NCDOT Division of Aviation Guidance for Project Schedule Preparation

February 23, 2016

Note: Project schedules are required for Awards issued since January 2016. In addition, DoA will approach Sponsors of certain existing grants where cost and/or duration merit a schedule. In the near term, DoA will attempt to define thresholds that require a project schedule, and further identify acceptable scheduling parameters for smaller, simpler, and/or short-duration projects.

Background

Due to the complexity of projects at the Division of Aviation, the best practices of project management are required to ensure all stakeholders' needs are met in a comprehensive and timely manner. This includes creating and using a schedule for each project. Schedules are vital to the completion of a project as they establish and link vital tasks, which then create milestones to measure progress. If no schedule exists, progress is easily misjudged which leads to unmet expectations and ultimately extra costs and time wasted.

Type of schedule

The SPONSOR will develop and maintain a critical path method (CPM) schedule for the duration of each project, utilizing MS Project® software (version 2010 or later). An initial schedule (with baseline) will be developed and then maintained/updated for the duration of the project. At a minimum, the schedule shall include tasks for all proposed activities, even if current task orders do not include all such activities.

What to Include

The schedule will include tasks that portray a sufficient level of detail to accurately portray the numerous and separate tasks that will occur as part of planning. Links that are needed to establish logical flow of project progression should be included as well. The schedule should include all tasks performed by the sponsor, consultant, local government, and the Division of Aviation. The final listing and linkage of tasks must satisfy the APM. The following list of tasks should be used as a guide in developing a work breakdown structure and schedule. The list is not all-inclusive.

Start-Up Tasks – At a minimum, each project schedule should include the following common tasks:

- Scoping Meeting
- Work Authorization Tasks (including drafting, DoA review, fee negotiation, final signatures, etc)
- Request for Aid Tasks (including local match certification, grant agreement process, etc)

Design/Bidding Tasks – These tasks are commonly associated with design work or the bidding process:

- Initial design meeting
- 30%, 60%, 90% design tasks
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- Final Design

- DoA review of design
- DBE/MBE/WBE Goal Determination tasks
- Environmental Documentation tasks
- Cost estimate by engineer
- Prepare construction/bid specifications
- Advertise project (should include publishing, bid period, and responding to RFIs)
- Review of bids and proposals

Construction Tasks – These tasks are commonly associated with construction work in projects:

- Contract Execution
- Pre-construction meeting
- Contractor mobilization/Site preparations
- Construction process (specific tasks should be included for indication of progress)
- Final inspection/Punch-list Process (includes a pre-final inspection and final inspection)
- Closeout
- Post-construction and warranty period

Land Acquisition Tasks – These tasks are commonly associated with land acquisition processes:

- Appraisal
- NCDOT Right of Way Review
- Review Appraisal
- Negotiations (If necessary)

Float – The allowance of extra time to accomplish a task than is initially estimated is considered "float". It may be appropriate to use float in developing a project schedule especially one that has a significant level of effort. The float or extra time may be consumed to put a lagging project back on schedule after unforeseen events. The SPONSOR's use of float will be reviewed by the APM with the rest of the proposed schedule.

MS Project® Formatting

All tasks will be labeled with a task description and completion date adjacent to the progress bar, and will graphically portray all logical task links. Enable the gridline feature using row dashes. Tabular data shown to the left of each activity bar will include, in order: Task ID Number, Task Description, Duration, Predecessors, Start Date, and Finish date. Critical path tasks must be shown in red. When setting up the project calendar use a 5-day work week.

DoA-specific task durations should be established as follows:

- Review Work Authorization: 12 business days
- Review independent fee estimate (IFE): 20 business days
- Review/Approve Request for Aid: 12 business days
- Obtain Approval for Project at Board of Transportation: 40 business days

Electronic files of the schedule will be emailed to DoA with each project status update and/or invoice. At that time, the updated schedule will utilize the "black bar feature" on each activity task bar to indicate the approximate percentage completion of each activity.

Consultant Compensation

The cost of procuring MS Project and training consultant staff is considered to be an overhead item. However, consultant time to generate and maintain project schedules is a legitimate component of work scope development.

The Division of Aviation considers updated schedules as a sufficient substitute for a Quarterly Status Report.