SECTION 01 32 00

PROJECT SCHEDULE
JB Charleston (Dec 2021)

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" classification. Submittals not having a "G" classification are for Contractor Quality Control approval. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Project Scheduler Qualifications; G

Baseline Cost Loaded Critical Path Method (CPM) Project Schedule; G

Schedule and Pay Request Calendar; G

SD-07 Certificates

Monthly Cost Loaded CPM Project Schedule Updates; G

SD-11 Closeout Submittals

As-Built Schedule; G

1.2 PROJECT SCHEDULER QUALIFICATIONS

Designate an authorized representative to be responsible for the preparation of the schedule and all required updating and production of reports. The authorized representative must have a minimum of 5-years' experience scheduling construction projects similar in size and nature, as identified in Section 01 11 00, to this project with scheduling software that meets the requirements of thisspecification. Representative must have a comprehensive knowledge of CPM scheduling principles and application. A resume outlining the individual's qualifications shall be submitted for acceptance by the Contracting Officer.

PART 2 PRODUCTS

2.1 SOFTWARE

The scheduling software utilized to produce and update the schedules required herein must be capable of meeting all requirements of this specification.

2.1.1 Contractor Software

Scheduling software used by the contractor must be commercially available from the software vendor for purchase with vendor software support agreements available.

2.1.1.1 Primavera

If Primavera P6 is selected for use, provide the P6 "xer" export file. Additionally, provide an exported .pdf files for submittal review IAW the “Schedule Reports” paragraph.

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

Prepare for approval a Project Schedule, as specified herein, pursuant to FAR Clause 52.236-15 Schedules for Construction Contracts. Show in the schedule the proposed sequence to perform the work and dates contemplated for starting and completing all schedule activities. The scheduling of the entire project is required. The scheduling of construction is the responsibility of the Contractor. Contractor management personnel shall actively participate in the development of the schedule and coordinate closely with the Contracting Officer, Contracting Officer's Representative, and Facility Manager(s) in its maintenance. Subcontractors and suppliers working on the project must also contribute in developing and maintaining an accurate Project Schedule. Provide a schedule that is a forward planning as well as a project monitoring tool. Use the Critical Path Method (CPM) of network calculation to generate all Project Schedules. Prepare each Project Schedule using the Precedence Diagram Method (PDM) to control, budget, and invoice project activities. For consistency, when scheduling software terminology is used in this specification, the terms in Primavera’s scheduling programs are used.

3.2 BASIS FOR PAYMENT AND COST LOADING

The Baseline Cost Loaded CPM Project Schedule is the basis for determining contract earnings during each update period and therefore the amount of each progress payment. The aggregate value of all activities coded to a contract CLIN must equal the value of the CLIN.

Lack of an approved updated Cost Loaded CPM Project Schedule may result in an inability of the Contracting Officer to evaluate the Contractor's progress for the purposes of payment. The Baseline Cost Loaded CPM Project Schedule shall be submitted for approval within 30 calendar days after the Notice of Award has been acknowledged.

The Contractor is responsible for scheduling, sequencing, budgeting, and executing work to comply with the requirements of the Contract Documents. Government acceptance extends only to the activities of the Contractor’s schedule that the Government has been assigned responsibility and agrees it is responsible. Comments offered on other parts of the schedule, to which the Contractor is assigned responsibility, are offered as a courtesy and are not conditions of Government acceptance; but are for the general conformance with established industry scheduling concepts.

The Contractor shall submit a Schedule and Pay Request Calendar with the Baseline Cost Loaded CPM Project Schedule within 30 calendar days after the Notice of Award has been acknowledged. Reference Attachment A as an example. The Schedule and Pay Request Calendar shall forecast dates for the following:

a. Contractor Provides Draft Monthly Cost Loaded CPM Schedule Update and Narrative to JB Charleston.

b. Contractor Conducts Monthly Periodic Schedule Meeting with JB Charleston.

c. Contractor Submits Final Monthly Cost Loaded CPM Schedule Update and all Reports.

d. Contractor Provides Approved Monthly Cost Loaded CPM Schedule Update and Submits Pay Application (AIA Style) to JB Charleston.

e. Contractor Submits Approved Invoice for Payment in Wide Area Work Flow (WAWF).

Reference Attachment A – Schedule and Pay Request Calendar as an example submittal requirement. An excel spreadsheet version of this calendar can be provided upon request.

All pay applications may be submitted using the AIA Document G702-1992, Application and Certificate for Payment, and G703-1992, Continuation Sheet.

3.2.1 Activity Cost Loading

Activity cost loading must be reasonable and without front-end loading. Provide additional documentation to demonstrate reasonableness if requested by the Contracting Officer.

The Contractor is advised to refer to the contract’s payments clause for more detail relative to payment for stored material or equipment. Material and Equipment Costs for which payment will be requested in advance of installation shall be assigned to their respective procurement activity (i.e., the material/equipment on-site activity). All other construction costs shall be assigned to their respective Construction Activities. The value of inspection/testing activities will not be less than 10 percent of the total costs for Procurement and Construction Activities. Evenly disperse overhead and profit to each activity over the duration of the project.

Each cost-loaded activity shall have a detailed quantity breakdown and unit of measure.

3.2.2 Withholdings / Payment Rejection

Failure to meet the requirements of this specification may result in the disapproval of the baseline or periodic schedule updates and subsequent rejection of payment requests until compliance is met.

In the event that the Contracting Officer directs schedule revisions and those revisions have not been included in subsequent Project Schedule revisions or updates, review and approval of pay applications may be delayed.

3.3 PROJECT SCHEDULE DETAILED REQUIREMENTS

3.3.1 Level of Detail Required

Develop the Project Schedule to the appropriate level of detail to address major milestones and to allow for satisfactory project planning and

execution. Failure to develop the Project Schedule to an appropriate level of detail will result in its disapproval. The Contracting Officer will consider, but is not limited to, the following characteristics and requirements to determine appropriate level of detail:

3.3.2 Activity Durations

Reasonable activity durations are those that allow the progress of ongoing activities to be accurately determined between update periods. Less than 2 percent of all non-procurement activities may have Original Durations (OD) greater than 28 calendar days.

3.3.3 Procurement Activities

Include activities associated with the critical submittals and their approvals, procurement, fabrication, and delivery of long lead materials, equipment, fabricated assemblies, and supplies. Long lead procurement activities are those with an anticipated procurement sequence of over 90 calendar days.

3.3.4 Mandatory Tasks

Include the following activities/tasks in the baseline project schedule and all updates.

a. Submission, review and acceptance of SD-01 Preconstruction Submittals (individual activity for each).

b. Submission, review and acceptance of features require design completion.

c. Submission of mechanical/electrical/information systems layout drawings.

d. Long procurement activities

e. Submission and approval of O & M manuals.

f. Submission and approval of as-built drawings.

g. Submission and approval of DD1354 data and installed equipment lists.

h. Submission and approval of testing and air balance (TAB).

i. Submission and approval of fire protection specialist.

j. Building commissioning - Functional Performance Testing.

k. Controls testing.

l. Performance Verification testing.

m. Pre-Warranty Conference.

n. Other systems testing, if required.

o. Contractor's pre-final inspection.

p. Correction of punch list from Contractor's pre-final inspection.

q. Government's pre-final inspection.

r. Correction of punch list from Government's pre-final inspection.

s. Final inspection.

3.3.5 At a minimum, each activity shall include the following information:

a. Activity ID

b. Activity Description

c. Calendar

d. Original Duration in Calendar Days

e. Early Start Date

f. Early Finish Date

g. Late Start Date

h. Late Finish Date

i. Total Float

j. Contract Line Item Number (CLIN)(i.e.: CLIN 0001, CLIN 0002, etc.)

3.3.6 Government Activities

Show Government and other agency activities that could impact progress. These activities include, but are not limited to: approvals permit approvals by State regulators, inspections, utility tie-in/outages, Government Furnished Equipment (GFE) and Notice to Proceed (NTP) for phasing requirements.

3.3.7 Contract Milestones and Constraints

Milestone activities are to be used for significant project events including, but not limited to, project phasing, project start and end activities, or interim completion dates. The use of artificial float constraints such as "zero free float" or "zero total float" are prohibited.

Mandatory constraints that ignore or affect network logic are prohibited. No constrained dates are allowed in the schedule other than those specified herein. Submit additional constraints to the Contracting Officer for approval on a case by case basis.

3.3.7.1 Contract Award Date Milestone:

The Contractor shall include as the first activity on the schedule a start milestone titled "Contract Award", which shall have a Mandatory Start constraint equal to the Contract Award Date.

3.3.7.2 Project Start Date Milestone and Constraint:

The Contractor shall include as an activity after award on the schedule a start milestone titled "Notice to Proceed (NTP)", which shall have a Mandatory Start constraint equal to the date the Notice to Proceed is acknowledged.

3.3.7.3 Projected Completion Milestone:

The Contractor shall include an unconstrained finish milestone on the schedule titled "Projected Completion", indicating the point in time at which the project is complete and ready for its intended use. This milestone shall have the Contract Completion Date (CCD) as its only successor.

3.3.7.4 Contract Completion Date (CCD) Milestone:

The Contractor shall include as the last activity on the schedule a finish milestone titled "Contract Completion (CCD)", which shall have a Finish on or Before constraint equal to the Contract Completion Date. The only predecessor to the Contract Completion Date Milestone shall be the Projected Completion Milestone. The CCD Shall be equal to the Period of Performance (in Calendar Days) added to the NTP date.

Constrain the project schedule to the Contract Completion Date in such a way that if the schedule calculates an early finish, then the float calculation for "Contract Completion Date" milestone reflects positive float on the longest path. If the project schedule calculates a late finish, then the "Contract Completion Date" milestone float calculation reflects negative float on the longest path. The Government is under no obligation to accelerate Government activities to support a Contractor's early completion.

3.3.7.5 Interim Completion Dates and Constraints

Constrain contractually specified interim completion dates to show negative float when the calculated late finish date of the last activity in that phase is later than the specified interim completion date.

3.3.7.6 Start Phase

Use a start milestone as the first activity for a project phase. Call the start milestone "Start Phase X" where "X" refers to the phase of work.

3.3.7.7 End Phase

Use a finish milestone as the last activity for a project phase. Call the finish milestone "End Phase X" where "X" refers to the phase of work.

3.3.8 Calendars

Schedule activities on a Calendar to which the activity logically belongs. Develop calendars to accommodate any contract defined work period such as a 7-day calendar for Government Acceptance activities, concrete cure times, etc.

Develop the default Calendar to match the physical work plan with non-work periods identified including weekends and holidays. Develop Seasonal Calendar(s) and assign to seasonally affected activities as applicable.

All activity durations and float values shall be shown in calendar days. Default activity type shall be set to “Task” and the project “Must Finish

By” date shall be left blank.

3.3.8.1 Monthly Anticipated Adverse Weather Delays - in Calendar Days

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
6	5	5	5	5	8	9	9	7	5	4	6

If an activity is weather sensitive it should be assigned to a calendar showing non-work days on a monthly basis, with the non-work days selected at random across the weeks of the calendar, using the anticipated adverse weather delay days. The above chart in paragraph 3.3.8.1 indicates the amount of weather days to be accounted for in the Critical Path Method Schedule for those activities that are weather sensitive. A lost workday due to weather conditions is defined as a day in which the Contractor cannot reasonably work at least 50 percent of the day on the impacted activity.

Use the National Oceanic and Atmospheric Administration's (NOAA) Summary of Monthly Normals report to obtain the historical average number of days each month with precipitation, using a nominal 30-year, greater than 0.10 inch precipitation amount parameter, as indicated on the Station Report for the NOAA location closest to the project site as the basis for establishing a "Weather Calendar" showing the number of anticipated Non-workdays for each month due to adverse weather, in addition to Saturdays, Sundays and all Federal Holidays as non-work days. Table 3.3.8.1 indicates this anticipated schedule for Joint Base Charleston.

3.3.8.2 Government Holidays

The following holidays shall be incorporated into the Project Schedule as non-work days. Follow the procedures identified in Specification 01 14 00 to request work on the following days. Reference the Office of Personnel Management Website (https://www.opm.gov/policy-data-oversight/pay-leave/federal-holidays/#url=Overview) for the most current information regarding Government Holidays and the specific days for observance:

New Year’s Day

Birthday of Martin Luther King, Jr.

Washington’s Birthday

Memorial Day

Juneteenth National Independence Day

Independence Day

Labor Day

Columbus Day

Veterans Day

Thanksgiving Day

Christmas Day

3.3.9 Open Ended Logic

Only two open ended activities are allowed: the first activity "Contract Award Date" may have no predecessor logic, and the last activity, "Contract Completion Date" may have no successor logic.

Predecessor open ended logic may be allowed in a time impact analyses upon the Contracting Officer's approval.

3.3.10 Default Progress Data Disallowed

Actual Start and Finish dates must not automatically update with default mechanisms included in the scheduling software. Updating of the percent complete and the remaining duration of any activity must be independent functions. Disable program features that calculate one of these parameters from the other. Activity Actual Start (AS) and Actual Finish (AF) dates assigned during the updating process must match those dates provided in the Contractor Quality Control Reports. Failure to document the AS and AF dates in the Daily Quality Control report will result in disapproval of the Contractor's schedule.

3.3.11 Out-of-Sequence Progress

Activities that have progressed before all preceding logic has been satisfied (Out-of-Sequence Progress) will be allowed only on a case-by-case basis subject to approval by the Contracting Officer. Propose logic corrections to eliminate out of sequence progress or justify not changing the sequencing for approval prior to submitting an updated project schedule. Address out of sequence progress or logic changes in the Narrative Report and in the periodic schedule update meetings.

3.3.12 Added and Deleted Activities

Do not delete activities from the project schedule or add new activities to the schedule without approval from the Contracting Officer. Activity ID and description changes are considered new activities and cannot be changed without Contracting Officer approval.

3.3.13 Original Durations

Activity Original Durations (OD) must be reasonable to perform the work item. OD changes are prohibited unless justification is provided and approved by the Contracting Officer.

3.3.14 Leads, Lags, and Start to Finish Relationships

Lags, Leads (negative lags), and Start-to-Finish (SF) relationships are prohibited.

3.3.15 Retained Logic

Schedule calculations must retain the logic between predecessors and successors ("retained logic" mode) even when the successor activity(s) starts and the predecessor activity(s) has not finished (out-of-sequence progress). Software features that in effect sever the tie between predecessor and successor activities when the successor has started and the predecessor logic is not satisfied ("progress override") are not be allowed.

3.3.16 Percent Complete

Update the percent complete for each activity started, based on the realistic assessment of earned value. Activities which are complete but for remaining minor punch list work and which do not restrain the initiation of successor activities may be declared 100 percent complete to allow for proper schedule management.

3.3.17 Remaining Duration

Update the remaining duration for each activity based on the number of estimated calendar days it will take to complete the activity. Remaining duration may not mathematically correlate with percentage found under paragraph entitled Percent Complete.

3.3.18 Cost Loading of Closeout Activities

Cost load the "Correction of punch list from Government pre-final inspection" activity(ies) not less than 1 percent of the present contract value. Activity(ies) may be declared 100 percent complete upon the Government's verification of completion and correction of all punch list work identified during Government pre-final inspection(s).

3.3.18.1 As-Built Drawings

If there is no separate contract line item (CLIN) for as-built drawings, cost load the "Submission and approval of as-built drawings" activity not less than 1 percent of the present contract value. Activity will be declared 100 percent complete upon the Government's approval.

3.3.18.2 O & M Manuals

Cost load the "Submission and approval of O & M manuals" activity not less than 1 percent of the overall contract value. Activity will be declared 100 percent complete upon the Government's approval of all O & M manuals.

3.3.19 Early Completion Schedule and the Right to Finish Early

An Early Completion Schedule is a Baseline Project Schedule that indicates all scope of the required contract work will be completed before the contractually required completion date.

a. No Baseline Project Schedule indicating an Early Completion will be accepted without being fully resource-loaded (including crew sizes and man-hours) and the Government agreeing that the schedule is reasonable and achievable.

b. The Government is under no obligation to accelerate work items it is responsible for to ensure that the early completion is met nor is it responsible to modify incremental funding (if applicable) for the project to meet the contractor's accelerated work.

c. If an Early Completion Schedule is proposed by the Contractor and accepted by the Government, the difference between the Early Completion CCD and the original CCD will be considered project float. Project float, as defined herein, is shared by the Contractor and the Government. The decision to modify the contract to reflect the Early Completion CCD will rest with the Contracting Officer.

3.4 PROJECT SCHEDULE SUBMISSIONS

Provide the submissions as described below. The data reports and network diagrams required for each submission are contained in paragraph SUBMISSION REQUIREMENTS. If the Contractor fails or refuses to furnish the information and schedule updates as set forth herein, then the Contractor will be deemed not to have provided an estimate upon which a progress payment can be made.

Review comments made by the Government on the schedule(s) do not relieve the Contractor from compliance with requirements of the Contract Documents.

3.4.1 Schedule Acceptance Prior to Start of Work

The Contracting Officer and/or Contracting Officer’s Representative and the Contractor shall participate in a preliminary meeting(s) to discuss the proposed schedule and requirements of this section prior to the Contractor submitting the Project Baseline Cost Loaded CPM Schedule. This preliminary meeting is to be requested by the Contractor to the Contracting Officer.

Only bonds shall be paid prior to acceptance of the Baseline Cost Loaded CPM Schedule.

The acceptance of a Baseline Cost Loaded CPM Schedule is a condition precedent to:

a. The Contractor starting work on the demolition or construction stage(s) of the contract.

b. Processing Contractor's pay request(s) for construction activities/items of work.

c. Review of any schedule updates.

Submittal of the Baseline Cost Loaded CPM Schedule and subsequent schedule updates shall be understood to be the Contractor's certification that the submitted schedule meets all of the requirements of the Contract Documents, represents the Contractor's plan on how the work shall be accomplished, and accurately reflects the work that has been accomplished and how it was sequenced (as-built logic).

3.4.2 Periodic Schedule Updates

Update the Cost Loaded CPM Project Schedule on a regular basis, monthly at a minimum. Provide a draft Periodic Schedule Update for review at the schedule update meetings as prescribed in the paragraph PERIODIC SCHEDULE UPDATE MEETINGS. These updates will enable the Government to assess Contractor's progress.

a. Update information including Actual Start Dates (AS), Actual Finish Dates (AF), Remaining Durations (RD), and Percent Complete is subject to the approval of the Government at the meeting.

b. AS and AF dates must match the date(s) reported on the Contractor's Quality Control Report for an activity start or finish.

3.4.3 As-Built Schedule

As a condition precedent to making final payment, submit an "As-Built Schedule," as the last schedule update showing all activities at 100

percent completion. This schedule shall reflect the exact manner in which the project was actually constructed.

3.5 SUBMISSION REQUIREMENTS

Submit the following items for the Baseline Schedule and every Periodic Schedule Update throughout the life of the project:

3.5.1 Data Files

Submit the Baseline Cost Loaded Critical Path Method Project Schedule and Monthly Cost Loaded Critical Path Method Project Schedule Updates on electronic media acceptable to the Contracting Officer. Also include the Narrative Report and all required Schedule Reports. Each schedule must have a unique file name and use project specific settings.

3.5.2 Narrative Report

Provide a Narrative Report with each schedule submission. The Narrative Report is expected to communicate to the Government the thorough analysis of the schedule output and the plans to compensate for any problems, either current or potential, which are revealed through that analysis. Include the following information as a minimum in the Narrative Report:

a. Identify and discuss the work scheduled to start in the next update period.

b. A description of activities along the two most critical paths where the total float is less than or equal to 28 calendar days.

c. A description of current and anticipated problem areas or delaying factors and their impact and an explanation of corrective actions taken or required to be taken.

d. Identify and explain why activities based on their calculated late dates should have either started or finished during the update period but did not.

e. Identify and discuss all schedule changes by activity ID and activity name including what specifically was changed and why the change was needed. Include at a minimum new and deleted activities, logic changes, duration changes, calendar changes, lag changes, resource changes, and actual start and finish date changes.

f. Identify and discuss out-of-sequence work.

3.5.3 Schedule Reports

The format, filtering, organizing and sorting for each schedule report will be as directed by the Contracting Officer. Typically, reports contain Activity Numbers, Activity Description, Original Duration, Remaining Duration, Early Start Date, Early Finish Date, Late Start Date, Late Finish Date, Total Float, Actual Start Date, Actual Finish Date, and Percent Complete. Provide the reports electronically in .pdf format. The following lists typical reports that will be requested:

3.5.3.1 Activity Report

List of all activities sorted according to activity number.

3.5.3.2 Logic Report

List of detailed predecessor and successor activities for every activity in ascending order by activity number.

3.5.3.3 Total Float Report

A list of all incomplete activities sorted in ascending order of total float. List activities which have the same amount of total float in ascending order of Early Start Dates. Do not show completed activities on this report.

3.5.3.4 Earnings Report by CLIN

A compilation of the Total Earnings on the project from the NTP to the data date, which reflects the earnings of activities based on the agreements made in the schedule update meeting defined herein. Provided a complete schedule update has been furnished, this report serves as the basis of determining progress payments. Group activities by CLIN and sort by activity number. Provide a total CLIN percent earned value, CLIN percent complete, and project percent complete. The printed report must contain the following for each activity: the Activity Number, Activity Description, Original Budgeted Amount, Earnings to Date, Earnings this period, Total Quantity, Quantity to Date, and Percent Complete (based on cost).

3.5.3.5 Schedule Log (F9 Report)

Provide a Scheduling/Leveling Report generated from the current project schedule being submitted.

3.5.4 Network Diagram

The Network Diagram is required for the Baseline Schedule and Periodic Schedule Updates. Depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished. The Contracting Officer will use, but is not limited to, the following conditions to review compliance with this paragraph:

3.5.4.1 Continuous Flow

Show a continuous flow from left to right with no arrows from right to left. Show the activity number, description, duration, and estimated earned value on the diagram.

3.5.4.2 Project Milestone Dates

Show dates on the diagram for start of project, any contract required interim completion dates, and contract completion dates.

3.5.4.3 Critical Path

Show all activities on the critical path. The critical path is defined as the longest path.

3.5.4.4 Banding

Organize activities using the WBS or as otherwise directed to assist in the understanding of the activity sequence. Typically, this flow will group activities by major elements of work, category of work, work area and/or responsibility.

3.5.4.5 Cash Flow / Schedule Variance Control (SVC) Diagram

With each schedule submission, provide a SVC diagram showing 1) Cash Flow S-Curves indicating planned project cost based on projected early and late activity finish dates, and 2) Earned Value to-date.

3.6 PERIODIC SCHEDULE UPDATE

3.6.1 Periodic Schedule Update Meetings

Contractor and Government representatives shall meet at monthly intervals to review and agree on the information presented in the updated project schedule. The submission of an acceptable, updated monthly cost loaded critical path method project schedule to the Government is a condition precedent to the processing of the Contractor's pay request.

The Contractor's authorized scheduler must organize, group, sort, filter, perform schedule revisions as needed and review functions as requested by the Contractor and/or Government. The meeting is a working interactive exchange which allows the Government and Contractor the opportunity to review the updated schedule on a real time and interactive basis. Provide a draft of the proposed narrative report and schedule data file to the Government a minimum of four (4) calendar days in advance of the meeting. The Contractor's Project Manager and scheduler must attend the meeting with the authorized representative of the Contracting Officer. Superintendents, foremen and major subcontractors must attend the meeting as required to discuss the project schedule and work. Following the periodic schedule update meeting, make corrections to the draft submission. Progress payments are based on a cost-loaded schedule, therefore the Contractor and Government shall agree on percentage of payment for each activity progressed during the update period. Include only the approved schedule by the Government in the submission and invoice for payment.

Updated Project Schedules shall also be submitted for Government approval in conjunction with any Contractor requests for additional time. Submit copies of purchase orders and confirmation of delivery dates as directed by the Contracting Officer.

Provide the following with each Schedule submittal:

a. Reports listed in paragraph entitled "SUBMISSION REQUIREMENTS."

b. Electronic files containing the project schedule. Include the back-up native schedule program files.

c. Narrative Report

d. Earnings Report by CLIN: A compilation of the Total Earnings on the project from the NTP to the data date, which reflects the earnings of activities based on the agreements made in the schedule update meeting defined herein. Provided a complete schedule update has been

furnished, this report serves as the basis of determining progress payments. Group activities by CLIN and sort by activity number. Provide a total CLIN percent earned value, CLIN percent complete, and project percent complete. The printed report must contain the following for each activity: the Activity Number, Activity Description, Original Budgeted Amount, Earnings to Date, Earnings this period, Total Quantity, Quantity to Date, and Percent Complete (based on cost).

e. Cash Flow / Schedule Variance Control (SVC) Diagram: With each schedule submission, provide a SVC diagram showing:

i) Cash Flow S-Curves indicating planned project cost based on projected early and late activity finish dates and;

ii) Earned Value to-date. Revise Cash Flow S-Curves when the contract is modified, or as directed by the Contracting Officer.

3.6.2 Update Submission Following Progress Meeting

Submit the complete Periodic Schedule Update of the Project Schedule containing all approved progress, revisions, and adjustments, pursuant to paragraph SUBMISSION REQUIREMENTS not later than seven (7) calendar days after the periodic schedule update meeting.

3.6.3 THREE (3)-WEEK LOOK AHEAD SCHEDULE

Prepare and issue a 3-Week Look Ahead schedule to provide a more detailed day-to-day plan of upcoming work identified on the CPM Schedule. Show the planned work for the current and following two-week period. Additionally, include upcoming outages, closures, preparatory meetings, and initial meetings. Identify critical path activities on the Three-Week Look Ahead Schedule. The detail work plans are to be bar chart type schedules, and correlated to the CPM Schedule in an electronic format as directed by the Contracting Officer. Activities must not exceed seven (7) calendar days in duration and have sufficient level of detail to assign crews, tools and equipment required to complete the work. Deliver one electronic file of the 3-Week Look Ahead Schedule to the Contracting Officer no later than 8 a.m. each Monday, and review during the Progress Meetings.

3.7 PROGRESS MEETINGS

Conduct a progress meeting with the Government in addition to the meetings described in paragraph entitled PERIODIC SCHEDULE UPDATE MEETINGS for the purpose of jointly reviewing the planned activities for the upcoming three (3) weeks and discuss any coordination required between the Government and Contractor.

This progress meeting is to be held at an interval mutually agreed to (weekly, bi-weekly, etc.). These meetings shall not be less frequent than once per month.

Use the current approved schedule update for the purposes of this meeting and for the production and review of reports. At a minimum, the following shall be discussed during the Progress Meeting:

Schedule

- Review the 3-week Look Ahead

Quality Control/Assurance/Safety

- Discuss any open Quality Control / Assurance Concerns including discrepancy logs, punch lists, and inspection reports.

- Discuss any open or upcoming safety items.

RFIs

- Review the RFI Register per Specification 01 33 00

Submittals

- Review the Submittal Register per Specification 01 33 00

Modifications

- Review all Addendums and Modifications

CPARS

- Review any items to be included in the Contractor's CPARS reports to include Quality, Schedule Control, Cost Control, Management, and Regulatory Compliance.

3.8 CORRESPONDENCE AND TEST REPORTS

All correspondence (e.g., letters, Requests for Information (RFIs), e-mails, meeting minute items, Production and QC Daily Reports, material delivery tickets, photographs, etc.) shall reference Cost Loaded CPM Schedule Activities that are being addressed. All test reports (e.g., concrete, soil compaction, weld, pressure, etc.) shall reference Cost Loaded CPM Schedule Activities that are being addressed.

3.9 REQUESTS FOR TIME EXTENSIONS

Provide a justification of delay to the Contracting Officer in accordance with the contract provisions and clauses for approval within 14 calendar days of a delay occurring. Also, prepare a Time Impact Analysis (TIA) for each Government Request For Proposal (RFP) to justify time extensions.

3.9.1 Justification of Delay

Provide a description of the event(s) that caused the delay and/or impact to the work. As part of the description, identify all schedule activities impacted. Show that the event that caused the delay/impact was the responsibility of the Government. Provide a Time Impact Analysis (TIA) that demonstrates the effects of the delay or impact on the project completion date or interim completion date(s). Utilize a copy of the last approved schedule prior to the first day of the impact or delay for the TIA. Evaluate multiple impacts chronologically; each with its own justification of delay. With multiple impacts consider any concurrency of delay. A time extension and the schedule fragnet becomes part of the project schedule and all future schedule updates upon approval by the Contracting Officer.

3.9.2 Fragmentary Network (Fragnet)

Prepare a proposed fragnet for time impact analysis consisting of a sequence of new activities that are proposed to be added to the project

schedule to demonstrate the influence of the delay or impact to the project's contractual dates. Provide an Activity Predecessor Report with the TIA to justify the impact of the delay to the Critical Path. Clearly show how the proposed fragnet is to be tied into the project schedule including all predecessors and successors to the fragnet activities. The proposed fragnet must be approved by the Contracting Officer prior to incorporation into the project schedule.

3.9.3 Time Extension

The Contracting Officer must approve the Justification of Delay including the time impact analysis before a time extension will be granted. No time extension will be granted unless the delay consumes all available Project Float and extends the projected finish date ("Project Completion Date" milestone) beyond the Contract Completion Date. The time extension will be in calendar days.

Actual delays that are found to be caused by the Contractor's own actions, which result in a calculated schedule delay will not be a cause for an extension to the performance period, completion date, or any interim milestone date.

3.10 FAILURE TO ACHIEVE PROGRESS

Should the progress fall behind the approved project schedule for reasons other than those that are excusable within the terms of the contract, the Contracting Officer may require provision of a written recovery plan for approval. The plan must detail how progress will be made-up to include which activities will be accelerated by adding additional crews, longer work hours, extra work days, etc.

3.10.1 Artificially Improving Progress

Artificially improving progress by means such as, but not limited to, revising the schedule logic, modifying or adding constraints, shortening activity durations, or changing calendars in the project schedule is prohibited. Indicate assumptions made and the basis for any logic, constraint, duration and calendar changes used in the creation of the recovery plan. Any additional resources, manpower, or daily and weekly work hour changes proposed in the recovery plan must be evident at the work site and documented in the daily report along with the Schedule Narrative Report.

3.10.2 Failure to Perform

Failure to perform work and maintain progress in accordance with the supplemental recovery plan may result in an interim and final unsatisfactory performance rating and may result in corrective action directed by the Contracting Officer pursuant to FAR 52.236-15 Schedules for Construction Contracts, FAR 52.249-10 Default (Fixed-Price Construction), and other contract provisions.

3.10.3 Recovery Schedule

Should the Contracting Officer find it necessary, submit a recovery schedule pursuant to FAR 52.236-15 Schedules for Construction Contracts.

3.11 OWNERSHIP OF FLOAT

Float available in the schedule, at any time, will not be considered for the exclusive use of either the Government or the Contractor including activity and/or project float. Activity float is the number of calendar days that an activity can be delayed without causing a delay to the "Projected Completion Date" milestone. Project float (if applicable) is the number of calendar days between the projected early finish and the “Contract Completion Date” milestone.

-- End of Section --