



**STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION**

**ALTERNATIVE DELIVERY DIVISION**

REGION 1  
7345 REGION LANE  
KNOXVILLE, TENNESSEE 37914

**BUTCH ELEY**  
DEPUTY GOVERNOR &  
COMMISSIONER OF TRANSPORTATION

**BILL LEE**  
GOVERNOR

**January 6, 2025**

**Re: ADDENDUM #5  
Contract No. DB2401  
County: Washington**

To Whom it May Concern:

This addendum revises the RFP sections as detailed below. Attached are the revised sheets.

- Book 3 (Project Specific Requirements)
  - Section 3.2: Added coordination requirements with the County on its construction of Bill Mauk Road to connect to SR-353 at the location detailed in Book 3.
  - Section 4.1: Added a bridge design performance requirement for inundation from a 100-year flood event.
  - Section 4.1: Clarified allowable cure time minimum days.
- Reference Documents
  - Added the Department's 2D hydraulic model for information only.

You must acknowledge this addendum and all the receipts of any addenda to RFP by acknowledging the addendum on Form C.

Sincerely,

Amber Warren  
TDOT Project Manager  
Alternative Delivery – Region 1



TENNESSEE DEPARTMENT OF TRANSPORTATION

**Design-Build**

**Book 3 Project Specific Information**

**State Route 353 (Bailey Bridge Road)**

**Bridge Over Nolichucky River, LM 0.44**

**Washington County, Tennessee**

Contract# DB2401

**November 2024**

**November 13, 2024 Addendum #1**

**November 26, 2024 Addendum #2**

**December 3, 2024 Addendum #3**

**December 20, 2024 Addendum #4**

**January 6, 2025 Addendum # 5**

## 3 ROADWAY

### 3.1 Standards and References

The Design-Builder shall design and construct the Work to adhere to the latest editions of the following standards in effect 30 days prior to the Proposal due date.

- *TDOT Roadway Standard Drawings*
- *TDOT Roadway Design Guidelines and Instructional Bulletins*
- *TDOT Drainage Manual*
- *TDOT Design Procedures for Hydraulic Structures*
- *TDOT Traffic Design Manual*
- *TDOT Design CADD Standards*
- *TDOT Survey Manual*
- The Department accepted *AASHTO Policy on Geometric Design of Highways and Streets Manual on Uniform Traffic Control Devices (MUTCD)*

OpenRoads Designer (ORD) shall be used in the development of 3D parametric modeling to provide model-centric design deliverables. The Design-Builder shall use ORD in accordance with requirements and guidelines provided on the Department's website: [ORD \(tn.gov\)](http://ORD.tn.gov)

### 3.2 Design Requirements

TDOT has developed the roadway design criteria for Design-Builder use on this Project (see Attachment B) in accordance with TDOT's *Roadway Design Guidelines*. The Design-Builder shall design and construct so that the:

- Proposed horizontal and vertical alignments of SR-353 meet or exceed a 50-mph design speed for a Rural Major Collector Roadway and level terrain for a 2-lane facility.
- Traffic lanes along SR-353 are 11 feet wide (see TDOT Typical Sections Standard Drawing(s) RD11-TS-2).
- The cul-de-sac on OO Moore Road meets the design standards (40' radius) in accordance with the *Subdivision Regulations of Washington County, TN* (see Reference Documents).
- Shoulder widths along SR-353 are 6 feet (4 feet paved).
- The minimum clear zone along SR-353 is 16 to 18 feet for cut slopes and 16 to 18 feet for fill slopes at 6:1 slope.
  - Any slopes steeper than 6:1 shall meet the clear zone criteria listed in TDOT Standard Drawing S-CZ-1.
- All driveway, field entrance, or intersection connections to SR-353 are to meet minimum sight distance requirements.
  - The two existing field entrances, as depicted on the Base Technical Concept, shall be replaced at approximately the same location and in a similar fashion as the original.

- The Design-Builder shall coordinate its design to accommodate the County's construction of Bill Mauk Road that will connect with SR-353 at approximately station 16+37 of the Base Technical Concept and will run adjacent to the southern property line of Tract 4A. The County anticipates constructing a two-lane roadway to tie-in with SR-353 within the County's anticipated 40-foot-wide ROW. Additionally, the Design-Builder shall maintain access to the existing temporary driveway at this location and to the completed Bill Mauk Road throughout the duration of the Construction Work.
- The proposed ROW line is set at 10 feet (minimum) outside of the toe of the proposed slope along SR-353 (the "Planned ROW Limits"). The ROW line shall be set as depicted in the Base Technical Concept.

The Design-Builder shall be responsible for preparation of final signed and sealed construction plans used to construct the Project, including:

- Prepare the plans in accordance with TDOT's Design Guidelines and the previous design standards referenced in this section, except that no steeper than 2:1 slopes will be allowed in order to either transition and tie-in to the existing roadway or to keep the toe of slope within the Planned ROW Limits (see the Base Technical Concept).
- Identify the need for any special roadway design details (i.e., any special drainage structures, special ditches, rock embankment, retaining walls, concrete barrier designs, etc.) and provide special design drawings to the Department for Review and Approval.
- Ensure that all applicable "General and Special Notes" found in Section IX of the current edition of the TDOT Roadway Design Guidelines and TDOT Instructional Bulletins (IBs) applicable 30 days prior to the Proposal due date are included in the Design Documents and are adhered to during construction.

The geometric configurations of all roadway components shall be designed to provide adequate drainage and prevent hydroplaning (when complete). Cross slopes shall be in accordance with the requirements of the roadway typical section (see Attachment B – Roadway Design Criteria). The Design-Builder shall provide hydraulic calculations (including spread calculations) to the Department.

rates following this procedure and increase the established flow rates by 10% to account for current hydrological conditions. The Design-Builder shall submit a hydraulic design to TDOT for Review and Approval, which shall be sealed by a Professional Engineer licensed in Tennessee. The bridge hydraulic design shall meet the FEMA requirements for the proposed 100-year flood elevation and meet the Department's backwater requirements for a 50-year design flood. Excavation below natural ground elevation for the purpose of flood storage or adding hydraulic capacity to the bridge shall not be allowed.

The Design-Builder shall submit shop drawings in accordance with the requirements set forth in the TDOT Standard Specifications for bridge components, erection plans, and calculations for concurrence by the Department.

Should the Design-Builder elect to use drilled shafts, the Design-Builder shall construct each drilled shaft according to Special Provision 625 Drilled Shaft Specifications. Design-Builder shall prepare all drilled shafts to accommodate cross-hole sonic logging (CSL) testing per the *TDOT Structures Design Guidelines*. Additionally, 3D tomography will be required for shafts that are six feet in diameter and larger per Special Provision Section 625.51.

The low girder elevation shall meet or exceed either elevation 1423.00 or the 50-year flood elevation plus 1', whichever is greater. The 50-year flood elevation will be determined by the Design-Builder's hydraulic analysis, as approved by TDOT. The spans in the river shown on the Base Technical Concept (Bridge Conceptual Layout) shall not be shortened. No piers can be placed in a way to narrow the main channel of the river between the stations for Piers 1 and 2 as shown on the Base Technical Concept (Bridge Conceptual Layout).

The bridge design shall meet or exceed the effects of inundation due to the 100-year flood event.

*TDOT Structural Design Guidelines* SDG 5 states that 90 days after detensioning is the earliest time a beam can receive a full depth continuity diaphragm. The Design-Builder may request to reduce the 90-day cure time to a minimum of 60 days~~request~~. Successful documentation and design notes shall be required with the submission of the beam shop drawings.

Semi-integral abutments are prohibited without prior approval from the Department. If needed, the 3-FT standard height for abutment beams may be increased up to a maximum 5-FT height to accommodate any additional grade changes based on the Design-Builder's hydraulic analysis.

## 4.2 Project Photography and Videography

The Design-Builder shall provide and use high-resolution camera equipment resulting in still photos and a time-lapse video of the bridge construction Work from start to finish.

1. The location of the camera placement must be approved by TDOT and must have clear sight lines for full visibility of the bridge. The Design-Builder shall submit a camera placement plan of the Project site with notation of the vantage point(s) marked for location and direction along with the elevation.
2. The Design-Builder shall provide the Department unlimited access to and ability to download from an online photo album, including still photos and high-quality time-lapse videos, in order to view what is happening at any time during the construction Work, as well as to review what has already happened. The Design-Builder shall submit for approval the proposed frequency for taking the images. Still photos shall include the date and time within the file name. Time-lapse videos shall include the date range within the file name.
3. All images and time-lapse footage shall be the property of the Department.