



Washington University in St. Louis

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# General Conditions of Contract

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and Management  
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St. Louis, Missouri 63130

Medical School Campus:  
Operations and Facilities  
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## ARTICLE 1. DEFINITIONS

Terms used in the Contract Documents are defined as follows:

“Affiliates”: means any entity which, directly or indirectly, owns or controls, is owned or controlled by, or is under common ownership or control with Contractor.

“Applicable Laws”: All laws, statutes, regulations, ordinances, codes, rules, rulings, decisions and orders of Governmental Authorities relating to the Work or the services with respect to the Project.

“Architect/Engineer”: Architect or Engineer is the person lawfully licensed to practice architecture and/or engineering in the state of Missouri, identified as such in the agreement between Owner and Contractor, and is referred to throughout the Contract Documents as if singular in number and masculine in gender. The terms Architect and/or Engineer mean Architect or Engineer and/or his authorized representative.

“Change Order”: A writing signed by Owner and Contractor setting forth their agreement as to a change in the scope of the Work, Contract Sum or Contract Time.

“Close-Out Documents”: The Close-Out Documents consist of the final redlined Record Documents (a/k/a “as-built drawings”), vendor instruction manuals, all items listed in Section 32.2 of these General Conditions and all applicable guarantees and warranties covering the Project or any component of the Work or any material incorporated into the Work. Close-Out Documents are an item of the Work and shall be reflected as such in the Schedule of Values.

“Contract”: The Contract Documents form the contract for construction and represent the entire integrated agreement between Owner and Contractor, and shall not be construed to create a contractual relationship of any kind between any parties other than Owner and Contractor.

“Contract Documents”: The Contract Documents consist of the agreement between Owner and Contractor, these General Conditions and any special conditions, Drawings, Project Manual and Specifications, addenda issued before execution of the Contract, other documents listed in the Contract, and Modifications issued after execution of the Contract.

“Contract Sum”: The amount set forth in the agreement between Owner and Contractor.

“Contract Time”: The period of time, including adjustments by Change Order, allotted in the accepted Schedule from the commencement date until the date of Substantial Completion.

“Contractor”: Contractor is the person, firm, or corporation with whom the Contract is made by Owner.

“Coordination Drawings”: Coordination Drawings are drawings showing equipment layouts that indicate the necessary offsets for all duct work, piping, conduit, and other items to clear space for all other trades and to maintain the required ceiling height and partition layouts. All Coordination Drawings, including section through shafts shall be at not less than 3/8-inch scale.

“Cost Matrix”: The document entitled “Washington University Construction Cost Matrix” attached hereto as **Appendix F** and incorporated herein by this reference.

“Drawings”: Plans, elevations, sections, details, schedules, diagrams, and all other graphic or pictorial depiction of the design, location and dimensions of the Work prepared by Architect/Engineer.

“Final Completion”: The date when all Punchlist items are completed, including all closeout Submittals and Owner has approved Contractor’s final application for payment.

“General Conditions”: These standardized contractual provisions describing the responsibilities, rights and relationships of Owner and Contractor under the Contract.

“Governmental Authorities”: Local, county, regional, state and federal governmental bodies, agencies, departments and bureaus having jurisdiction over the Work, or from whom permits, approvals or other consents are required.

“Hazardous Materials”: Any pollutant, hazardous or toxic substance, waste or material, including, but not limited to, oil products, mold, asbestos, asbestos-containing materials, lead, lead-containing materials, urea formaldehyde foam insulation, transformers or other equipment which contain dielectric fluid-containing polychlorinated biphenyls, flammable explosives, radioactive materials or any other material or substance designated or regulated as hazardous or as a toxic substance or waste, pollutant or contaminant under Applicable Laws.

“LEED”: Leadership in Energy and Environmental Design, the green building certification process designed and administered by the U.S. Green Building Council.

“LEED AP”: A sustainable building professional who has obtained the LEED accredited professional credential through the U.S. Green Building Certification Institute.

“LEED Submittals”: LEED templates and all required supporting documents demonstrating LEED credit compliance for the LEED certification level set by Owner for the Project.

“Modification”: A Modification means a written amendment signed by both parties, a Change Order, a construction change directive, or a written order for a minor change in the Work issued by Architect/Engineer and/or Owner’s Representative.

“Owner”: Owner is The Washington University, a corporation established by Act of the General Assembly of the State of Missouri approved February 22, 1853 and acts amendatory thereto.

“Owner’s Consultants”: Owner’s Consultants shall mean Architect/Engineer or other person or entity retained by Owner to assist Owner in the design or the administration of the construction of the Project. Owner’s Consultants will have authority to act on behalf of Owner only to the extent provided in their contract with Owner.

“Owner’s Representative”: Owner’s Representative means the person designated in writing by officers of The Washington University to act on behalf of Owner on all matters requiring Owner approval or authorization.

“Project”: The entire construction project contemplated by Owner and identified in the Contract Documents which includes the Work, the services undertaken by Contractor, Architect, Engineer, their subcontractors and any related construction operation by Owner, Owner Consultants or Owner separate contractors.

“Punchlist”: Punchlist is a list prepared by Owner or Architect as applicable, identifying uncompleted items and items that need to be corrected following Substantial Completion.

“Record Documents”: Drawings and other records that are maintained to record all conditions which exist when the building construction is completed. This includes, but is not limited to, both the elements of the Project itself and existing elements that are encountered during the course of Project construction.

“Samples”: Samples are physical examples furnished to illustrate materials, equipment or workmanship, and to establish standards by which the Work will be judged.

“Schedule”: A diagram, graph, plot or other chart indicating the Contract Time, sequencing and showing start dates, durations and finish dates for all activities, as well as all milestones for Shop Drawings, Submittals, long lead-time items, phasing, work in occupied areas, portions of the Project having occupancy priority, Substantial Completion, Final Completion and all other milestones noted in the Contract Documents, rendered in a form to make it an effective tool for planning and monitoring progress of the activities and the Project as a whole. The Schedule shall at all times reflect the critical path of the Work.

“Shop Drawings”: Shop Drawings are drawings, diagrams, illustrations, charts, brochures, and other data that are prepared by Contractor or any Subcontractor, manufacturer, supplier or distributor, for some portion of the Work.

“Site”: The portion of Owner premises upon which the Project is to be constructed as specified in the Contract.

“Specifications”: The written description of the qualitative and quantitative requirements for materials, equipment, systems, standards and workmanship for the Work.

“Subcontractor”: Subcontractor is a person, firm, or corporation, supplying labor and materials, or only labor for the Project for and under separate contract or agreement with Contractor.

“Submittals”: Shop Drawings, Samples and any other graphic or written description by Contractor, a Subcontractor, or one for whom either is responsible, which demonstrates the manner in which the Work is proposed to be furnished in conformance with the Contract Documents.

“Substantial Completion”: Substantial Completion shall be the point at which the entire Work, or a portion thereof designated by Owner, is sufficiently completed in accordance with the

Contract Documents to permit Owner occupancy and utilization of the facilities for the intended purpose. Substantial Completion shall not be achieved until Contractor obtains a Certificate of Occupancy from the applicable Governmental Authority.

“Work”: The Work comprises all construction and services required by the Contract Documents, including delivery of the Close-Out documents, whether completed or partially completed and includes all labor, materials, equipment and services necessary to produce such construction and incorporated into such construction.

## **ARTICLE 2. CONTRACT DRAWINGS AND SPECIFICATIONS**

2.1. Information given in the Contract Documents is as exact as could be secured, but its extreme accuracy is not guaranteed. Contractor must, therefore, examine the locations with reasonable care and verify all measurements, distances, elevations, clearances, and other relevant information, before starting the Work.

2.2. Contractor shall, upon discovery and before proceeding further, notify Architect or Engineer in writing, of any latent conditions differing materially from those indicated in the Contract Documents or unknown or unusual physical conditions at the Site.

2.3. Specifications and Drawings shall be considered as mutually explanatory. To the extent there is contradiction between the Specifications and the Drawings, the Specifications shall control.

2.4. The Drawings indicate diagrammatically the desired arrangement and approximate location for the items of equipment, circuiting, piping and ductwork. In some instances, components have been distorted and/or exaggerated to avoid confusion. The entire installation is to be made in such a manner to avoid obstructions, preserve headroom, keep openings and passageways clear, and to overcome local difficulties, interference with structural conditions and coordination issues among the various trades.

2.5. Measurements, dimensions, and equipment space requirements, shall be verified by Contractor. Contractor shall assume responsibility for proper installation and coordination of equipment in the space available. Work, which may be specified but not completely detailed on the Drawings, shall be installed as dictated by common practice or as directed by Architect or Engineer.

## **ARTICLE 3. ADMINISTRATION INSPECTION/AUTHORITY**

3.1. Contractor shall comply with all Applicable Laws of all Governmental Authorities having jurisdiction over the Work and construction of the Project. Where requirements of the Contract Documents differ from laws, ordinances, rules, regulations, orders, applicable building codes or the requirements of Governmental Authorities having jurisdiction over the Work, the more stringent requirements shall govern.

3.2. Contractor shall at its own expense, procure and maintain all licenses, permits (including occupancy permits), inspections and approvals necessary for the execution of the Work. Contractor shall include the time required to obtain permits in the Schedule. The Washington

University Project number and Owner's Representative shall be indicated on the permit application.

3.3. Contractor shall at its own expense, pay all fines and penalties which may be levied by authorities having jurisdiction over construction of this Project for violations of building codes, building permits, licenses, inspections and approvals, including the penalty for starting construction without a permit.

3.4. Owner's Representative is the only person that will give orders and directions by authority of Owner under the Contract. Contractor shall be responsible for any and all actions and omissions of its employees and Subcontractors not so authorized.

3.5. Owner's Representative and Architect shall at all times, have access or Contractor shall provide facilities for access to the Work whenever and wherever it is in preparation or progress. Owner's Representative and Architect shall be permitted and periodically will inspect all aspects of the Work including workmanship, materials, records, and other relevant items to determine the quality, acceptability and fitness of the Work.

3.6. Owner's Representative may reject all workmanship and materials which do not conform with the intent of the Contract Documents, but failure to exercise such power shall not be construed or held by Contractor as an admission on the part of Owner that the Work, or any part thereof, has been faithfully performed in case the fact shall be otherwise.

#### **ARTICLE 4. INTERPRETATION AND DECISION**

4.1. Claims, disputes, and other matters in question relating to the execution of the Work, progress, and/or interpretation of the Contract Documents shall be referred to Owner's Representative.

4.2. Owner's Representative shall decide the meaning and intent of any portion of the Contract Documents which may be in dispute.

4.3. All interpretations and decisions shall be consistent with the intent of the Contract Documents.

#### **ARTICLE 5. PROJECT SCHEDULE**

5.1. Timely completion of the Work is of the essence of the Contract. Accordingly, Contractor shall perform Work required by the Contract as expeditiously as practicable, consistent with best practices, applicable standards of professional care and diligence and the orderly progress of construction.

5.2. Contractor shall confer with Owner's Representative to determine a mutually acceptable Schedule which includes Owner controlled work items. Thereafter, Contractor shall prepare and submit written copies of the Schedule for approval. Contractor shall follow the approved Schedule unless Owner subsequently approves rescheduling individual items, or changes in the sequence of the Work. Should changes become necessary, Contractor shall revise the Schedule and re-submit for Owner's approval.

5.3. The Work shall be scheduled in advance to permit Owner to make necessary adjustments in Owner's operations, which will allow Contractor to perform the Work.

5.4. Items scheduled shall be sufficiently small in scope and detailed to permit ready evaluation of the progress of completion of the item. Division of the Work into scheduled items may be by specific items, class or type of work or by area as may best serve for monitoring progress of the item.

5.5. Items of Subcontractor work shall be scheduled in similar detail.

5.6. If the value to be claimed on the Schedule is not linear and continuous with a completion schedule, percentages shall be indicated at appropriate points on the item schedule line.

5.7. Updated Schedules shall be submitted with each application for payment.

5.8. Contractor shall update the Schedule whenever Owner requests. Revised Schedules are subject to Owner approval. The Schedule shall be revised and resubmitted when the Project is fifteen percent (15%), forty percent (40%), seventy-five percent (75%) and ninety percent (90%) complete.

5.9. The Schedule shall include an allowance of 32 bad weather days per year. This allowance is divided into the following monthly breakdown:

January	4 days
February	4 days
March	4 days
April	3 days
May	3 days
June	2 days
July	2 days
August	2 days
September	2 days
October	2 days
November	2 days
December	2 days

Weather days may be claimed only if the weather-related conditions preclude performance of 60% of critical path activities scheduled for a particular day. In such event, the day may be claimed by Contractor as a weather day and charged against the allowance included in the Schedule for the Project. **Notwithstanding the foregoing, Contractor shall notify Owner of its intent to claim a weather day within 24 hours of the claimed event or Contractor shall not be entitled to claim it.** Contractor shall also report the number of weather days claimed for the month in a monthly report that includes documentation substantiating that the adverse weather conditions precluded 60% of the critical path of the Work.

All weather days are cumulative and will be determined based on the overall duration of the Project. If good weather conditions prevail throughout the contract period and the allowed number of weather days is not exceeded, Contractor will not be required to complete the Project



correspondingly ahead of the date for Substantial Completion. If poor weather conditions prevail such that all of the properly documented and allowed bad weather days exceed the agreed upon number of weather days in the Schedule, a no cost Change Order extending the date of scheduled completion based on the number of excess weather days will be executed. In such case, no additional compensation for general conditions will be permitted.

5.10. Should Owner's Representative find that Contractor or any Subcontractor is failing to prosecute the Work so as to assure completion in a timely manner or by the date of Substantial Completion specified in the Contract, Owner's Representative may require, pursuant to written notice to Contractor, that Contractor provide additional material, manpower and/or equipment sufficient to insure timely completion. Any such measures specified by Owner's Representative pursuant to this Section 5.10 shall be taken at Contractor's sole expense and Contractor shall not be entitled to an increase in the Contract Sum. Failure by Contractor to provide additional material, manpower and equipment immediately upon Owner's Representative's notice shall constitute a breach of the Contract.

5.11. Contractor shall be liable for all costs incurred by Owner as a result of Contractor failing to meet completion dates set forth in the Schedule. These costs shall be deducted from the Contract Sum by Change Order.

5.12. Contractor shall not be entitled to any claim for damages and the Contract Sum shall not be revised on account of hindrances or delays from any cause unless occasioned by a cause over which Contractor has no control, or by any act or omission solely on the part of Owner. Such act, hindrance or delay over which Contractor has no control or that is caused solely by an act or omission of Owner may entitle Contractor to an extension of time in which to complete the Work. Whether or not Contractor shall be entitled to an extension of time shall be determined by Owner's Representative, provided that Owner's Representative receives Contractor's written notice of the cause of such act, hindrance or delay within ten (10) calendar days after its occurrence. Nothing in this Section 5.12 shall be construed to extend any remedies otherwise available to Contractor under Section 5.9 and any hindrances or delays caused by weather-related conditions are expressly excluded from the operation of this Section 5.12 and Contractor's remedies for any such hindrances and delays shall be limited exclusively to those set forth in Section 5.9 of these General Conditions.

## **ARTICLE 6. SCHEDULE OF VALUES**

6.1. Within ten (10) days of the commencement of the Work, Contractor shall submit to Owner and Architect a schedule of values in a form provided by Owner allocating the Contract Sum or accepted reconciled estimate of construction cost among the various portions of the Work. The dollar value of each scheduled item shall be listed on the schedule of values. After acceptance by Owner, individual line items in the schedule of values shall not be changed or revised without Owner written consent and shall be used as the basis for applications for payment.

6.2. Contractor's schedule of values shall be subdivided for each item of the Work identified in the Contract Documents and additional value subdivisions for each Subcontractor.

6.3. The schedule for each item shall be distinctively marked to show completion claimed for payment and the total value claimed shall be written on the Schedule.

6.4. Contractor's schedule of values shall include a line item for Close-Out Documents as an item of the Work. Contractor shall allocate five percent (5%) of the Contract Sum to the Close-Out Documents on the schedule of values.

## **ARTICLE 7. CONTRACTOR RESPONSIBILITIES**

7.1. Contractor shall provide all labor, materials, material testing, equipment, machinery, tools, utilities, transportation and other facilities and services necessary to perform the Work and produce the contemplated construction required by the Contract Documents. In addition to the foregoing and not by way of limitation, Contractor shall (i) purchase and deliver to the Site, complete with each and every necessary appurtenance, all tangible items to be incorporated into the Work or necessary to perform the Work; and (ii) coordinate delivery schedules, unload and handle from the delivery point at or to the Site, put into field storage as required, field assemble, if necessary, mount in position (with rigging, if necessary), connect and perform all other operations necessary for proper functioning of all items, all as part of the Work.

7.2. Contractor shall become fully familiar with the Work, carefully study the Contract Documents and at once shall report to Owner's Representative any error, inconsistency, or omission therein.

7.3. Contractor shall prepare and submit Coordination Drawings where close coordination is required for installation of products and materials fabricated off-site by separate entities, and where limited space necessitates maximum utilization of space for efficient installation of different components.

7.4. Contractor shall supervise and direct the Work, in accordance with the Standard of Care. Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, Contractor shall evaluate safety thereof and, except as stated below, shall be fully and solely responsible for safety of such means, methods, techniques, sequences or procedures. If Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, Contractor shall give timely written notice to Owner and shall not proceed with that portion of the Work without further written instructions from Owner. If Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by Contractor, Owner shall be solely responsible for any resulting loss or damage.

7.5. Contractor shall be responsible to Owner for acts and omissions of Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for or on behalf of Contractor or any of its Subcontractors.

7.6. Contractor shall at all times enforce strict discipline and good order among its employees and shall not employ any unfit person or anyone not skilled in the task assigned.

Contractor shall require compliance with all of Owner rules, regulations, and direction by all persons employed by Contractor and those of Subcontractors. Owner may direct Contractor to remove any person from Owner's property.

7.7. Contractor shall review field conditions and consult existing drawings of the existing facilities on the Project, and shall plan and execute the Work so as to minimize obstructions, and to arrange routings in the most efficient and effective manner.

7.8. All Work shall be done under the personal supervision of Contractor. Contractor shall provide a competent manager and, if the size of the Project warrants it, a competent superintendent for the Project, approved by Owner, who shall be at the Site and working full time on the Project for layout, direction, coordination, sequencing and all other required activities, for the entire duration of and until final acceptance of the Work. The approved manager and/or superintendent shall not be discontinued (except upon Final Completion of the Project or in the event of his or her termination of employment or disability or if Owner requests a replacement to resolve incompatible working relationships) and no new individual shall be designated without prior approval of Owner.

7.9. Contractor shall at all times take such precautions as may be necessary to properly protect the Work from damage during construction.

7.10. Contractor shall lay out the Work and be responsible for all lines, elevations, and measurements of the building, grading, paving, and other work executed under the Contract. Contractor shall exercise proper precaution to verify the dimensions shown on the Drawings before laying out the Work and will be held responsible for any error resulting from its failure to exercise such precaution.

7.11. Contractor shall be in charge of the entire Work and shall be responsible for the prompt coordination of all trades, as well as Owner separate contractors so long as they are at the Site during Contractor's performance of the Work.

7.12. Contractor shall be responsible for proper scheduling, delivery, and installation of items to be built into rough construction which will affect the latter portions of the Work, such as anchors, pipe sleeves, inserts, conduit pipes, lugs, clips, brackets, braces, hangers, bolts, miscellaneous metal and similar items. Contractor shall ascertain that all are properly installed in their correct locations at the proper time, so as to prevent cutting and patching of finished work.

7.13. Contractor shall be fully responsible for coordination of the Work with that of Subcontractors for plumbing, fire protection, electrical, heating, ventilation and air conditioning and other specialized trades. Contractor shall investigate, together with the Subcontractors involved, the routing of pipe, ductwork, and conduit with particular attention to interference with structural members, other pipes, ducts, and conduit cuts, headroom conditions, door and window openings, and swings, pipe chases, and similar features which may affect installation, functioning and serviceability of such items.

7.14. Changes in design locations, which may be necessary in the routing of pipes and ducts, or in the location of any mechanical, electrical or other equipment, shall be anticipated and

made prior to installation. Additional compensation will not be allowed for costs incurred as a result of Contractor's failure to anticipate the necessity of such changes.

7.15. There shall be no change or variation in ceiling height, wall layout, shaft, chase, furring or other dimension shown on Drawings, without the specific written approval of Owner's Representative and Architect.

7.16. Where the Contract Documents allow an optional material or method of performing a portion of the Work, or where Contractor is ultimately allowed or directed to perform a part of the Work using a substitute material or method, Contractor shall provide all other coordination and additional work that such change necessitates without any additional cost to Owner.

7.17. If any space conflicts cannot be resolved, Contractor shall immediately notify Owner's Representative and Architect.

7.18. Architect's review of the Coordination Drawings shall not relieve Contractor from Contractor's overall responsibility for coordination of all Work performed pursuant to the Contract or from any other requirement of the Contract.

## **ARTICLE 8. CONTRACTOR'S WORK AREA**

8.1. Contractor shall confine the Work to the area indicated on the Drawings.

8.2. Contractor shall visually inspect and document all existing Site conditions prior to mobilization.

8.3. The area for storage of material shall be the immediate area for construction or as agreed to/or provided by Owner. Contractor shall order and accept delivery of materials for the Project in such a manner so as to avoid an excessive amount of stored material.

8.4. In entering, passing through or working in any space in an existing facility during performance of the Work, Contractor shall at all times furnish and maintain proper protection for the existing property of Owner and other contractors working in the area.

8.5. Any item damaged, marred or otherwise rendered unacceptable to Owner due to this Work, whether protected or not, shall be replaced or repaired to Owner satisfaction without cost to Owner. This includes, but is not limited to, such items as lawns and landscaping, paving, curbs, underground utilities, floors, ceilings, walls, columns, brickwork, piping, insulation, interior spaces, equipment, fixtures and furniture.

## **ARTICLE 9. SUBCONTRACTORS**

9.1. Unless otherwise stated in the Contract Documents or the bidding requirements, Contractor, as soon as practicable after award of the Contract, shall furnish in writing to Owner the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work. Owner will promptly reply to Contractor in writing stating whether or not Owner, after due investigation, has reasonable objection to any such proposed person or entity. Contractor shall not contract with a

proposed person or entity to which Owner has made reasonable and timely objection. If Owner has reasonable objection to a person or entity proposed by Contractor, Contractor shall propose another to whom Owner has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless Contractor has acted promptly and responsively in submitting names as required.

9.2. Failure of Owner to reply promptly to Contractor after receipt of the names of persons or entities proposed for each principal portion of the Work shall constitute notice of no reasonable objection.

9.3. Contractor shall not change a Subcontractor, person or entity previously selected if Owner makes reasonable objection to such substitute.

9.4. By appropriate agreement, Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to Contractor by terms of the Contract Documents, and to assume toward Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which Contractor, by these Documents, assumes toward Owner. Subcontracts or other agreements shall conform to the applicable payment provisions of these General Conditions and the applicable Contract, and shall not be awarded on the basis of cost plus a fee without prior consent of Owner. Each subcontract agreement shall preserve and protect the rights of Owner under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against Contractor that Contractor, by the Contract Documents, has against Owner. Where appropriate, Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement which may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

9.5. Each subcontract agreement for a portion of the Work is assigned by Contractor to Owner provided that:

9.5.1. assignment is effective only after termination of the Contract by Owner and only for those subcontract agreements which Owner accepts by notifying the Subcontractor and Contractor in writing; and

9.5.2. assignment is subject to the prior rights of the surety, if any, obligated under any bond relating to the Contract.

9.6. Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

9.7. If Owner determines that a Subcontractor's performance has been substantially completed (including without limitation, that all of the same items described in Article 32 required for approval of Contractor's application for final payment for the entire Project, as such items relate to each Subcontractor's work, are complete, and especially including without limitation, that Record Documents, O & M manuals, Owner orientation, warranties, final lien waivers and attic stock relative to such Subcontractor's work have been submitted to and approved by Owner) and if Owner further determines that such Subcontractor can be released prior to Substantial Completion of the entire Project without risk to Owner involving such Subcontractor's work, Owner shall, upon request by Contractor, release retainage as necessary to allow Contractor to pay such Subcontractor in full. The foregoing shall be without prejudice to Owner's right to hold and/or continue to hold sums (in addition to and not as retainage), following default, neglect to prosecute the Work and/or failure to correct defective or nonconforming Work by Contractor or such Subcontractor, to protect Owners interest in satisfactory performance of the Contract.

## **ARTICLE 10. EQUIPMENT AND MATERIALS**

10.1. All equipment and materials required for installation shall be new and without blemish or defect, unless Owner otherwise specifies the reuse of equipment or material as specified in the Contract Documents. All electrical equipment shall bear labels attesting to Underwriters Laboratories certification.

10.2. Name brands or manufacturer's model designations are listed in the Contract Documents to set a minimum acceptable standard of quality. The words "or equal if approved by Owner" are implied, if not expressly stated.

10.3. Where type or quality of material or equipment is not indicated, a first class standard article shall be furnished, subject to Shop Drawing approval.

10.4. All equipment of one type (such as fans, pumps, coils, fixtures, hardware, etc.) shall be the product of one manufacturer, unless otherwise specified.

10.5. When multiple manufacturers of an item of the Work are specified, any one manufacturer is acceptable for Contractor to choose. Upon written request to Owner and Architect, Contractor may offer a substitute product or process under the following circumstances:

10.5.1. When the specified product or process is discontinued and not available from any of the multiple specified manufacturers; or

10.5.2. When, if a guarantee of performance is required, and in the judgment of Contractor, the specified product or process from any of the multiple manufacturers, will not produce the desired results.

10.6. Requests for substitution of products or processes for any reason other than those specified in Section 10.5.1 and Section 10.5.2 of this Article 10 shall be submitted by Contractor

in writing to Architect. A request shall be accompanied by such Drawings, Specifications, Samples, performance data, and other information as may be necessary to assist Owner and Architect in determining whether the proposed substitution is acceptable. The burden of proof rests solely upon Contractor. Each request shall stipulate the following items.

10.6.1. The substitution is equal or greater in quality and serviceability to the specified item;

10.6.2. The substitution shall not entail changes in details and construction of related Work;

10.6.3. The substitution shall be acceptable in consideration of the required design and architectural effect;

10.6.4. The substitution shall not involve additional cost to Owner. Any credits to Owner shall be described in an accompanying request for a Change Order; and

10.6.5. Contractor shall waive all claims for additional costs that may subsequently become apparent for Work associated with the substitution. Contractor shall be responsible for the effect of a substitution upon related Work in the Project and shall pay any additional costs including Architect's and/or Engineer's additional services associated with a substitution; and

10.7. No substitute products or processes proposed under Section 10.5 or Section 10.6 of these General Conditions shall be approved by Owner unless Owner in its sole discretion, after input from Architect, is satisfied that such substitution is in Owner's best interest.

10.8. All substitute products or processes proposed under Section 10.5 or Section 10.6 of these General Conditions shall completely fulfill the requirements of the Contract Documents as a condition to approval of the substitution.

10.9. Regardless of the evidence submitted, or any review or independent investigation by Owner or Architect, a request for substitution of products or processes is a warranty by Contractor to Owner that such substitution meets the foregoing requirements.

10.10. Contractor shall furnish necessary appurtenances, coordinated with shipping, delivery time, dates and location, storage, weather and damage protection, equipment and personnel for immediate receiving and movement from transport truck and/or crane or helicopter, to the final installation site and/or temporary storage site, if the installation site is not ready, required for complete installation of materials or equipment furnished to Contractor by Owner. Contractor shall furnish all items required for installation, start-up and full continuous useful operation of Owner furnished equipment. Unless specified otherwise, Contractor's responsibility is to receive, store and install Owner-furnished equipment and materials.

## **ARTICLE 11. TAXES**

11.1. Contractor shall familiarize itself with current, applicable tax statutes, regulations and procedures. Contractor shall pay all applicable sales, consumer, use and similar taxes applicable to the Project. Notwithstanding the foregoing, Owner represents that it is exempt from

sales tax under Missouri state law and certain purchases by Contractor of materials for the Project may be exempt from certain sales taxes pursuant to §144.062 RSMo. The tax on the sale of such materials or supplies that is available for exemption pursuant to §144.062 RSMo. and other applicable regulations shall not be included as part of the price for any Work performed or included in an application for payment.

11.2. Owner will provide Contractor with a Project Tax Exemption Certificate for the Project in order to obtain the benefits of §144.062 RSMo. The Project Tax Exemption Certificate is renewable for the Project at the option of Owner and only for the purpose of revising the Project Tax Exemption Certificate expiration date as necessary to complete the Project.

11.3. Contractor shall furnish the Project Tax Exemption Certificate to all Subcontractors and any person or entity purchasing materials for the Project shall present such Project Tax Exemption Certificate to all material suppliers as authorization to purchase, on behalf of Owner, all tangible personal property and materials to be incorporated into or consumed in the construction of the Project and no other on a tax-exempt basis. Such suppliers shall provide to the purchasing party invoices billable to Contractor and bearing the name of Owner and the Project identification number. All invoices for personal property and materials purchased under a Project Tax Exemption Certificate shall be retained by Contractor for a period of five years and shall be subject to audit by the Department of Revenue.

11.4. To the extent possible under Applicable Laws, Contractor shall minimize any taxes applicable to the Work, including by the use of the Project Tax Exemption Certificate and/or resale certificates, as appropriate, by and among Contractor and Subcontractors of all tiers. Prior to entering into any communication with Governmental Authorities relative to such tax issue, Contractor shall notify Owner and afford Owner the opportunity to participate in such communication as Owner deems appropriate.

11.5. Owner shall not be responsible for any tax liability due to Contractor's neglect to make timely orders, payments, etc. or Contractor's misuse of (or failure to use) the Project Tax Exemption Certificate or misunderstanding of the Applicable Laws and regulations relating to sales tax exemption in the State of Missouri. Contractor represents that the Project Tax Exemption Certificate shall be used in accordance with §144.062 RSMo and the terms of the Project Tax Exemption Certificate. Contractor shall indemnify Owner for any loss or expense, including but not limited to, reasonable attorneys' fees, arising out of Contractor's misuse of the Project Tax Exemption Certificate.

## **ARTICLE 12. STORAGE OF MATERIALS OFF SITE**

12.1. Contractor and its Subcontractors shall obtain prior written approval from Owner through Architect for permission to store materials to be incorporated in and made a permanent part of the Work, for which Progress Payments will be requested, at off-site locations. Any and all charges for storage, including insurance, and any and all charges for transportation to the Site shall be borne solely by Contractor. Before approval, Owner requires that off-site materials be stored in an approved warehouse, with proper proof of insurance and a letter stating the following information:



12.1.1. The name of Contractor and/or Subcontractor leasing or owning the storage space;

12.1.2. The location of such leased or owned space;

12.1.3. Whether the entire premises or certain areas of a warehouse are to be used, specifically the number of floors or portions thereof;

12.1.4. The date on which the material was first stored; and

12.1.5. The value of the material stored;

12.2. Contractor and Subcontractors shall allow Architect and Owner to visit the warehouse where the materials are being stored.

12.3. Contractor and Subcontractors shall mark the material being stored in such a way as to identify the name of the Project and Owner.

12.4. A perpetual inventory shall be maintained by Contractor for all materials held in storage for which payment has been requested.

12.5. Payments for materials stored off site in an approved and insured warehouse shall be at the sole discretion of Owner. Any additional costs to Owner resulting from storage of material off site for which payment is requested, such as, but not limited to, travel expenses and time for inspectors, shall be back charged to, and paid by Contractor. Title to materials stored off site shall be transferred to Owner when Owner pays for such stored materials.

### **ARTICLE 13. SUBMITTALS**

13.1. Contractor and Architect shall confer and agree upon the timing for delivery of required Submittals for Owner acceptance. Contractor shall incorporate required Submittals into its Schedule, allowing for a reasonable time for review. In no event shall the Schedule allow for the delivery of Submittals later than the date which is the end of the first quarter of the Contract Time. All Subcontractors shall submit required Submittals through Contractor to Architect, and Contractor and Architect shall perform their obligations as to Submittals, all in accordance with the accepted Schedule. No portion of the Work for which a Submittal is required shall be purchased, fabricated, manufactured or constructed until Architect has approved the respective Submittal, unless otherwise directed to proceed by Owner.

13.2. When possible, Contractor shall transmit all Shop Drawings, Coordination Drawings and descriptive literature for all equipment to be furnished under the Contract Documents by electronic means. When electronic distribution of such documents is not possible, Contractor shall submit for review a total of three (3) hard copies of Shop Drawings, Coordination Drawings and descriptive literature for all equipment to be furnished under the Contract Documents. Contractor shall submit two (2) copies of such documents to Architect and one (1) copy to Owner's Representative.

13.3. Contractor shall submit Samples in kind and number required by the Contract Documents.

13.4. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required by the Contract Documents, code or Applicable Laws, Architect shall specify appropriate performance and design criteria that such services must satisfy. Submittals relating to such portions of the Work shall include the certification and seal, if applicable, of the licensed professional retained for such purpose.

13.5. Presentation of a Submittal by any person or entity for review shall constitute a representation that such person or entity has examined all materials, field measurements and field construction criteria related thereto, and that it has checked the Submittal for dimensional accuracy, quantities and coordination with the Contract Documents and the contiguous part of the Work. Contractor shall be responsible for any errors in the Submittals. Any intended deviation from the requirements of the Contract Documents shall be conspicuously identified in writing. Measurements not available prior to the presentation of a Submittal shall be conspicuously noted as not available and, to the extent reasonably possible, such measurements shall be obtained and incorporated into the Submittal by the submitting person or entity prior to fabrication. Any deviation not so noted, and any misrepresentation by means of omission of pertinent data, shall be the responsibility of Contractor.

13.6. Submittals shall comply with the Contract Documents and shall contain the following information at the time of submission:

13.6.1. The name of the Project and the Owner's Project number;

13.6.2. The name of Contractor;

13.6.3. The name of the submitting Subcontractor, lower-tier subcontractor, supplier, manufacturer, fabricator and/or processor;

13.6.4. The date of Submittal;

13.6.5. The number of the Submittal;

13.6.6. The number and date of each revision, if any;

13.6.7. The applicable Specification section;

13.6.8. The applicable Drawing and detail reference;

13.6.9. Applicable standards, such as ASTM;

13.6.10. The name of the person(s) who prepared the Submittal;

13.6.11. The name of the firm or organization preparing the Submittal; and

13.6.12. The date by which an action on the Submittal must be taken;

13.7. Shop Drawings and Coordination Drawings shall show the design, dimension and connections to the contiguous parts of the Work in such detail as necessary to demonstrate proper connections and coordination with said contiguous Work.

13.8. Manufacturers' catalog numbers alone are not acceptable as sufficient information or compliance with a requirement to provide product data.

13.9. Samples and their transmittal letters shall be labeled, tagged or clearly identified, leaving sufficient clear space for Contractor's and Architect's stamps, and shall identify the trade designation and the grade or quality of the material or product.

13.10. In the event that a range of variations in textures, graining, color or other characteristics may be anticipated in finished materials, assemblies or elements of the Work, a sufficient number of Samples of such materials shall be submitted to indicate the full range of characteristics that will be present in the materials proposed for the Work. Any such materials delivered or erected prior to approval of full range Samples shall be subject to rejection by Owner and Architect.

13.11. Samples shall be submitted from the same source that will actually supply the material. Samples shall be of adequate size to show quality, type, color, range, finish, texture and other specified characteristics.

13.12. Samples of materials that are normally furnished in containers or packages that bear descriptive labels and/or application or installation instructions shall be submitted with such labels and/or instructions.

13.13. Contractor shall promptly, in accordance with the Schedule, review all Submittals for coordination and compliance with the Contract Documents and transmit them to Architect with its stamp affixed thereto as evidence of such review and coordination. Architect may return to Contractor for resubmission, without action, Submittals not bearing Contractor's stamp or the identifying information required, and the submitting entity shall be responsible for any resulting delay or additional cost.

13.14. Owner and Architect may rely upon professional certification of performance characteristics of materials, systems or equipment that is required by the Contract Documents.

13.15. Architect shall review all Submittals in order to confirm conformance with the design concept and performance expressed in the Contract Documents, but not for purposes of any construction means, methods, techniques, sequences or procedures contained therein or to enhance or modify the design of the Project. Approval of Shop Drawings, or other information submitted in accordance with requirements specified, does not assure that Architect, Engineer or Owner attests to the dimensional suitability of the material or equipment involved or the mechanical performance of equipment. Approval of Shop Drawings does not invalidate the Drawings and Specifications if in conflict, unless written request of such change is submitted by Contractor and approved by Owner's Representative.

13.16. Architect shall return Submittals to Contractor in accordance with the Schedule, with a copy to Owner, with Architect's stamp and signature affixed thereto, and annotated as follows:

13.16.1. "No Exception Taken" which means that fabrication, manufacture or construction may proceed in accordance with the Contract Documents;

13.16.2. "Make Corrections Noted" which means that fabrication, manufacture or construction may proceed in accordance with Architect's notations and the Contract Documents. If, for any reason, the submitting entity cannot comply with the notations, it shall resubmit as described for Submittals stamped "Revise and Resubmit";

13.16.3. "Make Corrections Noted, Resubmit for the Record" which means that fabrication, manufacture or construction may proceed in accordance with Architect's notations and the Contract Documents, and the submitting entity shall revise the Submittal for the record as noted. If, for any reason, the submitting entity cannot comply with the notations, it shall resubmit as described for Submittals stamped "Revise and Resubmit";

13.16.4. "Revise and Resubmit" which means that fabrication, manufacture or construction shall not proceed on the Submittal, and the submitting entity shall revise the Submittal until final acceptance is obtained. No Submittals stamped "Revise and Resubmit" shall be maintained at the Site;

13.16.5. "Rejected" which means the Submittal is not in conformance with design concept and does not comply with the Contract Documents. Fabrication, manufacturer or construction shall not proceed, and the submitting entity shall revise the Submittal until final acceptance is obtained. No Submittals stamped "Rejected" shall be maintained at the Site; or

13.16.6. "No Action Required" which means the Submittal is not required and is for Architect's information and record only.

13.17. Any resubmittal of a Submittal shall direct specific attention in the transmittal letter, or in conspicuous notes on the Submittal, to revisions other than those requested by Architect. Architect's review of a Submittal that it has rejected twice previously, through no fault or omission of Architect, shall be performed as a Change Order, and the cost thereof shall be borne by the party or parties responsible.

13.18. Portions of the Work for which a Submittal is required shall be fabricated, manufactured and constructed in accordance with the respective approved Submittal.

13.19. Review and approval of Submittals by Architect shall not relieve submitting entities of their responsibility to verify all dimensions, field conditions, quantities, and measurements, to coordinate with contiguous parts of the Work and otherwise comply with the Contract Documents. Approval of Submittals does not authorize changes to Specification requirements.

## **ARTICLE 14. TESTING**

14.1. Materials used in the Work, particularly those upon which the strength or durability of the Project may depend, shall be subject to testing to verify conformance with the Contract Documents and suitability.

14.2. Contractor shall provide Samples of material in kind and quantity required for testing, labeled and identified, without additional cost to Owner. Contractor shall patch and restore affected area after removal of in-place Samples.

14.3. If testing of a Sample or other portion of the Work is required by the Contract Documents or Applicable Laws, Contractor shall arrange for, schedule and coordinate such testing at its expense. If testing is requested by Owner, Contractor shall arrange for, schedule and coordinate such testing at Owner's expense, provided however, if test results indicate non-conformity with the Contract Documents or non-suitability, Contractor shall bear the expense of such testing. Any subsequent tests required shall be at the expense of Contractor including costs associated with replacing the materials.

14.4. Mill tests, when required of metals, pressure tests and certification of piping and vessels, shall be at Contractor's expense.

14.5. Copies of all test reports and test summaries shall be submitted to Owner, Architect and applicable authority at no additional expense to Owner.

## **ARTICLE 15. MEETINGS**

15.1. In connection with the Work on the Project, Contractor shall hold progress meetings at the Site with all persons or entities then performing the Work on the Project and the Owner. Such meetings shall be held at least weekly or at such other times as directed by Contractor or Owner, and during such meetings Contractor shall (i) review and discuss the progress of the Work with the Subcontractors and suppliers then performing the Work on the Project, (ii) specify and discuss as necessary all requests for information received by Contractor since the last meeting, and (iii) discuss all unresolved issues that may impede meeting Project milestones or the Schedule. Contractor shall hold administrative meetings with Owner at least once every week. Contractor shall prepare minutes of both the progress meetings and the administrative meetings with Owner and shall distribute minutes of such meetings within three (3) days following the meeting to all attendees, except that Owner's Representative shall be provided a copy of the progress meeting minutes whether or not Owner's Representative attended the meeting.

## **ARTICLE 16. RECORD DOCUMENTS**

16.1. Contractor shall maintain at the Site for review at any time by Architect or Owner's Representatives a complete set of all Drawings, Specifications, addenda, Shop Drawings, Change Orders and other Modifications of the Contract Documents in good order, in a single location and marked daily to record field changes and selections made during construction. Field changes shall include measurements, changes and deviations from the design and additions and deletions thereto, as approved, as well as existing conditions encountered in the course of the Work, which are not shown on the Drawings or which vary from what is shown on the Drawings. It is mandatory that Contractor keep up to date the set of Record Documents maintained at the Site in a single location.

16.2. Within thirty (30) days following Final Completion, Contractor shall submit to Architect or Engineer, as applicable, final Record Documents. Such Record Documents shall be redlined as described above.

## **ARTICLE 17. CUTTING AND PATCHING**

17.1. Contractor shall be responsible for all required cutting and patching. Under no circumstances shall any structural members, load bearing walls, footings, furniture or other structural feature, be cut without previous written consent of Owner's Representative.

17.2. All patching shall be performed at Contractor's expense. Contractor shall use the appropriate cutting and trades for performing such Work.

17.3. When cutting, grinding, welding, soldering and engaging in other activities requiring the use of an open flame, Contractor shall comply with the requirements for Hot Work as set forth in Owner's Safety Guidelines for Contractors included in the Bidder's Package, which policy Owner shall make available to Contractor and which may be modified from time to time. Contractor shall monitor the hot work area for four (4) hours after the job is completed.

17.4. Patching shall be in accordance with the requirements of the Contract Documents and finished patch and all finishes shall conform to surrounding finishes.

## **ARTICLE 18. PARKING**

18.1. Contractor, Subcontractors and material suppliers shall at all times adhere to Owner's Parking Policy as provided for in the Contract Documents, which policy Owner may modify from time to time. Failure to abide with the Parking Policy shall be cause to remove owner/driver of the vehicle from the Project.

## **ARTICLE 19. COORDINATION AND ACCESS**

19.1. All Work shall be carried out in such a manner as to cause the least interference with Owner's continuous operation and/or the work of other contractors.

19.2. At no time shall Contractor hamper Owner's use of any existing facility. Corridors, doorways and exits, shall be kept free of all materials at all times.

19.3. Roadways and walkways shall remain open except if Contractor is actively working at the location. Contractor shall furnish road plates, barricades, temporary guardrails, temporary pedestrian footbridges and overhead shelters, duckboards and any other installation to permit traffic and pedestrians to cross the area safely.

19.4. Contractor shall not enter or have access to any space in any facility in order to perform the Work without first having given timely notice to Owner's Representative and other contractors so that necessary arrangements may be made to enter or have access to such space.

19.5. All Work carried out at the Site is to be done at times designated by Owner. Work outside of these hours, and on Saturdays, Sundays, and University holidays requires advance approval and coordination by Owner's Representative.

19.6. There will be a \$100 deposit required for each key requested by Contractor's personnel and Subcontractors. A company check must be presented to Owner's Representative representing the amount for the number of keys requested. The check will be deposited into a holding account until all keys are returned. Once all keys are returned, Owner will return the deposit. If keys are not returned at the end of the Project, the deposit will be forfeited.

19.7. There will be a non-refundable, production fee for all new contractor cards used for entering card access controlled buildings after hours and for accessing traffic control devices. All lost or stolen ID cards should be reported as soon as possible to the Washington University Police Department at 314-935-5555. An additional fee will apply to replace all lost or stolen cards.

## **ARTICLE 20. EXISTING UTILITIES**

20.1. Contractor shall work in such a manner so as to avoid interrupting the operation of the existing utility systems. If it becomes necessary to interrupt service to make a connection, alteration or relocation to such system, Contractor shall prearrange such Work with Owner's Representative and make the connections, alterations or relocations at the time directed by Owner's Representative.

20.2. Contractor shall obtain Owner approval ten (10) calendar days prior to the actual shutdown of any existing utility system required to facilitate installation of the Work. Utility systems shall be restored to service immediately after Contractor completes such Work or at the end of the working day if required by Owner.

20.3. If Contractor requires shutdown of a system or branch of a system to permit demolition, tie-in or extension, Contractor shall schedule the shutdown with Owner's Representative. Contractor shall follow the procedures established by Owner, attach a tag to the valve, switch or disconnect with the following information written on it: Name of Contractor, Purpose of Shutdown, and date of Expected Resumption of Service.

20.4. All systems shutdown by Contractor are to be plugged, capped, disconnected or made safe by Contractor in as short a period as possible and building services restored.

## **ARTICLE 21. UTILITY SAFETY; PROCEDURES**

21.1. Contractor, whenever it is necessary to shutdown a system or branch of a system for purposes of demolition, tie-in or extension, shall first schedule the shutdown with the Owner's Representative. Contractor shall attach a tag to the valve, fuse or switch with the following information written on it: Name of Contractor, Purpose of Shutdown, and date of Expected Resumption of Service. All work that is necessary to shutdown a system or branch of a system shall be performed in accordance with Owner's Safety Guidelines for Contractors and all other Applicable Laws.

21.2. Where the Work involves excavating, digging, boring, tunneling or otherwise disturbing the earth in an area around buried utilities, Contractor will notify Owner's Representative of such Work and its location at least three (3) working days prior to commencing the proposed Work.

21.3. All systems shutdown by Contractor are to be plugged, capped, disconnected or made safe by Contractor in as short a period as possible and building services restored.

21.4. Whenever reactivation of a system could possibly cause personal injury or damage to property and the valve, switch or fuse is out of the direct control of Contractor, a second prominent tag "DANGER - DO NOT OPERATE" shall be attached by Contractor. The tag shall indicate the identity of the person responsible (person who places and who will remove the danger tag), Contractor or Subcontractor and 24-hour emergency telephone number written on it. The danger tag procedure applies to any system that is to remain shutdown past the end of any shift. It is intended that only the person who places the tag shall remove it, although another Contractor's employee may assume responsibility by signing the tag.

21.5. Contractor shall remove all tags when the shutdown is completed and the system reactivated.

21.6. Contractor shall mark surface with limits of any required excavation and shall mark location of existing underground structures, utilities, services or sewers indicated by the Contract Documents. Contractor shall not commence excavation until Owner's Representative and local telephone company have reviewed on-site, marked additional underground interference and have given to Contractor approval to proceed.

21.7. If unknown interference is encountered, Contractor shall cease excavation, demolition, or other work until Owner's Representative has approved method of further work.

21.8. Except for telephone, isolated connections, sewer lines, on-campus utility systems are University-owned. Upon notice by Contractor, Owner shall make arrangements with public utility services as may be required by the Contract Documents. Contractor shall not order any utility services for Owner's account.

#### 21.9. Underground Warning Tapes

21.9.1. General: Contractor shall install printed underground warning tapes in trenches of underground pipes, conduits, wires, installed on the Project. Tapes shall be of polyethylene film not less than 3.5 mils thick and not less than 2 inches wide. Tapes shall be installed not less than 12 inches and not more than 18 inches below finished ground surface. Tapes shall be vividly color coded with "Caution" and identification of the buried service printed on the tape at frequent intervals.

Acceptable sources of underground warning tapes:

EMED Company Inc.  
Allen Systems, Inc.  
Seton Name Plate Corp.



W. H. Brady Co. – Sigmark Division

21.9.2. Non-metallic Underground Warning Tapes: Contractor shall install non-metallic warning tapes in trenches for installation of metal pipes, conduits and buried cables.

UNDER-GROUND COLOR	SERVICE	EMED	SETON	BRADY	ALLEN
Red	Elec. Line	UT27727	210ELE	91295/91296	0751415
Yellow	Gas Line	UT27738	210GAS	91294	0751311
Yellow	Pipeline	UT35279	210PIP	----	0751324
Green	Sewer Line	UT27741	210sew	91299	0751512
Orange	Elec. Line	UT27742	210TEL	91297	0751116
Orange	CATV Line	---	210TCL	---	0751122
Blue	Water Line	UT27743	210WAT	91298	0751214

21.9.3. Metallic Underground Warning Tapes: Contractor shall install metallic warning tapes in trenches for installation of plastic pipes, plastic water pipes, clay or cement water lines, and sewer lines, fiberglass-reinforced plastic pipe, plastic, clay and concrete sewer pipes, fiber optic transmission lines, plastic, conduit. All underground non-metallic lines of any length shall have metallic underground warning tapes installed in the pipe trench. Ends of rolls of metallic underground warning tapes shall be bonded mechanically. Shallow buried metallic underground warning tapes shall be detected easily by any commonly used metal detector before digging.

UNDER-GROUND	EMED	SETON	BRADY	ALLEN
Electric	MT27737	2ELE	91601	711315
Gas	T27738	2GAS	91600	711311
Pipeline	---	2PIP	---	711324
Sewer	MT27741	2SEW	91604	711412
Telephone	MT27742	2TEL	91602	711116
Water	MT27743	2WAT	91603	711214

21.9.4. Approval and Acceptance: Owner shall locate the metallic underground warning tape using any or all of Owner's metal detectors before Contractor shall be permitted to claim 100 percent completion for installation of underground piping, conduits and cables on Schedule of Values.

**ARTICLE 22. JOBSITE SAFETY AND SECURITY**

22.1. Contractor shall initiate, maintain and supervise all safety precautions and programs in connection with the Work. This includes compliance with Owner's Safety Guidelines for Contractors and all Applicable Laws of any Governmental Authorities for the safety of persons or property. Contractor shall submit to Owner a written safety program prior to commencement of the Work. Contractor shall designate a responsible member of its organization at the Site whose duty shall be the prevention of accidents and compliance and enforcement of the safety program and safety requirements of the Contract Documents.

22.2. Contractors shall perform frequent and regular safety inspections. Inspections shall be documented weekly on all Sites. If any Work is performed in hospital or patient care areas, such inspections shall be performed and documented on a daily basis.

22.3. Contractor must make available at the Site one or more individuals who are trained to render first aid and CPR.

22.4. Contractor shall eliminate and prevent any real or potential safety hazard to students, faculty, staff, patients, campus visitors and property due to Contractor's activity or any condition at the Site. Contractor shall eliminate such safety hazard immediately and before proceeding with any Work.

22.5. Contractor shall provide, install and maintain adequate temporary safety devices to abate such hazards including temporary barricades, signs, warning lights, illuminations, night lighting, walkways, safety nets, fences, shields and any other devices appropriate to the situation.

22.6. Contractor shall provide personal protective wearing apparel and devices for authorized visitors to the Site as may be required by Contractor, Applicable Laws or the Contract Documents.

22.7. Contractor is entirely responsible for security and safety of the Site until it is turned over to Owner.

22.8. Contractor shall furnish all transportation, labor, apparatus, scaffolding, barricades, safety devices and utensils necessary for performance of the Work.

22.9. Contractor shall comply and cause all of its Subcontractors to comply with all applicable Occupational Safety and Health Administration (OSHA) rules and regulations for safety and health in construction projects.

22.10. Owner has adopted the St. Louis Council of Construction Consumers "Model Substance Abuse Testing Specification." All Contractors, Subcontractors and material suppliers are required to meet the requirements of this policy.

## **ARTICLE 23. HAZARDOUS MATERIALS**

23.1. Contractor shall comply and shall cause all of its Subcontractors to comply with all Applicable Laws relating to hazard communication and the use of Hazardous Materials. Upon Owner's request, Contractor shall make its hazard communication program available to Owner's Representative and other authorized University personnel for review.

23.2. Contractor shall provide a Material Safety Data Sheet ("MSDS") to Owner's Department of Environmental Health & Safety ("EH&S") for each chemical and compressed gas brought onto Owner's property. Contractor shall have copies of all MSDS available at the Site for review by Owner's Representative or other authorized University personnel.

23.3. Hazardous Materials may not be used without prior notice to and coordination with EH&S. Contractor shall notify Owner's Representative and EH&S if any of the products or

materials specified in the Contract Documents or proposed by Contractor or its Subcontractors or material suppliers contain or are reasonably believed to contain Hazardous Materials in any form, so that Owner can determine whether such materials may be used in the Work. At all times Contractor or its Subcontractors or its material suppliers shall comply with Owner's Safety Guidelines for Contractors along with the following guidelines with respect to Hazardous Materials:

23.3.1. Adhesives, Glues, and Mastics. If Contractor believes there are special circumstances where there is a need to use adhesives, glues or mastics that exceed the 50 grams of VOC content limits, Contractor shall discuss such circumstances with the Owner's Representative and Architect (if any). A decision by Owner regarding VOC content limit is final.

23.3.2. Fluorescent Light Bulbs & Ballasts Recycling/Disposal.

23.3.2.1. Where Contractor, its employees or Subcontractors are responsible for removing fluorescent light bulbs and/or ballasts they shall also arrange for recycling of these materials through an appropriately permitted recycling facility. All recycling vendors must be approved by the Owner's Representative;

23.3.2.2. All such light bulbs and/or ballast shall be managed as Universal Waste according to the Missouri Department of Natural Resources regulations;

23.3.2.3. Contractor, its employees or Subcontractors who remove ballasts from fluorescent light fixtures are responsible for determining if the ballasts contain Polychlorinated Biphenyls (PCB) and, if so, for separating any PCB containing ballasts from non-PCB ballasts. PCB containing ballasts shall be placed into a plastic container or a plastic lined metal container which shall be labeled to indicate that they contain PCBs. After packing and labeling containers holding PCB containing ballasts, Contractor shall ensure that such containers are transported on a Uniform Hazardous Waste Manifest to a recycling facility authorized to receive such Hazardous Material. Non-PBC ballasts can be recycled though most electronic waste vendors; and

23.3.2.4. Copies of all manifests and bills of lading from the transportation of these Hazardous Materials shall be provided to the Owner's Representative.

23.3.3. Plumbing Work. Discovery of Hazardous Materials/Waste. Contractor shall immediately notify Owner's Representative if liquid mercury or sharps are discovered in plumbing. Upon discovery, such material shall be placed in a lidded container and labeled.

23.3.4. Blood Borne Pathogens. If Owner's Representative reasonably determines that Contractor's employees or Subcontractors may come into contact with blood borne pathogens during Work on the Project, such individuals shall have training in blood borne pathogen awareness. Contractor and its Subcontractors shall maintain documentation of its/their employees' training in blood borne pathogens awareness. Contractor and Subcontractors (as applicable) shall offer affected employees hepatitis B vaccination. The affected employees must either receive the hepatitis B vaccination or sign a letter declining such vaccination. Contractor and Subcontractors

(if applicable) shall maintain a record of either (i) the employee's hepatitis B vaccination or (ii) the written offers to provide a hepatitis B vaccination and the employee's written decline of such hepatitis B vaccination.

#### 23.3.5. Petroleum or Non-Petroleum Oil Products.

23.3.5.1. Contractors performing work for Owner may bring additional oil containers greater than 55-gallons that are required for the Work provided that Contractor (i) properly labels and stores all portable storage containers; and (ii) notifies Owner's Representative of any petroleum or non-petroleum products that will be brought on Site.

23.3.5.2. If Contractor or its Subcontractors plan to bring more than 1,320 gallons in oil containers to the Site, Contractor shall maintain a separate Spill Prevention, Control and Countermeasure Plan (SPCC) covering those containers before any containers are placed on Site.

23.4. Contractor shall take all precautions for storage and adequate ventilation when using Hazardous Materials necessary to protect students, faculty, staff, patients, campus visitors and property from exposure to Hazardous Materials. Contractor shall provide adequate protection for persons working on the Project and using the Hazardous Materials. Contractor shall be responsible for any Hazardous Materials brought to the Site by Contractor, Subcontractors, suppliers or anyone else for whom Contractor is responsible.

23.5. Before working in areas containing Owner's chemicals or Hazardous Materials, Contractor shall contact Owner's Representative and EH&S to obtain information regarding the hazards of the chemicals.

23.6. Contractor shall notify Owner's Representative prior to commencing Work involving cold/warm rooms, biological safety cabinets, chemical fume hoods or ducts that exhaust hazardous chemicals.

23.7. Hazardous Materials shall not be disposed of in Owner's dumpsters or receptacles. Contractors shall dispose of all Hazardous Materials in accordance with all Applicable Laws and Owner's Safety Guidelines for Contractors relating to disposal of Hazardous Materials. Prior to disposal of Hazardous Materials, Contractor shall contact Owner's Representative who shall work with the Owner's Office of Environmental Health & Safety to select a certified hazardous waste disposal/remediation company. All Hazardous Materials removed from Owner's premises shall be properly labeled, manifested and transported by licensed hazardous waste transporters in accordance with all Applicable Laws.

23.8. Notwithstanding anything herein to the contrary, asbestos, asbestos containing products or polychlorinated biphenyl (PCB) shall not be allowed on the Site nor be used in the Work.

23.9. Asbestos Notice. Asbestos containing materials ("ACM") were commonly used in buildings constructed in the United States prior to 1990, including buildings located at Owner's various campuses. The most common types of ACM include thermal system insulation such as

pipe and boiler insulation, sprayed or troweled on surfacing materials, fire proofing, transit panels and floor tiles.

Owner maintains information relative to the known locations of ACM in its buildings and will make such information available to the Contractor relative to the proposed Work. If you require additional information relative to the location of ACM in a particular building or work area, contact Owner's Representative.

Contractor shall avoid contact with known ACM or material that Contractor suspects contains ACM. To the extent it is necessary to disturb known or suspected ACM, Contractor shall notify Owner's Representative before proceeding. In each and every instance, Contractor shall take all necessary precautions to protect human health and comply with all Federal, state or local laws applicable to asbestos and asbestos containing material.

23.10. If asbestos or some other Hazardous Material is suspected or encountered but not introduced to or created on the Site by Contractor, Contractor shall, upon recognizing the condition, immediately report the condition to Owner and Architect in writing. Contractor shall stop the Work only in areas where the Work cannot progress safely while utilizing reasonable precautions. Owner shall be responsible to verify the presence or absence of the material or substance reported by Contractor and, if present, to verify when the material or substance has been rendered harmless.

23.11. Contractor shall take all steps necessary to minimize or prevent particulate matter emissions from going beyond the limits of the Work. Control measures may vary depending on the Project or activity involved, but shall include, at a minimum, the following:

23.11.1. Wetting of construction areas;

23.11.2. Planting of vegetative ground cover (only if required by Owner);

23.11.3. Maintaining the Site in a clean condition, including prompt removal of dust, trash and debris;

23.11.4. Paving or frequent cleaning of roads, driveways, and other hardscape areas; and

23.11.5. Minimizing the size of excavation and volume of particulate matter that can be disturbed.

## **ARTICLE 24. REMOVAL OF WASTE**

24.1. Contractor shall dispose of all rubbish, construction waste, demolition debris, trash and other debris in compliance with Applicable Laws at Contractor's expense.

24.2. The Site shall be left neat and clean at all times. Rubbish and other demolition debris shall not be allowed to accumulate and Contractor shall remove such material at any time when so directed by Owner's Representative. No burning of waste or debris of any kind shall be permitted.

24.3. Rubbish and other debris shall not be deposited in Owner's dumpsters or receptacles.

24.4. Owner reserves the right to salvage any fixtures, material or equipment to be demolished by Contractor. Owner's Representative shall notify Contractor and identify the materials which it intends to salvage. Contractor shall store salvaged materials as directed by Owner's Representative without cost to Owner.

## **ARTICLE 25. PROGRESS PAYMENTS**

25.1. By the last day of the month, Contractor shall submit to Owner's Representative and Architect, if any, a pencil (i.e., preliminary) copy of its application for payment, including Subcontractors' applications for payment and such supporting documentation as is required by the Contract Documents. By the tenth day of the following month, Owner's Representative and/or Architect shall meet with Contractor to review and comment on the pencil copy and Contractor's preliminary accounting reports. Within five (5) business days after meeting with Owner's Representative and/or Architect, Contractor shall submit a revised application for payment that incorporates all of Owner's and/or Architect's comments and accompanied by Contractor's accounting reports and supporting documentation as required by the Contract Documents. Provided that Contractor has submitted all documentation required by the Contract Documents in accordance with the timeline set forth herein, payments on account of Contractor's applications for payment shall be made within thirty (30) days after Architect's certification of the application for payment. Failure to incorporate all of Owner's comments may result in the certified application being rejected in whole or in part.

25.2. The application for payment shall be submitted on Owner's form of Application and Certificate for Payment (or an approved equivalent) and continuation sheets. The continuation sheets shall be completed showing individual lines for each specification section and Subcontractor. Owner's form of Application and Certificate for Payment and continuation sheet is attached hereto as **Appendix A**.

25.3. With each application for payment, Contractor shall submit (i) a copy of the Schedule, which shall show the portions of the Work claimed as completed for payment as related to the schedule of values, (ii) a report summarizing the daily workforce composition by ethnic group and gender for the month for each firm represented (using Owner's Economic Inclusion Summary) and (iii) notarized waivers of lien using Owner's form of lien waiver for the value of the progress payment, and shall also provide notarized waivers of lien of its Subcontractors and material suppliers for the prior progress payment, conforming to the requirements of Chapter 429 RSMo. Owner's form of Lien Waiver (interim and final) is attached hereto as **Appendix B**. Owner's form of Economic Inclusion Summary is attached hereto as **Appendix C**.

25.4. By submitting the application for payment, Contractor represents to Owner that the Work has progressed to the point of completion as set forth in the application, that the quantity of the Work is in accordance with the Contract Documents, and that Contractor is entitled to payment of the amount stated in the application.

25.5. In addition to the items specified in this Article 25, on projects greater than \$1,000,000 in value, Contractor shall furnish a monthly Project report with the application for payment. The report shall contain the following information:

25.5.1. A manpower summary for the month indicating daily manpower levels for Contractor and each Subcontractor and trade;

25.5.2. A report summarizing the daily workforce composition by ethnic group and gender for the month for each firm represented (using the Owner's Economic Inclusion Summary);

25.5.3. A log of change requests;

25.5.4. A field deficiency log;

25.5.5. An itemization of each piece of self-owned or affiliate-owned equipment used on and billed to the Project, which report shall include the purchase price and cumulative rental charges to date for each piece of equipment;

25.5.6. A log of Submittals;

25.5.7. Photographs of the Work;

25.5.8. A report of bad weather days claimed for the month and cumulative for the Project with the documentation required in Section 5.9 of these General Conditions;

25.5.9. A log of requests for information;

25.5.10. All Project meeting minutes and conference call notes for the month; and

25.5.11. List of unresolved issues that may impede meeting Project milestones or the Schedule.

25.6. Applications for payment shall not include costs for items that are not an actual and direct expense of the Work. Costs that are not authorized include, but are not limited to the following:

25.6.1. Professional dues for contractors and their employees;

25.6.2. Cumulative rental costs for equipment that exceed their purchase price;

25.6.3. Workers' Compensation Insurance credits – Credits given by the insurance company shall be reflected as a credit to Owner;

25.6.4. Bonus accruals;

25.6.5. Safety charges as part of trade labor costs that are not union-authorized;

25.6.6. Paid-Time-Off charges for trade labor that are not union-authorized; and

25.6.7. Marketing costs for any function or purpose.

25.7. Owner may, in its sole discretion, make payment within ten (10) days of receipt of an approved application for payment to contractors that have subcontracted with MBE and WBE firms. Additionally, Owner may, in its sole discretion, attempt to make payment to MBE and WBE firms directly within ten (10) days of receipt of an approved application for payment and MBE/WBE direct pay form from Contractor. The form of Owner's MBE/WBE direct pay form is attached hereto as **Appendix D**.

25.8. Except for any payments made by Owner directly to Subcontractors, Contractor shall make payment to each Subcontractor, within ten (10) days after receipt of payment from Owner, of the full amount paid to Contractor by Owner, pursuant to Contractor's application for payment, on account of the Work performed by such person or entity (less any amounts being withheld as retention from such Subcontractor by Contractor). Contractor shall, by appropriate agreement with each Subcontractor, require each such person or entity to make payments to its subcontractor's in a similar manner.

25.9. Owner shall retain ten percent (10%) of each scheduled value of each payment to Contractor to ensure the proper performance of the Contract. Retention may be reduced upon Contractor completing fifty percent (50%) of the Work in the sole and absolute discretion of Owner's Representative. Applications for payment shall show retainage as a line item for each scheduled value.

25.10. In the event Contractor or any Subcontractor tenders substitute security pursuant to Missouri law, the following shall apply:

25.10.1. All such substitute security shall be solely in the name of "The Washington University."

25.10.2. Contractor, at its sole cost, shall cause all substitute security to be held at all times by a financial institution, title company or other third party custodian in the St. Louis, Missouri metropolitan area acceptable to Owner under terms which permit Owner to take immediate possession of any or all substitute security on demand at any time during normal business hours with or without cause.

25.10.3. Contractor, at its sole cost, and as agent for Owner, shall administer any and all substitute security as required by Applicable Laws, including without limitation, making release thereof and payment of interest and income thereon, to itself and/or to Subcontractors, as and when required by the Contract Documents and Applicable Laws.

25.10.4. Not less often than monthly, Contractor, at its sole cost, shall provide Owner a written certification and report of all substitute security itemized by any Subcontractor and in detail reasonably satisfactory to Owner.

25.10.5. Contractor hereby agrees to indemnify, defend and hold harmless Owner and its trustees, officers and employees against any and all claims, demands or liabilities arising out of the negligent or otherwise improper administration by Contractor of substitute security and/or any negligence of the custodian.



25.11. Owner may decide not to make payment in the amounts requested by any application for payment to the extent it reasonably determines that:

25.11.1. Contractor has performed defective or deficient work on the Project which has not been remedied;

25.11.2. Contractor and Owner cannot agree that the Work is completed to the point indicated in the application for payment (in which event Owner shall make payment of the amounts required by the percentage completion which Owner believes has been achieved);

25.11.3. Contractor has failed to make required payments to Subcontractors or suppliers in connection with the Project;

25.11.4. Contractor has caused damage to Owner which is the responsibility of Contractor pursuant to this Contract;

25.11.5. Contractor has failed to carry out the Work in accordance with this Contract;

25.11.6. Contractor has requested payment of amounts not recoverable under this Contract;

25.11.7. Contractor has failed to provide any of the documents required by this Article 25; or

25.11.8. Contractor is otherwise in breach of the Contract.

25.12. If Owner reasonably decides to withhold payments pursuant to Section 25.11 it shall notify Contractor in writing of the reasons for such withholding within fifteen (15) days of receipt of any certified application for payment. Owner shall make timely payment to Contractor as required by this Contract, of all amounts not related to the reasons stated in such notification. Owner shall make payment of any amounts withheld pursuant to this Paragraph as part of the payments, if any, made in response to the next payment application submitted by Contractor after the reasons for such withholding are removed or corrected.

## **ARTICLE 26. MECHANIC'S LIENS AND CLAIMS FOR NON-PAYMENT**

26.1. Contractor shall keep the premises free from liens arising out of the Work.

26.2. Contractor shall indemnify, defend, and hold harmless Owner and its officers, trustees and employees from and against any liens, claims and suits on liens, claims for unjust enrichment and/or quantum meruit, or any other similar claims, damages, losses or expenses, including reasonable attorneys' fees, arising out of the Work or resulting from nonpayment by Contractor or by any Subcontractor at any tier. Contractor's obligation shall include any claim, damages, losses or expenses arising out of any one or more employee(s) of Contractor or any Subcontractor, any material suppliers, any other person or entity in privity of contract with Contractor or any Subcontractor at any tier who performs work or services or provides materials on the Project, or any other person or entity who claims a right to payment by reason of the Work

and/or the Project. Such obligation shall not be construed to negate, abridge, or reduce any other rights or obligations of indemnity which would otherwise exist as to a party or person described in this clause.

26.3. If a notice of lien, mechanic's lien or other claim described in Section 26.2 (a "Claim") is served on Owner, Contractor shall promptly (a) confirm in writing to Owner its obligation to indemnify, defend and hold harmless Owner with respect to such Claim, (b) identify legal counsel Contractor intends to retain for such Claim, and (c) if so requested by Owner, at Contractor's sole cost and expense, provide separate legal counsel to represent Owner in connection with such Claim.

26.4. If a mechanic's lien is filed, Contractor at its sole cost and expense shall cause the same to be removed of record and/or bonded within ten (10) days following demand by Owner or notice to Contractor from any source disclosing the existence of such lien.

26.5. Owner may apply all or any portion of the sums due Contractor to partially or totally satisfy any Claim filed by Subcontractors or suppliers against Owner's property for Work done on the Project. The Contract Sum shall be reduced by an amount equal to Owner's payment of the Claim, including all attorneys' fees and other expenses. Contractor's applications for payment shall not include reimbursement for the Claim satisfied by Owner's direct payment.

26.6. Notwithstanding anything to the contrary above, Owner reserves the right to deal directly with any Subcontractor or supplier in the event of any Claim or dispute and, at Contractor's sole expense, Owner may settle, satisfy, pay, or litigate any Claims or disputes. If Owner is withholding reasonably sufficient funds or a lien bond is provided by Contractor, Owner shall not settle or compromise any lien which is being contested by Contractor in good faith by appropriate proceedings without Contractor's prior written consent until a final and non-appealable judgment has been entered upholding such lien.

## **ARTICLE 27. EXTRAS/CHANGES TO THE WORK**

27.1. Owner may, without invalidating the Contract, add, delete, modify, or alter the services of Architect or Contractor within the general scope of their agreements and add, delete, modify or alter the Work within the general scope of the Contract Documents. Such changes shall be authorized by Change Order using the form provided by Owner. All changes shall be executed under the applicable provisions of the Contract Documents. Contractor shall not undertake any addition, deletion, modification or alteration of the Work without a Change Order. All changes requiring an adjustment in the Contract Sum or Contract Time must be evidenced by a Change Order signed by Owner, Architect and Contractor, as applicable.

27.2. Within five (5) working days of receipt of a proposed Change Order from Owner or Architect, Contractor shall provide Owner with an estimate as to the proposed change in the Contract Sum or Contract Time.

27.3. The value of any change to the Work which results in an addition/deletion to the Contract Sum shall be determined in one or more of the following ways, at the option of Owner and summarized in accordance with Owner's Code of Accounts, which is the C.S.I. format:

27.3.1. By estimate and acceptance of a lump sum change to the Contract Sum;

27.3.2. By unit prices set forth in the Contract Documents or subsequently agreed upon; or

27.3.3. By a Not-To-Exceed amount based upon verified time and material cost-plus a fee.

27.4. In order to arrive at the value for any change, Contractor shall credit Owner with its cost(s) including overhead and profit for any of the Work which was previously included in an application for payment, but which has been deleted by any such change.

27.5. For all changes, all such estimates shall be substantiated with a detailed break-down of quantities, units, prices, man-hours, wage rates, overhead and profit and similar details clearly showing how Contractor's and Subcontractor's estimated costs were determined. Owner reserves the right to audit all Contractor, Subcontractor and records and accounts pertaining to the Change in Work.

27.6. In the event of a reduction from the Scope of Work, a fair and equitable deduction from the Contract Sum shall be made, which deduction shall be based upon the costs Contractor would otherwise have incurred, including overhead and profit to which Contractor otherwise would have been entitled.

27.7. No claims for any extra work or materials shall be permitted by Owner, unless such work is ordered in writing by Owner's Representative. Change Orders shall not be included in an application for payment until approved by Owner in writing.

27.8. In consideration of the Project Schedule, Owner may issue a construction change directive to proceed while continuing to negotiate the cost of such changes with Contractor.

27.9. Change Order Allowances:

27.9.1. In the event that fees for overhead and profit were not specified by Contractor in the Contract Documents, Change Order allowances for the combined overhead and profit associated with the Change Order, included in the total cost to Owner, shall be based on the following schedule:

27.9.1.1. For Contractor for work performed by Contractor's own forces, not more than fifteen percent (15%) of the cost;

27.9.1.2. For Contractor for work performed by its Subcontractor, not more than five percent (5%) of the cost of Work performed by such Subcontractor;

27.9.1.3. For each Subcontractor or second tier contractor involved, for any work performed by that contractor's own forces, not more than fifteen percent (15%) of the cost; and

27.9.1.4. For each Subcontractor for work performed by a lower tier Subcontractor, a total of not more than five percent (5%) of the cost of Work performed by such lower tier Subcontractor, such that the total overhead and profit for non-performing Subcontractors does not exceed five percent (5%).

27.9.2. Costs to which overhead and profit are to be applied shall be limited to the following: general conditions (which consist of those items marked with an “x” under the column labeled “General Conditions” in the Cost Matrix), cost of materials, cost of delivery; cost of labor in regard to the union wage scale, including social security, old age and unemployment insurance, and fringe benefits required by agreement or custom; worker's or workmen's compensation insurance; bond premiums; rental value of equipment and machinery; and the additional costs of supervision and field office personnel directly attributed to the change. Without limiting the foregoing, costs to which overhead and profit shall be applied shall not include additional time or expenses of Project managers or other administrative or managerial personnel regardless of where services are performed. Overhead and profit may only be applied to the straight time portion of overtime wage rates.

27.10. Costs for general conditions listed in the Cost Matrix (which consist of those items marked with an “x” under the column labeled “General Conditions” in the Cost Matrix) will be allowed for substantial incremental costs up to the proportion as set forth in the Contract. The percentage identified in the Contract is to be the maximum value to provide general conditions for changes to the Contract. This maximum value is determined by multiplying the percentage for general conditions identified in the Contract, times the sum of approved material and labor costs associated with the change to the Contract. General conditions are only allowed to Contractor and not to Subcontractors.

27.11. In no event will any lump sum or percentage amounts for “contingency” be allowed to be added as a separate line item in change order estimates. Unknowns attributable to labor hours will be accounted for when estimating labor hours anticipated to perform the Work. Unknowns attributable to material scrap and waste will be estimated as part of material costs.

## **ARTICLE 28. SUBSTANTIAL COMPLETION AND RELEASE OF RETAINAGE**

28.1. Contractor shall notify Owner’s Representative when, in Contractor’s estimation, it has achieved Substantial Completion.

28.2. Owner, and Architect, as appropriate, shall inspect the Work to determine whether it is substantially complete. Upon receipt of a Certificate of Occupancy and Owner’s determination that the Work, or designated portion thereof is substantially complete, Owner’s Representative shall deliver to Contractor an executed Certificate of Substantial Completion and a Punchlist. Contractor shall countersign the Certificate of Substantial Completion and return it to Owner’s Representative. The date of Substantial Completion shall be the date when Owner issues the Certificate of Substantial Completion.

28.3. Contractor shall complete the items on the Punchlist within thirty (30) days after receipt. Failure to include any items on such list does not alter Contractor's responsibility to complete all Work conforming to the requirements and intent of the Contract Documents.

28.4. Should Owner determine the Work, or designated portion thereof, is not substantially complete, Owner's Representative or Architect shall notify Contractor in writing, specifying which items of Work must be performed prior to issuance of a Certificate of Substantial Completion. Contractor shall take immediate steps to remedy the stated deficiencies or incomplete Work and then notify Owner's Representative again when Contractor believes it has achieved Substantial Completion. Owner shall repeat its inspection.

28.5. Contractor shall be responsible for all costs to Owner resulting from failure to meet the date of Substantial Completion. The costs for extended general conditions and storage, double handling, reshipping of Owner furnished furniture and equipment resulting from delayed completion shall be paid by Contractor. An appropriate Change Order shall be issued, deducting from payments due Contractor, the cost of these and any other items necessitated by the delayed completion. If the payments then or thereafter due Contractor are not sufficient to cover such amount, Contractor shall pay the difference to Owner.

28.6. Within thirty (30) days following the date of Substantial Completion of the Project, all retainage shall be released by Owner to Contractor, less an amount equal to one hundred and fifty percent (150%) of the amount determined by Owner to be the cost to complete any remaining items, plus such amounts identified in the schedule of values attributable to close out and the Close-Out Documents. The foregoing shall be without prejudice to Owner's right to hold and/or continue to hold sums (in addition to and not as retainage), following default, neglect to prosecute the Work and/or failure to correct defective or nonconforming work by Contractor or any Subcontractor, to protect Owner's interest in satisfactory performance of the Contract.

28.7. All rubbish and other debris shall be entirely removed by Contractor so as to leave the Site clean and ready for use by Owner. The Site shall be left in a "broom clean" condition when completed for inspection.

28.8. All equipment with removable or detachable panels, plates, covers, and other movable parts, shall be cleaned on the inside before the apparatus is turned over for use by Owner.

28.9. All marred finishes shall be repaired, touched up or replaced by Contractor to the satisfaction of Owner.

28.10. All carpeted areas shall be vacuumed. Any stained carpeting shall be replaced.

## **ARTICLE 29. USE AND OCCUPANCY PRIOR TO ACCEPTANCE**

29.1. Owner may fully occupy the facility as soon as it is Substantially Complete. No provision in this document shall be construed to prevent partial occupancy by Owner so long as the partial occupancy does not materially affect the construction process.

29.2. Contractor agrees that Owner, upon advance notification to Contractor in writing, will be permitted to occupy and use any completed or partially completed portions of the Project when such occupancy and use is in Owner's best interest.

29.3. If such occupancy increases the cost of the remaining Work or delays its completion, provided that the same occur prior to the Contract Time, and as amended by Change

Orders, and provided that Contractor submits timely written notification of such cost increase or time delay to Owner, Contractor shall be entitled to an increase in the Contract Sum or Contract Time, or both.

29.4. In case of partial occupancy prior to the date of Substantial Completion of the Project, Owner shall secure endorsement from the insurance carrier and consent of any surety permitting occupancy of the building or use of the Project during the remaining period of construction.

29.5. In case of partial occupancy after the date of Substantial Completion, Contractor shall extend all necessary insurance coverage until Final Completion of the Work. Owner's use and occupancy prior to Final Completion shall not relieve Contractor of its responsibility to maintain the insurance coverage required by the Contract Documents.

29.6. In case of such partial occupancy, the guarantee/warranty period called for by the Contract Documents shall not commence until Substantial Completion of all Work under the Contract Documents.

29.7. Occupancy of the Project or any portion thereof by Owner shall not constitute an acceptance of the Work or portion thereof nor relieve Contractor of responsibility to perform any Work required by the Contract Documents but not completed at the time of occupancy.

29.8. Contractor shall not be required to pay maintenance costs on the portion of the Project so occupied, nor be responsible for the wear and tear or damage resulting from such occupancy.

29.9. Contractor shall not be required to furnish heat, light or water used in the Project or portion of the Project so occupied.

## **ARTICLE 30. START-UP, COMMISSIONING AND ORIENTATION**

30.1. Prior to Substantial Completion and prior to Owner's initial occupancy and use of the Project, Contractor (at such times as are mutually agreed upon with Owner) shall conduct a complete review, demonstration, commissioning, start-up and operational debugging of all equipment, machinery and mechanical and electrical systems installed by Contractor on the Project, shall balance and make any adjustments or corrections required to make such equipment, machinery and systems perform as required by the Contract Documents and to reflect the actual use and occupancy of the Project by Owner. Contractor shall provide Owner with documentation regarding the person providing such training and those persons attending such sessions.

30.2. Contractor and each Subcontractor, wherever applicable, shall provide to Owner all operating and maintenance personnel information and training on the proper operation and maintenance of equipment, machinery and systems installed as part of the Work.

30.3. Contractor shall conduct a demonstration for Owner's operating and maintenance personnel and explain functions of switches and valves; methods for shutting off systems; methods for draining systems; source of utilities and services; access to covered valves; lubrication points; and access for servicing of equipment. Contractor shall describe lubricants, filters and fuses, which

have been installed for initial operation and inform Owner's personnel of when such should be replaced in normal operation.

30.4. Contractor shall demonstrate operation and function of all systems, including but not limited to, control systems, hazard warning and suppression systems and mechanisms. Actual discharge of sprinkler or other emergency systems is not required for orientation.

## **ARTICLE 31. VENDOR INSTRUCTION MANUALS**

31.1. Contractor shall furnish Owner all information available from manufacturers and vendors of all machinery, fixtures, equipment, systems and devices installed as required by the Contract Documents.

Such information shall include, wherever applicable, but not be limited to, manuals of recommended installation, operation and maintenance; parts diagrams and lists; lists of recommended spare parts and current parts' price lists; identification of local vendor or manufacturer's representative; certified vendor drawings, assembly diagrams, wiring diagrams, service pipe and duct connection drawings; setting and required clearance diagrams; curves, graphs, or charts of operating range with design point indicated; name plate rubbing (code vessels); manufacturer's certificates and warranties; specifications for required utilities and services; and finish product identification. Whenever equipment or machinery assembly incorporates controls, motors or other products of other manufacturers, information of the other manufacturer or supplier shall be included.

31.2. Contractor shall furnish two (2) copies of vendor information, neatly bound in rigid binders. Information shall be divided in each binder by tabs into such divisions as will make the information readily accessible. Owner's Project number, short title and date of submittal shall be on the spine and front cover of binders. Contractor shall also provide one (1) complete electronic copy along with the binders.

## **ARTICLE 32. FINAL COMPLETION; FINAL PAYMENT**

32.1. Contractor shall notify Owner's Representative when, in the estimation of Contractor, the Punchlist has been completed. Owner's Representative and Architect shall determine if the Work has been fully completed and so notify Contractor.

32.2. Approval of Contractor's Application for Final Payment shall be conditioned upon performance of all close-out obligations and receipt of the following:

32.2.1. Receipt and approval of Contractor's Record Documents and Vendor Instruction Manuals.

32.2.2. Receipt of Contractor's notarized affidavit stating that all monetary obligations to suppliers of materials, services, labor, and all Subcontractors have been completely discharged and fulfilled;

32.2.3. Receipt of final lien waivers from Contractor and all Subcontractors and suppliers;

32.2.4. Receipt of consent to final payment from any surety that has issued a Payment and Performance Bond on the Project;

32.2.5. Receipt of all guaranties, warranties and instructions as called for in the Contract Documents;

32.2.6. Receipt of all LEED Submittals;

32.2.7. Receipt of all final safety reports and the final Economic Inclusion Summary;

32.2.8. Correction of all Punchlist items determined in final inspection;

32.2.9. Return of all keys issued to Contractor by Owner (Owner will withhold \$100.00 for each key not returned at the time of submittal of Contractor's Application for Final Payment); and

32.2.10. A certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be cancelled or allowed to expire until at least thirty (30) days' prior written notice has been given to Owner or a written statement that Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents.

### **ARTICLE 33. WARRANTIES, GUARANTEES & CORRECTION OF WORK**

33.1. Contractor warrants to Owner that all labor, materials and equipment furnished under the Contract are of the type and quality required by the Contract Documents, new (unless otherwise required or permitted by the Contract Documents) and installed in a good and workmanlike manner and otherwise in accordance with the Contract Documents. Contractor further warrants that (i) it shall use sound construction principles and practices in the performance of the Work; (ii) it shall apply to the Work a high degree of skill, care, judgment and supervision to assure that the Work is performed properly and in accordance with the Contract Documents; and (iii) the Work will be free from defects not inherent in the quality required or permitted. Work not conforming to these requirements or to the Contract Documents, including substitutions not properly approved and authorized, shall be deemed defective.

33.2. Contractor shall warrant plant material furnished and/or installed to be live and healthy, vigorous and thriving for a period of one year from the date of Final Completion. If the one-year warranty period expires in a dormant season, the warranty will be understood to extend into the next following growing season. Contractor, at Contractor's sole expense, shall promptly replace any plant material that is dead, moribund, not vigorous or thriving during the warranty period after receipt of Owner's notice. Sod, seeding and ground cover planting shall be replaced wherever there is a bare spot or location 18 inches across in which there is not healthy, thriving grass or ground cover planting. This warranty requirement is not applicable to annual or seasonal plantings, which must be renewed on an annual basis. Upon completion of the planting, Contractor shall furnish detailed written instructions to Owner for the care of planting materials.



33.3. Uncovering Work:

33.3.1. Work covered contrary to a request by Owner's Representative not to do so shall, if required by Owner, be uncovered and replaced or repaired at Contractor's expense.

33.3.2. Contractor shall uncover any portion of the Work for inspection at the request of Owner's Representative regardless of whether Owner's Representative had previously requested to observe said Work prior to being covered. If the Work is not in accordance with the Contract Documents, Contractor shall pay all costs to correct such Work. If the Work is in accordance with the Contract Documents, Owner shall pay the cost of uncovering and replacement pursuant to a Change Order.

33.4. Correction of Work:

33.4.1. Contractor shall correct, repair or replace, at Contractor's expense and as Owner directs:

33.4.1.1. Any portion of the Work that Owner rejects as defective, non-conforming or not in accordance with the Contract Documents, whether discovered before or after Substantial Completion;

33.4.1.2. Any portion of the Work that testing or inspection reveals does not comply with the Contract Documents or Applicable Laws (except to the extent said condition was required by the Contract Documents); or

33.4.1.3. Any damage to the Work caused by Contractor's personnel or those for whom Contractor is responsible.

33.5. If Contractor defaults, neglects to prosecute the Work, and/or does not correct defective or non-conforming parts of the Work discovered before Substantial Completion, Owner may, after seven (7) days' written notice to Contractor and without prejudice to any other remedy it may have, make good such deficiencies. An appropriate Change Order shall be issued, deducting from the payments due Contractor, the cost of correcting such deficiencies. If the payments then or thereafter due Contractor are not sufficient to cover such amount, Contractor shall pay the difference to Owner.

33.6. If within one (1) year after the date of Substantial Completion or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty or guarantee required by the Contract Documents, any of the Work is found to be defective or not in accordance with the Contract Documents or such warranty or guarantee, then upon notice from Owner, Contractor shall promptly correct, repair, replace or re-execute such defective or non-conforming Work at no additional cost to Owner. Owner shall give such notice promptly after discovery of the condition.

33.6.1. If Contractor fails to make or commence such repairs or replacements within a reasonable period of time as required above, Owner may make such repairs, and Contractor shall promptly reimburse Owner for its costs in making suitable repairs or replacements.

33.7. Defective or non-conforming work corrected by Contractor shall be subject to an additional one-year period for correction of the Work commencing on the date of Owner's acceptance of Contractor's corrections.

33.8. Contractor shall obtain and deliver to Owner any specific warranties or guarantees given by its Subcontractors, manufacturers, material suppliers and those for whom they are responsible, including roofing and equipment warranties, which warranties shall expressly provide that they are for the benefit of and enforceable by Owner.

33.9. Neither final payment nor any provision in the Contract Documents nor partial or entire occupancy of the premises by Owner shall constitute an acceptance of Work not performed in accordance with the Contract Documents or relieve Contractor of liability in respect to any responsibility for non-conforming or defective Work.

33.10. Owner's rights under this Article 33 are in addition to all other rights or remedies which it may have under the Contract or at law or equity.

#### **ARTICLE 34. EQUAL EMPLOYMENT OPPORTUNITY AND NON-DISCRIMINATION**

34.1. Contractor represents and warrants that it does not discriminate in access to, or treatment or employment in, its activities on the basis of race, color, age, religion, sex, sexual orientation, national origin, gender identity or expression, veteran status or disability.

34.2. Contractor warrants that in any contract for Work or services performed in connection with the Project, Contractor (which term for purposes of this Article 34 only shall include the Contractor, any transferees, lessees, designees, successors and assigns thereof, including without limitation any entity related to the Contractor by one of the relationships described in Section 267(b) of the United States Internal Revenue Code of 1986, as amended), its employees, contractors, subcontractors, and material suppliers shall comply with all applicable federal, state and local laws, ordinances or regulations governing equal opportunity and nondiscrimination (the "Laws"). Moreover, Contractor shall contractually require its contractors, subcontractors and material suppliers to comply with the Laws. Neither the Contractor nor any of its contractors or subcontractors shall contract with any party known to have been found in violation of the Laws.

34.3. Contractor shall use reasonable and good faith efforts to ensure that minority and women business enterprises and qualified ethnic minorities and women have a meaningful opportunity to participate in the work that is the subject of the Contract. Contractor shall routinely meet with and report its efforts in these areas to Owner. Contractor will work cooperatively with Owner's Office of Supplier Diversity to document its good faith efforts and to address areas of concern, if any.

#### 34.4. Reporting

34.4.1. All Projects: All Contractors, Subcontractors and suppliers shall make certified payroll reports available to Owner upon request.

34.4.2. Report Required for Projects in excess of \$1,000,000: Contractor shall maintain and shall require all Subcontractors to maintain a daily log of the on-site work force composition by hours worked in total and identifying hours worked per ethnic group and gender for each firm represented. The work force composition shall be summarized on a monthly basis. A monthly summary of cost of the Project, which has been furnished or performed by a firm that is minority or woman owned, shall be maintained. A copy of the monthly summaries and daily log sheets shall be bound and delivered to Owner with the monthly progress billing. This information is required of all contractors, even if their firm or project has no minority or woman participation.

34.4.3. Report Required for Projects less than \$1,000,000: Notwithstanding anything in Article 34 to the contrary, Contractor shall submit and shall require all Subcontractors to submit to Owner a summary of the Project’s on-site work force composition by hours worked in total and per ethnic group and gender. In addition, a summary shall be submitted of the cost of the Project, if any, which can be designated as done by a firm that is minority or woman owned. This information is required of all contractors, even if their firm or project has no minority or woman participation, and must be submitted with the billing for Work completed.

**ARTICLE 35. PAYMENT AND PERFORMANCE BOND**

35.1. In its sole discretion, Owner may require that Contractor furnish bonds covering the faithful performance of the Contract and payment of obligations arising thereunder. In the event Contractor is required to provide such bonds, Contractor shall promptly furnish a copy of the bonds to Owner and shall permit a copy to be made. Such bonds shall be issued in the amount of 100% of the Contract Sum on forms reasonably acceptable to the Owner. Any surety company issuing a bond covering the Project shall be licensed to issue surety bonds in the state of Missouri, shall have an AM Best rating of A- or better and shall be included in the U.S. Government’s Federal Treasury listing of Qualified Sureties (T-listed).

**ARTICLE 36. CONTRACTOR’S INSURANCE REQUIREMENTS**

36.1. Contractor shall maintain insurance underwritten by solvent insurance companies authorized to do business in Missouri, which are reasonably acceptable to Owner and have an A.M. Bests’ rating of A - X or better (or State Funds for Workers’ Compensation as may be required by state law) providing coverage and limits as set forth in this Article, effective immediately upon execution of the Contract to continue without interruption during the entire term of the Contract plus an additional five (5) years for products and completed operations coverage following final acceptance of the Project by Owner.

36.2. Commercial General Liability: Contractor shall maintain commercial general liability insurance covering all operations and work by or on behalf of Contractor on an occurrence basis against claims for bodily injury, death, occupational sickness or disease, personal injury and property damage (including resulting loss of use).

36.2.1. Such insurance shall be written for not less than the following minimum limits and coverage:

Commercial General Liability	Projects ≤ \$500K	Projects > \$500K ≤ \$10M	Projects > \$10M
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General Aggregate	\$1,000,000	\$2,000,000	\$2,000,000
Products/Completed Operations Aggregate	\$1,000,000	\$2,000,000	\$2,000,000
Each Occurrence Limit	\$1,000,000	\$1,000,000	\$2,000,000
Personal/Advertising Injury	\$1,000,000	\$1,000,000	\$2,000,000

36.2.2. Such insurance shall be written to include the following coverage:

- 36.2.2.1. 1986 (or later) ISO form (occurrence form);
- 36.2.2.2. Products and completed operations maintained for 5 years;
- 36.2.2.3. Broad form contractual liability including, when applicable, work performed within 50 feet of a railroad or railroad property;
- 36.2.2.4. Broad form property damage;
- 36.2.2.5. Severability of interest;
- 36.2.2.6. Underground explosion and collapse coverage;
- 36.2.2.7. Personal and Advertising Injury;
- 36.2.2.8. Waiver of subrogation;
- 36.2.2.9. Joint Venture, if applicable, as named insured;
- 36.2.2.10. Additional Insured endorsement; and
- 36.2.2.11. Premises and operations.

36.3. Automobile Liability: Contractor shall maintain business automobile liability insurance covering liability arising from the operation and use of any auto, including owned, hired and non-owned autos. If Contractor is hauling hazardous materials, the policy shall be endorsed to include MCS-90 endorsement and upset, overturn and damage pollution liability coverage.

36.3.1. Such insurance shall be written for not less than the following minimum limits:

Automobile Liability	Projects ≤ \$500K	Projects > \$500K ≤ \$10M	Projects > \$10M
Bodily Injury/Property Damage (Each Accident)	\$1,000,000	\$1,000,000	\$1,000,000

36.3.2. Such insurance shall be written to include the following coverage:

- 36.3.2.1. Additional Insured endorsement;

36.3.2.2. Waiver of subrogation; and

36.3.2.3. Contractual liability.

36.4. Workers' Compensation: Contractor shall maintain workers' compensation and employer's liability insurance complying with the statutory requirements of Missouri or the jurisdiction in which the services and Work are performed.

36.4.1. Such insurance shall be written for not less than the following minimum limits:

Workers' Compensation	Projects ≤ \$500K	Projects > \$500K ≤ \$10M	Projects > \$10M
Coverage A (Workers' Compensation)	Statutory	Statutory	Statutory
Coverage B (Employers Liability)			
Per Accident	\$1,000,000	\$1,000,000	\$1,000,000
Per Disease Policy Limit	\$1,000,000	\$1,000,000	\$1,000,000
Per Disease per Employee	\$1,000,000	\$1,000,000	\$1,000,000

36.4.2. Such insurance shall be written to include the following coverage:

36.4.2.1. Broad form All States endorsement;

36.4.2.2. Voluntary compensation; and

36.4.2.3. U.S. Longshoremen and Harbor Workers' Act coverage (if applicable).

36.5. Umbrella/Excess Liability: Contractor shall maintain umbrella/excess liability insurance on an occurrence basis in excess of the underlying primary commercial general liability, automobile liability, and employer's liability insurance coverage described in Sections 36.2, 36.3, 36.4, which shall follow form and be no more restrictive than each and every one of the underlying policies.

36.5.1. Such insurance shall be written for not less than the following minimum limits:

Umbrella Liability	Projects ≤ \$500K	Projects > \$500K ≤ \$10M	Projects > \$10M
Each Occurrence Limit	\$1,000,000	\$5,000,000	\$20,000,000
General Aggregate Limit	\$1,000,000	\$5,000,000	\$20,000,000
Products/Completed Operations Aggregate	\$1,000,000	\$5,000,000	\$20,000,000

36.5.2. Such insurance shall be written to include the following coverage:

- 36.5.2.1. Additional Insured endorsement;
- 36.5.2.2. Broad form contractual liability;
- 36.5.2.3. Products and completed operations maintained for 5 years;
- 36.5.2.4. Drop down feature; and
- 36.5.2.5. Policy inception date concurs with underlying policies.

36.6. Professional Liability: Contractor shall maintain professional liability insurance for any professional services rendered to Owner, including but not limited to construction management, consulting or design-build services. The policy shall be renewed and maintained for no less than 5 years after completion of the Work and acceptance of the Project by Owner. The policy retroactive date shall be prior to the commencement of Contractor’s first services to Owner, and shall not be advanced when the policy renews. If the policy is cancelled or non-renewed, Contractor shall purchase an extended reporting provision to cover claims reported for no less than 5 years after completion of the Work. The following limits are considered minimum limits and Owner reserves the right to require higher professional liability insurance limits based on project-specific risk.

36.6.1. Such insurance shall be written for not less than the following minimum limits:

Professional Liability (Required when Contractor provides Professional Services)	Projects ≤ \$500K	Projects > \$500K ≤ \$10M	Projects > \$10M
Each Occurrence/Incident/Claim	\$1,000,000	\$1,000,000	\$5,000,000
Aggregate	\$1,000,000	\$2,000,000	\$5,000,000

36.6.1.1. Such insurance shall be written to include the following coverage:

- 36.6.1.2. Limited contractual liability;
- 36.6.1.3. Subsidiaries or joint ventures as named insured; and
- 36.6.1.4. Retroactive date prior to commencement of first service.

36.7. Contractor’s Pollution Liability: Contractor shall maintain, if applicable, Contractor’s pollution liability insurance covering claims for third-party bodily injury and property damage, including clean-up costs, as a result of pollution conditions arising from Contractor’s operations and completed operations. Completed operations coverage shall remain in effect for no less than 5 years after Final Completion of the Work. The policy retroactive date shall be prior to the commencement of Contractor’s first services to Owner, and shall not be advanced when the policy renews.

36.7.1. Such insurance shall be written for not less than the following minimum limits; however, Owner may require higher limits if the Project involves abatement, remediation, hazardous waste management or recycling:

Contractor's Pollution Liability	Projects ≤ \$500K	Projects > \$500K ≤ \$10M	Projects > \$10M
Per Loss	\$1,000,000	\$1,000,000	\$10,000,000
Aggregate	\$1,000,000	\$1,000,000	\$10,000,000

36.7.2. Such insurance shall be written to include the following coverage:

36.7.2.1. Pollution conditions include asbestos and lead; and

36.7.2.2. Retroactive date prior to commencement of first service.

36.8. If Contractor has any self-insured retentions or deductibles under any of the minimum required coverages as set forth above, Contractor must identify on the certificate of insurance the nature and amount of such self-insured retentions or deductible and at the written request of Owner provide satisfactory evidence of financial responsibility for such obligations. All self-insured retentions or deductibles shall be Contractor's sole responsibility.

36.9. At Contractor's sole expense, Owner and its affiliates and each of their respective officers, trustees, representatives, agents and employees shall be named as Additional Insureds on a primary basis on all liability policies with the exception of professional liability and workers' compensation for Work performed under or incidental to the Contract. The form of the Additional Insured endorsement shall be ISO CG 20 10 11 85 (Form B) or its equivalent.

36.10. Contractor shall require that all insurance policies in any way related to the Work and secured and maintained by Contractor include clauses stating that each insurer will waive all rights of recovery, under subrogation or otherwise, against Owner and all other Additional Insureds. Contractor shall require all Subcontractors, by appropriate written agreements, to provide similar waivers in favor of all parties enumerated in this Article 36.

36.11. All insurance provided by Contractor shall be primary and any insurance maintained by Owner shall be excess and not contributing with Contractor's insurance. Contractor shall arrange with its insurance company to endorse its insurance policies accordingly. Any coverage offered by Owner's insurance policies shall be non-contributory and excess over Contractor's insurance coverages.

36.12. Within ten (10) days of executing the Contract, Contractor shall provide Owner's Representative with a certificate of insurance completed by a duly authorized representative of its insurer. All insurance certificates shall clearly identify (i) the Project name and number in the description, (ii) the minimum insurance coverages required under the Contract, (iii) the Additional Insured status of Owner on Contractor's commercial general liability, automobile liability, and umbrella/excess liability insurance policies, (iv) that Contractor's insurance is primary and non-contributory to Owner's insurance, and (v) that a waiver of subrogation is granted for all applicable

coverages. Contractor shall not be allowed on Site unless a certificate of insurance meeting the requirements of this section has been delivered to Owner's Representative.

36.13. The acceptance of delivery by Owner of any certificate of insurance evidencing the required minimum coverages and limits does not constitute approval or agreement by Owner that the minimum insurance requirements have been met or that the insurance policies shown in the certificates of insurance are in compliance with the minimum requirements.

36.14. Failure of Owner to demand such certificate or other evidence of full compliance with the insurance requirements set forth in this Article 36 or failure of Owner to identify a deficiency from evidence provided will not be construed as a waiver of Contractor's obligation to maintain such insurance.

36.15. Contractor shall assure that all its subcontractors maintain adequate insurance of the types described in this Article 36. The limits of insurance required for each subcontractor shall be determined by Contractor in accordance with its evaluation of each subcontractor's Work to be performed. Contractor shall require each Subcontractor to name Owner as an Additional Insured on their commercial general liability, automobile liability and umbrella/excess liability insurance policies. When requested by Owner, Contractor shall furnish copies of certificates of insurance evidencing such coverages from each Subcontractor.

36.16. Owner shall have the right, but not the obligation, to prohibit Contractor or any Subcontractor from entering the Site until certificates of insurance or other evidence that insurance has been placed in complete compliance with the minimum insurance requirements in this Article 36 is received and accepted by Owner.

36.17. Upon written request of Owner, Contractor shall provide certified copies of all insurance policies required under this Article 36 to Owner within ten (10) days of Contractor's receipt of such request.

36.18. All policies shall be written so that Owner will be notified in writing of a cancellation or non-renewal of policies at least ten (10) days prior to the effective date of such cancellation or non-renewal. Contractor shall be responsible for notifying Owner of a material change by endorsement or of any restrictive amendment of the policies at least fifteen (15) days prior to the effective date of such material change by endorsement or of any restrictive amendment. Contractor shall be responsible for replacing canceled coverage so that no gap in coverage occurs.

36.19. Contractor shall not violate, or permit to be violated, any conditions of any of such policies, and shall at all times satisfy the requirements of the insurance companies writing such policies.

36.20. If any insurance policy required by this Article 36 is a claims-made policy or becomes a claims-made policy as opposed to an occurrence policy, the retroactive date must be no later than the effective date of the Contract or commencement of the Work, whichever is earlier. In addition, any claims-made policy needs to be maintained during the term of the Contract and for at least 5 years following termination or expiration of the Contract. If a claims-made policy is terminated for any reason and not replaced with a policy that affords coverage for prior acts including Work or services previously provided to Owner by Contractor, Contractor, at its sole



expense, shall purchase an extended reporting provision that covers such Work and services for at least 5 years.

36.21. If Contractor is a joint venture involving two (2) or more entities, each independent entity shall satisfy the minimum limits and coverages specified in this Article 36 or the joint venture will be a named insured under each policy specified.

36.22. To the extent that any of the coverages specified in this Article 36 are required to remain in force after final payment, additional certificates of insurance evidencing continuation of such coverage shall be submitted to Owner at the time of renewal for the length of time specified in the Contract.

36.23. Insurance affected or procured by Contractor shall not reduce or limit Contractor’s contractual obligation to indemnify and defend Owner as provided in Article 37 of these General Conditions.

36.24. If Contractor fails to maintain the insurance as set forth in this Article 36, Owner shall have the right, but not the obligation, to purchase said insurance at Contractor’s expense. Contractor’s failure to maintain the required insurance may result in termination of the Contract at Owner’s option. The right of Contractor to receive any payments under the Contract is expressly contingent upon Contractor’s full compliance with all provisions of this Article 36.

36.25. Contractor shall maintain builder’s risk and/or installation floater insurance on a 100% completed value basis on the entire work in progress, including materials stored off-site, while in transit or on site preparatory to being incorporated in the Work. The policy shall be written on a full replacement cost basis. Owner shall be named as an Additional Insured on Contractor’s builder’s risk or installation floater policy. The policy deductible shall not exceed \$25,000 unless approved in advance by Owner in its sole discretion. Contractor shall be responsible for payment of claims within the deductible or above the policy limits. Contractor’s insurance shall be primary to any builder’s risk insurance maintained by Owner at its sole discretion and benefit. Contractor’s insurer shall waive any right of subrogation or recovery against Owner.

36.26. Such insurance shall be written for not less than the following minimum limits:

Property Coverages	Projects ≤ \$500K	Projects > \$500K ≤ \$10M	Projects > \$10M
Builder’s Risk and Installation Floater	Full Coverage at Contractor’s Cost	Full Coverage at Contractor’s Cost	Full Coverage at Contractor’s Cost
Personal Property & any tools, equipment, scaffolding, staging, towers, and forms owned or rented by Contractor	Full Coverage at Contractor’s Cost	Full Coverage at Contractor’s Cost	Full Coverage at Contractor’s Cost

36.27. Such insurance shall be written to include the following coverage:

36.27.1. Written on an “All risk” form;

36.27.2. Insure against loss from perils of fire and physical loss or damage including theft, vandalism, malicious mischief, collapse, sinkhole, flood, and surface water, earthquake, windstorm and demolition and debris removal;

36.27.3. Start up and testing;

36.27.4. Ensuing loss resulting from faulty workmanship, materials or error in design;

36.27.5. Transit and off-site storage;

36.27.6. False-work;

36.27.7. Waiver of Subrogation;

36.27.8. No coinsurance clause;

36.27.9. \$25,000 deductible paid by Contractor; and

36.27.10. Additional Insured endorsement.

## **ARTICLE 37. INDEMNIFICATION**

37.1. Contractor shall secure, pay for and maintain until all Work, including Work required by any guarantee or warranty required by the Contract Documents, is completed, such insurance that will protect Contractor, Owner, and Architect and Architect's consultants and agents and employees of any of them from claims directly and indirectly arising or alleged to arise out of the performance of or failure to perform the Work, or the condition of the Work or the Site, from claims by workmen, suppliers or Subcontractors, from claims under any scaffolding, structural work or safe place law, or any law with respect to protection of adjacent landowners, and from any other claims to damages of property to bodily injury, including death, which may arise in whole or in part from operations by Contractor or any Subcontractor or anyone directly or indirectly employed by either of them. Such insurance shall also cover all contractual obligations that Contractor has assumed including the indemnification provisions under this Article. Such insurance shall cover all contractual obligations that Contractor has assumed.

37.2. To the fullest extent permitted by law, Contractor shall indemnify, defend and hold harmless Owner and Architect, and their respective consultants, and the directors, officers, partners, employees and agents of any of them from and against claims, damages, losses and expenses, including but not limited to reasonable attorney's fees, arising out of or resulting from performance of the Work, provided that such claim, damage loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom, but only to the extent caused in whole or in part by the willful misconduct or negligent acts or omissions of Contractor, a Subcontractor, anyone directly or indirectly employed by them for acts any of them may be liable, regardless of whether or not such claim, damage, loss or expense is jointly caused in part by the negligent act or omission of a party indemnified here under. Such obligation shall not be construed

to negate, abridge, or reduce any other rights or obligations of indemnity which would otherwise exist as to a party or person described in this clause.

37.3. To the fullest extent permitted by law, Contractor shall indemnify, defend and hold harmless Owner and Architect, and their respective consultants, and the directors, officers, partners, employees and agents of any of them from and against claims, damages, losses and expenses, including but not limited to reasonable attorney's fees, arising out of or resulting from the release of any Hazardous Materials introduced to the Site or created on the Site by Contractor, a Subcontractor, anyone directly or indirectly employed by them for acts any of them may be liable, regardless of whether or not such claim, damage, loss or expense is jointly caused in part by the negligent act or omission of a party indemnified here under. Such obligation shall not be construed to negate, abridge, or reduce any other rights or obligations of indemnity which would otherwise exist as to a party or person described in this clause.

37.4. In claims against any person or entity indemnified under this clause by any employee of Contractor, a Subcontractor, anyone directly or indirectly employed by them for whose acts any of them may be liable, the indemnification obligations under this Article shall not be limited by a limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or a Subcontractor under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

## **ARTICLE 38. MISCELLANEOUS**

38.1. Owner Policies. Contractor and its employees and Contractor's subcontractors and their employees shall comply with all policies promulgated by Owner and applicable to the Work as set forth on **Appendix E**, attached hereto and incorporated herein by reference, along with those policies set forth on Owner's website which may be accessed through <http://www.wustl.edu/faculty-staff/> and at <http://www.wustl.edu/policies/>.

38.2. Sustainable Building. Owner has adopted a policy that all new buildings and renovations will be constructed in accordance with sustainable building practices. Contractor shall perform the Work in accordance with the performance criteria that achieve the LEED certification level which the Contract Documents are reasonably capable of achieving. Additionally, Contractor shall perform the Work in accordance with the LEED checklist to the extent that such checklist and criteria therein are consistent with the requirements of the Contract Documents, including but not limited to LEED criteria which relate to procurement of materials, on-site installation practices and construction waste management. To the extent that Contractor is aware of, or becomes aware of a conflict between the Contract Documents and the requirements for the applicable LEED certification, Contractor shall immediately advise the LEED AP, Owner and Architect of the conflict.

If Owner pursues LEED certification for a Project, Owner may contract with a LEED AP to administer the LEED certification process and Contractor shall assist and co-operate with the LEED AP, Architect and Owner in that process. Contractor shall also collect from its material suppliers and subcontractors of all tiers the necessary LEED Submittals for Owner to obtain and maintain the designated LEED certification level. Application for and obtaining any LEED certification shall not be taken into account for the purpose of determining whether Substantial

Completion or Final Completion of the Project (or any phase thereof) has been achieved. However, Owner's receipt of the LEED Submittals shall be a condition of final payment, pursuant to Section 32.2 herein, and shall be taken into account for the purpose of determining whether Final Completion of the Project has been achieved.

38.3. Publicity. Contractor shall not, without the prior written approval of Owner, make any news release, announcement, denial, or confirmation with respect to any part of the subject matters of the Contract. Contractor may not use photographs of Owner's buildings or its campus for marketing purposes nor may Contractor use the name, logo, seal, mascot or other protected trade names or trademarks of Owner for any purpose without the prior written approval of Owner's Vice Chancellor for Public Affairs.

38.4. Audit. Contractor and its Subcontractors shall keep and maintain, in a commercially reasonable format acceptable to Owner, full and detailed records pertaining to the Project (hereinafter referred to as "Audit Records") and shall exercise such controls as may be necessary for proper financial management under the Contract. Audit Records shall include but not be limited to: accounting books and records (hard copy or computer readable data), subcontract files (including proposals of successful and unsuccessful bidders, bid recaps, bidding instructions, bidders list, etc.), original estimates, estimating work sheets, correspondence, change order files, documentation of negotiated settlements, back charge logs and supporting documentation, general ledger entries, payroll registers, timesheets, cancelled payroll checks, employee benefits records, invoices, receipts, cash and trade discounts earned, insurance rebates and dividends, and other related data.

Contractor shall produce and shall afford Owner, its agents or consultants access to inspect or reproduce all Audit Records which Owner may deem necessary to substantiate charges made pursuant to the Contract and all other contracts, which in Owner's judgment have any bearing on or pertain to any matters, rights, duties or obligations under or covered by the Contract Documents. Contractor shall provide information and documents responsive to any request by Owner or its auditor under this Section 38.4 within ten (10) business days of such request.

Owner shall have the right to audit all charges made pursuant to the Contract at any time and in its sole discretion. Owner may also conduct verifications including, but not limited to, verifying payroll computations, overhead computations, observing vendor and supplier payments, miscellaneous allocations, special charges, verifying information and amounts through interviews and written confirmations with employees, Subcontractors, suppliers and contractors representatives. In regard to the foregoing and generally, Contractor hereby authorizes Owner, its agents or consultants to check directly with Subcontractors as to the charges for labor, materials and other items appearing in Contractor's payment applications and to obtain waivers of lien from such Subcontractors if such information or items cannot be obtained through Contractor.

Contractor shall require that all of its payees comply with the provisions of this Section 38.4.

If an audit examination in accordance with this Article discloses overpricing or overcharges to the Owner of any nature whatsoever by the Contractor and/or Subcontractors in excess of 1% of the total costs invoiced to Owner under the Contract, then in addition to making adjustments for the overcharges, the actual cost of the Owner's audit shall be reimbursed to the Owner by the

Contractor. Any adjustments and/or payments made as a result of any such audit shall be made within a reasonable amount of time (not to exceed 90 days) after presentation of Owner's findings to Contractor.

The provisions of this 38.4 shall continue for a period of three years from the date of final payment, or for such longer period as may be required by law.

38.5. Headings. The numbering and captions of the various sections are solely for convenience and reference only and shall not affect the scope, meaning, intent or interpretation of the provisions of these General Conditions nor shall such headings otherwise be given any legal effect.

38.6. Survival. The respective duties and obligations of Contractor and Owner set forth in the Contract and these General Conditions which, by their nature, would continue beyond the termination or expiration of the Contract, including without limitation, the duties and obligations contained in Articles 4, 8, 22, 26, 31, 33, 36 and 37, and Sections 3.3, 5.11, 5.12, 7.5, 9.5, 11.5, 16.2, 25.10.5, 38.2, 38.3, and 38.4 of these General Conditions, will survive termination or expiration.

38.7. Severability. Whenever possible, each provision of the Contract shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of the Contract is held invalid or unenforceable by a court of competent jurisdiction, the remainder shall continue in full force and effect, to the extent the remainder can be given effect without the invalid provision.

**APPENDIX A**

Form of Owner's Application and Certificate for Payment and Continuation Sheet

(See attached)

# APPLICATION AND CERTIFICATE FOR PAYMENT

TO OWNER:

PROJECT:

APPLICATION NO.: \_\_\_\_\_  
 PERIOD TO: \_\_\_\_\_  
 CONTRACT DATE: \_\_\_\_\_

Distribution to:  
 OWNER  
 ARCHITECT

W.U. PO#: \_\_\_\_\_

CONTRACTOR  
 ENGINEER

FROM CONTRACTOR:

VIA ARCHITECT:

Washington University Project #: \_\_\_\_\_

CONTRACT FOR:

### Inclusion of M/WBE contractors on Project?

YES \_\_\_\_\_ NO \_\_\_\_\_

## CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract Continuation Sheet, AIA G703, is attached.

1. ORIGINAL CONTRACT SUM \$ \_\_\_\_\_
2. Net change by Change Orders \$ \_\_\_\_\_
3. CONTRACT SUM TO DATE (Line 1 +/- 2) \$ \_\_\_\_\_
4. TOTAL COMPLETED & STORED TO DATE \$ \_\_\_\_\_  
 (Column G on Continuation Sheet)
5. RETAINAGE:
  - a. \_\_\_\_\_% of Completed Work \$ \_\_\_\_\_  
 (Columns D + E on Continuation Sheet)
  - b. \_\_\_\_\_% of Stored Material \$ \_\_\_\_\_  
 (Column F on Continuation Sheet)
 Total Retainage (Line 5a + 5b or Total in Column I on Cont.Sheet) \$ \_\_\_\_\_
6. TOTAL EARNED LESS RETAINAGE \$ \_\_\_\_\_  
 (Line 4 less Line 5 Total)
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT \$ \_\_\_\_\_  
 (Line 6 from prior Certificate)
8. CURRENT PAYMENT DUE \$ \_\_\_\_\_
  - a. **Less amount paid direct to MBE/WBE** \$ \_\_\_\_\_  
 (Attach detail form "DIRECT PAYMENT TO MBE/WBE SUBCONTRACTORS")
  - b. Amount due to Contractor \$ \_\_\_\_\_
9. BALANCE TO FINISH, INCLUDING RETAINAGE \$ \_\_\_\_\_  
 (Line 3 less Line 6)

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	\$ _____	\$ _____
Total approved this Month	\$ _____	\$ _____
TOTALS	\$ _____	\$ _____
NET CHANGES by Change Order	\$ _____	

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

CONTRACTOR:

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

State of:

county of:

Subscribed and sworn to before me

this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_

Notary Public: \_\_\_\_\_ My Commission expires: \_\_\_\_\_

## ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED

\$ \_\_\_\_\_

(Attach explanation if amount certified differs from the amount applied for. Initial all figures on this Application and on the Continuation Sheet that are changed to conform to the amount certified.)

ARCHITECT:

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

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

---





**APPENDIX B**

Form of Owner's Lien Waivers

(See attached)

INTERIM LIEN WAIVER

To: The Washington University and All Others Whom It May Concern

Date: \_\_\_\_\_, 20\_\_\_\_

WHEREAS, the undersigned has been employed by The Washington University to furnish work, labor and/or materials for the building/location/project known as \_\_\_\_\_ on the campus of or other property owned by The Washington University in St. Louis, Missouri.

NOW, THEREFORE, in consideration for the sum of \$\_\_\_\_\_ (cumulative amount to date), and other good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned does hereby fully, finally and completely waive, relinquish and release any and all claims, demands, suits or actions against The Washington University [and the Owner(s) of the above-described Property], including, without limitation, any and all liens, mechanic's liens, or rights to mechanic's liens on or against the above-described property, building and premises, on account of or arising from any work, labor, services, goods, or materials heretofore furnished by the undersigned for said property, building and premises, up to and including the date hereof. The undersigned further acknowledges that all bills, statements or invoices received by it for work, labor, materials, goods or services furnished for this project up to the date hereof have been fully paid, settled and satisfied, that all sales, use or other applicable taxes, if any, have been properly computed according to law and have been or will be fully paid by the undersigned. The undersigned further acknowledges that The Washington University [and the Owner(s) of the above-described property], and others acting on their behalf, may and will act and rely upon this document and any lien waivers for the project from others furnished by the undersigned in releasing and/or paying funds in connection with this project.

The undersigned further acknowledges that it has fully paid all of its employees, subcontractors and suppliers for amounts due and owing to them up to the date hereof, that all lien waivers or releases provided by the undersigned to The Washington University [and the Owner(s) of the above-described property], are genuine and were signed by the party waiving or releasing the lien rights described therein, and the undersigned further agrees to fully indemnify, defend and hold harmless The Washington University [and the Owner(s) of the above-described property] against any and all mechanic's lien claims and other suits, demands, actions or claims of any type whatsoever (including attorneys' fees), which may be asserted by any of the undersigned's suppliers, employees or subcontractors on this project or by anyone who has provided work, labor or materials for this job up to the date hereof at the request of the undersigned.

[NAME OF CONTRACTOR]

By: \_\_\_\_\_

Name: \_\_\_\_\_

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

STATE OF MISSOURI            )  
  ) ss  
\_\_\_\_\_ OF ST. LOUIS        )

Subscribed and sworn to before me this day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires:

FULL AND FINAL LIEN WAIVER

To: The Washington University and All Others Whom It May Concern

Date: \_\_\_\_\_, 20\_\_\_\_

WHEREAS, the undersigned has been employed by The Washington University to furnish work, labor and/or materials for the building/location/project known as \_\_\_\_\_ on the campus of or other property owned by The Washington University in St. Louis, Missouri.

NOW, THEREFORE, in consideration for the sum of \$\_\_\_\_\_ (final adjusted contract value), and other good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned does hereby fully, finally and completely waive, relinquish and release any and all claims, demands, suits or actions against The Washington University [and the Owner(s) of the above-described Property], including, without limitation, any and all liens, mechanic's liens, or rights to mechanic's liens on or against the above-described property, building and premises, on account of or arising from any work, labor, services, goods, or materials heretofore furnished by the undersigned for said property, building and premises. The undersigned further acknowledges that all bills, statements or invoices received by it for work, labor, materials, goods or services furnished for this project have been fully paid, settled and satisfied, that all sales, use or other applicable taxes, if any, have been properly computed according to law and have been or will be fully paid by the undersigned. The undersigned further acknowledges that The Washington University [and the Owner(s) of the above-described Property], and others acting on their behalf, may and will act and rely upon this document and any lien waivers for the project from others furnished by the undersigned in releasing and/or paying funds in connection with this project.

The undersigned further acknowledges that it has fully paid all of its employees, subcontractors and suppliers for amounts due and owing to them, that all lien waivers or releases provided by the undersigned to The Washington University [and the Owner(s) of the above-described Property], are genuine and were signed by the party waiving or releasing the lien rights described therein, and the undersigned further agrees to fully indemnify, defend and hold harmless The Washington University [and the Owner(s) of the above-described Property] against any and all mechanic's lien claims and other suits, demands, actions or claims of any type whatsoever (including attorneys' fees), which may be asserted by any of the undersigned's suppliers, employees or subcontractors on this project or by anyone who has provided work, labor or materials for this job at the request of the undersigned.

[NAME OF CONTRACTOR]

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

STATE OF MISSOURI                    )  
  ) ss  
\_\_\_\_\_ OF ST. LOUIS            )

Subscribed and sworn to before me this day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires:

**APPENDIX C**

Form of Owner's Economic Inclusion (EI) Summary

(with Detailed Labor Report)

(See attached)

**Economic Inclusion (EI) Summary**

**Data Corresponding to:**

Pay Application #: \_\_\_\_\_  
 Period To: \_\_\_\_\_  
 Date EI Form Submitted: \_\_\_\_\_

Project Name: \_\_\_\_\_  
 Project Number: \_\_\_\_\_  
 Contractor: \_\_\_\_\_  
 Contract Scope: \_\_\_\_\_

Total Contract Value: \_\_\_\_\_  
 Proposal's Original Dollars for MBE's \_\_\_\_\_  
 Original % to MBE's in Proposal \_\_\_\_\_  
 Proposal's Original Dollars for WBE's \_\_\_\_\_  
 Original % to WBE's in Proposal \_\_\_\_\_

	Total Labor Hours on Project		% of Total Hrs
	This Period	To Date	
Total Labor Hours			
Minority Labor Hours			#DIV/0!
Women Labor Hours			#DIV/0!
City Resident Labor Hours			#DIV/0!
Apprentice Labor Hours			#DIV/0!

Amount Contracted to MBE's to Date \_\_\_\_\_  
 % Contracted to MBE's to Date \_\_\_\_\_  
 Amount Contracted to WBE's to Date \_\_\_\_\_  
 % Contracted to WBE's to Date \_\_\_\_\_

All Prime Subcontractors and All M/WBE Lower-Tier Subcontractors and Vendors (A)	Description of Work (B)	M/WBE Cert (C)	Prime Subcontract Value (D)	Lower Tier Subcontract / Supplier Value (E)	MBE Subcontract Value (F)	WBE Subcontract Value (G)	% MBE or WBE of Prime Contract (H)	Amount Previously Requested (I)	Amount Requested This Application (J)	Amount Requested to Date (K)
Prime Subcontractor (Committed M/WBE Contract Value)	scope									
2nd Tier	scope						#DIV/0!			
3rd Tier	scope	MBE					#DIV/0!			
2nd Tier	scope	MBE					#DIV/0!			
2nd Tier	scope						#DIV/0!			
Prime Subcontractor (Committed M/WBE Contract Value)	scope									
2nd Tier	scope						#DIV/0!			
2nd Tier	scope						#DIV/0!			
2nd Tier	scope						#DIV/0!			
3rd Tier	scope						#DIV/0!			
3rd Tier	scope						#DIV/0!			
Prime Subcontractor (Committed M/WBE Contract Value)	scope									
2nd Tier	scope						#DIV/0!			
2nd Tier	scope						#DIV/0!			
Prime Subcontractor (Committed M/WBE Contract Value)	scope									
2nd Tier	scope						#DIV/0!			
2nd Tier	scope						#DIV/0!			
Prime Subcontractor (Committed M/WBE Contract Value)	scope									
2nd Tier	scope						#DIV/0!			
2nd Tier	scope						#DIV/0!			
<b>TOTAL - Subcontracted</b>			0.00	0.00	0.00	0.00		0.00	0.00	0.00

<b>Total Participation</b>	#DIV/0!	#DIV/0!
----------------------------	---------	---------

Contractor Signature \_\_\_\_\_



**Economic Inclusion (EI) Detailed Labor Report**  
 Capturing Minority, Women, Apprentice and City Resident Labor Hours

Washington University:  
 Project #: \_\_\_\_\_  
 Project Name: \_\_\_\_\_  
 WU-FPM Project Manager: \_\_\_\_\_  
 Prepared by: GC / CM / Sub: \_\_\_\_\_

Date Prepared: \_\_\_\_\_  
 For Period to: \_\_\_\_\_  
 Total Project Construction Cost: \_\_\_\_\_

**Monthly Minority Labor Summary**

Contractor/Subcontractor Names	Minority/ Labor Hours This Period	Total Labor Hours This Period	% of Minority/ Labor Hours for Period	Total Minority/ Labor Hours to Date	Total Labor Hours to Date	% of Minority/ Labor Hours to Date
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
<b>TOTAL :</b>	<b>0</b>	<b>0</b>	<b>%</b>	<b>0</b>	<b>0</b>	<b>%</b>

**Monthly Women Labor Summary**

Contractor/Subcontractor Names	Women/ Labor Hours This Period	Total Labor Hours This Period	% of Women/ Labor Hours for Period	Total Women/ Labor Hours to Date	Total Labor Hours to Date	% of Women/ Labor Hours to Date
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
<b>TOTAL :</b>	<b>0</b>	<b>0</b>	<b>%</b>	<b>0</b>	<b>0</b>	<b>%</b>

**Monthly Apprentice Labor Summary**

Contractor/Subcontractor Names	Women/ Labor Hours This Period	Total Labor Hours This Period	% of Women/ Labor Hours for Period	Total Women/ Labor Hours to Date	Total Labor Hours to Date	% of Women/ Labor Hours to Date
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
<b>TOTAL :</b>	<b>0</b>	<b>0</b>	<b>%</b>	<b>0</b>	<b>0</b>	<b>%</b>

**Monthly City Resident Summary**

Contractor/Subcontractor Names	Women/ Labor Hours This Period	Total Manhours This Period	% of Women/ Labor Hours for Period	Total Women/ Labor Hours to Date	Total Labor Hours to Date	% of Women/ Labor Hours to Date
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
<b>TOTAL :</b>	<b>0</b>	<b>0</b>	<b>%</b>	<b>0</b>	<b>0</b>	<b>%</b>

**APPENDIX D**

MBE/WBE Direct Pay Forms

(See attached)

## DIRECT PAYMENT TO QUALIFIED MBE/WBE FIRMS

### \* Instructions \*

The Direct Payment to MBE/WBE Firms Summary Worksheet is used by Washington University to identify the participation of all MBE/WBE firms on University construction projects. The Contractor and its subcontractors and material suppliers shall comply with all federal, state and local laws, ordinances or regulations governing equal opportunity and nondiscrimination. Additionally, the Contract requires that the Contractor use reasonable and good faith efforts to ensure that minority and women business enterprises and qualified ethnic minorities and women have a meaningful opportunity to participate in the Work that is the subject of the Contract.

To provide incentive for these groups to participate on the University's construction projects, the University will attempt to make payment within ten (10) days of receipt of an approved Application for Payment to contractors that have subcontracted with MBE and WBE firms. Additionally, the University will attempt to make payment to MBE and WBE firms directly within ten (10) days of receipt of an approved Application for Payment and the Direct Payment to MBE/WBE Firms Summary Worksheet from Contractor in the appropriate Washington University office. Completion of this Worksheet identifies the qualified MBE/WBE firms and ensures direct payment is made to them within this accelerated time period.

#### Completing the Direct Payment to MBE/WBE Firms Summary Worksheet:

Project Mgr:	Washington University's Project Manager on the Project
Proj. No:	Washington University's project number assigned for the Project
W.U. P. O.:	Applicable Washington University purchase order number
General Contractor:	General Contractor on Project
Date:	Current Date
Application for Payment #:	To which Application for Payment does this summary apply?

Current Invoice No:	Input invoice numbers of Application numbers for those M/WBE firms to which payment will be made with THIS application. If invoice #s for the current payment do not fit in the assigned space, use the line below the M/WBE firm - you may cross the column lines. Attach a copy of the MBE/WBE invoices or approved Applications for Payment. If it is a retainage release, note it on the Direct Payment form.
MBE/WBE Firms:	Identify all the certified M/WBE firms contracted for participation on this Project.

MBE/WBE Firm Remittance Address: Indicate the M/WBE firms' addresses to which payments should be mailed.

Contract Amount:	Identify the amount to which the M/WBE firm has been contracted including change orders to date.
Previous Payment(s):	This column should be the total of all previous payments made to the M/WBE firms.
Current Payment:	This column represents payments due to M/WBE firms with this application. The total of these payments should tie back to Line 6 "LESS Direct Payment to MBE/WBE Firms" of the Application for Payment form.
Total Paid to Date:	This column should total "Previous Payments" plus "Current Payment".

This form should be signed and dated by the General Contractor and submitted to Washington University with the current Approved Application for Payment.

**Absence of the above requested information will impede the ten-day payment process.**



**APPENDIX E**

Owner Policies

(See attached)

## **University Compliance Program and Reporting of Suspected Violations of Laws, Regulations, or University Policies**

Washington University wants to ensure that none of its staff, faculty, third-party vendors and service providers, or other contractors feels obligated to participate in activities they consider to be illegal or unethical. All staff, faculty, and contractors are required to comply with federal, state, and local laws and regulations, as well as University policies, including the University's Code of Conduct.

As described in the Code of Conduct, the University Compliance Office maintains a hotline for employees and others to call to report any suspected violations of laws, regulations, or University policies. The hotline number is (314) 362-4998. Calls to the hotline are anonymous unless the caller wishes to give his/her name or phone number. The University Compliance Office is responsible for ensuring issues reported in hotline calls are investigated and resolved.

The federal False Claims Act is intended to prevent and detect fraud, waste, and abuse of government funds. It is a violation of the federal False Claims Act for anyone to knowingly submit, or cause another person to submit, a false claim and receive government funds. Examples of actions that could violate the federal False Claims Act include overcharging the government for services rendered; filing a claim with the government for services that were not rendered; or filing a claim with the government with information known to be false. Anyone who knowingly or intentionally submits a false claim to the federal government is liable for civil penalties of \$5,500 to \$11,000 per claim, plus three times the amount of damage caused by the false claim.

Anyone who suspects a violation of the False Claims Act or any other federal, state, or local law, a University policy, or the University's Code of Conduct is required to promptly report it to University management. Anyone who, in good faith, reports a suspected or actual violation of law, regulation, or University Code of Conduct or policy will be protected from retaliation and retribution as a result of such reporting, regardless of whether or not, after investigation, a violation is found to have occurred. As outlined in the University's Code of Conduct, the following channels are available for informing University management of the suspected violations:

- Report it directly to your supervisor or department head or chair.
- Report it to the related area-specific compliance office.
- Call the University hotline at (314) 362-4998. Reports may be made anonymously.

If issues related to misuse of government funds are not addressed and resolved by the above reporting channels, the federal False Claims Act contains provisions that allow citizens with evidence of false claims against the government to sue, on behalf of the government, in order to recover the improperly charged funds. If the suit ultimately ends in a monetary judgment, the citizen may share in the damages recovered. The federal False Claims Act extends protections to employees who report false claims from retaliation or discrimination by an employer.

### **Drug and Alcohol Policy Statement**

Washington University is committed to maintaining a safe and healthful environment for members of the University community by promoting a drug-free environment as well as one free of the abuse of alcohol. Accordingly, Washington University strictly prohibits the unlawful manufacture, sale, distribution, dispensation, possession or use of controlled substances or alcohol on University property or as a part of any University activity.

### **Statement on the use of Tobacco**

It is the policy of Washington University to provide a healthy, comfortable and productive work and learning environment for all faculty, staff and students. All smoking and other use of tobacco products are strictly prohibited within University buildings and on University property, including during breaks and meal times. This policy applies to the entire Washington University community, including, but not limited to all faculty, staff, students, patients, contractors and visitors.

Individuals within the Washington University community are not permitted to smoke or use tobacco products within University owned, leased or occupied facilities or on University owned, leased or occupied property. This includes:

- the physical campuses;
- parking facilities and lots (including in personal vehicles at these locations);
- University owned, leased or rented vehicles;
- within 20 feet of entryways or exits; near air intakes; or near fire/explosion hazards;
- any worksites in which individuals within the University Community work;
- If individuals within the University community smoke or use tobacco products off University properties, they are expected to be respectful of residents, hospitals and businesses neighboring University facilities. They should not loiter in front of homes, hospitals or businesses near University facilities and must discard tobacco products in appropriate receptacles;
- Violations of the policy may result in disciplinary action.

### **Concealed Weapons Policy Statement**

The Missouri “concealed carry” law permits qualified individuals who hold either a Missouri permit or a permit from another state to carry concealed firearms throughout the State of Missouri. The law creates certain exceptions making it unlawful for a permit holder to carry a concealed firearm into a number of establishments open to the public, including “any higher education institution” without the consent of the institution’s governing body.

Washington University, a private institution, is a community free from concealed weapons. All students, faculty, staff, visitors, third-party vendors and service providers, and other contractors are prohibited from carrying firearms (concealed or otherwise) on University premises and may not stow any firearm in a vehicle parked in or on a University owned parking lot, facility or metered parking space. This prohibition includes the stowing of firearms in contractor trailers or other vehicles located on University property. The Chief of University Police is the only person

empowered to make exceptions to this prohibition and to grant the consent required under the law on all University campuses.

All violations of this policy will be referred to the Washington University Chief of Police.

### **Federal Acquisition Regulations Compliance**

It is the policy of Washington University that all purchase orders and contracts issued by Washington University comply with F.A.R. 52.209-6. Contractor warrants that neither Contractor nor its principals is presently debarred, suspended, or proposed for debarment by the federal government. Contractor shall immediately inform Owner's Representative if Contractor or its principals becomes debarred or is suspended by the federal government.

### **Safety Guidelines for Contractors**

See attached.





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# **Safety Guidelines for Contractors**

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Danforth Campus:  
Department of Facilities Planning  
and Management  
One Brookings Drive  
Campus Box 1036  
St. Louis, Missouri 63130

Medical School Campus:  
Facility Management Department  
Design and Construction Division  
660 South Euclid  
Campus Box 8034  
St. Louis, Missouri 63110

## INTRODUCTION

The Washington University in St. Louis Safety Guidelines for Contractors are intended to assist Contractors in coordinating University facilities and Contractor operations during construction projects and to protect the University's employees, students, patients, visitors, facilities and surrounding environment as well as construction workers in all construction areas at the University. These Guidelines are basic health and safety requirements of the University that supplement federal, state and local health and safety laws and regulations as well Contractor's own safety programs. **To the extent of any conflict between these Guidelines and federal, state, or local laws and regulations, such laws and regulations control and Contractor shall be responsible for knowing and abiding by the current federal, state and local health and safety laws and regulations governing Contractor's work.** Additionally, Contractors are expected to implement their own comprehensive safety programs and provide training and all necessary safety equipment to workers utilized on any University construction project.

All capitalized terms used and not otherwise defined herein shall have the meaning ascribed to them in the General Conditions of Contract.

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## I. GENERAL SAFETY PROCEDURES

1. **Basic Safety:** Contractors must remain in the designated work areas at all times and use approved travel routes into and out of the Site.
2. **Respiratory Protection:**
  - A. When engineering and administrative controls are not feasible, respiratory protection shall be used accordingly to ensure workers are protected from airborne contaminants that may exceed OSHA exposure limits. Contact Owner's Representative if respiratory protection will be used at any time while working on the Project.
  - B. Contractors shall have a written respirator protection program that includes respirator training, fit-testing and medical qualification documentation. A copy of this information shall be provided to Owner upon request.
3. **Fire Safety:**
  - A. Fire Suppression and Fire Alarm systems: Contractor shall notify Owner's Representative 24 hours before commencing work on such systems. Note: operations that create dust or particles, such as sanding and spray painting, may affect fire alarm systems. Hot Work: Contractors must contact Owner's Representative to obtain a Hot Work permit(s) 24 hours prior to performing welding, soldering or torch work.
  - B. Liquefied Petroleum Gas (LP Gas): The use and storage of LP Gas must be in adherence to applicable regulatory and performance standards.
4. **Motor Vehicles and Motorized Equipment:** Vehicles must observe designated pedestrian crosswalks, fire lanes, disability parking and the posted speed limit. Unless otherwise posted, there is a campus wide speed limit of 20 mph on roadways. The speed limit is 5 mph with flashers when vehicles are driving through campus. Pedestrians have the right-of-way on all interior walking paths and sidewalks. No vehicle or equipment will be parked in such a manner that it will create an unsafe driving or pedestrian walking condition.
  - A. No vehicle or equipment shall be parked or left unattended on any roadway or fire lane if it would impede the movement of any emergency response vehicle or firefighting equipment.
  - B. Passing any bus or shuttle is strictly prohibited unless the bus or shuttle is parked in a designated stop and out of the lane of travel.

- C. Heavy equipment must have a functioning back up alarm. The alarm must be used at all times when the equipment is in reverse. The alarm may not be turned off or disconnected at any time.
5. **Hoists and Crane:** A site plan for hoists/cranes is required to be submitted to the Owner's Representative at least one week before prior to transporting the hoist/crane to the Site.
  6. **Temporary Lighting:** Contractor shall provide, install and maintain adequate temporary lighting to ensure safety and security for the Site. This lighting will include lighting removed as part of the Project, but that is still necessary to light streets, sidewalks and walking paths adjacent to the construction or renovation project for use by employees, patients, students, faculty, staff or visitors to the University.
  7. **Temporary Sidewalk:** Contractor shall provide, install and maintain adequate temporary sidewalks to ensure pedestrian safety on and around the Site. These sidewalks will include sidewalks removed as part of the project, but still necessary for use during construction by employees, students, faculty, staff or visitors to the University.
  8. **Education and Training:** The Contractor(s) and its/their Subcontractors, managers, supervisors, and employees must be properly trained in accordance with OSHA regulations. In addition, Site specific training may be required.
  9. **Site Safety Coordinator:** Contractors should have a designated Site Safety Coordinator available for each Site. The Contractor's Site Safety Coordinator must be identified to the Owner's Representative not later than commencement of the Work on the Project.
  10. **Emergency Procedures:** The Contractor(s) and its/their Subcontractors, managers, supervisors, and employees must know, understand, and be able to follow all workplace emergency procedures pertaining to their assignment. On the Danforth Campus contact University Police at 935-5555. On the School of Medicine campus contact Protective Services at 362-HELP (362-4357). On all other campuses of the University contact 911.
  11. **Accidents:** All accidents, injuries, illnesses, and near misses that occur on the Site must immediately be reported to the Owner's Representative. The Contractor and Subcontractors shall keep and maintain all monthly incident reports in accordance with OSHA regulations and shall provide Owner's Representative with a copy of such reports upon request.

## II. SPECIAL PROCEDURES:

The following special procedures are specific to the University. Although some topics listed below are covered by regulations, they receive special interest in hospital, research and academic areas. The guidelines below are to assist in coordinating contractor work activities

and University activities affecting the same systems. Failure of the Contractor to request the appropriate work permits from the Owner's Representative in advance may negatively impact scheduling.

1. **Federal, State and Local Agencies:** Immediately contact the Owner's Representative whenever a federal, state or local governmental authority contacts you or arrives on-site in relation to any health, safety or environmental concern. It is the responsibility of the Owner's Representative to contact EH&S and the Office of the Executive Vice Chancellor & General Counsel immediately.
2. **Hazardous Materials:**
  - A. **Paintings and Coatings.**
    - i. For Interior field-applied applications, Contractor shall use paints and coatings that do not exceed the following VOC (Volatile Organic Compounds) content limits;
    - ii. Flat Paints and Coatings (Including Primers) - Not more than 50 grams of VOC per liter of coating less water and exempt compounds, including pigments;
    - iii. Anti-Corrosive and Anti-Rust Paints Applied to Interior Ferrous Metal Substrates - Not more than 250 grams of VOC per liter of coating less water and exempt compounds, including pigments;
    - iv. Clear Wood Finishes - Varnish: Not more than 350 grams of VOC per liter of coating;
    - v. Lacquer – Not more than 550 grams of VOC per liter of coating;
    - vi. Floor Coatings - Not more than 100 grams of VOC per liter of coating;
    - vii. Stains - Not more than 250 grams of VOC per liter of coating; and
    - viii. All epoxy painting & coatings and sealers shall be reviewed with the Owner's Representative prior to the start of the Work.
  - B. No laboratory counters shall be painted without first consulting with the Owner's Representative.
  - C. Mixing paints in any patient areas on a WUSM Project is prohibited.

3. **Rooftop Work:** Contact the Owner's Representative to determine if respiratory protection is necessary.
4. **Lockout/Tag Out:** All Contractors are required to have a general lockout/tag out program prior to commencing Work. A written form will be required for lockout/tagout procedures for machinery or equipment which require more than one energy isolating device to be locked and/or tagged. Contractors are required to coordinate with Owner's Representative to ensure that lockout/tag out procedures are communicated to affected Facilities' Managers.
5. **Confined Space Entry:**
  - A. Prior to performing Work in areas with confined spaces, Contractor shall first notify Owner's Representative of the commencement of such Work and shall provide Owner's Representative with a copy of the Contractor's confined space entry procedures.
  - B. Contractors must provide all equipment required for safe entry, including but not limited to rescue equipment.

**ADDENDUM A**

**Emergency Phone Numbers**

For coordination of construction projects at the **Danforth Campus** and campuses other than the medical school campus the following points of contact should be used.

**Facilities Planning & Management Phone Numbers:**

Capital Projects and Records .....	314-935-5628
Maintenance Operations .....	314-935-5544
Utility Operations.....	314-935-4319
Environmental Health and Safety .....	314-362-6816

**Emergency Phone Numbers (Danforth only):**

Washington University Police Dispatcher .....	314-935-5555
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For coordination of construction projects at the **Medical School Campus** the following points of contact should be used.

**Facilities Management Department (FMD) Phone Numbers:**

Facilities Engineering . .....	314-362-3100
Design and Construction.....	314-362-8145
Environmental Health and Safety .....	314-362-6816

**Emergency Phone Numbers (WUSM only):**

Protective Services.....	314-362-HELP (4357)
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**APPENDIX F**

Washington University Construction Cost Matrix

(See attached spreadsheet)

## Washington University Construction Cost Matrix

I. PRE-CONSTRUCTION SERVICES		PRE-CONST.	GEN. COND.	BASIC FEE	ARCH ENGR	OWNER	COST OF WORK
1	Design Development/Coordination Participation and Meetings Attendance	X			X		
2	MEPFP Design Development/Coordination Participation & Meeting Attendance	X			X		
3	Equipment Evaluation and Design Coordination	X			X		
4	Project Website Participation and Usage	X			X		
5	Budget Analysis/Preparation for Each Phase of Design (SD, DD, 85% CD, 100% CD (GMP))	X					
6	Schedule Preparation for Each Phase of Design (SD, DD, 85% CD, 100% CD)	X					
7	Document Review for Each Phase of Design (SD, DD, 85% CD, 100% CD)	X					
8	Constructability Review for Each Phase of Design (SD, DD, 85% CD, 100% CD)	X					
9	Value Engineering Review for Each Phase of Design (SD, DD, 85% CD, 100% CD)	X					
10	Site Logistics Planning	X					
11	Material Storage Planning	X					
12	Existing Conditions Investigation & Planning	X			X		
13	Life Cycle Analysis	X			X		
14	LEED	X			X		
II. CONSTRUCTION MANAGEMENT SERVICE (CONSTRUCTION PHASE)		PRE-CONST.	GEN. COND.	BASIC FEE	ARCH ENGR	OWNER	COST OF WORK
<b>MANAGEMENT SERVICES</b>							
1	Project Website Participation and Usage		X		X		
2	Design Coordination Participation and Meeting Attendance		X		X		
3	MEPFP Design Coordination Participation & Meeting Attendance		X		X		
4	Facilities Engineering Coordination Participation & Meeting Attendance		X				
5	Equipment (Planning & Const. Phase) Equipment Coordination Participation & Meeting Attendance		X				
6	Construction Activities and Trade Contracts Supervision and Management		X				
7	Bid Package Creation, Coordination, Distribution and Bidding		X				
8	Trade Contract & Material Purchase Procurement		X				
9	Safety Program & Substance Abuse Policy Implementation & Management		X				
10	Quality Program Implementation & Management		X				
11	Project Cost Controls - Accounting, Management & Tracking of GMP, CO, VE & Constructability		X				
12	Project Controls - Management /Tracking of Communications, Documentation, Monthly Report		X				
13	Project Schedule - Establish, Maintain & Update a Cost-Loaded, Manpower Loaded Schedule		X				
14	Project Schedule - Establish, Maintain & Update an Earned Value Analysis		X				
15	Facility Commissioning & Project Closeout - Manage, Conduct, Execute		X				
<b>MANAGEMENT SUPERVISION</b>							
<b>PROJECT SITE SUPERVISION (LOCATED ON SITE FULL-TIME)</b>							
1	Project Director		X				
2	Project Manager		X				
3	Project Field Engineer		X				
4	Project Field MEPFP Engineer		X				
5	Project Field Safety Engineer		X				
6	Project Assistant/Secretarial Help		X				
7	Project Payroll/Timekeeper		X				
8	Field Superintendent		X				
9	Field Trade Superintendent		X				
<b>CORPORATE OFFICE SUPERVISION (ON SITE PART-TIME, OR IN-HOME OFFICE)</b>							
1	Home Office - Project Director			X			
2	Home Office - Project Manager			X			
3	Home Office - Project Engineer			X			
4	Home Office - Secretarial & Support Services			X			
5	Home Office - Payroll, Time Keeper			X			
6	Home Office - Accounting & Purchasing			X			
7	Home Office - Information Services & Support			X			
8	Home Office - Executive & Legal Services			X			
9	Home Office - Estimating			X			
10	Home Office - Drafting, Detailing			X			
11	Home Office - Safety			X			
12	Home Office - E.E.O. Officer/MBE/WBE Coordinator			X			
13	<b>(NOTE: Hourly/Salary Costs to Include Insurance, Taxes &amp; Fringes)</b>						

## Washington University Construction Cost Matrix

		PRE- CONST.	GEN. COND.	BASIC FEE	ARCH ENGR	OWNER	COST OF WORK
<b>III. GENERAL CONDITIONS</b>							
<b>TEMPORARY FACILITIES</b>							
1	Field Office or Trailer Rental		X				
2	Storage Trailer Rental		X				
3	Safety Equipment - Hardhats, Glasses, Harnesses, Nets, Barricades, Etc.		X				
4	First Aid Supplies		X				
5	Hot Work Permits, Fire Extinguishers & Fire Watch		X				
6	Security Guard/Watchman Service					X	
7	Safety Handrails, Cables and Toe Boards		X				
8	Temporary Stairs, Fencing and Enclosures		X				
9	Temporary Partitions & Covered Walkways		X				
10	Project Signs		X				
<b>SITE UTILITIES &amp; SERVICES</b>							
1	Temporary Telephone Service Installation		X				
2	Telephone/Fax/Internet Service and Expense		X				
3	Cellular Phone Service and Expense		X				
4	Cellular Phone/Telephone/Fax/PC Equipment/Tables/Printers/Plotters/Copier			X			
5	2 Way Radio Equipment & Service		X				
6	Temporary Power Installation						X
7	Temporary Power Service and Expense					X	
8	Temporary Water Service and Expense					X	
9	Field Ice and Water - Labor, Cups, Ice		X				
10	Temporary Sewer Service and Expense						X
11	Temporary Toilets		X				
12	DAILY Cleanup		X				
13	Final Cleanup		X				
14	Dump Permits and Fees		X				
15	Debris Hauling/Removal		X				
16	Trash Chute and Hoppers		X				
17	Traffic Control and Flagging		X				
18	Temporary Roads		X				
19	Roadway Cleaning, Maintenance and Dust Control		X				
<b>WEATHER PROTECTION</b>							
1	Snow,WATER and Ice Removal - Labor and Equipment		X				
2	De-Watering - Labor and Equipment						X
3	Weather Protection - Enclosures, Temporary Protection		X				
4	Temporary Heating and Cooling Installation		X				
5	Temporary Heating and Cooling Equipment		X				
6	Temporary Heating and Cooling Service and Expense		X				
7	Use of Permanent HVAC System (Warranty Extensions)						X
8	Filter Change						X
9	Cleaning Cost						X
10	Maintenance Cost		X				
11	Extended Warranty Cost		X				
<b>QUALITY CONTROL</b>							
1	Field Inspector/Inspectors Office					X	
2	Special Inspection Consultants					X	
3	Special Testing Consultants					X	
4	Concrete Testing					X	
5	Masonry Testing					X	
6	Compaction Testing					X	
7	Welding Testing					X	
8	Soils Investigations					X	

## Washington University Construction Cost Matrix

9	Special Testing Services					X	
10	Supplies and Materials (Field Office)		X				
11	Project Photographs		X				
12	Warranty Inspections Coordination		X				
13	MEPPF Testing and Balancing						X
14	Project Site Orientation(s) and Training						X
15	Commissioning					X	
16	Enhanced Commissioning					X	
	<b>ON SITE EQUIPMENT</b>	<b>PRE-CONST.</b>	<b>GEN. COND.</b>	<b>BASIC FEE</b>	<b>ARCH ENGR</b>	<b>OWNER</b>	<b>COST OF WORK</b>
1	Field Supervision Pick-up Trucks		X				
2	Small Tools Purchase, Rental and Usage - Drills, Saws, etc.		X				
3	Consumables - Blades, Bits, Tape, Paint, etc.		X				
4	Equipment Rental - Air Compressors, Generators, Jack-Hammers, Welders, etc.		X				
5	Large Equipment Rental - (Including Delivery, Operator, and Expenses) - Lull, Forklift, Lifts, etc.						X
6	Material Skips, Hoppers and Rigging - Delivery, Rental and Expense						X
7	Landings and Platforms - Fabricate/Supply, Labor, Erection, Removal and Expense						X
8	Material Hoist and Tower Crane Rental - Delivery, Operator, Erection, Removal and Expense						X
9	Crane Raising/Jumping Cost						X
10	Crane Rental - Delivery, Operator, Erection, Removal and Expense						X
11	CRANE Safety Inspections						X
12	Temporary Elevator Rental - Delivery, Operator, Erection, Removal and Expense						X
13	Temporary Elevator Rental Operation - Labor, Service and Expense						X
14	Temporary Elevator Operator - (Prior to Commissioning)						X
15	Safety Inspections, Fuel, Repairs, Maintenance						X
	<b>TRAVEL</b>	<b>PRE-CONST.</b>	<b>GEN. COND.</b>	<b>BASIC FEE</b>	<b>ARCH ENGR</b>	<b>OWNER</b>	<b>COST OF WORK</b>
1	Full-Time Project Field Office Staff - Mileage		X				
2	Full-Time Project Field Supervision Staff - Mileage		X				
3	Home Office - Part-Time Project Staff - Mileage			X			
4	Home Office - Corporate Supervision - Mileage			X			
	<b>REPRODUCTION, PRINTING, POSTAGE</b>	<b>PRE-CONST.</b>	<b>GEN. COND.</b>	<b>BASIC FEE</b>	<b>ARCH ENGR</b>	<b>OWNER</b>	<b>COST OF WORK</b>
1	Feasibility and Cost Study Documents					X	
2	MEPPF System Study Documents					X	
3	Design Document Issues (By Phase)					X	
4	Construction Document Issue					X	
5	Bid Package Documents/Bidding Instructions					X	
6	Shop Drawing Copying and Printing						X
7	As-Built documentation Submission (hard copy, AutoCAD)						X
8	Final As-Built Documents Issue (Drafting and Printing)				X		
9	Presentation Charts and Graphics					X	
10	Reference Materials					X	
11	Preparation and Distribution of Operations and Maintenance Manuals						X
12	Postage and UPS/FedEx Costs		X				
13	Courier Expense		X				
14	Field Office Copier Equipment Purchase/Rental Expense		X				
15	Special Forms		X				
	<b>PERMITS, SERVICES AND FEES</b>	<b>PRE-CONST.</b>	<b>GEN. COND.</b>	<b>BASIC FEE</b>	<b>ARCH ENGR</b>	<b>OWNER</b>	<b>COST OF WORK</b>
1	Layout		X				
2	Surveying and Staking						X
3	Parking fees						X
4	Parking Meter Permits and Fees		X				
5	Storage Yard Rental						X
6	Parking Lot Rental						X
7	Curb and Gutter Permits						X
8	Sign Permits						X
9	Sidewalk Permits						X
10	Landscape Permits						X

## Washington University Construction Cost Matrix

11	Building Permits						X
12	Plan Check Fee						X
13	Water Service Fee					X	
14	Sanitary Service Fee					X	
15	Storm Service Fee					X	
16	Gas Service Fees					X	
17	Power Service Fees					X	
18	Tap Fees						X
19	Contractors Licenses						X
20	Royalties						X
21	Zoning Fees/Consultants					X	
22	Use Fees					X	
23	Construction Equipment Permits and Licenses						X
24	Professional Organizational Fees		X				
	<b>INSURANCE, TAXES AND BONDS</b>	<b>PRE-CONST.</b>	<b>GEN. COND.</b>	<b>BASIC FEE</b>	<b>ARCH ENGR</b>	<b>OWNER</b>	<b>COST OF WORK</b>
1	Builders Risk Insurance						X
2	Performance and Payment Bonds						X
3	Error and Omissions				X		
4	Auto Insurance		X				
5	General Liability						X
6	Complete Operations Liability						X
7	Excess (Umbrella) Liability Coverage						X
8	Workman's Compensation						X
9	Home Office Staff - Insurance			X			
10	Home Office Staff - Taxes			X			
	<b>OTHER COSTS</b>	<b>PRE-CONST.</b>	<b>GEN. COND.</b>	<b>BASIC FEE</b>	<b>ARCH ENGR</b>	<b>OWNER</b>	<b>COST OF WORK</b>
1	Land Costs					X	
2	Title/Development Costs					X	
3	Financing/Interest Cost					X	
4	Impact fees					X	
5	Preliminary Soils Investigations					X	
6	Owner Change Contingency					X	
7	Building Operation After Commissioning					X	
8	Building Maintenance After Commissioning					X	
9	User Group Moving Coordination and Moving Costs					X	
10	Design and Engineering Costs and Expenses				X		
11	Architectural and Engineering - Cost for Bid package Design Coordination				X		
12	Project Taxes						X
13	Construction - Labor, Material, Equipment and Subcontractors						X
14	Unknown/Unforeseen Existing Conditions Extra Work					X	
15	Costs of Emergency Work					X	
16	C.M. General Overhead Cost			X			
17	Costs over GMP			X			