Level 1 Schedule Development

A Level 3 Schedule

The Level 3 (L3) is a schedule that includes all project scope, sequences, logic ties (using CPM), resources, and durations. It enables effective coordination among the GC and other trades, identifies critical paths and variances, supports change management and delay analysis, and ensures alignment with overall project goals for timely and cost-effective completion.

Review Project Scope

When reviewing the project, ensure you understand the **project scope** of work, the **contract documents, specifications, drawings, proposal clarifications,** and other key information.

Gather All Required Information

1. Save a copy of the **Resource Curve Template** into the project folder.
2. Collect the following information and verify their accuracy:
    a. **Hours to be worked per week.**
    b. **Major milestone dates** from the GC schedule.
    c. **Electrical activities** listed in the GC schedule.
    d. **WBS structure** from GC.
    e. **Accubid estimate**, including internal subs (technology, civil, etc.) if they are part of the resource curve.
    f. **Lessons learned** from similar projects
    g. **Lead times / Delivery dates** for material, equipment, and Owner furnished equipment**.**
    h. **Takt Maps** that show sequence and flow of work
    i. **Activity ID and Naming** conventions
    j. **Risk Register** (if available)

Setup the P6 File

Once you've gathered required information, provide the scheduler with the WBS structure. They will create the framework in P6.

Generate Activities

1. **Review** example schedules and fragnets, using them if applicable and available.
2. WBS and GC schedule activities, and if unclear, modify to create a logical breakdown.
3. Add standard activities under each WBS section as needed, including the Activity ID and Name.
4. Standard Activities:
    a. VDC/BIM Development
    b. Procurement
    c. Set Equipment
    d. Install Conduits / Raceway
    e. Pull Cable
    f. Terminate Cable
    g. Lighting / Lighting Controls
    h. Fire Alarm System
    i. Security & Sound System
    j. Install Devices & Trim
    k. Quality Checks & Inspections
    l. Test and Commissioning

Import Loader into P6

1. Enter **activity names** and **hours per week** into the template.
2. Export **labor hours from Accubid**, grouping line-items to align with activities.
    a. Use a **Pivot Table** to summarize hours by activity.
3. Add **indirect hours** (supervision, cleanup, orientation, labor factors) using multipliers.
4. **Validate** that the hours in the template match the estimate total.

Incorporate Risk and Contingencies

1. Using GC milestones and activities as a guide, or your best judgement, assign start and finish dates into the template.
2. Review **average crew sizes**: If crew size seems unrealistic, adjust dates to flatten the curve.
3. Cross-check with **Procurement** and long-lead items to ensure start dates are achievable.

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Integrate Milestones and Constraints

1. Refresh **Pivot Tables** to generate the initial curve.
2. Look for **spikes**, **steep ramp-up/down** rates, or unrealistic workforce peaks.
3. **Adjust start/finish dates** (while maintaining GC milestones) to smooth the curve.
4. **Validate** the activity breakdown with the PM team and Field Leadership.

Review and Validate the Schedule

1. **Save** the final Resource Curve file in the project folder.
2. **Share** with PM team, Field Leadership, and estimating team.
3. **Document key assumptions** (crew sizes, work hours, indirect factors) for future reference.

Finalize and Distribute the Schedule

1. Use the curve to **forecast** labor needs, **support** look-ahead schedules, and identify **risk areas** (e.g., workforce shortages).
2. **Update** the curve if major scope changes occur, or if GC milestones shift.

Monitor and Update the Schedule During Execution

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