

Concept Report Form

The Concept Report Form develops an initial project vision, basis of design and report (e.g., the Concept Report) to transition into the subsequent design stages (Stages 1 through 4 in the Project Delivery Network [PDN]). This form summarizes all project components using information to complete the Concept Report.

General Project Information									
Project Name	Shellmound Rd (L.R. 02161) - Bridge over Interstate 24 Eastbound								
PIN	130902.00								
Route Information	Route	NHS (Y/N)	Functional Class			City		County	
	L.R. 02161	No	Rural Minor Collector					Marion	
Project Information	Begin Log Mile	End Log Mile	AADT¹	Design Hour Vol. (DHV)¹	Truck %¹	Design Speed (MPH)	Posted Speed (MPH)	Base Year	Design Year
	1.29	1.40	1,930	232	2.00	40	30	2026	2046
Project Description & Standard Drawings Used	<p>A field review was held for the above-mentioned project on August 3, 2021. The proposed structure is a 154' long, single span BT-72 Concrete Bulb-T Beam bridge with an out-to-out width of 33' 3". The typical section consists of 2-11' wide lanes each with a 5' wide shoulder. The proposed finished grade of the bridge will need to be raised approximately 4' and will provide a minimum clearance of seventeen 17' under the bridge. A 7.8 mile detour will be established while the proposed bridge is completed.</p> <p>Standard Drawing: RD11-TS-2</p>								
Important Project History or Related Projects	<p>The replacement of the I-24 WB Bridge over Shellmound Road (Pin# 130900.00) located 0.25 miles north of the proposed Shellmound RD Bridge over I-24 EB replacement will need to be considered when scheduling construction.</p> <p>The existing bridge is a 3 span concrete deck girder bridge crossing over I-24 EB at L.M. 22.78. The existing structure has an out-to-out width of 34' 6". The overall structure length is 139' 6". The current load limit for this structure is 20 tons.</p> <p>Marion County Highway Department is planning to resurface Shellmound Rd in 2023.</p>								
Project Purpose/Need	<p>The need to replace this bridge is due to the present condition of the existing bridge:</p> <ul style="list-style-type: none"> - Built in 1965. - Sufficiency rating is 54.2 (FAIR) – July 21, 2020 - Typical section does not meet current TDOT standards. 								
Major Environmental Considerations	<p>There are no major environmental considerations.</p>								

Project Details

Multi-Modal Considerations	<ul style="list-style-type: none"> - Five (5) feet Paved Shoulder Width to accommodate bicycle traffic - Forty-two (42) inch bridge rail <p>TDOT Multimodal Project Scoping Manual, Roadway Design Guidelines, MM-TS-1, MM-BPR-1</p>													
Major Project Risks	Utilities: Distribution lines, communications cable													
Concept Estimate and Timeline	<table border="1"> <thead> <tr> <th>Total Current Project Cost</th> <th></th> <th>Construction Year Estimate</th> </tr> </thead> <tbody> <tr> <td>[REDACTED]</td> <td></td> <td>[REDACTED]</td> </tr> <tr> <th>Proposed Construction Year</th> <th></th> <th>Estimated Construction Duration</th> </tr> <tr> <td>2027</td> <td></td> <td>TBD</td> </tr> </tbody> </table>	Total Current Project Cost		Construction Year Estimate	[REDACTED]		[REDACTED]	Proposed Construction Year		Estimated Construction Duration	2027		TBD	Preliminary Estimates
Total Current Project Cost		Construction Year Estimate												
[REDACTED]		[REDACTED]												
Proposed Construction Year		Estimated Construction Duration												
2027		TBD												

¹ Traffic numbers reflect identified design year

Approvals

Executed for approval of this Concept Report


Steve Allen (Nov 18, 2022 05:19 CST)

Nov 18, 2022

Date

STID Director

The following individuals to execute if a bridge concept report:

APPROVED

By Ted A. Kniazewycz at 6:08 pm, Nov 19, 2022

Structures Director



Regional Project Development Director



Bureau Chief of Engineering

PRESTON J ELLIOTT Digitally signed by PRESTON J ELLIOTT
Date: 2022.12.12 12:48:07 -06'00'

11/19/2022

Date

12/12/2022

Date

Feb 7, 2023

Date

12/12/2022

Date

Action Checklist			
OSD1 Initiate Concept Report and Request Funding			
Complete	NA		Date Completed
✓	Request and Finalize Safety Data		
✓	Request Project Number, PIN, and Task Profile Numbers		10/02/2020
✓	Coordinate with Long Range Planning		
✓	Request and Finalize Traffic Data		04/26/2021
✓	Request Preliminary Survey Data		
✓	Initiate Division Reviews		11/29/2021
✓	Schedule Site Review (with appropriate Divisions)		07/09/2021
OEN1 Conduct Environmental Desktop Review			
Complete	NA		Date Completed
✓	Confirm Environmental Desktop Review is Complete		01/06/2022
OMM1 Conduct Multimodal Review			
Complete	NA		Date Completed
✓	Confirm Multimodal Review is Complete		09/27/2022
✓	Review Multimodal Considerations & Recommendations		09/27/2022
OTD1 Conduct Initial Traffic Ops/TSMO Review (include HQ Traffic Ops and Regional Traffic Office)			
Complete	NA		Date Completed
✓	Confirm Transportation Systems Management & Operations (TSMO) Alignment & Operations Review is Complete		09/27/2022
✓	Request Concept Report Review		
OST1 Develop Structures Recommendations			
Complete	NA		Date Completed
✓	Confirm Recommended Structure Type for Concept Report is Complete		03/31/2022
✓	Confirm Hydraulic Recommendations for Concept Report is Complete		04/06/2021
OSY1 Provide Preliminary Survey Data			
Complete	NA		Date Completed
✓	Confirm Control Ground Survey Set		
✓	Review Preliminary Survey Data		
✓	Determine Time to Complete the Aerial Survey		
OGT1 Conduct Preliminary Geotechnical Assessment			
Complete	NA		Date Completed
✓	Confirm Geotechnical Division Review is Complete		
ORD1 Provide Roadway Desktop Review			
Complete	NA		Date Completed
✓	Confirm Roadway Division Review is Complete		

Action Checklist

0SD2 Develop Draft Concept Report		
Complete	NA	Date Completed
	✓	Conduct Intersection and Interchange Evaluation (IIE)
	✓	Complete Conceptual Signal Warrants
✓		Develop Draft Conceptual Layouts/Crash Figures for Site Visit
	✓	Compile Initial Divisional Reviews for Site Visit
✓		Prepare & Send Site Visit Packet
✓		Lead Site Visit
	✓	Initiate Interstate Access Requests (IAR) Concept Coordination with FHWA (if applicable)
✓		Develop, Compile, and Distribute the Draft Concept Report

0TO2 Develop TSMO Scope Items (include HQ Traffic Ops and Regional Traffic Office)		
Complete	NA	Date Completed
	✓	Confirm Signal Warrants Analysis is Complete
	✓	Confirm Lighting Warrants Analysis is Complete
	✓	Review and Confirm TSMO & ITS Scope and Budget

ORW1 Complete Preliminary Right-of-Way Estimates		
Complete	NA	Date Completed
✓		Review and Confirm Preliminary Right-of-Way Cost Estimates

OUT1 Complete Utility Preliminary Estimates		
Complete	NA	Date Completed
✓		Review and Confirm Preliminary Utility Estimate
	✓	Review and Confirm Preliminary Railroad Cost Estimate

0SD3 Finalize Concept Report		
Complete	NA	Date Completed
	✓	Compile and Review Initial Risk Assessment
✓		Finalize Conceptual Layouts
✓		Develop Environmental Technical Study Area (ETSA)
✓		Address Comments and Finalize Concept Report
	✓	Address Comments and Finalize Interstate Access Requests (IAR) Document and Memo (if applicable)
	✓	Develop Roadway Safety Audit (RSA) No Plans Document
✓		Submit the final Concept Report for Review and Signatures (as needed; see 0SD3 for additional information)
	✓	Finalize Document and Upload All Needed Electronic Files
	✓	Notify the Project Management Director or Assigned Project Manager to Set Up Project (1PM1)

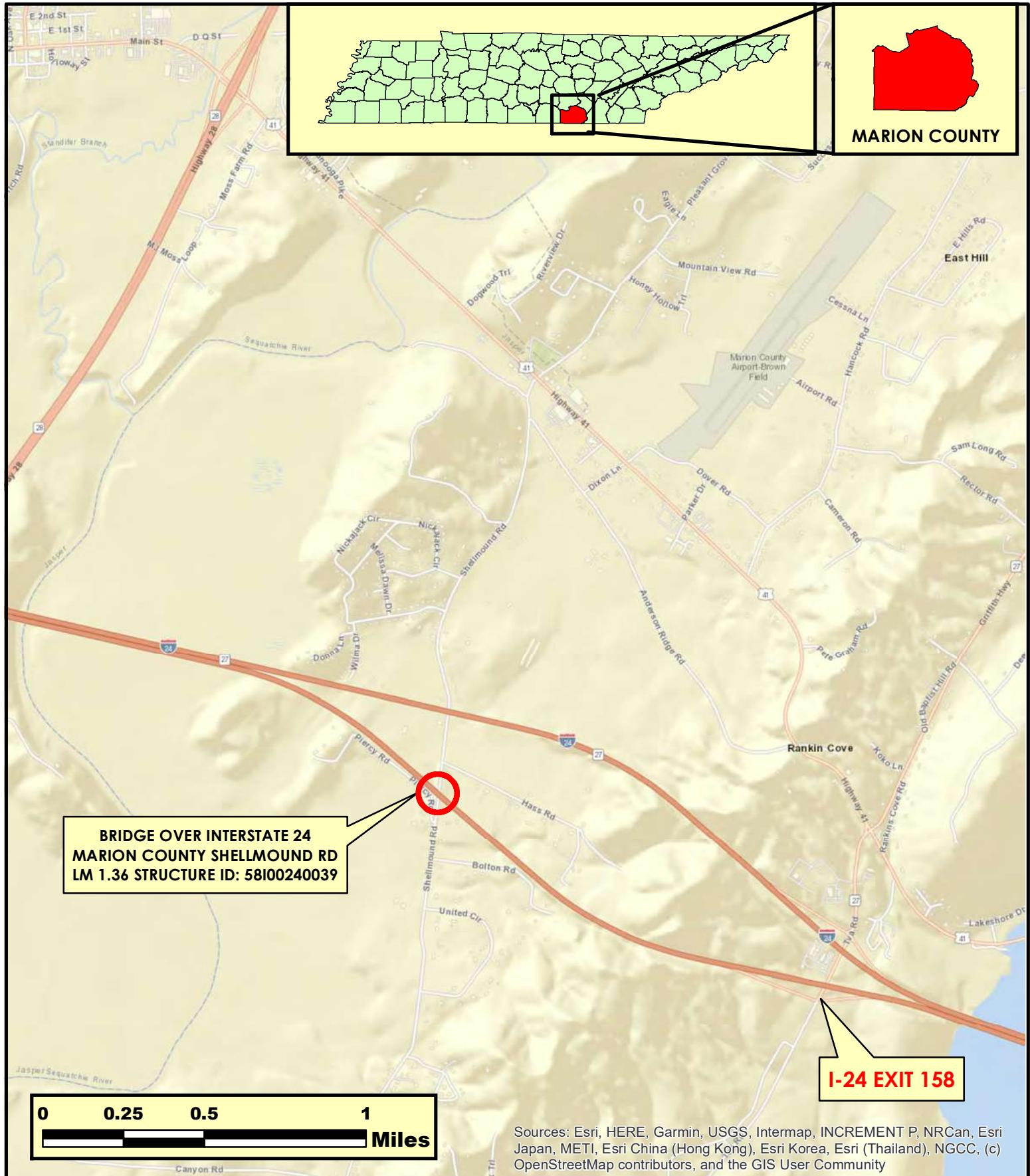
NA Justification

- Conduct Intersection and Interchange Evaluation (IIE) – No interchange within the limits of the project
- Complete Conceptual Signal Warrants – Signal warrants not needed for the low AADT
- Initiate Interstate Access Requests (IAR) Concept Coordination with FHWA (if applicable) – Not applicable
- Confirm Signal Warrants Analysis is Complete - AADT too low for signal warrant
- Review and Confirm TSMO & ITS Scope and Budget – No ITS within project limits
- Review and Confirm Preliminary Railroad Cost Estimate – No railway within project limits
- Address Comments and Finalize Interstate Access Requests (IAR) Document and Memo (if applicable) – Not applicable
- Develop Roadway Safety Audit (RSA) No Plans Document – RSA outside the scope of this BTIR

Concept Report
Table of Contents/Attachments

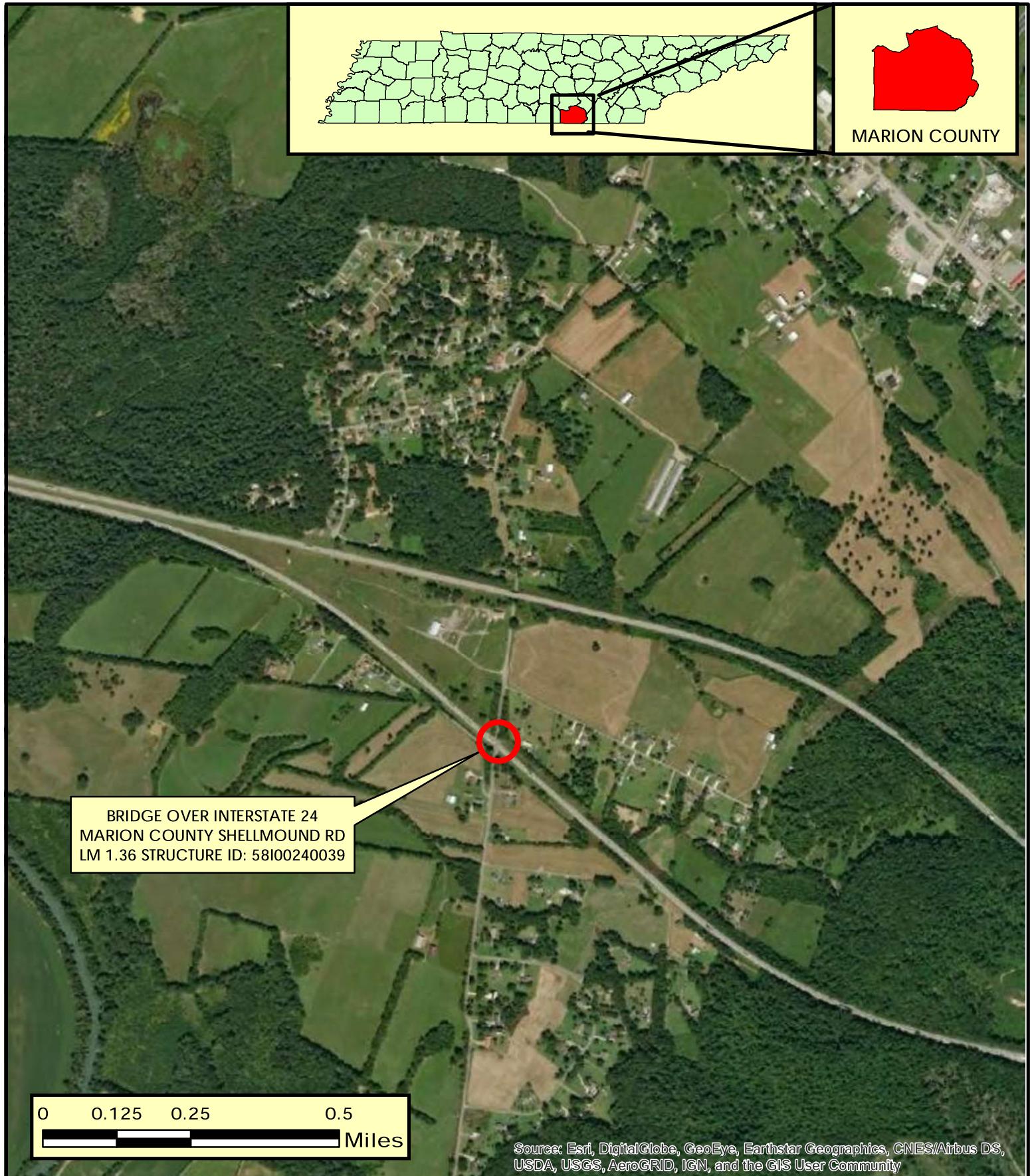
	Included	NA
One-Page Summary (with project location map)	✓	
Conceptual Layout(s) and Cross Section	✓	
Environmental Technical Study Area (ETSA) Layout	✓	
Concept Cost Estimate (Construction Year Estimate)	✓	
TSMO & ITS Scope and Budget ¹		✓
ROW Form 44-A ¹		✓
Crash Packet ¹		✓
Crash Prediction Analysis ¹		✓
Site Visit Attendee List	✓	
Environmental Desktop Review Form ¹	✓	
Multimodal Considerations & Recommendations ¹	✓	
Existing Structure Summary ¹	✓	
Email or memo containing Structure Type Recommendations ¹		✓
Email or memo containing Hydraulic Recommendations ¹		✓
Hydraulic Data		✓
Intersection and Interchange Evaluation (IIE) Analysis and Summary Form		✓
Traffic Analysis Summary/Tables	✓	
Forecasted Traffic Sheets ¹		✓
Traffic Modeling (e.g., Synchro, VISSIM, Highway Capacity Software (HCS) Output) ¹		✓
Signal Warrant ¹		✓
Lighting Warrant ¹		✓
Initial Risk Assessment using the Risk Assessment Form		✓
Final Interstate Access Request (IAR) Document and Memo with Letter from STID Director		✓
Road Safety Audit (RSA) No Plans ¹		✓
NA Justification		
<ul style="list-style-type: none"> - TSMO & ITS Scope and Budget* - No ITS at site - Crash Packet* - Crash packets are not typically provided for Bridge replacements - Intersection and Interchange Evaluation (IIE) Analysis and Summary Form - No intersection or interchange - Traffic Modeling (e.g., Synchro, VISSIM, Highway Capacity Software (HCS) Output)* - AADT too low to model - Signal Warrant* - No intersection to signal warrant - Road Safety Audit (RSA) No Plans* - RSA outside the scope of this BTIR 		

* External document to STID



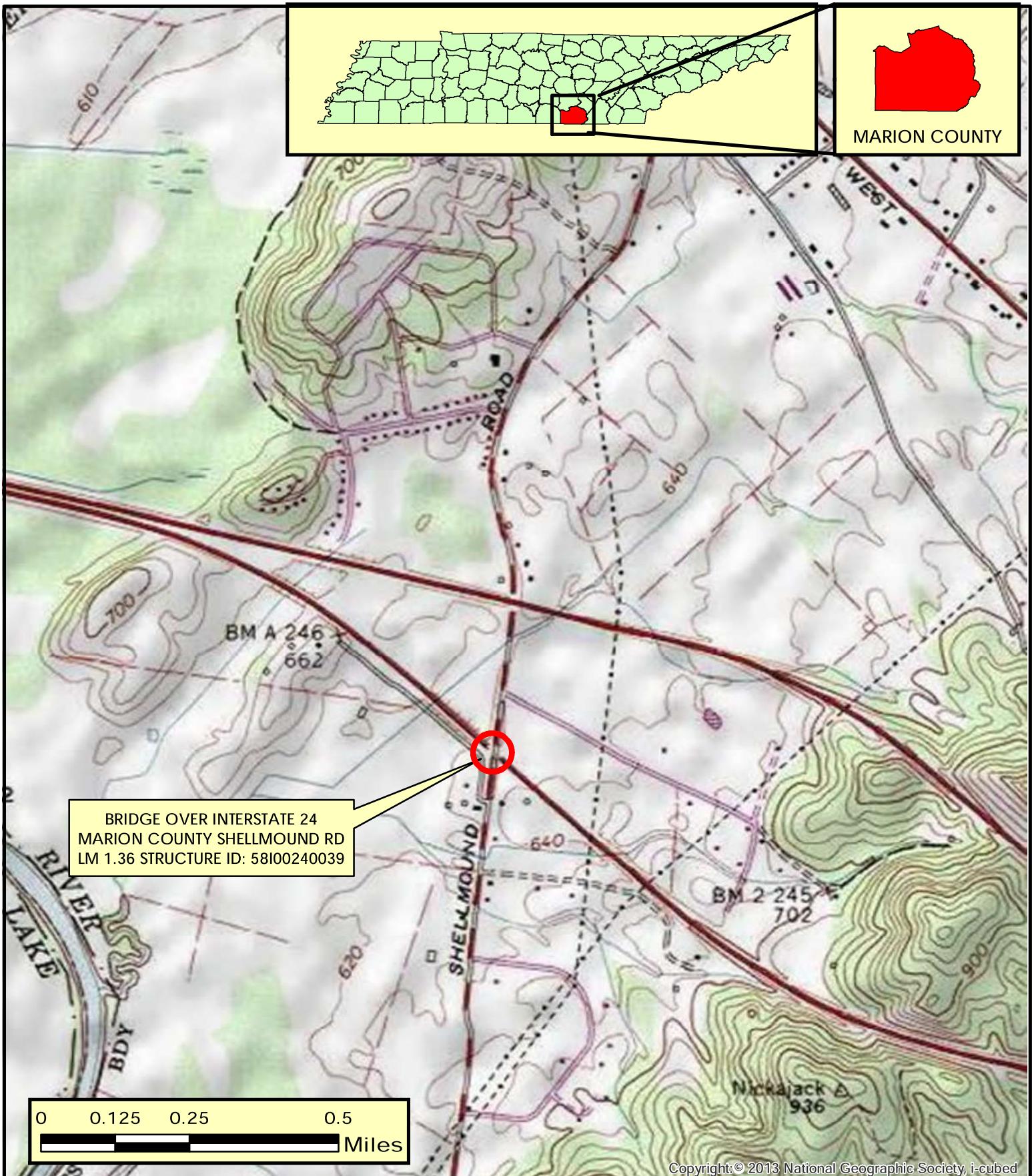
AREA MAP
BRIDGE OVER INTERSTATE 24
SHELLMOUND ROAD
L.M. 1.36
PIN: 130902.00
MARION COUNTY





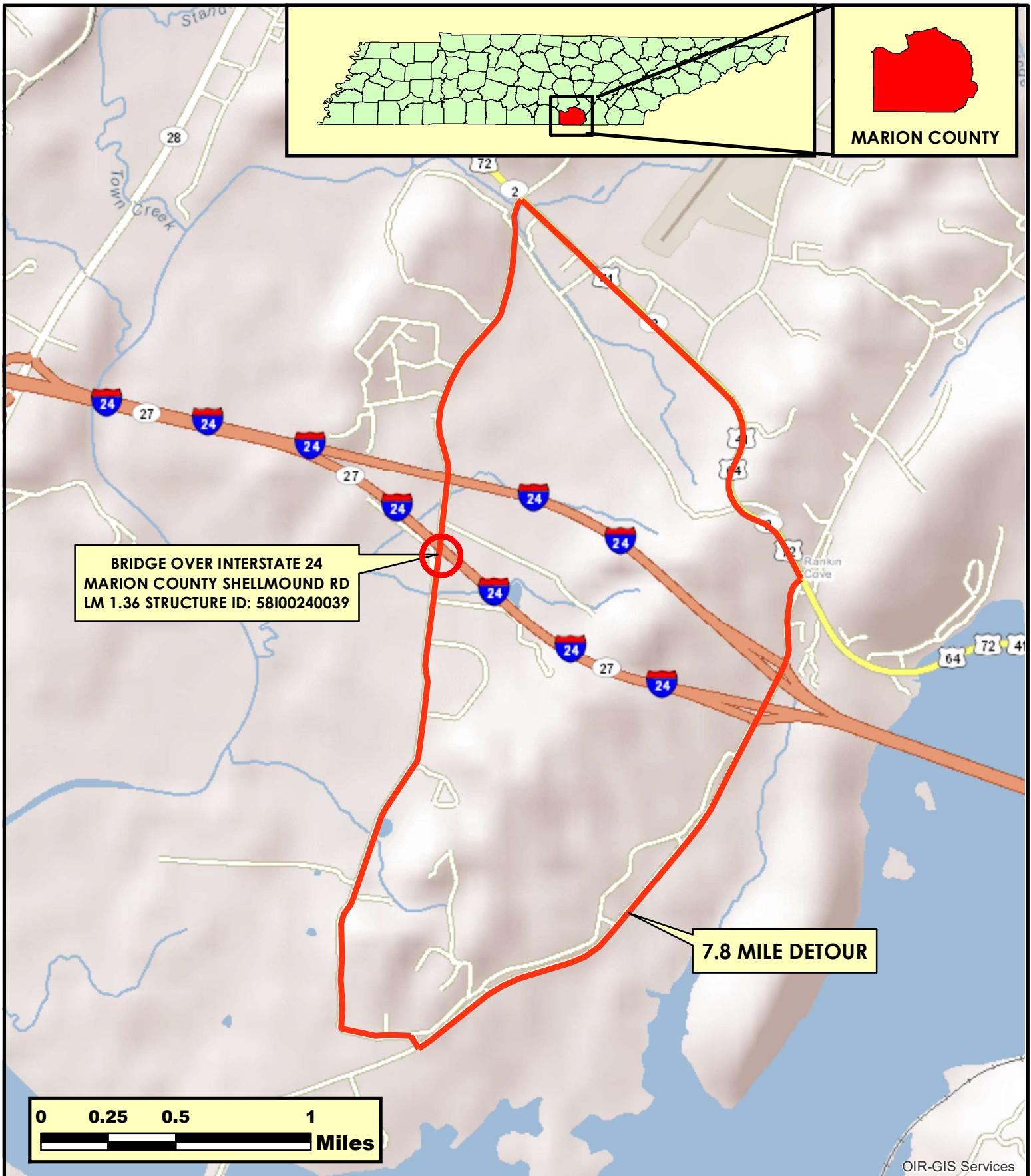
LOCATION MAP
BRIDGE OVER INTERSTATE 24
SHELLMOUND ROAD
L.M. 1.36
PIN: 130902.00
MARION COUNTY



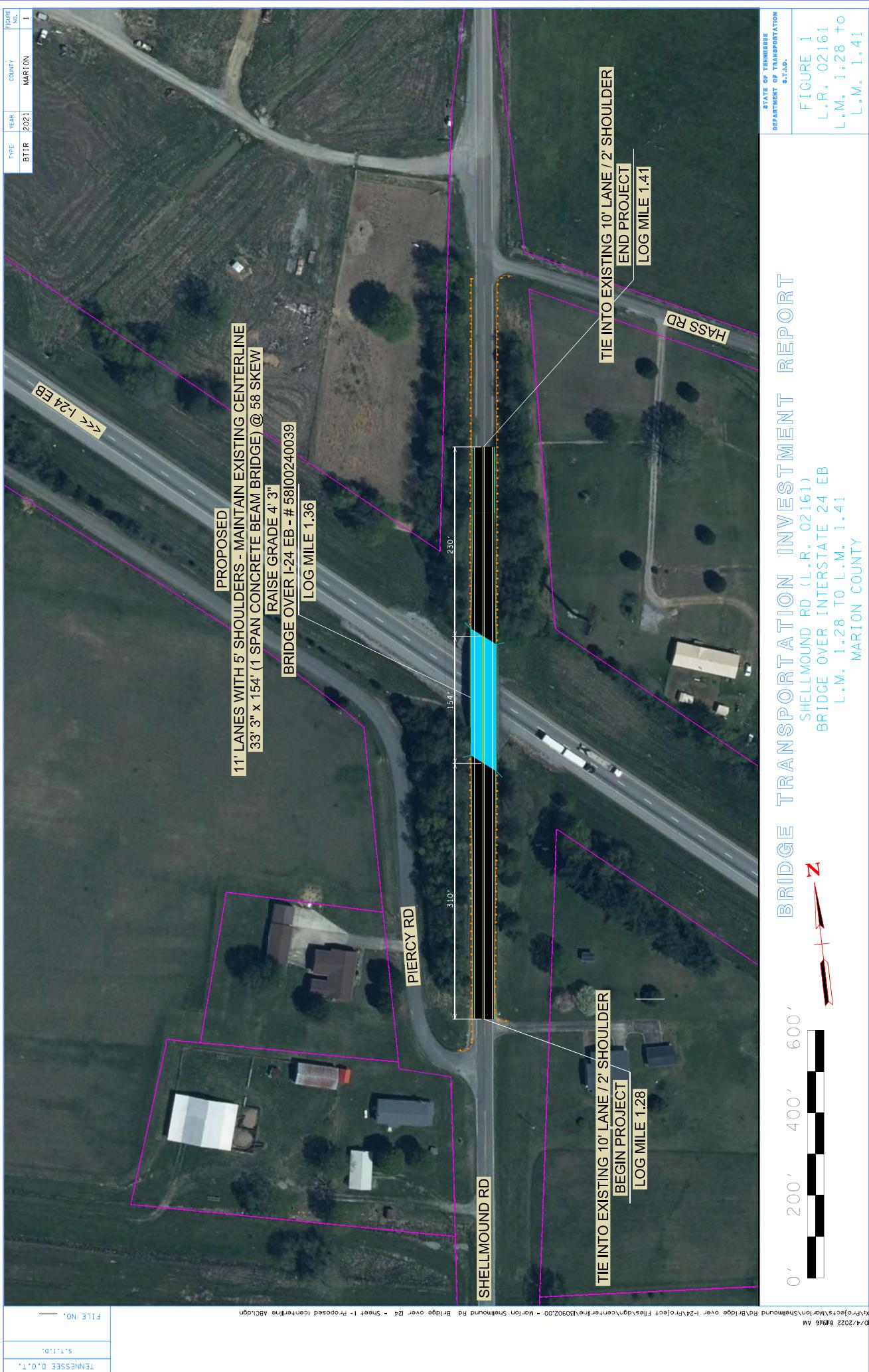


TOPOGRAPHIC MAP
BRIDGE OVER INTERSTATE 24
SHELLMOUND ROAD
L.M. 1.36
PIN: 130902.00
MARION COUNTY

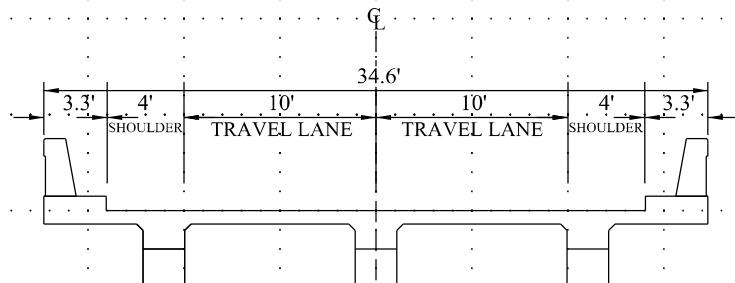




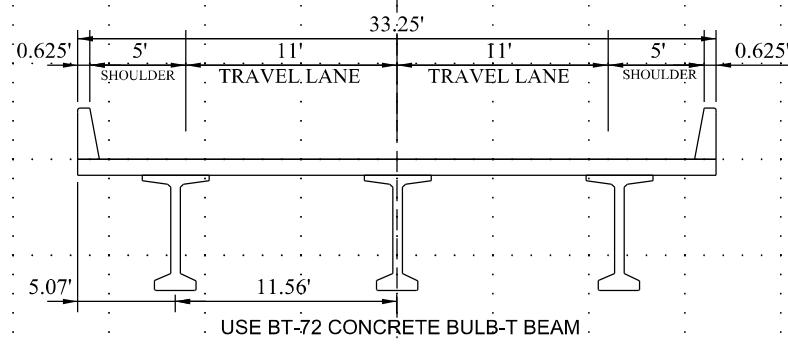
DETOUR MAP
BRIDGE OVER INTERSTATE 24
SHELLMOUND ROAD
L.M. 1.36
PIN: 130902.00
MARION COUNTY



EXISTING STRUCTURE



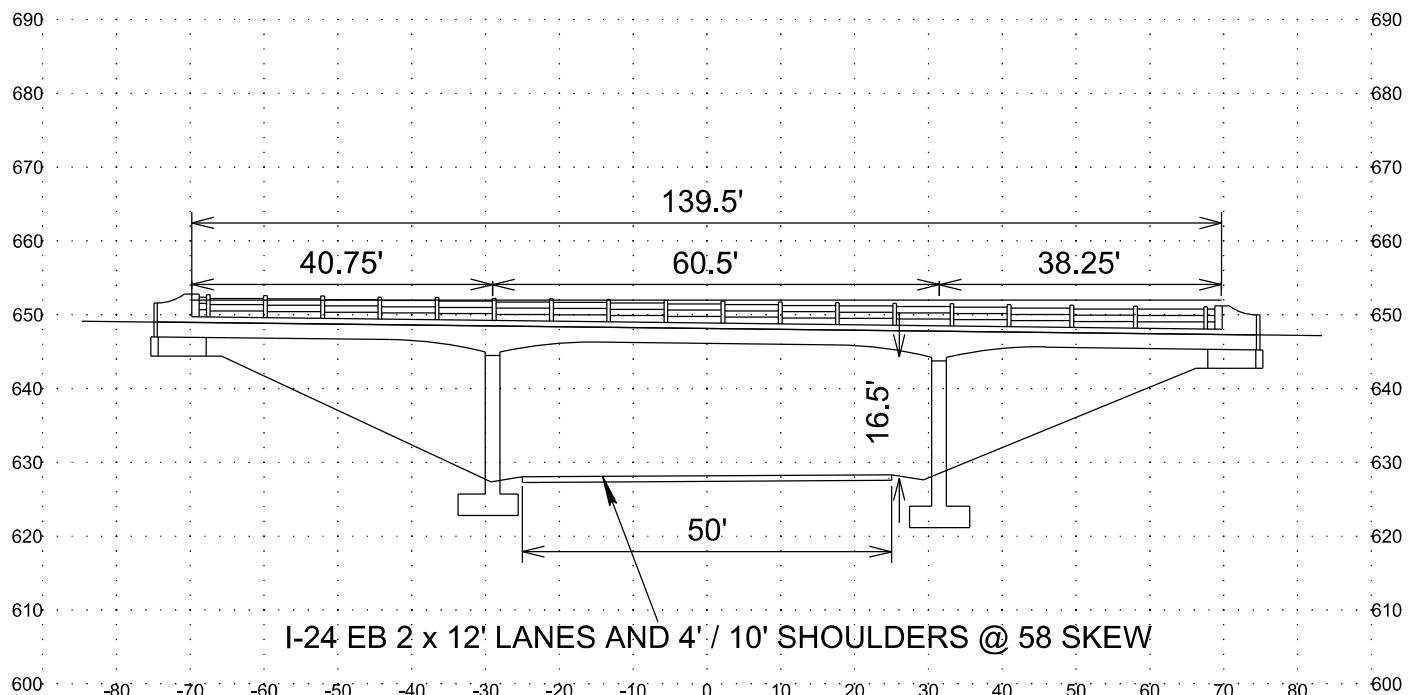
PROPOSED COMPLETED



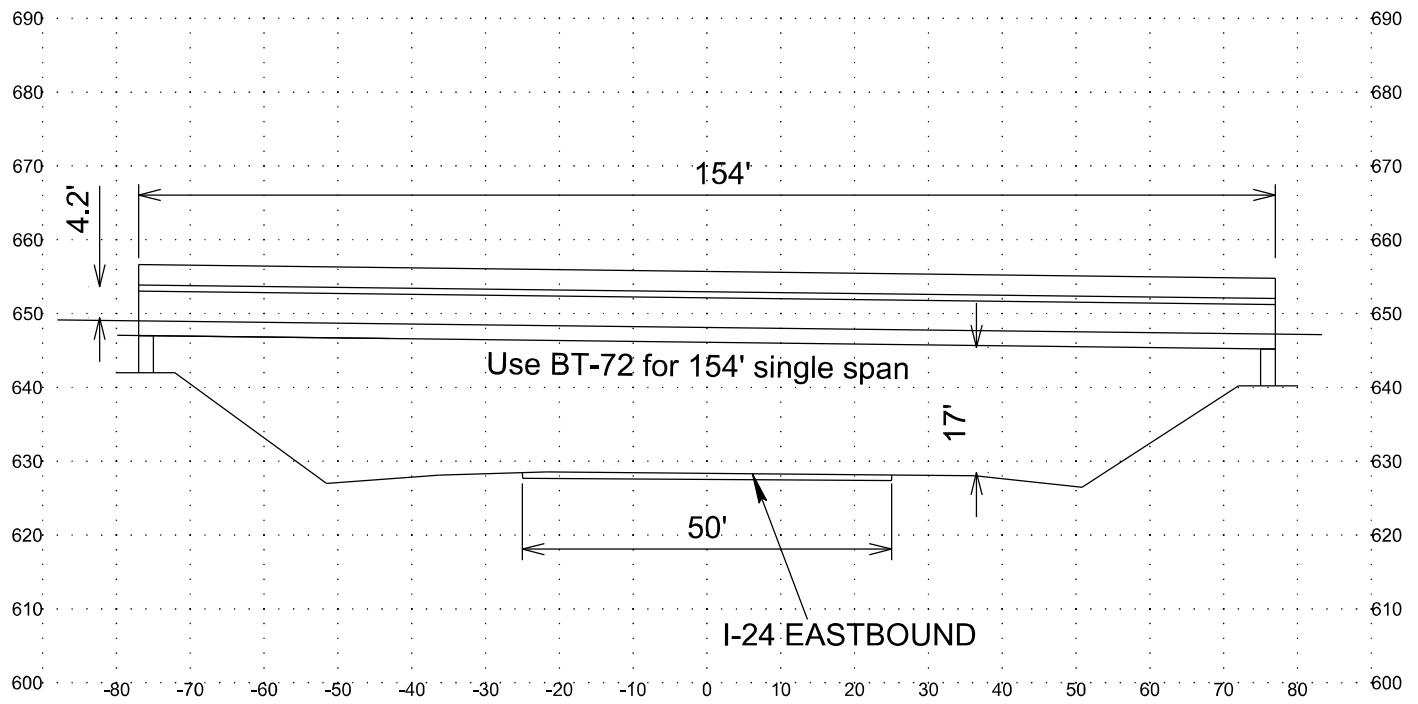
CROSS-SECTION DETAIL

MARION COUNTY - SHELLMOUND ROAD (02161)
BRIDGE OVER I-24 EB @ L.M. 1.36
BRIDGE ID: 58I00240039

EXISTING STRUCTURE (INLET)



PROPOSED STRUCTURE (INLET)



BRIDGE SECTIONS

MARION COUNTY - SHELLMOUND ROAD (02161)

BRIDGE OVER I-24 EB @ L.M. 1.36

BRIDGE ID: 58I00240039

BRIDGE TRANSPORTATION INVESTMENT REPORT (TIR)

MARION COUNTY

LR 02161 (SHELLMOUND RD)

LM 1.36

LOCATION			
Bridge #:	58I00240039	Feature Crossed:	I-24 EB
Road Name:	Shellmound Rd	Log mile:	1.36
Route ID:	02161	System:	State Highway Agency
City:		Functional Class:	Rural Minor Collector
County:	Marion		
PIN:	130902.00		
ROADWAY			
	Existing	Proposed (Preliminary Design Estimate)	
Design Standard		RD11-TS-2	
Route Characteristics			
AADT:	1,750	1,930	
AADT Year:	2026	2046	
Terrain:	Rolling	Rolling	
No. Lanes:	2	2	
Speed(Posted):	30	30	
Speed (Design):		40	
Approach Character.			
Lane Width (ft):	10	11	
Shoulder Width (ft):	2	5	
ROW Width (ft):	60	60	
ROW Tracts Affected		0	
ROW Required (acre)		0	
Cross Section Width (ft):	20/24/60	22/30/60	
Northern Approach Length (ft)		230'	
Southern Approach Length (ft):		310'	
Alignment:	Centerline	Maintain Centerline	
Grade:	N/A	Raise Approximately 4.3'	
Surface Material:	Asphalt Concrete	Asphalt Concrete	
App. Lower Than Structure	NO	NO	
Utilities (list)	transmission and communications utilities alongside road will need to be relocated		
Comments		I-24 EB use RD11-TS-5A	

BRIDGE TRANSPORTATION INVESTMENT REPORT (TIR)

MARION COUNTY

LR 02161 (SHELLMOUND RD)

LM 1.36

STRUCTURE			
	Existing		Proposed (Preliminary Design Estimate)
Bridge Characteristics			
Year Built	1965		
Load Limit	16 tons		
Sufficiency Rating	54.2 (FAIR)		
Skew	58		58
Structure Type	Concrete Tee Beam		Concrete Prestressed Bulb-T Beam
Structures in Channel	NO		NO
Length (ft)	139' 6"		154'
No. Spans (App./Main)	3 main		1 main
Width (curb to curb) (ft)	28'		30'
Width (o to o) (ft)	34' 6"		31' 3"
Sidewalks on Structure	NO		NO
Superstructure Depth (in)	61" / 85"		124"
Girder Depth (in)	24" / 48"		72"
Finish Grade-Low Girder (in)	31" / 55"		82"
Bridge Rail Type	Concrete parapet		Concrete Wall
Bridge Rail Height (ft)	30"		42"
Indication Overtopping	NO		
Local Scour	NO		
Obstructions	NO		
Other Structures	Use BT-72 for single span		
Comments			
	Minimum Clearance of existing located at 24" beam thickness		

BRIDGE TRANSPORTATION INVESTMENT REPORT (TIR)

MARION COUNTY

LR 02161 (SHELLMOUND RD)

LM 1.36

MAINTENANCE OF TRAFFIC

Method of Maintaining Traffic	close road
Description	Close Bridge and Detour 7.8 miles on TVA Road, U.S. 64 and U.S. 41
Comments	TVA Road will need to be striped and signed for detour.

BRIDGE TRANSPORTATION INVESTMENT REPORT (TIR)

MARION COUNTY

LR 02161 (SHELLMOUND RD)

LM 1.36

SITE VISIT ATTENDEES			DATE:
Name	Organization	Phone	Email
Michael Cloud	TDOT - STID	615-532-7696	michael.cloud@tn.gov
Michael Gilbert	TDOT - STID	615-741-0772	michael.gilbert@tn.gov
David Duncan	TDOT - STID	615-532-6131	david.duncan@tn.gov
Alan Wolfe	R2 - Traffic	423-510-1139	Alan.Wolfe@tn.gov
Chester Sutherland	R2 - ETO	423-510-1229	Chester.Sutherland@tn.gov
Marykate Collins	R2 - Traffic	423-510-1139	marykate.collins@tn.gov
Ann Casseus	R2- Survey	423-510-1233	Ann.Casseus@tn.gov
Jackson Collette	R2- Traffic	423-510-1139	Jackson.Collette@tn.gov
Tami Johnson-Praino	R2 - Survey	423-510-1233	Tami.Johnson-Praino@tn.gov



Northern Approach looking South



Western Edge of Bridge



Eastern Edge of Bridge



Southern Approach looking North



On bridge looking South



Southern Approach intersection with Piercy Road



Northern approach of bridge looking North



Drainage feature on Shellmound Rd



EB I-24 Looking East Under bridge



EB I-24 Looking West Under Bridge



EB I-24 Looking North Under Bridge



EB I-24 Looking South Under Bridge

CHECK LIST OF DETERMINANTS FOR LOCATION STUDY

If any of the following facilities or ESE categories are located within the project area or corridor, place an "x" in the blank opposite the item. Where more than one alternate is to be considered, place its letter designation in the blank.

1. Agricultural land usage
 2. Airport (existing or proposed)
 3. Commercial area, shopping center
 4. Floodplains
 5. Forested land
 6. Historical, cultural, or natural landmark
 7. Industrial park, factory
 8. Institutional usages
 - a. School or other educational institution
 - b. Church or other religious institution (Cemetery)
 - c. Hospital or other medical facility
 - d. Public building, e.g., fire station
 - e. Defense installation
 9. Recreation usages
 - a. Park or recreational area
 - b. Game preserve or wildlife area
 10. Residential establishment
 11. Urban area, town, city, or community
 12. Waterway, lake, pond, river, stream, spring
- Permit required:
- | | |
|-----------------------------|--------------------------|
| Coast Guard | <input type="checkbox"/> |
| Section 404 | <input type="checkbox"/> |
| TVA Section 26a review | <input type="checkbox"/> |
| NPDES | <input type="checkbox"/> |
| Aquatic Resource Alteration | <input type="checkbox"/> |
13. Other
 14. Location coordinated with local officials
 15. Railroad crossings
 16. Hazardous materials site

Michael Cloud

From: David A. Duncan
Sent: Tuesday, March 15, 2022 9:59 AM
To: Michael Cloud
Subject: FW: Draft Bridge TIR - 130902.00 - Shellmound Road, Bridge over I-24 Eastbound
Attachments: 130902.00 - Marion Co Shellmound Rd BTIR over I-24 EB - draft (12-3-21).pdf

From: Linda Tidwell <Linda.Tidwell@tn.gov>
Sent: Thursday, January 6, 2022 2:44 PM
To: David A. Duncan <David.A.Duncan@tn.gov>
Cc: Kimberly Vasut-Shelby <Kimberly.Vasut-Shelby@tn.gov>; Sharon Sanders <Sharon.Sanders@tn.gov>
Subject: FW: Draft Bridge TIR - 130902.00 - Shellmound Road, Bridge over I-24 Eastbound

David,

Thank you for the opportunity to comment on the draft Bridge TIR for the Shellmound Road Bridge over I-24 Eastbound.

The project is located in a rural/agricultural area and there are no obvious Section 4(f) resources in the project area. The bridge sufficiency rating is 54.2. Please include a purpose and need statement for replacing the bridge. Also, please include a statement as to whether the proposed project is expected to be constructed within the existing ROW. If ROW is needed, please include an estimated amount of ROW needed.

Thanks,
Linda



Linda Tidwell | TDOT Environmental Studies Specialist
Environmental Division/ NEPA Programs Office
James K. Polk Building, 9th Floor
505 Deaderick Street, Nashville, TN 37243
P. 615-253-2860
Linda.Tidwell@tn.gov
tn.gov/tdot
[NEPA Office \(tn.gov\)](http://NEPA.Officetn.gov)

From: Kimberly Vasut-Shelby <Kimberly.Vasut-Shelby@tn.gov>
Sent: Thursday, December 30, 2021 9:58 AM
To: Linda Tidwell <Linda.Tidwell@tn.gov>
Cc: Sharon Sanders <Sharon.Sanders@tn.gov>
Subject: Project Assignment: Draft Bridge TIR - 130902.00 - Shellmound Road, Bridge over I-24 Eastbound

Linda,

I have assigned the following project to you. Please provide NEPA comments for this draft.

Michael Cloud

From: Veda Nguyen
Sent: Tuesday, September 27, 2022 3:01 PM
To: David A. Duncan; Daniel McDonell
Cc: Steve Allen; Jim Waters; Daniel Pallme; Michael Cloud; Michael Gilbert
Subject: RE: 130902.00 - Marion Shellmound Road over I-24 EB

Follow Up Flag: Follow up
Flag Status: Flagged

Hi David,

Based on the information provided in the BTIR and TDOT standards and guidelines:

- Bicyclists can be accommodated with a shared lane
 - On low speed (Posted Speed <=35 mph) and low volume (ADT < 2000) rural roads, [MM-TS-1](#) Table 2 indicates that a shared lane with vehicles is an acceptable bike accommodation.
- Pedestrians can be accommodated with a 5 ft paved shoulder
 - On rural collector roads where only an occasional pedestrian is expected, TDOT Design Guidelines, Chapter 3, Section 3-205.00 indicates that the shoulder is an acceptable pedestrian accommodation. TDOT Design Guidelines, Chapter 3, Section 3-801.00, Table 3-5 recommends a minimum paved shoulder width of 5ft (4ft + 1ft) to accommodate pedestrians along the bridge. The additional 1 ft is a required offset to the bridge railing (vertical element).

Please let me know if you have any follow-up questions.

Thanks,



Veda L. Nguyen, P.E. | Civil Engineering Manager II
Multimodal Planning Office
James K. Polk Bldg, 12th Floor
505 Deaderick St., Nashville, TN 37243
Office No. 615-532-0421
Veda.Nguyen@tn.gov

From: David A. Duncan <David.A.Duncan@tn.gov>
Sent: Tuesday, September 27, 2022 8:58 AM
To: Veda Nguyen <Veda.Nguyen@tn.gov>; Daniel McDonell <Daniel.McDonell@tn.gov>
Cc: Steve Allen <Steve.Allen@tn.gov>; Jim Waters <Jim.Waters@tn.gov>; Daniel Pallme <Daniel.Pallme@tn.gov>; Michael Cloud <Michael.Cloud@tn.gov>; Michael Gilbert <Michael.Gilbert@tn.gov>
Subject: 130902.00 - Marion Shellmound Road over I-24 EB

Veda/Daniel,

I don't think we ever got comments from your office for the attached bridge TIR, and it was going through the review process prior to the IIJA discussions began earlier this year. We are currently showing 4' shoulders across the bridge, but I think the Multimodal guidelines call for 5' shoulders when a vertical wall is present. Do you think we need to

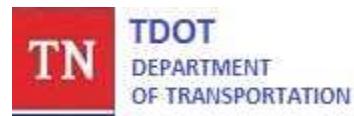
accommodate pedestrians on this bridge? Or we okay with just providing the width on the shoulders for bikes? Let us know you thoughts about the multimodal accommodations for this project.

Thanks,
Dave



David Duncan, PE | Civil Engineering Manager 1
Strategic Transportation Investments Division / Project Investigation
James K. Polk Building, 10th Floor
505 Deaderick St., Nashville, TN 37243
p. 615-532-6131
David.A.Duncan@tn.gov
tn.gov/tdot
<https://www.tn.gov/tdot/strategic-transportation-investments.html>

**NATIONAL BRIDGE INVENTORY
TENNESSEE INVENTORY AND APPRAISAL REPORT**



BRIDGE ID NUMBER: 58I00240039

BRIDGE OWNER: STATE OF TENNESSEE

FIPS CODE: 00000

ROAD NAME: SHELLMOUND RD.

CROSSING: SHELLMOUND RD. / I-24 EB

LOCATION: 3.5 MI S OF SR28

COUNTY: MARION

ROUTE: 02161

SPECIAL CASE: 0

COUNTY SEQUENCE: 1

LOG MILE: 1.36

SUFFICIENCY RATING: 54.2

IDENTIFICATION

(16a,b) LATITUDE: N 35.04068 DEGREES
 (17a,b) LONGITUDE: W 85.60353 DEGREES
 (98a) BORDER BRIDGE STATE CODE: N/A
 (98b) PERCENT SHARE: N/A
 (99) BORDER BRIDGE NUMBER: NOT APPLICABLE

CLASSIFICATION

(112) MEETS NBIS BRIDGE LENGTH: YES
 (104) NATIONAL HIGHWAY SYSTEM: NOT A NHS ROUTE
 (26) FUNCTIONAL CLASS: RURAL MINOR COLLECTOR
 (101) PARALLEL BRIDGE: NO PARALLEL BRIDGE
 (102) TRAFFIC DIR: 2-WAY TRAFFIC
 (103) TEMPORARY BRIDGE: NOT APPLICABLE
 (110) NATIONAL TRUCK ROUTE: NOT ON TRUCK NETWORK
 (37) HISTORICAL CLASS: HISTORICAL SIGNIFICANCE HAS NOT BEEN DETERMINED

BRIDGE TYPE AND MATERIAL

(43a) MAIN SPAN MATERIAL: CONCRETE CONTINUOUS
 (44a) APPR SPAN MATERIAL: NOT APPLICABLE

CONDITION RATINGS

(45) NUMBER OF MAIN SPANS: 3
 (46) NUMBER OF APPROACH SPANS: 0
 (107) TYPE OF DECK: CONCRETE CAST-IN-PLACE
 (108) TYPE OF WEARING SURFACE AND DECK PROTECTION:
 A) TYPE OF SURFACE: ASPHALT
 B) TYPE MEMBRANE: NONE
 C) TYPE PROTECTION: NONE

(58) DECK: 7
 (59) SUPERSTRUCTURE: 5
 (60) SUBSTRUCTURE: 7
 (61) STREAM CHANNEL AND CHANNEL PROTECTION: N
 (62) CULVERT CONDITION (IF APPLICABLE): N

AGE AND SERVICE

(27) YEAR THE BRIDGE WAS BUILT: 1965
 (106) YEAR THE BRIDGE WAS REHABILITATED: N/A
 (42a) SERVICE ON BRIDGE: HIGHWAY
 (42b) UNDER BRIDGE: HIGHWAY
 (28a) NUMBER OF LANES CARRIED BY BRIDGE: 2
 (28b) NUMBER OF LANES UNDER THE BRIDGE: 2

(31) DESIGN LOADING: HS-20-44 +MOD
 WEIGHT POSTING (2 AXLE VEHICLES): ALL LEGAL LOADS
 WEIGHT POSTING (3 OR MORE AXLES): ALL LEGAL LOADS
 (70) BRIDGE POSTING CODE: 5
 (41) WT POSTING STATUS: OPEN

APPRaisal

(67) STRUCTURAL EVALUATION: 5
 (68) DECK GEOMETRY: 5
 (69) UNDERCLEARANCE RATING: 3
 (71) WATERWAY ADEQUACY: N
 (72) APPROACH ROADWAY ALIGNMENT: 6
 (36) TRAFFIC SAFETY FEATURES: 0000
 (113) SCOUR CONDITION RATING: N

RECOMMENDED IMPROVEMENTS

(75) TYPE OF WORK: BRIDGE DECK REPAIR
 (76) LENGTH OF BRIDGE IMPROVEMENT: 140.1 FT
 (94) BRIDGE IMPROVEMENT COST: \$152,000.00
 (95) ROADWAY IMPROVEMENT COST: \$16,000.00
 (96) TOTAL PROJECT COST: \$229,000.00
 (97) YEAR OF IMPROVEMENT COST ESTIMATE: 2019

INSPECTION DATES

(90) DATE OF LAST REGULAR INSPECTION: 7/24/2018
 (91) REGULAR INSPECTION FREQUENCY (MONTHS): 24
 (93b) DATE OF LAST UNDERWATER INSP (MO/YR): N/A
 (92b) UNDERWATER INSP FREQUENCY (MONTHS): N
 (93c) DATE OF SPECIAL INSPECTION (MO/YR): N/A
 (92c) SPECIAL INSP FREQUENCY (MONTHS): N

**PRODUCED PURSUANT TO
PUBLIC RECORDS REQUEST**

This document is covered by 23 USC §409
 and its production pursuant to a public
 document records request does not
 waive the provisions of §409

PUBLICATION DATE

19-Mar-20

**TENNESSEE DEPARTMENT OF TRANSPORTATION
STRATEGIC TRANSPORTATION INVESTMENTS DIVISION**

PROJECT NO.: 58100-0187-44 ROUTE: SHELLMOUND ROAD
 COUNTY: MARION CITY: _____
 PROJECT PIN NUMBER: 130902.00
 PROJECT DESCRIPTION: BRIDGE OVER I-24 @ L.M. 1.36.

DIVISION REQUESTING:

MAINTENANCE	<input type="checkbox"/>	PAVEMENT DESIGN	<input type="checkbox"/>
S.T.I.D.	<input checked="" type="checkbox"/>	STRUCTURES	<input type="checkbox"/>
PROG. DEVELOPMENT & ADM.	<input type="checkbox"/>	SURVEY & ROADWAY DESIGN	<input type="checkbox"/>
PUBLIC TRANS. & AERO.	<input type="checkbox"/>	TRAFFIC SIGNAL DESIGN	<input type="checkbox"/>
YEAR PROJECT PROGRAMMED FOR CONSTRUCTION:	<u>2026</u>		
PROJECTED LETTING DATE:	_____		

TRAFFIC ASSIGNMENT:

BASE YEAR		DESIGN YEAR					DESIGN ROADWAY % TRUCKS		DESIGN AVERAGE DAILY LOADS	
AADT	YEAR	AADT	DHV	%	YEAR	DIR.DIST.	DHV	AADT	FLEX	RIGID
1,750	2026	1,930	232	12	2046	65-35	2	3		

REQUESTED BY: NAME MICHAEL CLOUD DATE 4/26/21
 DIVISION S.T.I.D.
 ADDRESS 1000 J. K. POLK BUILDING
NASHVILLER TN 37243

REVIEWED BY: _____ DATE _____
 TRANSPORTATION MANAGER 1
 SUITE 1000, JAMES K. POLK BUILDING

APPROVED BY: TONY ARMSTRONG *Tony Armstrong* DATE 4/26/2021
 TRANSPORTATION MANAGER 2
 SUITE 1000, JAMES K. POLK BUILDING

COMMENTS:

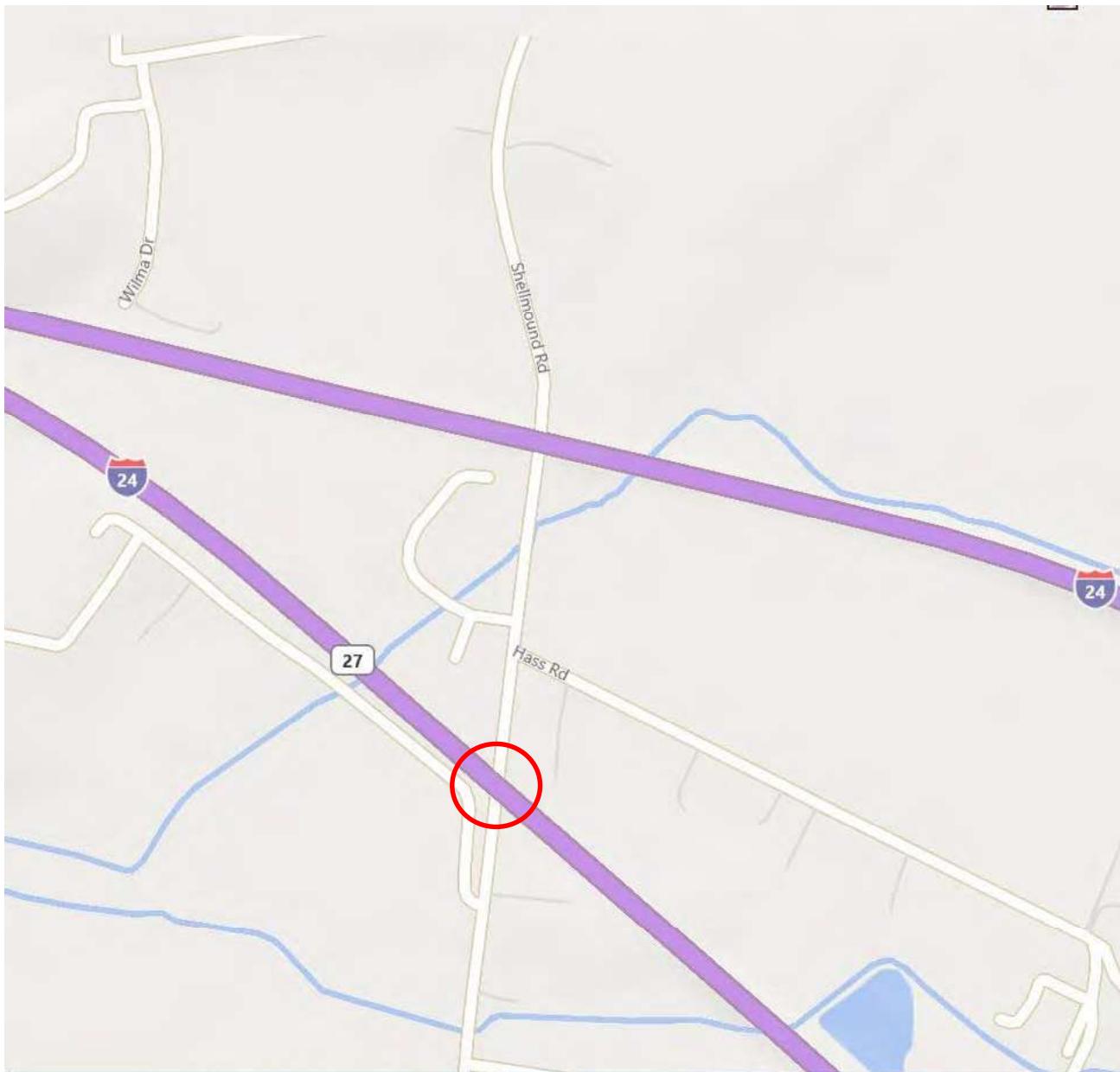
THIS TRAFFIC IS BASED ON A 2019 CYCLE COUNT. THE DESIGN YEAR TRAFFIC IS BASED ON GROWTH RATE FROM THE ADAM COMPUTER PROGRAM.

DHV'S ARE NOT REQUIRED FOR SIDE ROADS LESS THAN 1000 AADT.

NOTE: FOR BRIDGE REPLACEMENT PROJECTS, ADLs ARE NOT REQUIRED FOR ADTs OF 1000 OR LESS AND PERCENTAGE OF TRUCKS OF 7% OR LESS.

SEE ATTACHMENTS FOR TURNING MOVEMENTS AND/OR OTHER DETAILS.

(REV. 3/1/21)



Marion County

Shellmound Road

Bridge over I-24 @ L.M. 1.36

Michael Cloud

From: David A. Duncan
Sent: Monday, September 26, 2022 1:26 PM
To: Michael Cloud
Subject: FW: FOLLOW-UP on Request for Letter of Approval - 130902.00 - MarionCo Shellmound Rd BTIR - bridge over I-24 EB - detour approval request

Follow Up Flag: Follow up
Flag Status: Flagged

Please add this to the report.

From: Marion County Highway Department <marion.hwy.dept@gmail.com>
Sent: Monday, September 26, 2022 1:25 PM
To: David A. Duncan <David.A.Duncan@tn.gov>
Subject: [EXTERNAL] RE: FOLLOW-UP on Request for Letter of Approval - 130902.00 - MarionCo Shellmound Rd BTIR - bridge over I-24 EB - detour approval request

***** This is an EXTERNAL email. Please exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email - STS-Security. *****

Mr. Hawk agrees the detour will be sufficient.

Paula Richards

Marion County Highway Department
Administrative Office
513 East Valley Rd
Jasper, TN 37347
Phone: 423-942-2581

WARNING:

CONFIDENTIALITY NOTICE - The information enclosed with this transmission are the private, confidential property of the sender, and the material is privileged communication intended solely for the individual indicated. If you are not the intended recipient, you are notified that any review, disclosure, copying, distribution, or the taking of any other action relevant to the contents of this transmission are strictly prohibited. If you have received this transmission in error, please notify me immediately at (423) 942-2581.

From: [David A. Duncan](#)
Sent: Monday, September 26, 2022 1:18 PM

To: marion.hwy.dept@gmail.com

Cc: [Michael Cloud](mailto:Michael.Cloud@tn.gov); [Michael Gilbert](mailto:Michael.Gilbert@tn.gov); [Jim Waters](mailto:Jim.Waters@tn.gov); [Steve Allen](mailto:Steve.Allen@tn.gov)

Subject: FW: FOLLOW-UP on Request for Letter of Approval - 130902.00 - MarionCo Shellmound Rd BTIR - bridge over I-24 EB - detour approval request

Mr. Hawk,

I'm following up on Mr. Cloud's request below. We need confirmation from the County Roadway Department that the proposed detour is sufficient before we can finish up the report. Please let us know if you have any questions.

Thanks,



David Duncan, PE | Civil Engineering Manager 1

Strategic Transportation Investments Division / Project Investigation

James K. Polk Building, 10th Floor

505 Deaderick St., Nashville, TN 37243

p. 615-532-6131

David.A.Duncan@tn.gov

tn.gov/tdot

<https://www.tn.gov/tdot/strategic-transportation-investments.html>

From: Michael Cloud <Michael.Cloud@tn.gov>

Sent: Tuesday, September 13, 2022 10:54 AM

To: Marion.HWY.DEPT@gmail.com

Cc: David A. Duncan <David.A.Duncan@tn.gov>; Michael Gilbert <Michael.Gilbert@tn.gov>; Jim Waters

<Jim.Waters@tn.gov>; Steve Allen <Steve.Allen@tn.gov>

Subject: FOLLOW-UP on Request for Letter of Approval - 130902.00 - Marion Co Shellmound Rd BTIR - bridge over I-24 EB - detour approval request

Hello Mr. Hawk,

This is a courtesy follow-up email regarding the previous request for Marion County Approval of the detour for the proposed Shellmound Rd Bridge replacement. I have included a map of the 7.8 mile detour that we plan to relocate traffic onto during project construction. Please let us know if you agree with this detour route by sending a response to this email.

Thanks,

Mike Cloud



Michael Cloud, PE | Transportation Project Specialist – Senior

Strategic Transportation Investments Division

James K. Polk Building, 10th Floor

505 Deaderick St., Nashville, TN 37243

p. 615-532-7696 c. 615-414-5040

tn.gov/tdot

<https://www.tn.gov/tdot/strategic-transportation-investments.html>

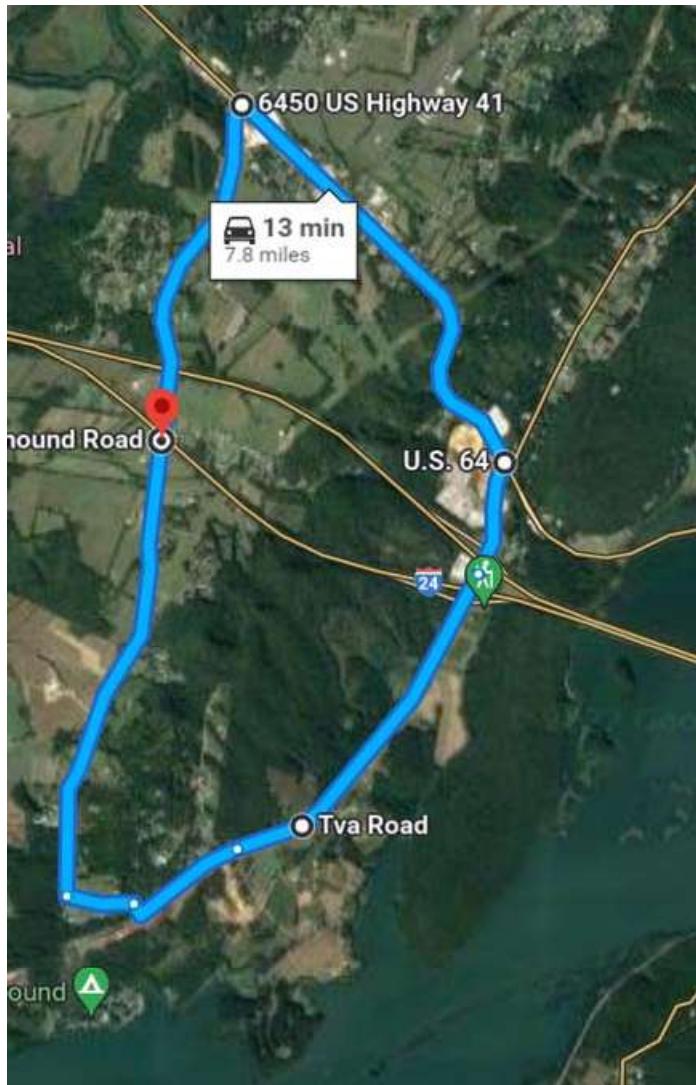
From: Michael Cloud
Sent: Thursday, September 1, 2022 7:42 AM
To: marion.hwy.dept@gmail.com
Cc: David A. Duncan <David.A.Duncan@tn.gov>; Michael Gilbert <Michael.Gilbert@tn.gov>; Steve Allen <Steve.Allen@tn.gov>; Jim Waters <Jim.Waters@tn.gov>
Subject: 130902.00 - Marion Co Shellmound Rd BTIR - bridge over I-24 EB - detour approval request

Mr. Hawk,

Yesterday, we had a conversation over the phone about detours for the attached proposed BTIR project. What is shown in the attached report is 1-lane phase construct with a temporary signal, but what I am currently proposing will need a temporary roadway closure and reroute traffic onto the detour found below.

Do you think Shellmound Rd and TVA Rd can handle the detour traffic for this project if we restripe and install signs? We may need to have the bridge crossing closed and use the detour for over a year. Do you foresee any issues with the proposed detour route?

Please respond with an email confirming if the county is agreeable to the proposed detour route, or if you have any other ideas to consider.



Thanks,
Mike Cloud



Michael Cloud, PE | Transportation Project Specialist – Senior

Strategic Transportation Investments Division

James K. Polk Building, 10th Floor

505 Deaderick St., Nashville, TN 37243

p. 615-532-7696 c. 615-414-5040

tn.gov/tdot

<https://www.tn.gov/tdot/strategic-transportation-investments.html>