

SECTION 013200B
CONSTRUCTION PROGRESS DOCUMENTATION

[---Section 013200B should be used for contracts for which a bar chart or a simple network diagram Project Schedule is suitable for managing and controlling the Work. It is anticipated that Projects with durations between 75 and 300 days would generally meet this criteria. The time frames indicated herein are presumed to be appropriate for such contracts but may be adjusted for contracts of shorter or longer durations.---]

[---For contracts with greater Work management and control requirements, and in particular the use of a fully-developed computer-generated critical path method Project Schedule, Section 013200A should be used. For contracts with lesser need for a Project Schedule, Section 013200C should be used. For the very simplest of contracts, Section 013200 may be omitted in its entirety and the Project Schedule provisions in the General Conditions will control.---]

[---For contracts for which the University and/or the University's contracted Construction Management firm will be assuming responsibility for the Project Schedule, Section 013200D should be used.---]

PART 1 - GENERAL

1.01 QUALIFICATIONS

- A. Responsibility for Scheduling. The Lead Prime Contractor shall designate an individual who shall be responsible for the preparation of all required project schedules and schedule reports.
- B. Coordination. The individual responsible for the Project Schedule shall coordinate with key Project personnel, including other Separate Prime Contractors, in the proper methods of providing data and utilizing the Project Schedule information.

1.02 SCHEDULING OF WORK

- A. The Lead Prime Contractor shall be responsible for scheduling of construction, and for developing, updating, and maintaining a Project Schedule as described in this Section. Other Separate Prime Contractors, and management personnel from all Contractors, shall actively participate in scheduling and schedule development, updating, and maintenance.
- B. Separate Prime Contractors shall have their subcontractors and suppliers working on the project also contribute in developing, updating, and maintaining the Project Schedule. Subcontractor and supplier coordination shall be through their respective Separate Prime Contractor only.
- C. The approved Project Schedule shall be used to manage the work, to measure the progress of the work, and to aid in evaluating time extensions.
- D. The approval of the Project Schedule by the University is for assurance that the Project Schedule complies with the requirements of this Section, and that the Project Schedule approximates an acceptable general flow of the Work. Construction means and methods and management of the Work are the responsibility of the Contractors.
- E. Separate Prime Contractor Coordination.

1. The Lead Prime Contractor shall secure time commitments for performing critical elements of the Work from each Separate Prime Contractor involved.
 2. The Project Schedule shall include signature boxes for signatures by representatives of all Separate Prime Contractors, certifying acceptance of the Project Schedule. Acceptance of the Project Schedule does not relieve the Contractors of the responsibility for the accuracy of the Project Schedule and for the Contractors' obligations to meet the contractual completion date.
 3. In the event of disagreement involving the designated Lead Prime Contractor and one or more of the other Separate Prime Contractors regarding construction sequences, durations, and other aspects of the Project Schedule and scheduling, the determinations of the Lead Prime Contractor will control.
 4. Failure by any other Separate Prime Contractor to provide full cooperation with the Lead Prime Contractor in accomplishing any Project Scheduling actions will be sufficient grounds for declaring that Contractor in default.
- F. No Contractor may assert any claim whatsoever for any delay or additional costs incurred in development of the Project Schedule or any related requirement of this Section.
- G. The Project Schedule shall be the basis for measuring the Contractors' progress. Lack of an approved Project Schedule or an individual responsible for the schedule will result in an inability of the University to evaluate the Contractors' progress. Failure of the Contractors to provide all information, as specified below, shall result in the disapproval of the entire Project Schedule submission. In the case where Project Schedule revisions have been directed by the University and those revisions have not been included in the Project Schedule, the University may hold retainage, each payment period, until revisions to the Project Schedule have been made.

1.03 CONSTRUCTION PROGRESS

- A. Use of Manual Methods or Computer-Generated Schedule. Manual scheduling methods may be used to generate the Project Schedule. Manual scheduling methods means that hand-drawn diagrams and calculations may be used. The diagram may be a hand-drawn Critical Path Method (CPM) or Precedence Diagram Method (PDM) diagram, or a hand-drawn Gantt Chart or bar chart, as appropriate for the Project and the Work involved. Computer-generated diagrams and calculations are encouraged but not required.
- B. Level of Detail Required. The Project Schedule shall include an appropriate level of detail. Failure to develop or update the Project Schedule with data at the appropriate level of detail shall result in the disapproval of the Project Schedule. The University will use, but is not limited to, the following conditions to determine the appropriate level of detail to be used in the Project Schedule.
1. Activity Durations. Contractor submissions shall include reasonable activity durations. Reasonable durations are to be determined by the Contractors by consideration of planned crew size/composition, and such durations shall allow the progress of activities to be accurately determined between updates periods.
 2. Critical Activities. The following activities, if applicable, shall be listed as separate activities on the Contractor's project schedule:
 - a. Submission and approval of mechanical/electrical layout drawings.
 - b. UCC inspections at the required stages of construction.
 - c. Submission and approval of testing and balancing of HVAC.
 - d. HVAC commissioning dates.
 - e. Other performance verification and systems testing, as required.

- f. Final inspection.
 - g. Correction of punchlist from final inspection.
3. Procurement Activities. Tasks related to the procurement of long-lead materials or equipment shall be included as separate activities in the Project Schedule. Long-lead materials and equipment are those that have a procurement cycle of over thirty (30) days. Examples of procurement process activities include, but are not limited to: submittals, approvals, procurement, fabrication, and delivery.
 4. University Activities. University and others' activities that could impact progress shall be shown. These activities include, but are not limited to: approvals, inspections, utility tie-ins, University-furnished equipment and property, and any separate Notice to Proceed (NTP) for phasing. The Contractor's failure to provide reasonable durations in the schedule for University-approval activities does not establish or change the University's review or approval periods. Approval activities should be shown with the duration at least the minimum allowed by the Contract.
 5. Responsibility. All activities shall be identified in the Project Schedule by the Separate Prime Contractor responsible to perform the work. Activities shall not belong to more than one Separate Prime Contractor.
 6. Bid Item, Phase of Work, and Area of Work. If the Contract has more than one Bid Item, Phase of Work, or discrete construction Area, the Project Schedule shall differentiate as to which Bid Item, Phase of Work, and Area each activity belongs.
 7. Change Orders. Any activity that is added or changed by Contract change order or is used to insert a time extension shall be identified by a number or code for that change order or time extension justification. Whenever possible, such changes shall be added to the Project Schedule by adding new activities. Existing activities shall not normally be changed to reflect change orders. An activity shall not belong to more than one change order or time extension justification.
- C. Days. The Project Schedule shall identify the work days per week, and shall identify holidays. The Project Schedule shall also indicate the number of shifts per day, if applicable.
 - D. Activity Values. The Project Schedule shall have a dollar value assigned to each activity. The dollar value shall be a reasonable amount based on the labor, materials, and equipment involved with the Work, plus a proportionate share of overhead and profit, represented by the activity. When added together, the dollar value of all activities shall equal the Contract sum(s). The dollar values shall also be coordinated with and agree with the Schedule(s) of Values.
 - E. Project Duration. The Project Schedule interval shall extend from NTP to the contract completion date. The Project Schedule shall start no earlier than NTP. Completion of the last activity in the Project Schedule shall be constrained by the contract completion date.

1.04 SCHEDULE SUBMITTALS

The Lead Prime Contractor shall provide the Project Schedule submissions as described below. The items required for each submission are contained in Paragraph 1.06, Submission Requirements.

- A. Preliminary Project Schedule Submission. The Preliminary Project Schedule, defining the Contractors' planned operations for the first thirty (30) calendar days shall be submitted for approval within seven (7) calendar days after NTP. The Preliminary Project Schedule shall provide a reasonable level of detail for the first thirty days, and a summary of work for the remainder of the Project.

- B. Initial Project Schedule Submission.
 - 1. The Initial Project Schedule, providing a reasonable sequence of activities which represent work through the entire project and at a reasonable level of detail, shall be submitted for approval within twenty-one (21) calendar days after NTP.
 - 2. The Contractor may choose to submit the Initial Project Schedule within seven (7) calendar days after NTP, and thereby eliminate the requirement for a Preliminary Project Schedule.
- C. Periodic Project Schedule Updates. Schedule Updates, based on the Initial Project Schedule and all preceding Schedule Updates, and defining the current status of the work and the plan for the remaining work, shall be submitted either monthly or on an agreed-upon periodic basis.
- D. Project Schedule Required for Payment. The Contractor shall have submitted the Project Schedule submissions required as of the date of Application for Payment in order to have the Application for Payment considered for payment by the University.

1.05 SCHEDULE SUBMITTALS REQUIREMENTS

The following items shall be submitted for the Preliminary Project Schedule submission, for the Initial Project Schedule submission, and for every Periodic Project Schedule Update submission throughout the life of the project.

- A. Project Schedule Diagram. The Project Schedule diagram shall depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished. The diagram may be either a hand-drawn or computer-generated Critical Path Method (CPM) or Precedence Diagram Method (PDM) diagram, or a hand-drawn or computer-generated Gantt Chart or bar chart. The diagram used shall be appropriate for the Project and the Work involved. The University may use, but is not limited to, the following conditions to review the schedule for compliance.
 - 1. Diagrams shall show a continuous flow from left to right.
 - 2. The activity number, description, and duration shall be shown on the diagram.
 - 3. Dates shall be shown on the diagram for start of project, any contractually-required interim completion dates, and the contract completion date.
 - 4. The critical path shall be clearly shown.
 - 5. Activities shall be grouped to assist in the understanding of the activity sequence. Typically, this flow will group activities by phase of work, work area, and/or responsibility.
- B. Schedule Reports. The reports listed below shall be submitted. For Projects using a simple Gantt or bar chart, the information contained in the reports may be included on the Project Schedule Diagram. Unless otherwise agreed upon, the format for each activity for the Schedule Reports listed below 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. Actual Start and Actual Finish Dates shall be printed for those activities in progress or completed.
 - 1. Activity Report. A list of all activities sorted according to activity number.
 - 2. Separate Prime Contractor Report. A list of all activities sorted according to Separate Prime Contractor.

- C. Narrative Report. A brief Narrative Report shall be provided which includes a list of activities along the critical path(s) or most critical path(s), a list of problem areas or delaying factors, and a list of corrective actions taken or required to be taken. For Schedule Update submissions, the Narrative Report shall also include a list of all changes made since the previous period.

1.06 SCHEDULE SUBMITTALS FINALIZATION AND DISTRIBUTION

- A. Finalization of the Project Schedule. Upon submission of the Initial Project Schedule (paragraph 1.04 B.), following review by the University, if revisions to the proposed Project Schedule are required, the Lead Prime Contractor shall do so promptly. The Project Schedule must be finalized, accepted, signed by all Separate Prime Contractors, and approved by the University not more than thirty (30) calendar days after NTP. Failure to finalize the Project Schedule by that date will result in the withholding of all Contract payments until the Project Schedule is finalized.
- B. Distribution of the Project Schedule.
 - 1. Once finalized, the Lead Prime Contractor shall print and distribute copies of the Project Schedule to the University, the Professional, and all other Separate Prime Contractors. Copies of the Project Schedule shall also be posted or made available in the Project meeting room and/or temporary field office.
 - 2. When Periodic Project Schedule Updates (paragraph 1.04 C.) are published, and when revisions are made, the Lead Prime Contractor shall distribute copies to the same parties and post it in the same location(s). Once parties have completed their assigned portion of the Work and are no longer involved in construction activities, they may be deleted from distribution.
 - 3. Separate Prime Contractors and other recipients shall report promptly to the Lead Prime Contractor, in writing, any problems anticipated by the projections and information shown on the Project Schedule and Periodic Project Schedule Updates.

1.07 SCHEDULE UPDATING

- A. The Lead Prime Contractor's individual responsible for the schedule shall meet with superintendents or project managers of each Separate Prime Contractor and representatives of the University to update the Project Schedule at the agreed-upon intervals. Each Prime Contractor shall provide to this individual information needed to enable the Project Schedule to be updated.
- B. Update Process and Components.
 - 1. Actual start dates, finish dates, percents complete, and remaining durations shall be identified for each activity completed or underway, as appropriate. Percents complete shall be in ten percent (10%) increments.
 - 2. All approved time extensions and change orders shall be appropriately included.
 - 3. Any other schedule adjustments shall be integrated, to include rearranging the logic or changing activity durations. Such schedule adjustments shall be accepted by all parties agreeing to the Project Schedule.
 - 4. Within five (5) working days after each meeting, the Lead Prime Contractor shall make distribution of the Periodic Project Schedule Update per paragraph 1.06 B. 2.

- C. **Regaining Lost Time.** If the Project Schedule indicates that the Project Completion Date, and any Interim Completion Dates, will not be met, even after all approved extensions of time, change orders, and schedule adjustments are applied, the sequence and duration of activities shall be revised by the Contractors through concurrent operations, increase of shifts, manpower, or other means until the Project Schedule produced indicates that the Project will meet these required dates. In adjusting their activities, including but not limited to changes in durations and sequences, the Contractors shall respect the existing duty of the Lead Prime Contractor to coordinate the Work, and they shall follow its directions.
- D. **Schedule No Longer Applicable.** If the Contractors perform the work in such a manner that the Project Schedule no longer indicates the actual logic and activity durations being employed for the Work, the Lead Prime Contractor shall develop a revised Project Schedule that reflects the actual management and prosecution of the Work.

1.08 REQUESTS FOR TIME EXTENSIONS

- A. **Submission Requirements.** In the event any Separate Prime Contractor requests an extension of the contract completion date, or any interim completion date, that Contractor shall furnish a written justification and supporting Project Schedule data so that the University may make a determination as to whether or not an extension of time should be approved.
- B. **Justification of Delay.** The Project Schedule shall clearly display that the Contractor has used, in full, all the float time available for the work involved with its request. Only delays in activities which affect critical path activities will be considered for a time extension. The determination as to the number of allowable days of contract extension shall be based upon the Project Schedule update in effect for the time period in question, and other factual information. Actual delays that are found to be caused by the Contractor's own actions, which result in the extension of the Project Schedule, will not be a cause for a time extension.
- C. **Separate Prime Contractors' Schedules.** In no event will the granting of an extension of time to one Separate Prime Contractor automatically entitle any other Separate Prime Contractor to an extension of time.

1.09 OWNERSHIP OF FLOAT

Float available in the Project Schedule, at any time, shall not be considered for the exclusive use of either the University or any Separate Prime Contractor.

1.10 CONTRACTOR COORDINATION AND DISPUTES

- A. **Lead Prime Contractor Direction.** If the Lead Prime Contractor and one or more of the other Separate Prime Contractors disagree as to the reasonableness of the Project Schedule, the use of resources adequate to meet the Project Schedule, the sequence of construction, or other schedule-related coordination issues, such dispute shall be submitted to the Lead Prime Contractor for determination. Disputes between two or more Separate Prime Contractors pertaining to scheduling issues shall be submitted promptly to the Lead Prime Contractor for determination. In all cases, the final decision of the Lead Prime Contractor shall be accepted by all Separate Prime Contractors, subject only to the commencement of a formal dispute proceeding pursuant to provisions of the Contract.
- B. **Delays Between Prime Contractors.** Each Separate Prime Contractor shall prosecute its Work to maintain its progress in accordance with the Project Schedule, so that no delays are caused to other Separate Prime Contractors. Should any Separate Prime Contractor fail to maintain progress according to the Project Schedule or cause delay to another Separate Prime Contractor, it shall furnish such additional manpower, equipment, additional shifts, and/or other measures that are necessary, or that are directed by the Lead Prime Contractor, to bring its

operations up to schedule without any additional expenses to the University or the other Separate Prime Contractors. Disputes between the Separate Prime Contractors regarding adherence to the Project Schedule and the furnishing of additional resources shall be submitted promptly to the Lead Prime Contractor for determination. The final decision of the Lead Prime Contractor shall be accepted by all Separate Prime Contractors, subject only to the commencement of a formal dispute proceeding pursuant to provisions of the Contract.

PART 2 – PRODUCTS

(Not Used)

PART 3 – EXECUTION

(Not Used)

END OF SECTION 013200B