

DIVISION 1 GENERAL REQUIREMENTS

01 18 00 PROJECT UTILITY SOURCES

Temporary Utilities: The Contractor shall make arrangements with available utility(s) for temporary connections and bear all costs for these utilities. On the campus proper and some peripheral areas the utilities are University utilities and the contractor shall make arrangements through FD&C for connections. The Contractor shall provide and install meters for measuring use of utilities purchased from Utah State University. FD&C shall read or have the meters read at the beginning of the project, monthly, and at the end of the project. The contractor shall be responsible for all utility costs including those from the University.

01 31 00 PROJECT MANAGEMENT AND COORDINATION

General: The following requirements shall be incorporated in the Contract Documents:

- A. Schedules: For USU delegated and capital improvement projects,** the Contractor shall provide a construction schedule with each pay request. Pay Requests w/o schedules will not be processed. The Contractor shall deliver this schedule and pay request to the Consultant first. The Consultant shall review the pay request to verify accuracy and amount completed. Consultant will then transmit to the USU FD&C Construction Coordinator for approval and payment.
- B. Progress Meetings:** The Contractor shall be in charge of the construction progress meetings, set the agenda and take minutes of the meeting. The contractor shall distribute copies of the agenda and minutes to Facilities Design & Construction, and the Consultant prior to each meeting. The agenda for weekly scheduled progress meetings shall cover the following:
1. Problems and potential field orders or change orders, proposal requests, and RFIs.
 2. Update of the construction schedule.
 3. Work completed during the last week.
 4. Items to be completed during the next week with assignments

01 33 00 SUBMITTAL PROCEDURES

A. General: The following requirements shall be incorporated in the Contract Documents:

1. **Shop drawings, product data and samples:** The following submittals shall be given to the FD&C Project Coordinator for review simultaneously with the Architect's and Engineer's review. Electronic submittals are acceptable. FD&C will maintain this set and transmit comments to the Architects and Engineers for their incorporation into a review set. One copy of the stamped, approved set shall be sent to the FD&C project coordinator.
 - a. All exterior materials including glazing and frames.
 - b. Roofing and waterproofing
 - c. Finish hardware and hollow metal frames
 - d. Floor coverings
 - e. Paint samples and color schedules
 - f. Signage (Any not provided by Owner)
 - g. Fire protection systems
 - h. Toilet and bath accessories
 - i. Casework
 - j. Entrance mats
 - k. Elevator
 - l. Electrical
 - m. Mechanical
 - n. Landscape and Irrigation
 - o. All structural components with revisions

01 35 00 SPECIAL PROCEDURES

A. General: The following requirements shall be incorporated in the Contract Documents.

1. **Utilities Mapping:** The Contractor shall notify FD&C forty-eight (48) hours before back filling any site utility excavations to allow for the mapping of new and existing utilities by the University. This applies to all site excavations in which utility lines are encountered. Utility mapping by the University does not relieve the Contractor from the responsibility of preparing as-built drawings of utility work performed under contract.
2. **Utility and Systems:** Construction documents shall require contractor to give 7 days advanced notice of required shut downs in writing.
3. **Site Dust Control:** Provide effective dust control measures in all remodeling areas. Site dust control is required per EPA regulations.
4. **Contract Limits:** The limits of responsibility for the Contractor and the Consultant shall include all impacted adjacent university property including landscape areas, sidewalks, roadways, parking lots, and utilities. Such extended areas will be shown on the drawings and indicate that the Contractor has responsibility to maintain and restore affected areas.
5. **Contractor's Use of Building Equipment:** The Contractor may have limited use of building equipment such as electric motors, blowers, heat exchangers, filters, lighting fixtures, restroom facilities, etc., with the permission of FD&C. Elevators may be used during construction only with permission.

01 41 00 REGULATORY REQUIREMENTS

A. General: The following requirements shall be incorporated in the Contract Documents.

1. **Permits:**
 - a. **Building Permits** are not required on the University campus or for connection to University utilities. See design criteria for specific review and approval process.

- b. **Digging permits** are required for any excavation, including utility installation, interruption, shut-off or outage, etc. They are obtained through FD&C and require a minimum of forty-eight (48) hours notice during USU working hours.

B. Campus Restrictions: The following shall apply during construction:

1. Abide by all posted campus regulations in regard to traffic, parking, smoking, noise, etc.
2. All trash and recycling is to be hauled from campus to a legal disposal site. At no time shall on-site burning be allowed. Do not use University dumpsters for trash disposal.
3. Class schedules should be observed to avoid undue disturbances.
4. Parking permits are required for any parking outside the contract limit lines.
5. Consultants and Contractors performing work for USU are subject to federal and state laws regarding affirmative action, equal employment opportunity, and sexual harassment.
6. During construction of the project the Contractor shall limit noise from the site as much as possible. Local sound ordinances are in effect. Coordinate with Facilities Design and Construction for appropriate times to use loud equipment such as jackhammers or shot-nailers. Radios and other devices will not be permitted on- site.

C. Temporary Utilities:

1. Electrical:

- a. Where commercial power is not readily available, Utah State University may at their option provide electric power to a temporary service. The Contractor shall provide his own services from the service drop disconnect. Meter readings at the time of meter installation shall be observed by the Contractor's representative. When permanent electric power is installed in the building and the building system has been inspected and approved as operational, the temporary service may be removed at the Contractor's request. Power system shall not be energized before the main switchboard is inspected by USU and the metering system is correctly installed.

UTAH STATE UNIVERSITY
A&E DESIGN MANUAL

- b. The Contractor shall be billed for electrical power consumed on both the temporary and permanent power systems until final acceptance of the complete contract.

D. Culinary Water:

1. The contractor shall provide a source of culinary water on the site.
2. The site or building permanent culinary water may be used on the project after permanent connection and meter(s) are installed and the lines are tested, inspected and flushed. Fire service connections and lines shall not be used for site water.
3. The contractor will be billed for all culinary water used on site unless other arrangements are made at the beginning of the work by USU FD&C.

E. Steam and Condensate:

1. The Contractor shall provide a source of heat for the site during construction that will not add unnecessary moisture to the interior.
2. The site or building permanent steam and condensate may be used on the project after permanent connection and meter(s) is installed and the lines are tested, inspected and flushed.
3. The Contractor will be billed for all steam (condensate) used on site unless other arrangements are made at the beginning of the work by FD&C.

F. Natural Gas

1. The contractor may provide a source of natural gas for the site.
2. The site or building permanent natural gas may be used on the project after permanent connection and meter(s) is installed and the lines are tested, inspected.
3. The Contractor will be billed for all natural gas used on site unless other arrangements are made at the beginning of the work by FD&C.

G. Telephone and Data

1. Within the University service area, hard line and/or data service is to be ordered through the local telephone company and then arranged for service to the construction site through on campus cables through the USU IT department.

01 52 00 CONSTRUCTION FACILITIES

- A. Construction Office:** Construction office for the use of the Consultant and USU shall be provided by Contractor. Construction office shall include a table with 12 chairs, a plan rack, a plan table, and a two-drawer file. This office shall be maintained by the Contractor and shall have data, heat and air conditioning. It shall be maintained in clean condition.
- B. Sanitary Facilities:** The contractor shall provide temporary sanitation facilities for the project.

01 53 00 TEMPORARY CONSTRUCTION

- A.** When routing pedestrians around an area of construction, the Contractor shall provide temporary walking surfaces across existing landscaped areas. These surfaces shall be constructed of a durable material with a slip-resistant surface. The use and placement of temporary walking surfaces shall be approved in advance by FD&C. The Contractor shall restore all landscaped areas damaged by the placement and use of the walkways. The Contractor shall also restore landscape damaged by pedestrians routed over existing landscape to avoid construction.

01 55 00 VEHICULAR ACCESS AND PARKING

- A.** Indicate on the Construction Drawings access routes to job site through the campus for concrete trucks, delivery trucks and other vehicles concerned with the project. Determine these routes with FD&C. Any damage to these areas shall be repaired by the Contractor upon completion of the project.

01 56 00 TEMPORARY BARRIERS AND ENCLOSURES

- A.** Open excavations outside of construction fences shall be protected by 6 foot high screened chain link fencing in good repair. Install fencing in straight, true lines. Fencing shall not extend into pedestrian walkway, and shall not create a safety hazard. Gates shall be locked with the Contractor's lock and appropriate University locks in a manner to allow the University emergency vehicle access at any time. University locks are obtainable from the University Police or Fire Marshal. Upon completion of the project, the Contractor shall dismantle the fence and remove it from site.
- B.** When pedestrians are routed around construction areas additional barricades will be required to prevent damage to adjacent landscaped areas. Barricades shall be placed to route pedestrians around affected areas using existing paved surfaces. These barricades shall be constructed as described above.

01 70 00 EXECUTION AND CLOSEOUT REQUIREMENTS

01 77 00 TRANSFERRING ITEMS

- A.** The Contractor shall transfer all deliverables through the Consultant to the University. All Contractor supplied items transferred to the University shall be accompanied by a Letter of Transmittal signed by an authorized agent and delivered to FD&C as a record copy by the Consultant. As-builts, operations and maintenance manuals, guarantees, salvaged equipment, extra or service parts or other similar type items should be handled in this way to avoid misunderstandings of what has been transferred and when it was transferred. The Consultant shall verify that the correct quantities of all maintenance stock items are transferred.

01 77 00 CLOSEOUT PROCEDURES

- A. General:** The following requirements shall be incorporated in the Contract Documents.

1. **Substantial Completion:** A substantial completion certificate shall not be issued until the University *may* occupy the building. The Attorney General has clarified this as follows:
 - a. That *all* Fire Marshal items are cleared and a "Certificate of Fire Clearance" is issued.
 - b. That the Consultant has received balance reports from the Contractor.
 - c. That *all* correction items have been substantially completed.
2. **Pre-Substantial Completion Inspection:** The Consultant will schedule a pre-substantial completion inspection. The inspection shall include all Consultants, FD&C, Building Code Official or representative, and other invited University representatives.
 - a. All inspection reports by University representatives shall be submitted to FD&C who will provide the Consultant with copies of the reports. The Consultant shall check for conformance to the Contract Documents.
 - b. The Consultant shall assemble all reports from his consultants and the University representatives and distribute copies to the Contractor and FD&C.

UTAH STATE UNIVERSITY
A&E DESIGN MANUAL

3. **Substantial Completion Inspection:** The substantial completion inspection will be held after completion of the items noted in the pre-substantial completion inspection report and when the building is ready for occupancy. The substantial completion inspection will be made with the State Fire Marshal, State and University officials, the Consultant, and the Contractor.
4. **Final Meter Readings:** Notify Facilities Operations to make final meter readings for USU temporary and permanent utilities.
5. **Utility Billings:** Provide proof of clearance from USU Facilities Operations that all utility bills have been paid.
6. **Insurance Termination:** Advise USU of pending insurance termination date.
7. **Training Session:** The Contractor shall provide a training session to University personnel on all mechanical, electrical, communication, etc systems. It is the Contractor's responsibility to submit to FD&C an attendance log. This attendance log shall include all University personnel present at the above training session and their signatures. The Contractor shall provide a video of the training session to FD&C.
8. **Deliverables:** Prior to final payment, provide one complete electronic set of operation and maintenance manuals and warranties as outlined in Section 01 78 23. The Contractor shall also provide accurate as-built drawings for the purpose of generating a record drawing set as outlined in Section 01 78 39. Consultants shall review the submittals for completeness and, where applicable, incorporate changes in the record drawings. The Consultant shall deliver completed O&M manuals, original as-built documents, and record drawings to FD&C at one time. The Consultant shall not receive final payment until the O&M documents, as-built and record drawings are received and approved by FD&C.

01 78 23 OPERATION AND MAINTENANCE DATA

- A.** Assemble a complete set of operation and maintenance manuals. O&M manuals shall be comprised of the following:
1. General Contractor and subcontractor contact information.
 2. Warranty Information.
 3. Manufacturers' information submitted as part of the shop drawing review process. Include O&M data required in project specification sections.
 4. Instruction for care and maintenance specific to each provided system or component.
 5. Product data with catalog number, size, color and other information necessary to identify each system or component provided.
 6. Transmittals showing FD&C's acceptance of all extra material specified.
 7. Electronic files shall be submitted in PDF format.
 - a. Separate in to 3 major groups as follows:
 1. Contractor information and Architectural section
 2. Mechanical
 3. Electrical
 - b. Each PDF must include bookmark linked to each section with sub bookmarks for each subcategory, product manual, and piece of equipment.
 - c. PDFs must have text recognition / optical character recognition (OCR) enable so PDFs are searchable.
 - d. PDFs shall be editable to the extent that files and pages can be added and combined, and text can be copied.
 - e. All passwords must be removed from files.

01 78 39 PROJECT RECORD DOCUMENTS

A. Photo Record of Project: The Contractor shall photograph all above ceiling ductwork and conduits before the installation of the ceiling system. Photograph information shall include the room number, identification of the duct or conduit, and its location in the room. The photo documentation shall be delivered to USU FD&C after completion of all duct and conduit work.

B. Record Calculations Requirements: Consultants shall submit one (1) complete copy of all record structural calculations which include the following:

1. Engineer's stamp w/signature and date (No electronic reproduction of Engineer's signature accepted)
2. A valid/current Utah stamp
3. Engineering firm's project no.
4. Design Criteria:
 - a. Seismic
 - b. Wind
 - c. Soils
 - d. Governing Code
5. Design Loads:
 - a. Roof dead and snow loads
 1. Floor dead and live loads
 2. All other misc. dead and live loads
 - b. Calcs shall be indexed and pages numbered.
 - c. All Engineering assumptions to be clearly noted.
 - d. Calcs shall be legible.
 - e. Include names of manufacturer/suppliers of ALL proprietary structural products and copies of the product technical information in calcs such as decking, hangers, joists, anchors, etc.

UTAH STATE UNIVERSITY
A&E DESIGN MANUAL

- f. Calcs to include labeled pictures, diagrams, photos, etc. which clarify calculations.
 - g. Calcs to be professionally bound and shall have plastic covers on front and back.
6. One complete copy of the energy model in electronic format.
7. One complete copy of LEED documentation in electronic format.
- C. Record Drawings:** Consultants shall provide an accurate, complete record set of the project.
- 1. CADD information shall be provided in the following format(s).
 - a. ACAD Dwg file (Record Drawing, not construction)
 - i. Non Standard Fonts used in the drawings (AutoCAD(.shx) and TTF)
 - ii. Compiled Shape Files
 - iii. Plot Style Tables (.ctb)
 - iv. Plotter configuration Files
 - v. Images (logos, maps, etc)
 - vi. Xref Files (attached or bound)
 - b. Revit (if exists)
 - i. Revit File
 - ii. NavisWorks File
 - 2. PDF:
 - a. Each sheet shall be a separate pdf file with the file name being the sheet name (i.e.: A100.pdf)
 - b. Contractor submitted as-built documents.
 - c. Once complete set of project Shop Drawings.

END OF SECTION