

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-193 - Bridge over Branch (TMA)									
PIN	134847.00									
Route Information	Route	NHS (Y/N)	Functional Class			City		County		
	SR-193	No	Rural Major Collector			Rossville		Fayette		
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	
	7.71		2,010	261	2.00	45	40	2029	2049	
Project Description & Standard Drawings Used	<p>Proposed bridge: 1 span bridge 90' in length. Typical section: 2-11' travel lanes with 4' shoulders (Design Exception Required). Out-to-out width will be 31'3". The grade will be raised 2'. The road will either be realigned to the south or the bridge will remain on existing alignment as it is a potential candidate to use the ABC method and the road will be detoured. This will be determined at a later time during the design phase. The state route detour is 29 minutes (20.8 miles); the local route detour is 8 minutes (5.7 miles). Superstructure depth is 67.75" = 54" (beam) + 10" (deck) + 3.75" (width (in inches) x 0.02/2).</p> <p>RD11-TS-2</p>									
Important Project History or Related Projects	<p>The existing structure, built in 1965, is a 4 span concrete channel beam timber bridge, 77' long with an out-to-out width of 21'7". The existing structure has 2-10' travel lanes with 0' shoulders. The listed weight limit on the inspection report is 40 tons (7/1/2022). The discharges for the drainage basin (StreamStats Version 4.19.4) for drainage area of 4.66 square miles: Q10 is 1720 cfs, Q50 is 2360 cfs, and Q100 is 3230 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"> -Timber bridges are being phased out and is near the end of it's service life -The bridge is in CRITICAL condition 									
Major Environmental Considerations	To be determined									

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. ROW to be acquired: 2.00 acres (realign); 1.40 acres (ABC). Overhead electric is present. Superelevation should be kept off bridge deck if possible for safety reasons. Significant drift concerns are present at this location. Potential for suburban expansion in the area due to proximity to Memphis Urban Boundary and Blue Oval City.</p> <p>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
Executed for approval of this Concept Report




Project Management Division Director

Aug 20, 2024

Date

The following individuals to execute if a bridge concept report:

The following individuals to execute if a bridge concept report:



Structures Director

Aug 19, 2024

Date


Brandon Akins (Aug 20, 2024 11:15 CDT)

Regional Project Management Division Director

Aug 20, 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
		04/15/2024
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
		Review and Confirm Preliminary Railroad Cost Estimate
OSD3 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 OSD3 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

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

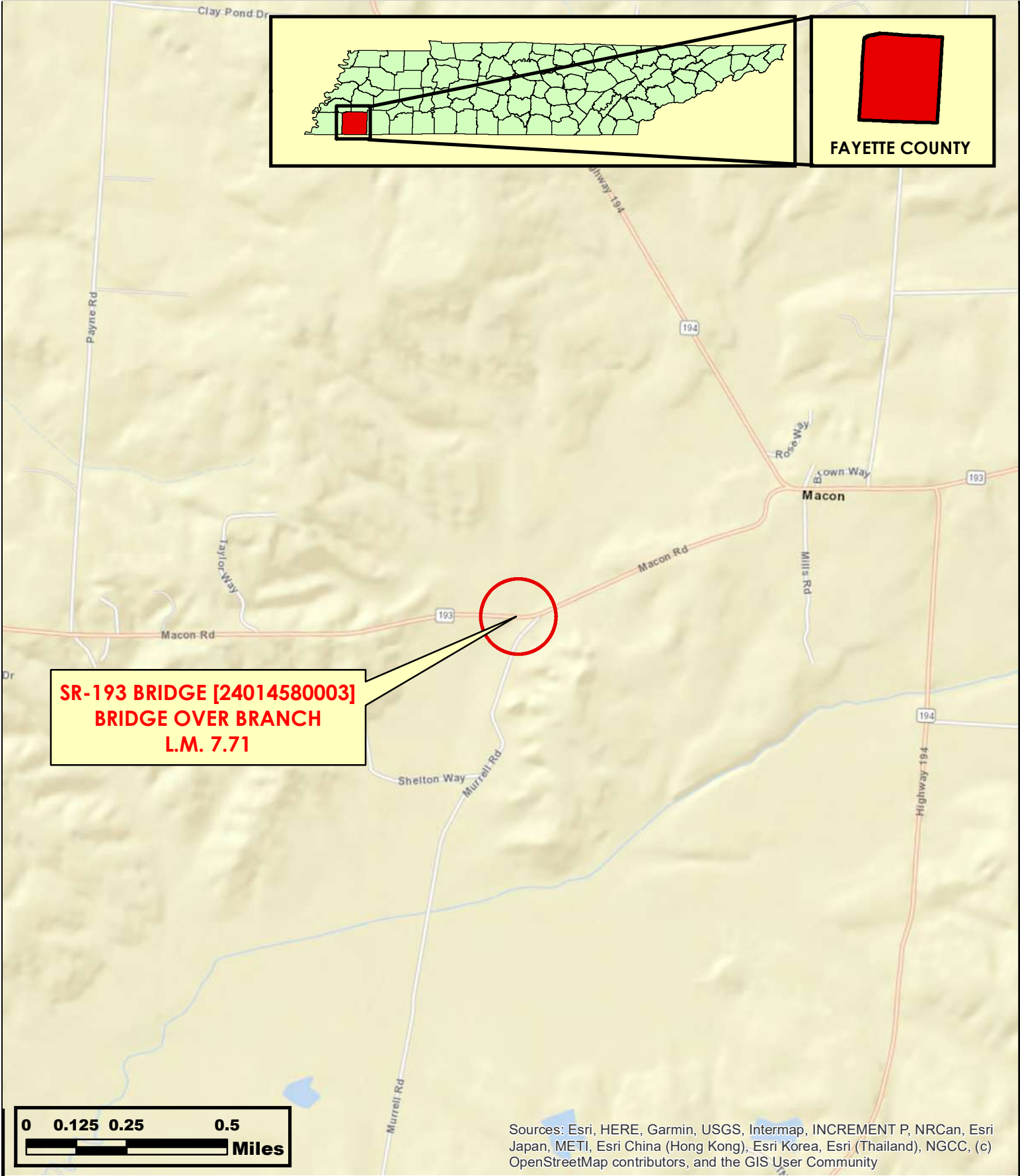
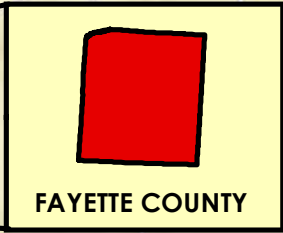
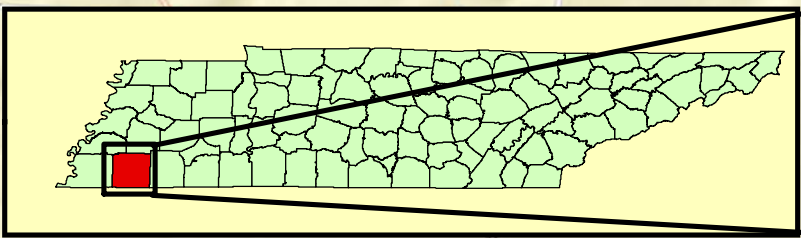
**Concept Report
Table of Contents/Attachments**

	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		✓

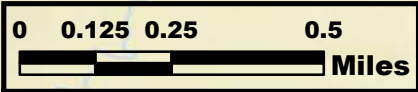
NA Justification

TSMO & ITS Scope and Budget-no ITS within project limits; ROW Form 44-A-form not needed for STID BCR document; Crash Prediction Analysis- 2 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-193 BRIDGE [24014580003]
BRIDGE OVER BRANCH
L.M. 7.71**



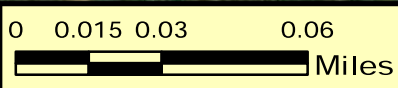
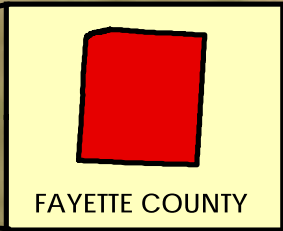
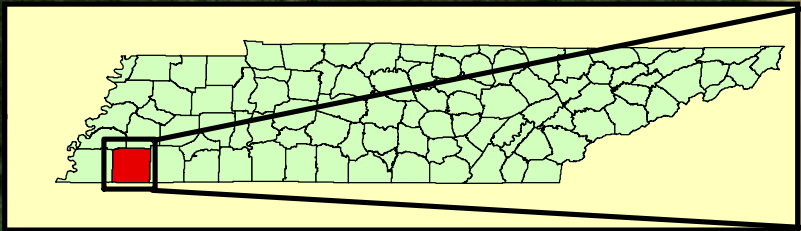
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



**AREA MAP
SR-193 BRIDGE [24014580003]
BRIDGE OVER BRANCH
L.M. 7.71
FAYETTE COUNTY**



PIN 134847.00



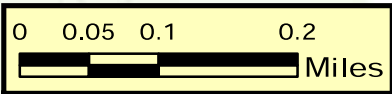
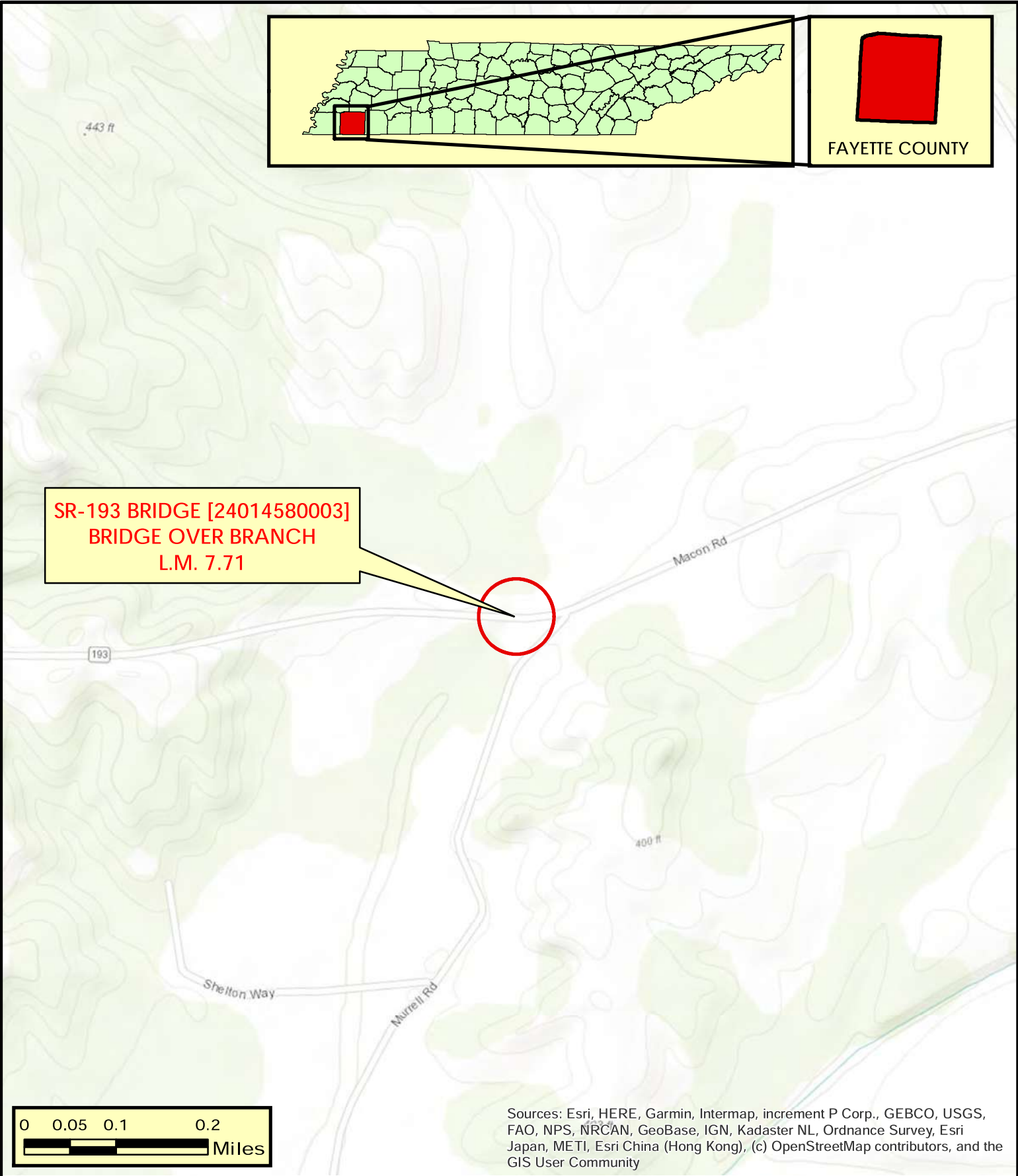
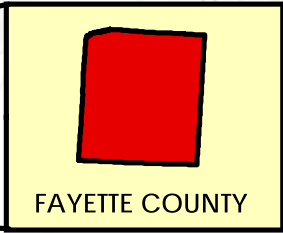
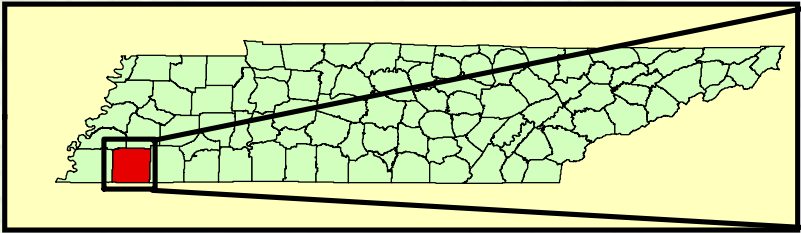
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



LOCATION MAP
SR-193 BRIDGE [24014580003]
BRIDGE OVER BRANCH
L.M. 7.71
FAYETTE COUNTY



PIN 134847.00



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

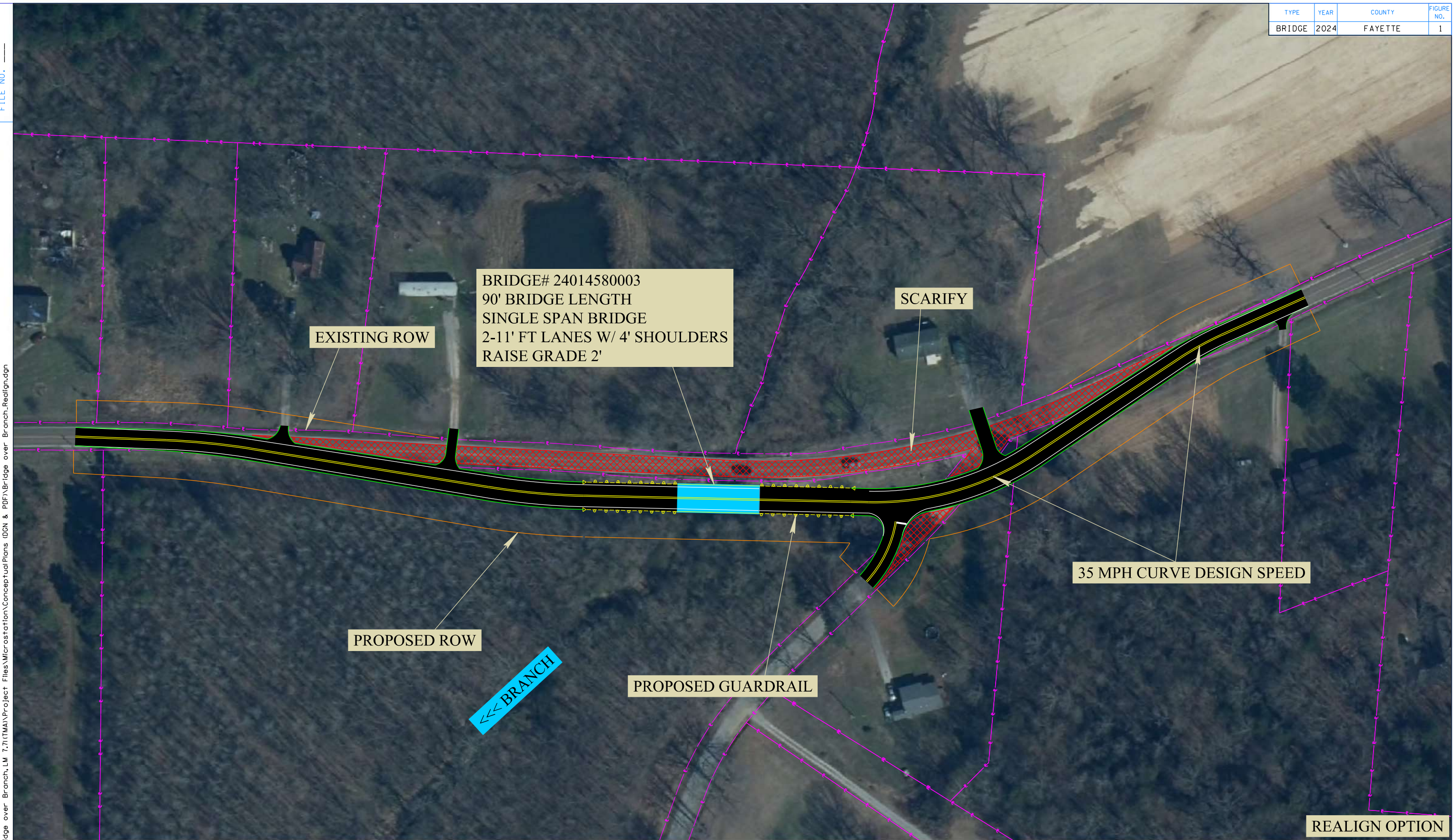


TOPOGRAPHIC MAP
SR-193 BRIDGE [24014580003]
BRIDGE OVER BRANCH
L.M. 7.71
FAYETTE COUNTY



PIN 134847.00

TYPE	YEAR	COUNTY	FIGURE NO.
BRIDGE	2024	FAYETTE	1



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R4 TIMBER BRIDGE PROGRAM

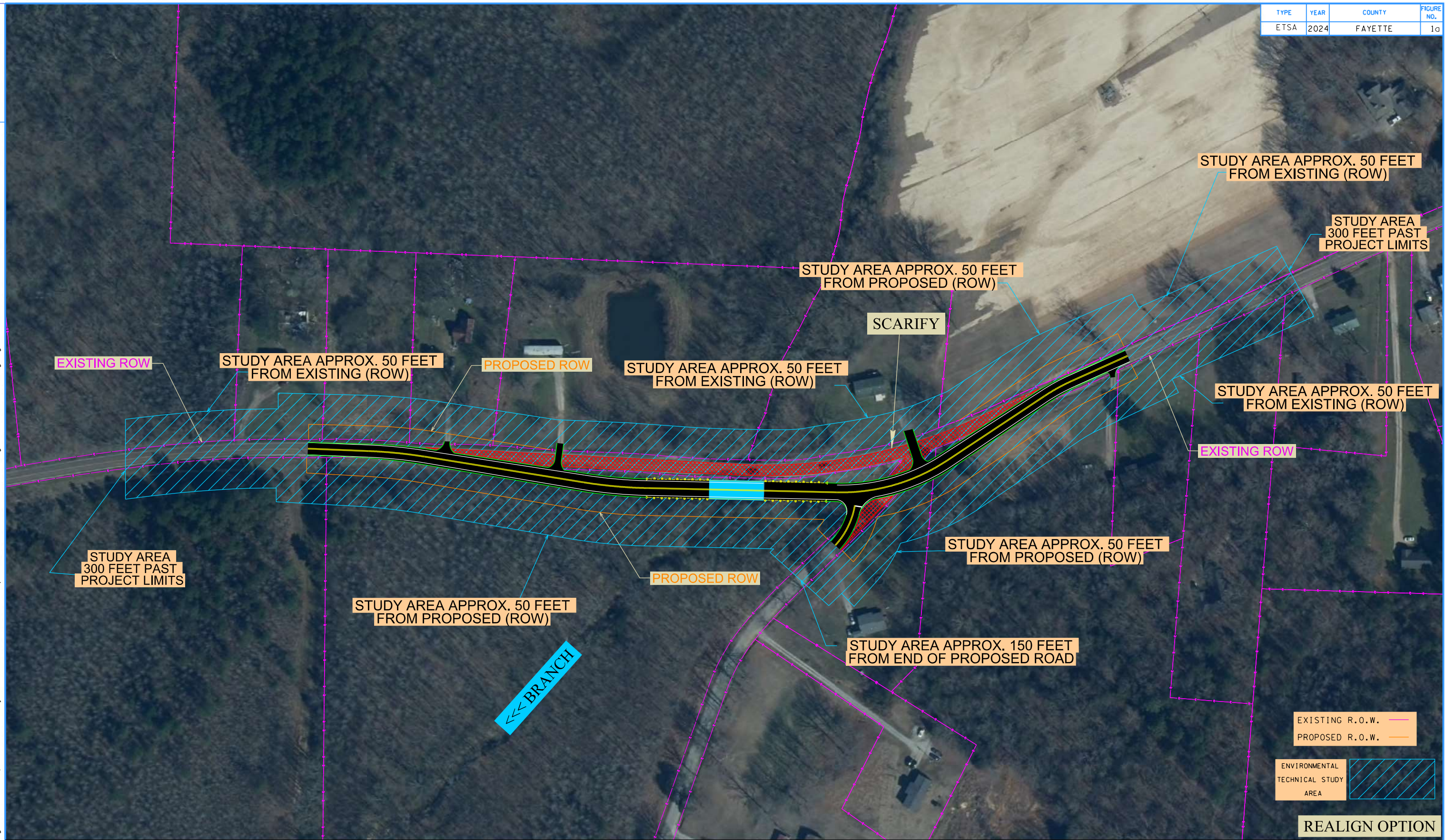
STATE ROUTE 193
BRIDGE OVER BRANCH, L.M. 7.71
FAYETTE COUNTY

CAUTION!
PRELIMINARY
PLANS
SUBJECT TO
CHANGE

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

FIGURE 1
S.R. 193
L.M. 7.71

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ENVIRONMENTAL TECHNICAL STUDY AREA

STATE ROUTE 193
BRIDGE OVER BRANCH, L.M. 7.71
FAYETTE COUNTY

EXISTING R.O.W. ———

PROPOSED R.O.W. ———

ENVIRONMENTAL TECHNICAL STUDY AREA

REALIGN OPTION

TYPE	YEAR	COUNTY	FIGURE NO.
BRIDGE	2024	FAYETTE	2



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R4 TIMBER BRIDGE PROGRAM

STATE ROUTE 193
 BRIDGE OVER BRANCH, L.M. 7.71
 FAYETTE COUNTY

CAUTION!
 PRELIMINARY
 PLANS
 SUBJECT TO
 CHANGE

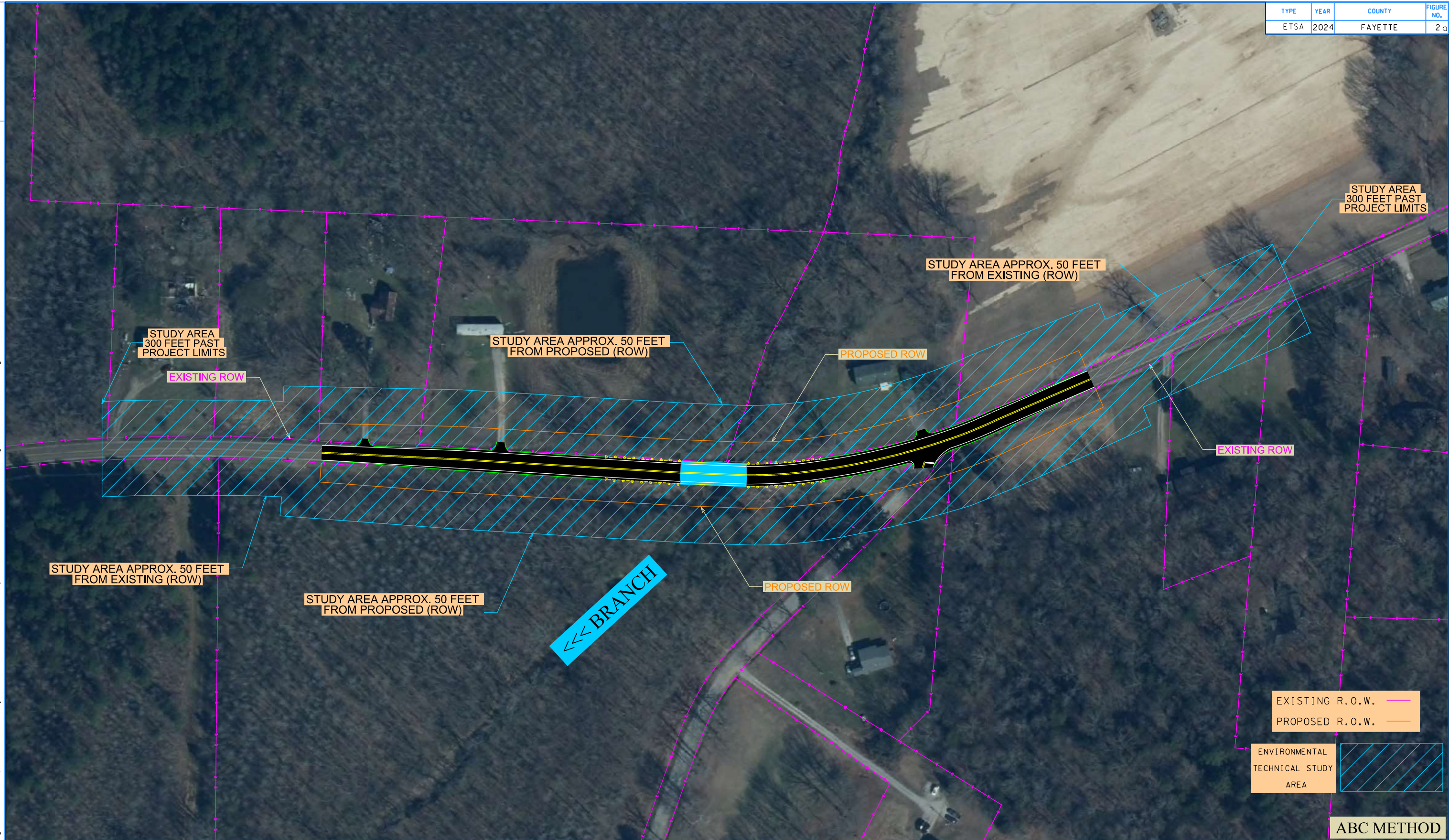
ABC METHOD

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

FIGURE 2
 S.R. 193
 L.M. 7.71

TYPE	YEAR	COUNTY	FIGURE NO.
ETSA	2024	FAYETTE	2 of 2

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ENVIRONMENTAL TECHNICAL STUDY AREA

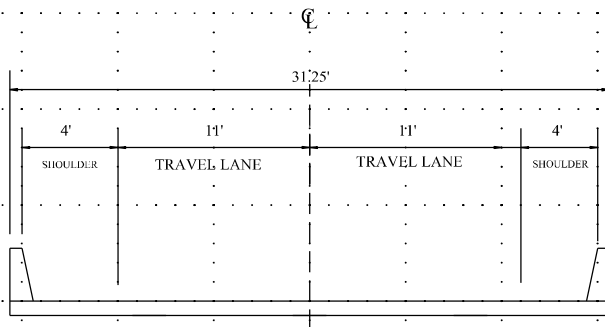
STATE ROUTE 193
BRIDGE OVER BRANCH, L.M. 7.71
FAYETTE COUNTY

CAUTION!
PRELIMINARY
PLANS
SUBJECT TO
CHANGE

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

FIGURE 2a
S.R. 193
L.M. 7.71

PROPOSED COMPLETED

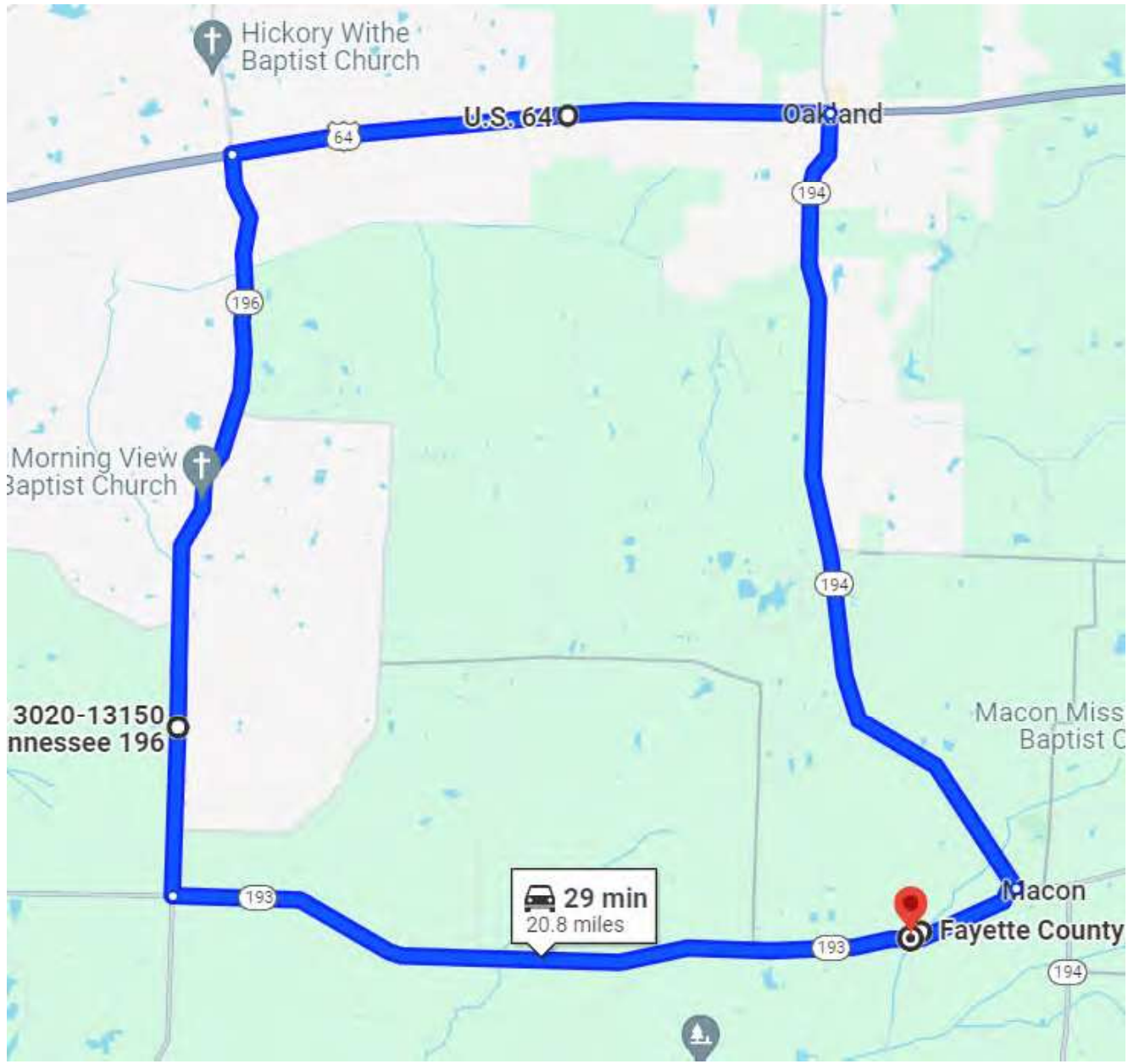


CROSS-SECTION DETAIL

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

**CAUTION!
PRELIMINARY
PLANS
SUBJECT TO
CHANGE**

DETOUR MAP – STATE ROUTE



DETOUR MAP – LOCAL ROUTE

8 min 2 hr 4 29 min

Fayette County, Tennessee

8505 TN-193, Oakland, TN 38060

Fayette County, Tennessee

Fayette County, Tennessee

6630 Macon Rd, Rossville, TN 38066

Fayette County, Tennessee

Add destination

Options

Send directions to your phone Copy link

via TN-193 E 8 min 8 min without traffic 5.7 miles

Details

Explore Fayette County

Layers

Search along the route Gas EV charging Hotels

Clay Pond Dr Fayette Rd Fayette Rd Fayette Rd

Kiru Farms

Fayette County Fayette County

8 min 5.7 miles

194

Macon Cemetery Rd

Macon Volunteer Fire Department

8505 Tennessee 193 Macon

193 194

Bobbitt Rd

Southwest Elementary School

Google

Map data ©2024 United States Terms Privacy Send Product Feedback 2000 ft

Fayette Co SR193 - Bridge over Branch

Created on April 3, 2024

Created by JOSHUA CLOUD

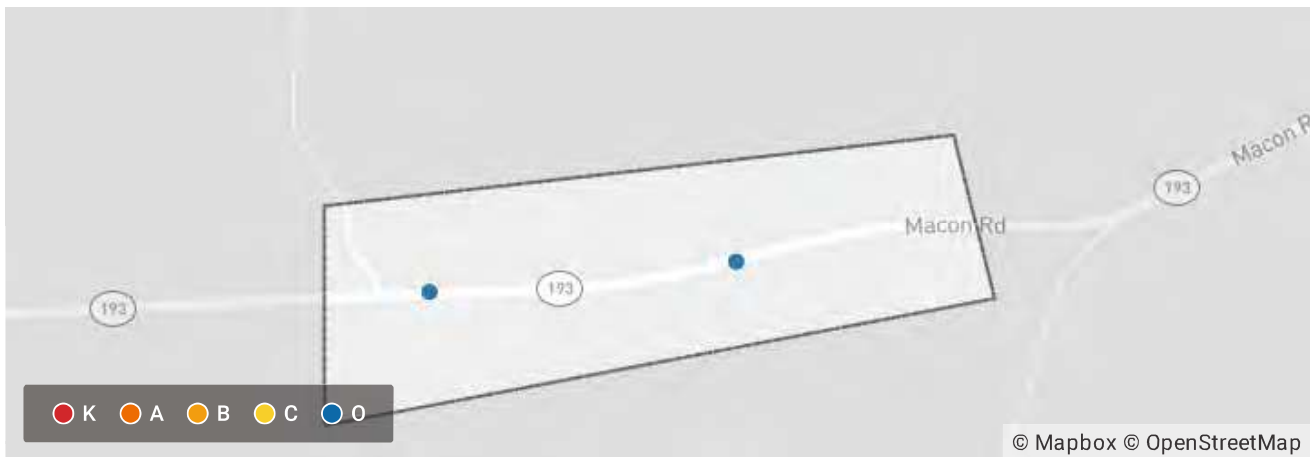
Requested by Michael Cloud

Data extents: March 28, 2021 to March 28, 2024



Applied Filters

County = Fayette Shape: Polygon



Total Crashes	2	Fatal Crashes	0
---------------	---	---------------	---

Summary	Crash	
Total Crashes	2	100.00%
+ 5 more	0	0%

Type of Crash	Crash	
(0) Property-Damage Only	2	100.00%
+ 4 more	0	0%

Date of Crash (Year)	Crash	
2021	2	100.00%
+ 10 more	0	0%

Manner of First Collision	Crash	
No Collision W/ Vehicle	2	100.00%
+ 9 more	0	0%

First Harmful Event	Crash	
---------------------	-------	--

Ditch	1	50.00%
Mail Box	1	50.00%
+ 63 more	0	0%

Crash Location	Crash	
Along Roadway	2	100.00%
+ 6 more	0	0%

Light Conditions	Crash	
Dark-Not Lighted	1	50.00%
Daylight	1	50.00%
+ 6 more	0	0%

Weather Conditions	Crash	
Clear	1	50.00%
Rain	1	50.00%
+ 10 more	0	0%

Bridge Loc. No: 24-SR193-0771 Date: 07-01-2022



BRIDGE NO.



APPROACH 1 WEIGHT LIMIT SIGN 40T/40T

Bridge Loc. No: 24-SR193-0771 Date: 07-01-2022



LOOKING AHEAD ON ROUTE

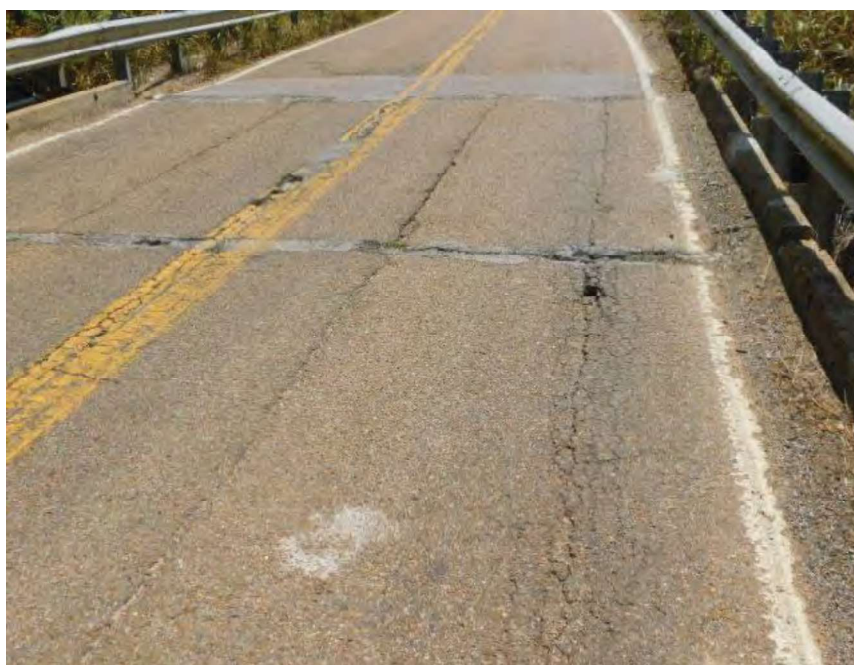


VIEW ACROSS TOP OF DECK

Bridge Loc. No: 24-SR193-0771 Date: 07-01-2022

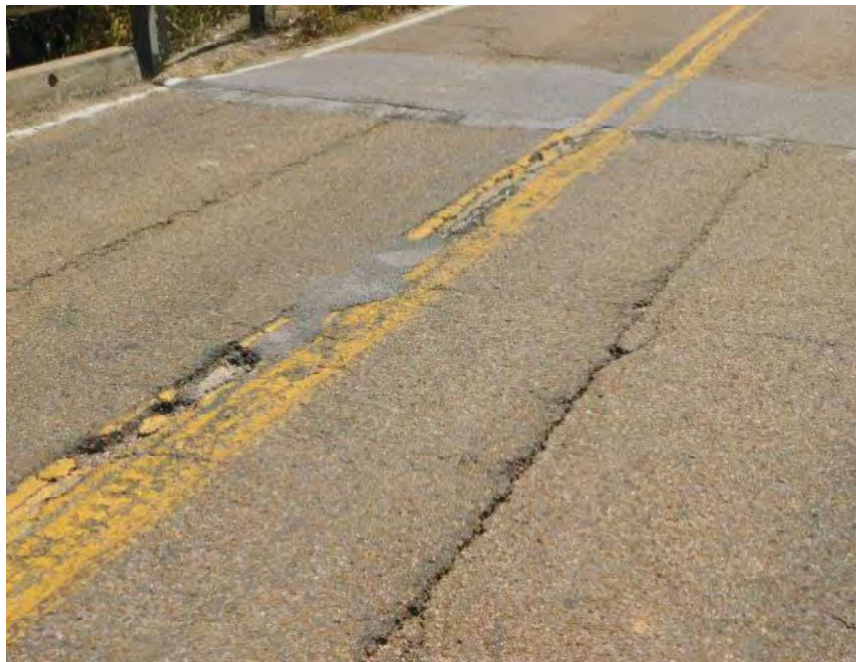


LEFT SIDE CURB SPAN 1 SPALLED TO STEEL

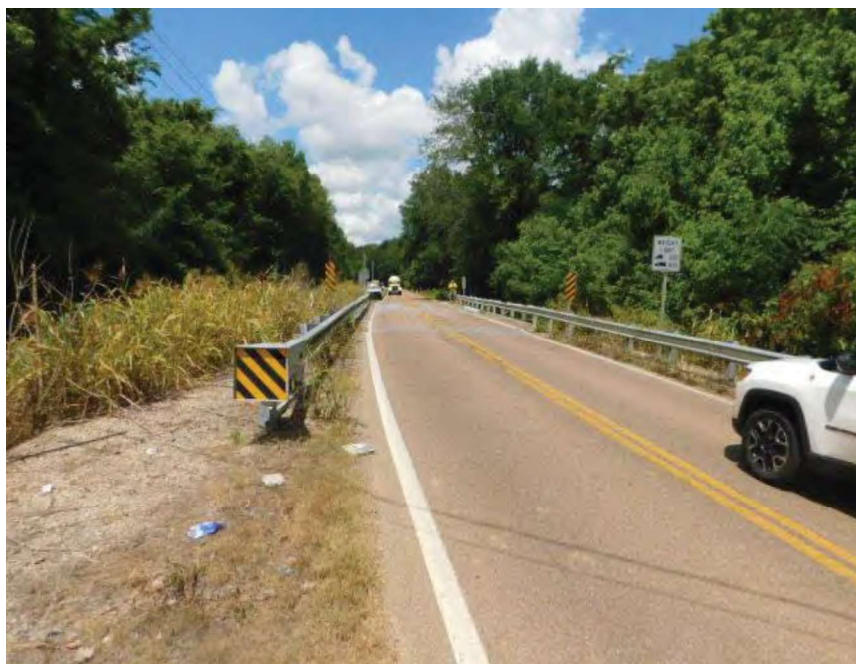


SPAN 3 TOP DECK SPALLED

Bridge Loc. No: 24-SR193-0771 Date: 07-01-2022



SPAN 4 TOP DECK SPALLED



LOOKING BACK ON ROUTE

Bridge Loc. No: 24-SR193-0771 Date: 07-01-2022



APPROACH 2 WEIGHT LIMIT SIGN 40T/40T



LEFT SIDE CURB SPAN 3 SPALLED TO STEEL

Bridge Loc. No: 24-SR193-0771 Date: 07-01-2022



ABUTMENT 1



LEFT SIDE DRIFT INLET END

Bridge Loc. No: 24-SR193-0771 Date: 07-01-2022



REAR SIDE BENT 1 B

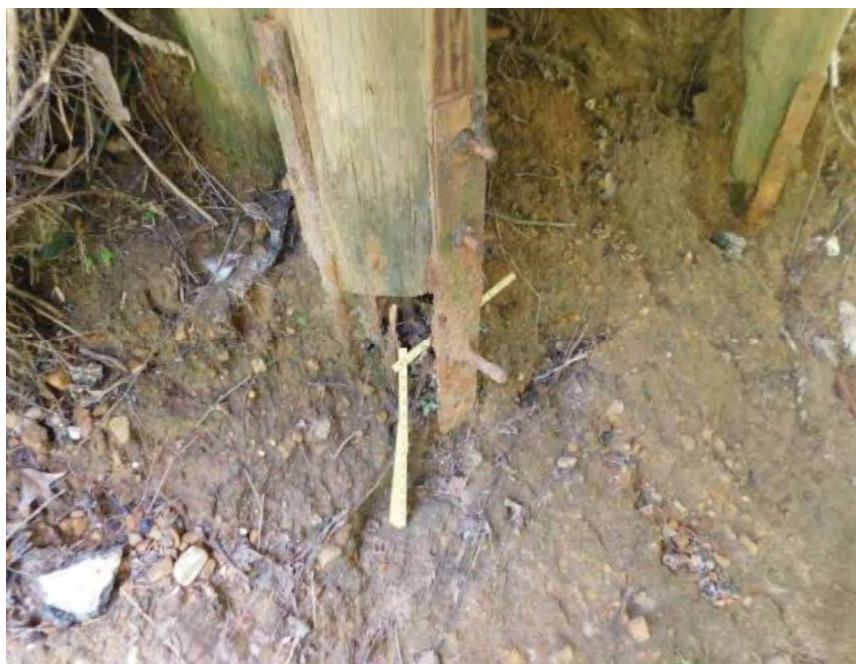


FRONT SIDE BENT 1 A

Bridge Loc. No: 24-SR193-0771 Date: 07-01-2022

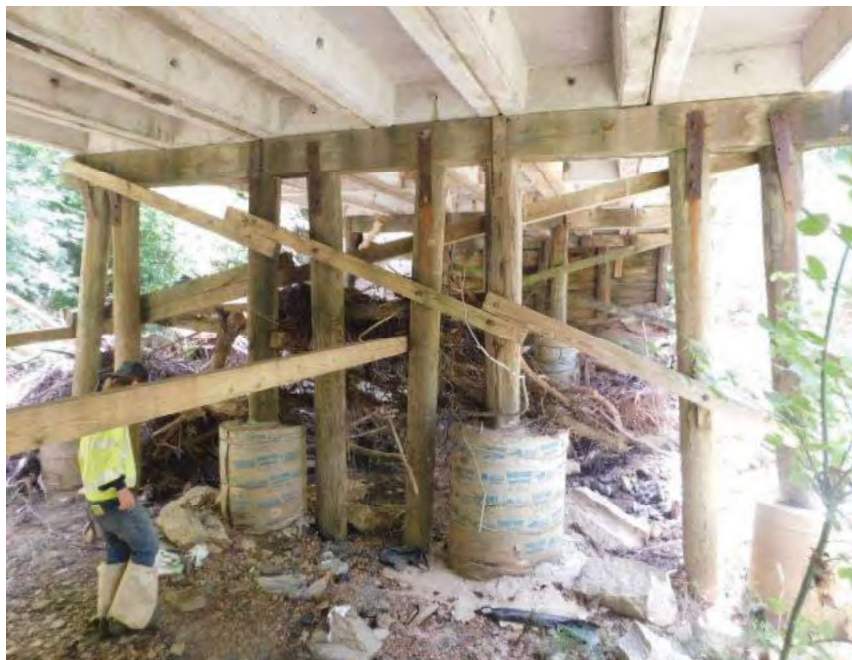


BOTTOM DECK SPAN 2



REAR SIDE BENT 1 B PILE D DECAYED

Bridge Loc. No: 24-SR193-0771 Date: 07-01-2022



FRONT SIDE BENT 2



BOTTOM DECK SPAN 1

Bridge Loc. No: 24-SR193-0771 Date: 07-01-2022



RIGHT SIDE OUTLET END

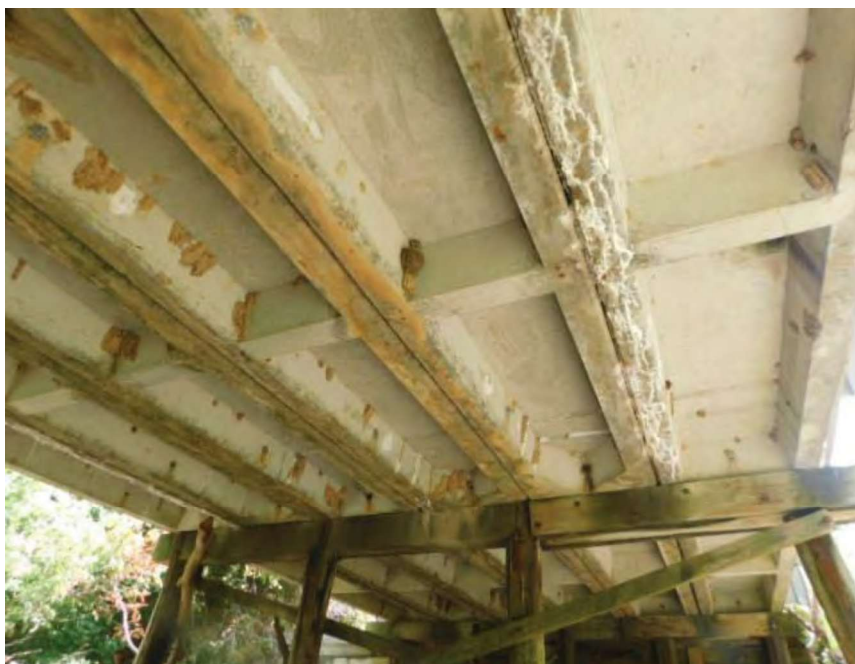


FRONT SIDE BENT 3

Bridge Loc. No: 24-SR193-0771 Date: 07-01-2022



FRONT SIDE BENT 3



BOTTOM DECK SPAN 3

Bridge Loc. No: 24-SR193-0771 Date: 07-01-2022



BREAST WALL BOARDS ABUTMENT 2 DECAYED

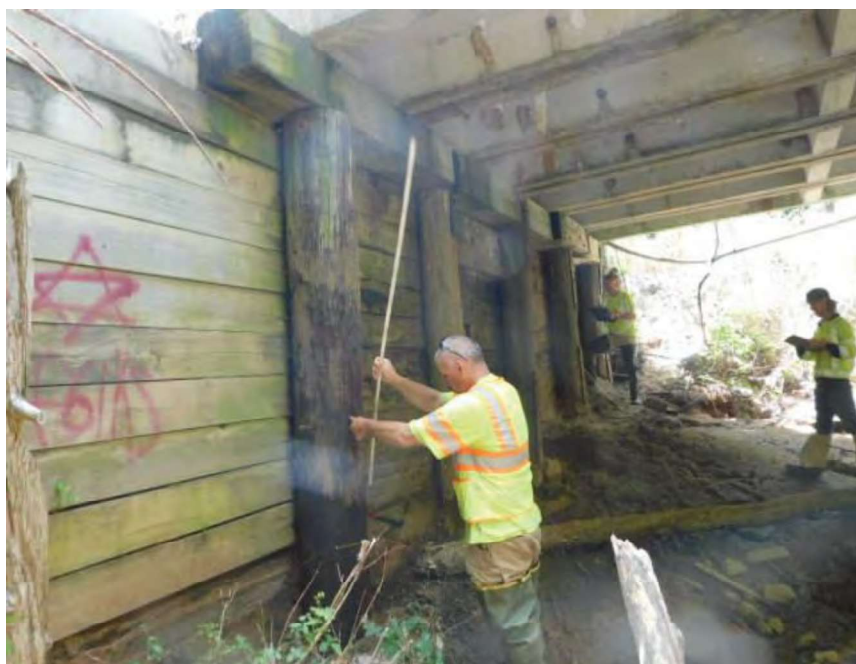


LEFT SIDE INLET END

Bridge Loc. No: 24-SR193-0771 Date: 07-01-2022



LEFT SIDE DRIFT INLET END



ABUTMENT 2

Bridge Loc. No: 24-SR193-0771 Date: 07-01-2022



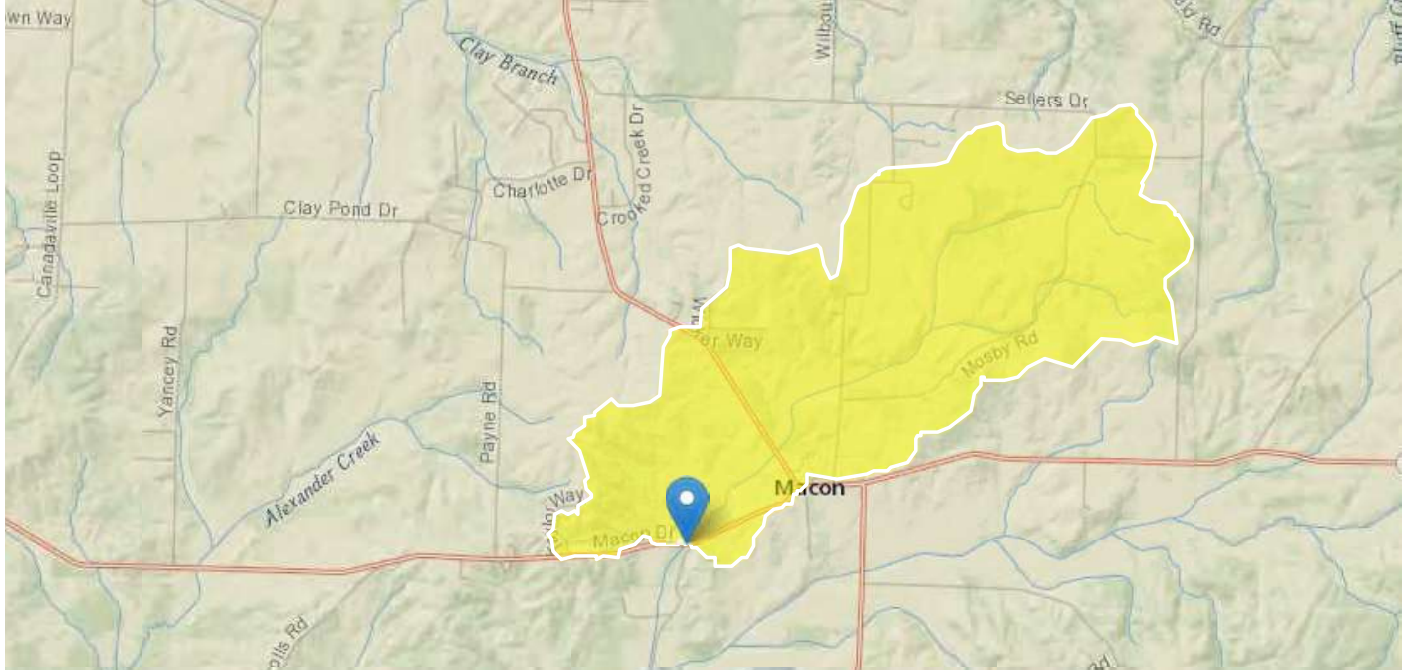
BOTTOM DECK SPAN 4



LEFT SIDE SPAN 1 RAIL BROKEN LOOSE

Fayette Co SR193 - Bridge over Branch (LM 7.71)

Region ID: TN
Workspace ID: TN20240409142552102000
Clicked Point (Latitude, Longitude): 35.14825, -89.50467
Time: 2024-04-09 09:26:18 -0500



West of Macon, TN

[+ Collapse All](#)

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CONDA	Area that contributes flow to a point on a stream	4.66	square miles
DRNAREA	Area that drains to a point on a stream	4.66	square miles

Peak-Flow Statistics

Peak-Flow Statistics Parameters [DAOnly Area 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONDA	Contributing Drainage Area	4.66	square miles	0.76	2308

Peak-Flow Statistics Flow Report [DAOnly Area 4]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIL	PIU	SE	ASEp	Equiv. Yrs.
50-percent AEP flood	981	ft ³ /s	522	1840	38.7	38.7	1.8
20-percent AEP flood	1430	ft ³ /s	778	2630	37.2	37.2	2.4
10-percent AEP flood	1720	ft ³ /s	926	3190	38	38	3.1
4-percent AEP flood	2090	ft ³ /s	1090	4010	40.1	40.1	3.8
2-percent AEP flood	2360	ft ³ /s	1190	4680	42.2	42.2	4.2
1-percent AEP flood	2620	ft ³ /s	1270	5390	44.7	44.7	4.4
0.2-percent AEP flood	3230	ft ³ /s	1430	7290	51.1	51.1	4.7

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	4.66	square miles	0.1	10000

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

Statistic	Value	Unit
Maximum Flood Crippen Bue Regional	15100	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.: 24S193-S1-004 ROUTE: S.R. 193
 COUNTY: FAYETTE CITY: _____
 PROJECT PIN NUMBER: 134847.00
 PROJECT DESCRIPTION: BRIDGE OVER BRANCH @ L.M. 7.71

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
1,830	2029	2,010	261	13	2049	65-35	1	2		

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 2/20/2024
 TRANSPORTATION MANAGER 1
 SUITE 1000, JAMES K. POLK BUILDING

APPROVED BY: TONY ARMSTRONG Tony Armstrong DATE 2/20/2024
 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)

PIN	County	Project	Utilities on Project	At Risk	Mitigation (if applicable)	Items	Footage
134847.00	Fayette	SR-193 Bridge over branch L.M. 7.71	Electric (Chickasaw Electric Co-Op assumed)	Aerial Electric - Distribution Lines	Avoid if possible	(1) Triplex Service (1) Transformer 3PH 25kv, (3) 45-3 pole, (4) Wire 3PH + Neutral, (4) 1" anchors, (4) down guys, (1) Overhead guy - Remove (2) Poles (1) service (1) transformer, (4) wire 3PH + Neutral	775'
134847.00	Fayette	SR-193 Bridge over branch L.M. 7.71	CATV (Spectrum assumed)	Aerial Coax	Rides aerial route with electric - avoid if possible	Coax replacement + service drop	250'
134847.00	Fayette	SR-193 Bridge over branch L.M. 7.71	Telecommunications (AT&T or Frontier assumed)	Buried copper	Check to make sure there is no bridge encroachment - buried on both sides of the bridge and doesn't appear to cross.	Unknown	400'
134847.00	Fayette	SR-193 Bridge over branch L.M. 7.71	Gas	See Notes	See link in column H - appears to be a black pipe in the ground and at Murrell Rd there are gas markers and a buried valve.	Unknown	400'

[Google Pic](#)

Michelle Hunt

From: Wesley Peck
Sent: Monday, March 25, 2024 3:03 PM
To: Michael Gilbert
Cc: Ted Kniazewycz; Steve Allen; Jim Waters; Michelle Hunt; David A. Duncan; Shane Hester; Brandon Akins; Daniel Pallme; Ty Tucker
Subject: RE: Timber Bridge Hydraulic Recommendation Request

Follow Up Flag: Follow up
Flag Status: Completed

Mike,

In the interest of being timely, I am enclosing my staff recommendations below. Note, these are all hydraulically complex bridge sites and most have some sort of scour or stream stability issue and I think some additional notes will be necessary for your planning studies. I will do a more in depth review and provide you with additional information later this week.

134833.00 – Tentative recommendation is a 2 @16x16 box culvert. However this one has some scour and stream stability issues that I am still reviewing.

134846.00 – Tentative recommendation is single span 60 ft bridge using box beam. Raise grade approximately 1. Ft. This one also has stream stability issues.

134847.00 – Recommendation is single span 90 ft bridge, raise grade 2.0 ft. Superelevation should be kept off bridge deck if possible for safety reasons. Significant drift concerns.

134849.00 – Recommendation is a 3 @ 14x14 box culvert.

134850.00 – Recommendation is a 3 @ 30' girder bridge. Total length 90 ft. Raise grade 2 ft minimum. A two span could probably work, but it may result in a pier in the middle of the channel. We can be creative with it once we have survey data, but this is the best we can do for now.

134851.00 – Recommendation is 3 span 128 ft bridge, raise grade 2.5 ft.

134864.00 – Recommendation is a single span 60 ft bridge, raise grade approx. 2 ft.

134865.00 – Recommendation is a three span 90 ft bridge, raise grade approx. 2.0 ft

134866.00 – Recommendation is a 3 @ 14x7 reinforced concrete box culvert.



Wesley Peck, PE, MS | Manager
Hydraulic Design Section | Structures Division
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tn.gov/tdot

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From: Michael Gilbert <Michael.Gilbert@tn.gov>
Sent: Monday, March 25, 2024 8:29 AM



0EN1 Environmental Desktop Review Form

PIN	134847.00
Project Number (if available)	
County	Fayette
Route	SR-193
Termini	Bridge over Branch, LM 7.71 (TMA)
Type of Document	
Date ENV DIV Comments are Due	5/22/24 by noon

Air & Noise

AIR QUALITY

Transportation Conformity

This project is in Fayette 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

Archaeology: There is 1 previously recorded site within one mile of the ETSA. A survey will be required. There are agricultural, road construction and drainage disturbances within the ETSA. There is a moderate probability of intact archaeological deposits in this location.

History: There is one previously surveyed historic resource in the project area, and the bridge itself is more than 50 years old. Therefore, a historic survey will be required.

Ecology

Water resource features are likely to occur within the project area.

HazMat

No known hazardous materials sites. The asbestos bridge survey has been completed.

An Asbestos Containing Material (ACM) survey was completed on Bridge No. 24014580003 SR-193 over Branch LM 7.72 (24-SR193-07.71). No ACM was detected. Please see the report (PIN 118540.00) for further details and photographs. 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 (per TDOT Standard Specifications for Road and Bridge Construction (January 1, 2021 Sections 107.08 D and 202.03).

NEPA

This project was evaluated for the following:

- Detour: Detour under 25 miles, no FHWA coordination needed.
- ROW Acquisition: ROW acquisition is greater than 1.5 acres, coordination with FHWA is required.
- Section 4(f): No Section 4(f) resources were identified in the proposed project area.
- Section 6(f): No Section 6(f) resources were identified in the proposed project area.

- Recreation and Wildlife Management Areas: No Recreation or Wildlife Management areas were identified in the proposed project area.
- Local/State Parks and Greenways: No parks or greenways were identified in the proposed project area.
- Floodplain Management: The project is located within the Statewide Flood Hazard Area Zone A.

Project: SR-193, Bridge over Branch, LM 7.71 (TMA)
Comment Resolution Form
County: Fayette
PIN 134847.00

Comment Stage	Division	Commenter	Date	Comment	Comment Addressed?	Additional Notes
Draft Report Review (OSD2)	STID	David Duncan	4/29/2024	Draft Report Review comments requested by email.	N/A	N/A
Draft Report Review (OSD2)	Pre-Construction	Stepan Parshikov	5/8/2024	Page 1 of document lists route as NHS, PPRM does not have a US Route number. Please verify.	Yes	The Concept Report form on page 1 of the Draft Report has been updated to reflect comment. ETRIMS was used to verify that SR-193 at this location is not considered a NHS route.
Draft Report Review (OSD2)	Pre-Construction	Stepan Parshikov	5/8/2024	Page 1: City is listed as Rossville. Project appears to be closer to Macon, TN.	Yes	Google maps was used to verify that the existing bridge is located in Rossville.
Draft Report Review (OSD2)	Pre-Construction	Stepan Parshikov	5/8/2024	Page 1: Posted speed block says speed limit is 50mph. According to Etrims and street view, speed limit is 40mph. Please verify. Design parameters may be affected by design speed.	Yes	According to streetview, the speed limit is 40 MPH. The Concept Report form on page 1 of the Draft Report has been updated to reflect comment.
Draft Report Review (OSD2)	Pre-Construction	Stepan Parshikov	5/8/2024	Page 14 appears to be measuring the width of the sloped parapet at the top(7.5"), and not at the bottom, which is wider(14.5"). The way the proposed bridge cross-section is drawn, the driveable shoulder would be less than 4' wide. I believe the out-to-out width should be 32' 5" to meet the dimensions specified in the Project Description. This would increase the depth of the superstructure ever so slightly, due to the 2% crown.	Yes	The provided cross-section detail is a high-level drawing displaying the typical section of the proposed structure. The details documented in this comment will be further investigated at a later time during the design phase.
Draft Report Review (OSD2)	Pre-Construction	Stepan Parshikov	5/8/2024	There are utilities attached to the bridge, as well as running along the bridge on the south side. Relocation will be required.	Yes	Utilities Office provided estimates and feedback on what is present.
Draft Report Review (OSD2)	Pre-Construction	Stepan Parshikov	5/8/2024	Significant bank erosion present in the channel south of the bridge.	Yes	This comment is documented and will be further investigated at a later time during the design phase.
Draft Report Review (OSD2)	Pre-Construction	Stepan Parshikov	5/8/2024	Phase construction is likely not possible due to the narrow width of the existing structure.	Yes	The shifted alignment option assumes that traffic will be maintained on the existing structure while the proposed bridge is built on new alignment.
Draft Report Review (OSD2)	Pre-Construction	Stepan Parshikov	5/8/2024	Three residential driveways will be affected by the project. Will likely need access during construction.	Yes	Noted