For a project were hazardous waste disposal is specified, Pollution Liability Coverage is required. Add the following as approved by the Project Manager]**

(1) Add to the Insurance Requirements in General Conditions Article 11, Pollution Liability Coverage, for specified hazardous waste disposal in the contract documents, in a limit no less than $1,000,000 combined single limit, per occurrence and aggregate, for both bodily injury and property damage combined. The Owner will accept coverage from the Hazardous Waste Disposal Subcontractor and/or Hauler in lieu of the General Contractor subject to all requirements set forth in article 11.

**[For a project were special hazards exist, Insurance covering Special Hazards is required. Add the following as approved by the Project Manager]**

(1) The Commercial General Liability policy or policies specified in Article 11 shall provide coverage for special hazards, where they exist, such as, but not limited to, the operation of material hoist, blasting or other use of explosives, and damage to underground property.

[For major projects, the Owner may increase the basic project General Liability Insurance requirements.]

(1) Reference: General Conditions Article 11.2.1 Commercial General Liability.

**For projects with Contract Value $5,000,000 to $10,000,000**

Delete in the first sentence of 11.2.1: “$2,000,000 per occurrence, $5,000,000 in general aggregate, $5,000,000 products and completed operations aggregate and $1,000,000 personal injury and advertising injury”

and insert: “$2,000,000 per occurrence, $10,000,000 in general aggregate, $10,000,000 products and completed operations aggregate and $1,000,000 personal injury and advertising injury”

**For projects with Contract Value $10,000,000 to $20,000,000**

Delete in the first sentence of 11.2.1: “$2,000,000 per occurrence, $5,000,000 in general aggregate, $5,000,000 products and completed operations aggregate and $1,000,000 personal injury and advertising injury”

and insert: “$2,000,000 per occurrence, $15,000,000 in general aggregate, $15,000,000 products and completed operations aggregate and $1,000,000 personal injury and advertising injury”

**For projects with Contract Value greater than $20,000,000**

The Project Manager will contact the UM Director Facilities Planning & Development for a determination.

19. PROJECT SCHEDULING

The project scheduling specification for the project are included immediately after the Special Conditions. For this project the Contractor shall meet the following scheduling requirements.

**[Use one of scheduling options below as directed by the Project Manager and edit to suit project if necessary. Schedule Spec Selected shall be included immediately after the Special Conditions]**

Option 1: Contractor Schedule (Small Projects only) – Contractor is responsible for the schedule and must comply with the Owner’s requirements. See Contractor Schedule Specification included in these documents.

Option 2: Project Controlled Scheduling- Contractor is responsible for the schedule. However, University shall hire a Third Party Scheduling Consultant, at the University’s expense. See Project Controlled Scheduling Specification included in these documents.

Option 3: Contractor Schedule – Contractor is responsible for the schedule and he may provide with in-house personnel or hire a third party scheduling consultant. See Contractor Schedule Specification included in these documents.

Option 4: Contractor Schedule with Third Party Scheduling Consultant – Contractor is responsible for the schedule, but the Contractor will hire a Third Party Scheduling Consultant, approved by the Owner, at the Contractor’s expense. See Contractor Schedule with Third Party Scheduling Consultant Specification included in these documents.

20. PROJECT COORDINATION

**[Include only if directed by the Project Manager.]**

a. Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation.

(1) Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.

(2) Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.

(3) Make provisions to accommodate items scheduled for later installation.

b. Coordination Drawings: Within **\_\_\_\_ ( ) days** of Notice to Proceed provide coordination drawings for the integration of the Work, including work first shown in detail on shop drawings or product data. Show sequencing and relationship of separate units of work which must interface in a restricted manner to fit in the space provided, or function as indicated.

(1) Show the interrelationship of components shown on separate shop drawings.

(2) Indicate required installation sequences.

(3) Call attention in advance to Architect of any dimensional or detail information needed to complete the coordination drawings.

21. PROJECT PARTNERING

**[Include only if directed by the Project Manager.]**

a. Covenant of Good Faith and Fair Dealing:

This contract imposes an obligation of good faith and fair dealing in its performance and enforcement. The Contractor, University of Missouri, and Consultants, with a positive commitment to honesty and integrity, agree to the following mutual duties:

(1) Each will function within the laws and statutes applicable to their duties and responsibilities.

(2) Each will assist in the other’s performance.

(3) Each will avoid hindering the other’s performance.

(4) Each will proceed to fulfill its obligations diligently.

(5) Each will cooperate in the common endeavor of the contract.

b. Voluntary Partnering:

(1) The University of Missouri intends to encourage the foundation of a cohesive partnership with the Consultants, the Contractor and its principle subcontractors and suppliers. This partnership will be structured to draw on the strengths of each organization to identify and achieve reciprocal goals. The objectives are effective and efficient contract performance and completion within budget, on schedule and in accordance with the plans and specifications.

(2) This partnership will be bilateral in makeup and participation will be totally voluntary. Any cost associated with effectuating this Partnering will be agreed to by all parties and will be shared equally, except for the meeting room cost and meals associated with the initial partnering meeting, which will be paid by the University.

(3) To implement this partner initiative prior to starting of work and prior to the preconstruction meeting, the Consultants, the Contractor’s management personnel and the Owner’s Representative will initiate a partnering development seminar/team building workshop. Project personnel working with the assistance of the Owner’s Representative will make arrangements to determine attendees at the workshop, agenda of the workshop, duration, and location. Persons required to be in attendance will be the Owner’s Representative, University project personnel, project architects and engineers, the Contractor’s on-site Project Manager, project scheduler, and key project supervision personnel of both the prime and principle subcontractors and suppliers. The Contractor and University will also be required to have executive managers and company principals in attendance at the first meeting.

(4) The establishment of a partnership charter on the project shall not change the legal relationship of the parties to the contract nor relieve any party or the terms of the contract.

(5) Additional partnering sessions and events will be encouraged throughout the project duration to nurture the process, reward successes, and continuously improve the process and its inherent benefits.

22. VALUE ENGINEERING

**[Include only if directed by the Project Manager.]**

a. After execution of the contract with the successful contractor, the Owner will entertain value engineering initiatives from the contractor. These initiatives may include modifications to the drawings and specifications. The Owner will not entertain modifications that affect the functions or characteristics of the project, including but not limited to: service life of systems or components, economy of operations, ease of maintenance, appearance, or design and safety standards.

1. Once a value initiative is recommended to the Owner’s Representative, the Owner’s Representative will determine if the proposal deserves further merit. If not, the Contractor will be notified the proposal has not been accepted. If the Owner’s Representative determines the proposal should be considered, a team will be assembled consisting of the Owner’s Representative, Architect, Contractor and other parties that may be necessary to appropriately review the initiative. The team will review the initiative and determine whether to proceed with a value engineering joint proposal. The Owner and Contractor must jointly agree to the merit of any value engineering initiative before the preparation of the value engineering joint proposal. The Owner will not be liable for the failure to accept any value engineering initiative.
2. If the Owner and the Contractor jointly agree to the initiative, the Contractor shall prepare the value engineering joint proposal. The proposal shall contain, at a minimum, the following:
   * 1. An itemized list of existing contract requirements recommended to be changed and proposed language for modification.
     2. All construction documents and computations necessary for a thorough and expeditious evaluation.

(3) A detailed estimate of the cost of performing the work under the existing contract and under the proposed changes, including the cost of implementing the changes.

(4) Estimate of costs the Owner may incur related to the proposed changes such as maintenance and operating cost.

(5) Changes to the project schedule.

1. Estimate of any other project cost that may be incurred to develop the recommended changes, including Owner’s professional fees.
2. The Contractor shall submit the value engineering joint proposal to the Owner’s Representative. The Contractor will be notified if the proposals have been accepted or if clarifications and/or negotiations are necessary.

e. If the proposal is rejected, the issue is dismissed and each party is responsible for their own cost incurred.

f. If the proposal is accepted in whole or in part, the Owner’s Representative will prepare a Change Order to implement the proposal in the project.

1. The net savings for the proposal will be calculated by subtracting from the total construction cost savings, the Owner’s cost associated with the proposal including professional fees. The Owner will be the sole judge of the acceptability of a proposal, and the estimated net savings from the adoption of all or any part of the proposal. The Owner reserves the right to disregard the contract bid prices and/or the Contractor’s breakdown of cost, if, in the Owner’s judgment, such prices do not represent a fair measure of the value of the work to be performed or deleted.
2. Savings resulting solely from the elimination or reduction in quantity of a bid item will not be considered as a value engineering initiative.
3. Value Engineering initiatives will only be considered by the Owner within the first 150 days of the contract.
4. For those initiatives accepted by the Owner, the Contractor will be paid 50 percent of the net savings.
5. Upon acceptance of a value engineering joint proposal, any restriction imposed by the Contractor on its use or on disclosure of the information shall become void, and the Owner thereafter shall have the right to use all or any part of the proposal without obligation or compensation of any kind to the Contractor.

23. BUILDING SYSTEM COMMISSIONING

**[Include on Columbia Campus projects as directed by the Project Manager.]**

1. Contractor shall provide all personnel and equipment required to complete the commissioning activities referenced in the Commissioning Plan. The requirements of the commissioning plan shall be completed in their entirety before substantial completion and submitted as referenced in the Closeout Log.
2. The contractor shall designate a competent person, separate from the superintendent or Project Manager, to act as the contractor’s commissioning coordinator. The commissioning coordinator is responsible for planning, scheduling, coordinating, conducting and verifying all commissioning activities required by the commissioning plan and ensuring all building systems are complete, operable and ready for use by the Owner. At a minimum, building ventilation systems, chilled/hot water generation systems, hydronic distribution systems, power distributions systems and fire detection and alarm systems, as applicable.

**[On Columbia Campus projects, the log is provided by the Owner. On other projects, the log will be provided by the Consultant (if a part of Consultant services) or a commissioning consultant hired directly by the Owner.]**

24. MECHANICAL, ELECTRICAL, PLUMBING (MEP) PRE-INSTALLATION MEETING(S)

**[Include on Columbia Campus projects or as directed by the Project Manager]**

a. Before the start of MEP installation, the Owner’s Representative will convene an MEP pre-installation meeting. Meeting participants to include contractor (including MEP subcontractors), Owner’s Representative and additional contractor and University operational staff invited by the Owner’s Representative. Topics will include underground rough-ins, steam piping, chilled water piping, sprinkler piping, hot water piping, electrical system, duct, telephone/data wiring, control wiring. Additional meetings will be conducted as required for the review of coordination drawings and scope specific installations. Cross section drawings of corridor ceilings and other congested areas will be of highest priority and will be reviewed prior to the start of installations in the affected areas. Meeting minutes and sign-up sheet will be transcribed by contractor and distributed to attendees.

25. COST BREAKOUT FOR OWNER’S ACCOUNTING PURPOSES

**[Include if directed by the Project Manager.]**

1. Contractor will be required to submit the following cost breakouts on company letterhead prior to the end of the next business day following the bid opening.
   * 1. Cost Break Out #1 (Briefly describe)
     2. Cost Break Out #2 (Briefly describe)

26. PROJECT MANAGEMENT/COMMUNICATION REQUIREMENTS

**[Include on MAJOR projects as directed by the Project Manager. Edit or delete paragraphs as applicable for the project.]**

a. The Contractor shall be represented at the site by both a competent full-time Project Manager and a full-time, competent superintendent with no other assigned duties or responsibilities from the beginning of the work until its final acceptance, unless otherwise permitted by the Owner’s Representative. The superintendent for the Contractor for the general building work shall exercise general supervision over all subcontractors of any tier engaged on the work with decision-making authority of the Contractor.

b. The Contractor shall use a current industry standard (Primavera, Microsoft Project, etc.) project scheduling software which provides as a minimum: Critical paths, milestones, estimated and actual start and completion dates, scheduled vs. actual progress, and detailed task and subtask breakdown. The following schedules shall be provided as a minimum and kept current: Overall project schedule, four- (4-) week look-ahead, and two- (2-) week look-ahead.

c. The Contractor shall furnish on-site Internet access for use by his Project Manager and superintendent. .  The contractor shall utilize the Owner’s secure information sharing system for submittals, construction payment process, change orders, RFI’s/ASI’s, O&M manuals and all other project manual requirements as directed by the Owner’s Representative **[edit per the PM to fit the project requirements and/or campus method of communicating, and file storage/retrieval systems]**.   Field staff are also required to utilize this software as directed by the Owner’s Representative.

d. The Contractor shall provide at least two (2) job site FM handheld communication radios (walkie-talkies) for use by the on-site superintendent and the Owner’s Representative or the Contractor shall provide his on-site superintendent with a handheld cellular telephone.

27. Safety Precautions and Programs

**[Include as directed by the Project Manager]**

1. The Bidder’s Statement of Qualifications includes a requirement that the Bidder provide its Worker’s Compensation Experience Modification Rates (EMR) and Incidence Rates for the three recent years. The Bidder shall also include the EMR and Incidence Rates of listed major subcontractors on the Bid for Lump Sum Contract. If the EMR exceeds 1 or the Incidence Rate exceeds 13, the Contractor or major subcontractor shall take additional safety measures including, but not limited to, developing a site specific safety plan and assigning a Safety Manager to the Project to perform inspections on a schedule as determined acceptable by the Owner with written reports to be submitted to the Owner. The Owner reserves the right to reject a Bidder or major subcontractor whose rates exceed these stated rates.
2. The contractor shall provide Emergency Contact Information for the Contractor’s on-site staff and home office management as well as contact information for all major subcontractor personnel. This information shall contain business and personal phone numbers for each individual for contact during or after hours in case of an emergency. This information shall be submitted within 15 days of the Notice to Proceed.

28. HOT WORK PERMITTING AND GENERAL REQUIREMENTS

**[Include this section on projects where Hot Work is expected to be performed]**

Hot work Requirements: The contractor shall comply with the following hot work requirements and the requirements of the International Fire Code and 2014NFPA 51B.

a. Hot work shall be defined as any work involving burning, welding, grinding, cutting, or similar operations that are capable of initiating fires or explosions.

1. The Contractor shall utilize the hot work permit decision tree and permit provided in the 2014 NFPA 51B for all Hot Work operations.
2. A hot work permit shall be used on all hot work performed outside a designated hot work area. The hot work permit shall be posted and clearly visible within proximity of the hot work area. The hot work permit authorizing individual (PAI) shall be as designated by the Contractor.
3. Notify the Owner’s Representative 24 hours prior to starting hot work in buildings with operational fire alarm or fire suppression systems. The Owner’s Representative will coordinate the appropriate system outage with Campus Maintenance personnel.
4. Unless otherwise instructed by the Owner’s Representative, the Contractor shall post a copy of each completed hot work permit to the Owner’s project management file system the following business day.
5. [Optional section] *Special hot work requirements: Use thermal imaging cameras after hot work operations- describe criteria in detail (for historically significant buildings of wood construction); designate additional fire watch monitoring beyond the NFPA 30 minute post hot work requirement (project has a greater potential for reflash or smoldering fire due to concealed combustible building elements, etc.).*

29. GENERAL REQUIREMENTS FOR CRANE AND HOISTING OPERATIONS

**[Include this section when steel erection, hoisting, or other crane operations will be necessary to complete the project]**

All crane and hoisting operations shall be performed in compliance with OSHA 29 CFR 1926. All Operators, riggers, and signal persons must have the proper qualifications and training necessary to perform the intended hoisting activities for this project.

* 1. Only fully certified and evaluated Operators shall perform equipment operations. Operators in an “Operator in Training” status shall not be used.
  2. Submittal requirements:

1. Submit copies of Operator certifications, licenses, and evaluations to the Owners Representative.
2. Submit Rigger and Signal Person qualifications to the Owners Representative.
3. Unless otherwise directed by the Owners Representative, submit a lift plan and conduct a lift coordination meeting for hoisting or crane operations for any lift greater than 2,000 pounds, or for any multi pick lift. Include protective measures for existing underground utilities, occupied buildings, pedestrian and vehicle pathways, adjacent buildings and overhead power lines. If the lift is to occur over an occupied building, provide a registered structural engineer’s review and verification that the building can resist the impact of a dropped load for the intended lift. If evacuation of an occupied building is necessary to conduct the lift, the decision for building evacuation or scheduling the lift for off-hours will be determined by the Owner.

30. CONSTRUCTION WASTE MANAGEMENT (for projects without a Division 02 specification)

The goal of Construction Waste Management is to divert waste from the sanitary landfill.  This shall be accomplished through reuse, recycling and/or salvage of non-hazardous construction and demolition debris to the greatest extent practical.  Track and report all efforts related to reuse, recycling and/or salvage materials from the project (including clean fill material).  Report all material types and weights, where material was diverted, type of diversion, documentation of diversion (eg: waste or recycling tickets), and applicable dates.  In order to calculate the diversion percentage, total weights of all non-hazardous landfill material must be reported.  This information shall be updated monthly utilizing the [Construction Waste Management Worksheet](https://collaborate.umsystem.edu/sites/fpd/public/docs/Const%20Waste%20Management%20Worksheet.xls?d=w2b743fece36d467aa1593d8b82d6e47f) provided here: [for MU] <http://www.cf.missouri.edu/cf/pdc/contractor_information>.   Copies of all applicable receipts, tickets and tracking logs shall be uploaded to the Owner’s information sharing website or reported as required by the Construction Project Manager*.*

(A summary worksheet is required prior to substantial completion).

31. WARRANTY WALKTHROUGH

Contractor shall attend a walk-thru with the Owner at 11 months after acceptance to review and document any warranty items to be addressed as part of the 12 month warranty stated in article 3.1 of the General Conditions.

### END OF SECTION

Option #1 – Contractor Schedule

1. GENERAL
   1. Time is of the essence for this contract.

The time frames spelled out in this contract are essential to the success of this project. The University understands that effective schedule management, in accordance with the General Conditions and these Special Conditions is necessary to insure to that the critical milestone and end dates spelled out in the contract are achieved.

* 1. Related Documents  
     Drawings and general provisions of the Contract, including General Conditions’ Article 3.17 shall apply to this Section.
  2. Stakeholders

A Stakeholder is anyone with a stake in the outcome of the Project, including the University, the University Department utilizing the facility, the Design Professionals, the Contractor and subcontractors.

* 1. Weather
     1. Contractor acknowledges that there will be days in which work cannot be completed due to the weather, and that a certain number of these lost days are to be expected under normal weather conditions in Missouri.
     2. Rather than speculate as to what comprises “normal” weather at the location of the project, Contractor agrees that it will assume a total of 44 lost days due to weather over the course of a calendar year, and include same in its as planned schedule. For projects of less than a calendar year, lost weather days should be prorated for the months of construction in accordance with the following schedule.
     3. Anticipated weather days for allocation/proration only. For projects lasting 12 months or longer, the 44 days per year plus whatever additional months are included will constitute normal weather.

|  |  |  |  |
| --- | --- | --- | --- |
| Jan – 5 days | Feb – 5 days | Mar – 4 days | Apr – 4 days |
| May – 3 days | Jun – 3 days | Jul – 2 days | Aug – 2 days |
| Sep – 3 days | Oct – 4 days | Nov – 4 days | Dec – 5 days |

1. SCHEDULING PROCESS
   1. The intent of this section is to insure that a well-conceived plan, that addresses the milestone and completion dates spelled out in these documents, is developed with input from all stakeholders in the project. Input is limited to all reasonable requests that are consistent with the requirements of the contract documents, and do not prejudice the Contractor’s ability to perform its work consistent with the contract documents.  
      Further, the plan must be documented in an understandable format that allows for each stakeholder in the project to understand the plan for the construction and/or renovation contained in the Project.
   2. Contractor Requirements
      * 1. Schedule Development

Contractor shall prepare the Project Schedule using Primavera SureTrack or P3, Microsoft Project, Oracle P6, or other standard industry scheduling software, approved by the Owner’s Representative.

* + - 1. Schedule Development  
         Within 2 weeks of the NTP, contractor shall prepare a schedule, preferably in CPM format, but in detailed bar chart format at a minimum, that reflects the contractor’s and each subcontractors plan for performing the contract work.  
           
         Contractor shall review each major subcontractor’s schedule with the sub and obtain the subcontractor’s concurrence with the schedule, prior to submitting to the University.
      2. Schedule Updates.
         1. Schedule Updates will be conducted once a month, at a minimum.

Actual Start and Finish dates should be recorded regularly during the month. Percent Complete, or Remaining Duration shall be updated as of the data date, just prior to Contractor’s submittal of the update data.

* + - * 1. Contractor will copy the previous months schedule and will input update information into the new monthly update version.
        2. Contractor will meet with the Owner’s Representative to review the draft of the updated schedule. At this meeting, Owner’s Representative and Contractor will:

Review out of sequence progress, making adjustments as necessary,

Add any fragnets necessary to describe changes or other impacts to the project schedule and

Review the resultant critical and near critical paths to determine any impact of the occurrences encountered over the last month.

* + - 1. Schedule Narrative  
         After finalization of the update, the Contractor will prepare a Narrative that describes progress for the month, impacts to the schedule and an assessment as to the Contractor’s entitlement to a time extension for occurrences beyond its control during the month and submit in accordance with this Section.
      2. Progress Meetings
         1. Review the updated schedule at each monthly progress meeting. Payments to the Contractor may be suspended if the progress schedule is not adequately updated to reflect actual conditions.
         2. Submit progress schedules to subcontractors to permit coordinating their progress schedules to the general construction work. Include 4 week look ahead schedules to allow subs to focus on critical upcoming work.

1. CRITICAL PATH METHOD (CPM)
   1. This Section includes administrative and procedural requirements for the critical path method (CPM) of scheduling and reporting progress of the Work.
   2. Refer to the General and Special Conditions and the Agreement for definitions and specific dates of Contract Time.
   3. Critical Path Method (CPM): A method of planning and scheduling a construction project where activities are arranged based on activity relationships and network calculations determine when activities can be performed and the critical path of the Project.
   4. Critical Path: The longest continuous chain of activities through the network schedule that establishes the minimum overall project duration.
   5. Network Diagram: A graphic diagram of a network schedule, showing the activities and activity relationships.
   6. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling, the construction project. Activities included in a construction schedule consume time and resources.
   7. Critical activities are activities on the critical path.
   8. Predecessor activity is an activity that must be completed before a given activity can be started.
   9. Milestone: A key or critical point in time for reference or measurement.
   10. Float or Slack Time: The measure of leeway in activity performance. Accumulative float time is not for the exclusive use or benefit of the Owner or Contractor, but is a project resource available to both parties as needed to meet contract milestones and the completion date.
   11. Total float is herein defined as the measure of leeway in starting or completing an activity without adversely affecting the planned project completion date.
   12. Weather: Adverse weather that is normal for the area must be taken into account in the Contractor's Project Schedule. See 1.d.3, above.
   13. Force Majeure Event: Any event that delays the project but is beyond the control and/or contractual responsibility of either party.
   14. Schedule shall including the following, in addition to Contractor’s work.
       1. Phasing: Provide notations on the schedule to show how the sequence of the Work is affected by the following:
          * 1. Requirements for phased completion and milestone dates.
            2. Work by separate contractors.
            3. Work by the Owner.
            4. Coordination with existing construction.
            5. Limitations of continued occupancies.
            6. Uninterruptible services.
            7. Partial occupancy prior to Substantial Completion.
   15. Area Separations: Use Activity Codes to identify each major area of construction for each major portion of the Work. For the purposes of this Article, a "major area" is a story of construction, a separate building, or a similar significant construction element.
2. TIME EXTENSION REQUEST
   1. Refer to General Conditions of the Contract for Construction, Article 4.7 Claims for Additional Time.
   2. Changes or Other Impacts to the Contractor’s Work Plan  
      The Owner will consider and evaluate requests for time extensions due to changes or other events beyond the control of the Contractor on a monthly basis only, with the submission of the Contractor’s updated schedule, in conjunction with the monthly application for payment. The Update must include:
      * 1. An activity depicting the event(s) impacting the Contractors work plan shall be added to the CPM schedule, using the actual start date of the impact, along with actually required predecessors and successors.
        2. After the addition of the impact activity(ies), the Contractor will identify subsequent activities on the critical path, with finish to start relationships that can be realistically adjusted to overlap using good, standard construction practice.
           1. If the adjustments above result in the completion date being brought back within the contract time period, no adjustment will be made in the contract time.
           2. If the adjustments above still result in a completion date beyond the contract completion date, the delay shall be deemed excusable and the contract completion date shall be extended by the number of days indicated by the analysis.
           3. Contractor agrees to continue to utilize its best efforts to make up the time caused by the delays. However the Contractor is not expected to expend costs not contemplated in its contract, in making those efforts.
   3. Questions of compensability of any delays shall be held until the actual completion of the project. If the actual substantial completion date of the project based on excusable delays, excluding weather delays, exceeds the original contract completion date, AND there are no delays that are the responsibility of the contractor to consider, the delays days shall be considered compensable. The actual costs, if any, of the Contractor’s time sensitive jobsite supervision and general conditions costs, shall be quantified and a change order issued for these costs.

Option #2 – Project Controlled Scheduling

GENERAL

1. Time is of the essence for this contract.

The time frames spelled out in this contract are essential to the success of this project. The University understands that effective schedule management, in accordance with the General Conditions and these Special Conditions is necessary to insure to that the critical milestone and end dates spelled out in the contract are achieved.

1. Related Documents  
   Drawings and general provisions of the Contract, including General Conditions’ Article 3.17 shall apply to this Section.
2. Stakeholders

A Stakeholder is anyone with a stake in the outcome of the Project, including the University, the University Department utilizing the facility, the Design Professionals, the Contractor and subcontractors.

1. Weather
2. Contractor acknowledges that there will be days in which work cannot be completed due to the weather, and that a certain number of these lost days are to be expected under normal weather conditions in Missouri.
3. Rather than speculate as to what comprises “normal” weather at the location of the project, Contractor agrees that it will assume a total of 44 lost days due to weather over the course of a calendar year, and include same in its as planned schedule. For projects of less than a calendar year, lost weather days should be prorated for the months of construction in accordance with the following schedule.
4. Anticipated weather days for allocation/proration only. For projects lasting 12 months or longer, the 44 days per year plus whatever additional months are included will constitute normal weather.

|  |  |  |  |
| --- | --- | --- | --- |
| Jan – 5 days | Feb – 5 days | Mar – 4 days | Apr – 4 days |
| May – 3 days | Jun – 3 days | Jul – 2 days | Aug – 2 days |
| Sep – 3 days | Oct – 4 days | Nov – 4 days | Dec – 5 days |

SCHEDULING PROCESS

1. The intent of this section is to insure that a well-conceived plan, that addresses the milestone and completion dates spelled out in these documents, is developed with input from all stakeholders in the project. Input is limited to all reasonable requests that are consistent with the requirements of the contract documents, and do not prejudice the Contractor’s ability to perform its work consistent with the contract documents.  
   Further, the plan must be documented in an understandable format that allows for each stakeholder in the project to understand the plan for the construction and/or renovation contained in the Project.
2. Project Controlled Scheduling  
   The content (Activity Descriptions, Activity Codes, Durations, Predecessors and Successors) of the Project Schedule will be the responsibility of the Contractor. However, the University will provide the services of a Third Party Scheduling Consultant (TPSC), at the University’s expense, to prepare and maintain the CPM schedule program for the duration of the project. Upon Contractor’s compliance with the requirements listed below, TPSC will take responsibility for organizing the Project CPM schedule, which reflects the Contractor’s plan, using Primavera Project Planner (P3) or Oracle 6, in a manner that complies with this section of the Special Conditions.
3. Contractor Requirements
   * + 1. Schedule Development

Contractor shall fully cooperate with the TPSC Consultant to make personnel available to describe the Contractor’s plan for executing the work. Personnel shall be made available as noted for the series of meetings/working sessions listed below.

* + - 1. Schedule Strategy (Week 1-2)

Within 10 days of award, the Project Executive, Project Manager, Project Engineer(s) and Project Superintendent (Contractor Team) will meet with TPSC to establish the general plan and sequencing of the project. At this meeting, the Contractor Team will agree upon the overall work plan, commit to the level of detail to be included in the schedule, the number of activity codes necessary for effective project control, the necessity of cost loading and/or crew loading the schedule. It is anticipated that this meeting(s) will take between 2 and 4 hours.

* + - 1. Activity Identification and Logic Development (Weeks 3-4)

During the two weeks following the Strategy Meeting, Contractor will make the Project Team (minimum of Project Manager and Project Superintendent) available, up to ½ time, to identify the specific activities that will be included in the schedule and determine the specific logic that the contractor intends to follow in constructing the project. This effort is normally accomplished in a few ½ day sessions, with the TPSC facilitating the discussion and recording the plan. The Project Team will provide preliminary durations for all activities, including those of subcontractors. Final durations will be developed after receiving input from the major subcontractors and/or craft superintendents, during the Schedule Reconciliation Phase described below.

Contractor will provide TPSC with a complete submittal list, from which the TPSC and Project Team will determine which submittals and procurement activities are necessary to include in the CPM schedule in order to effectively manage the project.

* + - 1. Schedule Development (Weeks 5)  
         During Week #5 TPSC will produce a Preliminary Schedule “fragnet” or “subnet” that describes the work plan for the first 90 days of the project. This “fragnet” will be used to monitor the work on the project until the final schedule is prepared and accepted by the University and the Project Team.  
           
         By the end of week 5, the TPSC will have all of the identified activities, durations, logic and activity codes input into the schedule, ready to review with each major subcontractor and/or craft superintendent.  
           
         Contractor will distribute one full copy of the schedule and one copy of each individual subcontractors scheduled activities to each subcontractor for review.
      2. Subcontractor Review (Week 6)
      3. Schedule Reconciliation (Week 7)  
         Contractor will arrange a series of meetings with each major subcontractor and/or craft superintendent. Project Manager and/or Project Superintendent must be present at each meeting. Meetings should take between 1 to 2 hours, depending on the subcontractor’s scope, capability and work complexity. Upon completion of this series of meetings, each subcontractor’s reconciled schedule will be printed out and the subcontractor will sign the printout, signifying its commitment to performing in accordance with the reconciled schedule.
      4. Final Schedule Development (Week 8)  
         During this time frame, TPSC and Project Team will secure subcontractor commitment to the finished schedule. TPSC will finalize all agreed upon activity coding and resource loading. TPSC will print out the final schedule, including various “fragnets” for review by the entire Project Team, TPSC and the University, at a Schedule Finalization Meeting, to be held prior to final acceptance of the schedule by the entire Project Team.
      5. Schedule Updates.
         1. Schedule Updates will be conducted once a month, at a minimum. TPSC will provide Contractor with a “Schedule Update Form”, which contains blanks for Actual Start and Actual Finish dates, Percent Complete and Remaining Duration. Actual Start and Finish dates should be recorded regularly during the month. Percent Complete, or Remaining Duration shall be updated as of the data date, just prior to Contractor’s submittal of the update data.
         2. Contractor will submit completed update form to TPSC.
         3. TPSC will copy the previous months schedule and will input update information into the new monthly update version.
         4. TPSC will meet with Contractor to review the draft of the updated schedule. At this meeting, TPSC and Contractor will:

Review out of sequence progress, making adjustments as necessary,

Add any fragnets necessary to describe changes or other impacts to the project schedule and

Review the resultant critical and near critical paths to determine any impact of the occurrences encountered over the last month.

* + - 1. Schedule Narrative  
         After finalization of the update, the TPSC will prepare a Narrative that describes progress for the month, impacts to the schedule and an assessment as to the Contractor’s entitlement to a time extension for occurrences beyond its control during the month and submit in accordance with this Section.
      2. Progress Meetings
         1. Review the updated schedule at each monthly progress meeting. Payments to the Contractor may be suspended if the progress schedule is not adequately updated to reflect actual conditions.
         2. Submit progress schedules to subcontractors to permit coordinating their progress schedules to the general construction work. Include 4 week look ahead schedules to allow subs to focus on critical upcoming work.

CRITICAL PATH METHOD (CPM)

1. This Section includes administrative and procedural requirements for the critical path method (CPM) of scheduling and reporting progress of the Work.
2. Refer to the General and Special Conditions and the Agreement for definitions and specific dates of Contract Time.
3. Critical Path Method (CPM): A method of planning and scheduling a construction project where activities are arranged based on activity relationships and network calculations determine when activities can be performed and the critical path of the Project.
   1. Critical Path: The longest continuous chain of activities through the network schedule that establishes the minimum overall project duration.
   2. Network Diagram: A graphic diagram of a network schedule, showing the activities and activity relationships.
   3. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling, the construction project. Activities included in a construction schedule consume time and resources.
   4. Critical activities are activities on the critical path.
   5. Predecessor activity is an activity that must be completed before a given activity can be started.
   6. Milestone: A key or critical point in time for reference or measurement.
   7. Float or Slack Time: The measure of leeway in activity performance. Accumulative float time is not for the exclusive use or benefit of the Owner or Contractor, but is a project resource available to both parties as needed to meet contract milestones and the completion date.
   8. Total float is herein defined as the measure of leeway in starting or completing an activity without adversely affecting the planned project completion date.
   9. Weather: Adverse weather that is normal for the area must be taken into account in the Contractor's Project Schedule. See 1.d.3, above.
   10. Force Majeure Event: Any event that delays the project but is beyond the control and/or contractual responsibility of either party.
   11. Schedule shall including the following, in addition to Contractor’s work.
       1. Phasing: Provide notations on the schedule to show how the sequence of the Work is affected by the following:

Requirements for phased completion and milestone dates.

Work by separate contractors.

Work by the Owner.

Coordination with existing construction.

Limitations of continued occupancies.

Uninterruptible services.

Partial occupancy prior to Substantial Completion.

Area Separations: Use Activity Codes to identify each major area of construction for each major portion of the Work. For the purposes of this Article, a "major area" is a story of construction, a separate building, or a similar significant construction element.

1. Time Extension Requests
   1. Refer to General Conditions of the Contract for Construction, Article 4.7 Claims for Additional Time.
   2. Changes or Other Impacts to the Contractor’s Work Plan  
      The Owner will consider and evaluate requests for time extensions due to changes or other events beyond the control of the Contractor on a monthly basis only, with the submission of the Contractor’s updated schedule, in conjunction with the monthly application for payment. The Update must include:
      * 1. An activity depicting the event(s) impacting the Contractors work plan shall be added to the CPM schedule, using the actual start date of the impact, along with actually required predecessors and successors.
        2. After the addition of the impact activity(ies), the Contractor shall work with the TPSC to identify subsequent activities on the critical path, with finish to start relationships that can be realistically adjusted to overlap using good, standard construction practice.
           1. If the adjustments above result in the completion date being brought back within the contract time period, no adjustment will be made in the contract time.
           2. If the adjustments above still result in a completion date beyond the contract completion date, the delay shall be deemed excusable and the contract completion date shall be extended by the number of days indicated by the analysis.
           3. Contractor agrees to continue to utilize its best efforts to make up the time caused by the delays. However the Contractor is not expected to expend costs not contemplated in its contract, in making those efforts.
   3. Questions of compensability of any delays shall be held until the actual completion of the project. If the actual substantial completion date of the project based on excusable delays, excluding weather delays, exceeds the original contract completion date, AND there are no delays that are the responsibility of the contractor to consider, the delays days shall be considered compensable. The actual costs, if any, of the Contractor’s time sensitive jobsite supervision and general conditions costs, shall be quantified and a change order issued for these costs.

Option #3 – Contractor Schedule

1. GENERAL
   1. Time is of the essence for this contract.

The time frames spelled out in this contract are essential to the success of this project. The University understands that effective schedule management, in accordance with the General Conditions and these Special Conditions is necessary to insure to that the critical milestone and end dates spelled out in the contract are achieved.

* 1. Related Documents  
     Drawings and general provisions of the Contract, including General Conditions’ Article 3.17 shall apply to this Section.
  2. Stakeholders

A Stakeholder is anyone with a stake in the outcome of the Project, including the University, the University Department utilizing the facility, the Design Professionals, the Contractor and subcontractors.

* 1. Weather
     1. Contractor acknowledges that there will be days in which work cannot be completed due to the weather, and that a certain number of these lost days are to be expected under normal weather conditions in Missouri.
     2. Rather than speculate as to what comprises “normal” weather at the location of the project, Contractor agrees that it will assume a total of 44 lost days due to weather over the course of a calendar year, and include same in its as planned schedule. For projects of less than a calendar year, lost weather days should be prorated for the months of construction in accordance with the following schedule.
     3. Anticipated weather days for allocation/proration only. For projects lasting 12 months or longer, the 44 days per year plus whatever additional months are included will constitute normal weather.

|  |  |  |  |
| --- | --- | --- | --- |
| Jan – 5 days | Feb – 5 days | Mar – 4 days | Apr – 4 days |
| May – 3 days | Jun – 3 days | Jul – 2 days | Aug – 2 days |
| Sep – 3 days | Oct – 4 days | Nov – 4 days | Dec – 5 days |

1. SCHEDULING PROCESS
   1. The intent of this section is to insure that a well-conceived plan, that addresses the milestone and completion dates spelled out in these documents, is developed with input from all stakeholders in the project. Input is limited to all reasonable requests that are consistent with the requirements of the contract documents, and do not prejudice the Contractor’s ability to perform its work consistent with the contract documents.  
      Further, the plan must be documented in an understandable format that allows for each stakeholder in the project to understand the plan for the construction and/or renovation contained in the Project.
   2. Contractor Requirements
      * 1. Schedule Development

Contractor shall prepare the Project Schedule using Primavera P3 or Oracle P6.

* + - 1. Schedule Development  
         Within 4 weeks of the NTP, contractor shall prepare a schedule, in CPM format, that reflects the contractor’s and each subcontractors plan for performing the contract work.  
           
         Contractor shall review each major subcontractor’s schedule with the sub and obtain the subcontractor’s concurrence with the schedule, prior to submitting to the University.
      2. Schedule Updates.
         1. Schedule Updates will be conducted once a month, at a minimum.

Actual Start and Finish dates should be recorded regularly during the month. Percent Complete, or Remaining Duration shall be updated as of the data date, just prior to Contractor’s submittal of the update data.

* + - * 1. Contractor will copy the previous months schedule and will input update information into the new monthly update version.
        2. Contractor will meet with the Owner’s Representative to review the draft of the updated schedule. At this meeting, Owner’s Representative and Contractor will:

Review out of sequence progress, making adjustments as necessary,

Add any fragnets necessary to describe changes or other impacts to the project schedule and

Review the resultant critical and near critical paths to determine any impact of the occurrences encountered over the last month.

* + - 1. Schedule Narrative  
         After finalization of the update, the Contractor will prepare a Narrative that describes progress for the month, impacts to the schedule and an assessment as to the Contractor’s entitlement to a time extension for occurrences beyond its control during the month and submit in accordance with this Section.
      2. Progress Meetings
         1. Review the updated schedule at each monthly progress meeting. Payments to the Contractor may be suspended if the progress schedule is not adequately updated to reflect actual conditions.
         2. Submit progress schedules to subcontractors to permit coordinating their progress schedules to the general construction work. Include 4 week look ahead schedules to allow subs to focus on critical upcoming work.

1. CRITICAL PATH METHOD (CPM)
   1. This Section includes administrative and procedural requirements for the critical path method (CPM) of scheduling and reporting progress of the Work.
   2. Refer to the General and Special Conditions and the Agreement for definitions and specific dates of Contract Time.
   3. Critical Path Method (CPM): A method of planning and scheduling a construction project where activities are arranged based on activity relationships and network calculations determine when activities can be performed and the critical path of the Project.
   4. Critical Path: The longest continuous chain of activities through the network schedule that establishes the minimum overall project duration.
   5. Network Diagram: A graphic diagram of a network schedule, showing the activities and activity relationships.
   6. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling, the construction project. Activities included in a construction schedule consume time and resources.
   7. Critical activities are activities on the critical path.
   8. Predecessor activity is an activity that must be completed before a given activity can be started.
   9. Milestone: A key or critical point in time for reference or measurement.
   10. Float or Slack Time: The measure of leeway in activity performance. Accumulative float time is not for the exclusive use or benefit of the Owner or Contractor, but is a project resource available to both parties as needed to meet contract milestones and the completion date.
   11. Total float is herein defined as the measure of leeway in starting or completing an activity without adversely affecting the planned project completion date.
   12. Weather: Adverse weather that is normal for the area must be taken into account in the Contractor's Project Schedule. See 1.d.3, above.
   13. Force Majeure Event: Any event that delays the project but is beyond the control and/or contractual responsibility of either party.
   14. Schedule shall including the following, in addition to Contractor’s work.
       1. Phasing: Provide notations on the schedule to show how the sequence of the Work is affected by the following:

Requirements for phased completion and milestone dates.

Work by separate contractors.

Work by the Owner.

Coordination with existing construction.

Limitations of continued occupancies.

Uninterruptible services.

Partial occupancy prior to Substantial Completion.

Area Separations: Use Activity Codes to identify each major area of construction for each major portion of the Work. For the purposes of this Article, a "major area" is a story of construction, a separate building, or a similar significant construction element.

1. Time Extension Requests
   1. Refer to General Conditions of the Contract for Construction, Article 4.7 Claims for Additional Time.
   2. Changes or Other Impacts to the Contractor’s Work Plan  
      The Owner will consider and evaluate requests for time extensions due to changes or other events beyond the control of the Contractor on a monthly basis only, with the submission of the Contractor’s updated schedule, in conjunction with the monthly application for payment. The Update must include:
      * 1. An activity depicting the event(s) impacting the Contractors work plan shall be added to the CPM schedule, using the actual start date of the impact, along with actually required predecessors and successors.
        2. After the addition of the impact activity(ies), the Contractor will identify subsequent activities on the critical path, with finish to start relationships that can be realistically adjusted to overlap using good, standard construction practice.
           1. If the adjustments above result in the completion date being brought back within the contract time period, no adjustment will be made in the contract time.
           2. If the adjustments above still result in a completion date beyond the contract completion date, the delay shall be deemed excusable and the contract completion date shall be extended by the number of days indicated by the analysis.
           3. Contractor agrees to continue to utilize its best efforts to make up the time caused by the delays. However the Contractor is not expected to expend costs not contemplated in its contract, in making those efforts.
   3. Questions of compensability of any delays shall be held until the actual completion of the project. If the actual substantial completion date of the project based on excusable delays, excluding weather delays, exceeds the original contract completion date, AND there are no delays that are the responsibility of the contractor to consider, the delays days shall be considered compensable. The actual costs, if any, of the Contractor’s time sensitive jobsite supervision and general conditions costs, shall be quantified and a change order issued for these costs.

Option #4 – Contractor Schedule with 3rd Party Scheduling Consultant

* + - 1. GENERAL

1. Time is of the essence for this contract.

The time frames spelled out in this contract are essential to the success of this project. The University understands that effective schedule management, in accordance with the General Conditions and these Special Conditions is necessary to insure to that the critical milestone and end dates spelled out in the contract are achieved.

1. Related Documents  
   Drawings and general provisions of the Contract, including General Conditions’ Article 3.17 shall apply to this Section.
   1. Stakeholders

A Stakeholder is anyone with a stake in the outcome of the Project, including the University, the University Department utilizing the facility, the Design Professionals, the Contractor and subcontractors.

* 1. Weather
     1. Contractor acknowledges that there will be days in which work cannot be completed due to the weather, and that a certain number of these lost days are to be expected under normal weather conditions in Missouri.
     2. Rather than speculate as to what comprises “normal” weather at the location of the project, Contractor agrees that it will assume a total of 44 lost days due to weather over the course of a calendar year, and include same in its as planned schedule. For projects of less than a calendar year, lost weather days should be prorated for the months of construction in accordance with the following schedule.
     3. Anticipated weather days for allocation/proration only. For projects lasting 12 months or longer, the 44 days per year plus whatever additional months are included will constitute normal weather.

|  |  |  |  |
| --- | --- | --- | --- |
| Jan – 5 days | Feb – 5 days | Mar – 4 days | Apr – 4 days |
| May – 3 days | Jun – 3 days | Jul – 2 days | Aug – 2 days |
| Sep – 3 days | Oct – 4 days | Nov – 4 days | Dec – 5 days |

1. SCHEDULING PROCESS
   1. The intent of this section is to insure that a well-conceived plan, that addresses the milestone and completion dates spelled out in these documents, is developed with input from all stakeholders in the project. Input is limited to all reasonable requests that are consistent with the requirements of the contract documents, and do not prejudice the Contractor’s ability to perform its work consistent with the contract documents.  
      Further, the plan must be documented in an understandable format that allows for each stakeholder in the project to understand the plan for the construction and/or renovation contained in the Project.
   2. Project Controlled Scheduling  
      The content (Activity Descriptions, Activity Codes, Durations, Predecessors and Successors) of the Project Schedule will be the responsibility of the Contractor. The Contractor will provide the services of a Third Party Scheduling Consultant (TPSC), at the Contractor’s expense, to prepare and maintain the CPM schedule program for the duration of the project. Upon Contractor’s compliance with the requirements listed below, TPSC will take responsibility for organizing the Project CPM schedule, which reflects the Contractor’s plan, using Primavera Project Planner (P3), in a manner that complies with this section of the Special Conditions.
   3. Contractor Requirements
      * 1. Schedule Development

Contractor shall fully cooperate with the TPSC Consultant to make personnel available to describe the Contractor’s plan for executing the work. Personnel shall be made available as noted for the series of meetings/working sessions listed below.

* + - 1. Schedule Strategy (Week 1-2)

Within 10 days of award, the Project Executive, Project Manager, Project Engineer(s) and Project Superintendent (Contractor Team) will meet with TPSC to establish the general plan and sequencing of the project. At this meeting, the Contractor Team will agree upon the overall work plan, commit to the level of detail to be included in the schedule, the number of activity codes necessary for effective project control, the necessity of cost loading and/or crew loading the schedule. It is anticipated that this meeting(s) will take between 2 and 4 hours.

* + - 1. Activity Identification and Logic Development (Weeks 3-4)

During the two weeks following the Strategy Meeting, Contractor will make the Project Team (minimum of Project Manager and Project Superintendent) available, up to ½ time, to identify the specific activities that will be included in the schedule and determine the specific logic that the contractor intends to follow in constructing the project. This effort is normally accomplished in a few ½ day sessions, with the TPSC facilitating the discussion and recording the plan. The Project Team will provide preliminary durations for all activities, including those of subcontractors. Final durations will be developed after receiving input from the major subcontractors and/or craft superintendents, during the Schedule Reconciliation Phase described below.

Contractor will provide TPSC with a complete submittal list, from which the TPSC and Project Team will determine which submittals and procurement activities are necessary to include in the CPM schedule in order to effectively manage the project.

* + - 1. Schedule Development (Week 5)  
         During Week #5 TPSC will produce a Preliminary Schedule “fragnet” or “subnet” that describes the work plan for the first 90 days of the project. This “fragnet” will be used to monitor the work on the project until the final schedule is prepared and accepted by the University and the Project Team.  
           
         By the end of week 5, the TPSC will have all of the identified activities, durations, logic and activity codes input into the schedule, ready to review with each major subcontractor and/or craft superintendent.  
           
         Contractor will distribute one full copy of the schedule and one copy of each individual subcontractors scheduled activities to each subcontractor for review.
      2. Subcontractor Review (Week 6)
      3. Schedule Reconciliation (Week 7)  
         Contractor will arrange a series of meetings with each major subcontractor and/or craft superintendent. Project Manager and/or Project Superintendent must be present at each meeting. Meetings should take between 1 to 2 hours, depending on the subcontractor’s scope, capability and work complexity. Upon completion of this series of meetings, each subcontractor’s reconciled schedule will be printed out and the subcontractor will sign the printout, signifying its commitment to performing in accordance with the reconciled schedule.
      4. Final Schedule Development (Week 8)  
         During this time frame, TPSC and Project Team will secure subcontractor commitment to the finished schedule. TPSC will finalize all agreed upon activity coding and resource loading. TPSC will print out the final schedule, including various “fragnets” for review by the entire Project Team, TPSC and the University, at a Schedule Finalization Meeting, to be held prior to final acceptance of the schedule by the entire Project Team.
      5. Schedule Updates.
         1. Schedule Updates will be conducted once a month, at a minimum. TPSC will provide Contractor with a “Schedule Update Form”, which contains blanks for Actual Start and Actual Finish dates, Percent Complete and Remaining Duration. Actual Start and Finish dates should be recorded regularly during the month. Percent Complete, or Remaining Duration shall be updated as of the data date, just prior to Contractor’s submittal of the update data.
         2. Contractor will submit completed update form to TPSC.
         3. TPSC will copy the previous months schedule and will input update information into the new monthly update version.
         4. TPSC will meet with Contractor to review the draft of the updated schedule. At this meeting, TPSC and Contractor will:

Review out of sequence progress, making adjustments as necessary,

Add any fragnets necessary to describe changes or other impacts to the project schedule and

Review the resultant critical and near critical paths to determine any impact of the occurrences encountered over the last month.

* + - 1. Schedule Narrative  
         After finalization of the update, the TPSC will prepare a Narrative that describes progress for the month, impacts to the schedule and an assessment as to the Contractor’s entitlement to a time extension for occurrences beyond its control during the month and submit in accordance with this Section.
      2. Progress Meetings
         1. Review the updated schedule at each monthly progress meeting. Payments to the Contractor may be suspended if the progress schedule is not adequately updated to reflect actual conditions.
         2. Submit progress schedules to subcontractors to permit coordinating their progress schedules to the general construction work. Include 4 week look ahead schedules to allow subs to focus on critical upcoming work.

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   7. Critical activities are activities on the critical path.
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   9. Milestone: A key or critical point in time for reference or measurement.
   10. Float or Slack Time: The measure of leeway in activity performance. Accumulative float time is not for the exclusive use or benefit of the Owner or Contractor, but is a project resource available to both parties as needed to meet contract milestones and the completion date.
   11. Total float is herein defined as the measure of leeway in starting or completing an activity without adversely affecting the planned project completion date.
   12. Weather: Adverse weather that is normal for the area must be taken into account in the Contractor's Project Schedule. See 1.d.3, above.
   13. Force Majeure Event: Any event that delays the project but is beyond the control and/or contractual responsibility of either party.
   14. Schedule shall including the following, in addition to Contractor’s work.
       1. Phasing: Provide notations on the schedule to show how the sequence of the Work is affected by the following:
          * 1. Requirements for phased completion and milestone dates.
            2. Work by separate contractors.
            3. Work by the Owner.
            4. Coordination with existing construction.
            5. Limitations of continued occupancies.
            6. Uninterruptible services.
            7. Partial occupancy prior to Substantial Completion.
   15. Area Separations: Use Activity Codes to identify each major area of construction for each major portion of the Work. For the purposes of this Article, a "major area" is a story of construction, a separate building, or a similar significant construction element.
2. Time Extension Requests
   1. Refer to General Conditions of the Contract for Construction, Article 4.7 Claims for Additional Time.
   2. Changes or Other Impacts to the Contractor’s Work Plan

The Owner will consider and evaluate requests for time extensions due to changes or other events beyond the control of the Contractor on a monthly basis only, with the submission of the Contractor’s updated schedule, in conjunction with the monthly application for payment. The Update must include:

* + - 1. An activity depicting the event(s) impacting the Contractors work plan shall be added to the CPM schedule, using the actual start date of the impact, along with actually required predecessors and successors.
      2. After the addition of the impact activity(ies), the Contractor shall work with the TPSC to identify subsequent activities on the critical path, with finish to start relationships that can be realistically adjusted to overlap using good, standard construction practice.
         1. If the adjustments above result in the completion date being brought back within the contract time period, no adjustment will be made in the contract time.
         2. If the adjustments above still result in a completion date beyond the contract completion date, the delay shall be deemed excusable and the contract completion date shall be extended by the number of days indicated by the analysis.
         3. Contractor agrees to continue to utilize its best efforts to make up the time caused by the delays. However the Contractor is not expected to expend costs not contemplated in its contract, in making those efforts.
  1. Questions of compensability of any delays shall be held until the actual completion of the project. If the actual substantial completion date of the project based on excusable delays, excluding weather delays, exceeds the original contract completion date, AND there are no delays that are the responsibility of the contractor to consider, the delays days shall be considered compensable. The actual costs, if any, of the Contractor’s time sensitive jobsite supervision and general conditions costs, shall be quantified and a change order issued for these costs.

UNIVERSITY OF MISSOURI

ROOF SYSTEM MANUFACTURERS CERTIFICATION

(Revised 12/94)

TO: Title\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Project No. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Location \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Our technical staff has examined the Architect/Engineer’s Drawings, Specifications and required warranty for the roofing work on this project. We do not wholly endorse the building design or any materials or services not part of our advertised roofing system.

CERTIFICATION

We hereby certify that:

1. All materials we will furnish and deliver to the project shall be of good merchantable quality, shall meet or exceed the Specifications required and shall, if properly applied by one of our approved roofing applicator firms in accord with our instructions, provide a sound weather/watertight roofing system.

2. Upon completion of the installation in accord with the Drawings and specifications and our recommended installation procedures, we shall issue a total system warranty specified in the project Specifications.

3. The Drawings and Specifications follow the recommendations of our roofing manual for this type of roofing system with:

No exceptions.

The following exceptions: (The roofing system will be approved for this project if the following changes are made to the Contract Documents. The bid provided with this Document includes the required changes).

NOTE: Exceptions may cause Owner to reject bid.

Exceptions are as follows:

4. The Warranty will be issued for the following proposed roofing system:

ROOFING SYSTEM MANUFACTURER:

Authorized Signature:

Title: Date

Telephone Number: ( )

Fax Number: ( )

UNIVERSITY OF MISSOURI

CONTRACTORS ROOFING/FLASHING/SHEET METAL GUARANTEE

(Revised 12/94)

WHEREAS (NAME AND ADDRESS OF COMPANY)

herein referred to as Roofing Contractor, certify that they have furnished and installed all roofing, flashing, sheet metal and related components in accordance with the Contract Documents and as required by the Roofing System Manufacturer=s installation instructions on the facility described below:

Facility:

Owner: University of Missouri-(CAMPUS)

(CAMPUS ADDRESS)

Date of Full Completion:

Approximate Area of Roof:

Type of Roofing Material:

Manufacturer’s Specification Number:

Thickness and Type of Roof Insulation:

NOW, THEREFORE, Roofing Contractor guaranties to the Owner, subject only to the exclusions stated hereinafter, that all roofing, flashing and sheetmetal work is fully and integrally watertight and is free from faults and defects in material or workmanship, and is guaranteed for a period of three (3) years from date of full completion of work.

EXCLUSIONS: This guarantee does not cover, and Roofing Contractor shall not be liable for the following:

1. Damage to the roofing system caused by fire, lightning, tornado, hurricane or hailstorm.

2. Damage to roofing system caused by significant settlement, distortion or failure of roof deck, walls, or foundations of building, excepting normal building expansion and contraction is not a part of this exclusion.

3. Abuse by the Owner and/or third parties.

REPAIRS: Owner shall promptly notify Roofing Contractor, in writing, of the need for repair of roofing, flashing, or sheet metal:

1. Roofing Contractor, within eight (8) hours after receipt of such notice, shall make emergency repairs at its expense, as required to render the facility watertight.

2. Within five (5) days after receipt of such notice, Roofing Contractor shall at its expense correct any faults or defects in material or workmanship.

3. Should needed repairs not be covered by this guarantee, Roofing Contractor, after having obtained Owner’s written consent, shall make such repairs at Owner’s expense. Following said repairs, this guarantee shall thereafter remain in effect for the unexpired portion of the original term. If Owner does not so consent or repairs are made by others than the Roofing Contractor, this guarantee shall terminate for those parts of the roof affected by the repair.

4. In the event that Owner has notified the Roofing Contractor of the need for repairs and (i) Roofing Contractor does not immediately make repairs, or (ii) Roofing Contractor disclaims responsibility for the repairs and Owner disagrees, or (iii) Owner considers Roofing Contractor=s quoted cost for repairs not covered by this guarantee to be unreasonable and, an emergency condition exists which requires prompt repair to avoid substantial damage or loss to Owner, then, Owner may make such temporary repairs as he finds necessary and such action shall not be a breach of the provisions of this guarantee.

ANNUAL INSPECTIONS: Roofing Contractor shall inspect roof installation prior to each of the three anniversary dates from date of full completion of the work.

1. Inspection team to include Roofing Contractor, Roof Manufacturer, and Owner=s Representative.

2. Inspection of total roof system will be included in the annual inspections.

3. All defects in total roof system will be corrected by the Roofing Contractor within 30 days of inspection.

4. Roof manufacturer will certify by a written report that roof inspection has been completed, defects are acknowledged, and will warrant any repairs.

5. All corrective work completed by Roofing Contractor shall be warranted as approved by the Roofing Manufacturer.

ROOF MODIFICATION: Should Owner require work to be done on roof of said facility including modifications, alternations, extensions or additions to roof and including installation of vents, platforms, equipment, bracings or fastenings, Owner shall notify Roofing Contractor and give Roofing Contractor an opportunity to make recommendations as to methods necessary to safeguard against damage to roofing covered by this guarantee. Failure of Owner to give Roofing Contractor such opportunity or failure to follow methods recommended by Roofing Contractor shall render this guarantee null and void to the extent such failure should result in damage to roofing covered by this guarantee.

NOTICES: Notification of Roofing Contractor by Owner, shall be fulfilled by sending notice to Roofing Contractor.

IN WITNESS WHEREOF, we set our hands this \_\_\_\_\_ day of \_\_\_\_\_\_\_\_\_\_\_, 20\_\_\_.

By:

Title:

For Roofing Contractor

Name:

Address:

Phone:

SHOP DRAWING AND SUBMITTAL LOG

Project:

Project Number:

Contractor:

|  |  |  |  |  |  |  |  |  |  |  |  |
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| Section | Description | Contractor | Date  Rec’d | # | Date Sent  to Cons. | Date  Ret’d | Remarks | Date  ret’d | Cont’r | Copies To Owner | File |
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OPERATING INSTRUCTIONS AND SERVICE MANUAL LOG

Project:

Project Number:

Contractor:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Section | Description | Catalog Data | Wiring Diagrams | Installation Instructions | Service & Maintenance Instructions | Parts List & Availability | PerformanceCurves | Startup & Operating Instructions |
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CLOSEOUT LOG

Project:

Project Number:

Contractor:

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| --- | --- | --- | --- | --- | --- | --- |
| Section | Description | Contractor/Subcontractor | Date  Rec’d | # of Copies | CPM Initials | Remarks |
| GC /3.11 | As-built drawings |  |  |  |  |  |
| GC /13.5.6 | Final Affidavit of Supplier Diversity Participation for each Diverse firm |  |  |  |  |  |
| SC/20 | Executed commissioning plan w/ required documentation |  |  |  |  |  |
|  | List special warranties and guarantees for each section |  |  |  |  |  |
|  | List any required maintenance stock, spare parts, etc. |  |  |  |  |  |
|  | List any special tools, keys, etc. |  |  |  |  |  |
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## SECTION 1.F

## INDEX OF DRAWINGS

**[Write date of advertisement. Coordinate with date on Drawings. Write drawing numbers and titles.]**

Drawings referred to in and accompanying Project Manual consist of following sheets **dated.**

Sheet 1 of \_: \_\_

Sheet 2 of \_: \_\_

END OF SECTION

## SECTION 1.G

## PREVAILING WAGE RATES

[The rates will be supplied to the Consultant in packet immediately before project is advertised.]

END OF SECTION

## SECTION 1.H

## ALTERNATES

Base Bid may be increased in accordance with following Additive Alternate proposal(s) as Owner may elect:

1. Additive Alternate No. 1:

END OF SECTION