



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

CONSTRUCTION DIVISION
SUITE 700, JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-1402
(615) 741-2414

BUTCH ELEY
DEPUTY GOVERNOR &
COMMISSIONER OF TRANSPORTATION

BILL LEE
GOVERNOR

July 8, 2022

Re: ADDENDUM #1
Contract No.: DB2101
County: Hamilton

To Whom It May Concern:

This addendum revises the RFP Contract Book 1, 2, and 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,

Clayton Markham, P.E.
CE Manager 2, Alternative Contracting

**DESIGN-BUILD
RFP CONTRACT BOOK 1
INSTRUCTIONS TO
DESIGN-BUILDERS (ITDB)**

TENNESSEE DEPARTMENT OF TRANSPORTATION

I-75 Interchange Modification at I-24, Phase 2 (IA)

Hamilton County- TENNESSEE

CONTRACT NUMBER: DB2101



May 27, 2022

Addendum #1 July 8, 2022

The Contract will include **Contract Book 1 (ITDB - Instructions to Design-Builders)**, **Contract Book 2 (Design-Build Contract)**, and **Contract Book 3 (Project Specific Information)**, **Design-Builder Standard Guidance** and all referenced documents, including, but not limited to, the listing in the **Contract Book 2 (Design-Build Contract)** are to set forth the rights and obligations of the Parties and the terms and conditions governing completion of the work.

The Project shall consist of the widening of the I-24 roadway in each direction, on/off ramp modifications as shown in the revised IAR ~~and Functional Plans~~, and bridge replacements over I-24 at McBrien Road and S. Moore Road in Hamilton County. The roadway improvements shall begin at the Germantown Rd. bridge and extend to a point just west of the I-24/Spring Creek Road bridges ~~and tie to the Phase I Improvements as depicted on the Functional Plans.~~

The Project shall include the widening of the I-75 roadway to include an additional lane in each direction and the replacement of the I-75 bridge over CSX railroad.

The project shall include the milling, resurfacing, and installation of pavement markings and sign modifications within the I-75/24 Interchange to match the lane configurations shown in the IAR.

The Design-Builder's obligations shall include without limitation the following:

- Furnishing all design services, Quality Management, materials, equipment, labor, transportation, and incidentals required to complete the Project according to the approved Plans, the Department's Standard Specifications, as amended, and terms of the Contract;
- Performing the construction work according to the lines, grades, typical sections, dimensions, and other details shown on the approved Plans, as modified by Change Order or other written directive issued by the Department;
- Performing all work determined by the Department to be necessary to complete the Contract; and
- Contacting the Department Alternative Contracting Office for any necessary clarification or interpretation of the Contract prior to proceeding with the affected work.
- All Project components identified in the Contract and performance of all work described in accordance with all Contract requirements. The Design-Builder shall determine the full Project requirements through comprehensive examination of the Contract and the Project Site.
- Designing, furnishing, constructing, and installing all components of the Project, except for those components, if any, as may be stipulated within the **Contract Book 3 (Project Specific Information)** to be furnished and/or installed by the Department or others.

The Design-Builder shall be fully and totally responsible for the accuracy and completeness of all work performed under the Contract, and shall indemnify and hold the Department harmless for any additional costs and all claims against the Department which may arise due to errors or omissions of the Department in the Provided Materials, and of the Design-Builder in performing the work.

2. PROJECT OVERVIEW

Project Description: I-75 Interchange Modification at I-24 (Phase 2) (Design Build) (IA)

This project will consist of:

Segment 1 (I-24 from Germantown Road to just west of Spring Creek Road)

- Reconstruct all concrete pavement and shoulders on I-24 from Germantown Road to Spring Creek Road with asphalt pavement;
- Replace the existing median barrier with a 51-inch single slope concrete median barrier from Germantown Rd. to Spring Creek Rd along I-24;
- Reconstruct the existing interstate access ramps between Germantown Road and Spring Creek Road to the configuration shown on the **approved IAR;Functional Plans;**
- Replace the storm sewer system from Germantown Rd. to Spring Creek Rd along I-24 for a complete operational system designed in accordance with TDOT's Drainage Manual. Drainage structures that can be retained and reused are limited to the following: STA 91+98 – 30" RCP, STA 99+52 – 36" RCP, **STA 142+44 – 24" RCP**, STA 145+02 – 24" RCP, STA 155+34 – DBL 8x7 RCBC, STA 175+78 (westbound roadway) - 48" RCP, and STA 176+52 (eastbound roadway) - 48" RCP;
- Widen to add an additional lane eastbound and westbound from Germantown Rd. to S. Moore Rd. and two (2) additional lanes eastbound and westbound from S. Moore Rd. to Spring Creek Rd. along I-24 as shown on the Functional Plans;
- Remove the existing temporary ramps between Germantown Road and Belvoir Avenue from N. Terrace and S. Terrace to I-24;
- Add new noise walls along I-24;
- Replace the S. Moore Road and McBrien Road overpass bridges **and approaches**, including new **6'-0"** sidewalks **on both sides of the roadway, and 5'-0"** bike lanes **on both sides of the roadway, 6'-0"** paved shoulder on each side of the roadway, a single **11'-0"** through lane in each direction, a single **11'-0"** northbound left turn lane, **11'-0"** southbound left turn lane (dual **11'-0"** left turn lanes required on S Moore Road), **lighting, traffic signals, and fencing; as shown on the Functional Plans;**
- Mill and resurface all existing asphalt pavement on N. Terrace and S. Terrace from Germantown Road to Spring Creek Road;
- Remove and replace all guardrail. Install new guardrail in accordance with TDOT's Roadway Design Guidelines;
- Clean and place new texture coat on all existing median barrier to be retained;
- Replace all roadway lighting on I-24 between Germantown Road and Spring Creek Road. Replace all roadway lighting on N. Terrace and S. Terrace between Germantown Road and Spring Creek Road. Replace all roadway lighting on S. Moore Road between N. Terrace and S. Terrace. Replace all roadway lighting on McBrien Road between N. Terrace and S. Terrace;

- Coordinate utility relocations in Segment 1;
- Relocate and improve ITS facilities in Segment 1;
- Install new overhead signs and sign structures and update existing signs and sign structures to the ultimate build configuration as shown in the roll plots for Segment 1; and
- Replace control access fence at locations detailed in this RFP for Segment 1.

Segment 2 (I-75 from approximately 455' west of the CSX Railroad Bridge to near E. Brainerd Road Interchange)

- Widen I-75 northbound and southbound from approximately 400 ft. south of the CSX Railroad bridge to the East Brainerd Road interchange;
- Replace the existing I-75 bridge over the CSX Railroad with a new structure (no modifications to the existing structure allowed);
- Replace the existing median barrier with a 51-inch single slope concrete median barrier from approximately 750 ft. south of the CSX railroad crossing bridge to approximately 500 ft. north of the CSX Railroad bridge (areas of profile change) along I-75;
- Rehabilitate the existing concrete pavement from approx. 300 ft. north of the CSX Railroad bridge to East Brainerd Road;
- Remove and replace all guardrail. Install new guardrail in accordance with TDOT's Roadway Design Guidelines;
- Clean and place new texture coat on all existing median barrier to be retained on I-75 from 400 ft. south of the CSX Railroad bridge to the East Brainerd Road bridge;
- Replace all lighting on I-75 from 400 ft. south of the CSX Railroad bridge to the East Brainerd Road bridge;
- Coordinate utility relocations in Segment 2;
- Relocate and improve ITS facilities in Segment 2;
- Install new overhead signs and sign structures and update existing signs and sign structures to the ultimate build configuration as shown in the roll plots for Segment 2; and
- Replace control access fence at locations detailed in this RFP for Segment 2.

Segment 3 (Interchange)

- Mill, resurface, and install permanent pavement markings in all areas necessary to achieve the ultimate build configuration as shown in the Signing and Marking Roll Plot. This includes all areas affected by temporary pavement markings.
- ~~Resurface and restripe the I-75 southbound to I-24 westbound interstate to interstate ramp, I-24 eastbound from just west of Spring Creek Road to I-75 northbound interstate to interstate ramp and I-75 southbound from 400 ft south of the CSX~~

~~Railroad bridge through the interchange to just west of Spring Creek Road to the ultimate build configuration;~~

- ~~• Resurface and restripe the I-75 northbound to I-24 westbound interstate to interstate ramp, the I-24 eastbound from just west of Spring Creek Road to I-75 southbound interstate to interstate ramp and I-75 northbound through the interchange to 400 ft south of the CSX Railroad bridge to the ultimate build configuration;~~
- Update and install new signs on the existing sign structures to the ultimate build configuration as shown in the roll plots for Segment 3; and
- Replace control access fence at locations detailed in this RFP for Segment 3.

3. **RFP COMMUNICATION**

The Department Alternative Contracting Assistant Director is the single point of contact for the Department for the duration of the procurement process, together with address, phone number, fax number, and e-mail address, as set out in the Contract.

a. **CORRESPONDENCE**

All correspondence and submittals must be submitted electronically, addressed to the Department Alternative Contracting Assistant Director and labeled as set out in Section C.2 of **Contract Book 2 (Design-Build Contract)**.

Return Address – The Design-Builder must also include on the envelope or package the Design-Builder’s name and return address.

Any Department designated contact person specified in the **Design-Build Standard Guidance** for a specific technical area will be disclosed to the contracted Design-Builder within the Initial Notice to Proceed (NTP).

b. **OTHER MEANS OF COMMUNICATION**

The Design-Builders may also communicate with the Department Alternative Contracting Assistant Director by fax, phone, or e-mail (or if the Program Manager is unavailable, as a secondary contact, the Department Director of Construction by telephone at 615-741-2414. Advance copies of submittals delivered to the Department by fax or e-mail are not considered official until the Department receives the hard copy. Official communications will only be disseminated in writing by the Department.

c. **COMMUNICATIONS WITH DESIGN-BUILDER; DESIGN-BUILDER’S SINGLE POINT OF CONTACT AND ADDRESS**

The Department Alternative Contracting Assistant Director shall be the Design-Builder’s single point of contact for all communications during the procurement process prior to the Proposal Due Date. The Design-Builder’s single point of contact for communications during the procurement process shall be the only person to request information.

4. THE DEPARTMENT'S DISSEMINATION OF INFORMATION

a. INFORMAL COMMUNICATIONS

The Department may post informal advance notices of Addenda and information on the Project website and may also utilize e-mail alerts (clayton.markum@tn.gov clayton.markham@tn.gov). However, the Design-Builders may not rely on oral communications, or on any other information or contact that occurs outside the official communication process specified herein. Official communications will only be disseminated in writing, by e-mail, or via the website by the Department.

In the event the Department determines that a change of RFP or Contract terms or specifications are warranted, the Department will issue formal written clarifications or Addenda.

b. RESPONSES TO FORMAL REQUESTS

Questions on or modification of provisions of the RFP or any Addenda can be pursued through submittal of Form QR. The Department will provide responses to all:

- Requests for QPL product determination;
- Requests for answers; and
- Requests for change of Contract terms or specifications.

Information that the Department issues to the Design-Builders in writing responding to the questions submitted on Form QR will be posted to the website for all Design-Builders to view.

c. ADDENDA

If the Department determines that a formal request or protest raises an issue that should be resolved by amending an RFP provision, specification or Contract term, the Department will do so by issuing a formal Addendum clearly identifying the change as amending, revising, or modifying the RFP provision, specification or Contract term in question.

The Department may issue Addenda up to five (5) Calendar Days prior to the Proposal Due Date, unless the Department extends the Proposal Due Date concurrent with issuance of the Addendum.

d. REQUESTS FOR QPL PRODUCT DETERMINATION

The Design-Builder may request a product in lieu of a QPL product by identifying the product category included on the QPL. The Design-Builder shall provide sufficient manufacturer's product information, together with supporting documentation such as industry studies and test results, and product demonstration, if relevant, as may be reasonably necessary to enable the Department to make a determination as to the inclusion of said product on the Department's QPL. The Design-Builder shall not submit any proprietary items, unless specified in accordance with 23 CFR 635.411 and approved by the Department prior to the request.

The Department may reject any request without recourse by the Design-Builder. The Department has no obligation but to review the product and shall not be liable for failure to accept or act upon any request. The Department shall be the sole judge of the acceptance or rejection of a product. If an agreement has not been reached by five (5) Calendar Days prior to the Proposal Due Date, the product shall be deemed rejected.

e. QUESTIONS

The Design-Builders may provide questions on RFP provisions, Contract provisions, and specifications that the Design-Builder considers unclear or incomplete. To be considered, the questions must identify the unclear language or omission, or the specific discrepancies between identified provisions that result in ambiguity. All requests shall be submitted to the Department Alternative Contracting Assistant Director and will only be accepted in the format of Form QR in electronic format by e-mail (clayton.markum@tn.gov clayton.markham@tn.gov) or fax. Any questions to addenda issued after the question deadline will be considered and answers issued if time allows.

f. REQUESTS FOR CHANGE OF CONTRACT TERMS OR SPECIFICATIONS

The Design-Builders may submit a request for change of Contract terms or specifications setting out the language for which change is sought and indicating the document title, page, and subsection where the language is located. To be considered, the request must include the reason for the requested change, supported by factual documentation, and the proposed change. All requests shall be submitted to the Department Alternative Contracting Assistant Director and will only be accepted in the format of Form QR in electronic format using MS Word by e-mail (clayton.markum@tn.gov clayton.markham@tn.gov) or fax.

g. PROHIBITED DESIGN-BUILDER COMMUNICATIONS

No member of Design-Builder’s organization (employees, agents, Principal Participants, the Designer, Key Personnel or the Technical Manager) may communicate with members of another Design-Builder’s organization to give, receive, or exchange information, or to communicate inducements, that constitute anti-competitive conduct in connection with this procurement.

The Design-Builders shall not contact stakeholder staff regarding the RFP content or the requirements for the Project. Stakeholder staff includes employees of the Department, city(ies) and county(ies) in which the Project or any part of it are located.

Prohibited communications do not include contact with regulatory/county/city officials for the limited purpose of obtaining information regarding available detour routes and conditions associated with such use or regulatory/county/city guidelines. Communications with utility companies for the purpose of obtaining information regarding potential conflicts and relocation durations are not prohibited.

5. **PROCUREMENT SCHEDULE/SUBMITTAL DEADLINES**

The Procurement Schedule and submittal deadlines are set out below. The Department will not consider requests on any submittal received by the Department after the deadline for its submittal date stated below. The Department will not consider requests on any submittals pertaining to an Addendum after the deadline established in the Addendum.

Confidential (One-on-One) Meetings with Each Proposer	Week of July 11, 2022
Deadline for Submittal of Question Requests, and Requests for QPL Determination	September 9, 2022 4:00 p.m., CT.
Deadline for Submittal of Alternate Technical Concepts	September 12, 2022 4:00 p.m., CT.
Deadline for Submittal of Initial Lighting Design & Right-of-Way Acquisition (Exhibit)	September 12, 2022 4:00 p.m., CT.
Deadline for Response to Initial Lighting Design & Right-of-Way Acquisition (Exhibit)	September 19, 2022 4:00 p.m., CT.
Deadline for Response to Alternate Technical Concepts,	September 19, 2022 4:00 p.m., CT.
Anticipated Deadline for Issuance of Last Addendum	September 19, 2022 4:00 p.m., CT.
Technical Proposal and Price Proposal Due Date and Time	September 30, 2022 4:00 p.m., CT.
Public Price Proposal Opening	October 28, 2022 9:00a.m., CT.
Anticipated Award of Design-Build contract, or rejection of all proposal	On or before November 18, 2022
Anticipated Issuance of Initial Notice to Proceed	December 9, 2022

The Department will not consider any late Proposals. Proposals received after the Proposal Due Date will be returned unopened to the Design-Builder. The Department will not consider any Proposal modifications submitted after the Proposal Due Date, nor will the Department acknowledge Proposal withdrawals submitted after the Proposal Due Date. Any such attempted withdrawal will be ineffective.

If the Design-Builder does not submit a Proposal by the Due Date and the Department chooses to issue a new, revised, or modified RFP, the Proposal will be considered non-responsive to the requirements set forth herein. As a result, the Design-Builder will not be eligible to respond to any additional RFP requests from the Department on this project.

6. **CONTRACT DOCUMENTS**

- Contract Book 1 (ITDB - Instructions to Design-Builders);
- Contract Book 2 (Design-Build Contract);
- Contract Book 3 (Project Specific Information);
- Design-Build Standard Guidance and Addendum;
- The Department Standard Specifications;
- The Department Supplemental Specifications;
- The Department Roadway Design Guidelines, and Addendum;

~~For example, but not limited to~~ Anticipated Pay Items include the following:

105-01.20 Design-Build Construction Stakes, Lines & Grades

- Field Survey
- Construction Staking

105-01.55 Design-Build Design Services

(All Design Activities shall be included in this item.)

- Definitive Design and Reviews
- Readiness-for-Construction Plans and Reviews, Specification and quantity estimates
- Working Drawings
- As-Built Plans and Reviews

105-08.20 Design-Build Contract Management

- Project Administration
- Project progress (scheduling)
- Contract progress submittals for payment

109-04.50 Design-Build ROW Services

- Appraisal
- Acquiring
- Public meetings if required

109-10.01 TRAINEE

Trainee at the unit price \$0.80 per hour for each hour approved training provided, as indicated in SP1240

203-01.95 Design-Build Grading & Roadways

- Road and Drainage excavation
- Borrow excavation (rock)
- Borrow excavation (other than solid rock)
- Undercutting

204-05.50 Design-Build Geotechnical

- Borings
- Geotechnical Investigations
- Sinkholes
- Slide Mitigation

209-01.50 Design-Build Environmental Management

- EPSC measures, EPSC installation
- EPSC inspections
- Permit Acquisitions

301-50.50 Design-Build Pavement

- Any aggregate base
- Any Bituminous Plant Mix Base (HM) (A, BM-2, Etc.)
- Any Bituminous Concrete Surface (HM) (D, E)
- Treated Permeable Base Or Lean Concrete Base

- 5) Identify drainage modifications and designs to be implemented.
 - 6) Identify the appropriate design criteria for each feature if not provided.
 - 7) Identify all bridge types to be constructed, including any special design features or construction techniques needed.
 - 8) Identify any deviations or proposed design exceptions, from the established design criteria that will be utilized. Explain why the deviation is necessary.
 - 9) Describe any geotechnical investigations to be performed by the Design-Builder.
 - 10) Describe how any utility conflicts will be addressed and any special utility design considerations. Describe how the design and construction methods minimize the Department's utility relocation costs.
 - 11) Describe how the design will affect the right-of-way costs.
 - 12) Identify types of any retaining walls and /or noise walls if applicable.
 - 13) Provide preliminary lighting design. Information shall include electronic design files using Agi32 software, layout sheets that illustrate the photometrics. All lighting shall be in conformance with the *TDOT Traffic Design Manual*.
- c. The Technical Proposal shall include half-size plan sheets depicting those elements required by the RFP.
 - d. Describe any traffic control requirements that will be used for each construction phase.
 - e. Describe how traffic will be maintained as appropriate and describe understanding of any time restrictions noted in the RFP.
 - f. Describe the safety considerations specific to the Project.
 - g. Discuss overall approach to safety.
 - h. Describe any proposed improvements that will be made prior to or during construction that will enhance the safety of the work force and/or traveling public both during and after the construction of the Project.
 - ~~i. Provide detailed Traffic Analysis and Mitigation Report as described in RFP Form Response Category IV: Technical Solution.~~

5. INITIAL LIGHTING DESIGN AND RIGHT-OF-WAY ACQUISITION EXHIBIT SUBMITTAL

An Initial Lighting Design and Right-of-Way Acquisition Exhibit submittal containing Item 4.b.2)13) above and the Right-of-Way Acquisition Sheets is required and is to be submitted in accordance with the Procurement Schedule in Adobe PDF electronic format. Right-of-Way (ROW) Acquisition Sheets comprise the ROW Acquisition Table including all proposed areas of right-of-way and easements and in the format ~~depicted required in the Functional Plans~~ *TDOT Roadway Design* along with Property Maps or Present Layouts as needed to clearly depict the proposed acquisitions. The Department will respond with comments in accordance with the Procurement Schedule. The technical proposal shall include Item 4.b.2)13) above along with the ROW Acquisition Sheets with any comments received from the initial design exhibit review addressed.

**DESIGN-BUILD
RFP CONTRACT BOOK 2
DESIGN-BUILD CONTRACT**

TENNESSEE DEPARTMENT OF TRANSPORTATION

I-75 Interchange Modification at I-24, Phase 2 (IA)

Hamilton County- TENNESSEE

CONTRACT NUMBER: DB2101



May 27, 2022

Addendum #1 July 8, 2022

5. *SUBSTITUTION OF KEY PERSONNEL AND/OR DESIGN PROFESSIONALS*

The Parties agree that each Key Personnel, Design Professional and Subcontractor is unique, and that the Department has relied upon their qualifications in selecting the Design-Builder to perform the Contract. Therefore, the Design-Builder shall not replace any Key Personnel or Design Professional during the term of the Contract. Notwithstanding the foregoing, in those limited circumstances in which the Department elects to consider substitutions, the process shall be governed by the provisions of **Design-Build Standard Guidance**. In the event the Department approves a substitution request, the Department retains the right to strictly enforce this Section C.5 in the event of future requests for substitution. No individual substitution approval or pattern of substitution approvals shall constitute a waiver of this requirement. Should the Department, in its sole discretion, elect to authorize a substitution, such authorization shall not relieve the Design-Builder of its sole responsibility under the Contract to complete all work and deliver the Project in accordance with all Contract requirements.

D. DATE OF COMMENCEMENT AND COMPLETION OF SERVICES

1. *TIME FOR PERFORMANCE*

The Contract shall take effect on the Effective Date and shall be performed by the Parties according to its terms, unless earlier terminated, until Final Acceptance by the Department in accordance with **Design-Build Standard Guidance**.

2. *COMMENCEMENT OF SERVICES*

The Design-Builder is authorized to commence the work within the Contract for post award submittals pursuant to **Design-Build Standard Guidance**. The Design-Builder shall not perform any services beyond post award submittal until the issuance of first Notice to Proceed (NTP) and for each subsequent phase requiring a Review and Approval NTP.

3. *COMPLETION DATES*

The Design-Builder shall complete all work to be done under the Contract, except for plant/vegetation establishment, by ___/___/___ and not later than ~~October 31, 2026.~~ **October 30, 2026.**

The Design-Builder shall specify the number of calendar days for completion of the project within their price proposal. The number of calendar days specified by the Design-Builder in their price proposal will be placed in the Contract above prior to execution of this Design-Build contract.

6. GOALS AND TARGETS

There is a DBE Utilization Goal of ~~9%~~ **10%** for this Project. If a goal is stated, the Design-Builder shall follow the DBE provisions as provided in **Contract Book 2 (Contract)**.

N. MISCELLANEOUS PROVISIONS

1. EMPLOYMENT OF DEPARTMENT WORKERS

The Design-Builder shall not engage, on a full, part-time, or other basis during the period of this Contract, any professional or technical personnel who are or have been at any time during the period of the Contract in the employ of the Department, except regularly retired employees, without the written consent of the Department.

2. COVENANT AGAINST CONTINGENT FEES

The Design-Builder warrants that it has not employed or retained any company or person other than a bona fide employee working solely for the Design-Builder to solicit or secure this Contract, and that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the Design-Builder, any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, the Department shall have the right to deduct from the Contract Amount or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gifts, or contingent fee.

3. ENERGY POLICY AND CONSERVATION ACT

Under this Contract, the Design-Builder shall give due consideration to and, as applicable, comply with the standards, orders, and requirements relating to energy efficiency contained in the Department energy conservation plans issued in compliance with the Energy Policy and Conservation Act (P.L. 94-165).

4. ADDITIONAL EMPLOYMENT REGULATIONS

The Design-Builder shall comply with the Vocational Rehabilitation Act of 1973 as approved by Congress on September 26, 1973, herein incorporated by reference, which prohibits employment discrimination against physically handicapped persons. Further, the Design-Builder shall comply with Section 2012 of the Vietnam Era Veterans Readjustment Act of 1974 which requires the Design-Builder to take affirmative action to employ and advance in employment qualified veterans of the Vietnam Era.

5. COPYRIGHTING

The Design-Builder shall be prohibited from copyrighting any papers, reports, forms or other material which is a part of any work under this Contract without written approval from the Department. Publication rights to any documents produced are reserved by the Department.

THIS CONTRACT is executed in three (3) original copies, of which one is to be delivered to the Design-Builder, and the remainder to the Department.

The Design-Builder's authorized representative, by his/her signature below, hereby acknowledges that he/she has read this Contract, understands it, and can affirm that the Design-Builder agrees to be bound by its terms and conditions. This Contract may be executed in several counterparts, each of which shall be an original, and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, the Parties have executed this Contract, which shall be effective as of the Effective Date.

**DESIGN-BUILDER
NAME:** _____

Company Officer Signature Printed Name and Title Date

**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

This Contract is accepted this _____ day of _____, _____, and
is effective on the _____ day of _____, _____.

~~Butch Eley, Joseph Galbato III, Interim~~ Commissioner

John Reinbold, General Counsel
Approved as to Form and Legality

STATE OF TENNESSEE

Contract No. DB2101

Hamilton County

Regarding Sound-Absorbing Noise Barriers**1.0 General**

1. The sound-absorbing noise barrier system shall be of post and panel design with the sound-absorbing side facing the highway.
2. The sound-absorbing noise barrier system shall meet or exceed requirements for sound absorption, freeze/thaw, and sound transmission loss, as specified below.
3. The system shall include a reinforced concrete component, and the panels shall be cast such that the sound-absorbing material is integral with the reinforced concrete component. No adhesives or mechanical fasteners may be used to attach the sound-absorbing material to the structural concrete.
4. The sound-absorbing material shall be durable under all weather conditions and shall resist rotting; mold and mildew build-up; rusting; warping; bird, rodent or insect nesting or infestation; and delamination, crumbling or spalling.
5. Adequate drainage shall be provided at the base of the panel.
6. The contractor shall obtain concrete and sound-absorbing products from a single manufacturer.

2.0 Sound Absorption Test Requirements

1. The Noise Reduction Coefficient (NRC) of the proposed sound-absorbing noise barrier panels shall equal or exceed 0.70 when tested per current ATSM C423 requirements, mounting type A (sample laid directly against the test surface).
2. Testing shall be completed prior to beginning the production run as specified below. The test panel sample shall:
 - a. be produced in the same precast yard that will produce the actual panels for the project by the exact same process and material sources as those to be used on the project;
 - b. be taken from the same panels or lot of panels that is the source of the samples used in the Freeze/Thaw Test; and,
 - c. have the same thicknesses of sound-absorbing material and the same pattern, texture, and stain as the actual panels to be used in this project.
3. The contractor shall provide the TDOT Structures Division with the name of the certified testing laboratory and the scheduled date of testing prior to conduct of the Sound Absorption Test and shall provide TDOT with all Sound Absorption Test results within seven days of receipt of the test results from the laboratory.

4. If the sample fails the Sound Absorption Test, the contractor, at his own expense, shall have the option of testing new samples from that source, or selecting another material or another noise barrier supplier that then passes the test. The failure to pass the Sound Absorption Test shall not constitute cause for an excusable project time extension.
5. TDOT will accept previously conducted Sound Absorption Test results in lieu of the testing described above as long as the following requirements are met:
 - a. The tested panels were produced in the same precast yard that will produce the actual panels for the project by the exact same process and material sources as those to be used on the project;
 - b. The panels have the same thicknesses of sound-absorbing material and the same pattern, texture, and stain as the actual panels to be used in this project;
 - c. The process by which the project panels will be produced is the same as that used to produce the tested panels;
 - d. The tests were completed within two years prior to the date the project is advertised for bid; and,
 - e. The manufacturer provides a notarized letter explicitly stating that the conditions in 5(a), 5(b), 5(c), and 5(d) have been met.
6. The contractor shall provide full documentation of the Sound Absorption Test results to TDOT for review and approval.

3.0 Freeze/Thaw Test Requirements

1. The Freeze/Thaw Test shall be performed prior to the production run in accordance with the test procedure in the current version of ASTM C 666 using Method A or Method B (for 300 cycles) at a certified testing laboratory. Weight loss shall not exceed 7% and no physical distress (no cracking or breaking) shall be allowed. The test panel samples shall:
 - a. be produced in the same precast yard that will produce the actual panels for the project by the exact same process and material sources as those to be used on the project;
 - b. be taken from the same panels or batch of panels that is the source of the samples used in the Sound Absorption Test; and,
 - c. have the same thickness of sound-absorbing material and concrete, and the same pattern, texture and surface coating as the actual panels to be used in this project.
2. The contractor shall provide the TDOT Structures Division with the name of the certified testing laboratory and the scheduled date of testing prior to conduct of the Freeze/Thaw Test and shall provide TDOT with all Freeze/Thaw Test results within seven days of receipt of the test results from the laboratory.
3. If the sample fails the Freeze/Thaw Test, the contractor, at his own expense, shall have the option of testing new samples from that source, or selecting another material or another noise barrier supplier that then passes the test. Failure to pass the

Freeze/Thaw Test shall not constitute cause for an excusable project time extension.

4. TDOT will accept previously conducted Freeze/Thaw Test results in lieu of the testing described above as long as the following requirements are met:
 - a. The panels were produced in the same precast yard that will produce the actual panels for the project by the exact same process and material sources as those to be used on the project;
 - b. The panels have the same thickness of sound-absorbing material and concrete, and the same pattern, texture, and surface coating as the actual panels to be used in this project;
 - c. The process by which the project panels will be produced is the same as that used to produce the tested panels;
 - d. The tests were completed within two years prior to the date the project is advertised for bid; and,
 - e. The manufacturer provides a notarized letter explicitly stating that the conditions in 4(a), 4(b), 4(c), and 4(d) have been met.
5. The contractor shall provide full documentation of the Freeze/Thaw Test results to TDOT for review and approval.

4.0 Sound Transmission Loss Requirements

1. The contractor shall submit test results by current ASTM E90 requirements for the expected thickness (or smaller thickness) of the proposed concrete and /or concrete plus sound-absorbing panels. These results may be from representative tests completed within five years prior to the date the project is advertised for bid. The transmission loss in each tested 1/3-octave band shall be at least 20 dB.

5.0 Sound-Absorbing Material Fire Rating Requirement

1. The sound-absorbing material shall exhibit a Flame Spread Index of 25 or less (Class A) when tested according to current ASTM E84 requirements.

6.0 Noise Barrier System Surface Finish

1. Concrete formliners shall be used to achieve the specified pattern and texture on both the sound-absorbing side of the barrier and the community side of the barrier. Methods that involve rolling of any kind to achieve the specified pattern and texture will not be permitted.
2. The formliner used on the sound-absorbing side of the noise barrier that will face the highway shall have an appearance aesthetically uniform in accordance with the existing noise walls (match nearby existing walls).
3. The formliner used on the community side of the noise barrier shall have an appearance of Random Cut Stone #1106 manufactured by Custom Rock or approved equal by the TDOT Environmental Division. The color of the community side of the noise barrier will be Federal Spec. No. 36373 gray. Top noise barrier panels shall include a 12-inch-wide smooth band across the top of each panel on both sides.

4. All posts shall be cut flush with the panel tops.
5. The form liners for both the community side and the highway side of the noise barrier shall be approved by TDOT Environment Division, Hazardous Materials, Air Quality and Noise Section (615-532-9948), TDOT Structures Division (615-741-3351), and TDOT Region 2 Construction (423-892-3430, ext. 6) prior to the manufacture of the demonstration panel for product acceptance as specified below.

7.0 Noise Barrier System Surface Treatment

1. The sound-absorbing side of the barrier shall be stained using a weather-resistant water based acrylic stain approved by the manufacturer of the sound-absorbing material. The color shall be aesthetically uniform in accordance with the existing noise walls (match nearby existing walls).
2. The sides of the noise barrier posts on the sound-absorbing side of the noise barrier shall be texture coated aesthetically uniform in accordance with the existing noise walls (match nearby existing walls).
3. The community side of the noise barrier and the sides of the barrier posts on the community side of the noise barrier shall be texture-coated and have an appearance of Random Cut Stone #1106 manufactured by Custom Rock or approved equal by the TDOT Environmental Division. The color of the community side of the noise barrier will be Federal Spec. No. 36373 gray. Top noise barrier panels shall include a 12-inch-wide smooth band across the top of each panel on both sides.
4. The colors for both the community side and the highway side of the noise barrier shall be approved by TDOT Environment Division, Hazardous Materials, Air Quality and Noise Section (615-532-9948), TDOT Structures Division (615-741-3351), and TDOT Region 2 Construction (423-892-3430, ext. 6) prior to the manufacture of the demonstration panel for product acceptance as specified below.
5. Surface preparation, application rate and application procedure shall be as specified by the stain manufacturer. Surfaces must be clean and free of any contaminants that could prevent good adhesion. Stain shall not be applied when the air temperature is below 45 degrees F or above 90 degrees F, or when the surface is damp, or when weather conditions such as rain, fog or dew would not permit full drying of material.
6. Staining and texture coating shall result in panels and posts that appear uniform in color. The contractor shall obtain approval from the TDOT Environment Division, Hazardous Materials, Air Quality and Noise Section (615-532-9948) that the noise barrier surfaces are uniform in color before ceasing staining or texture coating operations.
7. The stain and texture coat applications shall be performed either at the production site or the construction site but shall not be applied until after the material is cured. The contractor shall be responsible for any damage to the finish that occurs during shipping and installation. The contractor shall reapply stain and texture coat as needed after installation to correct any problems, in accordance with requirements of the stain manufacturer and the sound-absorbing material manufacturer, and to the satisfaction of the State inspector and the TDOT Environmental Division to ensure color uniformity.

8.0 Demonstration Panel for Product Acceptance

1. The contractor shall cast a sample barrier panel with the approved formliner and color. If the sample meets the requirements of this provision, TDOT will approve the panel and this panel shall serve as a standard for acceptance of subsequent noise barrier panels. If accepted, the demonstration panel can be incorporated into the completed project.
2. The demonstration panel shall be delivered to the project site. The delivery location should be approved in advance by Environment Division, Hazardous Materials, Air Quality and Noise Section (615-532-9948) and TDOT Region 2 Construction at (423-892-3430, ext. 6).

9.0 Panel Transportation and Installation

1. Written procedures to protect the posts and panels and sound-absorbing material from damage during all phases of transportation and installation shall be incorporated into shop drawing notes. The installer shall consult with manufacturer and/or licensee to determine the proper procedures.
2. The manufacturer and trucking company shall insure that all panels are protected during all aspects of truck loading/unloading and transport to the project installation location. Straps or other devices used to hold the panels in place on the truck shall not make contact with the sound-absorbing material at any time.
3. Panels having deficiencies such as delamination, crumbling, cracking, crazing, scaling, spalling, efflorescence or segregation, or panels having mottling of stain or finish shall be rejected. Prior to installation, the contractor shall inspect delivered product for any defects.
4. Field patching of damage to the sound-absorbing material surface that occurs during installation shall not be permitted unless the contractor can successfully demonstrate such patching in the precast yard by a method approved by the manufacturer of the sound-absorbing material. Any field patching must be accomplished with the same sound-absorbing material as is on the precast panel and must result in a finish that is consistent with the undamaged sound-absorbing material finish.
5. Installation shall be done such that the horizontal joints between panels shall line up from one bay of panels to the next.
6. Panels that exhibit deficiencies or damage after installation shall be replaced or repaired by the contractor at the discretion of TDOT and to the satisfaction of TDOT at the expense of the contractor.
7. After installation, the contractor shall remove dirt from panels with water.

10.0 List of Possible Suppliers

1. The following are known suppliers of sound-absorbing noise barriers for the contractor's information only. There may be products from other suppliers that will meet the requirements of the plans and this specification.

Contract No. DB2101

Hamilton County

Custom Rock Formliner

2020 West 7th Street
St. Paul, MN 55116
Phone: 651-699-1345
Fax: 615-699-1830

Concrete Precast Systems

4215 Lafayette Center Drive, Suite 1
Chantilly, VA 20151
Phone: 703-222-9700
Fax: 703-222-6998
www.cpsprecast.com

Concrete Solutions, Inc.

3300 Bee Cave Road, Suite 650
Austin, TX 78746
Phone: 512-327-8481
Fax: 512-327-5111
csi@soundsorb.com

**DESIGN-BUILD
RFP CONTRACT BOOK 3
PROJECT SPECIFIC INFORMATION**

TENNESSEE DEPARTMENT OF TRANSPORTATION

I-75 Interchange Modification at I-24, Phase 2 (IA)

Hamilton County- TENNESSEE

CONTRACT NUMBER: DB2101



May 27, 2022

Addendum #1 July 8, 2022

Segment 1

- Reconstruct all concrete pavement and shoulders on I-24 from S Germantown Road to Spring Creek Road with asphalt pavement;
- Replacing the existing median barrier with a 51-inch single slope concrete median barrier from Germantown Rd. to Spring Creek Rd along I-24;
- Reconstruct the existing interstate access ramps between Germantown Road and Spring Creek Road to the configuration shown on the **approved IAR with new concrete pavement from the nose of the new physical gore at the ties to I-24 to the nose of the physical gore at the ties to the Terraces** ~~Functional Plans~~;
- Replacing the storm sewer system from Germantown Rd. to Spring Creek Rd along I-24 for a complete operational system designed in accordance with TDOT's Drainage Manual. Drainage structures that can be retained and reused are limited to the following: STA 91+98 – 30" RCP, STA 99+52 – 36" RCP, STA 142+44 – 24" RCP, STA 145+02 – 24" RCP, STA ~~155+34~~ **153+34** – DBL 8x7 RCBC, STA 175+78 (westbound roadway) - 48" RCP, and STA 176+52 (eastbound roadway) - 48" RCP;
- Widening to add an additional lane eastbound and westbound from Germantown Rd. to Moore Rd. and two (2) additional lanes eastbound and westbound from Moore Rd. to Spring Creek Rd along I-24 as shown on the Functional Plans;
- Removal of the existing temporary ramps between Germantown Road and Belvoir Avenue from N Terrace and S Terrace to I-24;
- Adding new noise walls along I-24;
- Replacing the S Moore Road and McBrien Road overpass bridges and approaches including new **6'0"** sidewalks **on both sides of the roadway**, **5'0"** bike lanes **on both sides of the roadway**, **6'0"** paved shoulder **on both sides of the roadway**, **a single 11'0"** through lane in each direction, **a single 11'0"** northbound left turn lane, **11'0"** southbound left turn lane (**dual 11'0"** left turn lanes required on S Moore Road), lighting, traffic signals and fencing ~~as shown on the Functional Plans~~;
- Full depth repairs as required and milling and resurfacing all existing asphalt pavement on N Terrace and S Terrace from Germantown Road to Spring Creek Road;
- Repairing and stabilizing an existing slide on N Terrace located between Belvoir Avenue and S Moore Road;
- Removing and replacing all guardrail. Installing new guardrail in accordance with TDOT's Roadway Design Guidelines;
- Cleaning and placing new texture coat on all existing median barrier to be retained;
- Replacing all roadway lighting on I-24 between Germantown Road and Spring Creek Road. Replace all roadway lighting on N Terrace and S Terrace between Germantown Road and Spring Creek Road. Replace all roadway lighting on S Moore Road between N Terrace and S Terrace. Replace all roadway lighting on McBrien Road between N Terrace and S Terrace;

Segment 3

- ~~• Resurface and restripe the I-75 southbound to I-24 westbound interstate to interstate ramp, I-24 eastbound from just west of Spring Creek Road to I-75 northbound interstate to interstate ramp and I-75 southbound from 400 ft south of the CSX Railroad bridge through the interchange to just west of Spring Creek Road to the ultimate build configuration;~~
- Mill, resurface, and install permanent pavement markings in all areas necessary to achieve the ultimate build configuration as shown in the Signing and Marking Roll Plot. This includes all areas affected by temporary pavement markings.
- ~~• Resurface and restripe the I-75 northbound to I-24 westbound interstate to interstate ramp, the I-24 eastbound from just west of Spring Creek Road to I-75 southbound interstate to interstate ramp and I-75 northbound through the interchange to 400 ft south of the CSX Railroad bridge to the ultimate build configuration;~~
- Update and install new signs on the existing sign structures to the ultimate build configuration as shown in the roll plots for Segment 3; and
- Replacing control access fence at locations detailed in this RFP for Segment 3.

○ **PROJECT GOALS**

The Project's primary purposes are to provide present and future congestion relief, reduce high crash rates and address deficiencies of the existing interchange to meet the intent of the approved Interstate Access Request (IAR). The following goals have been established for the Project (not listed in any specific order):

- Minimize inconvenience to the public during construction;
- Provide a management system or approach that ensures the requirements of the Project will be met or exceeded;
- Provide a high-quality project that minimizes future maintenance;
- Provide a solution consistent with the Department's Roadway Design Standards;
- Adhere to local, state, and federal environmental regulations and/or permits required in executing and/or completing the Project;
- Incorporate Best Management Practices (BMPs) to control sediment, storm water runoff/discharge, or other environmental parameters established for the Project;
- Implement innovative solutions to maximize the return on taxpayer investment by reducing costs, limiting project delivery time, limiting traffic impacts during construction or improving quality of the transportation system;
- Complete construction as quickly as possible and not later than October 30, 2026;
- Incorporate safety into all aspects of design and construction with the goal of zero incidents and accidents; and
- Provide a visually pleasing finished product.

3. ROADWAY

The roadway shall be designed to adhere to the latest editions of all appropriate TDOT Roadway Standard Drawings, TDOT Roadway Design Guidelines and Instructional Bulletins, TDOT Drainage Manual, TDOT Traffic Design Manual, TDOT Design CADD Standards, TDOT Survey Manual and the Department accepted AASHTO *Policy on Geometric Design of Highways and Streets*, and *Manual on Uniform Traffic Control Devices (MUTCD)* in effect at the time of procurement.

Microstation and Geopak or OpenRoads Designer (ORD) shall be used in the development of 3D parametric modeling to provide model-centric design deliverables. If the Design-Builder uses ORD, the Design-Builder shall use ORD in accordance with requirements and guidelines provided on TDOT's website:

www.tn.gov/tdot/roadway-design/tdot-cadd-support/tdot-openroads-designer.html

O GENERAL

The Project shall consist of the following I-24 and I-75 Segments:

Segment 1 (I-24 from S. Germantown Road to Spring Creek Road) shall consist of:

- Reconstruct all concrete pavement and shoulders to asphalt pavement;
- Replace the median barrier with a 51-in single slope concrete median barrier;
- Reconstruct the existing interstate access ramps to the configuration shown in the ~~Functional Plans~~ approved IAR with new concrete pavement from the nose of the new physical gore at the ties to I-24 to the nose of the physical gore at the ties to the Terraces;
- Replace the storm sewer system for a complete operational system designed in accordance with TDOT's Drainage Manual. Drainage structures that can be retained and reused are limited to the following: STA 91+98 – 30" RCP, STA 99+52 – 36" RCP, STA 145+02 – 24" RCP, STA 155+34 – DBL 8x7 RCBC, STA 175+78 (westbound roadway) - 48" RCP, and STA 176+52 (eastbound roadway) - 48" RCP;
- Widening to add an additional lane eastbound and westbound from Germantown Rd. to Moore Rd. and two (2) additional lanes eastbound and westbound from Moore Rd. to Spring Creek Rd. along I-24 as shown on the Functional Plans;
- Removal of the existing temporary ramps between Germantown Road and Belvoir Avenue from N Terrace and S Terrace to I-24;
- Adding new noise walls along I-24;
- Replacing the S Moore Road and McBrien Road overpass bridges and approaches including new 6'0" sidewalks on both sides of the roadway, 5'0" bike lanes on both sides of the roadway, 6'0" paved shoulder on both sides of the roadway, a single 11'0" through lane in each direction, a single 11'0" northbound left turn lane, 11'0" southbound left turn lane (dual 11'0" left turn lanes required on S Moore Road), lighting, traffic signals and fencing as shown on the Functional Plans;
- Full depth repairs as required and milling and resurfacing all existing asphalt pavement on N Terrace and S Terrace;

- Coordinating utility relocations;
- Relocating and improving ITS facilities;
- Installing new overhead signs and sign structures and update existing signs and sign structures to the ultimate build configuration; and
- Replacing control access fence.

The following concrete repair quantities are anticipated:

Concrete Repair (Full Depth): 2,000 C.Y.

Hot Applied Fiber-Polymer Patching Material: 9,000 POUNDS

Repair of spalls, minor potholes, and missing or replaced snow plowable markers in the existing concrete pavement shall be repaired using Special Provision 502FRP.

Concrete repairs shall be performed in accordance with Special Provision 502A and Standard Drawing RP-J-23.

Following concrete repairs, all existing concrete pavement on I-75 shall be ground and the joints sawed, cleaned, and sealed in accordance with Special Provision 502J and 503.

High early strength concrete is prohibited for new concrete roadway pavement unless otherwise approved by the Department.

Segment 3 (I-75 Interchange with I-24 from just west of the Spring Creek Road overpass on I-24 to approximately 400' south of the CSX Railroad bridge on I-75 North and just north of the Tennessee Welcome Center on I-75 South) shall consist of:

- ~~Resurface and restripe the I-75 southbound to I-24 westbound interstate to interstate ramp, I-24 eastbound from just west of Spring Creek Road to I-75 northbound interstate to interstate ramp and I-75 southbound from 400 ft south of the CSX Railroad bridge through the interchange to just west of Spring Creek Road to the ultimate build configuration;~~
- Mill, resurface, and install permanent pavement markings in all areas necessary to achieve the ultimate build configuration as shown in the Signing and Marking Roll Plot. This includes all areas affected by temporary pavement markings.
- ~~Resurface and restripe the I-75 northbound to I-24 westbound interstate to interstate ramp, the I-24 eastbound from just west of Spring Creek Road to I-75 southbound interstate to interstate ramp and I-75 northbound through the interchange to 400 ft south of the CSX Railroad bridge to the ultimate build configuration;~~
- Update and install new signs on the existing sign structures to the ultimate build configuration; and
- Replacing control access fence.

Payment for Select Quantity Overruns

The following table is provided to cover select quantities that are above those anticipated in the scope. Additional repair areas/quantities shall be pre-approved (in writing) by the Department prior to commencing Work or no payment will be received, see **DB Standard Guidance** section 2.11.2 for additional details. No payment will be provided for repairs required due to Work being

performed by the Design-Builder. When the Design-Builder utilizes any item in the table below, he must provide the Department with an invoice detailing the location, purpose, and quantity used, for tracking purposes. Failure to provide invoices throughout the progress of the Project may result in non-payment for overrun quantities.

ITEM	TYPE	UNIT	UNIT PRICE	QUANTITY
Uniformed Police Officer	As specified by Special Provision 712DB-PO	HOUR	\$60	Hours exceeding 20,000
Temporary Traffic Control	Changeable Message Sign (CMS) Unit	EACH	\$6,500	Signs exceeding 15 Note: CMS for PSWZ not included in quantity.
Concrete Repairs	FULL DEPTH PCC PAVEMENT REPAIR	C.Y.	\$750	Quantity that exceeds 2,000 C.Y.
	HOT APPLIED FIBER-POLYMER PATCHING MATERIAL	POUND	\$4.50	Quantity that exceeds 6500 POUNDS

Design Requirements

Reference DB Standard Guidance: § 9.2.6, 9.2.7 & 2.11.2 The proposed horizontal and vertical alignments of I-75 and I-24 shall be designed and constructed to meet or exceed a minimum 60-mph design speed for a rolling urban freeway. TDOT Design Standards supersede Green Book requirements where applicable.

All proposed ramps and crossroads shall be designed and constructed to ~~match the design speeds shown on the Functional Plans~~ meet or exceed a minimum 45-mph design speed for rolling urban freeway. On-ramps that merge into mainline lanes (do not become a continuous lane) shall be designed in accordance with the minimum acceleration length required in the Green Book. In cases where sight distance may be limited by an obstruction between the ramp and the mainline lanes, the minimum length shall be increased to include stopping sight distance as required by the Green Book once the obstruction is cleared plus the minimum acceleration length required.

All ramps: Traffic lanes on ramps with 2 or more lanes shall be 12 ft. wide. Traffic lanes on one-lane ramps shall be 16 ft. wide. Outside shoulders shall be a minimum of 6 ft. wide (stabilized) and inside shoulders shall be a minimum of 4 ft. wide (stabilized).

I-24: Typical section shall consist of 12-ft inside shoulders, 12-ft traffic lanes (one lane draining toward the median barrier with total number of lanes as shown in the Functional Plans), and 12-ft outside shoulder (10-ft stabilized if open shoulder and full width stabilized if adjacent to concrete barrier rail) except in areas where a design exception has been previously approved at the Belvoir Avenue underpass.

Terraces: Full depth pavement replacement, subgrade repair, and drainage repair will be required in certain locations as shown in the below table.

Location	Approx. Begin STA	Approx. End STA	Repair
North Terrace	90+15	95+70	Full depth pavement replacement and resolve drainage issues. Water ponds on right side of road at bottom of sag.
North of I-24 WB	100+55	102+60	Fix drainage issues at along N. Terrace. Remove/upgrade existing area drainage
North Terrace	104+70	114+85	Full depth pavement replacement, left lane
North Terrace	140+70	144+10	Full depth pavement replacement, left lane
South Terrace	606+50	608+60	Replace guardrail

All local roads and terraces: All disturbed storm sewer manhole lids will be reset to be flush with the pavement in accordance with City of Chattanooga standards. Adjustments to other utilities will be made by the utility company. Existing catch basin grates shall be replaced with bicycle/pedestrian safe grates.

S. Moore Road: Bridge and approach typical sections (between the bridge ends and the Terraces) shall consist of 5 @ 11-ft. traffic lanes, 5-ft. bicycle lane with a 6-ft. buffer (**paved shoulder**) on both sides of the roadway, and 6-ft. sidewalk on both sides of the roadway. The roadway typical section beyond the Terraces will transition back to the existing conditions using the Department accepted *AASHTO Policy on Geometric Design of Highways and Streets* criteria for tapers/transitions **as shown on the Functional Plans**.

McBrien Road: Bridge and approach typical sections (between the bridge ends and the Terraces) shall consist of 4 @ 11-ft. traffic lane, 5-ft. bicycle lane with a 6- ft. buffer (**paved shoulder**) on both sides of the roadway, and 6-ft. sidewalk on both sides of the roadway. The roadway typical section beyond the Terraces will transition back to the existing conditions using the Department accepted *AASHTO Policy on Geometric Design of Highways and Streets* criteria for tapers/transitions **as shown on the Functional Plans**.

I-75: Typical section for widening only shall consist of existing 11-ft inside shoulder (stabilized), 12-ft traffic lanes (total number of lanes as shown in the Functional Plans), 12-ft outside shoulder (10-ft stabilized if open shoulder and full width stabilized if adjacent to concrete barrier rail). Reconstructed roadway for profile changes: Inside shoulder shall be 11- ft wide, 5 travel lanes shall be 12-ft wide (maximum of two lanes draining toward the median barrier) and outside shoulder shall be 12-ft wide (10-ft stabilized).

Vertical clearances over roadways for all alignments (entire roadway width including the full shoulder width) shall have a 16 ft., 6 in. minimum vertical clearance and all overhead sign

properties that are impacted, such as road crossing information, structure damage elevations, and channel cross sections (at a minimum), and shall be used in support of hydraulic calculations for the offsite drainage systems. Engineering analyses and certifications shall be provided to the Department and the local jurisdiction for approval prior to performing the alteration.

The Design-Builder shall acquire all applicable municipal drainage plans, watershed management plans, and records of citizen concerns. The Design-Builder shall acquire all pertinent existing storm drain plans, bridge hydraulic studies, and/or survey data, including data for all culverts, drainage systems, storm sewer systems, and bridge sites within the Project limits. The Design-Builder shall also identify existing drainage areas and calculate the estimated runoff to the highway drainage system. The Design-Builder shall analyze existing storm drainage systems, culverts (boxes and cross pipes), and open channels impacted or affected by the Project design.

Damage to existing infrastructure due to the Design-Builder's operation shall be immediately repaired to maintain existing system capacity and TDOT's Drainage Manual requirements at all times. This permanent repair shall be at the Design-Builder's expense.

The use of blind junctions and/or non-accessible structures shall not be allowed unless otherwise approved in writing by the Department. **Manholes shall not be allowed in paved areas unless otherwise approved in writing by the Department.** The Design-Builder shall not install and/or utilize longitudinal storm sewer pipes under travel lanes unless otherwise approved in writing by the Department. If no modification or upgrading of the existing stormwater management system is required, the Design-Builder shall, at a minimum, maintain the existing system. This maintenance includes, but is not limited to, silt removal from any pipe, ditch, or structure, and removal of any debris prior to the use of any existing stormwater system. This maintenance shall be at the Design-Builder's expense.

If documentation is not available for certain components of the existing drainage system within the Project limits and these components are planned to remain in place, the Design-Builder shall investigate and video record or photograph these components to determine condition, size, material, location, and other pertinent information.

There are existing floodwalls within the project limits along the north side of I-24 at approximately STA 143+50 to STA 179+00 owned and maintained by the City of Chattanooga. The Design-Builder shall not impact these floodwalls or their functionality either during construction or in the final condition. If the walls or their functionality are impacted, re-certification with FEMA will be required by the Design-Builder.

The Design-Builder shall replace all drainage structures along I-24 for Segment 1 from station 74+00 to station 179+00 for a complete, operational drainage system designed in accordance with TDOT's Drainage Manual. The following pipes may be retained and reused in the new system: STA 91+98 - 30" RCP, STA 99+52 - 36" RCP, STA 142+44 - 24" RCP, STA 145+02 - 24" RCP, STA 155+34 - DBL 8x7 RCBC, STA 175+78 (westbound roadway) - 48" RCP, and STA 176+52 (eastbound roadway) - 48" RCP, unless pipes are deemed hydraulically or structurally deficient.

The Design-Builder can use the existing cross drainage structures for Segment 2 unless corrugated metal pipe (CMP) is existing or if the existing cross drainage structures are deemed

existing storm water pump station operated by City of Chattanooga (identified as Pump Station #1 in original TVA construction plans). Combined flows drain southeast into a low wetland area, ultimately draining into West Chickamauga Creek. The drainage area at the outfall of the 54-in. pipe is 159.10 Acres.

- An existing 8-foot x 8-foot reinforced concrete box at STA.442+27.59 +/-, 122.93-ft. RT +/- which collects runoff from a portion of Brainerd Subdivision as well as the CSX Railroad ROW and drains southeast, ultimately flowing into South Chickamauga Creek. The drainage area at the outfall of the 8-ft. x 8-ft. box is 72.87 Acres.
- An existing 48-in. reinforced concrete pipe at Sta. 608+55.01 +/-, 340.88-ft. LT +/-, which collects runoff from west of the Spring Creek Road area and runoff from I-24 at Spring Creek Road crossing and ultimately drains south to Spring Creek. The drainage area at the outfall of the 48-inch pipe is 49.25 Acres.
- An existing 18-inch reinforced concrete pipe at STA 449+45.39 +/-, 88.12-ft LT +/-, which collects roadway drainage along a portion of I-75 and drains northward onto CSX right of way. The drainage area at the outfall of the 18-inch pipe is 2.73 acres.
- An existing 32-inch reinforced concrete pipe at STA 455+77.32 +/-, 119.72-ft. RT, which collects roadway drainage along a portion of I-75 and runoff from south and west of E Brainerd Road and ultimately drains to South Chickamauga Creek. The drainage area at the outfall of the 32-inch pipe is 6.82 acres.
- An existing 36-inch reinforced concrete pipe at STA 460+38.90 +/-, 96.27-ft. RT +/-, which collects runoff from south and west of E Brainerd Road and runoff from I-75 and ultimately drains south to South Chickamauga Creek. The drainage area at the outfall of the 36-inch pipe is 15.23 acres.
- An existing 42-inch reinforced concrete pipe at STA 477+22.14 +/-, 135.03-ft. RT +/-, which collects runoff from south of E Brainerd Road and runoff from I-75 and E Brainerd Road to I-75 SB entrance ramp and ultimately drains south to South Chickamauga Creek. The drainage area at the outfall of the 42-inch pipe is 32.76 acres.
- An existing 36-inch reinforced concrete pipe at STA 479+76.10 +/-, 143.71-ft. RT +/-, which collects runoff from south of E Brainerd Road and runoff from I-75 and E Brainerd Road to I-75 SB entrance ramp and ultimately drains south to South Chickamauga Creek. The drainage area at the outfall of the 36-inch pipe is 3.30 acres.
- An existing 48-inch corrugated metal pipe at STA 486+85.66 +/-, 142.48-ft. RT +/-, which collects runoff from north and south of E Brainerd Road and runoff from I-75 and ultimately drains south to South Chickamauga Creek. The drainage area at the outfall of the 48-inch pipe is 26.45 acres.

The Design-Builder shall video inspect and verify all existing drainage systems for Segment 1 (from station 74+50 to station 179+00) and Segment 2 that are to remain, are clean, operable, and determined to be hydraulically sufficient and structurally adequate. Any repairs, replacements, debris removal and/or deficiencies shall be corrected by the Design-Builder **at the Design-Builder's expense**. The most current information available to the Department for the existing drainage systems for the

O PAVEMENT MARKINGS

The Design-Builder shall prepare pavement marking plans for the Department's concurrence. Pavement markings shall be constructed for the Ultimate Phase as shown in the signing and striping ~~Functional Plans and roll plots~~. The design and installation of permanent pavement markings shall be in strict accordance with the current approved edition of the Manual on Uniform Traffic Control Devices (MUTCD), TDOT Roadway Design Guidelines, TDOT Standard Drawings, TDOT Standard Traffic Operations Drawings, TDOT Traffic Design Manual, and the current edition of the TDOT Standard Specifications. All pavement marking removal on final surfaces shall be accomplished by water blasting or another non-marring method. Any damage to the pavement surface caused by the selected method shall be removed and replaced at the contractor's expense.

Permanent pavement line markings shall be thermoplastic installed to permanent standards at the end of each day's Work. Short, unmarked sections shall not be allowed. On the final surface, the Design-Builder shall have the option of using temporary pavement markings installed to permanent standards at the end of each day's Work and then installing the permanent markings after the paving operation is completed. All pavement markings beyond the immediate work area that are affected by the Work shall be reapplied to permanent standards.

Permanent pavement markings on concrete shall be tape only. Contrast striping shall be used for all permanent striping on concrete pavement/structures along I-75 from approximately STA 407+00 to STA 486+00. Permanent pavement markings for crosswalks shall be thermoplastic longitudinal type only. Pavement markings depicting interstate shields shall be placed on the pavement at locations shown on the Signing and Marking Roll Plots. Any modifications to the locations shall be approved by the Department.

The appropriate permanent Interstate Pavement Marking Shields shall be placed on the approaches of all lanes to the I-75 and I-24 Interchange designating the destination of each lane in accordance with the Ultimate Signing and Marking Roll Plots. All pavement marking shields shall be thermoplastic.

See Ultimate Signing and Marking Roll Plots as provided on the Project Website for guidance.

Requirements for temporary pavement markings can be found in Section 10.

O SIGNING

The Design-Builder shall prepare signage plans for the Department's concurrence/review prior to ordering. Signs shall be constructed for the Ultimate Phase as shown in the Signing and Marking Roll Plots. In addition, the Design-Builder shall ensure all signs beyond the Project limits are consistent with new alignments and travel lanes.

The design and installation of permanent roadway signs shall be in strict accordance with the current edition of the MUTCD, TDOT Roadway Design Guidelines and TDOT Standard Drawings, the current edition of the Standard Highway Signs, the TDOT Supplemental to the Standard Highway Signs, the current edition of the TDOT Standard Specifications, and TDOT Traffic Design Manual.

(including underpass lighting) to the Department for concurrence prior to ordering materials or beginning construction/installation. Design-Builder shall use AG132 software for photometric analysis. When submitting the photometric layout plans, the accompanying AG132 software files shall be included in the submittal.

If the Design-Builder elects to remove the lighting system prior to construction, temporary lighting will be required at all locations where existing lighting is taken out of service. No areas of outage longer than 7-days shall be allowed on the Project site. All temporary lighting shall be provided in accordance with TDOT standards.

The Design-Builder shall not allow light pollution/light hindrance into residential areas during construction.

All wiring shall be concealed underground in Schedule 80 PVC rigid conduit. The conduit shall be installed a minimum depth of 36 inches as measured from finished subgrade.

The ground wire shall be run inside conduit within structures, shall be colored green and have THW insulation.

Existing foundations shall be removed a minimum of twelve inches below ground line.

Light standards shall be round tapered poles. Length shall be determined by required mounting height.

All proposed roadway light standards shall be designed in accordance with the requirements of the latest edition of the LRFD *Standard Specifications for Structural Support for Highway Signs, Luminaires and Traffic Signals* published by the American Association of State Highway and Transportation Officials.

The Design-Builder shall coordinate with TDOT's Traffic Operations Division and Electric Power Board of Chattanooga to determine the proposed lighting fixture type (i.e., mast arm, offset, etc.) to be used on the Project and any specific design parameters.

All proposed roadway light standards shall be mounted on bases with an access door. Transformer bases shall meet AASHTO specifications and have FHWA approval. Standards shall be aluminum with transformer bases.

Bracket arms (if used) shall be round tapered truss type with strap mounting and lengths as scheduled. Bracket arm upsweep shall be the same for all light standards of the same type.

~~See Lighting Roll Plot as provided on the Project Website for guidance in regard to proposed lighting facilities.~~

○ **GROUND SURVEY**

The ground survey including survey control will be provided by the Department.

The Design-Builder shall verify the ground survey and survey control before utilizing in the design of the Project. In addition, the Design-Builder shall be responsible for field surveys and support activities, such as, but not limited to geotechnical investigations, ROW stakeout, construction stakeout, etc.

If the Design-Builder's design footprint extends beyond the limits of the survey provided by the Department, the Design-Builder shall be responsible for securing the necessary additional survey.

All field survey activities shall be performed in accordance with the latest version of the TDOT Survey manual and any other applicable design standards previously referenced.

If the Design-Builder uses ORD, the Design-Builder shall provide the following four (4) deliverables as outlined in TDOT's Requirements for Model-Centric Design document (also detailed in the Survey (ORD) training manual Appendix A):

1. Survey file containing 2D graphics imported from the original Field Book(s) (e.g., utilities (plan), pavement edges, buildings, vegetation, etc).
2. Terrain file containing the existing DTM features (e.g., contours, triangles, etc).
3. Alignment file containing the survey preliminary alignment and projected utilities (profile).
4. Utility file containing the existing drainage and utility model (plan).

Note that these do not substitute the survey checklist for field and office procedures, as referenced and outlined in the TDOT Survey Manual, but instead accompanies it and other procedural documents in place.

○ ***PAVEMENT DESIGN REPORT***

The Pavement Design Report for this Project has been developed by the Department.

Proposed asphalt and concrete pavements shall be constructed utilizing the pavement designs provided in this report unless otherwise approved in advance by the Department. Design-Builder shall place a prime coat complying with TDOT Standard Specifications Section 402 to any untreated or treated flexible base layer unless otherwise approved in advance by the Department. **Design-Builder shall place a tack coat complying with TDOT Standard Specifications Section 403 to any previously prepared base or surface course unless otherwise approved in advance by the Department.**

For Segments 1, paving on inside shoulders shall be full depth pavement.

For Segment 2, Work on inside concrete shoulders shall include concrete pavement repair and joint repair.

The Pavement Design and minimum criteria for pavement related Alternative Technical Concepts (ATC) are in **Appendix A**, **shall include the structural number and designs shall be in accordance with AASHTO Guide for Design of Pavement Structures 1993.**

Place concrete parapets on the new bridges (reference TDOT Standard Drawing STD-1-1SS and Standard Drawing STD-11-1).

All exposed surfaces of the parapets, slab cantilevers, concrete beams surfaces, abutment beams, end walls, wing walls, bent caps, and columns of the bridges shall receive a texture finish, mountain grey, AMS STD-595 Color No. 36440 except the top and traffic face of the parapets which shall be white, AMS STD 595 Color No. 37886.

Drilled shafts shall be constructed according to Special Provision 625 Drilled Shaft Specifications and shall be socketed at least two times the shaft diameter into competent bedrock.

The bridges shall be constructed while maintaining the minimum number of lanes open to traffic during construction as specified in this RFP. The minimum vertical and horizontal clearances shall be maintained during construction as specified in this RFP and TDOT's Standard Specifications for Road and Bridge Construction.

Bridges shall be designed and detailed according to current TDOT Structural Design Guidelines & Memorandums [Structural Design Guidelines \(tn.gov\)](#).

For the I-75 over CSX Railroad Bridge, the Design-Builder shall provide all necessary and pertinent information as outlined in the TDOT Design Guidelines to the State Railroad Coordinator in the preliminary design phase. **All railroad coordination, including procurement phase coordination, must be done through the TDOT State Railroad Coordinator. The Design-Builder shall not contact the railroad or any of its representatives directly. TDOT has an approved Deviation from Standard letter from the Railroad for the design included in the Functional Plans. This letter waives the requirement to span the Railroad's right of way. Any deviation from the bridge design shown in the Functional Plans will require a separate Deviation from Standard letter from the Railroad unless the design meets all Railroad and TDOT design criteria.**

○ **NOISE BARRIER WALLS**

The Design-Builder shall be responsible for the design and construction of noise barrier walls per ~~the NEPA document~~, the Noise ~~Barrier Evaluation Technical Report~~ dated December 2021, which is included in the approved NEPA document, SP718NB, and Functional Plans. **If the Design-Builder elects to design noise walls that vary from that shown in the Noise Technical Report dated December 2021 and the Functional Plans, the altered design must comply with the current TDOT Environmental Procedures manual, Chapter 5 (provided on the project website), and TDOT's Noise Policy, *Policy on Highway Traffic Noise Abatement*. The Design-Builder shall use individuals that meet the qualifications of Section 5.3.4.2 to conduct the required noise studies.** The noise barrier walls shall be designed using the AASHTO LRFD Bridge Design Specifications, Edition (2017), Section 15. The Noise Barrier Evaluation includes the preliminary noise barrier design information based on the Functional Plans. The FHWA TNM files are included in the Reference Documents and should be used by the Design-Builder to assess proposed design changes. **TDOT will require all revised TNM files to evaluate any modifications to the noise barrier proposed by the Design-Builder.**

The Design-Builder shall ensure that all proposed Work is completed within existing Right-of-Way (ROW). The Design-Builder shall be responsible for securing any additional ROW in accordance with Section 7 of **Contract Book 3 (Project-Specific Information)**.

The top of wall elevation shall not be less than the top of wall elevation as shown in the ~~noise analysis~~ **Noise Technical Report**. The bottom of the wall shall not provide any gaps between the wall and the final grade except as required to accommodate drainage.

Ground-mounted barriers and barriers on bridges shall be connected to ensure no gaps.

The traffic face of the walls shall be absorptive and meet the following requirements:

- Concrete formliners shall be used to achieve the specified pattern and texture on both the highway and community sides of the barrier. Methods that involve rolling of any kind to achieve the specified pattern and texture shall not be permitted.
- A minimum 1-inch depth of reveal at joints shall be achieved on both the highway and

The proposed fiber and power relocation designs shall be reviewed and receive concurrence from the Traffic Operation Division prior to ordering materials or beginning relocation.

Pull boxes for fiber optic trunk line shall be placed every 1200 feet. Pull boxes must meet all requirements set forth in the TDOT Fiber Optic Standard Drawings. The ITS system redundancy shall be tested with TDOT TMC IT prior to fiber and power relocation.

CCTV

The Design-Builder shall maintain the existing CCTV cameras to the greatest extent possible during construction. If relocation of CCTV cameras is required, then CCTV cameras within the Project limits shall be removed and replaced with proposed CCTV cameras meeting the requirements of Special Provision 725. **All the existing CCTV devices and support structures shall be returned to the Department.**

All CCTV camera poles located in the median shall be removed unless otherwise directed by the Department. All proposed CCTV camera poles shall be located outside of clear zone unless guardrail or barrier is present. Proposed CCTV camera poles shall not be placed in the median.

Dynamic Message Signs (DMS)

Design-Builder shall remove and replace the existing structures with proposed DMS support structures meeting the requirements of Special Provision 725. All proposed DMS signs and supporting equipment shown on the ITS Roll Plot shall be new. All existing DMS signs and supporting equipment **shown on the ITS Roll Plot to be replaced** shall be removed and returned to the Department at a location to be determined.

Radar Detection System (RDS)

The Design-Builder shall remove and replace the existing RDS detection devices and support structures with all new RDS detection devices and support structures that meet the requirements of Special Provision 725. All the existing RDS devices and support structures shall be returned to the Department.

If an existing light standard is utilized as a RDS support structure, the Design-Builder shall not remove the light standard, only the RDS equipment

When appropriate and possible, co-locate RDS detection devices with CCTV cameras or with DMS to reduce the number of support structures to be replaced. The Design-Builder shall ensure desired detection accuracy irrespective of the installation type. If co-locating with CCTV support structure, Design-Builder shall coordinate with TDOT Region 2 to ensure location is easily accessible for maintenance of RDS and does not interfere with lowering device. If co-locating with DMS structure, Design-Builder shall coordinate with TDOT Region 2 to ensure location is easily accessible for maintenance of RDS.

The proposed RDS system design should maximize the use of RDS installations that detect traffic in both directions of travel. All new RDS support structures shall be located outside of clear zone unless guardrail or barrier is present.

○ ***MAINTENANCE OF COMMUNICATION AND ELECTRICAL POWER TO ITS DEVICES***

The Design-Builder shall ensure that no loss of power or communications between existing ITS field devices and the Transportation Management Center will occur during construction.

The Work may cause the decommissioning of portions of the existing ITS system within the Project limits. The Design-Builder shall be responsible for any temporary power and communications that may be necessary to provide continual communications to all non-decommissioned ITS field devices within the Project limits. **Temporary trailer mounted ITS devices may be permitted for individual devices.**

The Design-Builder shall implement a Maintenance of Communication (MOC) plan (detailing Work to be performed, schedule of Work, and a strategy for minimizing downtime) to preserve the ITS operations during the Project construction phase. The MOC plan shall be submitted to TDOT Traffic Operations Division for the Review and Acceptance prior to any change to the existing communication system, decommissioning of existing ITS field devices and supporting equipment, and temporary ITS relocations and/or installations.

The Liquidated Damages associated with temporary loss of power and/or connectivity of each ITS field device and supporting equipment due to construction, installation, integration with the temporary communications systems, or relocation shall be per Special Provision 108B.

○ ***ADDITIONAL REQUIREMENTS***

The Design-Builder is required to perform system testing prior to any planned construction activity that would cause a temporary loss of connectivity. The testing is required to determine system wide impacts for mitigation practices that can be deployed.

The Design-Builder shall use specific or compatible ITS software and hardware components to ensure networking and device connectivity and compatibility.

○ ***SUBMITTAL REQUIREMENTS***

All ITS submittals, made as part of the Project submittal program, shall be concurred with by the Traffic Operation Division.

The Design-Builder shall provide the Department with photographic or video evidence that the proposed CCTV Camera System provides full coverage within the project limits including the mainline travel lanes and shoulders. The Department shall concur with the placement and location of all ITS field devices, structures and support pole locations prior to purchasing, construction or installation.

The Design-Builder shall submit all ITS designs/plans (ITS devices, support equipment, and support structures) to the Department for concurrence prior to ordering materials or beginning construction/installation. Permitting for utility Work shall follow the same process as outlined in Section 8.

In addition to the requirements set forth in Section 17.2.6 of Special Provision 725, As-Built Plans shall also be submitted in PDF and DGN formats. The Design-Builder shall provide the Department with a survey using Tennessee State Plane Coordinates showing the As-Built location of all ITS related items along with any design calculations.

- Overall goals of the sequencing plan and how the plan aligns with the Project Critical Path.
- Plans for providing Queue Protection during operations requiring temporary lane closures, temporary road closures, rolling roadblocks, traffic pacing, and setting up or removing long- term lane shifts.
- Conceptual construction staging diagrams (scale: 1 inch = 200 feet) including lane configuration and traffic management of the Interstate, State Routes, and local streets during the different stages of construction. Staging areas within the Project limits shall be approved by the Department.
- Narrative description of how Design-Builder will schedule and sequence the construction to minimize impacts on the environment, communities and traveling public while still providing acceptable construction performance.
- Brief description of the laydown, recycling, staging, disposal areas, waste and borrow pits, and maintenance locations to be used during construction.
- Description of how the ROW and adjacent roads and properties will be maintained and protected, including the intended measures to be used to mitigate and minimize noise, vibration, light, dust, erosion/run-off and local road damage.

Temporary Lane/Road Closure

The Design-Builder shall maintain a minimum of 3 lanes in each direction on I-24 and I-75 throughout construction except for Department-approved night or weekend lane or roadway closures as noted below and in the Special Provision 108B. Failure to meet the below requirements will result in Liquidated Damages as specified in Special Provision 108B.

Within Segment 1, on I-24, the Design-Builder will be allowed to rent one lane for a single period of a maximum duration of 9 days in each direction for reconstruction purposes. A minimum of 2 lanes shall be open at all times in all directions. If the Design-Builder does not use all days bid, they will not be allowed any additional closures for unused days. The cost for renting the lane for a day or any portion thereof shall be \$50,000. The lane rental cost of **\$50,000** shall be Time Value (C) used for the calculation of selection.

Within Segment 1, on I-24, the Design-Builder will be allowed two complete roadway closures over a weekend in each direction for reconstructing the mainline at the tie ins at S Germantown Road. The Design-Builder shall provide a detour for I-24 with a minimum of 2 lanes in each direction. A total of 4 complete roadway closures over a weekend will be allowed at no cost to the Design-Builder.

Within Segment 1, the Design-Builder must maintain one (1) entrance ramp to I-24 and one (1) exit ramp from I-24 in each direction between S. Germantown Rd. and Spring Creek Rd.

Within Segment 2, on I-75, the Design-Builder will be allowed a total of 10 weekend lane closures in a single direction to restrict traffic to 2 lanes. These weekend lane closures are for construction purposes as deemed appropriate by the Design-Builder and will be provided at no cost to the Design-Builder.

Minimum lane widths shall be eleven (11) feet. Minimum inside and outside shoulder widths shall be two (2) feet.

The Design-Builder will be allowed to temporarily close S. Moore Rd. and McBrien Rd. in order to construct new bridges over I-24 at these locations. The Design-Builder shall only be allowed to close one of these bridges at a time and shall construct each bridge in a continuous manner until the roadway can be reopened to unimpeded traffic flow. The Design-Builder shall only close the portion of S. Moore Rd. and McBrien Rd. necessary to construct the new bridges.

Rolling roadblocks for operations specified in the Special Provision 108B other than blasting will only be allowed from 9:00 PM until 6:00 AM with a maximum duration of thirty (30) minutes.

All temporary lane closures and road closures must be approved by the Department in advance. For lane closures on I-24, I-75 and ramps, request for approval must be sent to the Department seven (7) calendar days in advance of the proposed lane closure. Requests for road closures of S. Moore Rd. and McBrien Rd. must be sent to the Department twenty-one (21) calendar days in advance of the proposed closure. For local street closures, requests for approval must be sent twenty-one (21) calendar days in advance of the proposed closure to the Department, the City of Chattanooga, City of East Ridge, and others as described below. Requests for road closures must also include proposed detour routes and detour signing details. No less than seven (7) days prior to the closure of the road, the Design-Builder shall notify the following individuals or agencies completely describing the affected roads and the approximate duration of the construction: these parties include, but are not limited to: i) local law enforcement office, ii) local fire department, iii) ambulance service, iv) U.S. Postal Service, v) City of Chattanooga and East Ridge Public Works, vi) railroad company (if applicable), vii) the City of Chattanooga and Hamilton County's Parks and Recreation Department (if applicable), viii) Hamilton County Public Works, ix) Chattanooga Airport, x) Parkridge East Hospital, xi) local school superintendent, xii) TDOT's Region 2 Traffic Management Center (TMC), and xiii) Georgia Department of Transportation's Traffic Management Center.

There will be periods when the Design-Builder will not be allowed to have any type of closures due to holidays as specified in subsection 104.04 of the Standard Specification and during major events. Major events and known periods when lanes cannot be closed include, but are not limited to: Riverbend, Ironman Triathlon, and various Chattanooga marathons/triathlons that use SR29 and/or SR153. The Department may deny any request for lane closures.

The Design-Builder shall notify the Department and the local governmental agency responsible for traffic control maintenance at least seven (7) days in advance of any cold planing activity at signalized intersections where detector loops are in the pavement. The maintaining agency will then be responsible for disconnecting the loop detectors and making any necessary timing adjustments in the signal controller prior to the construction.

All detour plans shall be approved by the Department prior to **being implemented**.

Temporary Marking, Detours, Ramps, Lane Shifts and Median Cross-overs

Temporary marking shall adhere to guidance outlined in Section IV of current edition of the Department's Design Division Roadway Design Guidelines for pavement markings except as noted below. The minimum temporary pavement marking width shall be 6-inches.

7. MISCELLANEOUS

○ *CHATTANOOGA AIRPORT – HEIGHT RESTRICTIONS*

The Project is in the immediate proximity of the Chattanooga Airport and in-line with the runway glide slope. Height restrictions may apply to proposed structures including but not limited to bridges, lighting (including poles), ITS devices, utilities, and overhead signing. Height restrictions may also apply to construction equipment including but not limited to cranes.

The Design-Builder shall be responsible for filing notice with the FAA for all construction activities, proposed structures, or alterations that may affect navigable airspace. The Design-Builder shall file a Notice of Proposed Construction or Alteration (FAA Form 7460-1) and provide copies to the Department of all filings. Guidance can be found on the FAA website.

○ *CONSULTANT FIRM EXCLUSIONS FROM CEI SERVICES*

No members of the consulting firm, its subsidiaries, its affiliates, and sub-consultants shall be selected for CEI services on a design-build project if they are a part of a design-build team. Any consultant firm that was selected for procurement development of the RFP and functional plans is ineligible to submit for CEI services on the design-build project as a prime or sub-consultant. Firms performing preliminary studies and reports that had no direct role in development of the RFP document are eligible to submit.