

## **SECTION 01 31 00 PROJECT MANAGEMENT AND COORDINATION**

### **PART 1 – GENERAL**

#### **1.01 SUMMARY**

- A. Section Includes
  - 1. Construction Documentation.
  - 2. Preconstruction conference.
  - 3. Progress meetings.
- B. Related Sections
  - 1. All applicable Sections of Division 01.

#### **1.02 CONSTRUCTION DOCUMENTATION**

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
  - 1. Preliminary Construction Schedule.
  - 2. Contractor's Construction Schedule.
  - 3. Submittals Schedule.
  - 4. Daily construction reports.
  - 5. Material location reports.
  - 6. Field condition reports.
  - 7. Special reports.
  - 8. Requests for Interpretations (RFI).

#### **1.03 DEFINITIONS**

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.

1. Critical activities are activities on the critical path. They must start and finish on the planned early start and finish times.
- B. Milestone: A key or critical point in time for reference or measurement.

#### **1.04 SUBMITTALS**

- A. Submittals Schedule: Submit two copies of schedule. Arrange the following information in a tabular format:
1. Scheduled date for first submittal.
  2. Specification Section number and title.
  3. Submittal category (action or informational)
  4. Name of subcontractor.
  5. Description of the Work covered.
  6. Scheduled date for Engineer's final release or approval.
- B. Preliminary Construction Schedule: Submit two copies.
- C. Contractor's Construction Schedule: Submit two copies of initial schedule, large enough to show entire schedule for entire construction period.
1. Submit an electronic copy of schedule, in PDF format, labeled to comply with requirements for submittals. Include type of schedule (Initial or Updated) and date on label.
- D. Schedule Reports: Concurrent with Construction Schedule, submit three copies of each of the following reports. Format for each activity in reports shall contain activity number, activity description, original duration, remaining duration, early start date, early finish date, late start date, late finish date, and total float in calendar days.
1. Activity Report: List of all activities sorted by activity number and then early start date, or actual start date if known.
- E. Monthly Construction Reports: Submit two (2) copies at monthly intervals.
- F. Material Location Reports: Submit two (2) copies at monthly intervals.
- G. Field Condition Reports: Submit two (2) copies at time of discovery of differing conditions.
- H. Special Reports: Submit two (2) copies at time of occurrence.

#### **1.05 COORDINATION**

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.

**1.06 PRECONSTRUCTION CONFERENCE**

- A. A preconstruction conference shall be scheduled and administered by the entity overseeing the construction (i.e. Developer, Engineer, Construction Manager, etc). Notice to Proceed shall not be issued until a preconstruction conference has been completed.
- B. Attendance Required: Each Contractor shall be represented at the preconstruction conference by a person vested with the authority to make necessary decisions on behalf of the Contractor, and such decisions shall commit the Contractor to the agreed procedures, sequence of operations and time schedules. Also attending will be the Authority, and the Engineer. Subcontractors and Suppliers are not to attend the preconstruction conference.
- C. The Preconstruction Conference Agenda shall include the following discussion points, as applicable:
  - 1. Engineer's Status during Construction.
  - 2. Resident Project Representative (RPR).
  - 3. Project Communications.
  - 4. Contract Times.
  - 5. Access and Rights-of-Way.
  - 6. Permits and Approvals.
  - 7. Field Engineering.
  - 8. Changes in the Work.
  - 9. Work Schedule.
  - 10. Shop Drawings.
  - 11. Substitutions.
  - 12. Job Conference Schedule.
  - 13. Payment Applications.
  - 14. Temporary Utilities.
  - 15. Emergency Phone Numbers.

16. Field Office Facilities.
17. Subcontractors.
18. Prevailing Wage and Payroll Certifications.
19. Insurances.
20. Steel Products Procurement Act Certifications.
21. Safety and OSHA.
22. Control of Work.

### **1.07 PROGRESS MEETINGS**

- A. Schedule and administer meetings throughout progress of the Work at regular monthly intervals.
- B. Attendance Required: Each Contractor shall be represented at such meetings by a person vested with the authority to make necessary decisions on behalf of the Contractor, and such decisions shall commit the Contractor to the agreed procedures, sequence of operations and time schedules. Also attending will be the Authority and Engineer. Subcontractors and Suppliers, as may be appropriate to agenda topics for each meeting.
- C. Progress Meeting Agenda:
  1. Previous meetings.
  2. Review of Work progress.
  3. Schedule.
  4. Identification of problems.
  5. Submittals.
  6. Coordination.
  7. Quality Assurance.

## **PART 2 – PRODUCTS**

### **2.01 SUBMITTALS SCHEDULE**

- A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.
  - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.
  - 2. Submittal Review Time: Include review and resubmittal times indicated in Division 1 Section 01 33 00 in schedule. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.
  - 3. Initial Submittal: Submit two copies of complete schedule of all anticipated submittal dates to Engineer within 15 days of Notice to Proceed. List those required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
  - 4. Final Submittal: Submit concurrently with the first complete submittal of Contractor's Construction Schedule. Update schedule at time of submission of each Application for Payment.

## **2.02 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL**

- A. Procedures: Comply with procedures contained in AGC's "Construction Planning & Scheduling."
- B. Time Frame: Extend schedule from date established for the Notice to Proceed to date of Final Completion.
  - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized.
  - 2. Schedules indicating a Substantial Completion or Final Completion date beyond the established Contract Times shall not be accepted.
- C. Activities: Treat each separate area and major process component as a separate numbered activity for each principal element of the Work. Comply with the following:
  - 1. Submittal Review Time: Include review and resubmittal times as indicated in Division 1 Section 01 33 00 Submittal Schedule. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.
  - 2. Startup and Testing Time: Include not less than seven days for startup and testing.
  - 3. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for the Authority's administrative procedures necessary for certification of Substantial Completion.

4. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
  - a. Phasing: Arrange list of activities on schedule by phase.
  - b. Work under More Than One Contract: Include a separate activity for each contract.
  - c. Work Restrictions: Show the effect of the following items on the schedule:
    - 1) Coordination with existing construction.
    - 2) Limitations of continued occupancies.
    - 3) Uninterruptible services.
    - 4) Partial occupancy before Substantial Completion.
    - 5) Use of premises restrictions.
    - 6) Provisions for future construction.
    - 7) Seasonal variations.
    - 8) Environmental control.
5. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final Completion.
6. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis to demonstrate the effect of the proposed change on the overall project schedule.

### **2.03 PRELIMINARY CONSTRUCTION SCHEDULE**

- A. Bar-Chart Schedule: Submit preliminary horizontal bar-chart-type construction schedule within fifteen (15) days of date established for the Notice to Proceed.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first 60 days of construction.

### **2.04 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)**

- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's Construction Schedule within 30 days of date established for the Notice to Proceed. Base schedule on the Preliminary Construction Schedule and whatever updating and feedback was received since the start of Project.

- B. Schedule Preparation: Prepare a list of all activities required to complete the Work. Identify probable critical paths. Identify first workday of each week with a continuous vertical line.
1. Activities: Indicate the estimated time duration, sequence requirements, and relationship of each activity in relation to other activities. Include estimated time frames for the following activities:
    - a. Preparation and processing of submittals.
    - b. Mobilization and demobilization.
    - c. Purchase of materials.
    - d. Delivery.
    - e. Fabrication.
    - f. Utility interruptions.
    - g. Installation.
    - h. Testing and commissioning.
  2. Critical Path Activities: Identify critical path activities, including those for interim completion dates. Scheduled start and completion dates shall be consistent with Contract milestone dates.
  3. Format: Mark the critical path. Locate the critical path near center of network; locate paths with most float near the edges.
  4. For construction activities that require 3 months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar. Indicate all others in 1 percent increments.
- C. Failure to include any work item required for performance of this Contract shall not excuse Contractor from completing all work within applicable completion dates, regardless of Authority's approval of the schedule.
- D. Schedule Updating:
1. Concurrent with making revisions to schedule, prepare tabulated reports showing the following:
    - a. Identification of activities that have changed.
    - b. Changes in early and late start dates.
    - c. Changes in early and late finish dates.
    - d. Changes in activity durations in workdays.
    - e. Changes in the critical path.
    - f. Changes in total float or slack time.
    - g. Changes in the Contract Time.

## 2.05 REPORTS

- A. Monthly Construction Reports: Prepare a monthly construction report recording the following information concerning events at Project site:
1. List of subcontractors at Project site.
  2. List of separate contractors at Project site.
  3. Approximate count of personnel at Project site.
  4. Equipment at Project site.
  5. Material deliveries.
  6. High and low temperatures and general weather conditions.
  7. Accidents.
  8. Meetings and significant decisions.
  9. Stoppages, delays, shortages, and losses.
  10. Meter readings and similar recordings.
  11. Emergency procedures.
  12. Orders and requests of authorities having jurisdiction.
  13. Change Orders received and implemented.
  14. Work Change Directives received and implemented.
  15. Clarifications requested, received, and implemented.
  16. Services connected and disconnected.
  17. Equipment or system tests and startups.
  18. Partial Completions and occupancies.
  19. Substantial Completions authorized.
- B. Material Location Reports: At monthly intervals, prepare and submit a comprehensive list of materials delivered to and stored at Project site. List shall be cumulative, showing materials previously reported plus items recently delivered. Include with list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from Project site.
- C. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a request for interpretation. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

## 2.06 SPECIAL REPORTS

- A. Prepare Coordination Memoranda for distribution to each Contractor involved outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings. Provide copy to the Authority.



- B. Prepare similar memoranda for the Authority and separate contractors where coordination of their work is required. All such memoranda must be provided to the Authority.

**2.07 REQUESTS FOR INTERPRETATION (RFIs)**

- A. Procedure: Immediately on discovery of the need for interpretation of the Contract Documents, and if not possible to request interpretation at Project meeting, prepare and submit an RFI in the form specified.
  - 1. RFIs shall originate with Contractor. RFIs submitted by entities other than Contractor will be returned 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 interpretation and the following:
  - 1. Project name.
  - 2. Date.
  - 3. Name of Contractor.
  - 4. Name of Engineer.
  - 5. RFI number, numbered sequentially.
  - 6. Specification Section number and title and related paragraphs, as appropriate.
  - 7. Drawing number and detail references, as appropriate.
  - 8. Field dimensions and conditions, as appropriate.
  - 9. Contractor's suggested solution(s). If Contractor's solution(s) impact the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
  - 10. Contractor's signature.
  - 11. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing interpretation.
  - 12. Supplementary drawings prepared by Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments.
- C. Hard-Copy RFIs:

1. Identify each page of attachments with the RFI number and sequential page number.
- D. Authority's Action: Authority will review each RFI, determine action required, and return it. Allow seven working days for Engineer's response for each RFI. RFIs received after 1:00 p.m. will be considered as received the following working day.
1. The following RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for coordination information already indicated in the Contract Documents.
    - d. Requests for adjustments in the Contract Time or the Contract Sum.
    - e. Requests for interpretation of Engineer's actions on submittals.
    - f. Incomplete RFIs or RFIs with numerous errors.
  2. The Authority's action may include a request for additional information. Engineer's time for response will start again.
  3. The Authority'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 claim in accordance with the General Conditions.
    - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Engineer in writing within seven days of receipt of the RFI response.
- E. On receipt of Authority's action, immediately distribute the RFI response to affected parties. Review response and notify the Authority within seven days if Contractor disagrees with response.

## **PART 3 – EXECUTION**

### **3.01 CONTRACTOR'S CONSTRUCTION SCHEDULE**

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
  2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.

3. As the Work progresses, indicate Actual Completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Engineer, Authority, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
  2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

**END OF SECTION**