

Schedule Management



Schedule management is the process of understanding the major milestones on each project and how tasks and deliverables can impact achieving those major milestones. A project schedule helps outline the project specific deliverables, tasks, durations, sequence of activities, and critical path. Schedules also help the project team know who is completing each task and deliverable and when they will be completed.

Why Important

Well-structured schedules provide clear, effective plans for how a project will be delivered.

- A one-stop shop that clearly displays the project specific tasks/deliverables and the prerequisites needed to reliably deliver a project on time.
- Maps out the order and flow for completing the project based on the timelines and deadlines set by the project team.
- Displays the tasks and activities on the critical path and allows the project team to better understand how accelerations and delays impact the critical path.
- A reliable and accurate schedule allows team members (discipline leads & project managers) to plan and allocate the appropriate resources to perform a task/complete a deliverable. This, in turn, could yield more accurate cost projections.
- Schedule updates reflect what happened, track progress, and display upcoming work. This allows the PM to know if the project is proceeding according to plan and will be completed on time.
- Reviewing updated schedules allows team members to identify potential risks such as schedule conflicts, slippage, or resourcing issues may reside. Early identification allows teams to discuss mitigation strategies, decreasing the impact on the project.

Key PM Responsibilities

Review Baseline Schedule
Ensure schedule aligns with the project scope and is reasonable with no fatal flaws.

Update SAP Milestones
Ensure forecasted and confirmed milestones dates are updated in SAP. Submit SCR, if necessary.

Review Schedule Updates
Review schedule updates for key delivery dates and the status of critical items.

Know the Critical Path
Know what tasks are on the critical path and understand how unforeseen issues can impact it.

Schedule Communication
Discuss key deadlines, schedule updates, and issues in status meetings and status reports.

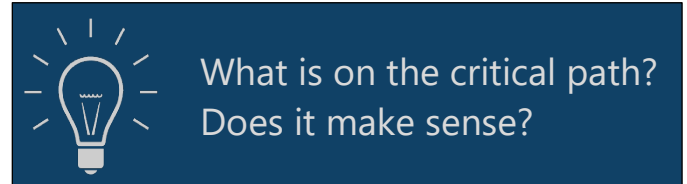
Key Things to Consider

Baseline Schedule Review

- Has the proper coordination amongst the project team occurred?
- Are the correct tasks/deliverables, duration, and logic (order of the tasks/deliverables) included?
- Are all project team members on the same page with the deliverable due dates? Are there concerns with meeting these?
- Do all project team members know what tasks are on the critical path?
- What could quickly derail the project? Are these identified/included in the schedule?
- Are reviews and NCDOT activities properly accounted for in the schedule and is the responsibility assignment clear?

Updating and Management of Project Schedule

- Are tasks being completed and are deliverables being turned in on time?
- What needs to be done on the project in the next weeks and months (commonly referred to as a “Look Ahead” period)?
- Are there changes to the tasks or deliverables on the critical path?
 - If so, what are the impacts and are any corrective actions needed?
 - If corrective actions are required, what actions are needed and who should implement each action?
- If unforeseen significant issues arise, how is the schedule impacted and can the impacts be mitigated?
 - Does the issue impact the Purpose and Need, push financial milestones into a different Fiscal Year (i.e. ROW, UTL, or LET date), or change the scope of the project?
 - Are the impacts significant enough to require discussions with management?
 - Are purpose and need or if a major milestone is impacted?
 - Will changes require a Schedule Change Request (SCR) to be submitted?
 - Are there changes that may require re-prioritization (i.e., purpose and need modifications or budgetary issues)?



Schedule Communication

- If delays are occurring on non-critical path items can additional time be given?
- Are public facing websites or reports being updated to align with current schedule?
- Have any schedule updates or decisions made in a vacuum and are there unintended consequences?
- What could quickly derail the project? Are these identified/included in the schedule?
- Is the updated schedule accessible to all team members on SharePoint or team sites so all team members have access to the schedule?

Best Practices & Common Pitfalls

Best Practices	Common Pitfalls
<ul style="list-style-type: none"> ✓ Coordinate early and often with ROW, utilities, regulatory agencies, and other key team members. ✓ Verify proper predecessors or successors are included in the schedule. ✓ Review the critical path to ensure that it is “logical”. ✓ Ensure that critical NCDOT actions (funding requests, reviews, etc.) are accounted for. ✓ Look at concurrent/overlapping tasks to ensure they are logical. ✓ Ensure that the proper level of detail and major milestones are included, as appropriate for each project. ✓ Ensure proper Division or Management coordination occurs prior to submitting a SCR. ✓ Ensure financial milestones align with the State Transportation Improvement Program (STIP). 	<ul style="list-style-type: none"> ✗ Unrealistic schedule & unclear tasks. ✗ Underestimating the time for critical path items (permits, Right of Way acquisition, utility relocation, etc...). ✗ Failure to account for activities that are out of the project team’s control (private utility relocations). ✗ Failure to account for holidays and/or seasonal restrictions. ✗ Not properly accounting for stakeholder/agency reviews. ✗ Not taking time to properly communicate schedule changes to team members.

Tools

Microsoft Project Template ([mpp](#) or [pdf](#))
[6 Key Items to Review on Schedules](#)

Definitions

- Critical Path:** *The minimum time necessary to complete the project. This identifies the longest sequence of dependent tasks within a project.*
- Milestone:** *An event, significant accomplishment, decision, or deliverable used to measure progress toward completing the project.*
- Major Milestone** *Formal SAP milestones that provide details for project delivery reporting and spend plan accounting to measure delivery success and obtain financial stability. Major milestones include: Notice to Proceed (NTP), Environmental Document, ROW Plans Complete (RPC), R/W Acquisition Begins, Utility Relocation by Others Begins, Utility Relocation by Others Complete, All ROW parcels Accessible, and LET.*
- Float:** *The amount of time a task can be delayed without impacting the overall project completion date.*
- Schedule Change** *The act of the NCDOT PM submitting a formal Schedule Change Request in SAP to change a major milestone within the project schedule.*