

## **SECTION 01 31 00**

### **PROJECT MANAGEMENT AND COORDINATION**

#### **PART 1 - GENERAL**

##### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

##### **1.2 SUMMARY**

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. General coordination procedures.
  - 2. Coordination drawings.
  - 3. Requests for Information (RFIs).
  - 4. Project Web site.
  - 5. Project meetings.
- B. Related Requirements:
  - 1. Section 01 32 00 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
  - 2. Section 01 73 00 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
  - 3. Section 01 77 00 "Closeout Procedures" for coordinating closeout of the Contract.

##### **1.3 DEFINITIONS**

- A. RFI: Request from Contractor seeking information required by or clarifications of the Contract Documents.

##### **1.4 INFORMATIONAL SUBMITTALS**

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Within 21 calendar days of Notice of Award submit, as complete as possible, a preliminary list to include all major subcontractors. Augment, complete and submit the final subcontractor list within 60 calendar days of Notice of Award, unless a longer duration is approved by the Architect/Engineer. Include the following information in tabular form:
  - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
  - 2. Number and title of related Specification Section(s) covered by subcontract.
  - 3. Drawing number and detail references, as appropriate, covered by subcontract.

- B. Key Personnel Names: Within 14 calendar days after Notice to Proceed, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.

Retain option in subparagraph below for Large Projects administered through a Project Web site specified later in this Section.

1. Post copies of list in project meeting room, in temporary field office, **[on Project Web site,]** and by each temporary telephone. Keep list current at all times.

## 1.5 GENERAL COORDINATION PROCEDURES

- A. General: Each entity involved in the performance of work for the entire Project shall cooperate in the overall coordination of the Work; promptly, when requested, furnish information concerning its portion of the Work; and respond promptly and reasonably to the decisions and requests of persons designated with coordination, supervision, administrative or similar authority.

### 1. University Standard Project Management Forms

- a. Where applicable, obtain from the University Project Manager and use the following University Standard Forms:

- 1) Preconstruction Agenda
- 2) Change Order Log with Contingency Codes
- 3) Access Control Badge Application Form
- 4) Utility Interruption Request Form
- 5) Utility Start-Up Request Form
- 6) Fire Alarm/Sprinkler Disable Request Form
- 7) Hot Work Permit Form
- 8) Anschutz Medical Campus (AMC) Street and Parking Lot Closure Form
- 9) Indoor Air Quality (IAQ) Planning Checklist
- 10) Indoor Air Quality (IAQ) Inspection Checklist

### 2. Site Utilization:

- a. In addition to the site utilization limitations and requirements indicated in Section 01 10 00 "Summary" and indicated by the Contract Documents; administer the allocation of available space equitably among entities needing access and space, so as to produce the best overall efficiency in the performance of the total work of the project. Schedule deliveries so as to minimize the space and time requirements for storage of materials and equipment on the site; but do not unduly risk delays in the work.
- b. Concurrent with work of the Contractor, other contractors, suppliers, and the University personnel may be working in relatively close proximity. The Contractor is solely responsible for coordinating their work with that of other contractors and will make no claims for failure to do so.

### 3. Layout:

- a. It is recognized that the Contract Documents are diagrammatic in showing certain physical relationships of the various elements and systems and their interfacing with other elements and systems. Establishment and coordination of these relationships is the exclusive responsibility of the Contractor. Do not scale the drawings. Lay out and arrange all elements to contribute to safety, efficiency and to carry the harmony of design throughout

the Work. In case of conflict or undimensioned locations, verify required positioning with Architect/Engineer.

4. Substrate Examination:
  - a. The Installer of each element of the work must examine the conditions of the substrate to receive the work, dimensions and spaces adjacent, tolerances, interfacing with other elements and services, and the conditions under which the work will be performed, and must notify the Contractor in writing of conditions detrimental to the proper or timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer.
5. Large and Heavy Equipment:
  - a. Contractor to coordinate with University Project Manager requirements to be maintained for the subsequent entry of large equipment units. Coordinate the movement of heavy items with shoring and bracing, so that the building structure will not be overloaded during the movement and installation.
  - b. Where equipment or products to be installed on the roof are too heavy to be hand-carried, do not transport across roof deck; position by crane or other device so as to avoid overloading the roof deck.
- B. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections of the Specification that depend on each other for proper installation, connection, and operation.
  1. Contractor Communication with the University: Direct all communication with the University through the University Project Manager.
  2. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
  3. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
  4. Make adequate provisions to accommodate items scheduled for later installation.
- C. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
  1. Prepare similar memoranda for University and separate contractors if coordination of their Work is required.
- D. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
  1. Preparation of Contractor's construction schedule.
  2. Preparation of the schedule of values.
  3. Installation and removal of temporary facilities and controls.
  4. Delivery and processing of submittals.
  5. Progress meetings.
  6. Preinstallation conferences.
  7. Project closeout activities.
  8. Startup and adjustment of systems.

- E. Coordination Of Submittals: Prior to transmittal to the Architect/Engineer, review shop and erection drawings, product data, and samples for compliance with Contract Documents and for coordination among work of all Sections of the Specifications. Coordination of submittals shall include, but not be limited to the following:
1. Verification of field dimensions and clearances and relationship to available space and anchors.
  2. Verification of compatibility with equipment and work of other Sections, electrical characteristics, and operational control requirements.
  3. Verification of motor voltages and control characteristics.
  4. Coordination of controls, interlocks, wiring of pneumatic switches, and relays.
  5. Coordination of wiring and control diagrams.
  6. Review of the effect of any changes on work of other Sections.
  7. For any item to be installed in or on a finished surface, certify that applicable Contract Documents have been checked and that the item submitted is compatible with the surface finish on which it is to be installed.
  8. Equipment and material submittals shall show sufficient data to indicate complete compliance with Contract Documents as follows:
    - a. Proper sizes and capabilities.
    - b. Ability to fit in the available space in a manner that will allow proper service.
    - c. Construction methods, materials, and finishes.
    - d. List of accessories.
- F. Special Coordination Requirements for Mechanical and Electrical Work:
1. General: Provide necessary work and services required to coordinate the complete installation of heating, ventilating, and air conditioning (HVAC) equipment and systems; plumbing systems and fixtures; electrical equipment, fixtures, and systems; and other equipment or systems containing motors and controls or requiring connection to mechanical or electrical systems; all so that the various systems perform as indicated and are in harmony with other project Work.
  2. Contract Drawings:
    - a. Drawings are schematic in nature, and indicate in general how the various components are integrated with other parts of the building. Coordinate exact locations by job measurement, by verifying the requirements of other trades, and by review of Contract Documents.
  3. Mechanical and Electrical Drawings indicate general routing of the various parts of the systems, but do not indicate all sizes, fittings, offsets, and runouts which are required. Coordinate correct sizes, fittings, offsets, and runouts required to fit systems into allocated spaces. Coordinate locations of all light fixtures, vents, and supply grilles to conform to the ceiling grid system or other modular finishes.
  4. Coordinate installation of mechanical and electrical work in compliance with the following requirements:
    - a. Install piping, ductwork and similar services straight and true, aligned with other work, close to walls and overhead structure, allowing for insulation, concealed (except where indicated as exposed) in occupied spaces, and out-of-the-way with maximum passageway and headroom remaining in each space.
    - b. Install electrical work in a neat, organized manner with conduit and similar services in or parallel with building lines, and concealed unless indicated as exposed.
    - c. For all work maintain maximum practical overhead clearance but not less than 6" above ceiling. Where exposed, maintain 7'-0" minimum clearance.
    - d. Arrange all work to facilitate maintenance and repair or replacement of equipment. Locate services requiring maintenance on valves and similar units in front of services requiring less maintenance. Connect equipment for ease of disconnecting, with minimum of interference with other work.

- e. Provide space to permit removal of coils, tubes, fan shafts, filters, other parts which may require replacement.
  - f. Locate operating and control equipment and devices for easy access. Furnish access panels where units are concealed by finishes and similar work.
  - g. Integrate mechanical work in ceiling plenums with suspension system, light fixtures and other work, so that required performances of each will be achieved.
  - h. Give the right-of-way to piping systems required to slope for drainage over other service lines and ductwork.
  - i. Advise other trades of openings required in their work for accommodation of mechanical and electrical elements. Provide and place sleeves and anchors required in other work.
5. Access to Equipment: Except where located above accessible ceilings, provide access panels wherever access is required to concealed valves, controls, dampers, pull boxes and other devices requiring ongoing or periodic access.
- a. Acceptable types of access panels are specified in Division 08.
  - b. Each trade is responsible for providing access panels needed for access to their equipment and coordinating installation with other Division 03, 04, 06 and 09 trades.
  - c. Coordinate requirements and obtain approval of locations from Architect/Engineer.

G. Compatibility of Systems:

- 1. Provide products and equipment which are compatible with other work requiring mechanical/electrical interface including electrical connections, control devices, water, drain and other piping connections. Verify electrical characteristics, fuel requirements and other interface requirements before ordering equipment and resolve conflicts that may arise.
- 2. Coordinate equipment, mechanical and electrical work in accordance with the following schedule:

<u>ITEM</u>	<u>FURNISHED BY</u>	<u>MOUNTED BY</u>	<u>LOW VOLTAGE WIRED BY</u>	<u>POWER WIRED &amp; CONNECTED BY</u>	<u>LOW VOLTAGE CONTROL CONNECTED BY</u>
Equipment motors	I	MI	MI	EI	--
Motor starters, contactors and overload heaters	MI	EI	EI	EI	MI
Fused and unfused disconnect switches	EI**	EI**	EI**	EI	--
Manual operating switches, speed switches, push-button stations and pilot lights	MI	EI	EI	EI	EI
Duct detectors	EI	MI	MI	EI	MI
Control relays and transformers	MI	MI	MI	EI	MI
Thermostats, time switches*	MI	MI	MI	EI	MI
Temperature control panels	MI	MI	MI	EI	MI
Motor and solenoid valves, damper motors, PE and EP	MI	MI	MI	--	MI

switches					
Refrigeration equipment, cooling tower and controls	MI	MI	MI	EI	MI
Electric meters	EI	EI	EI	EI	MI
Steam meters	MI	MI	MI	MI	MI
Chilled water meters,	MI	MI	MI	MI	MI
Water meters	MI***	MI	MI	MI	MI
Natural Gas	MI	MI	MI	MI	MI
<p>I = Installer of equipment requiring electrical service EI = Electrical Installer MI = Mechanical Installer</p> <p>* Motor driven units which are controlled from line voltage automatic controls such as line voltage thermostats, float switches or time switches which conduct full load current of the motor shall be wired for both power and control circuit under the electrical contract. However, if the control device does not conduct full load current, then the responsibility shall be that set forth in the above schedule. (Example: a 208 volt, 3-phase, 3- wire motor requires 120 volt control. Electrical Installer shall furnish a 120 volt circuit for control and 208 volt circuit for power and wire the power circuit. Mechanical Installer shall wire the control circuit.)</p> <p>** Disconnects for AH units are factory mounted.</p> <p>***Building Service meter provided by Civil. Any sub meter provided by MI. Coordinate meter requirements with utility for remote monitoring by 23 09 00 – Instrumentation and Controls.</p>					

H. Special Coordination Requirements for Exterior Envelope Work:

1. General: Provide necessary work and services required to coordinate the complete and continuous installation of the building's heat, air and moisture barriers. Exterior building envelope construction to be coordinated includes, but is not limited to, below-grade walls, slabs-on-grade, exterior opaque walls, windows, curtain walls, roofs, and skylights.
2. Contract Drawings:
  - a. Drawings indicate general concepts and design intent for continuity of heat, air and moisture barriers at each exterior building envelope component and at transitions between building envelope components. Coordinate details for continuity based on actual product selections and Contractor's proposed sequence of construction.

I. Complete Systems:

1. It is the intent of the Contract Documents that all systems, including mechanical and electrical, be complete and functional to provide the intended or specified performance. Provide all incidental items and parts necessary to achieve this requirement.
2. Provide correctly sized power, utilities, piping, drains, services and their connections to equipment and systems requiring them, whether or not specific items are listed in the schedule under "Compatibility of Systems" paragraph in this Section.

J. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as University's property.
2. Establish recycling program at job site. Refer to Section 01 74 19 "Construction Waste Management and Disposal" for additional requirements.

## 1.6 COORDINATION DRAWINGS

- A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, and additionally where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.
1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:
    - a. Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
    - b. Coordinate the addition of trade-specific information to the coordination drawings by multiple subcontractors in a sequence that best provides for coordination of the information and resolution of conflicts between installed components before submitting for review.
    - c. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
    - d. Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
    - e. Show location and size of access doors required for access to concealed dampers, valves, and other controls.
    - f. Indicate required installation sequences.
    - g. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect/Engineer indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.

Retain "Coordination Drawing Organization" Paragraph below and delete subsequent "Coordination Digital Data Files" Paragraph for Small Projects not utilizing a Building Information Model to facilitate coordination of systems.

- B. Coordination Drawing Organization: Organize coordination drawings as follows:
1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid. Supplement plan drawings with section drawings, where required, to adequately represent the Work.
  2. Plenum Space: Indicate subframing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within ceiling plenum to accommodate layout of light fixtures indicated on Drawings. Indicate areas of conflict between light fixtures and other components.
  3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
  4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.

5. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
6. Mechanical and Plumbing Work: Show the following:
  - a. Sizes and bottom elevations of ductwork, piping, and conduit runs, including insulation, bracing, flanges, and support systems.
  - b. Dimensions of major components, such as dampers, valves, diffusers, access doors, cleanouts and electrical distribution equipment.
  - c. Fire-rated enclosures around ductwork.
7. Electrical Work: Show the following:
  - a. Runs of vertical and horizontal conduit 1-1/4 inches in diameter and larger.
  - b. Light fixture, exit light, emergency battery pack, smoke detector, and other fire-alarm locations.
  - c. Panel board, switch board, switchgear, transformer, busway, generator, and motor control center locations.
  - d. Location of pull boxes and junction boxes, dimensioned from column center lines.
8. Fire-Protection System: Show the following:
  - a. Locations of standpipes, mains piping, branch lines, pipe drops, and sprinkler heads.
9. Windows, Curtain Wall, and Exterior Wall Assembly Transition Work: Show all components of each adjacent wall or window system and all required compatible tie-ins between them including transition strips, flashings and sealants. Clearly identify each product, its configuration and its extent. Shop Drawings which only generically indicate adjacent construction and/or indicate "construction by others" will not be acceptable.
10. Review: Architect/Engineer will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility. If Architect/Engineer determines that coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, Architect/Engineer will so inform Contractor, who shall make changes as directed and resubmit.
11. Coordination Drawing Prints: Prepare coordination drawing prints according to requirements in Section 01 33 00 "Submittal Procedures."

Retain "Virtual Design and Construction (VDC), Building Information Model (BIM), and Coordination Digital Data Files" Paragraph below and delete "Coordination Drawing Organization Paragraph above for Large Projects utilizing a Building Information Model to facilitate coordination of systems."

- C. Virtual Design and Construction (VDC), Building Information Model (BIM) and Coordination Digital Data Files:
  1. General: It is expected that, to the greatest extent applicable, Contractor will employ VDC and BIM tools to facilitate the construction, coordination, scheduling and phasing of the Work.
  2. Contractor's VDC implementation shall include at a minimum the following activities:
    - a. Development and maintenance of a three-dimensional building information model (BIM) of the Work that includes contractor-developed, shop-drawing level information of the following building components and systems:
      - 1) Building structure, including but not limited to, foundations, columns, beams, joists, purlins, floor and roof decking and fill, bracing, and load-bearing walls.



- 2) HVAC systems, including but not limited to, HVAC piping and pumps, air distribution ductwork, fans, air terminal units, air outlets and inlets; central cooling equipment compressors, chillers, condensers, and cooling towers; boilers, heat exchangers and packaged and/or custom air-handling units and thermal storage systems.
    - 3) Plumbing systems, including but not limited to, water distribution, storm drainage and sanitary sewerage waste and vent piping, water-heaters and plumbing fixtures.
    - 4) Fire suppression systems, including but not limited to, standpipes, sprinkler systems, fire pumps, and non-water-based fire-extinguishing systems.
    - 5) Electrical systems, including but not limited to, conduit greater than 1-1/2 inches in diameter, or bundled conduits, cable-tray, transformers, switchgear, switchboards, panelboards, generators, lightning protection and lighting.
    - 6) Communication systems, including but not limited to, structured cabling, premise wiring distribution system, equipment room fittings, racks, frames and enclosures, data communications switches, hubs, and routers, common use systems, and paging systems
    - 7) Vertical Transportation systems including.
    - 8) Architectural building systems including interior and exterior walls, windows, curtain walls, ceilings, and roof.
  - b. Collision Detection Reports: Based on information developed and included in the Contractor's three-dimensional BIM, perform collision/interference checking and develop reports for review and resolution by the integrated Contractor team, including subcontractors, manufacturers and suppliers, working with the Design team where needed prior to release of fabrication drawings.
3. Schedule Visualization: Develop and maintain a three-dimension building information model for the expressed purpose of visually demonstrating and communicating proposed project construction schedule and phasing to University, subcontractors and suppliers as applicable. Include all major building systems and construct in such a fashion as to permit animation showing sequential construction of the project based on and driven by the approved Primavera construction schedule.
  4. Prepare coordination digital data files according to the following requirements:
    - a. File Preparation Format: Same digital data software program, version, and operating system as original Drawings.
    - b. File Submittal Format: Submit or post coordination drawing files using format same as file preparation format and Portable Data File (PDF) format.
    - c. BIM File Incorporation: Develop and incorporate coordination drawing files into Building Information Model established for Project.
      - 1) Perform three-dimensional component conflict analysis as part of preparation of coordination drawings. Resolve component conflicts prior to submittal. Indicate where conflict resolution requires modification of design requirements by Architect/Engineer.
- University and A/E to agree on and coordinate acceptable data licensing agreement to enable Contractor's use of A/E's Building Information Design Model.
- d. Architect/Engineer will furnish Contractor one set of digital data files of Drawings for use in preparing coordination digital data files.
    - 1) Architect/Engineer makes no representations as to the accuracy or completeness of digital data files as they relate to Drawings.

- 2) Digital Data Software Program: Drawings are available in <Insert name and version of digital data software program and operating system>.
  - 3) Contractor shall execute a data licensing agreement in the form of Agreement form acceptable to University and Architect/Engineer.
5. Review: At request of Contractor and at Architect/Engineer's discretion, Architect/Engineer will participate in BIM coordination and review meetings and will review coordination model and drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are the Contractor's responsibility. If the Architect/Engineer determines that the coordination model and drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, the Architect/Engineer will inform the Contractor, who shall make changes as directed and resubmit.
- D. Interference Resolution: Whenever job measurements and an analysis of the building coordination model, Drawings and Specifications indicate that the various systems cannot be installed without significant deviation from the intent of the Contract, prepare interference drawings as required to indicate conflict between the various systems and other components of the building such as beams, columns, and walls. Include plans, elevations, sections, and other details drawn to large scale as required to clearly define the interference and to indicate the Contractor's proposed solution. Submit interference drawings for review by the Architect prior to proceeding with work in the general areas of the conflict.

#### 1.7 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
1. Architect/Engineer will return RFIs submitted to Architect/Engineer by other entities controlled by Contractor with no response.
  2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
  2. Project number.
  3. Date.
  4. Name of Contractor.
  5. Name of Architect/Engineer.
  6. RFI number, numbered sequentially.
  7. RFI subject.
  8. Specification Section number and title and related paragraphs, as appropriate.
  9. Drawing number and detail references, as appropriate.
  10. Field dimensions and conditions, as appropriate.
  11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
  12. Contractor's signature.
  13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
    - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.

14. Space for response and signature by Architect/Engineer.
- C. RFI Forms: Hard copy form or software-generated form with substantially the same content as indicated above, acceptable to Architect/Engineer.
1. Attachments shall be electronic files in Adobe Acrobat PDF format.
- D. Architect/Engineer's Action: Architect/Engineer will review each RFI, determine action required, and respond. Allow seven calendar days for Architect/Engineer's response for each RFI. RFIs received by Architect/Engineer after 1:00 p.m. will be considered as received the following working day.
1. The following Contractor-generated RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for approval of Contractor's means and methods.
    - d. Requests for coordination information already indicated in the Contract Documents.
    - e. Requests for adjustments in the Contract Time or the Contract Sum.
    - f. Requests for interpretation of Architect/Engineer's actions on submittals.
    - g. Incomplete RFIs or inaccurately prepared RFIs.
  2. Architect/Engineer's action may include a request for additional information, in which case Architect/Engineer's time for response will date from time of receipt of additional information.
  3. Architect/Engineer's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Contractor-Initiated Change Order Bulletin and Proposal according to Section 01 26 00 "Contract Modification Procedures."
  - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect/Engineer in writing within seven calendar days of receipt of the RFI response.

Select first option in following Paragraph for Small Projects and second option for Large Projects.

- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by RFI number. Submit log weekly. **[Use CSI Log Form 13.2B or Contractor-generated form of substantially same content.] [Use software log that is part of Project Web site.]** Include the following:
1. Project name.
  2. Name and address of Contractor.
  3. Name and address of Architect/Engineer.
  4. RFI number including RFIs that were returned without action or withdrawn.
  5. RFI description.
  6. Date the RFI was submitted.
  7. Date Architect/Engineer's response was received.
- F. On receipt of Architect/Engineer's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect/Engineer within seven calendar days if Contractor disagrees with response.

## 1.8 PROJECT WEB SITE

Retain this article for Large Projects. Note that Construction Manager/General Contractor Agreement CMGC (State Form SC-6.4) requires the CMGC to provide and use Project Management Software for project control, communication and documentation.

- A. Provide, administer, and use Project Web site for purposes of hosting and managing project communication and documentation until Final Completion. Project Web site shall include the following functions:
  - 1. Project directory.
  - 2. Project correspondence.
  - 3. Meeting minutes.
  - 4. Contract modifications forms and logs.
  - 5. RFI forms and logs.
  - 6. Submittals forms and logs.
  - 7. Electronic submittal document hosting, viewing and transmitting.
  - 8. Drawing and specification document hosting, viewing, and updating.
  - 9. Pay applications.
  - 10. Change orders.
  - 11. Daily reports.
  - 12. Punchlists.
  - 13. Archiving functions.
- B. Provide up to twenty-five (25) Project Web site user licenses for use of the University, Architect/Engineer, and Architect/Engineer's consultants. Provide eight hours of software training at Project Site office for Project Web site users.
- C. On completion of Project, provide one each complete archive copy of Project Web site files to University and to Architect/Engineer in a digital storage format acceptable to Architect/Engineer.
- D. Software:
  - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Meridian Systems; Prolog or ProjectTalk under their current published licensing agreements. Comparable software by other software suppliers may be provided if approved in writing at the sole discretion of the Architect/Engineer in consultation with the University Project Manager.
- E. Contractor, subcontractors, and other parties granted access by Contractor to Project Web site shall execute a data licensing agreement in the form of Agreement acceptable to University and Architect/Engineer.

## 1.9 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
  - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify University and Architect/Engineer of scheduled meeting dates and times a minimum of 4 business days prior to meeting.
    - a. Participants, including representatives of subcontractors and suppliers, shall be qualified, familiar with Project and authorized to conclude matters relating to the Work.
  - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including University and Architect/Engineer, within three business days of the meeting.

- B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time and site convenient to all parties, but not later than 14 calendar days after Notice to Proceed.
1. Conduct the conference to review responsibilities and personnel assignments.
  2. Attendees: Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work and include the following:
    - a. Authorized representatives of University:
      - 1) University Project Manager.
      - 2) University Building Maintenance Operations (BMO) Representative.
    - b. Architect/Engineer and their consultants.
    - c. Contractor's project manager and superintendent.
    - d. Major subcontractors and suppliers.
    - e. Other concerned parties shall attend the conference.
  3. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Designation of key personnel and their duties.
    - b. Lines of communications.
    - c. List of major subcontractors and suppliers.
    - d. Tentative construction schedule.
      - 1) Phasing.
      - 2) Critical work sequencing and long-lead items.
      - 3) Equipment deliveries and priorities.
    - e. Procedures and processing of:
      - 1) Change Order Bulletin, Change Order Proposal and Change Orders.
      - 2) RFI's
      - 3) Testing and inspecting.
      - 4) Applications for Payment.
      - 5) Submittals.
      - 6) Preparation of record documents.
    - f. Use of the premises, existing building and adjacent buildings as applicable.
      - 1) Work restrictions.
      - 2) Working hours.
      - 3) University's occupancy requirements.
      - 4) Procedures for disruptions and shutdowns.
      - 5) Construction parking and staging.
      - 6) Construction route and site access.
      - 7) Office, work, and storage areas.
      - 8) Progress cleaning and housekeeping procedures.
    - g. Project coordination.
    - h. Distribution of the Contract Documents.
    - i. Temporary facilities and controls.
    - j. Indoor Air Quality Plan and Monitoring including procedures for moisture and mold control.
    - k. Construction waste management and recycling.

- l. Safety.
    - 1) Fire and Life Safety.
    - 2) Health and Safety.
  - m. First aid.
  - n. Security.
  - o. Building Department.
  - p. Telecommunications.
  - q. Building Services.
  - r. Building Operations.
  - s. University Work Related Policies.
  - t. Contractor Contacts.
  - u. University Contacts.
  - v. University Process Forms.
    - 1) Key Request Form.
    - 2) Access Control Badge Application Form.
    - 3) Utility Interruption Request Form.
    - 4) Utility Start-Up Form.
    - 5) Fire Alarm/ Sprinkler Disable Request Form.
    - 6) Hot Work Permit Form.
    - 7) Anschutz Medical Campus (AMC) Street and Parking Lot Closure Form.
    - 8) Indoor Air Quality (IAQ) Plan.
    - 9) IAQ Planning Checklist.
    - 10) IAQ Inspection Checklist.
    - 11) Request for Variance.
4. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. LEED Coordination Conference: For projects pursuing LEED certification, schedule and conduct a LEED coordination conference before starting construction, at a time convenient to University Architect/Engineer, and Contractor.
- 1. Attendees: Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work and include the following:
    - a. University Project Manager.
    - b. Architect/Engineer and their consultants.
    - c. Contractor's project manager, superintendent and LEED coordinator.
    - d. Major subcontractors and suppliers.
    - e. Other concerned parties.
  - 2. Agenda: Discuss items of significance that could affect meeting requirements for LEED certification, including the following:
    - a. LEED Project Checklist.
    - b. Procedures for selecting and monitoring status for achieving Project goals related to recycled content and regional materials.
    - c. General requirements for LEED-related procurement and documentation.
    - d. Project closeout requirements and LEED certification procedures.
    - e. Role of LEED coordinator.
    - f. Construction waste management.
    - g. Construction operations and LEED requirements and restrictions.

3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- D. Preinstallation Conferences: Conduct a preinstallation conference at Project site for installations, systems or assemblies where required by individual Specification Sections, or where deemed necessary by Contractor.
1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect/Engineer of scheduled meeting dates.
  2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following, as appropriate:
    - a. Contract Documents.
    - b. Options.
    - c. Related RFIs.
    - d. Related Change Orders.
    - e. Purchases.
    - f. Deliveries.
    - g. Submittals.
    - h. LEED requirements, for projects pursuing LEED certification.
    - i. Review of mockups.
    - j. Possible conflicts.
    - k. Compatibility requirements.
    - l. Time schedules.
    - m. Weather limitations.
    - n. Manufacturer's written instructions.
    - o. Warranty requirements.
    - p. Compatibility of materials.
    - q. Acceptability of substrates.
    - r. Temporary facilities and controls.
    - s. Space and access limitations.
    - t. Regulations of authorities having jurisdiction.
    - u. Testing and inspecting requirements.
    - v. Installation procedures.
    - w. Coordination with other work.
    - x. Required performance results.
    - y. Protection of adjacent work.
    - z. Protection of construction and personnel.
  3. Record significant conference discussions, approved schedules, agreements, and disagreements, including required corrective measures and actions.
  4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information, including University Project Manager and Architect/Engineer.
  5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

First option in Paragraph below is for Large Projects; second option for Small Projects.
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- E. Project Closeout Conference: Schedule and conduct a project closeout conference, at a time convenient to University and Architect/Engineer, but no later than **[90][30]** calendar days prior to the scheduled date of Substantial Completion or Partial Substantial Completion.
1. Conduct the conference to review requirements and responsibilities related to Project closeout.

2. Attendees: Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work and include the following:
    - a. University Project Manager.
    - b. University Building Maintenance Operations (BMO) Representative.
    - c. Architect/Engineer and their consultants.
    - d. Contractor's project manager and superintendent.
    - e. Major subcontractors and suppliers.
    - f. Other concerned parties.
  3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
    - a. Procedures related to:
      - 1) Notice of Completion, including preparation of Contractor's punch list.
      - 2) Final Inspection.
      - 3) Notice of Substantial Completion.
      - 4) Notice of Approval of Occupancy/Use.
      - 5) Supplemental Occupancy/Use Checklist.
      - 6) Supplemental Acceptance Checklist.
      - 7) Pre-acceptance Checklists.
      - 8) Notice of Acceptance.
      - 9) Settlement and Final Payment.
    - b. Preparation of record documents.
    - c. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
    - d. Submittal of written warranties.
    - e. Requirements for completing LEED documentation, for projects pursuing LEED certification.
    - f. Requirements for preparing operations and maintenance data.
    - g. Requirements for delivery of material samples, attic stock, and spare parts.
    - h. Requirements for demonstration and training.
    - i. University's partial occupancy requirements.
    - j. Installation of University's furniture, fixtures, and equipment.
    - k. Responsibility for removing temporary facilities and controls.
  4. Minutes: Entity conducting meeting will record and distribute meeting minutes.
- F. Progress Meetings: Conduct progress meetings at weekly intervals.
1. Coordinate dates of meetings with preparation of payment requests.
  2. Attendees: Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work and include the following:
    - a. University Project Manager.
    - b. University Health Safety Department Representative.
    - c. University Building Maintenance Operations Representative.
    - d. University Campus Building Official.
    - e. Architect/Engineer and their consultants.
    - f. Contractor's project manager and superintendent.
    - g. Major subcontractors and suppliers.
    - h. Other entities concerned with current progress or involved in planning, coordination, or performance of future activities.



- i. As needed, University Building Maintenance Operations (BMO), Subject Matter Experts (SME), and University Facility Support Services (FSS) Representatives.
  3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
    - a. Contractor's Construction Schedule:
      - 1) Review progress since the last meeting.
      - 2) Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule.
      - 3) Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
      - 4) Review schedule for next two week period.
      - 5) Review schedule of deliveries.
      - 6) Review off-site fabrication.
    - b. Site Safety.
    - c. Indoor Air Quality Management monitoring.
    - d. MS4 Storm Water and Water Quality monitoring.
    - e. Quality:
      - 1) Quality and work standards.
      - 2) Status of correction of deficient items.
      - 3) Progress cleaning.
      - 4) Field observations.
    - f. Status of submittals.
    - g. Status of RFIs.
    - h. Status of Changes including:
      - 1) Change Order Bulletins.
      - 2) Change Order Proposals.
      - 3) Change Orders.
      - 4) Pending claims and disputes.
    - i. Status of LEED documentation, for projects pursuing LEED certification.
    - j. Review present and future needs of each entity present including:
      - 1) Access.
      - 2) Site utilization.
      - 3) Temporary facilities and controls.
      - 4) Coordination.
  4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.
- G. Pay Application and Schedule Review Meeting: Conduct review meeting monthly on or about the 25<sup>th</sup> of each month.
  1. Attendees:

- a. University Project Manager.
  - b. Architect/Engineer.
  - c. Contractor's Project Manager, Superintendant and Scheduler.
2. Agenda: Review draft pay application and progress schedule update in accordance with the requirements of Section 01 29 00 "Payment Procedures" and Section 01 32 00 "Construction Progress Documentation."

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

**END OF SECTION 01 31 00**