INTEGRATED PROJECT DELIVERY

APRIL 2019 NEWSLETTER

> a CULTURE where we PROMISE what we are GOING TO DO and DELIVER what we PROMISE
>
> – NCDOT's Project Delivery Vision

Hello all. Last month, the NCDOT Preconstruction Workshop was held at the Durham Convention Center on March 26 and 27. This workshop is held annually to share strategies, present new developments, and discuss opportunities to overcome obstacles in delivering projects more efficiently. During the Preconstruction Workshop, the IPD Team presented on training and the following four phases of project delivery: Planning, Environmental, Design, and Construction. The presentations described the research conducted to identify best practices, including interviews held with other state DOTs and NCDOT staff. The concepts presented included integrating work products, use of flexibility in the process to meet the needs of individual projects, and consistency throughout the process so that information is carried forward from one phase to the next. Below are just a few examples of what the IPD teams discussed and the big picture concepts they presented at the Preconstruction Workshop. As always, if you have any questions, ideas or suggestions on areas of improvement please submit your thoughts by visiting the Integrated Project Delivery webpage on Connect NCDOT.

Training Modules

- Developed and initiated Project Development Roles and Responsibilities Training – *initial focus is on Preconstruction PMs and Technical Units and how they function in a matrix organization*
- Developed and about to initiate Project Management Training – *initial focus is on Preconstruction PMs with a focus on the PM role as a discipline*
- Developed and about to initiate MS Project Schedule Training – *initial focus is on Preconstruction PMs, what is included in a schedule, why it is important, and how to utilize a schedule on a daily basis as a PM*

Planning Phase

- Provide training for Corridor Developer Engineers and MPO/RPO's on the use of Project ATLAS;
- Develop initial design concepts using readily available GIS data, flagging public concerns, human and natural environmental constraints, ROW issues, utilities conflicts, and providing better cost estimates to the STIP unit. This will assist in preventing rework and allowing a more accurate STIP;

- Better establish the usage of project SharePoint sites with usage of "key document" identification, resulting with a common location/system for all projects regardless of what phase it is in which will be intuitive for staff and industry partners;
- Work with various NCDOT units so they better understand how their work should be fashioned so it may be better utilized in future phases of the project; developing work products with future phases, units, and ultimately construction of the project in mind;
- Combine the above information into a Project Scoping Report for scoring and STIP creation that can also be used by Division Engineers for project assignments and team creation.

Environmental Phase

- Carry forward information from the Project Scoping Report for project initiation which will allow greater reliability of project schedules and limit rework;
- Move design elements such as hydraulic assessments and pavement design, as well as determinations on project funding and construction delivery method to the start of the environmental phase;
- Encourage advanced ROW acquisition for projects with complete takes; and
- Move final surveys for projects with only a Build and a No Build alternative forward.

Design Phase

- Increase construction expertise and value engineering concepts during design;
- Develop contract letting work flow process;
- Simplify design process from eight reviews to 30%, 60%, and 90%, and Letting;
- Standardize specifications, standards, and permit drawings working with technical units;
- Provide touch points for traffic, construction, operations, and maintenance at project initiation and at the 30% review to ensure that the project has this feedback before 60% design begins; and
- Transition to electronic plans and 3D designs.

Construction Phase

- Work with our Construction Industry partners to assess opportunities for improvements
- Encourage more cost-plus bidding approaches (A+B);
- Allow contractor-designed work zone traffic control plans;
- Include the project manager and lead designer in construction support and a post-construction assessment of the contract;

- Allow CEI to collect asset management data in a GPS format to assist operations and maintenance and future design work; and
- Work with utilities to improve coordination and expedite utility relocations.

Next Steps

- April is all about working with NCDOT units and Divisions to integrate these concepts into a new process flow map. Also identifying tasks to be performed that are not included yet.
- May is all about developing a roadmap, identifying and prioritizing tasks, defining task teams with DOT staff included, and committing to a schedule and deliverables.
- The goal of IPD is to have the initial prioritized tasks fully developed, implemented, and training and tools available with performance improvements being realized by the end of 2019.

Support

If you have questions, need assistance or have suggestions, please submit your request through the Integrated Project Delivery webpage using the Contact Form on Connect NCDOT.