WORKFACE PLANNING ABSOLUTES

WHEN IT COMES TO WORKFACE PLANNING, ARE THERE ANY ABSOLUTES? IF THERE ARE, WHAT ARE THEY? DURING THE SESSION THE PANEL WILL ALSO DISCUSS THE BENEFITS OF WORKFACE PLANNING.

Speakers:

- Perry Mayer – Construction Planner, Nexen
- Geoff Ryan – Manager of Project Controls, Rally Engineering
- Ron Nalewajek – Vice President of Strategic Planning, Ledcor Group of Companies

Moderator:

- Ben Swan – Implementation Director, Element Industrial Solutions

Questions to Panel:

1. What are the WorkFace Planning Absolutes with regard to the Front End of a project?
    - Ron – The key to successful implementation of WFP is time. We need to bring engineering and material deliveries to a state where contractors can build effectively & safely. Contractors can be brought in early enough to prevent productivity loss. Many owners are taking ownership in the planning but must pass along to contractors in time.
    - Perry Mayer – The absolute is integrating construction workers back into the owner organization. Our firm has moved construction into the front-end to get engineering deliverables lined up with the technology we want to use to create FIWPs.
        i. Philosophy – what does it mean to the organization; what do we want to accomplish – into CEP & PEP
        ii. Strategy – Procedures that are written & signed off; work flows
        iii. Requirements to execute – strategies
    - Geoff Ryan – As engineering looks for direction, information needs to come from owners with procedures & expectations for everyone on the project. Engineering needs to plan to deliver on the schedule and their must be development of Path of

Construction to build CWP in line with EWP. Deliverables must meet the construction needs in line with schedule. Procurement must have a good definition of scope by understanding the CWP. Fabrication must be procured to serve the needs of the CWP eg. Modules – what to leave on & what to leave off.

2. What are the WorkFace Planning Absolutes with regard to the creation of the Field Installation Packages?
   - Ron Nalewajek –
     i. Size of FIWP is important to design to measure progress readily. Optimum size is a shift crew size – 21&7 or 10&4
     ii. Workflow staged so no delay in work delivery
     iii. Buy-in from stakeholders – owner/engineer teams and any other interface involved
   - Perry Mayer –
     i. Use CWP and work out lower level detailed, multi-discipline plan for Path of Execution. Sit with structural, piping, electrical, scaffold & insulating to define work areas & execution plan from which comes an FIWP Release Plan tailored to the same CWP. Interdependencies must be addressed before creation of the FIWP.
     ii. Creation of FIWP clearly needs constraint definition regarding material, men, tools, equipment, man hours. Need to be confident that an FIWP placed on a schedule matches the estimate. Listing man hours as a constraint against the package.
     iii. Consistency in developing work packages for the multi disciplines – scorecards, progressing, travel sheet, how to mark up isometric drawings, etc.
   - Geoff Ryan – Planners are key to the building FIWPs, for the planning of execution of work and removal of constraints. The schedule has to be the ruling document on the project. The plan to develop FIWP must be in line with the schedule to align engineering, procurement and all stakeholders. Constructors must make sure construction execution is perfectly aligned with the schedule – believable, achievable & must stick to it.

3. What are the WorkFace Planning Absolutes with regard to the Executing and Progress Tracking of the planned work?
    - Ron Nalewajek –
        i. Tracking should be at the FIWP level. There must be a continual backlog of fully completed FIWPs.
        ii. Have an Integration Planner to be part of the execution of FIWP.
        iii. Owner must take responsibility of the integration of other activities.
        iv. A sign off on FIWP would earn progress in the schedule.
    - Perry Mayer –
        i. Construction Owners (Foreman, GF) have to have the balls to say 'It ain't ready' if it's not. Shadow CMT need to be out removing constraints that will come up in the future – planning vs reacting
        ii. Tracking tools are in the FIWP – identify work that can be progressed and attach man hours that match the estimate. Track progress by earned hours on each activity – there has to be consistency in reporting so as not to bias against subcontractors.
        iii. In process verification – listing out tasks in FIWP & outline progressing tool – once progress comes in, engage owner quality assurance to inspect work completed. Misinterpretations, errors are corrected early on.
    - Geoff Ryan –
        i. If you track it, you manage it. Tracking must happen. There must be a process to remove constraints to complete work and put value on the package. The standard in the future will be software tools for tracking progress – how much and what has been done. 3D software will move from a Want to a Need once it starts to be used.

4. Why do you believe we need to use WorkFace Planning?
    - Ron Nalewajek – When you improve productivity, you can reduce the number of men on site, which impacts camp costs. Reduced rework and lower costs because FIWP is complete before it goes to the field. Mitigate safety issues.

- Perry Mayer – We need to increase the amount of time that men install equipment
    i. Get foreman away from fire fighting to mentoring men
    ii. Statistics show that the foreman is often the youngest, less experienced men because of the current chaos on projects. Need to put experienced people back into management positions.
    iii. Better scope definitions so FIWP are executable.
    iv. More consistent progress reporting.
    v. Cut down on the amount of punch items at turnover. Whatever is tracked can be managed & completed. The level of confidence rises with completion of tasks.
- Geoff Ryan – Development of an engineering model for WFP needs and awakening of understanding. Engineering deliverables needs to be a deliverable that can be constructed. WFP gives the model of the size of the chunks that need to be produced by engineering and this brings focus back to engineering to clearly define the project route & the finish line.

Audience questions:

1. Do you handle hydro test packages differently than FIWPs?
    - Geoff Ryan – different but the same. Using software, great way to transfer from bulk systems with Hydro Test packaging. Very good fit on projects and brings Work Face planners into the process.
    - Ron Nalewajek – Hydro Testing is part of a spool in putting modules together. Bring this in early enough and turnover is much smoother.

2. WorkFace Planning is bringing morale up on job sites because trades men are satisfied with a day's work. Safety, quality & morale is better.

3. Project outcome was that the Job Steward had no work to do because all of the issues were worked out before the work went out to the field.

4. Are there differences in how you package work between trades and how do you see collaboration in multi discipline packaging?

- Perry Mayer – FIWP is for a crew and still needs separate packages for different disciplines. There has to be a Path of Construction to tie these packages together.
- Ron Nalewajek – Different disciplines required different levels of accuracy & timing and WFP is the critical element of success.
- Geoff Ryan – Better model to put all discipline planners together to exchange collaborative information.