

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	SR 87 - Bridge over Branch (TMA)									
PIN	134857.00									
Route Information	Route	NHS (Y/N)	Functional Class			City		County		
	SR 87	No	Rural Major Collector					Lauderdale		
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	
	5.18		370	44	4.00	55	50	2029	2049	
Project Description & Standard Drawings Used	<p>The proposed bridge is to be a single span 90' long bridge using 45" box beams. The typical section for the approach and bridge will be 2-11' foot travel lanes with 2' shoulders. The out-to-out width based on the above recommendations will be 27' 3". The proposed grade and vertical clearance will be raised 2'. It is recommended to maintain traffic during construction and shift the alignment or build a runaround. No state route detour is available, and the local route detour is 58 min (41.7 miles). Superstructure depth is 58" = 45" (beam) + 10" (deck) + 3" (width (in inches) x0.02/2).</p> <p>RD11-TS-2</p>									
Important Project History or Related Projects	<p>The existing structure is a 3 span timber bridge, 53' long with an out-to-out width of 28.8'. The existing structure has 2-11' travel lanes with minimal to no shoulders. The listed weight limit on the inspection report is 40 tons (2023). The discharges for the drainage basin (StreamStats Version 4.19.4) for drainage area of (0.09) square miles: Q10 is 194 cfs, Q50 is 249 cfs, and Q100 is 270 cfs.</p> <p>This project is not expected to utilize federal funding.</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 1971 -Timber bridges are being phased out and this bridge is near the end of it's service life -The bridge is in POOR condition 									
Major Environmental Considerations	<p>Historic preservation- A survey will be required.</p> <p>Archaeology- There is moderate probability of intact archaeological deposits in this location.</p>									

Project Details

<p>Multi-Modal Considerations</p>	<p>This project is in a rural area with a proposed 2-lane bridge width of less than 44 ft where the cost of dedicated multimodal accommodations is excessively disproportionate to the need and probable use. Excessively disproportionate is defined as exceeding 20 percent of the cost of the project.</p>	
<p>Major Project Risks</p>	<p>Approx. 0.77 acres of ROW to be acquired under the realignment option. Overhead electric utilities are present. This bridge replacement should be coordinated with the replacements at L.M. 6.42, L.M. 11.75, and L.M. 20.76 along SR 87. This document is covered by 23 USC § 407 and its production pursuant to fulfilling public planning requirements does not waive the provisions of § 407.</p>	

¹ Traffic numbers reflect identified design year

Approvals

Executed for approval of this Concept Report

David Duncan

David Duncan (Oct 24, 2024 10:48 CDT)

Engineering Concepts and Statewide Programs Director

10/24/2024

Date

The following individuals to execute if a bridge concept report:

Dev A Krivoguz

Structures Director

10/25/2024

Date

B. LAZ

Regional Project Management Director

10/28/2024

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
	✓	Coordinate with Long Range Planning
✓		Request and Finalize Traffic Data
	✓	Request Preliminary Survey Data
	✓	Initiate Division Reviews
	✓	Schedule Site Review (with appropriate Divisions)
0EN1 Conduct Environmental Desktop Review		
Complete	NA	Date Completed
✓		Confirm Environmental Desktop Review is Complete
0MM1 Conduct Multimodal Review		
Complete	NA	Date Completed
	✓	Confirm Multimodal Review is Complete
	✓	Review Multimodal Considerations & Recommendations
0TO1 Conduct Initial Traffic Ops/TSMO Review <i>(include HQ Traffic Ops and Regional Traffic Office)</i>		
Complete	NA	Date Completed
		Confirm Transportation Systems Management & Operations (TSMO) Alignment & Operations Review is Complete
		Request Concept Report Review
0ST1 Develop Structures Recommendations		
Complete	NA	Date Completed
✓		Confirm Recommended Structure Type for Concept Report is Complete
✓		Confirm Hydraulic Recommendations for Concept Report is Complete
0SY1 Provide Preliminary Survey Data		
Complete	NA	Date Completed
	✓	Confirm Control Ground Survey Set
	✓	Review Preliminary Survey Data
	✓	Determine Time to Complete the Aerial Survey
0GT1 Conduct Preliminary Geotechnical Assessment		
Complete	NA	Date Completed
	✓	Confirm Geotechnical Division Review is Complete
0RD1 Provide Roadway Desktop Review		
Complete	NA	Date Completed
✓		Confirm Roadway Division Review is Complete

Action Checklist

OSD2 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
		09/02/2024
OTO2 Develop TSMO Scope Items <i>(include HQ Traffic Ops and Regional Traffic Office)</i>		
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
		09/20/2024
		Review and Confirm Preliminary Railroad Cost Estimate
OSD3 Finalize Concept Report		
Complete	NA	Date Completed
	✓	Compile and Review Initial Risk Assessment
✓		Finalize Conceptual Layouts
		08/31/2024
✓		Develop Environmental Technical Study Area (ETSA)
		08/31/2024
✓		Address Comments and Finalize Concept Report
		10/21/2024
	✓	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 OSD3 for additional information)
		10/23/2024
		Finalize Document and Upload All Needed Electronic Files
		Notify the Project Management Director or Assigned Project Manager to Set Up Project (1PM1)

NA Justification

Coordinate with Long Range Planning-Long Range Planning coordination not needed for STID BCR document
Request Preliminary Survey Data- survey data not needed for STID BCR document
Schedule a site visit-site visit not required
0MM1 Conduct Multimodal Review- multimodal coordination not required
0SY1 Provide Preliminary Survey Data- survey data not needed for STID BCR document
0GT1 Conduct Preliminary Geotechnical Assessment- geotechnical data not received for STID BCR document
0SD2 Develop Draft Concept Report-no site visit was held for this bridge and no interchange or signal warrants were required
0TO2 Develop TSMO Scope Items-no signals or lighting needed within project limits
0RW1 Complete Preliminary Right-of-Way Estimates-ROW estimate calculated in cost estimate
0UT1 Complete Utility Preliminary Estimates-utility cost calculated in cost estimate
Compile and Review Initial Risk Assessment-Risk Assessment not needed for STID BCR document
Address Comments and Finalize Interstate Access Requests (IAR) Document and Memo (if applicable)-no interstate within project limits
Develop Roadway Safety Audit (RSA) No Plans Document- no plans document not needed for STID BCR document

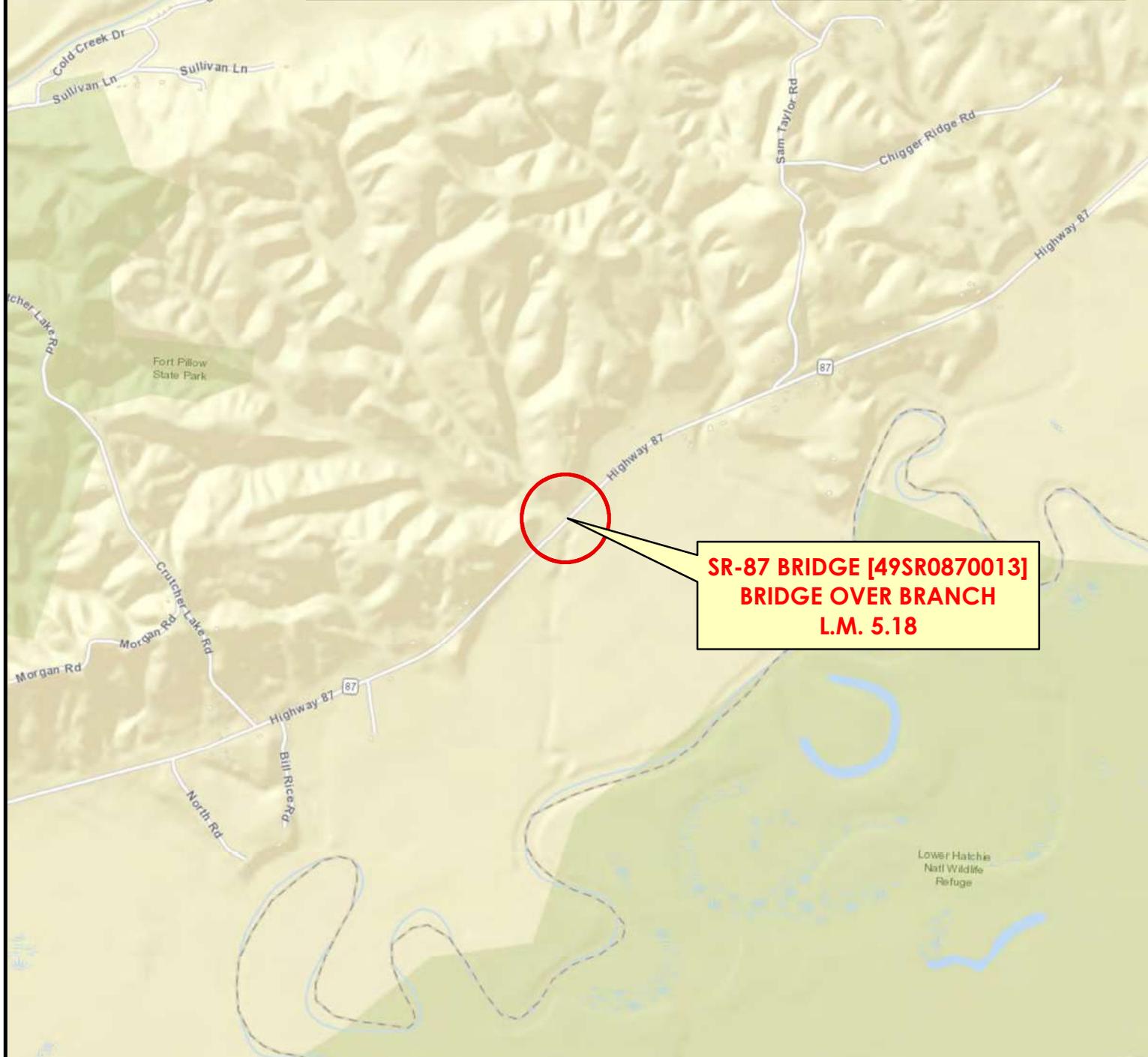
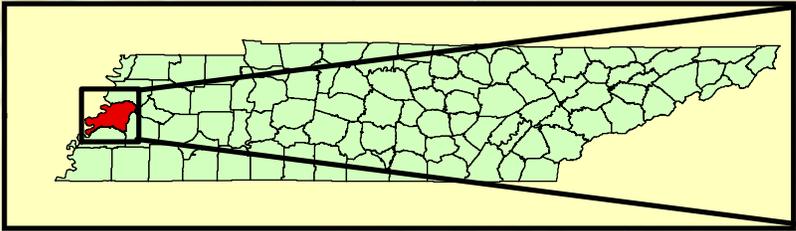
**Concept Report
Table of Contents/Attachments**

	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		✓

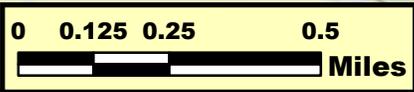
NA Justification

TSMO & ITS Scope and Budget-no ITS within project limits; ROW Form 44-A-form not needed for STID BCR document; Crash Prediction Analysis- 0 crashes occurred within the project limits, crash prediction analysis not needed; Site Visit Attendee List-no site visit was held; Multimodal Considerations & Recommendation-no multimodal coordination; Intersection and Interchange Evaluation (IIE) Analysis and Summary Form- AADT is too low for IIE Analysis Traffic Modeling (e.g., Synchro, VISSIM, Highway Capacity Software (HCS) Output)- AADT too low to model Signal Warrant-no signals warranted within project limits; Lighting Warrant-no lighting warranted within project limits Initial Risk Assessment using the Risk Assessment Form-Risk Assessment not needed for STID BCR document Final IAR Document and Memo with Letter from STID Director-no interstate access within project limits Road Safety Audit (RSA) No Plans-RSA no plans document not needed for STID BTIR document

¹ External document to STID



**SR-87 BRIDGE [49SR0870013]
BRIDGE OVER BRANCH
L.M. 5.18**



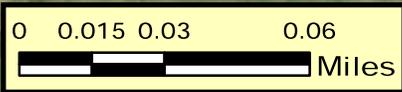
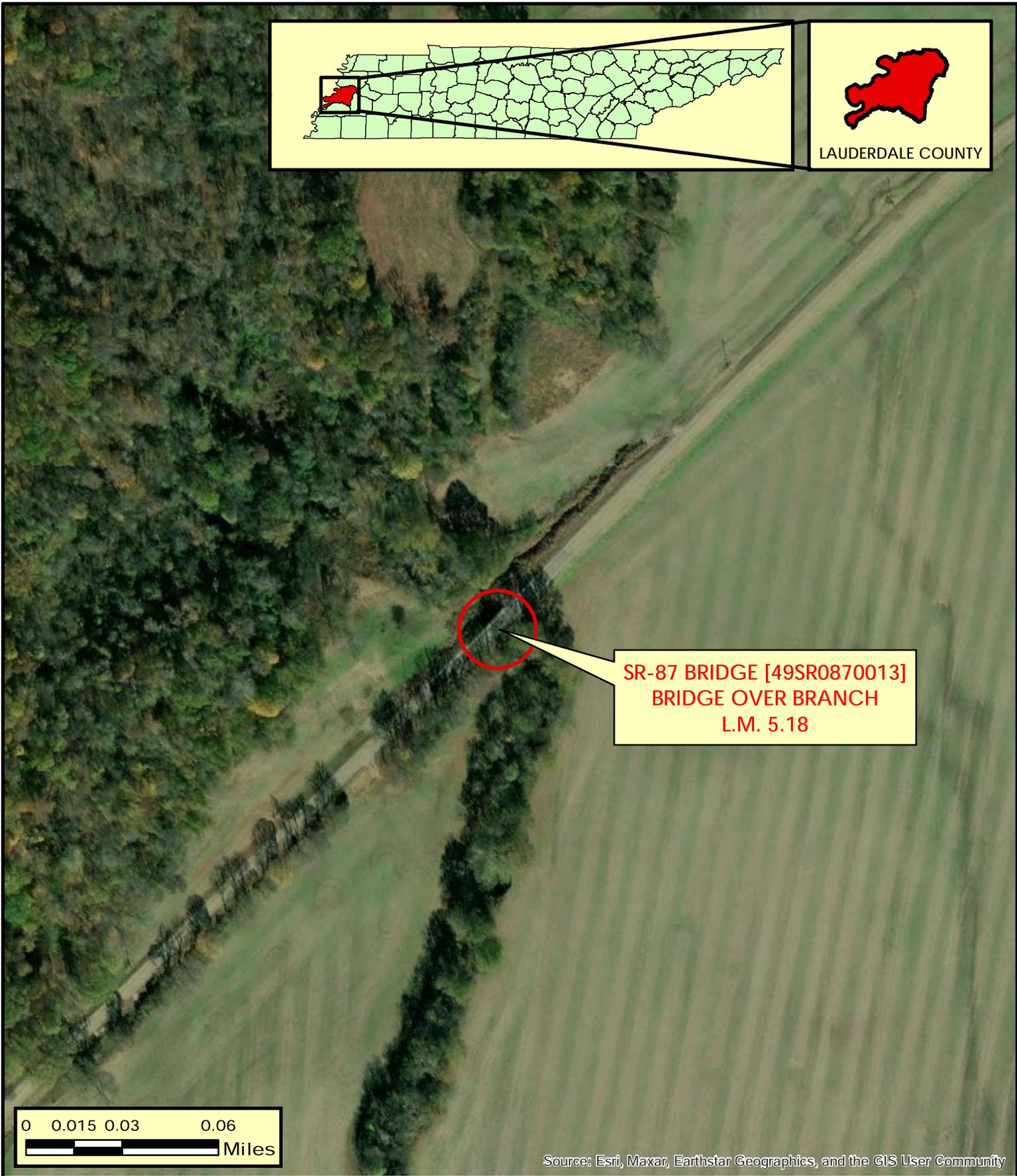
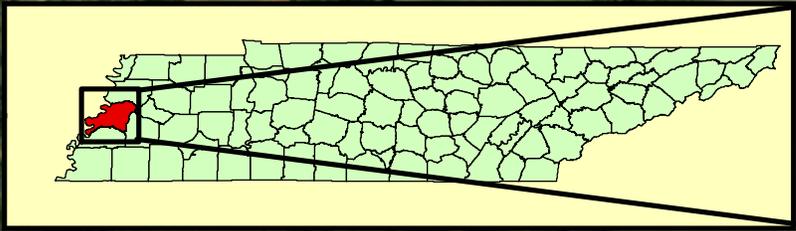
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



AREA MAP
SR-87 BRIDGE [49SR0870013]
BRIDGE OVER BRANCH
L.M. 5.18
LAUDERDALE COUNTY



PIN 134857.00



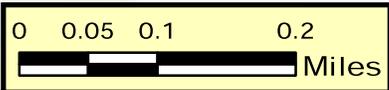
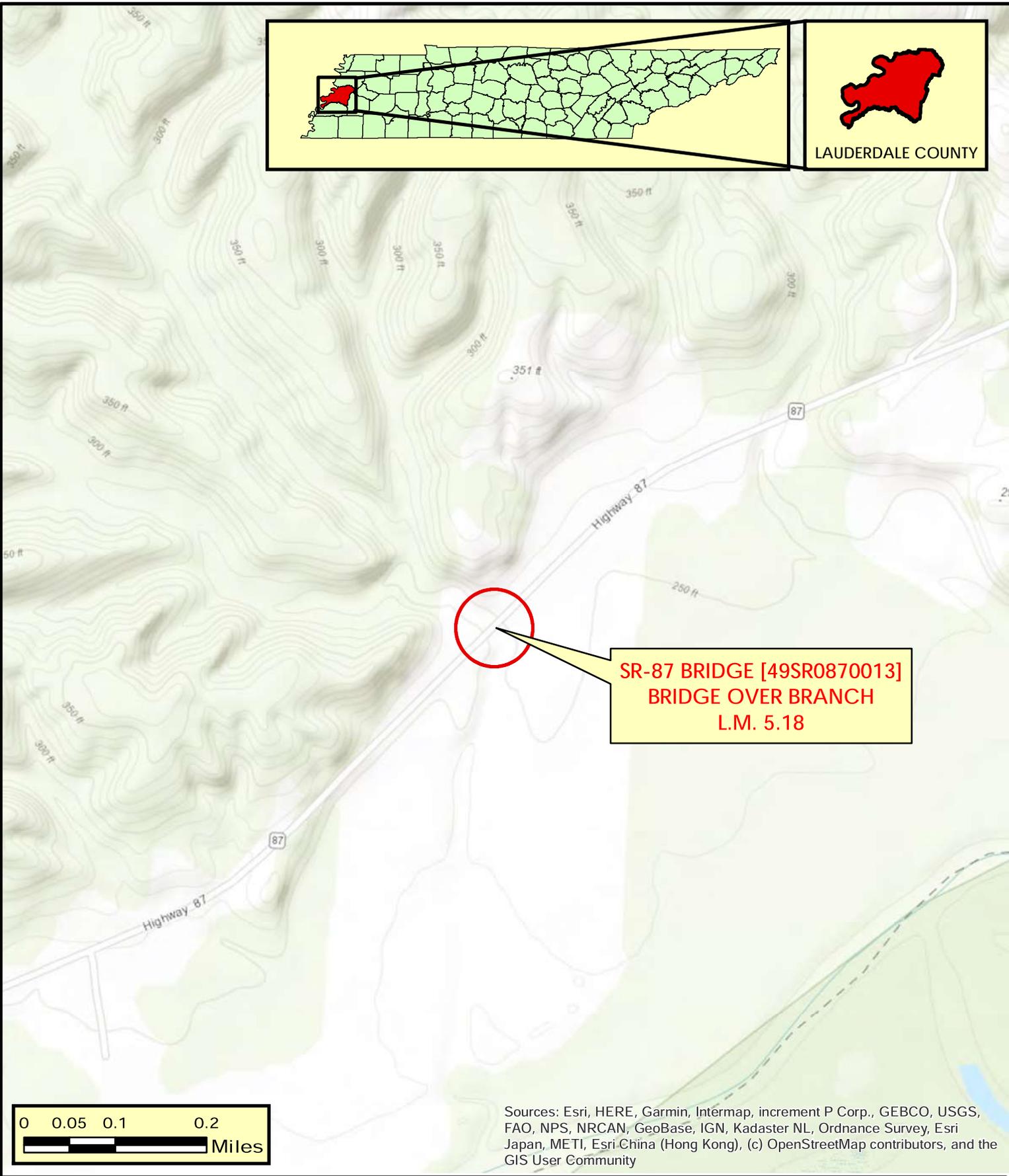
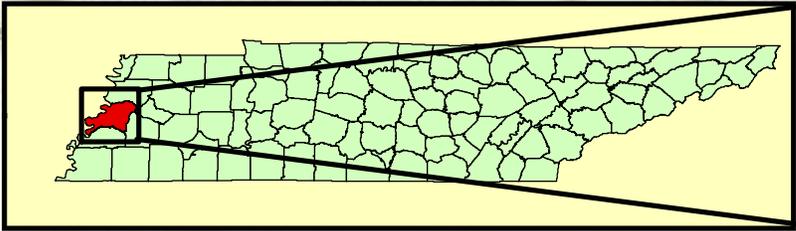
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



LOCATION MAP
SR-87 BRIDGE [49SR0870013]
BRIDGE OVER BRANCH
L.M. 5.18
LAUDERDALE COUNTY



PIN 134857.00



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



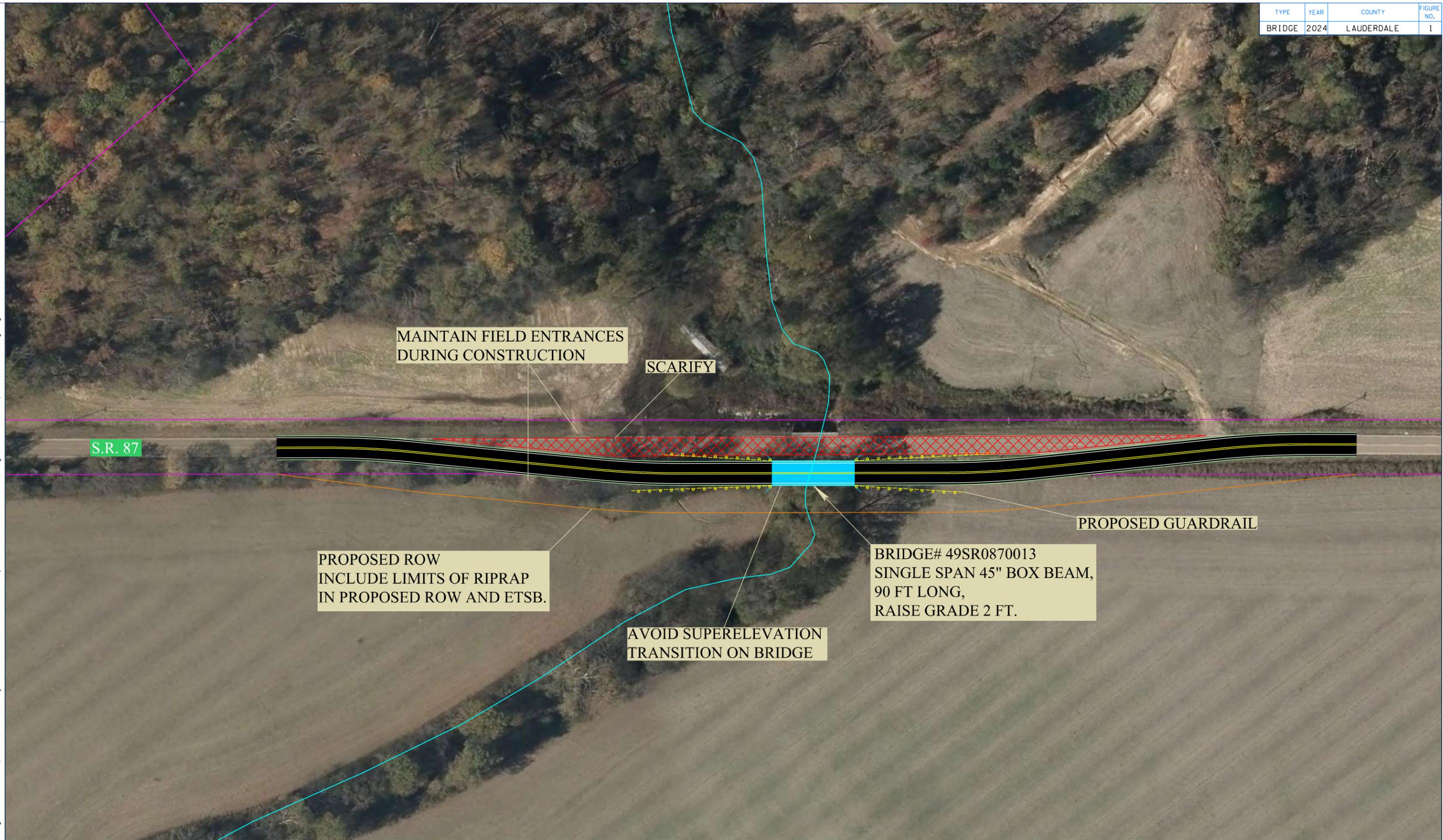
TOPOGRAPHIC MAP
SR-87 BRIDGE [49SR0870013]
BRIDGE OVER BRANCH
L.M. 5.18
LAUDERDALE COUNTY



PIN 134857.00

TYPE	YEAR	COUNTY	FIGURE NO.
BRIDGE	2024	LAUDERDALE	1

10/9/2024 2:56:05 PM
 X:\Projects\Lauderdale\SR 87\Bridges over Branch, LM 5.18 (TMA)\Project Files\Microstation\ConceptualPlans (DCN & PDF)\Bridge over Branch, L.M. 5.18 - realign.dgn



R4 TIMBER BRIDGE PROGRAM

STATE ROUTE 87
BRIDGE OVER BRANCH, L.M. 5.18
LAUDERDALE COUNTY

CAUTION!
PRELIMINARY
PLANS
SUBJECT TO
CHANGE

TYPE	YEAR	COUNTY	FIGURE NO.
ETSA	2024	LAUDERDALE	2

8/2/2024 2:35:03 PM X:\Projects\Lauderdale\SR 87\Bridge over Branch, LM 5.18 (TMA)\Project Files\Microstation\Conceptual Plans (DCN & PDF)\ETSA_Bridge over Branch, L.M. 5.18 - realign.dgn



EXISTING R.O.W. ———
 PROPOSED R.O.W. ———

ENVIRONMENTAL
 TECHNICAL STUDY
 AREA



ENVIRONMENTAL TECHNICAL STUDY AREA

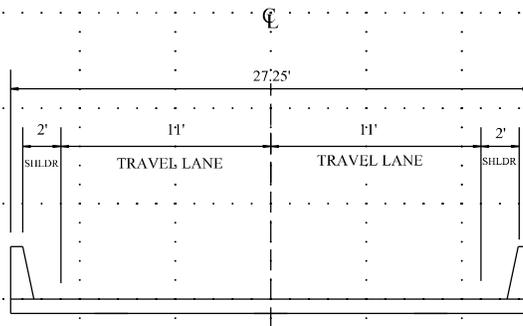
STATE ROUTE 87
 BRIDGE OVER BRANCH, L.M. 5.18
 LAUDERDALE COUNTY

CAUTION!
 PRELIMINARY
 PLANS
 SUBJECT TO
 CHANGE

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 S.T.I.D.

FIGURE 2
 S.R. 87
 L.M. 5.18

PROPOSED COMPLETED



CROSS-SECTION DETAIL

**REGION 4 TIMBER BRIDGE PROGRAM
TRANSPORTATION MODERNIZATION ACT (TMA)**

**CAUTION!
PRELIMINARY
PLANS
SUBJECT TO
CHANGE**

DETOUR MAP - LOCAL ROUTE

58 min
15 hr
3 hr 49

14790-15092 TN-87, Henning, TN 38041
3870-4310 TN-19, Ripley, TN 38063
Lauderdale County, Tennessee
14790-15092 TN-87, Henning, TN 38041
Add destination

Options

Send directions to your phone Copy link

via TN-87 E and Lightfoot Lockett Rd 58 min 41.7 miles
58 min without traffic
Details

Explore nearby 14790-15092 TN-87
Restaurants Hotels Gas stations Parking Lots More

Search along the route Gas EV charging Hotels

14790-15092 Tennessee 87 14790-15092 Tennessee 87

58 min 41.7 miles

Map data ©2024 Google United States Terms Privacy Send Product Feedback 2 mi

DETOUR MAP - STATE ROUTE

1 hr 5 min
17 hr
3 hr 56

Search along the route

Gas EV charging Things to do Hotels

14790-15092 TN-87, Henning, TN 38041

Lauderdale County, Tennessee

Henning, Tennessee

Lauderdale County, Tennessee

Lauderdale County, Tennessee

15479-15459 TN-87, Henning, TN 38041

Lauderdale County, Tennessee

Add destination

Options

Send directions to your phone Copy link

via TN-87 E 1 hr 5 min
1 hr 5 min without traffic 47.6 miles

Details

Explore Lauderdale County

1 hr 5 min
47.6 miles

ARKANSAS
TENNESSEE

Lauderdale County

Henning

Lower Hatchie National Wildlife Refuge

Google

Map data ©2024 Google United States Terms Privacy Send Product Feedback 2 mi



Bent #1 pile B decay



Bent #1 pile E decay



Abutment #1 pile H split



Abutment #1 pile E not fully contacting



Bottom deck span #1



Abutment #1



Abutment 2 pile "C" 1/2" check



Abutment 2 pile "C" 1/2" check



Approach 2 weight limit sign



Approach 1 weight limit sign



Opposite direction of route



Approach 2 pavement



Upstream



Downstream



View across deck



Approach 1 pavement



Bridge number



Direction of route



Span 3 bottom deck



Abutment 2



Bent 2 rear side



Bent 1 rear side



Right elevation



Span 2 bottom deck



Span 1 bottom deck



Left elevation



Bent 2 pile "D" decay



Bent 2 pile "F" decay



Bent 2 pile "G" decay



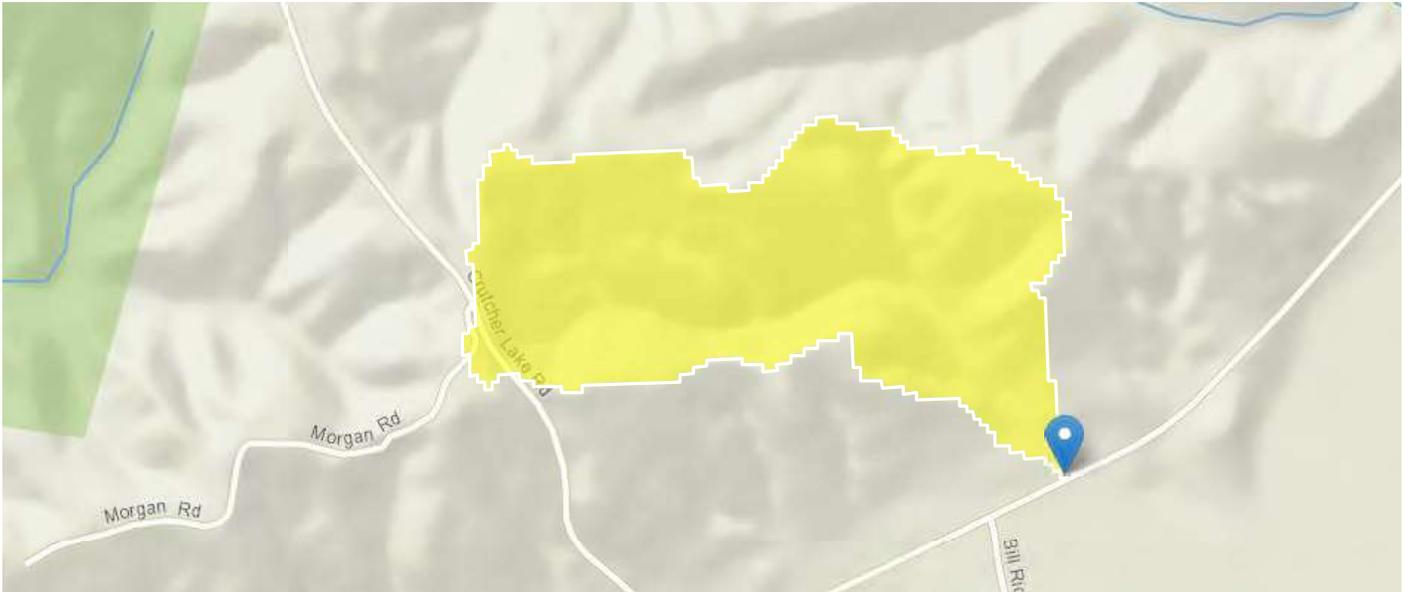
Bent 2 pile "I" decay



Bent 2 pile "I" decay

Lauderdale Co SR087 - Bridge over Branch (LM 5.18)

Region ID: TN
Workspace ID: TN20240409143010145000
Clicked Point (Latitude, Longitude): 35.63131, -89.81302
Time: 2024-04-09 09:30:33 -0500



[+ Collapse All](#)

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CONTDA	Area that contributes flow to a point on a stream	0.09	square miles
DRNAREA	Area that drains to a point on a stream	0.09	square miles

Peak-Flow Statistics

Peak-Flow Statistics Parameters [DAOnly Area 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	0.09	square miles	0.76	2308

Peak-Flow Statistics Disclaimers [DAOnly Area 4]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Peak-Flow Statistics Flow Report [DAOnly Area 4]

Statistic	Value	Unit
50-percent AEP flood	123	ft ³ /s
20-percent AEP flood	166	ft ³ /s

Statistic	Value	Unit
10-percent AEP flood	194	ft ³ /s
4-percent AEP flood	226	ft ³ /s
2-percent AEP flood	249	ft ³ /s
1-percent AEP flood	270	ft ³ /s
0.2-percent AEP flood	319	ft ³ /s

Peak-Flow Statistics Citations

Law, G.S., and Tasker G.D., 2003, Flood-Frequency Prediction Methods for Unregulated Streams of Tennessee, 2000: U.S. Geological Survey Water-Resources Investigations Report 03-4176, 79p. (<http://pubs.usgs.gov/wri/wri034176/>)

➤ **Maximum Probable Flood Statistics**

Maximum Probable Flood Statistics Parameters [Crippen Bue Region 3]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.09	square miles	0.1	10000

Maximum Probable Flood Statistics Disclaimers [Crippen Bue Region 3]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Maximum Probable Flood Statistics Flow Report [Crippen Bue Region 3]

Statistic	Value	Unit
Maximum Flood Crippen Bue Regional	596	ft ³ /s

Maximum Probable Flood Statistics Citations

Crippen, J.R. and Bue, Conrad D. 1977, Maximum Floodflows in the Conterminous United States, Geological Survey Water-Supply Paper 1887, 52p. (<https://pubs.usgs.gov/wsp/1887/report.pdf>)

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Application Version: 4.19.4

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

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

PROJECT NO.: 49S087-S1-004 ROUTE: S.R. 87
 COUNTY: LAUDERDALE CITY: _____
 PROJECT PIN NUMBER: 134857.00
 PROJECT DESCRIPTION: BRIDGE OVER BRANCH @ L.M. 5.18

DIVISION REQUESTING:

MAINTENANCE PAVEMENT DESIGN
 S.T.I.D. STRUCTURES
 PROG. DEVELOPMENT & ADM. SURVEY & ROADWAY DESIGN
 PUBLIC TRANS. & AERO. TRAFFIC SIGNAL DESIGN
 OTHER _____
 YEAR PROJECT PROGRAMMED FOR CONSTRUCTION: 2029
 PROJECTED LETTING DATE: 2029

TRAFFIC ASSIGNMENT:

BASE YEAR		DESIGN YEAR					DESIGN ROADWAY % TRUCKS		DESIGN AVERAGE DAILY LOADS	
AADT	YEAR	AADT	DHV	%	YEAR	DIR.DIST.	DHV	AADT	FLEX	RIGID
340	2029	370	44	12	2049	65-35	4	6		

REQUESTED BY: NAME CALEB SMITH DATE 2/15/24
 DIVISION S.T.I.D.
 ADDRESS 1000 J. K. POLK BUILDING
NASHVILLE TN 37243

REVIEWED BY: RANDY BOGUSKIE Randy Boguskie DATE 2/21/2024
 TRANSPORTATION MANAGER 1
 SUITE 1000, JAMES K. POLK BUILDING

APPROVED BY: TONY ARMSTRONG Tony Armstrong DATE 2/21/2024
 TRANSPORTATION MANAGER 2
 SUITE 1000, JAMES K. POLK BUILDING

COMMENTS:

FURNISH THE 2029-2049 TRAFFIC DATA.

THIS TRAFFIC IS BASED ON A 2023 CYCLE COUNT. THE DESIGN YEAR TRAFFIC IS BASED ON GROWTH RATE FROM THE TN-TIMES LINEAR REGRESSION TOOL.

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. 6/9/21)



Environmental Division

0SD2 Environmental Desktop Review Form

Part 1 – Project Information

PIN	134857.00
Project Number (if available)	
County	Lauderdale
Route	SR87
Termini	Bridge over Branch (TMA)
Type of Document	
Date ENV DIV Comments are Due	10.10.24 by noon

Part 2: Provide information identifying known Environmental Resources within the proposed project area using the attached information. If no known resources are identified, each study area should note that none were identified.

Air & Noise

AIR QUALITY

Transportation Conformity

This project is in Lauderdale County which is in attainment for all regulated criteria pollutants. Therefore, conformity does not apply to this project.

Mobile Source Air Toxics (MSATs)

This project qualifies as a categorical exclusion under 23 CFR 771.117 and, therefore, does not require an evaluation of MSATs per FHWA's "Interim Guidance Update on Air Toxic Analysis in NEPA Documents" dated January 2023.

NOISE

This project is Type III in accordance with the FHWA noise regulation in 23 CFR 772 and TDOT's noise policy; therefore, a noise study is not needed.

Cultural Resources

Historic Preservation: The bridge was constructed in 1971 and meets the age requirements for survey and evaluation. Additional studies are required.

Archaeology - No previously recorded sites, but a survey will be required.

Ecology

Water resources are present in the project area. Species records in the vicinity may require surveys as well as sweeps / time of year restrictions.

HazMat

No known hazardous materials sites affect the area around this bridge replacement. No additional hazardous material studies are recommended at this time. The asbestos bridge survey has been completed and the following project commitment EDHZ001 has been submitted in PPRM. In the event hazardous materials or wastes are encountered within the right-of-way, notification shall be made per TDOT Standard Specifications for Road and Bridge Construction (January 1, 2021) Section 107.08.C. Disposition of hazardous materials or wastes shall be subject to all applicable Federal, State, and local regulations, including the applicable sections of the Federal Resource Conservation and Recovery Act, as amended; the Comprehensive Environmental Response, Compensation, and Liability Act, as amended; and the Tennessee Hazardous Waste Management Act of 1983, as amended. Databases reviewed include Google Earth imagery, EPA National Priorities List, EPA EnviroMapper (Envirofacts), TDEC Registered Underground Storage Tanks Public Data Viewer and Data and Reports, TDEC Division of Water Resources Public Data Viewer and Oil and Gas Wells database, TDEC Division of Remediation Sites Public Data Viewer, TDOT Integrated Bridge Information System, and others, as necessary.

EDHZ001. An Asbestos Containing Material (ACM) survey was completed on Bridge No. 49SR0870013 SR-87 over Branch LM 5.18 (49-SR087-05.18). No ACM was detected. No special accommodations for demolition and waste disposal are anticipated for these structures and the material can be deposited in a C&D landfill. Prior to the demolition or rehabilitation of any structure (bridge or building), the contractor is required to submit the National Emission Standards for Hazardous Air Pollutants standard 10-day notice of demolition to the TDEC Division of Air Pollution Control (Standard Specifications for Road and Bridge Construction (January 1, 2021) Sections 107.08 D and 202.03).

1. Purpose & Need

Need: The subject bridge is a timber bridge, which is a build type that is being phased out. The proposed project is needed to address the insufficient structural elements of the bridge, as indicated by the sufficiency rating of 58.0, the condition ratings of the superstructure (5), and substructure (4), and the appraisal ratings of the structural evaluation (4) and scour condition rating (5), as noted in the NBI Report (3/11/2024). In addition, the subject bridge was built in 1971 and is at the end of its service life.

Purpose: The purpose of the proposed project is to address the insufficient structural elements and to bring the bridge up to current TDOT design standards.

2. Logical termini

The termini was provided as follows: SR-87, Bridge over Branch, LM 5.18

No range of log miles establishing the project limits was provided in the Concept Report.

3. Funding source?

The Concept Report states that the project is not expected to utilize federal funding. Therefore, a TEER is anticipated to be the environmental document type.

4. ROW/easement Acquisition

The Concept Reports states that 0.77-acres of ROW would be acquired for the proposed project.

5. Relocations?

There do not appear to be any structures within the proposed project area. No relocations are anticipated.

6. Traffic Control measures

Two detour options were provided and both are quite long. The local detour would be 41.7-miles (58 minutes travel time). The state route detour would be 47.6-miles (1 hour 5 minutes travel time). Because the project is solely state-funded, detour length is not a concern for the environmental document. If both detours are roughly an hour long, does it make sense to designate a “local detour” separately?

7. Floodplains

The proposed project is located on FEMA FIRM Map #47097C0325D, Panel 325 of 500. A portion of the location is in Zone AE (shaded gray), an area determined to be within the 1% annual chance floodplain with base elevations determined.

8. Section 4(f)

Section 4(f) is not applicable because the project is solely state-funded. No Section 4(f) resources were identified.

9. Section 6(f)

No Section 6(f) resources were identified near the project location.

10. Farmland

This project is solely state-funded, so the Farmland Protection Policy Act does not apply to this project. There does not appear to be any agricultural property within the project area.

11. Environmental Justice

No EJ populations were identified from the US Census Bureau's 2018-2022 5-year Community Estimates data.

Environmental Justice Analysis Tables		
Minority Populations		
Census Tract (CT)/ Block Group (BG)	CT 501 BG 2	Lauderdale Co.
% Minority/Non-White	37.4%	41.2%
Exceeds County Average by 10% or More	No	
Is BG Population Avg. >50%	No	
Meet EJ Criteria?	No	
Low-Income Populations		
Census Tract (CT)/ Block Group (BG)	CT 501 BG 2	Lauderdale Co.
% Low-Income/Below Poverty Line	1.5%	18.0%
Exceeds County Average by 10% or More	No	
Is BG Population Avg. >50%	No	
Meet EJ Criteria?	No	

Source: U.S. Census Bureau, 2018-2022 American Community Survey (ACS) 5-Year Estimates. ACS data was accessed and reviewed on 10/8/2024 via the U.S. Census Bureau website.