

NCDOT Project Shelving Guidance

Prepared by the NCDOT Environmental Policy Unit
in conjunction with the Project Management Unit and others



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NCDOT Project Shelving Guidance

Purpose of this Guidance

Background

The following guidance is intended to assist Project Managers in determining appropriate stopping points for projects that are underway, but have been delayed, removed or unfunded in the Draft State Transportation Improvement Program (STIP). The major phases of developing a project from Project Initiation through the development of 100% Design plans, as well as the steps involved in those phases, are presented here as guidance for Project Managers when considering prudent items to complete if funding for a project is delayed or dropped completely. By determining which phase a project is currently in, Project Managers can make better decisions on which of the remaining steps should be completed before shelving the project. This document should not be considered as prescriptive, but rather as an aid for Project Managers to make measured decisions when shelving a project.

Considerations

Generally, Project Managers should consider suspending studies after completing the remaining steps of the current project phase. However, some of the steps noted in this guidance are time consuming and involve considerable effort. Project Managers should consider whether completing certain steps would be of benefit, assuming the project will resume at a later date. This guidance will assist Project Managers in determining which steps are important to complete, and which steps may involve considerable effort or risk to complete before shelving a project.

The timing at which NCDOT Planning and Programming intends to close out project funds should be considered. This is typically not a hard date but does provide some structure when considering how realistic it might be to finish a task or group of tasks. Project Managers should also consider the likelihood that the shelved project will re-surface within the next STIP cycle. Project Managers should coordinate with the Division Engineer to determine if a project has the potential to be included in the next STIP, or if it is likely not to resume in the near future. Thinking about this will provide a framework for deciding which steps or phase(s) to complete.

Documentation of Work Products

Background

This guidance also provides a checklist to record completed activities and work products for shelved projects. Completed activities and work products should be checked off within the sections below ([key documents](#) are noted in the steps below in bold text). The completed checklist should then be placed on the project Connect team site within the Project Management discipline (folder) along with other items such as the Microsoft Project Schedule and the final Project Status Report. The completed checklist will serve as a record of the completed activities, which will be useful if the project resumes to gauge the level and effort of work needed to complete the project. The Project Manager should notify the lead federal agency, typically Federal Highway Administration (FHWA) or US Army Corps of Engineers (USACE), and the NCDOT Project Team that project activities have been suspended. The Project Manager should also relay which items will be completed before activities on the remainder of the project cease.

Generally, there will be some sort of shelf-life for any product that is produced. If a project has a high likelihood of returning to the STIP within one cycle, it likely will make sense to proceed with a number of tasks that are being worked on at the time a project is de-funded or delayed. If the future status of a project is unknown or the delay is expected to last for 5 years or longer, the shelf-life and usefulness of a task should be carefully scrutinized by the Project Manager before a decision is made on whether to complete that task. The steps and phases presented below are neither discrete nor all-encompassing, and often run concurrently on many projects. In addition, depending on whether a project has new location components or involves widening an existing facility, the timing of some of the steps will differ. Therefore, some of the steps below stipulate “widening” or “new location” to differentiate between these two major project types.

Considerations

The Project Manager should be closely orchestrating all phases of work and ensuring that key documents are uploaded and organized on the project’s Connect team site; this organization serves as a foundation that the project team will continue to build upon. Subsequent phases of work should continue to utilize this file organization structure via Connect, with meeting minutes, final reports, and agency coordination amongst the key documents being tracked. As a reference, a link to the memorandum on the [Use of the Preconstruction SharePoint Application](#) is noted herein.

Project Initiation and Data Collection

Background

This phase generally lays the groundwork for future coordination and initial decision-making with stakeholders, including local governments, regulatory/resource agencies, and the public. Most of this preparatory work will either be completed by the Private Engineering Firm (PEF) or in-house production units within NCDOT. Generally, the time needed from beginning to end of this phase of work is approximately 3-6 months from issuance of Notice to Proceed (NTP) but can vary depending on the project complexity and priority.

Considerations

Many of the steps in this phase are not labor intensive, are internal processes, and can be completed rapidly. If underway, those that can be completed with minimal effort are good candidate steps to finish before shelving the project.

In order to minimize confusion, if a Landowner Notification Letter or other public involvement has not been completed, those activities should likely be delayed until the project resumes.

Likewise, any work involving field studies (Environmental Field Review, Jurisdictional Verification with Agencies) should not be underway if a Landowner Notification has not been sent.

If the Landowner Notification Letter has been sent prior to consideration of project shelving, steps involving Environmental Field Review, wetland and stream files (WEX/WET), Preliminary Jurisdictional Determination (PJD) Package, and Jurisdictional Verification can be considered in the context of how long the project is expected to remain inactive. These steps will likely need to be revisited if a project is shelved for more than 2-3 years. If the project is likely to resume in the next STIP cycle, then completing these steps may be beneficial in order to acquire a Jurisdictional Verification (and preferably surveyed mapping), which will expedite any future agency reviews when the project resumes. If the time for resuming the project is unclear, then postponement of these steps may be advisable. The Traffic

Forecast generally has a shelf life of 5 years; completing the forecast should be strongly considered if it is likely the project would resume in the next STIP cycle.

The Project Manager should be closely orchestrating this phase of work and ensuring that key documents are uploaded and organized on the project's Connect team site. Key documents that may be within this phase are noted below in bold.

Steps

- Evaluate Data from Express Design
- Develop Vicinity Map and Study Area Map**
- Conduct GIS Review
- Develop Environmental Features map**
- Historic Architectural Screening**
- Historic Architecture Eligibility (if needed)**
- Archaeology Screening**
- Archaeology Eligibility (if needed)**
- Traffic Forecast (No-Build and Build for Widening projects)**
- Traffic Forecast (No-Build for New location projects)**
- Geo-environmental Screening**
- Crash Analysis**
- Bicycle and Pedestrian Needs**
- Review Local Plans
- Landowner Notification letters**
- Other Initial Public Involvement (if warranted)
- Conduct Project Planning Field Review
- Conduct Environmental Field Review (Widening)
- Develop Wetland and Stream file (WEX-Not verified by agencies) - Widening Projects**
- Prepare PJD Package (Widening)**
- Conduct Jurisdictional Verification with Agencies (Widening)**
- Develop Wetland and Stream File (WET – Verified by agencies) -Widening Projects**
- Determine Hydraulic Requirements (Widening)
- Prepare Community Characteristics Report (Or Collect Applicable Data)**
- Request Anticipated Mapping (mosaic, orthophotography, shell plan sheets, preliminary mapping, final surveys)

Project Coordination

Background

This phase of the project involves outreach to various NCDOT Units, local governments, and state and federal agencies. This project phase is generally 3 to 6 months in duration, and completes the NEPA and SEPA scoping process.

Considerations

The preparation of the Project Data Sheets can be accomplished primarily by compiling information from local plans, websites, and other readily available sources. The data will be useful if and when the

project resumes. However, the other steps in this phase will involve input and time from external stakeholders and resources and should likely be postponed until the project resumes unless continuing with these steps will provide information that would be beneficial and relatively up-to-date during the next STIP prioritization cycle.

The Project Manager should be closely orchestrating this phase of work and ensuring that key documents are uploaded and organized on the project's Connect team site. Key documents that may be needed within this phase are noted below in bold.

Steps

- Prepare Project Data Sheets**
- Conduct Internal Scoping Meeting
- Coordinate with Local Stakeholders (as warranted)
- Prepare and Distribute Start of Study Letters/Memos**
- Conduct External Scoping Meeting (If needed)
- Conduct Merger Screening (If needed)
- Document Scoping/Screening Process – Minutes, Comments, etc.**

Purpose & Need and Alternatives Development

Background

This phase involves the steps necessary to establish the Purpose and Need Statement and identify the design alternatives to review in detail. This phase can command a considerable portion of the overall preconstruction schedule and many of the steps in this phase of the project involve considerable time and effort (4-9 months) depending on the specific step considered and the complexity of the project. The value of completing each step should be evaluated with respect to the effort needed to complete the step, the potential involvement of external stakeholders, and the usefulness and shelf-life of the deliverable to determine if completion is warranted.

Considerations

If considerable time is likely to pass before the project resumes (5 years or longer), the Project Manager should consider deferring completion of the traffic forecast and/or the traffic capacity analysis if those items are not already completed at the time a project is being delayed. The preparation of the Purpose and Need Statement should likely be completed if the necessary information is available; a completed Purpose and Need Statement could be useful when project studies resume. The design steps of Develop Typical Sections, Identify Alternative Concepts, Alternative Screening, and Identify Detailed Study Alternatives could be time consuming and require considerable effort. If the efforts to identify alternatives are well underway, then completion of those steps would be of benefit when the project resumes. However, if there has been little or no effort in identifying alternatives, the Project Manager should evaluate whether commencing with those steps will be beneficial. Steps involving public outreach and agency coordination should likely be postponed until the project resumes.

The Project Manager should be closely orchestrating this phase of work and ensuring that key documents are uploaded and organized on the project's Connect team site. Key documents that may be within this phase are noted below in bold.

Steps

- Prepare Traffic Capacity Analysis (No-Build for New Location / No-Build and Build for widening)**
- Review Problem Statement
- Coordinate with Local Government Concerning Project Purpose and Need
- Prepare Draft Purpose and Need Statement**
- Conduct Public Meeting (If applicable)
- Public Meeting Summary** (If applicable)
- Concurrence Point 1 Meeting (For Merger Project)
- Develop Typical Sections**
- Identify Alternative Concepts (Using GIS and Readily Available Information including ortho-photography or shell mapping)
- Alternative Screening Report** (If needed)
- Concurrence Point 2 Meeting (For Merger Project)
- Merger Meeting Packets, Signature Forms and Minutes (For Merger Project)
- Document Any Agency Coordination Decisions outside of Merger Process
- Document Any Project Team Decisions for Merger or Non-Merger projects
- Document Detailed Study Alternatives**

Technical Studies

Background

The steps involved in this phase include technical analyses and the preparation of technical reports that may be helpful or needed for regulatory review, preliminary design and document preparation. These steps can be time consuming and require considerable effort (4-8 months) depending on the complexity of the project.

Considerations

If work has not started on the steps listed in this phase, then they should likely be postponed until the project resumes. If any of the analyses or reports represented in these steps are well underway, the Project Manager should consider completing those studies, as that information will be useful when the project resumes. If a Notice of Intent for projects involving preparation of and Environmental Impact Statement (EIS) has been filed, the Project Manager should consult with the lead federal agency and determine whether to rescind it to stop the “One Federal Decision” clock. Although the Notice of Intent is not identified as an NCDOT Key Document, it is extremely important that the NCDOT Project Manager coordinate with the lead federal agency regarding its status when faced with shelving a project.

The Project Manager should be closely orchestrating this phase of work and ensuring that key documents are uploaded and organized on the project’s Connect team site. Key documents that may be within this phase are noted below in bold.

Steps

- File Notice of Intent (EIS projects)
- Prepare Traffic Forecast for Build Alternatives (New Location)**

- Develop Design Criteria**
- Finalize Natural Resources Technical Report (Widening projects)**
- Conduct Environmental Field Review for Build Alternatives (New Location)
- Develop WEX File for Build Alternatives (New Location)**
- Prepare PJD Package for Build Alternatives (New Location)**
- Conduct Jurisdictional Verification with Agencies for Build Alternatives (New Location)
- Develop WET File for Build Alternatives (New Location)**
- Prepare Natural Resources Technical Report (New Location)**
- Prepare Historic Resources Report (If Needed per Cultural Resources Screening)**
- Prepare Archaeology Report (If Needed per Cultural Resources Screening)**
- Historic Effects Determination form**
- Determine Hydraulic Requirements (New Location)
- Prepare Hydraulics Planning Report**
- Utility Analysis and Preliminary Routing**
- Develop Public Meeting or Hearing Map as dictated by project**

Initial Design

Background

This phase involves the steps necessary to complete the functional designs (for new location projects), preliminary designs (for widening projects), and preliminary cost estimates. All items included here should likely be stopped after preparation of functional or preliminary designs, as they all either have a shelf life or involve outside stakeholders (i.e. Utility companies).

Considerations

Strong consideration should be given to completing functional or preliminary designs once they are underway, as these have a long shelf life and would be very useful when resuming the project. There is substantial effort required to produce the designs, so Planning and Programming funding input should be considered. Initial Design Plan development can require 4 to 6 months effort. If there is strong indication that a project will have enough support to be funded within the next two years, NCDOT should consider requesting applicable mapping needs and when to implement them as part of the yearly Photogrammetry and Location and Surveys work planning meetings.

The Project Manager should be closely orchestrating this phase of work and ensuring that key documents are uploaded and organized on the project's Connect team site. Key documents that may be needed within this phase are noted below in bold.

Steps

- Request Applicable Mapping Needs
- Prepare Functional Designs for Build Alternatives (For New Locations Projects)**
- Prepare Preliminary Plans** (if applicable for Widening Projects) – See 25% Plans Phase
- Prepare Construction Cost Estimate**
- Prepare R/W Cost Estimate**
- Prepare Utility Cost Estimate**
- Prepare Relocation Report**

- Concurrence Point 2A Meeting (For Merger Project)
- Merger Meeting Packet, Signature Form and Minutes**
- Document Any Agency Coordination Decisions
- Document Any Project Team Decisions

Environmental Documentation

Background

This phase involves completing and approving the necessary documentation to comply with the National Environmental Policy Act (NEPA) or State Environmental Policy Act (SEPA). The completion of all these steps leading to approval and distribution of the document could be very time consuming and require considerable effort (1 to 6 months) depending on the project complexity. However, if any of the steps involving preparation of technical reports (Noise Analysis, Air Quality, Indirect and Cumulative Effects, Community Impact Assessment, and Impact Calculations) are underway, then those reports should be completed as that information could be helpful when the project resumes.

Considerations

The approval and distribution of an Environmental Assessment (EA) or Draft Environmental Impact Statement (DEIS) should be carefully considered if the project is dropped from the STIP at this stage. An EA is generally valid unless there is a scope change. A DEIS must be re-evaluated after 3 years per federal regulations. So, the project could be dropped from the STIP and reinstated in the next update and the documents could still be valid. However, the Project Manager must also keep in mind any controversy stemming from the public as well as local, state, or federal government agencies before deciding to proceed with the approval of an EA or DEIS prior to shelving the project. An alternative would be to complete the EA or DEIS without approval/signature. Once the project resumes, approval and distribution could commence after a thorough review. A completed Categorical Exclusion Checklist (CE) or Minimum Criteria Determination Checklist (MCDC) provides the determination that no further action is necessary with regards to NEPA/SEPA and that the project can proceed to the next phase as planned. If there is considerable public or agency controversy, attempting to complete a CE or MCDC determination could involve considerable effort and time in coordination with the public or government agencies before the documentation can be approved. It is particularly imperative in this phase that the Project Manager notify the lead federal agency, typically Federal Highway Administration (FHWA) or US Army Corps of Engineers (USACE), and the NCDOT Project Team that project activities have been suspended. The Project Manager should also relay which items will be completed before activities on the remainder of the project cease. Additionally, FHWA may decide to not participate in the approval of a CE if a project becomes unfunded. The lead federal agency (USACE or FHWA) should be consulted concerning approval of the documents.

The Project Manager should be closely orchestrating this phase of work and ensuring that key documents are uploaded and organized on the project's Connect team site. Key documents that may be needed within this phase are noted below in bold.

Steps

- Prepare Draft 4(f) Evaluation (If Needed)**
- Conduct Public Meeting for CE/MCDC Projects (If needed)
- Conduct Post Public Meeting Review for CE/MCDC Projects (If needed)

- Address Public and Agency Comments for CE/MCDC Projects (If needed)
- Prepare Public Meeting Summary** (If needed)
- Identify the Recommended Alternative
- Concurrence Point 3 (CE/MCDC Merger Projects)
- Merger Meeting Packet, Signature Form and Minutes** (For Merger Projects)
- Document Any Agency Coordination Decisions
- Document Any Project Team Decisions
- Complete Traffic Noise Report (If required)**
- Complete Air Quality Report (If required)**
- Complete Appropriate Community Impact Assessment Documentation**
- Complete Indirect and Cumulative Impact Assessment** (If needed)
- Prepare Project Impact Calculations
- Approve MCDC/CE or EA or DEIS**

Decision Document

Background

This phase involves the steps necessary to complete a Finding of No Significant Impact (FONSI) or Final Environmental Impact Statement (FEIS)/Record of Decision (ROD), once the EA or DEIS has been completed. The steps involved with this phase can be very time consuming and involve public and agency outreach; they can easily require a 6-12 month timeframe.

Considerations

If the steps involving public and agency outreach have not begun, then those activities should likely be postponed until the project resumes. It is particularly imperative in this phase that the Project Manager notify the lead federal agency, typically Federal Highway Administration (FHWA) or US Army Corps of Engineers (USACE), and the NCDOT Project Team that project activities have been suspended. The Project Manager should also relay which items will be completed before activities on the remainder of the project cease. If a federal document is being prepared, the lead federal agency may decide not to participate in the approval of a decision document (FONSI, ROD) if the project becomes unfunded. If the preparation of the document is well underway, consideration should be given to completing the document but not approving it, as the document could possibly be easily reviewed and approved without substantive changes once the project resumes. The Project Manager should be closely orchestrating this phase of work and ensuring that key documents are uploaded and organized on the project's Connect team site. Key documents that may be needed within this phase are noted below in bold.

Steps

- Hold Public Meeting or Public Hearing
- Address Public and Agency Comments
- Conduct Post Public Meeting Review
- Prepare Public Meeting or Public Hearing Summary**
- Concurrence Point 3 and 4A (For Merger Project)
- Merger Meeting Packet, Signature Form and Minutes** (For Merger Project)
- Request Applicable Mapping Needs

- Cultural Resources MOA** (if needed)
- FONSI or FEIS/ROD**

25% Plans

Background

This phase involves these steps necessary to complete the 25% Plans and preliminary cost estimates. All items included here should likely be stopped after preparation of the 25% Plans, as they all have a shelf life. These steps can be time consuming and require considerable effort (4-7 months) depending on the project complexity.

Considerations

The preparation of the 25% Plans should be carried through to completion if the necessary information is available. A completed 25% Plans could be useful when project design resumes. However, if there has been little or no effort beyond 15% Plans approval, the Project Manager should evaluate if commencing with those steps will be beneficial. It is noteworthy that having Roadway 25% Plans approval provides updated project costs toward STIP funding when the project resumes.

The Project Manager should be closely orchestrating this phase of work and ensuring that key documents are uploaded and organized on the project's Connect team site. Key documents that may be needed within this phase are noted below in bold.

Steps

- Design Scoping
- Design Criteria/Assumptions Approval**
- Applicable Mapping**
- Roadway 15% Plans**
- Approval of Design Exceptions (if applicable)**
- Complete a Preliminary Construction Cost Estimate**
- Hydraulic Grade Control Letter (if applicable)**
- Roadway 25% Plans**

65% Plans

Background

This phase involves these steps necessary to complete the 65% Plans and the Final Design Field Inspection (FDFI) or Combined Field Inspection (CFI). Several steps involved in this phase include technical analyses and the preparation of technical reports and/or design plans. These steps are time consuming and take considerable effort to complete (6-9 months) depending on the project complexity.

Considerations

If work has not started on the steps listed in this phase, then the development of the product should not commence. If any of the analyses, reports, or plans represented in these steps are underway, the Project Manager should consider completing those products, as that information will be useful when the project resumes. Completion of the 65% Plans provides a good stopping point prior to expending R/W funds.

The Project Manager should be closely orchestrating this phase of work and ensuring that key documents are uploaded and organized on the project's Connect team site. Key documents that may be needed within this phase are noted below in bold.

Steps

- Approved Roadway 25% Preliminary Plans sent to Hydraulics (THYD), Geotechnical, Utilities, Signing and Signals if applicable
- Geotechnical completes field logistics
- Utility Kick-off Meeting Minutes**
- Approved Geo-environmental Report**
- Approved Geotechnical Report and Preliminary Pavement Design**
- Utility completes Preliminary Utility Analysis and Routing Report (UARR)**
- Approved Bridge Survey Report(s) and/or Culvert Survey Report(s) (if applicable)**
- Stormwater Management Plan**
- Approved Hydraulics (FHYD)**
- Hydraulics begins Permit Drawings
- Hydraulics provides R/W and Easement needs to Roadway
- Erosion Control provides R/W and Easement needs to Roadway
- Signals provides R/W and Easement needs to Roadway
- Traffic Management Concept (25%) Plans**
- Concept Signing Plans for Type A, B and D Signs**
- Utility submits Final Relocations Plans including Final PUE with Priority Parcel List for R/W
- Mitigation Plan
- Roadway 65% Plans for FDFI/CFI**
- Final Design Field Inspection (FDFI/CFI) Minutes**

75% Plans with Right of Way (R/W) Plans Distribution

Background

This phase involves these steps necessary to complete the 75% Plans. The completion of the steps leading to approval and distribution of the R/W Plans could be very time consuming and require considerable effort (4-7 months) depending on the project complexity.

Considerations

If none of the steps in this phase have commenced, then the project should not be developed further. However, if any of the steps involving preparation of plans contributing to the establishment of necessary R/W and Easements are underway, then those designs should be completed since that information is necessary to the R/W Plans distribution for property acquisitions.

The distribution of the R/W Plans should be carefully considered if the project is dropped from the STIP at this stage. The R/W Plans are generally valid unless there is a scope change. Therefore, if the project is dropped and reinstated in the next STIP, then the acquired R/W would likely still be valid (this scenario is a similar process to a project that is Let as a "grading contract" only and then followed later with the paving contract to complete the project). It is noteworthy that completed R/W acquisitions will prohibit property owners from further development and alterations within the necessary limits of construction activity and that the project can proceed to the next phase as planned. However, the Project Manager

must also keep in mind any temporary easements intended for the project construction do not endure in perpetuity. Therefore, the utilization of those easements in itself is a reason not to proceed with R/W Distribution for property acquisitions. The R/W Consultation is valid for 1 year, which should be considered before deciding to prepare and approve.

The Project Manager should be closely orchestrating this phase of work and ensuring that key documents are uploaded and organized on the project's Connect team site. Key documents that may be needed within this phase are noted below in bold.

Steps

- Value Engineering Recommendations potentially affecting R/W Received**
- Approved Roadway 65% Plans sent to Utilities and Structures
- Signal Designs and Communications 75% Plans**
- Pavement Stop Bars and Crosswalk Locations Concept Plans**
- Final UARR with Preliminary Utilities by Others (Ubo) Plans**
- Location and Design Approval (LADA)**
- Approved R/W Plans for Distribution**
- R/W Consultation**

90% Plans

Background

This phase involves these steps necessary to complete the 90% Plans and the Pre-Let Field Inspection (PLFI). It is highly unlikely that a project that has completed R/W acquisitions will be removed from the STIP. However, it is possible it could be delayed due to construction funding issues. These steps can be time consuming and require considerable effort (4-12 months) depending on the project complexity.

Considerations

If funding is available for the continuation of design for the project, the recommendation is to proceed with the development of 90% Plans. The approval of 90% Plans provides a logical point to cease design efforts, thus enabling a project to be "shelf ready" when construction funding resumes.

The Project Manager should be closely orchestrating this phase of work and ensuring that key documents are uploaded and organized on the project's Connect team site. Key documents that may be needed within this phase are noted below in bold.

Steps

- Process Utility Relocation Packages (URP)**
- NCDOT Authorizes URP
- Signing and Pavement Marking 50% Plans**
- Final Ubo Plans with Special Provisions**
- Final Permit Drawings**
- National Flood Insurance Program (NFIP) Compliance**
- Federal Emergency Management Agency (FEMA) Coordination
- FEMA MOA and/or Conditional Letter of Map Revision (CLOMR) Approval**
- Signal Designs & Communications 90% Plans**
- Environmental Staff begins Permit Application Process

- Final Erosion Control Plans**
- Traffic Management, Signs, Signing and Pavement Markings 90% Plans**
- Pre-Let Field Inspection (PLFI)
- PLFI Minutes**
- Roadway Design 90% Plans**

100% Plans

Background

This phase is the final effort to prepare the plans for contract Letting. These steps can be time consuming and require considerable effort (4-6 months) depending on the project complexity.

Considerations

If the project is reinstated from a “shelf ready” state, then consideration should be given to updating plans to the latest AASHTO and NCDOT guidelines if applicable. Also, the Project Manager should review the validity of previously acquired permits. In some cases, the permits have or will expire and must be resubmitted for approval to allow construction of the project. The Construction Consultation is valid for 1 year, which should be considered before deciding to prepare and approve.

The Project Manager should be closely orchestrating this phase of work and ensuring that key documents are uploaded and organized on the project’s Connect team site. Key documents that may be needed within this phase are noted below in bold.

Steps

- Structure 100% Plans**
- Signing, Traffic Management and Pavement Marking 100% Plans**
- Signal Design & Communication 100% Plans**
- Submit Final Plans for Plan Checking
- Roadway 100% Plans**
- Construction Consultation**
- Plan Specifications and Estimate (PS&E)**
- Approved Railroad Agreements**
- Sealed Final Plans for Letting**

References/Appendices

[NCDOT Memo on Use of the Preconstruction SharePoint Application](https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx)

<https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx>

<https://connect.ncdot.gov/resources/hydro/Pages/default.aspx>

<https://connect.ncdot.gov/projects/Roadway/Pages/default.aspx>

<https://connect.ncdot.gov/projects/Project-Management/Pages/default.aspx>

Shelf life notes