

## **1.1 SUBMITTALS**

- .1 Upon acceptance of bid and prior to commencement of work, submit to Departmental Representative the following work management documents:
  - .1 Work Schedule as specified herein.
  - .2 Shop Drawing Submittal Schedule specified in Section 01 33 00.
  - .3 Waste Management Plan specified in Section 01 74 21.
  - .4 Health and Safety Plan specified in Section 01 35 29.
  - .5 Hot Work Procedures specified in Section 01 35 24.
  - .6 Lockout Procedures specified in Section - 01 35 25.
  - .7 Dust Control Plan specified in Section - 01 50 00.

## **1.2 PROJECT SCHEDULE DATES**

- .1 Construction completion, commissioning and occupancy for the building is scheduled for 46 weeks from Award of Contract.

## **1.3 WORK SCHEDULE**

- .1 Upon acceptance of bid submit:
  - .1 Work schedule within 7 calendar days of contract award.
- .2 Schedule to indicate all calendar dates from commencement to completion of all work within the time stated in the accepted bid.
- .3 Provide sufficient details to clearly illustrate entire implementation plan, depicting efficient coordination of tasks and resources, to achieve completion of work on time and permit effective monitoring of work progress in relation to established milestones.
- .4 Work schedule content to include as a minimum the following:
  - .1 Bar (GANTT) Charts, indicating all work activities, tasks and other project elements, their anticipated durations, planned dates for achieving key activities and major project milestones supported with;
  - .2 Written narrative on key elements of work illustrated in bar chart, providing sufficient details to demonstrate a reasonable implementation plan for completion of project within designated time.
  - .3 Generally Bar Charts derived from commercially available computerized project management system are preferred but not mandatory.
- .5 Work schedule must take into consideration and reflect the work phasing, statutory and government holidays, special conditions and operational restrictions as indicated on drawings.
- .6 Schedule Work in cooperation with the Departmental Representative. Incorporate within Work Schedule, items identified by Departmental Representative during review of preliminary schedule.

**1.3 WORK SCHEDULE** (continued)

- .7 Completed schedule shall be approved by Departmental Representative. When approved, take necessary measures to complete work within scheduled time. Do not change schedule without Departmental Representative's approval.
- .8 Ensure that all subtrades and subcontractors are made aware of the work restraints and operational restrictions specified.
- .9 Schedule Updates:
  - .1 Submit when requested by Departmental Representative.
  - .2 Provide information and pertinent details explaining reasons for necessary changes to implementation plan.
  - .3 Identify problem areas, anticipated delays, impact on schedule and proposed corrective measures to be taken.
- .10 Departmental Representative will make interim reviews and evaluate progress of work based on approved schedule. Frequency of such reviews will be as decided by Departmental Representative. Address and take corrective measures on items identified by reviews and as directed by Departmental Representative. Update schedule accordingly.
- .11 In every instance, change or deviation from the Work Schedule, no matter how minimal the risk or impact on safety or inconvenience to tenant or public might appear, will be subject to prior review and approval by the Departmental Representative.

**1.4 PROJECT PHASING**

- .1 Be aware that the Facility is occupied and must be kept operational for the full duration of this contract. Building services to areas used by tenants must also be maintained at all times during the Facility's operational hours and as specifically defined in this Section.
- .2 Perform Work of this contract in the Phasing Sequence indicated on the Phasing Drawings.
- .3 Unless indicated or approved otherwise by Departmental Representative, complete all work of a particular phase prior to commencement of another phase. Obtain Departmental Representative's approval prior to moving between phases.

**1.5 OPERATIONAL RESTRICTIONS**

- .1 The Contractor must recognize that building occupants will be affected by implementation of this contract. Perform the work with utmost regard to the safety and convenience of building occupants and users. All work activities must be planned and scheduled with this in mind. Do not disturb any portion of the building without providing temporary facilities as necessary to ensure safe and direct passage through disturbed or otherwise affected areas.
- .2 Contractor to meet with the Departmental Representative on a weekly basis to identify intended work areas, activities and scheduling for the coming week.

**1.5 OPERATIONAL RESTRICTIONS (continued)**

- .3 To assure that construction work may proceed productively without risk to safety of building occupants and the public, and due to the nature of the tenant's operation, be aware that certain work of this contract must be carried out during "Off-Hours".
- .4 Off Hours: means a period of time which is outside the daily operational hours of the tenants of the Facility. For the purposes of this contract, Off-Hours are defined as follows:
  - .1 Weeknight Off-Hours: between the hours of 18:00 and 07:00 for each weekday Monday to Thursday inclusive.
  - .2 Weekend Off-Hours: between the hours of 18:00 Friday evening to 07:00 Monday morning.
  - .3 Dependent on the nature and location of the construction activity and due to an unanticipated operational requirement of Tenants, certain off-hour periods may be redefined by adjusting the start and end time periods or cancellation of a specific off-hour workshift during the course of the Work.
  - .4 Provide Departmental Representative 48 hours notice before scheduling Off-Hours work. Provide 5 days advance notice before scheduling any service shut-down.
- .5 The following work shall be performed during Off-Hours:
  - .1 Erection and dismantling of dust barriers, hoarding or other protective devices to separate areas of Facility occupied and under use by public and tenants from work areas;
  - .2 Erection of site enclosures, temporary hoarding and fencing at building entrances and fire exits to keep them operational during work;
  - .3 Demolition of any masonry or concrete inside building;
  - .4 Work involving saw cutting or boring of openings through masonry and concrete walls, floors, ceilings or roof;
  - .5 Work which requires the use of products controlled by WHMIS and for which MSDS sheets indicate toxic or hazardous materials requiring special handling and application procedures;
  - .6 Use of materials having high solvent content or other content emitting strong noxious fumes or odours;
  - .7 Painting;
  - .8 Removal of demolition debris from the building including cleaning of premises;
  - .9 Cleaning and preparing of occupied areas for daytime use by tenants immediately following an off-hour workshift;
  - .10 Work within a tenant occupied area including corridors, stairwells and other circulation routes under use;
  - .11 Work which requires the temporary disconnection of power and communication services to occupied areas;
  - .12 Testing of fire alarms and other emergency annunciating system;
  - .13 Delivery of materials and equipment from exterior to the interior of building when access routes are located in tenant occupied spaces.
  - .14 Work which creates excessive noise or vibration creating interference with tenant operations.

**1.5 OPERATIONAL RESTRICTIONS (continued)**

- .6 Departmental Representative reserves the right to stop certain daytime work activities, if the nature of that activity generates excessive noise or dust and have Contractor re-schedule that particular work to be performed during the Off-Hour period.
- .7 Ensure that all trades are aware of the "Off-Hour" requirements of this Contract. Ensure that costs for off-hours requirements are included in the Contractor's bid price for the work. No extra cost will be paid due to failure by General Contractor or his sub-contractors to recognize the off-hour requirements and other restrictions specified herein and to include all necessary allowances within their bids.
- .8 Site circulation and access:
  - .1 Site access will be off of Agency Drive.
- .9 Limited Space on Site and Construction Parking:
  - .2 Parking is not available for construction workforce on site. Make arrangements and pay for parking space for construction workforce for duration of the work.
  - .3 Contractor's Work / Storage area is shown on the drawings and is available for construction use during the contract. Be responsible to return area to good condition at end of the Work.
- .10 Facility circulation maintained:
  - .1 Ensure that entrances, corridors, stairwells, fire exits and other circulation routes are maintained free and clear providing safe and uninterrupted passage for Facility users and public at all times during the entire work.
  - .2 Maintain those areas clean and free of construction materials and equipment. Provide temporary dust barriers and other suitable enclosures to ensure users are not exposed to construction activities and are protected from exposure to dust, noise and hazardous conditions.
  - .3 Maintain fire escape routes accessible and fire fighting access open all times for the duration of the project.
  - .4 Do not under any circumstances block fire exit doors. Do not leave construction materials or debris in building entrances and exits.
- .11 Safety Signage:
  - .1 Provide onsite, and erect as required during progress of work, proper signage. Mount where directed and as required on self-supporting stands or on fixed walls warning of construction activities in progress and alerting need to exercise caution in proceeding through disturbed areas of the construction site, and providing directions through any detours which may be required.
  - .2 Signage to be professionally printed and mounted on wooden backing, coloured and to express messages as directed by the Departmental Representative.
  - .3 Generally maximum size of sign should be in the order of 1.0 square meters. Number of signs required will be decided in conjunction with the Institution and as directed by Departmental Representative.

**1.5 OPERATIONAL RESTRICTIONS (continued)**

.11 (continued)

- .4 Include costs for the supply, installation, and removal of these signs, in the bid price.

.12 Dust and Dirt Control:

- .1 See Section 01 50 00 and Section 01 74 11 for dust control and cleaning requirements.
- .2 Effectively plan and implement dust control measures as an integral part of construction, particularly during demolition work. Review all measures with the Departmental Representative before undertaking work, especially for major dust generating activities.
- .3 Do not allow demolition debris and construction waste to accumulate on site.
- .4 As work progresses, maintain construction areas in a tidy condition at all times.
- .5 Immediately remove all debris and dust from within occupied areas as generated by work therein during a given workshift.
- .6 Avoid situations and practices which results in dust and dirt being brought from the construction areas or from the exterior and tracked inside the building.
- .7 Stop workers with soiled footwear from entering building.
- .8 Inform workers and make them sensitive to the need for dust and dirt control. Stringently enforce rules and regulations, immediately address non-compliance.

.13 Work in Occupied Areas:

- .1 Where work must be carried out in an occupied area beyond the boundaries of the enclosed construction site, perform such work during the non-operational off-hour periods of the Facility.
- .2 Ensure that all dust, dirt, debris, construction waste, materials, tools and equipment are completely removed at the end of each workshift. Clean and reinstate area ready for daytime use by tenant.
- .3 Provide temporary dust barriers around immediate work areas and place fabric drop sheets over workstations, equipment and other furnishings located immediately adjacent to such work.
- .4 Conduct work in such a way as to minimize the creation of dust and to avoid contaminating areas beyond the immediate location.
- .5 Discuss and obtain Departmental Representative's approval beforehand on the type and extent of dust barriers, protective devices and measures needed.
- .6 Clean such areas as well as those corridors and routes used to gain entry and access.

**1.6 PROJECT MEETINGS**

- .1 Schedule and administer project meetings, held on a minimum bi-weekly basis, for entire duration of work and more often when directed by Departmental Representative as deemed necessary due to progress of work or particular situation.

**1.6 PROJECT MEETINGS (continued)**

- .2 Prepare agenda for meetings.
- .3 Notify participants in writing 4 days in advance of meeting date.
  - .1 Ensure attendance of all subcontractors.
  - .2 Departmental Representative will provide list of other attendees to be notified.
- .4 Bi-weekly Project Meeting will be held on site at Contractor's site trailer.
- .5 Preside at meetings and record minutes.
  - .1 Indicate significant proceedings and decisions. Identify action items by parties.
  - .2 Distribute to participants within 3 calendar days after each meeting.
  - .3 Make revisions as directed by Departmental Representative.
  - .4 Distribution of meeting minutes by Email is acceptable.

**1.7 WORK COORDINATION**

- .1 The General Contractor is responsible for coordinating the work of the various trades and predetermining where the work of such trades interfaces with each other.
  - .1 Designate one person from own employ having overall responsibility to review contract documents and shop drawings, plan and manage such coordination.
- .2 The General Contractor shall employ a Project Supervisor with at least 10 years documented successful experience of work of the types required for this project. The Project Supervisor shall be present on site, full-time for the entire duration of the project to oversee lay out of the work and attend all meetings.
- .3 The General Contractor shall convene meetings between trades whose work interfaces and ensure that they are fully aware of the areas and the extent of where interfacing is required.
  - .1 Provide each trade with the plans and specs of the interfacing trade, as required, to assist them in planning and carrying out their respective work.
  - .2 Develop coordination drawings when deemed required illustrating potential interference between work of various trades and distribute to all affected parties including structural trade.
    - .1 Pay attention to overhead work above ceilings and within or near to building structural elements.
    - .2 Coordination drawings to identify all building elements, services lines, rough-in points and indicate from where various services are coming.
  - .3 Review coordination drawings at purposely called meetings. Have subcontractors sign-off on drawings and publish minutes of each meeting.
  - .4 Plan and coordinate work in such a way to minimize quantity of service line offsets.
  - .5 Submit copy of coordination drawings and meeting minutes to Departmental Representative for information purposes.

**1.7 WORK COORDINATION** (continued)

- .4 Submission of shop drawings and ordering of prefabricated equipment or prebuilt components shall only occur once coordination meeting for such items has taken place between trades and all conditions affecting the work of the interfacing trades has been made known and accounted for.
- .5 Work Cooperation:
  - .1 Ensure cooperation between trades in order to facilitate the general progress of the work and avoid situations of spatial interference.
  - .2 Ensure that each trade provides all other trades reasonable opportunity for the completion of the work and in such a way as to prevent unnecessary delays, cutting, patching and the need to remove and replace completed work.
- .6 No extra costs to the Contract will be considered by the Departmental Representative as a result of Contractor's failure to effectively coordinate all portions of the Work. Disputes between the various trades as a result of their not being informed of the areas and extent of interface work shall be the sole responsibility of the General Contractor to be resolved at own cost.

**END OF SECTION**