

WORKFACE PLANNING FOR EPC CONTRACTS

3.0 WORKFACE PLANNING

Owner requires that Contractor implement WorkFace Planning, in accordance with the Construction Owners Association of Alberta (COAA) model as published on the COAA website (www.coaa.ab.ca.) The Contractor shall submit their Workface Execution Plan taking into account the minimum standards of the COAA model contents and Contractor's implementation shall be in accordance with terms and conditions agreed between Owner and Contractor.

The Contractor's WorkFace Planning Execution Plan, complete with a WorkFace Planning Score Card, shall be prepared by the Contractor and submitted to Owner for review and approval no later than 90 days in advance of the beginning of permanent plan installations at the Site or as otherwise agreed.

Contractor shall, or if requested by Owner, conduct periodic audits of its WorkFace Planning efforts including its lower tier subcontractors using the WorkFace Planning Score Card at the frequency and times noted therein. Owner shall monitor and reserves the right at any time deemed necessary to audit using their WorkFace Planning Score Card on the execution of the Contractor's Workface Execution Plan throughout the duration of the contract to determine if WorkFace Planning is being implemented in accordance with the agreed upon Workface Execution Plan. In cases where significant deviations to the Workface Execution Plan are identified either by the Owner or the Contractor, the Contractor shall immediately prepare an action plan for correction of the deficiencies and shall immediately implement this plan upon approval of the owner.

The Contractor will divide a Work Design Area into a series of Construction Work Packages (each a "CWP"). CWP's will be issued by the Contractor's engineering group in order to transfer relevant portions of the overall scope of Work to the Contractor's Construction group.

During the EDS or preliminary engineering stage of the project, as a result of agreement between the Contractor's Engineering group and the Contractor's Construction group, the Contractor will identify the CWP's and develop a CWP Release Plan that will specify the number, approximate manhour size, and release date of each CWP. The CWP Release Plan will include standard templates to be used, the number of packages, and planned craft loading to accomplish the tasks in the CWP's. Contractor shall submit the CWP Release Plan to the Owner for review and approval. If Owner has comments on the initial submittal and if requested by Owner, the Contractor will resubmit the CWP Release Plan taking into account Owner's comments in order to gain Owner's approval. The date of the Contractor's initial submittal of the CWP Release Plan is to be agreed upon between Owner and Contractor at the beginning of the EDS or preliminary engineering phase.

Each CWP will include but not limited to the following:

- A detailed description of the Scope of Work for a defined area that has been released for execution to the Contractor's Construction group
- A detailed Bill of Materials (BOM) specifying all quantities making up the scope of Work released by the CWP.
- A schedule detailing commencement and completion dates for scope of Work released by the CWP.
- Technical requirements, references and information pertinent to the scope of Work released in the CWP.
- Safety considerations with respect to the Work / Risk Assessment.

As Issued-for-Construction (IFC) CWP's are released, the Contractor and/or its lower tier subcontractors shall provide the following:

- Roles and responsibilities of Owner and Contractors
- Safety considerations with respect to the Work / Risk Assessment.
- Dedicated, suitably trained WorkFace Planners who have either completed the COAA Fundamentals Course or equivalent Owner-developed course to break the CWP into a series of specific WorkFace Planning work packages called Field Installation Work Packages (FIWP's). These dedicated WorkFace Planners will be accountable to complete and signoff as ready the FIWP's before the FIWP is released to the crew.
- Dedicated Integration Planner with assigned responsibility to coordinate and lead the efforts of the WorkFace Planners and resolve anticipated conflicts proactively between the different FIWP's.
- Dedicated Resource Coordinators with assigned responsibility for areas such as material identification and control, scaffolding, construction equipment, specialty tools, and other resources needed to support the WorkFace Planning effort.
- Experienced personnel including craft supervision to review the scope and completeness of FIWP's.
- Work force and leadership to execute FIWP's.
- Personnel and systems to report progress and performance of FIWP's in an agreed upon format and frequency with the Owner.
- Prepare and maintain detailed schedules and spreadsheets tracking, monitoring, and closing-out FIWP's from start to completion of each FIWP during the construction phase of the project.
- Provide quality assurance personnel to audit compliance to FIWP instructions and requirements

Prior to the CWP's reaching IFC stage, the Contractor and/or its lower tier subcontractors shall develop a preliminary FIWP Release Plan for each CWP indicating the approximate size and planned release date for each FIWP. The Owner will review the Contractor's FIWP Release Plan and approve. If Owner has comments on the initial submittal and if requested by Owner, the Contractor will resubmit the FIWP Release Plan taking into account Owner's comments in order to gain Owner's approval. The date of the

Contractor's initial submittal of the FIWP Release Plan is to be agreed upon between Owner and Contractor during the EDS or preliminary engineering phase of the project.