PART 1 - GENERAL

1.1 SCOPE


B. Narrative Reports.

C. Graphical Reports.

D. Fragnets Supporting Time Extension Requests.

E. Computer Software Requirements.

1.2 DEFINITIONS

A. Critical Work activities are defined as Work activities that, if delayed or extended, will cause a critical delay as defined in General Conditions Article 8. All other Work activities are defined as non-critical Work activities and are considered to have float.

B. Float is defined as the time that a non-critical Work activity can be delayed or extended without causing a critical delay as defined in General Conditions Article 8. Neither the Contractor nor the University shall have an exclusive right to the use of float. Float is a shared resource available to each party to the contract. The Contractor shall document the effect of the use of float on the updated Contract Schedule.

C. Preliminary Contract Schedule is defined as a practical schedule representing the Contractors plan for accomplishing the work within the Contract period as well as a detailed work plan for the first 90 days following the Notice to Proceed. The Preliminary Contract Schedule shall not include any actual dates or progress measured against any activities.

D. Contract Schedule is defined as a practical plan to complete the Work within the Contract Time. The first Contract schedule that shall be submitted to the University not later than [30] [60] days after Notice to Proceed. The period covered by Contract schedule shall be the Contract Time. The Contract schedule shall incorporate the logic of the Preliminary Contract Schedule covering the first 90 days following the Notice to Proceed.

E. Look Ahead Schedule is defined as a schedule derived from the Contract Schedule (or the most current monthly update of the Contract Schedule) which indicates in detail all activities scheduled or worked on for the 2 prior weeks, and all activities scheduled to occur during the next 4 weeks.
1.3 SUBMITTALS REQUIRED

A. Submit the following in accordance with Section 01334 Shop Drawings, Product Data, Samples

1. Proposed Scheduling Software
2. Preliminary Contract Schedule
3. Contract Schedule
4. Monthly Updates to Contract Schedule
5. Narrative Reports
6. Tabular Reports
7. Graphical Reports
8. Electronic Schedule Files
9. Look Ahead Schedules
10. Final As-Built Schedule

B. Submit all submittals required by this specification to the University’s Representative via electronic means. Submit 2 copies when transmitting via a diskette or CD-ROM.

1.4 EXPERIENCE REQUIREMENTS

A. The Contractor shall designate an individual from Contractor’s staff or a consultant who shall be responsible throughout the duration of the project for preparation of all schedules and reports as required by this specification. This individual shall also be required to attend all meetings with the University’s Representative as required by this specification. The Contractor shall demonstrate to the satisfaction of the University that the individual or consultant has at least 3 years of experience preparing, maintaining, and administering detailed project schedules on projects of the same or similar size and complexity as this project. The Contractor shall also demonstrate to the satisfaction of the University that the individual or consultant is proficient in the use of the scheduling software proposed for use by the Contractor on this project.

B. Within 15 days after the Notice of Selection as the Apparent Lowest Responsible Bidder, Contractor shall provide the University with the identification, qualifications, and experience of and references for the proposed individual or consultant.

PART 2 - PRODUCTS

2.1 SOFTWARE

A. Software Requirements

1. The Contractor shall use P3 by Primavera Systems, or equal to produce the schedule and all required graphical and tabular reports.
PART 3 - EXECUTION

3.1 PRELIMINARY CONTRACT SCHEDULE

A. Within 10 days after the Notice of Selection as the Apparent Lowest Responsible Bidder, Contractor shall submit a Preliminary Contract Schedule to the University's Representative for approval. This schedule shall acknowledge the Contract Time, as well as significant known constraints and milestones within the Contract Time. The Preliminary Contract Schedule shall provide a detailed work plan of all activities planned by the Contractor for the first 90 days of the project subsequent to the Notice to Proceed as well as all anticipated activities prior to the Notice to Proceed. The Preliminary Contract Schedule shall be incorporated into the Contractors proposed Contract Schedule. In addition to the detailed work plan, the Contractor shall identify in detail the following planned activities:

1. Preparation of equipment and material submittals for review.
2. Procurement schedule.
3. Major milestones.
4. All holidays, UC Davis finals weeks and non-working days.

B. Submission - The Contractor shall submit an electronic version (computer backup file) of the Preliminary Contract Schedule, as well as a Gantt chart of the Preliminary Contract Schedule to the University for approval as a condition precedent to being eligible for receipt of the first progress payment. The files shall be provided on CD-ROM, prepared in MS Windows format.

C. Form - The Preliminary Contract Schedule shall reflect the Contractor’s actual plan of work for the first 90 days of the project. The Contractor’s progress shall be measured against the Preliminary Contract Schedule until such time as the University approves the Contractor’s first Contract Schedule.

3.2 CONTRACT SCHEDULE

A. Within 30 days of receipt of the Notice to Proceed, the Contractor shall submit its proposed first Contract Schedule. The proposed first Contract Schedule shall incorporate the Preliminary Contract Schedule.

B. Form:

1. The proposed first contract schedule shall be produced using CPM (Critical Path Method) techniques, in the PDM (Precedence Diagram Method) method of scheduling.
2. When approved, the proposed first Contract Schedule shall become the Contract Schedule.
3. The Contract Schedule shall represent a practical plan to fully complete the Contract within the Contract Time.
4. The Contract Schedule shall be cost loaded and shall have an estimated cost value applied to each activity. The monthly pay applications will be calculated based upon the monthly update of the Contract Schedule. The listing of Item No.
and Description of Work Activity or Other Item on Pay Application shall correspond to activities in the schedule.

5. The Contract Schedule shall identify all holidays, UC Davis finals weeks and non-working days.

6. The Contract Schedule activities shall be coded with the following information applicable to each activity:
   a. Area of the project
   b. Identity of the party responsible for the activity (i.e. University, General Contractor, specific subcontractor…)
   c. Specification section applicable to activity
   d. Phase – The following phases shall be identified:
      (1) Administrative
      (2) Submittal and Review
      (3) Fabrication
      (4) Construction
      (5) Inspection

C. Content:

1. The Contract Schedule shall identify all Work activities in correct sequence for the completion of the Work within the Contract Time. Work activities shall include the following:
   a. Major Contractor-furnished equipment, materials, and building elements, and scheduled activities requiring submittals or University's Representative's prior approval.
      (1) Show dates for the submission, review, and approval of each such submittal. Dates shall be shown for the procurement, fabrication, delivery, and installation of major equipment, materials, and building elements, and for scheduled activities designated by the University.
      (2) A minimum of 18 days shall be allotted for University's Representative to review each submittal. The 18 days shall be measured starting with actual receipt by the University's Representative of the submittal.
   b. System test dates.
   c. Scheduled overtime Work to the extent permitted by Contract Documents.
   d. Dates Contractor requests designated workspaces, storage area, access, and other facilities to be provided by the University.
   e. Dates Contractor requests orders and decisions from the University on designated items.
   f. Dates Contractor requests University-furnished equipment.
   g. Dates Contractor requests University-furnished utilities.
   h. Planned dates for connection and relocation of existing utilities.
   i. Planned dates for connecting to or penetrating existing structures.
   j. Planned dates for scheduled inspections as required by Codes, or as otherwise specified.
   k. Commissioning Sequence and activities for all Building Systems.
2. The Contract Schedule shall include a complete sequence of construction, in adequate detail for the planning and coordination of the Work. Unless approved by the University’s Representative, there shall be no activities shown with durations in excess of 20 business days.

3. The Contract Schedule shall be calculated using the Retained Logic method. Progress override calculations shall not be acceptable.

D. Submission

1. The Contractor shall submit an electronic version (computer backup file) of the Contract Schedule, as well as a Gantt chart of the Contract Schedule to the University. The files shall be provided on CD-ROM, prepared in MS Windows format.

2. Tabular Computer Reports
   a. As requested by the University, the Contractor shall submit various computer generated tabular reports.
   b. As requested by the University’s Representative, the Contractor will be required to submit additional Schedule and Cost Reports.

E. Acceptance

1. Upon receipt, the University’s Representative shall review the proposed first Contract Schedule. Within 5 business days of the University’s receipt of the proposed first Contract Schedule, the University’s Representative shall schedule a review meeting with the Contractor for the purpose of jointly reviewing the proposed first Contract Schedule. The meeting shall occur within 15 business days of the University’s receipt of the proposed first Contract Schedule.

2. If the proposed first Contract Schedule is accepted by the University’s Representative, it shall become the Contract Schedule. Such acceptance shall not relieve Contractor from its responsibility to fully complete the Contract within the Contract Time, nor shall it relieve Contractor from sole responsibility for any errors in the Contract Schedule.

3. If the Contractor or the University's Representative determines the proposed first Contract Schedule to be in need of revision, within 10 business days following the joint review meeting, the Contractor shall revise and resubmit the proposed first contract schedule to the University's Representative for acceptance, and, upon acceptance thereof, it shall become the Contract Schedule. Such acceptance shall not relieve Contractor from its responsibility to fully complete the Contract within the Contract Time, nor shall it relieve Contractor from sole responsibility for any errors in the Contract Schedule. No progress payment beyond the second progress payment will be paid to the Contractor until such time as the University’s Representative has approved the Contractor’s first proposed Contract Schedule.

3.3 MONTHLY UPDATES

A. After approval of the first proposed Contract Schedule, Contractor shall update the Contract Schedule monthly. The update shall reflect progress as of the end of each month. Contractor shall submit monthly schedule update to the University's
Representative for approval no later than the tenth day of the following month. The updates shall be made as follows:

1. The Monthly updates shall report progress based upon percent complete of each activity or remaining duration. Actual start dates shall be recorded for those activities that have started. Actual finish dates shall be recorded for those activities that are completed. Activities that are in progress shall reflect an actual start date and the percentage completion for the activity.

2. The updated Contract Schedule shall reflect an up-to-date status of the contract work as completed, and materials furnished and in permanent place that qualify for payment.

3. The updated Contract Schedule shall reflect Contract Time changes included in all processed change orders for the progress month and each preceding month.

B. Within 5 business days after receipt of the updated Contract Schedule in conjunction with the Application for Payment, the University's Representative shall review both and determine which work and material pay items qualify for payment; the approved data will then be returned to the Contractor for input. Within 10 business days, the Contractor and the University's Representative shall meet to review the Construction CPM Schedule and discuss any changes required.

C. The Contractor shall then revise and resubmit (if required) the Updated Contract Schedule and Application for Payment to the University's Representative for payment approval.

D. The monthly update shall be calculated using retained logic with a required finish date specified as the current contract completion date. Progress Override calculations shall not be acceptable.

E. No Applications for Payment will be processed nor shall any progress payments become due until updated Contract Schedules are accepted by University's Representative. The accepted, updated Contract Schedule shall be the Contract Schedule of record for the period it is current and shall be the basis for payment during that period. Acceptance of any updated Contract Schedules shall not relieve Contractor from its responsibility to fully complete the Contract within the Contract Time, nor shall it relieve Contractor from sole responsibility for any errors in the updated Contract Schedules.

F. Submission

1. The Contractor shall submit an electronic version (computer backup file) of the monthly update of the Contract Schedule, as well as a Gantt chart of the updated Contract Schedule to the University. The files shall be provided on CD-ROM, prepared in MS Windows format.

G. Obligation

1. Contractor shall perform the Work in accordance with the updated Contract Schedule. Contractor may change the Contract Schedule to modify the order or method of accomplishing the Work only with prior agreement by the University.
3.4 NARRATIVE REPORTS

A. With each monthly updated Contract Schedule, the Contractor shall provide an accompanying Narrative Report. The report shall describe the progress achieved over the past month since the prior update, the progress anticipated during the upcoming month, critical activities, delays encountered during the prior month, delays anticipated during the upcoming month, and an audit of the Contract Time. The narrative shall also discuss the status of major project milestones. The audit shall show current days allowed by contract, days used through the end of the month, days remaining, percent of time used to date, and percent complete as measured by cost loaded schedule, and days ahead of or behind schedule. In the event that the Contractor was delayed by any occurrence during the prior month, the narrative report shall include a listing of all delays that affected the critical path and shall clearly explain the impact the claimed delay(s) had on the critical path and shall include an accounting of days lost or gained.

B. In the event the monthly update shows the Contractor to be behind schedule (negative float), the narrative shall include a description of actions needed to bring the project back on schedule.

3.5 LOOK AHEAD SCHEDULES

A. Provide detailed Look Ahead Schedules every 2 weeks indicating all activities planned during the next 4 weeks.

B. Submit in 11 inch by 17 inch Gantt chart format. Provide as many copies as requested by University’s Representative.

C. Look Ahead Schedule shall be generated from the then current Preliminary Contract Schedule, Contract Schedule, or updated Contract Schedule.

3.6 TIME EXTENSION REQUEST DOCUMENTATION

A. In the event the Contractor shall request an extension of Contract Time, Contractor shall comply with the requirements of the General Conditions, including without limitation, General Conditions Article 8. In addition to the requirements of the General Conditions, as a condition to obtaining an extension of the Contract Time, Contractor shall timely submit a sub-network of the events of the delay that demonstrates the impact to the activities in the Contractor’s then current schedule, as well as the impact to the overall completion date of the project.

B. If the University’s Representative approves the extension of time, the next monthly updated Contract Schedule shall incorporate the subnetwork with the extension of time. In addition the monthly updated Contract Schedule shall contain all changes mutually agreed upon by the Contractor and the University during preceding periodic reviews and all changes resulting from Change Orders and Field Orders.
3.7 AS BUILT SCHEDULE

A. As a condition precedent to the release of retention, the last update of the Contract Schedule submitted shall be identified by the Contractor as the “As Built Schedule”. The “As Built Schedule” shall be submitted when all activities are 100 percent complete. The “As Built Schedule” shall reflect the exact manner in which the project was actually constructed (including start and completion dates, activities, sequences, and logic) and shall include a statement signed by the Contractor’s scheduler that the “As Built Schedule” accurately reflects the actual sequence and timing of the construction of the project.

END OF SECTION 01329