

## STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

#### **CONSTRUCTION DIVISION**

SUITE 700, JAMES K. POLK BUILDING 505 DEADERICK STREET NASHVILLE, TENNESSEE 37243-1402

CLAY BRIGHT COMMISSONER

BILL LEE GOVERNOR

January 24, 2020

Re: ADDENDUM #2

Contract No.: DB1901

County: Carroll, Fayette, Haywood, Lauderdale, and Madison

#### To Whom It May Concern:

This addendum revises the RFP Contract Book 3. Attached are the revised sheets.

You must acknowledge this addendum by completing the "Addendum Letter Acknowledgement form C and the Technical Proposal Signature Page (Form TPSP) within your Technical Proposal. It is the bidder's responsibility to notify all affected manufacturers, suppliers and subcontractors of this change.

Sincerely,

Lia Obaid, P.E.

**Assistant Director of Construction** 

Construction Division

# DESIGN-BUILD RFP CONTRACT BOOK 3 PROJECT SPECIFIC INFORMATION

#### TENNESSEE DEPARTMENT OF TRANSPORTATION

### Region 4 Bridge Bundle

Carroll, Fayette, Haywood, Lauderdale, and Madison Counties - Tennessee

**CONTRACT NUMBER: DB1901** 



November 15, 2019

Addendum #1 January 10, 2020

Addendum #2 January 22, 2020

Roadway and Structures Design Criteria dated September 20, 2019.

The following items are provided for specific project sites as listed below:

- Functional (30%) Bridge Layouts for Log Mile 0.68 of SR-436 (Reedy Creek Road) over Reedy Creek in Carroll County (for information only) dated September 16, 2019;
- Functional (30%) Bridge Layouts for Log Mile 2.13 SR-1 (US-70/79) over Muddy Creek in Haywood County (for information only) dated September 16, 2019; and,
- Pavement Design for Log Mile 2.89 SR-1 (US-70/79) over Branch and Log Mile 2.13 SR-1 (US-70/79) over Muddy Creek in Haywood County dated April 24, 2019 (See Appendix C for Haywood County pavement design. Note: all other project sites will be designed as required by TDOT Design Guidelines).
- Approved Design Waiver for Log Mile 11.48 SR-193 (Macon Road) over Branch in Fayette County dated January 22, 2020.

The Design-Builder shall acknowledge that materials furnished by the Department are preliminary and provided solely to assist the Design-Builder in the development of the project design. The Design-Builder shall be fully responsible for the accuracy and completeness of all work performed under this contract. The Design-Builder shall be fully liable and hold the Department harmless for any additional costs and all claims against the Department which may arise due to errors, omissions and negligence of the Design-Builder in performing the work required by this contract.

The Design-Builder shall verify existing survey and provide all updates to surveys, mapping, plans, verification of existing utilities, investigation, and analysis required for completion of the work.

#### 1.4 DBE GOAL

The assigned Disadvantaged Business Enterprise (DBE) goal for this Project is 8.5%. The Design-Builder shall exercise all necessary and reasonable steps to ensure that DBEs participate in at least the percent of the total project cost set forth above as the goal. The Design-Builder shall require all Subcontractors to also comply and make good faith efforts in achieving this goal and shall comply with all requirements of 49 Code of Federal Regulations (CFR) part 26.

#### 1.5 ON-THE-JOB/APPRENTICESHIP TRAINING

On-the-Job/Apprentice Training is required on this Project and shall be included in the bid document and special provision. For further information see §7.2.11 of the **DB Standard Guidance**.

attenuators, etc.) shall meet current TDOT standards and shall have all required Department certification documents.

#### **Deviations and Exceptions**

The functional design of the project is based upon approved Transportation Investment Reports (TIR) with modifications necessary to meet RFP terms and design criteria which and is reflected in the Functional (30%) Plans provided in Appendix B. All proposed modifications to the RFP terms and design criteria require an Alternative Technical Concept (ATC) subject to Department acceptance. No design exceptions will be allowed without Department acceptance.

#### **Guardrail and Barriers**

All existing guardrails attached to the existing structures shall be removed and replaced. The Design-Builder shall only remove sections of existing guardrail adjacent to traffic as specified in the Design-Builder plans when necessary and only after the Department concurs in the necessity of removal due to construction requirements and after appropriate warning devices are installed. The proposed guardrail, including any anchor system, shall be installed quickly to minimize traffic exposure to any hazard. Guardrail shall be removed and replaced in accordance with the current editions of TDOT Standard Drawings and TDOT Standard Specifications, as amended, Section 909. Guardrail is to be complete and in place before the roadway (including all ramps) is opened to traffic.

The Design-Builder shall propose an AASHTO Manual for Assessing Safety Hardware (MASH) compliant TL-3 guardrail attachment to bridge ends (and retaining walls if applicable) detail. This attachment detail shall be submitted prior to installation for the Department's Review and Acceptance. All new guardrail and end terminals shall be MASH-compliant TL-3 and be on the Department's Qualified Products List.

#### 3.2 DRAINAGE

The Design-Builder shall be responsible for design and construction of the entire stormwater management system within the Project limits, including bridges, stormwater conveyances (open-channel and closed-conduit), stormwater inlets, and stormwater collection systems.

All stormwater runoff that flows through the Project, whether originating within or outside of the Project, must be accounted for in the design of the Drainage System.

The analysis, design, and construction of all components of the stormwater management system shall address the interim conditions during construction of the Project and the final design.

#### **Design Requirements**

All drainage analysis and design shall be in accordance with the Department's Drainage Manual.

The Design-Builder shall use a 50-year design storm for all new (and existing to remain) cross drains in accordance with the Department's Drainage Manual.

The Design-Builder shall design culvert outfalls, channels and ditches within the project limits in accordance with requirements of the Drainage Manual. Appropriate energy dissipaters shall be designed at culvert outlets to prevent scouring and appropriate channel linings shall be designed such that erosion within and downstream of the channels and ditches is minimized. Energy dissipaters shall

#### Region 4 Bridge Bundle Bridge Replacement on SR 193 over Branch at LM 11.48 Fayette County BR-STP-193(11) / 24029-0207-94 TDOT PIN No. 128113.02

#### **ROADWAY DESIGN CRITERIA**

| JEDGETY ZZ. | 21112 | 4.1         |
|-------------|-------|-------------|
| -           |       | CATALITY OF |

| GENERAL INFORMATION       |                                |  |
|---------------------------|--------------------------------|--|
| Roadway Identification    | SR 193 (Macon Rd.)             |  |
| Roadway Limits            | Bridge over Branch at LM 11,48 |  |
| Functional Classification | Rural Major Collector          |  |
| Design Speed              | 45 mph (posted)                |  |
| Design Year               | 2042                           |  |
| Traffic Volume            | 1,730                          |  |
| Level of Service          |                                |  |
| Access Control            | Uncontrolled                   |  |
| Design Units              | English                        |  |
| TYPICAL SECTION           |                                |  |
| Travel Lanes              |                                |  |
| Number of Lanes           | 2                              |  |
| Lane Width                | 11'                            |  |
| Cross Slope               | 2%                             |  |
| Max Superelevation        | 8% Max SE Table "              |  |
| Shoulders                 | Shoulders & Ditches            |  |
| Shoulder Width            | 6"                             |  |
| Cross Slope               | 4%                             |  |
| Max Rollover              | 7%                             |  |
| Median                    |                                |  |
| Width                     | NA                             |  |
| Slope                     | NA                             |  |
| Clear Zone Width          | 16' Minimum                    |  |
| Side Slopes               |                                |  |
| See Standard Drawing      | RD11-TS-2                      |  |
| HORIZONTAL ALIGNMENT      |                                |  |
| Min. Radius of Curve      | 587' (D ~ 9.75 degrees)        |  |

| VERTICAL ALIGNMENT      | (   |
|-------------------------|---|
| Max Grade               |   |
| Ascending               | 8% (rolling terrain)  |
| Descending              | 8% (rolling terrain)  |
| Min Curvalure (K)       |   |
| Sag Vertical Curve      | 79  |
| Crest Vertical Curve    | 61  |
| DRAINAGE                |   |
| Calculation of Q        | Rational Method for DA < 100 Acres  |
|                         | TR-55 or USGS Regression for DA > 100 Acres   |
| Cross Drains            |   |
| Flood Frequency         | 50 Year (100 Year Review)   |
| Pipe Material           | RCP, CMP, PVC, SRTRP, HDPE, PP  |
| Minimum Freeboard       | 50 Year   |
| Side Drains             |   |
| Flood Frequency         | 10 Year   |
| Pipe Material           | RCP, CMP, PVC, SRTRP, HDPE, PP  |
| Storm Drains            |   |
| Flood Frequency         | NA .  |
| Pipe Material           | NA  |
| Pavement Spread         | NA  |
| Minimum Pipe Size       | 18"   |
| Minimum Cover           | Not less than 12" measured from the top of rigid  |
|                         | pavement or the bottom of flexible pavement to  |
|                         | the top of the outside face of the pipe   |
| SIGHT DISTANCE          |   |
| Stopping Sight Distance | 360'  |
| Passing Sight Distance  | 700'  |
| NOTES:                  | Roadway design standard RD11-TS-2 used for<br>template. Stage construct with signals maintaining<br>one 10' minimum width lane for traffic. |