

## SECTION 01 32 17.02 (PROPRIETARY)

### CONSTRUCTION PLANNING SOFTWARE (CPS)

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Web-based construction planning software that aligns with Last Planner System® to facilitate project delivery through better planning and communication practices.

The purpose of implementing a Construction Planning Software (CPS) is to create a more efficient process to achieve a successful project completion utilizing a systematic approach by coordination and collaboration. The intent of CPS is not to replace the Owner's project master schedule or conflict with a Critical Path Method (CPM) scheduling tool, but instead to work in harmony. Using CPS promotes continued collaboration between the field and management staff to allow proactive planning, corrective action, and reduction of workflow obstructions throughout the project life cycle. The cost and time associated with attending meetings and implementation of CPS are to be included within the Bid and/or Subcontractor price.

- B. Related Requirements:
  1. Section 01 30 00 - Administrative Requirements.
  2. Section 01 32 16 - Construction Progress Schedule.
  3. Section 01 78 39 - Project Record Documents.

##### 1.2 REFERENCE STANDARDS

- A. International Organization for Standardization (ISO)
  1. ISO/IEC 27001 Information Security Storage.
  2. ISO Sign on Security (pending)
  3. Lean Construction Institute (LCI), Last Planner System (pending)
  4. Lean Practices and Principles ([www.leanconstruction.org](http://www.leanconstruction.org))

##### 1.3 COORDINATION

- A. Section 01 30 00 - Administrative Requirements: Requirements for coordination.
  1. All contractors are responsible for attending at least one 2-hour training session for proper use of the CPS software. It is the contractor's responsibility to request and attend additional training sessions in order to fully understand the proper use of the program.
- B. Coordinate Work of this Section with owner and project management and scheduling requirements.
  1. Coordination and participation are required by all field foremen/supervisors and project managers for Subcontractors and Suppliers collectively the "Team".
  2. All Trade Contractors and Subcontractors shall coordinate and execute their construction planning efforts including phase planning, make ready planning, weekly planning, PPC tracking, daily planning, and commitments, etc. utilizing the CPS software in conjunction with the specified scheduling software.

3. The “Team” is required to attend “pull plan” sessions to build a plan to reach each milestone in the Project Schedule.
4. At least three (3) weeks prior to starting each scope of work, the “Team” will attend a planning session to coordinate, update, align the Plan with the Project Schedule Milestones.
5. Utilization of CPS may result in adjustments to the Project Schedule. Any adjustments must be validated by a root cause analysis and documentation of any mitigation efforts implemented to meet Project Schedule Milestones.

#### 1.4 MEETINGS, SYSTEM TRAINING AND PROCEDURES

- A. Section 01 30 00 - Administrative Requirements: Requirements for pre construction meeting.
  1. Each contractor shall designate at least one competent person to attend all planning sessions while on site and periodic planning sessions prior to mobilization. The competent person shall have knowledge of the schedule and project details to effectively plan their work in coordination with the project team members.
  2. Each contractor shall supply a tablet (i.e., iPad) or laptop with access to CPS via web browser or application to the competent person for use at each meeting. This may include sub tier contractors as well.
- B. Immediately after award of the Contract and prior to commencing any work at the site provide construction planning software to consultants and subcontractors. Hold a meeting within 10 working days from award of contract to coordinate and train users in use of software and administrative requirements.
  1. Achieve consensus from the project construction team on any issues and concerns with the Contractor's technical management software proposal and the user's functional requirements.
  2. Establish clear lines of communication and points of contact for software management and training.
  3. Establish procedures for users to provide schedule and plan updates, report issues, and to distribute planned tasks to construction teams.
  4. Periodically review the construction planning software to maintain clear expectations and milestone date deliverables.

#### 1.5 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
- B. Provide within [15] [ ] working days the following to the construction administration team.
  1. Product Data: Submit software description, instructions, testimonials, and system requirements.
  2. Provide sample output documents including planning diagrams, tickets (task, milestone, and constraint).

#### 1.6 QUALITY ASSURANCE

- A. Construction planning, collaboration and schedule management software manufacturers data centers are to comply with ISO 27001 security asset management requirements.
- B. Software system to provide information in accordance with the owners’ standards.
  1. [ ]

## 1.7 QUALIFICATIONS

- A. Company specializing in fabricating products specified in this Section with minimum five years' documented experience.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE AND DESIGN CRITERIA

- A. Requirements:
  1. Computers and Mobile devices, compatible with Android or Apple, with internet connectivity for field supervision and office staff.
  2. Password security.
  3. Ability to work with project scheduling software including Primavera P6 and MS Project.
  4. Provide system wide real time updates.
  5. Manage on-the-fly schedule sequencing modifications and task reassignment.
  6. Live reports for delay and scheduling issues.
  7. Critical Metrics Dashboard for review by Owner, Architect, and Contractor.
  8. Lookahead planning for a minimum of four weeks.
  9. Detailed production plan of each project phase, schedule tasks to be performed and allow for the release of work between trade foreman and work areas.
  10. Unlimited users per planning environment at no additional cost.
  11. Remote collaboration and in-person collaboration with Architect, Subcontractors, and other associated parties.
  12. Ability to attach photos and documents to document management and organization schedules.

### 2.2 SOFTWARE DEVELOPER

- A. Software Development Firm:
  1. [To be Specified by Owner]
  2. Substitutions: Not permitted

### 2.3 SUSTAINABILITY CHARACTERISTICS

- A. Section 01 81 13 - Sustainable Design Requirements: Requirements for sustainable design compliance.

### 2.4 REPORT CRITERIA

- A. The software is to provide data and analytics reports including the following:
  1. Daily/Weekly work plans
  2. 6 Week Look Ahead plan
  3. Percent Promise Complete (PPC) reports
    - a. PPC by Week
    - b. PPC by Role
    - c. PPC by Variance Reason
    - d. Variance by Role
    - e. Variance by Week
  4. Constraint Log
  5. Variance Reason

## 6. Overdue Activity

### 2.5 ACCESSORIES

- a. Hardware: Windows PC or Apple Mac or tablet. Smartphone for in field updates.
- b. Software: Internet browser. Recommended Safari, Chrome, Firefox.

### 2.6 SOURCE QUALITY CONTROL

- A. Contractor shall be solely responsible for the coordination between the CPS and all information supplied by his subconsultants and/or subcontractors, suppliers, or vendors, at any tier.
  1. Contractor may provide system connectivity to the Contract Administrator, Owner, Architect, Engineers and Consultants.

## PART 3 - EXECUTION

### 3.1 OPERATION

- A. The CPS utilizing CPS will be utilized from the start of construction to the final handover to facilitate weekly work planning between the consultant/contractor, construction administration team, design team and the owner.
  1. The CPS may be utilized during the design phases of the project by the design team, owner, Construction Management team and Design-Build contractor.
- B. Attend and participate in onboarding, phase pull schedule meetings, and develop a pull schedule plan that aligns with the CPM schedule milestones.
- C. Data to be entered and updated on a daily basis by participating trades and the general contractor.
- D. Team meetings to occur on a weekly basis to provide planning commitments for the following week(s).
- E. Provide on a [weekly][biweekly][\_\_\_\_\_] basis project progress reports to architect, [engineers,] [consultants,] and owner [or owner's representative] along with other documentation and reports described elsewhere in the contract and specifications.
  1. Report format to be provided as [electronic - pdf][hardcopy].
- F. Contractors' CPS data will be made available to the Owner for review as a part of the Owner's Dashboard product.

### 3.2 PROTECTION

- A. Protect devices from damage and theft. Devices to be secure and password protected.
- B. Report lost or stolen devices immediately. Contractor is responsible for removing user or updating user password to the CPS in a timely manner.

END OF SECTION