

ALTERNATIVE DELIVERY UNIT SUBMITTAL GUIDELINES

July 2025



The submittal process used in the Alternative Delivery program is a critical link to the successful delivery of Design-Build projects. The submittal process is geared for rapid review, while ensuring that the project is safe, environmentally conscious, satisfies all national and state codes and manuals, and fulfills the requirements set forth in the Final Contract (Request for Proposals). This document outlines the procedures to be followed by both the Design-Build Teams (DBT) and Alternative Delivery Unit (ADU) staff in the submittal, distribution, and review of plan submittals.

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GENERAL

Design and Personnel Expectations

The Design-Build Team (DBT) shall be responsible for designing the project in accordance with the applicable national and state codes, standards, manuals, and current revisions / supplements thereto. Any design exceptions and / or deviations to these documents not described in the Final Contract shall be pre-approved by the appropriate reviewing personnel prior to incorporation into plan submittals. Additionally, if a plan submittal incorporates or assumes a design exception and / or deviation, then the DBT shall note this fact clearly on the accompanying submittal form.

Prior to any submittals, the DBT shall provide the Alternative Delivery Project Engineer with a list of key design and construction staff. In return, the Department will provide the DBT with a list of Department contacts to be used when submitting plans for review. The list of Department contacts for division and design disciplines shall only be used to accurately complete the submittal forms. All correspondence, both verbal and written, shall be directly between the DBT and the staff of the Alternative Delivery Unit (ADU), unless otherwise approved.

Comments, or lack thereof, provided by the Department in no way relieves the DBT of liability or responsibility for correcting any errors in their plans, computations and / or construction. The DBT shall make design and field construction corrections without additional compensation.

Scheduling of Submittals

If a Critical Path Model (CPM) is required for the project, major design milestones and required design submittals shall be identified as activities on the approved CPM. When multiple submittals are made based on the approved CPM, the DBT shall prioritize the submittals. If the Final Contract does not require a CPM, the DBT shall submit an initial schedule of anticipated submittals, denoting those that are critical to the project schedule. A new schedule shall be submitted if the critical submittals change, or if the schedule or order of anticipated submittals is significantly modified. If multiple submittals are made simultaneously within the same discipline area, the DBT shall prioritize the submittals to promote efficient and timely reviews.

Submittal Process

Prior to making any submissions, access to the Submittal Tracker function for the project's SharePoint site must be approved. To gain access to the Submittal Tracker function, the DBT members requiring access must have a NCID account. A NCID can be created at **ncid.nc.gov**. The DBT will need to provide individual names, email addresses and NCID's to the ADU. The ADU will coordinate access to the project site.

DBT members must be granted access to the project SharePoint site to submit and view submittals in Submittal Tracker. The DBT will have a limited number of primary users (generally 2 - 4) that have read / write administrative access, allowing them to upload necessary submittal information and initiate the review process. Access is granted on a firm-by-firm basis, not individually. Only those individuals with administrative access will have both read and write access, while all others will have read only access. If the DBT is a new joint venture (JV) firm that is unique to the project, the JV will need to be set up by NCDIT. The ADU will facilitate a training session with the DBT for use of Submittal Tracker, if necessary.

The DBT will assign reviewers for all affected design discipline areas, Division personnel and ADU on the SharePoint site. Initial discussions should take place with reviewers, Division personnel and

ADU to determine primary and secondary (if needed) reviewers, and who should be included to receive courtesy copies of the system generated emails. The historical information contained on a project SharePoint site will be viewable by the DBT. The decision to use an existing site versus creating a new site is typically based on the amount of information on the site and the time period spanned prior to advertisement and award as a Design-Build (DB) project. If new sites are created, NCDIT will be notified by the ADU when they are put into operation such that a header message can be added to any previous SharePoint sites notifying viewers of the newer DB SharePoint site. The previous SharePoint sites will become read only to avoid additional entry of information.

Unless otherwise stated in the Final Contract Scopes of Work, all submittals shall be submitted through the Submittal Tracker function for the project's SharePoint site. Instructions for Submittal Tracker can be found on any SharePoint site under the "Preconstruction Help" tab. DB Submittals shall be made electronically (PDF) or in the format as noted herein or otherwise noted in the Final Contract. Pertinent submittals may also require design calculations, design files and special provisions. The DBT shall satisfactorily address all submittal comments provided by the Department or other agency(ies) through resubmittals until the submittal is deemed to be accepted. With the exception of certain Early Work Packages, no construction work shall be performed prior to the Department's review, and acceptance of sealed Release for Construction (RFC) Plans. RFC plans must also be submitted through the Submittal Tracker function to confirm all previous comments have been addressed. With the exception of Erosion Control Plans, all RFC Plans shall be clearly labeled as RFC and signed and sealed by a Professional Engineer registered in the State of North Carolina. The term RFC shall be solely reserved for those plans for which the Department agrees that no further review is necessary.

All submittals shall be accompanied with a standard submittal form and all information transmitted shall be clearly noted.

Each submittal shall be assigned a submittal number. This submittal number shall not have suffixes other than those reflecting re-submittals of the same information. Specifically, "Revise and Resubmit" submittal responses require the DBT to correct and re-submit the same information with the original submittal number and a "R" suffix. For example, submittal S-001 shall be revised to S-001R1 to reflect the first re-submittal and S-001R2 to reflect the second re-submittal of submittal S-001. Similarly, updates to previously approved RFC plans should include a "R" suffix.

A Submittal shall contain only information specific to a focus area. For example, if Structure Plans and Traffic Control Plans are submitted on the same day, two separate submittals shall be required.

As-Constructed / As-Built Plans

The DBT shall provide As-Constructed Plans. Specifically, upon completion of the project, and in addition to the sets required by the Resident Engineer, an electronic copy of the As-Constructed / As-Built Plans, signed and sealed by a Professional Engineer registered in the State of North Carolina, shall be concurrently submitted to the State Alternative Delivery Engineer and the Division Maintenance Engineer. If Construction Engineering Inspection is included in the Final Contract, the DBT shall be required to provide As-Built Plans. As-Constructed / As-Built Plans shall be submitted through the project SharePoint Site.

Early Works

For projects where work can be completed outside of areas requiring a permit, the DBT may submit Early Works Packages. Early Works Packages shall clearly delineate any proposed limits of

disturbance and the limits of any permitted areas within 100 feet. Early Works Packages shall be submitted through the project SharePoint Site.

Review Time

Unless otherwise noted herein or in the Final Contract Scopes of Work, submittals will be reviewed within 10 working days [15 working days for temporary structures, overhead sign assemblies, MSE walls, Transportation Systems Management & Operations (TSMO) Plans with more than ten individual designs in a submittal (temporary and final designs are counted individually), curved steel girder working drawings, FEMA compliance documents and temporary shoring]. The review period shall begin on the following business day. Submittals shall be submitted through the Design-Build project's Submittal Tracker function within the project SharePoint Site to initiate the specified review period. The 10-day review period includes only Department workdays.

Submittal Responses

The ADU will respond to all submittals, with the exception of structure working drawings (Structures Management Unit will provide responses). The submittal response will include a standard response form that indicates whether the Department has comments or requires a re-submittal on that item.

The comments will be returned to the DBT as noted above. The Division Construction Engineer and the Resident Engineer will be included on all submittal responses returned to the Design-Build Team.

The ADU maintains a database to ensure that all submittals are addressed within the allotted time. A copy of the log of all submittals for a given project is available to any Department staff upon request to the ADU.

Department will respond to all submittals through the Submittal Tracker function within the project's SharePoint Site.

Submittal Prerequisites

Unless accepted by the Department, the DBT shall not transmit subsequent submittals until prior submittal reviews have been completed for that item. For example, the RFC submittal for a discipline shall not occur prior to completion of the Final Plans, for that same discipline.

Submittals shall be transmitted in a logical order and in accordance with the project CPM or submittal schedule most recently submitted by the Design-Build Team.

The DBT may also have the option to divide a project into segments to complement the Team's constructability plans. This approach may prove beneficial to both the DBT and the Department on large projects. For example, the project may be broken into southern, middle and northern sections, resulting in three submittals for each identified milestone submittal. Submittals from same sections and/or different sections, but for similar disciplines, shall be staggered to allow timely reviews. Upon completion of the project design, the DBT will be required to provide one set of complete, signed and sealed plans, that include all design disciplines on the SharePoint Site.

The DBT shall notify the Department of any revisions to any previously accepted submittals. For example, if the Department reviews the horizontal and vertical alignments, the DBT shall be required to advise of any subsequent revisions made to those alignments. A re-submittal of that item will

generally be necessary. Failure to notify the Department of any changes to previously accepted submittals may result in the submittal being placed on hold until the appropriate notification or resubmittal is provided. Similarly, any (1) design / right-of-way changes made after the acceptance of Right-of-Way Plans shall require a resubmittal for review and acceptance and; (2) design / right-of-way / construction changes made after the acceptance of RFC Plans shall require a resubmittal for review and acceptance to ensure that dependent plan reviews are based on the most current and accurate information.

Any information included in a submittal for informational purposes only shall be noted as such. For example, if the Roadway Plans are included to assist in reviewing the Signing Plans, they shall be noted on the standard submittal form or within the comments section in the Submittal Tracker system.

ROADWAY DESIGN

The submittal of Roadway Plans will generally be comprised of five steps, beginning with design criteria and culminating with RFC Plans. Plans for right-of-way recordation will also be required, if applicable. The various Roadway Plans also need to be submitted with plans for other disciplines, as noted throughout this document. Any changes to a stage of the Roadway Plans made after that stage's initial review, comments and acceptance by the Department shall require re-submittal to ensure that subsequent plan reviews are based on the most current and up to date Roadway Plans.

For guidance in preparing these plan submittals, see the document entitled "Roadway Design Guidelines for Alternative Delivery Projects" located on the ADU's website. All submittals shall adhere to the Department requirements for Design Recommendation Plans, Right-of-Way, and Final Plans noted in the Roadway Design Guidelines for Alternative Delivery Projects document.

<https://connect.ncdot.gov/letting/Design%20Build%20Resources/Roadway%20Design%20Guidelines-August%202016.pdf>

The DBT shall develop plans using the current version of Bentley software required by the Department and be in English units, unless otherwise noted in the Final Contract. The plans shall follow the Department's CADD standards including, but not limited to, file naming convention, leveling chart and file folder structure. These standards can be found on the Department Connect Site under the Resources Page. Under additional Resources look "for CADD Consultants"

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

Design Criteria

Prerequisites:

Design Kick-Off Meeting

The submittal shall be distributed to the following:

Alternative Delivery Unit	Geotechnical Unit
Resident Engineer	Hydraulics Unit
Division Construction Engineer	Rail Division, if applicable
Area Construction Engineer	Regional Traffic Engineer
Division Engineer	Roadway Design Unit
Division Traffic Engineer	Utilities Unit

This submittal shall also include the following:

- Design Calculations (Criteria Sheets)
- Structure Summary Sheet
- Typical Sheets
- Bridge (On/Under) Typical Sheets
- Bentley Software files

Design Recommendation Plans

Prerequisites:

- Accepted Design Criteria (Provide one set with this submittal)
- Accepted Preliminary Bridge / Culvert Survey Reports (If grade is hydraulically controlled) or letter stating that grade is not hydraulically controlled

The submittal shall be distributed to the following:

Alternative Delivery Unit	Hydraulics Unit
Resident Engineer	Rail Division, if applicable
Division Construction Engineer	Regional Traffic Engineer
Area Construction Engineer	Roadway Design Unit
Division Engineer	Roadway Lighting Section, if applicable
Congestion Management Section	Structures Management Unit
Division Traffic Engineer	Utilities Unit
Geotechnical Unit	

This submittal shall also include the following:

- DRPS Plans
 - Title sheet
 - Symbolology sheet
 - Typical sections
 - Plan and profile sheets
 - Cross section sheets
- Preliminary Earthwork Summary
- Capacity Analysis and Recommendations
- Design Exception Checklist (and full request package if requesting a design exception)
- Copy of Environmental Commitments
- QC Checklist
- QA Checklist
- Bentley Software files
- Design Calculations typically include (where applicable):
 - Sight Distance calculations for intersections and obstructions.
 - Turning templates for design vehicle at major intersections
 - Fastest Path computations for roundabouts
 - Vertical Clearance calculations
 - Gore Calculations
 - Runoff Calculations desirable but at a minimum the runoff length shown on the curve data for simple curves.

Right-of-Way Plans

The DBT shall provide Right-of-Way Plans for review.

Prerequisites:

- Accepted Design Exceptions
- Accepted Design Recommendation Plan Set
- Accepted 100% Hydraulics Design Plans
- Accepted Permanent Utility Easements

The submittal shall be distributed to the following:

Alternative Delivery Unit
Resident Engineer
Division Construction Engineer
Area Construction Engineer
Division Engineer
Division Traffic Engineer
Hydraulics Unit

Location and Survey Unit
Rail Division, if applicable
Regional Traffic Engineer
Right-of-Way Unit
Roadway Design Unit
Structures Management Unit
Utilities Unit

This submittal shall also include the following:

- Right-of-Way Plans
 - Title sheet
 - Symbolology sheet
 - Typical sections
 - Summary of quantities
 - Parcel index sheets
 - Plan and profile sheets
 - Cross section sheets
- Design Calculations (For design revisions)
- QC Checklist
- QA Checklist
- Bentley Software files

The DBT shall provide a copy of the accepted ROW Plans for right-of-way recordation (a hard copy may be requested).

Final Roadway Plans

The DBT shall identify any subsequent revisions made to the ROW Plans.

Prerequisites:

Accepted ROW Plans
Accepted Roadway Geotechnical Recommendations

The submittal shall be distributed to the following:

Alternative Delivery Unit
Resident Engineer
Division Construction Engineer
Area Construction Engineer
Division Engineer
Geotechnical Unit
Hydraulics Unit
Roadway Lighting Section

Pavement Management Unit
Rail Division, if applicable
Regional Traffic Engineer
Right-of-Way Unit
Roadway Design Unit
Structures Unit
Utilities Unit

This submittal shall also include the following:

- Final Plans
 - Title sheet
 - Symbolology sheet
 - Typical sections
 - Detail Sheets
 - Summary of quantities

- Parcel index sheets
- Plan and profile sheets
- Cross section sheets
- QC Checklist
- QA Checklist
- Copy of Environmental Commitments
- All Applicable Construction Recommendation Memos/Letters
- Bentley Software Files

RFC Roadway Plans

The DBT shall provide a copy of the RFC Roadway Plans in both PDF and CADD form. All designs shall be signed and sealed by a Professional Engineer registered in the State of North Carolina.

Prerequisites:

Accepted Final Roadway Plans

Submittal of Typical Sections for the Pavement Design Unit to sign and seal the pavement design, if applicable

The submittal shall be distributed to the following:

Alternative Delivery Unit	Pavement Management Unit
Resident Engineer	Rail Division, if applicable
Division Construction Engineer	Regional Traffic Engineer
Area Construction Engineer	Right-of-Way Unit
Division Engineer	Roadway Design Unit
Geotechnical Unit	Structures Unit
Hydraulics Unit	Utilities Unit
Roadway Lighting Section	

This submittal shall also include the following:

- RFC Plans
 - Title sheet
 - Index of sheets, general notes, and list of roadway standard drawings
 - Symbolology sheet
 - Typical sections
 - Detail sheets
 - Summary of quantities
 - Parcel index sheets
 - Plan and profile sheets
 - Cross section sheets
- QC Checklist
- QA Checklist
- Bentley Software files

Temporary Roadway Alignments

The Design-Build Team shall submit all temporary roadway alignments for review. The submittal of temporary roadway alignments shall adhere to the Preliminary and Final Plans requirements noted above.

Prerequisites:

- Submittal of appropriate Traffic Control Phase

Line and Grade Plans (optional submittal)

At the request of the Design-Build Team, the Department will review Line and Grade Plans. This submittal shall include the Team's horizontal and vertical alignments and shall not replace the Preliminary Roadway Plans submittal.

Prerequisites:

Accepted Design Criteria

The submittal shall be distributed to the following:

Alternative Delivery Unit	Congestion Management Section
Resident Engineer	Division Traffic Engineer
Division Construction Engineer	Location and Surveys Unit
Area Construction Engineer	Rail Division, if applicable
Roadway Lighting Section	Regional Traffic Engineer
Roadway Design Unit	Utilities Unit

This submittal shall include the following:

- Design Calculations
- Capacity Analysis
- Bentley Software files

PAVEMENT DESIGN

The submittal shall consist of typical sections, shoulder drains and temporary pavement designs, including but not limited to the evaluation of existing shoulders and roadways regarding their suitability for carrying temporary traffic (and permanent traffic, if applicable).

Typical Sections

Prior to submittal, the Design-Build Team's Roadway Design Engineer of Record shall have signed and sealed the typical sections.

Prerequisites:

Accepted Final Roadway Plans (Include a full-size set, with cross sections)

The submittal shall be distributed to the following:

Alternative Delivery Unit	Pavement Management Unit
Resident Engineer	Roadway Design Unit
Division Construction Engineer	
Area Construction Engineer	
Division Engineer	

This submittal shall also include the following:

- All typical sections
- Wedging details and pavement schedules required to build the project

Shoulder Drains

Prerequisites:

Accepted Final Roadway Plans (Include a full-size set, with cross sections)

Accepted 100% Hydraulic Design Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	Pavement Management Unit
Resident Engineer	Roadway Design Unit
Division Construction Engineer	
Area Construction Engineer	
Division Engineer	

This submittal shall also include the following:

- Shoulder drain locations, designs and outlet locations, including all required details

Temporary Pavement Design

Prerequisites:

Accepted appropriate Traffic Control Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	Pavement Management Unit
Resident Engineer	Roadway Design Unit

Division Construction Engineer
Area Construction Engineer
Division Engineer

This submittal shall also include the following:

- All information/calculations required to review the temporary pavement design including but not limited to the temporary traffic volumes, duration of use, existing pavement structure and geotechnical details.

STRUCTURE DESIGN

Plan submittals for bridges shall be delineated into three stages, preliminary, final, and RFC. Culvert and wall plans may be submitted in two stages, final and RFC. For retaining wall plan submittals, see "Geotechnical Design" located elsewhere in this document. CADD files may be requested for Preliminary General Drawings and Structure Final Plans submittals.

Preliminary General Drawings

Prerequisites:

- Accepted Design Recommendation Plan Set
- Accepted Hydraulic Bridge Survey Report
- Assigned Structure Numbers from Structures Management Unit
- Provide electronic plans and reports / recommendations (or most currently associated Submittal Number) of the above concurrently with this bridge submittal for reference

The submittal shall be distributed to the following:

Alternative Delivery Unit	Regional Bridge Construction Engineer
Resident Engineer	Geotechnical Unit
Division Construction Engineer	Geotechnical Regional Office (information only)
Area Construction Engineer	Hydraulics Unit
Division Engineer	Rail Division, if applicable
Structures Unit	

This submittal shall also include the following:

- Preliminary General Drawings shall contain sufficient details (drawings or narrative) to explain the scope of design and construction intended for the bridge and shall list all anticipated special provisions and notes describing design data and material properties.

For guidance on preparing Bridge Preliminary General Drawings, reference Chapter 4 of the Structure Design Manual available at the following site:

[https://connect.ncdot.gov/resources/Structures/StructureResources/SMU%20Design%20Manual.p
df](https://connect.ncdot.gov/resources/Structures/StructureResources/SMU%20Design%20Manual.pdf)

Structure Final Plans

Final Plans shall have all plan details and notes completed for final review. For larger bridge structures, the Final Plans may be separated into substructure and superstructure or other submittals as necessary to accommodate construction schedules.

All comments by the Department, FHWA, Railroad, or other agencies on all submittals shall be addressed in writing and by making appropriate changes to designs or drawings before construction of those elements begins.

Prerequisites:

- Accepted Bridge Geotechnical Foundation Recommendations
- Accepted Preliminary General Drawings

The submittal shall be distributed to the following:

Alternative Delivery Unit
Resident Engineer
Division Construction Engineer
Area Construction Engineer
Division Engineer
Structures Unit

Regional Bridge Construction Engineer
Geotechnical Unit
Geotechnical Regional Office (information only)
Hydraulics Unit
Rail Division, if applicable

This submittal shall also include the following:

- Provide electronic plans and reports / recommendations (or most currently associated Submittal Number) of the above concurrently with this bridge submittal.

Structure RFC Plans

A complete set of original design files and one complete set of Project Special Provisions (PSP) shall be submitted concurrently with the RFC Plans. The record plan set, design files and Project Special Provisions shall bear the seal and signature of a North Carolina Registered Professional Engineer. Structure Project Special Provisions are available at the following website:

<https://connect.ncdot.gov/resources/Structures/Pages/Project-Special-Provisions.aspx>

Prerequisites:

Accepted Structures Final Plans
Accepted Bridge Geotechnical Foundation Recommendations

The submittal shall be distributed to the following:

Alternative Delivery Unit	Regional Bridge Construction Engineer
Resident Engineer	Geotechnical Unit
Division Construction Engineer	Geotechnical Regional Office (information only)
Area Construction Engineer	Hydraulics Unit
Division Engineer	Rail Division, if applicable
Structures Unit	Materials and Tests Unit (Prestressed Concrete Bridges only)

This submittal shall also include the following:

- Provide electronic plans and reports / recommendations (or most currently associated Submittal Number) of the above concurrently with this bridge submittal.

Working Drawing Submittals

Working drawing submittals shall be in accordance with the “Submittal of Working Drawings” that are current on the Technical Proposal submittal date or the Best and Final Offer submittal date available at the following website:

<https://connect.ncdot.gov/resources/Structures/Pages/Project-Special-Provisions.aspx>

Sufficient data and the set of applicable RFC Plans shall be submitted prior to, or with the working drawings to facilitate review.

Working drawing submittals shall be submitted through the project’s SharePoint site. All other aspects of the aforementioned Project Special Provision apply, including the concurrent submittal to the Resident Engineer and ADU. All working drawing submittals shall include a submittal number with the prefix “WD-“

Responses to working drawing submittals will be through the project's SharePoint site.

HYDRAULIC DESIGN

Hydraulic design plans shall not be submitted prior to the Department's acceptance of the Design Recommendation Plan Set. Culvert and bridge survey reports shall also be required unless otherwise noted in the Final Contract indicating the Department will provide them. Any design and / or construction methods that nullify a culvert or bridge survey report provided by the Department shall require the DBT to revise and submit the report as noted below.

The Hydraulics Unit also reviews key submittals for permit application packages. The DBT is solely responsible for ensuring that the design plans exactly match those details included in the permit impact sheets. All comments provided by the Department or other agency on all submittals shall be addressed in writing and by making appropriate changes to designs or drawings before the submittal will be deemed accepted. Hard copies may be requested for Bridge / Culvert Survey Reports.

Preliminary Bridge / Culvert Survey Reports

Prior to submitting the Design Recommendation Plan Set, the DBT shall submit one of the following:

If the proposed grade meets the required level of service and is FEMA compliant (if applicable) at bridge / culvert location(s), the DBT shall provide a letter to the Department stating such.

If the proposed grade does not meet the required level of service or is not FEMA compliant (if applicable) at bridge / culvert location(s), the DBT shall provide preliminary report(s) that are clearly identified as preliminary for the Units noted below.

The submittal shall be distributed to the following:

Alternative Delivery Unit	Hydraulics Unit
Resident Engineer	Division Environmental Engineer
Division Construction Engineer	
Area Construction Engineer	
Division Engineer	

Initial Bridge / Culvert Survey Reports and Hydraulic Model

Prerequisites:

Accepted Design Recommendation Plan Set
Cross Sections

The submittal shall be distributed to the following:

Alternative Delivery Unit	Structures Unit
Resident Engineer	Geotechnical Unit
Division Construction Engineer	Hydraulics Unit
Area Construction Engineer	
Regional Bridge Construction Engineer	

Final Bridge / Culvert Survey Reports

Upon acceptance from the Department, the DBT shall submit a report signed and sealed by a Professional Engineer registered in the State of North Carolina for each of the Units noted below, for informational purposes only.

Prerequisites:

Accepted Initial Bridge/Culvert Survey Reports

The submittal shall be distributed to the following:

Alternative Delivery Unit	Structures Unit
Resident Engineer	Division Environmental Engineer
Division Construction Engineer	Geotechnical Regional Office (information only)
Area Construction Engineer	Hydraulics Unit
Division Engineer	Roadside Environmental Unit (if construction phasing is required)

Initial Concurrence Point 4B Meeting Package

This submittal shall include the Roadway Title Sheet and all Plan Sheets. The Roadway Plan Sheets shall incorporate subdued contour lines. If subdued contour lines are not legible, two copies of each plan sheet shall be required, one with contour lines and one without. Unless otherwise stated in the Final Contract, this submittal shall be submitted a minimum of five weeks prior to the 4B Meeting as applicable for review.

Prerequisites:

Accepted Design Recommendation Plan Set and
Cross Sections (included with this submittal)

The submittal shall be distributed to the following:

Alternative Delivery Unit	Structures Unit
Resident Engineer	Division Environmental Engineer
Division Construction Engineer	Environmental Coordination & Permitting (ECAP)
Area Construction Engineer	Hydraulics Unit (include red-line drawings)
Division Engineer	Environmental Policy Unit (EPU)

Final Concurrence Point 4B Meeting Package

Prerequisites:

Accepted Initial Concurrence Point 4B Meeting Package

Upon acceptance from the Department, submit an electronic copy for the above Units and to be posted for viewing by each of the following agencies:

- US Army Corps of Engineers
- NC Wildlife Resources Commission
- US Fish and Wildlife Service
- NC DENR - Division of Water Quality
- EPA
- Other Agencies and NCDOT Personnel as Needed

This submittal shall provide adequate time for the Department to post the plans a minimum of two weeks prior to the 4B meeting.

Initial Hydraulic Drainage Design

Submit a set of full-size Hydraulic Redline Drainage Plans, including all hydraulic calculations, photos, hydraulic supplemental field survey documentation, and other supporting data. All comments provided by the Department shall be addressed in writing and by making appropriate changes to designs or drawings before transmitting the Final 100% Hydraulic Plans.

Prerequisites:

Accepted Roadway Design Recommendations Plan Set

The submittal shall be distributed to the following:

Alternative Delivery Unit	Hydraulics Unit
Resident Engineer	Utilities Unit
Division Construction Engineer	Roadway Design Unit
Area Construction Engineer	
Division Engineer	

Final Hydraulic Drainage Design

Upon acceptance from the Department, the DBT shall submit a set of full-size Final Hydraulic Drainage Design, including redline drainage plans, CADD files, and hydraulic calculations for each of the Units below, for information purposes only.

Prerequisites:

Accepted Hydraulic Drainage Design
Preliminary Traffic Management Plans.
Completed Concurrence Point 4B Meeting

The submittal shall be distributed to the following:

Alternative Delivery Unit	Hydraulics Unit
Resident Engineer	Utilities Unit
Division Construction Engineer	Roadside Environmental Unit
Area Construction Engineer	Roadway Design Unit
Division Engineer	

FEMA Compliance Package(s)

If required, the DBT shall submit the FEMA Compliance Package(s) to ADU. The Department will submit the State Floodplain Compliance (SFC) package to NC Floodplain Mapping. When a Conditional Letter of Map Revision (CLOMR) and / or Letter of Map Revision (LOMR) is required, upon notification from the Department of acceptance of the FEMA Compliance Package, the DBT shall coordinate with ADU, the Hydraulics Unit, and NCDOT Highway Floodplain Program while proceeding to obtain the required approvals from FEMA.

Prerequisites:

Accepted 100% Hydraulic Plans
Accepted Bridge Survey Reports (BSR) and Culvert Survey Reports (CSR) if applicable

The submittal shall be distributed to the following:

Alternative Delivery Unit	Hydraulics Unit
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Resident Engineer
Division Construction Engineer
Area Construction Engineer

Initial Concurrence Point 4C and / or Permit Application / Modification Review Submittal

This submittal shall include all necessary documents required for a permit application including, but not necessarily limited to a cover letter, meeting minutes, plans, permit impact sheets, and forms. This package shall be submitted a minimum of five weeks prior to the intended permit application submittal date or 4C meeting, as applicable.

Prerequisites:

Accepted 100% Hydraulic Plans
Accepted BSRs and CSRs if applicable
Accepted Right-of-Way / 60% Roadway Plans (matching the permit drawings) and matching Cross Sections

The submittal shall be distributed to the following:

Alternative Delivery Unit	Hydraulics Unit
Resident Engineer	Environmental Coordination & Permitting (ECAP)
Division Construction Engineer	Structures Unit
Area Construction Engineer	Regional Bridge Construction Engineer, if applicable
Division Engineer	Division Environmental Engineer
Environmental Policy Unit	

Final Concurrence Point 4C and / or Permit Application / Modification Review Submittal

Upon acceptance from the Department, submit a set of plans and permit impact sheets for each of the above Units and an electronic copy to be posted for viewing by each of the following agencies. This submittal shall provide an adequate time for the Department to post the plans and permit impact sheets a minimum of two weeks prior to the 4C meeting.

Prerequisites:

Accepted Initial 4C and/or Permit Application/Modification Review Submittal

The submittal shall be distributed to the following:

- US Army Corps of Engineers
- NC Wildlife Resources Commission
- US Fish and Wildlife Service
- NC DENR - Division of Water Quality
- EPA
- All Other Agencies and NCDOT Personnel as Needed

GEOTECHNICAL INVESTIGATION AND DESIGN

Geotechnical submittals shall consist of reports for subsurface inventories, roadway recommendations, and structure recommendations (bridges, walls, culverts, etc.). All submittals shall be developed in general accordance with the Department policy, applicable codes, and FHWA recommended practices. Consult with the Assistant State Geotechnical Engineer for an acceptable design approach when discrepancies between policy, code, and FHWA exist. All final reports, recommendations, and supporting documents shall be in searchable pdf format and signed and sealed by a registered Professional Engineer licensed in the state of North Carolina. Subsurface inventories may be signed and sealed by a registered Licensed Geologist in lieu of a Professional Engineer.

All Submittals shall be distributed to the following:

Alternative Delivery Unit	Geotechnical Engineering Unit Regional Office
Resident Engineer	Geotechnical Unit
Division Construction Engineer	
Area Construction Engineer	

Subsurface Inventory Reports

Subsurface Inventory Reports shall be provided for the roadway and each structure. The roadway inventory report may be submitted as multiple segments or one report. If additional geotechnical investigation borings are required obtain all necessary permits and rights of entry prior to performing the subsurface exploration. All laboratory testing shall be done using a Department certified laboratory. All (provided and additional) boring information shall be provided in each Subsurface Inventory Report. Each report shall follow the requirements of the NCDOT Geotechnical Engineering Unit Geotechnical Investigation and Recommendations Manual unless required otherwise in the project contract; however, graphic depiction of generalized stratigraphy on profiles and cross sections is not required. Each report submittal shall include a copy of the electronic files for storage by the Geotechnical Engineering Unit including gINT files with an EDP run.

Structure Recommendations Report

A separate Structure Recommendations Report shall be required for each structure. In addition, include separately the following:

- Supporting Documents (Calculations including program inputs and outputs)
- Each required plan sheet
- Each required project special provision

Bridges

Prerequisites:

Accepted Structure Preliminary General Drawing

This submittal shall include the following in the recommendation report:

- Foundation recommendations template page with appropriate entries and required plan notes
- Foundation Table Sheet with appropriate entries
- All standard notes required and project specific special notes, Comments as required

This submittal shall also include the following in the supporting documents:

- Preliminary General Drawing

- Bridge Scour Report
- Subsurface Inventory Report
- Foundation loadings at foundation top for applicable load cases
- Calculations for bearing capacity, eccentricity, sliding, axial capacity, scour resistance, and drag load as applicable for the foundation type at each bridge bent / pier
- Estimated pile and / or drilled pier lengths for each bridge bent / pier when using deep foundations
- Required embedment depths when using shallow foundations
- Calculations for the required driving resistances of driven piles
- Calculations for settlement at the bridge approach embankments and interior bents/piers affected by fill
- Calculations for foundation settlement
- Calculations pertaining to end slope stability analysis as applicable
- Calculations proving the structural adequacy of a deep foundation section due to axial loads
- Lateral analysis to determine point of fixity and minimum tip elevations for deep foundations in each bridge bent / pier
- Wave equation analysis to prove drivability of driven piles and to size an appropriate hammer driving system for deep foundation in each bridge bent / pier

Retaining Walls

Prerequisites:

Accepted Design Recommendation Plan Set

This submittal shall also include the following in the recommendation report:

- Recommendations letter including wall plan sheets
- A wall envelope showing grade (finished grade back of wall), bottom of wall (finished grade front of wall), and existing ground elevations at incremental stations and turning points
- The wall alignment showing begin and end stations and offsets and stationing and offsets along the wall when the wall is not parallel to an existing survey line or is curved.
- Typical sections showing top and bottom of wall, grade elevation, coping, drainage, embedment, slopes, barriers, fences, etc.
- Wall plan sheet with all applicable plan notes including applicable foundation and retained soil parameters, settlement (total and differential), maximum wall height at each section, and identify wall types

This submittal shall also include the following in the supporting documents:

- Subsurface Inventory Report
- Calculations for external stability (bearing capacity, eccentricity, sliding, and global stability) based on wall height at defined stations
- Calculations for settlement (total and differential)

Box Culverts

Prerequisites:

Accepted Culvert Survey Report

This submittal shall include the following in the recommendation report:

- Recommendations letter including required plan notes
- Subsurface Inventory Report

- A discussion regarding the constructability of the foundations addressing undercut, geosynthetics, backfill, foundation conditioning material, settlement, camber, etc.

This submittal shall also include the following in the supporting documents:

- Soil borings/soundings
- Calculations for settlement (total and differential) and discussion regarding camber considerations
- Discussion regarding undercut and foundation conditioning requirements/quantities

Sound Barrier Walls

Prerequisites:

Accepted Design Recommendation Plan Set
Accepted Design Noise Report

This submittal shall include the following in the recommendation report:

- Recommendations letter including wall heights, front slopes, stations ranges, and required depths and diameters for foundations
- Required plan notes

This submittal shall also include the following in the supporting documents:

- A wall envelope showing top and bottom of wall, existing ground and finished grade elevations at incremental stations
- The wall alignment showing stations and offsets
- Subsurface Inventory Report
- Calculations to support embedment depth and foundation diameter recommendations (moment equilibrium, axial analysis as deemed necessary) if the standard NCDOT Sound Barrier Wall Foundation Table is not used

Other Miscellaneous Structures

Miscellaneous structures may include seashore bulkhead walls, toll plaza gantries, high mount lights, overhead signs, signal mast arms, and Department buildings / facilities. Applicable report requirements should be determined based on foundation types. Refer to bridge and wall report requirements for guidance and discuss with the Geotechnical Regional Manager as needed.

Roadway Recommendations Report

Design Build projects will allow multiple Roadway Recommendations Reports. Each report shall summarize the geotechnical aspects of the roadway design for a predefined segment. These aspects include embankment settlement, global stability of reinforced soil slopes, undercut for embankment stability, embankment/surcharge waiting periods, ground improvement, global stability of the roadway at critical cross sections, groundwater impacts, subsurface drains, special ditches, shallow undercut for subgrade stability, aggregate subgrade, borrow, and other miscellaneous items. Quantities are not required; however, clarifications via text, plan sheets, and/or other illustrations shall be provided to communicate necessary actions to the inspection personnel.

Prerequisites:

Accepted Design Recommendation Plan Set

This submittal shall also include the following documents:

- Subsurface Inventory Report
- Calculations including slope stability analysis (global, sloughing, toe failure), settlement analysis
- Discuss shallow groundwater effects on embankment and recommendations to resolve
- Identification of soil strata by classification and usage including all laboratory testing results
- Address constructability issues and recommendations to resolve these issues

Temporary Shoring

Provide temporary shoring submittals as needed. The use of Department standard details for shoring and walls is acceptable when appropriate for the required geometry and in-situ soil conditions. Otherwise, calculations and backup shall be included with each submittal. Calculations shall address bearing capacity, eccentricity, sliding, global stability, and settlement as applicable for the shoring or wall type. Include soil assumptions and nearby borings or soundings. Anticipated project special provisions shall also be included.

TRANSPORTATION MANAGEMENT PLANS

The Transportation Management Plans (TMP) shall be submitted in three distinct categories, including a staging concept, phase submittals, and RFC Plans. The DBT shall follow the “Guidelines for Preparation of Traffic Management for Design Build Projects”, available through the Alternative Delivery website, as a guideline for developing plans.

Transportation Management Phasing Concept

The Transportation Management Phasing Concept (TMPC) submittals shall include general layouts of construction areas and show where traffic is being maintained. The TMPC plans should be similar to the TMP plans presented in a Technical Proposal.

Prerequisites:

Accepted Design Recommendation Plan Set and Cross Sections

Accepted Preliminary Hydraulics Plans

Accepted Bridge Preliminary General Drawings (if staging construction)

The submittal shall be distributed to the following:

Alternative Delivery Unit

Division Traffic Engineer

Resident Engineer

Regional Traffic Engineer

Division Construction Engineer

Work Zone Traffic Control Section

Area Construction Engineer

Transportation Management Phase Submittals

Phase submittals shall include more detailed information than that required for the staging concept. The DBT shall include sign designs for all detour route signing. Phase submittals should include the entire phase of the TMP and avoid submitting individual steps separately.

Prerequisites:

Accepted Culvert and Structure Staging

Accepted Temporary Traffic Signal Plans

Accepted Phasing Concept

The submittal shall be distributed to the following:

Alternative Delivery Unit

Division Traffic Engineer

Resident Engineer

Regional Traffic Engineer

Division Construction Engineer

Work Zone Traffic Control Section

Area Construction Engineer

Transportation Management RFC Plans

The DBT shall release Traffic Management Plans for construction after phase submittal comments have been addressed. RFC plan submittals shall include a separate document detailing changes made from phase submittal to RFC addressing any comments. The RFC submittal does not require another 10-day review.

The submittal shall be distributed to the following:

Alternative Delivery Unit

Division Traffic Engineer

Resident Engineer
Division Construction Engineer
Area Construction Engineer

Regional Traffic Engineer
Work Zone Traffic Control Section

TRANSPORTATION SYSTEMS MANAGEMENT & OPERATIONS (TSMO)

The TSMO Plans shall be divided into Preliminary, Final, and RFC Plans for Utility-Make Ready and 75%, 90% and RFC Plans for Signal Design, Signal Equipment Design, Signal Communications Design and Intelligent Transportation System (ITS). The TSMO Plans shall follow the “Guidelines for Preparation of TSMO Plans by Private Engineering Firms” available at the following website:

<https://connect.ncdot.gov/resources/safety/Pages/TSMO-Design-Resources.aspx>

For all plan submittals, the DBT shall provide the Department with all supporting documentation, computer files and any other pertinent information as required for a complete and accurate review by the Department. Supporting documentation may include, but is not limited to, the information outlined in the Guidelines available via the link above.

The DBT shall develop plans using the current version of Bentley software required by the Department, and the plans shall be in English units unless otherwise noted in the Final Contract. The plans shall follow the Department’s CADD standards including, but not limited to, file naming convention, leveling chart, and file folder structure. These standards can be found at the following website:

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

The DBT shall submit electronic files of the TSMO Plans once they are released for construction.

TSMO Plans shall be signed and sealed by a Professional Engineer registered in the State of North Carolina.

Utility Make-Ready Plans (Preliminary)

Prerequisites:

- Accepted Traffic Signal Recommendation
- Utilities Coordination Working Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional Traffic Engineer
Division Construction Engineer	Signal Communications Group
Area Construction Engineer	Utilities Unit

This submittal shall also include the following:

N/A

Utility Make-Ready Plans (Final)

Prerequisites:

- Accepted Utility Make-Ready Plans (Preliminary)
- Acceptance from Utility owners of Utility Make-Ready plans (Preliminary)

The submittal shall be distributed to the following:

Alternative Delivery Unit
Resident Engineer
Division Construction Engineer
Area Construction Engineer

Division Traffic Engineer
Regional Traffic Engineer
Signal Communications Group
Utilities Unit

This submittal shall also include the following:
N/A

Utility Make-Ready Plans (RFC)

Prerequisites:
Final Utility Make-Ready Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit
Resident Engineer
Division Construction Engineer
Area Construction Engineer

Division Traffic Engineer
Regional Traffic Engineer
Signal Communications Group
Utilities Unit

This submittal shall also include the following:
N/A

ITS Plans (75%)

Prerequisites:
Accepted ROW Roadway Plans
Accepted Structures Preliminary General Drawings
Accepted Initial Design Noise Report
Accepted 30% Signing Concept (coordinate DMS locations with static signs)
Verify device locations with TSMO unit (Operations and ITS Design)
Verify device locations with TMC / Division Staff
Verify electrical services to proposed devices with power companies
Accepted Preliminary Utilities Coordination Working Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit
Resident Engineer
Division Construction Engineer
Area Construction Engineer
ITS Development & Design Group

Division Traffic Engineer
Regional Traffic Engineer
Signal Communications Group
Work Zone Traffic Control Section
Signing and Delineation, if applicable

This submittal shall also include the following:
N/A

Signal Design Plans (75%,)

Prerequisites:
Accepted Traffic Signal Recommendation
Accepted ROW Roadway Plans

Accepted Traffic Management Staging Concept
Accepted Preliminary Pavement Marking Plans
Accepted Preliminary Utilities Coordination Working Plans
Accepted Utility Make-Ready Plans (RFC), if applicable

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional Traffic Engineer
Division Construction Engineer	Signal Communications Group
Area Construction Engineer	Signal Design Section
ITS Development & Design Group	Utilities Unit

This submittal shall also include the following:

Clearance Calculations
Shall accompany 75% Signal Communication Plans, if applicable

Signal Communications Plans (75%)

Prerequisites:

Signal recommendations from the regional traffic engineer
Accepted Final Roadway Plans
Accepted 90% WZTC Plans
Accepted 90% Water and Sewer plans
Accepted 75% ITS Plans, if applicable
Accepted Utility Make-Ready Plans (RFC), if applicable

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional Traffic Engineer
Division Construction Engineer	Signal Communications Group
Area Construction Engineer	Signal Design Section
ITS Development & Design Group	

This submittal shall also include the following:

75% Signal Communications Plans
Shall accompany 75% Signal Design Plans

ITS Plans (90%)

Prerequisites:

Accepted 75% ITS Plans
Accepted 60% Preliminary Signing Plans
Accepted Final Roadway Plans
Accepted Final Structure Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional ITS Engineer, if applicable
Division Construction Engineer	Regional Traffic Engineer
Area Construction Engineer	Signing and Delineation, if applicable

This submittal shall also include the following:

- Project Special Provisions
- Quantities of Pay Items

Signal Design Plans (90% Plans)

Prerequisites:

- Accepted 75% Signal Plans
- Accepted Clearance Calculations
- Accepted Traffic Management Phase Submittals
- Accepted Final Roadway Plans
- Accepted Final Utilities Coordination Working Plans

The submittal shall be distributed to the following:

- | | |
|--------------------------------|---------------------------|
| Alternative Delivery Unit | Division Traffic Engineer |
| Resident Engineer | Regional Traffic Engineer |
| Division Construction Engineer | Signal Design Section |
| Area Construction Engineer | |

This submittal shall also include the following:

- Clearance Calculations
- Project Special Provisions
- Quantities of Pay Items
- Shall accompany 90% Signal Communication Plans, if applicable

Electrical Detail Plans (90% Plans)

Prerequisites:

- Accepted 75% Signal Plans

The submittal shall be distributed to the following:

- | | |
|--------------------------------|-------------------------------|
| Alternative Delivery Unit | Division Traffic Engineer |
| Resident Engineer | Regional Traffic Engineer |
| Division Construction Engineer | Signal Design Section |
| Area Construction Engineer | Signal Equipment Design Group |

This submittal shall also include the following:

- 90% Signal Plans

Signal Communications Plans (90%)

Prerequisites:

- Accepted 75% Signal Communications Plans
- Accepted 90% ITS Plans, if applicable

The submittal shall be distributed to the following:

- | | |
|--------------------------------|-----------------------------|
| Alternative Delivery Unit | Division Traffic Engineer |
| Resident Engineer | Regional Traffic Engineer |
| Division Construction Engineer | Signal Communications Group |

Area Construction Engineer
ITS Development & Design Group

Signal Design Section

This submittal shall also include the following:

- Project Special Provisions
- Quantities of Pay Items
- Shall accompany 90% Signal Design Plans

ITS Plans (RFC)

Prerequisites:

- Accepted 90% ITS Plans
- Accepted RFC Signing Plans
- Accepted RFC Roadway Plans
- Accepted RFC Structure Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional ITS Engineer, if applicable
Division Construction Engineer	Regional Traffic Engineer
Area Construction Engineer	Signing and Delineation, if applicable
ITS Development & Design Group	Work Zone Traffic Control Section

This submittal shall also include the following:

- Project Special Provisions
- Quantities of Pay Items

Signal Design Plans (RFC Plans)

Prerequisites:

- Accepted 90% Signal Design Plans
- Accepted 90% Electrical Details
- Project Special Provisions
- Clearance Calculations
- Accepted Traffic Management RFC Plans
- Accepted RFC Roadway Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional Traffic Engineer
Division Construction Engineer	Signal Design Section
Area Construction Engineer	

This submittal shall also include the following:

- 100% Signal Plans
- Clearance Calculations
- Project Special Provisions
- Quantities of Pay Items
- Shall accompany RFC Signal Communication Plans, if applicable

Electrical Detail Plans (RFC Plans)

Prerequisites:

- Accepted 90% Signal Plans
- Accepted 90% Electrical Details

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional Traffic Engineer
Division Construction Engineer	Signal Design Section
Area Construction Engineer	Signal Equipment Design Group

This submittal shall also include the following:

- 100% Signal Plans

Signal Communications Plans (RFC)

Prerequisites:

- Accepted 90% Signal Communications Plans
- Accepted ITS Plans (RFC), if applicable

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional Traffic Engineer
Division Construction Engineer	Signal Design Section
Area Construction Engineer	Signal Communications Group
ITS Development & Design Group	

This submittal shall also include the following:

- Project Special Provisions
- Quantities of Pay Items
- Shall accompany RFC Signal Design Plans

SIGNING

Signing submittals shall generally be made in four phases. The Signing Plans shall follow the “Guidelines for Preparation of Signing and Final Pavement Marking Plans” located on the Alternative Delivery Unit’s website. Signing submittals shall be reviewed by the Signing & Delineation Unit at the following milestones:

Preliminary Signing Plans (Concept)

The signing plan sheets, and plan view rollout (strip map) of the entire project shall include all Type “A” and “B” ground mounted and overhead existing, proposed and future signs (including messages and locations), as well as all necessary sign relocations. The strip map shall include proposed pavement markings and delineations. Determine if right-of-way, utility, drainage, retaining / noise wall and ITS devices (DMS) present conflicts with signing plans.

Prerequisites:

Accepted Design Recommendation Plan Set and Cross Sections (Include with this submittal)
Preliminary Pavement Marking Plans (stations and labels not required).

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional Traffic Engineer
Division Construction Engineer	Signing and Delineation
Area Construction Engineer	

Advance Signing Plans

This submittal shall include the revised signing plan view sheets with all signs located by station reference, sign designs, completed Type E and F sign sheets, ground-mounted sign support chart with support designs and design calculation information (S-Dimension Worksheets), and overhead structure line drawing(s), completed in the format of the final product.

Submit an excel spreadsheet that includes all proposed overhead sign structure locations with the overhead sign structure line drawings. This spreadsheet shall also include the type of structure (cantilever, full span, pedestal) as well as geographic coordinate information as shown in the example below:

Structure Number	Sign Structure	Type	Station	Latitude (Degrees)	Longitude (Degrees)
	A	Cantilever	Outside Project Limits on NB US 29	35.929633	-80.002204
	B	Full Span	-L- Sta. 12+50	35.932891	-79.995279
	C	Cantilever	-L- Sta. 35+50	35.936724	-79.988283
	D	Pedestal	Outside Project Limits on SB US 29	35.949003	-79.967006

Coordinates of the overhead sign structures shall be located within 50 feet of the center of the structure.

The Department will use the aforementioned spreadsheet, as well as the overhead sign structure line drawings, to determine Overhead Sign Structure Inventory Numbers for all overhead sign structures. Once the Overhead Sign Structure Inventory Numbers are assigned, the Department will provide the numbers to the DBT to be included on each structure line drawing in the RFC Signing Plans. The geographic coordinate information of the proposed overhead sign structure locations shall not be included in the structure line drawings in the RFC Plans. Reference the *Signing and Delineation Unit (SDU) Procedure Manual* for further guidance.

Confirm all right-of-way, utility, drainage, retaining/noise wall conflicts have been addressed or at least have a plan of action for addressing the conflicts. Coordinate the need for additional guardrail and barrier location protection for overhead structures or type A & B signs.

Prerequisites:

Accepted Design Recommendation Plan Set and Cross Sections (Include with this submittal)
Accepted Signing Concept

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional Traffic Engineer
Division Construction Engineer	Signing and Delineation
Area Construction Engineer	

This submittal shall also include the following:

Provide Preliminary Pavement Marking Plans concurrently with this signing submittal

Complete Signing Plans

This submittal shall include structure line drawings, and all corrected signing sheets, sign designs of accepted Type A, B and Overlay signs on plan sheets, and supporting documentation required in the 60% submittal. Location of signalized intersections shall be provided to ensure the proper signing at intersections.

This submittal shall include the General Notes sheet with list of applicable Roadway Standard Drawings, a draft of Project Special Provisions (other than those prepared and sealed by NCDOT). A 4½" x 4½" area for full size sheets, directly below the project information block in the upper right corner of all sheets, shall be left blank and unobstructed.

Prerequisites:

Accepted Right-of-Way Roadway Plans
Accepted Final Pavement Marking Plans
Accepted Traffic Control Staging Concept

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional Traffic Engineer
Division Construction Engineer	Signing and Delineation
Area Construction Engineer	

This submittal shall also include the following:

Accepted Right-of-Way Roadway Plans
Accepted Final Pavement Marking Plans
Accepted Traffic Control Staging Concept
Project Special Provisions

RFC Signing Plans

This set of plans shall be clearly marked as RFC. All copies shall be signed and sealed by a Professional Engineer registered in the State of North Carolina. This submittal shall include (1) Project Special Provisions signed and sealed by a Professional Engineer registered in the State of North Carolina (see the Project Special Provision section of the Guidelines for Preparation of Signing and Final Pavement Marking Plans); (2) electronic design files that have name of the Professional Engineer, registration number, and seal date inserted where seal, signature, and date are located on original plans; and (3) all other supporting documentation.

Prerequisites:

Accepted Complete Signing Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional Traffic Engineer
Division Construction Engineer	Signing and Delineation
Area Construction Engineer	Signal Design Section

This submittal shall also include the following:

Field verification of "S" Dimensions for ground mounted and overhead sign assemblies
Project Special Provisions

Overhead Sign Structures Design Shop Drawings

The DBT shall prepare shop drawings and computations for the design of all DMS structures.

Prerequisites:

Accepted RFC ITS Plans
Accepted RFC Signing Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	ITS Development & Design Group
Resident Engineer	Signing and Delineation
Division Construction Engineer	Structures Unit
Area Construction Engineer	

This submittal shall include the following:

Field verification of "S" Dimensions for DMS assemblies
Accepted RFC ITS Plans that include field verification of "S" Dimensions for all DMS assemblies to Structures Management Unit

Project Special Provisions (Final and RFC)

Project Special Provisions shall cover all items of work, material, equipment, and methods of construction for the installation of a complete traffic signal system that are not otherwise covered in the latest edition of the *Standard Specifications*. All Project Special Provisions shall be signed and sealed by a Professional Engineer registered in the State of North Carolina. A copy of the signed and sealed Project Special Provisions shall be submitted in the manner designated above for the RFC Signing Plans.

Prerequisites:

- Accepted Preliminary Traffic Signal Plans, if applicable
- Accepted Preliminary Signal Communications Plans, if applicable
- Accepted 75% ITS plans, if applicable

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	ITS Development & Design Group
Division Construction Engineer	Regional Traffic Engineer
Area Construction Engineer	Signal Design Section

Product Catalog Cut Sheets

Product Catalog Cut Sheets shall be submitted and shall include the manufacturer's make and model number for each piece of equipment, and the quantity of items to be used. The Engineer is not required to seal product catalog cut sheets.

Prerequisites:

- RFC Traffic Signal Plans
- RFC Electrical & Programming Detail Plans
- RFC Signal Communications Cable & Conduit Routing Plans
- RFC Project Special Provisions
- RFC ITS Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	ITS Development & Design Group
Resident Engineer	Signal Design Section
Division Construction Engineer	
Area Construction Engineer	

PAVEMENT MARKINGS

The DBT shall follow the “Guidelines for Preparation of Signing and Final Pavement Marking Plans on Alternative Delivery Projects”, available through the Alternative Delivery Unit’s website, as a guideline for developing plans.

Preliminary Pavement Marking Plans

Proposed pavement marking plan, including notes, pavement marking stations and label. Coordinate with signals to determine stop bar, crosswalks and proposed curb ramp locations.

Prerequisites:

Accepted Right-of-Way Roadway Plans (Include with this submittal)
Pavement Marking recommendation letter.

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional Traffic Engineer
Division Construction Engineer	Signing and Delineation
Area Construction Engineer	Work Zone Traffic Control Section

Final Pavement Marking Plans

Prerequisites:

Accepted Final Traffic Signal Plans (Include with this submittal)

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional Traffic Engineer
Division Construction Engineer	Signing and Delineation
Area Construction Engineer	Work Zone Traffic Control Section

RFC Pavement Marking Plans

After the reviewed Final Pavement Marking Plan is returned to the DBT, if any comments require changes to the plans, a sealed set of revised plans shall be required before final traffic control devices, final pavement markings and final pavement markers can be installed. Otherwise, the Final Pavement Marking Plans can be signed and sealed by a Professional Engineer registered in the State of North Carolina and re-distributed as RFC Plans as follows:

The submittal shall be distributed to the following:

Alternative Delivery Unit	Division Traffic Engineer
Resident Engineer	Regional Traffic Engineer
Division Construction Engineer	Signal Design Section
Area Construction Engineer	Work Zone Traffic Control Section
Signing and Delineation	

EROSION CONTROL DESIGN

All Erosion and Sedimentation Control Plans shall be reviewed and accepted by the Department for each distinct project section before **any** land disturbing activities, including clearing and grubbing, can commence on that project section. The RFC Final Grade Erosion Control Plans shall only be deemed final after the roadway drainage design has been finalized and accepted by the Department. Specifically, acceptance of all Erosion Control submittals, prior to and including the RFC Final Grade Erosion Control Plans, shall be contingent on acceptance of the roadway drainage design. Design modifications developed after acceptance of the RFC Final Grade Erosion Control Plans shall require the DBT to submit Intermediate Erosion Control Plans for review and acceptance as noted below. Each plan submittal shall include all pertinent design information required for review, such as design calculations, drainage areas, etc.

The NCDOT Roadside Environment Unit (REU) will provide a sample set of Erosion and Sedimentation Control plans and MicroStation Erosion Control workspace to the DBT upon request. The DBT shall coordinate a pre- design meeting between the NCDOT REU Erosion Control Engineering Section, the DBT and other pertinent NCDOT personnel prior to the submitting of any erosion control design. The Department shall only review Erosion and Sediment Control Plans after the aforementioned pre-design meeting. RFC Final Grade Erosion Control Plans shall be accepted by the NCDOT REU and submitted to all Department personnel listed below before **any** land disturbing activities, including clearing and grubbing, shall commence.

75% Clearing & Grubbing Review Plans

Prerequisites:

- Accepted ROW Roadway Plans and Cross Sections
- Pre-design meeting with the NCDOT REU Erosion Control Engineering Section, the DBT and any other pertinent NCDOT personnel

The submittal shall be distributed to the following:

Alternative Delivery Unit	Erosion Control Engineering Section
Resident Engineer	Roadside Environmental - Field Operations Engineer
Division Construction Engineer	Division Environmental Officer
Area Construction Engineer	

This submittal shall also include the following:

- Accepted ROW Roadway Plans, that delineate the proposed slope / stake lines, and cross sections

100% Clearing & Grubbing Review Plans

Prerequisites:

- Accepted 75% Clearing & Grubbing Review Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	Erosion Control Engineering Section
Resident Engineer	Roadside Environmental - Field Operations Engineer
Division Construction Engineer	Division Environmental Officer
Area Construction Engineer	

This submittal shall also include the following:

- Accepted Roadway ROW Plans, that delineate the proposed slope / stake lines, and cross sections

RFC Clearing & Grubbing Plans

Prerequisites:

100% Clearing & Grubbing Review Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit

Erosion Control Engineering Section

Resident Engineer

Roadside Environmental - Field Operations Engineer

Division Construction Engineer

Division Environmental Officer

Area Construction Engineer

This submittal shall also include the following:

- Accepted Roadway ROW Plans, that delineate the proposed slope / stake lines and drainage, as well as cross sections

75% Final Grade Erosion Control Plans

Prerequisites:

N/A

The submittal shall be distributed to the following:

Alternative Delivery Unit

Erosion Control Engineering Section

Resident Engineer

Roadside Environmental - Field Operations Engineer

Division Construction Engineer

Division Environmental Officer

Area Construction Engineer

This submittal shall also include the following:

- Accepted Roadway ROW Plans, that delineate the proposed slope / stake lines and drainage, as well as cross sections

100% Final Grade Erosion Control Plans

Prerequisites:

Accepted 75% Final Grade Erosion Control Plans

Accepted Final Roadway Plans and cross sections when the DBT is acquiring the permit.

Accepted 100% Hydraulic Plans when the DBT is acquiring the permit

The submittal shall be distributed to the following:

Alternative Delivery Unit

Erosion Control Engineering Section

Resident Engineer

Roadside Environmental - Field Operations Engineer

Division Construction Engineer

Division Environmental Officer

Area Construction Engineer

This submittal shall also include the following:

- Accepted Roadway ROW Plans, that delineate the proposed slope / stake lines and drainage, as well as cross sections

RFC Final Grade Erosion Control Plans

Prerequisites:

Accepted 100% Final Grade Erosion Control Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit

Erosion Control Engineering Section

Resident Engineer

Roadside Environmental - Field Operations Engineer

Division Construction Engineer

Division Environmental Officer

Area Construction Engineer

This submittal shall also include the following:

- The Project Special Provisions. Erosion Control Special Provisions are available through the Roadside Environmental website.

Intermediate Plans (if required)

This submittal shall be required if design modifications and / or site conditions require additional erosion control design or design revisions to the RFC Clearing and Grubbing and / or the RFC Final Grade Erosion Control Plans. This submittal shall also be required to review all basins requiring individual calculations. The NCDOT REU shall review and accept Intermediate Plans prior to construction of any aspect impacted by the revised erosion control design.

Prerequisites:

Accepted Roadway, Traffic Management, Utilities and / or Hydraulic Plans of the design modifications

The submittal shall be distributed to the following:

Alternative Delivery Unit

Erosion Control Engineering Section

Resident Engineer

Roadside Environmental - Field Operations Engineer

Division Construction Engineer

Division Environmental Officer

Area Construction Engineer

This submittal shall also include the following:

- Provide Roadway Plans, that delineate the proposed slope / stake lines and drainage, as well as cross sections
- Provide other discipline plans that are relevant to the Intermediate Plan Design (Utility, TMP, etc.)
- Provide design calculations

LIGHTING

Two stages of Roadway Plan submittals will enable the Department to finalize lighting designs and plans based on the DBT's Design Recommendation Plan Set and RFC Roadway Plans. Submit electronic Design Recommendation Plan Set and RFC Roadway Plans to the ADU Manager to enable the light standard locations and details to be finalized.

Lighting Plan Location

Prerequisites:

RFC Roadway Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit

Roadway Lighting Section

Resident Engineer

Division Construction Engineer

Area Construction Engineer

This submittal shall include the following:

Submit pole and foundation designs and details

RAILROAD INSURANCE

Prior to commencing any activities within a railroad right-of-way, insurance approval shall be obtained, per activity, from the appropriate railroad(s). The DBT shall concurrently submit two copies of the insurance documents, which contain all the railroad requirements, to the NCDOT Rail Division and one copy to the Resident Engineer.

UTILITY DESIGN

Preliminary Water and Sewer Plans

The Preliminary Utility Construction Plans for review are to show routing, major design elements and to identify any needed easements outside of existing right-of-way.

Prerequisites:

Accepted Design Recommendation Plan Set

The submittal shall be distributed to the following:

Alternative Delivery Unit	Utilities Unit
Resident Engineer	Utility Owner (allow for up to 15 days for review)
Division Construction Engineer	
Area Construction Engineer	

90% Water and Sewer Plans

Prerequisites:

Preliminary Water and Sewer Plans
Accepted Right-of-way Roadway Plans
100% Hydraulic Design

The submittal shall be distributed to the following:

Alternative Delivery Unit	Utilities Unit
Resident Engineer	Utility Owner (allow for up to 15 days for review)
Division Construction Engineer	
Area Construction Engineer	

This submittal shall also include the following:

- Plans (including a title sheet, legend and notes sheets, detail sheets, plan sheets, and profile sheets)
- Special Provisions
- Quantity Estimate

RFC Water and Sewer Plans

Prerequisites:

90% Water and Sewer Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	Utilities Unit
Resident Engineer	Utility Owner (allow for up to 15 days for review)
Division Construction Engineer	
Area Construction Engineer	

This submittal shall include the following:

- Plans (including a title sheet, legend and notes sheets, detail sheets, plan sheets, and profile sheets)
- Special Provisions

- Quantity Estimate

Utility Agreement Package for Water and Sewer

Prerequisites:

Accepted RFC Water and Sewer Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	Utilities Unit
Resident Engineer	
Division Construction Engineer	
Area Construction Engineer	

This submittal shall include the following:

- Appropriate Utility Construction Agreement, filled out and ready for review and execution
- Agreement Plans; color coded per UAM to show cost responsibility
- Special Provisions
- Quantity Estimate

Water and Sewer Permits

Submit an electronic copy of each approved water and sewer permit for work to be performed as part of the project.

Prerequisites:

None

The submittal shall be distributed to the following:

Alternative Delivery Unit	Utilities Unit
Resident Engineer	
Division Construction Engineer	
Area Construction Engineer	

Water and Sewer Catalog Cut

Submit shop drawings for water and sewer materials for acceptance by the utility owner prior to installation.

Prerequisites:

Water and Sewer Permits

The submittal shall be distributed to the following:

Resident Engineer
Division Construction Engineer
Area Construction Engineer
Utilities Unit

Water and Sewer As-Built Plans

Submit as-builts showing as-built conditions of all water and sewer work that has been performed in accordance with the utility owner's and Department's specifications. As-built plans shall be signed

and sealed by a Professional Engineer Licensed in North Carolina.

As-builts shall be prepared concurrently with water and sewer permit closeout procedures.

Prerequisites:

None

The submittal shall be distributed to the following:

Alternative Delivery Unit

Utilities Unit

Resident Engineer

Division Construction Engineer

Area Construction Engineer

UTILITY COORDINATION

Preliminary Utility Risk Analysis and Inventory Report

The Utilities Coordinator provides a Utility Risk Analysis and Inventory Report that:

- Identify potential utility conflicts
- Determine preliminary alignments for the relocation of each utility
- Determine preliminary schedules for the relocation of each utility
- Identify any anticipated Permanent Utility Easements (PUE) and Aerial Utility Easements (AUE)
- Identify anticipated utility agreement types and prior rights for each utility

Prerequisites:

Minimum 10 days prior to Right-of-Way Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	Utilities Unit
Resident Engineer	
Division Construction Engineer	
Area Construction Engineer	

This submittal shall include the following:

- Utility Coordination Working Plans (Submit Concurrently)

Prior Rights Recommendations

Submit recommendations for prior rights and evidence for each utility claiming prior rights.

Prerequisites:

N/A

The submittal shall be distributed to the following:

Alternative Delivery Unit	Utilities Unit
Resident Engineer	
Division Construction Engineer	
Area Construction Engineer	

Preliminary Utilities Coordination Working Plans

Prerequisites:

Accepted 100% Hydraulic Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	Utilities Unit
Resident Engineer	
Division Construction Engineer	
Area Construction Engineer	

This submittal shall include the following:

- Compiled Utility Relocation Plans from each utility

- Proposed Water and Sewer designs

Utilities Coordination Working Plans

The Utilities Coordinator shall submit this progress submittal of the Utility Coordination Working Plans concurrently with the submittal of the Utility Risk Analysis and Inventory Report.

Prerequisites:

- Preliminary Utilities Coordination Working Plans
- Utility Risk Analysis and Inventory Report (Submit concurrently)
- Minimum of 10 days prior to the Right-of-Way Plans

The submittal shall be distributed to the following:

Alternative Delivery Unit	ITS Development & Design Group
Resident Engineer	Roadway Lighting Section, if applicable
Division Construction Engineer	Signal Design Section
Area Construction Engineer	Utilities Unit

Utility Agreement Packages

Submit utility agreement package for each utility to be relocated for review and execution.

Prerequisites:

- Accepted Prior Rights

The submittal shall be distributed to the following:

Alternative Delivery Unit	Utilities Unit
Resident Engineer	
Division Construction Engineer	
Area Construction Engineer	

This submittal shall include the following:

- Utility Relocation Plans from the Utility Owner
- Cover letter verifying that the proposed utility relocations are not in conflict with the Design-Build Team's proposed design or construction activities.
- Applicable Utility Agreement Form
- All supporting documents

Final Utilities Coordination Working Plans

The Utilities Coordinator submits the Final Utilities Coordination Working Plans, showing the final easements/PUEs and alignments to be authorized for all utilities and the current Utilities Relocation Schedule with a description of important design decisions.

Prerequisites:

- Accepted ROW Roadway Plans
- Accepted Utility Agreement Packages

The submittal shall be distributed to the following:

Alternative Delivery Unit	ITS Development & Design Group
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Resident Engineer
Division Construction Engineer
Area Construction Engineer

Roadway Lighting Section, if applicable
Signal Design Section
Utilities Unit

DESIGN NOISE REPORT

The submittal of the Design Noise Report will generally be comprised of three major steps: the Noise Analysis Work Plan, the TNM Validation Memorandum, and the Design Noise Report itself. For guidance on preparing these submittals, see the applicable Traffic Noise Policy and Traffic Noise Manual, which are available on the NCDOT Connect website.

Any changes to a traffic noise deliverable made after that deliverable's review and comment by the Department shall require re-submittal to ensure the changes are based on the most current and accurate information. All changes shall be described in the comment / response matrix and / or in a separate Word document. All submittals shall be reviewed and revised as often as necessary until the deliverable is acceptable to the Department.

All traffic noise deliverables shall be the responsibility of an analyst prequalified under Work Code 441 and shall be reviewed by a reviewer prequalified under Work Code 441.

Noise Analysis Work Plan

The Noise Analysis Work Plan submittals (initial draft, subsequent drafts, and final) shall include the following:

- Noise Analysis Work Plan following the latest version of the NCDOT Noise Analysis Work Plan template
- Comment/response matrix (not applicable for the initial draft submittal)

A meeting with the NCDOT Traffic Noise & Air Quality Group (TNAQ) may be necessary to discuss the draft Noise Analysis Work Plan and to determine the parameters of the analysis.

Prerequisites:

A noise kick-off meeting between the DBT and TNAQ is advisable before noise analysis work begins.

The submittal shall be distributed to the following:

Alternative Delivery Unit	Traffic Noise & Air Quality Group
Resident Engineer	
Division Construction Engineer	
Area Construction Engineer	

TNM Validation Memorandum

The TNM Validation Memorandum submittals (initial draft, subsequent drafts, and final) shall include the following:

- TNM Validation Memorandum using the latest version of the NCDOT TNM Validation Memorandum template
- TNM Validation models
- Comment/response matrix (not applicable for the initial draft submittal)

A meeting with the TNAQ may be necessary to discuss the TNM validation results.

Prerequisites:

Approved Noise Analysis Work Plan

A right of entry letter issued by TNAQ before any noise measurement field work begins.

The submittal shall be distributed to the following:

Alternative Delivery Unit

Traffic Noise & Air Quality Group

Resident Engineer

Division Construction Engineer

Area Construction Engineer

Design Noise Report

Before the submittal of the initial draft Design Noise Report, a Design Noise Report Abatement Review Meeting must be held between the Design-Build Team's noise analysis staff and TNAQ.

The Design Noise Report submittals (initial draft, subsequent drafts, and final) shall include the following:

- Design Noise Report using the latest NCDOT Design Noise Report template and reflecting the discussion and decisions made at the Design Noise Report Abatement Review Meeting with TNAQ.
- TNM files
- Design files (DSN, ALN, TYP, PFL, SS, ROW, FS, GPK and DTM) are required, although any additional design files necessary to create the Existing and Build TNM models should also be provided, such as existing and proposed surface files.
- Comment/response matrix (not applicable for the initial draft submittal)
- The submittal of the final Design Noise Report, once accepted by the Department, must also include the MS Word version of the body of the report and recommended noise wall shape files and associated attribute tables.

The DBT must review all recommended noise walls against the project design and resolve any conflicts prior to submittal of the draft Design Noise Report to the Department for review. The Department will also complete an interdisciplinary review after submittal of the draft Design Noise Report.

For those projects for which the DBT provides a Design Noise Report with recommended noise walls that pass the balloting process, the DBT shall provide final sound barrier wall quantities and cost information as stated in the Final Contract. Specifically, when the final sound barrier wall working drawings are submitted, the DBT shall concurrently submit a summary of the sound barrier walls to be constructed on the project directly to the NCDOT Traffic Noise and Air Quality Group and include the information noted in Title 23 Code of Federal Regulations Part 772 Section 772.13(f), including, but not limited to, overall cost and unit cost per square foot.

If noise walls are recommended, the following must be provided by the DBT upon completion of the Design Noise Report:

- Noise wall balloting figure(s)
- If a pre-balloting public meeting is to be held, then slides and display boards must be prepared and submitted for the Department review in accordance with TNAQ specifications.

Prerequisites:

Approved Noise Analysis Work Plan

Approved TNM Validation Memorandum

A DNR Abatement Review Meeting between the Design-Build Team's noise analysis staff and TNAQ.

Approved Design Recommendation Plan Set

The submittal shall be distributed to the following:

Alternative Delivery Unit
Resident Engineer
Division Construction Engineer
Area Construction Engineer

Traffic Noise & Air Quality Group

PROJECT CLOSE OUT

Project Close Out documentation shall be provided by the DBT and shall include, but is not limited to:

- **As-Built / As-Constructed Plans** shall be submitted as a single submittal for all disciplines, i.e., Roadway, Structures, etc., to the Division in pdf format.
- **Final RFC Plans and Additional Files** shall be submitted for all disciplines by discipline, i.e., Roadway, Structures, etc., to ADU and shall include, but are not limited to:

Discipline / Unit	Final/Current RFC Plans (pdf format)	Final/Current RFC Plans (Bentley Design Files)	Additional Files
Roadway Design	Yes	Yes	N/A
Structures	Yes	Yes	Computations
Hydraulics	Yes	Yes	Computations and Reports
Geotechnical	N/A	N/A	Boring files (gINT format)
Transportation Mngt	Yes - Final TMP for Project	N/A	N/A
Signing	Yes	Yes	Individual Sign Panel Designs (Bentley Design Files)
Pavement	N/A	N/A	N/A
Pavement Markings	Yes	Yes	N/A
Railroad Coordination	N/A	N/A	Railroad Agreement & Project Special Provisions (pdf format)
Traffic Signals and Signal Communications	Yes	Yes	N/A
ITS	Yes	Yes	N/A
Lighting	Yes	Yes	N/A
Erosion and Sedimentation Control	Yes	N/A	Computations and NPDES Inspection Records (pdf format)
Utilities - Dry	Yes	Yes	N/A
Utilities - Wet	Yes	Yes	N/A
Right-of-Way	Yes	N/A	Recordable set of Right-of-Way Plans (pdf format)
Surveying	Yes	Yes	Surveying Support (dpm, gpk and tin files)

The DBT shall coordinate with the Alternative Delivery Project Manager and Division as to a final / complete listing of all disciplines and submittal needs for the project prior to project close out.

All electronic deliverables shall be in the referenced format.

The DBT shall denote in a “Read Me First” document what format, e.g., Bluebeam or Adobe, the files need to be opened in so that all information, seals, and signatures are visible to the viewer.

The DBT shall submit all **Project Close Out** documentation prior to the Department's final acceptance of the project.

Updates:
Add Line and Grade requirements under Roadway Section

07/30/2025