SECTION 01 31 00
PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 GENERAL PROJECT COORDINATION

A. Coordination: The Construction Manager is fully responsible for coordinating the Work of this Contract including scheduling, submittals, Work and other activities included in various Sections to assure efficient and orderly sequence of installation of interdependent construction elements. The Contractor is responsible for coordinating actual installed location and interface of work, and to make provisions to accommodate items scheduled for later installation.

B. Where installation of one component depends on installation of other components before or after its own installation, schedule activities in the sequence required to obtain efficient installation with the least amount of alterations, or cutting and patching, to completed Work.

1. The Contractor shall be responsible to uncover work completed in order to install ill -timed work, at no additional cost to the Owner.

C. Where space is limited, coordinate installation of different components to assure maximum accessibility for maintenance, service and repair.

D. Coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on Contract Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

E. Verify that utility requirement characteristics of operating equipment are compatible with building utilities. Coordinate work of various Sections having interdependent responsibilities for installing, connecting to, and placing in service such equipment.

F. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.

G. Coordinate completion and clean up of Work of separate Sections in preparation for Substantial Completion and Owner's occupancy.

H. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.2 UTILITIES, MECHANICAL AND ELECTRICAL COORDINATION

A. Coordinate all Work of this Project. Provide full and complete coordination for utilities, mechanical and electrical work in Divisions 21 through 33 with Work of other Divisions.

B. Give all advance notice to public utility companies as required by law, and provide proper disposition, subject to Architect's approval of all existing pipe lines, conduits, sewers, drains, poles, wiring, and other utilities that in any way interfere with the Work, whether or not they are specifically shown on the Drawings.

C. Coordination regarding existing utilities:

1. Notify Owner and appropriate authorities when coming across an unknown utility line(s), and await decision as to how to dispose of same.

2. When an existing utility line must be cut and plugged or capped, moved, or relocated, or has become damaged, notify the Owner and Utility company involved, and assure the protection, support, or moving of utilities to adjust them to the new work.
3. The Contractor shall be responsible for all damage caused to existing, active utilities located within the limits of this Contract, whether or not such utilities are shown on the Drawings, including resultant damages or injuries to persons or properties.

D. General coordination of piping, ductwork, conduits and equipment:

1. The Contract Drawings are diagrammatic only intending to show general runs and general locations of piping, ductwork, equipment and sprinkler heads. Determine exact routing and location of individual systems prior to fabrication of components or installation.
   a. Piping runs requiring pitch have "right -of-way" over those systems what do not pitch.
   b. System components whose elevations cannot be changed have "right-of-way" over those components whose elevations can be changed.
2. Adjust locations of piping, ductwork, conduits and equipment as required to accommodate new work with interferences anticipated and as encountered during installation.
   a. Locate piping, conduits and ductwork to be clear of swinging doors, access doors, and clear for unimpeded equipment access.
3. Provide all offsets, transitions and changes of direction for all systems, as may be required to maintain proper clearances for headroom, and as may be required for coordination with other "fixed-in-place" building components (such as structural systems).
   a. Furnish all vents, drains and similar accessories as may be required for offsets, transitions and changes of direction.
4. Provide openings in the work for penetration of mechanical and electrical work.
5. Coordinate final locations of ceiling mounted devices (including air distribution devices, thermostats, heaters, control devices, sprinkler heads and similar work) with reflected ceiling plans. Review locations with Architect and obtain approval of all devices prior to installation.

E. Uility penetrations through rated construction: Notify Owner of all locations of every penetration in fire resistant rated partitions and walls, in smoke barriers, and in fire barriers, including but not limited to penetrations for elevators, plumbing, fire suppression, heating, ventilating and air conditioning, electrical systems, telephone systems, communications systems, building controls systems, and specialized wiring and piping for medical equipment.

1. Comply with requirements of Section 07 84 00 – FIRESTOPPING for installation of fireproof firestopping, firesafing materials, smoke seals and related accessories.
   a. Provide removable (temporary) firestopping to maintain fire integrity until permanent firestopping assemblies can be installed.
2. Allow for inspection prior to installation of suspended ceilings or concealed by other materials that may conceal firestopping work.

1.3 COORDINATION OF CUTTING AND PATCHING

A. Cutting and patching coordination: The Construction Manager is responsible for coordination of all cutting and patching necessary for the completion of this Contract and for the quality and appearance of all patch Work in exposed-to-view finished materials.

B. General cutting and patching: Comply with requirements of Section 01 73 29 - CUTTING AND PATCHING.

1. Do not drill through structural beams, slabs or columns. Core drilling through concrete unit masonry and stair platforms must be approved by the Architect.

1.4 COORDINATION DOCUMENTS

A. General: Prepare coordination drawings for areas 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.

1. Coordination Drawings include, but are not necessarily limited to:
   a. Structure.
   b. Partition/room layout.
   c. Ceiling layout and heights.
   d. Light fixtures.
   e. Access panels.
   f. Sheet metal, heating coils, boxes, grilles, diffusers, and similar items.
   g. All heating piping and valves.
   h. Smoke and fire dampers.
   i. Soil, waste and vent piping.
   j. Major water.
   k. Major electrical conduit runs, panelboards, feeder conduit and racks of branch conduit.
   l. Above ceiling miscellaneous metal.
   m. Sprinkler piping and heads.
   n. All equipment, including items in the Contract as well as OFCI and OFI items.
   o. Equipment located above finished ceiling requiring access for maintenance and service. In locations where acoustical lay-in ceilings occur, indicate areas in which the required access area may be greater than the suspended grid system.
   p. Existing conditions, including but not limited to mechanical, plumbing, fire protection and electrical items.
   q. Seismic Restraints.

B. Timing: Prior to fabricating materials or beginning work, supervise and direct the creation of one complete set of coordination drawings showing complete coordination and integration of work, including, but not limited to, structural, architectural, mechanical, plumbing, fire protection, elevators, and electrical disciplines.

C. Intent: Coordination drawings are for the Construction Manager's use during construction and are not to be construed as replacing shop drawings or record drawings. Architect's review of submitted coordination drawings shall not relieve the Construction Manager from his overall responsibility for the coordination of the Work of the Contract.

D. Base sheets: Contractor shall prepare and provide one accurately scaled set of building coordination drawing "base sheets" on reproducible transparencies showing all architectural and structural work. Base sheets shall be at appropriate scale; congested areas and sections through vertical shafts shall be at larger scale.

1. Base sheets shall be at appropriate scale of not less than 1/4 inch scale (1/4" = 1'-0") ; congested areas and sections through vertical shafts shall be at larger scale.
   a. Highlight all fire rated and smoke partitions.
   b. Indicate horizontal and vertical dimensions to avoid interference with structural framing, ceilings, partitions, and other services.
   c. Indicate elevations relative to finish floor for bottom of ductwork and piping and conduit (6 inches and greater in diameter).
   d. Indicate the main paths for the installation, or removal of, equipment from mechanical and electrical rooms.
2. CAD Files: Where available General Contractor may obtain CAD files of original Bidding Documents from the Architect, at the cost of $50 per drawing sheet for production and handling. Payment in full, plus signing of the following disclaimer shall be considered prerequisites for the release of CAD format drawings.

E. Construction Manager shall circulate coordination drawings to the following subcontractors and any other installers whose work might conflict with other work. Each of these subcontractors shall accurately and neatly show actual size and location of respective equipment and work. Each subcontractor shall note apparent conflicts, suggest alternate solutions, and return drawings to Construction Manager.

1. Plumbing subcontractor.
2. Fire protection subcontractor.
3. Heating ventilating and air conditioning subcontractor(s).
4. Electrical discipline subcontractors.
5. Control system subcontractors.

F. Review and modify and approve coordination drawings in cooperation with individual installers and subcontractors to assure conflicts are resolved before work in field is begun and to ensure location of work exposed to view is as indicated or as approved by Architect.

1. The Contractor shall stamp, sign and submit coordination drawing originals to Architect for review.
2. Do not commence work in areas described in the coordination drawings until receipt of Architect's comments.

1.5 GENERAL PROJECT ADMINISTRATION

A. Prepare memoranda for distribution to each party involved outlining required coordination procedures. Include required notices, reports, and attendance at meetings.

B. Prepare similar memoranda for the Owner and separate contractors where coordination of their Work is required.

C. Conduct conferences among subcontractors and others concerned with the Work, to establish and maintain coordination and schedules, and to resolve coordination matters in dispute.

D. Administrative Procedures: Coordinate scheduling and timing of administrative procedures with other activities to avoid conflicts and ensure orderly progress. Such activities include:

1. Preparation of schedules.
2. Installation and removal of temporary facilities.
3. Delivery and processing of submittals.
4. Progress meetings.
5. Project Closeout activities.

1.6 SITE MOBILIZATION CONFERENCE

A. Prior to commencement of the Work, schedule a meeting at a meeting room provided by the Construction Manager.

1. Attendance is required by Owner, Architect, engineering consultants, Construction Managers' Project Manager and Superintendent, and major subcontractors, applicators, installers and suppliers. Other persons are required to attend as the Architect may direct or the Construction Manager may wish to have present.
2. Items of Agenda:
   a. Use of premises by Owner, Contractor, and subcontractor(s).
   b. Owner's requirements and partial occupancy considerations,
   c. Demolition procedures, identity tagging of existing furnishings and equipment for salvage or disposal.
   d. Temporary utilities.
   e. Barricading and protection of the public, dust barriers.
   f. Survey and building layout.
   g. Potentially difficult areas of work.
   h. Project coordination.
   i. Construction-waste management and recycling procedures.

j. Sustainability product requirements and procedures.
k. Indoor air quality standards and testing requirements.
l. Security and housekeeping procedures.
m. Construction schedules.
n. Work beyond Contract Limit.
o. Procedures for testing and inspection.
p. Procedures for maintaining record documents.
q. Requirements for equipment start-up.
r. Inspection and acceptance of equipment put into service during construction period.

1.7 PRE-INSTALLATION/PRE-FABRICATION CONFERENCES

A. When required in individual specification sections, prior to commencing the work of that trade, convene a pre-installation conference at work site, if possible, on same day as weekly progress meeting.

B. Notify Architect and Owner's Project Representative **a minimum of 72 hours (3 work days) in advance of meeting date**.

C. Attendance is required by Construction Managers' Project Manager and Superintendent, and parties directly affecting, or affected by, work of the Section.

1. Contractor shall include discussions on waste management goals and requirements in all prefabrication meetings conducted with subcontractors, fabricators, and vendors.
2. Contractor shall include discussions on Owner's procedures and requirements in all pre-fabrication meetings conducted with subcontractors, fabricators, and vendors.

1.8 PROGRESS MEETINGS

A. The Construction Manager shall schedule and administer meetings throughout the progress of the Work at regular intervals; make arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes and distribute copies within one week to Architect, Owner and participants, and to those affected by decisions made.

1. Scheduled Frequency of Meetings: Weekly.

B. Attendance is required by Construction Managers' Project Manager and Contractor's Project Superintendent, and each applicator, installer, and supplier whose work is on-going or scheduled. Owner, Architect, engineering consultants, and other persons are required to attend as the Architect may direct. Architect, engineering consultants, subcontractors, vendors, suppliers shall be present at meetings upon request of Construction Manager.

1. Attendee Authority: Subcontractors and supplier representatives present at meetings shall have authority to act for and make commitments for, the entity which they represent.

C. Items of Agenda:

1. Review minutes of previous meetings.
2. Review of Work progress.
3. Field observations, problems, and decisions.
4. Identifications of problems which impede planned progress.
5. Review of submittals schedule and status of submittals.
6. Review of off-site fabrication and delivery schedules.
7. Maintenance of progress schedule.
8. Corrective measures to regain projected schedules.
9. Coordination of projected progress.
10. Maintenance of quality and work standards.
11. Progress of Work to be adjusted under coordination requirements, and effect of proposed changes on progress schedule and coordination.
12. Review of construction waste management and recycling performance, material quantities disposed and diverted for recycling.

13. Other business relating to Work.

D. Special project meetings: Conduct special meetings as required throughout the course of the Work. Special meeting issues may include, but are not limited to:

1. Safety issues.
2. Labor issues.
3. Construction waste management and recycling issues.
4. Special scheduling issues.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION