



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

ENVIRONMENTAL DIVISION
SUITE 900, JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-1402
(615) 741-3655

CLAY BRIGHT
COMMISSIONER

BILL LEE
GOVERNOR

June 26, 2021

Theresa Claxton
Federal Highway Administration, TN Division
404 BNA Drive, Suite 508
Nashville, TN 37217

Subject: Construction Reevaluation of State Route 1/Summer Avenue from east of Macon Road (Interstate 40) to 0.1 mile north of Elmore Road, Shelby County, Tennessee, PIN 101609.00

Dear Ms. Claxton:

This Construction Reevaluation of the environmental, social, and economic effects has been conducted in accordance with 23 CFR 771.129. This reevaluation is for the entire State Route 1 (SR-1)/Summer Avenue, from east of Macon Road to 0.1 mile north of Elmore Road, with a focus on the section of SR-1 from Interstate 40 (I-40) (east of Macon Road) to 0.1 mile north of Sycamore View Road (PIN 101609.01). This section is now being advanced to the construction phase. For this section, the proposed project will widen SR-1/Summer Avenue from a four-lane highway to a seven-lane highway.

The total project length is approximately 3.4 miles; the length of the project segment from 0.1 mile north of I-40 to 0.1 mile north of Sycamore View Road is approximately 1.7 miles. **Figure 1** shows the project location.

The project is listed in the Memphis Urban Area Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP) for Fiscal Years 2020-2023. The TIP page is included in **Appendix A**. Federal and State project numbers for various stages of project development are listed in **Table 1**.

Figure 1: Project Location Map

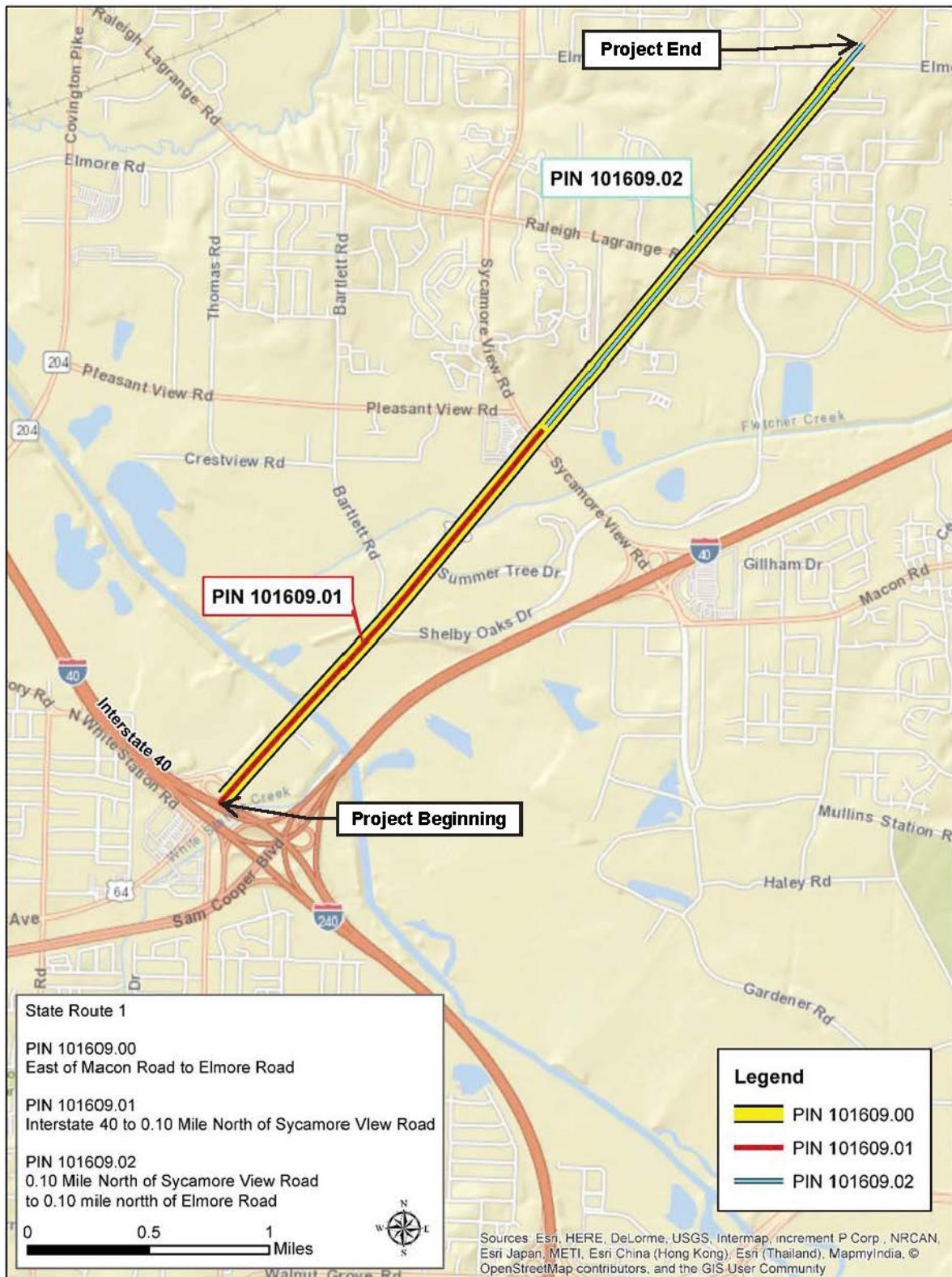


Table 1: Project Phases and Corresponding Project Numbers

Phase	Federal Aid	State Project Number
Preliminary Engineering	N/A	79011-1245-04
Right-of-Way	STP-1 (93)	79011-2247-14
Construction	NH-1 (424)	79011-3272-14

The overall project is listed in the Memphis MPO's *Livability 2050: Regional Transportation Plan* (RTP), adopted September 12, 2019. The project from I-40 to 0.1 mile north of Sycamore View Road is identified as RTP ID# 42 and TIP ID# TN-NHPP-2020-21 in horizon year 2021-2025. The project from 0.1 mile north of Sycamore View Road to 0.1 mile north of Elmore Road is identified as RTP ID# 77 and TIP ID# RN-NHPP-2020-02 for horizon year 2026-2030. As part of the *Livability 2050 RTP* Land Use – Mobility and Livability Corridor Assessment, Summer Avenue was identified as a Livability Corridor with an emphasis on multimodal enhancements to improve access to community resources and advance regional quality of life goals.

Project History

The Tennessee Department of Transportation (TDOT) first identified the need to widen SR-1/Summer Avenue from I-40 to Elmore Road as part of the *Accelerated Primary Highway Plan* accompanying the gasoline tax increase passed by the 94th General Assembly in 1986.

A Finding of No Significant Impact (FONSI) was approved by the Federal Highway Administration (FHWA) on May 10, 1999, based on the Environmental Assessment (EA) that was approved on March 9, 1998. The project file contains a Right-of-Way (ROW) Reevaluation for I-40 (near Macon Road) to Elmore Road; the memorandum stated “FONSI was signed on 10 May 1999, so major action is within 6 months [sic] time frame and no reevaluation is needed at this time.” (The memorandum was erroneously dated June 8, 1996, rather than June 8, 1999.)

Copies of the EA, FONSI, and ROW Reevaluation are in **Appendix B**.

Since the issuance of the FONSI, TDOT identified this project as a candidate for the Expedited Project Delivery (EPD) program, aimed at identifying and recommending improvement options that are feasible and cost effective and provide improved safety and mobility. In 2014, TDOT placed the project on hold to conduct an EPD review. In late 2016, the EPD review was completed for the project. For construction purposes the project was separated into two sections: PIN 101609.01 (from I-40 to 0.1 mile north of Sycamore View Road) and PIN 101609.02 (from 0.1 mile north of Sycamore View Road to 0.1 mile north of Elmore Road). The EPD review addressed both sections of the project. The approved EPD recommendation was to proceed with the original proposed seven-lane curb and gutter typical section. A copy of the EPD determination memorandum, dated December 7, 2016, is in **Appendix C**. This reevaluation is based on Construction Field Review Plans, dated August 30, 2017, and preliminary plans for the Wolf River and Fletcher Creek bridge replacements, prepared in June 2020, which are also included in **Appendix C**.

Purpose and Need

The EA stated that the project was intended to increase the capacity of existing SR-1/ Summer Avenue and reduce congestion for current and future local and regional travelers passing into and through the area, and to address the seismic deficiencies of the existing bridge spans over the Wolf River and Fletcher Creek. Traffic was expected to increase at least 60 percent from 1999 to 2019.¹ The capacities for the existing roadway between I-40 and Sycamore View Road for 1999 was LOS E and LOS F and was projected to be LOS F in 2019. The proposed project is expected to improve the capacity and flow of existing and projected traffic volumes.

Traffic and Capacity

The 1999 EA presented a traffic analysis for the base year of 1999 and the design year of 2019. The traffic analysis predicted that the proposed improvements in the design year of 2019 would result in LOS E and LOS F for SR-1, compared with LOS F with the no-build scenario in 2019.

An updated traffic analysis was conducted in 2020 to compare the No-Build Alternative and the FONSI's Selected Alternative for Base Year 2021 and Design Year 2041. The traffic operations analysis for the study area used techniques provided in the sixth edition of the *Highway Capacity Manual (HCM)*, published by the Transportation Research Board (TRB) in October 2016. The HCM provides operational analysis methodology for several types of transportation facilities, including unsignalized and signalized intersections, both of which are used in this analysis.

The *HCM* prescribes the use of *levels of service (LOS)* to characterize operational conditions within the study area. LOS is a qualitative measure, defined by the HCM, which describes the operational conditions of a transportation facility in terms of general service measures, such as speed, travel time, freedom to maneuver, interruptions, and user comfort and convenience. Six levels are defined for all transportation facilities with operational analysis methodology in the HCM; the levels are designated using letters from "A" to "F", with "A" representing the best operational conditions and "F" representing the worst conditions.

Typically, where spacing between signalized intersections on a roadway is less than two miles, the LOS of the intersections controls operations on the roadway. Because the signalized intersections on SR-1/Summer Avenue within the study area are spaced less than two miles apart, only the unsignalized and signalized intersection LOS are analyzed for this project.

Of the four intersections along SR-1 between I-40 and Sycamore View Road, three intersections are signalized and one (at Summer Trees Road) is unsignalized.

¹ A comparison of 1999 traffic volumes presented in the approved EA with the traffic volumes presented in Appendix A of the October 2020 Traffic Operations Technical Memorandum shows that traffic volumes had declined slightly between 1999 and 2019.

As shown in **Table 2**, the proposed improvements to SR-1/ Summer Avenue will provide the following improvements in the design year:

- LOS “E” to LOS “C” in the PM peak at the intersection of SR-1 @ I-40 Exit 12B
- LOS “F” to LOS “D” in the AM peak at the intersection of SR-1 @ Summer Trees Drive
- LOS “F” to LOS “E” in the AM peak at the intersection of SR-1 @ Sycamore View Road
- Reductions in the intersection control delay at all intersections during both the peak periods, with the exception of the I-40 Exit 12B intersection during the AM peak

Table 2: Intersection Level of Service Analysis, 2020 and 2040

INTERSECTION	NO-BUILD ALT.				SELECTED ALT.			
	BASE (2021)		DESIGN (2041)		BASE (2021)		DESIGN (2041)	
	AM (Delay/ LOS)*	PM (Delay/ LOS)*	AM (Delay/ LOS)*	PM (Delay/ LOS)*	AM (Delay/ LOS)*	PM (Delay/ LOS)*	AM (Delay/ LOS)*	PM (Delay/ LOS)*
SR-1/Summer Ave. @ I-40 Exit 12B	17.3/ B	20.4/ C	102.2/ F	79.4/ E	20.5/ C	10.0/ B	106.3/ F	21.9/ C
SR-1/Summer Ave. @ Bartlett Rd. / Shelby Oaks Dr.	46.2/ D	54.6/ D	95.9/ F	140.9/ F	45.6/ D	58.6/ E	87.5/ F	132.0/ F
SR-1/Summer Ave. @ Summer Trees Dr.	43.0/ E	>900/ F	232.4/ F	>900/ F	18.5/ C	271.0/ F	33.4/ D	>900/ F
SR-1/Summer Ave. @ Sycamore View Rd.	95.6/ F	193.0/ F	191.6/ F	321.8/ F	47.1/ D	63.9/ E	66.5/ E	140.4/ F

* Delay shown in seconds per vehicle.

Source: WSP USA Inc., *Traffic Operations Technical Memorandum*, October 23, 2020.

The Traffic Operations Technical Memorandum, dated October 23, 2020, is in **Appendix D**.

Safety

The EA stated that the actual accident rate for this roadway was “below the present statewide average but an increase in traffic ... may result in an increase in the accident rate if there is not corresponding increase in the capacity of the highway.”

For this reevaluation, a traffic safety analysis was conducted for the major roadways and intersections to be impacted by the proposed improvements to SR-1. The objective of the analysis was to review crash data from the study area during a defined study period to determine historical trends in crashes and investigate the impact the proposed project may have on crashes in the study area.

The historical crash analysis showed that most crashes within the study area during the study period occurred during clear, daylight conditions. Most crashes were multiple-vehicle crashes consisting of rear-end or angle crashes. The crashes were concentrated at the intersections of SR-1/Summer Avenue with Bartlett Road/Shelby Oaks Drive and with Sycamore View Road, both

of which had actual-to-critical crash ratios exceeding 1.0 during the study period. Additionally, the actual crash rate for the intersection of SR-1/Summer Avenue and the I-40 Exit 12A entrance and exit ramps exceeded the 2014–2016 statewide average for similar intersections in Tennessee.

A future traffic safety analysis was conducted using techniques provided in the first edition of the *Highway Safety Manual* (HSM), published by the American Association of State Highway and Transportation Officials (AASHTO) in 2016. The HSM provides quantitative methodologies for measuring, estimating, and evaluating roadways in terms of crash frequency and severity. Crash modification factors (CMF) are an index of how much crash experience is expected to change following a modification in design or traffic control. A CMF is defined as the ratio between the number of crashes per unit of time expected after a modification or measure is implemented and the number of crashes per unit of time expected if the change does not take place. A CMF of less than one indicates that the proposed measures will likely decrease the number of crashes while a CMF of greater than one indicates that the proposed measures will likely result in an increase in the number of crashes. When the implementation of a modification in design or traffic control may be expected to result in a reduction in crashes (i.e. $CMF < 1$), the change can be expressed as a crash reduction factor (CRF), which is the percentage crash reduction that may be expected after implementing a certain modification in design or traffic control ($CRF = 1 - CMF$).

Table 3 provides data relevant to projects with similar improvements and conditions to those present in the current project. These data show CMF values less than 1, which indicate a reduction in crashes. Comparing the current project to this historical data shows a likelihood that the currently proposed improvements would result in similar reductions in crashes. Actual project results could vary from what is shown in **Table 3**.

Table 3: Applicable CMFs for Widening from Four to Six Travel Lanes

CMF ID	Counter-Measure Description	CMF ¹	CRF ²	Crash Type	Crash Severity	Area Type (Land Use)
7940	Increase from four to six travel lanes (shoulder width four feet or less).	0.92	8.4%	All	All	Urban
7941	Increase from four to six travel lanes (shoulder width four feet or less).	0.81	19%	All	Fatal, Injury	Urban

¹ = Crash Modification Factor; ² = Crash Reduction Factor.

Source: WSP USA Inc., *Traffic Safety Technical Memorandum*, February 12, 2019.

Table 3 indicates that in one study, CMF ID 7940, the total number of crashes were found to decrease by 8.4 percent when widening an urban roadway from four lanes to six lanes. In a second study, CMF ID 7941, the number of crashes that included injuries or fatalities decreased by 19 percent when widening an urban roadway from four lanes to six lanes.

The *Traffic Safety Technical Memorandum*, dated February 12, 2019, is contained in **Appendix E**.

Bridge Sufficiency

SR-1 in this section has two highway bridges, one over the Wolf River and one over Fletcher Creek. Both bridges were built in 1926 and rehabilitated in 1977 and 1978, respectively.

Every two years, TDOT performs a comprehensive inspection of all public bridges across the state to determine their working condition and operating limits in accordance with FHWA National Bridge Inspection Standards. One of the primary outcomes of this evaluation is the designation of a sufficiency rating, which is calculated for each individual bridge used to carry vehicular traffic. Sufficiency ratings are measured on a scale of 0 to 100. A bridge with a rating of 100 is considered an entirely sufficient bridge, while one with a rating of 0 denotes a bridge that is entirely deficient. Bridges that receive a sufficiency rating of less than 80.0 are eligible for rehabilitation while bridges rating below 50.0 are eligible for replacement.

According to the most recent inspection of the SR-1/Summer Avenue bridge over the Wolf River (79SR0010015), at Log Mile (LM) 12.53, the sufficiency rating for this bridge is 67.2; this rating was reported in the March 20, 2019 National Bridge Inventory, Tennessee Inventory and Appraisal Report. The most recent inspection of the SR-1/Summer Avenue bridge over Fletcher Creek (79SR0010017) at LM 13.39, published March 20, 2019, showed a sufficiency rating of 65.5.

While both bridges do not meet the criteria for replacement, they do not meet TDOT current design standards, including seismic considerations.

A copy of the two bridge reports are included in **Appendix F**.

Project Description

There has been relatively little change in the character of the project area since the EA and FONSI were approved. The project area is generally characterized by commercial development along SR-1/Summer Avenue from I-40 to Sycamore View Road. From Sycamore View Road to Elmore Road, while there is some commercial use, the development is more residential in nature with single family homes, subdivisions, and apartment complexes. The project crosses the Wolf River and Fletcher Creek; the banks of the waterways and floodways are generally forested and undeveloped, although there is some commercial development in the floodplain of the Wolf River on the east side of SR-1/Summer Avenue. The topography in the project area is relatively flat.

SR-1/Summer Avenue within the study area is classified as an urban principal arterial roadway. It passes through Memphis and Shelby County and provides links to several regional and national destinations via the National Highway System, which includes the interstate highway system. Major intersecting roadways within the study area include the following:

- I-40 Exit 12A, a partial service interchange providing access to I-40 westbound;
- Bartlett Road, an urban minor arterial roadway SR-1/Summer Avenue to Raleigh–LaGrange Road;
- Shelby Oaks Drive, an urban minor arterial roadway connecting SR-1/Summer Avenue to Sycamore View Road and passing through Shelby Oaks Corporate Park;
- Summer Trees Drive, a local roadway passing through Shelby Oaks Corporate Park; and

- Sycamore View Road, an urban principal arterial roadway connecting areas in eastern Memphis and Bartlett to I-40, SR-177 (Germantown Road), and SR-15 (Stage Road).

The proposed project involves widening existing four-lane SR-1/Summer Avenue to six travel lanes with a continuous center turn lane, bike lanes and sidewalks. Refer to the Design Modifications section below for a description of the proposed typical sections.

Changes Occurring Since the FONSI

The EA/FONSI project limits extended from east of Macon Road to Elmore Road. Since the FONSI, the overall project was divided into two segments for design and construction purposes. The focus of this Construction Reevaluation is SR-1/Summer Avenue from I-40 (east of Macon Road) to 0.1 mile north of Sycamore View Road (PIN 101609.01). The second segment is SR-1/Summer Avenue from 0.1 mile north of Sycamore View Road to 0.1 mile north of Elmore Road (PIN 101609.02).

Design Modifications

The following sections describe the design modifications that are shown in the 2017 Construction Field Review plans and the 2020 preliminary plans for the Wolf River and Fletcher Creek bridge replacements. The Construction Field Review plans and preliminary bridge plans are included in **Appendix C**.

SR-1 Proposed Typical Section

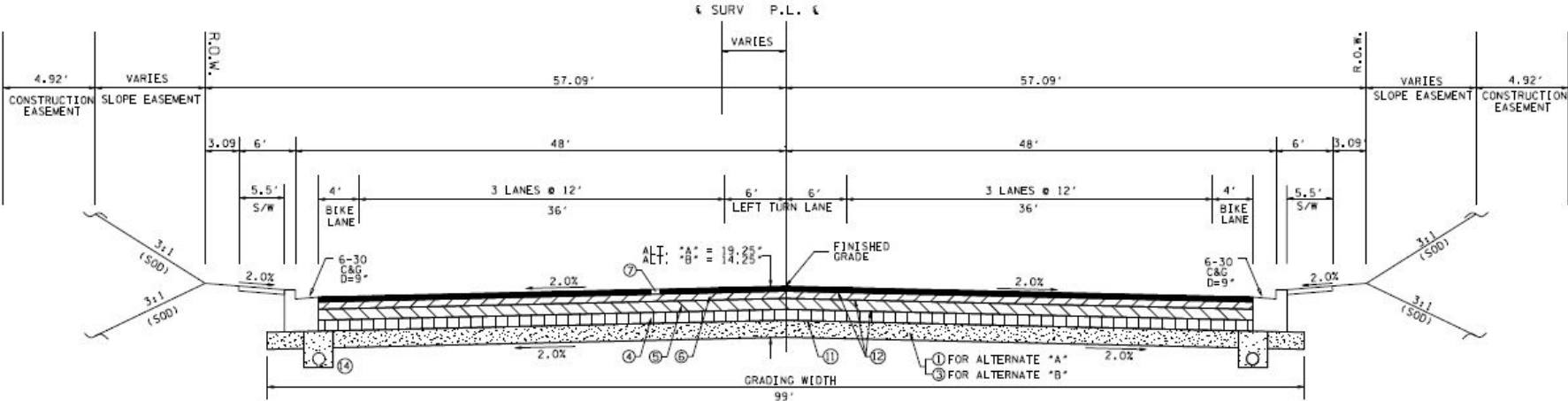
Following the conclusion of the EPD review of the overall project in 2016, the typical section remains the same as proposed in the EA and FONSI, with a small reduction in the proposed ROW quantity, as detailed below.

The FONSI's Selected Alternative proposed reconstructing SR-1/Summer Avenue from four lanes to six lanes with a continuous center turn lane. The proposed typical section would be comprised of three 12-foot traffic lanes in each direction, a 12-foot center-turn lane, and 4-foot bike lanes in each direction, all within 116 feet of ROW.

Construction Field Review plans dated August 30, 2017 feature three 12-foot travel lanes in each direction, a 12-foot center turn lane, a 4-foot bike lane in each direction, curb and gutter, and 5.5-foot sidewalks in each direction along the SR-1/Summer Avenue corridor in Section 1. The proposed ROW is approximately 114 feet, slightly less than the ROW width anticipated in the FONSI. **Figure 2** illustrates the proposed typical section.

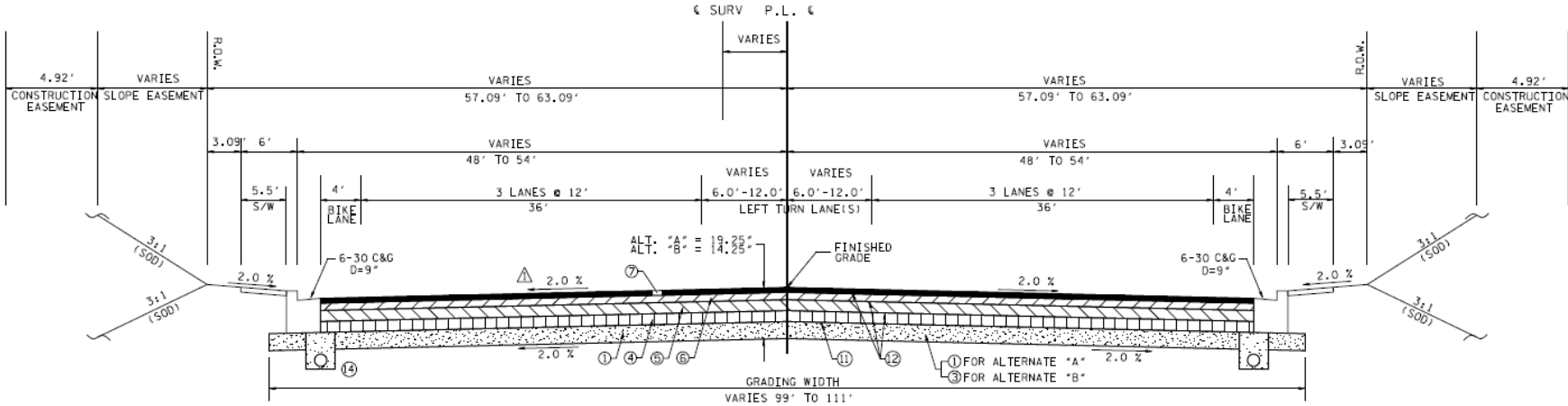
While the FONSI did not specify the number of turn lanes at key intersections, the subsequent project design and updated traffic volumes determined the need for dual left turn lanes at four key intersections with SR-1/Summer Avenue: White Station Road, Frontage Road (north of I-40), Bartlett Road, and Sycamore View Road. Approaching those intersections, the mainline center turn lane transitions from a single turn lane to two turn lanes in each direction; the ROW varies in these locations to allow for widening and tapering of the center lanes. **Figure 3** illustrates the typical section of these locations.

Figure 2: SR-1/Summer Avenue Proposed Typical Section



STATE ROUTE 1 (SUMMER AVE.)
 FULL DEPTH PAVEMENT
 (BASED ON STD. DWG. RD-TS-6A)
 STA 39+92.76 TO STA 53+51
 STA 92+50 TO STA 98+97.60
 STA 101+01.10 TO STA 114+17.28
 STA 124+93.40 TO END OF PROJECT

Figure 3: SR-1/Summer Avenue Proposed Typical Section, at Dual Left Turn Lane Locations



STATE ROUTE 1 (SUMMER AVE.)
FULL DEPTH PAVEMENT
 (BASED ON STD. DWG. RD-TA-6A)
 STA 38+75 TO STA 39+92.76
 STA 114+17.28 TO STA 118+50
 STA 121+40 TO STA 124+93.40

▲ CROSS-SLOPE VARIES 2.0% TO 2.355%
 FROM STA. 115+32.13 TO 116+35.08

Wolf River Bridge Proposed Typical Section

The FONSI included a proposed cross section for the existing Wolf River bridge featuring a 48-foot roadway within 80 feet of ROW, compatible with the current roadway. The existing bridge would be replaced with a seismic replacement.

The 2017 Construction Field Review plans for the Wolf River Bridge showed a typical section of 108 feet, featuring three 11-foot travel lanes in each direction, an 11-foot center turn lane, and a 4-foot bike lane in each direction, with a 5-foot shoulder and 10-foot multi-use path on the northwest side of SR-1/Summer Avenue, and an 8-foot shoulder on the southeast side of the roadway. The multi-use path on the northwest side of the road will be barricade-separated from the travel lanes and bike path.

Preliminary plans for the Wolf River bridge were developed in June 2020. The preliminary bridge plans indicate that the existing bridge and approaches will be removed and replaced with a new bridge in the same location. The new bridge will be approximately 709 feet in length and approximately 110 feet in width, consisting of seven spans, and designed to meet current seismic standards. The new bridge will feature three 11-foot travel lanes in each direction and an 11-foot center turn lane. The northwest side of the bridge will contain a 4-foot bike lane, a 5.5-foot rail and shoulder, a 10-foot multi-use path, and a 3.5-foot safety rail on the outside. The south side of the bridge will incorporate a 4-foot bike lane, a 2-foot curb and gutter, a 6-foot sidewalk, and a 3.5-foot tall concrete parapet with rail post. The multi-use path on the northwest side of the road will be barricade-separated from the travel lanes and bike path. **Figure 4** illustrates the preliminary plan of the new Wolf River bridge.

Fletcher Creek Bridge Proposed Typical Section

The FONSI included a proposed cross section for the existing Fletcher Creek bridge featuring a 48-foot roadway within 80 feet of ROW, compatible with the current roadway. The existing bridge over Fletcher Creek would be replaced with a seismic replacement.

The 2017 Construction Field Review plans do not include a separate plan for the Fletcher Creek bridge; the plan shown for the Wolf River is assumed to apply to Fletcher Creek as well. The proposed typical section would be the same as that described above for the Wolf River bridge.

The June 2020 preliminary plans provide more specific information for the Fletcher Creek bridge. The plans state that the existing bridge and approaches will be removed and replaced with a new bridge in the same location. The new bridge will be approximately 204 feet in length and approximately 110 feet in width, consisting of four spans, and designed to meet current seismic standards. The new bridge will feature three 12-foot travel lanes in each direction a 12-foot center turn lane, and on each side of the bridge will be a 4-foot bike lane, a 2-foot curb and gutter, a 6-foot sidewalk, and a 3.5-foot tall concrete parapet with rail post. **Figure 5** illustrates the preliminary plan of the new Fletcher Creek bridge.

Figure 4: Wolf River Bridge Preliminary Layout Typical Section

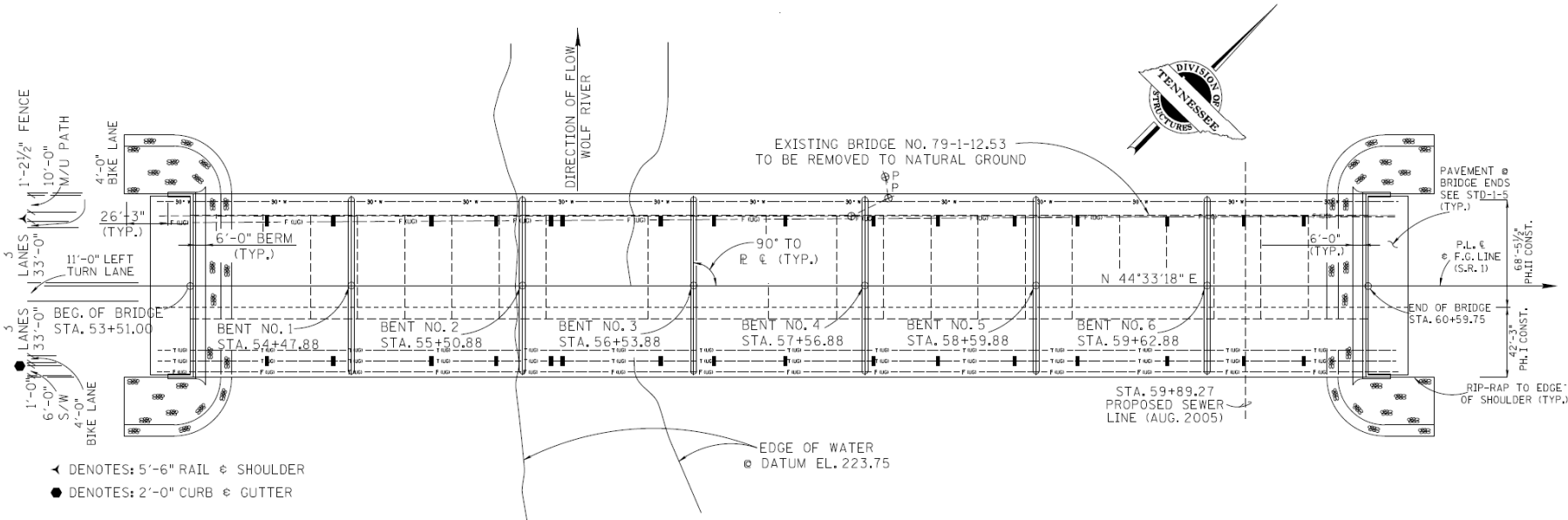
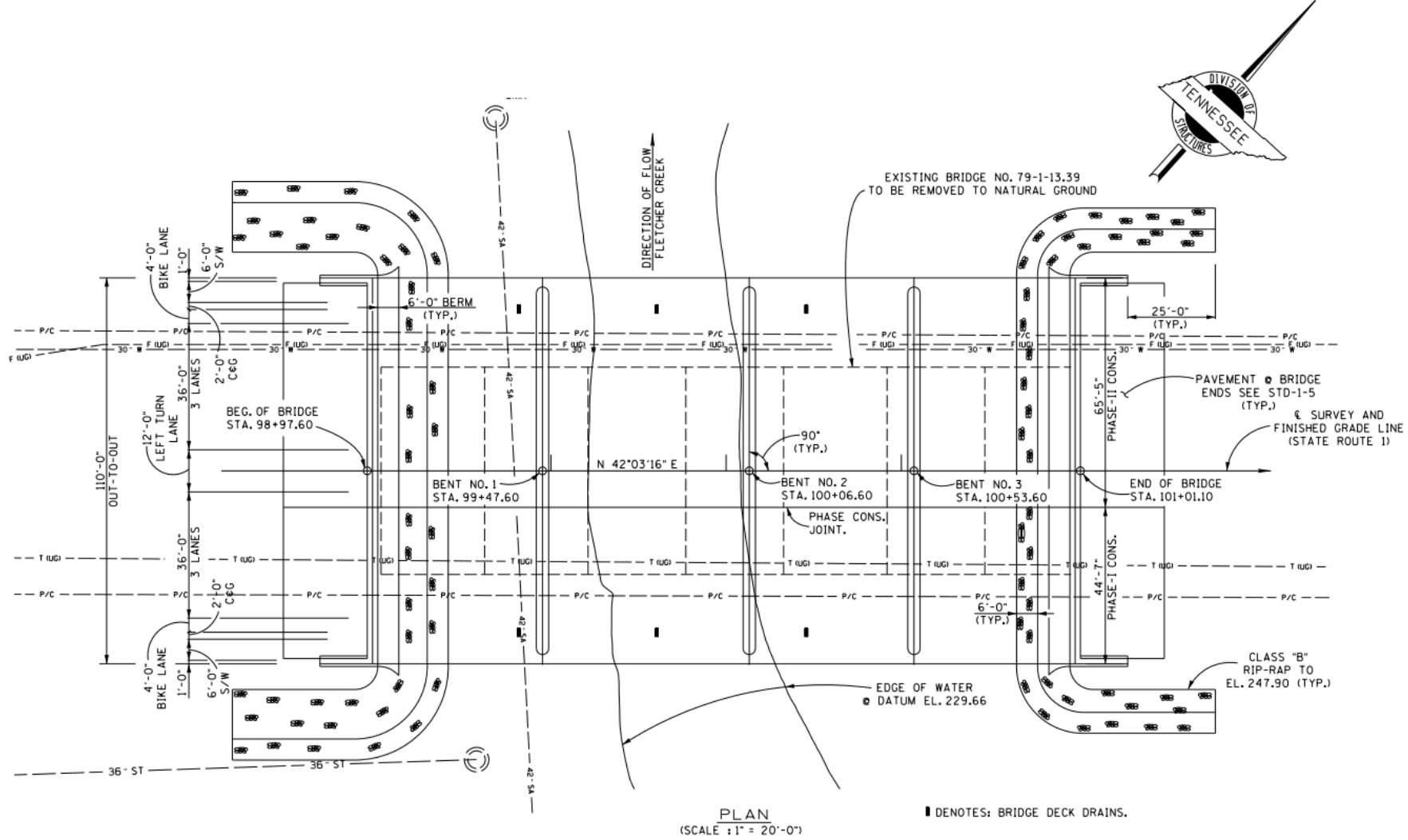


Figure 5: Fletcher Creek Bridge Preliminary Layout Typical Section

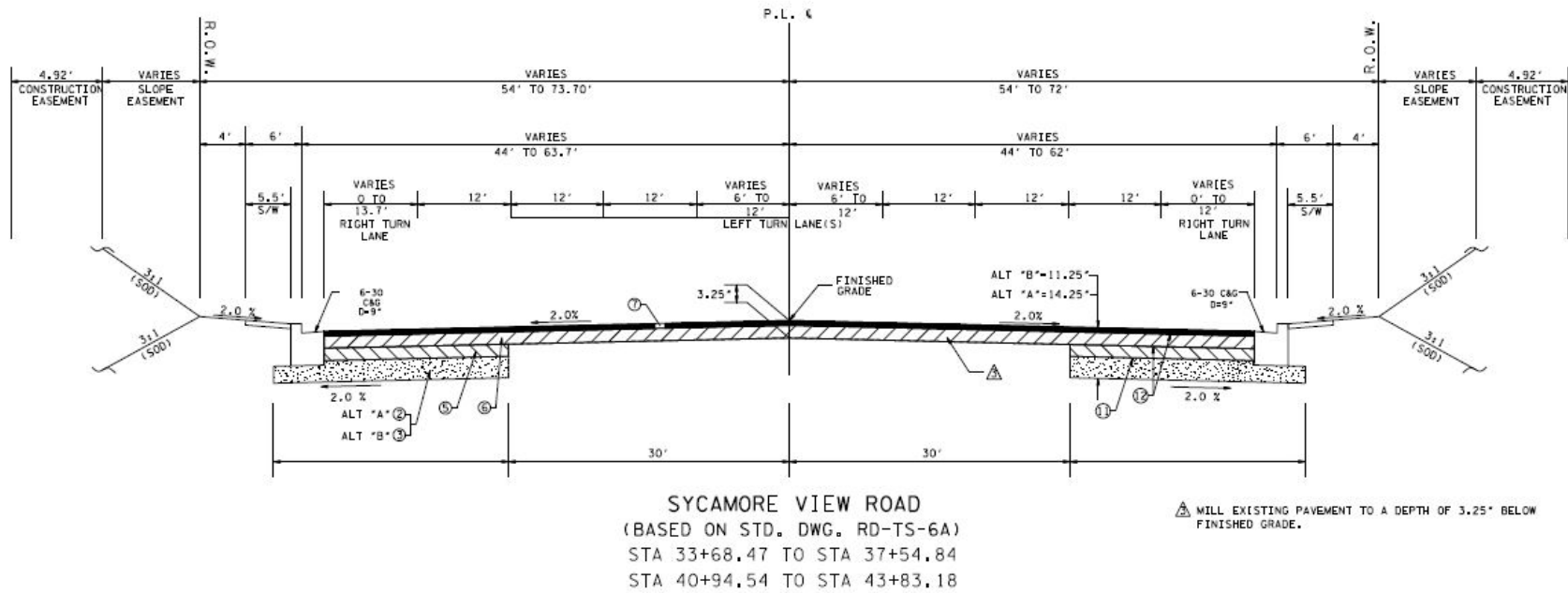


Sycamore View Road Proposed Typical Section

The FONSI proposed two left-turn lanes be placed in both directions to permit increased north and south turning movements on Sycamore View Road. A wider ROW with an additional 12 feet would be required as an approach to this intersection for a maximum 128 feet to accept the additional turn lanes. The turn lanes would transition symmetrically both north and south of the intersection of Sycamore View Road and SR-1/Summer Avenue.

The 2017 Construction Field Review plans for Sycamore View Road as it approaches SR-1/Summer Avenue feature three 12-foot travel lanes in each direction and variable width right-turn and left-turn lanes (see **Figure 6**). The southbound right-turn lane will be 0 to 13.7 feet wide, the southbound left-turn lane and northbound left turn lanes will transition from a single 12-foot left-turn lane to two 12-foot left turn lanes (24 feet total width), and the northbound right-turn lane will be 0 to 12 feet wide. The turn lanes will feed into SR-1/Summer Avenue traffic. Improvements will be within a maximum of 146 feet of ROW if the upper range of the variable lane widths are implemented, which is a potential increase of 18 feet from the typical section proposed in the FONSI.

Figure 6: Sycamore View Road Proposed Typical Section



Public Outreach Activities

Upon approval of the EA on March 9, 1998, a public hearing was held as a part of the National Environmental Policy Act (NEPA) environmental review process to present the EA to the public and solicit input. The hearing was held on May 12, 1998 in the Shelby Oaks Elementary School Cafeteria, at 6053 Summer Avenue in the project area. As noted in the FONSI, there were 54 public attendees and 17 individuals provided comments. Most of the comments offered no clear support or opposition to the project; rather, the comments were directed to personal issues related to impacted properties. Two individuals stated their support for the project and one person expressed opposition to the project. Additional information on the May 12, 1998 NEPA Public Hearing is contained within the FONSI, which is in **Appendix B** of this reevaluation.

TDOT will place a public notice about the project in the local newspaper prior to construction authorization.

Reevaluation of the Environmental Effects

The reevaluation of the environmental effects for this proposed project included the review of the Construction Field Review plans dated August 30, 2017 with the information presented in the FONSI.

This document has been updated to include areas not addressed in the EA and FONSI and/or for which policy or regulations have resulted in the need for updated information or studies. Of particular interest to this reevaluation are the following topics:

Relocation and Right-of-Way Impacts

The EA and FONSI outlined the relocation and ROW impacts resulting from the entire project. The FONSI stated that no residential displacements would result from the project, but four businesses may be acquired.

Shortly after the approval of the FONSI, ROW acquisition began for the entire project, from I-40 to Elmore Road, and was completed prior to the preparation of this reevaluation. While the project design has been modified since the approval of the EA and FONSI, those changes occur within the ROW limits originally proposed and purchased. No additional relocations or ROW impacts will occur, based on the 2017 Construction Field Review plans.

Table 3 presents the acres of permanent ROW acquisition and easements and temporary ROW easements (i.e., construction easements) associated with the project.

Table 3: Right-of-Way Acquisition

Permanent Acquisition				Temporary Acquisition	
ROW Acquisition*	Drainage Easements*	Slope Easement*	Total*	Construction Easements*	Total*
10.95	0.88	1.81	13.64	5.95	5.95

*Reported in acres.

Environmental Justice

The EA stated, “there will be no disproportionate effects on low income or minority populations under Executive Order 12898, Environmental Justice.” In addition, the EA stated that [the EA] had “been reviewed and found acceptable by the TDOT’s civil rights staff in accordance with Title VI of the Civil Rights Act of 1964.”

Since the EA was approved, new demographic data has been collected using the US Census Bureau’s American Community Survey (ACS) 2014-2018 5-Year Estimates, and clearer guidance on how the presence of EJ populations are determined has been developed. Therefore, in compliance with Executive Order 12898, this reevaluation provides an updated assessment of the project’s potential to have a disproportionately high and adverse effect on EJ populations.

The project corridor covers sections of four census tracts (CT) and six block groups (BG), as shown in **Figure 7**:

- CT 92, BG 2
- CT 92, BG 3
- CT 98, BG 1
- CT 206.10, BG 1
- CT 206.10, BG 3
- CT 211.11, BG 3

The guidance provided in the *Effective Methods for Environmental Justice Assessment* report (National Cooperative Highway Research Program Report 532) uses two threshold indicators to identify and report EJ populations in a census block group.

- Percent of minority and/or low-income population exceeds the total block group population by 50 percent or more, and/or
- Percent of minority and/or low-income population exceeds the overall county population average by 10 percentage points or more.

For the purposes of this analysis, block groups that satisfy either of the criteria shown above are considered to be EJ populations

Minority Populations

The 2014-2018 ACS data shows that the minority population for Shelby County is 63.9 percent and that of the City of Memphis is 74.3 percent. Within the project corridor, minority populations in block groups range from 16.4 percent to 90.9 percent. Two census block groups (CT 206.10, BG 3; and CT 211.11, BG 3) each have a minority population that is at least 10 percent higher than Shelby County’s percent of minority population. Three block groups (CT 206.10, BG 1; CT 206.10, BG 3; and CT 211.11, BG 3) have minority populations that are 50 percent or more of the overall population of their respective block group. These three block groups qualify as EJ communities.

Figure 7: Minority Population Percentages in Project Area

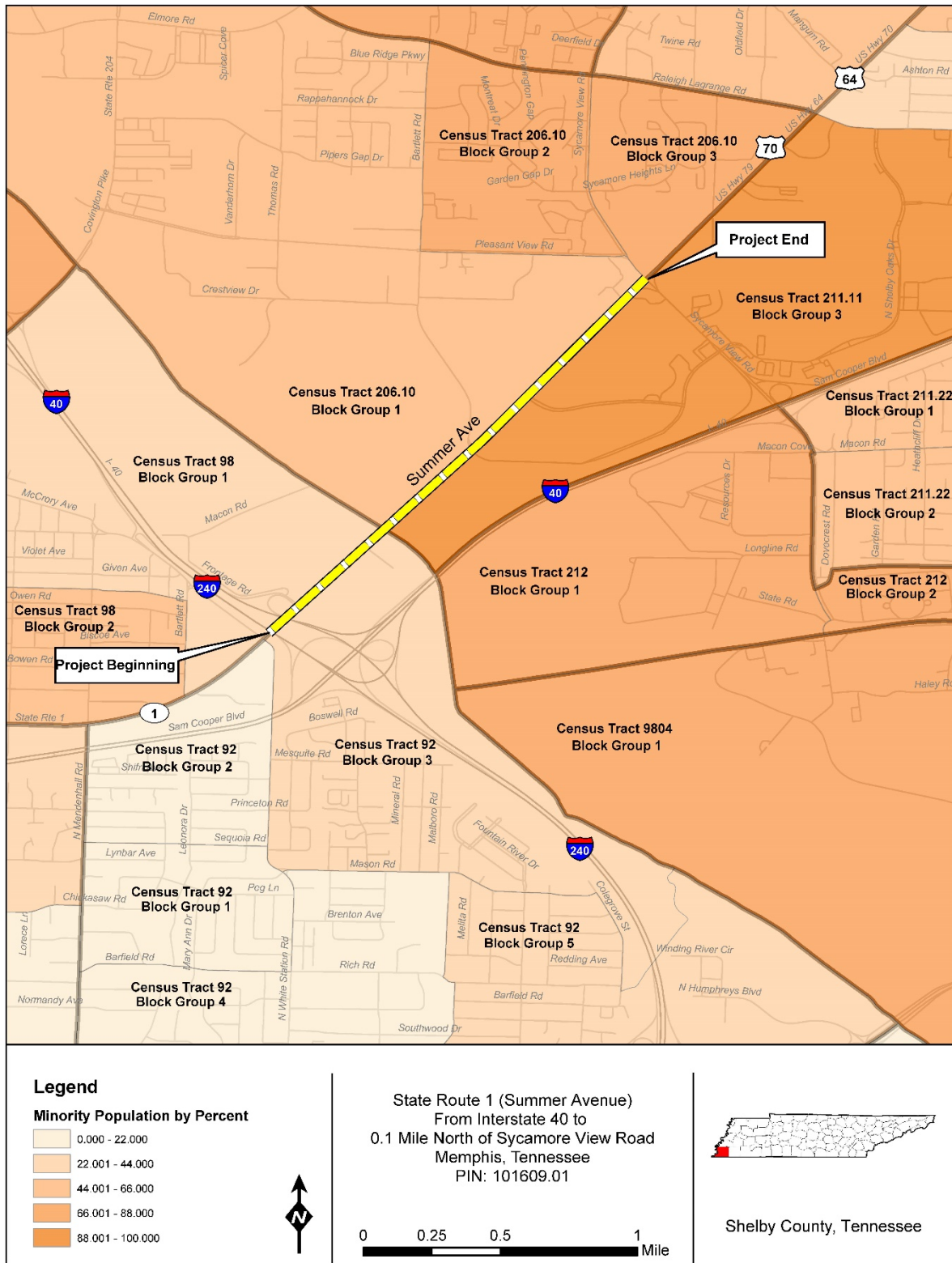


Table 4 presents minority population data for the census block groups within the project area and comparisons for the EJ threshold indicators defined above. **Figure 7** illustrates the percentages of minority populations by census block groups within the project area. The 2014-2018 ACS detailed data for the affected block groups are in **Appendix G**.

Table 4: Minority Population by Block Group

Geographic Area	Total Number of Minority Persons	Percentage of Total Population	Exceeds County Average by 10% or More?	>50% of Block Group Population?	Meet EJ Criteria?
Shelby County, TN	598,831	63.9 %	N/A	N/A	N/A
Memphis, TN	485,508	74.3%	N/A	N/A	N/A
Census Tract 92, Block Group 2	140	16.4%	No	No	No
Census Tract 92, Block Group 3	586	23.2%	No	No	No
Census Tract 98, Block Group 1	634	41.7%	No	No	No
Census Tract 206.10, Block Group 1	551	56.1%	No	Yes	Yes
Census Tract 206.10, Block Group 3	1139	86.7%	Yes	Yes	Yes
Census Tract 211.11, Block Group 3	1038	90.9%	Yes	Yes	Yes

*Source: U.S. Census, American Community Survey 2014-2018, Table B03002.

Percent of Low-Income Populations by Block Group

The 2014-2018 ACS data shows that the low-income population for Shelby County is 20.6 percent and Memphis is 26.8 percent. For block groups in the project corridor, low-income populations range from 7.4 to 56.7 percent. Two block groups (CT 98, BG 1 and CT 211.11, BG 3) with low-income populations of 30.9 percent and 56.7 percent, respectively, exceed the county average of low-income persons by 10 percent or more. The low-income population of CT 211.11, BG 3 also exceeds 50 percent of the total block group population. Therefore, these two block groups qualify as EJ communities.

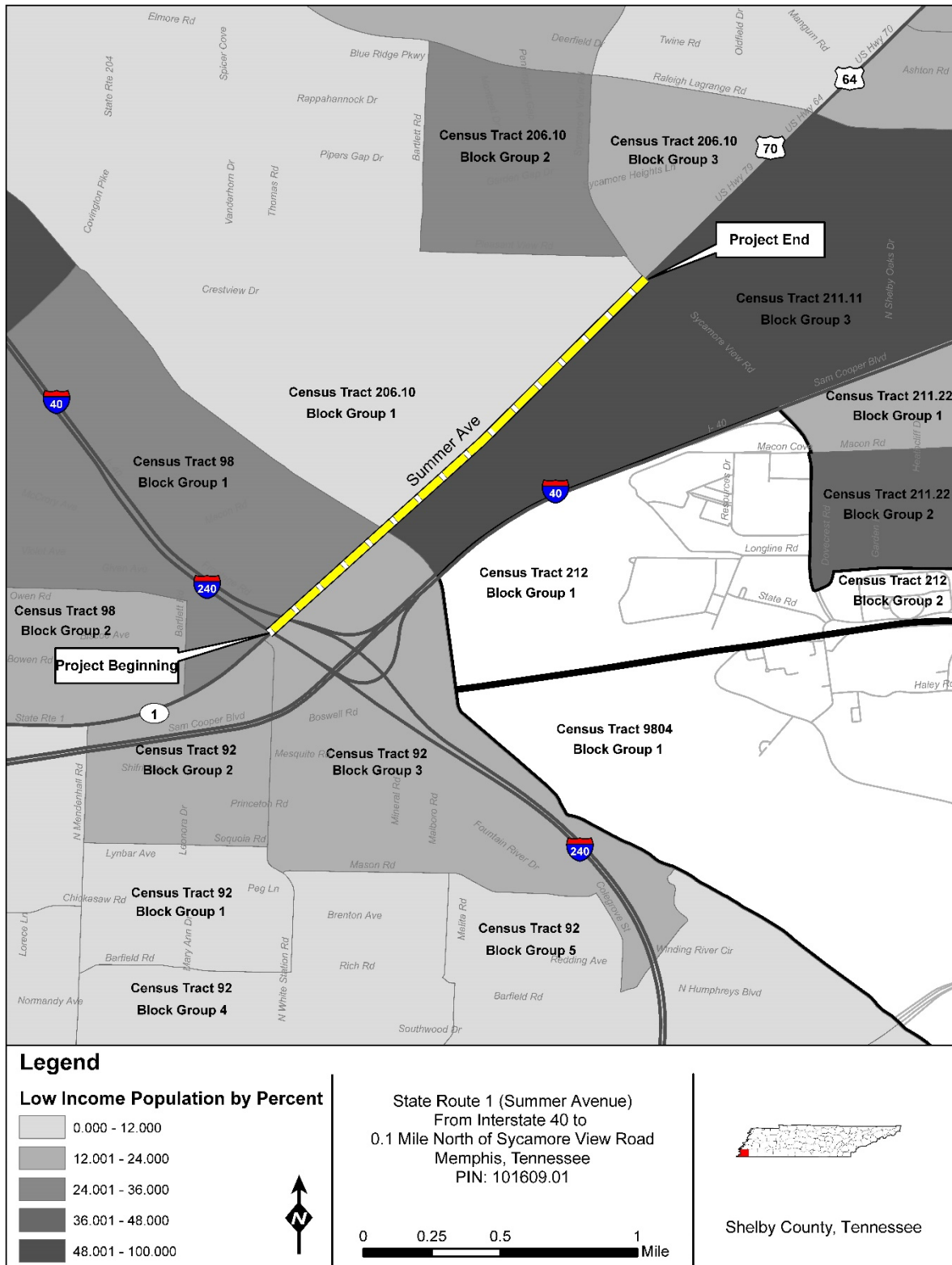
Table 5 presents the low-income population data for the census block groups within the project area and comparisons for the EJ threshold indicators. **Figure 8** illustrates the concentration of low-income populations by census block groups in the project area. The 2014-2018 ACS detailed data for the affected block groups are in **Appendix G**.

Table 5: Low-Income Population by Block Group

Geographic Area	Total Number of Low-Income Persons	Percentage of Total Population	Exceeds County Average by 10% or More?	>50% of Block Group Population?	Meet EJ Criteria?
Shelby County, TN	189,641	20.6%	N/A	N/A	N/A
Memphis, TN	170,965	26.8%	N/A	N/A	N/A
Census Tract 92, Block Group 2	124	14.5%	No	No	No
Census Tract 92, Block Group 3	457	18.2%	No	No	No
Census Tract 98, Block Group 1	459	30.9%	Yes	No	Yes
Census Tract 206.10, Block Group 1	73	7.4%	No	No	No
Census Tract 206.10, Block Group 3	273	20.8%	No	No	No
Census Tract 211.11, Block Group 3	647	56.7%	Yes	Yes	Yes

*Source: U.S. Census, American Community Survey 2014-2018, Table C17002.

Figure 8: Low-Income Population Percentages in Project Area



Environmental Justice Determination

Based on the demographic data provided by the 2014-2018 ACS, four of the six census block groups in the project corridor qualify as EJ communities:

- CT 98, BG 1's percentage of low-income persons is 30.9 percent. Less than a third of the block group's population are low-income persons, but the block group's share of low-income population exceeds the county average (20.6 percent) by 10.3 percentage points.
- CT 206.10, BG 1's minority population is 56.1 percent. More than half of the block group's population are minority persons, but the block group's share of minority population is 7.8 percentage points less than the county average (63.9 percent).
- CT 206.10, BG 3's minority population is 86.7 percent. Substantially more than half of the block group's population are minority persons, and the block group's share exceeds the county average (63.9 percent) by 22.8 percentage points.
- CT 211.11, BG 3's minority population is 90.9 percent. Nearly all of the block group's population are minority persons, and the block group's share of minority population exceeds the county average (63.9 percent) by 27.0 percentage points. In addition, more than half of the block group's population (56.7 percent) is low-income, and the block group's share of low-income population exceeds the county average (20.6 percent) by 36.1 percentage points.

The ROW acquisition completed for the entire project included several business relocations; however, no residents were relocated. The relocated businesses were determined not to be providing critical services to low-income and minority residents who could access such services elsewhere. The project will not affect access to schools, parks, medical facilities, religious institutions, or other community facilities, nor will the project disrupt community cohesion.

While there will be some adverse impacts from the project, including construction-related impacts such as traffic control, noise, and visual, as well as other minor environmental impacts, these will be borne by all populations in and around the project area. All populations will receive benefits resulting from the project, which include reducing travel delays at several intersections and accommodating safer bicycle and pedestrian travel along the corridor. Thus, the project will not result in a disproportionately high and adverse effect on minority or low-income populations with respect to human health and the environment.

This EJ analysis has been coordinated with the TDOT Civil Rights Office. In a letter dated July 20, 2020, the Civil Rights Office concurred with the findings, stating "There does not appear to be any Title VI nor Environmental Justice issues." The TDOT Civil Rights Section letter is included in **Appendix G**

Hazardous Materials

The 1998 EA stated that a preliminary survey indicated there may be three sites in the corridor at which underground storage tanks (UST) were located. The 1999 FONSI included a commitment to review the assessment of the UST sites to determine the ROW requirements, and if still necessary, a hazardous materials study including "intrusive testing" of all sites in the ROW will be conducted.

After the FONSI, a Phase II Preliminary Site Investigation Report for the entire project corridor, dated May 30, 2000, investigated 18 tracts. The report recommended additional investigations for

four tracts, The recommended actions included removal of remaining USTs, removal of a remaining pump island and associated piping, and relocation or removal of monitoring/recovery wells prior to road construction. A copy of the 2000 Phase II report is in **Appendix H**.

In 2010, TDOT conducted a Phase I Environmental Site Assessment (ESA) for the section of the project from north of White Station Road (at I-40) to north of Sycamore View Road (the subject of this ROW Reevaluation). The ESA report, dated February 2011, reported that 57 properties were surveyed, of which 17 were found to have recognized environmental conditions. Four properties were ranked as having high indication, 12 properties ranked as having low indication and one property ranked as having no indication that present or past usage of hazardous materials would impact the proposed construction project due to the potential contamination associated with each property. Thirteen of the 17 suspected properties were recommended for further investigation (described in **Table 6**). Three of the sites (8, 16, and 43) recommended for further investigation had been previously examined in the 2000 Phase II study.

Table 6: Tracts Recommended for Further Investigation in 2011 Modified Phase 1 Report

Tract	Tax Map	Parcel	Address	Recognized Environmental Condition	Phase II
3	DE26	63-71-11	5260 Summer Avenue	Current and historic gas station	Yes
8	DE27	68-1-31	5325 Summer Avenue	Current and historic gas station	Yes
13	DE27	88-68-1	5404 Summer Avenue	Multiple used car dealerships	Yes
16	D27	89-1-40C	5485 Summer Avenue	Current and historic automotive garage, former UST site	Yes
17	D27	89-1-45	5505 Summer Avenue	Current automotive body shop	Yes
18A	D27	88-67-008	5506 Summer Avenue	Current used car dealership	Yes
20/21	D27	88-67-17,18	5536 Summer Avenue	Drums stored onsite	Yes
30	C28	88-67-12,13	5684 Summer Avenue	Former UST site	Yes
36	C28	88-66-22,23,27	5828 Summer Avenue	Former UST site	Yes
36A	BC28	88-66-25C	1745 Sycamore View Road	Former UST site	Yes
36B	C28	88-66-24	1717 Sycamore View Road	Former UST site	Yes
43	BC28	89-44-245C	5877 Highway 70	Current and historic dry cleaners	Yes

Note: Tracts displayed in bold lettering indicate that previous Phase II activities have been conducted at the subject property.

A copy of the 2011 Modified Phase I ESA report is in **Appendix H**.

For this reevaluation, the project was re-coordinated with the TDOT Hazardous Materials Section staff. In correspondence dated September 7, 2017, the Hazardous Materials Section staff stated that based on the Construction Field Review plans, dated 29 August 2017, no known hazardous materials sites appear to affect this project as it is currently planned. Six tracts along the corridor are listed as Tennessee Department of Environment and Conservation (TDEC) underground storage tank (UST) facilities, including the following. Based on the proposed ROW, these tracts should not impact the project.

- Tract 3 is Summer Avenue Shell – 9791630, 5260 Summer Ave.
- Tract 8 is Mapco Express #3144 – 9791847, 5325 Summer Ave.

- Tract 16 is Bartlett Road – 9792396, 5485 Summer Ave.
- Tract 36 is formerly Fill-em-fast Summer – 9790314, 5842 Summer Ave.
- Tract 36B is Jiffy Lube #71 – 9790433, 1717 Sycamore View
- Tract 39 is Murphy Express 8713 – 9793620, 5856 Summer Ave.

Four tracts are also listed in Environmental Protection Agency (EPA) EnviroFacts databases, including the following. These tracts will not impact the project.

- Tract 4 is Lewis Ford Inc, 5299 Summer Ave.
- Tract 32 is Americoach Tours Ltd, 5702 Summer Ave.
- Tract 29 is Ops Contracting Services, LLC, 5669 Summer Ave.
- Tract 43 is Bensingers Cleaners, 5877 Summer Ave.

Asbestos

The EA and FONSI did not address asbestos. An asbestos survey was conducted in 2002 for two commercial buildings on one tract along SR-1/Summer Avenue, which were planned for demolition as part of the overall project. This location is to the north of Sycamore View Road, in Section 2 of the overall project. The laboratory analysis of samples collected from the buildings did not detect asbestos.

The asbestos surveys on bridges 79SR0010015 (over Wolf River) and 79SR0010017 (over Fletcher Creek) detected the presence of asbestos. The project commitment for bridge 79SR0010015 (over Wolf River), shown on Plan Sheet 1B, is:

EDEC002: The State of Tennessee asbestos accreditation requirements (TCA 1200-01-20) mandates that ACM abatement work be performed by an accredited firm (contractor) using accredited abatement workers and supervisors. Abatement of this material should be accomplished per SP202ACM Special Provision Regarding Removal of Asbestos-Containing Materials. ACM abatement should be completed prior to any demolition activities. 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, 2015) Sections 107.08 D and 202.03).

This commitment for bridge 79SR0010017 (over Fletcher Creek) is still pending in PPRM [Program Project Resource Management System] and not shown in these plans.

Databases reviewed include Google Earth imagery, EPA National Priorities List, EPA EnviroMapper, TDEC Registered UST database, TDEC Division of Water Resources Public Data Viewer, TDOT IBIS [Integrated Bridge Inventory System], and others as necessary.

The TDOT Hazardous Materials Section reviewed the June 2020 preliminary plans for the bridges over the Wolf River and Fletcher Creek, and in an email dated July 17, 2020, stated that “any previous hazmat review is still valid.”

Coordination with the Hazardous Materials Section, the *Asbestos Inspection Reports, Modified Phase I Environmental Site Assessment (ESA) report*, and *Phase II Preliminary Site Investigation Report* are included in **Appendix H** to this reevaluation.

Aquatic Resources

The 1998 EA stated that the project would cross two streams (Wolf River and Fletcher Creek) but that the streams would be spanned with no-instream structures and channel changes. It acknowledged about 0.5 acre of stream-bank type riparian wetlands would be acquired along the existing ROW of Wolf River and Fletcher Creek, but the existing fills would not be lengthened and no adjacent wetlands would be impacted. The EA concluded that there would be no long-term aquatic impacts as a result of the project.

During project design, TDOT prepared an Environmental Boundaries and Mitigation Design (EBR) memorandum (dated March 1, 2005) for the entire project. The ecological evaluation identified four streams present within the project limits; no wetlands were identified. A copy of the 2005 EBR memo is in **Appendix I**.

In 2015, TDOT conducted an ecological evaluation for Section 1 of the project (described as being from 0.15 mile north of White Station Road to 0.12 mile north of Sycamore View Road (PIN 101609.01), which was reported in the EBMD memo dated September 14, 2015. The 2015 study stated that one wetland and three streams were present within the project limits. A copy of this memo is in **Appendix I**.

In coordination dated September 7, 2017, the TDOT Ecology Section stated that “the environmental boundary report [EBR] dated 9/14/15 is still valid for this project.” The 2015 EBR (included in **Appendix I**), identified one wetland and three perennial streams present within the project limits. **Table 7** summarizes the project’s impacts to aquatic resources.

Table 7: Aquatic Resources Impacts

Labels*	Type	Impacts**	
		Permanent	Temporary
WTL-1	Freshwater Forested	0.5 acres	
Total:		0.5 acres	0 acres
STR-1 (Wolf River)	Perennial	270 feet	
STR-2	Perennial	1,197 feet	
STR-3 (Fletcher Creek)	Perennial	250 feet	
Total:		1,717 feet	0 feet

* Identification of features has not been reviewed by regulatory agencies and determinations of stream type could possibly be changed.

** Estimated impacts are considered "Preliminary" will not be completely accurate until the time of Permit Application

The TDOT Ecology Section reviewed the June 2020 preliminary plans for the bridges over the Wolf River and Fletcher Creek, and in an email dated July 17, 2020, stated that “the previous clearance remains valid.” A copy of this email is in **Appendix I**.

Compensatory mitigation for permanent wetland and stream impacts would be accomplished either through permittee-responsible mitigation, mitigation banking, or In-Lieu Fee mitigation to satisfy regulatory and statutory requirements.

Federally Protected Species List and Biological Assessments

The EA reported that a review of the files of the TDEC Ecological Services Division and those of the U.S. Fish and Wildlife Service (USFWS) had identified “no significant element of natural diversity” listed for the study area. The FONSI stated “there are no recorded threatened and/or endangered species in the project corridor.” The Ecological Impact Study is in the EA’s appendix (see **Appendix B** of this reevaluation).

The 2005 EBR stated that no protected species were identified in the project area. The 2015 EBMD (in **Appendix I**) identified that protected species are present in the project area. In coordination dated June 30, 2015, the Tennessee Wildlife Resources Agency (TWRA) stated that “It is our understanding from what was sent that this street widening project is not expected to impact any state-listed species that are Deemed-in-Need-of-Management, Threatened, or Endangered. If in-stream construction work in the Wolf River is required, another review will be necessary.”

In coordination dated July 22, 2015, the USFWS concluded the following:

“Upon review of available imagery, suitable summer roosting habitat for the federally endangered Indiana bat (*Myotis sodalis*) and threatened Northern long-eared bat (NLEB) (*Myotis septentrionalis*) may be altered by the proposed action. However, based on the information provided and distance from known hibernacula, the project may warrant a ‘not likely to adversely affect’ determination for these species if certain conditions are met. A Range-wide Programmatic Informal Consultation between the Federal Highway Administration, Federal Railroad Administration, and the Service dated April 17, 2015, identifies transportation-related activities that are not anticipated to result in adverse effects to the Indiana bat and NLEB. Covered transportation activities include all wintertime forested clearing within 100 feet of existing roadway surface that would not remove known roosts or documented foraging/travel corridors and is no closer than one-half mile from the entrance of a documented hibernaculum.”

The project qualifies for placement under the referenced consultation and TDOT completed the necessary documentation for submission to the USFWS. The EBR states that “Range-wide Programmatic Informal Consultation for Indiana and Northern Long-eared Bat was submitted to the USFWS on August 17, 2015 and no response was received. If no response is received after 14 days, TDOT can assume concurrence on the determination of ‘not likely to adversely affect’ for the Indiana Bat and the NLEB. The range-wide programmatic consultation requires that all tree removal be kept to the absolute minimum, take place within 100 feet of existing road surfaces, and that tree removal is done during the inactive season between October 15 through March 31. Tree removal is limited to that specified in project plans. Bright orange flagging should be installed prior to any tree clearing so that contractors stay within clearing limited.”

TDOT conducted a mist netting survey for Indiana Bat and NLEB during the period of June 10 and June 17, 2018, at five sites in the EA project area. During the survey, 22 bats, representing four non-listed species, were captured. The USFWS, in a letter dated October 10, 2018, concurred with TDOT’s determination that the project is “not likely to adversely affect” the Indiana bat and the NLEB since none were captured during the survey. USFWS notes that the survey will be valid until April 1, 2024. USFWS also stated that it was “not aware of any other federally listed or proposed species that would be impacted by the project. Therefore, based on the best available information at this time, the requirements of section 7 of the Endangered Species Act of

1973, as amended, are fulfilled for all species that currently receive protection under the Act.” The October 10, 2018 USFWS correspondence does not carry forward the requirement for tree removal restrictions, therefore the tree removal restrictions have not been added as an environmental commitment.

Coordination with the TDOT Ecology Section, TWRA, and USFWS, 2015 EBR, and the 2018 Bat Survey are in **Appendix I**.

Floodplain Management

Portions of this project impact a Federal Emergency Management Agency (FEMA) defined floodplain where a floodway is defined. The project is located on Flood Insurance Rate Maps (FIRMs) in Shelby County, Panels 294, 292 and 311 of 635, Map #s 47157C0294G, 47157C0292G, and 47157C0311G. FEMA FIRM maps covering the project area are in **Appendix J**.

A No Rise Certification or a Conditional Letter of Map Revision (CLOMR) or Letter of Map Revision (LOMR) will be submitted for the project and it will be consistent with the Memorandum of Understanding (MOU) between FHWA and FEMA. The design of the roadway system will be consistent with the MOU between FHWA and FEMA and with the floodplain management criteria set forth in the National Flood Insurance Regulations (NFIR) of Title 44 of the Code of Federal Regulations (CFR). It will be consistent with the requirements of floodplain management guidelines for implementing Executive Order 11988 and FHWA guidelines 23 CFR 650A.

Air Quality

An air quality evaluation was completed for the overall SR-1 project from I-40 (east of Macon Road) to Elmore Road in 1998. The results were summarized in the EA and FONSI. The conclusions of the previous study for the section of SR-1 being reevaluated were reviewed to determine if they remain valid for the current plans and in accordance with current air quality conditions and guidance. The results are summarized below.

Transportation Conformity

The project is in the Shelby County ozone maintenance area and subject to transportation conformity. This section of the project is included in the Memphis MPO Fiscal Year 2020-2023 TIP (amended August 20, 2020) as project number TN-NHPP-2020-01. The project is also included in *Livability 2050: Regional Transportation Plan Update* (amended August 20, 2020). The project limits and description are consistent with the proposed project. Therefore, the project conforms to the State Implementation Plan (SIP).

Shelby County is now an attainment area for carbon monoxide (CO), so a hot-spot analysis is not needed.

Mobile Source Air Toxics (MSAT)

The project qualifies as a “Project with Low Potential Mobile Source Air Toxic (MSAT) Effects” in accordance with FHWA’s “Updated Interim Guidance on Air Toxic Analysis in NEPA Documents” dated October 2016. A qualitative MSAT evaluation was conducted in accordance with FHWA’s guidance and concluded that the project is not predicted to create any adverse MSAT effects. The MSAT evaluation is included in **Appendix K**.

Construction

Construction activities will generate intermittent and temporary construction-related pollutant emissions and dust. The contractor should follow the procedures in TDOT's Standard Specifications for Road and Bridge Construction as amended by the most recent applicable supplements to minimize these effects. Construction equipment should be maintained, repaired and adjusted to keep it in full satisfactory condition.

Additionally, there are no air quality monitoring stations near the project. The closest station is a multi-pollutant monitoring system on Mullins Station Road approximately 1.6 miles southeast of the project.

Indirect and Cumulative Effects

The air quality analysis is for the design year 2041 and includes projected traffic volumes for the project as well as forecasted background traffic growth and other planned and programmed projects in the area. As a result, the air quality analysis addresses the traffic-related direct and cumulative air quality effects of the project.

The widening of SR-1 could cause a redistribution of traffic on the surrounding roadway network and affect development and land use patterns in the project area. These situations could result in higher traffic volumes at locations near roadways beyond the project limits. However, any effects would be small. As a result, the project is not predicted to cause any significant indirect air quality effects.

Coordination with the TDOT Air Quality and Noise Section and the MSATs Evaluation Memorandum are in **Appendix K**.

Greenhouse Gas Emissions (Climate Change)

The Council on Environmental Quality (CEQ) has withdrawn its final guidance for Federal agencies on how to consider greenhouse gas emissions and the effects of climate change in National Environmental Policy Act (NEPA) reviews; a Notice of Availability was published on August 5, 2016 ([81 FR 51866](#)). As explained in the Notice of Availability, the withdrawn guidance was not a regulation. Pursuant to Executive Order 13783, "[Promoting Energy Independence and Economic Growth](#)," of March 28, 2017, the guidance has been withdrawn for further consideration. The withdrawal of the guidance does not change any law, regulation, or other legally binding requirement.

Noise Impacts

A noise evaluation was completed for the overall SR-1 project from I-40 (east of Macon Road) to Elmore Road in 1997. The results were included in the EA. The results of the previous noise study were reviewed to determine if the conclusions remain valid in accordance with TDOT's current noise policy, effective July 2011, and TDOT's agreement with the FHWA Tennessee Division office regarding noise reevaluations. The previous noise study is no longer valid because the analysis used FHWA's previous noise model, STAMINA/OPTIMA. Therefore, TDOT updated the noise evaluation in accordance with the FHWA noise regulation, Procedures for Abatement of Highway Traffic and Construction Noise, 23 CFR 772 and TDOT's Policy on Highway Traffic Noise Abatement (TDOT's noise policy). The results are summarized below.

The only potentially affected noise-sensitive land uses within the project limits are one single-family residence (5541 Summer Avenue) and the swimming pool at the Welcome Inn. The project

is predicted to impact the residence but not the pool. Per TDOT's noise procedures, noise abatement is generally not reasonable for isolated residences due to the required barrier area verses the benefits provided. Therefore, noise abatement is not proposed.

Construction activities will generate intermittent and temporary noise above existing ambient noise levels. The noise levels resulting from construction activities will depend on the types of equipment used, the duration of the activities, and the distances between construction activities and nearby land uses. However, the noise increases will be temporary and will not constitute a noise impact as defined by the FHWA noise regulation and TDOT's noise policy. The procedures in TDOT's Standard Specifications for Road and Bridge Construction will help minimize construction noise effects.

Some tracts of undeveloped land exist in the project area. TDOT encourages the local governments with jurisdiction over these lands, as well as potential developers, to practice noise compatibility planning to avoid future noise impacts. The "Information for Local Officials" section of the updated evaluation provides additional information on noise levels for undeveloped lands, noise compatibility planning, and TDOT's requirements for Type II (retrofit) noise barriers.

Finally, the noise analysis includes projected traffic volumes for the project as well as forecast background traffic growth and other planned and programmed projects in the area. Therefore, the predicted noise impacts represent both direct and cumulative noise impacts. The project is also not predicted to cause any indirect effects.

Statement of Likelihood

Noise abatement is not proposed for this project

Coordination with the TDOT Air Quality and Noise Section and the Noise Evaluation Memorandum are included in **Appendix K**.

Section 4(f) and Section 6(f)

The SR-1 project area will cross two proposed regional greenways, Wolf River Greenway and Fletcher Creek Greenway.

The EA and FONSI did not note the presence of park or recreational facilities in the project area. No discussion of Section 4(f) or Section 6(f) was presented in the EA and FONSI.

Wolf River Greenway

A greenway along the 22-mile section of the Wolf River through the city of Memphis was the vision of the non-profit group, Wolf River Conservancy, since the early 2000s. In 2007, a public-private partnership between the Conservancy and the City of Memphis was formed to undertake the development of the greenway. The first section of the greenway in Memphis, from Walnut Grove Road to Shady Grove Road, was completed in 2010. Other sections of the greenway have been completed, are under construction, or are in design. The Wolf River Greenway has been shown in the Memphis MPO's regional pedestrian and bicycle plans since 2011, including the *Walk and Roll: Memphis Regional Pedestrian and Bicycle Master Plan*, adopted in November 2020.

The proposed section of the greenway in the project area extends from the south along the west side of the river, crossing under SR-1/Summer Avenue, then shifts to the east side of the river past the new bridge to continue north and west toward Mud Island. The typical section of the new

bridge features a 10-foot multi-use path that will provide an opportunity for future greenway users to cross the river on the new bridge. The construction of this section of greenway has been placed on hold by the Wolf River Conservancy until construction of the SR-1 project is complete.

The ROW for the parcels (11A, 11B, and 11C) shown on the 2017 Construction Field Review Plans (Appendix C) as impacting the Wolf River Greenway was acquired in 2006. At the time of the ROW acquisition of those parcels for a transportation purpose, the greenway had not been designated by the City of Memphis or Shelby County as a greenway or as a significant recreational facility (see Question 26A of the Section 4(f) Policy Paper, July 20, 2012). Therefore, the project will not involve the use of property protected under the *Department of Transportation Act's* Section 4(f) (49 USC 303).

Fletcher Creek Greenway

The proposed Fletcher Creek Greenway, from the Wolf River Greenway to the International Harvester Managerial Park in Lakeland, is identified as one of the recommended greenway trails in the *MidSouth Regional Greenprint and Sustainability Master Plan* (Greenprint 2015/2040). Greenprint 2015/2040 was developed by a consortium of over 80 local jurisdictions, organizations, businesses, agencies, and individuals; the final plan was published in February 2015. The greenway is shown in the Memphis MPO's 2020 *Walk and Roll: Memphis Regional Pedestrian and Bicycle Master Plan*. The vision for the Fletcher Creek Greenway is to run alongside Fletcher Creek to connect the cities of Memphis and Barlett.

The western end of the proposed Fletcher Creek Greenway, from the proposed Wolf River Greenway and across SR 1 (Summer Avenue) to the Barlett city limits, has not been designed or constructed. The City of Barlett has developed a master plan for its portion of the greenway between SR-1/Summer Avenue and Brunswick Road. Phase 1 of the greenway, from SR 15 (US 64, Stage Road) to near the intersection of Brother Boulevard and Yale Road has been completed, while Phase 2, from the end of Phase 1 to near Youth Villages, is under construction. Phases 3 and 4, which will extend the greenway to SR 177 (N. Germantown Parkway), are in the planning stage. Phases 1 through 4 of Fletcher Creek Greenway are east of the project area, and will not be impacted by the project.

The precise location of the proposed greenway in relation to SR-1 (Summer Avenue) is unknown (i.e., which bank of the creek the greenway would follow). The proposed typical section of the new bridge over Fletcher Creek does not include separate accommodations, such as a multi-use path, for future greenway users.

The permanent easements (drainage and slope) for the parcel shown on the 2017 Construction Field Review Plans (Appendix C) as Fletcher Creek Greenway (33) were acquired in 2001. At that time, the greenway had not been designated by Shelby County as a greenway or as a significant recreational facility (see Question 26A of the Section 4(f) Policy Paper, July 20, 2012). Therefore, the project will not involve the use of property protected under the Department of Transportation Act's Section 4(f) (49 USC 303).

This project does not involve the use of property assisted by the Land and Water Conservation Fund (LWCF).

Cultural Resources/Section 106 Coordination

Architectural/Historical Resources

The TDOT Historical Preservation Section stated that in “a letter dated June 21, 2017, the TN-SHPO [State Historic Preservation Officer] concurred that there are no architectural resources listed in or eligible for listing in the National Register of Historic Places that will be affected by the proposed project.” Coordination with the TDOT Historic Preservation Section, the Historic/Architectural Assessment, and the June 21, 2017 TN-SHPO letter are included in **Appendix L**.

The TDOT Historic Preservation Section reviewed the June 2020 preliminary plans for the bridges over the Wolf River and Fletcher Creek, and in an email dated July 15, 2020, stated that “the previous coordination for Historic Preservation remains valid.” A copy of this email is in **Appendix L**.

Archaeological Resources

In coordination dated September 18, 2017, the TDOT Archaeology Section concluded the following: “Upon reviewing the constructability field review plans dated 08/30/2017, I find that our previous archaeological assessment and SHPO letter dated 10/28/1997 remain valid.” Coordination with the TDOT Archaeology Section, the Phase I Archaeological Survey, and the October 28, 1997 TN-SHPO letter are included in **Appendix L**.

The TDOT Archaeology Section reviewed the June 2020 preliminary plans for the bridges over the Wolf River and Fletcher Creek, and in an email dated July 13, 2020, stated that “no additional survey is required.”

Native American Consultation

Coordination with the TDOT Archaeology Section dated September 22, 2017 concluded the following:

“Project information and invitations to participate in the Section 106 process as a consulting party were sent to federally recognized Native American tribes with interests in Shelby County on July 10, 2017. The Chickasaw Nation responded affirmatively on July 20, 2017 that they want to be a consulting party and that are currently ‘...unaware of any specific historic properties, including those of traditional religious and cultural significance, in the project area.’ The Choctaw Nation of Oklahoma responded on August 30, 2017 and indicated that, while the project lies within their area of historic interest, they know of no sites of historic and/or sacred interest in the project area. Both the Chickasaw Nation and The Choctaw Nation of Oklahoma request to be contacted in the event that archaeological materials or human remains are encountered during construction. To date, no other tribes have responded.”

TDOT sent an updated Native American Consultation package to two tribes, the Absentee Shawnee Tribe (AST) and the Cherokee Nation (CN), on August 19, 2019. Both tribes had expressed interest in Shelby County after initial coordination was sent in 2017. Coordination with the TDOT Archaeology Section dated May 6, 2020 provided the following information:

“Neither tribe responded. Tribes included in the initial consultation were listed in the “CC’d” list on the 8/19/19 consultation to provide the AST and CN with information on who had previously received consultation. Consultation was not re-sent to those tribes, as the initial consultation remains valid. Initial consultation was sent on 7/10/17 to all tribes interested at that time, and still

remains valid. The Chickasaw Nation requested [to the 2017 NAC] to be a consulting party and a final report was sent to them on 7/11/19. The Choctaw Nation responded [to the 2017 NAC] with “no concern.”

Table 8 lists the Tribes that TDOT contacted in 2017 and 2019 and identifies those that responded. Coordination with the TDOT Archaeology Section, Native American consultation documentation, and responses from the Chickasaw Nation and Choctaw Nation of Oklahoma are in **Appendix L**.

Table 8: Native American Consultation, 2017 and 2019

Native American Consultation					
Sent	Response	Tribe	Sent	Response	Tribe
X		Absentee Shawnee Tribe of Oklahoma	X		Muscogee (Creek) Nation
X		The Cherokee Nation			Poarch Band of Creek Indians
X	X	The Chickasaw Nation	X		Quapaw Tribe of Oklahoma
X	X	Choctaw Nation of Oklahoma	X		Shawnee Tribe
		Eastern Band of Cherokee Indians	X		Thlopthlocco Tribal Town
X		Eastern Shawnee Tribe of Oklahoma	X		United Keetoowah Band of Cherokee Indians
X		Kialegee Tribal Town			Other

Bicycle and Pedestrian Access

As part of this reevaluation, the project was coordinated with the TDOT Multimodal Transportation Resources Division. In their response dated September 6, 2017, Multimodal staff stated that this “project accommodates bicyclists with bike lanes and pedestrians with sidewalks and crosswalks.” A copy of this coordination is in **Appendix M**.

The TDOT Multimodal Transportation Resources Division reviewed the June 2020 preliminary plans for the bridges over the Wolf River and Fletcher Creek, and in an email dated July 20, 2020, stated that “the earlier review by the Office of Multimodal planning [sic] is still valid.”

Environmental Commitments

No environmental commitments are involved.

Other Issues

There are no other known issues associated with the project. While there have been some design changes within the concept of this section, the overall purpose and need of the EA and FONSI remains unchanged.

Conclusion

Based on this reevaluation, it has been determined that there are no substantial changes in the project's effects or the concept of the project as discussed in the FONSI. There are no new developments that would affect the conditions and impacts previously reported. The anticipated impacts have not changed, and the examination of the Construction Field Review plans dated August 30, 2017 and the 2020 preliminary plans for the Wolf River and Fletcher Creek bridge replacements indicated that there have been no new environmental consequences.

In regard to these conclusions, the Department believes that the May 10, 1999 FONSI remains valid for the requested administrative action. A space is provided below for your concurrence.

Sincerely Yours,



06/25/2021

Erick Hunt-Hawkins
Manager— NEPA Special Projects, TDOT Environmental Division

Concurrence:

Date: _____

Federal Highway Administration, TN Division

NS/EHH

cc: Tammy Sellers
John Kahle
Jason Baker
Gary Scruggs

Appendices

Appendices

Appendix A: Memphis Area MPO 2020-2023 TIP

Appendix B: Previous Environmental Documentation

Appendix C: Project Plans 2017

Appendix D: Traffic Operations Technical Memorandum

Appendix E: Traffic Safety Technical Memorandum

Appendix F: Bridge Inventory and Appraisal Reports

Appendix G: Environmental Justice

Appendix H: Hazardous Materials

Appendix I: Ecology Reports

Appendix J: FEMA FIRMs

Appendix K: Air Quality and Noise

Appendix L: Cultural Resources

Appendix M: Multimodal